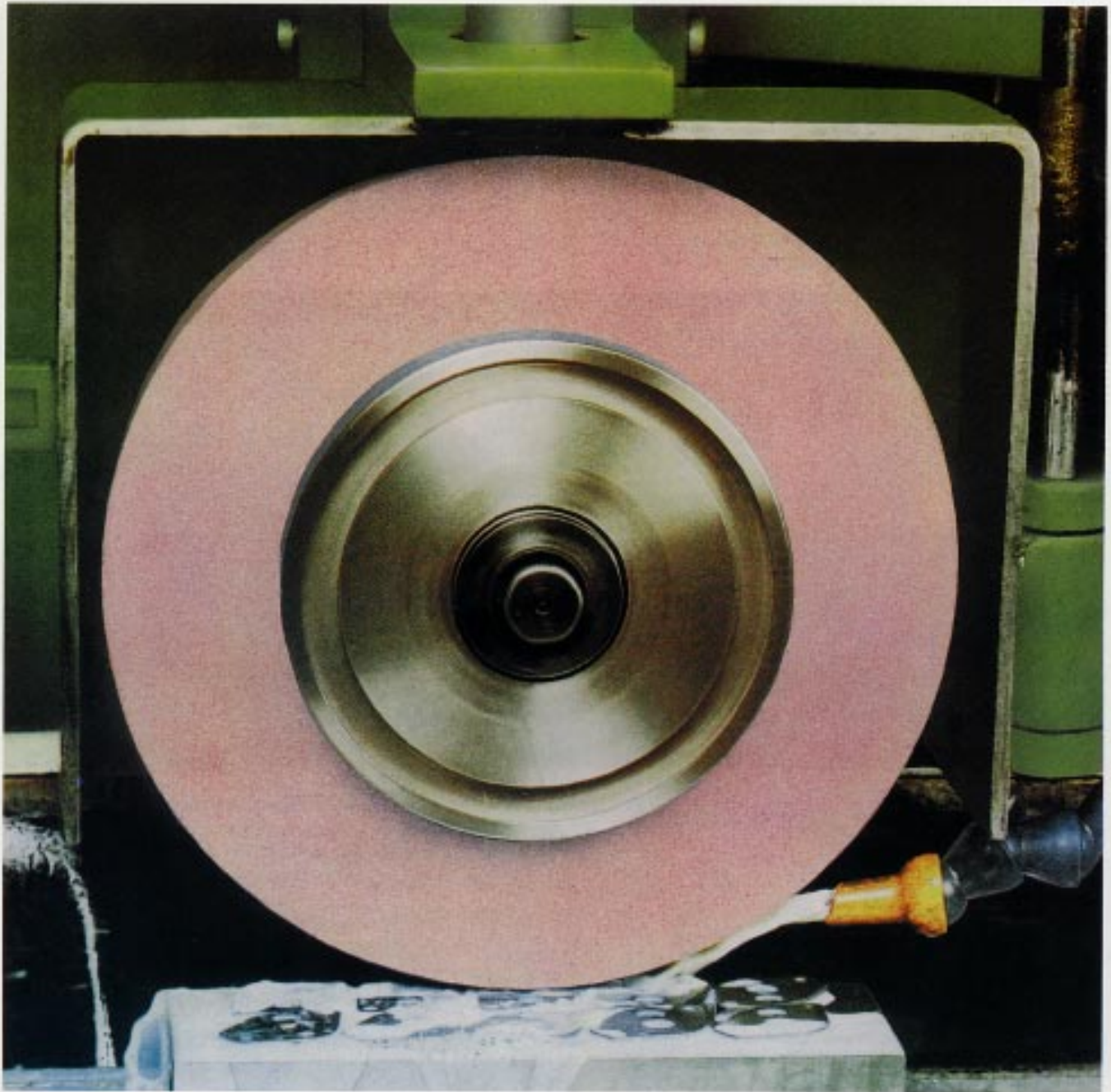


MIKRON

TOOL ROOM WHEELS



Super Edge, Super Grinding

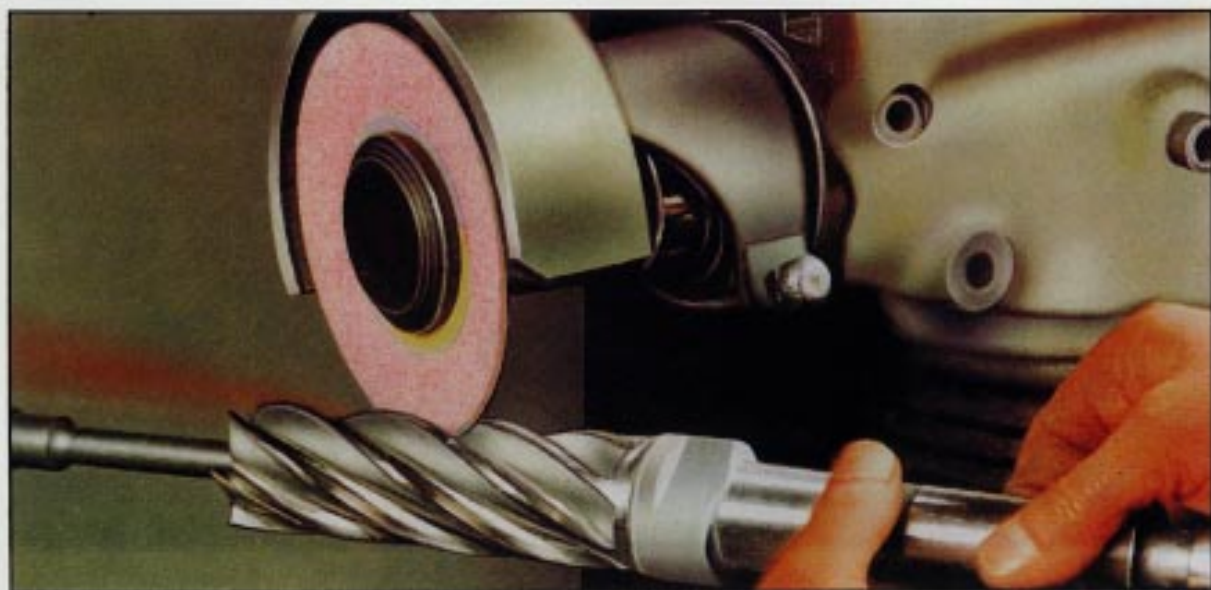
NORTON

**GRINDWELL
NORTON LTD.**

86 A. The revolutionary abrasive for tool room grinding.

Grindwell Norton presents the latest revolution in grinding wheels, MIKRON. Made with the new abrasive 86A it is specially suited for tool room grinding applications. The composition of the abrasive enables it to retain its sharp edge for a longer period of time, thus resulting in cooler cutting and less metallurgical damage to the work surface. Also the longer lasting cutting edge means lesser dressings between jobs thereby reducing grinding costs.

The 86A abrasive, is best suited for high productivity applications due to its high MRR (Material Removal Rate) properties. It has also proved effective on difficult-to-grind materials. 86A is the perfect abrasive for sharpening high speed steel and cast alloy tools and cutters, grinding of hardened HSS, nickel alloys, HCHCr, etc.



Mikron Tool Room Wheels

The efficiency of any grinding process to a large degree depends on using the right kind of wheel which suits the application. MIKRON, a formulation of 86A abrasive and the best NORTON bonds, is the perfect solution created to meet any tool room grinding need.

MIKRON wheels can take a higher depth of cut, while ensuring cooler grinding and work at a higher traverse rate. They work efficiently on both wet and dry grinding applications. The microstructure of the ground surface also remains unaffected, thanks to it being a cooler cutting wheel.

MIKRON's property of minimal wear ensures the best tolerances possible which in turn results in higher job accuracy.

All of the above, results in reduced dressing frequency. What this really means to you is, a longer wheel life, reduction in down time, and a higher output per wheel—thereby increasing over all tool room productivity.

MIKRON wheels are made to very tight dimensional and geometrical tolerances. Coupled with low imbalance, they enhance the efficiency and accuracy of your grinding process.

Available in cup, dish and regular wheel forms, MIKRON is a combination of an excellent abrasive and a versatile bond manufactured with state-of-the-art techniques, under strict quality control to ensure every wheels is made with precision, for precision.

86 A - SUPERIORITY

A grain with improved grinding characteristics

Physical Characteristics	38A (White)	86A
Grindability	Low	High
Hardness (Knoop) Kgf/mm ²	1900-2100	2150-2250
Specific Grain Toughness	Low	High

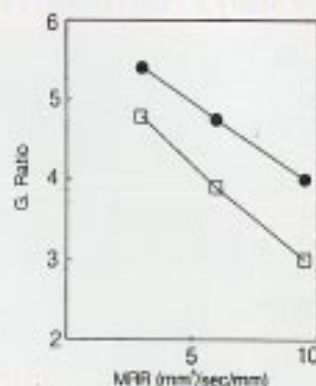
Grinding Ratio =

$\frac{\text{Vol. of Mat. Removed}}{\text{Vol. of wheel wear}}$

Economics of grinding are decided by Grinding Ratio and MRR.

At different MRR rates, the grinding ratio (GR) with MIKRON is higher than white Aluminium Oxide.

□ White Abrasive
● MIKRON

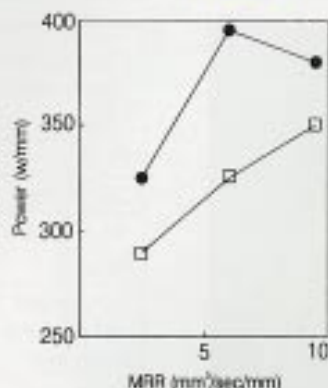


Specific Energy = $\frac{\text{Power}}{\text{MRR}}$

Grindability = $\frac{\text{G Ratio}}{\text{Specific Energy}}$

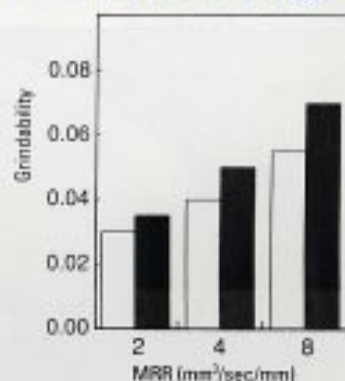
Due to a high MRR, though the power drawn is higher, the specific energy is substantially low in the case of MIKRON.

□ White Abrasive
● MIKRON



Due to high hardness and free cutting action, the grindability of MIKRON is better over other conventional Aluminium Oxide abrasives at a given MRR.

□ White Abrasive
■ MIKRON



STANDARD ITEMS

Straight Cup

V39M	100X50X31.75 R13 B13 (Type-6)	86A 46/54 K5 VBE
V42M	100X50X31.75 R13 B13 (Type-6)	86A 46 K5 VBE
V43M	100X50X31.75 R13 B13 (Type-6)	86A 60 K5 VBE
V71M	125X40X31.75 R8 B10 (Type-6)	86A 60 K5 VBE
V72M	125X50X31.75 R10 B13 (Type-6)	86A 60 K5 VBE
V75M	125X100X31.75 R13 B13 (Type-6)	86A 46/54 K5 VBE
V133M	150X100X31.75 R20 B20 (Type-6)	86A 36 H8 VBE
V134M	150X100X31.75 R20 B20 (Type-6)	86A 46 K5 VBE
V160M	180X80X31.75 R16 B16 (Type-6)	86A 36 J8 VBE
V209M	200X100X31.75 R25 B25 (Type-6)	86A 46 18 VBE
V210M	200X100X31.75 R25 B25 (Type-6)	86A 46 K5 VBE

Straight Wheel

V24M	100X13X31.75	86A 60 K5 VBE
V88M	150X8X31.75	86A 60 K5 VBE
V90M	150X13X31.75	86A 46 K5 VBE
V97M	150X13X31.75	86A 46/54 K5 VBE
V98M	150X13X31.75	86A 60K5 VBE
V99M	150X13X31.75	86A 80K5 VBE
V100M	150X13X31.75	86A 120 J8 VBE
V113M	150X20X31.75	86A 60 K5 VBE
V150M	180X8X31.75	86A 60 K5 VBE
V153M	180X13X31.75	86A 46 K5 VBE
V154M	180X13X31.75	86A 46/54 K5 VBE
V157M	180X13X31.75	86A 60 K5 VBE
V156M	180X13X31.75	86A 80 K5 VBE
V158M	180X13X31.75	86A 120 K8 VBE
V168M	200X8X31.75	86A 60 K5 VBE
V176M	200X13X31.75	86A 46/54 K5 VBE
V177M	200X13X31.75	86A 60 K5 VBE
V184M	200X20X31.75	86A 46/54 K5 VBE
V185M	200X20X31.75	86A 60 K5 VBE
V188M	200X20X50.8	86A 46/54 K5 VBE
V190M	200X20X50.8	86A 60 K5 VBE
V196M	200X25X31.75	86A 60 K5 VBE
V212M	200X25X31.75	86A 46/54 K5 VBE
V241M	250X25X76.2	86A 60 K5 VBE
V243M	250X25X76.2	86A 46/54 K5 VBE

Taper Cup

V17M	90/71X40X31.75 R6 B10 (Type-11)	86A 46/54 K5 VBE
V18M	90/71X40X31.75 R6 B10 (Type-11)	86A 60 K5 VBE
V45M	100/68X40X31.75 R8 B10 (Type-11)	86A 46/54 K5 VBE
V46M	100/68X40X31.75 R8 B10 (Type-11)	86A 60 K5 VBE
V49M	100/71X50X31.75 R8 B13 (Type-11)	86A 60 K5 VBE
V52M	100/71X50X31.75 R8 B13 (Type-11)	86A 46/54 VBE

Dish Wheel

V27M	100X13X31.75 (Type-12)	86A 60 K5 VBE
V105M	150X13X31.75 (Type-12)	86A 46/54 K5 VBE
V106M	150X13X31.75 (Type-12)	86A 60 K5 VBE
V114M	150X20X31.75 (Type-12)	86A 60 K5 VBE

CASE STUDIES

Case Study 1 : Earl Bihari Pvt. Ltd.

Material	WPS (Hard)	
	Wheel	Mikron
Depth / Pass	0.02	0.02
No. of Passes	5	5
Wear	0.02 mm	0.03 mm
Tapered land on face due to wheel wear	-	-
Burn	Nil	Dark Burn after 4th pass
Reason for Dress	-	-
Finish	Good	Discoloured

Case Study 2: Harsora Iron Works

Material	WPS (Hard)	
	Wheel	Mikron
Depth / Pass	0.1 mm	0.1 mm
No. of Passes	3	3
Wear	-	-
Tapered land on face due to wheel wear	2 mm	5 mm
Burn	Nil	Yes
Reason for Dress	-	Burn & Chatter
Finish	Good	Good

Case Study 3: Handtool Industries

Material	Chilled C.I	
	Wheel	Mikron
Depth / Pass	0.34-0.4 mm	0.32 mm
No. of Passes	3	3
Wear	-	0.05
Tapered land on face due to wheel wear	-	-
Burn	Nil	Slight
Reason for Dress	Loading	Loading
Finish	Better	Good
Life (Total pcs)	800 pcs	600 pcs



Case Study 4: P.L. Engineering Works

Material	HCHCr (Hard)	
	Wheel	86A 60
Depth / Pass	0.2 mm	0.2 mm
No. of Passes	2	2
Wear	-	-
Tapered land on face due to wheel wear	4 mm	7 mm
Burn	Nil	Slight
Reason for Dress	Loading	Loading
Finish	Good	Good

Dealer's Stamp

Central Marketing Group : Army & Navy Building, 148, Mahatma Gandhi Road, Mumbai 400 001.

Tel: 2844727 Fax: 022-2023711

NORTON

**GRINDWELL
NORTON LTD.**