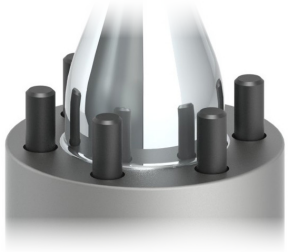
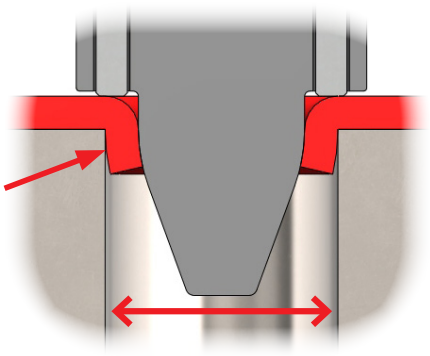
“Receiving Hole” Clearance Requirement

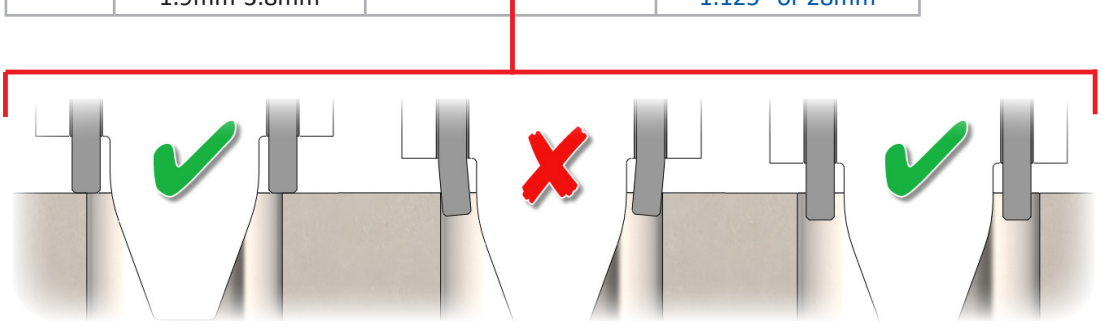


Ejector Pin Style for Heavy Duty Stock

Clearance minimizes the forces subjected on the Pilot and tooling during a miss-hit situation. The hole below the pilot allows the material to extrude, rather than creating a “pinch trim” situation.

Pilot Dia.	Stock Thickness Range	Diameter Range that will interfere with Ejectors when stock is not present	Standard Receiving Hole Diameter
.3125”	.020” - .031”	.469” - .625”	.378” or 9.5m
	.031”-.050”		.469” or 12mm
.375”	.020” - .031”	.531” - .688”	.438” or 11mm
	.031”-.075”		.531” or 13.5mm
.500”	.020”-.050”	.656” - .813”	.625” or 16mm
	.050”-.100”		.844” or 21.5mm
.625”	.020”-.063”	.781” - .938”	.750” or 19mm
	.063”-.125”		.938” or 24mm
.750”	.020”-.075”	.906” - 1.063”	.906” or 23mm
	.075”-.150”		1.125” or 28.5mm
8mm	0.5mm-0.8mm	12mm - 16mm	.378” or 9.5mm
	0.8mm-1.27mm		.469” or 12mm
10mm	0.5mm-0.8mm	13.5mm - 17.5mm	.469” or 12mm
	0.8mm-1.9mm		.531” or 13.5mm
13mm	0.5mm-1.3mm	16.5mm - 20.5mm	.625” or 16mm
	1.3mm-2.5mm		.807” or 20.5mm
16mm	0.5mm-1.6mm	20mm - 24mm	.781” or 20mm
	1.6mm-3.2mm		.938” or 24mm
20mm	0.5mm-1.9mm	24mm - 28mm	.938” or 24mm
	1.9mm-3.8mm		1.125” or 28mm

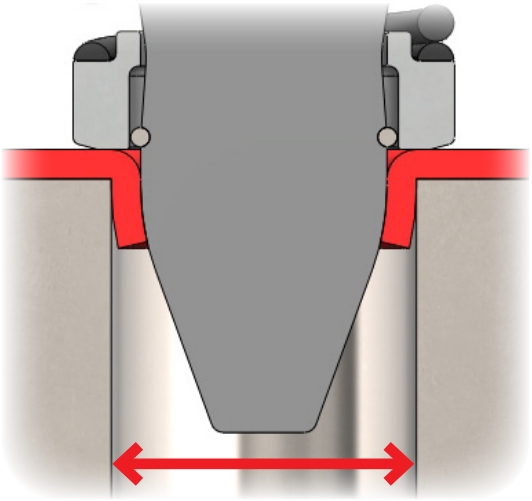




“Receiving Hole” Clearance Requirement

Round Stripper Style for Thin/Soft Stock

Clearance minimizes the forces subjected on the Pilot and tooling during a Mis-hit situation. The hole below the pilot allows the material to extrude, rather than creating a “pinch trim” situation.
Due to thin stock, we recommend that the clearance per side is equal to the stock thickness. This allows for adequate clearance during a mis-hit while still supporting the stock during normal running conditions.



Clearance Hole Diameter Formula:
Pilot Diameter + (Stock Thickness x 2)

Testing was done to ensure each pilot diameter could handle the worst case scenario that was still within our recommendations. This was done using high strength stock at the max thickness with a mis-hit of a half of a hole, thus subjecting all of the forces against the pilot in one direction.