VISIPORT® Spin windows

VISIPORT® Spin Windows are suitable for all types of CNC milling machines, lathes and machining centres, either retro-fitted or integrated at the factory.
The modular design facilitates installation and optimises maintenance for reduced costs.
With their low weight and a generous visible surface, VISIPORT® can be adapted optimally to your machines. Additional electronic safety features complete the perfect impression.

Complete solutions - Safety Windows with mounted VISIPORT® Spin Windows are also available. They are ready to mount without extra effort.
These systems can be preconfigured and then only have to be installed and connected. All systems meet the respective security requirements.

Advantages of VISIPORT® Spin Windows

VISIPORT® is synonymous with active safety precautions: Without VISIPORT®, the operator can be tempted to bypass the safety circuit of the machine to see what is happening in the machine - potential danger with serious consequences!
With regard to product liability and safety regulations, take a look at the safety advantages of VISIPORT® - it could pay off.

Direkter Blick auf Bearbeitungsvorgang in der Maschine

Installation and fixing

No hole has to be drilled in the machine cabin. The unit is either fastened on the bonded mounting plate or bonded directly to the window. The mounting plate allows fast replacement of the VISIPORT® unit. VISIPORT® can be installed vertically and up to 30° from the vertical. The flat construction enables the VISIPORT® to be adapted to widely differing door and window designs.

VISIPORT® 220.C2

VISIPORT® is also suitable for fastening to sliding doors with limited intermediate space. VISIPORT® can be fixed in different ways:

- bonded
- screwed to safety window
- screwed directly to the integrated mounting plate

Bonding

The VISIPORT® is mounted easily with a high-tech adhesive sheet (adhesive based on closed cellular acrylic foam). Simply remove the protective foil on the rear side of the VISIPORT® and bond the VISIPORT® to the desired position on the pane which should be cleaned thoroughly beforehand. The optimal setting time is 72 hours. To speed up installation we offer a special vacuum pump, which reduces the bonding time to 1-2 hours (95% bonding strength). Applying heat to the mounting frame can also help to reduce the bonding time. Afterwards it is very difficult to separate the VISIPORT® from the surface it is bonded to, provided the surface had been cleaned adequately beforehand.

Screwed to safety window

In this case six holes are drilled through the polycarbonate pane (a process that degrades the pane's resistance). The holes are sealed from the machine's cabin side with an integrated o-ring. On the control side VISIPORT® is fixed in place with a screwed clamping flange

Machine safety windows with integrated mounting plate

The easiest solution is to secure the VISIPORT® to the mounting plate already integreated within the safety window. VISIPORT® only has to be positioned and secured in place with the enclosed screws.

VISIPORT® Spin windows

VISIPORT® ventilation and airing

VISIPORT® has a patented system with a separate flexible hose that supplies the required quantity of air for the interior ventilation of the VISIPORT®. The flexible hose protects the wire harness between the VISIPORT® and the connecting box. Air circulation is important. Ventilation should always be assured.

Maschinensicherheitsscheibe mit integrierter Montageplatte

Power supply

VISIPORT® is available with two different drives types. VISIPORT® 220C2 is equipped with an electrical drive, DiscAir 180 Turbo with a pneumatic drive.

Coolant

VISIPORT® functions best with water based coolants and mineral oils; other oils on request. For oil emulsion coolants we recommend the specially coated »Golden Eye« spin disk.

»Golden Eye« special disk

Machining aluminium or magnesium generates chips which condense like a film on the pane and the spin disk. This problem leads to obscured vision after only a short time. For these applications we recommend fitting the VISIPORT® with the »Golden Eye« spin disk. Its special coating gives the disk a gold coloured tint. This coating underwent exhaustive testing for 18 months under severe conditions in the mechanical production facilities at Boeing in Seattle.
VISIPORT® models 180.B5, 220.B5 and 220C2 with electric drive can be retrofitted or fitted directly with the »Golden Eye« spin disk when ordered. The Disc Air 180 Turbo is fitted as standard with a »Golden Eye« coated spin disk.

Product quality

All VISIPORT® models come with a twelve month warranty ex works. Wearing parts are excluded. Many components are made of high-grade aluminium. The ball bearings are lubricated for life and can be replaced. The flexible metal connecting hose or the tube system is temperature resistant up to 300°C. The electronic components were developed specifically for the VISIPORT®. Ambient influences are excluded by the optimum installation position and sealing.
All parts and components of the VISIPORT® are tested for material quality and life endurance.

Model	VISIPORT® 220.C2	VISIPORT®DiscAir 180 Turbo
Required voltage	24 V (± 1V), mind. 5 A continous load	-
Required air pressure	-	5.3 - 5.8 bar
Speed	2,235 rpm	4,000 rpm (at 5.5 bar)
Air consumption	-	38 l/min
Noise level	-	79 dB (without housing, at a distance of 3 m)
Diagonal dimension/total dimension	253 mm / 299 mm	201.7 mm / 236.2 mm
Viewing area	215 mm	175 mm
Weight	2.1 kg	0.7 kg
Height	32.5 mm / 43 mm	29.6 mm / 44.9 mm
Thickness of disk	3 mm	2mm
»Golden Eye« Disk	optional	standard

All dimensions in mm if not marked otherwise. Errors and omissions excepted.

VISIPORT® 220.C2

VISIPORT® 220.C2

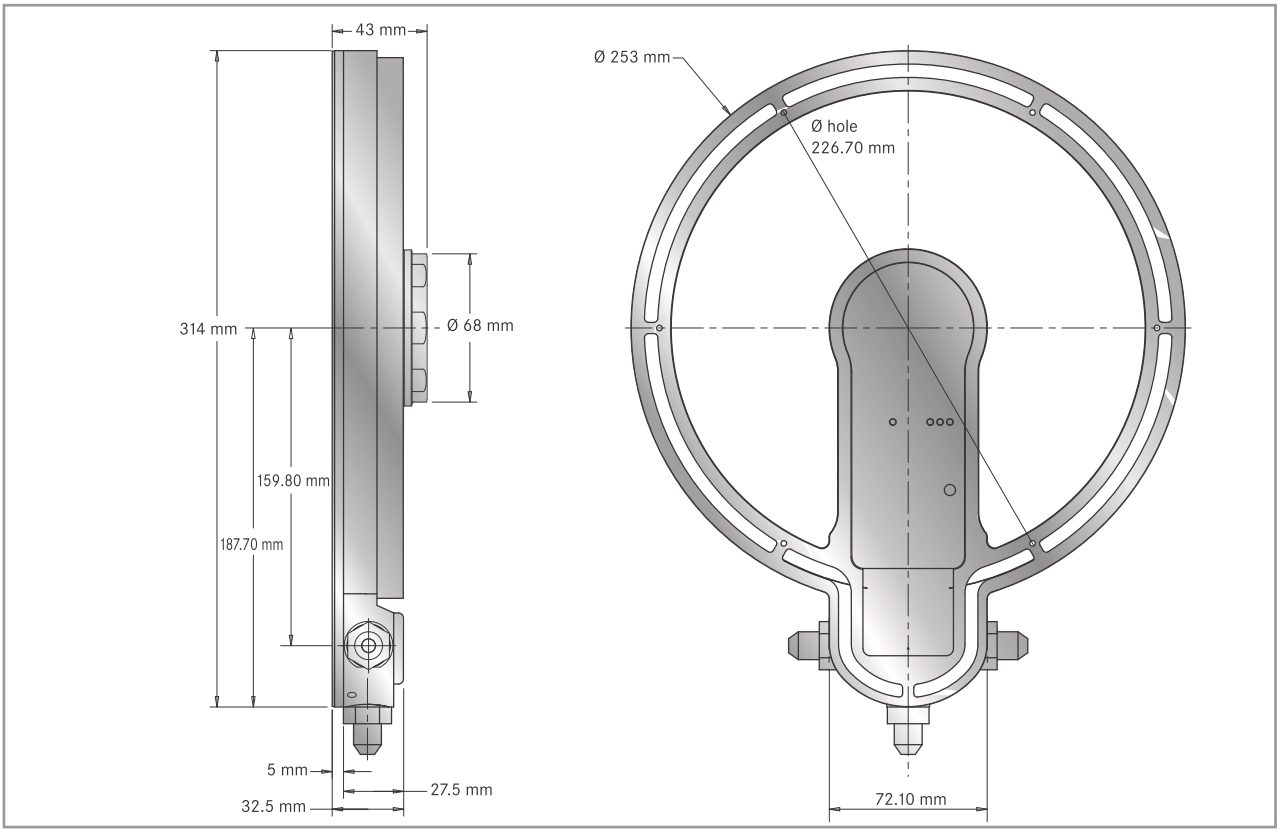
- Spinning disk mounted in the machine side, providing a clear view of the process through its high rotary speed (> 2,235 rpm)
- Integrated, protected electronic control unit providing protection against reverse and overvoltage, thermo circuit protecting against overheating (150°C)
- Driven by integrated brushless DC motor; power supply
- Fulfils CE standards for low tension voltage
- low weight, only about 2.1 kg
- built-in chip protection with specially designed base and disc ring
- Balanced rotating disc made of hardened glass 3 mm thick
- Optional plasma coated »Golden Eye« version

Connection

The VISIPORT® 220.C2 provides a three-way connection on its base plate:

- Connection fitting for FLEX metal hose
- FESTO fast connection fitting for FESTO tubes 8 x 1.25 mm
- EO fitting for Ø 8, 10 or 12 mm metal pipes
- Connection fitting EH-PG09 for plastic cable tube EW-PA-M12/P9

Model	Variations of VISIPORT® 220.C2
FDX	Basic model, direct screw coupling on polycarbonate panes
FMX	Basic model, with VHB adhesive tape on basic device
FVX	Basic model, VHB adhesive tape on extra mounting plate for easy replacement
HM	Basic model, separate terminal box, VHB adhesive tape on basic device
HV	Basic model with terminal box and VHB adhesive tape on separate mounting plate for easy replacement



VISIPORT® DiscAir 180 Turbo

VISIPORT® DiscAir 180 Turbo

- Spin disk located on the machine side, providing clear view of machining through its high rotating speed (> 4000 rpm)
- Driven by purified compressed air, no electrical connection required
- Suitable for use with intermittent coolant spraying
- Rotor mounted on precision ball bearing
- Balanced rotating disc made of hardened glass 2 mm thick
- Plasma coated »Golden Eye« disk as standard
- Air hose connected at plug-in socket
- Patented high efficient turbine ring
- Air consumption 38 l/min

Connection

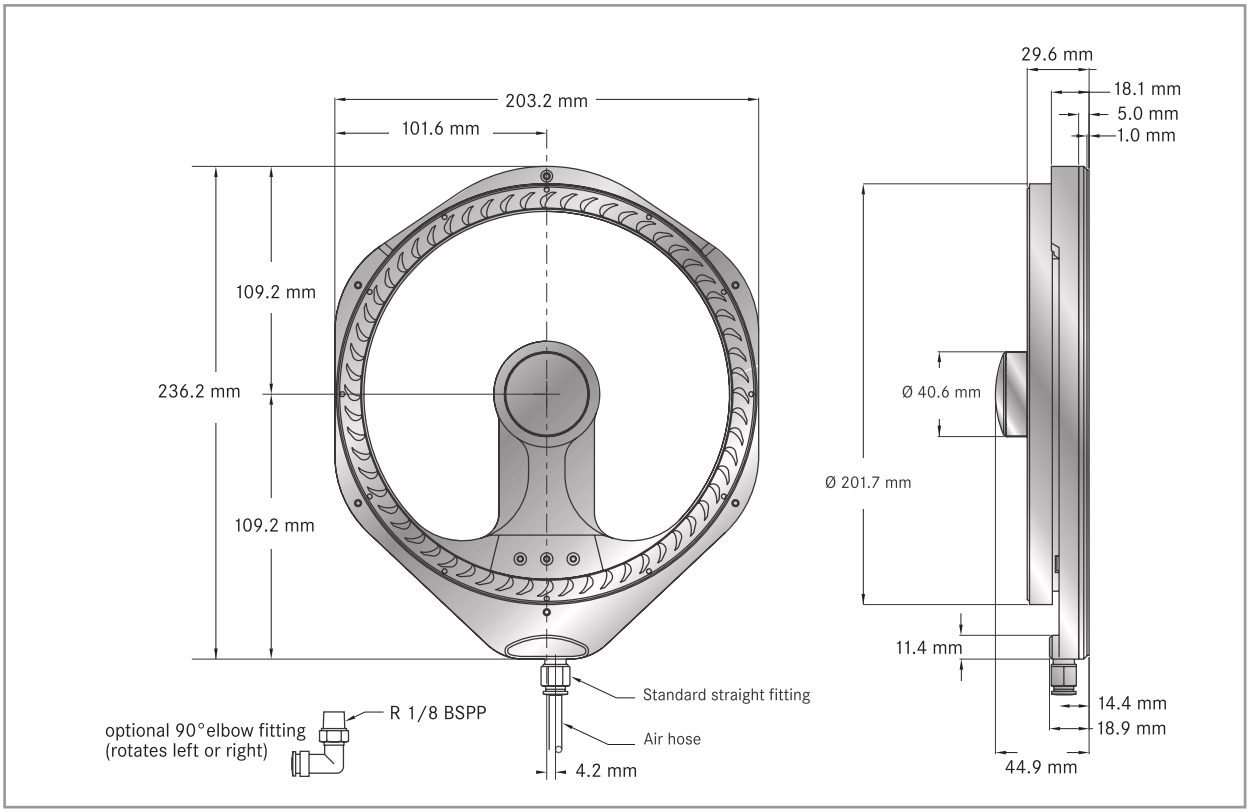
The DiscAir model is driven with compressed air available at almost every machine or at every workshop: simply connect the VISIPORT® DiscAir to the compressed air supply - without costly electric wiring.
It is secured in place on the machine pane with simple fasteners, similarly to the electric VISIPORT®.

Due to its design and drive the DiscAir model generates more noise than the extremely low noise electrical VISIPORT®Model. Owing to its optimised air circulation system and high precision manufacturing process the DiscAir model is nevertheless quite and fulfils the legal directives.

So there is very little difference to the machine's own noise levels when the cabin door is closed.

The air outlet has been designed to provide additional protection against the intrusion of coolant and chips.

The VISIPORT® DiscAir model rounds off the VISIPORT® line and represents an excellent price to performance ratio.
It enables every CNC machine operator to adopt the spin window technology at a price considerably lower than that of electrical models.



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