

NICOPRESS® FERRULES & STOPS



NICOPRESS®

Nicopress® Ferrules The Nicopress® ferrules that Flints supplies are made from solid copper plated with either zinc or tin. For stainless steel wire ropes it is best to choose the tin-plated ones

but for galvanised wire rope choose the zinc-plated ferrules. Nicopress® ferrules can be distinguished from British Standard or DIN ferrules by their shape which slightly separates the two wires. Nicopress® ferrules are not designed for fibre-core cables. Flints can, of course, supply all the wire ropes which are listed on pages 165 – 168. Tip: Using the Nicopress® system is very satisfying but there is a bit of craft and skill involved. We would recommend that you practise on one or two ferrules and a scrap of wire before undertaking your project. We have made a little video which we hope will help you. YouTube – FlintsTheatre.



Scan the QR code to watch the video.

FOR STAINLESS STEEL WIRES

Nicopress® Tin-Plated Oval Ferrules				sleeve lengths		tool	code	price	100+	1,000+	
suits metric wire	stranding	type	imperial wire Ø	nom Ø	before	after					
1 and 1.2 mm	1x7, 7x7	tin-plated	3/64"	1.19 mm	9.5 mm	11 mm	B*, D	NIC42815VB4	£0.33	£0.26	£0.24
1.5 mm	7x7, 7x19	tin-plated	1/16"	1.59 mm	9.5 mm	11 mm	C,D,E	NIC4282VC	£0.33	£0.26	£0.24
2 mm	7x7, 7x19	tin-plated	1/16"	1.59 mm	9.5 mm	11 mm	C,D,E	NIC428F2VC	£0.35	£0.28	£0.25
2.5 mm	7x7, 7x19	tin-plated	3/32"	2.38 mm	9.5 mm	11 mm	C,D,E	NIC4283VG	£0.36	£0.32	£0.30
3 and 3.5 mm	7x7, 7x19	tin-plated	1/8"	3.17 mm	14 mm	19 mm	E,F	NIC4284VM	£0.75	£0.67	£0.59
4 mm	7x7, 7x19	tin-plated	5/32"	3.97 mm	16 mm	22 mm	E,F	NIC4285VP	£0.88	£0.82	£0.75
5 mm	7x7, 7x19	tin-plated	3/16"	4.76 mm	24 mm	30 mm	F	NIC4286VX	£1.69	£1.55	£1.42
6 mm	7x7, 7x19	tin-plated	7/32"	5.56 mm	22.2 mm	27 mm	J	NIC4287VF2	£2.40	£2.03	£1.85

*Tool B is on page 168

FOR GALVANISED WIRES

Nicopress® Zinc-Plated Oval Ferrules				sleeve lengths		tool	code	price	100+	1,000+	
suits metric wire	stranding	type	imperial wire Ø	nom Ø	before	after					
1.5 and 2 mm	7x7, 7x19	zinc-plated	1/16"	1.59 mm	9.5 mm	11 mm	C,D,E	NIC281C	£0.30	£0.26	£0.23
2.5 mm	7x7, 7x19	zinc-plated	3/32"	2.38 mm	9.5 mm	11 mm	C,D,E	NIC282G	£0.33	£0.29	£0.26
3 and 3.5 mm	7x7, 7x19	zinc-plated	1/8"	3.17 mm	14 mm	19 mm	E,F,H	NIC283M	£0.67	£0.59	£0.55
4 mm	7x7, 7x19	zinc-plated	5/32"	3.97 mm	16 mm	22 mm	E,F	NIC284P	£0.93	£0.79	£0.73
5 mm	7x7, 7x19	zinc-plated	3/16"	4.76 mm	24 mm	30 mm	F	NIC286X	£1.76	£1.50	£1.36
6 mm	7x7, 7x19	zinc-plated	7/32"	5.56 mm	22.2 mm	27 mm	J	NIC288F2	£1.98	£1.79	£1.65

NICOPRESS® STOPS AND STOP TOOL



Nicopress® Stops The stops are unplated copper and are suitable for stainless and galvanised steel wire ropes. They have many uses such as control cables, handrailing and making concealed terminations in hanging shelves. They are also very useful for providing support and accurate positioning under yacht spreaders. Some of the stops are colour coded to help with identification. *The typical strength given is based on galvanised aircraft cable.

Nicopress® Stops [plain copper]				sleeve dimension			tool	code	price	100+	1000+
suits metric wire	stranding	typical strength*	imperial wire Ø	nom Ø	length	outside Ø					
0.75 mm	1x7	54 kg	1/32"	0.79 mm	6 mm	3 mm	A, B	NIC87132B	£0.22	£0.19	£0.17
1 and 1.2 mm	7x7	108 kg	3/64"	1.19 mm	5.5 mm	4 mm	B	NIC87112B4	£0.25	£0.20	£0.17
1.5 mm	7x7, 7x19	195 kg	1/16"	1.58 mm	11 mm	5 mm	E	NIC8711C	£0.31	£0.24	£0.22
2.5 mm	7x7, 7x19	272 kg	3/32"	2.38 mm	8 mm	8 mm	H	NIC87117J	£0.32	£0.28	£0.24
3 and 3.5 mm	7x7, 7x19	408 kg	1/8"	3.17 mm	8 mm	8 mm	H	NIC87118J	£0.36	£0.31	£0.28
4 mm	7x7, 7x19	544 kg	5/32"	3.97 mm	8 mm	10.7 mm	H	NIC87119M	£0.46	£0.39	£0.37
5 mm	7x7, 7x19	725 kg	3/16"	4.76 mm	8 mm	10.7 mm	H	NIC87120M	£0.72	£0.58	£0.52
6 mm	7x7, 7x19	1,133 kg	7/32"	5.56 mm	16 mm	11 mm	H	NIC87122M	£0.79	£0.68	£0.61

For stop sleeves



H

Type 51-MJ Stop Tool Suitable for stop sleeves for 2.5, 3, 3.5, 4, 5 and 6 mm wire ropes using stop types 87117J, 87118J, 87119M, 87120M and 87122M. Can also be used on Type 283M oval sleeves for 3 – 3.5 mm wires. Supplied complete with instructions and check gauge. For compressing smaller stop sleeves please see the NIC17BA and the NIC17B4B tools [page 168], and NIC32VCVG and the NIC64CGMP on the following page. Spare head available - suitable for use with both this tool, and the bench mounted handle **G** on the next page.

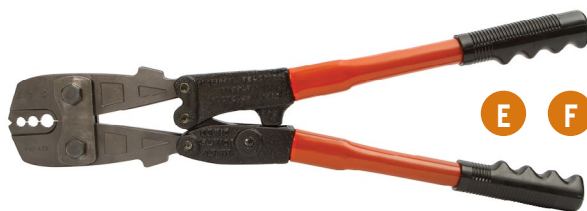


Scan the QR code to watch the Nicopress® Stops video.

Nicopress® Stop Tool type								code	price	5+	
Stop Tool	51-MJ	tool length	no of grooves	wire Ø	suits ferrule	suits stop	weight	check gauge?			
		480 mm	2 [M,J]	2.5 mm	-	NIC87117J	2.3 kg	Yes	NIC51MJ	£270.96	£253.80
				3-3.5 mm	NIC283M	NIC87118J					
				4 mm	-	NIC87119M			Spare Head 51 MJ	code	price
				5 mm	-	NIC87120M				NIC51MJHEAD	£149.50
				6 mm	-	NIC87122M					

For adjustable wire rope stops see page 178.

NICOPRESS® TOOLS



C Type 32-VCVG Suitable for crimping 1.5, 2.0 and 2.5 mm wire ropes using oval sleeves type NIC281C, NIC4282VC, NIC428F2VC, NIC282G, and NIC4283VG. Also fits the 1.5 mm stop sleeve type NIC8711C.

D Type 33V-CGB4 Suitable for crimping 1.0, 1.2, 1.5, 2.0 and 2.5 mm wire ropes using oval sleeve types NIC42815VB4, NIC281C, NIC4282VC, NIC428F2VC, NIC282G and NIC4283VG.

E Type 64-CGMP Suitable for crimping 1.5, 2.0, 2.5, 3.0, 3.5 and 4.0 mm wire ropes using oval sleeve types NIC281C, NIC4282VC, NIC282G, NIC4283VG, NIC283M, NIC4284VM, NIC4285VP and NIC284P. Also suitable for 1.5 mm stops type NIC8711C. Can also be supplied with a powerful cable cutter giving very clean results on wire rope up to 5 mm Ø.

F Type 63V-XPM Suitable for crimping 3.0, 3.5, 4.0 and 5 mm wire ropes using oval sleeve types NIC283M, NIC4284VM, NIC284P, NIC4285VP, NIC286X and NIC4286VX. Also available with a wire cutter. Supplied complete with instructions and check gauge.

Perfect for workshop use



All Nicopress® toggle action tools are supplied with check gauge and instructions

Type 510 with head fitted.



Type 63 and Type 64 Fitted with a Cutter
This is a useful optional extra to enable the tool to also be used as a powerful wire-rope cutter.

Head showing lettered grooves with wire cutter fitted as an optional extra.



G Type 510 Bench Mount. If you are workshop-based, it is easier to crimp with bench-mounted tools as you can hold the assembly in one hand while making the compression with the other hand. This bench mount will take the heads type 63VXPM, 64CGMP, 51MJ and all the type 51 tools. The picture shows the bench mount with a head fitted.

J Type 51F2850 for 6mm Wire Ropes This single groove hand tool is for use with NIC4287VF2 or NIC288F2 ferrules on 6 mm stainless steel or galvanised wire ropes with a 7 x 7 or 7 x 19 construction.

Nicopress® Tools

	type	tool length	no of grooves	wire Ø	suits ferrule	suits stop	weight	check gauge?	code	price	Tradeline 5+	
C	Medium Tool Type 32	32-VCVG	292 mm	2 [C,G]	1.5 and 2 mm	NIC4282VC, NIC428F2VC, NIC281C	NIC8711C [1.5 mm only]	1.1 kg	Yes	NIC32VCVG	£219.30	£206.95
D	Medium Tool Type 33	33V-CGB4	292 mm	3 [B-4,C,G]	1 and 1.2 mm	NIC42815VB4		1.1 kg	Yes	NIC33VCGB4	£228.00	£214.00
E	Large Tool Type 64	64-CGMP		4 [C,G,M,P]	1.5 and 2 mm	NIC4282VC, NIC281C	NIC8711C [1.5 mm only]	2.7 kg	Yes	NIC64CGMP	£343.80	£252.45
					2.5 mm	NIC4283VG, NIC282G						
					3 and 3.5 mm	NIC283M, NIC4284VM						
					4 mm	NIC4285VP, NIC284P						
	Type 64 With Cutter	64-CGMPCT	508 mm	4 [C,G,M,P]	as above	as above		3.2 kg	Yes	NIC64CGMPCT	£361.73	£339.55
	Type 64 Head Only	64-HEAD		4 [C,G,M,P]	as above	as above			Yes	NIC64HEAD	£199.95	£179.95
F	Large Tool Type 63	63V-XPM	508 mm	3 [X,P,M]	3 and 3.5 mm	NIC283M, NIC4284VM		2.7 kg	Yes	NIC63VXPM	£273.85	£269.96
					4 mm	NIC284P, NIC4285VP						
					5 mm	NIC286X, NIC4286VX						
	Type 63 With Cutter	63V-XPCT	508 mm	3 [X,P,M]	as above	as above		3.2 kg	Yes	NIC63VXPCT	£299.95	£269.96
	Type 63 Head Only	63-HEAD		3 [X,P,M]	as above	as above		1.1 kg	Yes	NIC63HEAD	£192.87	£173.58
G	Bench Handle Type 510	510	533 mm	n/a	n/a	n/a		2.7 kg	No	NIC510	£275.00	£260.00
J	Hand Tool for Type 51	51-F2850	463 mm	1 [F2]	6 mm	NIC4287VF2, NIC288F2		2.38 kg	Yes	NIC51F2850	£265.00	£251.75

CHECK GAUGES



Check Gauges Go/No-go check gauges are supplied with all Nicopress® toggle action tools. We stock spare ones in case you lose one. Of course you could always make up a lanyard for your gauge with your Nicopress® tool!

Check Gauges	code	Tradeline
For Types 51 [not 51MJ], 63, 64, and 3 tools	NIC2930	£32.33
For Type 51MJ only	NIC2931	£25.88

See our Bench Mounted Wire Cutters & other Wire Rope Cutters on page 179.
For Ferrules and Crimpers to EN13411-3 see page 172 - 173.
For Micro Ferrules and Crimpers see page 168

NICOPRESS® BATTERY OPERATED TOOL



NICOPRESS®

Battery Powered Compression Tool This model features an increased range for Nicopress® ferrules up to 3/8" or 10 mm. The tool is ideal for work in confined spaces where traditional tools cannot be opened. The slim body shape is now fitted with an LED light for dark areas and it can be operated single-handed. Nicopress® are currently adding a cable cutter and embossing dies to the product range. The tool weighs just 3.7 kg [with battery] and its length is 560 mm. Flints brings these tools in to order so please allow 14 days for delivery. Ask for our Rigging Manager for more information.



Aluminium Ferrules to EN 13411-3

For use with galvanised wire ropes. Take care to choose the correct ferrule for Fibre Core, Wire Rope or Steel-Core Wire Rope. The code used on dies refers to the fibre rope size. [eg. A Code 3.5 die would be used on a 3 mm steel-core wire rope]. BS ferrules to order only.

Aluminium Ferrules for Galvanised Rope			code	price	100+
fibre core	steel core	diameter x length			
die code		pressed			
2.5 mm	2 mm	5x12 mm	WIR102EN	£0.09	£0.07
3 mm	2.5 mm	6x14 mm	WIR101EN	£0.08	£0.06
3.5 mm	3 mm	7x16 mm	WIR104EN	£0.10	£0.09
4 mm	3.5 mm	8x18 mm	WIR103EN	£0.12	£0.10
4.5 mm	4 mm	9x20 mm	WIR106EN	£0.17	£0.13
5 mm	4.5 mm	10x23 mm	WIR105EN	£0.22	£0.18
6 mm	5 mm	12x27 mm	WIR107EN	£0.25	£0.20
6.5 mm	6 mm	13x29 mm	WIR108EN	£0.32	£0.24
8 mm	7 mm	16x36 mm	WIR109EN	£0.48	£0.42
9 mm	8 mm	18x40 mm	WIR110EN	£0.72	£0.57

Nicopress® Battery Powered Compression Tool	code	Tradeline
Tool with charger, carry case and two batteries	NIC5606	£2,945.00
Dies [up to 10 mm]	NIC5606DIE6	£171.82
Spare Battery	NIC5606BAT	£335.88
Replacement charger	NIC5606CH	£347.22

5: OTHER FERRULES & CRIMPERS

FERRULES

Ferrules

The following ferrules comply with EN 13411-3. We no longer stock the ferrules to the old British Standard BS 5281. The most important factor when using ferrules to terminate a wire rope is to ensure the ferrule correctly matches the wire rope. Care must be taken because wire ropes with a steel core use a larger ferrule than those with a fibre core. The dies on the crimping machine should be perfectly aligned. A good compression will produce a thin fin on either side of the ferrule which should be easy to remove normally with one stroke of a file. The tail of the wire must be visible at the end of the ferrule, either flush or slightly protruding. The ferrules finished diameter should be measured to ensure it complies with the regulations. Take care not to allow the ferrule to touch the thimble, there should be a little room for movement.



Copper Ferrules to EN 13411-3

Suitable for stainless steel wire ropes. The stainless ropes in our catalogue are wire core so choose from the wire core column. The code used on dies refers to the fibre rope size. [eg. a Code 3.5 die would be used on a 3 mm steel core wire rope]. BS ferrules to order only.

Copper Ferrules for Stainless Steel Rope				code	price	100+
die code	fibre core	wire core	Ø pressed			
1	1 mm	N/A	3 mm	WIR114EN	£0.10	£0.10
1.5	1.5 mm	1 mm	3.8 mm	WIR115EN	£0.13	£0.10
2	2 mm	1.5 mm	4 mm	WIR116EN	£0.13	£0.10
2.5	2.5 mm	2 mm	5 mm	WIR119EN	£0.17	£0.14
3	3 mm	2.5 mm	6 mm	WIR117EN	£0.19	£0.17
3.5	3.5 mm	3 mm	7 mm	WIR120EN	£0.32	£0.29
4	4 mm	3.5 mm	8 mm	WIR118EN	£0.39	£0.35
4.5	4.5 mm	4 mm	9 mm	WIR124EN	£0.53	£0.48
5	5 mm	4.5 mm	10 mm	WIR125EN	£0.73	£0.65
6	6 mm	5 mm	12 mm	WIR126EN	£1.05	£0.94
6.5	6.5 mm	6 mm	13 mm	WIR127EN	£1.42	£1.22

HAND HYDRAULIC CRIMPER AND DIES



Hydraulic Crimper D-D31

Hand-held, single-handed operation, weighs only 1.5 kg, rotating die head, complete with carry case. Develops 35 kN force. Presses up to code 2.5 ferrules in a single bite and up to Code 5 ferrules in multibites. It is crucial that the die is correctly matched to the ferrule. Suitable for EN 13411-3 ferrules only.

☐ Supplied in a plastic carry case. Dies need to be ordered separately.

NB: The Die Number etched on the side of the dies refers to fibre core rope. Example: To correctly crimp a 3 mm diameter wire rope with a steel core [7 x 19 construction] you will need a Code 3.5 Die and you should use WIR104EN ferrules for galvanised wire or WIR120EN ferrules for stainless wire rope.



Manual Hydraulic Crimper D-D31			code	Tradeline
die code	fibre core	steel core	TOL1923	£686.25
			code	Tradeline
1	1 mm	1 mm	TOL1924	£171.95
2	2 mm	1.5 mm	TOL1925	£171.95
2.5	2.5 mm	2 mm	TOL1926	£171.95
3	3 mm	2.5 mm	TOL1927	£171.95
3.5	3.5 mm	3 mm	TOL1928	£171.95
4	4 mm	3.5 mm	TOL1939	£171.95
4.5	4.5 mm	4 mm	TOL1940	£171.95
5	5 mm	4.5 mm	TOL1929	£171.95
6	6 mm	5 mm	TOL1950	£171.95



Please phone our Rigging Manager regarding bench mounted hydraulic presses capable of terminating larger wire diameters.

Orders over £325.00 go carriage free, although there are a few exceptions!

HAND CRIMPERS



HIR **Hand Crimpers** For steel wire ropes. Make up your own wire rope assemblies either with a hard [thimble] eye or a soft eye, this simple compression tool facilitates the use of ferrules to give your wire rope a professional finish. NB: that sizes used for ferrules relate to Standard A size. The figures in brackets relate to EN 13411-3 ferrules [see previous page]. EN 13411-3 ferrules are slightly longer but have a thinner wall than the old British Standard ferrules. We do not recommend this tool for terminating lifting wires as it is difficult to achieve a compressed ferrule with the exact recommended final dimensions to achieve maximum loading. Flints also hires [page 380].

Hand Crimpers		length	code	price
type	fits ferrules	tool/handle		
TSC1	BS 1.5, 2, 3, 4 mm [EN 2, 2.5, 3.5, 4.5 mm]	30"/24"	TOL1920	£157.76
TSC2	BS 1.5, 2.5, 3.5, 4.5 mm [EN 2, 3, 4, 5 mm]	30"/24"	TOL1921	£157.76
TSC3	BS 1.5, 2, 5, 6 mm [EN 2, 2.5, 6.5 mm]	36"/30"	TOL1922	£198.24

THIMBLES

Thimbles

Thimbles are used to provide protection against crushing and abrasion for either wire rope or fibre ropes. It is important that the correct size thimble is used to ensure the correct curvature. The scope of EN 13411-1:2002 only covers thimbles for wire ropes of 8 mm to 60 mm. It states that the internal width of the thimble should be 2.5 to 3.5 x the diameter of the rope (d). The internal height of the thimble should be 1.5 to 2 x the internal width. The width of the supporting groove should be 1.1 x d and its depth should be 0.55 x d. Thimbles must be capable of being opened up to 1.5 x d. A small gap is permissible. While producing the EN standard, no doubt at great expense, no one was capable of deciding whether the ends of thimbles should be pointed or truncated so, not surprisingly, some are and some aren't. If you are thinking of buying the EN standard, don't bother, it will cost you about £80.00 for 12 pages, 10 of which are gobbledegook, one page is entirely blank, and the only page of any use is summarised above.

NB: In the following tables we list the internal width but this does not necessarily mean a shackle pin of the same diameter will have sufficient clearance to pass through the thimble. Always allow some extra clearance.



Galvanised Wire Rope Thimbles [DIN 6899] Type BF. Used for making hard [thimble] eyes in galvanised wire rope. Best quality German manufacture.

Galvanised Wire Rope Thimbles			code	price	100+
wire Ø	int. width	int. length			
3 mm	12 mm	19 mm	WIR122A	£0.34	£0.30
4 mm	13 mm	21 mm	WIR122B	£0.38	£0.34
5 mm	14 mm	23 mm	WIR123	£0.48	£0.43
6 mm	16 mm	25 mm	WIR125	£0.56	£0.50
8 mm	20 mm	32 mm	WIR127	£0.86	£0.78



Stainless Steel Thimbles [AISI 316 Grade]
Used for making thimble eyes in fibre ropes or stainless steel wire rope. Only suitable for 7 x 7 and 7 x 19 flexible construction wire rope.

Stainless Steel Thimbles			code	price
Ø	int. width	int. length		
2 mm	9 mm	17 mm	BW110002	£0.32
3 mm	10 mm	18 mm	BW110003	£0.36
4 mm	11 mm	20 mm	BW110004	£0.52
5 mm	13 mm	21 mm	BW110005	£0.57
6 mm	15 mm	27 mm	BW110006	£1.02
8 mm	22 mm	38 mm	BW110008	£1.79
10 mm	27 mm	48 mm	BW110010	£3.30
12 mm	29 mm	53 mm	BW110012	£3.83
14 mm	32 mm	57 mm	BW110014	£6.50
16 mm	40 mm	67 mm	BW110016	£6.49
20 mm	50 mm	80 mm	BW110020	£18.18
22 mm	56 mm	90 mm	BW110022	£23.68



Hot Dip Galvanised Fibre Rope Thimbles [BS464] For use with traditional cordage. For stainless steel fibre rope thimbles see above.

Galvanised Fibre Rope Thimbles			code	price
Ø	int. width	int. length		
8 mm	22 mm	33 mm	WIR130	£0.60
10 mm	25 mm	38 mm	WIR131	£0.85
12-13 mm	32 mm	44 mm	WIR132	£1.29
16 mm	41 mm	59 mm	WIR134	£2.05
19-20 mm	51 mm	73 mm	WIR135	£3.86
22 mm	57 mm	82 mm	WIR136	£5.24
24-26 mm	70 mm	108 mm	WIR137	£7.96



Nylon Fibre Rope Thimbles A lighter and quieter option for use with braided and three strand fibre ropes.

Nylon Fibre Rope Thimbles			code	price
rope Ø	int. width	int. length		
4 mm	11 mm	20 mm	WIRED804	£0.67
6 mm	15 mm	27 mm	WIRED806	£1.26
8 mm	22 mm	38 mm	WIRED808	£1.40
10 mm	27 mm	48 mm	WIRED810	£1.40
12 mm	29 mm	53 mm	WIRED812	£1.61
14 mm	32 mm	57 mm	WIRED814	£1.75
16 mm	40 mm	67 mm	WIRED816	£2.08

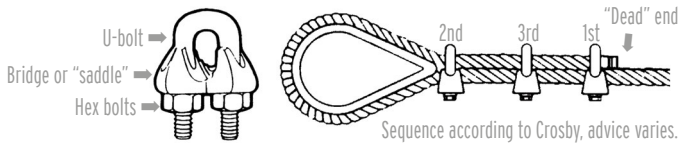


Barton High Load Eyes

Manufactured from marine-grade aluminium and finished in Barton's unique hard "Spectro" grey anodising. When used in conjunction with a Dyneema loop they make powerful Barber Haulers or brailing devices with minimal weight. They can also be used as purchase blocks for tensioning.

High Load Eyes					code	price
external Ø	rope Ø	bore Ø	weight			
38 mm	10 mm	16 mm	24 g	BAR60452	£12.88	

WIRE ROPE GRIPS



Sequence according to Crosby, advice varies.

rope size	number of rope grips	rope tail length
3 - 5 mm	3	150 mm
6 mm	3	180 mm
8 mm	4	280 mm
10 mm	4	320 mm

Wire Rope Grips – Dogs

“Dogs” provide a simple and effective means of making a loop or a thimble eye in wire rope. They consist of a U-bolt, bridge [also known as the “saddle”] and two hex nuts. The U-bolt should be fitted over the non-load bearing [short] tail of the loop [also known as the “dead” end hence “dead horse”]; the bridge over the load bearing longer part. Remembered by the mnemonic:

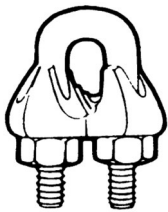
“Never saddle a dead horse”.

The hex nuts should be tightened equally, using a nutspinner or a torque wrench as advised. The grips will settle after a while so they should be retightened to ensure the correct torque is maintained. Any PVC covering to wire rope must be stripped before applying the dogs.

For heavier loads and when lifting always use grips to EN 13411-5 [DIN 1142] or Crosby Grips.

Wire Rope Grips are also occasionally known as “Bulldog Clips”.

WIRE ROPE GRIPS – DOGS



Commercial Galvanised Wire Rope Grips [DIN 741]

Provide a simple, effective and economical means of making a loop or a thimble eye in wire rope. Consists of U-bolt, bridge and two hex nuts. The hex nuts should be tightened equally, using a nutspinner.

For heavier loads or for lifting purposes use grips to EN 13411-5 [DIN 1142] or Crosby Grips.

Commercial Galvanised Wire Rope Grips			code	price	100+
Grip size	rope size	nut size			
1/8"	3-4 mm	7 mm	WIR161	£0.24	£0.14
3/16"	5 mm	8 mm	WIR163	£0.28	£0.16
1/4"	6 mm	8 mm	WIR165	£0.29	£0.18
5/16"	8 mm	10 mm	WIR167	£0.35	£0.28
3/8"	10 mm	14 mm	WIR169	£0.39	£0.30



Galvanised Wire Rope Grips EN 13411-5 [DIN 1142]

These grips are of slightly heavier construction and the hex nuts are flanged. The scope of DIN 1142 only starts at 5 mm so if you are using wire-rope grips for lifting purposes with smaller wires it would be worth considering using the Crosby Grips which are listed in the next column. For torque wrenches see alongside.

Wire Rope Grips to EN 13411-5 [DIN 1142]			code	price	100+
wire Ø	torque	nut size			
5 mm	2 Nm	8 mm	WIR163D	£0.30	£0.20
6.5 mm	3.5 Nm	10 mm	WIR165D	£0.32	£0.25
8 mm	6 Nm	10 mm	WIR167D	£0.51	£0.49
10 mm	9 Nm	13 mm	WIR169D	£0.54	£0.49



Stainless Steel Wire Rope Grips

These highly polished grips are designed for use with stainless steel wire rope. The 2 mm size is one of our best-selling grips. Made from 316 marine-grade stainless steel.

Stainless Steel Wire Rope Grips		code	price
wire Ø	nut size		
2 mm	5.5 mm	WIR160	£1.14
3 mm	7 mm	WIR1601	£1.33
4 mm	7 mm	WIR1602	£1.76
5 mm	8 mm	WIR1603	£1.26
6 mm	8 mm	WIR1604	£1.52
8 mm	10 mm	WIR1605	£1.90

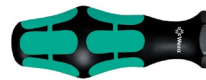


Forged Crosby Wire Rope Grips [G450]

The Federal Specification FF-C-450 Type 1 Class 1 covers wire rope grips which are 6 mm and over. This specification exceeds ISO DIN 1142. Crosby grips 6 mm and upwards comply with the specification. The smaller grips would comply if the specification had a wider scope. Each forged base has a product identification code. The grips are individually bagged with full instructions and they are fitted with a red U-bolt for instant visual recognition. For torque wrenches see below. For imperial sockets to fit see page 323.

Forged Crosby Wire Rope Grips [G450]					code	price
wire Ø	no. of grips	torque	turnback	nut size		
3 - 4 mm	3	6.1 Nm	83 mm	3/8"	CRO4501	£4.00
5 mm	3	10.2 Nm	95 mm	7/16"	CRO4502	£4.25
6 - 7 mm	3	20.3 Nm	120 mm	9/16"	CRO4503	£6.28
8 mm	3	40.7 Nm	133 mm	11/16"	CRO4504	£6.07
10 mm	3	61 Nm	165 mm	3/4"	CRO4505	£7.07

NUTSPINNERS



Nutspinners

These have many uses but they are particularly useful for tightening the fiddly nuts on wire rope grips. Top quality German manufacture from WERA.

Nutspinners		types	code	price	
		commercial type	DIN 1142 Crosby		
5.5 mm	2 mm SS*	n/a	n/a	TOL1600	£9.64
7 mm	3-4 mm and 3 mm SS	n/a	n/a	TOL1597	£9.64
7 mm Flexi Shaft	3-4 mm and 3 mm SS	n/a	n/a	WER028150	£14.11
8 mm	5-6 mm	5 mm	n/a	TOL1598	£10.09
10 mm	8 mm	6 mm	3-4 mm*	TOL1599	£15.96

* Insufficient clearance between nuts to finally tighten down.

TORQUE WRENCHES



Torque Wrenches

To obtain efficiency ratings of 80% of the breaking load of the wire rope, dogged terminations have to be properly tightened and re-tightened after proof loading. Use the Norbar Torque Wrench for DIN 1142 dogs from 5 - 10 mm [length: 230mm]. The Roebuck wrench covers the torques for the larger dogs that we stock. For sockets and socket adapters see page 323.

Torque Wrenches		code	list	price	
type	torque	drive			
Norbar TTi 20 1/4"	4-20 Nm	1/4"	TOL13830	£126.58	£89.88
Roebuck Professional	20-100 Nm	1/2"	TOL15015	£157.22	£142.22

GRIPPLES

GRIPPLES – LOCKABLE



Grippler - Lockable

Innovative lockable system for securing wire rope – quickly!

The Lockable Grippler makes catenary* and bracing wire rope installation easier and faster. Working on the same principle as the original standard Grippler, but with the additional feature of locking screws for extra security under outdoor conditions.

- ✓ Simple push fit assembly
- ✓ Automatic locking wedges

- ✓ Easy tensioning
- ✓ Secure locking screws
- ✓ The Lockable Grippler can be used with galvanised steel core and stainless steel core wire rope
- ✓ Ideal for overhead catenary wires* and promenade lighting*, aerial and marquee bracing, shade cloth bracing, tree bracing
- ✓ Exhibition Hall displays

NB: Safety factor on the Grippler Lockable is 4:1. Locking screws should always be used. Never tension with locking screws in place. Do not reuse, for single use only. Always ensure 200 mm tail is left protruding from the Grippler prior to tensioning. When installing around structure, the distance between the Grippler and the structure should equal or exceed the width of the structure. Load ratings are based on a vertical suspension. When hanging at angles the load ratings are reduced. Do not use at an angle exceeding 60° as the load rating is reduced by 50%. Do not use for lifting, such as crane or pulley applications.

*If being used for catenary purposes, a full understanding of the forces imposed by applying weight to wires stretched between two horizontal points is needed. Very high loads can be imposed by adding weight to long wires stretched between two points. The loads can be greatly reduced by allowing the wire to sag by 10° or more from the horizontal. If in doubt seek the advice of a structural engineer.

Use a 5.5 mm nutspinner to lock off the Gripplers from 2-5 mm and an 8 mm nutspinner to lock the 6 mm version [see previous page].

Lockable Gripplers		WLL	quantities	code	price	Tradeline
wire Ø	constr	vertical	per bag		per bag	16+ bags
2 mm	7 x 7	70 kg	10	WIR182L	£96.44	£74.42
3 mm	7 x 7, 7 x 19	150 kg	10	WIR183L	£96.44	£74.42
4 mm	7 x 19	300 kg	5	WIR184L	£50.30	£40.41
5 mm	7 x 19	400 kg	5	WIR185L	£50.30	£40.41
6 mm	7 x 19	500 kg	4	WIR186L	£67.34	£50.51

Each bag is supplied with a simple "L" shape setting key



Grippler key size A



Grippler key size B

Grippler keys with Plastic Handle	suits Grippler	code	price
Grippler key size A	2 and 3 mm	WIRKEYFLAG	£1.87
Grippler key size B	4, 5 and 6 mm	WIRKEYHF45LK	£3.13

GRIPPLE C-CLIPS



Grippler C-Clips Creates a vertical suspension from 3 mm or 6 mm catenary wires, angled up to 60° from horizontal. When used vertically upwards this new product can greatly reduce the strain on long catenary wires by providing frequent pick-up wires onto convenient beams. No pre-measuring is necessary, just twist and clip the Grippler C-Clip onto the catenary wire and slide until it is directly under the pick up point. Loop the wire over the beam and adjust the tension with the provided Grippler. Equally suitable for display and exhibition use especially when the number of products on display or the space used can not be pre-determined. Highly recommended clever piece of rigging. Diameter of the wire loop with Grippler is 1.5 mm on the 3 mm, 2 mm on the 6 mm.

- ✓ Ready to use kit
- ✓ No tools needed
- ✓ Up to 10 times faster
- ✓ They can be inserted onto pre-rigged wires
- ✓ Adjustable and releasable
- ✓ Ideal for use with catenary wires
- ✓ Self-locking mechanism
- ✓ 5:1 safety factor
- ✓ Independently certified

Grippler C-Clips	length	vert WLL	code	price	10+
for 3 mm Ø	1 m	10 kg	WIRCCCLIP31	£9.85	£8.87
for 3 mm Ø	5 m	10 kg	WIRCCCLIP35	£12.63	£11.36
for 3 mm Ø	10 m	10 kg	WIRCCCLIP310	£16.19	£14.54
for 6 mm Ø	1 m	45 kg	WIRCCCLIP61	£11.78	£10.57
for 6 mm Ø	5 m	45 kg	WIRCCCLIP65	£14.78	£13.41
for 6 mm Ø	10 m	45 kg	WIRCCCLIP610	£18.68	£16.81

ZIP CLIPS

ZIP CLIPS



Zip Clip RIZE Quickly secures your wire ropes, even down to 1 mm wire! Produce your own made-to-measure wire suspension pieces. Extremely quick and easy installation, simply pass one end of the wire through the Zip Clip RIZE in the direction of the arrow shown, then through your fixing point. Then pass back at least 150 mm of the wire through the Zip Clip RIZE. Push the pins in the opposite direction to the arrows to secure. The 4 mm is able to connect to a fixing point and the suspension with just one Zip Clip RIZE, thanks to its double grip feature.



Only the 4 mm can achieve this!

These clips are not suitable for use with dynamic loads, but we think they are particularly well suited for:

- ✓ Display work
- ✓ Temporary fixings to ease height placement thanks to easy adjustment
- ✓ Where the exact requirements / fixing point cannot be established in advance of arrival on-site
- ✓ Secondary lightweight supports

SPECIFICATION: The SWL has been calculated with a Safety Factor of 5:1.

Zip Clip Rize - standard	SWL	code	price	10+
1 mm	15 kg	WIRZIPKL050	£2.05	£1.83
2 mm	50 kg	WIRZIPKL100	£2.33	£2.09
3 mm	120 kg	WIRZIPKL150	£3.38	£3.03
4 mm	300 kg	WIRZIPKL200	£6.98	£6.25



Zip Clip Wire Zip Clips must be used with Zip Clip steel wire to meet its guarantee. 1 mm and 2 mm wires come in a very handy dispenser box. See from page 165 for our full range of wire rope.

Zip Clip Wire	length	code	price
1 mm	7x7 200 m	WIRZIPR200G	£48.28
2 mm	7x7 100 m	WIRZIPR100S	£29.61
3 mm	7x7 100 m	WIRZIPR100Y	£47.36
4 mm	7x19 100 m	WIRZIPR100P	£69.99



Zip Clip STRUT-LOCK Similar to the Reutlinger concept but much smaller. Strut-Lock is a safe, lockable solution for installing single and multi-tiered static loads that are supported vertically. When installed as part of a wire suspension system, the steel device delivers an impressive safety factor of 5:1, with weight loading of 45 kg per wire. Can be used for wrapping around existing steelwork. Ideal for long and varied suspension lengths and for secondary light supports. For use with 2 mm wire listed to the left. Quick to install and easy to adjust to desired height.



depress plunger

insert wire rope

tighten collar to lock

Once the STRUT-LOCK is located in place with square washer and channel nut on the M8 thread, tighten into position using 15 mm spanner. Unscrew locking collar [not fully]. Depress plunger, insert wire rope through the top of the device and tighten locking collar to lock. The STRUT-LOCK is versatile and is not just for use with unistrut as pictured.

M8 STRUT-LOCK	SWL safety factor	code	price	10+
	45 kg 5:1	WIRZIPSLM8	£4.70	£4.23



REUTLINGER®
systematic suspension

Reutlinger® Cable Grippers for Event Rigging

These grippers have been developed in cooperation with the industry's top experts to provide a simple, neat and modern solution to rigging static loads. Simply press down the sprung plunger and slide the fitting along your wire to the desired place. Then just release the plunger and the fitting will grip the wire rope. When you are satisfied with the position simply hand-tighten the safety cap to prevent accidental release. You can rest assured that the load will be secure as Reutlingers® not only have TÜV GS certification but also have the test seal of the DGUV which is only conferred after extensive examination of all load applications but also of most anticipated mis-applications. In fact, Reutlinger® 50, 66, and 80 ranges are the only load-bearing devices certified by DGUV for use in touring productions.

- ✓ Quick, infinitely adjustable and re-usable!
- ✓ Just press down the sprung plunger and it will slide along the wire. Release it and it will grip
- ✓ One-handed operation!
- ✓ No tools needed!
- ✓ Non-reflecting black finish ensures the fittings are barely visible on stage
- ✓ Protected against accidental release by hand tightening the knurled safety cap
- ✓ Available with central or side cable exit and a choice of four different coupling parts
- ✓ Certified to TÜV-GS and BGV C1

Reutlingers® will not only speed up your installation times but they will provide a far smarter result. Use them for:

- ✓ Event rigging
- ✓ Truss installation
- ✓ Foyer and exhibition rigging
- ✓ Museum and shop display
- ✓ Art installations
- ✓ Sound system rigging
- ✓ Temporary and touring exhibitions
- ✗ Reutlingers have thousands of uses but they are not suitable for dynamic loads. You should not use them for flying moving scenery and they should not be used outdoors.



SAF50SVTZW



SAF50SVT



SAF50SVEZW



SAF50SVFZW



SAF50SVCZW

The fast and smart way to dead hang equipment!



SAF50SVE

Technical Data Summary for Type 50

Full technical drawings for each product including Types 66 and 80 can be found on our website www.flints.co.uk

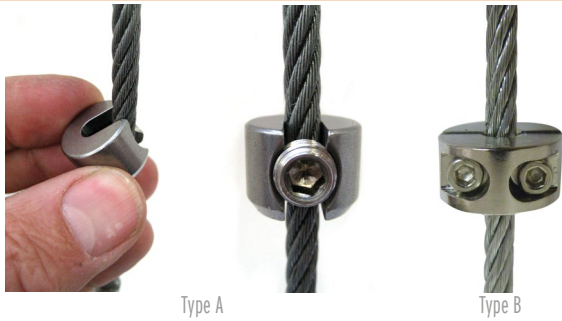
Internal Thread Type	SAF50SVTZW3	Thread depth: 10 mm x M12
External Thread Type	SAF50SVT3	Thread length: 17 mm x M12
Eye Type	SAF50SVE3 and ZW3	Internal eye diameter: 30 mm [27 mm clear]
Fork Type	SAF50SVF3 and ZW3	Clevis pin diameter: 13.9 mm. Internal fork width: 14 mm, C/L pin to underside of fork 28 mm
Coupler Type	SAF50SVCZW3	Coupler type Doughty T58081 48-51 mm Ø

Type	code	price	10+
Eye	SAF50SVE3	£26.37	£23.55
Eye with side exit	SAF50SVEZW3	£33.42	£29.47
M12 external thread	SAF50SVT3	£19.95	£17.96
M12 internal thread and side exit	SAF50SVTZW3	£25.20	£22.25
Fork	SAF50SVF3	£30.87	£28.70
Fork with side exit	SAF50SVFZW3	£32.13	£28.37
Scaff Coupler with side exit	SAF50SVCZW3	£52.45	£49.66
Eye	SAF66SVE3	£38.55	£34.70
Eye with side exit	SAF66SVEZW3	£51.93	£47.57
Scaff Coupler with side exit	SAF66SVCZW3	£65.41	£52.35
M16 External Thread	Available to order		
M12 internal thread and side exit	Available to order		
Fork with side exit	Available to order		
Eye	SAF80SVE3	£66.23	£59.60
Eye with side exit	SAF80SVEZW3	£57.11	£52.35
M20 external thread	SAF80SVT3	£48.55	£44.79
Fork with side exit	SAF80SVFZW3	£64.25	£59.28
M12 internal thread and side exit	Available to order		
Scaff Coupler with side exit	Available to order		

WLL GUIDE						
Suitable only for use with flexible steel wire rope and in accordance with Reutlinger's instructions.						
Wire	DGUV WLL in kg			TUV WLL in kg		
	10:1 safety factor			5:1 safety factor		
Ø	Type 50	Type 66	Type 80	Type 50	Type 66	Type 80
4 mm	60 kg	-	-	120 kg	-	-
5 mm	90 kg	-	-	180 kg	-	-
6 mm	-	135 kg	135 kg	-	270 kg	270 kg
1/4"	-	150 kg	-	-	300 kg	-
8 mm	-	-	240 kg	-	-	480 kg

OTHER TERMINATIONS

WIRE ROPE STOPPERS



Type A

Type B



Wire Rope Stoppers These 316 marine-grade stainless steel stoppers have many uses. Often they are used for supporting display shelves hung on wires. They can also be used either side of track runners or bobbins on wire reeved curtain tracks such as Halls T60 to convert them into master runners. On yachts they can be placed under spreaders for support or forward of the cockpit stanchion to prevent the entire guardrail from sagging when the aft lashings or pelican hooks are released. They are now available in two types both of which can be inserted directly onto the wire without un-reeving.



Type A has a slot to take the wire and a single grub screw which tightens onto the wire.



Type B splits into two halves and is clamped onto the wire by means of two hex drive bolts.

Type A Wire Rope Stoppers	diameter	code	price	25+
	2 mm	WIR190	£6.62	£5.95
	3 - 4 mm	WIR191	£7.41	£6.67
	5 - 6 mm	WIR192	£8.10	£7.29

Type B Wire Rope Stoppers	diameter	code	price	25+
	2 mm	WIR190B	£3.12	£2.81
	3 mm	WIR191B	£3.43	£3.09
	4 mm	WIR192B	£3.65	£3.29
	5 mm	WIR193B	£3.55	£3.20

See page 190 for Stainless Steel Crossover Clamps.

WEDGE SOCKETS



Wedge Sockets

These open wedge sockets are made according to DIN

15315. They are the preferred terminations in many industrial sectors and are popular in the theatre industry. Prices include wedge, socket and clevis



pin. On US Federal approved wedge sockets the advice is to never put a wire-rope grip securing the dead end to the standing loaded wire rope, however on these DIN 15 315 wedge sockets the advice is to put one cable grip across the dead and live parts with the saddle on the loaded wire. When using wedge sockets in conjunction with Flints Hanging Clamps [page 146] you will need to use the Hanging Clamp Toggle as the jaw width of the wedge sockets will not fit over the clamp itself [not suitable for the size 3 wedge socket]. Also available in black. [For Split Pins see page 258] They are not rated for use with wires with a nominal strength greater than 1,770 N/mm².

✓ Suitable for dynamic lifting applications

[Those marked with an * below fall outside the scope of regulations, but are made to the same specifications as the larger sizes]

Wedge Sockets	nominal size	wire rope Ø	width between forks	code	price
	3	2 - 3 mm	7.7 mm	WIR3WS*	£10.75
	5	4 - 5 mm	12 mm	WIR5WS	£15.98
	6.5	5 - 6.5 mm	10 mm	WIR65WS	£16.98
	8	6 - 8 mm	14 mm	WIR8WS	£18.03

Black Wedge Sockets	nominal size	wire rope Ø	width between forks	code	price
	3	2 - 3 mm	7.7 mm	WIR3WSB*	£13.05
	5	4 - 5 mm	12 mm	WIR5WSB	£14.91
	8	6 - 8 mm	14 mm	WIR8WSB	£20.06

KLEIN HAVEN GRIPS



Klein Haven Grips These popular grips allow a temporary hauling line or tackle to be attached to a steel cable. Often used for rigging catenary wires or for making adjustments to flown pieces without de-rigging. Not to be used for permanent anchorage. Weights: 450 g and 1.14 kg.

Klein Haven Grips	wire sizes	latch	code	Tradeline
	1.52 mm - 6.35 mm	No	WIR160410	£75.45
	3.18 mm - 12.70 mm	Yes	WIR160420L	£119.95