

# FILL-CONTROL - all-round carefree filling

## √ IDE FILLING PANEL

Extensive selection of filling panels: powder-coated steel or optional stainless steel cases, modular state-of-the-art technology, self-venting stainless-steel toggle valves or quarter-turn turning valves. The optional flow regulator provides additional safety when filling composite cylinders.



Connections FILLING RAMP	Measurement Length x width)
2	34cm x 31cm
4	74cm x 31cm
6	114cm x 31cm
Options	
hose connection	instead of direct connection
several pressure ranges	200, 300, 420 bar or low pressure
Flow limiter	On every connection
Storage cylinders connection	Priority fill
Low pressure connection	With pressure regulator

The new **FILL-SAVE 600** safety filling station ensures maximum safety for operator and filling personnel. After several accidents with bursting pressure vessels while filling, many countries already introduced standards or an obligation to install explosion protection in filling systems. The IDE safety filling station FILL-SAVE 600 for up to 6 pressure vessels is equipped with hydraulically supported safety doors. It is made of high-strength "double-layer" special steel. During filling it provides maximum protection against bursting or exploding pressure vessels, hoses and consequently flying pieces and fragments. Optionally, FILL-SAVE can be equipped with a system to simultaneously fill cylinders with 200-232 and 300 bar. Once the desired filling pressure is reached, the system automatically stops the filling process and closes air supply.

Because most accidents with pressure cylinders happen while handling the cylinders, we put the main focus for our 2nd generation filling box on minimizing the required handling.

### Energy efficiency

Energy efficiency and maximum safety are nowadays two of the most important requirements set for manufacturers of machines and electrical equipment. IDE-Compressors has always taken this task very seriously and therefore developed the FILL-SAVE OM. FILL-SAVE 600 OM is currently the only filling system worldwide for breathable air cylinders and other pressure vessels, which combines maximum demand-driven filling capacity with maximum energy efficiency. The new FILL-SAVE OM safety filling station ensures optimum personal safety and convenience for the filling and operating personnel.

Following several accidents caused by bursting pressurised vessels during the filling process, explosion protection during the filling of cylinders has already become a regulation or standard in many countries.



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**MADE IN BAVARIA**  
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Technical specifications subject to change.  
Illustrations may include optional equipment



IDE COMPRESSORS

## FILLING-PANEL for filling Beathing Air Cylinders



√ COMPACT DEVICE

√ COMPLETELY CLOSED- SUPER SILENT

√ UNIQUE PRECISE GAUGES CLASS 1.0

√ DIFFERENT PRESSURE RANGES POSSIBLE

√ EASY INTUITIVE OPERATION

√ OPTIONAL DATA LOGGING, USB, PRINTER

Extensive filling ramp program in powder-coated sheet steel case equipped with unique state of the art technology in modular concept.

Alternatively for inflating tubes or direct connection 225 and/or 330 bar with high-quality manometers class 1,0 glycerine filled without air bubble. Stainless-steel tilting-lever valve with automatic super silent vent and optional flow rate limiters for additional safety to reduce temperature while filling composite tanks.

# BREATHE - WE TAKE CARE OF YOUR AIR

## Autonomous IDE Filling Panels

Filling panel with direct or hose connection

IDE Filling Panels for comfortable, safe and secure filling of pressure vessels like breathing-air and scuba cylinders.

Made of high-strength steel or optional stainless steel, additionally powder-coated and completely closed.

This means that IDE filler strips are ideal for use on ships or diving centers by the sea and in tropical areas with extreme humidity.

The filling panels are part of the IDE filling systems, consisting of a compressor, one or more optional (sets of) storage tanks, and priority filling controls.

The basic version is designed for wall mounting; with some compressors, it can also be installed on-to the compressor.

For safety reasons and in consideration of labor-law provisions, IDE advise to install the filling panel in a separate room, from where the compressor and other components of the filling system can be remote-controlled.

**The toggle filling valves** are made of high-strength non corrosional material. This makes them quite inde-structible and extraordinarily resistant to salt water, tropical or arctic temperatures, and other envi-ronmental factors. They auto-vent through a super-soundproof, proprietary IDE venting system into the inside of the filling panel.

**IDE filling hoses** are made of food grade, highly flexible Kevlar, they comply with all national and international provisions and surpass the strict safety requirements by far. All connections are made of stainless steel, each filling hose has a handle for safe and comfortable handling, and anti-kink protection on both ends. Filling hoses are available in 1.3 m (4.2 ft.) length.

**IDE Flow Stop** prevents filling hoses from lashing about if a filling valve is accidentally opened - thus ensuring safety for personnel and equipment.

**IDE filling panel pressure gauges are made of stainless steel**, they have red markers for 200 and 300 bar, they have an absolutely bubble-free glycerin filling, and comply with accuracy class 1.0 (not only the basic, standard class 1.6).

The filling panels are available with **2, 4, or 6, filling valves**. If more filling ports are required, several filling panels can be connected to each other. Of course, the number of filling ports should match the overall capacity of the whole system including the compressor.

Upon request, a filling panel can feature several **sections with different pressures**, which can be used simultaneously. Each pressure section is equipped with a type-tested safety valve.

**Remote control for the Filling System.** All filling panels can be equipped with integrated remote controls for the compressor and with an additional mushroom emergency button.

## TECHNICAL DATA FILL-CONTROL

### CONTROL FUNCTIONS

Collecting and recording relevant operational data

Monitoring and controlling the filling process for up to 40 ports

Each filling port is monitored and controlled separately

No undesired transfer of air from one cylinder to another

Filling rate is controlled via temperature monitoring

Filling without recording the relevant data is impossible

The system can only be operated by authorized persons

Data logging and output via USB and network connection

Print-out of data via system-integrated label printer

Records of registered cylinders: system signals expiring inspection date

Cylinders cannot be filled when inspection period is exceeded

Monitoring and controlling of a system-integrated buffer

### DATA RECORDING

The relevant operational data to be recorded in compliance with the Ordinance on Industrial Safety and Health are:

Date and time, from the system or manually entered on the touchscreen keyboard

Person filling, by barcode scanner or manually entered on code-protected touchscreen keyboard  
Serial number of breathing-air cylinder, by barcode-transponder-scanner or on code-protected touchscreen keyboard

Inspection date of breathing-air cylinder, by barcode-transponder-scanner or on code-protected touchscreen keyboard

Temperature of the breathing-air cylinder before filling, by temperature sensor at the respective fill-ing port, Temperature while filling, to control the filling rate of each cylinder

Recording/documentation of air-quality, if an AIRSAVE ULTIMATE is integrated in the system

### SENSORS - HARDWARE

HMI with touchscreen to display and control all functions

CAN bus system to connect all control components

Pressure transmitter at each filling port 0 - 600 bar

Infrared temperature sensor at each filling port -5 to +100°C

High-pressure stainless steel magnet valve at each filling port 0 - 450 bar

Stainless steel toggle valve with flow-stop and sound absorber

Barcode scanner, Transponder scanner, Label printer, 4 USB ports

