

The background of the image is a photograph of a paper mill. Large rolls of paper are being processed by machinery. The scene is dimly lit, with a strong light source from the right creating a warm, orange glow. A large white rectangular box is centered over the image, containing the company name and tagline.

# HAFNER

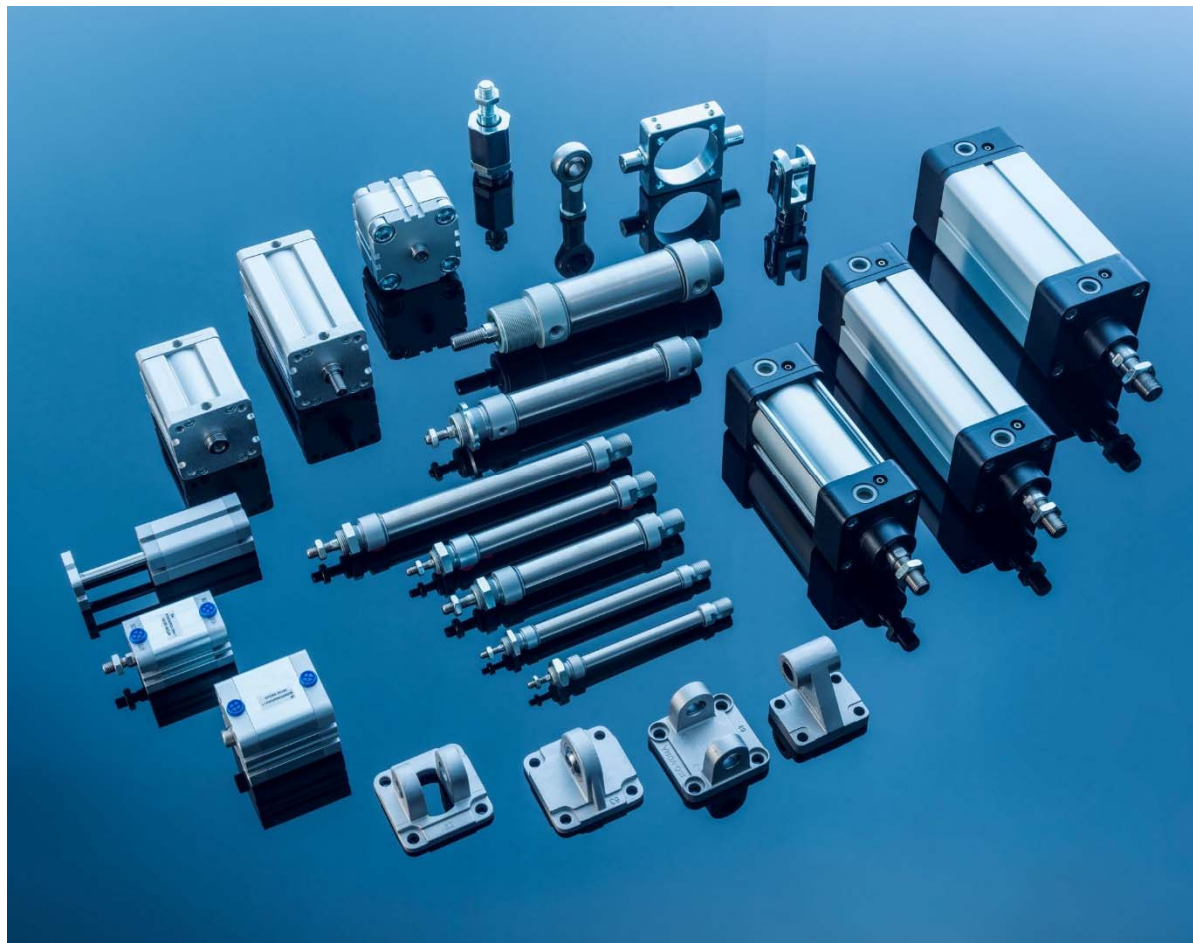
**Pneumatic solutions  
for the paper industry**

Hafner-Pneumatik is the manufacturer of a complete range of high-quality pneumatic control valves.

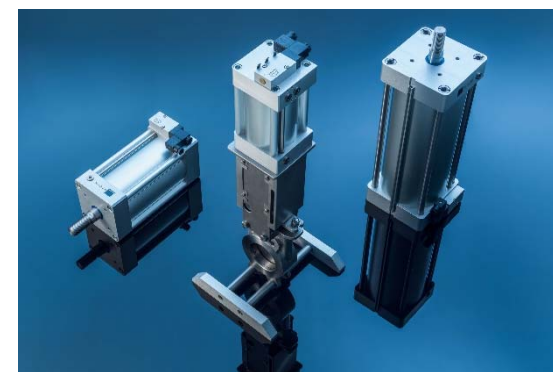




Pneumatic actuators can be offered as well. **Highlight:** Extremely robust actuators with integrated NAMUR-interface for the automation of knife-gate-valves.



Cylinder-valve-combinations made from 316L stainless steel



Actuators with integrated NAMUR-interface

**Temperature: +120° C**

### Lockable handlever valve

- Application: Scraper blade control
- Position can be secured with a pad-lock



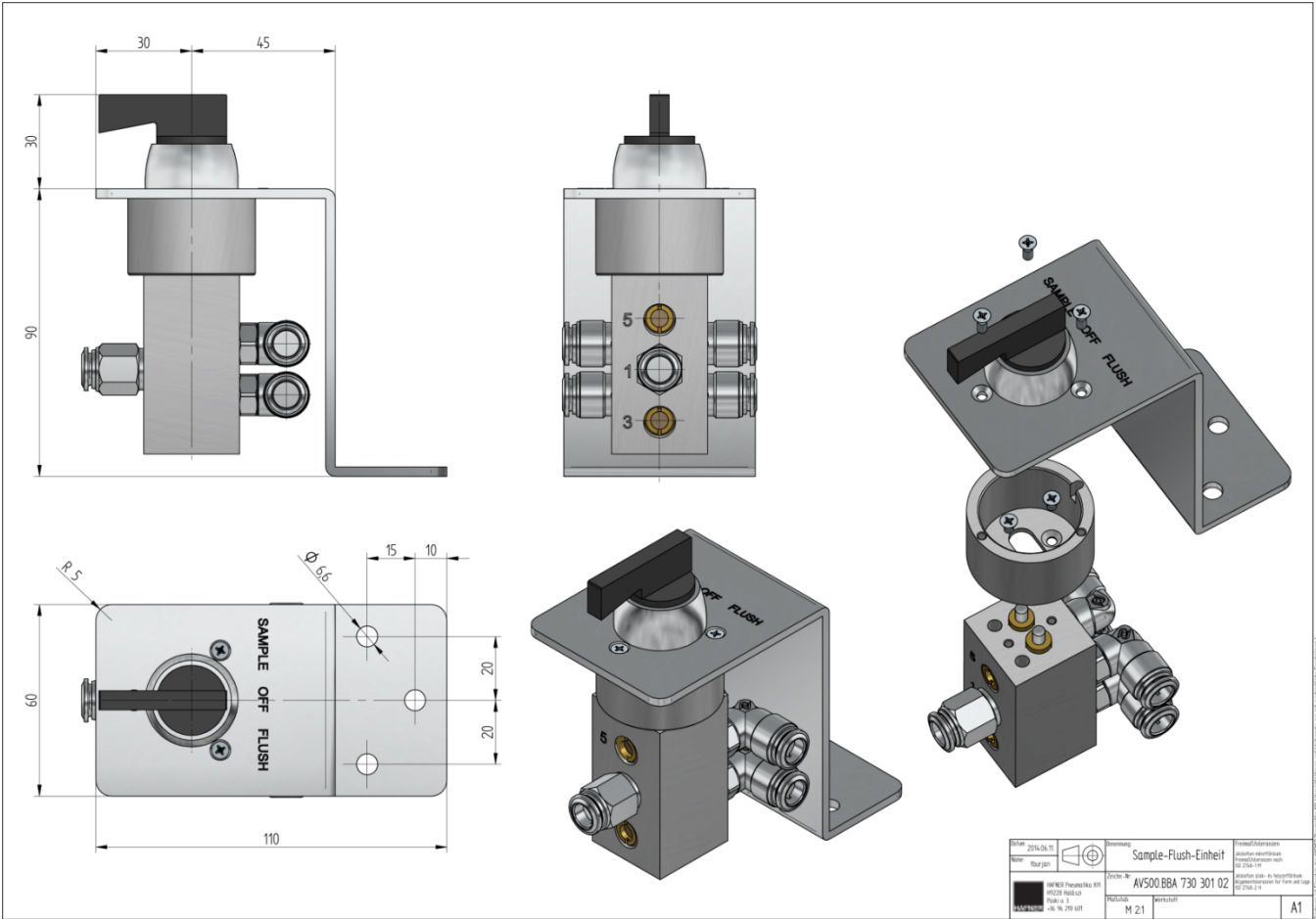
### Flow regulators G 3/4"

- Application: Air blow conveyance
- 1-, 2- and 3-fold systems

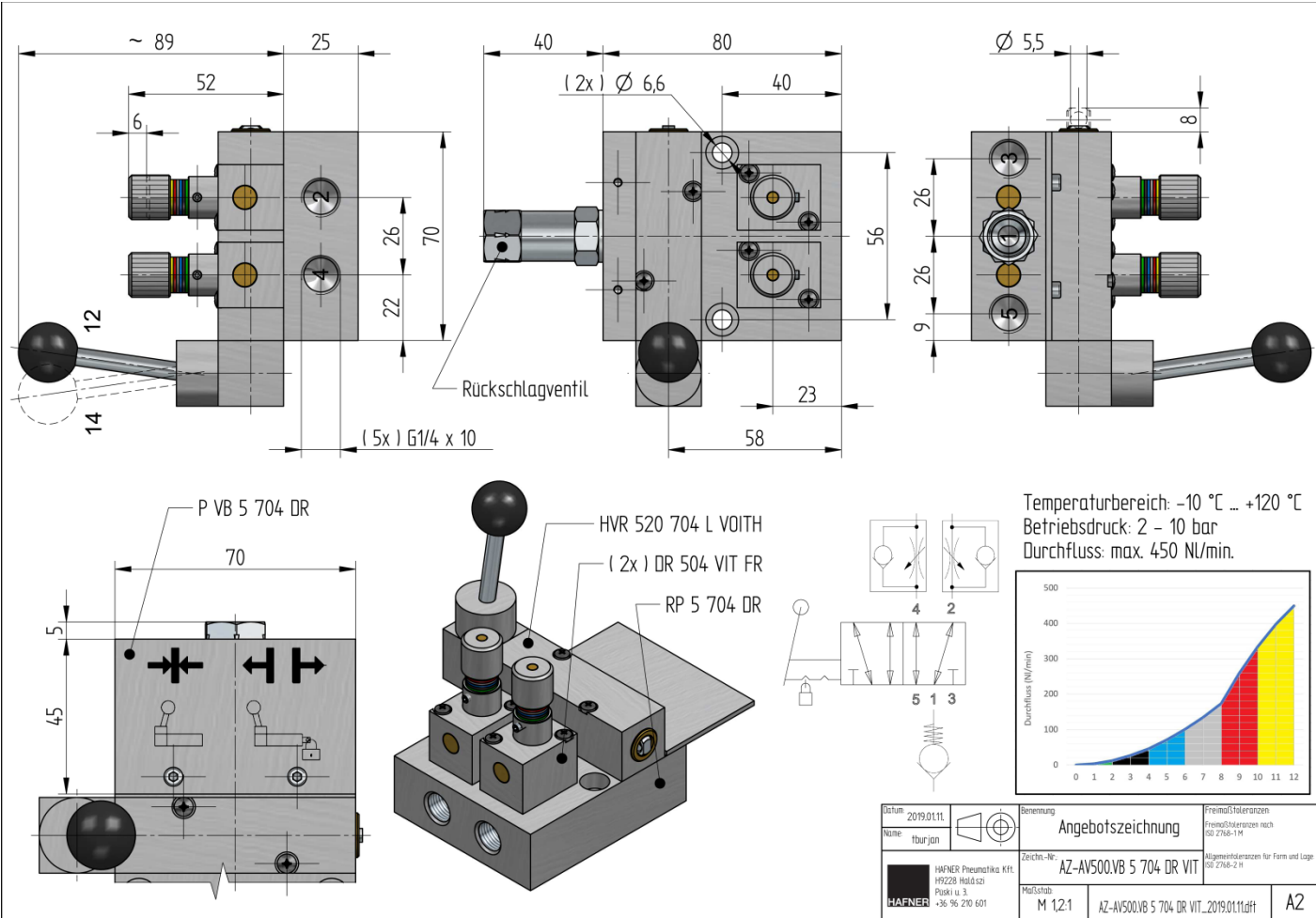


Sample-flush unit: pilot-valve to control a sample taking valve.

7/3-way valve: 2 independent 5/2-way valves with 3-position switch.

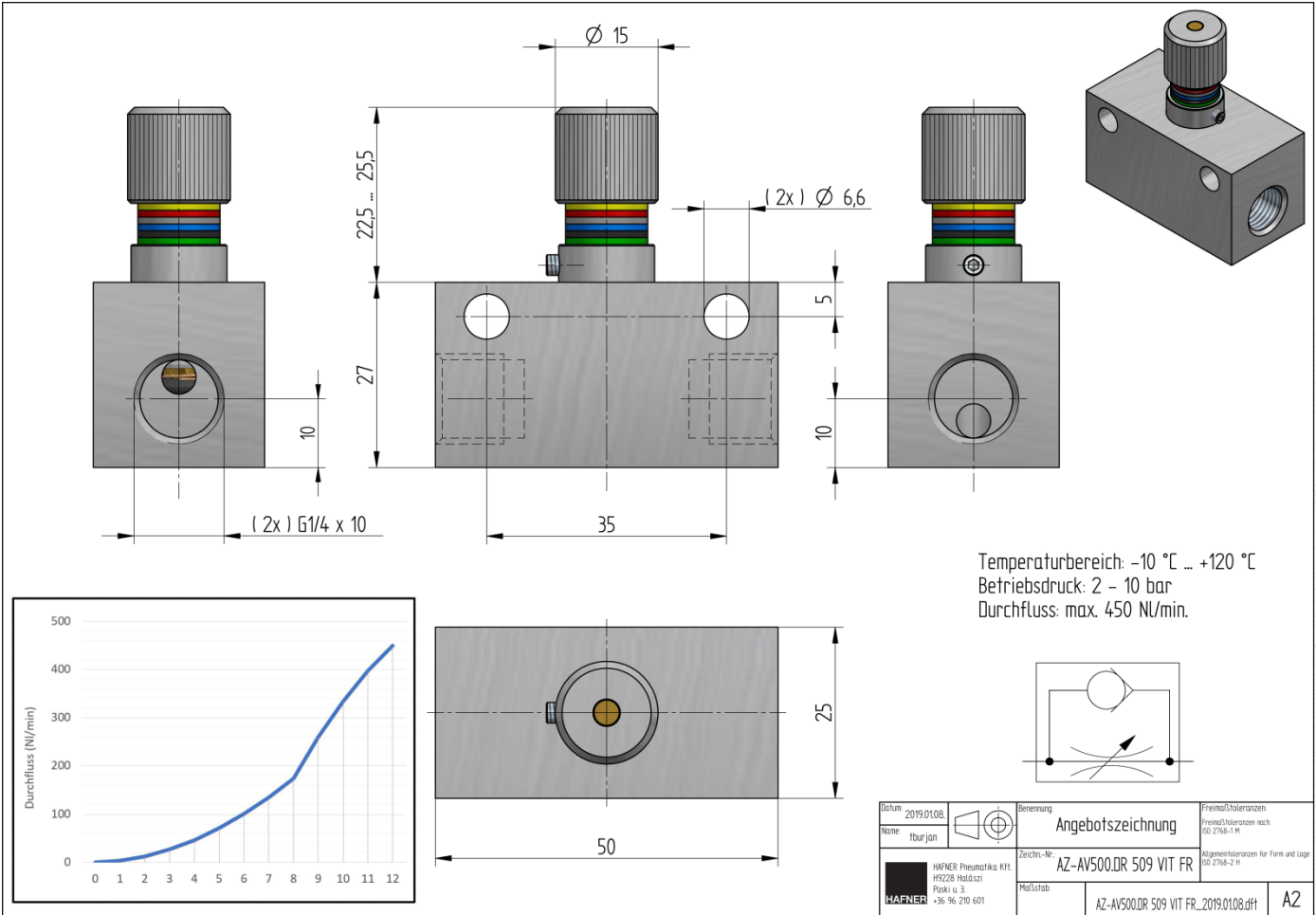


Pneumatic control block with lockable hand-lever valve, flow regulators and non-return valve. New type for scraper blade control.



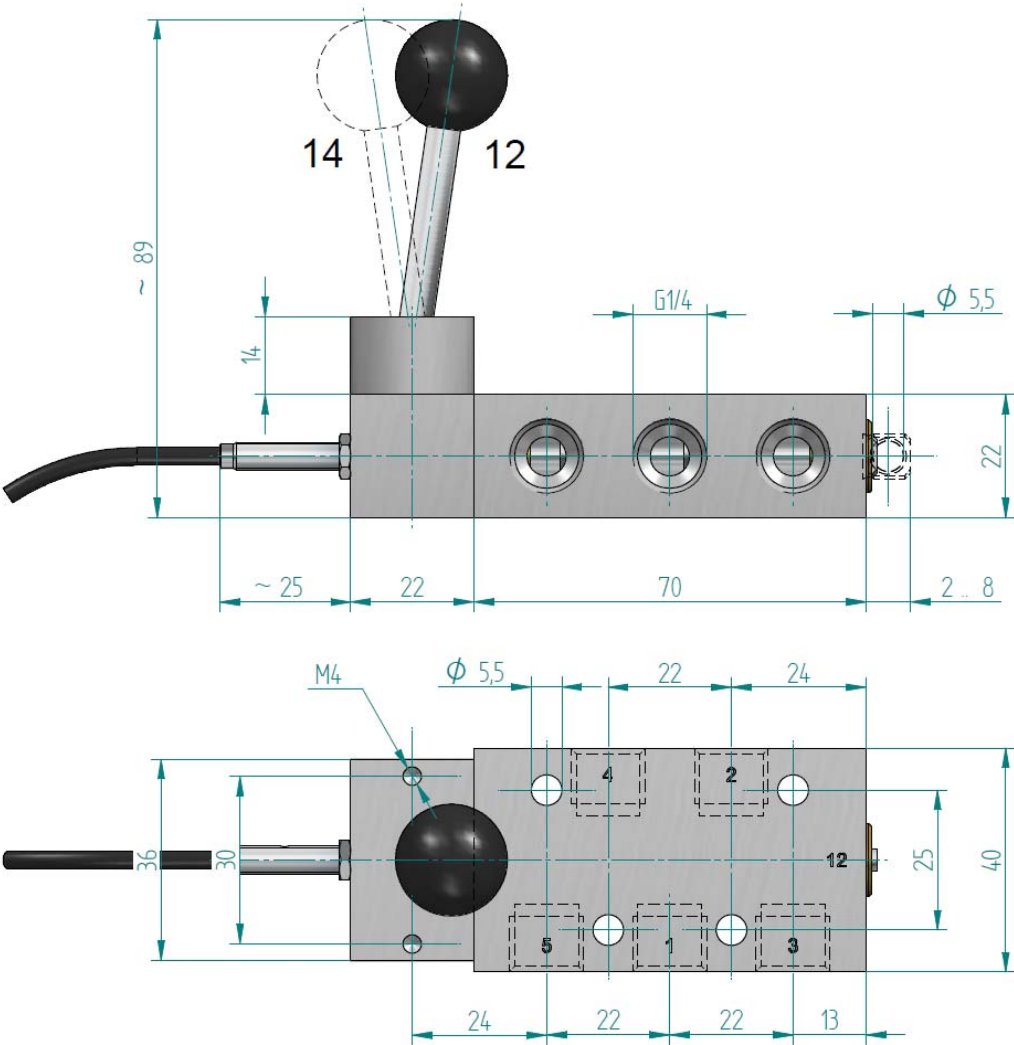
Zeichnung ist Eigentum der HAFNER Pneumatik Kfz. Vervielfältigung und Weitergabe nur mit ausdrücklicher Genehmigung!

# Flow regulator for high temperatures.



Lockable hand-lever valve with position feedback sensor in high temperature execution.

Economic alternative in comparison to the expensive solution with a pressure switch.





Also Hafner valves from the standard product range are widely used in the paper industry.

### Handlever valves

- Applications: Paper machine



### NAMUR-valves

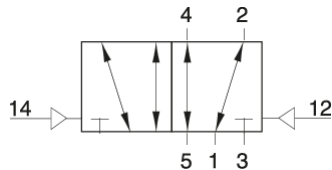
- Application: automation of process valves with pneumatic actuators



NAMUR-valves are often used together with M12 solenoid coils.

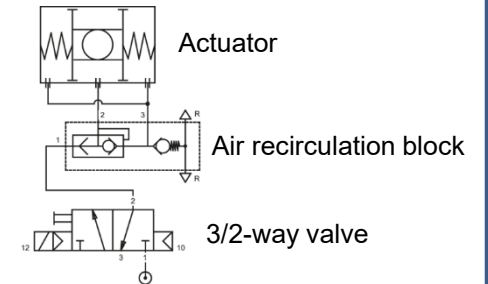
## Pneumatically actuated booster valve

- Application: Control of process valves with large actuators.



## Exhaust air recirculation block

- Application: Corrosion protection of springs in single-acting actuators



Broken springs in a paper mill in China.

# Quick exhaust block for double acting actuators with the 1/4" and 1/2" NAMUR-interface.

### Quick exhaust block, NAMUR 1/4"

Druckbereich: 0,5 – 10 bar  
Temperaturbereich: -10°C – +60°C  
Nennweite: Ø5 mm  
Durchfluss: max. 600 NL/min

Druckbereich	Temperaturbereich	Nennweite	Durchfluss
0,5 – 10 bar	-10°C – +60°C	Ø5 mm	max. 600 NL/min

### Quick exhaust block, NAMUR 1/2"

Druckbereich: 0,5 – 10 bar  
Temperaturbereich: -10°C – +60°C  
Nennweite: Ø12 mm  
Durchfluss: max. 3.000 NL/min

Druckbereich	Temperaturbereich	Nennweite	Durchfluss
0,5 – 10 bar	-10°C – +60°C	Ø12 mm	max. 3.000 NL/min

## Cylinder-valve-combination plates for scotch-yoke-actuators

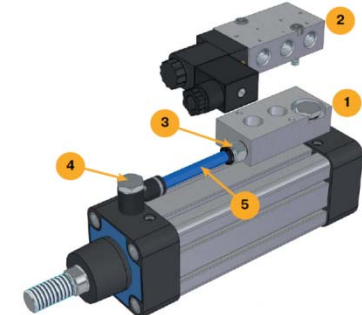
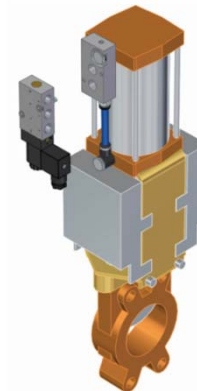
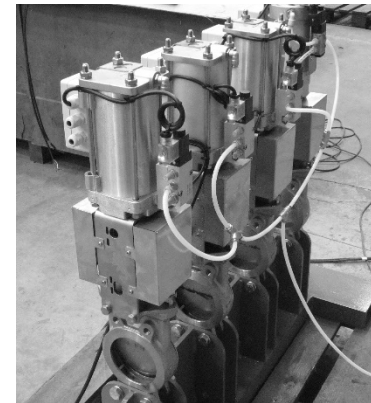


Antrieb mit einem Zylinder,  
Direktverschlauchung



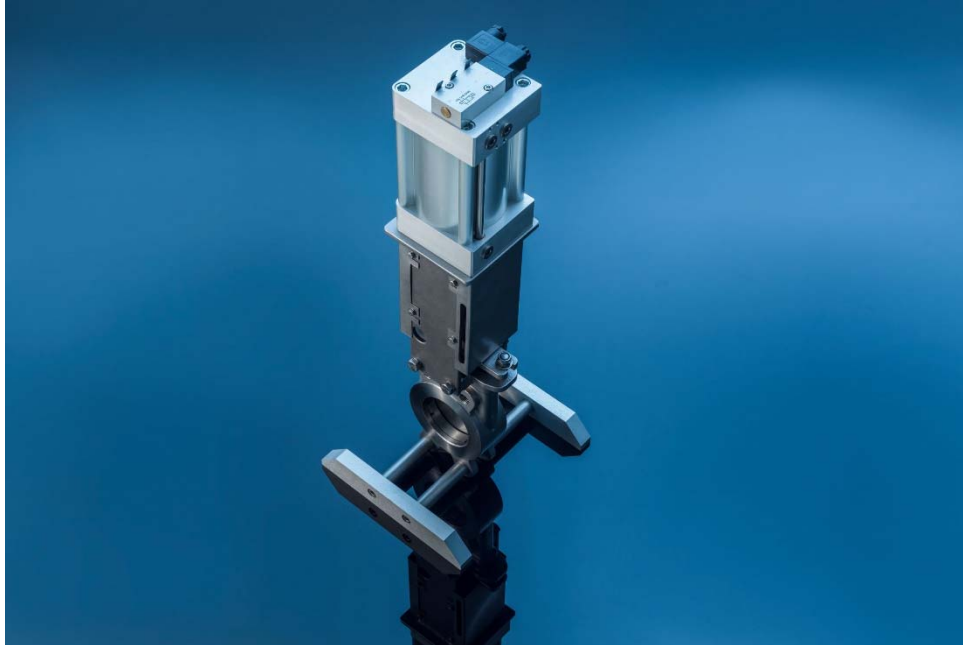
Antrieb mit zwei Zylindern,  
Steuerung über NAMUR-Ventil

## Cylinder-valve-combination plates for linear actuators





Hafner also offers a series of linear actuators with integrated NAMUR-interface for the automation of knife gate valves.

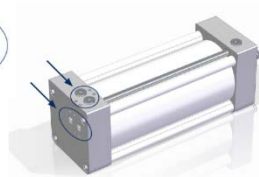


#### Key features:

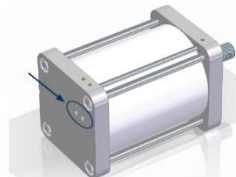
- Double acting
- Built-in cushioning rings
- Piston Ø: 80 ... 320 mm
- 80 – 125 mm: Profile tube
- 160 – 320 mm: with tie rods
- Stroke length: 25 ... 1000 mm (others on request)
- Interface to solenoid valve according to VDI/VDE 3845 (NAMUR 1 – 1/4").
- Fixing possibilities for proximity switch as a standard.

*Single acting actuators on request.*

Actuators with diameter up to 125 mm with NAMUR-interface at the bottom and long side of the cylinder head for maximum flexibility. Unused ports to be plugged. Actuators with diameter 160 mm to 320 mm with only one NAMUR-interface at the bottom.

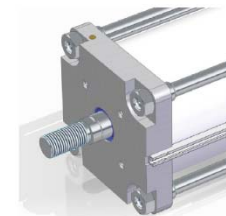


Diameter up to 125 mm



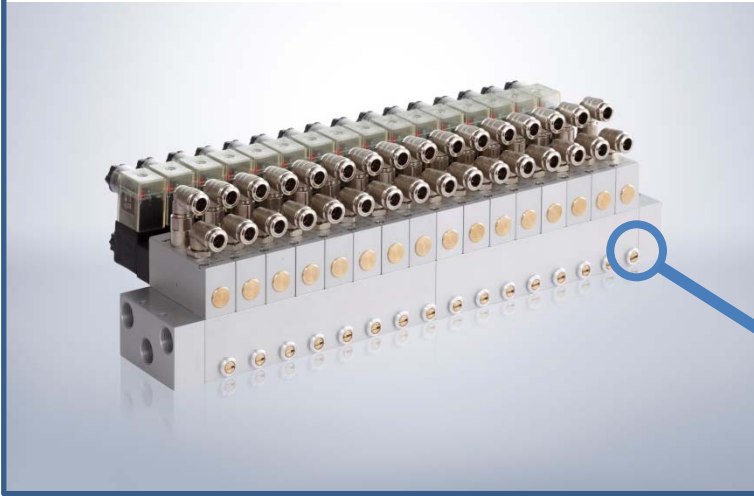
Diameter from 160 mm

Mounting port pattern at cylinder head according to DIN 3358/ISO 5210 for direct mounting to knife gate valves. Other interfaces available on request.



# Control cabinets for the paper industry: We developed manifolds with individual valve isolation in a first step.

**16-fold solenoid valve manifold**



**Individual valve isolation**



**8-fold solenoid valve manifold**



The assembly was relatively complex. Additional fittings and hose connections in the cabinet had been required.



We have therefore developed a manifold with all ports facing downwards which allows us to offer a compact and competitive range of control cabinets.



**Solenoid Cabinet with 8 x 5/2-way valves**



**Air Distributor Cabinet**

**Standardized cabinet:**

- 400x280x155 mm
- IP 66 protection
- Material: Stainless steel AISI 304

- ✓ **Less installation efforts**
- ✓ **Less risk of leakages**
- ✓ **Compact and economically priced solution**
- ✓ **No tube or fittings inside the cabinet**
- ✓ **No additional fittings needed**



# The Hafner control cabinet solution offers other advantages as well.

- ✓ Significantly reduced delivery times
- ✓ Lower process costs, everything from a single source, no component procurement and additional commissioning of the control cabinet builder
- ✓ Private labelling of the entire product and the individual components, thus secured spare parts business
- ✓ Worldwide shipping from Stuttgart, Germany

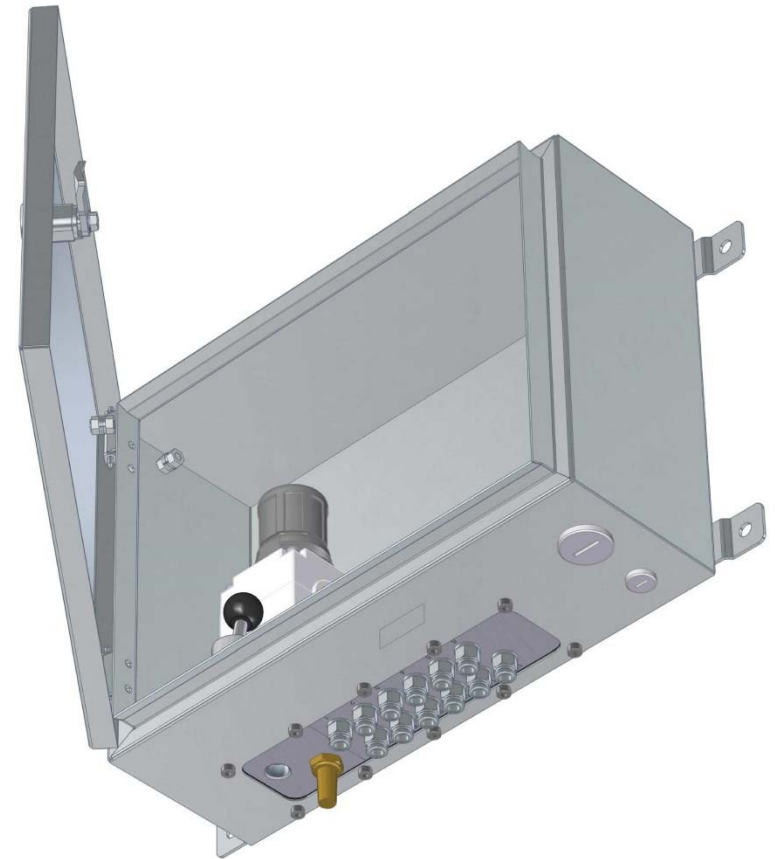


# Air distributor cabinet for decentralized air supply.



## Details:

- 12 connections
- 3/2-way on/off valve
- Pressure regulator with gauge
- Individual valve isolation
- Available with push-in and cutting ring fittings



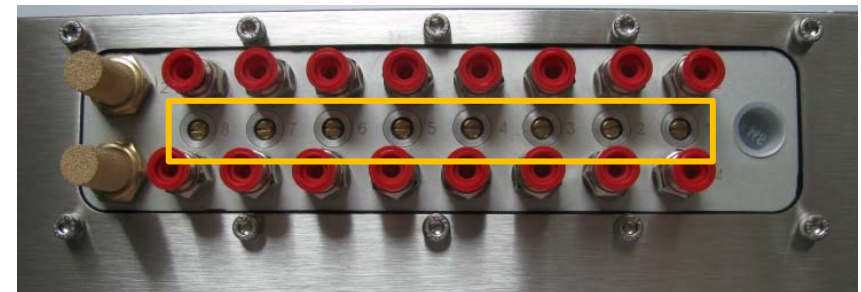
# Solenoid cabinet to control up to 8 process valves.



**Terminal box  
+ and – for each solenoid**

## Details:

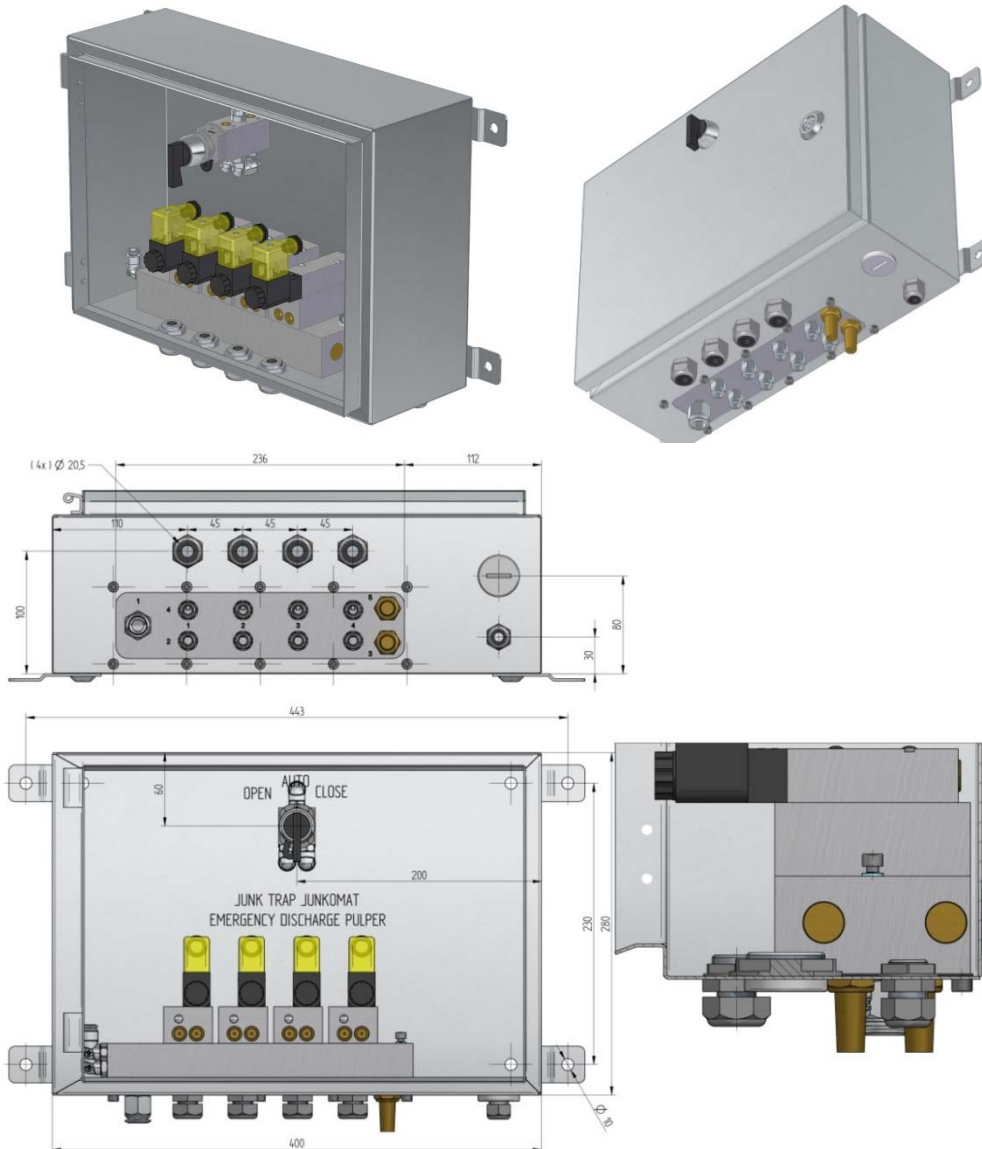
- 8 pieces 5/2-way solenoid valves
- 1.8 Watt power consumption
- 7 mm orifice size
- 1.250 l/min air-flow each valve
- Available with push-in and cutting ring fittings



**Including individual valve isolation for  
easy exchange of the valves.**







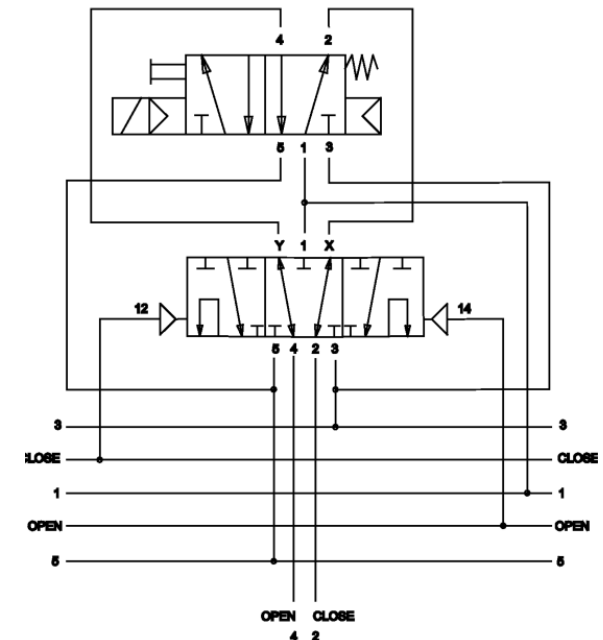
## Control Unit „Junkomat“

The Junkomat is a control-unit for four pneumatically actuated process-valves.

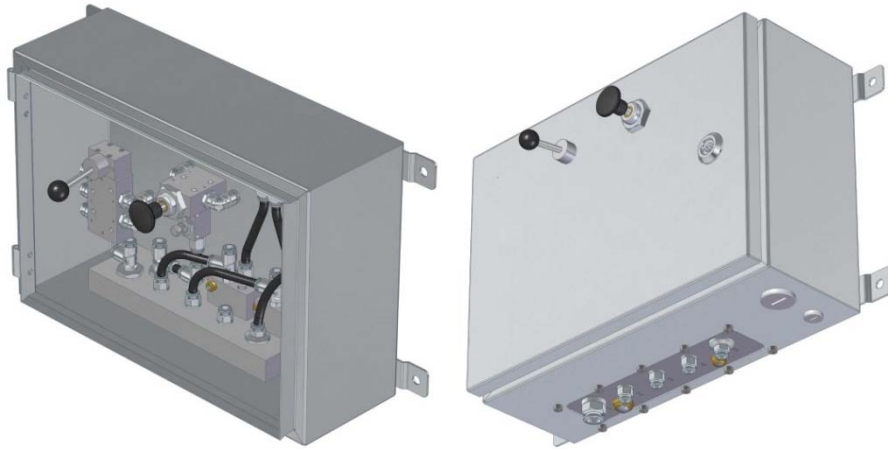
Under standard conditions the process-valves are piloted with 5/2-way single solenoid valves.

All the solenoid valves **can be overrode by a manual switch** in the door of the box.

All the four process valves will open or close at the same time.

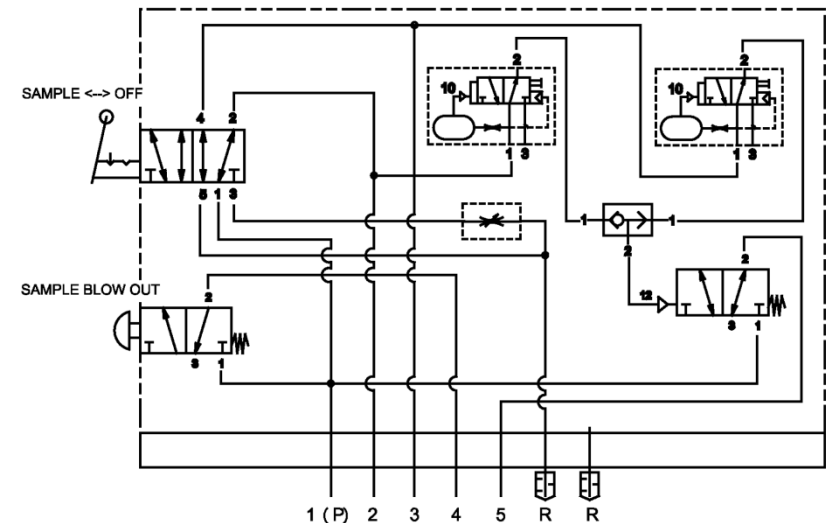
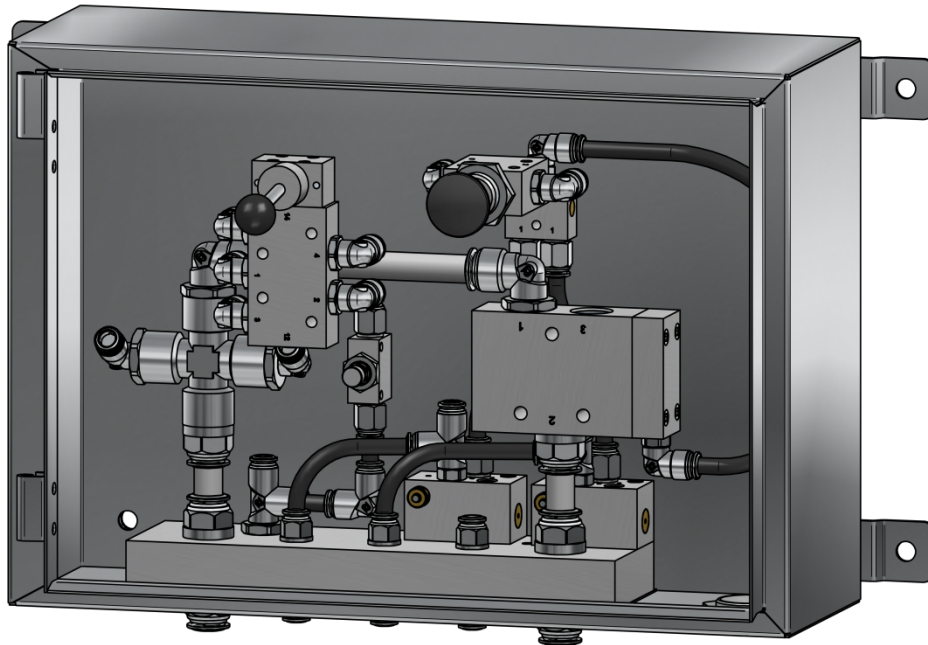


# Control cabinet for sample taking.



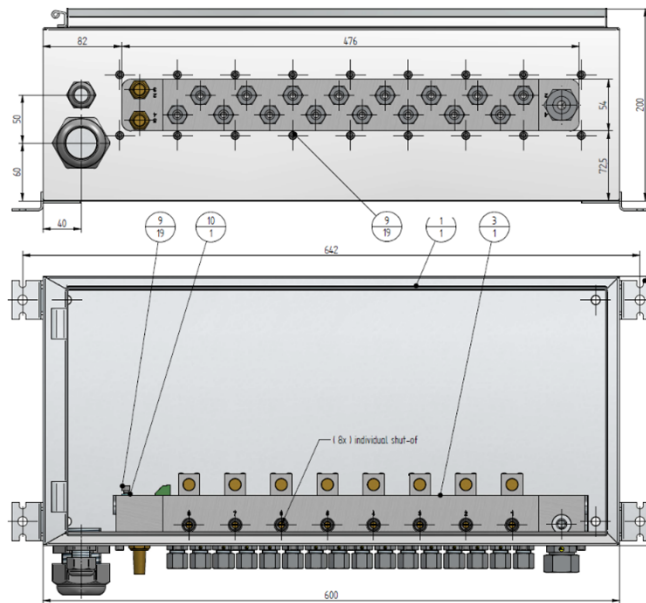
The control is automatically giving an air-impulse to clean into the sample-take unit whenever the lever-valve is actuated.

Additional impulses can be added manually.  
An air-booster valve is part of the delivery.

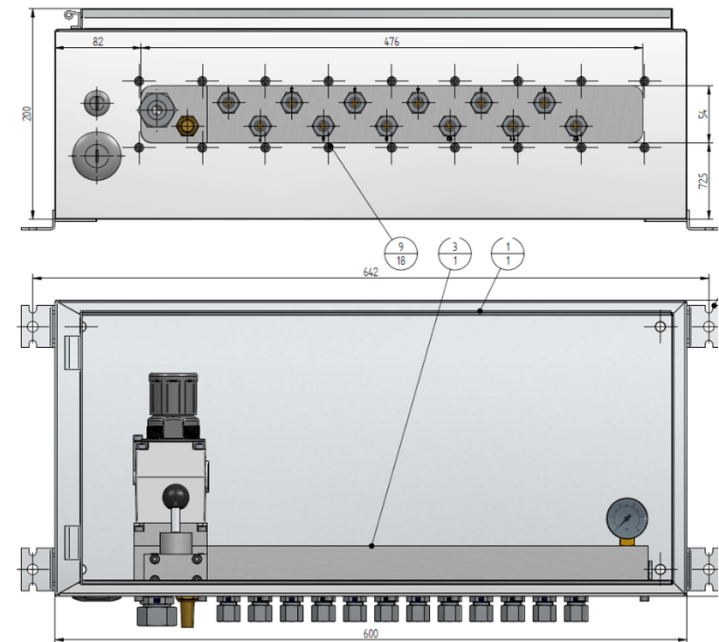


Also available: Cabinets with cutting ring fittings for 10 mm tube.

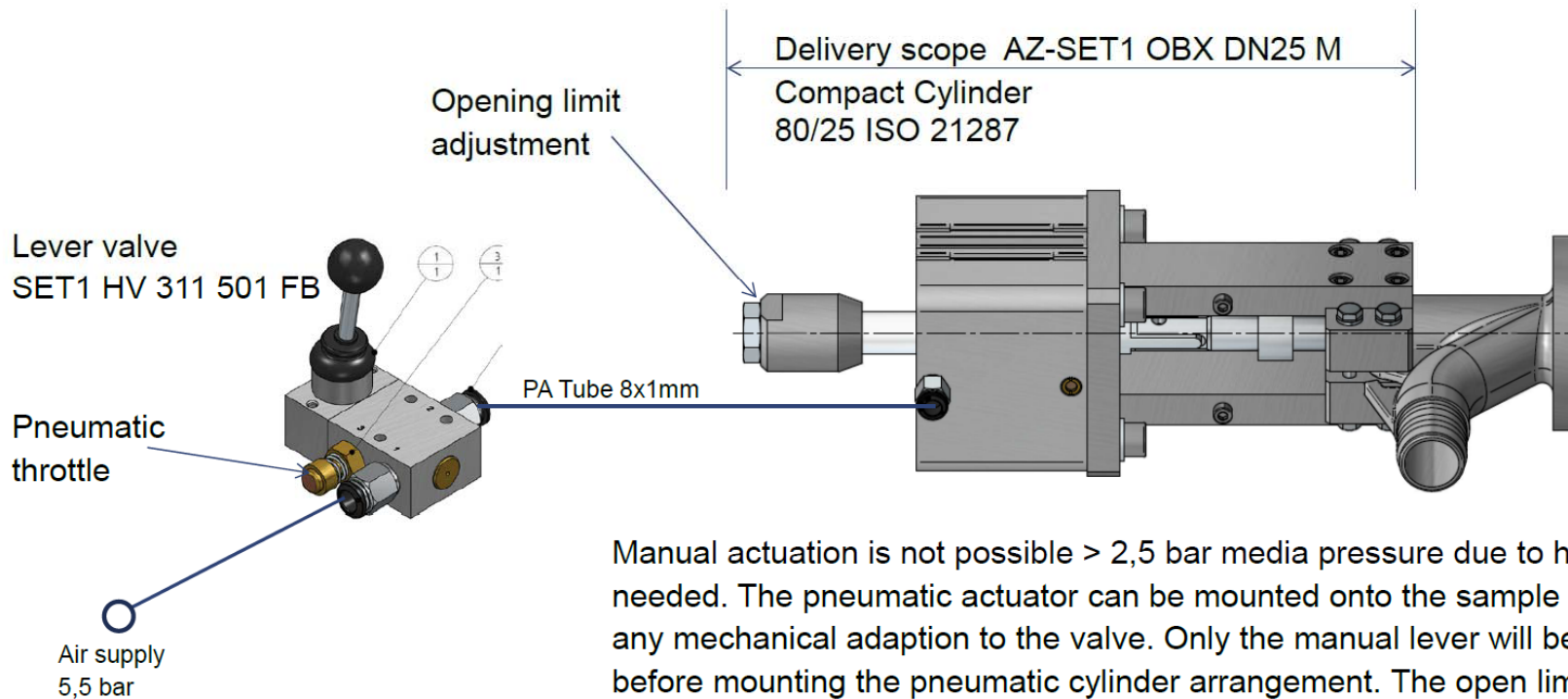
### 8-fold solenoid valve cabinet



### Air distributor cabinet



## Sample Valve Actuator XV500 , Hafner Pneumatic



Manual actuation is not possible > 2,5 bar media pressure due to high force needed. The pneumatic actuator can be mounted onto the sample valve without any mechanical adaption to the valve. Only the manual lever will be removed before mounting the pneumatic cylinder arrangement. The open limit can be adjusted mechanically and with the pneumatic throttle the opening speed.





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