



## KEYWAY BROACHES

### (STANDARD BROACH TOLERANCES)

Pressures listed below are for maximum length of cut. If these lengths must be exceeded, a special keyway broach should be ordered. For minimum length of cut, pieces may be broached by stacking and clamping

LIST NO. BR100

Broach	Catalog EDI-#	Keyway Width Tol.	Dimen.	No. of Shims	Max. Length of Cut	Max. Length Of Cut	Pressure Required For Max. L/C	List Price
1/16-I	33931	.0625-.0635	1/8 x 5 1/4	0	13/64	1 1/8	270lbs.	\$53.00
3/32-I	33932	.0937-.0947	1/8 x 5 1/4	0	13/64	1 1/8	810lbs.	53.00
1/8-I	33933	.1252-.1262	1/8 x 5 1/4	1	13/64	1 1/8	720lbs.	53.00
3/32-II	33934	.0937-.0947	3/16 x 7	0	19/64	1 11/16	990lbs.	60.30
1/8-II	33935	.1252-.1262	3/16 x 7	1	19/64	1 11/16	780lbs.	60.30
5/32-II	33936	.1564-.1574	3/16 x 7	1	19/64	1 11/16	1,560lbs.	60.30
3/16-II	33937	.1877-.1887	3/16 x 7	1	19/64	1 11/16	2,100lbs.	60.30
3/16-III	33938	.1877-.1887	3/8 x 12	1	13/32	2 1/2	1,440lbs.	76.80
1/4-III	33939	.2502-.2512	3/8 x 12	1	13/32	2 1/2	2,580lbs.	76.80
5/16-III	33940	.3127-.3137	3/8 x 12	1	13/32	2 1/2	4,200lbs.	76.80
3/8-III	33941	.3755-.3765	3/8 x 12	2	13/32	2 1/2	3,600lbs.	76.80
5/16-IV	33942	.3127-.3137	9/16 x 13 3/4	1	3/4	6	9,250lbs.	103.00
3/8-IV	33943	.3755-.3765	9/16 x 13 3/4	2	3/4	6	8,000lbs.	103.00
7/16-IV	33944	.4380-.4390	9/16 x 13 3/4	2	3/4	6	11,750lbs.	103.00
1/2-IV	33945	.5006-.5016	9/16 x 13 3/4	3	3/4	6	11,000lbs.	103.00
5/8-V	33946	.6260-.6270	3/4 x 15 1/4	4	3/4	6	11,500lbs.	177.90
3/4-V	33947	.7515-.7525	3/4 x 15 1/4	5	3/4	6	13,500lbs.	177.90
7/8-VI	33948	.8765-.8775	1 x 19 1/4	6	3/4	6	11,000lbs.	272.00
1"-VI	33949	1.0015-1.0025	1 x 19 1/4	7	3/4	6	14,000lbs.	272.00



## FULL SQUARE BROACHES

F&D Tool offers the following high-speed steel, full square broaches as standard items, available directly from stock. Other sizes may be furnished on special order.

LIST NO. BR300

Size Square	Catalog EDI-#	Tolerances	Dimensions Across Corners	Pilot Dia.	Broach Length	Min. Length of Cut	Max. Length of Cut	Pressure for Max. L/C	List Price
3/16	33971	.1880-.1890	.2628-.2632	.1870	6 1/4	3/16	1/2	1,200lbs.	\$155.45
1/4	33972	.2505-.2515	.3513-.3517	.2495	8 5/8	1/4	5/8	1,600lbs.	158.60
5/16	33973	.3130-.3140	.4375-.4380	.3120	10 1/4	1/4	3/4	2,300lbs.	162.70
3/8	33974	.3755-.3765	.5243-.5247	.3745	12 1/4	3/8	1	3,750lbs.	204.40
1/2	33975	.5005-.5015	.6980-.6990	.4995	14 7/16	3/8	1	5,000lbs.	282.90



COATINGS AVAILABLE ON EVERY TOOL \*\* See Page 161 for details



Tel: (800) 338-6650 • Fax: (413) 289-1701 • www.fdtool.com

## STANDARD INCH SQUARE BROACHES

Standard inch square broaches are high-speed steel, push type – designed for one pass finishing when used with arbor or hydraulic press, or vertical broaching machines.

LIST NO. BR500

Size Square	Catalog EDI-#	Dimensions Across Corners Tolerances	Pilot Dia.	Broach Length	Min. Length of Cut	Max. Length of Cut	Pressure for Max. L/C	List Price	
1/8	34001	.1250-.1260	.1750-.1770	.1285	4 5/8	3/16	1/2	700lbs.	\$122.90
5/32	34002	.1565-.1575	.2180-.2200	.159	5 5/8	1/4	1/2	800lbs.	122.90
3/16	34003	.1880-.1890	.2620-.2640	.193	5 11/16	1/4	5/8	1,120lbs.	122.90
7/32	34004	.2190-.2200	.3050-.3070	.228	6 7/8	1/4	3/4	1,580lbs.	122.90
1/4	34005	.2505-.2515	.3500-.3520	17/64	7	1/4	3/4	1,740lbs.	122.90
9/32	34006	.2815-.2825	.3930-.3950	19/64	7 1/4	3/8	1	2,300lbs.	128.90
5/16	34007	.3130-.3140	.4370-.4390	21/64	8 1/8	3/8	1	2,630lbs.	128.90
11/32	34008	.3440-.3450	.4810-.4830	23/64	9 5/8	3/8	1 1/4	3,050lbs.	157.90
3/8	34009	.3755-.3765	.5230-.5250	25/64	9 7/8	3/8	1 1/4	3,625lbs.	157.90
13/32	34010	.4065-.4075	.5680-.5700	27/64	10 7/8	1/2	1 3/8	5,200lbs.	197.05
7/16	34011	.4385-.4395	.6100-.6130	29/64	11 3/8	1/2	1 3/8	5,700lbs.	209.85
15/32	34012	.4690-.4700	.6560-.6580	1/2	12 1/2	1/2	1 3/8	5,900lbs.	224.70
1/2	34013	.5005-.5015	.6970-.6990	17/32	12 5/8	1/2	1 3/8	6,000lbs.	244.95
9/16	34014	.5630-.5640	.7860-.7880	19/32	14 7/8	1/2	1 1/2	6,200lbs.	293.45
5/8	34015	.6260-.6270	.8710-.8730	21/32	16 13/16	5/8	1 5/8	7,100lbs.	325.75
11/16	34016	.6885-.6895	.9610-.9630	3/4	18 1/2	5/8	1 5/8	7,300lbs.	368.10
3/4	34017	.7510-.7520	1.0450-1.0470	13/16	18 7/8	5/8	1 5/8	8,600lbs.	382.90
7/8	34018	.8765-.8775	1.2280-1.2300	15/16	22 3/4	1/2	2	12,000lbs.	470.70
1	34019	1.0020-1.0030	1.4030-1.4050	1 3/32	24 1/2	1/2	2	12,500lbs.	549.25

## STANDARD HEXAGON BROACHES

All hexagon broaches are push type. They can be used: (a) with hydraulic press; (b) with arbor press; and (c) with vertical broaching machine. Made of high speed steel, they will produce a finely finished hex in one pass, in a cast or drilled hole.

LIST NO. BR700

Size Square	Catalog EDI-#	Dimensions Diagonal Dimension Tolerances	Pilot Dia.	Broach Length	Min. Length of Cut	Max. Length of Cut	Pressure for Max. L/C	List Price	
1/8	34041	.1255-.1260	.1450-.1470	1/8	4 5/8	3/16	3/8	120lbs.	\$142.70
5/32	34042	.1565-.1570	.1800-.1820	5/32	5 1/2	1/4	1/2	340lbs.	142.70
3/16	34043	.1880-.1890	.2145-.2155	3/16	5 9/16	1/4	5/8	520lbs.	142.70
7/32	34044	.2190-.2200	.2500-.2520	7/32	6	1/4	3/4	890lbs.	142.70
1/4	34045	.2505-.2515	.2865-.2875	1/4	6 1/2	1/4	3/4	1,200lbs.	142.70
9/32	34046	.2815-.2825	.3220-.3240	9/32	7 3/4	3/8	1	1,650lbs.	145.60
5/16	34047	.3130-.3140	.3580-.3590	5/16	8 1/4	3/8	1	2,175lbs.	145.60
11/32	34048	.3440-.3450	.3950-.3970	11/32	8 1/4	3/8	1 1/4	3,500lbs.	184.05
3/8	34049	.3755-.3765	.4300-.4310	3/8	9	3/8	1 1/4	3,700lbs.	184.05
13/32	34050	.4065-.4075	.4670-.4690	13/32	10	1/2	1 3/8	4,100lbs.	231.20
7/16	34051	.4385-.4395	.5020-.5030	7/16	10 3/4	1/2	1 3/8	4,575lbs.	231.20
15/32	34052	.4690-.4700	.5390-.5410	15/32	12 3/8	1/2	1 3/8	4,700lbs.	267.55
1/2	34053	.5005-.5015	.5740-.5750	1/2	12 1/2	1/2	1 3/8	5,300lbs.	267.55
9/16	34054	.5630-.5640	.6480-.6500	9/16	14 1/4	1/2	1 1/2	6,700lbs.	421.45
5/8	34055	.6260-.6270	.7170-.7185	5/8	16 7/8	5/8	1 5/8	7,250lbs.	354.80
11/16	34056	.6880-.6890	.7930-.7950	11/16	17	5/8	1 5/8	9,300lbs.	407.50
3/4	34057	.7510-.7520	.8610-.8625	3/4	17 7/8	5/8	1 5/8	13,500lbs.	420.75
7/8	34058	.8755-.8765	1.0060-1.0075	7/8	18 7/8	5/8	1 5/8	18,500lbs.	475.70
1	34059	1.0020-1.0030	1.1520-1.1530	1	19 7/8	5/8	1 5/8	22,051lbs.	559.05

COATINGS AVAILABLE ON EVERY TOOL \*\* See Page 161 for details



## KEYWAY BUSHINGS

No. Q-200 Plain  
No. Q-400 Collared

I Bushings for I Broaches

Catalog EDI-Number	Dia.	Length	Price Collared
34161	1/4	1 1/8	\$9.90
34162	5/16	1 1/8	9.90
34163	3/8	1 1/8	9.90
34164	7/16	1 1/8	9.90
34165	1/2	1 1/8	9.90

Price Each - Collared Only

II Bushings for II Broaches

Catalog EDI-Number	Price Plain	Catalog EDI-Number	Price Collared	Dia.	Length
34081	\$5.30	34166	\$8.30	1/2	1 11/16
34082	5.30	34167	8.30	9/16	1 11/16
34083	5.30	34168	8.30	5/8	1 11/16
34084	5.30	34169	8.30	11/16	1 11/16
34085	5.30	34170	8.30	3/4	1 11/16
34086	5.30	34171	8.30	13/16	1 11/16
34087	5.30	34172	8.30	7/8	1 11/16

III Bushings for III Broaches

Catalog EDI-Number	Price Plain	Catalog EDI-Number	Price Collared	Dia.	Length
34088	\$5.30	34173	\$13.85	3/4	2 1/2
34089	5.30	34174	13.85	13/16	2 1/2
34090	5.30	34175	13.85	7/8	2 1/2
34091	5.30	34176	13.85	15/16	2 1/2
34092	5.30	34177	13.85	1	2 1/2
34093	5.30	34178	13.85	1 1/16	2 1/2
34094	5.30	34179	13.85	1 1/8	2 1/2
34095	6.30	34180	13.15	1 3/16	2 1/2
34096	6.30	34181	13.15	1 1/4	2 1/2
34097	6.30	34182	13.15	1 5/16	2 1/2
34098	6.30	34183	13.15	1 3/8	2 1/2
34099	6.30	34184	13.15	1 7/16	2 1/2
34100	6.30	34185	13.15	1 1/2	2 1/2
34101	6.30	34186	13.15	1 9/16	2 1/2

IV Bushings for IV Broaches

Catalog EDI-Number	Dia.	Length	Price Plain
34102	1 7/16	4	\$13.15
34103	1 1/2	4	13.15
34104	1 9/16	4	13.15
34105	1 5/8	4	13.15
34106	1 11/16	4	18.10
34107	1 3/4	4	18.10
34108	1 13/16	5	18.10
34109	1 7/8	5	18.10
34110	1 15/16	5	19.55
34111	2	5	19.55
34112	2 1/16	5	19.55
34113	2 1/8	5	19.55
34114	2 3/16	5	19.55

IV Bushings for IV Broaches

Catalog EDI-Number	Dia.	Length	Price Plain
34115	2 1/4	5	\$24.60
34116	2 5/16	5	24.60
34117	2 3/8	6	24.60
34118	2 7/16	6	24.60
34119	2 1/2	6	24.60
34120	2 9/16	6	29.50
34121	2 5/8	6	29.50
34122	2 11/16	6	29.50
34123	2 3/4	6	29.50
34124	2 13/16	6	29.50
34125	2 7/8	6	29.50
34126	2 15/16	6	29.50
34127	3	6	29.50

V Bushings for V Broaches

Catalog EDI-Number	Dia.	Length	Price Plain
34128	2 5/16	6	\$24.60
34129	2 3/8	6	24.60
34130	2 7/16	6	24.60
34131	2 1/2	6	24.60
34132	2 9/16	6	29.50
34133	2 5/8	6	29.50
34134	2 11/16	6	29.50
34135	2 3/4	6	29.50
34136	2 13/16	6	29.50
34137	2 7/8	6	29.50
34138	2 15/16	6	29.50
34139	3	6	29.50

Note: VI Bushings are available on special order only.

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