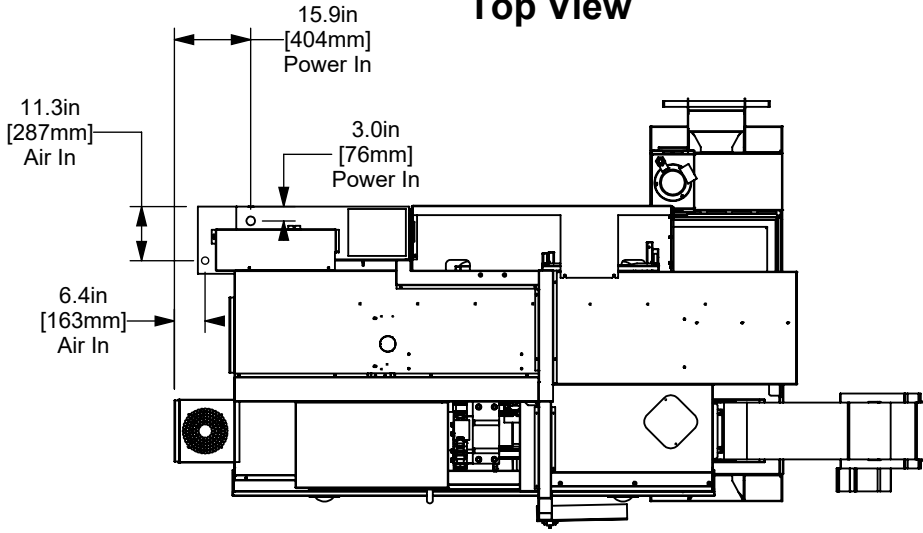


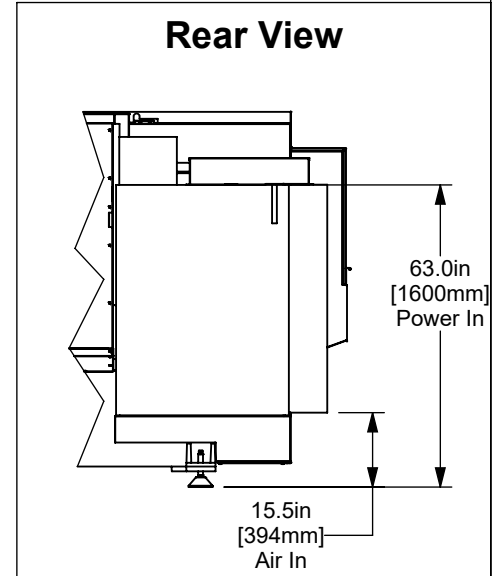
All dimensions based on stackup of sheetmetal, subject to variation of 1/2" (13 mm)

Air & Power

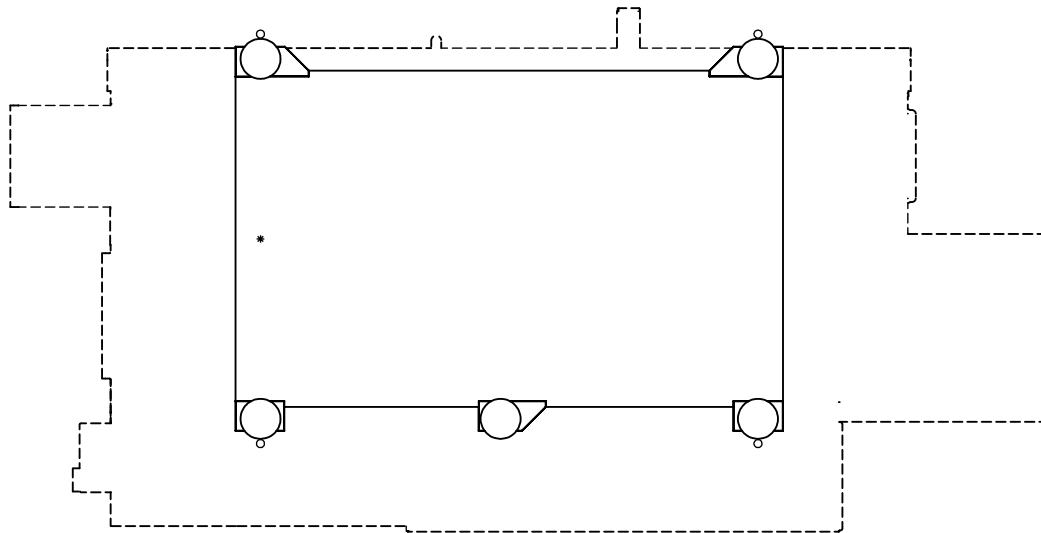
Top View



Rear View

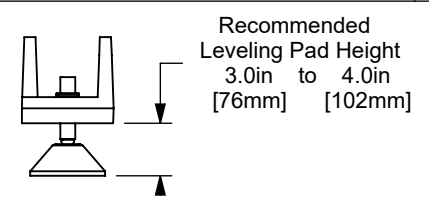
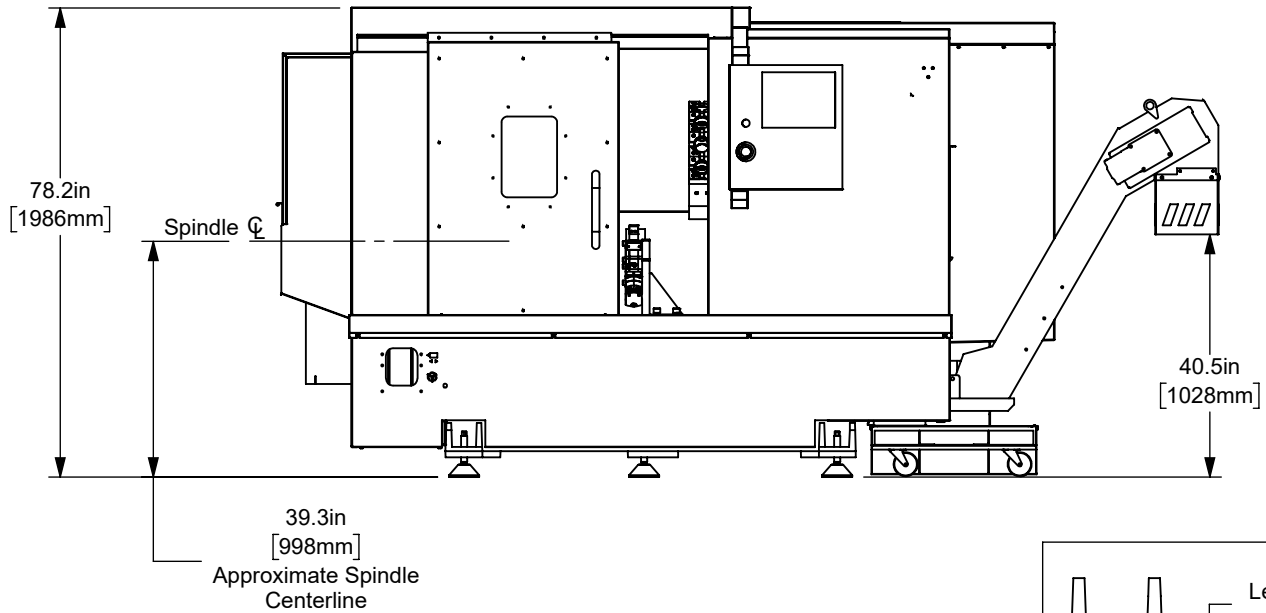


Anchor Pattern



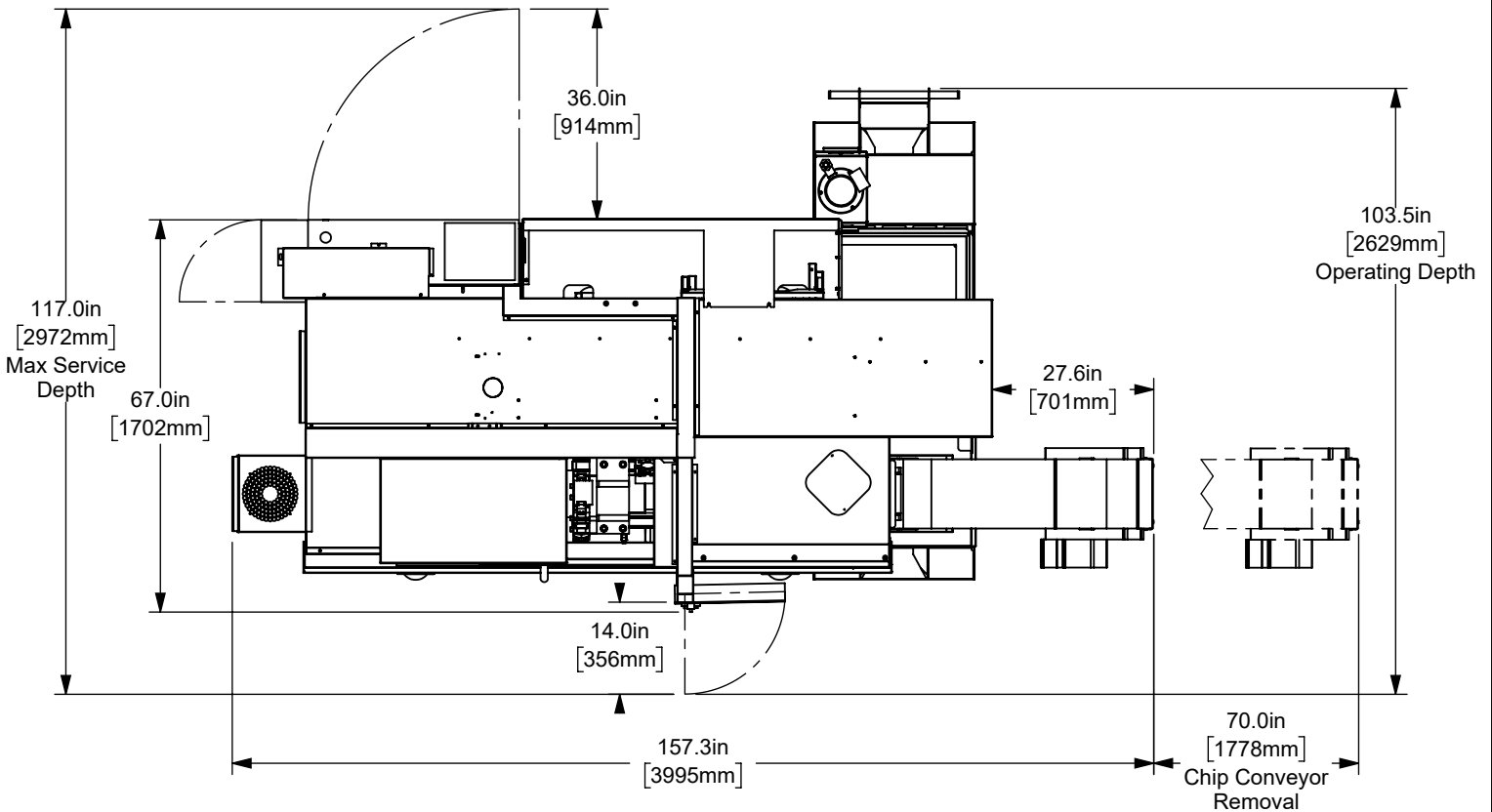
Anchor Pattern Provided with Purchase of Haas Anchoring Kit

Height Breakdown

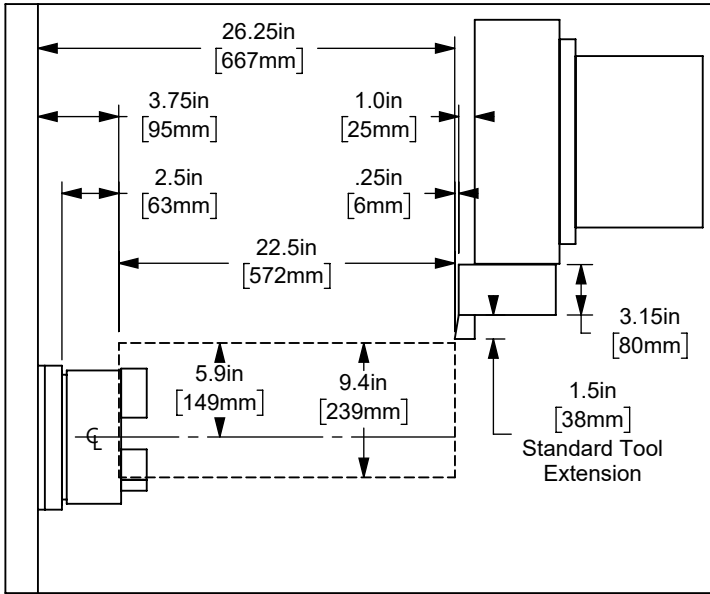


All dimensions based on stackup of sheetmetal, subject to variation of 1/2" (13 mm)

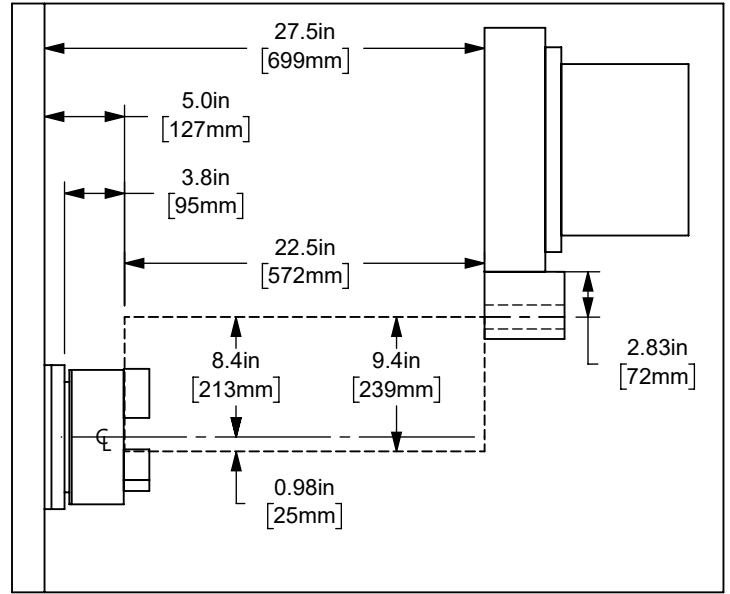
Width Breakdown



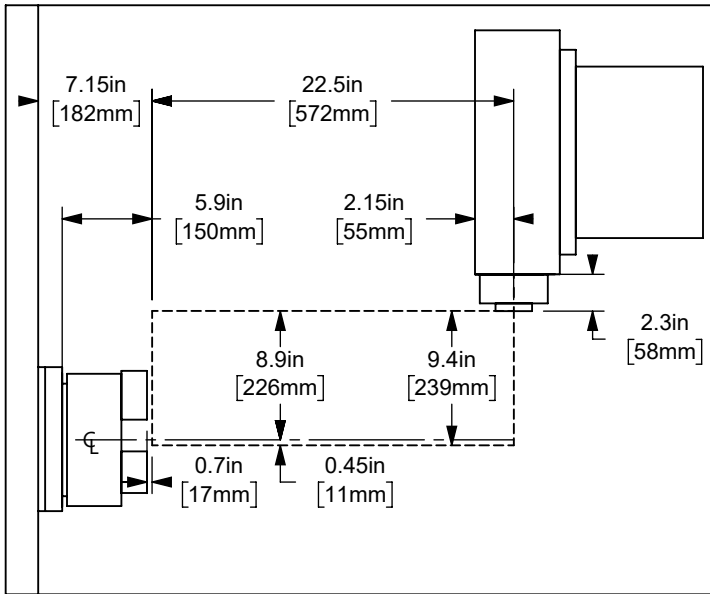
All dimensions based on stackup of sheetmetal, subject to variation of 1/2" (13 mm)



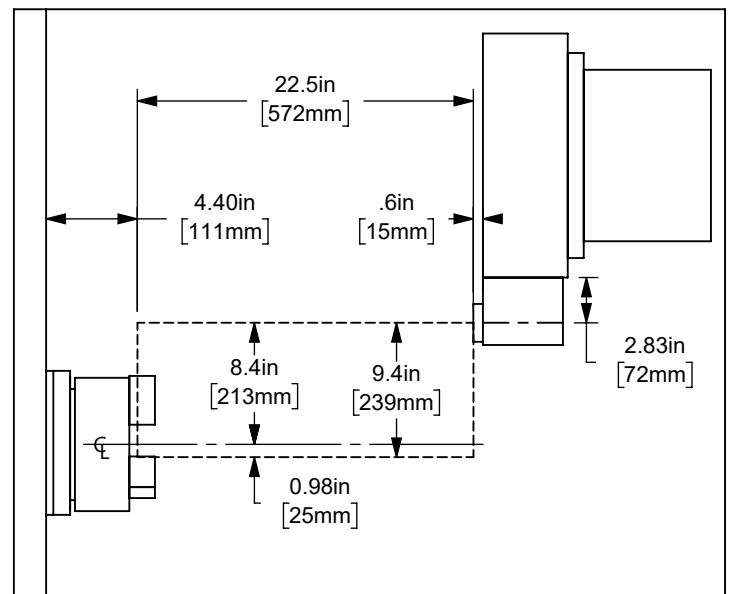
BMT OD



BMT ID / Drill / Bore **



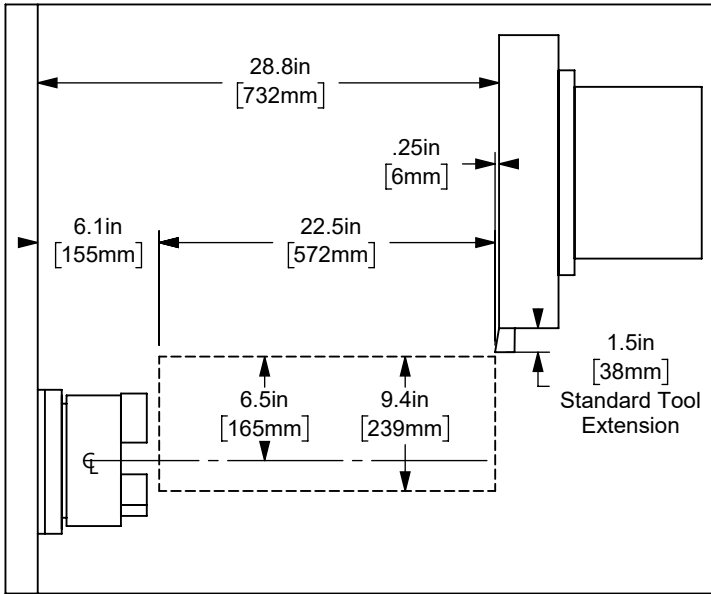
BMT Live Cross Tool *



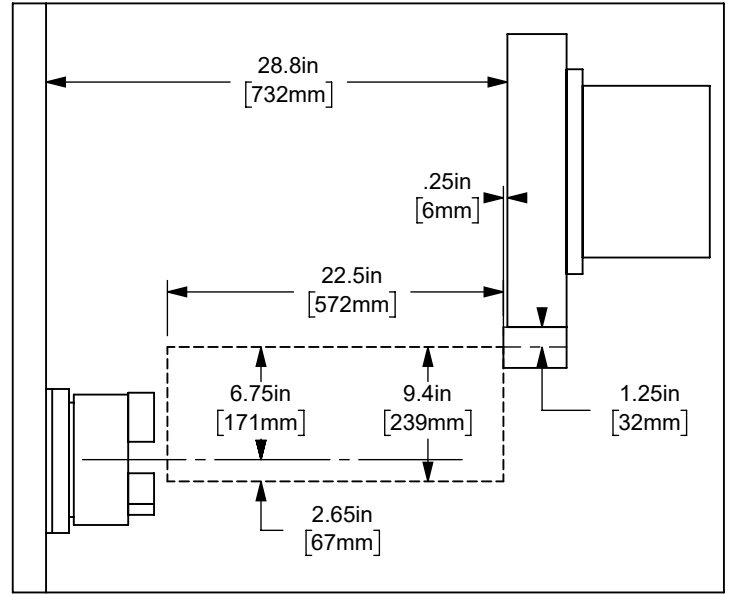
BMT Live Face Tool **

* Shift the work envelope in X by the tool protrusion length

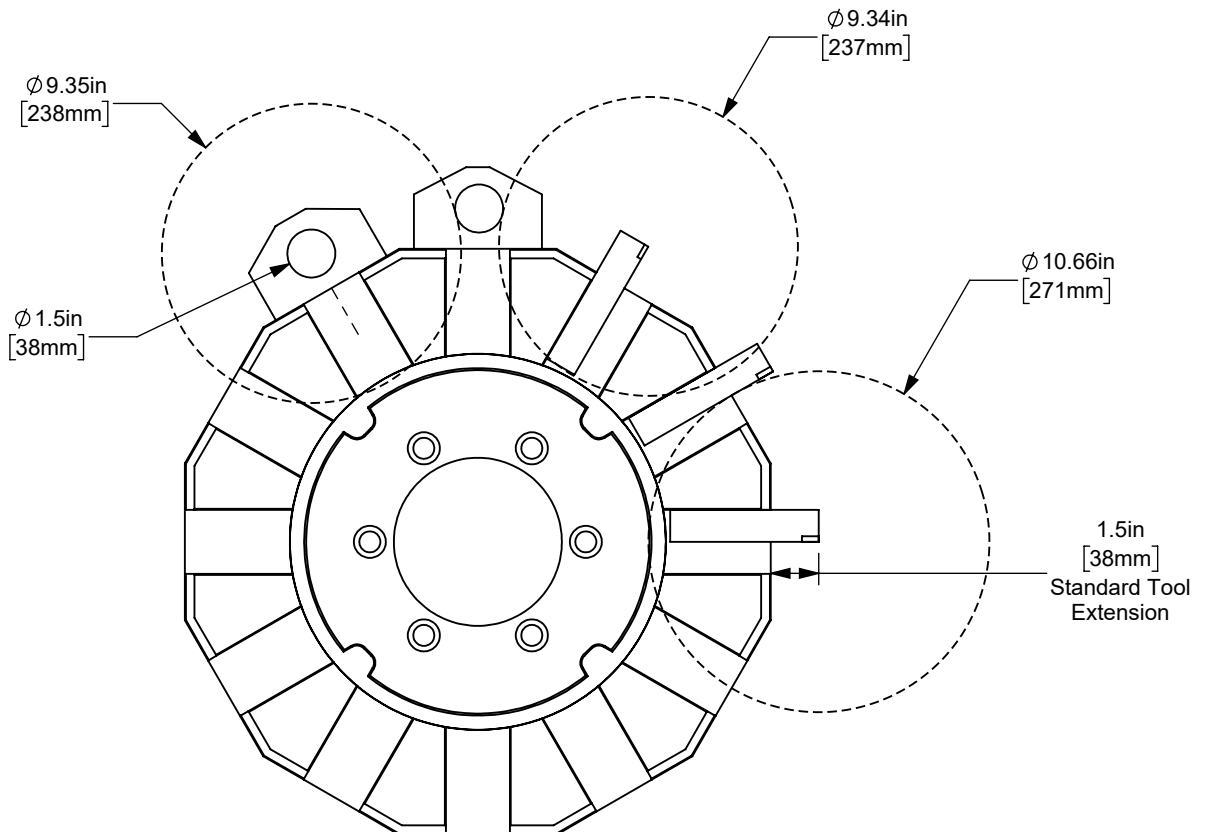
** Shift the work envelope in Z by the tool protrusion length



BOT OD*

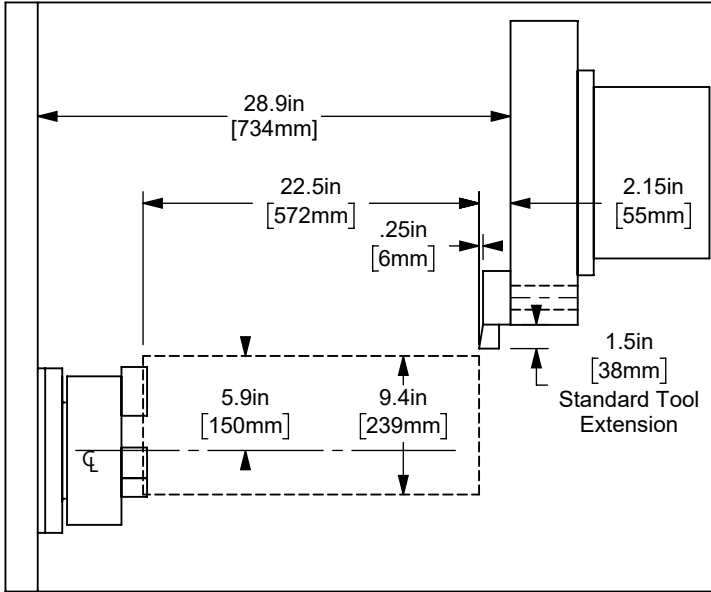


BOT ID / Drill / Bore */**

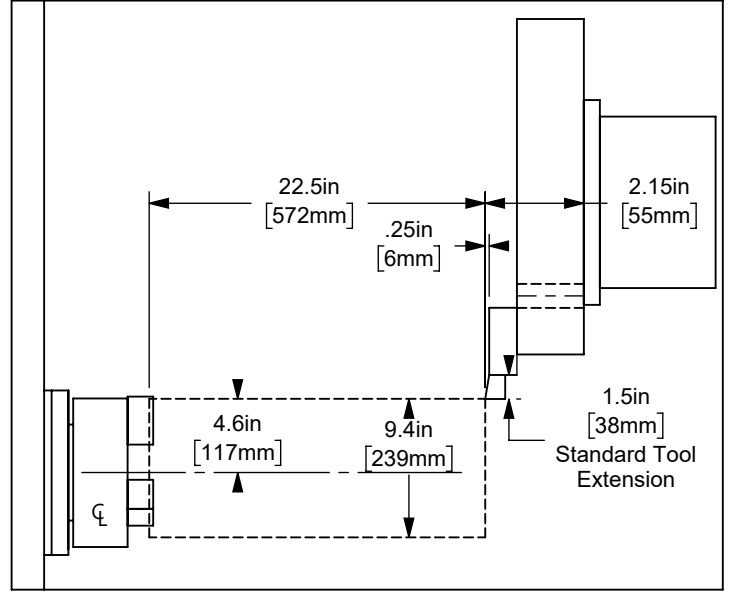


* Shift the work envelope in X by the tool protrusion length

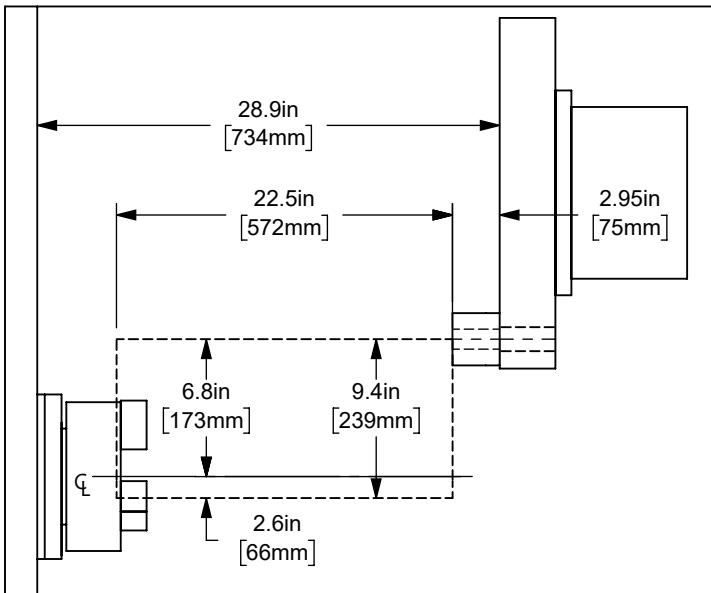
** Shift the work envelope in Z by the tool protrusion length



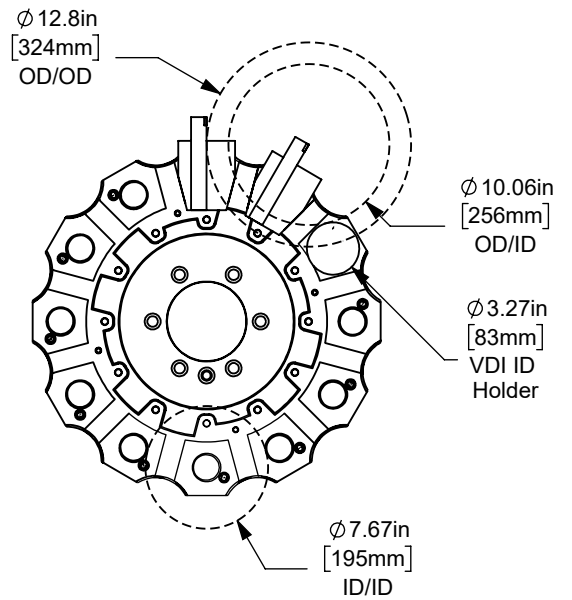
VDI OD Short*



VDI OD Long*



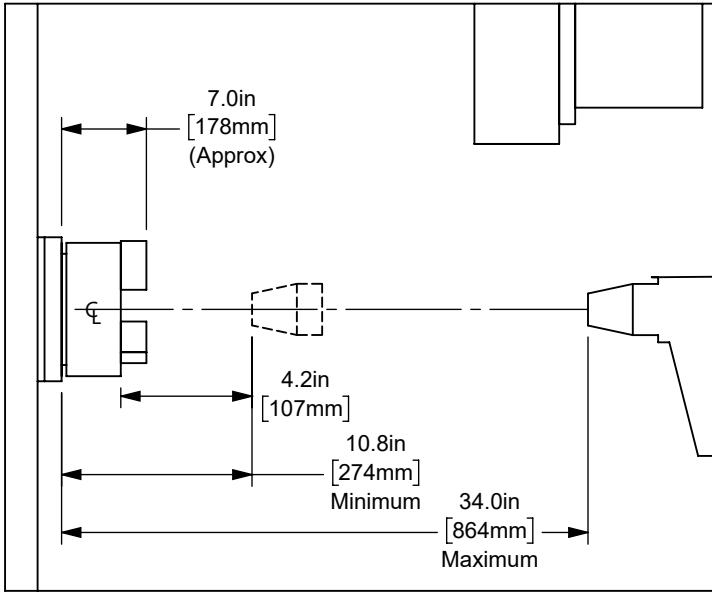
VDI ID */**



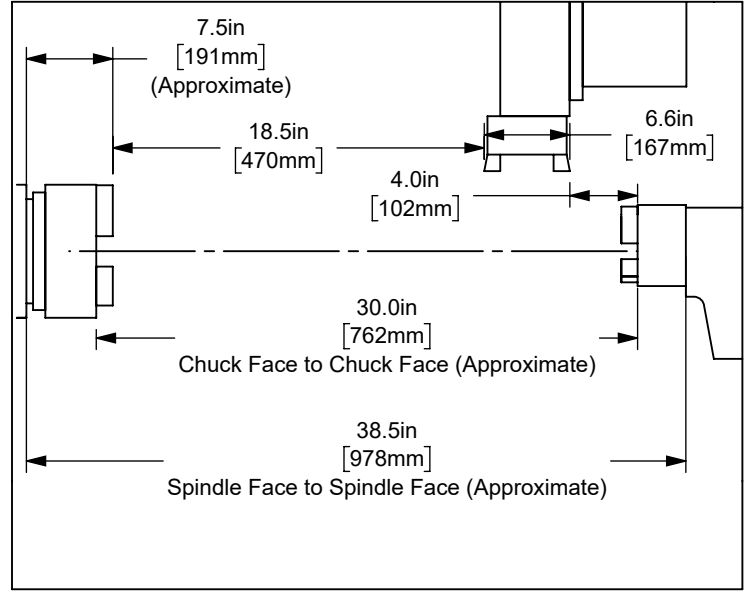
VDI Max Swing \varnothing 28.0in [711mm]

* Shift the work envelope in X by the tool protrusion length

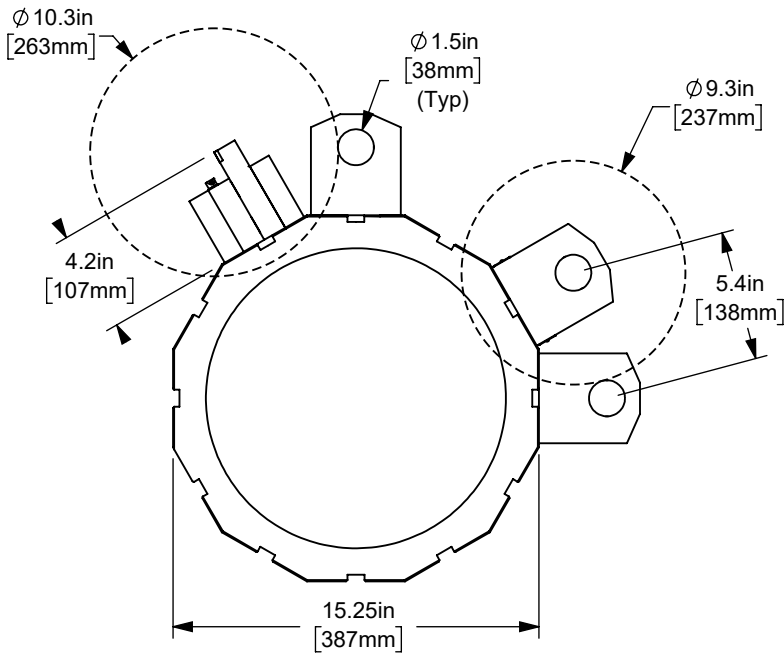
** Shift the work envelope in Z by the tool protrusion length



Tailstock Option

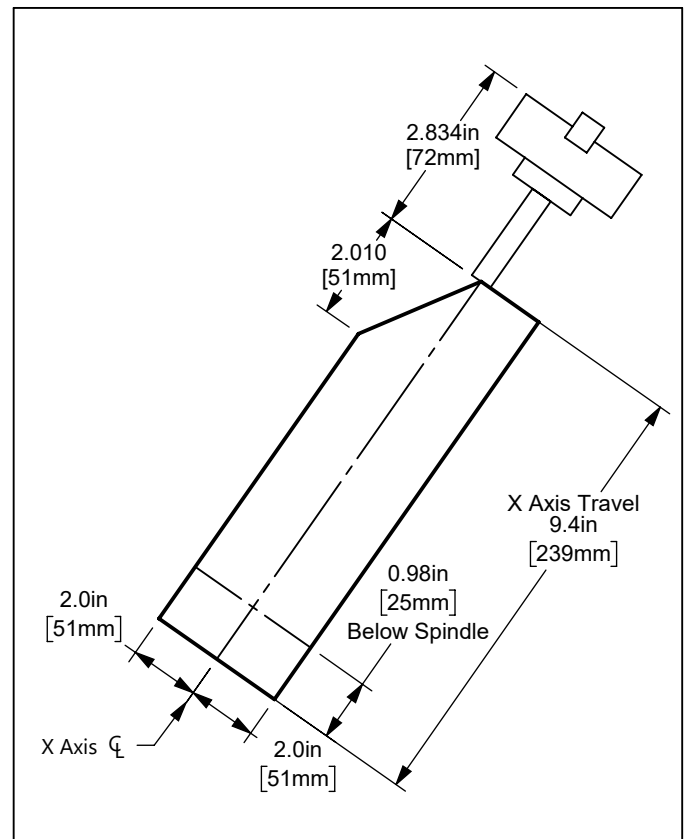


Sub Spindle Option



BMT65 Basic Tool Clearance

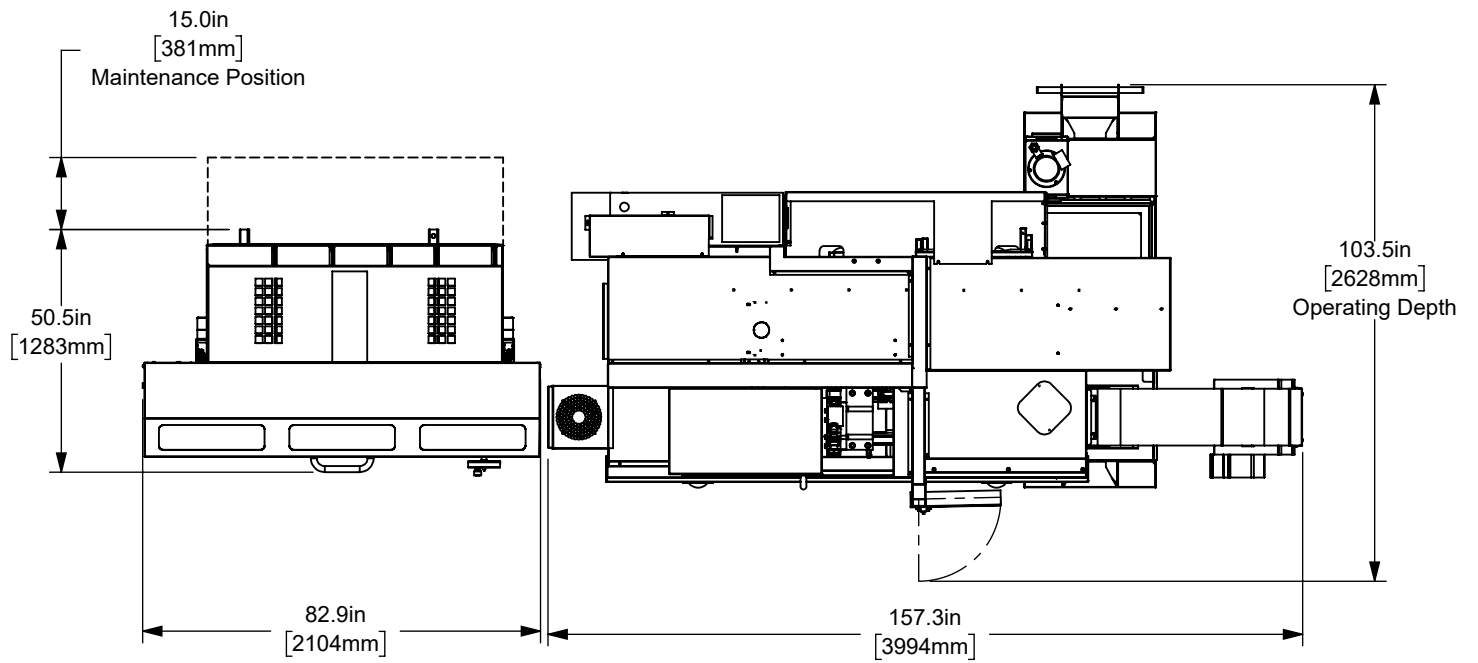
Maximum Turret Swing Ø 32.0in [889mm]

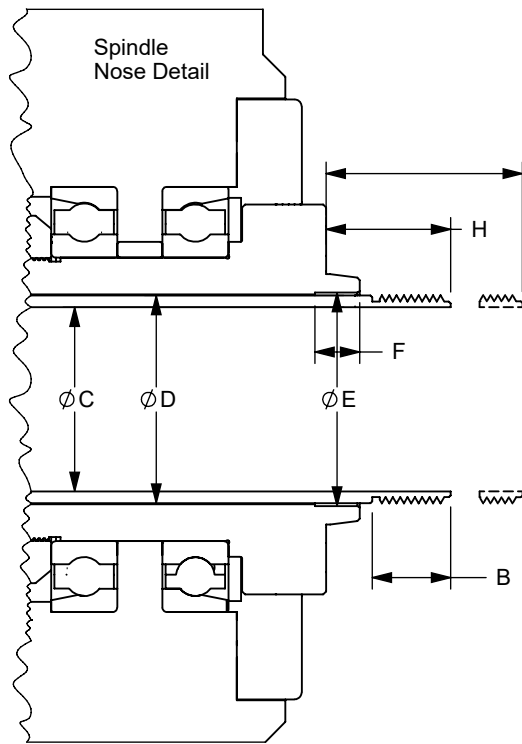
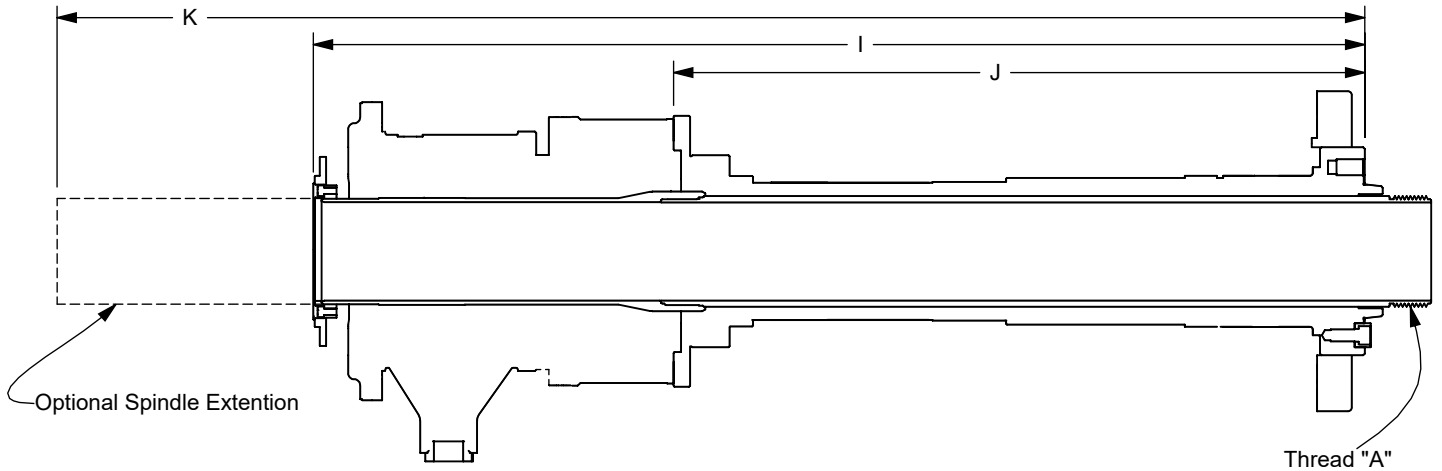


Y Axis Travel Envelope

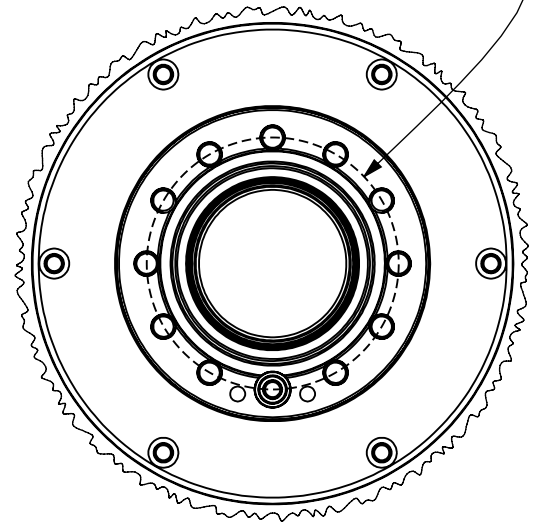
Same Dimensions Apply To 90° Live Face Tool

Bar Feeder Layout



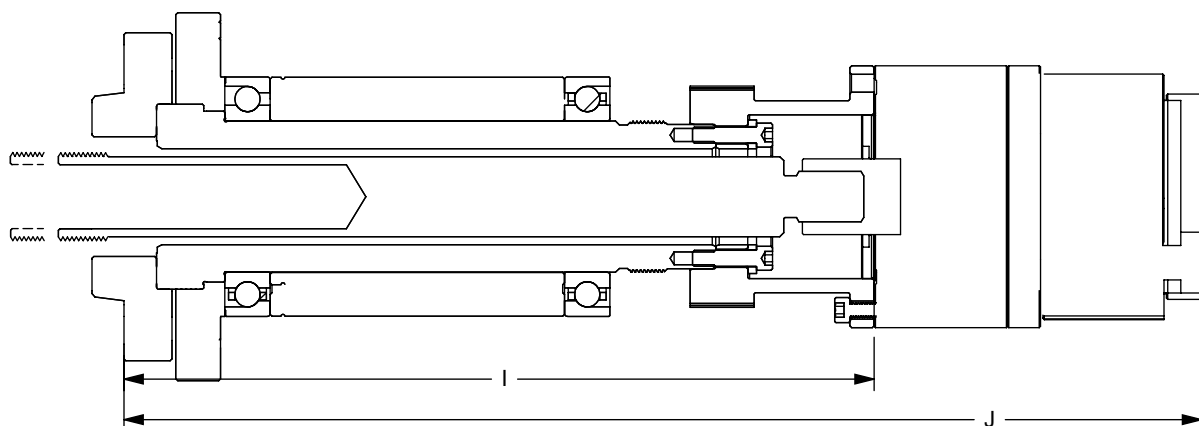


BHC and Spindle Nose dimensions per American Standard Bulletin ASA B5.9 1960

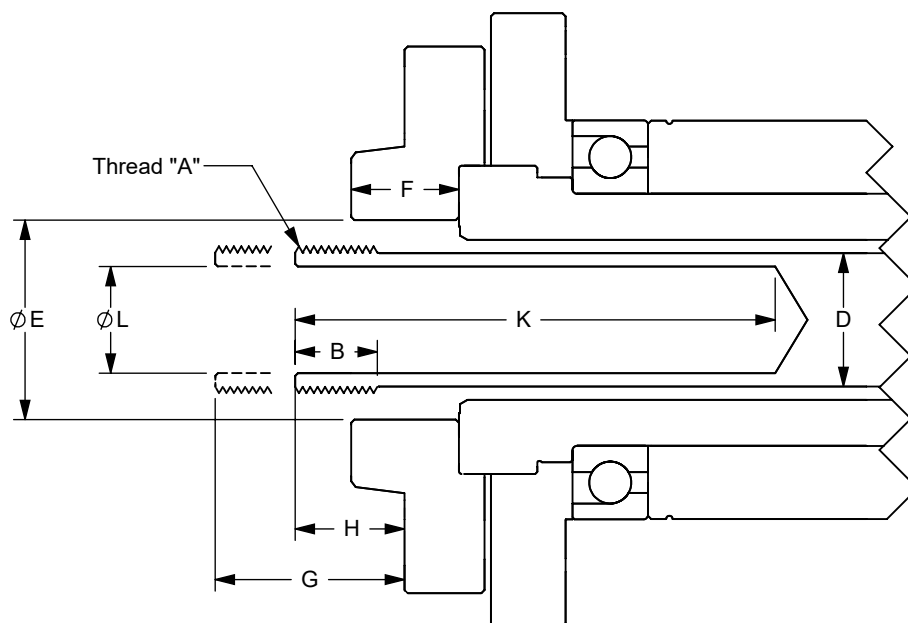
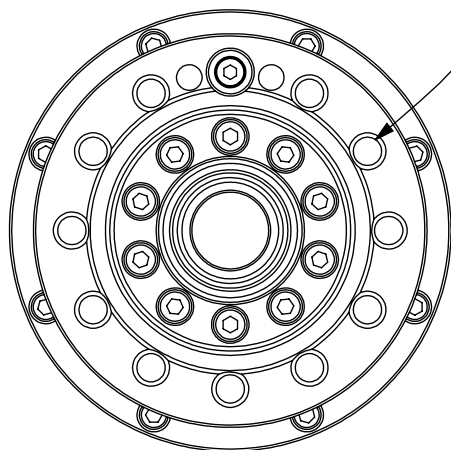


The following dimensions should be used as a reference only. Haas uses many different vendors for our drawtube assemblies. If any custom workholding is required Haas recommends you retrieve the exact dimensions from your delivered machine.

ST-28/28Y			
DESCRIPTION	DIMENSION	ST-28/Y	
		SAE	METRIC
MAIN OR SUB SPINDLE & TYPE		Main / A2-8	
DIAMETER OF THREAD	A	4.528"	115.0 MM
THREAD PITCH	A	0.079"	2.0 MM
INTERNAL OR EXTERNAL	A	External	
LENGTH OF THREAD	B	1.38"	35.1 MM
DRAWTUBE INTERNAL DIAMETER	C	4.23"	107.4 MM
DRAWTUBE EXTERNAL DIAMETER	D	4.56"	115.8 MM
COUNTERBORE INTERNAL DIAMETER	E	4.625"	117.4 MM
COUNTERBORE DEPTH	F	N/A	N/A
DRAWTUBE EXTENDED	G	2.60"	66.0 MM
DRAWTUBE RETRACTED	H	1.23"	31.2MM
SPINDLE FACE TO BACK OF UNION	I	33.0"	838.2 MM
SPINDLE FACE TO UNION ADAPTOR	J	23.5"	596.9 MM
TO BACK OF EXTENTION (OPTION)	K	N/A	N/A



BHC and Spindle Nose dimensions per
American Standard Bulletin ASA B5.9 1960



The following dimensions should be used as a reference only. Haas uses many different vendors for our drawtube assemblies. If any custom workholding is required Haas recommends you retrieve the exact dimensions from your delivered machine.

SUB-SPDL-A2-5 for ST-10 to ST-28/L/Y/LY			
DESCRIPTION	DIMENSION	SAE	METRIC
MAIN OR SUB SPINDLE & TYPE		Sub-Spindle / A2-5	
DIAMETER OF THREAD	A	1.378"	35 MM* or 40 MM
THREAD PITCH	A	0.059"	1.5 MM
INTERNAL OR EXTERNAL	A	External	
LENGTH OF THREAD	B	0.50"	12.7 MM
DRAWTUBE INNER DIAMETER	C	N/A - SOLID DRAWBAR	
DRAWTUBE OUTER DIAMETER	D	1.25"	31.75 MM
COUNTERBORE INNER DIAMETER	E	1.870"	47.5 MM
COUNTERBORE DEPTH	F	1.01"	25.65 MM
EXTENDED DISTANCE TO NOSE	G	1.452"	36.88 MM
RETRACTED DISTANCE TO NOSE	H	0.94"	23.88 MM
FROM SPINDLE FACE TO BACK OF UNION	I	11.72	297.7 MM
FROM SPINDLE FACE TO UNION ADAPTOR	J	16.84	427.7MM
EJECTOR POCKET DEPTH	K	4.5"	114.3 MM
EJECTOR POCKET DIAMETER	L	1.0"	25.4 MM

*M35 applies to Sub-Spindles made after July 2019 - M40 applies to older vintages