

**STO SUPERION®**

**SOLID CARBIDE AND CARBIDE HEAD**

# **BURNISHING DRILLS**



Discover the difference SUPERION can make in your production operation.

# SOLID CARBIDE AND CARBIDE HEAD BURNISHING DRILLS



V-Braze  
Solid carbide head multi-diameter  
combination spot facing drill



Solid carbide head burnishing drill  
with carbide tipped spot facer



Solid carbide head burnishing drill  
with oil holes



Solid carbide head step burnishing drill



Solid carbide spiral fluted spot facing drill



Solid carbide long flute burnishing drill



Solid carbide multi-diameter step drill



Solid carbide multi-diameter combination  
spot facing and chamfering drill



Solid carbide step drill



Solid carbide standard burnishing drill

- Burnishing action provides closer hole tolerance and better surface finishes without reaming operation
- Ideal for drilling tapped holes
- Available with spiral flute for holes with key ways
- Single step and multi-step drills made to order

OBJECTIVE	COOLANT TYPE	
	WATER SOLUBLE	OIL
<b>COOLING</b> (Improved feed rates)	More effective	Less effective
<b>LUBRICITY</b> (Improved surface finish)	Less effective	More effective

MATERIAL	RATES	CUTTING SPEED	FEED RATE
		Meters/Min (Feet/Min)	MM/Flute/Rev (Inch/Flute/Rev)
Aluminum Copper Alloys		50-100 m/min (160-320 fpm)	0.05-0.1mm (0.002-0.004")
Cast Iron		25-50 m/min (80-160 fpm)	

$$V = \frac{\pi DN}{1000}$$

$$N = \frac{1000 V}{\pi D}$$

$$\left( V = \frac{\pi DN}{12} \right)$$

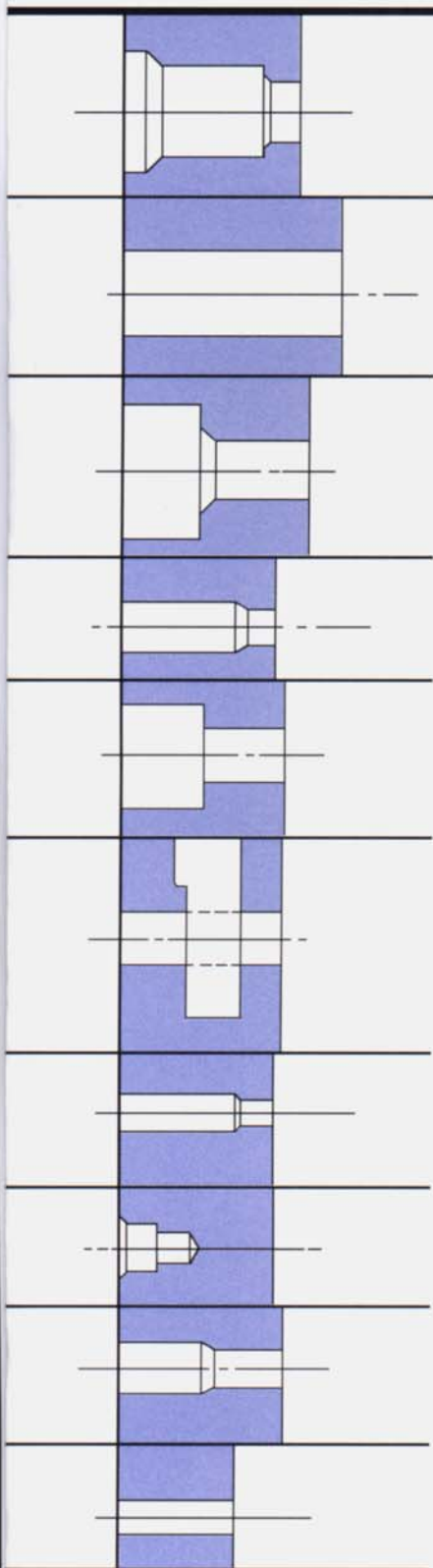
$$\left( N = \frac{12 V}{\pi D} \right)$$

**SURFACE SPEEDS & RPM  
INCHES**

FPM	80	160	320
DIA	RPM		
1/16	4,889	9,779	19,558
3/32	3,260	6,519	13,038
1/8	2,445	4,889	9,779
5/32	1,956	3,912	7,823
3/16	1,630	3,260	6,519
7/32	1,397	2,794	5,588
1/4	1,222	2,445	4,889
9/32	1,087	2,173	4,346
5/16	978	1,956	3,912
11/32	889	1,778	3,556
3/8	815	1,630	3,260
13/32	752	1,504	3,009
7/16	698	1,397	2,794
15/32	652	1,304	2,608
1/2	611	1,222	2,445
17/32	575	1,150	2,301
9/16	543	1,087	2,173
19/32	515	1,029	2,059
5/8	489	978	1,956
21/32	466	931	1,863
11/16	444	889	1,778
23/32	425	850	1,701
3/4	407	815	1,630
25/32	391	782	1,565
13/16	376	752	1,504
27/32	362	724	1,449
7/8	349	698	1,397
29/32	337	674	1,349
15/16	326	654	1,304
31/32	315	631	1,262
1.0	306	611	1,222

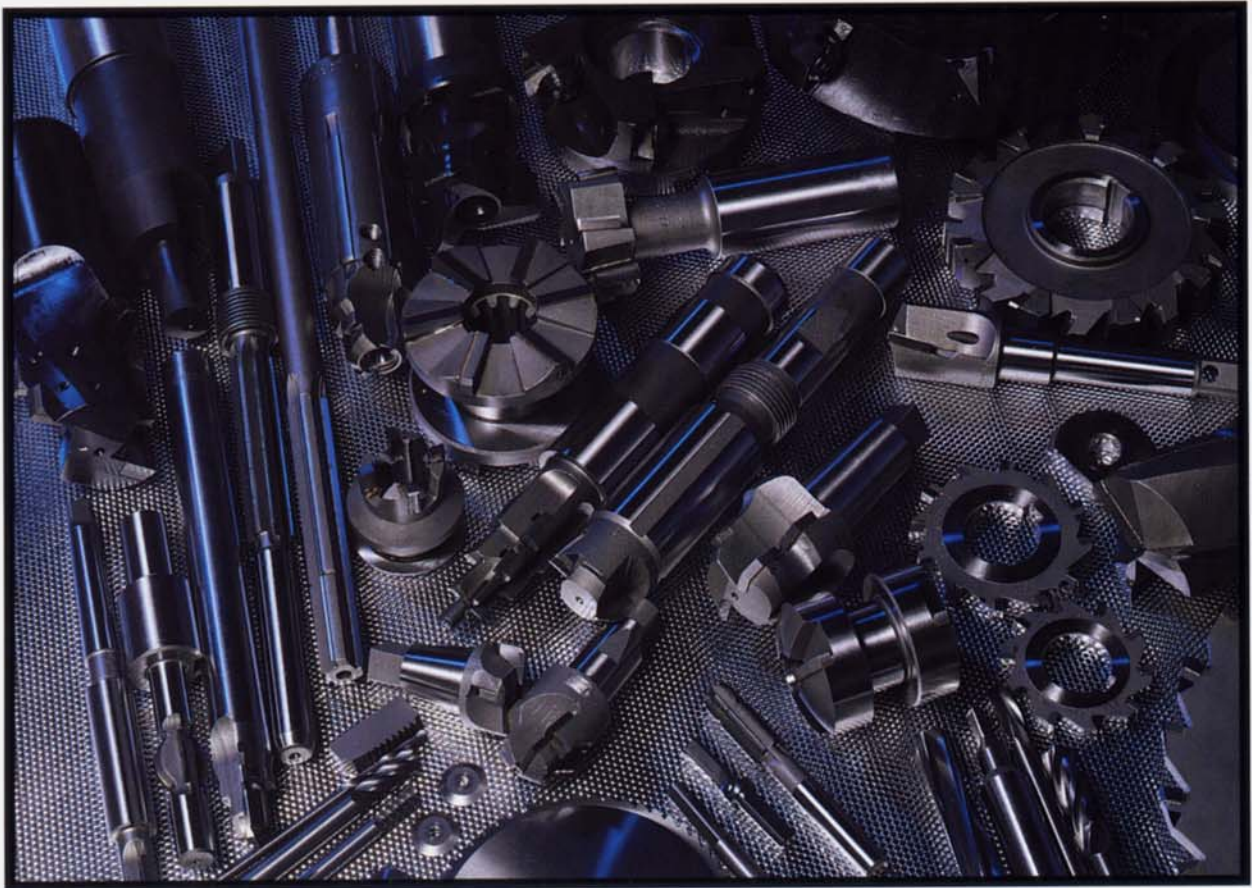
**SURFACE SPEEDS & RPM  
METRIC**

M/MIN	25	50	100
DIA	RPM		
2	3,979	7,958	15,916
3	2,653	5,305	10,611
4	1,989	3,979	7,958
5	1,592	3,183	6,366
6	1,326	2,653	5,305
7	1,137	2,274	4,547
8	995	1,989	3,979
9	884	1,768	3,537
10	796	1,592	3,183
11	723	1,447	2,894
12	663	1,326	2,653
13	612	1,224	2,449
14	568	1,137	2,274
15	531	1,061	2,122
16	497	995	1,989
17	468	936	1,872
18	442	884	1,768
19	419	838	1,675
20	398	796	1,592
21	379	758	1,516
22	362	723	1,447
23	346	692	1,384
24	332	663	1,326
25	318	637	1,273
26	306	612	1,224
27	295	589	1,179
28	284	568	1,137
29	274	549	1,098
30	265	531	1,061
31	257	513	1,027
32	249	497	995



**At**

a time when greater demands for precision and quality are being placed on cutting tools, SUPERION meets these requirements by using the latest in equipment and a wealth of experience to make products of integrity. We offer a wide selection of precision tools, as well as the equipment and staff to meet your specific needs for tools requiring precision tolerance or complex shapes.



Discover the difference SUPERION can make in your production operation.



**SUPERION<sup>®</sup>**

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