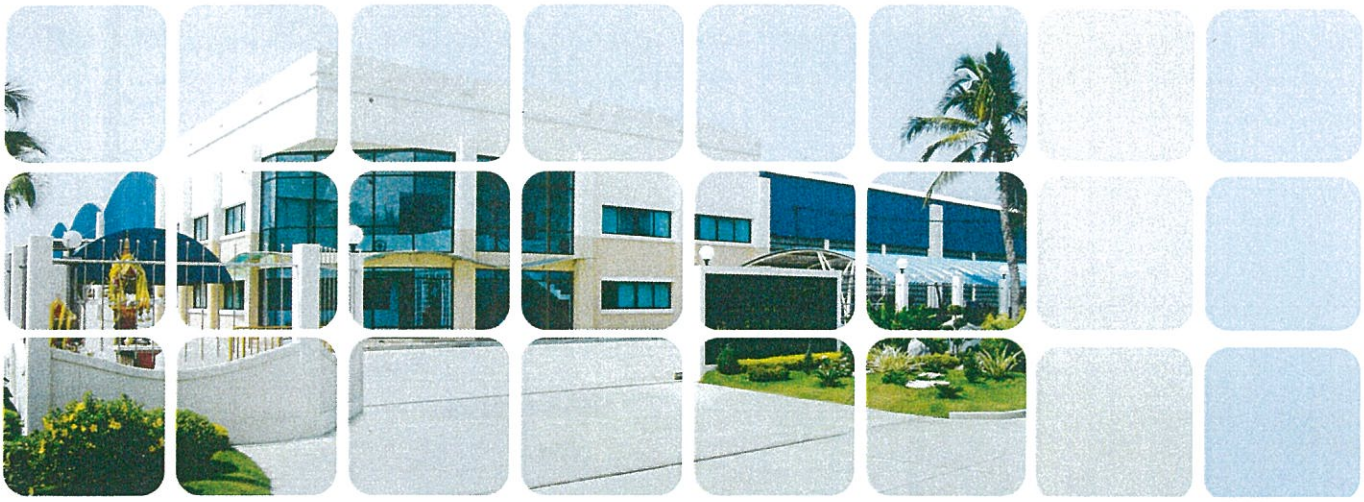
TIC ENGINEERING

TIC

Cable Tray System

Standard Quality

Company Profile



ADDRESS
99/9 MOO12, PHUTTAMONTHON 5 ROAD, RAIKING, SAMPRAN, NAKORNPRATHOM 73210

TELEPHONE NUMBER
02-813-6951-60

FACSIMILE NUMBER
02-811-7860 OR Ext.133

ESTABLISHED YEAR
JANUARY 1996

CAPITAL REGISTER
10,000,000 BAHT

TIC FACTORY

PLANT AREA	5,500 m^2
OFFICE AREA	800 m^2

TIC ENGINEERING CO,LTD is the specialize in design and manufacture cable tray systems in the name of TIC products since 1996.
Our present product ranges are as follows:

- STEEL CABLE LADDER
- STEEL CABLE TRAY
- STEEL WIREWAY
- STEEL CABLE TRUNKING
- STEEL PULL BOX
- STEEL JUNCTION BOX

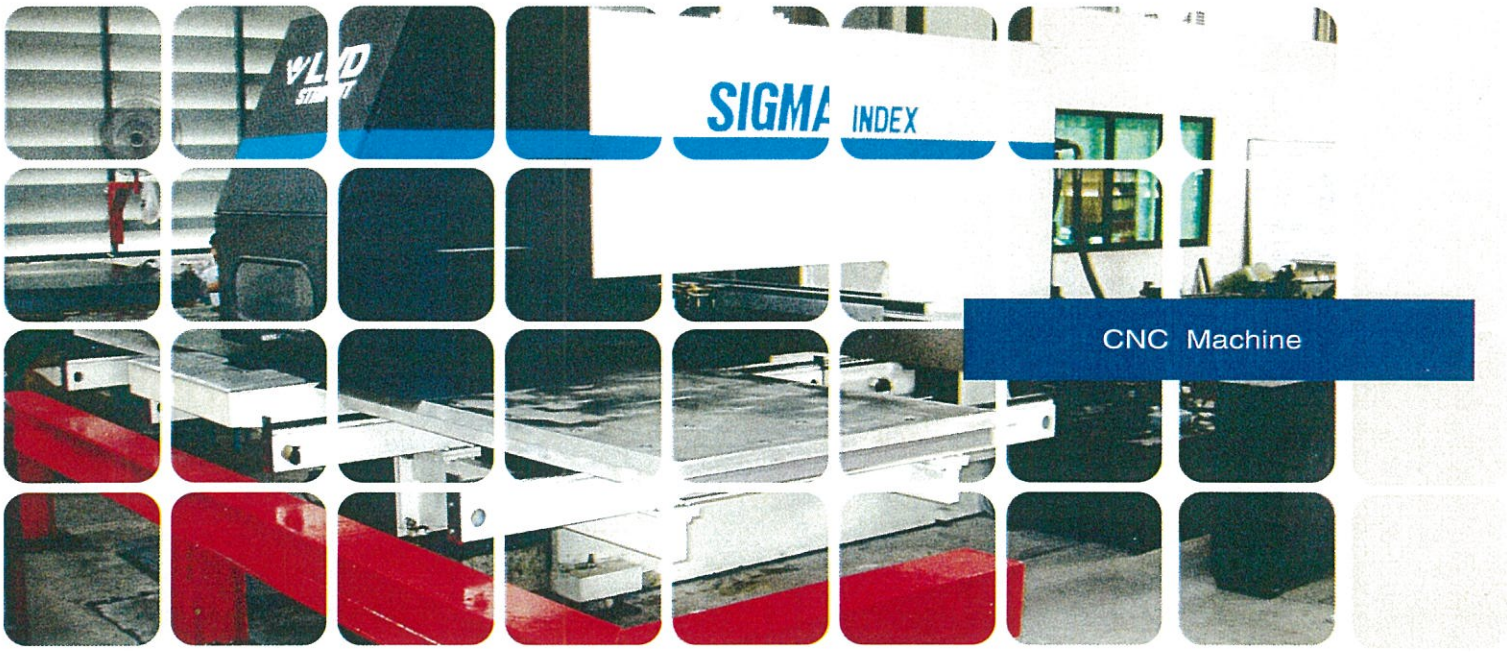
Our management are dynamic and experience person. All of our staffs are carried our company working philosophy " customers should deserve our best" which come from our team work, dedicate and enduring spirit that has brought us to where we are today.

STANDARD

- BS EN
- ASTM
- E.I.T
- NEMA VE1
- ISO 9001 : 2008

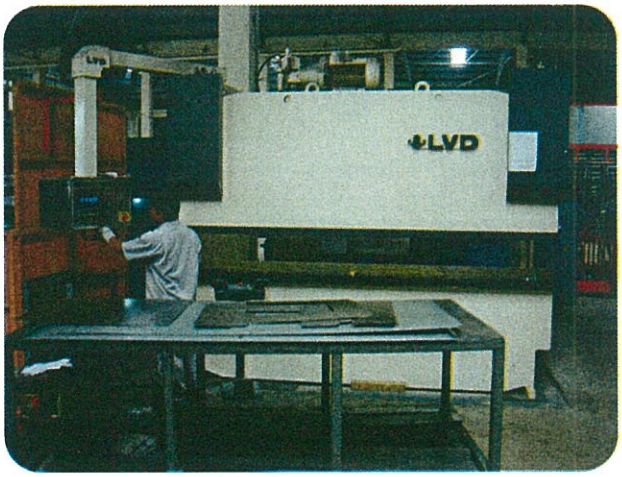
TIC GROUP

Our Factory



CNC Machine

Bending Machine



Shearing Machine

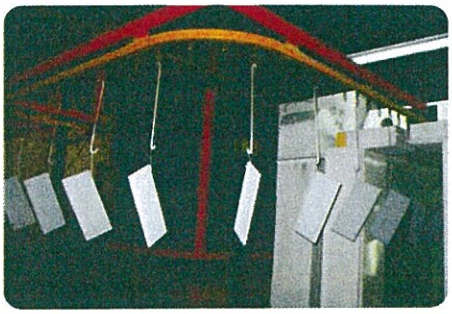
Workshop facilities are modern and highly automated, using machines of the CNC and MNC types, this guarantee precision, reliability to materials of various types and thicknesses.

Our cable tray system are constructed of BS standard sheet steel for all other compoments. Surface are EPOXY/POLYESTER POWDER PAINTED for protection against corrosion.

TIC GROUP

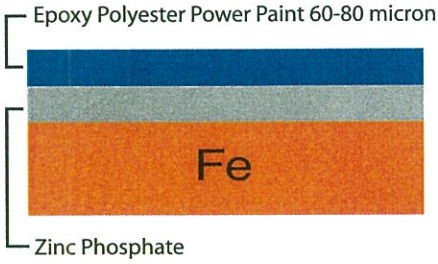
Epoxy Polyester Powder Paint Department

Automatic Electrostatic Powder Paint



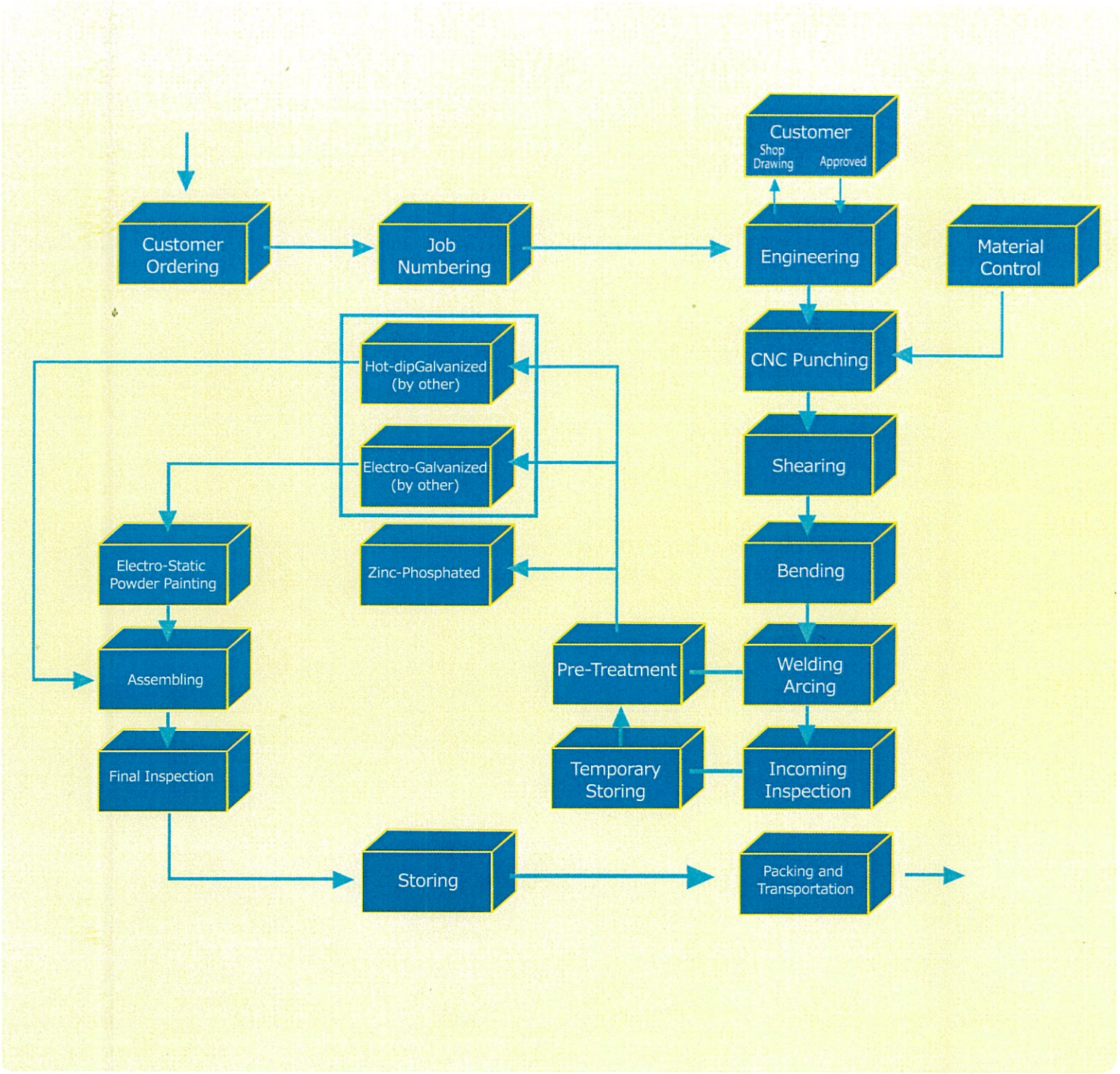
EPOXY POLYSTER POWDER COATING is a thermosetting powder coating based on epoxy and polyester resin (hybrid system) offering many gloss levels (5-100%), good flow, good over-bake resistance, good resistance to water and detergents and ultra-violet resistance.

Epoxy-polyester coating provide hard film surfaces. They adhere better to most metal surface, and cover edges and recessed areas more uniformly since they employ the electrostatic spraying system. Besides, epoxy-polyester powder coatings do not produce "PIN" holes or solvent blisters since ther is no solvent evaporation during the baking process.

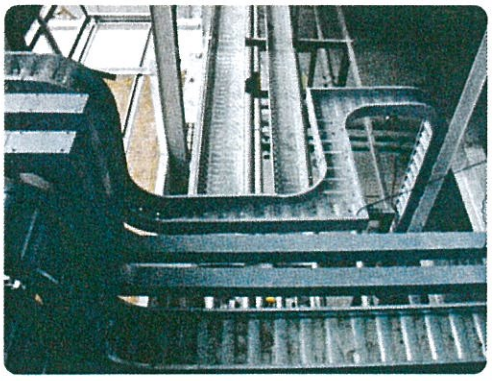
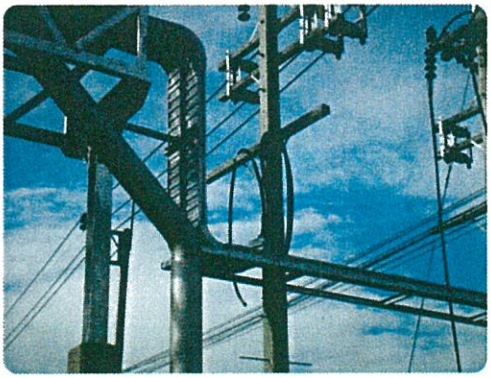
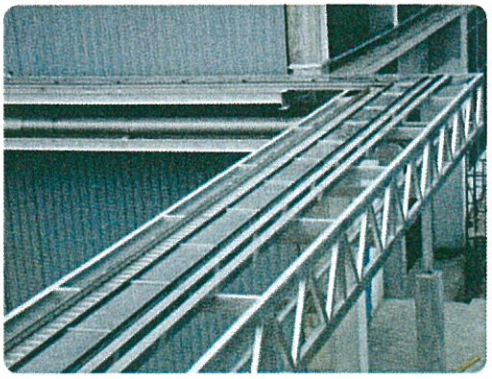
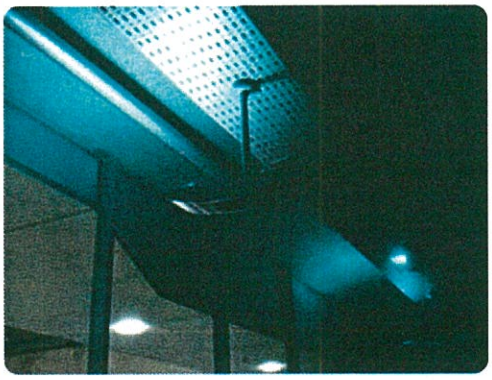
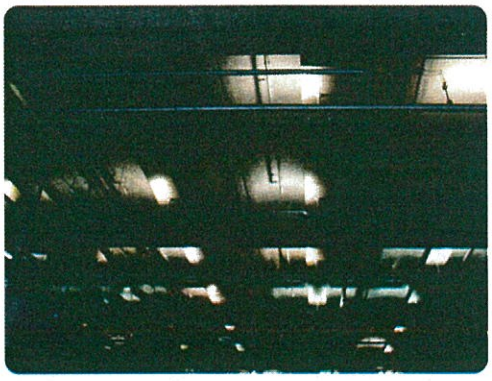


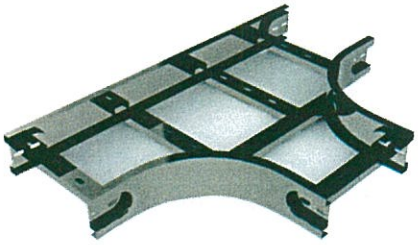
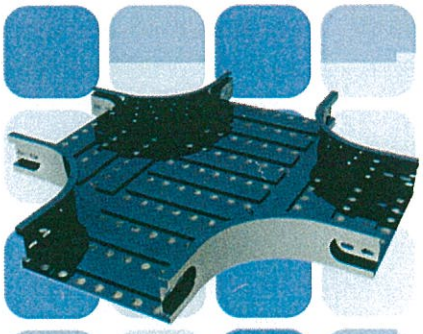
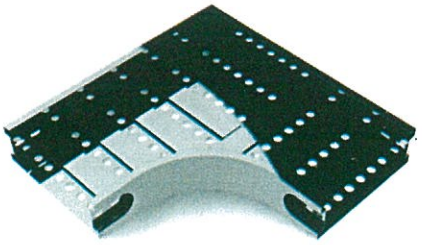
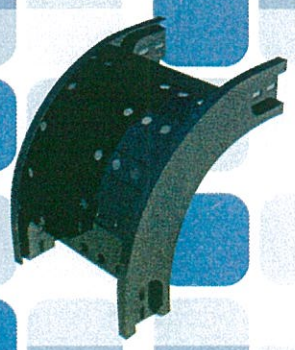
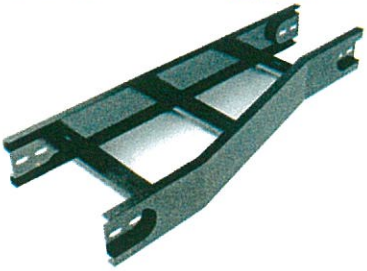
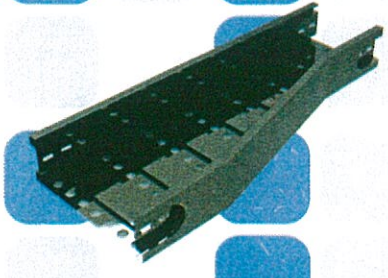
PROPERTIES	STANDARD	EPOXY-POLYSTER(M)
Film thickness(micron)		60-80
Impact resistance(kg.-cm.)	ASTM D2794(5/8'bal)	Over 60 kg.-cm
Erichsen test (mm.)	DIN 53156	Over 7 mm.
Bend test (mm.)	DIN 53152	6 mm.
Pencil hardness	ASTM 3363	Over H
Adhesion	DIN 53151	Gt O (No loss of adhesion)
Weather resistance		Little of no (chalking)
Heat resistance		Good
Corrosion protecion (zinc phosphated steel)	Salt spray 500 h. (ASTM B 117)	Rust and Blister should be with in 2 mm.x line
Density (kg/dm^3)		1.20-1.70

Processing Chart



References

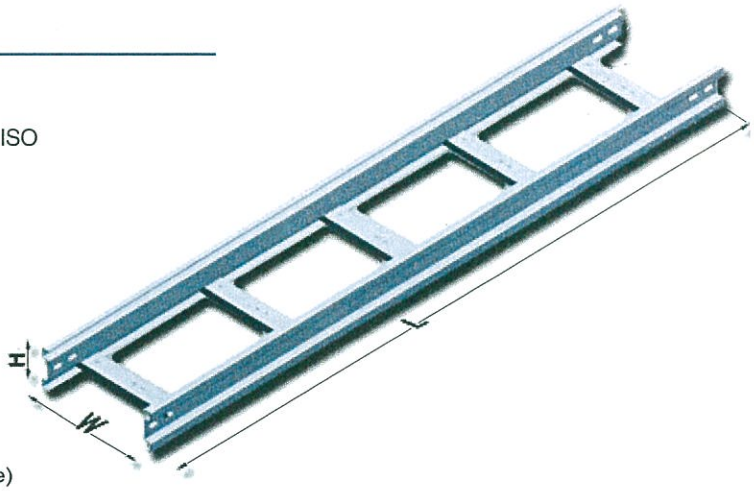







Project References

Item	Project Name	Description	Year
1	SATHORN SQUARE W-HOTEL : RITTA	WIRE WAY (EPOXY)	MARCH 2010
2	HIVE TAKSIN BRIDGE, CHAREONNAKORN ROAD : KURIHARA	WIRE WAY (EPOXY), LADDER (EPOXY)	APRIL 2010
3	YANHEE HOSPITAL : PESCO	TRAY (VS), TRAY (HDG.)	MAY 2010
4	SUMITOMO CHONBURI PROVINCE : THAI SEMCON	WIRE WAY (EPOXY), LADDER (EPOXY)	MAY 2010
5	OISHI NAVANAKORN : THAI SEMCON	TRAY (VS), TRAY (HDG.)	JUNE 2010
6	SKY WALK : SYNTECH	WIRE WAY (EPOXY)	JULY 2010
7	NOVOTEL PLATINMUM HOTEL : MCTRIC	WIRE WAY (EG.)	JULY 2010
8	SCB BANK DATA CENTER : SAENG PRADIT ENGINEERING	WIRE WAY (ALUZINC)	JULY 2010
9	BLOCKS 77 : KURIHARA	WIRE WAY (EPOXY)	JULY 2010
10	GATEWAY EKAMAI : RITTA	WIRE WAY (EPOXY)	OCTOBER 2010
11	ABSTRACTS CONDOMINIUM : SP CONTRACTING	WIRE WAY (EG.)	JANUARY 2011
12	ELETTO ROJANA PHASE 2 : THONG THAM	WIRE WAY (EPOXY)	JANUARY 2011
13	RENOVATION MERRY KING WANG BURAPHA DEPARTMENT STORE : FIRST	WIRE WAY (EPOXY)	FEBRUARY 2011
14	EPSON GATE WAY : TOENEC	PERFORATED TRAY (EPOXY)	MARCH 2011
15	MISUBISHI FACTORY III LAEMCHABANG : THONG THAM	WIRE WAY (EPOXY), LADDER (EPOXY)	MARCH 2011
16	BRIDGESTONE NONGKHAE SARABURI : THONG THAM	WIRE WAY (EPOXY), LADDER (EPOXY)	MARCH 2011
17	SUZUKI EASTERN SEABOARD INDUSTRY EST. : KINDENKO	WIRE WAY (EPOXY), LADDER (EPOXY)	APRIL 2011
18	CENTRAL PLAZA PITSANULOK : SECCO	WIRE WAY (EPOXY)	JUNE 2011
19	IN SQUARE : W. CHAIYA	WIRE WAY (EPOXY)	JUNE 2011
20	GRAND HOWARD HOTEL : BEWCON	WIRE WAY (EPOXY)	JULY 2011
21	THE ADDRESS ASOKE : BEWCON	WIRE WAY (EPOXY)	JULY 2011
22	THANYA SHOPPING PARK SRINAKARIN ROAD : MECT	WIRE WAY (EPOXY) , TRAY (HDG.)	JULY 2011
23	VILLA ASOKE : SECCO	WIRE WAY (EPOXY)	OCTOBER 2011
24	BMW RAMA III : SP CONTRACTING	WIRE WAY (EPOXY)	OCTOBER 2011

CABLE LADDER TYPE



STANDARD ; Refer to BS EN, ASTM, E.I.T, NEMA VE1, ISO

MATERIALS ; ☐ Hot Rolled Mild Steel Sheet

☐ Stainless Steel Sheet (LS Type)

FINISHING ; ☐ Painting by Electro-Static Spraying with Epoxy/Polyester Powder Paint Coating 60-80 µM. Thickness (LP Type)

PRE-TREATMENT ☐ Zinc Phosphate

☐ Electroplated Zinc to BSEN 12329

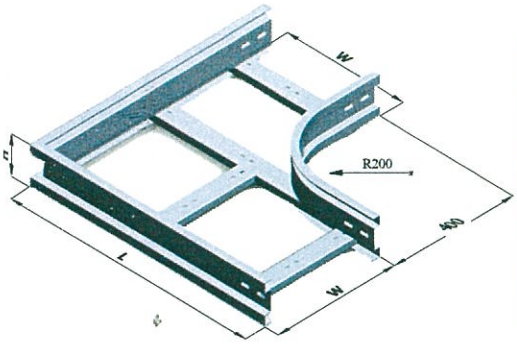
☐ Hot-Dip Galvanized Average 55-65 µM Thickness to ISO 1461 or ASIM A123/A123M (LH Type)

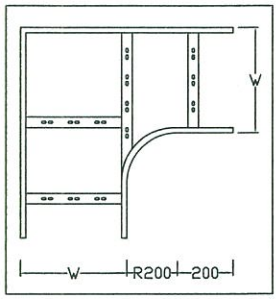
TECHNICAL DATA

TYPE (WxHxL)	Thickness (mm.)	WEIGHT(kg./m.)			BENDING STRENGTH (kg.)		
		STRAIGHT	cover		SUPPORT DISTANCE (m.)		
			T=1.6 mm.	T=2.0 mm.	1.5 m.	2.0 m.	3.0 m.
200 x 100 x 3000	2.0	6.18	2.83	3.77	1371.75	1083.00	737.05
300 x 100 x 3000	2.0	6.68	4.00	5.34	1292.85	1020.50	695.25
400 x 100 x 3000	2.0	7.18	5.17	6.91	1220.00	963.80	656.60
500 x 100 x 3000	2.0	7.68	6.34	8.48	1167.45	921.95	628.75
600 x 100 x 3000	2.0	8.18	7.51	10.05	1105.20	872.95	595.75
700 x 100 x 3000	2.0	8.68	8.68	11.62	1022.40	801.95	545.90
800 x 100 x 3000	2.0	9.18	9.85	13.19	975.45	770.75	526.95
900 x 100 x 3000	2.0	9.68	11.02	14.76	912.45	720.50	488.60
1000 x 100 x 3000	2.0	10.18	12.19	16.33	849.00	671.50	456.65

-STANDARD LENGHT : STRAIGHT = 3000 mm.
COVER = 3000 mm.
-OTHER THICKNESS OF MATERIALS MADE BY ORDER.

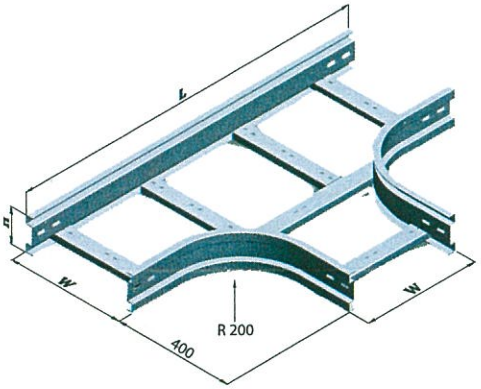
90° HORIZONTAL BEND

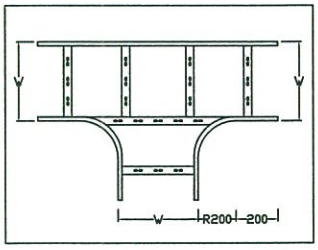




TYPE 90 HB (WxH)	THICKNESS (mm)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
90 HB 200 x 100	2.0	6.16	3.08	4.12
90 HB 300 x 100	2.0	7.28	4.66	6.22
90 HB 400 x 100	2.0	8.99	6.48	8.64
90 HB 500 x 100	2.0	10.26	8.53	11.37
90 HB 600 x 100	2.0	12.42	10.81	14.41
90 HB 700 x 100	2.0	13.83	13.33	17.77
90 HB 800 x 100	2.0	15.25	16.09	21.45
90 HB 900 x 100	2.0	16.66	19.08	25.44
90 HB 1000 x 100	2.0	18.06	22.30	29.74

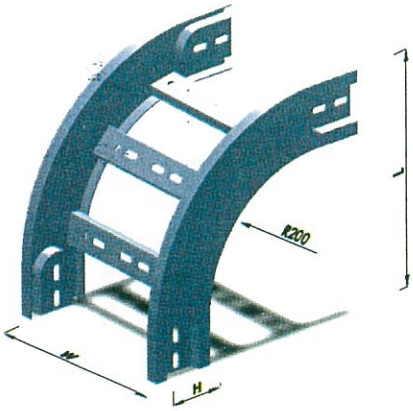
HORIZONTAL TEE

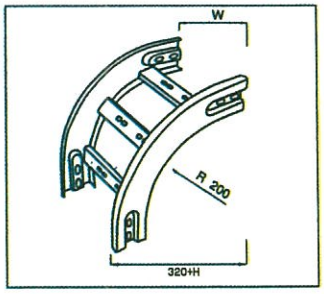




TYPE HT (WxH)	THICKNESS (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
HT 200 x 100	2.0	7.80	4.42	5.88
HT 300 x 100	2.0	9.26	6.45	8.58
HT 400 x 100	2.0	10.41	8.71	11.60
HT 500 x 100	2.0	11.57	11.20	14.94
HT 600 x 100	2.0	18.61	13.94	18.57
HT 700 x 100	2.0	14.92	16.90	22.53
HT 800 x 100	2.0	17.42	20.11	26.80
HT 900 x 100	2.0	18.87	23.54	31.38
HT 1000 x 100	2.0	20.32	27.22	36.28

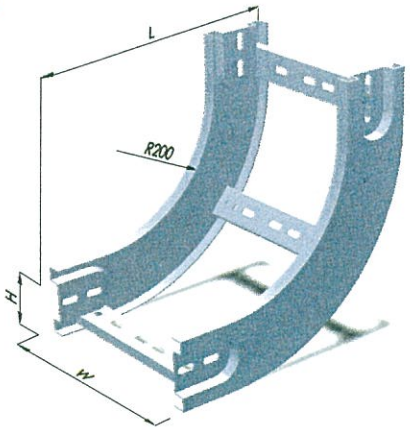
90° VERTICAL OUTSIDE BEND

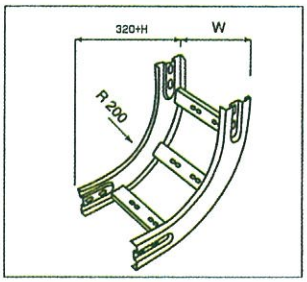




TYPE 90 VO (WxH)	THICKNESS (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
90 VO 200 x 100	2.0	4.92	2.09	2.62
90 VO 300 x 100	2.0	5.37	2.97	3.71
90 VO 400 x 100	2.0	5.82	3.85	4.80
90 VO 500 x 100	2.0	6.27	4.73	5.89
90 VO 600 x 100	2.0	6.72	5.61	6.98
90 VO 700 x 100	2.0	7.17	6.49	8.07
90 VO 800 x 100	2.0	7.62	7.37	9.16
90 VO 900 x 100	2.0	8.07	8.25	10.25
90 VO 1000 x 100	2.0	8.52	9.13	11.34

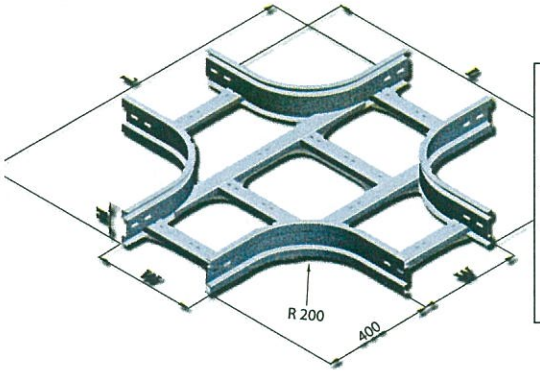
90° VERTICAL INSIDE BEND

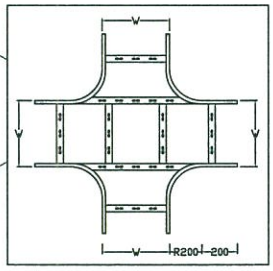




TYPE 90 VI (WxH)	THICKNESS (mm.)	WEIGHT (kg.) FITTING	COVER T=1.6 mm.	COVER T=2.0 mm.
90 VI 200 x 100	2.0	4.92	1.63	2.04
90 VI 300 x 100	2.0	5.37	2.31	2.88
90 VI 400 x 100	2.0	5.82	2.99	3.72
90 VI 500 x 100	2.0	6.27	3.67	4.56
90 VI 600 x 100	2.0	6.72	4.35	5.40
90 VI 700 x 100	2.0	7.17	5.03	6.24
90 VI 800 x 100	2.0	7.62	5.71	7.03
90 VI 900 x 100	2.0	8.07	6.39	7.92
90 VI 1000 x 100	2.0	8.52	7.07	8.76

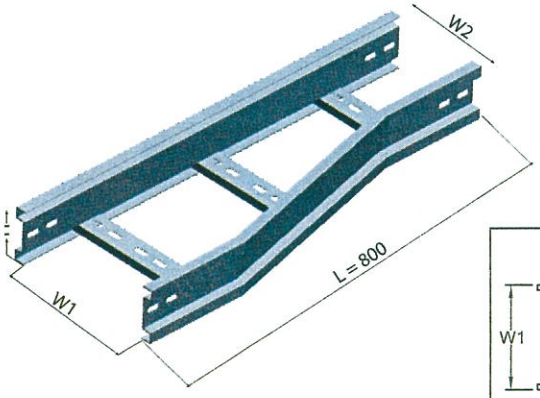
HORIZONTAL CROSS

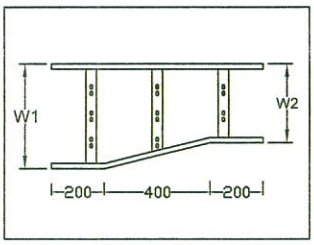




TYPE HX (WxH)	THICKNESS (mm.)	WEIGHT (kg.) FITTING	COVER T=1.6 mm.	COVER T=2.0 mm.
HX 200 x 100	2.0	9.45	5.78	8.01
HX 300 x 100	2.0	10.94	8.49	11.31
HX 400 x 100	2.0	12.13	11.20	14.91
HX 500 x 100	2.0	13.33	14.14	18.84
HX 600 x 100	2.0	15.41	17.32	23.08
HX 700 x 100	2.0	16.76	20.73	27.64
HX 800 x 100	2.0	19.29	24.38	32.50
HX 900 x 100	2.0	20.78	28.27	37.68
HX 1000 x 100	2.0	22.27	32.39	43.18

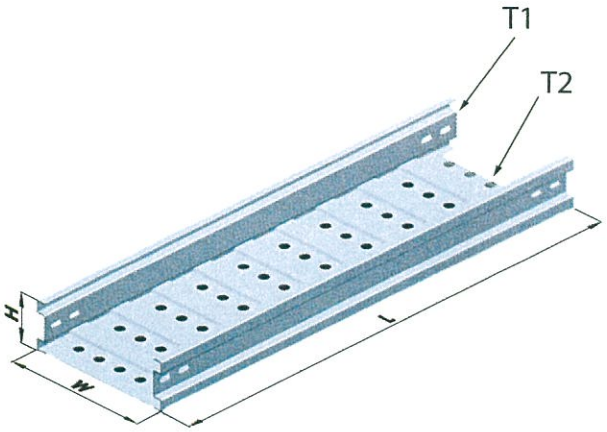
HORIZONTAL REDUCE





TYPE HR (WxH)	THICKNESS (mm.)	WEIGHT (kg.) FITTING	COVER T=1.6 mm.	COVER T=2.0 mm.
HR 300,W2 x 100	2.0	5.34	2.83	3.77
HR 400,W2 x 100	2.0	5.79	3.71	5.02
HR 500,W2 x 100	2.0	6.23	4.71	6.27
HR 600,W2 x 100	2.0	6.68	5.45	7.52
HR 700,W2 x 100	2.0	7.13	6.19	8.77
HR 800,W2 x 100	2.0	7.58	6.93	10.02
HR 900,W2 x 100	2.0	8.03	7.67	11.27
HR 1000,W2 x 100	2.0	8.43	8.41	12.52

FITTING FOR CABLE TRAY



STANDARD ; Refer to BS EN, ASTM, E.I.T, NEMA VE1, ISO

MATERIALS ; ☐ Cold Rolled Mild Steel Sheet

☐ Hot Rolled Mild Steel Sheet

☐ Stainless Steel Sheet (VS Type)

FINISHING ; ☐ Painting by Electro-Static Spraying with Epoxy/Polyester Powder Paint Coating 60-80 µM. Thickness (VP Type)

PRE-TREATMENT ☐ Zinc Phosphate

☐ Electroplated Zinc to BSEN 12329

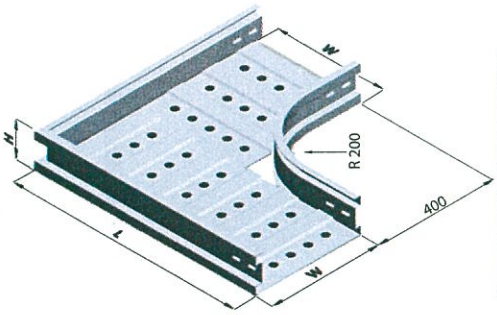
☐ Hot-Dip Galvanized Average 55-65 µM Thickness to ISO 1461 or ASIM A123/A123M (LH Type)

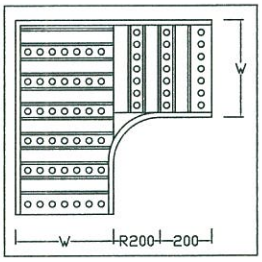
TECHNICAL DATA

TYPE (WxHxL)	Thickness T1/T2 (mm.)	WEIGHT(kg./m.)			BENDING STRENGTH (kg.)		
		STRAIGHT	cover		SUPPORT DISTANCE (m.)		
			T=1.6 mm.	T=2.0 mm.	1.5 m.	2.0 m.	3.0 m.
200 x 100 x 2440	1.6/1.2	5.52	2.83	3.77	1205.50	928.00	638.95
300 x 100 x 2440	1.6/1.2	6.34	4.00	5.34	1367.35	1079.95	726.70
400 x 100 x 2440	1.6/1.2	7.16	5.17	6.91	1450.80	1146.15	769.85
500 x 100 x 2440	1.6/1.2	7.98	6.34	8.48	1512.65	1202.10	806.45
600 x 100 x 2440	2.0/1.6	12.55	7.51	10.05	1605.20	1268.11	850.00
700 x 100 x 2440	2.0/1.6	13.78	8.68	11.62	1735.35	1370.90	919.75
800 x 100 x 2440	2.0/1.6	15.01	9.85	13.19	1842.10	1455.50	976.35
900 x 100 x 2440	2.0/1.6	16.24	11.02	14.76	1960.70	1548.95	1039.15
1000 x 100 x 2440	2.0/1.6	17.47	12.19	16.33	2065.20	1631.50	1096.55

-STANDARD LENGHT : STRAIGHT = 2440 mm.
COVER = 2440 mm.
-OTHER THICKNESS OF MATERIALS MADE BY ORDER.

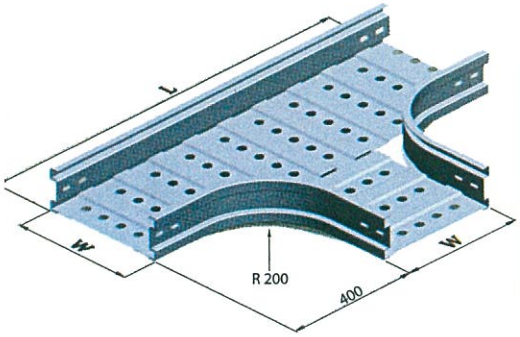
90° HORIZONTAL BEND

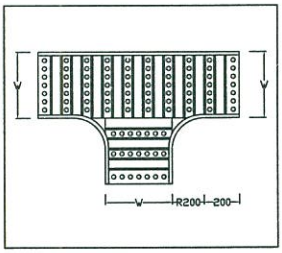




TYPE 90 HB (WxH)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
90 HB 200 x 100	1.6/1.2	5.79	3.08	4.12
90 HB 300 x 100	1.6/1.2	7.25	4.66	6.22
90 HB 400 x 100	1.6/1.2	8.88	6.48	8.64
90 HB 500 x 100	1.6/1.2	10.68	8.53	11.37
90 HB 600 x 100	2.0/1.6	17.42	10.81	14.41
90 HB 700 x 100	2.0/1.6	20.58	13.37	17.77
90 HB 800 x 100	2.0/1.6	23.98	16.09	21.45
90 HB 900 x 100	2.0/1.6	27.66	19.08	25.44
90 HB 1000 x 100	2.0/1.6	31.60	22.30	29.74

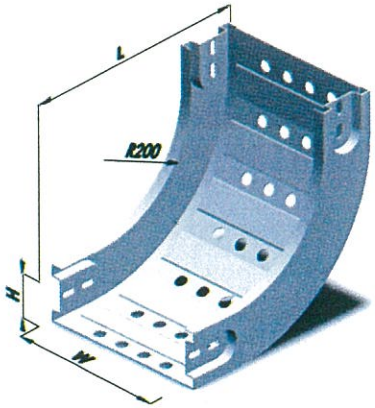
HORIZONTAL TEE

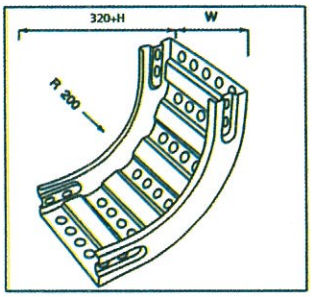




TYPE HT (WxH)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
HT 200 x 100	1.6/1.2	7.91	4.42	5.87
HT 300 x 100	1.6/1.2	9.55	6.45	8.58
HT 400 x 100	1.6/1.2	11.40	8.71	19.60
HT 500 x 100	1.6/1.2	13.45	11.20	14.94
HT 600 x 100	2.0/1.6	21.30	13.94	22.53
HT 700 x 100	2.0/1.6	24.96	16.90	22.53
HT 800 x 100	2.0/1.6	28.93	20.11	26.80
HT 900 x 100	2.0/1.6	33.21	23.54	31.38
HT 1000 x 100	2.0/1.6	37.79	27.22	36.28

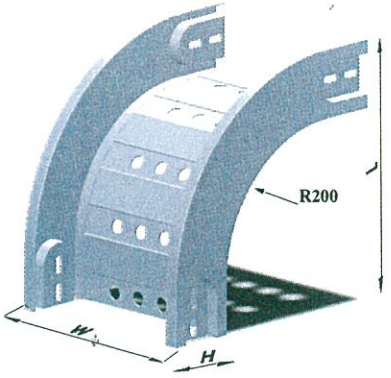
90° VERTICAL INSIDE BEND

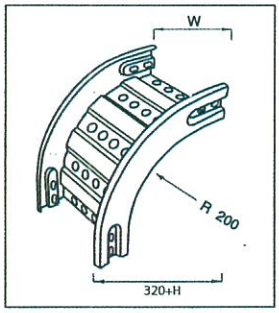




TYPE 90 VI (WxH)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
90 VI 200 x 100	1.6/1.2	5.15	1.63	2.04
90 VI 300 x 100	1.6/1.2	5.72	2.31	2.88
90 VI 400 x 100	1.6/1.2	6.29	2.99	3.72
90 VI 500 x 100	1.6/1.2	6.86	3.67	4.56
90 VI 600 x 100	2.0/1.6	9.10	4.35	5.40
90 VI 700 x 100	2.0/1.6	9.95	5.03	6.24
90 VI 800 x 100	2.0/1.6	10.79	5.71	7.08
90 VI 900 x 100	2.0/1.6	11.63	6.39	7.92
90 VI 1000 x 100	2.0/1.6	12.47	7.07	8.76

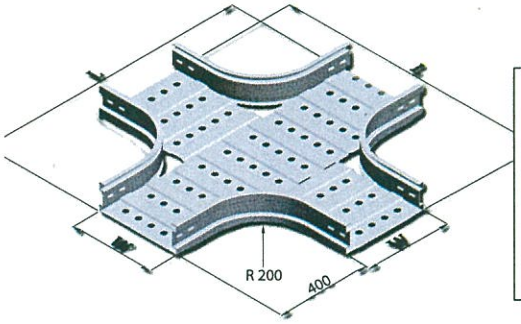
90° VERTICAL OUTSIDE BEND

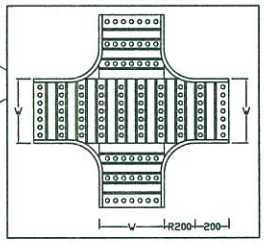




TYPE 90VO (WxH)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
90VO 200 x 100	1.6/1.2	4.90	2.09	2.62
90VO 300 x 100	1.6/1.2	5.34	2.97	3.71
90VO 400 x 100	1.6/1.2	5.78	3.85	4.80
90VO 500 x 100	1.6/1.2	6.22	4.37	5.89
90VO 600 x 100	2.0/1.6	7.98	5.61	6.98
90VO 700 x 100	2.0/1.6	8.64	6.49	8.07
90VO 800 x 100	2.0/1.6	9.30	7.37	9.16
90VO 900 x 100	2.0/1.6	9.96	8.25	10.25
90VO 1000 x 100	2.0/1.6	10.62	9.13	11.34

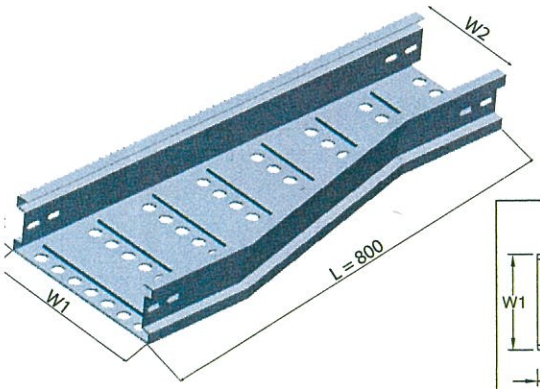
HORIZONTAL CROSS

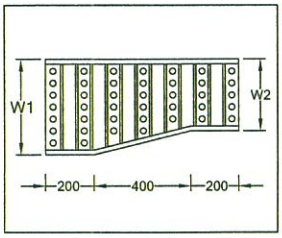




TYPE HX (WxH)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
HX 200 x 100	1.6/1.2	10.34	5.78	8.01
HX 300 x 100	1.6/1.2	12.14	8.49	11.31
HX 400 x 100	1.6/1.2	14.14	11.20	14.91
HX 500 x 100	1.6/1.2	16.35	14.14	18.84
HX 600 x 100	2.0/1.6	24.46	17.32	23.08
HX 700 x 100	2.0/1.6	28.38	20.73	27.64
HX 800 x 100	2.0/1.6	32.61	24.38	32.50
HX 900 x 100	2.0/1.6	37.14	28.27	37.68
HX 1000 x 100	2.0/1.6	41.98	32.39	43.18

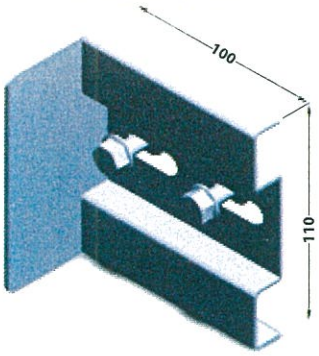
HORIZONTAL REDUCE

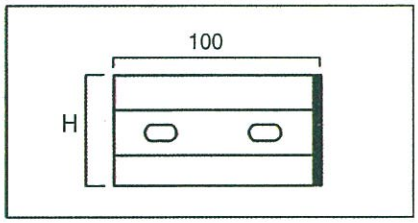




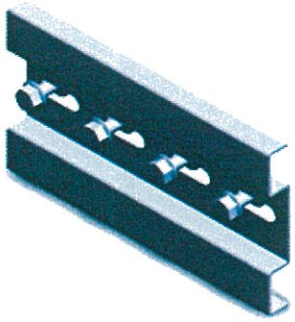
TYPE HR (W1,W2X100)	THICKNESS T1/T2 (mm.)	WEIGHT (kg.)		
		FITTING	COVER	
			T=1.6 mm.	T=2.0 mm.
HR 300,W2 x 100	1.6/1.2	4.80	2.83	3.77
HR 400,W2 x 100	1.6/1.2	5.45	3.77	5.02
HR 500,W2 x 100	1.6/1.2	6.10	4.71	6.27
HR 600,W2 x 100	2.0/1.6	6.55	5.45	7.52
HR 700,W2 x 100	2.0/1.6	10.58	6.19	8.77
HR 800,W2 x 100	2.0/1.6	11.56	6.93	10.02
HR 900,W2 x 100	2.0/1.6	12.54	7.67	11.27
HR 1000,W2 x 100	2.0/1.6	13.52	8.41	12.52

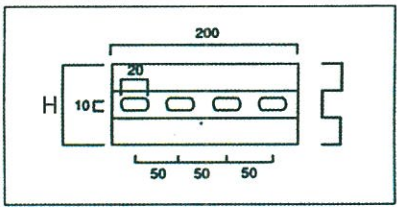
FLANGE END



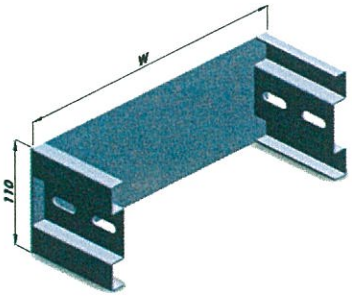


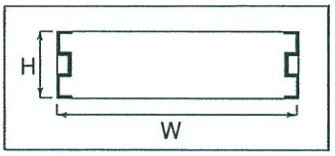
SPLICE PLATE



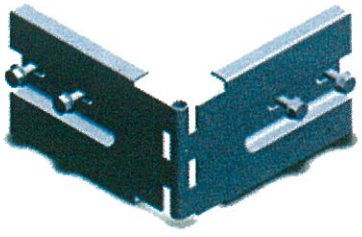


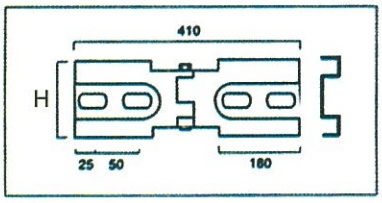
END CAP



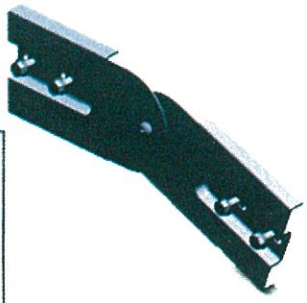


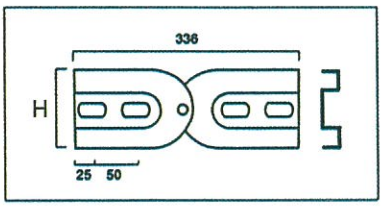
HORIZONTAL ADJUSTABLE



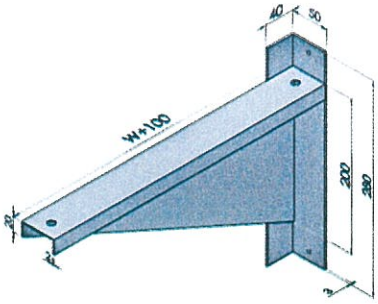


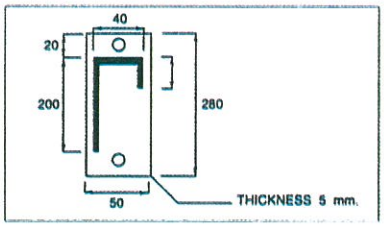
VERTICAL ADJUSTABLE



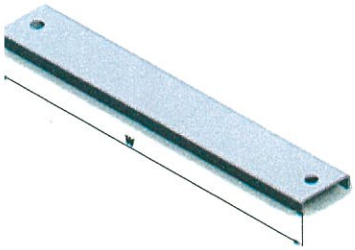


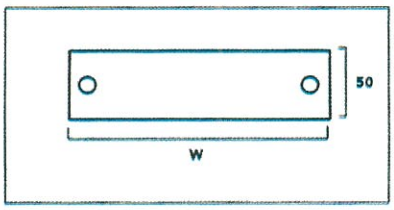
BRACKET SUPPORT



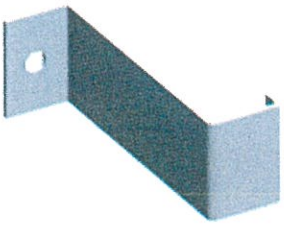


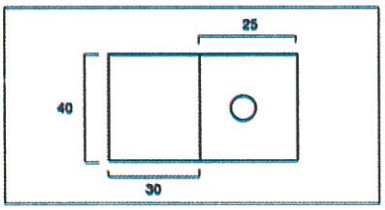
U-CHANNEL (FOR J-LOCK)



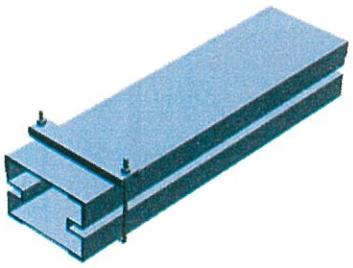


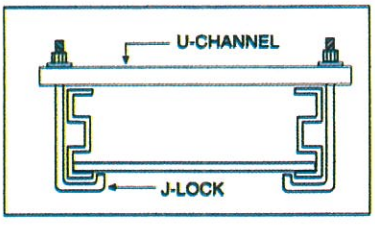
HOLD DOWN CLAMP



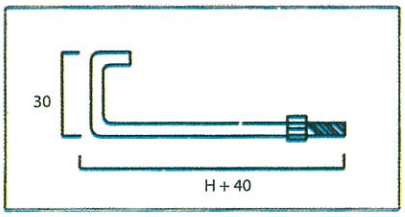


INSTALLATION





J-LOCK

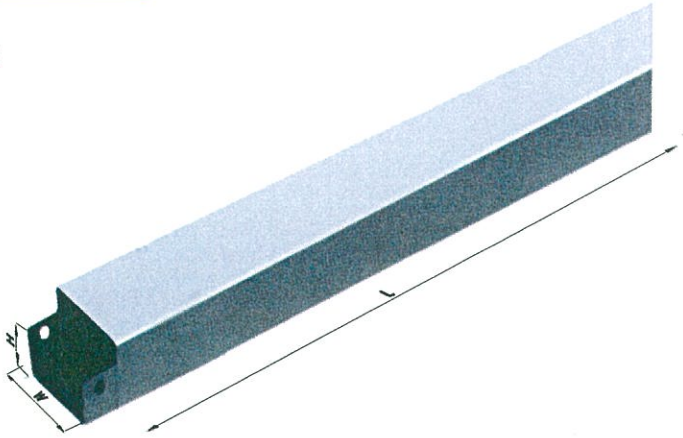


STEEL WIREWAY WITH COVER

STANDARD ; Refer to BS EN, ASTM, E.I.T, NEMA VE1, ISO

MATERIALS ;
- ☐ Cold Rolled Mild Steel Sheet
- ☐ Hot Rolled Mild Steel Sheet
- ☐ Galvanized Steel Sheet (WG Type)
- ☐ Aluzinc Steel Sheet (WAL Type)
- ☐ Stainless Steel Sheet (WS Type)

FINISHING ; ☐ Painting by Electro-Static Spraying with Epoxy/Polyester Powder Paint Coating 60-80 µM. Thickness (WP Type)



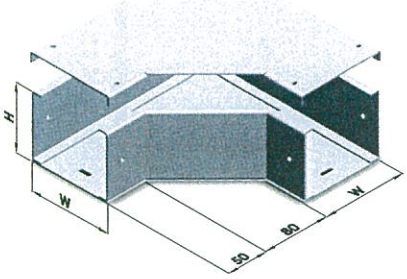
PRE-TREATMENT
- ☐ Zinc Phosphate
- ☐ Electroplated Zinc to BSEN 12329
- ☐ Hot-Dip Galvanized Average 55-65 µM Thickness to ASTMA 123/A123M (WH Type)

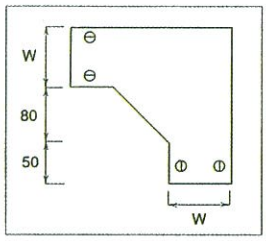
TECHNICAL DATA

TYPE (W x H x L)	BENDING STRENGTH (Kg.) STEEL SHEET THICKNESS (mm.)											
	1.0			1.2			1.6			2.0		
	WEIGHT (Kg./m.)	S.D.(m.)		WEIGHT (Kg./m.)	S.D.(m.)		WEIGHT (Kg./m.)	S.D.(m.)		WEIGHT (Kg./m.)	S.D.(m.)	
		1.5	2.0		1.5	2.0		1.5	2.0		1.5	2.0
75 x 50 x 2440	2.37	276.55	221.25	2.85	370.50	296.40	3.56	583.35	452.20	4.74	906.80	687.80
100 x 50 x 2440	2.76	318.25	254.60	3.32	408.50	326.80	4.15	632.10	490.00	5.53	971.85	725.50
100 x 75 x 2440	3.16	349.50	277.40	3.79	463.35	369.35	4.73	695.30	539.00	6.31	1009.20	767.60
100 x 100 x 2440	3.55	387.00	305.00	4.26	500.80	395.20	5.32	749.95	581.35	7.10	1067.45	798.75
150 x 100 x 2440	4.33	395.00	334.40	5.20	562.00	443.70	6.33	796.30	627.00	8.78	1105.85	817.70
200 x 100 x 2440	5.12	418.00	357.20	6.14	602.15	477.90	7.68	852.95	661.20	10.24	1197.65	921.30
250 x 100 x 2440	-	-	-	7.08	645.17	514.70	8.86	884.90	696.80	11.81	1265.50	980.40
300 x 100 x 2440	-	-	-	8.02	690.97	554.88	10.04	994.45	743.65	13.38	1326.10	1012.50
350 x 100 x 2440	-	-	-	-	-	-	11.22	987.45	785.40	14.95	1377.45	1067.80
400 x 100 x 2440	-	-	-	-	-	-	12.40	1046.35	823.90	16.52	1419.95	1113.40
450 x 100 x 2440	-	-	-	-	-	-	13.58	1076.20	847.40	18.09	1482.60	1128.50
500 x 100 x 2440	-	-	-	-	-	-	14.76	1134.80	900.00	19.66	1530.70	1188.00

S.D = SUPPORT DISTANCE
WEIGHT = WITH COVER

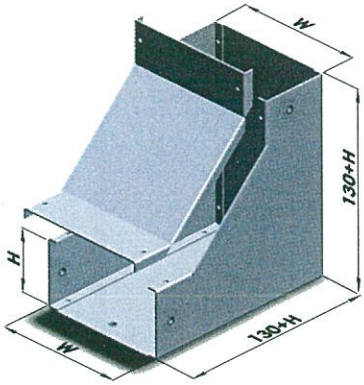
90° HORIZONTAL BEND WITH COVER

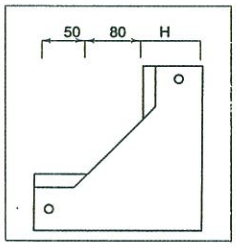




TYPE 90 HB (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
90 HB 75 x 50	0.35	0.42	0.56	0.70
90 HB 100 x 50	0.43	0.52	0.69	0.86
90 HB 100 x 75	0.58	0.70	0.93	1.16
90 HB 100 x 100	0.69	0.83	1.10	1.38
90 HB 150 x 100	0.96	1.15	1.51	1.89
90 HB 200 x 100	1.24	1.49	1.98	2.48
90 HB 250 x 100	-	1.89	2.52	3.15
90 HB 300 x 100	-	2.33	3.11	3.89
90 HB 350 x 100	-	-	3.77	4.72
90 HB 400 x 100	-	-	4.49	5.62
90 HB 450 x 100	-	-	5.28	6.60
90 HB 500 x 100	-	-	6.14	7.66

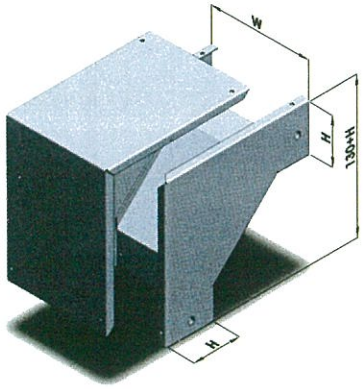
90° VERTICAL INSIDE BEND WITH COVER

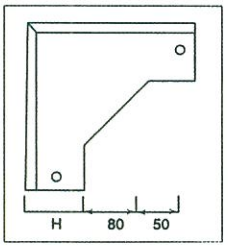




TYPE 90 VI (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
90 VI 75 x 50	0.70	0.84	1.13	1.49
90 VI 100 x 50	0.82	0.98	1.31	1.64
90 VI 100 x 75	1.13	1.36	1.80	2.23
90 VI 100 x 100	1.35	1.62	2.17	2.71
90 VI 150 x 100	1.62	1.94	2.60	3.35
90 VI 200 x 100	1.89	2.27	3.03	3.79
90 VI 250 x 100	-	2.60	3.46	4.33
90 VI 300 x 100	-	2.91	3.90	4.87
90 VI 350 x 100	-	-	4.33	5.42
90 VI 400 x 100	-	-	4.96	5.96
90 VI 450 x 100	-	-	5.20	6.50
90 VI 500 x 100	-	-	5.63	7.04

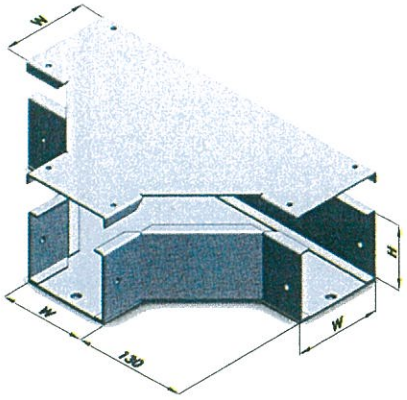
90° VERTICAL OUTSIDE BEND WITH COVER

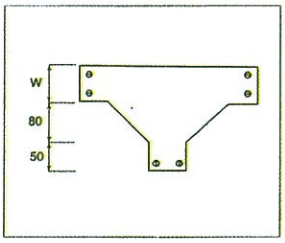




TYPE 90 VO (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
90 VO 75 x 50	0.70	0.84	1.13	1.49
90 VO 100 x 50	0.82	0.98	1.31	1.64
90 VO 100 x 75	1.13	1.36	1.80	2.25
90 VO 100 x 100	1.35	1.62	2.17	2.71
90 VO 150 x 100	1.62	1.94	2.60	3.35
90 VO 200 x 100	1.89	2.27	3.03	3.79
90 VO 250 x 100	-	2.60	3.46	4.33
90 VO 300 x 100	-	2.91	3.90	4.87
90 VO 350 x 100	-	-	4.33	5.42
90 VO 400 x 100	-	-	4.76	5.96
90 VO 450 x 100	-	-	5.20	6.50
90 VO 500 x 100	-	-	5.63	7.04

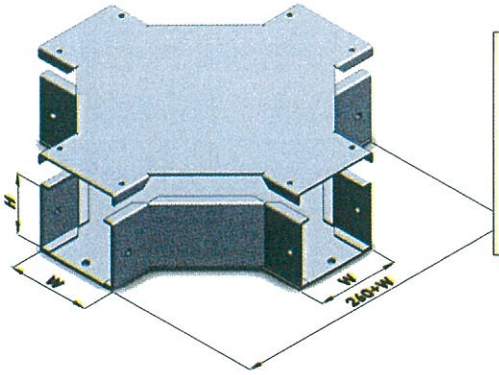
HORIZONTAL TEE WITH COVER

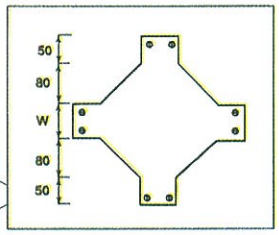




TYPE HT (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
HT 75 X 50	1.31	1.57	2.09	2.62
HT 100 X 50	1.55	1.87	2.48	3.10
HT 100 X 75	1.76	2.11	2.82	3.53
HT 100 X 100	1.94	2.33	3.10	3.87
HT 150 X 100	2.49	2.99	3.99	4.98
HT 200 X 100	3.12	3.74	4.99	6.25
HT 250 X 100	-	4.50	6.00	7.50
HT 300 X 100	-	5.44	7.25	9.08
HT 350 X 100	-	-	8.65	10.84
HT 400 X 100	-	-	10.16	12.70
HT 450 X 100	-	-	11.80	14.75
HT 500 X 100	-	-	13.57	16.96

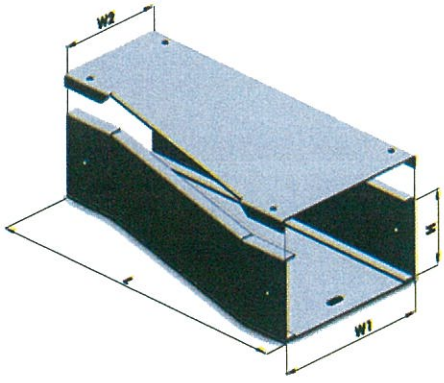
HORIZONTAL CROSS WITH COVER

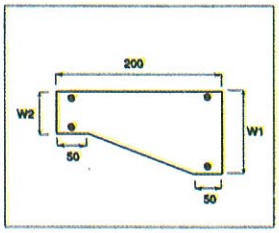




TYPE HX (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
HX 75 X 50	1.80	2.16	2.88	3.60
HX 100 X 50	2.08	2.50	3.32	4.15
HX 75 X 75	2.37	2.84	3.79	4.74
HX 100 X 100	2.57	3.08	4.11	5.14
HX 150 X 100	3.18	3.82	5.08	6.35
HX 200 X 100	3.86	4.65	6.17	7.72
HX 250 X 100	-	5.35	7.13	8.91
HX 300 X 100	-	6.35	8.47	10.59
HX 350 X 100	-	-	9.94	12.43
HX 400 X 100	-	-	11.54	14.42
HX 450 X 100	-	-	13.26	16.57
HX 500 X 100	-	-	15.16	18.88

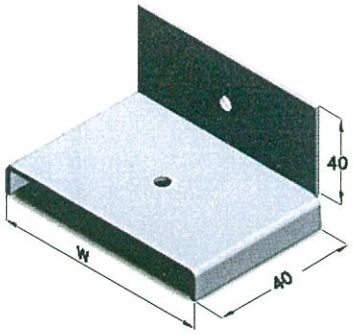
HORIZONTAL REDUCE WITH COVER

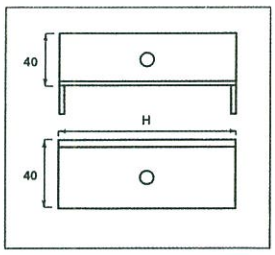




TYPE HR (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
HR 100, 75 X 50	0.54	0.65	0.81	1.08
HR 150,100 X 100	0.85	1.02	1.28	1.70
HR 200,W2 X 100	1.00	1.20	1.50	2.00
HR 250,W2 X 100	-	1.31	1.75	2.33
HR 300,W2 X 100	-	1.50	2.00	2.66
HR 350,W2 X 100	-	-	2.25	2.99
HR 400,W2 X 100	-	-	2.50	3.52
HR 450,W2 X 100	-	-	2.75	3.61
HR 500,W2 X 100	-	-	3.00	3.97

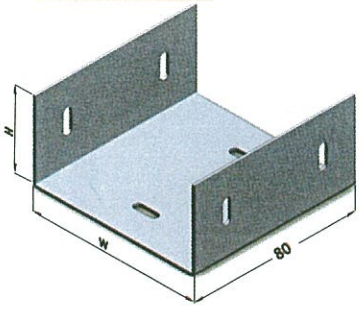
FLANGE END

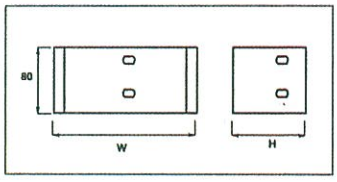




TYPE FE (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
FE 50	0.08	0.10	0.13	0.16
FE 75	0.09	0.11	0.14	0.18
FE 100	0.10	0.12	0.15	0.20
FE 150	0.11	0.13	0.16	0.22

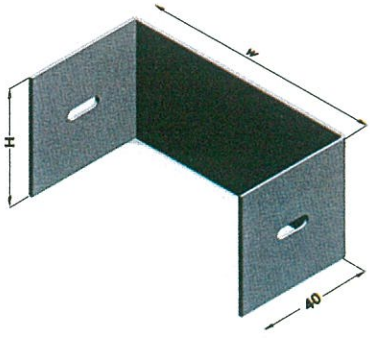
CONNECTOR

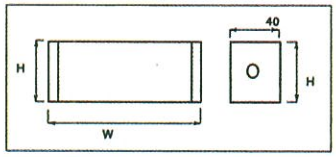




TYPE WC (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
WC 75 X 50	0.09	0.11	0.15	0.18
WC 100 X 50	0.11	0.13	0.17	0.22
WC 100 X 75	0.12	0.14	0.20	0.25
WC 100 X 100	0.14	0.17	0.23	0.29
WC 150 X 100	0.18	0.22	0.28	0.35
WC 200 X 100	0.21	0.25	0.33	0.41
WC 250 X 100	-	0.28	0.38	0.48
WC 300 X 100	-	0.32	0.43	0.54
WC 350 X 100	-	-	0.48	0.60
WC 400 X 100	-	-	0.53	0.66
WC 450 X 100	-	-	0.58	0.72
WC 500 X 100	-	-	0.63	0.78

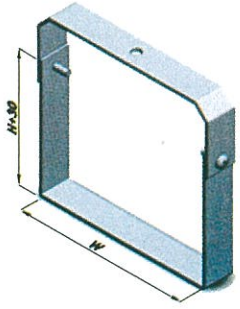
END CAP

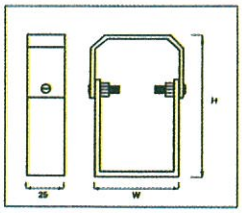




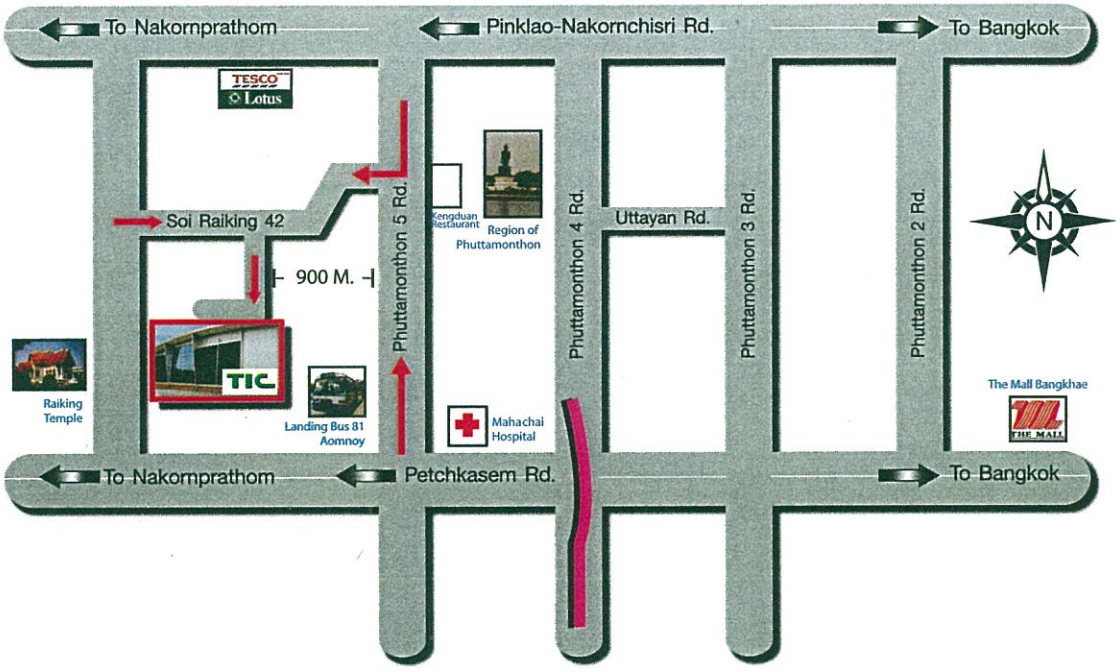
TYPE EC (WxH)	WEIGHT (kg.) THICKNESS (mm.)			
	1.0	1.2	1.6	2.0
EC 75 X 50	0.06	0.07	0.09	0.12
EC 100 X 50	0.07	0.08	0.11	0.14
EC 100 X 75	0.10	0.12	0.17	0.21
EC 100 X 100	0.14	0.16	0.22	0.27
EC 150 X 100	0.18	0.22	0.29	0.36
EC 200 X 100	0.22	0.26	0.35	0.43
EC 250 X 100	-	0.31	0.41	0.50
EC 300 X 100	-	0.35	0.47	0.57
EC 350 X 100	-	-	0.52	0.64
EC 400 X 100	-	-	0.59	0.71
EC 450 X 100	-	-	0.65	0.78
EC 500 X 100	-	-	0.71	0.84

HANGER SUPPORT





TYPE HS-WP (WxH)	THICKNESS (mm.)	WEIGHT (kg.)
HS-WP 75 X 50	2.00	0.18
HS-WP 100 X 50	2.00	0.23
HS-WP 100 X 75	2.00	0.25
HS-WP 100 X 100	2.00	0.28
HS-WP 150 X 100	2.00	0.32
HS-WP 200 X 100	2.00	0.37



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