

MODEL PFA-LM-20

1. Installation of the Wire Pilot® Pneumatic Feed Assist should be as close to the wire source (drum, spool or wood reel) as possible (see photos). Dimensional mounting data can be found on the back of this page.

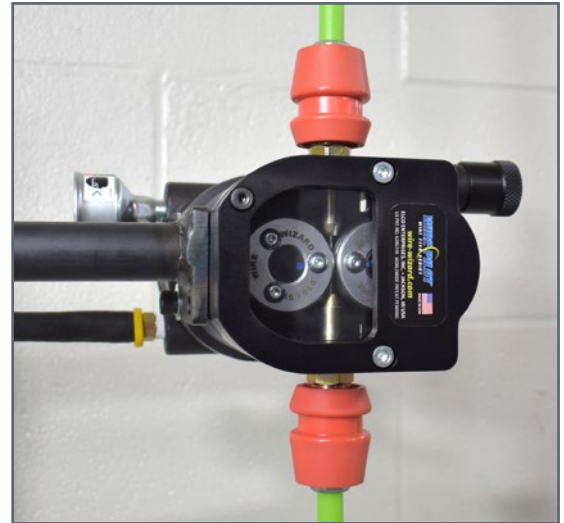
2. Open the clear cover and bail (by lifting the handle up) and install the two drive rolls on the Wire Pilot® motor. Secure them into place with the six screws provided (5/32" allen wrench required). **Upon initial setup, as well as any time the bail is opened and closed, ensure the two blue markings are facing each other as shown for proper gear alignment.**



Drive Roll Screw Torque Setting: 18 – 20 in/lbs

3. Mount the filter, regulator, lubricator (FRL) so that it is in the vertical position. Fill the reservoir with ISO VG 22 air tool lubricating oil. Set lubricator so it provides 1 drop of oil for every two minutes of operation at 20 PSI (1.4 bar). See back for detailed instructions.
4. Ensure that the ball valve is closed and connect the air supply to the inlet of FRL.
5. Loosen the two small set screws located at the inlet and outlet holes using a 1/8" Allen wrench. Install inlet guide(s) or mounting probe. Tighten set screws to secure.
6. Feed the wire through the feed assist and close the bail.
Ensure that the wire is between the grooves in the drive rolls.
7. Confirm the air pressure is set at **0 PSI** on the regulator gauge.
8. Open the ball valve.
9. With the ball valve open, slowly increase the air pressure by turning the knob in a **clockwise** direction. The amount of air pressure required to push the wire will vary depending on the following: wire diameter, wire source, conduit type, conduit length and the straightness of the conduit. In most applications, it is safe to start with approx. 4 – 5 psi (0.28 – 0.34 bar) and adjust the pressure higher or lower until the Feed Assist functions properly (see steps 9 – 10). For SAW applications using larger wire, pressure may need to be set between 15-30 psi (1 – 2 bar).
10. As the air pressure is increased, the motor will start to push the wire.
DO NOT turn the pressure up more than what is needed to push the wire through the conduit alone. The feed assist motor can provide wire speeds in excess of 1200 IPM.
11. To fine tune the Feed Assist, loosen the tension knob on the bail until the wire starts to slip between the drive rolls, then tighten it back 1/4 to 1/2 turn. If the feed assist is set up correctly, the motor should stall when the wire feeder stops feeding and resume pushing the wire when the feeder is active. Do not overtighten drive rolls.

NOTE: When the air pressure is **set too high**, the wire may “bird’s nest” or push past the drive rolls when the wire feeder is not feeding wire. If the pressure is **set too low**, it creates drag on the wire feeder causing the drive rolls to slip.



Wire Pilot® Feed Assist Mounted on a WGM-PFA-STAND
(wire drum below).



**Feed Assist Drum
Adapter Kit
PFA-DA**



**Adjustable Stand
WGM-PFA-STAND**

Shown with two Feed
Assists and four drums

Scan here for
instructional video
youtube.com/WireWizardUS



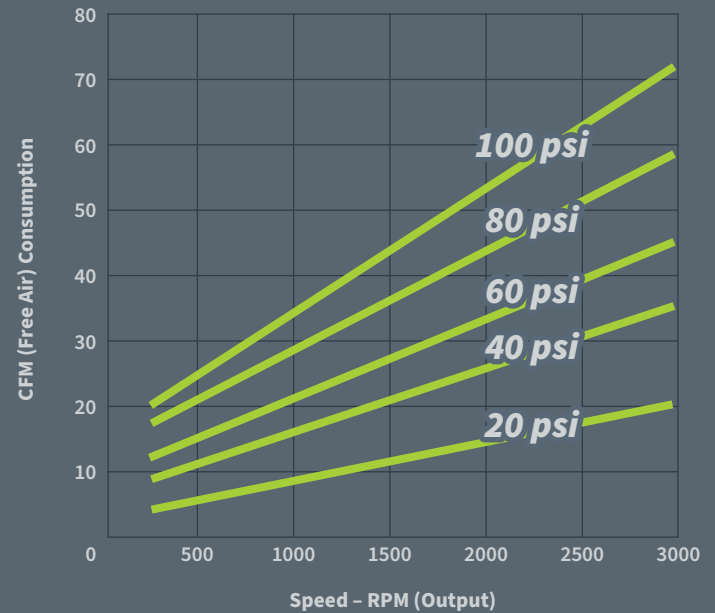
OILER ADJUSTMENT INSTRUCTIONS

Lubricant is required for this motor.

1. Turn air pressure off.
2. Open bail on the right side of the motor.
3. Turn air pressure up to 20 PSI (1.4 bar)
4. Adjust oiler until one drop of oil is added for every two minutes of operation.

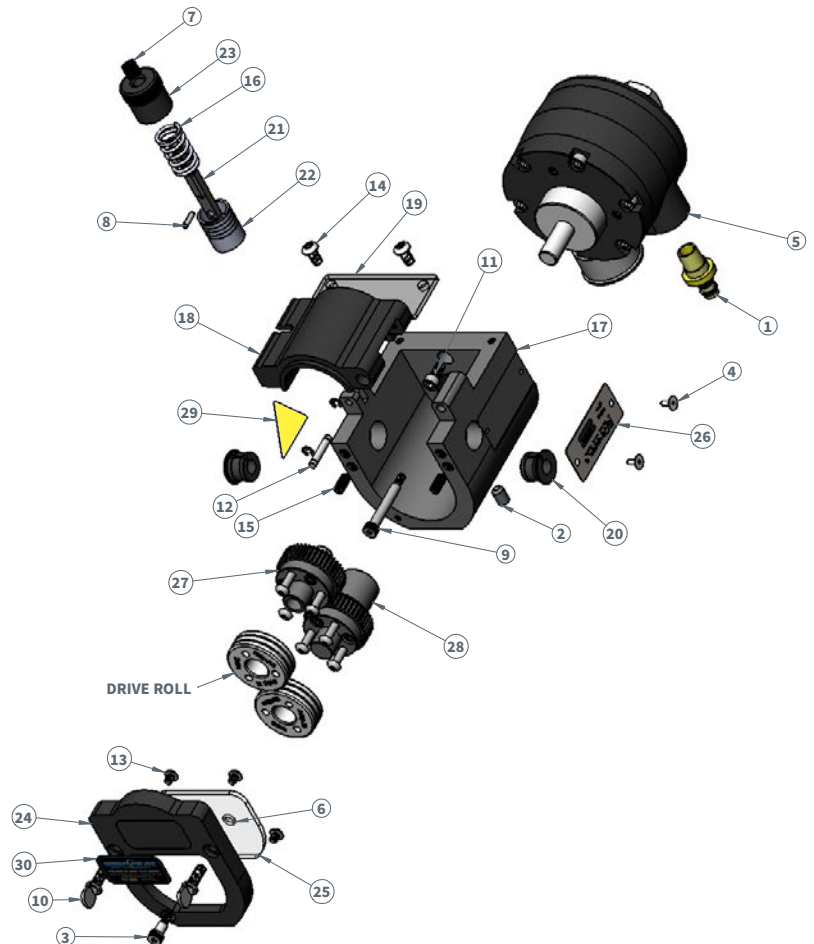


PFA MOTOR AIR CONSUMPTION



ASSEMBLY & REPLACEMENT PARTS

No.	Part No.	Description	Qty.
1	129P01-6-4	3/8 X 1/4 BARB FITTING	1
2	25439	5/16-18 X 1/2 LG. SET SCREW	1
3	26301	1/4 X .375 LG SHOULDER BOLT	1
4	41212	1/8 X 1/4 POP ALUM. RIVET	2
5	4AM-NRV-54ANLP	AIR MOTOR	1
6	568-009	7/32 ID O-RING	2
7	60569	5/16-18 HELI-COIL INSERT	1
8	64075	1/8 DIA. X 1/2 LG. ROLL PIN	1
9	91259A546	1/4 X 1 1/2 SHOULDER BOLT	1
10	91744A540	1/4-20 X .750 SPADE HEAD THUMB SCREW	2
11	93201	1/4-20 X 1/2 SHCS ZINC	1
12	93890A552	3/16 DIA. X 1-1/32 OAL CLEVIS PIN W/E-CLIPS	1
13	94028	10-24 X .250 BHCS ZINC	4
14	94049	1/4-20 X .500 BHCS ZINC	2
15	94115A537	SOFT NOSE SET SCREW	2
16	C0720-085-1250-M	COMPRESSION SPRING	1
17	PFA-01-1	HOUSING	1
18	PFA-03-2	BAIL	1
19	PFA-26-1	COVER	1
20	PFA-33	BUSHING	2
21	PFA-36	PIVOT FASTENER	1
22	PFA-37	ADJUSTER KNOB BASE	1
23	PFA-38	ADJUSTER KNOB	1
24	PFA-66	FRONT COVER	1
25	PFA-67	WINDOW	1
26	PFA-LM-20-SERIAL TAG	MODEL/SERIAL TAG	1
27	PFA-LM-BGA	BAIL GEAR ASSEMBLY	1
28	PFA-LM-DGA	DRIVE GEAR ASSEMBLY	1
29	PFA-OIL WARNING	OIL WARNING DECAL	1
30	WIRE PILOT DECAL-20	WIRE PILOT DECAL	1



MAINTENANCE & WARRANTY

MAINTENANCE

- ▶ Visually inspect unit for damage, especially mechanically stressed components.
- ▶ Inspect the filter and bowl on the filter/regulator/lubricator. Clean and replace filter if necessary. Filter must be compatible with an SMC AF30 style filter (Fig. 1).
- ▶ Verify air lines connected to the Feed Assist are free of leaks and other damage.
- ▶ Ensure the lubricator has lubricant and fill if necessary with ISO VG 22 air tool oil.
- ▶ To ensure correct lubricant application, repeat “Oiler Adjustment Instructions.”
- ▶ Check drive roll bolts to confirm they are tight.
- ▶ Release the bail and check drive roll bearing for any wobble. If there is wobble, the bearing may need to be replaced (see replacement parts list) (Fig. 2).
- ▶ Inspect drive rolls during operation to confirm no slippage over the wire. If there is slippage, tighten the tension knob slightly until there is no slippage. If the drive rolls still slip, they should be replaced.
- ▶ If wire is birdnesting or bending at the wire feeder, ensure the air pressure is not set too high. Normal operating pressure for most applications is approximately 4 – 5 psi (0.28 – 0.34 bar), but this will vary based on the wire delivery setup.



Figure 1



Figure 2

LIMITED 1 YEAR WARRANTY

ELCo Enterprises, Inc. (hereinafter “ELCo”) shall warrant this product to be free of defects in material and/or workmanship for a period of one (1) year, starting from the date of shipment to the buyer. The warranty shall cover 100% of all parts and labor with the exception of misuse, abuse, neglect and typical consumables as determined by ELCo. This warranty excludes damage caused by industrial contaminants, arc shorts, improper installation or improper maintenance. ELCo will at its option, repair, replace or issue a credit for the value of the defective product within the warranty period.

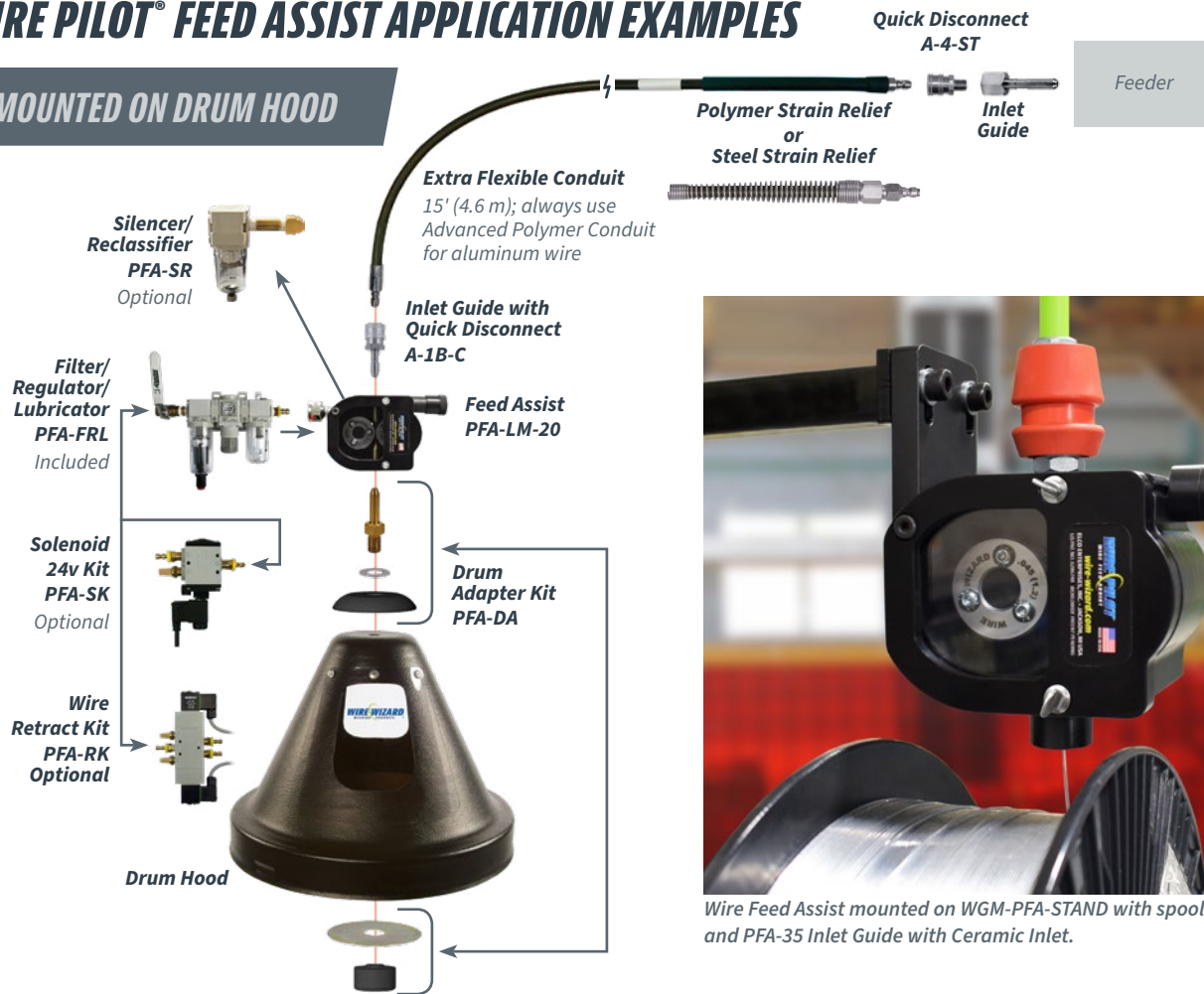
Buyer accepts all responsibility for compliance with any/all Local, State and Federal Laws or Regulations including Regulations of Foreign Governments.

No equipment shall be returned to ELCo without a Return Authorization Number. Upon evaluation and validation of warranty, replacements or repairs will be sent to the Buyer. If a replacement is needed immediately, a purchase order is required to cover the cost of the product until the warranty is determined.

ELCo’s warranty is limited to replacing any goods that are proved to be defective and ELCo in no event shall have any liability for paying incidental or consequential damages including and without limitation, damages resulting in personal or bodily injury or death, or damages to, or loss of use of any property. Notwithstanding any of these terms and conditions, the warranties set forth shall apply in connection with any sales of goods, services or design by ELCo and are in lieu of all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

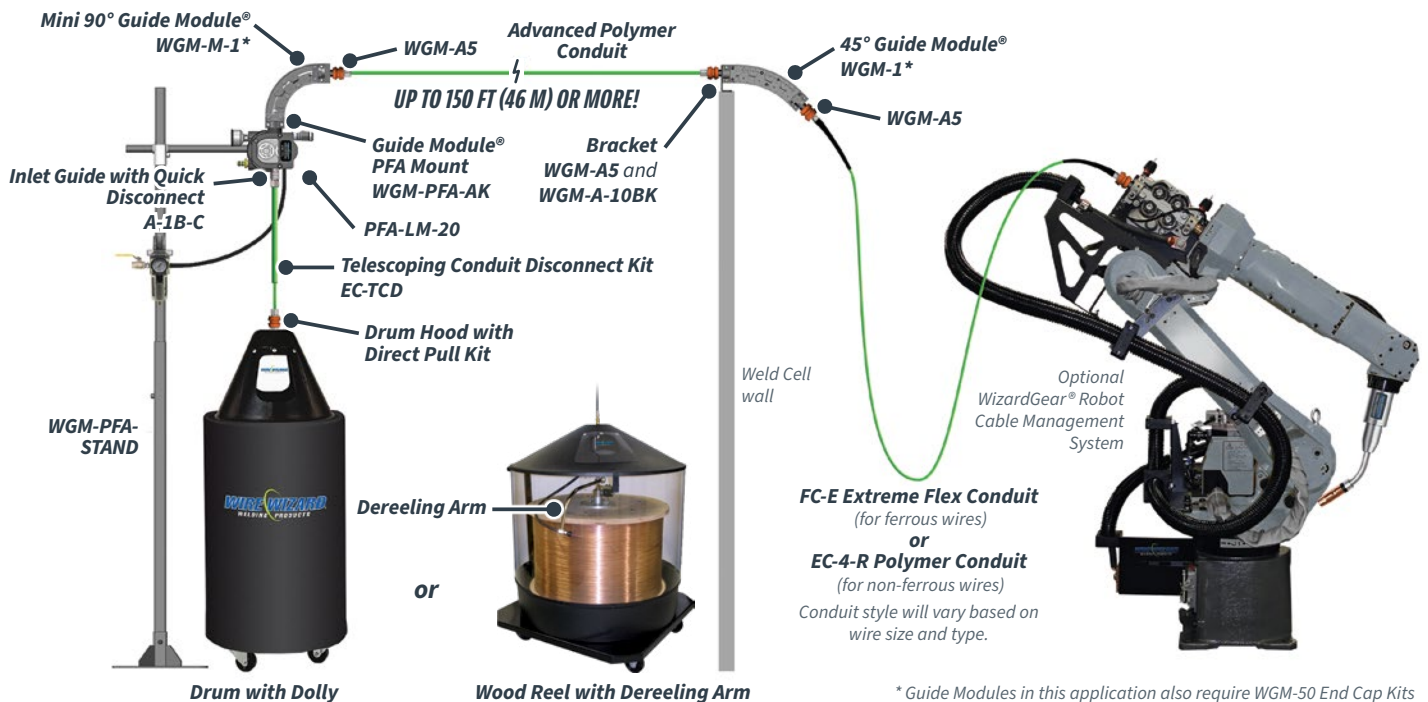
WIRE PILOT® FEED ASSIST APPLICATION EXAMPLES

MOUNTED ON DRUM HOOD



Wire Feed Assist mounted on WGM-PFA-STAND with spool of aluminum wire and PFA-35 Inlet Guide with Ceramic Inlet.

MOUNTED ON WGM-PFA-STAND Long distance wire feeding application



* Guide Modules in this application also require WGM-50 End Cap Kits