



## **Cable Strippers & Crimpers**

Cable Cutters & Wirestrippers .....	524
Ideal Wirestrippers .....	526
Mil-Spec Connector Tooling .....	530
Pneumatic Crimpers .....	541
Connector Tooling Kits .....	547

# Cable Cutters & Wirestrippers

## KNIPEX TWO STAGE CABLE SHEAR

- For cutting copper and aluminium cables
- Not suitable for steel wire and hard drawn copper conductors
- Cutting action with initial cut (insulating sheath in the front cutting area) and final cut (conductor in the back cutting area), for cables up to Ø 20 mm



Part No.	mm	Ø
95 11 200	200	20

## KNIPEX CABLE SHEARS

- For cutting copper and aluminium single conductors as well as multiple stranded cables
- Clean and smooth cut without crushing and deformation
- Not suitable for steel wire and hard drawn copper conductors
- Easy cutting with one-hand operation



Part No.	OAL (in) (L)	Weight (lbs)
95 11 165	6-1/2	0.47

## KNIPEX COMPACT BOLT CUTTERS

- Most efficient joint design ensures exceptional cutting performance
- Cuts bolts, nails, rivets, etc. up to 5.2 mm dia.
- Precision cutting edges for soft and hard wire as well as piano wire



Part No.	mm	Ø	Weight (lbs)
71 01 200	200	6.0	3.6

## STRIPAX WIRESTRIPPER

- Uses 33 blades within each jaw to self-adjust and conform to the profile of different wire sizes and insulation densities
- Self-adjusting blades strip solid or stranded wire
- Built-in wire cutter
- Strip length adjusts from 1/8" to 3/4"
- Reinforced fibreglass construction



Part No.	Description	Wire Range
9005	Stripax Wire Stripper	10-26 AWG

## KNIPEX WIRE ROPE CUTTER

- With two crimping dies for end caps on Bowden cable sheaths and end ferrules for traction cables
- Comfortable work thanks to handy, slim design and internal opening spring
- Bolted joint for precise blade guidance, re-adjustable
- For medium hard wire up to 6 mmdia., e.g. Bowden cords, but also for cables and steel rods
- Special blade geometry prevents the wire rope fanning out
- High leverage for reduced effort



Part No.	mm	WR	FE
96 61 190	190	6mm	4mm

## PROTO® CABLE CUTTER

- Cuts up to 3/0 fine stranded copper battery cable (not for use on steel cable).
- Precision ground blades minimize deflection.
- Positive fastener maintains pressure on matching cutting surfaces.
- Plastisol grips for added comfort.



Part No.	OAL (in) (L)	Weight (lbs)
J288	7-1/2	0.56

## T®-STRIPPER WIRESTRIPPERS

- Form-ground, knife-type blades for accurate, easy stripping without nicking the insulation
- Built-in wire cutter and looping holes
- Convenient plier nose for extra gripping strength
- Laser-etched wire gauge for easy-to-read visibility
- Spring-loaded automatic opening
- Corrosion-resistant, black oxide finish
- Tough steel construction
- Locking tabs keep spring in place



Part No.	Description	Wire Range
45-120	T®-5 T®-Stripper	138mm
45-121	T®-6 T®-Stripper	138mm
45-125	T®-7 T®-Stripper	138mm
45-124	T®-8 T®-Stripper	160mm

## COAXIAL WIRESTRIPPERS

The Swedish Corex wire stripper is available in two or three step versions for various strip lengths to suit a wide variety of cables. The standard CX strippers to be selected for cables from 2.5-7.6mm diameter and the Maxicorex is for cables of 7-15.0mm diameter.



Part No.	Dimension C	Dimension B
CX-202	-	6.0mm
CX-203	-	9.2mm
CX-204	-	12.0mm
CX-207	-	6.8mm
CX-300	5.5mm	5.5mm
CX-305	6.0mm	6.0mm
CX-309	6.8mm	2.5mm
CX-399	7.5mm	3.5mm
MAXI COREX 2	-	12.7mm
MAXI COREX 3	9.5mm	3.2mm

## PROTO® WIRE STRIPPER – PLIERS

- Strips 10-22 AWG (American Wire Gauge).
- Crimps insulated and non-insulated terminals for 10-22 AWG wire.
- Crimps non-insulated 7mm and 8mm auto ignition wire.
- Cuts screw/bolt sizes 4-40, 5-40, 6-32, 8-32, 10-32, 10-24 and copper wire.
- Plier nose designed to grip, bend, and pull wire.
- Extended length curved cutter to handle heavier wire with less force.



Part No.	OAL (in) (L)	Weight (lbs)
J298	8-1/4	0.05

## PROTO® WIRE STRIPPER – CUTTER

- Strips wire sizes 10, 12, 14, 16, 18, and 20 AWG (American Wire Gauge).
- Plier nose for pulling and looping wire.
- Spring return and convenient handle lock.
- Plastisol grips for added comfort.
- For copper wire.



Part No.	OAL (in) (L)	Weight (lbs)
J297	6-1/16	0.521

## COAXIAL WIRESTRIPPERS

Low cost versions of coaxial strippers in 2 step and 3 step models-



Part No.	Description	Cable
HT312B	Coaxial Stripper	RG58/59 (3 step)
HT332D	Coaxial Stripper	RG58/59/62/2/174 (2 step)
HT322S	Coaxial Stripper	12.0mm

## OUTER SHEATH REMOVAL TOOL

Cable stripper for removal of outer PVC sheaths. With removable swivel blade.



Part No.	Description	Range
SC 2/S	Sheath Stripper	8-28mm

## OUTER SHEATH REMOVAL TOOLS

Cable stripper with finger action swivel blade.



Part No.	Description	Range
HT325B	Sheath Stripper	4.5-25.0mm

## PROTO® WIRE STRIPPER

- Strips wire sizes 22, 24, 26, 28, and 30 AWG (American Wire Gauge).
- Wire cutter.
- Plier nose for pulling and looping wire.
- Automatic spring return.
- Plastisol grips for added comfort.



Part No.	OAL (in) (L)	Weight (lbs)
J296	6-1/16	0.21

## WIRE WRAP STRIPPER



Part No.	Description	Wire Range
CK3757-2	Wire Wrap Stripper	20-30AWG

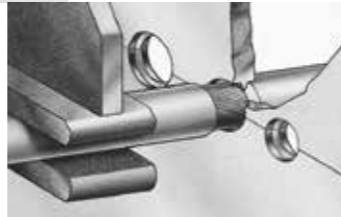
# Ideal Wirestrippers

- Milspec die type blades allow precision stripping
- Strips 30 through 10 AWG solid or stranded wire
- Inner cutting hole sized to conductor and counter-bored holes sized to insulation
- Replaceable grippers
- Optional short stop latch and transparent wire stop
- Cushioned, comfort grip handles
- Custom Stripmaster® Lite is 75% of the size of Custom Stripmaster® Wire Stripper and strips 16 through 30 AWG solid or stranded wire
- Custom Stripmaster® Lite requires one-third less hand pressure for each strip actuation



Gripper pads hold the wire securely in a centerline relationship with the blade

Die-type blades incorporate a counter-bored hole sized to the conductor. This varies depending on insulation type and thickness.



## CUSTOM STRIPMASTER® WIRESTRIPPERS – MILSPEC APPLICATIONS

The 45-170 Series is a Custom Stripmaster Wirestripper frame without the short stop latch and wire stop.

45-169 through 45-188 include grit-type pads (standard). 45-369 through 45-388 include file-type pads. 45-469 through 45-488 include parallel-type pads.



Wire Size AWG	30	28	26	24	22	20	18	16	14	12	10	Blade Part No.
MM2 Nominal	0.05	0.08	0.13	0.2	0.22	0.5	1.0	1.5	2.5	4.0	6.0	
For type E Teflon® (600V)												
45-176									.076/.0935	.096/.113	.119/.136	L-5559
45-177			.023/.039	.028/.043	.034/.052	.042/.0595	.052/.070	.061/.081				L-5560
45-178	.016/.032	.019/.035	.023/.039									L-5561
For type EE Teflon® (600V)												
45-173									.076/.104	.096/.125	.119/.144	L-5562
45-174			.023/.0465	.028/.055	.034/.0595	.042/.067	.052/.0785	.061/.089				L-5563
45-175	.016/.042	.019/.043	.023/.0465									L-5564
For other misc. insulations												
45-170									.076/.113	.0937/.138	.116/.154	L-5210
45-171			.022/.052	.0292/.0595	.035/.0635	.042/.073	.052/.086	.062/.096				L-5211
45-172	.016/.037	.020/.040	.024/.043									L-5436
For wire wrap and other thin insulated wire												
45-179	.012/.020											L-7625
45-169	.012/.019	.014/.023	.018/.025	.024/.033								L-9300

## CUSTOM STRIPMASTER® LITE WIRESTRIPPERS – MILSPEC APPLICATIONS

Specifications: Cutting Hole Diameter/Counterbore Diameter (in inches)

Tolerances: Cutter Diameter: + 0.001; Counterbore Diameter: + 0.002

Teflon and Kapton are registered trademarks of E.I. du Pont de Nemours and Company.



Wire Size AWG	30	28	26	24	22	20	18	16	Blade Part No.
MM2 Nominal	0.05	0.08	0.13	0.2	0.22	0.5	1.0	1.5	
MIL-W-16878 Type E 600V Teflon® Wire									
45-638					.034/.052	.042/.0595	.052/.070	.061/.081	LB-918
45-639			.023/.039	.028/.043	.034/.052	.042/.0595			LB-919
45-640	.016/.032	.019/.035	.023/.039	.028/.043					LB-920
MIL-W-16878 Type EE 1000V Teflon® Wire									
45-635					.034/.0595	.042/.067	.052/.0785	.061/.089	LB-915
45-636			.023/.0465	.028/.055	.034/.0595	.042/.067			LB-916
45-637	.016/.042	.019/.043	.023/.0465	.028/.055					LB-917
General Purpose									
45-632					.035/.0635	.042/.073	.052/.086	.062/.096	LB-912
45-633			.022/.052	.0292/.0595	.035/.0635	.042/.073			LB-913
45-634	.016/.037	.020/.040	.024/.043	.0292/.0595					LB-914
Wire Wrapping (thin insulation solid wire)									
45-641	.012/.020								LB-921
45-631	.012/.019	.014/.023	.018/.025	.024/.033					LB-911

## REPLACEMENT FRAME ASSEMBLIES



Frame for Custom Stripmaster® Wirestrippers – no blade included

Part No.	Description
L-5616	Frame only, 10-14 AWG
L-5617	Frame only, 16-30 AWG
L-5618	Frame only, 10-14 AWG, Wire stop and latch
L-5619	Frame only, 16-30 AWG, Wire stop and latch

Frame for Custom Stripmaster® Lite Wirestrippers – no blade included

Part No.	Description
LB-895	Frame only
LB-896	Frame only, Wire stop and latch

## STOP LATCHES



Transparent wire stop provides uniform stripping strength



Short-stop latch protects wire strands by limiting the stripping stroke to 5/32" and retains the slug until the wire is ready for terminating

For Custom Stripmaster® Wirestrippers

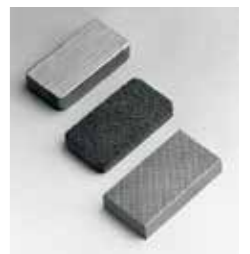
Part No.	Description
L-5269	Short
L-5270	Transparent

For Custom Stripmaster® Lite Wirestrippers

Part No.	Description
LB-1194	Short
LB-1195	Transparent

## REPLACEMENT GRIPPER PADS

Gripper Pads are available in your choice of either parallel, file or grit-type. File-type pads may be used on hard-to-grip insulators such as Kapton® and some Teflon®



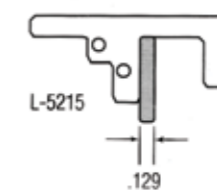
Moveable Grippers for Custom Stripmaster® Wire

Part No.	Surface Type
L-5212	Grit
LB-718	File
LB-727	Parallel

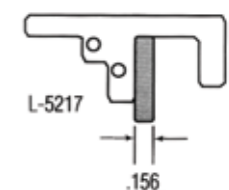
Moveable Grippers for Custom Stripmaster® Lite Wire

Part No.	Surface Type
L-5616	Grit
L-5617	File
L-5618	Parallel

Stationary Gripper for Red Handle Units For 10, 12 & 14 AWG Wire



Stationary Gripper for Black Handle Units For 16 thru 30 AWG wire.



Stationary Grippers Custom Stripmaster® Wirestrippers

Part No.	Description
L-5215	.129" thick, 10-14 AWG
L-5217	.156" thick, 16-30 AWG

## STRIPMASTER® WIRESTRIPPERS – ELECTRICAL/INDUSTRIAL APPLICATIONS

- One-step stripping enhances productivity
- Spring-action motion increases leverage and reduces operator fatigue
- Precision-ground, knife-type blades provide clean, accurate stripping
- Sturdy diecast frame provides long-term durability
- Wire gripper holds wire securely in position



Part No.	Wire Size AWG	30	28	26	24	22	20	18	16	14	12	10	8	Blade Part No.
	MM2 Nominal	0.05	0.08	0.13	0.2	0.22	0.5	1.0	1.5	2.5	4.0	6.0	8.0	
45-090											.106	.141	.159	L-4419
45-091								.073	.073	.085	.105	.144		L-4420
45-092						.048	.048	.061	.072	.090	.113	.144		L-4421
45-097				.026	.032	.039	.048	.061	.072					L-4994
45-098		.016	.021	.026	.032	.039	.048							L-5361

### BAND-IT BANDING TOOL

- To tension and cut stainless 1/4" steel bands to a preset level from 100 to 180 pounds.
- Used for EMP/EMI/RFI shield terminations on connector backshell assemblies.
- Same as Glenair 600 058



Part No.	Description	OAL
A40199	BAND-IT Banding Tool	1/4 in

### BAND-IT BANDING TOOL

- To tension and cut stainless 1/8" steel bands to a preset level from 50-100 pounds.
- Used for EMP/EMI/RFI shield terminations on connector backshell assemblies.
- Same as Glenair 600 061



Part No.	Description	Capacity
A30199	BAND-IT Banding Tool	1/8 in

### SAFE-T-CABLE APPLICATION TOOL HAND OPERATED

with 7 Inch Nose for .032 Safe-T-Cable



Part No.	Description	Cable Dia	Capacity
SCTR203	Adjustable Tension	0.22	3 in
SCTR207	Adjustable Tension	0.22	7 in
SCTR323	Adjustable Tension	0.32	3 in
SCTR327	Adjustable Tension	0.32	7 in
SCTR403	Adjustable Tension	0.40	3 in
SCTR407	Adjustable Tension	0.40	7 in
SCT203	Pre-Set Tension	0.22	3 in
SCT207	Pre-Set Tension	0.22	7 in
SCT323	Pre-Set Tension	0.32	3 in
SCT327	Pre-Set Tension	0.32	7 in
SCT403	Pre-Set Tension	0.40	3 in
SCT407	Pre-Set Tension	0.40	7 in

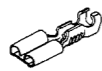
### SAFE-T-CABLE APPLICATION TOOL PNEUMATIC

with 7 Inch Nose for .032 Safe-T-Cable



Part No.	Description	Cable Dia	Capacity
SCTPR203	Adjustable Tension	0.22	3 in
SCTPR207	Adjustable Tension	0.22	7 in
SCTPR323	Adjustable Tension	0.32	3 in
SCTPR327	Adjustable Tension	0.32	7 in
SCTPR403	Adjustable Tension	0.40	3 in
SCTPR407	Adjustable Tension	0.40	7 in
SCTP203	Pre-Set Tension	0.22	3 in
SCTP207	Pre-Set Tension	0.22	7 in
SCTP323	Pre-Set Tension	0.32	3 in
SCTP327	Pre-Set Tension	0.32	7 in
SCTP403	Pre-Set Tension	0.40	3 in
SCTP407	Pre-Set Tension	0.40	7 in

### ROLL CRIMP TERMINAL CRIMPING TOOLS



Part No.	Description	Application
HT236C	Roll-Crimp Tool	1.5 - 6mm <sup>2</sup>
HT236U	D-Sub Roll Crimp Tool	10 - 22 AWG

### PRE-INSULATED TERMINAL CRIMP TOOLS



Part No.	Description	Application
HT236H	Pre-Insulated Ratchet Crimper	Red/Blue/Yellow

### CONTACT CRIMP TOOL D-TYPE

A low cost 4-way indent tool for crimping solid D-subminiature contacts for RS232 interface connectors.



Part No.	Description	Range
H1440	D-Subminiature Contact Crimp Tool	16-22WG

### COAXIAL CONNECTOR CRIMPING TOOLS



Part No.	Application, RG cable
HT336A	- 6.5 5.41 - 1.72 - 58, 59, 62, 141, 142, 223
HT336G	6.48 5.41 3.50 2.54 1.75 1.1 58, 59, 62, 141, 142, 174, 223
HT336K	10.9 - 3.25 2.5 - - 8, 9, 11, 213, 214, 174, 179
HT336I	- 7.9 6.3 5.2 2.3 1.6 58, 59, 6, 174

### CABLE TIE GUN BASIC

- For cable ties from 2.2 to 4.8mm wide
- Fastens and automatically cuts ties with adjustable bundling pressure
- Maximum thickness 1.6mm



Part No.	Description	OAL
HT218	Cable Tie Gun	160mm

### CABLE TIE GUN STAINLESS STEEL

- For cable ties up to 7.9mm wide
- Fastens and automatically cuts cable ties with adjustable bundling pressure
- Maximum thickness 0.3mm



Part No.	Description	OAL
HT338	Stainless Steel Tie Gun	180mm

### PANDUIT CABLE TIE GUN – SMALL

- With tool-controlled tension that provides a flush cut-off and speeds up installation to lower installed cost.
- For Subminiature, Miniature, Intermediate, and Standard Cross Section Cable Ties.



Part No.	Description	Weight
GTS-E	Panduit Cable Tie Gun	2.9kg

### PANDUIT CABLE TIE GUN

- With tool-controlled tension that provides a flush cut-off and speeds up installation to lower installed cost.
- For Standard, Heavy-Standard, Light-Heavy, and Heavy Cross Section Cable Ties.



Part No.	Description	Weight
GTH-E	Panduit Cable Tie Gun	3.4kg

### CABLE TIE GUN HEAVY DUTY

- For cable ties up to 4.66mm wide
- Suited to repeated use in production
- Fastens and automatically cuts ties with adjustable bundle pressure
- Maximum thickness 1.3mm



Part No.	Description	OAL
HT328	Cable Tie Gun	168mm

### CABLE TIES

Quality cable ties in black or natural. Contract pricing available for high quantity users.



Part No.	Size	Colour	Qty
FCT 10201	2.5 x 100mm	Black	100
FCT 10202	3.2 x 150mm	Black	100
FCT 10203	4.8 x 200mm	Black	100
FCT 10204	4.8 x 300mm	Black	100
FCT 10205	4.8 x 370mm	Black	100
FCT 10225	2.5 x 100mm	Natural	100
FCT 10226	3.2 x 150mm	Natural	100
FCT 10227	4.8 x 200mm	Natural	100

### PRESSMASTER CRIMP TOOLS – KOMFORT-LINE

Designed to achieve maximum ergonomics, reliability and durability for a wide range of crimping applications. Optimised linkage reduces grip-force by approximately 40% compared to the average crimping tool. Komfort-line crimping tools have ergonomically shaped, cushion gripped handles and are made in two frame sizes. The 'K Frame' allows for two-handed operation for larger crimping applications, whereas the 'M Frame' size has been designed for single handed operation when crimping small contacts or terminals.



M-Frame (212mm long)



K-Frame (255mm long)

Part No.	Terminal type	Die Profile	Size	Crimp Form	Crimper Frame
KSAS 0760	Insulated Red, Blue, Yellow terminals		0.75 - 5.0mm <sup>2</sup>		K
PRS MRB 0115	Uninsulated roll-crimp terminals		0.1 - 1.5mm <sup>2</sup>		M
KRB 0560 K	Uninsulated roll-crimp terminals		0.5 - 6.0mm <sup>2</sup>		K
MCC 0908S	Coaxial RG 174/316		4.25/3.25/1.69		M
PRS MCC 1113	Coaxial RG 58 + RG 59		6.48/5.4/1.69		M
KCC 2511K	Coaxial RG 58 + RG 214		0.90/5.4/2.54/1.69		K

# Mil-Spec Connector Tooling

## KNIPEX FOUR-MANDREL CRIMPING PLIERS FOR TURNED CONTACTS

- Crimping capacity can be adjusted in increments of 0.01 mm
- With digital display of the preset crimping capacities and possibility of re-calibration via RESET function with electronic wear monitoring
- Adjustment in mm, inches or comparable selection positions according to MIL



Part No.	Description	Range
97 52 63 DG	Knipex Self-Adjusting Crimping Pliers	28-14 AWG 0.08-2.5mm <sup>2</sup>
97 52 63 DG A	D-Sub Roll Crimp Tool	28-14 AWG 0.08-2.5mm <sup>2</sup>
97 52 65 DG	Knipex Self-Adjusting Crimping Pliers	26-10 AWG 0.14 — 6 mm <sup>2</sup>
97 52 65 DG A	D-Sub Roll Crimp Tool	26-10 AWG 0.14 — 6 mm <sup>2</sup>

## KNIPEX FOUR-MANDREL CRIMPING PLIERS FOR TURNED CONTACTS

- Universally adjustable locator for the repeatable exact alignment of turned contacts in crimping pliers
- Individually adjustable to contacts in diameter and depth



Part No.	Description
97 59 65 2	Knipex Universal Locator

## ASTRO STANDARD STEP ADJUSTABLE LARGE CRIMP FRAME TOOL M22520/1-01 (615708)

- 8 indent Crimp
- Dial selectable
- Uses turret and single position heads
- Cycle controlled Ratchet



The Astro M22520/1-01 (615708) is qualified to MIL-DTL-22520/1. This dial selectable 8-step tool has extensive applications within the wire barrel sizes 12-22 and wire sizes 12-26 AWG. This tool produces an eight indent crimp configuration which provides maximum tensile strength for both MS and proprietary contacts when used with wire of various compositions.

The beauty of this tool is in the ease of its use. The operator simply has to attach the appropriate turret head, or universal positioner, to the tool and then set the selector to the desired step for the wire being used. The ratchet is designed to ensure a complete cycle of the tool. A complete and accurate crimp is obtained each and every time, with no partial crimps.

This Large Crimp Frame tool is designed to be used with a turret head, a positioner or a universal head. These heads are easily attached with the use of built in hex socket screws. A data plate is permanently attached to each head. The data plate lists the contacts, for which the head was designed, along with selector settings that correspond to the wire being used.

Astro recommends that all of its tools be gaged periodically, to assure accurate calibration. A gauge M22520/3-1 (615716) is available for this purpose.

The M22520/1-01 tool is 9 1/4 inches long and weighs approximately 20 ounces. It is also available in a pneumatic version, P/N APC708.

Part No.	Astro Ref	DMC Ref	USAGE/DESCRIPTION	NSN
M22520/3-1	615716	G125	Gauge for M22520/1-01; /2-01	5220-00-165-7604
M22520/1-01	615708	AF8	Tool Frame	5120-00-165-3912
M22520/1-02	615709	TH1A	Turret	5120-00-016-6382
M22520/1-03	615710	TH4	Turret	5120-00-016-6554
M22520/1-04	615711	TH163	Turret	5120-00-016-7582
M22520/1-05	615712	UH2-5	Universal Positioner	5120-00-165-3911
M22520/1-06	615713	TP45	Positioner	5120-00-016-7647
M22520/1-07	615714	TP85	Positioner	5120-00-016-7651
M22520/1-08	615715	TH199	Turret	5120-00-016-7654
M22520/1-09	615821	TP360	Positioner	5120-00-132-5039
M22520/1-10	615822	TP365	Positioner	5120-00-132-5095
M22520/1-11	616406	TP465	Positioner	5120-01-127-5231
M22520/1-12	616407	TH270	Turret	5120-01-036-9220
M22520/1-13	616408	TH285	Turret	5120-01-036-9221
M22520/1-14	616409	TH286	Turret	5120-01-036-9222
M22520/1-15	616410	TP485	Positioner	5120-01-036-9223
M22520/1-16	620172	TP513	Positioner	5120-01-075-8138
M22520/1-17	620537	TP651	Positioner	-

DMC Tooling® -owned by Daniels Manufacturing Corporation

## MINIATURE STEP ADJUSTABLE CRIMP TOOL M22520/2-01 (615717)



- 8 indent Crimp
- Dial selectable
- Uses bayonet positioners
- Cycle controlled Ratchet



The Astro M22520/2-01 (615717) is qualified to MIL-DTL-22520/2 is a Small Crimp Frame with an adjustable 8-indent crimp configuration providing excellent results on contacts sizes 20-28 and wire sizes 20-32 AWG.

A wide variety of MS and proprietary contacts and wire compositions can be crimped by simply attaching a positioner in the bayonet-type socket and adjusting the selector to one of the eight preselected settings. The tool is equipped with a positive ratchet that requires the completion of the crimp cycle to ensure the integrity of each crimp.

Astro offers a wide variety of positioners to accommodate various mil-spec and proprietary contacts. Each positioner has a data plate which provides the correct crimp depth setting for the contact and wire combination. Astro also offers two adjustable positioners (615179 & 615179-1) that allow you to adjust the crimp location according to your specific needs.

Astro recommends the periodic gaging of all its tools. A gauge M22520/3-1 (615716), is available for this purpose.

The M22520/2-01 (615717) is 7-1/2 inches long and weighs 11 ounces. It is also available in a pneumatic version, P/N 621100.

For ultra precise crimps on miniature and subminiature contacts with very thin wire barrel dimensions, Astro offers the 620613, built from the same tool frame as the M22520/2-01 (615717) and utilizes the same positioners.

Part No.	Astro Ref	DMC Ref	USAGE/DESCRIPTION	NSN
M22520/2-01	615717	AFM8	Tool Frame	5120-00-165-3910
M22520/2-02	615718	K1S	Positioner	5120-00-165-3913
M22520/2-03	615719	K60S	Positioner	5120-00-016-7657
M22520/2-04	615720	K151	Positioner	5120-00-017-3640
M22520/2-05	615721	K3	Positioner	5120-00-017-3742
M22520/2-06	615722	K41	Positioner	5120-00-017-3809
M22520/2-07	615723	K40	Positioner	5120-00-017-3827
M22520/2-08	615724	K13-1	Positioner	5120-00-017-3921
M22520/2-09	615725	K42	Positioner	5120-00-017-3927
M22520/2-10	615726	K43	Positioner	5120-00-017-3932
M22520/2-11	615727	K287	Positioner	5120-00-017-3934
M22520/2-12	615729	K286	Positioner	5120-00-017-3935
M22520/2-13	616031	K338	Positioner	5120-00-132-6939
M22520/2-14	616032	K340	Positioner	5120-00-132-6962
M22520/2-15	616033	K341	Positioner	5120-00-132-6978
M22520/2-16	616034	K339	Positioner	5120-00-132-7868
M22520/2-17	616035	K342	Positioner	5120-00-132-7893
M22520/2-18	616036	K343	Positioner	5120-00-132-7894
M22520/2-19	616037	K330-2	Positioner	5120-00-132-7872
M22520/2-20	616038	K331-2	Positioner	5120-00-132-9004
M22520/2-21	616039	K332-2	Positioner	5120-00-133-0029
M22520/2-22	615448	K212	Positioner	5120-01-106-3737
M22520/2-23	616191	K267	Positioner	5120-01-117-3905
M22520/2-24	616260	K7S-1	Positioner	5120-00-348-7531
M22520/2-25	616411	K261-1	Positioner	5120-00-132-6932
M22520/2-26	616412	K262-1	Positioner	5120-00-133-3263
M22520/2-27	616413	K269-1	Positioner	-
M22520/2-28	616414	K373-1	Positioner	5120-00-124-3678
M22520/2-29	616415	K372-1	Positioner	5120-00-124-3682
M22520/2-30	616416	K404	Positioner	5120-01-117-3905
M22520/2-31	616417	K406	Positioner	-
M22520/2-32	620261	K496	Positioner	-
M22520/2-33	615257	K47S	Positioner	-
M22520/2-34	620499	K323	Positioner	-
M22520/2-35	620517	K532-1	Positioner	-
M22520/2-36	616429	K475	Positioner	-

DMC Tooling® -owned by Daniels Manufacturing Corporation

**INTERMEDIATE STEP ADJUSTABLE TOOL 616336 (M22520/7-01))**

- 8 indent Crimp
- Dial selectable
- Cycle controlled Ratchet
- Lightweight and easy to use
- Uses bayonet positioners



The Astro 616336 is qualified to MIL-DTL-22520/7.

This tool is an 8-Step Selectable with varying applications within the wire barrel sizes 16-22 and wire sizes 16-28 AWG.

The 616336 produces an 8 indent crimp configuration, which provides excellent results on MS and proprietary contacts and wire of various compositions.

The 616336 tool is designed to be used with a positioner that features easy attachment with a bayonet socket mount. A data plate is permanently attached to each positioner. This data plate provides the correct selector setting to be used for each contact and wire combinations. This helps to eliminate error in choosing the proper crimp depth.

Astro recommends that all of its tools be gaged periodically to assure accurate calibration. A gauge 616337 (M22520/3-3) is available for this purpose.

The 616336 tool is 7 1/4 inches long and weighs approximately 11 ounces. The 616336 is available in a pneumatic version, P/N 621101.

An adjustable positioner is available P/N 642020.

A wide variety of Positioners are available, in addition to those listed. Please contact factory for additional information.

**Turret and Positioner Selection Charts for MIL-C-39029 / AS39029 Contacts on page 533.**

Part No.	Astro Ref No.	DMC Ref	USAGE/DESCRIPTION	NSN
M22520/7-01	616336	-	Tool Frame	5120-00-133-1747
M22520/7-02	616327	-	Positioner	5120-00-133-1769
M22520/7-03	616328	-	Positioner	5120-00-133-1770
M22520/7-04	616329	-	Positioner	5120-00-133-1772
M22520/7-05	616330	-	Positioner	5120-00-133-1778
M22520/7-06	616331	-	Positioner	5120-00-133-1781
M22520/7-07	616332	-	Positioner	5120-00-133-1782
M22520/7-08	616333	-	Positioner	5120-00-133-1785
M22520/7-09	616334	-	Positioner	5120-00-133-1790
M22520/7-10	616335	-	Positioner	5120-00-133-1792
M22520/7-11	620083	-	Positioner	5120-01-122-1201
M22520/7-12	620084	-	Positioner	5120-01-112-2925
M22520/7-13	620085	-	Positioner	5120-01-110-4472
M22520/3-3	616337	G145	Gauge for M22520/7-01	5220-00-338-0378

**TURRET AND POSITIONER SELECTION CHARTS FOR MIL-C-39029 / AS39029 CONTACTS**

For M22520/1-01, M22520/2-01, M22520/7-01 Crimp Tools

Positioners/Locators for contacts of MIL-C-5015 (MS 3450 Series/rear-release Type) and MIL-C-83723 Series II								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/1-02	615709	M39029/30-165-16	MS3163-16S-16 M83723-30T17	217	SKT	16S	16	A/B
M22520/1-02	615709	M39029/29-16-16	MS3162-16-16 M83723-29T16	212	PIN	16	16	A/B
M22520/1-02	615709	M39029/30-16-16	MS3163-16-16 M83723-30T16	218	SKT	16	16	A/B
M22520/1-02	615709	M39029/29-12-12	MS3162-12-12 M83723-29T12	213	PIN	12	12	A/B
M22520/1-02	615709	M39029/30-12-12	MS3163-12-12 M83723-30T12	219	SKT	12	12	A/B

Positioners/Locators for contacts of MIL-C-26482 Series II, MIL-C-81703 Series III, MIL-C-83723 Series III, MIL-C-83733								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-02 M22520/1-02	615718 615709	M39029/4-20-20	M83723-33B20	110	PIN	20	20	A/B
M22520/2-02 M22520/1-02	615718 615709	M39029/5-20-20	M83723-34B20	115	SKT	20	20	A/B
M22520/1-02	615709	M39029/4-16-16	M83723-33B16	111	PIN	16	16	A/B
M22520/1-02	615709	M39029/5-16-16	M83723-34B16	116	SKT	16	16	A/B
M22520/1-02	615709	M39029/4-16-20	-	112	PIN	16	20	A/B
M22520/1-02	615709	M39029/5-16-20	-	117	SKT	16	20	A/B
M22520/1-02	615709	M39029/4-12-12	M83723-34B12	113	PIN	12	12	A/B
M22520/1-02	615709	M39029/5-12-12	-	118	SKT	12	16	A/B
M22520/1-02	615709	M39029/4-12-16	-	111	PIN	12	16	A/B
M22520/1-02	615709	M39029/5-12-16	M83723-34B16	119	SKT	12	16	A/B

DMC Tooling® -owned by Daniels Manufacturing Corporation

Positioners/Locators for contacts of MIL-C-26500								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-02 M22520/1-02	615718 615709	M39029/31-241	MS24254-20P	241	PIN	20	20	A/B
M22520/2-02 M22520/1-02	615718 615709	M39029/32-260	MS24255-20S	260	SKT	20	20	A/B
M22520/1-02	615709	M39029/31-229	MS24253-16P	229	PIN	16	16	A/B
M22520/1-02	615709	M39029/32-248	MS24255-16S	248	SKT	16	16	A/B
M22520/1-02	615709	M39029/31-235	MS24254-12P	235	PIN	12	12	A/B
M22520/1-02	615709	M39029/32-254	MS24255-12S	254	SKT	12	12	A/B

**TURRET AND POSITIONER SELECTION CHARTS FOR MIL-C-39029 / AS39029 CONTACTS**

For M22520/1-01, M22520/2-01, M22520/7-01 Crimp Tools

Positioners/Locators for contacts of MIL-C-24308								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-08	615724	M39029/64-369	M24308/1-1	369	PIN	20	20	A/A
M22520/2-08	615724	M39029/63-368	M24308/10-1	368	SKT	20	20	A/A

Positioners/Locators for contacts of MIL-C-5015 (MS3400 Series/Front-Release Type)								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/1-02	615709	M39029/44-288	MS90453-16-16	288	PIN	16	16	A/B
M22520/1-02	615709	M39029/45-295	MS90454-16-16	295	SKT	16	16	A/B
M22520/1-02	615709	M39029/44-287	MS90453-16-22	287	PIN	16	22	A/B
M22520/1-02	615709	M39029/45-294	MS90454-16-22	294	SKT	16	22	A/B
M22520/1-02	615709	M39029/44-290	MS90453-12-12	290	PIN	12	12	A/B
M22520/1-02	615709	M39029/45-297	MS90454-12-12	297	SKT	12	12	A/B
M22520/1-02	615709	M39029/44-289	MS90453-12-16	289	PIN	12	16	A/B
M22520/1-02	615709	M39029/45-296	MS90454-12-16	296	SKT	12	16	A/B

Positioners/Locators for contacts of MIL-C-38999 Series I, III, IV								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-07	615723	M39029/56-348	MS27655-22D MS27490-22D	348	SKT	22	22D	A/B
M22520/2-07	615723	M39029/56-349	MS27490-22M	349	SKT	22	22M	A/B
M22520/2-07	615723	M39029/56-350	MS27490-22	350	SKT	22	22	A/B
M22520/2-10	615726 615711	M39029/56-351	MS27655-20 MS27490-20	351	SKT	20	20	A/B
M22520/1-04	615711	M39029/56-352	MS27655-16 MS27490-16	352	SKT	16	16	A/B
M22520/1-04	615711	M39029/56-353	MS27655-12 MS27490-12	353	SKT	12	12	A/B

Positioners/Locators for contacts of MIL-C-26482 Series I								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-02 M22520/1-02	615718 615709	M39029/56-348	MS3192A20-20A	240	PIN	20	20	A/A
M22520/2-02 M22520/1-02	615718 615709	M39029/56-349	MS3193A20-20A	259	SKT	20	20	A/A
M22520/1-02	615709	M39029/56-350	MS3192-16-16A	228	PIN	16	16	A/A
M22520/1-02	615709	M39029/56-351	MS3193-16-16A	247	SKT	16	16	A/A
M22520/1-02	615709	M39029/56-352	MS3192-12-12A	234	PIN	12	12	A/A
M22520/1-02	615709	M39029/56-353	MS3193-12-12A	253	SKT	12	12	A/A

**TURRET AND POSITIONER SELECTION CHARTS FOR MIL-C-39029 / AS39029 CONTACTS**

For M22520/1-01, M22520/2-01, M22520/7-01 Crimp Tools

Contacts for Connector Family: MIL-C-28840								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/34-02	620636	M39029/83-450	M39029/83-20-22	450	PIN	20	22	A/B
M22520/34-02	620636	M39029/83-451	M39029/83-20-28	451	PIN	20	28	A/B
M22520/34-02	620636	M39029/84-452	M39029/84-20-22	452	SKT	20	22	A/B
M22520/34-02	620636	M39029/84-453	M39029/84-20-28	453	SKT	20	28	A/B

Positioners/Locators for contacts of MIL-C-38999 Series I, II, III, IV, MIL-C-83733, MIL-C-24308, and MIL-C-55302/68/69/71/72/75								
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part #	Bin Code	Style	Mating End Size	Wire Barrel Size	Type/Class
M22520/2-09	615725	M39029/58-360	MS27494-22D MS27493-22D M24308/13-1	360	PIN	22	22D	A/B
M22520/2-06	615722	M39029/57-354	MS27492-22D MS27491-22D M24308/12-1	354	SKT	22	22D	A/B
M22520/2-09	615725	M39029/58-361	MS27494-22M MS27493-22M	361	PIN	22	22M	A/B
M22520/2-06	615722	M39029/57-355	MS27492-22M MS27491-22M	355	SKT	22	22M	A/B
M22520/2-09	615725	M39029/58-362	MS27494-22 MS27493-22	362	PIN	22	22	A/B
M22520/2-06	615722	M39029/57-356	MS27492-22 MS27491-22	356	SKT	22	22	A/B
M22520/2-10 M22520/1-04	615726 615711	M39029/58-363	MS27494-20 MS27493-20	363	PIN	20	20	A/B
M22520/2-10 M22520/1-04	615726 615711	M39029/57-357	MS27492-20 MS27491-20	357	SKT	20	20	A/B
M22520/1-04	615711	M39029/58-364	MS27494-16 MS27493-16	364	PIN	16	16	A/B
M22520/1-04	615711	M39029/57-358	MS27492-16 MS27491-16	358	SKT	16	16	A/B
M22520/1-04	615711	M39029/58-365	MS27494-12 MS27493-12	365	PIN	12	12	A/B
M22520/1-04	615711	M39029/57-359	MS27492-12 MS27491-12	359	SKT	12	12	A/B

BIN (Basic Identification Number) code color bands, reading in sequence from wire barrel end of the contact. Each digit of the BIN code shall be designated on the contact by a color band in accordance with the following:

- 0 - Black
- 1 - Brown
- 2 - Red
- 3 - Orange
- 4 - Yellow
- 5 - Green
- 6 - Blue
- 7 - Violet
- 8 - Gray
- 9 - White

For contacts not listed above, please contact our sales team.

### HEAVY DUTY PNEUMATIC CRIMP TOOL AMT23B (M22520/23-01)

- 8 indent crimp configuration
- Designed with safety in mind
- Meets all MIL-DTL-22520/23 requirements
- No extra booster required for large contacts
- Interchangeable dies and locators

The AMT23B takes all the work out of crimping those large contacts. Using interchangeable dies and locators, this tool crimps contact sizes 8 through 0000. The steady, uniform crimp force, provided by the air logic function delay, crimps even the largest of these contacts without cracking them. Unlike similar tools, Astro's AMT23B crimps its full range without using a booster Adapter.

The AMT23B is designed with operator safety in mind. The air logic function delay allows adequate time to remove fingers from the crimp area before crimping begins.

This tool is easily portable and weighs less than 19 pounds. It operates on 80-120 P.S.I. and requires a regulated, filtered and lubricated air supply for optimal function. Astro offers the 11413 air regulator for this purpose. The tool comes with a 1/2 inch diameter air coupler for convenient quick disconnect.



Part No.	Mill-Spec No.	Description
AM328	M22520/23-01	Heavy Duty Pneumatic Crimp Tool

### AMT23B (M22520/23-01) DIE & LOCATOR SELECTION CHART

M22520/23-01 INTERCHANGEABLE DIES AND LOCATORS		
Part No.	Mill-Spec No.	Description
AMT23B	M22520/23-01	Crimp Tool
AMT23002DA	M22520/23-02	Die Assy. #8
AMT23003DA	M22520/23-03	Die Assy. #6
AMT23004DA	M22520/23-04	Die Assy. #4
AMT23005DA	M22520/23-05	Die Assy. #1/0
AMT23006DA	M22520/23-06	Die Assy. #2/0
AMT23007DA	M22520/23-07	Die Assy. #4/0
AMT23009L	M22520/23-09	Locator #8
AMT23010L	M22520/23-10	Locator #6
AMT23011L	M22520/23-11	Locator #4
AMT23012L	M22520/23-12	Locator #4,4N,4G
AMT23013L	M22520/23-13	Locator #1/0
AMT23014L	M22520/23-14	Locator #1/0,1/0N
AMT23015L	M22520/23-15	Locator #2/0,2/0N
AMT23016L	M22520/23-16	Locator #4/0,4/0N

Die Assembly Gaging Limits			
Part No.	Contact Size	Go	No Go
AMT23002DA	M22520/23-01	.130	.136
AMT23003DA	M22520/23-02	.171	.178
AMT23004DA	M22520/23-03	.195	.202
AMT23005DA	M22520/23-04	.325	.332
AMT23006DA	M22520/23-05	.351	.358
AMT23007DA	M22520/23-06	.425	.432

Gages	
Gauge No.	Die Assembly
AMTG2302	AMT23002DA
AMTG2303	AMT23003DA
AMTG2304	AMT23004DA
AMTG2305	AMT23005DA
AMTG2306	AMT23006DA
AMTG2307	AMT23007DA

... CONTINUED

M22520/23-01 INTERCHANGEABLE DIES AND LOCATORS			
Part No.	Contact Size	MS Contact No.	
AMT23009L	8	M39029/29-8-8 M39029/30-8-8 MS90453-8-8 MS90454-8-8	M39029/29-214 M39029/30-220 M39029/44-291 M39029/45-298
	6	MS90559-11	M39029/48-317
AMT23010L	6N	MS90559-12	M39029/48-318
	6G	MS90559-14	M39029/49-319
	6	MS90560-7	M39029/49-329
AMT23011L	6G	MS90560-8	M39029/49-330
	4	M39029/29-4-4 M39029/30-4-4 MS90453-4-4 MS90454-4-4	M39029/29-215 M39029/30-221 M39029/44-292 M39029/45-299
AMT23012L	4	MS90559-8	M39029/48-320
	4N	MS90559-9	M39029/48-321
	4G	MS90559-13	M39029/48-322
	4	MS90560-5	M39029/49-331
	4G	MS90560-9	M39029/49-332

M22520/23-01 INTERCHANGEABLE DIES AND LOCATORS			
Part No.	Contact Size	MS Contact No.	
AMT23013L	1/0	M39029/29-0-0 M39029/30-0-0 MS90453-0-0 MS90454-0-0	M39029/29-216 M39029/30-222 M39029/44-293 M39029/45-300
AMT23014L	1/0	MS90559-5	M39029/48-323
	1/0N	MS90559-6	M39029/48-324
AMT23015L	1/0	MS90560-3	M39029/49-333
	2/0	MS90559-3	M39029/48-325
AMT23016L	2/0N	MS90559-4	M39029/48-326
	2/0	MS90560-2	M39029/49-334
AMT23016L	4/0	MS90559-1	M39029/48-327
	4/0N	MS90559-2	M39029/48-328
	4/0	MS90560-1	M39029/49-335

### MINIATURE ADJUSTABLE CRIMP TOOL 612596 (MS3198-1)

- 8 indent crimp
- Dial selectable
- Uses bayonet-style positioners
- Cycle controlled



The Astro 612596 meets performance requirements for MS3198-1 and M22520/34-01. This lightweight compact tool uses MS3198, M22520/34, M22520/2 and proprietary bayonet-style positioners to crimp most pin and socket contacts smaller than size 20 to wires size 20 AWG and smaller.

The 612596 is step-adjustable to eight preselected crimp depths. The correct crimp depth is determined by using the data plate located on each positioner. This tool utilizes the same positive ratchet found on other Astro crimpers, which requires the completion of a crimp cycle before the handles will return to their open position. This feature ensures the integrity of every crimp.

Astro recommends the periodic gaging of all its crimping tools. For this purpose Astro offers the M22520/3-1 (615716) gauge with the tool in the number 8 selector position. For use on M22520/34-01 applications Astro recommends using the M22520/35 (621064) gauge with the crimp depth selector set on the number 6 setting.

Part No.	Mill-Spec No.	Description
612596	MS3198-1	Miniature Adjustable Crimp Tool

Positioners/Locators for contacts of MIL-C-26482 Series II, MIL-C-81703 Series III, MIL-C-83723 Series III, MIL-C-83733							
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style: Pin or Socket	Mating End Size	Wire Barrel Size
-	-	M39029/4-110	M83723-33B20 M39029/4-20-20	110	PIN	20	20
M22520/2-02	615718	M39029/5-115	M83723-34B20 M39029/5-20-20	115	SKT	20	20
MS3198-1P MS3198-1PA	612759 613382	M39029/9-132 THRU M39029/9-136	M39029/9-20-20C1 THRU M39029/9-20-20C5	132 THRU 136	PIN	20	20
-	-	M39029/10-138 THRU M39029/10-142	M39029/9-20-20C1 THRU M39029/10-20-20C5	138 THRU 142	SKT	20	20

Positioners/Locators for contacts of MIL-C-28840 series							
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style: Pin or Socket	Mating End Size	Wire Barrel Size
M22520/34-02	620636	M39029/83-450	M39029/83-20-22	450	PIN	20	22
M22520/34-02	620636	M39029/83-451	M39029/83-20-28	451	PIN	20	28
M22520/34-02	620636	M39029/84-452	M39029/84-20-22	452	SKT	20	22
M22520/34-02	620636	M39029/64-453	M39029/84-20-28	453	SKT	20	28

Contacts for Connector Family: MIL-C-21097							
Part No.	Astro Ref No.	Mil-Spec Contact No.	Supersedes Military Part No.	BIN Code	Style: Pin or Socket	Mating End Size	Wire Barrel Size
MS3196-4P	613023	M39029/9-01	-	-	SKT	20	20

## 612596 (MS3198-1) POSITIONER SELECTION CHARTS

Contacts for Connector Families: MIL-C-38999 Series I, II, III, IV, MIL-C-83733, MIL-C-24308 & MIL-C-55302/68/69/71/72/75							
Military Part No.	BIN Code	Supersedes Military Part #	Style: Pin or Socket	Mating End Size	Wire Barrel Size	Positioner/Turret Part No.	Astro Ref No.
M39029/58-360	360	MS27494-22D MS27493-22D M24308/13-1	PIN	22	22D	M22520/2-09	615725
M39029/58-361	361	MS27494-22M MS27493-22M	PIN	22	22M	MS3196-8P	613642
M39029/58-362	362	MS27494-22 MS27493-22	PIN	22	22		
M39029/57-354	354	MS27492-22D MS27491-22D M24308/12-1	SKT	22	22D	M22520/2-06	615722
M39029/57-355	355	MS27492-22M MS27491-22M	SKT	22	22M	MS3196-6P	613640
M39029/58-363	363	MS27494-20 MS27493-20	PIN	20	20	M22520/2-10 MS3196-9P	615726 613643
M39029/57-357	357	MS27492-20 MS27491-20	SKT	20	20	M22520/2-10 MS3196-9P	615726 613643

Contacts for Connector Family: MIL-C-38999 Series I, III, IV							
Military Part No.	BIN Code	Supersedes Part No.	Style: Pin or Socket	Mating End Size	Wire Barrel Size	Positioner/Turret Part No.	Astro Ref No.
M39029/56-349	349	MS27490-22M	SKT	22	22M	M22520/2-07	615723
M39029/56-350	350	MS27490-22	SKT	22	22	MS3198-7P	613641
M39029/56-351	351	MS27655-30 MS27490-20	SKT	20	20	M22520/2-10 MS3196-9P	615726 613643

Contacts for Connector Family: MIL-C-81511 Series I & II							
Military Part No.	BIN Code	Supersedes Part No.	Style: Pin or Socket	Mating End Size	Wire Barrel Size	Positioner/Turret Part No.	Astro Ref No.
M39029/46-303	303	MS90460 A23-22	PIN	23	22		
M39029/46-304	304	MS90460 B23-22	SKT	23	22		
M39029/47-313	313	MS90461 A23-22	PIN	23	22	MS3196-2PA MS3196-2P	613381 612760
M39029/47-314	314	MS90461 B23-22	SKT	23	22		

Contacts for Connector Family: MIL-C-26500							
Military Part No.	BIN Code	Supersedes Part No.	Style: Pin or Socket	Mating End Size	Wire Barrel Size	Positioner/Turret Part No.	Astro Ref No.
M39029/31-241	241	MS24254-20P	PIN	20	20	M22520/2-02 MS3196-1P, MS3196-1PA	615718 612759, 613382
M39029/32-260	260	MS24255-20S	SKT	20	20	M22520/2-02 MS3198-1P, MS3198-1PA	615718 612759, 613382

BIN (Basic identification number) code color bands, reading in sequence from wire barrel end of the contact. Each digit of the BIN code shall be designated on the contact by a color band in accordance with the following:  
 0 - Black 1 - Brown 2 - Red 3 - Orange 4 - Yellow 5 - Green 6 - Blue 7 - Violet 8 - Gray 9 - White

## STANDARD SELF-ADJUSTING CRIMP TOOL MS3191

- 4 or 8 indent
- Cycle controlled ratchet
- No dial adjustment required



The MS3191 series of tools still continue to set a standard of excellence for crimping tools. This series of crimping tools is one of the easiest to use. Simply selecting the proper positioner determines the crimp depth, crimp location and point of ratchet release.

Four or eight indent crimp provides a uniform displacement of wire and contact material, on contact sizes 12-20 and wire sizes 12-26 AWG.

As with all Astro pin and socket crimp tools, the MS3191 series tools can be ordered with a variety of indenter configurations, including octadent (tool part number: 612600).

A large selection of positioners is available for this tool. If we do not have a positioner to meet your special needs, Astro will custom design and manufacture positioners for you. Various tool-positioner combination packages are available. Extra positioners are conveniently stored in the tool handle. (See chart for details.)

A gauge kit (part number ATK 6000 [MS3196-2]) is available for the recommended periodic gaging.

This tool weighs approximately 20 ounces and is 9 1/2 inches long.

The following MS contacts can be crimped with the MS3191-A frame assembly when used with the positioners specified:

For Locators in addition to those listed please consult our sales team.

Part No.	Mill-Spec No.	Description
11210	MS3191-A	Frame Assembly
10692	MS3191-1	Crimp Tool
11234	MS3191-2	Crimp Tool

Locator Part No.	Locator MS Designation
11062	MS3191-20A
2520-3	MS3191-16A
2520-4	MS3191-12A
10854-1	MS3191-208
10854-2	MS3191-168
3538-3	MS3191-20C
11045-1	MS3191-22D
11045-2	MS3191-16D

Crimp Tool Assembly Part No.	Consists of	
	Crimp Tool Frame	Positioners
MS3191-1 (10692)	MS3191-A (11210)	MS3191-20A MS3191-16A MS3191-12A
MS3191-2 (11234)	MS3191-A (11210)	MS3191-20B MS3191-16B

## 8-STEP ADJUSTABLE CRIMP TOOL EUS309

- 8 indent crimp
- Dial selectable
- Cycle controlled ratchet
- Lightweight and easy to use
- Uses bayonet positioners



The ASTRO EUS309 is used to crimp powered D sub contacts but is not limited to this function.

It is an 8 step adjustable crimp tool, cycled controlled and capable of crimping wire barrel sizes 12-20. Its crimp range is slightly larger than that of the 615708 (M22520/1-01) and utilizes the same basic components.

It has a distinctive red look and is the same size and weight as the 615708 (9 1/4 inches long, approximately 20 ounces).

Various turrets and single head positioners are available upon consulting the factory.

Astro recommends periodic gaging with a P/N EUS309-G.

This tool weighs approximately 20 ounces and is 9 1/2 inches long.

The following MS contacts can be crimped with the MS3191-A frame assembly when used with the positioners specified:

For Locators in addition to those listed please contact our sales team.

Gaging Information (Dimension in Inches)		
Selector Setting #	Go Size .0001	No Go Size .0001
1	.0360	.0410
2	.0450	.0500
3	.0520	.0570
4	.0610	.0660
5	.0690	.0740
6	.0760	.0810
7	.0860	.0950
8	.1000	.1100

Part No.	Mill-Spec No.	Description
EUS309	MS3191-A	8-Step Adjustable Crimp Tool





MIL SPEC CRIMP TOOL SELECTION CHARTS

Vendor (Cage) Connector Series and Type	Basic Connector Part No.	Contact Part No.	Pin or SKT	Color Bands			BIN Code	Contact Size Mat-ing End	Wire Size Wire Bar-rel	Wire Range or Cable	Contact Gage	Crimp Tool	Access-ory	Installation Tool	Removal Tool	Removal Tool (unwired Contacts)	
				1st	2nd	3rd											
MIL-C-83723 Series III Bayonet Coupling Rear Release Contacts	M39029/4-110	P	BRN	BRN	BLK	110											
	M39029/5-115	S	BRN	BRN	GRN	115											
	M39029/9-132	P	BRN	ORN	RED	132											
	M39029/9-133	P	BRN	ORN	ORN	133											
	M39029/9-134	P	BRN	ORN	YEL	134											
	M39029/9-135	P	BRN	ORN	GRN	135								ATML 08205B or M81969/14-11 or ATR 1078	ATML 08206B or M81969/14-11 or ATR 2080	M81969/30 Handle with ATML 3005 (red)	
	M39029/9-136	P	BRN	ORN	BLU	136		20	20	20-24	AT 0020						
	M39029/10-138	S	BRN	OEN	GRA	138											
	M39029/10-139	S	BRN	OEN	WHI	139											
	M39029/10-140	S	BRN	YEL	BLK	140											
	M39029/10-141	S	BRN	YEL	BRN	141						615708	615709				
	M39029/10-142	S	BRN	YEL	RED	142											
	M39029/4-112	P	BRN	BRN	RED	112											
	M39029/5-117	S	BRN	BRN	VIO	117		16	20	20-24				ATML 08207B or M81969/14-03 or ATR 1105	ATML 08208B or M81969/14-03 or ATR 2112	ATML 3006	
	M39029/4-111	P	BRN	BRN	BRN	111		16	16	16-20	AT 0016						
	M39029/5-116	S	BRN	BRN	BLU	116											
	M39029/4-113	P	BRN	BRN	ORN	113		12	12	12-14				ATML 08209B or M81969/14-04 or ATR 1153	ATML 08210B or M81969/14-04 or ATR 2160	ATML 3007	
	M39029/5-118	S	BRN	BRN	GRA	118											
	M39029/4-114	P	BRN	BRN	YEL	114		12	16	16-20				M81969/14-03	M81969/14-03	ATML 3006	
	M39029/5-119	S	BRN	BRN	WHI	119											
	M39029/7-126	P	BRN	RED	BLU	126					AT 0012						
	M39029/7-127	P	BRN	RED	VIO	127											
	M39029/7-128	P	BRN	RED	GRA	128		12 shielded						Inner Contact 615717 Outer Contact 620175	Inner Contact 616413 Outer Contact 620294	M81969/30 Handle with ATML 3007 (yellow)	
	M39029/8-129	S	BRN	RED	WHI	129											
	M39029/8-130	S	BRN	ORN	BLK	130											
	M39029/8-131	S	BRN	ORN	BRN	131											

# Pneumatic Crimpers

## PNEUMATIC CRIMP TOOL APC708 (FUNCTIONAL EQUIVALENT TO M22520/1-01)

- Portable or bench-mounted
- Cycle controlled ratchet

### 8-Step Adjustable Manual Feed Pneumatic Crimping Tool APC708

A fast, versatile, pneumatically actuated four indenter tool for crimping MS style or proprietary circular contacts. This tool accommodates all turret head assemblies used with the M22520/1-01 crimping tool. The tool is capable of accommodating contact sizes 12 to 26 and wire sizes 12 to 30 AWG.



Astro manufactures the ATK6002 gaging kit with the gaging pin assemblies for each selector setting. Contact the factory for price and availability. Tool can be either hand held or mounted on an optional bench mount (P/N 11380). The tool can be actuated by the tool trigger or a foot pedal assembly (P/N 11380-2). (The bench mount and foot pedal can be purchased together as P/N 11380-3). Using these accessories leaves the operator's hands free for inserting and removing contacts and wire. This tool operates on 80-120 P.S.I. Astro recommends a filtered, regulated and lubricated air supply for optimal performance. Astro offers the 11413 air regulator for this purpose.

Part No.	Mill-Spec No.	DMC Ref	Usage/Description	NSN
615716	M22520/3-1	-	Gauge for 1/01 /2-01	5220-00-165-7604
615709	M22520/1-02	-	Turret	5120-00-016-6382
615710	M22520/1-03	-	Turret	5120-00-016-6554
615711	M22520/1-04	-	Turret	5120-00-016-7582
615712	M22520/1-05	-	Universal Positioner	5120-00-165-3911
615713	M22520/1-06	-	Positioner	5120-00-016-7647
615714	M22520/1-07	-	Positioner	5120-00-016-7651
615715	M22520/1-08	-	Turret	5120-00-016-7654
615821	M22520/1-09	-	Positioner	5120-00-132-5039
615822	M22520/1-10	-	Positioner	5120-00-132-5095
616406	M22520/1-11	-	Positioner	5120-01-127-5231
616407	M22520/1-12	-	Turret	5120-01-036-9220
616408	M22520/1-13	-	Turret	5120-01-036-9221
616409	M22520/1-14	-	Turret	5120-01-036-9222
616410	M22520/1-15	-	Positioner	5120-01-036-9223
620172	M22520/1-16	-	Positioner	5120-01-075-8138
620537	M22520/1-17	-	Positioner	-

## PNEUMATIC CRIMP TOOLS FOR CIRCULAR CONTACTS

- Portable or bench-mounted
- Cycle controlled ratchet
- Foot pedal assembly available

Tools can be either hand held or mounted on an optional bench mount and foot pedal assembly (part number 11380-3). Using this assembly leaves the operator's hands free for inserting and removing contacts and wire. These tools operate on 80-120 P.S.I. Astro recommends a filtered, regulated and lubricated air supply for optimal performance. Astro offers the 11413 air regulator for this purpose. The internally adjusted line of crimp tools is designed for adjustments by qualified personnel only. This tool features an adjustment knob located inside the front cover plate of the tool. Once set by qualified personnel, the tool is not adjustable by the assembly line operator, thus helping to eliminate operator error. The tool operates with replaceable, single position locators. When using these locators, the internally adjustable tools can crimp a wire range of 8-30 AWG. The internally adjusted tools can be adapted to accept the MS3191-4 and M22520/1 turrets by ordering a 620754 turret Adapter assembly.



Standard internally adjustable tool: **612871** Mini tip tool: part number **612768**

4 indent style tool: part number **11221**.

4 indent style tool with 3 locators: part number **10967**: 3212 (20 GA.) 3213 (16 GA.) 3214 (12 GA.)

Part No.	Contact Size	Contacts Accommodated (Ref.)
3212	20	MS 3190 MS 24254
3213	16	MS 3192 MS 3193 MS 24225 NAS 1662 NAS 1663 MS 18134
3214	12	MS 18136 M39029/4 M39020/5
11568-1	20	MS 17803 MS 17807
11568-1	16	MS 17804 MS 17808 M39029/34 M39029/35
612507	22	MS 27491-22, 22D, 22M MS 27492-22, 22D, 22M MS 27493-22, 22D, 22M MS 27494-22, 22D, 22M M39029/57 M39029/58
613264		M39029/56 MS 27490-22, 22D, 22M
7005626	20	M39029/56 M39029/57 M39029/58 MS 27490-20 MS27491-20 MS27492-20 MS27493-20 MS27494-20
7008289	16	M39029/58 MS 27493-16 MD 27494-16
7008300		M39020/56 M39029/57 MS 27490-16 MS 27491-16 MS 27492-16
12		M39029/56 M39029/57 M39029/58 MS 27490-12 MS 27491-12 MS 27492-12 MS 27493-12 MS 27494-12

**PORTABLE INTERMEDIATE AND MINIATURE PNEUMATIC TOOLS**



- Conforms to performance requirements of MIL-DTL-22520
- Portable or bench-mounted operation
- Eliminates operator fatigue and reduces carpal tunnel syndrome problems



The intermediate and miniature portable pneumatic crimping tools, [621100](#) and [621101](#), provide all the features of the M22520/2-01 and the M22520/7-01.

Reduced operator fatigue and reduced carpal tunnel syndrome occurrences make these tools ideal for assembly line operation. Both tools can be used as portable units or can be bench mounted (part number 621102) and used with an optional foot pedal (part number 620372). If both bench mount and foot pedal are desired, order part number 620925.

The [621100](#) is color coded blue to match the M22520/2-01 and accepts all /2 positioners.

The [621101](#) uses the standard M22520/7 positioners and is color coded green to match the /7 tool.

Both tools feature the eight step adjustable selector found on the M22520 8-indent style crimping tools. Operating procedures for these tools are identical to the hand operated models.

Both the [621100](#) and [621101](#) operate at 80-120 PSI and require a lubricated, regulated and filtered air supply. Astro offers the 11413 regulator for this purpose.

We always recommend the periodic gaging of our tools.

These tools are each 10 1/2 inches long and weigh approximately 32 ounces.

Part No.	Astro Ref No.	Gage	Description
M22520/2-01	621100	615716 (M22520/3-01)	Portable Intermediate and Miniature Pneumatic Tool
M22520/7-01	621101	616337 (M22520/3-03)	Portable Intermediate and Miniature Pneumatic Tool

**CONTACT INSTALLATION / REMOVAL TOOLING – PLASTIC**



Part No.	Type	Contact Size	Series	Colour
M81969/1-01	Insert/Remov	22	AS81659 Series II	Grn/Wht
M81969/1-02	Insert/Remov	20	MIL-DTL-24308, AS81659 Series II	Red/Wht
M81969/1-03	Insert/Remov	16	AS81659 Series II	Blu/Wht
M81969/1-04	Insert/Remov	12	MIL-DTL-24308, AS81659 Series II	Grn/Wht
M81969/14-01	Insert/Remov	22D	MIL-C-26482, MIL-C-81703, MIL-C-83723, MIL-C-38999, MIL-T-81714	Grn/Wht
M81969/14-02	Insert/Remov	20	MIL-C-5015, MIL-C-24308, MIL-C-26482 Series II, MIL-C-83723, MIL-C-83733, MIL-C-38999 Series I & II, MIL-C-81511, MIL-C-81511 Series III & IV	Red/Wht
M81969/14-03	Insert/Remov	16	MIL-DTL-55302/68 & /69, MIL-DTL-38999, MIL-DTL-26482 Series II, AS81703 Series III, MIL-DTL-83723, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Blu/Wht
M81969/14-04	Insert/Remov	12	MIL-DTL-55302/68 & /69, MIL-DTL-38999, MIL-DTL-26482 Series II, AS81703 Series III, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Yel/Wht
M81969/14-05	Insert/Remov	10	MIL-C-38999	Gra/Wht
M81969/14-10	Insert/Remov	20	MIL-DTL-55302/68 & /69, MIL-DTL-38999	Red/Ora
M81969/14-11	Insert/Remov	20	MIL-DTL-26482 Series II, AS81703 Series III, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Red/Wht
M81969/16-01	Insert/Remov	20	MIL-C-81511 Series 3 & 4	Red/Wht
M81969/16-02	Insert/Remov	16	MIL-C-81511 Series 3 & 4	Blu/Wht
M81969/16-03	Insert/Remov	12	MIL-C-81511 Series 3 & 4	Yel/Wht
M81969/16-04	Insert/Remov	23	MIL-C-81511 Series 3 & 4	Grn/Wht
M81969/29-02	Removal	8	MIL-DTL-26482 Series II, AS81703 Series III, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Red
M81969/29-03	Removal	4	MIL-DTL-26482 Series III, AS81703 Series III, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Blu
M81969/29-04	Removal	0	MIL-DTL-26482 Series II, AS81703 Series III, MIL-DTL-83733, MIL-DTL-83723 Series II & III, AS501511, AS81714	Yel
M81969/39-01	Insert/Remov	20	MIL-DTL-34308, AS81659	Grn/Wht

**SOFT JAW CONNECTOR WRENCH**

- Adjustable – Box joint style.
- To avoid damage when working with military style connectors.
- Replaceable jaws available



Part No.	Description
AT508K	Soft Jaw Wrench

**GO-NO-GO GAUGE**

Periodic gauging is recommended to ensure accurate calibration of mil-spec crimp tools.



Part No.	Description
M22520/3-1	Go-No-Go Gauge



**CONTACT INSTALLATION/REMOVAL TOOLING – METAL**



Part No.	DMC Ref	Type	Contact Size	Colour
M81969/2-01	DAK126-23A	Insertion	22	Yel
M81969/2-02	DAK126-20A	Insertion	20	Red
M81969/2-03	DAK126-16A	Insertion	16	Blu
M81969/2-04	DAK126-12A	Insertion	12	Yel
M81969/3-01	DRK129-23A	Removal	23	Yel
M81969/3-02	DRK129-20A	Removal	20	Red
M81969/3-03	DRK129-16A	Removal	16	Blu
M81969/3-04	DRK129-12A	Removal	12	Yel
M81969/3-05	DRK125-23A	Removal	23	Yel/Blk
M81969/3-06	DRK125-20A	Removal	20	Red/Blk
M81969/3-07	DRK125-16A	Removal	16	Blu/Blk
M81969/3-08	DRK125-12A	Removal	12	Yel/Blk
M81969/8-01	DAK95-22B	Removal	22D	Grn
M81969/8-02	DRK95-22B	Removal	22M	Grn/Wht
M81969/8-03	DAK95-22B	Insertion	22	Brn
M81969/8-04	DRK95-22B	Removal	22	Brn/Wht
M81969/8-05	DAK95-20B	Insertion	20	Red
M81969/8-06	DRK95-20B	Removal	20	Red/Wht
M81969/8-07	DAK95-16B	Insertion	16	Blu
M81969/8-08	DRK95-16B	Removal	16	Blu/Wht
M81969/8-09	DAK95-12B	Insertion	12	Yel
M81969/8-10	DRK95-12B	Removal	12	Yel/Wht
M81969/8-205B	DAK83-20B	Insertion	20	Red/Blk
M81969/8-206B	DRK83-20B	Removal	20	Red/Wht/Blk
M81969/8-207	DAK83-16B	Insertion	16	Blu/Blk
M81969/8-208	DRK83-16B	Removal	16	Blu/Wht/Blk
M81969/8-209	DAK83-12B	Insertion	12	Yel/Blk
M81969/8-210	DRK83-12B	Removal	12	Yel/Wht/Blk
M81969/15-01	DRK250-8	Removal	8	-
M81969/15-02	DRK250-4	Removal	4	-
M81969/15-03	DRK250-0	Removal	1/0	-
M81969/17-01	DAK55-16A	Insertion	16	Blu
M81969/17-02	DAK55-12A	Insertion	12	Yel
M81969/17-03	DAK20B	Insertion	20	Red
M81969/17-04	DAK16B	Insertion	16	Blu
M81969/17-05	DAK12B	Insertion	12	Yel
M81969/17-06	DAK55-8B	Insertion	8	Red
M81969/17-07	DAK55-4B	Insertion	4	Blu
M81969/17-08	DAK55-0B	Insertion	0	Yel
M81969/17-09	DAK83S-20	Insertion	20	Red
M81969/18-01	DAK123A	Insertion	16/20	Grn
M81969/18-02	DAK123-22A	Insertion	22	Gold
M81969/19-01	DRK16B	Removal	16	Blu
M81969/19-02	DRK12B	Removal	12	Yel
M81969/19-03	DRK56-8B	Removal	8	Red
M81969/19-04	DRK56-4B	Removal	4	Blu
M81969/19-05	DRK56-0B	Removal	0	Yel
M81969/19-06	DRK20B	Removal	20	Yel
M81969/19-07	DRK20A	Removal	20	Red
M81969/19-08	DRK16A	Removal	16	Blu
M81969/19-09	DRK12A	Removal	12	Grn
M81969/19-10	DHK20A	Removal	20	-
M81969/19-11	DHK16A	Removal	16	-
M81969/20-01	DRK124A	Removal	16	-

MilSpec No	DMC Ref	Type	Contact Size	Colour
M81969/20-02	DRK124-22A	Removal	22	-
M81969/21-01	DHK368	Insert/Remov	16	-
M81969/22-01	DRK222	Removal	16	-
M81969/23-01	DAK16P-S	Insertion	16	-
M81969/23-02	DAK16S-S	Insertion	16	-
M81969/27-01	DRK178-1A	Removal	4/0	-
M81969/27-02	DRK178-2A	Removal	2/0	-
M81969/27-03	DRK178-3A	Removal	1/0	-
M81969/27-04	DRK178-4A	Removal	2	-
M81969/27-05	DRK178-5A	Removal	4	-
M81969/27-06	DRK178-6A	Removal	6	-
M81969/28-01	DRK310	Removal	COAX	-
M81969/28-02	DRK337	Removal	COAX	-
M81969/29-01	CIET16-9	Removal	16	Blu
M81969/30A-01	DRK130-22A	Removal	22	Yel
M81969/30A-02	DRK130-20A	Removal	20	Red
M81969/30A-03	DRK130-16A	Removal	16	Blu
M81969/30A-04	DRK130-12A	Removal	12	Yel
M81969/30A-05	DRK110-20-2	Removal	20	Red
M81969/30A-06	DRK110-16-2	Removal	16	Blu
M81969/30A-07	DRK110-12-2	Removal	12	Yel
M81969/30B-01	DRK501B	Removal	22	Blk/Yel
M81969/30B-02	DRK502B	Removal	20	Blk/Red
M81969/30B-03	DRK503B	Removal	16	Blk/Blu
M81969/30B-04	DRK504B	Removal	12	Blk/Yel
M81969/30B-05	DRK505B	Removal	20	Silv/Red
M81969/30B-06	DRK506B	Removal	16	Silv/Blu
M81969/30B-07	DRK507B	Removal	12	Silv/Yel
M81969/30B-08	DRK508B	Removal	22D	Brn/Brn
M81969/30B-09	DRK509B	Removal	22M	Brn/Yel
M81969/30B-10	DRK510B	Removal	22	Brn/Grn
M81969/30B-11	DRK511B	Removal	20	Brn/Red
M81969/30B-12	DRK512B	Removal	16	Brn/Blu
M81969/30B-13	DRK513B	Removal	12	Brn/Yel
M81969/30B-19	DRK519B	Removal Tool Set		
M81969/30B-20	DRK520B	Removal	Handle	Handle
M81969/30B-21	DRK521B	Removal	22	Yel
M81969/30B-22	DRK522B	Removal	20	Red
M81969/30B-23	DRK523B	Removal	16	Blu
M81969/30B-24	DRK524B	Removal	12	Yel
M81969/30B-25	DRK525B	Removal	20	Red
M81969/30B-26	DRK526B	Removal	16	Blu
M81969/30B-27	DRK527B	Removal	12	Yel
M81969/30B-28	DRK528B	Removal	22D	Brn
M81969/30B-29	DRK529B	Removal	22M	Yel
M81969/30B-30	DRK530B	Removal	22	Grn
M81969/30B-31	DRK531B	Removal	20	Red
M81969/30B-32	DRK532B	Removal	16	Blu
M81969/30B-33	DRK533B	Removal	12	Yel
M81969/30B-34	DRK534B	Removal Tool Set		
M81969/30B-35	DRK535B	Removal Tool Set		
M81969/30B-36	DRK536B	Removal Tool Set		
M81969/33-01	DAK55-225A	Insert/Remov	22	Red
M81969/33-02	DAK55-22JA	Insert/Remov	22	Red
M81969/34-01	DRK56-22A	Removal	22	Red

DMC Tooling® -owned by Daniels Manufacturing Corporation

CABLE STRIPPERS & CRIMPERS

CABLE STRIPPERS & CRIMPERS

## C-FRAME CRIMPING TOOLS 620175 (M22520/5-01), 620215 (M22520/10-01)



Utilizing an extensive variety of interchangeable single, double, and triple hexagonal dies these MIL-DTL-22520 qualified tools can be used to crimp a wide range of MS and proprietary coaxial and triaxial connectors and contacts. Astro also manufactures dies for many other crimping purposes. These include, but are not limited to, insulated and uninsulated terminal lugs, end caps and wire splicing. Astro can design and manufacture die sets for many other applications. The interchangeable dies facilitate a large cost savings over single purpose crimpers. Instead of buying a different tool for each application, only separate dies are needed.

The 620175 and 620215 C-frame crimping tools, like other Astro crimpers, are simple to use.

1. Select the proper die.
2. Insert it into the crimp tool (the die will be firmly held in place by the internal spring clips built into each tool).

The positive ratchet in these tools will not allow the handles to retract until the tool has been fully cycled. This eliminates incomplete or partial crimps.

The 620175 is 11 inches long and weighs 22 ounces, the 620215 is 9 inches long and weighs 11 ounces, the 620175 (/5-01) tool is also available in a pneumatic version, P/N 621200.



Big selection of dies as well as blank dies and calibration gauges on offer – contact us.

### M22520/10-01 DIES

Part No.	Astro Ref No.	NSN	A Hex.	Length	B Hex.	Length
M22520/10-02	620285	5120-00-116-3275	.091	.270	–	–
M22520/10-03	620288	5120-00-116-3283	.255	.325	–	–
M22520/10-04	620286	5120-00-116-3003	.138	.090	.118	.270
M22520/10-05	620289	5120-00-116-3276	.128	.325	.105	.325
M22520/10-06	620216	5120-00-116-4807	.160	.400	–	–
M22520/10-07	620290	5120-00-116-3278	.213	.325	.178	.325

Part No.	Astro Ref No.	NSN	A Hex.	Length	B Hex.	Length
M22520/5-02	620560	–	.091	.090	.068	.270
M22520/5-03	620291	5120-00-133-0534	.128	.325	.105	.325
M22520/5-04	620292	5120-00-133-0537	.138	.090	.118	.270
M22520/5-05	620293	5120-00-133-0577	.213	.325	.178	.325
M22520/5-06	620294	5120-00-133-0579	.128	.094	–	–
M22520/5-07	620295	5120-00-133-0580	.255	.325	–	–
M22520/5-08	620296	5120-00-133-0581	.128	.375	–	–
M22520/5-09	620365	5120-00-133-0582	.178	.400	.068	.093
M22520/5-10	620297	5120-00-133-0583	.160	.400	–	–
M22520/5-11	620366	5120-00-133-0584	.213	.400	.068	.093
M22520/5-13	620367	5120-00-133-0585	.255	.400	.068	.093
M22520/5-15	620528	5120-00-133-0586	.263	.400	.068	.093
M22520/5-17	620298	5120-00-133-0597	.118	.375	–	–
M22520/5-19	620299	5120-00-116-3159	.255	.400	.213	.400
M22520/5-21	620300	5120-00-116-3284	.475	.400	–	–
M22520/5-23	620301	5120-00-133-0618	.384	.400	–	–
M22520/5-25	620368	5120-00-133-0622	.429	.400	.100	.120
M22520/5-27	620302	5120-00-133-0640	.532	.400	–	–
M22520/5-29	620371	5120-00-116-3285	.324	.400	.100	.120
M22520/5-31	620303	5120-00-133-0642	.501	.400	–	–
M22520/5-33	620304	5120-00-116-3158	.343	.400	.105	.400
M22520/5-35	620305	5120-00-116-3156	.324	.400	.128	.400
M22520/5-37	620306	5120-00-116-3136	.314	.400	.151	.400
M22520/5-39	620307	5120-00-116-3134	.309	.400	.160	.400
M22520/5-41	620308	5120-00-116-3135	.290	.400	.178	.400
M22520/5-43	620309	5120-00-116-3106	.268	.400	.197	.400
M22520/5-45	620310	5120-00-116-3088	.231	.400	.218	.400
M22520/5-47	620311	5120-00-133-0643	.359	.400	–	–
M22520/5-49	620312	5120-00-133-0644	.401	.400	–	–
M22520/5-51	620313	5120-00-116-3040	.431	.400	–	–
M22520/5-53	620314	5120-00-116-3160	.454	.400	–	–
M22520/5-55	620315	5120-00-133-0653	.324	.400	–	–
M22520/5-57	620369	5120-00-133-0676	.213	.400	.100	.120
M22520/5-59	620370	5120-00-133-0683	.255	.400	.100	.120
M22520/5-61	620316	5120-00-116-3004	.429	.400	–	–
M22520/5-63	620317	5120-00-133-0533	.263	.400	.091	.270
M22520/5-100	620617	5120-00-126-0860	–	Special	–	–
M22520/5-101	620618	5120-01-081-4213	–	–	–	–
M22520/5-102	630000	5120-01-081-4212	–	–	–	–
M22520/5-103	630001	5120-01-082-8985	–	–	–	–
M22520/5-104	630003	–	–	–	–	–

NOTE: Also available Die #620836 Combination of M22520/5-102 and M22520/5-103. We have listed above military dies available. This is only a partial listing of dies available from Astro. Please consult factory with your specific application requirement.

## PNEUMATIC HEX DIE CRIMPER



- Cost effective
- Increases productivity
- Uses standard M22520/5 dies
- Lightweight and fully portable
- Helps reduce operator fatigue and carpal tunnel syndrome



Astro offers two portable, pneumatic versions of the M22520/5-01 hand die crimp tool. The 621200 has a 2" bore for standard applications, and the 621500 has a 3.5" bore for heavier duty applications.

The 621200 and 621500 are trigger or foot pedal actuated and operate at 32 cycles per minute. These sturdy, lightweight crimpers offer increased productivity, reduced operator fatigue and reduced carpal tunnel syndrome.

Using standard M22520/5 dies, the full cycling feature of these tools consistently produces quality crimps while delivering over one ton of crimping force at the die face.

Weighing just over five pounds this versatile system can be easily moved from station to station.

Designed with safety in mind, these tools have a cover over the crimping area to help prevent the accidental crimping of fingers.

Both the 621200 & 621500 require 80-120 PSI and a regulated, filtered and lubricated air supply. For this purpose Astro offers the 11413 air regulator. These tools can be easily adapted for field use by simply attaching an air cylinder.

The 621500 pneumatic C-frame crimp tool is fitted with a larger pneumatic cylinder for applications that require crimping larger gages and/or harder materials. This 3.5" cylinder delivers approximately an 80% increase of power (crimp die force) over the standard 621200 tool with no noticeable increase in cycle time.

Accessories for 621200 & 621500:

- 621201 Bench Mount only
- 621202 Swivel Mount with Foot Switch
- 621224 Foot Switch only

Part No.	Mill-Spec No.	Bore Size	Description
621200	M22520/5-01	2 inch	Pneumatic Hex Die Crimper
621500	M22520/5-01	3.5 inch	Pneumatic Hex Die Crimper

## CT TERMINAL DIE CRIMPING TOOLS



- Meets all performance requirements for M22910 and M22520
- Permanently attached dies
- Cycle controlled



The Astro 11707-1 (miniature) and 11545 (standard) crimping tools are versatile and easy to use.

Among their many applications, these durable, all-steel tools crimp MS-25036 terminal lugs, MS25181 splices, MS25274 endcaps and other types of fittings.

The 11545 (standard) crimps 12-10 through 26-24.

The 11707-1 (miniature) crimps 16-14 through 26-24, especially useful in hard to reach places where space is limited.

Both the 11707-1 and 11545 have selector knob adjustments, allowing a choice of precise crimp settings over a wide range of applications.

These tools are equipped with retractable locators for the positioning of terminal lugs and wire. When crimping splice fittings the locator can be easily adjusted to its retracted position. The same inline die system combined with the positioner ratchet found in Astro's other C-Frame tools are featured in these terminal crimping tools.

Astro recommends the periodic gaging of all its tools, p/n 612406 for gaging the 11545 and 621069 for 11707-1.

Part No.	Mill-Spec No.	Length	Weight	Gage	Description
11707-1	MS90413-1A	8.5 inch	14 ounces	612406	CT Terminal Die Crimping Tool Miniature
11545	–	10.5 inch	29 ounces	621069	CT Terminal Die Crimping Tool Standard

## CH HEX DIE CRIMPING TOOLS 612648 (M22910/7-01) & 613214

- All steel construction
- Interchangeable dies
- Cycle controlled



These tools are the forerunners of the M22520/5 and M22520/10. Due to their ongoing popularity and reliability we continue to offer them as an integral part of our tool line.

These all steel, C-frame crimping tools feature interchangeable, pop-in hex dies for either MS or proprietary applications including BNC, TNC and N series RF connectors. Astro will design dies for special applications upon request.

The 612648 (standard) and 613214 (miniature) tools are easy to use. Simply install the proper interchangeable die set and squeeze the handles. The positive bottoming of the inline die system, along with the cycle controlled ratchet assures perfect uniform crimping.

The 612648 (standard) is 10 1/2 inches long and weighs approximately 27 ounces.

The 613214 (miniature) is 9 1/2 inches long and weighs approximately 15 ounces.

The dies listed are a portion of what is manufactured for your application requirements. Please consult the factory.

Note: Blank die assembly (unhardened) 615135. All dies .400" wide unless otherwise noted. The 612648 frame and military dies are available in kit form: (M22910/6-1) 613437.

NOTE: Blank die assembly (unhardened) - 613599. All dies .375" wide unless otherwise noted.

612648 SINGLE HEX	
Die Set Part No	#Hex Dimension
613317	0.082
613218	0.093
614242	.100 x .175 wide
612734	0.105
612948	0.112
612778	0.128
612981	0.151
613622	.151 x .275 wide
613461	.156 x .095 wide
612661	0.16
613545	0.165
612195	0.172
612742	0.178
613456	0.183
613125	0.195
613967	.198 x 3/16 wide

612648 SINGLE HEX	
Die Set Part No	#Hex Dimension
612746	.197 (closed frame)
613313	0.202
612763	0.213
612971	0.218
913968	.232 x 3/16 wide
612748	0.231
613455	0.24
612766	0.255
613573	0.263
612676	0.268
613801	.272 x 3/16 wide
612893	.290 x .400 wide
612978	0.309
612308	.296 x 3/16 wide
612899	0.314
612989	0.324

612648 SINGLE HEX	
Die Set Part No	#Hex Dimension
614325	0.327
613292	0.333
612992	0.343
613369	.359 (M22910/7-19)
613289	0.372
613396	.384 (M22910/7-20)
613394	.401 (M22910/7-21)
613452	0.415
614326	0.425
612807	0.429
613377	.431 (M22910/7-22)
612943	0.44
613375	.454 (M22910/7-23)
613373	.475 (M22910/7-24)
613398	.501 (M22910/7-25)
613378	.532 (M22910/7-26)

612648 DOUBLE HEX					
Die Set	MS #	A Hex	Width	B Hex	Width
613550		.068	.125	.100	.125
613869		.068	.090	.213	.400
612700		.069	.093	.213	.400
613870		.096	.090	.251	.400
613872		.096	.125	.384	.400
613871		.096	.125	.431	.400
612880		.080	.093	.215	.400
613569		.084	.400	.244	.400
613788		.100	.400	.197	.400
613146		.100	.125	.324	.400
613148		.100	.125	.415	.400
613802		.100	.125	.429	.400
612823		.102	.400	.255	.400
613842		.102	.093	.255	.400
612804		.102	.400	.268	.400
612665		.105	.400	.128	.400
613759		.105	.400	.160	.400
613249		.105	.400	.328	.400
613399	M22910/7-11	.105	.400	.343	.400
613207		.105	.400	.429	.400
612962		.112	.400	.128	.400
613779		.120	.400	.197	.400
612481		.128	.400	.160	.400

612648 DOUBLE HEX					
Die Set	MS #	A Hex	Width	B Hex	Width
612720		.128	.400	.178	.400
613279		.128	.400	.213	.400
612820		.128	.400	.255	.400
613392	M22910/7-12	.128	.400	.324	.400
613212		.151	.400	.160	.400
612791		.151	.400	.255	.400
613389	M22910/7-13	.151	.400	.314	.400
613730		.160	.400	.195	.400
613729		.160	.400	.268	.400
613387	M22910/7-14	.160	.400	.309	.400
612912		.178	.400	.197	.400
612663		.178	.400	.231	.400
613178		.178	.400	.268	.400
613386	M22910/7-15	.178	.400	.290	.400
613209		.178	.400	.324	.400
613371	M22910/7-16	.197	.400	.268	.400
612762		.197	.400	.309	.400
612997		.213	.400	.250	.400
613367	M22910/7-17	.213	.400	.255	.400
612673		.213	.400	.290	.400
613365	M22910/7-18	.218	.400	.231	.400
612787		.218	.400	.290	.400
612797		.255	.400	.268	.400

612648 TRIPLE HEX	
Die Set #	Hex Dimension
612876	.067 x .177 x .212
614234	.068 x .178 x .213
613233	.105 x .128 x .151
612310	.105 x .128 x .197
612784	.105 x .128 x .178
613189	.105 x .128 x .202
612972	.105 x .134 x .202
612892	.105 x .151 x .255
612841	.112 x .128 x .213
613184	.112 x .160 x .197
612825	.128 x .160 x .213
612886	.128 x .160 x .218

613214 SINGLE HEX	
Die Set #	Hex Dimension
614243	0.087
614245	0.093
614414	0.1
613812	0.105
613035	0.107
614342	0.112
613845	0.118
613848	0.128
613003	0.151
613847	0.16
612494	0.166
613849	0.178

613214 SINGLE HEX	
Die Set #	Hex Dimension
613810	0.197
613851	0.213
613005	0.218
613846	0.231
613850	0.255
613009	0.268
613011	0.29
613099	0.3
613013	0.309

## Connector Tooling Kits

Let Henschman's experience and in-depth knowledge take the guesswork out of your service kit requirements. Our research team has years of experience in kit design. Let Henschman put that knowledge to work for you!

Henschman offers customized crimping tool kits for a wide variety of applications. Many kits are designed for specific aircraft or system maintenance while others cover a particular connector series or other special customer needs.

Kits are not only a convenient way to keep all your tools together, but they keep the information that you require for your connector wiring repair at your fingertips.

Whether you are buying individual tools or complete service kits, Astro is in the connector assembly tool business to serve you and to make your job faster and easier.

- Military aircraft kits
- General aviation kits
- Commercial aircraft kits
- Installation and removal tool kits

See our selection of Connector Tooling Kits in the toolkit section.



Astro kit containers are constructed of molded plastic, fiberglass or metal depending upon varying applications or customer preference.

Components are contained in foam cavities, for protection and ease of identification. Contents charts, corresponding to each foam cavity, identify components stored in that location.