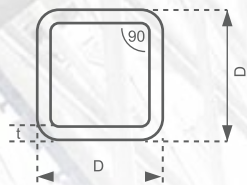




บริษัท มิตรสตีล จำกัด www.mitrsteel.com
114/40 หมู่ 10 ตำบลหนองจะโลยก อำเภอบ้านค่าย
จังหวัดระยอง 21120 Tel. 66(0)3301-2436-8



HOLLOW SECTION OF NON-ALLOY AND FINE GRAIN STEELS

เหล็กงานโครงสร้าง

EN 10219

MATERIAL OF GRADE	CHEMICAL COMPOSITION (%)					YIELD STRENGTH (MIN) N/mm ²	TENSILE STRENGTH (MIN) N/mm ²		ELONGATION % (MIN)	IMPACT TEST Test temperature °C	Minimum aver - age absorbed energy for standard test pieces J
	C Max	Si Max	Mn Max	P Max	S Max		t < 3 mm	3 mm ≤ T ≤ 40 mm			
S235JRH	0.170	-	1.400	0.045	0.045	235	360 - 510	340 - 370	24	20	27
S275J0H	0.200	-	1.500	0.040	0.040	275	430 - 580	410 - 560	20	0	27
S275J2H	0.200	-	1.500	0.035	0.035	275	430 - 580	410 - 560	20	-20	27
S355J0H	0.220	0.550	1.600	0.040	0.040	355	510 - 680	490 - 630	20	0	27
S355J2H	0.220	0.550	1.600	0.035	0.035	355	510 - 680	490 - 630	20	-20	27

Length of size		Thickness mm	Mass/ length kg/m	Cross Sectional Area cm ²	Geometrical moment of inertia (cm ⁴) Ix, Iy	Modulus of section (cm ³) Zx, Zy	Radius of gyration (cm) ix, iy	Length of size		Thickness mm	Mass/ length kg/m	Cross Sectional Area cm ²	Geometrical moment of inertia (cm ⁴) Ix, Iy	Modulus of section (cm ³) Zx, Zy	Radius of gyration (cm) ix, iy
H	B							H	B						
20	20	2.00	1.05	1.34	0.692	0.692	0.720	120	120	3.00	10.80	13.8	312	52.1	4.76
25	25	2.00	1.36	1.74	1.48	1.19	0.924	150	150	4.00	14.20	18.1	402	67	4.71
		2.50	1.64	2.09	1.69	1.35	0.899			5.00	17.50	22.4	485	80.9	4.66
		3.00	1.89	2.41	1.84	1.47	0.874			6.00	20.70	26.4	562	93.7	4.61
30	30	2.00	1.68	2.14	2.72	1.81	1.13	200	200	4.00	24.30	30.9	1968	197	7.97
		2.50	2.03	2.59	3.16	2.1	1.1			5.00	30.10	38.4	2410	241	7.93
		3.00	2.36	3.01	3.50	2.34	1.08			6.00	35.80	45.6	2833	283	7.88
40	40	2.00	2.31	2.94	6.94	3.47	1.54	250	250	5.00	37.20	47.4	2922	292	7.85
		2.50	2.82	3.59	8.22	4.11	1.51			6.30	27.40	34.8	1174	156	5.80
		3.00	3.30	4.21	9.32	4.66	1.49			8.00	33.90	43.2	1412	188	5.71
		4.00	4.20	5.35	11.1	5.54	1.44			8.00	46.50	59.2	3566	357	7.76
50	50	2.00	2.93	3.74	14.1	5.66	1.95	300	300	6.00	54.70	69.6	9964	664	12
		2.50	3.60	4.59	16.9	6.78	1.92			6.30	57.00	72.6	10342	689	11.9
		3.00	4.25	5.41	19.5	7.79	1.90			8.00	71.60	91.2	12801	853	11.8
		4.00	5.45	6.95	23.7	9.49	1.85			10.00	88.40	113	15519	1035	11.7
		5.00	6.56	8.36	27	10.8	1.80			12.00	104.00	132	17767	1184	11.6
60	60	2.00	3.56	4.54	25.1	8.38	2.35	300	300	12.50	108.00	137	18348	1223	11.6
		2.50	4.39	5.59	30.3	10.1	2.33			5.00	38.00	48.4	4805	384	9.97
		3.00	5.19	6.61	35.1	11.7	2.31			6.00	45.20	57.6	5672	454	9.92
		4.00	6.71	8.55	43.6	14.5	2.26			6.30	47.10	60	5873	470	9.89
		5.00	8.13	10.4	50.5	16.8	2.21			8.00	59.10	75.2	7229	578	9.80
80	80	3.00	7.07	9.01	87.8	22	3.12	300	300	10.00	72.70	92.6	8707	697	9.70
		4.00	9.22	11.7	111	27.8	3.07			12.00	84.80	108	9859	789	9.55
		5.00	11.30	14.4	131	32.9	3.03			12.50	88.00	112	10161	813	9.52
		6.00	13.20	16.8	149	37.3	2.98			6.00	54.70	69.6	9964	664	12
		6.30	13.50	17.2	149	37.1	2.94			6.30	57.00	72.6	10342	689	11.9
		8.00	16.40	20.8	168	42.1	2.84			8.00	71.60	91.2	12801	853	11.8
		8.00	18.90	24	255	56.6	3.25			10.00	88.40	113	15519	1035	11.7
90	90	3.00	8.01	10.2	127	28.3	3.53	300	300	12.00	104.00	132	17767	1184	11.6
		4.00	10.50	13.3	162	36	3.48			12.50	108.00	137	18348	1223	11.6
		5.00	12.80	16.4	193	42.9	3.43			6.00	54.70	69.6	9964	664	12
		6.00	15.10	19.2	220	49	3.39			6.30	57.00	72.6	10342	689	11.9
		6.30	15.50	19.7	221	49.1	3.35			8.00	71.60	91.2	12801	853	11.8
100	100	3.00	8.96	11.4	177	35.4	3.94	300	300	10.00	88.40	113	15519	1035	11.7
		4.00	11.70	14.9	226	45.3	3.89			12.00	104.00	132	17767	1184	11.6
		5.00	14.40	18.4	271	54.2	3.84			12.50	108.00	137	18348	1223	11.6
		6.00	17.00	21.6	311	62.3	3.79			6.00	54.70	69.6	9964	664	12
		6.30	17.50	22.2	314	62.8	3.76			6.30	57.00	72.6	10342	689	11.9
8.00	21.40	27.2	366	73.2	3.67	8.00	71.60	91.2	12801	853	11.8				

Dimension Tolerances

Outside Diameter:

Length of side :
 <100 : ± 1% with a minimum of
 ± 0.5 mm
 100-200 : ± 0.8%
 ≥200 : ± 0.6%

Thickness : t ≤ 5 mm ± 10%

t > 5 mm ± 0.5 mm

Weight : ± 6%