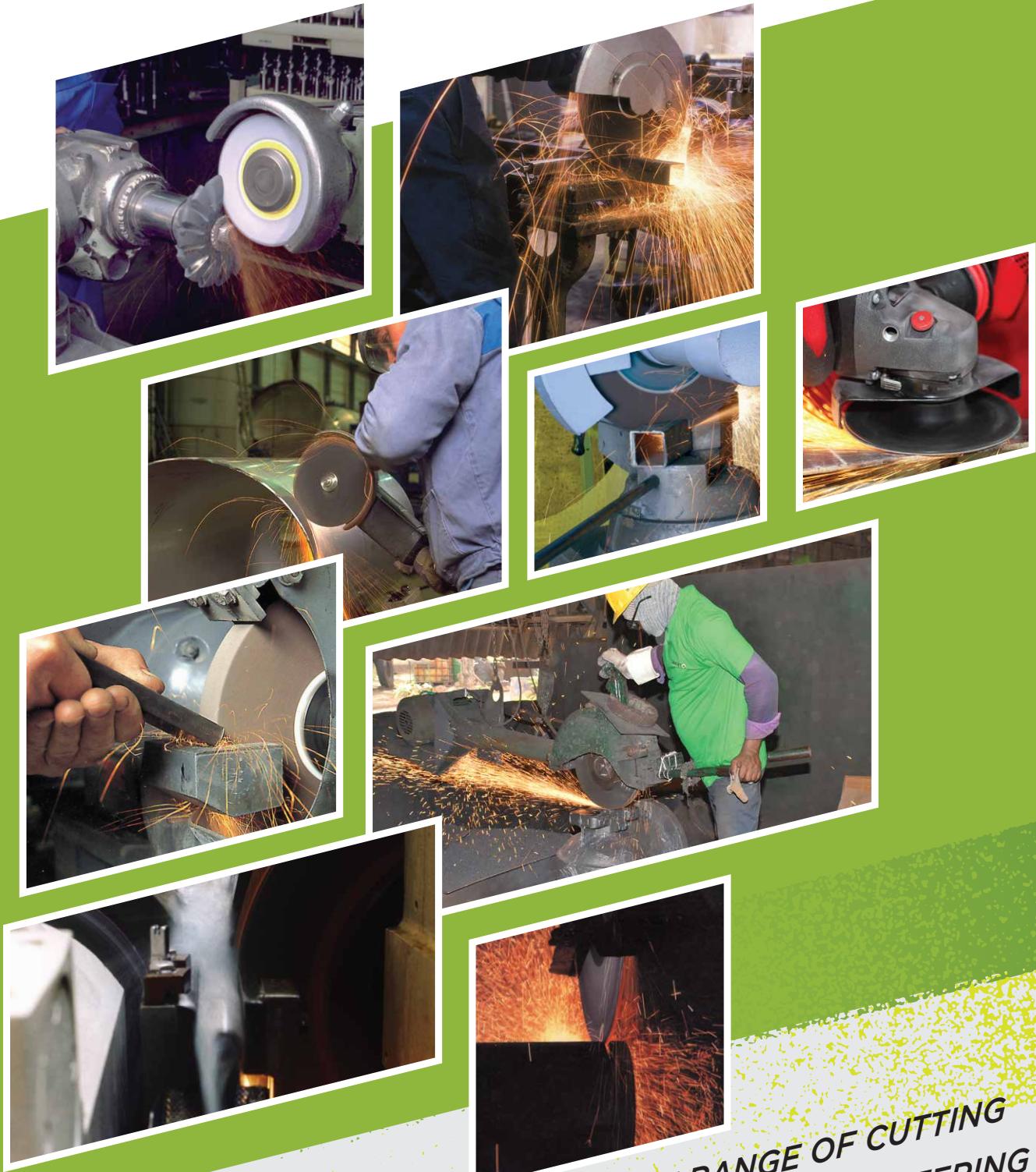


ORIENT



A VERSATILE RANGE OF CUTTING
& GRINDING SOLUTIONS CATERING
TO YOUR DIVERSE NEEDS

Orient Introduction

Meeting SME industry requirements

Traditionally, Orient has been renowned for its robust line-up of vitrified and organic grinding wheels. Orient, a brand of Saint-Gobain Abrasives, is known for its dedication to small and medium-sized enterprises, specializing in applications within the foundry, forging, and auto component industries.

Additionally, we offer an extensive range of thin-wheel products tailored for the foundry and fabrication industries. Our technologically advanced white and pink toolroom wheels are designed to deliver superior performance, setting a high standard in the market.

Segment Specialists:



Foundry & Steel
Industry



Auto & Auto Ancillary
Industries



Fabrication
Industry



General Engineering
Industries



Reach & Service

Our dedicated sales team covers the entire country, supported by Product Engineers and Managers to develop customer-specific solutions.

Our robust and expanding pan-India distribution network of Authorized Channel Partners is strategically located near industrial areas and cluster markets for easy access and prompt service.

Plants



Foundry & Steel Solution



Orient OXP Snagging Wheel is a testament to Orient's dedication to delivering high-performance solutions. This product offers up to seven times the lifespan of competing products, significantly reducing the frequency of wheel changes, and thus minimizing downtime. This exceptional durability translates directly into cost savings for foundries, as fewer wheels are needed over time.

OXP SNAGGING WHEEL: A GAME-CHANGER IN CAST IRON FOUNDRIES



Features & Benefits



Up to 7 times existing wheel life
New bond technology combined with tougher grains gives superior wheel life

Easy Grinding
Less fatigue during operations

Less Dust Generation
Reduced wheel wear directly contributes to less abrasive dust generation

Tougher Bond
Modified bond ensures superior grain hold

Increased Safety
Tougher bond provides higher safety rating than conventional wheel to prevent wheel breakage

Foundry & Steel Solution

Snagging Wheels

Versatile and safe, these wheels are suitable for a wide range of materials and machines. The in-built features in their design ensure that the wheels are very safe to use.

Features

- Reinforced Wheels
- Smooth Cutting Wheel
- Premium Silicon Carbide Wheels

Benefits

- Excellent Life & Material Removal Rate
- Also suited for Non-Steel Application

Applications

- Smoothening of Weld Seam
- Cleaning casting burrs
- Preparing surface for plating or painting
- Billet Conditioning

Availability

- 12", 14", 16", 18" & 20"

Machines

- Swing Frame Grinder
- Flexible Shaft Grinder
- Bench Grinder



Availability

Snagging Wheel

Application Type	Abrasives	Grit Size	Diameter	Thickness
Swing Frame Grinding/ Pedestal Grinding	10A, 14A, AC, IC	Up to 30	Up to 500	Up to 75
Portable Grinding	10A, 14A, AC, IC	Up to 24	Up to 200	13-50.8



Building on our legacy of innovation, Orient Abrasives proudly present the Foundry+ range of wheels. These wheels are designed with a clear focus on delivering high performance and cost-effectiveness. The Foundry+ wheels are engineered to provide exceptional grinding power, ensuring efficient material removal and a smooth finish.

Application Type	Abrasives	Grit Size	Diameter	Thickness
Swing Frame Grinding/ Pedestal Grinding	XA, ZRC	Up to 30	Up to 500	Up to 75
Portable Grinding	XA, ZRC	Up to 24	Up to 200	13-50.8

Features

- Up to 3X product life
- Cost-effective grinding solution
- Superior performance at a lower cost per operation
- Enhanced productivity



Foundry Solution

Diamond Wheels for Foundry

Single-layered abrasive products with high diamond grain exposure for easy grinding. With coarse diamond grains, these wheels find their place in the foundry and are best suited for fettling.

It is used for a wide range of applications and work on; Automated Robotic Machines and Manual Pedestal machines. Diamond wheels tooled up in automated- robotic fettling machines make operation simple for fettlers producing components in mass quantity.

Features

- Premium Diamond Grains
- High Grain Protrusion
- Produced in customized shape

Benefits

- Extremely high material removal rates
- Long lasting wheel life
- Free from abrasive dust
- Safe - No breakage concern

Applications

- Grinding - Flashes, Parting Lines and Vent Pins,
- Cutting - Runners, Risers and Castings

Materials

- Grey Cast Iron
- SG Iron

Application Type	Grain Size	Diameter (D)	Thickness (T)
Grinding	Up to D1001	Up to 760	4 to 60
Cutting	Up to D1001	Up to 600	4 to 6
*Customized sizes made available on request as per required drawing			
All dimensions are in mm			



Foundry & Steel Solution



Chakra - Cutting & Grinding Discs

Features

- DCD's with 3GFD Robust Design
- Specialized specification for Cast Iron and material in Foundry

Applications

- Angle Grinding
- Cutting
- Vertical Grinding

Availability

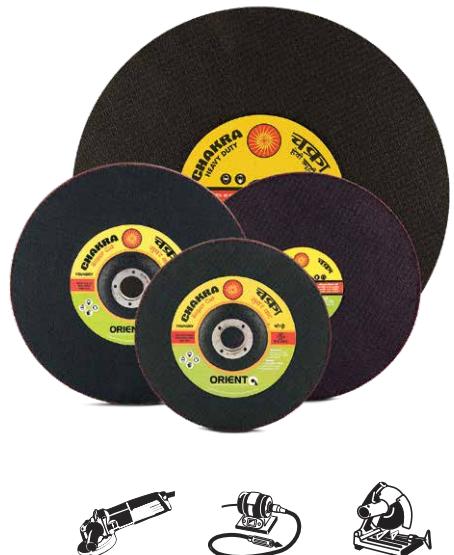
- 4", 5", 7", 9" DCD
- 5", 7", 9" & 14" Cut-off Wheels

Benefits

- Product can work on versatile Heavy/ Aggressive applications
- Excellent life & material removal rate
- Complies to EN & oSa Standards and hence are much safer to use

Machines

- Angle Grinder
- Flexible Shaft
- Non Standard LDCOW Machine



Garuda – Grinding Discs

Features

- DCD's with 3GFD Robust design
- Specially designed specification

Benefits

- Fast Material Removal Rate with optimum life
- Good combination of performance & price

Applications

- Angle Grinding
- Vertical Grinding

Availability

- 4", 5", 7", 9" DCD

Machines

- Angle Grinder
- Flexible Shaft



Auto & Auto Ancillary



Orient - Centerless Grinding Wheels

Features

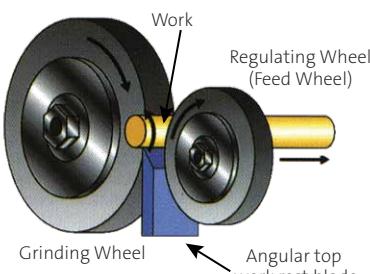
- Versatility on a wide range of materials
- Superior wheel balance
- Advance Bond System

Benefits

- High wheel life & stock removal capability
- Superior finish with no chatter mark, Burn-free
- Extended dressing intervals

Applications

- Centerless Grinding & Finishing of
 - ▶ Bright Bars
 - ▶ Bearing & Rollers
 - ▶ Auto Parts - Piston Pins & Shock Absorbers
 - ▶ Tubes & Rods, Engine Valve Stems & Dowels
 - ▶ Fasteners
 - ▶ Tool Manufacturing
 - ▶ Machine Tools



Centerless Grinding -
Machine Type

Orient - Rubber Control & Regulating Wheels

Orient offers a superior range of regulating feed wheels - available in both, the more popular rubber bonded variety as well as in resinoid bond.

Features

- Better Resiliency
- Better Grinding Power
- Less Dressing Frequency

Applications

- Used in centreless grinding as a control and feed wheel

Markets

- Auto / Auto Ancillary
- Bearing
- Tool Industry

Features

- Superior Surface Finish
- Reduced Chatter Tendency
- Greater Shock Absorbtion, Greater Roundness
- Less Slippage

Availability

Bond	Abrasives	Grit Size	Diameter	Thickness
R-Rubber	10A, 50A	60 - 220	50 - 600	25 - 250

Auto & Auto Ancillary

Orient - Crankshaft Grinding Wheels

Special high-performance bond system and unique manufacturing technology make Orient Crankshaft Wheels highly cost effective. Orient Crankshaft Wheels give best-in-class efficiency and superior finish.

Features

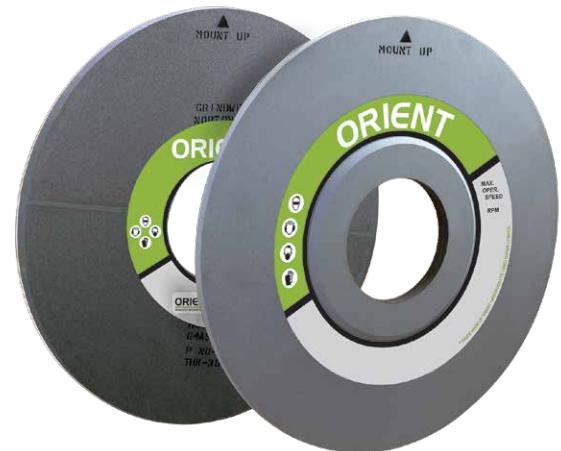
- V22- Bond for General Crankshaft Grinding Application

Benefits

- High Material Removal Rate with Excellent form Holding
- Good Dimensional Tolerance
- High Grinding Efficiency
- No Shoulder Burning & Correct Radius

Availability

Abrasives	Grit Size	Diameter	Thickness
10A, 50A 89A & 91A	46-80	610 - 1066	20 - 50



Applications

- Crank Pin Grinding
- Journal Grinding

Markets

- Auto / Auto Ancillary Industries

Machines

- Cincinnati, Newall, Landis, Nexas Union & Toyoda

Cylindrical Grinding Wheels

Orient ICECUT Wheel with engineered micro-fracture properties of new grains & superior retention capability of the bond, delivers excellent advantage of chatter-free grinding with good surface & high cut-rate, thereby reducing dressing time – further increasing the efficiency.

Features

- Engineered to grind a wide variety of materials
- Superior Wheel balance
- Advance Bond System

Benefits

- Grinding Efficiency
- Wheel Life & Material Removal Rate
- Excellent form retention
- Superior finish

Applications

- OD Grinding of Gear Shaft / Traverse Grinding
- Spline Shaft
- OD & Straight Plunge Grinding
- Angular Plunge Grinding

Machines

- Cincinnati / WMW / Solitare Cylindrical Grinding Machines

Availability

Bond	Abrasives	Grit Size	Diameter	Thickness
V22, V22C	10A, 50A	36 - 120	300 - 750	10 - 150
V41	89A	36 - 180	300 - 750	10 - 100
V93	IC , C , CG	36 - 220	300 - 750	10 - 100

ICECUT Availability:

Abrasive Type	Blue Aluminium Oxide	
	Tough and friable for cool cutting and increased wheel life	
Grain Size (FEPAl)	46	Coarse Grain for aggressive cutting action → Finer Grain for improved surface finish
Grade	H	Softer wheel hardness for easier grain refresh and free cutting ability → P Harder grade wheel for less aggressive cutting and improved form hold and wheel life
Bond	Latest Vitrified Bonds for grain holding	
Speed	45 m/s	

Auto & Auto Ancillary



Gear Grinding Wheels

Orient offers high-performance grinding wheels engineered to deliver a complete technical solution for worm and dual worm grinding, profile grinding and bevel grinding.



Worm Grinding:

An engineered micro-structured ceramic grain provides excellent free-cutting action and durability to maximize performance and quality.



Features & Benefits:

- Modified Bond to Grain Interaction for Superior Cut rate
- Improved Homogeneity
- Patented Bond for High Porosity
- Improved Toughness

Profile Grinding:

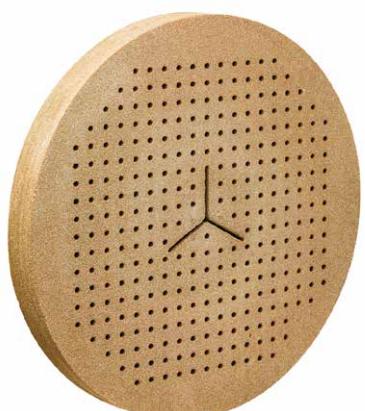
High-porosity and permeability in this ceramic-based wheel offering metal removal rate.



Nut-Inserted Wheels

Features & Benefits:

- Up to 3x product life
- A new Ceramic Aluminium Grain for enhanced cutting efficiency
- A perfect blend of sharpness and toughness



General Engineering

Orient - Toolroom Grinding Wheels

Made with White Aluminium & Pink Aluminium, Toolroom Wheels are designed to be used on a variety of applications in manufacturing and regrinding of cutting tools like drills, reamers, milling cutters, etc.

Features & Benefits

- Excellent Form Retention
- Free Cutting Action
- Burn Free Finish
- Versatility of cutting over vast range of steels

Applications

- Surface Grinding
- Regrinding / Grinding of shapes & contours of cutting tools, drills, reamers & milling cutters
- Die & Molds Grinding

Machines

- Surface grinder
- Tool & Cutter Grinder



Availability

Bond	Abrasives	Grit Size	Diameter	Thickness
V31, V41	10A, 89A, 90A, 88A	Up to 180	Up to 250	3 - 120

Orient - Offhand Grinding Wheels

Features

- Available in both Aluminum Oxide & Silicon Carbide
- Strong Bond V17

Benefits

- Ability to grind variety of materials
- Safe operations

Markets

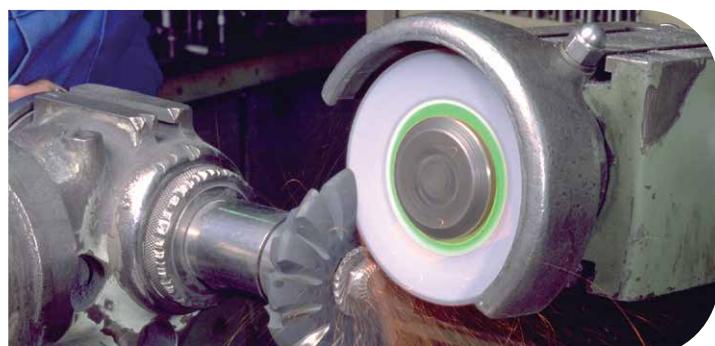
- General Engineering / Small manufacturers

Applications

- Grinding of excess material in casting & forging
- Re-sharpening of Single Point Cutting Tools
- Removing irregularity on steel flats
- Fabrication Area Blending / Weld Preparation Marks

Machines

- Bench Grinder
- Portable Grinder



General Engineering

Orient - Carbide Grinding Wheels

Features

- Free Cutting Action - Higher Life and Better Productivity
- Improved Surface Finish
- Burn Free Grinding

Benefits

- Less Metallurgical Damage
- High Productivity and Efficiency
- Less Operator Fatigue

Applications

- Blazed Carbide Tool Grinding
- Button Bit Grinding
- Mining Bit Grinding
- Toolroom for Carbide Dies

Markets

- General Engineering / Small Manufacturers of Mining Tools

Machines

- Bench Grinder
- Surface Grinder



Orient Carbide Product Range			
Product Position	Best	Better	Good
Grain	C	CG	CC
Bond	V93	V93	V93
Diameter Range (MM)	150-200	Up to 300	150
Thickness Range (MM)	25	6-25	25
Grit Size Range	Up to 120	60-120	60
Grade Range (Hardness)	K-L	K-M	K-N

Combination Stones

Premium grain facilitates quick edge sharpening & clean deburring

Typical Applications

Sharpening of Carpentry Tools, Knives, Scissors, Mould and Die Polishing & Deburring

Availability

150 x 50 x 25mm
200 x 50 x 25mm



Saw Gumming Grinding Wheels

Controlled Structure and Special Bond System

- Metallurgical Damage Free Grinding

Typical Applications

Resharpening of teeth of Circular or Band Saw Blades

Availability

Dia - 150 - 300mm,
Thickness - 3 - 6mm



Light to Medium Fabrication

Zeetech - Grinding Disc

Features

- Specialized Norzon Grain for SS Material Grinding

Benefits

- Unbeatable combination of Life & Cut-Rate
- Product complies to EN & oSa Standard Requirements

Applications

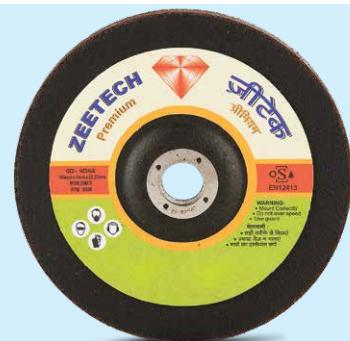
- Angle Grinding

Availability

- 7" DCD

Machines

- Angle Grinder



Garuda - Grinding & Cutting Discs

Features

- DCD's with 3GFD Robust Design
- Specially designed specification

Applications

- Angle Grinding
- Vertical Grinding
- Cutting

Availability

- 4", 5", 7", 9" DCD
- 4", 5" & 7" Cut-off Wheel

Benefits

- Fast Material Removal Rate with optimum life
- Good combination of performance & price

Machines

- Angle Grinder
- Flexible Shaft



Cheetah - Grinding & Cutting Discs

Features

- Unique product design for ease of grinding
- Specially engineered Grain & bond System

Applications

- Angle Grinding
- Vertical Grinding
- Cutting



Benefits

- High Cut-Rate: upto 35% better cut-rate compared to others in class
- Improved productivity & machine life
- Value for Money

Availability

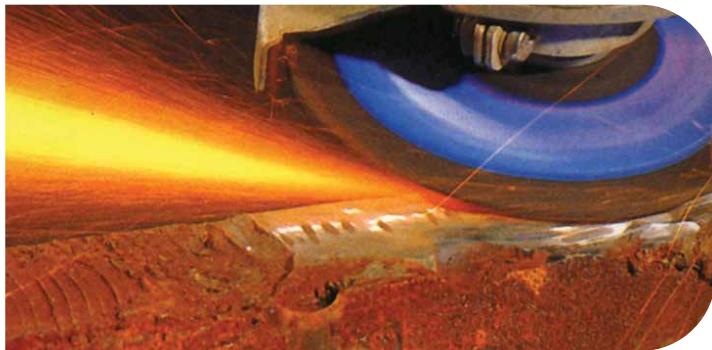
- 4", 5" & 7" DCD
- 4", 7" Cut-off Wheel
- 14" Chopsaw

Machines

- Angle Grinder
- Chopsaw



Heavy Fabrication



Chakra - Cutting & Grinding Discs

Features

- DCD's with GFD Robust Design
- Specialized specification for Cast Iron, and Material in Foundry

Benefits

- Product can work on versatile heavy / aggressive applications
- Excellent Life & Material Removal Rate
- Complies to EN & oSa Standards and hence are much safer to use

Applications

- Angle Grinding
- Cutting
- Vertical Grinding

Availability

- 4", 5", 7", 9" DCD
- 5", 7", 9" & 14" COW

Machines

- Angle Grinder
- Chopsaw



Notes

Notes

PROPER USAGE OF GRINDING WHEELS

**Safe operating practices must be part of every grinding wheel user's operation.
The greatest efficiency and lowest overall abrasive cost can be realized only if proven care
and use techniques become standard practice.**

Dos

- Always handle and store wheels in a careful manner.
- Before mounting, check all wheels for possible damage in transit.
- Check maximum operating speed established for wheel against machine speed.
- Check that mounting flanges are at least one-third diameter of the wheel and relieved around the hole.
- Use the mounting blotters supplied with the wheels.
- Ensure that work rest is correctly adjusted. (Centre of the wheel or above; no more than one-eighth inch away from the wheel).
- Always use a guard covering at least one-half of the grinding wheel.
- Allow newly mounted grinding wheels to run at operating speed (with guard in place) for at least one minute before grinding.
- Always wear safety glasses or some type of eye protection when operating the grinding wheel.
- Avoid creating an imbalance of the wheel by turning off the coolant before stopping the wheel.

Don'ts

- Don't use a wheel that has been dropped.
- Don't force a wheel onto a machine or alter the size of mounting holes. If the wheel does not fit the machine, get one that will.
- Don't exceed established maximum operating speeds.
- Don't use mounting flanges on which the bearing surfaces are not equal, clean or flat.
- Don't tighten the mounting nut excessively.
- Don't grind on the side of a wheel unless, of course, the wheel has been specifically designed for that purpose.
- Don't start the machine when the wheel guard is not in place.
- Don't jam the work into the wheel.
- Don't stand directly in front of a wheel whenever the grinding begins.
- Don't grind material for which the wheel is not designed.



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