



Metal Work has restyled its ISO 6431 cylinders.

In the meantime the ISO 15552 was published in replacement of the ISO 6431. Restyled Metal Work cylinders comply fully with the new standard.

These new cylinders have exactly the same technical and constructional features, which make the product highly appreciated for its performance and liability. Main features:

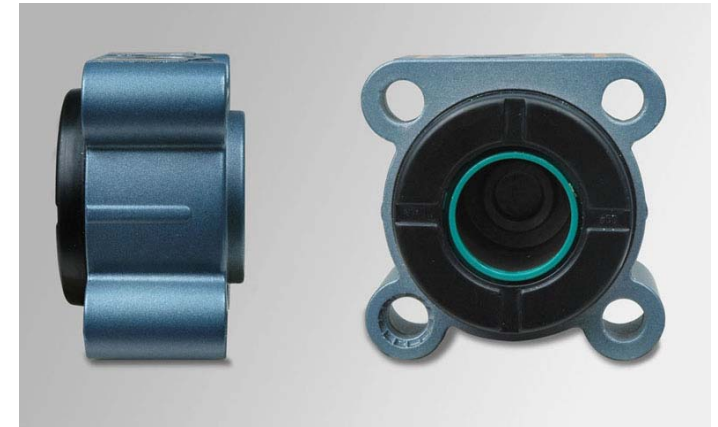
- **Ground chrome steel piston rods in both in the C45 and the stainless steel version.**
- **Thick anodized aluminium liners.**
- **Cylinder heads fixed with three-lobed screws. No tie rods.**
- **Low-friction, no-wear technopolymer pistons for diameters 32-63 mm.**
- **Aluminium pistons with technopolymer guiding strip for diameters 80-125 mm.**
- **Piston rod guide with Teflon-coated steel bushing, with virtually no wear.**
- **Polyurethane NBR or FKM/FPM lip seals.**
- **Dual anticorrosion protection of the cylinder heads: alodine treatment followed by painting.**

To all this we have added several aesthetic or functional features to allow the cylinders to meet market requirements in the next few years with renewed competitiveness.

- **New design of the cylinder heads.** The external curved profile is the ideal continuation of the shape of the standard liner, making it cleaner and easier to clean. No more cavities in the outer part, which collected dirt.
- **Metalized grey for the cylinder heads.** This gives a more modern and stylish look.
- **Useful information marked on the heads by means of tampographic printing:** cylinder bore, dimensions of the thread of the compressed air fittings, and direction of regulation of the cushioning pin flow.
- **Easy recognition of the Metal Work product.** Guaranteed by some orange identification marks: mainly lines on the sides of the heads and a label marked Metal Work behind the rear cylinder head.



- **Sound-proofing.** An elastomer buffer element has been added inside the cylinder head to reduce noise when the piston reaches the end-of-stroke position and to help absorb kinetic energy. The buffer is made of NBR (suitable for low temperatures), for cylinders with polyurethane or NBR gaskets or for low-temperature applications. The buffer is made of FKM/FPM for cylinders with gaskets made of the same material.
- **Improved regulation of pneumatic cushioning.** The shape of the regulation pin has been optimized to give excellent accuracy and also, for high-speed applications, a high flow rate with the pin open.
- **Anti-ejection system for the cushioning pin.** On the cylinder heads the aluminium undergoes permanent deformation to prevent the pin from being ejected by the compressed air if it is accidentally unscrewed fully so that it comes out of its seat. The old cylinder heads have a spring ring that tend to get ejected if any dimension is out of tolerance.
- **Axial sensor insertion and removal.** Sensors on type A cylinders can now be inserted or removed axially. The new profiles of the cylinder heads and liners allow easy extraction of the sensors.



- **Intermediate hinge for type A cylinders.** With the new shape of the cylinder liner, intermediate hinges can be anchored securely without squashing the liner. A new series of intermediate hinges is being added to the catalogue.
- **ATEX sensor.** A new ATEX sensor is now available, category EX II 3GD, that can be fixed onto standard and type A cylinders.
- **Elimination of codes for sound-proofed cylinders.** Since all the cylinders are now sound-proofed, this means that versions with code root 135_ _ _ (non-soundproofed) have been eliminated.
- **Elimination of codes for resin-coated cylinders.** Since there are no longer any front cavities to collect dirt, there is no need for versions in which the cavities are filled with resin. Versions with codes ending _ _ _ RH and _ _ _ RS (resin-filled) have therefore been eliminated.
- **No code change.** To avoid the problem of recoding the lists of materials, the new cylinder versions will be supplied with the same codes as before.
- **Cylinder head kits and cylinder head+piston kits.** We have produced new kits with new cylinder heads, but we still keep the old kits so that spares for the old cylinders can be supplied.

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