



Metal

Framing

Systems

Channels

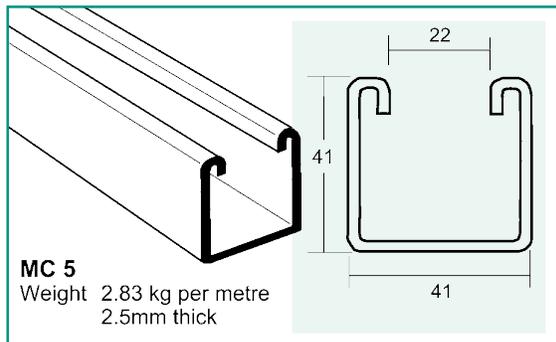
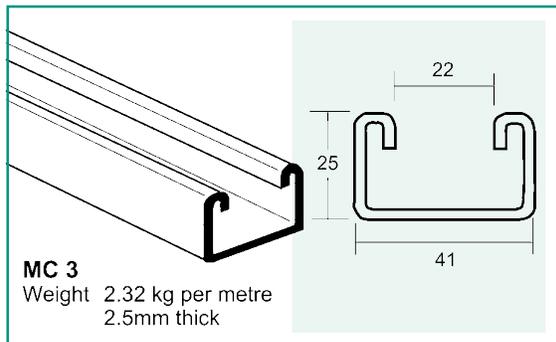
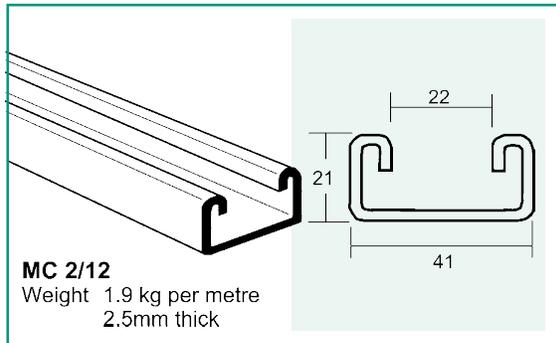
Cantilever Supports

Concrete Inserts

Fittings and Brackets

Clamps and Hangers

Accessories



M*RAK Metal Framing Systems are designed as a support system which has almost infinite permutations, it provides a rigid structure without welding or drilling.

Construction and allied industries find M*RAK ideal as a framing system for structural supports, service supports, suspended ceilings, raised flooring and as concrete inserts for fixing.

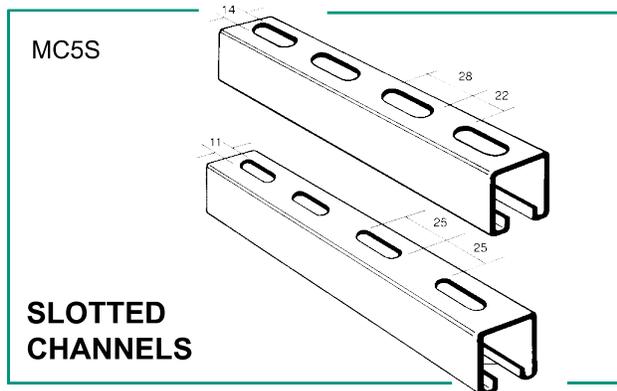
M*RAK is economical in that after installation it is easily adjustable, demountable and reusable.

CHANNELS

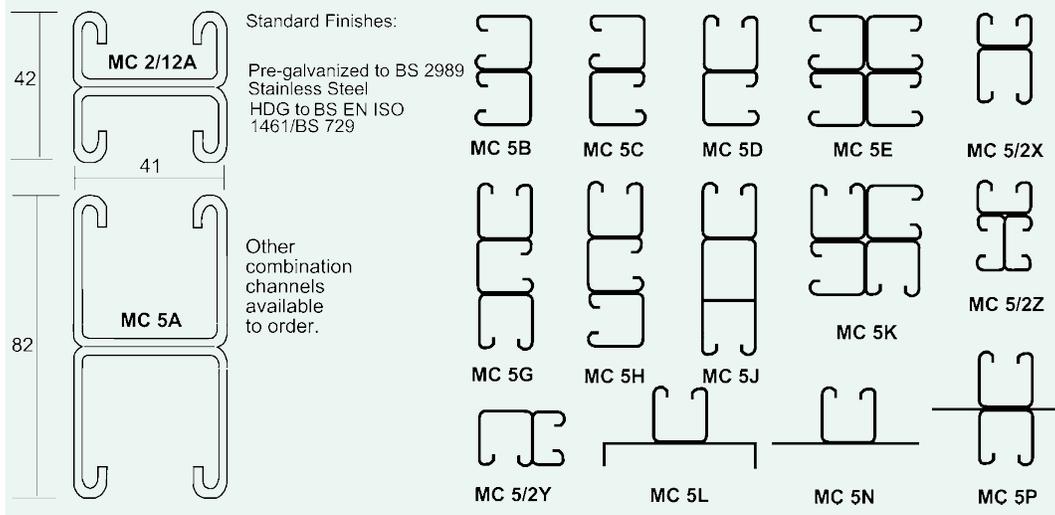
Standard finishes for M*RAK channels consist of hot dipped galvanized to BS EN ISO 1461/BS 729, pre-galvanized to BS 2989 1982 and mill finish. Special coatings are available, e.g. Epoxy, Polyester, Nylon, etc, in a range of colours upon request.

Stainless Steel

Channels are available in MC5 and MC2/12 etc. Sections are cold rolled from marine grade stainless steel reference T316L. A full range of fittings and accessories are also available as standard items. Please specify stainless steel when ordering.



COMBINATION CHANNELS



CHANNEL DATA

Section	Span mm	Uniformly Distributed Load at 172N/mm ² Stress kgf	Uniformly Distributed Load at deflection of span/360 kgf	Uniformly Distributed Load at deflection of span/180 kgf
 MC 2/12	250	600	600	-
	500	295	265	-
	750	197	118	-
	1000	150	65	-
	1500	99	24	66
	2000	74	-	34
	2500	60	-	20
 MC 2/12A	500	815	815	-
	1000	406	320	-
	1500	268	140	-
	2000	200	65	164
	2500	160	46	100
	3000	135	30	66
	3500	108	23	46
	4000	95	17	34
 MC 3	500	483	483	-
	1000	242	110	-
	1500	161	58	140
	2000	121	30	70
	2500	97	28	42
 MC 5	3000	80	-	28
	500	1057	1057	-
	1000	529	515	-
	1500	352	190	-
	2000	264	100	210
 MC 5A	2500	208	90	126
	3000	167	42	84
	3500	148	-	60
	4000	130	-	44
	500	2892	-	-
 MC 5A	1000	1446	-	-
	2000	723	-	-
	3000	482	-	-
	4000	-	-	-

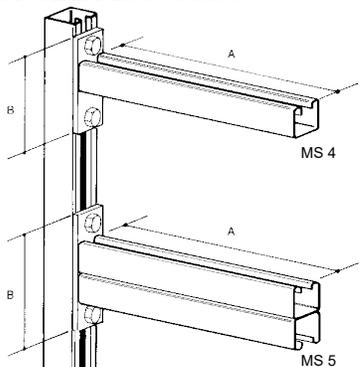
Bolt Torque Data

Isometric Coarse Threads Plated Only	Newton/Metres (N/M)	Foot/Pounds (ft/lbs)
M6	5.0	3.7
M10	24.2	17.7
M12	41.8	30.8

Notes:

Safe uniformly distributed loads are tabulated for simply supported spans based on a stress of 172N/mm² where deflection is not a critical factor. Where deflection is to be limited to a minimum, use alternative safe loads. For loads concentrated in the centre of the span multiply load by 0.5 multiply deflection by 0.8 Technical information for these sections and other channels and combinations is available on request.

CANTILEVER ARMS



Part No.	Length A mm	Length B mm	UDL Kg kg	Weight kg
BMS 4 150	150	110	398	0.92
BMS 4 300	300	110	252	1.38
BMS 4 450	450	110	160	1.74
BMS 4 600	600	110	102	2.17
BMS 4 750	750	110	51	2.64
BMS 5 150	150	150	1250	1.74
BMS 5 300	300	150	907	3.26
BMS 5 450	450	150	544	4.12
BMS 5 600	600	150	454	4.98
BMS 5 750	750	150	363	5.83

All cantilever arms are in hot dipped galvanised finish to BS EN ISO1461/BS 729.

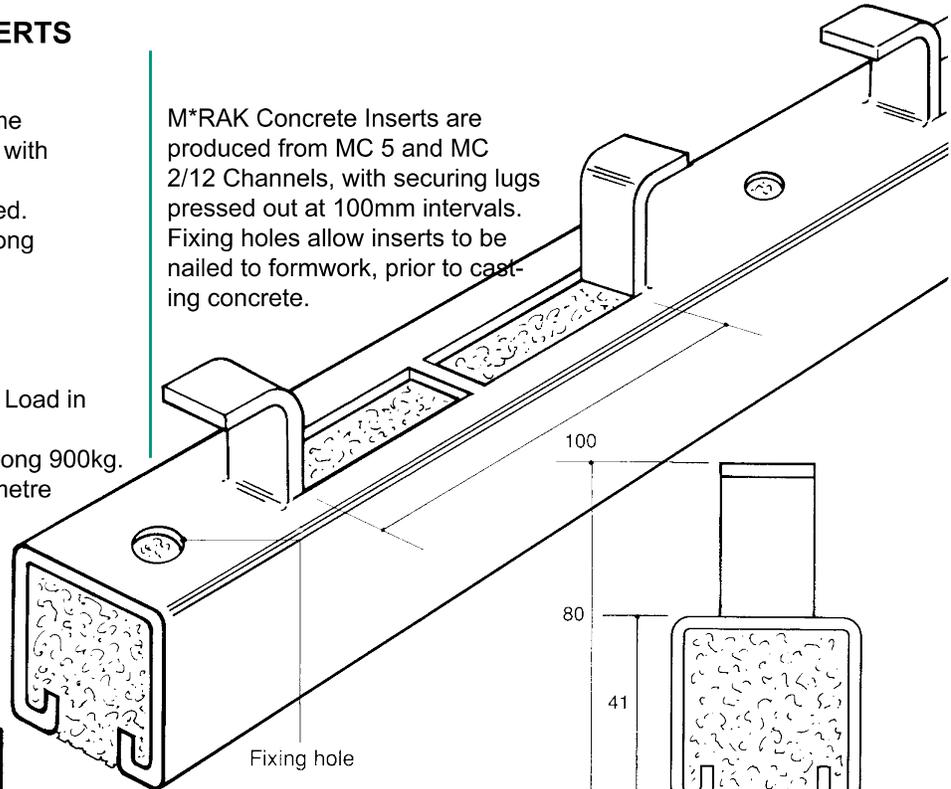
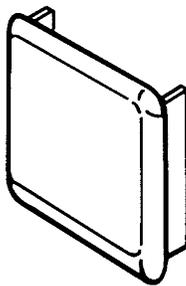
CONCRETE INSERTS

Standard lengths come in 6 metres complete with plastic and caps.
Specify length required.
i.e. MC 5CI 200mm long

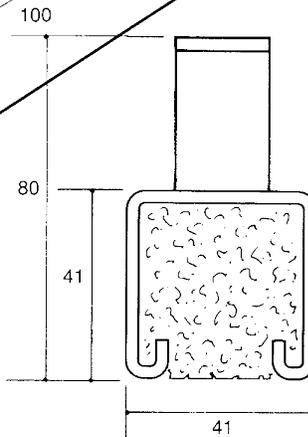
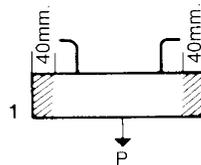
M*RAK Concrete Inserts are produced from MC 5 and MC 2/12 Channels, with securing lugs pressed out at 100mm intervals. Fixing holes allow inserts to be nailed to formwork, prior to casting concrete.

MC 5CI

Recommended Max. Load in 30N/mm² concrete.
Pieces over 300mm long 900kg.
Maximum Load per metre 3000kg.

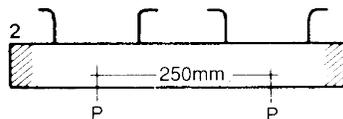


Fixing hole



MPVC41

1. It is not recommended that load should be fixed less than 40mm from either end.
2. Safe distance between 2 max (P) point loads is 250mm.



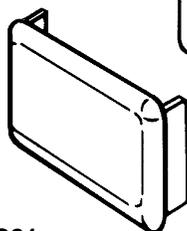
POLYSTYRENE FILLED INSERTS

Prevents ingressing of concrete.
Easily removed.

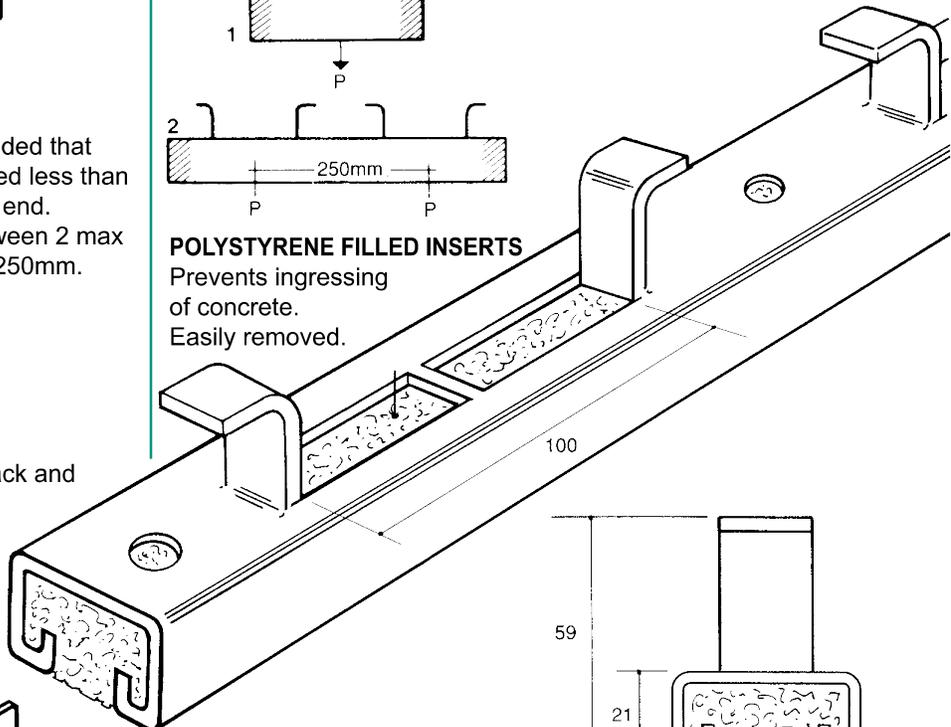
MPVC END CAPS

- MPVC41
- MPVC31
- MPVC21

Available in Blue, Black and White

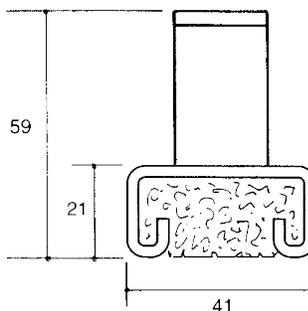


MPVC21



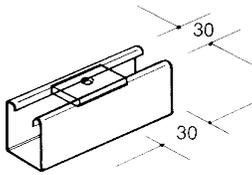
MC 2CI

Recommended Max Load in 30N/mm² concrete.
Pieces over 300mm long 650kg.
Maximum Load per metre 2000kg.



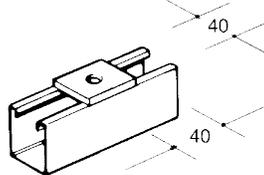
FLAT PLATE FITTINGS

INTERNAL PLATE
3mm thick

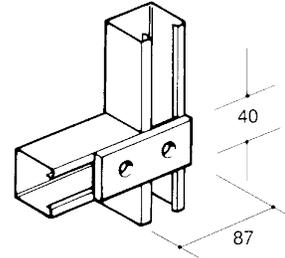


Available in 6, 8, 10 and 12mm hole clearance
MF 999/6/8/10/12 Weight 0.05kg

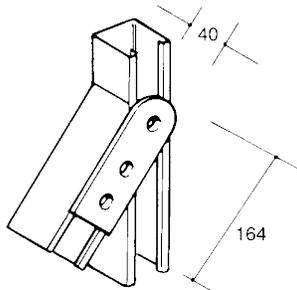
EXTERNAL PLATE



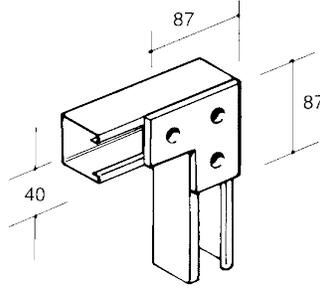
Available in 6, 8, 10 and 12mm hole clearance
MF 1000/6/8/10/12 Weight 0.07kg



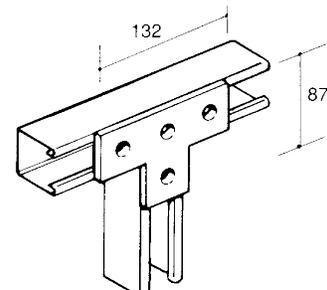
MF 1001 Weight 0.16kg



MF 1005 Weight 0.31kg

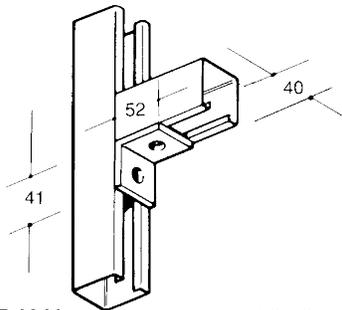


MF 1006 Weight 0.25kg

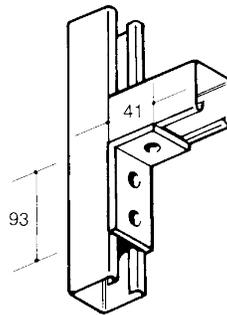


MF 1007 Weight 0.34kg

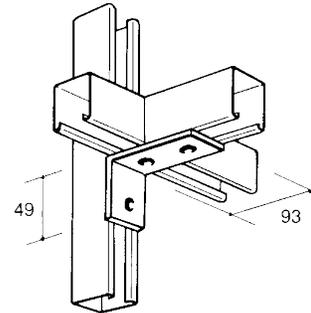
RIGHT ANGLE FITTINGS



MF 1011 Weight 0.16kg

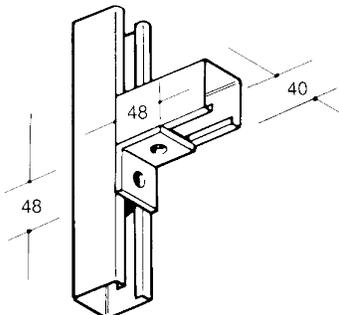


MF 1012 Weight 0.22kg

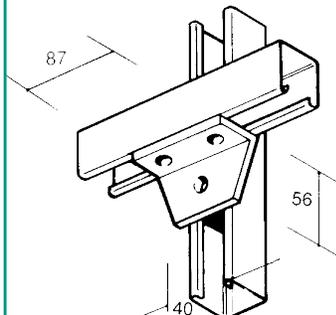


MF 1013 Weight 0.24kg

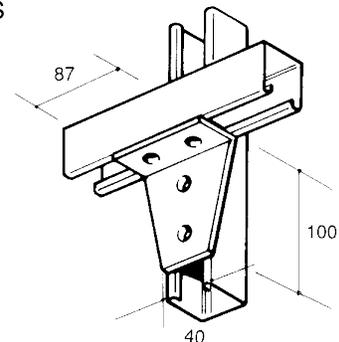
NINETY DEGREE ANGLE FITTINGS



MF 1011a Weight 0.16kg



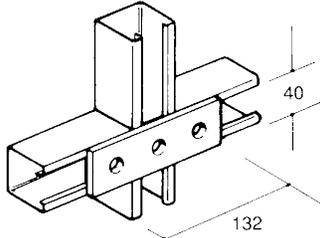
MF 1017 Weight 0.30kg



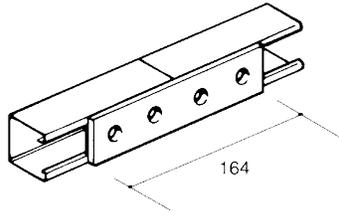
MF 1018 Weight 0.45kg

FLAT PLATE FITTINGS

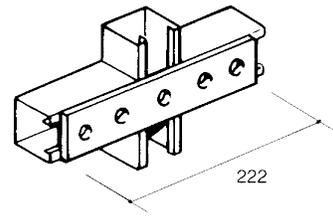
Unless otherwise stated all fittings are manufactured from 6mm thick steel strip and are hot dip galvanized to BS EN ISO 1461/BS 729. Standard hole diameter will be 14mm to give clearance on M12 diameter set screws. For best results use M12 Channel Nuts and Bolts.



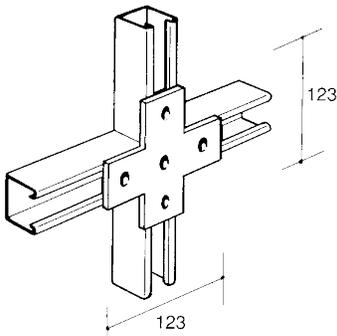
MF 1002 Weight 0.24kg



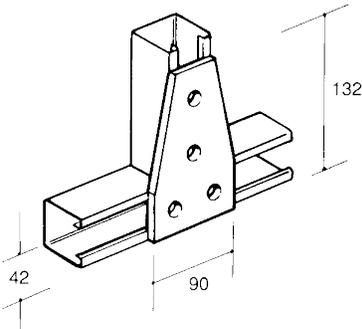
MF 1003 Weight 0.30kg



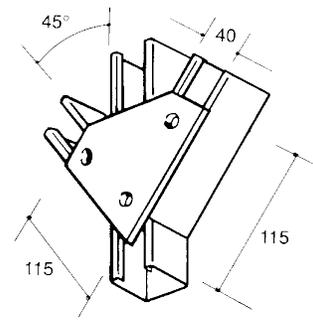
MF 1004 Weight 0.41kg



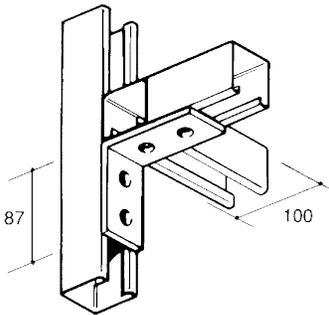
MF 1008 Weight 0.41kg



MF 1009 Weight 0.49kg



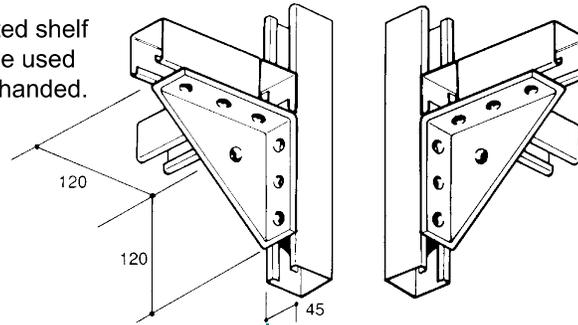
MF 1010 Weight 0.49kg



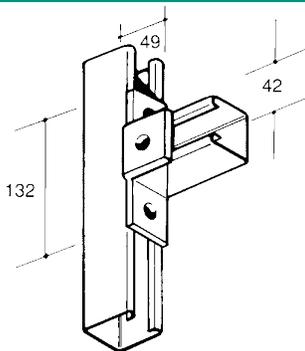
MF 1014 Weight 0.31kg

UNIVERSAL BRACKETS

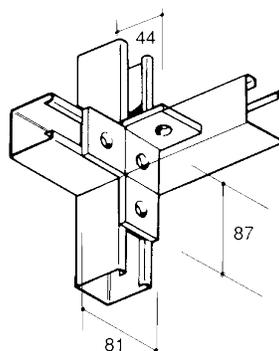
This gusseted shelf fitting can be used left or right handed.



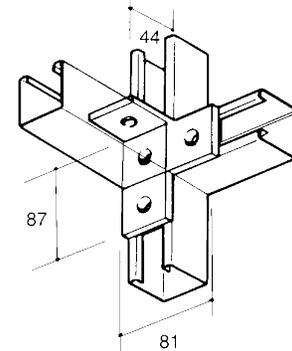
MF 1015 Weight 0.54kg



MF 1019 Weight 0.34kg

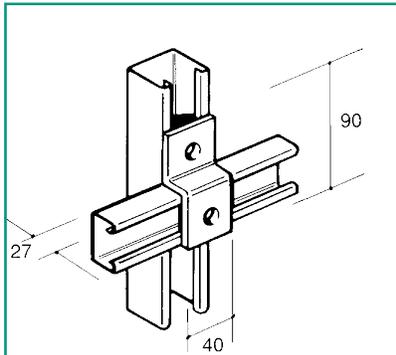


MF 1020 Weight 0.34kg

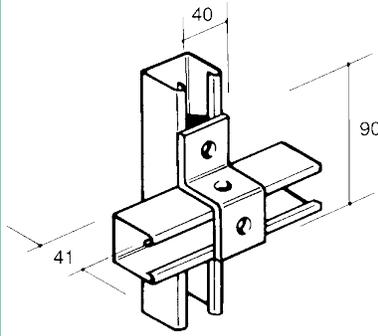


MF 1021 Weight 0.34kg

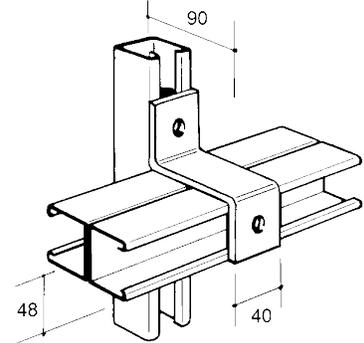
'Z' FITTINGS



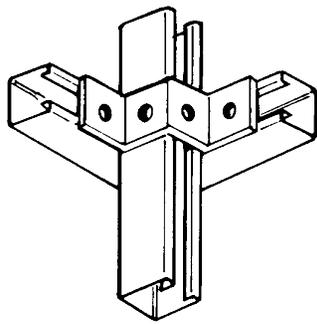
MF 1022 Weight 0.19kg



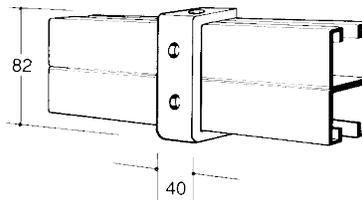
MF 1023 Weight 0.23kg



MF 1024 Weight 0.31kg



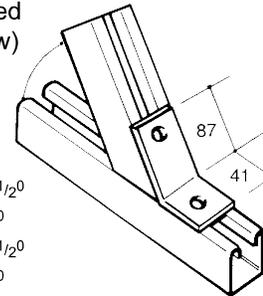
MF 1123 Weight 0.30kg



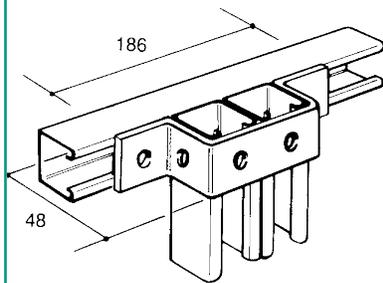
MF 1049 Weight 0.31kg

Specify an **ANGLE FITTING** required (see below)

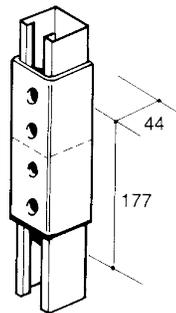
Angles available
 15° 52½°
 22½° 60°
 30° 67½°
 37½° 75°
 45° 82½°



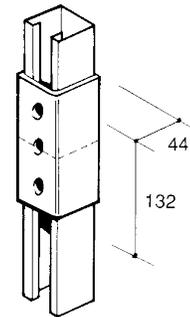
MF 1029 Weight 0.25kg



MF 1028 Weight 0.46kg

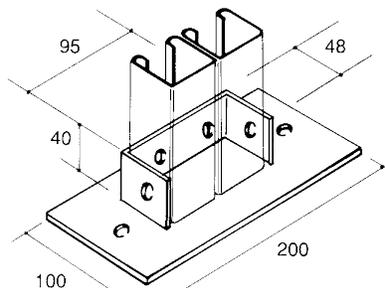


MF 1033 Weight 0.84kg



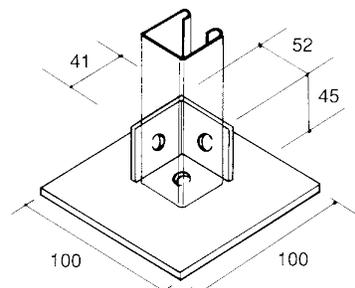
MF 1034 Weight 0.65kg

BASE PLATES 5mm thick

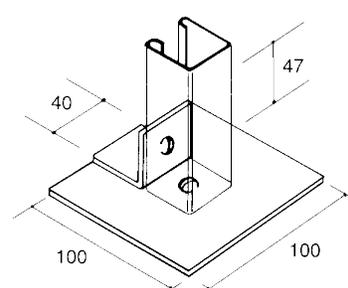


MF 1037 Weight 1.15kg

14mm dia Base Holes

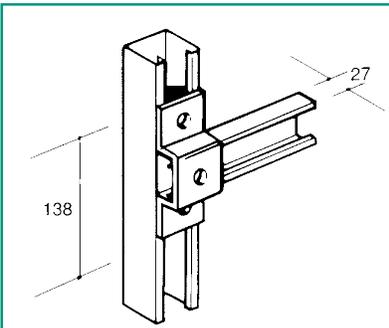


MF 1038 Weight 0.50kg

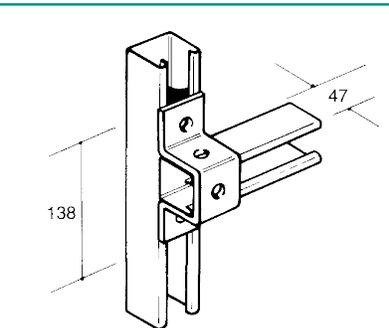


MF 1039 Weight 0.56kg

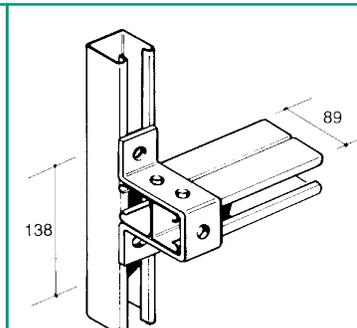
'U' FITTINGS



MF 1025 Weight 0.30kg



MF 1026 Weight 0.36kg

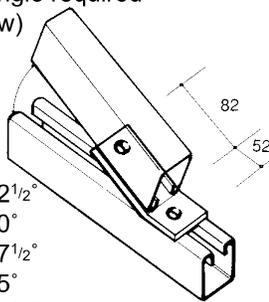


MF 1027 Weight 0.55kg

Specify angle required
(see below)

Angles available

- 15° 52¹/₂°
- 22¹/₂° 60°
- 30° 67¹/₂°
- 37¹/₂° 75°
- 45° 82¹/₂°

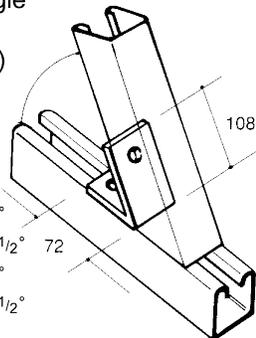


MF 1030 Weight 0.25kg

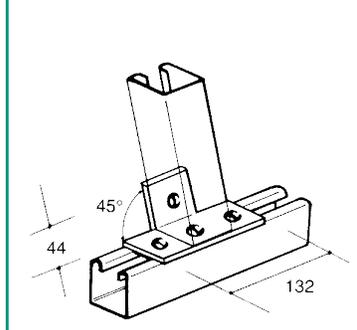
Specify angle required
(see below)

Angles available

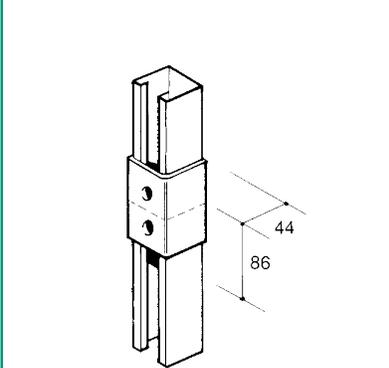
- 30° 60°
- 37¹/₂° 67¹/₂°
- 45° 75°
- 52¹/₂° 82¹/₂°



MF 1031 Weight 0.30kg



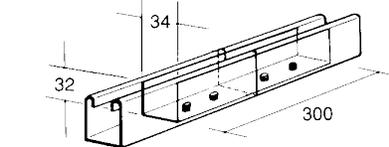
MF 1032 Weight 0.34kg



MF 1035 Weight 0.41kg

INTERNAL SPLICE PLATE 2mm thick

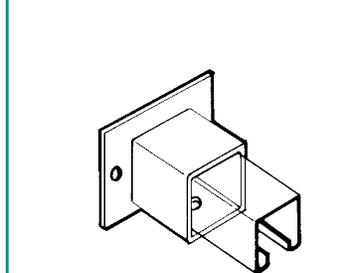
c/w self tapping fixing screws



MF 1036/41 Weight 0.48 kg
(To suit BMC 4 & BMC 5 Monostrut Channels)

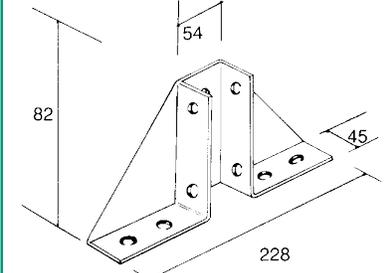
MF 1036/21 Weight 0.24 kg
(To suit BMC 1 & BMC 2/12 Monostrut Channels)

FLANGE CONNECTOR

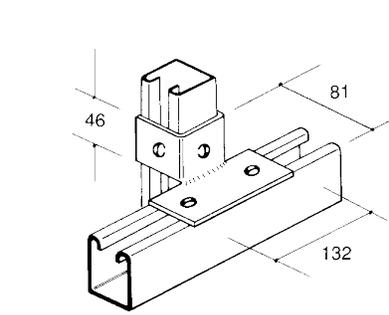


MF 1085

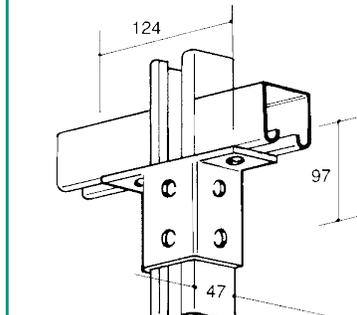
SPECIAL FITTINGS



MF 1040/41 Single Channel
MF 1040/82 Double Channel

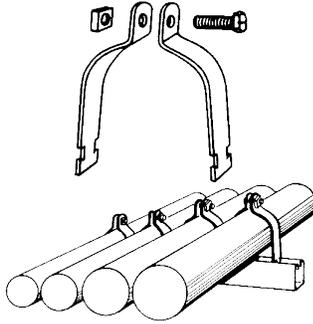


MF 1041 Weight 0.49kg

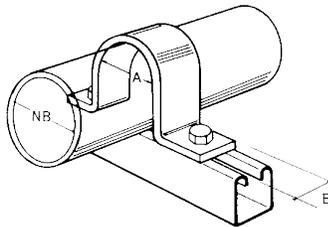


MF 1042 Weight 0.61kg

PIPE CLAMPS TYPE 'A'		Minimum	Minimum	Part Number	Minimum	Minimum
Part Number	Part Number	Pipe Diameter	Pipe Diameter	Part Number	Pipe Diameter	Pipe Diameter
		(mm)	(mm)		(mm)	(mm)
Hot dipped galvanized finish.						
MS AC 201	MS AC 201	8.7	10.3	MS AC 218	48.4	52.4
Bolts & nuts included.						
MS AC 202	MS AC 202	10.3	12.7	MS AC 219	52.4	58.7
MS AC 203	MS AC 203	11.9	13.5	MS AC 220	58.7	63.5
MS AC 204	MS AC 204	13.5	14.3	MS AC 221	63.5	68.3
MS AC 205	MS AC 205	14.3	16.7	MS AC 222	68.3	73.0
MS AC 206	MS AC 206	15.9	18.3	MS AC 223	73.0	79.4
MS AC 207	MS AC 207	18.3	20.6	MS AC 224	76.2	82.6
MS AC 208	MS AC 208	19.0	21.4	MS AC 225	82.6	88.1
MS AC 209	MS AC 209	21.4	25.4	MS AC 226	88.1	95.2
MS AC 210	MS AC 210	25.4	27.8	MS AC 227	95.2	100.0
MS AC 211	MS AC 211	27.0	30.2	MS AC 228	100.0	106.4
MS AC 212	MS AC 212	30.2	33.3	MS AC 229	106.4	111.1
MS AC 213	MS AC 213	31.8	35.9	MS AC 230	111.1	120.7
MS AC 214	MS AC 214	34.9	39.7	MS AC 231	120.7	129.4
MS AC 215	MS AC 215	39.7	42.9	MS AC 232	129.4	138.1
MS AC 216	MS AC 216	42.9	46.8	MS AC 233	138.1	149.2
MS AC 217	MS AC 217	46.8	50.8	MS AC 234	149.2	161.9

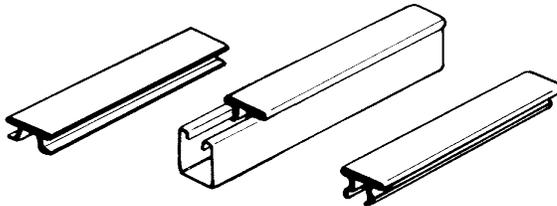


SADDLE CLAMPS	Part Number	Minimum Bore	Dimension 'A'	Dimension 'B'
		(mm)	(mm)	(mm)
Hot dipped galvanized finish.				
	MS BC 01	15	21	30
	MS BC 02	20	27	30
	MS BC 03	25	34	30
	MS BC 04	32	43	30
	MS BC 05	40	48	30
	MS BC 06	50	60	30
	MS BC 07	65	76	40
	MS BC 08	80	89	40
	MS BC 09	100	114	40
	MS BC 10	125	140	40
	MS BC 11	150	168	40



LIGHTING FITTINGS

SNAP-IN CLOSURE STRIP - PVC
Supplied in 3m lengths



END CAPS - PVC

