Global Application Tooling

Introduction

Matching the broadest range of electrical and electronic connection devices worldwide, AMP provides the broadest range of tooling to apply these devices—from manual crimpers to semiautomatic bench machines to fully-automatic lead makers. Whether you're simply repairing a broken appliance or producing hundreds of thousands of cable assemblies, AMP has the tooling to match your needs.

This catalog is a compilation of brief descriptions of AMP application tooling. The format is similar to that used in the tooling sections of connector catalogs, with the first column open for future translations to other languages. While it includes a fairly comprehensive spectrum of AMP tooling, it does not include tooling such as all insertion/extraction hand tools, AMPACT tools for electric utilities, and PICABOND tools for telephone companies.

Catalog and/or instruction sheet numbers are identified for more information. You can request a catalog or instruction sheet by calling customer support at 1-800-522-6752. Many of the instruction sheets can also be downloaded over the Internet from the AMP site at http://www.amp.com.

When information is needed beyond a customer manual, we recommend calling our Tooling Assistance Center at 1-800-722-1111 (from Mexico:1-717-810-2993). Call this number, too, for immediate assistance on maintenance, adjustments, and repairs, and on-site service requests. In addition to the broadest range of products and tooling, AMP also provides the most extensive technical and field engineering support worldwide.

Need more information?

For information specifically about tooling, call the AMP Tooling Assistance Center at **1-800-722-1111**.

Or, call the AMP Product Information Center at **1-800-522-6752**.

The Product Information Center is staffed with specialists well versed in all AMP products. The Center can provide you with:

- Technical Support
- Catalogs
- Technical Documents
- Product Samples
- AMP Authorized Distributor Locations
- AMP FAX Service 24 hours a day

Internet — Application Tooling Home Page at **http://www.amp.com/tooling**

Produced under a Quality Management System certified to ISO 9001

A copy of the certificate is available upon request.

ISO 9001 Certified

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

Table of Contents

1.1.1 Mechanical Hand Tools for Interchangeable Die Sets

CERTI-CRIMP "C" Head Straight Action Hand Tool (SAHT), 69710-1

Premium grade hand tool. Features ratchet control to provide complete crimp cycle. The interchangeable die sets close in a straight line to minimize contact or terminal rotation during crimping. When applicable, user-assist features, such as a contact or terminal locator and a wire stop, are built into the die set. Approximate weight 1.9 lb [0.86 kg].

For more information, request Catalog **65780,** Instruction Sheet **408-2095**.

CERTI-CRIMP Ferrule Hand Tool, 59500

Premium grade hand tool for crimping insulated, uninsulated, and heat-resistant TERMASHIELD ferrules onto single and multiple conductor shielded wire and coaxial cable. Features ratchet control to provide complete crimp cycle. The interchangeable die sets close in a straight line. Approximate weight 1.1 lb [0.49 kg].

For more information, request Instruction Sheet **408-2613**.

CERTI-CRIMP Platform Die Hand Tool, 58078-3

Premium grade hand tool for crimping Ultra-Fast and Ultra-Fast Plus FASTON terminals. Features ratchet control to provide complete crimp cycle. Same frame configuration as the TETRA-CRIMP hand tool. Includes an adjustable terminal locator. Approximate weight 1.4 lb [0.64 kg].

For more information, request Catalog **65780,** Instruction Sheet **408-6976**.

CERTI-CRIMP Semi-Rigid Cable Hand Tool, 59980-1 (Military M22520/36-01)

Premium grade hand tool for crimping Blind Mate, N, SMA, and TNC connectors onto semi-rigid coaxial cable. Features ratchet control to provide complete crimp cycle. The tool is included in the SMA Tool and Cable Preparation Kit, 59981-1. Locators must be ordered separately, if not included in the kit. Approximate weight 2.0 lb [0.91 kg].

For more information, request Instruction Sheet **408-6788**.

1.1.1 Mechanical Hand Tools for Interchangeable Die Sets (Continued)

CERTI-LOK Hand Tool, 169400

Premium grade hand tool. Features similar to those of the CERTI-CRIMP "C" Head SAHT. Die sets available to crimp PIDG and PLASTI-GRIP terminals, PIDG "window" splices, SOLISTRAND terminals and splices, and Multimate Type III+ and XII contacts. Approximate weight 1.4 lb [0.49 kg].

For more information, request Instruction Sheet **408-6764**.

PRO-CRIMPER II Hand Tool, 354940-1

Commercial grade hand tool for crimping various products. Features ratchet control to provide complete crimp cycle. Accepts both pinned- and shouldered-style die sets. Locators are provided with pinned-style die sets for proper contact and wire positioning, and to help minimize contact rotation and bending during crimping. Approximate weight 1.3 lb [0.60 kg].

For more information, request Catalog **82276,** Instruction Sheet **408-9930**.

1.1.2 Pneumatic Hand Tools for Interchangeable Die Sets

626 Pneumatic Tool System

Lightweight, air-operated modular tooling system. Accepts a wide variety of interchangeable heads for crimping various types of contacts, terminals and splices onto wires ranging 6-26 AWG [13-0.12 mm^2], plus coaxial and fiber optic cable. Available with either hand- or foot-actuation switch. Optional ratchet control available to provide complete crimp cycle.

Specifications
Outside Diameter—1.83 [46.5]
Length—11.6-12.9 [295-327]
Grip Span—2.19 [55.6] over button/handle
Weight—2.3-3.3 lb [1.0-1.5 kg]
Air—90-100 psi [6.21-6.89 bar], 11.14 in^3 [0.00018 m^3]
Cycle Time—0.7-0.8 sec (16-14 AWG [1.3-2 mm^2] PIDG Terminals)
For more information, request Catalog **124208**.

1.1.3 Electrical Hand Tools for Interchangeable Die Sets

Cordless Electric Power Tool, 933150-1 (Kit, 933592-1)

Battery-operated hand tool for crimping 6 and 8 AWG [13 and 8 mm^2] COPALUM splices. This tool is used exclusively for re-connecting aluminum-wired homes, and is provided only to AMP certified installers. The two sizes are crimped in a single, two-cavity, color-coded die set. The battery pack can be removed and recharged.

Specifications
Width—2.7 [69]
Depth—17 [432]
Height—10 [254]
Weight—12 lb [5.4 kg]
Battery Pack Life—approx. 200 crimps on a full charge
For more information, request Catalog **82205 (COPALUM Connectors and Heat Shrink Tubing System),** Instruction Sheet **408-9425**.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

1.1.4 Hydraulic Hand Tools for Interchangeable Die Sets

DYNA-CRIMP Electric-Hydraulic Power Units, 69120-1, -2, plus Heads

Power units for crimping large terminals and splices, including AMPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm^2] through 1 000 kcmil [507 mm^2]. Heads and die sets are interchangeable. Available with either hand- or foot-actuation switch, and hose/coupling assemblies up to 28 ft [8.5 m] in length.

Specifications

Width—9.5 [240]
Depth—11.5 [292]
Height—18.2 [464]
Weight—65 lb [29 kg]
Electrical—120 VAC, 60 Hz (69120-1); 220 VAC, 50 or 60 Hz (69120-2); 3 240 VA max.
For more information, request Instruction Sheet **408-1965**.

DYNA-CRIMP II Battery-Operated Hydraulic Power Unit, 122271-1, plus Heads

Portable power unit for crimping large terminals and splices, including AMPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm^2] through 1 000 kcmil [507 mm^2]. It uses the same crimping heads and die sets as DYNA-CRIMP Electric-Hydraulic Power Units. The battery pack can be removed and recharged.

Specifications

Width—5.12 [130]
Depth—13.9 [352]
Height—11 [279]
Weight—19 lb [8.6 kg]
Cycle Time: 25-30 sec.
For more information, request Catalog **296501, page 10,** Instruction Sheet **408-1965**.

Hand-Operated Hydraulic Pump, 314979-1, plus Heads

Power unit for crimping large terminals and splices, including AMPOWER and SOLISTRAND terminals, onto wires ranging from 8 AWG [8 mm^2] through 1 000 kcmil [507 mm^2]. It uses the same crimping heads and die sets as DYNA-CRIMP Electric-Hydraulic Power Units. Used primarily for low-volume production or at locations where electrical power is not available.

Specifications

Width—9.5 [241]
Depth—24 [610]
Height—11.4 [290]
Weight—58 lb [26 kg]
For more information, request Instruction Sheet **408-1965**.

Hydraulic Hand Crimping Tools, 59973-1, 59974-1, 59975-1

Levered hand tools for crimping large terminals and splices onto 8-4/0 AWG [8-100 mm^2] wires for 59973-1 and 8-2 AWG [8-34 mm^2] for 59974-1 and 59975-1. 59975-1 includes a rotating die set for crimping SOLISTRAND terminals and splices only. Bench mount 312324-1 is available for 59973-1.

Specifications

Height—22.5 [572] (59973-1); 18 [457] (59974-1, 59975-1)
Weight—12.5 lb [5.7 kg] (59973-1); 8 lb [3.6 kg] (59974-1, 59975-1)
For more information, request Instruction Sheet **408-1965**.

1.1.5 Crimp Machines

5-Ton Machine, 565433-4
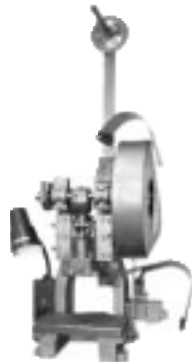
This machine is used with special standard-style applicators to apply terminals and splices requiring crimping forces greater than the maximum output of AMP-O-LECTRIC Termination Machines. The machine is a modification of a fixed-bed, mechanical clutch press manufactured by Benchmaster Products, Inc.

Specifications

Width—29 [737]
Depth—25.4 [645]
Height—35.5 [902] without reel
Weight—250 lb [113 kg]
Electrical—120 VAC, 60 Hz, 6 A
Air—90-110 psi [6.21-7.59 bar] when required for use with air-feed applicators
For more information, request Catalog **82221 (Magnet Wire Terminals—AMPLIVAR and MAG-MATE)**.

AMPLIVAR Product Terminators (APT)

Semiautomatic bench machines for crimping reeled AMPLIVAR pigtail-type splices and direct connect contacts. All models are equipped with either manual or automatic precision adjustment of crimp height. Options include Crimp Quality Monitor, programmable sequencing of different crimp height settings and a wire stuffer, which automatically inserts additional wire into the splice to meet its minimum specified CMA range.

Specifications

Width—38 [965] with CQM and product reel
Depth—35 [889]
Height—14 [356]
Weight—156 lb [71 kg]
Electrical—120 VAC, 60 Hz, or 220 VAC, 50 Hz; 360 VA
Air—90-100 psi [6.21-6.89 bar], 22 scfm [0.01038 m^3/s]
For more information, request Catalog **82221 (Magnet Wire Terminals—AMPLIVAR and MAG-MATE)**, Catalog **82275 [Crimp Quality Monitor (CQM)].**

93317

AMP-O-LECTRIC Model "G" Terminating Machines, 354500-1, -9, -11

Semiautomatic bench machines for crimping reeled terminals and contacts, featuring a quiet and reliable direct motor drive, microprocessor controls for ease of setup and operation, and guarding and lighting designed for operator convenience and safety. All models are equipped with either manual or automatic precision adjustment of crimp height. Machine-mounted sensors are available for crimp quality monitoring using conventional miniature-style applicators.

Specifications

Width—18.7-25.3 [475-643] depending on applicator type
Depth—21.5-28.1 [546-713] depending on applicator type
Height—20 [508]
Weight—240 lb [110 kg]
Electrical—120 or 220 VAC, 50 or 60 Hz; 310 VA
Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m^3/s] when required with air-feed applicators
Wire Range—26-10 AWG [0.12-6 mm^2] solid or stranded, depending on product applied
For more information, request Catalog **65828**, Video **198116**, Catalog **82275 [Crimp Quality Monitor (CQM)],** Video **198094.**

94228

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

1.1.5 Crimp Machines (Continued)

Model "M" Terminating Machine, 904000-1, -2, -3

Semiautomatic bench machine is powered by magnets and microprocessor controlled. It's capable of crimping up to 10 AWG [5 mm^2] wire, depending on the operating voltage. At 120 VAC, the machine produces a crimping force of 3 400 lb [15 125 N]. Changing the line cord plug and operating at 220 VAC, increases the force to 5 000 lb [22 240 N]. Accepts most end- and side-feed mini-style applicators with mechanical feed. Air-feed applicators require optional air valve assembly.

Specifications

Width—17 [430]
Depth—16.7 [425]
Height—22 [560] without reel
Weight—175 lb [80 kg]
Electrical—120 or 220 VAC, 50 or 60 Hz; 300 VA
Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m^3/s] when required with air-feed applicators
For more information, request Catalog **889272**.

AMP-O-LECTRIC Model "K" Terminating Machine, 1-471273-3

Semiautomatic bench machine for use with standard-style applicators. It is an electrically-powered, clutched, flywheel-energy-style machine, equipped with a mechanical strip feed mechanism. Products commonly applied with this machine include AMP splices, AMPLIVAR splices, and FASTON flag receptacles.

Specifications

Width—21 [533]
Depth—20 [508]
Height—24 [610] without reel
Weight—230 lb [104 kg]
Electrical—120 VAC, 60 Hz, 6 A
Air—90-110 psi [6.21-7.59 bar], 6 scfm [0.00282 m^3/s] when required with air-feed applicators
Wire Range—26-10 AWG [0.12-6 mm^2] solid or stranded, depending on product applied
For more information, contact AMP.

**AMP-TAPETRONIC Machines, 68250-1, 69875**

AMP-O-LECTRIC Model "K" Terminating Machines with a permanently-mounted applicator that accepts interchangeable die sets to apply a variety of tape-mounted terminals and splices. Many of the die sets can also be used in AMP-O-LECTRIC Terminating Machines with a tape applicator or in the AUTO-PRO Machine with appropriate applicators.

Specifications

Width—16 [406]
Depth—20 [508]
Height—24 [610] without reel
Weight—250 lb [113 kg]
Electrical—120 VAC, 60 Hz
Wire Range—12-4 AWG [3-21 mm^2] (68250-1), 26-10 AWG [0.12-6 mm^2] (69875), solid or stranded, depending on product applied
For more information, contact AMP.

1.1.5 Crimp Machines (Continued)

AUTO-PRO Terminating Machine, 818380-1
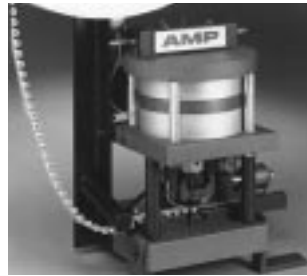
Air-powered semiautomatic bench machine for crimping terminals mounted on tape or plastic carriers, including PLASTI-GRIP, PIDG and Ultra-Fast FASTON tabs and receptacles and flag receptacles. Interchangeable applicators are required for different product lines with interchangeable die sets for different wire ranges.

Specifications

Width—17.5 [444]
Depth—11 [279]
Height—14.5 [368]
Weight—56 lb [25.4 kg]
Air—85 psi [5.86 bar], 1 scfm [0.00047 m^3/s]
Wire Range—26-10 AWG [0.12-6 mm^2], solid or stranded
For more information, request Catalog **82220**.

Carbon Brush Machine, 459248-2

Modified AMP-O-LECTRIC Model "K" Machine for crimping various terminals to spring and brush assemblies used in motors. It is equipped with a mechanism that compresses the spring, and pulls the shunt wire through the spring and over the terminal. The machine is capable of producing in the range of 400 assemblies per hour, depending on brush dimensions and operator dexterity.

Specifications

Width—27 [686]
Depth—27 [686]
Height—28 [711] without reel
Weight—250 lb [113 kg]
Electrical—120 VAC, 60 Hz, 6 A
Air—80-100 psi [5.51-6.89 bar]
For more information, request Catalog **82227 (Machine Applied Terminations, Open Barrel)**.

Pneumatic Tool for Semi-Rigid Cable Terminations, 58318-1

Compact, air-powered, semiautomatic bench tool for crimping N, SMA, and TNC connectors onto semi-rigid coaxial cable. Interchangeable locators are included; interchangeable die sets are purchased separately. The tool is operated with a trigger switch mounted on the front of the tool. (**Note**: See Semi-Rigid Cable Preparation Machine on page 28.)

Specifications

Width—4.12 [105]
Depth—6.25 [159]
Height—5.12 [130]
Weight—8 lb [3.6 kg]
Air—80-100 psi [5.51-6.89 bar]
For more information, request Instruction Sheet **408-9351**.

1.1.6 Lead Makers

**ADUZI Lead-Making Machine,
662700-1, -5 (Basic);
-2, -6 (Value Package)**

Compact, fully-automatic lead maker, featuring programmable setups, including strip length and depth using universal stripping blades. Programmed and operated using a handheld pendant. Crimping is powered by magnets for lower maintenance requirements. Typical production rates are up to 3 000 leads per hour for closed barrel products and 5 400 for cut/strip only. Value package includes 16 popular tooling options, priced less than if purchased separately.

Specifications

Width—31 [785]

Depth—98 [2 490]

Height—85 [2 160] max. (with 24 [610] dia. reel)

Weight—910 lb [413 kg]

Electrical—220 VAC, 50 or 60 Hz, single phase, 20 A

Air—90 psi [6.21 bar], 14.5 scfm [0.0068 m^3/s]

Wire Range—26-14 AWG [0.12-2.5 mm^2] stranded, 26-18 AWG [0.12-0.8 mm^2] solid

Lead Lengths—2.5-60 [65-1 525]; 1.62-90 [41.2-2 285] with short lead kit and long stacking tray

For more information, request Catalog **1242116**, Video **198153** (NTSC), **199621** (PAL).

**AMPOMATOR CLS IV+
Lead-Making Machines,
356500-1, -2, 1213400-1, -2**

Fully-automatic machines that measure, cut, strip and terminate single leads. Microprocessor-controlled, and programmed and operated using an easy-to-follow, menu-driven touch-screen. Features include direct-drive terminating units with precision crimp height adjustment, fully programmable setups, wire runout and splice detection, and motorized pre-feed with wire straightener. Crimp quality monitoring is also available.

Specifications

Width—159 [4 040]

Depth—68 [1 730]

Height—86 [2 185] with 24 [610] dia. reel

Weight—2 000 lb [907 kg]

Electrical—220 VAC, 50 or 60 Hz, single phase, 25 A, with neutral and ground

Air—90 psi [6.21 bar], 15 scfm [0.0071 m^3/s] sustained

Wire Range—26-10 AWG [0.12-6 mm^2] stranded, 26-16 AWG [0.12-1.4 mm^2] solid

Lead Lengths—3-90 [76.2-2 285], 90-1 000 [2 285-25 400] with long lead conveyors

For more information, request Catalog **124324**, Video **198153** (NTSC), **199621** (PAL).

1.1.7 Harness Makers

AMP-ARA Systems

Customized, fully-automatic, modular lead- and harness-making systems. Capabilities range from sequential lead making with programmable wire selection, wire marking, wire doubling and kitting, to complex harness making with block loading, pull tests, harness forming and taping. Terminating stations accept mini-style applicators and feature programmable crimp height. Crimp quality monitoring is also available.

Specifications
Basic Machine:
Width—166 [4 220]
Depth—69 [1 755]
Height—82 [2 085]
Electrical—220 VAC, 50 or 60 Hz, 3 phase, 32 A
For more information, contact AMP.

1.2.1 Applicators for End-Feed Products

End-Feed Heavy-Duty Miniature Applicators (coded HDM)

Interchangeable applicators for crimping products reeled end-to-end (primarily open-barrel terminals). Used in bench and lead-making machines; most designs can be used, or adapted for use with minor tooling changes, dial-in settings for different wire sizes and insulation diameters. Mechanical or air-powered feed systems, depending on the product applied.

For more information, request Instruction Sheet **408-8039**.

Applicator 2000 End-Feed Miniature Applicators

Next-generation, mini-style applicators for bench and lead-making machines (excluding pre-CLS series). Precision wire and insulation crimp adjustments, and easy changeover for bench or lead-maker use. Can also be converted to run different products; conversions limited to similar feed designs.

For more information, request Catalog **889271**; Catalog **296501, page 41**; CD-ROM **1307082**.

End-Feed Standard Applicators (coded STD)

Applicators for use with AMP-O-LECTRIC Model "K" Terminating Machine, 1-471273-3. Consist of separate ram and lower tooling assemblies. Lower tooling is bolted to the machine, and can be adjusted to vary the wire crimp height. Mechanical or air-powered feed systems, depending on the product. To crimp Tab-Lok FASTON Flag terminals, the base plate is spring loaded (called hinge bar).

For more information, request Instruction Sheets **408-8014, 408-8011 (Hinge Bar)**.

1.3.1 Applicators for Side-Feed Products

Side-Feed Heavy-Duty Miniature Applicators (coded HDM)

Interchangeable applicators for crimping products reeled side-by-side on single or dual carrier strips (primarily closed-barrel terminals and open-barrel contacts). Similar design as the end-feed version. All side-feed applicators include a wire stop to help correctly position the wire end in the crimping target area.

For more information, request Instruction Sheet **408-8040**.

Applicator 2000 Side-Feed Miniature Applicators

Next-generation, mini-style applicators for bench and lead-making machines (excluding pre-CLS series). Precision wire and insulation crimp adjustments, and easy changeover for bench or lead-maker use. Can also be converted to run different products; conversions limited to similar feed designs. Similar design as the end-feed version.

For more information, request Catalog **889271**; Catalog **296501, page 41**; CD-ROM **1307082**.

Side-Feed Standard Applicators (coded STD)

Applicators for use with AMP-O-LECTRIC Model "K" Terminating Machine, 1-471273-3. Similar design as the end-feed version. All side-feed applicators include a wire stop to help correctly position the wire end in the crimping target area.

For more information, request Instruction Sheet **408-8012**.

Stripper-Crimper Applicators (coded SCA)

Interchangeable applicators for crimping products in AMP-O-MATIC Stripper-Crimper Machines. Consist of separate ram and lower tooling assemblies. Similar dial-in settings for different wire sizes and insulation diameters as HDM applicators. Available with sensors for use with the Crimp Quality Monitor.

For more information, request Catalog **65004 (AMP-O-MATIC Stripper-Crimper Machines)**, Catalog **82275 [Crimp Quality Monitor (CQM)]**.

1.3.1 Applicators for Side-Feed Products (Continued)

Tape Applicators, 567200-2, -3, -4
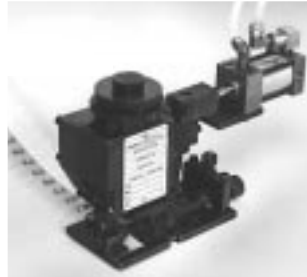
Miniature-style applicators that accept interchangeable die sets for crimping a variety of tape-mounted terminals and splices, including PIDG, PLASTI-GRIP and SOLISTRAND. The same die sets can also be used in the AMP-TAPEMATIC Machine; the TETRA-CRIMP die sets for PIDG and PLASTI-GRIP terminals can be used in the AUTO-PRO Terminating Machine. The feed mechanism is air powered.

For more information, request Instruction Sheet **408-8082**.

1.3.2 Stripper-Crimper Machines

AMP-O-MATIC Stripper-Crimper Machines, 854040-3, -4

Semiautomatic bench crimping machines that also strip the wire, and are therefore used for terminating jacketed cable. Feature manual precision adjustment of crimp height, keyed strip blades for faster, more accurate setups, and an efficient scrap removal system. All adjustments can be made from the front of the machines without special tools. Available with crimp quality monitoring.

Specifications

Width—14 [355]
Depth—18 [457]
Height—33 [838] without reel
Weight—150 lb [68 kg]
Electrical—120 VAC, 50 or 60 Hz, .5 A
Air—80-100 psi [5.52-6.90 bar], 3.5 scfm [0.00165 m^3/s]
Wire Range—32-14 AWG [0.03-2 mm^2]
For more information, request Catalog **65004**, Video **198075, Catalog 82275 [Crimp Quality Monitor (CQM)],** Video **198094.**

AMP-TAPEMATIC 4/8 Indent Stripper-Crimper Machine, 599406-7

Portable bench machine that strips wire and crimps tape-mounted, closed-barrel pin and socket contacts for AMPLIMITE Military, ARINC and CPC connectors. The stripping and crimping heads are accessible through separate openings in the front of the machine. Wire strip length and crimp height are adjustable. The stripping head is pre-set to the proper cutting depth of four standard wire sizes.

Specifications

Width—12.5 [317]
Depth—12.5 [317]
Height—10 [254] without reel
Weight—45 lb [20 kg]
Electrical—120 VAC, 60 Hz, 1.3 A
Wire Range—28-20 AWG [0.08-0.5 mm^2]
For more information, contact AMP.

1.5.1 Dedicated Hand Tools

CERTI-CRIMP Double Action Hand Tools (DAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in an arc-like path. When applicable, user assist features, such as a contact or terminal locator and a wire stop are included. Approximate weight 1.2 lb [0.54 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Heavy Head Hand Tools (HHHT)

Premium grade hand tools for crimping large coaxial connectors and various types of terminals and splices on wires ranging 6-24 AWG [13-0.2 mm^2]. Feature ratchet control to provide complete crimp cycle, and insulation crimp adjustment on tools for AMPLI-BOND, PIDG, DIAMOND GRIP, and PLASTI-GRIP terminals and splices. Die sets close in a straight line. Approximate weight 2.1 lb [0.95 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Straight Action, Double Action Hand Tools (SADAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a contact locator and support. Same handle and ratchet design as DAHT. Approximate weight 1.5 lb [0.68 kg]

For more information, request Catalog **65780**.

CERTI-CRIMP Straight Action Hand Tools (SAHT)

Premium grade hand tools. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a contact locator and wire stop, plus an insulation crimp adjustment lever, when applicable. Approximate weight 1.3 lb [0.59 kg]

For more information, request Catalog **65780**.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

1.5.1 Dedicated Hand Tools (Continued)

CERTI-CRIMP T-HEAD Hand Tools

Premium grade hand tools for crimping PIDG and PLASTI-GRIP terminals and splices, plus spare wire caps. Feature ratchet control to provide complete crimp cycle. Die sets close in a straight line. Include a locator and a quick take-up for holding the terminal or splice in place. Approximate weight 1.3 lb [0.59 kg]

For more information, request Catalog **65780**.

Reel-Fed Pneumatic Hand Tool for Closed End Splices, 217150-1

Lightweight hand tool for crimping tape-mounted, 22-10 AWG [0.3-6 mm^2], closed end splice, 2-328730-1. Features front wire entry for easy access, and crimp cycle control for consistent crimps. Trigger operated. Equipped with eyebolts for counterbalance setups on assembly lines.

Specifications
Width—3.2 [81]
Depth—10.7 [273]
Height—3.2 [81]
Weight—5 lb [2.3 kg]
Air—65-80 psi [4.48-5.52 bar], 1.13 scfm [0.00053 m^3/s]
For more information, request Catalog **296501, page 24**.

ROTA-CRIMP Hand Tools, 600850-1, 601075-1

Premium grade hand tools for crimping large SOLISTRAND and tubular terminals and splices, and CABLE MAKER battery terminals. The die sets rotate to provide multiple crimping configurations for the different terminal and splice sizes. 600850-1 and BANTAM ROTA-CRIMP tool, 601075-1 are equipped with ratchet control to provide complete crimp cycle.

Specifications
600850:
Length—25 [635]
Weight—7.4 lb [3.4 kg]
Wire Range—8-4/0 AWG [7-100 mm^2]
601075:
Length—15 [381]
Weight—4.6 lb [2.1 kg]
Wire Range—8-1/0 AWG [7-60 mm^2]
For more information, request Catalog **1242066**.

SUPER CHAMP Hand Tools and Kits

Lightweight, service grade hand tools, used primarily for shop work and field repairs. Various designs available for crimping insulated and uninsulated terminals and splices, tabs and receptacles, pin and socket contacts, and modular plugs. Some tools can also be used to cut and strip wire, cut screws, and gage stud sizes. Available in kits along with an assortment of products.

For more information, request Catalog **296470**.

1.5.1 Dedicated Hand Tools (Continued)

TETRA-CRIMP Hand Tool, 59824-1

Premium grade hand tool for crimping PIDG, PLASTI-BOND, and PLASTI-GRIP terminals, PIDG butt splices, and PIDG FASTON terminals onto wires ranging 22-10 AWG [0.3-6 mm^2]. Features ratchet control to provide complete crimp cycle, emergency ratchet release, and terminal locator and wire stop. Die set has three color-coded crimping chambers. Approximate weight 1.4 lb [0.64 kg]

For more information, request Catalog **65780,** Instruction Sheet **408-2823**.

1.5.4 Special Tool Sets

End- and Side-Feed Heavy-Duty Miniature Applicators for Ultra-Pod FASTON Receptacles

Air-feed applicators for crimping uninsulated receptacles, and assembling them into insulating housing. The receptacles and housings are provided partially assembled, with the crimp barrels extending outside the housings. The receptacles are crimped on the downward stroke of the machine, and assembled on the upward stroke. Straight receptacles are side fed; flag receptacles are end fed.

For more information, request Instruction Sheets **408-8095 (Side Feed), 408-8099 (End Feed)**.

End- and Side-Feed, Self-Guarded Heavy-Duty Miniature Applicators

Interchangeable applicators for use with modified AMP-O-LECTRIC Model "G" Terminating Machine, 356462-1. The special guarding enables use of applicators requiring access to opposite sides of the crimper, such as positioning wires on opposite sides of a thru splice, and removal of trimmed magnet wire. A keying feature prevents the use of unguarded applicators in the modified machine.

For more information, request Instruction Sheets **408-8095 (Side Feed), 408-8099 (End Feed)**.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

2.x.1 Hand Tools for IDC Products

AMP-BARREL Terminal Wire Insertion Tools, 552714-1 thru -5

Service grade hand tools for inserting one or two unstripped wires into pc board-mounted AMP-BARREL terminals. The tips of the tools are slotted to a depth to prevent wire overinsertion. The shanks of the tools are color coded. For improved comfort, a slip-on cushion grip, 231279-1, is available.

For more information, request Catalog **82159 (Printed Circuit Board Terminals and Disconnects),** Instruction Sheet **408-6553**.

AMP-LATCH Hand Tool Kit, 768340-1

Terminating kit for .050 [1.27] centerline ribbon cable with 28 or 26 AWG [0.08 or 0.15 mm^2] stranded or solid, or 30 AWG [0.05 mm^2] solid conductors. Includes commercial grade hand tool with ratchet control for complete termination cycle, base assembly, bench-mount, tooling sets for standard and novo receptacles, card edge connectors and D-Sub HDF low-profile connectors, and a carrying case.

For more information, request Instruction Sheet **408-9828**.

CHAMP MI-1 "Butterfly" Hand Tools, 229378-1, -3, -20, -23

Portable tool for applying 14-, 24-, 36-, and 50-position CHAMP connectors, including Category 5. Mass terminates and shears all wires in a single operation. Wires can be laced in the tool or in a separate lacing fixture, 230328-1, using color bar guides. Lacing fixture allows 180° as well as 90° wire dress. Approximate weight (including carrying case) 8.3 lb [3.8 kg]

For more information, request Catalog **82008 (Miniature Ribbon Connector System)**, Instruction Sheet **408-7559**.

CHAMP Palm Grip Inserter and Index Slide Kit, 229764-2

Kit includes index slides for 14-, 24-, 36-, 50-, and 64-position connectors, cable clamp, hex wrench for ratchet release, contact insertion/extraction tool and carrying case. Palm grip inserter features ratchet control that will not release the pusher until it is bottomed, and an excess wire trimmer. Connectors are mounted in the slides, and indexed by hand in the inserter.

For more information, request Catalog **82008 (Miniature Ribbon Connector System)**.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

2.x.1 Hand Tools for IDC Products (Continued)

"Chordal" Modular Plug Hand Tools, 231648-1, 231649-1

Molded plastic service grade hand tools. Feature preset, non-replaceable cable jacket stripper and color-coded die set. Dies close in a straight line. 231648-1 applies 2-, 4-, and 6-position line plugs; 231649-1 applies 4-position handset plugs. **Note**: Also see SUPER CHAMP Modular Plug Hand Tool on page 15.

For more information, request Catalog **82066 (Modular Interconnection System)**.

Professional Modular Plug Hand Tools, 231652 Series

Premium grade hand tools. Feature ratchet control to provide complete termination cycle, and emergency ratchet release. Include interchangeable die set, with color dot code on nest and indenter, that closes in a straight line. Also has a flat-oval cable cutter and stripper. Approximate weight .75 lb [0.3 kg].

For more information, request Catalog **82066 (Modular Interconnection System)**.

Pistol Grip Hand Tool, 58074-1

Lightweight and easy-to-use hand tool for IDC connectors, featuring ratchet control that will not release the trigger until wire reaches proper insertion depth. Accepts interchangeable terminating heads that may also be used with bench-mounted power units, 58338-1 and 931800-1. Most heads automatically index to the next contact position, or the connector may be advanced by hand to any position.

For more information, request Catalog **296176**.

T-Handle Hand Tools, 59803-1, 59804-1, 59839-1, 91287-1, 229384-1

Service grade hand tools for inserting individual wires into various IDC connectors when making repairs: MTA-100, 59803-1; MTA-156, 59804-1; MTA-156 Card Edge, 59839-1; AMPLIMITE HDE, 91287-1; CHAMP, 229384-1.

For more information, request Instruction Sheets **408-7558 (CHAMP), 408-7907 (MTA), 408-9481 (HDE)**.

2.x.1 Hand Tools for IDC Products (Continued)

Tel-Splice Cartridge Hand Tool, 230722-1

Lightweight hand tool for applying two- and three-wire splices supplied in plastic cartridges. Features a pusher that automatically feeds and ejects splices when terminated, and a spring-loaded handle that must be fully bottomed and released before a terminated splice can be ejected. Termination height gages are molded into the tool. Approximate weight 1.0 lb [0.45 kg].

For more information, request Instruction Sheet **408-6506**.

2.x.2 Bench Machines for IDC Products

2 700-lb Pneumatic Power Units, 312522-1, -2, -3, -4

Bench machines for notching and terminating ribbon cable with MTA connectors, applying SDL plugs, and crimping shielding ferrules. Tooling is mounted to the ram and base plate of the frame. 312522-1 and -4 are foot actuated; -2 is pushbutton actuated, -3 is bleed-sensor actuated for use with slide tooling. Stroke distance can be adjusted on -1, -2, and -3 machines.

Specifications
Width—8 [203]
Depth—13.7 [349]
Height—23.5 [596]
Weight—50 lb [22.7 kg]
Air—80-100 psi [5.51-6.89 bar]
For more information, contact AMP.

Manual Arbor Frame Assembly, 91085-2

Bench frame for applying a variety of IDC connectors, including AMPMODU MT, AMP-LATCH, and CHAMP. Features adjustable ram and handle, and a slide base. Tooling is mounted to the ram and into the tracks of the base plate.

Specifications
Width—7.6 [194]
Depth—14.2 [362]
Height—10 [254]
Weight—13 lb [5.9 kg]
For more information, request Instruction Sheet **408-7777**.

2.x.2 Bench Machines for IDC Products (Continued)

Modular Plug Dual Terminators, 856195-1, -6

Air-powered bench machines for simultaneously terminating both ends of flat-oval and round telephone cable with modular plugs. Also tests the assemblies when terminated for opens and shorts. Accepts interchangeable modules, 856196 series, for different size or style plugs. Tester can be set to test specific plug sizes and contact configurations.

Specifications
Width—8 [203]
Depth—16.7 [425]
Height—20.5 [521]
Weight—62 lb [28 kg] (Terminator and Module)
Electrical—120 VAC, 60 Hz (856195-1); 220 VAC, 50 Hz (856195-6)
Air—80-100 psi [5.51-6.89 bar]
For more information, request Instruction Sheet **408-9743**.

Modular Plug Single Terminators, 354711 Series

Compact, lightweight, air-powered bench machines for applying modular plugs. Accepts interchangeable tooling kits, 354714 series, for different size or style plugs. Tooling kits may be ordered separately, or included with the machines. Contact insertion height is easily adjustable. Actuated by a foot valve.

Specifications
Width—3.5 [89]
Depth—8.7 [221]
Height—12.5 [317]
Weight—7.2 lb [3.3 kg]
Air—80-100 psi [5.51-6.89 bar]
For more information, request Instruction Sheet **408-9919**.

Pneumatic Auto-Cycle Unit, 91112-3

Basically an air-powered version of Manual Arbor Frame Assembly, 91085-2. Features adjustable ram and cycle time, and automatic cycling when the lower assembly is slid into the frame to the rear of the base plate. Includes a guard around the frame opening.

Specifications
Width—7 [179]
Depth—19 [483]
Height—13 [330]
Weight—34 lb [15.4 kg]
Air—80-100 psi [5.51-6.89 bar]
For more information, request Instruction Sheet **408-6732**.

2.x.3 Harness Board Tools

MTA Harness Board Manual Pistol Grip Hand Tools, 58645-1, 58647-1

104294

Lightweight hand tools for terminating wire harnesses with MTA-100 and -156 feed-through connectors. Tools mass terminate discrete wires or notched ribbon cable in small connectors (2 to 12 contacts for MTA-100, and 2 to 8 contacts for MTA-156). Terminating heads offer threaded mounting holes in their base for fastening to harness boards. Heads are mounted in the Manual Pistol Grip Handle Assembly, 58074-1, or Pneumatic Handle Assembly, 58075-1.

For more information, request Catalog **296501, page 33.**

MTA Harness Board Pneumatic Hand Tools, 58575-1, 58576-1

102708

Lightweight hand tools for terminating wire harnesses with MTA connectors: 58575-1 for MTA-100; 58576-1 for MTA-156. Used with board-mounted fixtures for holding the connectors and lacing the wires. Feature an applicator that rotates 360° to easily align with the fixtures, and engages and disengages the fixtures automatically. Insertion depth is adjustable.

Specifications

Weight—2.8 lb [1.3 kg] (58575-1)

Air—75-95 psi [5.17-6.55 bar]

For more information, request Catalog **296501, page 28**.

2.x.4 Semiautomatic Machines for Discrete Wire

Electric Discrete Wire Machines, 58020-1, -2, -4, -5

103266

Bench machines for terminating wires one-at-a-time with AMPLIMITE HDE D-Sub and AMPMODU MT connectors with insulation displacement contacts. Feature a feed mechanism that automatically indexes the connector to the next position after each termination. The connector may also be advanced without cycling the machine. Insertion depth is adjustable. Actuated by a foot switch.

Specifications

Width—5 [128]

Depth—13.5 [343]

Height—10 [254]

Weight—22 lb [10 kg]

Electrical—120 VAC, 60 Hz (58020-1); 220 VAC, 50 Hz (58020-4)

For more information, contact AMP.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

2.x.4 Semiautomatic Machines for Discrete Wire (Continued)

Electric Power Unit, 931800-1

Lightweight bench machine for use with the same interchangeable terminating heads used with Pistol Grip Hand Tool, 58074-1. Also accepts heads with either loose-piece or tape feed tracks for applying MTA connectors, and a head with a tube feed track and seating station for applying AMPMODU MTE connectors. Actuated by a foot switch.

Specifications

Width—7 [178]
Depth—14 [356]
Height—10 [254]
Weight—12 lb [5.4 kg]
Electrical—120 VAC, 60 Hz, 2 A
For more information, request Catalog **296176 (Pistol Grip Hand Tool System)**.

2.x.5 Semiautomatic Machines for Ribbon Cable

MTE Ribbon Cable Terminator, 856002-1

Air-operated bench machine for mass terminating notched ribbon cable with AMPMODU MTE connectors. Connectors are fed through their packaging tube into the terminating station by a spring-loaded pusher tape. Contacts are inserted into the connector housing in a manually-operated seating station alongside the terminating station. Insertion depth is adjustable. Actuated by a foot valve.

Specifications

Width—43 [1 092]
Depth—10 [254]
Height—21 [533]
Weight—60 lb [27.2 kg]
Air—80 psi [5.51 bar] min., .5 scfm [0.00024 m^3/s]
Cable Range—30-22 AWG [0.05-0.4 mm^2], .100 [25.4] centerlines
For more information, contact AMP.

2.x.6 Semiautomatic Machines for Jacketed Cable

CHAMPOMATOR 2.5 Terminating Machines, 354786 Series, plus Controllers, 852423-1, -3

Compact bench machines for terminating multi-conductor, jacketed cable with a variety of IDC connectors. Microprocessor controlled, and programmed using a membrane-switch keyboard. Automatically index the connector through the programmed termination pattern. Terminate either a pair of wires simultaneously in opposite contacts, or just one wire at-a-time.

Specifications

Machines:

Width—24 [610]

Depth—24 [610]

Height—12 [305]

Weight—75 lb [34 kg]

Air—80 psi [5.52 bar] min., .75 scfm [0.00035 m³/s]

Controllers:

Width—11 [286]

Depth—17 [438]

Height—6 [152]

Weight—21 lb [9.5 kg]

Electrical—120 VAC, 60 Hz (852423-1); 220 VAC, 50 Hz (852423-3); 480 VA

For more information, request Catalog **82247,** Video **198043**.

CHAMPOMATOR 2.6 Terminating Machine, 662300-1, plus Controllers, 852423-4, -5
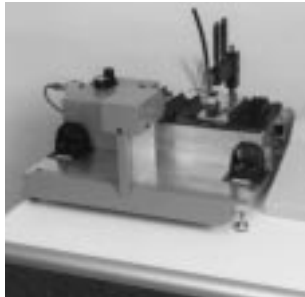
Terminates 30 AWG [0.06 mm²], .024 [0.61] maximum insulation diameter wires in the IDC contacts of 68-position 0.8 mm Offset CHAMP plugs. It uses a process similar to the Model 2.5 machine for wire handling. The Model 2.6 bench machine comes complete with a mandrel assembly, connector nest, and inserter package. A 180° cable clamp is provided with the machine

Specifications

Machine:

Width—16 [400]

Depth—21 [530]

Height—10 [250]

Weight—75 lb [35 kg]

Electrical—120 VAC, 60 Hz, 4 A

Air—80 psi [5.52 bar] at 1.13 scfm [0.000533 m³/s]

Controllers:

Width—11 [285]

Depth—17 [440]

Height—6 [150]

Weight—21 lb [9 kg]

Electrical—120 VAC, 60 Hz (852423-4); 230 VAC, 50 Hz (852423-5); 480 VA

For more information, request Catalog **82247**.

2.x.8 Automatic Machines for Ribbon Cable

R-CAM 2A Ribbon Cable Assembly Machine, 760700-6, -7

Fully-automatic machines for producing and testing .050 [1.27]-centerline ribbon cable assemblies up to 48 [1 219] long with up to four connectors in any orientation. Supplied with tooling to apply AMP-LATCH 20-64 position card-edge connectors and novo receptacles. Other tooling may be ordered separately. Microprocessor controlled, and programmed and operated using an interactive touchscreen.

Specifications

Width—102 [2 591]
Depth—58 [1 473]
Height—60 [1 524]
Weight—960 lb [435 kg]
Electrical—120 VAC, 50 or 60 Hz, (760700-6); 220 VAC, 50 or 60 Hz (760700-7); 1 800 VA
Air—80 psi [5.52 bar] min., 8 scfm [0.00378 m^3/s] min.

For more information, request Catalog **296060**.

R-CAM 3A Ribbon Cable Assembly Machines, 761900-1, -2

High-speed models for producing and testing .050 [1.27]-centerline jumpers up to 105 [2 667] long with one or two connectors. It can also produce two-connector assemblies with up to 50 [1 270] long unterminated tails. Controlled, programmed and operated similar to the R-CAM 2A machines.

Specifications

Width—48 [1 219]
Depth—48 [1 219]
Height—62 [1 575]
Weight—630 lb [286 kg]
Electrical—120 VAC, 50 or 60 Hz, (761900-1); 220 VAC, 50 or 60 Hz (761900-2); 1 800 VA
Air—80 psi [5.52 bar] min., 8 scfm [0.00378 m^3/s] min.
Production Rate—1 075 assemblies/hr (2 connectors, 4 [102] length

For more information, request Catalog **296060,** Video **198056**.

R-CAM 4 Ribbon Cable Assembly Machines, 318800 Series

Top-of-the-line models for producing and testing daisy-chained assemblies up to 100 [2 540] long with up to 10 connectors in any orientation. Longer lengths are possible with limitations. Can be converted to run either .050 [1.27]- or .025 [0.63]-centerline cable. Can also process slit-and-twist cable. Controlled, programmed and operated using either an interactive touchscreen or a keyboard.

Specifications

Width—68 [1 727]
Depth—58 [1 473]
Height—72 [1 829]
Weight—590 lb [300 kg]
Electrical—120 or 220 VAC, 50 or 60 Hz; 1 800 VA
Air—80 psi [5.52 bar] min., 12 scfm [0.00566 m^3/s] min.

For more information, request Catalog **296060**.

2.x.9 Automatic Machines for Jacketed Cable

**CHAMPOMATOR 3A
Terminating Machines,
662600 Series**

Automatic terminating machines for AMPLIMITE HDE, AMPMODU Level V and CHAMP connectors. Microprocessor controlled, and programmed and operated using an interactive touchscreen. Terminate wires at random or selectively by identifying each wire by checking continuity with the terminated opposite end. Also test for shorts. Cable clamps available for 90° and 180° wire dress.

Specifications

Width—60 [1 524]
Depth—24 [610]
Height—48 [1 219]
Weight—250 lb [113 kg]
Electrical—120 VAC, 50 or 60 Hz, single phase, 1A
Air—80 psi [5.52 bar] min., 10 scfm [0.00472 m^3/s] min.
For more information, request Catalog **82247,** Video **198026**.

3.1.2 Connector Insertion Devices

SM-3, 814700-2

Compact, air-powered bench machine for seating preassembled ACTION PIN connectors with up to a total of 150 contacts. Seating tools may be required depending on connector styles. It can accommodate pc boards up to 20 [508] wide. Machine cycling is operator controlled in conjunction with either pressure or board sensing to compensate for board thickness variations. Cycling time is 4 seconds.

Specifications

Width—35.5 [902]
Depth—23 [584]
Height—26.5 [673]
Weight—290 lb [132 kg]
Capacity—6 000 lb [26 700 N]
Air—80 psi [5.52 bar] min., 1.5 scfm [0.00071 m^3/s] min.
For more information, contact AMP.

**SM-10/20 (H-Frame),
803880-6**

Hydraulically-powered machine for seating one or multiple preassembled ACTION PIN connectors simultaneously with up to a total of 1 000 contacts. Seating tools may be required depending on connector styles. It can accommodate pc boards up to 28 [711] wide. Machine cycling is operator controlled. Cycling times range from 2 seconds at 10-ton, to 2$^1/_2$ seconds at 20-ton capacity.

Specifications

Width—73 [1 854]
Depth—45 [1 143]
Height—75 [1 905]
Weight—2 185 lb [991 kg]
Capacity—20 000 lb [89 000 N] or 40 000 lb [178 000 N] (selectable)
Electrical—220 VAC, 60 Hz, 3 phase, or 440 VAC, 60 Hz, 3 phase; 3 850 VA
Air—80 psi [5.52 bar] min., 10 scfm [0.00472 m^3/s] min.
For more information, contact AMP.

AMP

3.2.1 Single Contact Insertion Devices

Comp-U-Sertor II Machines, 122300-1, -2

104986-1

Microprocessor-controlled X-Y positioning table for inserting a variety of products into pc boards, including .025^2 stamped or bandoliered posts, mini-spring sockets, and FASTON tabs. Insertion heads for the different products are interchangeable, and may also be used with bench machines. Controlled, programmed and operated using an interactive touchscreen. Options include double-action clinch tooling, powered dereeler, splice run-out detector, take-up winder for paper tape, and scrap chopper.

Specifications

Width—58 [1 473]

Depth—66 [1 676] with reel

Height—63 [1 600]

Weight—500 lb [227 kg]

Electrical—120 VAC, 50 or 60 Hz, (122300-1); 220 VAC, 50 or 60 Hz (122300-2); 1 800 VA

Air—80 psi [5.52 bar] min., 15 scfm [0.00708 m^3/s] min.

Insertable Area—12 x 18 [305 x 457] max.

For more information, request Catalog **296059**.

Modular Insertion System (MIS) Bench Machines, 217600 Series, 662820 Series (shown)

104984-1

Bench machines for inserting a variety of products into pc boards. Uses the same interchangeable insertion heads as the Comp-U-Sertor II Machines. Series 217600 machines feature a manually-operated X-Y positioning fixture, plus a locator spot light. The machine cycles when the board hole is placed on the anvil and both triggers on the dual handles attached to the X-Y fixture are depressed. Series 662820 machines, without board fixturing, cycle automatically when the hole is properly located. A stabilizing disk over the anvil helps keep the board level.

Specifications

Width—18 [457]

Depth—24 [610]

Height—18 [457]

Weight—250 lb [113 kg]

Electrical—120 to 220 VAC, 50 or 60 Hz (217600); 120 or 240 VAC, 60 Hz, single phase, 120 VA (662820)

Air—80 psi [5.52 bar] min., 15 scfm [0.00708 m^3/s] min.

Insertable Area—18 x 22 [457 x 559] max.

For more information, request Catalog **296059**.

3.3 MAG-MATE Products

MAG-MATE Product Terminators (MPTs)

361187-2

Semiautomatic bench machines for applying standard and mini MAG-MATE terminals. Terminals may be inserted one or two at-a-time. Fixturing is custom designed. Models available are mounted horizontally or vertically, or as a module for use in automatic equipment including AMP Rotary Index Tables. Easy-to-use push-button controls with LCD display.

Specifications

Horizontal Bench Machines:

Width—15 [381]

Depth—29 [734]

Height—10 [254]

Weight—115 lb [52 kg]

Electrical—120 VAC, 60 Hz, or 220 VAC, 50 Hz; 600 VA

Air—80 psi [5.52 bar] min., 3 scfm [0.00142 m^3/s] min.

For more information, request Catalog **82221 (Magnet Wire Terminals — AMPLIVAR and MAG-MATE)**.

For drawings or technical data, contact your AMP sales engineer or call the AMP Tooling Assistance Center: 1-800-722-1111.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

3.3 MAG-MATE Products (Continued)

Rotary Index Tables

87521-1

Microprocessor-controlled positioning tables for applying MAG-MATE terminals using one or two MPT modules. Depending on the setup of workstations, the tables are programmed to rotate in 90° or 180° steps. Options include a continuity test station, a station for bending terminals up to 90° after insertion, and rotating fixtures. Machine functions are easily programmed using a hand held keypad and display.

Specifications

Table with Single Module:

Width—62 [1 575] with reel

Depth—35 [889]

Height—71 [1 803]

Weight—762 lb [356 kg]

Electrical—120 VAC, 50 or 60 Hz, 10 A

Air—80 psi [5.52 bar] min., 3 scfm [0.00142 m³/s] min.

For more information, contact AMP.

4.1 Single-Contact Devices for Flexible Circuits

Flexible Film Termination Machines, 224910-1, -2, -3, -4, -6

100552

Semiautomatic bench machines for terminating .050 [1.27]-, .100 [2.54]-, .200 [5.08]-, and .300 [7.62]-centerline cable, circuitry and printed wiring. All positions are terminated automatically one after another. To skip positions, an optional Programmer Kit, 356484-1, is available. Crimp height is adjustable.

Specifications

Width—20.5 [520]

Depth—27.5 [700]

Height—18 [460]

Weight—100 lb [45 kg]

Electrical—120 VAC, 60 Hz, (224910-1, -3, -4); 240 VAC, 50 Hz (224910-2, -6)

For more information, contact AMP.

9.1 Strippers

Cable Stripper/Slitter, Model CS-1, 606700-1

103005

Hand tool for stripping round cable up to 1.0 [25] outside diameter (approximately 350 kcmil [175 mm²] conductor). Uses a "V" clamp that slides in and out for cable positioning. Blade can be rotated 90° for circular or lengthwise cuts. Blade depth is also adjustable. Edge of clamp can be used to help separate cable jacket. Supplied with a spare blade.

For more information, request Instruction Sheet **408-9688**.

9.1 Strippers (Continued)

Coaxial Cable Stripper Kits, 603995-1, -2, -3, -5, -6

Hand tool for stripping the more popular sizes of coaxial cable. Features interchangeable, color-coded blade cassettes for different strip lengths. Kits include a specific blade cassette plus a set of four interchangeable, color-coded blocks for accommodating different cable diameters ranging from .10 [2.5] to .30 [7.6]. Blade depth is adjustable.

For more information, request Instruction Sheet **408-2766**.

Semi-Rigid Cable Preparation Machine, 220211-2

Compact, semiautomatic machine for cutting and stripping the outer conductor and dielectric, and chamfering the center conductor. Interchangeable tooling, 813599-1, -2, available for preparing 402 and 405 RG/U cables, respectively, for termination with Blind Mate, N, SMA, and TNC connectors. Features a carriage for securing the cable for cutting and stripping. Cutting speed and depth is adjustable.

Specifications

Width—11.6 [295]
Depth—8.2 [210]
Height—6 [152]
Weight—45 lb [21 kg]
Electrical—120 VAC, 60 Hz, 2 A
For more information, contact AMP.

Automatic Cut and Strip Machine, 1214316-1

Fully electric, microprocessor-controlled bench machine for processing wire and round and flat cable. Features LED display prompts for easy-to-follow setups and operation, automatic wire loading and unloading, and universal V-type blades. Prefeeder, 1214317-1, and wire stacker, 1214318-1, available for unattended operation. Process 5 200 wires per hour (22 AWG [0.3 mm^2], 4 [100] length, partial strip both ends).

Specifications

Width—14.6 [370]
Depth—16.1 [410]
Height—10.8 [275]
Weight—48.6 lb [23 kg]
Electrical—120 or 220 VAC, 50 or 60 Hz, 160 VA
Wire Range—32-10 AWG [0.05-6 mm^2] stranded, 32-16 AWG [0.05-1.5 mm^2] solid
Wire Lengths—.04 [1.0]-3 280 ft [1 000 m]
Strip Lengths—up to 1.77 [45]
For more information, request Catalog **1307238**.

9.1 Strippers (Continued)

Semiautomatic Wire Stripper Machine, 1214315-1

10893-7-4

Compact, lightweight, air-powered bench machine for stripping wires up to 14 AWG [1.65 mm^2], and cable up to .13 [3.2] OD. Features automatic sensor activation and universal V-type blades for processing varying wire sizes without changing blades. Full or partial stripping. Approximately .3 sec. machine cycle time for longest strip length.

Specifications
Width—2.5 [60]
Depth—9.0 [220]
Height—6.5 [160]
Weight—5.3 lb [2.4 kg]
Air—75-105 psi [5.17-7.24 bar], .01 ft^3 [.00028 m^3]/operation
Wire Range—32-14 AWG [0.05-1.65 mm^2]
Strip Lengths—.06-.79 [1.5-20]
For more information, request Catalog **1307238**.

Wire Stripper Hand Tool, 314966-1

97335

Hand tool for cutting, stripping, and bending stranded or solid 22-10 AWG [0.3-6 mm^2] wire sizes. Features a simple screw adjustment for different wire sizes, a spring return for reopening the tool, and a safety lock. The safety lock is also used to help prevent the jaws from opening too wide during stripping.

For more information, request Instruction Sheet **408-4037**.

Wire Stripper Hand Tool, Model WS-2, 601827-2

96826

Hand tool for cutting and stripping stranded or solid 20-12 AWG [0.3-3 mm^2] wire sizes. Wires are stripped at the front of the tool, thereby allowing access to short wires in confined areas. Also features a 3-position stripping depth adjustment, and an adjustable wire stop. Stripping jaws can be replaced with assembly 1-601827-2.

For more information, request Instruction Sheet **408-9686**.

9.2 Cable Cutters

Heavy-Duty Cable Cutters, 605740-1, 605742-1, 605744-1, 605745-2

Family of hand tools for cutting 8 AWG-1 000 kcmil [8-500 mm^2] copper or aluminum conductors. The cutting jaws are hook shaped to force the cables into the jaws. Handles are either steel or fiberglass with plastic grips. Not designed for cutting steel or steel-reinforced conductors.

Specifications
605745-2:
Wire Range—2/0 AWG [70 mm^2] max., Cu; 4/0 AWG [100 mm^2] max., Al
605744-1:
Wire Range—350 kcmil [175 mm^2] max.
605742-1:
Wire Range—500 kcmil [250 mm^2] max.
605740-1:
Wire Range—1 000 kcmil [500 mm^2] max.
For more information, request Catalog **65689 (Products for Outside Plant Applications)**.

Ratcheted Cable Cutter Hand Tool, 607453-2

Lightweight hand tool for cutting up to 600 kcmil [300 mm^2] copper or 800 kcmil [400 mm^2] aluminum conductors. Features a highly-leveraged, circular cutting motion using a ratcheted moving blade. The blade can also be quickly advanced using a take-up button conveniently located just beyond the handle grip.

Specifications
Height—16 [406]
Handle Opening—19.5 [495] max.
Weight—3.3 lb [1.5 kg]
For more information, request Instruction Sheet **408-4089**.

9.3 Tie Gun

AMP-TY Application Hand Tool, 608336-1

Hand tool for applying nylon cable ties with up to a maximum tensile strength of 50 lb [222 N]. Features an adjustment for regulating the amount of tension it applies before automatically trimming off the unused end. All metal construction.

For more information, request Catalog **124132 (Products for Insulating and Bundling)**, Instruction Sheet **408-9625**.

9.4 Cutting Tool

**Cutting Tool Kit,
314818-1**

Tool cuts AMPMODU Mod. II Breakaway Headers (Single- or Double-Row, Vertical or Right-Angle) with .025 [.64] square posts on .100 [2.54] centers. The Kit includes a Pistol Grip Ratchet Handle, a Locator, a Cutting Head (includes blades and a stored set of 2 extra blades), a Hex Wrench, and a Carrying Case.

107932

Specifications

Width—5.1 [130]

Depth—9.0 [230]

Height—5.5 [140]

Weight—14.7 oz [417 g]

For more information, request Catalog **296501, page 45,** Instruction Sheet **408-9707** .

Alphabetical Index

Alphabetical Index (Continued)

Part Number Index

Global Application Tooling

Engineering Notes

Americas

Regional Center
AMP
Harrisburg, PA, U.S.A.
Phone: 717-564-0100
FAX: 717-986-7575

AMP S.A. Argentina C.I.Y.F.
Buenos Aires, Argentina
Phone: 54-1-733-2000
FAX: 54-1-793-9331

AMP do Brasil, Ltda.
São Paulo, Brazil
Phone: 55-11-861-1311
FAX: 55-11-861-0397

AMP of Canada, Ltd.
Markham (Toronto)
Ontario, Canada
Phone: 905-475-6222
FAX: 905-474-5520

AMP Incorporated
Harrisburg, PA, U.S.A.
Phone: 800-522-6752
FAX: 717-986-7575

AMP de Mexico, S.A.
Mexico City, Mexico
Phone: 525-398-7611
FAX: 525-398-7964

Asia/Pacific

Regional Center
AMP
Kawasaki, Kanagawa 213, Japan
Phone: 81-44-813-8502
FAX: 81-44-813-8500

Australian AMP Pty., Ltd.
Castle Hill, NSW 2154
Phone: 61-2-680-3377
FAX: 61-2-899-5649

AMP India, Pvt., Ltd.
Bangalore, India
Phone: 91-80-845-3014
FAX: 91-80-845-3038

AMP (Japan), Ltd.
Kawasaki-shi, Japan
Phone: 81-44-844-8111
FAX: 81-44-812-3207

AMP Korea, Ltd.
Seoul, South Korea
Phone: 82-2-589-0535
FAX: 82-2-589-0524

New Zealand AMP, Ltd.
Auckland, New Zealand
Phone: 64-9-634-4580
FAX: 64-9-634-4586

AMP Philippines Inc.
Metro Manila, Philippines
Phone: 632-811-0437
FAX: 632-811-0441

AMP Products (Malaysia) SDN. BHD.
Kuala Lumpur, Malaysia
Phone: 603-282-8128
FAX: 603-282-8951

AMP Products Pacific, Ltd.
Kowloon, Hong Kong
Phone: 852-2-735-1628
FAX: 852-2-735-0243

AMP Shanghai, Ltd.
Shanghai, People's Republic
of China
Phone: 86-21-485-0602
FAX: 86-21-485-0728

AMP Singapore Pte. Ltd.
Singapore
Phone: 65-482-0311
FAX: 65-482-1012

AMP Taiwan B.V.
Taipei, Taiwan
Republic of China
Phone: 886-2-704-4815
FAX: 886-2-704-4940

AMP (Thailand), Ltd.
Bangkok, Thailand
Phone: 662-513-9888
FAX: 662-513-9889

Europe

Regional Center
AMP
Stoke Poges, SL2 4JL England
Phone: 44-1-753-676-800
FAX: 44-1-753-676-801

AMP Belgium
Brussels Branch Office
of AMP Holland
Zaventem (Brussels), Belgium
Phone: 32-2-721-2020
FAX: 32-2-721-3263

AMP Czech SRO
Brno, Czech Republic
Phone: 42-5-4321-5053
FAX: 42-5-4321-5070

AMP Danmark
Viby, Denmark
Phone: 45-86-295-055
FAX: 45-86-295-133

AMP Deutschland G.m.b.H.
Langen, Germany
Phone: 49-6103-7090
FAX: 49-6103-709223

AMP Elektrik-Elektronik
Baglanti Sistermieri Ticaret Ltd. Sti
Istanbul Turkey
Phone: 90-212-281-8181
FAX: 90-212-281-8184

AMP Española, S.A.
Barcelona, Spain
Phone: 34-3-291-0330
FAX: 34-3-291-7879

AMP Finland OY
Helsinki, Finland
Phone: 358-0-512-3420
FAX: 358-0-512-34250

AMP de France S.A.
Pontoise, France
Phone: 33-1-3420-8888
FAX: 33-1-3420-8600

AMP of Great Britain, Ltd.
Stanmore
Middlesex, England
Phone: 44-1-81-954-2356
FAX: 44-1-81-954-6234

AMP-Holland B.V.
's-Hertogenbosch
The Netherlands
Phone: 31-73-24-6246
FAX: 31-73-21-2365

AMP-Hungary Trading Co. Ltd.
Budapest, Hungary
Phone: 36-1-157-4236
FAX: 36-1-262-4432

AMP Ireland, Ltd.
Dublin, Ireland
Phone: 353-1-820-3000
FAX: 353-1-820-9790

AMP Italia S.p.A.
Collegno (Torino), Italy
Phone: 39-11-4012111
FAX: 39-11-4031116

Evag Mosco
Moscow, Russia
Phone: 7-095-938-2846
FAX: 7-095-938-2805

AMP Norge A/S
Rud (Oslo), Norway
Phone: 47-67-135-080
FAX: 47-67-136-998

AMP Österreich G.m.b.H.
Wien (Vienna), Austria
Phone: 43-1-277-97-0
FAX: 43-1-270-26-61

AMP Polska Sp.z.o.o.
Warzawa, Poland
Phone: 482-672-47-90
FAX: 482-672-47-88

AMP Portugal, Lda.
Lisbon, Portugal
Phone: 351-1-3877-016
FAX: 351-1-3877-172

AMP Slovenia d.o.o.
Slovenia
Phone: 386-61-161-3270
FAX: 386-61-161-3240

AMP Svenska AB
Stockholm-Jakobsberg,
Sweden
Phone: 46-8-580-833-00
FAX: 46-8-580-194-70

AMP (Schweiz) A.G.
Steinach, Switzerland
Phone: 41-7-147-0707
FAX: 41-7-147-0347

Wholly Owned Companies

ACSYS Incorporated
Burlington, MA, U.S.A.
Phone: 617-270-5566
FAX: 617-270-5575

AMP Packaging Systems
Austin, TX, U.S.A.
Phone: 512-244-5100
FAX: 512-244-5109

AMP Packaging Systems
Dublin, Ireland
Phone: 353-1-806-6500
FAX: 353-1-806-6501

Carroll Touch Inc.
Round Rock, TX, U.S.A.
Phone: 512-244-3500
FAX: 512-244-7040

Carroll Touch International
Japan Branch
Tokyo 160, Japan
Phone: 81-3-345-8231

Connectware, Inc.
Richardson, TX, U.S.A.
Phone: 214-907-1093
FAX: 214-907-1594

Connectware, Inc.
Hants, England
Phone: 44-1-256-330-030
FAX: 44-1-256-816-978

Kaptron, Inc.
Palo Alto, CA, U.S.A.
Phone: 415-493-8008
FAX: 415-493-8924

M/A-COM, Inc.
Americas
Phone: 1-800-366-2266
FAX: 1-800-618-8883
Europe/Middle East/Africa
Phone: 44 (1344) 869-595
FAX: 44 (1344) 300-020
Asia/Pacific
Phone: 81 (03) 3226-1671
FAX: 81 (03) 3226-1451

Microwave Signal, Inc.
Clarksburg, MD, U.S.A.
Phone: 301-428-5197
FAX: 301-540-8512

Precision Interconnect Corporation
Portland, OR, U.S.A.
Phone: 503-620-9400
FAX: 503-620-7131

Raylan Corporation
Palo Alto, CA, U.S.A.
Phone: 415-813-0400
FAX: 415-494-7844

Joint Ventures

AMP-AKZO Corporation
Greenville, SC, U.S.A.

Connecting
at a
HIGHER
level.
AMP