



# Water-Cooled TIG Barrels

1000 Amp "BIG TIG" & High Frequency TIG Barrel

D/F MACHINE SPECIALTIES  
1750 Howard Drive  
North Mankato, MN 56003  
Phone: (507) 625-6200  
Fax: (507) 625-6203

## WATER-COOLED "BIG TIG" MACHINE BARREL

The D/F 1000 amp "BIG TIG" Tube Mill 1000 (TM1000) Water-Cooled TIG Torch will help reach maximum output of the tube mill with increased weld speeds, increased arc stability for optimum weld quality and consistency, and maximized number of hours for welding electrode tip life, thus reducing mill shut downs and start ups, and also reducing the amount of scrap produced. The "BIG TIG" TM1000 is ideal for Mechanized or Robotic pipe/roll forming welding applications.

The "BIG TIG" 1000 Amp High Current Machine Barrel is recommended for mechanized welding applications where production demands the maximum durability and quality for mechanized gas tungsten arc welding. The model TM1000 as provided will accommodate tungsten sizes of 1/8" (3.2mm) through 3/8" (9.5mm). The water-cooled nozzle accepts threaded gas nozzles ranging from 11/16" through 1-1/4" inner diameter. Maximum current capacity applicable to the model TM1000 is 1000 amperes. Mounting is accomplished by using the D/F #14086 Mounting Bracket and connecting the torch to the #45188 Utility Station.

The "BIG TIG" has two Water Out & Power Cables (650 amps each), increasing the continuous duty cycle rating to 1000 amps. The required ratings are dictated by the tungsten size. If the equipment ratings are not sufficient, the torch can be configured with large water hoses instead of the two Water Out & Power Cables. There are two cable lugs on the inner body of the "BIG TIG" torch that can accept two to four 4/0 cables.

The D/F torch is famous for the fact that if it is chilled properly, the welder can grab the front of the torch with their bare hand and it will be cold to the touch seconds after welding. With the proper chiller, this can be done even after a 4 hour arc time. If you over-heat a torch, it could leak. Heat will cause premature wear of the consumables and torches, and it can also reduce weld quality. The robustness of the D/F torches will allow them to work with insufficient chillers, but it is not an ideal situation. The cooler the torch is, the longer the torch and consumables last, and the better the weld quality. Make certain the cooling water supply is at least the minimum flow rate of 1 gallon per minute (for each inner body), at 40 psi (80 psi maximum) with a 6 gallon reservoir and 30,000 BTU/hr cooling capacity. D/F Machine Specialties does not manufacture or sell chillers, we only recommend them to see that our torches are properly cooled.



## MODEL EXPLANATION

TM1000 - TIG, Machine Barrel, 1000 Amp

## FEATURES

- 1000 Amps Current Capacity
- Large Tungsten Diameters: 1/8"-.375"
- Extreme Conditions & Duty Cycles
- Water-Cooled Inner Body & Nozzle

## ORDERING INFORMATION (Complete Barrel Only)

DESCRIPTION	CODE NO.
Model TM1000 "BIG TIG"	15505

## ORDERING INFORMATION (Collet for Tungsten Electrode)

DESCRIPTION	CODE NO. FOR TUNGSTEN ELECTRODE SIZES					
	1/8" (3.2mm)	5/32" (4mm)	3/16" (4.8mm)	1/4" (6.5mm)	5/16" (8mm)	3/8" (9.5mm)
Collet for Tungsten	15804	15805	15806	15807	15808	15809

## ORDERING INFORMATION (Complete Assemblies)

DESCRIPTION	CODE NO.									
	2 Ft.	3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	10 Ft.	12 Ft.	15 Ft.
Model TM1000 "BIG TIG"	15202	15203	15204	15205	15206	15207	15208	15210	15212	15215

## MODEL SPECIFICATIONS - CONTINUOUS DUTY CYCLE

Model	Current Capacity	Length	Weight (approx.)	Cooling Required	Diameter of Body	Recommended Tungsten Electrode Range	Instruction Manual
TM1000	1000 amps	19"	11.8 lbs.	1 gallon/min	2.375"	1/8" (3.2mm)-3/8" (9.5mm)	63TM

