

COOLANT SELECTION CHART

TYPE OF METAL	TOWERKEM			TOWERCOOL			TOWERSOL	
	W3222	550	574	455	462	457HD	345	348

Type of Operation: Turning, Milling, Drilling, Sawing

Steel, Low Carbon	2	1	1	2	2	1	1	1
Steel, High Carbon	4	2	3	3	2	1	1	1
Stainless	4	2	3	4	3	1	2	1
Aluminum	5	3	1	2	4	1	2	1
Magnesium	5	3	2	2	1	3	4	4
Copper	3	3	2	2	5	2	2	1
Brass	3	3	2	2	5	2	2	1
Cast Iron	3	2	2	1	2	2	2	2

Type of Operation: Reaming, Boring, Broaching

Steel, Low Carbon	3	1	1	2	2	1	1	1
Steel, High Carbon	4	2	3	3	2	1	1	1
Stainless	4	2	3	4	3	1	2	1
Aluminum	5	3	1	3	4	1	3	1
Magnesium	5	4	2	2	2	3	2	1
Copper	4	3	2	2	5	2	3	1
Brass	4	3	2	2	5	2	3	1
Cast Iron	3	3	2	1	2	2	2	2

Type of Operation: Tapping, Cutting Threads / Forming Threads

Steel, Low Carbon	2/2	1/1	1/1	3/2	2/1	1/1	1/1	1/1
Steel, High Carbon	3/3	2/2	2/2	3/3	2/2	1/1	1/1	1/1
Stainless	4/3	3/2	3/2	4/3	3/3	2/2	2/2	1/1
Aluminum	4/4	4/4	2/1	3/3	4/4	2/2	1/1	1/1
Copper	3/4	4/4	2/2	3/3	5/5	1/2	1/1	1/1
Brass	3/4	4/4	2/2	3/3	5/5	1/2	1/1	1/1
Cast Iron	2/3	2/2	2/2	1/1	2/2	2/2	1/1	1/1

Type of Operation: OD, ID, Plunge, and Surface Grinding

Finish, ≥	20 RMS	20 RMS	8 RMS	10 RMS	12 RMS	16 RMS	8 RMS	8 RMS
Steel	2	2	1	2	3	2	2	2
Stainless	4	3	3	4	3	2	2	2
Aluminum	4	3	1	3	4	3	2	2
Cast Iron	2	2	1	1	2	2	2	2

Type of Operation: Centerless Grinding

Finish, ≥	20 RMS	20 RMS	8 RMS	10 RMS	12 RMS	16 RMS	8 RMS	8 RMS
Steel	4	2	2	3	3	2	2	1
Stainless	4	3	3	4	3	2	2	1
Aluminum	4	3	2	4	4	3	2	1

Type of Operation: Rotary Grinding

Steel	2	1	1	3	3	3	1	1
Stainless	3	2	2	3	3	2	2	1
Aluminum	4	4	1	3	4	3	2	1
Cast Iron	2	1	2	2	3	3	2	1

RATINGS: 1=Excellent 2=Very Good 3=Good 4=Fair 5=Not Recommended