



## RIGID ABRASIVE DISCS



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### OPERATING AND SAFETY INSTRUCTIONS FOR THE USE OF RESIN-BONDED, RIGID AND SEMI-FLEXIBLE ABRASIVE PRODUCTS. READ CAREFULLY AND SHARE WITH ALL OPERATORS.

Abrasive wheels can generate dangerous situations and/or create accidents. Read carefully the following information and the labels' indications; operators must be instructed to use abrasive product; operators must comply with the laws and decrees of their country and the safety/operating instructions of the machines on which abrasive wheels are mounted. Do not allow untrained/incompetent operators to use abrasive wheels. For further information, visit [www.globeabrasives.com](http://www.globeabrasives.com) (Safety Area) and contact us: [www.globeabrasives.com](http://www.globeabrasives.com) (Contacts). Abrasive wheels are relatively fragile; handle and use with care. The use of damaged wheels, the non correct use and the non correct installation can cause accidents, damages and serious injuries to persons. Cutting, grinding and polishing applications can free hazardous contaminants in the air. Use appropriate powder/fumes suction systems and wear protection devices for respiratory tract.

**RECALLS ON PRODUCTION BATCHES:** before using an abrasive product, check the website [www.globeabrasives.com](http://www.globeabrasives.com) (Safety Area > List of batches recalled), and, following the instructions, verify if the product is part of a recalled batch. Should this be the case, do not use the product, isolate it and all the other wheels coming from the same box/batch and contact our customer service.

**EXPIRY:** lifetime of resin-bonded abrasive wheels is **3 years from production date if reinforced (BF on label) or 2 years if without reinforcement (B on the label)**. The expiry date can be shown on the boxes, on the central metal hub or through cuts on the label perimeter. **Never use expired wheels.** These wheels are manufactured according to the following norms: **EN12413 (Europe), ANSI B7.1 (USA), AS 1788.1 (Australia), OSA (Organization for the Safety of Abrasives).**

**CHECKING, TRANSPORT, HANDLING AND STORAGE:** verify packaging damages; refuse damaged packagings; handle with care and avoid shocks; store at temperatures between 5°C (41°F) and 45°C (113°F) and relative humidity >65%; do not expose wheels to frost and high humidity conditions, water or chemical products such as solvents. Always use oldest wheels, but make sure they are not expired. For a correct choice, consult our catalogue or our guide at: [www.globeabrasives.com](http://www.globeabrasives.com) (Products Area > Choose the wheel).

**WHEEL INSPECTION:** before mounting the wheel, make sure it is not cracked or damaged. Do not use wheels if damaged (fig.7) or expired. Carry out a sound check by striking one side of the disc with a non metallic object (screwdriver handle). If the sound is damp and not clear, reject the wheel. Do not use wheels that were exposed to too high/too low temperatures/humidity or that have been artificially or accidentally wet.

**MACHINE INSPECTION:** check flanges, backing pads, support pivots and adapters. Make sure the grinder is suitable for the type of work to be made and that the wheel is adequate for the grinder. Always use with suitable safety guard (fig.6). Always direct the open part of the safety guard to a direction opposite to the operator. Keep machines in an efficient state.

**EYES, FACE AND BODY PROTECTION:** use eye and face protections as masks, screens and glasses (fig.2). Wear hats or head protection, heavy leather apron, safety shoes, tight fitting clothes. The noise generated by the wheels can exceed 80 dBA. A prolonged exposure can cause permanent damages to hearing. Use ear protection such as earplugs and anti-noise screens (fig.3). The vibrations generated by the wheels can cause damages to the human body. Adopt work turnover and resting breaks. Carry out a specific evaluation of the noise and vibrations risk and adopt suitable protection and precautions. Wear protective gloves that fully cover also wrists (fig.4). Carry out an evaluation of the physical, chemical risks associated with the use of abrasive products and adopt suitable precautions and protective measures. Protect the respiratory tract; use masks with special filters, air respirator systems, protective measures of the working environment such as ventilation systems, filtration and powder/fume suction (fig.5). Nearby personnel must be protected with all the above precautions/measures.

**ASSEMBLY INSTRUCTIONS:** follow the assembly instructions supplied with the machine and the use restrictions shown on the wheel label (fig.1). Make sure the maximum turning speed (RPM) of the machine is always, in any operating condition, lower than or equal to the speed shown on the wheel label. A transversal coloured stripe on the wheel label indicates also its operating peripheral speed according to the following scheme: (TAB.1):

TAB. 1	None: lower than 50 m/s	Blue: up to 50 m/s	Yellow: up to 63 m/s	Red: up to 80 m/s	Green: up to 100 m/s
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Check that dimensions and shape of the wheel correspond to those allowed for the machine. Check that the wheel is wholly contained within the safety guard of the grinder. Do not modify the clamping flanges. Before mounting or dismantling an abrasive wheel, disconnect the power supply (electric energy, compressed air, etc.). Do not force wheels during assembly. Avoid clamping with too high tightening torque. Once the wheel is installed, make sure that it rotates freely by turning it by hand.

Check the presence, correct installation and securing of the safety guard. Connect the power supply, start the machine and make it turn for at least 30". During this test, do not keep the open area of the safety guard oriented towards the operator and other personnel. In case anomalies, vibrations, irregular rotation should occur, let the grinder stop naturally, disconnect power supply, remove the wheel and check its assembly. If the problem persists, reject the wheel and inform the supplier of the problem. Some types of wheels can be supplied with mounting blotters that have to be mounted between the flanges and each side of the disc to compensate slight irregularities of surfaces between flanges and wheels.

**CLAMPING FLANGES:** make sure the flanges are flat, clean and smooth. Always use suitable flanges (TAB.2). Flanges must have the same diameter and the same shape (recesses) towards both faces of the wheel; make exception the raised hub flanges (mod. 1 of TAB.2).

**Flanges diameter:** for cutting and grinding wheels is normally equal to 1/3 of the wheel diameter.

**Make exception:** reinforced depressed center grinding wheels (Type 27), reinforced conical (Type 28), semi-flexible reinforced (Type 29), reinforced depressed centre cutting wheels (Type 42) and flat (Type 41) up to diameter 230mm, that must have the following flanges diameters:

-19mm (wheel diam. ≤100mm and bore ≤10mm)      -32mm (wheel diam. ≤100mm and bore between 10 and 16mm)      -41mm (wheel diam. between 100 and 230mm, bore 22.23mm).

#### INDICATIONS SHOWN ON WHEEL LABEL.

**Specifications characterizing the wheel:** wheel dimension; Type of abrasive (A, Z, C, SG); granulometry of the abrasive (16, ..., 100) expressed in Mesh.

**Hardness:** scale of toughness shown with letters from A (very soft) to Z (very hard). Resin binder shown by "B" and reinforcement structure shown by "F" on label.

**Maximum allowed turning speed (RPM) and maximum allowed peripheral speed (m/s):** the most common peripheral speeds are 50-63-80-100m/s.

**Reference norms:** EN12413, ANSI B7.1, etc.

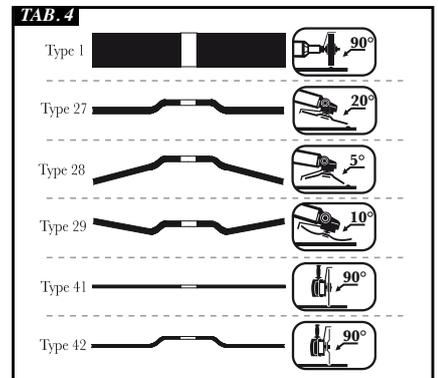
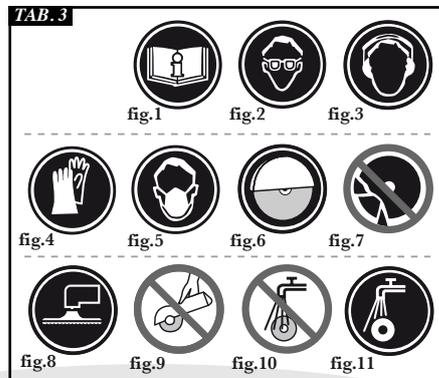
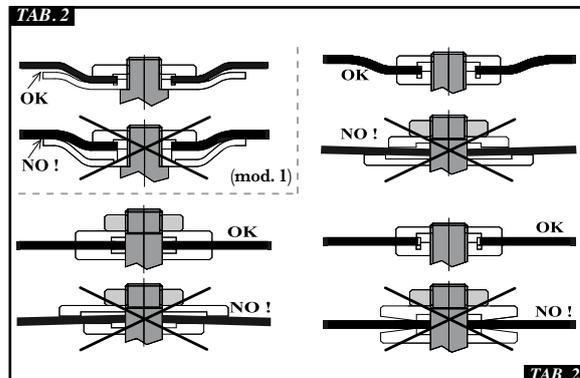
**Indications on the workable materials:** steel, aluminum, cast iron, stainless steel, stone, marble, etc.

**Pictograms (TAB.3):** from (fig.1) to (fig.7) explained above; (fig.8) do not use for side grinding; (fig.9) do not use on portable machines (wheels made only for stationary machines); (fig.10) not suitable for wet grinding/cutting; (fig.11) only suitable for wet grinding/cutting.

**Shape types (TAB.4):** (Type 1) straight grinding wheel; (Type 27) depressed centre grinding wheel; (Type 28) conical grinding wheel; (Type 29) depressed centre semiflexible grinding wheel; (Type 41) flat cutting wheel; (Type 42) depressed centre cutting wheel.

**USE INSTRUCTIONS AND RESTRICTIONS:** use the abrasive wheels only and exclusively on materials, purposes and machine types they have been designed for; do not use cutting wheels for grinding purposes; grind or cut progressively, slowly and delicately; do not apply too much pressure on the wheels; do not make curved cuts; do not cut or grind pieces subject to forces or pressures that could be released due to these operations; remove all combustible, flammable or explosive materials from the working area. Firmly fix the work pieces before starting to work.

**Dispose of the products according to the National laws in force in your country.**



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ES: Instrucciones de seguridad y modo de empleo

[www.globeabrasives.com](http://www.globeabrasives.com)  
(Safety Area > Safety Info)

**COATED ABRASIVE DISCS**

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**OPERATING AND SAFETY INSTRUCTIONS FOR THE USE OF COATED ABRASIVES (FLAP DISCS, FLAP WHEELS, SANDING DISCS, ABRASIVE SHEETS, ROLLS, BELTS, ETC.) READ CAREFULLY AND SHARE WITH ALL OPERATORS.**

Coated abrasive products can generate dangerous situations and/or create accidents. Read carefully the following instructions and the indications on the labels. Operators must be instructed on the use of abrasive products, comply with the laws and decrees of their country and the safety operating instructions of the grinders on which abrasive products are mounted. Do not allow untrained or incompetent operators to use abrasive products. For further information, visit our web site [www.globeabrasives.com](http://www.globeabrasives.com) (Safety Area) or contact us: [www.globeabrasives.com](http://www.globeabrasives.com) (Contacts). Coated abrasive products are relatively fragile: handle and use them with care. The use of damaged products, the inadequate mounting and use can cause accidents, damages and serious injuries to people. Grinding and polishing applications can free hazardous contaminants in the air; use appropriate powder/fumes suction systems and wear protection devices for respiratory tract.

**RECALLS ON PRODUCTION BATCHES:** before using an abrasive product, visit [www.globeabrasives.com](http://www.globeabrasives.com) (Safety Area > List of batches recalled), and follow the instructions, verify if the product is part of a recalled batch. Should this be the case, do not use the product, isolate all boxes from the same batch and contact our customer service [www.globeabrasives.com](http://www.globeabrasives.com) (Contacts).

**EXPIRY:** coated abrasive products have no expiry but we suggest they are used within **3 years** from the production date.

**CHECKING, TRANSPORT, HANDLING AND STORAGE:** verify packaging for damages and refuse shipment if it's the case. Handle with care, avoid shocks, store at temperatures between 10°C/30°F (50°F/86°F) and relative humidity >65%. Do not expose products to frost, water or chemical products such as solvents. Always use the oldest products first. For an adequate choice of the products, consult our catalogue or our guide at: [www.globeabrasives.com](http://www.globeabrasives.com) (Products Area > Choose the wheel).

**CHECKING THE PRODUCT:** before mounting, make sure that the product is not cracked or damaged. Do not use damaged products (fig.7).

**GRINDER INSPECTION:** check flanges, backing pads, support pivots and adapters. Make sure the grinder and the product to mount are compatible and suitable for the type of work to be done. Always use with the safety guard supplied with the grinder (fig.6) and always direct the open part of the safety guard to a direction opposite the operator. Keep grinders in an efficient condition.

**EYES, FACE AND BODY PROTECTION:** use eye and face protection such as mask, screen and glasses (fig.2), hat or head protection, heavy leather apron, safety shoes and tight fitting clothes. The noise generated by coated abrasive products can exceed 80 dBA so a prolonged exposure can cause permanent damages to hearing. Use ear protection such as earplugs and anti-noise screen (fig.3).

The vibrations generated by coated abrasive products can cause damages to the human body so make sure you adopt work turnovers and resting breaks. Carry out a specific evaluation of the noise and vibration risk and adopt suitable protections and precautions. Wear protective gloves that fully cover wrists (fig.4). Carry out an evaluation of the physical and chemical risks associated with the use of abrasive products and adopt suitable precautions and protective measures. Protect the respiratory tract by wearing a mask with specific filters or air respirator systems. Use protective measures of the working environment such as ventilation, filtration and powder/fume suction systems (fig.5). Nearby personnel must be protected with all the above precautions/measurements.

**ASSEMBLY INSTRUCTIONS:** follow the assembly instructions supplied with the grinder and the use restrictions shown on the abrasive product label (fig.1). Make sure the maximum turning speed (RPM) of the grinder is always, (in any operating condition), lower than or equal to the speed shown on the abrasive product label. A transversal colored stripe on the label also indicates its operating peripheral speed according to the following scheme (TAB.1):

<b>TAB.1</b>	Blue: up to 50 m/s	Yellow: up to 63 m/s	Red: up to 80 m/s
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For abrasive belts, make sure the peripheral speed of the driving rolls of the grinder is lower than or equal to the maximum speed allowed for the type of belt. Make sure that the dimensions and shape of the abrasive product correspond to those allowed for the grinder. Check that the abrasive product is wholly contained within the safety guard of the grinder. Do not modify the clamping flanges. Before mounting or dismounting an abrasive product, disconnect the power supply (electric energy, compressed air, etc.). Do not force during assembly. Avoid clamping with too high tightening torque. Once the product is installed, make sure that it rotates freely by turning it by hand before starting the grinder. Check the presence, correct installation and securing of the safety guard.

Connect the power supply, start the grinder and make it turn for at least 30" before putting it in contact with the working piece.

During this test, do not keep the open area of the safety guard oriented towards the operator and other surrounding personnel. In case anomalies, vibrations, irregular rotation should occur, let the grinder stop naturally, disconnect power supply, remove the abrasive product and check its assembly. If the problem persists, reject the product and inform the supplier of the problem.

**CLAMPING FLANGES:** make sure the flanges are flat, clean and smooth. Always use suitable flanges (TAB.2).

**INSTRUCTIONS ON PRODUCTS' LABELS.**

**Specifications characterizing the product:** dimensions; type of abrasive (A, Z, C, SG); granulometry of abrasive grit (16,...,100) expressed in Mesh.

**Maximum allowed turning speed (RPM) and maximum allowed peripheral speed (m/s):** the most common peripheral speeds are 50-63-80m/s.

**Reference norm:** EN13743

**Indications on the workable materials:** steel, aluminum, cast iron, stainless steel, stone, marble, etc.

**Pictograms (TAB.3):** from (fig.1) to (fig.7) explained above; (fig.8) only permitted with backup pad (for sanding discs); (fig.9) do not use on portable grinders; (fig.10) not suitable for wet grinding/polishing; (fig.11) only suitable for wet grinding/polishing.

**USE INSTRUCTIONS AND RESTRICTIONS:** use the coated abrasive products only and exclusively on materials, purposes and grinder types they have been designed for. Grind/polish progressively, slowly and delicately. Do not apply too much pressure and do not grind pieces subject to forces or pressures that could be released due to this operation. Remove all combustible, flammable or explosive materials from the working area. Firmly fix the work pieces before starting to work.

**Flap discs:** Use only with safety guard and at a 10° working angle (TAB.4A).

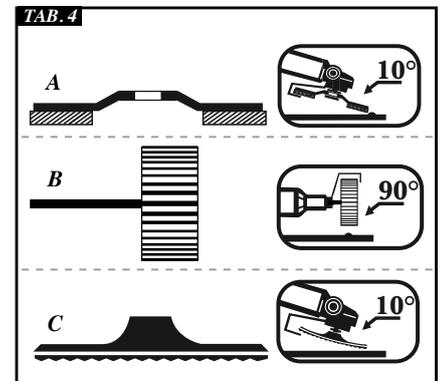
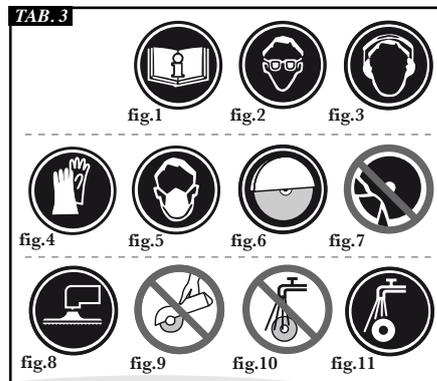
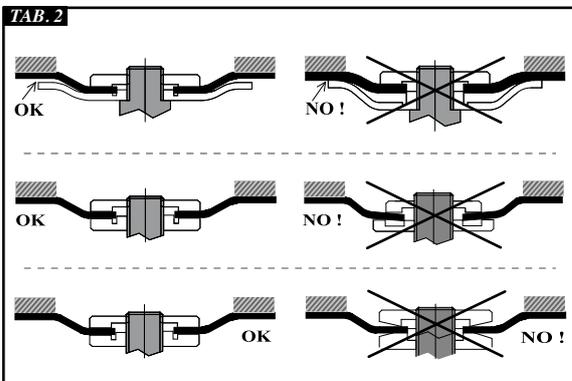
**Abrasive belts:** use only with safety guard. Do not touch the belt while moving. Store the belts hanged to drums of 50mm of minimum diameter. Do not damage the belt with sharp-edged pieces.

**Flap wheels:** check that the rotation direction corresponds to the one shown on the product.

**Spindle mounted abrasive products:** fit the spindle into the mandrel minimizing the protruding part and verify the rotation direction (TAB.4B).

**Fibre discs:** use only with safety guard and suitable backing pad and clamping flange. The disc must protrude the backing pad by at least 2 mm; use at a 10° working angle. (TAB.4C).

**Dispose of the products according to the National laws in-force in your country.**



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