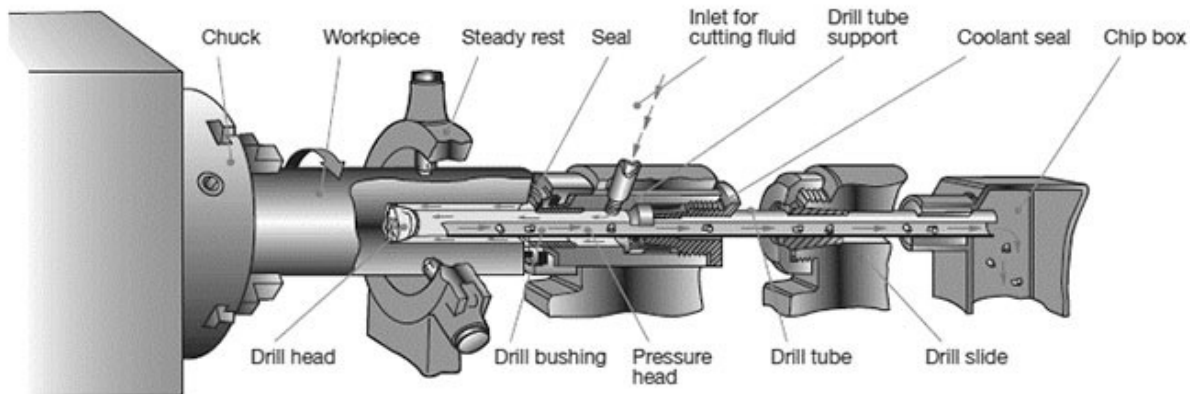




Single Tube Systems



The single tube system STS or sometimes referred to as the “BTA” system of drilling, is the reverse of a gun drilling system. Unlike the gun drill, the STS or “BTA” drilling system assembly consists of a drill head that is attached to a ground cylindrical tube by either an internal or external fast lead thread. The drill tube or boring bar is smaller in diameter than the drill head which forms an annular space between the hole being drilled and the OD of the drill tube or boring bar. This space is known as “oil room” and in conjunction with a coolant induction unit or a pressure head, makes it possible to direct filtered high volume coolant to the drill head cutting edge.

This pressure head seals against the entry side of the part to be drilled and directs the coolant to the detachable drill head. The coolant provides lubrication for the drill head and assures that all of the chips produced by the drill head are directed through the detachable cutting head are flushed internally through the ID of a cylindrical hollow drill tube or boring bar. This is better known as an external coolant supply / internal (ID) chip exhaust method of drilling.

The STS / BTA system supports tools ranging from .437” - 30.000” diameter. These tools and this system allow depth to diameter ratios in excess of 100x’s dia. In most cases the STS / BTA system is setup on dedicated deep hole drilling machines. This system is the best choice for extremely deep bores and for materials with poor chip forming properties such as stainless steel, Titanium, and low carbon steel.

BTA Heller offers a full line of brazed and indexable drill heads and all accessories for this system.