

GENERAL

The Caproco High Pressure Hot Tap is a specialized tool designed to bore into a fully-pressurized pipe or vessel (up to 3,600 PSI / 24.8 Mpa) via a high pressure access fitting. Once the hole is drilled, the access fitting can be used as an entry point where internal corrosion monitoring equipment can be exposed to the operating system. The hot tap tool is used in conjunction with the Caproco Retriever and Service Valve.

The drilling machine offers a safe and reliable means of drilling a clean hole without distortion. Its design provides ample cutter-travel to allow hot tapping through all standard access fitting lengths and pipe wall thicknesses. The cutter can be driven manually with a ratchet-type socket wrench, electric motor or air-driven motor.

APPLICATION

The procedure that is followed when an access fitting is attached, tested and hot tapped under pressure, is outlined below.

The first step is to determine the wall thickness of the vessel or pipe (an ultrasonic thickness tester may be used), ensuring that the cutter length of the hot tap is sufficient to penetrate the pipe wall thickness.

The access fitting is then welded onto the structure and the weld is pressure tested using the hydrostatic test assembly.

The hot tap hollow plug is threaded into the access fitting and tightened using a spanner wrench. The drill is now lowered to the surface wall and a clean hole is cut by turning the drive nut, either with a socket wrench or by connecting a motor.

Once the drilling is complete, the drilling machine can be detached from the hot tap hollow plug and taken off the access fitting, leaving the hollow plug in place to maintain the seal. The Caproco Service Valve and Retriever is attached to the access fitting, and the hot tap hollow plug is removed. The access fitting is swabbed and flushed, and a normal solid or hollow plug and monitoring device can be installed.



SPECIFICATIONS

The Caproco high pressure hot tap is manufactured from carbon steel with hardened high speed steel drill bits.

Maximum Operating Pressure	3,600 psi (24.8 MPa)
Maximum Operating Temperature	500°F (260°C)

High Pressure Hot Tap Drilling Machine Kit (P/N 13238) Includes:

DESCRIPTION	PART NUMBER
Hot Tap Machine (3,600 psi)	--
Step Drill	45050
Ratchet Wrench	56156
Socket	56155
Hand Tools	--
Heavy Duty Carrying Case	45025
Lubriplate Grease	11608

DRILL BIT (CUTTER) SELECTION CHART

ACCESS FITTING HEIGHT	PIPE WALL THICKNESS	PART NUMBER
5.25" (133mm)	up to 2.50" (64mm)	45050
6.25" (159mm)	up to 1.50" (38mm)	45040
6.25" (159mm)	up to 2.50" (64mm)	45051
7.25" (184mm)	up to 1.50" (38mm)	45051

