

CARGAS UTILIZADAS	
TELHA TRAPEZOIDAL (0,65mm):	5,36kg/m²
SOBRECARGA NORMATIVA:	25kgf/m²
<div> <div>AÇÃO DO VENTO:</div> <div> <div>V0=35m/s</div> <div>Vk=32,38m/s</div> <div>q=0,65kN/m²</div> </div> </div>	

00 - EMISSAO INICIAL
01 -
02 -
03 -
04 -
05 -


REVISÃO	DATA	MOTIVAÇÃO	SOLICITANTE	CONTEÚDO	AUTOR(A)
R00	25/09/25	202500036002769	CEPOC	Emissão inicial do projeto	Núbia G.
R01					
R02					

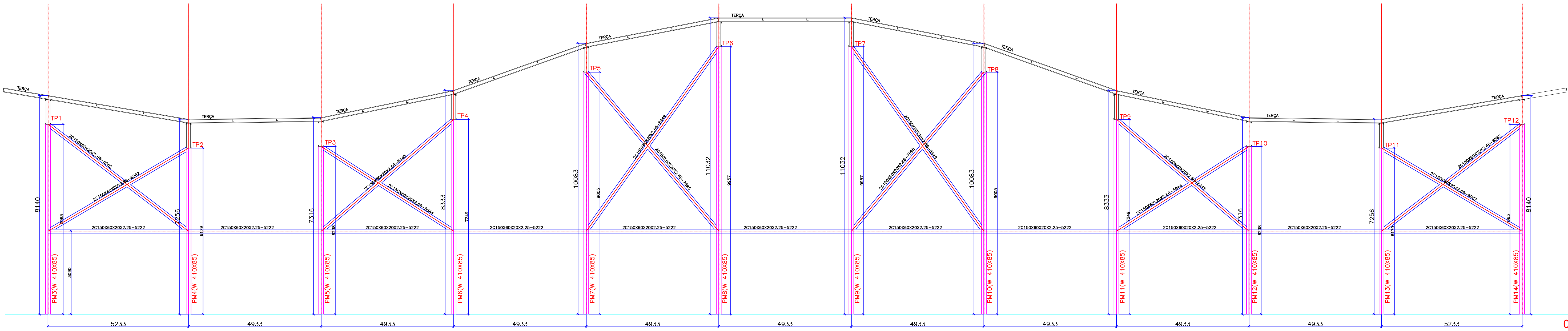


Perfis de aço: Quantitativos das superfícies a pintar					
Tipo	Série	Perfil	Superfície unitária (m²/m)	Comprimento (m)	Superfície (m²)
Aço dobrado	U	U150X50X4,76	0,478	268,276	128,221
	U	U200X50X4,76	0,578	228,142	131,854
	C	C150X60X20X2,25	0,395	415,398	247,275
		C127X50X17X2,65, Caixa dupla soldada	0,458	12,407	5,665
		C150X60X20X2,66, Caixa dupla soldada	0,543	177,816	96,483
		C150X60X20X2,66, Caixa dupla soldada	0,542	61,663	33,433
	L	LF-60x4	0,231	228,275	52,782
			Subtotal	695,712	
Aço laminado	W	W410X85	1,536	91,382	140,381
	W	W200X22,5	0,806	14,126	11,408
	R	R 12	0,038	501,771	18,916
			Subtotal	170,705	
				866,417	

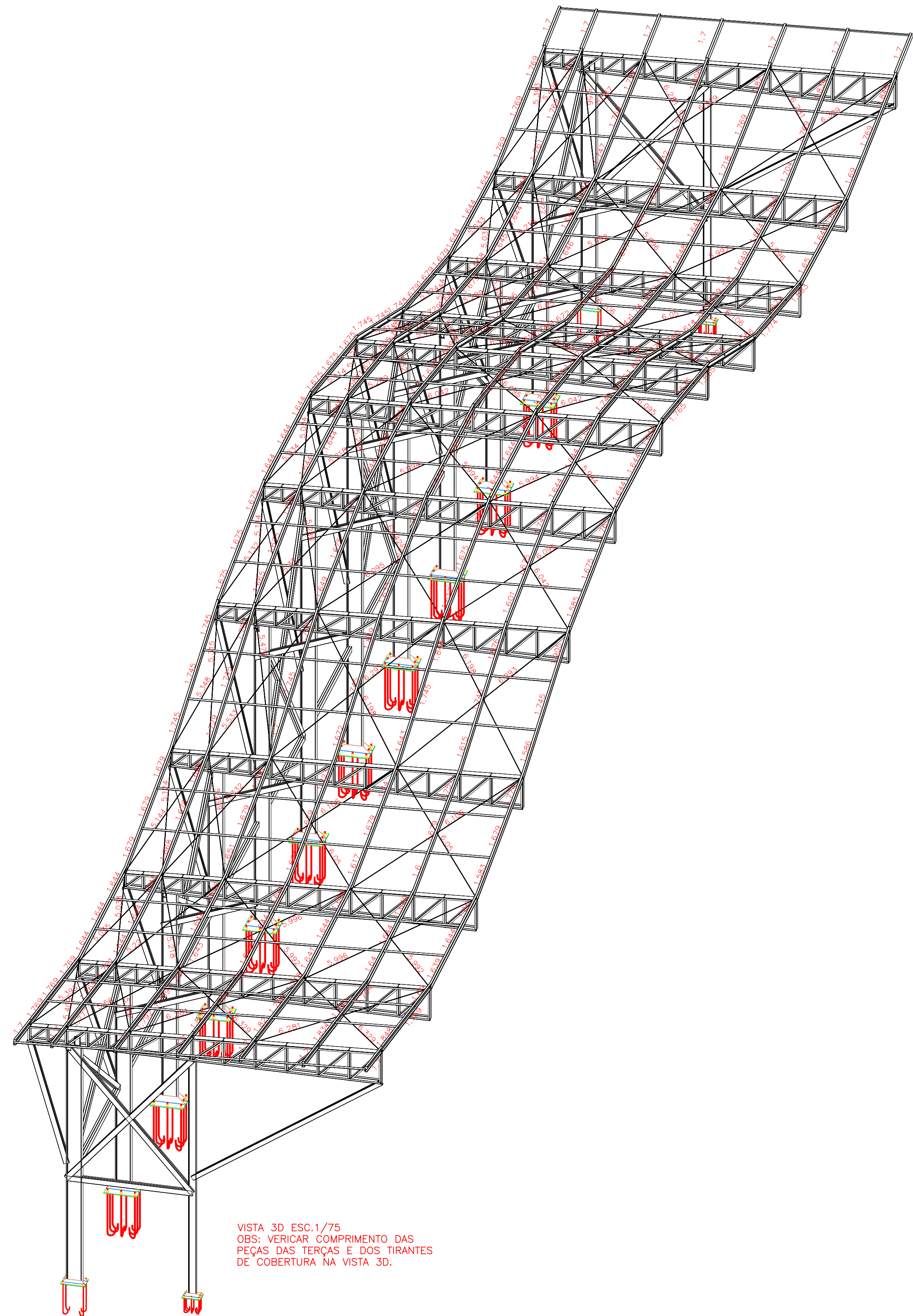
[illegible]

ESTRUTURA METÁLICA

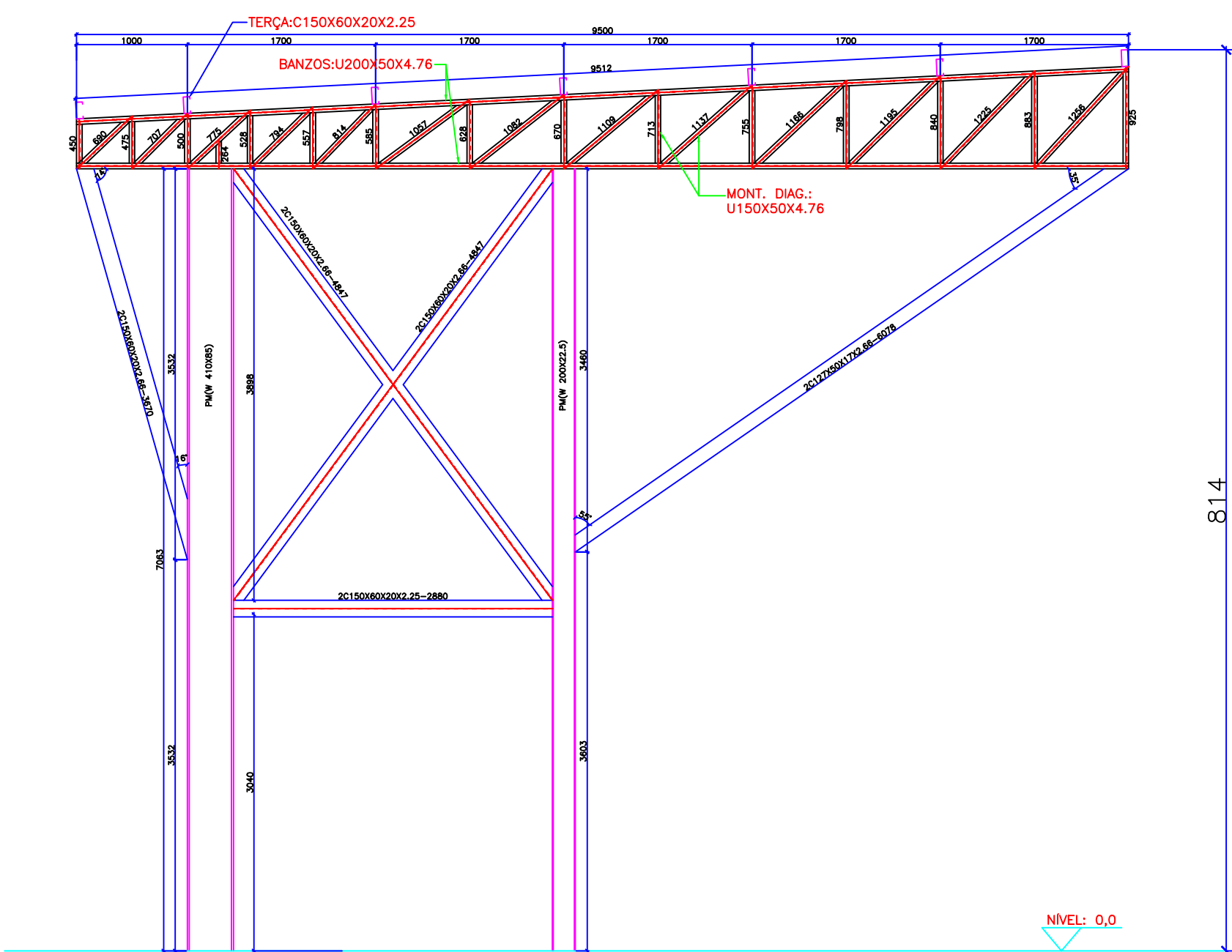
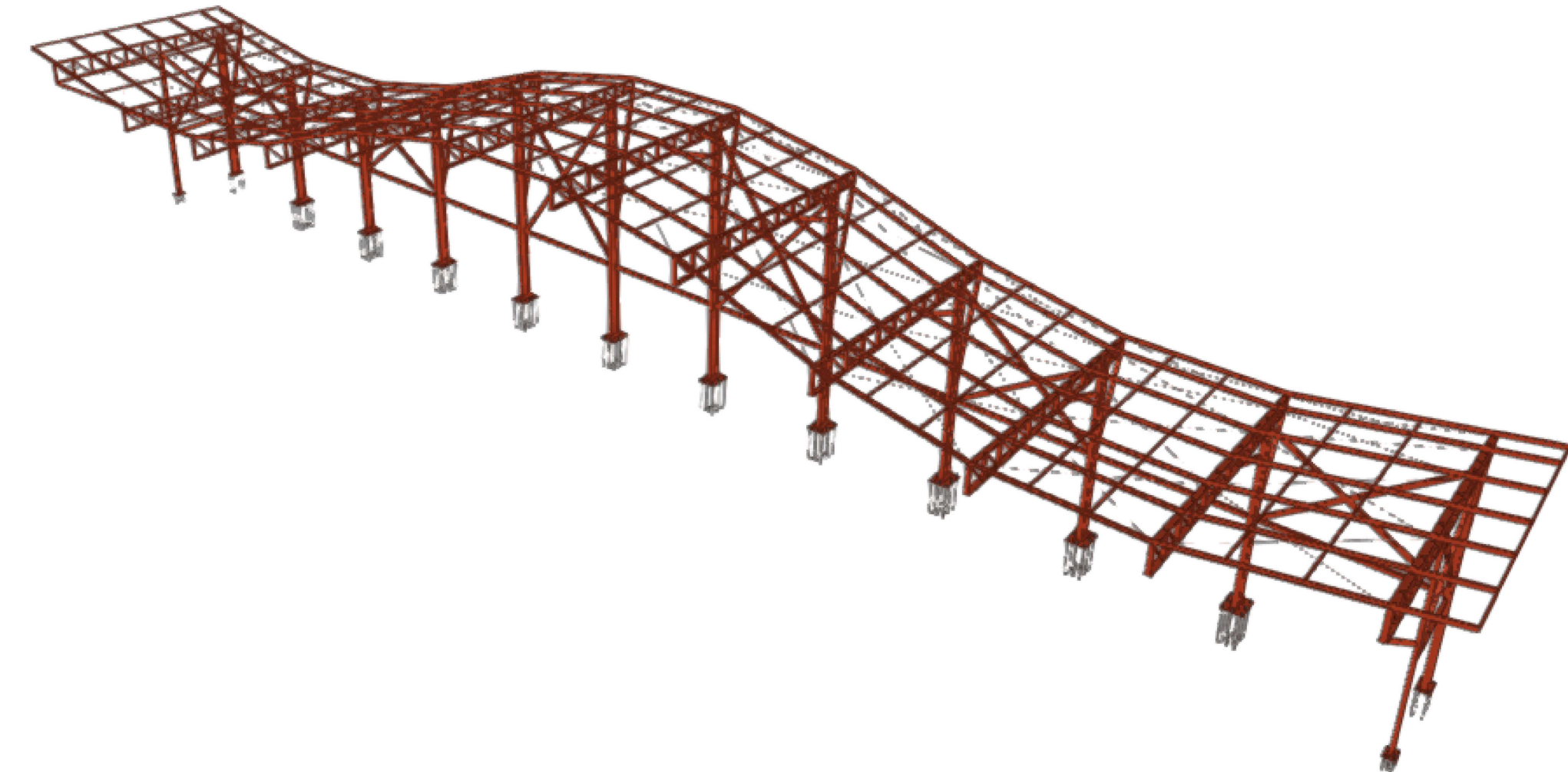
		DESENHO: Núbia Gomes		FORMATO: A0 (1189x841mm)
ÁREA DO TERRENO: -	ÁREA INTERVENÇÃO: 553,5m²	DATA: SETEMB./2025 PROGRAMA: AutoCAD 2025	ESCALA: Indic.	FOLHA: 01/02



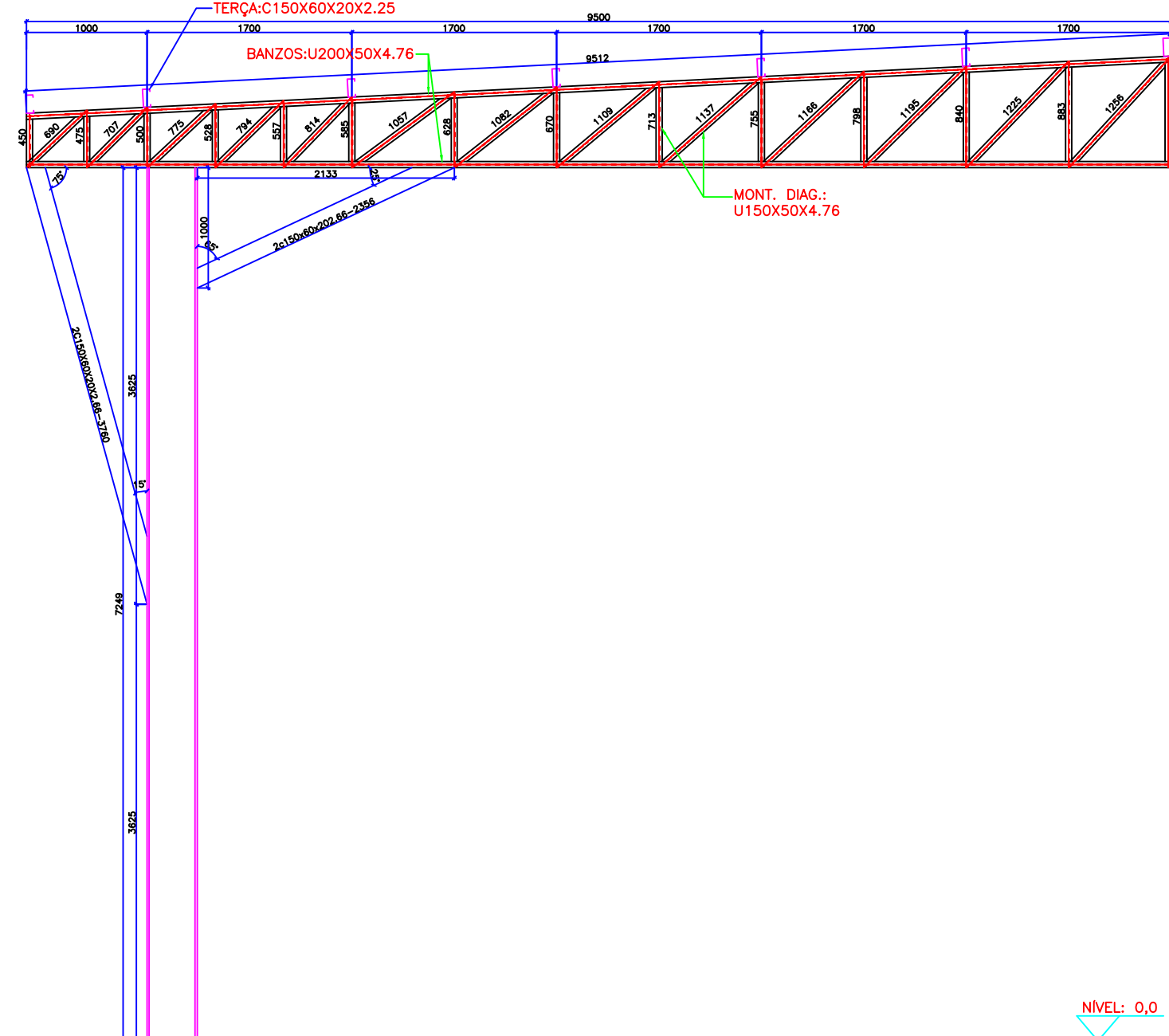
CORTE/VISTA FRONTAL ESC.1/75
OBS: VERIFICAR NO MOMENTO DA EXECUÇÃO O COMPRIMENTO DE CADA VÃO DE TERÇA.



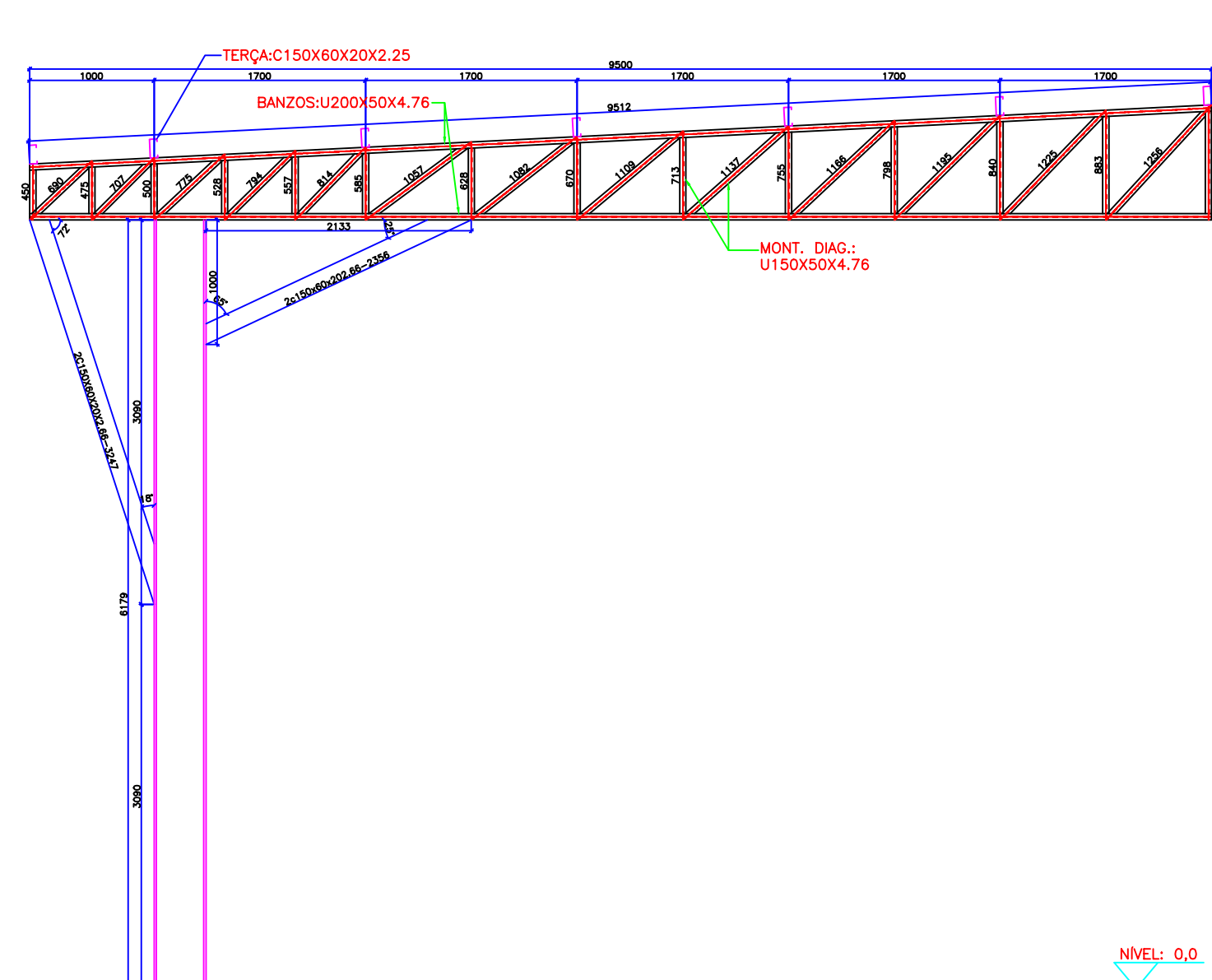
VISTA 3D ESC.1/75
OBS: VERIFICAR COMPRIMENTO DAS PEÇAS DAS TERÇAS E DOS TIRANTES DE COBERTURA NA VISTA 3D.



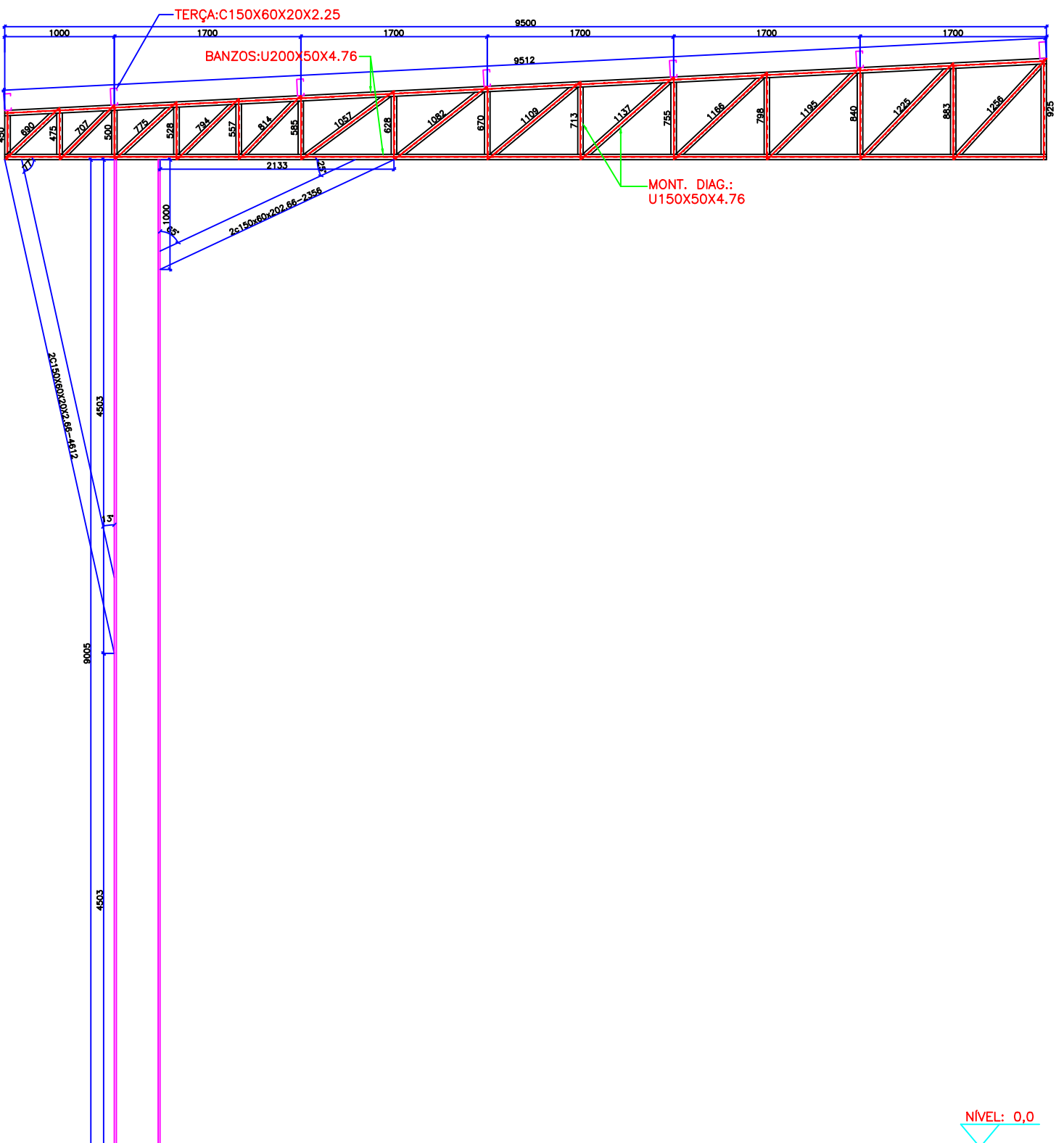
DET. DE FABRICAÇÃO TP1= TP12
ESC.1/50



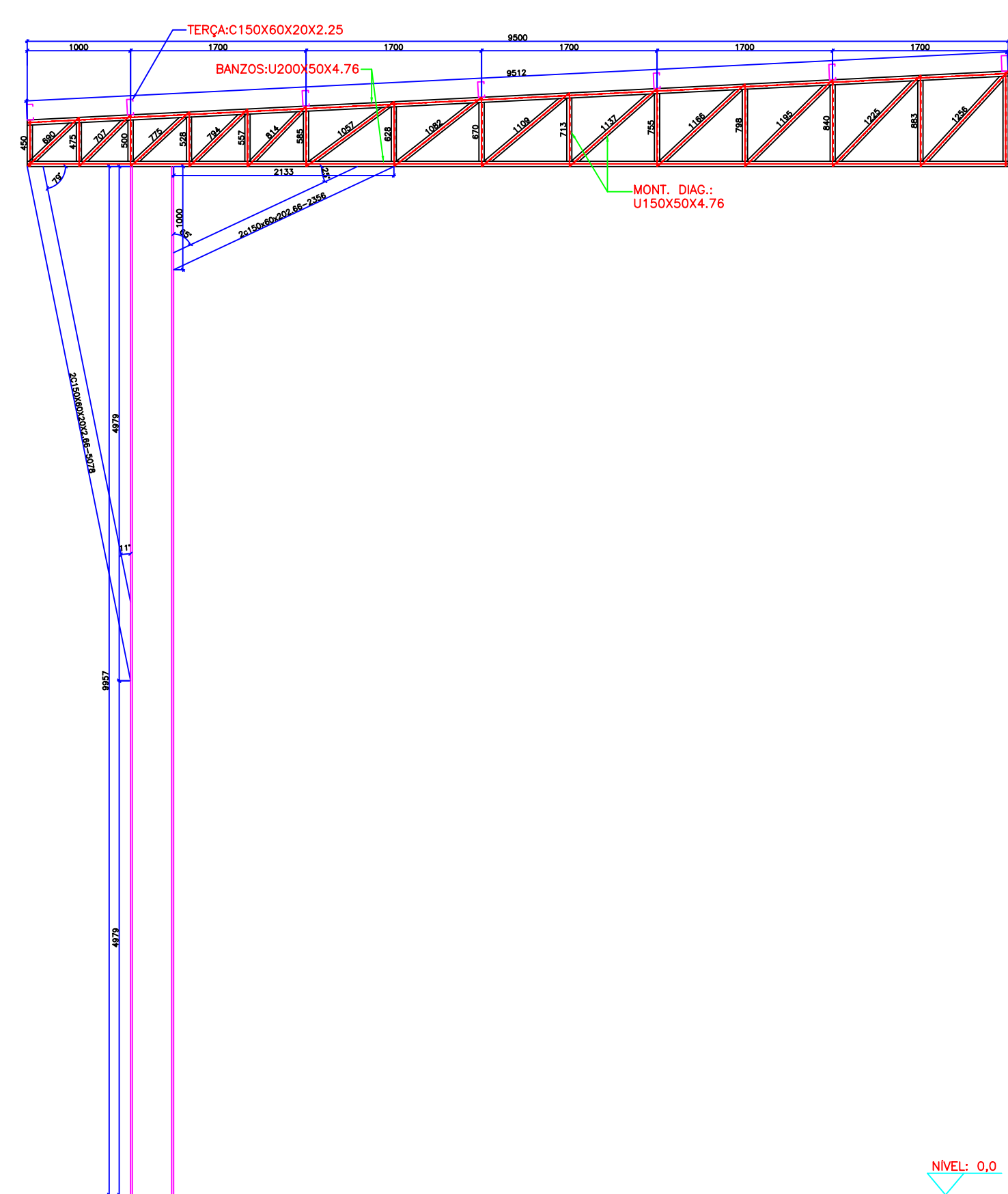
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ESC.1/50



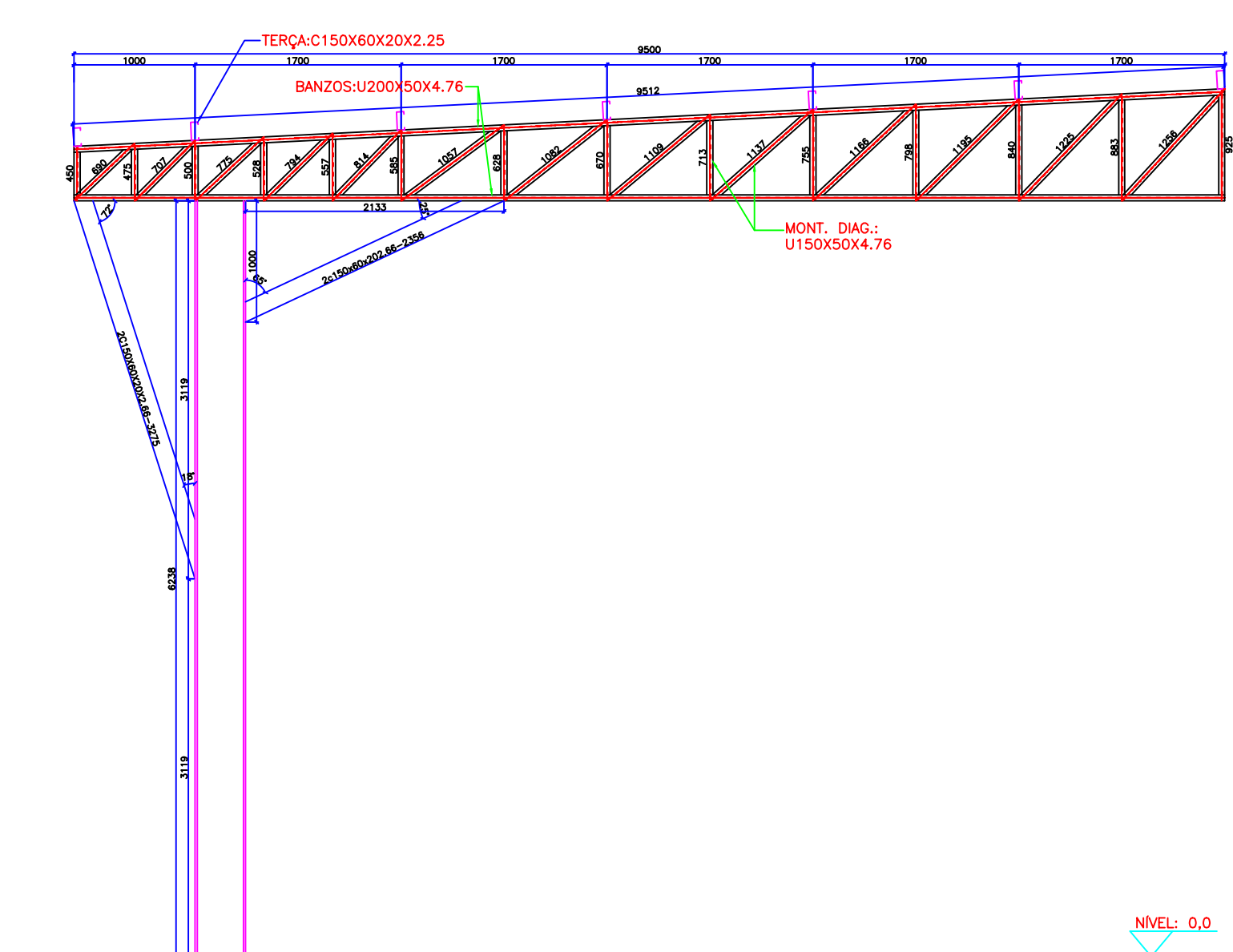
DET. DE FABRICAÇÃO TP2= TP11
ESC.1/50



DET. DE FABRICAÇÃO TP5= TP8
ESC.1/50

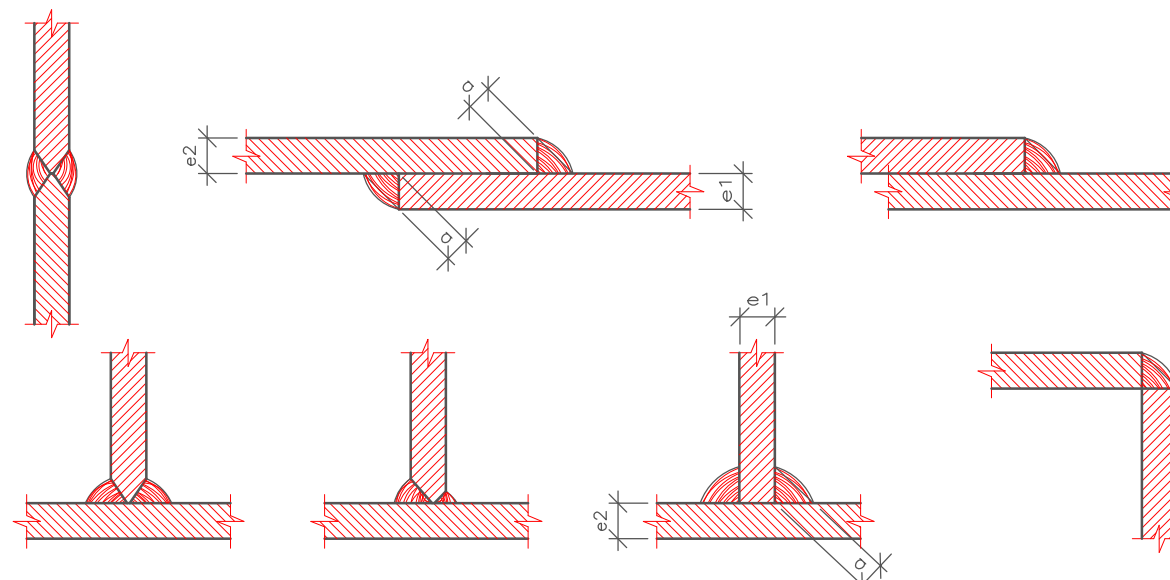


DET. DE FABRICAÇÃO TP6= TP7
ESC.1/50



DET. DE FABRICAÇÃO TP3= TP10
ESC.1/50

Alternativas de soldas.

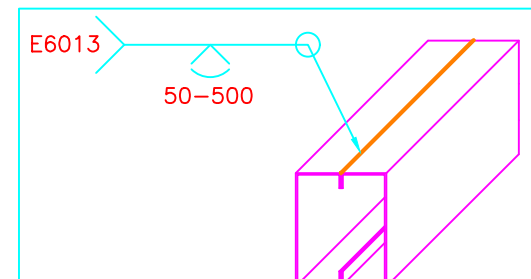


Os cordões de solda serão contínuos e de penetração completa

$$e1 > e2 : e \geq 1/2 e1$$
$$e2 > e1 : e \geq 1/2 e2$$

NOTA TÉCNICA 1 – MONTAGEM E CONFEÇÃO DE PEÇAS SOLDADAS
CABE AO ENGENHEIRO MECÂNICO/CNVL RESPONSÁVEL PELA EMPRESA FORNECEDORA DA ESTRUTURA METÁLICA, INSPECIONAR E ATESTAR A QUALIDADE DA SOLDA DE TODAS AS PEÇAS FABRICADAS, INDICANDO E CORRIGINDO POSSÍVEIS FALHAS QUE COMPROMETAM A SEGURANÇA DA ESTRUTURA, RECOMENDANDO-SE QUE O MESMO EMITA ART PARA INSPEÇÃO, FABRICAÇÃO E MONTAGEM DE ESTRUTURAS METÁLICAS.

NOTA TÉCNICA 2 – CERTIFICAÇÃO DOS MATERIAIS
O FISCAL DA OBRA DEVERÁ EXIGIR DO CONSTRUTOR NOTA FISCAL CONTENDO TODAS AS ESPECIFICAÇÕES DOS MATERIAIS, TAIS COMO TIPO DE AÇO, DIMENSÕES E ESPESURA DOS PERFIS E CHAPAS PARA CONFERÊNCIA DE ACORDO COM ESTE PROJETO.



DETALHE GÊNICO DE SOLDA DO PERFIL SEM ESCALA

CARGAS UTILIZADAS	
TELHA TRAPEZOIDAL (0,65mm)	5,36kg/m²
SUBRECOBERTA INFORMATIVA	25kg/m²
ACÇÃO DO VENTO	V=35m/s
	Vc=32,38m/s
	q=0,65kN/m²

HISTÓRICO DE REVISÃO: R0

- 00 – EMISSÃO INICIAL
- 01 –
- 02 –
- 03 –
- 04 –
- 05 –

QUADRO DE REVISÕES

REVISÃO	DATA	MOTIVAÇÃO	SOLICITANTE	CONTEÚDO	AUTOR
R0	25/09/25	202500036002769	GEPOC	Emissão inicial do projeto	Nóbis
R01					
R02					

CARIMBOS DE APROVAÇÕES:

APROVAÇÃO DE PROJETO:

Os projetos referentes ao Processo SEI Nº 202500036002769, encontram-se dentro das normas e exigências da COINFRA, tendo sido elaborado por profissionais habilitados.

GERÊNCIA DE PROJETOS DE OBRAS CIVIS DIRETORIA DE OBRAS CIVIS

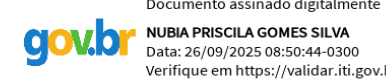


AV. GOV. JOSÉ LUDOVICO DE ALMEIDA, 20, CONJUNTO CAIÇARA (BR-153), GOIÂNIA-GO.
CEP: 74.623-160 | (62) 3265-4000

COB. MET.- ARQUIBANCADA CENTRO AQUÁTICO

ENDEREÇO DA OBRA: AV. AYRTON SENNA, LOTEAMENTO PORTAL DO SOL 1, GOIÂNIA-GO.

PROPRIETÁRIO(A): AGÊNCIA GOIANA DE INFRAESTRUTURA E TRANSPORTES- GOINFRA



AUTOR(A) DO PROJETO: ENGº Nóbis Priscila Gomes Silva
CREA: 1018606700 GO

ESTRUTURA METÁLICA

CONTEÚDO: COBERTURA METÁLICA- ARQUIBANCADA

ÁREA DO TERRENO: -	ÁREA INTERVENÇÃO: 553,5m²	DATA: SETEMB./2025	ESCALA: Indic.	FORMATO: A0 (1189x841mm)
				FOLHA: 02/0

IMPORTANTE: ANTES DA EXECUÇÃO, VERIFICAR A COMPATIBILIDADE COM PROJETOS COMPLEMENTARES: EXECUTIVO, ESTRUTURAL, ELÉTRICO E HIDRÁULICO.

MEMORIAL DESCRITIVO E DE CÁLCULO DE ESTRUTURA METÁLICA – R00

ESTRUTURA METÁLICA | COB. ARQUIBANCADA- CENTRO
AQUÁTICO (AUTÓDROMO)



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FICHA TÉCNICA:

RONALDO CAIADO

Governador do Estado de Goiás

DANIEL VILELA

Vice-governador do Estado de Goiás

PEDRO SALES

Presidente da Goinfra

ELIANE SIMONINI

Vice-presidente da Goinfra

LORENA PEREIRA

Diretora de Obras Cíveis

AVELAR GOMES DA SILVA FILHO

Gerente de Projetos de Obras Cíveis

NÚBIA PRISCILA GOMES SILVA

Engenheira Civil – Autora do Projeto

DADOS DA OBRA: ESTRUTURA METÁLICA- COB. DA ARQUIBANCADA

PROPRIETÁRIO:	AGÊNCIA GOIANA DE INFRAESTRUTURA E TRANSPORTES – GOINFRA
ENDEREÇO DA OBRA:	AV. AYRTON SENNA, LOTEAMENTO PORTAL DO SOL 1, GOIANIA- GO
TIPO DE OBRA:	ESTRUTURA METÁLICA – COBERTURA DA ARQUIBANCADA DO CENTRO AQUÁTICO- AUTÓDROMO
AUTOR DO PROJETO:	NÚBIA PRISCILA GOMES SILVA CREA nº 1018606700 D/GO

1. DADOS DE OBRA

1.1. Normas consideradas

Aço dobrado: ABNT NBR 14762: 2010

Aços laminados e soldados: ABNT NBR 8800:2008

Categoria de uso: Edificações comerciais, de escritórios e de acesso público

2. ESTRUTURA

2.1. Geometria

2.1.1. Materiais utilizados

Materiais utilizados						
Material		E (MPa)	n	G (MPa)	f _y (MPa)	a _t (m/m°C)
Tipo	Designação					g (kN/m³)
Aço laminado	A-36 250Mpa	200000.00	0.300	77000.00	250.00	0.000012
Aço dobrado	A-36	200000.00	0.300	76923.08	250.00	0.000012

Notação:
E: Módulo de elasticidade
n: Módulo de poisson
G: Módulo de corte
f_y: Limite elástico
a_t: Coeficiente de dilatação
g: Peso específico

2.1.2. Tabela resumo

Tabela resumo											
Material		Série	Perfil	Comprimento			Volume			Peso	
Tipo	Designação			Perfil (m)	Série (m)	Material (m)	Perfil (m³)	Série (m³)	Material (m³)	Perfil (kg)	Série (kg)
Aço laminado	A-36 250Mpa	W	W410X85	91.382			0.987			7747.37	
			W200X22.5	14.126			0.040			317.14	
					105.508			1.027			8064.51
			R 12	501.771			0.057			445.48	
		R			501.771			0.057		445.48	
						607.279			1.084		8509.99
Aço dobrado	A-36	U	U150X50X4.76	268.276			0.299			2347.78	
			U200X50X4.76	228.142			0.309			2422.80	
					496.418			0.608			4770.58
			C150X60X20X2.25	415.839			0.276			2167.22	
			C127X50X17X2.66, Caixa dupla soldada	12.407			0.016			126.09	
		C	C150X60X20X2.66, Caixa dupla soldada	177.816			0.277			2170.97	
			C150X60X20X2.25, Caixa dupla soldada	61.663			0.082			642.73	
					667.725			0.651			5107.01
			LF-60x4	228.275			0.102			799.98	
					228.275			0.102		799.98	
		L				1392.418			1.360		10677.57

2.1.3. Quantitativos de superfícies

Perfis de aço: Quantitativos das superfícies a pintar					
Tipo	Série	Perfil	Superfície unitária (m²/m)	Comprimento (m)	Superfície (m²)
Aço dobrado	U	U150X50X4.76	0.478	268.276	128.221
		U200X50X4.76	0.578	228.142	131.854
	C	C150X60X20X2.25	0.595	415.839	247.275

Perfis de aço: Quantitativos das superfícies a pintar					
Tipo	Série	Perfil	Superfície unitária (m²/m)	Comprimento (m)	Superfície (m²)
		C127X50X17X2.66, Caixa dupla soldada	0.457	12.407	5.665
		C150X60X20X2.66, Caixa dupla soldada	0.543	177.816	96.483
		C150X60X20X2.25, Caixa dupla soldada	0.542	61.663	33.433
	L	LF-60x4	0.231	228.275	52.782
	Subtotal				695.712
Aço laminado	W	W410X85	1.536	91.382	140.381
		W200X22.5	0.808	14.126	11.408
	R	R 12	0.038	501.771	18.916
	Subtotal				170.705
Total					866.417

2.2. Resultados

Referências:

Rx, Ry, Rz: Reações em nós com deslocamentos restringidos (forças).

Mx, My, Mz: Reações em nós com rotações restringidas (momentos).

2.2.1. Envolvórias

Envolvórias das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (kN)	Ry (kN)	Rz (kN)	Mx (kN·m)	My (kN·m)	Mz (kN·m)
N1	Concreto em fundações	Valor mínimo da envoltória	-1.390	-36.411	-38.750	-360.74	-2.17	-0.32
		Valor máximo da envoltória	0.859	39.506	46.466	130.77	1.57	0.42
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.957	-26.071	-22.706	-249.37	-1.51	-0.24
		Valor máximo da envoltória	0.655	28.193	33.190	93.41	1.17	0.29
N22	Concreto em fundações	Valor mínimo da envoltória	-0.940	-38.470	-35.051	-352.50	-1.77	-0.30
		Valor máximo da envoltória	0.740	39.912	43.946	129.87	1.43	0.34
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.675	-27.544	-20.405	-243.55	-1.26	-0.21
		Valor máximo da envoltória	0.512	28.467	31.513	92.76	1.03	0.24
N23	Concreto em fundações	Valor mínimo da envoltória	-1.751	-36.650	-49.228	-282.97	-2.64	-0.15
		Valor máximo da envoltória	0.601	37.472	44.517	100.90	0.79	0.41
	Tensões sobre o terreno	Valor mínimo da envoltória	-1.203	-26.156	-30.973	-195.78	-1.83	-0.12
		Valor máximo da envoltória	0.429	26.833	31.798	72.07	0.56	0.29
N24	Concreto em fundações	Valor mínimo da envoltória	-0.862	-36.135	-33.245	-211.97	-1.39	-0.13
		Valor máximo da envoltória	0.324	36.703	38.658	71.42	0.60	0.23
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.610	-25.539	-20.117	-146.93	-0.98	-0.10
		Valor máximo da envoltória	0.248	26.811	29.151	51.02	0.49	0.17
N25	Concreto em fundações	Valor mínimo da envoltória	-2.400	-40.043	-45.016	-131.06	-3.22	-0.21
		Valor máximo da envoltória	0.917	35.967	43.146	38.84	1.09	0.54
	Tensões sobre o terreno	Valor mínimo da envoltória	-1.634	-28.213	-28.234	-90.97	-2.21	-0.17
		Valor máximo da envoltória	0.655	27.112	30.818	27.75	0.78	0.37
N26	Concreto em fundações	Valor mínimo da envoltória	-0.863	-36.406	-38.880	-360.76	-1.58	-0.43
		Valor máximo da envoltória	1.411	39.514	46.530	130.80	2.21	0.32
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.660	-26.068	-22.797	-249.38	-1.18	-0.30
		Valor máximo da envoltória	0.972	28.198	33.236	93.43	1.54	0.24
N27	Concreto em fundações	Valor mínimo da envoltória	-0.734	-38.483	-35.002	-352.47	-1.42	-0.34
		Valor máximo da envoltória	0.934	39.922	43.896	129.89	1.77	0.30
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.508	-27.555	-20.375	-243.52	-1.03	-0.24

Envolvimentos das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (kN)	Ry (kN)	Rz (kN)	Mx (kN·m)	My (kN·m)	Mz (kN·m)
		Valor máximo da envoltória	0.670	28.474	31.493	92.78	1.26	0.21
N28	Concreto em fundações	Valor mínimo da envoltória	-0.613	-36.649	-49.334	-283.24	-0.81	-0.42
		Valor máximo da envoltória	1.772	37.483	44.610	100.99	2.67	0.15
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.438	-26.156	-31.046	-195.97	-0.58	-0.29
		Valor máximo da envoltória	1.217	26.841	31.864	72.13	1.85	0.12
N29	Concreto em fundações	Valor mínimo da envoltória	-0.329	-36.131	-33.248	-212.36	-0.61	-0.23
		Valor máximo da envoltória	0.865	36.713	38.637	71.53	1.40	0.13
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.249	-25.536	-20.124	-147.20	-0.49	-0.17
		Valor máximo da envoltória	0.610	26.817	29.146	51.09	0.98	0.10
N30	Concreto em fundações	Valor mínimo da envoltória	-0.932	-40.016	-44.781	-131.81	-1.11	-0.54
		Valor máximo da envoltória	2.429	35.989	43.025	39.08	3.26	0.21
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.666	-28.194	-28.071	-91.49	-0.79	-0.37
		Valor máximo da envoltória	1.652	27.123	30.732	27.92	2.24	0.17
N45	Concreto em fundações	Valor mínimo da envoltória	-1.401	-10.831	-18.315	-58.57	-1.82	-0.10
		Valor máximo da envoltória	0.539	37.548	75.715	20.76	0.71	0.25
	Tensões sobre o terreno	Valor mínimo da envoltória	-1.002	-7.736	-12.574	-40.45	-1.28	-0.08
		Valor máximo da envoltória	0.385	26.305	54.082	14.83	0.51	0.18
N46	Concreto em fundações	Valor mínimo da envoltória	-0.468	-10.604	-17.971	-60.75	-0.66	-0.25
		Valor máximo da envoltória	1.288	37.031	74.524	21.39	1.73	0.09
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.335	-7.574	-12.301	-42.00	-0.47	-0.18
		Valor máximo da envoltória	0.926	25.957	53.231	15.28	1.22	0.08
N349	Concreto em fundações	Valor mínimo da envoltória	-0.392	-1.783	-95.532	-7.13	-0.71	-0.01
		Valor máximo da envoltória	0.937	4.346	56.574	2.74	1.64	0.00
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.280	-1.274	-64.016	-4.93	-0.51	0.00
		Valor máximo da envoltória	0.671	2.991	40.410	1.96	1.18	0.00
N350	Concreto em fundações	Valor mínimo da envoltória	-0.938	-1.994	-94.504	-7.67	-1.65	0.00
		Valor máximo da envoltória	0.392	4.742	56.286	2.99	0.71	0.01
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.672	-1.424	-63.298	-5.29	-1.18	0.00
		Valor máximo da envoltória	0.280	3.258	40.205	2.14	0.51	0.00

Nota: As combinações de concreto indicadas são as mesmas utilizadas para verificar o estado limite de equilíbrio na fundação.

2.2.2. Verificações E.L.U. (Resumido)

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _t	N _c	M _s	M _y	V _s	V _y	M _x V _y	M _y V _s	N _t M _x M _y	N _t M _y M _s	M _t	
N4/N5	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 300.0 I _{yy} ≤ 300.0 Passa	x: 0.925 m h = 0.1	N _{t,3d} = 0.00 N.A. ⁽²⁾	M _{3d} = 0.00 N.A. ⁽²⁾	M _{3d} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.1
N3/N303	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 12.1	h = 8.4	x: 0.417 m h = 12.5	x: 0.417 m h = 31.6	x: 0.417 m h = 9.8	h = 1.5	x: 0.417 m h = 1.6	x: 0.417 m h = 10.9	x: 0.417 m h = 31.7	x: 0.417 m h = 53.0	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.0
N303/N301	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 12.1	h = 7.9	x: 0 m h = 9.4	x: 0 m h = 11.9	x: 0.567 m h = 0.6	h = 1.2	x: 0 m h = 0.9	x: 0 m h = 1.4	x: 0 m h = 18.7	x: 0 m h = 28.1	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.1
N301/N6	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 12.1	h = 7.5	x: 0 m h = 3.8	M _{3d} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.9	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 10.4	x: 0 m h = 18.5	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.5
N6/N20	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 15.6	h = 10.8	x: 0 m h = 1.4	x: 0 m h = 9.7	x: 0.65 m h = 0.6	h = 0.3	x: 0 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 7.2	x: 0 m h = 26.7	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.7
N20/N7	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 40.1	h = 30.5	x: 0.212 m h = 1.1	x: 0.212 m h = 48.0	x: 0.85 m h = 2.9	h = 0.3	x: 0.212 m h < 0.1	x: 0.212 m h = 23.1	x: 0.212 m h = 59.6	x: 0.212 m h = 89.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.2
N7/N18	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 27.0	h = 20.1	M _{3d} = 0.00 N.A. ⁽²⁾	M _{3d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.5	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.0
N18/N8	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 16.2	h = 11.8	x: 0.85 m h = 0.6	M _{3d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.1	x: 0.85 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.85 m h = 10.4	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.2
N8/N16	(b _w /t) ≤ 90 Passa	I _{xx} ≤ 200.0 I _{yy} ≤ 200.0 Passa	h = 9.6	h = 6.6	x: 0 m h = 0.7	M _{3d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 10.3	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.3

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N16/N9	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 4.1	h = 2.6	x: 0 m h = 0.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 5.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.4
N9/N14	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 1.7	h = 1.0	x: 0 m h = 0.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 2.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.7
N14/N4	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h < 0.1	h < 0.1	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.2
N2/N304	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 34.9	x: 0 m h = 67.9	x: 0.567 m h = 5.4	x: 0 m h = 42.6	x: 0 m h = 3.5	x: 0.567 m h = 2.0	x: 0.567 m h = 0.3	x: 0 m h = 18.3	x: 0 m h = 112.9	x: 0 m h = 60.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 112.9
N304/N302	x: 0.284 m (b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 31.7	x: 0 m h = 62.6	x: 0 m h = 6.7	x: 0 m h = 15.3	x: 0 m h = 1.6	x: 0 m h = 0.9	x: 0 m h = 0.5	x: 0 m h = 2.4	x: 0 m h = 78.2	x: 0 m h = 43.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.2
N302/N13	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 31.2	x: 0 m h = 62.4	x: 0 m h = 3.3	x: 0 m h = 10.7	x: 0 m h = 1.3	x: 0 m h = 1.1	x: 0 m h = 0.1	x: 0 m h = 1.2	x: 0 m h = 74.3	x: 0 m h = 37.6	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.3
N13/N21	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 30.6	x: 0 m h = 70.8	x: 0 m h = 2.1	x: 0 m h = 13.5	x: 0.851 m h = 1.5	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 1.9	x: 0 m h = 85.1	x: 0 m h = 37.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.1
N21/N12	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 32.5	x: 0 m h = 75.6	x: 0 m h = 1.3	x: 0 m h = 21.3	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 4.5	x: 0 m h = 97.2	x: 0 m h = 45.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 97.2
N12/N19	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 22.4	x: 0 m h = 52.9	x: 0 m h = 1.1	x: 0.851 m h = 12.2	x: 0.851 m h = 1.6	x: 0.851 m h = 0.3	x: 0 m h < 0.1	x: 0.851 m h = 1.5	x: 0.851 m h = 65.1	x: 0 m h = 23.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.1
N19/N11	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 14.8	x: 0 m h = 35.7	x: 0.851 m h = 2.0	x: 0.851 m h = 13.2	x: 0.851 m h = 1.6	x: 0.851 m h = 0.5	x: 0.851 m h < 0.1	x: 0.851 m h = 1.8	x: 0 m h = 46.5	x: 0.851 m h = 20.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.5
N11/N17	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 8.5	x: 0 m h = 21.5	x: 0 m h = 1.9	x: 0.851 m h = 10.8	x: 0.851 m h = 1.7	x: 0 m h = 0.5	x: 0 m h < 0.1	x: 0.851 m h = 1.2	x: 0 m h = 32.2	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.2
N17/N10	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 4.7	x: 0 m h = 12.7	x: 0.851 m h = 1.9	x: 0.851 m h = 8.0	x: 0.851 m h = 1.4	x: 0 m h = 0.3	x: 0.851 m h < 0.1	x: 0.851 m h = 0.7	x: 0.851 m h = 22.6	x: 0.851 m h = 3.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.6
N10/N15	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 1.8	x: 0 m h = 5.4	x: 0 m h = 1.8	x: 0.851 m h = 9.0	x: 0.851 m h = 1.5	x: 0.851 m h = 0.2	x: 0 m h < 0.1	x: 0.851 m h = 0.8	x: 0.851 m h = 15.6	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.6
N15/N5	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 0.6	x: 0 m h = 2.5	x: 0 m h = 1.2	x: 0.851 m h = 10.0	x: 0 m h = 1.5	x: 0.851 m h = 0.3	x: 0 m h < 0.1	x: 0.851 m h = 1.0	x: 0.851 m h = 13.2	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.2
N9/N10	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.84 m h = 1.6	x: 0 m h = 3.7	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.7
N8/N11	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.755 m h = 4.3	x: 0 m h = 9.1	x: 0.755 m h = 1.1	x: 0.755 m h = 14.3	h = 0.9	h = 0.2	x: 0.755 m h < 0.1	x: 0.755 m h = 2.1	x: 0 m h = 20.4	x: 0.755 m h = 13.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.4
N7/N12	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.67 m h = 7.3	x: 0 m h = 14.6	x: 0 m h = 1.3	x: 0 m h = 33.0	h = 2.6	h = 0.3	x: 0 m h < 0.1	x: 0 m h = 11.0	x: 0 m h = 47.7	x: 0 m h = 27.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.7
N6/N13	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.585 m h = 3.1	x: 0 m h = 1.9	x: 0.585 m h = 2.3	x: 0.585 m h = 10.3	h = 0.8	h = 0.7	x: 0.585 m h = 0.1	x: 0.585 m h = 1.1	x: 0.585 m h = 9.2	x: 0.585 m h = 14.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.3
N14/N15	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.883 m h = 1.1	x: 0 m h = 2.9	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.9
N16/N17	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.798 m h = 3.6	x: 0 m h = 8.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.798 m h = 9.0	h = 0.6	V _{sd} = 0.00 N.A. ⁽⁷⁾	N.A. ⁽³⁾	x: 0.798 m h = 0.8	x: 0.798 m h = 18.0	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.0
N18/N19	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.713 m h = 6.7	x: 0 m h = 14.0	x: 0 m h = 1.0	x: 0.713 m h = 16.9	h = 1.3	V _{sd} = 0.00 N.A. ⁽⁷⁾	N.A. ⁽³⁾	x: 0.713 m h = 2.9	x: 0.713 m h = 31.1	x: 0 m h = 16.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.1
N20/N21	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.628 m h = 3.6	x: 0.081 m h = 2.4	x: 0.081 m h = 1.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.081 m h < 0.1	N.A. ⁽³⁾	x: 0.081 m h = 2.4	x: 0.628 m h = 5.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.7
N14/N5	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.256 m h = 3.1	x: 0 m h = 2.1	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.1	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.1
N9/N15	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.225 m h = 4.1	x: 0 m h = 3.3	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.1
N16/N10	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.195 m h = 9.2	x: 0 m h = 7.9	x: 0 m h = 1.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h < 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 13.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.3
N8/N17	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.166 m h = 10.8	x: 0 m h = 9.5	x: 1.166 m h = 1.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 1.166 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 1.166 m h = 16.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.3
N18/N11	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.137 m h = 17.1	x: 0 m h = 15.0	x: 0 m h = 1.5	x: 1.137 m h = 7.4	x: 0 m h = 0.4	h = 0.1	x: 0 m h < 0.1	x: 1.137 m h = 0.5	N.A. ⁽⁴⁾	x: 1.137 m h = 19.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.9
N7/N19	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.109 m h = 19.9	x: 0 m h = 17.6	x: 0 m h = 2.0	x: 1.109 m h = 10.4	x: 0 m h = 0.5	h = 0.1	x: 0 m h < 0.1	x: 1.109 m h = 1.1	x: 0 m h = 11.9	x: 1.109 m h = 30.6	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.6
N20/N12	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.082 m h = 25.4	x: 0 m h = 22.4	x: 1.082 m h = 2.3	x: 0 m h = 11.5	x: 1.082 m h = 0.3	h < 0.1	x: 1.082 m h = 0.1	x: 0 m h = 1.3	x: 0 m h = 30.2	x: 0 m h = 37.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.1
N55/N56	(b _w /t) ≤ 90 Passa	I _w ≤ 300,0 I _y ≤ 300,0 Passa	x: 0.925 m h = 0.1	N _{c,3d} = 0.00 N.A. ⁽⁴⁾	x: 0.925 m h = 1.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.2	x: 0.925 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.925 m h = 5.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.4
N33/N311	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 10.6	h = 7.0	x: 0.417 m h = 9.0	x: 0.417 m h = 19.7	x: 0.417 m h = 6.8	h = 1.1	x: 0.417 m h = 0.8	x: 0.417 m h = 4.3	x: 0.417 m h = 20.1	x: 0.417 m h = 38.8	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.8

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	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V _y	M.V _s	N.M _s M _y	N.M _s M _y	M _t	
N311/N309	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 10.7	h = 6.8	x: 0 m h = 6.4	x: 0 m h = 10.5	x: 0.567 m h = 0.5	h = 0.9	x: 0 m h = 0.4	x: 0 m h = 1.1	x: 0 m h = 15.8	x: 0 m h = 25.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.9
N309/N57	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 10.8	h = 6.8	x: 0 m h = 2.3	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.6	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 10.0	x: 0 m h = 17.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9
N57/N58	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 14.5	h = 10.4	x: 0.65 m h = 1.8	x: 0 m h = 9.3	x: 0.65 m h = 0.5	h = 0.2	x: 0.649 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 17.0	x: 0 m h = 24.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.8
N58/N59	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 39.5	h = 30.5	x: 0.212 m h = 2.5	x: 0.212 m h = 2.9	x: 0.85 m h = 2.9	h = 0.5	x: 0.212 m h = 0.1	x: 0.212 m h = 22.2	x: 0.212 m h = 59.8	x: 0.212 m h = 89.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.1
N59/N60	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 26.4	h = 20.2	x: 0 m h = 2.2	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.5	h = 0.4	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 25.7	x: 0 m h = 33.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.1
N60/N61	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 15.6	h = 11.9	x: 0 m h = 1.3	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 14.0	x: 0 m h = 18.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.8
N61/N62	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 9.2	h = 6.8	x: 0 m h = 1.7	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 7.8	x: 0.425 m h = 11.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.3
N62/N63	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 3.8	h = 2.7	x: 0 m h = 2.5	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 3.1	x: 0 m h = 6.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.6
N63/N64	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 1.6	h = 1.0	x: 0 m h = 2.3	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 1.2	x: 0 m h = 4.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.2
N64/N55	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h < 0.1	h < 0.1	x: 0 m h = 1.1	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.5	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.5
N34/N312	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 32.7	x: 0 m h = 66.6	x: 0 m h = 5.2	x: 0 m h = 36.3	x: 0 m h = 3.0	x: 0 m h = 2.4	x: 0 m h = 0.3	x: 0 m h = 13.3	x: 0 m h = 108.1	x: 0 m h = 57.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 108.1
N312/N310	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 30.6	x: 0 m h = 62.9	x: 0 m h = 5.7	x: 0 m h = 14.2	x: 0 m h = 1.5	x: 0 m h = 1.2	x: 0 m h = 0.3	x: 0 m h = 2.0	x: 0 m h = 82.8	x: 0 m h = 39.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 82.8
N310/N72	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 30.4	x: 0 m h = 62.9	x: 0.567 m h = 4.1	x: 0 m h = 9.1	x: 0 m h = 1.0	x: 0.567 m h = 1.4	x: 0.567 m h = 0.2	x: 0 m h = 0.8	x: 0 m h = 75.6	x: 0 m h = 36.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.6
N72/N71	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 30.2	x: 0 m h = 71.2	x: 0 m h = 4.6	x: 0.851 m h = 11.7	x: 0.851 m h = 1.5	x: 0 m h = 1.0	x: 0 m h = 0.2	x: 0.851 m h = 1.4	x: 0 m h = 84.8	x: 0 m h = 37.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.8
N71/N70	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 32.4	x: 0 m h = 76.3	x: 0.851 m h = 2.7	x: 0 m h = 21.9	x: 0 m h = 1.8	x: 0 m h = 0.9	x: 0.851 m h = 0.1	x: 0 m h = 4.8	x: 0 m h = 99.8	x: 0 m h = 46.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 99.8
N70/N69	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 22.4	x: 0 m h = 53.3	x: 0.213 m h = 1.2	x: 0.851 m h = 12.4	x: 0.851 m h = 1.6	x: 0 m h = 0.3	x: 0.213 m h < 0.1	x: 0.851 m h = 1.6	x: 0.851 m h = 66.8	x: 0 m h = 27.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.8
N69/N68	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 14.8	x: 0 m h = 36.0	x: 0.851 m h = 2.9	x: 0 m h = 10.8	x: 0 m h = 1.6	x: 0.851 m h = 0.6	x: 0.851 m h = 0.1	x: 0 m h = 1.2	x: 0 m h = 47.6	x: 0 m h = 21.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.6
N68/N67	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 8.3	x: 0 m h = 20.7	x: 0 m h = 4.9	x: 0.851 m h = 8.9	x: 0.851 m h = 1.5	x: 0 m h = 1.3	x: 0 m h = 0.3	x: 0.851 m h = 0.8	x: 0 m h = 34.4	x: 0 m h = 14.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.4
N67/N66	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 4.5	x: 0 m h = 12.1	x: 0.851 m h = 4.1	x: 0 m h = 7.5	x: 0 m h = 1.4	x: 0 m h = 0.9	x: 0.851 m h = 0.2	x: 0 m h = 0.6	x: 0.851 m h = 23.6	x: 0 m h = 9.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.6
N66/N65	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 1.5	x: 0 m h = 5.7	x: 0.638 m h = 3.4	x: 0.851 m h = 9.1	x: 0.851 m h = 1.5	x: 0 m h = 0.3	x: 0.638 m h = 0.1	x: 0.851 m h = 0.8	x: 0.851 m h = 17.2	x: 0.851 m h = 6.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.2
N65/N56	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.3	x: 0 m h = 4.0	x: 0 m h = 2.1	x: 0 m h = 8.9	x: 0 m h = 1.6	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 0.8	x: 0 m h = 12.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.9
N63/N66	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.84 m h = 1.7	x: 0 m h = 3.5	x: 0 m h = 2.5	M ₁₄ = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.84 m h = 10.5	x: 0 m h = 5.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.5
N61/N68	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.755 m h = 4.3	x: 0 m h = 8.9	x: 0 m h = 3.5	x: 0 m h = 10.3	h = 0.7	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 1.1	x: 0 m h = 22.7	x: 0 m h = 12.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.7
N59/N70	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.67 m h = 7.2	x: 0 m h = 14.7	x: 0 m h = 2.7	x: 0 m h = 33.1	h = 2.6	h = 0.3	x: 0 m h = 0.1	x: 0 m h = 11.0	x: 0 m h = 50.5	x: 0 m h = 28.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.5
N57/N72	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.585 m h = 3.4	x: 0 m h = 2.2	x: 0 m h = 2.6	x: 0.585 m h = 8.0	h = 0.6	h = 0.4	x: 0 m h = 0.1	x: 0.585 m h = 0.6	x: 0 m h = 7.4	x: 0.585 m h = 13.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.4
N64/N65	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.883 m h = 1.1	x: 0 m h = 2.7	x: 0.883 m h = 1.7	M ₁₄ = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.1	x: 0.883 m h < 0.1	N.A. ⁽³⁾	x: 0.883 m h = 7.8	x: 0.883 m h = 3.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N62/N67	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.798 m h = 3.7	x: 0 m h = 8.0	x: 0 m h = 3.3	x: 0.798 m h = 8.9	h = 0.6	V ₁₄ = 0.00 N.A. ⁽⁷⁾	N.A. ⁽³⁾	x: 0.798 m h = 0.8	x: 0.798 m h = 20.2	x: 0.798 m h = 10.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.2
N60/N69	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.713 m h = 6.7	x: 0 m h = 14.1	x: 0 m h = 2.5	x: 0.713 m h = 17.0	h = 1.3	h < 0.1	x: 0 m h = 0.1	x: 0.713 m h = 2.9	x: 0.713 m h = 33.3	x: 0 m h = 18.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.3
N58/N71	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.628 m h = 3.8	x: 0.081 m h = 2.7	x: 0.628 m h = 2.9	M ₁₄ = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.5	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.354 m h = 5.2	x: 0.628 m h = 7.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N64/N56	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.256 m h = 2.8	x: 0 m h = 2.2	x: 1.256 m h = 4.0	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.2	h = 0.2	x: 1.256 m h = 0.2	N.A. ⁽³⁾	x: 0.837 m h = 4.9	x: 1.256 m h = 10.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.5
N63/N65	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.225 m h = 3.8	x: 0 m h = 3.5	x: 0 m h = 3.5	M ₁₄ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.225 m h = 6.5	x: 0 m h = 9.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.3

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V. _y	M.V. _s	N.M. _y	N.M. _s	M _t	
N62/N66	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 9.0	x: 0 m h = 7.9	x: 0 m h = 4.8	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 1.195 m h = 12.1	x: 0 m h = 16.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.5
N61/N67	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 10.5	x: 0 m h = 9.5	x: 1.166 m h = 5.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.166 m h = 15.2	x: 1.166 m h = 19.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.9
N60/N68	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 17.1	x: 0 m h = 14.9	x: 1.137 m h = 4.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 1.137 m h = 0.2	N.A. ⁽³⁾	x: 1.137 m h = 21.0	x: 1.137 m h = 25.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.4
N59/N69	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 20.0	x: 0 m h = 17.5	x: 0 m h = 4.2	x: 1.109 m h = 10.3	x: 0 m h = 0.5	h = 0.1	x: 0 m h = 0.2	x: 1.109 m h = 1.1	x: 1.109 m h = 26.5	x: 1.109 m h = 34.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.1
N58/N70	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 25.8	x: 0 m h = 22.0	x: 0 m h = 6.5	x: 0 m h = 10.9	x: 1.082 m h = 0.2	h = 0.3	x: 0 m h = 0.4	x: 0 m h = 1.2	x: 0 m h = 33.8	x: 0 m h = 43.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.1
N73/N74	(b _w /t) £ 90 Passa	x: 0 m I _w £ 200.0 I _y £ 200.0 Passa	x: 0.925 m h = 0.1	x: 0 m h < 0.1	x: 0.925 m h = 2.5	x: 0.925 m h = 7.5	h = 0.3	h = 0.3	x: 0.925 m h = 0.1	x: 0.925 m h = 0.6	N.A. ⁽⁴⁾	x: 0.925 m h = 8.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.4
N37/N319	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 5.3	h = 3.7	x: 0.417 m h = 6.9	x: 0.417 m h = 21.1	x: 0.567 m h = 4.5	h = 1.5	x: 0.417 m h = 0.5	x: 0.417 m h = 4.6	x: 0.417 m h = 17.4	x: 0.417 m h = 27.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.3
N319/N317	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 4.6	h = 3.5	x: 0 m h = 6.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.2	h = 0.8	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 0 m h = 7.9	x: 0 m h = 15.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.0
N317/N75	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 4.4	h = 3.8	x: 0 m h = 5.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.4	h = 0.5	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 8.5	x: 0 m h = 14.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.4
N75/N76	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 8.0	h = 7.2	x: 0.65 m h = 5.8	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.65 m h = 0.2	h = 0.2	x: 0.649 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 12.9	x: 0 m h = 17.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.7
N76/N77	x: 0.372 m (b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 29.7	h = 26.1	x: 0.212 m h = 7.7	x: 0.212 m h = 34.2	x: 0.85 m h = 2.1	h = 1.2	x: 0.212 m h = 0.6	x: 0.212 m h = 11.7	x: 0.212 m h = 50.8	x: 0.212 m h = 66.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.9
N77/N78	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 19.1	h = 17.0	x: 0 m h = 5.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.4	h = 0.9	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 20.4	x: 0 m h = 25.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.2
N78/N79	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 10.5	h = 9.7	x: 0 m h = 3.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.7	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 11.5	x: 0 m h = 13.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.4
N79/N80	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 5.6	h = 5.3	x: 0 m h = 2.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 7.6	x: 0 m h = 7.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.7
N80/N81	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.6	h = 1.8	x: 0 m h = 3.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 3.1	x: 0 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.9
N81/N82	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 0.5	h = 0.5	x: 0 m h = 3.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 1.5	x: 0 m h = 3.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.8
N82/N73	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h < 0.1	h = 0.1	x: 0 m h = 1.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.9	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.9
N38/N320	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 23.6	x: 0 m h = 47.0	x: 0.567 m h = 7.6	x: 0 m h = 21.8	x: 0 m h = 1.8	x: 0.567 m h = 1.6	x: 0.567 m h = 0.6	x: 0 m h = 4.8	x: 0 m h = 70.1	x: 0 m h = 38.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.1
N320/N318	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 24.4	x: 0 m h = 46.9	x: 0 m h = 6.8	x: 0 m h = 8.9	x: 0 m h = 1.2	x: 0 m h = 2.0	x: 0 m h = 0.5	x: 0 m h = 0.8	x: 0 m h = 62.6	x: 0 m h = 33.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 62.6
N318/N90	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 24.5	x: 0 m h = 46.1	x: 0.567 m h = 4.4	x: 0.567 m h = 10.8	x: 0.567 m h = 1.1	x: 0 m h = 1.4	x: 0.567 m h = 0.2	x: 0.567 m h = 1.2	x: 0.567 m h = 61.4	x: 0 m h = 31.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.4
N90/N89	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 24.2	x: 0 m h = 53.4	x: 0.851 m h = 3.1	x: 0.851 m h = 11.3	x: 0.851 m h = 1.6	x: 0 m h = 0.8	x: 0.851 m h = 0.1	x: 0.851 m h = 1.3	x: 0.851 m h = 65.4	x: 0.851 m h = 31.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.4
N89/N88	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 26.5	x: 0 m h = 58.1	x: 0.851 m h = 5.0	x: 0 m h = 19.9	x: 0 m h = 1.7	x: 0 m h = 1.1	x: 0.851 m h = 0.3	x: 0 m h = 4.0	x: 0 m h = 79.0	x: 0 m h = 39.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.0
N88/N87	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 17.5	x: 0 m h = 38.6	x: 0.851 m h = 2.6	x: 0.851 m h = 11.5	x: 0.851 m h = 1.6	x: 0 m h = 0.4	x: 0.851 m h = 0.1	x: 0.851 m h = 1.4	x: 0.851 m h = 51.5	x: 0.851 m h = 24.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.5
N87/N86	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 11.1	x: 0 m h = 24.6	x: 0.851 m h = 1.9	x: 0 m h = 11.1	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0 m h = 1.3	x: 0 m h = 35.9	x: 0.851 m h = 13.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.9
N86/N85	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 5.9	x: 0 m h = 15.5	x: 0 m h = 6.0	x: 0 m h = 12.8	x: 0 m h = 1.6	x: 0 m h = 1.7	x: 0 m h = 0.4	x: 0 m h = 1.7	x: 0 m h = 31.3	x: 0 m h = 14.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.3
N85/N84	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 2.8	x: 0 m h = 8.9	x: 0.851 m h = 6.7	x: 0.851 m h = 7.0	x: 0 m h = 1.4	x: 0 m h = 1.3	x: 0.851 m h = 0.5	x: 0.851 m h = 0.5	x: 0.851 m h = 19.9	x: 0 m h = 7.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.9
N84/N83	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.4	x: 0 m h = 3.5	x: 0.426 m h = 4.5	x: 0.851 m h = 8.6	x: 0.851 m h = 1.5	x: 0 m h = 0.4	x: 0.426 m h = 0.2	x: 0.851 m h = 0.8	x: 0.851 m h = 14.5	x: 0.851 m h = 5.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.5
N83/N74	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	N _{tsd} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 2.2	x: 0.213 m h = 2.6	x: 0 m h = 9.7	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0.213 m h = 0.1	x: 0 m h = 1.0	x: 0 m h = 12.5	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.5
N81/N84	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 1.2	x: 0 m h = 1.6	x: 0 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.2	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 7.3	x: 0 m h = 4.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.3
N79/N86	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 3.8	x: 0 m h = 6.8	x: 0 m h = 5.6	x: 0.755 m h = 8.6	h = 0.6	h = 0.3	x: 0 m h = 0.3	x: 0.755 m h = 0.7	x: 0 m h = 19.4	x: 0 m h = 10.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.4
N77/N88	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 6.5	x: 0 m h = 11.9	x: 0 m h = 4.3	x: 0 m h = 25.5	h = 2.0	h = 0.5	x: 0 m h = 0.2	x: 0 m h = 6.5	x: 0 m h = 39.8	x: 0 m h = 24.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.8

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	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _y V _s	N _m M _y	N _m M _v	M _t	
N75/N90	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.585 m h = 3.3	x: 0 m h = 2.3	x: 0 m h = 3.2	x: 0.585 m h = 10.8	h = 0.7	h = 0.6	x: 0 m h = 0.1	x: 0.585 m h = 1.2	x: 0 m h = 6.3	x: 0.585 m h = 14.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.0
N82/N83	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.883 m h = 0.7	x: 0 m h = 0.9	x: 0.883 m h = 2.6	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	x: 0.883 m h = 4.9	x: 0.883 m h = 3.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.9
N80/N85	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.798 m h = 3.2	x: 0 m h = 6.0	x: 0 m h = 5.1	x: 0.798 m h = 7.6	h = 0.5	h < 0.1	x: 0.798 m h < 0.1	x: 0.798 m h = 0.6	x: 0.798 m h = 16.1	x: 0.798 m h = 9.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.1
N78/N87	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.713 m h = 5.9	x: 0 m h = 11.2	x: 0 m h = 4.1	x: 0.713 m h = 14.6	h = 1.1	h < 0.1	x: 0 m h = 0.2	x: 0.713 m h = 2.1	x: 0.713 m h = 27.6	x: 0.713 m h = 16.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.6
N76/N89	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.628 m h = 3.6	x: 0.081 m h = 2.8	x: 0.628 m h = 4.1	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 1.1	x: 0.628 m h = 0.2	N.A. ⁽³⁾	x: 0.628 m h = 5.2	x: 0.628 m h = 8.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.8
N82/N74	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.256 m h = 1.0	x: 0 m h = 1.3	x: 1.256 m h = 6.1	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.3	h = 0.4	x: 1.256 m h = 0.4	N.A. ⁽³⁾	x: 1.256 m h = 6.7	x: 1.256 m h = 11.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.1
N81/N83	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.225 m h = 1.9	x: 0 m h = 2.5	x: 0 m h = 5.4	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.2	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.225 m h = 6.0	x: 0 m h = 8.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.1
N80/N84	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.195 m h = 6.8	x: 0 m h = 6.9	x: 0 m h = 7.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 1.195 m h = 10.6	x: 0 m h = 15.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.1
N79/N85	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.166 m h = 8.1	x: 0 m h = 8.4	x: 0 m h = 8.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 1.166 m h = 14.3	x: 0 m h = 17.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.6
N78/N86	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.137 m h = 13.6	x: 0 m h = 13.0	x: 1.137 m h = 8.4	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 1.137 m h = 0.7	N.A. ⁽³⁾	x: 1.137 m h = 17.5	x: 1.137 m h = 24.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.3
N77/N87	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.109 m h = 16.2	x: 0 m h = 15.5	x: 0 m h = 6.6	x: 1.109 m h = 8.4	x: 0 m h = 0.5	h = 0.1	x: 0 m h = 0.4	x: 1.109 m h = 0.7	x: 1.109 m h = 23.8	x: 1.109 m h = 27.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.8
N76/N88	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 1.082 m h = 21.9	x: 0 m h = 20.1	x: 0 m h = 9.3	x: 0 m h = 7.2	x: 0 m h = 0.2	h = 0.4	x: 0 m h = 0.9	x: 0.18 m h = 0.5	x: 0 m h = 29.4	x: 0 m h = 35.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.1
N91/N92	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0 m h = 0.1	x: 0.925 m h < 0.1	x: 0.925 m h = 2.5	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.3	x: 0.925 m h = 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.925 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.4
N41/N327	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 2.7	h = 2.1	x: 0.417 m h = 9.1	x: 0.417 m h = 35.9	x: 0.567 m h = 8.7	h = 1.3	x: 0.417 m h = 0.8	x: 0.417 m h = 13.6	x: 0.417 m h = 32.6	x: 0.417 m h = 47.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.5
N327/N325	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 2.0	h = 1.7	x: 0 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 1.0	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 6.5	x: 0 m h = 9.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.5
N325/N93	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 1.7	h = 1.8	x: 0 m h = 4.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.5	h = 0.7	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 6.7	x: 0 m h = 9.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.9
N93/N94	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 5.0	h = 5.1	x: 0.65 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.2	x: 0.65 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 9.4	x: 0.488 m h = 12.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.4
N94/N95	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 23.9	h = 23.1	x: 0.212 m h = 6.2	x: 0.212 m h = 27.0	x: 0.85 m h = 1.7	h = 1.0	x: 0.212 m h = 0.4	x: 0.212 m h = 7.3	x: 0.212 m h = 44.7	x: 0.212 m h = 53.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.8
N95/N96	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 15.0	h = 14.7	x: 0 m h = 4.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.7	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 17.4	x: 0 m h = 19.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.7
N96/N97	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 7.8	h = 8.0	x: 0 m h = 2.1	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 10.4	x: 0 m h = 10.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.4
N97/N98	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 3.9	h = 4.1	x: 0 m h = 2.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 5.5	x: 0.213 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.7
N98/N99	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 0.6	h = 1.0	x: 0 m h = 3.8	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 2.6	x: 0 m h = 4.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.4
N99/N100	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h = 0.1	h = 0.2	x: 0 m h = 3.4	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 3.8	x: 0 m h = 3.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.8
N100/N91	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	h < 0.1	h = 0.1	x: 0 m h = 1.5	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.6	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.6
N42/N328	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 19.0	x: 0 m h = 35.3	x: 0.567 m h = 5.1	x: 0 m h = 14.8	x: 0 m h = 1.3	x: 0.567 m h = 0.9	x: 0.567 m h = 0.3	x: 0 m h = 2.2	x: 0 m h = 50.3	x: 0 m h = 30.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.3
N328/N326	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 21.2	x: 0 m h = 37.3	x: 0 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 1.1	x: 0 m h = 2.0	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 50.5	x: 0.567 m h = 25.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.5
N326/N108	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.567 m h = 21.0	x: 0 m h = 36.6	x: 0.567 m h = 5.4	x: 0.567 m h = 13.3	x: 0.567 m h = 1.3	x: 0 m h = 1.8	x: 0.567 m h = 0.3	x: 0.567 m h = 1.8	x: 0.567 m h = 55.2	x: 0 m h = 27.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.2
N108/N107	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 21.3	x: 0 m h = 42.3	x: 0.851 m h = 2.8	x: 0.851 m h = 11.6	x: 0.851 m h = 1.7	x: 0 m h = 0.5	x: 0.851 m h = 0.1	x: 0.851 m h = 1.4	x: 0.851 m h = 55.3	x: 0 m h = 28.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.3
N107/N106	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 23.6	x: 0 m h = 46.6	x: 0.851 m h = 5.0	x: 0 m h = 17.8	x: 0 m h = 1.7	x: 0 m h = 0.9	x: 0.851 m h = 0.3	x: 0 m h = 3.2	x: 0 m h = 65.5	x: 0 m h = 35.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.5
N106/N105	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 15.1	x: 0 m h = 29.9	x: 0.638 m h = 1.9	x: 0.851 m h = 10.9	x: 0.851 m h = 1.5	x: 0 m h = 0.2	x: 0.638 m h < 0.1	x: 0.851 m h = 1.2	x: 0.851 m h = 41.8	x: 0.851 m h = 21.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.8
N105/N104	(b _w /t) ≤ 90 Passa	I _w ≤ 200,0 I _y ≤ 200,0 Passa	x: 0.851 m h = 8.8	x: 0 m h = 19.0	x: 0.851 m h = 1.2	x: 0.851 m h = 11.1	x: 0 m h = 1.6	x: 0.851 m h = 0.2	x: 0.851 m h < 0.1	x: 0.851 m h = 1.3	x: 0.851 m h = 31.3	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.3

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Barras	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V _y	M.V _s	N.M _s M _y	N.M _s M _y	M _t	
N104/N103	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 4.8	x: 0 m h = 10.5	x: 0 m h = 5.4	x: 0 m h = 10.0	x: 0.851 m h = 1.6	x: 0 m h = 1.4	x: 0 m h = 0.3	x: 0 m h = 1.0	x: 0 m h = 23.0	x: 0 m h = 13.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.0
N103/N102	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 2.0	x: 0 m h = 5.1	x: 0.851 m h = 8.1	x: 0 m h = 7.0	x: 0.851 m h = 1.4	x: 0 m h = 1.3	x: 0.851 m h = 0.7	x: 0 m h = 0.5	x: 0.851 m h = 19.3	x: 0.851 m h = 7.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.3
N102/N101	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 0.9	x: 0 m h = 6.2	x: 0.851 m h = 8.6	x: 0.851 m h = 1.5	x: 0.851 m h = 0.4	x: 0 m h = 0.4	x: 0.851 m h = 0.8	x: 0.851 m h = 13.0	x: 0.213 m h = 1.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.0
N101/N92	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 1.4	x: 0 m h = 3.1	x: 0 m h = 9.2	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0 m h = 0.1	x: 0 m h = 0.9	x: 0 m h = 10.9	x: 0 m h = 5.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.9
N99/N102	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 0.9	x: 0 m h = 0.8	x: 0.84 m h = 2.5	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.84 m h = 0.1	N.A. ⁽³⁾	x: 0.84 m h = 5.6	x: 0 m h = 3.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.6
N97/N104	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 3.4	x: 0 m h = 5.5	x: 0 m h = 4.5	x: 0.755 m h = 11.2	h = 0.7	h = 0.5	x: 0 m h = 0.2	x: 0.755 m h = 1.3	x: 0.755 m h = 17.4	x: 0 m h = 9.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.4
N95/N106	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 6.0	x: 0 m h = 10.1	x: 0 m h = 3.3	x: 0 m h = 21.5	h = 1.7	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 4.6	x: 0 m h = 34.1	x: 0 m h = 22.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.1
N93/N108	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.585 m h = 3.0	x: 0 m h = 2.4	x: 0 m h = 2.9	x: 0.585 m h = 12.7	h = 0.8	h = 0.6	x: 0 m h = 0.1	x: 0.585 m h = 1.6	x: 0 m h = 5.5	x: 0.585 m h = 15.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.9
N100/N101	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.883 m h = 0.3	x: 0 m h = 0.1	x: 0.883 m h = 1.5	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	x: 0.883 m h = 2.6	x: 0.883 m h = 2.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.6
N98/N103	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.798 m h = 2.8	x: 0 m h = 4.7	x: 0 m h = 4.1	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.4	h < 0.1	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0.798 m h = 12.6	x: 0.798 m h = 8.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.6
N96/N105	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.713 m h = 5.4	x: 0 m h = 9.3	x: 0 m h = 3.1	x: 0.713 m h = 11.8	h = 0.9	h < 0.1	x: 0 m h = 0.1	x: 0.713 m h = 1.4	x: 0.713 m h = 23.2	x: 0.713 m h = 15.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.2
N94/N107	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.628 m h = 3.3	x: 0.081 m h = 2.7	x: 0.628 m h = 3.4	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 1.0	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.628 m h = 5.2	x: 0.628 m h = 7.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.7
N100/N92	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.256 m h = 0.2	x: 0 m h = 0.5	x: 1.256 m h = 4.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.2	h = 0.3	x: 1.256 m h = 0.2	N.A. ⁽³⁾	x: 1.256 m h = 5.6	x: 1.256 m h = 8.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.4
N99/N101	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.225 m h = 1.0	x: 0 m h = 1.7	x: 0 m h = 3.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 1.225 m h = 0.1	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.225 m h = 4.3	x: 0 m h = 5.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.0
N98/N102	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 5.4	x: 0 m h = 6.0	x: 0 m h = 5.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.195 m h = 8.7	x: 0 m h = 12.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.3
N97/N103	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 6.5	x: 0 m h = 7.4	x: 0 m h = 6.6	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 1.166 m h = 12.2	x: 0 m h = 13.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.9
N96/N104	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 11.4	x: 0 m h = 11.9	x: 1.137 m h = 7.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.3	x: 1.137 m h = 0.5	N.A. ⁽³⁾	x: 1.137 m h = 16.2	x: 1.137 m h = 22.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.9
N95/N105	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 13.6	x: 0 m h = 14.3	x: 0 m h = 5.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.4	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.109 m h = 22.0	x: 0 m h = 23.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.6
N94/N106	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 18.8	x: 0 m h = 18.9	x: 0 m h = 8.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.4	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 26.9	x: 0 m h = 28.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.8
N109/N110	(b _w /t) £ 90 Passa	x: 0 m I _w £ 200.0 I _y £ 200.0 Passa	x: 0.925 m h = 0.1	x: 0 m h < 0.1	x: 0.925 m h = 3.7	x: 0.925 m h = 11.5	h = 0.4	h = 0.5	x: 0.925 m h = 0.1	x: 0.925 m h = 1.3	x: 0.463 m h = 5.8	x: 0.925 m h = 15.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.2
N47/N335	(b _w /t) £ 200 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 2.8	h = 2.1	x: 0.417 m h = 7.9	x: 0.417 m h = 44.6	x: 0.567 m h = 11.0	h = 1.1	x: 0.417 m h = 0.6	x: 0.417 m h = 21.1	x: 0.417 m h = 34.7	x: 0.417 m h = 54.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.8
N335/N333	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.6	h = 1.4	x: 0 m h = 6.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.5	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0.567 m h = 5.8	x: 0 m h = 10.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.2
N333/N111	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.2	h = 1.4	x: 0 m h = 6.2	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.4	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 0 m h = 6.1	x: 0 m h = 9.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.5
N111/N112	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 4.4	h = 4.6	x: 0 m h = 6.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 0.65 m h = 9.4	x: 0.65 m h = 13.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.5
N112/N113	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 23.2	h = 22.4	x: 0.212 m h = 7.0	x: 0.212 m h = 26.2	x: 0.85 m h = 1.7	h = 1.1	x: 0.212 m h = 0.5	x: 0.212 m h = 6.9	x: 0.212 m h = 43.9	x: 0.212 m h = 53.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.6
N113/N114	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 14.3	h = 14.1	x: 0 m h = 4.7	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.7	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 17.6	x: 0 m h = 21.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.1
N114/N115	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 7.3	h = 7.5	x: 0 m h = 3.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.638 m h = 9.2	x: 0 m h = 11.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.5
N115/N116	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 3.5	h = 3.8	x: 0 m h = 3.8	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 6.1	x: 0 m h = 8.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.7
N116/N117	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 0.3	h = 0.8	x: 0 m h = 5.6	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 4.3	x: 0 m h = 6.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.0
N117/N118	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h < 0.1	h = 0.3	x: 0 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.6	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 5.8	x: 0 m h = 2.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.8
N118/N109	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 0.1	h = 0.1	x: 0 m h = 2.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 5.1	x: 0 m h = 2.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.1

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _x V _y	M _y V _x	N _m M _y	N _m M _x	M _t	
N48/N336	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 17.6	x: 0 m h = 31.9	x: 0.567 m h = 4.3	x: 0 m h = 17.2	x: 0 m h = 1.5	x: 0 m h = 0.8	x: 0.567 m h = 0.2	x: 0 m h = 3.0	x: 0 m h = 51.1	x: 0 m h = 29.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.1
N336/N334	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 20.0	x: 0 m h = 35.8	x: 0 m h = 3.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 1.1	x: 0.567 m h = 1.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.567 m h = 43.0	x: 0.567 m h = 23.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.0
N334/N126	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 19.6	x: 0 m h = 34.8	x: 0.567 m h = 5.1	x: 0 m h = 11.6	x: 0 m h = 1.9	x: 0.567 m h = 1.0	x: 0.567 m h = 0.3	x: 0 m h = 1.4	x: 0.567 m h = 46.1	x: 0 m h = 26.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.1
N126/N125	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 19.9	x: 0 m h = 41.3	x: 0.851 m h = 2.9	x: 0 m h = 16.4	x: 0 m h = 1.7	x: 0.851 m h = 0.3	x: 0.851 m h = 0.1	x: 0 m h = 2.7	x: 0 m h = 58.2	x: 0 m h = 29.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.2
N125/N124	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 22.1	x: 0 m h = 45.4	x: 0.851 m h = 4.5	x: 0 m h = 17.3	x: 0 m h = 1.7	x: 0.851 m h = 0.8	x: 0.851 m h = 0.2	x: 0 m h = 3.0	x: 0 m h = 63.2	x: 0 m h = 33.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.2
N124/N123	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 13.5	x: 0 m h = 28.6	x: 0.851 m h = 1.7	x: 0.851 m h = 11.9	x: 0.851 m h = 1.6	x: 0.851 m h = 0.4	x: 0.851 m h = 0.1	x: 0.851 m h = 1.4	x: 0.851 m h = 41.5	x: 0.851 m h = 19.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.5
N123/N122	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 7.3	x: 0 m h = 16.9	x: 0 m h = 1.5	x: 0 m h = 13.2	x: 0 m h = 2.1	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 1.8	x: 0 m h = 31.4	x: 0 m h = 15.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.4
N122/N121	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 3.9	x: 0 m h = 10.1	x: 0 m h = 4.9	x: 0 m h = 21.0	x: 0 m h = 2.0	x: 0.851 m h = 1.5	x: 0 m h = 0.3	x: 0 m h = 4.4	x: 0 m h = 35.5	x: 0 m h = 17.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.5
N121/N120	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 1.1	x: 0 m h = 4.8	x: 0.851 m h = 10.1	x: 0.851 m h = 7.4	x: 0.851 m h = 1.5	x: 0.851 m h = 1.6	x: 0.851 m h = 1.0	x: 0.851 m h = 0.6	x: 0.851 m h = 22.3	x: 0.851 m h = 7.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.3
N120/N119	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 1.6	x: 0 m h = 6.7	x: 0.851 m h = 9.4	x: 0.851 m h = 1.5	x: 0 m h = 0.4	x: 0 m h = 0.5	x: 0.851 m h = 0.9	x: 0.851 m h = 15.1	x: 0 m h = 2.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.1
N119/N110	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 2.3	x: 0 m h = 3.0	x: 0 m h = 11.3	x: 0 m h = 2.0	x: 0.851 m h = 0.3	x: 0 m h = 0.1	x: 0 m h = 1.3	x: 0 m h = 14.6	x: 0 m h = 6.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.6
N117/N120	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.84 m h = 0.8	x: 0 m h = 0.6	x: 0.84 m h = 4.2	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.84 m h = 0.2	N.A. ⁽³⁾	x: 0.84 m h = 6.3	x: 0.84 m h = 3.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.3
N115/N122	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.755 m h = 3.3	x: 0 m h = 5.3	x: 0 m h = 5.3	x: 0.755 m h = 8.9	h = 0.3	h = 0.4	x: 0 m h = 0.3	x: 0.755 m h = 0.8	x: 0.755 m h = 17.0	x: 0.755 m h = 9.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.0
N113/N124	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.67 m h = 5.9	x: 0 m h = 10.0	x: 0 m h = 3.7	x: 0 m h = 20.9	h = 1.7	h = 0.5	x: 0 m h = 0.1	x: 0 m h = 4.4	x: 0 m h = 32.7	x: 0 m h = 21.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.7
N111/N126	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.585 m h = 3.0	x: 0 m h = 2.3	x: 0.585 m h = 3.0	x: 0.585 m h = 7.5	h = 0.5	h = 0.6	x: 0.585 m h = 0.1	x: 0.585 m h = 0.6	x: 0.585 m h = 7.2	x: 0.585 m h = 12.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.5
N118/N119	(b _u /t) E 90 Passa	I _u E 300.0 I _y E 300.0 Passa	x: 0.883 m h = 0.3	N _{tsd} = 0.00 N.A. ⁽⁵⁾	x: 0.883 m h = 2.7	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.883 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.9
N116/N121	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.798 m h = 2.7	x: 0 m h = 4.6	x: 0 m h = 5.3	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0.798 m h = 15.9	x: 0.798 m h = 9.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.9
N114/N123	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.713 m h = 5.3	x: 0 m h = 9.2	x: 0 m h = 4.1	x: 0.713 m h = 13.0	h = 0.9	h < 0.1	x: 0 m h = 0.2	x: 0.713 m h = 1.7	x: 0.713 m h = 25.3	x: 0.713 m h = 16.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.3
N112/N125	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.628 m h = 3.2	x: 0.081 m h = 2.7	x: 0.628 m h = 3.2	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.8	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.628 m h = 5.9	x: 0.628 m h = 9.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.9
N118/N110	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	N _{tsd} = 0.00 N.A. ⁽⁵⁾	x: 0 m h = 0.5	x: 1.256 m h = 6.9	x: 1.256 m h = 9.9	x: 1.256 m h = 0.4	h = 0.4	x: 1.256 m h = 0.5	x: 1.256 m h = 1.0	x: 1.256 m h = 17.1	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.1
N117/N119	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.225 m h = 0.8	x: 0 m h = 1.5	x: 0 m h = 4.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.1	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 1.225 m h = 5.4	x: 0 m h = 6.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.7
N116/N120	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.195 m h = 5.2	x: 0 m h = 5.8	x: 0 m h = 7.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0.398 m h = 9.5	x: 0 m h = 13.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.8
N115/N121	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.166 m h = 6.3	x: 0 m h = 7.1	x: 0 m h = 7.8	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 1.166 m h = 14.1	x: 0 m h = 17.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.8
N114/N122	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.137 m h = 11.2	x: 0 m h = 11.8	x: 1.137 m h = 7.9	x: 1.137 m h = 8.1	x: 1.137 m h = 0.3	h = 0.2	x: 1.137 m h = 0.6	x: 1.137 m h = 0.7	x: 1.137 m h = 18.4	x: 1.137 m h = 26.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.4
N113/N123	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.109 m h = 13.6	x: 0 m h = 14.2	x: 1.109 m h = 6.3	x: 1.109 m h = 7.2	x: 0 m h = 0.4	h = 0.1	x: 1.109 m h = 0.4	x: 1.109 m h = 0.5	x: 1.109 m h = 23.0	x: 1.109 m h = 26.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2
N112/N124	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.082 m h = 18.9	x: 0 m h = 18.9	x: 0 m h = 7.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 26.3	x: 0 m h = 29.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 29.4
N127/N128	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.925 m h = 3.6	x: 0.078 m h = 3.2	x: 0.078 m h = 11.2	x: 0.078 m h = 8.8	h = 0.5	h = 0.8	x: 0.078 m h = 1.3	x: 0.078 m h = 0.8	x: 0.078 m h = 13.6	x: 0.078 m h = 22.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.2
N51/N543	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 2.8	h = 5.3	x: 0 m h = 13.8	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.283 m h = 0.7	h = 2.1	x: 0 m h = 1.9	N.A. ⁽³⁾	x: 0 m h = 19.8	x: 0 m h = 14.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.8
N543/N343	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 2.9	h = 5.5	x: 0 m h = 9.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.283 m h = 0.3	h = 2.1	x: 0 m h = 0.9	N.A. ⁽³⁾	x: 0 m h = 15.0	x: 0 m h = 10.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.0
N343/N341	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 2.1	h = 4.0	x: 0 m h = 7.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.1	h = 1.7	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 10.8	x: 0 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.8
N341/N129	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 1.4	h = 2.5	x: 0.567 m h = 4.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.5	h = 1.3	x: 0.567 m h = 0.2	N.A. ⁽³⁾	x: 0.567 m h = 11.4	x: 0.567 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.4

VERIFICAÇÕES (ABNT NBR 14762:2010)														Estado
Barras	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _y V _s	N _m M _y	N _m M _v	M _t	
N129/N130	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.7	h = 1.8	x: 0.85 m h = 2.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0.85 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 3.2	x: 0.85 m h = 6.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.0
N130/N131	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 7.4	h = 5.7	x: 0.85 m h = 10.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 1.1	x: 0.85 m h = 1.1	N.A. ⁽³⁾	x: 0.85 m h = 13.5	x: 0.85 m h = 20.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.0
N131/N132	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 1.8	h = 4.1	x: 0 m h = 15.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.4	h = 2.6	x: 0 m h = 2.5	N.A. ⁽³⁾	x: 0 m h = 24.5	x: 0 m h = 15.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.5
N132/N133	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.1	h = 8.7	x: 0.85 m h = 6.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.3	h = 1.8	x: 0.85 m h = 0.4	N.A. ⁽³⁾	x: 0.85 m h = 18.0	x: 0.85 m h = 8.8	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.0
N133/N134	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 5.0	h = 10.1	x: 0.85 m h = 4.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.7	x: 0.85 m h = 0.2	N.A. ⁽³⁾	x: 0.85 m h = 14.7	x: 0.85 m h = 7.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.7
N134/N135	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 5.2	h = 10.5	x: 0.85 m h = 4.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.6	x: 0.85 m h = 0.2	N.A. ⁽³⁾	x: 0.85 m h = 15.9	x: 0.85 m h = 7.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.9
N135/N136	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.2	h = 8.1	x: 0 m h = 2.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 11.9	x: 0 m h = 4.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.9
N136/N127	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.0	h = 5.4	x: 0.85 m h = 5.3	x: 0.85 m h = 7.6	x: 0 m h = 0.5	h = 0.7	x: 0.85 m h = 0.3	x: 0.85 m h = 0.6	x: 0.85 m h = 16.8	x: 0.85 m h = 10.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.8
N52/N344	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.567 m h = 1.1	x: 0 m h = 1.1	x: 0 m h = 8.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 1.4	x: 0.567 m h = 1.4	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 0 m h = 6.7	x: 0 m h = 12.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.9
N344/N342	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.567 m h = 1.0	x: 0 m h = 1.9	x: 0 m h = 7.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 1.1	x: 0.567 m h = 2.1	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 11.2	x: 0 m h = 4.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.2
N342/N144	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.567 m h = 1.4	x: 0 m h = 3.1	x: 0.567 m h = 7.3	x: 0.567 m h = 16.6	x: 0.567 m h = 1.8	x: 0.567 m h = 2.5	x: 0.567 m h = 0.6	x: 0.567 m h = 2.8	x: 0.567 m h = 26.2	x: 0.567 m h = 12.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2
N144/N143	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 1.0	x: 0 m h = 3.7	x: 0.851 m h = 1.8	x: 0.851 m h = 12.0	x: 0.851 m h = 2.0	x: 0.851 m h = 0.6	x: 0.851 m h < 0.1	x: 0.851 m h = 1.5	x: 0.851 m h = 16.9	x: 0.851 m h = 6.8	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.9
N143/N142	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 3.2	x: 0 m h = 9.4	x: 0.851 m h = 6.2	x: 0 m h = 9.6	x: 0 m h = 1.5	x: 0.851 m h = 1.2	x: 0.851 m h = 0.4	x: 0 m h = 0.9	x: 0.851 m h = 23.0	x: 0 m h = 9.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.0
N142/N141	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 5.8	x: 0 m h = 15.5	x: 0 m h = 4.9	x: 0 m h = 13.3	x: 0 m h = 1.7	x: 0.851 m h = 0.7	x: 0 m h = 0.2	x: 0 m h = 1.8	x: 0 m h = 31.7	x: 0 m h = 16.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.7
N141/N140	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 2.8	x: 0 m h = 10.2	x: 0.851 m h = 6.6	x: 0.851 m h = 20.9	x: 0.851 m h = 2.1	x: 0.851 m h = 1.9	x: 0.851 m h = 0.5	x: 0.851 m h = 4.4	x: 0.851 m h = 36.2	x: 0.851 m h = 16.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 36.2
N140/N139	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 0.3	x: 0 m h = 1.6	x: 0 m h = 5.7	x: 0.851 m h = 13.0	x: 0.851 m h = 2.2	x: 0.851 m h = 1.6	x: 0 m h = 0.3	x: 0.851 m h = 1.7	x: 0.851 m h = 17.4	x: 0.851 m h = 4.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.4
N139/N138	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 0.7	x: 0 m h = 2.6	x: 0.851 m h = 12.1	x: 0 m h = 8.4	x: 0 m h = 1.5	x: 0.851 m h = 2.2	x: 0.851 m h = 1.5	x: 0 m h = 0.7	x: 0.851 m h = 10.4	x: 0.851 m h = 18.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.4
N138/N137	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 1.1	x: 0 m h = 3.0	x: 0 m h = 6.2	x: 0.851 m h = 7.5	x: 0.851 m h = 1.5	x: 0 m h = 0.6	x: 0.851 m h = 0.6	x: 0 m h = 0.6	x: 0 m h = 7.9	x: 0 m h = 12.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.1
N137/N128	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.851 m h = 0.3	x: 0 m h = 1.7	x: 0.851 m h = 4.4	x: 0.851 m h = 12.5	x: 0.851 m h = 1.7	x: 0.851 m h = 0.7	x: 0.851 m h = 0.2	x: 0.851 m h = 1.6	x: 0.851 m h = 17.9	x: 0 m h = 3.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9
N135/N138	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.84 m h = 2.3	x: 0 m h = 1.5	x: 0.84 m h = 7.7	M _{sd} = 0.00 N.A. ⁽²⁾	h < 0.1	h = 1.7	x: 0.84 m h = 0.6	N.A. ⁽³⁾	x: 0.84 m h = 6.3	x: 0.84 m h = 10.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.1
N133/N140	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.755 m h = 1.0	x: 0 m h = 1.3	x: 0 m h = 9.4	x: 0.755 m h = 18.7	h = 1.0	h = 1.9	x: 0 m h = 0.9	x: 0.755 m h = 3.5	x: 0.755 m h = 21.8	x: 0.755 m h = 12.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.8
N131/N142	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.67 m h = 6.7	x: 0.116 m h = 4.8	x: 0.116 m h = 17.1	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 1.7	x: 0.116 m h = 2.9	N.A. ⁽³⁾	x: 0.116 m h = 16.6	x: 0.116 m h = 26.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.9
N129/N144	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.585 m h = 4.2	x: 0 m h = 2.8	x: 0.585 m h = 7.0	x: 0.585 m h = 9.2	h = 0.4	h = 2.2	x: 0.585 m h = 0.5	x: 0.585 m h = 0.8	x: 0.585 m h = 11.6	x: 0.585 m h = 18.8	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.8
N136/N137	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.883 m h = 2.7	x: 0 m h = 2.0	x: 0.883 m h = 1.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.2	x: 0.883 m h < 0.1	N.A. ⁽³⁾	x: 0.883 m h = 5.2	x: 0.883 m h = 7.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.4
N134/N139	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.798 m h = 0.4	x: 0 m h = 0.5	x: 0.798 m h = 6.5	M _{sd} = 0.00 N.A. ⁽²⁾	h < 0.1	h = 0.1	x: 0.798 m h = 0.4	N.A. ⁽³⁾	x: 0.798 m h = 7.2	x: 0 m h = 4.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.2
N132/N141	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.713 m h = 2.5	x: 0 m h = 4.4	x: 0 m h = 8.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 0.6	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 0 m h = 17.7	x: 0 m h = 11.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.7
N130/N143	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.628 m h = 4.5	x: 0 m h = 3.2	x: 0.628 m h = 2.7	x: 0.628 m h = 9.3	h = 0.8	h = 0.3	x: 0.628 m h = 0.1	x: 0.628 m h = 0.9	x: 0.628 m h = 9.8	x: 0.628 m h = 16.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.2
N136/N128	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.256 m h = 2.2	x: 0 m h = 5.6	x: 1.256 m h = 7.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.2	h = 0.8	x: 1.256 m h = 0.6	N.A. ⁽³⁾	x: 1.256 m h = 14.6	x: 1.256 m h = 10.6	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.6
N135/N137	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.225 m h = 1.8	x: 0 m h = 5.0	x: 0 m h = 5.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.225 m h = 0.2	h = 0.4	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 11.0	x: 0 m h = 6.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N134/N138	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.195 m h = 0.6	x: 0 m h = 0.8	x: 1.195 m h = 10.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 1.195 m h = 1.0	N.A. ⁽³⁾	x: 1.195 m h = 7.7	x: 1.195 m h = 11.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N133/N139	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.166 m h = 1.6	x: 0 m h = 2.0	x: 0 m h = 13.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.166 m h = 0.2	h = 0.4	x: 0 m h = 1.9	N.A. ⁽³⁾	x: 0 m h = 11.4	x: 0 m h = 15.7	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.7

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _x V _y	M _y V _x	N _x M _y	N _y M _x	M _t	
N132/N140	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 5.5	x: 0 m h = 5.6	x: 1.137 m h = 16.6	x: 1.137 m h = 10.8	x: 0 m h = 0.5	h = 0.4	x: 1.137 m h = 2.8	x: 1.137 m h = 1.2	x: 1.137 m h = 21.7	x: 1.137 m h = 32.0	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.0
N131/N141	x: 0.379 m (b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 6.5	x: 0.135 m h = 6.8	x: 0.135 m h = 23.8	M ₁₃₁ = 0.00 N.A. ⁽²⁾	x: 1.109 m h = 0.2	h = 2.0	x: 0.135 m h = 5.7	N.A. ⁽³⁾	x: 0.135 m h = 23.7	x: 0.135 m h = 32.5	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.5
N130/N142	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 4.3	x: 0 m h = 10.4	x: 1.082 m h = 13.7	M ₁₃₀ = 0.00 N.A. ⁽²⁾	x: 1.082 m h = 0.2	h = 1.3	x: 1.082 m h = 1.9	N.A. ⁽³⁾	x: 1.082 m h = 24.5	x: 1.082 m h = 13.3	M ₁₃₀ = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.5
N145/N146	(b _u /t) £ 90 Passa	I _u £ 300.0 I _y £ 300.0 Passa	x: 0.925 m h = 0.1	N ₁₄₅ = 0.00 N.A. ⁽¹⁾	M ₁₄₅ = 0.00 N.A. ⁽²⁾	M ₁₄₆ = 0.00 N.A. ⁽²⁾	h = 0.1	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₄₅ = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.1
N31/N295	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 12.1	h = 8.4	x: 0.417 m h = 13.1	x: 0.417 m h = 31.5	x: 0.417 m h = 9.8	h = 1.5	x: 0.417 m h = 1.7	x: 0.417 m h = 10.9	x: 0.417 m h = 32.0	x: 0.417 m h = 53.5	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.5
N295/N293	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 12.1	h = 7.9	x: 0 m h = 9.9	x: 0 m h = 11.9	x: 0.567 m h = 0.6	h = 1.2	x: 0 m h = 1.0	x: 0 m h = 1.4	x: 0 m h = 18.9	x: 0 m h = 28.5	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.5
N293/N147	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 12.1	h = 7.5	x: 0 m h = 4.2	M ₁₄₇ = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.9	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 10.6	x: 0 m h = 18.1	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.1
N147/N148	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 15.6	h = 10.8	x: 0 m h = 1.3	x: 0 m h = 9.7	x: 0.65 m h = 0.6	h = 0.4	x: 0 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 7.3	x: 0 m h = 26.5	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.5
N148/N149	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 40.0	h = 30.5	x: 0.85 m h = 1.3	x: 0.212 m h = 48.0	x: 0.85 m h = 2.9	h = 0.3	x: 0.85 m h < 0.1	x: 0.212 m h = 23.1	x: 0.212 m h = 59.6	x: 0.212 m h = 89.2	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.2
N149/N150	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 27.0	h = 20.1	x: 0.85 m h = 0.8	M ₁₄₉ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.5	h = 0.1	x: 0.85 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 32.4	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.4
N150/N151	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 16.2	h = 11.8	x: 0.85 m h = 0.7	M ₁₅₀ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.1	x: 0.85 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.85 m h = 10.4	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.2
N151/N152	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 9.6	h = 6.6	M ₁₅₁ = 0.00 N.A. ⁽²⁾	M ₁₅₂ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.6
N152/N153	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 4.1	h = 2.6	M ₁₅₂ = 0.00 N.A. ⁽²⁾	M ₁₅₃ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.1
N153/N154	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 1.7	h = 1.0	M ₁₅₃ = 0.00 N.A. ⁽²⁾	M ₁₅₄ = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 1.7
N154/N145	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h < 0.1	h < 0.1	M ₁₅₄ = 0.00 N.A. ⁽²⁾	M ₁₄₅ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₁ = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.1
N32/N296	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 34.9	x: 0 m h = 67.9	x: 0.567 m h = 5.7	x: 0 m h = 42.3	x: 0 m h = 3.5	x: 0.567 m h = 1.8	x: 0.567 m h = 0.4	x: 0 m h = 18.0	x: 0 m h = 113.5	x: 0 m h = 60.6	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 113.5
N296/N294	x: 0.284 m (b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 31.7	x: 0 m h = 62.6	x: 0 m h = 7.2	x: 0 m h = 15.3	x: 0 m h = 1.6	x: 0 m h = 1.0	x: 0 m h = 0.5	x: 0 m h = 2.4	x: 0 m h = 77.6	x: 0 m h = 43.8	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.6
N294/N162	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 31.2	x: 0 m h = 62.4	x: 0 m h = 3.7	x: 0 m h = 10.6	x: 0 m h = 1.3	x: 0 m h = 1.1	x: 0 m h = 0.1	x: 0 m h = 1.1	x: 0 m h = 73.8	x: 0 m h = 37.8	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.8
N162/N161	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 30.6	x: 0 m h = 70.8	x: 0 m h = 2.0	x: 0 m h = 13.5	x: 0.851 m h = 1.5	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 1.8	x: 0 m h = 85.2	x: 0 m h = 31.2	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.2
N161/N160	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 32.5	x: 0 m h = 75.5	x: 0 m h = 1.2	x: 0 m h = 21.2	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0 m h < 0.1	x: 0 m h = 4.5	x: 0 m h = 97.0	x: 0 m h = 45.3	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 97.0
N160/N159	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 22.4	x: 0 m h = 52.9	x: 0 m h = 1.0	x: 0.851 m h = 12.2	x: 0.851 m h = 1.6	x: 0.851 m h = 0.2	x: 0 m h < 0.1	x: 0.851 m h = 1.5	x: 0.851 m h = 65.5	x: 0 m h = 23.0	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.5
N159/N158	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 14.7	x: 0 m h = 35.7	x: 0.851 m h = 1.2	x: 0.851 m h = 13.0	x: 0.851 m h = 1.6	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0.851 m h = 1.7	x: 0 m h = 46.7	x: 0.851 m h = 19.5	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.7
N158/N157	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 8.5	x: 0 m h = 21.5	x: 0 m h = 0.9	x: 0.851 m h = 10.7	x: 0.851 m h = 1.7	x: 0 m h = 0.2	x: 0 m h < 0.1	x: 0.851 m h = 1.2	x: 0 m h = 31.3	x: 0 m h = 5.6	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.3
N157/N156	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 4.7	x: 0 m h = 12.6	x: 0.851 m h = 2.0	x: 0.851 m h = 8.1	x: 0.851 m h = 1.4	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0.851 m h = 0.7	x: 0.851 m h = 20.7	x: 0.851 m h = 7.6	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.7
N156/N155	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 1.8	x: 0 m h = 5.3	x: 0 m h = 1.2	x: 0.851 m h = 9.1	x: 0.851 m h = 1.6	x: 0 m h = 0.2	x: 0 m h < 0.1	x: 0.851 m h = 0.9	x: 0.851 m h = 14.6	x: 0 m h = 4.5	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.6
N155/N146	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.6	x: 0 m h = 2.4	x: 0.851 m h = 1.1	x: 0.851 m h = 9.3	x: 0 m h = 1.6	x: 0.851 m h = 0.1	x: 0.851 m h < 0.1	x: 0.851 m h = 0.9	x: 0.851 m h = 12.8	N.A. ⁽⁵⁾	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.8
N153/N156	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 1.6	x: 0 m h = 3.7	M ₁₅₃ = 0.00 N.A. ⁽²⁾	M ₁₅₆ = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.7
N151/N158	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 4.3	x: 0 m h = 9.2	x: 0.755 m h = 1.0	x: 0.755 m h = 14.0	h = 0.9	h = 0.2	x: 0.755 m h < 0.1	x: 0.755 m h = 2.0	x: 0 m h = 20.1	x: 0.755 m h = 13.3	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.1
N149/N160	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 7.2	x: 0 m h = 14.6	x: 0 m h = 1.2	x: 0 m h = 33.0	h = 2.6	h = 0.3	x: 0 m h < 0.1	x: 0 m h = 10.9	x: 0 m h = 47.8	x: 0 m h = 27.3	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.8
N147/N162	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.585 m h = 3.1	x: 0 m h = 1.9	x: 0.585 m h = 2.2	x: 0.585 m h = 10.3	h = 0.8	h = 0.7	x: 0.585 m h = 0.1	x: 0.585 m h = 1.1	x: 0.585 m h = 9.2	x: 0.585 m h = 14.2	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.2
N154/N155	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.883 m h = 1.0	x: 0 m h = 2.9	M ₁₅₄ = 0.00 N.A. ⁽²⁾	M ₁₅₅ = 0.00 N.A. ⁽²⁾	h = 0.2	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M ₁₃₂ = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.9

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Barras	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _v V _s	N _m M _y	N _m M _v	M _t	
N152/N157	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.798 m h = 3.7	x: 0 m h = 8.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.798 m h = 9.1	h = 0.6	V _{sd} = 0.00 N.A. ⁽⁷⁾	N.A. ⁽³⁾	x: 0.798 m h = 0.8	x: 0.798 m h = 17.9	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9
N150/N159	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.713 m h = 6.7	x: 0 m h = 14.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.713 m h = 17.0	h = 1.3	h < 0.1	N.A. ⁽³⁾	x: 0.713 m h = 2.9	x: 0.713 m h = 31.1	x: 0 m h = 16.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.1
N148/N161	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.628 m h = 3.6	x: 0.081 m h = 2.4	x: 0.081 m h = 1.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.081 m h < 0.1	N.A. ⁽³⁾	x: 0.081 m h = 2.4	x: 0.628 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.7
N154/N146	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.256 m h = 3.0	x: 0 m h = 2.1	x: 1.256 m h = 1.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.1	h = 0.1	x: 1.256 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 1.256 m h = 6.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.7
N153/N155	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.225 m h = 4.1	x: 0 m h = 3.3	M _{sd} = 0.00 N.A. ⁽²⁾	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h < 0.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.1
N152/N156	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 9.2	x: 0 m h = 7.9	x: 1.195 m h = 1.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 1.195 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 1.195 m h = 13.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.1
N151/N157	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 10.8	x: 0 m h = 9.5	x: 0 m h = 1.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0 m h = 9.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.8
N150/N158	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 17.1	x: 0 m h = 15.0	x: 0 m h = 1.4	x: 1.137 m h = 7.2	x: 0 m h = 0.4	h < 0.1	x: 0 m h < 0.1	x: 1.137 m h = 0.5	N.A. ⁽⁴⁾	x: 1.137 m h = 20.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.0
N149/N159	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 19.9	x: 0 m h = 17.5	x: 0 m h = 1.9	x: 1.109 m h = 10.4	x: 0 m h = 0.5	h < 0.1	x: 0 m h < 0.1	x: 1.109 m h = 1.1	x: 0 m h = 11.9	x: 1.109 m h = 30.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.7
N148/N160	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 25.4	x: 0 m h = 22.4	x: 1.082 m h = 2.2	x: 0 m h = 11.5	x: 1.082 m h = 0.3	h < 0.1	x: 1.082 m h = 0.1	x: 0 m h = 1.3	x: 0 m h = 30.1	x: 0 m h = 36.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 36.9
N163/N164	(b _w /t) £ 90 Passa	I _w £ 300.0 I _y £ 300.0 Passa	x: 0.925 m h = 0.1	N _{tsd} = 0.00 N.A. ⁽¹⁾	x: 0.925 m h = 1.4	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.2	x: 0.925 m h < 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.925 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.7
N35/N287	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 10.6	h = 7.0	x: 0.417 m h = 9.3	x: 0.417 m h = 19.8	x: 0.417 m h = 6.8	h = 1.1	x: 0.417 m h = 0.9	x: 0.417 m h = 4.4	x: 0.417 m h = 19.9	x: 0.417 m h = 39.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.6
N287/N285	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 10.7	h = 6.9	x: 0 m h = 6.3	x: 0 m h = 10.5	x: 0.567 m h = 0.5	h = 0.9	x: 0 m h = 0.4	x: 0 m h = 1.1	x: 0 m h = 15.6	x: 0 m h = 26.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.4
N285/N165	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 10.8	h = 6.8	x: 0 m h = 2.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.6	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 9.8	x: 0 m h = 18.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.3
N165/N166	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 14.5	h = 10.4	x: 0.65 m h = 1.8	x: 0 m h = 9.4	x: 0.65 m h = 0.5	h = 0.2	x: 0.649 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 16.9	x: 0 m h = 24.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.6
N166/N167	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 39.5	h = 30.5	x: 0.212 m h = 2.5	x: 0.212 m h = 47.0	x: 0.85 m h = 2.9	h = 0.5	x: 0.212 m h = 0.1	x: 0.212 m h = 22.2	x: 0.212 m h = 59.8	x: 0.212 m h = 89.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.1
N167/N168	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 26.4	h = 20.2	x: 0 m h = 2.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.5	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 23.5	x: 0 m h = 33.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.3
N168/N169	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 15.7	h = 11.9	x: 0 m h = 1.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 14.0	x: 0 m h = 19.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.0
N169/N170	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 9.1	h = 6.8	x: 0 m h = 1.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 9.1	x: 0.425 m h = 11.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N170/N171	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 3.7	h = 2.7	x: 0 m h = 1.8	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 3.8	x: 0 m h = 5.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.9
N171/N172	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.5	h = 1.0	x: 0 m h = 1.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 2.2	x: 0 m h = 3.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.5
N172/N163	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h < 0.1	h < 0.1	x: 0 m h = 0.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.4	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.4
N36/N288	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 32.7	x: 0 m h = 66.5	x: 0 m h = 6.4	x: 0 m h = 35.6	x: 0 m h = 2.9	x: 0 m h = 2.5	x: 0 m h = 0.4	x: 0 m h = 12.8	x: 0 m h = 108.5	x: 0 m h = 57.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 108.5
N288/N286	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 30.6	x: 0 m h = 62.8	x: 0 m h = 6.4	x: 0 m h = 14.3	x: 0 m h = 1.5	x: 0 m h = 1.3	x: 0 m h = 0.4	x: 0 m h = 2.1	x: 0 m h = 83.4	x: 0 m h = 39.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.4
N286/N180	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 30.4	x: 0 m h = 62.8	x: 0.567 m h = 4.3	x: 0 m h = 9.0	x: 0 m h = 1.0	x: 0.567 m h = 1.4	x: 0.567 m h = 0.2	x: 0 m h = 0.8	x: 0 m h = 75.8	x: 0 m h = 36.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.8
N180/N179	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 30.1	x: 0 m h = 71.1	x: 0 m h = 4.7	x: 0.851 m h = 11.7	x: 0.851 m h = 1.5	x: 0 m h = 1.0	x: 0 m h = 0.2	x: 0.851 m h = 1.4	x: 0 m h = 84.8	x: 0 m h = 37.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.8
N179/N178	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 32.3	x: 0 m h = 76.2	x: 0.851 m h = 2.7	x: 0 m h = 21.8	x: 0 m h = 1.8	x: 0 m h = 0.9	x: 0.851 m h = 0.1	x: 0 m h = 4.8	x: 0 m h = 99.9	x: 0 m h = 46.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 99.9
N178/N177	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 22.3	x: 0 m h = 53.2	x: 0.851 m h = 1.5	x: 0.851 m h = 12.4	x: 0.851 m h = 1.6	x: 0 m h = 0.4	x: 0.851 m h < 0.1	x: 0.851 m h = 1.6	x: 0.851 m h = 67.2	x: 0.851 m h = 29.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 67.2
N177/N176	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 14.7	x: 0 m h = 36.0	x: 0.851 m h = 2.2	x: 0 m h = 10.8	x: 0 m h = 1.6	x: 0.851 m h = 0.5	x: 0.851 m h = 0.1	x: 0 m h = 1.2	x: 0 m h = 47.2	x: 0.851 m h = 17.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.2
N176/N175	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 8.3	x: 0 m h = 20.9	x: 0 m h = 3.9	x: 0 m h = 8.8	x: 0.851 m h = 1.4	x: 0 m h = 1.0	x: 0 m h = 0.2	x: 0 m h = 0.8	x: 0 m h = 33.5	x: 0 m h = 13.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.5
N175/N174	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 4.5	x: 0 m h = 12.2	x: 0.851 m h = 2.8	x: 0.851 m h = 7.5	x: 0 m h = 1.4	x: 0 m h = 0.7	x: 0.851 m h = 0.1	x: 0.851 m h = 0.6	x: 0.851 m h = 21.9	x: 0 m h = 9.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.9

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V _y	M.V _s	N.M _s M _y	N.M _s M _y	M _t	
N174/N173	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 1.5	x: 0 m h = 5.4	x: 0.851 m h = 2.2	x: 0.851 m h = 9.3	x: 0.851 m h = 1.5	x: 0 m h = 0.4	x: 0.851 m h < 0.1	x: 0.851 m h = 0.9	x: 0.851 m h = 16.5	x: 0 m h = 5.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.5
N173/N164	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.3	x: 0 m h = 3.8	x: 0.851 m h = 1.4	x: 0 m h = 9.2	x: 0 m h = 1.7	x: 0.851 m h = 0.3	x: 0.851 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 12.6	N.A. ⁽⁵⁾	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.6
N171/N174	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 1.6	x: 0 m h = 3.4	x: 0 m h = 2.7	M _{15d} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.84 m h = 10.7	x: 0 m h = 5.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.7
N169/N176	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 4.4	x: 0 m h = 9.0	x: 0 m h = 3.2	x: 0 m h = 10.4	h = 0.7	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 1.1	x: 0 m h = 22.6	x: 0 m h = 12.5	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.6
N167/N178	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 7.2	x: 0 m h = 14.7	x: 0 m h = 2.8	x: 0 m h = 33.1	h = 2.6	h = 0.3	x: 0 m h = 0.1	x: 0 m h = 11.0	x: 0 m h = 50.5	x: 0 m h = 28.5	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.5
N165/N180	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.585 m h = 3.4	x: 0 m h = 2.2	x: 0 m h = 2.6	x: 0.585 m h = 7.8	h = 0.6	h = 0.4	x: 0 m h = 0.1	x: 0.585 m h = 0.6	x: 0 m h = 7.4	x: 0.585 m h = 13.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.4
N172/N173	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.883 m h = 1.1	x: 0 m h = 2.6	x: 0.883 m h = 2.1	M _{15d} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.1	x: 0.883 m h < 0.1	N.A. ⁽³⁾	x: 0.883 m h = 8.1	x: 0.883 m h = 4.0	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.1
N170/N175	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.798 m h = 3.7	x: 0 m h = 8.1	x: 0 m h = 3.1	x: 0.798 m h = 9.0	h = 0.6	V _{15d} = 0.00 N.A. ⁽⁷⁾	N.A. ⁽³⁾	x: 0.798 m h = 0.8	x: 0.798 m h = 20.1	x: 0.798 m h = 10.3	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.1
N168/N177	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.713 m h = 6.7	x: 0 m h = 14.0	x: 0 m h = 2.5	x: 0.713 m h = 17.0	h = 1.3	h < 0.1	x: 0 m h = 0.1	x: 0.713 m h = 2.9	x: 0.713 m h = 33.3	x: 0 m h = 18.0	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.3
N166/N179	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.628 m h = 3.8	x: 0.081 m h = 2.7	x: 0.628 m h = 2.9	M _{15d} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.5	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.354 m h = 5.2	x: 0.628 m h = 7.8	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N172/N164	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.256 m h = 2.7	x: 0 m h = 2.2	x: 1.256 m h = 4.9	M _{15d} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.2	h = 0.3	x: 1.256 m h = 0.2	N.A. ⁽³⁾	x: 1.256 m h = 5.5	x: 1.256 m h = 11.9	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.9
N171/N173	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.225 m h = 3.8	x: 0 m h = 3.4	x: 0 m h = 3.8	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.225 m h = 6.7	x: 0 m h = 9.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.4
N170/N174	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 9.1	x: 0 m h = 8.0	x: 0 m h = 4.4	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 1.195 m h = 12.2	x: 0 m h = 16.3	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.3
N169/N175	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 10.6	x: 0 m h = 9.6	x: 1.166 m h = 4.7	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.166 m h = 15.1	x: 1.166 m h = 19.6	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.6
N168/N176	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 17.1	x: 0 m h = 14.9	x: 1.137 m h = 4.6	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 1.137 m h = 0.2	N.A. ⁽³⁾	x: 1.137 m h = 20.7	x: 1.137 m h = 25.1	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.1
N167/N177	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 19.9	x: 0 m h = 17.4	x: 0 m h = 4.3	x: 1.109 m h = 10.3	x: 0 m h = 0.5	h = 0.1	x: 0 m h = 0.2	x: 1.109 m h = 1.1	x: 1.109 m h = 26.5	x: 1.109 m h = 34.1	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.1
N166/N178	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 25.7	x: 0 m h = 22.0	x: 0 m h = 6.7	x: 0 m h = 10.8	x: 1.082 m h = 0.2	h = 0.3	x: 0 m h = 0.4	x: 0 m h = 1.2	x: 0 m h = 33.8	x: 0 m h = 43.2	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.2
N181/N182	(b _u /t) £ 90 Passa	x: 0 m I _u £ 200.0 I _y £ 200.0 Passa	x: 0.925 m h = 0.1	x: 0 m h < 0.1	x: 0.925 m h = 1.9	x: 0.925 m h = 8.8	h = 0.3	h = 0.3	x: 0.925 m h < 0.1	x: 0.925 m h = 0.8	N.A. ⁽⁴⁾	x: 0.925 m h = 9.0	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.0
N39/N279	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 5.3	h = 3.7	x: 0.417 m h = 6.0	x: 0.417 m h = 21.1	x: 0.567 m h = 4.5	h = 1.4	x: 0.417 m h = 0.4	x: 0.417 m h = 4.7	x: 0.417 m h = 17.6	x: 0.417 m h = 28.1	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.1
N279/N277	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 4.7	h = 3.6	x: 0 m h = 5.6	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.2	h = 0.7	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 7.6	x: 0 m h = 14.3	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.3
N277/N183	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 4.5	h = 3.8	x: 0 m h = 4.6	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.4	h = 0.5	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 8.4	x: 0 m h = 14.2	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.2
N183/N184	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 8.0	h = 7.2	x: 0.65 m h = 5.7	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.65 m h = 0.2	h = 0.2	x: 0.649 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 12.8	x: 0 m h = 17.6	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.6
N184/N185	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 29.7	h = 26.2	x: 0.212 m h = 7.7	x: 0.212 m h = 34.1	x: 0.85 m h = 2.1	h = 1.2	x: 0.212 m h = 0.6	x: 0.212 m h = 11.7	x: 0.212 m h = 50.8	x: 0.212 m h = 66.8	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.8
N185/N186	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 19.1	h = 17.0	x: 0 m h = 5.6	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.4	h = 0.8	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 20.5	x: 0 m h = 25.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.4
N186/N187	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 10.6	h = 9.7	x: 0 m h = 3.4	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.7	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 11.6	x: 0 m h = 13.7	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.7
N187/N188	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 5.6	h = 5.3	x: 0 m h = 2.9	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 7.8	x: 0.85 m h = 7.7	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N188/N189	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 1.5	h = 1.7	x: 0 m h = 2.9	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 3.2	x: 0.85 m h = 4.8	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.8
N189/N190	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 0.4	h = 0.5	x: 0 m h = 2.2	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 2.1	x: 0 m h = 2.9	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.9
N190/N181	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h < 0.1	h = 0.1	x: 0 m h = 1.1	M _{15d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.7	N.A. ⁽⁵⁾	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.7
N40/N280	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 23.6	x: 0 m h = 46.9	x: 0.567 m h = 8.1	x: 0 m h = 21.1	x: 0 m h = 1.8	x: 0.567 m h = 1.5	x: 0.567 m h = 0.7	x: 0 m h = 4.5	x: 0 m h = 70.2	x: 0 m h = 37.8	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.2
N280/N278	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 24.4	x: 0 m h = 46.8	x: 0 m h = 7.4	x: 0 m h = 9.0	x: 0 m h = 1.2	x: 0 m h = 2.1	x: 0 m h = 0.6	x: 0 m h = 0.8	x: 0 m h = 63.2	x: 0 m h = 33.4	M _{15d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.2

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Barras	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _v V _s	N _m M _y	N _m M _v	M _t	
N278/N198	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 24.5	x: 0 m h = 46.0	x: 0.567 m h = 4.4	x: 0.567 m h = 11.1	x: 0.567 m h = 1.2	x: 0 m h = 1.5	x: 0.567 m h = 0.2	x: 0.567 m h = 1.3	x: 0.567 m h = 61.5	x: 0 m h = 31.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.5
N198/N197	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 24.2	x: 0 m h = 53.3	x: 0.851 m h = 3.1	x: 0.851 m h = 11.4	x: 0.851 m h = 1.6	x: 0 m h = 0.8	x: 0.851 m h = 0.1	x: 0.851 m h = 1.3	x: 0.851 m h = 65.3	x: 0.851 m h = 31.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.3
N197/N196	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 26.5	x: 0 m h = 58.0	x: 0.851 m h = 5.0	x: 0 m h = 19.9	x: 0 m h = 1.7	x: 0 m h = 1.1	x: 0.851 m h = 0.3	x: 0 m h = 4.0	x: 0 m h = 79.1	x: 0 m h = 39.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.1
N196/N195	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 17.5	x: 0 m h = 38.6	x: 0.851 m h = 2.9	x: 0.851 m h = 11.5	x: 0.851 m h = 1.6	x: 0 m h = 0.4	x: 0.851 m h = 0.1	x: 0.851 m h = 1.3	x: 0.851 m h = 51.8	x: 0.851 m h = 24.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.8
N195/N194	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 11.1	x: 0 m h = 24.6	x: 0.851 m h = 1.1	x: 0 m h = 11.2	x: 0 m h = 1.7	x: 0.851 m h = 0.4	x: 0.851 m h = 0.1	x: 0 m h = 1.3	x: 0 m h = 35.9	x: 0 m h = 17.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.9
N194/N193	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 6.0	x: 0 m h = 15.4	x: 0 m h = 4.9	x: 0 m h = 13.3	x: 0 m h = 1.6	x: 0 m h = 1.4	x: 0 m h = 0.3	x: 0 m h = 1.8	x: 0 m h = 30.5	x: 0 m h = 14.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.5
N193/N192	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 2.8	x: 0 m h = 8.6	x: 0.851 m h = 4.9	x: 0.851 m h = 6.9	x: 0 m h = 1.4	x: 0 m h = 1.1	x: 0.851 m h = 0.2	x: 0.851 m h = 0.5	x: 0.851 m h = 18.4	x: 0 m h = 7.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.4
N192/N191	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.4	x: 0 m h = 3.3	x: 0.851 m h = 3.1	x: 0.851 m h = 8.7	x: 0.851 m h = 1.5	x: 0 m h = 0.6	x: 0.851 m h = 0.1	x: 0.851 m h = 0.8	x: 0.851 m h = 13.7	x: 0.851 m h = 5.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.7
N191/N182	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	N _{tsd} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 2.1	x: 0.426 m h = 1.5	x: 0 m h = 10.2	x: 0 m h = 1.8	x: 0 m h = 0.3	x: 0.426 m h = 0.1	x: 0 m h = 1.1	x: 0 m h = 12.6	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.6
N189/N192	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 1.2	x: 0 m h = 1.6	x: 0 m h = 4.1	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.3	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 7.3	x: 0 m h = 4.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.3
N187/N194	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 3.8	x: 0 m h = 6.9	x: 0 m h = 5.4	x: 0.755 m h = 8.4	h = 0.6	h = 0.3	x: 0 m h = 0.3	x: 0.755 m h = 0.7	x: 0 m h = 19.2	x: 0 m h = 10.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.2
N185/N196	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 6.5	x: 0 m h = 11.9	x: 0 m h = 4.4	x: 0 m h = 25.4	h = 2.0	h = 0.5	x: 0 m h = 0.2	x: 0 m h = 6.5	x: 0 m h = 39.7	x: 0 m h = 24.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.7
N183/N198	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.585 m h = 3.3	x: 0 m h = 2.3	x: 0 m h = 3.2	x: 0.585 m h = 11.1	h = 0.8	h = 0.5	x: 0 m h = 0.1	x: 0.585 m h = 1.2	x: 0 m h = 6.3	x: 0.585 m h = 14.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.5
N190/N191	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.883 m h = 0.7	x: 0 m h = 0.8	x: 0.883 m h = 2.9	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	x: 0.883 m h = 5.3	x: 0.883 m h = 3.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.3
N188/N193	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.798 m h = 3.2	x: 0 m h = 6.1	x: 0.798 m h = 4.9	x: 0.798 m h = 7.9	h = 0.5	h = 0.1	x: 0.798 m h = 0.1	x: 0.798 m h = 0.6	x: 0.798 m h = 16.2	x: 0.798 m h = 9.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.2
N186/N195	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.713 m h = 5.9	x: 0 m h = 11.2	x: 0 m h = 4.2	x: 0.713 m h = 14.6	h = 1.1	h = 0.1	x: 0 m h = 0.2	x: 0.713 m h = 2.2	x: 0.713 m h = 27.7	x: 0.713 m h = 16.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.7
N184/N197	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.628 m h = 3.6	x: 0.081 m h = 2.8	x: 0.628 m h = 4.1	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 1.1	x: 0.628 m h = 0.2	N.A. ⁽³⁾	x: 0.628 m h = 5.2	x: 0.628 m h = 8.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.8
N190/N182	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.256 m h = 0.9	x: 0 m h = 1.2	x: 1.256 m h = 6.8	x: 1.256 m h = 7.8	x: 1.256 m h = 0.3	h = 0.4	x: 1.256 m h = 0.5	x: 1.256 m h = 0.6	x: 1.256 m h = 7.5	x: 1.256 m h = 12.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.7
N189/N191	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.225 m h = 1.8	x: 0 m h = 2.5	x: 0 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.225 m h = 6.2	x: 0 m h = 8.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.3
N188/N192	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 6.9	x: 0 m h = 6.9	x: 1.195 m h = 6.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.195 m h = 10.8	x: 0 m h = 14.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.9
N187/N193	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 8.2	x: 0 m h = 8.4	x: 0 m h = 7.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.1	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 1.166 m h = 14.3	x: 0 m h = 17.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.5
N186/N194	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 13.6	x: 0 m h = 13.0	x: 1.137 m h = 8.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 1.137 m h = 0.6	N.A. ⁽³⁾	x: 1.137 m h = 17.2	x: 1.137 m h = 23.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.7
N185/N195	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 16.1	x: 0 m h = 15.5	x: 0 m h = 6.7	x: 1.109 m h = 8.5	x: 0 m h = 0.5	h = 0.1	x: 0 m h = 0.5	x: 1.109 m h = 0.7	x: 1.109 m h = 23.8	x: 1.109 m h = 27.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.8
N184/N196	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 21.9	x: 0 m h = 20.1	x: 0 m h = 9.4	x: 0 m h = 7.3	x: 0 m h = 0.2	h = 0.4	x: 0 m h = 0.9	x: 0.18 m h = 0.5	x: 0 m h = 29.5	x: 0 m h = 35.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.2
N199/N200	(b _w /t) £ 90 Passa	x: 0 m I _w £ 200.0 I _y £ 200.0 Passa	x: 0.925 m h = 0.1	x: 0 m h = 0.1	x: 0.925 m h = 1.9	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.3	x: 0.925 m h = 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.925 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.9
N43/N271	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 2.7	h = 2.1	x: 0.417 m h = 8.5	x: 0.417 m h = 35.9	x: 0.567 m h = 8.7	h = 1.3	x: 0.417 m h = 0.7	x: 0.417 m h = 13.6	x: 0.417 m h = 32.3	x: 0.417 m h = 46.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.8
N271/N269	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 2.0	h = 1.7	x: 0 m h = 6.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.9	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 6.3	x: 0 m h = 9.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.0
N269/N201	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.7	h = 1.8	x: 0 m h = 3.7	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.5	h = 0.6	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 6.6	x: 0 m h = 9.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.6
N201/N202	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 5.0	h = 5.1	x: 0.65 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.2	x: 0.65 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 9.3	x: 0.488 m h = 12.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.4
N202/N203	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 23.9	h = 23.1	x: 0.212 m h = 6.2	x: 0.212 m h = 27.0	x: 0.85 m h = 1.7	h = 1.0	x: 0.212 m h = 0.4	x: 0.212 m h = 7.3	x: 0.212 m h = 44.7	x: 0.212 m h = 53.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.8
N203/N204	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 15.0	h = 14.7	x: 0 m h = 4.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.7	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 17.5	x: 0 m h = 19.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.9

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _y V _s	N _m M _y	N _m M _v	M _t	
N204/N205	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 7.9	h = 8.0	x: 0 m h = 2.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 10.3	x: 0 m h = 10.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.7
N205/N206	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 3.8	h = 4.1	x: 0 m h = 2.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 5.6	x: 0 m h = 5.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.6
N206/N207	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 0.6	h = 1.0	x: 0 m h = 3.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.3	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 2.2	x: 0 m h = 3.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.7
N207/N208	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h < 0.1	h = 0.2	x: 0 m h = 2.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 3.0	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 3.0
N208/N199	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h < 0.1	h = 0.1	x: 0 m h = 1.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 2.3	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.3
N44/N272	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 19.0	x: 0 m h = 35.3	x: 0.567 m h = 5.5	x: 0 m h = 14.7	x: 0 m h = 1.3	h = 0.8	x: 0.567 m h = 0.3	x: 0 m h = 2.2	x: 0 m h = 50.9	x: 0 m h = 30.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.9
N272/N270	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 21.2	x: 0 m h = 37.2	x: 0 m h = 7.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 1.1	x: 0 m h = 2.0	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 0 m h = 51.0	x: 0 m h = 25.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.0
N270/N216	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.567 m h = 21.0	x: 0 m h = 36.6	x: 0.567 m h = 5.2	x: 0.567 m h = 13.3	x: 0.567 m h = 1.3	x: 0 m h = 1.8	x: 0.567 m h = 0.3	x: 0.567 m h = 1.8	x: 0.567 m h = 54.9	x: 0 m h = 27.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.9
N216/N215	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 21.3	x: 0 m h = 42.3	x: 0.851 m h = 2.7	x: 0.851 m h = 11.6	x: 0.851 m h = 1.7	x: 0 m h = 0.5	x: 0.851 m h = 0.1	x: 0.851 m h = 1.4	x: 0.851 m h = 55.1	x: 0 m h = 28.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.1
N215/N214	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 23.6	x: 0 m h = 46.6	x: 0.851 m h = 4.9	x: 0 m h = 17.8	x: 0 m h = 1.7	x: 0 m h = 0.9	x: 0.851 m h = 0.3	x: 0 m h = 3.2	x: 0 m h = 65.6	x: 0 m h = 36.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.6
N214/N213	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 15.1	x: 0 m h = 29.9	x: 0.851 m h = 2.2	x: 0.851 m h = 10.9	x: 0.851 m h = 1.5	x: 0 m h = 0.3	x: 0.851 m h < 0.1	x: 0.851 m h = 1.2	x: 0.851 m h = 42.1	x: 0.851 m h = 21.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 42.1
N213/N212	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 8.8	x: 0 m h = 18.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.851 m h = 11.2	x: 0 m h = 1.6	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0.851 m h = 1.3	x: 0.851 m h = 30.6	N.A. ⁽⁵⁾	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.6
N212/N211	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 4.9	x: 0 m h = 10.5	x: 0 m h = 4.2	x: 0 m h = 10.0	x: 0.851 m h = 1.6	x: 0 m h = 1.2	x: 0 m h = 0.2	x: 0 m h = 1.0	x: 0 m h = 21.8	x: 0 m h = 13.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.8
N211/N210	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 2.0	x: 0 m h = 5.1	x: 0.851 m h = 6.2	x: 0 m h = 7.0	x: 0.851 m h = 1.4	x: 0 m h = 1.1	x: 0.851 m h = 0.4	x: 0 m h = 0.5	x: 0.851 m h = 17.7	x: 0.851 m h = 6.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.7
N210/N209	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 0.9	x: 0 m h = 4.1	x: 0.851 m h = 8.6	x: 0.851 m h = 1.5	x: 0 m h = 0.3	x: 0 m h = 0.2	x: 0.851 m h = 0.8	x: 0.851 m h = 12.0	x: 0.213 m h = 1.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.0
N209/N200	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.851 m h < 0.1	x: 0 m h = 1.4	x: 0 m h = 1.7	x: 0 m h = 9.2	x: 0 m h = 1.7	x: 0.851 m h = 0.3	x: 0 m h < 0.1	x: 0 m h = 0.9	x: 0 m h = 9.8	x: 0 m h = 9.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.8
N207/N210	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.84 m h = 0.9	x: 0 m h = 0.8	x: 0 m h = 2.6	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.84 m h = 5.2	x: 0 m h = 3.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.2
N205/N212	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.755 m h = 3.4	x: 0 m h = 5.5	x: 0 m h = 4.3	x: 0.755 m h = 11.3	h = 0.7	h = 0.4	x: 0 m h = 0.2	x: 0.755 m h = 1.3	x: 0.755 m h = 18.0	x: 0 m h = 9.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.0
N203/N214	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.67 m h = 6.0	x: 0 m h = 10.0	x: 0 m h = 3.4	x: 0 m h = 21.4	h = 1.7	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 4.6	x: 0 m h = 34.1	x: 0 m h = 22.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.1
N208/N209	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.883 m h = 0.3	x: 0 m h = 0.1	x: 0.883 m h = 1.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	x: 0.883 m h = 2.9	x: 0.883 m h = 2.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 2.9
N206/N211	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.798 m h = 2.8	x: 0 m h = 4.8	x: 0 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.4	h < 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.798 m h = 12.5	x: 0.798 m h = 8.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.5
N204/N213	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.713 m h = 5.4	x: 0 m h = 9.3	x: 0 m h = 3.2	x: 0.713 m h = 11.8	h = 0.9	h < 0.1	x: 0 m h = 0.1	x: 0.713 m h = 1.4	x: 0.713 m h = 23.2	x: 0.713 m h = 15.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.2
N202/N215	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.628 m h = 3.3	x: 0.081 m h = 2.7	x: 0.628 m h = 3.4	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 1.0	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.628 m h = 5.2	x: 0.628 m h = 7.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.7
N208/N200	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.256 m h = 0.2	x: 0 m h = 0.5	x: 1.256 m h = 5.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.3	h = 0.3	x: 1.256 m h = 0.2	N.A. ⁽³⁾	x: 1.256 m h = 8.0	x: 1.256 m h = 9.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.3
N207/N209	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.225 m h = 1.0	x: 0 m h = 1.7	x: 0 m h = 3.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.225 m h = 0.1	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 1.225 m h = 4.6	x: 0 m h = 5.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.2
N206/N210	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.195 m h = 5.4	x: 0 m h = 6.0	x: 0 m h = 5.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.195 m h = 8.8	x: 0 m h = 12.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.1
N205/N211	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.166 m h = 6.6	x: 0 m h = 7.4	x: 0 m h = 6.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.1	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 1.166 m h = 12.2	x: 0 m h = 13.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.6
N204/N212	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.137 m h = 11.4	x: 0 m h = 11.9	x: 1.137 m h = 6.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.2	x: 1.137 m h = 0.4	N.A. ⁽³⁾	x: 1.137 m h = 16.1	x: 1.137 m h = 22.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.5
N203/N213	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.109 m h = 13.6	x: 0 m h = 14.3	x: 0 m h = 5.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.4	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 1.109 m h = 22.1	x: 0 m h = 23.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.7
N202/N214	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.082 m h = 18.8	x: 0 m h = 18.9	x: 0 m h = 8.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.4	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 26.9	x: 0 m h = 28.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.9
N217/N218	(b _u /t) £ 90 Passa	x: 0 m I _u £ 200.0 I _y £ 200.0 Passa	x: 0.925 m h = 0.1	x: 0 m h < 0.1	x: 0.925 m h = 3.0	x: 0.925 m h = 11.4	h = 0.4	h = 0.4	x: 0.925 m h = 0.1	x: 0.925 m h = 1.3	x: 0.463 m h = 5.4	x: 0.925 m h = 14.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.4

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)														Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _v V _s	N _c M _s M _y	N _i M _s M _y	M _t		
N49/N263	(b _w /t) E 200 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.8	h = 2.1	x: 0.417 m h = 7.3	x: 0.417 m h = 44.7	x: 0.567 m h = 11.1	h = 1.0	x: 0.417 m h = 0.5	x: 0.417 m h = 21.2	x: 0.417 m h = 34.5	x: 0.417 m h = 54.4	M _{13d} = 0.00 N.A. ⁽³⁾	PASSA h = 54.4	
N263/N261	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 1.6	h = 1.4	x: 0 m h = 6.4	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.5	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 0.567 m h = 5.6	x: 0 m h = 9.7	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.7	
N261/N219	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 1.2	h = 1.4	x: 0 m h = 5.8	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.3	h = 0.4	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 6.0	x: 0 m h = 9.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.2	
N219/N220	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 4.4	h = 4.6	x: 0 m h = 6.1	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.2	x: 0 m h = 0.4	N.A. ⁽³⁾	x: 0.65 m h = 9.4	x: 0.65 m h = 13.5	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.5	
N220/N221	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 23.2	h = 22.4	x: 0.212 m h = 7.0	x: 0.212 m h = 26.2	x: 0.85 m h = 1.7	h = 1.1	x: 0.212 m h = 0.5	x: 0.212 m h = 6.9	x: 0.212 m h = 43.8	x: 0.212 m h = 53.6	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.6	
N221/N222	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 14.3	h = 14.1	x: 0 m h = 4.9	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.7	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 17.7	x: 0 m h = 21.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.2	
N222/N223	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 7.3	h = 7.5	x: 0 m h = 3.7	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.6	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 9.3	x: 0 m h = 11.8	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.8	
N223/N224	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 3.5	h = 3.8	x: 0 m h = 3.8	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 6.1	x: 0 m h = 8.7	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.7	
N224/N225	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 0.4	h = 0.8	x: 0 m h = 4.9	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.5	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 3.8	x: 0 m h = 5.3	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.3	
N225/N226	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h < 0.1	h = 0.3	x: 0 m h = 4.1	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.6	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 5.0	x: 0 m h = 1.8	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.0	
N226/N217	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 0.1	h = 0.1	x: 0 m h = 1.9	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.3	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 4.6	x: 0 m h = 2.0	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.6	
N50/N264	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 17.6	x: 0 m h = 31.9	x: 0.567 m h = 4.6	x: 0 m h = 17.1	x: 0 m h = 1.5	x: 0 m h = 0.7	x: 0.567 m h = 0.2	x: 0 m h = 3.0	x: 0 m h = 51.7	x: 0 m h = 29.0	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.7	
N264/N262	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 20.0	x: 0 m h = 35.8	x: 0 m h = 4.0	M _{13d} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 1.1	x: 0.567 m h = 1.3	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0.567 m h = 42.6	x: 0 m h = 23.8	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 42.6	
N262/N234	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 19.6	x: 0 m h = 34.8	x: 0.567 m h = 4.8	x: 0 m h = 11.5	x: 0 m h = 1.9	x: 0.567 m h = 1.1	x: 0.567 m h = 0.2	x: 0 m h = 1.4	x: 0 m h = 45.7	x: 0 m h = 26.6	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 45.7	
N234/N233	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 19.8	x: 0 m h = 41.3	x: 0.851 m h = 2.8	x: 0 m h = 16.2	x: 0 m h = 1.7	x: 0.851 m h = 0.3	x: 0.851 m h = 0.1	x: 0 m h = 2.6	x: 0 m h = 57.9	x: 0 m h = 29.7	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.9	
N233/N232	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 22.1	x: 0 m h = 45.5	x: 0.851 m h = 4.4	x: 0 m h = 17.3	x: 0 m h = 1.7	x: 0.851 m h = 0.8	x: 0.851 m h = 0.2	x: 0 m h = 3.0	x: 0 m h = 63.0	x: 0 m h = 33.4	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.0	
N232/N231	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 13.5	x: 0 m h = 28.6	x: 0.851 m h = 2.0	x: 0.851 m h = 12.0	x: 0.851 m h = 1.6	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0.851 m h = 1.5	x: 0.851 m h = 41.9	x: 0.851 m h = 20.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.9	
N231/N230	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 7.3	x: 0 m h = 16.9	x: 0.851 m h = 1.6	x: 0 m h = 13.3	x: 0 m h = 2.1	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0 m h = 1.8	x: 0 m h = 31.1	x: 0 m h = 15.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.1	
N230/N229	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 3.9	x: 0 m h = 10.2	x: 0.851 m h = 3.8	x: 0 m h = 21.1	x: 0 m h = 2.0	x: 0.851 m h = 1.2	x: 0.851 m h = 0.2	x: 0 m h = 4.5	x: 0 m h = 34.6	x: 0 m h = 17.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.6	
N229/N228	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 1.1	x: 0 m h = 5.0	x: 0.851 m h = 8.3	x: 0.851 m h = 7.6	x: 0.851 m h = 1.5	x: 0.851 m h = 1.3	x: 0.851 m h = 0.7	x: 0.851 m h = 0.6	x: 0.851 m h = 20.7	x: 0.851 m h = 7.1	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.7	
N228/N227	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.1	x: 0 m h = 1.7	x: 0 m h = 4.8	x: 0.851 m h = 9.5	x: 0.851 m h = 1.5	x: 0 m h = 0.3	x: 0 m h = 0.2	x: 0.851 m h = 0.9	x: 0.851 m h = 14.1	x: 0 m h = 2.9	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.1	
N227/N218	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h < 0.1	x: 0 m h = 2.4	x: 0.851 m h = 2.0	x: 0 m h = 11.2	x: 0 m h = 1.9	x: 0.851 m h = 0.4	x: 0.851 m h < 0.1	x: 0 m h = 1.3	x: 0 m h = 13.3	N.A. ⁽⁵⁾	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.3	
N225/N228	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.84 m h = 0.8	x: 0 m h = 0.7	x: 0.84 m h = 3.8	M _{13d} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.84 m h = 0.1	N.A. ⁽³⁾	x: 0.84 m h = 6.0	x: 0 m h = 3.6	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.0	
N223/N230	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.755 m h = 3.3	x: 0 m h = 5.3	x: 0 m h = 5.1	x: 0.755 m h = 8.9	h = 0.3	h = 0.3	x: 0 m h = 0.3	x: 0.755 m h = 0.8	x: 0.755 m h = 17.5	x: 0.755 m h = 9.6	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.5	
N221/N232	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.67 m h = 5.9	x: 0 m h = 10.0	x: 0 m h = 3.8	x: 0 m h = 20.9	h = 1.7	h = 0.5	x: 0 m h = 0.1	x: 0 m h = 4.4	x: 0 m h = 32.8	x: 0 m h = 22.0	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.8	
N219/N234	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.585 m h = 3.0	x: 0 m h = 2.3	x: 0.585 m h = 3.1	x: 0.585 m h = 7.2	h = 0.5	h = 0.6	x: 0.585 m h = 0.1	x: 0.585 m h = 0.5	x: 0.585 m h = 7.1	x: 0.585 m h = 12.3	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.3	
N226/N227	(b _w /t) E 90 Passa	I _w E 300.0 I _y E 300.0 Passa	x: 0.883 m h = 0.3	N _{13d} = 0.00 N.A. ⁽¹⁾	x: 0.883 m h = 3.0	M _{13d} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.1	x: 0.883 m h = 0.1	N.A. ⁽³⁾	N.A. ⁽⁴⁾	x: 0.883 m h = 5.2	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.2	
N224/N229	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.798 m h = 2.7	x: 0 m h = 4.6	x: 0 m h = 5.0	M _{13d} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 0.1	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0.798 m h = 15.7	x: 0.798 m h = 9.6	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.7	
N222/N231	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.713 m h = 5.3	x: 0 m h = 9.2	x: 0 m h = 4.2	x: 0.713 m h = 13.0	h = 0.9	h = 0.1	x: 0 m h = 0.2	x: 0.713 m h = 1.7	x: 0.713 m h = 25.3	x: 0.713 m h = 16.0	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.3	
N220/N233	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.628 m h = 3.2	x: 0.081 m h = 2.7	x: 0.628 m h = 3.3	M _{13d} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.8	x: 0.628 m h = 0.1	N.A. ⁽³⁾	x: 0.628 m h = 5.9	x: 0.628 m h = 9.9	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.9	
N226/N218	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	N _{13d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 0.5	x: 1.256 m h = 7.7	x: 1.256 m h = 9.8	x: 1.256 m h = 0.4	h = 0.5	x: 1.256 m h = 0.6	x: 1.256 m h = 1.0	x: 1.256 m h = 17.8	N.A. ⁽⁵⁾	M _{13d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.8	

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Barras	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _y V _s	N _m M _y	N _m M _v	M _t	
N225/N227	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.225 m h = 0.8	x: 0 m h = 1.5	x: 0 m h = 5.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.1	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 1.225 m h = 5.6	x: 0 m h = 7.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.0
N224/N228	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.195 m h = 5.2	x: 0 m h = 5.8	x: 0 m h = 7.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.2	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0.398 m h = 9.4	x: 0 m h = 13.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.5
N223/N229	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.166 m h = 6.3	x: 0 m h = 7.1	x: 0 m h = 7.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h < 0.1	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 1.166 m h = 14.0	x: 0 m h = 17.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.5
N222/N230	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.137 m h = 11.2	x: 0 m h = 11.8	x: 1.137 m h = 7.5	x: 1.137 m h = 8.2	x: 1.137 m h = 0.3	h = 0.1	x: 1.137 m h = 0.6	x: 1.137 m h = 0.7	x: 1.137 m h = 18.3	x: 1.137 m h = 26.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.1
N221/N231	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.109 m h = 13.6	x: 0 m h = 14.2	x: 1.109 m h = 6.4	x: 1.109 m h = 7.1	x: 0 m h = 0.4	h = 0.1	x: 1.109 m h = 0.4	x: 1.109 m h = 0.5	x: 1.109 m h = 23.1	x: 1.109 m h = 26.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2
N220/N232	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 1.082 m h = 18.9	x: 0 m h = 18.9	x: 0 m h = 7.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 26.3	x: 0 m h = 29.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 29.4
N235/N236	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.925 m h = 3.5	x: 0.155 m h = 3.1	x: 0.155 m h = 10.9	x: 0.155 m h = 28.3	h = 1.6	h = 0.9	x: 0.155 m h = 1.2	x: 0.155 m h = 8.0	x: 0.155 m h = 18.1	x: 0.155 m h = 41.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.2
N53/N545	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.8	h = 5.0	x: 0 m h = 13.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.283 m h = 0.5	h = 2.1	x: 0 m h = 1.8	N.A. ⁽³⁾	x: 0 m h = 20.6	x: 0 m h = 14.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.6
N545/N257	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.8	h = 5.1	x: 0 m h = 8.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.283 m h = 0.3	h = 2.1	x: 0 m h = 0.8	N.A. ⁽³⁾	x: 0 m h = 14.9	x: 0 m h = 10.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.9
N257/N258	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.0	h = 3.7	x: 0 m h = 6.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.1	h = 1.7	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 10.4	x: 0 m h = 7.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.4
N258/N237	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 1.3	h = 2.3	x: 0.567 m h = 4.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 0.5	h = 1.3	x: 0.567 m h = 0.2	N.A. ⁽³⁾	x: 0.567 m h = 11.3	x: 0.567 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.3
N237/N238	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.8	h = 1.9	x: 0.85 m h = 2.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.4	x: 0.85 m h < 0.1	N.A. ⁽³⁾	x: 0.85 m h = 3.3	x: 0.85 m h = 6.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.1
N238/N239	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 7.5	h = 5.8	x: 0.85 m h = 10.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.4	h = 1.2	x: 0.85 m h = 1.1	N.A. ⁽³⁾	x: 0.85 m h = 14.2	x: 0.85 m h = 20.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.5
N239/N240	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 1.7	h = 3.9	x: 0 m h = 15.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.3	h = 2.6	x: 0 m h = 2.5	N.A. ⁽³⁾	x: 0 m h = 24.2	x: 0 m h = 14.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.2
N240/N241	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 4.0	h = 8.5	x: 0.85 m h = 6.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.3	h = 1.8	x: 0.85 m h = 0.4	N.A. ⁽³⁾	x: 0.85 m h = 17.9	x: 0.85 m h = 8.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9
N241/N242	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 4.9	h = 9.9	x: 0.85 m h = 4.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.2	h = 0.7	x: 0.85 m h = 0.2	N.A. ⁽³⁾	x: 0.85 m h = 14.8	x: 0.85 m h = 7.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.8
N242/N243	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 5.1	h = 10.3	x: 0.85 m h = 5.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.1	h = 0.6	x: 0.85 m h = 0.3	N.A. ⁽³⁾	x: 0.85 m h = 15.9	x: 0.85 m h = 7.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.9
N243/N244	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 4.1	h = 7.8	x: 0 m h = 2.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.85 m h = 0.3	h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.85 m h = 13.1	x: 0 m h = 5.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.1
N244/N235	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	h = 2.9	h = 5.3	x: 0.85 m h = 5.6	x: 0.85 m h = 20.8	x: 0 m h = 1.1	h = 0.8	x: 0.85 m h = 0.3	x: 0.85 m h = 4.3	x: 0.85 m h = 30.3	x: 0.85 m h = 13.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.3
N54/N259	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 0.9	x: 0 m h = 1.2	x: 0 m h = 8.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.567 m h = 1.3	x: 0.567 m h = 1.4	x: 0 m h = 0.8	N.A. ⁽³⁾	x: 0 m h = 10.1	x: 0 m h = 11.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N259/N260	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 0.9	x: 0 m h = 2.1	x: 0 m h = 7.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 1.1	x: 0.567 m h = 2.1	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 12.1	x: 0 m h = 4.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.1
N260/N252	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.567 m h = 1.5	x: 0 m h = 3.4	x: 0.567 m h = 6.7	x: 0.567 m h = 16.6	x: 0.567 m h = 1.8	x: 0.567 m h = 2.5	x: 0.567 m h = 0.5	x: 0.567 m h = 2.8	x: 0.567 m h = 26.2	x: 0.567 m h = 12.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2
N252/N251	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 1.0	x: 0 m h = 4.0	x: 0 m h = 2.0	x: 0.851 m h = 12.0	x: 0.851 m h = 2.0	x: 0.851 m h = 0.6	x: 0 m h < 0.1	x: 0.851 m h = 1.5	x: 0.851 m h = 17.4	x: 0.851 m h = 7.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.4
N251/N250	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 3.3	x: 0 m h = 9.9	x: 0.851 m h = 6.2	x: 0 m h = 9.6	x: 0 m h = 1.5	x: 0.851 m h = 1.2	x: 0.851 m h = 0.4	x: 0 m h = 1.0	x: 0.851 m h = 23.4	x: 0 m h = 9.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.4
N250/N249	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 6.0	x: 0 m h = 15.9	x: 0 m h = 4.8	x: 0 m h = 13.6	x: 0 m h = 1.7	x: 0.851 m h = 0.8	x: 0 m h = 0.2	x: 0 m h = 1.9	x: 0 m h = 32.6	x: 0 m h = 17.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.6
N249/N248	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 3.0	x: 0 m h = 10.6	x: 0.851 m h = 7.2	x: 0.851 m h = 21.2	x: 0.851 m h = 2.1	x: 0.851 m h = 2.0	x: 0.851 m h = 0.6	x: 0.851 m h = 4.5	x: 0.851 m h = 37.5	x: 0.851 m h = 17.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.5
N248/N247	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.2	x: 0 m h = 1.4	x: 0 m h = 4.7	x: 0.851 m h = 13.2	x: 0.851 m h = 2.2	x: 0.851 m h = 1.4	x: 0 m h = 0.2	x: 0.851 m h = 1.8	x: 0.851 m h = 17.5	x: 0 m h = 2.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.5
N247/N246	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.4	x: 0 m h = 2.5	x: 0.851 m h = 10.3	x: 0 m h = 8.5	x: 0 m h = 1.5	x: 0.851 m h = 2.0	x: 0.851 m h = 1.1	x: 0 m h = 0.8	x: 0.851 m h = 15.8	x: 0.851 m h = 16.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.1
N246/N245	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.8	x: 0 m h = 2.8	x: 0 m h = 4.3	x: 0.851 m h = 8.0	x: 0.851 m h = 1.5	x: 0 m h = 0.5	x: 0 m h = 0.2	x: 0.851 m h = 0.7	x: 0.851 m h = 7.6	x: 0.851 m h = 10.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.8
N245/N236	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.851 m h = 0.2	x: 0 m h = 2.1	x: 0.851 m h = 3.8	x: 0.851 m h = 9.0	x: 0.851 m h = 1.5	x: 0.851 m h = 0.8	x: 0.851 m h = 0.2	x: 0.851 m h = 0.8	x: 0.851 m h = 14.5	x: 0 m h = 3.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.5
N243/N246	(b _w /t) E 90 Passa	I _w E 200.0 I _y E 200.0 Passa	x: 0.84 m h = 2.3	x: 0 m h = 1.5	x: 0.84 m h = 7.4	M _{sd} = 0.00 N.A. ⁽²⁾	h < 0.1	h = 1.7	x: 0.84 m h = 0.6	N.A. ⁽³⁾	x: 0.84 m h = 6.1	x: 0.84 m h = 9.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.5

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N241/N248	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.755 m h = 1.0	x: 0 m h = 1.3	x: 0 m h = 9.2	x: 0.755 m h = 19.1	h = 1.0	h = 1.9	x: 0 m h = 0.9	x: 0.755 m h = 3.6	x: 0.755 m h = 22.4	x: 0.755 m h = 13.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.4
N239/N250	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.67 m h = 6.6	x: 0.116 m h = 4.8	x: 0.116 m h = 17.2	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 1.6	x: 0.116 m h = 3.0	N.A. ⁽³⁾	x: 0.116 m h = 16.1	x: 0.116 m h = 26.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.3
N237/N252	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.585 m h = 4.2	x: 0 m h = 2.8	x: 0.585 m h = 6.9	x: 0.585 m h = 9.3	h = 0.4	h = 2.2	x: 0.585 m h = 0.5	x: 0.585 m h = 0.9	x: 0.585 m h = 11.5	x: 0.585 m h = 18.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.7
N244/N245	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.883 m h = 2.7	x: 0 m h = 2.1	x: 0.883 m h = 1.9	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.2	x: 0.883 m h < 0.1	N.A. ⁽³⁾	x: 0.883 m h = 5.6	x: 0.883 m h = 7.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.9
N242/N247	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.798 m h = 0.4	x: 0 m h = 0.4	x: 0.798 m h = 6.3	M _{1,34} = 0.00 N.A. ⁽²⁾	h < 0.1	h = 0.1	x: 0.798 m h = 0.4	N.A. ⁽³⁾	x: 0.798 m h = 6.9	x: 0 m h = 4.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.9
N240/N249	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.713 m h = 2.6	x: 0 m h = 4.4	x: 0 m h = 8.5	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 0.6	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 0 m h = 17.6	x: 0 m h = 11.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.6
N238/N251	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.628 m h = 4.5	x: 0 m h = 3.2	x: 0.628 m h = 2.8	x: 0.628 m h = 9.1	h = 0.8	h = 0.3	x: 0.628 m h = 0.1	x: 0.628 m h = 0.8	x: 0.628 m h = 9.8	x: 0.628 m h = 16.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.0
N244/N236	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.256 m h = 2.1	x: 0 m h = 5.4	x: 1.256 m h = 8.8	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.256 m h = 0.2	h = 0.8	x: 1.256 m h = 0.8	N.A. ⁽³⁾	x: 1.256 m h = 16.1	x: 1.256 m h = 9.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.1
N243/N245	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.225 m h = 1.8	x: 0 m h = 5.0	x: 0 m h = 5.6	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.225 m h = 0.1	h = 0.4	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 10.8	x: 0 m h = 6.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.8
N242/N246	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.195 m h = 0.6	x: 0 m h = 0.7	x: 1.195 m h = 10.1	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 1.195 m h = 1.0	N.A. ⁽³⁾	x: 1.195 m h = 7.5	x: 1.195 m h = 11.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.2
N241/N247	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.166 m h = 1.6	x: 0 m h = 2.0	x: 0 m h = 13.3	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.166 m h = 0.2	h = 0.4	x: 0 m h = 1.8	N.A. ⁽³⁾	x: 0 m h = 11.2	x: 0 m h = 15.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.3
N240/N248	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.137 m h = 5.5	x: 0 m h = 5.7	x: 1.137 m h = 16.4	x: 1.137 m h = 11.0	x: 0 m h = 0.5	h = 0.4	x: 1.137 m h = 2.7	x: 1.137 m h = 1.2	x: 1.137 m h = 21.7	x: 1.137 m h = 32.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.1
N239/N249	x: 0.379 m (b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.109 m h = 6.6	x: 0.135 m h = 6.9	x: 0.135 m h = 24.1	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.109 m h = 0.2	h = 2.1	x: 0.135 m h = 5.8	N.A. ⁽³⁾	x: 0.135 m h = 23.5	x: 0.135 m h = 32.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.5
N238/N250	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.082 m h = 4.3	x: 0 m h = 10.3	x: 1.082 m h = 14.0	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.082 m h = 0.2	h = 1.4	x: 1.082 m h = 2.0	N.A. ⁽³⁾	x: 1.082 m h = 24.7	x: 1.082 m h = 13.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.7
N48/N393	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 7.6	x: 0.089 m h = 49.5	x: 1.761 m h = 11.6	h = 0.8	x: 1.761 m h = 6.8	x: 0.089 m h = 24.9	x: 1.761 m h = 1.4	x: 0.089 m h = 60.3	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.3
N393/N387	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 7.4	x: 1.769 m h = 24.7	x: 0 m h = 8.1	h = 0.4	x: 1.769 m h = 0.6	x: 1.769 m h = 6.1	x: 0 m h = 0.6	x: 0 m h = 34.5	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.5
N387/N52	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 7.2	x: 1.713 m h = 39.8	x: 1.713 m h = 18.2	h = 0.9	x: 0 m h = 6.1	x: 1.713 m h = 16.2	x: 1.713 m h = 3.3	x: 1.713 m h = 62.3	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 62.3
N48/N399	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 5.1	x: 0.076 m h = 36.3	x: 0.076 m h = 22.3	h = 1.3	x: 1.644 m h = 5.8	x: 0.076 m h = 13.5	x: 0.076 m h = 5.0	x: 0.076 m h = 59.0	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.0
N399/N405	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 5.0	x: 0 m h = 20.3	x: 0 m h = 5.5	h = 0.1	x: 0 m h = 0.4	x: 0 m h = 4.1	x: 0 m h = 0.3	x: 0 m h = 26.1	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.1
N405/N42	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 5.0	x: 1.57 m h = 41.2	x: 1.57 m h = 11.5	h = 0.8	x: 0 m h = 6.2	x: 1.57 m h = 17.4	x: 1.57 m h = 1.3	x: 1.57 m h = 51.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.9
N42/N411	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.668 m h = 1.2	x: 0.092 m h = 6.2	x: 0.092 m h = 37.1	x: 0.092 m h = 24.1	h = 1.4	x: 1.668 m h = 5.8	x: 0.092 m h = 14.1	x: 0.092 m h = 5.8	x: 0.092 m h = 61.1	x: 0.092 m h = 56.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.1
N411/N417	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 1.2	x: 0 m h = 5.9	x: 0 m h = 20.3	x: 0 m h = 7.7	h = 0.2	x: 0 m h = 0.5	x: 0 m h = 4.1	x: 0 m h = 0.6	x: 0 m h = 25.7	x: 0 m h = 28.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.1
N417/N38	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.626 m h = 1.3	x: 0 m h = 5.6	x: 1.627 m h = 47.2	x: 1.627 m h = 15.2	h = 0.9	x: 0 m h = 6.5	x: 1.627 m h = 22.6	x: 1.627 m h = 2.3	x: 1.627 m h = 55.3	x: 1.627 m h = 59.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.5
N38/N423	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.107 m h = 6.7	x: 0.107 m h = 40.8	x: 0.107 m h = 32.2	h = 1.7	x: 1.729 m h = 6.2	x: 0.107 m h = 17.0	x: 0.107 m h = 10.4	x: 0.107 m h = 77.3	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.3
N423/N429	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 0.1	x: 0 m h = 7.1	x: 1.745 m h = 23.8	x: 0 m h = 9.2	h = 0.4	x: 1.745 m h = 0.3	x: 1.745 m h = 5.7	x: 0 m h = 0.9	x: 1.745 m h = 39.7	x: 0 m h = 16.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.7
N429/N34	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.708 m h = 0.4	x: 0 m h = 7.2	x: 1.709 m h = 39.6	x: 1.709 m h = 11.0	h = 0.7	x: 0 m h = 6.2	x: 1.709 m h = 16.0	x: 1.709 m h = 1.2	x: 1.709 m h = 51.5	x: 1.709 m h = 21.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.5
N34/N435	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.665 m h = 3.3	x: 0.091 m h = 5.7	x: 0.091 m h = 42.6	x: 0.091 m h = 29.7	h = 1.7	x: 1.665 m h = 6.1	x: 0.091 m h = 18.5	x: 0.091 m h = 8.9	x: 0.091 m h = 44.6	x: 0.091 m h = 75.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.5
N435/N441	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 3.1	x: 0 m h = 5.4	x: 1.675 m h = 17.6	x: 0 m h = 10.4	h = 0.4	x: 0 m h = 0.2	x: 1.675 m h = 3.1	x: 0 m h = 1.1	x: 0 m h = 19.9	x: 0 m h = 28.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.6
N441/N2	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.621 m h = 3.2	x: 0 m h = 5.2	x: 1.622 m h = 45.6	x: 1.622 m h = 16.7	h = 1.0	x: 0 m h = 6.3	x: 1.622 m h = 21.2	x: 1.622 m h = 2.8	x: 1.622 m h = 32.3	x: 1.622 m h = 60.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.4
N32/N453	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.5	h = 1.4	x: 0.075 m h = 35.8	x: 0.075 m h = 21.3	h = 1.4	x: 1.644 m h = 5.9	x: 0.075 m h = 13.2	x: 0.075 m h = 4.6	x: 0.075 m h = 52.9	x: 0.075 m h = 59.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.8
N453/N447	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.4	h = 1.7	x: 0 m h = 22.6	x: 1.644 m h = 9.6	h = 0.3	x: 0 m h = 0.1	x: 0 m h = 5.1	x: 1.644 m h = 0.9	x: 1.644 m h = 31.1	x: 1.644 m h = 36.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 36.3

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)														Estado
	b/t	I	N _t	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _t M _x M _y	N _t M _y M _x	M _t		
N447/N2	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 4.4	h = 1.6	x: 1.569 m h = 35.7	x: 1.569 m h = 19.4	h = 1.2	x: 0 m h = 5.9	x: 1.569 m h = 13.1	x: 1.569 m h = 3.8	x: 1.569 m h = 50.9	x: 1.569 m h = 57.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.6	
N36/N465	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.665 m h = 3.8	x: 0.091 m h = 5.7	x: 0.091 m h = 43.1	x: 0.091 m h = 33.0	h = 2.1	x: 1.665 m h = 6.2	x: 0.091 m h = 18.9	x: 0.091 m h = 11.0	x: 0.091 m h = 46.4	x: 0.091 m h = 79.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.6	
N465/N459	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.675 m h = 3.4	x: 0 m h = 5.2	x: 1.675 m h = 17.7	x: 1.675 m h = 14.6	h = 0.7	x: 0 m h = 0.2	x: 1.675 m h = 3.1	x: 1.675 m h = 2.1	x: 1.675 m h = 18.1	x: 1.675 m h = 34.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.2	
N459/N32	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.621 m h = 3.2	x: 0 m h = 4.8	x: 1.622 m h = 45.5	x: 1.622 m h = 15.3	h = 0.8	x: 0 m h = 6.3	x: 1.622 m h = 21.1	x: 1.622 m h = 2.3	x: 1.622 m h = 41.7	x: 1.622 m h = 58.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.7	
N40/N477	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.107 m h = 5.6	x: 0.107 m h = 42.1	x: 0.107 m h = 37.2	h = 2.4	x: 1.729 m h = 6.4	x: 0.107 m h = 18.1	x: 0.107 m h = 13.9	x: 0.107 m h = 82.3	N.A. ⁽⁵⁾ N.A. ⁽⁶⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 82.3	
N477/N471	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.745 m h = 0.1	x: 0 m h = 6.4	x: 1.745 m h = 24.2	x: 1.745 m h = 20.3	h = 1.1	x: 1.745 m h = 0.3	x: 1.745 m h = 5.9	x: 1.745 m h = 4.1	x: 1.745 m h = 50.9	x: 1.745 m h = 13.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.9	
N471/N36	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.708 m h = 0.5	x: 0 m h = 6.8	x: 1.709 m h = 40.5	x: 1.709 m h = 10.7	h = 0.6	x: 0 m h = 6.3	x: 1.709 m h = 16.8	x: 1.709 m h = 1.1	x: 1.709 m h = 51.5	x: 1.709 m h = 21.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.5	
N44/N489	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.668 m h = 1.7	x: 0.092 m h = 6.2	x: 0.092 m h = 37.6	x: 0.092 m h = 27.4	h = 1.8	x: 1.668 m h = 5.9	x: 0.092 m h = 14.4	x: 0.092 m h = 7.5	x: 0.092 m h = 63.6	x: 0.092 m h = 60.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.6	
N489/N483	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.679 m h = 1.4	x: 0 m h = 5.8	x: 0 m h = 20.6	x: 1.679 m h = 14.8	h = 0.8	x: 0 m h = 0.5	x: 0 m h = 4.2	x: 1.679 m h = 2.2	x: 1.679 m h = 33.3	x: 1.679 m h = 28.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.3	
N483/N40	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.626 m h = 1.4	x: 0 m h = 5.4	x: 1.627 m h = 47.5	x: 1.627 m h = 13.7	h = 0.7	x: 0 m h = 6.5	x: 1.627 m h = 22.9	x: 1.627 m h = 1.9	x: 1.627 m h = 52.7	x: 1.627 m h = 58.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.8	
N50/N501	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.644 m h = 0.2	x: 0.076 m h = 5.1	x: 0.076 m h = 36.1	x: 0.076 m h = 24.4	h = 1.5	x: 1.644 m h = 5.8	x: 0.076 m h = 13.4	x: 0.076 m h = 6.0	x: 0.076 m h = 59.7	x: 0.076 m h = 55.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.7	
N501/N495	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.644 m h = 0.1	x: 0 m h = 5.0	x: 0 m h = 20.3	x: 1.644 m h = 13.0	h = 0.7	x: 0 m h = 0.4	x: 0 m h = 4.1	x: 1.644 m h = 1.7	x: 1.644 m h = 33.1	x: 1.644 m h = 16.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.1	
N495/N44	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.569 m h = 0.1	x: 0 m h = 4.9	x: 1.57 m h = 41.0	x: 1.57 m h = 9.5	h = 0.6	x: 0 m h = 6.1	x: 1.57 m h = 17.2	x: 1.57 m h = 0.9	x: 1.57 m h = 49.1	x: 1.57 m h = 27.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.1	
N50/N507	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 7.7	x: 0.089 m h = 48.5	x: 0.089 m h = 9.4	h = 0.5	x: 1.761 m h = 6.6	x: 0.089 m h = 23.9	x: 0.089 m h = 0.9	x: 0.089 m h = 57.4	N.A. ⁽⁵⁾ N.A. ⁽⁶⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.4	
N507/N513	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 7.5	x: 1.769 m h = 24.3	x: 0 m h = 15.5	h = 0.8	x: 1.769 m h = 0.6	x: 1.769 m h = 5.9	x: 0 m h = 2.4	x: 0 m h = 40.5	N.A. ⁽⁵⁾ N.A. ⁽⁶⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.5	
N513/N54	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 7.4	x: 1.713 m h = 38.7	x: 1.713 m h = 19.2	h = 1.1	x: 0 m h = 5.9	x: 1.713 m h = 15.3	x: 1.713 m h = 3.7	x: 1.713 m h = 61.0	N.A. ⁽⁵⁾ N.A. ⁽⁶⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.0	
N110/N398	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.69 m h = 0.5	x: 0.089 m h = 16.0	x: 1.69 m h = 21.5	x: 0.089 m h = 7.5	h = 0.4	x: 1.69 m h = 2.5	x: 1.69 m h = 4.7	x: 0.089 m h = 0.6	x: 1.69 m h = 42.3	x: 1.69 m h = 18.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 42.3	
N398/N392	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.769 m h = 0.4	x: 0 m h = 16.1	x: 0 m h = 21.5	x: 0 m h = 15.6	h = 0.9	x: 0 m h = 0.8	x: 0 m h = 4.6	x: 0 m h = 2.4	x: 0 m h = 52.1	x: 0 m h = 18.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.1	
N392/N128	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.783 m h = 0.5	x: 0 m h = 16.2	x: 1.784 m h = 28.7	x: 1.784 m h = 12.6	h = 0.8	x: 0 m h = 3.8	x: 1.784 m h = 8.3	x: 1.784 m h = 1.6	x: 1.784 m h = 55.2	x: 1.784 m h = 20.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.2	
N110/N404	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.639 m h = 5.3	x: 0.076 m h = 17.0	x: 0.076 m h = 15.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	h = 0.3	x: 1.639 m h = 2.6	x: 0.076 m h = 2.3	N.A. ⁽³⁾	x: 0.076 m h = 34.6	x: 0.076 m h = 18.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.6	
N404/N410	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.644 m h = 5.4	x: 0 m h = 17.1	x: 0 m h = 11.8	x: 1.644 m h = 11.1	h = 0.8	x: 0 m h = 0.5	x: 0 m h = 1.4	x: 1.644 m h = 1.2	x: 0 m h = 38.2	x: 0 m h = 18.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.2	
N410/N92	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.574 m h = 5.4	x: 0 m h = 17.3	x: 1.575 m h = 22.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	h = 0.3	x: 0 m h = 3.1	x: 1.575 m h = 4.9	N.A. ⁽³⁾	x: 1.575 m h = 38.3	x: 1.575 m h = 22.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.3	
N92/N416	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.583 m h = 4.2	x: 0.092 m h = 16.3	x: 0.092 m h = 25.4	x: 0.092 m h = 7.0	h = 0.3	x: 1.583 m h = 3.2	x: 0.092 m h = 6.6	x: 0.092 m h = 0.5	x: 0.092 m h = 46.0	x: 0.092 m h = 25.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.0	
N416/N422	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.679 m h = 4.3	x: 0 m h = 16.9	x: 1.679 m h = 9.2	x: 1.679 m h = 8.6	h = 0.6	x: 1.679 m h = 0.6	x: 1.679 m h = 0.9	x: 1.679 m h = 0.7	x: 1.679 m h = 33.4	x: 0 m h = 11.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.4	
N422/N74	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.711 m h = 4.4	x: 0 m h = 17.5	x: 1.712 m h = 17.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	h = 0.2	x: 0 m h = 2.5	x: 1.712 m h = 2.9	N.A. ⁽³⁾	x: 1.712 m h = 38.2	x: 1.712 m h = 16.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.2	
N74/N428	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.586 m h = 2.0	x: 0.107 m h = 16.7	x: 0.107 m h = 26.9	x: 0.107 m h = 9.1	h = 0.4	x: 1.586 m h = 4.0	x: 0.107 m h = 7.4	x: 0.107 m h = 0.8	x: 0.107 m h = 48.1	x: 0.107 m h = 24.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.1	
N428/N434	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.745 m h = 2.1	x: 0 m h = 17.5	x: 1.745 m h = 21.0	x: 0 m h = 8.0	h = 0.5	x: 1.745 m h = 1.2	x: 1.745 m h = 4.4	x: 0 m h = 0.6	x: 1.745 m h = 45.5	x: 1.745 m h = 14.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 45.5	
N434/N56	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.851 m h = 2.3	x: 0 m h = 18.5	x: 0 m h = 21.6	x: 1.852 m h = 7.4	h = 0.3	x: 0 m h = 2.5	x: 0 m h = 4.7	x: 1.852 m h = 0.5	x: 0 m h = 40.3	x: 0 m h = 16.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.3	
N56/N440	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.585 m h = 3.9	x: 0.091 m h = 14.9	x: 1.585 m h = 16.4	x: 0.091 m h = 7.8	h = 0.4	x: 1.585 m h = 2.8	x: 1.585 m h = 2.8	x: 0.091 m h = 0.6	x: 1.585 m h = 31.9	x: 0.091 m h = 20.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.9	
N440/N446	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.675 m h = 3.9	x: 0 m h = 15.4	x: 1.675 m h = 17.2	x: 0 m h = 9.7	h = 0.6	x: 0 m h = 0.2	x: 1.675 m h = 3.0	x: 0 m h = 1.0	x: 0 m h = 41.9	x: 0 m h = 21.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.9	
N446/N5	(b _u /t) £ 500 (b _t /t) £ 60 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.702 m h = 4.0	x: 0 m h = 15.9	x: 1.703 m h = 17.7	x: 1.703 m h = 5.8	h = 0.3	x: 0 m h = 2.9	x: 1.703 m h = 3.2	x: 1.703 m h = 0.3	x: 0 m h = 37.3	x: 1.703 m h = 23.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.3	

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _t	
N146/N458	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 7.8	h = 14.8	x: 0.075 m h = 17.5	x: 1.644 m h = 8.2	h = 0.6	x: 1.644 m h = 2.8	x: 0.075 m h = 3.1	x: 1.644 m h = 0.7	x: 0.075 m h = 35.7	x: 0.075 m h = 27.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.7
N458/N452	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 7.8	h = 14.6	x: 1.644 m h = 11.7	x: 1.644 m h = 9.8	h = 0.6	x: 1.644 m h = 0.1	x: 1.644 m h = 1.4	x: 1.644 m h = 1.0	x: 1.644 m h = 36.0	x: 1.644 m h = 24.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 36.0
N452/N5	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 7.9	h = 14.5	x: 1.569 m h = 17.7	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 2.8	x: 1.569 m h = 3.2	N.A. ⁽³⁾	x: 1.569 m h = 32.4	x: 1.569 m h = 26.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.4
N164/N470	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.585 m h = 3.9	x: 0.091 m h = 15.2	x: 1.585 m h = 16.4	x: 1.585 m h = 11.4	h = 0.8	x: 1.585 m h = 2.8	x: 1.585 m h = 2.8	x: 1.585 m h = 1.3	x: 1.585 m h = 43.0	x: 1.585 m h = 25.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.0
N470/N464	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 4.0	x: 0 m h = 15.3	x: 1.675 m h = 17.1	x: 1.675 m h = 11.8	h = 0.8	x: 0 m h = 0.2	x: 1.675 m h = 2.9	x: 1.675 m h = 1.4	x: 1.675 m h = 41.7	x: 1.675 m h = 26.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.7
N464/N146	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.702 m h = 4.2	x: 0 m h = 15.6	x: 1.703 m h = 17.6	x: 1.703 m h = 8.2	h = 0.5	x: 0 m h = 2.9	x: 1.703 m h = 3.2	x: 1.703 m h = 0.7	x: 0 m h = 38.6	x: 1.703 m h = 27.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.6
N182/N482	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.586 m h = 2.1	x: 0.107 m h = 17.2	x: 0.107 m h = 26.1	x: 0.107 m h = 12.7	h = 1.0	x: 1.586 m h = 3.9	x: 0.107 m h = 6.9	x: 0.107 m h = 1.6	x: 0.107 m h = 51.8	x: 0.107 m h = 25.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.8
N482/N476	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 2.2	x: 0 m h = 17.8	x: 1.745 m h = 20.7	x: 1.745 m h = 14.2	h = 0.9	x: 1.745 m h = 1.2	x: 1.745 m h = 4.3	x: 1.745 m h = 2.0	x: 1.745 m h = 48.0	x: 1.745 m h = 16.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.0
N476/N164	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.851 m h = 2.3	x: 0 m h = 18.5	x: 0 m h = 21.0	x: 1.852 m h = 9.8	h = 0.6	x: 0 m h = 2.4	x: 0 m h = 4.4	x: 1.852 m h = 1.0	x: 0 m h = 47.1	x: 0 m h = 12.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.1
N200/N494	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.583 m h = 4.4	x: 0.092 m h = 17.2	x: 0.092 m h = 24.8	x: 1.583 m h = 9.9	h = 0.7	x: 1.583 m h = 3.2	x: 0.092 m h = 6.3	x: 1.583 m h = 1.0	x: 0.092 m h = 49.8	x: 0.092 m h = 27.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.8
N494/N488	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 4.4	x: 0 m h = 17.5	x: 1.679 m h = 9.3	x: 1.679 m h = 11.7	h = 0.8	x: 1.679 m h = 0.6	x: 1.679 m h = 0.9	x: 1.679 m h = 1.4	x: 1.679 m h = 35.8	x: 1.679 m h = 13.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.8
N488/N182	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.711 m h = 4.4	x: 0 m h = 17.7	x: 1.712 m h = 16.5	x: 0 m h = 8.9	h = 0.5	x: 0 m h = 2.4	x: 1.712 m h = 2.8	x: 0 m h = 0.8	x: 1.712 m h = 40.8	x: 1.712 m h = 14.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.8
N218/N506	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.639 m h = 5.4	x: 0.076 m h = 17.5	x: 0.076 m h = 14.6	x: 1.639 m h = 7.9	h = 0.5	x: 1.639 m h = 2.6	x: 0.076 m h = 2.2	x: 1.639 m h = 0.6	x: 0.076 m h = 37.9	x: 0.076 m h = 19.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.9
N506/N500	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 5.3	x: 0 m h = 17.4	x: 0 m h = 11.5	x: 0 m h = 7.4	h = 0.5	x: 0 m h = 0.5	x: 0 m h = 1.3	x: 0 m h = 0.5	x: 0 m h = 34.0	x: 1.644 m h = 14.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.0
N500/N200	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.574 m h = 5.3	x: 0 m h = 17.3	x: 1.575 m h = 22.0	x: 0 m h = 8.2	h = 0.5	x: 0 m h = 3.1	x: 1.575 m h = 4.9	x: 0 m h = 0.7	x: 1.575 m h = 41.3	x: 1.575 m h = 20.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.3
N218/N512	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.69 m h = 0.3	x: 0.089 m h = 15.9	x: 1.69 m h = 21.4	x: 1.69 m h = 7.7	h = 0.4	x: 1.69 m h = 2.5	x: 1.69 m h = 4.6	x: 1.69 m h = 0.6	x: 1.69 m h = 43.8	x: 1.69 m h = 14.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.8
N512/N518	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.4	x: 0 m h = 16.4	x: 0 m h = 21.7	x: 1.769 m h = 6.8	h = 0.3	x: 0 m h = 0.8	x: 0 m h = 4.7	x: 1.769 m h = 0.5	x: 0 m h = 39.3	x: 0 m h = 17.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.3
N518/N236	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.783 m h = 0.5	x: 0 m h = 16.8	x: 1.784 m h = 28.9	x: 1.784 m h = 8.1	h = 0.3	x: 0 m h = 3.8	x: 1.784 m h = 8.5	x: 1.784 m h = 0.7	x: 1.784 m h = 51.4	x: 1.784 m h = 18.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.4
N120/N397	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.704 m h = 0.1	x: 0.089 m h = 3.0	x: 0.089 m h = 49.1	x: 0.089 m h = 9.6	h = 0.5	x: 1.704 m h = 8.3	x: 0.089 m h = 24.8	x: 0.089 m h = 0.9	x: 0.089 m h = 58.7	x: 0.089 m h = 4.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.7
N397/N391	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.2	x: 0 m h = 2.9	x: 1.769 m h = 39.0	x: 0 m h = 7.3	h = 0.4	x: 1.769 m h = 0.6	x: 1.769 m h = 15.2	x: 0 m h = 0.5	x: 1.769 m h = 44.7	x: 1.769 m h = 24.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 44.7
N391/N138	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.4	x: 0 m h = 3.1	x: 1.77 m h = 52.0	x: 1.77 m h = 15.7	h = 0.8	x: 0 m h = 8.1	x: 1.77 m h = 27.7	x: 1.77 m h = 2.5	x: 1.77 m h = 70.8	x: 1.77 m h = 33.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.8
N120/N403	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.64 m h = 0.6	x: 0.076 m h = 6.0	x: 0.076 m h = 44.8	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.64 m h = 7.2	x: 0.076 m h = 20.5	N.A. ⁽³⁾	x: 0.076 m h = 53.2	x: 0.076 m h = 26.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 53.2
N403/N409	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 0.6	x: 0 m h = 6.0	x: 0 m h = 25.6	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 0 m h = 0.4	x: 0 m h = 6.5	N.A. ⁽³⁾	x: 0 m h = 32.8	x: 0 m h = 15.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.8
N409/N102	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.573 m h = 0.6	x: 0 m h = 5.9	x: 1.574 m h = 52.8	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 7.8	x: 1.574 m h = 28.5	N.A. ⁽³⁾	x: 1.574 m h = 59.3	x: 1.574 m h = 31.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.3
N102/N415	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.6 m h = 0.8	x: 0.092 m h = 7.2	x: 0.092 m h = 53.2	x: 0.092 m h = 8.4	h = 0.5	x: 1.6 m h = 7.9	x: 0.092 m h = 28.9	x: 0.092 m h = 0.7	x: 0.092 m h = 59.8	x: 0.092 m h = 33.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.8
N415/N421	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 1.0	x: 0 m h = 7.3	x: 1.679 m h = 25.3	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.1	x: 1.679 m h = 0.6	x: 1.679 m h = 6.4	N.A. ⁽³⁾	x: 1.679 m h = 32.9	x: 1.679 m h = 14.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.9
N421/N84	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.694 m h = 1.2	x: 0 m h = 7.3	x: 1.695 m h = 53.5	x: 1.695 m h = 5.6	h = 0.3	x: 0 m h = 7.5	x: 1.695 m h = 29.2	x: 1.695 m h = 0.3	x: 1.695 m h = 63.1	x: 1.695 m h = 28.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.1
N84/N427	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.615 m h = 1.0	x: 0.107 m h = 6.0	x: 0.107 m h = 54.9	x: 0.107 m h = 11.5	h = 0.6	x: 1.615 m h = 8.6	x: 0.107 m h = 30.9	x: 0.107 m h = 1.3	x: 0.107 m h = 62.6	x: 0.107 m h = 63.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.2
N427/N433	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 1.4	x: 0 m h = 6.2	x: 1.745 m h = 36.8	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.745 m h = 1.2	x: 1.745 m h = 13.5	N.A. ⁽³⁾	x: 1.745 m h = 45.7	x: 1.745 m h = 38.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 45.7
N433/N66	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.822 m h = 1.7	x: 0 m h = 6.3	x: 1.823 m h = 44.8	x: 1.823 m h = 10.0	h = 0.5	x: 0 m h = 7.3	x: 1.823 m h = 20.6	x: 1.823 m h = 1.0	x: 1.823 m h = 48.3	x: 1.823 m h = 55.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.1
N66/N439	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.601 m h = 2.8	x: 0.091 m h = 4.1	x: 0.091 m h = 46.7	x: 0.091 m h = 9.3	h = 0.6	x: 1.601 m h = 7.7	x: 0.091 m h = 22.4	x: 0.091 m h = 0.9	x: 0.091 m h = 50.7	x: 0.091 m h = 56.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.2

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	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N439/N445	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 3.0	x: 0 m h = 4.1	x: 1.675 m h = 32.1	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	x: 1.675 m h = 0.4	x: 1.675 m h = 10.3	N.A. ⁽³⁾	x: 1.675 m h = 37.7	x: 1.675 m h = 32.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.7
N445/N10	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.686 m h = 3.2	x: 0 m h = 4.1	x: 1.687 m h = 48.6	x: 1.687 m h = 8.0	h = 0.4	x: 0 m h = 7.5	x: 1.687 m h = 24.2	x: 1.687 m h = 0.6	x: 1.687 m h = 49.8	x: 1.687 m h = 57.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.5
N156/N457	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.7	h = 3.8	x: 0.075 m h = 49.1	x: 0.075 m h = 5.8	h = 0.4	x: 1.644 m h = 7.6	x: 0.075 m h = 24.7	x: 0.075 m h = 0.3	x: 0.075 m h = 52.9	x: 0.075 m h = 52.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.9
N457/N451	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.6	h = 3.8	x: 1.644 m h = 26.3	M _{sd} = 0.00 N.A. ⁽²⁾	h < 0.1	x: 1.644 m h = 0.1	x: 1.644 m h = 6.9	N.A. ⁽³⁾	x: 0 m h = 30.5	x: 1.644 m h = 27.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.5
N451/N10	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.5	h = 3.7	x: 1.569 m h = 48.4	x: 1.569 m h = 5.9	h = 0.4	x: 0 m h = 7.5	x: 1.569 m h = 24.0	x: 1.569 m h = 0.4	x: 1.569 m h = 52.8	x: 1.569 m h = 51.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.8
N174/N469	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.601 m h = 3.0	x: 0.091 m h = 3.7	x: 0.091 m h = 48.1	x: 0.091 m h = 9.7	h = 0.6	x: 1.601 m h = 7.9	x: 0.091 m h = 23.7	x: 0.091 m h = 0.9	x: 0.091 m h = 52.1	x: 0.091 m h = 58.5	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.5
N469/N463	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 3.0	x: 0 m h = 4.0	x: 1.675 m h = 32.7	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.675 m h = 0.4	x: 1.675 m h = 10.7	N.A. ⁽³⁾	x: 1.675 m h = 39.4	x: 1.675 m h = 33.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.4
N463/N156	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.686 m h = 3.1	x: 0 m h = 4.4	x: 1.687 m h = 48.6	x: 1.687 m h = 7.9	h = 0.4	x: 0 m h = 7.6	x: 1.687 m h = 24.1	x: 1.687 m h = 0.6	x: 1.687 m h = 51.4	x: 1.687 m h = 56.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.9
N192/N481	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.615 m h = 1.1	x: 0.107 m h = 5.6	x: 0.107 m h = 57.2	x: 0.107 m h = 12.8	h = 0.8	x: 1.615 m h = 8.9	x: 0.107 m h = 33.5	x: 0.107 m h = 1.6	x: 0.107 m h = 64.6	x: 0.107 m h = 67.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 67.2
N481/N475	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 1.4	x: 0 m h = 6.1	x: 1.745 m h = 37.8	x: 1.745 m h = 5.6	h = 0.3	x: 1.745 m h = 1.2	x: 1.745 m h = 14.3	x: 1.745 m h = 0.3	x: 1.745 m h = 47.8	x: 1.745 m h = 41.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.8
N475/N174	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.822 m h = 1.7	x: 0 m h = 6.6	x: 1.823 m h = 45.5	x: 1.823 m h = 10.4	h = 0.5	x: 0 m h = 7.5	x: 1.823 m h = 21.2	x: 1.823 m h = 1.1	x: 1.823 m h = 49.5	x: 1.823 m h = 55.9	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.9
N210/N493	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.6 m h = 0.7	x: 0.092 m h = 6.8	x: 0.092 m h = 54.4	x: 0.092 m h = 8.8	h = 0.5	x: 1.6 m h = 8.1	x: 0.092 m h = 30.2	x: 0.092 m h = 0.8	x: 0.092 m h = 61.2	x: 0.092 m h = 34.6	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.2
N493/N487	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 1.0	x: 0 m h = 7.2	x: 1.679 m h = 25.8	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.679 m h = 0.6	x: 1.679 m h = 6.6	N.A. ⁽³⁾	x: 1.679 m h = 34.5	x: 1.679 m h = 15.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.5
N487/N192	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.694 m h = 1.3	x: 0 m h = 7.7	x: 1.695 m h = 54.2	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 7.7	x: 1.695 m h = 30.0	N.A. ⁽³⁾	x: 1.695 m h = 63.1	x: 1.695 m h = 29.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.1
N228/N505	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.64 m h = 0.5	x: 0.076 m h = 5.6	x: 0.076 m h = 45.7	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.64 m h = 7.3	x: 0.076 m h = 21.4	N.A. ⁽³⁾	x: 0.076 m h = 54.0	x: 0.076 m h = 26.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.0
N505/N499	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 0.6	x: 0 m h = 5.9	x: 0 m h = 25.6	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 0.4	x: 0 m h = 6.5	N.A. ⁽³⁾	x: 0 m h = 34.1	x: 0 m h = 16.4	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.1
N499/N210	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.573 m h = 0.7	x: 0 m h = 6.1	x: 1.574 m h = 52.8	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 7.8	x: 1.574 m h = 28.5	N.A. ⁽³⁾	x: 1.574 m h = 60.1	x: 1.574 m h = 32.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.1
N228/N511	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.704 m h = 0.1	x: 0.089 m h = 3.1	x: 0.089 m h = 48.3	x: 0.089 m h = 9.2	h = 0.5	x: 1.704 m h = 8.3	x: 0.089 m h = 24.0	x: 0.089 m h = 0.8	x: 0.089 m h = 57.3	x: 0.089 m h = 30.1	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.3
N511/N517	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.2	x: 0 m h = 2.8	x: 1.769 m h = 38.3	x: 0 m h = 7.2	h = 0.4	x: 1.769 m h = 0.6	x: 1.769 m h = 14.7	x: 0 m h = 0.5	x: 0 m h = 43.7	x: 1.769 m h = 23.6	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.7
N517/N246	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.3	x: 0 m h = 2.7	x: 1.77 m h = 52.7	x: 1.77 m h = 15.3	h = 0.8	x: 0 m h = 8.1	x: 1.77 m h = 28.4	x: 1.77 m h = 2.3	x: 1.77 m h = 70.6	x: 1.77 m h = 33.2	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.6
N122/N396	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 17.8	x: 0.089 m h = 42.9	x: 0.089 m h = 10.2	h = 0.6	x: 1.718 m h = 7.4	x: 0.089 m h = 19.0	x: 0.089 m h = 1.0	x: 0.089 m h = 70.3	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.3
N396/N390	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 18.0	x: 1.769 m h = 33.6	x: 0 m h = 9.4	h = 0.5	x: 1.769 m h = 0.5	x: 1.769 m h = 11.3	x: 0 m h = 0.9	x: 0 m h = 58.3	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.3
N390/N140	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 18.3	x: 1.756 m h = 49.3	x: 1.756 m h = 21.0	h = 1.1	x: 0 m h = 7.4	x: 1.756 m h = 24.8	x: 1.756 m h = 4.4	x: 1.756 m h = 88.4	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.4
N122/N402	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 9.3	x: 0.076 m h = 45.7	x: 0.076 m h = 9.1	h = 0.5	x: 1.641 m h = 6.8	x: 0.076 m h = 21.4	x: 0.076 m h = 0.8	x: 0.076 m h = 63.5	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.5
N402/N408	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 9.3	x: 0 m h = 21.6	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.644 m h = 0.3	x: 0 m h = 4.7	N.A. ⁽³⁾	x: 1.644 m h = 33.9	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.9
N408/N104	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 9.3	x: 1.573 m h = 45.3	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.9	x: 1.573 m h = 20.9	N.A. ⁽³⁾	x: 1.573 m h = 57.6	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.6
N104/N414	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0.092 m h = 10.3	x: 0.092 m h = 47.1	x: 0.092 m h = 7.3	h = 0.4	x: 1.617 m h = 7.1	x: 0.092 m h = 22.6	x: 0.092 m h = 0.5	x: 0.092 m h = 59.9	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.9
N414/N420	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 10.3	x: 1.679 m h = 22.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.679 m h = 0.4	x: 1.679 m h = 5.1	N.A. ⁽³⁾	x: 1.679 m h = 35.3	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.3
N420/N86	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 10.2	x: 1.678 m h = 46.8	x: 1.678 m h = 6.6	h = 0.3	x: 0 m h = 6.8	x: 1.678 m h = 22.4	x: 1.678 m h = 0.4	x: 1.678 m h = 58.8	N.A. ⁽⁵⁾	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.8
N86/N426	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.643 m h < 0.1	x: 0.107 m h = 11.9	x: 0.107 m h = 52.0	x: 0.107 m h = 10.8	h = 0.6	x: 1.643 m h = 7.9	x: 0.107 m h = 27.7	x: 0.107 m h = 1.2	x: 0.107 m h = 67.8	x: 0.107 m h = 5.3	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 67.8
N426/N432	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 0.3	x: 0 m h = 12.2	x: 1.745 m h = 32.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.745 m h = 0.9	x: 1.745 m h = 10.6	N.A. ⁽³⁾	x: 1.745 m h = 48.0	x: 1.745 m h = 16.0	M _{1,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.0

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _x M _y	N _y M _x	M _t	
N432/N68	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.794 m h = 0.6	x: 0 m h = 12.5	x: 1.795 m h = 41.8	x: 1.795 m h = 11.3	h = 0.5	x: 0 m h = 6.8	x: 1.795 m h = 17.9	x: 1.795 m h = 1.3	x: 1.795 m h = 64.6	x: 1.795 m h = 20.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 64.6
N68/N438	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.617 m h = 1.4	x: 0.091 m h = 10.0	x: 0.091 m h = 45.1	x: 0.091 m h = 9.1	h = 0.5	x: 1.617 m h = 7.2	x: 0.091 m h = 20.8	x: 0.091 m h = 0.8	x: 0.091 m h = 58.2	x: 0.091 m h = 29.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.2
N438/N444	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 1.6	x: 0 m h = 10.1	x: 1.675 m h = 28.5	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.675 m h = 0.5	x: 1.675 m h = 8.1	N.A. ⁽³⁾	x: 1.675 m h = 40.8	x: 1.675 m h = 16.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.8
N444/N111	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.669 m h = 1.8	x: 0 m h = 10.3	x: 1.67 m h = 43.1	x: 1.67 m h = 8.7	h = 0.4	x: 0 m h = 6.7	x: 1.67 m h = 19.0	x: 1.67 m h = 0.8	x: 1.67 m h = 56.9	x: 1.67 m h = 24.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.9
N158/N456	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.7	h = 8.3	x: 0.075 m h = 43.0	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.644 m h = 6.8	x: 0.075 m h = 18.9	N.A. ⁽³⁾	x: 0.075 m h = 52.3	x: 0.075 m h = 43.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.3
N456/N450	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.7	h = 8.2	x: 0 m h = 22.8	M _{1,34} = 0.00 N.A. ⁽²⁾	V _{1,34} = 0.00 N.A. ⁽⁷⁾	x: 0 m h = 0.1	x: 0 m h = 5.2	N.A. ⁽³⁾	x: 0 m h = 31.3	x: 0 m h = 22.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.3
N450/N11	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.7	h = 8.2	x: 1.569 m h = 43.5	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.8	x: 1.569 m h = 19.4	N.A. ⁽³⁾	x: 1.569 m h = 52.1	x: 1.569 m h = 44.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.1
N176/N468	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.617 m h = 1.5	x: 0.091 m h = 10.0	x: 0.091 m h = 44.1	x: 0.091 m h = 9.9	h = 0.6	x: 1.617 m h = 7.0	x: 0.091 m h = 19.9	x: 0.091 m h = 1.0	x: 0.091 m h = 58.7	x: 0.091 m h = 29.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.7
N468/N462	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 1.6	x: 0 m h = 10.2	x: 1.675 m h = 28.0	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.675 m h = 0.4	x: 1.675 m h = 7.9	N.A. ⁽³⁾	x: 1.675 m h = 40.5	x: 1.675 m h = 16.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.5
N462/N158	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.669 m h = 1.8	x: 0 m h = 10.2	x: 1.67 m h = 43.1	x: 1.67 m h = 9.3	h = 0.5	x: 0 m h = 6.7	x: 1.67 m h = 19.0	x: 1.67 m h = 0.9	x: 1.67 m h = 57.5	x: 1.67 m h = 24.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.5
N194/N480	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.643 m h = 0.1	x: 0.107 m h = 12.0	x: 0.107 m h = 50.3	x: 0.107 m h = 12.5	h = 0.7	x: 1.643 m h = 7.7	x: 0.107 m h = 25.9	x: 0.107 m h = 1.6	x: 0.107 m h = 69.0	x: 1.643 m h = 15.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 69.0
N480/N474	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 0.3	x: 0 m h = 12.3	x: 1.745 m h = 31.8	x: 0 m h = 6.2	h = 0.4	x: 1.745 m h = 0.9	x: 1.745 m h = 10.1	x: 0 m h = 0.4	x: 1.745 m h = 47.8	x: 1.745 m h = 16.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.8
N474/N176	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.794 m h = 0.7	x: 0 m h = 12.6	x: 1.795 m h = 41.5	x: 1.795 m h = 12.7	h = 0.7	x: 0 m h = 6.7	x: 1.795 m h = 17.6	x: 1.795 m h = 1.6	x: 1.795 m h = 65.3	x: 1.795 m h = 20.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.3
N212/N492	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.092 m h = 10.5	x: 0.092 m h = 46.1	x: 0.092 m h = 8.1	h = 0.5	x: 1.617 m h = 7.0	x: 0.092 m h = 21.8	x: 0.092 m h = 0.7	x: 0.092 m h = 58.4	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.4
N492/N486	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 10.5	x: 1.679 m h = 21.9	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.679 m h = 0.4	x: 1.679 m h = 4.8	N.A. ⁽³⁾	x: 1.679 m h = 35.5	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.5
N486/N194	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 10.6	x: 1.678 m h = 46.6	x: 1.678 m h = 7.0	h = 0.4	x: 0 m h = 6.7	x: 1.678 m h = 22.1	x: 1.678 m h = 0.5	x: 1.678 m h = 59.0	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.0
N230/N504	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 9.6	x: 0.076 m h = 44.8	x: 0.076 m h = 8.6	h = 0.5	x: 1.641 m h = 6.7	x: 0.076 m h = 20.5	x: 0.076 m h = 0.7	x: 0.076 m h = 62.2	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 62.2
N504/N498	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 9.6	x: 0 m h = 21.7	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 0 m h = 0.3	x: 0 m h = 4.7	N.A. ⁽³⁾	x: 1.644 m h = 33.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.9
N498/N212	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 9.5	x: 1.573 m h = 45.5	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.9	x: 1.573 m h = 21.2	N.A. ⁽³⁾	x: 1.573 m h = 57.1	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.1
N230/N510	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 18.1	x: 0.089 m h = 43.5	x: 0.089 m h = 9.2	h = 0.5	x: 1.718 m h = 7.4	x: 0.089 m h = 19.5	x: 0.089 m h = 0.9	x: 0.089 m h = 68.7	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 68.7
N510/N516	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 18.4	x: 1.769 m h = 33.7	x: 0 m h = 7.8	h = 0.4	x: 1.769 m h = 0.5	x: 1.769 m h = 11.4	x: 0 m h = 0.6	x: 0 m h = 56.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.9
N516/N248	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 18.7	x: 1.756 m h = 49.0	x: 1.756 m h = 19.3	h = 0.9	x: 0 m h = 7.4	x: 1.756 m h = 24.5	x: 1.756 m h = 3.8	x: 1.756 m h = 86.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.9
N124/N395	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 2.6	x: 0.089 m h = 45.8	x: 0.089 m h = 8.7	h = 0.5	x: 1.732 m h = 7.5	x: 0.089 m h = 21.5	x: 0.089 m h = 0.8	x: 0.089 m h = 56.9	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.9
N395/N389	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.1	x: 0 m h = 2.5	x: 1.769 m h = 31.1	x: 0 m h = 9.4	h = 0.5	x: 1.769 m h = 0.5	x: 1.769 m h = 9.6	x: 0 m h = 0.9	x: 0 m h = 41.7	x: 1.769 m h = 20.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.7
N389/N142	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.741 m h = 0.3	x: 0 m h = 2.5	x: 1.742 m h = 52.7	x: 1.742 m h = 20.3	h = 1.1	x: 0 m h = 7.6	x: 1.742 m h = 28.4	x: 1.742 m h = 4.1	x: 1.742 m h = 74.3	x: 1.742 m h = 34.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.3
N124/N401	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 3.5	x: 0.076 m h = 46.9	x: 0.076 m h = 10.3	h = 0.6	x: 1.642 m h = 6.9	x: 0.076 m h = 22.5	x: 0.076 m h = 1.1	x: 0.076 m h = 60.6	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.6
N401/N407	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 3.5	x: 1.644 m h = 21.7	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.644 m h = 0.2	x: 1.644 m h = 4.7	N.A. ⁽³⁾	x: 1.644 m h = 29.1	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 29.1
N407/N106	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 3.5	x: 1.572 m h = 44.3	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.8	x: 1.572 m h = 20.0	N.A. ⁽³⁾	x: 1.572 m h = 50.1	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.1
N106/N413	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.634 m h = 0.1	x: 0.092 m h = 3.7	x: 0.092 m h = 46.4	x: 0.092 m h = 9.2	h = 0.5	x: 1.634 m h = 7.0	x: 0.092 m h = 22.0	x: 0.092 m h = 0.8	x: 0.092 m h = 56.3	x: 0.092 m h = 26.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.3
N413/N419	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 0.3	x: 0 m h = 3.8	x: 1.679 m h = 22.6	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.679 m h = 0.3	x: 1.679 m h = 5.1	N.A. ⁽³⁾	x: 1.679 m h = 30.4	x: 1.469 m h = 11.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.4
N419/N88	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.66 m h = 0.5	x: 0 m h = 3.9	x: 1.661 m h = 48.1	x: 1.661 m h = 8.1	h = 0.4	x: 0 m h = 7.0	x: 1.661 m h = 23.6	x: 1.661 m h = 0.7	x: 1.661 m h = 56.7	x: 1.661 m h = 25.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.7

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _x M _y M _y	N _y M _x M _y	M _t	
N88/N425	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.672 m h = 0.9	x: 0.107 m h = 2.4	x: 0.107 m h = 49.0	x: 0.107 m h = 9.0	h = 0.5	x: 1.672 m h = 7.6	x: 0.107 m h = 24.6	x: 0.107 m h = 0.8	x: 0.107 m h = 58.5	x: 0.107 m h = 53.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.5
N425/N431	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 1.2	x: 0 m h = 2.5	x: 1.745 m h = 30.5	x: 1.745 m h = 5.4	h = 0.3	x: 1.745 m h = 0.6	x: 1.745 m h = 9.3	x: 1.745 m h = 0.3	x: 1.745 m h = 37.4	x: 1.745 m h = 31.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.4
N431/N70	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.765 m h = 1.5	x: 0 m h = 2.6	x: 1.766 m h = 44.0	x: 1.766 m h = 12.7	h = 0.6	x: 0 m h = 7.0	x: 1.766 m h = 19.8	x: 1.766 m h = 1.6	x: 1.766 m h = 48.4	x: 1.766 m h = 57.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.1
N70/N437	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.633 m h = 2.3	x: 0.091 m h = 1.7	x: 0.091 m h = 46.6	x: 0.091 m h = 6.8	h = 0.4	x: 1.633 m h = 7.1	x: 0.091 m h = 22.2	x: 0.091 m h = 0.5	x: 0.091 m h = 50.1	x: 0.091 m h = 50.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.1
N437/N443	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 2.4	x: 0 m h = 1.6	x: 1.675 m h = 26.6	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.675 m h = 0.4	x: 1.675 m h = 7.1	N.A. ⁽³⁾	x: 1.675 m h = 31.4	x: 1.675 m h = 25.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.4
N443/N12	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.653 m h = 2.6	x: 0 m h = 1.6	x: 1.654 m h = 44.9	x: 1.654 m h = 9.5	h = 0.5	x: 0 m h = 6.9	x: 1.654 m h = 20.6	x: 1.654 m h = 0.9	x: 1.654 m h = 45.1	x: 1.654 m h = 55.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.7
N160/N455	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.8	h = 1.5	x: 0.075 m h = 42.8	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.644 m h = 6.9	x: 0.075 m h = 18.7	N.A. ⁽³⁾	x: 0.075 m h = 46.0	x: 0.075 m h = 48.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.6
N455/N449	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.8	h = 1.5	x: 0 m h = 23.2	M _{1,34} = 0.00 N.A. ⁽²⁾	V _{1,34} = 0.00 N.A. ⁽⁷⁾	x: 0 m h = 0.1	x: 0 m h = 5.4	N.A. ⁽³⁾	x: 1.644 m h = 24.0	x: 1.644 m h = 26.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.5
N449/N12	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.8	h = 1.5	x: 1.569 m h = 42.8	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.9	x: 1.569 m h = 18.7	N.A. ⁽³⁾	x: 1.569 m h = 45.9	x: 1.569 m h = 48.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.6
N178/N467	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.633 m h = 2.3	x: 0.091 m h = 1.6	x: 0.091 m h = 46.7	x: 0.091 m h = 6.9	h = 0.4	x: 1.633 m h = 7.2	x: 0.091 m h = 22.3	x: 0.091 m h = 0.5	x: 0.091 m h = 50.3	x: 0.091 m h = 50.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.9
N467/N461	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 2.4	x: 0 m h = 1.6	x: 1.675 m h = 26.6	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.675 m h = 0.4	x: 1.675 m h = 7.1	N.A. ⁽³⁾	x: 1.675 m h = 31.8	x: 1.675 m h = 26.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.8
N461/N160	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.653 m h = 2.6	x: 0 m h = 1.6	x: 1.654 m h = 45.2	x: 1.654 m h = 9.7	h = 0.5	x: 0 m h = 6.9	x: 1.654 m h = 20.9	x: 1.654 m h = 0.9	x: 1.654 m h = 44.6	x: 1.654 m h = 56.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.2
N196/N479	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.672 m h = 0.9	x: 0.107 m h = 2.4	x: 0.107 m h = 49.3	x: 0.107 m h = 9.6	h = 0.6	x: 1.672 m h = 7.6	x: 0.107 m h = 24.9	x: 0.107 m h = 0.9	x: 0.107 m h = 59.2	x: 0.107 m h = 54.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.2
N479/N473	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 1.1	x: 0 m h = 2.5	x: 1.745 m h = 30.4	x: 1.745 m h = 6.5	h = 0.4	x: 1.745 m h = 0.6	x: 1.745 m h = 9.3	x: 1.745 m h = 0.4	x: 1.745 m h = 38.4	x: 1.745 m h = 34.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.4
N473/N178	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.765 m h = 1.4	x: 0 m h = 2.6	x: 1.766 m h = 44.5	x: 1.766 m h = 13.4	h = 0.7	x: 0 m h = 7.0	x: 1.766 m h = 20.2	x: 1.766 m h = 1.8	x: 1.766 m h = 47.2	x: 1.766 m h = 57.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.9
N214/N491	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.634 m h = 0.1	x: 0.092 m h = 3.7	x: 0.092 m h = 46.5	x: 0.092 m h = 9.4	h = 0.6	x: 1.634 m h = 7.0	x: 0.092 m h = 22.1	x: 0.092 m h = 0.9	x: 0.092 m h = 56.7	x: 0.092 m h = 26.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.7
N491/N485	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 0.3	x: 0 m h = 3.8	x: 1.679 m h = 22.7	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.679 m h = 0.3	x: 1.679 m h = 5.1	N.A. ⁽³⁾	x: 1.679 m h = 31.1	x: 1.469 m h = 11.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.1
N485/N196	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.66 m h = 0.5	x: 0 m h = 3.9	x: 1.661 m h = 48.3	x: 1.661 m h = 8.1	h = 0.5	x: 0 m h = 7.1	x: 1.661 m h = 23.8	x: 1.661 m h = 0.7	x: 1.661 m h = 56.9	x: 1.661 m h = 25.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.9
N232/N503	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 3.5	x: 0.076 m h = 47.1	x: 0.076 m h = 10.3	h = 0.6	x: 1.642 m h = 6.9	x: 0.076 m h = 22.6	x: 0.076 m h = 1.1	x: 0.076 m h = 60.7	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.7
N503/N497	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 3.5	x: 1.644 m h = 21.7	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.644 m h = 0.2	x: 1.644 m h = 4.7	N.A. ⁽³⁾	x: 1.644 m h = 29.4	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 29.4
N497/N214	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 3.5	x: 1.572 m h = 44.5	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 0 m h = 6.8	x: 1.572 m h = 20.2	N.A. ⁽³⁾	x: 1.572 m h = 50.4	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.4
N232/N509	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 2.6	x: 0.089 m h = 46.0	x: 0.089 m h = 8.2	h = 0.4	x: 1.732 m h = 7.5	x: 0.089 m h = 21.7	x: 0.089 m h = 0.7	x: 0.089 m h = 55.8	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.8
N509/N515	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.1	x: 0 m h = 2.5	x: 1.769 m h = 31.2	x: 0 m h = 7.9	h = 0.4	x: 1.769 m h = 0.5	x: 1.769 m h = 9.7	x: 0 m h = 0.6	x: 0 m h = 40.3	x: 1.769 m h = 19.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.3
N515/N250	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.741 m h = 0.2	x: 0 m h = 2.5	x: 1.742 m h = 52.7	x: 1.742 m h = 19.1	h = 1.0	x: 0 m h = 7.6	x: 1.742 m h = 28.3	x: 1.742 m h = 3.7	x: 1.742 m h = 73.4	x: 1.742 m h = 34.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.4
N126/N394	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 14.4	x: 0.089 m h = 53.0	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.747 m h = 7.8	x: 0.089 m h = 28.7	N.A. ⁽³⁾	x: 0.089 m h = 69.3	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 69.3
N394/N388	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 14.6	x: 1.769 m h = 31.5	x: 0 m h = 11.3	h = 0.6	x: 1.769 m h = 0.4	x: 1.769 m h = 9.9	x: 0 m h = 1.3	x: 0 m h = 54.0	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.0
N388/N144	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 14.7	x: 1.728 m h = 50.9	x: 1.728 m h = 23.4	h = 1.2	x: 0 m h = 7.5	x: 1.728 m h = 26.4	x: 1.728 m h = 5.5	x: 1.728 m h = 86.5	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.5
N126/N400	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0.076 m h = 6.4	x: 0.076 m h = 49.5	x: 0.076 m h = 19.7	h = 1.1	x: 1.643 m h = 7.2	x: 0.076 m h = 25.0	x: 0.076 m h = 3.9	x: 0.076 m h = 75.0	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.0
N400/N406	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,34} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 6.4	x: 1.644 m h = 23.5	x: 1.644 m h = 6.4	h = 0.3	x: 1.644 m h = 0.3	x: 1.644 m h = 5.5	x: 1.644 m h = 0.4	x: 1.644 m h = 34.4	N.A. ⁽⁵⁾	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.4
N406/N108	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.57 m h < 0.1	x: 0 m h = 6.3	x: 1.571 m h = 44.5	x: 1.571 m h = 7.3	h = 0.4	x: 0 m h = 7.0	x: 1.571 m h = 20.2	x: 1.571 m h = 0.5	x: 1.571 m h = 52.0	x: 1.571 m h = 29.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.0
N108/N412	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.651 m h = 0.6	x: 0.092 m h = 8.8	x: 0.092 m h = 49.1	x: 0.092 m h = 18.8	h = 1.1	x: 1.651 m h = 7.3	x: 0.092 m h = 24.6	x: 0.092 m h = 3.5	x: 0.092 m h = 73.8	x: 0.092 m h = 59.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.8

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _x M _y	N _y M _x	M _t	
N412/N418	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 0.6	x: 0 m h = 8.6	x: 1.679 m h = 23.5	x: 1.679 m h = 5.7	h = 0.2	x: 1.679 m h = 0.2	x: 1.679 m h = 5.5	x: 1.679 m h = 0.3	x: 1.679 m h = 37.4	x: 0 m h = 25.7	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.4
N418/N90	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.643 m h = 0.7	x: 0 m h = 8.4	x: 1.644 m h = 49.2	x: 1.644 m h = 9.4	h = 0.5	x: 0 m h = 7.2	x: 1.644 m h = 24.7	x: 1.644 m h = 0.9	x: 1.644 m h = 55.8	x: 1.644 m h = 58.7	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.7
N90/N424	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.107 m h = 11.3	x: 0.107 m h = 53.2	x: 0.107 m h = 22.0	h = 1.2	x: 1.7 m h = 7.9	x: 0.107 m h = 28.9	x: 0.107 m h = 4.8	x: 0.107 m h = 86.5	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.5
N424/N430	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h < 0.1	x: 0 m h = 11.4	x: 1.745 m h = 31.0	x: 1.745 m h = 7.4	h = 0.3	x: 1.745 m h = 0.6	x: 1.745 m h = 9.6	x: 1.745 m h = 0.6	x: 1.745 m h = 48.0	x: 1.309 m h = 2.0	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.0
N430/N72	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.737 m h = 0.1	x: 0 m h = 11.5	x: 1.738 m h = 47.7	x: 1.738 m h = 13.1	h = 0.7	x: 0 m h = 7.4	x: 1.738 m h = 23.3	x: 1.738 m h = 1.7	x: 1.738 m h = 62.6	x: 1.738 m h = 2.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 62.6
N72/N436	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.649 m h = 1.0	x: 0.091 m h = 8.9	x: 0.091 m h = 51.7	x: 0.091 m h = 19.1	h = 1.1	x: 1.649 m h = 7.4	x: 0.091 m h = 27.3	x: 0.091 m h = 3.7	x: 0.091 m h = 76.0	x: 0.091 m h = 30.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 76.0
N436/N442	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 1.2	x: 0 m h = 9.0	x: 1.675 m h = 24.6	x: 1.675 m h = 6.0	h = 0.2	x: 1.675 m h = 0.3	x: 1.675 m h = 6.0	x: 1.675 m h = 0.4	x: 1.675 m h = 39.5	x: 1.675 m h = 13.4	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.5
N442/N13	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.637 m h = 1.4	x: 0 m h = 9.0	x: 1.638 m h = 48.3	x: 1.638 m h = 9.9	h = 0.5	x: 0 m h = 7.0	x: 1.638 m h = 23.8	x: 1.638 m h = 1.0	x: 1.638 m h = 62.5	x: 1.638 m h = 26.9	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 62.5
N162/N454	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.0	h = 5.7	x: 0.075 m h = 45.0	x: 0.075 m h = 12.2	h = 0.7	x: 1.644 m h = 7.1	x: 0.075 m h = 20.7	x: 0.075 m h = 1.5	x: 0.075 m h = 60.4	x: 0.075 m h = 41.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.4
N454/N448	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.1	h = 5.7	x: 1.644 m h = 25.2	M _{3d} = 0.00 N.A. ⁽⁷⁾	V _{3d} = 0.00 N.A. ⁽⁷⁾	x: 1.644 m h = 0.1	x: 1.644 m h = 6.3	N.A. ⁽³⁾	x: 0 m h = 34.2	x: 0 m h = 18.7	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.2
N448/N13	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.1	h = 5.7	x: 1.569 m h = 44.9	x: 1.569 m h = 12.4	h = 0.8	x: 0 m h = 7.1	x: 1.569 m h = 20.6	x: 1.569 m h = 1.6	x: 1.569 m h = 60.7	x: 1.569 m h = 41.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.7
N180/N466	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.649 m h = 1.1	x: 0.091 m h = 8.7	x: 0.091 m h = 51.3	x: 0.091 m h = 19.4	h = 1.2	x: 1.649 m h = 7.3	x: 0.091 m h = 26.9	x: 0.091 m h = 3.8	x: 0.091 m h = 75.8	x: 0.091 m h = 30.1	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.8
N466/N460	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 1.3	x: 0 m h = 8.8	x: 1.675 m h = 24.5	x: 1.675 m h = 6.1	h = 0.2	x: 1.675 m h = 0.3	x: 1.675 m h = 6.0	x: 1.675 m h = 0.4	x: 1.675 m h = 39.5	x: 1.675 m h = 13.5	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.5
N460/N162	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.637 m h = 1.5	x: 0 m h = 8.9	x: 1.638 m h = 47.9	x: 1.638 m h = 10.4	h = 0.6	x: 0 m h = 7.0	x: 1.638 m h = 23.4	x: 1.638 m h = 1.1	x: 1.638 m h = 63.5	x: 1.638 m h = 27.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.5
N198/N478	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.107 m h = 10.9	x: 0.107 m h = 52.5	x: 0.107 m h = 23.3	h = 1.4	x: 1.7 m h = 7.9	x: 0.107 m h = 28.1	x: 0.107 m h = 5.4	x: 0.107 m h = 86.6	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.6
N478/N472	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 0.1	x: 0 m h = 11.1	x: 1.745 m h = 30.9	x: 1.745 m h = 9.1	h = 0.4	x: 1.745 m h = 0.6	x: 1.745 m h = 9.5	x: 1.745 m h = 0.8	x: 1.745 m h = 49.0	x: 1.527 m h = 2.1	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.0
N472/N180	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.737 m h = 0.1	x: 0 m h = 11.3	x: 1.738 m h = 47.1	x: 1.738 m h = 14.0	h = 0.8	x: 0 m h = 7.3	x: 1.738 m h = 22.7	x: 1.738 m h = 2.0	x: 1.738 m h = 63.2	x: 1.738 m h = 21.3	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.2
N216/N490	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.651 m h = 0.7	x: 0.092 m h = 8.5	x: 0.092 m h = 48.9	x: 0.092 m h = 19.1	h = 1.1	x: 1.651 m h = 7.3	x: 0.092 m h = 24.5	x: 0.092 m h = 3.7	x: 0.092 m h = 73.7	x: 0.092 m h = 58.9	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.7
N490/N484	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 0.6	x: 0 m h = 8.4	x: 1.679 m h = 23.6	x: 1.679 m h = 6.3	h = 0.3	x: 1.679 m h = 0.2	x: 1.679 m h = 5.6	x: 1.679 m h = 0.4	x: 1.679 m h = 37.7	x: 0 m h = 25.5	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.7
N484/N198	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.643 m h = 0.6	x: 0 m h = 8.2	x: 1.644 m h = 48.8	x: 1.644 m h = 9.7	h = 0.6	x: 0 m h = 7.1	x: 1.644 m h = 24.3	x: 1.644 m h = 0.9	x: 1.644 m h = 55.9	x: 1.644 m h = 58.8	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.8
N234/N502	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.643 m h = 0.1	x: 0.076 m h = 6.2	x: 0.076 m h = 49.7	x: 0.076 m h = 19.4	h = 1.1	x: 1.643 m h = 7.3	x: 0.076 m h = 25.2	x: 0.076 m h = 3.8	x: 0.076 m h = 74.4	x: 0.076 m h = 34.9	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.4
N502/N496	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 0.1	x: 0 m h = 6.2	x: 1.644 m h = 23.5	x: 1.644 m h = 6.1	h = 0.2	x: 1.644 m h = 0.3	x: 1.644 m h = 5.5	x: 1.644 m h = 0.4	x: 1.644 m h = 33.9	x: 1.644 m h = 16.0	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.9
N496/N216	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.57 m h = 0.1	x: 0 m h = 6.2	x: 1.571 m h = 44.5	x: 1.571 m h = 7.5	h = 0.5	x: 0 m h = 6.9	x: 1.571 m h = 20.2	x: 1.571 m h = 0.6	x: 1.571 m h = 51.6	x: 1.571 m h = 29.3	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.6
N234/N508	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{t,3d} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 14.3	x: 0.089 m h = 53.2	M _{3d} = 0.00 N.A. ⁽⁷⁾	h = 0.4	x: 1.747 m h = 7.9	x: 0.089 m h = 28.9	N.A. ⁽³⁾	x: 0.089 m h = 67.7	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 67.7
N508/N514	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{t,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 14.4	x: 1.769 m h = 31.6	x: 0 m h = 9.5	h = 0.4	x: 1.769 m h = 0.4	x: 1.769 m h = 10.0	x: 0 m h = 0.9	x: 0 m h = 52.2	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 52.2
N514/N252	(b _w /t) ≤ 500 (b _f /t) ≤ 60 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	N _{t,3d} = 0.00 N.A. ⁽⁶⁾	x: 0 m h = 14.4	x: 1.728 m h = 51.3	x: 1.728 m h = 21.8	h = 1.1	x: 0 m h = 7.6	x: 1.728 m h = 26.9	x: 1.728 m h = 4.8	x: 1.728 m h = 85.2	N.A. ⁽⁵⁾	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.2
N253/N255	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 0.7	h = 0.5	x: 0.5 m h = 2.7	x: 0.156 m h = 8.0	x: 0.5 m h = 1.0	h = 0.9	x: 0.5 m h = 0.1	x: 0.156 m h = 0.7	x: 0.156 m h = 6.1	x: 0.156 m h = 9.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.2
N255/N53	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	h = 1.6	h = 1.2	x: 0.5 m h = 6.6	M _{3d} = 0.00 N.A. ⁽⁷⁾	x: 0 m h = 0.3	h = 1.0	x: 0.5 m h = 0.4	N.A. ⁽³⁾	x: 0.5 m h = 11.7	x: 0.5 m h = 11.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.7
N253/N254	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.45 m h = 0.5	x: 0 m h = 0.5	x: 0.45 m h = 4.2	M _{3d} = 0.00 N.A. ⁽⁷⁾	h = 0.2	h = 1.2	x: 0.45 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 5.0	x: 0 m h = 6.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.2
N254/N256	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.2	x: 0.501 m h = 1.8	M _{3d} = 0.00 N.A. ⁽⁷⁾	x: 0.501 m h = 1.1	x: 0 m h = 0.3	x: 0.501 m h < 0.1	N.A. ⁽³⁾	x: 0.501 m h = 2.8	x: 0.501 m h = 5.2	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.2
N256/N54	(b _w /t) ≤ 90 Passa	I _w ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.501 m h = 0.4	x: 0 m h = 0.7	x: 0 m h = 2.5	M _{3d} = 0.00 N.A. ⁽⁷⁾	x: 0.501 m h = 1.1	x: 0.501 m h = 0.4	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.501 m h = 8.5	x: 0.501 m h = 4.5	M _{t,3d} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.5

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	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _v V _y	M _y V _s	N _m M _y	N _m M _v	M _t	
N255/N256	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.475 m h = 1.1	x: 0 m h = 0.8	x: 0.475 m h = 2.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.3	x: 0.475 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 4.3	x: 0 m h = 4.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.6
N53/N54	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.5 m h = 2.7	x: 0.116 m h = 1.9	x: 0.116 m h = 11.0	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 2.3	x: 0.116 m h = 1.2	N.A. ⁽³⁾	x: 0.116 m h = 10.5	x: 0.116 m h = 17.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.4
N237/N251	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.057 m h = 4.0	x: 0 m h = 9.9	x: 0 m h = 7.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.3	h = 0.3	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 19.1	x: 0 m h = 9.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.1
N257/N259	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.528 m h = 1.7	x: 0 m h = 0.9	x: 0 m h = 7.3	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.4	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 5.5	x: 0 m h = 10.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.6
N258/N260	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.557 m h = 1.7	x: 0 m h = 1.1	x: 0.557 m h = 6.5	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.2	x: 0.557 m h = 0.4	N.A. ⁽³⁾	x: 0.557 m h = 6.7	x: 0.557 m h = 11.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.9
N258/N252	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.814 m h = 1.4	x: 0 m h = 3.1	x: 0.814 m h = 11.5	x: 0.814 m h = 8.2	x: 0 m h = 0.4	h = 0.9	x: 0.814 m h = 1.3	x: 0.814 m h = 0.7	x: 0.814 m h = 22.7	x: 0.814 m h = 13.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.7
N257/N260	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.794 m h = 1.3	x: 0 m h = 3.1	x: 0 m h = 10.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.794 m h = 0.2	h = 0.2	x: 0 m h = 1.1	N.A. ⁽³⁾	x: 0.794 m h = 15.4	x: 0.794 m h = 7.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.4
N53/N546	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.387 m h = 1.0	x: 0 m h = 2.5	x: 0 m h = 16.0	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.387 m h = 0.4	h = 1.2	x: 0 m h = 2.6	N.A. ⁽³⁾	x: 0 m h = 21.7	x: 0 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.7
N546/N259	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.387 m h = 1.0	x: 0 m h = 2.4	x: 0 m h = 12.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.387 m h = 0.4	h = 1.2	x: 0 m h = 1.5	N.A. ⁽³⁾	x: 0 m h = 16.7	x: 0 m h = 6.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.7
N255/N54	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.707 m h = 1.1	x: 0 m h = 1.7	x: 0.707 m h = 11.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 1.7	x: 0.707 m h = 1.4	N.A. ⁽³⁾	x: 0.707 m h = 15.4	x: 0.707 m h = 10.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.4
N253/N256	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.69 m h = 0.7	x: 0 m h = 1.4	x: 0.69 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.3	h = 0.2	x: 0.69 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 6.8	x: 0 m h = 4.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.8
N219/N233	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 7.0	x: 1.057 m h = 5.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.3	x: 1.057 m h = 0.3	N.A. ⁽³⁾	x: 0.704 m h = 12.8	x: 0 m h = 7.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.8
N261/N234	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.814 m h = 0.6	N _{c,sd} = 0.00 N.A. ⁽⁴⁾	x: 0.814 m h = 3.5	x: 0.814 m h = 6.9	x: 0.814 m h = 0.4	h = 0.4	x: 0.814 m h = 0.1	x: 0.814 m h = 0.5	N.A. ⁽⁴⁾	x: 0.814 m h = 10.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.9
N261/N262	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.557 m h = 0.1	x: 0 m h = 0.6	x: 0 m h = 2.1	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 7.9	x: 0 m h = 4.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.9
N263/N262	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.794 m h = 1.7	x: 0 m h = 1.0	x: 0.794 m h = 2.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.3	x: 0.794 m h = 0.1	N.A. ⁽³⁾	x: 0.794 m h = 4.8	x: 0.794 m h = 7.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.1
N263/N264	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.528 m h = 1.4	x: 0 m h = 1.3	x: 0.528 m h = 2.0	x: 0 m h = 13.7	h = 1.4	h = 0.5	x: 0.528 m h < 0.1	x: 0 m h = 1.9	x: 0 m h = 11.5	x: 0 m h = 16.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.5
N49/N264	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.775 m h = 3.0	x: 0.571 m h = 5.1	x: 0.571 m h = 6.0	x: 0.571 m h = 44.9	x: 0.775 m h = 9.3	h = 2.3	x: 0.571 m h = 0.4	x: 0.571 m h = 21.0	x: 0.571 m h = 55.6	x: 0.571 m h = 37.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.6
N49/N50	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.5 m h = 16.8	x: 0 m h = 13.0	x: 0 m h = 12.2	x: 0.5 m h = 16.0	h = 1.2	h = 4.6	x: 0 m h = 1.7	x: 0.5 m h = 2.6	x: 0.5 m h = 26.8	x: 0.5 m h = 38.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.9
N265/N50	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.707 m h = 14.3	x: 0 m h = 26.0	x: 0 m h = 3.5	x: 0 m h = 14.4	x: 0.707 m h = 0.9	h = 0.7	x: 0 m h = 0.1	x: 0 m h = 2.1	x: 0 m h = 43.9	x: 0 m h = 26.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.9
N265/N266	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.475 m h = 14.7	x: 0 m h = 11.4	x: 0 m h = 2.4	x: 0 m h = 31.8	h = 3.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 10.3	x: 0 m h = 34.2	x: 0 m h = 48.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.9
N267/N266	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.69 m h = 14.8	x: 0 m h = 26.9	x: 0 m h = 3.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.1	h = 0.7	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.69 m h = 33.8	x: 0.517 m h = 18.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.8
N267/N268	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.45 m h = 0.7	x: 0 m h = 0.6	x: 0.45 m h = 14.3	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 3.7	x: 0.45 m h = 2.2	N.A. ⁽³⁾	x: 0.45 m h = 11.1	x: 0.45 m h = 19.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.9
N267/N265	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 16.9	h = 13.3	x: 0.5 m h = 4.1	x: 0.079 m h = 23.0	x: 0.079 m h = 2.3	h = 1.9	x: 0.5 m h = 0.2	x: 0.079 m h = 5.4	x: 0.079 m h = 29.5	x: 0.079 m h = 40.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.7
N265/N49	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	h = 29.8	h = 23.6	x: 0.5 m h = 12.9	x: 0.5 m h = 26.1	x: 0 m h = 1.8	h = 2.5	x: 0.5 m h = 1.7	x: 0.5 m h = 6.9	x: 0.5 m h = 45.8	x: 0.5 m h = 65.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.7
N268/N266	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.2	x: 0 m h = 1.6	x: 0 m h = 8.1	x: 0.501 m h = 1.6	h = 0.5	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 9.1	x: 0.501 m h = 5.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.1
N266/N50	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 9.2	x: 0 m h = 16.2	x: 0.501 m h = 2.9	x: 0.501 m h = 9.2	x: 0.501 m h = 1.1	h = 0.5	x: 0.501 m h = 0.1	x: 0.501 m h = 0.9	x: 0.501 m h = 26.2	x: 0.501 m h = 15.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2
N201/N215	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 7.1	x: 1.057 m h = 6.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h = 0.4	N.A. ⁽³⁾	x: 0 m h = 15.3	x: 0 m h = 8.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.3
N269/N216	(b _u /t) £ 90 Passa	I _u £ 300.0 I _y £ 300.0 Passa	x: 0.814 m h = 0.6	N _{c,sd} = 0.00 N.A. ⁽⁴⁾	x: 0.814 m h = 6.3	x: 0.814 m h = 7.8	x: 0 m h = 0.4	h = 0.4	x: 0.814 m h = 0.4	x: 0.814 m h = 0.6	N.A. ⁽⁴⁾	x: 0.814 m h = 14.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.6
N269/N270	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.557 m h < 0.1	x: 0 m h = 0.5	x: 0 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.4	h < 0.1	x: 0.557 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 7.9	x: 0 m h = 3.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.9
N271/N270	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.794 m h = 1.0	x: 0 m h = 0.5	x: 0.794 m h = 5.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 0.794 m h = 0.4	N.A. ⁽³⁾	x: 0.794 m h = 3.7	x: 0.596 m h = 7.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.4
N271/N272	(b _u /t) £ 90 Passa	I _u £ 200.0 I _y £ 200.0 Passa	x: 0.528 m h = 1.4	x: 0 m h = 1.2	x: 0 m h = 3.6	x: 0 m h = 11.6	h = 1.2	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 1.4	x: 0 m h = 9.6	x: 0 m h = 14.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.3

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)														Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V _y	M.V _x	N.M _y M _y	N.M _x M _y	M _t		
N43/N272	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 2.7	x: 0.571 m h = 4.5	x: 0.571 m h = 11.3	x: 0.571 m h = 37.3	x: 0.775 m h = 7.7	h = 3.8	x: 0.571 m h = 1.4	x: 0.571 m h = 14.5	x: 0.571 m h = 43.4	x: 0.571 m h = 30.7	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.4	
N43/N44	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 18.5	x: 0 m h = 14.0	x: 0.5 m h = 5.1	x: 0.5 m h = 11.5	h = 0.7	h = 1.1	x: 0.5 m h = 0.3	x: 0.5 m h = 1.3	x: 0.5 m h = 23.6	x: 0.5 m h = 31.3	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.3	
N273/N44	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 15.6	x: 0 m h = 29.1	x: 0 m h = 4.3	x: 0 m h = 14.7	x: 0.707 m h = 0.8	h = 0.6	x: 0 m h = 0.2	x: 0 m h = 2.2	x: 0 m h = 48.0	x: 0 m h = 27.1	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.0	
N273/N274	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 16.4	x: 0 m h = 12.5	x: 0 m h = 3.0	x: 0 m h = 38.0	h = 4.2	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 14.6	x: 0 m h = 37.5	x: 0 m h = 57.4	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.4	
N275/N274	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 16.2	x: 0 m h = 30.2	x: 0.69 m h = 4.5	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.1	h = 0.6	x: 0.69 m h = 0.2	N.A. ⁽³⁾	x: 0.69 m h = 38.4	x: 0 m h = 20.0	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.4	
N275/N276	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.7	x: 0 m h = 0.5	x: 0.45 m h = 11.2	M ₁₃₄ = 0.00 N.A. ⁽²⁾	h = 0.3	h = 1.9	x: 0.45 m h = 1.3	N.A. ⁽³⁾	x: 0.45 m h = 7.5	x: 0.45 m h = 12.3	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.3	
N275/N273	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 18.7	h = 14.5	x: 0.5 m h = 2.9	x: 0.078 m h = 31.1	x: 0.078 m h = 3.1	h = 1.0	x: 0.5 m h = 0.1	x: 0.078 m h = 9.8	x: 0.078 m h = 34.0	x: 0.078 m h = 50.0	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.0	
N273/N43	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 33.2	h = 25.8	x: 0.5 m h = 6.4	x: 0.5 m h = 30.8	x: 0 m h = 2.1	h = 1.5	x: 0.5 m h = 0.4	x: 0.5 m h = 9.5	x: 0.5 m h = 48.0	x: 0.5 m h = 70.3	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 70.3	
N276/N274	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.2	x: 0 m h = 1.9	x: 0 m h = 12.0	x: 0.501 m h = 1.8	x: 0 m h = 0.7	x: 0 m h = 0.1	x: 0 m h = 1.4	x: 0 m h = 13.9	x: 0 m h = 11.6	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.9	
N274/N44	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 10.0	x: 0 m h = 18.1	x: 0.501 m h = 1.7	x: 0.501 m h = 16.9	x: 0.501 m h = 1.6	x: 0 m h = 0.4	x: 0.501 m h = 0.1	x: 0.501 m h = 2.9	x: 0.501 m h = 35.0	x: 0.501 m h = 19.2	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.0	
N183/N197	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 7.8	x: 1.057 m h = 7.3	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.2	x: 1.057 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 16.4	x: 0 m h = 9.2	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.4	
N277/N198	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 0.7	x: 0 m h = 0.4	x: 0.814 m h = 6.6	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.3	x: 0.814 m h = 0.4	N.A. ⁽³⁾	x: 0.407 m h = 6.8	x: 0.814 m h = 13.5	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.5	
N277/N278	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 0.2	x: 0 m h = 0.5	x: 0 m h = 3.3	M ₁₃₄ = 0.00 N.A. ⁽²⁾	h = 0.5	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 8.7	x: 0 m h = 7.6	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.7	
N279/N278	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 0.9	x: 0 m h = 0.1	x: 0.794 m h = 4.9	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 0.794 m h = 0.1	h = 0.4	x: 0.794 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 3.9	x: 0.397 m h = 6.5	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.5	
N279/N280	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 0.8	x: 0 m h = 0.9	x: 0 m h = 2.6	x: 0.528 m h = 8.9	h = 0.9	h = 0.5	x: 0 m h = 0.1	x: 0.528 m h = 0.8	x: 0 m h = 9.6	x: 0 m h = 12.2	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.2	
N39/N280	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 1.6	x: 0.571 m h = 2.4	x: 0.571 m h = 9.7	x: 0.571 m h = 21.0	x: 0.775 m h = 3.9	h = 4.9	x: 0.571 m h = 1.1	x: 0.571 m h = 4.6	x: 0.571 m h = 33.1	x: 0.571 m h = 20.0	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.1	
N39/N40	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 23.6	x: 0 m h = 16.7	x: 0 m h = 10.2	x: 0.5 m h = 13.7	h = 0.7	h = 3.0	x: 0 m h = 1.1	x: 0.5 m h = 1.9	x: 0.5 m h = 25.7	x: 0 m h = 37.9	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.9	
N281/N40	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 19.4	x: 0 m h = 38.6	x: 0 m h = 2.7	x: 0 m h = 20.0	x: 0.707 m h = 1.1	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 4.0	x: 0 m h = 60.7	x: 0 m h = 33.7	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.7	
N281/N282	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 21.8	x: 0 m h = 15.6	x: 0.475 m h = 1.9	x: 0 m h = 50.5	h = 5.6	h = 0.1	x: 0.475 m h = 0.1	x: 0 m h = 25.8	x: 0 m h = 47.1	x: 0 m h = 73.7	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.7	
N283/N282	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 20.3	x: 0 m h = 40.4	x: 0 m h = 3.8	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.2	h = 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.69 m h = 48.2	x: 0.517 m h = 24.8	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.2	
N283/N284	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.7	x: 0 m h = 0.5	x: 0.45 m h = 10.5	M ₁₃₄ = 0.00 N.A. ⁽²⁾	h = 0.6	h = 3.3	x: 0.45 m h = 1.2	N.A. ⁽³⁾	x: 0.45 m h = 6.8	x: 0.45 m h = 11.5	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.5	
N283/N281	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 24.3	h = 17.7	x: 0.5 m h = 5.5	x: 0.078 m h = 39.8	x: 0.078 m h = 3.9	h = 2.4	x: 0.5 m h = 0.4	x: 0.078 m h = 16.0	x: 0.078 m h = 42.0	x: 0.078 m h = 66.0	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.0	
N281/N39	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 43.6	h = 31.7	x: 0.5 m h = 14.6	x: 0.5 m h = 44.0	x: 0 m h = 3.0	h = 2.7	x: 0.5 m h = 2.2	x: 0.5 m h = 19.4	x: 0.5 m h = 64.4	x: 0.5 m h = 102.1	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 102.1	
N284/N282	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.3	x: 0 m h = 3.0	x: 0 m h = 17.2	x: 0.501 m h = 2.2	x: 0 m h = 0.7	x: 0 m h = 0.1	x: 0 m h = 3.0	x: 0 m h = 20.4	x: 0 m h = 15.6	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.4	
N282/N40	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 12.4	x: 0 m h = 24.4	x: 0 m h = 2.0	x: 0.501 m h = 20.5	x: 0.501 m h = 1.8	x: 0 m h = 0.6	x: 0 m h = 0.1	x: 0.501 m h = 4.2	x: 0.501 m h = 45.5	x: 0.501 m h = 24.0	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 45.5	
N165/N179	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.3	x: 0 m h = 8.2	x: 1.057 m h = 5.2	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 18.0	x: 0 m h = 9.9	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 18.0	
N285/N180	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 1.1	x: 0 m h = 1.0	x: 0 m h = 4.8	M ₁₃₄ = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.5	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0.407 m h = 8.5	x: 0.814 m h = 8.1	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.5	
N285/N286	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 0.6	x: 0 m h = 0.8	x: 0 m h = 3.5	x: 0 m h = 7.4	h = 0.7	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 0.6	x: 0 m h = 8.3	x: 0 m h = 10.5	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.5	
N287/N286	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 1.3	x: 0 m h = 1.3	x: 0 m h = 6.5	x: 0 m h = 7.6	x: 0.794 m h = 0.3	h = 0.3	x: 0 m h = 0.4	x: 0 m h = 0.6	x: 0 m h = 14.5	x: 0 m h = 8.9	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.5	
N287/N288	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 1.3	x: 0 m h = 2.5	x: 0.528 m h = 7.6	M ₁₃₄ = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.7	x: 0.528 m h = 0.6	N.A. ⁽³⁾	x: 0.528 m h = 11.2	x: 0.528 m h = 5.8	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.2	
N35/N288	x: 0.571 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 5.1	x: 0.571 m h = 3.9	x: 0.775 m h = 11.8	x: 0.571 m h = 25.4	x: 0.571 m h = 6.8	h = 4.2	x: 0.775 m h = 1.4	x: 0.571 m h = 6.9	x: 0.775 m h = 22.7	x: 0.775 m h = 40.9	M ₁₃₄ = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.9	

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _x V _y	M _y V _x	N _x M _y	N _y M _x	M _t	
N35/N36	x: 0.25 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 32.1	x: 0 m h = 22.6	x: 0 m h = 21.5	x: 0.5 m h = 17.8	h = 0.5	h = 4.5	x: 0 m h = 4.8	x: 0.5 m h = 3.2	x: 0 m h = 35.8	x: 0 m h = 61.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.7
N289/N36	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 26.2	x: 0 m h = 53.7	x: 0 m h = 3.2	x: 0 m h = 29.9	x: 0.707 m h = 1.7	h = 0.3	x: 0 m h = 0.1	x: 0 m h = 9.0	x: 0 m h = 86.7	x: 0 m h = 44.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.7
N289/N290	x: 0.238 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 30.5	x: 0 m h = 21.1	x: 0 m h = 2.2	x: 0 m h = 68.5	h = 7.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 47.4	x: 0 m h = 62.3	x: 0 m h = 101.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 101.1
N291/N290	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 27.8	x: 0 m h = 56.8	x: 0 m h = 6.8	x: 0.69 m h = 7.2	x: 0.69 m h = 0.3	h = 0.7	x: 0 m h = 0.5	x: 0.69 m h = 0.5	x: 0.69 m h = 66.7	x: 0.345 m h = 32.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.7
N291/N292	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.2	x: 0 m h = 1.1	x: 0 m h = 5.1	x: 0.45 m h = 11.9	h = 1.3	h = 0.8	x: 0 m h = 0.3	x: 0.45 m h = 1.4	x: 0.45 m h = 14.3	x: 0.45 m h = 8.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.3
N291/N289	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 33.5	h = 23.6	x: 0.077 m h = 2.2	x: 0.077 m h = 49.2	x: 0.077 m h = 4.8	h = 0.9	x: 0.077 m h = 0.1	x: 0.077 m h = 24.4	x: 0.077 m h = 53.8	x: 0.077 m h = 84.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.9
N289/N35	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 60.3	h = 42.5	x: 0.5 m h = 5.0	x: 0.5 m h = 66.9	x: 0 m h = 4.6	h = 0.8	x: 0.5 m h = 0.3	x: 0.5 m h = 45.0	x: 0.5 m h = 85.7	x: 0.5 m h = 132.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 132.2
N292/N290	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h < 0.1	x: 0 m h = 0.6	x: 0 m h = 3.7	x: 0 m h = 16.8	x: 0.501 m h = 2.2	x: 0 m h = 0.9	x: 0 m h = 0.1	x: 0 m h = 2.8	x: 0 m h = 21.1	x: 0 m h = 9.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.1
N290/N36	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 17.3	x: 0 m h = 34.7	x: 0.501 m h = 5.3	x: 0.501 m h = 21.5	x: 0.501 m h = 1.8	x: 0.501 m h = 1.2	x: 0.501 m h = 0.3	x: 0.501 m h = 4.7	x: 0.501 m h = 57.5	x: 0.501 m h = 31.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.5
N147/N161	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 2.9	x: 0 m h = 7.7	x: 1.057 m h = 2.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 9.0	x: 1.057 m h = 2.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.0
N293/N162	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 2.1	x: 0 m h = 1.9	x: 0.814 m h = 2.3	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.5	x: 0.814 m h = 0.1	N.A. ⁽³⁾	x: 0.814 m h = 6.2	x: 0.814 m h = 10.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.0
N293/N294	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 1.1	x: 0 m h = 1.6	x: 0.557 m h = 1.3	x: 0 m h = 8.0	h = 0.8	h = 0.1	x: 0.557 m h < 0.1	x: 0 m h = 0.7	x: 0 m h = 10.5	x: 0.557 m h = 9.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.5
N295/N294	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 2.3	x: 0 m h = 2.2	x: 0 m h = 3.4	x: 0 m h = 8.3	x: 0.794 m h = 0.3	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 9.4	x: 0 m h = 12.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.3
N295/N296	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 2.3	x: 0 m h = 4.4	x: 0.528 m h = 4.6	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.6	x: 0.528 m h = 0.2	N.A. ⁽³⁾	x: 0.528 m h = 7.7	x: 0.528 m h = 5.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.7
N31/N296	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 8.7	x: 0.571 m h = 6.6	x: 0.571 m h = 9.5	x: 0.571 m h = 44.9	x: 0.571 m h = 11.1	h = 3.9	x: 0.571 m h = 1.0	x: 0.571 m h = 21.4	x: 0.571 m h = 38.8	x: 0.571 m h = 63.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.0
N31/N32	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 31.7	x: 0 m h = 23.3	x: 0 m h = 19.4	x: 0.5 m h = 22.3	h = 0.8	h = 5.4	x: 0 m h = 4.0	x: 0.5 m h = 5.0	x: 0.5 m h = 37.8	x: 0 m h = 58.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.7
N297/N32	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 27.7	x: 0 m h = 54.8	x: 0 m h = 3.5	x: 0 m h = 31.9	x: 0.707 m h = 1.9	h = 0.5	x: 0 m h = 0.1	x: 0 m h = 10.2	x: 0 m h = 87.2	x: 0 m h = 48.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.2
N297/N298	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 31.2	x: 0 m h = 22.4	x: 0 m h = 2.4	x: 0 m h = 68.7	h = 7.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 47.7	x: 0 m h = 65.8	x: 0 m h = 100.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 100.3
N299/N298	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 29.5	x: 0 m h = 58.1	x: 0 m h = 5.1	x: 0.69 m h = 6.9	x: 0.69 m h = 0.3	h = 0.4	x: 0 m h = 0.3	x: 0.69 m h = 0.5	x: 0.69 m h = 65.4	x: 0.345 m h = 33.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.4
N299/N300	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.5	x: 0 m h = 2.1	x: 0.45 m h = 5.7	x: 0.45 m h = 16.8	h = 1.7	h = 3.1	x: 0.45 m h = 0.4	x: 0.45 m h = 2.8	x: 0.45 m h = 24.6	x: 0.45 m h = 13.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.6
N299/N297	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 34.0	h = 24.7	x: 0.5 m h = 6.1	x: 0.077 m h = 47.9	x: 0.077 m h = 4.7	h = 2.4	x: 0.5 m h = 0.4	x: 0.077 m h = 23.1	x: 0.077 m h = 54.9	x: 0.077 m h = 83.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.3
N297/N31	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 61.3	h = 44.9	x: 0.5 m h = 16.5	x: 0.5 m h = 69.9	x: 0 m h = 4.8	h = 2.7	x: 0.5 m h = 2.8	x: 0.5 m h = 49.1	x: 0.5 m h = 95.1	x: 0.5 m h = 147.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 147.7
N300/N298	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.6	x: 0.501 m h = 2.2	x: 0 m h = 12.2	x: 0.501 m h = 1.9	h = 0.5	x: 0.501 m h = 0.1	x: 0 m h = 1.5	x: 0 m h = 14.1	x: 0 m h = 8.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.1
N298/N32	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 18.6	x: 0 m h = 35.4	x: 0.501 m h = 2.8	x: 0.501 m h = 17.5	x: 0.501 m h = 1.5	h = 0.6	x: 0.501 m h = 0.1	x: 0.501 m h = 3.1	x: 0.501 m h = 55.6	x: 0.501 m h = 29.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.6
N6/N21	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 2.9	x: 0 m h = 7.7	x: 1.057 m h = 2.0	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 9.1	x: 1.057 m h = 2.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.1
N301/N13	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 2.1	x: 0 m h = 1.9	x: 0.814 m h = 2.5	M _{tsd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.6	x: 0.814 m h = 0.1	N.A. ⁽³⁾	x: 0.814 m h = 7.3	x: 0.814 m h = 10.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.1
N301/N302	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 1.1	x: 0 m h = 1.6	x: 0.557 m h = 1.4	x: 0 m h = 8.1	h = 0.8	h = 0.1	x: 0.557 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 10.5	x: 0.557 m h = 9.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.5
N303/N302	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 2.3	x: 0 m h = 2.2	x: 0 m h = 3.4	x: 0 m h = 8.3	x: 0.794 m h = 0.3	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 9.5	x: 0 m h = 12.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.1
N303/N304	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 2.3	x: 0 m h = 4.4	x: 0.528 m h = 4.9	M _{tsd} = 0.00 N.A. ⁽²⁾	h = 0.1	h = 0.6	x: 0.528 m h = 0.2	N.A. ⁽³⁾	x: 0.528 m h = 7.9	x: 0.528 m h = 5.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.9
N3/N304	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 8.7	x: 0.571 m h = 6.6	x: 0.571 m h = 9.4	x: 0.571 m h = 44.9	x: 0.571 m h = 11.2	h = 4.0	x: 0.571 m h = 1.0	x: 0.571 m h = 21.4	x: 0.571 m h = 38.7	x: 0.571 m h = 63.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.0
N3/N2	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 31.7	x: 0 m h = 23.3	x: 0 m h = 19.4	x: 0.5 m h = 22.7	h = 0.8	h = 5.3	x: 0 m h = 4.1	x: 0.5 m h = 5.1	x: 0.5 m h = 38.0	x: 0 m h = 58.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 58.6

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M.V _y	M.V _s	N.M _s M _y	N.M _s M _y	M _t	
N305/N2	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 27.8	x: 0 m h = 54.8	x: 0 m h = 3.6	x: 0 m h = 32.0	x: 0.707 m h = 1.9	h = 0.5	x: 0 m h = 0.1	x: 0 m h = 10.3	x: 0 m h = 87.2	x: 0 m h = 48.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.2
N305/N306	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 31.2	x: 0 m h = 22.4	x: 0 m h = 2.5	x: 0 m h = 68.6	h = 7.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 47.7	x: 0 m h = 65.8	x: 0 m h = 100.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 100.1
N307/N306	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 29.5	x: 0 m h = 58.1	x: 0 m h = 5.3	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.3	h = 0.4	x: 0 m h = 0.3	N.A. ⁽³⁾	x: 0.69 m h = 59.3	x: 0.517 m h = 34.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.3
N307/N308	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.5	x: 0 m h = 2.1	x: 0.45 m h = 5.6	x: 0.45 m h = 17.1	h = 1.7	h = 3.0	x: 0.45 m h = 0.4	x: 0.45 m h = 2.9	x: 0.45 m h = 24.7	x: 0.45 m h = 13.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.7
N307/N305	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 34.0	h = 24.8	x: 0.5 m h = 5.7	x: 0.077 m h = 47.9	x: 0.077 m h = 4.7	h = 2.3	x: 0.5 m h = 0.4	x: 0.077 m h = 23.2	x: 0.077 m h = 55.0	x: 0.077 m h = 83.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.5
N305/N3	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 61.4	h = 44.9	x: 0.5 m h = 15.7	x: 0.5 m h = 69.9	x: 0 m h = 4.8	h = 2.7	x: 0.5 m h = 2.5	x: 0.5 m h = 49.1	x: 0.5 m h = 94.7	x: 0.5 m h = 147.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 147.0
N308/N306	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.6	x: 0.501 m h = 1.9	x: 0 m h = 12.0	x: 0.501 m h = 1.9	h = 0.6	x: 0.501 m h < 0.1	x: 0 m h = 1.4	x: 0 m h = 13.8	x: 0 m h = 8.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.8
N306/N2	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 18.6	x: 0 m h = 35.4	x: 0.501 m h = 3.0	x: 0.501 m h = 17.2	x: 0.501 m h = 1.5	h = 0.7	x: 0.501 m h = 0.1	x: 0.501 m h = 3.0	x: 0.501 m h = 54.7	x: 0.501 m h = 30.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.7
N57/N71	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.3	x: 0 m h = 8.2	x: 1.057 m h = 5.1	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h = 0.3	N.A. ⁽³⁾	x: 0 m h = 17.9	x: 0 m h = 9.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9
N309/N72	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 1.1	x: 0 m h = 1.0	x: 0 m h = 4.7	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.5	x: 0 m h = 0.2	N.A. ⁽³⁾	x: 0.407 m h = 8.3	x: 0.814 m h = 8.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.3
N309/N310	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 0.6	x: 0 m h = 0.8	x: 0 m h = 3.3	x: 0 m h = 7.4	h = 0.7	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 0.6	x: 0 m h = 8.4	x: 0 m h = 10.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.4
N311/N310	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 1.4	x: 0 m h = 1.3	x: 0 m h = 6.2	x: 0 m h = 7.6	x: 0.794 m h = 0.3	h = 0.3	x: 0 m h = 0.4	x: 0 m h = 0.6	x: 0 m h = 14.1	x: 0 m h = 9.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.1
N311/N312	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 1.3	x: 0 m h = 2.6	x: 0.528 m h = 7.3	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 0.7	x: 0.528 m h = 0.5	N.A. ⁽³⁾	x: 0.528 m h = 11.0	x: 0.528 m h = 5.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N33/N312	x: 0.571 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 5.1	x: 0.571 m h = 3.9	x: 0.775 m h = 11.4	x: 0.571 m h = 25.5	x: 0.571 m h = 6.8	h = 4.1	x: 0.775 m h = 1.3	x: 0.571 m h = 6.9	x: 0.775 m h = 22.5	x: 0.775 m h = 40.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.6
N33/N34	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 32.1	x: 0 m h = 22.6	x: 0 m h = 21.4	x: 0.5 m h = 18.5	h = 0.6	h = 4.6	x: 0 m h = 4.8	x: 0.5 m h = 3.4	x: 0 m h = 35.7	x: 0 m h = 61.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.2
N313/N34	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 26.2	x: 0 m h = 53.7	x: 0 m h = 3.3	x: 0 m h = 30.1	x: 0.707 m h = 1.7	h = 0.3	x: 0 m h = 0.1	x: 0 m h = 9.1	x: 0 m h = 87.1	x: 0 m h = 44.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.1
N313/N314	x: 0.238 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 30.5	x: 0 m h = 21.2	x: 0 m h = 2.3	x: 0 m h = 68.4	h = 7.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 47.3	x: 0 m h = 62.4	x: 0 m h = 101.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 101.1
N315/N314	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 27.8	x: 0 m h = 56.8	x: 0 m h = 6.5	x: 0.69 m h = 7.1	x: 0.69 m h = 0.2	h = 0.7	x: 0 m h = 0.4	x: 0.69 m h = 0.5	x: 0.69 m h = 66.8	x: 0.345 m h = 31.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.8
N315/N316	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.2	x: 0 m h = 1.0	x: 0 m h = 5.5	x: 0.45 m h = 12.1	h = 1.3	h = 0.9	x: 0 m h = 0.3	x: 0.45 m h = 1.5	x: 0.45 m h = 14.6	x: 0.45 m h = 8.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.6
N315/N313	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 33.5	h = 23.6	x: 0.077 m h = 2.1	x: 0.077 m h = 49.2	x: 0.077 m h = 4.8	h = 1.0	x: 0.077 m h = 0.1	x: 0.077 m h = 24.5	x: 0.077 m h = 53.7	x: 0.077 m h = 84.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.8
N313/N33	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 60.3	h = 42.6	x: 0.5 m h = 5.7	x: 0.5 m h = 67.0	x: 0 m h = 4.6	h = 0.9	x: 0.5 m h = 0.3	x: 0.5 m h = 45.1	x: 0.5 m h = 86.1	x: 0.5 m h = 133.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 133.0
N316/N314	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h < 0.1	x: 0 m h = 0.7	x: 0 m h = 3.3	x: 0 m h = 16.2	x: 0.501 m h = 2.2	h = 0.9	x: 0 m h = 0.1	x: 0 m h = 2.6	x: 0 m h = 20.3	x: 0 m h = 9.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 20.3
N314/N34	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 17.3	x: 0 m h = 34.7	x: 0 m h = 4.8	x: 0.501 m h = 20.8	x: 0.501 m h = 1.8	h = 1.1	x: 0.501 m h = 0.2	x: 0.501 m h = 4.4	x: 0.501 m h = 56.3	x: 0.501 m h = 30.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.3
N75/N89	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 7.8	x: 1.057 m h = 7.2	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.2	x: 1.057 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 16.4	x: 0 m h = 9.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.4
N317/N90	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.814 m h = 0.7	x: 0 m h = 0.4	x: 0.814 m h = 6.7	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 0.4	x: 0.814 m h = 0.5	N.A. ⁽³⁾	x: 0.407 m h = 6.7	x: 0.814 m h = 13.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.5
N317/N318	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 0.2	x: 0 m h = 0.5	x: 0 m h = 3.2	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.5	h < 0.1	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 8.7	x: 0 m h = 7.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.7
N319/N318	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 1.0	x: 0 m h = 0.2	x: 0.794 m h = 4.8	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0.794 m h = 0.1	h = 0.4	x: 0.794 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 3.8	x: 0.397 m h = 6.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.4
N319/N320	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 0.8	x: 0 m h = 0.8	x: 0 m h = 2.5	x: 0.528 m h = 9.0	h = 0.9	h = 0.5	x: 0 m h = 0.1	x: 0.528 m h = 0.8	x: 0 m h = 9.5	x: 0 m h = 12.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.2
N37/N320	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 1.6	x: 0.571 m h = 2.3	x: 0.571 m h = 9.6	x: 0.571 m h = 20.9	x: 0.775 m h = 3.9	h = 5.0	x: 0.571 m h = 1.1	x: 0.571 m h = 4.5	x: 0.571 m h = 32.8	x: 0.571 m h = 19.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.8
N37/N38	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 23.5	x: 0 m h = 16.7	x: 0 m h = 10.1	x: 0.5 m h = 14.4	h = 0.7	h = 3.0	x: 0 m h = 1.1	x: 0.5 m h = 2.1	x: 0.5 m h = 26.1	x: 0.5 m h = 37.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.8
N321/N38	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 19.4	x: 0 m h = 38.6	x: 0 m h = 2.8	x: 0 m h = 20.4	x: 0.707 m h = 1.1	h = 0.4	x: 0 m h = 0.1	x: 0 m h = 4.2	x: 0 m h = 61.1	x: 0 m h = 33.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.1

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	b/t	I	N _i	N _c	M _s	M _y	V _s	V _y	M _x V _y	M _y V _x	N _x M _y	N _y M _x	M _t	
N321/N322	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 21.8	x: 0 m h = 15.6	x: 0 m h = 1.9	x: 0 m h = 50.3	h = 5.5	h = 0.1	x: 0.475 m h < 0.1	x: 0 m h = 25.6	x: 0 m h = 47.0	x: 0 m h = 73.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.6
N323/N322	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 20.3	x: 0 m h = 40.4	x: 0 m h = 3.9	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.2	h = 0.2	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.69 m h = 48.0	x: 0.517 m h = 24.8	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.0
N323/N324	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.8	x: 0 m h = 0.6	x: 0.45 m h = 10.0	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.6	h = 3.1	x: 0.45 m h = 1.1	N.A. ⁽³⁾	x: 0.45 m h = 7.1	x: 0.45 m h = 11.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.4
N323/N321	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 24.3	h = 17.6	x: 0.5 m h = 5.0	x: 0.078 m h = 39.9	x: 0.078 m h = 3.9	h = 2.2	x: 0.5 m h = 0.3	x: 0.078 m h = 16.0	x: 0.078 m h = 42.1	x: 0.078 m h = 66.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.2
N321/N37	x: 0 m (b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 43.6	h = 31.7	x: 0.5 m h = 13.6	x: 0.5 m h = 44.0	x: 0 m h = 3.0	h = 2.6	x: 0.5 m h = 1.9	x: 0.5 m h = 19.5	x: 0.5 m h = 63.9	x: 0.5 m h = 101.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	NÃO ATENDE h = 101.2
N324/N322	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h < 0.1	x: 0 m h = 0.3	x: 0 m h = 2.6	x: 0 m h = 16.3	x: 0.501 m h = 2.2	x: 0 m h = 0.8	x: 0 m h = 0.1	x: 0 m h = 2.7	x: 0 m h = 19.2	x: 0 m h = 10.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.2
N322/N38	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 12.4	x: 0 m h = 24.4	x: 0.501 m h = 2.2	x: 0.501 m h = 19.5	x: 0.501 m h = 1.7	h = 0.7	x: 0.501 m h = 0.1	x: 0.501 m h = 3.8	x: 0.501 m h = 44.3	x: 0.501 m h = 23.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 44.3
N93/N107	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 7.1	x: 1.057 m h = 6.0	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.1	x: 1.057 m h = 0.4	N.A. ⁽³⁾	x: 0 m h = 15.3	x: 0 m h = 8.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.3
N325/N108	(b _u /t) E 90 Passa	I _u E 300.0 I _y E 300.0 Passa	x: 0.814 m h = 0.6	N _{1,34} = 0.00 N.A. ⁽¹⁾	x: 0.814 m h = 6.3	x: 0.814 m h = 7.8	x: 0 m h = 0.4	h = 0.4	x: 0.814 m h = 0.4	x: 0.814 m h = 0.6	N.A. ⁽⁴⁾	x: 0.814 m h = 14.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.7
N325/N326	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h < 0.1	x: 0 m h = 0.5	x: 0 m h = 3.9	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.4	h < 0.1	x: 0.557 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 7.8	x: 0 m h = 3.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N327/N326	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 1.0	x: 0 m h = 0.5	x: 0.794 m h = 5.9	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.1	h = 0.3	x: 0.794 m h = 0.3	N.A. ⁽³⁾	x: 0.794 m h = 3.7	x: 0.596 m h = 7.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.3
N327/N328	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 1.4	x: 0 m h = 1.2	x: 0 m h = 3.5	x: 0 m h = 11.6	h = 1.2	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 1.4	x: 0 m h = 9.6	x: 0 m h = 14.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.2
N41/N328	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 2.7	x: 0.571 m h = 4.5	x: 0.571 m h = 11.3	x: 0.571 m h = 37.3	x: 0.775 m h = 7.7	h = 3.9	x: 0.571 m h = 1.4	x: 0.571 m h = 43.3	x: 0.571 m h = 30.7	x: 0.571 m h = 30.7	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.3
N41/N42	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 18.4	x: 0 m h = 14.0	x: 0.5 m h = 5.3	x: 0.5 m h = 11.6	h = 0.7	h = 1.1	x: 0.5 m h = 0.3	x: 0.5 m h = 1.3	x: 0.5 m h = 23.7	x: 0.5 m h = 31.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 31.6
N329/N42	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 15.6	x: 0 m h = 29.0	x: 0 m h = 4.4	x: 0 m h = 14.7	x: 0.707 m h = 0.8	h = 0.6	x: 0 m h = 0.2	x: 0 m h = 2.2	x: 0 m h = 48.1	x: 0 m h = 27.2	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 48.1
N329/N330	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 16.3	x: 0 m h = 12.4	x: 0 m h = 3.1	x: 0 m h = 38.0	h = 4.2	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 14.6	x: 0 m h = 37.5	x: 0 m h = 57.3	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 57.3
N331/N330	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.69 m h = 16.2	x: 0 m h = 30.1	x: 0.69 m h = 4.6	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.1	h = 0.6	x: 0.69 m h = 0.2	N.A. ⁽³⁾	x: 0.69 m h = 38.4	x: 0 m h = 20.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.4
N331/N332	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.45 m h = 0.7	x: 0 m h = 0.5	x: 0.45 m h = 10.9	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.3	h = 1.7	x: 0.45 m h = 1.2	N.A. ⁽³⁾	x: 0.45 m h = 7.4	x: 0.45 m h = 12.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.0
N331/N329	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 18.6	h = 14.5	x: 0.5 m h = 2.6	x: 0.078 m h = 31.1	x: 0.078 m h = 3.1	h = 0.9	x: 0.5 m h = 0.1	x: 0.078 m h = 9.7	x: 0.078 m h = 34.0	x: 0.078 m h = 49.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.9
N329/N41	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	h = 33.1	h = 25.8	x: 0.5 m h = 5.6	x: 0.5 m h = 30.8	x: 0 m h = 2.1	h = 1.4	x: 0.5 m h = 0.3	x: 0.5 m h = 9.5	x: 0.5 m h = 47.6	x: 0.5 m h = 69.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 69.4
N332/N330	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h < 0.1	x: 0 m h = 0.2	x: 0 m h = 1.7	x: 0 m h = 11.8	x: 0.501 m h = 1.8	x: 0 m h = 0.7	x: 0 m h < 0.1	x: 0 m h = 1.4	x: 0 m h = 13.6	x: 0 m h = 11.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.6
N330/N42	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.501 m h = 10.0	x: 0 m h = 18.1	x: 0.501 m h = 1.5	x: 0.501 m h = 16.7	x: 0.501 m h = 1.6	x: 0 m h = 0.5	x: 0.501 m h < 0.1	x: 0.501 m h = 2.8	x: 0.501 m h = 35.1	x: 0.501 m h = 19.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.1
N111/N125	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 1.057 m h = 3.4	x: 0 m h = 6.9	x: 1.057 m h = 5.8	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.2	h = 0.3	x: 1.057 m h = 0.3	N.A. ⁽³⁾	x: 0.704 m h = 12.8	x: 0 m h = 7.5	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.8
N333/N126	(b _u /t) E 90 Passa	I _u E 300.0 I _y E 300.0 Passa	x: 0.814 m h = 0.6	N _{1,34} = 0.00 N.A. ⁽¹⁾	x: 0.814 m h = 3.4	x: 0.814 m h = 7.1	x: 0.814 m h = 0.5	h = 0.4	x: 0.814 m h = 0.1	x: 0.814 m h = 0.5	N.A. ⁽⁴⁾	x: 0.814 m h = 11.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.0
N333/N334	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.557 m h = 0.1	x: 0 m h = 0.6	x: 0 m h = 2.1	M _{1,34} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 0.1	x: 0 m h < 0.1	N.A. ⁽³⁾	x: 0 m h = 7.8	x: 0 m h = 4.6	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.8
N335/N334	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.794 m h = 1.7	x: 0 m h = 1.0	x: 0.794 m h = 2.7	M _{1,34} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.2	h = 0.4	x: 0.794 m h = 0.1	N.A. ⁽³⁾	x: 0.794 m h = 4.8	x: 0.794 m h = 7.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.0
N335/N336	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.528 m h = 1.4	x: 0 m h = 1.3	x: 0.528 m h = 1.9	x: 0 m h = 13.7	h = 1.4	h = 0.5	x: 0.528 m h < 0.1	x: 0 m h = 1.9	x: 0 m h = 11.4	x: 0 m h = 16.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.4
N47/N336	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.775 m h = 3.0	x: 0.571 m h = 5.2	x: 0.571 m h = 6.0	x: 0.571 m h = 44.8	x: 0.775 m h = 9.3	h = 2.4	x: 0.571 m h = 0.4	x: 0.571 m h = 20.9	x: 0.571 m h = 55.6	x: 0.571 m h = 37.9	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 55.6
N47/N48	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.5 m h = 16.8	x: 0 m h = 13.0	x: 0 m h = 12.0	x: 0.5 m h = 16.1	h = 1.2	h = 4.6	x: 0 m h = 1.7	x: 0.5 m h = 2.6	x: 0.5 m h = 26.9	x: 0.5 m h = 39.1	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.1
N337/N48	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.707 m h = 14.3	x: 0 m h = 26.0	x: 0 m h = 3.6	x: 0 m h = 14.4	x: 0.707 m h = 0.9	h = 0.7	x: 0 m h = 0.1	x: 0 m h = 2.1	x: 0 m h = 43.9	x: 0 m h = 26.4	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.9
N337/N338	(b _u /t) E 90 Passa	I _u E 200.0 I _y E 200.0 Passa	x: 0.475 m h = 14.7	x: 0 m h = 11.4	x: 0 m h = 2.5	x: 0 m h = 31.8	h = 3.5	h = 0.1	x: 0 m h = 0.1	x: 0 m h = 10.2	x: 0 m h = 34.2	x: 0 m h = 49.0	M _{1,34} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.0

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	b/t	I	N _t	N _c	M _x	M _y	V _x	V _y	M _v V _y	M _y V _x	N _t M _x M _y	N _t M _y M _x	M _t		
N339/N338	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.69 m h = 14.8	x: 0 m h = 26.9	x: 0 m h = 3.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.1	h = 0.7	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0.69 m h = 33.8	x: 0.517 m h = 18.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 33.8	
N339/N340	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.45 m h = 0.7	x: 0 m h = 0.6	x: 0.45 m h = 13.8	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.5	h = 3.6	x: 0.45 m h = 2.0	N.A. ⁽³⁾	x: 0.45 m h = 10.9	x: 0.45 m h = 19.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.6	
N339/N337	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 16.9	h = 13.3	x: 0.5 m h = 3.8	x: 0.079 m h = 23.0	x: 0.079 m h = 2.3	h = 1.8	x: 0.5 m h = 0.2	x: 0.079 m h = 5.3	x: 0.079 m h = 29.5	x: 0.079 m h = 40.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.6	
N337/N47	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 29.8	h = 23.6	x: 0.5 m h = 12.2	x: 0.5 m h = 26.1	x: 0 m h = 1.8	h = 2.4	x: 0.5 m h = 1.5	x: 0.5 m h = 6.8	x: 0.5 m h = 45.5	x: 0.5 m h = 64.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 64.9	
N340/N338	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.3	x: 0 m h = 1.5	x: 0 m h = 8.0	x: 0.501 m h = 1.6	x: 0.501 m h = 0.5	x: 0 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 8.9	x: 0.501 m h = 5.3	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 8.9	
N338/N48	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 9.2	x: 0 m h = 16.2	x: 0.501 m h = 2.8	x: 0.501 m h = 9.1	x: 0.501 m h = 1.1	h = 0.5	x: 0.501 m h = 0.1	x: 0.501 m h = 0.8	x: 0.501 m h = 26.4	x: 0.501 m h = 15.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.4	
N129/N143	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.057 m h = 4.0	x: 0 m h = 10.0	x: 0 m h = 7.1	M _{sd} = 0.00 N.A. ⁽²⁾	x: 1.057 m h = 0.3	h = 0.3	x: 0 m h = 0.5	N.A. ⁽³⁾	x: 0 m h = 19.2	x: 0 m h = 10.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 19.2	
N341/N144	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.814 m h = 1.4	x: 0 m h = 3.2	x: 0.814 m h = 11.6	x: 0.814 m h = 8.1	x: 0 m h = 0.4	h = 0.9	x: 0.814 m h = 1.3	x: 0.814 m h = 0.7	x: 0.814 m h = 22.8	x: 0.814 m h = 13.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.8	
N341/N342	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.557 m h = 1.8	x: 0 m h = 1.1	x: 0.557 m h = 6.6	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.4	h = 0.2	x: 0.557 m h = 0.4	N.A. ⁽³⁾	x: 0.557 m h = 6.8	x: 0.557 m h = 12.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.2	
N343/N342	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.794 m h = 1.3	x: 0 m h = 3.2	x: 0 m h = 10.5	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.794 m h = 0.2	h = 0.2	x: 0 m h = 1.1	N.A. ⁽³⁾	x: 0.794 m h = 15.7	x: 0.794 m h = 8.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.7	
N343/N344	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.528 m h = 1.8	x: 0 m h = 1.0	x: 0 m h = 7.4	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.5	x: 0 m h = 0.6	N.A. ⁽³⁾	x: 0 m h = 5.5	x: 0 m h = 10.9	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 10.9	
N51/N544	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.387 m h = 1.0	x: 0 m h = 2.8	x: 0 m h = 16.6	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.387 m h = 0.6	h = 1.3	x: 0 m h = 2.8	N.A. ⁽³⁾	x: 0 m h = 24.3	x: 0 m h = 8.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.3	
N544/N344	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.387 m h = 1.0	x: 0 m h = 2.6	x: 0 m h = 12.4	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.387 m h = 0.5	h = 1.3	x: 0 m h = 1.6	N.A. ⁽³⁾	x: 0 m h = 17.9	x: 0 m h = 6.8	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.9	
N51/N52	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.5 m h = 2.6	x: 0.116 m h = 1.9	x: 0.116 m h = 12.1	x: 0.116 m h = 8.0	h = 0.6	h = 2.7	x: 0.116 m h = 1.5	x: 0.116 m h = 0.6	x: 0.116 m h = 10.8	x: 0.116 m h = 21.6	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.6	
N345/N52	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.707 m h = 1.2	x: 0 m h = 1.6	x: 0.707 m h = 12.2	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0 m h = 0.3	h = 1.7	x: 0.707 m h = 1.5	N.A. ⁽³⁾	x: 0.707 m h = 13.9	x: 0.707 m h = 16.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.1	
N345/N346	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.475 m h = 1.0	x: 0 m h = 0.9	x: 0.475 m h = 2.6	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 0.3	x: 0.475 m h = 0.1	N.A. ⁽³⁾	x: 0 m h = 4.5	x: 0 m h = 4.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 4.5	
N347/N346	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.69 m h = 0.9	x: 0 m h = 1.3	x: 0.69 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.69 m h = 0.3	h = 0.2	x: 0.69 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 3.4	x: 0 m h = 7.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.2	
N347/N348	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.45 m h = 0.5	x: 0 m h = 0.5	x: 0.45 m h = 3.9	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.2	h = 1.2	x: 0.45 m h = 0.2	N.A. ⁽³⁾	x: 0 m h = 5.1	x: 0 m h = 6.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 6.4	
N347/N345	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 0.7	h = 0.6	x: 0.5 m h = 2.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.5 m h = 0.7	h = 0.7	x: 0.5 m h = 0.1	N.A. ⁽³⁾	x: 0.078 m h = 7.6	x: 0.5 m h = 3.5	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 7.6	
N345/N51	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	h = 1.5	h = 1.4	x: 0.5 m h = 6.3	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.5 m h = 0.4	h = 1.1	x: 0.5 m h = 0.4	N.A. ⁽³⁾	x: 0.5 m h = 12.3	x: 0.5 m h = 10.1	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.3	
N348/N346	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 0.1	x: 0 m h = 0.2	x: 0.501 m h = 1.7	M _{sd} = 0.00 N.A. ⁽²⁾	x: 0.501 m h = 1.1	x: 0 m h = 0.4	x: 0.501 m h < 0.1	N.A. ⁽³⁾	x: 0.501 m h = 2.8	x: 0.501 m h = 5.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 5.4	
N346/N52	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.501 m h = 0.5	x: 0 m h = 0.6	x: 0 m h = 2.5	x: 0.501 m h = 7.2	x: 0.501 m h = 1.2	h = 0.4	x: 0 m h = 0.1	x: 0.501 m h = 0.5	x: 0.501 m h = 7.3	x: 0.501 m h = 9.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 9.2	
N201/N216	(b _w /t) £ 90 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 0.585 m h = 3.0	x: 0 m h = 2.4	x: 0 m h = 2.9	x: 0.585 m h = 12.6	h = 0.8	h = 0.6	x: 0 m h = 0.1	x: 0.585 m h = 1.6	x: 0 m h = 5.5	x: 0.585 m h = 16.0	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.0	
N340/N385	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.769 m h = 0.7	x: 0.089 m h = 2.5	x: 0.089 m h = 18.3	x: 1.769 m h = 10.0	h = 0.7	x: 1.769 m h = 1.9	x: 0.089 m h = 3.4	x: 1.769 m h = 1.0	x: 0.089 m h = 24.2	x: 0.089 m h = 13.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.2	
N385/N386	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.769 m h = 0.7	x: 0 m h = 2.3	x: 1.769 m h = 7.7	x: 0 m h = 7.5	h = 0.3	x: 1.769 m h = 0.7	x: 1.769 m h = 0.6	x: 0 m h = 0.6	x: 0 m h = 11.6	x: 0 m h = 5.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 11.6	
N386/N348	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.704 m h = 0.7	x: 0 m h = 2.1	x: 0 m h = 7.8	x: 1.705 m h = 14.9	h = 0.7	x: 0 m h = 1.1	x: 0 m h = 0.6	x: 1.705 m h = 2.2	x: 1.705 m h = 16.4	x: 1.705 m h = 9.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.4	
N340/N384	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.644 m h = 1.1	x: 0.076 m h = 2.9	x: 1.644 m h = 8.0	x: 0.076 m h = 19.1	h = 1.1	x: 1.644 m h = 1.0	x: 1.644 m h = 0.6	x: 0.076 m h = 3.7	x: 0.076 m h = 12.7	x: 0.076 m h = 23.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.2	
N384/N383	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.644 m h = 1.3	x: 0 m h = 2.9	x: 0 m h = 8.1	M _{sd} = 0.00 N.A. ⁽²⁾	h = 0.1	x: 0 m h = 0.7	x: 0 m h = 0.7	N.A. ⁽³⁾	x: 0 m h = 8.4	x: 0 m h = 12.4	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 12.4	
N383/N332	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.568 m h = 1.2	x: 0 m h = 2.9	x: 1.569 m h = 13.9	x: 1.569 m h = 10.9	h = 0.7	x: 0 m h = 1.8	x: 1.569 m h = 2.0	x: 1.569 m h = 1.2	x: 1.569 m h = 15.5	x: 1.569 m h = 22.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 22.7	
N332/N382	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.679 m h = 3.4	x: 0.092 m h = 4.9	x: 1.679 m h = 5.6	x: 0.092 m h = 22.7	h = 1.2	x: 1.679 m h = 0.9	x: 1.679 m h = 0.3	x: 0.092 m h = 5.2	x: 0.092 m h = 15.6	x: 0.092 m h = 26.2	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 26.2	
N382/N381	(b _w /t) £ 500 (b _y /t) £ 60 Passa	I _w £ 200.0 I _y £ 200.0 Passa	x: 1.679 m h = 3.6	x: 0 m h = 4.9	x: 0 m h = 5.8	x: 0 m h = 6.6	h = 0.2	x: 0 m h = 0.7	x: 0 m h = 0.3	x: 0 m h = 0.4	x: 0 m h = 10.9	x: 0 m h = 13.7	M _{tsd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.7	

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N381/N324	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.616 m h = 3.6	x: 0 m h = 4.7	x: 1.617 m h = 18.4	x: 1.617 m h = 12.9	h = 0.8	x: 0 m h = 1.8	x: 1.617 m h = 3.4	x: 1.617 m h = 1.7	x: 1.617 m h = 17.2	x: 1.617 m h = 27.9	M _{i,381} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.9
N324/N380	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 6.8	x: 0.107 m h = 8.7	x: 1.745 m h = 8.1	x: 0.107 m h = 30.0	h = 1.6	x: 1.745 m h = 1.2	x: 1.745 m h = 0.7	x: 0.107 m h = 9.0	x: 0.107 m h = 23.9	x: 0.107 m h = 38.8	M _{i,324} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.8
N380/N379	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 7.2	x: 0 m h = 8.7	x: 0 m h = 8.5	x: 1.745 m h = 8.6	h = 0.2	x: 0 m h = 0.3	x: 0 m h = 0.7	x: 1.745 m h = 0.7	x: 0 m h = 15.9	x: 1.745 m h = 21.8	M _{i,380} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.8
N379/N316	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.691 m h = 7.3	x: 0 m h = 8.6	x: 1.692 m h = 10.6	x: 1.692 m h = 11.0	h = 0.6	x: 0 m h = 1.6	x: 1.692 m h = 1.1	x: 1.692 m h = 1.2	x: 1.692 m h = 15.2	x: 1.692 m h = 24.5	M _{i,379} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.5
N316/N378	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 14.4	x: 0.091 m h = 11.3	x: 0.091 m h = 7.0	x: 0.091 m h = 28.1	h = 1.6	x: 1.675 m h = 1.0	x: 0.091 m h = 0.5	x: 0.091 m h = 7.9	x: 0.091 m h = 27.6	x: 0.091 m h = 49.5	M _{i,316} = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.5
N378/N377	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 14.7	x: 0 m h = 11.3	x: 0 m h = 3.3	x: 0 m h = 8.9	h = 0.2	x: 0 m h = 0.4	x: 0 m h = 0.1	x: 0 m h = 0.8	x: 0 m h = 10.9	x: 1.675 m h = 23.8	M _{i,378} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.8
N377/N308	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.612 m h = 14.6	x: 0 m h = 11.2	x: 1.613 m h = 14.8	x: 1.613 m h = 13.7	h = 0.8	x: 0 m h = 1.3	x: 1.613 m h = 2.2	x: 1.613 m h = 1.9	x: 1.613 m h = 22.7	x: 1.613 m h = 38.2	M _{i,377} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.2
N300/N375	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 16.1	h = 10.1	x: 1.644 m h = 7.8	x: 0.075 m h = 18.1	h = 1.2	x: 1.644 m h = 1.1	x: 1.644 m h = 0.6	x: 0.075 m h = 3.3	x: 0.075 m h = 20.6	x: 1.644 m h = 38.1	M _{i,300} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.1
N375/N376	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 16.3	h = 10.3	x: 0 m h = 8.0	x: 1.644 m h = 8.3	h = 0.2	x: 0 m h = 0.1	x: 0 m h = 0.6	x: 1.644 m h = 0.7	x: 1.644 m h = 17.8	x: 1.644 m h = 32.5	M _{i,375} = 0.00 N.A. ⁽⁶⁾	PASSA h = 32.5
N376/N308	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 16.3	h = 10.2	x: 0 m h = 7.7	x: 1.569 m h = 18.0	h = 1.1	x: 0 m h = 1.2	x: 0 m h = 0.6	x: 1.569 m h = 3.2	x: 1.569 m h = 20.9	x: 1.569 m h = 36.6	M _{i,376} = 0.00 N.A. ⁽⁶⁾	PASSA h = 36.6
N292/N373	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 14.4	x: 0.091 m h = 11.0	x: 0.091 m h = 6.6	x: 0.091 m h = 29.3	h = 1.8	x: 1.675 m h = 1.0	x: 0.091 m h = 0.4	x: 0.091 m h = 8.6	x: 0.091 m h = 27.7	x: 0.091 m h = 50.2	M _{i,292} = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.2
N373/N374	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.675 m h = 14.9	x: 0 m h = 11.3	x: 0 m h = 3.4	x: 1.675 m h = 11.6	h = 0.4	x: 0 m h = 0.4	x: 0 m h = 0.1	x: 1.675 m h = 1.3	x: 0.419 m h = 8.5	x: 1.675 m h = 29.1	M _{i,373} = 0.00 N.A. ⁽⁶⁾	PASSA h = 29.1
N374/N300	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.612 m h = 15.1	x: 0 m h = 11.3	x: 1.613 m h = 15.2	x: 1.613 m h = 13.7	h = 0.8	x: 0 m h = 1.4	x: 1.613 m h = 2.3	x: 1.613 m h = 1.9	x: 1.613 m h = 23.1	x: 1.613 m h = 38.6	M _{i,374} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.6
N284/N371	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 6.6	x: 0.107 m h = 8.3	x: 1.745 m h = 7.9	x: 0.107 m h = 32.5	h = 1.9	x: 1.745 m h = 1.1	x: 1.745 m h = 0.6	x: 0.107 m h = 10.6	x: 0.107 m h = 24.3	x: 0.107 m h = 40.3	M _{i,284} = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.3
N371/N372	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.745 m h = 7.3	x: 0 m h = 8.6	x: 0 m h = 8.4	x: 1.745 m h = 15.3	h = 0.8	x: 0 m h = 0.4	x: 0 m h = 0.7	x: 1.745 m h = 2.3	x: 1.745 m h = 16.3	x: 1.745 m h = 28.2	M _{i,371} = 0.00 N.A. ⁽⁶⁾	PASSA h = 28.2
N372/N292	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.691 m h = 7.7	x: 0 m h = 8.6	x: 1.692 m h = 10.1	x: 1.692 m h = 11.3	h = 0.6	x: 0 m h = 1.5	x: 1.692 m h = 1.0	x: 1.692 m h = 1.3	x: 1.692 m h = 15.3	x: 1.692 m h = 24.5	M _{i,372} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.5
N276/N369	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 3.2	x: 0.092 m h = 4.4	x: 1.679 m h = 5.5	x: 0.092 m h = 24.0	h = 1.5	x: 1.679 m h = 0.9	x: 1.679 m h = 0.3	x: 0.092 m h = 5.8	x: 0.092 m h = 15.6	x: 0.092 m h = 27.6	M _{i,276} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.6
N369/N370	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.679 m h = 3.7	x: 0 m h = 4.6	x: 0 m h = 5.8	x: 1.679 m h = 10.6	h = 0.5	x: 0 m h = 0.8	x: 0 m h = 0.3	x: 1.679 m h = 1.1	x: 1.049 m h = 8.5	x: 1.679 m h = 15.6	M _{i,369} = 0.00 N.A. ⁽⁶⁾	PASSA h = 15.6
N370/N284	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.616 m h = 3.9	x: 0 m h = 4.6	x: 1.617 m h = 18.5	x: 1.617 m h = 12.8	h = 0.7	x: 0 m h = 1.8	x: 1.617 m h = 3.5	x: 1.617 m h = 1.6	x: 1.617 m h = 17.4	x: 1.617 m h = 27.7	M _{i,370} = 0.00 N.A. ⁽⁶⁾	PASSA h = 27.7
N268/N367	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 1.0	x: 0.076 m h = 2.5	x: 1.644 m h = 8.1	x: 0.076 m h = 19.6	h = 1.2	x: 1.644 m h = 1.0	x: 1.644 m h = 0.7	x: 0.076 m h = 3.9	x: 0.076 m h = 12.5	x: 0.076 m h = 23.5	M _{i,268} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.5
N367/N368	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.644 m h = 1.3	x: 0 m h = 2.7	x: 0 m h = 8.3	x: 1.644 m h = 9.5	h = 0.4	x: 0 m h = 0.7	x: 0 m h = 0.7	x: 1.644 m h = 0.9	x: 1.644 m h = 8.2	x: 1.644 m h = 13.0	M _{i,367} = 0.00 N.A. ⁽⁶⁾	PASSA h = 13.0
N368/N276	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.568 m h = 1.4	x: 0 m h = 2.8	x: 1.569 m h = 14.4	x: 1.569 m h = 10.5	h = 0.6	x: 0 m h = 1.8	x: 1.569 m h = 2.1	x: 1.569 m h = 1.1	x: 1.569 m h = 14.5	x: 1.569 m h = 23.0	M _{i,368} = 0.00 N.A. ⁽⁶⁾	PASSA h = 23.0
N268/N366	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.7	x: 0.089 m h = 2.4	x: 0.089 m h = 19.4	x: 0.089 m h = 9.6	h = 0.6	x: 1.769 m h = 2.0	x: 0.089 m h = 3.8	x: 0.089 m h = 0.9	x: 0.089 m h = 24.9	x: 0.089 m h = 25.4	M _{i,268} = 0.00 N.A. ⁽⁶⁾	PASSA h = 25.4
N366/N365	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.769 m h = 0.7	x: 0 m h = 2.2	x: 1.769 m h = 8.0	x: 0 m h = 11.7	h = 0.6	x: 1.769 m h = 0.7	x: 1.769 m h = 0.6	x: 0 m h = 1.4	x: 0 m h = 16.2	x: 1.769 m h = 12.9	M _{i,366} = 0.00 N.A. ⁽⁶⁾	PASSA h = 16.2
N365/N254	(b _u /t) ≤ 500 (b _t /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.704 m h = 0.7	x: 0 m h = 1.9	x: 0 m h = 8.0	x: 1.705 m h = 14.9	h = 0.7	x: 0 m h = 1.1	x: 0 m h = 0.6	x: 1.705 m h = 2.2	x: 1.705 m h = 17.4	x: 1.705 m h = 9.3	M _{i,365} = 0.00 N.A. ⁽⁶⁾	PASSA h = 17.4
N351/N235	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.11 m h = 6.0	x: 0.17 m h = 15.9	x: 0.17 m h = 5.0	x: 6.111 m h = 17.3	h = 0.3	x: 0.17 m h = 0.4	x: 0.17 m h = 0.3	x: 6.111 m h = 3.0	x: 6.111 m h = 27.2	x: 6.111 m h = 23.4	h = 6.0	PASSA h = 27.2
N352/N127	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.203 m h = 6.0	x: 0.126 m h = 15.7	x: 0.126 m h = 6.2	x: 6.203 m h = 16.9	h = 0.3	x: 0.126 m h = 0.5	x: 0.126 m h = 0.4	x: 6.203 m h = 2.9	x: 5.064 m h = 24.2	x: 6.203 m h = 25.3	h = 5.9	PASSA h = 25.3
N353/N253	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.67 m h = 0.2	x: 0.265 m h = 0.7	x: 0.265 m h = 4.1	x: 3.67 m h = 2.3	h = 0.1	x: 3.67 m h = 0.3	x: 0.265 m h = 0.2	x: 3.67 m h = 0.1	x: 0.265 m h = 2.9	x: 0.265 m h = 4.9	h = 0.9	PASSA h = 4.9
N354/N267	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.247 m h = 8.4	x: 0 m h = 19.0	x: 0 m h = 18.8	x: 0 m h = 8.7	h = 0.4	x: 0 m h = 1.1	x: 0 m h = 3.5	x: 0 m h = 0.8	x: 0 m h = 45.2	x: 0 m h = 22.6	h = 6.1	PASSA h = 45.2
N355/N275	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.275 m h = 9.2	x: 0 m h = 21.3	x: 0 m h = 24.9	x: 0 m h = 7.6	h = 0.4	x: 0 m h = 1.5	x: 0 m h = 6.2	x: 0 m h = 0.6	x: 0 m h = 49.4	x: 0 m h = 26.6	h = 3.9	PASSA h = 49.4
N356/N283	(b _u /t) ≤ 500 (b _t /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.76 m h = 11.5	x: 0 m h = 30.1	x: 0 m h = 30.8	x: 3.76 m h = 3.5	h < 0.1	x: 0 m h = 1.6	x: 0 m h = 9.5	x: 3.76 m h = 0.1	x: 0 m h = 63.4	x: 0 m h = 29.1	h = 2.2	PASSA h = 63.4

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	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N357/N291	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 4.612 m h = 16.3	x: 0 m h = 50.4	x: 0 m h = 37.0	x: 4.612 m h = 5.1	h = 0.2	x: 0 m h = 1.6	x: 0 m h = 13.7	x: 4.612 m h = 0.3	x: 0 m h = 88.6	x: 0 m h = 37.2	h = 3.9	PASSA h = 88.6
N358/N299	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.078 m h = 17.4	x: 0 m h = 57.3	x: 0 m h = 35.7	x: 5.078 m h = 5.8	h = 0.1	x: 0 m h = 1.4	x: 0 m h = 12.8	x: 5.078 m h = 0.3	x: 0 m h = 93.6	x: 0 m h = 37.5	h = 2.5	PASSA h = 93.6
N359/N307	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.078 m h = 17.4	x: 0 m h = 57.3	x: 0 m h = 35.7	x: 5.078 m h = 5.7	h = 0.1	x: 0 m h = 1.4	x: 0 m h = 12.8	x: 5.078 m h = 0.3	x: 0 m h = 93.6	x: 0 m h = 37.4	h = 2.5	PASSA h = 93.6
N360/N315	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 4.612 m h = 16.3	x: 0 m h = 50.4	x: 0 m h = 36.9	x: 4.612 m h = 5.3	h = 0.2	x: 0 m h = 1.6	x: 0 m h = 13.7	x: 4.612 m h = 0.3	x: 0 m h = 88.5	x: 0 m h = 37.3	h = 3.8	PASSA h = 88.5
N361/N323	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.76 m h = 11.5	x: 0 m h = 30.1	x: 0 m h = 30.8	x: 3.76 m h = 3.3	h < 0.1	x: 0 m h = 1.6	x: 0 m h = 9.5	x: 3.76 m h = 0.1	x: 0 m h = 63.3	x: 0 m h = 29.1	h = 2.1	PASSA h = 63.3
N362/N331	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.275 m h = 9.2	x: 0 m h = 21.2	x: 0 m h = 24.9	x: 0 m h = 7.5	h = 0.4	x: 0 m h = 1.5	x: 0 m h = 6.2	x: 0 m h = 0.6	x: 0 m h = 49.3	x: 0 m h = 26.6	h = 3.8	PASSA h = 49.3
N363/N339	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.247 m h = 8.4	x: 0 m h = 19.0	x: 0 m h = 18.7	x: 0 m h = 8.6	h = 0.4	x: 0 m h = 1.1	x: 0 m h = 3.5	x: 0 m h = 0.7	x: 0 m h = 45.0	x: 0 m h = 22.5	h = 6.0	PASSA h = 45.0
N364/N347	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 3.67 m h = 0.5	x: 0 m h = 0.7	x: 0 m h = 3.9	x: 0 m h = 2.1	h = 0.1	x: 3.67 m h = 0.3	x: 0 m h = 0.2	x: 3.67 m h < 0.1	x: 0 m h = 3.8	x: 0 m h = 4.5	h = 1.3	PASSA h = 4.5
N519/N220	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 32.6	x: 0.448 m h = 32.5	x: 0.448 m h = 14.2	x: 2.739 m h = 2.2	h = 0.2	x: 2.739 m h = 1.0	x: 0.448 m h = 2.0	x: 2.739 m h < 0.1	x: 0.448 m h = 43.6	x: 0.448 m h = 47.7	h = 4.0	PASSA h = 47.7
N520/N202	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 32.7	x: 0.448 m h = 32.6	x: 0.448 m h = 14.3	x: 2.739 m h = 4.4	h = 0.2	x: 2.739 m h = 1.0	x: 0.448 m h = 2.0	x: 2.739 m h = 0.2	x: 0.448 m h = 43.7	x: 0.448 m h = 47.5	h = 4.3	PASSA h = 47.5
N521/N184	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 37.7	x: 0.448 m h = 34.4	x: 0.448 m h = 15.3	x: 2.739 m h = 4.1	h = 0.2	x: 2.739 m h = 1.0	x: 0.448 m h = 2.3	x: 2.739 m h = 0.2	x: 0.448 m h = 45.7	x: 0.448 m h = 54.3	h = 5.1	PASSA h = 54.3
N522/N166	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 43.6	x: 0.448 m h = 37.0	x: 0.448 m h = 14.5	x: 2.739 m h = 4.4	h = 0.2	x: 2.739 m h = 0.8	x: 0.448 m h = 2.1	x: 2.739 m h = 0.2	x: 0.448 m h = 47.4	x: 0.448 m h = 59.8	h = 1.9	PASSA h = 59.8
N523/N148	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 42.8	x: 0.448 m h = 36.7	x: 0.448 m h = 13.0	x: 2.739 m h = 1.1	h < 0.1	x: 2.739 m h = 0.7	x: 0.448 m h = 1.7	x: 2.739 m h < 0.1	x: 0.448 m h = 46.2	x: 0.448 m h = 56.2	h = 0.4	PASSA h = 56.2
N524/N20	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 42.8	x: 0.448 m h = 36.7	x: 0.448 m h = 13.0	x: 2.739 m h = 1.3	h = 0.1	x: 2.739 m h = 0.7	x: 0.448 m h = 1.7	x: 2.739 m h < 0.1	x: 0.448 m h = 46.2	x: 0.448 m h = 56.3	h = 0.5	PASSA h = 56.3
N525/N58	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 43.6	x: 0.448 m h = 37.0	x: 0.448 m h = 14.5	x: 2.739 m h = 4.1	h = 0.1	x: 2.739 m h = 0.8	x: 0.448 m h = 2.1	x: 2.739 m h = 0.2	x: 0.448 m h = 47.4	x: 0.448 m h = 59.8	h = 1.9	PASSA h = 59.8
N526/N76	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 37.7	x: 0.448 m h = 34.4	x: 0.448 m h = 15.3	x: 2.739 m h = 4.0	h = 0.2	x: 2.739 m h = 1.0	x: 0.448 m h = 2.3	x: 2.739 m h = 0.2	x: 0.448 m h = 45.7	x: 0.448 m h = 54.3	h = 5.1	PASSA h = 54.3
N527/N94	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 32.7	x: 0.448 m h = 32.6	x: 0.448 m h = 14.3	x: 2.739 m h = 4.3	h = 0.2	x: 2.739 m h = 1.0	x: 0.448 m h = 2.0	x: 2.739 m h = 0.2	x: 0.448 m h = 43.7	x: 0.448 m h = 47.5	h = 4.3	PASSA h = 47.5
N528/N112	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 2.739 m h = 32.6	x: 0.448 m h = 32.5	x: 0.448 m h = 14.2	x: 2.739 m h = 2.0	h = 0.1	x: 2.739 m h = 1.0	x: 0.448 m h = 2.0	x: 2.739 m h < 0.1	x: 0.448 m h = 43.5	x: 0.448 m h = 47.7	h = 4.0	PASSA h = 47.7
N348/N529	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 7.4	x: 0.089 m h = 6.9	h = 0.4	x: 1.7 m h = 0.8	x: 0.089 m h = 0.5	x: 0.089 m h = 0.5	x: 0.089 m h = 14.2	N.A. ⁽⁵⁾	M _{1,348} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.2
N52/N530	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h = 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 27.5	x: 0.089 m h = 6.9	h = 0.5	x: 1.7 m h = 2.8	x: 0.089 m h = 7.6	x: 0.089 m h = 0.5	x: 0.089 m h = 26.5	x: 0.089 m h = 34.3	M _{1,530} = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.3
N144/N531	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 36.7	M ₁₄₄ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.7	x: 0.089 m h = 13.6	N.A. ⁽³⁾	x: 0.089 m h = 38.3	x: 0.089 m h = 36.8	M _{1,531} = 0.00 N.A. ⁽⁶⁾	PASSA h = 38.3
N142/N532	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 34.2	M ₁₄₂ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.5	x: 0.089 m h = 11.8	N.A. ⁽³⁾	x: 0.089 m h = 37.2	x: 0.492 m h = 28.9	M _{1,532} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.2
N140/N533	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,533} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 0.2	x: 0.089 m h = 34.4	M ₁₄₀ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.5	x: 0.089 m h = 11.9	N.A. ⁽³⁾	x: 0.089 m h = 35.3	N.A. ⁽⁵⁾	M _{1,533} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.3
N138/N534	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 38.3	x: 0.089 m h = 6.5	h = 0.4	x: 1.7 m h = 3.9	x: 0.089 m h = 14.8	x: 0.089 m h = 0.4	x: 0.089 m h = 44.9	x: 1.499 m h = 6.5	M _{1,534} = 0.00 N.A. ⁽⁶⁾	PASSA h = 44.9
N128/N535	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.1	x: 0.089 m h = 13.4	x: 0.089 m h = 8.5	h = 0.3	x: 1.7 m h = 1.4	x: 0.089 m h = 1.8	x: 0.089 m h = 0.7	x: 0.089 m h = 21.0	N.A. ⁽⁵⁾	M _{1,535} = 0.00 N.A. ⁽⁶⁾	PASSA h = 21.0
N254/N536	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 8.2	x: 0.089 m h = 6.0	h = 0.3	x: 1.7 m h = 0.9	x: 0.089 m h = 0.7	x: 0.089 m h = 0.4	x: 0.089 m h = 14.2	x: 0.089 m h = 4.7	M _{1,536} = 0.00 N.A. ⁽⁶⁾	PASSA h = 14.2
N54/N537	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h = 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 26.2	M ₁₅₄ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 2.7	x: 0.089 m h = 6.9	N.A. ⁽³⁾	x: 0.089 m h = 15.7	x: 0.089 m h = 30.9	M _{1,537} = 0.00 N.A. ⁽⁶⁾	PASSA h = 30.9
N252/N538	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,538} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 0.2	x: 0.089 m h = 37.2	M ₁₅₂ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.8	x: 0.089 m h = 14.0	N.A. ⁽³⁾	x: 0.089 m h = 41.1	N.A. ⁽⁵⁾	M _{1,538} = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.1
N250/N539	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 34.0	M ₁₅₀ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.5	x: 0.089 m h = 11.7	N.A. ⁽³⁾	x: 0.089 m h = 36.1	x: 0.089 m h = 37.6	M _{1,539} = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.6
N248/N540	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	N _{1,540} = 0.00 N.A. ⁽⁶⁾	x: 0.089 m h = 0.2	x: 0.089 m h = 34.9	M ₁₄₈ = 0.00 N.A. ⁽²⁾	h = 0.2	x: 1.7 m h = 3.6	x: 0.089 m h = 12.3	N.A. ⁽³⁾	x: 0.089 m h = 35.1	N.A. ⁽⁵⁾	M _{1,540} = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.1
N246/N541	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h < 0.1	x: 0.089 m h = 0.2	x: 0.089 m h = 38.7	M ₁₄₆ = 0.00 N.A. ⁽²⁾	h = 0.3	x: 1.7 m h = 3.9	x: 0.089 m h = 15.1	N.A. ⁽³⁾	x: 0.089 m h = 43.6	x: 0.693 m h = 4.0	M _{1,541} = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.6

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	b/t	I	N _i	N _c	M _x	M _y	V _x	V _y	M _x V _y	M _y V _x	N _i M _x M _y	N _i M _y M _x	M _i	
N236/N542	(b _u /t) ≤ 500 (b _u /t) ≤ 60 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 1.7 m h = 0.1	x: 0.089 m h = 0.1	x: 0.089 m h = 13.5	x: 0.089 m h = 11.0	h = 0.7	x: 1.7 m h = 1.4	x: 0.089 m h = 1.8	x: 0.089 m h = 1.2	x: 0.089 m h = 11.8	x: 0.089 m h = 24.1	M _{u,50} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.1
N543/N544	(b _u /t) ≤ 90 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.264 m h = 0.1	x: 0 m h = 0.1	M _{u,50} = 0.00 N.A. ⁽²⁾	M _{u,50} = 0.00 N.A. ⁽²⁾	V _{u,50} = 0.00 N.A. ⁽⁷⁾	h = 0.5	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{u,50} = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.5
N545/N546	(b _u /t) ≤ 90 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 0.264 m h = 0.1	x: 0 m h < 0.1	M _{u,50} = 0.00 N.A. ⁽²⁾	M _{u,50} = 0.00 N.A. ⁽²⁾	V _{u,50} = 0.00 N.A. ⁽⁷⁾	h = 0.3	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _{u,50} = 0.00 N.A. ⁽⁶⁾	PASSA h = 0.3
N547/N354	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 3.0	x: 2.8	x: 5.083 m h = 3.7	x: 0.169 m h = 16.3	h = 0.6	x: 5.083 m h = 0.5	x: 5.083 m h = 0.1	x: 0.169 m h = 2.7	x: 0.169 m h = 13.1	x: 0.169 m h = 21.3	h = 2.0	PASSA h = 21.3
N354/N557	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 1.6	h = 1.2	x: 0.099 m h = 5.7	x: 4.844 m h = 14.2	h = 0.3	x: 0.099 m h = 0.5	x: 0.099 m h = 0.3	x: 4.844 m h = 2.0	x: 4.844 m h = 10.6	x: 4.844 m h = 16.1	h = 3.6	PASSA h = 16.1
N557/N551	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.7	h = 3.9	x: 4.771 m h = 3.0	x: 0.144 m h = 14.7	h = 0.3	x: 4.771 m h = 0.4	x: 4.771 m h = 0.1	x: 0.144 m h = 2.2	x: 4.771 m h = 10.3	x: 0.144 m h = 20.6	h = 2.2	PASSA h = 20.6
N551/N556	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 5.3	h = 3.5	x: 4.879 m h = 3.6	x: 4.879 m h = 25.8	h = 0.7	x: 0.118 m h = 0.4	x: 4.879 m h = 0.1	x: 4.879 m h = 6.7	x: 4.879 m h = 20.1	x: 4.879 m h = 29.6	h = 2.5	PASSA h = 29.6
N556/N552	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 8.9	h = 7.5	x: 0.131 m h = 3.3	x: 0.131 m h = 19.4	h = 0.1	x: 0.131 m h = 0.4	x: 0.131 m h = 0.1	x: 0.131 m h = 3.8	x: 2.466 m h = 19.6	x: 0.131 m h = 30.5	h = 0.2	PASSA h = 30.5
N552/N555	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 6.1	h = 3.6	x: 4.87 m h = 3.2	x: 4.869 m h = 17.0	V _{u,50} = 0.00 N.A. ⁽⁷⁾	x: 4.87 m h = 0.4	x: 4.87 m h = 0.1	N.A. ⁽³⁾	x: 4.87 m h = 13.9	x: 0.063 m h = 24.2	M _{u,50} = 0.00 N.A. ⁽⁶⁾	PASSA h = 24.2
N555/N553	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 8.9	h = 7.5	x: 4.802 m h = 3.3	x: 4.802 m h = 19.4	h = 0.1	x: 4.802 m h = 0.4	x: 4.802 m h = 0.1	x: 4.802 m h = 3.8	x: 2.468 m h = 19.6	x: 4.802 m h = 30.5	h = 0.2	PASSA h = 30.5
N553/N554	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 5.3	h = 3.5	x: 0.054 m h = 3.6	x: 0.054 m h = 25.8	h = 0.7	x: 4.815 m h = 0.4	x: 0.054 m h = 0.1	x: 0.054 m h = 6.7	x: 0.054 m h = 20.1	x: 0.054 m h = 29.6	h = 2.6	PASSA h = 29.6
N554/N558	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 4.8	h = 3.9	x: 0.162 m h = 3.0	x: 4.789 m h = 14.6	h = 0.3	x: 0.162 m h = 0.4	x: 0.162 m h = 0.1	x: 4.789 m h = 2.1	x: 0.162 m h = 10.3	x: 4.789 m h = 20.6	h = 2.2	PASSA h = 20.6
N558/N363	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 1.7	h = 1.2	x: 4.873 m h = 5.6	x: 0.089 m h = 14.2	h = 0.3	x: 4.873 m h = 0.5	x: 4.873 m h = 0.3	x: 0.089 m h = 2.0	x: 0.089 m h = 10.7	x: 0.089 m h = 16.3	h = 3.6	PASSA h = 16.3
N363/N548	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.9	h = 2.6	x: 0.15 m h = 3.6	x: 5.064 m h = 16.1	h = 0.6	x: 5.064 m h = 0.4	x: 0.15 m h = 0.1	x: 5.064 m h = 2.6	x: 5.064 m h = 13.0	x: 5.064 m h = 20.9	h = 2.1	PASSA h = 20.9
N548/N549	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.1	h = 9.5	x: 0.417 m h = 13.5	x: 0.417 m h = 12.2	h = 0.7	x: 0.417 m h = 1.2	x: 0.417 m h = 1.8	x: 0.417 m h = 1.5	x: 0.417 m h = 33.3	x: 0.417 m h = 9.6	h = 3.1	PASSA h = 33.3
N547/N550	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	h = 2.0	h = 9.0	x: 0.417 m h = 14.6	x: 0.417 m h = 12.7	h = 0.7	x: 0.417 m h = 1.3	x: 0.417 m h = 2.2	x: 0.417 m h = 1.6	x: 0.417 m h = 33.6	x: 0.417 m h = 10.0	h = 3.2	PASSA h = 33.6
N354/N53	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.437 m h = 1.0	x: 0.099 m h = 1.2	x: 6.438 m h = 6.7	x: 6.438 m h = 4.4	x: 0.099 m h = 4.4	x: 6.438 m h = 0.5	x: 6.438 m h = 0.5	x: 6.438 m h = 8.2	x: 6.438 m h = 32.9	x: 6.438 m h = 29.9	h = 1.0	PASSA h = 32.9
N547/N49	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.025 m h = 1.9	x: 0.128 m h = 4.8	x: 6.026 m h = 4.0	x: 6.026 m h = 32.2	x: 0.128 m h = 4.1	x: 0.128 m h = 0.4	x: 6.026 m h = 0.2	x: 6.026 m h = 10.4	x: 6.026 m h = 38.3	x: 0.128 m h = 23.7	h = 3.4	PASSA h = 38.3
N551/N43	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.796 m h = 2.0	x: 0.118 m h = 0.6	x: 5.797 m h = 4.9	x: 5.797 m h = 26.5	x: 0.118 m h = 3.5	x: 5.797 m h = 0.5	x: 5.797 m h = 0.2	x: 5.797 m h = 7.1	x: 5.797 m h = 26.7	x: 5.797 m h = 28.7	h = 3.2	PASSA h = 28.7
N548/N47	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.025 m h = 1.9	x: 0.128 m h = 4.7	x: 6.026 m h = 4.0	x: 6.026 m h = 31.8	x: 0.128 m h = 4.1	x: 0.128 m h = 0.4	x: 6.026 m h = 0.2	x: 6.026 m h = 10.2	x: 6.026 m h = 37.8	x: 0.128 m h = 23.9	h = 3.5	PASSA h = 37.8
N363/N51	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.437 m h = 1.1	x: 0.099 m h = 1.1	x: 6.438 m h = 6.3	x: 6.438 m h = 28.3	x: 0.099 m h = 4.4	x: 6.438 m h = 0.5	x: 6.438 m h = 0.4	x: 6.438 m h = 8.1	x: 6.438 m h = 32.6	x: 6.438 m h = 29.9	h = 1.0	PASSA h = 32.6
N554/N41	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.796 m h = 2.0	x: 0.118 m h = 0.6	x: 5.797 m h = 4.8	x: 5.797 m h = 26.3	x: 0.118 m h = 3.5	x: 5.797 m h = 0.5	x: 5.797 m h = 0.2	x: 5.797 m h = 7.0	x: 5.797 m h = 26.5	x: 5.797 m h = 28.7	h = 3.1	PASSA h = 28.7
N557/N39	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.381 m h = 2.0	x: 0.089 m h = 5.3	x: 0.089 m h = 5.7	x: 6.382 m h = 28.9	x: 0.089 m h = 4.4	x: 0.089 m h = 0.5	x: 0.089 m h = 0.3	x: 0.089 m h = 8.4	x: 0.089 m h = 39.0	x: 6.382 m h = 27.6	h = 5.4	PASSA h = 39.0
N558/N37	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 6.381 m h = 1.9	x: 0.089 m h = 5.3	x: 0.089 m h = 5.7	x: 0.089 m h = 28.8	x: 0.089 m h = 4.4	x: 0.089 m h = 0.5	x: 0.089 m h = 0.3	x: 0.089 m h = 8.5	x: 0.089 m h = 39.1	x: 6.382 m h = 27.6	h = 5.4	PASSA h = 39.1
N550/N53	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 4.587 m h = 15.3	x: 0.159 m h = 9.6	x: 0.159 m h = 3.1	x: 0.159 m h = 8.8	h = 0.3	x: 4.587 m h = 0.3	x: 0.159 m h = 0.1	x: 0.159 m h = 0.8	x: 0.159 m h = 13.4	x: 0.159 m h = 23.6	h = 1.8	PASSA h = 23.6
N547/N239	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.07 m h = 4.7	x: 0.642 m h = 12.5	x: 0.642 m h = 7.6	x: 5.071 m h = 20.6	h = 1.1	x: 0.642 m h = 0.6	x: 0.642 m h = 0.6	x: 5.071 m h = 4.3	x: 5.071 m h = 36.5	x: 5.071 m h = 21.8	h = 3.9	PASSA h = 36.5
N548/N131	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 5.07 m h = 4.7	x: 0.642 m h = 12.9	x: 0.642 m h = 6.6	x: 5.071 m h = 20.4	h = 1.1	x: 0.642 m h = 0.5	x: 0.642 m h = 0.4	x: 5.071 m h = 4.2	x: 5.071 m h = 35.9	x: 5.071 m h = 21.3	h = 3.9	PASSA h = 35.9
N549/N51	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 4.587 m h = 15.4	x: 0.159 m h = 9.7	x: 0.159 m h = 2.8	x: 0.159 m h = 8.8	h = 0.3	x: 4.587 m h = 0.3	x: 0.159 m h = 0.1	x: 0.159 m h = 0.8	x: 0.159 m h = 13.6	x: 0.159 m h = 23.7	h = 1.8	PASSA h = 23.7
N552/N35	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 7.602 m h = 2.4	x: 0.063 m h = 10.8	x: 0.063 m h = 7.5	x: 7.603 m h = 55.6	x: 0.063 m h = 7.1	x: 0.063 m h = 0.5	x: 0.063 m h = 0.6	x: 7.603 m h = 31.2	x: 7.603 m h = 65.2	x: 7.603 m h = 63.2	h = 5.7	PASSA h = 65.2
N556/N31	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 8.341 m h = 2.9	x: 0.054 m h = 22.3	x: 0.054 m h = 7.7	x: 8.342 m h = 73.6	x: 0.054 m h = 8.2	x: 0.054 m h = 0.5	x: 0.054 m h = 0.6	x: 8.342 m h = 54.5	x: 0.054 m h = 96.5	x: 8.342 m h = 79.5	h = 5.5	PASSA h = 96.5
N555/N33	(b _u /t) ≤ 500 (b _u /t) ≤ 500 Passa	I _u ≤ 200.0 I _y ≤ 200.0 Passa	x: 7.602 m h = 2.4	x: 0.063 m h = 10.9	x: 0.063 m h = 7.5	x: 7.603 m h = 55.6	x: 0.063 m h = 7.1	x: 0.063 m h = 0.5	x: 0.063 m h = 0.6	x: 7.603 m h = 31.2	x: 7.603 m h = 65.6	x: 7.603 m h = 63.2	h = 5.7	PASSA h = 65.6

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _v	M _v V _u	N _t M _u M _v	N _t M _v M _u	M _t	
N553/N3	(b _u /t) £ 500 (b _v /t) £ 500 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 8.341 m h = 2.9	x: 0.054 m h = 22.2	x: 0.054 m h = 7.8	x: 8.342 m h = 73.5	x: 0.054 m h = 8.2	x: 0.054 m h = 0.5	x: 0.054 m h = 0.6	x: 8.342 m h = 54.3	x: 0.054 m h = 96.4	x: 8.342 m h = 79.5	h = 5.5	PASSA h = 96.4

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _v	M _v V _u	N _t M _u M _v	N _t M _v M _u	M _t	
N386/N387	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.001 m h < 0.1	x: 0 m h = 0.2	x: 0 m h = 9.0	x: 1.001 m h = 56.2	x: 1.001 m h = 3.3	x: 0 m h = 1.7	x: 0 m h = 0.8	x: 1.001 m h = 31.7	x: 1.001 m h = 60.9	x: 1.001 m h = 27.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.9
N387/N388	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.6	x: 0 m h = 17.6	x: 1.702 m h = 80.4	x: 1.702 m h = 4.0	x: 0 m h = 2.7	x: 0 m h = 3.2	x: 1.702 m h = 64.8	x: 1.702 m h = 90.3	x: 1.702 m h = 39.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 90.3
N388/N389	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.7	x: 0 m h = 29.7	x: 1.702 m h = 80.1	x: 1.702 m h = 3.9	x: 0 m h = 2.9	x: 0 m h = 8.9	x: 1.702 m h = 64.3	x: 1.702 m h = 92.8	x: 1.702 m h = 41.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 92.8
N389/N390	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 31.4	x: 1.702 m h = 78.2	x: 1.702 m h = 3.9	x: 0 m h = 3.0	x: 0 m h = 9.9	x: 1.702 m h = 61.3	x: 1.702 m h = 88.2	x: 1.702 m h = 37.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.2
N390/N391	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 28.6	x: 1.702 m h = 80.1	x: 1.702 m h = 3.9	x: 0 m h = 3.0	x: 0 m h = 8.3	x: 1.702 m h = 64.3	x: 1.702 m h = 91.6	x: 1.702 m h = 39.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 91.6
N391/N392	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 1.277 m h = 33.9	x: 0 m h = 58.1	x: 0 m h = 3.8	x: 0 m h = 3.7	x: 1.277 m h = 11.5	x: 0 m h = 34.0	x: 0 m h = 84.0	x: 0 m h = 36.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.0
N385/N393	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.4	x: 1.001 m h = 18.3	x: 1.001 m h = 42.4	x: 1.001 m h = 2.8	x: 1.001 m h = 2.3	x: 1.001 m h = 3.4	x: 1.001 m h = 18.1	x: 1.001 m h = 56.8	x: 1.001 m h = 27.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 56.8
N393/N394	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.4	x: 1.702 m h = 19.3	x: 1.702 m h = 72.9	x: 1.702 m h = 3.8	x: 1.702 m h = 2.7	x: 1.702 m h = 3.8	x: 1.702 m h = 53.3	x: 1.702 m h = 89.1	x: 1.702 m h = 39.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.1
N394/N395	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.5	x: 0 m h = 26.4	x: 1.702 m h = 73.5	x: 1.702 m h = 3.7	x: 0 m h = 2.8	x: 0 m h = 7.0	x: 1.702 m h = 54.2	x: 1.702 m h = 89.1	x: 1.702 m h = 40.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.1
N395/N396	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.0	x: 0 m h = 28.1	x: 1.702 m h = 72.3	x: 1.702 m h = 3.7	x: 0 m h = 2.9	x: 0 m h = 8.0	x: 1.702 m h = 52.4	x: 1.702 m h = 83.7	x: 1.702 m h = 37.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.7
N396/N397	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.5	x: 0 m h = 25.8	x: 1.702 m h = 76.1	x: 1.702 m h = 3.8	x: 0 m h = 2.7	x: 0 m h = 6.7	x: 1.702 m h = 58.1	x: 1.702 m h = 89.1	x: 1.702 m h = 89.7	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.7
N397/N398	(b/t) £ 200 Passa	x: 0 m I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.1	x: 1.277 m h = 30.9	x: 0 m h = 59.6	x: 0 m h = 3.7	x: 0 m h = 3.5	x: 1.277 m h = 9.6	x: 0 m h = 35.6	x: 0 m h = 34.7	x: 0 m h = 83.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.5
N384/N399	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.5	x: 1.001 m h = 12.2	x: 1.001 m h = 48.8	x: 1.001 m h = 2.7	x: 1.001 m h = 2.0	x: 1.001 m h = 1.5	x: 1.001 m h = 23.9	x: 1.001 m h = 60.1	x: 1.001 m h = 27.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.1
N399/N400	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.9	x: 1.702 m h = 21.3	x: 1.702 m h = 66.0	x: 1.702 m h = 3.2	x: 1.702 m h = 3.0	x: 1.702 m h = 4.6	x: 1.702 m h = 43.7	x: 1.702 m h = 88.3	x: 1.702 m h = 39.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.3
N400/N401	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.3	x: 0 m h = 31.3	x: 1.702 m h = 60.0	x: 1.702 m h = 3.0	x: 0 m h = 3.2	x: 0 m h = 9.9	x: 1.702 m h = 36.1	x: 1.702 m h = 81.4	x: 1.702 m h = 36.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 81.4
N401/N402	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 2.0	x: 0 m h = 26.3	x: 1.702 m h = 56.3	x: 1.702 m h = 3.0	x: 0 m h = 3.0	x: 0 m h = 7.0	x: 1.702 m h = 31.8	x: 1.702 m h = 78.2	x: 0 m h = 35.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.2
N402/N403	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 0 m h = 25.7	x: 1.702 m h = 56.9	x: 1.702 m h = 3.0	x: 0 m h = 3.0	x: 0 m h = 6.7	x: 1.702 m h = 32.5	x: 1.702 m h = 79.2	x: 1.702 m h = 34.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.2
N403/N404	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.064 m h = 29.7	x: 0 m h = 52.2	x: 0 m h = 3.0	x: 0 m h = 3.7	x: 1.064 m h = 8.8	x: 0 m h = 27.3	x: 0 m h = 77.0	x: 0 m h = 36.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.0
N383/N405	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.3	x: 1.001 m h = 20.5	x: 1.001 m h = 29.6	x: 1.001 m h = 2.0	x: 1.001 m h = 2.7	x: 1.001 m h = 4.3	x: 1.001 m h = 8.8	x: 1.001 m h = 49.1	x: 1.001 m h = 23.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.1
N405/N406	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.0	x: 1.702 m h = 24.8	x: 1.702 m h = 57.1	x: 1.702 m h = 3.0	x: 1.702 m h = 3.2	x: 1.702 m h = 6.2	x: 1.702 m h = 32.7	x: 1.702 m h = 81.1	x: 1.702 m h = 37.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 81.1
N406/N407	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.0	x: 0 m h = 28.0	x: 1.702 m h = 56.6	x: 1.702 m h = 2.9	x: 0 m h = 3.1	x: 0 m h = 8.0	x: 1.702 m h = 32.1	x: 1.702 m h = 78.3	x: 1.702 m h = 37.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.3
N407/N408	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.7	x: 0 m h = 25.9	x: 1.702 m h = 54.6	x: 1.702 m h = 2.9	x: 0 m h = 3.0	x: 0 m h = 6.8	x: 1.702 m h = 29.9	x: 0 m h = 74.7	x: 1.702 m h = 51.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.7
N408/N409	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 0 m h = 24.8	x: 1.702 m h = 57.5	x: 1.702 m h = 3.0	x: 0 m h = 3.0	x: 0 m h = 6.2	x: 1.702 m h = 33.1	x: 1.702 m h = 78.1	x: 1.702 m h = 79.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.4
N409/N410	(b/t) £ 200 Passa	x: 0 m I _u £ 200.0 I _v £ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.2	x: 1.064 m h = 29.4	x: 0 m h = 52.1	x: 0 m h = 3.1	x: 0 m h = 3.7	x: 1.064 m h = 8.6	x: 0 m h = 27.2	x: 0 m h = 34.0	x: 0 m h = 76.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 76.6
N382/N411	(b/t) £ 200 Passa	I _u £ 200.0 I _v £ 200.0 Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.5	x: 1.001 m h = 16.2	x: 1.001 m h = 47.5	x: 1.001 m h = 2.4	x: 1.001 m h = 2.5	x: 1.001 m h = 2.7	x: 1.001 m h = 22.6	x: 1.001 m h = 61.2	x: 1.001 m h = 29.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 61.2

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	l	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _u	M _v V _u	N _c M _u M _v	N _t M _u M _v	M _t	
N411/N412	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.2	x: 1.702 m h = 28.9	x: 1.702 m h = 54.8	x: 1.702 m h = 2.6	x: 1.702 m h = 3.7	x: 1.702 m h = 8.5	x: 1.702 m h = 30.1	x: 1.702 m h = 81.9	x: 1.702 m h = 39.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 81.9
N412/N413	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.6	x: 0 m h = 32.2	x: 1.702 m h = 48.7	x: 1.702 m h = 2.4	x: 0 m h = 3.6	x: 0 m h = 10.5	x: 1.702 m h = 23.8	x: 1.702 m h = 75.6	x: 0 m h = 38.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.6
N413/N414	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.3	x: 0 m h = 28.1	x: 0 m h = 42.7	x: 0 m h = 2.3	x: 0 m h = 3.5	x: 0 m h = 8.0	x: 0 m h = 18.2	x: 0 m h = 71.6	x: 0 m h = 38.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.6
N414/N415	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 1.702 m h = 28.0	x: 0 m h = 42.5	x: 0 m h = 2.3	x: 0 m h = 3.5	x: 1.702 m h = 8.0	x: 0 m h = 18.1	x: 0 m h = 68.9	x: 0 m h = 37.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 68.9
N415/N416	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.0	x: 1.064 m h = 30.5	x: 0 m h = 45.5	x: 0 m h = 2.5	x: 0 m h = 4.1	x: 1.064 m h = 9.3	x: 0 m h = 20.8	x: 0 m h = 71.2	x: 0 m h = 38.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.2
N381/N417	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.3	x: 1.001 m h = 23.8	x: 1.001 m h = 26.8	x: 1.001 m h = 1.7	x: 1.001 m h = 3.1	x: 1.001 m h = 5.7	x: 1.001 m h = 7.2	x: 1.001 m h = 47.7	x: 1.001 m h = 23.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 47.7
N417/N418	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 1.0	x: 1.702 m h = 31.7	x: 1.702 m h = 45.8	x: 1.702 m h = 2.4	x: 1.702 m h = 3.8	x: 1.702 m h = 10.2	x: 1.702 m h = 21.1	x: 1.702 m h = 73.3	x: 1.702 m h = 37.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.3
N418/N419	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.9	x: 1.702 m h = 30.2	x: 1.702 m h = 45.6	x: 1.702 m h = 2.4	x: 0 m h = 3.5	x: 1.702 m h = 9.2	x: 1.702 m h = 20.9	x: 0 m h = 75.8	x: 0 m h = 38.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.8
N419/N420	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 29.2	x: 0 m h = 45.9	x: 0 m h = 2.4	x: 0 m h = 3.6	x: 0 m h = 8.7	x: 0 m h = 21.1	x: 0 m h = 74.4	x: 1.702 m h = 45.7	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.4
N420/N421	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.4	x: 1.702 m h = 29.4	x: 1.702 m h = 44.3	x: 1.702 m h = 2.4	x: 1.702 m h = 3.6	x: 1.702 m h = 8.8	x: 1.702 m h = 19.6	x: 0 m h = 70.4	x: 1.702 m h = 71.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.4
N421/N422	(b/t) E 200 Passa	x: 0 m $l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.2	x: 1.064 m h = 31.9	x: 0 m h = 46.6	x: 0 m h = 2.6	x: 0 m h = 4.3	x: 1.064 m h = 10.2	x: 0 m h = 21.8	x: 0 m h = 49.7	x: 0 m h = 73.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.5
N380/N423	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.7	x: 1.001 m h = 16.0	x: 1.001 m h = 55.2	x: 1.001 m h = 2.5	x: 1.001 m h = 2.8	x: 1.001 m h = 2.6	x: 1.001 m h = 30.6	x: 1.001 m h = 68.9	x: 1.001 m h = 32.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 68.9
N423/N424	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.7	x: 1.702 m h = 32.4	x: 1.702 m h = 51.4	x: 1.702 m h = 2.2	x: 1.702 m h = 4.2	x: 1.702 m h = 10.7	x: 1.702 m h = 26.4	x: 1.702 m h = 85.9	x: 1.702 m h = 43.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.9
N424/N425	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.6	x: 0 m h = 3.1	x: 0 m h = 38.4	x: 1.702 m h = 42.7	x: 1.702 m h = 2.0	x: 0 m h = 4.1	x: 0 m h = 14.9	x: 1.702 m h = 18.3	x: 1.702 m h = 74.2	x: 0 m h = 40.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.2
N425/N426	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.7	x: 1.702 m h = 31.6	x: 0 m h = 39.5	x: 0 m h = 1.9	x: 0 m h = 3.8	x: 1.702 m h = 10.1	x: 0 m h = 15.7	x: 0 m h = 72.1	x: 0 m h = 42.7	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 72.1
N426/N427	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.0	x: 0 m h = 31.0	x: 0 m h = 39.9	x: 0 m h = 1.9	x: 0 m h = 3.9	x: 0 m h = 9.7	x: 0 m h = 16.0	x: 0 m h = 69.8	x: 0 m h = 41.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 69.8
N427/N428	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.064 m h = 32.1	x: 0 m h = 41.4	x: 0 m h = 2.0	x: 0 m h = 4.4	x: 1.064 m h = 10.3	x: 0 m h = 17.2	x: 0 m h = 68.6	x: 0 m h = 41.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 68.6
N379/N429	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.001 m h < 0.1	x: 0 m h = 0.2	x: 1.001 m h = 22.0	x: 1.001 m h = 31.0	x: 1.001 m h = 1.7	x: 1.001 m h = 3.2	x: 1.001 m h = 5.0	x: 1.001 m h = 9.6	x: 1.001 m h = 50.2	x: 1.001 m h = 25.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 50.2
N429/N430	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.6	x: 1.702 m h = 34.7	x: 1.702 m h = 40.8	x: 1.702 m h = 2.0	x: 1.702 m h = 4.3	x: 1.702 m h = 12.3	x: 1.702 m h = 16.7	x: 1.702 m h = 76.0	x: 1.702 m h = 40.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 76.0
N430/N431	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.5	x: 0 m h = 37.3	x: 0 m h = 41.2	x: 0 m h = 2.0	x: 0 m h = 4.1	x: 0 m h = 14.1	x: 0 m h = 17.0	x: 0 m h = 73.2	x: 1.702 m h = 39.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.2
N431/N432	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.4	x: 0 m h = 34.1	x: 0 m h = 43.6	x: 0 m h = 2.1	x: 0 m h = 4.1	x: 0 m h = 11.8	x: 0 m h = 19.0	x: 0 m h = 75.6	x: 1.702 m h = 35.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.6
N432/N433	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.3	x: 1.702 m h = 32.6	x: 0 m h = 41.8	x: 0 m h = 2.1	x: 1.702 m h = 4.1	x: 1.702 m h = 10.8	x: 0 m h = 17.5	x: 0 m h = 71.8	x: 1.702 m h = 65.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.8
N433/N434	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 1.064 m h = 34.9	x: 0 m h = 42.9	x: 0 m h = 2.2	x: 0 m h = 4.8	x: 1.064 m h = 12.2	x: 0 m h = 18.5	x: 0 m h = 40.0	x: 0 m h = 71.7	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.7
N378/N435	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.001 m h = 0.3	x: 0 m h = 0.7	x: 1.001 m h = 19.9	x: 1.001 m h = 53.7	x: 1.001 m h = 2.6	x: 1.001 m h = 2.7	x: 1.001 m h = 4.0	x: 1.001 m h = 28.9	x: 1.001 m h = 71.3	x: 1.001 m h = 34.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 71.3
N435/N436	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 3.1	x: 1.702 m h = 30.6	x: 1.702 m h = 55.4	x: 1.702 m h = 2.6	x: 1.702 m h = 3.6	x: 1.702 m h = 9.5	x: 1.702 m h = 30.7	x: 1.702 m h = 84.7	x: 1.702 m h = 40.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.7
N436/N437	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.6	x: 0 m h = 3.6	x: 0 m h = 33.2	x: 1.702 m h = 48.3	x: 1.702 m h = 2.4	x: 0 m h = 3.5	x: 0 m h = 11.1	x: 1.702 m h = 23.4	x: 1.702 m h = 78.5	x: 0 m h = 39.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.5
N437/N438	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 3.1	x: 0 m h = 29.4	x: 0 m h = 45.6	x: 0 m h = 2.4	x: 0 m h = 3.4	x: 0 m h = 8.8	x: 0 m h = 20.9	x: 0 m h = 74.2	x: 0 m h = 39.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.2
N438/N439	(b/t) E 200 Passa	$l_{uu} \leq 200,0$ $l_{vv} \leq 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.3	x: 1.702 m h = 29.2	x: 0 m h = 45.9	x: 0 m h = 2.4	x: 1.702 m h = 3.5	x: 1.702 m h = 8.7	x: 0 m h = 21.1	x: 0 m h = 72.0	x: 0 m h = 38.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 72.0

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	b/t	l	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _v	M _c V _u	N _c M _u M _v	N _t M _u M _v	M _t	
N439/N440	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.2	x: 1.064 m h = 30.0	x: 0 m h = 48.1	x: 0 m h = 2.5	x: 0 m h = 4.0	x: 1.064 m h = 9.0	x: 0 m h = 23.2	x: 0 m h = 73.8	x: 0 m h = 39.0	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 73.8
N377/N441	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.3	x: 1.001 m h = 27.6	x: 1.001 m h = 25.6	x: 1.001 m h = 1.7	x: 1.001 m h = 3.3	x: 1.001 m h = 7.7	x: 1.001 m h = 6.6	x: 1.001 m h = 51.3	x: 1.001 m h = 26.7	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 51.3
N441/N442	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 1.0	x: 1.702 m h = 33.4	x: 0 m h = 44.3	x: 0 m h = 2.4	x: 1.702 m h = 3.8	x: 1.702 m h = 11.3	x: 0 m h = 19.7	x: 1.702 m h = 74.0	x: 1.702 m h = 37.8	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.0
N442/N443	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.9	x: 0 m h = 30.4	x: 0 m h = 48.4	x: 0 m h = 2.4	x: 0 m h = 3.5	x: 0 m h = 9.4	x: 0 m h = 23.5	x: 0 m h = 78.9	x: 0 m h = 39.3	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.9
N443/N444	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.7	x: 0 m h = 30.6	x: 0 m h = 47.9	x: 0 m h = 2.5	x: 0 m h = 3.6	x: 0 m h = 9.5	x: 0 m h = 23.0	x: 0 m h = 74.8	x: 0 m h = 37.5	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.8
N444/N445	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 1.702 m h = 29.9	x: 0 m h = 45.9	x: 0 m h = 2.4	x: 1.702 m h = 3.6	x: 1.702 m h = 9.1	x: 0 m h = 21.2	x: 1.702 m h = 72.4	x: 1.702 m h = 36.2	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 72.4
N445/N446	(b/t) £ 200 Passa	x: 0 m $l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.2	x: 1.064 m h = 31.8	x: 0 m h = 48.3	x: 0 m h = 2.6	x: 0 m h = 4.3	x: 1.064 m h = 10.1	x: 0 m h = 23.4	x: 0 m h = 36.7	x: 0 m h = 74.9	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.9
N376/N447	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.6	x: 1.001 m h = 16.1	x: 1.001 m h = 43.5	x: 1.001 m h = 2.5	x: 1.001 m h = 2.2	x: 1.001 m h = 2.6	x: 1.001 m h = 19.0	x: 1.001 m h = 59.8	x: 1.001 m h = 28.5	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 59.8
N447/N448	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.5	x: 1.702 m h = 26.1	x: 1.702 m h = 60.3	x: 1.702 m h = 3.1	x: 1.702 m h = 3.0	x: 1.702 m h = 6.9	x: 1.702 m h = 36.4	x: 1.702 m h = 88.8	x: 1.702 m h = 39.5	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.8
N448/N449	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.8	x: 0 m h = 30.6	x: 1.702 m h = 53.6	x: 1.702 m h = 2.9	x: 0 m h = 3.0	x: 0 m h = 9.4	x: 1.702 m h = 28.8	x: 0 m h = 83.2	x: 0 m h = 38.0	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.2
N449/N450	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.4	x: 0 m h = 25.1	x: 0 m h = 51.6	x: 0 m h = 2.9	x: 0 m h = 2.9	x: 0 m h = 6.4	x: 0 m h = 26.7	x: 0 m h = 79.0	x: 0 m h = 37.3	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.0
N450/N451	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 1.702 m h = 25.3	x: 0 m h = 51.6	x: 0 m h = 2.9	x: 1.702 m h = 2.9	x: 1.702 m h = 6.5	x: 0 m h = 26.8	x: 1.702 m h = 77.8	x: 0 m h = 35.3	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.8
N451/N452	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.9	x: 1.064 m h = 28.8	x: 0 m h = 56.2	x: 0 m h = 3.2	x: 0 m h = 3.7	x: 1.064 m h = 8.3	x: 0 m h = 31.7	x: 0 m h = 79.8	x: 0 m h = 37.4	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.8
N375/N453	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.5	x: 1.001 m h = 27.4	x: 0 m h = 22.1	x: 0 m h = 1.8	x: 1.001 m h = 3.1	x: 1.001 m h = 7.6	x: 0 m h = 4.9	x: 1.001 m h = 44.1	x: 1.001 m h = 22.4	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 44.1
N453/N454	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.9	x: 1.702 m h = 31.2	x: 0 m h = 51.4	x: 0 m h = 2.9	x: 1.702 m h = 3.3	x: 1.702 m h = 9.8	x: 0 m h = 26.5	x: 1.702 m h = 81.3	x: 1.702 m h = 37.2	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 81.3
N454/N455	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.1	x: 0 m h = 27.3	x: 0 m h = 57.2	x: 0 m h = 2.9	x: 1.702 m h = 2.9	x: 0 m h = 7.5	x: 0 m h = 32.8	x: 0 m h = 86.7	x: 0 m h = 38.3	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.7
N455/N456	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 0 m h = 25.3	x: 0 m h = 51.5	x: 0 m h = 2.9	x: 0 m h = 2.9	x: 0 m h = 6.5	x: 0 m h = 26.6	x: 0 m h = 78.6	x: 0 m h = 35.2	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.6
N456/N457	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.702 m h = 24.8	x: 1.702 m h = 53.8	x: 1.702 m h = 2.9	x: 1.702 m h = 2.9	x: 1.702 m h = 6.2	x: 1.702 m h = 29.0	x: 1.702 m h = 78.9	x: 1.702 m h = 36.9	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 78.9
N457/N458	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.2	x: 1.064 m h = 29.3	x: 0 m h = 53.1	x: 0 m h = 3.1	x: 0 m h = 3.7	x: 1.064 m h = 8.6	x: 0 m h = 28.2	x: 0 m h = 76.5	x: 0 m h = 77.8	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.8
N374/N459	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.5	x: 1.001 m h = 24.4	x: 1.001 m h = 48.5	x: 1.001 m h = 2.9	x: 1.001 m h = 2.5	x: 1.001 m h = 6.0	x: 1.001 m h = 23.6	x: 1.001 m h = 65.0	x: 1.001 m h = 31.1	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 65.0
N459/N460	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 1.702 m h = 21.7	x: 1.702 m h = 70.3	x: 1.702 m h = 3.7	x: 1.702 m h = 2.5	x: 1.702 m h = 4.8	x: 1.702 m h = 49.6	x: 1.702 m h = 89.8	x: 1.702 m h = 39.3	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.8
N460/N461	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.8	x: 0 m h = 25.7	x: 1.702 m h = 66.5	x: 1.702 m h = 3.5	x: 0 m h = 2.5	x: 0 m h = 6.7	x: 1.702 m h = 44.3	x: 0 m h = 86.4	x: 0 m h = 37.9	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.4
N461/N462	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.6	x: 0 m h = 23.8	x: 1.702 m h = 66.0	x: 1.702 m h = 3.6	x: 0 m h = 2.6	x: 0 m h = 5.7	x: 1.702 m h = 43.6	x: 0 m h = 86.5	x: 0 m h = 37.5	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.5
N462/N463	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.702 m h = 24.5	x: 1.702 m h = 70.0	x: 1.702 m h = 3.6	x: 1.702 m h = 2.5	x: 1.702 m h = 6.1	x: 1.702 m h = 49.1	x: 1.702 m h = 89.9	x: 1.702 m h = 38.4	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.9
N463/N464	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 1.277 m h = 29.7	x: 0 m h = 69.3	x: 0 m h = 3.9	x: 0 m h = 3.3	x: 1.277 m h = 8.8	x: 0 m h = 48.2	x: 0 m h = 90.0	x: 0 m h = 38.7	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 90.0
N373/N465	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.7	x: 1.001 m h = 40.2	x: 0 m h = 36.5	x: 0 m h = 2.4	x: 1.001 m h = 3.7	x: 1.001 m h = 16.3	x: 0 m h = 13.4	x: 0 m h = 60.6	x: 1.001 m h = 27.4	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.6
N465/N466	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.6	x: 1.702 m h = 28.5	x: 0 m h = 66.5	x: 0 m h = 3.6	x: 1.702 m h = 2.8	x: 1.702 m h = 8.2	x: 0 m h = 44.3	x: 1.702 m h = 86.7	x: 1.702 m h = 38.2	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.7
N466/N467	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 3.1	x: 1.702 m h = 25.4	x: 0 m h = 70.8	x: 0 m h = 3.6	x: 1.702 m h = 2.5	x: 1.702 m h = 6.5	x: 0 m h = 50.3	x: 0 m h = 89.6	x: 0 m h = 38.1	M _{t, Sd} = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.6

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	l	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _v	M _v V _u	N _t M _u M _v	N _t M _v M _v	M _t	
N467/N468	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.6	x: 0 m h = 23.0	x: 1.702 m h = 64.4	x: 1.702 m h = 3.5	x: 0 m h = 2.5	x: 0 m h = 5.4	x: 1.702 m h = 41.6	x: 0 m h = 85.1	x: 0 m h = 35.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.1
N468/N469	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.7	x: 1.702 m h = 21.5	x: 1.702 m h = 69.2	x: 1.702 m h = 3.5	x: 0 m h = 2.3	x: 1.702 m h = 4.7	x: 1.702 m h = 48.0	x: 1.702 m h = 87.5	x: 1.702 m h = 38.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.5
N469/N470	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.6	x: 1.277 m h = 29.1	x: 0 m h = 61.3	x: 0 m h = 3.6	x: 0 m h = 3.3	x: 1.277 m h = 8.5	x: 0 m h = 37.8	x: 0 m h = 84.2	x: 1.064 m h = 47.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.2
N372/N471	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.4	x: 1.001 m h = 28.7	x: 1.001 m h = 48.9	x: 1.001 m h = 3.1	x: 1.001 m h = 2.8	x: 1.001 m h = 8.3	x: 1.001 m h = 24.0	x: 1.001 m h = 63.1	x: 1.001 m h = 28.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 63.1
N471/N472	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.5	x: 1.702 m h = 23.9	x: 1.702 m h = 78.3	x: 1.702 m h = 4.2	x: 1.702 m h = 2.3	x: 1.702 m h = 5.8	x: 1.702 m h = 61.5	x: 1.702 m h = 93.9	x: 1.702 m h = 39.7	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 93.9
N472/N473	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.4	x: 0 m h = 23.2	x: 0 m h = 79.0	x: 0 m h = 4.1	x: 0 m h = 2.1	x: 0 m h = 5.4	x: 0 m h = 62.5	x: 0 m h = 94.8	x: 0 m h = 39.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 94.8
N473/N474	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.2	x: 0 m h = 24.9	x: 1.702 m h = 77.5	x: 1.702 m h = 4.1	x: 0 m h = 2.3	x: 0 m h = 6.2	x: 1.702 m h = 60.2	x: 0 m h = 90.4	x: 0 m h = 39.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 90.4
N474/N475	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.0	x: 1.702 m h = 22.5	x: 1.702 m h = 84.4	x: 1.702 m h = 4.3	x: 1.702 m h = 2.1	x: 1.702 m h = 5.1	x: 1.702 m h = 71.4	x: 1.702 m h = 97.8	x: 1.702 m h = 41.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 97.8
N475/N476	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 1.276 m h = 31.2	x: 0 m h = 80.0	x: 0 m h = 4.6	x: 0 m h = 3.0	x: 1.276 m h = 9.7	x: 0 m h = 64.2	x: 0 m h = 97.7	x: 0 m h = 40.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 97.7
N371/N477	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.6	x: 1.001 m h = 44.7	x: 0 m h = 39.3	x: 0 m h = 2.7	x: 1.001 m h = 4.1	x: 1.001 m h = 20.2	x: 0 m h = 15.5	x: 0 m h = 75.5	x: 0 m h = 27.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.5
N477/N478	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.3	x: 1.702 m h = 31.3	x: 0 m h = 69.9	x: 0 m h = 4.0	x: 1.702 m h = 2.6	x: 1.702 m h = 9.9	x: 0 m h = 49.0	x: 1.702 m h = 92.1	x: 1.702 m h = 39.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 92.1
N478/N479	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.7	x: 1.702 m h = 24.3	x: 0 m h = 82.9	x: 0 m h = 4.1	x: 1.702 m h = 2.1	x: 1.702 m h = 6.0	x: 0 m h = 68.9	x: 0 m h = 94.8	x: 0 m h = 39.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 94.8
N479/N480	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.5	x: 0 m h = 2.2	x: 0 m h = 22.8	x: 1.702 m h = 73.0	x: 1.702 m h = 3.9	x: 0 m h = 2.2	x: 0 m h = 5.3	x: 1.702 m h = 53.5	x: 0 m h = 86.3	x: 0 m h = 37.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.3
N480/N481	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.4	x: 0 m h = 20.8	x: 1.702 m h = 80.1	x: 1.702 m h = 4.0	x: 0 m h = 2.0	x: 0 m h = 4.4	x: 1.702 m h = 64.3	x: 1.702 m h = 91.6	x: 1.702 m h = 39.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 91.6
N481/N482	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.5	x: 1.489 m h = 30.5	x: 0 m h = 71.1	x: 0 m h = 4.2	x: 0 m h = 2.9	x: 1.489 m h = 9.3	x: 0 m h = 50.7	x: 0 m h = 89.8	x: 1.702 m h = 47.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 89.8
N370/N483	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.4	x: 1.001 m h = 22.2	x: 1.001 m h = 44.6	x: 1.001 m h = 2.8	x: 1.001 m h = 2.5	x: 1.001 m h = 5.0	x: 1.001 m h = 20.0	x: 1.001 m h = 60.0	x: 1.001 m h = 27.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 60.0
N483/N484	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.7	x: 1.702 m h = 22.6	x: 1.702 m h = 68.4	x: 1.702 m h = 3.7	x: 1.702 m h = 2.6	x: 1.702 m h = 5.2	x: 1.702 m h = 46.9	x: 1.702 m h = 88.2	x: 1.702 m h = 38.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.2
N484/N485	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.7	x: 1.702 m h = 23.8	x: 0 m h = 67.3	x: 0 m h = 3.6	x: 1.702 m h = 2.4	x: 1.702 m h = 5.7	x: 0 m h = 45.4	x: 1.702 m h = 85.4	x: 1.702 m h = 37.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.4
N485/N486	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.5	x: 0 m h = 23.1	x: 1.702 m h = 65.2	x: 1.702 m h = 3.6	x: 0 m h = 2.5	x: 0 m h = 5.4	x: 1.702 m h = 42.7	x: 0 m h = 84.8	x: 0 m h = 37.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.8
N486/N487	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.702 m h = 25.3	x: 1.702 m h = 69.3	x: 1.702 m h = 3.7	x: 1.702 m h = 2.6	x: 1.702 m h = 6.5	x: 1.702 m h = 48.2	x: 1.702 m h = 90.4	x: 1.702 m h = 38.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 90.4
N487/N488	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 1.277 m h = 29.4	x: 0 m h = 67.6	x: 0 m h = 3.9	x: 0 m h = 3.3	x: 1.277 m h = 8.6	x: 0 m h = 45.9	x: 0 m h = 90.5	x: 0 m h = 38.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 90.5
N369/N489	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.5	x: 1.001 m h = 33.4	x: 0 m h = 32.5	x: 0 m h = 2.3	x: 1.001 m h = 3.4	x: 1.001 m h = 11.3	x: 0 m h = 10.6	x: 0 m h = 54.2	x: 1.001 m h = 24.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 54.2
N489/N490	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.7	x: 1.702 m h = 28.3	x: 0 m h = 63.6	x: 0 m h = 3.6	x: 1.702 m h = 2.9	x: 1.702 m h = 8.1	x: 0 m h = 40.6	x: 1.702 m h = 84.8	x: 1.702 m h = 37.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 84.8
N490/N491	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.0	x: 1.702 m h = 24.9	x: 0 m h = 72.2	x: 0 m h = 3.6	x: 1.702 m h = 2.5	x: 1.702 m h = 6.3	x: 0 m h = 52.2	x: 0 m h = 88.3	x: 0 m h = 37.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 88.3
N491/N492	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 1.8	x: 0 m h = 21.3	x: 0 m h = 63.9	x: 0 m h = 3.5	x: 0 m h = 2.4	x: 0 m h = 4.6	x: 0 m h = 41.0	x: 0 m h = 82.7	x: 0 m h = 34.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 82.7
N492/N493	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.2	x: 1.702 m h = 23.5	x: 1.702 m h = 67.2	x: 1.702 m h = 3.5	x: 1.702 m h = 2.4	x: 1.702 m h = 5.6	x: 1.702 m h = 45.3	x: 1.702 m h = 86.4	x: 1.702 m h = 38.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 86.4
N493/N494	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.4	x: 1.277 m h = 28.5	x: 0 m h = 62.8	x: 0 m h = 3.7	x: 0 m h = 3.2	x: 1.277 m h = 8.1	x: 0 m h = 39.5	x: 0 m h = 85.0	x: 0 m h = 59.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 85.0
N368/N495	(b/t) £ 200 Passa	$\frac{l_{uu}}{l_{vv}} \leq 200.0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.4	x: 1.001 m h = 19.1	x: 1.001 m h = 32.7	x: 1.001 m h = 2.2	x: 1.001 m h = 2.5	x: 1.001 m h = 3.7	x: 1.001 m h = 10.7	x: 1.001 m h = 49.4	x: 1.001 m h = 23.0	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 49.4

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	b/t	l	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _u	M _v V _u	N _t M _u M _v	N _t M _v M _v	M _t	
N495/N496	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.6	x: 1.702 m h = 27.4	x: 1.702 m h = 53.7	x: 1.702 m h = 3.0	x: 1.702 m h = 3.2	x: 1.702 m h = 7.6	x: 1.702 m h = 28.9	x: 1.702 m h = 79.0	x: 1.702 m h = 35.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.0
N496/N497	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.6	x: 1.702 m h = 27.2	x: 0 m h = 58.4	x: 0 m h = 3.0	x: 1.702 m h = 2.9	x: 1.702 m h = 7.5	x: 0 m h = 34.2	x: 0 m h = 82.5	x: 0 m h = 37.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 82.5
N497/N498	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.4	x: 0 m h = 23.3	x: 0 m h = 56.9	x: 0 m h = 3.0	x: 0 m h = 2.9	x: 0 m h = 5.5	x: 0 m h = 32.4	x: 0 m h = 79.8	x: 0 m h = 37.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.8
N498/N499	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.0	x: 1.702 m h = 29.2	x: 0 m h = 56.1	x: 0 m h = 3.0	x: 1.702 m h = 3.1	x: 1.702 m h = 8.6	x: 0 m h = 31.5	x: 1.702 m h = 77.5	x: 0 m h = 35.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.5
N499/N500	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.5	x: 1.064 m h = 28.7	x: 0 m h = 56.0	x: 0 m h = 3.2	x: 0 m h = 3.7	x: 1.064 m h = 8.2	x: 0 m h = 31.5	x: 0 m h = 81.3	x: 1.064 m h = 42.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 81.3
N367/N501	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.4	x: 1.001 m h = 27.4	x: 0 m h = 29.4	x: 0 m h = 2.1	x: 1.001 m h = 3.2	x: 1.001 m h = 7.6	x: 0 m h = 8.7	x: 0 m h = 42.9	x: 1.001 m h = 18.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 42.9
N501/N502	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.3	x: 1.702 m h = 32.3	x: 0 m h = 57.1	x: 0 m h = 3.1	x: 1.702 m h = 3.4	x: 1.702 m h = 10.5	x: 0 m h = 32.6	x: 1.702 m h = 74.5	x: 1.702 m h = 34.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 74.5
N502/N503	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.7	x: 1.702 m h = 28.2	x: 0 m h = 64.3	x: 0 m h = 3.1	x: 1.702 m h = 3.0	x: 1.702 m h = 8.0	x: 0 m h = 41.5	x: 0 m h = 87.6	x: 0 m h = 38.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.6
N503/N504	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.4	x: 1.702 m h = 24.4	x: 0 m h = 58.4	x: 0 m h = 3.0	x: 1.702 m h = 2.9	x: 1.702 m h = 6.0	x: 0 m h = 34.1	x: 0 m h = 80.3	x: 0 m h = 36.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 80.3
N504/N505	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.2	x: 0 m h = 1.1	x: 1.702 m h = 28.4	x: 0 m h = 56.9	x: 0 m h = 3.0	x: 1.702 m h = 3.0	x: 1.702 m h = 8.2	x: 0 m h = 32.4	x: 1.702 m h = 77.0	x: 1.702 m h = 36.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.0
N505/N506	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.4	x: 1.064 m h = 28.6	x: 0 m h = 55.1	x: 0 m h = 3.2	x: 0 m h = 3.6	x: 1.064 m h = 8.2	x: 0 m h = 30.5	x: 0 m h = 79.9	x: 1.064 m h = 61.1	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 79.9
N366/N507	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.2	x: 0 m h = 0.5	x: 1.001 m h = 19.4	x: 1.001 m h = 23.7	x: 1.001 m h = 1.8	x: 1.001 m h = 3.0	x: 1.001 m h = 3.9	x: 1.001 m h = 5.7	x: 1.001 m h = 43.0	x: 1.001 m h = 20.3	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.0
N507/N508	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.0	x: 1.702 m h = 30.8	x: 0 m h = 45.4	x: 0 m h = 2.6	x: 1.702 m h = 4.0	x: 1.702 m h = 9.7	x: 0 m h = 20.7	x: 1.702 m h = 75.1	x: 1.702 m h = 35.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 75.1
N508/N509	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.4	x: 0 m h = 2.0	x: 1.702 m h = 33.1	x: 0 m h = 54.0	x: 0 m h = 2.7	x: 1.702 m h = 3.7	x: 1.702 m h = 11.1	x: 0 m h = 29.3	x: 0 m h = 80.5	x: 0 m h = 41.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 80.5
N509/N510	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.6	x: 1.702 m h = 29.7	x: 0 m h = 56.2	x: 0 m h = 2.7	x: 1.702 m h = 3.6	x: 1.702 m h = 8.9	x: 0 m h = 31.6	x: 0 m h = 83.4	x: 0 m h = 43.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.4
N510/N511	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.3	x: 0 m h = 1.0	x: 1.702 m h = 32.6	x: 0 m h = 54.9	x: 0 m h = 2.7	x: 1.702 m h = 3.7	x: 1.702 m h = 10.8	x: 0 m h = 30.2	x: 0 m h = 77.7	x: 0 m h = 40.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 77.7
N511/N512	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.4	x: 1.064 m h = 31.6	x: 0 m h = 51.8	x: 0 m h = 2.8	x: 0 m h = 4.2	x: 1.064 m h = 10.0	x: 0 m h = 26.9	x: 0 m h = 76.9	x: 0 m h = 51.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 76.9
N365/N513	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	N _t S _d = 0.00 N.A. ⁽⁸⁾	x: 0 m h = 0.1	x: 1.001 m h = 23.2	x: 0 m h = 31.0	x: 0 m h = 2.0	x: 1.001 m h = 3.3	x: 1.001 m h = 5.5	x: 0 m h = 9.6	x: 0 m h = 40.6	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.6
N513/N514	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.5	x: 1.702 m h = 32.6	x: 0 m h = 53.8	x: 0 m h = 2.8	x: 1.702 m h = 4.2	x: 1.702 m h = 10.8	x: 0 m h = 29.0	x: 0 m h = 40.7	x: 1.702 m h = 66.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 66.6
N514/N515	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.5	x: 1.702 m h = 35.8	x: 0 m h = 61.3	x: 0 m h = 2.8	x: 1.702 m h = 3.9	x: 1.702 m h = 12.9	x: 0 m h = 37.7	x: 0 m h = 57.8	x: 0 m h = 83.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 83.4
N515/N516	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.5	x: 1.702 m h = 32.2	x: 0 m h = 62.0	x: 0 m h = 2.9	x: 1.702 m h = 3.8	x: 1.702 m h = 10.5	x: 0 m h = 38.6	x: 0 m h = 87.4	x: 0 m h = 84.5	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 87.4
N516/N517	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.4	x: 1.702 m h = 32.5	x: 0 m h = 60.3	x: 0 m h = 2.9	x: 1.702 m h = 3.8	x: 1.702 m h = 10.7	x: 0 m h = 36.4	x: 0 m h = 82.5	x: 0 m h = 79.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 82.5
N517/N518	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 1.064 m h = 33.2	x: 0 m h = 56.6	x: 0 m h = 2.9	x: 0 m h = 4.3	x: 1.064 m h = 11.0	x: 0 m h = 32.1	x: 0 m h = 55.4	x: 0 m h = 80.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 80.6
N529/N530	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.001 m h = 0.1	x: 0 m h = 0.2	M _u S _d = 0.00 N.A. ⁽²⁾	M _v S _d = 0.00 N.A. ⁽²⁾	x: 1.001 m h = 1.0	x: 1.001 m h = 1.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 1.1
N530/N531	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.7	x: 0.638 m h = 10.1	x: 1.702 m h = 31.9	x: 1.702 m h = 1.8	x: 1.702 m h = 1.4	x: 0.638 m h = 1.0	x: 1.702 m h = 10.2	x: 1.702 m h = 41.8	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 41.8
N531/N532	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 0 m h = 10.1	x: 0 m h = 31.7	x: 0 m h = 1.7	x: 1.702 m h = 1.2	x: 0 m h = 1.0	x: 0 m h = 10.1	x: 0 m h = 40.9	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 40.9
N532/N533	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.6	x: 1.702 m h = 8.6	x: 1.702 m h = 30.4	x: 1.702 m h = 1.7	x: 0 m h = 1.2	x: 1.702 m h = 0.8	x: 1.702 m h = 9.2	x: 1.702 m h = 39.6	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 39.6
N533/N534	(b/t) £ 200 Passa	$l_{uu} \text{ £ } 200,0$ $l_{vv} \text{ £ } 200,0$ Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 1.702 m h = 10.4	x: 1.702 m h = 33.4	x: 1.702 m h = 1.7	x: 1.702 m h = 1.2	x: 1.702 m h = 1.1	x: 1.702 m h = 11.2	x: 1.702 m h = 42.8	x: 1.702 m h = 43.8	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 43.8

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	I	N _t	N _c	M _u	M _v	V _u	V _v	M _u V _v	M _v V _u	N _t M _u M _v	N _t M _v M _v	M _t	
N534/N535	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 1.064 m h = 12.7	x: 0 m h = 40.0	x: 0 m h = 2.0	x: 0 m h = 1.5	x: 0.851 m h = 1.4	x: 0 m h = 16.1	x: 0 m h = 44.2	x: 0 m h = 46.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 46.4
N536/N537	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.001 m h < 0.1	x: 0 m h = 0.1	M _u S _d = 0.00 N.A. ⁽²⁾	M _v S _d = 0.00 N.A. ⁽²⁾	x: 1.001 m h = 1.0	x: 0 m h = 1.1	N.A. ⁽³⁾	N.A. ⁽³⁾	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 1.1
N541/N542	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.4	x: 0 m h = 17.9	x: 0 m h = 20.0	x: 0 m h = 1.2	x: 0 m h = 2.2	x: 0 m h = 3.2	x: 0 m h = 4.0	N.A. ⁽⁴⁾	x: 0 m h = 35.2	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 35.2
N540/N541	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h = 0.2	x: 0 m h = 0.3	x: 1.702 m h = 16.7	x: 0 m h = 21.7	x: 0 m h = 1.2	x: 1.702 m h = 1.8	x: 1.702 m h = 2.8	x: 0 m h = 4.7	x: 1.702 m h = 18.4	x: 1.702 m h = 37.9	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 37.9
N539/N540	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.2	x: 1.702 m h = 14.3	x: 0 m h = 20.8	x: 0 m h = 1.2	x: 1.702 m h = 1.8	x: 1.702 m h = 2.1	x: 0 m h = 4.3	x: 1.702 m h = 34.3	x: 0 m h = 32.4	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.3
N538/N539	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h = 0.1	x: 0 m h = 0.3	x: 0 m h = 13.6	x: 1.702 m h = 22.3	x: 1.702 m h = 1.2	x: 0 m h = 1.7	x: 0 m h = 1.9	x: 1.702 m h = 5.0	x: 1.702 m h = 32.6	x: 0 m h = 34.6	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.6
N537/N538	(b/t) ≤ 200 Passa	I _{uu} ≤ 200.0 I _{vv} ≤ 200.0 Passa	x: 1.702 m h < 0.1	x: 0 m h = 0.3	x: 1.702 m h = 13.7	x: 1.702 m h = 22.6	x: 1.702 m h = 1.3	x: 1.702 m h = 2.0	x: 1.702 m h = 1.9	x: 1.702 m h = 5.1	x: 1.702 m h = 34.8	N.A. ⁽⁵⁾	M _t S _d = 0.00 N.A. ⁽⁶⁾	PASSA h = 34.8

Notação:

b/t: Valores máximos da relação comprimento-espessura

I: Limitação de esbeltez

N_t: Resistência à tração

N_c: Resistência à compressão

M_x: Resistência à flexão eixo X

M_y: Resistência à flexão eixo Y

V_x: Resistência ao esforço cortante X

V_y: Resistência ao esforço cortante Y

M_xV_y: Resistência ao momento fletor X e esforço cortante Y combinados

M_yV_x: Resistência ao momento fletor Y e esforço cortante X combinados

N_tM_uM_v: Resistência à flexo-compressão

N_tM_xM_y: Resistência à flexo-tração

M_t: Resistência à torção

x: Distância à origem da barra

h: Coeficiente de aproveitamento (%)

N.A.: Não aplicável

M_u: Resistência à flexão eixo U

M_v: Resistência à flexão eixo V

V_u: Resistência ao esforço cortante U

V_v: Resistência ao esforço cortante V

M_uV_v: Resistência ao momento fletor U e esforço cortante V combinados

M_vV_u: Resistência ao momento fletor V e esforço cortante U combinados

N_tM_uM_v: Resistência à flexo-compressão

N_tM_vM_u: Resistência à flexo-tração

Verificações desnecessárias para o tipo de perfil (N.A.):

⁽¹⁾ A verificação não será executada, já que não existe esforço axial de compressão.

⁽²⁾ A verificação não será executada, já que não existe momento fletor.

⁽³⁾ Não há interação entre o momento fletor e o esforço cortante para nenhuma combinação. Assim a verificação não será executada.

⁽⁴⁾ Não há interação entre o esforço axial de compressão e o momento fletor para nenhuma combinação. Assim a verificação não será executada.

⁽⁵⁾ Não há interação entre o esforço axial de tração e o momento fletor para nenhuma combinação. Assim a verificação não será executada.

⁽⁶⁾ A verificação não é necessária, já que não existe momento torsor.

⁽⁷⁾ A verificação não será executada, já que não existe esforço cortante.

⁽⁸⁾ A verificação não será executada, já que não existe esforço axial de tração.

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	I	N _t	N _c	M _x	M _y	V _x	V _y	NM _x M _y	T	NMVT	s t f	
N22/N553	I ≤ 200.0 Passa	x: 3.09 m h = 1.5	x: 0 m h = 2.6	x: 0 m h = 88.4	x: 0 m h = 2.6	h = 0.1	x: 0 m h = 6.4	x: 0 m h = 90.5	h = 2.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 90.5
N553/N360	I ≤ 200.0 Passa	x: 0.127 m h = 2.0	x: 0 m h = 2.1	x: 0 m h = 61.8	x: 0 m h = 3.6	h = 0.1	x: 0 m h = 2.7	x: 0 m h = 66.3	h = 10.2	N.A. ⁽¹⁾	x: 0 m h = 77.4	PASSA h = 77.4
N360/N525	I ≤ 200.0 Passa	x: 3.503 m h = 5.7	x: 0 m h = 6.0	x: 0 m h = 50.4	x: 3.503 m h = 2.3	h = 0.1	x: 0 m h = 4.9	x: 0 m h = 55.1	h = 1.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 55.1
N525/N33	I ≤ 200.0 Passa	x: 1 m h = 3.7	x: 0.163 m h = 2.6	x: 0.163 m h = 24.4	x: 1 m h = 3.4	h = 0.1	h = 23.7	x: 0.163 m h = 28.6	h = 0.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 28.6
N27/N556	I ≤ 200.0 Passa	x: 3.09 m h = 1.5	x: 0 m h = 2.6	x: 0 m h = 88.4	x: 0 m h = 2.6	h = 0.1	x: 0 m h = 6.4	x: 0 m h = 90.4	h = 2.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 90.4
N556/N357	I ≤ 200.0 Passa	x: 0.127 m h = 2.0	x: 0 m h = 2.1	x: 0 m h = 61.8	x: 0 m h = 3.6	h = 0.1	x: 0 m h = 2.7	x: 0 m h = 66.3	h = 10.3	N.A. ⁽¹⁾	x: 0 m h = 77.4	PASSA h = 77.4
N357/N522	I ≤ 200.0 Passa	x: 3.503 m h = 5.7	x: 0 m h = 6.0	x: 0 m h = 50.4	x: 3.503 m h = 2.3	h = 0.1	x: 0 m h = 5.0	x: 0 m h = 55.1	h = 1.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 55.1
N522/N35	I ≤ 200.0 Passa	x: 1 m h = 3.7	x: 0.163 m h = 2.6	x: 0.163 m h = 24.4	x: 1 m h = 3.5	h = 0.1	h = 23.7	x: 0.163 m h = 28.7	h = 0.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 28.7

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	I	N _t	N _c	M _x	M _y	V _x	V _y	NM _x M _y	T	NMVT	s t f	
N23/N554	I É 200.0 Passa	x: 3.09 m h = 2.1	x: 0 m h = 2.6	x: 0 m h = 69.8	x: 3.09 m h = 4.1	h = 0.2	x: 0 m h = 6.0	x: 0 m h = 74.7	h = 1.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 74.7
N554/N361	I É 200.0 Passa	x: 0.535 m h = 2.0	x: 0 m h = 1.7	x: 0 m h = 48.2	x: 0 m h = 3.9	h = 0.2	x: 0 m h = 3.0	x: 0 m h = 53.1	h = 5.7	N.A. ⁽¹⁾	x: 0 m h = 62.6	PASSA h = 62.6
N361/N526	I É 200.0 Passa	x: 2.625 m h = 4.5	x: 0 m h = 4.0	x: 0 m h = 41.9	x: 2.625 m h = 4.1	h = 0.2	x: 0 m h = 4.8	x: 0 m h = 46.8	h = 1.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 46.8
N526/N37	I É 200.0 Passa	x: 1 m h = 2.9	x: 0.163 m h = 1.9	x: 0.163 m h = 23.2	x: 1 m h = 5.6	h = 0.2	h = 19.3	x: 0.163 m h = 26.7	h = 1.0	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 26.7
N28/N551	I É 200.0 Passa	x: 3.09 m h = 2.1	x: 0 m h = 2.6	x: 0 m h = 69.8	x: 3.09 m h = 4.2	h = 0.2	x: 0 m h = 6.1	x: 0 m h = 74.8	h = 1.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 74.8
N551/N356	I É 200.0 Passa	x: 0.535 m h = 2.0	x: 0 m h = 1.7	x: 0 m h = 48.3	x: 0 m h = 3.9	h = 0.2	x: 0 m h = 3.0	x: 0 m h = 53.2	h = 5.8	N.A. ⁽¹⁾	x: 0 m h = 62.7	PASSA h = 62.7
N356/N521	I É 200.0 Passa	x: 2.625 m h = 4.5	x: 0 m h = 4.0	x: 0 m h = 41.9	x: 2.625 m h = 4.1	h = 0.2	x: 0 m h = 4.8	x: 0 m h = 46.9	h = 1.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 46.9
N521/N39	I É 200.0 Passa	x: 1 m h = 2.9	x: 0.163 m h = 1.9	x: 0.163 m h = 23.2	x: 1 m h = 5.6	h = 0.2	h = 19.3	x: 0.163 m h = 26.7	h = 1.0	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 26.7
N24/N558	I É 200.0 Passa	x: 3.09 m h = 1.5	x: 0 m h = 2.3	x: 0 m h = 53.0	x: 0 m h = 2.1	h = 0.1	x: 0 m h = 6.0	x: 0 m h = 54.9	h = 1.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 54.9
N558/N362	I É 200.0 Passa	x: 0.03 m h = 1.7	x: 0 m h = 1.6	x: 0 m h = 35.9	x: 0 m h = 0.7	h = 0.1	x: 0 m h = 2.7	x: 0 m h = 36.8	h = 13.1	N.A. ⁽¹⁾	x: 0.03 m h = 32.0	PASSA h = 36.8
N362/N527	I É 200.0 Passa	x: 2.119 m h = 3.5	x: 0 m h = 3.2	x: 0 m h = 32.7	x: 2.119 m h = 2.1	h = 0.1	x: 0 m h = 3.5	x: 0 m h = 34.7	h = 1.9	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 34.7
N527/N41	I É 200.0 Passa	x: 1 m h = 1.9	x: 0.163 m h = 1.5	x: 0.163 m h = 20.6	x: 1 m h = 2.3	h = 0.1	h = 16.2	x: 0.163 m h = 22.1	h = 0.8	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 22.1
N29/N557	I É 200.0 Passa	x: 3.09 m h = 1.5	x: 0 m h = 2.3	x: 0 m h = 53.1	x: 0 m h = 2.1	h = 0.1	x: 0 m h = 6.0	x: 0 m h = 55.1	h = 1.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 55.1
N557/N355	I É 200.0 Passa	x: 0.03 m h = 1.7	x: 0 m h = 1.6	x: 0 m h = 36.0	x: 0 m h = 0.7	h = 0.1	x: 0 m h = 2.7	x: 0 m h = 36.9	h = 13.3	N.A. ⁽¹⁾	x: 0.03 m h = 32.0	PASSA h = 36.9
N355/N520	I É 200.0 Passa	x: 2.119 m h = 3.5	x: 0 m h = 3.2	x: 0 m h = 32.8	x: 2.119 m h = 2.1	h = 0.1	x: 0 m h = 3.5	x: 0 m h = 34.8	h = 2.0	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 34.8
N520/N43	I É 200.0 Passa	x: 1 m h = 1.9	x: 0.163 m h = 1.5	x: 0.163 m h = 20.6	x: 1 m h = 2.2	h = 0.1	h = 16.2	x: 0.163 m h = 22.2	h = 0.7	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 22.2
N25/N363	I É 200.0 Passa	x: 2.201 m h = 1.9	x: 0 m h = 2.6	x: 0 m h = 31.1	x: 0 m h = 4.8	h = 0.3	x: 0 m h = 6.5	x: 0 m h = 36.8	h = 1.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 36.8
N363/N528	I É 200.0 Passa	x: 2.09 m h = 3.5	x: 0 m h = 3.1	x: 0 m h = 22.2	x: 0 m h = 5.6	h = 0.3	x: 0 m h = 1.6	x: 0 m h = 29.5	h = 2.8	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 29.5
N528/N47	I É 200.0 Passa	x: 1 m h = 2.0	x: 0.163 m h = 1.5	x: 0.163 m h = 19.6	x: 1 m h = 4.7	h = 0.3	h = 15.2	x: 0.163 m h = 21.9	h = 0.8	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 21.9
N30/N354	I É 200.0 Passa	x: 2.201 m h = 1.9	x: 0 m h = 2.5	x: 0 m h = 31.3	x: 0 m h = 4.8	h = 0.3	x: 0 m h = 6.5	x: 0 m h = 37.1	h = 1.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 37.1
N354/N519	I É 200.0 Passa	x: 2.09 m h = 3.5	x: 0 m h = 3.1	x: 0 m h = 22.3	x: 0 m h = 5.6	h = 0.3	x: 0 m h = 1.6	x: 0 m h = 29.6	h = 2.8	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 29.6
N519/N49	I É 200.0 Passa	x: 1 m h = 2.0	x: 0.163 m h = 1.5	x: 0.163 m h = 19.6	x: 1 m h = 4.7	h = 0.3	h = 15.2	x: 0.163 m h = 21.9	h = 0.8	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 21.9
N45/N548	I É 200.0 Passa	x: 3.014 m h = 0.9	x: 0 m h = 4.2	x: 0 m h = 19.0	x: 3.015 m h = 3.6	h = 0.2	x: 0 m h = 6.1	x: 0 m h = 23.7	h = 1.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 23.7
N548/N364	I É 200.0 Passa	x: 0.442 m h = 0.4	x: 0.36 m h = 1.7	x: 0.36 m h = 7.9	x: 0.36 m h = 0.9	h = 0.1	x: 0.442 m h = 1.4	x: 0.36 m h = 9.2	h = 3.5	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 9.2
N364/N51	I É 200.0 Passa	x: 3.171 m h = 0.6	x: 0 m h = 2.5	x: 0 m h = 7.5	x: 3.172 m h = 2.7	h = 0.1	x: 2.577 m h = 1.8	x: 0 m h = 9.2	h = 0.4	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 9.2
N46/N547	I É 200.0 Passa	x: 3.09 m h = 0.9	x: 0 m h = 4.1	x: 0 m h = 19.5	x: 3.09 m h = 3.4	h = 0.1	x: 0 m h = 6.0	x: 0 m h = 24.0	h = 1.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 24.0
N547/N353	I É 200.0 Passa	x: 0.442 m h = 0.4	x: 0 m h = 1.6	x: 0 m h = 7.7	x: 0 m h = 0.8	h = 0.1	x: 0.442 m h = 1.2	x: 0 m h = 8.8	h = 2.2	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 8.8
N353/N53	I É 200.0 Passa	x: 3.532 m h = 0.6	x: 0 m h = 2.4	x: 0 m h = 6.6	x: 3.532 m h = 2.5	h = 0.1	x: 2.551 m h = 1.6	x: 0 m h = 8.1	h = 0.2	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 8.1
N1/N555	I É 200.0 Passa	x: 3.09 m h = 1.7	x: 0 m h = 2.8	x: 0 m h = 90.2	x: 0 m h = 3.2	h = 0.2	x: 0 m h = 6.4	x: 0 m h = 94.2	h = 2.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 94.2
N555/N359	I É 200.0 Passa	x: 0.469 m h = 2.0	x: 0 m h = 2.3	x: 0 m h = 63.6	x: 0 m h = 4.2	h = 0.1	x: 0 m h = 3.0	x: 0 m h = 68.7	h = 5.6	N.A. ⁽¹⁾	x: 0.47 m h = 44.5	PASSA h = 68.7
N359/N524	I É 200.0 Passa	x: 3.979 m h = 5.9	x: 0 m h = 7.0	x: 0 m h = 49.7	x: 3.979 m h = 3.0	h = 0.1	x: 0 m h = 4.9	x: 0 m h = 54.2	h = 0.9	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 54.2
N524/N3	I É 200.0 Passa	x: 1 m h = 3.9	x: 0.163 m h = 2.8	x: 0.163 m h = 22.2	x: 1 m h = 4.1	h = 0.1	h = 23.0	x: 0.163 m h = 27.3	h = 0.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 27.3
N26/N552	I É 200.0 Passa	x: 3.09 m h = 1.7	x: 0 m h = 2.8	x: 0 m h = 90.2	x: 0 m h = 3.3	h = 0.2	x: 0 m h = 6.4	x: 0 m h = 94.3	h = 2.1	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 94.3
N552/N358	I É 200.0 Passa	x: 0.469 m h = 2.0	x: 0 m h = 2.3	x: 0 m h = 63.5	x: 0 m h = 4.2	h = 0.1	x: 0 m h = 3.0	x: 0 m h = 68.7	h = 5.6	N.A. ⁽¹⁾	x: 0 m h = 80.3	PASSA h = 80.3
N358/N523	I É 200.0 Passa	x: 3.979 m h = 5.9	x: 0 m h = 7.0	x: 0 m h = 49.7	x: 3.979 m h = 3.0	h = 0.1	x: 0 m h = 4.9	x: 0 m h = 54.2	h = 0.9	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 54.2

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	I	N _t	N _c	M _x	M _y	V _x	V _y	NM _x M _y	T	NMVT	s t f	
N523/N31	I E 200.0 Passa	x: 1 m h = 3.9	x: 0.163 m h = 2.8	x: 0.163 m h = 22.2	x: 1 m h = 4.1	h = 0.1	h = 23.0	x: 0.163 m h = 27.3	h = 0.7	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 27.3
N349/N549	I E 200.0 Passa	x: 2.973 m h = 14.8	x: 0 m h = 25.9	x: 0 m h = 14.1	x: 0 m h = 17.4	h = 0.4	h = 2.5	x: 0 m h = 38.3	h = 0.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 38.3
N549/N352	I E 200.0 Passa	x: 0.363 m h = 9.1	x: 0.116 m h = 6.2	x: 0.116 m h = 7.6	x: 0.364 m h = 3.0	h = 0.3	h = 7.2	x: 0.116 m h = 13.5	h = 10.2	N.A. ⁽¹⁾	x: 0.116 m h = 20.5	PASSA h = 20.5
N352/N131	I E 200.0 Passa	x: 3.415 m h = 7.9	x: 0.078 m h = 17.9	x: 0.078 m h = 3.5	x: 3.416 m h = 16.3	h = 0.2	h = 0.3	x: 3.416 m h = 20.1	h = 0.7	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 20.1
N350/N550	I E 200.0 Passa	x: 2.973 m h = 14.6	x: 0 m h = 25.8	x: 0 m h = 15.1	x: 0 m h = 17.5	h = 0.4	h = 2.7	x: 0 m h = 39.4	h = 0.6	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 39.4
N550/N351	I E 200.0 Passa	x: 0.442 m h = 9.0	x: 0.116 m h = 6.2	x: 0.116 m h = 8.9	x: 0.442 m h = 3.5	h = 0.3	h = 7.3	x: 0.116 m h = 14.6	h = 7.9	N.A. ⁽¹⁾	x: 0.116 m h = 21.1	PASSA h = 21.1
N351/N239	I E 200.0 Passa	x: 3.415 m h = 7.8	x: 0.155 m h = 17.7	x: 0.155 m h = 4.5	x: 3.416 m h = 16.3	h = 0.2	h = 0.4	x: 3.416 m h = 20.1	h = 0.7	N.A. ⁽¹⁾	N.A. ⁽²⁾	PASSA h = 20.1
N218/N248	N.A. ⁽³⁾	h = 39.3	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 39.3
N234/N248	N.A. ⁽³⁾	h = 78.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 78.1
N230/N252	N.A. ⁽³⁾	h = 41.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 41.7
N230/N236	N.A. ⁽³⁾	h = 64.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 64.0
N200/N194	N.A. ⁽³⁾	h = 22.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 22.0
N216/N194	N.A. ⁽³⁾	h = 14.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 14.7
N212/N198	N.A. ⁽³⁾	h = 28.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 28.2
N212/N182	N.A. ⁽³⁾	h = 21.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 21.9
N164/N158	N.A. ⁽³⁾	h = 24.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 24.9
N180/N158	N.A. ⁽³⁾	h = 25.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 25.4
N176/N162	N.A. ⁽³⁾	h = 24.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 24.0
N176/N146	N.A. ⁽³⁾	h = 31.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 31.5
N68/N5	N.A. ⁽³⁾	h = 33.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 33.5
N68/N13	N.A. ⁽³⁾	h = 24.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 24.2
N72/N11	N.A. ⁽³⁾	h = 25.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 25.5
N56/N11	N.A. ⁽³⁾	h = 25.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 25.6
N104/N74	N.A. ⁽³⁾	h = 23.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 23.9
N104/N90	N.A. ⁽³⁾	h = 28.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 28.5
N108/N86	N.A. ⁽³⁾	h = 14.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 14.7
N92/N86	N.A. ⁽³⁾	h = 22.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 22.8
N110/N140	N.A. ⁽³⁾	h = 38.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 38.2
N126/N140	N.A. ⁽³⁾	h = 78.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 78.0
N122/N144	N.A. ⁽³⁾	h = 41.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 41.6
N122/N128	N.A. ⁽³⁾	h = 61.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 61.8
N50/N252	N.A. ⁽³⁾	h = 46.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 46.6
N50/N254	N.A. ⁽³⁾	h = 8.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 8.4
N268/N54	N.A. ⁽³⁾	h = 18.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 18.1
N234/N54	N.A. ⁽³⁾	h = 22.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 22.1

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	I	N _t	N _c	M _x	M _y	V _x	V _y	NM _x M _y	T	NMVT	s t f	
N44/N198	N.A. ⁽³⁾	h = 9.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 9.5
N44/N284	N.A. ⁽³⁾	h = 21.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 21.6
N276/N40	N.A. ⁽³⁾	h = 7.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 7.8
N216/N40	N.A. ⁽³⁾	h = 34.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 34.5
N180/N32	N.A. ⁽³⁾	h = 26.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 26.5
N292/N32	N.A. ⁽³⁾	h = 9.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 9.1
N36/N300	N.A. ⁽³⁾	h = 21.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 21.8
N36/N162	N.A. ⁽³⁾	h = 10.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 10.1
N72/N2	N.A. ⁽³⁾	h = 27.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 27.7
N316/N2	N.A. ⁽³⁾	h = 10.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 10.2
N34/N308	N.A. ⁽³⁾	h = 24.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 24.2
N34/N13	N.A. ⁽³⁾	h = 10.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 10.0
N42/N90	N.A. ⁽³⁾	h = 10.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 10.0
N42/N324	N.A. ⁽³⁾	h = 23.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 23.8
N332/N38	N.A. ⁽³⁾	h = 8.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 8.9
N108/N38	N.A. ⁽³⁾	h = 35.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 35.9
N126/N52	N.A. ⁽³⁾	h = 22.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 22.6
N340/N52	N.A. ⁽³⁾	h = 19.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 19.4
N48/N348	N.A. ⁽³⁾	h = 9.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 9.0
N48/N144	N.A. ⁽³⁾	h = 47.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 47.8
N230/N200	N.A. ⁽³⁾	h = 4.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 4.8
N216/N230	N.A. ⁽³⁾	h = 32.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 32.7
N50/N216	N.A. ⁽³⁾	h = 11.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 11.9
N50/N276	N.A. ⁽³⁾	h = 13.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 13.2
N268/N44	N.A. ⁽³⁾	h = 5.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 5.4
N44/N234	N.A. ⁽³⁾	h = 30.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 30.9
N234/N212	N.A. ⁽³⁾	h = 12.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 12.0
N212/N218	N.A. ⁽³⁾	h = 12.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 12.0
N182/N176	N.A. ⁽³⁾	h = 41.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 41.1
N198/N176	N.A. ⁽³⁾	h = 37.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 37.1
N198/N36	N.A. ⁽³⁾	h = 43.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 43.4
N284/N36	N.A. ⁽³⁾	h = 14.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 14.6
N40/N292	N.A. ⁽³⁾	h = 35.3	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 35.3
N40/N180	N.A. ⁽³⁾	h = 13.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 13.5
N194/N180	N.A. ⁽³⁾	h = 38.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 38.1

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	I	N _t	N _c	M _x	M _y	V _x	V _y	NM _x M _y	T	NMVT	s t f	
N194/N164	N.A. ⁽³⁾	h = 48.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 48.9
N11/N146	N.A. ⁽³⁾	h = 2.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 2.2
N162/N11	N.A. ⁽³⁾	h = 5.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 5.8
N2/N162	N.A. ⁽³⁾	h = 3.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 3.8
N300/N2	N.A. ⁽³⁾	h = 3.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 3.1
N308/N32	N.A. ⁽³⁾	h = 1.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 1.9
N32/N13	N.A. ⁽³⁾	h = 3.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 3.5
N13/N158	N.A. ⁽³⁾	h = 5.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 5.8
N158/N5	N.A. ⁽³⁾	h = 2.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 2.1
N86/N56	N.A. ⁽³⁾	h = 51.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 51.1
N86/N72	N.A. ⁽³⁾	h = 38.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 38.6
N38/N72	N.A. ⁽³⁾	h = 13.5	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 13.5
N38/N316	N.A. ⁽³⁾	h = 37.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 37.7
N324/N34	N.A. ⁽³⁾	h = 15.7	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 15.7
N90/N34	N.A. ⁽³⁾	h = 44.9	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 44.9
N90/N68	N.A. ⁽³⁾	h = 37.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 37.4
N74/N68	N.A. ⁽³⁾	h = 42.2	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 42.2
N122/N92	N.A. ⁽³⁾	h = 3.8	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 3.8
N108/N122	N.A. ⁽³⁾	h = 33.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 33.0
N48/N108	N.A. ⁽³⁾	h = 12.6	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 12.6
N48/N332	N.A. ⁽³⁾	h = 15.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 15.1
N340/N42	N.A. ⁽³⁾	h = 6.4	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 6.4
N42/N126	N.A. ⁽³⁾	h = 32.3	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 32.3
N126/N104	N.A. ⁽³⁾	h = 12.1	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 12.1
N104/N110	N.A. ⁽³⁾	h = 10.0	N.A. ⁽⁴⁾	N.A. ⁽⁵⁾	N.A. ⁽⁵⁾	N.A. ⁽⁶⁾	N.A. ⁽⁶⁾	N.A. ⁽⁷⁾	N.A. ⁽⁸⁾	N.A. ⁽⁹⁾	N.A. ⁽²⁾	PASSA h = 10.0
<p>Notação:</p> <p>I: Limitação do índice de esbeltez N_t: Resistência à tração N_c: Resistência à compressão M_x: Resistência à flexão eixo X M_y: Resistência à flexão eixo Y V_x: Resistência ao esforço cortante X V_y: Resistência ao esforço cortante Y NM_xM_y: Resistência ao esforço axial e flexão combinados T: Resistência à torção NMVT: Resistência ao momento de torção, força axial, momento fletor e cortante s t f: Resistência a interações de esforços e momento de torção x: Distância à origem da barra h: Coeficiente de aproveitamento (%) N.A.: Não aplicável</p>												
<p>Verificações desnecessárias para o tipo de perfil (N.A.):</p> <p>⁽¹⁾ Este caso não está contemplado pela norma e, portanto, não é possível realizar a verificação. ⁽²⁾ Não há interação entre os dois esforços cortantes nem entre o momento torsor, esforço axial, momentos fletores e esforços cortantes. Portanto, a verificação não é necessária. ⁽³⁾ A verificação não procede, já que não há força axial de compressão. ⁽⁴⁾ A verificação não será executada, já que não existe esforço axial de compressão. ⁽⁵⁾ A verificação não será executada, já que não existe momento fletor. ⁽⁶⁾ A verificação não será executada, já que não existe esforço cortante. ⁽⁷⁾ Não existe interação entre o esforço axial e o momento fletor nem entre momentos fletores em ambas as direções para nenhuma combinação. Portanto, a verificação não é necessária. ⁽⁸⁾ A verificação não é necessária, já que não existe momento torsor. ⁽⁹⁾ Não há interação entre a força axial, momento fletor, esforço cortante e momento torsor. Portanto, a verificação não é necessária.</p>												

2.3. Ligações

Especificações para ligações soldadas

Norma:

ABNT NBR 8800:2008: Projeto de estruturas de aço e de estruturas mistas de aço e concreto de edifícios. Artigo 6: Condições específicas para o dimensionamento de ligações metálicas.

Materiais:

- Perfis (Material base): A-36 250Mpa.
- Material de adição (soldas): Eletrodos das séries E60XX e E70XX. Para os materiais utilizados e o procedimento de solda SMAW (Arco elétrico com eletrodo revestido), cumprem-se as condições de compatibilidade entre materiais exigidas pelo item 6.2.4 ABNT NBR 8800:2008.

Definições para soldas em ângulo:

- Garganta efetiva: é igual à menor distância medida desde a raiz à face plana teórica da solda (item 6.2.2.2 b) ABNT NBR 8800:2008).
- Lado do cordão: é o menor dos dois lados situados nas faces de fusão do maior triângulo que pode ser inscrito na seção da solda (item 6.2.2.2 b) ABNT NBR 8800:2008).
- Raiz da solda: é a interseção das faces de fusão (item 6.2.2.2 b) ABNT NBR 8800:2008).
- Comprimento efetivo do cordão de solda: é igual ao comprimento total da solda com dimensões uniformes, incluídos os retornos (item 6.2.2.2 c) ABNT NBR 8800:2008).

Disposições construtivas:

1) As prescrições consideradas neste projeto aplicam-se a ligações soldadas nas quais:

- Os aços das peças a unir têm um limite elástico não superior a 100 ksi [690 MPa] (item 1.2 (1) AWS D1.1/D1.1M:2002).
- As espessuras das peças a unir são pelo menos de 1/8 in [3mm] (item 1.2 (2) AWS D1.1/D1.1M:2002).
- As peças soldadas não são de seção tubular.

2) Em soldas de topo de penetração total ou parcial verifica-se que:

- O comprimento efetivo das soldas de penetração total ou parcial é igual ao seu comprimento total, o qual é igual ao comprimento da parte unida (item 6.2.2.1 b) ABNT NBR 8800:2008).
- Em soldas de penetração total, a garganta efetiva é igual à menor espessura das peças unidas (item 6.2.2.1 c) ABNT NBR 8800:2008).
- Em soldas de penetração parcial, a espessura mínima da garganta efetiva cumpre os valores da seguinte tabela:

Tabela 9 ABNT NBR 8800:2008	
Menor espessura das peças a unir (mm)	Espessura mínima de garganta efetiva (mm)
Menor que ou igual a 6.35	3
Menor que ou igual a 12.5	5
Menor que ou igual a 19	6
Menor que ou igual a 37.5	8
Menor que ou igual a 57	10
Menor que ou igual a 152	13
Maior que 152	16

- A espessura de garganta efetiva das soldas de penetração parcial determina-se segundo a tabela 5 ABNT NBR 8800:2008.

3) Em soldas em ângulo verifica-se que:

- O tamanho mínimo do lado de uma solda de ângulo cumpre os valores da seguinte tabela:

Tabela 10 ABNT NBR 8800:2008	
Menor espessura das peças a unir (mm)	Tamanho mínimo do lado de uma solda em ângulo(*) (mm)
Menor que ou igual a 6.35	3

Tabela 10 ABNT NBR 8800:2008

Menor espessura das peças a unir (mm)	Tamanho mínimo do lado de uma solda em ângulo ^(*) (mm)
Menor que ou igual a 12,5	5
Menor que ou igual a 19	6
Maior que 19	8

^(*)Executada em uma só passada

- O tamanho máximo do lado de uma solda em ângulo ao longo das bordas de peças soldadas cumpre o especificado no item 6.2.6.2.2 ABNT NBR 8800:2008, o qual exige que:

- ao longo das bordas de material com espessura inferior a 6,35 mm, seja menor ou igual à espessura do material.

- ao longo das bordas de material com espessura igual ou superior 6,35 mm, seja menor ou igual à espessura do material menos 1,5 mm.

- O comprimento efetivo de um cordão de solda em ângulo cumpre que é maior que ou igual a 4 vezes o tamanho do seu lado, ou que o lado não se considera maior que o 25 % do comprimento efetivo da solda. Além disso, o comprimento efetivo de uma solda em ângulo exposta a qualquer solicitação de cálculo não é inferior a 40 mm (item 6.2.6.2.3 ABNT NBR 8800:2008).

4) No detalhe das soldas indica-se o comprimento efetivo do cordão (comprimento sobre o qual o cordão tem o seu tamanho completo). Para alcançar tal comprimento, pode ser necessário prolongar o cordão rodeando os cantos, com o mesmo tamanho de cordão.

5) As soldas de ângulo de ligações em 'T' com ângulos menores que 30° não se consideram como efetivas para a transmissão das cargas aplicadas (item 2.3.3.4 AWS D1.1/D1.1M:2002).

6) Nos processos de fabricação e montagem deverão ser cumpridos os requisitos indicados no capítulo 5 de AWS D1.1/D1.1M:2002. No que diz respeito à preparação do metal base, exige-se que as superfícies sobre as quais se depositará o metal de adição devem ser suaves, uniformes, e livres de fissuras e outras descontinuidades que afetariam a qualidade ou resistência da solda. As superfícies a soldar, e as superfícies adjacentes a uma solda, deverão estar também livres de lâminas, escamas, óxido solto ou aderido, escória, ferrugem, umidade, óleo, gordura e outros materiais estranhos que impeçam uma solda apropriada ou produzam emissões prejudiciais.

Verificações:

- A resistência de cálculo dos cordões de solda determina-se de acordo com o item 6.2.5 ABNT NBR 8800:2008.

- O método utilizado para a verificação da resistência dos cordões de solda é aquele em que as tensões calculadas nos cordões (resultante vetorial), consideram-se como tensões de corte aplicadas sobre a área efetiva (item 2.5.4.1 AWS D1.1/D1.1M:2002).

- A área efetiva de um cordão de solda é igual ao produto do comprimento efetivo do cordão pela espessura de garganta efetiva (itens 6.2.2.1 a) e 6.2.2.2 a) ABNT NBR 8800:2008).

- Na verificação da resistência dos cordões de solda considerou-se uma solicitação mínima de cálculo de 45kN (item 6.1.5.2 ABNT NBR 8800:2008).

Especificações para ligações aparafusadas

Norma:

ABNT NBR 8800:2008: Projeto de estruturas de aço e de estruturas mistas de aço e concreto de edifícios. 6.3 Parafusos e barras redondas rosqueadas.

Materiais:

- Perfis (Material base): A-36 250Mpa.

Disposições construtivas:

1) Uma vez montadas as peças, todas as superfícies de ligação, incluídas as adjacentes às cabeças dos parafusos, porcas e anilhas, devem estar livres de pequenas lâminas (exceto aquelas firmemente aderidas ao material), rebarbas, sujeira ou qualquer outra matéria estranha que impeça o perfeito contato entre as peças.

2) Os parafusos devem estar alinhados para permitir a inserção dos parafusos sem danificar as suas rosas.

3) Deve-se verificar, antes da colocação, se as porcas podem deslocar-se livremente sobre o parafuso correspondente.

4) Em cada parafuso será colocada uma anilha no lado da cabeça e outra no lado da porca.

5) Os furos devem realizar-se através de broca ou outro processo que proporcione um acabamento equivalente.

6) A furação é admitida para peças de espessura não superior ao diâmetro do parafuso mais 3 mm. Para espessuras maiores, os furos devem ser realizados através de broca, ou através de furação prévia com matriz de diâmetro inferior a 3.5 mm do diâmetro definitivo, para depois perfurar até ao diâmetro nominal.

7) Condições para o aperto dos parafusos não pré-tensionados:

- Cada conjunto de parafuso, porca e anilhas deve alcançar a condição de aperto máximo sem sobrecarregar os parafusos. Esta condição é a que poderia conseguir um operário com alguns impactos aplicados por uma chave de impacto ou pelo esforço máximo aplicado por um operário usando uma chave normal.
- O aperto deve ser realizado a partir dos parafusos localizados na parte mais rígida da ligação, seguindo na direção das bordas livres. Inclusive, é conveniente realizar algum ciclo de aperto adicional.

Verificações:

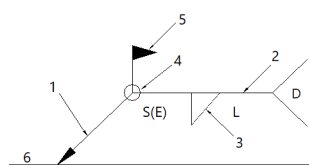
- São feitas as verificações indicadas nos itens 6.3.3, 6.3.4 e 6.3.5 de ABNT NBR 8800:2008.
- Na verificação da resistência das ligações parafusadas considerou-se uma solicitação mínima de cálculo de 45kN (artigo 6.1.5.2 ABNT NBR 8800:2008).

Referências e simbologia

Para a representação dos símbolos de soldas consideram-se as indicações da norma ANSI/AWS A2.4-98 'STANDARD SYMBOLS FOR WELDING, BRAZING, AND NONDESTRUCTIVE EXAMINATION'.

Método de representação de soldas

Conforme a figura 2 de ANSI/AWS A2.4-98 e os tipos de soldas utilizados neste projeto, desenvolve-se o seguinte esquema de representação de uma solda:



Referências:

1: seta (ligação entre 2 e 6)

2: linha de referência

3: símbolo de solda

4: símbolo solda perimetral.

5: símbolo de solda no local de montagem.

6: linha do desenho que identifica a ligação proposta.

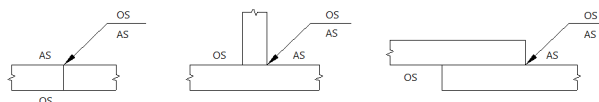
S: profundidade do bisel. Em soldas em ângulo, é o lado do cordão de solda.

(E): tamanho do cordão em soldas de topo.

L: comprimento efetivo do cordão de solda

D: dado suplementar. Em geral, a série de eletrodo a utilizar e o processo pré-qualificado de solda.

A informação relacionada com o lado da ligação soldada à qual aponta a seta, coloca-se por baixo da linha de referência, enquanto que para o lado oposto, indica-se acima da linha de referência:

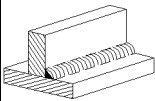

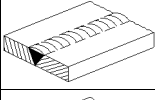

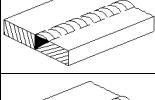

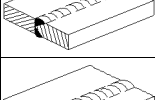

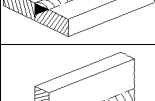

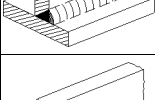

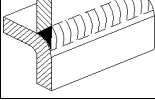



Onde:

OS(Other Side): é o outro lado da seta

AS(Arrow Side): é o lado da seta

Referência 3

Designação	Ilustração	Símbolo
Solda de filete		
Solda de topo em 'V' simples (com chanfro)		
Solda de topo em bisel simples		
Solda de topo em bisel duplo		
Solda de topo em bisel simples com chanfro de raiz largo		
Solda combinada de topo em bisel simples e em ângulo		
Solda de topo em bisel simples com lado curvo		

Método de representação dos parafusos de uma ligação

Verificações em placas de ancoragem

Em cada placa de ancoragem realizam-se as seguintes verificações (assumindo a hipótese de placa rígida):

1. Concreto sobre o qual se apóia a placa

Verifica-se se a tensão de compressão na interface placa de ancoragem-concreto é menor que a tensão admissível do concreto segundo a natureza de cada combinação.

2. Parafusos de ancoragem

a) *Resistência do material dos parafusos*: Decompõem-se os esforços atuantes sobre a placa em esforços axiais e cortantes nos parafusos e verifica-se que ambos os esforços, isoladamente e com interação entre eles (tensão de Von Mises), produzem tensões menores que a tensão limite do material dos parafusos.

b) *Ancoragem dos parafusos*: Verifica-se a ancoragem dos parafusos no concreto, de forma que não se produza deslizamento por falta de aderência, arrancamento do cone de ruptura ou fratura por esforço cortante (esmagamento).

c) *Esmagamento*: Verifica-se se em cada parafusos não se ultrapassa o esforço cortante que produziria o esmagamento da placa contra o parafuso.

3. Placa de ancoragem

a) *Tensões globais*: Em placas com balanços, analisam-se quatro seções no perímetro do perfil, e verificam-se em todas elas se as tensões de Von Mises são menores que a tensão limite, de acordo com a Norma.

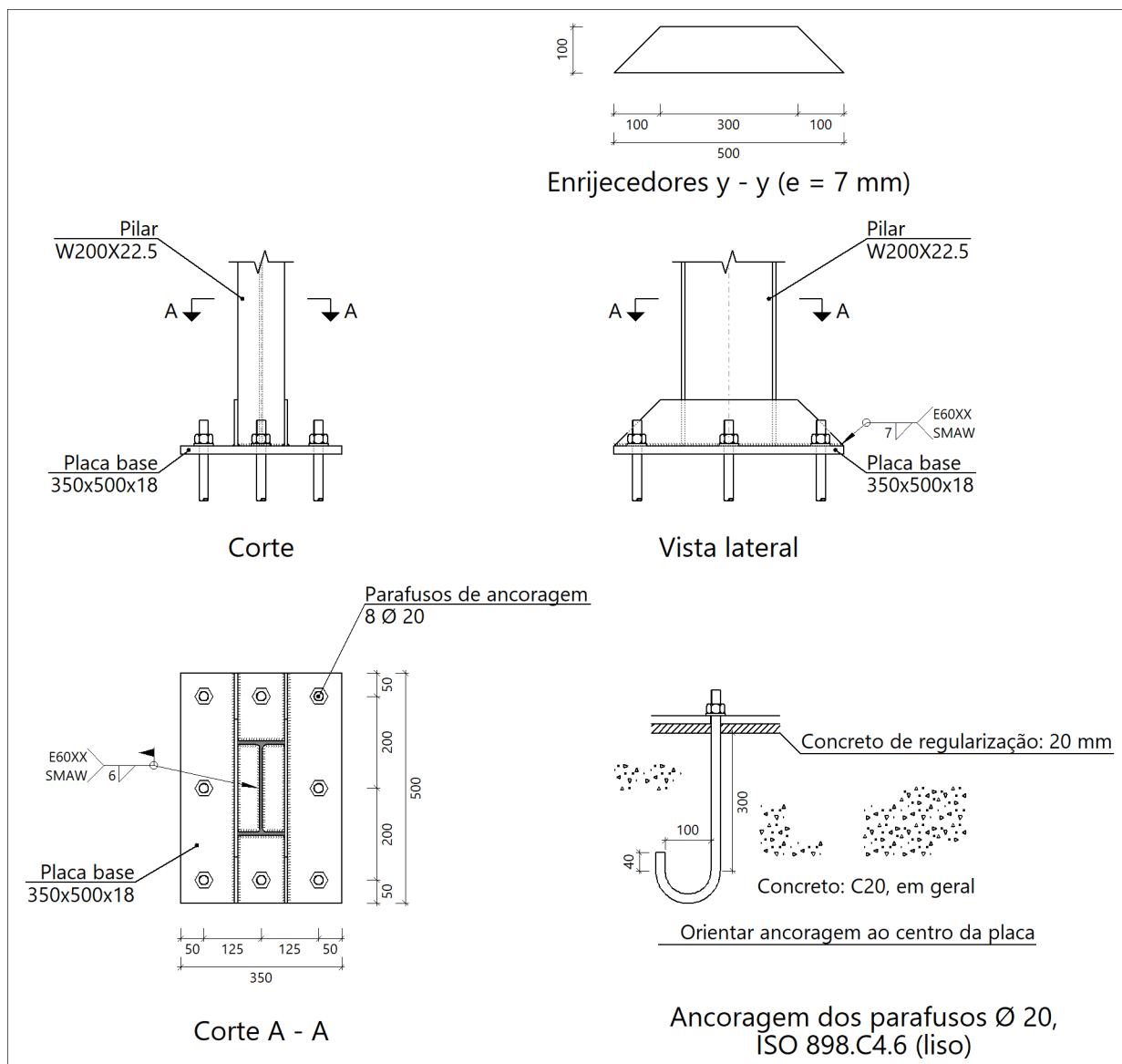
b) *Flechas globais relativas*: Verificam-se os balanços das placas para que não apareçam flechas maiores que 1/250 do balanço.

c) *Tensões locais*: Verificam-se as tensões de Von Mises em todas as placas locais nas quais tanto o perfil como os enrijecedores dividem a placa de ancoragem propriamente dita. Os esforços em cada uma das subplacas obtêm-se a partir das tensões de contacto com o concreto e as axiais dos parafusos. O modelo gerado resolve-se por diferenças finitas.

2.3.1. Memória de cálculo

2.3.1.1. Tipo 1

a) Detalhe



b) Descrição dos componentes da ligação

Elementos complementares									
Peça	Geometria				Furos		Aço		
	Esquema	Largura (mm)	Altura (mm)	Espessura (mm)	Quantidade	Diâmetro (mm)	Tipo	f_y (MPa)	f_u (MPa)
Placa base		350	500	18	8	20	A-36 250Mpa	250.0	400.0
Enrijecedor		500	100	7	-	-	A-36 250Mpa	250.0	400.0

c) Verificação

1) Pilar W200X22.5

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)									
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna			
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)	
Soldadura perimetral à placa	De ângulo	SMAW	6	40	715	3	6	6	
<p>P.S.: Procedimento de soldagem.</p> <p>t: Menor espessura do metal-base.</p> <p>l_w: Comprimento total da solda.</p> <p>d_w: Perna da solda.</p>									

Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm ²)	f _y (N/mm ²)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Soldadura perimetral à placa	6	6	715	E60XX (415.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

2) Placa de ancoragem

Referência:		
Verificação	Valores	Estado
Distância mínima entre chumbadores: <i>3 diâmetros</i>	Mínimo: 60 mm Calculado: 125 mm	Passa
Distância mínima chumbador-perfil: <i>1.5 diâmetros</i>	Mínimo: 30 mm Calculado: 52 mm	Passa
Distância mínima chumbador-borda: <i>2 diâmetros</i>	Mínimo: 40 mm Calculado: 50 mm	Passa
Esbeltez dos enrijecedores: - Paralelos a Y:	Máximo: 50 Calculado: 44	Passa
Comprimento mínimo do parafuso: <i>Calcula-se o comprimento de ancoragem necessário por aderência.</i>	Mínimo: 25 cm Calculado: 30 cm	Passa
Ancoragem chumbador no concreto:		
- Tração:	Máximo: 26.43 kN Calculado: 20.27 kN	Passa
- Cortante:	Máximo: 18.5 kN Calculado: 0.61 kN	Passa
- Tração + Cortante:	Máximo: 26.43 kN Calculado: 21.13 kN	Passa
Tração chumbadores:	Máximo: 67.82 kN Calculado: 20.27 kN	Passa
Tensão de Von Mises nos chumbadores:	Máximo: 216 MPa Calculado: 64.6442 MPa	Passa
Esmagamento chumbador na placa: <i>Limite de esforço de corte em um chumbador atuando contra a placa</i>	Máximo: 202.5 kN Calculado: 0.61 kN	Passa
Tensão de Von Mises em seções globais:	Máximo: 250 MPa	
- Direita:	Calculado: 115.971 MPa	Passa
- Esquerda:	Calculado: 115.019 MPa	Passa
- Acima:	Calculado: 36.1399 MPa	Passa
- Abaixo:	Calculado: 99.0507 MPa	Passa
Flecha global equivalente: <i>Limite da deformabilidade dos balanços</i>	Mínimo: 250	
- Direita:	Calculado: 712.031	Passa
- Esquerda:	Calculado: 734.327	Passa
- Acima:	Calculado: 14598.4	Passa
- Abaixo:	Calculado: 5279.17	Passa
Tensão de Von Mises local: <i>Tensão por tração de chumbadores sobre placas em balanço</i>	Máximo: 250 MPa Calculado: 32.8789 MPa	Passa
Todas as verificações foram cumpridas		
Informação adicional:		
- Relação ruptura desfavorável seção de concreto: 0.0313		

Referência:		
Verificação	Valores	Estado
- Ponto de tensão local máxima: (-0.051, -0.25)		

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)								
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna		
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)
Enrijecedor y-y (x = -55): Soldadura à placa base	De ângulo	SMAW	7	40	500	5	7	7
Enrijecedor y-y (x = 55): Soldadura à placa base	De ângulo	SMAW	7	40	500	5	7	7
<i>P.S.: Procedimento de soldagem.</i> <i>t: Menor espessura do metal-base.</i> <i>l_w: Comprimento total da solda.</i> <i>d_w: Perna da solda.</i>								

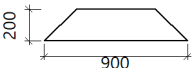
Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm ²)	f _y (N/mm ²)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Enrijecedor y-y (x = -55): Soldadura à placa base	7	7	500	E60XX (415.0)	250.0	Não precisa ser considerado.								
Enrijecedor y-y (x = 55): Soldadura à placa base	7	7	500	E60XX (415.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

d) Quantit.

Soldas				
Classe de resistência	Execução	Tipo	Lado (mm)	Comprimento de cordões (mm)
E60XX	Em fábrica	De filete	7	1968
	No local de montagem	De filete	6	715

Elementos para aparafusar			
Tipo	Material	Quantidade	Descrição
Porcas	Classe 8S	8	M20, ASTM A563M
Anilhas	Tipo 1	8	M20, ASTM F436M

Placas de base				
Material	Elementos	Quantidade	Dimensões (mm)	Peso (kg)
A-36 250Mpa	Placa base	1	350x500x18	24.73
	Enrijecedores passantes	2	500/300x100/0x7	4.40
	Total			29.12
ISO 898.C4.6 (liso)	Parafusos de ancoragem	8	Ø 20 - L = 358 + 228	11.57
	Total			11.57

Elementos complementares									
Peça	Geometria				Furos		Aço		
	Esquema	Largura (mm)	Altura (mm)	Espessura (mm)	Quantidade	Diâmetro (mm)	Tipo	f_y (MPa)	f_u (MPa)
Enrijecedor		900	200	11	-	-	A-36 250Mpa	250.0	400.0

c) Verificação

1) Pilar W410X85

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)									
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna			
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)	
Soldadura perimetral à placa	De ângulo	SMAW	11	44	1382	5	11	11	
<p>P.S.: Procedimento de soldagem.</p> <p>t: Menor espessura do metal-base.</p> <p>l_w: Comprimento total da solda.</p> <p>d_w: Perna da solda.</p>									

Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm ²)	f _y (N/mm ²)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Soldadura perimetral à placa	11	11	1382	E70XX (485.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

2) Placa de ancoragem

Referência:		
Verificação	Valores	Estado
Distância mínima entre chumbadores: 3 diâmetros	Mínimo: 107 mm Calculado: 270 mm	Passa
Distância mínima chumbador-perfil: 1.5 diâmetros	Mínimo: 53 mm Calculado: 91 mm	Passa
Distância mínima chumbador-borda: 2 diâmetros	Mínimo: 72 mm Calculado: 80 mm	Passa
Esbeltez dos enrijecedores: - Paralelos a Y:	Máximo: 50 Calculado: 49.4	Passa

Referência:		
Verificação	Valores	Estado
Comprimento mínimo do parafuso: <i>Calcula-se o comprimento de ancoragem necessário por aderência.</i>	Mínimo: 46 cm Calculado: 105 cm	Passa
Ancoragem chumbador no concreto:		
- Tração:	Máximo: 166.5 kN Calculado: 156.64 kN	Passa
- Cortante:	Máximo: 116.55 kN Calculado: 5.03 kN	Passa
- Tração + Cortante:	Máximo: 166.5 kN Calculado: 163.82 kN	Passa
Tração chumbadores:	Máximo: 219.89 kN Calculado: 156.64 kN	Passa
Tensão de Von Mises nos chumbadores:	Máximo: 216 MPa Calculado: 154.15 MPa	Passa
Esmagamento chumbador na placa: <i>Limite de esforço de corte em um chumbador atuando contra a placa</i>	Máximo: 506.25 kN Calculado: 5.03 kN	Passa
Tensão de Von Mises em seções globais:	Máximo: 250 MPa	
- Direita:	Calculado: 138.983 MPa	Passa
- Esquerda:	Calculado: 138.803 MPa	Passa
- Acima:	Calculado: 226.637 MPa	Passa
- Abaixo:	Calculado: 242.422 MPa	Passa
Flecha global equivalente: <i>Limite da deformabilidade dos balanços</i>	Mínimo: 250	
- Direita:	Calculado: 1864.66	Passa
- Esquerda:	Calculado: 1870.74	Passa
- Acima:	Calculado: 3055.32	Passa
- Abaixo:	Calculado: 2517.02	Passa
Tensão de Von Mises local: <i>Tensão por tração de chumbadores sobre placas em balanço</i>	Máximo: 250 MPa Calculado: 148.091 MPa	Passa
Todas as verificações foram cumpridas		
Informação adicional:		
- Relação ruptura desfavorável seção de concreto: 0.125		
- Ponto de tensão local máxima: (0.0905, -0.24875)		

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)								
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna		
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)
Enrijecedor y-y (x = -96): Soldadura à placa base	De ângulo	SMAW	11	44	900	5	11	11
Enrijecedor y-y (x = 96): Soldadura à placa base	De ângulo	SMAW	11	44	900	5	11	11

Limitações (ABNT NBR 8800, 6.2.6)									
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna			
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)	
<p><i>P.S.: Procedimento de soldagem.</i> <i>t: Menor espessura do metal-base.</i> <i>l_w: Comprimento total da solda.</i> <i>d_w: Perna da solda.</i></p>									

Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm ²)	f _y (N/mm ²)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Enrijecedor y-y (x = -96): Soldadura à placa base	11	11	900	E70XX (485.0)	250.0	Não precisa ser considerado.								
Enrijecedor y-y (x = 96): Soldadura à placa base	11	11	900	E70XX (485.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

d) Quantit.

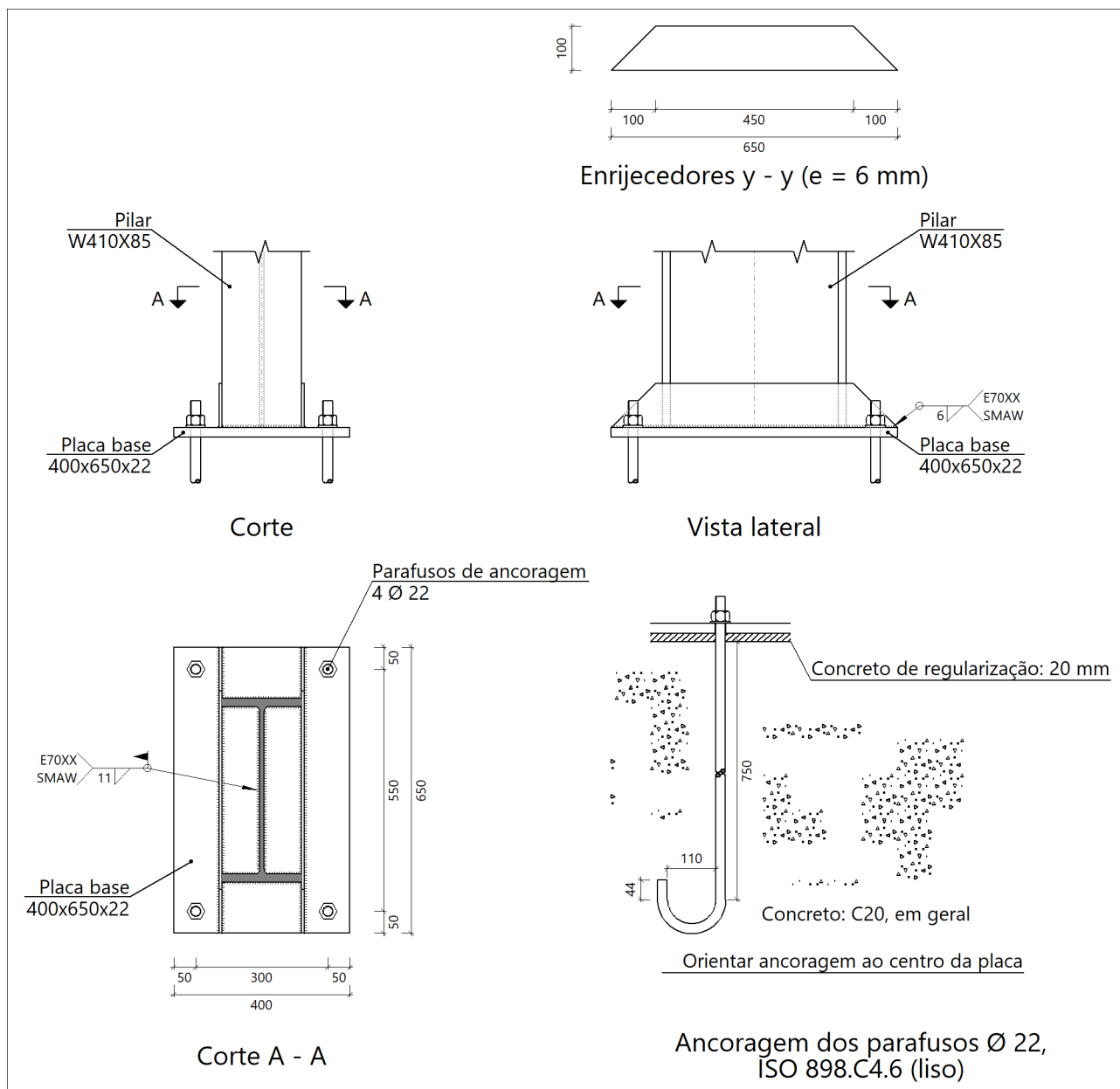
Soldas				
Classe de resistência	Execução	Tipo	Lado (mm)	Comprimento de cordões (mm)
E70XX	Em fábrica	De filete	11	3527
	No local de montagem	De filete	11	1382

Elementos para aparafusar			
Tipo	Material	Quantidade	Descrição
Porcas	Classe 8S	8	M36, ASTM A563M
Anilhas	Tipo 1	8	M36, ASTM F436M

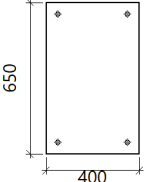
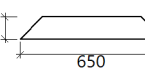
Placas de base				
Material	Elementos	Quantidade	Dimensões (mm)	Peso (kg)
A-36 250Mpa	Placa base	1	700x900x25	123.64
	Enrijecedores passantes	2	900/500x200/0x11	24.18
	Total			147.82
ISO 898.C4.6 (liso)	Parafusos de ancoragem	8	Ø 36 - L = 1131 + 411	98.59
	Total			98.59

2.3.1.3. Tipo 3

a) Detalhe



b) Descrição dos componentes da ligação

Elementos complementares									
Peça	Geometria				Furos		Aço		
	Esquema	Largura (mm)	Altura (mm)	Espessura (mm)	Quantidade	Diâmetro (mm)	Tipo	f_y (MPa)	f_u (MPa)
Placa base		400	650	22	4	22	A-36 250Mpa	250.0	400.0
Enrijecedor		650	100	6	-	-	A-36 250Mpa	250.0	400.0

c) Verificação

1) Pilar W410X85

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)									
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna			
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)	
Soldadura perimetral à placa	De ângulo	SMAW	11	44	1382	5	11	11	
<p>P.S.: Procedimento de soldagem.</p> <p>t: Menor espessura do metal-base.</p> <p>l_w: Comprimento total da solda.</p> <p>d_w: Perna da solda.</p>									

Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm²)	f _y (N/mm²)	Sd (N/mm²)	Rd (N/mm²)	Aprov. (%)	Sd (N/mm²)	Rd (N/mm²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Soldadura perimetral à placa	11	11	1382	E70XX (485.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

2) Placa de ancoragem

Referência:		
Verificação	Valores	Estado
Distância mínima entre chumbadores: <i>3 diâmetros</i>	Mínimo: 66 mm Calculado: 301 mm	Passa
Distância mínima chumbador-perfil: <i>1.5 diâmetros</i>	Mínimo: 33 mm Calculado: 54 mm	Passa
Distância mínima chumbador-borda: <i>2 diâmetros</i>	Mínimo: 44 mm Calculado: 50 mm	Passa
Esbeltez dos enrijecedores: - Paralelos a Y:	Máximo: 50 Calculado: 44.3	Passa
Comprimento mínimo do parafuso: <i>Calcula-se o comprimento de ancoragem necessário por aderência.</i>	Mínimo: 28 cm Calculado: 75 cm	Passa
Ancoragem chumbador no concreto:		
- Tração:	Máximo: 72.68 kN Calculado: 55.68 kN	Passa
- Cortante:	Máximo: 50.88 kN Calculado: 9.44 kN	Passa
- Tração + Cortante:	Máximo: 72.68 kN Calculado: 69.16 kN	Passa
Tração chumbadores:	Máximo: 82.08 kN Calculado: 55.71 kN	Passa
Tensão de Von Mises nos chumbadores:	Máximo: 216 MPa Calculado: 154.008 MPa	Passa
Esmagamento chumbador na placa: <i>Limite de esforço de corte em um chumbador atuando contra a placa</i>	Máximo: 272.25 kN Calculado: 9.45 kN	Passa
Tensão de Von Mises em seções globais:	Máximo: 250 MPa	
- Direita:	Calculado: 29.3313 MPa	Passa
- Esquerda:	Calculado: 28.0221 MPa	Passa
- Acima:	Calculado: 179.579 MPa	Passa
- Abaixo:	Calculado: 144.474 MPa	Passa
Flecha global equivalente: <i>Limite da deformabilidade dos balanços</i>	Mínimo: 250	
- Direita:	Calculado: 8811.53	Passa
- Esquerda:	Calculado: 8694.74	Passa
- Acima:	Calculado: 4723.39	Passa
- Abaixo:	Calculado: 5246.71	Passa
Tensão de Von Mises local: <i>Tensão por tração de chumbadores sobre placas em balanço</i>	Máximo: 250 MPa Calculado: 0 MPa	Passa
Todas as verificações foram cumpridas		
Informação adicional:		
- Relação ruptura desfavorável seção de concreto: 0.114		

Soldas (ABNT NBR 8800:2008)

Limitações (ABNT NBR 8800, 6.2.6)								
Descrição	Tipo	P.S.	t (mm)	Comprimento		Perna		
				$l_{w,min}$ (mm)	l_w (mm)	$d_{w,min}$ (mm)	$d_{w,max}$ (mm)	d_w (mm)
Enrijecedor y-y (x = -94): Soldadura à placa base	De ângulo	SMAW	6	40	650	3	6	6
Enrijecedor y-y (x = 94): Soldadura à placa base	De ângulo	SMAW	6	40	650	3	6	6
<i>P.S.: Procedimento de soldagem.</i> <i>t: Menor espessura do metal-base.</i> <i>l_w: Comprimento total da solda.</i> <i>d_w: Perna da solda.</i>								

Verificação de cordões de soldadura														
Descrição	Perna (mm)	t (mm)	l _w (mm)	Eléctrode	Metal - base	Cisalhamento (Metal da solda)			Tensões (Metal-base)			Coeficientes de ponderação		
				f _w (N/mm ²)	f _y (N/mm ²)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	Sd (N/mm ²)	Rd (N/mm ²)	Aprov. (%)	g _{a1}	g _{w1}	g _{w2}
Enrijecedor y-y (x = -94): Soldadura à placa base	6	6	650	E70XX (485.0)	250.0	Não precisa ser considerado.								
Enrijecedor y-y (x = 94): Soldadura à placa base	6	6	650	E70XX (485.0)	250.0	Não precisa ser considerado.								
Sd: Solicitação de cálculo Rd: Resistente de cálculo - Tração ou compressão paralelas ao eixo da solda, não precisa ser considerado.														

d) Quantit.

Soldas				
Classe de resistência	Execução	Tipo	Lado (mm)	Comprimento de cordões (mm)
E70XX	Em fábrica	De filete	6	2527
	No local de montagem	De filete	11	1382

Elementos para aparafusar			
Tipo	Material	Quantidade	Descrição
Porcas	Classe 8S	4	M22, ASTM A563M
Anilhas	Tipo 1	4	M22, ASTM F436M

Placas de base				
Material	Elementos	Quantidade	Dimensões (mm)	Peso (kg)
A-36 250Mpa	Placa base	1	400x650x22	44.90
	Enrijecedores passantes	2	650/450x100/0x6	5.18
	Total			50.08
ISO 898.C4.6 (liso)	Parafusos de ancoragem	4	Ø 22 - L = 814 + 251	12.72
	Total			12.72

2.3.2. Quantit.

Soldas				
Classe de resistência	Execução	Tipo	Lado (mm)	Comprimento de cordões (mm)
E60XX	Em fábrica	De filete	7	3936
	No local de montagem	De filete	6	1430
E70XX	Em fábrica	De filete	6	5054
			11	35272
	No local de montagem	De filete	11	16582

Elementos para aparafusar			
Tipo	Material	Quantidade	Descrição
Porcas	Classe 8S	16	M20, ASTM A563M
		8	M22, ASTM A563M
		80	M36, ASTM A563M
Anilhas	Tipo 1	16	M20, ASTM F436M
		8	M22, ASTM F436M
		80	M36, ASTM F436M

Placas de base				
Material	Elementos	Quantidade	Dimensões (mm)	Peso (kg)
A-36 250Mpa	Placa base	2	350x500x18	49.46
		2	400x650x22	89.80
		10	700x900x25	1236.38
	Enrijecedores passantes	4	650/450x100/0x6	10.36
		4	500/300x100/0x7	8.79
		20	900/500x200/0x11	241.78
	Total			1636.57
ISO 898.C4.6 (liso)	Parafusos de ancoragem	16	Ø 20 - L = 358 + 228	23.14
		8	Ø 22 - L = 814 + 251	25.43
		80	Ø 36 - L = 1131 + 411	985.87
	Total			1034.45

2.3.2.1. Quantitativos de Pintura

Total de Pintura das Chapas e Enrijecedores: **20,7m²**

RESPONSÁVEL TÉCNICO:

PROJETO DE ESTRUTURA METÁLICA- COB. ARQUIBANCADA- CENTRO AQUÁTICO- AUTÓDROMO



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Consórcio STCP-PROSUL
CREA: 1018606700 D/GO

Goiânia, 25 de Setembro de 2025.

LISTA DE MATERIAIS E QUANTITATIVOS ESTRUTURA METÁLICA

OBRA: COB. METÁLICA DA ARQUIBANCADA DO CENTRO
AQUÁTICO- AUTÓDROMO

REVISÃO - R01 - 07/01/2026



DOC
Diretoria de
Obras Cíveis



SEINFRA
Secretaria de Estado
da Infraestrutura



LISTA DE MATERIAIS E QUANTITATIVOS EST. METÁLICA

INFORMAÇÕES TÉCNICAS

OBRA:	EST. METÁLICA- COB. DA ARQUIBANCADA DO CENTRO AQUÁTICO- AUTÓDROMO
ENDEREÇO:	AV. AYRTON SENNA, LOTEAMENTO PORTAL DO SOL 1
DISCIPLINA:	ESTRUTURA METÁLICA

RESPONSÁVEL TÉCNICO:	NÚBIA PRISCILA GOMES SILVA
REGISTRO PROFISSIONAL:	1018606700 D/GO
DATA:	07/01/2026
REVISAO:	R01

LISTA DE QUANTITATIVOS E MATERIAIS DISCIPLINA: ESTRUTURA METÁLICA				
CÓDIGO	SINAP/ GOINFRA	DESCRIÇÃO	UNIDADE	QUANTIDADE
		ESTRUTURA METÁLICA		
150204	GOINFRA	ESTRUTURA METÁLICA CONVENCIONAL EM AÇO DO TIPO MR-250 / ASTM A36 COM FUNDO ANTICORROSIVO	Kg	21.858,58
261612	GOINFRA	PINTURA COM TINTA EPÓXI MASTIC DUPLA FUNÇÃO - 120 MÍCRONS - 1 DEMAIO	m2	887,12

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gov.br

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Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-GO

ART Obra ou serviço
1020250284672

Conselho Regional de Engenharia e Agronomia de Goiás

Equipe à 1020250094838

1. Responsável Técnico(a) NUBIA PRISCILA GOMES SILVA Título profissional: Engenheira Civil,		RNP: 1018606700 Registro: 1018606700D-GO	
2. Dados do Contrato Contratante: GOINFRA Avenida Governador José Ludovico de Almeida, Nº 20 Quadra: SN Lote: SN Complemento: E-Mail: Contrato: 48/2025 Celebrado em: 13/03/2025 Ação institucional: Nenhuma/Não Aplicável			
Bairro: Conjunto Palmares Cidade: Goiânia-GO Fone: (62) 3265-4000 Valor Obra/Serviço R\$: 74.007.274,14 Tipo de contratante: Pessoa Jurídica de Direito Público		CPF/CNPJ: 03.520.933/0001-06 CEP: 74775-025	
3. Dados da Obra/Serviço Avenida Ayrton Senna, Nº SN Quadra: SN Lote: SN Complemento: Data de Início: 25/09/2025 Previsão término: 25/12/2025 Finalidade: Infra-estrutura Proprietário(a): AGENCIA GOIANA DE INFRAESTRUTURA E TRANSPORTE E-Mail: Bairro: Loteamento Portal do Sol I Cidade: Goiânia-GO Coordenadas Geográficas: -16.7135337,-49.1930579 CEP: 74884-591 CPF/CNPJ: 03.520.933/0001-06 Fone: (62) 3265-4000 Tipo de proprietário(a): Pessoa Jurídica de Direito Público			
4. Atividade Técnica ATUACAO PROJETO ESTRUTURA METALICA Quantidade 553,50 Unidade METROS QUADRADOS O registro da A.R.T. não obriga ao CREA-GO a emitir a Certidão de Acervo Técnico (C.A.T.), a confecção e emissão do documento apenas ocorrerá se as atividades declaradas na A.R.T. forem condizentes com as atribuições do(a) Profissional. As informações constantes desta ART são de responsabilidade do(a) profissional. Este documento poderá, a qualquer tempo, ter seus dados, preenchimento e atribuições profissionais conferidos pelo CREA-GO. Após a conclusão das atividades técnicas o(a) profissional deverá proceder a baixa desta ART			
5. Observações Em atendimento a OS-1074, consta neste documento o projeto de estrutura metálica para cobertura da arquibancada do Centro Aquático (Autódromo).			
6. Declarações Acessibilidade: Não: Declaro que as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no Decreto nº 5.296, de 2 de dezembro de 2004, não se aplicam às atividades profissionais acima relacionadas.			
7. Entidade de Classe NENHUMA		9. Informações - A ART é válida somente após a conferência e o CREA-GO receber a informação do PAGAMENTO PELO BANCO. - A autenticidade deste documento pode ser verificada no site www.creago.org.br . - A guarda da via assinada da ART será de responsabilidade do(a) profissional e do(a) contratante com o objetivo de documentar o vínculo contratual. - Não é mais necessário enviar o documento original para o CREA-GO. O CREA-GO não mais afixará carimbo na nova ART.	
8. Assinaturas Declaro serem verdadeiras as informações acima Local _____, _____ de _____ de _____ Data _____ _____ NUBIA PRISCILA GOMES SILVA - CPF: 027.161.391-21 _____ GOINFRA - CPF/CNPJ: 03.520.933/0001-06		 www.creago.org.br atendimento@creago.org.br Tel: (62) 3221-6200 	
Valor da ART: 103,03	Registrada em 07/10/2025	Valor Pago R\$ 103,03	Nosso Numero 28320690125277290
Situação Registrada/OK		Não possui Livro de Ordem	Não Possui CAT