

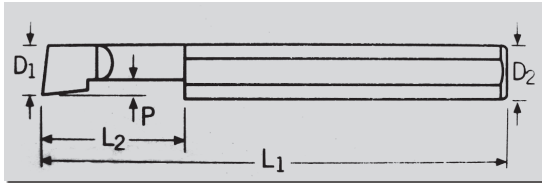


**MICRO SIZE SOLID CARBIDE BORING TOOLS**

SERIES 710:

**Tolerances:**

- Shank Dia.  $-.0001''$  to  $-.0003''$
- Min. Bore Dia.  $+.000''$ ,  $-.005''$
- Max Bore Depth  $+.050''$ ,  $-.000''$ 
  - Overall Length  $\pm 1/64$



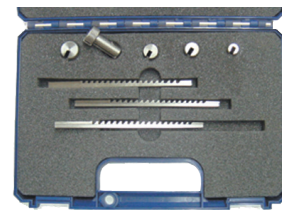
| Min. Bore Size D1 | Shank Dia. D2 | Overall Length L1 | Bore Depth L2 | Projection P | Order No. | Price |
|-------------------|---------------|-------------------|---------------|--------------|-----------|-------|
| .050              | 1/8           | 1-1/2             | .150          | .013         | 950150    |       |
| .050              | 1/8           | 1-1/2             | .200          | .013         | 950200    |       |
| .050              | 1/8           | 1-1/2             | .300          | .013         | 50300     |       |
| .060              | 1/8           | 1-1/2             | .150          | .015         | 9960150   |       |
| .080              | 1/8           | 1-1/2             | .150          | .020         | 980150    |       |
| .080              | 1/8           | 1-1/2             | .200          | .020         | 980200    |       |
| .080              | 1/8           | 1-1/2             | .300          | .020         | 980300    |       |
| .100              | 1/8           | 1-1/2             | .300          | .025         | 100300    |       |
| .120              | 3/16          | 2                 | .250          | .030         | 9120250   |       |
| .120              | 3/16          | 2                 | .350          | .030         | 120350    |       |
| .120              | 3/16          | 2                 | .500          | .030         | 120500    |       |
| .120              | 3/16          | 2                 | .600          | .030         | 120600    |       |
| .140              | 3/16          | 2                 | .400          | .035         | 9940400   |       |
| .140              | 3/16          | 2                 | .500          | .035         | 9940500   |       |
| .140              | 3/16          | 2                 | .600          | .035         | 940600    |       |
| .160              | 3/16          | 2                 | .400          | .040         | 160400    |       |
| .160              | 3/16          | 2                 | .500          | .040         | 160500    |       |

**HIGH SPEED STEEL**

**KEYWAY BROACH SETS**

SERIES 144: MEDA - SUPERIOR IMPORT  
SERIES 616: HASSAY SAVAGE USA

All broach sets are supplied in fitted boxes and come complete with broaches, slotted bushings, and necessary shims.



**MEDA**  
Superior Import



| Set No. | Keyway Comb. | Broach Sizes                                       | Bushings*   | MEDA      |       | Hassay Savage |       |
|---------|--------------|--|---|-----------|-------|---------------|-------|
|         |              |  |   | Order No. | Price | Order No.     | Price |
| 1       | 15           | 1/16-I, 3/32-I, 1/8-I                              | I: 1/4, 5/16, 3/8, 7/16, 1/2  | 5868500   |       | 1440000       |       |
| C2-A    | 14           | 1/8-II, 3/16-III, 1/4-III                          | II: 1/2, 5/8, 3/4, 7/8<br>III: 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2  | -         |       | 1440005       |       |
| C-1     | 18           | 1/8-II, 3/16-II, 1/4-III, 3/8-III                  | II: 1/2, 5/8, 3/4, 7/8<br>III: 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2  | 5868510   |       | 1440010       |       |
| C-1A    | 18           | 1/8-II, 3/16-II, 1/4-III, 3/8-III                  | II: 9/16, 11/16, 13/16<br>III: 15/16, 1-1/16, 1-3/16, 1-5/16, 1-7/16, 1-9/16  | -         |       | 1440011       |       |
| C-10    | 36           | 1/8-II, 3/16-II, 1/4-III, 3/8-III                  | II: 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8<br>III: 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16 | 5868511   |       | 1441011       |       |
| C10-A   | 30           | 1/8-II, 3/16-III, 1/4-III                          | II: 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8<br>III: 15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16 | -         |       | 1440015       |       |
| 3-D     | 32           | 5/16-IV, 3/8-IV, 7/16-IV, 1/2-IV                   | IV: 1-1/2, 1-5/8, 1-3/4, 1-7/8, 2, 2-1/8, 2-1/4, 2-1/2  | -         |       | 1440041       |       |
| M10     | 10           | 2mm-I, 3mm-I                                       | I: 6, 7, 8, 9, 10mm   | -         |       | 0015410       |       |
| M18     | 18           | 4mm-II, 5mm-II<br>6mm-III, 8mm-III                 | II: 12, 14, 16, 18mm<br>III: 20, 22, 24, 26, 28mm   | -         |       | 0015418       |       |
| M26     | 26           | 4mm-II, 5mm-II<br>6mm-III, 8mm-III                 | II: 12, 14, 15, 16mm<br>III: 18, 19, 20, 22, 24, 25, 26, 28, 30mm   | 5868570   |       | -             |       |
| M40     | 36           | 2mm-I, 3mm-I<br>4mm-II, 5mm-II<br>6mm-III, 8mm-III | I: 8, 10mm<br>II: 12, 14, 16, 18mm<br>III: 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 34, 36mm                                     | -         |       | 1615440       |       |

\*All Bushings supplied with sets 1, C-1, C-1A, and C-10 are collared. Bushings supplied with set 3-D are plain.



Please inquire for other set configurations as well as other types of broaches. See Index for Arbor Presses.

HIGH SPEED STEEL

**INDIVIDUAL KEYWAY BROACHES**

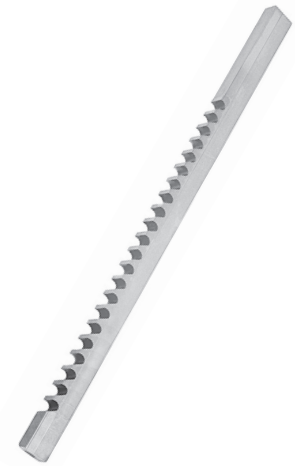
SERIES 144: MEDA - SUPERIOR IMPORT

SERIES 616: HASSAY SAVAGE - USA

Includes all required shims.



| Keyway Size | Tolerances    | Broach Dimensions | Shims Required | MEDA      |       | Hassay Savage |       |
|-------------|---------------|-------------------|----------------|-----------|-------|---------------|-------|
|             |               |                   |                | Order No. | Price | Order No.     | Price |
| 1/16-I      | .0625-.0635   | 1/8 x 5-1/4       | 0              | 1355059   |       | 1440059       |       |
| 3/32-I      | .0937-.0947   | 1/8 x 5-1/4       | 0              | 1355079   |       | 1440079       |       |
| 1/8-I       | .1252-.1262   | 1/8 x 5-1/4       | 1              | 1355099   |       | 1440099       |       |
| 3/32-II     | .0937-.0947   | 3/16 x 7          | 0              | 1355061   |       | 1440061       |       |
| 1/8-II      | .1252-.1262   | 3/16 x 7          | 1              | 1355081   |       | 1440081       |       |
| 5/32-II     | .1564-.1574   | 3/16 x 7          | 1              | 1355101   |       | 1440101       |       |
| 3/16-II     | .1877-.1887   | 3/16 x 7          | 1              | 1355121   |       | 1440121       |       |
| 3/16-III    | .1877-.1887   | 3/8 x 11-7/8      | 1              | 1355122   |       | 1440122       |       |
| 1/4-III     | .2502-.2512   | 3/8 x 11-7/8      | 1              | 1355162   |       | 1440162       |       |
| 5/16-III    | .3127-.3137   | 3/8 x 11-7/8      | 1              | 1355202   |       | 1440202       |       |
| 3/8-III     | .3755-.3765   | 3/8 x 11-7/8      | 2              | 1355242   |       | 1440242       |       |
| 5/16-IV     | .3127-.3137   | 9/16 x 13-7/8     | 1              | 1355203   |       | 1440203       |       |
| 3/8-IV      | .3755-.3765   | 9/16 x 13-7/8     | 2              | 1355243   |       | 1440243       |       |
| 7/16-IV     | .4380-.4390   | 9/16 x 13-7/8     | 2              | 1355283   |       | 1440283       |       |
| 1/2-IV      | .5006-.5016   | 9/16 x 13-7/8     | 3              | 1355323   |       | 1440323       |       |
| 5/8-V       | .6260-.6270   | 3/4 x 15-1/4      | 4              | 1355404   |       | 1440404       |       |
| 3/4-V       | .7515-.7525   | 3/4 x 15-1/4      | 5              | 1355484   |       | 1440484       |       |
| 7/8-VI      | .8765-.8775   | 1 x 19-1/4        | 6              | 1355564   |       | 1440564       |       |
| 1-VI        | 1.0015-1.0025 | 1 x 19-1/4        | 7              | 1355644   |       | 1440644       |       |



TiN Coated Broaches available.  
See our website or inquire.

CUTTING TOOLS - BROACHES

**BUSHINGS FOR KEYWAY BROACHES**

SERIES 616: HASSAY SAVAGE - USA

**"I" Bushings Length: 1-1/8"**

| Diameter | Order No. | Price |
|----------|-----------|-------|
| 1/4      | 1445016   |       |
| 5/16     | 1445020   |       |
| 3/8      | 1445024   |       |
| 7/16     | 1445028   |       |
| 1/2      | 1445032   |       |

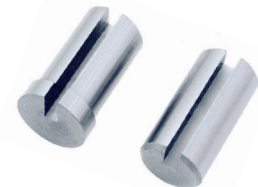


**"II" Bushings Length: 1-11/16"**

| Diameter | Order No. | Price |
|----------|-----------|-------|
| 1/2      | 1446032   |       |
| 9/16     | 1446036   |       |
| 5/8      | 1446040   |       |
| 11/16    | 1446044   |       |
| 3/4      | 1446048   |       |
| 13/16    | 1446052   |       |
| 7/8      | 1446056   |       |

**"IV" Bushings Length:\*\*\***

| Diameter | Order No. | Price |
|----------|-----------|-------|
| 1-7/16   | 1448092   |       |
| 1-1/2    | 1448096   |       |
| 1-9/16   | 1448136   |       |
| 1-5/8    | 1448140   |       |
| 1-11/16  | 1448144   |       |
| 1-3/4    | 1448148   |       |
| 1-13/16  | 1448152   |       |
| 1-7/8    | 1448156   |       |
| 1-15/16  | 1448160   |       |
| 2        | 1448200   |       |
| 2-1/16   | 1448204   |       |
| 2-1/8    | 1448208   |       |
| 2-3/16   | 1448212   |       |
| 2-1/4    | 1448216   |       |
| 2-5/16   | 1448220   |       |
| 2-3/8    | 1448224   |       |
| 2-7/16   | 1448228   |       |
| 2-1/2    | 1448232   |       |
| 2-9/16   | 1448236   |       |
| 2-5/8    | 1448240   |       |
| 2-11/16  | 1448244   |       |
| 2-3/4    | 1448248   |       |
| 2-13/16  | 1448252   |       |
| 2-7/8    | 1448256   |       |
| 2-15/16  | 1448260   |       |
| 3        | 1448300   |       |



**"III" Bushings Length: 2-1/2"**

| Diameter | Order No. | Price |
|----------|-----------|-------|
| 3/4      | 1447048   |       |
| 13/16    | 1447052   |       |
| 7/8      | 1447056   |       |
| 15/16    | 1447060   |       |
| 1        | 1447064   |       |
| 1-1/16   | 1447068   |       |
| 1-1/8    | 1447072   |       |
| 1-3/16   | 1447076   |       |
| 1-1/4    | 1447080   |       |
| 1-5/16   | 1447084   |       |
| 1-3/8    | 1447088   |       |
| 1-7/16   | 1447092   |       |
| 1-1/2    | 1447096   |       |
| 1-9/16   | 1447136   |       |

**"V" Bushings Length: 6"**

| Diameter | Order No. | Price |
|----------|-----------|-------|
| 2-5/16   | 1449220   |       |
| 2-3/8    | 1449224   |       |
| 2-7/16   | 1449228   |       |
| 2-1/2    | 1449232   |       |
| 2-9/16   | 1449236   |       |
| 2-5/8    | 1449240   |       |
| 2-11/16  | 1449244   |       |
| 2-3/4    | 1449248   |       |
| 2-13/16  | 1449252   |       |
| 2-7/8    | 1449256   |       |
| 2-15/16  | 1449260   |       |
| 3        | 1449300   |       |

\*\*\*1-7/16 - 1-3/4" Diameters Length: 4"  
1-13/16 - 2-5/16" Diameters Length: 5"  
2-3/8 - 3" Diameters Length: 6"

HIGH SPEED STEEL

**KEYWAY BROACHES - METRIC**

SERIES 144: MEDA - SUPERIOR IMPORT

SERIES 616: HASSAY SAVAGE - USA



Includes all required shims

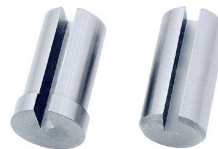
| Broach Size mm | Tolerances  | Broach Dimensions (in.) | Stand. Milli. Keys | Shims Required | MEDA      |       | Hassay Savage |       |
|----------------|-------------|-------------------------|--------------------|----------------|-----------|-------|---------------|-------|
|                |             |                         |                    |                | Order No. | Price | Order No.     | Price |
| 2mm-I          | .0787-.0792 | 1/8 x 5-1/4             | 2 x 2              | 0              | 6160025   |       | 6161025       |       |
| 3mm-I          | .1181-.1186 | 1/8 x 5-1/4             | 3 x 3              | 1              | 6160035   |       | 6161035       |       |
| 4mm-II         | .1575-.1580 | 1/4 x 7                 | 4 x 4              | 1              | 6160046   |       | 6161046       |       |
| 5mm-II         | .1968-.1974 | 1/4 x 7                 | 5 x 5              | 1              | 6160056   |       | 6161056       |       |
| 5mm-III        | .1968-.1974 | 3/8 x 11-7/8            | 5 x 5              | 1              | 6160057   |       | 6161057       |       |
| 6mm-III        | .2362-.2367 | 3/8 x 11-7/8            | 6 x 6              | 1              | 6160067   |       | 6161067       |       |
| 8mm-III        | .3150-.3155 | 3/8 x 11-7/8            | 8 x 7              | 1              | 6160087   |       | 6161087       |       |
| 10mm-IV        | .3937-.3942 | 9/16 x 13-7/8           | 10 x 8             | 2              | 6160108   |       | 6161108       |       |
| 12mm-IV        | .4724-.4730 | 9/16 x 13-7/8           | 12 x 8             | 2              | 6160128   |       | 6161128       |       |
| 14mm-IV        | .5512-.5519 | 9/16 x 13-7/8           | 14 x 9             | 2              | 6160148   |       | 6161148       |       |
| 16mm-V         | .6299-.6306 | 3/4 x 15-1/4            | 16 x 10            | 3              | 6160169   |       | 6161169       |       |
| 18mm-V         | .7087-.7093 | 3/4 x 15-1/4            | 18 x 11            | 3              | 6160189   |       | 6161189       |       |
| 20mm-VI        | .7874-.7883 | 1 x 19-1/4              | 20 x 12            | 3              | 6160200   |       | 6161200       |       |
| 22mm-VI        | .8661-.8669 | 1 x 19-1/4              | 22 x 14            | 4              | 6160220   |       | 6161220       |       |
| 24mm-VI        | .9449-.9458 | 1 x 19-1/4              | 24 x 14            | 4              | 6160240   |       | 6161240       |       |
| 25mm-VI        | .9842-.9851 | 1 x 19-1/4              | 25 x 14            | 4              | 6160250   |       | 6161250       |       |

**BUSHINGS FOR METRIC KEYWAY BROACHES**

SERIES 616:

I, II, and III: Collared

IV and V : Plain



| "I" Bushings Diameter (mm) | Order No. | Price |
|----------------------------|-----------|-------|
| 6                          | 6165006   |       |
| 8                          | 6165008   |       |
| 10                         | 6165010   |       |

| "II" Bushings Diameter (mm) | Order No. | Price |
|-----------------------------|-----------|-------|
| 12                          | 6166012   |       |
| 14                          | 6166014   |       |
| 15                          | 6166015   |       |
| 16                          | 6166016   |       |
| 17                          | 6166017   |       |
| 18                          | 6166018   |       |
| 19                          | 6166019   |       |

| "III" Bushings Diameter (mm) | Order No. | Price |
|------------------------------|-----------|-------|
| 18                           | 6167018   |       |
| 19                           | 6167019   |       |
| 20                           | 6167020   |       |
| 22                           | 6167022   |       |
| 24                           | 6167024   |       |
| 25                           | 6167025   |       |
| 26                           | 6167026   |       |
| 28                           | 6167028   |       |
| 30                           | 6167030   |       |
| 32                           | 6167032   |       |
| 34                           | 6167034   |       |
| 35                           | 6167035   |       |
| 36                           | 6167036   |       |

| "IV" Bushings Diameter (mm) | Order No. | Price |
|-----------------------------|-----------|-------|
| 32                          | 6168032   |       |
| 34                          | 6168034   |       |
| 35                          | 6168035   |       |
| 36                          | 6168036   |       |
| 38                          | 6168038   |       |
| 40                          | 6168040   |       |
| 42                          | 6168042   |       |
| 44                          | 6168044   |       |
| 45                          | 6168045   |       |
| 46                          | 6168046   |       |
| 48                          | 6168048   |       |
| 50                          | 6168050   |       |
| 52                          | 6168052   |       |
| 54                          | 6168054   |       |
| 56                          | 6168056   |       |

| "V" Bushings Diameter (mm) | Order No. | Price |
|----------------------------|-----------|-------|
| 52                         | 6169052   |       |
| 54                         | 6169054   |       |
| 55                         | 6169055   |       |
| 56                         | 6169056   |       |
| 58                         | 6169058   |       |
| 60                         | 6169060   |       |
| 62                         | 6169062   |       |
| 64                         | 6169064   |       |
| 65                         | 6169065   |       |
| 66                         | 6169066   |       |
| 68                         | 6169068   |       |
| 70                         | 6169070   |       |
| 72                         | 6169072   |       |



See our website or inquire for other set configurations as well as other types of broaches.  
See Index for ARBOR PRESSES.

HIGH SPEED STEEL

**SQUARE KEYWAY BROACHES**

SERIES 616 : HASSAY SAVAGE - USA



NOTES: Standard square broaches are HSS push type designed for one-pass finishing when used with arbor or hydraulic press or vertical broaching machine.



| Square Size | Tolerances    | Dimensions Across Corners | Pilot Diameter | Drill Size | Broach Length | Order No. | Price |
|-------------|---------------|---------------------------|----------------|------------|---------------|-----------|-------|
| 1/8         | .1250-.1260   | .1750-.1770               | .1280          | No. 30     | 4-5/8         | 6171008   |       |
| 5/32        | .1565-.1575   | .2180-.2200               | .1585          | No. 21     | 5-5/8         | 6171010   |       |
| 3/16        | .1880-.1890   | .2620-.2640               | .1930          | No. 10     | 5-11/16       | 6171012   |       |
| 7/32        | .2190-.2200   | .3050-.3070               | .2275          | No. 1      | 6-7/8         | 6171014   |       |
| 1/4         | .2505-.2515   | .3500-.3520               | .2651          | 17/64      | 7             | 6171016   |       |
| 9/32        | .2815-.2825   | .3930-.3950               | .2964          | 19/64      | 7-1/4         | 6171018   |       |
| 5/16        | .3130-.3140   | .4370-.4390               | .3271          | 21/64      | 8-1/8         | 6171020   |       |
| 11/32       | .3440-.3450   | .4810-.4830               | .3589          | 23/64      | 9-5/8         | 6171022   |       |
| 3/8         | .3755-.3765   | .5230-.5250               | .3901          | 25/64      | 9-7/8         | 6171024   |       |
| 13/32       | .4065-.4075   | .5680-.5700               | .4214          | 27/64      | 10-7/8        | 6171026   |       |
| 7/16        | .4385-.4395   | .6110-.6130               | .4526          | 29/64      | 11-3/8        | 6171028   |       |
| 15/32       | .4690-.4700   | .6560-.6580               | .4995          | 1/2        | 12-1/2        | 6171030   |       |
| 1/2         | .5005-.5015   | .6970-.6990               | .5307          | 17/32      | 12-5/8        | 6171032   |       |
| 9/16        | .5630-.5640   | .7860-.7880               | .5932          | 19/32      | 14-7/8        | 6171036   |       |
| 5/8         | .6260-.6270   | .8710-.8730               | .6557          | 21/32      | 16-13/16      | 6171040   |       |
| 11/16       | .6885-.6895   | .9610-.9630               | .7495          | 3/4        | 18-1/2        | 6171044   |       |
| 3/4         | .7510-.7520   | 1.0450-1.0470             | .8120          | 13/16      | 18-7/8        | 6171048   |       |
| 7/8         | .8765-.8775   | 1.2280-1.2300             | .9370          | 15/16      | 22-3/4        | 6171056   |       |
| 1           | 1.0020-1.0030 | 1.4030-1.4050             | 1.0932         | 1-3/32     | 24-1/2        | 6171064   |       |

HIGH SPEED STEEL

**METRIC SQUARE KEYWAY BROACHES**

SERIES 616:



NOTES: Standard square broaches are HSS push type designed for one-pass finishing when used with arbor or hydraulic press or vertical broaching machine.



| Square Size | Tolerances (inches) | Dimensions Across Corners (in.) | Pilot Diameter -.0005 (in.) | Drill Size mm | Broach Length (in.) | Order No. | Price |
|-------------|---------------------|---------------------------------|-----------------------------|---------------|---------------------|-----------|-------|
| 4mm         | .1580-.1585         | .2080-.2090                     | .1655                       | 4.2           | 5-9/16              | 17001     |       |
| 5mm         | .1973-.1983         | .2645-.2655                     | .2047                       | 5.2           | 6-7/8               | 9917002   |       |
| 6mm         | .2367-.2377         | .3295-.3300                     | .250                        | 6.35          | 7                   | 17003     |       |
| 8mm         | .3155-.3165         | .4405-.4410                     | .3267                       | 8.3           | 8-3/16              | 9917004   |       |
| 10mm        | .3942-.3952         | .5435-.5445                     | .4057                       | 10.3          | 10-7/8              | 17005     |       |
| 12mm        | .4729-.4739         | .6540-.6550                     | .4921                       | 12.5          | 12-1/2              | 9917006   |       |
| 14mm        | .5517-.5527         | .7700-.7710                     | .5905                       | 15.0          | 14-7/8              | 17007     |       |
| 16mm        | .6310-.6320         | .8780-.8790                     | .6693                       | 17.0          | 16-13/16            | 17008     |       |
| 18mm        | .7092-.7102         | .9880-.9890                     | .7874                       | 20.0          | 18-1/2              | 17009     |       |
| 20mm        | .7879-.7889         | 1.0990-1.1000                   | .8661                       | 22.0          | 18-7/8              | 17010     |       |
| 22mm        | .8666-.8676         | 1.2110-1.2120                   | .9448                       | 24.0          | 23-1/4              | 17011     |       |
| 24mm        | .9454-.9464         | 1.3170-1.3180                   | 1.0236                      | 26.0          | 24-9/16             | 17012     |       |
| 25mm        | .9848-.9858         | 1.3730-1.3740                   | 1.0630                      | 27.0          | 24-9/16             | 17013     |       |

**Quality Cutting Tools**



**THE CHOICE IS YOURS!!!**

CUTTING TOOLS - BROACHES

HIGH SPEED STEEL

**HEXAGON BROACHES**

SERIES 616:



**NOTES:** Standard hexagon broaches are HSS push type designed for one-pass finishing when used with arbor or hydraulic press or vertical broaching machine.

| Hex Size | Tolerances    | Diagonal Dimensions | Pilot Diameter | Drill Size | Broach Length | Order No. | Price |
|----------|---------------|---------------------|----------------|------------|---------------|-----------|-------|
| 1/8      | .1255-.1260   | .1450-.1470         | .1245          | 1/8        | 4-5/8         | 6162008   |       |
| 5/32     | .1565-.1570   | .1800-.1820         | .1557          | 5/32       | 5-1/2         | 6162010   |       |
| 3/16     | .1880-.1890   | .2145-.2155         | .1870          | 3/16       | 5-9/16        | 6162012   |       |
| 7/32     | .2190-.2200   | .2500-.2520         | .2182          | 7/32       | 6             | 6162014   |       |
| 1/4      | .2505-.2515   | .2865-.2875         | .2495          | 1/4        | 6-1/2         | 6162016   |       |
| 9/32     | .2815-.2825   | .3220-.3240         | .2807          | 9/32       | 7-3/4         | 6162018   |       |
| 5/16     | .3130-.3140   | .3580-.3590         | .3120          | 5/16       | 8-1/4         | 6162020   |       |
| 11/32    | .3440-.3450   | .3950-.3970         | .3432          | 11/32      | 8-1/4         | 6162022   |       |
| 3/8      | .3755-.3765   | .4300-.4310         | .3745          | 3/8        | 9             | 6162024   |       |
| 13/32    | .4065-.4075   | .4670-.4690         | .4057          | 13/32      | 10            | 6162026   |       |
| 7/16     | .4385-.4395   | .5020-.5030         | .4370          | 7/16       | 10-3/4        | 6162028   |       |
| 15/32    | .4690-.4700   | .5390-.5410         | .4682          | 15/32      | 12-3/8        | 6162030   |       |
| 1/2      | .5005-.5015   | .5740-.5750         | .4995          | 1/2        | 12-1/2        | 6162032   |       |
| 9/16     | .5630-.5640   | .6480-.6500         | .5620          | 9/16       | 14-1/4        | 6162036   |       |
| 5/8      | .6260-.6270   | .7170-.7185         | .6245          | 5/8        | 16-7/8        | 6162040   |       |
| 11/16    | .6880-.6890   | .7930-.7950         | .6870          | 11/16      | 17            | 6162044   |       |
| 3/4      | .7510-.7520   | .8610-.8625         | .7495          | 3/4        | 17-7/8        | 6162048   |       |
| 7/8      | .8755-.8765   | 1.0060-1.0075       | .8745          | 7/8        | 18-7/8        | 6162056   |       |
| 1        | 1.0020-1.0030 | 1.1520-1.1530       | .9995          | 1          | 19-7/8        | 6162064   |       |

HIGH SPEED STEEL

**METRIC HEXAGON KEYWAY BROACHES**

SERIES 616 :



**NOTES:** Standard hexagon broaches are HSS push type designed for one-pass finishing when used with arbor or hydraulic press or vertical broaching machine.

| Hex Size | Tolerances  | Diagonal Dimensions | Pilot Diameter | Drill Size | Broach Length (in.) | Order No. | Price |
|----------|-------------|---------------------|----------------|------------|---------------------|-----------|-------|
| 4mm      | .1580-.1585 | .1820-.1830         | .1575          | 4.0        | 5-1/2               | 6163004   |       |
| 5mm      | .1973-.1983 | .2270-.2280         | .1968          | 5.0        | 6                   | 6163005   |       |
| 6mm      | .2367-.2377 | .2730-.2740         | .2362          | 6.0        | 6-1/2               | 6163006   |       |
| 7mm      | .2760-.2770 | .3180-.3190         | .2756          | 7.0        | 7-3/4               | 6163007   |       |
| 8mm      | .3155-.3165 | .3634-.3644         | .3150          | 8.0        | 8-1/4               | 6163008   |       |
| 10mm     | .3942-.3952 | .4543-.4553         | .3937          | 10.0       | 10                  | 6163010   |       |
| 12mm     | .4729-.4739 | .5452-.5462         | .4724          | 12.0       | 12-3/8              | 6163012   |       |
| 14mm     | .5517-.5527 | .6332-.6342         | .5512          | 14.0       | 14-1/4              | 6163014   |       |
| 16mm     | .6310-.6320 | .7248-.7258         | .6230          | 16.0       | 16-7/8              | 6163016   |       |
| 18mm     | .7092-.7102 | .8150-.8160         | .7087          | 18.0       | 17                  | 6163018   |       |
| 20mm     | .7879-.7889 | .9049-.9059         | .7874          | 20.0       | 17-7/8              | 6163020   |       |
| 22mm     | .8666-.8676 | .9958-.9968         | .8661          | 22.0       | 18-7/8              | 6163022   |       |
| 24mm     | .9454-.9464 | 1.0868-1.0878       | .9449          | 24.0       | 19-7/8              | 6163024   |       |
| 25mm     | .9848-.9858 | 1.1323-1.1333       | .9842          | 25.0       | 19-7/8              | 6163025   |       |



See our website or inquire for other set configurations as well as other types of broaches. See Index for Arbor Presses.