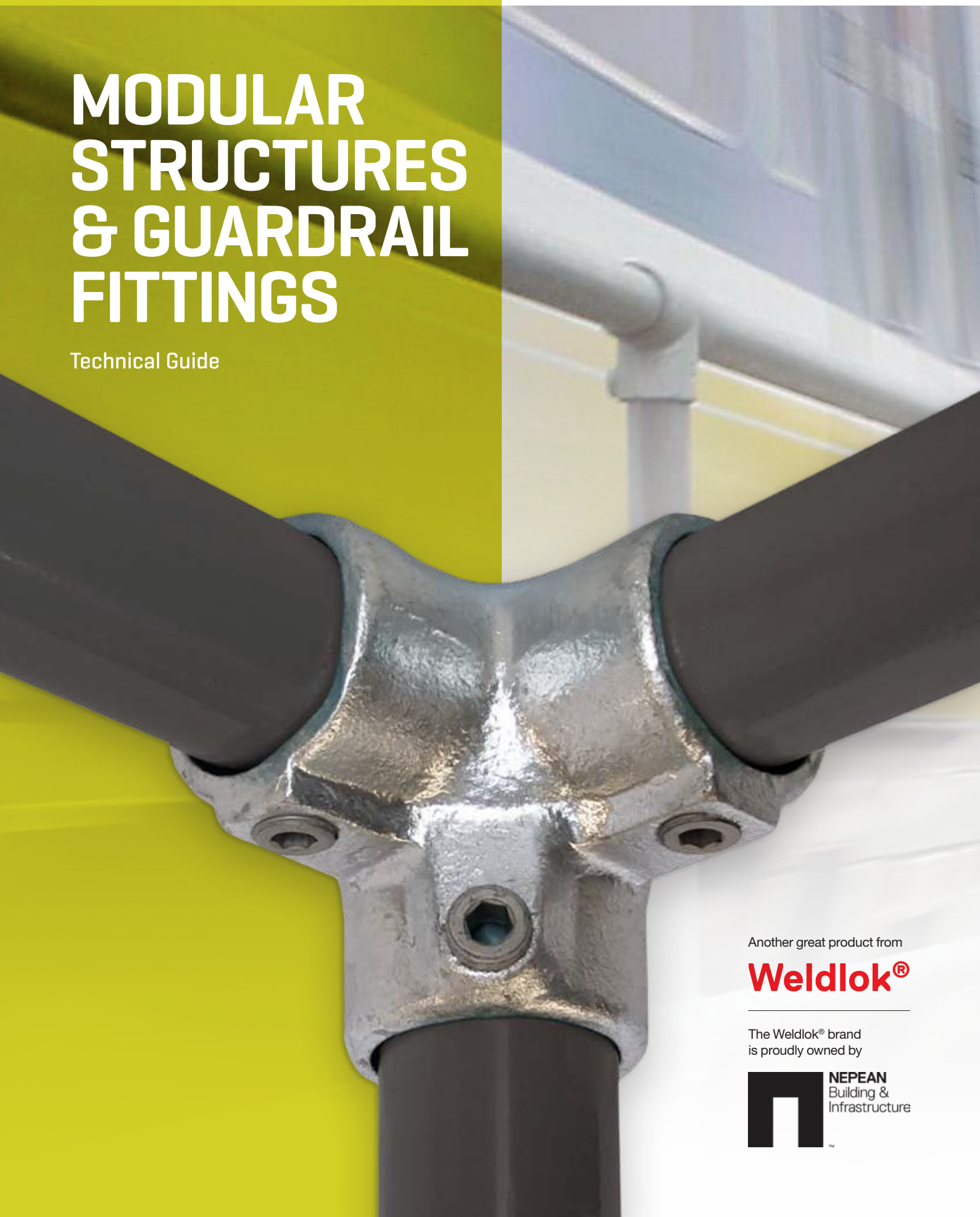
FastClamp®

MODULAR STRUCTURES & GUARDRAIL FITTINGS

Technical Guide



Another great product from

Weldlok®

The Weldlok® brand
is proudly owned by

NEPEAN
Building &
Infrastructure

NEPEAN Building & Infrastructure is a division of NEPEAN, Australia's largest privately owned engineering and industrial manufacturing organisation.

Through our renowned Weldlok® brand, NEPEAN Building & Infrastructure manufactures and supplies a wide range of industrial grating, handrail systems, stormwater grates, expanded and perforated metal.

FastClamp® is the latest addition to the Weldlok® product portfolio offering another way of constructing modular guardrails, safety posts and other structures using innovative design of cast iron fittings to join metal tubes together in different angles and orientations.

Contents

THE FLEXIBLE CLAMPING SOLUTION FOR ALL TYPES OF METAL GUARDRAILS AND MODULAR STRUCTURES

FastClamp is a range of fittings manufactured from Malleable Iron or Ductile Iron. FastClamp fittings are used to construct lightweight tubular steel structures and are manufactured to suit five different tube sizes.

FastClamp fittings require no welding, drilling or special tools, simply use a hexagon key to tighten the special setscrews that embed into the tube. FastClamp fittings will support an axial load of up to 900 kg when tightened to a torque of 39Nm for 40NB medium duty pipe.

FastClamp fittings are currently available in stock in size 40NB for most components. Other size fittings are available upon request. Please check with Weldlok Customer Service team for stock availability and lead times.

Finishes Available

FastClamp castings are Hot-dip Galvanised to AS/NZ4680-2006 as standard. FastClamp fittings can also be supplied in a powder coated finish to RAL standard colours, subject to minimum order quantity and availability from the coaters.

FASTCLAMP SELECTION

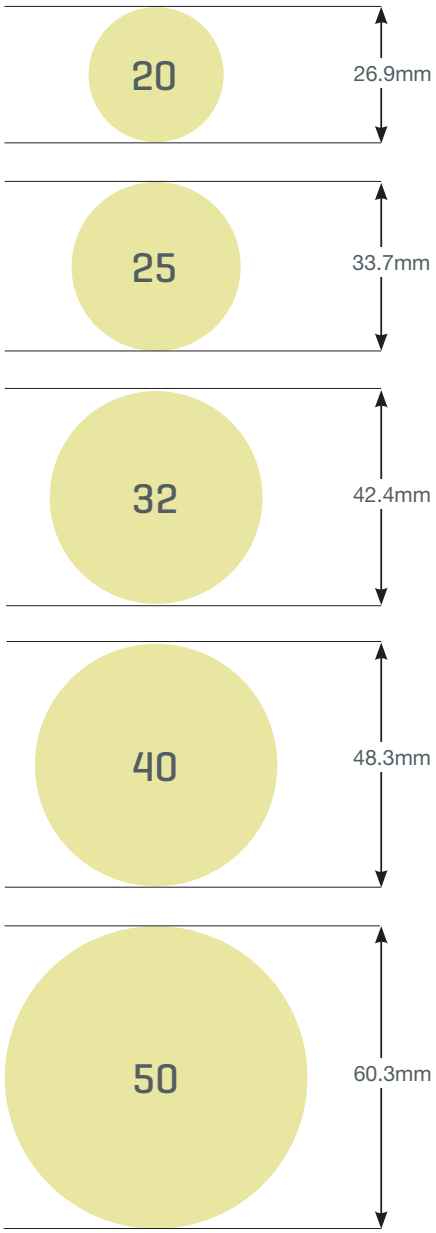
FastClamp fittings when combined with steel tube manufactured to Australian standards with a minimum wall thickness of 3.2mm are designed and tested to comply with the load requirements of AS1657 in common handrail configurations. Loading capacity is available for other fittings in the range. Internal fitting types: C01, C06, C65, DDA02 & DDA06 can only be used with 3.2mm thick tube.

C FastClamp
No. FastClamp type
G Galvanised
P Plastic
S Stainless Steel
No. Tube size

Example: **C00G40** is a FastClamp, type 00, galvanised and suitable for 48.3mm diameter tube.

Fitting	Tube O/Dia	Nominal bore of tube	
		Metric	Imperial
20	26.9mm	20	3/4”
25	33.7mm	25	1”
32	42.4mm	32	1 1/4”
40	48.3mm	40	1 1/2”
50	60.3mm	50	2”

Important Note: The Tube Size should be the first consideration as this is the primary structural component for any FastClamp structure. The loading capacity of any guardrail structure is determined principally by the diameter, thickness and frequency of its upright posts. FastClamp fittings are designed for maximum post centre spacing of 2 metres with maximum post height of 1100mm.

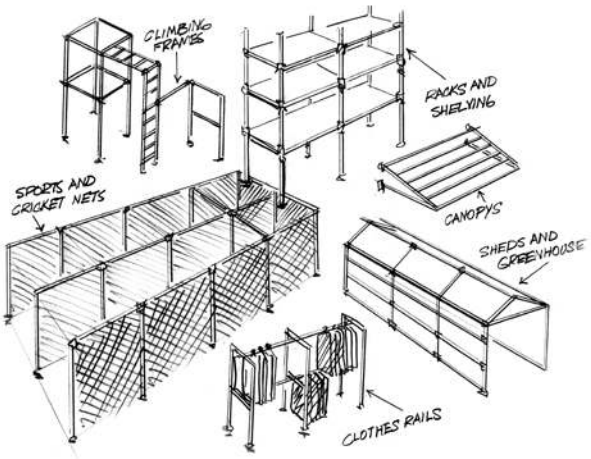


- Fast and easy installation method
- No on-site welding needed
- High corrosion resistance

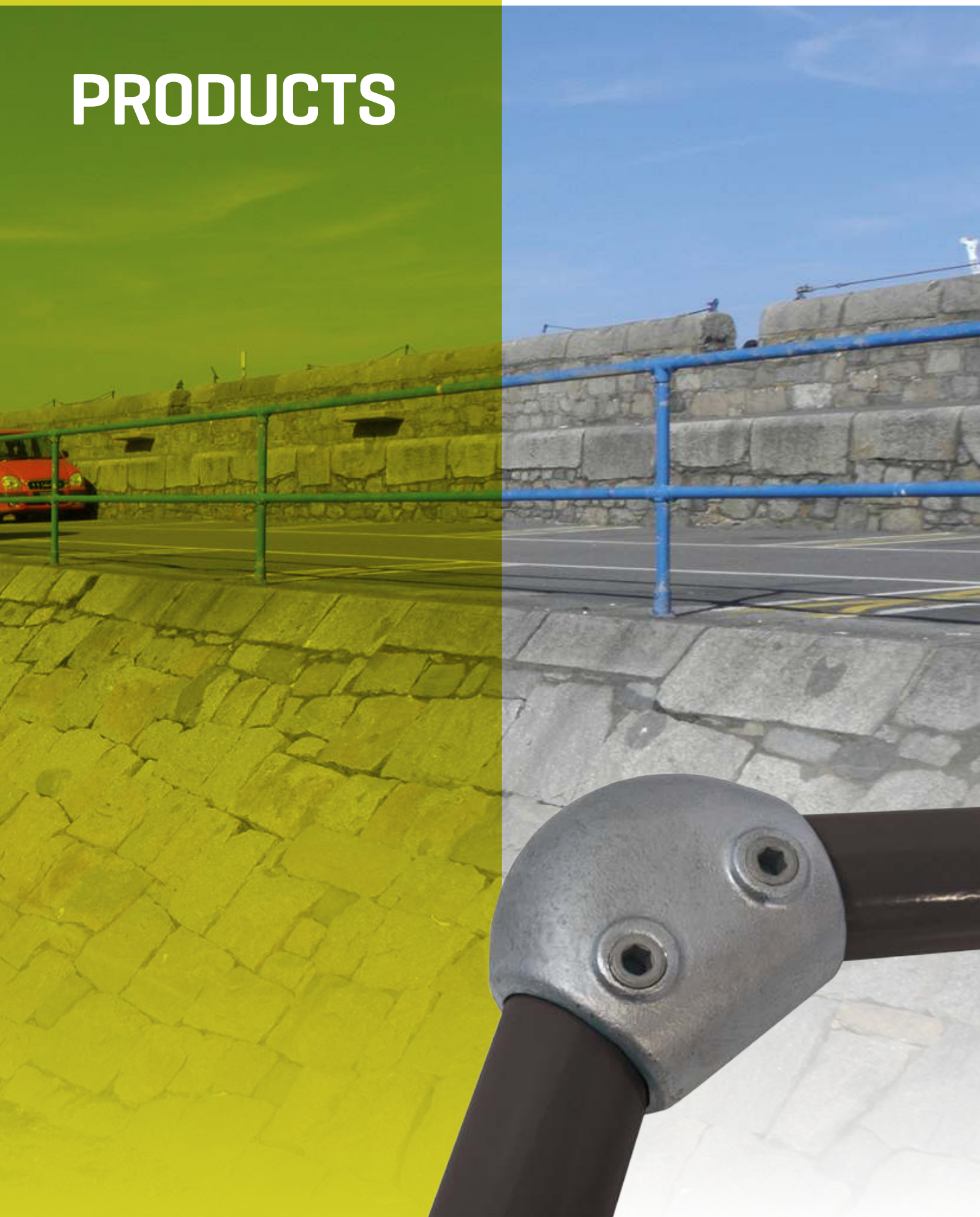
APPLICATIONS

FastClamp® is the safe and simple solution to build many different types of lightweight tubular structures, the applications are only limited by imagination and the following are just a small selection that can be constructed.

- Handrailing
- Guardrailing
- Tyre racks
- Carports
- Polytunnels
- Fruit cages
- Garment racks
- Greenhouses
- Barriers
- Disabled ramps
- Sheds
- Roof edge protection
- Frames
- Canopies
- Market stalls
- Storage racks
- Work benches
- Exhibition stands
- Cattle pens
- Cricket screens
- Security screens
- Stables
- Climbing frames
- Goalposts



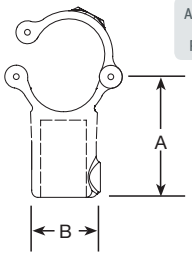
PRODUCTS



PRODUCTS

CA03 Add On Short Tee

AVAILABLE UPON REQUEST

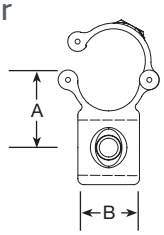


Type	Tube Size	A	B	Kg
CA03G32	42.4	60	55	0.60
CA03G40	48.3	68	60	0.71

The Add On Short Tee allows existing structures to be added to without the need for any dismantling. Tubes must not be jointed within this fitting.

CA40 Add On 90° Crossover

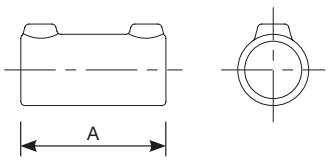
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	Kg
CA40G32	42.4	49	46	0.65
CA40G40	48.3	55	50	0.73

The Add On 90° Crossover allows existing structures to be added to without the need for any dismantling. This fitting is designed to give a 90° offset crossover joint. Tubes must not be joined within this fitting.

C00 Sleeve Joint

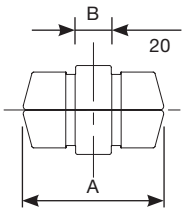


Type	Tube Size	A	Kg
C00G20	26.9	76	0.33
C00G25	33.7	89	0.39
C00G32	42.4	102	0.50
C00G40	48.3	100	0.55
C00G50	60.3	120	1.14

The Sleeve Joint is designed to provide an in-line joint between two tubes of the same diameter.

C01 Expanding Connector

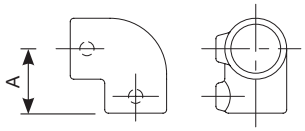
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	Kg
C01G25	33.7	75	19	0.25
C01G32	42.4	75	19	0.35
C01G40	48.3	75	19	0.45

The Expanding Connector is designed to provide an in-line joint between tubes of the same diameter, and a wall thickness of 3.2mm. It fits flush with the tube surface and can be located inside other fittings. It must not be used as a load-bearing joint, for such applications use a FastClamp type C00.

C02 90° Elbow

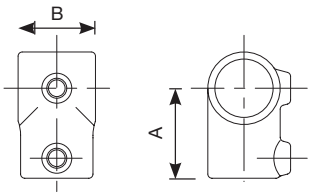


Type	Tube Size	A	Kg
C02G20	26.9	40	0.28
C02G25	33.7	48	0.39
C02G32	42.4	60	0.55
C02G40	48.3	67	0.65
C02G50	60.3	86	1.06

The 90° Elbow is designed to provide a joint between two tubes at right angles to each other. Often used for railing ends and corners.

Fittings highlighted in green are stocked items

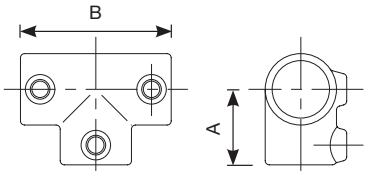
C03 Short Tee



Type	Tube Size	A	B	Kg
C03G20	26.9	40	38	0.19
C03G25	33.7	48	45	0.32
C03G32	42.4	60	54	0.44
C03G40	**48.3**	**67**	**60**	**0.52**
C03G50	60.3	86	71	0.78

The Short Tee is designed to provide a butt joint between two tubes at right angles to each other. Often used for railing ends and tops. If tubes need to be joined inside the fitting then a C04 type should be used.

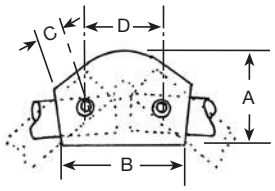
C04 Long Tee



Type	Tube Size	A	B	Kg
C04G20	26.9	40	80	0.35
C04G25	33.7	48	96	0.60
C04G32	42.4	60	122	0.75
C04G40	**48.3**	**67**	**134**	**0.91**
C04G50	60.3	86	172	1.47

The Long Tee is designed to provide a butt joint between two tubes at right angles to each other. Often used for railing ends and tops. It allows the through tube to be joined inside the fitting. An alternative is the C03 type fitting.

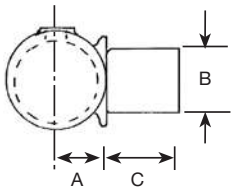
C05 Variable Elbow



Type	Tube Size	A	B	C	Ø	Kg
C05G25	33.7	65	60	13	50	0.41
C05G32	42.4	80	66	16	55	0.68
C05G40	**48.3**	**95**	**75**	**17**	**55**	**0.89**

The Variable Elbow is designed to make joints at an angle of between 15° and 60°.

C06 Internal T Joint

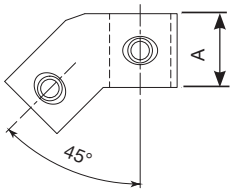


Type	Tube Size	A	B	C	Kg
C06G25	33.7	23	33	34	0.39
C06G32	42.4	29	42	40	0.58
C06G40	**48.3**	**31**	**48**	**42**	**0.66**

The Internal T Joint is designed to provide an angled joint between a tube and a FastClamp fitting when used in conjunction with C02 and C03 type fittings. Often used for railing tops and midrails to accommodate a slope as offset railing.

C07 45° Tee

AVAILABLE UPON REQUEST

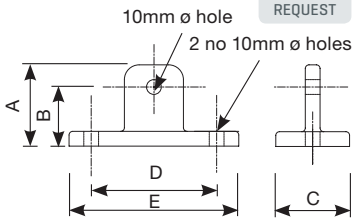


Type	Tube Size	A	Kg
C07G25	33.7	45	0.49
C07G32	42.4	54	0.69
C07G40	48.3	60	0.91

The 45° Tee is used as a bracing and strut component for strengthening structures.

C10G Swivel Base

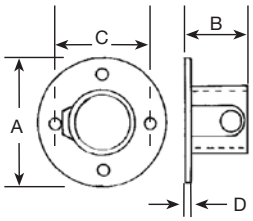
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	D	E	Kg
C10G	N/A	50	40	50	81	111	0.35

The Swivel Base is designed to provide a base fixing. It is usually used in conjunction with a C36 type fitting to make a C46 type swivel combination. This fitting does not provide sufficient rigidity to be used as a railing base without other means of support.

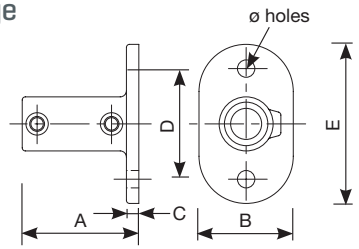
C11 Wall Flange



Type	Tube Size	A	B	C	D	Ø	Kg
C11G20	26.9	86	42	57	4	9	0.32
C11G25	33.7	89	45	64	6	9	0.41
C11G32	42.4	102	50	76	6	9	0.50
C11G40	**48.3**	**114**	**57**	**89**	**6**	**9**	**0.65**
C11G50	60.3	127	64	95	6	9	1.10

The Wall Flange is designed to provide a positional wall or base fixing. It is not recommended to use this fitting as a structural railing base.

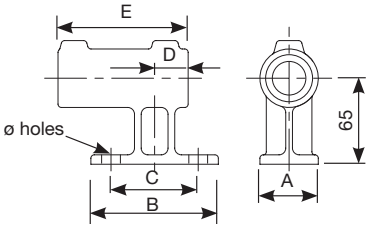
C12 Railing Base Flange



Type	Tube Size	A	B	C	D	E	Ø	Kg
C12G20	26.9	76	65	8	76	114	11	0.65
C12G25	33.7	89	76	9	89	128	14	0.96
C12G32	42.4	89	80	10	102	140	14	1.07
C12G40	**48.3**	**89**	**89**	**10**	**114**	**152**	**14**	**1.24**
C12G50	60.3	128	88	9	127	165	18	1.80

The Railing Base Flange is designed to provide a base for railings and other structures. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

C13 Railing Vertical Side Support

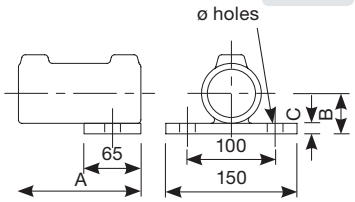


Type	Tube Size	A	B	C	D	E	Ø	Kg
C13G25	33.7	45	96	67	25	104	14	0.91
C13G32	42.4	50	109	78	30	114	14	1.20
C13G40	**48.3**	**60**	**123**	**86**	**40**	**120**	**14**	**1.50**

The Railing Vertical Side Support is designed to provide a base for railings and other structures that need a side mounted fixing. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

C14 Railing Horizontal Side Support

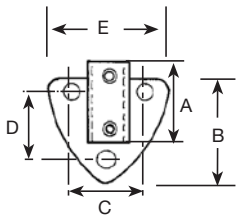
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	Ø	Kg
C14G25	33.7	90	30	12	18	0.92
C14G32	42.4	90	35	12	18	1.41
C14G40	48.3	90	41	15	18	1.53

The Railing Horizontal Side Support is designed to provide a base for railings and other structures that need a side mounted fixing. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

C15 Side Palm Fixing

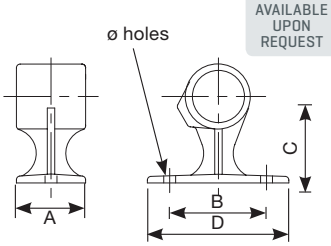


Type	Tube Size	A	B	C	D	E	Ø	Kg
C15G25	33.7	76	89	71	63	97	11	0.65
C15G32	42.4	84	98	82	72	108	11	0.82
C15G40	**48.3**	**92**	**104**	**86**	**78**	**112**	**11**	**0.88**

The Side Palm Fixing is designed to provide a base for railings and other structures that need a side mounted fixing. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

C16 Handrail Bracket

AVAILABLE UPON REQUEST



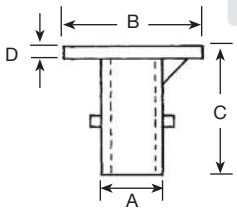
Type	Tube Size	A	B	C	D	Ø	Kg
C16G20	26.9	44	57	55	78	9	0.45
C16G25	33.7	44	63	57	82	11	0.49
C16G32	42.4	44	76	63	102	11	0.60
C16G40	48.3	48	85	67	108	11	0.63

The Handrail Bracket is designed to secure handrail tube to a wall. It can also be used on top of walls as a fixing for a low rail.

Fittings highlighted in **green** are stocked items

C17 Ground Support

AVAILABLE UPON REQUEST

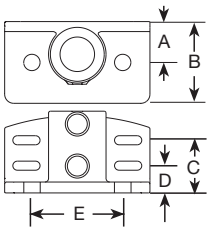


Type	Tube Size	A	B	C	Ø	Kg
C17G25	33.7	60	140	130	4.5	1.42
C17G32	42.4	60	140	130	4.5	1.42
C17G40	48.3	60	140	130	4.5	1.42

The Ground Support is designed to provide a base that can be cast into the ground to support a post. The post is removable. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

C18 Base Flange with Integrated Toeboard

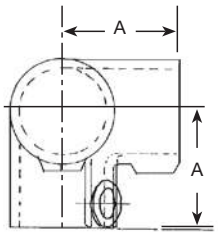
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	D	E	Ø	Kg
C18G32	42.4	45	90	58	30	100	18	2.00
C18G40	48.3	45	90	58	30	100	18	2.12

The Base Flange with Integrated Toeboard is ideal for guardrailing and balustrading applications where the addition of a toeboard is required. The side plates have slotted holes to allow for a degree of sideways movement for ease of installation. It is recommended that this fitting be used in accordance with FastClamp maximum post centre dimensions, refer to page 04.

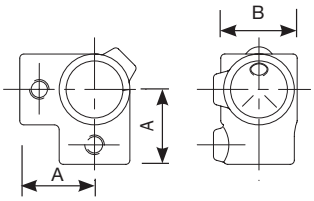
C20 3 Way 90° Elbow



Type	Tube Size	A	Kg
C20G20	26.9	40	0.37
C20G25	33.7	48	0.53
C20G32	42.4	60	0.80
C20G40	48.3	67	1.05
C20G50	60.3	84	1.82

The 3 Way 90° Elbow is designed to provide a neat corner for the upper rail of guardrail or frames.

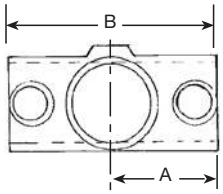
C21 Corner c/w Through Tube



Type	Tube Size	A	B	Kg
C21G20	26.9	40	38	0.26
C21G25	33.7	48	45	0.43
C21G32	42.4	60	54	0.58
C21G40	48.3	67	60	0.69
C21G50	60.3	86	71	1.70

The Corner Complete with through tube is designed to provide a 90° corner for the intermediate rail of guardrail or frames.

C22 Two Socket Cross

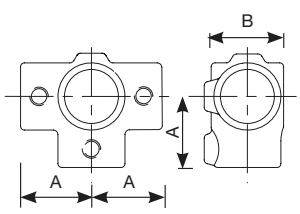


Type	Tube Size	A	B	Kg
C22G20	26.9	40	80	0.36
C22G25	33.7	48	95	0.43
C22G32	42.4	60	120	0.62
C22G40	48.3	67	134	0.71
C22G50	60.3	86	172	1.50

The Two Socket Cross fitting provides the midrail joint for handrail and other structures. It is recommended that the handrail post is continuous through the fitting.

C23 Side Outlet Tee 45°

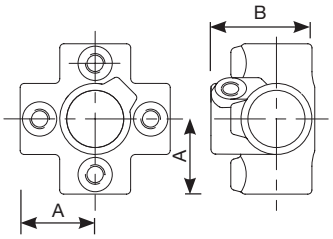
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	Kg
C23G20	26.9	40	38	0.42
C23G25	33.7	48	45	0.49
C23G32	42.4	60	54	0.94
C23G40	48.3	66	60	0.87
C23G50	60.3	86	71	1.67

The Side Outlet Tee 45° fitting provides a three way midrail joint for handrail and other structures. It is recommended that the handrail post is continuous through the fitting.

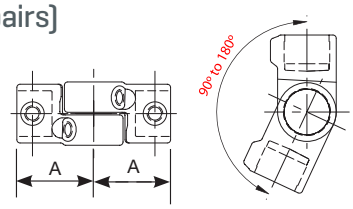
C24 4 Way Cross + Central Tube



Type	Tube Size	A	B	Kg
C24G20	26.9	41	59	0.60
C24G25	33.7	48	65	0.84
C24G32	42.4	60	80	1.21
C24G40	**48.3**	**67**	**85**	**1.19**
C24G50	60.3	86	90	2.50

The 4 Way Cross fitting provides a four way midrail joint for handrail and other structures. It is recommended that the handrail post is continuous through the fitting. This fitting may also be used for the top rail with the centre post capped with a C65 Plastic Stop End.

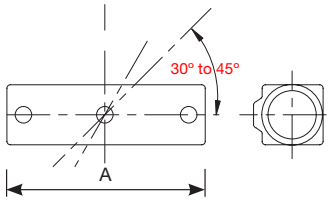
C25 Short Tee Swivel (Normally used in pairs)



Type	Tube Size	A	Kg
C25G20	26.9	65	0.31
C25G25	33.7	66	0.32
C25G32	42.4	73	0.54
C25G40	**48.3**	**81**	**0.49**
C25G50	60.3	110	1.14

Short Tee Swivel fittings are normally used in pairs to facilitate corner angles of 90° to 180°. It is also used on staircases with a C02 and C03 fittings in conjunction with a short piece of tube and a C65 Plastic End Cap in landing areas. When ordering please specify the number of fittings required, not the number of pairs.

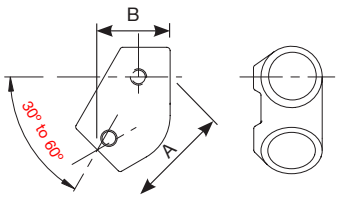
C28 Adjustable 2 Socket Cross 30° to 45°



Type	Tube Size	A	Kg
C28G25	33.7	162	0.82
C28G32	42.4	190	1.17
C28G40	**48.3**	**218**	**1.50**

The Adjustable 2 Socket Cross fitting will accommodate any rake angle from 30° to 45°. This fitting is not recommended as the top fitting on a guardrail or balustrade system, use the C29 Adjustable Short Tee.

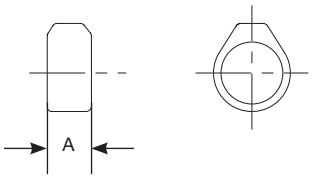
C29 Adjustable Short Tee



Type	Tube Size	A	B	Kg
C29G25	33.7	74	54	0.58
C29G32	42.4	85	63	0.87
C29G40	**48.3**	**102**	**68**	**0.90**

The Adjustable Short Tee fitting will accommodate any rake angle from 30° to 60°. This fitting is commonly used for the top rail of handrail to accommodate the rake angle on slopes. It can also be used for any Tee Joint to make at an angle of between 30° and 60° for light weight structures.

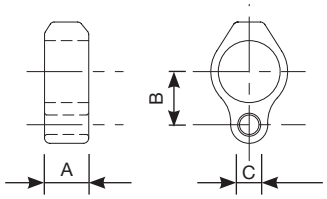
C30 Collar



Type	Tube Size	A	Kg
C30G20	26.9	22	0.15
C30G25	33.7	25	0.15
C30G32	42.4	25	0.18
C30G40	**48.3**	**25**	**0.21**
C30G50	60.3	40	0.31

The Collar fitting can be used to support the C03 fitting when the latter is used as a hinge. It can also be used to increase the load capacity of another fitting when used together. The C30 can be used as a stop for a sliding tube.

C31 Gate Eye

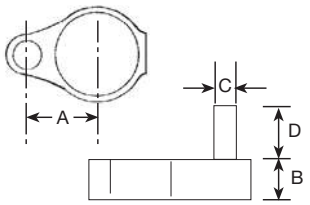


Type	Tube Size	A	B	C	Kg
C31G20	26.9	25	30	15	0.21
C31G25	33.7	25	33	15	0.23
C31G32	42.4	25	38	15	0.25
C31G40	**48.3**	**25**	**41**	**15**	**0.29**

This fitting is designed as a gate eye for light weight gates. If a heavy gate is being used we recommend that C03 and C30 type fittings are used to support the gate.

Fittings highlighted in **green** are stocked items

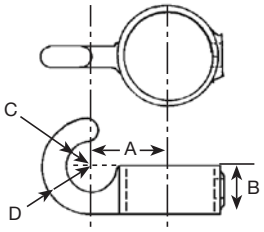
C32 Gate Hinge



Type	Tube Size	A	B	C	D	Kg
C32G20	26.9	30	25	13	38	0.24
C32G25	33.7	33	25	13	38	0.27
C32G32	42.4	38	25	13	38	0.30
C32G40	**48.3**	**41**	**25**	**13**	**38**	**0.33**

This fitting is designed as a gate hinge for light weight gates.
If a heavy gate is being used we recommend that C03 and C30 type fittings are used to support the gate.

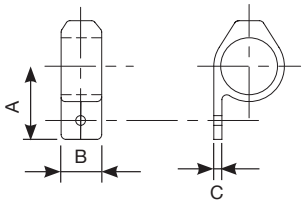
C33 Hook



Type	Tube Size	A	B	C	D	Kg
C33G20	26.9	32	25	10	25	0.17
C33G25	33.7	34	25	13	21	0.25
C33G32	42.4	39	25	13	25	0.25
C33G40	**48.3**	**41**	**25**	**13**	**25**	**0.30**

The fitting is designed to provide an attachment for chain.

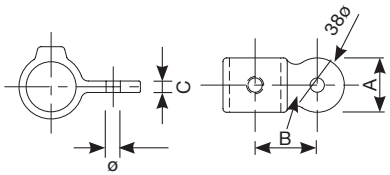
C34 Fixing Pad



Type	Tube Size	A	B	C	Ø	Kg
C34G25	26.9	45	25	5	6	0.18
C34G32	33.7	53	40	5	11	0.34
C34G40	**42.4**	**56**	**40**	**5**	**11**	**0.37**

The fitting is designed to provide an attachment for flat sheets or board. It may also be used as a gate stop. An alternative fitting for the attachment of boards is the C35 type.

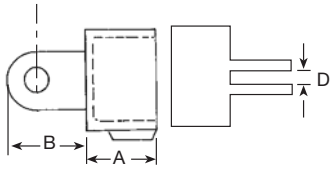
C35 Male Swivel



Type	Tube Size	A	B	C	Ø	Kg
C35G20	26.9	32	38	8	10	0.18
C35G25	33.7	32	42	8	10	0.20
C35G32	42.4	32	47	8	10	0.21
C35G40	**48.3**	**32**	**50**	**8**	**10**	**0.24**
C35G50	60.3	48	60	8	10	0.53

The Male Swivel can be used on its own for use with a shackle and chain or with the C36 female swivel to mount rails at any angle for slopes. It can also be used for attaching flat sheets or boards to a structure and is available assembled with the C36 fittings as a C45 single swivel combination.

C36F Female Swivel

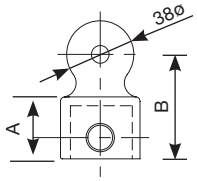


Type	Tube Size	A	B	C	D	Kg
C36G20F	26.9	39	35	53	10	0.28
C36G25F	33.7	41	35	60	10	0.35
C36G32F	**42.4**	**44**	**35**	**63**	**10**	**0.41**
C36G40F	**48.3**	**50**	**35**	**70**	**10**	**0.46**
C36G50F	60.3	70	40	95	10	0.88

The Female Swivel is designed as part of the swivel combination group of fittings. It can be used with the C10, C35, C37, C38 or C39 male swivel fittings.

C36M Male Swivel

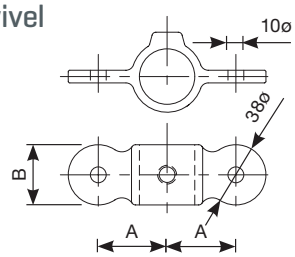
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	Kg
C36G25M	33.7	30	60	0.36
C36G32M	42.4	40	70	0.48
C36G40M	48.3	45	75	0.58

The Male Swivel is designed as part of the swivel combination group of fittings. It can be used with C36F fittings.

C37 Double Male Swivel

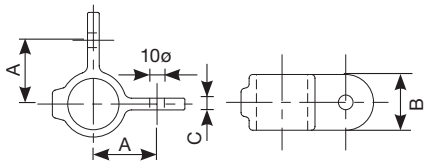


AVAILABLE UPON REQUEST

Type	Tube Size	A	B	Ø	Kg
C37G20	26.9	40	32	10	0.27
C37G25	33.7	44	32	10	0.28
C37G32	42.4	49	32	10	0.34
C37G40	48.3	52	32	10	0.35
C37G50	60.3	63	50	10	0.63

The Double Male Swivel is designed as part of the swivel combination group of fittings. It can be used with two C36 female swivel fittings. The double swivel combination is also available assembled as a type C47 fitting.

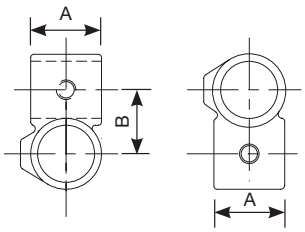
C38 90° Corner Male Swivel



Type	Tube Size	A	B	C	Ø	Kg
C38G20	26.9	40	39	8	10	0.28
C38G25	33.7	44	38	8	10	0.30
C38G32	42.4	49	48	8	10	0.34
C38G40	48.3	53	48	8	10	0.38

The 90° Corner Male Swivel is designed as part of the swivel combination group of fittings. It can be used with two C36 female swivel fittings to make a corner combination fitting which is also available assembled as a type C48 type fitting.

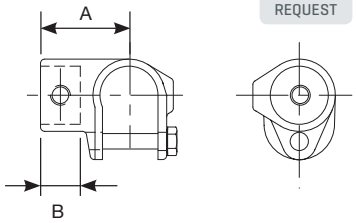
C40 90° Crossover



Type	Tube Size	A	B	C
C40G20	26.9	36	35	0.20
C40G25	33.7	40	40	0.34
C40G32	42.4	49	49	0.41
C40G40	48.3	55	55	0.54
C40G50	60.3	61	64	1.06
C40G25-32	33.7 / 42.4	45	45	0.46
C40G25-40	33.7 / 48.3	51	48	0.50
C40G32-40	42.2 / 48.3	51	52	0.59

The 90° Crossover connects two rails at 90° to each other and is often used for the handrailing when continuous standard lengths of tube are used. Please note that tube joints should use the C00 or C01 type fitting, and not the C40 type fitting.

C41 Clamp on Tee

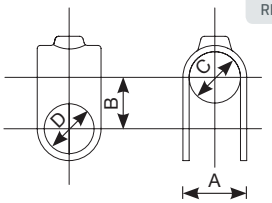


AVAILABLE UPON REQUEST

Type	Tube Size	A	B	Kg
C41G20	26.9	50	25	0.35
C41G25	33.7	53	25	0.45
C41G32	42.4	67	35	0.65
C41G40	48.3	77	35	0.70
C41G50	60.3	90	45	1.20

The Clamp on Tee is designed to allow a new tube to be joined to an existing structure. Torque maximum 15N\M. This uses a M10 stainless steel bolt.

C42 Clamp on Crossover



AVAILABLE UPON REQUEST

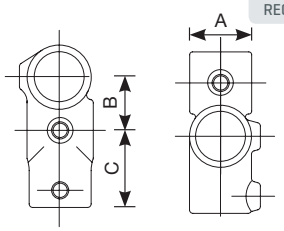
Type	Tube Size	A	B	C	D	Kg
C42G20	26.9	37	28	27	27	0.18
C42G25	33.7	44	34	34	34	0.30
C42G32	42.4	53	43	43	43	0.47
C42G40	48.3	58	49	49	49	0.65
C42G50	60.3	70	62	61	61	0.81

The Clamp on Crossover is designed to allow a new tube to be joined to an existing structure.

Fittings highlighted in green are stocked items

C43 Combination Socket

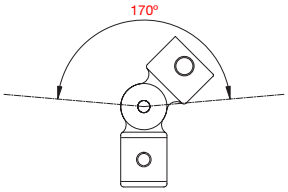
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	Kg
C43G20	26.9	31	35	40	0.30
C43G25	33.7	42	40	48	0.57
C43G32	42.4	54	50	60	0.79
C43G40	48.3	60	56	67	0.96
C43G50	60.3	72	68	86	1.65

The Combination Socket is designed for racking and similar systems to allow a crossover to be combined with a cross tie.

C45 Single Swivel Combination

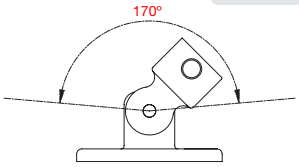


Type	Tube Size	Kg
C45G20	26.9	0.48
C45G25	33.7	0.60
C45G32	42.4	0.71
C45G40	48.3	0.86
C45G50	60.3	1.47

The Single Swivel Combination is designed to provide and angled tee between two tubes. It can be used to construct sloping handrail and for providing bracing struts to structures.

C46 Base Swivel Combination

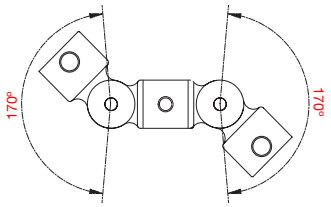
AVAILABLE UPON REQUEST



Type	Tube Size	Kg
C46G20	26.9	0.64
C46G25	33.7	0.77
C46G32	42.4	0.94
C46G40	48.3	0.98
C46G50	60.3	1.29

The Base Swivel Combination is designed to provide an angled wall or floor mounting. This fitting should not be used as a railing base without suitable support.

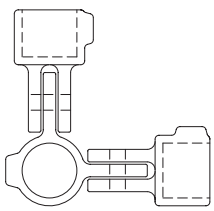
C47 Double Swivel Combination



Type	Tube Size	Kg
C47G20	26.9	0.90
C47G25	33.7	1.06
C47G32	42.4	1.25
C47G40	48.3	1.45
C47G50	60.3	2.50

The Double Swivel Combination is designed to provide an in line angled joint as a post, this is suitable for the mid rail of a sloping handrail or to provide bracing to a structure.

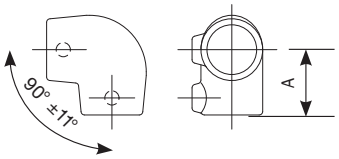
C48 90° Corner Swivel Combination



Type	Tube Size	Kg
C48G20	26.9	0.90
C48G25	33.7	1.06
C48G32	42.4	1.29
C48G40	48.3	1.50

The 90° Corner Swivel Combination is designed to provide an angled joint at a post, this is suitable for the mid rail of sloping handrail or to provide bracing to a structure.

C50 Slope Elbow 0° to 11°

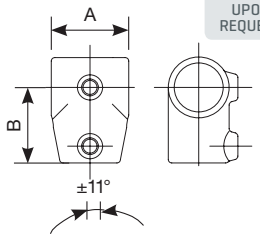


Type	Tube Size	A	Kg
C50G32	42.4	60	0.87
C50G40	48.3	67	1.02

The Slope Elbow is designed to provide an elbow for use on ramps. The variable angle allows the fitting to accommodate slopes up to 11°.

C51 Short Slope Tee 0° to 11°

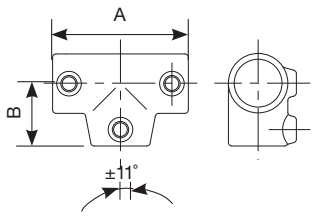
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	Kg
C51G32	42.4	68	60	0.62
C51G40	48.3	72	68	0.76

The Short Slope Tee is designed to provide a T joint between two tubes for use on ramps. The variable angle allows the fitting to accommodate slopes up to 11°.

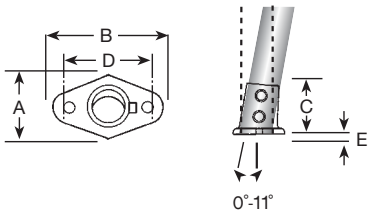
C52 Long Slope Tee 0° to 11°



Type	Tube Size	A	B	Kg
C52G32	42.2	144	60	1.02
C52G40	48.3	158	67	1.10

Long Slope Tee is designed to provide a T joint between two tubes for use on ramps. The variable angle allows the fitting to accommodate slopes up to 11°.

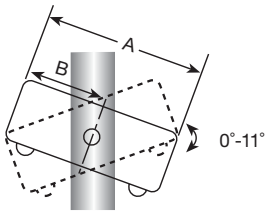
C53 Slope Base 0° to 11°



Type	Tube Size	A	B	C	D	E	Ø	Kg
C53G32	42.2	91	140	79	102	10	14	0.90
C53G40	48.3	96	152	80	114	10	14	1.40

The Slope Base is designed to provide a base for use on ramps. The variable angle allows the fitting to accommodate slopes up to 11°.

C54 Slope 2 Socket Cross 0° to 11°

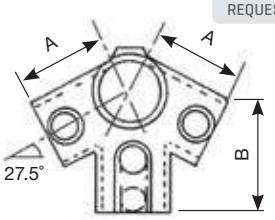


Type	Tube Size	A	B	Kg
C54G32	42.4	144	72	0.93
C54G40	48.3	158	79	1.00

The Slope 2 Socket Cross is designed to provide a joint for the midrail for use on ramps. The variable angle allows the fitting to accommodate slopes up to 11°.

C55 27½° Ridge Fitting

AVAILABLE UPON REQUEST

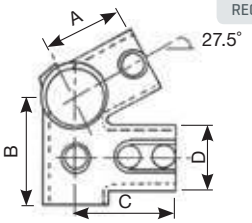


Type	Tube Size	A	B	Kg
C55G40	48.3	67	89	0.96

A four way socket fitting used to construct the ridge of a roof structure.

C56 27½° Eaves Fitting

AVAILABLE UPON REQUEST



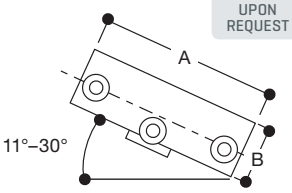
Type	Tube Size	A	B	C	D	Kg
C56G40	48.3	67	89	83	51	1.19

A four way socket fitting used to construct the eaves of a roof structure.

Fittings highlighted in green are stocked items

C57 Three Socket 11° to 30° Tee

AVAILABLE UPON REQUEST

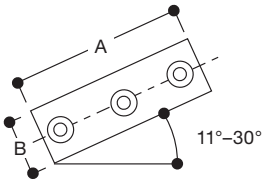


Type	Tube Size	A	B	Kg
C57G32	42.4	180	35	1.40
C57G40	48.3	216	40	1.58

Similar to a type C27, it is used on Safety Railing with slopes between 11°-30° and fixes the top rail to a vertical intermediate upright.

C58 Two Socket 11° to 30° Cross

AVAILABLE UPON REQUEST

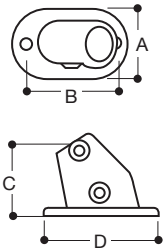


Type	Tube Size	A	B	Kg
C58G32	42.4	180	55	1.30
C58G40	48.3	216	60	1.45

Similar to a type C26, it is used on Safety Railing with slopes between 11°-30° and fixes the mid rail to a vertical intermediate upright.

C59 11°–30° Angle Base Flange

AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	D	Ø	Kg
C59G32	42.4	76	114	85	146	14	1.27
C59G40	48.3	89	124	95	164	14	1.42

Similar to a type C53, it is used to set the upright at an angle between 11°–30°. This fitting should only be subjected to light loads which cannot be positioned at 90° to the applied load. For greater loads or other tube sizes a type C12 flange should be used with the upright bent to the required angle Ø indicates the diameter of the fixing hole.

C60 Spare Screws

Type	Tube Size
C60S25	26.9 & 33.7
C60S32/40	**42.4, 48.3 & 60.3**

Spare Screws come in two sizes, 1/4" ISO 228 for the 20 and 25nb range and 3/8" ISO 228 for the 32, 40 and 50 ranges.

C61 Allen Keys

Type	Tube Size
C61S25	26.9 & 33.7
C61S32/40	**42.4, 48.3 & 60.3**

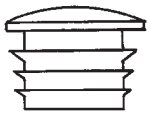
Allen Keys are available in two sizes, the first is suitable for the 20 and 25nb fitting and the other for the 32, 40 and 50nb fittings.

C62R Ratchet Keys

Type	Tube Size
C62R	**ALL SIZES**

The Ratchet driver and dual keys are available to speed assembly. The Ratchet driver will allow tightening to the correct torque.

C65P Plastic End Cap

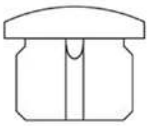


Type	Tube Size	Kg
C65P20	26.9	0.008
C65P25	33.7	0.010
C65P32	**42.4**	**0.010**
C65P40	**48.3**	**0.016**
C65P50	60.3	0.024

Plastic End Caps are available for finishing plain end tubes. Available in grey plastic they will fit medium and heavy gauge tube.

C65G Metal End Cap

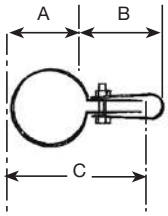
AVAILABLE UPON REQUEST



Type	Tube Size	Kg
C65G20	26.9	0.05
C65G25	33.7	0.10
C65G32	42.4	0.12
C65G40	48.3	0.17
C65G50	60.3	0.29

This metal plug is hard to remove once it has been driven in. Note this metal insert can only be used in conjunction with tube with a wall thickness of 3.2mm. There is an alternative plastic version – C65P.

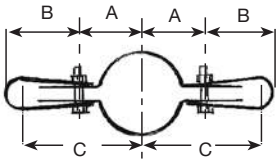
C66 Single Mesh Clip



Type	Tube Size	A	B	C	Kg
C66G20	26.9	27	26	58	0.06
C66G25	33.7	30	26	61	0.07
C66G32	42.4	33	26	64	0.08
C66G40	48.3	38	26	68	0.09
C66G50	60.3	44	26	75	0.09

The Single Mesh Clip is designed to provide a fixing for standard mesh panels. It is recommended that the clips are spaced at a maximum of 450mm apart.

C67 Double Mesh Clip

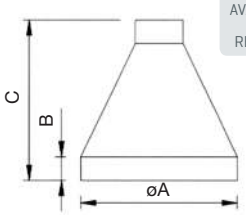


Type	Tube Size	A	B	C	Kg
C67G20	26.9	27	26	58	0.09
C67G25	33.7	30	26	61	0.12
C67G32	42.4	33	26	64	0.13
C67G40	48.3	38	26	68	0.13
C67G50	60.3	44	26	75	0.14

The Double Mesh Clip is designed to provide a fixing for standard mesh panels. It is recommended that the clips are spaced at a maximum of 450mm apart.

C68 Weather Cowl

AVAILABLE UPON REQUEST

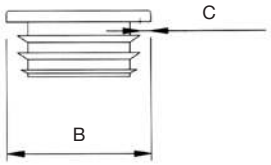


Type	Tube Size	A	B	H	Kg
C68G20	33.7	140	25	125	0.25
C68G25	42.4	150	25	150	0.30
C68G40	48.3	166	25	150	0.35

The Weather Cowl is designed to cover the Railing base and provides a weather proof seal when used with a suitable flexible sealant.

C69 Square Plastic End Cap

AVAILABLE UPON REQUEST

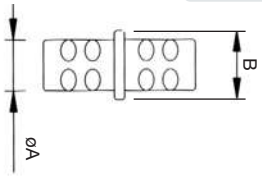


Type	Tube Size	B	C	Kg
C69P40X40	40x40SHS	40	3.2	0.01
C69P50X50	50X50SHS	50	3.2	0.01
C69P70X70	70X70SHS	70	3.2	0.02

The Square Plastic End Caps are available for finishing plain end square tubes. Available in grey plastic they will fit medium and heavy tube gauges.

C70 Crimp Straight

AVAILABLE UPON REQUEST

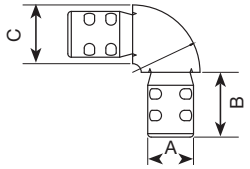


Type	Tube Size	AØ	B	Kg
C70G25	33.7	26.0	34.0	0.27

Straight Crimp Joints provide a permanent in-line connection for 33.7mm diameter x 3.2mm thick tube, a crimping tool is necessary.

C71 Crimp Elbow

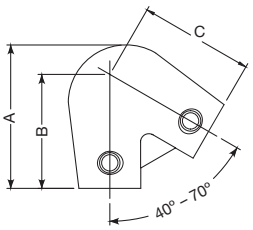
AVAILABLE UPON REQUEST



Type	Tube Size	A	B	C	Kg
C71G25	33.7	26.0	38.0	34.0	0.47

Crimp Elbow provides a permanent 90° connection for 33.7mm diameter x 3.2mm thick tube, a crimping tool is necessary.

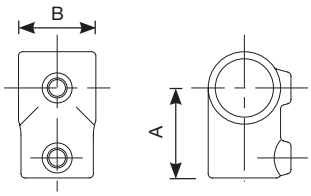
C72 Acute Angle Elbow



Type	Tube Size	A	B	C	Kg
C72G40	48.3	134	112	112	1.33

The Acute Angle Elbow is an ideal fitting to use as an alternative to bending or when a junction between a sloping tube and an end post is required, i.e. guardrail and staircases.

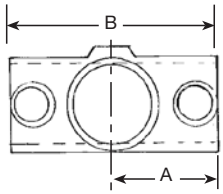
C80 Single Socket Tee 32/40NB



Type	Tube Size	A	B	Kg
C80G32/40	42.4/48.3	73	60	0.63

The Single Socket Tee 32/40NB is designed to to join two different sizes of tubes at 90° butt joint. Mainly used for handrail applications where the top rail is size 32NB and the vertical upright is size 40NB.

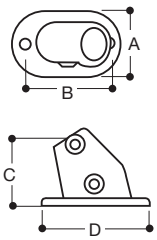
C81 Two Socket Cross 40/32NB



Type	Tube Size	A	B	Kg
C81G40/32	48.3/ 42.4	67	134	0.73

The Two Socket Cross 40/32NB is designed to join two different sizes of tubes at 90° joint between the middle rail and an intermediate upright for handrail applications. The upright passes through the fitting.

C82 Angle Base Flange 45° to 60°



Type	Tube Size	A	B	C	D	Ø	Kg
C82G25	33.7	76	127	92	95	14	0.91
C82G32	42.4	76	138	95	106	14	1.17
C82G40	48.3	89	155	100	115	14	1.53

Similar to type C59, it is used to set the uright at an angle between 45°- 60°. This fitting should only be subjected to light loads which cannot be positioned at 90° to the applied load. For greater loads or other tube sizes a type C12 base flange should be used with the upright bent to the required angle. ø indicates the diameter of the fixing hole.

C97AATDR Anti Theft Device

Aluminum drive rivets discourages the tampering of set screws whilst creating a nice finished appearance. Drive rivets are easy to install, the rivets pin is simply hit with a hammer driving it flush with the rivet head and expanding the rear of the rivet. No special tools are necessary. One size fits all components.

THE DDA RANGE

Handrailing for the disabled

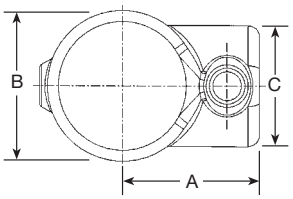
DDA fittings are supplied Hot-dip Galvanised as standard but can be supplied in a powder coated finish to RAL standard colours (subject to quantity and availability from the coaters). In cold temperatures a powder coated finish will give the impression of being warmer to the touch.

Please contact Weldlok Customer Service for stock availability and lead times.

The DDA Range

Designed to satisfy the requirements of AS1428.1-2009 for Access and Mobility

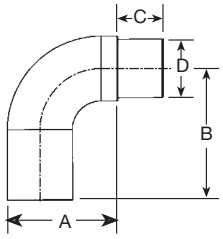
DDA01 Upright Connector



Type	A	B	C	Kg
DDA01	55	60	50	0.38

Connector for attaching the DDA04 intermediate bracket or the DDA02 handrail connector to the 48.3mm o/d upright.

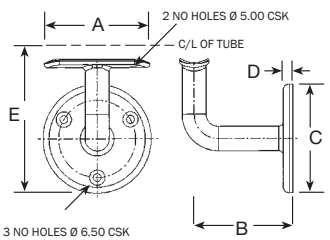
DDA02 Handrail Connector



Type	A	B	C	D	Kg
DDA02	51	86	30	38	0.48

Connector (made from Ductile Iron) for attaching the end of the 42.4mm o/d handrail tube at 90° to the 48.3mm o/d upright. This bracket is used in conjunction with DDA01 and DDA07.

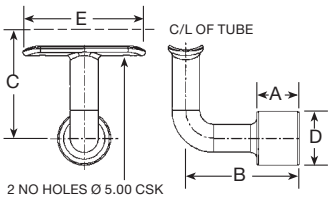
DDA03 Wall Bracket



Type	A	B	C	D	E	Kg
DDA03	88	82	90	8	84	0.62

Bracket (made from Ductile Iron) for supporting the 42.4mm o/d handrail tube to a wall. The 42.4mm o/d tube is fixed to the DDA03 using either 2 x self tapping screws or 2 x pop rivets.

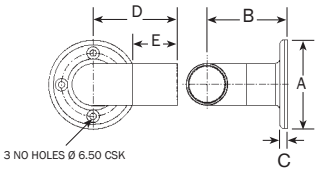
DDA04 Intermediate Bracket



Type	A	B	C	D	E	Kg
DDA04	30	81	84	38	88	0.44

Bracket (made from Ductile Iron) for supporting the top or middle rail tube at an upright in conjunction with a DDA01. The 42.4mm o/d tube is fixed to the DDA04 using either 2 x self tapping screws or 2 x pop rivets.

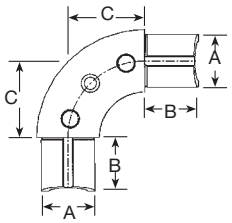
DDA05 End Return



Type	A	B	C	D	E	Kg
DDA05	90	82	8	86	4	0.64

Bracket (made from Ductile Iron) for terminating the 42.4mm o/d handrail tube back to a wall. This bracket is used in conjunction with a DDA07

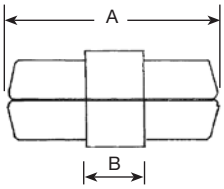
DDA06 90° Bend



Type	A	B	C	Kg
DDA06	33.7	35	50	0.93

Expanding elbow (made from Ductile Iron) for creating a smooth 90° bend in the 42.4mm o/d tube.

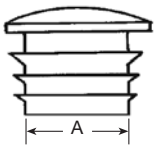
DDA07 Expanding Connector



Type	A	B	C	Kg
DDA07	2.4	75	19	0.35

Expanding internal connector for joining sections of 42.4mm o/d tube, or other DDA fittings as and when required.

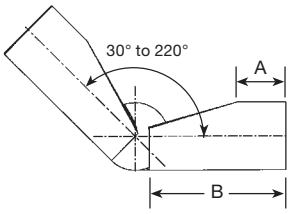
DDA08 Plastic End Cap



Type	A	Kg
DDA08	48.3	0.016

48.3mm o/d plastic end cap for inserting into the open tube on the top of the upright. For a permanent fix, a suitable adhesive should be used.

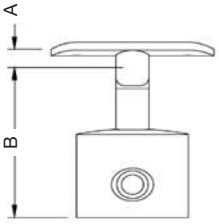
DDA09 Adjustable Bend



Type	A	B	Kg
DDA09	31	86	0.61

Expanding internal connector for joining sections of 42.4mm o/d tube, or other DDA fittings as and when required.

DDA20 Top Fix Rail Assembly



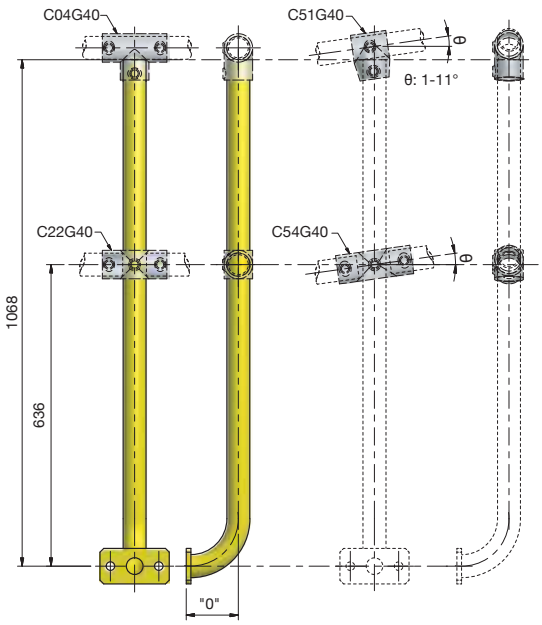
Type	A	B	C	Kg
DDA20	42.4/48.3	13	89	0.63

Top Fix Rail Assembly is an in-line adjustable angle, single top-rail mounted component for use where a guidance handrail is required and where there is no need for a twin-rail guardrail style system. Saddle has a variable angle of 60° from the vertical.

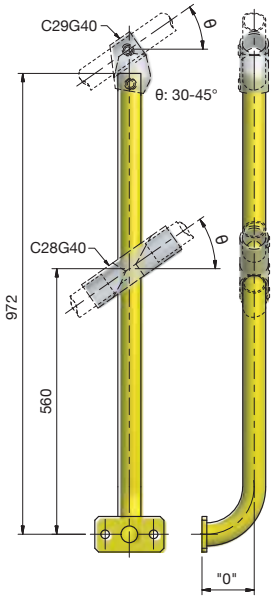
READY TO USE POSTS

Ready to Use Posts with pre-fitted base plates are also available to further speed assembly. Fittings shown are illustrative examples only and sold separately. Posts finishes are available in Hot-dip Galvanised or Powdercoated to Special Order. Posts are made from 40NB (48.3mm x 3.2mm) steel tube. Below are examples of how Ready to Use Posts can be utilised with various FastClamp fittings.

CSMO Side Mounted Offset Post



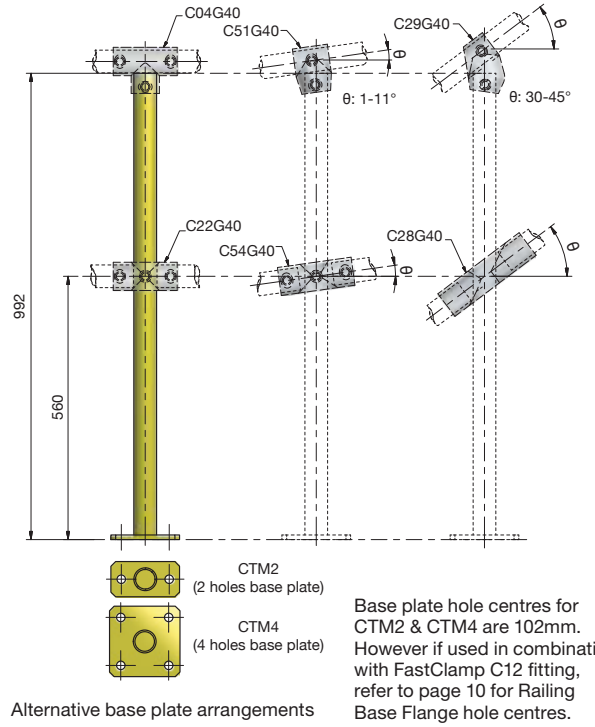
CSMOA Side Mounted Offset Angle Post



Offset "O" (mm)

Channel	"O" Offset	Universal Beam	"O" Offset
125 x 65	110	200	110
150 x 75	110	250	110
180 x 75	110	310	120
200 x 75	110	360	125
230 x 75	110	410	125
250 x 90	125	460	135
300 x 90	125	530	140
380 x 100	135		

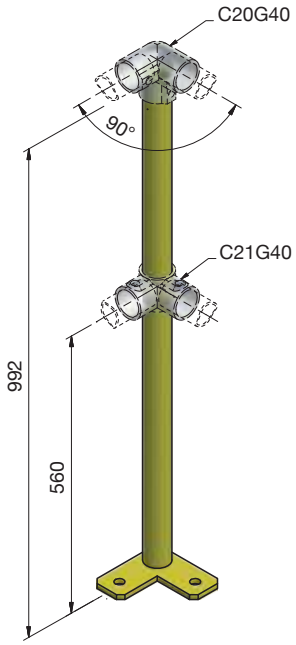
CTM2 & CTM4 Top Mounted Post



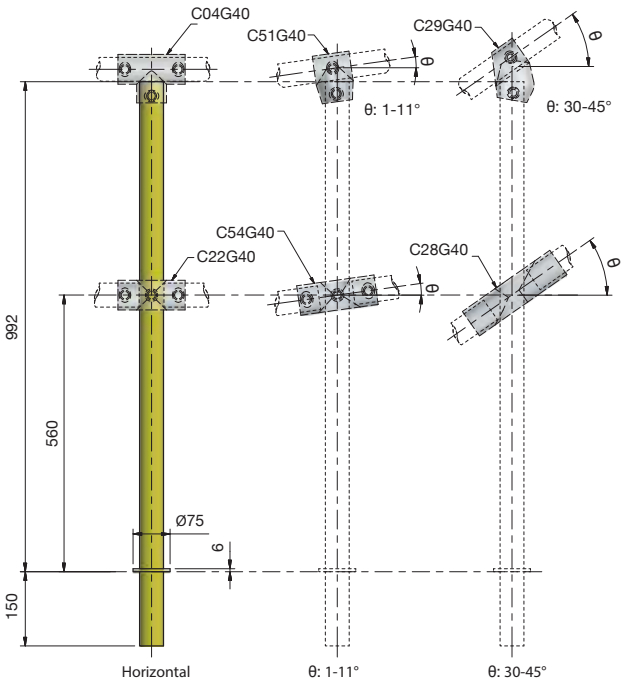
Alternative base plate arrangements

Base plate hole centres for CTM2 & CTM4 are 102mm. However if used in combination with FastClamp C12 fitting, refer to page 10 for Railing Base Flange hole centres.

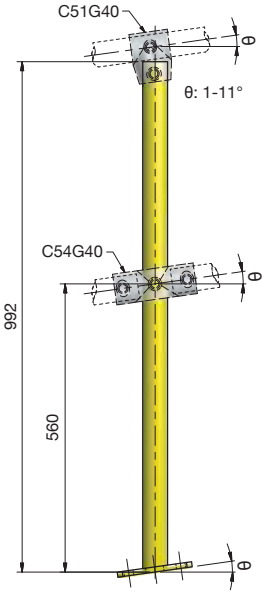
CTMC Top Mounted Corner Post



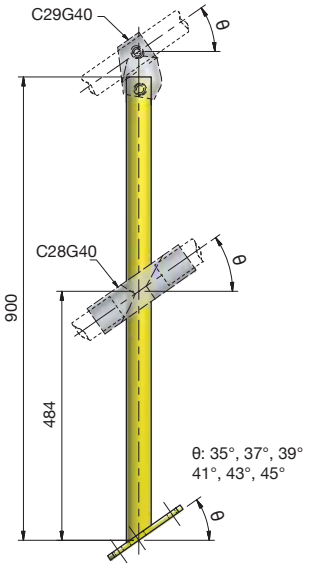
CRC Removable Collar Post



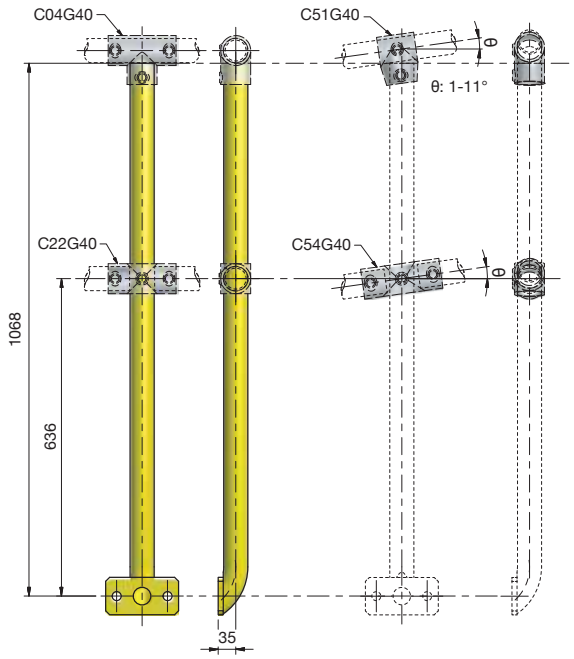
CTMAR Top Mounted Angle Ramp Post



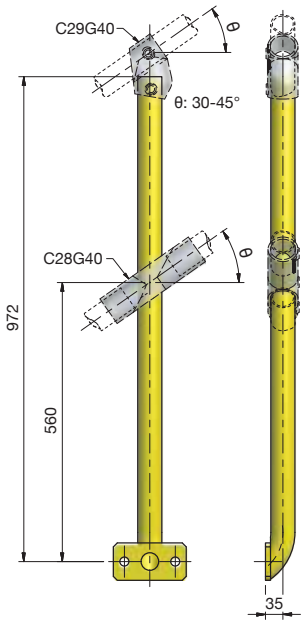
CTMAS Top Mounted Angle Stair Post



CSM Side Mounted Post



CSMA Side Mounted Angle Post

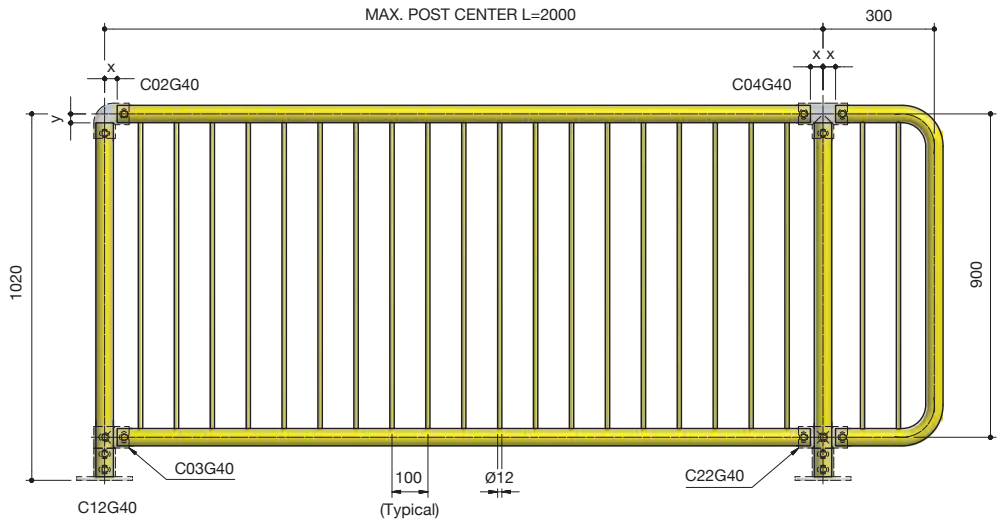


BALUSTRADES, CLOSURES & PIPES

Weldlok offers a standard Barrier Fencing Balustrade Panels and Closure Bends Panels incorporating the FastClamp fittings in Hot-dip Galvanised finish, size 40NB. Other infill options are also available upon request. Please contact Weldlok Customer Service for stock availability and lead times.

FastClamp Fittings, balustrade, and closures are sold separately. Custom panels are available on request.

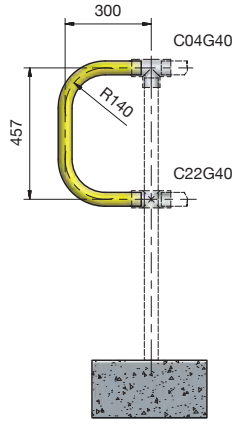
CBFB Barrier Fencing Balustrade Panels



CBFBCB Barrier Fencing Balustrade Closure Bend Panels

x	y
25	25

CCBH Closure Bend Horizontal Panels

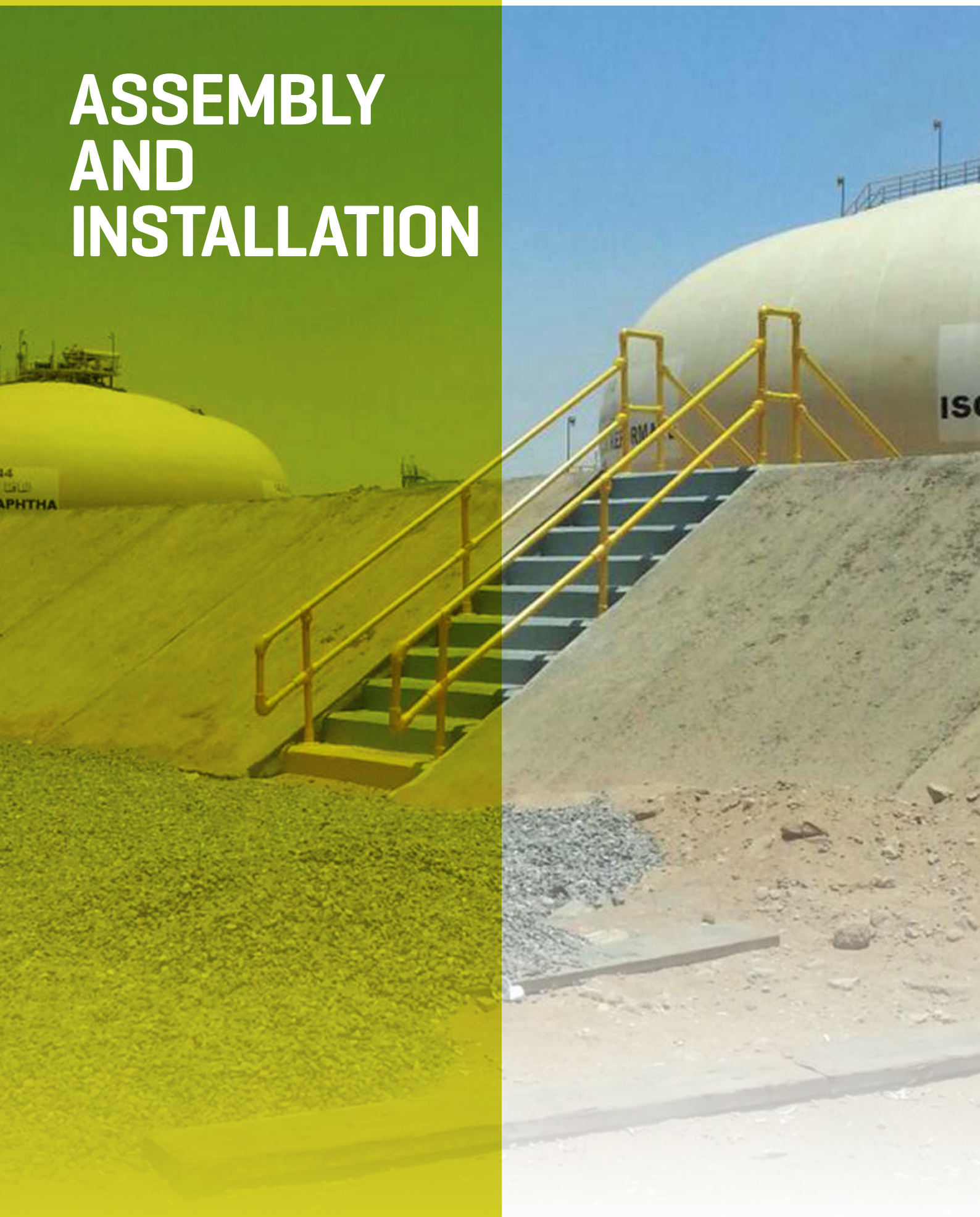


GPEP40M Standard Galvanised 6.5m 40NB Pipes

Pipes finishes are available in Galvanised or Powdercoated to special orders. Cut to length pipes are also available on request. Pipes wall thickness is 3.2mm

GPEP32M Standard Galvanised 6.5m 32NB Pipes

ASSEMBLY AND INSTALLATION



ASSEMBLY AND INSTALLATION

FastClamp fittings offer universal design options to suit all kinds of modular structures. Some of the typical applications are illustrated below. However, design varieties are only limited by your imagination.

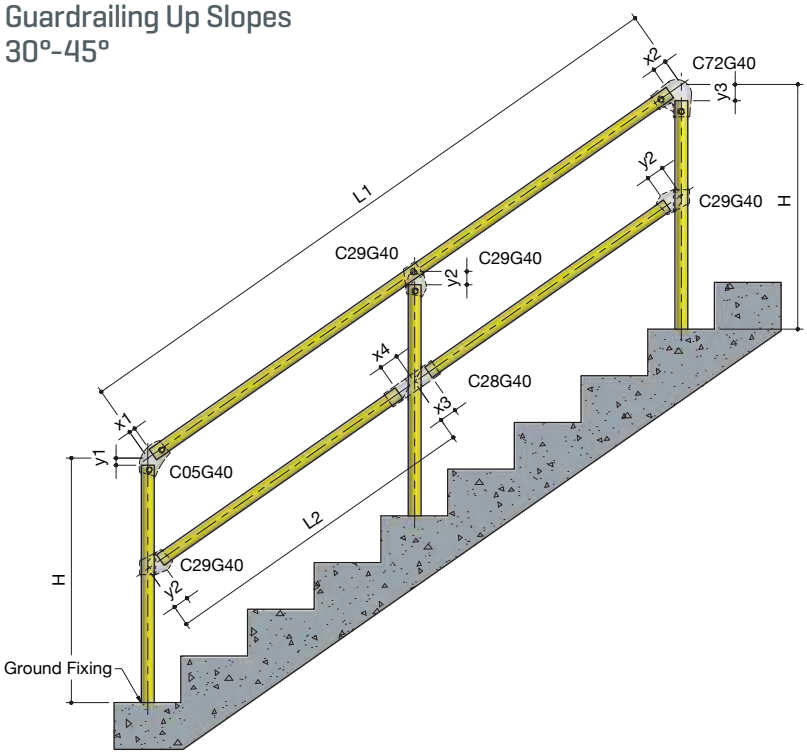
Pre-assembly Service

FastClamp components are designed for fast and easy onsite assembly. Weldlok can offer full or partial Pre-assembly Service depending on availability of accurate dimensioned site drawings.

Contact the Weldlok Customer Service team for more information and to obtain price on application and lead times.

Note: Examples shown are intended as a guide only. Please check actual site conditions and refer back to any plans and drawings if available.

Guardrailing Up Slopes 30°-45°

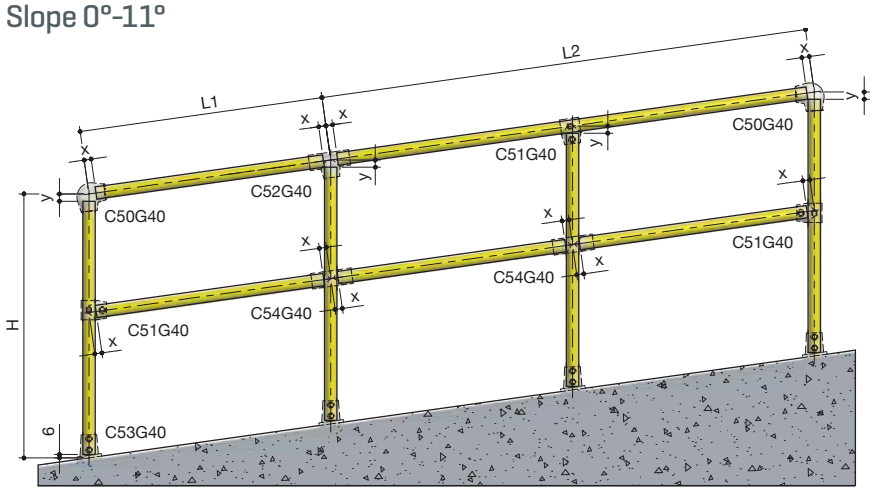


Where the upright remains vertical, dimension x1,x2, x3, x4 and y2 are to be subtracted from the upright centres to give the rail lengths (L1) and (L2). While dimension y1,y2 and y3 will determine the upright lengths (H).

Please refer to the table showing the required dimensions at different angles for size 48.3mm tube.

	x1	x2	x3	x4	y1	y2	y3
30°	-16	-60	-54	-74	-16	-45	-60
35°	-16	-60	-57	-73	-16	-50	-60
40°	-14	-70	-61	-64	-14	-55	-70
45°	-14	-70	-66	-65	-14	-61	-70

Guardrailing Up Slope 0°-11°



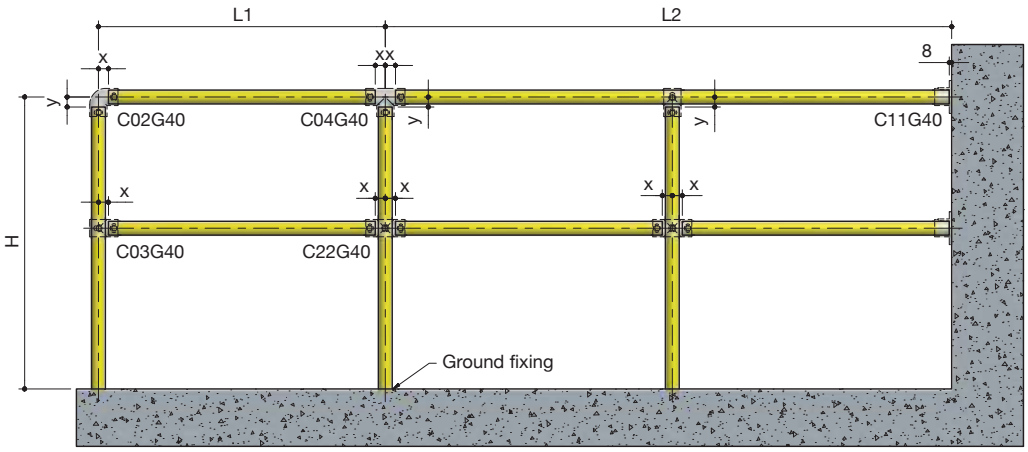
Where the upright remains vertical, dimension x is to be subtracted from the upright centres to give the rail lengths (L1) and (L2) as shown. While dimension y will determine the upright lengths (H).

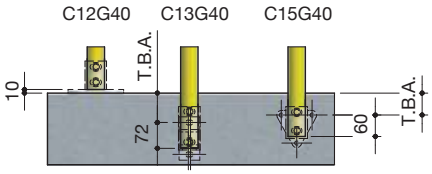
Please refer to the table showing the required dimensions at different angles for size 48.3mm tube.

Angle of slope	x1	x2
0-4°	-25	-25
5-9°	-28	-28
10-11°	-30	-30

Straight and Level Guardrail

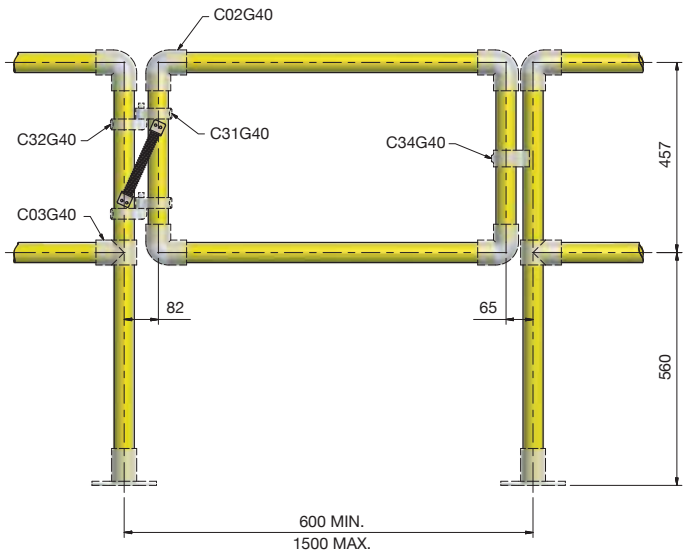
x	y
25	25





Ground fixing options

Self Closing Gate



Heavy Duty Galvanised Gate Spring
is available in most hardware stores.

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