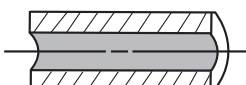
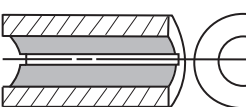
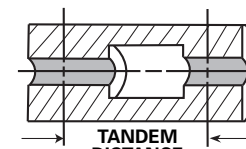
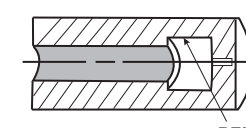
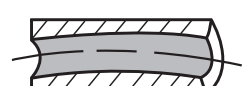
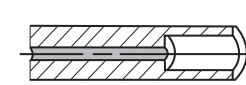


# Honing Unit Selection Guide

## How To Select A Honing Unit

The honing unit best suited to any particular job depends on the type and dimension of the bore, material to be honed and tolerance required. The honing unit group can be selected from the table below. Specific mandrels and honing stones are selected from pages indicated in the table. For complete information on honing stones and surface finish see pages 188 and 189.

STANDARD MANDRELS	BORE DESCRIPTION AND HONING UNIT REQUIREMENTS	BORE DIAMETER								
		1,52 to 2,54mm .060"-100"	2,54 to 3,05mm .100"-120"	3,05 to 3,81mm .120"-150"	3,81 to 4,70mm .150"-185"	4,70 to 6,22mm .185"-245"	6,22 to 7,82mm .245"-308"	7,82 to 9,40mm .308"-370"		
STANDARD TOOLING	<b>OPEN HOLES WITH NO INTERRUPTIONS</b>  Select a honing unit with stone length 2/3 to 1-1/2 times bore length. If honing units shown have stone length too long, shorten the stones as instructed on page 184.	<b>SHORT HOLE</b> (Length less than 5 times diameter.)	<b>D2</b> pgs. 6-7	<b>K3</b> pgs. 8-9	<b>K4</b> pgs. 12-13	<b>K5</b> pgs. 16-17	<b>K6</b> pg. 20	<b>K8</b> pg. 24	<b>K10</b> pg. 28	
		<b>LONG HOLE</b> (Length more than 5 times diameter.)	<b>D2</b> pgs. 6-7	<b>BL3</b> pgs. 10-11	<b>BL4</b> pgs. 14-15	<b>BL5</b> pgs. 18-19	<b>BL6, L6</b> pgs. 22-23	<b>BL8, L8</b> pgs. 26-27	<b>BL10, L10</b> pgs. 30-31	
PORTABLE TOOLING	<b>OPEN HOLES WITH KEYWAYS OR SPLINES</b>  Bores with interruptions such as these require keyway honing units. Stone should be 2/3 to 1-1/2 times bore length. Not suitable for blind hole work.						<b>Y8, YY8</b> pgs. 60-61	<b>Y10, YY10</b> pgs. 62-63		
CUSTOM TOOLING	<b>OPEN HOLES WITH TANDEM LANDS</b>  Tandem bores require a stone length at least twice the distance. If honing units are not available with sufficient stone length, alter the stones as instructed on page 185.	<b>D2</b> pgs. 6-7	<b>K3</b> pgs. 8-9 <b>BL3</b> pgs. 10-11	<b>K4</b> pgs. 12-13 <b>BL4</b> pgs. 14-15	<b>K5</b> pgs. 16-17 <b>BL5</b> pgs. 18-19	<b>K6</b> pg. 20 <b>BL6, L6</b> pgs. 22-23	<b>K8</b> pg. 24 <b>BL8, L8</b> pgs. 26-27	<b>K10</b> pg. 28 <b>BL10, L10</b> pgs. 30-31		
ABRASIVES	<b>BLIND HOLES</b>  Select a honing unit with stone length 2/3 times bore length. If Honing units shown have stone length too long, shorten the stones as instructed on page 184. Be sure shank is long enough to permit stone to reach bottom in hole.		<b>K3</b> pgs. 8-9 <b>BL3</b> pgs. 10-11	<b>K4</b> pgs. 12-13 <b>BL4</b> pgs. 14-15	<b>K5</b> pgs. 16-17 <b>BL5</b> pgs. 18-19	<b>K6</b> pg. 20 <b>JK6</b> pg. 21 <b>BL6</b> pg. 22 <b>L6</b> pg. 23	<b>K8</b> pg. 24 <b>JK8</b> pg. 25 <b>BL8</b> pg. 26 <b>L8</b> pg. 27	<b>K10</b> pg. 28 <b>JK10</b> pg. 29 <b>BL10</b> pg. 30 <b>L10</b> pg. 31		
MACHINE ACCESSORIES	<b>BOWED HOLE</b>  For bow correction use a honing unit with a long stone, preferably 1-1/2 times as long as the bore. Be sure shank is long enough to permit correct stroking.		Mandrels with guide shoes generally correct bow better than tools without guide shoes.							
GAGING	<b>HOLE WITH COUNTERBORE OR OVERHANG</b>  Mandrel shank must be long enough to reach the surface to be honed and permit overstroke of approximately 1/3 stone length. If counterbore is only on one end, and tolerances are not critical, part may be honed from opposite end only and honing unit selection made as for a plain hole.									

**To Select A Honing Unit, Follow These 2 Steps**

1. Identify sketch most closely resembling bore to be honed.
2. See page listed for selection of most suitable honing unit.

**NOTE:** Be sure stone length fits general requirements discussed with the sketches, and that mandrel shank is long enough if a counterbore is present. Dimensions are given on each page.

BORE DIAMETER													
9,40 to 12,57mm .370"-.495"	12,57 to 15,72mm .495"-.619"	15,72 to 18,90mm .619"-.744"	18,90 to 19,68mm .744"-.775"	19,68 to 25,48mm .775"-1.000"	25,40 to 26,19mm 1.000"-1.031"	26,19 to 31,75mm 1.031"-1.250"	31,75 to 34,93mm 1.250"-1.375"	34,93 to 44,45mm 1.375"-1.750"	44,45 to 69,85mm 1.750"- 2.750"	69,85 to 92,08mm 2.750"-3.625"	92,08 to 101,60mm 3.625"-3.875"	101,60 to 152,40mm 3.875"-6.000"	
<b>K12</b> pg. 32	<b>K16</b> pg. 36	<b>K20</b> pg. 40	<b>AK20</b> pg. 44	<b>AK20</b> pg. 44	<b>P28</b> pgs. 54-58 <b>AK20</b> pg. 44	<b>P28</b> pgs. 54-58 <b>AK20</b> pg. 44	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58 <b>AN-600</b> pg. 132	<b>P28</b> pgs. 54-58 <b>AN-600</b> pg. 132	<b>P28</b> pgs. 54-58 <b>AN-600</b> pg. 132
<b>BL12, L12</b> pgs. 34-35	<b>BL16, L16</b> pgs. 38-39	<b>BL20, L20</b> pgs. 42-43 <b>P20</b> pgs. 48-53	<b>BAL20, AL20</b> pgs. 46-47 <b>P20</b> pgs. 48-53	<b>BAL20, AL20</b> pgs. 46-47 <b>P20</b> pgs. 48-53	<b>BAL20, AL20</b> pgs. 46-47 <b>P20</b> pgs. 48-53	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58			
<b>Y12, YY12</b> pgs. 64-65	<b>Y16, YY16</b> pgs. 66-67	<b>Y20</b> pgs. 68-69 <b>YY24</b> pgs. 72-73	<b>Y20</b> pgs. 68-69 <b>YY24</b> pgs. 72-73	<b>AAAY20</b> pgs. 70-71	<b>Y32</b> pgs. 74-75 <b>YY32</b> pgs. 76-77	<b>Y32</b> pgs. 74-75 <b>YY32</b> pgs. 76-77	<b>Y32</b> pgs. 74-75 <b>YY32</b> pgs. 76-77	<b>Y44</b> pgs. 78-79 <b>YY48</b> pgs. 80-81	<b>Y56</b> pgs. 82-83 <b>Y72</b> pgs. 84-85	<b>Y88</b> pgs. 86-87 <b>Y104</b> pgs. 88-89 <b>AN-600</b> pg. 132	<b>Y104</b> pgs. 88-89 <b>AN-600</b> pg. 132	<b>AN-600</b> pg. 132	
<b>K12</b> pg. 32 <b>BL12, L12</b> pgs. 34-35	<b>K16</b> pg. 36 <b>BL16, L16</b> pgs. 38-39	<b>K20</b> pg. 40 <b>BL20, L20</b> pgs. 42-43 <b>P20</b> pgs. 48-53	<b>AK20</b> pg. 44 <b>BAL20, AL20</b> pgs. 46-47 <b>P20</b> pgs. 48-53	<b>AK20</b> pg. 44 <b>BAL20, AL20</b> pgs. 46-47 <b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58 <b>AK20</b> pg. 44	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P28</b> pgs. 54-58	<b>P20</b> pgs. 48-53	<b>P20</b> pgs. 48-53
<b>K12</b> pg. 32 <b>JK12</b> pg. 33 <b>BL12, L12</b> pgs. 34-35	<b>K16</b> pg. 36 <b>JK16</b> pg. 37 <b>BL16, L16</b> pgs. 38-39	<b>K20</b> pg.40 <b>JK20</b> pg. 41 <b>BL20, L20</b> pgs. 42-43	<b>AK20</b> pg.44 <b>JAK20</b> pg. 45 <b>BAL20, AL20</b> pgs. 46-47	<b>AK20</b> pg.44 <b>JAK20</b> pg. 45 <b>BAL20, AL20</b> pgs. 46-47	<b>AK20</b> pg.44 <b>JAK20</b> pg. 45 <b>BAL20, AL20</b> pgs. 46-47 <b>R28</b> pg. 59	<b>AK20</b> pg.44 <b>JAK20</b> pg. 45 <b>BAL20, AL20</b> pgs. 46-47 <b>R28</b> pg. 59	<b>R28</b> pg. 59	<b>R28</b> pg. 59	<b>R28</b> pg.59 <b>AN-600</b> pg. 132	<b>R28</b> pg. 59 <b>AN-600</b> pg. 132	<b>R28</b> pg. 59 <b>AN-600</b> pg. 132	<b>R28</b> pg. 59 <b>AN-600</b> pg. 132	<b>R28</b> pg. 59 <b>AN-600</b> pg. 132

STANDARD MANDRELS  
STANDARD TOOLING  
PORTABLE TOOLING  
CUSTOM TOOLING  
ABRASIVES  
MACHINE ACCESSORIES  
GAGING  
FILTERS  
HONING FLUIDS & COOLANTS  
TECHNICAL DATA