

Bernard® Dura-Flux™ Series

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Self-Shielded (FCAW) Welding

Quick Specs

Applications

Shipbuilding
Construction
Heavy Manufacturing

Duty Cycle

60% NEMA
at 350 Amps

Cable Lengths

8', 10', 12', 15',
20' and 25'

Wire Size Compatibility

Replaceable power cable liner
0.045"-1/16" (1.2 mm - 1.6 mm)

Fixed power cable liner
1/16"-3/32" (1.6 mm - 2.4 mm)

Dura-Flux Gun with Replaceable Power Cable Liner

Replaceable power cable liner that allows quick and easy power cable maintenance.

Internal trigger leads mean no trigger cord to get caught on surrounding objects.

Advanced molded handle design that helps reduce downtime associated with operator fatigue.

Lightweight, rotatable Hi-Viz™ neck reduces user fatigue and improves weld visibility.

Optional dual schedule switch for wire speed adjustment while welding is integrated into the handle to keep it protected from weld spatter.

Quik Tip™ Contact Tips are designed with a threaded taper lock that increases tip life by providing excellent heat transfer and electrical conductivity.

Dura-Flux Gun with Fixed Power Cable Liner

Ultra heavy-duty steel monocoil power cables are highly resistant to kinking for exceptional wire feed in abusive environments

Centerfire™ Contact Tips are easy-to-use and high-performing. They provide better arc starts, less spatter and more consistent welds lasting up to three times longer than competitive brands.

Sleeved and aluminum armored necks available in multiple length options for optimal accessibility and improved operator comfort.

Trigger is sealed from outside contaminants, simply replaced and absorbs less heat than a metal trigger for long-life, greater arc-on time and lower heat output.



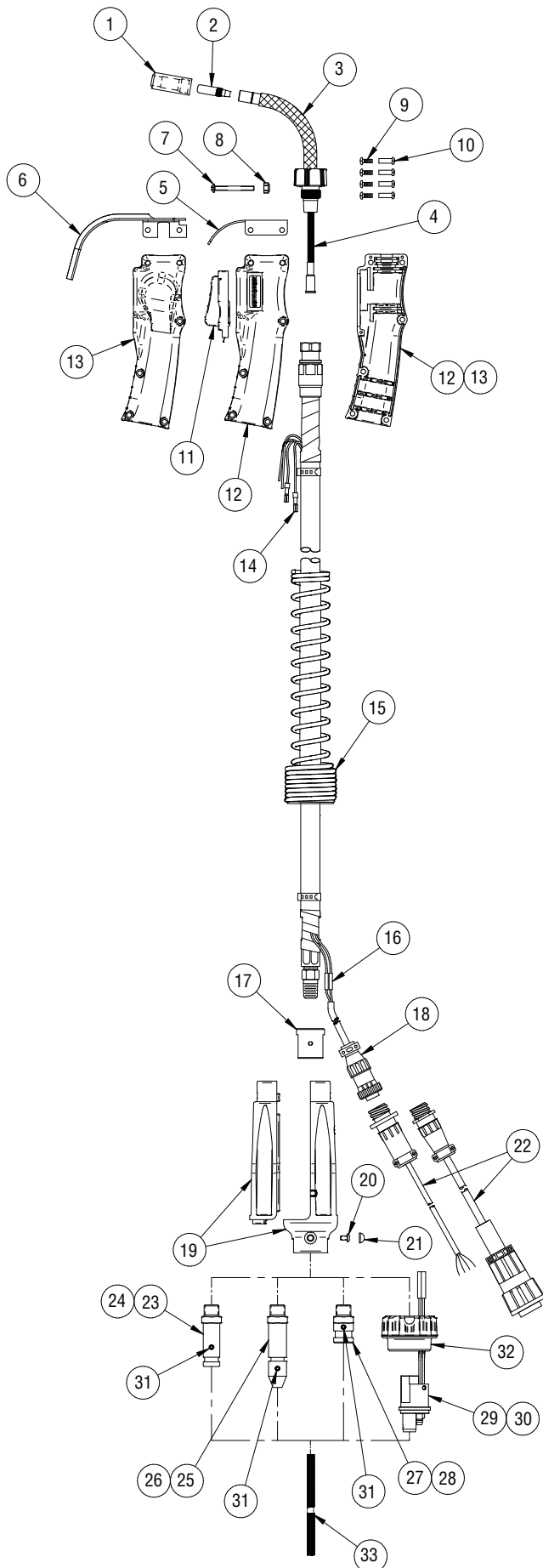
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Pride and without
Compromise in the **USA**



Bernard
A Division of Miller Electric Mfg. LLC
449 West Corning Road
Beecher, Illinois 60401 USA

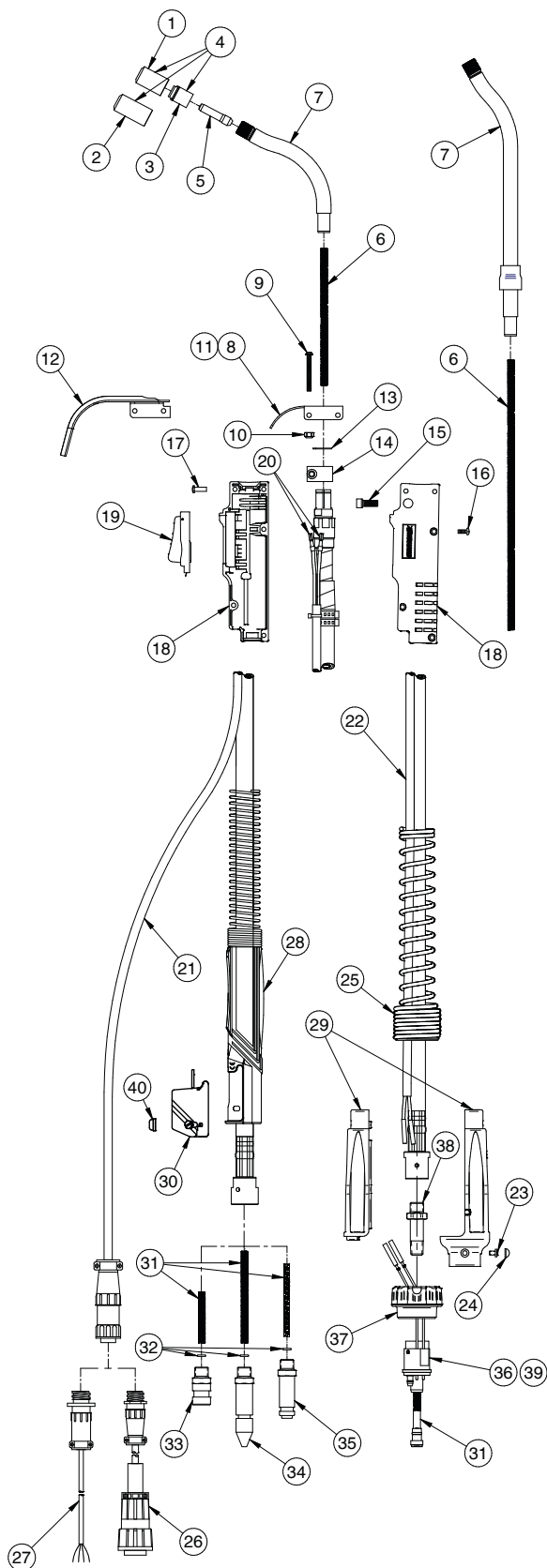
Phone: 1-855-MIGWELD (644-9353) (US & Canada Only)
1-519-737-3000 (International)
Fax: 708-946-6726
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Replacement Parts: Dura-Flux with Replaceable Power Cable Liner



| ITEM # | PART # | DESCRIPTION |
|--------|----------|--|
| 1 | 7010062 | Insulator, Tip |
| 2 | T1045 | Contact Tip, Quik Tip, .045" (1.2 mm) <i>(Included w/Gun)</i> |
| | T1052 | Contact Tip, Quik Tip, .052" (1.4 mm) |
| | T1116 | Contact Tip, Quik Tip, 1/16" (1.6 mm) <i>(Installed On Gun)</i> |
| 3 | 1370239 | Neck, Sleeved, 6" (15.2 cm) x 30° |
| | 1370240 | Neck, Sleeved, 6" (15.2 cm) x 60° |
| | 7010068 | Neck, R2" (50.8 mm) x 70° |
| | 1370241 | Neck, Sleeved, 12" (30.5 cm) x 30° |
| | 1370242 | Neck, Sleeved, 12" (30.5 cm) x 60° |
| 4 | QJL-116 | Jump Liner, .045-1/16" <i>(Installed On Gun)</i> |
| | QJL-3545 | Jump Liner, .035"-.045" |
| 5 | 1760010 | Trigger Guard |
| 6 | 1760011 | Heat Shield <i>(Optional)</i> |
| 7 | 2280047 | Screw, #8-32 x 1-1/2 <i>(2 Req'd)</i> |
| 8 | 2030030 | Nut, #8-32 <i>(2 Req'd)</i> |
| 9 | 4209 | Handle Screw <i>(4 Req'd)</i> |
| 10 | 4207 | Post Fastener <i>(4 Req'd)</i> |
| 11 | 5662 | Switch Assy, Trigger |
| 12 | 1880255 | Handle Kit, Std Trigger <i>(Includes: Handle Halves (4) #9 & (4) #10)</i> |
| 13 | 1880256 | Handle Kit, D/S Trigger <i>(Includes: Handle Halves w/ Toggle, (4) #9 & (4) #10)</i> |
| 14 | 2660001 | Terminal, Quick Disconnect <i>(2 Req'd)</i> |
| 15 | 2520056 | Spring, Strain Relief |
| 16 | 4932 | Butt Connector <i>(2 Req'd)</i> |
| 17 | 1010027 | Adapter Block <i>(Not Req'd on Euro Direct Plug)</i> |
| 18 | GN2021 | Electrical Plug-Non D/S <i>(Not Req'd on Euro Direct Plug)</i> |
| | 20006A | Electrical Plug-D/S <i>(Not Req'd on Euro Direct Plug)</i> |
| 19 | 2520066 | Rigid Strain Relief |
| | 2520069 | Rigid Strain Relief, Euro |
| 20 | 2280056 | Screw, Strain Relief |
| 21 | 1620003 | Screw Cover, Strain Relief |
| 22 | SCL2N | Trigger Cord Adapter <i>(Lincoln Only)</i> |
| | SCT1N | Trigger Cord Adapter <i>(Tweco 4 Only)</i> |
| 23 | 1880253 | Tweco 4 Power Pin Kit <i>(Includes: (1) #22, (1) #24 & (1) #31)</i> |
| 24 | 2200133 | Power Pin, Tweco 4 |
| 25 | 1880251 | Miller Power Pin Kit <i>(Includes: (1) #26 & (1) #31)</i> |
| 26 | 2200131 | Power Pin, Miller |
| 27 | 1880252 | Lincoln Power Pin Kit <i>(Includes: (1) #22, (1) #28, & (1) #31)</i> |
| 28 | 2200132 | Power Pin, Lincoln |
| 29 | 1880254 | Euro Kit <i>(Includes: (1) #30, & (1) #32)</i> |
| 30 | 2200130 | Euro Block Assembly |
| 31 | 396 | Set Screw, Liner |
| 32 | 4816 | Adapter Nut <i>(Euro Only)</i> |
| 33 | 444710 | Liner Assembly, .045-1/16", 10' (3.05 m) <i>(Installed On Gun)</i> |
| | 444715 | Liner Assembly, .045-1/16", 15' (4.57 m) <i>(Installed On Gun)</i> |
| | 444725 | Liner Assembly, .045-1/16", 25' (7.62 m) <i>(Installed On Gun)</i> |

Replacement Parts:Dura-Flux with Fixed Power Cable Liner



| ITEM # | PART # | DESCRIPTION |
|--------|---------|--|
| 1 | 7010024 | Insulator, Tip |
| 2 | 7010059 | Heavy-Duty Insulator, Tip |
| 3 | 7010026 | Tip Holder, Slip-On |
| 4 | 1880229 | Tip Holder Kit (Includes: (1) #1, (1) #2, (1) #3) |
| 5 | T-062 | Centerfire Contact Tip, 1/16" (1.6 mm) (Included w/Gun) |
| | T-072 | Centerfire Contact Tip, .072" (1.8 mm) (Included w/Gun) |
| | T-078 | Centerfire Contact Tip, 5/64" (2.0 mm) (Included w/Gun) |
| | T-094 | Centerfire Contact Tip, 3/32" (2.4 mm) (Included w/Gun) |
| 6 | 7010031 | Neck Liner, 6" (15.2 cm) |
| | 7010032 | Neck, Liner, 12" (30.5 cm) |
| 7 | | Neck Replacement Kit (Includes: (1) #6, (1) #7) |
| | 1880232 | Sleeved, 6" (15.2 cm) x 30° |
| | 1880222 | Sleeved, 6" (15.2 cm) x 60° (Pictured) |
| | 1880230 | Sleeved, 8" (20.3 cm) x 90° |
| | 1880223 | Sleeved, 12" (30.5 cm) x 30° (Pictured) |
| | 1880231 | Sleeved, 12" (30.5 cm) x 60° |
| | 1880236 | Aluminum Armored, 6" (15.2 cm) x 30° |
| | 1880233 | Aluminum Armored, 6" (15.2 cm) x 60° |
| | 1880235 | Aluminum Armored, 8" (20.3 cm) x 90° |
| | 1880234 | Aluminum Armored, 12" (30.5 cm) x 30° |
| | 1880237 | Aluminum Armored, 12" (30.5 cm) x 60° |
| 8 | 7010034 | Trigger Guard |
| 9 | 2280047 | Screw, #8-32 x 1-1/2 (2 Req'd) |
| 10 | 2030030 | Nut, #8-32 (2 Req'd) |
| 11 | 1880224 | Trigger Guard Kit (Includes: (1) #8, (2) #9, (2) #10) |
| 12 | 1760002 | Heat Shield (Optional) |
| 13 | 2250017 | Snap Ring |
| 14 | 198820 | Clamp |
| 15 | 2280046 | Screw, 1/4-20, Hex Socket |
| 16 | 4209 | Handle Screw (3 Req'd) |
| 17 | 2030004 | Post Fastener (3 Req'd) |
| 18 | 1880225 | Handle Kit (Includes: Handle Halves, (2) #9, (2) #10, (3) #16, (3) #17) |
| 19 | 5662 | Switch Assy, Trigger |
| 20 | 2660001 | Terminal, Quick Disconnect (2 Req'd) |
| 21 | 7010018 | Cord Assembly, 10' (3.05 m) |
| | 7010015 | Cord Assembly, 15' (4.57 m) |
| 22 | 7010049 | Cord Assembly, Euro, 10' (3.05 m) |
| | 7010050 | Cord Assembly, Euro, 15' (4.57 m) |
| 23 | 2280056 | Screw, Strain Relief (Euro Only) |
| 24 | 1620003 | Screw Cover, Strain Relief (Euro Only) |
| 25 | 2520056 | Spring, Strain Relief (Euro Only) |
| 26 | SCL2N | Trigger Cord Adapter (Lincoln Only) |
| 27 | SCT1N | Trigger Cord Adapter (Tweco 4 Only) |
| 28 | 610 | Rigid Strain Relief (Non Euro) |
| 29 | 2520069 | Rigid Strain Relief (Euro Only) |
| 30 | 416-15 | Housing, Rigid Strain Relief (Non Euro) |
| 31 | 7010035 | Liner, Power Pin, Miller |
| | 7010036 | Liner, Power Pin, Lincoln |
| | 7010047 | Liner, Power Pin, Tweco 4 |
| | 7010048 | Liner, Power Pin, Euro |
| 32 | 4421 | O-Ring |
| 33 | 1880227 | Lincoln Power Pin Kit (Includes: Lincoln Power Pin, (1) #26, (1) #31, (1) #32) |
| 34 | 1880226 | Miller Power Pin Kit (Includes: Miller Power Pin, (1) #31, (1) #32) |
| 35 | 1880242 | Tweco 4 Power Pin Kit (Includes: Tweco 4 Power Pin, (1) #27, (1) #31, (1) #32) |
| 36 | 1880241 | Euro Power Pin Kit (Includes: (1) #31, (1) #36, (1) #37, (1) #38) |
| 37 | 4816 | Adapter Nut (Euro Only) |
| 38 | 2020015 | Nipple (Euro Only) |
| 39 | 5060 | Euro Block Assembly (Euro Only) |
| 40 | 1620004 | Cover, Hex Head Screw (#411-3M) |

Liner Replacement Instructions and Service

Remove Existing Liner

Turn off power. Remove neck from gun assembly. Lay cable straight. Loosen liner retention set screw on the power pin. Grasp liner which protrudes from power pin and remove from cable assembly.

Install Replacement Liner

Insert liner into power pin with cable laying straight. Position the liner so that it extends approximately 1" (25.4 mm) beyond the gun handle. Tighten liner retention set screw to secure liner to cable assembly. Make sure cable is straight before trimming liner. Trim and deburr the front of the liner with 1/4" (6.4 mm) extending beyond the gun handle and reinstall neck. Trim and deburr the back end of the liner with 1/8" (3.2 mm) extending beyond the power pin.

Service

Inspect for excessive wear and debris on the inside diameter. Do not dip liner in solvents for cleaning. Liner may be periodically blown out with shop air. Replace with new liner when excessive wear or debris produces poor electrode feed.

1-1/4" —
1" —
3/4" —
1/2" —
1/4" —
0 —

Self-Shielded FCAW Gun Configurator

Dura-Flux™ Gun Part Number

Build a Dura-Flux Gun part number by choosing desired cable length, neck and direct plug.

FRX3515GM is an example of a typical configuration. It consists of a 350 amp Dura-Flux Gun with replaceable power cable liner, 15' cable, 6" x 60° neck and Miller® style direct plug.

| Cable Style | | Amp & Trigger Guard | Cable Length | Necks-Replaceable Power Cable Liner | | Direct Plug | Duty Cycle |
|-------------|---|----------------------------------|-------------------------------|-------------------------------------|--------------------------------------|-------------|-------------------------|
| FL | Fixed Liner | X35 350 Amp | 08 8' (2.44 m) | F | Hi-Viz™ Sleeved, 6" (15.2 cm) x 30° | M Miller® | 60% NEMA at 350 Amps |
| FR | Replaceable Liner | Small Trigger Guard | 10 10' (3.05 m) | G | Hi-Viz™ Sleeved, 6" (15.2 cm) x 60° | L Lincoln® | |
| FD | Dual Schedule Switch, Replaceable Liner | H35 350 Amp Large Heat Shield | 12 12' (3.66 m) | H | Hi-Viz™ Sleeved, 5" (30.5 cm) x 70° | T Tweco® | |
| | | | 15 15' (4.57 m) | I | Hi-Viz™ Sleeved, 12" (30.5 cm) x 30° | E Euro® | |
| | | | 20 20' (6.16 m) | J | Hi-Viz™ Sleeved, 12" (30.5 cm) x 60° | | |
| | | | Necks-Fixed Power Cable Liner | | | | |
| | | | B Sleeved, 6" (15.2 cm) x 30° | | | | |
| | | | A Sleeved, 6" (15.2 cm) x 60° | | | | |
| | | | | C Sleeved, 8" (20.3 cm) x 90° | | | |
| | | | | D Sleeved, 12" (30.5 cm) x 30° | | | |
| | | | | E Sleeved, 12" (30.5 cm) x 60° | | | |
| | | | | N Armored, 6" (15.2 cm) x 30° | | | |
| | | | | O Armored, 6" (15.2 cm) x 60° | | | |
| | | | | P Armored, 8" (20.3 cm) x 90° | | | |
| | | | | Q Armored, 12" (30.5 cm) x 30° | | | |
| | | | | R Armored, 12" (30.5 cm) x 60° | | | |

- Hi-Viz™ necks and Quik Tip™ Contact Tips are only compatible with replaceable power cable liner guns.
- All Dura-Flux Guns with replaceable power cable liner are compatible with .045"-1/16" (1.2 mm - 1.6 mm) wire.
- Replaceable power cable liner guns run .045"-1/16" wire by simply changing the contact tip.
- All Dura-Flux Guns with fixed power cable liner are compatible with 1/16"-3/32" (1.6 mm - 2.4 mm) wire

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