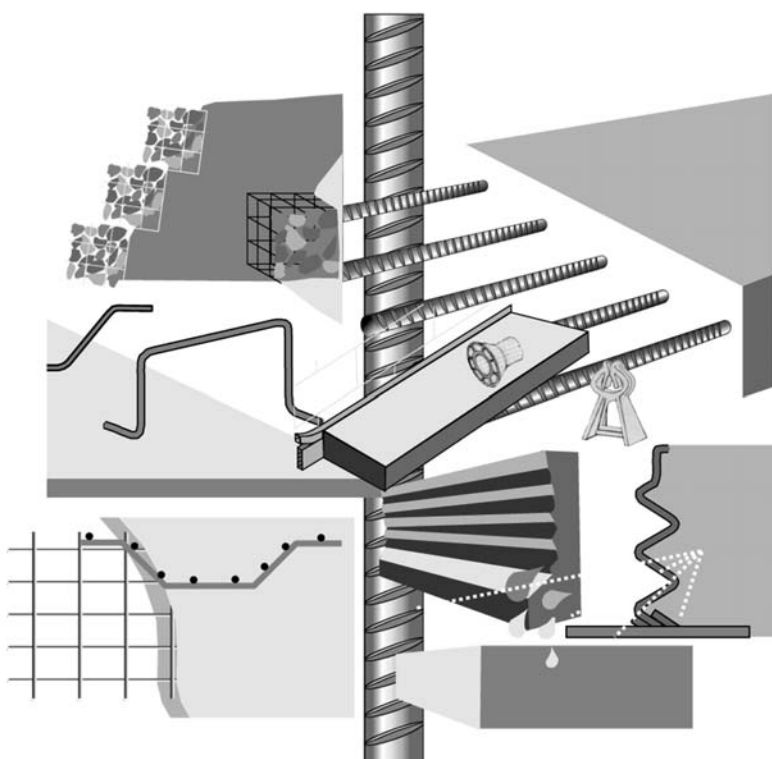




THE REINFORCEMENTS ARE HERE !

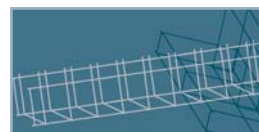


Your guide to reinforcing concrete with



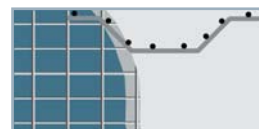
Reinforcement Bar

Page 2



Prefabricated

Page 4



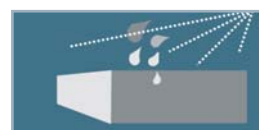
**Reinforcement
Fabric**

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Reelfix

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Chemicals

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Screed Rails

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**Corrugated Beam
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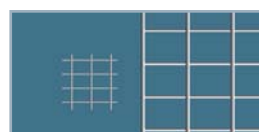
Accessories

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Health & Safety

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Devoran Metals Limited

As one of the South West's leading specialist suppliers of steel reinforcement and associated products for concrete reinforcement, Devoran Metals provide a complete package of products for reinforced concrete.

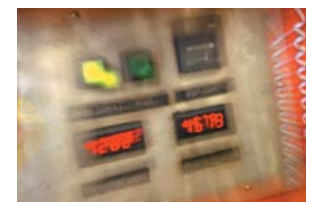
With comprehensive stocks of all reinforcement products we are able to respond quickly to the needs of our customers.

Automated production for the fast and efficient processing of your order from initial order to delivery on site. Our support service can provide technical advice to assist in providing optimum solutions to your projects.

We are constantly continuing to develop our product ranges: This brochure shows our most popular products - please call for all other products.

Call your local company for reinforcements with a competitive price and prompt arrival .

- CARES approved
- Quality Management - ISO 9000 2000
- Competitive pricing
- All project sizes handled
- Local Company - strategically placed for the south west
- After sales support
- Highest levels of customer service
- Latest and innovative products
- Technical support
- Order by telephone, fax or e:mail
- Terms: Nett monthly account on approved terms
- All major credit cards accepted





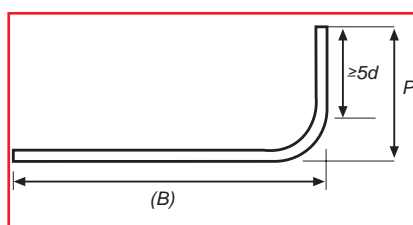
Reinforcement shape codes to BS8666:2005

Stock lengths				
 $L=A$ SHAPE CODE 00	 $L=A$ SHAPE CODE 01	 $L=A + (B) - 0.5r - d$ SHAPE CODE 11	 $L=A + (b) - 0.43R - 1.2d$ SHAPE CODE 12	 $L=A + 0.57B + (C) - 1.6d$ SHAPE CODE 13
 $L=A + (C) - 4d$ SHAPE CODE 14	 $L=A + (C)$ SHAPE CODE 15	 $L=A + b + (C) - r - 2d$ SHAPE CODE 21	 $L=A + B + C + (D) - 1.5r - 3d$ SHAPE CODE 22	 $L=A + B + (C) - r - 2d$ SHAPE CODE 23
 $L=A + B + (C)$ SHAPE CODE 24	 $L=A + B + (E)$ SHAPE CODE 25	 $L=A + B + (C)$ SHAPE CODE 26	 $L=A + B + (C) - 0.5r - d$ SHAPE CODE 27	 $L=A + B + (C) - 0.5r - d$ SHAPE CODE 28
 $L=A + B + (C) - r - 2d$ SHAPE CODE 29	 $L=A + B + C + (D) - 1.5r - 3d$ SHAPE CODE 31	 $L=A + B + C + (D) - 1.5r - 3d$ SHAPE CODE 32	 $L=2A + 1.7B + 2(C) - 4d$ SHAPE CODE 33	 $L=A + B + C + (E) - 0.5r - d$ SHAPE CODE 34
 $L=A + B + C + (E) - 0.5r - d$ SHAPE CODE 35	 $L=A + B + C + (D) - r - 2d$ SHAPE CODE 36	 $L=A + B + C + D + (E) - 2r - 4d$ SHAPE CODE 41	 $L=A + B + C + D + (E) - 2r - 4d$ SHAPE CODE 44	 $L=A + 2B + C + (E)$ SHAPE CODE 46
 $L=2A + B + 2(C) + 1.5r - 3d$ SHAPE CODE 47	 $L=2(A + B + (C)) - 2.5r - 5d$ SHAPE CODE 51	 $L=A + B + C + D + 2(E) - 2.5r - 5d$ SHAPE CODE 56	 $L=2A + 3B + 2(C) - 3r - 6d$ SHAPE CODE 63	 $L=A + B + C + 2D + E + (F) - 3r - 6d$ SHAPE CODE 64
 $L=A$ SHAPE CODE 67	 $L=\pi(A-d) + B$ SHAPE CODE 75	 $L=C\pi(A-d)$ SHAPE CODE 77	 $L=A + 2B + C + (D) - 2r - 4d$ SHAPE CODE 98	

All other shapes are Shape Code 99 and require fully dimensioned sketches.



Table of minimum dimensions



Nominal Size d	Minimum radius for scheduling r	Minimum diameter for bending former	Minimum end projection (P) General (min. 5d straight)	Links where bend < 150° (min. 10d straight)
6*	12	24	110	110
8	16	32	115	115
10	20	40	120	130
12	24	48	125	160
16	32	64	130	210
20	70	140	190	290
25	87	175	240	365
32	112	224	305	465
40	140	280	380	580
50*	175	350	475	725

*6mm and 50mm are non-preferred sizes available to special order



Reinforcement bar technical data

Properties of high yield bars

Size (mm)	8	10	12	16	20	25	32	40
Dims (max O/A mm)	10	12	14	19	23	29	37	46
Mass (Kg per m)	0.395	0.616	0.888	1.579	2.466	3.854	6.313	9.864
Metres per tonne	2531	1623	1126	633	405	259	158	101

Tolerances on cutting & bending dimensions

The tolerances for cutting and / or bending dimensions shall be in accordance with the table below and shall be taken into account when completing the schedule. The end anchorage or the dimension in parentheses in the shape codes specified in the table below shall be used to allow for any permissible deviations resulting from cutting and bending.

Cutting and bending tolerances

Tolerance (MM)

Cutting of straight lengths
(incl. reinforcement for subsequent bending)

+25 -25

Bending \leq 1000mm
 $>$ 1000mm to \leq 2000m
 $>$ 2000mm

+5 - 5
+5 -10
+5 -25



Radius of bending

Reinforcement to be formed to a radius exceeding that specified in the table below shall be supplied straight. The required curvature may be obtained during placing. For shapes with straight and curved lengths (e.g. shape codes 13 and 33) the largest practical radius for the production of a continuous curve is 200mm, and for the larger radii the curve may be produced by a series of short straight sections.

Bar Size (mm)	8	10	12	16	20	25	32	40
Radius (m)	2.75	3.50	4.25	7.50	14.00	30.00	43.00	58.00



Cut and Bent Reinforcement

- ✚ High yield reinforcing bar to BS4449:2005 in diameters 8mm to 40mm*
- ✚ All cut and bent reinforcement conforms to the relevant British Standard.
- ✚ Devoran Metals Ltd services and distributes across the south west of England
- ✚ Galvanised Rebar available
- ✚ Stainless Steel available

*BS4449:2005 does not cover mild steel

Reinforcing Bar

Type 2 deformed reinforcing bar is available ex-stock, and can be cut and bent to your specification, all in accordance with the UK CARES procedures. All the standard shape codes in BS8666 and BS4466 are supplied and please see BS8666

Reinforcing bar is supplied in the standard 500 N/mm² strength, the two other grades 200 and 650 can generally be supplied on request for larger quantities. Bar is stocked with dual certification to accommodate all these specifications in the popular sizes.

Stainless Steel Rebar

Recent moves towards life cycle costing have encouraged engineers to provide a structure which may be slightly more expensive at the outset, but over the design life a structures final cost will be significantly reduced.

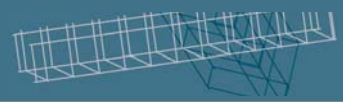
The typical marginal cost for using stainless steel reinforcing bars on a bridge designed in accordance with the recommendations of the highways agency document BA 84/02 is only 3%, This presents exceptional "Value Engineering" when compared to the cost of a road closure, the disruption of the public because of bridge repair or an injury due to falling masonry.

Galvanised Rebar

8mm hot-dipped galvanised rebar kept in stock. Other sizes available to be cut, bent and galvanised to order.

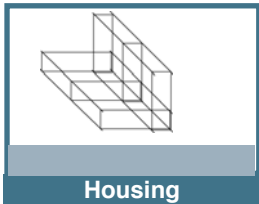
This prolongs the life of the steel by 20 years or more.



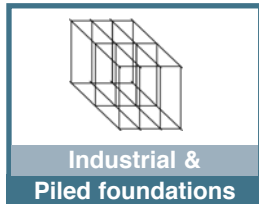


Prefabricated Reinforcement

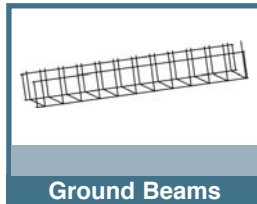
Devoran Metals provide prefabricated solutions to meet individual requirements. Whether it is to help skill shortages or to speed construction, Devoran Metals expertise can assist by providing a solution to your specific requirements or skill levels



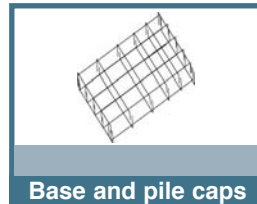
Housing



Industrial &
Piled foundations



Ground Beams



Base and pile caps



Bar Mats

Devoran Metals prefabricated reinforcement workshop is geared exclusively to the manufacture of products to suit the specific designs of its customers.

As a result Devoran is able to operate far more competitively than its larger, traditional, mass market-driven competitors, and to provide a truly individual service.

When you choose Devoran Metals Ltd for your tailor-made project you gain the service of a highly experienced workforce, supported by modern workshops and proven manufacturing methodology.



Devoran Metals Prefabricated Reinforcement

Devoran Metals Ltd is a leader in prefabricated reinforcement providing solutions for a wide range of contractors throughout the UK.

Benefits

- ✓ Faster and correct placement of reinforcement on site
- ✓ Eliminates steel losses on site
- ✓ Reduces problem of on-site steel identification
- ✓ Saves labour
- ✓ Saves time on maintaining contract programme

Applications

- ✓ Pile Caps
- ✓ Ground Beams
- ✓ Columns
- ✓ Column Bases
- ✓ Special Heavy Duty Mats
- ✓ Walls

"We look after you with a friendly service which won't let you down"





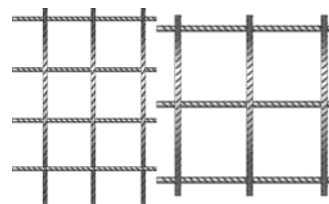
Reinforcement Fabrics

Standard Fabric

Electrically welded fabric to BS4483:2005.

All standard sheets (A, B, C and D) are 4.8 x 2.4m.

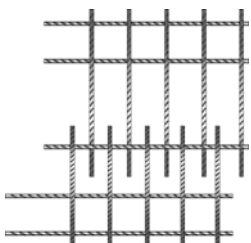
A142 and A393 are also available in merchant size sheets 3.6 x 2.0m.



Reinforcing Mesh

B.S. Ref.	Mesh Sizes Nominal Pitch Of Wires		Size of Wires		Cross Sectional Area per Metre Width		Nominal Mass per Square Metre	Approx. No. of Sheets per Tonne
	MAIN mm	CROSS mm	MAIN mm	CROSS mm	MAIN mm ²	CROSS mm ²	kg	
SQUARE MESH FABRIC								
A 393	200	200	10	10	393	393	6.16	15
A 252	200	200	8	8	252	252	3.95	22
A 193	200	200	7	7	193	193	3.02	29
A 142	200	200	6	6	142	142	2.22	39
A 98	200	200	5	5	98	98	1.54	56
STRUCTURAL FABRIC								
B 1131	100	200	12	8	1131	252	10.90	8
B 785	100	200	10	8	785	252	8.14	11
B 503	100	200	8	8	503	252	5.93	15
B 385	100	200	7	7	385	193	4.53	20
B 283	100	200	6	7	283	193	3.73	24
B 196	100	200	5	7	196	193	3.05	29
LONG MESH FABRIC								
C 785	100	400	10	6	785	70.8	6.72	13
C 636	100	400	9	6	635	70.8	5.55	16
C 503	100	400	8	6	503	49.0	4.52	20
C 385	100	400	7	6	385	49.0	3.58	26
C 283	100	400	6	6	283	49.0	2.78	34
WRAPPING FABRIC								
D 49	100	100	2.5	2.5	49.5	49.5	0.887	112

Standard Flying End Fabric



Flying End fabrics

Devoran Metals can supply Flying End fabrics in many British Standard references, providing many benefits over traditional fabric sheets.

Accurate Cover - Faster laying cycle
- Less waste - Increased flexibility -
Reduced quantity



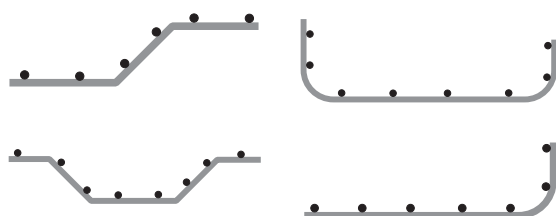
B.S.Fabric Ref.	Sheet Size (m)	Main Wire O/H (MM)	Cross Wire O/H (mm)
A Types	5.9 x 2.3	100/400	100/400
A Types	4.8 x 2.4	100/500	100/500
B Types	4.8 x 2.4	100/500	50/350

Cut and Bent fabric

Cut and bent fabrics

Standard Flying End fabrics and made to measure fabrics can be supplied cut to size and bent.

Most British Standard shape codes can be provided but it may be necessary to manufacture them in sections for ease of transportation or to enable the shape to be completed.



Devoran Metals - Fabrics



- Standard Fabrics
- Standard Flying End fabrics
- Made-to-measure and tailored fabrics reinforcement
- One directional fabric
- Cut and bent fabric

Reelfix

Reelfix Rapid System

The multi award winning Reelfix Rapid System has been developed as a simple, low cost solution to the many issues associated with the use of loose coiled tying wire for Steel Fixing.

Safety issues like wire trip hazards and flying end eye injuries are completely eradicated by using the Reelfix System. Unnecessary waste is ZERO, while Steel Fixers are able to work more efficiently thus meeting program targets faster and improving profitability from steel fixing operations

Safety -

Totally eliminates tying wire trip hazards and flying end eye injuries.

Health -

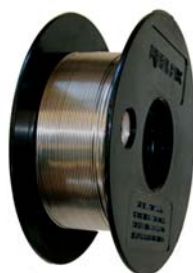
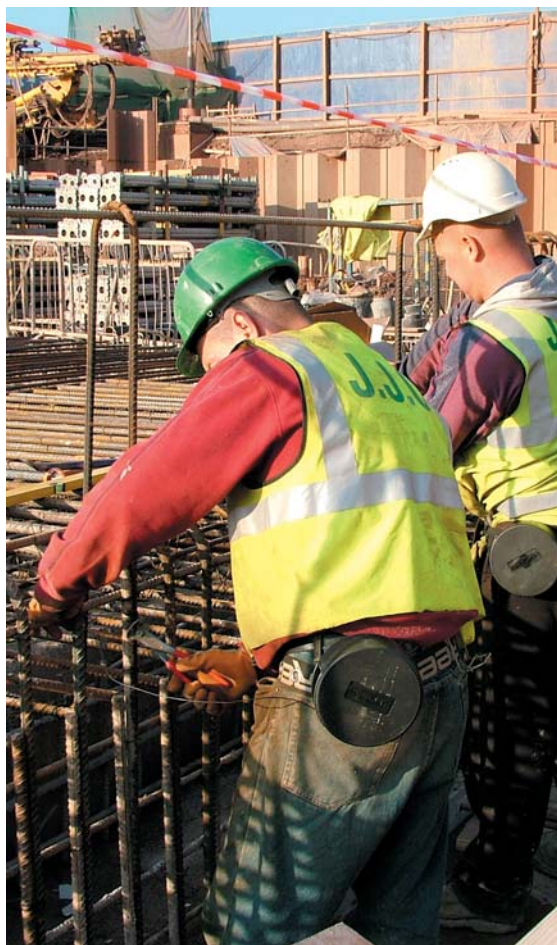
Reduces the risk of back injury from manual handling of heavy coils and unnecessary bending over.

Environmental -

Kilo for Kilo of wire, Reelfix will fix around 70% more rebar than loose wire. No unnecessary waste.

Efficiency -

Wire on the hip, freedom of movement and the No1 system on the market. Steel Fixers work faster, tidier and happier. Expect 20 -25% increased production using Reelfix.



REELFIX RAPID REFILLABLE REEL

The Rapid Reel is a lightweight, refillable wire dispensing unit designed to be worn in conjunction with the Reelfix belt and comfort pad.



Product Code:
RAP/REEL

REFILL SPOOLS

Refill spools are available in both Black Annealed and Stainless 304 tying wire. Spools come pre-loaded with 2kg of perfectly wound, top quality tying wire



Product Codes:

Black Annealed 1.45mm - RAP/2KGB
Black Annealed 1.6mm - RAP/2KGB16
Stainless 304 1.2mm - RAP/2KGS

REELFIX HEAVY DUTY BELT

Reelfix heavy duty belt is designed for use with our reels and is guaranteed to stand the test of time.



Product Code:
RAP/BELT

REELFIX COMFORT PAD

Feedback from Steel Fixers prompted the development of the Reelfix Comfort Pad.



Product Code:
REE/PAD

REELFIX TAPE/NIP FROG

Reelfix stainless steel tape/nip frog will accommodate Crescent, Knipex and Channelock nips. Includes a handy extension for measuring tape.



Product Code:
REE/FROG

REELFIX DISPOSABLE REELS

Reelfix Disposable reels come pre wound with 2kg of top quality tying wire, either 16 gauge Black Annealed, or 18 gauge Stainless 304 wire. The reels are one use disposable units. The plastic case keeps the wire clean, dry and tidy between uses and the compact design means the reel can be easily stored with other tools and equipment.

Product Codes: Black Annealed - DIS/2KGB Stainless 304 - DIS/2KGS

Devoran Metals - Chemicals

Release Oils and Agents

Mould release Oil - EXTRA

EXTRA STRIKE 402S

A high quality mould oil for general site and precast yard use that achieves a top quality concrete finish in most situations.
BCA category 2. UKWFB listed.
Brush or spray applied. Coverage: 20 - 30m² per litre

Chemical release agent

EXTRA CON DS + XS

Specially blended reactive oils which give a high quality finish with most formwork types.
BCA category 2.
UKWFB listed.
Spray applied. Coverage: 30 - 50m² per litre

Curing

Curing compound - silicate based

EXTRACURE SILICATE

An aqueous solution of metallic silicates as a general curing aid.
Also available tinted.
UKWFB listed.
Spray applied. Coverage: 5.5 - 6m² per litre

Curing compound - resin based

EXTRACURE R90

Formulated with inert hydrocarbon resins to give excellent film and moisture retention.
90% efficiency rating
UKWFB listed.
Spray applied. Coverage: 5.5 - 6m² per litre

Curing and sealing compound

EXTRASEAL AC3

A clear acrylic polymer resin solution for application to surfaces of freshly laid concrete to form a highly effective curing membrane and in-depth sealer. 75 % efficiency rating. Spray applied. Coverage: 6m² per litre

Surface hardening and dustproofing

Hardening and dustproofing

EXTRA HARD

A surface hardener for new and old concrete floors to provide dustproofing and increased durability.
Brush applied. Coverage: 6m² per litre



Surface retarders

Surface retarders

Provides an aggregate finish for concrete / key for subsequent pours.

Mould face

EXPOTARD MF

Application to mould face prior to placing of concrete.
Brush applied.
Coverage: 15 - 16m² per litre.

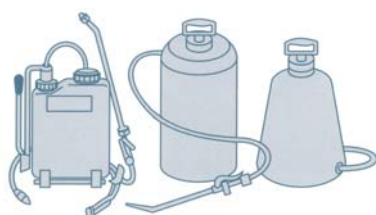
Top face

EXPOTARD TF

For treatment to the top face of freshly cast concrete..
Spray applied.
Coverage: 5m² per litre.

Sprayers - range of plastic and metal sprayer units

Optimum results are obtained by using sprayers. Devoran Metals have a range of plastic and metal sprayer units in various capacities



We carry an extensive stock of chemicals for use in reinforcing concrete slabs and associated building work. For more information on our complete range - please contact sales.

Repair Compounds

Repair Compounds, Oils and Solvents

FASTPATCH

A waterproof structural repair product, highly suitable for use on damaged, honeycomb or spalled concrete.

FASTPLUG

Structural grade, waterproof repair product, slump free, exceptional strengths. May be used in vertical, overhead or other difficult areas of repair without the use of primer, special lightweight aggregates or support.

TIEPLUG

Structural grade specially packaged for the filling of tie holes.

FILL AND RUB

Providing a convenient method of filling blow holes and small surface defects in pre-cast or insitu concrete. Simultaneously providing an even standardised colour and aesthetic finish.

ADOPAK GP

Excellent durability and high strength grout. For grouting beneath machine and stanchion bases, crane and transporter rails. Grouting of holding down bolts and dowel bars.

EXTRAFLEX

Bituminous based products include concrete curing compounds, anionic and cationic emulsions, dowel bar de-bonding compound and a cold applied rubber latex emulsion.

POLYSOLVE

A specially formulated product to emulsify polystyrene in box outs, void formers and stop ends.

BAR PAINTS

Bituminous compound bar paint, brush or dip applied-coating for dowel bars.

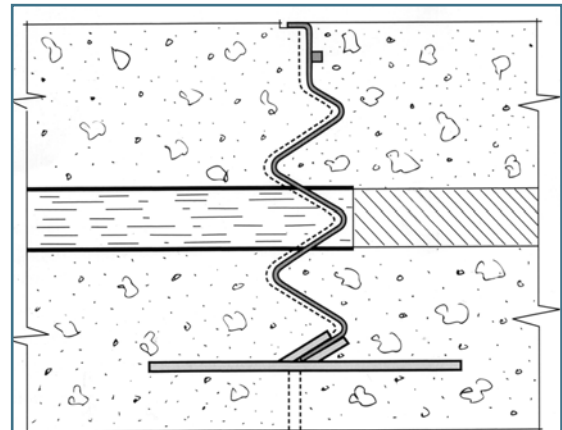


Kota Screed Rails

Devoran Metals supply Kota screed rails for the professional installation of industrial concrete floors. Kota screed concrete floors bring many advantages to the end user who needs a fast, easy to install and robust solution to screed floors.

Advantages of Kota Steel Screed Rail

- ⬇ Lightweight and easy to handle - 0.5 to 2.28 kg/m.
- ⬇ Needs minimum room for storage.
- ⬇ Very robust, galvanising prevents rust.
- ⬇ The waved design provides a strong joint.
- ⬇ Can be used with all types of vibrator beams and the folded top allows the beam to slide over with ease.
- ⬇ Cost effective installation
- ⬇ High quality workmanship
- ⬇ High levelling tolerance
- ⬇ Easy to make slopes and drains
- ⬇ High resistance to displacement around joints



Type Size	Height incl foot	Length	Max. diam of reinforcement dowels	Weight per (meter / length)	Distance from centre hole to top/bottom (mm)
(mm)	(mm)	(mm)	(mm)	(KG)	(mm)
S-27	27	2500	6	0.4/1.00	16/11
SB-50*	50	3000	10	0.74/2.22	28/17
SB-70*	70	3000	16	1.08/3.24	40/30
SB-95*	95	3000	16	1.51/4.53	55/40
SB-115*	115	3000	20	1.85/5.55	55/60
SB-140*	140	3000	20	2.28/6.85	85/55

* Also available with straight top profile

Kota Steel Screed Rails Range

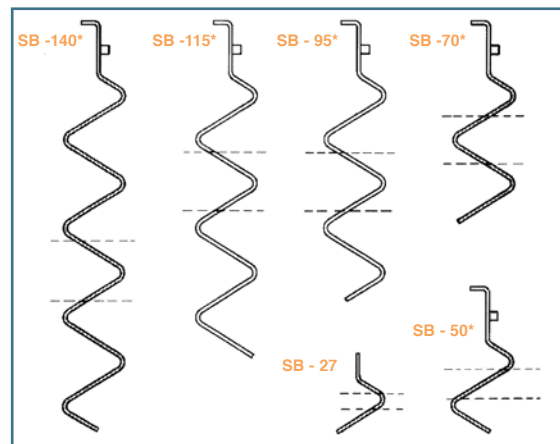
Type SB

The type SB with the folded top provides shrink line protection as the joint comes under the folded top.

Type S

The type S with the plastic profile is for when the shrink line needs to be sealed. When the plastic profile is removed, the joint can be filled with sealer.

NO NEED FOR SAW CUTTING!



Kota Concrete Screed Rails Range

The use of metal top screed rails makes it easier to achieve a very straight and fully controlled hairline crack. A plastic profile can be fitted if the joint needs to be sealed.

The flat top rail is a very sturdy rail with a unique profile providing excellent bonding and superior consistency on the top face.



Kota Metal Top Screed Rails

Ref:	Rail Height	Rail length
KC065	65mm	3.9m
KC090	90mm	3.9m
KC115	115mm	3.9m
KC140	140mm	3.9m
KC165	165mm	3.9m



Kota Concrete Rails

Ref:	Rail Height	Rail length
K050	50mm	3.9m
K080	80mm	3.9m
K100	100mm	3.9m
K125	125mm	3.9m
K150	150mm	3.9m



Kota Half Rails

product code -
KH100
Rail Height -
100mm
Rail Length -
3.9m



Kota Screed Rails Installation

How to fix Kota Steel Rails.

The steel holders and plastic clips for fixing are supplied in a bag along with the rails. There are 2 steel holders and 2 plastic clips available for each rail.



1. While the rails are still in a bundle, mark with a pen the position (see nr2) where the holders have to be fixed.



2. Fix a holder 600mm from each end with S-27, SB-50 and SB-70. With SB-95, SB-115 and SB-140 fix a holder 750mm from each end.



3. Fix a plastic clip to the vertical part of the top.



4. Lay the rails along the string, ensuring that the folded top is to the side that is to be concreted last.



5. Lay out 2 concrete pads for each rail (**where the holders are**) and level them to the exact height plus 5mm.



6. Place the rails on the smooth pads and move them a little sideways into the plastic clip on the vertical top.
After that, fix the second clip to the bottom of the rails.



7. After fixing build up the rest of the concrete pads as follows:
S-27 should always be fully supported.
SB-50 and SB-70 with concrete pads 600mm apart.
SB-95, SB-115 and SB-140 with concrete pads 750mm apart.



8. Build up the concrete pads on both sides to half the rails, but no higher.

When using a very big and heavy vibrator on large bays, it may be necessary to fully support the rails.



Corrugated Beam Form

Corrugated Beam Form

A fast track method of constructing ground beams and piles. Corrugated Beam Form polypropylene sheets are produced from high grade polypropylene and are non-toxic, recyclable and pose no threat to humans or to the environment.

- ~~~~ Can be bent to form any ground beam detail.
- ~~~~ Requires less excavation than traditional shuttering.
- ~~~~ Light but rigid so easily handled.
- ~~~~ Can arrive on site tailor made ready for installation.
- ~~~~ Flat packed - minimal storage.
- ~~~~ Reduces over dig and spoil cartage.
- ~~~~ Easily installed and assembled by unskilled labour.
- ~~~~ Can be cut to exact dimensions.
- ~~~~ Minimises concrete wastage.
- ~~~~ Easily adapted to variations on site.
- ~~~~ No shutter stripping, cleaning or release agents.

Supply options

CBF is supplied in three main forms:

- Standard sheets which are cut and scored on site by the contractor in the following sizes

Standard Sheet Sizes				
8mm	x	4.5m	x	2.4m
8mm	x	4.5m	x	2.0m

- Supplied in cut strips, when using sides only.
- Factory pre-fabricated into U-sections to suit individual site requirements.



Standard Sheet Sizes

Property	Method of testing	Value
Melt temperature		160-165°C
Max use temp		90°C
Vicat softening point	ISO 306/A	152°C
HDT	ISO 75/B	100°C
Flexural modulus	ISO 178	>1350N/mm ²
Tensile strength @ yield	ISO R 527	27N/mm ²
Elongation @ yield	ISO R527	8%
Density	ISO 1183	0.9g/cm ³
Izod Impact strength		
23°C	ISO 180	40 kJ/m
23°C	ISO 180	40 kJ/m
Rockwell hardness	ISO 868	68 D Scale

Formwork Systems

CBF provides the contractor with rapid and cost effective on-site concrete ground beams and pile caps. Manufactured from heavy duty polypropylene in 8mm thickness, the system has many advantages over traditional timber or steel pan construction.

CBF- Ground Beams

CBF is shown below being used both in strips and in full U-sections in typical applications.



CBF relies on backfill being placed behind the board to counteract the pressure exerted by the concrete pour. Any reasonable backfill material may be used, in most cases excavated from the same site.



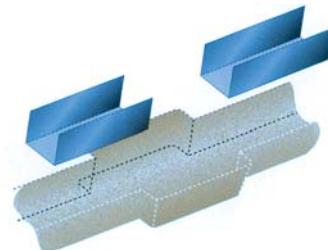
CBF is easily adapted to suit variations on site, such as pipes, cables and other services



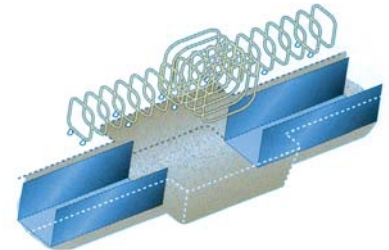
CBF - Pile caps

Pile Caps

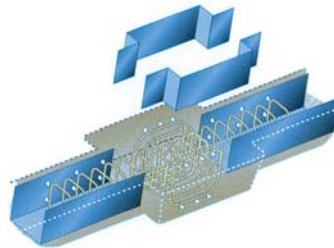
All pile caps are constructed by using sides only, scoring outside of the intended fold and hinging CBF to form any shape of pile - see *diagram A*. Spacers are clipped to the reinforcement cage to ensure the pile profile is maintained. Backfill uniformly to within 50mm of top of CBF.



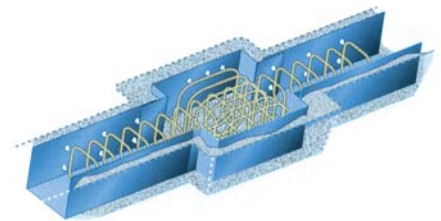
1. Place CBF U-sections into the trench.



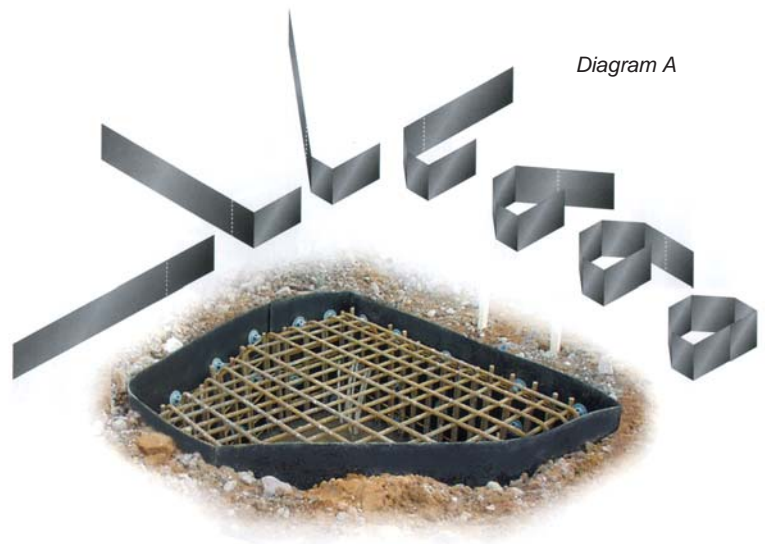
2. Place the steel reinforcing cage.



3. Place the CBF around the perimeter of pile, scoring and bending to suit profile. Space off reinforcement cage using plastic grade plate spacers.



4. Backfill excavation to within 50mm of top of CBF.






Reinforcement Accessories

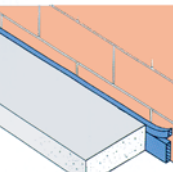
Reinforcement Accessories

Devoran Metals carry an extensive stock of products for reinforced concrete and formwork. Our range includes: concrete, plastic and wire spacers, formwork accessories, geotextiles & gas membranes, couplers and continuity systems. On the following pages are our most popular and commonly used accessories. For further information on all our products please contact us.

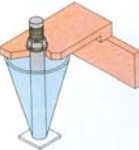
Flex-Fill

	Sheets		
	Thickness	Sheet Size	Part Number
	12	8' x 4'	FLEFIL12
	20	8' x 4'	FLEFIL20
	25	8' x 4'	FLEFIL25
	Cut Strips Also Available to Order		


Poly Joint

	Width x Depth	Length in m	Part Number
	10 x 100	10	PJC10100
	10 x 150	10	PJC10150
	12 x 100	10	PJC12100
	12 x 150	10	PJC12150
	12 x 175	10	PJC12175
	12 x 200	10	PJC12200
	Other thicknesses available to order		

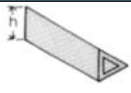
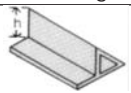
Conical Bolt Boxes

	Diameter	Length	Part Number
	70 x 20	229	CBB09
	92 x 20	305	CBB12
	108 x 25	380	CBB15
	114 x 30	457	CBB18
	118 x 30	534	CBB21
	133 x 30	610	CBB24
	133 x 30	762	CBB30

Polystyrene Bolt Boxes

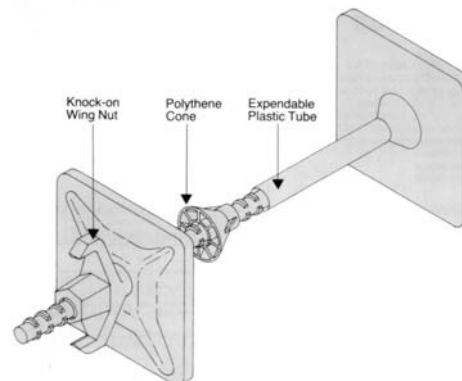
	Diameter	Length	Part Number
	75 x 50	225	PBB09
	75 x 50	300	PBB12
	75 x 50	375	PBB15
	75 x 50	450	PBB18
	75 x 50	550	PBB21
	75 x 50	600	PBB24
	75 x 50	762	PBB30

Chamfer Edge Profiles


	High in mm	Part Number
	20	CEP20PLN
	25	CEP25PLN
	No Flange	
	20	CEP20FLG
	25	CEP25FLG
	With Flange	


Shutter Tape



	Width	Length	Part Number
	50mm	33m	SHTAPE5033
	75mm	33m	SHTAPE7033





Tie Bar System

	Length in m	Part Number
	6	DIB6000
	Cut to length sizes available	

	Part Number	Tube ID/OD
	SLE2226	22/26mm
Other sizes to order		

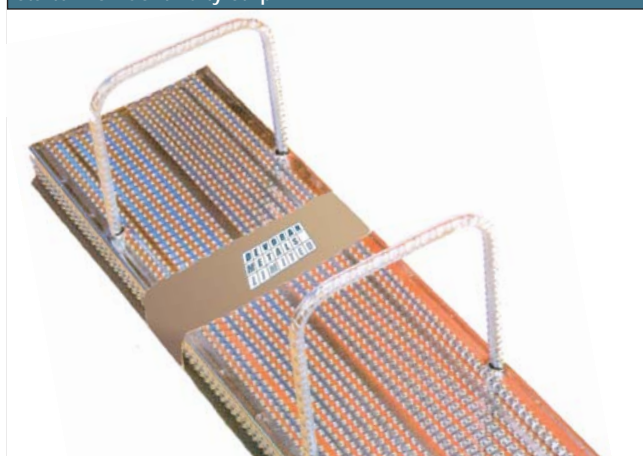
	Tube ID, mm	Part Number
	22	CON22
	Other sizes to order	
	Part Number	
	DIWAT	

	Part Number	
	DIWin	

	Part Number	
	DICON	

	Part Number	
	DIWAST	

Starter Box Continuity Strip



Available with 8, 10, 12 & 16mm bars at any centres

Bar Width/Height	Case Width	Part Number
60 x 170	80	COM8
90 x 170	110	COM11
120 x 170	140	COM14
140 x 170	160	COM16
170 x 170	190	COM19
220 x 170	240	COM24



Concrete Mesh Spacers		
Cover in mm	Part Number	Pack Size
40/50	MES40/50	100

Concrete Spacers		
Cover in mm	Part Number	Pack Size
20/25/30	TUF20/30TC	500
35/45	TUF35/45DC	200
40/50	TUF40/50DC	200
65/75	TUF65/75DC	50
75	TUF75FB	100

Square Bar		
40mm	SQU4040	
50mm	SQU5050	
75mm	SQU7575	
special lengths to order		

Wire High Chair Spacers		
Cover in mm	Part Number	Pack Size
50	HO050	25
75	HO075	25
100	HO100	25
125	HO125	25
150	HO150	25
175	HO175	25
200	HO200	25

Wire Circular Chair Spacers		
Cover in mm	Part Number	Pack Size
50	CS050	25
75	CS075	25
105	CS105	25
120	CS120	25
150	CS150	25

Tying Wire		
Material	Coil Size	Part Number
Black 17g Annealed	2Kg	TYEWIRE2KG
	15kg	TYEWIRE
Galvanised 16g	2Kg	GALVWIRE
	25Kg	GALVWIRE25
Stainless Steel 18g	2kg	STA18G2
	25kg	STA18G25

Styrofix Plastic Mesh Spacers			
	Cover in mm	Part Number	Pack Size
	25/30	STY25/30	250
	40/50	STY40/50	150/250
	65/75	STY60/70	250
	90/100	STY90/100	50

Maxifix			
	Cover/Bar Dia	Part Number	Pack Size
	15./8-25	MAX15 0825	1000
	20./8-25	MAX20 0825	1000
	25./8-25	MAX25 0825	500
	30./8-25	MAX30 0825	500
	35./8-25	MAX35 0825	500
	40./8-25	MAX40 0825	500
	50./8-25	MAX50 0825	500

Clampfix			
	Cover/Bar Dia	Part Number	Pack Size
	15./4-12	CLA15 0412	1000
	20./4-16	CLA20 0416	1000
	25./4-16	CLA25 0416	1000
	30./4-16	CLA30 0416	1000
	40./4-16	CLA40 0416	500
	50./4-16	CLA50 0416	500
	60./4-16	CLA60 0416	500
	65./4-16	CLA65 0416	500

Snapfix			
	Cover/Bar Dia	Part Number	Pack Size
	25./4-12	SNA25 0412	1000
	30./4-12	SNA30 0412	1000
	40./4-12	SNA40 0412	1000
	50./4-12	SNA50 0412	500
	70./4-12	SNA70 0412	500
	80./4-12	SNA80 0412	250
	90./4-12	SNA90 0412	250

MiniFix	
Large range of sizes	
Cover/Bar Dia	
5/4-6 to 100/16-32	

U-Fix 2.4m long			
	Cover	Part Number	Pack Size
	20	UFI20	40
	25	UFI25	40
	30	UFI30	40
	35	UFI35	20
	40	UFI40	20
	50	UFI50	20

Wire Cutters (Nipps)		
	Length	Part Number
	8"	WCS8

Dowel Bar Caps		
Bar Dia x O/A Length	Part Number	Pack Quantity
12 x 100	DBC12100	100
16 x 100	DBC16100	100
20 x 100	DBC20100	100
25 x 100	DBC25100	100
32 x 100	DBC32100	100

Dowel Bar Sleeves		
Bar Dia x O/A Length	Part Number	Pack Quantity
12 x 450	DBS12450	100
16 x 300	DBS16300	100
20 x 300	DBS20300	100
25 x 300	DBS25300	100
32 x 375	DBS32375	100

Rebar Safety Caps		
Bar Sizes	Part Number	Pack Size
8 to 16mm	RSC816	100
16 to 25mm	RSC1625	100

Plastic Screenshot Chairs	
Made of Saddles, Collars and Bases	

Bottom Crack Inducer		
	Depth	Part Number
	40mm	CIBY40
	75mm	CIBY75

Metal Screenshot Chairs	
Type	Adjustment
1	120-155mm
2	145-205mm
3	195-305mm
4	295-405mm

Damp Proof Membrane		
Thickness	Gauge	Part Number
250 micron	1000	DPM1000
300 micron	1200	DPM1200





Weldmesh Concertainer Gabions and Mattresses

Gabions and Mattresses

The use of gabions as an effective solution to combat erosion and to stabilise and strengthen embankments has been in evidence for centuries.

Rivers, coasts, roads and railways can all be subject to continuous erosion, demanding planned defences which counteract the forces involved.

Betafence gabion systems are used in many modern civil engineering schemes providing economic and effective solutions. They are manufactured from welded wire mesh and can be quickly erected and filled without special skills or machinery, thereby keeping costs down to a minimum.

In recent years Betafence Ltd has concentrated on quality materials, manufacture, design and installation techniques resulting in extensive use for civil engineering and architectural applications where quality and aesthetics are paramount.

All concertainer gabions and mattresses are BBA certified for Roads & Bridges and General Building Regulations.



Gabions

GABIONS		
Corrosion Protection Zincalu Super (95% Zn / 5% Al)		
Ref:	Mesh Size Gabion Dimensions	76.2mm x 76.2mm Wire diameter
GAB1116/2G	1m x 1m x 0.5m	3mm
GAB1116	1m x 1m x 1m	3mm
GAB1511/2G	1.5m x 1m x 0.5m	3mm
GAB1511G	1.5m x 1m x 1m	3mm
GAB211/2G	2m x 1m x 0.5m	3mm
GAB211G	2m x 1m x 1m	3mm
GAB311/2G	3m x 1m x 0.5m	3mm
GAB311G	3m x 1m x 1m	3mm
GAB211/2G	4m x 1m x 0.5m	3mm
GAB411G	4m x 1m x 1m	3mm
Also available in 4.5mm wire and PVC coated on galvanised wire.		

Mattresses

MATTRESSES		
Corrosion Protection Zincalu Super (95% Zn / 5% Al)		
Ref:	Mesh Size Mattress Dimensions	76.2mm x 76.2mm Wire diameter
75300gc1	3m x 2m x 0.150m	3mm
75300gc1	3m x 2m x 0.225m	3mm
75300gc1	3m x 2m x 0.300m	3mm
75300gc1	6m x 2m x 0.150m	3mm
75300gc1	6m x 2m x 0.225m	3mm
75300gc1	6m x 2m x 0.300m	3mm
Also available in 4.5mm wire and PVC coated on galvanised wire.		



Devoran Metals Weldmesh

- Concertainer Gabions
- Bastions
- Trapions
- Woven Wire Mattresses
- Cut and bent fabric





Weldmesh

Weldmesh

For strength and versatility, there are few engineering materials to rival Weldmesh. This famous name has become a by-word for welded steel mesh the world over.

Devoran Metals carry an extensive stock of Weldmesh products both in sheet and roll and can advise on the correct specification for your needs.



Heavy Weldmesh range

Galvanised after manufacture and self colour finish

4.8mm
2 x 2
3 x 3
3 x 6
75 mm X 25mm x 4,80/3.00mm

4.0mm
1 x 1
2 x 1
2 x 2
3 x 1/2
3 X 3

3.1mm
1 X 1
1 1/2 X 1 1/2
2 X 1
2 X 2
3 X 1/2
3 X 1
3 X 3
4 X 4

2.5mm
1 x 1
1 1/2 x 1 1/2
2 X 1
2 X 2
3 X 1 1/2
3 X 1M

Light Weldmesh range

Galvanised after manufacture

0.7mm
1/4 x 1/4

1.0mm
1/2 x 1/2**
1/2 x 1**
1 x 1**

* Also available pre - galvanised
** Also available self colour

1.6mm
1/2 x 1/2
1/2 x 1*
3/4 x 3/4**
1 x 1**
2 x 2



Stainless Steel Weldmesh 304 spec.

3.0mm
3 x 1/2
1x 1
2 x 2

2.5mm
3 x 1/2
1 x1
2 x 2

1.6mm
1/2 x 1/2
1 x 1

Pre-galvanised Weldmesh

2.5mm
2 x 2
50mm x 50mm

3.0mm
2 x 2
50mm x 50mm

Weldmesh gauges guide

APPROX SIZE mm			
		SELF COLOUR	GALVANISED
	22g	0.66	0.70
	19g	0.91	1.00
	16g	1.52	1.60
	14g	1.93	2.00
	12g	2.44	2.50
	10g	3.00	3.10
	8g	3.88	4.00
	6g	4.69	4.80

Weldmesh Flat

Self colour finish

FLAT ON EDGE	SPECIFICATION MESH X WIRE SIZES	PANEL WEIGHT (KG)
Panel size:		
1200mm x 2400mm	50 x 50 x 4/2mm	7.24
Finish: Self Colour		
	25 x 25 x 4/2mm	14.25
	50 x 50 x 5/2.50mm	11.31
	25 x 25 x 5/2.50mm	22.27
	50 x 50 x 6/3mm	16.28
	25 x 25 x 6/3mm	32.07



Quality Standards

Gauge sizes

Dimensions shown are for galvanised wire. Weldmesh self-colour specifications will vary between 0.04mm and 0.12mm below the galvanised wire dimensions as shown in the Weldmesh gauges Guide.

Galvanised Weldmesh

Weldmesh is hot dip galvanised to the highest standards and conforms to BS EN 10244-2 Class A. Should a thicker coat be necessary, i.e. BS EN ISO 1461 (replaces BS729), this can be obtained on request. Pre-galvanised Weldmesh (mesh made from galvanised wire) can also be produced on request.

The information within this catalogue should not be acted upon without professional advice. Devoran Metals Ltd will not accept any responsibility for any loss to any person acting or refraining from acting as a result of this catalogue information.



Planning for a safe delivery

Safe delivery

Safe delivery is the joint responsibility of the customer and supplier. There should be agreement between all parties in advance of the delivery as to the system of work, equipment needed, who will supply this and management arrangements. This information should form the basis of the delivery plan where responsibilities are clear to all parties and site specific issues and solutions are identified.

The Customer should:

- i Carry out risk assessment for the unloading operations.
- ii Prepare a basic lifting plan in accordance with BS7121 - Series (Codes of Practice for Safe Use of Cranes) that will ensure safe off-loading on site.

This will include:

- i Ensuring availability of suitable off-loading equipment.
- ii Ensuring safe access to the site is available.
- iii Identifying a suitable location for depositing the load.
- iv Ensuring the availability of appropriately trained personnel to unload the vehicle.
- v Providing safe access to the load for placing dunnage under the lifted corners to facilitate the fitting of chains/strops.
- vi Provision of adequate training for personnel who will plan and undertake lifting operations.
- vii Emergency rescue procedures where necessary i.e, if harnesses are in use.

Note - the driver should not be involved in the lifting operations related to the off-loading other than when a driver operated attachment e.g. Hiab, is to be used or when preparing the load for un-loading e.g. removing the load secure straps. Drivers should be located in a safe area.

Further Movement

If the bundles are to be moved around the site after delivery, then the customer should note the following advice:-

- i Store the fabric with dunnage between each bundle to facilitate future lifts.
- ii Plan the lifts before moving bundles i.e. risk assessments, correct equipment and personnel.
- iii Before moving bundles, ensure that the bundles are tied correctly, particularly where bundles have been split.

DO NOT USE TIES TO LIFT FULL OR SPLIT BUNDLES

Recommended Safe Off Loading Procedures

The bundles must not be used to lift bundles but may be used to raise one corner of a bundle at a time. This allows for the placement of dunnage thus creating clearance for chains/slugs to be looped through the reinforcement fabric.

Reinforcement fabric should be lifted using one of the recommended methods detailed below, following normal safety precautions applicable.

Use of chains or slings

1. An **OVERHEAD CRANE, VEHICLE MOUNTED CRANE or a FORK LIFT TRUCK** fitted with 4 each of either: Chains, Full Steel Wire Slings or Web Slings, may be used for the safe off-loading or movement of reinforcement fabric, but, whether using a crane or fork lift truck and which ever type of sling is being used, the chains slings must be looped through the bundle at the intersection of the 5th cross wire and 3rd line wire, thereby giving an equally balanced weight distribution lift.
2. The chains, Full Steel Wire Slings or Web Slings must be of sufficient and equal length to allow appropriate angle between legs when lifting the reinforcement fabric and must be rated at an appropriate Safe Working Load (SWL).

Use of Hydraulic Grabs

1. A **FORK LIFT or a VEHICLE MOUNTED CRANE** fitted with a certified lifting equipment with 4 lifting legs that is specifically designed for lifting reinforcement fabric may be used for the safe off-loading or movement of fabric. With grabs located as centrally as possible in the bundle, this allows an equally balanced lift and ensures that the reinforcement fabric is held securely.

Use of Forks

1. **FORK LIFT TRUCK WITH FORKS** of adequate length and width may lift a bundle provided the forks are located under the bottom sheet of the bundle. The forks should be of suitable length to ensure stability is maintained. Lifts should be in line with the guidance laid down by the Fork Lift Truck Association.
2. Dunnage may be placed between bundles by lifting each corner of the fabric to a suitable height to the vehicle forks under the bottom sheet.
3. This method is suitable only for off loading reinforcement fabric a short distance.

Split Bundles

The above procedures also apply when working with split bundles. Split bundles delivered from manufacturers are treated the same as full bundles where the bundle ties have five twists and are folded down and inwards towards the centre of the bundle.



Health & Safety Equipment

Health & Safety

Devoran Metals can provide a range of safety products to ensure best safety practice when handling steel reinforcements.

For site safety - signs - barriers - pins and for personnel a range of protective gear ensuring your staff have the best possible protection against accidents



Range of health & safety products inc

- Gloves
- Barriers
- Fencing Pins
- Tapes
- High viz vests



Road / Fence Pins

Mild steel fencing pins with curled top

Part No: ROAD

Orange Safety Barrier

High visible plastic orange barrier fencing - 50m x 1m rolls

Part No: FENCE



Hi-Viz Vest

Polyester waistcoat manufactured with reflective tape to EN471 Class 2

Part No: HIVIZ

Heavy Duty Gloves

Heavy duty latex coated, knit wrist glove with knitted cotton liner

Part No: GLOVEHD

Gloves

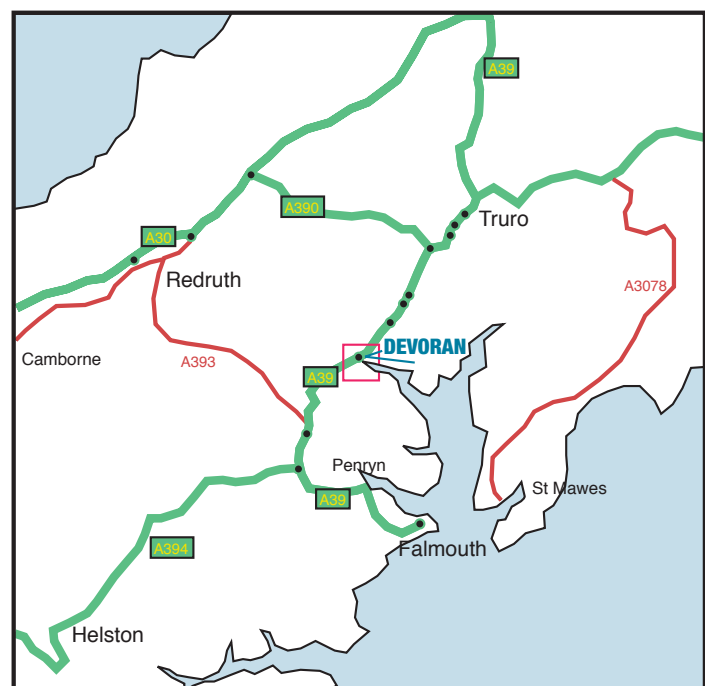
Knitted seamless cotton / polyamide glove with flexible latex coating on palm.

Part No: GLOVE

Tape Measure

7.5m x 25mm high quality nylon coated tape measure

Part No: TAPE





***Call for the reinforcements
in the South West***

*"We look after you with a friendly
service which won't let you down"*

**Devoran Metals Limited
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Devoran
Truro
Cornwall TR3 6PQ**

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E: sales@devoran-metals.co.uk W: www.devoran-metals.co.uk**