



M&M

Engineering
Services

SPECIALISTS IN WROUGHT IRONWORK

Address
204 Staffordstown Road
Toomebridge
County Antrim
BT41 3NY

Email
martinmcclernon100@gmail.com

Phone
028 796 50023

Fax
028 7965 9178

NOW STOCKING **AES** GLOBAL PRODUCTS

CELLOM PRIME (GSM)



- Trigger & latch open gates.
- Wide range of stylish panel options, including marine grade stainless steel

- Set automatic gate open & close times
- Do not disturb watershed time.
- User history log to your phone.
- Add keypad codes by APP.
- Built in time clock.
- Issue time restricted codes.

HARD WIRED 302 SYSTEM



- Wired audio intercom system.
- Simple install - 2 wires for communication, 2 for gate/door release, 2 for power.
- Up to 4 handsets per system.
- Curved profile stylish handset.
- 150m typical cabled range using twisted pair cables.
- Standard 12v dc powered system.

PREDATOR WIFI



- Simple setup by mobile phone.
- Connect to the intercom directly through your phone's Wi-Fi.
- View the gate/door and open any time with monitoring mode.
- Stores images of the last 32 missed callers on your phone.
- Still works locally on Wi-Fi network even if broadband goes down.
- Can work with most market standard outdoor Wi-Fi repeaters for extended range.

DECT 603



- Working range of 200 metres (up to 400 metres open field conditions).
- Up to 4 handsets per system.
- Now available with 2 relay outputs!
- 12-24v ac/dc power supply range (CAT5/alarm power cable friendly*)!
- Now available optional range extending antenna!
- Simple setup and install.
- Keypad option for coded access.
- Built in voicemail feature for missed callers, user can listen to messages on handset.

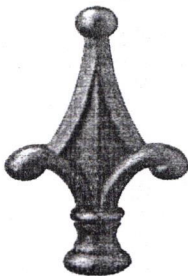


M & M

Engineering
Services

SPECIALISTS IN WROUGHT IRONWORK & STAINLESS STEEL

NEW PRODUCTS



80/60 – 125x65, 24mm Base

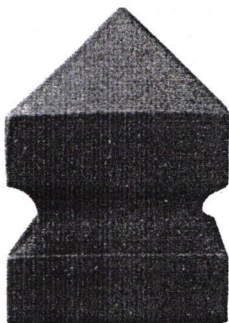
80/61 – 140x70mm, 26mm Base

80/62 – 170x85mm, 32mm Base



80/63 – 165x45mm, 22mm Base

80/64 – 265x75mm, 30mm Base



87/60 – To suit 30mm Box

87/61 – To suit 40mm Box

89/62 – To suit 50mm Box

89/63 – To suit 60mm Box

89/64 – To suit 80mm Box

89/65 – To suit 100mm Box

89/66 – To suit 120mm Box

89/67 – To suit 150mm Box

Manufacturers of Gates, Railings, Stainless Steel and all types of Interior & Exterior Designs
Suppliers of Wrought Iron and Stainless Steel Components to Trade

204 STAFFORDSTOWN ROAD, TOOMEBRIDGE BT41 3NY

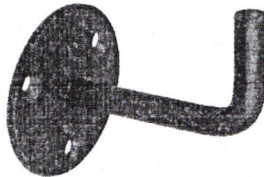
Tel: 028 7965 0023 Fax: 028 7965 9178

Web: www.gatesni.com Email: info@gatesni.com



New Style – 89/26-20mm

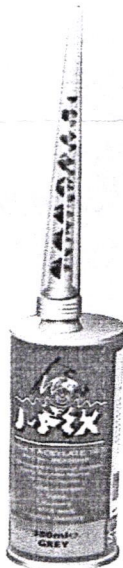
190x65mm – To suit 20mm Sq



90/60 - Mild Steel Handrail Bracket

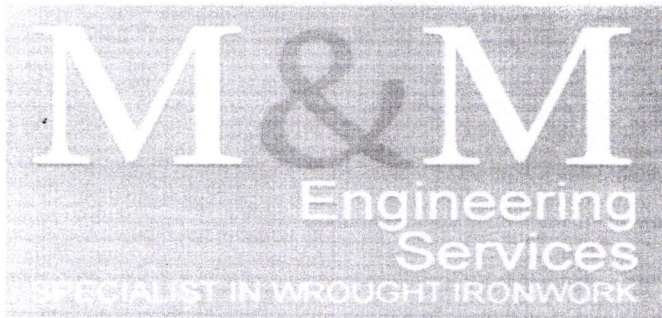
85mm Back Plate

12mm Dia Rod



Chemset Injection System

Extra Nozzles also available

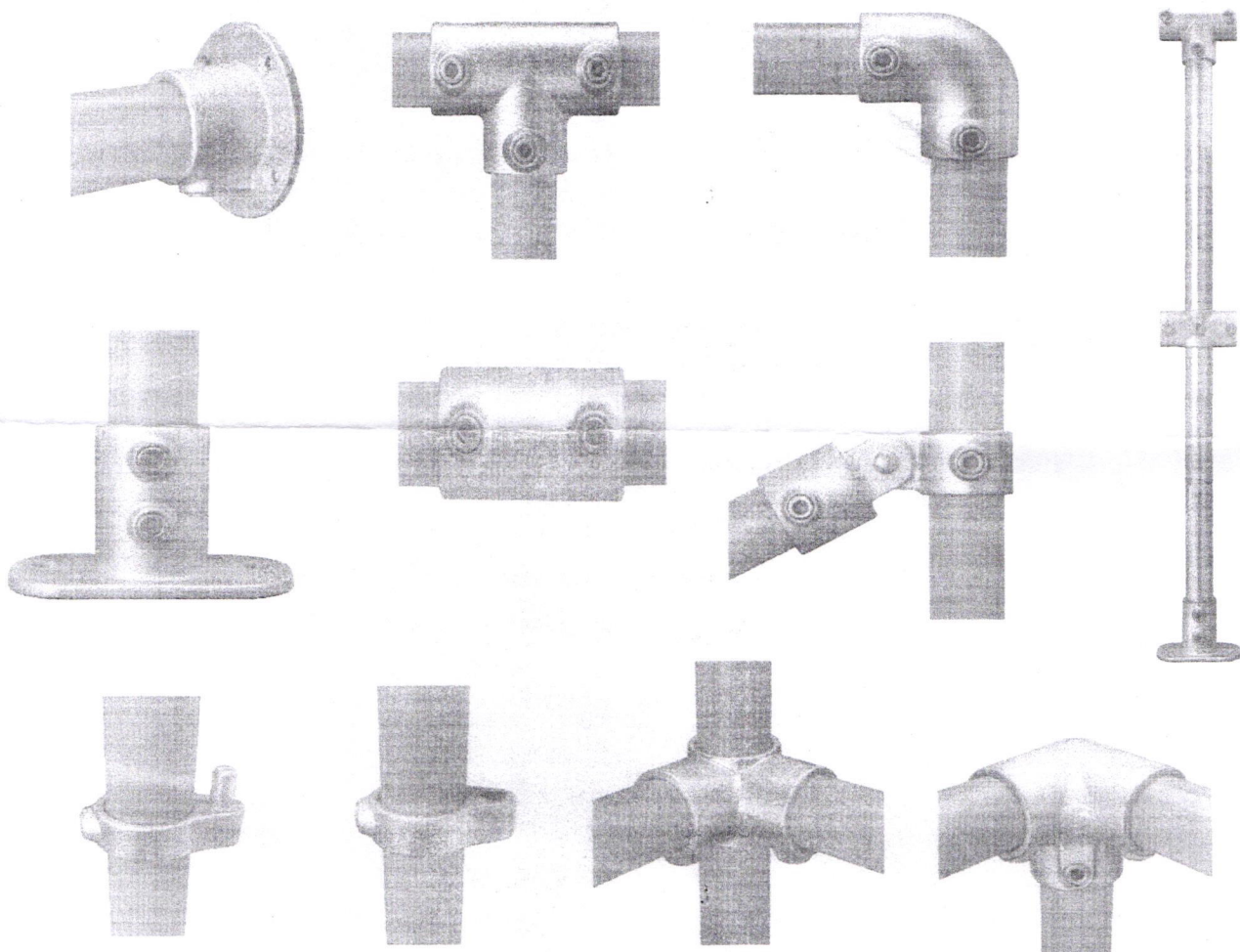


**204 Staffordstown Road
Toomebridge
BT41 3NY**

Tel: 028 796 50023

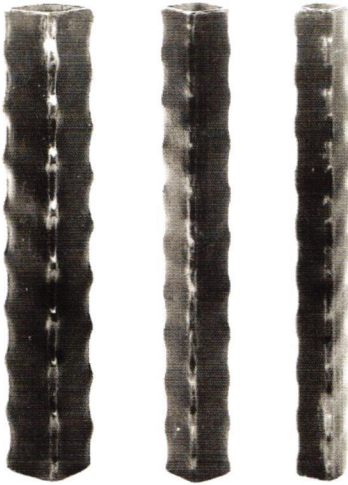
KEY CLAMP SOLUTIONS

At M&M Engineering Services, we specialise in providing high-quality galvanised key clamp fittings to suit a wide range of industrial & construction applications. Our durable & versatile solutions are designed to meet your specific needs with reliability & precision.



In stock in 42.4mm & 48.3mm with other sizes available to order.

Box Section, Twisted Bar, Twisted Rope & Grooved Bar

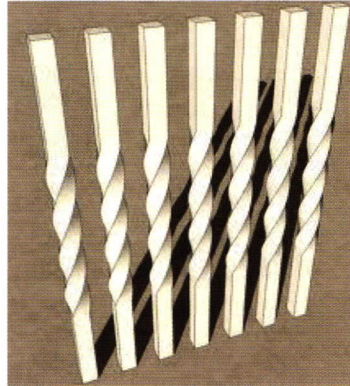


Hammered Edge Box Section

Available in the following sizes:

2/9	20 x 20 x 2.0 mm
2/10	25 x 25 x 2.0 mm
2/2	30 x 30 x 2.5 mm
2/1	40 x 40 x 2.5 mm
2/1A	40 x 20 x 2.0 mm
2/8	50 x 25 x 2.5 mm
2/7	50 x 50 x 2.5 mm
2/11	50 x 50 x 3.0 mm
2/20	60 x 60 x 3.0 mm
2/21	70 x 70 x 3.0 mm
2/22	80 x 80 x 3.0 mm
2/23	90 x 90 x 3.0 mm
2/24	100 x 100 x 4.0mm

All sizes are approximately 3.8 metres long



Twisted Box Section

Available to order to suit your requirements. 20mm, 25mm, 30mm & 40mm can be twisted up to 1500mm long

Fully Twisted Bar



3000mm Fully Twisted Bars in 3m Lengths

11/34	6mm	11/35	8mm
11/36	10mm	11/37	12mm
11/38	16mm	11/39	20mm
11/40	25mm	11/41	30mm

6000mm Fully Twisted Bars in 3m Lengths

11/42	6mm	11/43	8mm
11/44	10mm	11/45	12mm
11/46	16mm	11/47	20mm
11/48	25mm	11/49	30mm

Four Strand Solid Rope Twist



2850mm Long

11/86	16mm
11/87	20mm
11/88	24mm
11/89	30mm
11/90	40mm

5700mm Long

11/91	16mm
11/92	20mm
11/93	24mm
11/94	30mm
11/95	40mm

Grooved Bar



12mm & 16mm available upon request



Textured Bar & Plastic Handrail Cover

Wavy Bar



- 3/1 – 12mm ✓
- 3/2 – 16mm ✓
- 3/3 – 20mm ✓
- 3/4 – 25mm ✓
- 3/4A – 30mm ✓

Hammered
Edge Bar



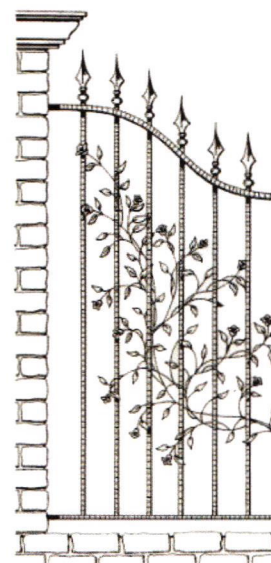
- 3/8 – 12mm ✓
- 3/9 – 16mm ✓
- 3/10 – 20mm ✓
- 3/11 – 25mm ✓
- 3/11A – 30mm ✓

Hammered
Edge Bar



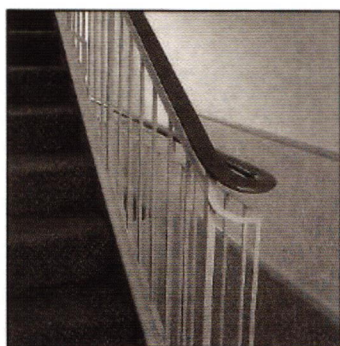
- 3/13 – 25 x 8mm ✓
- 3/13A – 25 x 10mm ✓
- 3/13B – 30 x 8mm ✓
- 3/13C – 30 x 10mm ✓
- 3/13D – 30 x 12mm ✓

Wavy Flat Bar



- 3/5 – 25 x 8mm Flat
- 3/5A – 30 x 8mm Flat
- 3/6 – 25 x 10mm Flat
- 3/6A – 30 x 10mm Flat
- 3/6B – 30 x 12mm Flat

Plastic Handrail Cover



To suit 40 x 8mm or 50 x 10mm handrail.

Can be cut to metre lengths if required in black. Other colours available only in 25m coils. (Ask for details)

Easy to fix when heat is applied.

- 4/21 – Black 40 x 8mm per metre
- 4/22 – Black 40 x 8mm per 25mm coil
- 4/21A – Black 50 x 10mm per metre
- 4/22A – Black 50 x 10mm per 25 metre coil



All lengths supplied 3m long



Patterned Flat Bar – Supplied in 3m Lengths

Grape & Leaf Design



4/1	40 x 8mm
4/1A	40 x 10mm
4/1B	40 x 12mm

Hammered Edge Design



4/14	40 x 8mm
4/15	40 x 10mm
4/16	40 x 12mm
4/18	50 x 8mm
4/19	50 x 10mm
4/20	50 x 12mm

Tree Bark Design



4/2	40 x 8mm
4/2A	40 x 10mm
4/2B	40 x 12mm

Spiral Design



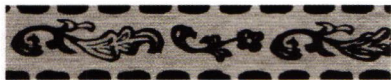
4/107	40 x 8mm
4/108	40 x 10mm

Horseshoe Design



4/3	40 x 8mm
4/3A	40 x 10mm
4/3B	40 x 12mm

40mm Floral Design



4/109	40 x 8mm
4/110	40 x 10mm

Wavy Bar Design



4/4	40 x 8mm
4/4A	40 x 10mm
4/4B	50 x 8mm
4/4C	50 x 10mm

Rectangular Design



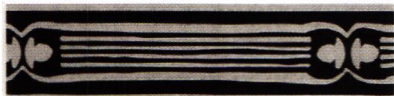
4/111	40 x 8mm
4/112	40 x 10mm

Wood Effect Design



4/101	40 x 8mm
4/102	40 x 10mm
4/102	50 x 8mm
4/103	50 x 10mm

Acorn Design



4/113	40 x 8mm
4/114	40 x 10mm

50mm Floral Design



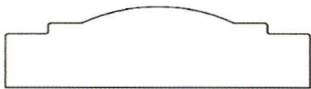
4/105	40 x 8mm
4/106	40 x 10mm

Harp & Shamrock Design



4/115	40 x 8mm
4/116	40 x 10mm

Convex Bar for Hand Railing



4/6A	40 x 12mm
4/6	50 x 15mm
4/6B	60 x 15mm



4/7A	40 x 12mm
4/7B	50 x 12mm

All patterned flat & convex bar can be matched up with sweeps & end scrolls. Ideal for handrails, balconies & balustrades.

All lengths supplied 3m long



Corners, Forged Ends & Scroll Ends



Sweeps

5/3 Grape & Leaf	40 x 8mm
5/34 Grape & Leaf	40 x 10mm
5/35 Grape & Leaf	40 x 12mm
5/6 Tree Bark	40 x 8mm
5/36 Tree Bark	40 x 10mm
5/37 Tree Bark	40 x 12mm
5/9 Horseshoe	40 x 8mm
5/38 Horseshoe	40 x 10mm
5/39 Horseshoe	40 x 12mm
5/40 Wavy Bar	40 x 8mm
5/41 Wavy Bar	40 x 10mm
5/42 Ball Hammered	40 x 8mm
5/43 Ball Hammered	40 x 10mm
5/44 Ball Hammered	40 x 12mm
5/45 Hammered Edged	40 x 8mm
5/46 Hammered Edged	40 x 10mm
5/47 Hammered Edged	40 x 12mm
5/86 Convex Bar (4/6)	50 x 15mm
5/87 Convex Bar (4/7)	42 x 14mm
5/88 Convex Bar (4/8)	40 x 10mm



Corners

5/2 Grape & Leaf	40 x 8mm
5/25 Grape & Leaf	40 x 10mm
5/5 Tree Bark	40 x 8mm
5/26 Tree Bark	40 x 10mm
5/8 Horseshoe	40 x 10mm
5/27 Horseshoe	40 x 10mm
5/28 Wavy Bar	40 x 8mm
5/29 Wavy Bar	40 x 10mm
5/30 Ball Hammered	40 x 8mm
5/31 Ball Hammered	40 x 10mm
5/32 Hammered Edged	40 x 8mm
5/33 Hammered Edged	40 x 10mm



Scroll Ends

5/1 Grape & Leaf	40 x 8mm
5/10 Grape & Leaf	40 x 10mm
5/11 Grape & Leaf	40 x 12mm
5/4 Tree Bark	40 x 8mm
5/12 Tree Bark	40 x 10mm
5/13 Tree Bark	40 x 12mm
5/7 Horseshoe	40 x 8mm
5/14 Horseshoe	40 x 10mm
5/15 Horseshoe	40 x 12mm
5/16 Wavy Bar	40 x 8mm
5/17 Wavy Bar	40 x 10mm
5/18 Ball Hammered	40 x 8mm
5/19 Ball Hammered	40 x 10mm
5/20 Ball Hammered	40 x 12mm
5/21 Convex Bar (4/6)	50 x 15mm
5/22 Hammered Edged	40 x 8mm
5/23 Hammered Edged	40 x 10mm
5/24 Hammered Edged	40 x 12mm
5/84 Convex Bar (4/7)	42 x 14mm
5/85 Convex Bar (4/8)	40 x 10mm



Approx. 1000mm x 190mm Wide

5/48 Grape & Leaf	40 x 8mm
5/49 Grape & Leaf	40 x 10mm
5/50 Grape & Leaf	40 x 12mm
5/51 Tree Bark	40 x 8mm
5/52 Tree Bark	40 x 10mm
5/53 Tree Bark	40 x 12mm
5/54 Horseshoe	40 x 8mm
5/55 Horseshoe	40 x 10mm
5/56 Horseshoe	40 x 12mm
5/57 Wavy Bar	40 x 8mm
5/58 Wavy Bar	40 x 10mm
5/59 Ball Hammered	40 x 8mm
5/60 Ball Hammered	40 x 10mm
5/61 Ball Hammered	40 x 12mm
5/62 Hammered Edge	40 x 8mm
5/63 Hammered Edge	40 x 10mm
5/64 Hammered Edge	40 x 12mm



Approx. 990mm x 255mm

5/83 Convex Bar	50 x 15mm
5/83A Convex Bar	40 x 12mm

For a beautiful finish to handrails and balustrading, try our forged end scrolls and corners.
Available in all our textured handrail designs.

Specials also available to order.



Approx. 495mm 155mm Wide

5/65 Grape & Leaf	40 x 8mm
5/66 Grape & Leaf	40 x 10mm
5/67 Grape & Leaf	40 x 12mm
5/68 Tree Bark	40 x 8mm
5/69 Tree Bark	40 x 10mm
5/70 Tree Bark	40 x 12mm
5/71 Horseshoe	40 x 8mm
5/72 Horseshoe	40 x 10mm
5/73 Horseshoe	40 x 12mm
5/74 Wavy Bar	40 x 8mm
5/75 Wavy Bar	40 x 10mm
5/76 Ball Hammered	40 x 8mm
5/77 Ball Hammered	40 x 10mm
5/78 Ball Hammered	40 x 12mm
5/79 Hammered Edge	40 x 8mm
5/80 Hammered Edge	40 x 10mm
5/81 Hammered Edge	40 x 12mm
5/89 Convex Bar (4/6)	50 x 15mm
5/90 Convex Bar (4/7)	42 x 14mm
5/91 Convex Bar (4/8)	40 x 10mm

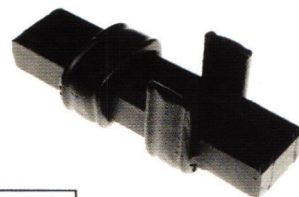
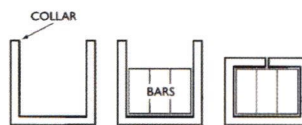


Collars & Collar Material

Collar Strip



- 6/10 12 x 3mm Sold in 3m lengths
- 6/11 16 x 4mm Extra soft steel for easy bending
- 6/12 20 x 4mm



COLLARS – A GUIDE

Collars, or clips as some people call them are a boon to the modern blacksmith enabling them to create beautiful finishes and hides joins and welds

6/13		6/22		6/29		6/37	 For grooved bar and scrolls
6/14		6/23		6/30		6/38	
6/15		6/23		6/31		6/39	
6/16	 For 15/2 Cage	6/24		6/32		6/40	
6/17		6/25		6/33		6/41	 Hammered, edged & grooved
6/18		6/26	 For grooved scrolls	6/34		6/42	 Hammered, edged & grooved
6/19		6/27	 For grooved scrolls	6/35	 For grooved scrolls	6/43	 Hammered, edged & grooved
6/20		6/27	 For grooved scrolls	6/36	 For grooved scrolls	6/44	 Hammered, edged & grooved
6/21		6/28	 For grooved scrolls				

Special collars and other sizes
available on request



Forged & Scrolled Gate Frame Ends

Available in a variety of materials & sizes, others available on request



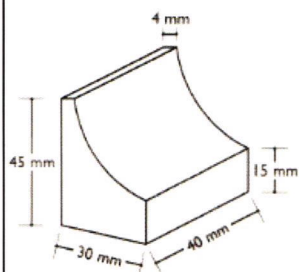
Frame ends in plain square bar

Approx. 200mm long available in the following sizes:

7/36	12mm sq
7/37	16mm sq
7/38	20mm sq
7/39	25mm sq
7/40	30mm sq
7/41	40mm sq

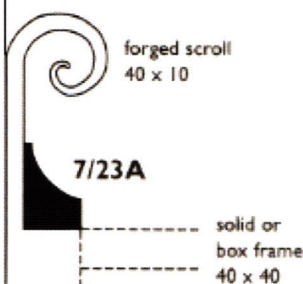
As above shape but frame ends in (Hammered) Wavy Bar
Approx. 200mm long available in the following sizes:

7/73	12mm sq
7/74	16mm sq
7/75	20mm sq
7/76	25mm sq
7/77	30mm sq



Blocks for Corners of Gates

7/23A	for 40 x 40 frames
7/23B	for 30 x 30 frames
7/23C	for 50 x 50 frames



Frame ends in plain flat bar

Approx. 200mm long available in the following sizes:

7/54	25 x 8mm
7/55	25 x 10mm
7/56	25 x 12mm
7/57	30 x 8mm
7/22	30 x 10mm
7/58	30 x 12mm
7/59	40 x 8mm
7/21	40 x 10mm
7/60	40 x 12mm
7/61	50 x 8mm
7/62	50 x 10mm
7/63	50 x 12mm



Frame ends in plain flat bar

300mm wide x 150mm high available in the following sizes

7/42	25 x 8mm
7/43	25 x 10mm
7/44	25 x 12mm
7/45	30 x 8mm
7/46	30 x 10mm
7/47	30 x 12mm
7/48	40 x 8mm
7/49	40 x 10mm
7/50	40 x 12mm
7/51	50 x 8mm
7/52	50 x 10mm
7/53	50 x 12mm



Frame ends in plain flat bar

Approx. 200mm long available in the following sizes:

7/24	25 x 8mm
7/25	25 x 10mm
7/26	25 x 12mm
7/27	30 x 8mm
7/28	30 x 10mm
7/29	30 x 12mm
7/30	40 x 8mm
7/31	40 x 10mm
7/32	40 x 12mm
7/33	50 x 8mm
7/34	50 x 10mm
7/35	50 x 12mm

Create a beautiful finish to your gate frame with our frame ends, all with forged ends.

Available in a variety of materials & sizes, other sizes available on request.



Long scroll ends in wavy bar

Actual size 970mm long to fit in gate below.

7/71	16mm sq
7/72	20mm sq



7/143
375 x 130mm



7/144
225 x 170mm

Striker Plate Scrolls

Scrolls with the pattern on the inside to use on the front of gates as illustrated.

7/65	40 x 8mm Grape & Leaf (4/1)
7/66	40 x 8mm Tree Bark (4/2)
7/67	40 x 8mm Horseshoe (4/3)
7/68	40 x 8mm Wavy Bar (4/4)
7/69	50 x 8mm Ball Hammered (4/12)
7/70	40 x 8mm Plain Edge Hammered (4/14)



Shaped Gate Frame Tops

Supplied oversize for trimming - Slight variation can occur due to nature of the steel.

7/145 25 x 10 mm plain 7/146 30 x 10 mm plain 7/147 30 x 12 mm plain 7/148 40 x 8 mm plain 7/149 40 x 10 mm plain 7/130 40 x 12 mm plain 7/150 50 x 8 mm plain 7/152 50 x 10 mm plain 7/153 50 x 12 mm plain	Rolled on the flat. Trim to fit the size of your gates.		
---	--	--	--

TOP CURVE 7/131 25 x 10 mm wavy 7/154 25 x 10 mm plain 7/155 30 x 10 mm wavy 7/156 30 x 10 mm plain	Rolled on the edge. Trim to fit the size of your gates.	Top curve 315 mm approx.	Design 7/139 uses 4 of 7/131 and 4 of 7/132 with the bars 'sandwiched' between.
Bottom curve 300 mm approx.			
BOTTOM CURVE 7/132 25 x 10 mm wavy 7/158 30 x 10 mm wavy 7/157 25 x 10 mm plain 7/159 30 x 10 mm plain			

Approx. 1900 mm long.

Approx. 1900 mm long.

Rolled on the edge
Trim to fit the size of your gates.

	FOR PEDESTRIAN GATES approx. 1000 mm long 7/135 25 mm edge hammered solid bar 7/136 30 mm edge hammered solid bar	7/168 25 x 10 mm plain bar 7/169 30 x 10 mm plain bar 7/170 30 x 12 mm plain bar
Design 7/140 		Design 7/141
FOR DRIVE GATES 7/133 Approx. 1800 mm long 25 mm edge hammered solid bar 7/134 Approx. 1800 mm long 30 mm edge hammered solid bar		

Rolled on the flat. 100 mm approx.	Approx. 2000 mm long.
	Design 7/142
7/160 25 x 10 mm plain 7/161 30 x 10 mm plain 7/137 30 x 12 mm plain 7/162 40 x 8 mm plain 7/163 40 x 10 mm plain	7/164 40 x 12 mm plain 7/165 50 x 8 mm plain 7/166 50 x 10 mm plain 7/167 50 x 12 mm plain

Variations and special rolling available upon request.

Single Twist



8/1 – 10mm ✓	8/7 – 16mm ✓	10/2 – 25mm ✓
8/3 – 12mm ✓	9/5 – 20mm ✓	10/6 – 30mm ✓

Double Twist



8/2 – 10mm ✓	8/8 – 16mm ✓	10/3 – 25mm ✓
8/4 – 12mm ✓	9/6 – 20mm ✓	10/7 – 30mm ✓

Triple Twist



8/5 – 12mm ✓	9/7 – 20mm ✓
9/1 – 16mm ✓	10/4 – 25mm ✓

Double Twist with Centre Reverse



8/6 – 12mm ✓	9/8 – 20mm ✓
9/2 – 16mm ✓	

Double Groove Bar with Single Twist



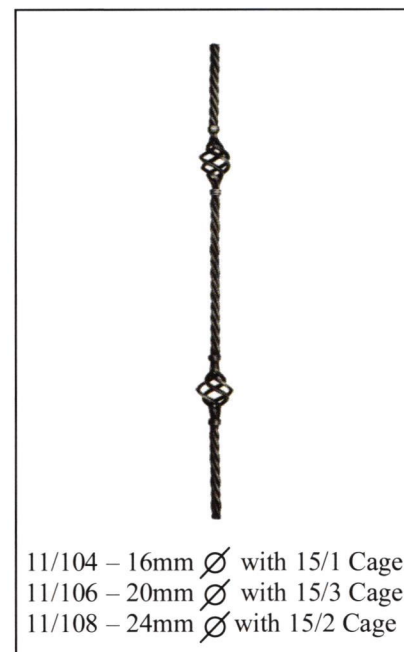
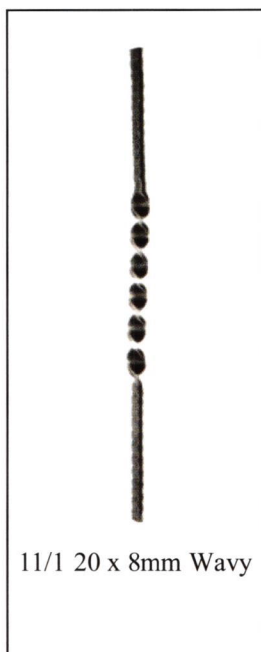
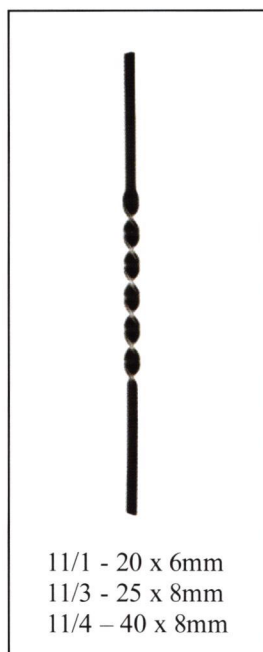
9/3 – 16mm ✓
9/9 – 20mm ✓

Double Groove Bar with Double Twist

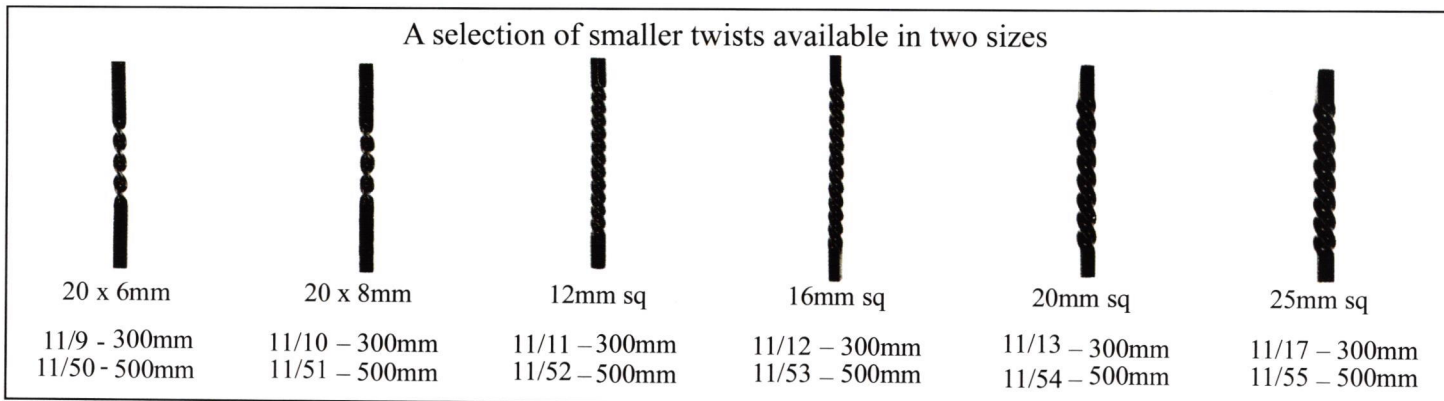


9/4 – 16mm ✓

Flat Bar Twists - Rope Bar with Cages



A selection of smaller twists available in two sizes



Variations and special requirements available upon request.



Four Strand Cages & Bars

Plain Twisted Bar with Cage



12/1 – 12mm ✓
12/7 – 16mm ✓

13/5 – 20mm ✓

14/5 – 25mm ✓
14/14 – 30mm ✓

Hammered Edge and Grooved Bar with Cage



12/2 – 12mm ✓

Hammered Edge with Cage



12/3 – 12mm ✓
12/8 – 16mm ✓

13/7 – 20mm ✓

14/6 – 25mm ✓
14/13 – 30mm ✓

Wavy Bar with Cage



12/4 – 12mm ✓
13/1 – 16mm ✓

13/7 – 20mm ✓
14/7 – 25mm ✓

Plain Bar with Cage



12/5 – 12mm ✓
13/2 – 16mm ✓

13/8 – 20mm ✓
14/8 – 25mm ✓

Twisted Bar with Double Cage



12/6 – 12mm ✓
12/10 – 16mm ✓

14/10 – 20mm ✓





Plain Bar with Double Cage



12/11 – 12mm ✓
12/9 – 16mm ✓

14/9 – 20mm ✓

Double Groove and Twisted Bar with Cage



13/3 – 16mm ✓

Double Groove with Centre Twisted Bar with Double Cage



13/4 – 16mm ✓ 14/11 – 20mm ✓

Eight Strand Cage and Bars

Plain Twisted Bar with Cage



14/1 – 20mm ✓ 14/16 – 30mm ✓

Hammered Edge with Cage



14/2 – 20mm ✓

Wavy Bar with Cage



14/3 – 20mm ✓

Plain Bar with Cage



14/4 – 20mm ✓ 14/15 – 30mm ✓





Cages



15/1
12mm
130mm x 60mm



15/3
16mm
150mm x 60mm



15/4
20mm
190mm x 80mm



15/6
25mm
220mm x 95mm



15/5
30mm
240mm x 110mm



15/23
12mm
125mm x 60mm



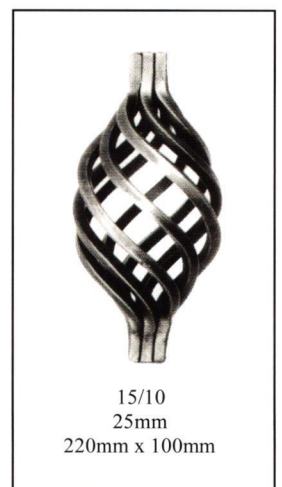
15/25
16mm
145mm x 85mm



15/2
20mm
130mm x 80mm



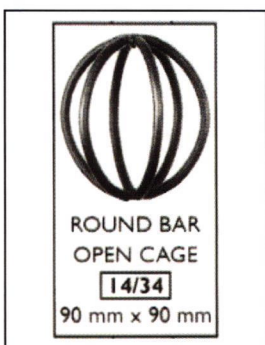
15/7
25mm
175mm x 100mm



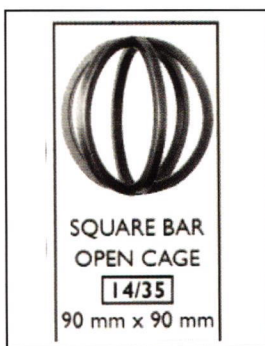
15/10
25mm
220mm x 100mm



15/9
30mm
245mm x 110mm

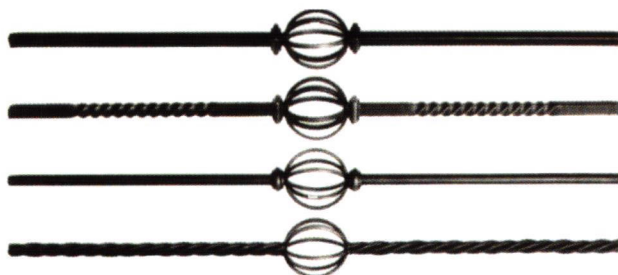


ROUND BAR
OPEN CAGE
14/34
90 mm x 90 mm



SQUARE BAR
OPEN CAGE
14/35
90 mm x 90 mm

900mm long - Other lengths available to order



14/32 - 16mm
14/33 - 20mm



14/30 - 12mm
14/31 - 16mm



14/28 - 12mm
14/29 - 16mm



14/26 - 12mm
14/27 - 16mm



14/24 - 16mm
14/25 - 20mm



14/22 - 12mm
14/23 - 16mm



14/20 - 12mm
14/21 - 16mm



14/18 - 12mm
14/19 - 16mm



Decorative newel post top with
69/16 leaf

110mm Wide x 330mm High

16/9



Beautiful hand forged feature
to complete any bespoke piece



16/1

Approx. 450mm x Wide x 900mm High

Newel Post

ALL 1100 mm LONG



25 mm

30 mm

25 mm

30 mm

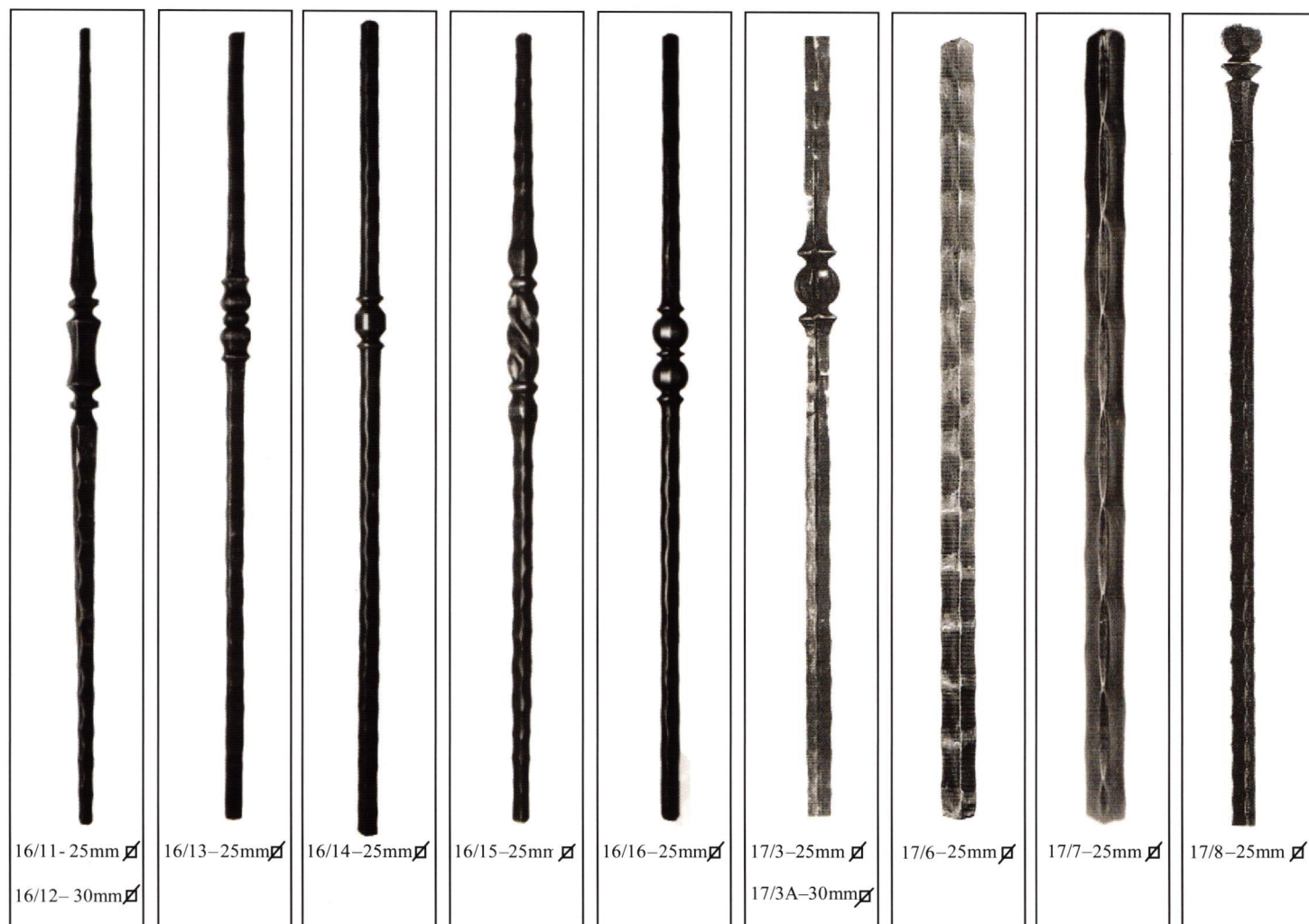


16/7

Approx. 615mm Wide x 1240mm High

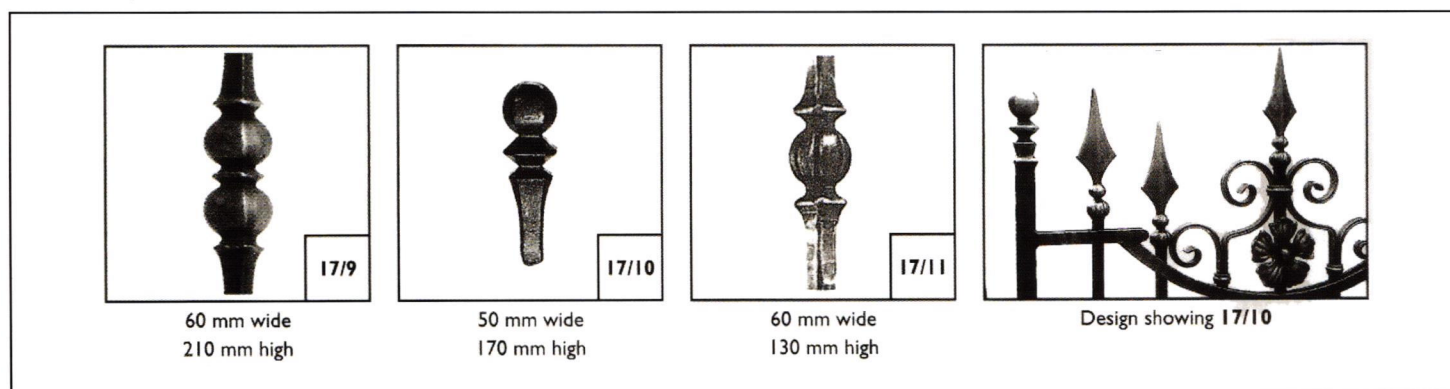
All sizes are approximate

Newel Post



Decorative & heavy end posts ideal for stairs, balconies, railings etc. All 1200mm long.

Post Tops & Newel Features



All sizes are approximate



Flame End Feature Bars

Our flame end feature bars are truly exceptional & can be used to create railing to enhance any property either commercial or private. Available in round or square bar.

Standard length is 1200mm but can be made other lengths on request.

Round Bar



12mm 18/2
16mm 18/3
20mm 18/4

12mm 18/5
16mm 18/6

12mm 18/7
16mm 18/8
20mm 18/9

Square Bar



16mm 18/23
20mm 18/24

12mm 18/25
20mm 18/26

12mm 18/11
16mm 18/12
20mm 18/13

16mm 18/14
20mm 18/15

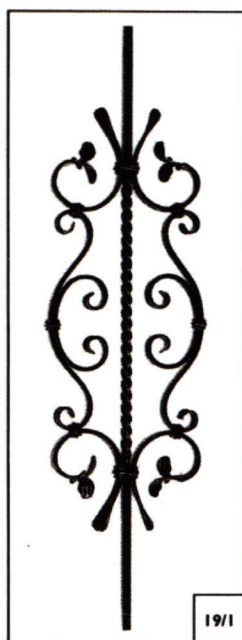
12mm 18/16
16mm 18/17
20mm 18/18

12mm 18/19
16mm 18/20

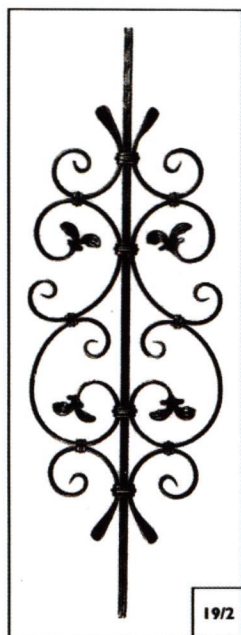


Panels

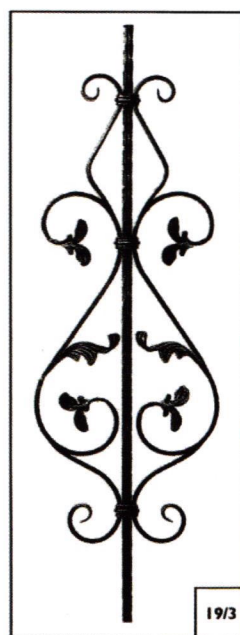
Decorative scroll panels – 900mm long with 12 x 6mm scrolls & 12mmØ centre bars



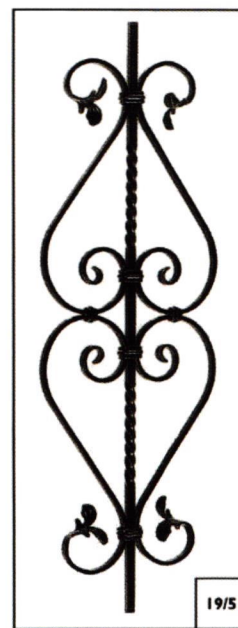
235mm
wide



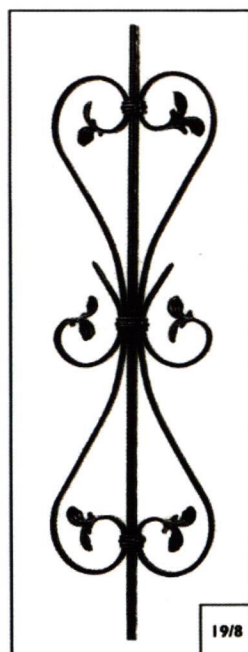
290mm
wide



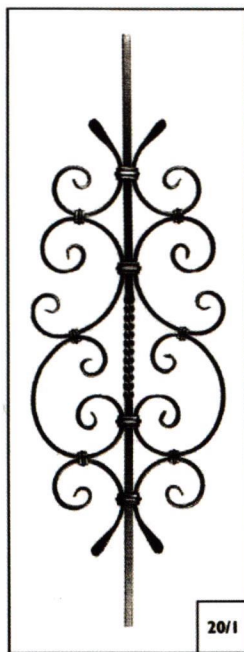
270mm
wide



280mm
wide



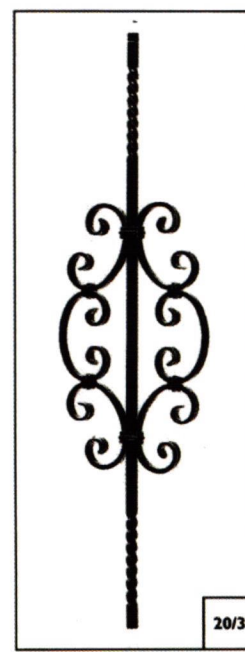
240mm
wide



285mm
wide



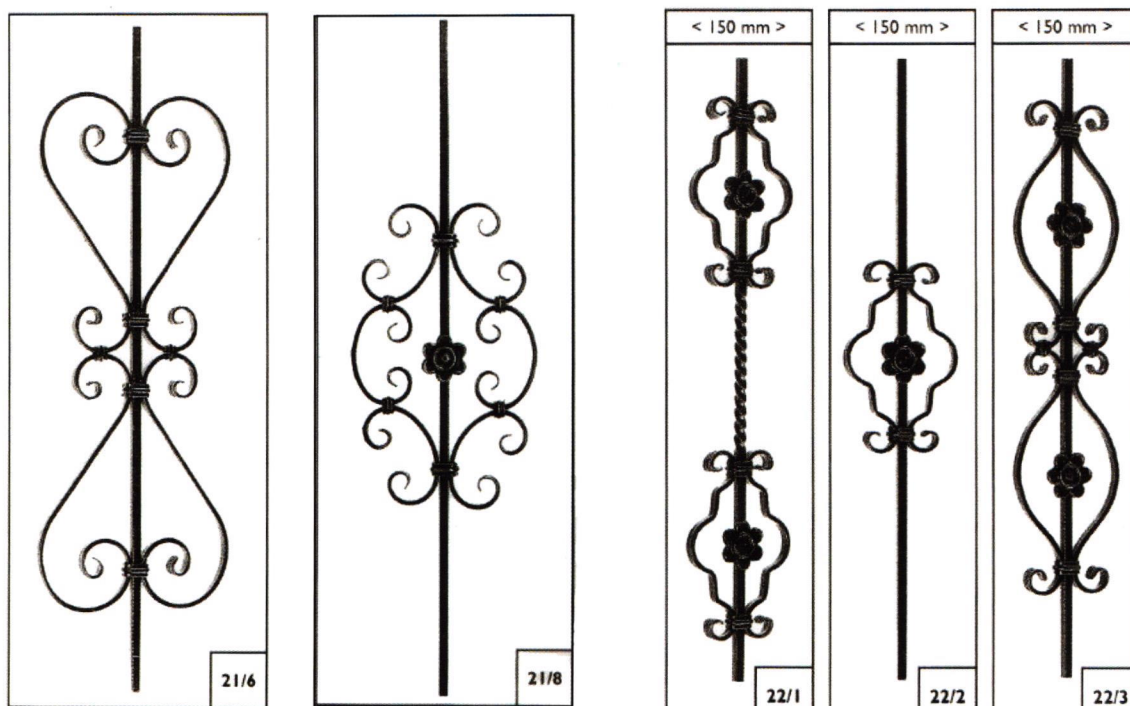
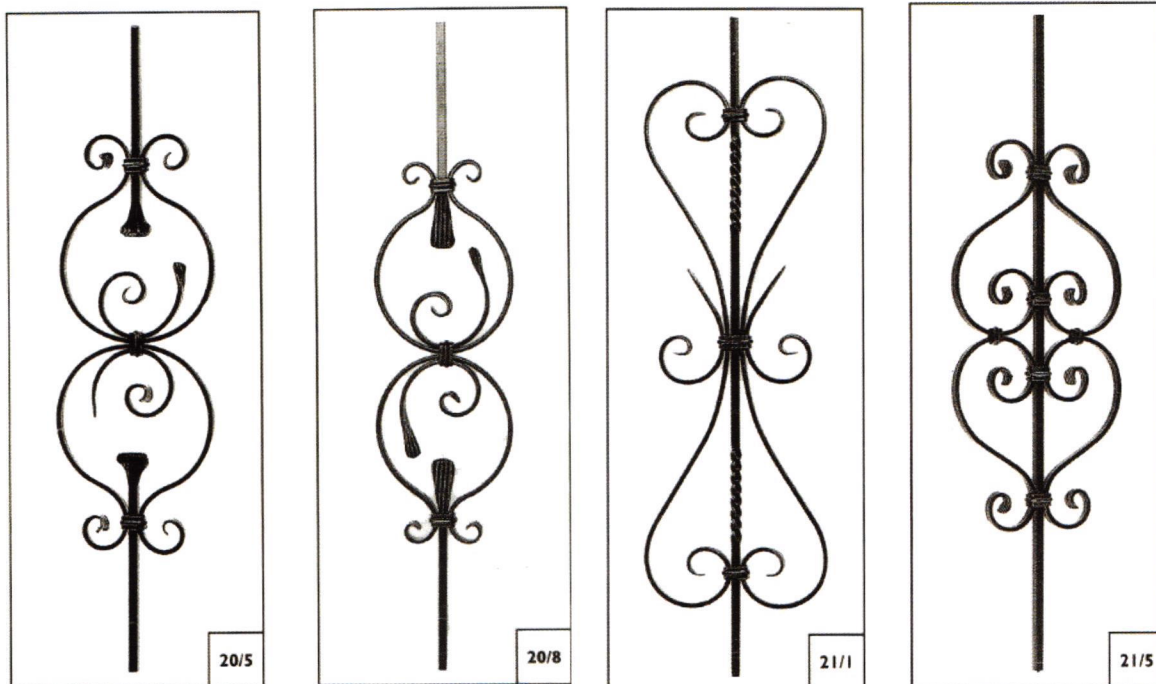
260mm
wide



240mm
wide

Panels

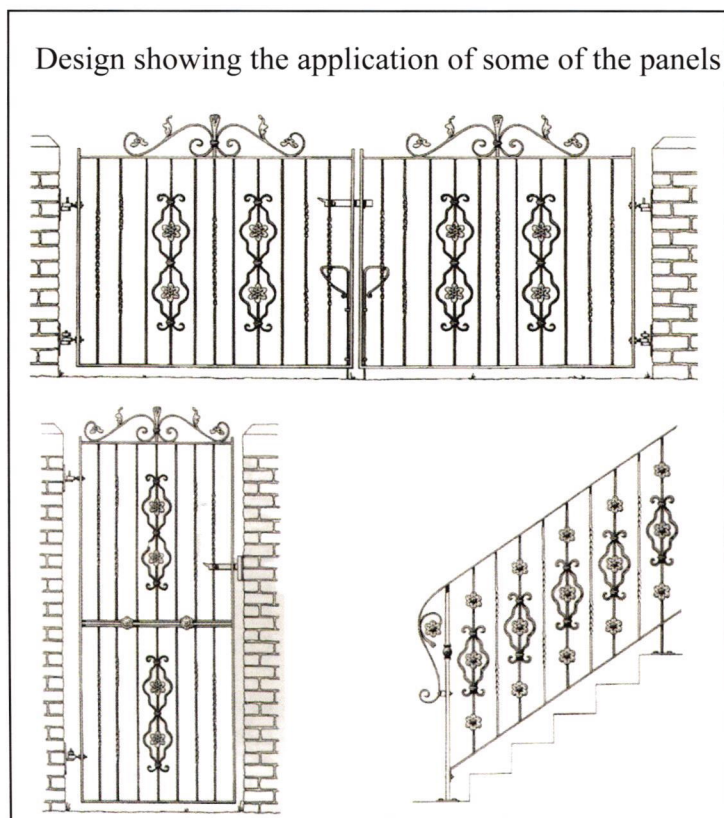
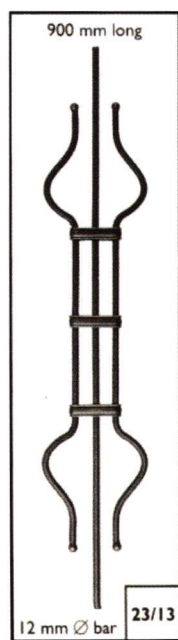
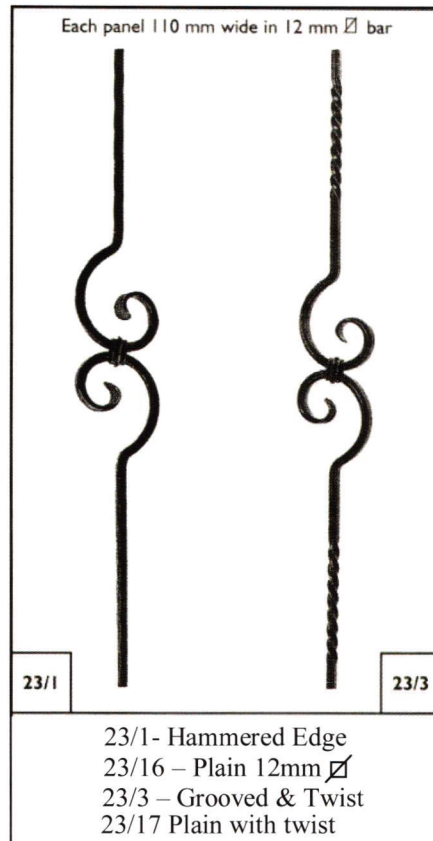
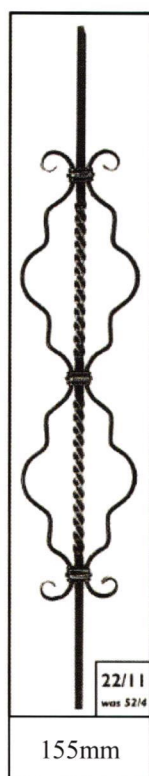
Scroll Panels 900mm long with 12 x 6mm forged scrolls & 12mm ∇ centre bar





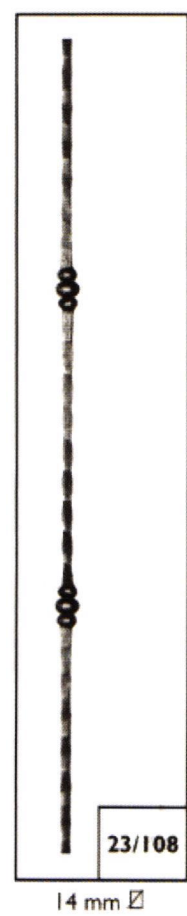
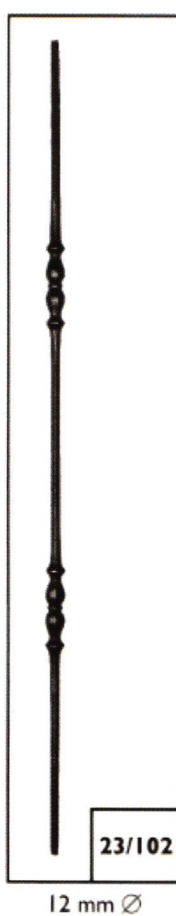
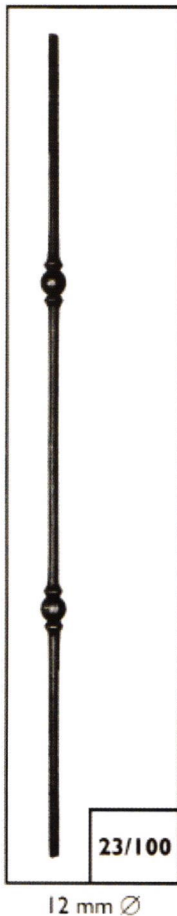
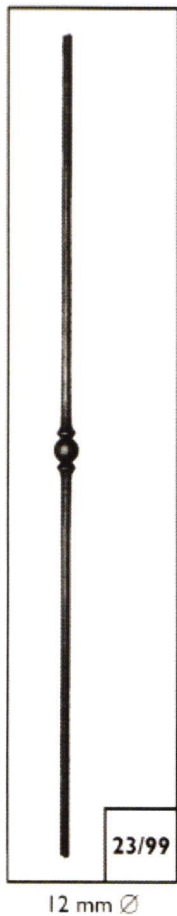
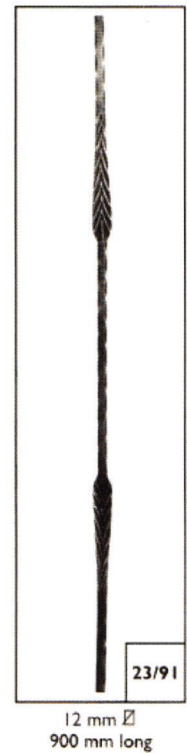
Panels

A range of 12mm ∇ centre bar panels with 12 x 6mm scrolls





Forged Feature Bars



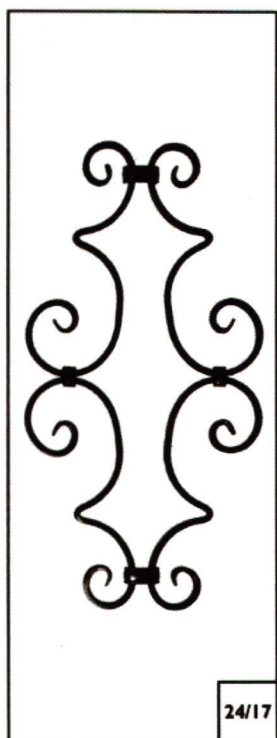
Standard length 1000mm



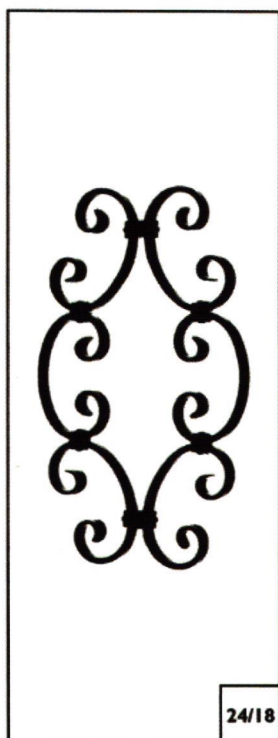


Push on Panels

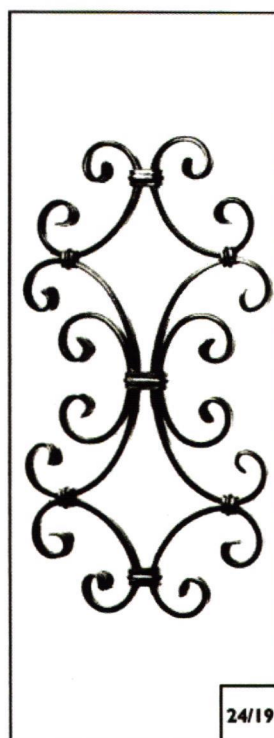
Push on panels open at the back to accept & be welded to a 12mm \varnothing bar.
Scrolls are 12 x 6mm & centre collars are trimmed level at the back to allow for welding.



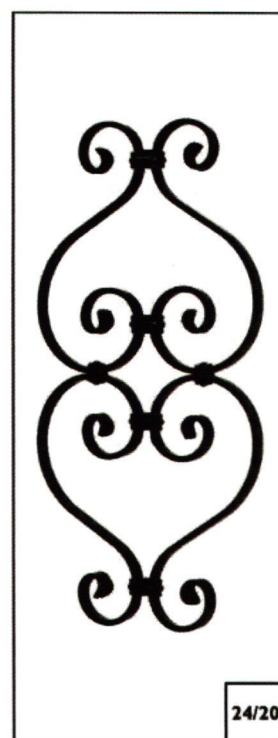
450 mm high x 235 mm wide



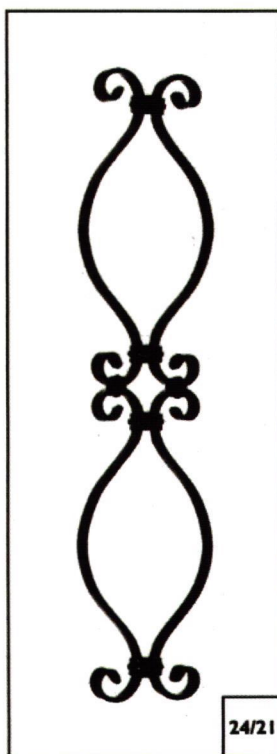
410 mm high x 240 mm wide



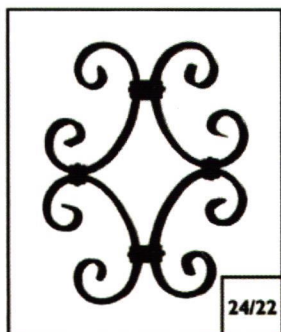
510 mm high x 260 mm wide



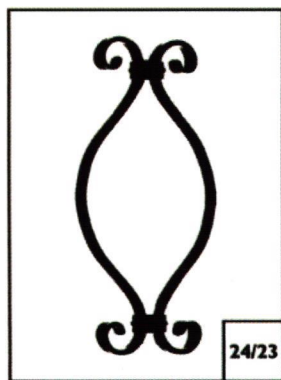
515 mm high x 260 mm wide



640 mm high x 150 mm wide



265 mm high x 210 mm wide



320 mm high x 150 mm wide

Enhance plain ironwork with our push on panels.

The advantage of this type of push on panel is that whereas our standard panels are 900mm long, these will fit onto any length of bar.

Different arrangements of the features can be created using this method.



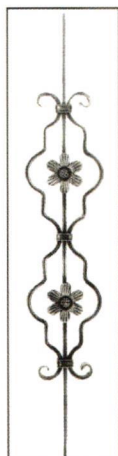
Scroll Panels

Attractive scroll panels 900mm high with 16 x 8mm grooved scrolls.

Can be made with longer centre bar if required.



25/6
240mm



25/9
155mm



25/12
230mm



25/41
185mm



25/10
170mm



25/11
170mm

bars with 8mm edge showing
Both with 16 x 8mm grooved centre

grooved centre bars
All with 16mm \varnothing double

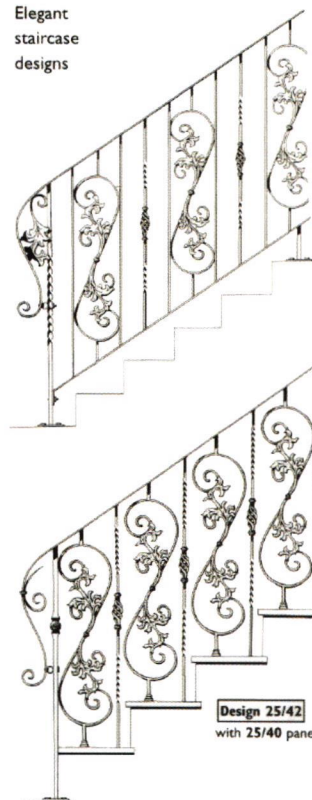
Elegant "S" Scroll Panels

Ideal for balustrades and staircases in 16 x 8mm grooved edge bar



Elegant Staircase Design

Elegant staircase designs



Top Scrolls

690 mm wide x 440 mm high
with 12 x 6 mm scrolls



28/1

670 mm wide x 350 mm high
with 12 x 6 mm scrolls



28/2

655 mm wide x 245 mm high with
16 x 8 mm grooved edge scrolls and
16 mm double grooved centre bar. (2/14)



28/4

1060 mm wide x 330 mm high with
16 x 8 mm grooved edge scrolls and
16 mm wavy centre bar. (3/2)

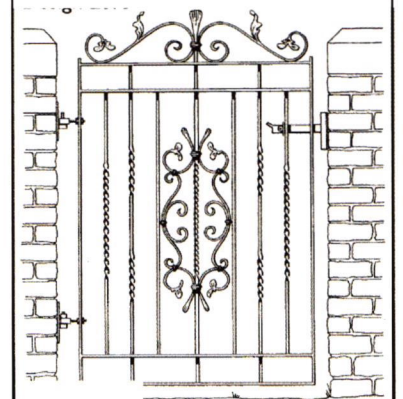
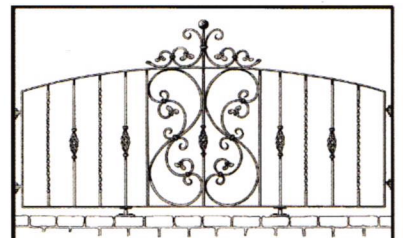


28/6

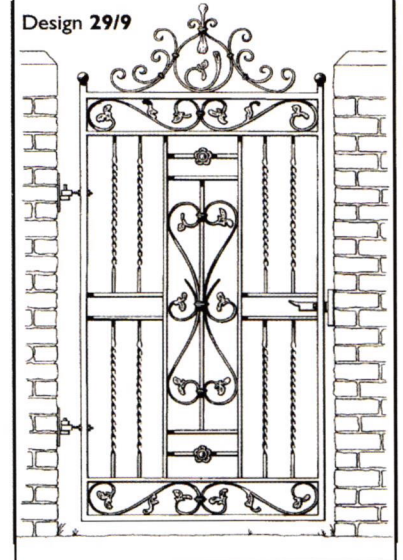
770 mm wide x 235 mm high with
16 x 8 mm grooved edge scrolls



28/7



Design 29/9



635 mm wide x 240 mm high
(grooved edge scrolls)



29/1

780 mm wide x 175 mm high



29/2

1070 mm wide x 250 mm high
(grooved edge scrolls)



29/3

710 mm wide x 230 mm high



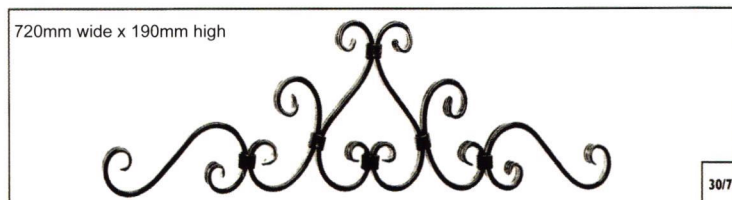
29/5

1060 mm wide x 240 mm high



29/6

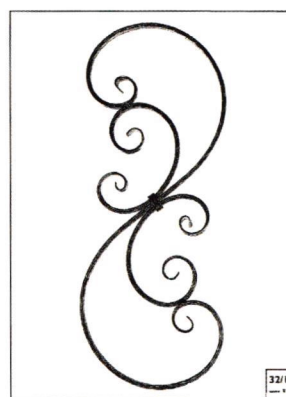
Top Scrolls in 12 x 6mm with forged ends



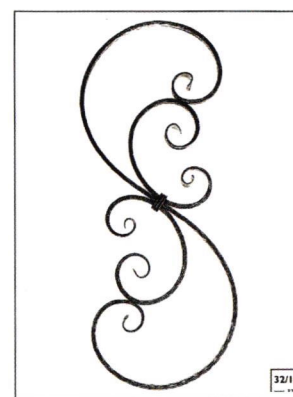
Tops Scrolls in 20 x 6mm for large gates



Scroll Panels in 20 x 8 mm Hammered Edge and Grooved Scrolls



810mm high x 310mm wide



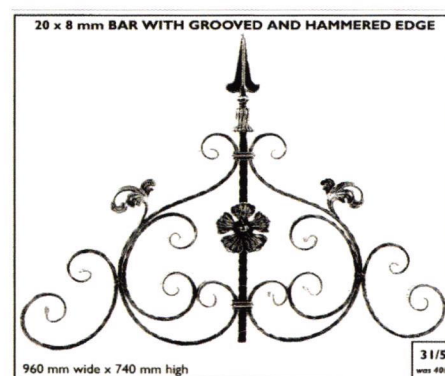
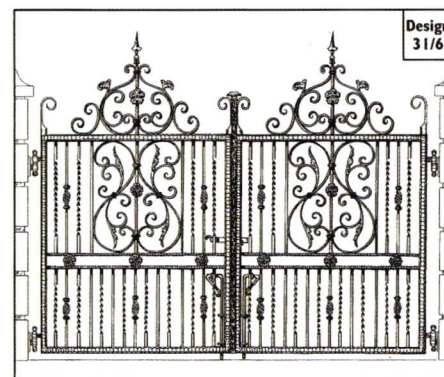
810mm high x 310mm wide



810mm high x 310mm wide



810mm high x 310mm wide

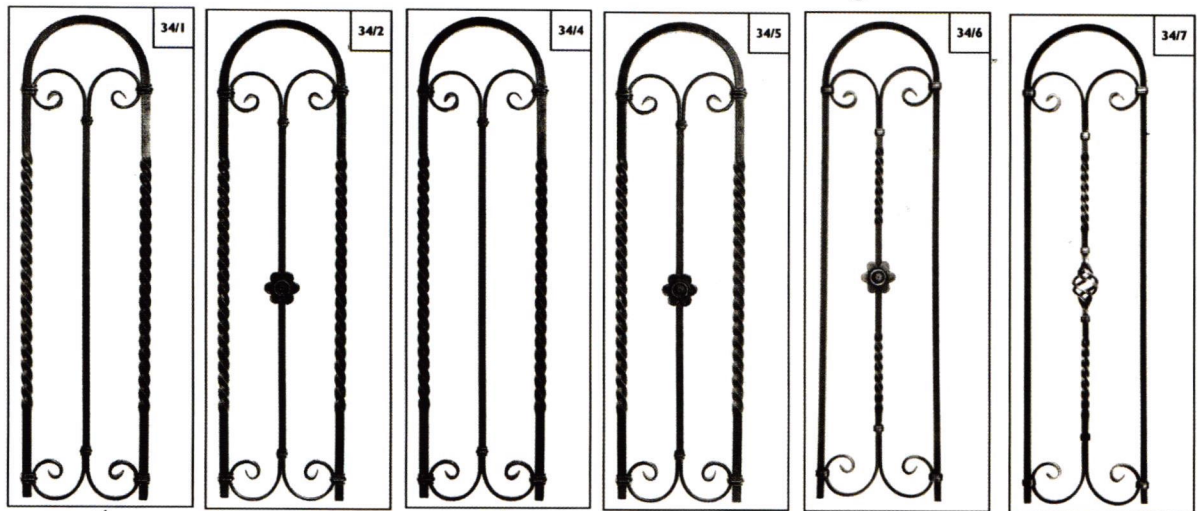


960 mm wide x 740 mm high



Hooped Panels

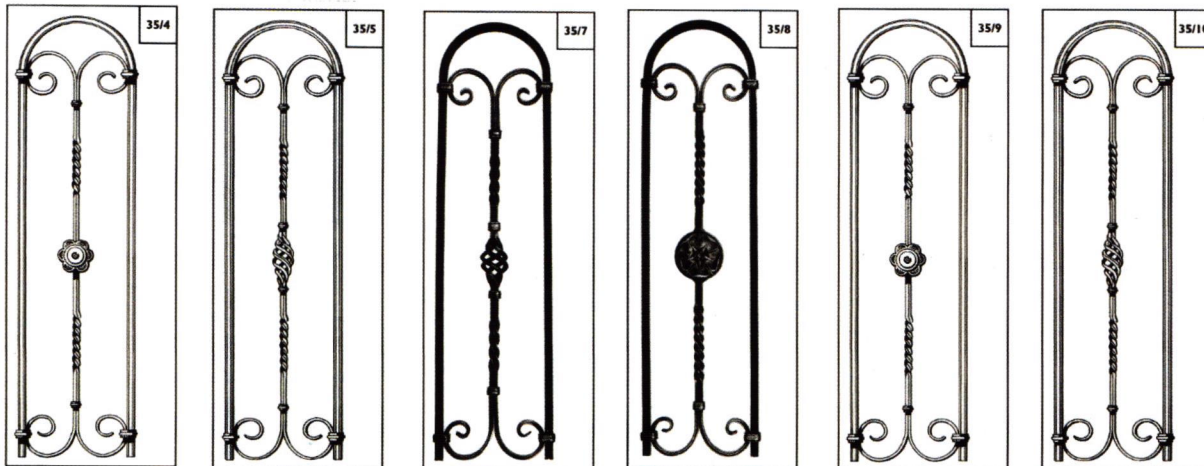
For Railings, Balconies, Gates & Staircases – 900mm high x 235mm wide



16mm ∇ twisted hoop with 12mm centre bars

12mm ∇ twisted hoop with 12mm centre bars

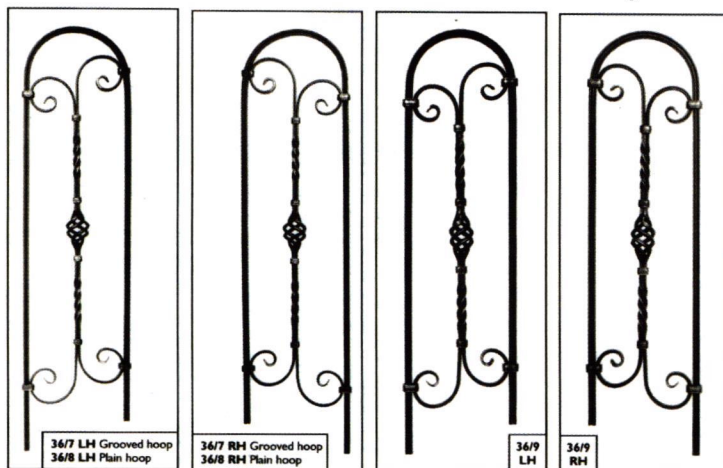
12mm ∇ plain bar hoop with 12mm twisted centre bars



16mm ∇ grooved bar hoop with 12mm twisted centre bars

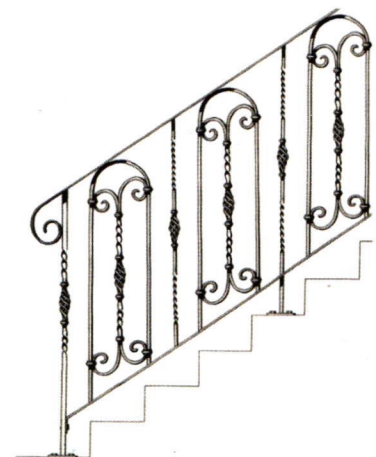
16mm ∇ grooved bar hoop with 16mm grooved & twisted centre bars & 16 x 8mm grooved scrolls

12mm ∇ grooved bar hoop with 12mm twisted centre bars



With 12mm ∇ grooved or plain bar hoop & 12mm grooved & twisted centre bar with cage

With 16mm ∇ grooved bar hoop & 16mm grooved & twisted centre bar with cage



Please Note:

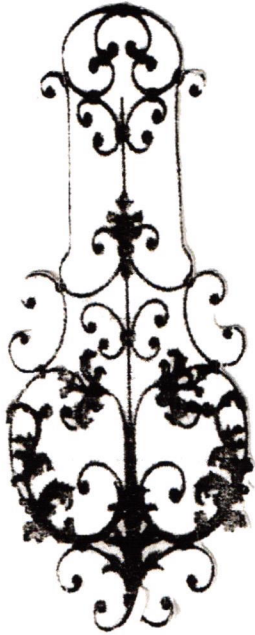
The standard angle of the scrolls in our panels is approximately 20.7°. This does not necessarily follow the angle of the stairs. (See Design)

If you require a special angle please note that we will require a template from you which clearly shows the angle required and states which is the vertical line.

Please remember to check any building regulation requirements before you place your order.



Decorative Scroll Panels



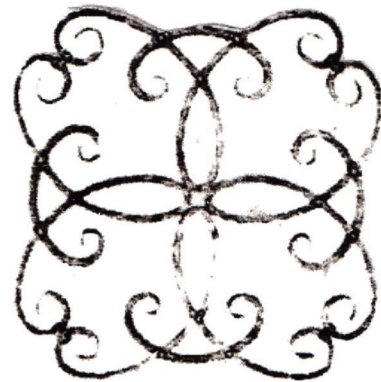
40/53

1140mm x 500mm
16mm x 8mm Scrolls



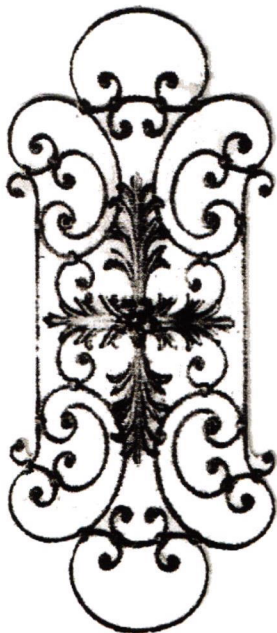
40/50

700mm x 430mm
16mm x 8mm Scrolls



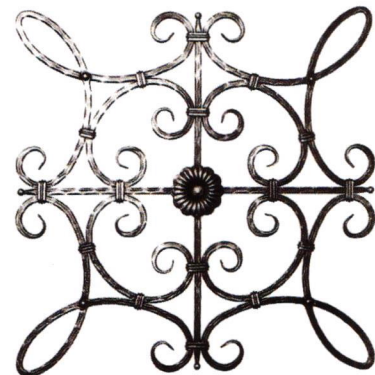
40/52

550mm x 550mm
12mm ∇ Scrolls



40/54

1100mm x 520mm
16mm x 8mm Scrolls

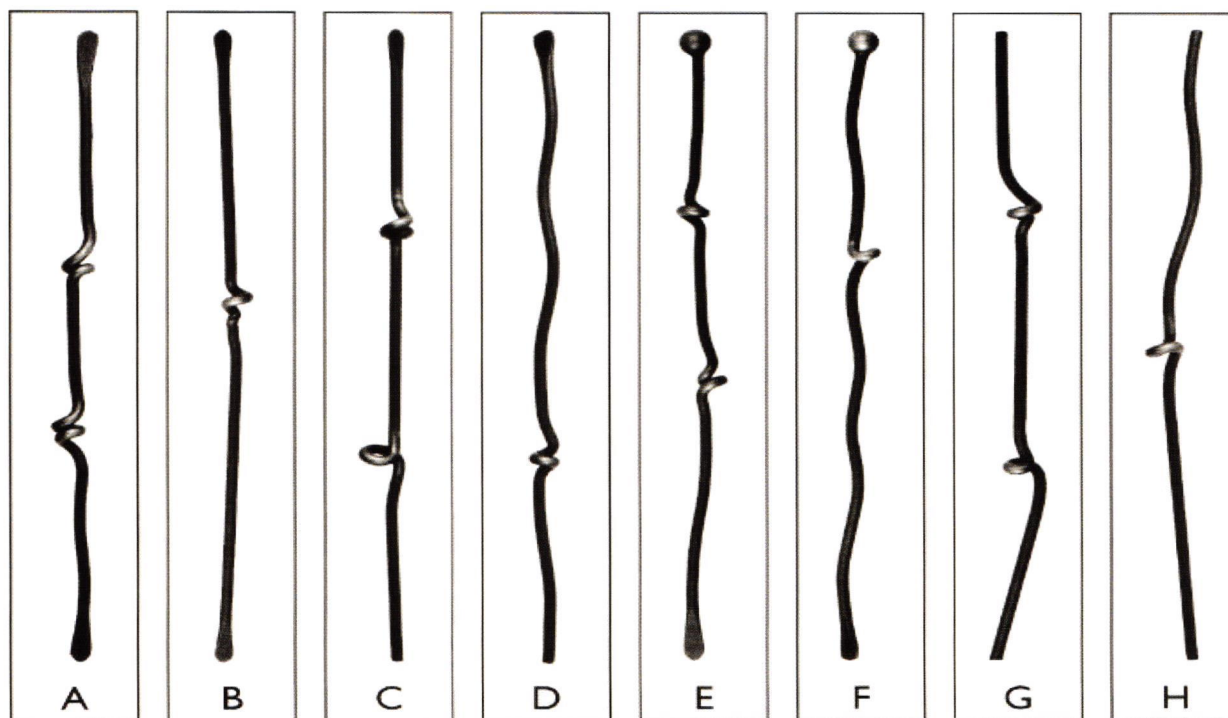


40/15

660mm x 660mm
12mm ∇ Scrolls

Forged & Knotted Bars

Forged & knotted bars made to order – All approximately 1 metre long

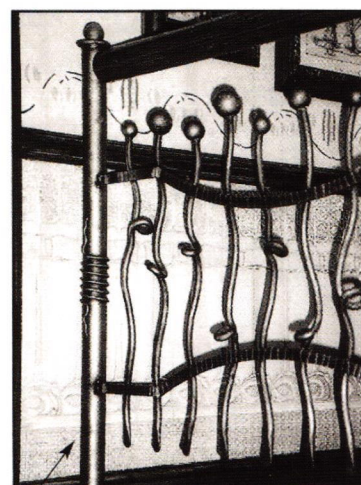
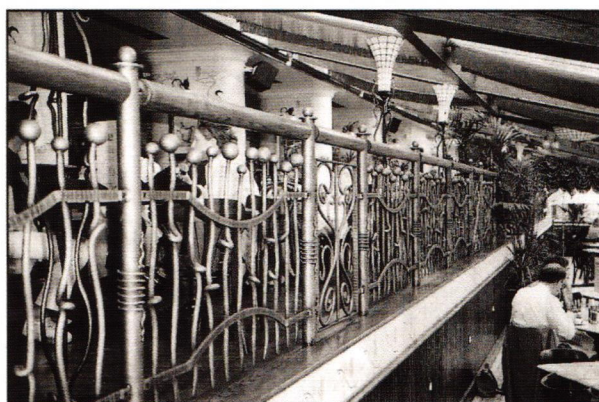


To order – Simply pick the design letter (A to H) & see the table below for the code number for different sizes of material.

Design	A 1 Metre	B 1 Metre	C 1 Metre	D 1 Metre	E 1 Metre	F 1 Metre	G 1 Metre	H 1 Metre
10mm	43/4	43/5	43/8	43/9	43/10	43/11	43/12	43/13
12mm	43/14	43/15	43/16	43/17	43/18	43/19	43/20	43/21
16mm	43/22	43/23	43/24	43/25	43/26	43/27	43/28	43/29
20mm	43/30	43/31	43/32	43/33	43/34	43/35	43/36	43/37
25mm	43/38	43/39	43/40	43/41	43/42	43/43	43/44	43/45

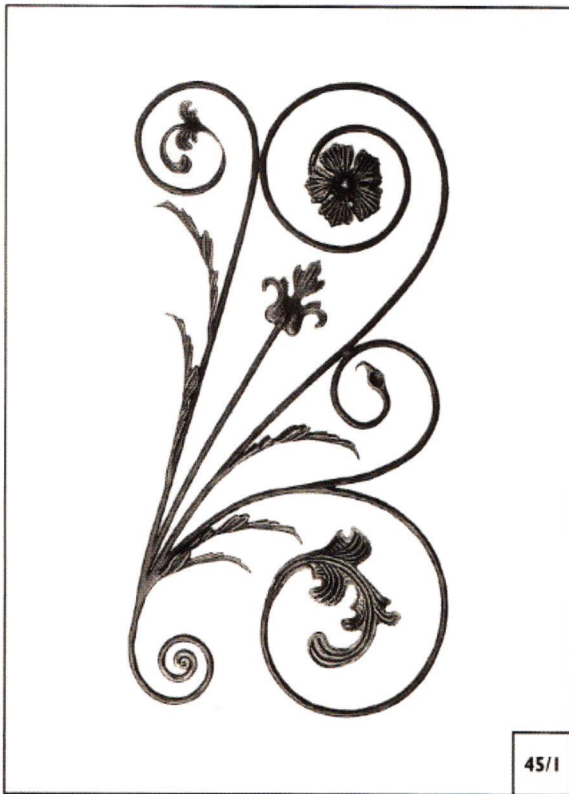
Please note that as these bars are hand forged the design s and sizes may vary slightly as they are not intended to be uniform.

Sample design showing the application of knotted bars.



60 mm Ø tubular post with cap and ball end
(made to order)

Decorative Panels

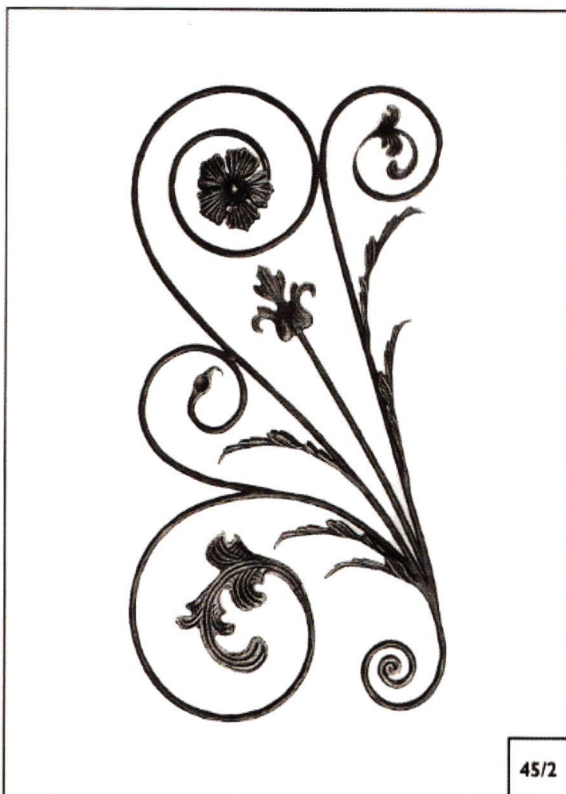
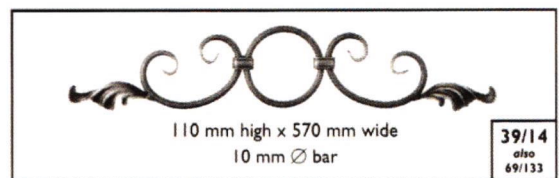


940 mm high x 500 mm wide

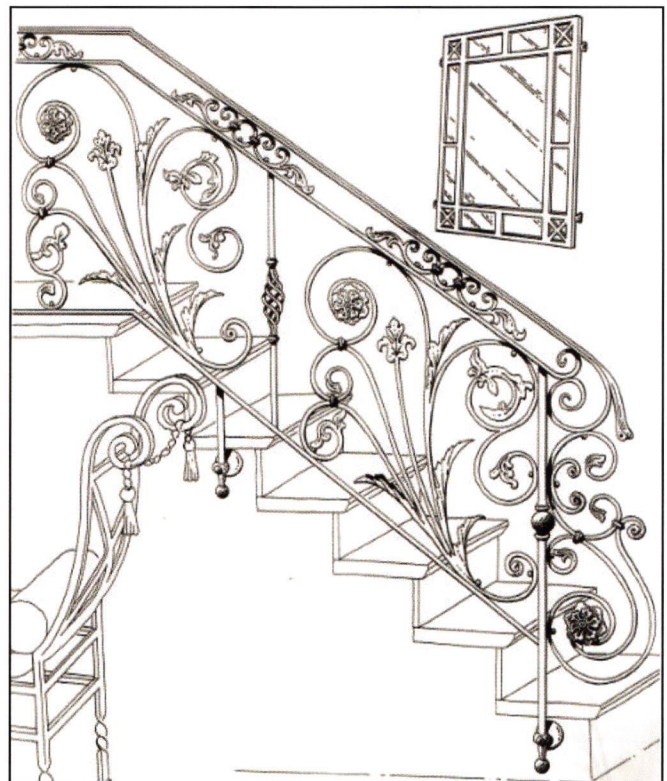
Splendid panels showing beautiful craftsmanship as shown in the staircase design below.

Can be forged from 12mm or 16mm round bar.











Other sizes available upon request.



940 mm high x 500 mm wide



Bow Balcony Rails

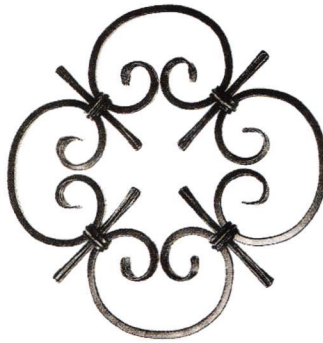
 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/1 – 12mm ✓ 49/15 – 16mm ✓ - 20mm ✓ - 25mm ✓ 48/14 – 30mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/2 – 12mm ✓ 49/17 – 16mm ✓ - 20mm ✓ - 25mm ✓ 48/12 – 30mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/3 – 12mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/18 – 12mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/8 – 12mm ✓</p>
 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/4 – 12mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/5 – 12mm ✓ 49/8 – 16mm ✓ - 20mm ✓ 48/16 – 30mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/6 – 12mm ✓ 49/9 – 16mm ✓ - 20mm ✓ 48/17 – 30mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/7 – 12mm ✓</p>	 <p>< 138mm > approx</p> <p>Approx 80mm variable</p> <p>48/9 – 12mm ✓ 49/11 – 16mm ✓</p>

Standard stock range at 1 metre long, other lengths available on request
Hammered edge and wavy also available

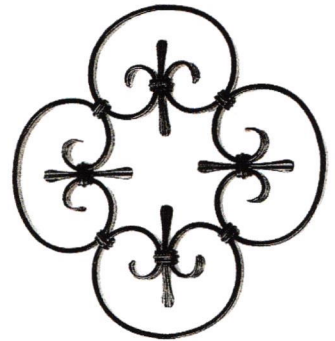
Popular & Attractive 'C' Scroll Sets



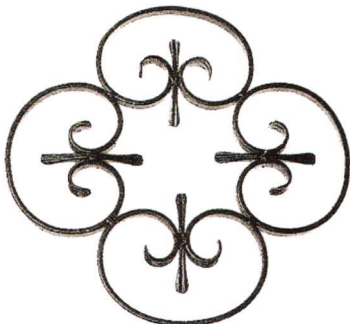
55/1
20mm x 6mm
370mm x 370mm



55/2
10mm ∇
430mm x 430mm



55/3
12mm x 6mm
380mm x 380mm



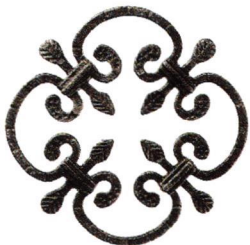
55/4
12mm x 6mm (No Collars)
380mm x 380mm



55/5
255mm x 255mm



55/6
12mm x 6mm
Groove Edge
255mm x 255mm



55/10
245mm x 245mm



55/7
12mm x 7mm
270mm x 270mm



55/8
10mm x 5mm
250mm x 250mm
(Non Forged Scroll Ends)

**Leave scrolls beautifully
forged from 12 x 6 mm flat**



57/1 57/2
100mm x 150mm



57/3 57/4
135mm x 190mm



57/5 57/6
125mm x 390mm



57/9 57/10
130mm x 390mm

Scrolls forged from 12x6mm flat



58/1
60mm x 100mm



58/2
80mm x 135mm



58/3
130mm x 190mm



58/13
90mm x 320mm



58/19
70mm x 585mm



58/10
65mm x 240mm



58/11
50mm x 230mm



58/12
70mm x 320mm



58/14
125mm x 250mm

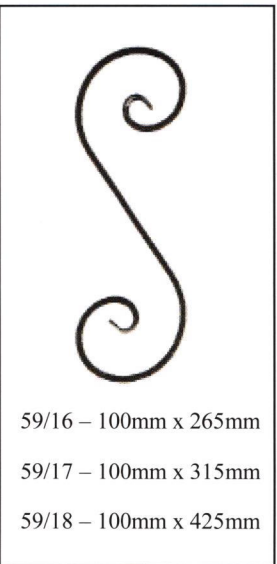
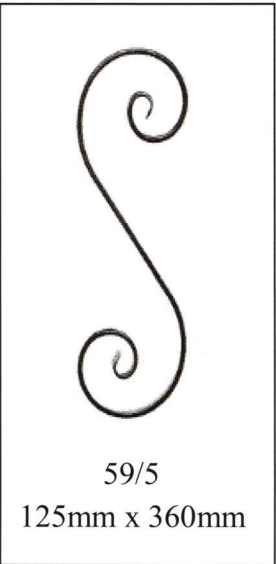
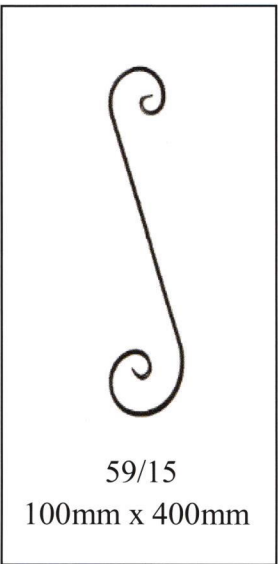
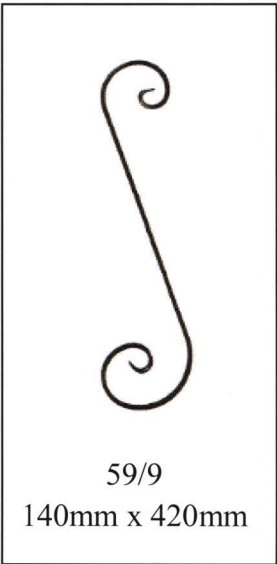
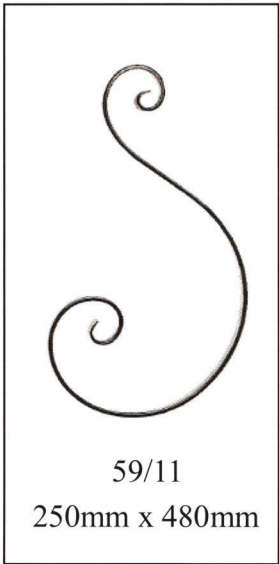
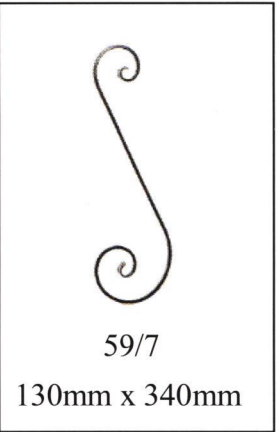
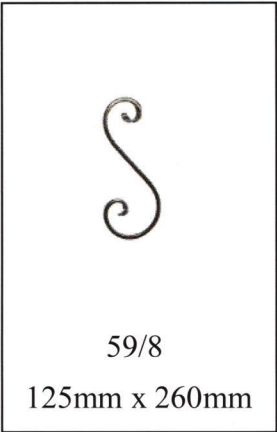
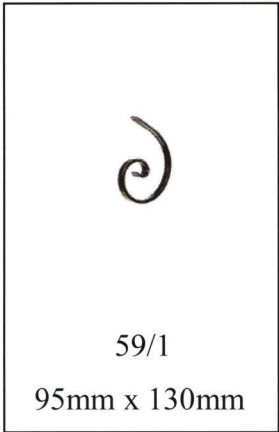


58/21
125mm x 125mm

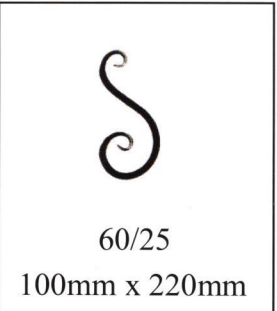
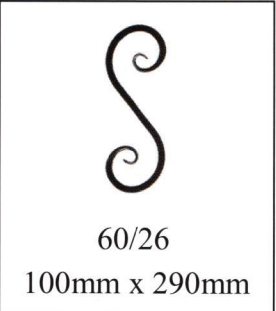
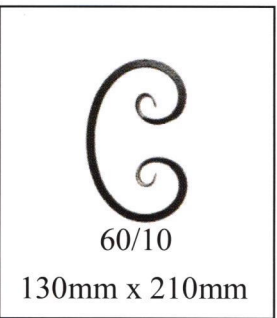
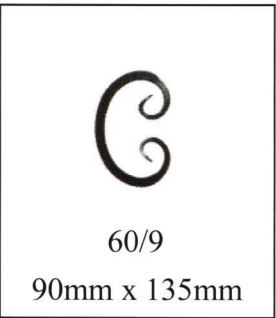
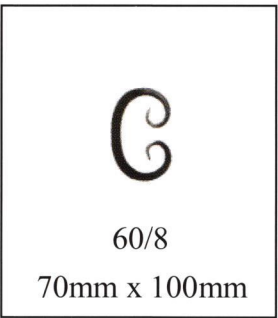
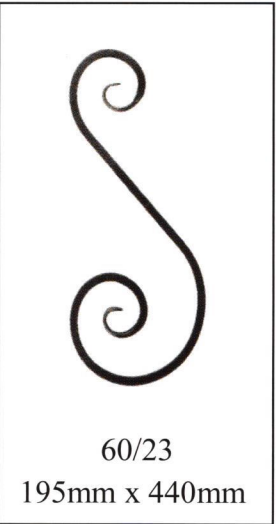
Not shown to scale all measurements width x height



"S" Scrolls forged from 12x6mm flat





















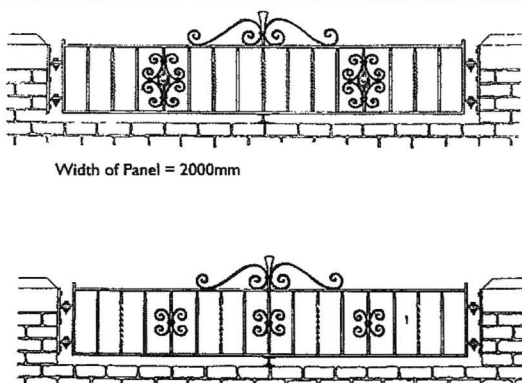
**Scrolls forged from
12mm \varnothing Bar**



All measurements width x height















Scrolls forged from 16x5mm flat








 62/1 60mm x 100mm	 62/2 80mm x 135mm	 62/3 130mm x 190mm	 62/4 125mm x 215mm	 62/5 130mm x 250mm
 62/11 50mm x 230mm	 62/12 70mm x 320mm	 62/14 125mm x 250mm	 63/2 90mm x 150mm	 63/3 75mm x 190mm
 62/13 90mm x 320mm	 63/6 140mm x 420mm	 63/7 130mm x 340mm	 63/8 125mm x 260mm	 63/9 140mm x 440mm
 63/12 100mm x 210mm	 63/13 100mm x 245mm	 63/14 100mm x 315mm	 Width of Panel = 2000mm	

All measurements width x height








Scrolls made from 20x6mm flat

					
64/1 80mm x 190mm	64/2 130mm x 340mm	64/4 140mm x 370mm	64/5 125mm x 360mm	64/10 100mm x 440mm	64/11 100mm x 210mm
					
65/1 65mm x 100mm	65/2 80mm x 135mm	65/3 95mm x 120mm	65/5 175mm x 270mm	65/7 125mm x 235mm	64/3 135mm x 440mm

Scrolls in 16x8mm Grooved Edge




















		 66/11 120mm x 210mm
66/9 115mm x 235mm	66/16 115mm x 330mm	 66/14 85mm x 135mm
		
66/29 80mm x 330mm	66/33 190mm x 420mm	66/32 310mm x 810mm

Scrolls in 20x8mm Grooved & Hammered Edge

		 67/8 80mm x 140mm
67/3 115mm x 230mm	67/12 100mm x 210mm	 67/5 125mm x 220mm
		
67/9 270mm x 510mm	67/11 115mm x 330mm	67/15 310mm x 810mm

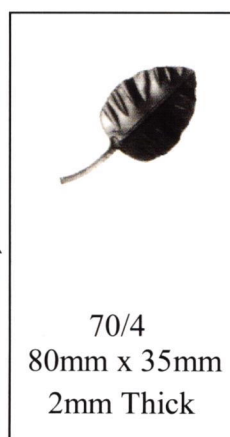
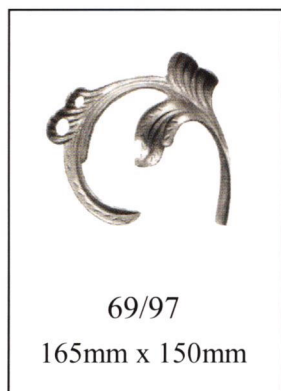
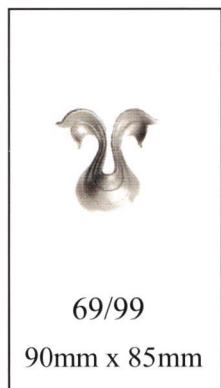
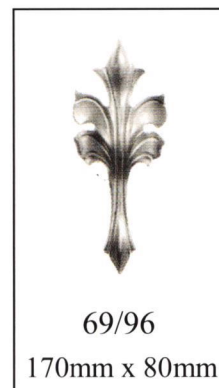
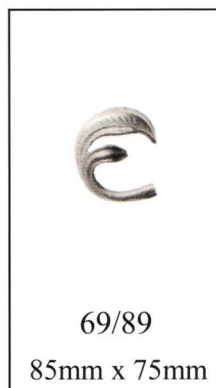
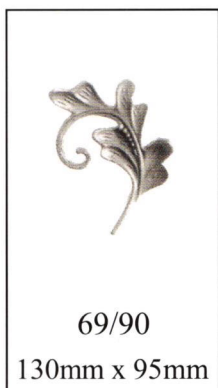
All measurements width x height

A Range of Fully Weldable Leaves

 <p>69/18 250mm x 160mm</p>	 <p>69/19 250mm x 160mm</p>	 <p>69/22 170mm x 150mm</p>	 <p>69/23 170mm x 150mm</p>	 <p>69/16 240mm x 110mm</p>
 <p>69/21 190mm x 105mm</p>	 <p>69/20 190mm x 105mm</p>	 <p>69/26 240mm x 130mm</p>	 <p>69/20 240mm x 130mm</p>	 <p>69/130 300mm Long 50mm Wide 2.5mm Thick</p>
 <p>69/24 185mm x 80mm</p>	 <p>69/24 185mm x 80mm</p>	 <p>69/127 100mm x 100mm 5mm Thick</p>	 <p>69/128 100mm x 100mm 5mm Thick</p>	
 <p>69/125 200mm x 210mm 5mm Thick</p>	 <p>69/126 200mm x 210mm 5mm Thick</p>	  <p>69/85 190mm x 60mm</p>		 <p>69/86 250mm x 125mm (Flat)</p>











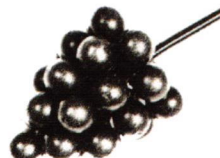



All sizes are approximate

Fully Weldable Leaves, Roses & Crestings



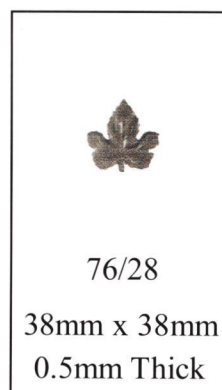
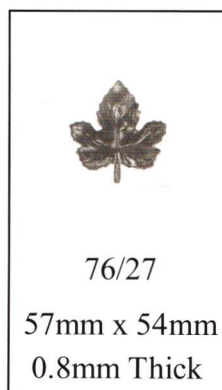
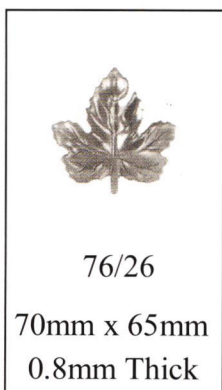
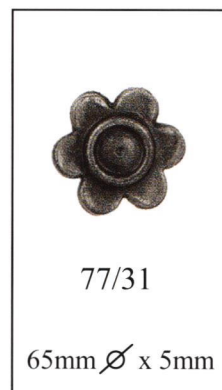
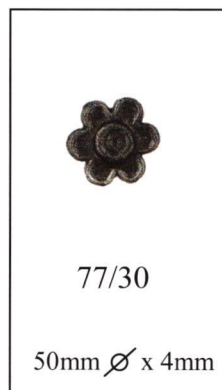
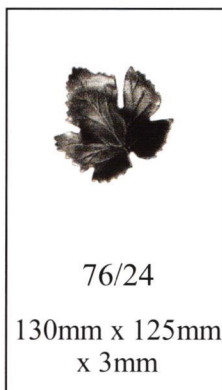
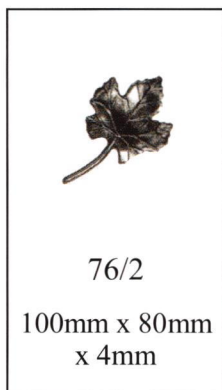
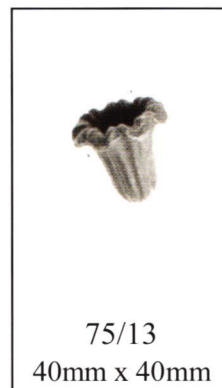
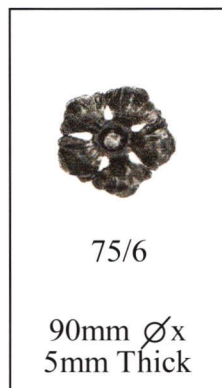
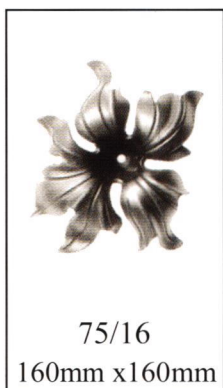
All sizes are approximate

Rose, Grapes, Leaves & Accessories - All weldable

 <p>71/1 Approx. 40mm Ø</p>	 <p>71/2 Approx. 50mm Ø</p>	 <p>71/3 Approx. 65mm Ø</p>	 <p>71/4 Approx. 60mm Long 24mm Wide 0.8mm Thick</p>	 <p>71/5 Approx. 75mm Long 30mm Wide 0.8mm Thick</p>	 <p>71/6 Approx. 80mm Long 45mm Wide 0.8mm Thick</p>
 <p>73/11 – Approx. 70mm Long, 45mm Wide Forged from 6mm Ø</p> <p>73/12 – Approx. 70mm Long, 50mm Wide Forged from 12mm Ø</p>			 <p>Approx. 200 mm Long 73/13 – 6mm Ø 73/14 – 8mm Ø 73/15 – 10mm Ø</p>		 <p>Corkscrew Twist Vine Accessories 73/2 Approx. 290mm Long Forged from 6mm Ø Bar</p>
 <p>73/7 - Approx. 70mm Long, 45mm Wide Forged from 6mm Ø Bar</p> <p>73/10 - Approx. 70mm Long, 45mm Wide Forged from 12mm Ø Bar</p>			 <p>Handmade Grapes 73/1 Approx. 80mm Wide x 100mm Long</p>		
 <p>Forged “Vine” Bar Sold in 2m Lengths Available in 6mm, 8mm, 10mm, 12mm, 16mm, 20mm, 25mm & 30mm Ø</p>			 <p>74/6 Rose Panel 430mm Diameter</p>		 <p>74/7 Rose Panel 430mm Diameter</p>



Leaves, Forged Flowers & Rosettes



All weldable - approximate sizes - height x width x thickness





Rosettes & Candle Holders



77/28

150mm Ø x 15mm



77/18

100mm Ø x 6mm



77/17

70mm Ø x 6mm



77/21

80mm Ø x 2mm (Petal)



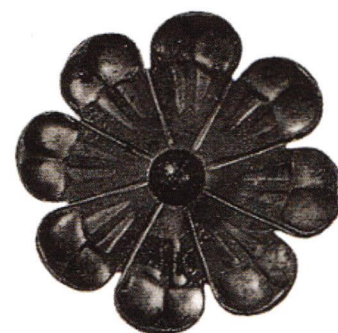
77/31

60mm Ø x 2mm



77/32

80mm Ø x 6mm



77/33

100mm Ø x 3mm

Candle Holder



78/4

145mm high x
55mm wide

Candle Holder



78/5

35mm high x
33mm wide

Daffodil Trumpet
Candle Holder



78/13

32mm high x
38mm wide

Candle Holder



38mm

78/1

145mm high x
55mm wide

Candle Holder



30mm

78/2

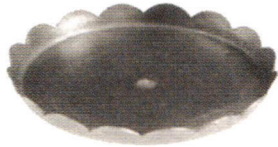
28mm high x
45mm wide



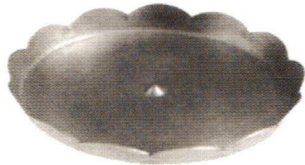
Candle Drip Trays



79/3
60mm Ø 0.6mm Thick



79/1
70mm Ø 0.6mm Thick



79/2
85mm Ø 0.6mm Thick



79/6
60mm Ø 0.6mm Thick



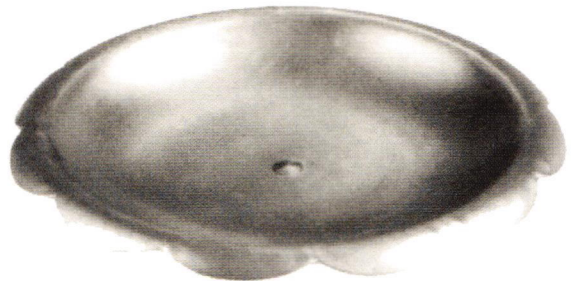
79/6
60mm Ø 0.6mm Thick



79/7
115mm Ø 1mm Thick



79/4
125mm Ø 0.7mm Thick



79/5
155mm Ø 0.8mm Thick

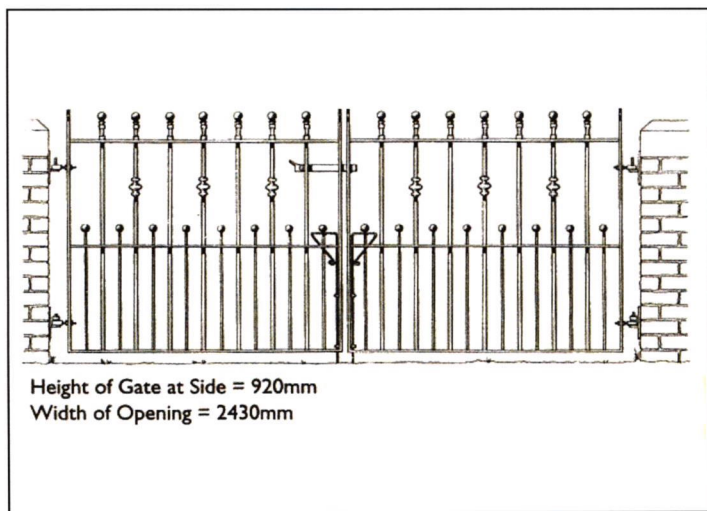
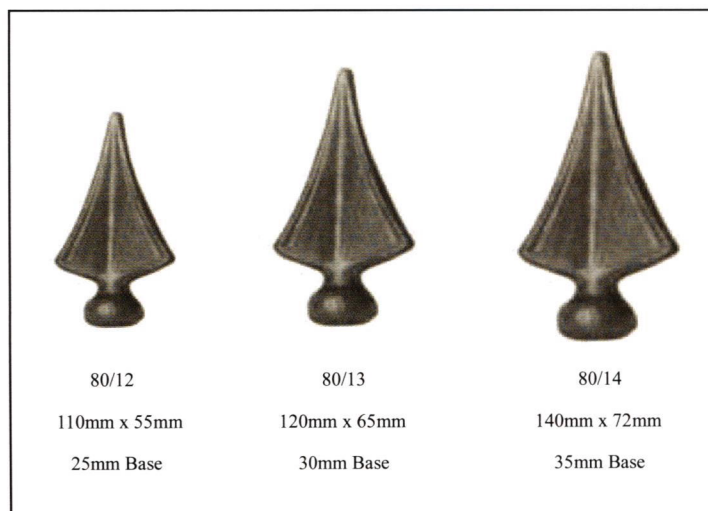
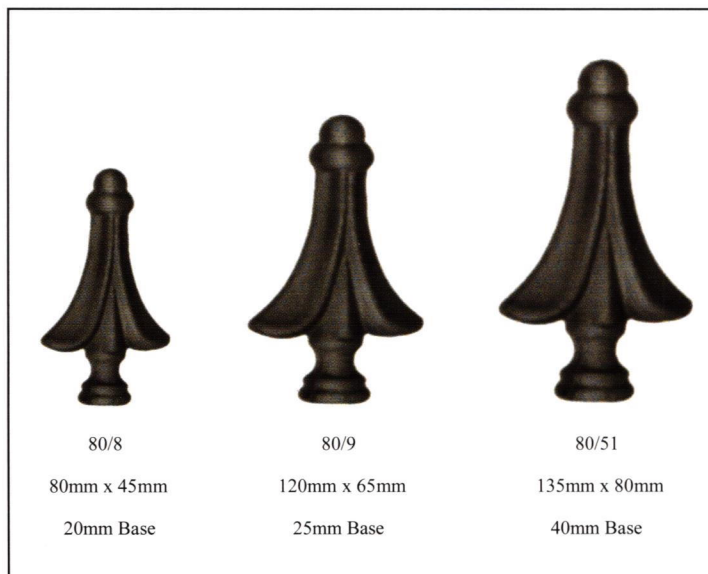
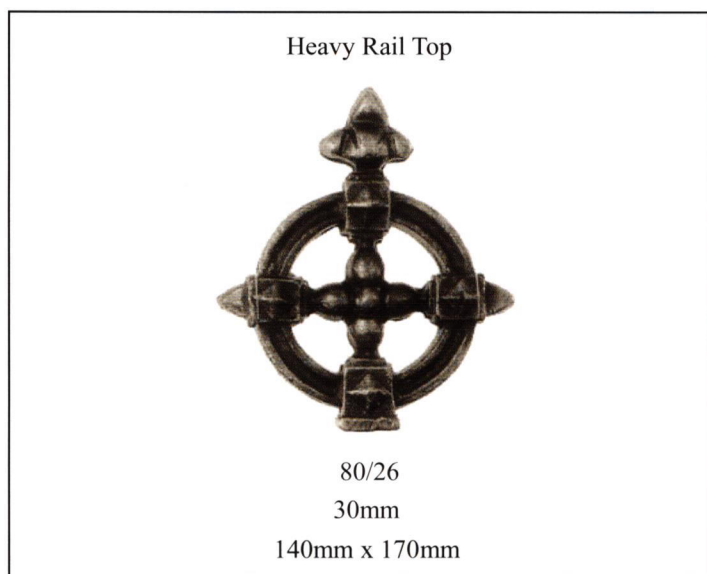
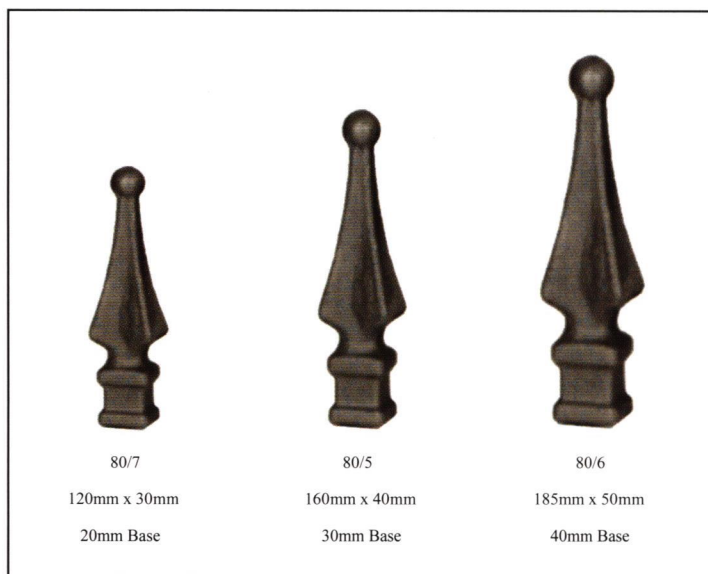


Plain Drip Trays

Part No.	Diameter	Thickness
79/8	100mm	2mm
79/9	135mm	2mm
79/10	54mm	0.9mm
79/11	70mm	1.2mm
79/12	114mm	1.2mm
79/13	152mm	1.2mm

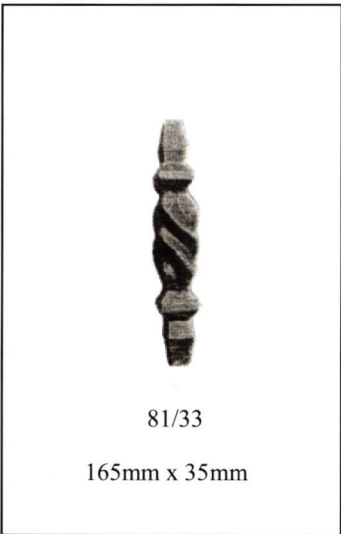
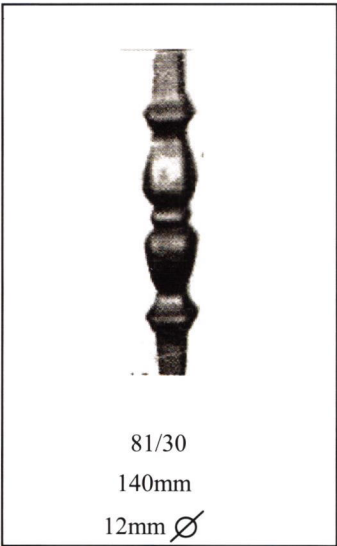
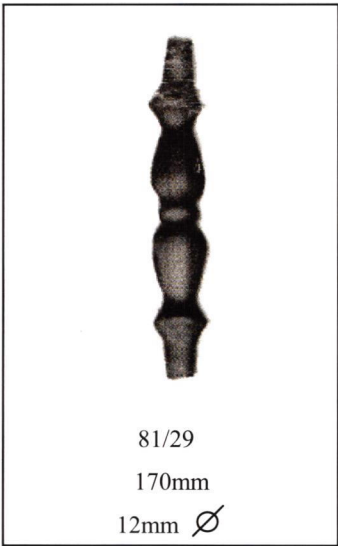
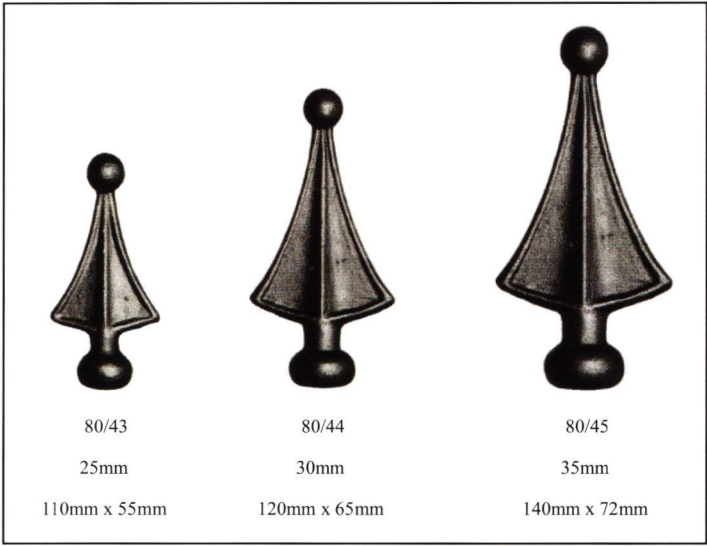
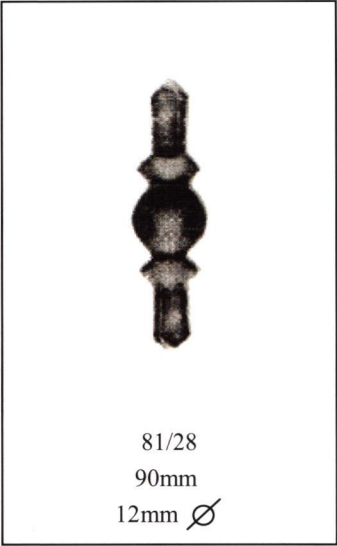
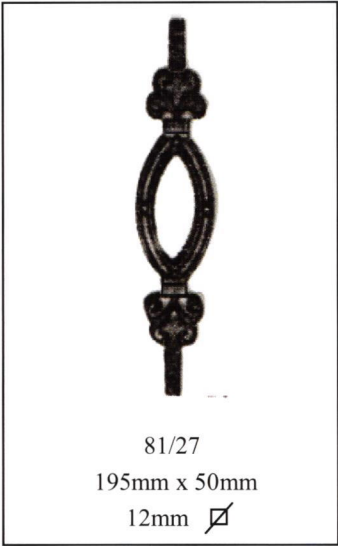
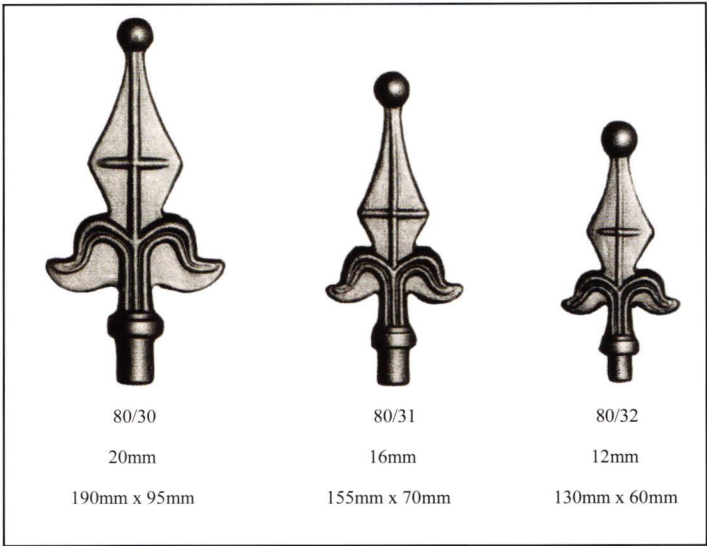
All weldable

Weldable Steel Railheads



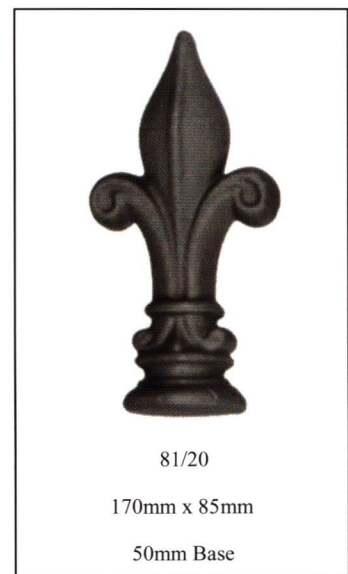
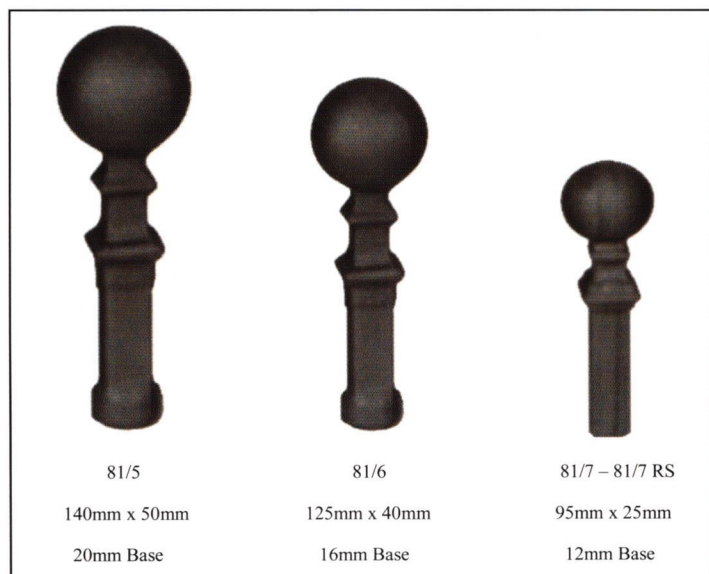
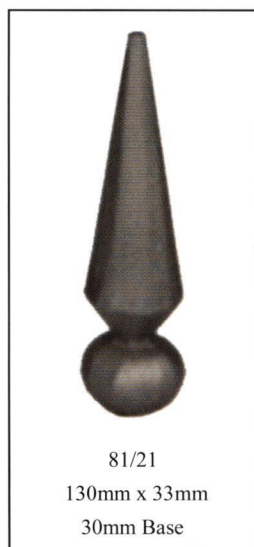
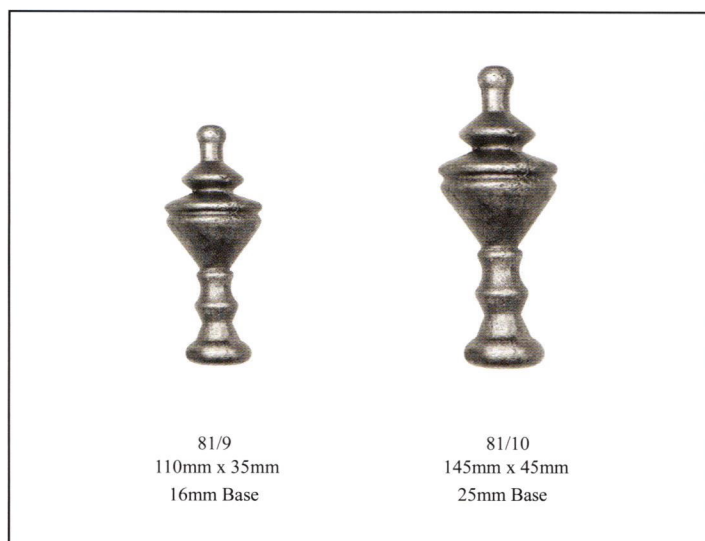
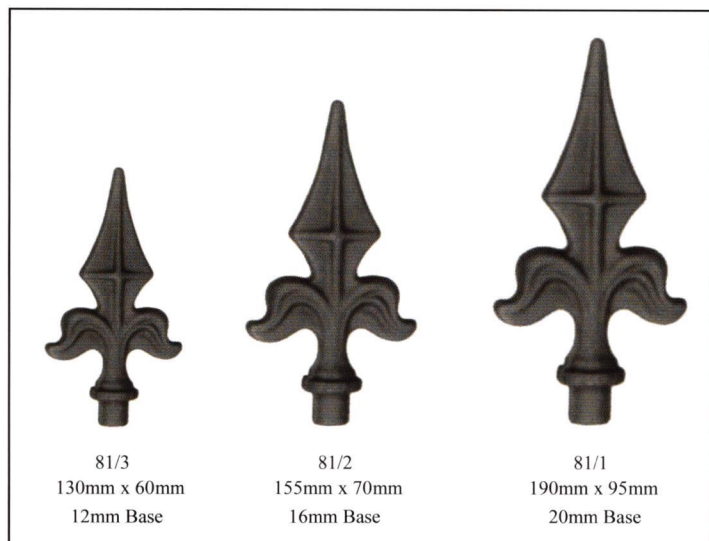
All sizes are approximate - measurements height x width

Weldable Steel Safety Railhead & Features



All sizes are approximate - measurements height x width

Weldable Steel Railheads



All sizes are approximate - measurements height x width

Weldable Steel Railheads



82/1
125mm x 45mm
25mm Base



82/2
140mm x 57mm
32mm Base



82/3
195mm x 70mm
40mm Base



82/14
120mm x 35mm
28mm Base



82/15
145mm x 40mm
33mm Base



82/5
125mm x 63mm
35mm Base



82/6
140mm x 63mm
14mm Base



82/7
125mm x 70mm
20mm Base



82/12
155mm x 90mm
25mm Base



82/13
195mm x 110mm
30mm Base



82/9
120mm x 65mm
25mm Base



82/10
160mm x 90mm
30mm Base



82/11
195mm x 120mm
40mm Base



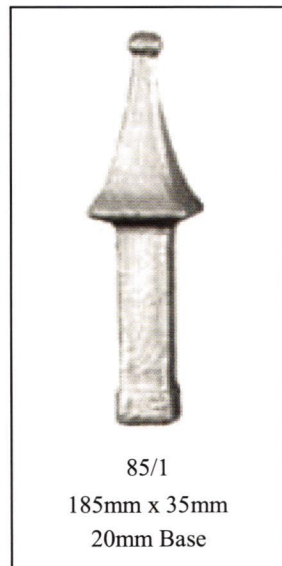
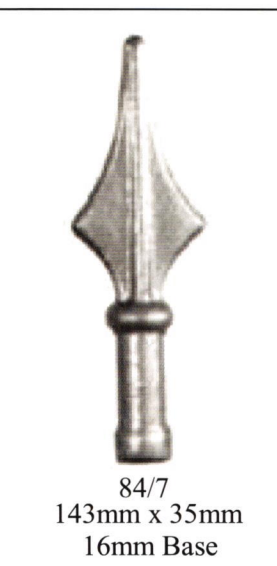
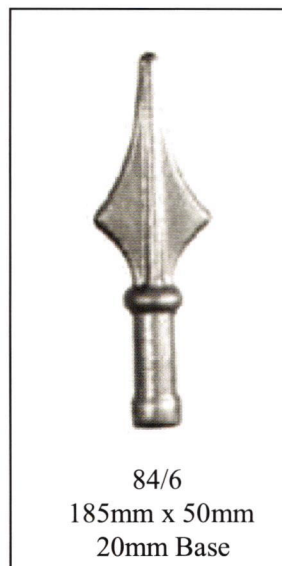
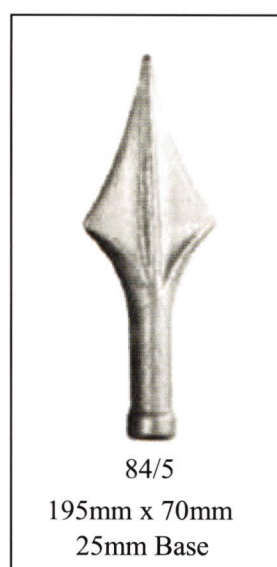
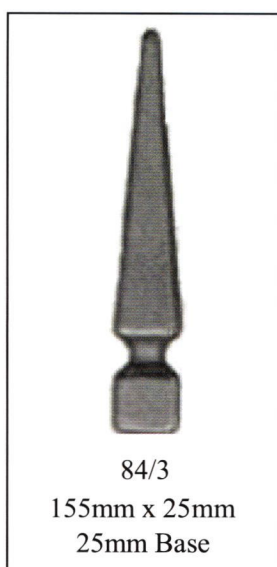
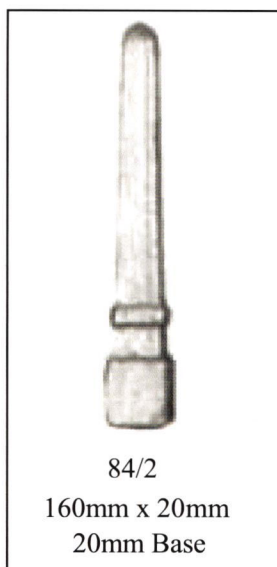
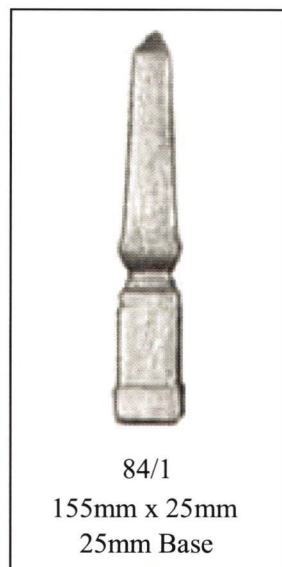
82/7
200mm x 65mm
37mm Base



83/4
120mm x 60mm
25mm Base

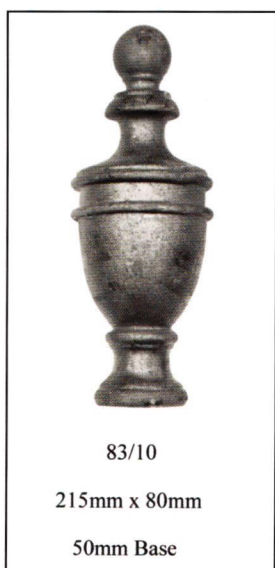
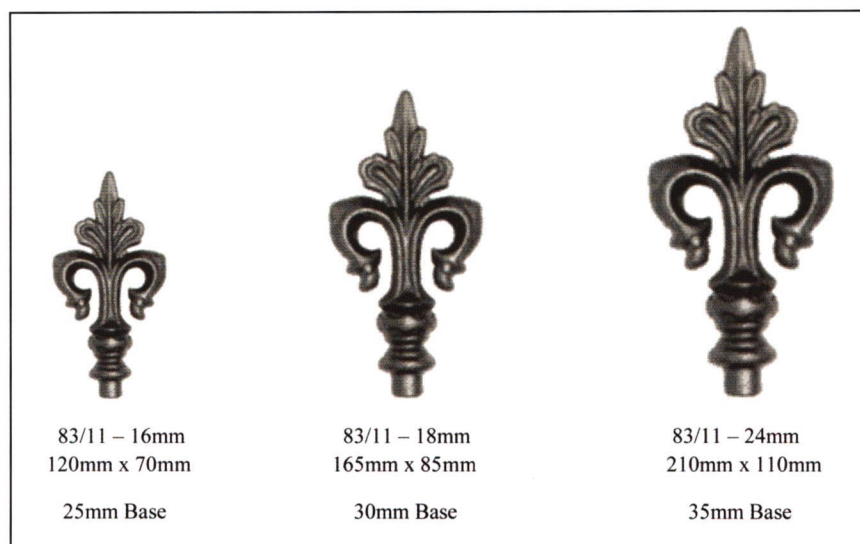
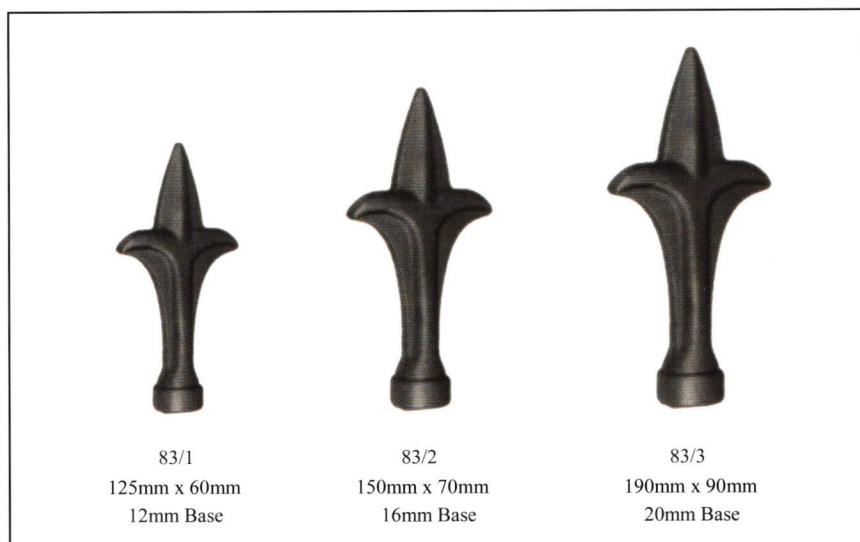
All sizes are approximate - measurements height x width

Weldable Steel Railheads



All sizes are approximate - measurements height x width








Weldable Steel Railheads & Post Tops





All sizes are approximate - measurements height x width








Square & Round Bar Points & Profile Cut Frame Ends

ROUND BAR POINTS 150 mm long			BARS TO BE CUT IN HALF TO BE WELDED ON TOP FRAMES Approx. 380 mm long			
						
20 mm Ø Taper 40 mm	16 mm Ø Taper 40 mm	12 mm Ø Taper 40 mm	25 mm \square Each Taper 90 mm	20 mm \square Each Taper 80 mm	16 mm \square Each Taper 70 mm	12 mm \square Each Taper 60 mm
86/15	86/16	86/17	86/18	86/19	86/20	86/21

FORGED ENDS – MADE TO ORDER	
 1000 mm long 86/25 20 x 8 mm wavy (3/5) 86/26 25 x 10 mm wavy (3/6) 86/27 12 x 6 mm plain 86/28 16 x 5 mm plain 86/29 16 x 8 mm grooved 86/30 20 x 8 plain 86/31 25 x 10 plain 86/32 12 mm \square plain OTHER SIZES MADE TO ORDER	 1000 mm long 86/33 20 x 8 mm wavy (3/5) 86/34 25 x 10 mm wavy (3/6) 86/35 12 x 6 mm plain 86/36 16 x 5 mm plain 86/37 16 x 8 mm grooved 86/38 20 x 8 plain 86/39 25 x 10 plain 86/40 12 mm \square plain OTHER SIZES MADE TO ORDER











N.B. THE END FORGING ON THE SMALLER MATERIALS WILL NOT BE AS WIDE AS ILLUSTRATED.

SQUARE BAR POINTS				
				
86/53 40 mm \square Taper 170 mm Length 1000 mm	25 mm \square Taper 90 mm	20 mm \square Taper 80 mm	16 mm \square Taper 70 mm	12 mm \square Taper 60 mm
86/54 30 mm \square Taper 170 mm Length 1000 mm	Length 86/41 500 mm 86/7 1000 mm 86/42 1500 mm 86/43 2000 mm	Length 86/44 500 mm 86/8 1000 mm 86/45 1500 mm 86/46 2000 mm	Length 86/47 500 mm 86/9 1000 mm 86/48 1500 mm 86/49 2000 mm	Length 86/50 500 mm 86/10 1000 mm 86/51 1500 mm 86/52 2000 mm

Profile Cut Gate Frame Ends

Use the above profile cut gate frame ends to make an attractive end feature in your gates and railings. Available in a range of flat bar sizes so that you can match to your gate frames.

Bespoke shapes in profile cutting can also be supplied upon request.

 80mm High 7/78 25 x 8mm 7/79 25 x 10mm 7/80 30 x 10mm 7/81 30 x 12mm 7/82 40 x 10mm 7/83 40 x 12mm	 100mm High 7/84 25 x 8mm 7/85 25 x 10mm 7/86 30 x 10mm 7/87 30 x 12mm 7/88 40 x 10mm 7/89 40 x 12mm	 200mm High 7/90 30 x 10mm 7/91 30 x 12mm 7/92 40 x 10mm 7/93 40 x 12mm	 200mm High 7/94 25 x 8mm 7/95 25 x 10mm 7/96 30 x 10mm 7/97 30 x 12mm 7/98 40 x 10mm 7/99 40 x 12mm	 200mm High 7/100 30 x 10mm 7/101 30 x 12mm 7/102 40 x 10mm 7/103 40 x 12mm
 200mm High 7/104 30x 10mm 7/105 30 x 12mm 7/106 40 x 10mm 7/107 40 x 12mm	 200mm High 7/108 30 x 10mm 7/109 30 x 12mm 7/110 40 x 10mm 7/111 40 x 12mm	 200mm High 7/112 25 x 8mm 7/113 25 x 10mm 7/114 30 x 10mm 7/115 30 x 12mm 7/116 40 x 10mm 7/117 40 x 12mm	 200mm High 7/118 30 x 10mm 7/119 30 x 12mm 7/120 40 x 10mm 7/121 40 x 12mm	 200mm High 7/122 25 x 8mm 7/123 25 x 10mm 7/124 30 x 10mm 7/125 30 x 12mm 7/126 40 x 10mm 7/127 40 x 12mm





Fully Weldable Post Tops



87/1
104mm x 50mm
50mm Base



87/2
75mm x 40mm
28mm Base



87/3
100mm x 48mm
28mm Base



87/4
85mm x 50mm
50mm Base



87/5
180mm x 100mm
50mm Base



87/20
(was 81/23)
88mm x 40mm



87/6
110mm x 60mm



87/7
115mm x 70mm



87/8
120mm x 80mm



87/9
130mm x 90mm



87/11
240mm High, 150mm ∇ Base
80mm Ball



87/12
205mm High, 100mm ∇ Base
50mm



87/13
190mm High, 20mm ∇ Base
50mm Ball



87/16
170mm x 50mm

All sizes are approximate - measurements height x width



Plain & Decorative Circles / Forged & Hollow Balls

Solid Balls

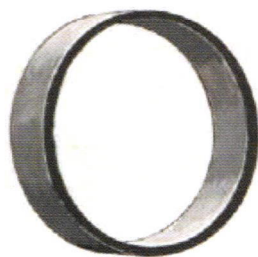


88/1 – 12mm, 16mm, 20mm, 25mm, 30mm, 35mm, 40mm, 50mm, 60mm, 70mm, 75mm, 80mm, 90mm, 100mm, 115mm, 125mm, 150mm

Hollow Balls



88/32 – 30mm	88/35 – 60mm	88/38 – 90mm	88/41 – 150mm
88/33 – 40mm	88/36 – 70mm	88/39 – 100mm	88/42 – 200mm
88/34 – 50mm	88/37 – 80mm	88/40 – 120mm	88/43 – 300mm



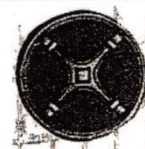
Plain Circles

<u>12mm x 6mm</u>	<u>16mm x 6mm</u>	<u>20mm x 6mm</u>
88/87 – 75mm	88/88 – 75mm	88/89 – 75mm
88/60 – 85mm	88/61 – 85mm	88/62 – 85mm
88/63 – 90mm	88/64 – 90mm	88/65 – 90mm
88/66 – 95mm	88/67 – 95mm	88/68 – 95mm
88/2 – 100mm	88/3 – 100mm	88/4 – 100mm
88/69 – 105mm	88/70 – 105mm	88/71 – 105mm
88/72 – 110mm	88/73 – 110mm	88/74 – 110mm
88/75 – 115mm	88/76 – 115mm	88/77 – 115mm
88/90 – 120mm	88/91 – 120mm	88/92 – 120mm
88/6 – 125mm	88/7 – 125mm	88/8 – 125mm
88/78 – 130mm	88/79 – 130mm	88/80 – 130mm
88/81 – 140mm	88/82 – 140mm	88/83 – 140mm
88/84 – 150mm	88/85 – 150mm	88/86 – 150mm

Fishtail Circles



<u>12mm x 6mm</u>	<u>16mm x 6mm</u>	<u>20mm x 6mm</u>
88/22 – 100mm	88/23 – 100mm	88/24 – 100mm
88/13 – 120mm	88/9 – 120mm	88/10 – 120mm



88/54
100mm dia
12mm x 6mm



88/55
90mm x 90mm x 10mm

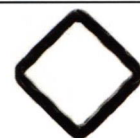
Round Bar Circles



<u>10mm Round</u>	<u>12mm Round</u>	<u>16mm Round</u>
88/26 – 100mm	88/27 – 100mm	88/28 – 100mm
88/29 – 125mm	88/30 – 125mm	88/31 – 125mm



88/25
105mm
22mm Thick



88/21
20mm x 8mm
Hammered Edge Bar
100mm

All weldable

Decorative Collars



89/26 – 20mm
195 x 55mm



89/26
16mm & 20mm ✓
140mm x 45mm



89/25
55mm x 40mm
16mm ✓



89/16
16mm & 20mm ✓
45mm x 42mm



89/15
16mm & 20mm ✓
85mm x 43mm



Short Collars
85mm x 50mm
89/31 – 26mm ✓
89/33 – 31mm ✓



Tall Collars
65mm x 75mm
89/35 – 26mm ✓
89/37 – 31mm ✓



89/60 – 12mm ✓
89/61 – 16mm ✓
89/62 – 20mm ✓
(65mm x 40mm)



89/13 – 12mm ✓
(To match 89/12)
40mm x 40mm



89/2 – 17mm ✓
75mm x 45mm



89/12 – 12mm ✓
67mm x 32mm



89/14
45mm x 38mm
12mm & 16mm ✓



89/21
12mm & 16mm ✓
16mm x 35mm



89/22
20mm ✓
20mm x 40mm



89/23
25mm ✓
25mm x 45mm



89/24
30mm ✓
25mm x 50mm

Decorative Collars



89/2 – 16mm \varnothing
20mm \varnothing
77mm x 45mm



89/12 – 12mm \varnothing
67mm x 32mm



89/17
16mm or 20mm \varnothing
52mm x 52mm



89/4 - 20mm \varnothing
25mm \varnothing
55mm x 38mm



Short Collars
65mm x 50mm
89/32 – 25mm \varnothing
89/34 – 30mm \varnothing



Tall Collars
65mm x 75mm
89/36 – 25mm \varnothing
89/38 – 30mm \varnothing



89/19
12mm or 16mm \varnothing
80mm x 40mm



89/18
12mm or 16mm \varnothing
135mm x 40mm



89/20
20mm x 37mm
12mm, 16mm, 20mm \varnothing



Full Collar
130mm x 55mm
89/50 – 21mm \varnothing
89/52 – 26mm \varnothing
89/54 – 31mm \varnothing



Half Collar
70mm x 55mm
89/51 – 21mm \varnothing
89/53 – 26mm \varnothing
89/55 – 31mm \varnothing



Full Collar
170mm x 45mm
89/56 – 21mm \varnothing
89/58 – 26mm \varnothing



Half Collar
95mm x 45mm
89/57 – 21mm \varnothing
89/59 – 26mm \varnothing



89/20 – 25mm
35 x 55mm

All weldable

Gate Accessories

Forged drop bars and fittings



90/4 – 12mm Ø
90/3 – 16mm Ø
90/2 – 20mm Ø

Approx 600mm long

Drop bar guides

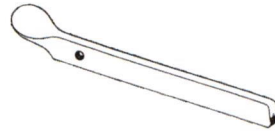


90/21 – 12mm Ø
90/22 – 16mm Ø
90/23 – 20mm Ø

Drop bar holder



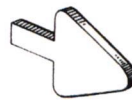
90/19
65mm long



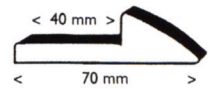
Forged Gate Latch
90/7
25mm x 10mm x 250mm
9mm Hole



Latch Holder
90/17
For 25mm x 10mm Latch



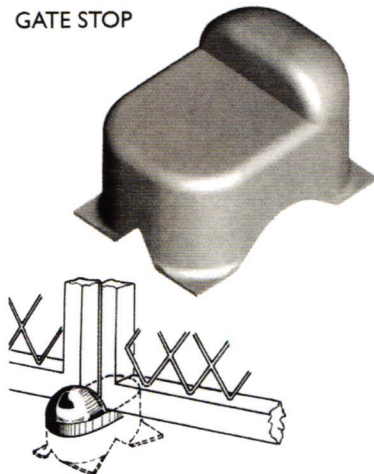
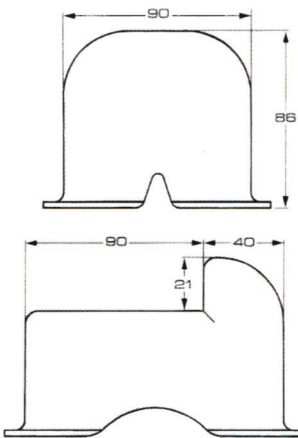
Handed Gate Latch
90/10



Gate Latch
90/12
6mm Thick

90/31

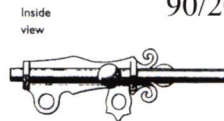
GATE STOP



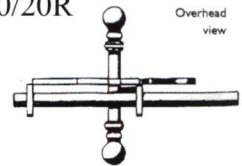
Slip Bolt Set

90/20L

90/20R



Illustrated – left-hand set from inside.
Right-hand available.



Illustrated - left hand side from inside right hand available also



Heavier Gate Latch

90/34
40mm x 10mm x 440mm with 10mm Hole



Rubber Stop
90/27
38mm x 15mm thick
Steel Insert with 5mm Hole



Hold Back Catch
(To concrete in)
90/5
340mm x 230mm



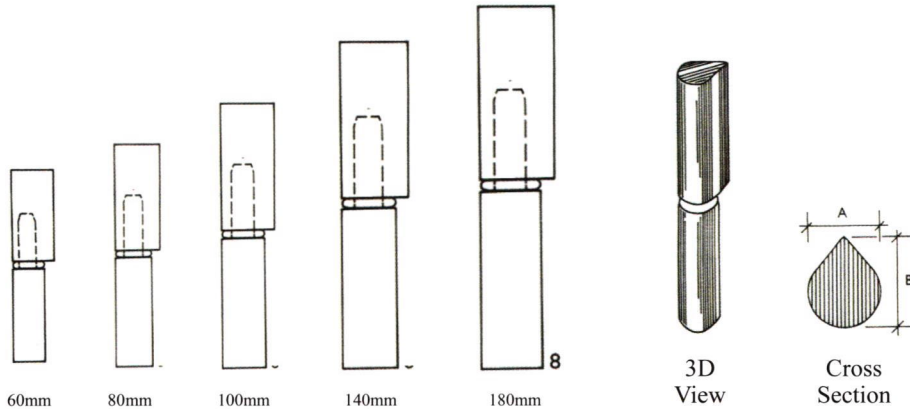
Latch Holder
To suit 90/34
90/35
135mm x 45mm



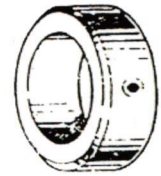
Catch
To suit 90/34
90/33
90mm x 90mm

Gate Hinges

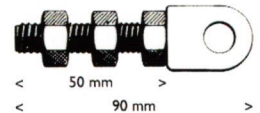
Welding Hinges



Part No.	93/30	93/31	93/32	93/33	93/34	93/35	93/36	93/37	93/38
Height mm	45	60	80	100	120	140	160	180	200
Cross Section A x B mm	10 x 12.5	10 x 12.5	13 x 20	16 x 20	16 x 20	20 x 25	20 x 25	23 x 29	23 x 29
PIN Ø mm	5.5	5.5	7	9	9	11	12	14	14
Steel with Brass Washer	x	x	x	x	x	x	x	x	x
Ball Bearing				x	x	x	x	x	x
All Stainless Steel		x	x	x	x	x			



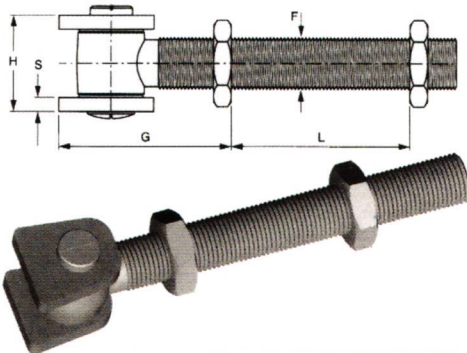
Anti Theft Collar
91/4
12mm, 16mm & 20mm Ø



Adjustable Hinge

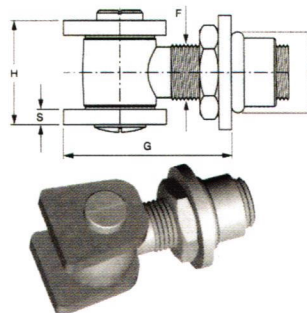
91/1

Long Rod Hinge



Order Code	F	H	S	G	L
91/41	M18	40	6	min. 45	max. 120
91/42	M22	45	8	min. 50	max. 130

R.H.S Hinge

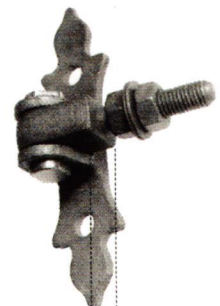


Order Code	F	H	S	G	D
91/38	M18	40	6	50+60	28
91/39	M22	45	8	55+72	32
91/40	M27	60	10	66+80	40

91/10

ADJUSTABLE HINGE SET

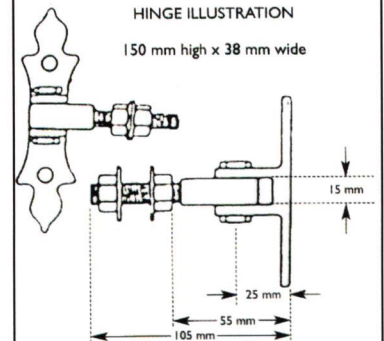
- Price includes nuts and washers.
- Anti-theft.
- Thread formed from drop forging – not welded on.
- Hinge is fully hot dip galvanised.
- Extra strong chrome plated centre pin.
- Holes 10.5 mm.



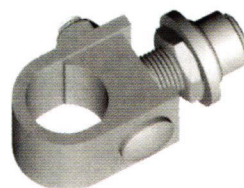
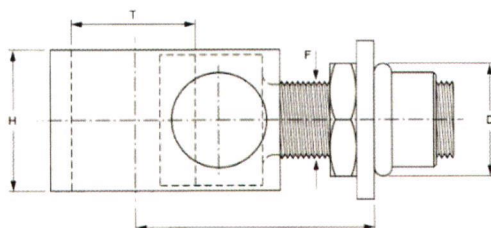
25 mm

HINGE ILLUSTRATION

150 mm high x 38 mm wide

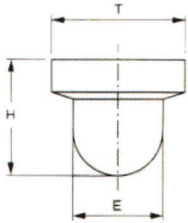


Adjustable Hinge



Code	F	H	T	D
91/43C	M	30	25	26
91/43B	M18	35	30	28
91/43	M22	40	35	32
91/43A	M27	45	40	39

Accessories for Swing Gates

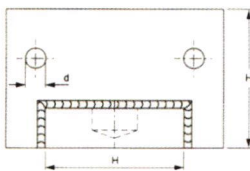


Bottom Pin

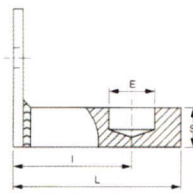
To Weld to the bottom of gate for vertical gate support

Order Code	T	H	E
91/46	35	35	22

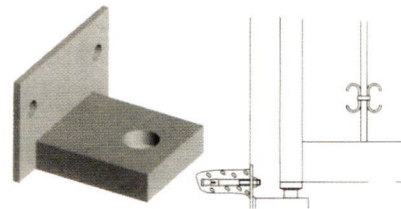
Bottom Galvanised Seating (For 91/46)



Front Elevation

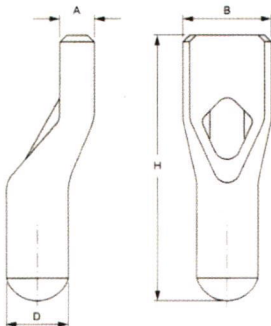


Side Elevation



Order Code	L	S	I	E	H	d
91/47	85	20	60	23	70	11

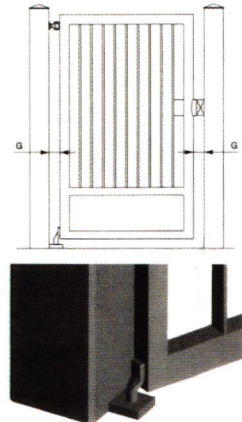
Pin (Patented)



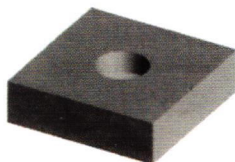
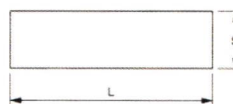
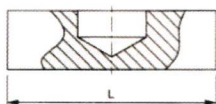
PIN (patented) to
(See illustration B)



Order Code	D	A	B	H
91/48	23	12	32	98



Bottom Galvanised Seating Plate (for 91/48)



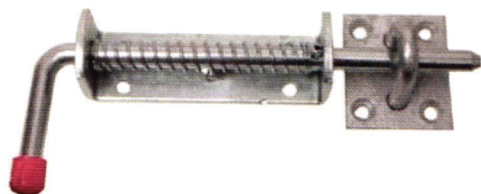
Order Code	L	S
91/49	70	20



Spring Loaded Bolts & Elbow Bends

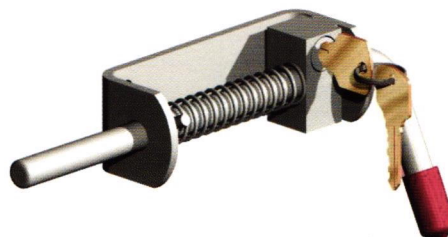
Spring Loaded Animal Bolts

Part No.	Size Inch (mm)	Finish
91/301	1/2" (12) dia	E-Galvanised



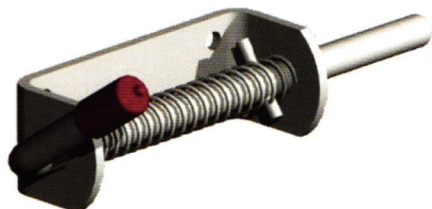
Spring Loaded Bolts – Key Lockable

Part No.	Size Inch (mm)	Finish
91/305	1/2" (12) dia	E-Galvanised
91/306	5/8" (16) dia	E-Galvanised



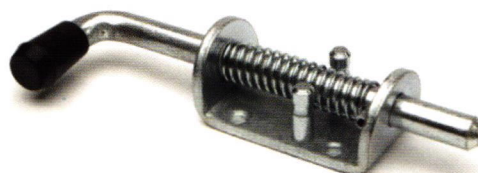
Spring Loaded Bolts

Part No.	Size Inch (mm)	Finish
91/302	3/8" (9.5) dia	E-Galvanised
91/303	5/8" (16) dia	E-Galvanised
91/304	5/8" (16) dia	E-Galvanised



Spring Loaded Bolts – Short Body

Part No.	Size Inch (mm)	Finish
91/307	3/8" (9.5) dia	E-Galvanised
91/308	1/2" (12) dia	E-Galvanised



90° Elbow Bends – Mild Steel



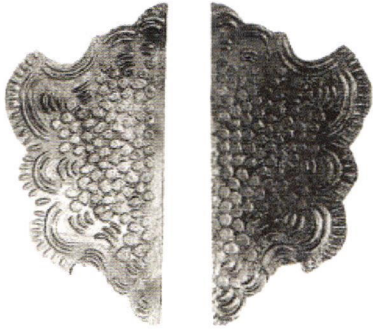
Size Available:

- 27mm Bend
- 33.7mm Bend
- 42.4mm Bend
- 48.3mm Bend
- 48.3mm Long Radius
- 60.3mm Bend
- 101mm Bend
- 114 mm Bend
- Further sizes available upon request



Lockplates & Handles

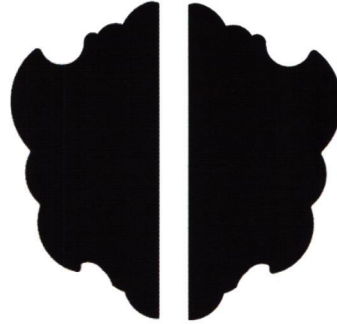
Forged Lock Plate



94/1

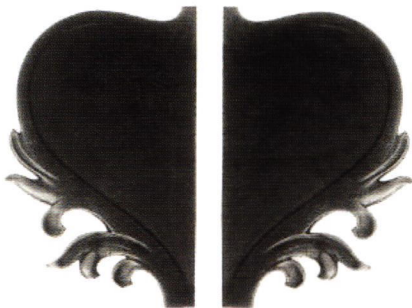
Reversible Lock Plate
290mm x 150mm
5mm Thick

Plain Lock Plate



94/2

Reversible Lock Plate
290mm x 150mm
5mm Thick



94/29

Reversible Lock Plate
255mm x 160mm
8mm Thick

Handles

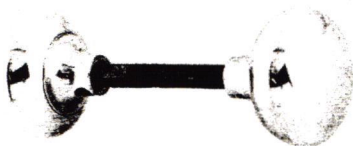


81/5A

90mm x 50mm
20mm Base

BRASS KNOBS

Top quality.



BRASS ITEMS are lacquered and it is advisable to apply a thin coat of wax polish once a week. After prolonged exposure to weather the lacquer may break down. Should this occur, remove the lacquer with a paint stripper or acetone. The item can then be cleaned with a suitable metal polish.

94/10



87/55


100mm High
50mm Wide





87/4

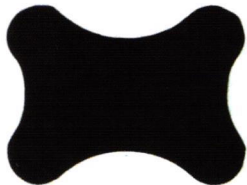
85mm High
50mm Wide
50mm Ø Wide

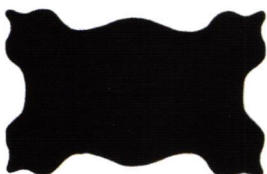
Eyebolts, Gudgeon Pins & Profile Fixing Plates

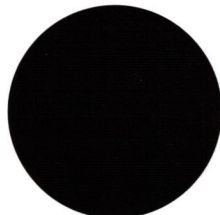
	Adjustable Eyebolts	EB1	12 x 100mm	EB7	20 x 200mm
		EB2	12 x 150mm	EB8	25 x 150mm
		EB3	16 x 100mm	EB9	25 x 200mm
		EB4	16 x 150mm	EB10	32 x 150mm
		EB5	20 x 100mm	EB11	32 x 200mm
		EB6	20 x 150mm		

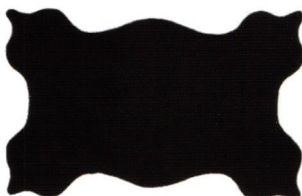
	Gudgeon Pins	
	91/2	To suit 12mm pin
	91/36	To suit 16mm pin
	91/37	To suit 20mm pin
	GD4	To suit 25mm pin
	91/32	To suit 32mm pin

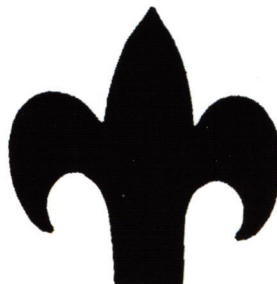
	Gate Eyes	
	91/53	To suit 16mm pin
	91/54	To suit 20mm pin


<p>92/4</p> <p>185mm x 140mm</p>

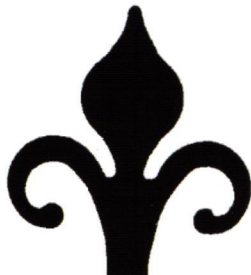

<p>92/1</p> <p>130mm x 200mm</p>

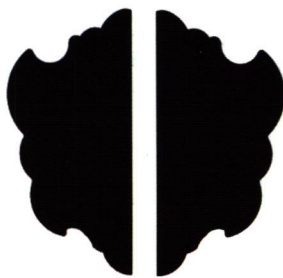
	Round Discs	
	Available to order to suit your requirements.	
	Just let us know the diameter and plate thickness required lead time approx 2-3 days.	



<p>92/30</p> <p>200mm x 270mm</p>


<p>92/27</p> <p>130mm x 120mm</p>


<p>92/2 – 125mm x 125mm</p> <p>92/3 – 110mm x 110mm</p> <p>92/21 – 100mm x 100mm</p> <p>92/20 – 75mm x 75mm</p>


<p>92/26</p> <p>130mm x 120mm</p>

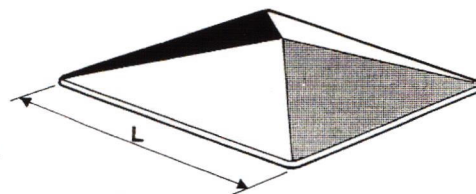

<p>94/2</p> <p>290mm x 150mm</p> <p>5mm Thick</p>


<p>92/25</p> <p>150mm x 140mm</p>

Post Caps

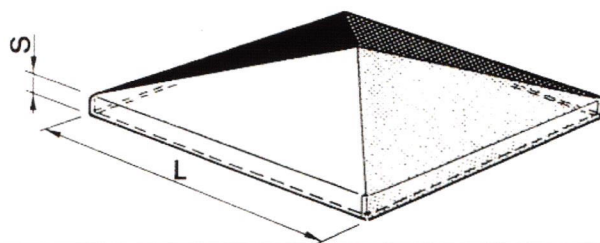
Steel RHS Caps

93/1 – 40mm	93/3 – 60mm	93/5 – 100mm
93/2 – 50mm	93/4 – 80mm	93/6 – 120mm 93/6 – 150mm



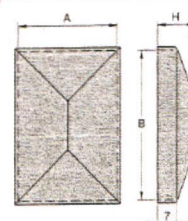
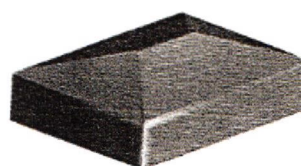
Steel Caps with Flange

93/13 – 30mm x 9mm	93/17 – 80mm x 9mm
93/14 – 40mm x 9mm	93/18 – 100mm x 10mm
93/15 – 50mm x 9mm	93/19 – 120mm x 10mm
93/16 – 60mm x 9mm	93/20 – 150mm x 10mm



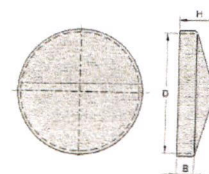
Rectangular Cap with Flange

Part No.	A	B	H
93/101	20	40	12
93/102	40	80	16
93/103	50	100	20



Part No.	D	B	H
93/104	30	10	16
93/105	42	10	19
93/106	48	10	20
93/107	60	10	22
93/108	90	12	25
93/109	101	12	26
93/110	114	12	29

Round Cap with Flange

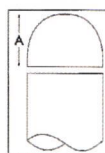


Square Caps (Plastic)

20mm x 20mm	40mm x 40mm	70mm x 70mm
25mm x 25mm	50mm x 50mm	80mm x 80mm
30mm x 30mm	60mm x 60mm	90mm x 90mm
		100mm x 100mm



Weld Caps



Order Code	To Suit Tube Diameter	Dim "A"
93/151	26.9mm	15mm
93/23	33.7mm	25mm
93/24	42.4mm	28mm
93/25	48.3mm	28mm
93/26	60.3mm	35mm
93/27	76.1mm	35mm
93/28	88.9mm	32mm
93/29	114.3mm	41mm

All weld caps are made from material thickness of approx. 3mm

Round Caps (Plastic)

19mm O/D	48.3mm O/D
22mm O/D	60mm O/D
27mm O/D	76.1mm O/D
33.7mm O/D	114.3mm O/D
42.4mm O/D	



Rectangular Caps (Plastic)

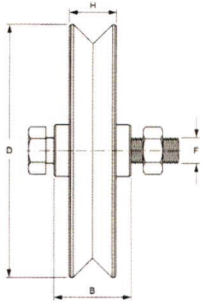


50mm x 25mm
60mm x 40mm
80mm x 40mm
100mm x 50mm
150mm x 100mm

Other sizes available on request

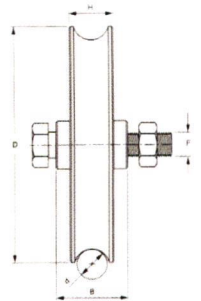
Accessories for Sliding Gates

Galvanised Wheel with Ball Bearings (V Groove)



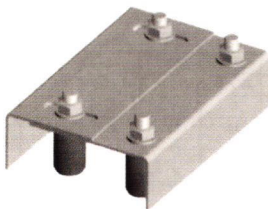
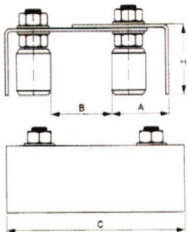
Part No.	D	B	H	F	Kg
93/47	75	24	18	12	150
93/48	100	34	22	12	200
93/49	120	34	30	14	400

Galvanised Wheel with Ball Bearings (Half Round Groove)



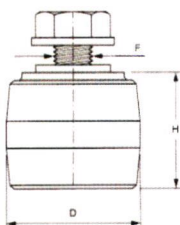
Part No.	D	d	B	H	F	Kg
93/50	90	16	34	25	12	200
93/51	120	16	34	25	14	250
93/52	120	20	34	30	14	400
93/53	160	20	34	32	16	600

Adjustable Upper Guide Bracket



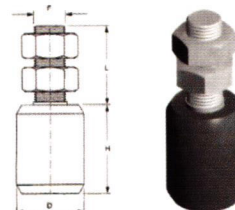
Part No.	A	B	C	H	
93/54	40 – 80	40 – 50	220	59	With 4 x 93/66 Guide Rollers
93/55	50 – 87	60 – 80	350	65	With 4 x 93/67 Guide Rollers

Upper Guide Roller in Nylon



Part No.	D	H	F
93/64	34	30	M10

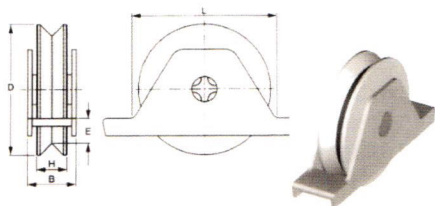
Upper Guide Roller in Nylon



Part No.	D	H	L	F
93/65	25	32	30	M14
93/66	40	44	37	M16
93/67	30	40	34	M14
93/68	40	60	41	M16

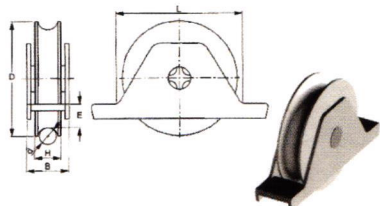
All dimensions in millimetres

Accessories for Sliding Gates



Galvanised Wheel with Internal Support Bracket (V Groove)

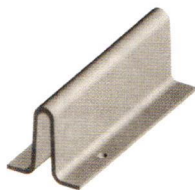
Part No.	D	B	H	E	L	Kg
93/56	90	33	20	17	97	200
93/57	120	38	25	23	130	400



Galvanised Wheel with Internal Support Bracket

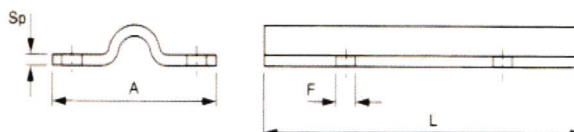
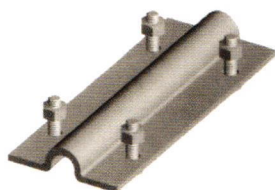
Part No.	D	d	B	H	E	L	Kg
93/58	90	16	33	21	17	97	200
93/59	120	20	38	25	23	130	400

Galvanised Drilled Rail



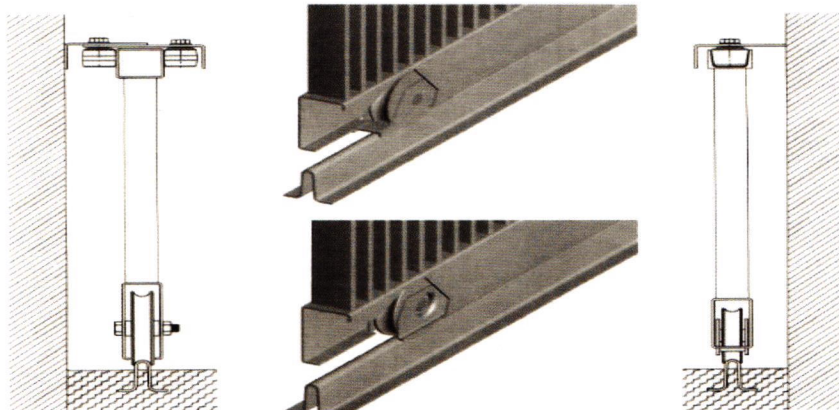
Part No.	A	B	d	F	Sp
93/60	50	50	16	6.5	3
93/61	60	60	20	6.5	4

Coupling Plate For Guide Rails 93/60 & 93/61



For	Part No.	A	F	Sp	L
93/60	93/62	50	6.5	3	130
93/61	93/63	60	6.5	4	140

Coupling Plate



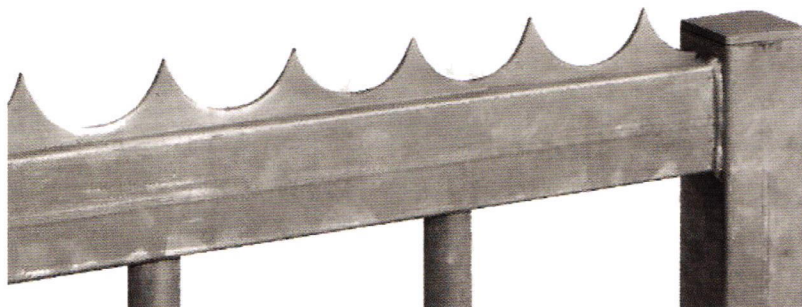
The rail is available in two sizes (see 93/61) which are profiled to suit the half round groove wheels thus providing a smooth rolling surface. The rails are designed with a loading capacity equal to the rollers, but when fixing the rails, the supporting base of the supporting base of threshold must be of sufficient strength. The rails are provided in 3 metre lengths with punched ends.

All dimensions in millimetres



Accessories for Sliding Gates

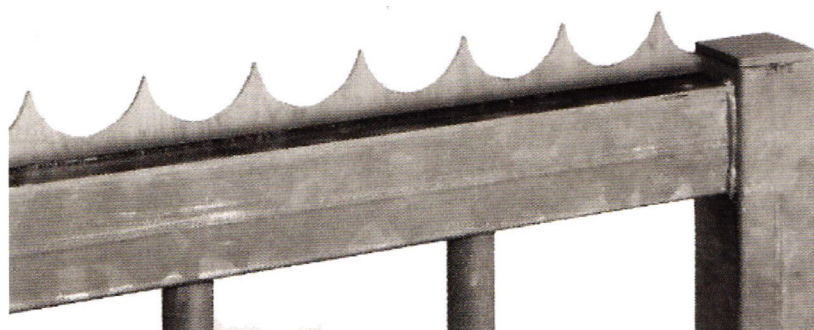
Welding and retrofitting security strips



93/198

Security strip to weld on

- Black Steel
- Fixing: to weld on
- Profile: 33,5 x 3mm
- Length: 2000mm



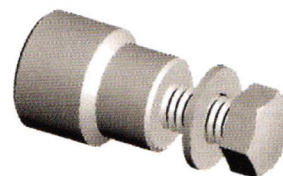
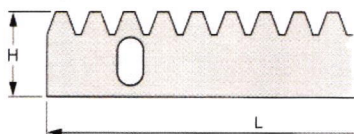
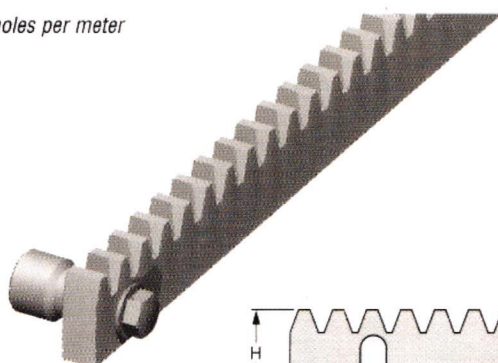
93/199

Security strip to weld on

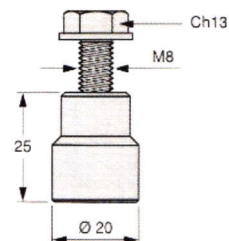
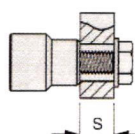
- L-Profile hot dip galvanised
- Fixing: to weld on
- Profile: 36,5 x 25 x 3mm
- Length: 2000mm
- Easy Retrofitting

Stainless Steel Racking and Accessories

3 holes per meter



Welding connection



Part No.	L	H	S
93/200	1000	30	12

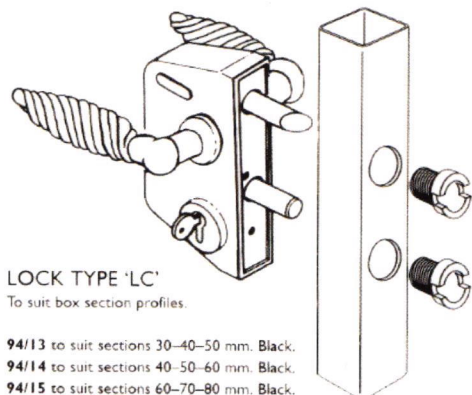
Bolts - 93/201



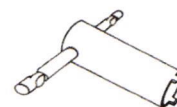
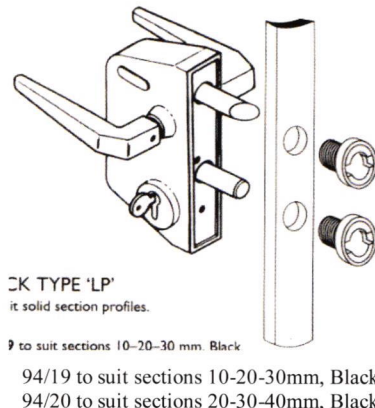
Gate Locks

All locks are supplied complete with cylinders, keys and lever handles

Lock Type "LC"
To suit box section profiles



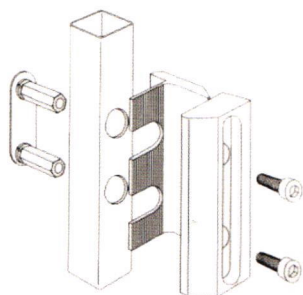
Lock Type "LP"
To suit box section profiles



94/24

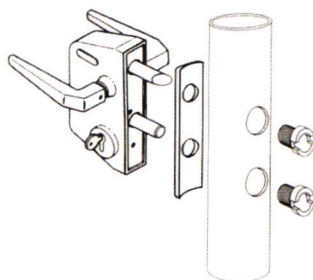
Collar Spanner
Required to bolt lock to gate.

Collar Spanner – buy one with
your first lock & keep for use
with subsequent locks.

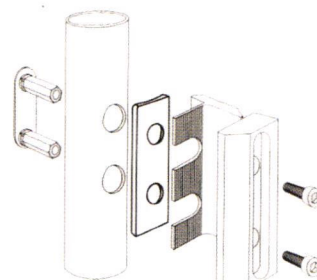


94/23 Keep & Adjustable Stop
SC to suit sections 40-80mm

Lock & Keep Plate for tube section profiles 30-40-50-60mm

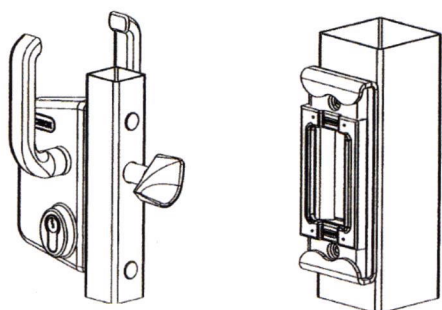


94/27 – Half Round Lock Plate



94/28 – Half Round Keep Plate

Sliding Gate Lock & Keeper

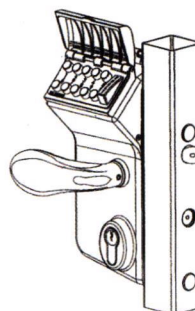


94/50

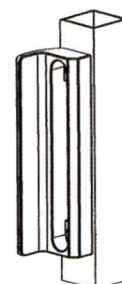
94/51

- Chassis, mechanism & twist finger in stainless steel
- Reversible
- Fixing with 2 hexagon socket head screws
- Innovation closing system
- Extremely strong version

Mechanical Code Lock & Keeper



94/52



94/53

- 100% mechanical: no battery or electricity required
- Operational code panel on both side,
- Possible to work with different entrance & exit codes.
- Set up with 4 to 6 digit codes
- Automation code reset after opening by means of the handle.

Cantilever Sliding Systems




CGS150

Standard




The Comunello CGS150 range of cantilever carriages has been designed for lightweight cantilever gates in residential applications. Patented Comunello technology allows the CGS150 range to meet the requirements of the budget market without compromising on performance.






FOR



150-300Kit

Cantilever gate kit for opening widths of up to 3m and gates weighing up to 300kg (including guide rail).



 CGS-150.5M 5 Wheeled Carriage	Qty	2	 230-30 Ø30 Guide Roller	Qty	4
 CGS-347M Guide Wheel	Qty	1	 CGS-245M -3m Galvanised Rail 3m	Qty	2
 CGS-346M Meeting Plate	Qty	1			

OR



150-600Kit

Cantilever gate kit for opening widths of up to 6m and gates weighing up to 600kg (including guide rail).

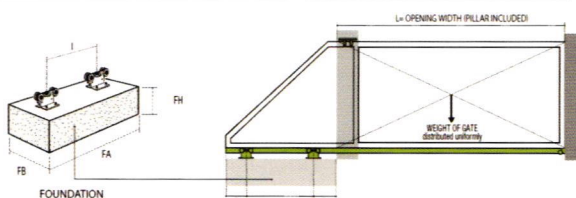


 CGS-150.5P 5 Wheeled Carriage	Qty	2	 230-30 Ø30 Guide Roller	Qty	4
 CGS-347P Guide Wheel	Qty	1	 CGS-245P -3m Galvanised Rail 3m	Qty	3
 CGS-346P Meeting Plate	Qty	1			

CGS150 Examples

Weight (KG)	KIT 150-300K (3m opening)				
	Measurement (M)				
300	I	C	FA	FB	FH
200	1.5	0.2	2.1	0.5	0.6
100	0.9	0.2	1.5	0.5	0.6
	0.4	0.2	1.0	0.5	0.6

Weight (KG)	KIT 150-600K (3m opening)				
	Measurement (M)				
600	I	C	FA	FB	FH
500	3.7	0.3	4.6	0.5	0.6
400	2.7	0.3	3.4	0.5	0.6
	2.0	0.3	2.6	0.5	0.6



Cantilever Sliding Systems

CGS150



Code Description



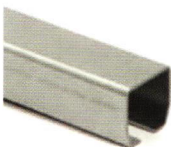
5 Wheel Carriages

CGS-150.5M Small Galvanised 5 Wheel Carriage - use CGS245M rail range.

CGS-150.5P Medium Galvanised 5 Wheel Carriage - use CGS245P rail range.

CGS-150.5G Large Galvanised 5 Wheel Carriage - use CGS245G rail range.

Galvanised Rail - CGS150



CGS-245M-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Small.

CGS-245P-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Medium.

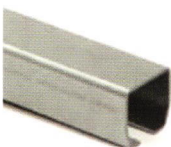
CGS-245G-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Large.

CGS-245M-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Small.

CGS-245P-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Medium.

CGS-245G-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Large.

Unfinished Rail - CGS150



CGS-245M-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Small.

CGS-245P-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Medium.

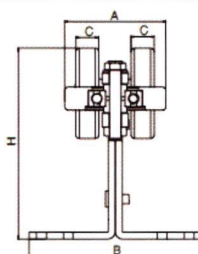
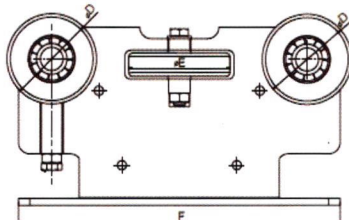
CGS-245G-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Large.

CGS-245M-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Small.

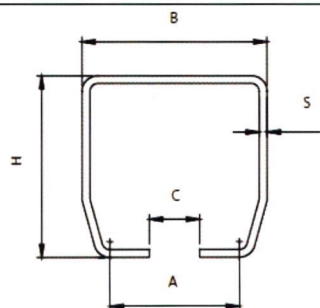
CGS-245P-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Medium.

CGS-245G-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Large.

150.5 Range



Article	A	B	C	D	E	F	H
CGS-150.5M	60	144	14	-	-	180	134
CGS-150.5P	88	150	20	ø78	ø88	280	166
CGS-150.5G	99	200	30	ø126	ø126	430	246



CGS-245 Rail

Article	A	B	C	H	S	weight (kg / m)
CGS-245M	48	68	23	68	3.5	6.1
CGS-245P	66.5	100	33	89	5	11.6
CGS-245G	98	140	38	140	6	22.3

Cantilever Sliding Systems



CGS250

Professional

Designed for large residential, multi-user and commercial cantilever gates, the CGS250 range meets the demands of the professional automated sliding gate installer. Capable of opening gates of up to 8m weighing 800kg

CGS250 KITS

REAL FOR
BX78
BX-10



250-600Kit

Cantilever gate kit for opening widths of up to 7m and gates weighing up to 600kg (including guide rail).



CGS-250.8P
8 Wheeled Carriage

Qty

2



CGS-347P
Guide Wheel

1



CGS-346P
Meeting Plate

1



230-30
Ø30 Guide Roller

Qty

4



CGS-245P-3M
Galvanised Rail 3m

4



250-1200Kit

Cantilever gate kit for opening widths of up to 12m and gates weighing up to 1200kg (including guide rail).



CGS-250.8G
8 Wheeled Carriage

Qty

2



CGS-347G
Guide Wheel

1



CGS-346G
Meeting Plate

1



230-30
Ø30 Guide Roller

Qty

4



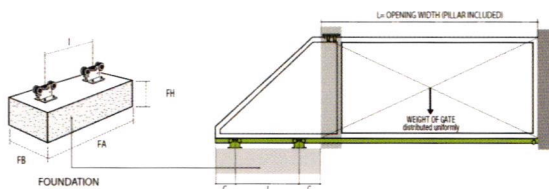
CGS-245G-3M
Galvanised Rail 3m

7

CGS250 Examples

Weight (KG)	KIT 250-600K (7m opening)				
	Measurement (M)				
	I	C	FA	FB	FH
400	1.77	0.33	2.47	0.7	1.09
500	2.36	0.33	3.06	0.7	0.6
600	3.11	0.33	3.81	0.7	0.6

Weight (KG)	KIT 250-1200K (10m opening)				
	Measurement (M)				
	I	C	FA	FB	FH
800	3.91	0.49	4.81	0.9	0.6
1000	5.51	0.49	6.41	0.9	0.6
1200	7.89	0.49	8.79	0.9	0.6



Cantilever Sliding Systems

CGS250



Code Description

5 Wheel Carriages



CGS-250.5M Small Galvanised 5 Wheel Carriage - use CGS245M rail range.



CGS-250.5P Medium Galvanised 5 Wheel Carriage - use CGS245P rail range.



CGS-250.5G Large Galvanised 5 Wheel Carriage - use CGS245G rail range.

8 Wheel Carriages



CGS-250.8M Small Galvanised 8 Wheel Carriage - use CGS245M rail range.

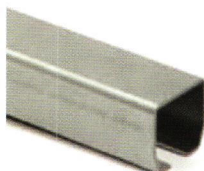


CGS-250.8P Medium Galvanised 8 Wheel Carriage - use CGS245P rail range.



CGS-250.8G Large Galvanised 8 Wheel Carriage - use CGS245G rail range.

Galvanised Rail - CGS250



CGS-245M-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Small.

CGS-245P-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Medium.

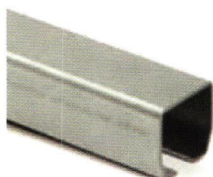
CGS-245G-3M 3m Galvanised rail for CGS150 & CGS250 ranges, Large.

CGS-245M-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Small.

CGS-245P-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Medium.

CGS-245G-6M 6m Galvanised rail for CGS150 & CGS250 ranges, Large.

Unfinished Rail - CGS250



CGS-245M-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Small.

CGS-245P-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Medium.

CGS-245G-3M-RAW 3m Unfinished rail for CGS150 & CGS250 ranges, Large.

CGS-245M-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Small.

CGS-245P-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Medium.

CGS-245G-6M-RAW 6m Unfinished rail for CGS150 & CGS250 ranges, Large.

Cantilever Sliding Systems

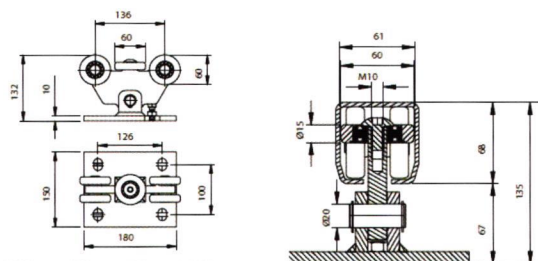
CGS250



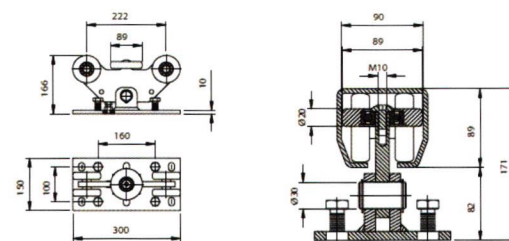
Cantilever Sliding Gate Equipment

Comunello
Professional Gate Hardware

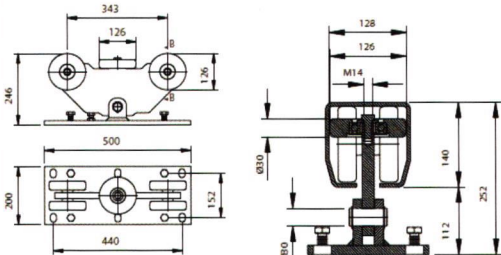
CGS-250.5M



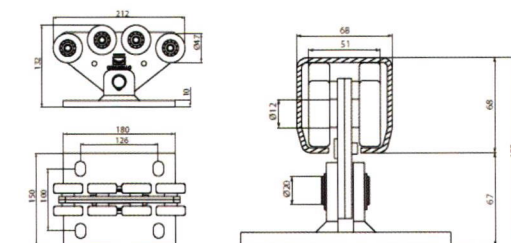
CGS-250.5P



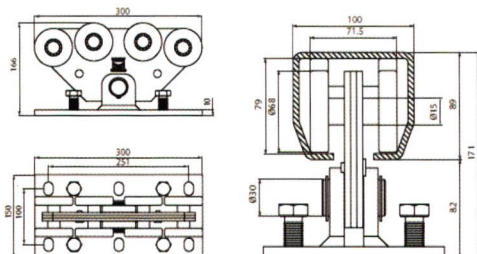
CGS-250.5G



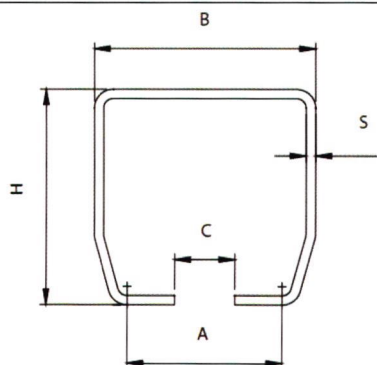
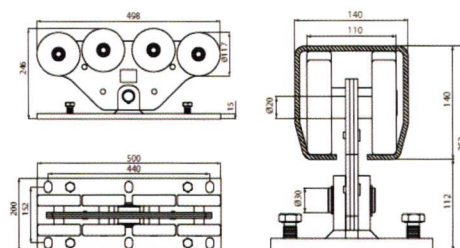
CGS-250.8M



CGS-250.8P




CGS-250.8G



CGS-245 Rail


Article	A	B	C	H	S	weight (kg / m)
CGS-245M	48	68	23	68	3.5	6.1
CGS-245P	66.5	100	33	89	5	11.6
CGS-245G	98	140	38	140	6	22.3

Cantilever Sliding Systems



CGS350

Professional+Plus



**PROFESSIONAL
PLUS+**

For exceedingly heavy or exceedingly large gates of up to 16m long. The CGS350 range is suitable for large commercial and industrial installations. Manufactured to the highest standards the CGS350 is more than capable of opening any gate under any circumstances.



350-800Kit

Cantilever gate kit for opening widths of up to 10m and gates weighing up to 800kg (including guide rail).



	Qty		Qty
 CGS-350.8P 8 Wheeled Carriage	2	 230-30 Guide Roller	4
 CGS-347P Guide Wheel	1	 CGS-345P-3M Galvanised Rail 3m	5
 CGS-346P Meeting Plate	1		



350-1800Kit

Cantilever gate kit for opening widths of up to 18m and gates weighing up to 1800k (including guide rail).



	Qty		Qty
 CGS-350.8G 8 Wheeled Carriage	2	 230-30 Guide Roller	4
 CGS-347G Guide Wheel	1	 CGS-345G-3M Galvanised Rail 3m	10
 CGS-346G Meeting Plate	1		

CGS250 Examples

Weight (KG)	KIT 350-800K (10m opening)				
	Measurement (M)				
	I	C	FA	FB	FH
600	3.06	0.33	3.76	0.7	0.6
700	3.79	0.33	4.49	0.7	0.6
800	4.86	0.33	5.38	0.7	0.6

Weight (KG)	KIT 350-1800K (18m opening)				
	Measurement (M)				
	I	C	FA	FB	FH
1200	7.14	0.46	8.04	0.9	0.6
1400	8.97	0.46	9.87	0.9	0.6
1800	14.01	0.46	14.91	1.0	1.3

	Total Gate Length	
	8m Opening	16m Opening
250.8P	11.37m	-
350.8P	10.51m	-
250.8G	-	22.91m
350.8G	-	20.55m
% Saved	7.6%	10.3%

Cantilever Sliding Systems

CGS350



Cantilever Sliding Gate Equipment

Code	Description
------	-------------

5 Wheel Carriages



CGS-350.5M	Small Galvanised 5 Wheel Carriage - use CGS345M rail range.
------------	---



CGS-350.5P	Medium Galvanised 5 Wheel Carriage - use CGS345P rail range..
------------	---



CGS-350.5G	Large Galvanised 5 Wheel Carriage - use CGS345G rail range..
------------	--

8 Wheel Carriages



CGS-350.8M	Small Galvanised 8 Wheel Carriage - use CGS345M rail range..
------------	--

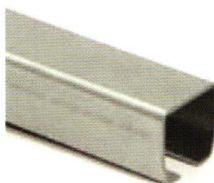


CGS-350.8P	Medium Galvanised 8 Wheel Carriage - use CGS345P rail range..
------------	---



CGS-350.8G	Large Galvanised 8 Wheel Carriage - use CGS345G rail range..
------------	--

Unfinished Rail - CGS350



CGS-345M-3M	3m Galvanised rail for CGS350 Professional Plus range, Small.
-------------	---

CGS-345P-3M	3m Galvanised rail for CGS350 Professional Plus range, Medium.
-------------	--

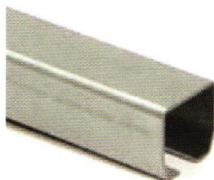
CGS-345G-3M	3m Galvanised rail for CGS350 Professional Plus range, Large.
-------------	---

CGS-345M-6M	6m Galvanised rail for CGS350 Professional Plus range, Small.
-------------	---

CGS-345P-6M	6m Galvanised rail for CGS350 Professional Plus range, Medium.
-------------	--

CGS-345G-6M	6m Galvanised rail for CGS350 Professional Plus range, Large.
-------------	---

Unfinished Rail - CGS350



CGS-345M-3M-RAW	3m Unfinished rail for CGS350 Professional Plus range, Small.
-----------------	---

CGS-345P-3M-RAW	3m Unfinished rail for CGS350 Professional Plus range, Medium.
-----------------	--

CGS-345G-3M-RAW	3m Unfinished rail for CGS350 Professional Plus range, Large.
-----------------	---

CGS-345M-6M-RAW	6m Unfinished rail for CGS350 Professional Plus range, Small.
-----------------	---

CGS-345P-6M-RAW	6m Unfinished rail for CGS350 Professional Plus range, Medium.
-----------------	--

CGS-345G-6M-RAW	6m Unfinished rail for CGS350 Professional Plus range, Large.
-----------------	---

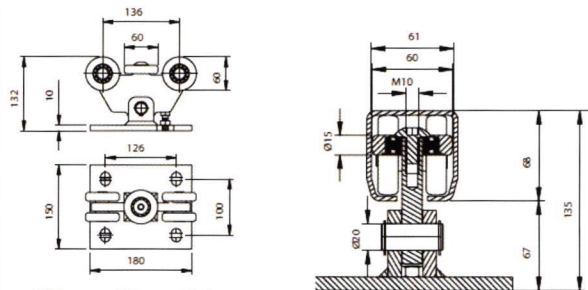
Cantilever Sliding Systems

CGS350

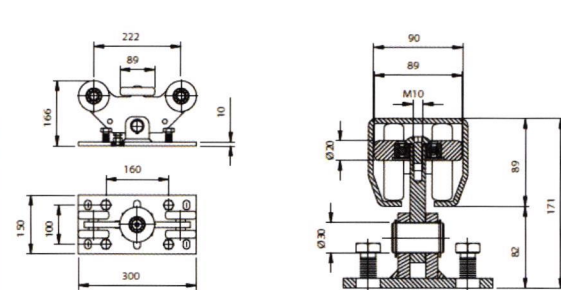


Cantilever Sliding Gate Equipment

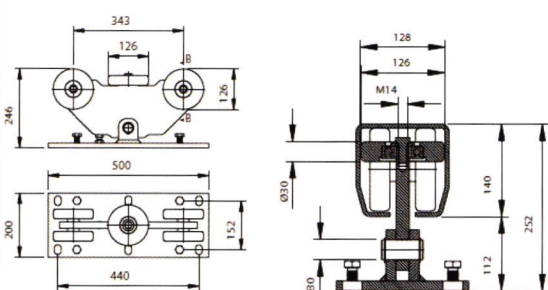
CGS-350.5M



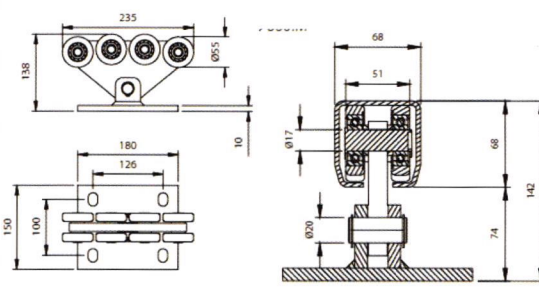
CGS-350.5P



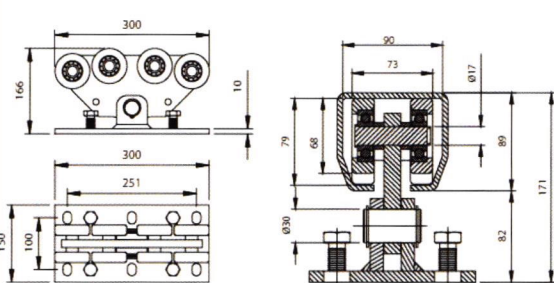
CGS-350.5G



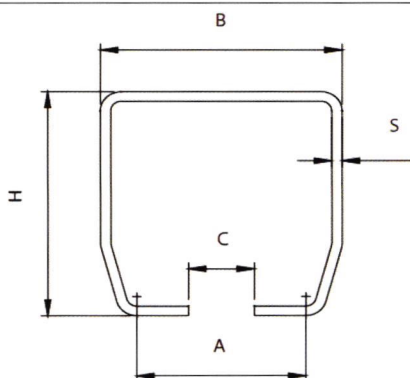
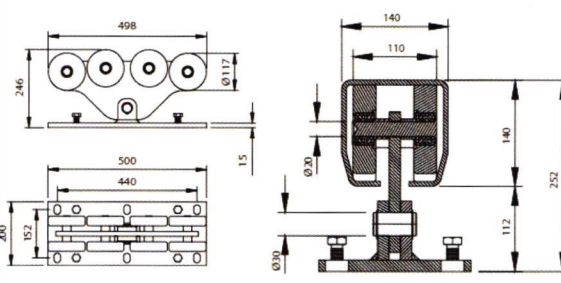
CGS-350.8M



CGS-350.8P



CGS-350.8G

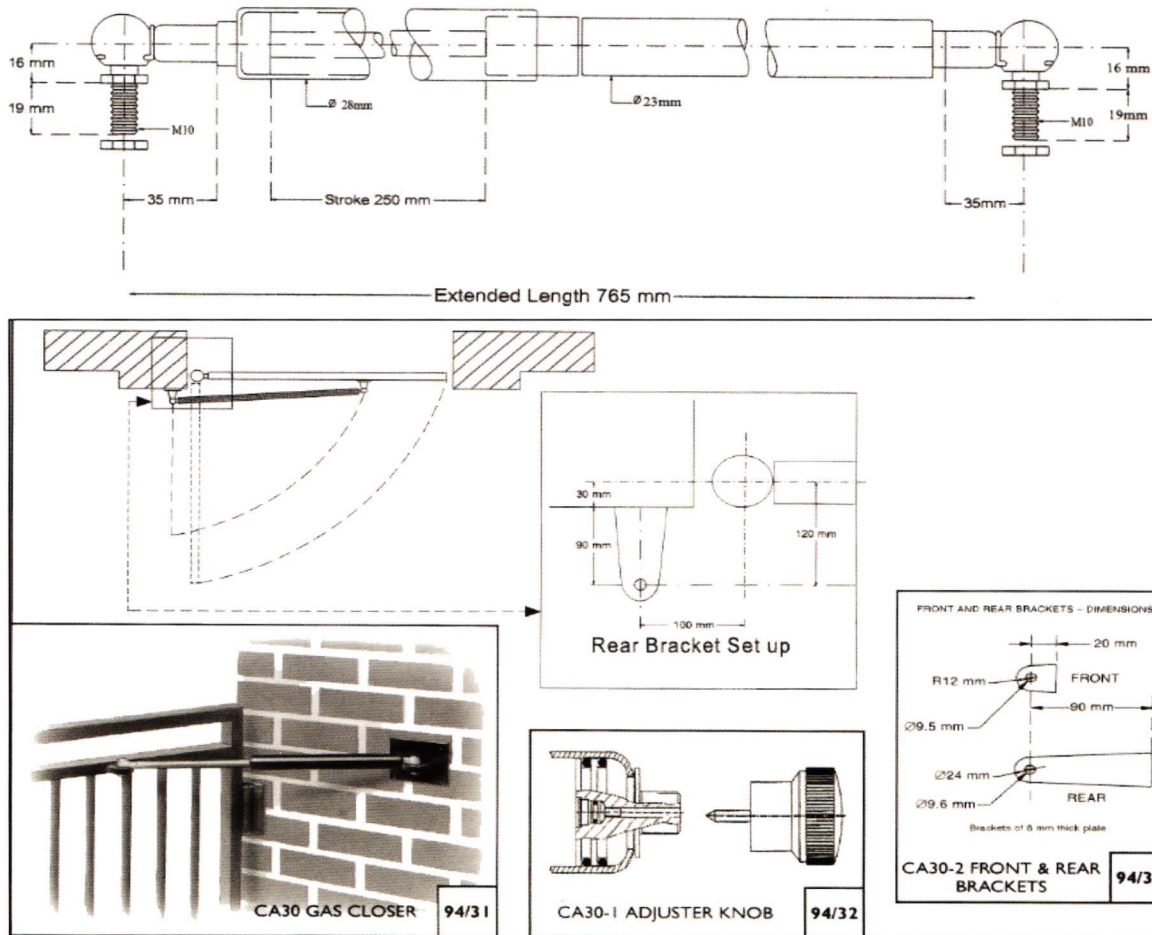


CGS-345 Rail

Article	A	B	C	H	S	weight (kg / m)
CGS-345M	48	68	23	68	3.5	6.2
CGS-345P	66.5	100	33	89	5	12
CGS-345G	98	140	38	140	6	22

Gate Closers – Gas Springs

Ace gas closer (CA30) - Technical specification
(need CA30-1 adjuster to alter internal gas pressure)



CAUTION

Please read carefully before installing.

Gas springs are filled with Nitrogen gas at high pressure and under no circumstances should they be opened or tampered with, or subjected to excessive heat or tension.

INSTALLATION INSTRUCTIONS

For standard applications we recommend the use of ball joint fittings to alleviate any possible side lead.

Always ensure that any fittings used are securely fastened onto the gas spring.

Wherever possible fit with the rod down.

ADJUSTMENT INSTRUCTIONS

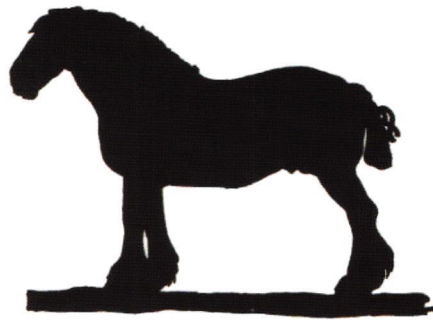
Caution: Gas springs are filled with Nitrogen gas under high pressure. It is recommended to use extreme caution to avoid personal injury. Use safety glasses and avoid pointing the gas spring at yourself or other persons while adjusting.

1. Remove rear fitting from gas spring. The adjusting valve is inside the thread that takes the rear fitting.
2. The internal valve is a "Schrader" type of valve as used on a car tyre.
3. To adjust the gas spring to give the correct force, hold the gas spring with the rod vertically downwards.
4. Screw the adjusting knob onto the exposed thread where the rear fitting is removed and carefully continue to screw clockwise until the Schrader valve is engaged.
5. An additional slight turning of the knob will now open the Schrader valve and gas will be released from the gas spring.
6. Care should be taken as only a slight amount of gas needs to be released to significantly alter the working force of the gas spring.
7. Having released a small amount of gas from the gas spring, turn the adjuster anticlockwise allowing the valve to close.
8. The adjuster should be removed and the gas spring reassembled and reinstalled on the application for checking for suitability.
9. If the force is still too high then you will need to repeat the adjustment procedure until the correct setting is achieved. This might take two or three attempts.
10. If you find that you have released too much gas you can return the gas springs to ACE Controls for re-gassing at a nominal charge.

Laser Cut Profiles



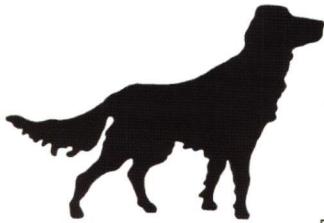
95/1
285mm x 285mm



95/2
400mm x 400mm#



95/3
680mm x 635mm



95/4
Small - 275mm x 190mm
Large - 410mm x 275mm



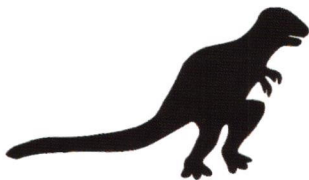
95/5
480mm x 140mm



95/6
960mm x 335mm



96/5
135mm x 150mm (Small)
190mm x 245mm (Medium)
300mm x 340mm (Large)



95/11
400mm x 220mm



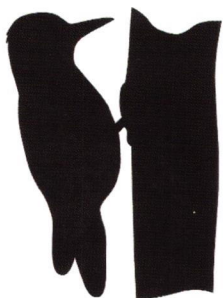
95/7
300mm x 230mm



95/8
300mm x 170mm



96/6
705mm x 285mm



95/12
250mm x 330mm



96/1
280mm x 440mm

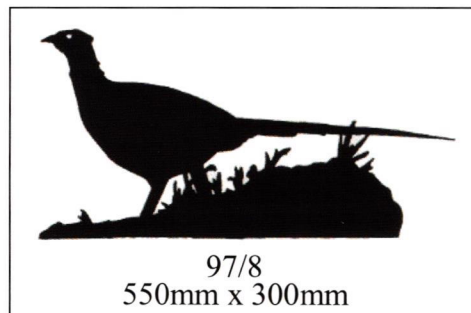
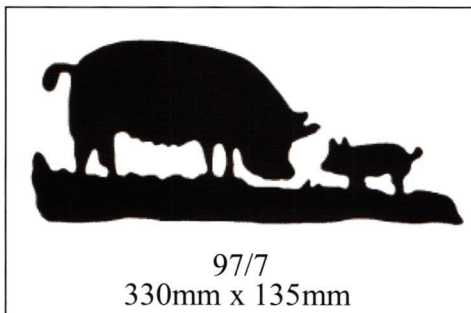
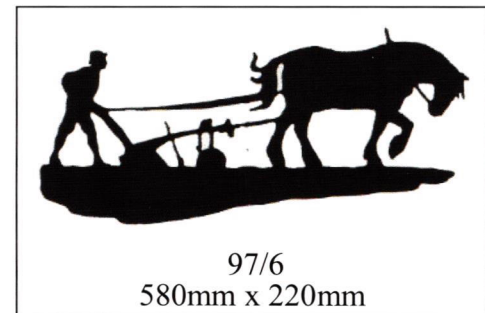
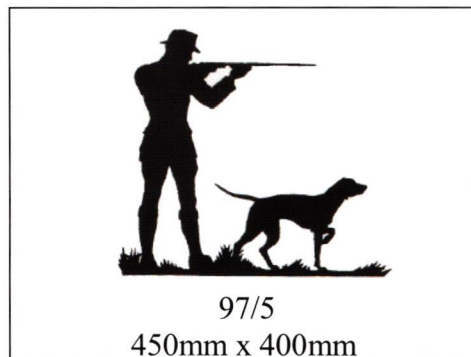
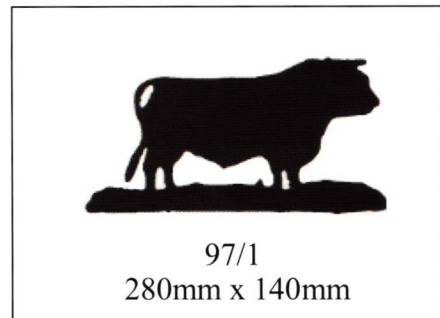
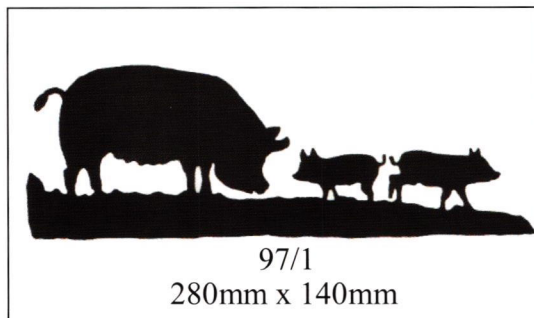
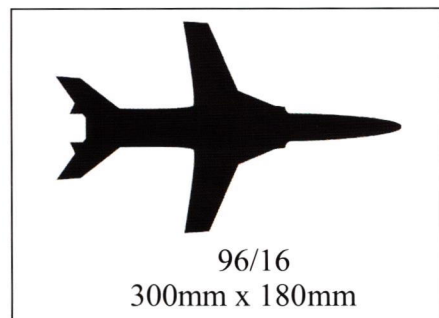
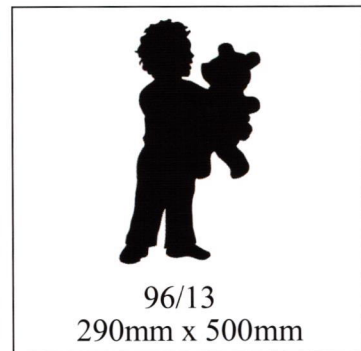
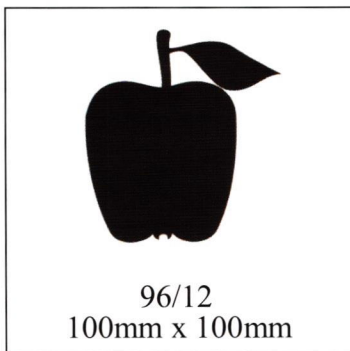
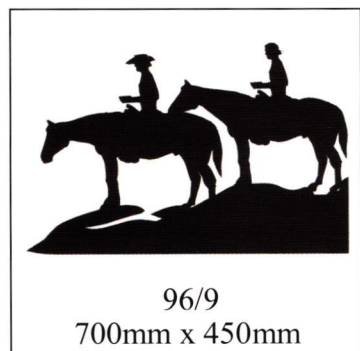
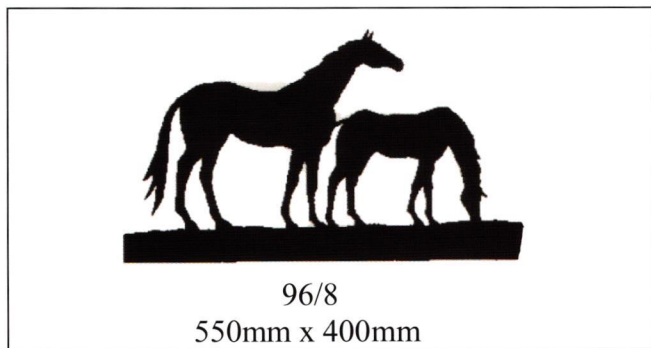
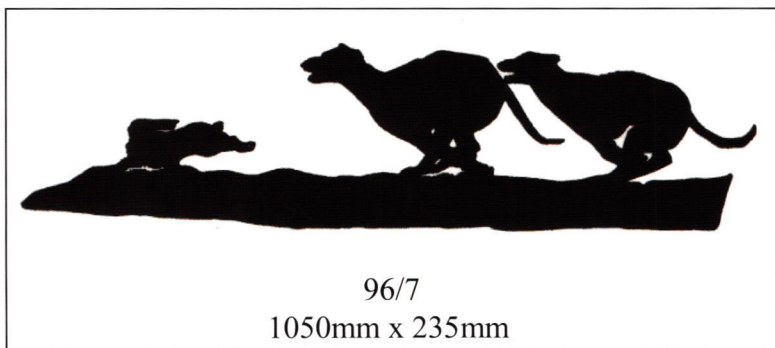


96/4
615mm x 230mm

Any other profile cut upon request



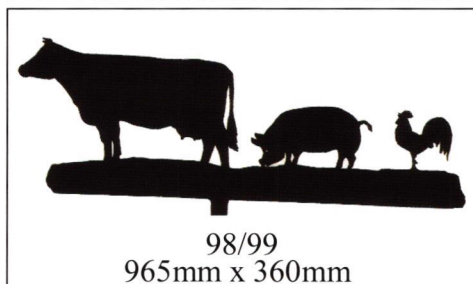
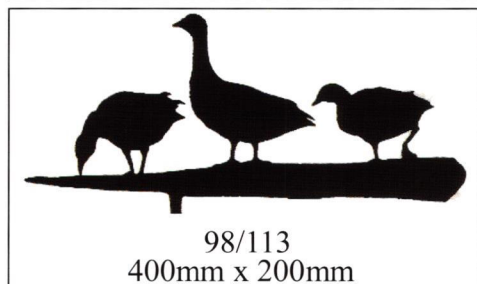
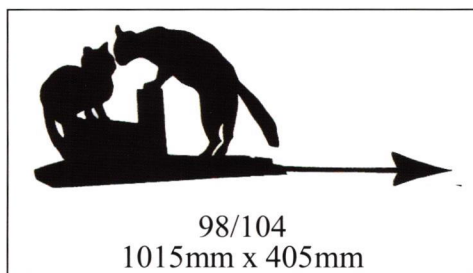
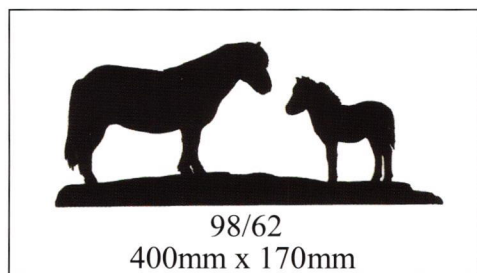
Laser Cut Profiles



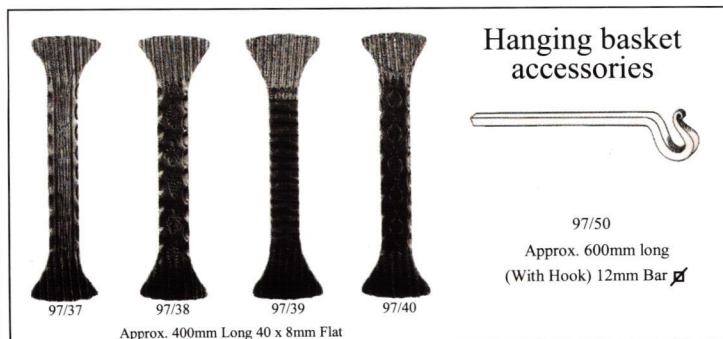
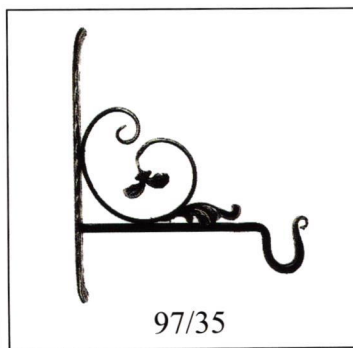
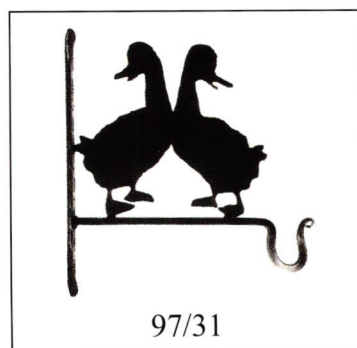
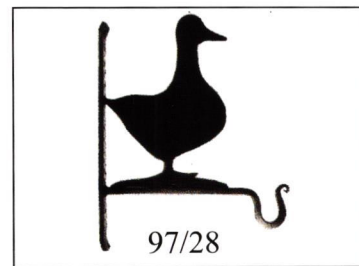
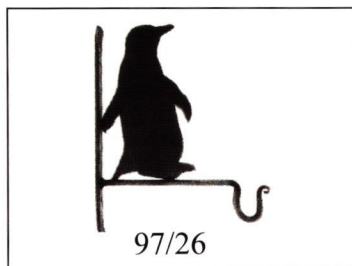
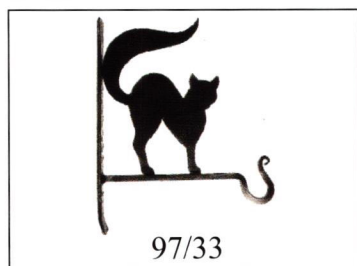
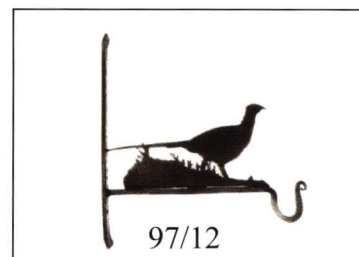
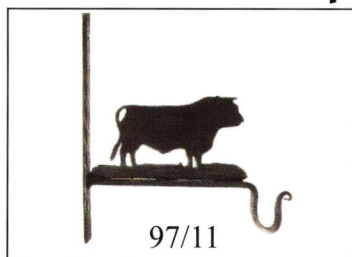
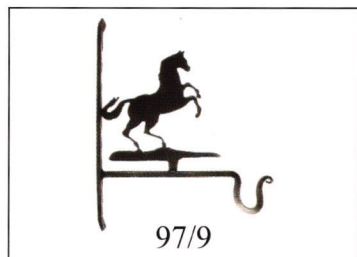
Any other profile cut upon request



Laser Cut Profiles



Hanging Basket Brackets with Profile Shapes



All sizes are approximate



Profile Letters & Weather Vane Kits

Letters

ABCDEFGHIJKLMNOPQRSTUVWXYZ 0123456789 &

Size	3" High 6mm Thick	4" High 6mm Thick	4" High 4mm Thick	6" High 6mm Thick	8" High 6mm Thick	10" High 6mm Thick	12" High 6mm Thick
Part No.	98/5	98/1	98/6	98/7	98/8	98/9	98/10

ABCDEFGHIJKLMNOPQRSTUVWXYZ 0123456789 &

98/11 4" High 6mm Thick

W N E
S

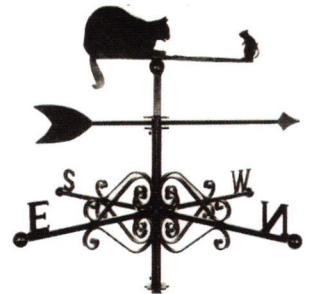
98/3

100mm x 6mm Thick

W N E
S

98/4

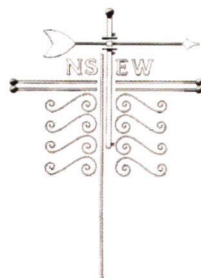
120mm x 6mm Thick



Large Weather Vane
(Showing Feature Top 96/6)



Small Weather Vane
(Showing Feature Top 95/1)



Weather Vane Kit (Large)
(When Assembled Approx: 34 1/4
" High x 38 1/2" Wide) 99/1



Weather Vane Kit (Small)
(When Assembled Approx: 22
1/2" High x 26 1/4" Wide) 99/2



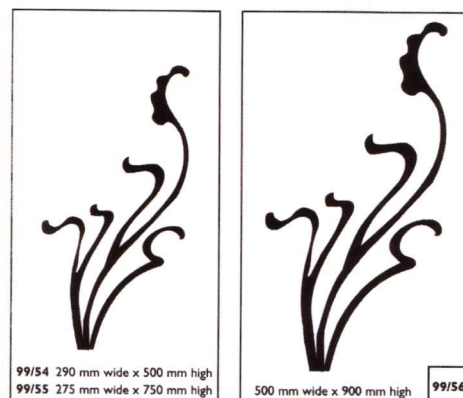
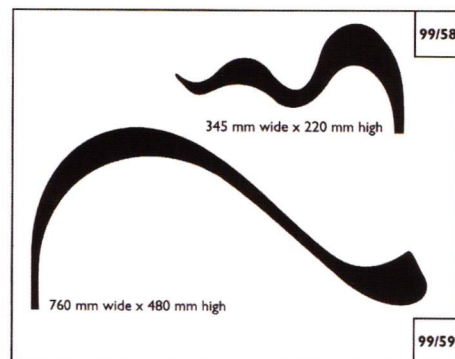
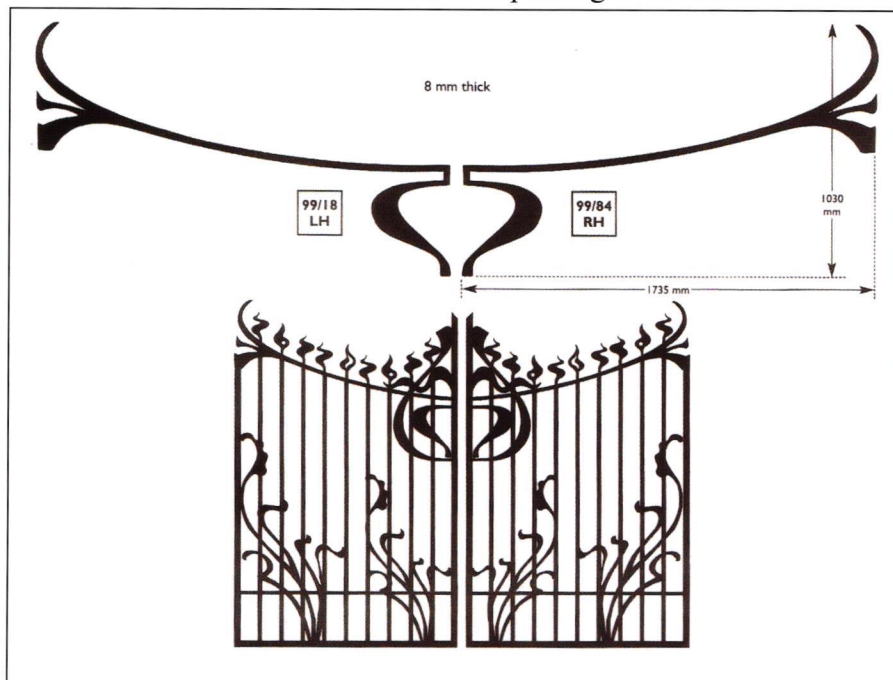
Side Surface Fixing Bar
(Extended 8" (200mm) From Wall)

99/4 - 36" Long
99/6 - 20" Long

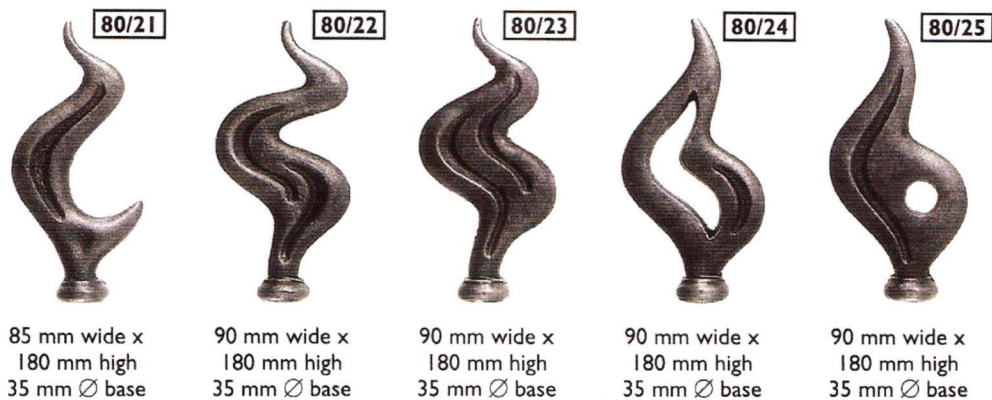


Firespray Gates

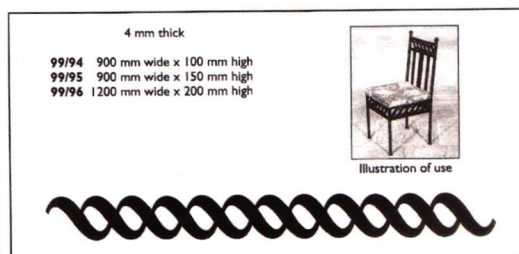
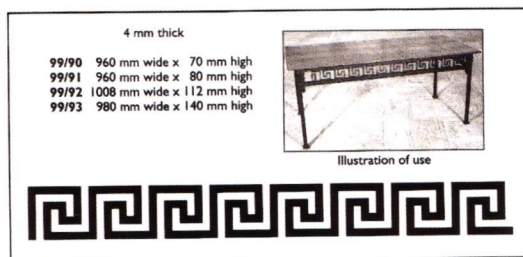
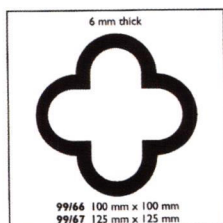
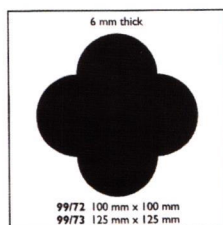
NB: 4no. 99/59 and 2no. 99/84 are required to make a sandwich style gate which enables frames to be mounted back and front and the infill bars passing in between.



Weldable steel railheads as used in our Firespray Gates



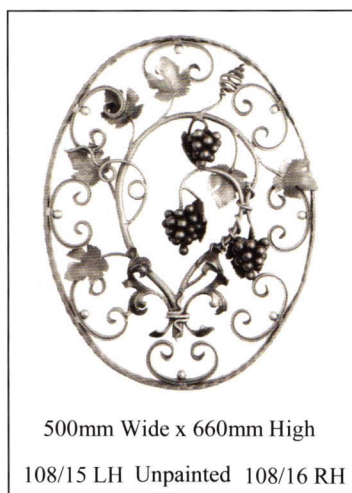
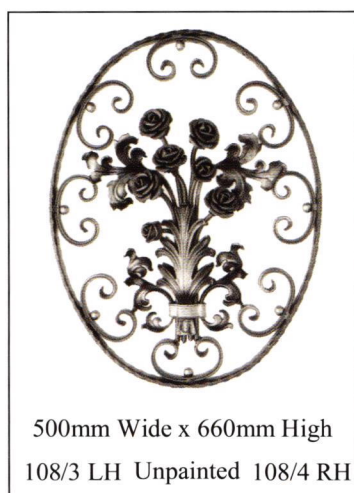
Shaped Profiles



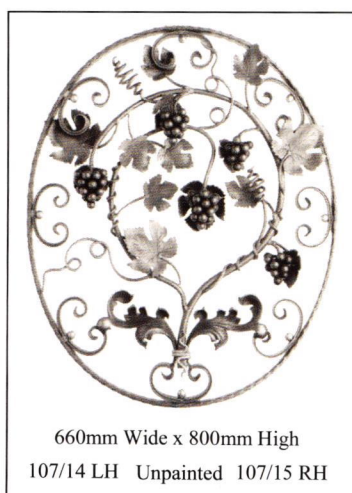
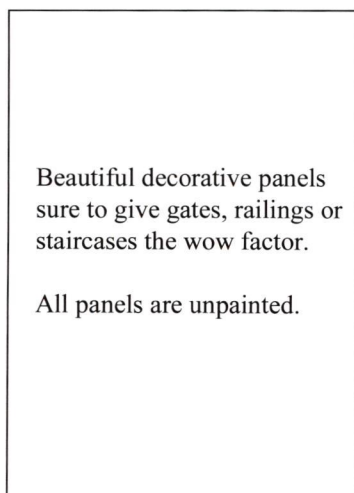
Decorative Panels



Small Oval Panels



Large Oval Panels



For use in gates, railings & panels or as a hanging wall feature. All panels are unpainted

Paint

Paint

- Rapid drying – non drip.
- Chip resistant.
- Suitable for aluminium .
- Ideal for structural steelwork.
- No pre-treatment necessary. (must be clean & dry)
- Full colour range available – popular colours from stock.
- Cross cut & impact adhesion far superior to conventional alkyd systems.
- Tough, flexible film, resistant to aqueous chemicals.
- Much less maintenance needed, only one coat when re-painting.
- Use with our patinas to produce antique & highlighted finishes.
- Excellent adhesion to freshly hot-dipped galvanised ironwork, & also non-galvanised steel



Today, most ironwork for outside use is hot dipped galvanised. This helps to prevent rust & greatly increases the life of the ironwork. In the course of time however, the zinc will be chemically changed into corroded zinc by the atmosphere. In order to prevent this, zinc coated surfaces should be painted. Conventional paints will not adhere without pre-treatment & can chip or flake. This paint does not need any pre-treatment or primer. Two coats* will give a lasting finish on freshly galvanised ironwork & although we recommend it is applied by spraying, small areas may be brushed on.

VINYGLOSS is specially formulated to give a gloss finish. It can be applied & used in the same way as VINYLAST™ except that it must only be used for the final coat. The first coat(s) should be standard VINYLAST™ of any colour. The recommended dry film thickness remains the same.

All colours are available in Vinygloss with the exception of graphite (0003), Aluminium & Sparkle Silver.

For full specifications, data sheets & colour charts or advice on the uses & application of VINYLAST™ & VINYGLOSS please call us.

Colour	VINYLAST™ ORDER CODE	VINYGLOSS ORDER CODE	1 Litre	2.5 Litre	5 Litre
Black	RAL 0001	RAL 0001 GLOSS	✓	✓	✓
Brown	RAL 0002	RAL 0002 GLOSS	✓	✓	✓
Graphite	RAL 0003	NOT AVAILABLE	✓	✓	✓
Stone Grey	RAL 7030	RAL 7030 GLOSS	✓	✓	✓
White	RAL 9010	RAL 9010 GLOSS	✓	✓	✓
Moss Green	RAL 6005	RAL 6005 GLOSS	✓	✓	✓
Aluminium	RAL 9006	NOT AVAILABLE	✓	✓	✓
Sparkle Silver	RAL Sparkle Silver	NOT AVAILABLE	✓	✓	✓

*A minimum of 75 microns DFT (dry film thickness) is required (up to 120 microns DFT in salt conditions)

Any other colour in tin sizes as above – please quote RAL number.

PATINAS

375 ml tin

112/6 – Gold
112/7 – Copper
112/9 – Green

Of course, painting also gives a more attractive appearance, especially when it is highlighted.

With the addition use of our PATINAS, beautiful antique & highlighted finishes are possible to give your work individual & unique qualities.

113/24 Industrial Thinners – For use with Vinylast 5 Litre
113/30 Staygold – Long Lasting Bright Gold Paint 1 Litre

Post boxes

This versatile range of post boxes offers you the widest possible choice of location. There is a model for just about all situations – “built-in” or “face-faced” to a wall or fence, free standing on its own support column, with a choice of rear or front lockable access doors.

The post box has its front and back panels cast in non-rusting aluminium with the casing made from heavy gauge zinc plated can be supplied.

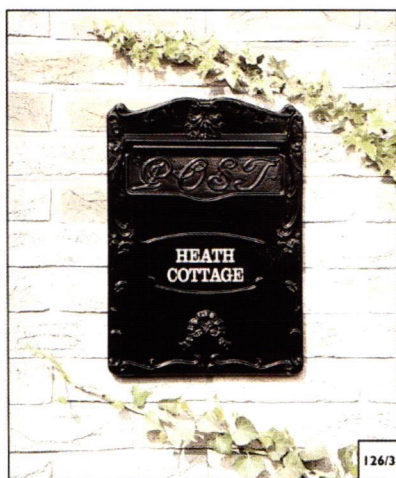
To ensure its long lasting appeal, the post box is supplied polyester powder coated. Your house or company's name can be supplied.

The generous interior of the post box is approximately 16" x 11" x 9" (405mm x 280mm x 230mm) has ample space for all those large envelopes, newspapers, etc. For walls over 9" thick, to special order, we can supply the post box with an increased size between the front & back castings.

Also to special order, the post box can be supplied with an access door both in the front & rear faces, allowing for milk bottle deliveries “through the wall” as often these are a sign that the house is unattended.

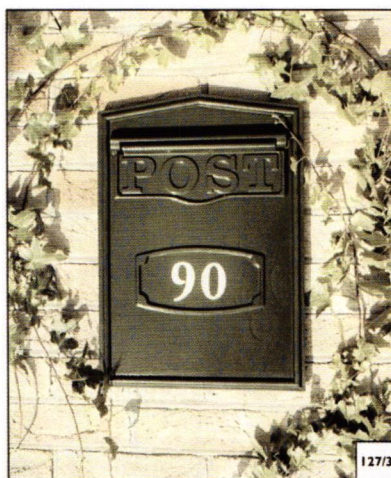
For security, your post box access door is fitted with a snap action cylinder lock with a push button or key operation (similar to those fitted to car glove compartments), not fiddly padlocks.

We believe that with all the feature these post boxes offer one of the most versatile ranges on the market.



Kingsbury – built in

126/3



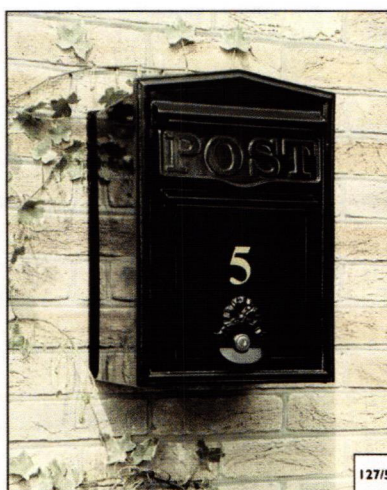
Bloomsbury – built in

127/3



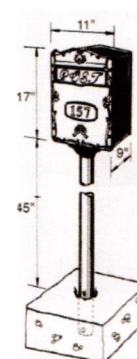
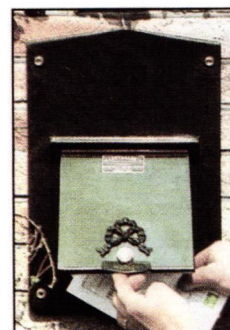
Kingsbury – surface mounted

126/5



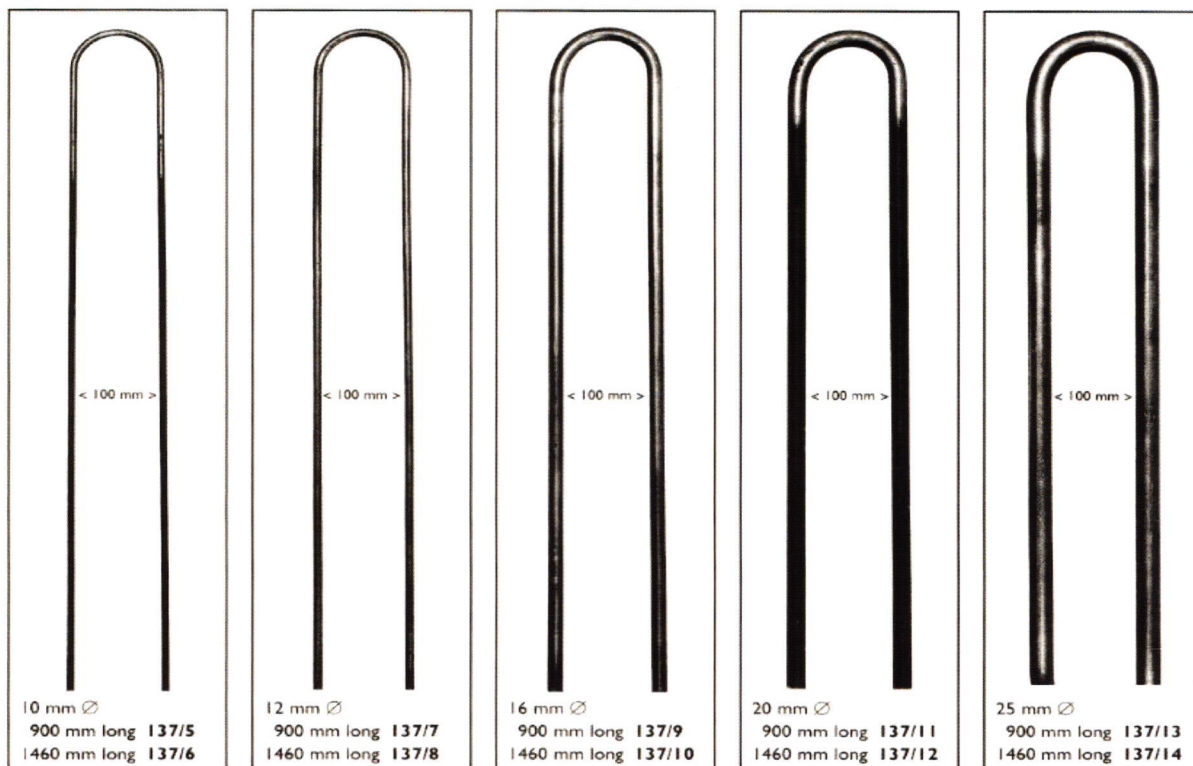
Bloomsbury – surface mounted

127/5



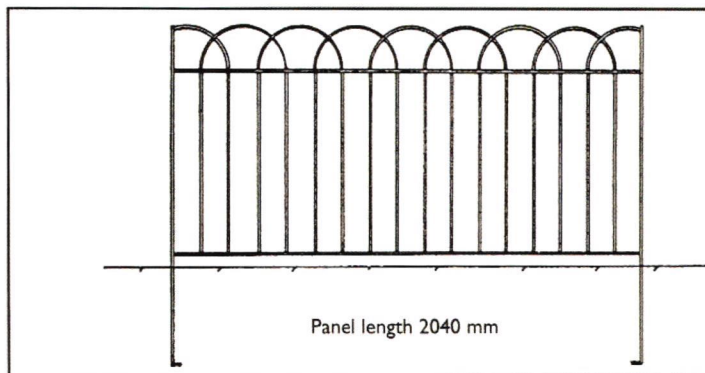
Individual Hoops

The standard individual hoops shown below show an approximate length. If you would like us to cut to size for you of supply different widths, steel sizes & lengths, please call us for a quotation.





Various Bow Top Fencing

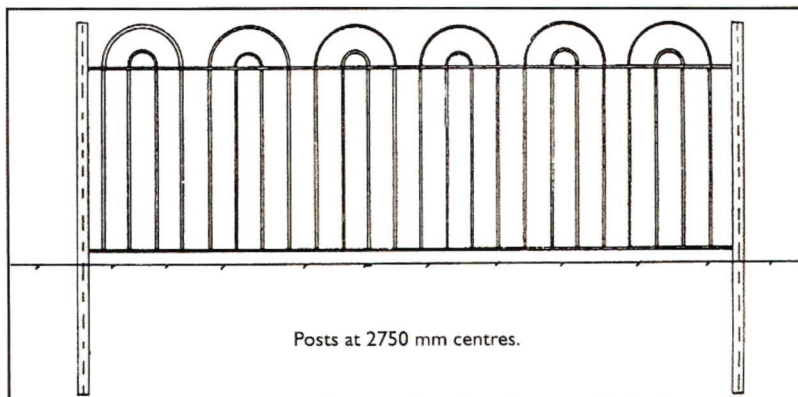


INTERLACED BOW TOP HURDLE

- 138/4** 800 mm high
- 138/5** 1000 mm high
- 138/6** 1200 mm high

Hoops – 12 mm \varnothing at 112 mm centres.
Frame – 40 x 10 mm flat.

Panel supplied with two end frame posts.

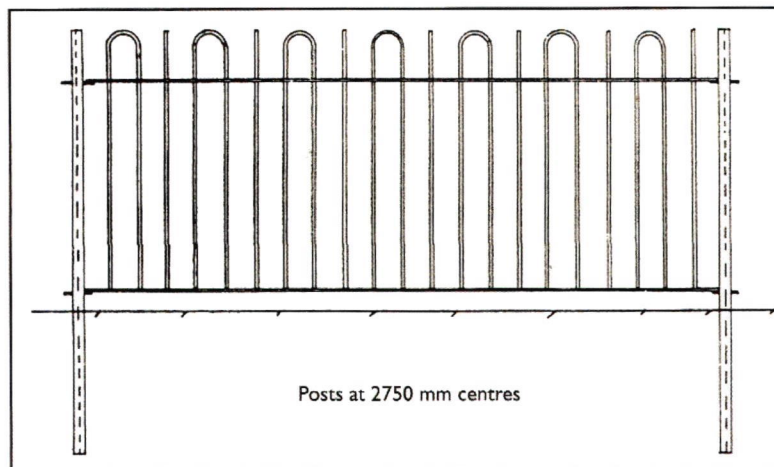


BOW IN BOW FENCING

- | | |
|----------------------------|--------------------------|
| 138/7 800 mm high | 138/8 Extra post |
| 138/9 1000 mm high | 138/10 Extra post |
| 138/11 1200 mm high | 138/12 Extra post |

Hoops – 12 mm \varnothing at 112 mm centres.
Posts – 102 x 44 mm RSJ.

Panel supplied with one end post.



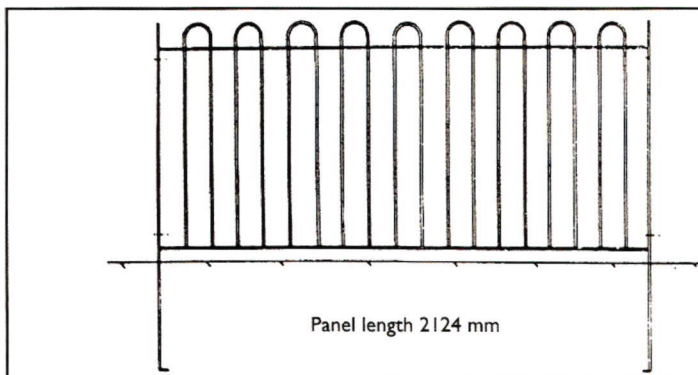
ALTERNATE BOW/VERTICAL BAR FENCING

- 16 mm \varnothing hoops/verticals at 120 mm centres.
- | | |
|----------------------------|--------------------------|
| 138/13 1200 mm high | 138/14 Extra post |
| 138/15 1400 mm high | 138/16 Extra post |

- 20 mm \varnothing hoops/verticals at 131 mm centres.
- | | |
|----------------------------|--------------------------|
| 138/17 1600 mm high | 138/18 Extra post |
| 138/19 1800 mm high | 138/20 Extra post |

Posts – 102 x 44 mm RSJ.

Panel supplied with one end post.



BORDER HURDLE

- 138/21** 600 mm high
- 138/22** 800 mm high
- 138/23** 1000 mm high

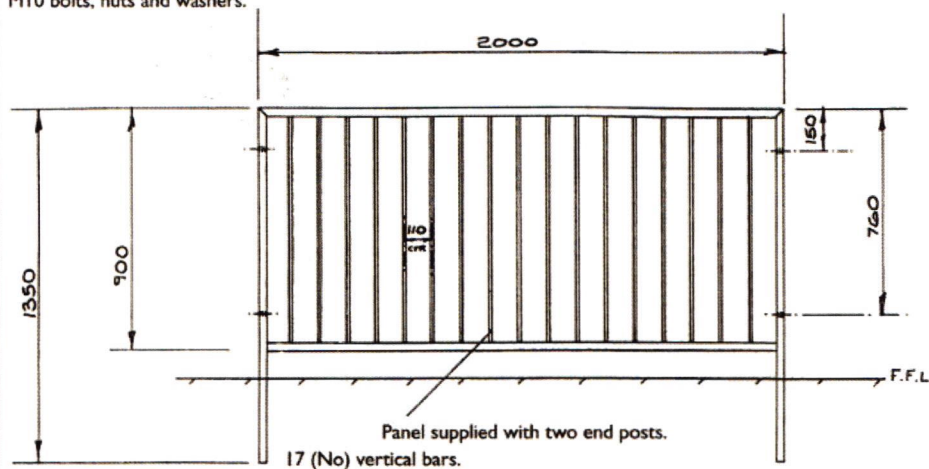
Hoops – 12 mm \varnothing at 112 mm centres.
Frame – 40 x 10 mm flat.

Panel supplied with two end frame posts.



Pedestrian Guard Railing

Panels joined with (galv.)
M10 bolts, nuts and washers.



TYPE	INFILL
139/4	12 mm \varnothing
139/5	16 mm \varnothing

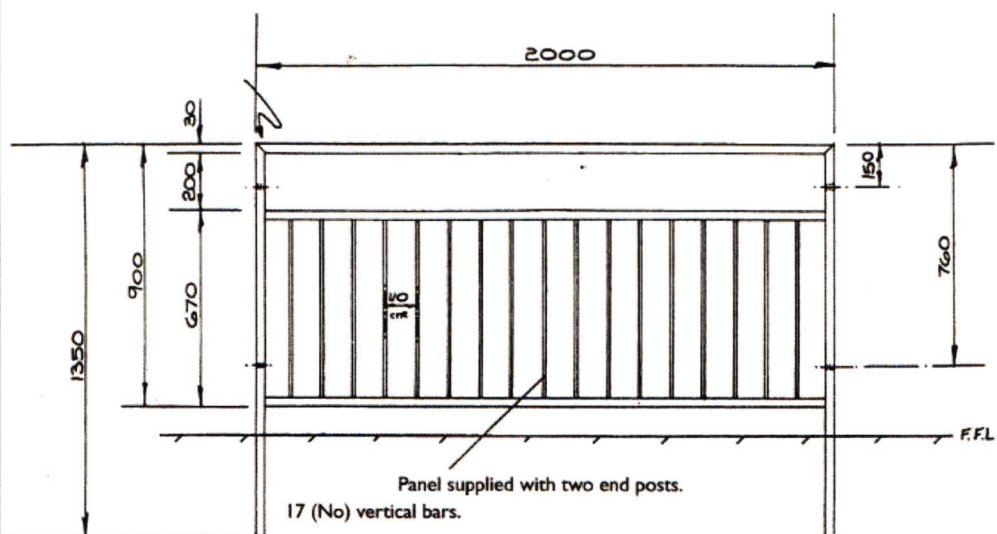
SPECIFICATION

Horizontal rails 50 mm x 30 mm x 2.6 mm RHS.
Posts 50 mm x 30 mm x 3 mm RHS.
Vertical infills – as chart.

* Panels manufactured to BS 3049.
* Finish hot dip galvanised to BS 729.
* Raked or radiused available.

Panels joined with (galv.)
M10 bolts, nuts and washers.

WITH VISIBILITY GAP



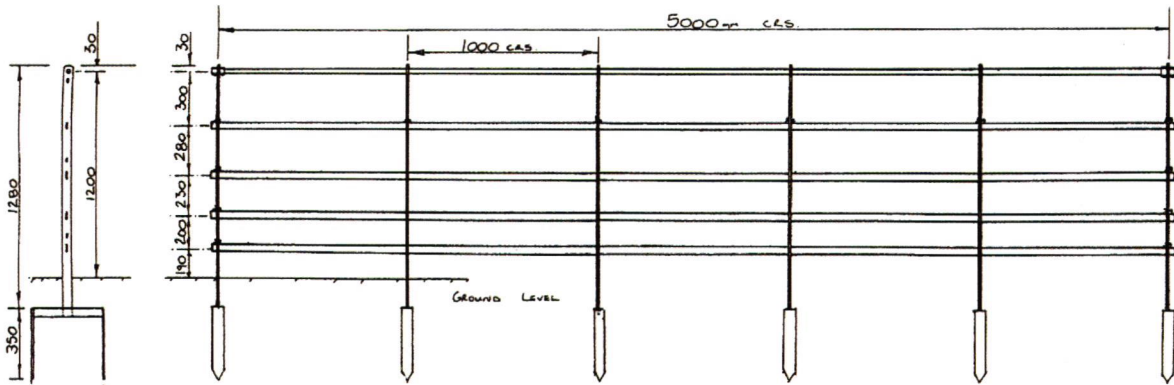
TYPE	INFILL
139/6	12 mm \varnothing
139/7	16 mm \varnothing

SPECIFICATION

Horizontal rails 50 mm x 30 mm x 2.6 mm RHS.
Posts 50 mm x 30 mm x 3 mm RHS.
Vertical infills – as chart.

* Panels manufactured to BS 3049.
* Finish hot dip galvanised to BS 729.
* Raked or radiused available.

Estate / Parkland Fencing



140/5
Support post

CONTINUOUS BAR (Supplied loose)

140/4 1200 mm above ground x 5000 mm long.

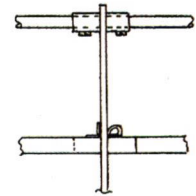
140/5 Support post
1200 mm above ground
x 430 mm below.

Suitable for both **140/4**
and **140/6**.

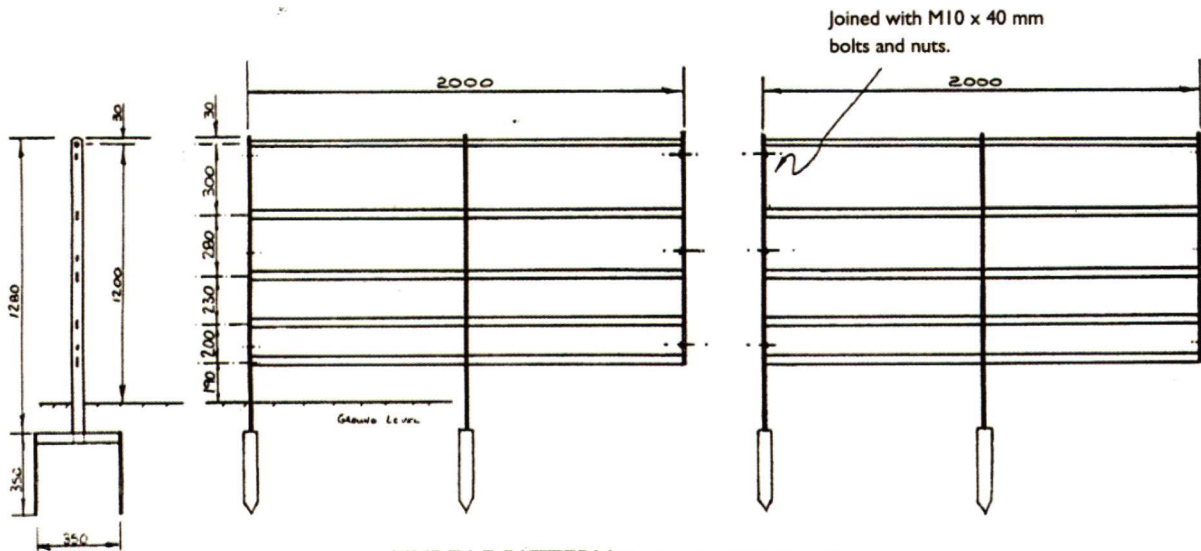
GALVANISED FINISH

SPECIFICATION FOR 140/4 AND 140/6

Top rail	20 mm dia.
Other rails	25 x 6 mm flat
Support post	40 x 10 mm flat
Joiner posts for 140/4	50 x 10 mm flat included



Bars overlapped and
held with wedges.



140/5
Support post

HURDLE PATTERN (Supplied as welded panel)

140/6 1200 mm above ground x 2000 mm long.

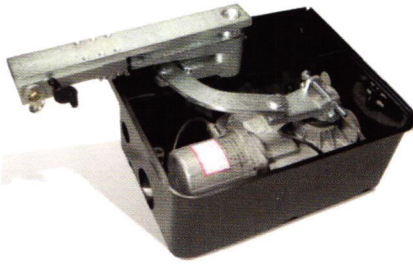
GALVANISED FINISH

CAME Automation

We are approved gold installers for all Came Automation.
We supply a full range of Came equipment.
For further details call our sales department.

Frog

Underground Swing Gate Automation



- The underground solution for gate automation.
- High-grade of protection from environmental agents (IP67).
- The system automatically locks back after gate is manually released.
- Can open as wide as 180° (with 001FL-J80).
- FROG-AE and FROG-A24E feature encoder-based technology, tested according to current legislative standards.
- The 24 V version can function in emergency mode during power cuts.
- Special corrosion resistant all-steel foundation box.
- Built-in adjustable mechanical stops.





FrogAE-P kit

Complete kit for a pair of swing gates of up to 3.5 m / 11'5" each leaf, 230V A.C. motors.

2m	2.5m	3.5m
800kg	600kg	400kg

* We recommend provision be made for an electric lock if the wing is wider than 2m

	Qty
001FROG-AE 230v Motor 	2
001FROG-CF Foundation Case	2
001A4364 Release Mechanism	2
001DIR-10 Pair Safety Photocells	1

	Qty
002ZM3E Control Panel 	1
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1
001AF43S Frequency card. (433,92MHz)	1





FrogAE-S kit

Complete kit for a single swing gate of up to 3.5 m / 11'5" leaf, 230V A.C. motor.

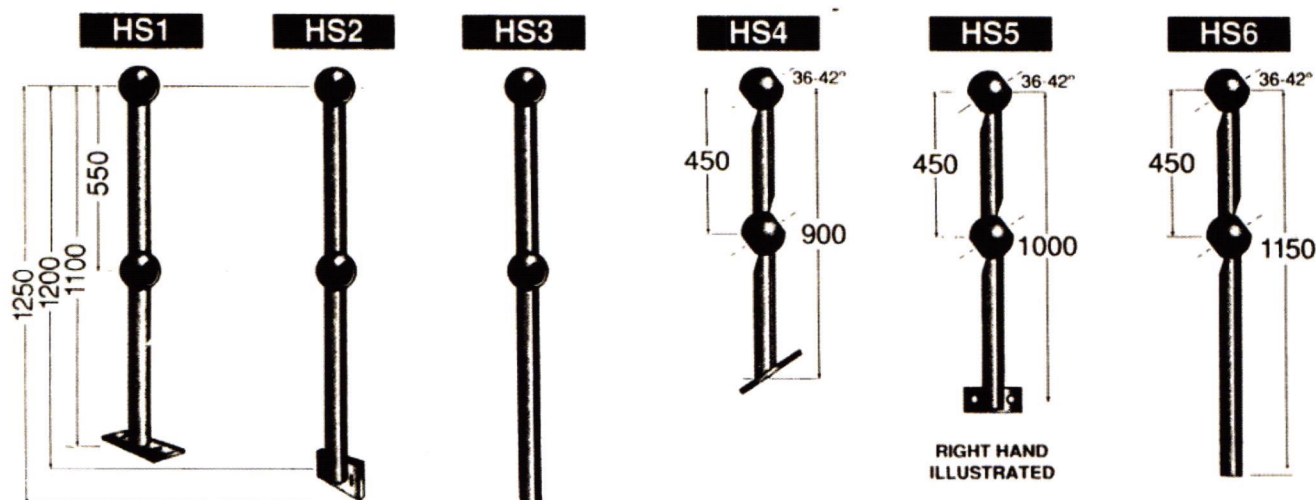
2m	2.5m	3.5m
800kg	600kg	400kg

* We recommend provision be made for an electric lock if the wing is wider than 2m

	Qty
001FROG-AE 230v Motor 	1
001FROG-CF Foundation Case	1
001A4364 Release Mechanism	1
001DIR-10 Pair Safety Photocells	1

	Qty
002ZM3E Control Panel 	1
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1
001AF43S Frequency card. (433,92MHz)	1

Tubular Steel Hand Rail Standards



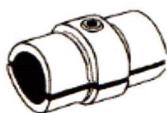
STANDARD TYPE	33.7 mm dia. shank for 33.7 mm dia. handrail		42.4 mm dia. shank for 42.4 mm dia. handrail		48.3 mm dia. shank for 48.3 mm dia. handrail	
ALL BASE PLATES ARE 12 mm THICK WITH 18 mm DIA. HOLES	SELF COLOUR	GALVANISED	SELF COLOUR	GALVANISED	SELF COLOUR	GALVANISED
HS1 FLAT BASE (rails horizontal)	142/6	142/7	142/17	142/18	142/28	142/29
HS2 HORIZONTAL BASE (rails horizontal)	142/8	142/9	142/19	142/20	142/30	142/31
HS3 NO BASE (rails horizontal)	142/10	142/11	142/21	142/22	142/32	142/33
HS4 ANGLED FLAT BASE (rails angled)	142/12	142/13	142/23	142/24	142/34	142/35
HS5 HORIZONTAL BASE (rails angled) (handed – state L or R)	142/14	142/15	142/25	142/26	142/36	142/37
HS6 NO BASE (rails angled)	142/16	—	142/27	—	142/38	—

All the above Standards have balls drilled and tapped and are supplied with grub screws.

RAIL ENDS	33.7 mm tube		42.4 mm tube		48.3 mm tube	
	SELF COLOUR	GALVANISED	SELF COLOUR	GALVANISED	SELF COLOUR	GALVANISED
	LEVEL 142/39 142/40		LEVEL 142/43 142/44		LEVEL 142/47 142/48	
	RAKED 36°–42° 142/41 142/42		RAKED 36°–42° 142/45 142/46		RAKED 36°–42° 142/49 142/50	

RAIL CONNECTORS GALVANISED

ALLEN SCREW TYPE TO SUIT HANDRAIL: 33.7 mm 42.4 mm 48.3 mm
A6 90° ELBOW CONNECTOR 142/51 142/52 142/53
A9 STRAIGHT CONNECTOR 142/54 142/55 142/56



CRIMP RAIL CONNECTORS (ONE SIZE ONLY)

CRIMP TYPE (GALVANISED) TO SUIT HANDRAIL: 33.7 mm
90° ELBOW CONNECTOR 142/57
STRAIGHT CONNECTOR 142/58A



BASE PLATES – SELF COLOUR (FOR WELDING)

ALL BASE PLATES ARE 12 mm THICK WITH 18 mm DIA. HOLES

	SIZE	HOLES	
A: FLAT BASE	150 x 65 mm	100 CTRS	142/58B
B: HORIZONTAL BASE	150 x 65 mm	100 CTRS	142/59
C: ANGLED FLAT BASE	200 x 65 mm	150 CTRS	142/60
D: CIRCULAR BASE	150 mm dia.	100 PCD	142/61
E: TRIANGULAR BASE	150 x 150 mm	100 x 100	142/62



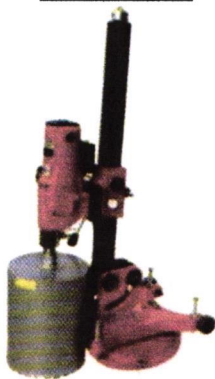
DRILLED STEEL BALLS – SELF COLOUR (FOR WELDING)

TUBULAR
TO SUIT 33.7 mm HANDRAIL 142/63
TO SUIT 42.4 mm HANDRAIL 142/64
TO SUIT 48.3 mm HANDRAIL 142/65



Please note that all balls sold separately are not drilled for grub screws.

MM-2050



Structure & Features:

It is fitted with an adjustable bracket on its original engineering drilling machine, it can drill a bore vertically and also can drill an inclined bore at the angle of 0-90 degree. Its fixed method can adopt vacuum pump to bleed the air, make the suction cup firmly sick to the plan of the building, then fixing the rectangle base and the drilling machine on the bolts of suction cup, then the drilling can proceed. Therefore there is no need to drill the expansion bolt hole, avoiding damage to the building.

Max. Drilling Diameter: 225mm

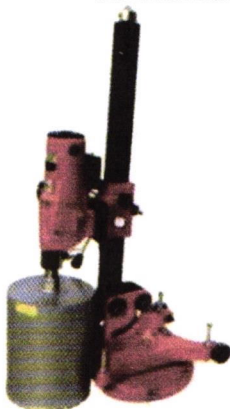
Rate Voltage: 110V

Rated Frequency: 50-60Hz

Rated Input Power:

No-load speed: 460/900 r/min

MM-4550



Structure & Features:

It is fitted with an adjustable bracket on its original engineering drilling machine, it can drill a bore vertically and also can drill an inclined bore at the angle of 0-90 degree. Its fixed method can adopt vacuum pump to bleed the air, make the suction cup firmly sick to the plan of the building. then fixing the rectangle base and the drilling machine on the bolts of suction cup, then the drilling can proceed. Therefore there is no need to drill the expansion bolt hole, avoiding damage to the building.

Max. Drilling Diameter: 300mm

Rated Voltage: 110V

Rated Frequency: 50-60Hz

Rated Input Power: 2450w

No-load speed: 480/900 r/min

Diamond Core Bits



Part No.	Specification
82-28C	28mm Dia x 400mm UNC Female Thread
82-32C	32mm Dia x 400mm UNC Female Thread
82-42C	42mm Dia x 400mm UNC Female Thread
82-52C	52mm Dia x 400mm UNC Female Thread
82-62C	62mm Dia x 400mm UNC Female Thread
82-77C	77mm Dia x 400mm UNC Female Thread
82-82C	82mm Dia x 400mm UNC Female Thread
82-92C	92mm Dia x 400mm UNC Female Thread
82-1 or	102mm Dia x 400mm UNC Female Thread
82-132C	132mm Dia x 400mm UNC Female Thread
82-152C	152mm Dia x 400mm UNC Female Thread
82-182C	182mm Dia x 400mm UNC Female Thread
82-200C	200mm Dia x 400mm UNC Female Thread
82-212C	212mm Dia x 400mm UNC Female Thread
82-225C	225mm Dia x 400mm UNC Female Thread
82-254C	254mm Dia x 400mm UNC Female Thread

Core Drilling Machines & Core Bits

MM90/28S

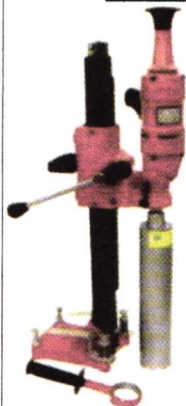


Structure & Features:

Two-gear rotary speed is designed, through knob to adjust the speed of gear. Two-gear is suitable for 20-25mm small diameter drill; bottom-gear is suitable for 50-70mm diameter drill bit. It is fitted with safety clutch, which can avoid damaging the frame when the twisting force is too high. It is designed to be portable type and bracket type.

Max. Drilling Diameter: 80mm
 Rated Voltage: 110V
 Rated Frequency: 50-60Hz
 Rated Input Power: 1500W
 No-Load speed: 2100/950
 r/min (double speed)

MM90/2BF



Structure & Feature:

Two-gear rotary speed is designed, through knob to adjust the speed of gear. Top-gear is suitable for 20-52mm small diameter drill. Bottom-gear is suitable for 52-70mm diameter drill bit. It is fitted with safety clutch, which can avoid damaging the frame when the twisting force is too high. It is designed to be portable type and bracket type.

Max. Drilling Diameter: 90mm
 Rated Voltage: 110V
 Rated Frequency: 50-60Hz No-
 load speed: 2 100/950 r/min
 (double speed)

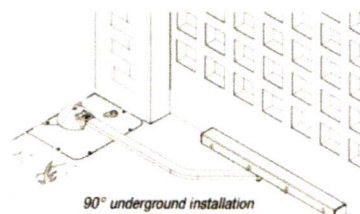
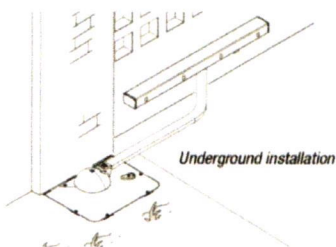
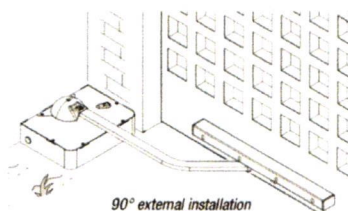
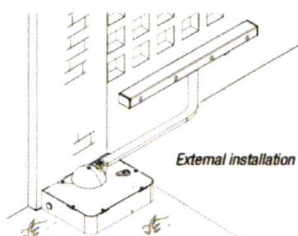
CAME Automation

Myto



Underground or Surface Mounted Swing Gate Automation

- Tested according to applicable rules and regulations.
- Encoder-based movement control.
- Release system with lever key projected by sliding trap door.
- Can function in emergency mode during power cuts.
- Self-diagnosing safety devices.
- Simplified connection with only one three-core cable.
- Installs below as well as at ground-level



Myto-P24 Kit

Complete kit for a pair of swing gates of up to 1.8m / 6ft each leaf, 24V D.C. motors.

2 x Myto-ME	24V Motor
2 x Myto-C	Foundation Case
1 x ZL92	Control Panel
2 x Myto-BD	Transmission arm
1 x AF43S	Frequency Card. (433,92 MHz)
2 x T432NA	Radio Remote (433,92 MHz)
1 x TA433N	Antenna
1 x DIR-10	Pair Safety Photocells
1 x CEPACK	End User Conformity Booklet



Myto-S24 Kit

Complete kit for a single swing gate of up to 1.8m / 6ft each leaf, 24V D.C. motors.

1 x Myto-ME	24V Motor
1 x Myto-C	Foundation Case
1 x ZL92	Control Panel
1 x Myto-BD	Transmission arm
1 x AF43S	Frequency Card. (433,92 MHz)
2 x T432NA	Radio Remote (433,92 MHz)
1 x TA433N	Antenna
1 x DIR-10	Pair Safety Photocells
1 x CEPACK	End User Conformity Booklet

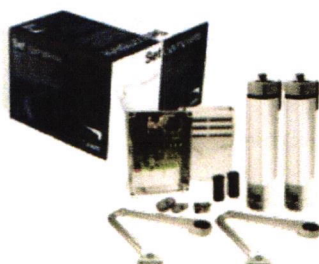
CAME Automation

Stylo



The ideal solution to automate small-sized gates

- Tested according to applicable rules and regulations.
- Encoder-based movement control.
- For installing on gates with minimal-width gate posts (starting from 8cm / 3.14in) even up against a wall or fence, thanks to the straight arm option.
- Can function in emergency mode during power cuts.
- Sturdy and reliable, despite its reduced size, thanks to the system's irreversibility.



StyloA-P24 kit

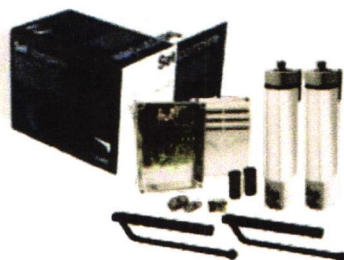
Complete kit for a pair of swing gates of up to 1.8 m / 6ft each leaf, 24V D.C. motors.

0.8m	1.2m	1.8m
150kg	125kg	100kg

	Qty
001STYLO-ME 24v Motor	2
001STYLO-BS Articulated Arm	2
001DIR-10 Pair Safety Photocells	1

	Qty
002ZL192 Control Panel 24v	1
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1
001AF43S Frequency card. (433,92MHz)	1

Emergency battery backup available as an optional extra, see page 36 for details



StyloS-P24 kit

Complete kit for a pair of swing gates of up to 1.8 m / 6ft each leaf, 24V D.C. motors.

0.8m	1.2m	1.8m
150kg	125kg	100kg

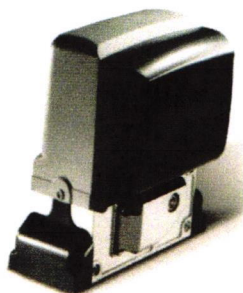
	Qty
001STYLO-ME 24v Motor	2
001STYLO-BD Transmission Arm	2
001DIR-10 Pair Safety Photocells	1

	Qty
002ZL192 Control Panel 24v	1
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1
001AF43S Frequency card. (433,92MHz)	1

Emergency battery backup available as an optional extra, see page 36 for details

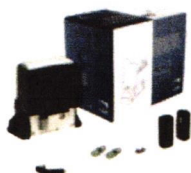
CAME Automation

BX



Sliding Gate Automation

- BX-74, BX-10 and BX-246: tested according to current legislative standards.
- A board range of BX motors are available to meet most requirements.
- Self-diagnosing safety devices.
- BX-10: evolved electronics with programming display, encoder-based deceleration and obstacle and can memorise up to 250 users.
- BX-246: can work in emergency mode during power cuts.



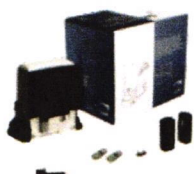
BX-74 kit

Complete kit for a sliding gate weighing up to 400kg, 230V A.C.



	Qty
001BX74 230v Motor & Panel	1
001AF43S Frequency card. (433,92MHz)	1
001DIR-10 Pair Safety Photocells	1

	Qty
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1



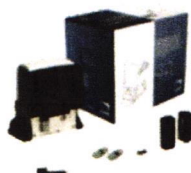
BX-10 kit

Complete kit for a sliding gate weighing up to 800kg, 230V A.C.



	Qty
001BX10 230v Motor & LCD Panel	1
001AF43S Frequency card. (433,92MHz)	1
001DIR-10 Pair Safety Photocells	1

	Qty
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1



BX-246 kit

Complete kit for a sliding gate weighing up to 600kg, 24v D.C.

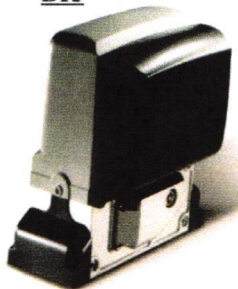


	Qty
001BX246 24v Motor & Panel	1
001AF43S Frequency card. (433,92MHz)	1
001DIR-10 Pair Safety Photocells	1

	Qty
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1

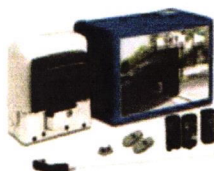
CAME Automation

BK



Sliding Gate Automation

- Flexibility and safety thanks to a complete range designed for different types of use, from industrial to intensive settings.
- Self-diagnosing safety devices.
- An additional range of automated devices with encoder based movement control are available on request.
- Can also control additional lighting of the entrance way.
- Module 4 or 6 pinions for fluid and linear transmission of the rack movement.



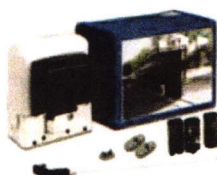
BK-800 kit

Complete kit for a sliding gate weighing up to 800kg, 230V A.C.



	Qty
001BK800 230v Motor & Panel	1
001AF43S Frequency card. (433,92MHz)	1
001DIR-10 Pair Safety Photocells	1

	Qty
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1



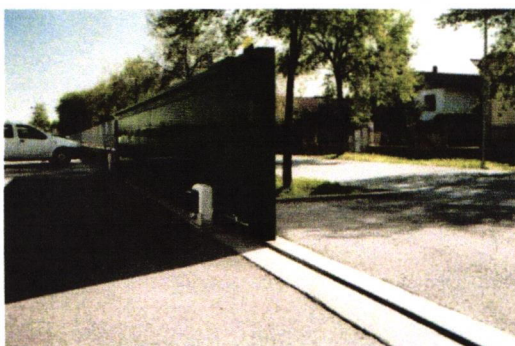
BK-1800 kit

Complete kit for a sliding gate weighing up to 1800kg, 230V A.C.

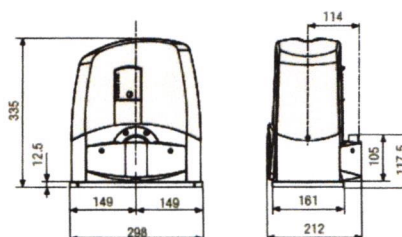


	Qty
001BK1800 230v Motor & Panel	1
001AF43S Frequency card. (433,92MHz)	1
001DIR-10 Pair Safety Photocells	1

	Qty
001TOP-432NA Radio Remote (433,92MHz)	2
001TOP-A433N Antenna	1



Dimensions (mm)



Intercoms

TARGHA to AGATA



- Modular system
- Maximum security at accesses
- IP54 protection

The Targha entry panel from BPT merges the utmost modularity and functionality with the most advanced aesthetic values contemporary design has to offer. Made from anodized aluminium, the

Targha entry panel's high-tech appearance blends in effortlessly with the style of any building. Easy to install, Targha is particularly suitable wherever leaving the existing structures untouched is of paramount importance.

Agata Handset

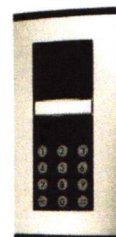


- Extra slim design
- Door lock release
- Wall-mount
- Door bell interface

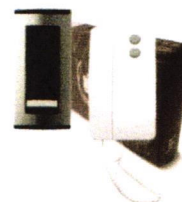
The Agata handset brings elegant styling and cost effective functionality. The standard kit version comes with lock release auxiliary button and doorbell interface. Agata provides ease of use, and a clean-cut design in keeping with the BPT handset range.



Targha Panel



With Keypad



Complete Kit Includes

- Targha entry panel
- Required Buttons (See Chart below)
- Agata handset (See Chart below)
- HA/200 audio module
- A/200N power supply

Product Dimensions

	W (mm)	W (mm)	W (mm)
Wall Mounted	99	207	28
Embedded	90	198	51.5

Audio Kit Combinations

Keypad	Version	Type	Code
x	1 Way (1 button / 1 handset)		TAAG1
x	2 Way (2 button / 2 handset)		TAAG2
x	3 Way (3 button / 3 handset)		TAAG3
x	4 Way (4 button / 4 handset)		TAAG4
x	5 Way (5 button / 5 handset)		TAAG5
x	6 Way (6 button / 6 handset)		TAAG6
	1 Way (1 button / 1 handset)		TAKAG1
	2 Way (2 button / 2 handset)		TAKAG2

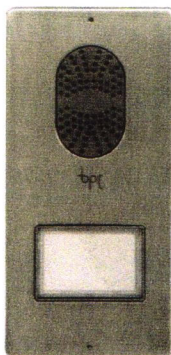
System Extras:

Component	Description	Code
Addition Handset	Agata Standard Handset	AGATA C 200
Embedding Box	Targha Flush Mounting Box	HTS/GR

LITHOS to AGATA



LITHOS PANELS



- Brushed stainless steel construction
- IP54 rated buttons
- Single or double push buttons

Lithos is an entry panel created by BPT for the X1 two-wire system. Compact and ultraslim (protruding just 30mm from the wall), Lithos will blend perfectly into any setting, thanks to its soft lines and elegant brushed stainless steel finish. Lithos can be fitted with single or double push buttons for single-family or two family systems, and features the intercom function as standard without the need for supplementary power supply*. In addition, it can be used to create systems designed to handle up to four calls. Lithos can be installed wall-mounted or recessed.

*Dependent on handset type

Agata Handset



- Extra slim design
- Door lock release
- Wall-mount
- Door bell interface

The Agata handset brings elegant styling and cost effective functionality. The standard kit version comes with lock release auxiliary button and doorbell interface. Agata provides ease of use, and a clean-cut design in keeping with the BPT handset range.



Complete Kit Includes

- Lithos entry panel
- Required buttons (See Chart below)
- Agata handset (See Chart below)
- VAS/101 power supply
- R/I relay

Product Dimensions

	W (mm)	W (mm)	W (mm)
Wall Mounted	99	207	30
Embedded	135	243	6.5(*)/(**)

* embedding box and frame not included in kits

(*) Embedding box: depth 54.5mm; protrusion from wall: 6.5mm

(**) Frame included

Audio Kit Combinations

Keypad	Version	Type	Code
x	1 Way (1 button / 1 handset)		LIAG1
x	2 Way (2 button / 2 handset)		LIAG2
x	3 Way (3 button / 3 handset)		LIAG3
x	4 Way (4 button / 4 handset)		LIAG4

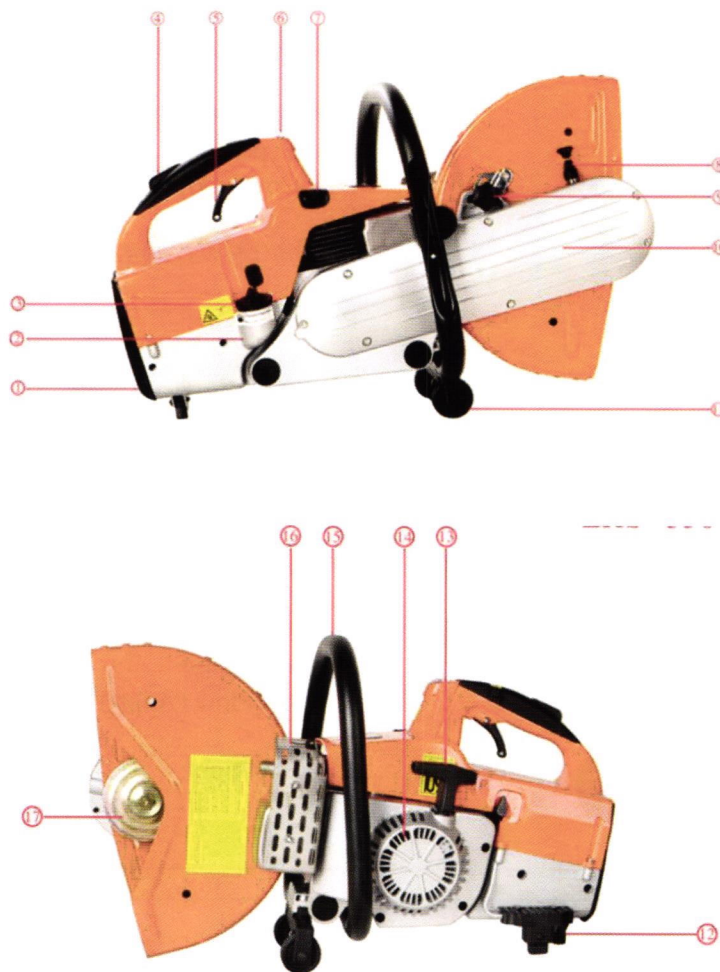
System Extras:

Component	Description	Code
Addition Handset	Agata Standard Handset	AGATA C
Rainshield	Stainless Steel Shroud	LRS
Embedding Frame	Lithos Embedding Frame	LCI
Embedding Box	Lithos Flush Mounting Box	LSI

We have a vast amount of Intercoms available to suit all requirements, please contact us for further details on 028 796 50023.

Saws

MM-350C



Features of MM-350 C

1. Multi-stage filter system providing clean air to engine.
2. Large volume oil tank: 1.5L providing longer working hours
3. Oil cap
4. Interlocking switch, designed for safe operation.
5. Throttle trigger
6. On/off switch. It always keeps in off position for safety reason.
7. Decompression valve – designed for easier starting.
8. Quick button-special designed for changing blades.
9. Semi-auto belt tension adjuster for smoother running.
10. One piece cover for transmission systems, anti dust. The cover is made by nylon-6 engineering plastics with reinforced ribs against great impact.
11. Cart wheels for easy moving on working site.
12. Foot pedal-thoughtful design for more stable starting.
13. Pull rope, manual recoil starting.
14. New-improved ignition system with lower electricity resistance in coil, plus reconditioned initial idle speed setting, guarantee for easy starting.
15. Aluminium handle
16. Exhaust outlet.
17. Arbor: 1" 25.4mm for 14" blade or 20mm for 12" blade

Engine Type:	Single-cylinder, two-stroke, air-cooled
Displacement:	64.1cc
Engine Speed:	8500 rpm
Max. Output:	3.6 hp
Fuel Tank Capacity:	1.5 L
Weight:	12 Kg
Standard Blade Dia.	12" & 14"
Cutting Depth:	115mm (4-1/2")

Space Heaters

REO 15



Nominal Heat Output: 51,000BTU (15KW)
 Fuel Type: Paraffin/Diesel/Kerosene
 Fuel Consumption: 1.22 Kg/h
 Fuel Capacity: 21.5L
 Hot Air Flow (Appr.): 500m³/h
 Motor: 150W
 Power Supply: 230V/110V~50Hz/60Hz

REO 30



Nominal Heat Output: 102,00BTU (30KW)
 Fuel Type: Paraffin/Diesel/Kerosene
 Fuel Consumption: 2.44 Kg/h
 Fuel Capacity: 33L
 Hot Air Flow (Appr.): 1000m³/h
 Motor: 200W
 Power Supply: 230V/110V~50Hz/60Hz

REO 50



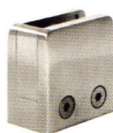
Nominal Heat Output: 170,000BTU (50KW)
 Fuel Type: Paraffin/Diesel/Kerosene
 Fuel Consumption: 4.08 Kg/h
 Fuel Capacity: 54L
 Hot Air Flow (Appr.): 1000m³/h
 Motor: 250W
 Power Supply: 230V/110V~50Hz/60Hz

REO 80

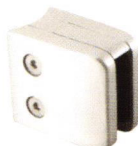


Nominal Heat Output: 272,000BTU (80KW)
 Fuel Type: Paraffin/Diesel/Kerosene
 Fuel Consumption: 6.5 Kg/h
 Fuel Capacity: 54L
 Hot Air Flow (Appr.): 2000m³/h
 Motor: 400W
 Power Supply: 230V/110V~50Hz/60Hz

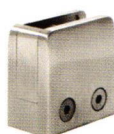
Zamak Glass Clamps



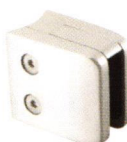
Part No.	Description	Base	Suit Glass
ZGC-SF-FLAT, 55x55	Large Square Clamp, 55 x 55mm with Side Plate, For Flat	Flat Base	10mm
ZGC-SF-FLAT, 55x55	Large Square Clamp, 55 x 55mm with Side Plate, For Flat	Flat Base	12mm



Part No.	Description	Base	Suit Glass
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 42.4mm Tube	42.4mm Tube	10mm
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 42.4mm Tube	42.4mm Tube	12mm
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 48.3mm Tube	48.3mm Tube	10mm
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 48.3mm Tube	48.3mm Tube	12mm
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 50.8mm Tube	50.8mm Tube	10mm
ZGC-LSF, 55x55	Large Square Clamp – 55 x 55mm with Side Plate, For 50.8mm Tube	50.8mm Tube	12mm



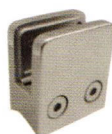
Part No.	Description	Base	Suit Glass
ZGC-LSF-FLAT, 55x70	Large Square Clamp, 55 x 70mm with Side Plate, For Flat	Flat Base	10mm
ZGC-LSF-FLAT, 55x70	Large Square Clamp, 55 x 70mm with Side Plate, For Flat	Flat Base	12mm



Part No.	Description	Base	Suit Glass
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 42.4mm Tube	42.4mm Tube	10mm
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 42.4mm Tube	42.4mm Tube	12mm
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 48.3mm Tube	48.3mm Tube	10mm
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 48.3mm Tube	48.3mm Tube	12mm
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 50.8mm Tube	50.8mm Tube	10mm
ZGC-LSF, 55x70	Large Square Clamp – 55 x 70mm with Side Plate, For 50.8mm Tube	50.8mm Tube	12mm



Part No.	Description	Base	Suit Glass
ZGC-SF, 45x45	Small Square Clamp, 45 x 45mm, For Flat	Flat Base	8mm
ZGC-SF, 45x45	Small Square Clamp, 45 x 45mm, For Flat	Flat Base	10mm



Part No.	Description	Base	Suit Glass
ZGC-SF-42.4, 45x45	Small Square Clamp, 45 x 45mm, For 42.4mm Tube	42.4mm Tube	8mm
ZGC-SF-42.4, 45x45	Small Square Clamp, 45 x 45mm, For 42.4mm Tube	42.4mm Tube	10mm
ZGC-SF-48.3, 45x45	Small Square Clamp, 45 x 45mm, For 48.3mm Tube	48.3mm Tube	8mm
ZGC-SF-48.3, 45x45	Small Square Clamp, 45 x 45mm, For 48.3mm Tube	48.3mm Tube	10mm



Part No.	Description	Base	Suit Glass
ZGC-DF, 63x45	Large "D" Clamp, 63 x 45mm, For Flat	Flat Base	10mm
ZGC-DF, 63x45	Large "D" Clamp, 63 x 45mm, For Flat	Flat Base	10mm



Part No.	Description	Base	Suit Glass
ZGC-DR-42.4, 63x45	Large "D" Clamp, 63 x 45mm, For 42.4mm Tube	42.4mm Tube	10mm
ZGC-DR-42.4, 63x45	Large "D" Clamp, 63 x 45mm, For 42.4mm Tube	42.4mm Tube	12mm
ZGC-DR-48.3, 63x45	Large "D" Clamp, 63 x 45mm, For 48.3mm Tube	48.3mm Tube	10mm
ZGC-DR-48.3, 63x45	Large "D" Clamp, 63 x 45mm, For 48.3mm Tube	48.3mm Tube	12mm
ZGC-DR-50.8, 63x45	Large "D" Clamp, 63 x 45mm, For 50.8mm Tube	50.8mm Tube	10mm
ZGC-DR-50.8, 63x45	Large "D" Clamp, 63 x 45mm, For 50.8mm Tube	50.8mm Tube	12mm

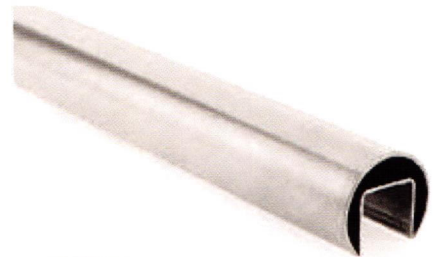
Stainless Steel

At M&M Engineering Services, we offer a wide range of high quality stainless steel components at competitive prices. With our extensive stock levels you will find yourself an excellent partner for the metal and glass industry.

We specialise in developing, producing and distributing high quality stainless steel products for the professional metal and glass industry.

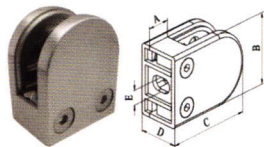
In addition to supplying stainless steel components, we also offer the following range of services:-

- Pipe polishing - from 16mm diameter upwards
- Flat polishing - 12mm up to 120 x 120 mm
- Box polishing - 20mm up to 80 mm
- Flow drilling services
- Mandral pipe bending
- Lathe work
- Milling
- Box section and canal rolling
- Non-mandral pipe bending - 21.3mm, 26.9mm, 33.7mm, 42.4mm, 48.3mm 60.3mm diameter.
3mm - 6mm wall thickness



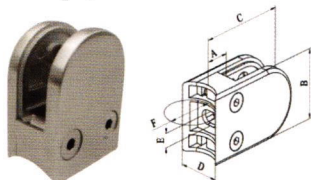
Grade 316 Satin - Glass Clamps

D Shape, Flat



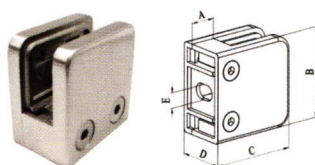
Part No.	A	B	C	D	E	Base	Suit Glass
GC-DF-316, 63 x 45	17.5	45	63	30	9	Flat Base	10mm
GC-DF-316, 63 x 45	17.5	45	63	30	9	Flat Base	12mm

D Shape, Radius



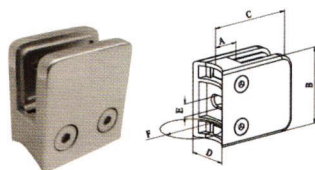
Part No.	A	B	C	D	E	F	Suit Glass
GC-DR-316, 42.4, 63 x 45	17.5	45	63	30	9	42.4	10mm
GC-DF-316, 48.3, 63 x 45	17.5	45	63	30	9	48.3	10mm
GC-DF-316, 50.8, 63 x 45	17.5	45	63	30	9	50.8	10mm
GC-DF-316, 42.4, 63 x 45	17.5	45	63	30	9	42.4	12mm
GC-DF-316, 48.3, 63 x 45	17.5	45	63	30	9	48.3	12mm

Square Shape, Flat



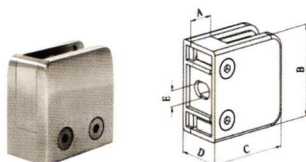
Part No.	A	B	C	D	E	Base	Suit Glass
GC-SF-316, 45 x 45	16	55	55	31.5	9.5	Flat Base	8mm
GC-SF-316, 45 x 45	16	55	55	31.5	9.5	Flat Base	10mm
GC-SF-316, 45 x 45	16	55	55	31.5	9.5	Flat Base	12mm

Square Shape, Radius



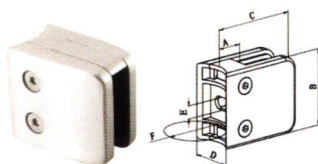
Part No.	A	B	C	D	E	F	Suit Glass
GC-SF-316, 42.4, 45 x 45	16	55	55	31.5	9.5	42.4	8mm
GC-SF-316, 42.4, 45 x 45	16	55	55	31.5	9.5	42.4	10mm
GC-SF-316, 42.4, 45 x 45	16	55	55	31.5	9.5	42.4	12mm
GC-SF-316, 48.3, 45 x 45	16	55	55	31.5	9.5	48.3	8mm
GC-SF-316, 48.3, 45 x 45	16	55	55	31.5	9.5	48.3	10mm
GC-SF-316, 48.3, 45 x 45	16	55	55	31.5	9.5	48.3	12mm
GC-SF-316, 50.8, 45 x 45	16	55	55	31.5	9.5	50.8	8mm
GC-SF-316, 50.8, 45 x 45	16	55	55	31.5	9.5	50.8	10mm

Large Square Shape, Flat



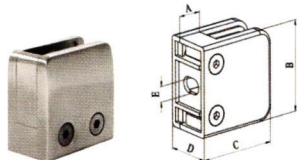
Part No.	A	B	C	D	E	Base	Suit Glass
GC-SF-316, 55 x 70	16	69	55	40	9	Flat Base	10mm
GC-SF-316, 55 x 70	16	69	55	40	9	Flat Base	12mm

Large Square Shape, Radius



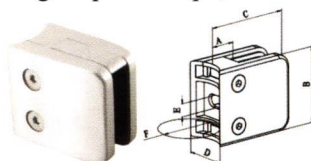
Part No.	A	B	C	D	E	F	Suit Glass
GC-SR-316, 42.4 55 x 70	16	69	55	40	9	42.4	10mm
GC-SR-316, 42.4 55 x 70	16	69	55	40	9	42.4	12mm
GC-SR-316, 48.3 55 x 70	16	69	55	40	9	48.3	10mm
GC-SR-316, 48.3 55 x 70	16	69	55	40	9	48.3	12mm
GC-SR-316, 50.8 55 x 70	16	69	55	40	9	50.8	10mm
GC-SR-316, 50.8 55 x 70	16	69	55	40	9	50.8	12mm

Large Square Shape, Flat



Part No.	A	B	C	D	E	Base	Suit Glass
GC-SF-316, 42.4, 55 x 55	16	55	55	35	9	Flat Base	10mm
GC-SF-316, 42.4, 55 x 55	16	55	55	35	9	Flat Base	12mm

Large Square Shape, Radius



Part No.	A	B	C	D	E	F	Suit Glass
GC-SF-316, 42.4, 55 x 55	16	55	55	35	9	42.4	10mm
GC-SF-316, 42.4, 55 x 55	16	55	55	35	9	42.4	12mm

Glass Adapter

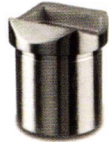


Part No.	Description	Grade
GA-FLAT-316-LARGE	Glass Adaptor (Large) – To Suit Flat	316



Part No.	Description	Grade
GA-FLAT-316-LARGE	Glass Adaptor (Small) – To Suit 42.4mm	316

Adapters



Part No.	Description	Grade
Plug for 42.4x2.0, 42.4mm-304	Plug – 42.4 x 2.0 for 42.4mm	304
Plug for 42.4x2.6, 42.4mm-304	Plug – 42.4 x 2.6 for 42.4mm	304
Plug for 42.4x2.0, 48.3mm-304	Plug – 42.4 x 2.6 for 48.3mm	304
Plug for 48.3x2.0, 48.3mm-304	Plug – 48.3 x 2.0 for 48.3mm	304
Plug for 48.3x2.6, 48.3mm-304	Plug – 48.3 x 2.6 for 48.3mm	304
Plug for 42.4x2.0, 42.4mm-316	Plug – 42.4 x 2.0 for 42.4mm	316
Plug for 42.4x2.6, 42.4mm-316	Plug – 42.4 x 2.6 for 42.4mm	316
Plug for 42.4x2.0, 48.3mm-316	Plug – 42.4 x 2.6 for 48.3mm	316
Plug for 48.3x2.0, 48.3mm-316	Plug – 48.3 x 2.0 for 48.3mm	316
Plug for 48.3x2.6, 48.3mm-316	Plug – 48.3 x 2.6 for 48.3mm	316

Handrail Brackets/Plugs



Part No.	Description	Grade
Plug 42.4 x 2.0, FR-304, Flat	Plug for 42.4 x 2.0 Fixed Rod 14 x 75mm HRA Flat	304
Plug 42.4 x 2.6, FR-304, Flat	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA Flat	304
Plug 48.3 x 2.6, FR-304, Flat	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA Flat	304



Part No.	Description	Grade
Plug 42.4 x 2.6, FR-304, 42.4	Plug for 42.4 x 2.0 Fixed Rod 14 x 75mm HRA 42.3mm	304
Plug 42.4 x 2.6, FR-304, 48.3	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA 48.3mm	304
Plug 48.3 x 2.6, FR-304, 42.4	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA 42.4mm	304
Plug 48.3 x 2.6, FR-304, 48.3	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA 48.3mm	304
Plug 42.4 x 2.6, FR-316, 42.4	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA 42.4mm	316
Plug 42.4 x 2.6, FR-316, 48.3	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA 48.3mm	316
Plug 48.3 x 2.6, FR-304, 42.4	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA 42.4mm	316



Part No.	Description	Grade
Plug 48.3 x 2.0, FR-304, 135, 48.3	Plug for 48.3 x 2.0 Fixed Rod 14 x 75mm HRA Elbow 135, 48.3mm	304
Plug 48.3 x 2.6, FR-304, 135, 42.4	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA Elbow 135, 42.3mm	304
Plug 48.3 x 2.6, FR-304, 135, 48.3	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA Elbow 135, 48.3mm	304
Plug 42.4 x 2.6, FR-304, 135, 48.3	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA Elbow 135, 48.3mm	304
Plug 42.4 x 2.6, FR-304, 135, 42.4	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA Elbow 135, 42.3mm	304
Plug 42.4 x 2.0, FR-304, 135, 48.3	Plug for 42.4 x 2.0 Fixed Rod 14 x 75mm HRA Elbow 135, 48.3mm	304
Plug 42.4 x 2.0, FR-316, 135, 48.3	Plug for 42.4 x 2.0 Fixed Rod 14 x 75mm HRA Elbow 135, 48.3mm	316



Part No.	Description	Grade
Plug 48.3 x 2.6, FR-304, 90, 42.4	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA, Elbow 90, 42.4mm	304
Plug 42.4 x 2.6, FR-304, 90, 42.4	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA, Elbow 90, 42.4mm	304
Plug 48.3 x 2.6, FR-304, 90, 48.3	Plug for 48.3 x 2.6 Fixed Rod 14 x 75mm HRA, Elbow 90, 48.3mm	304
Plug 42.4 x 2.6, FR-304, 90, 48.3	Plug for 42.4 x 2.6 Fixed Rod 14 x 75mm HRA, Elbow 90, 48.3mm	304



Part No.	Description	Grade
Plug 42.4 x 2.6, 304, Flat	Plug for 42.4 x 2.6 Flexible Rod 14 x 75mm HRA Flat	304
Plug 48.3 x 2.6, 304, Flat	Plug for 48.3 x 2.6 Flexible Rod 14 x 75mm HRA Flat	304



Part No.	Description	Grade
90FR-304, 42.4	Fixed Rod 14 x 75mm Pin M10 Saddle 90 - 42.4mm	304
90FR-316, 42.4	Fixed Rod 14 x 75mm Pin M10 Saddle 90 - 42.4mm	316
90FR-316, 48.3	Fixed Rod 14 x 75mm Pin M10 Saddle 90 - 48.3mm	316



Part No.	Description	Grade
FR-304, FLAT	Fixed Rod 14 x 75mm Pin M10 Saddle - Flat	304



Part No.	Description	Grade
FR-304, 42.4	Fixed Rod 14 x 75mm Pin M10 Saddle - 42.4mm	304
FR-304, 48.3	Fixed Rod 14 x 75mm Pin M10 Saddle - 48.3mm	304
FR-316, 42.4	Fixed Rod 14 x 75mm Pin M10 Saddle - 42.4mm	316
FR-316, 48.3	Fixed Rod 14 x 75mm Pin M10 Saddle - 48.3mm	316



Part No.	Description	Grade
FLEXROD-304, FLAT	Flexible Rod 14 x 75mm Pin M10 Saddle - Flat	304
FLEXROD-316, FLAT	Flexible Rod 14 x 75mm Pin M10 Saddle - Flat	316



Part No.	Description	Grade
FLEXROD-304, 42.4	Flexible Rod 14 x 75mm Pin M10 Saddle - 42.4mm	304
FLEXROD-304, 48.3	Flexible Rod 14 x 75mm Pin M10 Saddle - 48.3mm	304
FLEXROD-316, 42.4	Flexible Rod 14 x 75mm Pin M10 Saddle - 42.4mm	316
FLEXROD-316, 48.3	Flexible Rod 14 x 75mm Pin M10 Saddle - 48.3mm	316

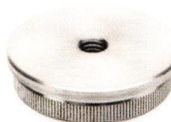


Part No.	Description	Grade
Curved for 42.4x2.0mm, 304, 14x120mm	Curved for 42.4 x 2.0mm - 14 x 120mm	304
Curved for 42.4x2.0mm, 316, 14x120mm	Curved for 42.4 x 2.0mm - 14 x 120mm	316

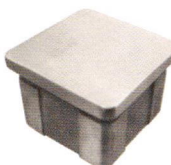
Stop Ends



Part No.	Description	Grade
FEC-304, 42.4 x 2.0	Flat Cap - 42.4 x 2.0mm	304
FEC-304, 48.3 x 2.0	Flat Cap - 48.3 x 2.0mm	304
FEC-304, 48.3 x 2.6	Flat Cap - 48.3 x 2.6mm	304
FEC-316, 42.4 x 2.0	Flat Cap - 42.4 x 2.0mm	316
FEC-316, 42.4 x 2.6	Flat Cap - 42.4 x 2.6mm	316
FEC-316, 48.3 x 2.0	Flat Cap - 48.3 x 2.0mm	316
FEC-316, 48.3 x 2.6	Flat Cap - 48.3 x 2.6mm	316



Part No.	Description	Grade
FEC-MIDHOLE-304, 42.4 x 2.0	Flat Cap - 42.4 x 2.0mm with M10 Hole	304
FEC-MIDHOLE-304, 42.4 x 2.6	Flat Cap - 48.3 x 2.6mm with M10 Hole	304
FEC-MIDHOLE-304, 48.3 x 2.0	Flat Cap - 48.3 x 2.0mm with M10 Hole	304
FEC-MIDHOLE-304, 48.3 x 2.6	Flat Cap - 48.3 x 2.6mm with M10 Hole	304
FEC-MIDHOLE-316, 42.4 x 2.0	Flat Cap - 42.4 x 2.0mm with M10 Hole	316
FEC-MIDHOLE-316, 42.4 x 2.6	Flat Cap - 48.3 x 2.6mm with M10 Hole	316
FEC-MIDHOLE-316, 48.3 x 2.0	Flat Cap - 48.3 x 2.0mm with M10 Hole	316
FEC-MIDHOLE-316, 48.3 x 2.6	Flat Cap - 48.3 x 2.6mm with M10 Hole	316



Part No.	Description	Grade
40mm-SQPLUG-304	Square Plug - 40.0 x 40.0 x 2.0mm	304
40mm-SQPLUG-316	Square Plug - 40.0 x 40.0 x 2.0mm	316



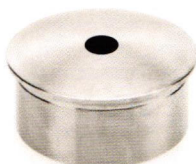
Part No.	Description	Grade
DC-304, 42.4 x 2.0	Dome Cap – 42.4 x 2.0mm	304
DC-304, 42.4 x 2.6	Dome Cap – 42.4 x 2.6mm	304
DC-304, 48.3 x 2.6	Dome Cap – 48.3 x 2.6mm	304
DC-316, 42.4 x 2.0	Dome Cap – 42.4 x 2.0mm	316
DC-316, 42.4 x 2.6	Dome Cap – 42.4 x 2.6mm	316
DC-316, 48.3 x 2.6	Dome Cap – 48.3 x 2.6mm	316



Part No.	Description	Grade
CEC-304, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm	304
CEC-304, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm	304
CEC-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm	304
CEC-304, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm	304
CEC-316, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm	316
CEC-316, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm	316
CEC-316, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm	316
CEC-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm	316



Part No.	Description	Grade
CEC-MIDHOLE-304, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm with M10 Hole	304
CEC-MIDHOLE-304, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm with M10 Hole	304
CEC-MIDHOLE-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm with M10 Hole	304
CEC-MIDHOLE-304, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm with M10 Hole	304
CEC-MIDHOLE-316, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm with M10 Hole	316
CEC-MIDHOLE-316, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm with M10 Hole	316
CEC-MIDHOLE-316, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm with M10 Hole	316
CEC-MIDHOLE-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm with M10 Hole	316



Part No.	Description	Grade
CEC-MIDHOLE-304, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm with M10 Hole without knurling long	304
CEC-MIDHOLE-304, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm with M10 Hole without knurling long	304
CEC-MIDHOLE-304, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm with M10 Hole without knurling long	304
CEC-MIDHOLE-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm with M10 Hole without knurling long	304
CEC-MIDHOLE-316, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm with M10 Hole without knurling long	316
CEC-MIDHOLE-316, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm with M10 Hole without knurling long	316
CEC-MIDHOLE-316, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm with M10 Hole without knurling long	316



Part No.	Description	Grade
REC-304, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm without knurling long	304
REC-304, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm without knurling long	304
REC-304, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm without knurling long	304
REC-304, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm without knurling long	304
REC-316, 42.4 x 2.0	Curved Cap – 42.4 x 2.0mm without knurling long	316
REC-316, 42.4 x 2.6	Curved Cap – 42.4 x 2.6mm without knurling long	316
REC-316, 48.3 x 2.0	Curved Cap – 48.3 x 2.0mm without knurling long	316
REC-316, 48.3 x 2.6	Curved Cap – 48.3 x 2.6mm without knurling long	316

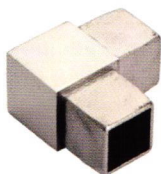
Elbow Bends & Connectors



Part No.	Description	Grade
EB-RND-304, 42.4 x 2.6	Soft 90 Degree Elbow – 42.4 x 2.6mm	304
EB-RND-304, 48.3 x 2.6	Soft 90 Degree Elbow – 48.3 x 2.6mm	304
EB-RND-316, 42.4 x 2.6	Soft 90 Degree Elbow – 42.4 x 2.6mm	316
EB-RND-316, 48.3 x 2.6	Soft 90 Degree Elbow – 48.3 x 2.6mm	316



Part No.	Description	Grade
EB-SQ-304, 42.4 x 2.6	Soft 90 Degree Elbow – 42.4 x 2.6mm	304
EB-SQ-304, 48.3 x 2.6	Soft 90 Degree Elbow – 48.3 x 2.6mm	304
EB-SQ-316, 42.4 x 2.6	Soft 90 Degree Elbow – 42.4 x 2.6mm	316
EB-SQ-316, 48.3 x 2.6	Soft 90 Degree Elbow – 48.3 x 2.6mm	316



Part No.	Description	Grade
SQEB-40mm-304	Fixed Square Elbow – 90 Degree to suit 40.0 x 40.0 x 2.0mm	304
SQEB-40mm-316	Fixed Square Elbow – 90 Degree to suit 40.0 x 40.0 x 2.0mm	316



Part No.	Description	Grade
EB-304, 42.4 x 2.0	Elbow Bend – 42.4mm	304
EB-304, 48.3 x 2.0	Elbow Bend – 48.2mm	304
EB-316, 42.4 x 2.0	Elbow Bend – 42.4mm	316
EB-316, 48.3 x 2.0	Elbow Bend – 48.2mm	316



Part No.	Description	Grade
PF-304, 42.4 x 2.0	Round 90 Degree Elbow Bend – 42.4mm	304
PF-304, 48.3 x 2.0	Round 90 Degree Elbow Bend – 48.2mm	304
PF-316, 42.4 x 2.0	Round 90 Degree Elbow Bend – 42.4mm	316
PF-316, 48.3 x 2.0	Round 90 Degree Elbow Bend – 48.2mm	316



Part No.	Description	Grade
PF-ANG-304, 42.4 x 2.0	Sharp 135 Degree Elbow Bend – 42.4mm	304
PF-ANG-304, 48.3 x 2.0	Sharp 135 Degree Elbow Bend – 48.2mm	304
PF-ANG-316, 42.4 x 2.0	Sharp 135 Degree Elbow Bend – 42.4mm	316
PF-ANG-316, 48.3 x 2.0	Sharp 135 Degree Elbow Bend – 48.2mm	316



Part No.	Description	Grade
ES-304, 42.4 x 2.0	Flat Elbow End Bend – 42.4mm x 2.0mm	304
ES-304, 48.3 x 2.0	Flat Elbow End Bend – 48.3mm x 2.0mm	304
ES-304, 42.4 x 2.6	Flat Elbow End Bend – 42.4mm x 2.6mm	304
ES-304, 48.3 x 2.6	Flat Elbow End Bend – 48.3mm x 2.6mm	304
ES-316, 42.4 x 2.0	Flat Elbow End Bend – 42.4mm x 2.0mm	316
ES-316, 48.3 x 2.0	Flat Elbow End Bend – 48.3mm x 2.0mm	316
ES-316, 42.4 x 2.6	Flat Elbow End Bend – 42.4mm x 2.6mm	316
ES-316, 48.3 x 2.6	Flat Elbow End Bend – 48.3mm x 2.6mm	316



Part No.	Description	Grade
CROSS-304, 42.4 x 2.0	Cross 2 Axis – 42.4mm x 2.0mm	304
CROSS-304, 42.4 x 2.6	Cross 2 Axis – 42.4mm x 2.6mm	304
CROSS-304, 48.3 x 2.6	Cross 2 Axis – 48.3mm x 2.6mm	304
CROSS-316, 42.4 x 2.0	Cross 2 Axis – 42.4mm x 2.0mm	316
CROSS-316, 42.4 x 2.6	Cross 2 Axis – 42.4mm x 2.6mm	316
CROSS-316, 48.3 x 2.6	Cross 2 Axis – 48.3mm x 2.6mm	316



Part No.	Description	Grade
PF-SW-304, 42.4 x 2.6	Tee 3 Axis Elbow – 42.4mm x 2.6mm	304
PF-SW-304, 48.3 x 2.6	Tee 3 Axis Elbow – 48.3mm x 2.6mm	304
PF-SW-316, 42.4 x 2.6	Tee 3 Axis Elbow – 48.3mm x 2.6mm	316
PF-SW-316, 48.3 x 2.6	Tee 3 Axis Elbow – 42.4mm x 2.6mm	316



Part No.	Description	Grade
PF-4W-304, 42.4 x 2.0	Tee 2 Axis Elbow – 42.4mm x 2.0mm	304
PF-4W-304, 48.3 x 2.6	Tee 2 Axis Elbow – 42.4mm x 2.6mm	304
PF-4W-304, 42.4 x 2.0	Tee 2 Axis Elbow – 48.3mm x 2.0mm	304
PF-4W-304, 48.3 x 2.6	Tee 2 Axis Elbow – 48.3mm x 2.6mm	304
PF-4W-316, 42.4 x 2.0	Tee 2 Axis Elbow – 42.4mm x 2.0mm	316
PF-4W-316, 42.4 x 2.6	Tee 2 Axis Elbow – 42.4mm x 2.6mm	316
PF-4W-316, 48.3 x 2.0	Tee 2 Axis Elbow – 48.3mm x 2.0mm	316
PF-4W-316, 48.3 x 2.6	Tee 2 Axis Elbow – 48.3mm x 2.6mm	316



Part No.	Description	Grade
EB-ROTATE-304, 42.4 x 2.0	Rotating Elbow – 42.4mm x 2.0mm	304
EB-ROTATE-304, 48.3 x 2.6	Rotating Elbow – 42.4mm x 2.6mm	304
EB-ROTATE-304, 42.4 x 2.0	Rotating Elbow – 48.3mm x 2.0mm	304
EB-ROTATE-304, 48.3 x 2.6	Rotating Elbow – 48.3mm x 2.6mm	304
EB-ROTATE -316, 42.4 x 2.0	Rotating Elbow – 42.4mm x 2.0mm	316
EB-ROTATE -316, 42.4 x 2.6	Rotating Elbow – 42.4mm x 2.6mm	316
EB-ROTATE -316, 48.3 x 2.0	Rotating Elbow – 48.3mm x 2.0mm	316
EB-ROTATE -316, 48.3 x 2.6	Rotating Elbow – 48.3mm x 2.6mm	316



Part No.	Description	Grade
HC-304, 42.4 x 2.0	Connector – 42.4mm x 2.0mm	304
HC-304, 48.3 x 2.6	Connector – 42.4mm x 2.6mm	304
HC-304, 42.4 x 2.0	Connector – 48.3mm x 2.0mm	304
HC-304, 48.3 x 2.6	Connector – 48.3mm x 2.6mm	304
HC-316, 42.4 x 2.0	Connector – 42.4mm x 2.0mm	316
HC-316, 42.4 x 2.6	Connector – 42.4mm x 2.6mm	316
HC-316, 48.3 x 2.0	Connector – 48.3mm x 2.0mm	316
HC-316, 48.3 x 2.6	Connector – 48.3mm x 2.6mm	316



Part No.	Description	Grade
PF-4W-304 - 42.4mm	Tee 4 Axis Elbow – 42.4mm	304
PF-4W-304 - 48.3mm	Tee 4 Axis Elbow – 48.2mm	304
PF-4W-316 - 42.4mm	Tee 4 Axis Elbow – 42.4mm	316
PF-4W-316 - 48.3mm	Tee 4 Axis Elbow – 48.2mm	316

Mid Rail Supports



Part No.	Description	Grade
RS-304-42.4mm	Mid Rail Support – To Suit 42.4mm	304
RS-316-42.4mm	Mid Rail Support – To Suit 42.4mm	316

Rivets



Part No.	Description	Grade
M6-Rivet-304	M6 Rivet	304
M8-Rivet-304	M8 Rivet	304

Handrail Brackets / Saddles



Part No.	Description	Grade
ES135-304, 42.4	Elbow Saddle 135 – 42.4mm	304
ES135-304, 48.3	Elbow Saddle 135 – 48.3mm	304
ES135-316, 42.4	Elbow Saddle 135 – 42.4mm	316
ES135-316, 50.8	Elbow Saddle 135 – 50.8mm	316



Part No.	Description	Grade
ES90-304, 42.4	Elbow Saddle 135 – 42.4mm	304
ES90-304, 48.3	Elbow Saddle 135 – 48.3mm	304
ES90-316, 42.4	Elbow Saddle 135 – 42.4mm	316
ES90-316, 48.3	Elbow Saddle 135 – 48.3mm	316
ES90-316, 50.8	Elbow Saddle 135 – 50.8mm	316

