

Tube Hollows International

Capability: Gun/Deep Hole Drilling

Capability:

With our deep roots in precision machining that date back to the 1940s, at Tube Hollows International we have unsurpassed expertise in the process of gun/deep hole drilling. Gun drilling is an integral part of our overall machining capabilities and allows us to provide customers with a complete solution for their machining requirements. As with all of our machining systems, our gun drilling capabilities are supported by high precision machines. We operate gun drilling equipment that features 4 axes of cutting and can produce multiple hole types including angle, blind, concentric, cross cavity, thru holes, and several others. These precision systems are augmented by our proprietary gun drilling techniques that virtually eliminate drift; this added capability ensures tolerances for straightness and concentricity that are unsurpassed in the industry.

With this service, we can produce on-center holes measuring from .055" to 6.0" in diameter in parts with diameters in the .250" to 12.0" range, and maximum diameter for off-center holes of 3.5". Hole depths of up to 240.0" on parts up to 360.0" in length are also possible as well as tolerances to $\pm .0005$ ". The diverse capabilities of our gun drilling equipment are matched only by the wide range of materials it is suited for. From standard to exotic and precious metals some of which include inconel, invar, molybdenum, monel, niobium, platinum, silver, tantalum, and various super alloys.

Our skilled machinists possess many years of experience with a deep understanding of materials and manufacturing. This allows our team to develop processes that take full advantage of the strengths of our machines and provide the optimal combination of quality and value.

Examples of work include drive rods and other seamless precision tubes for nuclear reactor components, shafts and seamless tubular components and various high-value aerospace parts. We also manufacture precision stainless steel hollows and cannulated bars used in medical device manufacturing, refractory metal tubing, and many other products for a range of demanding industries. To learn more about our deep hole drilling capabilities or a quote, contact us directly.

Hole Types	Angle Blind Concentric Cross Cavity Flat Bottom Intersecting Thru
Machinery Axis	4
Materials (Exotic & Precious Metals)	Inconel Invar Molybdenum Monel Niobium Platinum Silver Superalloys Tantalum
Secondary Services Offered	Assembly Drilling

	Deep hole Drilling Tapping Bending Threading Broaching Counter Sinking Pressing Milling Reaming Centerless Grinding						
Tolerances	± .0005 inches						
Part Diameter	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">.250 in</td> <td style="text-align: center;">12 in</td> </tr> </table>		Min	Max		.250 in	12 in
	Min	Max					
	.250 in	12 in					
Bolt Circle Diameter	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">1 in</td> <td style="text-align: center;">12 in</td> </tr> </table>		Min	Max		1 in	12 in
	Min	Max					
	1 in	12 in					
On Center Hole Diameters	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">.055 in</td> <td style="text-align: center;">6 in</td> </tr> </table>		Min	Max		.055 in	6 in
	Min	Max					
	.055 in	6 in					
Off Center Hole Diameter	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">.055 in</td> <td style="text-align: center;">3.5 in</td> </tr> </table>		Min	Max		.055 in	3.5 in
	Min	Max					
	.055 in	3.5 in					
Drill Depth	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">n/a in</td> <td style="text-align: center;">240 in</td> </tr> </table>		Min	Max		n/a in	240 in
	Min	Max					
	n/a in	240 in					
Part Length	<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="text-align: center;">Min</td> <td style="text-align: center;">Max</td> </tr> <tr> <td></td> <td style="text-align: center;">1 in</td> <td style="text-align: center;">360 in</td> </tr> </table>		Min	Max		1 in	360 in
	Min	Max					
	1 in	360 in					
Production Volume	Prototype Low Volume High Volume						
Lead Times Available	Quoted on job by job basis						

Additional Information

Intended Applications	<p>Nuclear reactor components, including drive rods and other seamless precision tubes</p> <p>Shafts and test harness tubular components for aerospace turbines</p> <p>Precision hollows for tubing and component manufacturers.</p> <p>Stainless steel precision hollows</p> <p>Cannulated bars for device manufacturing</p>
-----------------------	---

	Seamless tubing for rotorcraft landing gear Process tubing Refractory metal tubing and hot-zone components
Industry Focus	Aerospace Chemical Electronic Marine Medical Military Oil Field
Industry Standards	ANSI AS ASME ASTM ISO Mil-Spec
File Formats	AutoCAD (DWG,DWZ) BMP DXF GIF JPG or JPEG PDF SolidWorks (SLDPRT,SLDDRW,SLDDRT) STEP TIFF