

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

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Application, Instructions, Technical Data

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# Rubingel-Adsorber

ALB-S-3

ALB-S-5

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Adsorber, Application, Instructions, Technical Data

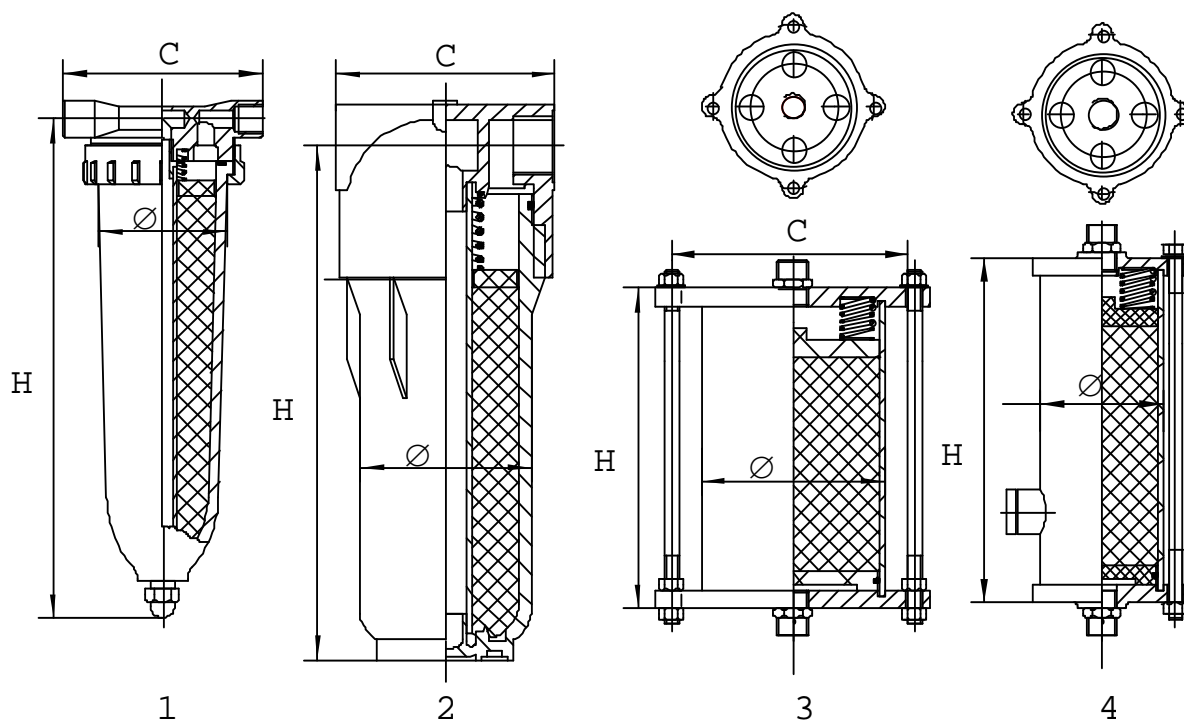
## **Applications**

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- ⇒ **Adsorption of moisture from wet air under pressure less condition (e.g. tank breathing)**
  
- ⇒ **Adsorption of moisture (if needed after previous de-oiling) out of:**
  - ⇒ **Storage tanks in the Power Industry (dielectricity oil)**
  
  - ⇒ **Oil flooded gear unit (e.g. in sugar industry)**
  
  - ⇒ **Storage tanks for hydraulic oil (e.g. hydraulic-machine)**
  
- ⇒ **Adsorption of moisture out of instrument air (e.g. in laboratory)**
  
- ⇒ **Adsorption of moisture out of compressed air and technical pressurized gases**
  
- ⇒ **Tank breathing of storage tanks filled with water sensible material (e.g. plastic- und food industry)**

## Overview of Types

|         |          |         |                |
|---------|----------|---------|----------------|
| ALB-P-1 | ALB-P-36 | ALB-P-6 | ALB-S-3        |
| ALB-P-2 |          | ALB-P-7 | <b>ALB-S-5</b> |



| Picture                     | 1                                    | 2   | 3                                 | 4  |
|-----------------------------|--------------------------------------|---|-----------------------------------|--|
| Type                        | ALB-P-1,<br>ALB-P-2                  | ALB-P-36  | ALB-P-7<br>ALB-P-6                | <b>ALB-S-3</b><br><b>ALB-S-5</b>           |
| Ident.-No.                  | 8317600,<br>8317800                  | 8359310   | 8348700<br>8349100                | <b>8312800</b><br><b>8313100</b>           |
| Operation pressure (max)    | 16 bar g                             | depressurized                                     | P-7 1,7 bar g<br>P-6 1,1 bar g    | <b>10 bar g</b>                            |
| Operation temperature (max) | 40 °C                                | 50 °C   | 40 °C                             | <b>40 °C</b>                               |
| Connections (DIN)           | 3/8" female<br>1/2" male             | 1" female   | 3/4" female<br>1/2" male / female | <b>3/4" female</b><br><b>1" male</b>       |
| Mass of Rubingel (kg)       | 0,5<br>0,4                           | 0,8   | 2,8<br>5,6                        | <b>2,6</b><br><b>5,6</b>                   |
| Material of Housing         | Transparent Poly-<br>amid (Trogamid) | Transparent Poly-<br>Styrol-Acryl-Nitril<br>(SAN) | Acrylglas (PMMA)                  | <b>Steel with Boro-<br/>Silicat-Window</b> |
| Material of connection head | Brass                                | Plastic (PP)                                      | Ductile cast iron                 | <b>Ductile cast iron</b>                   |
| Dimension H [mm]            | 290                                  | 295   | 373<br>350                        | <b>373</b><br><b>353</b>                   |
| Dimension C [mm]            | 116                                  | 128   | 150<br>265                        | <b>150</b><br><b>265</b>                   |
| Dimension Ø [mm]            | 74                                   | 96  | 133<br>200                        | <b>133</b><br><b>200</b>                   |
| Weight incl. O-Gel. [kg]    | 1,8                                  | 2,1   | 7,0<br>22,0                       | <b>11,5</b><br><b>27,0</b>                 |

## ***Operation and Maintenance Manual***

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**Pall Schumacher** Rubingel Adsorber **ALB-S-3** and **ALB-S-5** is a carbon steel housing filled with pellets named Rubingel.

This granulate is able to adsorb moisture from gasses especially air. The capacity of Rubingel depends on the air temperature and its relative humidity. With increasing saturation of humidity the rubin colour changing and becomes white.

The air to be treated has to be free of oil and solvents. These stuffs are making Rubingel useless.

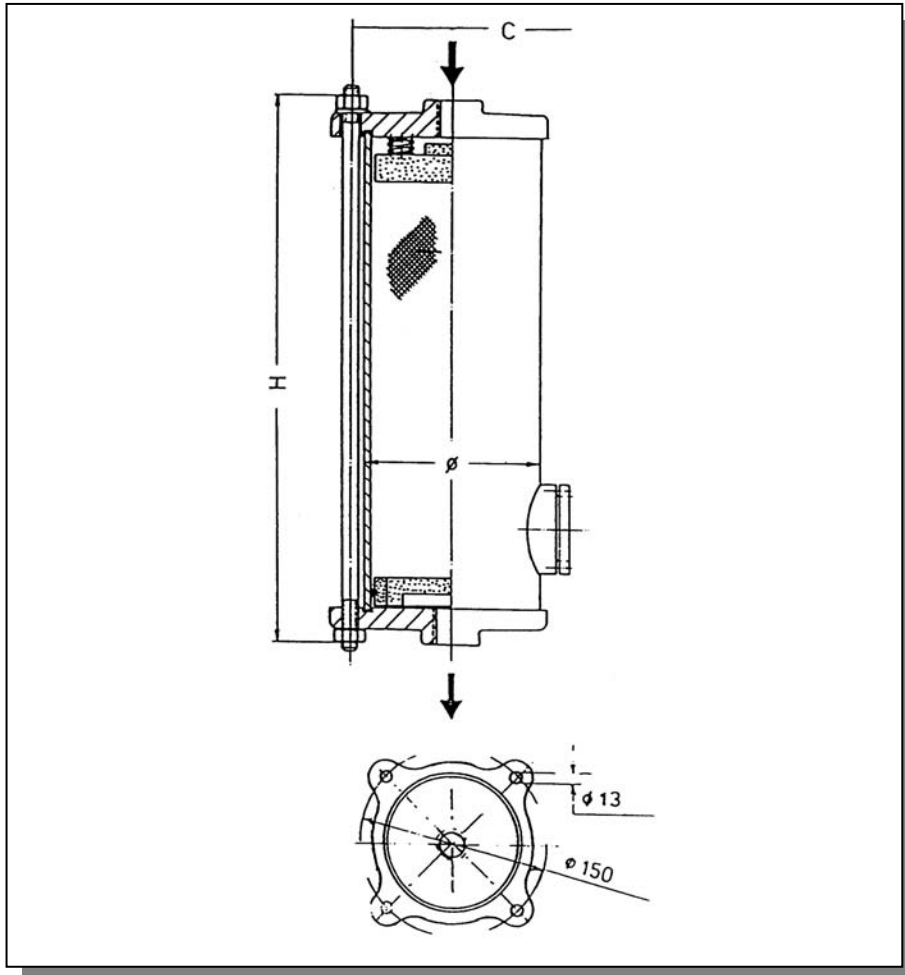
It is possible to regenerate Rubingel by drying at temperatures between 120°C and max 140°C. For regeneration the filling has to be removed from the housing and dried separately in an oven. Drying should be done until the Rubin colour has returned.

For assembly please refer to page 7.

Disassembled adsorbers should be stored with the open ends closed with tape or caps to avoid saturation of adsorbents with moisture of environment.

## Technical Data

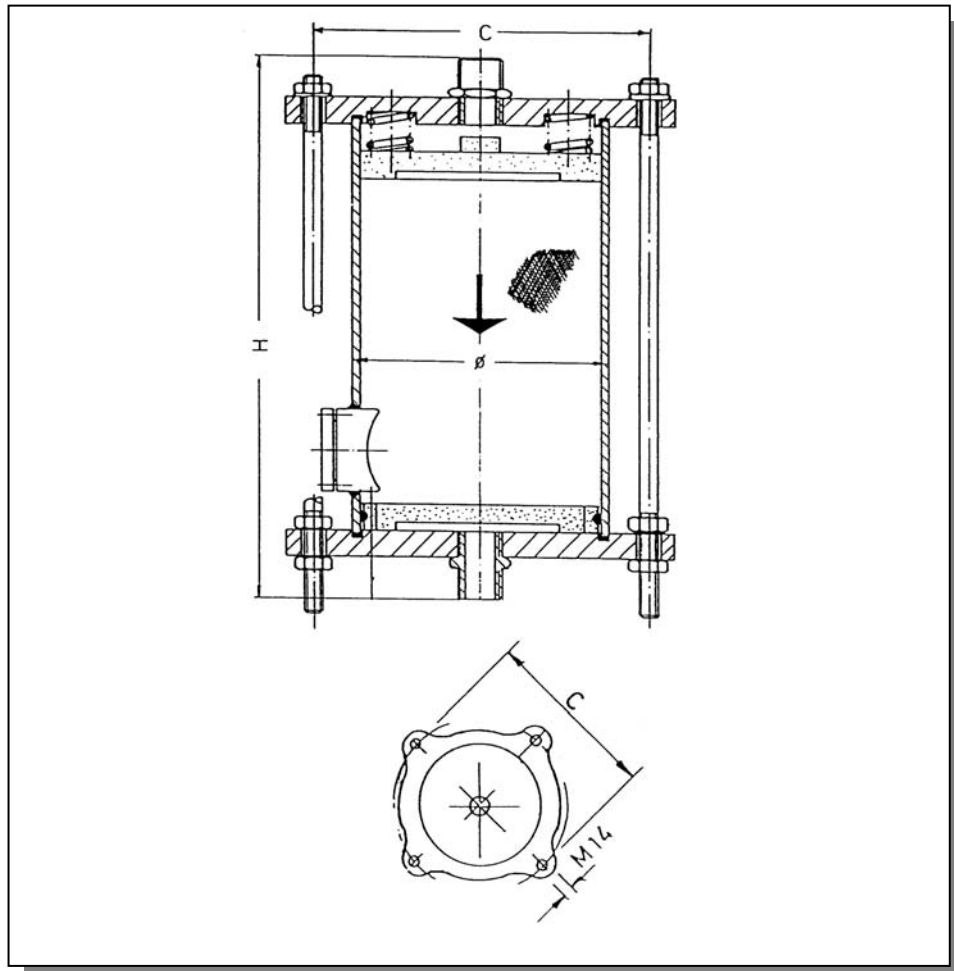
### Rubingel-Adsorber Type ALB-S-3 (pressurized)



### Adsorption of humidity from gases

|                             |                                |
|-----------------------------|--------------------------------|
| Type                        | ALB-S-3                        |
| Ident.-No.                  | 8312800                        |
| Operation pressure (max)    | 10 bar g                       |
| Operation temperature (max) | 40 °C                          |
| Capacity (25°C, 80% r.h.)   | 43 Sm <sup>3</sup>             |
| Connections (DIN)           | 3/4" female                    |
| Mass of Rubingel [kg]       | 2.6                            |
| Material of housing         | Steel with Boro-Silicat-Window |
| Material of connection head | Ductile cast iron              |
| Dimension H [mm]            | 373                            |
| Dimension C [mm]            | 150                            |
| Dimension Ø [mm]            | 133                            |
| Weight incl. O-Gel. [kg]    | 11.5                           |

**Rubingel-Adsorber Type ALB-S-5( pressurized and depressurized)**



**Adsorption of humidity from air – vessel breathing**

|                                       |                                |
|---------------------------------------|--------------------------------|
| Type                                  | ALB-S-5                        |
| Ident.-No. / Operation pressure (max) | 8313100 / 10 bar g             |
| Ident.-No. / Operation pressure (max) | 8313110 / depressurized        |
| Operation temperature (max)           | 40 °C                          |
| Capacity (25°C, 80% r.h.)             | 65 m <sup>3</sup>              |
| Connections                           | 1" male                        |
| Mass of Rubingel [kg]                 | 5.6                            |
| Material of housing                   | Steel with Boro-Silicat-Window |
| Material of connection head           | Ductile cast iron              |
| Dimension H [mm]                      | 353                            |
| Dimension C [mm]                      | 565                            |
| Dimension Ø [mm]                      | 250                            |
| Weight incl. O-Gel. [kg]              | 27.0                           |

## ***Instruction of assembly (Change Rubingel)***

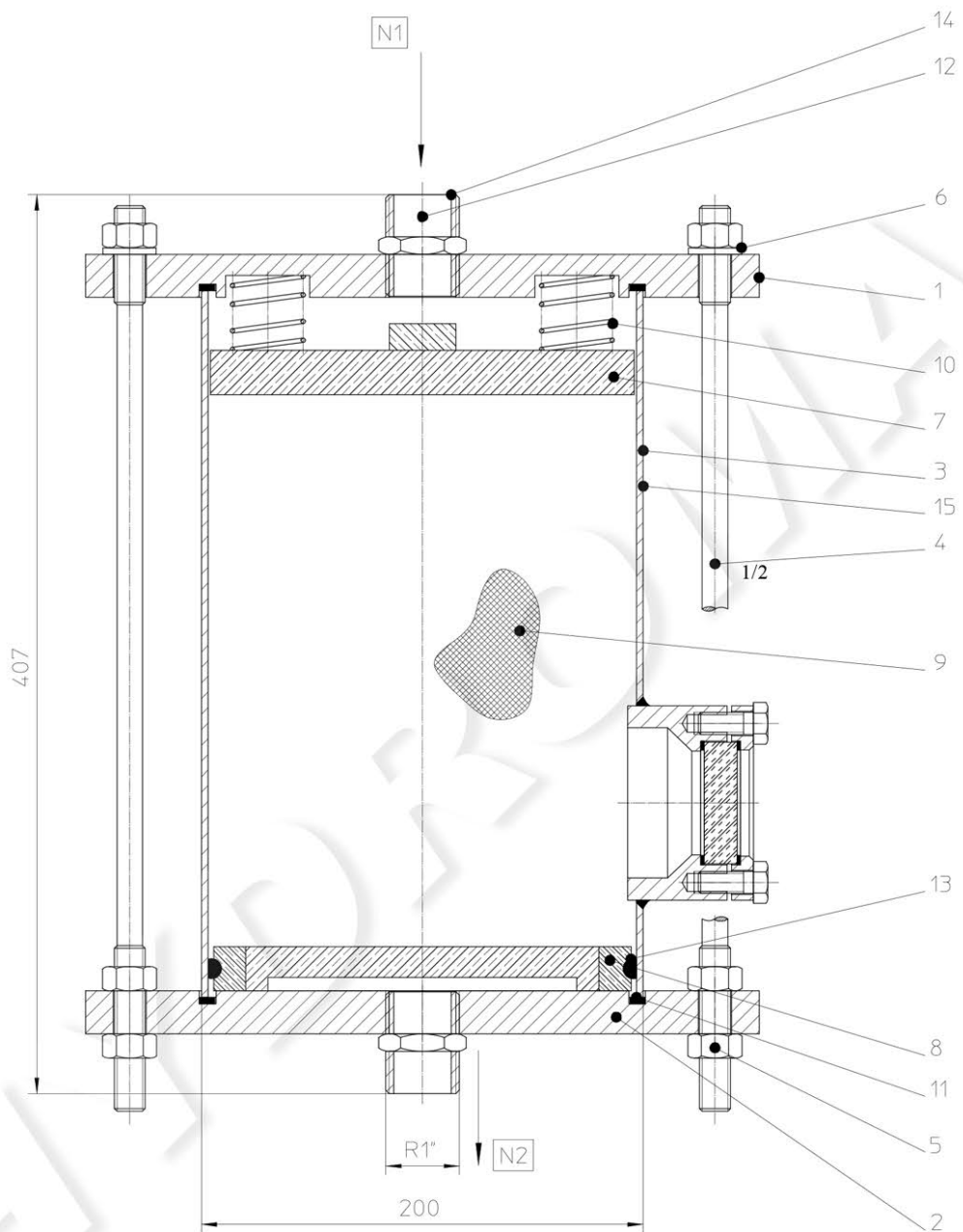
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### **Changing of Rubingel:**

For the exchange of the Rubingel the whole adsorber has to be disassembled from the pipe.

- unscrew the upper hexagonal nuts (5) at the tie rod (4)
- remove the upper connection part (1) including the spring (10)
- remove the ceramic disc (7) from the cylinder (3)
- clear the Rubingel (9) out of the housing.
- be careful with the ceramic disc (8) on the bottom that it doesn't fall out
- fill in the new Rubingel (9)
- stop filling at 50 mm below the housing edge
- reassemble the ceramic disc (7) on the Rubingel filling
- check the correct fitting of the springs (10)
- reassemble the upper connection part (1)
- check the correct fitting of the gasket (11)
- put the washer (6) and the hexagonal nut (5) over the tie rod (4)
- pretighten the hexagonal nut (5) by hand
- final tighten it cross-wise by tool
- put the adsorber into the pipe.





Adsorber

ALB-S-3 and ALB-S-5

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