



SPEC SHEET

For 650 amp
T-Gun™ Semi-Automatic Air-Cooled
MIG Guns



AMPERAGE RATINGS

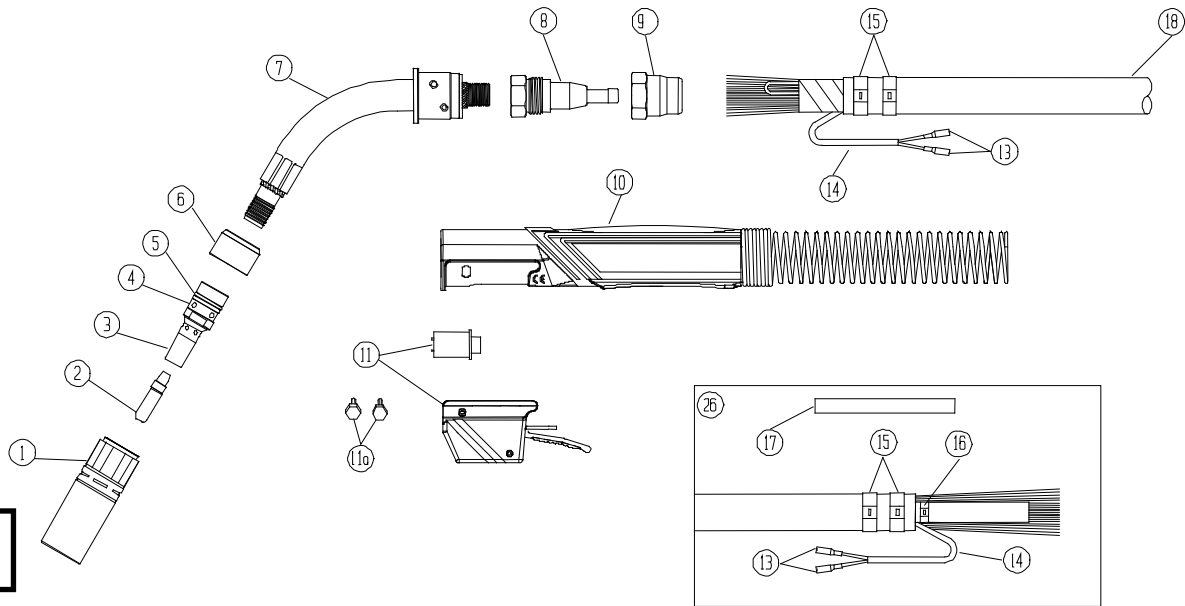
GUN MODEL	60% DUTY CYCLE - MIXED GASES OR 100% DUTY CYCLE - CO ₂
650 amp	650 amp

NOTE: Ratings are based on tests that comply with IEC 60974-4 standards.

STANDARD PARTS

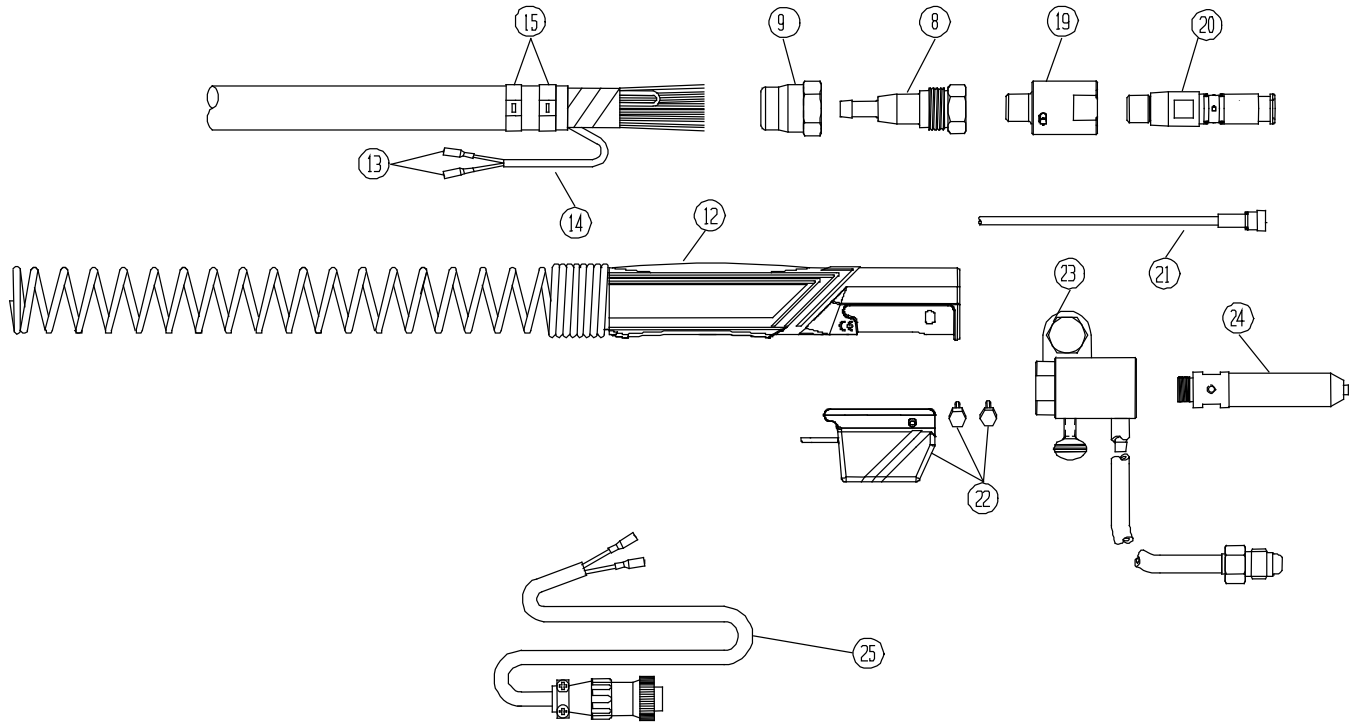
GUN MODEL	NECK	NOZZLE	RETAINING HEAD	NECK INSULATOR	CONTACT TIPS
650 amp	505-60	401-7-87	404-26	402-11	403-20-xx

EXPLODED VIEW AND PARTS LIST



Numbers in this column correspond to the exploded view images above.

PART #	DESCRIPTION
1	HEAVY DUTY NOZZLES
401-5-62	5/8" (16 mm) BORE - 1/4" (6 mm) TIP RECESS
401-5-75	3/4" (19 mm) BORE - 1/4" (6 mm) TIP RECESS
401-6-50	1/2" (13 mm) BORE - 1/8" (3 mm) TIP RECESS
401-6-62	5/8" (16 mm) BORE - 1/8" (3 mm) TIP RECESS
401-7-62	5/8" (16 mm) BORE - 1/4" (6 mm) TIP RECESS (BRASS)
401-7-87	7/8" (22 mm) BORE - 1/4" (6 mm) TIP RECESS (BRASS) STD
2	HEAVY DUTY TREGASKISS™ TOUGH LOCK™ CONTACT TIP - 5/16" (7.9 mm) O.D. STD
403-20-35	FOR .035" (0.9 mm) WIRE
403-20-45	FOR .045" WIRE
403-20-52	FOR .052" (1.3 mm) WIRE
403-20-116	FOR 1/16" (1.6 mm) WIRE
403-20-564	FOR 5/64" (2.0 mm) WIRE
403-20-332	FOR 3/32" (2.4 mm) WIRE
403-20-364	FOR 3/64" (1.2 mm) WIRE
3	TREGASKISS TOUGH LOCK RETAINING HEAD STD
4	454-1-2
	RETAINING RING ONLY
5	402-16
	O-RING ONLY
6	402-11
	NECK INSULATOR
7	NECKS
405-45	45 DEGREE - 3" RADIUS
505-45	45 DEGREE - 4" RADIUS
405-60	60 DEGREE - 3" RADIUS
505-60	60 DEGREE - 4" RADIUS
405-180	STRAIGHT
NOT SHOWN	506-1
	NECK HEAT GUARD
8	608-1
	CONNECTOR CONE
9	Non-sellable
	CONE NUT (INCLUDED IN 613-7 KIT)
10	610
	HANDLE - FRONT
11	411-1
	SWITCH ONLY
	411-2
	SWITCH HOUSING
11a	411-3M
	MOUNTING SCREW (METRIC M5)
12	616
	REAR HANDLE
13	NON-SELLABLE
	SWITCH LEAD CONNECTOR (INCLUDED IN 613-7 KIT)
14	NON-SELLABLE
	SHEATH (INCLUDED IN 613-7 KIT)



PART #	DESCRIPTION
15	NON-SELLABLE OUTER JACKET CLAMP (INCLUDED IN 613-7 KIT)
16	NON-SELLABLE SUPPORT TUBE CLAMP (INCLUDED IN 613-7 KIT)
17	NON-SELLABLE SUPPORT TUBE (INCLUDED IN 613-7 KIT)
18	UNICABLE ASSEMBLY
613-10	10' (3 m) SERVICE
613-12	12' (4 m) SERVICE
613-15	15' (5 m) SERVICE
613-20	20' (6 m) SERVICE
613-25	25' (7.5 m) SERVICE
414-1	O-RING
19	414-400 POWER PIN BLOCK
20	214 TWECO® #4
214-6-116	MILLER®
414-12-2	MILLER O-RING
214-2	LINCOLN®
214-4	L-TEC® - MT SERIES
214-12	TWECO® #5
214-13	PANASONIC®
21	TREGASKISS QUICK LOAD™ LINERS (SOLD SEPARATELY)
415-26	LINER RETAINER
415-35-6Q	FOR .035" - .045" (0.9 mm - 1.2 mm) WIRE - 6' (1.8 m)
415-35-10Q	FOR .035" - .045" (0.9 mm - 1.2 mm) WIRE - 10' (3 m)
415-35-15Q	FOR .035" - .045" (0.9 mm - 1.2 mm) WIRE - 15' (5 m)
415-35-25Q	FOR .035" - .045" (0.9 mm - 1.2 mm) WIRE - 25' (8 m)
415-116-6Q	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 6' (1.8 m)
415-116-10Q	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 10' (3 m)
415-116-15Q	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 15' (5 m)
415-116-25Q	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 25' (8 m)

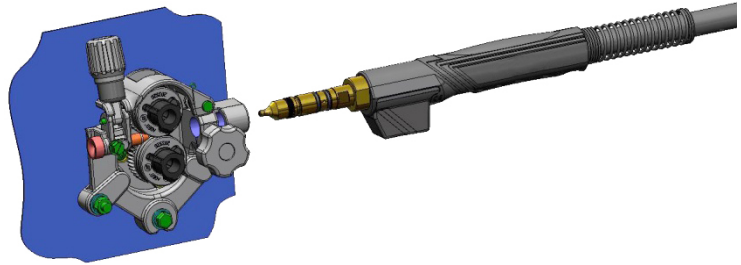
PART #	DESCRIPTION
	CONVENTIONAL LINERS
415-116-10	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 10' (3 m)
415-116-15	FOR .045" - 1/16" (1.2 mm - 1.6 mm) WIRE - 15' (5 m)
415-116-25	FOR 3/64" - 1/16" (1.2 mm - 1.6 mm) WIRE - 25' (8 m)
415-116-2	FOR 3/64" - 1/16" (1.2 mm - 1.6 mm) ALUMINUM WIRE - 15' (5 m)
415-332-15	FOR 5/64" - 3/32" (2.0 mm - 2.4 mm) WIRE - 15' (5 m) FLAT WOUND
415-332-153	FOR 5/64" - 3/32" (2.0 mm - 2.4 mm) WIRE - 15' (5 m) ROUND WOUND
415-332-253	FOR ALL 3/32" (2.4 mm) WIRE - 25' (8 m)
415-332-25	FOR 5/64" - 3/32" (2.0 mm - 2.4 mm) WIRE - 25' (8 m) FLAT WOUND
615-18-154	FOR ALL 1/18" (3.2 mm) & 7/64" (2.9 mm) WIRE
22	416-5 CONTROL HOUSING WITH SCREWS
23	FEEDER ADAPTOR REQUIREMENTS (SOLD SEPARATELY)
417	QUICK CONNECT BLOCK ASSEMBLY
417-4	GAS HOSE & NIPPLE
24	FEEDER ADAPTORS (TO BE USED WITH 417 QUICK CONNECT BLOCK)
25	CONTROL PLUGS (CW PLUG LEADS & FEMALE CONNECTORS)
26	613-7 UNICABLE CLAMP KIT

INSTALLING MIG GUN INTO A FEEDER

For most power pins

1. Insert power pin to shoulder and secure.
2. Insert control plug to control housing of gun.
3. Insert control plug into feeder.
4. Feed welding wire into power pin by hand and tighten drive rolls.

Note: On Lincoln feeders it is necessary to connect the gas hose to the barbed fitting on the power pin.



GENERAL SAFETY

Before installation or operation of T-Gun MIG Guns, please read the safety precautions listed below.

1. Always wear a properly fitted welding helmet with the proper grade of filter plate and suitable welding gloves.
2. All exposed skin should be covered with flame resistant, protective clothing. **DO NOT WEAR CLOTHING MADE FROM FLAMMABLE SYNTHETIC FIBERS.**
3. Protective screens or barriers should be used to protect others from spatter, flash and glare while welding.
4. Prevent fires by ensuring that hot slag or sparks do not contact combustible solids, liquids or gases.
5. Ensure that operator's head is not too close to the arc and that adequate ventilation is available.
6. Constant repetitive motion may lead to cumulative trauma disorders.
7. Do not touch live electrical parts. The following should be checked to prevent electrical shock:
 - Equipment is adequate for the job, properly grounded and installed according to code.
 - Faulty or damaged equipment is repaired or replaced.
 - Proper operator maintenance is performed to prevent excess spatter accumulation in the nozzle, or the contact tip or other areas of the gun.
 - Electrical insulating components are in place and not damaged. Repair or replace if necessary.
 - Operator and his surroundings are not wet.
 - Cables are not wrapped around operator's body.
 - Equipment is off when not in use.
8. CSA Standard W117.2 CODE FOR SAFETY IN WELDING AND CUTTING obtainable from the Canadian Standards Association, Standards Sales, 178 Rexdale Boulevard, Rexdale, Ontario, Canada M9W 1R3.
9. ANSI Standard Z49.1 CODE FOR SAFETY IN WELDING AND CUTTING obtainable from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

CALIFORNIA PROPOSITION 65 WARNING

This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer.

This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after use.*

(California Health & Safety Code Section 25249.5 at seq.)



FOR ADDITIONAL TECHNICAL DATA:

For additional Technical Data, including installation, maintenance, neck dimensions, options, accessories and troubleshooting, please visit the Technical Support section of the Bernard website at BernardWelds.com.



For Customer Support:

U.S.A 800-946-2281
International 708-946-2281
BernardWelds.com