



Utility Stations

Standard, Dual Power & Air-Cooled

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

UTILITY STATIONS

D/F MIG (GMAW) and TIG (GTAW) barrels can hook up to any of the different manufacturers power sources and wire feeders. Every wire feeder manufacturer has different sized holes where the torch's conduit or casing plugs into the wire feeder. They call these pins 'power pins'. Typical modern torch setups utilize a unitized cable assembly with a power pin. The gas, water, power and conduit are combined into a single replaceable unit. When one cable goes bad, the whole unit is replaced. This can be expensive. Also, this approach does not allow for a large enough inner power cable needed for necessary high amperages, and it is restricted in size by small passages for water, gas and wire. Water-cooling and gas coverage are both limited by the size restrictions.

D/F refers to these "power pins" as feeder adapters (not power pins). We do not put the power on the pin or the feeder adapter. We put the power (4/0 cable) from the power source into the back of our Utility Station. The power travels from the Utility Station down our 650 amp water cooled Water Out & Power Cable to the torch body where the power is put on the tip that is recessed into the front of our water-cooled inner body. The torch utilities (Water Out & Power Cable, Water In Hose, Gas Hose) are individually plugged into the utility station and to the back of the torch. The casing/conduit, liner, and feeder adapter plug directly into the wire feeder. There is no power on the feeder adapter and casing. The casing's only purpose is to support the liner. The liner supports the wire and protects the casing from the abrasiveness of the wire.

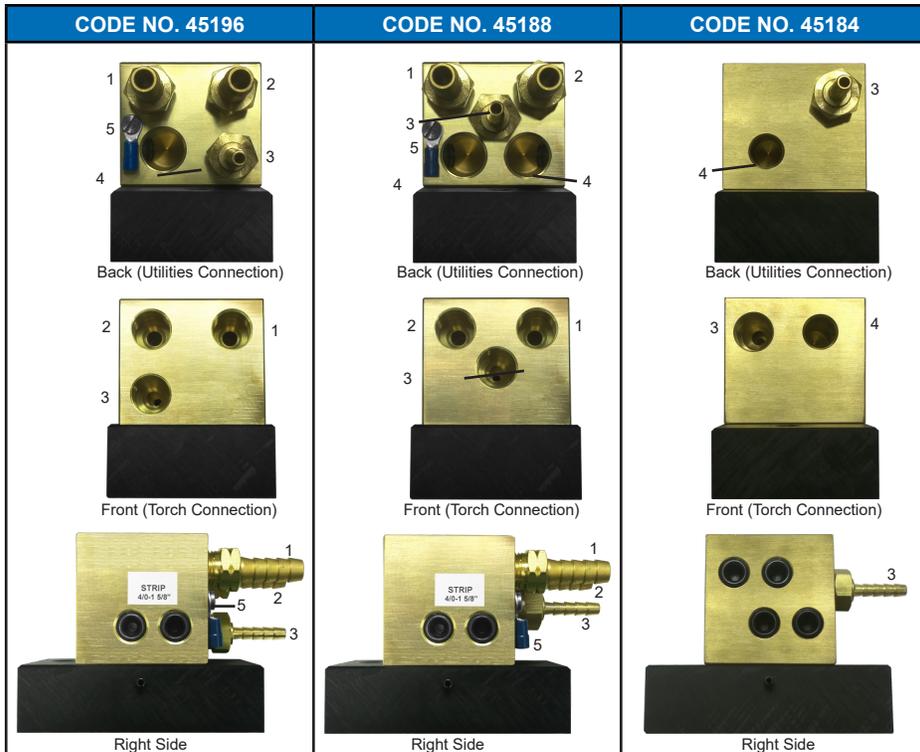
D/F torches take an alternative approach to the setup. The torches use a separate gas hose, water-in hose, Water Out & Power Cable, and casing/conduit. When one cable goes bad it is simply replaced instead of attaching an entire new unitized cable assembly; a huge cost saver! This is also where the D/F Utility Station comes into play. The Gas Hose, Water-In Hose, and Water Out & Power Cable are interfaced with the customer's existing lines via the Utility Station. The D/F torch leads plug into the front of the Utility Station. Into the back of the Utility Station go the customer's utilities. The back includes industry standard 3/8" shanks to allow the customer to connect the water in and water out lines, and a 3/16" shank to connect the gas line. Along with these hoses, the customer must plug the a 4/0 power cable directly from the power source to the back of the Utility Station. This is how the D/F torches are powered, NOT with a power cable to the wire feeder; there can be no jumper cable from the drive roll to the Utility Station. The power must travel through the Utility Station and down to the torch via the Water Out & Power Cable, hence the name. It is most important to remove the 4/0 power cable from the lug of the wire feeder drive roll stand, strip the cable back roughly 2", and insert the 4/0 power cable into the back of the D/F Utility Station. Finally, a short gas hose jumper is needed for control of the gas. Remove the small black 3/16" hose that connects from the solenoid to the feeder input inside the wire feeder. The jumper can be attached by removing the 3/16" hose from the solenoid, and attaching the 3/16" gas jumper hose to the solenoid and to the back of the D/F Utility Station's 3/16" shank.

Due to the fact that every welding application is different because of size restrictions, access restrictions, positioning restrictions, etc., we have a solution for your unique application. By using separate utilities and a Utility Station, the D/F torches can carry more power, run cooler, provide more gas coverage, withstand extreme conditions (1000 degree pre-heat), increase weld quality (X-ray quality welds), and run the full range of wire through 1/8".

ORDERING INFORMATION

DESCRIPTION	CODE NO.
Utility Station - Standard W/C	45196
Utility Station - Dual Power W/C	45188
Utility Station - A/C Barrels	45184

The D/F Utility Station 45196 is the Standard Utility Station. On the front it accepts a D/F gas hose, a D/F water-in hose, and one D/F Water Out & Power Cable. On the back it accepts a single water in hose, a single water out hose, a single gas hose and a single 4/0 power cable that is held in by socket set screws. The D/F Utility Station 45188 is the Dual Power Utility Station. On the front it accepts a D/F gas hose and two (2) D/F Water In/Out & Power Cables. On the back it accepts a single water in hose, a single water out hose, a single gas hose and two 4/0 power cables that are held in by socket set screws. The D/F Utility Station 45184 is the Utility Station for air-cooled torches. On the front it accepts a D/F gas hose and a D/F 1/0 power cable that is held in by socket set screws. On the back it accepts a single gas hose and a single 1/0 power cable that is held in by socket set screws. Each Utility Station is also fitted with a voltage sensing lead.



UTILITY STATION CONNECTIONS

DESCRIPTION	REFERENCE
Water Out & Power Cable	1
Water In Hose	2
Shielding Gas Hose	3
Power Cable	4
Voltage Sensing Lead	5

DIMENSION SPECIFICATIONS

Base Length	3.75"
Overall Length	5.75"
Base Width	2.25"
Overall Width	2.5"
Overall Height	3.125"
Mount Hole Center Distance	2.75"
Overall Weight	3.5 lbs.

