

CATALOG

# Application tooling



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**Thomas & Betts is now ABB  
Installation Products, but our long  
legacy of quality products and  
innovation remains the same. From  
connectors that help wire buildings  
on Earth to cable ties that help put  
machines in space, we continue to  
work every day to make, market,  
design and sell products that  
provide a smarter, safer and more  
reliable flow of electricity, from  
source to socket.**

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## Color-Keyed mechanical compression tools: #8 AWG to 250 kcmil

TBM45S Comfort Crimp™ tool and TBM4S dieless crimp tool



Creates diamond-style crimp

- Requires the lowest handle force of any tool in its class – Up to 75% less than competing tools
- Wide installing range of #8–#2 AWG copper and #10–#6 AWG aluminum lugs and splices
- Also installs up to green color-coded C-taps and MD2 Series motor lead disconnects
- Shure Stake® mechanism helps ensure a complete crimp cycle before release designed to produce for a proper crimp every time
- Color-coded die wheel for easier matching with Blackburn® lugs and splices featuring the Color-Keyed® system
- Crimp Assist® foot provides stability when work surface leverage is needed to crimp larger connectors
- UL® Listed for use with Blackburn compression connectors featuring the Color-Keyed® system

### TBM45S Comfort Crimp tool

Cat. no.	Description	Pkg. qty.
TBM45S	Crimp tool with Shure Stake mechanism for #8–#2 AWG copper and #10–#6 AWG aluminum lugs and splices	1



Creates indent-style crimp

- Wide range of #8 AWG to 250 kcmil for copper lugs and #8 to 4/0 AWG for aluminum lugs
- Adjustable indenter eliminates the need to buy and maintain numerous individual dies
- Shure Stake® mechanism helps ensure a properly completed crimp each time
- Easily adjusted by turning knurled adjusting wheel and aligning pointer with proper terminal size
- Dieless, adjustable crimper for Blackburn® compression connectors featuring the Color-Keyed® system

### TBM4S dieless crimp tool

Cat. no.	Description	Pkg. qty.
TBM4S	Dieless crimp tool with Shure Stake mechanism for #8 AWG–250 kcmil copper and #8–4/0 AWG aluminum	1

## Color-Keyed mechanical compression tools: #8 AWG to 250 kcmil

TBM5S crimp tool and carrying cases



Creates diamond-style crimp

- Wide range of #8 AWG to 250 kcmil for copper and #10 to 4/0 AWG for aluminum lugs and splices
- Also installs C-taps from 54705 to 54750
- Shure Stake™ mechanism helps ensure a properly completed crimp each time
- Includes color-coded, die code-embossed installation dies

### TBM5S crimp tool

Cat. no.	Color code	Die cat. no	Pkg. qty.
TBM5S	Red	13454	1
	Blue		
	Gray		
	Brown		
	Green	13455	
	Pink		
	Black		
	Orange	13456	
	Purple		
	Yellow		
	Gold	13457	
	Tan		
	Olive		
	Ruby		
White	13458		

### Carrying cases for TBM5S and TBM6S

Cat. no.	Description	Pkg. qty.
295-31365M	Steel carrying case for TBM5S and TBM6S	1
295-31365	Plastic carrying case for TBM5S and TBM6S	1

## Color-Keyed mechanical compression tools: #8 AWG to 500 kcmil

### TBM6S crimp tool and carrying cases



Creates diamond-style crimp

- Wide ranges of #8 AWG thru 500 kcmil for copper lugs, splices and taps and #10 AWG thru 350 kcmil for aluminum lugs and splices
- Also installs 63105 through 63140 orange, green and blue H-taps
- Shure Stake® mechanism helps ensure a properly completed crimp each time
- Comes complete with plastic carrying case and wire brush

Note: The TBM6S tool can also be used to crimp Sta-Kon® terminals. See Sta-Kon catalog for dies.

#### TBM6S crimp tool

Cat. no.	Color code	Cat. no upper die	Cat. no lower die	Pkg. qty.
TBM6S	Red	13475	13477	1
	Blue	13475	13477	
	Gray	13472	13476	
	Brown	13474	13477	
	Green	13474	13477	
	Pink	13475	13477	
	Black	13474	13477	
	Orange	13474	13477	
	Purple	13475	13477	
	Yellow	13473	13476	
	Gold	13474	13477	
	Tan	13475	13477	
	Olive	13475	13477	
	Ruby	13473	13476	
	White	13473	13476	
	Red	13472	13476	
	Blue	13472	13476	
	Brown	13478	13478	

#### Carrying cases for TBM5S and TBM6S

Cat. no.	Description	Pkg. qty.
295-31365M	Steel carrying case for TBM5S and TBM6S	1
295-31365	Plastic carrying case for TBM5S and TBM6S	1

**Color-Keyed mechanical compression tools: #8 AWG to 500 kcmil**

TBM8S crimp tool



Creates diamond-style crimp

- Installs code copper lugs and connectors #8 AWG through 500 kcmil
- Installs aluminum lugs and connectors #10 AWG through 350 kcmil
- Shure Stake® mechanism helps ensure positive compression
- Included dies are color coded and provide die-code embossing for easier installation and inspection
- Installs all code copper compression joints and small C-taps
- Comes complete with installing dies and wire brush in plastic carrying case

**TBM8S crimp tool**

Cat. no.	Color code	Die cat. no	Pkg. qty.
TBM8S	Red	13461	1
	Blue		
	Gray		
	Brown	13462	
	Green		
	Pink		
	Black		
	Orange	13463	
	Purple		
	Yellow		
	Gold	13464	
	Tan		
	Olive	13465	
	Ruby		
	White		
	Red	13466	
Blue	13467		
Brown	13468		

## Color-Keyed power-assisted compression tools: #8 AWG to 900 kcmil

TBM14M



- Features short fiberglass handles for insulation and ease of use in tight spaces
- Two-stage pump provides rapid advance for fast installation
- Uses standard ABB 15500 Series dies



Creates hex-style crimp

### Specifications

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- CHT814-10 to CHT2502-6 copper H-taps
- 63105 to 63148 aluminum H-taps
- 54755 to 54775 C-taps
- Output force: 14 tons
- Length: 24"
- Weight without dies: 15.4 lbs.

### TBM14M 14-ton manual hydraulic crimp tool

Cat. no.	Description	Pkg. qty.
TBM14M	14-ton manual hydraulic crimp tool with case	1

## Color-Keyed power-assisted compression tools: #8 AWG to 600 kcmil

TBM6PCR-LI 6-ton open crimp tool and TBM62PCR-LI 6-ton closed crimp tool



- Designed for one-handed control ram advancement and retraction\*
- Open yoke design with rotating head allows for maximum crimping flexibility
- Protective rubber boot on head
- Rapid advance feature decreases crimp time
- Works with MAKITA LXT 18 V lithium-ion batteries‡

**TBM6PCR-LI 6-ton open crimp tool**

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM6PCR-LI	Li 6-ton open crimp tool	13.7"L x 3.3"W x 10.6"H	8.3 lbs. with battery	Cu #8–600 kcmil Al #8–400 kcmil	6 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V



- Designed for one-handed control ram advancement and retraction\*
- Rotating head allows maximum flexibility for crimping
- Rapid advance feature decreases crimp time
- Works with MAKITA LXT 18 V lithium-ion batteries‡

**TBM62PCR-LI 6-ton closed crimp tool**

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM62PCR-LI	Li 6-ton closed crimp tool	13.7"L x 3.3"W x 10.6"H	8.3 lbs. with battery	Cu #8–600 kcmil Al #8–400 kcmil	6 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V

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## Color-Keyed power-assisted compression tools: #8 AWG to 600 or 750 kcmil

TBM62CR-LI inline 6-ton closed crimp tool and TBM12PCR-LI 12-ton open crimp tool



- Designed with a rotating 180° head and integrated LED work lights, offering more maneuverability in tight spaces, while still providing 6 tons of parallel-action crimping force
- Designed for one-handed control ram advancement and retraction with a rapid advance feature that decreases crimp time\*
- Accepts W-style dies
- Works with MAKITA LXT 18 V lithium-ion batteries†

### TBM62CR-LI inline 6-ton closed crimp tool

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM62CR-LI	Li inline 6-ton closed crimp tool	15.8"L x 3.3"W x 4.5"H	5.9 lbs. with battery	Cu #8–600 kcmil Al #8–400 kcmil	6 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V



- Designed for one-handed control ram advancement and retraction\*
- Rotating head allows maximum flexibility for crimping and a protective rubber boot on "C" head
- Rapid advance feature decreases crimp time
- Works with MAKITA LXT 18 V lithium-ion batteries†

### TBM12PCR-LI 12-ton open crimp tool

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM12PCR-LI	Li 12-ton open crimp tool	17"L x 3.6"W x 11.3"H	16.3 lbs. with battery	Cu/Al #8–750 kcmil	12 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V

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**Color-Keyed power-assisted compression tools: #8 AWG to 900 or 1500 kcmil**  
 TBM14CR-LI and Li 15-ton closed crimp tool



- Installs up to 900 kcmil copper lugs and splices and up to 750 kcmil aluminum lugs and splices
- Rotating head allows maximum flexibility for crimping and a protective rubber boot on “C” head
- Rapid advance feature decreases crimp time
- Works with MAKITA LXT 18 V lithium-ion batteries‡

**Li 14-ton open crimp tool**

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM14CR-LI	Li 14-ton open crimp tool	22"L x 3.5"W x 10.5"H	17.8 lbs. with battery	Cu #8–900 kcmil Al #10–750 kcmil	14 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V



- Installs up to 1500 kcmil copper lugs and splices and up to 1250 kcmil aluminum lugs and splices
- Rotating head allows maximum flexibility for crimping and a protective rubber boot
- Rapid advance feature decreases crimp time
- Works with MAKITA LXT 18 V lithium-ion batteries‡

**Li 15-ton closed crimp tool**

Cat. no.	Description	Dimensions	Weight	Capacity	Output
TBM15CR-LI	Li 15-ton closed crimp tool	23.5"L x 3.5"W x 10.5"H	19.8 lbs. with battery	Cu #8–1500 kcmil Al #10–1250 kcmil	15 tons
BAT-MK	Spare MAKITA LXT* 18 V lithium-ion battery	4.2"L x 3.3"W x 2.6"H	1.2 lbs.	5.0 Ah	18 V DC
CHR-MK	Spare charger for MAKITA LXT* 18 V batteries	9"L x 5.7"W x 3.2"H	1.70 lbs.	120 V AC 50–60 Hz	7.2 V DC– 18 V

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## Color-Keyed power-assisted compression tools: #8 AWG to 900 kcmil

### SMART™ tools

#### SMART tools

- Tool is “smart” because it requires no dies
- Automatically compresses to the correct depth based on size of connector in jaws
- C-type head swivels 90° for easier crimp positioning
- Forged steel construction is well suited for both field and bench work
- Installs both Color-Keyed® and non-insulated Sta-Kon® connectors

#### How the SMART tool works

- The SMART Tool was engineered with built-in intelligence\* that enables it to sense the connector barrel diameter and automatically apply just the right amount of compression force. This helps eliminate virtually all air spaces and forms the connector and conductor strands into a solid mass, resulting in a high-quality, low-resistance connection. In addition, the tool clearly embosses each compression for positive verification that the correct tool was used.

\* System Novopress

#### Uniform, dependable connections

- The SMART Tool is designed to give you consistent, high-quality compression connections over a wide range of connector sizes. Available in manual, battery-powered and air-operated versions, this tool easily installs lugs and splices from #8 AWG through 900 kcmil copper or 750 kcmil aluminum – Without changing dies. For the specified wire range, all you need is one tool. You always have the right die size, eliminating die-selection mistakes.

#### Lower installation costs

- Productivity will be greatly improved with the SMART Tool, especially when installing a variety of connector sizes or types. Initial investment is low, requiring minimal tool inventory. These benefits add up to lower installed cost.

#### C-type yoke offers installation convenience

- The C-type yoke configuration and large die spacing enable the SMART Tool to slip directly over the connector. This means added speed and convenience when installing two-way splice connectors, especially in confined spaces.

#### SMART tool range taking features

- The following size Blackburn® lugs and splices featuring the Color-Keyed® system, when crimped with the SMART Tools, produce these range taking capabilities:



Copper		Aluminum	
Standard wire size (AWG or kcmil)	Range taking (AWG or kcmil)	Standard wire size (AWG or kcmil)	Range taking (AWG or kcmil)
1/0	#6-1/0	1/0	#6-1/0
2/0	#1-2/0	2/0	#1-2/0
4/0	#2-4/0	4/0	#2-4/0
300	2/0-300	300	2/0-300
350	250-350	350	250-350
500	250-500	500	4/0-500
750	500-750	750	500-750

**Color-Keyed power-assisted compression tools: #8 AWG to 900 kcmil**  
 SMART™ tools



Creates indent-style crimp

**Specifications**

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- Output force: 12 tons
- Dimensions (L x W): 21½" x 47¾"
- Weight: 13 lbs.

**SMART tool TBM8-750M-1 12-ton dieless manual hydraulic tool**

Cat. no.	Description	Pkg. qty.
TBM8-750M-1	12-ton dieless manual hydraulic compression tool	1



Creates indent-style crimp

**Specifications**

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- Output force: 12 tons
- Dimensions (L x W x H): 19½" x 37/8" x 8½"
- Battery: NiCd 14.4 V 2.4 Ah
- Weight with battery: 9 lbs.

**SMART tool TBM8-750BSCR 12-ton dieless battery-powered tool**

Cat. no.	Description	Pkg. qty.
TBM8-750BSCR	LT 12-ton dieless battery-powered compression tool. Includes carrying case, charger, two batteries and carry strap.	1



Creates indent-style crimp

**Specifications**

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- Output force: 12 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 14½" x 47/32" x 29/16"
- Weight: 9 lbs.

**SMART tool TBM8-750 12-ton dieless hydraulic head**

Cat. no.	Description	Pkg. qty.
TBM8-750	12-ton dieless hydraulic compression head	1

## Color-Keyed power-assisted compression tools: #8 AWG to 600 kcmil

### TBM6H 6-ton hydraulic crimping head



- Lightweight design – weighs less than 7 lbs., including dies
- Embosses die code on connection for easier inspection
- Uses 6-ton series and Blackburn® “O” and “D” Series die color-coded for easier matching with Color-Keyed® connectors



Creates hex-style crimp

#### Specifications

Installing range:

- Up to 600 kcmil copper lugs and splices
- Up to 400 kcmil aluminum lugs and splices
- CHT814-10 to CHT214-9 copper H-taps
- 63105 to 63148 aluminum H-taps
- 54705 to 54750 C-taps
- Output force: 6 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 12" x 2¼" x 3⅞"
- Weight without dies: 6.5 lbs.

#### TBM6H 6-ton hydraulic crimping head

Cat. no.	Description	Pkg. qty.
TBM6H	6-ton hydraulic head with steel case	1

## Color-Keyed power-assisted compression tools: #8 AWG to 900 kcmil

TBM12 12-ton hydraulic crimp head and 13642M 12-ton hydraulic crimping head

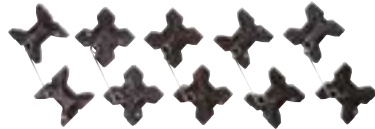


- Rugged steel construction is durable for most applications
- Includes five sets of multi-nested dies
- Dies emboss die code on connectors for easier inspection
- Closed yoke design yields maximum crimp performance
- Uses TBM12D style dies

### Specifications

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- 54755 to 54775 C-taps
- Output force: 12 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 14½" x 2½" x 3⅞"
- Weight without dies: 9 lbs.



Creates hex-style crimp

### S TBM12 12-ton hydraulic crimp head

Cat. no.	Description	Pkg. qty.
TBM12	12-ton hydraulic head with steel case	1

If using old style 11700 series die set, use adapter cat. no. TBM12D-AR for adaptation to the above tool. Order adapter separately.



- Rugged steel construction is durable for most applications
- Used for Blackburn® compression connectors featuring the Color-Keyed® system and Sta-Kon® connectors
- The only military-listed hydraulic head (Mil. Spec. MS25441-1)
- Uses 11700 Series dies for Blackburn connectors; see Sta-Kon section for Sta-Kon dies

### Specifications

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- 54755 to 54775 C-taps
- Output force: 12 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 14½" x 2½" x 31⅞"
- Weight without dies: 9 lbs.



Creates hex-style crimp

### 13642M 12-ton hydraulic crimping head

Cat. no.	Description	Pkg. qty.
13642M	12-ton hydraulic head with steel case	1

## Color-Keyed power-assisted compression tools: #8 AWG to 900 or 1500 kcmil

13100A 14-ton hydraulic crimping head and TBM15I 15-ton hydraulic crimping head



- Rugged design, made to last in field or on bench
- C-yoke provides maximum flexibility for crimping
- Uses standard ABB 15500 Series dies
- Operates on 10,000-psi hydraulic pumps



Creates hex-style crimp

### Specifications

Installing range:

- Up to 900 kcmil copper lugs and splices
- Up to 750 kcmil aluminum lugs and splices
- CHT814-10 to CHT2502-6 copper H-taps
- 63105 to 63148 aluminum H-taps
- 54755 to 54775 C-taps
- Output force: 14 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 11½" x 2½" x 4¼"
- Weight without dies: 10 lbs.

13100A 14-ton hydraulic crimping head

Cat. no.	Description	Pkg. qty.
13100A	14-ton hydraulic head with steel case	1



- Head made of forged steel and insulated with rubber boot
- Longer, slimmer design enables easier access into tight spaces, such as in cable tray and central office applications
- Wider jaw opening eases crimping of larger lugs, C-taps and H-taps
- Uses 15600 Series dies; can also use 15500 Series dies with 15500-TB adapter



Creates hex-style crimp

### Specifications

Installing range:

- Up to 1500 kcmil copper lugs and splices
- Up to 1000 kcmil aluminum lugs and splices
- CHT814-10 to CHT750-350-1F copper H-taps
- 63105 to 36180 aluminum H-taps
- 54755 to 54790 C-taps
- Output force: 15 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 15¾" x 2⅝" x 4⅞"
- Weight without dies: 16.5 lbs.

TBM15I 15-ton hydraulic crimping head

Cat. no.	Description	Pkg. qty.
TBM15I	Insulated 15-ton hydraulic head with steel case	1

15600 Series – Fits directly into tool for larger size connectors, 800 kcmil–1500 kcmil

15500 Series – Used in conjunction with 15500-TB Adapter, #8 AWG–750 kcmil

**Color-Keyed power-assisted compression tools: #8 AWG to 500 or 2000 kcmil**

25000 air-operated bench-mount crimp tool and 21940 40-ton hydraulic crimping head



- Installs copper and aluminum connectors on wire sizes from #8 AWG to 500 kcmil
- Compact, heavy-duty air tool
- Simple to operate – just insert stripped wire into connector barrel, position it in crimping nest and depress foot pedal to actuate crimping dies
- Uses same crimping dies as TBM6S (see p. 6)



Creates diamond-style crimp

**25000 Air-operated bench-mount crimp tool**

Cat. no.	Description	Pkg. qty.
25000	Air-operated bench-mount crimp tool	1



- Compact design delivers maximum pressure for larger lugs and splices
- Ideal for applications requiring larger lugs up to 2000 kcmil
- Uses 11300 and 11400 series dies

**Specifications**

Installing range:

- Up to 2000 kcmil copper lugs and splices
- Up to 2000 kcmil aluminum lugs and splices
- Output force: 40 tons
- Operating pressure: 10,000 psi nominal
- Dimensions (L x W x H): 12" x 4¾" x 7⅞"
- Weight without dies: 40 lbs.



Creates hex-style crimp

**21940 40-ton hydraulic crimping head**

Cat. no.	Description	Pkg. qty.
21940	40-ton hydraulic head with steel case	1

## Color-Keyed hydraulic pumps

13606 foot-/hand-operated hydraulic pump and 13600 electric hydraulic pump



13606 foot-/hand-operated hydraulic pump

- 13606 operates with either foot or hand; 13604 is hand operated only
- Operates all ABB hydraulic heads
- Built-in bypass valve for safety
- Factory set at 9,800 psi

### Specifications

- Nominal pressure: 9,800 psi
- Pumping capacity: 2.6 cu. in./min. @ 200 psi 0.16 cu. in./min. @ 10,000 psi
- Reservoir volume: 125 cu. in. (0.54 gal.)
- Max. handle force: 130 lbs.
- Dimensions (L x W x H): 23" x 5¾" x 6¾"
- Weight: 29 lbs.

### 13606 foot-/hand-operated hydraulic pump

Cat. no.	Description	Pkg. qty.
13606	Combination hand- or foot-operated hydraulic pump	1
13604	Hand-operated hydraulic pump	1



- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case
- 13620 hand switch and 13619 hydraulic hose, both sold separately, required for operation

### Specifications

- Motor: ½ hp, 115 V, 50–60 Hz, 10 A
- Pumping capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 6" x 8" x 16"
- Weight: 25 lbs.

### 13600 foot-/hand-operated hydraulic pump

Cat. no.	Description	Pkg. qty.
13600	Electric hydraulic pump – hand or foot switch and non-metallic hose (sold separately) required for operation	1
<b>You may also need...</b>		
13620	Hand switch – 10 ft.	1
13589A	Foot switch – 10 ft.	1
13619	10-ft. Non-metallic hose	1
13618	20-ft. Non-metallic hose	1
13600S	"Sled" type stand for 13600 pump	1

## Color-Keyed hydraulic pumps

### 13610A electric hydraulic pump with Shure Stake® control



- Shure Stake control mechanism requires 9,800 psi pump pressure before recycling to help prevent under-crimping
- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case

#### Specifications

- Motor rating: ½ hp, 115 V, 50–60 Hz, 12.5 A
- Pumping capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 8½" x 10½" x 16"
- Weight: 35 lbs.

#### 13610A electric hydraulic pump with Shure Stake® control

Cat. no.	Description	Pkg. qty.
13610A	Electric hydraulic pump with Shure Stake control – Hand or foot switch and non-metallic hose (sold separately) required for operation	1
<b>You may also need...</b>		
13611	Hand switch – 10 ft.	1
13612	Foot switch – 10 ft.	1
13619	10-ft. Non-metallic hose	1
13618	20-ft. Non-metallic hose	1
13797	Inline gauge	1

## Color-Keyed pumps

13810 heavy-duty electric hydraulic pump with Shure Stake® control mechanism



- Designed for to provide perfect crimps every time in heavy-duty OEM applications
- Heavy-duty OEM two-stage pump with high flow rate
- Shure Stake control mechanism requires 9,800-psi pump pressure before recycling to help prevent under-crimping
- Requires hand or foot control (sold separately)

### Specifications

- Motor rating: 1½ hp, 115 V, 60 Hz, 23 A
- Pumping capacity:
  - 235 cu. in./min. at 200 psi
  - 61 cu. in./min. at 8,000 psi
- Reservoir volume: 462 cu. in./2 gal.
- Dimensions (L x W x H): 10¾" x 15" x 20¾"
- Weight: 60 lbs.

13810 heavy-duty electric hydraulic pump with Shure Stake control mechanism

Cat. no.	Description	Pkg. qty.
13810	Heavy-duty electric hydraulic pump with Shure Stake control – hand or foot switch and non-metallic hose (sold separately) required for operation	1
<b>You may also need...</b>		
13611	Hand switch – 10 ft.	1
13612	Foot switch – 10 ft.	1
13619	10-Ft. Non-metallic hose	1
13618	20-Ft. Non-metallic hose	1

**Color-Keyed cable strippers and cutters**

368-CK cable stripper, 364RF/366RF cable cutters with fiberglass handles and CSR750 cable cutter



**368-CK cable stripper**

Cat. no.	Description	Pkg. qty.
368-CK	Cable stripper for #1 AWG to 1000 kcmil	1



**364RF/366RF cable cutters with fiberglass handles**

Cat. no.	Cable Size	Pkg. qty.
364RF	Cutter for up to 500 kcmil copper and aluminum	1
366RF	Cutter for up to 1000 kcmil copper and aluminum	1

For copper and aluminum cable only. Not for steel.  
Replacement blades are available through tool services.



- Special advance stroke mechanism requires less handle force
- Cuts copper or aluminum cables up to 750 kcmil
- Short handles (only 10" long) enable use in tight spaces

**CSR750 cable cutter**

Cat. no.	Description	Pkg. qty.
CSR750	Cutter for up to 750 kcmil copper or aluminum	1



**BCS8-40 cable stripper**

Cat. no.	Description	Pkg. qty.
BCS8-40	Cable stripper for #8 AWG to 4/0 AWG battery cable with replacement blade provided in the handle	1

## Color-Keyed other tools

21649 cable bender and CTR-1 C-tap removal tool



—  
21649 cable bender

Cat. no.	Description	Pkg. qty.
21649	Bender for cable up to 750 kcmil	1



—  
CTR-1 C-tap removal tool

Cat. no.	Description	Pkg. qty.
CTR-1	C-tap removal tool	1

## Color-Keyed mechanical compression tools

### Blackburn OD mechanical compression tools



**Integral self-gauging system in tool head helps ensure proper adjustment before each crimp.**

- OD58 tool includes 5/8" fixed die in nose and can also accept other standard insert dies, such as O, D, 840, etc.
- ODF and ODB tools feature fixed O and D dies for versatility
- ODB tools also accept other standard MD6 insert dies
- Optional fiberglass handles help provide better balance, resulting in easier handling and positioning
- Optional lever action (indicated by L72 suffix) has been optimized and tested to require minimum force to crimp

#### Blackburn OD mechanical compression tools

Cat. no.	Description	Handle length (in.)	Weight (lb.)
OD58	Fixed 5/8" die, straight wooden handles	21	6.5
OD581	Fixed 5/8" die, fiberglass handles	21	6.0
OD583	Fixed 5/8" die, curved wooden handles	21	6.5
ODF	Fixed o and d dies, straight wooden handles	21	6.5
ODF1	Fixed o and d dies, fiberglass handles	21	6.0
ODF3	Fixed o and d dies, curved wooden handles	21	6.5
ODB	Fixed o and d dies, straight wooden handles	21	6.5
ODB1	Fixed o and d dies, fiberglass handles	21	6.0
ODB3	Fixed o and d dies, curved wooden handles	21	6.5
OD58L72	Fixed 5/8" die, hotstick handles 1.5" X 72"	72	10.5
ODBL72	Fixed o and d dies, hotstick handles 1.5" X 72"	72	10.5
ODH1	Insulating head covers	-	0.40



BCT840, BCT840S



TBM5V

- Adjustable die crimping tool for Blackburn® cast and tubular battery connectors featuring the Color-Keyed® system
- Available with Shure Stake® mechanism to help ensure a complete crimp every time (BCT840S)
- Crimps casting and tubular battery connectors ranging from #4 AWG to 4/0 AWG
- Heavy-duty crimping tool including die for #8 AWG to 4/0 AWG battery connectors, lugs and splices
- The single die is an integral part of the tool; no dies to lose or misplace
- Available with Shure Stake mechanism to help ensure a complete crimp every time (TBM5SV)

#### Battery connector crimp tools

Cat. no.	Description	Pkg. qty.
BCT840	Dieless crimp tool for cast and tubular battery connectors	1
BCT840S	Dieless crimp tool with Shure Stake mechanism for cast and tubular battery connectors	1
TBM5V	Ratchet crimp tool with die for #8 AWG to 4/0 AWG battery connectors	1



**Color-Keyed dies**

Die sets and dies for standard lugs and splices

TBM12PCR-LI, TBM14CR-LI				TBM15CR-LI						
HEX-FLEX die cat. no.†	HEX-FLEX die code no.	Die cat. no.‡	Die code no.	Full die cat. no.	Full die, die code no.	HEX-FLEX die cat. no.†‡	HEX-FLEX die code no.	HEX-FLEX full die cat. no.†	HEX-FLEX full die code no.	
15520XSS	21X	15520SS	21	15520F	21	15520XSS	21X	-	-	
15522XSS	24X	15522SS	24	15522F	24	15522XSS	24X	-	-	
15527XSS	29X	15527SS	29	15527F	29	15527XSS	29X	-	-	
15528XSS	33X	15528SS	33	15528F	33	15528XSS	33X	-	-	
15513XSS	37X	15513SS	37	15513F	37	15513XSS	37X	-	-	
15508XSS	42X	15508SS	42	15508F	42	15508XSS	42X	-	-	
15526XSS	45X	15526SS	45	15526F	45	15526XSS	45X	-	-	
15530XSS	50X	15530SS	50	15530F	50	15530XSS	50X	-	-	
15511XSS	54X	15511SS	54	15511F	54	15511XSS	54X	-	-	
15510XSS	62X	15510SS	62	15510F	62	15510XSS	62X	15662X	62X	
-	-	15526SS	45	-	-	-	-	-	-	
-	-	15530SS	50	-	-	-	-	-	-	
-	-	15511SS	54	-	-	-	-	-	-	
-	-	15532SS	60	15532F	60	-	-	-	-	
15534XSS	66X	15534SS	66	15534F	66	15534XSS	66X	15666X	66X	
15514XSS	71X	15514SS	71	15514F	71	15514XSS	71X	15671X	71X	
15512XSS	76X	15512SS	76	15512F	76	15512XSS	76X	15676X	76X	
15517XSS	80X	15517SS	80H	15606	80H	15517XSS	80X	15606X	80X	
15506XSS	87X	15506SS	87H	15506F	87H	15506XSS	87X	15687X	87X	
15536XSS	94X	15536SS	94H	15611	94H	15536XSS	94X	15611X	94X	
-	-	15505SS	99H	15505F	99H	-	-	15605X	99X	
-	-	15515SS	106H	15515F	106H	-	-	15615X	106X	
-	-	-	-	15608	107H	-	-	15608X	107X	
-	-	-	-	15609	112H	-	-	-	-	
-	-	15504SS	115H	15504F	115H	-	-	15604X	115X	
-	-	-	-	15603	125H	-	-	-	-	
-	-	-	-	15602	140H	-	-	-	-	
-	-	-	-	15601	150H	-	-	-	-	

## Color-Keyed dies

Dies for standard and large C-taps and dies for aluminum H-taps

### Dies for standard C-taps

Connector	Color code	TBM45S die no.	TBM5/5S die no.	TBM6/6S die no.	TBM8/8S die no.	TBM6H/ 6-ton Li-ion tools die no.
54705	Red	Red nest	13454	13475/13477	13461	6TON21SS
54710	Blue	Blue nest	13454	13475/13477	13461	6TON24SS
54715	Gray	Grey nest	13454	13472/13476	13461	6TON29SS
54720	Brown	Brown nest	13454	13474/13477	13461	6TON33SS
54725	Green	Green nest	13455	13474/13477	13462	6TON37SS
54730	Pink	—	13455	13475/13477	13462	6TON42SS
54735	Black	—	13455	13474/13477	13462	6TON45SS
54740	Orange	—	13455	13474/13477	13462	6TON50SS
54745	Purple	—	13456	13475/13477	13463	6TON54SS
54750	Yellow	—	13456	13473/13478	13463	6TON62SS

### Dies for large C-taps

Connector	Color code	13642M/13400 die no.	TBM12 die no.	13100A/1B12B/ TBM14M/14-ton Li-ion tool die no.	TBM15I/ 15-ton Li-ion tool die no.
54755	Blue	11744	TBM12D-4	15512SS	15512SS*
54760	Brown	11746-TB	TBM12D-3	15506SS	15506SS*
54765	Pink	11748	TBM12D-2	15505SS	15505SS*
54770	Black	11749	TBM12D-2	15515SS	15515SS*
54775	Yellow	11753	TBM12D-1	15504SS	15504SS*
54780	White	—	—	—	15603
54785	N/A	—	—	—	15603
54790	N/A	—	—	—	15603

\* 15500 Series dies need adapter 15500-TB on all TBM15 series tools.

### Dies for aluminum H-taps

Connector	Color code	TBM5/5S die no.	TBM6/6S die no.	TBM8/8S die no.	TBM12 die no.	TBM6H/ 6-ton Li-ion tools die no.	13100A/ 1B12B/ TBM14M die no.	TBM15I/ 15-ton Li-ion tool die no.
63105	Orange	13455	13474/13477	13462	TBM12D-4	6TON50SS	15530SS	15530SS*
63110	Green	—	13470	—	TBM12D-H	OJB	15501A	15501A*
63118	Green	—	13470	—	TBM12D-H	OJB	15501A	15501A*
63125	Green	—	13470	—	TBM12D-H	OJB	15501A	15501A*
63140	Blue	—	13471	—	TBM12D-H	DBL	15502	15502*
63148	Blue	—	13471	—	TBM12D-H	DBL	15502	15502*
63160	Red	—	—	—	—	—	—	15612
63169	Black	—	—	—	—	—	—	15620
63170	Black	—	—	—	—	—	—	15620
63180	Black	—	—	—	—	—	—	15620

\* 15500 Series dies need adapter 15500-TB on all TBM15 series tools.

## Color-Keyed dies

Dies for copper H-taps, high-voltage connectors and figure 6 and 8 ground connectors

### Dies for copper H-taps

Connector	Color code	TBM6H/6-ton Li-ion tools die no.	13100A/JB12B/ TBM14M/14-ton Li-ion tool die no.	TBM15I/15-ton Li-ion tool die no.
CHT814-10	Green	6TON37R	15CA37RCH	15CA37RCH*
CHT214-9	Brown	6TON71R	15CA71RCH	15CA71RCH*
CHT250214-8	Purple	—	15CA80RCH	15CA80RCH*
CHT25014-7	Purple	—	15CA80RCH	15CA80RCH*
CHT2502-6	Purple	—	15CA80RCH	15CA80RCH*
CHT50010-5	Brown	—	—	15612CH
CHT50040-4	Brown	—	—	15612CH
CHT750350-2	Yellow	—	—	15620CH
CHT75040-11	Yellow	—	—	15620CH
CHT750350-1F	—	—	—	15620CHF

\* 15500 Series dies need adapter 15500-TB on all TBM15 series tools.

### Dies for high-voltage connectors

Die code no.	Adapter type**	TBM15I, TBM14M, 13100A	
		Non-adapter type	
29R	15CA29R	—	—
33R	15CA33R	—	—
37R	15CA37R	—	—
42R	15CA42R	—	—
45R	15CA45R	—	—
49R	15CA49R	—	—
54R	15CA54R	—	—
60R	15CA60R	—	—
66R	15CA66R	—	—
71R	15CA71R	—	—
76R	15CA76R	—	—
87R	15CA87R	—	—
94R	15CA94R†	—	—
106R	15CA106R†	—	—
125R	—	—	15C125R*

\*To be used with TBM15I only.

\*\*Use 15500-TB adapter with TBM15I tool.

†Not UL listed in TBM14M/13100A tool.

### Dies for figure 6 and figure 8 ground connectors

Connector	Cable element A (AWG or kcmil)	To cable element B (AWG or kcmil)	To ground rod element B	To rebar element B	Die selection	
					Element A	Element B
54855L	#6 Sol. – #2 Str.	#6 Sol. – #2 Str.	—	—	15501A	15501A
54865L	#1 Str. – 250	#6 Sol. – #2 Str.	½" – ⅝" Rod	⅜" – ½" #3 – #4 Rebar	15G86R	15501A
54875L	#2 Str. – 250	#2 Str. – 250	½" – ⅝" Rod	⅜" – ½" #3 – #4 Rebar	15G86R	15G86R
54885L	250 – 500	#6 Sol. – #2 Str.	⅝" – ¾" Rod	⅝" – ¾" #3 – #4 Rebar	15G126R	15501A
54895L	250 – 500	#2 Str. – 250	⅝" – ¾" Rod	⅝" – ¾" #4 – #5 Rebar	15G126R	15G86R
54900L	250 – 500	#2 Str. – 250	⅝" – ¾" Rod	⅝" – ¾" #4 – #5 Rebar	15G121R	15G121R

## Sta-Kon wire stripping/cutting tools

Sta-Kon® ERG1-WS wire stripping/cutting tool

—  
01 ERG1-WS

—  
02 "V" blade cassette



—  
01

—  
02

—  
Sta-Kon® ERG1-WS wire stripping/cutting tool

**Integral wire cutter lets user cut and strip with the same tool!**

- Interchangeable cassettes enable the user to strip a wide range of insulations without having to change tools
- Tool automatically strips wire to preset length

Cat. no.	Description	Pkg. qty.
ERG1-WS	Ergonomic wire stripping tool	1
VBC-1	Replacement "V" blade cassette	1

ERG1-WS Wire stripping/cutting tool is shipped with one straight blade cassette (SBC-1). "V" blade cassettes sold separately.

## Sta-Kon wire termination tools

### Recommended tools



The Shure Stake® mechanism on mechanical ratchet tools and power tools helps prevent the dies from releasing the terminal until the proper compression has been completed. With this method, an operator achieves a reliable crimp every time. ABB tooling techniques correctly match tools, wire size and terminal to produce optimum mechanical and electrical performance.

01 Plier type if installations are fewer than 20 per day – WT112M



01

02 Ratchet type if installations are more than 20 per day – ERG4001



02






03 Power type if installations are more than 200 per day – 12050



03

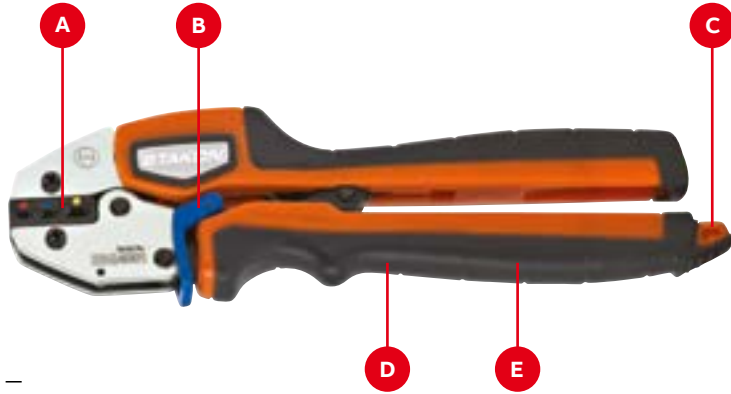
### Plier-type tools

Used for installation of various Sta-Kon® terminal series.

		Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT110M		WT110M	A, B, C non-insulated terminal and splices and A, B non-insulated terminals with insulation grip	1
		WT111M	A, B, C, PT non-insulated terminal and splices; includes cutters	1
WT112M		WT112M	A, B, C non-insulated and RA, RB, RC insulated nylon and vinyl terminal and splices; includes cutters	1
		WT161M	A, B, C, PT non-insulated terminal and splices; includes plier grip and cutters	1
WT2000		WT2000	A, B, C, AB, PT, RA, RB, RC insulated and non-insulated terminal and splices; includes wire cutters, bolt cutters and wire stripper	1

## Sta-Kon wire termination tools

### Comfort Crimp™ compression tools



- **A** Color-coded die nests (left and right side) provided for proper crimping of insulated terminals
- **B** Shure Stake mechanism helps ensure a proper crimp every time
- **C** Crimp-Assist foot provides stability when work surface leverage is needed to crimp larger connectors
- **D** Ergonomically advanced, soft, over-molded handle grips reduce strain and enhance user comfort
- **E** Among the lowest handle force of any tool in its class – 25% less than the previous generation of Comfort Crimp tools

#### Features






- Perfect for OEM, MRO and field use
- UL listed for use with Sta-Kon® connectors
- Shure Stake® mechanism helps ensure a complete crimp cycle before release for a proper crimp every time
- Color-coded die nests for easier matching with Sta-Kon® insulated terminals
- Creates integrity dots for quick verification of proper crimp
- Advanced manufacturing methods for improved durability and tool life
- Lanyard hole in handle for tethering to workstation
- Calibration service available through ABB Tool Services

Sta-Kon® Comfort Crimp Compression Tools were already among the industry leaders in manual crimp tools. Now, ABB engineers have made a great line of tools even better with the newly redesigned Sta-Kon® Comfort Crimp Compression Tools. We kept all the performance features that made the tools industry leaders such as the Shure Stake mechanism and interchangeable dies with color-coded die nests, and focused on creating the best possible user experience in terms of comfort and reduction of strain.

Ergonomic handles position the user’s hands correctly to minimize the risk of strain, and soft, over-molded grips cushion fingers and palm for user comfort. A new Crimp Assist™ foot stabilizes the tool when the user needs to place it on a work surface for leverage to crimp larger connectors. Best of all, the redesigned Comfort Crimp tools require 25% less handle force to complete the crimp cycle than the previous generation.

Requiring the lowest handle force of any tool in its class, the new Comfort Crimp family provides maximum comfort to installers, without sacrificing the durability or performance associated with ABB tools.

#### Comfort Crimp compression tools

		Cat. no.	For use with Sta-Kon series	Pkg. qty.
ERG4002	ERG4007	ERG4001	RA, RB, RC nylon and vinyl terminals, splices and disconnects	1
		ERG4002	A, B, C non-insulated terminals, splices, disconnects	1
		ERG4004	A, B and C flag terminals	1
		ERG4005	B, C, D, E non-insulated terminals, splices, (D and E tubular only)	1
ERG4004	ERG4008	ERG4006	RA, RB 0.110 disconnects and RZ Terminals	1
		ERG4007	RD and RE insulated terminals (tubular only)	1
		ERG4008	Non-insulated terminals #8–1/0 AWG (tubular only)	1
ERG4005				
				

Note: Contact tool services for gauging.

## Sta-Kon wire termination tools

### Plier-type tools

Designed for correct compression every time – The Shure Stake® mechanism principle prevents opening of the handles until full staking action is completed. Installs self-insulated and non-insulated Sta-Kon® terminal series in the #26-#10 AWG wire range.



WT1377 Ratchet hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT1377	NW ring terminals	1



WT2130A Ratchet hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT2130A	RC, RBC and RD insulated terminals, RC6, RP7 wire joints	1



ERG4006 Hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
ERG4006	RZ terminals/splices RA, RB 0.110 insulated disconnects	1



WT3185 Ratchet hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT3185	For #8 AWG to 250 kcmil non-insulated Sta-Kon Terminals joints	1

Note: For gauging information, contact Tool Services.



ERG4255 Ratchet hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
ERG4255	RA, RB, RC heat-shrinkable nylon-insulated terminals, butt splices, and disconnects	1



WT129 Flag terminal type hand tool

Cat. no.	For use with Sta-Kon series	Pkg. qty.
WT129	D, E, F and G non-insulated flag terminals Sta-Kon terminal joints	1

## Sta-Kon wire termination tools

WT115A Toggle-type hand tool and TBM6S toggle-type hand tools



### WT115A Toggle-type hand tool

Cat. no.	For use with Sta-Kon® series	Pkg. qty.
WT115A	D, E, F and G non-insulated terminals	1



### TBM6S Toggle-type hand tools

Cat. no.	For use with Sta-Kon series	Pkg. qty.
TBM6S	D through M, RD through RM with Shure Stake®	1

Dies not included.

Note: This tool can also be used to crimp Blackburn® Lugs and Splices.

See the Color-Keyed® compression connectors catalog.

## Sta-Kon wire termination tools

### Shure Stake® auto-feed tool



#### Safe, fast, high-volume crimping machine!

- Shure Stake mechanism
- Fully guarded foot pedal
- Clear plastic safety guard over die area
- Dies color coded to terminals
- #26–#10 AWG wire range
- Installs insulated and non-insulated terminals and disconnects

#### Shure Stake® auto-feed tool

Cat. no.	Description	Pkg. qty.
12050	Compact, pneumatically operated unit for crimping tape-mounted Sta-Kon terminals; equipped with a Shure Stake mechanism, which helps ensure a full compression each time	1

Space requirement: 30" W x 20" H x 20" D

Weight: 55 lbs.

Air pressure: 90–125 psi input air supply

#### Installing dies for 12050

Die cat. no.	Sta-Kon® terminal type	AWG wire size	Pkg. qty.
12051	RA – Nylon	22–18	1
12054*	RA – Vinyl	22–18	1
12061	RA disconnect	22–18	1
12052	RB – Nylon	16–14	1
12055*	RB – Vinyl	16–14	1
12062	RB disconnect	16–14	1
12056	RC – Nylon and vinyl insulated	12–10	1
12057	A – Non-insulated	22–18	1
12058	B – Non-insulated	16–14	1
12059	C – Non-insulated	12–10	1
12060	C Disconnect, non-insulated	12–10	1

\* Can also be used on nylon.

## Sta-Kon wire termination tools

### BAT22-6NV2

01 The STA-KON BAT22-6NV2. Charge ahead.



01



Keep on crimping with the Sta-Kon® BAT22-6NV2 electromechanical crimping tool. It comes with an extra battery, a charger and a handy carrying case. All so you can carry the day.

The go-to kit for panel builders, system integrators, electrical contractors, OEMs and MROs, the BAT22-6NV2 delivers outstanding performance in a wide range of industries from data centers to utilities to rail.

#### It's the complete package:

- Exclusive UL listing\*
- Extra battery, charger and carrying case included
- Powerful lithium-ion batteries with charge level indicator
- Single-lever motorized operation for easier manual preclamping, automatic crimping and auto-retract functions
- Extremely light and super fast
- Motor stall protection in case of incomplete operation
- LED task illumination

\*When used with UL listed die sets.

#### BAT22-6NV2



Cat. no.	Product description
BAT22-6NV2 <sup>†</sup>	Electromechanical crimping tool
RAML1	Battery 10.8 V/1.5 Ah, Li-on (16,2 Wh)
LGML1110	Charger for 10.8 V Li-on batteries, 230 V
Cat. no. — die sets	Product description
DIE2001	Sta-Kon insulated 22–10 AWG terminals
DIE2002	Non-insulated 22–10 AWG terminals
DIE2500	Spec-Kon insulated 22–10 AWG terminals
DIE2007	Insulated 8–6 AWG tubular terminals
DIE1806*	Dragon Tooth™ 22F, L, R-6 series
DIE1804*	Dragon Tooth 22L004
DIE1802*	Dragon Tooth 22L002
DIE1801*	Dragon Tooth 22Fm L R-1 Series
DIE2005*	Sta-Kon non-insulated terminals, disconnects and splices 16–6 AWG (8–6 AWG tubular-style terminals only)
DIE2009*	Insulated pressure splicing connectors

<sup>†</sup>Includes 2 batteries, 1 charger and case.

\*Not UL or CSA listed.

## Sta-Kon wire termination tools

### PAIR22-6 heavy-duty portable air crimp tool



#### Portable heavy-duty air tool.

- 1.25 tons output force at 100 psi
- Crimps #22–#6 AWG terminals
- Installs Sta-Kon® terminals as well as ferrules and Dragon Tooth™ connectors
- Interchangeable dies
- Open yoke helps enable easier access to insert and remove terminals for crimping

### PAIR22-6 heavy-duty portable air crimp tool

Cat. no.	Description	Pkg. qty.
PAIR22-6	Open yoke, hand actuated	1
<b>Crimp dies*</b>		
DIE2001	Sta-Kon insulated 22–10 AWG terminals	1
DIE2002	Non-insulated 22–10 AWG terminals	1
DIE2500	Spec-Kon insulated 22–10 AWG terminals	1
DIE2007	Insulated 8–6 AWG tubular terminals	1
DIE1806*	Dragon Tooth™ 22F, L, R-6 series	1
DIE1804*	Dragon Tooth 22L004	1
DIE1802*	Dragon Tooth 22L002	1
DIE1801*	Dragon Tooth 22Fm L R-1 Series	1
DIE2005*	Sta-Kon non-insulated terminals, disconnects and splices 16–6 AWG (8–6 AWG tubular-style terminals only)	1
DIE2009*	Insulated pressure splicing connectors	1

\* Dies sold separately.

Note: The dies for the BAIR22-6, PAIR22-6 and BAT22-6 are interchangeable.

Note: Battery-powered tools BPI42300CR, BPLT6BSCR and BPLT62BSCR can also be used to crimp non-insulated Sta-Kon terminals.

See the Color-Keyed® compression connectors catalog.

## Sta-Kon wire termination tools

### BAIR22-6 bench-mounted air tool



#### Crimps #22–#6 AWG terminals!

- 1.8 tons output force at 100 psi
- Bench-mounted heavy-duty air tool
- Short cycle time
- Shure Stake<sup>®</sup> mechanism

- Foot actuated
- Accepts ABB standard hand tool dies
- Installs Sta-Kon<sup>®</sup> and Spec-Kon<sup>®</sup> terminals as well as ferrules and Dragon Tooth<sup>™</sup> connectors

#### BAIR22-6 bench-mounted air tool

Cat. no.	Description	Pkg. qty.
BAIR22-6	Heavy-duty, high-speed production tool installs a wide range of Sta-Kon terminals, from #26–#6 gauge; uses the DIE2000 series dies for both non-insulated and insulated terminals; supplied complete with foot pedal, air hose/air lubricator	1
<b>Crimp dies*</b>		
DIE2001	Sta-Kon insulated 22–10 AWG terminals	1
DIE2002	Non-insulated 22–10 AWG terminals	1
DIE2500	Spec-Kon insulated 22–10 AWG terminals	1
DIE2007	Insulated 8–6 AWG tubular terminals	1
DIE1806*	Dragon Tooth <sup>™</sup> 22F, L, R-6 series	1
DIE1804*	Dragon Tooth 22L004	1
DIE1802*	Dragon Tooth 22L002	1
DIE1801*	Dragon Tooth 22Fm L R-1 Series	1
DIE2005*	Sta-Kon non-insulated terminals, disconnects and splices 16–6 AWG (8–6 AWG tubular-style terminals only)	1
DIE2009*	Insulated pressure splicing connectors	1

\* Dies sold separately.

Note: The dies for the BAIR22-6, PAIR22-6 and BAT22-6 are interchangeable.

Note: Battery-powered tools BPI42300CR, BPLT6BSCR and BPLT62BSCR can also be used to crimp non-insulated Sta-Kon terminals.

See the Color-Keyed<sup>®</sup> compression connectors catalog.

**Sta-Kon wire termination tools**

Air-operated bench-mounted tool



**Crimps #8 AWG–250 kcmil!**

**Convenience and economy**

The tool accepts a full range of interchangeable dies, the same as used in the TBM6 or TBM6S tools. To install the dies, simply pull the spring-loaded pin and remove the indenter die. Then, flex the retaining spring and remove the die nest.

**Shure Stake mechanism means quality connections**

The Shure Stake mechanism senses inlet air pressure, and if insufficient, is designed to prevent the tool from cycling. Thus helping you avoid “undercrimping.” An 85–90-psi air pressure source is required.

**Safety features increase productivity, reduce downtime**

Safety features include a guard over the die area, an air shutdown switch activated by a slight push with the finger and a foot pedal that’s enclosed to prevent accidental tool operation. In addition, the tool may be bench-mounted for stability and control. For convenience when crimping large size terminals on heavy wire, the head assembly may overhang the workbench.

**Air-operated bench-mounted tool**

Cat. no.	Description	Pkg. qty.
25000	This compact heavy-duty air tool installs nylon insulated Sta-Kon® terminals on wire sizes from #8 AWG to 250 kcmil; non-insulated styles are also installed just as quickly and dependably; heavy-duty air tool installs non-insulated and insulated Sta-Kon terminals from #8 AWG to 250 kcmil	1

Note: This tool uses the same dies as the TBM6 and TBM6S hand tools on page 58.

## Sta-Kon wire termination tools

12-ton hydraulic crimp heads

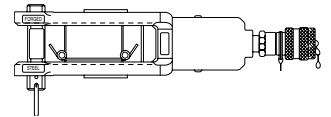


**Installs insulated and non-insulated Sta-Kon® terminals!**

### 12-ton hydraulic head

Cat. no.	Description	Pkg. qty.
13400	12-ton crimping tool supplied with adapter TBM12D-AR is used for installing both insulated and non-insulated Sta-Kon terminals #8 AWG to 250 kcmil (dies ordered separately)	1

Diagram



**Military listed and 12 tons of crimping power!**

### 12-ton crimping tool (Military spec. MS25441-1)

Cat. no.	Description	Pkg. qty.
13642M	Hydraulic-operated 12-ton tool installs #8 AWG through 250 kcmil Sta-Kon terminals (dies ordered separately)	1

## Sta-Kon wire termination tools

### Dies

#### Hex dies for non-insulated Sta-Kon® terminals to fit 13642M and 13400

Die cat. no.				
For tubular term	For brazed seam	Sta-Kon size	Wire size (AWG)	Hex die code
11732	–	D	8	21
–	11733	D	8	24
11733	–	E	6	24
–	11734	E	6	29
11734	–	F	4	29
–	11735	F	4	33
11736	–	G	2–1	37
11737	–	H	1/0	42
11738	–	J	2/0	45
11739	–	K	3/0	50
11740	–	L	4/0	54
11771	–	M	250 kcmil	62

#### Installing dies for insulated Sta-Kon terminals to Fit 13642M (military listed)

Die cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
21707M	RD	8	1
21708M	RE	6	1
21709M	RF	4	1
21710M	RG	2–1	1
21711M	RH	1/0	1
21712M	RJ	2/0	1
21713M	RK	3/0	1
21714M	RL	4/0	1
21715M	RM	250 kcmil	1

#### Hex dies for non-insulated Sta-Kon terminals to fit 13642M (military listed)

Die cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
11781M	D	8	1
11782M	E	6AN	1
11783M	F	4AN	1
11784M	G	2AN	1
11785M	H	1AN	1
11786M	J	1/0AN	1
11787M	K	2/0AN	1
11788M	L	3/0AN	1
11789M	M	4/0AN	1

## Sta-Kon wire termination tools

### Dies

Indent style dies for Sta-Kon® brazed seam non-insulated terminals to fit 13642M and 13400

Nest cat. no.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
13643	13650	D	8	1
13644		E	6	1
13645		F	4	1

Indent style dies for Sta-Kon tubular non-insulated terminals to fit 13642M and 13400

Nest cat. no.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
13654	13650	G	2-1	1
13655		H	1/0	1
13656		J	2/0	1
13657		K	3/0	1
13658		L	4/0	1
13659		M	250 kcmil	1

Indent style dies for flag type Sta-Kon terminals – Use with 13642M and 13400

Nest cat. no.	Indent. cat. no.	Sta-Kon size	Wire size (AWG)	Pkg. qty.
21733	21731	D	8	1
21734		E	6	1
21735		F	4	1
21736	21732	G	2	1
21737		H	1	1
21738		J	1/0	1
21739**		K	2/0	1
21740**		L	3/0	1
21741**		M	4/0	1

\*\* Cat. nos. 21739, 21740 and 21741 dies must be left in 13642 head with 21732 indenter when gauging.

## Sta-Kon hydraulic pumps

### 13810 electric hydraulic pump



- Designed to provide perfect crimps every time in heavy-duty OEM applications
- Heavy-duty OEM two-stage pump with high flow rate
- Shure Stake® control mechanism requires 9,800-psi pump pressure before recycling to help prevent under-crimping
- Requires hand or foot control (sold separately)

#### Specifications

- Motor rating: 1½ hp, 115 V, 60 Hz, 23 A
- Pumping capacity:  
235 cu. in./min. at 200 psi  
6 cu. in./min. at 8,000 psi
- Reservoir volume: 462 cu. in./2 gal.
- Dimensions (L x W x H): 10¾" x 15" x 20¾"
- Weight: 60 lbs.

#### 13810 Heavy-duty electric hydraulic pump with Shure Stake control

Cat. no.	Description	Pkg. qty.
13810	Heavy-duty electric hydraulic pump with Shure Stake control – Hand or foot switch and non-metallic hose (sold separately) required for operation	1

#### Accessories for pumps 13600, 13610A and 13810

Cat. no.	Description	Pkg. qty.
<b>You may also need...for 13600</b>		
13620	Hand switch	1
13589A	Foot switch	1
13619	10-ft. non-metallic hose	1
13618	20-ft. non-metallic hose	1
13600S	"Sled" type stand for 13600 pump	1
<b>You may also need...for 13610A and 13810</b>		
13611	Hand switch	1
13612	Foot switch	1
13619	10-ft. non-metallic hose	1
13618	20-ft. non-metallic hose	1

## Sta-Kon hydraulic pumps

### 13600 electric hydraulic pump



- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case
- 13620 hand switch and 13619 hydraulic hose, both sold separately, required for operation

#### Specifications

- Motor: ½ hp, 115 V 50–60 Hz, 10 A
- Pumping capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 6" x 8" x 16"
- Weight: 25 lbs.

### 13600 electric hydraulic pump

Cat. no.	Description	Pkg. qty.
13600	Electric hydraulic pump – Hand or foot switch and non-metallic hose (sold separately) required for operation	1

## Sta-Kon hydraulic pumps

### 13610A electric hydraulic pump with Shure Stake control



- Shure Stake control mechanism requires 9,800-psi pump pressure before recycling to help prevent under-crimping
- Designed for use with single-acting cylinders and tools rated for 10,000-psi operation
- Supplied with metal carrying case

#### Specifications

- Motor rating: ½ hp, 115 V, 50–60 Hz, 12.5 A
- Pumping capacity:
  - 170 cu. in./min. at 100 psi
  - 32 cu. in./min. at 1,000 psi
  - 25 cu. in./min. at 5,000 psi
  - 18 cu. in./min. at 10,000 psi
- Reservoir volume: 104 cu. in. (0.45 gal.)
- Basic pump dimension: 8½" x 10½" x 16"
- Weight: 35 lbs.

#### 13610A electric hydraulic pump with Shure Stake control

Cat. no.	Description	Pkg. qty.
13610A	Electric hydraulic pump with Shure Stake control – Hand or foot switch and non-metallic hose (sold separately) required for operation	1

## Sta-Kon wire termination technical information

### Product selection guide

#### Product selection guide

Type	Terminal series	Pliers					Ergonomic ratchet hand tools					
		WT110M	WT111M	WT112M	WT161M	WT2000	ERG4001	ERG4002	ERG4004	ERG4005	ERG4006	ERG4255
Nylon terminals	RZ	-	-	-	-	-	-	-	-	-	□	-
	RA, RAX	-	-	□	-	□	□	-	-	-	-	-
	RB	-	-	□	-	□	□	-	-	-	-	-
	RBC, RC	-	-	□	-	□	□	-	-	-	-	-
Nylon butt splices	RA	-	-	□	-	□	□	-	-	-	-	-
	RB	-	-	□	-	□	□	-	-	-	-	-
	RC	-	-	□	-	□	□	-	-	-	-	-
Nylon parallel splices	RAA	-	-	-	-	□	-	-	-	-	-	-
	RBB	-	-	-	-	□	-	-	-	-	-	-
	RCC	-	-	-	-	□	-	-	-	-	-	-
All nylon disconnects (except 0.110 size)	RA	-	-	□	-	□	□	-	-	-	-	-
	RB	-	-	□	-	□	□	-	-	-	-	-
	RC	-	-	□	-	□	□	-	-	-	-	-
Heat-shrinkable terminals, splices and disconnects	RAS	-	-	-	-	-	-	-	-	-	-	□
	RBS	-	-	-	-	-	-	-	-	-	-	□
	RCS	-	-	-	-	-	-	-	-	-	-	□
Vinyl terminals and splices	RA, RAA	-	-	□	-	□	□	-	-	-	-	-
	RB, RBB	-	-	□	-	□	□	-	-	-	-	-
	RC, RCC, RBC	-	-	□	-	□	□	-	-	-	-	-
Bare terminals and splices	A, AA	□	□	□	□	□	-	□	-	-	-	-
	B, BB	□	□	□	□	□	-	□	-	□	-	-
	C, CC	□	□	□	□	□	-	□	-	□	-	-
Wire joints	RB	-	-	□	-	□	□	-	-	-	-	-
	RC	-	-	□	-	□	-	-	-	-	-	-
	RP	-	-	□	-	□	-	-	-	-	-	-
	PT	-	□	-	□	-	-	-	-	-	-	-
Hi-temp terminals and splices	NW-rings	-	-	-	-	-	-	-	-	-	-	-
	NW-splices	-	-	-	-	-	-	-	-	-	-	-
Insulation grip	A	□	-	-	-	-	-	-	-	-	-	-
	B	□	-	-	-	-	-	-	-	-	-	-
0.110 disconnects	A, B	□	□	□	-	-	-	-	-	-	-	-
	RA, RB	-	-	-	-	-	-	-	-	-	□	-
Flag terminals	AB	-	-	-	-	-	-	-	□	-	-	-
	C	-	-	-	-	-	-	-	□	-	-	-
Tefzel® terminals and splices	RAT, RAAT	-	-	□	-	□	-	-	-	-	-	-
	RB, RBBT	-	-	□	-	□	-	-	-	-	-	-
	RC, RCCT	-	-	□	-	□	-	-	-	-	-	-
Vinyl disconnects	RA	-	-	□	-	□	□	-	-	-	-	-
	RB	-	-	□	-	□	□	-	-	-	-	-
	RC	-	-	□	-	□	□	-	-	-	-	-
Bare disconnects	A	□	□	□	□	□	-	□	-	-	-	-
	B	□	□	□	□	□	-	□	-	□	-	-
	C	□	□	□	□	□	-	□	-	□	-	-

Tefzel is a registered trademark of DuPont.



## Sta-Kon wire termination technical information

Select the die numbers you need

Select the die numbers you need

Description	Series	Terminal Type	Hand tool with dies	25000 air tool TBM6 toggle hand tool TBM6S toggle hand tool die Cat. nos.		BPI42300CR, BPLT6BSCR and BPLT62BSCR crimp tools		13642M (MS25441-1) and 13400 hydraulic tool		
				Nest (stationary)	Indentor (movable)	Hex dies	Die code	Hex dies	Nest	Indentor
Non-insulated terminals and splices	D	Tubular	ERG4005	11803	11802	-	-	11781M*	13651	13650**
	D	Tubular	ERG4008	11803	11802	-	-	11781M*	13651	13650**
	D	Tubular	WT3185/WT115A	11803	11802	TBM6221	21	11732	13651	13650**
	D	Brazed	WT3185/WT115A	11803	11802	TBM6224	24	11733	13643	13650**
	E	Tubular	ERG4005	11803	11802	-	-	11782M	13652	13650**
	E	Tubular	ERG4008	11803	11802	-	-	11782M	13652	13650**
	E	Tubular	WT3185/WT115A	11803	11802	TBM6224	24	11733*	13652	13650**
	E	Brazed	WT3185/WT115A	11804	11802	TBM6229	29	11734	13644	13650**
	F	Tubular	ERG4008	11805	11802	-	-	11783	13653	13650**
	F	Tubular	WT3185/WT115A	11805	11802	TBM6229	29	11734*	13653	13650**
	F	Brazed	WT3185/WT115A	11806	11802	TBM6233	33	11735	13645	13650**
	G	Tubular	ERG4008	11806	11802	-	-	11784M*	13654	13650**
	G	Tubular	WT3185/WT115A	11806	11802	TBM6237	37	11736	13654	13650**
	H	Tubular	ERG4008	11807	11802	-	-	11785M*	13655	13650**
	H	Tubular	WT3185	11807	11802	-	-	11785M*	13655	13650**
	H	Tubular	WT3185	11807	11802	TBM6242	42	11737	13655	13650**
	J	Tubular	WT3185	11808	11802	-	-	11786M*	13656	13650**
	J	Tubular	WT3185	11808	11802	TBM6245	45	11738	13656	13650**
	K	Tubular	-	11809	11802	-	-	11787M*	13657	13650**
	K	Tubular	-	11809	11802	TBM6250	50	11739	13657	13650**
L	Tubular	-	11810	11802	-	50	11788M*	13658	13650**	
L	Tubular	-	11810	11802	TBM6254	54	11740	13658	13650**	
M	Tubular	-	11811	11802	-	54	11789M*	13659	13650**	
M	Tubular	-	11811	11802	TBM6262	62	11771	13659	13650**	
Tefzel*† nylon insulated terminals and splices	RD	Tubular	ERG4007	-----	11821 (Set)	-	-	-----	21707M* (Set)	
	RD	Brazed & tubular	-	-----	11822 (Set)	-	-	-----	21708M* (Set)	
	RE	Tubular	ERG4007	-----	11822 (Set)	-	-	-----	21708M* (Set)	
	RE	Brazed	-	-----	11823 (Set)	-	-	-----	21709M* (Set)	
	RF	Tubular	-	-----	11823 (Set)	-	-	-----	21709M* (Set)	
	RF	Brazed	-	-----	11824 (Set)	-	-	-----	21710M* (Set)	
	RG	Tubular	-	-----	11824 (Set)	-	-	-----	21710M* (Set)	
	RH	Tubular	-	-----	11825 (Set)	-	-	-----	21711M* (Set)	
	RJ	Tubular	-	-----	11826 (Set)	-	-	-----	21712M* (Set)	
	RK	Tubular	-	-----	11827 (Set)	-	-	-----	21713M* (Set)	
	RL	Tubular	-	-----	11828 (Set)	-	-	-----	21714M* (Set)	
RM	Tubular	-	-----	11829 (Set)	-	-	-----	21715M* (Set)		

\* Indicates military listed die.

\*\* To order the military version, suffix the indentor catalog number with an "M" (13650M). Nest catalog number does not change.

†Tefzel is a registered trademark of DuPont.

## Sta-Kon wire termination technical information

Select the die numbers you need

Select the die numbers you need

Description	Series	Terminal Type	Hand tool with dies	25000 air tool TBM6 toggle hand tool TBM6S toggle hand tool die Cat. nos.		BPI42300CR, BPLT6BSCR and BPLT62BSCR crimp tools		13642M (MS25441-1) and 13400 hydraulic tool			
				Nest (stationary)	Indentor (movable)	Hex dies	Die code	Hex dies	Nest	Indentor	
Non-insulated flag terminals	D	-	WT129	-	-	-	-	-	-	21733	21731
	E	-	WT129	-	-	-	-	-	-	21734	21731
	F	-	WT129	-	-	-	-	-	-	21735	21731
	G	-	WT129	-	-	-	-	-	-	21736	21732
	H	-	-	-	-	-	-	-	-	21737	21732
	J	-	-	-	-	-	-	-	-	21738	21732
	K	-	-	-	-	-	-	-	-	21739	21732
	L	-	-	-	-	-	-	-	-	21740	21732
	M	-	-	-	-	-	-	-	-	21741	21732

\* Indicates military listed die.

\*\* To order the military version, suffix the indentor catalog number with an "M" (13650M). Nest catalog number does not change.

<sup>1</sup>Tefzel is a registered trademark of DuPont.

### Stud size and clearance hole chart

Stud size	2	4	6	8	10	¼	⅜	½	⅝	¾	⅞	1
Min. hole dia. (in.)	0.92	0.116	0.143	0.169	0.196	0.262	0.323	0.388	0.453	0.516	0.650	0.775
Min. hole dia. (mm)	2.337	2.946	3.632	4.292	4.978	6.655	8.204	9.855	11.506	13.106	16.510	19.685

## Dragon Tooth termination tools

Comfort Crimp™ manual compression tools



- Ergonomic handles help position the user's hands correctly to minimize risk of strain
- Soft, over-molded grips cushion fingers and palm for user comfort
- Shure Stake® mechanism helps ensure a complete crimp cycle before release
- Crimp Assist® foot stabilizes tool when user needs to place it on a work surface for leverage

### Comfort Crimp™ manual compression tools

Cat. no.	Max. gauging	Connector	Pkg. qty.
ERG4801	0.068	22F, L, R-1 series	1
ERG4802	0.075	22L002	1
ERG4804	0.033	22L004	1
ERG4806	0.097	22F, L, R-6 series	1
ERG4811	0.103	214420	1

## Dragon Tooth termination tools

### BAT22-6NV2 battery-powered tool

01 The STA-KON BAT22-6NV2. Charge ahead.



01



Keep on crimping with the BAT22-6NV2 electromechanical crimping tool. It comes with an extra battery, a charger and a handy carrying case. All so you can carry the day.

The go-to kit for panel builders, system integrators, electrical contractors, OEMs and MROs, the BAT22-6NV2 delivers outstanding performance in a wide range of industries from data centers to utilities to rail.

**It's the complete package:**

- Exclusive UL listing\*
- Extra battery, charger and carrying case included
- Powerful lithium-ion batteries with charge level indicator
- Single-lever motorized operation for easier manual preclamping, automatic crimping and auto-retract functions
- Extremely light and super fast
- Motor stall protection in case of incomplete operation
- LED task illumination

\*When used with UL listed die sets.

**Sta-Kon BAT22-6NV2**



Cat. no.	Product description
BAT22-6NV2 <sup>†</sup>	Electromechanical crimping tool
RAML1	Battery 10.8 V/1.5 Ah, Li-on (16,2 Wh)
LGML1110	Charger for 10.8 V Li-on batteries, 230 V
Cat. no. — die sets	Product description
DIE1801	22 F, L, R-1 series
DIE1802	22L002
DIE1804	22L004
DIE1806	22 F,L,R-6 series
DIE1814	210214S

<sup>†</sup>Includes 2 batteries, 1 charger and case.

\*Not UL or CSA listed.

## Dragon Tooth termination tools

6-ton and 12-ton hydraulic heads



### Rugged and portable!

- Lightweight design – Weighs less than 7 lbs. including dies
- Includes steel carrying case
- Tool carrying case included
- Dies are ordered as a set (two pieces)

### Specifications

- Output force: 6 tons nominal
- Operating pressure: 10,000 psi nominal
- Tool weight: 6½ lbs. (Without dies)
- Tool dimensions: 13½" long, 3½" wide

### 6-ton hydraulic head

Cat. no.	Description
TBM6H	The TBM6H remote hydraulic crimping head is a lightweight but powerful compression tool. The TBM6H operates from any 10,000-psi hydraulic pump.

See die chart on page 135-136 for complete listing of dies and connectors used with TBM6H.



### Powerful and reliable!

- 12-ton hydraulic head
- 12 tons output (nominal)
- 10,000 psi max. hydraulic operating pressure
- Weighs 15 lbs.

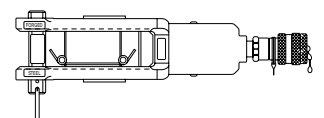
### Specifications

- Output: 12 tons (nominal)
- Hydraulic operating pressure: 10,000 psi (max.)
- Length (with coupling): 14½"
- Width: 3¼"
- Weight (without dies): 15 lbs.

### 12-ton hydraulic head

Cat. no.	Description	Pkg. Qty.
13400	12-ton crimping tool supplied with adapter TBM12D-AR is used for installing both insulated and non-insulated Sta-Kon® terminals #8 AWG to 250 kcmil (dies ordered separately)	1

### Diagram



See die chart on page 135-136 for complete listing of dies and connectors used with 13400.

## Dragon Tooth termination tools

### 14-ton and 15-ton hydraulic heads



**Lightweight design!**

- 14 tons output (nominal)
- 10,000-psi max. hydraulic operating pressure
- Weighs 10 lbs.

**Specifications**

- Output: 14 tons (nominal)
- Hydraulic operating pressure: 10,000 psi (max.)
- Length (with coupling): 11½"
- Width: 2½"
- Height: 4¾"
- Weight (without dies): 10 lbs.

**14-ton hydraulic head**

Cat. no.	Description	Pkg. qty.
13100A	Remote 14-ton hydraulic head (dies ordered separately)	1

See die chart on page 135-136 for complete listing of dies and connectors used with 13100A.



**Crimp larger connectors easily!**

- Longer, slimmer profile enables easier access into tight spaces
- Wider jaw opening eases crimping of larger connectors
- Head made of forged steel and insulated with rubber boot
- Steel carrying case is included

**Specifications**

- Output force: 15 tons nominal
- Operating pressure: 10,000 psi nominal
- Tool weight: 16½ lbs. (without dies)
- Installs: #8 AWG–1500 kcmil copper; #10 AWG–1000 kcmil aluminum

**15-ton hydraulic head**

Cat. no.	Description	Pkg. qty.
TBM15I	Insulated 15-ton hydraulic tool; carrying case included	1

See die chart on page 135-136 for complete listing of dies and connectors used with TBM15I.

## Dragon Tooth magnet wire termination system

An easy-to-use reference guide for tools and connectors

Connector	Manual	BAT 22-6 BAIR 22-6 PAIR 22-6	TBM6H	13100A	13400 13642M	TBM15I
	DIES					
204210MT	-	-	-	-	13682	-
204210S	-	-	-	13671B	13671A	13671B with 15500TB
204210SH	-	-	-	13673B	13673	13673B with 15500TB
204210-1	-	-	-	13671B	13671A	13671B with 15500TB
204210-1H	-	-	-	13673B	13673	13673B with 15500TB
204210-2	-	-	-	13671B	13671A	13671B with 15500TB
204210-3	-	-	-	13671B	13671A	13671B with 15500TB
204210-3H	-	-	-	13673B	13673	13673B with 15500TB
204210-5	-	-	-	13671B	13671A	13671B with 15500TB
204212	-	-	-	13671B	13671	13671B with 15500TB
204217	-	-	-	13671B	13671A	13671B with 15500TB
204MT14	-	-	-	-	-	-
204MT38	-	-	-	-	-	-
204T14	-	-	-	13689B	-	13689B with 15500TB
204T38	-	-	-	13689B	-	13689B with 15500TB
210214MT	-	-	-	13681B	13681	13681B with 15500TB
210214S	-	-	-	13670B	13670A	13670B with 15500TB
210214-2	-	-	-	13670B	13670A	13670B with 15500TB
210214-3	-	-	-	13670B	13670A	13670B with 15500TB
210216, 210216F	-	-	-	13670B	13670A	13670B with 15500TB
210217, 210217F	-	-	-	13670B	13670A	13670B with 15500TB
210219, 210219F	-	-	-	13670B	13670A	13670B with 15500TB
210MT14	-	-	-	-	-	-
210MT38	-	-	-	-	-	-
214420	ERG811/WT811	DIE 811	-	-	-	-
220001	-	-	-	-	-	-
220002-TB	-	-	-	-	-	-
220004	-	-	-	-	-	-
220005	-	-	-	-	-	-
220006	-	-	-	-	-	-
220015	-	-	-	13713B	-	13713
220016	-	-	-	13713B	-	13713
220017	-	-	-	13713B	-	13713
220018	-	-	-	13713B	-	13713
220019	-	-	-	13713B	-	13713
220020	-	-	-	13713B	-	13713
220021	-	-	-	13713B	-	13713
220022	-	-	-	13713B	-	13713
220023	-	-	-	13713B	-	13713
220024	-	-	-	13713B	-	13713
220025	-	-	-	13713B	-	13713
220026	-	-	-	13713B	-	13713
22F061	ERG4801	DIE1801	-	-	-	-
22F066	ERG4806	DIE1806	-	-	-	-
22F081	ERG4801	DIE1801	-	-	-	-
22F086	ERG4806	DIE1806	-	-	-	-

Note: Dies that fit 13100A also work in TBM15I with use of adapter 15500TB.

(Continued on next page)

## Dragon Tooth magnet wire termination system

An easy-to-use reference guide for tools and connectors (continued)

Connector	Manual	BAT 22-6 BAIR 22-6 PAIR 22-6	TBM6H	13100A	13400 13642M	TBM15I
	Dies					
22F101	ERG4801	DIE1801	-	-	-	-
22F106	ERG4806	DIE1806	-	-	-	-
22L001	ERG4801	DIE1801	-	-	-	-
22L002	ERG4802	DIE1802	-	-	-	-
22L004	ERG4804	DIE1804	-	-	-	-
22L006	ERG4806	DIE1806	-	-	-	-
22L008	-	-	6TON-MW-08	13683B	13683	13683B with 15500TB
22L009	-	-	6TON-MW-09	13684B	13684	13684B with 15500TB
22L009H	-	-	-	13686B	13686	13686B with 15500TB
22L010	-	-	-	13690B	-	-
22LF01	ERG4801	DIE1801	-	-	-	-
22LF06	ERG4806	DIE1806	-	-	-	-
22LM01	ERG4801	DIE1801	-	-	-	-
22LM06	ERG4806	DIE1806	-	-	-	-
22R061	ERG4801	DIE1801	-	-	-	-
22R106	ERG4806	DIE1806	-	-	-	-
22R146	ERG4806	DIE1806	-	-	-	-
314118S	-	-	-	13685B	13685	13685B with 15500TB
314123	-	-	-	13685B	13685	13685B with 15500TB
314125	-	-	-	13685B	13685	13685B with 15500TB

Note: Dies that fit 13100A also work in TBM15I with use of adapter 15500TB.

01 Catalog no. 13670A die, used with 13400 and 13642M tools



01

02 Catalog no. 13671B die, used with 13100A tool



02

03 Catalog no. 6TON-MW-09 die, used with TBM6H tool



03

## Dragon Tooth hydraulic pumps

### Electric hydraulic pumps

—  
01 13810  
—  
02 13610A

- Up to 10,000-psi output pressure
- Durable construction
- Hand or foot actuated



—  
01

#### Electric hydraulic pumps

Cat. no.	Description
13810	Heavy-duty electric hydraulic pump with Shure Stake® control – Hand or foot switch and non-metallic hose (sold separately) required for operation

#### You may also need...

13611	Hand switch
13612	Foot switch
13613	High pressure, steel reinforced hydraulic hose; 6 ft.
13614	High pressure, steel reinforced hydraulic hose; 10 ft.
13619	High pressure, plastic hydraulic hose; 10 ft.
13600	Electric hydraulic pump – Hand or foot switch and non-metallic hose (sold separately) required for operation

#### You may also need...

13620	Hand switch
13589A	Foot switch
13619	10-ft. non-metallic hose
13618	20-ft. non-metallic hose

A remote control switch is required. Order Cat. No. 13620 for hand operation or Cat. No. 13589A for foot operation.  
All pumps are supplied with a metal carrying case.

13610A	Shure Stake electric hydraulic pump has same features as 13600, but includes the Shure Stake control mechanism; hand or foot switch and non-metallic hose (sold separately) required for operation
--------	--

#### You may also need...

13611	Hand switch
13612	Foot switch
13797	In-line hydraulic pressure inspection gauge with male and female pioneer-type coupler.

A remote control switch is required to operate this unit. Use either a 13611 (hand) or 13612 (foot) switch.



—  
02

## Shield-Kon shield termination system

### WT440 and WT540 ratchet hand tools



- Parallel-action hand tools
- MIL specified
- Frame, with the option of interchangeable steel dies
- A versatile tool, one frame with a selection of dies covers the whole range of shield diameters in the hexagonal range
- ShureStake® mechanism: once pressing has started, the tool can be re-opened only after completion of the crimping cycle
- Packaging: wood box containing one frame (dies to be ordered separately; see specifications for die nos.)

#### Specifications

##### WT440

- Length: 8"
- Weight: 1.0 lbs.
- Dies: Series 4400

##### WT540

- Length: 10.4"
- Weight: 1.19 lbs.
- Dies: Series 5450

#### WT440 and WT540 ratchet hand tools

Cat. no.	Description	Std pkg.
WT440	Ratchet hand tool	1
WT540	Ratchet hand tool	1

## Shield-Kon shield termination system

Shield-Kon ergonomic hand tool for one-piece connectors and Ergonomic hand tool kit



### Comfort and versatility!

- Robust construction: metallic frame, partially covered with plastic
- Use with metal dies for low-, medium- or high-volume applications
- All dies are easily interchangeable (to be ordered separately)
- Parallel action crimp
- ShureStake® mechanism: once pressing has commenced, the tool can be re-opened only after successful completion of the crimping cycle

### Specifications

- Dimensions of tool: 8.27"L x 6.10"W x 0.98"H
- Weight of tool: 1.04 lbs.

### Shield-Kon ergonomic hand tool for one-piece connectors

Cat. no.	Description	Std. pkg.
ERG740	Ergonomic hand tool	1



### Everything you need in a handy kit!

Same as ERG740, but supplied in a plastic case with one tool, one benchmark stand for easier use in mass production, one RSK-LEHRE gauge for instant selection of the die and four metal dies: D-101A, D-201C, D-301J, D-401M.

### Specifications

- Dimensions of plastic case: 9.65"L x 8.27"W x 2.17"H
- Weight of plastic case and contents: 2.65 lbs.

### Ergonomic hand tool kit

Cat. no.	Description	Std. pkg.
ERG740-01	Ergonomic hand tool kit	1

## Shield-Kon shield termination system

### Metal dies for ERG740



- For mass production and medium to high volumes
- Made of hardened steel – to prevent wear
- Only for the ERG740 hand tool
- The product ref. is engraved on the upper part and on the lower part of the die set
- Marked with a dot having the same color as the corresponding connector
- Weight – Approximately 2.6 oz.

### Metal dies for ERG740

Die cat. no.	Die color	Shield diameter (in.)	For connector	Std. pkg.
D-101A	Red	0.050–0.070	RSK 101 Red	1
D-101B		0.071–0.089	RSK 101 Red	1
D-201C	Blue	0.090–0.100	RSK 202 Blue	1
D-201D		0.101–0.118	RSK 202 Blue	1
D-201E		0.119–0.131	RSK 202 Blue	1
D-201F		0.132–0.143	RSK 202 Blue	1
D-301G	Yellow	0.144–0.162	RSK 301 Yellow	1
D-301H		0.163–0.185	RSK 301 Yellow	1
D-301J		0.186–0.201	RSK 301 Yellow	1
D-401K	Green	0.202–0.230	RSK 401 Green	1
D-401L		0.231–0.250	RSK 401 Green	1
D-401M		0.251–0.275	RSK 401 Green	1
D-401N		0.276–0.300	RSK 401 Green	1

Order multiple is std. pkg.

## Shield-Kon shield termination system

### Hydraulic head installing tool

01 All the two-piece Shield-Kon in the circular range need to be crimped with the 13640 hydraulic head equipped with the appropriate die.



01

- 3.5-ton nominal pressure (output)
- For two-piece Shield-Kon™ terminals in the circular range
- Coupling for quick assembly
- Requires a 9,800-psi (approx. 690 bar) operating service pressure
- Quick interchangeable steel dies (to be ordered separately)
- Interlace die with 360° compression – Designed to provide uniform pressure around circumference of connector

### Hydraulic head installing tool

Cat. no.	Description	Std. pkg.
13640	Installing head (order dies separately)	1
13606	Hand-foot pump	1
13600	Electric hydraulic pump	1
13620	Hand switch	1
13589A	Foot switch	1
13619	10-ft. non-metallic hydraulic hose	1
13760	Air-operated hydraulic pump	1

Order multiple is std. pkg.

## Ty-Rap cable tie tooling

Tools for plastic cable ties: ERG50, ERG120 and ERG50P

These ergonomic tools from ABB provide a superior level of reliability and performance, combined with enhanced ergonomics and comfort of use. With their adjustable tension and automatic cutting, they are ideally suited for efficiently installing all kinds of plastic cable ties in industrial (Original Equipment

Manufacturers, Maintenance and Repair Organizations, etc) and construction applications. They are available in hand tool version (ERG50 and ERG120) and in pneumatic version (ERG50P) for higher volumes of installation without muscle strain.



ERG50P tool in use



## Ty-Rap cable tie tooling

ERG50, ERG120 and ERG50P



### ERG50

Cat. no.	Features	Tensioning	Cutting	For cable ties
ERG50	Ergonomic hand tool with superior level of reliability and performance	Adjustable	Automatic	2.4 mm–4.8 mm (0.04"–0.19")
ERG50B	Replacement blade for ERG50 hand tool			



### ERG120

Cat. no.	Features	Tensioning	Cutting	For cable ties
ERG120	Ergonomic hand tool with superior level of reliability and performance	Adjustable	Automatic	4.8 mm–7.6 mm (0.19"–0.30")
ERG120B	Replacement blade for ERG120 hand tool			



### ERG50P

Cat. no.	Features	Tensioning	Cutting	For cable ties
ERG50P	Ergonomic pneumatic tool with superior level of reliability and performance	Adjustable	Automatic	2.4 mm–4.8 mm (0.04"–0.19")

## Ty-Rap cable tie tooling

### WT1-TB and WT2-TB



#### Characteristics

- Twist-and-cut tensioning tool in plastic, intended for maintenance and small batch use

#### Technical information

- Tool type: Low-cost hand tool
- Color: Orange
- For type of cable tie: Plastic ties
- For tie width: 2.4mm - 4.8mm (0.09" - 0.19")
- Features: Basic tensioning, twist cut
- Weight: 28.4g
- Dimensions [L x W x H]: 134 x 55 x 27mm (5.28" x 2.17" x 1.06")

#### WT1-TB

Cat. no.	Features	Tensioning	Cutting	For cable ties
WT1-TB	Basic tensioning tool, intended for maintenance and small batch use	Basic	Twist cut	2.4 mm–4.8 mm (0.04"–0.19")



#### Characteristics

- Twist-and-cut tensioning tool in plastic, intended for maintenance and small batch use

#### Technical information

- Tool type: Low-cost hand tool
- Color: Black
- For type of cable tie: Plastic ties
- For tie width: 4.8mm - 7.6mm (0.19" - 0.30")
- Features: Basic tensioning, twist cut
- Weight: 28.4g
- Dimensions [L x W x H]: 134 x 55 x 27mm (5.28" x 2.17" x 1.06")

#### WT2-TB

Cat. no.	Features	Tensioning	Cutting	For cable ties
WT2-TB	Basic tensioning tool, intended for maintenance and small batch use	Basic	Twist cut	4.8 mm–7.6 mm (0.19"–0.19")

## Ty-Rap cable tie tooling

Tooling for Ty-Met™ stainless steel ties and Ty-Rap® heavy-duty installation tool — Mil Spec approved



### Characteristics

- Heavy duty metallic hand tool
- Tensioning tool with side cutters

### Technical information

- Tool type: Hand tool
- For type of cable tie: Ladder type stainless steel ties
- For tie width: Up to 7.9mm (0.311")
- Features: Tensioning tool with side cutters

### Tooling for Ty-Met™ stainless steel ties

Cat. no.	Features	Tensioning	Cutting	For cable ties
DAS250	Heavy duty metallic hand tool	Basic	Manual	Ladder type stainless steel cable ties up to 7.88mm (0.31") tie width



- Easier tension adjustment
- Installs Ty-Rap® cable ties
- Rugged metallic construction
- Pistol-grip installation tool
- Tensions and cut cable tie tail off flush

### Ty-Rap® heavy-duty installation tool — Mil Spec approved

Cat. no.	Description	Tie body width in./mm	Std. pkg. qty.
WT199	Installation tool, 18–50 lbs. (80–222.4N)	.09–.18/2.39–4.67	1
WT197	Installation tool, 50–120 lbs. (222.4–533.8N)	.18–.30/4.67–7.65	1

\* Mil Spec Approved (WT199 — MS90387-1, WT197 — MS90387-2)

## Ty-Rap cable tie tooling

WT1-TB and WT2-TB



### Characteristics

- Designed for tensioning and cutting heavy-duty cable ties
- Robust metal body with plastic hand-grips

### Technical information

- Tool type: Hand tool for Deltec® ties, Col-Ty™ installation ties and other wide cable ties
- For type of cable tie: Plastic ties
- For tie width: 7.6mm - 12.7mm (0.30" - 0.5")
- Features: Tensioning, manual cutting (by twisting the tool)
- Weight: 225g
- Dimensions [L x W x H]: 178 x 112 x 20mm (7.01" x 4.41" x 0.79")

WT3D

Cat. no.	Features	Tensioning	Cutting	For cable ties
WT3D	Robust metal body with plastic hand-grips, designed for tensioning and cutting heavy-duty cable ties	Basic	Twist cut	7.6 mm–12.7 mm (0.30"–0.5")



### Characteristics

- A robust metallic hand tool with rubber grips designed for tensioning ladder type and strap type stainless steel ties
- After tensioning, the stainless steel ties can easily be cut with side-cutters

### Technical information

- Tool type: Hand tool
- For type of cable tie: Ladder type and strap type stainless steel ties
- For tie width: Up to 12mm (0.47")
- Features: Tensioning, no cutting
- Weight: 225g
- Dimensions [L x W x H]: 178 x 112 x 20mm (7.01" x 4.41" x 0.79")

WT3S

Cat. no.	Features	Tensioning	Cutting	For cable ties
WT3S	A robust metallic hand tool with rubber grips	Basic	No cutting	Ladder type and strap type

## Ty-Rap cable tie tooling

WTAE200 cable tie tensioner and installation tools for free-end stainless steel ties



Quality tool for tensioning.

### WTAE200 cable tie tensioner

Cat. no.	Description	Weight lbs/kg	Std. pkg. qty.
WTAE200	Cable tie tensioner, for tensioning re-usable ties and multi-lok ties	.6/.27	1

01 WTC001  
A drop-forged tool with tensioning capability to do all ¼" to ¾" free-end clamp sizes.

02 WTC075  
Designed to install ¼" to ¾" wide free-end clamps. The lightweight, ratchet-action tool tension cuts and secures the buckle tab.

03 WTJ020  
Lightweight pocket-sized tool to install ¼" and ¾" wide free-end clamps. This tool also applies tension and has a built-in cutter.



01



02



03

Apply tension, cut and secure with confidence.

### Installation tools for free-end stainless steel ties

Cat. no.	Description	Weight lbs/kg	Std. pkg. qty.
WTJ020	Compact free-end stainless steel cable tie installation tool for ¼" to ¾" sizes	1.1/.50	1
WTC075	Pistol-grip free-end stainless steel cable tie installation tool for ¼" to ¾" sizes	2.6/1.18	1
WTC001	Free-end stainless steel cable tie installation tool for all sizes	4.4/2.00	1

## Ty-Duct cutting tools

CC120B cutting tool and SX-25TB duct/cover cutting tool



### High-carbon, Teflon® coated steel blade

Use our cutting tool for all your spiral wrap, plastic pipe, raceway, PVC conduit and tubing cutting needs up to 1¼" I.D.

- Contoured handle resists tube crushing
- Produces no "sawdust" — no need to debur
- Lightweight, low-profile and no exposed blade when stored
- Can be used to cut Carlon® electrical non-metallic tubing (ENT)

### CC120B cutting tool

Cat. no.	Description
CC120B	Cutting tool

Teflon® is a trademark of the DuPont Corporation.



### Lightweight and durable.

- All-steel construction
- Sharp cutting surface
- Replaceable blades available
- Improved performance

### SX-25TB duct/cover cutting tool

Cat. no.	Description
SX-25TB	Handheld duct cutter — long

## Ty-Duct cutting and rivet installation tools

DK-65TB finger cutting tool, DC-125TB bench-mount cutting tool and 08205 rivet installation tool



### Cut duct fingers easily.

- Rugged die-cast construction with insulated handles for a comfortable, non-slip grip
- Removes duct fingers in tight places
- Works with all slotted wiring duct
- Also cuts round and solid wall duct
- Spring loaded

### DK-65TB finger cutting tool

Cat. no.	Description
DK-65TB	Duct finger cutter



### For fast, high volume duct cutting.

- Engineered for use with Ty-Duct™ plastic wiring ducts and covers
- All-steel construction lasts for years
- Adjustable gauge sets the desired length of duct
- Easy-to-read measuring indicator
- Adjustable stop for easier repeated cutting

### DC-125TB bench-mount cutting tool

Cat. no.	Description
DC-125TB	Bench-mount duct cutter



### Mount ducts quickly.

- Use for setting duct rivets
- Pressure on the tool head secures the rivet in place

### 08205 rivet installation tool

Cat. no.	Description
08205	08200 Series rivet installation tool

For any inquiries, please contact your ABB sales representative.

## Shrink-Kon heat-shrink installation tools

Electric heat gun and portable heat-shrink torch



- UL listed
- 600 °F to 950 °F heat range
- 120 V AC 60 Hz

### Electric heat gun



Cat. no.	Description	Pkg. qty.
WT1400	Dual-temperature heat gun. 600 °F/950 °F, 1,300 W, 120 V AC, 60 Hz	1

Order multiple is std. pkg.



### Separate fuel- and air-flow controls enable precise adjustment of flame and temperature up to 2,500 °F

- 2,500 °F output capacity satisfies virtually any heat-shrink, brazing or soldering requirement
- Dual fuel- and air-flow controls enable separate adjustment of temperature and flame precision
- Brass and steel construction provides durability

### Specifications

- Dimensions (without base): 3.9"L x 1.4"W x 5.4"H
- Weight (when filled): 9.88 oz.
- Fuel tank capacity: 2.03 fl. oz.
- Operating time (per full fuel tank): up to 220 minutes
- Operates on standard butane refills



### Portable heat-shrink torch

Cat. no.	Description	Std. pkg. qty.
WT-PTORCH	Portable heat-shrink torch	1



# Tool Loaner Agreement (the "Agreement")

ABB Tool Service

8735 Hamilton Road  
 Southaven, MS 38671  
 Fax: 662-393-3929  
 Phone: 800-284-8665  
 toolservice@us.abb.com

Date

**Loaned to** ("Borrower")  
 Name:  
 Address:  
 City:  
 State:  
 Zip:  
 Phone:  
 Fax:  
 E-mail  
 Start date

**Ship to**  
 Name:  
 Address:  
 City:  
 State:  
 Zip:  
 Phone:  
 Fax:  
 E-mail  
 Due date

Check if same as loaned to

**Use one of the following**

ABB salesperson	ABB distributor	Customer
Regional sample account no.	Account no.	Person responsible

ABB catalog no.	Description	Serial no.	Reason for loan	Purchase price
-----------------	-------------	------------	-----------------	----------------

- ABB agrees to loan to Borrower all machinery, tools, and equipment set forth above (the "Equipment") subject to the terms and conditions herein this Agreement.
- The Equipment shall be shipped to Borrower F.O.B. destination to the address set forth above via FedEx Ground (Supersaver) unless Borrower provides a FedEx account number with this form for faster delivery service.
- In no event shall ABB be liable under any circumstances for any loss arising from any delay in the transportation or delivery of the Equipment or its removal or the return hereof.
- The Equipment is the sole and exclusive property of ABB and no changes or alterations shall be made to the Equipment except by authorized ABB personnel or by Borrower upon prior written authorization of ABB. ABB shall have no responsibility or liability for any damage or injury resulting from any unauthorized modification to the Equipment.
- The loan period for the Equipment shall be for the specified period set forth above (the "Term"), and may only be extended or renewed by contacting ABB's Tool Service above.
- Either party may terminate this Agreement with or without cause, upon not less than fifteen (15) days' written notice to the address listed above.
- The Equipment shall be returned to ABB upon expiration or termination of this Agreement. Borrower agrees to return the Equipment freight prepaid to the ABB Tool Service address above. The return shipment shall be appropriately insured and risk of loss is on Customer, until delivery and acceptance of the Equipment by ABB. Additionally, ABB will have the right, during normal business hours, to enter the premises wherein the Equipment is located and remove same if ABB so chooses. If for any reason the Equipment is not returned to ABB upon the end of Term or termination of this Agreement, then Borrower agrees to pay the purchase price for the Equipment as set forth above within 30 days of such termination.

---

## Tool Loaner Agreement (the “Agreement”)

### ABB Tool Service

8735 Hamilton Road  
Southaven, MS 38671  
Fax: 662-393-3929  
Phone: 800-284-8665  
toolservice@us.abb.com

8. ABB reserves the right at any time during the Term of this Agreement and for any reason, to substitute a comparable piece(s) of equipment for the Equipment listed above by delivering said comparable equipment to the location of the Equipment and Borrower hereby agrees to any such substitution and agrees to fully cooperate with ABB in effecting such substitution.
9. Borrower agrees, upon the request of ABB, to execute such security agreements and documents and to perform reasonable acts, as ABB may from time to time request, to establish and maintain ABB's rights, title and interests in the Equipment.
10. Borrower loans the Equipment with the understanding that the Borrower will perform all necessary tests to determine the suitability for the Borrower's intended application. Subject to the limitations set forth below, ABB warrants that the Equipment will be free from defects in material or workmanship during the Term (“the Limited Warranties”).
11. If ABB determines the Equipment is defective, Borrower's sole and exclusive remedies for any breach of the Limited Warranties are limited to ABB's choice of repair or replacement of the Equipment, or non-conforming parts thereof. Unless otherwise agreed to in writing by ABB, Borrower shall be responsible for: (i) any labor required to gain access to the Equipment so that ABB can assess the available remedies; (ii) providing ABB with working access to the Equipment, including the removal, disassembly, replacement or reinstallation of any equipment, materials or structures to the extent necessary to permit ABB to perform its warranty obligations; (iii) transportation costs to and from Borrower's factory or repair facility for the Equipment; and (iv) damage to Equipment components or parts resulting in whole or in part from improper maintenance or operation.
12. The Limited Warranties are void if Borrower has breached any provision of this Agreement. The Limited Warranties exclude and do not apply to any Equipment that has been subjected to misuse, neglect, accident, fire, physical damage, improper installation, unauthorized modification, or use in violation of ABB's instructions or any applicable laws, codes or ordinances.
13. EXCEPT AS OTHERWISE SET FORTH HEREIN, ABB MAKES NO OTHER WARRANTIES OR REPRESENTATIONS IN REGARD TO THE EQUIPMENT, EITHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
14. Borrower agrees to use the Equipment solely for itself and no other third party. Borrower shall use the Equipment in accordance with ABB's operating instruction manual. Borrower will be responsible for costs incurred by ABB to replace or repair any Equipment which is lost or damaged due to Borrower's negligent or willful act or omission.
15. Borrower agrees to pay all fees, legal assessments and taxes, including ad valorem, sales, use, loan or public charges which may be levied upon said Equipment while in the possession of the Borrower.
16. At all times during the Term of this Agreement, Borrower shall comply with all governmental laws, codes, regulations, rules and orders as may be applicable in regard to Borrower's use of the Equipment.
17. Borrower agrees to pay ABB for any and all losses, theft and damages to the Equipment that may occur during the Term of this Agreement, ordinary wear and tear expected, up until such Equipment has been returned into the possession of ABB and accepted by it. For the purpose of determining the valuation of said Equipment to determine the loss, damages or injury thereto, it is agreed by the Parties hereto that the value as stated above as the purchase price is a true and correct value.
18. Borrower shall, at all times and at its own expense, keep all Equipment insured for such amounts and against such hazards as ABB may reasonably require until the Equipment is returned to ABB. All such policies shall be with companies, and on terms, reasonably satisfactory to ABB. The insurance shall include coverage for damage to or loss of the Equipment, and liability for personal injuries, death or property damage. ABB shall be an additional insured with a loss payable clause in favor of ABB, as its interest may appear, irrespective of any breach of warranty or other act or omission of Borrower.
19. Should it become necessary that ABB employ an attorney to enforce any of the provisions of this Agreement, or to recover any sum of money due hereunder, ABB shall be entitled to recover from Borrower such reasonable attorney's fees and expenses as shall be incurred in connection therewith.
20. This Agreement completely states the rights of ABB and Borrower with respect to the Equipment and supersedes all prior agreements with respect thereto. No modification of this Agreement shall be binding unless such modification is in writing and signed by both Parties.

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## Tool Loaner Agreement (the “Agreement”)

ABB Tool Service

8735 Hamilton Road  
Southaven, MS 38671  
Fax: 662-393-3929  
Phone: 800-284-8665  
toolservice@us.abb.com

21. This Agreement may be executed and delivered in multiple counterpart copies, including by way of facsimile, electronic or emailed signatures (PDF formats included), each of which shall be deemed an original and all of which together shall constitute one and the same instrument.
22. IN NO EVENT WILL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF THE EQUIPMENT, COST OF PURCHASED OR REPLACEMENT POWER, DOWNTIME COSTS, AND DELAYS.
23. ABB'S TOTAL LIABILITY TO BORROWER FOR ALL CLAIMS, WHETHER BASED UPON CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY, STRICT LIABILITY OR OTHERWISE FOR ANY LOSSES, DAMAGES, COSTS OR EXPENSES OF ANY KIND WHATSOEVER ARISING OUT OF, RESULTING FROM OR RELATED TO THE PERFORMANCE OR BREACH OF THIS AGREEMENT SHALL NOT EXCEED THE PURCHASE PRICE FOR THE EQUIPMENT AS STATED ABOVE.
24. This Agreement, the relationship of the Parties under this Agreement and the transactions contemplated by this Agreement shall all be interpreted in accordance with and governed by the substantive laws of the State of New York, U.S.A. without reference to the conflicts of laws principles thereof or to the United Nations Convention on Contracts for the International Sale of Goods.  
  
This Tool Loaner Agreement is executed by the parties as of the Effective Date written above.

User signature and date

ABB authorization signature and date

## Tool Rental Agreement (the “Agreement”)

### ABB Tool Service

8735 Hamilton Road  
 Southaven, MS 38671  
 Fax: 662-393-3929  
 Phone: 800-284-8665  
 toolservice@us.abb.com

Date

**Loaned to Name:**  
 (“Customer”) **Address:**  
 City:  
 State:  
 Zip:  
 Phone:  
 Fax:  
 E-mail  
 Start date

**Ship to** **Name:**  
**Address:**  
 City:  
 State:  
 Zip:  
 Phone:  
 Fax:  
 E-mail  
 Due date

Check if same as rented to

#### Rental tool information

ABB catalog no.	Quantity	Die no.	Weekly rate	Monthly rate
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- ABB agrees to rent to Customer all machinery, tools, and equipment set forth above (the “Equipment”) at the rental rates stated herein below subject to the terms and conditions of this Agreement.
- The Equipment shall be shipped to Customer F.O.B. destination to the address set forth above via FedEx Ground (Supersaver) unless Customer provides a FedEx account number with this form for faster delivery service.
- In no event shall ABB be liable under any circumstances for any loss arising from any delay in the transportation or delivery of the Equipment or its removal or the return hereof.
- The payment terms are net cash, payable without offset, in United States Dollars, 30 days from date of invoice by ABB for the rental of the Equipment. Customer shall pay, in addition to the overdue payment, a late charge equal to the lesser of 1½% per month or any part thereof or the highest applicable rate allowed by law on all such overdue amounts.
- The Equipment is the sole and exclusive property of ABB and no changes or alterations shall be made to the Equipment except by authorized ABB personnel or by Customer upon prior written authorization of ABB. ABB shall have no responsibility or liability for any damage or injury resulting from any unauthorized modification to the Equipment.
- The rental period for the Equipment shall be for the specified period set forth above (the “Term”), and may only be extended or renewed by contacting ABB’s Tool Service above.
- Either party may terminate this Agreement with or without cause, upon not less than fifteen (15) days’ written notice to the address listed above.
- The Equipment shall be returned to ABB upon expiration or termination of this Agreement. Customer agrees to return the Equipment freight prepaid to the ABB Tool Service address above. The return shipment shall be appropriately insured and risk of loss is on Customer, until delivery and acceptance of the Equipment by ABB. Additionally, ABB will have the right, during normal business hours, to enter the premises wherein the Equipment is located and remove same if ABB so chooses. If for any reason the Equipment is not returned to ABB upon the end of Term or termination of this Agreement, then Customer agrees to pay the purchase price for the Equipment as set forth above within 30 days of such termination.
- ABB reserves the right at any time during the Term of this Agreement and for any reason, to substitute a comparable piece(s) of equipment for the Equipment listed above by delivering said comparable equipment to the location of the Equipment and Customer hereby agrees to any such substitution and agrees to fully cooperate with ABB in effecting such substitution.

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## Tool Rental Agreement (the “Agreement”)

### ABB Tool Service

8735 Hamilton Road  
Southaven, MS 38671  
Fax: 662-393-3929  
Phone: 800-284-8665  
toolservice@us.abb.com

10. Customer agrees, upon the request of ABB, to execute such security agreements and documents and to perform reasonable acts, as ABB may from time to time request, to establish and maintain ABB's rights, title and interests in the Equipment.
11. Customer rents the Equipment with the understanding that the Customer will perform all necessary tests to determine the suitability for the Customer's intended application. Subject to the limitations set forth below, ABB warrants that the Equipment will be free from defects in material or workmanship during the Term (“the Limited Warranties”).
12. If ABB determines the Equipment is defective, Customer's sole and exclusive remedies for any breach of the Limited Warranties are limited to ABB's choice of repair or replacement of the Equipment, or non-conforming parts thereof. Unless otherwise agreed to in writing by ABB, Customer shall be responsible for: (i) any labor required to gain access to the Equipment so that ABB can assess the available remedies; (ii) providing ABB with working access to the Equipment, including the removal, disassembly, replacement or reinstallation of any equipment, materials or structures to the extent necessary to permit ABB to perform its warranty obligations; (iii) transportation costs to and from Customer's factory or repair facility for the Equipment; and (iv) damage to Equipment components or parts resulting in whole or in part from improper maintenance or operation.
13. The Limited Warranties are void if Customer has breached any provision of this Agreement. The Limited Warranties exclude and do not apply to any Equipment that has been subjected to misuse, neglect, accident, fire, physical damage, improper installation, unauthorized modification, or use in violation of ABB's instructions or any applicable laws, codes or ordinances.
14. EXCEPT AS OTHERWISE SET FORTH HEREIN, ABB MAKES NO OTHER WARRANTIES OR REPRESENTATIONS IN REGARD TO THE EQUIPMENT, EITHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
15. Customer agrees to use the Equipment solely for itself and no other third party. Customer shall use the Equipment in accordance with ABB's operating instruction manual. Customer will be responsible for costs incurred by ABB to replace or repair any Equipment which is lost or damaged due to Customer's negligent or willful act or omission.
16. Customer agrees to pay all fees, legal assessments and taxes, including ad valorem, sales, use, loan or public charges which may be levied upon said Equipment while in the possession of the Customer.
17. At all times during the Term of this Agreement, Customer shall comply with all governmental laws, codes, regulations, rules and orders as may be applicable in regard to Customer's use of the Equipment.
18. Customer agrees to pay ABB for any and all losses, theft and damages to the Equipment that may occur during the Term of this Agreement, ordinary wear and tear expected, up until such Equipment has been returned into the possession of ABB and accepted by it. For the purpose of determining the valuation of said Equipment to determine the loss, damages or injury thereto, it is agreed by the Parties hereto that the value as stated above as the purchase price is a true and correct value.
19. Customer shall, at all times and at its own expense, keep all Equipment insured for such amounts and against such hazards as ABB may reasonably require until the Equipment is returned to ABB. All such policies shall be with companies, and on terms, reasonably satisfactory to ABB. The insurance shall include coverage for damage to or loss of the Equipment, and liability for personal injuries, death or property damage. ABB shall be an additional insured with a loss payable clause in favor of ABB, as its interest may appear, irrespective of any breach of warranty or other act or omission of Customer.
20. Should it become necessary that ABB employ an attorney to enforce any of the provisions of this Agreement, or to recover any sum of money due hereunder, ABB shall be entitled to recover from Customer such reasonable attorney's fees and expenses as shall be incurred in connection therewith.
21. This Agreement completely states the rights of ABB and Customer with respect to the Equipment and supersedes all prior agreements with respect thereto. No modification of this Agreement shall be binding unless such modification is in writing and signed by both Parties.
22. This Agreement may be executed and delivered in multiple counterpart copies, including by way of facsimile, electronic or emailed signatures (PDF formats included), each of which shall be deemed an original and all of which together shall constitute one and the same instrument..

## Tool Rental Agreement (the “Agreement”)

### ABB Tool Service

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23. IN NO EVENT WILL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF THE EQUIPMENT, COST OF PURCHASED OR REPLACEMENT POWER, DOWNTIME COSTS, AND DELAYS.
24. ABB'S TOTAL LIABILITY TO CUSTOMER FOR ALL CLAIMS, WHETHER BASED UPON CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY, STRICT LIABILITY OR OTHERWISE FOR ANY LOSSES, DAMAGES, COSTS OR EXPENSES OF ANY KIND WHATSOEVER ARISING OUT OF, RESULTING FROM OR RELATED TO THE PERFORMANCE OR BREACH OF THIS AGREEMENT SHALL NOT EXCEED THE PURCHASE PRICE FOR THE EQUIPMENT AS STATED ABOVE.
25. This Agreement, the relationship of the Parties under this Agreement and the transactions contemplated by this Agreement shall all be interpreted in accordance with and governed by the substantive laws of the State of New York, U.S.A. without reference to the conflicts of laws principles thereof or to the United Nations Convention on Contracts for the International Sale of Goods.

User signature and date

ABB authorization signature and date

<b>Tool rental program</b>	<b>Weekly rate</b>	<b>Monthly rate</b>
<b>Self-contained hydraulic tools</b>	<b>\$250</b>	<b>\$750</b>
TBM14M		
TBM8-750M-1		
<b>Remote hydraulic heads and pumps</b>	<b>\$250</b>	<b>\$750</b>
<b>Heads</b>		
TBM6H		
13100A		
TBM15I		
TBM8-750		
<b>Pumps</b>		
13600		
13810		
<b>Battery-operated tools</b>	<b>\$250</b>	<b>\$750</b>
TBM14CR-LI		
TBM15CR-LI		
TBM12PCR-LI		





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**ABB Installation Products Inc.**

Electrification Business  
860 Ridge Lake Blvd.  
Memphis, TN 38120

**[tnb.abb.com](http://tnb.abb.com)**

**[electrification.us.abb.com](http://electrification.us.abb.com)**