

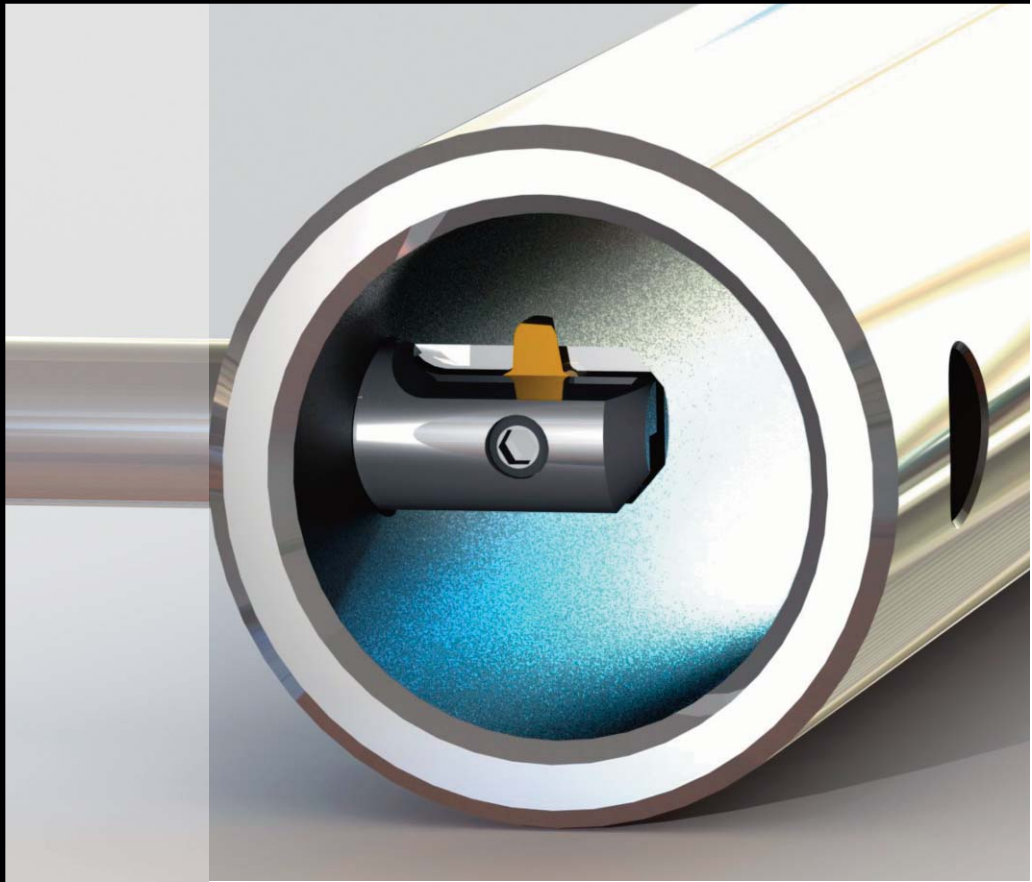


**COGSDILL TOOL PRODUCTS, INC.**

# SED

■ **Smooth Edge  
Deburring TOOL**

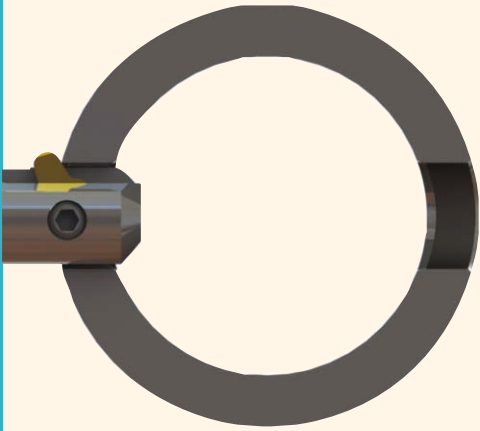
Smooth Edge Deburring



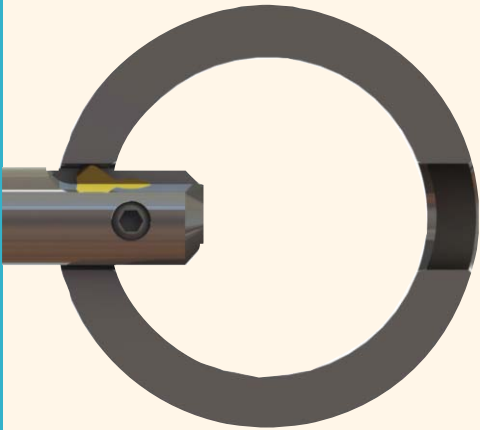
**DEBURRS  
HOLES IN:**

• FLAT SURFACES • ANGLED SURFACES • ELLIPTICAL SURFACES

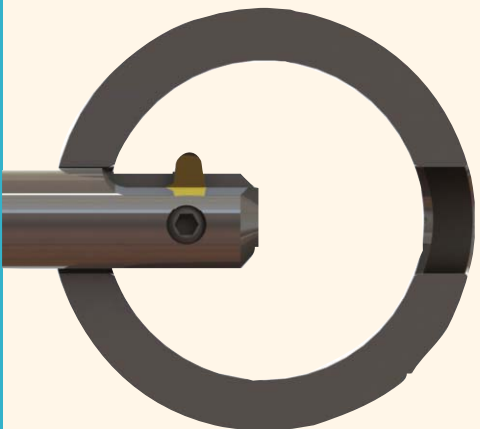
## HOW IT WORKS: A ONE-PASS solution to your hole-deburring needs



**1** Upon entry, spring tension holds the *replaceable* and *adjustable* cutting blade in the extended position as it removes the burr on the front of the hole.



**2** As the feed load increases, the pre-set spring tension is exceeded and the blade retracts automatically as the tool passes through the workpiece. (The crowned and polished top surface of the blade will *not* mar the inside surface of the hole.)



**3** Spring tension again causes the blade to extend as it emerges from the ID of the part; the burr is removed on the back side of the hole on the return stroke.

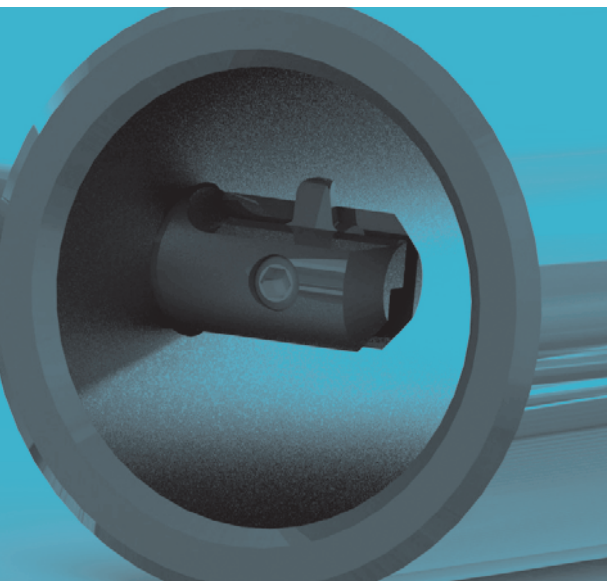
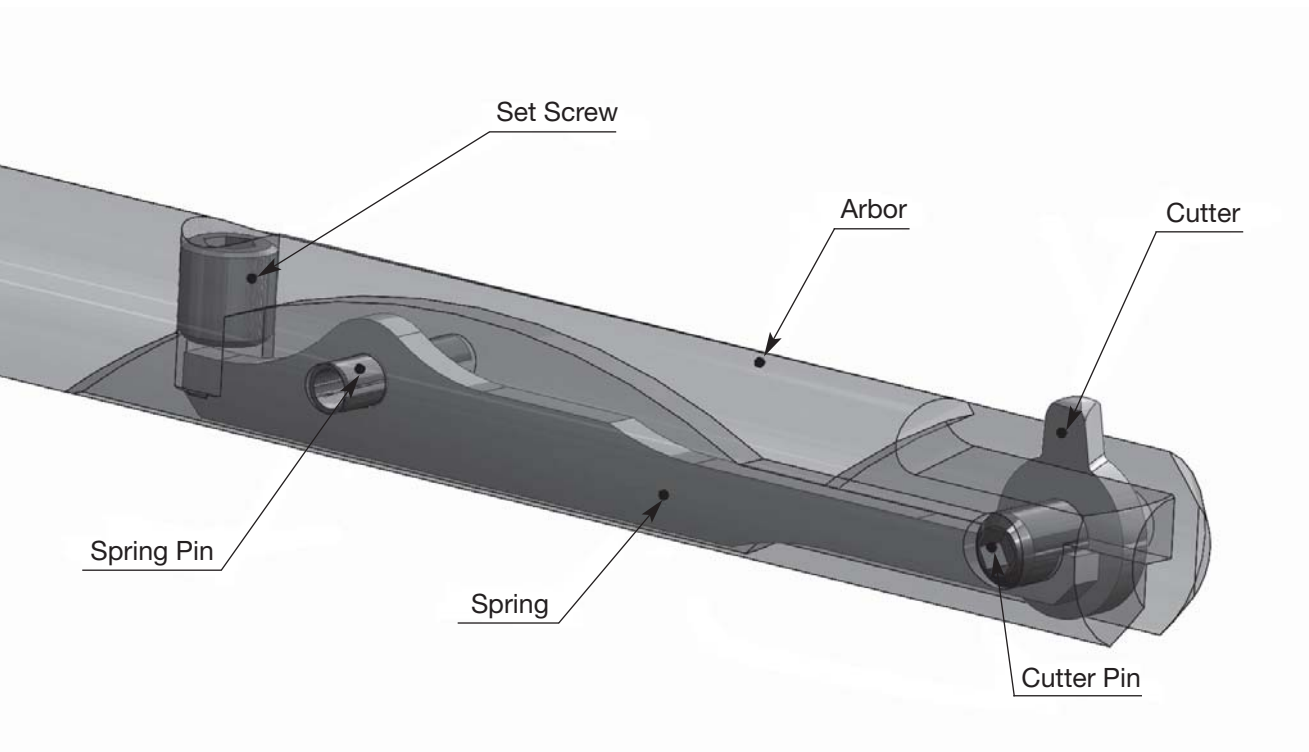
*SED* tools are available in both *inch* and *metric* programs (see tool specifications). All tools have metric hardware and come with hex wrenches for adjustment and blade replacement. Both are available from stock at standard prices.



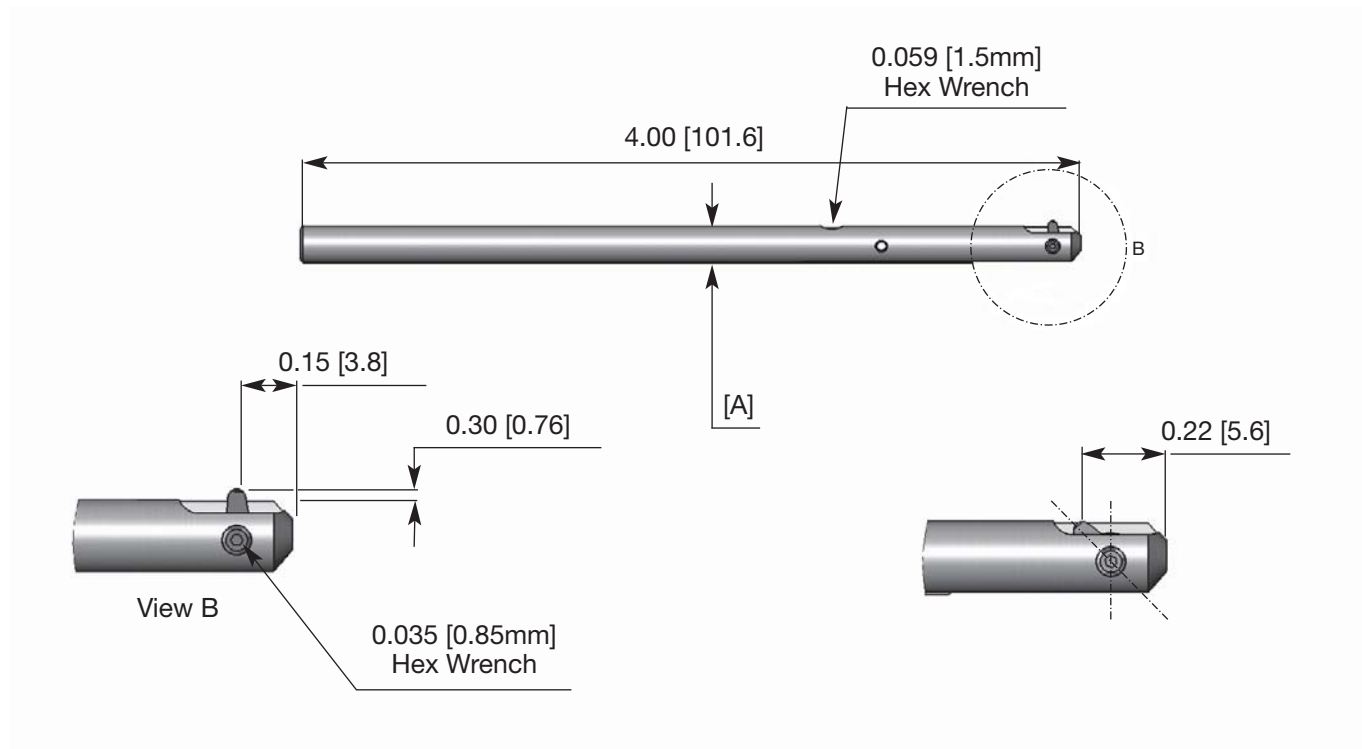
**SED** tools feature an inexpensive replaceable cutting blade which adjusts to control the amount of edge break.

# Smooth Edge Deburring Tool

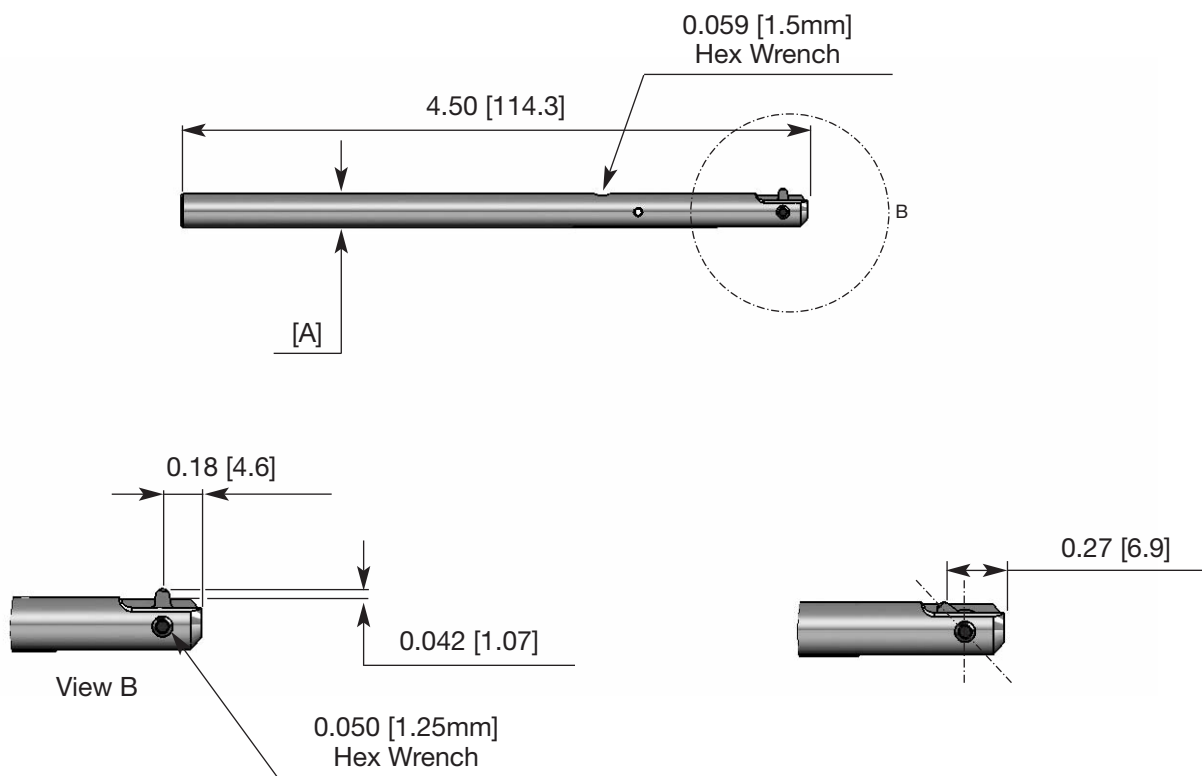
## SED<sub>T</sub> basic tool design features



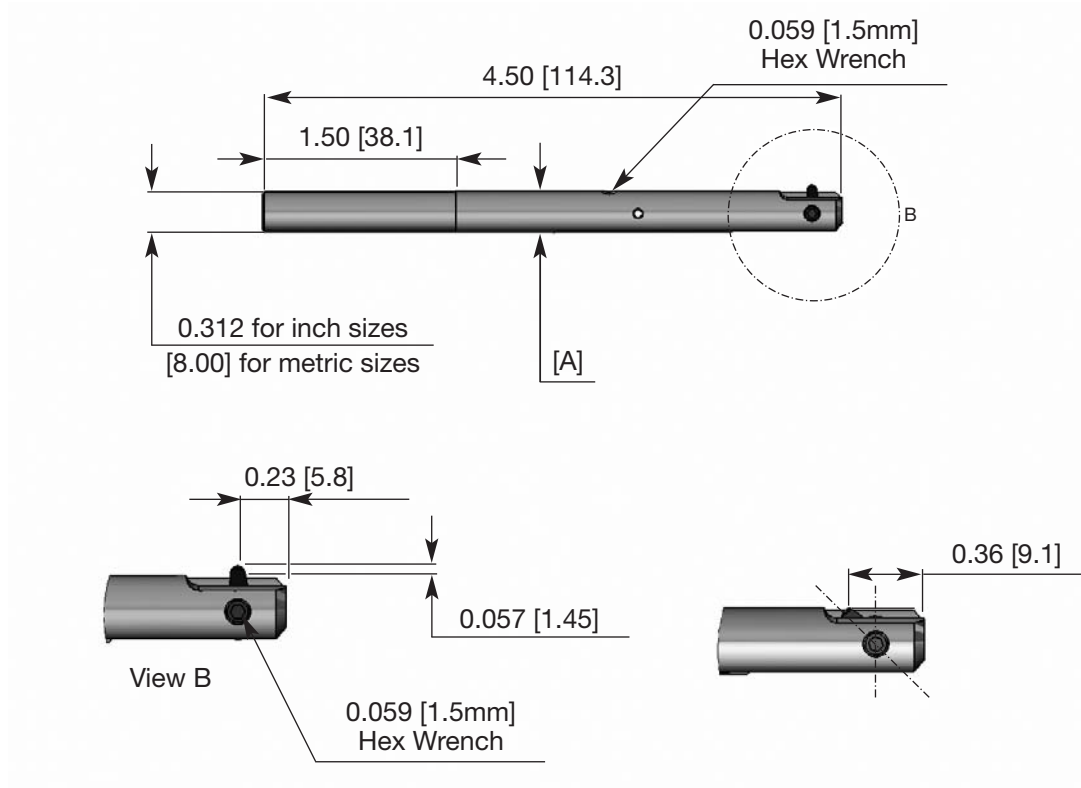
- Deburrs holes in flat surfaces, angled surfaces, and elliptical surfaces.
- Size range 13/64 to 1/2 inch in 1/64 increments and 5.0 to 12.5 mm in 0.5 mm increments.
- Replaceable carbide blade with TiN coating as standard.
- 4 cutters cover the entire range.
- Adjustable cutting load without having to remove the tool from the machine.
- Replaceable cutter without the need of special tools.



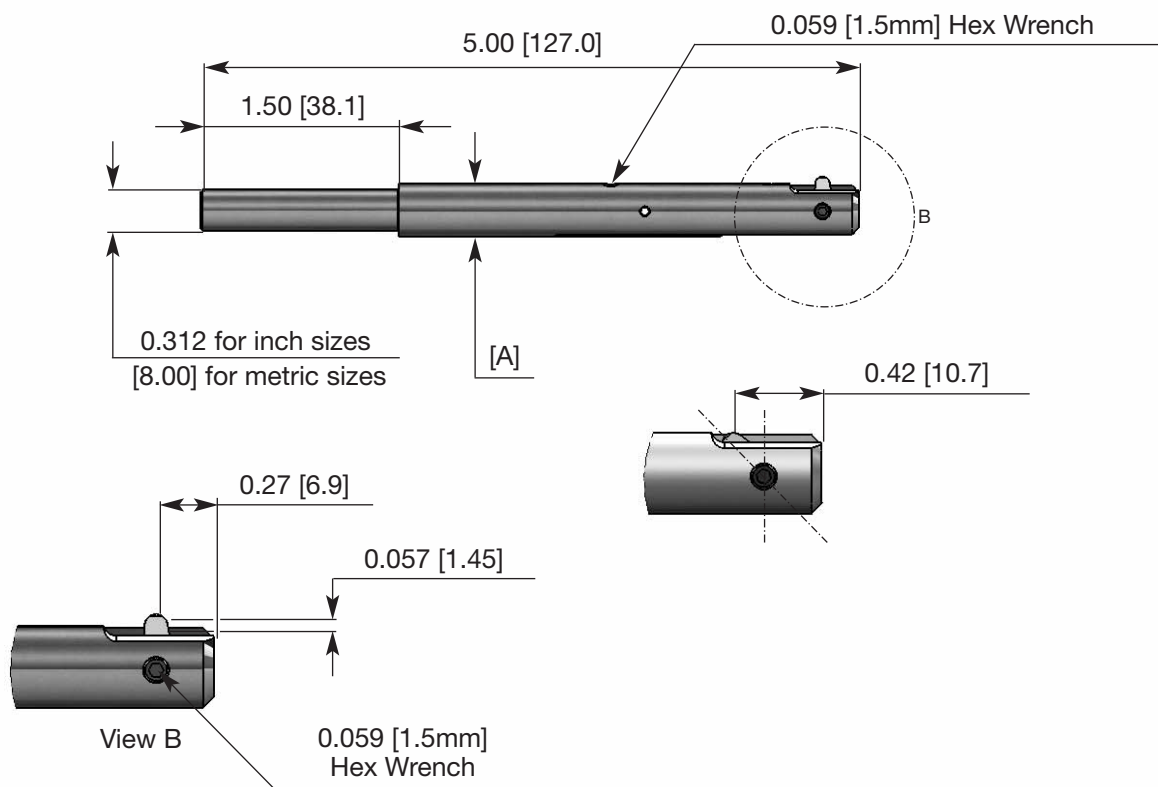
SERIES	HOLE SIZE	DECIMAL EQUIV.	COMPLETE TOOL ASSEMBLY	ARBOR DIA. [A]	ARBOR ASSEMBLY	CUTTER	CUTTER PIN	CUTTER PIN DIA.	ADJUSTING SCREW	ADJUSTING HEX WRENCH	ASSEMBLY HEX WRENCH
30	5.0 MM	0.197	SED-T-5.0M	0.194	SED-T-A5.0-ARB	SED-T-C30	SED-T-CPIN30	0.0925	M3 X 3MM LG DOG PT.	0.059" [1.5 MM]	0.050" [1.25 MM]
	13/64	0.203	SED-T-02030	0.199	SED-T-A203-ARB						
	5.5 MM	0.217	SED-T-5.5M	0.214	SED-T-A5.5-ARB						
	7/32	0.219	SED-T-02190		SED-T-A219-ARB						
	15/64	0.234	SED-T-02340	0.230	SED-T-A234-ARB						
	6.0 MM	0.236	SED-T-6.0M		SED-T-A6.0-ARB						



SERIES	HOLE SIZE	DECIMAL EQUIV.	COMPLETE TOOL ASSEMBLY	ARBOR DIA. [A]	ARBOR ASSEMBLY	CUTTER	CUTTER PIN	CUTTER PIN DIA.	ADJUSTING SCREW	ADJUSTING HEX WRENCH	ASSEMBLY HEX WRENCH
40	1/4	0.250	SED-T-02500	0.246	SED-T-A250-ARB	SED-T-C40	SED-T-CPIN40	0.0925	M3 X 3MM LG DOG PT.	0.059" [1.5 MM]	0.050" [1.25 MM]
	6.5 MM	0.256	SED-T-6.5M	0.252	SED-T-A6.5-ARB						
	17/64	0.266	SED-T-02660	0.262	SED-T-A266-ARB						
	7.0 MM	0.275	SED-T-7.0M	0.271	SED-T-A7.0-ARB						
	9/32	0.281	SED-T-02810	0.277	SED-T-A281-ARB						
	7.5 MM	0.295	SED-T-7.5M	0.290	SED-T-A7.5-ARB						
	19/64	0.297	SED-T-02970		SED-T-A297-ARB						
	5/16	0.313	SED-T-03130	0.306	SED-T-A313-ARB						
	8.0 MM	0.315	SED-T-8.0M		SED-T-A8.0-ARB						

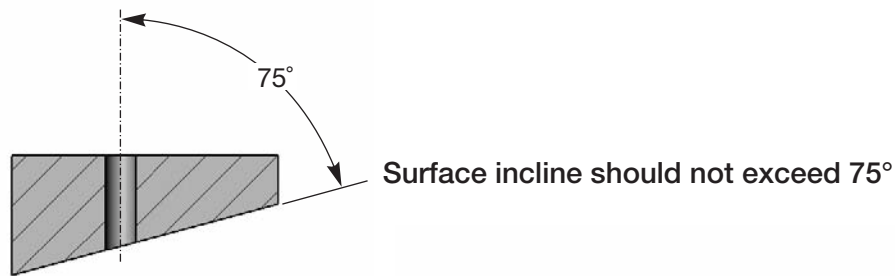


SERIES	HOLE SIZE	DECIMAL EQUIV.	COMPLETE TOOL ASSEMBLY	ARBOR DIA. [A]	ARBOR ASSEMBLY	CUTTER	CUTTER PIN	CUTTER PIN DIA.	ADJUSTING SCREW	ADJUSTING HEX WRENCH	ASSEMBLY HEX WRENCH
50	21/64	0.328	SED-03280	0.321	SED-A328-ARB	SED-C50	SED-CPIN50	0.1236	M3 X 4MM LG DOG PT.	0.059" [1.5 MM]	0.059" [1.5 MM]
	8.5 MM	0.334	SED-8.5M	0.330	SED-A8.5-ARB						
	11/32	0.344	SED-03440	0.337	SED-A344-ARB						
	9.0 MM	0.354	SED-9.0M	0.351	SED-A9.0-ARB						
	23/64	0.359	SED-03590	0.355	SED-A359-ARB						
	9.5 MM	0.374	SED-9.5M	0.370	SED-A9.5-ARB						
	3/8	0.375	SED-03750		SED-A375-ARB						
	25/64	0.391	SED-03910	0.388	SED-A391-ARB						
	10 MM	0.394	SED-10.0M		SED-A10.0-ARB						

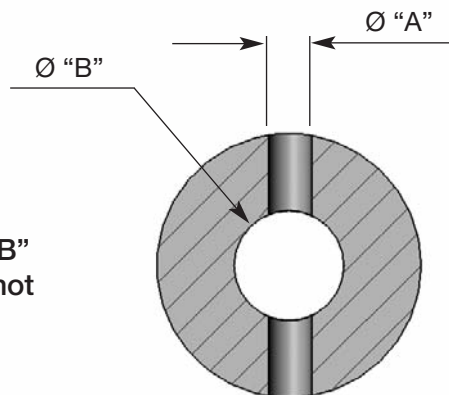


SERIES	HOLE SIZE	DECIMAL EQUIV.	COMPLETE TOOL ASSEMBLY	ARBOR DIA. [A]	ARBOR ASSEMBLY	CUTTER	CUTTER PIN	CUTTER PIN DIA.	ADJUSTING SCREW	ADJUSTING HEX WRENCH	ASSEMBLY HEX WRENCH
60	13/32	0.406	SED	0.399	SED-A406-ARB	SED-C60	SED-CPIN60	0.1236	M3 X 5MM LG DOG PT.	0.059" [1.5 MM]	0.059" [1.5 MM]
	10.5 MM	0.413	SED-10.5M	0.409	SED-A10.5-ARB						
	27/64	0.422	SED-04220	0.418	SED-A422-ARB						
	11.0 MM	0.433	SED-11.0M	0.429	SED-A11.0-ARB						
	7/16	0.438	SED-04380	0.434	SED-A438-ARB						
	11.5 MM	0.452	SED-11.5M	0.447	SED-A11.5-ARB						
	29/64	0.453	SED-04530		SED-A453-ARB						
	15/32	0.469	SED-04690	0.466	SED-A469-ARB						
	12.0 MM	0.472	SED-12.0M		SED-A12.0-ARB						
	31/64	0.484	SED-04840	0.480	SED-A484-ARB						
	12.5 MM	0.492	SED-12.5M	0.488	SED-A12.5-ARB						
	1/2	0.500	SED-05000	0.496	SED-A500-ARB						

MATERIAL	CUTTING SPEED		FEED RATE	
	S.F.M.	M/MIN	IN/REV	MM/REV
LOW CARBON STEEL	200-300	65-100	0.012	0.30
ALLOY STEEL	120-180	40-60	0.012	0.30
STAINLESS STEEL	80-150	25-50	0.008	0.20
GREY & NODULAR CAST IRON	100-200	30-65	0.010	0.25
ALUMINUM	200-350	65-115	0.014	0.35
TITANIUM	20-60	6-20	0.008	0.20



Maximum ratio of mainbore "B" to the cross hole "A" should not be less than 2:1





## Cutter removal

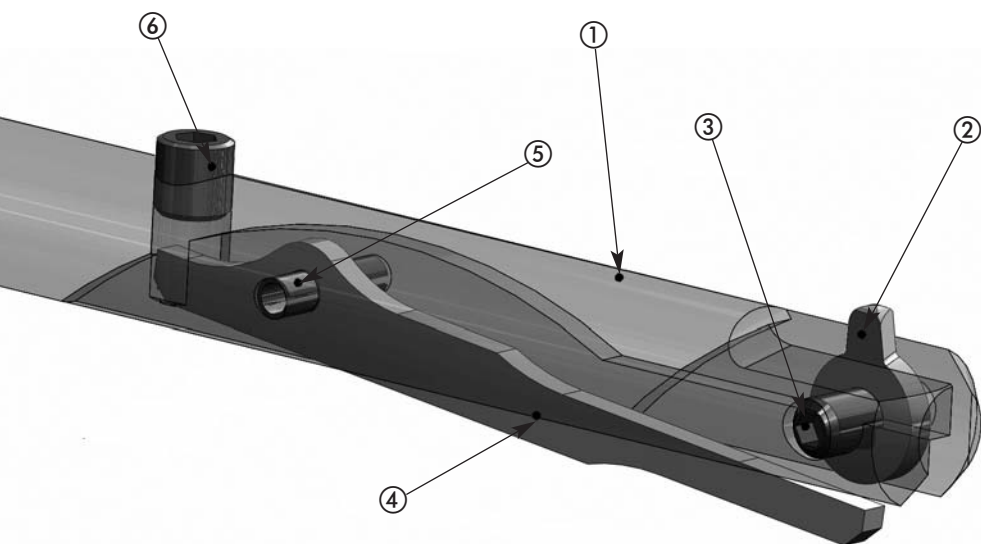
- Loosen Adjusting Set Screw (Detail 6) so that the Spring (Detail 4) can be rotated down pivoting on Spring Pin (Detail 5).
- Using Cutter Pin (Detail 3) hex wrench, push Cutter Pin (Detail 3) out of the Arbor (Detail 1) in the direction from bottom of Cutter to top of Cutter.
- Cutter (Detail 2) and Cutter Pin (Detail 3) are now removed from the Arbor (Detail 1).

## Cutter assembly

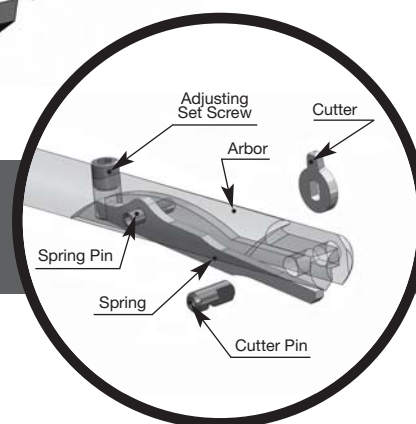
- Spring (Detail 4) should be loose and slightly below Arbor (Detail 1) outside diameter.
- Using the Cutter Pin (Detail 3) hex wrench as an assembly aid, insert Cutter into Arbor (Detail 1) slot noting that the cutting edge should be opposite the Spring. Note that the bottom of the cutter is not coated as an aid in tool assembly. Align the slot in the Cutter with the Cutter Pin hole in the Arbor.
- Using the Cutter Pin hex wrench as an assembly tool, insert the hex wrench in the Cutter Pin hex and carefully assemble the Cutter Pin into the Arbor. Note that the slot in the Cutter Pin should be aligned with the Spring. Use the hex wrench to slightly rotate the Cutter Pin until the Cutter Pin engages with the Cutter.
- Adjust the Adjusting Set Screw (Detail 6) to engage the Spring with the Cutter.

## Tool adjustment

- Rotate the Adjusting Set Screw (Detail 6) slightly in either direction to increase or decrease the spring pressure on the Cutter. Slight adjustment may be required based on size of the burr to be removed and the toughness of the material to be deburred.



SHOWN WITH CUTTER AND CUTTER PIN REMOVED

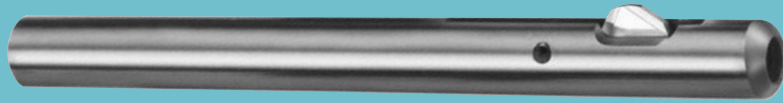




# Other deburring & chamfering products

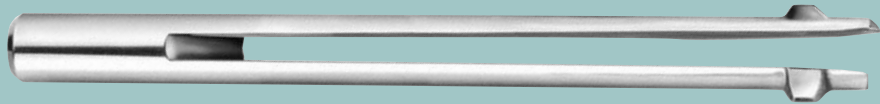
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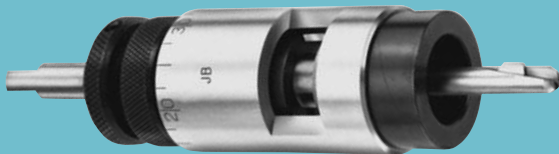
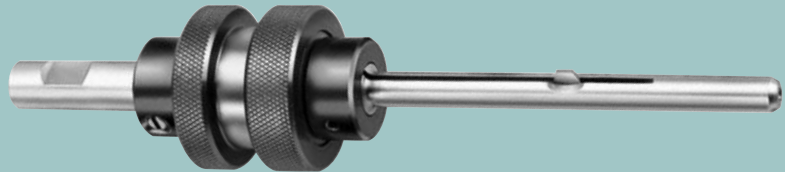
**BURRAWAY**

**BURR-OFF**



**ELLIPTI-BUR**

**NOBUR TOOL**

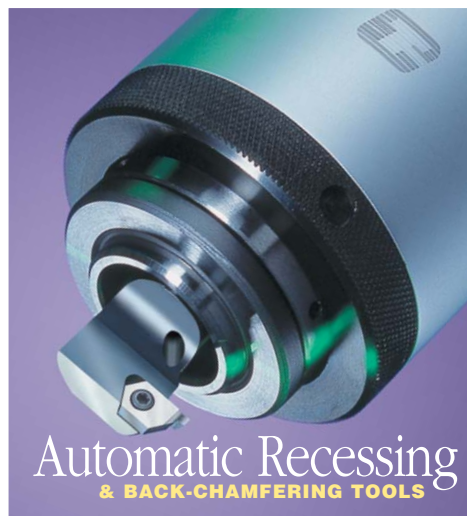
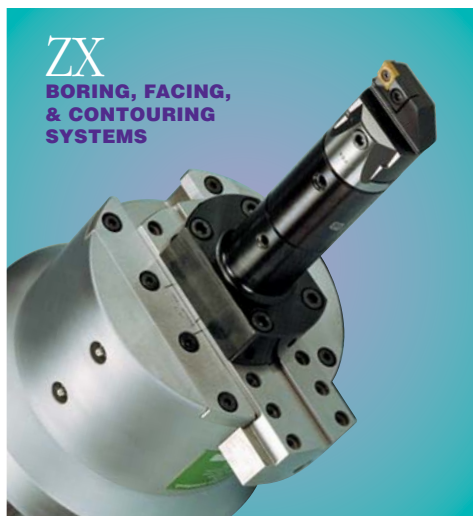
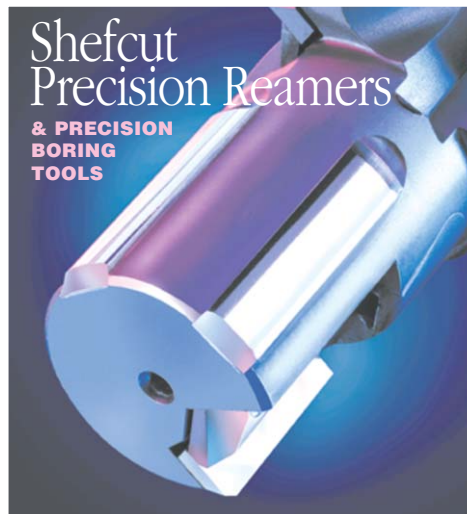
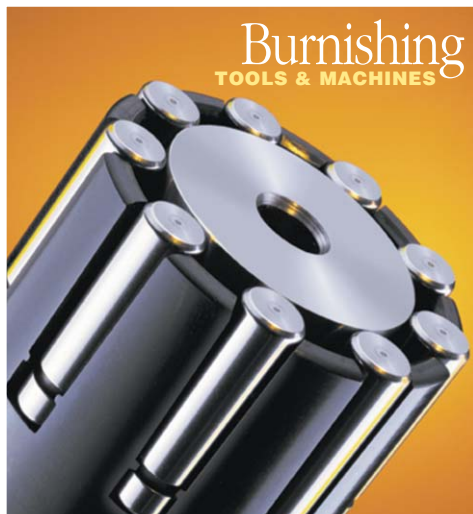


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