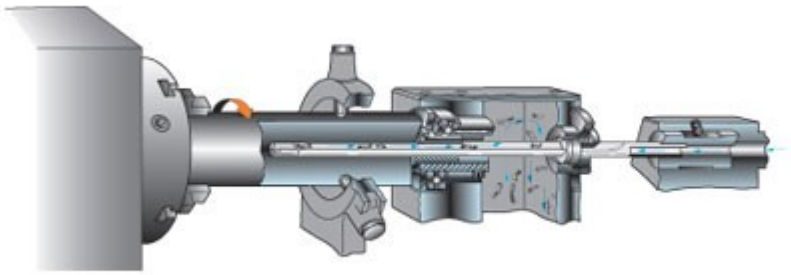
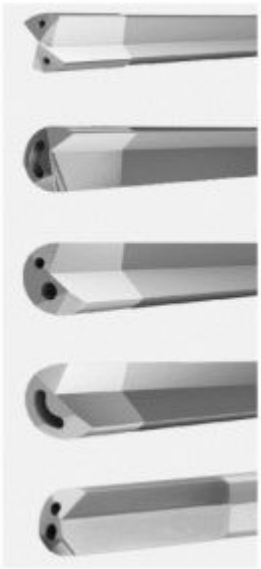
Gun Drilling Systems



Gun drilling is the oldest and most widely used method of deep hole drilling employed by industry today. The drill or “gun drill” is generally a one-piece assembly consisting of a hollow cylindrical drill driver that is brazed to a V-shaped crimped tube and finally assembled to a brazed-on solid carbide drill head. Both the crimped drill shank and the brazed-on carbide drill head from a kidney-shaped cross-section, whereby the open V-shaped section acts as a chip flute.

In all cases, gun drills require filtered, the high-pressure coolant that is introduced through the center of the crimped gun drill shank and then directed to a coolant orifice in the carbide drill head. The high-pressure coolant provides lubrication for the drill head and assures that all of the chips produced by the drill head are exhausted through the V-shaped chip flute of the gun drill shank. Gun drilling is better known as an internal coolant supply / external chip exhaust method of drilling.



Gun drills are generally used on single purpose gun drilling machines as well as on a variety of machining and turning centers that are equipped with sufficient high-pressure coolant and filtrations systems. With this system of drilling, one can expect to drill to depths in excess of 100 x dia.

BTA Heller offers gun drills ranging from 0.055 to 2.000” diameter with several different carbide grades, coatings and cutting edge geometry options.