

# Special Crimping Machines for Loose Piece Terminals





# Common Features of AT Crimping Machines for loose piece terminal applications

- Economic and flexible processing of loose piece terminals (LPT)
- Machine processing with common hand tool dies
- Improved ergonomics (the third hand for hand tool processing is no longer required)
- Easy to operate
- Loose piece terminal processing with different die formats
- Die change system with die adapters
- CE compliant



AT-SC MK II Pneumatic Safety Crimping Machine



AT-60 Pneumatic Crimping Machine



AT-66 Hydraulic Crimping Machine



# AT-SC MK II Pneumatic Safety Crimping Machine

#### **Features**

- Pneumatic crimping machine
- Straight action machine
- Parallel closing mechanism
- Safety system / working without protection cover
- Tool less adapter change
- LED work light
- Variable closing speed
- Terminal pre-centering system
- Short cycle time
- Electronics piece counter
- Ergonomic design

## **Applications**

Crimping of insulated and non-insulated LP connectors with stranded wire. Max. crimpforce at 35 kN / 7868 lbs.

## **Applicable Die Adapters (die holder)**

#### Standard adapter

- 2-528051-8\* / AT-SC MK II, SDE die holder
- \* Accepts SDE die sets (for a list of available SDE die sets, refer to the chart on the following two pages.)

Die sets and special equipment available upon request.



Part Number 1-528050-0

# Connector/Terminal-to-Tool Reference for AT-SC MK II Machine

Family	Catalog Number	TE <sup>®</sup> Product	RG/U Cable <sup>2</sup> Wire Size	Termination Type/Style	SDE Die Set Only
			RD 316, 180, 195, Belden 8218	"O"/Commercial	58539-1s
		50 Ohm BNC and TNC	F9 (2 F9	"O"/Commercial	58435-1 <sup>s</sup>
			58, 62, 59	Hex/Commercial	58436-1 <sup>s</sup>
			Belden 9248, 9114	"O"/Commercial	58539-1 <sup>s</sup>
			174, 188, 316, 179, 161, 187	"O"/Commercial	318450-2 <sup>P</sup>
			62, 59	"O"/Commercial	58435-1 <sup>s</sup>
		50 Ohm BNC	Belden 9907, 89907, Comm/Scope 2104	"O"/Commercial	318452-2 <sup>₽</sup>
			174, 188, 316, 179, 161, 187	Hex/Commercial	58436-3 <sup>s</sup>
			62, 59, Belden 9104, 9112	"O"/Commercial & Military	58537-1 <sup>s</sup>
				Hex/Commercial	58436-2 <sup>s</sup>
			Belden 8281, 9141	"O"/Commercial & Military	58538-1 <sup>s</sup>
			180, 195, Belden 8218, 9248, 9114	"O"/Commercial	58539-1 <sup>s</sup>
			58	"O"/Military	220189-3 <sup>s</sup>
		75 Ohm	62, 59	"O"/Commercial	58536-1s
Coaxial Connectors		BNC and TNC	6, Belden 8281	"O"/Commercial	58538-1 <sup>s</sup>
				"O"/Commercial	318451-2°
	s 82074	75 Ohm BNC	179, 161, 187	Hex/Commercial	58425-2 <sup>s</sup>
			62, 59	Hex/Commercial	58425-1s
			Double Braid 59, Belden 8281, 9141	Hex/Commercial	58425-3s
			Belden 9248, 9114	"O"/Commercial	58536-1s
			Belden 8218	"O"/Commercial	58174-1s
		50 and 75 Ohm BNC	6. Belden 8281	"O"/Commercial	58538-1s
		50 Ohm N	58, 62, 59	Hex/Commercial	58436-1s
			8, 213, 11, 216, 9, 214	Hex/Commercial	58485-1s
		Miniature UHF	58	Dual Crimp	220196-1s
		50 Ohm SMB		Hex/Commercial	58489-1 <sup>s</sup>
			174, 316, 188, 179, 161, 187, RD 316, 188 Double Braid	Hex/Military	58483-1s
			178, 196, 174, 316, 188, 179, 161, 187	Hex/Commercial	58046-1s
		50 175 01		"F" / "O"	58558-2 <sup>s</sup>
		50 and 75 Ohm Consumer BNC	58, 62, 59 174, 316, 188, 179, 161, 187	"F" / "O"	58559-2 <sup>s</sup>
		Series F CATV Plugs	58, 6, 7 6.6, 8.2, 9.8 [0.259, 0.324, 0.384] Dia.	Hex/Commercial	58621-2 <sup>s</sup>
			59, 6, 7 7.4, 8.7 [0.290, 0.343] Dia.	Hex/Commercial	58622-2 <sup>s</sup>
			59, 6 9.1 [0.360] Dia.	Hex/Commercial	58663-2 <sup>s</sup>
		Braid-Pic Braid Termination	58, 62, 59	_	220195-1 <sup>s</sup>
Terminals And Splices	82042	Insulated Terminals	22-16 AWG [0.3-1.3 mm <sup>2</sup> ]		
		and Splices (PIDG and PLASTI-GRIP)	16-14 AWG [1.3-2.0 mm <sup>2</sup> ]	_	58423-1 <sup>3,S</sup>
			12-10 AWG [3.0-5.0 mm <sup>2</sup> ]		
	65505	Uninsulated Terminals and Splices (SOLISTRAND)	22-10 AWG [0.3-5.0 mm <sup>2</sup> ]	_	58545-1 <sup>s</sup>
	65472	Closed End Splices	ECV-ECN 18-16 AWG [0.8-1.3 mm <sup>2</sup> ]		
			ECN 18-10 AWG [0.8-5.0 mm <sup>2</sup> ]	—	217212-2 <sup>°</sup>
			ECV-ECN 18-10 AWG [0.8-5.0 mm <sup>2</sup> ]		
		Spare Wire Caps	0.048-0.225 [1.22-5.72] Ins. Dia.		
Receptacles and Tabs		FASTON 250 Series	18-14 AWG [0.8-2.0 mm <sup>2</sup> ]	_	58524-2 <sup>°</sup>
		Recpt.	14-10 AWG [2.0-5.0 mm <sup>2</sup> ]	_	58525-2 <sup>₽</sup>
	82004	0.110/0.125 in. Recpt Ultra-Fast		_	58628-2 <sup>°</sup>
		FASTON 0.187/0.250 in. Recpt (Straight) 0.250 in. Tabs			

<sup>1</sup>Request catalog for detailed product information.

<sup>2</sup> Coaxial cable of similar size can be crimped. Request Catalog 82074 for a complete listing of possible cable sizes.

 $^{\scriptscriptstyle 3}$  Not for use with PIDG FASTON receptacles; crimp not approved by UL or CSA.

P. Pin Die

S. Shoulder Die

# Connector/Terminal-to-Tool Reference for AT-SC MK II Machine (continued)

Product Family	Catalog Number	TE <sup>®</sup> Product	Cable or Wire Size	SDE Die Set Only
	82164 and 296355	FSMA and ST-Style (S.S.) Connectors (504XXX Series only)	3.0 mm Jacket Dia.	58552-1 <sup>s</sup>
		ST-Style, FC Type, D4 and AMP® SC Connectors	3.0 mm Jacket Dia <sup>·</sup>	58424-1 <sup>s</sup>
		ST-Style (Ceramic) Connectors	3.8 mm Jacket Dia.	503890-I
Fiber Optic Connectors		FC Type and AMP <sup>®</sup> SC Connectors (Next Generation)	3.0 mm Jacket Dia.	503910-1 <sup>s</sup>
		FSD, FSD MC and RSD Connectors; FSD Breakout Kit	DUALAN and LDD	58510-1 <sup>s</sup>
		LightCrimp XTC Connectors Ceramic/Polymer/S.S.)	3.0 mm Jacket Dia.	492622-1
		LightCrimp SC (Ceramic) Connectors	3.0 mm Jacket Dia.	503698-1
	1307099	LightCrimp Plus ST-Style AMP <sup>®</sup> SC	3.0 mm Jacket Dia.	492622-1
			3.0 mm Jacket Dia.	492783-I
	_	Multimate Contacts	I mm Plastic Fiber, 2.2 mm Jacket Dia.	217211-2 <sup>P</sup>
	82068	D-Subminiature 20 DF Pin and Socket Contacts (AMPLIMITE)	28-24 AWG [0.08-0.2 mm <sup>2</sup> ]	58448-3 <sup>°</sup>
			24-20 AWG [0.2-0.6 mm <sup>2</sup> ]	
		D-Subminiature 22 DF Pin and Socket Contacts (AMPLIMITE)	28-22 AWG [0.08-0.3 mm <sup>2</sup> ]	90800-2 <sup>P</sup>
		Type II Pin and Socket Contacts	24-14 AWG [0.2-2.0 mm <sup>2</sup> ]	58541-2 <sup>°</sup>
		Type III+ and Type VI Pin and Socket Contacts	28-24 AWG [0.08-0.2 mm <sup>2</sup> ]	58495-2 <sup>°</sup>
			24-20 AWG [0.2-0.6 mm <sup>2</sup> ]	
			18-16 AWG [0.8-1.4 mm <sup>2</sup> ]	
	82181	0.093 Soft Shell Commercial	24-18 AWG [0.2-0.9 mm <sup>2</sup> ]	90872-2 <sup>°</sup>
		Pin and Socket Contacts	20-14 AWG [0.6-2.0 mm <sup>2</sup> ]	90871-2 <sup>°</sup>
		0.062 Soft Shell Commercial	30-24 AWG [0.05-0.2 mm <sup>2</sup> ]	90870-2 <sup>P</sup>
Pin and Socket		Pin and Socket Contacts	24-18 AWG [0.2-0.9 mm <sup>2</sup> ]	90869-2 <sup>°</sup>
Connectors		MR Pin and Socket Contacts	26-18 AWG [0.13-0.9 mm <sup>2</sup> ]	58514-2 <sup>P</sup>
		Universal MATE-N-LOK II and Universal MATE-N-LOK Pin and Socket Contacts	24-18 AWG [0.2-0.9 mm <sup>2</sup> ]	90548-2 <sup>P</sup>
			20-14 AWG [0.6-2.0 mm <sup>2</sup> ] 1.52-3.30 [0.060-0.130] Ins. Dia.	90546-2 <sup>P</sup>
			20-14 AWG [0.6-2.0 mm <sup>2</sup> ] 3.30-5.08 [0.130-0.200] Ins. Dia.	90547-2°
			12-10 AWG [3-5 mm <sup>2</sup> ]	58530-2 <sup>P</sup>
		Mini-Universal MATE-N-LOK Pin and Socket Contacts	26-22 AWG [0.13-0.3 mm <sup>2</sup> ]	90758-2 <sup>P</sup>
			22-18 AWG [0.3-0.9 mm <sup>2</sup> ] or Two 22 AWG	90759-2 <sup>°</sup>
			20-16 AWG [0.6-1.4 mm <sup>2</sup> ] or Two 20 AWG	90760-2 <sup>₽</sup>
		Commercial MATE-N-LOK	24-18 AWG [0.2-0.9 mm <sup>2</sup> ]	90574-2 <sup>P</sup>
		Pin and Socket Contacts	20-14 AWG [0.6-2.0 mm <sup>2</sup> ]	90575-2 <sup>°</sup>
		Dynamic Series D-3 Contacts	24-20 AWG [0.2-0.56 mm <sup>2</sup> ]	90683-2 <sup>°</sup>
			20-16 AWG [0.5-1.42 mm <sup>2</sup> ]	90684-2 <sup>P</sup>
	_	CST-100 Contacts	26-22 AWG [0.13-0.3 mm <sup>2</sup> ]	58517-2 <sup>°</sup>
eceptacle and Tab		AMPSEAL Automotive Receptacles	20-16 AWG [0.5-1.25 mm <sup>2</sup> ]	58529-2 <sup>°</sup>
Connectors	65481 124962	AMP SUPERSEAL 1.5 SERIES Contacts	0.5-1.5 mm <sup>2</sup>	58583-2 <sup>P</sup>
		El Series Receptacle Contacts	26-20 AWG [0.13-0.6 mm <sup>2</sup> ]	
		Universal Power Contacts	26-16 AWG [0.13-1.4 mm <sup>2</sup> ]	
	82066	Modular Plugs (10 Pos.)	28-24 AWG [0.08-0.2 mm <sup>2</sup> ] <sup>†</sup>	58560-2 <sup>°</sup>
Modular Plugs		Modular Plug Strain Relief	5.08 [0.200] Max. Ins. Dia.	852681-1 <sup>s</sup>
Card Connectors	65701	INFOPORT Series III Shield Kit	3.43-3.81 [0.135-0.150] Ins. Dia.	224933-2 <sup>P</sup>
Universal Data Connector Kits	82164	AMP <sup>®</sup> Crimp Ring	Type 1, 2, 6, 9 and MONTROSE	58450-1 <sup>s</sup>

Request catalog for detailed product information.

 $^{\scriptscriptstyle \dagger}$  Terminates cable with 24 AWG [0.2 mm²] conductors with 0.039 [0.99] Max. O.D.

P. Pin Die

S. Shoulder Die



# AT-60 Pneumatic Crimping Machine

#### **Features**

- Controlled back stroke
- Straight action machine
- Pneumatic safety control mechanism
- Tool less adapter change
- Short cycle time with reduced energy consumption
- Sequence control system
- Electronic work piece counter
- Ergonomic design
- Handy quick-exchange system of the adapter
- LED illumination of the working area

## **Applications**

Crimping of insulated and non-insulated LP connectors with stranded wire. Maximum crimpforce of  $75 kN\ /\ 16,860\ lbs$ 

## Applicable Die Adapters (die holder)

#### Standard adapter

- 2-528051-3\* / AT-60, U Die Holder 22mm (standard)
- \* This adapter with the appropriate U die set (ordered separately) can be used to crimp the following:
  - 8-2 SOLISTRAND terminals and splices (no flag terminals)
  - 6-2 AMPOWER terminals

Die sets and special equipment available upon request.



Part Number

528050-9



# AT-66 Hydraulic Crimping Machine

#### **Features**

- Programmable
- Adaptive crimp force
- Fast changeover times
- Compact design
- Lockable user interface
- Short cycle time

#### **Applications**

Crimping of insulated and non-insulated LP connectors with stranded wire. Maximum crimpforce of 150 kN / 33721 lbs.

## Applicable Die Adapters (die holder)

#### Standard adapter

- 528051-4 / AT-66, U-Die Adapter
- \* This adapter with the appropriate U die set (ordered separately) can be used to crimp the following:
  - 8-4/0 SOLISTRAND terminals and splices (no flag terminals)
  - 8-2 TERMINYL terminals
  - 6-4/0 AMPOWER terminals

Die sets and special equipment available upon request.



Part Number

528050-6 528050-5 (EMEA version)

# AT-66 Customized Applications

### Applicator for HV Contacts used on Hydraulic Bench Machine AT-66

- Display for tooling selection and messages
- Automatic applicator detection
- Linked process steps
- Two hand release
- Cable clamp with cable detection
- European CE Conformity

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