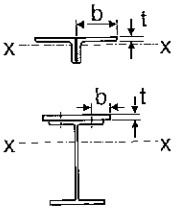
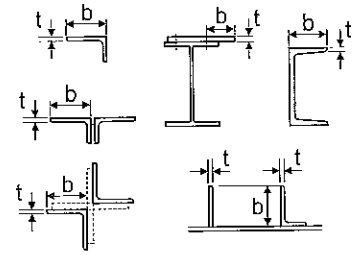
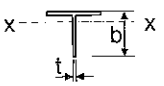
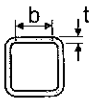
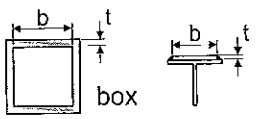
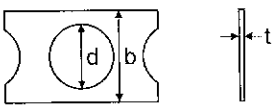
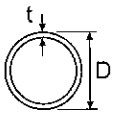
Detail	Class 1	Class 2	Class 3
 L's connected continuously Flanges of I's or T's	$\frac{b_{el}}{t} \le \frac{145}{\sqrt{F_y}}$ † † 2-L's or cover plates symmetric about plane of bending (x-x axis)	$\frac{b_{el}}{t} \le \frac{170}{\sqrt{F_y}}$ † † 2-L's or cover plates symmetric about plane of bending (x-x axis)	$\frac{b_{el}}{t} \le \frac{200}{\sqrt{F_y}}$.
	—	—	$\frac{b_{el}}{t} \le \frac{200}{\sqrt{F_y}}$ L's not continuously connected, flange of C's, asymmetric cover plates, plate girder stiffeners
 ‡ Symmetric about plane of bending or including asymmetry effects in analysis Stems of T's	$\frac{b_{el}}{t} \le \frac{145}{\sqrt{F_y}}$ ‡	$\frac{b_{el}}{t} \le \frac{170}{\sqrt{F_y}}$ ‡	$\frac{b_{el}}{t} \le \frac{340}{\sqrt{F_y}}$
	Bending only $\frac{h}{w} \le \frac{1100}{\sqrt{F_y}}$ Axial compression —	Bending only $\frac{h}{w} \le \frac{1700}{\sqrt{F_y}}$ Axial compression —	Bending only $\frac{h}{w} \le \frac{1900}{\sqrt{F_y}}$ Axial compression $\frac{h}{w} \le \frac{670}{\sqrt{F_y}}$
 HSS	$\frac{b_{el}}{t} \le \frac{420}{\sqrt{F_y}}$	$\frac{b_{el}}{t} \le \frac{525}{\sqrt{F_y}}$	$\frac{b_{el}}{t} \le \frac{670}{\sqrt{F_y}}$
 box	$\frac{b_{el}}{t} \le \frac{525}{\sqrt{F_y}}$	$\frac{b_{el}}{t} \le \frac{525}{\sqrt{F_y}}$	$\frac{b_{el}}{t} \le \frac{670}{\sqrt{F_y}}$
	—	—	$\frac{b_{el}}{t} \le \frac{840}{\sqrt{F_y}}$
	Bending only $\frac{D}{t} \le \frac{13\,000}{F_y}$ Axial compression —	Bending only $\frac{D}{t} \le \frac{18\,000}{F_y}$ Axial compression —	Bending only $\frac{D}{t} \le \frac{66\,000}{F_y}$ Axial compression $\frac{D}{t} \le \frac{23\,000}{F_y}$

Figure 2-8
Width-Thickness Ratios for Compression Elements

Symbol	Values	Unit	Symbol description	Section
MEMBER: 326 Diag_T/C_1.1_326 ; COORDINATE: x = 0.00 L = 0.00 m				
Cross-section properties: HSRE 8x6x0.5				
A	7483.86	mm2	Cross-section area	
Ay	3207.37	mm2	Shear area - Y-axis	
Az	4276.49	mm2	Shear area - Z-axis	
J	52861391.05	mm4	Torsional constant	
Iy	40873925.99	mm4	Moment of inertia of a section about the Y-axis	
Iz	26014464.10	mm4	Moment of inertia of a section about the Z-axis	
Sy	402302.42	mm3	Elastic section modulus about the Y-axis	
Sz	341397.17	mm3	Elastic section modulus about the Z-axis	
d	203.2	mm	Height of cross-section	
b	152.4	mm	Width of cross-section	
t	11.8	mm	Flange thickness	
w	11.8	mm	Web thickness	
ry	73.9	mm	Radius of gyration - Y-axis	
rz	59.0	mm	Radius of gyration - Z-axis	
Material:				
Name			ACIER 350W	
Fy	350.00	MPa	Minimum guaranteed yield stress	(5)
Section classification				
b/t	8.90		Compressive flange slenderness	(11.3)
flange	Plastic		Flange class	(Table 1)
h/w	13.20		Compressive web slenderness	(11.3)
web	Semi-compact		Web class	(Table 1)
CLASS:	Semi-compact		Section class	(11.1.1)
Buckling analysis parameters				
About the Y axis of cross-section				
Ly	11.50	m	Theoretical length of a member	(10.3.1)
KyLy	11.50	m	Member effective length	(10.3.1)
KyLy/ry	155.66		Member slenderness	(10.4.1)
Lamy	2.07		Nondimensional member slenderness	(13.3.1)
About the Z axis of cross-section				
Lz	11.50	m	Theoretical length of a member	(10.3.1)
KzLz	5.75	m	Member effective length	(10.3.1)
KzLz/rz	97.56		Member slenderness	(10.4.1)
Lamz	1.30		Nondimensional member slenderness	(13.3.1)
Internal forces at characteristic section points				
Cf	367	kN	Axial compression force Cf	
Yield level				