



# Company Presentation

**PLEIGER Industrietechnik GmbH & Co. KG Sprockhövel**

***- System-supplier for innovative technologies of the future -***



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## 1. Company history

### Year

- |      |   |
|------|---|
| 1925 | Establishing an engineering plant by Paul Pleiger in Sprockhövel.<br>Manufacture of air pressure plug valves and fittings for the mining industry |
| 1934 | Manufacturing of pneumatic pumps for the mining industry<br>Construction of a foundry in Herbede(Witten)  |
| 1937 | Begin of the mechanical production at new plant Herbede (Witten)<br>Workforce: 375 employees  |
| 1952 | Start of production of polyurethane elastomers<br>Reaction Injection Moulding (RIM) (Vulkollan®)  |
| 1952 | Establishing the Paul Pleiger Handelsgesellschaft, Sprockhövel  |
| 1955 | Manufacture of coke oven fittings and valves for the control technology   |
| 1957 | Construction of a branch plant in Kiel for the extrusion of thermoplastics  |
| 1958 | Development and manufacture of components for hydraulic systems<br>(radial piston motors, rotary actuators)                                       |



## 1. Company history

Year

- |      |   |
|------|---|
| 1966 | Establishing an electronic department (regulators, controllers, automation of complete systems, process control)          |
| 1969 | Construction of the new plastics plant in Raisdorf, Kiel  |
| 1972 | Changing the legal status of Paul Pleiger Maschinenfabrik to a KG   |
| 1982 | Start of production of centrifugal pumps for raw water  |
| 1983 | Accidental death of Dr. Paul Pleiger jun.<br>Changing the legal status of Paul Pleiger Maschinenfabrik to a GmbH & Co. KG |
| 1985 | Establishing the Pleiger Far East Co. LTD., Pusan, Korea  |
| 1986 | Establishing the Pleiger Plastics Company, Washington, PA, USA  |
| 1990 | Subdivison of Paul Pleiger Maschinenfabrik GmbH & Co. KG into business units, 700 employees.                              |



# 1. Company history

Jahr

- 1995 Establishing the Pleiger Kunststoff Technik GmbH & Co. KG, Buchholz i. d. N.
- 1996 Spin-off of the business units of Paul Pleiger Maschinenfabrik GmbH & Co. KG to legally independent companies:  
 Pleiger Maschinenbau GmbH & Co. KG  
 Pleiger Elektronik GmbH & Co. KG  
 Pleiger Industrie-Kunststoffe GmbH & Co. KG  
 Pleiger Thermoplast GmbH & Co. KG
- 1998 Opening up the business field laser optics
- 2000 Establishing the Pleiger Representative Office, Shanghai / China
- 2001 Establishing the Pleiger Electro Hydraulic Technology, Shanghai / China
- 2003 Merger of Pleiger Kunststoff Technik and Pleiger Industrie-Kunststoffe to Pleiger Kunststoff GmbH & Co. KG



## 1. Company history

Jahr

2004	Start of production and sales of electrically operated control valves
2006	Changing the legal status of Pleiger Handelsgesellschaft to Pleiger Industrietechnik GmbH & Co. KG Product line extension to pneumatically operated control valves
2008	Establishing the Pleiger Electronic Control Systems, Shanghai / China
2011	25 years Pleiger Plastics Company, Washington, PA / USA
2012	Spin-off of the business unit Laseroptics to a legally independent company named Pleiger Laseroptik GmbH & Co. KG
2013	Pleiger Maschinenbau GmbH & Co. KG is decorated as „business partner of the year“ by Meyer Werft
2015	90 years PLEIGER



## 2. Pleiger-Group

**PLEIGER**  
Paul Pleiger Maschinenfabrik  
Witten

**PLEIGER**  
Pleiger Maschinenbau  
Witten

**PLEIGER**  
Pleiger Kunststoff  
Witten

**PLEIGER**  
Pleiger Plastics  
Washington, PA / USA

**PLEIGER**  
Pleiger Electronic Control Systems  
Shanghai / China

**PLEIGER**  
Pleiger Kunststoff  
Buchholz (Hamburg)

**PLEIGER**  
Pleiger Technology  
Washington, PA / USA

**PLEIGER**  
Pleiger Far East  
Busan / Korea

**PLEIGER**  
Pleiger Thermoplast  
Schwentinental (Kiel)

**PLEIGER**  
Pleiger Electro Hydraulic Technology  
Shanghai / China

**PLEIGER**  
Pleiger Industrietechnik  
Sprockhövel

**PLEIGER**  
Pleiger Laseroptik  
Witten

**PLEIGER**  
Pleiger Representative Office  
Shanghai / China

**PLEIGER**  
Pleiger Elektronik  
Witten

**PLEIGER**  
Pleiger Datenservice  
Witten

**PLEIGER**  
Pleiger Berufsausbildungsgesellschaft  
Witten

## 3. Industries

Equipment manufacturer and operators of the following industries use Pleiger products and services:

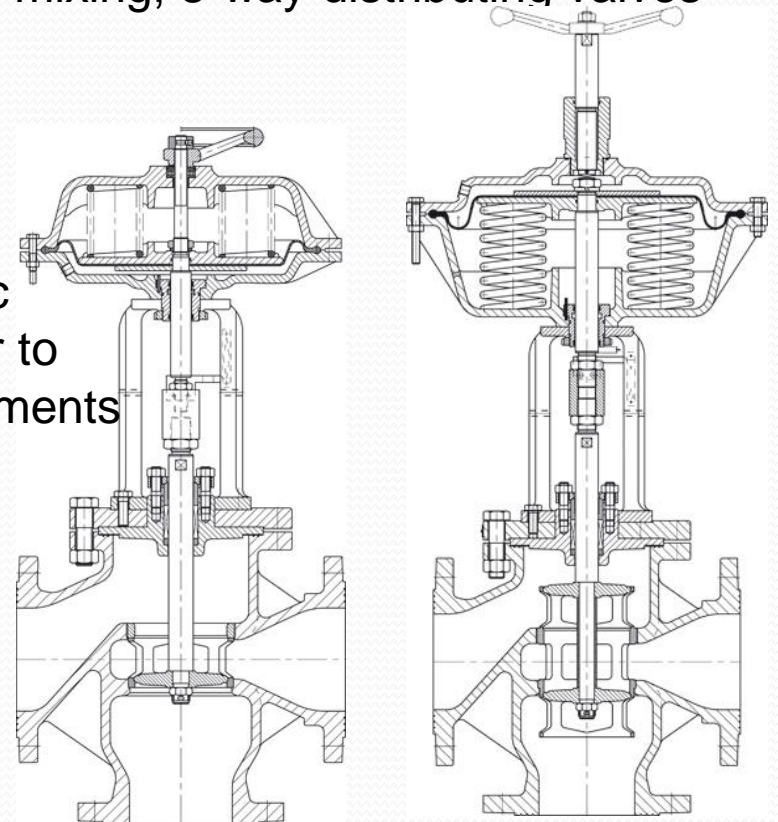
- *automotive*
- *mining*
- *breweries*
- *chemical industry*
- *shipbuilding*
- *power plants*
- *agriculture*
- *dairies*
- *wind power plants*
- *process engineering*
- *building material industry*



## 4.1 Control valves – pneumatically operated (PVR/PVM/PVT)

versions:	straight-way, 3-way mixing, 3-way distributing valves
nominal diameters:	DN 15 - DN 350
nominal pressures:	up to PN 40
max. temperature:	250 °C
control	
characteristics:	linear or logarithmic
Flange connection:	according to DIN or to customer's requirements
materials:	cast iron, nodular cast iron, cast steel, bronze, stainless steel

- additional equipment available:  
positioner, limit switch, solenoid valve
- effective direction reversible
- Fail-safe function



## 4.1 Control valves – electronically operated (MOV)

versions:	straight-way, 3-way mixing, 3-way distributing valves
nominal diameters:	DN 15 - DN 400
nominal pressures:	up to PN 40
max. temperature:	250 °C
control characteristics:	linear or logarithmic
Flange connection:	according to DIN or to customer's requirements
materials:	cast iron, nodular cast iron, cast steel, bronze, stainless steel
- additional equipment available:	potentiometer, electronic positioner, electronic position indication

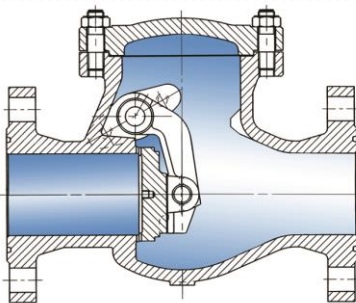
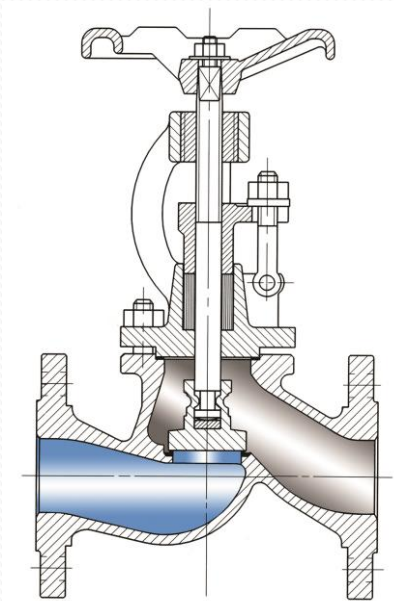
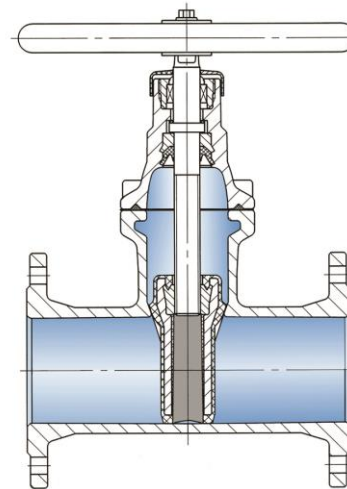


## 4.2 Standard and special valves

for shutting off of gases and liquid media

nominal diameters: DN 3 - DN 1400  
 nominal pressures: up to PN 320

materials: cast iron, nodular cast iron,  
 cast steel, bronze, stainless steel,  
 brass, plastic



## 4.3 Connection technology

from the smallest screw to the largest bolt

### product range:

hexagon bolts,  
cylinder bolts,  
countersunk screws  
flathead screws  
ring bolts and nuts  
locking screws etc.

additionally non-standardized  
screws and nuts as well as tools  
and accessories



## 4.4 Bearing technology

**the entire world of bearing technology**

**product range:**

- grooved ball bearings
- angular ball bearings
- self-aligning roller bearings
- cylindrical roller bearings
- barrel-shaped bearings
- needle bearings
- axial cylindrical roller bearings
- axial self-aligning roller bearings
- axial needle bearings etc.

as well as the entire mounting and service accessories´





## 4.5 Engineering plastics

casted, injection molded, pressed, foamed, extruded

### semi-finished products and prefabricated parts:

Polyamide (PA 6 G, PA 6 E, PA 66)

Polyoxymethylene (POM)

Polyethylenterephthalate (PET)

Polyethylene (PE)

Polypropylene (PP)

Polystyrole (PS)

Polyvinylfluoride (PVF)

Polycarbonate (PC)

Polyurethane (TPU)



## 4.6 Mining and tunneling technology

proven under toughest conditions of everyday life

### product range:

pneumatically operated piston and diaphragm pumps

turbo mixer

pressing device (pump + turbo mixer)

fire fighting systems

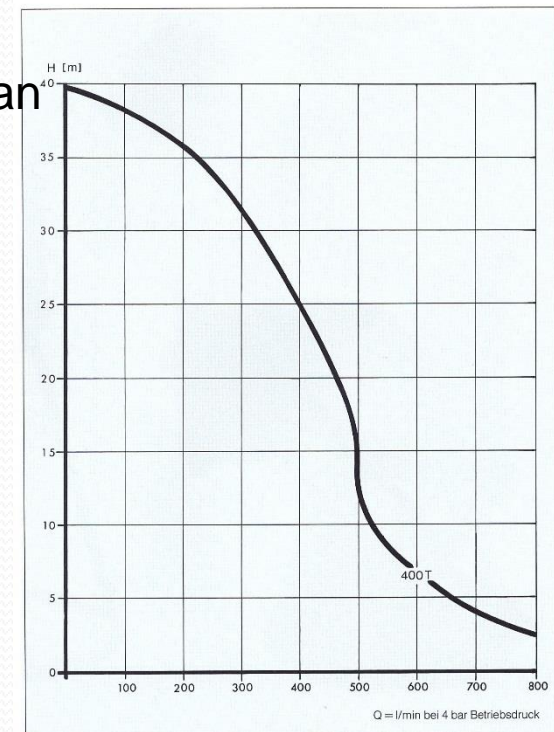
water atomization technology

systems for dust suppression



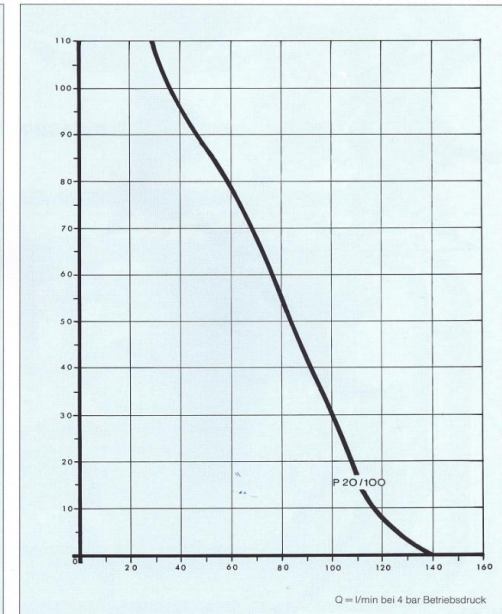
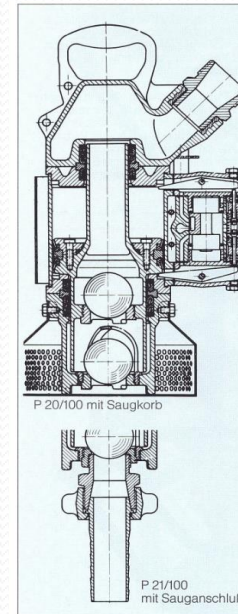
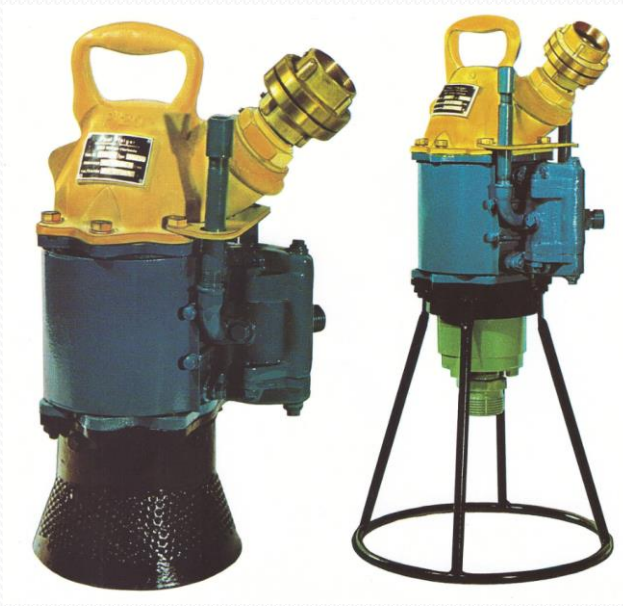
## 4.6.1 Diaphragm pump 400T

- suitable for pumping of mine water, mud, paste and causeway construction materials
- also applicable for abrasive materials
- design with strainer or horizontal/vertical suction connection possible
- input air pressure max. 7 bar
- weight approx. 90kg
- for use in not supervised operating points the pump can be equipped with an indirect float switch control



## 4.6.2 Piston pump P20/100

- suitable for pumping of mine water and paste
- design with strainer or vertical suction connection possible
- weight approx. 38kg, transportable by hand
- input air pressure max. 7 bar
- for use in not supervised operating points the pump can be equipped with an indirect float switch control

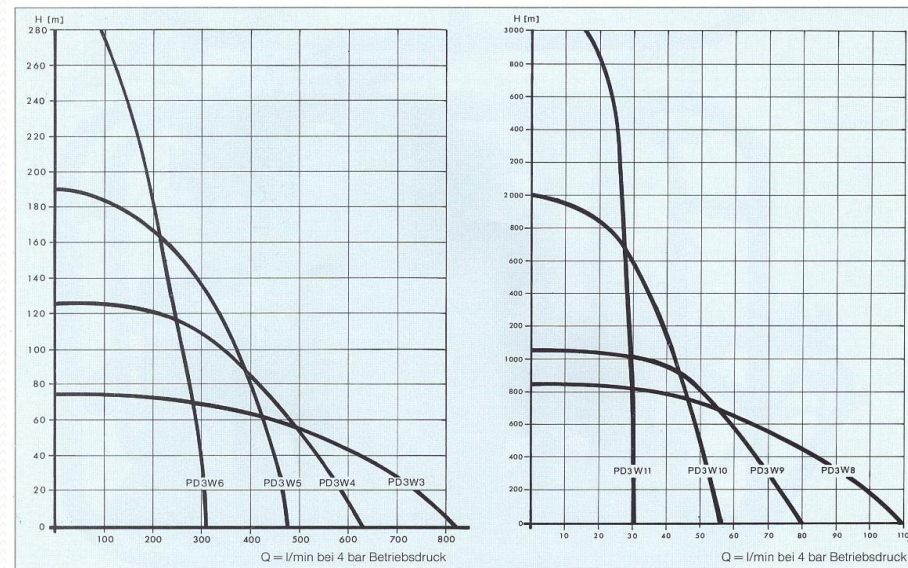


## 4.6.3 High-pressure pump PD3W3-W11

- suitable for pumping of mine water, mud, paste and causeway construction materials and in conjunction with a turbo mixer for grouting and injection work
- configuration of pumps according to a modular system allowing a simple reconstruction to other conveying capacities
- weight up to approx. 450 kg
- secure transport guaranteed due to retaining pockets for fork lift
- for use in not supervised operating points the pump can be equipped with an indirect float switch control



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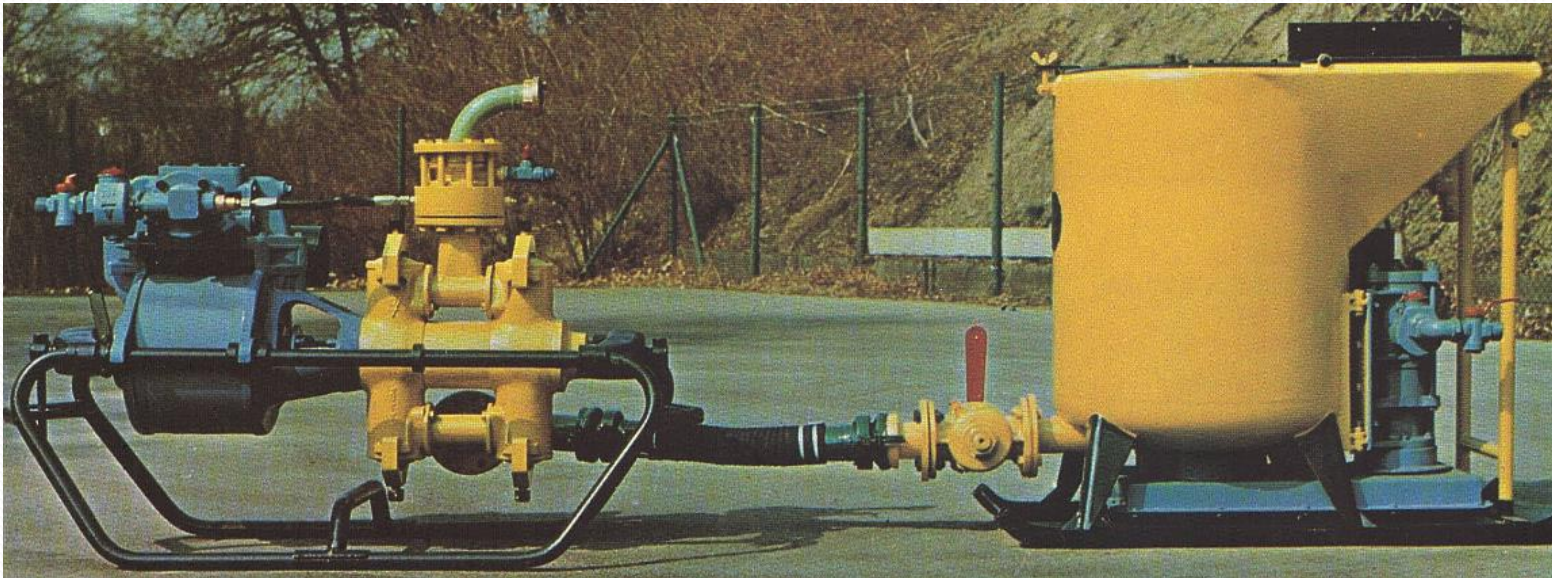
## 4.6.4 Turbo mixer

- suitable for mixing dam materials
- can be operated alternatively with electric or pneumatic motor
- can be deployed as batch- or continuous mixer
- feeding can be carried out by hand with bagged goods or by a silo
- secure transport guaranteed due to retaining pockets for fork lift
- 350 liter holding capacity
- weight approx. 400 kg (empty)



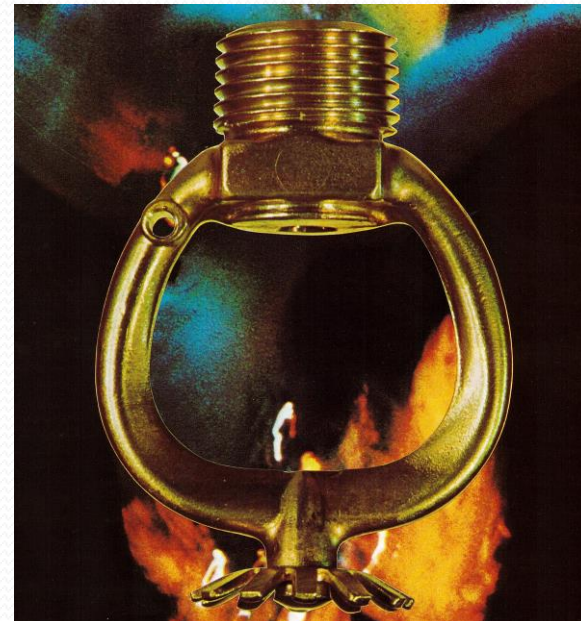
## 4.6.5 Grouting unit

- consisting of a turbo mixer and pump of the PD-series
- mixed material can be directly taken from the container and grouted or respectively injected
- to monitor the grouting pressure the pump can be equipped with an indirect controllable cut-off device



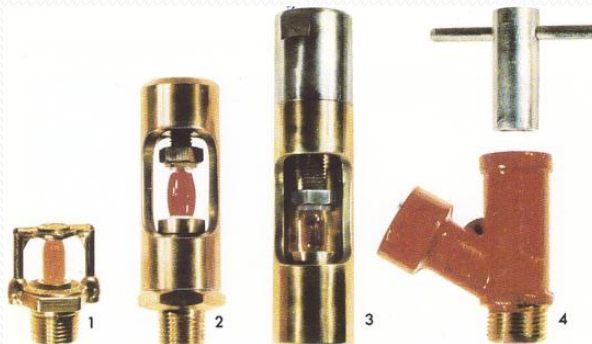
## 4.6.6 Automatic fire extinguishing equipment

- automatic fire extinguishing equipment working with water
- for underground mining i.e. roadways, blind shafts, locomotive garages and conveyor belt drives
- equipment works automatically without any other kind of energy supply
- ordinary and individual layout possible because of the design in a modular system



## 4.6.6 Automatic fire extinguishing equipment

- LOBA NRW accreditation
- thermal triggers for different triggering temperatures (57°C up to 141°C) and different pressures (up to 100 bar) available
- extinguishing nozzles with different characteristics (head nozzles, cooling nozzle, full cone nozzles) and different flow-rate (from 3 l/min to 100 l/min) available

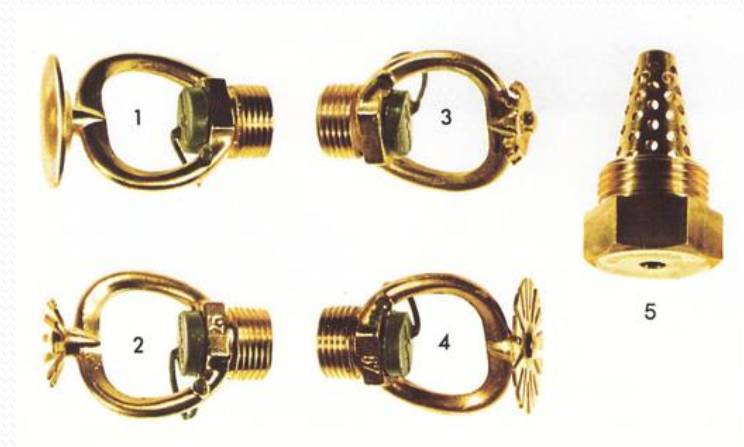


### Trigger:

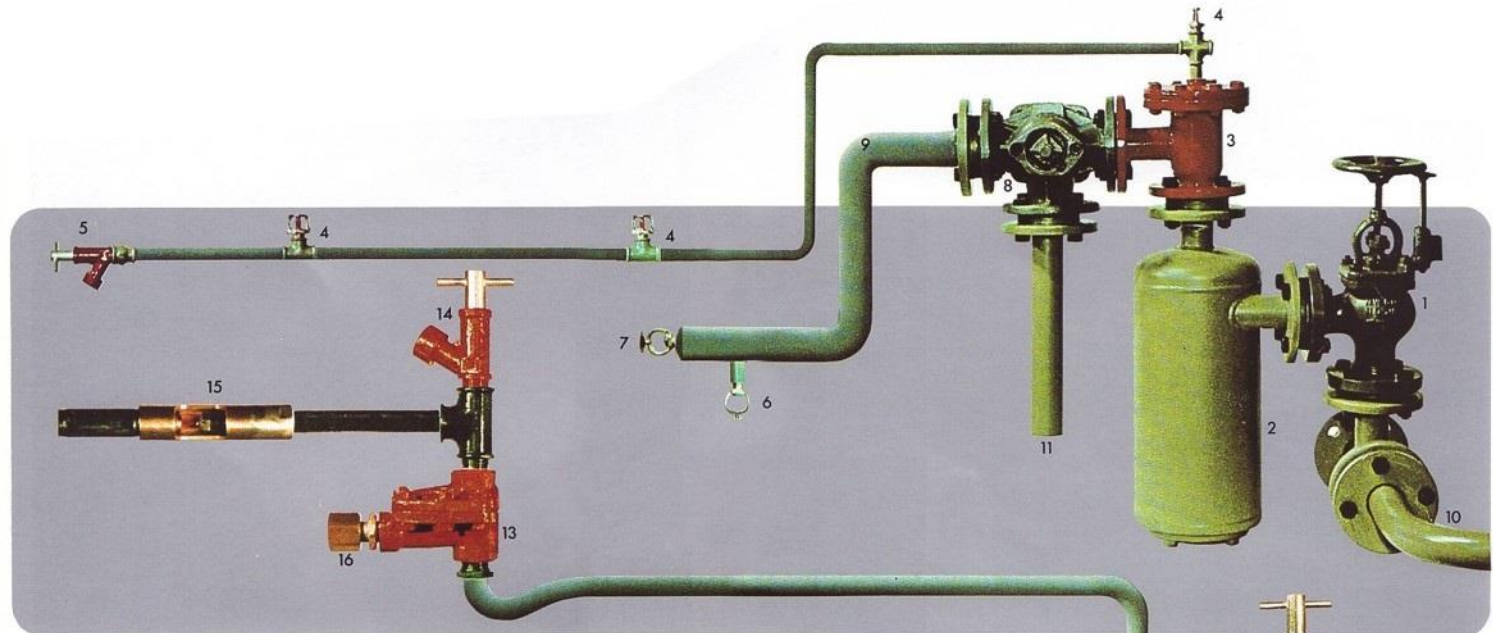
- 1) Trigger B2A-16Z (Releasing device 20 bar)
- 2) Trigger B2A-24Z (Releasing device 100 bar)
- 3) Trigger B2A-15Z (for installation in conveyor belt)
- 4) Hand operated releasing device B2A-7Z

### Nozzles for automatic fire extinguishing systems:

- 1) Head nozzle B2A-17Z
- 2) Cooling nozzle B2A-18Z
- 3) Extinguishing nozzle B2A-19Z and B2A-20Z
- 4) Extinguishing nozzle B2A-48Z
- 5) Cone nozzle B2A-41Z



## 4.6.6 Automatic fire extinguishing equipment

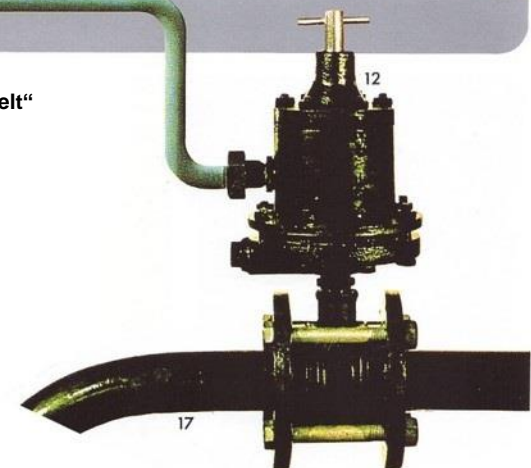


functional schematic:  
„ automatic fire extinguishing unit for road ways“

- 1) shut-off valve
- 2) strainer
- 3) control valve
- 4) trigger
- 5) hand operated releasing device
- 6) cooling nozzle
- 7) head nozzle
- 8) three way test valve
- 9) extinguishing pipe
- 10) water supply
- 11) test water outlet

functional schematic:  
„ automatic fire extinguishing unit for conveyor belt“

- 12) strainer with shut-off valve and check valve
- 13) control valve
- 14) hand operated releasing device
- 15) trigger
- 16) extinguishing nozzle
- 17) water supply



## 5. contact details

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