

# C-FRAME DIE CRIMP TOOLS

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# Multi-Purpose C-Frame Crimping Tools 620175 (M22520/5-01), 620215 (M22520/10-01)



- Interchangeable dies
- Positive ratchet

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, on page 36.

**Astro has a large selection of die configurations available, in addition to those listed. As well as calibration gages.**

M22520/10-01 DIES						
Military Part #	Astro Tool #	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

Astro also offers blank dies for your prototyping needs.

# M22520/5-01 Interchangeable Hex Dies

Military Part #	Astro Tool #	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 621200, 621500



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

Use **DIE SELECTION CHART** on page 35.

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 & 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 Benchmark only

621202 Swivel Mount with Foot Switch

621224 Foot Switch only



# CT Terminal Die Crimping Tools 11707-1 (MS90413-1A), 11545



- 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. The 11707-1 is 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.

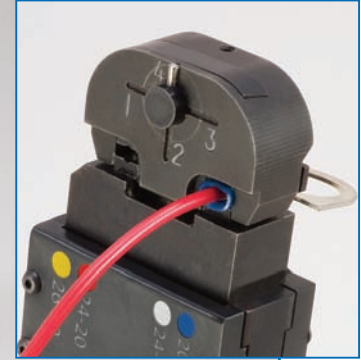
These tools are equipped with retractable locators for the positioning of terminal lugs and wire. When crimping splice fittings the locator can be easily adjusted to its retracted position. The same inline die system combined with the positioner ratchet found in Astro's other C-Frame tools are featured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

The **11707-1** is 8 ½ inches long and weighs 14 ounces.

The **11545** is 10 ½ inches long and weighs 29 ounces.

# AMT4001 Crimp Tool for Terminals (M22520/40 Ref\*)



The height of the insulation crimp barrel can be adjusted to accommodate different insulation diameters.

- Cycle controlled
- Wire sizes 22 through 14
- Adjustable insulation barrel

Astro's **AMT4001** crimp tool is a fast, manually operated tool for crimping AS7928 (MIL-T-7928) Ring Terminals and Splices for wire sizes 22 through 14 (terminal and splice color codes Small Yellow, Red, White/Clear, and Blue).

The **AMT4001** provides a ratchet controlled crimp to ensure full crimp force/closure is applied. The handles will not open until they have been fully closed and the crimp completed.

The tool is equipped with a locator to hold terminals and splices in place for crimping.

The **AMT4001** is 10 ¾ inches long, and weighs approximately 1.48 lbs. For long life and optimum performance, this tool should be kept clean and handled carefully, as any other precision instrument.

Gages are available for checking calibration.

\* Confirm qualification status with Astro Tool Customer Service.

Blue-White = Large Cavity  
Red-Yellow = Small Cavity

MS25036 Terminals	
Terminal P/N	Crimp Cavity
MS25036-143	Red-Yellow
MS25036-144	Red-Yellow
MS25036-145	Red-Yellow
MS25036-146	Red-Yellow
MS25036-147	Red-Yellow
MS25036-159	Red-Yellow
MS25036-148	Red-Yellow
MS25036-101	Red-Yellow
MS25036-102	Red-Yellow
MS25036-149	Red-Yellow
MS25036-103	Red-Yellow
MS25036-150	Red-Yellow
MS25036-104	Red-Yellow
MS25036-105	Red-Yellow
MS25036-151	Red-Yellow
MS25036-152	Blue-White
MS25036-106	Blue-White
MS25036-107	Blue-White
MS25036-153	Blue-White
MS25036-108	Blue-White
MS25036-154	Blue-White
MS25036-109	Blue-White
MS25036-110	Blue-White
MS25036-155	Blue-White

MS17143 Terminals	
Terminal P/N	Crimp Cavity
MS17143-1	Red-Yellow
MS17143-2	Blue-White
MS17143-4	Red-Yellow
MS17143-5	Blue-White
MS17143-7	Red-Yellow
MS17143-8	Blue-White
MS17143-10	Red-Yellow
MS17143-11	Blue-White
MS17143-13	Red-Yellow
MS17143-14	Blue-White
MS17143-16	Red-Yellow
MS17143-17	Blue-White
MS17143-19	Red-Yellow
MS17143-20	Blue-White
MS17143-22	Red-Yellow
MS17143-23	Red-Yellow
MS17143-24	Red-Yellow
MS17143-25	Red-Yellow
MS17143-26	Red-Yellow
MS17143-27	Red-Yellow
MS17143-28	Red-Yellow
MS17143-109	Blue-White
MS17143-110	Blue-White
MS17143-155	Blue-White



# CH Hex Die Crimping Tools 612648 (M22910/7-01), 613214



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 10½ inches long and weighs approximately 27 ounces.

The **613214** (miniature) is 9½ 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.**

- All steel construction
- Interchangeable dies
- Cycle controlled

612648 SINGLE HEX	
HEX DIMENSION	DIE SET #
.082	613317
.093	613218
.100 x .175 wide	614242
.105	612734
.112	612948
.128	612778
.151	612981
.151 x .275 wide	613622
.156 x .095 wide	613461
.160	612661
.165	613545
.172	612195
.178	612742
.183	613456
.195	613125
.198 x 3/16 wide	613967
.197	612746

612648 SINGLE HEX	
HEX DIMENSION	DIE SET #
.197 (closed frame)	612746
.202	613313
.213	612763
.218	612971
.232 x 3/16 wide	913968
.231	612748
.240	613455
.255	612766
.263	613573
.268	612676
.272 x 3/16 wide	613801
.290 x .400 wide	612893
.309	612978
.296 x 3/16 wide	612308
.314	612899
.324	612989
.327	614325

612648 SINGLE HEX	
HEX DIMENSION	DIE SET #
.333	613292
.343	612992
.359 (M22910/7-19)	613369
.372	613289
.384 (M22910/7-20)	613396
.401 (M22910/7-21)	613394
.415	613452
.425	614326
.429	612807
.431 (M22910/7-22)	613377
.440	612943
.454 (M22910/7-23)	613375
.475 (M22910/7-24)	613373
.501 (M22910/7-25)	613398
.532 (M22910/7-26)	613378

**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.



# CH Hex Die Crimping Tools 612648 (M22910/7-01), 613214 (continued)

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

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

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

613214 SINGLE HEX	
Hex Dimension	Die Set #
.087	614243
.093	614245
.100	614414
.105	613812
.107	613035
.112	614342
.118	613845
.128	613848
.151	613003
.160	613847
.166	612494

613214 SINGLE HEX	
Hex Dimension	Die Set #
.178	613849
.197	613810
.213	613851
.218	613005
.231	613846
.255	613850
.268	613009
.290	613011
.300	613099
.309	613013

**NOTE**

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

