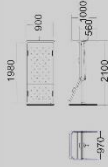


LAMPIRAN

ECONOMIC BED

SPECIFICATION

- Construction : High quality steel sections construction utilising the latest manufacturing techniques throughout.
- Mattress Platform : Manufactured from phosphate coated mild steel sections with mattress locators to sides and ends.
- Head & Foot End Panel Position : Detachable, steel sections panel.
- Coating : Back raise inclination 0-70° (33002).
- Packaging : Epoxy powder coating.
- Max. Load : Knock down system.
- Net Weight : 160 Kg.
- Dimension : Approx. (33001) 53 Kg, (3300) 58.5 Kg, (33000) 1000 mm, (L) 2100 x (W) 970 x (H) 1000 mm.



33001 FLAT TYPE



33002 WITH BACK RAISE



33003 WITH CASTOR



33004 WITH BACK RAISE

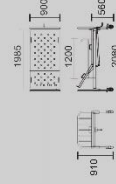


33005 WITH SIDE GUARD



SPECIFICATION

- Construction : High quality steel sections construction utilising the latest manufacturing techniques throughout.
- Mattress Platform : Manufactured from phosphate coated mild steel sections with mattress locators to sides and ends.
- Head&Foot End Panel Position : Detachable, steel sections panel.
- Side guard : Folding, steel sections side guard.
- Castor : Flat (no Back raise) (33003).
- Coating : Back-raise inclination 0-70° (33004 & 33005).
- Packaging : 5° swivel castors, two with brakes.
- Max. Load : Epoxy powder coating.
- Net Weight : Knock down system.
- Dimension : 160 Kg.
- Dimension : Approx. (33003) 55 Kg, (33004) 60 Kg, (33005) 71 Kg.
- Dimension : Approx. (L) 2080 x (W) 900 x (H) 910 mm.



SUPRAMAK BED

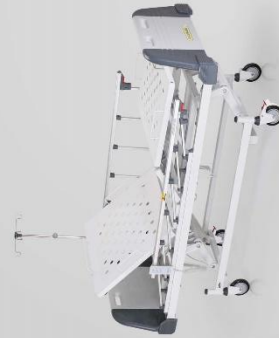
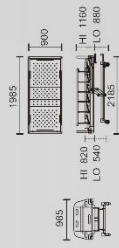
SPECIFICATION

- Construction : High quality steel sections, and sheet construction utilizing the latest manufacturing techniques throughout.
- Mattress Platform : Manufactured from phosphate coated perforated steel sheet with mattress locators to sides and ends.
- *) Head & Foot End Panel : Detachable ABS panel.
- Side guard : Collapsible, one-touch locking aluminum sections Sideguard.
- Position : Using electrical motor 24V DC,220Volt AC, 50Hz max 100W.
- Back raise inclination 0 - 70°.
- Knee raise inclination 0 - 40°.
- Mattress platform elevation 540(Lo) - 820 (Hi)mm.
- remote control Trendelenburg and Anti Trendelenburg inclination 0-19°.
- Gas spring driven (for 73003).
- Stainless steel sections - adjustable. Can be rotated in six different positions.
- 5°-5° Trendelenburg and Anti Trendelenburg.
- Central lock double-wheel castors.
- Epoxy powder coating.
- 160 Kg.
- Approx. (73001) 125 Kg, (73002) 132 Kg, (73003) 144 Kg.
- *) Optional Color :

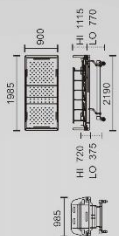
1	2	3	4	5	6



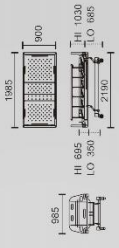
73003
ELECTRIC ICU-ICCU SUPRAMAK BED



73001
ELECTRIC SUPRAMAK BED



73002
ELECTRIC SUPRAMAK BED





Ball Bearings

6000 Series
Single Row, Deep Groove, Conrad Type

Bearing Number	Nominal Bearing Dimensions						Preferred Shoulder Diameters			
	d		D		B		r*	da (in)		Da (in)
	mm	Inch	mm	Inch	mm	Inch	Inch	min	max	max
6000	10	0.3937	26	1.0236	8	0.3150	0.012	0.472	0.512	0.949
6001	12	0.4724	28	1.1024	8	0.3150	0.012	0.551	0.611	1.024
6002	15	0.5906	32	1.2598	9	0.3543	0.012	0.669	0.749	1.181
6003	17	0.6693	35	1.3780	10	0.3937	0.012	0.748	0.847	1.299
6004	20	0.7874	42	1.6535	12	0.4724	0.024	0.945	1.005	1.496
6005	25	0.9843	47	1.8504	12	0.4724	0.024	1.142	1.182	1.693
6006	30	1.1811	55	2.1854	13	0.5118	0.039	1.378	1.438	1.989
6007	35	1.3780	62	2.4409	14	0.5512	0.039	1.575	1.635	2.244
6008	40	1.5748	68	2.6772	15	0.5906	0.039	1.772	1.872	2.480
6009	45	1.7717	75	2.9528	16	0.6299	0.039	1.969	2.108	2.756
6010	50	1.9685	80	3.1496	16	0.6299	0.039	2.165	2.305	2.953
6011	55	2.1854	90	3.5433	18	0.7087	0.039	2.421	2.528	3.287
6012	60	2.3622	95	3.7402	18	0.7087	0.039	2.618	2.719	3.484
6013	65	2.5591	100	3.9370	18	0.7087	0.039	2.815	2.876	3.681
6014	70	2.7559	110	4.3307	20	0.7874	0.039	3.012	3.172	4.075
6015	75	2.9528	115	4.5276	20	0.7874	0.039	3.209	3.369	4.272
6016	80	3.1496	125	4.9213	22	0.8661	0.039	3.405	3.585	4.665
6017	85	3.3465	130	5.1181	22	0.8661	0.039	3.602	3.782	4.852
6018	90	3.5433	140	5.5118	24	0.9449	0.059	3.858	4.058	5.197
6019	95	3.7402	145	5.7087	24	0.9449	0.059	4.055	4.275	5.394
6020	100	3.9370	150	5.9055	24	0.9449	0.059	4.252	4.452	5.591
6021	105	4.1339	160	6.2992	26	1.0236	0.079	4.528	4.728	5.906
6022	110	4.3307	170	6.6929	28	1.1024	0.079	4.724	4.905	6.299
6024	120	4.7244	180	7.0866	28	1.1024	0.079	5.118	5.299	6.693
6026	130	5.1181	200	7.8740	33	1.2992	0.079	5.512	5.851	7.480
6028	140	5.5118	210	8.2677	33	1.2992	0.079	5.905	6.245	7.874
6030	150	5.9055	225	8.8583	35	1.3780	0.079	6.339	6.698	8.425
6032	160	6.2992	240	9.4488	38	1.4961	0.079	6.732	7.131	9.016
6034	170	6.6929	260	10.2362	42	1.6535	0.079	7.125	7.663	9.803
6036	180	7.0866	280	11.0236	46	1.8110	0.079	7.520	8.195	10.591
6038	190	7.4803	290	11.4173	46	1.8110	0.079	7.913	8.589	10.984
6040	200	7.8740	310	12.2047	51	2.0079	0.079	8.307	9.121	11.772

*Maximum fillet which corner radius of bearing will clear.

Note: Limiting speeds are lower with contact seals. For more information, contact NSK Engineering.

Steel plate Material comparison

Steel Grade	China GB	Japan JIS		America ASTM	Germany		
	Mark	Mark	Standard Number	Specification	Specification	Metal Number	Standard Number
Carbon Steel Plate	Q235-F	SS41	G3101	A36	US137-2	1.0112	DIN17100
	Q235	SS41	G3101	A283-C	RS137-2	1.0114	DIN17100
	Q255A	SS50	G3101	A283-D	(RS142-2)	1.0134	DIN17100
	(A3R)	SPV24	G3115	A285-C			
	20g	SB42	G3103	A515.Cr60	H II	1.0425	DIN17155
	(15g)	SB35	G3103	A515.Cr55	H I	1.0345	DIN17155
	(25g)	SB46	G3103	A515.Cr65	HIII	1.0435	DIN17155
	25	SM41A	G3103				DIN17100
Low Content Alloy Steel Plate	16Mn	SM50-B.C	G3106		St52-3	1.0841	DIN17155
	16MnR	SM41B	G3106	A299/A537- I . II	17Mn4 19Mn5	1.0841 1.8045	
	16MngC	SPV36	G3115		St52-3		
	15MnVR	SPV36 (WELTEN50)	G3115	A225Gr.A.B	WStE39	1.8930	
	15MnVgC			(A633-GR.B)			
	15MnVNTR	(K-TEN62M)		A302-GR.B			
	18MnMoNbR			A533-Gr.A.I			
Heat-resisting Steel Plate	16Mo	SB46M	G3103	A204-Gr A.B	15 Mo3	1.5414	DIN17155
	12CrMo	SCMV1	G4109	A387-Gr.2			
	15CrMo	SCMV2	G4109	A387-Gr.12	13 CrMo44	1.7335	DIN17155
	12Cr2Mo1	SVMV4	G4109	A387-Gr.22	10 Mo910	1.7362	DIN17155
Low Temperature Resistant Steel Plate	16MnR	SLA24B	G3126	A516-Gr55	TTSTE26	1.0463	SEW089
	15MnVR	SLA33A		A516-Gr60	TTSTE29	1.0488	
	15MnVNTR			A516-Gr65 A516-Gr70	TTSTE32 TTSTE36	1.0851 1.0859	
	09Mn2VR			A203-GrA.B	TTST41V TTST35V	1.0437	SEW680
	(06AlNbCuN)			A203-GrD.E	10Ni14	1.5637	SEW680
Stainless Acid-resisting Steel Plate	(20mN23a1)			A553-Gr. I . II A353	X8Ni9	1.5662	SEW680
	0Cr13	SUS405 SUS410S	G4304 G4305	A320-405 A320-410S	X7Cr13	1.4000	DIN17440
	(1Cr13)	SUS403 SUS410	G4304 G4305	A320-403 A320-410	X10Cr13	1.4006	DIN17440
	(1Cr17)	SUS430	G4304 G4305	A320-430	X8Cr17	1.4016	DIN17440
	0Cr18Ni9	SUS304	G4304 G4305	A320-304	X5CrNi189	1.4301	DIN17440
	(1Cr18Ni9)	SUS302	G4304 G4305	A320-302	X5CrNi189	1.4301	DIN17440
	0Cr18Ni9Ti 1Cr18Ni9Ti	SUS321	G4304 G4305	A320-321	X10CrNiTi189	1.4541	DIN17440

	0Cr18Ni12Mo2Ti	SUS316	G4304 G4305	A320-316			
	0Cr18Ni12Mo3Ti	SUS317	G4304 G4305	A320-317			
	00Cr18Ni10	SUS304L	G4304 G4305	A320-304L	X2CrNi189	1.4306	DIN17440
	00Cr17Ni14Mo2	SUS316L	G4304 G4305	A320-316L	X2CrNiMo1810	1.4404	DIN17440
	00Cr17Ni14Mo3	SUS317L	G4304 G4305	A320-317L			
	(1Cr18Ni11Nb)	SUS347	G4304 G4305	A320-347	X10CrNiNb189	1.4550	DIN17440
	Cr15Ni20	SUS310	G4304 G4305	A320-310			

DIMENSIONS SHOWN ARE TO ASME B36.10

Nominal Size		Outside Diameter mm (inch)	Wall Thickness mm	Inside Diameter mm	Plain End Mass kg/m	Identification	
★ NPS	⊕ DN					Standard (STD) X-Strong (XS) XX-Strong (XXS)	Schedule Number
1/8	6	10.3 (0.405)	1.73	6.8	0.37	STD	40
			2.41	5.5	0.47	XS	80
1/4	8	13.7 (0.540)	2.24	9.2	0.63	STD	40
			3.02	7.7	0.80	XS	80
3/8	10	17.1 (0.675)	2.31	12.5	0.84	STD	40
			3.20	10.7	1.10	XS	80
1/2	15	21.3 (0.840)	2.77	15.8	1.27	STD	40
			3.73	13.9	1.62	XS	80
			4.78	11.8	1.95	-	160
			7.47	6.4	2.55	XXS	-
3/4	20	26.7 (1.050)	2.87	20.9	1.69	STD	40
			3.91	18.9	2.20	XS	80
			5.56	15.5	2.90	-	160
			7.82	11.0	3.64	XXS	-
1	25	33.4 (1.315)	3.38	26.6	2.50	STD	40
			4.55	24.3	3.24	XS	80
			6.35	20.7	4.24	-	160
			9.09	15.2	5.45	XXS	-
1 1/4	32	42.2 (1.660)	3.56	35.1	3.39	STD	40
			4.85	32.5	4.47	XS	80
			6.35	29.5	5.61	-	160
			9.70	22.8	7.77	XXS	-
1 1/2	40	48.3 (1.900)	3.68	40.9	4.05	STD	40
			5.08	38.1	5.41	XS	80
			7.14	34.0	7.25	-	160
			10.15	27.9	9.55	XXS	-
2	50	60.3 (2.375)	3.91	52.5	5.44	STD	40
			5.54	49.2	7.48	XS	80
			8.74	42.9	11.11	-	160
			11.07	38.2	13.44	XXS	-
2 1/2	65	73.0 (2.875)	5.16	62.7	8.63	STD	40
			7.01	59.0	11.41	XS	80
			9.53	54.0	14.92	-	160
			14.02	45.0	20.39	XXS	-

Nominal Size		Outside Diameter mm (inch)	Wall Thickness mm	Inside Diameter mm	Plain End Mass kg/m	Identification	
★ NPS	⊕ DN					Standard (STD) X-Strong (XS) XX-Strong (XXS)	Schedule Number
3	80	88.9 (3.500)	5.49	77.9	11.29	STD	40
			7.62	73.7	15.27	XS	80
			11.13	66.7	21.35	-	160
3 1/2	90	101.6 (4.000)	8.08	85.4	18.64	STD	40
			5.74	90.1	13.57	XS	80
			8.08	85.4	18.64	XS	80
4	100	114.3 (4.500)	6.02	102.3	16.08	STD	40
			8.56	97.2	22.32	XS	80
			11.13	92.1	28.32	-	120
			13.49	87.3	33.54	-	160
			17.12	80.1	41.03	XXS	-
5	125	141.3 (5.563)	6.55	128.2	21.77	STD	40
			9.53	122.3	30.97	XS	80
			12.70	115.9	40.28	-	120
			15.88	109.6	49.12	-	160
			19.05	103.2	57.43	XXS	-
6	150	168.3 (6.625)	7.11	154.1	28.26	STD	40
			10.97	146.3	42.56	XS	80
			14.27	139.7	54.21	-	120
			18.26	131.8	67.57	-	160
			21.95	124.4	79.22	XXS	-
8	200	219.1 (8.625)	6.35	206.4	33.32	-	20
			7.04	205.0	36.82	-	30
			8.18	202.7	42.55	STD	40
			10.31	198.5	53.09	-	60
			12.70	193.7	64.64	XS	80
			15.09	188.9	75.92	-	100
			18.26	182.6	90.44	-	120
			20.62	177.8	100.93	-	140
			22.23	174.6	107.93	XXS	-
			23.01	173.1	111.27	-	160
10	250	273.1 (10.75)	6.35	260.3	41.76	-	20
			7.80	257.5	51.01	-	30
			9.27	254.5	60.29	STD	40
			12.70	247.7	81.53	XS	60
			15.09	242.9	95.98	-	80
			18.26	236.5	114.71	-	100
			21.44	230.2	133.01	-	120
			25.40	222.3	155.10	XXS	140
			28.58	215.9	172.27	-	160

★ NPS: ASME term.

⊕ DN: SI Metric term.

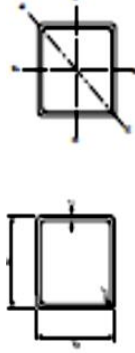
All dimensions are nominal

NOTE: API and BS 1600 are dimensionally similar to ASME B36.10

DuraGal Square Hollow Sections

Dimensions and Properties

Grade C450LD (AS 1163)



Designation	Mass per metre		External Surface Area	Gross Section Area		Properties						Properties for Design to AS 4100				
	kg/m	m ² /m		(b-t) ²	A _g	I _x	Z _x	I _y	Z _y	S _x	r _x	J	C	k _t	λ _e	Compaction ^(b) Z _e
d	b	t	per m	per t	mm ²	10 ⁸ mm ⁴	10 ³ mm ³	10 ³ mm ³	10 ³ mm ³	mm	10 ¹⁰ mm ⁴	10 ³ mm ³	C	k _t	(C.N.S)	10 ³ mm ³
50 x 50 x 5.0 SHS	50	50	6.39	0.179	27.9	8.00	8.00	8.00	8.00	13.2	17.8	0.469	16.3	1.00	10.7	13.2
4.0 SHS	40	40	5.35	0.183	34.2	10.5	681	9.15	7.33	11.4	18.3	0.405	14.3	1.00	14.1	11.4
3.0 SHS	30	30	4.25	0.190	44.7	14.7	541	7.79	5.92	9.39	19.0	0.321	11.8	1.00	19.7	9.39
2.5 SHS	25	25	3.60	0.191	53.1	18.0	459	6.78	5.09	8.07	19.2	0.275	10.2	1.00	24.1	8.07
◆ 1.6 SHS	16	16	2.38	0.195	81.7	29.3	303	4.68	3.44	5.46	19.6	0.185	7.03	1.00	39.2	4.74
◆ 40 x 40 x 4.0 SHS	40	40	4.09	0.143	34.9	8.00	523	5.26	4.36	6.74	14.2	0.192	8.33	1.00	30.7	6.74
3.0 SHS	30	30	3.30	0.150	45.3	11.3	423	4.66	3.61	5.72	14.9	0.158	7.07	1.00	15.2	5.72
2.5 SHS	25	25	2.82	0.151	53.7	14.0	359	4.11	3.13	4.97	15.1	0.136	6.21	1.00	18.8	4.97
◆ 35 x 35 x 3.0 SHS	35	35	2.83	0.130	45.8	9.67	363	3.40	2.67	4.23	12.8	0.102	5.18	1.00	13.0	4.23
2.5 SHS	25	25	2.42	0.131	54.2	12.0	309	3.02	2.33	3.69	13.1	0.0889	4.58	1.00	16.1	3.69
2.0 SHS	20	20	1.99	0.133	66.8	15.5	254	2.58	1.95	3.09	13.3	0.0741	3.89	1.00	20.8	3.09
1.6 SHS	16	16	1.63	0.135	82.7	19.9	207	2.16	1.62	2.57	13.5	0.0611	3.26	1.00	26.7	2.57
◆ 25 x 25 x 3.0 SHS	25	25	1.89	0.0897	47.4	6.33	241	1.47	1.21	1.91	8.74	0.0333	2.27	1.00	8.50	1.91
2.5 SHS	25	25	1.64	0.0934	55.7	8.00	209	1.35	1.08	1.71	8.99	0.0297	2.07	1.00	10.7	1.71
2.0 SHS	20	20	1.36	0.0931	68.3	10.5	174	1.19	0.926	1.47	9.24	0.0253	1.80	1.00	14.1	1.47
1.6 SHS	16	16	1.12	0.0946	84.1	13.6	143	1.02	0.780	1.24	9.44	0.0212	1.54	1.00	18.3	1.24

◆ These items are not commonly stocked but are available on request. Minimum order quantities may apply on some sizes.

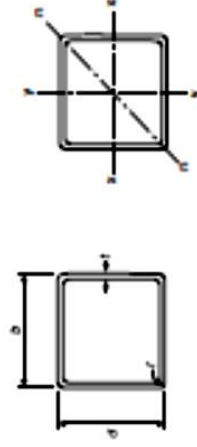
Note:

- This table is calculated in accordance with AS 4100 using design yield stress $f_y = 450$ MPa and design tensile strength $f_u = 500$ MPa as per AS 4100 table 2.1 for AS 1163 grade C450LD.
- Grade C450LD is cold formed and therefore is allocated the DF residual stresses classification in AS 4100.
- C = Compact Section; N = Non-compact Section; S = Slender Section; as defined in AS 4100.
- For SHS and RHS the outside corner radius r used in calculating the section properties is equal to $2r$ for sections with thickness $t \leq 3.0$ mm and $2.5t$ for sections with $t > 3.0$ mm.
- DuraGal Dualgrade C350LD/AS50LD Hollow Sections have a minimum yield stress of 450 MPa ($f_y = 450$ MPa), a minimum tensile strength of 500 MPa ($f_u = 500$ MPa) and a minimum elongation equal to 16%, i.e. the strength of AS 1163 grade C450LD and the elongation of AS 1163 grade C350LD.

Galvalume Plus Square Hollow Sections

Dimensions and Properties

Grade C350LO (Tube Line 350LO – Type 1)



Designation	Dimension and Ratios				Full Section Properties										Effective Section Properties				
	Mass per metre	External Surface Area per m	External Surface Area per t	Full Section Area (b ² -2r)	A _f	About x _c , y _c and z _c -axis					Tensile Modulus					Effective Section Area			
						I _x	Z _x	Z _y	S _x	r _x	J	C	I _{ex}	A _e	I _{ex}	Z _{ex}	Z _{ex}		
kg/m	m ² /m	m ² /t	mm ²	mm ²	10 ⁶ mm ⁴	10 ³ mm ³	10 ³ mm ³	10 ³ mm ³	mm	10 ⁶ mm ⁴	10 ⁶ mm ⁴	10 ⁶ mm ⁴	mm ²	mm ²	10 ⁶ mm ⁴	10 ⁶ mm ⁴	mm ²	mm ²	
65 x 65 x 2.5 SHS	4.78	0.251	52.6	23.1	586	0.378	11.6	8.59	33.6	25.4	0.601	17.5	586	0.378	11.6	8.59			
◆ 65 x 65 x 2.5 SHS	3.13	0.295	81.2	40.8	363	0.243	7.46	5.42	8.61	25.8	0.377	11.2	308	0.215	6.61	5.42			
◆ 50 x 50 x 2.5 SHS	3.60	0.191	53.1	16.8	442	0.164	6.56	4.92	7.80	19.3	0.266	9.89	442	0.164	6.56	4.92			
◆ 40 x 40 x 2.5 SHS	2.38	0.195	81.7	30.5	276	0.107	4.30	3.14	4.99	19.7	0.169	6.45	276	0.107	4.30	3.14			
◆ 40 x 40 x 2.5 SHS	2.82	0.151	53.7	12.7	346	0.0797	3.99	3.03	4.81	15.2	0.132	6.02	346	0.0797	3.99	3.03			
◆ 35 x 35 x 2.5 SHS	1.88	0.195	82.3	23.6	218	0.0534	2.67	1.97	3.13	15.6	0.0848	4.01	218	0.0534	2.67	1.97			
◆ 35 x 35 x 2.5 SHS	2.42	0.131	54.2	10.6	298	0.0514	2.94	2.26	3.98	13.1	0.0800	4.45	298	0.0514	2.94	2.26			
◆ 30 x 30 x 1.6 SHS	1.63	0.135	82.7	20.1	189	0.0390	2.00	1.48	2.36	13.6	0.0561	3.01	189	0.0350	2.00	1.48			
◆ 25 x 25 x 1.6 SHS	1.38	0.115	83.3	16.7	160	0.0214	1.43	1.07	1.69	11.6	0.0346	2.15	160	0.0214	1.43	1.07			
◆ 20 x 20 x 1.6 SHS	1.12	0.0945	84.1	13.2	131	0.0119	0.949	0.720	1.14	9.51	0.0195	1.43	131	0.0119	0.949	0.720			
◆ 20 x 20 x 1.6 SHS	0.873	0.0745	85.4	9.79	102	0.00570	0.570	0.440	0.697	7.47	0.00959	0.864	102	0.00570	0.570	0.440			

◆ These items are not commonly stocked but are available on request. Minimum order quantities may apply on some sizes.

Notes:

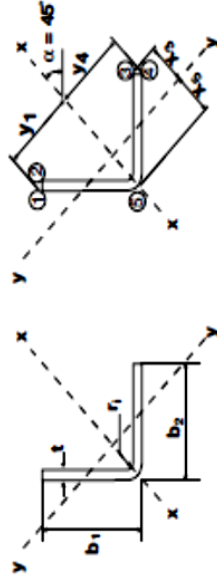
- This table is calculated in accordance with AS/NZS 4600 using design yield stress $f_y = 350$ MPa and design tensile strength $f_u = 380$ MPa.
- Effective section properties are calculated in accordance with AS/NZS 4600.
- All columns of the table (except for "Mass per metre" and "External Surface Area") are calculated using design thicknesses of 1.45mm and 2.4mm rather than respective thicknesses t of 1.6mm and 2.5mm. This is to comply with clause 1.5.1.6 of AS/NZS 4600.
- For Square and Rectangular Hollow Sections the outside corner radius r used in calculating the section properties is equal to $2t$ for sections with thickness $t \leq 3.0$ mm and $2.5t$ for sections with $t > 3.0$ mm.

DuraGal Equal Angles

x- and y-axes

Dimensions and Full Section Properties

Grade C450LO / C400LO / C350LO (TS 100)



Section Properties

Designation	Mass per metre	Dimensions			Co-ordinates of Centroid			Full Area of Section	About x-axis				About y-axis				
		Nominal Size	Actual Thickness	Inside Corner Radius	x2 = x3	y1 = y4	x5		mm ²	I_x	$Z_{x1} = Z_{x4}$	S_x	r_x	I_y	$Z_{y2} = Z_{y3}$	S_y	r_y
b1	b2	t	r1	mm	mm	mm	mm	mm ²	10 ⁶ mm ⁴	10 ³ mm ³	mm	10 ⁶ mm ⁴	10 ³ mm ³	mm	10 ⁶ mm ⁴	10 ³ mm ³	mm
75 x 75 x 8.0 CA	8.59	8.0	8.0	53.0	26.9	25.1	1090	0.957	18.0	28.4	29.6	0.213	7.89	8.46	13.2	13.9	
6.0 CA	6.56	6.0	8.0	53.0	26.7	24.8	836	0.747	14.1	21.9	29.9	0.167	6.26	6.73	10.2	14.1	
5.0 CA	5.26	4.7	4.0	53.0	26.8	25.9	670	0.601	11.3	17.5	30.0	0.142	5.29	5.48	8.44	14.6	
4.0 CA	4.29	3.8	4.0	53.0	26.7	25.8	546	0.495	9.34	14.3	30.1	0.117	4.39	4.55	6.93	14.7	
65 x 65 x 6.0 CA	5.62	6.0	8.0	46.0	23.1	21.3	716	0.477	10.4	16.2	25.8	0.104	4.52	4.91	7.50	12.1	
5.0 CA	4.52	4.7	4.0	46.0	23.3	22.4	576	0.386	8.39	13.0	25.9	0.0902	3.87	4.03	6.24	12.5	
4.0 CA	3.69	3.8	4.0	46.0	23.2	22.2	470	0.318	6.93	10.7	26.0	0.0747	3.22	3.36	5.13	12.6	
50 x 50 x 6.0 CA	4.21	6.0	8.0	35.4	17.8	16.0	536	0.208	5.89	9.29	19.7	0.0434	2.44	2.71	4.18	9.00	
5.0 CA	3.42	4.7	4.0	35.4	18.0	17.1	435	0.170	4.80	7.53	19.8	0.0389	2.16	2.28	3.56	9.45	
4.0 CA	2.79	3.8	4.0	35.4	17.9	16.9	356	0.141	3.99	6.20	19.9	0.0324	1.81	1.91	2.94	9.54	
2.5 CA	1.81	2.4	2.5	35.4	17.8	17.2	230	0.0930	2.63	4.04	20.1	0.0221	1.24	1.28	1.95	9.79	
45 x 45 x 4.0 CA	2.50	3.8	4.0	31.8	16.1	15.2	318	0.102	3.19	4.98	17.9	0.0231	1.43	1.52	2.35	8.52	
2.5 CA	1.62	2.4	2.5	31.8	16.0	15.4	206	0.0673	2.11	3.25	18.1	0.0159	0.990	1.03	1.57	8.77	
40 x 40 x 4.0 CA	2.20	3.8	4.0	28.3	14.3	13.4	280	0.0702	2.48	3.89	15.8	0.0157	1.10	1.17	1.82	7.50	
2.5 CA	1.43	2.4	2.5	28.3	14.3	13.7	182	0.0468	1.65	2.55	16.0	0.0110	0.768	0.801	1.22	7.75	
30 x 30 x 2.5 CA	1.06	2.4	2.5	21.2	10.7	10.2	134	0.0191	0.902	1.40	11.9	0.00438	0.408	0.431	0.664	5.71	

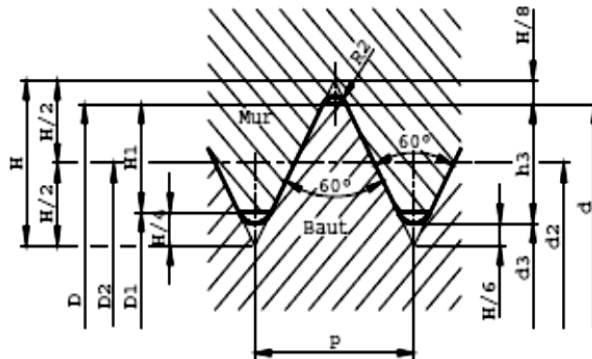
Notes: 1. Steel grade C450LO / C400LO / C350LO.0 (for $t \leq 2.5$ mm $f_y = 350$ MPa and $f_u = 400$ MPa, for 2.5 mm $< t \leq 6.0$ mm $f_y = 450$ MPa and $f_u = 500$ MPa, and for $t > 6.0$ mm $f_y = 400$ MPa and $f_u = 450$ MPa)

2. Full section properties are calculated in accordance with AS/NZS 4600.



Tabel Ulir ISO Metrik Normal

ISO 261/68/262/R724



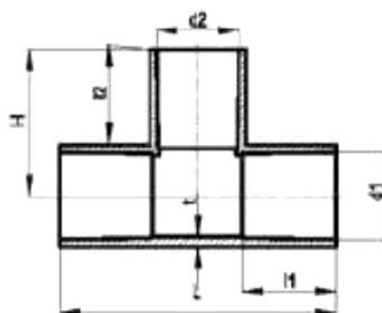
$D_2, d_2 = \text{Dia. tengah}$
 $D_2 = d_2 = d - 0,649 P$
 $D_1 = d - 1,082 P$
 $d_3 = d - 1,226 P$
 $H = 0,866 P$
 $H_1 = 0,541 P$
 $h_3 = 0,613 P$
 $R_1 = 0,144 P$
 $R_2 = 0,072 P$

Penunjukan dari ulir metrik ISO, diameter nominal $d = 5 \text{ mm} : \text{M } 5$.

Diameter nominal $d = D$	Gang P	Diameter Tengah $d_2 = D_2$	Baut		Mur	
			Diameter terkecil d_3	Luas tegangan tarik $A_s^{(1)(\text{mm}^2)}$	Diameter terkecil D_1	Diameter mata bor
M 1	0,25	0,838	0,69	0,46	0,73	0,75
M 1,2	0,25	1,038	0,89	0,73	0,93	0,95
M 1,6	0,35	1,373	1,71	1,27	1,22	1,25
M 2	0,4	1,740	1,51	2,07	1,57	1,6
M 2,5	0,45	2,208	1,95	3,39	2,01	2
M 3	0,5	2,875	2,39	5,03	2,48	2,5
M 4	0,7	3,545	3,14	8,78	3,24	3,3
M 5	0,8	4,480	4,02	14,2	4,13	4,2
M 6	1	5,350	4,77	20,1	4,91	5
M 8	1,25	7,188	6,47	36,6	6,65	6,8
M 10	1,5	9,026	8,16	58,0	8,37	8,5
M 12	1,75	10,863	9,85	84,3	10,10	10,2
(M 14)	2	12,700	11,55	115	11,83	12
M 16	2	14,701	13,55	157	13,83	14
(M 18)	2,5	16,376	14,93	192	15,29	15,5
M 20	2,5	18,376	16,93	245	17,29	17,5
(M 22)	2,5	20,376	18,93	303	19,29	19,5
M 24	3	22,051	20,32	353	20,75	21
(M 27)	3	25,051	23,32	459	23,75	24
M 30	3,5	27,727	25,71	561	26,21	26,5
(M 33)	3,5	30,726	28,71	693	29,21	29,5
M 36	4	33,402	31,09	817	31,67	32
(M 39)	4	36,401	34,09	975	34,67	35
M 42	4,5	39,077	36,48	1120	37,13	37,5
(M 45)	4,5	42,077	39,48	1306	40,13	40,5
M 48	5	44,752	41,87	1470	42,59	43
(M 52)	5	48,752	45,87	1758	46,59	47
M 56	5,5	52,427	49,25	2030	50,04	50,5
(M 60)	5,5	56,427	53,25	2362	54,04	54,5
M 64	6	60,102	56,64	2676	57,50	58
(M 68)	6	64,102	60,64	3055	61,50	62

**FITTING UNTUK AIR BERSIH BERTEKANAN
 JIS K-6743**

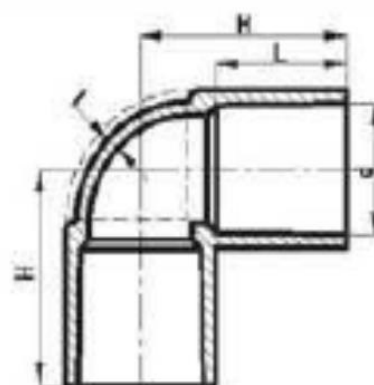
TEE (AW)



Ukuran Produk	d1	I1	d2	I2	H	L	t (min)	Kode Produk
1/2"	Ø22.4	30	Ø22.4	30	43	86	3.3	2241000220
3/4"	Ø26.5	35	Ø26.5	35	50	100	3.3	2241000260
1"	Ø32.5	40	Ø32.5	40	58	116	3.8	2241000320
1 1/4"	Ø42.6	44	Ø42.6	44	69	138	4.2	2241000420
1 1/2"	Ø48.7	55	Ø48.7	55	82	164	4.2	2241000480
2"	Ø60.8	63	Ø60.8	63	98	192	4.6	2241000600
2 1/2"	Ø76.6	61	Ø76.6	61	110	220	5.2	2241000760
3"	Ø89.6	64	Ø89.6	64	120	240	6.2	2241000890
4"	Ø114.7	84	Ø114.7	84	151	302	8.7	2241001140
6"	Ø166	132	Ø166	132	230	460	10.0	2241001660
8"	Ø217	145	Ø217	145	256	512	9.5	2241002160
3/4"x1/2"	Ø26.45	35	Ø22.4	30	48	96	3.3	2241000250
1"x1/2"	Ø32.5	40	Ø22.4	30	52	106	3.8	2241000300
1 x 3/4"	Ø32.5	40	Ø26.5	35	55	110	3.8	2241000310
1 1/4" x 1"	Ø42.6	44	Ø32.5	40	62	124	4.2	2241000410
1 1/2" x 1 1/4"	Ø48.7	55	Ø42.6	44	77	154	4.2	2241000470
2"x1"	Ø60.8	63	Ø32.5	40	81	162	4.6	2241000570
3" x 2"	Ø89.6	64	Ø60.8	63	106	210	6.2	2241000870

Wavin

ELBOW (AW)



Ukuran Produk	d	L	H	t (min)	Kode Produk
1/2"	Ø22.4	30	43	3.5	223 000220
3/4"	Ø26.5	35	50	3.5	223 000260
1"	Ø32.5	40	58	4.0	223 000320
1 1/4"	Ø42.6	44	70	4.5	223 000420
1 1/2"	Ø48.7	55	82	4.5	223 000480
2"	Ø60.8	63	98	5.0	223 000600
2 1/2"	Ø 76.8	61	110	6.6	223 000760
3"	Ø88.8	64	120	8.0	223 000880
4"	Ø114.7	84	153	10.0	223 001140
5"	Ø140.9	104	187.1	11.0	223 001400
6"	Ø166	132	230.1	13.0	223 001650
8"	Ø217	145	284.6	10.0	223 002160
10"	Ø269	155	324.9	10.0	223 002670

Aplikasi Sistem

WAVIN STANDARD diproduksi untuk berbagai kebutuhan seperti:

- Saluran air bersih
- Saluran pembuangan
- Saluran limbah
- Saluran Irigasi
- Pipa ventilasi

Jenjang Produk

WAVIN STANDARD dapat diklasifikasikan menjadi 2 (dua) kelompok:

1. Kelas AW, untuk air bertekanan tinggi sampai tekanan kerja 10 kg/cm² dengan 14 macam ukuran diameter dari 1/2 inch sampai 12 inch.
2. Kelas D, untuk saluran pembuangan dan limbah dengan 11 macam ukuran diameter dari 1 1/4 inch sampai 12 inch.

Kedua kelompok tersebut tersedia dalam panjang standar sampai 4 meter.

KELAS AW

Diameter		Tebal Dinding (mm)	Panjang (m)	Sistem Penyambungan	Kode Produk
Inch	mm				
1/2	22	1,50	4	SC	210022001
3/4	26	1,80	4	SC	210026001
1	32	2,00	4	SC	210032001
1 1/4	42	2,30	4	SC	210042001
1 1/2	48	2,30	4	SC	210048001
2	60	2,30	4	SC	210060001
2 1/2	76	2,60	4	SC	210076001
3	89	3,10	4	SC	210089001
4	114	4,10	4	SC	210114001
5	140	5,40	4	SC	210140001
6	165	6,40	4	SC	210165001
8	216	8,30	4	SC	210216001
10	267	10,30	4	SC	210267001
12	318	12,20	4	SC	210318001