

## Air-cooled Direct Plug Automation Torch Body



**QFA600**  
**(Stock No. 3045-1489)**

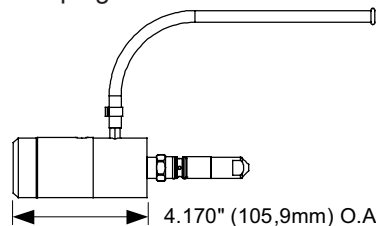
The air-cooled QFA torch body is rated at 600 amperes at 60% duty cycle and can weld with wire diameters from .030" to 1/8". This style of torch is used when the wire feeder and work piece can be in close proximity to each other and the assembly being welded can rotate or be moved under the conductor tube.

There are no power cables to deal with, simply plug the assembly into any wire feeder and be welding in no time. The series will accept the Tweco® Robotics QTR66 series conductor tubes, which are constructed to be both extremely rigid and reliable. The inner tube is machined from an extruded copper tube providing excellent electrical conductivity for cool operation even under high amperage applications. The outer jacket is made from a seamless 3/4" outside diameter (OD) stainless steel tube that is insulated from the inner tube by a teflon sleeve providing excellent di-electric properties.

The conductor tubes are positively located into the torch body by the use of two stainless steel alignment pins. These pins ensure the proper relationship with the torch body and fixture mount. The back end of the conductor tube is made from a solid brass connection with a stainless steel alloy wear surface in the area where the tube is drawn and locked in place inside of the torch block. An O-ring seal prevents the shielding gas from escaping and seals against atmospheric air contamination.

### Standard Features:

- Quick Tube locking
- Conductor tubes are positively located into the torch body
- Purge hose for spraying Protex® anti-spatter compound through the conductor tube and nozzle
- Furnished with R45-116 conduit
- Furnished with Tweco®, Miller®, and Lincoln® rear connector plug

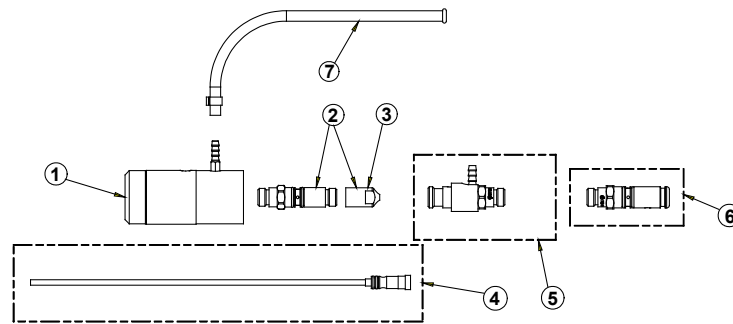


### QTR Series 600 amp Air-cooled Robotic Conductor Tube

	18°	22°	45°	60°	180°	22°L	45°L	180°L
<b>Part No.</b>	QTR66-18	QTR66-22	QTR66-45	QTR66-60	QTR66-180	QTR66-22L	QTR66-45L	QTR66-180L
<b>Stock No.</b>	1686-1840	1686-1841	1686-1842	1686-1843	1686-1844	1686-1845	1686-1847	1686-1846

Note: Refer to page 17 for information pertaining to the air-cooled conductor tubes.

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**QFA600 AIR-COOLED TORCH**

ITEM NO.	PART NO.	STOCK NO.	DESCRIPTION
1	QFA600BC	3045-1154	Air-cooled Block Cartridge
2	R176MH	2060-2184	Miller® Connector Plug (Includes Item #3) ***
	R174MH	2035-2109	Miller Connector Plug (Includes Item #3)
3	R175M-N045	2050-2181	Miller Plug Nipple, .045" (1,0mm) Wire Use with R176MH
	R174M-N045	2040-2192	Miller Plug Nipple, .045" (1,0mm) Wire Use with R174MH
	R175M-N116	2050-2182	Miller Plug Nipple, .062" (1,6mm) Wire Use with R176MH
	R174M-N116	2040-2191	Miller Plug Nipple, .062" (1,6mm) Wire Use with R174MH
NS	R175MN18	2050-2183	Miller Plug Nipple, .125" (3,18mm)
4	R45-3545-1	1450-1023	R45 Series Conduit Liner
	R45-116-1	1450-1028	R45 Series Conduit Liner ***
	R44-3545-1	1440-1223	R44 Series Conduit Liner
	R44-116-1	1440-1228	R44 Series Conduit Liner
5	QTR176LH	2086-2624	Lincoln® Connector Plug (2.71" – 68,83mm OAL) ***
	EL176LH	2060-2680	Lincoln Connector Plug (3.84" – 97,54mm OAL)
	QTR174LH	2086-2623	Lincoln Connector Plug (Uses R44 Series Conduit)
6	176S-H	2060-2177	Tweco® Connector Plug ***
	350-174H	2035-2110	Tweco Connector Plug (Uses R44 Series Conduit)
7	QF600PH	3045-1246	Purge Hose Assembly (Includes Hose Clamp)

\*\*\* — Standard on all QFA Series Torch Body Assembly

**Tweco Robotics offers a complete line of nozzles, diffusers, and contact tips.**

**Robotic Style Nozzles (REL & RWC Series)**

All nozzles are machined from solid copper bar stock that assures consistent dimensional stability and an efficient dissipation of heat. The nozzles are nickel-plated and are insulated to act as a barrier for the spatter bridging between the nozzle and gas diffuser.

**Robotic Diffusers**

All of the diffusers are machined from a brass alloy and contain twelve gas holes for better distribution of the shielding gas. There are diffusers for both the threaded and cam style contact tips.

**Robotic Contact Tips (RS & RZ Series)**

Robotic contact tips are offered in two different materials that provide better performance versus the pure copper contact tips used on the hand-held MIG guns. The RS series are machined from a copper-silver material that has better conductivity - resistance properties, reducing the micro arcing on the inside diameter that occurs

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