

## PRECAUTIONS AGAINST LIKELY HAZARDS

### Noise

- Ear protection complying with EN352 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.
- 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 workpiece 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 Voluntary Product Information 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 damaged to prevent them from being taken from waste skips and re-used.

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# SAFETY RECOMMENDATIONS FOR THE USE OF ABRASIVE PRODUCTS

## PASS ON THIS LEAFLET TO THOSE USING THE ABRASIVE PRODUCT

The recommendations contained in this leaflet should be followed by all users of abrasive products in the interests of their personal safety

## GENERAL PRINCIPLES OF SAFETY

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 and dust generated by the grinding process
- Noise
- Vibration

Use only abrasive products conforming to the highest standards of safety. The following EN standards provide the essential safety requirements for relevant abrasives products:

- 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.

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.

This leaflet is only intended to provide basic safety recommendations. For more detailed information on the safe use of abrasive products, reference to our comprehensive Safety Codes is strongly recommended.

These 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








## 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.
- Always use gloves and suitable clothing where the workpiece or machine is hand-held. For gloves, a minimum protection level of EN 388 Category 2 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 recommended 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 hand-held machines	
	Not permitted for wet grinding	
	Not permitted for face grinding	
	Do not use if damaged	
	Only permitted with a back-up pad	
-	Only permitted for wet cutting	

### Injury caused by product breakage (continued)

- 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 30 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 grinding debris can cause lung damage and other physical injuries.
- 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 EN149 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 or full-face shields with a minimum protection level of EN166 Grade B are recommended.
- Ensure that the correct abrasive product is selected. An unsuitable product can produce excessive debris and dust.

-	Only permitted for use on totally enclosed machines	
	Read the instructions	
	Wear eye protection	
	Wear hearing protection	
	Wear gloves	
	Wear a respirator	

**PASS ON THIS LEAFLET TO THOSE USING COATED ABRASIVE BELTS**

**The recommendations contained in this leaflet should be followed  
by all users of belts in the interests of their personal safety**

## GENERAL PRINCIPLES OF SAFETY

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.

Be aware of the hazards likely during the use of abrasive belts 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 and dust generated by the grinding process,
- Noise,
- Vibration.

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.

### Storage of abrasive belts

Climate conditions for storage are preferably 18-22°C and 45-65% relative humidity. Avoid exposure to heat sources, direct sunlight or excessive moisture. Ensure that product and safety information delivered with the product is available for the end-user.

Wide belts should be removed from their packaging and stored near to the machine for at least 48 hours before mounting to stabilise to the ambient conditions.

When unpacked, belts should be hung on a rod or peg not less than 50mm diameter .

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This leaflet is only intended to provide basic safety recommendations.

For more detailed information on the safe use of coated abrasive products, a comprehensive Safety Code is available from FEPA or your national Trade Association.

## Specific safety recommendations

- Do not use near flammable materials
- Abrasive belts can tear. Please take precautions against the risk of breakage of the belt (e.g. protective clothing and devices, safety equipment of machinery).
- Ensure that people nearby are protected from chips, sparks, debris, fumes, dust or noise. Belt grinding operations may produce high concentrations of dust, gas or mist, which can represent a health hazard as well as a risk of explosion.
- Prevent long hair, ties, loose clothes or jewellery from getting into contact with the machine and being pulled in. Take precautionary measures.
- Abrasive machines, which do not have a completely closed guard require that the operator wears the appropriate personal protective equipment (e.g. protective gloves, leather aprons, face shield, dust mask).
- Check the locking mechanism of the machine cover. Do not remove guards. Any contact with running belts can result in serious injuries.
- When mounting, observe the direction of run marked on the belt.
- After mounting a belt, ensure the guards are back in place and properly adjusted. Carry out a trial run by running the belt at full operating speed for at least 30 seconds. Check for any vibration or unusual sounds and rectify if observed.
- Make sure that work piece is properly supported and secured so that it cannot move.
- Start the machine and wait until belt has reached its full operational speed before grinding.
- Belts should only be used dry unless specified as suitable for wet grinding (please contact the manufacturer if in any doubt).
- Use the center of the belt, if possible, and grind as plane as possible. Avoid grinding with the edge of the belt and prevent damage to the belt by sharp or sharp-edged work pieces.
- Do not exert excessive pressure and prevent the belt from overheating.
- Do not open the guard or put down portable machines until the belt has come to a complete standstill.
- Check the belts in use periodically for wear, tear or damage (e.g. cracks at edges, fracturing or strong wear and tear in the joint) and replace the belts if necessary.

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