

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.

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 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 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 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 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 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 6mm-III, 8mm-III	II: 12, 14, 16, 18mm III: 20, 22, 24, 26, 28mm	-		0015418	
M26	26	4mm-II, 5mm-II 6mm-III, 8mm-III	II: 12, 14, 15, 16mm III: 18, 19, 20, 22, 24, 25, 26, 28, 30mm	5868570		-	
M40	36	2mm-I, 3mm-I 4mm-II, 5mm-II 6mm-III, 8mm-III	I: 8, 10mm II: 12, 14, 16, 18mm 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

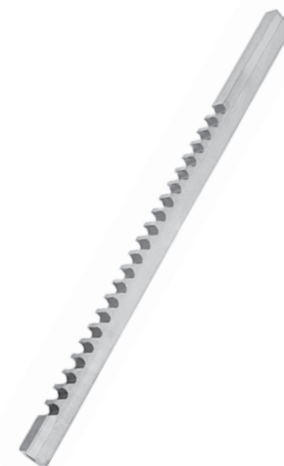
SERIES 616: HASSAY SAVAGE - USA

Includes all required shims.

MEDA
Superior Import

HS
HASSAY SAVAGE - USA

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.

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	

"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	

"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	

***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"

"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	



HS
HASSAY SAVAGE - USA

HIGH SPEED STEEL

KEYWAY BROACHES - METRIC

SERIES 144: MEDA - SUPERIOR IMPORT

SERIES 616: HASSAY SAVAGE - USA

MEDA
Superior Import**HS**
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

MEJA
Superior Import



Republic
Cutting Tools
MADE IN THE USA

THE CHOICE IS YOURS!!!

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.