

CENTRELESS WHEELS

**NORTON
ADVANTAGE**

The new MIKRON range of Centreless wheels combine broad versatility and high performance to give marked productivity gains over others.



Industry	Steel	Bearing	Auto OEM	Auto Ancillaries	Cutting Tool	General Engg
Usage	●	●	●	●	●	●
	● Primary Use	● Primary Use	● Primary Use	● Primary Use	● Secondary Use	● Primary Use

BETTER MIKRON - A PREMIUM PRODUCT WITHOUT A PREMIUM PRICE TAG

FEATURES

- ▶ Versatile abrasive A capable of grinding different materials
- ▶ Advanced VCNM bond

BENEFITS

- ▶ Lower down time due to lesser wheel changes
- ▶ Freer cutting, better form retention
- ▶ Lower dressing frequency
- ▶ Equally good on hard and soft materials

TYPICAL APPLICATIONS

- ▶ Bar grinding
- ▶ Bearing Race OD ring grinding
- ▶ Auto part grinding e.g. piston pins, shock absorber tubes & rods, engine valve stems, dowell pins, etc.

"New MIKRON Plus (Super Edge, Super Grinding) Wheels not only resulted in higher productivity, but I also saved on my dresser costs."

– Foreman, Gudgeon Pin Manufacturer

TechTips



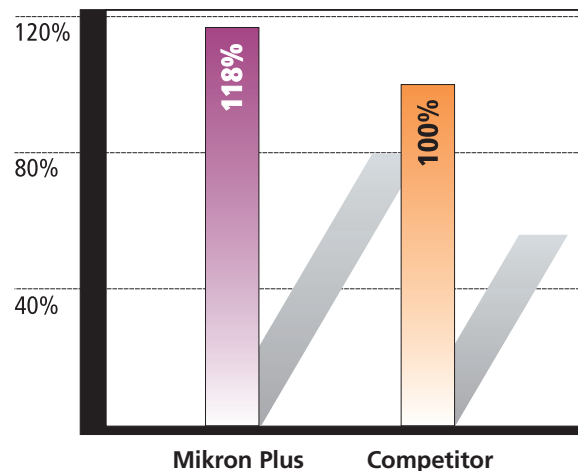
WHEEL DRESSING

- ▶ Dressing of the wheel is to be done only when strictly required and the dressing depth should be just adequate to clean the wheel face and maintain its sharpness.

WORKREST BLADE

- ▶ In centreless grinding, wheel performance and job quality is largely influenced by correct workrest blade setting, its angle and hardness.
- ▶ Ensure no slippage takes place while driving regulating wheels to avoid flat spots.

RELATIVE JOBS BETWEEN DRESSINGS



Advanced VS3 Bond

- ▶ VCENT wheels for versatile performance
- ▶ Advanced VS3 Bond is good for corner holding and ensures free cutting action as well as less frequent dressing.

CENTRELESS WHEELS

SpecCheck

ABRASIVE		GRIT	GRADE	BOND	DRESSING TOOL
More Durable	A	36 (Coarse)	I (Soft)	V8	Standard Tool
↕	19A	↕	↕	VCNM	Standard Tool
	38A			VS3	Standard Tool
More Friable		120 (Fine)	R (Hard)		Standard Tool

HOW TO USE SPEC CHEK:

Abrasive: Select abrasive type based on required performance, stock removal rate and material type.

Grit Size: Select the grit size depending on finish required and stock removal rate needed.

Bond: Select the appropriate bond based on the abrasive selected, and the contact area.

Grade: Selection based on bond selected and contact area.

ABRASIVE:

A: Tough, blocky abrasive; for all general purpose applications.

19A: Combination abrasive for cool cutting characteristics.

38A: Highly friable & pure abrasive for freer cutting and applications requiring grinding without metallurgical damage.

GRIT:

46: Typically for roughing and general purpose; finish rougher than 0.8 µRa.

60: Typically for commercial finish; 0.68 µRa or better.

80: Fine finish; 0.4 µRa or better, corner/form applications.

BOND:

VCNM: Improved Norton bond; good corner retention properties; available in standard stock with versatile Aluminium Oxide abrasive.

VS3: Superior corner retention properties, engineered for form grinding centreless operations.

V8: Superior form retention, engineered for form grinding operations like valve centreless

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES	SUGGESTED CORRECTION
Poor surface finish or quality of grind	<ul style="list-style-type: none"> Wheel too hard Wheel too fine Dity Coolant Poor wheel dressing 	<ul style="list-style-type: none"> Use softer grade Use coarser grit Filter coolant or replace coolant Increase dressing frequency or increase dressing traverse rate
Poor rounding/ lobing	<ul style="list-style-type: none"> Centre height incorrect Jobs excessive out of round before grinding 	<ul style="list-style-type: none"> Increase centre height Machine for reducing out of round dressing traverse rate
Chatter	<ul style="list-style-type: none"> Centre height too high Worn out spindle bearings 	<ul style="list-style-type: none"> Lower job centre height Replace bearings

STOCK AVAILABILITY TABLE

MIKRON Centreless Grinding Wheels

Size Dia x Thk x Bore	Std. Pkg.	Specification	Stock No.
300 x 80 x 140	1	A60 M6 VNM	V294M
350 x 100 x 127	1	A60 M6 VNM	V334M
350 x 100 x 127	1	A60 M6 VCNM	V417M
350 x 100 x 127	1	A46 3M6 VCNM	V338M
350 x 100 x 127	1	A60 N6 VCNM	V336M
350 x 100 x 152.4	1	A60 M6 VNM	V335M
350 x 100 x 152.4	1	A46 3M6 VCNM	V339M

Size Dia x Thk x Bore	Std. Pkg.	Specification	Stock No.
350 x 100 x 152.4	1	A60 N6 VCNM	V337M
350 x 100 x 152.4	1	A46 3P6 VCNM	V423M
350 x 150 x 127	1	A60 N6 VCNM	V414M
400 x 200 x 203.2	1	A60 M6 VCNM	V424M
500 x 150 x 304.8	1	A60 M6 VCNM	V410M
500 x 150 x 304.8	1	A60 N6 VCNM	V411M
500 x 200 x 305	1	A60 M6 VCNM	V412M