



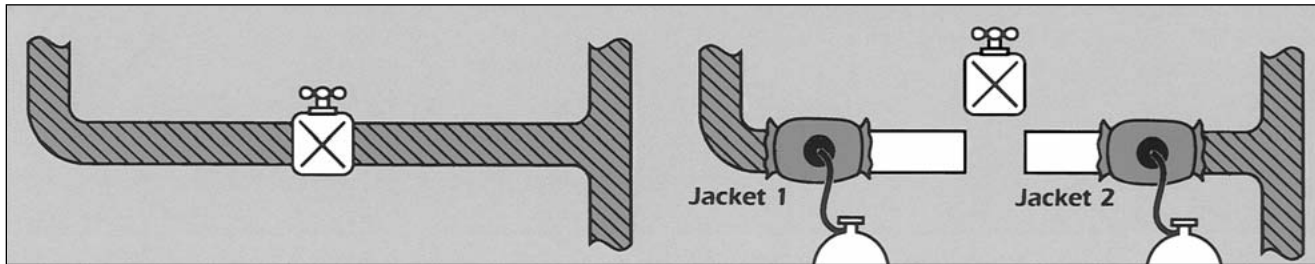
PIPE FREEZING EQUIPMENT

Qwik-Freezer®

The Qwik-Freezer kit is easy to use. A specially designed jacket is wrapped around the pipe at the point where the freeze is required. A nozzle on the jacket is then coupled to a cylinder of **liquid CO₂** by means of a high pressure hose. When the **liquid CO₂** is injected into the space between the jacket and the pipe, it immediately expands to form solid carbon dioxide (dry ice) at a temperature of -109°F (-78°C). This low temperature quickly freezes the contents forming a secure "ice plug" which seals the pipe.

The "ice plug" forms only in the section of pipe covered by the jacket so the resulting rise in pressure is very small and there is no damage to the pipe. The technique can be used safely on iron, lead, stainless steel, copper, brass and plastic pipe.

A Typical Qwik-Freezer® Application: Replacing a Defective Valve.



The water is brought to a **static condition**. The Qwik-Freezer jacket is then wrapped around the pipe, jacket #1 at a nearby upstream location. Injecting **liquid CO₂** into the jacket rapidly freezes the water in the pipe, permitting valve removal for servicing or replacement. Jacket #2 shows position of a second Qwik-Freezer jacket and tank used when a double freeze is required to block flow on both sides of the valve.

Standard Equipment

Qwik-Freezer kits consist of insulating pipe jackets, CO₂ cylinder(s), reinforced high pressure hose, fittings, insulated work gloves, a rubber mallet, safety glasses, operating manual, timing log and a rigid fibre carrying case. See table for exact contents.

Qwik-Freezer Jackets:

- QF 101 for 3/8" (9.375 mm) to 3/4" (18.75 mm) Pipe size
- QF 102 for 3/4" (18.75 mm) to 1 1/2" (37.5 mm) Pipe size
- QF 103 for 1 1/2" (37.5 mm) to 3" (75 mm) Pipe size
- QF 104 for 3 1/2" (87.5 mm) to 4" (100 mm) Pipe size
- GF 106 for 5" (125 mm) to 6" (150 mm) Pipe size
- GF 108 for 7" (175 mm) to 8" (200 mm) Pipe size

3/8" to 3" Pipe Freezing Kits*

Kit No.	QF 101 8" (203 mm) Jacket	QF 102 12" (305 mm) Jacket	QF 103 14" (356 mm) Jacket	QF 800 Hose (10ft.)	QFAL 20 20 lb. CO ₂ Cylinder	QF 801 Valve Adapter
QF 1500 3/8" (9.375 mm) - 1 1/2" (37.5 mm) pipe	1	1	-	1	1	1
QF 2000 3/4" (18.75 mm) - 1 1/2" (37.5 mm) pipe	-	1	-	1	1	1
QF 2200 3/4" (18.75 mm) - 1 1/2" (37.5 mm) pipe	-	2	-	2	2	2
QF 3000 3/8" (9.375 mm) - 3" (75 mm) pipe	1	1	1	2	2	2

* All of the above kits contain the following standard accessories: gloves, rubber mallet, timing log, safety glasses, operating manual, and carrying case. Individual items (jackets, etc.) may also be ordered separately.

4" to 8" Pipe Freezing Kits*

Kit No.	QF 101 8" Jacket (203 mm)	QF 102 12" Jacket (305 mm)	QF 103 14" Jacket (356 mm)	QF 104 20" Jacket (508 mm)	QF 106 28" Jacket (711 mm)	QF 108 33" Jacket (838 mm)	QF 800B Hose (16ft.)	QF 801 Valve Adapter	QF 802 T Connector	QF 815 Timing Board	QFAL 50 50 lb. CO ₂ Cylinder
QF 4000 3/8" - 4" pipe	1	1	1	1	-	-	4	2	2	1	2
QF 4100 3" - 4" pipe	-	-	-	1	-	-	4	2	2	1	2
QF 6000 3/8" - 6" pipe	1	1	1	1	1	-	4	4	2	1	6
QF 6100 5" - 6" pipe	-	-	-	-	1	-	3	4	2	1	6
QF 8000 3/8" - 8" pipe	1	1	1	1	1	1	4	4	2	1	12
QF 8100 7" - 8" pipe	-	-	-	-	-	1	4	4	2	1	12

* All of the above kits contain the following standard accessories: gloves, rubber mallet, safety glasses, operating manual, and carrying case. Individual items (jackets, etc.) may also be ordered separately to suit your job requirements. Refer to the price list for a complete parts listing.