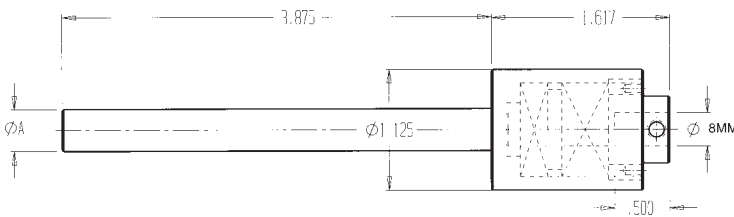


ADJUSTMENT FREE INTERNAL ROTATING BROACH TOOLS FOR SWISS MACHINES



CAT. NO.	A
ORBSWS-10MM	10MM
ORBSWS-12MM	12MM
ORBSWS-14MM	14MM
ORBSWS-16MM	16MM
ORBSWS-20MM	20MM
ORBSWS-22MM	22MM
ORBSWS-25MM	25MM
ORBSWS-625	.625
ORBSWS-750	.750

Hex, Square and Six Lobed broaches in stock to fit these holders.



- Adjustment free
- No center indicating required
- Smaller head diameter eliminates interference
- Longer shank can be cut to proper length
- Short head length for limited back work space
- Built in wobble cutting features 1° angle
- Fits most Swiss type & gang machines
- Setup gages available for these holders on page 54.

NOTE: USE ONLY 8MM DIA X 28MM LONG BROACHES (SHOWN ON PAGES 50 & 51)

TOOL HOLDERS
BROACH TOOLS

INTERNAL BROACHES FOR 6 LOBED HEAD SCREWS FOR SWISS HOLDERS

8MM SHANK DIA. FOR ORBSWS		
SHAPE	L	CAT. NO.
T5	28MM	SWTO-T5
T6	28MM	SWTO-T6
T7	28MM	SWTO-T7
T8	28MM	SWTO-T8
T9	28MM	SWTO-T9
T10	28MM	SWTO-T10
T15	28MM	SWTO-T15
T20	28MM	SWTO-T20
T25	28MM	SWTO-T25
T27	28MM	SWTO-T27
T30	28MM	SWTO-T30



THESE ARE EXAMPLES OF SPECIAL SHAPES THAT HAVE BEEN SUCCESSFULLY BROACHED - LET US QUOTE ON YOUR REQUIREMENTS.



DOUBLE HEX



FLAT



DOUBLE D



STRAIGHT SPLINE



MULTI KEYWAY



KNURL



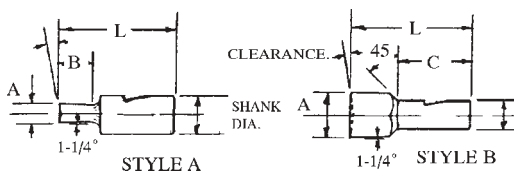
KEYWAY



INVOLUTE SPLINE

PLEASE INCLUDE THE FOLLOWING INFORMATION WITH YOUR SPECIAL BROACH INQUIRY:

INTERNAL OR EXTERNAL H/S/S BROACH?	TOLERANCE IF NOT SHOWN ON PRINT	IS H/S/S BROACH TO BE USED IN A SOMMA HOLDER?
SHAPE OF H/S/S BROACH FORM	MATERIAL GRADE OF PART	-IF NOT, WHAT ARE THE BLANK DIM FOR YOUR HLDR & ° OF SPINDLE TILT?
CLEARING ID ON INTERNAL?	ARE ANY INTERNAL RADII LESS THAN .0055 ON INT. BROACHES?	WHAT IS HOLDER SIZE OR SHANK DIA?
EXTERNAL CLEARING ON OD?	ARE ANY EXTERNAL RADII LESS THAN .0055 ON EXT. BROACHES?	



- * M2 HSS Hardened
- * Ground all over
- * Angular clamping flat prevents pull out

Available in
T15PM H.S.S.
(Prices on application)

INTERNAL HEX BROACHES FOR SWISS HOLDERS

Inch - 8MM SHANK DIA. FOR ORBSWS						
HEX SIZE	A	B	C	L	STYLE	CAT. NO.
.050	.0505	.078	-	28MM	A	SWHX-.050
1/16	.0630	.094	-	28MM	A	SWHX-1/16
5/64	.0786	.109	-	28MM	A	SWHX-5/64
3/32	.0947	.141	-	28MM	A	SWHX-3/32
7/64	.1106	.156	-	28MM	A	SWHX-7/64
1/8	.1265	.188	-	28MM	A	SWHX-1/8
9/64	.1421	.219	-	28MM	A	SWHX-9/64
5/32	.1582	.250	-	28MM	A	SWHX-5/32
3/16	.1895	.281	-	28MM	A	SWHX-3/16
7/32	.2212	.344	-	28MM	A	SWHX-7/32
1/4	.2525	.375	-	28MM	A	SWHX-1/4
9/32	.2840	-	.688	28MM	B	SWHX-9/32
5/16	.3155	-	.688	28MM	B	SWHX-5/16
11/32	.3467	-	.625	28MM	B	SWHX-11/32
3/8	.3785	-	.625	28MM	B	SWHX-3/8

Metric - 8MM SHANK DIA. FOR ORBSWS						
HEX SIZE	A	B	C	L	STYLE	CAT. NO.
1.5MM	.0605	.094	-	28MM	A	SWHX-1.5
2.0MM	.0805	.109	-	28MM	A	SWHX-2.0
2.5MM	.1005	.156	-	28MM	A	SWHX-2.5
3.0MM	.1205	.188	-	28MM	A	SWHX-3.0
4.0MM	.1605	.250	-	28MM	A	SWHX-4.0
5.0MM	.1995	.313	-	28MM	A	SWHX-5.0
6.0MM	.2395	.375	-	28MM	A	SWHX-6.0
7.0MM	.2785	-	.688	28MM	B	SWHX-7.0
8.0MM	.3185	-	.688	28MM	B	SWHX-8.0
9.0MM	.3575	-	.625	28MM	B	SWHX-9.0
10.0MM	.3985	-	.625	28MM	B	SWHX-10.0

INTERNAL SQUARE BROACHES FOR SWISS HOLDERS

Inch - 8MM SHANK DIA. FOR ORBSWS						
SQUARE SIZE	A	B	C	L	STYLE	CAT. NO.
1/16	.0635	.141	-	28MM	A	SWSQ-1/16
5/64	.0785	.141	-	28MM	A	SWSQ-5/64
3/32	.0947	.141	-	28MM	A	SWSQ-3/32
7/64	.1105	.188	-	28MM	A	SWSQ-7/64
1/8	.1265	.188	-	28MM	A	SWSQ-1/8
9/64	.1421	.281	-	28MM	A	SWSQ-9/64
5/32	.1582	.250	-	28MM	A	SWSQ-5/32
11/64	.1735	.281	-	28MM	A	SWSQ-11/64
3/16	.1895	.281	-	28MM	A	SWSQ-3/16
7/32	.2212	.344	-	28MM	A	SWSQ-7/32
9/32	.2840	-	.625	28MM	B	SWSQ-9/32
5/16	.3155	-	.625	28MM	B	SWSQ-5/16

Metric - 8MM SHANK DIA. FOR ORBSWS						
SQUARE SIZE	A	B	C	L	STYLE	CAT. NO.
1.5MM	.0605	.109	-	28MM	A	SWSQ-1.5
2.0MM	.0805	.156	-	28MM	A	SWSQ-2.0
2.5MM	.1005	.188	-	28MM	A	SWSQ-2.5
3.0MM	.1205	.250	-	28MM	A	SWSQ-3.0
4.0MM	.1605	.313	-	28MM	A	SWSQ-4.0
5.0MM	.1995	.375	-	28MM	A	SWSQ-5.0
6.0MM	.2395	-	.688	28MM	B	SWSQ-6.0
7.0MM	.2785	-	.625	28MM	B	SWSQ-7.0