Pfeiffer
Chemie-Armaturenbau GmbH

Control Panel
Series 28s

Application:

A complete control unit for controlling the inlet and outlet air supply (or N2) on Head- and End stations of series 28.

- Nominal diameter DN 15
- Nominal pressure PN 25
- Temperature up to 200°C

Because of its robust, and practical construction, the control panel is designed for quick and easy use, for personal to operate the pigging system.
The panel consist of specially made stainless steel units, which according to the requirements can be stacked in any amount, and contain the following components:

- 2/2-Solonoid ball valve with hand-lever for pig change and manual pig drive on the front side.
- 2/2-Solonoid ball valve for shuting down the control panel.
- 2/2-Solonoid ball valves with actuator for automatic pig drive on the rear side.
- RS-Valve and pressure guage to indicate the operating pressure.
- Flange connection ports for inlet, outlet air supply.
- Regulating valve for the inlet, outlet air supply.
- A Complete piping system, ready for operating use with clamping ring fittings, Swagelok system.
- Only parts made of stainless steel are used.

To enable a faultless operation, all the control panels are labeled, and on the front of the unit is a blockpanel indicating the relevant control valves to be used.
The installation within the unit can be found in the corresponding Head- or End station.
On the panel are assembly points for connecting to a steel construction at customers works, which provide a quick and secure mounting.
The connection to the pig valve is by means of a stainless-steel pipe and clamping ring fittings.

Design:

The appliance consists of a stainless steel panel, which is equipped with all the relevant and necessary control ball valves for pig changing, and pig driving, and all other periphery appliances, incorporated in the different types of systems, for the following requirements:

- In a Head station: for pig change and pig drive.
  In a End station: for pig drive.
- Suitable for 1- or 2-Pigging system.
- Nominal diameter of pigging unit.
- Medium gasiform or fluid.
- Level of automation.

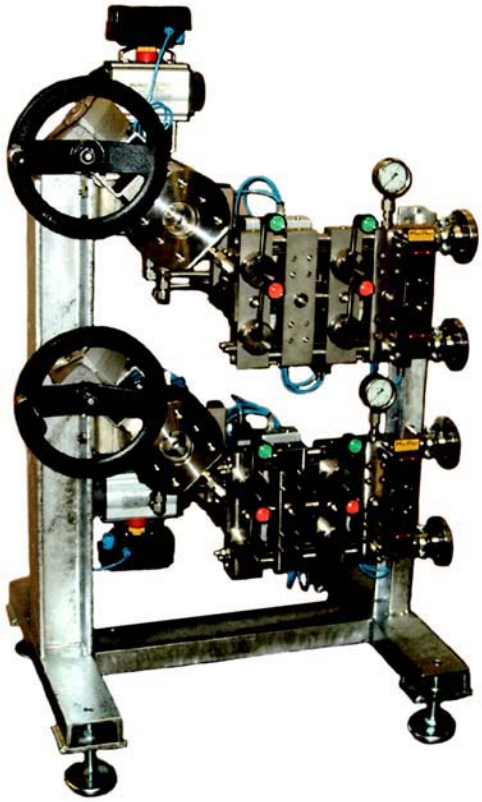

Fig. 1 - Head station mit control panel 28s

Control panel
Series 28s

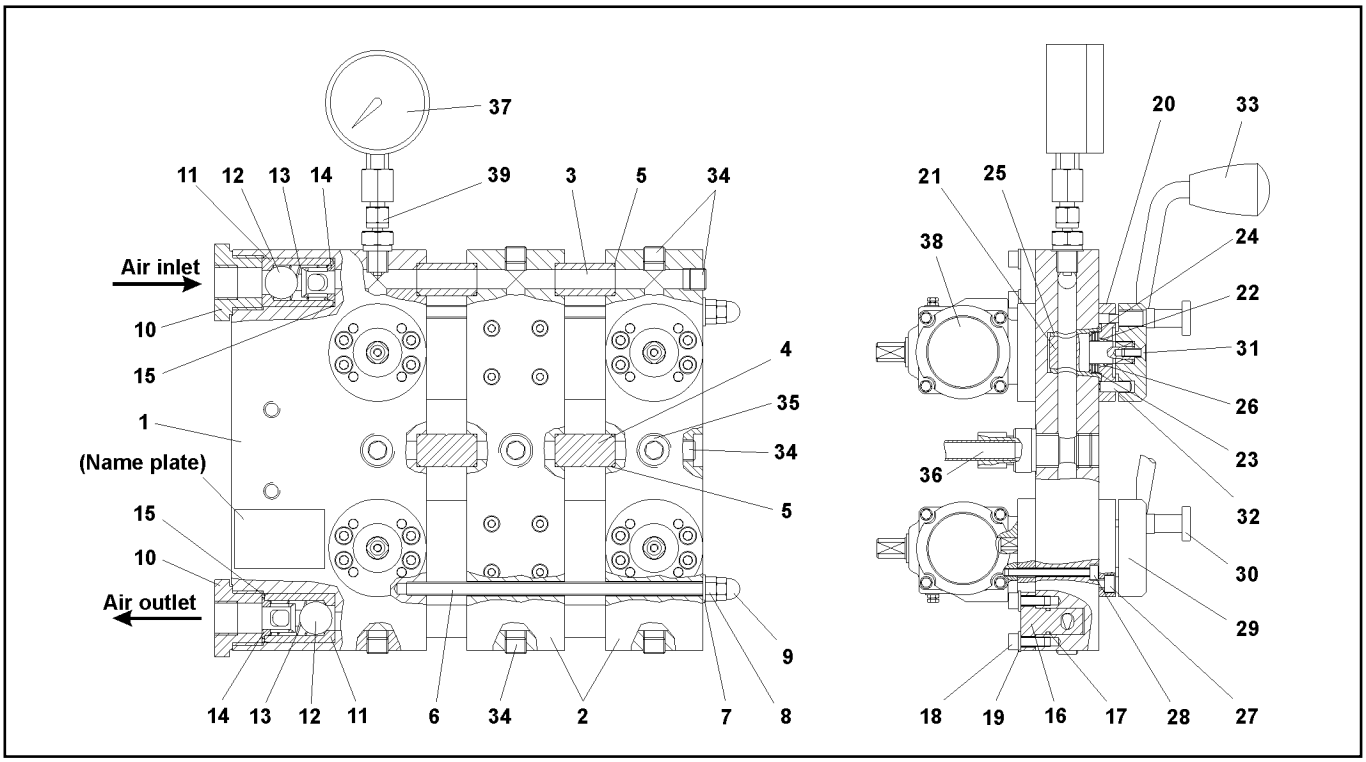

Fig. 2 - Sectional drawing of the control panel series 28s

Pos.	Description	Pos.	Description
1	Valve block	21	Plug of cock
2	Valve block	22	Bearing sleeve
3	Spacing tube	23	Spring washer
4	Spacer	24	Thrust washer
5	O-Ring	25	Sealing plug
6	Threaded bar	26	O-Ring
7	Washer	27	Cylindrical screw
8	Hexagon nut	28	Cylindrical screw
9	Cover nut	29	Hand-lever
10	Reduction screw	30	Stop bolt
11	Hub retainer	31	Head scew
12	Ball	32	Grooved pin
13	Spring washer	33	Tapered head
14	Supporting washer	34	Plug screw
15	O-Ring	35	Plug screw
16	Regulating cylinder	36	Pipe fitting
17	O-Ring	37	Pressure guage
18	Screw	38	Actuator SRP 15
19	Washer	39	Guage fitting parts
20	Stuffing box flange		

Table 1 - Part list

General technical data:

Nominal diameter	DN 15
Nominal pressure	PN 25
Temperature range	up to 200°C
Versions	manual and/or automatic actuator
Leak rate of stop valve and plug valve	Leak rate A acc. DIN EN 12266-1, Test P12 (Leak 1 BO acc. DIN 3230 Part 3)
Connection for air inlet- and outlet	Flange or Nippel acc. customer requirements

Table 2 - technical data

Material:

Valve block	1.4571
Spacing tube	1.4571
Pipe fitting	1.4571
Hub retainer	PTFE
Ball	1.4401
Sping washer	1.4310
Regulating cylinder	1.4571
Plug of cock	1.4571
Sailing plug	TFM
Bearing sleeve	PTFE with 25% Carbon
O-rings	Viton
Tapered head	Thermoplast
Fittings	VA
Connecting fittings	A2 / A2-70

Table 3 - Material

Funktions of the Control panel:

In addition to the main elements of pigging pipe and pigging valves, periphery appliances are also necessary for a functional pig system unit, to enable an effective pig change and pig drive.

For this reason, on the Head- and End station, control connection ports are provided, either for charging with pressure (compressed air or nitrogen) or air exhausting.

For this job a number of hand- and automated control ball valves are required, and additional parts for regulation, and control of air inlet and air outlet.

The control panels can be divided into the following categories:

- **Point of aplication**,
  i.e. Head- or End station.

- **Degree of automation**,
  i.e. manuel, or automatic pig drive

According to category „Point of aplication“ the control panels are divided into two groups:

- **Control panel fo Head station**,
  with all necessary elements on the head side, which are needed for the pig change, and pig drive.

  (Fig. 3 shows an example of the R/I-layout of an automated version for a 1-pig system, with Head station, series 28k mit).

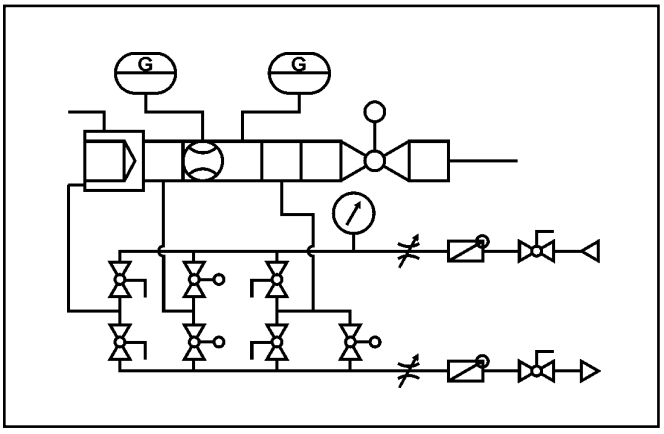

Fig. 3 - R/I-layout

- **Control panel for End station,**
  with all the necessary elements on the End side, needed for the pig drive.

  (Fig. 4 shows an example of the R/I-layout of an automated version for a 1-Pig system, with End station series 28z).

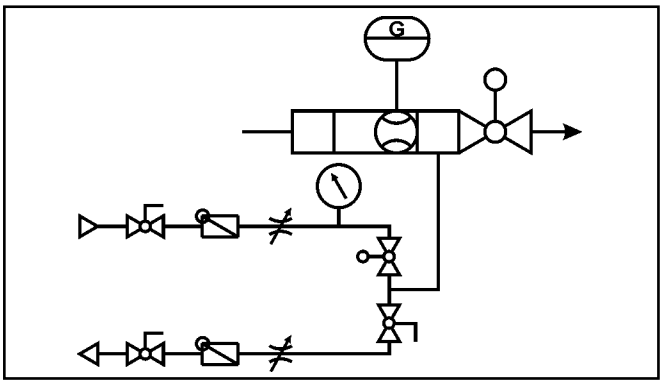

Fig. 4 - R/I- Layout

- All panels are obtainable in manuel, or automatic design.

- A further possible version is a manual design, which can easily be refitted with the appropriate parts for an automatic pig drive.

- **Design right / left:**
  The control panels, according to the position of the air inlet, and air outlet connection ports, are available on request in two designs, right and left.

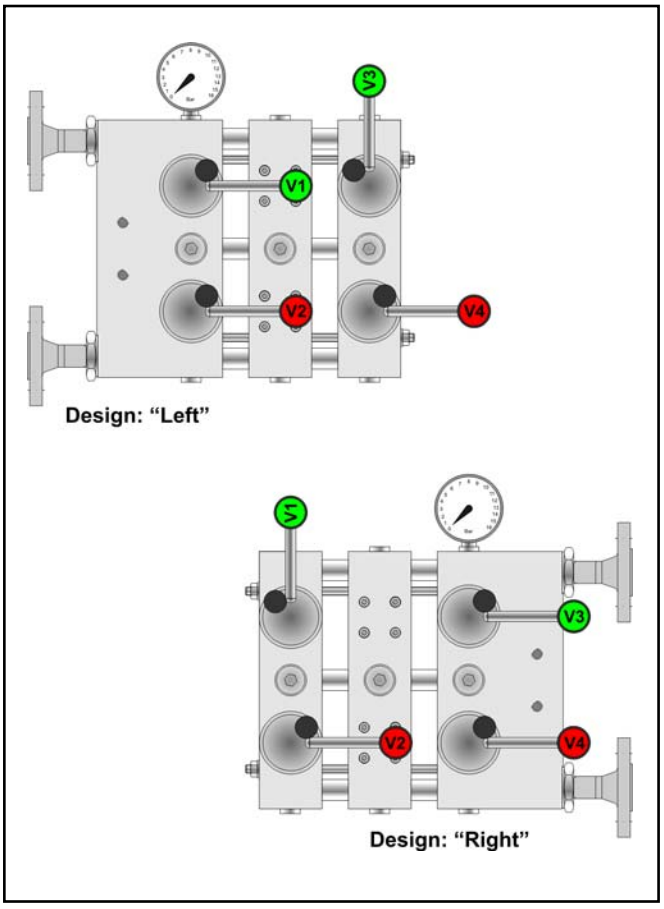

Fig. 5 - Design Left / Right

Measurements:

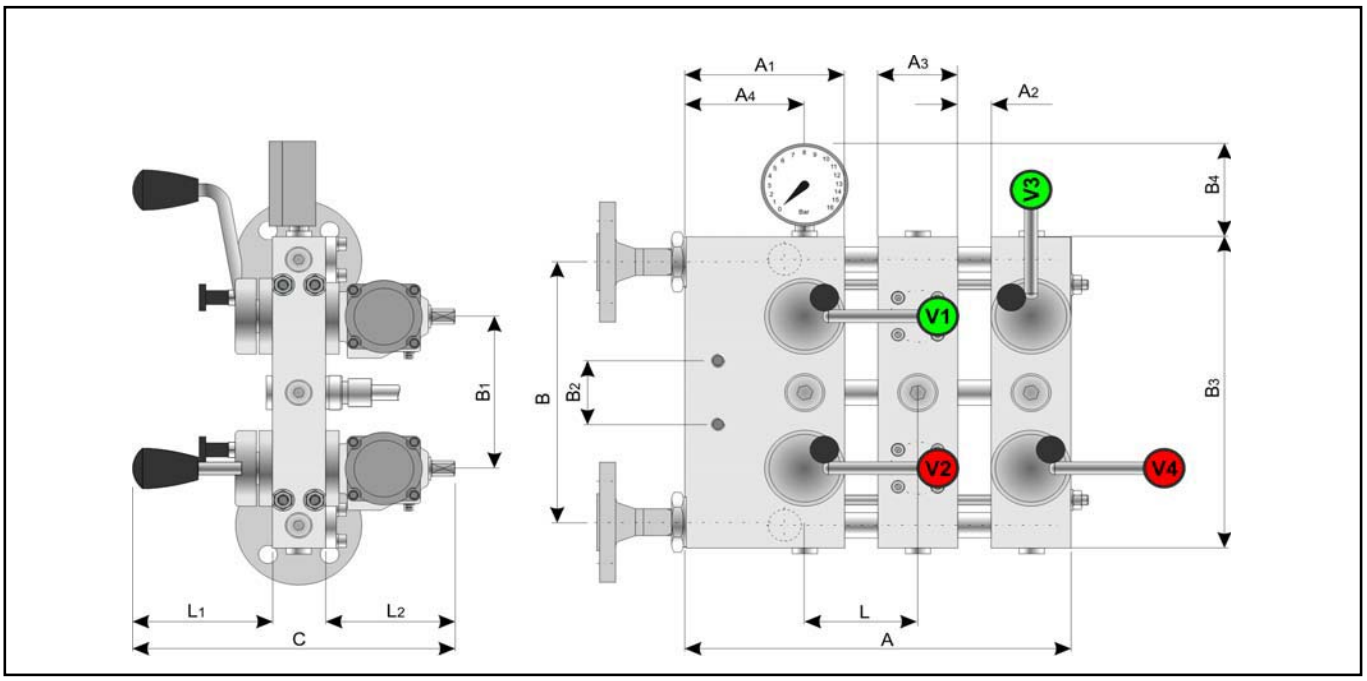

Fig. 6 - Dimensional drawing Pig control panel, series 28s

The diagram shows an exemplified Control panel for series 28k Pigging system.

Pig DN	50 to 150
Control panel DN	15
A	290
A1	120
A2	25
A3	60
A4	90
B	206
B1	120
B2	50
B3	246
B4	110
C	219
L	85
L1	80
L2	99

Tabelle 4 - Maße in mm

Selection, and Layout design of a pigging panel:

1. Selection of the required functions.
2. Selection of the control panel according to the functions.

Ordering text:

Pigs series 28s.
DN . . . .
Specific customer functions: . . . . . .

For your special requirements, please contact our technical sales department.

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