- Action needs to be taken if tingling, pins and needles or numbness is experienced after 10 minutes continuous use of the abrasive product.
- The effects of vibration are more pronounced in cold conditions so keep the hands warm and exercise hands and fingers regularly. Use modern equipment with low vibration levels.
- Maintain all equipment in good condition and stop the machine and have it checked if excessive vibration occurs.
- Use good quality abrasive products and keep them in good condition during their life.
- Maintain mounting flanges and back-up pads in good condition and replace if worn or distorted.
- Do not grip the work piece or machine too tightly and do not exert excessive pressure on the abrasive product.
- Avoid continuous use of the abrasive product.
- Use the correct product. An unsuitable product can produce excessive vibration.
- Don't ignore the physical symptoms of vibration seek medical advice.

DISPOSAL OF ABRASIVES

- Used or defective abrasives should be disposed in accordance with local or national regulations.
- Further information can be obtained from safety data sheets provided by the supplier.
- Be aware that the abrasive product may be contaminated with material from the workpiece or process after use.
- Disposed abrasive products should be destroyed to prevent them from being taken from waste skips and re-used.

CORRECT WHEEL & FLANGE COMBINATION

- For cutting wheels, both flanges should be equal and minimum 1/3 of wheel diameter.
- Flanges should be well maintained and free from rough edges.















IMPORTANT NOTICE

Every effort has been made to ensure that all information supplied in this leaflet is accurate and up to date.

We cannot accept, however, responsibility for any error omission, nor for any consequential loss or damage so arising (E & OE).

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This leaflet is only intended to provide basic safety recommendations. We strongly recommend that for more detailed information on the safe use of abrasive products, comprehensive Safety Codes are available from FEPA or your National Trade Association:

- FEPA Safety Code for Bonded Abrasives and Precision Superabrasives
- FEPA Safety Code for Superabrasives for Stone and Construction
- FEPA Safety Code for Coated Abrasives

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Safety recommendations for the use of abrasive products

General Principles of Safety

- Abrasive products improperly used can be very dangerous.
- Be aware of the hazards likely during the use of abrasive products and observe the recommended precautions to be taken.
- Use only abrasive products conforming to the highest standards of safety.
 These products will bear the relevant EN standard number and/or the inscription "oSa".
- In line with AS EN 12413 wheels should not be used past their expiry date.
- Never use a machine that is not in good working order or one with defective parts.

Employers should carry out a risk assessment on all individual abrasive processes to determine the appropriate protective measures necessary. They should ensure that their employees are suitably trained to carry out their duties.

Abrasive products improperly used can be very dangerous

- Always follow the instructions provided by the abrasive product and machine supplier.
- Ensure that the abrasive product is suitable for its intended use.
 Examine all abrasive products for damage or defects before mounting.
- Follow the correct procedures for handling and storage of abrasive products.

Be aware of the hazards likely during the use of abrasive products and observe the recommended precautions to be taken:

- Bodily contact with the abrasive product at operating speed.
- Injury resulting from product breakage during use.
- Grinding debris, sparks, fumes anti dust generated by the grinding process.
- Noise
- Vibration

Use only abrasive products conforming to the highest standards of safety. These products will bear the relevant EN standard number and/or the inscription "oSa"

- In line with AS EN 12413 wheels should not be used past their expiry date
- EN 12413 for Bonded Abrasives
- EN 13236 for Superabrasives
- EN 13743 for Specific Coated Abrasives (vulcanised fibre discs, flap wheels, flap discs and spindle-mounted flap wheels)

Never use a machine that is not in good working order or one with defective parts.

PRECAUTIONS AGAINST LIKELY HAZARDS

Bodily contact with the abrasive product

- Always take great care and attention when using abrasive products. Tie back long hair and do not wear loose clothing, ties and jewellery.
- Prevent accidental start-up of the machine before mounting or changing an abrasive product. Isolate machines from their power source where necessary.
- Never remove guards from machines where fitted and ensure they are in good condition and properly adjusted before starting the machine. Also ensure that any handles provided by the machine manufacturer are property fitted.
- Always use gloves and suitable clothing where the workpiece or machine is hand-held. For gloves, a minimum protection level of AS 2161 is recommended.
- After switching off the machine, ensure the product has come to rest before leaving the machine unattended.

Injury caused by product breakage

- Always handle abrasives with great care, they are easily damaged. Examine all products for defects or damage before use.
- Store abrasives in dry, frost-free conditions avoiding wide variations in temperature. Ensure they are properly protected and supported to prevent damage and distortion.
- Coated abrasives should be stored at 18-22° C, 45-65% relative humidity.
- Abrasive belts should be hung on a rod or peg not less than 50mm diameter.
- Never use an abrasive product beyond its expiry date where marked. Observe the shelf life for the following specific products: Resinoid and Shellac products 3 years, Rubber products 5 years, Vitrified products 10 years.
- Check abrasive product or package for any warnings or other safety information:

Not permitted for handheld grinding!



Wear hearing protection!



Not permitted for face grinding!



Wear gloves!



Not permitted for wet grinding!



Wear a dust mask!



Do not use if damaged!



Observe the minimum contact angle!



Follow the safety instructions

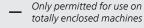


Only permitted with a back-up pad



Wear eye protection!





- Ensure that the correct abrasive product is selected. Never use a
 product if it cannot be properly identified.
- Follow the instructions provided by the abrasive product or machine supplier when mounting abrasive products. Observe any mounting indications marked on the product such as direction of run or mounting position.
- Never force the abrasive product onto the mounting fixture or modify it to fit.
- Never exceed the maximum operating speed where specified.
- Check that the correct mounting devices are used and that they are undistorted, clean and free from burrs.
- Use mounting blotters where supplied.
- Do not tighten the mounting device excessively.

- After mounting or re-mounting an abrasive product, conduct a trial run at operating speed with the guard in place for at least 60 seconds, standing clear of the machine before use.
- Never remove guards from machines where fitted and ensure they are in good condition and properly adjusted.
- Ensure that the workpiece is secure and properly supported.
 Ensure that work rests are properly adjusted and secure.
- Never start the machine with the workpiece in contact with the abrasive product.
- Never apply excessive force or shock to the abrasive product or let it overheat.
- Do not grind on the part of the product that is not designed for the operation. Avoid grinding with the edge of abrasive belts, use the centre of the belt if possible.
- Avoid clogging and uneven wear to ensure that the abrasive product is working efficiently. Dress frequently where appropriate.
- Let the abrasive product stop naturally, not by applying pressure to its surface. Turn off and spin out excess coolant before stopping the machine.
- Do not leave abrasive belts under tension when not in use.
 Grinding debris sparks, dust and fumes
- Exposure to dust generated from workpiece and/or abrasive materials can result in lung damage and/or other physical injury.
- All dry grinding processes should be provided with adequate extraction facilities.
- Do not use abrasive products near flammable materials.
- The use of respirators complying with AS 1715 is recommended for dry grinding processes even if extraction systems are provided.
- Guards where provided should be adjusted to deflect sparks and debris away from the operator.
- Take additional measures to protect people working nearby.
- Eye protection is recommended for all machine applications for abrasives. For hand-held machines or workpiece, goggles and full-face shields are recommended.
- Eye protection with a minimum protection of AS 1336 is recommended.
- Ensure that the correct abrasive is selected. An unsuitable product can produce excessive debris and dust.

PRECAUTIONS AGAINST LIKELY HAZARDS

Noise

- Ear protection complying with AS 1270 is recommended for all applications where the workpiece or machine is hand-held, irrespective of the noise level.
- Ensure that the correct abrasive product is selected. An unsuitable product can produce excessive noise.

Vibration

Processes where the workpiece or machine is hand-held can cause vibration injury.