

TRUING & DRESSING GUIDE

TRUING OF RM FLUTING WHEEL

- “Truing” primarily means to create a perfectly round and true running grinding wheel
- Truing is done by using a grinding machine and an abrasive wheel that the bond of the diamond wheel
- Recommended abrasive wheel:
 - Silicon Carbide (green) or Aluminum Oxide (White or Pink)
 - Grit size , 80-120 mesh
 - Hardness I, J or K
- Cutting (rotating) speed
 - Diamond wheel 200-1,000 SFM (1-5 m/s) => 400-700 RPM for Ø3-6” Diamond wheel
 - Dressing wheel 2,400-5,000 SFM (12-25 m/s) => 2,000 RPM for Ø8” Dressing wheel
- Oscillation rate: 8-10 IPM (inch per minute)

DEFINITION OF TRUING WHEEL

Wheel specification

(US Mesh) Sieve Size No	Size No. (µm)
60	D251
70	D216
80	D181
100	D151
120	D126
140	D107
170	D91
200	D76
230	D64
270	D54
325	D46
400	D39
500	D33

125 x 17 x 31.8

Brand name

Safety standard → **EN 12413**

Wheel dimensions → **125 x 17 x 31.8**

Wheel specifications → **RA 60 K7V T-5**

Batch No → **No. 79016**

MAX R.P.M 5260-35 M/S

WARNING: SAFETY FIRST!! BEFOR EMOUNTING READ SAFETY

The grit size of a truing wheel presented in MESH compered to diamond wheel grit size presented in MICRONS

RA	60	K	7	V	T-5
Abrasive	Grain size	Grade	Structure	Bond	Type (P= profile)

Definition of truing wheel

Abrasive	Grain Size
A Brown Aluminium Oxide	Coarse 24, 30, 36
BAS High performance Aluminium Oxide	Medium 46, 54, 60
WA White Aluminium Oxide	Fine 80, 100, 120, 150
WAB White Aluminium Oxide+Blue Bond	Very Fine 180, 220, 240
WAR White Aluminium Oxide+Red Bond	Grade
WAY White Aluminium Oxide+Yellow Bond	Soft B, C, D, E, F, G, H
WAG White Aluminium Oxide+Special Bond I	Medium I, J, K, L
WAP White Aluminium Oxide+Special Bond II	Hard M, N, O, P, Q
WAL Special grain and bond for improved surface integrity	Structure
PA Pink Aluminium Oxide	Medium/Standard Open/Porous
RA Ruby Aluminium Oxide	6 7 8 9 10 11 12 13 14 15
AS1 10% Ceramic Aluminium Oxide	Bond
AS3 30% Ceramic Aluminium Oxide	V Vitrified
AS5 50% Ceramic Aluminium Oxide	B Resinoid
DA White and Brown Aluminium Oxide	BF Reinforced Resinoid
SA Semi-friable Aluminium Oxide	
HA Monocrystal Aluminium Oxide	
KA Bubble alumina	
GC Green Silicon Carbide	
C Black Silicon Carbide	



Dressing of RM fluting wheel

- **“Dressing”** primarily means to clean the surface of the diamond wheel and expose the diamond grits
- Dressing is usually done by using a soft dressing stick with fine grits
- It is done by pushing the dressing stick firmly into the diamond wheel, few times, until the wheel sinks into the stick
- Recommended dressing stick:
 - **Aluminum** Oxide (White)
 - Grit size , **240-320** mesh
 - Hardness **G or H**
- Dressing should be done right after the truing and in any time that the wheel is clogged and generating more load
- During the dressing process the diamond wheel should rotate in the same direction and speed as it is normally used

Dressing of D54/64 RM WHEELS Abrasive wheel/stick selection

GRIT SIZE												FINER →	
	80	100	120	150	180	200	220	240	280	320			
TRUING	█	█	█										
DRESSING							█	█	█	█			
BOND HARDNESS												HARDER →	
	F	G	H	I	J	K							
TRUING				█	█	█							
DRESSING		█	█										

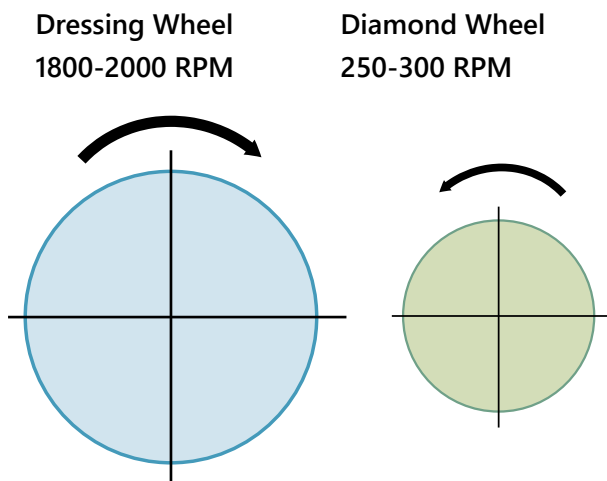
TOOLGAL RM DRY Truing

- Recommended abrasive wheel:
 - Silicon Carbide (green) or Aluminum Oxide (White or Pink)
 - Grit size 80-120 mesh
 - Hardness I, J or K
 - D64-D46 = PA 120 J8V , GC 120 J7V
 - D91-D64 = PA 80 J8V



Speed ratio: The ratio of dresser surface speed divided by wheel surface speed

UNIDIRECTIONAL Dressing of the Wheel



Recommended working speed		
	"Peripheral Speed (M/s)"	
	Diamond Wheel	Truing Wheel
D	3	20
50	1150	7640
75	760	5090
100	570	3820
125	460	3060
150	380	2550
200	290	1910
250	230	1530
300	190	1270



GENERAL SELECTION GUIDE FOR DRESSING WHEEL/STICK

“Truing” primarily means to create a perfectly round and true running grinding wheel

Truing Data - Truing Wheel			
Hardness	Grain size	Abrasive	Grain Size of diamond
J ~ L	# 30 ~ 46	GC,C	#~80
I ~ K	# 45 ~ 80	GC,C	#100~180
I ~ K	# 80 ~ 120	GC,C	#220~360
H ~ J	# 120 ~ 220	GC,C	#400~

Dressing Data - Dressing Stick			
Hardness	Grain size	Abrasive	Grain Size of diamond
G ~ H	# 80 ~ 220	GC,WA	#100~180
G ~ H	# 150 ~ 600	GC,WA	#220~400
G ~ H	# 280 ~ 1200	GC,WA	#500~1000
F ~ G	# 600 ~ 2000	GC,WA	#120~2000

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