

# 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.



350 amp Dura-Flux Gun with replaceable power cable liner

350 amp Dura-Flux Gun with fixed power cable liner

Made with  
Pride and without  
Compromise in the **USA**

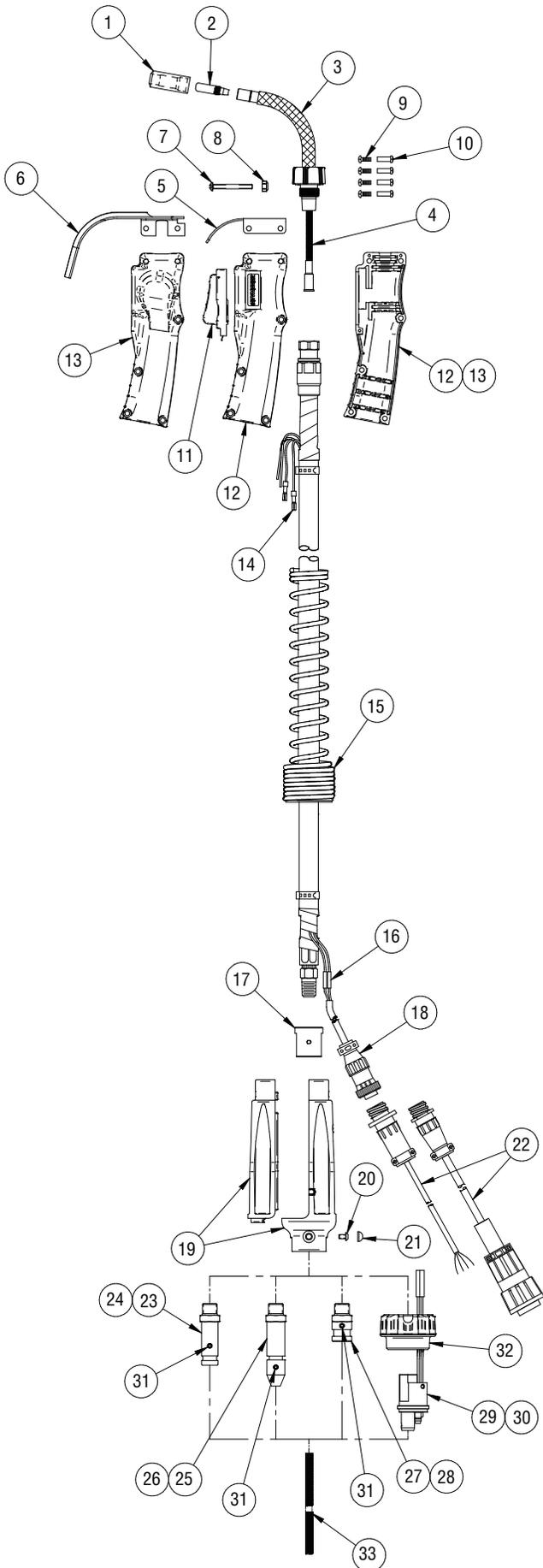


### Bernard

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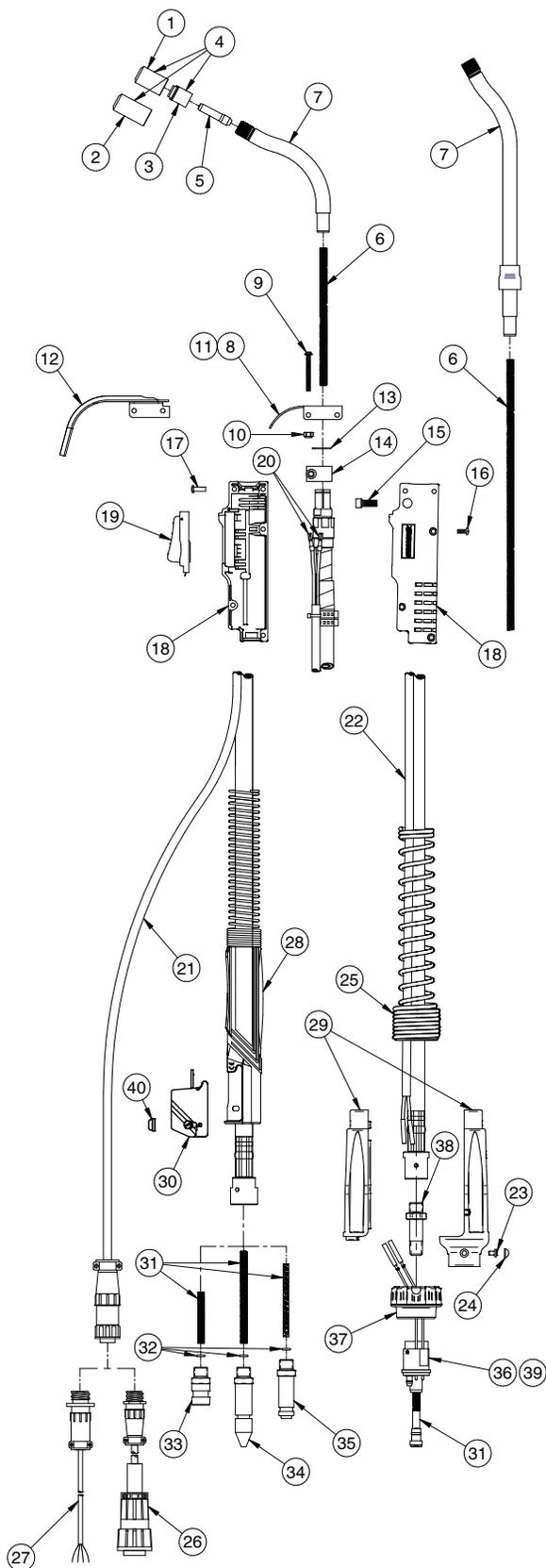
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# Replacement Parts: Dura-Flux with Replaceable Power Cable Liner



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 (2 Req'd)
8	2030030	Nut, #8-32 (2 Req'd)
9	4209	Handle Screw (4 Req'd)
10	4207	Post Fastener (4 Req'd)
11	5662	Switch Assy, Trigger
12	1880255	Handle Kit, Std Trigger <i>(Includes: Handle Halves (4) #9 &amp; (4) #10)</i>
13	1880256	Handle Kit, D/S Trigger <i>(Includes: Handle Halves w/ Toggle, (4) #9 &amp; (4) #10)</i>
14	2660001	Terminal, Quick Disconnect (2 Req'd)
15	2520056	Spring, Strain Relief
16	4932	Butt Connector (2 Req'd)
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 &amp; (1) #31)</i>
24	2200133	Power Pin, Tweco 4
25	1880251	Miller Power Pin Kit <i>(Includes: (1) #26 &amp; (1) #31)</i>
26	2200131	Power Pin, Miller
27	1880252	Lincoln Power Pin Kit <i>(Includes: (1) #22, (1) #28, &amp; (1) #31)</i>
28	2200132	Power Pin, Lincoln
29	1880254	Euro Kit <i>(Includes: (1) #30, &amp; (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		
<b>FL</b> Fixed Liner	<b>X35</b> 350 Amp	<b>08</b> 8' (2.44 m)	<b>F</b> Hi-Viz™ Sleeved, 6" (15.2 cm) x 30°	<b>M</b> Miller®	60% NEMA at 350 Amps		
<b>FR</b> Replaceable Liner	Small Trigger Guard	<b>10</b> 10' (3.05 m)	<b>G</b> Hi-Viz™ Sleeved, 6" (15.2 cm) x 60°	<b>L</b> Lincoln®			
<b>FD</b> Dual Schedule Switch, Replaceable Liner	<b>H35</b> 350 Amp Large Heat Shield	<b>12</b> 12' (3.66 m)	<b>H</b> Hi-Viz™ Sleeved, 5" (30.5 cm) x 70°	<b>T</b> Tweco®			
		<b>15</b> 15' (4.57 m)	<b>I</b> Hi-Viz™ Sleeved, 12" (30.5 cm) x 30°	<b>E</b> Euro®			
		<b>20</b> 20' (6.16 m)	<b>J</b> Hi-Viz™ Sleeved, 12" (30.5 cm) x 60°				
		Necks-Fixed Power Cable Liner					
		<b>B</b> Sleeved, 6" (15.2 cm) x 30°					
<b>A</b> Sleeved, 6" (15.2 cm) x 60°							
<b>C</b> Sleeved, 8" (20.3 cm) x 90°							
<b>D</b> Sleeved, 12" (30.5 cm) x 30°							
<b>E</b> Sleeved, 12" (30.5 cm) x 60°							
<b>N</b> Armored, 6" (15.2 cm) x 30°							
<b>O</b> Armored, 6" (15.2 cm) x 60°							
<b>P</b> Armored, 8" (20.3 cm) x 90°							
<b>Q</b> Armored, 12" (30.5 cm) x 30°							
<b>R</b> 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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