



Water-Cooled MIG Barrel

Tandem 1200 Amp Water-Cooled-to-the-Tip®

D/F MACHINE SPECIALTIES
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WATER-COOLED TANDEM AUTOMATIC/ROBOTIC MIG BARREL

The D/F Machine Specialties patented MIG Tandem Wire Barrel has been developed for heavy-duty welding where the requirements relating to heavy-duty applications and long welding times are rigorous. The barrel is engineered with specific spacing and alignment of two adjustable contact tips to achieve proper arc control.

The D/F Tandem Wire Barrel is designed to provide excellent cooling of the nozzle, gas cup, body and the current tips. Two wire electrodes electrically insulated from one another must run through a common gas nozzle and share a common welding torch. Efficient cooling of the round shaped tandem gas cup prevents welding spatter from easily sticking to the gas cup. The separate water-cooling of the nozzle reduces spatter and prolongs gas cup life. Because a lot of heat is generated in the tandem process, it must be subsequently dissipated all the way to the front area of the contact tips. Each Water-Cooled-to-the-Tip body assembly is also separately water-cooled ensuring tip life and arc stability. The insulation of the two separate tandem barrel inner bodies of the single common torch is done according to existing D/F standards guaranteeing no electric flash-over between the two electric systems. The distance between the tandem contact tips (the wires) can vary by removing the body screws of one or both of the inner bodies. This allows rotation of each inner body increasing or decreasing the distance between the two welding wires. The D/F Tandem Wire Barrel inner bodies can be either straight or bent to desired degrees to help achieve different center-point distances between the two tandem contact tips, and are easily changeable.

To provide maximum resistance to the abuses of day to day service, the D/F Tandem Wire Barrel is of heavy duty construction with all metal parts well insulated from current-carrying members. The compact in-line body allows the tandem barrel to be used in a variety of applications with ease of maneuverability, and to access hard to reach areas of operation. To facilitate maneuverability, all service lines are internally connected to the tandem barrel bodies and exit from the rear of the torch barrel. The barrel uses threaded (HTM) contact tips with a wire diameter range of .035" through 1/8" with hard/cored wire, and 3/64" through 3/32" with aluminum wire. The barrel is configured to provide individual parameter control for each of two separate, and electrically isolated, welding arcs. This requires a pairing of all equipment; two specially designed high-speed inverter power sources, two wire drives, two separate welding wire pay-off sources and a D/F Tandem Wire Barrel.

The D/F Tandem Wire Barrel can also be used as a twin wire torch (two wires used with one power source). When used as a Twin Wire Barrel it can increase deposition rates by 20 to 30 percent versus single wire welding without significantly increasing heat input. The increase comes from the greater current density achieved by pushing a similar current over smaller, cross-sectional areas of wire.

MODEL EXPLANATION

HTM-TDP - Heavy Duty, Threaded Tip, Machine Barrel - Tandem Dual Power

FEATURES

- 1200 Amps Continuous Duty Cycle
- Two (2) Independently Electrically Insulated Inner Bodies
- Two (2) Individually Adjustable Current Tips for Space and Alignment
- Water-Cooled Inner Bodies & Nozzle
- Large Frontal Area for Increased Gas Coverage
- Small Frontal Tapered Nozzle for Single Wire Applications
- Withstands Preheat & Extreme Conditions
- Adaptable to Any Wire Feeder or Power Source

ORDERING INFORMATION (Complete Barrel Only)

DESCRIPTION	CODE NO.
Model HTM-TDP Tandem W/C Machine Barrel	41301D

ORDERING INFORMATION (Complete Assemblies)

DESCRIPTION	CODE NO.										
	2 Ft.	3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	9 Ft.	10 Ft.	12 Ft.	15 Ft.
Model HTM-TDP	44706D-2	44706D-3	44706D-4	-5	-6	-7	-8	-9	-10	-12	-15

Add Footage Digit to Code Number for Utility Length Required.

Example: Require 44706D with 8 Ft. Utilities - 44706D-8

MODEL SPECIFICATIONS - CONTINUOUS DUTY CYCLE

Model	Current Capacity	Length	Diameter of Body	Weight (approx.)	Cooling Required	Recommended Wire Diameter Range	Instruction Manual
HTM-TDP	1200 amp Continuous Duty	14.5"	2.375"	13.8 lbs.	1 gallon/min	.035"-1/8" Hard/Cored, 3/64"-3/32" AL	1019 Tandem

