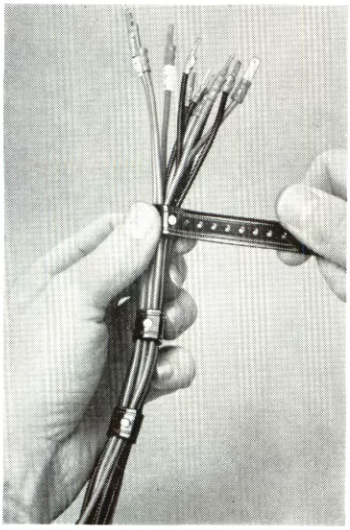


The Hellermann Cable Strapping System presents Electrical Engineers with one of the most inexpensive and effective cable fastening methods yet devised. It features:-

- ★ Simple quick fitting.
- ★ Neat *permanent* wiring which can be opened and fastened again to permit modifications to the Cable Loom.
- ★ Standard Materials offering a 'do-it-yourself' system that can tackle *any* size of loom.
- ★ Recommended Temperature ranges (ambient)

Nylon	—65°C to +110°C
Helvin (PVC)	—65°C to +85°C

HELLERMANN CABLE STRAPPING SYSTEM

The essential requirements for any successful Cable Strapping are an inherent property in the selected materials that will provide everlasting elastic tension and the continuous firmness of the strapping in service. The need is for loom to be as reliably and securely held after five years as after five minutes.

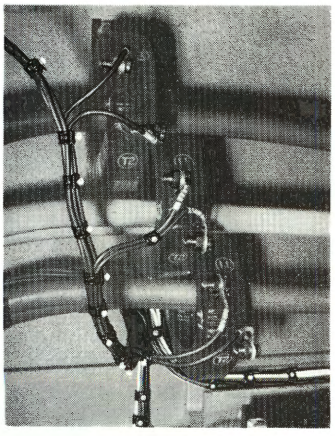
Two materials are available: Nylon and Helvin® Grade 220 (PVC).

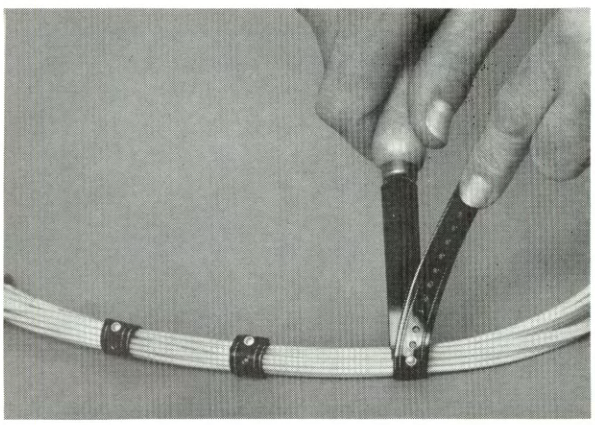
All PVC materials suffer from a tendency towards permanent set, a condition brought on by the poor 'memory' of PVC which causes it to lose its elastic performance after a period of time. Grade 220 has been developed to reduce this effect to a minimum and the result is an improved Cable Strapping that gives outstanding performance at reasonable cost.

C.E.G.B. Type Approval No. 13

Studs
As listed in S.S.M.(L)7-34 and S.D.M.(A)288.

Strapping
As listed in S.S.M.(L)18-6.





Continued

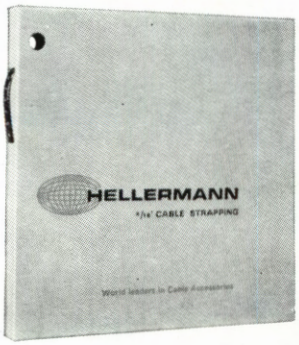
Strapping

Part No.	Air Ministry Ref. No.	N.A.T.O. Stock No.	Material	Colours	Width in.	Width mm	Pitch of Hole Centres in.	Pitch of Hole Centres mm
HV 3254	5F/2279	Y3/9330-99-943-4858	P.V.C.	Trans-parent Black	5/16	7.9	1/4	6.4
HV 3341	5F/2281	Y3/9330-99-943-4857	P.V.C.	Trans-parent Black	1/2	12.7	1/4	6.4
NY 18007A	5F/2301	Y3/9330-99-945-4141	Nylon	Natural	1/2	12.7	3/16	4.7
NY 18067	5F/2950	5340-99-950-6025	Nylon	Natural	5/16	7.9	3/16	4.7

Studs

Part No.	Air Ministry Ref. No.	N.A.T.O. Stock No.	Material
OP 3255	5F/2280	Y3/5325-99-943-4856	Polythene
NY 3255	5F/2307	Y3/5325-99-913-8823	Nylon
HDP 3255	—	—	High density Polythene
DHV 3342	—	—	Nylon (Black only)
OP 3342	5F/2282	Y3/5325-99-943-4855	Polythene
NY 3342	5F/2302	Y3/5325-99-913-8822	Nylon
HDP 3342	—	—	High density Polythene
DHV 3342	—	—	Nylon (Black only)
NY 3255	5F/2307	Y3/5325-99-913-8823	Nylon
NY 3342	5F/2302	Y3/5325-99-913-8822	Nylon
NY 3255	5F/2307	Y3/5325-99-913-8823	Nylon
NY 3342	5F/2302	Y3/5325-99-913-8822	Nylon

CODE B3W/3a



Helvin Cable Strapping is supplied in 75 ft. lengths and the Studs in packs of 1000.

Nylon Strapping is supplied in 100 ft. coils and the Nylon Studs in packs of 1000.

Stud for $\frac{1}{2}$" Cable Strapping. Black or Transparent

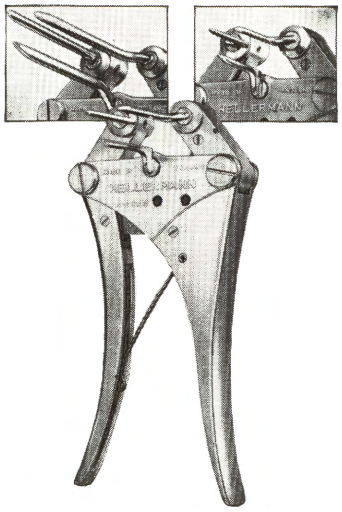
Stud for $\frac{5}{16}$" Cable Strapping. Black or Transparent

F3 Fitting Tool

The F3 fitting tool has been designed to assist the speedy application of Cable Strapping under varying conditions. The use of this tool is not essential, but for mass production work or for fitting in confined areas it simplifies and speeds up fitting and at the same time enables a tighter binding to be obtained.

F3 Fitting Tool

HELLERMANN ELECTRIC A division of Bowthorpe-Hellermann Ltd
CRAWLEY SUSSEX ENGLAND
Tel: CRAWLEY 28888 Telex: 87163 (Prefix message HELEC) Cables: HELLERMANN, CRAWLEY



6″ (152.4 mm) high × 4½″ (114.3 mm) wide

The Hellermann Universal Sleeve Fitting Tool has interchangeable prongs and provides you with **3 tools in one.** Robustly constructed and beautifully finished this tool will stand up to the wear and tear that a tool in constant use will receive. With each tool, or body of each tool, in the Type D Tool Kit, you get 1 set of 'DS' prongs, (for sleeves 3.0 to 5.5 mm i.d.), 1 set of 'DK' prongs (for sleeves 5.5 to 11.5 mm i.d.), and 1 set of 'DG' prongs (for sleeves 11.5 mm i.d. upwards), to cover all the work that you may be called upon to do, and in the Type DSS tool Kit you get 2 sets of 'DSS' prongs (for sleeves 1.2 to 3.0 mm i.d.), and 1 set of 'DS' prongs.

Reduced weight. The saving in weight is as much as half the weight of similar tools enabling operators to work for longer periods with less fatigue.

HELLERMANN
UNIVERSAL SLEEVE FITTING TOOL KIT—TYPE D

When ordering please specify: HellermannType D Tool Kit or Hellermann Type DSS Tool Kit

Improved Styling. This new tool caters for the varying sizes of your operators' hands. The sweep of the handles enables them to grip where it suits them best.

Reduced Pressure. Because of the improved styling and design of the tool less pressure is required to open sleeves and no effort is wasted because the opening of the tool is adjustable too.

No wasted effort. Incorporated in the tool are 3 stop positions to control the opening of the sleeve—select the one required and cut out wasted effort in opening a sleeve far wider than is really necessary.

A high standard of finish. Not only is the Universal Sleeve Fitting Tool a tool that has introduced ease and precision into sleeve fitting but it is also a tool that will improve your production and help you to reduce costs.
To complete the kits an Allen Key (for changing the prongs) and a small bottle of Hellerine Grade M lubricant is supplied.

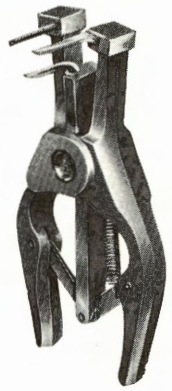
Continued overleaf

HELLERMANN

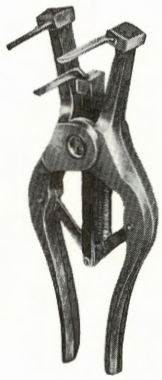
SLEEVE FITTING TOOLS

Robustly constructed, these tools enable Hellermann Sleeves to be fitted easily and quickly with the least possible effort.

	SS Tool	S Tool	K Tool	G Tool
Air Force Ref.	—	1C/7020	1C/5862	1/C5863

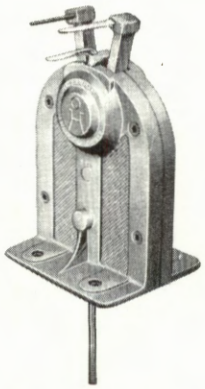


Type S
5″ (127 mm) high ×
3″ (76.2 mm) wide

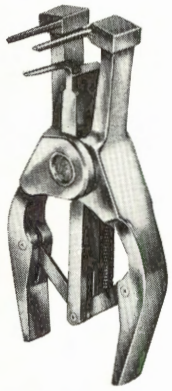


Type K
6¾″ (171.4 mm) high ×
3½″ (88.9 mm) wide

Type G
7⅛″ (180.9 mm) high ×
4″ (101.6 mm)wide



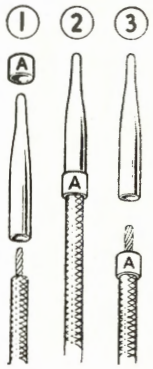
Types SB & SKB
6¼″ (158.7 mm) high ×
3½″ (88.9 mm) wide



Type SS
5″ (127 mm) high ×
3″ (76.2 mm) wide

Hand Operated Size	Pneumatic & Foot Operated Size	Nato Stock No. 5120-99-943	For Helvin Sleeve Size	For Helvin Marker Size	For Twinlay Marker Size	For Helsyn 150 Sleeve	For Helsyn 250 Sleeve	Maximum Sleeve Length in	Maximum Sleeve Length mm
*SS	SSB	—8609	H20	P20-P30	T20-T30	HT20	SLP20	¾	19.1
*S	SB	—8610	H30	P40-P55	T40-T55	HT30	SLP30	¾	19.1
†SK	SKB	—	H50-H100	P75-P115	T75-T115	HT50 HT75	SLP50-70	1¼	31.8
K	SKB	—8611	H50-H100	P75-P115	T75-T115	HT75 HT100	SLP50-70	1¼	31.8
G	GB	—8612	H150-H200	P130-P250	T130-T250	HT150	SLP110	2	50.8

*Available also with 2 prongs †For female operators handles as Type S, Prongs as Type K.



THIMBLE JIGS

For very small bore sleeves or sleeves that have very little elasticity the Thimble Jig is a most suitable fitting tool. When fitting sleeves with tools or thimble jigs the use of Hellerine Lubricant is recommended.

Thimble Jig

ALL TOOLS CODE BOW/C4

Thimble Jig No.	Bench Jig No.	Nato Stock No. 5120-99-970	Inner Dia. of Jig	Outer Dia. of Jig	For Helvin or Twinlay Marker	Thimble Jig No.	Bench Jig No.	Inner Dia. of Jig	Outer Dia. of Jig	For Helvin or Twinlay Marker
TJ1	BJ1	—1704	.078	.093	15-20	TJ6	BJ6	.240	.290	55
TJ2	BJ2	—1703	.115	.132	25	TJ7	BJ7	.470	.530	90
TJ3	BJ3	—2099	.136	.156	30	TJ8	BJ8	.730	.790	—
TJ4	BJ4	—	.196	.218	40	TJ9	BJ9	1.100	1.190	—
TJ5	BJ5	—	.221	.250	55					

HELLERMANN ELECTRIC A division of Bowthorpe-Hellermann Ltd

CRAWLEY SUSSEX ENGLAND

Tel: CRAWLEY 28888 Telex: 87163 (Prefix message HELEC) Cables: HELLERMANN, CRAWLEY

HELLERMANN
WIRING TOOLS

H35 WIRE STRIPPER
STANDARD MODEL Cat. Nos. H35/1-2-3

Strips wire clean up to $\frac{7}{8}$" (22.23 mm) long. Automatic device holds jaws open without crushing. Practically eliminates all nicking, cutting or fraying. Especially good for production stripping of lighter gauge wires, automotive wiring, radio and instrument wire and cable, telephone wiring. Blades easily changed. See table below.

DE-LUXE MODEL Cat. Nos. H35/7-8-9

Unique blade construction and extreme holding power of broad jaws permit fast accurate stripping without nicking or scraping wire and without marking insulation. Weight 14 oz. (397 gm). Extended leg on upper cutting blade ensures blade alignment thus obviating reduction in cutting diameter. Body—Robust die cast aluminium. Cutting Blades—High quality hardened and cast steel.

H21C WIRE STRIPPER AND WIRE CUTTER

For removing insulation from cable ends without damaging conductor. Adjustable to accept conductors up to $\frac{5}{32}$" (3.97 mm) o.d. Also wire cutter without adjusting wire stripping setting. Opening spring facilitates action. P.V.C. covered handles.

H66 GRIP SNIPS

An ideal tool for use in order to avoid the risk of cut ends of wire falling or flying into electronic work in the vicinity of the work area. As covered by Min. of Aviation Publication Av.P.89, 1st Issue, July 1966. Strands are gripped by a rubber sleeved spring in the jaws until the tool handles are opened.

Blade Details for H35 range of tools

Tool	Part No. of blade	Sizes of holes in American Wire Gauge (Numbers stamped on blades)
H35/1	L4419	8, 10, 12.
H35/2	L4421	10, 12, 14, 16, 18, 20, 22.
H35/3	L5361	20, 22, 24, 26, 28, 30.
Extra blade for standard model	L4420	10, 12, 14, 16, 18.
Extra blade for standard model	L4422	14, 16, 18, 20, 22.
Extra blade for standard model	L4994	16, 18, 20, 22, 24, 26.
H35/7	L5210	10, 12, 14.
H35/8	L5211	16, 18, 20, 22, 24, 26.
H35/9	L5436	26, 28, 30.
Extra blade for De-Luxe model	L5560	16, 18, 20, 22, 24, 26.

CODE BOW/C4

Cat. No.		H35/1	H35/2	H35/3	H35/7	H35/8	H35/9
O.D. of Bare Conductor	inches	.080—.128	.025—.101	.010—.032	.064—.101	.015—.050	.010—.015
	mm.	2.0—3.25	.63—2.57	.25—0.81	1.62—2.57	.38—1.27	.25—.38
No. of Holes		3	6	6	3	6	3
AWG.		8—12	10—22	20—30	10—14	16—26	26—30
SWG.		10—14	12—23	21—32	12—16	18—28	28—33
Ministry Ref.		IC/7471					
Nato Stk. No. 5110-99-970		—1711	—1708				

NOTE: The H35 Tool complies with Clause 7 of Min. of Aviation prov. spec. AV. P84 L352 "Crimped Terminations for Electrical Conductors" provided that the fitting of an adjustable wire stop and a blade with a single cutting hole (state size) is specified on your order.

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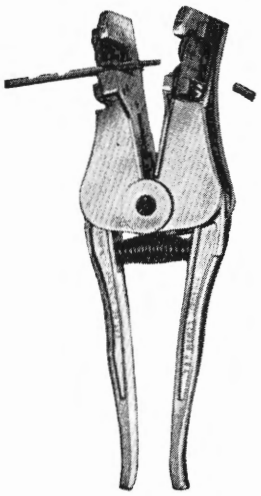
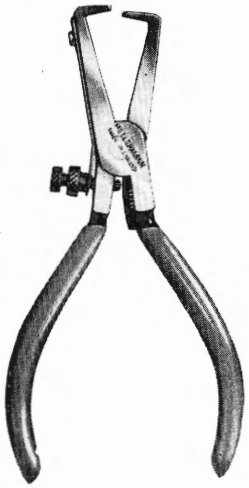


H35 WIRE STRIPPER
6½″ (165 mm) high ×
4½″ (114 mm) wide
Weight 14 oz. (397 gm.)

HELLERMANN WIRING TOOLS



H21C
WIRE STRIPPER
6½″ (165 mm) high ×
2¼″ (57.2 mm) wide
Weight 6 oz. (170 gm.)

H66
GRIP SNIPS
5″ (127 mm) high ×
2″ (51 mm) wide
Weight 3 oz. (85 gm.)

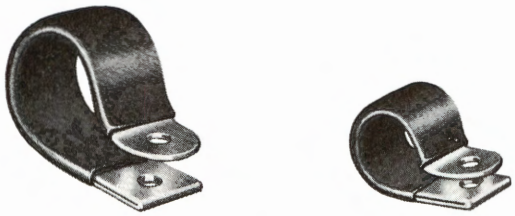
HELLERMANN ELECTRIC A division of Bowthorpe-Hellermann Ltd
CRAWLEY SUSSEX ENGLAND
Tel: CRAWLEY 28888 Telex: 87163 (Prefix message HELEC) Cables: HELLERMANN, CRAWLEY

Leaflet HE185C July 1969.

Hellermann 'P' Clips provide one of the simplest means of fixing cables and pipe lines available today.

Four types of 'P' Clips are available and provide a range suitable for use in most applications.

HELLERMANN 'P' CLIPS



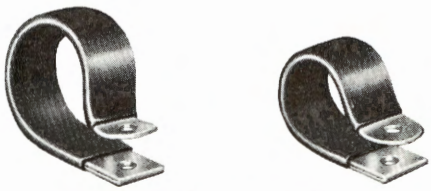
CODE BIW/Sc

SERIES AS3180

For fixing cables and pipelines. These clips, made of aluminium, are covered with Helsyn polychloroprene of extreme flame retardancy to meet War Office Specification No. TS359.

They provide a firm support, giving protection from vibration and chafing, according to the requirement of S.B.A.C. Drawing AS3180 and S.D.M.(A) 265.

This clip should not be used at temperatures above 100°C.

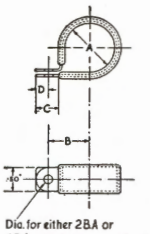


CODE BIW/Ss

SERIES C8031

This general purpose 'P' clip is recommended for applications where conditions of performance are less stringent than those pertaining to aircraft. The covering (coloured grey) is a highly resilient grade of synthetic rubber, providing good cushioning. For use at temperatures not in excess of 80°C.

Size Ref.	Dimensions in inches				Thick-ness SWG.	Dimensions in mm.				Thick-ness mm.
	A	B	C	D	max.	A	B	C	D	max.
/3	3/16	.34	.38	.19	22	4.8	8.6	9.7	4.8	0.7
/4	1/4	.375	.38	.19	22	6.4	9.5	9.7	4.8	0.7
/5	5/16	.40	.38	.19	22	7.9	10.2	9.7	4.8	0.7
/6	3/8	.43	.38	.19	22	9.5	10.9	9.7	4.8	0.7
/7	7/16	.46	.38	.19	22	11.1	11.7	9.7	4.8	0.7
/8	1/2	.55	.50	.25	22	12.7	14.0	12.7	6.4	0.7
/9	9/16	.58	.50	.25	22	14.3	14.7	12.7	6.4	0.7
/10	5/8	.61	.50	.25	22	15.9	15.5	12.7	6.4	0.7
/11	11/16	.64	.50	.25	22	17.5	16.3	12.7	6.4	0.7
/12	3/4	.70	.50	.25	20	19.1	17.8	12.7	6.4	0.9
/13	13/16	.73	.50	.25	20	20.6	18.5	12.7	6.4	0.9
/14	7/8	.75	.50	.25	20	22.2	19.1	12.7	6.4	0.9
/15	15/16	.79	.50	.25	20	23.8	20.1	12.7	6.4	0.9
/16	1	.82	.50	.25	20	25.4	20.8	12.7	6.4	0.9
/18	1 1/8	.88	.50	.25	20	28.6	22.4	12.7	6.4	0.9
/20	1 1/4	.94	.50	.25	20	31.8	23.9	12.7	6.4	0.9



When ordering, quote series reference followed by size reference and B or C depending on which bolt hole required e.g. AS3180/12C for 3/4 in. Helsyn clip with 2BA bolt hole.

Bolt hole size — Add B for 0.154 in. (3.9 mm.):— 4BA Bolt.
Add C for 0.188 in. (4.8 mm.):— 2BA Bolt.

Standard width (beneath insulation): 0.50 in. (12.7 mm.).

continued overleaf

HELLERMANN 'P' CLIPS continued

SERIES HT0813

This series of 'P' clips is designed for use at temperatures up to 150°C for limited periods. The clips are covered with Helsyn 150, a high temperature grade of modified nitrile which is impervious to ester-based lubricants, paraffin, petrol and most hydraulic fluids. HT0813 clips are coloured white for easy identification.

Standard Pack: 100

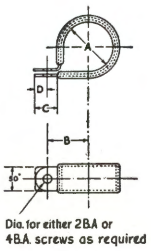
CODE BIW/Ss

SERIES HTX1380

For use at temperatures up to 200°C continuous, (250°C short periods). The clips are covered with Helsyn 200 hexafluoro propylene/vinylidene fluoride.

CODE BIW/Ss

Size Ref.	Dimensions in inches				Thick-ness SWG.	Dimensions in mm.				Thick-ness mm.
	A	B	C	D	max.	A	B	C	D	max.
/3	3/16	.34	.38	.19	22	4.8	8.6	9.7	4.8	0.7
/4	1/4	.375	.38	.19	22	6.4	9.5	9.7	4.8	0.7
/5	5/16	.40	.38	.19	22	7.9	10.2	9.7	4.8	0.7
/6	3/8	.43	.38	.19	22	9.5	10.9	9.7	4.8	0.7
/7	7/16	.46	.38	.19	22	11.1	11.7	9.7	4.8	0.7
/8	1/2	.55	.50	.25	22	12.7	14.0	12.7	6.4	0.7
/9	9/16	.58	.50	.25	22	14.3	14.7	12.7	6.4	0.7
/10	5/8	.61	.50	.25	22	15.9	15.5	12.7	6.4	0.7
/11	11/16	.64	.50	.25	22	17.5	16.3	12.7	6.4	0.7
/12	3/4	.70	.50	.25	20	19.1	17.8	12.7	6.4	0.9
/13	13/16	.73	.50	.25	20	20.6	18.5	12.7	6.4	0.9
/14	7/8	.75	.50	.25	20	22.2	19.1	12.7	6.4	0.9
/15	15/16	.79	.50	.25	20	23.8	20.1	12.7	6.4	0.9
/16	1	.82	.50	.25	20	25.4	20.8	12.7	6.4	0.9
/18	1 1/8	.88	.50	.25	20	28.6	22.4	12.7	6.4	0.9
/20	1 1/4	.94	.50	.25	20	31.8	23.9	12.7	6.4	0.9



Dia. for either 2BA or 4BA screws as required

When ordering, quote series reference followed by size reference and B or C depending on which bolt hole required eg. HT0813/12C for 3/4 in. Helsyn 150 clip with 2BA bolt hole.

Bolt hole size — Add B for 0.154 in. (3.9 mm.):— 4BA Bolt.
Add C for 0.188 in. (4.8 mm.):— 2BA Bolt.

Standard width (beneath insulation): 0.50 in. (12.7 mm.).

HELLERMANN ELECTRIC A division of Bowthorpe-Hellermann Ltd

CRAWLEY SUSSEX ENGLAND

Tel: CRAWLEY 28888 Telex: 87163 (Prefix message HELEC) Cables: HELLERMANN, CRAWLEY