

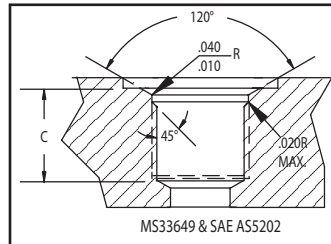
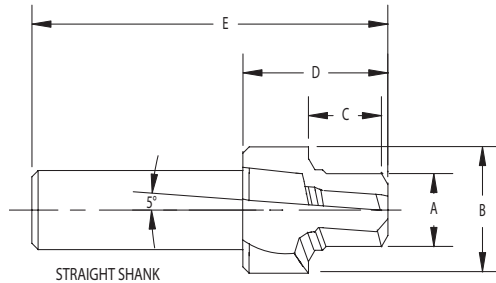
# PORT CONTOUR CUTTERS INTERNAL STRAIGHT THREAD O-RING BOSS

HIGH SPEED STEEL  
STRAIGHT SHANK

## MS33649/SAEAS5202



Reamer pilot series porting tools profiles the MS33649 contour. The reamer pilot also sizes the minor diameter per class 3B thread specification. Cutters are heat treated for toughness and durability. All tolerances are held within applicable Mil Specs. All grinding is done between centers to insure concentricity.



### COATINGS AVAILABLE

TITANIUM NITRIDE-TIN  
TITANIUM CARBONITRIDE-TICN  
TITANIUM ALUMINUM NITRIDE-TIALN  
AL TITANIUM NITRIDE-ALTN

### COOLANT THRU AVAILABLE

TOOL NUMBER	TUBE NO.	TUBE SIZE	THREAD SIZE	A REAMER DIA.	B SPOTFACE DIA.	C REAMER LENGTH	D HEAD LENGTH	E OAL LENGTH	SHANK DIMENSIONS	
									SHANK DIA.	SHANK LENGTH
MS49R-01H	1	1/16	1/4-28	.215	.650	.407	1-0	3-0	.500	2-0
MS49R-02H	2	1/8	5/16-24	.275	.742	.582	1-1/8	3-1/8	.500	2-0
MS49R-03H	3	3/16	3/8-24	.339	.805	.588	1-1/4	3-1/4	.500	2-0
MS49R-04H	4	1/4	7/16-20	.393	.888	.661	1-1/4	3-1/4	.500	2-0
MS49R-05H	5	5/16	1/2-20	.455	.950	.661	1-1/4	3-1/4	.500	2-0
MS49R-06H	6	3/8	9/16-18	.512	1.012	.714	1-1/2	3-1/2	.500	2-0
MS49R-07H	7	7/16	5/8-18	.575	1.105	.730	1-1/2	3-1/2	.500	2-0
MS49R-08H	8	1/2	3/4-16	.693	1.240	.839	1-5/8	3-5/8	.750	2-0
MS49R-09H	9	9/16	13/16-16	.756	1.302	.855	1-5/8	3-5/8	.750	2-0
MS49R-10H	10	5/8	7/8-14	.810	1.415	.935	1-7/8	4-1/8	.750	2-1/4
MS49R-11H	11	11/16	1-12	.925	1.602	1.069	2-1/8	4-3/8	.750	2-1/4
MS49R-12H	12	3/4	1-1/16-12	.987	1.665	1.069	2-1/8	4-3/8	.750	2-1/4
MS49R-14H	14	7/8	1-3/16-12	1.112	1.790	1.069	2-1/8	4-3/8	.750	2-1/4
MS49R-16H	16	1-0	1-5/16-12	1.237	1.965	1.069	2-1/8	4-3/8	.750	2-1/4
MS49R-18H	18	1-1/8	1-1/2-12	1.425	2.090	1.121	2-1/4	4-1/2	.750	2-1/4
MS49R-20H	20	1-1/4	1-5/8-12	1.550	2.310	1.121	2-1/4	4-1/2	1.000	2-1/4
MS49R-24H	24	1-1/2	1-7/8-12	1.800	2.600	1.132	2-1/4	4-1/2	1.000	2-1/4
MS49R-28H	28	1-3/4	2-1/4-12	2.175	3.050	1.248	2-1/4	4-1/2	1.000	2-1/4
MS49R-32H	32	2-0	2-1/2-12	2.425	3.520	1.373	2-1/2	5-0	1.000	2-1/2

