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Memória de Cálculo
Cobertura 02

Cliente: Instituto de Gestão Estratégica de Saúde do Distrito Federal

Endereço: AC 102, Conj. A/B/C – Santa Maria – Brasília – DF

Obra: Reforço Estrutural dos Galpões do IGESDF em Santa Maria

ÍNDICE

1.- GEOMETRIA 03

1.1.- Nós 03

1.2.- Barras 18

1.2.1.- Materiais utilizados 19

1.2.2.- Características mecânicas 19

1.2.3.- Tabela resumo 21

1.2.4.- Quantitativos de superfícies 22

2.- RESULTADOS 22

2.1.- Nós 22

2.1.1.- Reações 22

2.2.- Barras 26

2.2.1.- Verificações E.L.U. (Resumido) 26

1.- GEOMETRIA

1.1.- Nós

Referências:

Δ_x, Δ_y, Δ_z: Deslocamentos prescritos em eixos globais.

θ_x, θ_y, θ_z: Rotações prescritas em eixos globais.

Cada grau de liberdade marca-se com 'X' se estiver restringido e, caso contrário, com '-'.

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N3	0.000	-7.500	-0.739	-	-	-	-	-	-	Engastado
N20	0.000	-5.500	-0.142	-	-	-	-	-	-	Engastado
N21	0.000	-0.950	0.306	-	-	-	-	-	-	Engastado
N22	0.000	-2.200	-0.217	-	-	-	-	-	-	Engastado
N24	0.000	-7.500	-0.239	-	-	-	-	-	-	Engastado
N25	4.740	-7.500	-0.239	X	X	X	X	X	X	Engastado
N26	4.740	-7.500	-0.739	X	X	X	X	X	X	Engastado
N27	4.590	-7.500	-0.739	-	-	-	-	-	-	Engastado
N28	4.590	-7.500	-0.239	-	-	-	-	-	-	Engastado
N29	4.120	-7.500	-0.239	-	-	-	-	-	-	Engastado
N30	4.120	-7.500	-0.739	-	-	-	-	-	-	Engastado
N45	0.360	-7.500	-0.239	-	-	-	-	-	-	Engastado
N46	0.360	-7.500	-0.739	-	-	-	-	-	-	Engastado
N47	0.075	-7.500	-0.239	-	-	-	-	-	-	Engastado
N48	0.075	-7.500	-0.739	-	-	-	-	-	-	Engastado
N49	4.120	-1.800	0.323	-	-	-	-	-	-	Engastado
N50	4.590	-1.800	0.323	-	-	-	-	-	-	Engastado
N51	4.740	-1.800	0.323	X	X	X	X	X	X	Engastado
N52	4.120	-1.800	-0.177	-	-	-	-	-	-	Engastado
N53	4.590	-1.800	-0.177	-	-	-	-	-	-	Engastado
N54	4.740	-1.800	-0.177	X	X	X	X	X	X	Engastado
N75	0.000	-9.900	-0.575	-	-	-	-	-	-	Engastado
N76	0.000	-7.699	-0.358	-	-	-	-	-	-	Engastado
N77	0.000	-13.000	-0.880	X	X	X	X	X	X	Engastado
N78	0.000	-13.000	-1.280	X	X	X	X	X	X	Engastado
N80	0.000	-12.000	-0.782	-	-	-	-	-	-	Engastado
N81	4.740	-12.000	-0.782	X	X	X	X	X	X	Engastado
N82	4.740	-9.900	-0.575	X	X	X	X	X	X	Engastado
N83	4.740	-5.500	-0.142	X	X	X	X	X	X	Engastado
N84	0.000	-3.300	0.075	-	-	-	-	-	-	Engastado
N85	4.740	-3.300	0.075	X	X	X	X	X	X	Engastado
N86	4.740	-0.950	0.306	X	X	X	X	X	X	Engastado
N89	0.000	2.200	-0.217	-	-	-	-	-	-	Engastado
N100	0.000	5.500	-0.142	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N103	0.000	3.300	0.075	-	-	-	-	-	-	Engastado
N104	0.000	0.950	0.306	-	-	-	-	-	-	Engastado
N115	4.120	7.500	-0.239	-	-	-	-	-	-	Engastado
N116	4.590	7.500	-0.239	-	-	-	-	-	-	Engastado
N117	4.740	7.500	-0.239	X	X	X	X	X	X	Engastado
N127	4.120	7.500	-0.739	-	-	-	-	-	-	Engastado
N128	4.590	7.500	-0.739	-	-	-	-	-	-	Engastado
N129	4.740	7.500	-0.739	X	X	X	X	X	X	Engastado
N130	4.120	1.800	0.323	-	-	-	-	-	-	Engastado
N131	4.590	1.800	0.323	-	-	-	-	-	-	Engastado
N132	4.740	1.800	0.323	X	X	X	X	X	X	Engastado
N143	4.120	1.800	-0.177	-	-	-	-	-	-	Engastado
N144	4.590	1.800	-0.177	-	-	-	-	-	-	Engastado
N145	4.740	1.800	-0.177	X	X	X	X	X	X	Engastado
N158	0.000	9.900	-0.575	-	-	-	-	-	-	Engastado
N159	0.000	7.699	-0.358	-	-	-	-	-	-	Engastado
N160	0.000	12.000	-0.782	-	-	-	-	-	-	Engastado
N162	4.740	12.000	-0.782	X	X	X	X	X	X	Engastado
N163	4.740	9.900	-0.575	X	X	X	X	X	X	Engastado
N164	4.740	5.500	-0.142	X	X	X	X	X	X	Engastado
N165	4.740	3.300	0.075	X	X	X	X	X	X	Engastado
N166	4.740	0.950	0.306	X	X	X	X	X	X	Engastado
N168	-4.540	-1.800	-0.177	-	-	-	-	-	-	Engastado
N169	-4.540	-7.500	-0.739	-	-	-	-	-	-	Engastado
N170	-4.540	-2.200	-0.217	-	-	-	-	-	-	Engastado
N173	-4.540	-4.400	-0.033	-	-	-	-	-	-	Engastado
N174	-4.540	-5.500	-0.142	-	-	-	-	-	-	Engastado
N175	-4.540	-6.600	-0.250	-	-	-	-	-	-	Engastado
N176	-4.540	-2.200	0.183	-	-	-	-	-	-	Engastado
N177	-4.540	-3.300	0.075	-	-	-	-	-	-	Engastado
N179	-4.540	-0.950	0.306	-	-	-	-	-	-	Engastado
N182	-4.540	-9.900	-0.575	-	-	-	-	-	-	Engastado
N184	-4.540	-7.699	-0.358	-	-	-	-	-	-	Engastado
N185	-4.540	-12.000	-0.782	-	-	-	-	-	-	Engastado
N186	-4.540	-13.000	-0.880	X	X	X	X	X	X	Engastado
N187	-4.540	-13.000	-1.280	X	X	X	X	X	X	Engastado
N192	-4.540	2.200	-0.217	-	-	-	-	-	-	Engastado
N194	-4.540	5.500	-0.142	-	-	-	-	-	-	Engastado
N197	-4.540	3.300	0.075	-	-	-	-	-	-	Engastado
N200	-4.540	9.900	-0.575	-	-	-	-	-	-	Engastado
N202	-4.540	7.699	-0.358	-	-	-	-	-	-	Engastado
N203	-4.540	0.950	0.306	-	-	-	-	-	-	Engastado
N204	-4.540	12.000	-0.782	-	-	-	-	-	-	Engastado
N209	-9.500	-7.500	-0.739	-	-	-	-	-	-	Engastado
N210	-9.500	-2.200	-0.217	-	-	-	-	-	-	Engastado

Nós											
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N214	-9.500	-5.500	-0.142	-	-	-	-	-	-	Engastado
N217	-9.500	-3.300	0.075	-	-	-	-	-	-	Engastado
N219	-9.500	-0.950	0.306	-	-	-	-	-	-	Engastado
N222	-9.500	-9.900	-0.575	-	-	-	-	-	-	Engastado
N224	-9.500	-7.699	-0.358	-	-	-	-	-	-	Engastado
N225	-9.500	-12.500	-0.831	-	-	-	-	-	-	Engastado
N226	-9.500	-12.000	-0.782	-	-	-	-	-	-	Engastado
N227	-9.500	-13.000	-0.880	X	X	X	X	X	X	Engastado
N228	-9.500	-13.000	-1.280	X	X	X	X	X	X	Engastado
N231	-9.500	2.200	-0.217	-	-	-	-	-	-	Engastado
N233	-9.500	5.500	-0.142	-	-	-	-	-	-	Engastado
N236	-9.500	3.300	0.075	-	-	-	-	-	-	Engastado
N239	-9.500	9.900	-0.575	-	-	-	-	-	-	Engastado
N241	-9.500	7.699	-0.358	-	-	-	-	-	-	Engastado
N242	-9.500	0.950	0.306	-	-	-	-	-	-	Engastado
N243	-9.500	12.000	-0.782	-	-	-	-	-	-	Engastado
N250	-13.920	-7.500	-0.739	-	-	-	-	-	-	Engastado
N251	-13.920	-2.200	-0.217	-	-	-	-	-	-	Engastado
N255	-13.920	-5.500	-0.142	-	-	-	-	-	-	Engastado
N258	-13.920	-3.300	0.075	-	-	-	-	-	-	Engastado
N260	-13.920	-0.950	0.306	-	-	-	-	-	-	Engastado
N263	-13.920	-9.900	-0.575	-	-	-	-	-	-	Engastado
N265	-13.920	-7.699	-0.358	-	-	-	-	-	-	Engastado
N267	-13.920	-12.000	-0.782	-	-	-	-	-	-	Engastado
N274	-13.920	2.200	-0.217	-	-	-	-	-	-	Engastado
N276	-13.920	5.500	-0.142	-	-	-	-	-	-	Engastado
N279	-13.920	3.300	0.075	-	-	-	-	-	-	Engastado
N282	-13.920	9.900	-0.575	-	-	-	-	-	-	Engastado
N284	-13.920	7.699	-0.358	-	-	-	-	-	-	Engastado
N285	-13.920	0.950	0.306	-	-	-	-	-	-	Engastado
N286	-13.920	12.000	-0.782	-	-	-	-	-	-	Engastado
N291	-18.360	-7.500	-0.739	-	-	-	-	-	-	Engastado
N292	-18.360	-6.600	-0.650	-	-	-	-	-	-	Engastado
N293	-18.360	-4.400	-0.433	-	-	-	-	-	-	Engastado
N294	-18.360	-2.200	-0.217	-	-	-	-	-	-	Engastado
N298	-18.360	-5.500	-0.142	-	-	-	-	-	-	Engastado
N301	-18.360	-3.300	0.075	-	-	-	-	-	-	Engastado
N303	-18.360	-0.950	0.306	-	-	-	-	-	-	Engastado
N305	-18.360	-11.000	-1.083	-	-	-	-	-	-	Engastado
N306	-18.360	-9.900	-0.575	-	-	-	-	-	-	Engastado
N308	-18.360	-8.800	-0.867	-	-	-	-	-	-	Engastado
N309	-18.360	-7.699	-0.358	-	-	-	-	-	-	Engastado
N311	-18.360	-12.000	-0.782	-	-	-	-	-	-	Engastado
N316	-18.360	6.600	-0.650	-	-	-	-	-	-	Engastado
N317	-18.360	4.400	-0.433	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N318	-18.360	2.200	-0.217	-	-	-	-	-	-	Engastado
N320	-18.360	5.500	-0.142	-	-	-	-	-	-	Engastado
N323	-18.360	3.300	0.075	-	-	-	-	-	-	Engastado
N325	-18.360	11.000	-1.083	-	-	-	-	-	-	Engastado
N326	-18.360	9.900	-0.575	-	-	-	-	-	-	Engastado
N328	-18.360	8.800	-0.867	-	-	-	-	-	-	Engastado
N329	-18.360	7.699	-0.358	-	-	-	-	-	-	Engastado
N330	-18.360	0.950	0.306	-	-	-	-	-	-	Engastado
N331	-18.360	12.000	-0.782	-	-	-	-	-	-	Engastado
N339	-23.530	-6.600	-0.650	-	-	-	-	-	-	Engastado
N340	-23.530	-4.400	-0.433	-	-	-	-	-	-	Engastado
N341	-23.530	-2.200	-0.217	-	-	-	-	-	-	Engastado
N345	-23.530	-5.500	-0.142	-	-	-	-	-	-	Engastado
N348	-23.530	-3.300	0.075	-	-	-	-	-	-	Engastado
N350	-23.530	-0.950	0.306	-	-	-	-	-	-	Engastado
N352	-23.530	-11.000	-1.083	-	-	-	-	-	-	Engastado
N353	-23.530	-9.900	-0.575	-	-	-	-	-	-	Engastado
N355	-23.530	-8.800	-0.867	-	-	-	-	-	-	Engastado
N356	-23.530	-7.699	-0.358	-	-	-	-	-	-	Engastado
N358	-23.530	-12.000	-0.782	-	-	-	-	-	-	Engastado
N365	-23.530	6.600	-0.650	-	-	-	-	-	-	Engastado
N366	-23.530	4.400	-0.433	-	-	-	-	-	-	Engastado
N367	-23.530	2.200	-0.217	-	-	-	-	-	-	Engastado
N369	-23.530	5.500	-0.142	-	-	-	-	-	-	Engastado
N372	-23.530	3.300	0.075	-	-	-	-	-	-	Engastado
N374	-23.530	11.000	-1.083	-	-	-	-	-	-	Engastado
N375	-23.530	9.900	-0.575	-	-	-	-	-	-	Engastado
N377	-23.530	8.800	-0.867	-	-	-	-	-	-	Engastado
N378	-23.530	7.699	-0.358	-	-	-	-	-	-	Engastado
N379	-23.530	0.950	0.306	-	-	-	-	-	-	Engastado
N380	-23.530	12.000	-0.782	-	-	-	-	-	-	Engastado
N389	-28.450	-5.500	-0.142	-	-	-	-	-	-	Engastado
N392	-28.450	-3.300	0.075	-	-	-	-	-	-	Engastado
N394	-28.450	-0.950	0.306	-	-	-	-	-	-	Engastado
N397	-28.450	-9.900	-0.575	-	-	-	-	-	-	Engastado
N399	-28.450	-7.699	-0.358	-	-	-	-	-	-	Engastado
N401	-28.450	-12.000	-0.782	-	-	-	-	-	-	Engastado
N407	-28.450	5.500	-0.142	-	-	-	-	-	-	Engastado
N410	-28.450	3.300	0.075	-	-	-	-	-	-	Engastado
N413	-28.450	9.900	-0.575	-	-	-	-	-	-	Engastado
N415	-28.450	7.699	-0.358	-	-	-	-	-	-	Engastado
N416	-28.450	0.950	0.306	-	-	-	-	-	-	Engastado
N417	-28.450	12.000	-0.782	-	-	-	-	-	-	Engastado
N425	-33.140	-2.200	-0.217	-	-	-	-	-	-	Engastado
N429	-33.140	-5.500	-0.142	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N432	-33.140	-3.300	0.075	-	-	-	-	-	-	Engastado
N434	-33.140	-0.950	0.306	-	-	-	-	-	-	Engastado
N437	-33.140	-9.900	-0.575	-	-	-	-	-	-	Engastado
N439	-33.140	-7.699	-0.358	-	-	-	-	-	-	Engastado
N440	-33.140	-12.000	-0.782	-	-	-	-	-	-	Engastado
N447	-33.140	2.200	-0.217	-	-	-	-	-	-	Engastado
N449	-33.140	5.500	-0.142	-	-	-	-	-	-	Engastado
N452	-33.140	3.300	0.075	-	-	-	-	-	-	Engastado
N455	-33.140	9.900	-0.575	-	-	-	-	-	-	Engastado
N457	-33.140	7.699	-0.358	-	-	-	-	-	-	Engastado
N458	-33.140	0.950	0.306	-	-	-	-	-	-	Engastado
N459	-33.140	12.000	-0.782	-	-	-	-	-	-	Engastado
N465	-37.950	-2.200	-0.217	-	-	-	-	-	-	Engastado
N469	-37.950	-5.500	-0.142	-	-	-	-	-	-	Engastado
N472	-37.950	-3.300	0.075	-	-	-	-	-	-	Engastado
N474	-37.950	-0.950	0.306	-	-	-	-	-	-	Engastado
N477	-37.950	-9.900	-0.575	-	-	-	-	-	-	Engastado
N479	-37.950	-7.699	-0.358	-	-	-	-	-	-	Engastado
N480	-37.950	-12.000	-0.782	-	-	-	-	-	-	Engastado
N485	-37.950	2.200	-0.217	-	-	-	-	-	-	Engastado
N487	-37.950	5.500	-0.142	-	-	-	-	-	-	Engastado
N490	-37.950	3.300	0.075	-	-	-	-	-	-	Engastado
N493	-37.950	9.900	-0.575	-	-	-	-	-	-	Engastado
N495	-37.950	7.699	-0.358	-	-	-	-	-	-	Engastado
N496	-37.950	0.950	0.306	-	-	-	-	-	-	Engastado
N497	-37.950	12.000	-0.782	-	-	-	-	-	-	Engastado
N505	-42.750	-2.200	-0.217	-	-	-	-	-	-	Engastado
N509	-42.750	-5.500	-0.142	-	-	-	-	-	-	Engastado
N512	-42.750	-3.300	0.075	-	-	-	-	-	-	Engastado
N514	-42.750	-0.950	0.306	-	-	-	-	-	-	Engastado
N517	-42.750	-9.900	-0.575	-	-	-	-	-	-	Engastado
N519	-42.750	-7.699	-0.358	-	-	-	-	-	-	Engastado
N520	-42.750	-12.000	-0.782	-	-	-	-	-	-	Engastado
N527	-42.750	2.200	-0.217	-	-	-	-	-	-	Engastado
N529	-42.750	5.500	-0.142	-	-	-	-	-	-	Engastado
N532	-42.750	3.300	0.075	-	-	-	-	-	-	Engastado
N535	-42.750	9.900	-0.575	-	-	-	-	-	-	Engastado
N537	-42.750	7.699	-0.358	-	-	-	-	-	-	Engastado
N538	-42.750	0.950	0.306	-	-	-	-	-	-	Engastado
N539	-42.750	12.000	-0.782	-	-	-	-	-	-	Engastado
N545	-47.690	-2.200	-0.217	-	-	-	-	-	-	Engastado
N549	-47.690	-5.500	-0.142	-	-	-	-	-	-	Engastado
N552	-47.690	-3.300	0.075	-	-	-	-	-	-	Engastado
N554	-47.690	-0.950	0.306	-	-	-	-	-	-	Engastado
N557	-47.690	-9.900	-0.575	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N559	-47.690	-7.699	-0.358	-	-	-	-	-	-	Engastado
N560	-47.690	-12.000	-0.782	-	-	-	-	-	-	Engastado
N565	-47.690	2.200	-0.217	-	-	-	-	-	-	Engastado
N567	-47.690	5.500	-0.142	-	-	-	-	-	-	Engastado
N570	-47.690	3.300	0.075	-	-	-	-	-	-	Engastado
N573	-47.690	9.900	-0.575	-	-	-	-	-	-	Engastado
N575	-47.690	7.699	-0.358	-	-	-	-	-	-	Engastado
N576	-47.690	0.950	0.306	-	-	-	-	-	-	Engastado
N577	-47.690	12.000	-0.782	-	-	-	-	-	-	Engastado
N581	-4.540	-7.500	-0.239	-	-	-	-	-	-	Engastado
N582	-0.075	-7.500	-0.239	-	-	-	-	-	-	Engastado
N583	-0.075	-7.500	-0.739	-	-	-	-	-	-	Engastado
N584	-0.360	-7.500	-0.239	-	-	-	-	-	-	Engastado
N585	-0.360	-7.500	-0.739	-	-	-	-	-	-	Engastado
N597	-4.120	-7.500	-0.239	-	-	-	-	-	-	Engastado
N601	-4.120	-7.500	-0.739	-	-	-	-	-	-	Engastado
N602	-4.465	-7.500	-0.239	-	-	-	-	-	-	Engastado
N603	-4.465	-7.500	-0.739	-	-	-	-	-	-	Engastado
N604	-4.615	-7.500	-0.239	-	-	-	-	-	-	Engastado
N605	-4.615	-7.500	-0.739	-	-	-	-	-	-	Engastado
N629	2.370	-13.000	-0.880	-	-	-	-	-	-	Engastado
N630	2.370	-12.000	-0.782	-	-	-	-	-	-	Engastado
N631	2.370	-11.000	-0.683	-	-	-	-	-	-	Engastado
N632	2.370	-9.900	-0.575	-	-	-	-	-	-	Engastado
N633	2.370	-8.800	-0.467	-	-	-	-	-	-	Engastado
N634	2.370	-6.600	-0.250	-	-	-	-	-	-	Engastado
N635	2.370	-5.500	-0.142	-	-	-	-	-	-	Engastado
N636	2.370	-4.400	-0.033	-	-	-	-	-	-	Engastado
N637	2.370	-3.300	0.075	-	-	-	-	-	-	Engastado
N638	2.370	-2.200	0.183	-	-	-	-	-	-	Engastado
N639	2.370	-0.950	0.306	-	-	-	-	-	-	Engastado
N640	2.370	-0.100	0.390	-	-	-	-	-	-	Engastado
N641	-2.270	-13.000	-0.880	-	-	-	-	-	-	Engastado
N642	-2.270	-12.000	-0.782	-	-	-	-	-	-	Engastado
N643	-2.270	-11.000	-0.683	-	-	-	-	-	-	Engastado
N644	-2.270	-9.900	-0.575	-	-	-	-	-	-	Engastado
N645	-2.270	-8.800	-0.467	-	-	-	-	-	-	Engastado
N646	-2.270	-6.600	-0.250	-	-	-	-	-	-	Engastado
N647	-2.270	-5.500	-0.142	-	-	-	-	-	-	Engastado
N648	-2.270	-4.400	-0.033	-	-	-	-	-	-	Engastado
N649	-2.270	-3.300	0.075	-	-	-	-	-	-	Engastado
N650	-2.270	-2.200	0.183	-	-	-	-	-	-	Engastado
N651	-2.270	-0.950	0.306	-	-	-	-	-	-	Engastado
N652	-2.270	-0.100	0.390	-	-	-	-	-	-	Engastado
N653	-7.020	-13.000	-0.880	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N663	-9.215	-7.500	-0.739	-	-	-	-	-	-	Engastado
N664	-9.215	-7.500	-0.239	-	-	-	-	-	-	Engastado
N674	-7.020	-11.000	-0.683	-	-	-	-	-	-	Engastado
N675	-7.020	-8.800	-0.467	-	-	-	-	-	-	Engastado
N676	-7.020	-6.600	-0.250	-	-	-	-	-	-	Engastado
N677	-7.020	-4.400	-0.033	-	-	-	-	-	-	Engastado
N678	-7.020	-2.200	0.183	-	-	-	-	-	-	Engastado
N679	-7.020	-0.100	0.390	-	-	-	-	-	-	Engastado
N680	-7.020	-12.000	-0.782	-	-	-	-	-	-	Engastado
N681	-7.020	-9.900	-0.575	-	-	-	-	-	-	Engastado
N682	-7.020	-5.500	-0.142	-	-	-	-	-	-	Engastado
N683	-7.020	-3.300	0.075	-	-	-	-	-	-	Engastado
N684	-7.020	-0.950	0.306	-	-	-	-	-	-	Engastado
N705	-4.825	-7.500	-0.739	-	-	-	-	-	-	Engastado
N706	-4.825	-7.500	-0.239	-	-	-	-	-	-	Engastado
N709	-9.500	-7.500	-0.239	-	-	-	-	-	-	Engastado
N711	-11.710	-13.000	-0.880	-	-	-	-	-	-	Engastado
N712	-11.710	-11.000	-0.683	-	-	-	-	-	-	Engastado
N713	-11.710	-8.800	-0.467	-	-	-	-	-	-	Engastado
N714	-11.710	-6.600	-0.250	-	-	-	-	-	-	Engastado
N715	-11.710	-4.400	-0.033	-	-	-	-	-	-	Engastado
N716	-11.710	-2.200	0.183	-	-	-	-	-	-	Engastado
N717	-11.710	-0.100	0.390	-	-	-	-	-	-	Engastado
N718	-11.710	-12.000	-0.782	-	-	-	-	-	-	Engastado
N719	-11.710	-9.900	-0.575	-	-	-	-	-	-	Engastado
N720	-11.710	-5.500	-0.142	-	-	-	-	-	-	Engastado
N721	-11.710	-3.300	0.075	-	-	-	-	-	-	Engastado
N722	-11.710	-0.950	0.306	-	-	-	-	-	-	Engastado
N723	-13.920	-7.500	-0.239	-	-	-	-	-	-	Engastado
N729	-9.785	-7.500	-0.739	-	-	-	-	-	-	Engastado
N730	-9.575	-7.500	-0.739	-	-	-	-	-	-	Engastado
N736	-9.785	-7.500	-0.239	-	-	-	-	-	-	Engastado
N737	-9.575	-7.500	-0.239	-	-	-	-	-	-	Engastado
N740	-13.360	-7.500	-0.739	-	-	-	-	-	-	Engastado
N741	-13.360	-7.500	-0.239	-	-	-	-	-	-	Engastado
N744	-18.360	-7.500	-0.239	-	-	-	-	-	-	Engastado
N760	-9.425	-7.500	-0.239	-	-	-	-	-	-	Engastado
N761	-9.425	-7.500	-0.739	-	-	-	-	-	-	Engastado
N762	-13.845	-7.500	-0.239	-	-	-	-	-	-	Engastado
N763	-13.845	-7.500	-0.739	-	-	-	-	-	-	Engastado
N764	-13.995	-7.500	-0.239	-	-	-	-	-	-	Engastado
N765	-13.995	-7.500	-0.739	-	-	-	-	-	-	Engastado
N766	-18.285	-7.500	-0.239	-	-	-	-	-	-	Engastado
N767	-18.285	-7.500	-0.739	-	-	-	-	-	-	Engastado
N768	-18.435	-7.500	-0.239	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N769	-18.435	-7.500	-0.739	-	-	-	-	-	-	Engastado
N794	-14.205	-7.500	-0.739	-	-	-	-	-	-	Engastado
N795	-14.205	-7.500	-0.239	-	-	-	-	-	-	Engastado
N810	-17.780	-7.500	-0.739	-	-	-	-	-	-	Engastado
N811	-17.780	-7.500	-0.239	-	-	-	-	-	-	Engastado
N812	-18.645	-7.500	-0.739	-	-	-	-	-	-	Engastado
N813	-18.645	-7.500	-0.239	-	-	-	-	-	-	Engastado
N1169	-16.140	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1170	-16.140	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1171	-16.140	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1172	-16.140	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1173	-16.140	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1174	-16.140	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1175	-16.140	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1176	-16.140	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1177	-16.140	-3.300	0.075	-	-	-	-	-	-	Engastado
N1178	-16.140	-2.200	0.183	-	-	-	-	-	-	Engastado
N1179	-16.140	-0.950	0.306	-	-	-	-	-	-	Engastado
N1180	-16.140	-0.100	0.390	-	-	-	-	-	-	Engastado
N1182	-52.130	-12.000	-0.782	X	X	X	X	X	X	Engastado
N1184	-52.130	-9.900	-0.575	X	X	X	X	X	X	Engastado
N1187	-52.130	-5.500	-0.142	X	X	X	X	X	X	Engastado
N1189	-52.130	-3.300	0.075	X	X	X	X	X	X	Engastado
N1191	-52.130	-0.950	0.306	X	X	X	X	X	X	Engastado
N1193	-20.945	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1194	-20.945	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1195	-20.945	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1196	-20.945	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1197	-20.945	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1198	-20.945	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1199	-20.945	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1200	-20.945	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1201	-20.945	-3.300	0.075	-	-	-	-	-	-	Engastado
N1202	-20.945	-2.200	0.183	-	-	-	-	-	-	Engastado
N1203	-20.945	-0.950	0.306	-	-	-	-	-	-	Engastado
N1204	-20.945	-0.100	0.390	-	-	-	-	-	-	Engastado
N1205	-25.990	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1206	-25.990	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1207	-25.990	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1208	-25.990	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1209	-25.990	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1210	-25.990	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1211	-25.990	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1212	-25.990	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1213	-25.990	-3.300	0.075	-	-	-	-	-	-	Engastado

Nós											
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1214	-25.990	-2.200	0.183	-	-	-	-	-	-	Engastado
N1215	-25.990	-0.950	0.306	-	-	-	-	-	-	Engastado
N1216	-25.990	-0.100	0.390	-	-	-	-	-	-	Engastado
N1217	-30.795	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1218	-30.795	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1219	-30.795	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1220	-30.795	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1221	-30.795	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1222	-30.795	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1223	-30.795	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1224	-30.795	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1225	-30.795	-3.300	0.075	-	-	-	-	-	-	Engastado
N1226	-30.795	-2.200	0.183	-	-	-	-	-	-	Engastado
N1227	-30.795	-0.950	0.306	-	-	-	-	-	-	Engastado
N1228	-30.795	-0.100	0.390	-	-	-	-	-	-	Engastado
N1229	-35.545	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1230	-35.545	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1231	-35.545	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1232	-35.545	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1233	-35.545	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1234	-35.545	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1235	-35.545	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1236	-35.545	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1237	-35.545	-3.300	0.075	-	-	-	-	-	-	Engastado
N1238	-35.545	-2.200	0.183	-	-	-	-	-	-	Engastado
N1239	-35.545	-0.950	0.306	-	-	-	-	-	-	Engastado
N1240	-35.545	-0.100	0.390	-	-	-	-	-	-	Engastado
N1241	-40.350	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1242	-40.350	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1243	-40.350	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1244	-40.350	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1245	-40.350	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1246	-40.350	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1247	-40.350	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1248	-40.350	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1249	-40.350	-3.300	0.075	-	-	-	-	-	-	Engastado
N1250	-40.350	-2.200	0.183	-	-	-	-	-	-	Engastado
N1251	-40.350	-0.950	0.306	-	-	-	-	-	-	Engastado
N1252	-40.350	-0.100	0.390	-	-	-	-	-	-	Engastado
N1253	-45.220	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1254	-45.220	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1255	-45.220	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1256	-45.220	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1257	-45.220	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1258	-45.220	-6.600	-0.250	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1259	-45.220	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1260	-45.220	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1261	-45.220	-3.300	0.075	-	-	-	-	-	-	Engastado
N1262	-45.220	-2.200	0.183	-	-	-	-	-	-	Engastado
N1263	-45.220	-0.950	0.306	-	-	-	-	-	-	Engastado
N1264	-45.220	-0.100	0.390	-	-	-	-	-	-	Engastado
N1265	-49.910	-13.000	-0.880	-	-	-	-	-	-	Engastado
N1266	-49.910	-12.000	-0.782	-	-	-	-	-	-	Engastado
N1267	-49.910	-11.000	-0.683	-	-	-	-	-	-	Engastado
N1268	-49.910	-9.900	-0.575	-	-	-	-	-	-	Engastado
N1269	-49.910	-8.800	-0.467	-	-	-	-	-	-	Engastado
N1270	-49.910	-6.600	-0.250	-	-	-	-	-	-	Engastado
N1271	-49.910	-5.500	-0.142	-	-	-	-	-	-	Engastado
N1272	-49.910	-4.400	-0.033	-	-	-	-	-	-	Engastado
N1273	-49.910	-3.300	0.075	-	-	-	-	-	-	Engastado
N1274	-49.910	-2.200	0.183	-	-	-	-	-	-	Engastado
N1275	-49.910	-0.950	0.306	-	-	-	-	-	-	Engastado
N1276	-49.910	-0.100	0.390	-	-	-	-	-	-	Engastado
N1277	2.370	11.000	-0.683	-	-	-	-	-	-	Engastado
N1278	2.370	8.800	-0.467	-	-	-	-	-	-	Engastado
N1279	2.370	6.600	-0.250	-	-	-	-	-	-	Engastado
N1280	2.370	4.400	-0.033	-	-	-	-	-	-	Engastado
N1281	2.370	2.200	0.183	-	-	-	-	-	-	Engastado
N1282	2.370	0.100	0.390	-	-	-	-	-	-	Engastado
N1283	2.370	13.000	-0.880	-	-	-	-	-	-	Engastado
N1284	2.370	12.000	-0.782	-	-	-	-	-	-	Engastado
N1285	2.370	9.900	-0.575	-	-	-	-	-	-	Engastado
N1286	2.370	5.500	-0.142	-	-	-	-	-	-	Engastado
N1287	2.370	3.300	0.075	-	-	-	-	-	-	Engastado
N1288	2.370	0.950	0.306	-	-	-	-	-	-	Engastado
N1314	-2.270	13.000	-0.880	-	-	-	-	-	-	Engastado
N1315	-2.270	11.000	-0.683	-	-	-	-	-	-	Engastado
N1316	-2.270	8.800	-0.467	-	-	-	-	-	-	Engastado
N1317	-2.270	6.600	-0.250	-	-	-	-	-	-	Engastado
N1318	-2.270	4.400	-0.033	-	-	-	-	-	-	Engastado
N1319	-2.270	2.200	0.183	-	-	-	-	-	-	Engastado
N1320	-2.270	0.100	0.390	-	-	-	-	-	-	Engastado
N1321	-2.270	12.000	-0.782	-	-	-	-	-	-	Engastado
N1322	-2.270	9.900	-0.575	-	-	-	-	-	-	Engastado
N1323	-2.270	5.500	-0.142	-	-	-	-	-	-	Engastado
N1324	-2.270	3.300	0.075	-	-	-	-	-	-	Engastado
N1325	-2.270	0.950	0.306	-	-	-	-	-	-	Engastado
N1374	-7.020	11.000	-0.683	-	-	-	-	-	-	Engastado
N1375	-7.020	8.800	-0.467	-	-	-	-	-	-	Engastado
N1376	-7.020	6.600	-0.250	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1377	-7.020	4.400	-0.033	-	-	-	-	-	-	Engastado
N1378	-7.020	2.200	0.183	-	-	-	-	-	-	Engastado
N1379	-7.020	0.100	0.390	-	-	-	-	-	-	Engastado
N1380	-7.020	12.000	-0.782	-	-	-	-	-	-	Engastado
N1381	-7.020	9.900	-0.575	-	-	-	-	-	-	Engastado
N1382	-7.020	5.500	-0.142	-	-	-	-	-	-	Engastado
N1383	-7.020	3.300	0.075	-	-	-	-	-	-	Engastado
N1384	-7.020	0.950	0.306	-	-	-	-	-	-	Engastado
N1408	-7.020	13.000	-0.880	-	-	-	-	-	-	Engastado
N1409	-11.710	13.000	-0.880	-	-	-	-	-	-	Engastado
N1410	-11.710	11.000	-0.683	-	-	-	-	-	-	Engastado
N1411	-11.710	8.800	-0.467	-	-	-	-	-	-	Engastado
N1412	-11.710	6.600	-0.250	-	-	-	-	-	-	Engastado
N1413	-11.710	4.400	-0.033	-	-	-	-	-	-	Engastado
N1414	-11.710	2.200	0.183	-	-	-	-	-	-	Engastado
N1415	-11.710	0.100	0.390	-	-	-	-	-	-	Engastado
N1416	-11.710	12.000	-0.782	-	-	-	-	-	-	Engastado
N1417	-11.710	9.900	-0.575	-	-	-	-	-	-	Engastado
N1418	-11.710	5.500	-0.142	-	-	-	-	-	-	Engastado
N1419	-11.710	3.300	0.075	-	-	-	-	-	-	Engastado
N1420	-11.710	0.950	0.306	-	-	-	-	-	-	Engastado
N1865	-16.140	12.000	-0.782	-	-	-	-	-	-	Engastado
N1866	-16.140	13.000	-0.880	-	-	-	-	-	-	Engastado
N1867	-16.140	11.000	-0.683	-	-	-	-	-	-	Engastado
N1868	-16.140	9.900	-0.575	-	-	-	-	-	-	Engastado
N1869	-16.140	8.800	-0.467	-	-	-	-	-	-	Engastado
N1870	-16.140	6.600	-0.250	-	-	-	-	-	-	Engastado
N1871	-16.140	5.500	-0.142	-	-	-	-	-	-	Engastado
N1872	-16.140	4.400	-0.033	-	-	-	-	-	-	Engastado
N1873	-16.140	3.300	0.075	-	-	-	-	-	-	Engastado
N1874	-16.140	2.200	0.183	-	-	-	-	-	-	Engastado
N1875	-16.140	0.950	0.306	-	-	-	-	-	-	Engastado
N1876	-16.140	0.100	0.390	-	-	-	-	-	-	Engastado
N1877	-20.945	12.000	-0.782	-	-	-	-	-	-	Engastado
N1878	-20.945	13.000	-0.880	-	-	-	-	-	-	Engastado
N1879	-20.945	11.000	-0.683	-	-	-	-	-	-	Engastado
N1880	-20.945	9.900	-0.575	-	-	-	-	-	-	Engastado
N1881	-20.945	8.800	-0.467	-	-	-	-	-	-	Engastado
N1882	-20.945	6.600	-0.250	-	-	-	-	-	-	Engastado
N1883	-20.945	5.500	-0.142	-	-	-	-	-	-	Engastado
N1884	-20.945	4.400	-0.033	-	-	-	-	-	-	Engastado
N1885	-20.945	3.300	0.075	-	-	-	-	-	-	Engastado
N1886	-20.945	2.200	0.183	-	-	-	-	-	-	Engastado
N1887	-20.945	0.950	0.306	-	-	-	-	-	-	Engastado
N1888	-20.945	0.100	0.390	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1889	-25.990	13.000	-0.880	-	-	-	-	-	-	Engastado
N1890	-25.990	12.000	-0.782	-	-	-	-	-	-	Engastado
N1891	-25.990	11.000	-0.683	-	-	-	-	-	-	Engastado
N1892	-25.990	9.900	-0.575	-	-	-	-	-	-	Engastado
N1893	-25.990	8.800	-0.467	-	-	-	-	-	-	Engastado
N1894	-25.990	6.600	-0.250	-	-	-	-	-	-	Engastado
N1895	-25.990	5.500	-0.142	-	-	-	-	-	-	Engastado
N1896	-25.990	4.400	-0.033	-	-	-	-	-	-	Engastado
N1897	-25.990	3.300	0.075	-	-	-	-	-	-	Engastado
N1898	-25.990	2.200	0.183	-	-	-	-	-	-	Engastado
N1899	-25.990	0.950	0.306	-	-	-	-	-	-	Engastado
N1900	-25.990	0.100	0.390	-	-	-	-	-	-	Engastado
N1901	-30.795	12.000	-0.782	-	-	-	-	-	-	Engastado
N1902	-35.545	12.000	-0.782	-	-	-	-	-	-	Engastado
N1903	-40.350	12.000	-0.782	-	-	-	-	-	-	Engastado
N1904	-45.220	12.000	-0.782	-	-	-	-	-	-	Engastado
N1905	-30.795	13.000	-0.880	-	-	-	-	-	-	Engastado
N1906	-30.795	11.000	-0.683	-	-	-	-	-	-	Engastado
N1907	-30.795	9.900	-0.575	-	-	-	-	-	-	Engastado
N1908	-30.795	8.800	-0.467	-	-	-	-	-	-	Engastado
N1909	-30.795	6.600	-0.250	-	-	-	-	-	-	Engastado
N1910	-30.795	5.500	-0.142	-	-	-	-	-	-	Engastado
N1911	-30.795	4.400	-0.033	-	-	-	-	-	-	Engastado
N1912	-30.795	3.300	0.075	-	-	-	-	-	-	Engastado
N1913	-30.795	2.200	0.183	-	-	-	-	-	-	Engastado
N1914	-30.795	0.950	0.306	-	-	-	-	-	-	Engastado
N1915	-30.795	0.100	0.390	-	-	-	-	-	-	Engastado
N1916	-35.545	13.000	-0.880	-	-	-	-	-	-	Engastado
N1917	-35.545	11.000	-0.683	-	-	-	-	-	-	Engastado
N1918	-35.545	9.900	-0.575	-	-	-	-	-	-	Engastado
N1919	-35.545	8.800	-0.467	-	-	-	-	-	-	Engastado
N1920	-35.545	6.600	-0.250	-	-	-	-	-	-	Engastado
N1921	-35.545	5.500	-0.142	-	-	-	-	-	-	Engastado
N1922	-35.545	4.400	-0.033	-	-	-	-	-	-	Engastado
N1923	-35.545	3.300	0.075	-	-	-	-	-	-	Engastado
N1924	-35.545	2.200	0.183	-	-	-	-	-	-	Engastado
N1925	-35.545	0.950	0.306	-	-	-	-	-	-	Engastado
N1926	-35.545	0.100	0.390	-	-	-	-	-	-	Engastado
N1927	-40.350	13.000	-0.880	-	-	-	-	-	-	Engastado
N1928	-40.350	11.000	-0.683	-	-	-	-	-	-	Engastado
N1929	-40.350	9.900	-0.575	-	-	-	-	-	-	Engastado
N1930	-40.350	8.800	-0.467	-	-	-	-	-	-	Engastado
N1931	-40.350	6.600	-0.250	-	-	-	-	-	-	Engastado
N1932	-40.350	5.500	-0.142	-	-	-	-	-	-	Engastado
N1933	-40.350	4.400	-0.033	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1934	-40.350	3.300	0.075	-	-	-	-	-	-	Engastado
N1935	-40.350	2.200	0.183	-	-	-	-	-	-	Engastado
N1936	-40.350	0.950	0.306	-	-	-	-	-	-	Engastado
N1937	-40.350	0.100	0.390	-	-	-	-	-	-	Engastado
N1938	-45.220	13.000	-0.880	-	-	-	-	-	-	Engastado
N1939	-45.220	11.000	-0.683	-	-	-	-	-	-	Engastado
N1940	-45.220	9.900	-0.575	-	-	-	-	-	-	Engastado
N1941	-45.220	8.800	-0.467	-	-	-	-	-	-	Engastado
N1942	-45.220	6.600	-0.250	-	-	-	-	-	-	Engastado
N1943	-45.220	5.500	-0.142	-	-	-	-	-	-	Engastado
N1944	-45.220	4.400	-0.033	-	-	-	-	-	-	Engastado
N1945	-45.220	3.300	0.075	-	-	-	-	-	-	Engastado
N1946	-45.220	2.200	0.183	-	-	-	-	-	-	Engastado
N1947	-45.220	0.950	0.306	-	-	-	-	-	-	Engastado
N1948	-45.220	0.100	0.390	-	-	-	-	-	-	Engastado
N1949	-49.910	13.000	-0.880	-	-	-	-	-	-	Engastado
N1951	-49.910	12.000	-0.782	-	-	-	-	-	-	Engastado
N1952	-52.130	12.000	-0.782	X	X	X	X	X	X	Engastado
N1953	-49.910	11.000	-0.683	-	-	-	-	-	-	Engastado
N1955	-49.910	9.900	-0.575	-	-	-	-	-	-	Engastado
N1956	-52.130	9.900	-0.575	X	X	X	X	X	X	Engastado
N1957	-49.910	8.800	-0.467	-	-	-	-	-	-	Engastado
N1959	-49.910	6.600	-0.250	-	-	-	-	-	-	Engastado
N1961	-49.910	5.500	-0.142	-	-	-	-	-	-	Engastado
N1962	-52.130	5.500	-0.142	X	X	X	X	X	X	Engastado
N1963	-49.910	4.400	-0.033	-	-	-	-	-	-	Engastado
N1965	-49.910	3.300	0.075	-	-	-	-	-	-	Engastado
N1966	-52.130	3.300	0.075	X	X	X	X	X	X	Engastado
N1967	-49.910	2.200	0.183	-	-	-	-	-	-	Engastado
N1969	-49.910	0.950	0.306	-	-	-	-	-	-	Engastado
N1970	-52.130	0.950	0.306	X	X	X	X	X	X	Engastado
N1971	-49.910	0.100	0.390	-	-	-	-	-	-	Engastado
N1974	2.370	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1975	4.740	-7.699	-0.358	X	X	X	X	X	X	Engastado
N1976	-2.270	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1977	-7.020	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1978	-11.710	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1979	-16.140	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1980	-20.945	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1981	-25.990	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1982	-30.795	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1983	-35.545	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1984	-40.350	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1985	-45.220	-7.699	-0.358	-	-	-	-	-	-	Engastado
N1986	-49.910	-7.699	-0.358	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N1987	-52.130	-7.699	-0.358	X	X	X	X	X	X	Engastado
N1988	2.370	7.699	-0.358	-	-	-	-	-	-	Engastado
N1989	4.740	7.699	-0.358	X	X	X	X	X	X	Engastado
N1990	-2.270	7.699	-0.358	-	-	-	-	-	-	Engastado
N1991	-7.020	7.699	-0.358	-	-	-	-	-	-	Engastado
N1992	-11.710	7.699	-0.358	-	-	-	-	-	-	Engastado
N1993	-16.140	7.699	-0.358	-	-	-	-	-	-	Engastado
N1994	-20.945	7.699	-0.358	-	-	-	-	-	-	Engastado
N1995	-25.990	7.699	-0.358	-	-	-	-	-	-	Engastado
N1996	-30.795	7.699	-0.358	-	-	-	-	-	-	Engastado
N1997	-35.545	7.699	-0.358	-	-	-	-	-	-	Engastado
N1998	-40.350	7.699	-0.358	-	-	-	-	-	-	Engastado
N1999	-45.220	7.699	-0.358	-	-	-	-	-	-	Engastado
N2000	-49.910	7.699	-0.358	-	-	-	-	-	-	Engastado
N2001	-52.130	7.699	-0.358	X	X	X	X	X	X	Engastado
N2002	-9.100	-2.200	0.183	-	-	-	-	-	-	Engastado
N2003	-4.940	-2.200	0.183	-	-	-	-	-	-	Engastado
N2004	-9.100	2.200	0.183	-	-	-	-	-	-	Engastado
N2005	-4.940	2.200	0.183	-	-	-	-	-	-	Engastado
N2006	-4.140	-2.200	0.183	-	-	-	-	-	-	Engastado
N2007	0.400	-2.200	0.183	-	-	-	-	-	-	Engastado
N2008	-0.400	-2.200	0.183	-	-	-	-	-	-	Engastado
N2009	0.400	2.200	0.183	-	-	-	-	-	-	Engastado
N2010	-0.400	2.200	0.183	-	-	-	-	-	-	Engastado
N2011	-4.140	2.200	0.183	-	-	-	-	-	-	Engastado
N2012	-9.900	-2.200	0.183	-	-	-	-	-	-	Engastado
N2013	-9.900	2.200	0.183	-	-	-	-	-	-	Engastado
N2014	-13.520	2.200	0.183	-	-	-	-	-	-	Engastado
N2015	-14.320	2.200	0.183	-	-	-	-	-	-	Engastado
N2016	-13.520	-2.200	0.183	-	-	-	-	-	-	Engastado
N2017	-14.320	-2.200	0.183	-	-	-	-	-	-	Engastado
N2018	-17.960	-2.200	0.183	-	-	-	-	-	-	Engastado
N2019	-18.760	-2.200	0.183	-	-	-	-	-	-	Engastado
N2020	-17.960	2.200	0.183	-	-	-	-	-	-	Engastado
N2021	-18.760	2.200	0.183	-	-	-	-	-	-	Engastado
N2022	-23.130	-2.200	0.183	-	-	-	-	-	-	Engastado
N2023	-23.930	-2.200	0.183	-	-	-	-	-	-	Engastado
N2024	-23.130	2.200	0.183	-	-	-	-	-	-	Engastado
N2025	-23.930	2.200	0.183	-	-	-	-	-	-	Engastado
N2030	-32.740	-2.200	0.183	-	-	-	-	-	-	Engastado
N2031	-33.540	-2.200	0.183	-	-	-	-	-	-	Engastado
N2032	-32.740	2.200	0.183	-	-	-	-	-	-	Engastado
N2033	-33.540	2.200	0.183	-	-	-	-	-	-	Engastado
N2034	-37.550	-2.200	0.183	-	-	-	-	-	-	Engastado
N2035	-38.350	-2.200	0.183	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N2036	-37.550	2.200	0.183	-	-	-	-	-	-	Engastado
N2037	-38.350	2.200	0.183	-	-	-	-	-	-	Engastado
N2038	-42.350	-2.200	0.183	-	-	-	-	-	-	Engastado
N2039	-43.150	-2.200	0.183	-	-	-	-	-	-	Engastado
N2040	-42.350	2.200	0.183	-	-	-	-	-	-	Engastado
N2041	-43.150	2.200	0.183	-	-	-	-	-	-	Engastado
N2042	-47.290	-2.200	0.183	-	-	-	-	-	-	Engastado
N2043	-48.090	-2.200	0.183	-	-	-	-	-	-	Engastado
N2044	-47.290	2.200	0.183	-	-	-	-	-	-	Engastado
N2045	-48.090	2.200	0.183	-	-	-	-	-	-	Engastado
N2046	-23.930	4.400	-0.033	-	-	-	-	-	-	Engastado
N2047	-23.130	4.400	-0.033	-	-	-	-	-	-	Engastado
N2048	-23.930	6.600	-0.250	-	-	-	-	-	-	Engastado
N2049	-23.130	6.600	-0.250	-	-	-	-	-	-	Engastado
N2050	-23.930	8.800	-0.467	-	-	-	-	-	-	Engastado
N2051	-23.130	8.800	-0.467	-	-	-	-	-	-	Engastado
N2052	-23.930	11.000	-0.683	-	-	-	-	-	-	Engastado
N2053	-23.130	11.000	-0.683	-	-	-	-	-	-	Engastado
N2054	-18.760	11.000	-0.683	-	-	-	-	-	-	Engastado
N2055	-17.960	11.000	-0.683	-	-	-	-	-	-	Engastado
N2056	-18.760	8.800	-0.467	-	-	-	-	-	-	Engastado
N2057	-17.960	8.800	-0.467	-	-	-	-	-	-	Engastado
N2058	-18.760	6.600	-0.250	-	-	-	-	-	-	Engastado
N2059	-17.960	6.600	-0.250	-	-	-	-	-	-	Engastado
N2060	-18.760	4.400	-0.033	-	-	-	-	-	-	Engastado
N2061	-17.960	4.400	-0.033	-	-	-	-	-	-	Engastado
N2062	-18.760	-4.400	-0.033	-	-	-	-	-	-	Engastado
N2063	-17.960	-4.400	-0.033	-	-	-	-	-	-	Engastado
N2064	-23.930	-4.400	-0.033	-	-	-	-	-	-	Engastado
N2065	-23.130	-4.400	-0.033	-	-	-	-	-	-	Engastado
N2066	-23.930	-6.600	-0.250	-	-	-	-	-	-	Engastado
N2067	-23.130	-6.600	-0.250	-	-	-	-	-	-	Engastado
N2068	-18.760	-6.600	-0.250	-	-	-	-	-	-	Engastado
N2069	-17.960	-6.600	-0.250	-	-	-	-	-	-	Engastado
N2070	-18.760	-8.800	-0.467	-	-	-	-	-	-	Engastado
N2071	-17.960	-8.800	-0.467	-	-	-	-	-	-	Engastado
N2072	-23.930	-8.800	-0.467	-	-	-	-	-	-	Engastado
N2073	-23.130	-8.800	-0.467	-	-	-	-	-	-	Engastado
N2074	-18.760	-11.000	-0.683	-	-	-	-	-	-	Engastado
N2075	-17.960	-11.000	-0.683	-	-	-	-	-	-	Engastado
N2076	-23.930	-11.000	-0.683	-	-	-	-	-	-	Engastado
N2077	-23.130	-11.000	-0.683	-	-	-	-	-	-	Engastado
N2078	0.000	-12.204	-0.802	-	-	-	-	-	-	Engastado
N2079	0.000	-12.602	-1.241	-	-	-	-	-	-	Engastado
N2080	0.000	-11.806	-1.163	-	-	-	-	-	-	Engastado

Nós										
Referência	Coordenadas			Vínculo c/ exterior						Vinculação interna
	X (m)	Y (m)	Z (m)	Δ_x	Δ_y	Δ_z	θ_x	θ_y	θ_z	
N2083	-4.540	-11.806	-1.163	-	-	-	-	-	-	Engastado
N2084	-4.540	-12.204	-0.802	-	-	-	-	-	-	Engastado
N2085	-4.540	-12.602	-1.241	-	-	-	-	-	-	Engastado
N2168	-4.540	-8.621	-0.848	-	-	-	-	-	-	Engastado
N2169	-4.540	-8.223	-0.409	-	-	-	-	-	-	Engastado
N2170	-4.540	-7.825	-0.770	-	-	-	-	-	-	Engastado
N2171	-4.540	-7.550	-0.344	-	-	-	-	-	-	Engastado
N2172	-4.540	-7.550	-0.744	-	-	-	-	-	-	Engastado
N2173	-4.540	-7.450	-0.334	-	-	-	-	-	-	Engastado
N2174	-4.540	-7.450	-0.734	-	-	-	-	-	-	Engastado
N2175	-4.540	-7.176	-0.707	-	-	-	-	-	-	Engastado
N2176	-4.540	-6.777	-0.267	-	-	-	-	-	-	Engastado
N2177	-4.540	-6.379	-0.629	-	-	-	-	-	-	Engastado
N2178	-4.540	-5.981	-0.189	-	-	-	-	-	-	Engastado
N2179	-4.540	-5.583	-0.549	-	-	-	-	-	-	Engastado
N2180	-4.540	-5.583	-0.150	-	-	-	-	-	-	Engastado
N2181	-4.540	-5.185	-0.111	-	-	-	-	-	-	Engastado
N2182	-4.540	-4.787	-0.471	-	-	-	-	-	-	Engastado
N2187	-4.540	-2.001	0.204	-	-	-	-	-	-	Engastado
N2190	-4.540	-1.850	-0.182	-	-	-	-	-	-	Engastado
N2191	-4.540	-1.850	0.218	-	-	-	-	-	-	Engastado
N2192	-4.540	-1.750	-0.172	-	-	-	-	-	-	Engastado
N2193	-4.540	-1.750	0.228	-	-	-	-	-	-	Engastado
N2194	-4.540	-1.599	0.243	-	-	-	-	-	-	Engastado
N2195	-4.540	-1.201	-0.118	-	-	-	-	-	-	Engastado
N2238	-9.500	-12.602	-1.241	-	-	-	-	-	-	Engastado
N2239	-9.500	-12.204	-0.802	-	-	-	-	-	-	Engastado
N2240	-9.500	-11.806	-1.163	-	-	-	-	-	-	Engastado
N2337	-13.920	-6.379	-0.629	-	-	-	-	-	-	Engastado
N2338	-13.920	-5.981	-0.189	-	-	-	-	-	-	Engastado
N2417	-18.360	-6.379	-0.629	-	-	-	-	-	-	Engastado
N2418	-18.360	-5.981	-0.189	-	-	-	-	-	-	Engastado
N2421	-18.360	-5.185	-0.111	-	-	-	-	-	-	Engastado
N2422	-18.360	-4.787	-0.471	-	-	-	-	-	-	Engastado
N2497	-23.530	-6.379	-0.629	-	-	-	-	-	-	Engastado
N2498	-23.530	-5.981	-0.189	-	-	-	-	-	-	Engastado
N2501	-23.530	-5.185	-0.111	-	-	-	-	-	-	Engastado
N2502	-23.530	-4.787	-0.471	-	-	-	-	-	-	Engastado
N2657	-33.140	-6.379	-0.629	-	-	-	-	-	-	Engastado
N2658	-33.140	-5.981	-0.189	-	-	-	-	-	-	Engastado
N2661	-33.140	-5.185	-0.111	-	-	-	-	-	-	Engastado
N2662	-33.140	-4.787	-0.471	-	-	-	-	-	-	Engastado
N2959	-4.540	-7.500	-0.339	-	-	-	-	-	-	Engastado
N2960	-4.540	-1.800	0.223	-	-	-	-	-	-	Engastado

1.2.- Barras

1.2.1.- Materiais utilizados

Materiais utilizados							
Material		E (kgf/cm²)	ν	G (kgf/cm²)	f_y (kgf/cm²)	$\alpha_{\cdot t}$ (m/m°C)	γ (t/m³)
Tipo	Designação						
Aço laminado	A-572 345MPa	2038736.0	0.300	784913.4	3516.8	0.000012	7.850
Aço dobrado	CF-26	2038736.0	0.300	784129.2	2650.4	0.000012	7.850
	CF-24	2038736.0	0.300	784129.2	2446.5	0.000012	7.850

Notação:
E: Módulo de elasticidade
ν: Módulo de poisson
G: Módulo de corte
f_y: Limite elástico
$\alpha_{\cdot t}$: Coeficiente de dilatação
γ: Peso específico

1.2.2.- Características mecânicas

Tipos de peça	
Ref.	Peças

Tipos de peça	
Ref.	Peças
1	N629/N630, N630/N631, N631/N632, N632/N633, N634/N635, N635/N636, N636/N637, N637/N638, N638/N639, N639/N640, N641/N642, N642/N643, N643/N644, N644/N645, N646/N647, N647/N648, N648/N649, N649/N650, N650/N651, N651/N652, N653/N680, N680/N674, N674/N681, N681/N675, N676/N682, N682/N677, N677/N683, N683/N678, N678/N684, N684/N679, N711/N718, N718/N712, N712/N719, N719/N713, N714/N720, N720/N715, N715/N721, N721/N716, N716/N722, N722/N717, N1170/N1169, N1169/N1171, N1171/N1172, N1172/N1173, N1174/N1175, N1175/N1176, N1176/N1177, N1177/N1178, N1178/N1179, N1179/N1180, N1193/N1194, N1194/N1195, N1195/N1196, N1196/N1197, N1198/N1199, N1199/N1200, N1200/N1201, N1201/N1202, N1202/N1203, N1203/N1204, N1205/N1206, N1206/N1207, N1207/N1208, N1208/N1209, N1210/N1211, N1211/N1212, N1212/N1213, N1213/N1214, N1214/N1215, N1215/N1216, N1217/N1218, N1218/N1219, N1219/N1220, N1220/N1221, N1222/N1223, N1223/N1224, N1224/N1225, N1225/N1226, N1226/N1227, N1227/N1228, N1229/N1230, N1230/N1231, N1231/N1232, N1232/N1233, N1234/N1235, N1235/N1236, N1236/N1237, N1237/N1238, N1238/N1239, N1239/N1240, N1241/N1242, N1242/N1243, N1243/N1244, N1244/N1245, N1246/N1247, N1247/N1248, N1248/N1249, N1249/N1250, N1250/N1251, N1251/N1252, N1253/N1254, N1254/N1255, N1255/N1256, N1256/N1257, N1258/N1259, N1259/N1260, N1260/N1261, N1261/N1262, N1262/N1263, N1263/N1264, N1265/N1266, N1266/N1267, N1267/N1268, N1268/N1269, N1270/N1271, N1271/N1272, N1272/N1273, N1273/N1274, N1274/N1275, N1275/N1276, N1283/N1284, N1284/N1277, N1277/N1285, N1285/N1278, N1279/N1286, N1286/N1280, N1280/N1287, N1287/N1281, N1281/N1288, N1288/N1282, N1314/N1321, N1321/N1315, N1315/N1322, N1322/N1316, N1317/N1323, N1323/N1318, N1318/N1324, N1324/N1319, N1319/N1325, N1325/N1320, N1408/N1380, N1380/N1374, N1374/N1381, N1381/N1375, N1376/N1382, N1382/N1377, N1377/N1383, N1383/N1378, N1378/N1384, N1384/N1379, N1409/N1416, N1416/N1410, N1410/N1417, N1417/N1411, N1412/N1418, N1418/N1413, N1413/N1419, N1419/N1414, N1414/N1420, N1420/N1415, N1866/N1865, N1865/N1867, N1867/N1868, N1868/N1869, N1870/N1871, N1871/N1872, N1872/N1873, N1873/N1874, N1874/N1875, N1875/N1876, N1878/N1877, N1877/N1879, N1879/N1880, N1880/N1881, N1882/N1883, N1883/N1884, N1884/N1885, N1885/N1886, N1886/N1887, N1887/N1888, N1889/N1890, N1890/N1891, N1891/N1892, N1892/N1893, N1894/N1895, N1895/N1896, N1896/N1897, N1897/N1898, N1898/N1899, N1899/N1900, N1905/N1901, N1901/N1906, N1906/N1907, N1907/N1908, N1909/N1910, N1910/N1911, N1911/N1912, N1912/N1913, N1913/N1914, N1914/N1915, N1916/N1902, N1902/N1917, N1917/N1918, N1918/N1919, N1920/N1921, N1921/N1922, N1922/N1923, N1923/N1924, N1924/N1925, N1925/N1926, N1927/N1903, N1903/N1928, N1928/N1929, N1929/N1930, N1931/N1932, N1932/N1933, N1933/N1934, N1934/N1935, N1935/N1936, N1936/N1937, N1938/N1904, N1904/N1939, N1939/N1940, N1940/N1941, N1942/N1943, N1943/N1944, N1944/N1945, N1945/N1946, N1946/N1947, N1947/N1948, N1949/N1951, N1951/N1953, N1953/N1955, N1955/N1957, N1959/N1961, N1961/N1963, N1963/N1965, N1965/N1967, N1967/N1969, N1969/N1971, N1974/N634, N1976/N646, N1977/N676, N1978/N714, N1979/N1174, N1980/N1198, N1981/N1210, N1982/N1222, N1983/N1234, N1984/N1246, N1985/N1258, N1986/N1270, N633/N1974, N645/N1976, N675/N1977, N713/N1978, N1173/N1979, N1197/N1980, N1209/N1981, N1221/N1982, N1233/N1983, N1245/N1984, N1257/N1985, N1269/N1986, N1988/N1279, N1990/N1317, N1991/N1376, N1992/N1412, N1993/N1870, N1994/N1882, N1995/N1894, N1996/N1909, N1997/N1920, N1998/N1931, N1999/N1942, N2000/N1959, N1278/N1988, N1316/N1990, N1375/N1991, N1411/N1992, N1869/N1993, N1881/N1994, N1893/N1995, N1908/N1996, N1919/N1997, N1930/N1998, N1941/N1999 e N1957/N2000
2	N22/N2007, N22/N2008, N89/N2009, N89/N2010, N170/N2006, N170/N2003, N192/N2011, N192/N2005, N210/N2002, N210/N2012, N231/N2004, N231/N2013, N251/N2016, N251/N2017, N274/N2014, N274/N2015, N294/N2018, N294/N2019, N318/N2020, N318/N2021, N341/N2022, N341/N2023, N367/N2024, N367/N2025, N425/N2030, N425/N2031, N447/N2032, N447/N2033, N465/N2034, N465/N2035, N485/N2036, N485/N2037, N505/N2038, N505/N2039, N527/N2040, N527/N2041, N565/N2044, N565/N2045, N545/N2042, N545/N2043, N366/N2046, N366/N2047, N365/N2048, N365/N2049, N377/N2050, N377/N2051, N374/N2052, N374/N2053, N325/N2054, N325/N2055, N328/N2056, N328/N2057, N316/N2058, N316/N2059, N317/N2060, N317/N2061, N293/N2062, N293/N2063, N340/N2064, N340/N2065, N339/N2066, N339/N2067, N292/N2068, N292/N2069, N308/N2070, N308/N2071, N355/N2072, N355/N2073, N305/N2074, N305/N2075, N352/N2076 e N352/N2077

Tipos de peça	
Ref.	Peças
3	N80/N81, N75/N82, N20/N83, N84/N85, N21/N86, N185/N80, N182/N75, N174/N20, N177/N84, N179/N21, N226/N185, N222/N182, N214/N174, N217/N177, N219/N179, N267/N226, N263/N222, N255/N214, N258/N217, N260/N219, N311/N267, N306/N263, N298/N255, N301/N258, N303/N260, N358/N311, N353/N306, N345/N298, N348/N301, N350/N303, N401/N358, N397/N353, N389/N345, N392/N348, N394/N350, N440/N401, N480/N440, N520/N480, N560/N520, N437/N397, N429/N389, N432/N392, N434/N394, N477/N437, N469/N429, N472/N432, N474/N434, N517/N477, N509/N469, N512/N472, N514/N474, N557/N517, N549/N509, N552/N512, N554/N514, N1182/N560, N1184/N557, N1187/N549, N1189/N552, N1191/N554, N160/N162, N158/N163, N100/N164, N103/N165, N104/N166, N204/N160, N200/N158, N194/N100, N197/N103, N203/N104, N243/N204, N239/N200, N233/N194, N236/N197, N242/N203, N286/N243, N282/N239, N276/N233, N279/N236, N285/N242, N331/N286, N326/N282, N320/N276, N323/N279, N330/N285, N380/N331, N375/N326, N369/N320, N372/N323, N379/N330, N417/N380, N413/N375, N407/N369, N410/N372, N416/N379, N459/N417, N497/N459, N539/N497, N577/N539, N455/N413, N449/N407, N452/N410, N458/N416, N493/N455, N487/N449, N490/N452, N496/N458, N535/N493, N529/N487, N532/N490, N538/N496, N573/N535, N567/N529, N570/N532, N576/N538, N1952/N577, N1956/N573, N1962/N567, N1966/N570, N1970/N576, N76/N1975, N184/N76, N224/N184, N265/N224, N309/N265, N356/N309, N399/N356, N439/N399, N479/N439, N519/N479, N559/N519, N1987/N559, N159/N1989, N202/N159, N241/N202, N284/N241, N329/N284, N378/N329, N415/N378, N457/N415, N495/N457, N537/N495, N575/N537 e N2001/N575
4	N2085/N2084, N2177/N2178, N2179/N2178, N2179/N2181, N2182/N2181, N2337/N2338, N2417/N2418, N2422/N2421, N2497/N2498, N2502/N2501, N2657/N2658 e N2662/N2661
5	N187/N2085, N186/N2084, N228/N2238, N227/N225, N225/N2239, N2079/N2080, N78/N2079, N77/N2078, N2238/N2240, N2168/N2170, N2170/N2172, N2172/N169, N169/N2174, N2174/N2175, N2175/N2177, N2177/N2182, N170/N2190, N2190/N168, N168/N2192, N2192/N2195, N2085/N2083, N2169/N184, N184/N2171, N2959/N2173, N2173/N2176, N2176/N175, N2178/N2180, N174/N2181, N2181/N173, N176/N2187, N2187/N2191, N2191/N2960, N2960/N2193, N2193/N2194, N2194/N179 e N175/N2178
6	N3/N48, N48/N46, N27/N26, N30/N27, N47/N45, N28/N25, N29/N28, N50/N51, N49/N50, N53/N54, N52/N53, N144/N145, N143/N144, N131/N132, N130/N131, N128/N129, N127/N128, N116/N117, N115/N116, N585/N583, N603/N601, N169/N603, N583/N3, N24/N47, N581/N602, N602/N597, N584/N582, N582/N24, N706/N604, N709/N760, N760/N664, N604/N581, N705/N605, N209/N761, N761/N663, N605/N169, N250/N763, N729/N730, N763/N740, N730/N209, N736/N737, N762/N741, N723/N762, N737/N709, N744/N766, N795/N764, N766/N811, N764/N723, N291/N767, N767/N810, N765/N250, N794/N765, N813/N768, N768/N744, N812/N769 e N769/N291

Características mecânicas									
Material		Ref.	Descrição	A (cm²)	Avy (cm²)	Avz (cm²)	Iyy (cm4)	Izz (cm4)	It (cm4)
Tipo	Designação								
Aço laminado	A-572 345MPa	1	L 51X3, (L TecnoMetal)	2.97	1.44	1.44	7.49	7.49	0.09
		2	L 1 1/2 X 1/8, (L TecnoMetal)	2.33	1.11	1.11	3.22	3.22	0.08
Aço dobrado	CF-26	3	C100X50X17X4.25, (C TecnoMetal)	8.75	3.24	4.44	129.70	27.25	0.53
		4	U98X25X4.75, (U TecnoMetal)	6.28	1.79	3.69	72.01	2.71	0.47
		5	U200X75X4.76, (U TecnoMetal)	15.91	5.76	7.74	924.83	81.81	1.20
	CF-24	6	U200X75X4.76, (U TecnoMetal)	15.91	5.76	7.74	924.83	81.81	1.20

Notação:
Ref.: Referência
A: Área da seção transversal
Avy: Área de esforço cortante da seção segundo o eixo local 'Y'
Avz: Área de esforço cortante da seção segundo o eixo local 'Z'
Iyy: Inércia da seção em torno do eixo local 'Y'
Izz: Inércia da seção em torno do eixo local 'Z'
It: Inércia à torção
As características mecânicas das peças correspondem à seção no ponto médio das mesmas.

1.2.3.- 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)	Material (kg)	
Aço laminado	A-572 345MPa	L TecnoMetal	L 51X3	311.109			0.092			725.34			
			L 1 1/2 X 1/8	40.729			0.009			74.50			
					351.839			0.102			799.83		
						351.839			0.102			799.83	
Aço dobrado		C TecnoMetal	C100X50X17X4.25	682.440			0.597			4685.60			
					682.440			0.597			4685.60		
		U TecnoMetal	U98X25X4.75	6.833			0.004			33.69			
			U200X75X4.76	15.820			0.025			197.56			
					22.653			0.029			231.26		
	CF-26					705.093			0.626			4916.86	
		U TecnoMetal	U200X75X4.76	12.370			0.020			154.48			
					12.370			0.020			154.48		
	CF-24					12.370			0.020			154.48	
						717.463			0.646			5071.33	

1.2.4.- Quantitativos de superfícies

Perfis de aço: Quantitativos das superfícies a pintar					
Tipo	Série	Perfil	Superfície unitária (m²/m)	Comprimento (m)	Superfície (m²)
Aço dobrado	C TecnoMetal	C100X50X17X4.25	0.420	682.440	286.699
	U TecnoMetal	U98X25X4.75	0.274	6.833	1.872
		U200X75X4.76	0.678	28.190	19.111
				Subtotal	307.683
Aço laminado	L TecnoMetal	L 51X3	0.204	311.109	63.466
		L 1 1/2 X 1/8	0.152	40.729	6.191
				Subtotal	69.657
				Total	**377.340**

2.- RESULTADOS

2.1.- Nós

2.1.1.- Reações

Referências:

Rx, Ry, Rz: Reações em nós com deslocamentos restringidos (forças).
Mx, My, Mz: Reações em nós com rotações restringidas (momentos).

2.1.1.1.- Envoltórias

Envoltórias das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (t)	Ry (t)	Rz (t)	Mx (t·m)	My (t·m)	Mz (t·m)
N25	Concreto em fundações	Valor mínimo da envoltória	1.852	-0.008	0.173	0.000	-0.026	0.002
		Valor máximo da envoltória	6.936	-0.002	0.602	0.000	-0.005	0.010
	Tensões sobre o terreno	Valor mínimo da envoltória	2.143	-0.006	0.198	0.000	-0.020	0.003
		Valor máximo da envoltória	5.194	-0.002	0.450	0.000	-0.007	0.007
N26	Concreto em fundações	Valor mínimo da envoltória	-6.969	0.002	0.249	0.000	0.006	-0.001
		Valor máximo da envoltória	-1.866	0.005	0.871	0.000	0.016	0.000

Envoltórias das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (t)	Ry (t)	Rz (t)	Mx (t·m)	My (t·m)	Mz (t·m)
	Tensões sobre o terreno	Valor mínimo da envoltória	-5.219	0.002	0.284	0.000	0.007	-0.001
		Valor máximo da envoltória	-2.159	0.004	0.651	0.000	0.012	0.000
N51	Concreto em fundações	Valor mínimo da envoltória	2.201	0.002	0.201	0.000	-0.029	-0.009
		Valor máximo da envoltória	7.510	0.015	0.644	0.000	-0.007	-0.002
	Tensões sobre o terreno	Valor mínimo da envoltória	2.462	0.003	0.223	0.000	-0.022	-0.007
		Valor máximo da envoltória	5.622	0.011	0.482	0.000	-0.008	-0.002
N54	Concreto em fundações	Valor mínimo da envoltória	-7.431	-0.016	0.289	0.000	0.007	0.000
		Valor máximo da envoltória	-2.194	-0.001	0.932	0.000	0.018	0.013
	Tensões sobre o terreno	Valor mínimo da envoltória	-5.565	-0.012	0.320	0.000	0.008	0.002
		Valor máximo da envoltória	-2.454	-0.002	0.697	0.000	0.014	0.010
N77	Concreto em fundações	Valor mínimo da envoltória	0.005	-8.171	0.384	-0.079	-0.012	-0.015
		Valor máximo da envoltória	0.019	-1.913	1.397	-0.016	-0.003	-0.004
	Tensões sobre o terreno	Valor mínimo da envoltória	0.006	-6.133	0.439	-0.060	-0.009	-0.011
		Valor máximo da envoltória	0.014	-2.302	1.049	-0.021	-0.004	-0.004
N78	Concreto em fundações	Valor mínimo da envoltória	0.003	2.629	0.281	-0.104	0.000	-0.019
		Valor máximo da envoltória	0.016	9.561	1.011	-0.029	0.002	-0.004
	Tensões sobre o terreno	Valor mínimo da envoltória	0.004	2.989	0.319	-0.078	0.001	-0.014
		Valor máximo da envoltória	0.012	7.177	0.759	-0.033	0.002	-0.005
N81	Concreto em fundações	Valor mínimo da envoltória	-0.020	-0.007	0.079	-0.001	0.065	-0.005
		Valor máximo da envoltória	-0.002	0.006	0.330	-0.001	0.269	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.014	-0.005	0.093	-0.001	0.077	-0.003
		Valor máximo da envoltória	-0.002	0.004	0.248	-0.001	0.202	0.004
N82	Concreto em fundações	Valor mínimo da envoltória	-0.014	-0.010	0.090	-0.001	0.079	-0.003
		Valor máximo da envoltória	0.002	0.005	0.381	-0.001	0.334	0.011
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.010	-0.008	0.107	-0.001	0.094	-0.002
		Valor máximo da envoltória	-0.001	0.003	0.287	-0.001	0.251	0.008
N83	Concreto em fundações	Valor mínimo da envoltória	-0.023	-0.013	0.095	-0.001	0.094	-0.002
		Valor máximo da envoltória	-0.002	0.004	0.405	-0.001	0.396	0.017
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.016	-0.009	0.113	-0.001	0.111	0.000
		Valor máximo da envoltória	-0.005	0.002	0.305	-0.001	0.298	0.013
N85	Concreto em fundações	Valor mínimo da envoltória	-0.015	-0.014	0.094	-0.001	0.092	-0.001
		Valor máximo da envoltória	-0.004	0.004	0.401	-0.001	0.390	0.018
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.011	-0.010	0.112	-0.001	0.110	0.000
		Valor máximo da envoltória	-0.005	0.002	0.302	-0.001	0.293	0.014
N86	Concreto em fundações	Valor mínimo da envoltória	-0.034	-0.011	0.089	-0.001	0.084	-0.002
		Valor máximo da envoltória	-0.006	0.004	0.362	-0.001	0.327	0.012
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.025	-0.008	0.104	-0.001	0.097	-0.001
		Valor máximo da envoltória	-0.006	0.003	0.272	-0.001	0.246	0.009
N117	Concreto em fundações	Valor mínimo da envoltória	3.197	0.004	0.285	0.000	-0.031	-0.013
		Valor máximo da envoltória	8.177	0.012	0.709	0.000	-0.011	-0.005
	Tensões sobre o terreno	Valor mínimo da envoltória	3.197	0.004	0.285	0.000	-0.023	-0.010
		Valor máximo da envoltória	6.111	0.009	0.529	0.000	-0.011	-0.005
N129	Concreto em fundações	Valor mínimo da envoltória	-8.231	-0.007	0.412	0.000	0.009	0.001
		Valor máximo da envoltória	-3.216	-0.003	1.026	0.000	0.019	0.003
	Tensões sobre o terreno	Valor mínimo da envoltória	-6.151	-0.006	0.412	0.000	0.009	0.001
		Valor máximo da envoltória	-3.216	-0.003	0.765	0.000	0.014	0.002
N132	Concreto em fundações	Valor mínimo da envoltória	2.884	-0.014	0.258	0.000	-0.027	0.003

Envoltórias das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (t)	Ry (t)	Rz (t)	Mx (t·m)	My (t·m)	Mz (t·m)
		Valor máximo da envoltória	7.101	-0.005	0.615	0.000	-0.010	0.010
	Tensões sobre o terreno	Valor mínimo da envoltória	2.884	-0.011	0.258	0.000	-0.020	0.003
		Valor máximo da envoltória	5.308	-0.005	0.459	0.000	-0.010	0.007
N145	Concreto em fundações	Valor mínimo da envoltória	-7.082	0.004	0.371	0.000	0.009	-0.012
		Valor máximo da envoltória	-2.876	0.015	0.889	0.000	0.017	-0.003
	Tensões sobre o terreno	Valor mínimo da envoltória	-5.294	0.004	0.371	0.000	0.009	-0.009
		Valor máximo da envoltória	-2.876	0.011	0.664	0.000	0.013	-0.003
N162	Concreto em fundações	Valor mínimo da envoltória	-0.015	-0.001	0.130	0.001	0.108	-0.008
		Valor máximo da envoltória	-0.003	0.009	0.352	0.001	0.290	0.000
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.011	-0.001	0.130	0.001	0.108	-0.005
		Valor máximo da envoltória	-0.003	0.006	0.264	0.001	0.218	0.000
N163	Concreto em fundações	Valor mínimo da envoltória	-0.047	0.001	0.150	0.001	0.133	-0.014
		Valor máximo da envoltória	-0.009	0.013	0.407	0.001	0.360	-0.002
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.036	0.001	0.150	0.001	0.133	-0.010
		Valor máximo da envoltória	-0.011	0.010	0.306	0.001	0.270	-0.002
N164	Concreto em fundações	Valor mínimo da envoltória	-0.053	0.002	0.157	0.001	0.151	-0.019
		Valor máximo da envoltória	-0.013	0.016	0.426	0.001	0.408	-0.004
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.040	0.002	0.157	0.001	0.151	-0.014
		Valor máximo da envoltória	-0.015	0.011	0.320	0.001	0.306	-0.004
N165	Concreto em fundações	Valor mínimo da envoltória	-0.022	0.002	0.154	0.001	0.148	-0.019
		Valor máximo da envoltória	-0.006	0.016	0.419	0.001	0.398	-0.004
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.016	0.002	0.154	0.001	0.148	-0.014
		Valor máximo da envoltória	-0.006	0.012	0.314	0.001	0.298	-0.004
N166	Concreto em fundações	Valor mínimo da envoltória	-0.016	0.001	0.142	0.001	0.129	-0.014
		Valor máximo da envoltória	0.008	0.013	0.380	0.001	0.341	-0.002
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.011	0.001	0.142	0.001	0.129	-0.010
		Valor máximo da envoltória	0.006	0.009	0.286	0.001	0.256	-0.002
N186	Concreto em fundações	Valor mínimo da envoltória	-0.075	-5.783	0.378	-0.048	0.007	0.010
		Valor máximo da envoltória	-0.015	-1.352	1.405	-0.010	0.027	0.054
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.056	-4.341	0.434	-0.036	0.008	0.012
		Valor máximo da envoltória	-0.017	-1.618	1.055	-0.012	0.020	0.040
N187	Concreto em fundações	Valor mínimo da envoltória	-0.050	1.530	0.165	-0.054	-0.007	0.013
		Valor máximo da envoltória	-0.010	5.793	0.612	-0.014	-0.001	0.063
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.037	1.759	0.188	-0.040	-0.005	0.015
		Valor máximo da envoltória	-0.012	4.352	0.460	-0.016	-0.002	0.047
N227	Concreto em fundações	Valor mínimo da envoltória	0.010	-7.818	0.399	-0.076	-0.058	-0.065
		Valor máximo da envoltória	0.070	-2.030	1.315	-0.017	-0.008	-0.007
	Tensões sobre o terreno	Valor mínimo da envoltória	0.012	-5.902	0.456	-0.057	-0.043	-0.048
		Valor máximo da envoltória	0.051	-2.449	0.990	-0.022	-0.009	-0.009
N228	Concreto em fundações	Valor mínimo da envoltória	0.010	2.815	0.301	-0.102	0.001	-0.099
		Valor máximo da envoltória	0.084	9.242	0.977	-0.031	0.011	-0.012
	Tensões sobre o terreno	Valor mínimo da envoltória	0.012	3.203	0.341	-0.077	0.002	-0.073
		Valor máximo da envoltória	0.061	6.970	0.737	-0.036	0.008	-0.014
N1182	Concreto em fundações	Valor mínimo da envoltória	-0.001	0.001	0.035	0.000	-0.186	0.001
		Valor máximo da envoltória	0.029	0.010	0.246	0.000	-0.027	0.007
	Tensões sobre o terreno	Valor mínimo da envoltória	0.003	0.001	0.059	0.000	-0.133	0.001
		Valor máximo da envoltória	0.021	0.007	0.176	0.000	-0.045	0.005

Envoltórias das reações em nós								
Referência	Combinação		Reações em eixos globais					
	Tipo	Descrição	Rx (t)	Ry (t)	Rz (t)	Mx (t·m)	My (t·m)	Mz (t·m)
N1184	Concreto em fundações	Valor mínimo da envoltória	0.005	0.000	0.039	0.000	-0.233	0.000
		Valor máximo da envoltória	0.052	0.009	0.283	0.000	-0.034	0.007
	Tensões sobre o terreno	Valor mínimo da envoltória	0.010	0.000	0.067	0.000	-0.166	0.000
		Valor máximo da envoltória	0.037	0.007	0.202	0.000	-0.056	0.005
N1187	Concreto em fundações	Valor mínimo da envoltória	0.004	0.000	0.042	0.000	-0.279	-0.001
		Valor máximo da envoltória	0.051	0.009	0.301	0.000	-0.042	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	0.010	0.000	0.072	0.000	-0.200	0.000
		Valor máximo da envoltória	0.037	0.006	0.215	0.000	-0.068	0.004
N1189	Concreto em fundações	Valor mínimo da envoltória	0.001	-0.002	0.043	0.000	-0.280	-0.002
		Valor máximo da envoltória	0.062	0.009	0.303	0.000	-0.042	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	0.009	-0.001	0.072	0.000	-0.200	-0.002
		Valor máximo da envoltória	0.044	0.006	0.216	0.000	-0.068	0.004
N1191	Concreto em fundações	Valor mínimo da envoltória	-0.010	-0.001	0.040	0.000	-0.234	-0.001
		Valor máximo da envoltória	-0.001	0.009	0.275	0.000	-0.036	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.007	-0.001	0.066	0.000	-0.168	-0.001
		Valor máximo da envoltória	-0.001	0.006	0.197	0.000	-0.058	0.004
N1952	Concreto em fundações	Valor mínimo da envoltória	0.002	-0.009	0.035	0.000	-0.241	-0.007
		Valor máximo da envoltória	0.045	0.008	0.319	0.000	-0.027	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	0.006	-0.007	0.059	0.000	-0.181	-0.005
		Valor máximo da envoltória	0.033	0.005	0.239	0.000	-0.045	0.004
N1956	Concreto em fundações	Valor mínimo da envoltória	0.004	-0.009	0.039	0.000	-0.302	-0.007
		Valor máximo da envoltória	0.034	0.009	0.367	0.000	-0.033	0.007
	Tensões sobre o terreno	Valor mínimo da envoltória	0.007	-0.007	0.067	0.000	-0.226	-0.005
		Valor máximo da envoltória	0.025	0.006	0.276	0.000	-0.056	0.005
N1962	Concreto em fundações	Valor mínimo da envoltória	0.003	-0.009	0.042	0.000	-0.353	-0.006
		Valor máximo da envoltória	0.039	0.010	0.389	0.000	-0.040	0.008
	Tensões sobre o terreno	Valor mínimo da envoltória	0.006	-0.006	0.071	0.000	-0.265	-0.004
		Valor máximo da envoltória	0.029	0.007	0.292	0.000	-0.066	0.006
N1966	Concreto em fundações	Valor mínimo da envoltória	0.002	-0.009	0.042	0.000	-0.348	-0.006
		Valor máximo da envoltória	0.064	0.011	0.388	0.000	-0.040	0.010
	Tensões sobre o terreno	Valor mínimo da envoltória	0.008	-0.006	0.071	0.000	-0.261	-0.004
		Valor máximo da envoltória	0.048	0.008	0.291	0.000	-0.065	0.007
N1970	Concreto em fundações	Valor mínimo da envoltória	-0.004	-0.008	0.039	0.000	-0.293	-0.006
		Valor máximo da envoltória	0.035	0.011	0.352	0.000	-0.035	0.009
	Tensões sobre o terreno	Valor mínimo da envoltória	0.001	-0.006	0.066	0.000	-0.220	-0.004
		Valor máximo da envoltória	0.026	0.008	0.264	0.000	-0.057	0.006
N1975	Concreto em fundações	Valor mínimo da envoltória	-0.016	-0.012	0.093	-0.001	0.086	-0.002
		Valor máximo da envoltória	0.011	0.004	0.391	-0.001	0.357	0.014
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.010	-0.009	0.110	-0.001	0.101	-0.001
		Valor máximo da envoltória	0.008	0.003	0.295	-0.001	0.269	0.010
N1987	Concreto em fundações	Valor mínimo da envoltória	-0.013	0.000	0.040	0.000	-0.247	0.000
		Valor máximo da envoltória	0.032	0.009	0.290	0.000	-0.036	0.006
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.005	0.000	0.069	0.000	-0.176	0.000
		Valor máximo da envoltória	0.023	0.006	0.207	0.000	-0.060	0.005
N1989	Concreto em fundações	Valor mínimo da envoltória	-0.055	0.002	0.155	0.001	0.143	-0.017
		Valor máximo da envoltória	-0.013	0.015	0.420	0.001	0.386	-0.003
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.041	0.002	0.155	0.001	0.143	-0.012

Envoltórias das reações em nós									
Referência	Combinação		Reações em eixos globais						
	Tipo	Descrição	Rx (t)	Ry (t)	Rz (t)	Mx (t·m)	My (t·m)	Mz (t·m)
		Valor máximo da envoltória	-0.013	0.011	0.315	0.001	0.289	-0.003
N2001	Concreto em fundações	Valor mínimo da envoltória	-0.021	-0.009	0.041	0.000	-0.326	-0.006
		Valor máximo da envoltória	-0.001	0.010	0.380	0.000	-0.037	0.008
	Tensões sobre o terreno	Valor mínimo da envoltória	-0.015	-0.006	0.069	0.000	-0.244	-0.005
		Valor máximo da envoltória	-0.002	0.007	0.285	0.000	-0.061	0.005

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

2.2.- Barras

2.2.1.- Verificações E.L.U. (Resumido)

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N80/N630	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 0 m η = 35.1	x: 0 m η = 11.2	x: 0 m η = 0.7	x: 0 m η = 5.8	x: 0 m η = 12.6	x: 0 m η = 1.3	x: 0 m η = 45.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.9**
N630/N81	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 2.37 m η = 41.2	x: 2.37 m η = 10.5	x: 2.37 m η = 0.7	x: 2.37 m η = 6.2	x: 2.37 m η = 17.4	x: 2.37 m η = 1.1	x: 2.37 m η = 51.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 51.2**
N75/N632	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 0 m η = 34.9	x: 0 m η = 11.1	x: 0 m η = 0.7	x: 0 m η = 6.3	x: 0 m η = 12.6	x: 0 m η = 1.2	x: 0 m η = 45.5	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.5**
N632/N82	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.2	x: 2.37 m η = 51.1	x: 2.37 m η = 10.7	x: 2.37 m η = 0.7	x: 2.37 m η = 7.1	x: 2.37 m η = 26.6	x: 2.37 m η = 1.1	x: 2.37 m η = 61.1	x: 2.37 m η = 36.8	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 61.1**
N20/N635	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.4	x: 0 m η = 25.0	x: 0 m η = 10.9	x: 0 m η = 0.7	x: 0 m η = 5.8	x: 0 m η = 6.6	x: 0 m η = 1.2	x: 0 m η = 35.5	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 35.5**
N635/N83	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 2.37 m η = 60.7	x: 2.37 m η = 10.7	x: 2.37 m η = 0.7	x: 2.37 m η = 7.6	x: 2.37 m η = 37.4	x: 2.37 m η = 1.2	x: 2.37 m η = 70.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 70.9**
N84/N637	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 0 m η = 26.0	x: 0 m η = 8.4	x: 0 m η = 0.6	x: 0 m η = 5.8	x: 0 m η = 7.1	x: 0 m η = 0.7	x: 0 m η = 33.4	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 33.4**
N637/N85	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.2	x: 2.37 m η = 59.7	x: 2.37 m η = 10.1	x: 2.37 m η = 0.6	x: 2.37 m η = 7.5	x: 2.37 m η = 36.2	x: 2.37 m η = 1.0	x: 2.37 m η = 69.3	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 69.3**
N21/N639	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.4	x: 0 m η = 28.1	x: 0 m η = 8.8	x: 0 m η = 0.6	x: 0 m η = 5.7	x: 0 m η = 8.2	x: 0 m η = 0.8	x: 0 m η = 36.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.1**
N639/N86	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.5	x: 2.37 m η = 50.2	x: 2.37 m η = 10.1	x: 2.37 m η = 0.6	x: 2.37 m η = 6.8	x: 2.37 m η = 25.6	x: 2.37 m η = 1.0	x: 2.37 m η = 59.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 59.9**
N185/N642	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η < 0.1	x: 0 m η = 40.3	x: 0 m η = 9.8	x: 0 m η = 0.6	x: 0 m η = 5.9	x: 0 m η = 16.6	x: 0 m η = 1.0	x: 0 m η = 25.6	x: 0 m η = 49.4	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 49.4**
N642/N80	x: 0.038 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.27 m η = 34.8	x: 2.27 m η = 10.5	x: 2.27 m η = 0.7	x: 2.27 m η = 5.7	x: 2.27 m η = 12.4	x: 2.27 m η = 1.1	N.A.(5)	x: 2.27 m η = 44.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 44.7**
N182/N644	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 0 m η = 50.0	x: 0 m η = 9.5	x: 0 m η = 0.6	x: 0 m η = 6.8	x: 0 m η = 25.4	x: 0 m η = 0.9	x: 0 m η = 59.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 59.1**
N644/N75	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.2	x: 2.27 m η = 34.9	x: 2.27 m η = 10.3	x: 2.27 m η = 0.7	x: 2.27 m η = 6.1	x: 2.27 m η = 12.5	x: 2.27 m η = 1.1	x: 2.27 m η = 44.7	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 44.7**
N174/N647	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.4	x: 0 m η = 57.6	x: 0 m η = 10.9	x: 0 m η = 0.7	x: 0 m η = 7.3	x: 0 m η = 33.6	x: 0 m η = 1.2	x: 0 m η = 68.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 68.1**
N647/N20	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 2.27 m η = 24.9	x: 2.27 m η = 10.8	x: 2.27 m η = 0.7	x: 2.27 m η = 5.5	x: 2.27 m η = 6.5	x: 2.27 m η = 1.2	x: 2.27 m η = 35.3	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 35.3**
N177/N649	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 0 m η = 55.1	x: 0 m η = 8.9	x: 0 m η = 0.6	x: 0 m η = 7.1	x: 0 m η = 30.9	x: 0 m η = 0.8	x: 0 m η = 63.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 63.2**
N649/N84	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.3	x: 2.27 m η = 26.0	x: 2.27 m η = 7.3	x: 2.27 m η = 0.5	x: 2.27 m η = 5.5	x: 2.27 m η = 7.1	x: 2.27 m η = 0.5	x: 2.27 m η = 32.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 32.2**
N179/N651	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.1	x: 0 m η = 48.8	x: 0 m η = 8.8	x: 0 m η = 0.6	x: 0 m η = 6.5	x: 0 m η = 24.3	x: 0 m η = 0.8	x: 0 m η = 50.6	x: 0 m η = 56.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 56.7**
N651/N21	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.1	x: 2.27 m η = 27.9	x: 2.27 m η = 7.7	x: 2.27 m η = 0.5	x: 2.27 m η = 5.4	x: 2.27 m η = 8.1	x: 2.27 m η = 0.6	x: 2.27 m η = 34.1	x: 2.27 m η = 33.8	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 34.1**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N226/N680	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.6$	x: 0 m η = 35.4	x: 0 m η = 12.2	x: 0 m η = 0.7	x: 0 m η = 6.0	x: 0 m η = 12.9	x: 0 m η = 1.5	x: 0 m η = 48.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 48.9**
N680/N185	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.7$	x: 2.48 m η = 41.6	x: 2.48 m η = 12.1	x: 2.48 m η = 0.7	x: 2.48 m η = 6.4	x: 2.48 m η = 17.7	x: 2.48 m η = 1.5	x: 2.48 m η = 54.7	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 54.7**
N222/N681	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m η = 36.5	x: 0 m η = 11.9	x: 0 m η = 0.7	x: 0 m η = 6.6	x: 0 m η = 13.8	x: 0 m η = 1.4	x: 0 m η = 48.8	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 48.8**
N681/N182	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.48 m η = 49.9	x: 2.48 m η = 11.2	x: 2.48 m η = 0.7	x: 2.48 m η = 7.4	x: 2.48 m η = 25.5	x: 2.48 m η = 1.3	x: 2.48 m η = 60.5	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 60.5**
N214/N682	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.261 m η = 29.2	x: 0 m η = 11.7	x: 0 m η = 0.7	x: 0 m η = 6.3	x: 2.261 m η = 8.5	x: 0 m η = 1.4	x: 0 m η = 40.4	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 40.4**
N682/N174	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.48 m η = 57.9	x: 2.48 m η = 12.3	x: 2.48 m η = 0.7	x: 2.48 m η = 7.7	x: 2.48 m η = 34.1	x: 2.48 m η = 1.5	x: 2.48 m η = 69.8	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 69.8**
N217/N683	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m η = 27.8	x: 0 m η = 9.2	x: 0 m η = 0.6	x: 0 m η = 6.1	x: 0 m η = 8.1	x: 0 m η = 0.8	x: 0 m η = 36.7	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.7**
N683/N177	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.48 m η = 55.2	x: 2.48 m η = 10.2	x: 2.48 m η = 0.6	x: 2.48 m η = 7.4	x: 2.48 m η = 31.0	x: 2.48 m η = 1.0	x: 2.48 m η = 64.6	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 64.6**
N219/N684	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.8$	x: 0 m η = 27.4	x: 0 m η = 9.6	x: 0 m η = 0.6	x: 0 m η = 5.8	x: 0 m η = 7.8	x: 0 m η = 0.9	x: 0 m η = 37.4	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 37.4**
N684/N179	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.1$	x: 2.48 m η = 49.6	x: 2.48 m η = 10.9	x: 2.48 m η = 0.7	x: 2.48 m η = 6.9	x: 2.48 m η = 25.1	x: 2.48 m η = 1.2	x: 2.48 m η = 60.8	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 60.8**
N267/N718	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta < 0.1$	x: 0 m η = 25.9	x: 0 m η = 10.1	x: 0 m η = 0.6	x: 0 m η = 4.5	x: 0 m η = 6.9	x: 0 m η = 1.0	x: 0 m η = 36.0	x: 0 m η = 35.5	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.0**
N718/N226	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta < 0.1$	x: 2.21 m η = 34.3	x: 2.21 m η = 10.3	x: 2.21 m η = 0.7	x: 2.21 m η = 4.9	x: 2.21 m η = 12.0	x: 2.21 m η = 1.1	x: 2.21 m η = 41.4	x: 2.21 m η = 44.6	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 44.6**
N263/N719	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m η = 31.9	x: 0 m η = 9.2	x: 0 m η = 0.6	x: 0 m η = 5.1	x: 0 m η = 10.4	x: 0 m η = 0.8	x: 0 m η = 41.4	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 41.4**
N719/N222	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.21 m η = 36.5	x: 2.21 m η = 10.1	x: 2.21 m η = 0.7	x: 2.21 m η = 5.3	x: 2.21 m η = 13.6	x: 2.21 m η = 1.0	x: 2.21 m η = 46.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 46.9**
N255/N720	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m η = 37.4	x: 0 m η = 11.0	x: 0 m η = 0.7	x: 0 m η = 5.3	x: 0 m η = 14.3	x: 0 m η = 1.2	x: 0 m η = 48.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 48.9**
N720/N214	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.21 m η = 28.2	x: 2.21 m η = 10.9	x: 2.21 m η = 0.7	x: 2.21 m η = 4.8	x: 2.21 m η = 8.2	x: 2.21 m η = 1.2	x: 2.21 m η = 39.6	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 39.6**
N258/N721	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m η = 38.0	x: 0 m η = 7.6	x: 0 m η = 0.5	x: 0 m η = 5.4	x: 0 m η = 14.7	x: 0 m η = 0.6	x: 0 m η = 45.6	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.6**
N721/N217	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.21 m η = 27.8	x: 2.21 m η = 6.6	x: 2.21 m η = 0.5	x: 2.21 m η = 4.8	x: 2.21 m η = 8.0	x: 2.21 m η = 0.4	x: 2.21 m η = 34.4	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 34.4**
N260/N722	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m η = 35.3	x: 0 m η = 8.3	x: 0 m η = 0.6	x: 0 m η = 5.1	x: 0 m η = 12.7	x: 0 m η = 0.7	N.A.(5)	x: 0 m η = 43.6	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 43.6**
N722/N219	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.21 m η = 26.6	x: 2.21 m η = 7.1	x: 2.21 m η = 0.5	x: 2.21 m η = 4.6	x: 2.21 m η = 7.3	x: 2.21 m η = 0.5	N.A.(5)	x: 2.21 m η = 33.0	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 33.0**
N311/N1169	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m η = 31.7	x: 0 m η = 10.4	x: 0 m η = 0.7	x: 0 m η = 4.7	x: 0 m η = 10.2	x: 0 m η = 1.1	N.A.(5)	x: 0 m η = 42.1	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 42.1**
N1169/N267	x: 0.038 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta < 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.22 m η = 25.9	x: 2.22 m η = 10.4	x: 2.22 m η = 0.7	x: 2.22 m η = 4.4	x: 2.22 m η = 6.9	x: 2.22 m η = 1.1	N.A.(5)	x: 2.22 m η = 36.2	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.2**
N306/N1172	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m η = 32.0	x: 0 m η = 9.9	x: 0 m η = 0.6	x: 0 m η = 5.1	x: 0 m η = 10.5	x: 0 m η = 1.0	x: 0 m η = 42.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 42.2**
N1172/N263	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.22 m η = 31.8	x: 2.22 m η = 9.1	x: 2.22 m η = 0.6	x: 2.22 m η = 5.0	x: 2.22 m η = 10.4	x: 2.22 m η = 0.8	x: 2.22 m η = 41.3	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 41.3**
N298/N1175	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m η = 26.9	x: 0 m η = 10.1	x: 0 m η = 0.7	x: 0 m η = 4.7	x: 0 m η = 7.5	x: 0 m η = 1.0	x: 0 m η = 37.5	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 37.5**
N1175/N255	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.22 m η = 37.4	x: 2.22 m η = 11.2	x: 2.22 m η = 0.7	x: 2.22 m η = 5.3	x: 2.22 m η = 14.3	x: 2.22 m η = 1.3	x: 2.22 m η = 49.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 49.1**
N301/N1177	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m η = 27.6	x: 0 m η = 6.6	x: 0 m η = 0.5	x: 0 m η = 4.8	x: 0 m η = 7.8	x: 0 m η = 0.4	x: 0 m η = 34.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 34.1**
N1177/N258	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.22 m η = 37.9	x: 2.22 m η = 7.3	x: 2.22 m η = 0.5	x: 2.22 m η = 5.4	x: 2.22 m η = 14.7	x: 2.22 m η = 0.5	x: 2.22 m η = 45.3	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.3**
N303/N1179	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta < 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m η = 25.8	x: 0 m η = 6.6	x: 0 m η = 0.5	x: 0 m η = 4.5	x: 0 m η = 6.8	x: 0 m η = 0.4	N.A.(5)	x: 0 m η = 32.0	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 32.0**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1179/N260	x: 0.038 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta < 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.22 m $\eta = 35.3$	x: 2.22 m $\eta = 8.4$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 5.0$	x: 2.22 m $\eta = 12.7$	x: 2.22 m $\eta = 0.7$	N.A.(5)	x: 2.22 m $\eta = 43.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.7$**
N358/N1194	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 35.7$	x: 0 m $\eta = 12.9$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.2$	x: 0 m $\eta = 13.0$	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 48.8$	x: 0 m $\eta = 14.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 48.8$**
N1194/N311	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.585 m $\eta = 32.0$	x: 2.585 m $\eta = 13.4$	x: 2.585 m $\eta = 0.7$	x: 2.585 m $\eta = 5.1$	x: 2.585 m $\eta = 10.5$	x: 2.585 m $\eta = 1.8$	x: 2.585 m $\eta = 45.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 45.8$**
N353/N1196	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.1$	x: 0 m $\eta = 42.6$	x: 0 m $\eta = 11.9$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.9$	x: 0 m $\eta = 18.5$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 54.5$	x: 0 m $\eta = 47.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 54.5$**
N1196/N306	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.585 m $\eta = 31.9$	x: 2.585 m $\eta = 12.4$	x: 2.585 m $\eta = 0.7$	x: 2.585 m $\eta = 5.5$	x: 2.585 m $\eta = 10.5$	x: 2.585 m $\eta = 1.5$	x: 2.585 m $\eta = 44.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.5$**
N345/N1199	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 47.6$	x: 0 m $\eta = 13.4$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 6.2$	x: 0 m $\eta = 23.1$	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 61.4$	x: 0 m $\eta = 18.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 61.4$**
N1199/N298	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.585 m $\eta = 26.9$	x: 2.585 m $\eta = 12.8$	x: 2.585 m $\eta = 0.7$	x: 2.585 m $\eta = 5.3$	x: 2.585 m $\eta = 7.5$	x: 2.585 m $\eta = 1.7$	x: 2.585 m $\eta = 40.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 40.1$**
N348/N1201	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m $\eta = 48.6$	x: 0 m $\eta = 10.5$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 24.0$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 59.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 59.2$**
N1201/N301	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.585 m $\eta = 27.6$	x: 2.585 m $\eta = 9.3$	x: 2.585 m $\eta = 0.6$	x: 2.585 m $\eta = 5.3$	x: 2.585 m $\eta = 7.9$	x: 2.585 m $\eta = 0.9$	x: 2.585 m $\eta = 36.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 36.9$**
N350/N1203	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 46.0$	x: 0 m $\eta = 11.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.9$	x: 0 m $\eta = 21.5$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 57.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 57.8$**
N1203/N303	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.8$	x: 2.585 m $\eta = 26.4$	x: 2.585 m $\eta = 10.4$	x: 2.585 m $\eta = 0.6$	x: 2.585 m $\eta = 5.0$	x: 2.585 m $\eta = 7.2$	x: 2.585 m $\eta = 1.1$	x: 2.585 m $\eta = 37.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 37.2$**
N401/N1206	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 30.9$	x: 0 m $\eta = 12.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 4.9$	x: 0 m $\eta = 9.8$	x: 0 m $\eta = 1.5$	N.A.(5)	x: 0 m $\eta = 39.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 39.9$**
N1206/N358	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.1$	x: 2.46 m $\eta = 35.6$	x: 2.46 m $\eta = 12.1$	x: 2.46 m $\eta = 0.7$	x: 2.46 m $\eta = 5.1$	x: 2.46 m $\eta = 13.0$	x: 2.46 m $\eta = 1.5$	x: 2.46 m $\eta = 47.9$	x: 2.46 m $\eta = 46.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.9$**
N397/N1208	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.1$	x: 0 m $\eta = 31.3$	x: 0 m $\eta = 11.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.2$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 42.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.9$**
N1208/N353	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.46 m $\eta = 42.7$	x: 2.46 m $\eta = 11.2$	x: 2.46 m $\eta = 0.7$	x: 2.46 m $\eta = 5.8$	x: 2.46 m $\eta = 18.5$	x: 2.46 m $\eta = 1.3$	x: 2.46 m $\eta = 54.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 54.0$**
N389/N1211	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 26.2$	x: 0 m $\eta = 11.7$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 7.1$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 38.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.1$**
N1211/N345	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.46 m $\eta = 47.7$	x: 2.46 m $\eta = 13.1$	x: 2.46 m $\eta = 0.8$	x: 2.46 m $\eta = 6.0$	x: 2.46 m $\eta = 23.1$	x: 2.46 m $\eta = 1.7$	x: 2.46 m $\eta = 61.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 61.2$**
N392/N1213	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 27.2$	x: 0 m $\eta = 9.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.1$	x: 0 m $\eta = 7.7$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 36.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 36.3$**
N1213/N348	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.46 m $\eta = 48.7$	x: 2.46 m $\eta = 9.6$	x: 2.46 m $\eta = 0.6$	x: 2.46 m $\eta = 6.2$	x: 2.46 m $\eta = 24.0$	x: 2.46 m $\eta = 0.9$	x: 2.46 m $\eta = 58.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 58.2$**
N394/N1215	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.2$	x: 0 m $\eta = 24.8$	x: 0 m $\eta = 9.3$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 4.8$	x: 0 m $\eta = 6.4$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 33.9$	x: 0 m $\eta = 27.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 33.9$**
N1215/N350	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.3$	x: 2.46 m $\eta = 45.9$	x: 2.46 m $\eta = 10.5$	x: 2.46 m $\eta = 0.6$	x: 2.46 m $\eta = 5.8$	x: 2.46 m $\eta = 21.4$	x: 2.46 m $\eta = 1.1$	x: 2.46 m $\eta = 56.5$	x: 2.46 m $\eta = 48.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 56.5$**
N440/N1218	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.1$	x: 0 m $\eta = 32.2$	x: 0 m $\eta = 11.4$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 4.9$	x: 0 m $\eta = 10.6$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 43.6$	x: 0 m $\eta = 40.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.6$**
N1218/N401	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.1$	x: 2.345 m $\eta = 30.9$	x: 2.345 m $\eta = 11.8$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 4.8$	x: 2.345 m $\eta = 9.8$	x: 2.345 m $\eta = 1.4$	x: 2.345 m $\eta = 42.8$	x: 2.345 m $\eta = 39.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.8$**
N480/N1230	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 31.8$	x: 0 m $\eta = 12.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 10.3$	x: 0 m $\eta = 1.5$	x: 0 m $\eta = 44.1$	x: 0 m $\eta = 23.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.1$**
N1230/N440	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 2.405 m $\eta = 32.3$	x: 2.405 m $\eta = 12.0$	x: 2.405 m $\eta = 0.7$	x: 2.405 m $\eta = 5.0$	x: 2.405 m $\eta = 10.7$	x: 2.405 m $\eta = 1.5$	x: 2.405 m $\eta = 44.6$	x: 2.405 m $\eta = 24.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.6$**
N520/N1242	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 34.3$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.1$	x: 0 m $\eta = 12.0$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 46.3$	x: 0 m $\eta = 16.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 46.3$**
N1242/N480	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 2.4 m $\eta = 31.8$	x: 2.4 m $\eta = 12.2$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 4.9$	x: 2.4 m $\eta = 10.3$	x: 2.4 m $\eta = 1.5$	x: 2.4 m $\eta = 44.3$	x: 2.4 m $\eta = 15.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.3$**
N560/N1254	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 31.0$	x: 0 m $\eta = 12.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 9.9$	x: 0 m $\eta = 1.6$	x: 0 m $\eta = 44.1$	x: 0 m $\eta = 10.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.1$**
N1254/N520	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.47 m $\eta = 34.5$	x: 2.47 m $\eta = 12.5$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 5.2$	x: 2.47 m $\eta = 12.2$	x: 2.47 m $\eta = 1.6$	x: 2.47 m $\eta = 47.5$	x: 2.47 m $\eta = 10.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.5$**
N437/N1220	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m $\eta = 39.7$	x: 0 m $\eta = 10.3$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.6$	x: 0 m $\eta = 16.1$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 50.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 50.2$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ_r	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1220/N397	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.345 m $\eta = 31.3$	x: 2.345 m $\eta = 11.0$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 5.2$	x: 2.345 m $\eta = 10.1$	x: 2.345 m $\eta = 1.2$	x: 2.345 m $\eta = 42.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.5$**
N429/N1223	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 43.5$	x: 0 m $\eta = 12.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.8$	x: 0 m $\eta = 19.3$	x: 0 m $\eta = 1.5$	x: 0 m $\eta = 56.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 56.0$**
N1223/N389	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.345 m $\eta = 26.2$	x: 2.345 m $\eta = 11.5$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 4.9$	x: 2.345 m $\eta = 7.1$	x: 2.345 m $\eta = 1.3$	x: 2.345 m $\eta = 38.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.0$**
N432/N1225	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 43.3$	x: 0 m $\eta = 9.0$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.8$	x: 0 m $\eta = 19.1$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 52.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.5$**
N1225/N392	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.345 m $\eta = 27.3$	x: 2.345 m $\eta = 8.0$	x: 2.345 m $\eta = 0.6$	x: 2.345 m $\eta = 5.0$	x: 2.345 m $\eta = 7.7$	x: 2.345 m $\eta = 0.6$	x: 2.345 m $\eta = 35.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 35.1$**
N434/N1227	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta = 0.1$	$\eta = 0.2$	x: 0 m $\eta = 40.7$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.5$	x: 0 m $\eta = 16.9$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 50.5$	x: 0 m $\eta = 40.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 50.5$**
N1227/N394	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 2.345 m $\eta = 24.8$	x: 2.345 m $\eta = 8.7$	x: 2.345 m $\eta = 0.6$	x: 2.345 m $\eta = 4.6$	x: 2.345 m $\eta = 6.4$	x: 2.345 m $\eta = 0.8$	x: 2.345 m $\eta = 33.3$	x: 2.345 m $\eta = 26.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 33.3$**
N477/N1232	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 32.4$	x: 0 m $\eta = 11.3$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.4$	x: 0 m $\eta = 10.8$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 44.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.1$**
N1232/N437	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.405 m $\eta = 39.7$	x: 2.405 m $\eta = 10.9$	x: 2.405 m $\eta = 0.7$	x: 2.405 m $\eta = 5.7$	x: 2.405 m $\eta = 16.1$	x: 2.405 m $\eta = 1.2$	x: 2.405 m $\eta = 50.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 50.9$**
N469/N1235	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 26.7$	x: 0 m $\eta = 11.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 7.4$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 38.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.5$**
N1235/N429	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.405 m $\eta = 43.5$	x: 2.405 m $\eta = 12.7$	x: 2.405 m $\eta = 0.8$	x: 2.405 m $\eta = 5.9$	x: 2.405 m $\eta = 19.3$	x: 2.405 m $\eta = 1.6$	x: 2.405 m $\eta = 56.7$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 56.7$**
N472/N1237	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.5$	x: 0 m $\eta = 26.7$	x: 0 m $\eta = 8.7$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 7.4$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 35.4$	x: 0 m $\eta = 8.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 35.4$**
N1237/N432	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.405 m $\eta = 43.3$	x: 2.405 m $\eta = 9.2$	x: 2.405 m $\eta = 0.6$	x: 2.405 m $\eta = 5.9$	x: 2.405 m $\eta = 19.1$	x: 2.405 m $\eta = 0.8$	x: 2.405 m $\eta = 52.6$	x: 2.405 m $\eta = 11.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.6$**
N474/N1239	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 0 m $\eta = 24.6$	x: 0 m $\eta = 8.9$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 4.7$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 33.4$	x: 0 m $\eta = 23.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 33.4$**
N1239/N434	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.4$	x: 2.405 m $\eta = 40.9$	x: 2.405 m $\eta = 10.3$	x: 2.405 m $\eta = 0.6$	x: 2.405 m $\eta = 5.5$	x: 2.405 m $\eta = 17.0$	x: 2.405 m $\eta = 1.1$	x: 2.405 m $\eta = 51.4$	x: 2.405 m $\eta = 21.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.4$**
N517/N1244	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 42.2$	x: 0 m $\eta = 10.7$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.8$	x: 0 m $\eta = 18.1$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 53.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.4$**
N1244/N477	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.4 m $\eta = 32.4$	x: 2.4 m $\eta = 11.4$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 5.3$	x: 2.4 m $\eta = 10.8$	x: 2.4 m $\eta = 1.3$	x: 2.4 m $\eta = 44.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.2$**
N509/N1247	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 46.2$	x: 0 m $\eta = 12.4$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.0$	x: 0 m $\eta = 21.7$	x: 0 m $\eta = 1.5$	x: 0 m $\eta = 59.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 59.1$**
N1247/N469	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.4 m $\eta = 26.7$	x: 2.4 m $\eta = 11.8$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 5.0$	x: 2.4 m $\eta = 7.4$	x: 2.4 m $\eta = 1.4$	x: 2.4 m $\eta = 38.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.9$**
N512/N1249	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.6$	x: 0 m $\eta = 45.5$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.9$	x: 0 m $\eta = 21.1$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 55.4$	x: 0 m $\eta = 13.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 55.4$**
N1249/N472	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.4 m $\eta = 26.7$	x: 2.4 m $\eta = 8.4$	x: 2.4 m $\eta = 0.6$	x: 2.4 m $\eta = 5.0$	x: 2.4 m $\eta = 7.4$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 35.2$	x: 2.4 m $\eta = 8.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 35.2$**
N514/N1251	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 0 m $\eta = 41.9$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.6$	x: 0 m $\eta = 17.9$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 52.0$	x: 0 m $\eta = 40.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.0$**
N1251/N474	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 2.4 m $\eta = 24.6$	x: 2.4 m $\eta = 8.9$	x: 2.4 m $\eta = 0.6$	x: 2.4 m $\eta = 4.7$	x: 2.4 m $\eta = 6.3$	x: 2.4 m $\eta = 0.8$	x: 2.4 m $\eta = 33.3$	x: 2.4 m $\eta = 21.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 33.3$**
N557/N1256	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 31.4$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.4$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 43.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.6$**
N1256/N517	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.47 m $\eta = 42.1$	x: 2.47 m $\eta = 11.3$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 6.0$	x: 2.47 m $\eta = 18.1$	x: 2.47 m $\eta = 1.3$	x: 2.47 m $\eta = 54.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 54.0$**
N549/N1259	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 24.9$	x: 0 m $\eta = 11.9$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.1$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 37.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 37.3$**
N1259/N509	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.47 m $\eta = 46.2$	x: 2.47 m $\eta = 13.1$	x: 2.47 m $\eta = 0.8$	x: 2.47 m $\eta = 6.1$	x: 2.47 m $\eta = 21.7$	x: 2.47 m $\eta = 1.7$	x: 2.47 m $\eta = 59.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 59.8$**
N552/N1261	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.6$	x: 0 m $\eta = 25.1$	x: 0 m $\eta = 9.3$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 5.0$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 34.5$	x: 0 m $\eta = 8.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 34.5$**
N1261/N512	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.47 m $\eta = 45.5$	x: 2.47 m $\eta = 9.9$	x: 2.47 m $\eta = 0.6$	x: 2.47 m $\eta = 6.1$	x: 2.47 m $\eta = 21.1$	x: 2.47 m $\eta = 1.0$	x: 2.47 m $\eta = 55.6$	x: 2.47 m $\eta = 12.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 55.6$**
N554/N1263	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 25.6$	x: 0 m $\eta = 9.9$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 4.8$	x: 0 m $\eta = 6.8$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 35.5$	x: 0 m $\eta = 14.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 35.5$**
N1263/N514	$(b_w/t) \le 500$ $(b_f/t) \le 60$ Passa	$\lambda_{xx} \le 200.0$ $\lambda_{yy} \le 200.0$ Passa	$\eta < 0.1$	$\eta = 0.5$	x: 2.47 m $\eta = 42.1$	x: 2.47 m $\eta = 10.9$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 5.6$	x: 2.47 m $\eta = 18.1$	x: 2.47 m $\eta = 1.2$	x: 2.47 m $\eta = 53.4$	x: 2.47 m $\eta = 17.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.4$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1182/N1266	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 28.3$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 4.6$	x: 0 m $\eta = 8.2$	N.A.(7)	x: 0 m $\eta = 29.5$	x: 0 m $\eta = 7.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 29.5$**
N1266/N560	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 2.17 m $\eta = 29.0$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.169 m $\eta = 0.3$	x: 2.17 m $\eta = 4.6$	x: 2.17 m $\eta = 8.6$	N.A.(7)	x: 2.17 m $\eta = 30.8$	x: 2.17 m $\eta = 7.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 30.8$**
N1184/N1268	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 35.5$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.3$	x: 0 m $\eta = 12.8$	N.A.(7)	x: 0 m $\eta = 36.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 36.2$**
N1268/N557	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.17 m $\eta = 29.2$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m $\eta = 0.2$	x: 2.17 m $\eta = 4.9$	x: 2.17 m $\eta = 8.7$	N.A.(7)	x: 2.17 m $\eta = 30.7$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 30.7$**
N1187/N1271	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 42.5$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.6$	x: 0 m $\eta = 18.4$	N.A.(7)	x: 0 m $\eta = 43.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.4$**
N1271/N549	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.17 m $\eta = 22.8$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m $\eta = 0.2$	x: 2.17 m $\eta = 4.5$	x: 2.17 m $\eta = 5.4$	N.A.(7)	x: 2.17 m $\eta = 24.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 24.1$**
N1189/N1273	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 0 m $\eta = 42.5$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.7$	x: 0 m $\eta = 18.4$	N.A.(7)	x: 0 m $\eta = 44.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.3$**
N1273/N552	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.17 m $\eta = 22.9$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m $\eta = 0.2$	x: 2.17 m $\eta = 4.6$	x: 2.17 m $\eta = 5.5$	N.A.(7)	x: 2.17 m $\eta = 25.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 25.2$**
N1191/N1275	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta < 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 35.6$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.1$	x: 0 m $\eta = 13.0$	N.A.(7)	N.A.(5)	x: 0 m $\eta = 36.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 36.3$**
N1275/N554	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.17 m $\eta = 23.6$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.169 m $\eta = 0.2$	x: 2.17 m $\eta = 4.5$	x: 2.17 m $\eta = 5.8$	N.A.(7)	N.A.(5)	x: 2.17 m $\eta = 25.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 25.2$**
N160/N1284	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 36.9$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.2$	x: 0 m $\eta = 14.0$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 47.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.9$**
N1284/N162	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.37 m $\eta = 44.5$	x: 2.37 m $\eta = 10.5$	x: 2.37 m $\eta = 0.7$	x: 2.37 m $\eta = 6.6$	x: 2.37 m $\eta = 20.2$	x: 2.37 m $\eta = 1.1$	x: 2.37 m $\eta = 54.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 54.4$**
N158/N1285	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 36.3$	x: 0 m $\eta = 11.0$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.6$	x: 0 m $\eta = 13.6$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 47.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.1$**
N1285/N163	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.37 m $\eta = 55.5$	x: 2.37 m $\eta = 10.6$	x: 2.37 m $\eta = 0.7$	x: 2.37 m $\eta = 7.7$	x: 2.37 m $\eta = 31.4$	x: 2.37 m $\eta = 1.1$	x: 2.37 m $\eta = 65.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.9$**
N100/N1286	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 29.3$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 9.0$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 39.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 39.3$**
N1286/N164	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 2.37 m $\eta = 62.9$	x: 2.37 m $\eta = 10.4$	x: 2.37 m $\eta = 0.7$	x: 2.37 m $\eta = 8.0$	x: 2.37 m $\eta = 40.2$	x: 2.37 m $\eta = 1.1$	x: 2.37 m $\eta = 73.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 73.3$**
N103/N1287	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 29.7$	x: 0 m $\eta = 8.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 9.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 37.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 37.3$**
N1287/N165	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.37 m $\eta = 61.1$	x: 2.37 m $\eta = 10.1$	x: 2.37 m $\eta = 0.6$	x: 2.37 m $\eta = 7.9$	x: 2.37 m $\eta = 38.0$	x: 2.37 m $\eta = 1.0$	x: 2.37 m $\eta = 70.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 70.6$**
N104/N1288	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 0 m $\eta = 31.2$	x: 0 m $\eta = 8.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.1$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 36.3$	x: 0 m $\eta = 38.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.7$**
N1288/N166	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 2.37 m $\eta = 52.2$	x: 2.37 m $\eta = 10.0$	x: 2.37 m $\eta = 0.6$	x: 2.37 m $\eta = 7.1$	x: 2.37 m $\eta = 27.8$	x: 2.37 m $\eta = 1.0$	x: 2.37 m $\eta = 59.3$	x: 2.37 m $\eta = 61.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 61.4$**
N204/N1321	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.1$	x: 0 m $\eta = 42.7$	x: 0 m $\eta = 10.3$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 18.7$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 50.5$	x: 0 m $\eta = 52.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.4$**
N1321/N160	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.1$	x: 2.27 m $\eta = 36.8$	x: 2.27 m $\eta = 10.8$	x: 2.27 m $\eta = 0.7$	x: 2.27 m $\eta = 6.0$	x: 2.27 m $\eta = 13.9$	x: 2.27 m $\eta = 1.2$	x: 2.27 m $\eta = 44.7$	x: 2.27 m $\eta = 47.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.0$**
N200/N1322	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 53.2$	x: 0 m $\eta = 9.4$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.3$	x: 0 m $\eta = 28.8$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 62.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 62.2$**
N1322/N158	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.27 m $\eta = 36.3$	x: 2.27 m $\eta = 9.9$	x: 2.27 m $\eta = 0.6$	x: 2.27 m $\eta = 6.4$	x: 2.27 m $\eta = 13.6$	x: 2.27 m $\eta = 1.0$	x: 2.27 m $\eta = 46.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 46.1$**
N194/N1323	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 59.9$	x: 0 m $\eta = 10.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.7$	x: 0 m $\eta = 36.4$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 70.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 70.3$**
N1323/N100	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.27 m $\eta = 29.3$	x: 2.27 m $\eta = 9.6$	x: 2.27 m $\eta = 0.6$	x: 2.27 m $\eta = 6.0$	x: 2.27 m $\eta = 9.0$	x: 2.27 m $\eta = 0.9$	x: 2.27 m $\eta = 38.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.9$**
N197/N1324	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 56.4$	x: 0 m $\eta = 8.7$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.4$	x: 0 m $\eta = 32.3$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 64.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 64.4$**
N1324/N103	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.27 m $\eta = 29.7$	x: 2.27 m $\eta = 7.4$	x: 2.27 m $\eta = 0.5$	x: 2.27 m $\eta = 6.0$	x: 2.27 m $\eta = 9.2$	x: 2.27 m $\eta = 0.6$	x: 2.27 m $\eta = 36.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 36.2$**
N203/N1325	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.1$	x: 0 m $\eta = 50.8$	x: 0 m $\eta = 8.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.9$	x: 0 m $\eta = 26.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 42.3$	x: 0 m $\eta = 58.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 58.5$**
N1325/N104	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.2$	$\eta = 0.1$	x: 2.27 m $\eta = 30.9$	x: 2.27 m $\eta = 7.3$	x: 2.27 m $\eta = 0.5$	x: 2.27 m $\eta = 5.8$	x: 2.27 m $\eta = 9.9$	x: 2.27 m $\eta = 0.5$	x: 2.27 m $\eta = 20.6$	x: 2.27 m $\eta = 37.1$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 37.1$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N243/N1380	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 41.1$	x: 0 m $\eta = 12.7$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 17.3$	x: 0 m $\eta = 1.6$	x: 0 m $\eta = 53.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.4$**
N1380/N204	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.48 m $\eta = 43.0$	x: 2.48 m $\eta = 12.4$	x: 2.48 m $\eta = 0.7$	x: 2.48 m $\eta = 6.7$	x: 2.48 m $\eta = 18.9$	x: 2.48 m $\eta = 1.5$	x: 2.48 m $\eta = 55.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 55.0$**
N239/N1381	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 41.8$	x: 0 m $\eta = 11.8$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.2$	x: 0 m $\eta = 18.0$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 53.1$	x: 0 m $\eta = 33.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.1$**
N1381/N200	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.48 m $\eta = 53.2$	x: 2.48 m $\eta = 11.0$	x: 2.48 m $\eta = 0.7$	x: 2.48 m $\eta = 7.8$	x: 2.48 m $\eta = 28.9$	x: 2.48 m $\eta = 1.2$	x: 2.48 m $\eta = 63.7$	x: 2.48 m $\eta = 31.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 63.7$**
N233/N1382	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.4$	x: 0 m $\eta = 34.7$	x: 0 m $\eta = 11.0$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.9$	x: 0 m $\eta = 12.5$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 45.4$	x: 0 m $\eta = 18.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 45.4$**
N1382/N194	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.48 m $\eta = 59.9$	x: 2.48 m $\eta = 12.0$	x: 2.48 m $\eta = 0.7$	x: 2.48 m $\eta = 8.1$	x: 2.48 m $\eta = 36.5$	x: 2.48 m $\eta = 1.4$	x: 2.48 m $\eta = 71.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 71.6$**
N236/N1383	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 33.9$	x: 0 m $\eta = 9.2$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.7$	x: 0 m $\eta = 11.9$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 42.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.0$**
N1383/N197	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.1$	x: 2.48 m $\eta = 56.3$	x: 2.48 m $\eta = 10.3$	x: 2.48 m $\eta = 0.6$	x: 2.48 m $\eta = 7.7$	x: 2.48 m $\eta = 32.3$	x: 2.48 m $\eta = 1.1$	x: 2.48 m $\eta = 65.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.6$**
N242/N1384	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.8$	x: 0 m $\eta = 33.5$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.4$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 42.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.0$**
N1384/N203	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.48 m $\eta = 51.2$	x: 2.48 m $\eta = 10.7$	x: 2.48 m $\eta = 0.6$	x: 2.48 m $\eta = 7.2$	x: 2.48 m $\eta = 26.7$	x: 2.48 m $\eta = 1.2$	x: 2.48 m $\eta = 61.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 61.2$**
N286/N1416	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 34.3$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 5.9$	x: 0 m $\eta = 12.1$	x: 0 m $\eta = 1.0$	N.A.(5)	x: 0 m $\eta = 43.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.9$**
N1416/N243	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.21 m $\eta = 40.7$	x: 2.21 m $\eta = 10.6$	x: 2.21 m $\eta = 0.7$	x: 2.21 m $\eta = 6.2$	x: 2.21 m $\eta = 17.0$	x: 2.21 m $\eta = 1.1$	N.A.(5)	x: 2.21 m $\eta = 50.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 50.8$**
N282/N1417	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 43.1$	x: 0 m $\eta = 9.0$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.8$	x: 0 m $\eta = 19.0$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 51.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.5$**
N1417/N239	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.21 m $\eta = 41.8$	x: 2.21 m $\eta = 9.6$	x: 2.21 m $\eta = 0.6$	x: 2.21 m $\eta = 6.7$	x: 2.21 m $\eta = 17.9$	x: 2.21 m $\eta = 0.9$	x: 2.21 m $\eta = 51.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.1$**
N276/N1418	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 50.8$	x: 0 m $\eta = 10.0$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.2$	x: 0 m $\eta = 26.3$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 60.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 60.6$**
N1418/N233	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.21 m $\eta = 34.8$	x: 2.21 m $\eta = 9.2$	x: 2.21 m $\eta = 0.6$	x: 2.21 m $\eta = 6.3$	x: 2.21 m $\eta = 12.5$	x: 2.21 m $\eta = 0.8$	x: 2.21 m $\eta = 43.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.8$**
N279/N1419	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 48.3$	x: 0 m $\eta = 8.2$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.0$	x: 0 m $\eta = 23.8$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 55.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 55.8$**
N1419/N236	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 2.21 m $\eta = 33.9$	x: 2.21 m $\eta = 7.1$	x: 2.21 m $\eta = 0.5$	x: 2.21 m $\eta = 6.2$	x: 2.21 m $\eta = 11.9$	x: 2.21 m $\eta = 0.5$	x: 2.21 m $\eta = 39.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 39.8$**
N285/N1420	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 44.1$	x: 0 m $\eta = 8.3$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 19.9$	x: 0 m $\eta = 0.7$	N.A.(5)	x: 0 m $\eta = 51.5$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.5$**
N1420/N242	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.21 m $\eta = 32.9$	x: 2.21 m $\eta = 6.6$	x: 2.21 m $\eta = 0.5$	x: 2.21 m $\eta = 5.9$	x: 2.21 m $\eta = 11.2$	x: 2.21 m $\eta = 0.4$	N.A.(5)	x: 2.21 m $\eta = 38.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.2$**
N331/N1865	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 40.5$	x: 0 m $\eta = 10.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.1$	x: 0 m $\eta = 16.8$	x: 0 m $\eta = 1.1$	N.A.(5)	x: 0 m $\eta = 50.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 50.2$**
N1865/N286	x: 0.014 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.22 m $\eta = 34.2$	x: 2.22 m $\eta = 10.0$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 5.8$	x: 2.22 m $\eta = 12.1$	x: 2.22 m $\eta = 1.0$	N.A.(5)	x: 2.22 m $\eta = 43.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.7$**
N326/N1868	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 0 m $\eta = 40.4$	x: 0 m $\eta = 9.8$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 16.7$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 49.7$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 49.7$**
N1868/N282	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.22 m $\eta = 43.1$	x: 2.22 m $\eta = 8.8$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 6.7$	x: 2.22 m $\eta = 19.0$	x: 2.22 m $\eta = 0.8$	x: 2.22 m $\eta = 51.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.2$**
N320/N1871	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 35.1$	x: 0 m $\eta = 8.8$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.2$	x: 0 m $\eta = 12.7$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 43.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 43.5$**
N1871/N276	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.22 m $\eta = 50.8$	x: 2.22 m $\eta = 9.9$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 7.1$	x: 2.22 m $\eta = 26.3$	x: 2.22 m $\eta = 1.0$	x: 2.22 m $\eta = 60.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 60.5$**
N323/N1873	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m $\eta = 35.5$	x: 0 m $\eta = 7.0$	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 6.2$	x: 0 m $\eta = 13.0$	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 41.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 41.4$**
N1873/N279	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.2$	x: 2.22 m $\eta = 48.3$	x: 2.22 m $\eta = 8.1$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 6.9$	x: 2.22 m $\eta = 23.8$	x: 2.22 m $\eta = 0.7$	x: 2.22 m $\eta = 55.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 55.4$**
N330/N1875	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 34.8$	x: 0 m $\eta = 6.6$	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 6.0$	x: 0 m $\eta = 12.4$	x: 0 m $\eta = 0.4$	N.A.(5)	x: 0 m $\eta = 39.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 39.6$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1875/N285	x: 0.014 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 0.1	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 2.22 m η = 44.1	x: 2.22 m η = 8.2	x: 2.22 m η = 0.6	x: 2.22 m η = 6.5	x: 2.22 m η = 19.8	x: 2.22 m η = 0.7	N.A.(5)	x: 2.22 m η = 51.4	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 51.4**
N380/N1877	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 47.0	x: 0 m η = 12.6	x: 0 m η = 0.7	x: 0 m η = 6.9	x: 0 m η = 22.5	x: 0 m η = 1.6	x: 0 m η = 59.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 59.2**
N1877/N331	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.2	x: 2.585 m η = 40.9	x: 2.585 m η = 13.1	x: 2.585 m η = 0.7	x: 2.585 m η = 6.6	x: 2.585 m η = 17.1	x: 2.585 m η = 1.7	x: 2.585 m η = 53.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.4**
N375/N1880	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.3	x: 0 m η = 56.6	x: 0 m η = 11.7	x: 0 m η = 0.7	x: 0 m η = 7.8	x: 0 m η = 32.7	x: 0 m η = 1.4	x: 0 m η = 67.5	x: 0 m η = 16.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 67.5**
N1880/N326	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η < 0.1	x: 2.585 m η = 40.2	x: 2.585 m η = 12.0	x: 2.585 m η = 0.7	x: 2.585 m η = 7.0	x: 2.585 m η = 16.7	x: 2.585 m η = 1.4	x: 2.585 m η = 51.4	x: 2.585 m η = 43.3	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 51.4**
N369/N1883	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.4	x: 0 m η = 64.7	x: 0 m η = 12.4	x: 0 m η = 0.7	x: 0 m η = 8.3	x: 0 m η = 42.6	x: 0 m η = 1.5	x: 0 m η = 76.6	x: 0 m η = 18.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 76.6**
N1883/N320	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.3	x: 2.585 m η = 35.0	x: 2.585 m η = 11.5	x: 2.585 m η = 0.7	x: 2.585 m η = 6.9	x: 2.585 m η = 12.7	x: 2.585 m η = 1.3	x: 2.585 m η = 45.9	x: 2.585 m η = 25.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 45.9**
N372/N1885	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 63.0	x: 0 m η = 11.0	x: 0 m η = 0.7	x: 0 m η = 8.2	x: 0 m η = 40.3	x: 0 m η = 1.2	x: 0 m η = 73.1	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 73.1**
N1885/N323	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.3	x: 2.585 m η = 35.5	x: 2.585 m η = 9.8	x: 2.585 m η = 0.6	x: 2.585 m η = 6.9	x: 2.585 m η = 13.1	x: 2.585 m η = 1.0	x: 2.585 m η = 43.7	x: 2.585 m η = 14.1	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 43.7**
N379/N1887	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.8	x: 0 m η = 58.4	x: 0 m η = 11.4	x: 0 m η = 0.7	x: 0 m η = 7.7	x: 0 m η = 34.6	x: 0 m η = 1.3	x: 0 m η = 69.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 69.0**
N1887/N330	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 2.585 m η = 35.3	x: 2.585 m η = 10.3	x: 2.585 m η = 0.6	x: 2.585 m η = 6.6	x: 2.585 m η = 12.9	x: 2.585 m η = 1.1	x: 2.585 m η = 44.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 44.4**
N417/N1890	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.3	x: 0 m η = 40.3	x: 0 m η = 12.1	x: 0 m η = 0.7	x: 0 m η = 6.4	x: 0 m η = 16.7	x: 0 m η = 1.5	x: 0 m η = 52.0	x: 0 m η = 29.5	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 52.0**
N1890/N380	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.2	x: 2.46 m η = 46.8	x: 2.46 m η = 11.8	x: 2.46 m η = 0.7	x: 2.46 m η = 6.7	x: 2.46 m η = 22.3	x: 2.46 m η = 1.4	x: 2.46 m η = 58.0	x: 2.46 m η = 41.2	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 58.0**
N413/N1892	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 40.3	x: 0 m η = 11.3	x: 0 m η = 0.7	x: 0 m η = 6.8	x: 0 m η = 16.7	x: 0 m η = 1.3	x: 0 m η = 51.3	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 51.3**
N1892/N375	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.4	x: 2.46 m η = 56.7	x: 2.46 m η = 10.8	x: 2.46 m η = 0.7	x: 2.46 m η = 7.7	x: 2.46 m η = 32.7	x: 2.46 m η = 1.2	x: 2.46 m η = 66.9	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 66.9**
N407/N1895	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 33.9	x: 0 m η = 10.8	x: 0 m η = 0.7	x: 0 m η = 6.6	x: 0 m η = 11.9	x: 0 m η = 1.2	x: 0 m η = 44.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 44.2**
N1895/N369	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 2.46 m η = 64.9	x: 2.46 m η = 11.8	x: 2.46 m η = 0.7	x: 2.46 m η = 8.1	x: 2.46 m η = 42.7	x: 2.46 m η = 1.4	x: 2.46 m η = 76.5	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 76.5**
N410/N1897	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 34.9	x: 0 m η = 9.4	x: 0 m η = 0.6	x: 0 m η = 6.6	x: 0 m η = 12.6	x: 0 m η = 0.9	x: 0 m η = 43.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 43.0**
N1897/N372	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 2.46 m η = 63.0	x: 2.46 m η = 10.4	x: 2.46 m η = 0.6	x: 2.46 m η = 8.0	x: 2.46 m η = 40.3	x: 2.46 m η = 1.1	x: 2.46 m η = 72.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 72.4**
N416/N1899	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.4	x: 0 m η = 34.1	x: 0 m η = 9.3	x: 0 m η = 0.6	x: 0 m η = 6.3	x: 0 m η = 12.1	x: 0 m η = 0.9	x: 0 m η = 41.8	x: 0 m η = 27.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 41.8**
N1899/N379	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.4	x: 2.46 m η = 58.1	x: 2.46 m η = 10.2	x: 2.46 m η = 0.6	x: 2.46 m η = 7.5	x: 2.46 m η = 34.3	x: 2.46 m η = 1.0	x: 2.46 m η = 67.5	x: 2.46 m η = 47.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 67.5**
N459/N1901	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.3	x: 0 m η = 42.3	x: 0 m η = 11.2	x: 0 m η = 0.7	x: 0 m η = 6.4	x: 0 m η = 18.3	x: 0 m η = 1.3	x: 0 m η = 53.0	x: 0 m η = 17.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.0**
N1901/N417	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.3	x: 2.345 m η = 40.3	x: 2.345 m η = 11.7	x: 2.345 m η = 0.7	x: 2.345 m η = 6.3	x: 2.345 m η = 16.7	x: 2.345 m η = 1.4	x: 2.345 m η = 51.6	x: 2.345 m η = 16.0	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 51.6**
N497/N1902	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.5	x: 0 m η = 41.5	x: 0 m η = 12.1	x: 0 m η = 0.7	x: 0 m η = 6.5	x: 0 m η = 17.6	x: 0 m η = 1.5	x: 0 m η = 53.4	x: 0 m η = 10.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.4**
N1902/N459	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.4	x: 2.405 m η = 42.4	x: 2.405 m η = 11.7	x: 2.405 m η = 0.7	x: 2.405 m η = 6.5	x: 2.405 m η = 18.4	x: 2.405 m η = 1.4	x: 2.405 m η = 53.9	x: 2.405 m η = 11.1	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.9**
N539/N1903	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 0 m η = 45.0	x: 0 m η = 11.5	x: 0 m η = 0.7	x: 0 m η = 6.6	x: 0 m η = 20.7	x: 0 m η = 1.3	x: 0 m η = 56.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 56.2**
N1903/N497	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.5	x: 2.4 m η = 41.5	x: 2.4 m η = 12.1	x: 2.4 m η = 0.7	x: 2.4 m η = 6.5	x: 2.4 m η = 17.7	x: 2.4 m η = 1.5	x: 2.4 m η = 53.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.4**
N577/N1904	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.9	x: 0 m η = 40.7	x: 0 m η = 12.5	x: 0 m η = 0.7	x: 0 m η = 6.6	x: 0 m η = 17.0	x: 0 m η = 1.6	x: 0 m η = 53.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.4**
N1904/N539	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.8	x: 2.47 m η = 45.2	x: 2.47 m η = 12.3	x: 2.47 m η = 0.7	x: 2.47 m η = 6.8	x: 2.47 m η = 20.9	x: 2.47 m η = 1.5	x: 2.47 m η = 57.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 57.6**
N455/N1907	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 0.4	x: 0 m η = 52.7	x: 0 m η = 10.1	x: 0 m η = 0.7	x: 0 m η = 7.4	x: 0 m η = 28.3	x: 0 m η = 1.0	x: 0 m η = 62.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 62.4**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1907/N413	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.345 m $\eta = 40.4$	x: 2.345 m $\eta = 10.8$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 6.8$	x: 2.345 m $\eta = 16.8$	x: 2.345 m $\eta = 1.2$	x: 2.345 m $\eta = 51.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 51.0$**
N449/N1910	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 59.7$	x: 0 m $\eta = 11.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.8$	x: 0 m $\eta = 36.2$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 70.7$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 70.7$**
N1910/N407	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.345 m $\eta = 34.0$	x: 2.345 m $\eta = 10.2$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 6.5$	x: 2.345 m $\eta = 12.0$	x: 2.345 m $\eta = 1.1$	x: 2.345 m $\eta = 44.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.2$**
N452/N1912	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 56.4$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.6$	x: 0 m $\eta = 32.4$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 65.4$	x: 0 m $\eta = 11.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.4$**
N1912/N410	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 2.345 m $\eta = 34.9$	x: 2.345 m $\eta = 8.5$	x: 2.345 m $\eta = 0.6$	x: 2.345 m $\eta = 6.4$	x: 2.345 m $\eta = 12.6$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 42.2$	x: 2.345 m $\eta = 8.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.2$**
N458/N1914	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta = 51.4$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.1$	x: 0 m $\eta = 26.9$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 60.2$	x: 0 m $\eta = 34.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 60.2$**
N1914/N416	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.2$	x: 2.345 m $\eta = 34.0$	x: 2.345 m $\eta = 8.6$	x: 2.345 m $\eta = 0.6$	x: 2.345 m $\eta = 6.2$	x: 2.345 m $\eta = 12.0$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 41.1$	x: 2.345 m $\eta = 27.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 41.1$**
N493/N1918	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 41.9$	x: 0 m $\eta = 11.3$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.0$	x: 0 m $\eta = 18.1$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 52.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.9$**
N1918/N455	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.405 m $\eta = 52.8$	x: 2.405 m $\eta = 10.5$	x: 2.405 m $\eta = 0.7$	x: 2.405 m $\eta = 7.6$	x: 2.405 m $\eta = 28.5$	x: 2.405 m $\eta = 1.1$	x: 2.405 m $\eta = 63.0$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 63.0$**
N487/N1921	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 34.9$	x: 0 m $\eta = 10.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.7$	x: 0 m $\eta = 12.6$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 45.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 45.2$**
N1921/N449	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 2.405 m $\eta = 59.7$	x: 2.405 m $\eta = 11.6$	x: 2.405 m $\eta = 0.7$	x: 2.405 m $\eta = 7.9$	x: 2.405 m $\eta = 36.3$	x: 2.405 m $\eta = 1.4$	x: 2.405 m $\eta = 71.3$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 71.3$**
N490/N1923	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 34.6$	x: 0 m $\eta = 9.0$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 12.4$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 42.5$	x: 0 m $\eta = 8.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.5$**
N1923/N452	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.6$	x: 2.405 m $\eta = 56.4$	x: 2.405 m $\eta = 9.9$	x: 2.405 m $\eta = 0.6$	x: 2.405 m $\eta = 7.6$	x: 2.405 m $\eta = 32.4$	x: 2.405 m $\eta = 1.0$	x: 2.405 m $\eta = 65.7$	x: 2.405 m $\eta = 12.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.7$**
N496/N1925	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.5$	x: 0 m $\eta = 33.8$	x: 0 m $\eta = 8.9$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.2$	x: 0 m $\eta = 11.8$	x: 0 m $\eta = 0.8$	x: 0 m $\eta = 41.5$	x: 0 m $\eta = 12.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 41.5$**
N1925/N458	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.4$	x: 2.405 m $\eta = 51.5$	x: 2.405 m $\eta = 10.1$	x: 2.405 m $\eta = 0.6$	x: 2.405 m $\eta = 7.1$	x: 2.405 m $\eta = 27.0$	x: 2.405 m $\eta = 1.0$	x: 2.405 m $\eta = 61.0$	x: 2.405 m $\eta = 27.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 61.0$**
N535/N1929	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 55.8$	x: 0 m $\eta = 10.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.6$	x: 0 m $\eta = 31.7$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 65.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.9$**
N1929/N493	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.4 m $\eta = 42.0$	x: 2.4 m $\eta = 11.2$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 6.9$	x: 2.4 m $\eta = 18.1$	x: 2.4 m $\eta = 1.3$	x: 2.4 m $\eta = 53.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.1$**
N529/N1932	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 62.4$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 8.0$	x: 0 m $\eta = 39.6$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 73.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 73.8$**
N1932/N487	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 2.4 m $\eta = 35.0$	x: 2.4 m $\eta = 10.6$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 6.6$	x: 2.4 m $\eta = 12.7$	x: 2.4 m $\eta = 1.1$	x: 2.4 m $\eta = 45.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 45.5$**
N532/N1934	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 0 m $\eta = 58.8$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.7$	x: 0 m $\eta = 35.2$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 68.5$	x: 0 m $\eta = 12.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 68.5$**
N1934/N490	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.7$	x: 2.4 m $\eta = 34.6$	x: 2.4 m $\eta = 8.9$	x: 2.4 m $\eta = 0.6$	x: 2.4 m $\eta = 6.5$	x: 2.4 m $\eta = 12.4$	x: 2.4 m $\eta = 0.8$	x: 2.4 m $\eta = 42.4$	x: 2.4 m $\eta = 8.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.4$**
N538/N1936	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.5$	x: 0 m $\eta = 53.2$	x: 0 m $\eta = 10.0$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.2$	x: 0 m $\eta = 28.8$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 62.6$	x: 0 m $\eta = 18.1$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 62.6$**
N1936/N496	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.4$	x: 2.4 m $\eta = 33.7$	x: 2.4 m $\eta = 8.9$	x: 2.4 m $\eta = 0.6$	x: 2.4 m $\eta = 6.2$	x: 2.4 m $\eta = 11.8$	x: 2.4 m $\eta = 0.8$	x: 2.4 m $\eta = 41.1$	x: 2.4 m $\eta = 12.1$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 41.1$**
N573/N1940	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 0 m $\eta = 41.0$	x: 0 m $\eta = 11.5$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.1$	x: 0 m $\eta = 17.3$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 52.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 52.2$**
N1940/N535	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.47 m $\eta = 55.8$	x: 2.47 m $\eta = 11.0$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 7.9$	x: 2.47 m $\eta = 31.8$	x: 2.47 m $\eta = 1.2$	x: 2.47 m $\eta = 66.5$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 66.5$**
N567/N1943	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.5$	x: 0 m $\eta = 34.0$	x: 0 m $\eta = 11.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.8$	x: 0 m $\eta = 12.0$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 44.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.8$**
N1943/N529	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 2.47 m $\eta = 62.5$	x: 2.47 m $\eta = 12.1$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 8.2$	x: 2.47 m $\eta = 39.7$	x: 2.47 m $\eta = 1.5$	x: 2.47 m $\eta = 74.4$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 74.4$**
N570/N1945	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.8$	x: 0 m $\eta = 33.7$	x: 0 m $\eta = 9.7$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.6$	x: 0 m $\eta = 11.8$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 42.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.6$**
N1945/N532	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 2.47 m $\eta = 58.9$	x: 2.47 m $\eta = 10.5$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 7.9$	x: 2.47 m $\eta = 35.3$	x: 2.47 m $\eta = 1.1$	x: 2.47 m $\eta = 68.8$	x: 2.47 m $\eta = 12.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 68.8$**
N576/N1947	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.0$	x: 0 m $\eta = 35.0$	x: 0 m $\eta = 9.9$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.4$	x: 0 m $\eta = 12.6$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 44.2$	x: 0 m $\eta = 8.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.2$**
N1947/N538	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.8$	x: 2.47 m $\eta = 53.4$	x: 2.47 m $\eta = 10.7$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 7.3$	x: 2.47 m $\eta = 29.0$	x: 2.47 m $\eta = 1.2$	x: 2.47 m $\eta = 63.9$	x: 2.47 m $\eta = 13.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 63.9$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1952/N1951	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.5	x: 0 m η = 36.9	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m η = 0.2	x: 0 m η = 6.0	x: 0 m η = 14.0	N.A.(7)	x: 0 m η = 39.9	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 39.9**
N1951/N577	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.6	x: 2.17 m η = 37.8	$M_{Sd} = 0.00$ N.A.(6)	x: 2.169 m η = 0.2	x: 2.17 m η = 6.1	x: 2.17 m η = 14.7	N.A.(7)	x: 2.17 m η = 40.0	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 40.0**
N1956/N1955	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.4	x: 0 m η = 46.3	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m η = 0.2	x: 0 m η = 6.9	x: 0 m η = 21.9	N.A.(7)	x: 0 m η = 50.1	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 50.1**
N1955/N573	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.5	x: 2.17 m η = 38.2	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m η = 0.2	x: 2.17 m η = 6.5	x: 2.17 m η = 15.0	N.A.(7)	x: 2.17 m η = 41.0	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 41.0**
N1962/N1961	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.5	x: 0 m η = 54.1	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m η = 0.2	x: 0 m η = 7.3	x: 0 m η = 29.8	N.A.(7)	x: 0 m η = 58.7	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 58.7**
N1961/N567	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.6	x: 2.17 m η = 31.2	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m η = 0.2	x: 2.17 m η = 6.1	x: 2.17 m η = 10.1	N.A.(7)	x: 2.17 m η = 34.6	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 34.6**
N1966/N1965	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.8	x: 0 m η = 53.4	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m η = 0.3	x: 0 m η = 7.3	x: 0 m η = 29.1	N.A.(7)	x: 0 m η = 58.8	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 58.8**
N1965/N570	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.8	x: 2.17 m η = 30.8	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m η = 0.3	x: 2.17 m η = 6.0	x: 2.17 m η = 9.8	N.A.(7)	x: 2.17 m η = 36.5	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.5**
N1970/N1969	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.4	x: 0 m η = 44.9	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m η = 0.3	x: 0 m η = 6.6	x: 0 m η = 20.6	N.A.(7)	x: 0 m η = 49.7	x: 0 m η = 9.4	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 49.7**
N1969/N576	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.4	x: 2.17 m η = 31.9	x: 2.17 m η = 5.5	x: 2.17 m η = 0.3	x: 2.17 m η = 5.9	x: 2.17 m η = 10.5	x: 2.17 m η = 0.3	x: 2.17 m η = 37.8	x: 2.17 m η = 6.3	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 37.8**
N76/N1974	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.3	x: 0 m η = 31.0	x: 0 m η = 10.4	x: 0 m η = 0.7	x: 0 m η = 6.1	x: 0 m η = 10.0	x: 0 m η = 1.1	x: 0 m η = 40.8	x: 0 m η = 35.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 40.8**
N1974/N1975	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.2	x: 2.37 m η = 54.7	x: 2.37 m η = 10.5	x: 2.37 m η = 0.7	x: 2.37 m η = 7.4	x: 2.37 m η = 30.4	x: 2.37 m η = 1.1	x: 2.37 m η = 64.5	x: 2.37 m η = 54.8	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 64.5**
N184/N1976	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.2	x: 0 m η = 54.7	x: 0 m η = 9.4	x: 0 m η = 0.6	x: 0 m η = 7.1	x: 0 m η = 30.5	x: 0 m η = 0.9	x: 0 m η = 63.7	x: 0 m η = 53.3	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 63.7**
N1976/N76	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.2	x: 2.27 m η = 30.8	x: 2.27 m η = 9.6	x: 2.27 m η = 0.6	x: 2.27 m η = 5.8	x: 2.27 m η = 9.8	x: 2.27 m η = 0.9	x: 2.27 m η = 39.8	x: 2.27 m η = 39.3	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 39.8**
N224/N1977	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.7	x: 0 m η = 32.1	x: 0 m η = 11.3	x: 0 m η = 0.7	x: 0 m η = 6.5	x: 0 m η = 10.7	x: 0 m η = 1.3	x: 0 m η = 43.7	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 43.7**
N1977/N184	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 0.6	x: 2.48 m η = 55.3	x: 2.48 m η = 11.2	x: 2.48 m η = 0.7	x: 2.48 m η = 7.7	x: 2.48 m η = 31.2	x: 2.48 m η = 1.3	x: 2.48 m η = 66.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 66.2**
N265/N1978	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η < 0.1	x: 0 m η = 36.8	x: 0 m η = 8.9	x: 0 m η = 0.6	x: 0 m η = 5.3	x: 0 m η = 13.8	x: 0 m η = 0.8	x: 0 m η = 20.7	x: 0 m η = 45.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.7**
N1978/N224	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η < 0.1	x: 2.21 m η = 31.5	x: 2.21 m η = 9.4	x: 2.21 m η = 0.6	x: 2.21 m η = 5.0	x: 2.21 m η = 10.2	x: 2.21 m η = 0.9	x: 2.21 m η = 18.5	x: 2.21 m η = 40.9	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 40.9**
N309/N1979	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.1	x: 0 m η = 27.4	x: 0 m η = 9.2	x: 0 m η = 0.6	x: 0 m η = 4.8	x: 0 m η = 7.7	x: 0 m η = 0.8	x: 0 m η = 28.4	x: 0 m η = 36.6	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 36.6**
N1979/N265	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.1	x: 2.22 m η = 36.7	x: 2.22 m η = 8.7	x: 2.22 m η = 0.6	x: 2.22 m η = 5.3	x: 2.22 m η = 13.8	x: 2.22 m η = 0.8	x: 2.22 m η = 33.9	x: 2.22 m η = 45.4	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 45.4**
N356/N1980	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 1.5	x: 0 m η = 47.6	x: 0 m η = 11.4	x: 0 m η = 0.7	x: 0 m η = 6.2	x: 0 m η = 23.0	x: 0 m η = 1.3	x: 0 m η = 60.0	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 60.0**
N1980/N309	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	η = 1.7	x: 2.585 m η = 28.5	x: 2.585 m η = 11.3	x: 2.585 m η = 0.7	x: 2.585 m η = 5.3	x: 2.585 m η = 8.4	x: 2.585 m η = 1.3	x: 2.585 m η = 41.2	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 41.2**
N399/N1981	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.3	x: 0 m η = 27.0	x: 0 m η = 10.9	x: 0 m η = 0.7	x: 0 m η = 5.1	x: 0 m η = 7.6	x: 0 m η = 1.2	x: 0 m η = 38.1	x: 0 m η = 34.5	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 38.1**
N1981/N356	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.3	x: 2.46 m η = 47.2	x: 2.46 m η = 10.9	x: 2.46 m η = 0.7	x: 2.46 m η = 6.1	x: 2.46 m η = 22.6	x: 2.46 m η = 1.2	x: 2.46 m η = 58.2	x: 2.46 m η = 54.8	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 58.2**
N439/N1982	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.3	x: 0 m η = 44.1	x: 0 m η = 10.0	x: 0 m η = 0.6	x: 0 m η = 5.9	x: 0 m η = 19.7	x: 0 m η = 1.0	x: 0 m η = 54.3	x: 0 m η = 43.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 54.3**
N1982/N399	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.2	x: 2.345 m η = 27.0	x: 2.345 m η = 10.1	x: 2.345 m η = 0.7	x: 2.345 m η = 5.0	x: 2.345 m η = 7.5	x: 2.345 m η = 1.0	x: 2.345 m η = 37.3	x: 2.345 m η = 30.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 37.3**
N479/N1983	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.5	x: 0 m η = 28.0	x: 0 m η = 10.6	x: 0 m η = 0.7	x: 0 m η = 5.1	x: 0 m η = 8.1	x: 0 m η = 1.1	x: 0 m η = 39.1	x: 0 m η = 24.7	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 39.1**
N1983/N439	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.5	x: 2.405 m η = 44.1	x: 2.405 m η = 10.4	x: 2.405 m η = 0.7	x: 2.405 m η = 6.0	x: 2.405 m η = 19.8	x: 2.405 m η = 1.1	x: 2.405 m η = 54.9	x: 2.405 m η = 37.2	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 54.9**
N519/N1984	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.5	x: 0 m η = 46.1	x: 0 m η = 10.5	x: 0 m η = 0.7	x: 0 m η = 6.0	x: 0 m η = 21.6	x: 0 m η = 1.1	x: 0 m η = 57.1	x: 0 m η = 29.8	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 57.1**
N1984/N479	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η = 0.1	η = 0.4	x: 2.4 m η = 27.9	x: 2.4 m η = 10.5	x: 2.4 m η = 0.7	x: 2.4 m η = 5.1	x: 2.4 m η = 8.1	x: 2.4 m η = 1.1	x: 2.4 m η = 38.8	x: 2.4 m η = 25.1	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 38.8**
N559/N1985	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	η < 0.1	η = 0.9	x: 0 m η = 28.8	x: 0 m η = 10.9	x: 0 m η = 0.7	x: 0 m η = 5.3	x: 0 m η = 8.5	x: 0 m η = 1.2	x: 0 m η = 40.5	x: 0 m η = 14.0	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **η = 40.5**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N1985/N519	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta < 0.1$	$\eta = 0.8$	x: 2.47 m $\eta = 46.2$	x: 2.47 m $\eta = 10.9$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 6.2$	x: 2.47 m $\eta = 21.8$	x: 2.47 m $\eta = 1.2$	x: 2.47 m $\eta = 57.8$	x: 2.47 m $\eta = 19.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 57.8$**
N1987/N1986	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.4$	x: 0 m $\eta = 37.6$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.4$	x: 0 m $\eta = 14.4$	N.A.(7)	x: 0 m $\eta = 38.0$	x: 0 m $\eta = 20.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 38.0$**
N1986/N559	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.3$	x: 2.17 m $\eta = 26.4$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m $\eta = 0.2$	x: 2.17 m $\eta = 4.8$	x: 2.17 m $\eta = 7.2$	N.A.(7)	x: 2.17 m $\eta = 27.1$	x: 2.17 m $\eta = 18.2$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 27.1$**
N159/N1988	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.6$	x: 0 m $\eta = 32.9$	x: 0 m $\eta = 10.4$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 11.2$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 42.9$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 42.9$**
N1988/N1989	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.8$	x: 2.37 m $\eta = 59.4$	x: 2.37 m $\eta = 10.4$	x: 2.37 m $\eta = 0.7$	x: 2.37 m $\eta = 7.9$	x: 2.37 m $\eta = 35.9$	x: 2.37 m $\eta = 1.1$	x: 2.37 m $\eta = 69.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 69.6$**
N202/N1990	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.3$	x: 0 m $\eta = 59.5$	x: 0 m $\eta = 9.6$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.7$	x: 0 m $\eta = 35.9$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 65.6$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 65.6$**
N1990/N159	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.4$	x: 2.27 m $\eta = 32.8$	x: 2.27 m $\eta = 9.5$	x: 2.27 m $\eta = 0.6$	x: 2.27 m $\eta = 6.2$	x: 2.27 m $\eta = 11.1$	x: 2.27 m $\eta = 0.9$	x: 2.27 m $\eta = 41.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 41.8$**
N241/N1991	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 0.7$	x: 0 m $\eta = 37.4$	x: 0 m $\eta = 11.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.0$	x: 0 m $\eta = 14.5$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 48.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 48.1$**
N1991/N202	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.0$	x: 2.48 m $\eta = 59.9$	x: 2.48 m $\eta = 11.1$	x: 2.48 m $\eta = 0.7$	x: 2.48 m $\eta = 8.2$	x: 2.48 m $\eta = 36.5$	x: 2.48 m $\eta = 1.2$	x: 2.48 m $\eta = 70.7$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 70.7$**
N284/N1992	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 50.5$	x: 0 m $\eta = 9.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 7.2$	x: 0 m $\eta = 26.0$	x: 0 m $\eta = 0.8$	N.A.(5)	x: 0 m $\eta = 59.1$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 59.1$**
N1992/N241	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 2.21 m $\eta = 37.0$	x: 2.21 m $\eta = 9.3$	x: 2.21 m $\eta = 0.6$	x: 2.21 m $\eta = 6.4$	x: 2.21 m $\eta = 14.1$	x: 2.21 m $\eta = 0.9$	N.A.(5)	x: 2.21 m $\eta = 45.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 45.7$**
N329/N1993	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.2$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 35.6$	x: 0 m $\eta = 9.5$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 13.1$	x: 0 m $\eta = 0.9$	N.A.(5)	x: 0 m $\eta = 44.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 44.7$**
N1993/N284	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.2$	$\eta < 0.1$	x: 2.22 m $\eta = 50.5$	x: 2.22 m $\eta = 8.9$	x: 2.22 m $\eta = 0.6$	x: 2.22 m $\eta = 7.2$	x: 2.22 m $\eta = 26.0$	x: 2.22 m $\eta = 0.8$	x: 2.22 m $\eta = 16.5$	x: 2.22 m $\eta = 58.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 58.9$**
N378/N1994	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.6$	x: 0 m $\eta = 64.1$	x: 0 m $\eta = 11.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 8.2$	x: 0 m $\eta = 41.8$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 76.2$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 76.2$**
N1994/N329	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	$\eta = 1.5$	x: 2.585 m $\eta = 37.0$	x: 2.585 m $\eta = 11.4$	x: 2.585 m $\eta = 0.7$	x: 2.585 m $\eta = 6.9$	x: 2.585 m $\eta = 14.2$	x: 2.585 m $\eta = 1.3$	x: 2.585 m $\eta = 48.8$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 48.8$**
N415/N1995	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.7$	x: 0 m $\eta = 36.0$	x: 0 m $\eta = 10.8$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.7$	x: 0 m $\eta = 13.4$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 46.7$	x: 0 m $\eta = 30.6$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 46.7$**
N1995/N378	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.7$	x: 2.46 m $\eta = 63.7$	x: 2.46 m $\eta = 11.1$	x: 2.46 m $\eta = 0.7$	x: 2.46 m $\eta = 8.1$	x: 2.46 m $\eta = 41.2$	x: 2.46 m $\eta = 1.2$	x: 2.46 m $\eta = 74.5$	x: 2.46 m $\eta = 51.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 74.5$**
N457/N1996	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.4$	x: 0 m $\eta = 59.5$	x: 0 m $\eta = 10.2$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.8$	x: 0 m $\eta = 36.1$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 69.5$	x: 0 m $\eta = 44.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 69.5$**
N1996/N415	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.6$	x: 2.345 m $\eta = 36.0$	x: 2.345 m $\eta = 10.3$	x: 2.345 m $\eta = 0.7$	x: 2.345 m $\eta = 6.6$	x: 2.345 m $\eta = 13.4$	x: 2.345 m $\eta = 1.1$	x: 2.345 m $\eta = 46.3$	x: 2.345 m $\eta = 26.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 46.3$**
N495/N1997	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.5$	x: 0 m $\eta = 37.3$	x: 0 m $\eta = 10.8$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.9$	x: 0 m $\eta = 14.4$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 47.8$	x: 0 m $\eta = 27.3$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.8$**
N1997/N457	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.8$	x: 2.405 m $\eta = 59.8$	x: 2.405 m $\eta = 10.6$	x: 2.405 m $\eta = 0.7$	x: 2.405 m $\eta = 8.0$	x: 2.405 m $\eta = 36.4$	x: 2.405 m $\eta = 1.1$	x: 2.405 m $\eta = 70.4$	x: 2.405 m $\eta = 29.8$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 70.4$**
N537/N1998	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.4$	x: 0 m $\eta = 62.1$	x: 0 m $\eta = 10.7$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 8.0$	x: 0 m $\eta = 39.2$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 72.4$	x: 0 m $\eta = 46.9$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 72.4$**
N1998/N495	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.6$	x: 2.4 m $\eta = 37.3$	x: 2.4 m $\eta = 10.7$	x: 2.4 m $\eta = 0.7$	x: 2.4 m $\eta = 6.8$	x: 2.4 m $\eta = 14.4$	x: 2.4 m $\eta = 1.2$	x: 2.4 m $\eta = 47.9$	x: 2.4 m $\eta = 25.4$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 47.9$**
N575/N1999	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.5$	x: 0 m $\eta = 37.9$	x: 0 m $\eta = 11.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 7.0$	x: 0 m $\eta = 14.9$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 48.7$	x: 0 m $\eta = 26.1$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 48.7$**
N1999/N537	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.8$	x: 2.47 m $\eta = 62.4$	x: 2.47 m $\eta = 11.1$	x: 2.47 m $\eta = 0.7$	x: 2.47 m $\eta = 8.2$	x: 2.47 m $\eta = 39.6$	x: 2.47 m $\eta = 1.2$	x: 2.47 m $\eta = 73.5$	x: 2.47 m $\eta = 30.0$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 73.5$**
N2001/N2000	x: 0 m $(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	$\eta = 0.1$	$N_{c,Sd} = 0.00$ N.A.(4)	x: 0 m $\eta = 49.9$	$M_{Sd} = 0.00$ N.A.(6)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 7.1$	x: 0 m $\eta = 25.5$	N.A.(7)	N.A.(5)	x: 0 m $\eta = 53.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 53.7$**
N2000/N575	$(b_w/t) \leq 500$ $(b_f/t) \leq 60$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$\eta = 0.1$	$\eta = 0.1$	x: 2.17 m $\eta = 35.0$	$M_{Sd} = 0.00$ N.A.(6)	x: 2.17 m $\eta = 0.2$	x: 2.17 m $\eta = 6.3$	x: 2.17 m $\eta = 12.7$	N.A.(7)	x: 2.17 m $\eta = 37.6$	x: 2.17 m $\eta = 25.7$	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 37.6$**
N2085/N2084	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	x: 0 m $\eta = 27.8$	$M_{Sd} = 0.00$ N.A.(6)	$M_{Sd} = 0.00$ N.A.(6)	x: 0.593 m $\eta = 0.6$	$\eta = 0.1$	N.A.(7)	N.A.(7)	N.A.(5)	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 27.8$**
N2177/N2178	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd} = 0.00$ N.A.(1)	x: 0 m $\eta = 23.7$	x: 0.593 m $\eta = 3.1$	x: 0.593 m $\eta = 37.4$	x: 0.593 m $\eta = 1.9$	$\eta = 0.2$	x: 0.593 m $\eta = 0.1$	x: 0.593 m $\eta = 14.0$	x: 0.593 m $\eta = 64.1$	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 64.1$**
N2179/N2178	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.536 m $\eta = 2.2$	$N_{c,Sd} = 0.00$ N.A.(4)	$M_{Sd} = 0.00$ N.A.(6)	$M_{Sd} = 0.00$ N.A.(6)	x: 0.536 m $\eta = 1.0$	$\eta = 0.3$	N.A.(7)	N.A.(7)	N.A.(5)	N.A.(2)	$M_{t,Sd} = 0.00$ N.A.(3)	**PASSA** **$\eta = 2.2$**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N2179/N2181	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.592 m η = 2.7	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 0.8	η = 0.3	N.A.(7)	N.A.(7)	N.A.(5)	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 2.7**
N2182/N2181	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.536 m η = 3.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.536 m η = 44.2	x: 0 m η = 2.6	η = 0.1	N.A.(7)	x: 0.536 m η = 19.6	N.A.(5)	x: 0.536 m η = 49.3	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 49.3**
N2337/N2338	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 14.0	M_{Sd} = 0.00 N.A.(6)	x: 0.593 m η = 70.5	x: 0.593 m η = 3.3	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.593 m η = 49.8	x: 0.593 m η = 84.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 84.7**
N2417/N2418	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 11.7	M_{Sd} = 0.00 N.A.(6)	x: 0.593 m η = 68.0	x: 0.593 m η = 2.9	η = 0.1	N.A.(7)	x: 0.593 m η = 46.3	x: 0.593 m η = 81.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 81.4**
N2422/N2421	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.536 m η = 1.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.536 m η = 77.4	x: 0 m η = 4.0	η = 0.2	N.A.(7)	x: 0.536 m η = 60.0	N.A.(5)	x: 0.536 m η = 80.1	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 80.1**
N2497/N2498	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 14.5	M_{Sd} = 0.00 N.A.(6)	x: 0.593 m η = 88.7	x: 0.593 m η = 3.7	η = 0.1	N.A.(7)	x: 0.593 m η = 78.9	x: 0.593 m η = 84.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** η = 84.7
N2502/N2501	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.536 m η = 1.8	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.536 m η = 90.7	x: 0 m η = 5.6	η = 0.2	N.A.(7)	x: 0.536 m η = 82.5	N.A.(5)	x: 0.536 m η = 92.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 92.9**
N2657/N2658	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 15.3	M_{Sd} = 0.00 N.A.(6)	x: 0.593 m η = 84.1	x: 0.593 m η = 3.9	η < 0.1	N.A.(7)	x: 0.593 m η = 70.9	x: 0.593 m η = 81.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** η = 81.4
N2662/N2661	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.536 m η = 1.6	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.536 m η = 90.7	x: 0 m η = 4.5	η < 0.1	N.A.(7)	x: 0.536 m η = 82.5	N.A.(5)	x: 0.536 m η = 92.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 92.9**
N187/N2085	x: 0.4 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 17.0	x: 0 m η = 2.9	x: 0 m η = 14.5	x: 0 m η = 0.4	η = 0.4	x: 0 m η = 0.1	x: 0 m η = 2.1	x: 0 m η = 34.3	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 34.3**
N186/N2084	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.8 m η = 10.3	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 2.3	x: 0.8 m η = 14.2	x: 0.8 m η = 0.4	η = 0.5	x: 0 m η = 0.1	x: 0.8 m η = 2.0	N.A.(5)	x: 0.8 m η = 24.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 24.7**
N228/N2238	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 27.0	x: 0 m η = 4.6	x: 0 m η = 18.6	x: 0 m η = 0.7	η = 0.7	x: 0 m η = 0.2	x: 0 m η = 3.5	x: 0 m η = 50.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 50.0**
N227/N225	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.502 m η = 15.0	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 2.7	x: 0.502 m η = 16.6	x: 0.502 m η = 0.6	η = 0.5	x: 0 m η = 0.1	x: 0.502 m η = 2.8	N.A.(5)	x: 0.502 m η = 32.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 32.7**
N225/N2239	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.298 m η = 15.0	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 1.3	x: 0.298 m η = 21.7	x: 0.298 m η = 0.7	η = 0.5	x: 0 m η < 0.1	x: 0.298 m η = 4.7	N.A.(5)	x: 0.298 m η = 36.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 36.9**
N3/N48	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 17.0	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.05 m η = 26.9	x: 0.075 m η = 15.1	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.05 m η = 9.5	N.A.(5)	x: 0.05 m η = 44.0	η = 6.5	**PASSA η = 44.0**
N48/N46	x: 0.143 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 15.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 14.3	x: 0.285 m η = 1.3	η < 0.1	N.A.(7)	x: 0 m η = 2.1	N.A.(5)	x: 0 m η = 29.4	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 29.4**
N27/N26	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 21.2	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 42.5	x: 0.15 m η = 9.9	η < 0.1	N.A.(7)	x: 0.15 m η = 19.1	x: 0.15 m η = 63.8	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 63.8**
N30/N27	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 16.9	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 4.6	x: 0 m η = 0.4	η < 0.1	N.A.(7)	x: 0 m η = 0.2	x: 0 m η = 21.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 21.6**
N47/N45	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 19.4	M_{Sd} = 0.00 N.A.(6)	x: 0.285 m η = 11.6	x: 0 m η = 0.1	η < 0.1	N.A.(7)	x: 0.285 m η = 1.3	x: 0.285 m η = 31.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 31.2**
N28/N25	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 18.7	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 29.7	x: 0.15 m η = 6.9	η = 0.1	N.A.(7)	x: 0.15 m η = 9.3	N.A.(5)	x: 0.15 m η = 48.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 48.8**
N29/N28	x: 0.235 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 18.5	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 11.8	x: 0 m η = 0.6	η = 0.1	N.A.(7)	x: 0 m η = 1.4	N.A.(5)	x: 0 m η = 30.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 30.6**
N50/N51	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 20.2	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 31.8	x: 0.15 m η = 7.3	η = 0.1	N.A.(7)	x: 0.15 m η = 10.7	N.A.(5)	x: 0.15 m η = 52.5	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 52.5**
N49/N50	x: 0.235 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 20.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 12.7	x: 0 m η = 0.6	η = 0.1	N.A.(7)	x: 0 m η = 1.6	N.A.(5)	x: 0 m η = 32.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 32.8**
N53/N54	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 22.6	x: 0.15 m η = 0.6	x: 0.15 m η = 45.6	x: 0.15 m η = 10.6	η = 0.1	x: 0.15 m η < 0.1	x: 0.15 m η = 21.9	x: 0.15 m η = 68.8	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 68.8**
N52/N53	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.0	x: 0.47 m η = 0.5	x: 0 m η = 4.9	x: 0 m η = 0.4	η = 0.1	x: 0.47 m η < 0.1	x: 0 m η = 0.2	x: 0 m η = 23.1	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 23.1**
N144/N145	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 21.6	x: 0.15 m η = 0.6	x: 0.15 m η = 43.5	x: 0.15 m η = 10.1	η = 0.1	x: 0.15 m η < 0.1	x: 0.15 m η = 19.9	x: 0.15 m η = 65.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 65.7**
N143/N144	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 17.2	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 4.7	x: 0 m η = 0.4	η = 0.1	N.A.(7)	x: 0 m η = 0.2	x: 0 m η = 22.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 22.0**
N131/N132	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 19.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 30.4	x: 0.15 m η = 7.0	η = 0.1	N.A.(7)	x: 0.15 m η = 9.7	N.A.(5)	x: 0.15 m η = 49.9	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 49.9**
N130/N131	x: 0.47 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 19.0	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 12.1	x: 0 m η = 0.6	η = 0.1	N.A.(7)	x: 0 m η = 1.5	N.A.(5)	x: 0 m η = 31.1	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 31.1**
N128/N129	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 25.2	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 50.3	x: 0.15 m η = 11.7	η = 0.1	N.A.(7)	x: 0.15 m η = 26.7	x: 0.15 m η = 75.5	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 75.5**
N127/N128	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 20.0	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 5.5	x: 0 m η = 0.4	η < 0.1	N.A.(7)	x: 0 m η = 0.3	x: 0 m η = 25.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 25.6**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N116/N117	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 22.1	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0.15 m η = 0.6	x: 0.15 m η = 35.1	x: 0.15 m η = 8.1	η = 0.1	x: 0.15 m η < 0.1	x: 0.15 m η = 13.0	N.A.(5)	x: 0.15 m η = 57.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 57.8**
N115/N116	x: 0.47 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 21.9	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0.47 m η = 0.5	x: 0 m η = 14.0	x: 0 m η = 0.6	η = 0.1	x: 0.47 m η < 0.1	x: 0 m η = 2.0	N.A.(5)	x: 0 m η = 36.2	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 36.2**
N585/N583	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 15.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.285 m η = 14.5	x: 0 m η = 1.3	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.285 m η = 2.1	N.A.(5)	x: 0.285 m η = 29.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 29.6**
N603/N601	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 16.3	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 6.7	x: 0 m η = 0.3	η < 0.1	N.A.(7)	x: 0 m η = 0.4	x: 0 m η = 23.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 23.2**
N169/N603	x: 0.075 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 19.2	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 44.8	x: 0 m η = 18.1	η < 0.1	N.A.(7)	x: 0 m η = 23.4	x: 0 m η = 64.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 64.2**
N583/N3	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 17.0	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.025 m η = 27.0	x: 0 m η = 15.0	η = 0.1	N.A.(7)	x: 0.025 m η = 9.6	N.A.(5)	x: 0.025 m η = 44.1	η = 6.2	**PASSA** **η = 44.1**
N24/N47	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 19.4	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 10.6	x: 0.075 m η = 0.1	η < 0.1	N.A.(7)	x: 0 m η = 1.1	x: 0 m η = 30.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 30.2**
N581/N602	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.9	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 13.7	x: 0.075 m η = 1.6	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.075 m η = 1.9	N.A.(5)	x: 0.075 m η = 30.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 30.7**
N602/N597	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.8	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 14.3	x: 0 m η = 0.4	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0 m η = 2.0	N.A.(5)	x: 0 m η = 31.3	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 31.3**
N584/N582	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 19.5	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 11.5	x: 0.285 m η = 0.1	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.143 m η = 1.3	x: 0 m η = 31.3	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 31.3**
N582/N24	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 19.4	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 10.6	x: 0.075 m η < 0.1	η < 0.1	N.A.(7)	x: 0.075 m η = 1.1	x: 0 m η = 30.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 30.2**
N706/N604	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 15.5	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.155 m η = 11.7	x: 0.155 m η = 1.7	η < 0.1	N.A.(7)	x: 0.155 m η = 1.4	N.A.(5)	x: 0.155 m η = 27.4	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 27.4**
N709/N760	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.1	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 12.2	x: 0 m η = 1.0	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.075 m η = 1.5	x: 0.075 m η = 30.5	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 30.5**
N760/N664	x: 0.133 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 17.1	M_{Sd} = 0.00 N.A.(6)	x: 0.055 m η = 12.5	x: 0.21 m η = 1.7	η < 0.1	N.A.(7)	x: 0.055 m η = 1.6	x: 0.055 m η = 29.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 29.7**
N604/N581	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.9	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 10.5	x: 0.075 m η = 1.6	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.075 m η = 1.1	N.A.(5)	x: 0.075 m η = 27.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 27.6**
N705/N605	x: 0.055 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.8	M_{Sd} = 0.00 N.A.(6)	x: 0.21 m η = 11.7	x: 0.21 m η = 2.9	η < 0.1	N.A.(7)	x: 0.21 m η = 1.5	x: 0.21 m η = 30.3	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 30.3**
N209/N761	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.05 m η = 29.8	x: 0.075 m η = 13.8	η < 0.1	N.A.(7)	x: 0.05 m η = 10.8	N.A.(5)	x: 0.05 m η = 46.0	η = 4.0	**PASSA** **η = 46.0**
N761/N663	x: 0.154 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 21.4	x: 0.155 m η = 4.3	η < 0.1	N.A.(7)	x: 0 m η = 4.8	N.A.(5)	x: 0 m η = 37.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 37.7**
N605/N169	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.9	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 35.0	x: 0.075 m η = 13.2	η < 0.1	N.A.(7)	x: 0.075 m η = 14.0	x: 0.075 m η = 53.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 53.6**
N250/N763	x: 0.075 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 20.8	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 42.6	x: 0 m η = 16.8	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0 m η = 21.0	x: 0 m η = 63.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 63.0**
N729/N730	x: 0.055 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 15.9	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.21 m η = 20.7	x: 0.055 m η = 4.7	η < 0.1	N.A.(7)	x: 0.21 m η = 4.5	N.A.(5)	x: 0.21 m η = 36.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 36.6**
N763/N740	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 21.1	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 11.4	x: 0 m η = 0.2	η < 0.1	N.A.(7)	x: 0 m η = 1.3	x: 0 m η = 32.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 32.0**
N730/N209	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 15.9	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.025 m η = 28.8	x: 0 m η = 14.7	η < 0.1	N.A.(7)	x: 0.025 m η = 10.5	N.A.(5)	x: 0.025 m η = 44.8	η = 3.9	**PASSA** **η = 44.8**
N736/N737	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 16.7	M_{Sd} = 0.00 N.A.(6)	x: 0.155 m η = 11.8	x: 0 m η = 1.7	η < 0.1	N.A.(7)	x: 0.155 m η = 1.4	x: 0.155 m η = 28.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 28.6**
N762/N741	x: 0.243 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 14.4	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 10.0	x: 0 m η = 0.6	η < 0.1	N.A.(7)	x: 0 m η = 1.0	N.A.(5)	x: 0 m η = 24.5	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 24.5**
N723/N762	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 18.3	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 16.1	x: 0 m η = 0.6	η < 0.1	N.A.(7)	x: 0 m η = 2.6	N.A.(5)	x: 0 m η = 34.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 34.6**
N737/N709	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.1	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 10.5	x: 0 m η = 1.0	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.075 m η = 1.1	x: 0.075 m η = 28.8	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 28.8**
N744/N766	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.9	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 14.0	x: 0.075 m η = 1.2	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0 m η = 2.0	x: 0 m η = 33.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 33.0**
N795/N764	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 16.8	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.155 m η = 17.7	x: 0.155 m η = 3.0	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.155 m η = 3.2	N.A.(5)	x: 0.155 m η = 34.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 34.6**
N766/N811	(b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 15.0	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 6.9	x: 0.505 m η = 0.3	η < 0.1	N.A.(7)	x: 0 m η = 0.5	x: 0 m η = 21.9	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 21.9**
N764/N723	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	η = 18.3	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 16.8	x: 0 m η = 0.6	η < 0.1	N.A.(7)	x: 0 m η = 2.8	N.A.(5)	x: 0 m η = 35.2	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA** **η = 35.2**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N291/N767	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 16.6	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.05 m η = 24.0	x: 0.075 m η = 14.7	η < 0.1	N.A.(7)	x: 0.05 m η = 7.9	N.A.(5)	x: 0.05 m η = 40.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 40.7**
N767/N810	x: 0.505 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 16.6	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 15.2	x: 0.505 m η = 0.5	η < 0.1	N.A.(7)	x: 0 m η = 2.3	N.A.(5)	x: 0 m η = 31.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 31.8**
N765/N250	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 20.8	M_{Sd} = 0.00 N.A.(6)	x: 0.075 m η = 43.7	x: 0.075 m η = 17.7	η < 0.1	N.A.(7)	x: 0.075 m η = 22.1	x: 0.075 m η = 64.0	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 64.0**
N794/N765	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 20.7	M_{Sd} = 0.00 N.A.(6)	x: 0.21 m η = 12.4	x: 0.21 m η = 3.3	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.21 m η = 1.6	x: 0.21 m η = 32.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 32.2**
N813/N768	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 17.9	M_{Sd} = 0.00 N.A.(6)	x: 0.155 m η = 14.6	x: 0 m η = 2.1	η < 0.1	N.A.(7)	x: 0.155 m η = 2.2	x: 0.155 m η = 32.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 32.7**
N768/N744	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	η = 18.9	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 16.2	x: 0.075 m η = 1.2	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0 m η = 2.6	x: 0 m η = 35.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 35.2**
N812/N769	x: 0.055 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 17.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.21 m η = 17.8	x: 0.055 m η = 3.6	V_{Sd} = 0.00 N.A.(8)	N.A.(7)	x: 0.21 m η = 3.3	N.A.(5)	x: 0.21 m η = 35.0	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 35.0**
N769/N291	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	η = 17.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.025 m η = 25.7	x: 0 m η = 13.4	η < 0.1	N.A.(7)	x: 0.025 m η = 8.4	N.A.(5)	x: 0.025 m η = 43.0	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 43.0**
N2079/N2080	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 16.7	x: 0 m η = 0.6	x: 0.8 m η = 11.1	x: 0.8 m η = 0.7	η = 0.1	x: 0 m η < 0.1	x: 0.8 m η = 1.2	x: 0.8 m η = 27.8	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 27.8**
N78/N2079	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 28.0	x: 0 m η = 0.8	x: 0 m η = 19.4	x: 0 m η = 0.7	η = 0.1	x: 0 m η < 0.1	x: 0 m η = 3.8	x: 0 m η = 48.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 48.2**
N77/N2078	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.8 m η = 15.6	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 0.6	x: 0.8 m η = 22.9	x: 0.8 m η = 0.7	η = 0.1	x: 0 m η < 0.1	x: 0.8 m η = 5.3	N.A.(5)	x: 0.8 m η = 38.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 38.6**
N2238/N2240	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 16.3	x: 0 m η = 3.2	x: 0.8 m η = 10.7	x: 0.8 m η = 0.7	η = 0.7	x: 0 m η = 0.1	x: 0.8 m η = 1.2	x: 0.8 m η = 27.1	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 27.1**
N2168/N2170	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 5.1	x: 0.8 m η = 1.1	x: 0 m η = 7.1	x: 0 m η = 0.7	η = 0.2	x: 0.8 m η < 0.1	x: 0 m η = 0.5	x: 0 m η = 12.3	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 12.3**
N2170/N2172	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 11.8	x: 0.276 m η = 1.5	x: 0.276 m η = 20.8	x: 0.276 m η = 2.8	η = 0.3	x: 0.276 m η < 0.1	x: 0.276 m η = 4.4	x: 0.276 m η = 34.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 34.2**
N2172/N169	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 11.3	x: 0.05 m η = 1.6	x: 0.05 m η = 48.3	x: 0.05 m η = 23.1	η = 0.3	x: 0.05 m η < 0.1	x: 0.05 m η = 28.7	x: 0.05 m η = 61.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 61.2**
N169/N2174	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 12.3	x: 0 m η = 1.7	x: 0 m η = 36.7	x: 0 m η = 18.0	η = 0.3	x: 0 m η < 0.1	x: 0 m η = 16.7	x: 0 m η = 50.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 50.7**
N2174/N2175	x: 0.138 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 11.9	x: 0 m η = 1.6	x: 0 m η = 13.9	x: 0 m η = 1.7	η = 0.3	x: 0 m η < 0.1	x: 0 m η = 2.0	x: 0 m η = 27.4	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 27.4**
N2175/N2177	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 3.3	x: 0 m η = 1.3	x: 0.8 m η = 25.0	x: 0.8 m η = 1.7	η = 0.2	x: 0 m η < 0.1	x: 0 m η = 6.3	x: 0.8 m η = 28.6	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 28.6**
N2177/N2182	x: 0.4 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 1.6 m η = 5.5	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 0.7	x: 0 m η = 18.0	x: 0 m η = 1.0	η = 0.1	x: 0 m η < 0.1	x: 0 m η = 3.2	N.A.(5)	x: 0 m η = 24.1	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 24.1**
N170/N2190	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 12.5	x: 0.352 m η = 1.9	x: 0.352 m η = 48.8	x: 0.352 m η = 7.2	η = 1.2	x: 0.352 m η = 0.1	x: 0.352 m η = 24.3	x: 0.352 m η = 63.2	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 63.2**
N2190/N168	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 13.2	x: 0.05 m η = 2.3	x: 0.05 m η = 80.5	x: 0.05 m η = 24.4	η = 1.5	x: 0.05 m η = 0.1	x: 0.05 m η = 70.7	x: 0.05 m η = 96.0	N.A.(2)	η = 3.1	**PASSA η = 96.0**
N168/N2192	x: 0.025 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 13.9	x: 0 m η = 2.1	x: 0 m η = 13.0	x: 0 m η = 13.7	η = 0.1	x: 0 m η < 0.1	x: 0 m η = 3.6	x: 0 m η = 29.0	N.A.(2)	η = 4.1	**PASSA η = 29.0**
N2192/N2195	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 12.1	x: 0 m η = 2.0	x: 0.552 m η = 10.3	x: 0.552 m η = 0.9	η = 0.3	x: 0 m η < 0.1	x: 0.552 m η = 1.1	x: 0.552 m η = 23.5	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 23.5**
N2085/N2083	$(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 7.3	x: 0 m η = 2.0	x: 0.8 m η = 6.7	x: 0.8 m η = 0.6	η = 0.4	x: 0 m η < 0.1	x: 0.8 m η = 0.5	x: 0.8 m η = 14.1	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 14.1**
N2169/N184	x: 0.263 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.526 m η = 7.8	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 17.6	x: 0 m η = 1.8	η = 0.1	N.A.(7)	x: 0 m η = 3.1	N.A.(5)	x: 0 m η = 25.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 25.6**
N184/N2171	x: 0 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.15 m η = 8.0	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.15 m η = 20.0	x: 0.15 m η = 6.6	η = 0.1	N.A.(7)	x: 0.15 m η = 4.4	N.A.(5)	x: 0.15 m η = 28.1	η = 3.9	**PASSA η = 28.1**
N2959/N2173	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.05 m η = 10.0	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 19.0	x: 0 m η = 1.0	η = 0.1	N.A.(7)	x: 0 m η = 3.6	N.A.(5)	x: 0 m η = 29.2	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 29.2**
N2173/N2176	x: 0.169 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 300.0$ $\lambda_{yy} \leq 300.0$ Passa	x: 0.676 m η = 7.3	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 13.3	x: 0 m η = 0.8	η < 0.1	N.A.(7)	x: 0 m η = 1.8	N.A.(5)	x: 0 m η = 20.7	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 20.7**
N2176/N175	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 2.3	M_{Sd} = 0.00 N.A.(6)	x: 0.178 m η = 22.3	x: 0 m η = 2.3	η = 0.1	N.A.(7)	x: 0.178 m η = 5.0	x: 0.178 m η = 25.0	N.A.(2)	η = 2.9	**PASSA η = 25.0**
N2178/N2180	x: 0.4 m $(b_w/t) \leq 90$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 7.6	x: 0 m η = 0.6	x: 0 m η = 63.5	x: 0 m η = 6.5	η = 0.2	x: 0 m η < 0.1	x: 0 m η = 40.7	x: 0 m η = 71.7	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 71.7**
N174/N2181	$(b_w/t) \leq 200$ Passa	$\lambda_{xx} \leq 200.0$ $\lambda_{yy} \leq 200.0$ Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 7.8	M_{Sd} = 0.00 N.A.(6)	x: 0.316 m η = 57.8	x: 0 m η = 3.9	η = 0.2	N.A.(7)	x: 0.316 m η = 33.5	x: 0.316 m η = 65.9	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 65.9**

Barras	VERIFICAÇÕES (ABNT NBR 14762:2010)													Estado
	b/t	λ	N_t	N_c	M_x	M_y	V_x	V_y	M_xV_y	M_yV_x	$N_cM_xM_y$	$N_tM_xM_y$	M_t	
N2181/N173	x: 0.789 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 8.2	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 55.5	x: 0.789 m η = 2.8	η = 0.1	N.A.(7)	x: 0 m η = 30.9	x: 0 m η = 63.9	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 63.9**
N176/N2187	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.2 m η = 5.1	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.2 m η = 19.4	x: 0 m η = 4.8	η = 0.2	N.A.(7)	x: 0.2 m η = 4.0	N.A.(5)	x: 0.2 m η = 24.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 24.6**
N2187/N2191	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.152 m η = 11.6	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0 m η = 0.7	x: 0.152 m η = 15.3	x: 0.152 m η = 5.1	η = 0.3	x: 0 m η < 0.1	x: 0.152 m η = 2.6	N.A.(5)	x: 0.152 m η = 27.3	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 27.3**
N2191/N2960	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.05 m η = 11.5	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.05 m η = 15.0	x: 0.05 m η = 0.3	η = 0.4	N.A.(7)	x: 0.05 m η = 2.2	N.A.(5)	x: 0.05 m η = 26.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 26.8**
N2960/N2193	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.05 m η = 11.5	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0.05 m η = 15.0	x: 0.05 m η = 0.1	η = 0.4	N.A.(7)	x: 0.05 m η = 2.3	N.A.(5)	x: 0 m η = 26.8	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 26.8**
N2193/N2194	(b_w/t) ≤ 200 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.152 m η = 11.3	$N_{c,Sd}$ = 0.00 N.A.(4)	M_{Sd} = 0.00 N.A.(6)	x: 0 m η = 17.0	x: 0 m η = 1.1	η = 0.3	N.A.(7)	x: 0 m η = 2.9	N.A.(5)	x: 0 m η = 28.6	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 28.6**
N2194/N179	x: 0 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 300.0 λ_{yy} ≤ 300.0 Passa	x: 0.652 m η = 6.8	$N_{c,Sd}$ = 0.00 N.A.(4)	x: 0.652 m η = 0.6	x: 0.652 m η = 11.0	x: 0 m η = 1.3	η = 0.3	x: 0.652 m η < 0.1	x: 0.652 m η = 1.2	N.A.(5)	x: 0.652 m η = 18.3	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 18.3**
N175/N2178	x: 0.155 m (b_w/t) ≤ 90 Passa	λ_{xx} ≤ 200.0 λ_{yy} ≤ 200.0 Passa	$N_{t,Sd}$ = 0.00 N.A.(1)	x: 0 m η = 2.2	M_{Sd} = 0.00 N.A.(6)	x: 0.622 m η = 71.2	x: 0.622 m η = 5.8	η = 0.1	N.A.(7)	x: 0.622 m η = 51.0	x: 0.622 m η = 73.5	N.A.(2)	$M_{t,Sd}$ = 0.00 N.A.(3)	**PASSA η = 73.5**

Notação:
- *b/t: Valores máximos da relação comprimento-espessura*
- *λ: 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*
- *$N_cM_xM_y$: Resistência à flexo-compressão*
- *$N_tM_xM_y$: Resistência à flexo-tração*
- *M_t: Resistência à torção*
- *x: Distância à origem da barra*
- *η: Coeficiente de aproveitamento (%)*
- *N.A.: Não aplicável*

Verificações desnecessárias para o tipo de perfil (N.A.):
- *(1) A verificação não será executada, já que não existe esforço axial de tração.*
- *(2) Não há interação entre o esforço axial de tração e o momento fletor para nenhuma combinação. Assim a verificação não será executada.*
- *(3) A verificação não é necessária, já que não existe momento torsor.*
- *(4) A verificação não será executada, já que não existe esforço axial de compressão.*
- *(5) Não há interação entre o esforço axial de compressão e o momento fletor para nenhuma combinação. Assim a verificação não será executada.*
- *(6) A verificação não será executada, já que não existe momento fletor.*
- *(7) Não há interação entre o momento fletor e o esforço cortante para nenhuma combinação. Assim a verificação não será executada.*
- *(8) A verificação não será executada, já que não existe esforço cortante.*

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N629/N630	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 2.5	x: 0.335 m η = 1.0	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 5.3	**PASSA η = 5.3**
N630/N631	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.005 m η = 4.1	x: 0.167 m η = 1.7	x: 1.005 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.837 m η = 8.6	**PASSA η = 8.6**
N631/N632	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 4.3	x: 1.105 m η = 3.0	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 14.3	**PASSA η = 14.3**
N632/N633	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 6.5	x: 1.105 m η = 2.9	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 17.2	**PASSA η = 17.2**
N634/N635	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 2.4	x: 1.105 m η = 1.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 7.9	**PASSA η = 7.9**
N635/N636	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 7.2	x: 1.105 m η = 4.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 22.0	**PASSA η = 22.0**
N636/N637	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.2	x: 0 m η = 8.5	x: 0 m η = 2.2	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.0	**PASSA η = 20.0**
N637/N638	λ ≤ 200.0 Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 0 m η = 1.6	x: 0 m η = 4.0	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.8	**PASSA η = 10.8**
N638/N639	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 1.256 m η = 3.1	x: 1.256 m η = 2.8	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.256 m η = 5.6	**PASSA η = 5.6**
N639/N640	N.A.(5)	x: 0.427 m η = 0.1	N.A.(6)	x: 0 m η = 4.7	x: 0.854 m η = 1.6	x: 0 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.7	**PASSA η = 4.7**
N641/N642	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 0.8	x: 1.005 m η = 0.4	x: 0 m η < 0.1	x: 1.005 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 2.1	**PASSA η = 2.1**
N642/N643	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.005 m η = 5.0	x: 1.005 m η = 3.2	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 13.4	**PASSA η = 13.4**
N643/N644	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.6	x: 0 m η = 2.1	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 14.0	**PASSA η = 14.0**
N644/N645	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 6.3	x: 1.105 m η = 3.9	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.8	**PASSA η = 18.8**
N646/N647	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 2.3	x: 0 m η = 1.6	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.8	**PASSA η = 7.8**
N647/N648	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 10.8	x: 1.105 m η = 4.4	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 28.0	**PASSA η = 28.0**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N648/N649	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 9.8	x: 0 m η = 6.2	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 29.7	**PASSA η = 29.7**
N649/N650	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 3.6	x: 1.105 m η = 4.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.5	**PASSA η = 15.5**
N650/N651	$\lambda \leq 200.0$ Passa	x: 1.256 m η < 0.1	x: 0 m η = 0.1	x: 0 m η = 5.3	x: 0 m η = 1.3	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.0	**PASSA η = 13.0**
N651/N652	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 2.2	x: 0 m η = 2.8	x: 0.854 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.8	**PASSA η = 4.8**
N653/N680	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 6.6	x: 1.005 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 16.2	**PASSA η = 16.2**
N680/N674	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 6.4	x: 0 m η = 3.3	x: 1.005 m η = 0.1	x: 1.005 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.8	**PASSA η = 15.8**
N674/N681	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 2.8	x: 1.105 m η = 2.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 10.2	**PASSA η = 10.2**
N681/N675	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 8.9	x: 1.105 m η = 4.0	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 23.8	**PASSA η = 23.8**
N676/N682	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.105 m η = 1.6	x: 1.105 m η = 0.9	x: 1.105 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 4.9	**PASSA η = 4.9**
N682/N677	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 8.6	x: 1.105 m η = 5.2	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 25.6	**PASSA η = 25.6**
N677/N683	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 0 m η = 9.5	x: 0.553 m η = 4.2	x: 0 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 24.2	**PASSA η = 24.2**
N683/N678	N.A.(5)	x: 1.105 m η < 0.1	N.A.(6)	x: 1.105 m η = 14.6	x: 1.105 m η = 5.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.8	**PASSA η = 18.8**
N678/N684	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 12.8	x: 0 m η = 9.1	x: 0 m η = 0.2	x: 0 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.5	**PASSA η = 20.5**
N684/N679	N.A.(5)	x: 0.427 m η = 0.1	N.A.(6)	x: 0 m η = 10.8	x: 0 m η = 3.5	x: 0.854 m η = 0.1	x: 0.854 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.5	**PASSA η = 13.5**
N711/N718	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 2.3	x: 1.005 m η = 1.2	x: 1.005 m η < 0.1	x: 1.005 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 5.9	**PASSA η = 5.9**
N718/N712	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.005 m η = 4.3	x: 1.005 m η = 2.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 11.3	**PASSA η = 11.3**
N712/N719	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 4.8	x: 0 m η = 1.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 12.0	**PASSA η = 12.0**
N719/N713	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 5.1	x: 1.105 m η = 3.5	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.7	**PASSA η = 15.7**
N714/N720	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.6	x: 0 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.2	**PASSA η = 17.2**
N720/N715	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 10.4	x: 1.105 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 27.4	**PASSA η = 27.4**
N715/N721	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 9.8	x: 0 m η = 5.7	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 28.6	**PASSA η = 28.6**
N721/N716	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.105 m η = 4.5	x: 1.105 m η = 4.3	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 16.7	**PASSA η = 16.7**
N716/N722	$\lambda \leq 200.0$ Passa	x: 1.256 m η < 0.1	x: 0 m η < 0.1	x: 0 m η = 5.6	x: 0 m η = 2.1	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.2	**PASSA η = 7.2**
N722/N717	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 1.6	x: 0 m η = 2.6	x: 0.854 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 3.9	**PASSA η = 3.9**
N1170/N1169	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 2.8	x: 1.005 m η = 1.6	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 7.0	**PASSA η = 7.0**
N1169/N1171	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 2.8	x: 1.005 m η = 3.0	x: 1.005 m η = 0.1	x: 1.005 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 8.5	**PASSA η = 8.5**
N1171/N1172	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 0 m η = 3.1	x: 0.737 m η = 0.7	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.3	**PASSA η = 7.3**
N1172/N1173	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.8	x: 1.105 m η = 2.8	x: 0.368 m η = 1.5	x: 1.105 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.553 m η = 7.3	**PASSA η = 7.3**
N1174/N1175	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 6.9	x: 0 m η = 4.8	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 22.6	**PASSA η = 22.6**
N1175/N1176	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.8	x: 1.105 m η = 8.3	x: 1.105 m η = 4.9	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 24.0	**PASSA η = 24.0**
N1176/N1177	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 8.9	x: 0 m η = 3.7	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 23.1	**PASSA η = 23.1**
N1177/N1178	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.105 m η = 5.1	x: 1.105 m η = 1.7	x: 1.105 m η < 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 12.9	**PASSA η = 12.9**
N1178/N1179	$\lambda \leq 200.0$ Passa	x: 1.256 m η < 0.1	x: 0 m η < 0.1	x: 0 m η = 3.7	x: 0 m η = 4.4	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.8	**PASSA η = 17.8**
N1179/N1180	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 2.9	x: 0.854 m η = 2.0	x: 0 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 3.9	**PASSA η = 3.9**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1193/N1194	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 11.5	x: 1.005 m η = 6.2	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 29.2	**PASSA η = 29.2**
N1194/N1195	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 11.9	x: 0 m η = 5.3	x: 1.005 m η = 0.1	x: 1.005 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 28.3	**PASSA η = 28.3**
N1195/N1196	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 9.2	x: 1.105 m η = 5.1	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 26.1	**PASSA η = 26.1**
N1196/N1197	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 0 m η = 9.7	x: 0 m η = 3.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 25.1	**PASSA η = 25.1**
N1198/N1199	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 14.8	x: 0 m η = 7.8	x: 0 m η = 0.2	x: 0 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 42.9	**PASSA η = 42.9**
N1199/N1200	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 9.5	x: 0.368 m η = 5.0	x: 1.105 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.553 m η = 26.2	**PASSA η = 26.2**
N1200/N1201	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 8.7	x: 0 m η = 5.2	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 25.7	**PASSA η = 25.7**
N1201/N1202	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 10.4	x: 1.105 m η = 7.4	x: 1.105 m η = 0.2	x: 1.105 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 33.4	**PASSA η = 33.4**
N1202/N1203	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 11.4	x: 0 m η = 5.2	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.5	**PASSA η = 15.5**
N1203/N1204	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0 m η = 6.6	x: 0 m η = 4.9	x: 0.854 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.9	**PASSA η = 10.9**
N1205/N1206	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 5.2	x: 1.005 m η = 2.6	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 12.7	**PASSA η = 12.7**
N1206/N1207	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.4	x: 0 m η = 2.3	x: 1.005 m η = 0.1	x: 1.005 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 12.3	**PASSA η = 12.3**
N1207/N1208	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 2.9	x: 0 m η = 2.8	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 9.4	**PASSA η = 9.4**
N1208/N1209	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 0 m η = 2.9	x: 0.553 m η = 1.9	x: 1.105 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.368 m η = 8.0	**PASSA η = 8.0**
N1210/N1211	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 7.7	x: 0 m η = 5.7	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 25.9	**PASSA η = 25.9**
N1211/N1212	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 8.1	x: 1.105 m η = 5.1	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 24.2	**PASSA η = 24.2**
N1212/N1213	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 8.8	x: 0 m η = 3.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 22.8	**PASSA η = 22.8**
N1213/N1214	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.2	x: 1.105 m η = 2.6	x: 0 m η = 1.2	x: 0 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 5.3	**PASSA η = 5.3**
N1214/N1215	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 1.256 m η = 1.6	x: 0 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.1	**PASSA η = 4.1**
N1215/N1216	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0 m η = 3.1	x: 0.854 m η = 1.4	x: 0 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 3.5	**PASSA η = 3.5**
N1217/N1218	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0.837 m η = 0.8	x: 0.837 m η = 1.0	x: 0 m η < 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.837 m η = 2.7	**PASSA η = 2.7**
N1218/N1219	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.005 m η = 4.3	x: 1.005 m η = 2.5	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 10.9	**PASSA η = 10.9**
N1219/N1220	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 4.8	x: 0 m η = 1.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 11.4	**PASSA η = 11.4**
N1220/N1221	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 6.2	x: 1.105 m η = 3.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.0	**PASSA η = 18.0**
N1222/N1223	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.0	x: 0 m η = 3.1	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.8	**PASSA η = 15.8**
N1223/N1224	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 11.3	x: 1.105 m η = 5.0	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 30.1	**PASSA η = 30.1**
N1224/N1225	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 10.8	x: 0 m η = 6.0	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 31.1	**PASSA η = 31.1**
N1225/N1226	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 2.6	x: 1.105 m η = 4.3	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 13.1	**PASSA η = 13.1**
N1226/N1227	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 4.2	x: 0 m η = 1.0	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.8	**PASSA η = 4.8**
N1227/N1228	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0.214 m η = 1.3	x: 0 m η = 2.3	x: 0.854 m η = 0.1	x: 0.854 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 3.5	**PASSA η = 3.5**
N1229/N1230	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 2.5	x: 1.005 m η = 1.4	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 6.1	**PASSA η = 6.1**
N1230/N1231	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.005 m η = 4.0	x: 0.502 m η = 1.9	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.837 m η = 9.1	**PASSA η = 9.1**
N1231/N1232	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 3.9	x: 0 m η = 1.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.3	**PASSA η = 10.3**
N1232/N1233	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 7.0	x: 1.105 m η = 3.1	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.4	**PASSA η = 18.4**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1234/N1235	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 4.3	x: 0 m η = 3.5	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.1	**PASSA η = 15.1**
N1235/N1236	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 10.4	x: 1.105 m η = 5.9	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 30.0	**PASSA η = 30.0**
N1236/N1237	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 10.9	x: 0 m η = 4.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 29.2	**PASSA η = 29.2**
N1237/N1238	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 8.1	x: 1.105 m η = 3.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 21.6	**PASSA η = 21.6**
N1238/N1239	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 6.9	x: 0 m η = 5.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 11.9	**PASSA η = 11.9**
N1239/N1240	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0 m η = 5.4	x: 0.641 m η = 1.6	x: 0 m η < 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 5.8	**PASSA η = 5.8**
N1241/N1242	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 0.9	x: 1.005 m η = 1.2	x: 0 m η = 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 3.2	**PASSA η = 3.2**
N1242/N1243	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.005 m η = 4.3	x: 1.005 m η = 2.7	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 11.2	**PASSA η = 11.2**
N1243/N1244	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 4.9	x: 0 m η = 1.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 11.7	**PASSA η = 11.7**
N1244/N1245	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 6.2	x: 1.105 m η = 3.8	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.2	**PASSA η = 18.2**
N1246/N1247	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 3.7	x: 0 m η = 2.2	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 11.6	**PASSA η = 11.6**
N1247/N1248	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 10.8	x: 1.105 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 28.4	**PASSA η = 28.4**
N1248/N1249	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 10.1	x: 0 m η = 5.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 29.7	**PASSA η = 29.7**
N1249/N1250	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 4.9	x: 1.105 m η = 4.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.4	**PASSA η = 18.4**
N1250/N1251	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 6.1	x: 0 m η = 2.3	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.9	**PASSA η = 7.9**
N1251/N1252	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0 m η = 3.4	x: 0 m η = 3.3	x: 0.854 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 6.4	**PASSA η = 6.4**
N1253/N1254	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 3.9	x: 1.005 m η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 10.2	**PASSA η = 10.2**
N1254/N1255	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0.502 m η = 4.2	x: 0.335 m η = 2.3	x: 1.005 m η < 0.1	x: 1.005 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.335 m η = 10.4	**PASSA η = 10.4**
N1255/N1256	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 3.9	x: 0 m η = 1.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.2	**PASSA η = 10.2**
N1256/N1257	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 7.4	x: 1.105 m η = 3.4	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 19.7	**PASSA η = 19.7**
N1258/N1259	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 3.6	x: 0 m η = 3.1	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 12.9	**PASSA η = 12.9**
N1259/N1260	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 10.3	x: 1.105 m η = 5.8	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 29.7	**PASSA η = 29.7**
N1260/N1261	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.2	x: 0 m η = 10.8	x: 0 m η = 4.7	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 28.9	**PASSA η = 28.9**
N1261/N1262	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η < 0.1	x: 1.105 m η = 9.6	x: 1.105 m η = 4.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 14.2	**PASSA η = 14.2**
N1262/N1263	N.A.(5)	x: 1.256 m η = 0.1	N.A.(6)	x: 0 m η = 8.6	x: 0 m η = 6.3	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 14.0	**PASSA η = 14.0**
N1263/N1264	N.A.(5)	x: 0.214 m η = 0.1	N.A.(6)	x: 0 m η = 6.2	x: 0.427 m η = 1.8	x: 0 m η < 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.2	**PASSA η = 7.2**
N1265/N1266	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.005 m η = 0.4	x: 0 m η = 0.4	x: 0 m η < 0.1	x: 1.005 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 1.3	**PASSA η = 1.3**
N1266/N1267	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 3.3	x: 1.005 m η = 2.5	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 9.4	**PASSA η = 9.4**
N1267/N1268	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 3.8	x: 1.105 m η = 1.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 9.8	**PASSA η = 9.8**
N1268/N1269	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 4.2	x: 0 m η = 2.5	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 11.7	**PASSA η = 11.7**
N1270/N1271	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 1.8	x: 1.105 m η = 0.7	x: 1.105 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 5.2	**PASSA η = 5.2**
N1271/N1272	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 6.4	x: 1.105 m η = 2.2	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.8	**PASSA η = 15.8**
N1272/N1273	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 5.5	x: 0 m η = 4.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.5	**PASSA η = 18.5**
N1273/N1274	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.3	x: 0 m η = 4.4	x: 1.105 m η = 0.9	x: 1.105 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 9.6	**PASSA η = 9.6**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1274/N1275	$\lambda \leq 200.0$ Passa	x: 1.256 m $\eta < 0.1$	x: 0 m $\eta = 0.2$	x: 0.209 m $\eta = 2.1$	x: 0 m $\eta = 2.3$	x: 1.256 m $\eta = 0.1$	x: 1.256 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 9.8$	**PASSA $\eta = 9.8$**
N1275/N1276	$\lambda \leq 200.0$ Passa	x: 0.854 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	x: 0.854 m $\eta = 0.8$	x: 0 m $\eta = 1.8$	x: 0.854 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.854 m $\eta = 3.6$	**PASSA $\eta = 3.6$**
N1283/N1284	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 1.005 m $\eta = 2.2$	x: 1.005 m $\eta = 1.9$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 6.6$	**PASSA $\eta = 6.6$**
N1284/N1277	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 1.005 m $\eta = 4.2$	x: 1.005 m $\eta = 3.0$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 11.8$	**PASSA $\eta = 11.8$**
N1277/N1285	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 5.0$	x: 1.105 m $\eta = 2.2$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 13.8$	**PASSA $\eta = 13.8$**
N1285/N1278	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 1.105 m $\eta = 6.4$	x: 1.105 m $\eta = 3.6$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 18.3$	**PASSA $\eta = 18.3$**
N1279/N1286	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 6.4$	x: 0 m $\eta = 2.7$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 16.8$	**PASSA $\eta = 16.8$**
N1286/N1280	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 1.105 m $\eta = 6.1$	x: 0 m $\eta = 2.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 15.7$	**PASSA $\eta = 15.7$**
N1280/N1287	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 5.4$	x: 0 m $\eta = 3.7$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 17.0$	**PASSA $\eta = 17.0$**
N1287/N1281	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 3.0$	x: 1.105 m $\eta = 1.5$	x: 1.105 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 5.9$	**PASSA $\eta = 5.9$**
N1281/N1288	x: 0 m $\lambda \leq 200.0$ Passa	x: 1.256 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 1.256 m $\eta = 4.8$	x: 0.838 m $\eta = 1.6$	x: 1.256 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.838 m $\eta = 8.0$	**PASSA $\eta = 8.0$**
N1288/N1282	N.A.(5)	x: 0.427 m $\eta = 0.1$	N.A.(6)	x: 0 m $\eta = 3.4$	x: 0 m $\eta = 3.8$	x: 0.854 m $\eta = 0.1$	x: 0.854 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 6.9$	**PASSA $\eta = 6.9$**
N1314/N1321	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 1.005 m $\eta = 0.3$	x: 1.005 m $\eta = 0.7$	x: 1.005 m $\eta < 0.1$	x: 1.005 m $\eta < 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 1.9$	**PASSA $\eta = 1.9$**
N1321/N1315	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 1.005 m $\eta = 5.8$	x: 1.005 m $\eta = 2.3$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 13.2$	**PASSA $\eta = 13.2$**
N1315/N1322	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 5.4$	x: 0 m $\eta = 3.1$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 15.5$	**PASSA $\eta = 15.5$**
N1322/N1316	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 1.105 m $\eta = 6.6$	x: 1.105 m $\eta = 2.9$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 17.4$	**PASSA $\eta = 17.4$**
N1317/N1323	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 5.6$	x: 0 m $\eta = 2.0$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 14.0$	**PASSA $\eta = 14.0$**
N1323/N1318	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 1.105 m $\eta = 6.6$	x: 1.105 m $\eta = 4.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 20.4$	**PASSA $\eta = 20.4$**
N1318/N1324	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 7.7$	x: 0.553 m $\eta = 2.6$	x: 1.105 m $\eta < 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 18.7$	**PASSA $\eta = 18.7$**
N1324/N1319	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.1$	x: 1.105 m $\eta = 4.4$	x: 0 m $\eta = 1.0$	x: 0 m $\eta < 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 9.9$	**PASSA $\eta = 9.9$**
N1319/N1325	$\lambda \leq 200.0$ Passa	x: 1.256 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 2.8$	x: 0 m $\eta = 4.0$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 15.8$	**PASSA $\eta = 15.8$**
N1325/N1320	N.A.(5)	x: 0.854 m $\eta = 0.1$	N.A.(6)	x: 0 m $\eta = 4.0$	x: 0.854 m $\eta = 1.6$	x: 0 m $\eta = 0.1$	x: 0.854 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 4.2$	**PASSA $\eta = 4.2$**
N1408/N1380	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 1.005 m $\eta = 7.7$	x: 1.005 m $\eta = 4.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 19.2$	**PASSA $\eta = 19.2$**
N1380/N1374	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 8.0$	x: 0.335 m $\eta = 3.5$	x: 1.005 m $\eta < 0.1$	x: 1.005 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 18.4$	**PASSA $\eta = 18.4$**
N1374/N1381	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 4.9$	x: 0 m $\eta = 1.4$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 11.6$	**PASSA $\eta = 11.6$**
N1381/N1375	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 1.105 m $\eta = 8.1$	x: 1.105 m $\eta = 4.9$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 23.9$	**PASSA $\eta = 23.9$**
N1376/N1382	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 6.9$	x: 0 m $\eta = 4.0$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 20.3$	**PASSA $\eta = 20.3$**
N1382/N1377	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.4$	x: 1.105 m $\eta = 7.1$	x: 1.105 m $\eta = 2.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 17.7$	**PASSA $\eta = 17.7$**
N1377/N1383	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 0.921 m $\eta = 6.6$	x: 0.184 m $\eta = 4.0$	x: 1.105 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.184 m $\eta = 19.3$	**PASSA $\eta = 19.3$**
N1383/N1378	$\lambda \leq 200.0$ Passa	x: 1.105 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	x: 1.105 m $\eta = 11.4$	x: 1.105 m $\eta = 8.1$	x: 1.105 m $\eta = 0.2$	x: 1.105 m $\eta = 0.4$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m $\eta = 36.9$	**PASSA $\eta = 36.9$**
N1378/N1384	$\lambda \leq 200.0$ Passa	x: 1.256 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta = 12.6$	x: 0 m $\eta = 5.7$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.5$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 25.7$	**PASSA $\eta = 25.7$**
N1384/N1379	N.A.(5)	x: 0.641 m $\eta = 0.1$	N.A.(6)	x: 0 m $\eta = 9.1$	x: 0 m $\eta = 6.4$	x: 0.854 m $\eta = 0.1$	x: 0.854 m $\eta = 0.3$	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m $\eta = 14.2$	**PASSA $\eta = 14.2$**
N1409/N1416	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.3$	x: 1.005 m $\eta = 2.1$	x: 1.005 m $\eta = 1.6$	x: 1.005 m $\eta < 0.1$	x: 1.005 m $\eta = 0.1$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 6.3$	**PASSA $\eta = 6.3$**
N1416/N1410	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m $\eta = 0.5$	x: 1.005 m $\eta = 5.7$	x: 0.837 m $\eta = 1.9$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m $\eta = 12.3$	**PASSA $\eta = 12.3$**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1410/N1417	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 5.2	x: 0 m η = 3.0	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 14.8	**PASSA η = 14.8**
N1417/N1411	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 6.7	x: 1.105 m η = 2.8	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 17.3	**PASSA η = 17.3**
N1412/N1418	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 5.6	x: 0 m η = 2.1	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 14.0	**PASSA η = 14.0**
N1418/N1413	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 6.2	x: 1.105 m η = 4.4	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 19.3	**PASSA η = 19.3**
N1413/N1419	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 7.4	x: 0.737 m η = 2.6	x: 0 m η < 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.3	**PASSA η = 17.3**
N1419/N1414	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.105 m η = 5.3	x: 0 m η = 1.6	x: 0 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 12.2	**PASSA η = 12.2**
N1414/N1420	$\lambda \leq 200.0$ Passa	x: 1.256 m η < 0.1	x: 0 m η = 0.1	x: 0 m η = 3.6	x: 0 m η = 4.4	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.9	**PASSA η = 18.9**
N1420/N1415	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 4.7	x: 0 m η = 1.8	x: 0 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.8	**PASSA η = 4.8**
N1866/N1865	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.005 m η = 3.5	x: 1.005 m η = 2.1	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 9.0	**PASSA η = 9.0**
N1865/N1867	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 4.0	x: 0.167 m η = 1.2	x: 1.005 m η < 0.1	x: 1.005 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 8.3	**PASSA η = 8.3**
N1867/N1868	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 1.5	x: 0 m η = 3.5	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.2	**PASSA η = 10.2**
N1868/N1869	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0.368 m η = 2.7	x: 1.105 m η = 2.2	x: 0 m η = 0.1	x: 1.105 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.737 m η = 8.0	**PASSA η = 8.0**
N1870/N1871	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 0 m η = 3.7	x: 0 m η = 2.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.9	**PASSA η = 10.9**
N1871/N1872	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 4.4	x: 0.737 m η = 1.5	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 10.0	**PASSA η = 10.0**
N1872/N1873	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0.553 m η = 4.0	x: 0.368 m η = 2.5	x: 1.105 m η = 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.368 m η = 11.4	**PASSA η = 11.4**
N1873/N1874	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.105 m η = 3.4	x: 1.105 m η = 3.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 14.1	**PASSA η = 14.1**
N1874/N1875	$\lambda \leq 200.0$ Passa	x: 1.256 m η < 0.1	x: 0 m η = 0.2	x: 0 m η = 4.9	x: 0 m η = 1.0	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.8	**PASSA η = 13.8**
N1875/N1876	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 2.0	x: 0 m η = 3.9	x: 0.854 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 5.7	**PASSA η = 5.7**
N1878/N1877	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 14.6	x: 1.005 m η = 7.0	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 35.9	**PASSA η = 35.9**
N1877/N1879	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 14.3	x: 0 m η = 7.7	x: 1.005 m η = 0.2	x: 1.005 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 36.3	**PASSA η = 36.3**
N1879/N1880	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 11.3	x: 0 m η = 5.3	x: 0 m η = 0.1	x: 0 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 30.1	**PASSA η = 30.1**
N1880/N1881	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 10.9	x: 0 m η = 5.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 30.5	**PASSA η = 30.5**
N1882/N1883	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 5.1	x: 0 m η = 3.7	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.2	**PASSA η = 17.2**
N1883/N1884	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 5.8	x: 0.737 m η = 2.7	x: 0 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.184 m η = 13.1	**PASSA η = 13.1**
N1884/N1885	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 6.8	x: 1.105 m η = 4.9	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 21.6	**PASSA η = 21.6**
N1885/N1886	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.105 m η = 11.1	x: 1.105 m η = 3.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 28.4	**PASSA η = 28.4**
N1886/N1887	$\lambda \leq 200.0$ Passa	x: 1.256 m η = 0.1	x: 0 m η = 0.1	x: 0 m η = 9.5	x: 0 m η = 7.1	x: 0 m η = 0.2	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 38.3	**PASSA η = 38.3**
N1887/N1888	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 10.5	x: 0 m η = 3.3	x: 0.854 m η = 0.1	x: 0.854 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.1	**PASSA η = 13.1**
N1889/N1890	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 6.9	x: 1.005 m η = 3.8	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 17.6	**PASSA η = 17.6**
N1890/N1891	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 7.2	x: 0 m η = 3.4	x: 1.005 m η = 0.1	x: 1.005 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.2	**PASSA η = 17.2**
N1891/N1892	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 3.7	x: 1.105 m η = 1.6	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 9.4	**PASSA η = 9.4**
N1892/N1893	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 4.0	x: 0.553 m η = 1.5	x: 1.105 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 8.5	**PASSA η = 8.5**
N1894/N1895	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0.921 m η = 1.6	x: 0 m η = 2.0	x: 1.105 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 5.6	**PASSA η = 5.6**
N1895/N1896	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 4.1	x: 0.184 m η = 1.6	x: 1.105 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 8.0	**PASSA η = 8.0**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1896/N1897	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0.184 m η = 2.9	x: 0 m η = 2.9	x: 1.105 m η = 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.5	**PASSA η = 10.5**
N1897/N1898	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.3	x: 1.105 m η = 1.4	x: 1.105 m η = 2.7	x: 1.105 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 6.2	**PASSA η = 6.2**
N1898/N1899	$\lambda \leq 200.0$ Passa	x: 1.256 m η = 0.1	x: 0 m η = 0.1	x: 1.256 m η = 4.8	x: 0.419 m η = 2.2	x: 1.256 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.256 m η = 12.0	**PASSA η = 12.0**
N1899/N1900	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 3.2	x: 0 m η = 3.5	x: 0.854 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 6.4	**PASSA η = 6.4**
N1905/N1901	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 1.8	x: 0.502 m η = 0.9	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 3.6	**PASSA η = 3.6**
N1901/N1906	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.005 m η = 5.9	x: 0.837 m η = 2.3	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 13.3	**PASSA η = 13.3**
N1906/N1907	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.3	x: 0 m η = 3.4	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.9	**PASSA η = 15.9**
N1907/N1908	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 7.3	x: 1.105 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 19.5	**PASSA η = 19.5**
N1909/N1910	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.3	x: 0 m η = 2.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 16.4	**PASSA η = 16.4**
N1910/N1911	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 7.0	x: 1.105 m η = 4.9	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 22.1	**PASSA η = 22.1**
N1911/N1912	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.4	x: 0 m η = 8.3	x: 0 m η = 2.6	x: 1.105 m η < 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.1	**PASSA η = 20.1**
N1912/N1913	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.2	x: 1.105 m η = 3.5	x: 0 m η = 2.3	x: 0 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 8.2	**PASSA η = 8.2**
N1913/N1914	$\lambda \leq 200.0$ Passa	x: 1.256 m η = 0.1	x: 0 m η = 0.1	x: 1.256 m η = 2.6	x: 0 m η = 3.8	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.6	**PASSA η = 10.6**
N1914/N1915	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 4.2	x: 0.854 m η = 1.6	x: 0 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.2	**PASSA η = 4.2**
N1916/N1902	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 3.5	x: 1.005 m η = 2.0	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 8.8	**PASSA η = 8.8**
N1902/N1917	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0.837 m η = 4.7	x: 0.837 m η = 2.9	x: 0 m η = 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.837 m η = 12.4	**PASSA η = 12.4**
N1917/N1918	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.3	x: 0 m η = 1.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.0	**PASSA η = 13.0**
N1918/N1919	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 7.3	x: 1.105 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 22.0	**PASSA η = 22.0**
N1920/N1921	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.3	x: 0 m η = 3.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.7	**PASSA η = 18.7**
N1921/N1922	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 7.4	x: 1.105 m η = 2.6	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 18.6	**PASSA η = 18.6**
N1922/N1923	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.3	x: 0 m η = 6.6	x: 0 m η = 4.3	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.1	**PASSA η = 20.1**
N1923/N1924	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 6.9	x: 1.105 m η = 5.7	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 24.0	**PASSA η = 24.0**
N1924/N1925	$\lambda \leq 200.0$ Passa	x: 1.256 m η = 0.1	x: 0 m η = 0.1	x: 0 m η = 8.3	x: 0 m η = 3.0	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 22.6	**PASSA η = 22.6**
N1925/N1926	N.A.(5)	x: 0.641 m η = 0.1	N.A.(6)	x: 0 m η = 5.8	x: 0 m η = 5.2	x: 0.854 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 10.5	**PASSA η = 10.5**
N1927/N1903	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 2.1	x: 0.335 m η = 0.9	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 4.2	**PASSA η = 4.2**
N1903/N1928	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.005 m η = 6.1	x: 0.837 m η = 2.4	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 13.7	**PASSA η = 13.7**
N1928/N1929	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.5	x: 0 m η = 3.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 16.4	**PASSA η = 16.4**
N1929/N1930	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 7.6	x: 1.105 m η = 3.4	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 20.2	**PASSA η = 20.2**
N1931/N1932	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.7	x: 0 m η = 2.7	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.3	**PASSA η = 17.3**
N1932/N1933	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 7.0	x: 1.105 m η = 4.8	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 21.9	**PASSA η = 21.9**
N1933/N1934	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.3	x: 0 m η = 8.2	x: 0.553 m η = 2.9	x: 0 m η < 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 19.9	**PASSA η = 19.9**
N1934/N1935	$\lambda \leq 200.0$ Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 6.4	x: 1.105 m η = 1.2	x: 1.105 m η < 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 14.6	**PASSA η = 14.6**
N1935/N1936	$\lambda \leq 200.0$ Passa	x: 1.256 m η = 0.1	x: 0 m η = 0.1	x: 1.256 m η = 5.1	x: 0 m η = 4.9	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 19.1	**PASSA η = 19.1**
N1936/N1937	N.A.(5)	x: 0.854 m η = 0.1	N.A.(6)	x: 0 m η = 6.9	x: 0.641 m η = 2.1	x: 0 m η < 0.1	x: 0.854 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 7.6	**PASSA η = 7.6**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N1938/N1904	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.3	x: 1.005 m η = 5.6	x: 1.005 m η = 2.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 13.5	**PASSA η = 13.5**
N1904/N1939	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 5.8	x: 0.502 m η = 3.1	x: 0 m η < 0.1	x: 1.005 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.502 m η = 13.8	**PASSA η = 13.8**
N1939/N1940	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.3	x: 0 m η = 2.0	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.3	**PASSA η = 13.3**
N1940/N1941	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 7.8	x: 1.105 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 22.9	**PASSA η = 22.9**
N1942/N1943	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 6.5	x: 0 m η = 3.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.9	**PASSA η = 18.9**
N1943/N1944	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 7.5	x: 1.105 m η = 2.9	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 19.4	**PASSA η = 19.4**
N1944/N1945	λ ≤ 200.0 Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.2	x: 0 m η = 6.9	x: 0 m η = 4.2	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.6	**PASSA η = 20.6**
N1945/N1946	λ ≤ 200.0 Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.1	x: 1.105 m η = 9.0	x: 1.105 m η = 6.3	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 28.9	**PASSA η = 28.9**
N1946/N1947	x: 0 m λ ≤ 200.0 Passa	x: 1.256 m η = 0.1	x: 0 m η < 0.1	x: 0 m η = 10.1	x: 0 m η = 4.2	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 22.3	**PASSA η = 22.3**
N1947/N1948	N.A.(5)	x: 0.427 m η = 0.1	N.A.(6)	x: 0 m η = 7.3	x: 0 m η = 5.3	x: 0.854 m η = 0.1	x: 0.854 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 11.9	**PASSA η = 11.9**
N1949/N1951	λ ≤ 200.0 Passa	x: 1.005 m η < 0.1	x: 0 m η = 0.1	x: 0.335 m η = 0.2	x: 1.005 m η = 1.1	x: 1.005 m η < 0.1	x: 0 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 2.1	**PASSA η = 2.1**
N1951/N1953	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.2	x: 1.005 m η = 5.2	x: 0.837 m η = 1.5	x: 0 m η < 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.005 m η = 11.0	**PASSA η = 11.0**
N1953/N1955	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.3	x: 0 m η = 4.3	x: 1.105 m η = 3.1	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 13.7	**PASSA η = 13.7**
N1955/N1957	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.105 m η = 5.8	x: 1.105 m η = 2.5	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.4	**PASSA η = 15.4**
N1959/N1961	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.2	x: 0 m η = 2.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 14.6	**PASSA η = 14.6**
N1961/N1963	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 5.4	x: 1.105 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.9	**PASSA η = 15.9**
N1963/N1965	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.5	x: 0 m η = 1.6	x: 1.105 m η = 0.1	x: 1.105 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.0	**PASSA η = 15.0**
N1965/N1967	λ ≤ 200.0 Passa	x: 1.105 m η < 0.1	x: 0 m η = 0.4	x: 0 m η = 2.8	x: 0 m η = 4.0	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.2	**PASSA η = 13.2**
N1967/N1969	λ ≤ 200.0 Passa	x: 1.256 m η < 0.1	x: 0 m η = 0.4	x: 0 m η = 4.1	x: 1.047 m η = 2.0	x: 0 m η = 0.1	x: 1.256 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.209 m η = 10.6	**PASSA η = 10.6**
N1969/N1971	λ ≤ 200.0 Passa	x: 0.854 m η < 0.1	x: 0 m η = 0.1	x: 0 m η = 2.3	x: 0.854 m η = 1.4	x: 0 m η = 0.1	x: 0.854 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 4.9	**PASSA η = 4.9**
N1974/N634	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.1	x: 0 m η = 3.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.8	**PASSA η = 18.8**
N1976/N646	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 7.4	x: 0 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 23.0	**PASSA η = 23.0**
N1977/N676	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 8.9	x: 0 m η = 5.2	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 27.0	**PASSA η = 27.0**
N1978/N714	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 5.7	x: 0 m η = 3.8	x: 0 m η < 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 18.2	**PASSA η = 18.2**
N1979/N1174	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.105 m η = 7.3	x: 1.105 m η = 3.8	x: 1.105 m η = 0.1	x: 1.105 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 21.5	**PASSA η = 21.5**
N1980/N1198	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 14.6	x: 1.105 m η = 7.9	x: 1.105 m η = 0.1	x: 1.105 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 42.8	**PASSA η = 42.8**
N1981/N1210	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.105 m η = 8.3	x: 1.105 m η = 4.3	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 24.3	**PASSA η = 24.3**
N1982/N1222	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 6.3	x: 0 m η = 4.0	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 19.8	**PASSA η = 19.8**
N1983/N1234	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.8	x: 0 m η = 4.0	x: 0 m η < 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.9	**PASSA η = 20.9**
N1984/N1246	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.6	x: 0 m η = 4.1	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.6	**PASSA η = 20.6**
N1985/N1258	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 8.2	x: 0 m η = 4.7	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 24.6	**PASSA η = 24.6**
N1986/N1270	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 4.2	x: 0 m η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 13.0	**PASSA η = 13.0**
N633/N1974	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 6.3	x: 1.106 m η = 3.5	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 18.6	**PASSA η = 18.6**
N645/N1976	λ ≤ 200.0 Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.106 m η = 7.7	x: 1.106 m η = 4.0	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 22.3	**PASSA η = 22.3**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N675/N1977	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 8.9	x: 1.106 m η = 5.3	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 27.1	**PASSA η = 27.1**
N713/N1978	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.106 m η = 5.8	x: 1.106 m η = 3.2	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 17.5	**PASSA η = 17.5**
N1173/N1979	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 1.106 m η = 2.6	x: 1.106 m η = 2.4	x: 1.106 m η = 0.1	x: 1.106 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 10.3	**PASSA η = 10.3**
N1197/N1980	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.7	x: 0 m η = 3.8	x: 0 m η = 2.7	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 12.7	**PASSA η = 12.7**
N1209/N1981	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.106 m η = 2.4	x: 1.106 m η = 1.1	x: 1.106 m η = 0.1	x: 1.106 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 7.2	**PASSA η = 7.2**
N1221/N1982	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 6.6	x: 1.106 m η = 3.6	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 19.5	**PASSA η = 19.5**
N1233/N1983	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 6.7	x: 1.106 m η = 4.3	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 21.1	**PASSA η = 21.1**
N1245/N1984	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.106 m η = 6.7	x: 1.106 m η = 3.8	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 20.3	**PASSA η = 20.3**
N1257/N1985	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.106 m η = 8.1	x: 1.106 m η = 4.7	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 24.7	**PASSA η = 24.7**
N1269/N1986	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 4.3	x: 1.106 m η = 2.5	x: 1.106 m η = 0.1	x: 1.106 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 12.7	**PASSA η = 12.7**
N1988/N1279	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 7.3	x: 0 m η = 4.6	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 22.9	**PASSA η = 22.9**
N1990/N1317	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 10.5	x: 0 m η = 6.1	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 31.5	**PASSA η = 31.5**
N1991/N1376	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 11.8	x: 0 m η = 6.6	x: 0 m η = 0.1	x: 0 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 34.8	**PASSA η = 34.8**
N1992/N1412	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 10.0	x: 0 m η = 5.8	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 30.1	**PASSA η = 30.1**
N1993/N1870	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 6.9	x: 0 m η = 4.0	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 21.1	**PASSA η = 21.1**
N1994/N1882	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.105 m η = 5.6	x: 1.105 m η = 2.5	x: 1.105 m η = 0.1	x: 1.105 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.105 m η = 15.9	**PASSA η = 15.9**
N1995/N1894	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 5.1	x: 0 m η = 3.0	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 15.8	**PASSA η = 15.8**
N1996/N1909	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 10.7	x: 0 m η = 6.3	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 32.5	**PASSA η = 32.5**
N1997/N1920	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 11.2	x: 0 m η = 6.3	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 33.3	**PASSA η = 33.3**
N1998/N1931	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 10.8	x: 0 m η = 6.3	x: 0 m η = 0.1	x: 0 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 32.6	**PASSA η = 32.6**
N1999/N1942	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 0 m η = 12.3	x: 0 m η = 6.8	x: 0 m η = 0.1	x: 0 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 36.1	**PASSA η = 36.1**
N2000/N1959	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 0 m η = 7.0	x: 0 m η = 3.7	x: 0 m η = 0.1	x: 0 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 20.5	**PASSA η = 20.5**
N1278/N1988	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 7.5	x: 1.106 m η = 4.2	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 22.4	**PASSA η = 22.4**
N1316/N1990	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 10.5	x: 1.106 m η = 5.9	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 31.2	**PASSA η = 31.2**
N1375/N1991	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 11.9	x: 1.106 m η = 6.1	x: 1.106 m η = 0.1	x: 1.106 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 34.3	**PASSA η = 34.3**
N1411/N1992	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.106 m η = 10.0	x: 1.106 m η = 5.7	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 29.9	**PASSA η = 29.9**
N1869/N1993	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.106 m η = 7.2	x: 1.106 m η = 3.1	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 20.1	**PASSA η = 20.1**
N1881/N1994	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 0 m η = 5.7	x: 0 m η = 3.3	x: 0 m η = 0.1	x: 0 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0 m η = 17.4	**PASSA η = 17.4**
N1893/N1995	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.6	x: 1.106 m η = 5.0	x: 1.106 m η = 3.0	x: 1.106 m η = 0.1	x: 1.106 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 15.7	**PASSA η = 15.7**
N1908/N1996	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.5	x: 1.106 m η = 10.7	x: 1.106 m η = 6.3	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 32.3	**PASSA η = 32.3**
N1919/N1997	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 11.3	x: 1.106 m η = 5.9	x: 1.106 m η = 0.1	x: 1.106 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 32.7	**PASSA η = 32.7**
N1930/N1998	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 10.8	x: 1.106 m η = 6.3	x: 1.106 m η = 0.1	x: 1.106 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 32.4	**PASSA η = 32.4**
N1941/N1999	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 12.4	x: 1.106 m η = 6.5	x: 1.106 m η = 0.1	x: 1.106 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 35.7	**PASSA η = 35.7**
N1957/N2000	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0 m η = 0.4	x: 1.106 m η = 6.5	x: 1.106 m η = 4.0	x: 1.106 m η = 0.1	x: 1.106 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 1.106 m η = 20.2	**PASSA η = 20.2**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N22/N2007	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 11.7	x: 0.566 m η = 7.4	x: 0.566 m η = 8.3	x: 0.566 m η = 0.3	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 30.9	**PASSA η = 30.9**
N22/N2008	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 8.9	x: 0.566 m η = 2.2	x: 0.566 m η = 9.4	x: 0.566 m η = 0.4	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 30.2	**PASSA η = 30.2**
N89/N2009	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.7	x: 0.566 m η = 2.9	x: 0.566 m η = 12.7	x: 0.566 m η = 0.5	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 41.4	**PASSA η = 41.4**
N89/N2010	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.9	x: 0.566 m η = 7.0	x: 0.566 m η = 7.9	x: 0.566 m η = 0.3	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 28.3	**PASSA η = 28.3**
N170/N2006	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 18.0	x: 0.566 m η = 10.4	x: 0.566 m η = 10.2	x: 0.566 m η = 0.3	x: 0.566 m η = 0.7	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 41.9	**PASSA η = 41.9**
N170/N2003	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 22.9	x: 0.566 m η = 4.7	x: 0.566 m η = 21.9	x: 0.566 m η = 1.0	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 72.4	**PASSA η = 72.4**
N192/N2011	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.1	x: 0.566 m η = 5.7	x: 0.566 m η = 20.1	x: 0.566 m η = 0.8	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 60.7	**PASSA η = 60.7**
N192/N2005	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 19.4	x: 0.566 m η = 14.2	x: 0.566 m η = 17.3	x: 0.566 m η = 0.7	x: 0.566 m η = 1.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 59.5	**PASSA η = 59.5**
N210/N2002	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 13.4	x: 0.566 m η = 8.0	x: 0.566 m η = 8.9	x: 0.566 m η = 0.4	x: 0.566 m η = 0.8	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.028 m η = 36.9	**PASSA η = 36.9**
N210/N2012	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 6.8	x: 0.028 m η = 2.1	x: 0.566 m η = 7.7	x: 0.566 m η = 0.3	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 23.9	**PASSA η = 23.9**
N231/N2004	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.0	x: 0.566 m η = 3.1	x: 0.566 m η = 13.9	x: 0.566 m η = 0.6	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 45.5	**PASSA η = 45.5**
N231/N2013	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.0	x: 0.566 m η = 6.7	x: 0.566 m η = 7.6	x: 0.566 m η = 0.3	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 26.6	**PASSA η = 26.6**
N251/N2016	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.6	x: 0.566 m η = 9.5	x: 0.566 m η = 11.4	x: 0.566 m η = 0.5	x: 0.566 m η = 0.7	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 39.0	**PASSA η = 39.0**
N251/N2017	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.9	x: 0.566 m η = 4.2	x: 0.566 m η = 15.6	x: 0.566 m η = 0.6	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 48.3	**PASSA η = 48.3**
N274/N2014	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.6	x: 0.566 m η = 5.0	x: 0.566 m η = 18.9	x: 0.566 m η = 0.8	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 58.5	**PASSA η = 58.5**
N274/N2015	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.6	x: 0.566 m η = 11.7	x: 0.566 m η = 14.0	x: 0.566 m η = 0.6	x: 0.566 m η = 0.9	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 48.2	**PASSA η = 48.2**
N294/N2018	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 6.7	x: 0.566 m η = 5.3	x: 0.566 m η = 6.1	x: 0.566 m η = 0.3	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 20.9	**PASSA η = 20.9**
N294/N2019	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.1	x: 0.566 m η = 2.7	x: 0.566 m η = 11.8	x: 0.566 m η = 0.5	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 38.8	**PASSA η = 38.8**
N318/N2020	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.0	x: 0.566 m η = 2.9	x: 0.566 m η = 11.0	x: 0.566 m η = 0.4	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 34.0	**PASSA η = 34.0**
N318/N2021	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.5	x: 0.566 m η = 9.8	x: 0.566 m η = 11.3	x: 0.566 m η = 0.4	x: 0.566 m η = 0.9	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.028 m η = 42.5	**PASSA η = 42.5**
N341/N2022	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 16.6	x: 0.566 m η = 12.6	x: 0.566 m η = 15.7	x: 0.566 m η = 0.6	x: 0.566 m η = 1.0	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 52.7	**PASSA η = 52.7**
N341/N2023	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.0	x: 0.566 m η = 5.6	x: 0.566 m η = 19.7	x: 0.566 m η = 0.8	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 59.7	**PASSA η = 59.7**
N367/N2024	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 20.3	x: 0.566 m η = 7.2	x: 0.566 m η = 25.8	x: 0.566 m η = 1.0	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 78.8	**PASSA η = 78.8**
N367/N2025	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 18.7	x: 0.566 m η = 15.0	x: 0.566 m η = 18.7	x: 0.566 m η = 0.8	x: 0.566 m η = 1.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 62.1	**PASSA η = 62.1**
N425/N2030	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 13.8	x: 0.566 m η = 10.7	x: 0.566 m η = 13.2	x: 0.566 m η = 0.5	x: 0.566 m η = 0.8	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 44.3	**PASSA η = 44.3**
N425/N2031	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.4	x: 0.566 m η = 4.9	x: 0.566 m η = 17.9	x: 0.566 m η = 0.7	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 55.0	**PASSA η = 55.0**
N447/N2032	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 17.2	x: 0.566 m η = 6.0	x: 0.566 m η = 21.8	x: 0.566 m η = 0.9	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 66.7	**PASSA η = 66.7**
N447/N2033	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 18.0	x: 0.566 m η = 13.7	x: 0.566 m η = 16.8	x: 0.566 m η = 0.7	x: 0.566 m η = 1.0	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 56.9	**PASSA η = 56.9**
N465/N2034	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.3	x: 0.566 m η = 6.4	x: 0.566 m η = 7.3	x: 0.566 m η = 0.3	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 26.3	**PASSA η = 26.3**
N465/N2035	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.0	x: 0.566 m η = 2.2	x: 0.566 m η = 9.5	x: 0.566 m η = 0.4	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 30.4	**PASSA η = 30.4**
N485/N2036	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.1	x: 0.566 m η = 3.1	x: 0.566 m η = 12.9	x: 0.566 m η = 0.5	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 41.3	**PASSA η = 41.3**
N485/N2037	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 11.8	x: 0.566 m η = 8.1	x: 0.566 m η = 9.3	x: 0.566 m η = 0.4	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 33.3	**PASSA η = 33.3**
N505/N2038	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.0	x: 0.566 m η = 11.0	x: 0.566 m η = 13.5	x: 0.566 m η = 0.5	x: 0.566 m η = 0.8	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 45.3	**PASSA η = 45.3**
N505/N2039	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.8	x: 0.566 m η = 5.0	x: 0.566 m η = 18.4	x: 0.566 m η = 0.7	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 56.6	**PASSA η = 56.6**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	σ τ f	
N527/N2040	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 17.4	x: 0.566 m η = 6.1	x: 0.566 m η = 22.2	x: 0.566 m η = 0.9	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 67.8	**PASSA η = 67.8**
N527/N2041	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 18.6	x: 0.566 m η = 14.2	x: 0.566 m η = 17.4	x: 0.566 m η = 0.7	x: 0.566 m η = 1.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 58.9	**PASSA η = 58.9**
N565/N2044	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 13.5	x: 0.566 m η = 3.3	x: 0.566 m η = 14.0	x: 0.566 m η = 0.6	x: 0.566 m η = 0.3	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 45.3	**PASSA η = 45.3**
N565/N2045	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.3	x: 0.495 m η = 5.8	x: 0.495 m η = 11.4	x: 0.494 m η = 0.5	x: 0.494 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.495 m η = 35.3	**PASSA η = 35.3**
N545/N2042	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 10.5	x: 0.566 m η = 6.9	x: 0.566 m η = 8.0	x: 0.566 m η = 0.3	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.028 m η = 30.1	**PASSA η = 30.1**
N545/N2043	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 7.1	x: 0.495 m η = 4.3	x: 0.495 m η = 8.9	x: 0.494 m η = 0.4	x: 0.494 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.495 m η = 27.4	**PASSA η = 27.4**
N366/N2046	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 11.9	x: 0.566 m η = 15.8	x: 0.566 m η = 24.3	x: 0.566 m η = 1.0	x: 0.566 m η = 1.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 75.1	**PASSA η = 75.1**
N366/N2047	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.5	x: 0.566 m η = 10.5	x: 0.566 m η = 27.6	x: 0.566 m η = 1.1	x: 0.566 m η = 0.9	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 75.4	**PASSA η = 75.4**
N365/N2048	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 16.3	x: 0.566 m η = 13.7	x: 0.566 m η = 18.8	x: 0.566 m η = 0.6	x: 0.566 m η = 1.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 59.7	**PASSA η = 59.7**
N365/N2049	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 17.5	x: 0.566 m η = 9.1	x: 0.566 m η = 27.2	x: 0.566 m η = 1.2	x: 0.566 m η = 0.7	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 79.5	**PASSA η = 79.5**
N377/N2050	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 18.8	x: 0.566 m η = 13.5	x: 0.566 m η = 15.6	x: 0.566 m η = 0.6	x: 0.566 m η = 1.0	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 55.0	**PASSA η = 55.0**
N377/N2051	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 19.9	x: 0.566 m η = 6.0	x: 0.566 m η = 23.2	x: 0.566 m η = 1.0	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 72.6	**PASSA η = 72.6**
N374/N2052	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 28.2	x: 0.566 m η = 11.3	x: 0.566 m η = 5.8	x: 0.566 m η = 0.3	x: 0.566 m η = 0.9	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.07 m η = 43.1	**PASSA η = 43.1**
N374/N2053	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 28.9	x: 0.566 m η = 1.7	x: 0.566 m η = 13.6	x: 0.566 m η = 0.6	x: 0.07 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 59.5	**PASSA η = 59.5**
N325/N2054	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 23.6	x: 0.566 m η = 9.5	x: 0.566 m η = 4.2	x: 0.566 m η = 0.2	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 37.0	**PASSA η = 37.0**
N325/N2055	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 22.2	x: 0.566 m η = 1.4	x: 0.566 m η = 10.2	x: 0.566 m η = 0.4	x: 0.07 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 45.2	**PASSA η = 45.2**
N328/N2056	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.8	x: 0.566 m η = 9.0	x: 0.566 m η = 9.0	x: 0.566 m η = 0.4	x: 0.566 m η = 0.7	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 36.0	**PASSA η = 36.0**
N328/N2057	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.1	x: 0.566 m η = 2.5	x: 0.566 m η = 12.0	x: 0.566 m η = 0.5	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 39.1	**PASSA η = 39.1**
N316/N2058	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 11.8	x: 0.566 m η = 8.1	x: 0.566 m η = 9.5	x: 0.566 m η = 0.4	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 33.9	**PASSA η = 33.9**
N316/N2059	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 8.3	x: 0.566 m η = 4.1	x: 0.566 m η = 11.9	x: 0.566 m η = 0.5	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 35.4	**PASSA η = 35.4**
N317/N2060	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 7.1	x: 0.566 m η = 8.8	x: 0.566 m η = 13.4	x: 0.566 m η = 0.6	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 41.1	**PASSA η = 41.1**
N317/N2061	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 6.1	x: 0.566 m η = 5.5	x: 0.566 m η = 14.3	x: 0.566 m η = 0.6	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 38.7	**PASSA η = 38.7**
N293/N2062	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 4.6	x: 0.566 m η = 4.9	x: 0.566 m η = 12.4	x: 0.566 m η = 0.5	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 33.3	**PASSA η = 33.3**
N293/N2063	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 3.7	x: 0.566 m η = 6.8	x: 0.566 m η = 11.3	x: 0.566 m η = 0.5	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 35.6	**PASSA η = 35.6**
N340/N2064	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 7.4	x: 0.566 m η = 8.9	x: 0.566 m η = 21.5	x: 0.566 m η = 0.8	x: 0.566 m η = 0.8	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 59.2	**PASSA η = 59.2**
N340/N2065	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 8.0	x: 0.566 m η = 12.4	x: 0.566 m η = 19.9	x: 0.566 m η = 0.8	x: 0.566 m η = 0.9	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 62.2	**PASSA η = 62.2**
N339/N2066	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 11.2	x: 0.566 m η = 8.1	x: 0.566 m η = 22.2	x: 0.566 m η = 0.9	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 61.9	**PASSA η = 61.9**
N339/N2067	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.4	x: 0.566 m η = 12.9	x: 0.566 m η = 18.3	x: 0.566 m η = 0.7	x: 0.566 m η = 1.0	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 55.2	**PASSA η = 55.2**
N292/N2068	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 8.6	x: 0.028 m η = 4.4	x: 0.566 m η = 12.6	x: 0.566 m η = 0.5	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 37.1	**PASSA η = 37.1**
N292/N2069	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 5.7	x: 0.566 m η = 6.1	x: 0.566 m η = 9.2	x: 0.566 m η = 0.3	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 27.6	**PASSA η = 27.6**
N308/N2070	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 12.1	x: 0.566 m η = 2.2	x: 0.566 m η = 11.0	x: 0.566 m η = 0.5	x: 0.566 m η = 0.2	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 37.1	**PASSA η = 37.1**
N308/N2071	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 9.8	x: 0.566 m η = 6.5	x: 0.566 m η = 7.1	x: 0.566 m η = 0.3	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 26.3	**PASSA η = 26.3**
N355/N2072	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 14.7	x: 0.566 m η = 4.3	x: 0.566 m η = 17.2	x: 0.566 m η = 0.7	x: 0.566 m η = 0.4	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 53.7	**PASSA η = 53.7**
N355/N2073	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.028 m η = 15.6	x: 0.566 m η = 11.0	x: 0.566 m η = 12.6	x: 0.566 m η = 0.5	x: 0.566 m η = 0.8	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 44.9	**PASSA η = 44.9**

Barras	VERIFICAÇÕES (ABNT NBR 8800:2008)											Estado
	λ	N_t	N_c	M_u	M_v	V_u	V_v	NM_uM_v	T	NMVT	$\sigma\ \tau$ f	
N305/N2074	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 19.3	x: 0.07 m η = 1.8	x: 0.566 m η = 8.6	x: 0.566 m η = 0.3	x: 0.566 m η < 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 38.8	**PASSA η = 38.8**
N305/N2075	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 17.9	x: 0.566 m η = 7.2	x: 0.566 m η = 3.6	x: 0.566 m η = 0.2	x: 0.566 m η = 0.5	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 27.4	**PASSA η = 27.4**
N352/N2076	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 22.1	x: 0.566 m η = 1.3	x: 0.566 m η = 10.5	x: 0.566 m η = 0.4	x: 0.07 m η = 0.1	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 45.8	**PASSA η = 45.8**
N352/N2077	$\lambda \leq 200.0$ Passa	N.A.(1)	x: 0.07 m η = 22.5	x: 0.566 m η = 9.2	x: 0.566 m η = 4.5	x: 0.566 m η = 0.2	x: 0.566 m η = 0.6	N.A.(2)	N.A.(3)	N.A.(4)	x: 0.566 m η = 34.6	**PASSA η = 34.6**

Notação:

- *λ: Limitação do índice de esbeltez*
- *N_t: Resistência à tração*
- *N_c: Resistência à compressão*
- *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*
- *NM_uM_v: Resistência ao esforço axial e flexão combinados*
- *T: Resistência à torção*
- *NMVT: Resistência ao momento de torção, força axial, momento fletor e cortante*
- *$\sigma\ \tau$ f: Resistência a interações de esforços e momento de torção*
- *x: Distância à origem da barra*
- *η: Coeficiente de aproveitamento (%)*
- *N.A.: Não aplicável*

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

- *(1) A verificação não será executada, já que não existe esforço axial de tração.*
- *(2) Este caso não está contemplado pela norma e, portanto, não é possível realizar a verificação.*
- *(3) A verificação não é necessária, já que não existe momento torsor.*
- *(4) Não há interação entre a esforço axial, momento fletor, esforço cortante e momento torsor. Portanto, a verificação não é necessária.*
- *(5) A verificação não procede, já que não há força axial de compressão.*
- *(6) A verificação não será executada, já que não existe esforço axial de compressão.*