Q clamp

Product Guide

INTRODUCTION

Qclamp® fittings are a simple and cost effective way of creating an endless variety of tubular structures without the need for welding. Our extensive range of fittings when combined with standard tubing enables the user to create any structure imaginable for use in all manner of industries.

Such uses include but are not limited to:

- Safety railings
- Handrails
- Racking
- Play areas
- Shopping trolley bays
- Exhibition stands
- Market stalls
- Lighting grid systems
- Awnings
- Car ports
- Hanging rails
- Support frameworks
- Bicycle racks
- Benches

Whatever your purpose, the information provided within this Product Guide should enable you to easily determine which Qclamp® fittings suit your needs. The information and guidelines provided here are given only as guidance. The ultimate responsibility for selecting the correct fitting and size for any application is that of the user.
The user must also ensure that any structure is of sufficient strength to support the weight of the Qclamp® fittings and tube in addition to any applied load.

If you need any further technical support or assistance regarding the use and interpretation of this Product Guide then please contact your supplier.

Q clamp

Qclamp® fittings are a blackheart malleable iron casting manufactured to BS EN 1562:1997 using grade B32-10 material with a hot dipped galvanised finish to BS EN 1461:1999.

All Qclamp® fittings are supplied with stainless steel grub screws. The grub screws can be tightened with an Allen key, however, if fully tightened using a ratchet key to a torque of 4.1kg/m (29ft/lb) the grub screw is capable of withstanding an applied slip load of 900kg.

Qclamp® fittings are available in five standard sizes designated by the suffix 1 to 5 on the Qclamp® reference number. The standard tube sizes are given in the following table.

Size reference	Tube diameter (O/D)	Norminal bore
1	26.9mm	3/4"
2	33.7mm	1"
3	42.4mm	1 1/4"
4	48.3mm	1 1/2"
5	60.3mm	2"

Note: The nominal bore is a discretionary dimension only. The wall thickness can vary depending on the gauge of tube used which will alter the bore measurement.

The following Qclamp® fittings are tested and approved by TÜV, Europe's leading independent testing house, in sizes 1 to 5:

101, 104,116, 119, 123, 125, 126, 127, 128, 129, 130, 145, 146, 147, 148, 149, 150, 158, 160, 161, 165, 167, 173, 176, 179, 182, 201, 204, 219, 225, 232.

The technical details in this Product Guide have not been subjected to the TÜV testing process. A copy of the TÜV certificate is available by request.

Whilst every effort has been taken to ensure that the information in this Product Guide is correct, Tubetrade plc reserves the right to alter and revise this information as and when required and accepts no liability for errors or omissions. No part of this Product Guide may be reproduced without prior written consent from Tubetrade plc.

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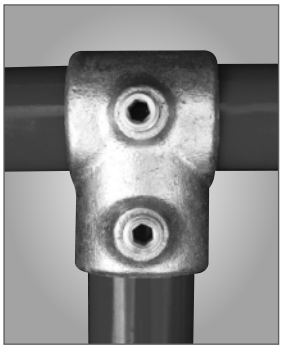
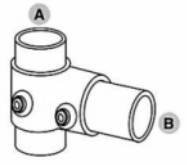
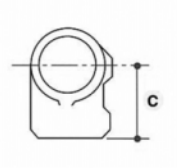
Product number

101

Short Tee





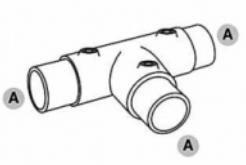


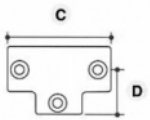
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
101-1	1	1	42						0.23
101-2	2	2	46						0.29
101-3	3	3	62						0.45
101-4	4	4	68						0.62
101-5	5	5	85						0.97

A 90° tee connection between two tubes. Typical use is on straight and level guardrail to connect the vertical to the top rail or end/mid rail to the vertical. This Q clamp fitting cannot be used to join tubes in the top of the short tee. For this the Q clamp fitting 104 Long Tee should be used.

Long Tee

Product number
104





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
104-1	1		85	42					0.38
104-2	2		92	46					0.50
104-3	3		122	61					0.86
104-4	4		134	68					1.10
104-5	5		170	85					1.75

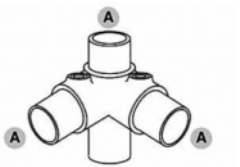
A 90° tee connection between two tubes. Typical use is on straight and level guardrail to connect the vertical to the top rail. This Q clamp fitting can be used to join tubes in the top of the twin grubscrew long tee.

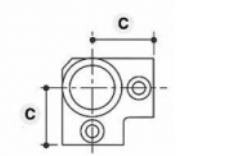
Q clamp

Product number

116

3 Way Through





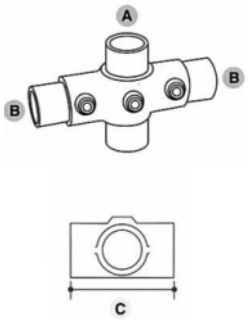
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
116-1	1		42						0.28
116-2	2		46						0.41
116-3	3		60						0.70
116-4	4		68						0.85
116-5	5		85						1.38

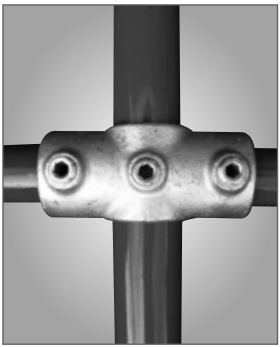
A 90° corner joint with the vertical passing through the Q clamp fitting. Typical use is on straight and level guardrail for connecting the mid/lower rail to the vertical at a 90° corner. Can also be used in a similar way on other rectangular structures.

Q clamp

2 Socket Cross

Product number
119





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
119-1	1	1	84						0.28
119-2	2	2	92						0.40
119-3	3	3	122						0.65
119-4	4	4	134						0.86
119-5	5	5	170						1.47

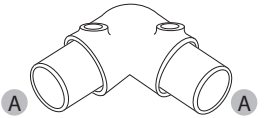
A 90° joint between a vertical and two horizontals. Typical use on straight and level guardrail to connect the mid/lower rails to the upright. The vertical must remain continuous with cross rails cut. Normally used in conjunction with the Q clamp fitting 104 Long Tee.

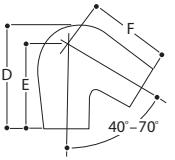
Q clamp

Product number

123

Acute Angle Elbow



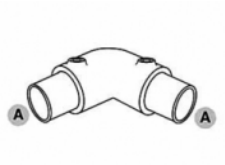


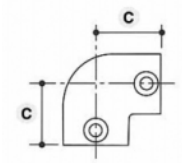
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
123-4				134	112	112			1.45

Alternative to bending to form a connection between a sloping tube and an end post.

90° 2 Way Elbow

Product number
125





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
125-1	1		41						0.27
125-2	2		46						0.38
125-3	3		58						0.68
125-4	4		65						0.77
125-5	5		85						1.29

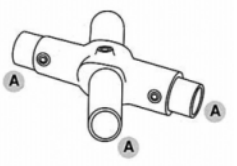
A 90° elbow. Typical use is to connect the end vertical to the top rail in straight and level guardrail. Can also be used to create a 90 tube bend.

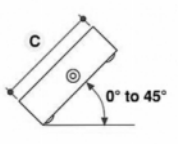
Q clamp

Product number

126

Angle Cross up to 45°





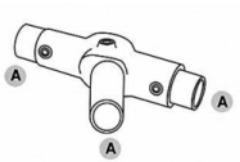
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
126-2	2		160						0.82
126-3	3		190						1.24
126-4	4		220						1.50

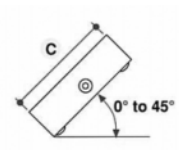
Weights are for blank fittings

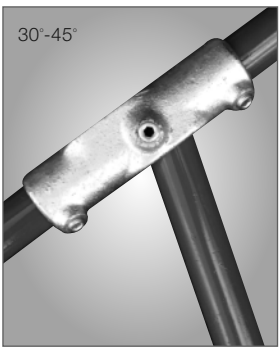
A cross connection supplied machined out to the specific angle of 30° or 45°. The fittings are stocked predrilled in these two angles only. Typical use on sloping guardrail for the mid/lower rails with the upright vertical. The vertical must remain continuous with the cross rails cut. Used in conjunction with Q clamp fitting 127.

Angle Tee up to 45°

Product number
127







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
127-2	2		160						0.82
127-3	3		190						1.24
127-4	4		220						1.50

Weights are for blank fittings

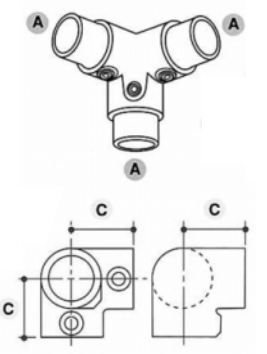
A tee connection supplied machined out to the specific angle of 30° or 45°. The fittings are stocked pre-drilled in these two angles only. Typical use on sloping guardrail for the top rails with the upright vertical. Normally used in conjunction with the Q clamp fitting 126.

Q clamp

Product number

128

3 Way 90° Elbow



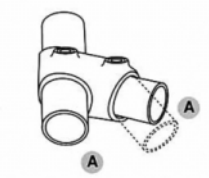
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
128-1	1		45						0.38
128-2	2		46						0.48
128-3	3		60						0.82
128-4	4		68						1.14
128-5	5		85						1.68

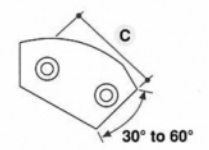
A 3 way enclosed 90° corner joint. Typical use is on straight and level guardrail at a 90 corner where an upright is in position. This Q clamp fitting can also be used to create enclosed corner joints in other square structures such as benches etc.

Q clamp

Adjustable Tee

Product number
129





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
129-2	2		86						0.44
129-3	3		100						0.64
129-4	4		105						0.97

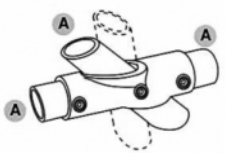
Freely adjustable tee between 30° and 60°. Typical use is a tee connection on angled top rails on steeper slopes or stairs with the upright remaining vertical. This fitting can also be used for bracing on structures. This fitting has no ability to join tubes. An alternative for this situation is the Q clamp fitting 127.

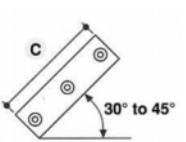
Q clamp

Product number

130

Adjustable Cross





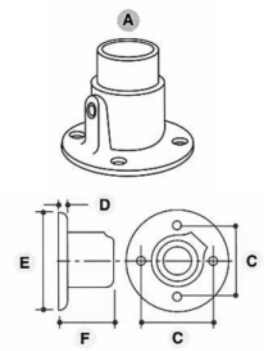
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
130-2	2		162						0.82
130-3	3		190						1.17
130-4	4		218						1.50

Freely adjustable cross between 30° and 45°. Typical use is as a cross connection on angled mid/lower rails on steeper sloped or stairs with the upright remaining vertical. The upright must remain continuous with the cross rails being cut.

Not recommended for use on the top of the vertical.

Wall Plate

Product number
131



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
131-1	1		57	6	81	40		8	0.34
131-2	2		65	7	88	48		8	0.51
131-3	3		78	7	102	51		8	0.63
131-4	4		89	7	120	60		8	0.68
131-5	5		95	7	127	63		8	1.60

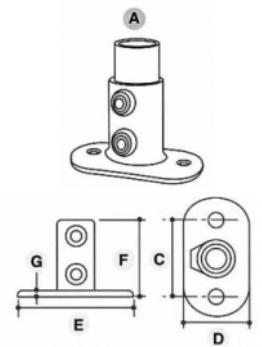
WARNING: *THIS FITTING IS NOT RECOMMENDED FOR USE AS A BASE PLATE FOR GUARDRAILING*

With four countersunk holes, this fitting is ideal as a flange to terminate handrail to a wall or other similar application. This fitting may be used on structures where it is only required as a positional fixing.

Q clamp

Product number

132 Base Plate



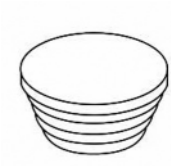
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
132-1	1		76	64	114	76	7	11	0.50
132-2	2		90	76	130	88	7	14	0.74
132-3	3		100	80	140	90	7	14	1.06
132-4	4		114	90	150	90	10	14	1.38
132-5	5		127	100	165	90	10	17	1.77

A structural base plate for all aspects of vertical post support. This fitting when used as a base plate for guardrailing should always be positioned with the holes across the line of the guardrail to give maximum strength. The holes in the base plate are large enough to enable the use of mechanical or chemical anchor fixings.

Q clamp

Plastic Stop Ends

Product number
133



Plastic plug

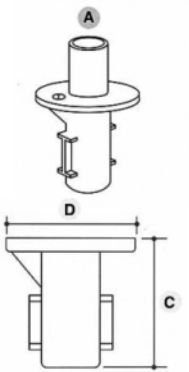
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
133-2	2								0.01
133-3	3								0.01
133-4	4								0.015
133-5	5								0.02

A plastic stop end for use in the end of tubes. This stop end can be used in either medium or heavy gauge tube. This is only a friction fit and for a more permanent fix an adhesive is recommended.

Q clamp

Product number

134 Ground Socket



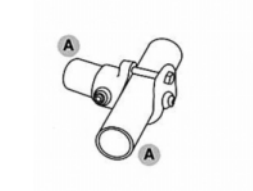
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
134-2	2		123	127					2.33
134-3	3		130	140					2.52
134-4	4		130	140					2.26

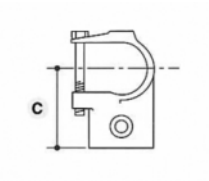
A ground socket cast into concrete which is flush to the finished ground level. The upright is held in place using the grubscrew but can easily be removed without leaving any obstructions.

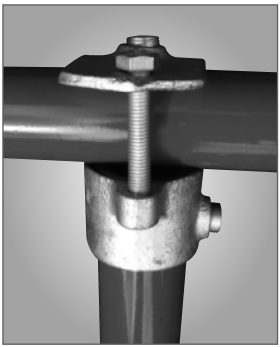
Q clamp

Retro Fit Clamp on Tee Inline

Product number
135







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
135-1	1		50						0.30
135-2	2		50						0.33
135-3	3		67						0.59
135-4	4		70						0.61

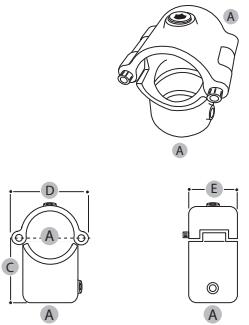
Inline Add on Tee. Used for making additions to upgrading or modifying an existing structure without having the need to dismantle part or all of that structure.

Q clamp

Product number

136

Add On Tee



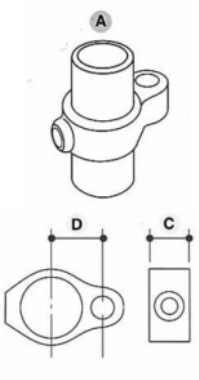
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
136-3	3		60	76	56				0.605
136-4	4		70	83	62				0.778

The add on tee enables a structure to be extended, avoiding the need for dismantling.

WARNING: *THIS CLAMP SHOULD NOT BE USED TO JOIN LENGTHS OF TUBE.*

Gate Eye

Product number
138



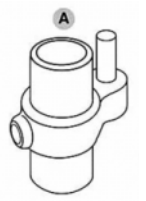
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
138-1	1		25	30				14	0.22
138-2	2		25	33				14	0.26
138-3	3		25	38				14	0.27
138-4	4		25	41				14	0.29

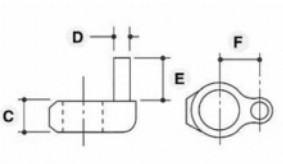
Female section of a two part gate hinge.
Used in conjunction with Q clamp fitting reference 140.

Q clamp

Product number

140 Gate Hinge





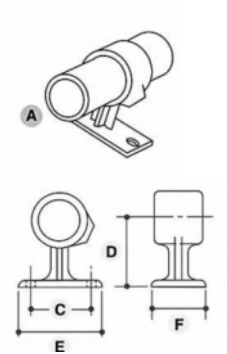
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
140-1	1		25	12	38	30			0.20
140-2	2		25	12	38	33			0.25
140-3	3		25	12	38	38			0.30
140-4	4		25	12	38	41			0.31

Male section of a two part gate hinge.
Used in conjunction with Q clamp fitting reference 138.

Q clamp

Wall Mounted Handrail Bracket

Product number
143



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
143-1	1		58	55	80	45		8	0.36
143-2	2		63	58	85	45		8	0.45
143-3	3		77	61	100	45		8	0.57
143-4	4		89	70	110	50		8	0.78

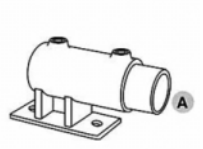
Wall mounting bracket for handrails. Can also be used to tie back structures to wall or to hold kicking plates on a guardrail. This fitting has countersunk holes and is not recommended as a structural fixing. This fitting has no ability to join tubes.

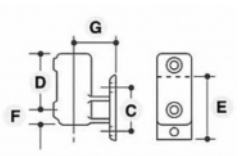
Q clamp

Product number

144

Structural Offset Side Palm Fixing





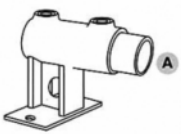
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
144-2	2		70	75	97	30	63	14	0.78
144-3	3		80	85	110	30	66	14	1.12
144-4	4		90	90	125	30	66	14	1.55

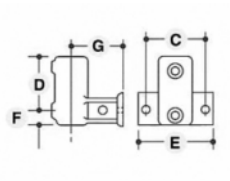
Structural offset side palm base fixing guardrailing to walls, steps, ramps, etc. The tube is unable to pass through this fitting as supplied. Should this be required then the base must be reamed out. Access to the top fixing is restricted. It is recommended that a threaded stud is fixed first with a maximum projection of 25mm.

Q clamp

Non Structural Offset Side Palm Fixing

Product number
145





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
145-2	2		70	75	100	30	75	14	0.77
145-3	3		73	85	113	53	64	14.5	1.08
145-4	4		89	90	120	68	73	14.5	1.48

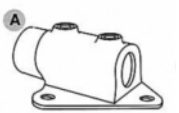
This fitting is designed for palm fixing guardrailing and balustrading to walls, parapets, steps and ramps.

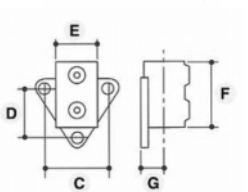
Q clamp

Product number

146

Structural Flush Side Palm Fixing





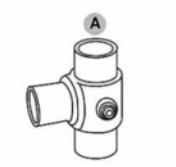
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
146-2	2		78	68	45	70	25	12	0.63
146-3	3		86	75	56	79	28	12	0.81
146-4	4		96	83	61	86	32	12	0.96

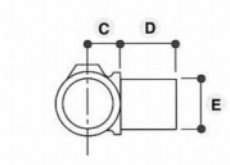
Structural flush side palm base fixing guardrailing to wall, steps or ramps etc. The flush design enables posts to be tight to the structure. The tube is unable to pass through the fitting. Should this be required then the base must be reamed out. If the base is reamed out the bottom fixing will become redundant.

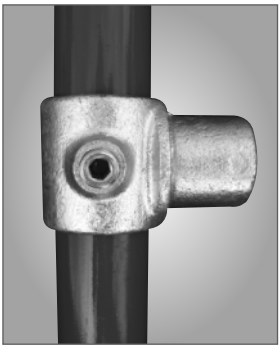
Q clamp

Offset Swivel Tee

Product number
147







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
147-2	2		22	28	34				0.36
147-3	3		28	35	42				0.55
147-4	4		31	42	48				0.65

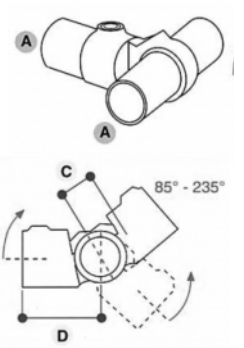
An internal swivel tee used in conjunction with other Q clamp fittings in the range to create a 360° swivel joint. Ideal use on handrail or offset guardrailing down variable angled slopes. Eliminates the requirement for specialised angle fittings.

Q clamp

Product number

148

Short Swivel Inline Tee



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
148-1	1		-31	60					0.20
148-2	2		-33	60					0.30
148-3	3		-40	75					0.42
148-4	4		-46	85					0.54

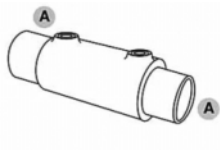
NOTE: *When using Q clamp 148 fittings for the top rail of a guardrail,the top of the upright must NOT be reduced in length but left at full height. The top of the tube will need to be capped using a Q clamp 133.*

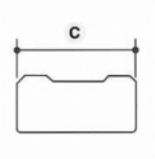
Shown priced and sold as a single fitting but normally used in pairs to create angles between 85° and 235°. A central tube is required to join the fittings together to create the angle. When working out the correct tube length dimension 'C' should be subtracted.

Q clamp

Inline External Tube Connector

Product number
149





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
149-1	1		76						0.27
149-2	2		88						0.40
149-3	3		100						0.52
149-4	4		100						0.64
149-5	5		120						1.09

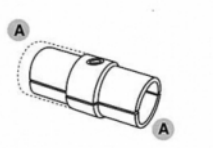
An inline external tube connector for joining two tubes of the same diameter. This fitting is not recommended to be used in high load applications. For a smooth inline joint the Q clamp fitting 150 can be used.

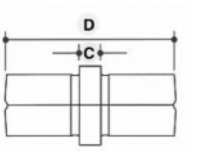
Q clamp

Product number

150

Inline Internal Tube Connector



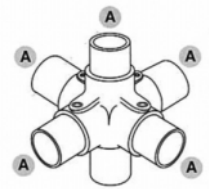


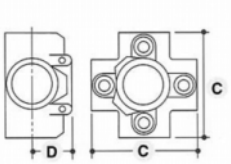
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
150-2	2		20	80					0.26
150-3	3		20	80					0.38
150-4	4		20	80					0.55

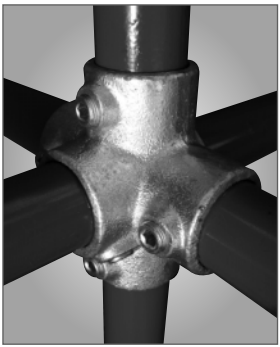
An inline internal tube connector for joining two tubes of the same diameter. This fitting can only be used with 3.2mm wall thick tube. This fitting is not recommended for high or tensile load applications.

4 Way Cross

Product number
158







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
158-1	1		81	32					0.52
158-2	2		92	37					0.60
158-3	3		120	40					1.06
158-4	4		136	53					1.46

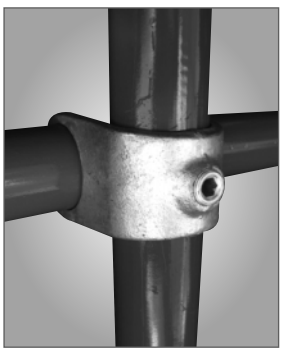
A 4 way cross that enables the vertical to pass through the centre of the fitting with the four horizontal tubes joining at 90° to each other. Ideal for structures with multiple verticals. The vertical must remain either continuous with the cross rails being cut.

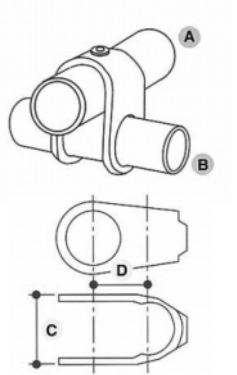
Q clamp

Product number

160

Retro Fit Clamp on Tee





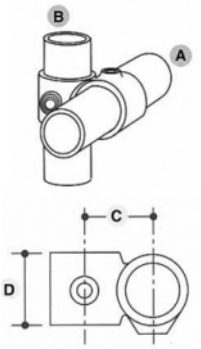
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
160-2	2	2	42	34					0.29
160-3	3	3	50	43					0.47
160-4	4	4	56	48					0.64
160-5	5	5	75	65					1.05

Offset add on tee. Used for making additions to, upgrading or modifying an existing structure without having the need to dismantle part or all of that structure.

Q clamp

Offset 90° Crossover

Product number
161



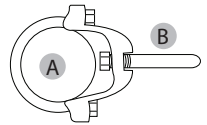
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
161-1	1	1	35	36					0.25
161-2	2	2	38	40					0.32
161-3	3	3	46	49					0.48
161-4	4	4	51	50					0.60
161-4/2	4	2	48	50/40					0.48
161-4/3	4	3	55	50/45					0.54
161-5	5	5	61	67					0.92

A 90° offset crossover fitting. The tube is unable to be jointed within this fitting. Ideal applications are for racking systems or offset guardrail. Where dimension 'D' indicates two figures, the first figure refers to tube 'A', the second refers to tube 'B'.

Q clamp

Product number

161U Crossover Bracket

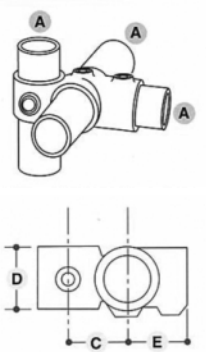


Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
161U-4	4	4							0.486
161U-5/4	5/4	5/4							0.599

Crossover Bracket for use on 40mm tube or 50mm x 40mm tube.
To form a solid connection.

Combination Socket

Product number
165



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
165-2	2		44	40	46				0.50
165-3	3		54	49	60				0.70
165-4	4		61	56	66				0.92

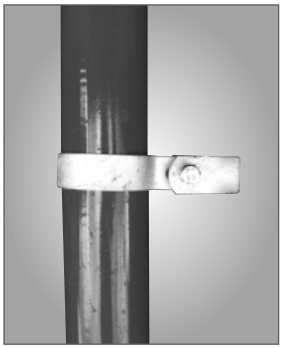
A combination fitting designed for use in the construction of racking systems. The fitting enables the connection of a vertical upright at 90° to two horizontal rails. One being the tie rail, the other being the load rail. On pallet racking the upright normally has the load rail on the inside, whilst for shelved racking the upright normally has the load rail on the outside.

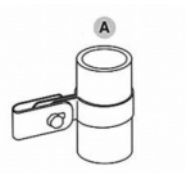
Q clamp

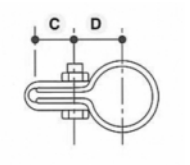
Product number

170

Single Sided Mesh Panel Clip







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
170-1	1		32	24					0.06
170-2	2		32	24					0.06
170-3	3		32	32					0.07
170-4	4		32	36					0.07
170-5	5		32	43					0.09

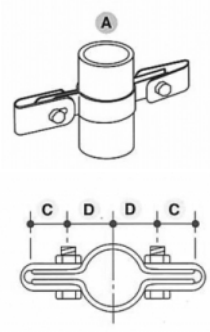
Dimension 'C' can be increased by up to 7mm because of the slotted hole.

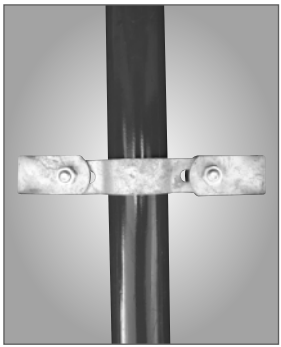
Double location weldmesh panel clip. The slotted design of the panel clip enables adjustment in the location of the mesh panels. Supplied with M6 x 30mm long nut and bolt. This fitting can also be used to locate other materials up to 10mm thick provided the safety saddle is removed.

Q clamp

Double Sided Mesh Panel Clip

Product number
171





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
171-1	1		32	24					0.11
171-2	2		32	24					0.13
171-3	3		32	32					0.14
171-4	4		32	36					0.12
171-5	5		34	43					0.13

Dimension 'C' can be increased by up to 7mm because of the slotted hole.

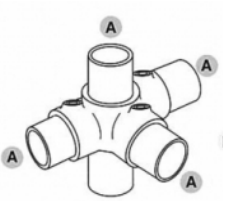
Double location weldmesh panel clip. The slotted design of the panel clip enables adjustment in the location of the mesh panels. Supplied with M6 x 30mm long nut and bolt. This fitting can also be used to locate other materials up to 10mm thick provided the safety saddle is removed.

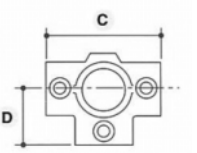
Q clamp

Product number

176

3 Way Outlet Tee



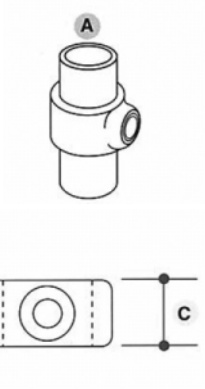


Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
176-1	1		82	41					0.35
176-2	2		92	46					0.46
176-3	3		124	62					0.78
176-4	4		136	68					1.20
176-5	5		170	85					1.84

Three way tee used to join 3 tubes at 90° to each other with the vertical passing through the fitting. Typical use would be on structures such as market stall or play frames.

Locking Collar

Product number
179



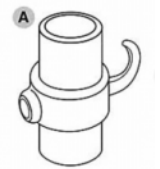
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
179-1	1		22						0.15
179-2	2		25						0.15
179-3	3		25						0.18
179-4	4		25						0.21

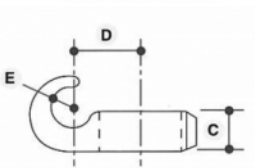
A locking collar used as extra support for a Q clamp fitting on structures where the slip load on the grubscrew may be exceeded i.e. racking. Can also be used to support a Q clamp fitting that is required to be left undone, i.e. a gate hinge.

Q clamp

Product number

182 Hook





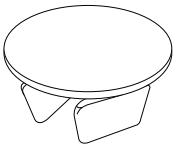
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
182-1	1		85	42					0.38
182-2	2		92	46					0.50
182-3	3		122	61					0.86
182-4	4		134	68					1.10

Chain hook. Used to locate chains across openings. Not ideal for permanent chain location. Recommended that one end of the chain is fixed using a Q clamp fitting reference 173M and held in place with a nut and bolt.

Q clamp

Galvanised Plug

Product number
184



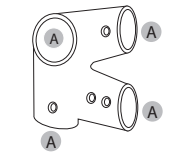
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
184-2	2								0.057
184-3	3								0.101
184-4	4								0.144

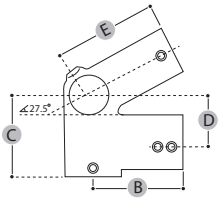
A galvanised stop end for use in the end of tubes. This stop end can be used in either medium or heavy gauge tube. This is only a friction fit and for a more permanent fix an adhesive is recommended.

Q clamp

Product number

185 Eaves Fitting





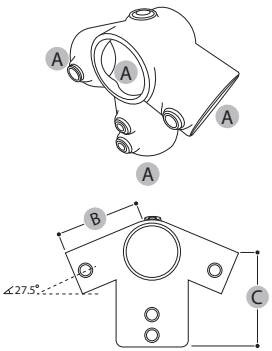
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
185-4	4	83	93	55	70				1.250

Designed for use in conjunction with the 191 for roofing applications on small structures.

Q clamp

Ridge Fitting

Product number
191



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
191-4	4	68	95						1.120

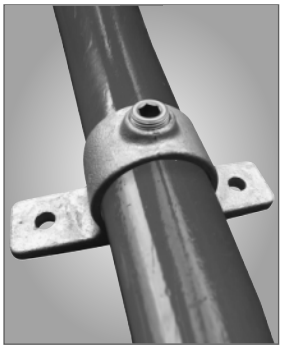
Designed for use in conjunction with the 185 for roofing applications on small structures.

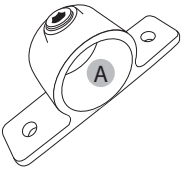
Q clamp

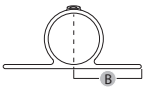
Product number

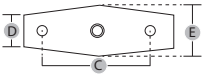
198

Double Sided Fixed Bracket









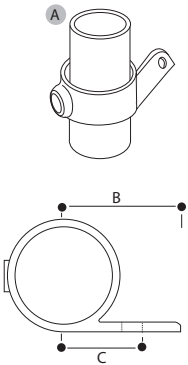
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
198-3	3	65	98	30	34			10mm	0.469
198-4	4	70	105	32	35			10mm	0.500

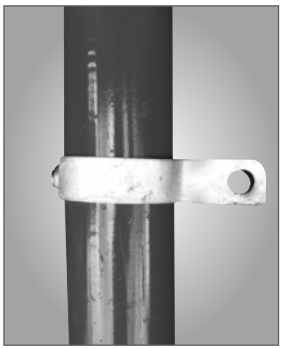
Allows for fixing to wooden planking or various panels for flush fitting.

Q clamp

Single-Lugged Bracket

Product number
199





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
199-2	2	60	45						0.23
199-3	3	66	50						0.30
199-4	4	70	52						0.32

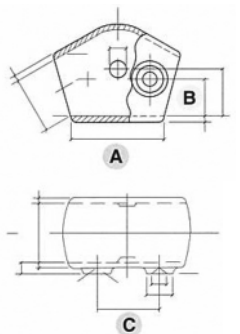
Often used for mounting boards practically flush with tubes. Fixing holes suit a wide range of common mechanical and chemical masonry anchors.
The tube cannot be joined within the fitting.

Q clamp

Product number

224

Variable Angle In Line Connector



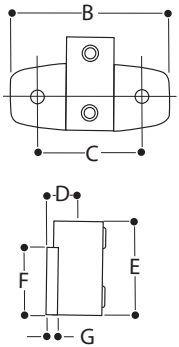
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
224-2	58.0	21.0	40.0						0.44
224-3	72.0	28.0	48.0						0.63
224-4	76.0	30.0	52.0						0.87

A variable angle in line connector (110° - 180°) Ideally suited for use between the vertical end post and sloping top rail on stair guard railing.

Q clamp

Horizontal Railing Base

Product number
246



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
246-2	2	148	100	30	90	65	8	19	0.96
246-3	3	150	100	35	90	65	10	18	1.23
246-4	4	146	103	34	90	75	11	18	1.33

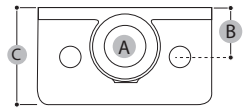
Designed for palm fixing of guardrail and balustrades to walls, parapets, steps and ramps. The upright cannot drop through the socket.

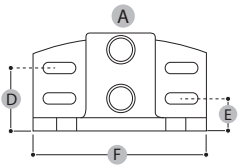
Q clamp

Product number

247

Base Flange with Kick Plate





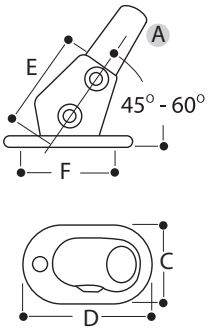
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
247-3	3	45	90	58	30	100		14	2.00
247-4	4	45	90	58	30	100		14	2.12

The Base Flange with kick plate is ideal for guardrailing and balustrading applications where the addition of a kick plate is required. The slotted holes allow for adjustment and ease of fitting.

Q clamp

Angle Base Flange

Product number
251



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
251-3	7		76	138	95	106	10	14	0.59

Used to set up the upright 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.

Q clamp

Product number

300

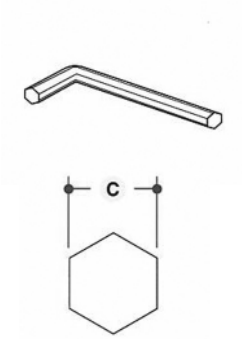
Grubscrews

Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
300 1-2	1-2		1/4 BSP						
300 3-4-5	3-4-5		3/8 BSP						

Stainless steel grubscrews. These grubscrews are supplied pre fitted into the fittings.

Allen Key

Product number
301



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
301 1-2	1-2		1/4 across flat						
301 3-4-5	3-4-5		3/8 across flat						

Hexagonal key. The allen key is the only tool required to tighten up a Q clamp fitting. The use of the dual ratchet Q clamp reference 233 is recommended to achieve the required torque.

Q clamp

THE SWIVEL RANGE

The Qclamp® Swivel Range comprises the following fitting reference numbers:
125H, 167, 167M, 168, 168M, 169, 169M,173, 173F and 173M.

Excluding the use of the stand alone 125H, the Qclamp® Swivel Range is constructed using the relevant male and female fittings. The 173F is common to all such combinations.

The range can be supplied in individual components or as complete units using either a rivet or nut and bolt to join the male and female fittings together.

The lugs have been designed to be of equal dimension regardless of the size of the fitting in order that a swivel connection can be created between different size tubes. *E.g. a 173F-1 can be combined with a 173M-3 to create a connection between 26.9mm OD and 42.4mm OD tubing.*

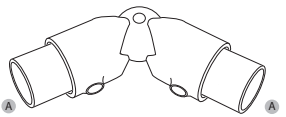
In addition to being used with the 173F to make the swivel combinations, all of the 'M' male fittings can be used to secure various types of infill in place.

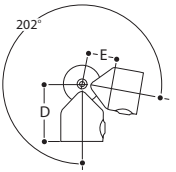
WARNING: **An entire structure should not be built using only fittings from the Qclamp® Swivel Range as these would not provide sufficient stability or rigidity within the structure due to the free rotation of the fittings.**

Q clamp

Product number

125H Swivel Elbow





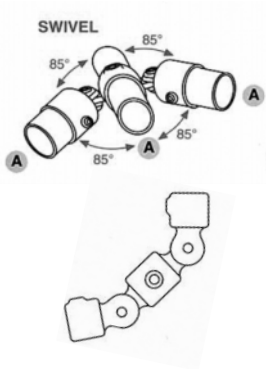
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
125H-3	3			75	35				0.90
125H-4	4			85	37				1.08

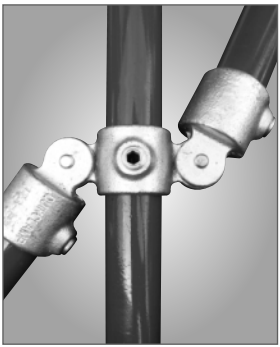
125H fitting has been designed as a variable angle in-line connection, adjustable through 202°

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

Double Inline Swivel Combination

Product number
167





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
167-1	1								0.99
167-2	2								1.12
167-3	3								1.36
167-4	4								1.58

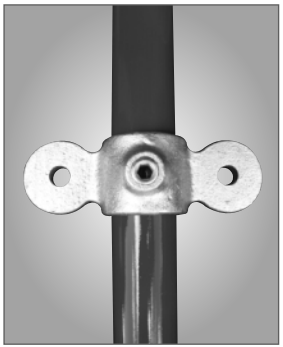
Complete double swivel with the swivel connectors at 180° to each other. Each swivel has a travel of approximately 85° from the horizontal in both vertical directions.

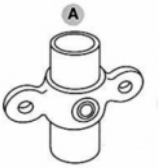
WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

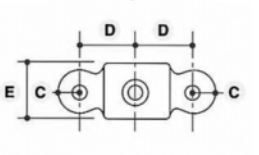
Q clamp

Product number

167M Double Male Inline Swivel







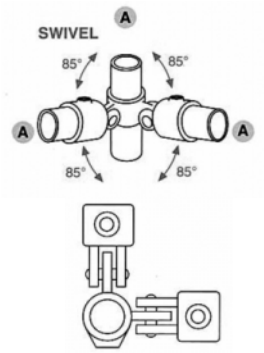
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
167M-2	2		19	43	38			10	0.38
167M-3	3		19	48	45			10	0.47
167M-4	4		19	52	45			10	0.49
167M-5	5		19	62	52			10	0.72

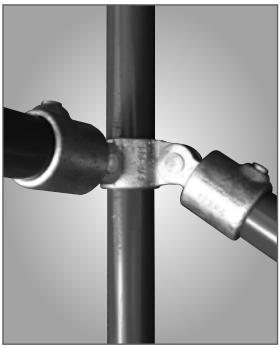
A double male fitting with the lugs at 180° to each other.

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

90° Corner Swivel

Product number
168





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
168-1	1								0.98
168-2	2								1.13
168-3	3								1.35
168-4	4								1.57

Complete double swivel with the swivel connectors at 90° to each other. Each swivel has a travel of approximately 85° from the horizontal on both vertical directions.

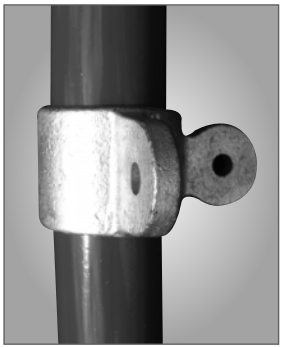
WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

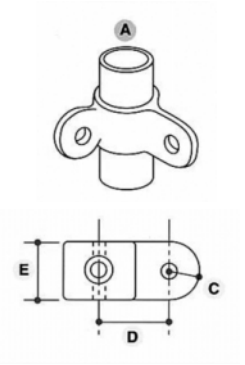
Q clamp

Product number

168M

90° Male Corner Swivel





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
168M-2	2		19	43	38			10	0.40
168M-3	3		19	48	45			10	0.46
168M-4	4		19	52	48			10	0.47

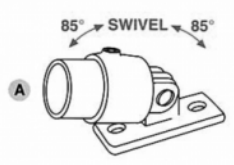
Double male fitting with the two lugs at 90° to each other.

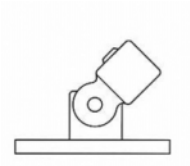
WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

Q clamp

Swivel Locating Flange

Product number
169





Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
169-1	1								0.71
169-2	2								0.76
169-3	3								0.84
169-4	4								0.95

Complete locating swivel. Swivel has a travel of approximately 85° from the vertical in each direction.

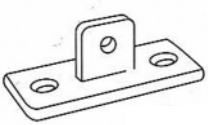
WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

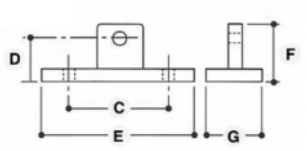
WARNING: *THIS FITTING IS NOT RECOMMENDED FOR USE AS A BASE PLATE FOR GUARDRAILING*

Q clamp

Product number

169M Male Swivel Locating Flange





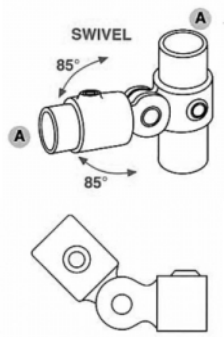
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
169M			86	35	120	51	50	10	0.38

Non structural male locating flange.

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

Single Swivel

Product number
173



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
173-1	1								0.57
173-2	2								0.66
173-3	3								0.83
173-4	4								1.01
173-5	5								1.24

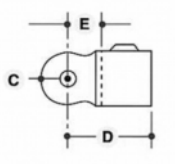
Complete single swivel. The swivel has a travel of approximately 85° from the horizontal in both vertical directions.

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

Q clamp

Product number

173F Female Swivel



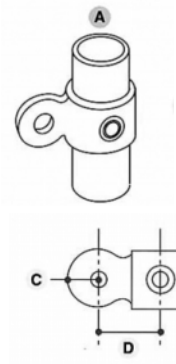
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
173F-1	1		19	60	25			10	0.28
173F-2	2		19	65	25			10	0.35
173F-3	3		19	74	25			10	0.43
173F-4	4		19	85	25			10	0.52
173F-5	5		19	85	32			10	0.66

This fitting is designed to be used in conjunction with the 'M' fittings and is not generally used on its own. This can be connected to the 'M' fitting by either rivet or nut and bolt.

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

Single Male Swivel

Product number
173M



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
173M-1	1		19	40	38			10	0.25
173M-2	2		19	43	38			10	0.27
173M-3	3		19	48	48			10	0.36
173M-4	4		19	52	48			10	0.45
173M-5	5		19	62	52			10	0.54

Single male fitting with only one lug.

WARNING: *AN ENTIRE STRUCTURE SHOULD NOT BE CONSTRUCTED FROM SWIVEL FITTINGS ALONE, AS THESE WOULD NOT PROVIDE SUFFICIENT STABILITY OR RIGIDITY IN THE STRUCTURE DUE TO THE FREE ROTATION OF THE FITTING.*

The Slope Range

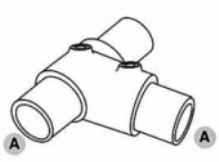
The Qclamp® Slope Range comprises the following fitting reference numbers:
201, 204, 219, 225 and 232.

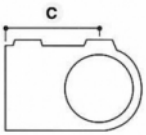
The Qclamp® Slope Range fittings are designed for use on access ramps or other shallow gradients between 4° and 10° and enable a guardrail to be constructed along the length of the slope without the need for specially reamed out fittings or bending the tube.

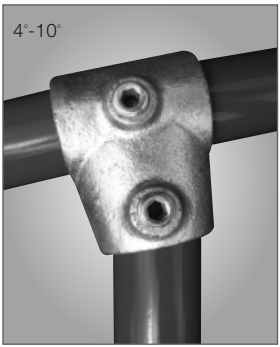
Q clamp

Slope Range Short Tee

Product number
201







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
201-2	46		45						0.37
201-3	59		60						0.60
201-4	68		70						0.76

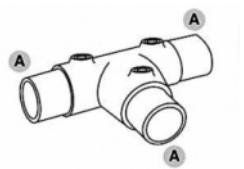
An adjustable tee connection between two tubes. Used on ramps and shallow gradient guardrail between verticals and top rails or the mid/lower rails to an end vertical. This fitting cannot be used to join tubes in the short tee. For this the Q clamp fitting 204 long tee should be used.

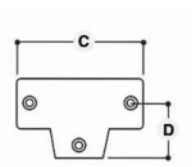
Q clamp

Product number

204

Slope Range Long Tee





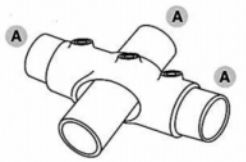
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
204-2	46		102	49					0.53
204-3	60		142	60					1.00
204-4	68		157	70					1.28

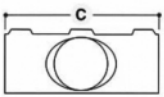
An adjustable tee connection between two tubes. Used on ramps and shallow gradient guardrail between verticals and top rails. This fitting can be used to joint tubes in the long tee.

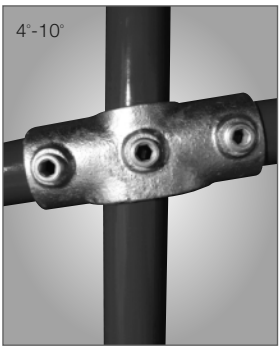
Q clamp

Slope Range Socket Cross

Product number
219







Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
219-2	2		112						0.48
219-3	3		140						0.73
219-4	4		158						0.92

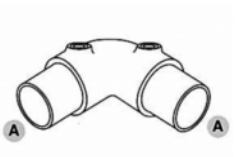
An adjustable cross for connecting tubes between mid/lower rails and the vertical on ramps or shallow gradients. The vertical must remain continuous with the cross rails being cut.

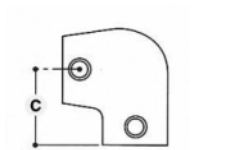
Q clamp

Product number

225

Slope Range Elbow



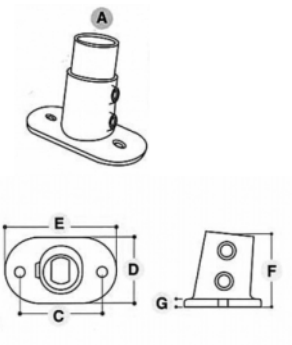


Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
225-2	2		46						0.40
225-3	3		60						0.62
225-4	4		68						0.97

An adjustable elbow. Used for the connection of the first vertical post at the start of the incline to the top rail. Only one barrel has the ability to take the adjustability, the other is fixed.

Slope Range Base

Product number
232



Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
232-2	2		89	80	127	90	7	14.5	0.86
232-3	3		101	90	140	98	7	14.5	1.08
232-4	4		113	96	153	99	7	14.5	1.34

An adjustable structural base fitting for the vertical. The design of this fitting will only allow it to be installed in the correct plane. For correct orientation see pages 72 and 73.

HOW TO CALCULATE CORRECT TUBE LENGTH

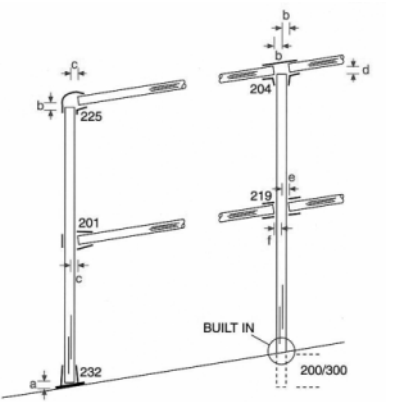
Upright

To calculate the upright height select the top post fitting to be used (201, 204, 255). Dim 'd' is the same for the 201 and 204 fitting. Subtract the relevant dimension from the upright length then either add or subtract the dimension for the ground fitting being used.

Crossrail

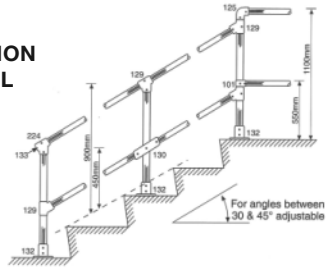
To calculate the crossrail length select the fittings being used then subtract the relevant dimension from the upright centres measured on the slope. Note the two different dimensions on fitting 219 depending whether it is up slope or down slope rail.

CUTTING CHART	A	B	C	D	E	F
	7	25	28	28	28	35

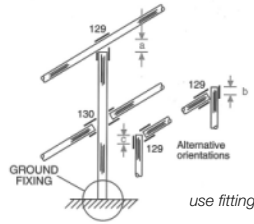


Q clamp

UPRIGHT CONSTRUCTION FOR INLINE GUARDRAIL ON A SLOPE



HOW TO CALCULATE CORRECT TUBE LENGTH - UPRIGHT

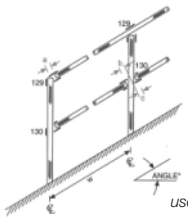


use fittings 129 & 130

	ANGLE	30°	35°	40°	45°
2	A	-34	-34	-37	-43
	B	+24	+18	+11	+3
	C	+36	+42	+49	+58
3	A	-40	-44	-48	-54
	B	+29	+21	+12	+3
	C	+44	+52	+61	+71
4	A	-45	-50	-55	-61
	B	+33	+24	+14	+3
	C	+46	+55	+65	+77

To calculate upright height select the correct orientation for the 129 fitting and then either add or subtract the dimension, + or - ground fixing dimension.

HOW TO CALCULATE CORRECT TUBE LENGTH - CROSSRAILS



use fittings 129 & 130

	ANGLE	30°	35°	40°	45°
2	A	32	34	37	44
	B	55	51	48	46
	C	36	40	43	46
3	A	40	45	49	55
	B	64	61	57	54
	C	41	45	49	53
4	A	46	51	56	61
	B	78	74	64	65
	C	55	58	61	66

To calculate the rail length subtract the relevant dimensions from the upright centers measured on the slope.

Handrail Standards

The Qclamp® Handrail Standards Range comprises the following stock reference codes:

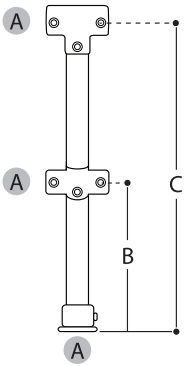
QCSMR - Standard Mid-Rail
QCSEP - Standard End Post
QCSCP - Standard Corner Post

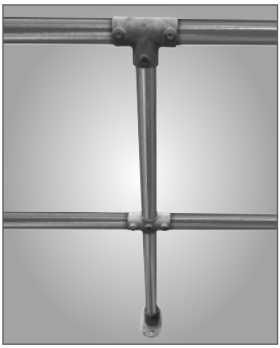
These pre-assembled posts comprise galvanised EN10255 tube and Qclamp® fittings. They are supplied at a standard height of 1100mm with the lower rail fitting being set at approximately 560mm from the base. Both heights can be adjusted to suit the handrail installation. Each post is built using a 1075mm length of tube and is available in a size 3 (32mm) and size 4 (40mm).

These handrail standards enable easier and faster installation of safety railing, handrails and barriers.

Standard Mid-Rail

Product number
QCSMR





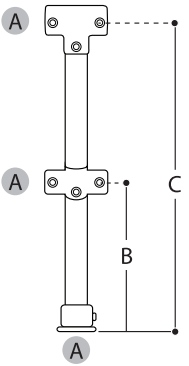
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
QCSMR-3	3	560	1100						
QCSMR-4	4	560	1100						

Comprising a 1075mm length of galvanised EN10255 tube, a 132 Base Plate, 104 Long Tee and a 119 Two Socket Cross the Standard Mid-Rail is available in size 3 (32mm) and size 4 (40mm).

Q clamp

Product number
QCSEP

Standard End Post

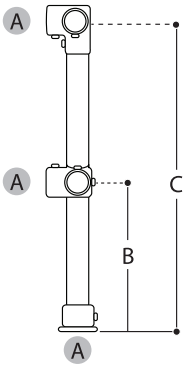


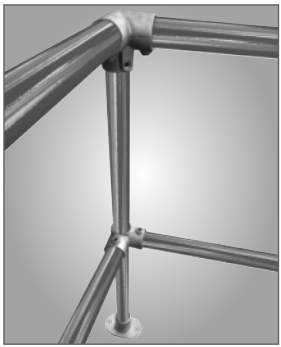
Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
QCSEP-3	3	560	1100						
QCSEP-4	4	560	1100						

Comprising a 1075mm length of galvanised EN10255 tube, a 132 Base Plate, a 101 Short Tee and a 125 90° Two Way Elbow, the Standard End Post is available in size 3 (32mm) and size 4 (40mm).

Standard Corner Post

Product number
QCSCP

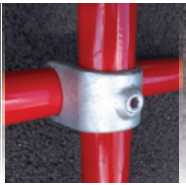




Q CLAMP REF No.	A	B	C	D	E	F	G	HOLE DIA mm	WEIGHT kgs
QCSCP-3	3	560	1100						
QCSCP-4	4	560	1100						

Comprising a 1075mm length of galvanised EN10255 tube, a 132 Base Plate, a 116 Three Way Through and a 128 90° Three Way Elbow 128-4, the Standard Corner Post is available in size 3 (32mm) and size 4 (40mm).

Your local Q clamp dealer is:



TÜV RHEINLAND
PRODUCT SAFETY
TYPE APPROVAL

Q clamp

NOTE: *The standard finish is hot-dipped galvanised.*

Whilst every care has been taken to ensure that the information given in this manual is correct, we reserve the right to alter and revise this information as and when considered it necessary. This is in-line with our policy of research and development.