

■ **Globe Control Valves**



steady

safe

economic

Exner valves have proven themselves in the field of process engineering for over 30 years. As early as the sixties, Exner developed the first globe control valve made of plastic, laying the foundations for the product range of these control valves and special valves.

Today these valves are manufactured and advanced by FRANK

Application areas such as the chemical and pharmaceutical industries, steel pickling, chlorine chemistry and water conditioning clearly highlight the advantages of our all-plastic valve technology.



**Steady
Experience and Innovation**

These valves are manufactured in a modern production facility in Mörfelden which has been certified to EN ISO 9001. Only tested and certified materials are used. CAD-based design along with differentiated process data monitoring ensure the best possible control valve designs for successful application at our customers' plants.

**Economic
Reliable products with long service life,
competent advice and excellent service**

The degree of automation of a plant defines the scope of accessories for control valves. Besides supplying appropriate accessories FRANK's services also include straightforward procurement of spare parts.

**Safe
Valves with extra-thick walls
PTFE bellows ensure that the
stem is completely sealed**

PTFE, developed in the USA and better known as Teflon®, is resistant to virtually all chemicals. Due to its excellent mechanical properties and chemical stability FRANK uses a specially modified PTFE. The type Dyneon™ TFM™ 1600 PTFE is especially characterized by a lower cold flow and higher resistance to permeation. Other special materials, such as conductive plastics, round off the range of materials used.

Each valve is checked for proper working order and to rule out leakage. Material and inspection certificates are supplied according to EN 10204.

Overview



Type 610
On-Off -Valve,
DN 15 to DN 100



Type 620
Pressure relief valve,
DN 15 to DN 100



Type 630
Manual control valve
DN 15 to DN 100



Type 640
Control valve
with electrical
or pneumatic
actuator
DN 15 to DN 100



Type 650
Control
Motorised control
valve with pneumatic
or electrical actuator
DN 15 to DN 100

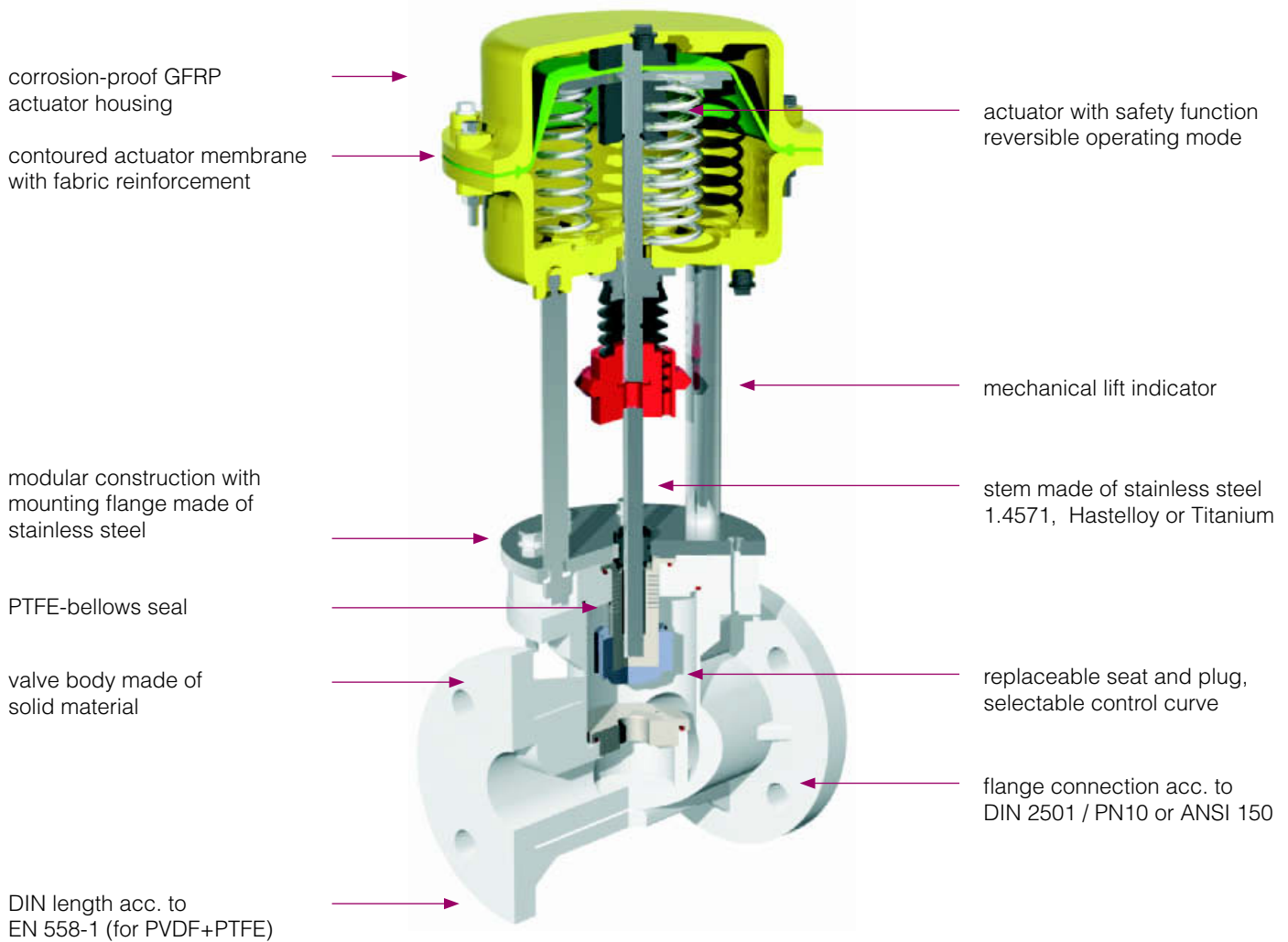


Type 680
Milk of lime control
Motorised control
valve with pneumatic
or electrical actuator
DN 25 to DN 80

Description/ Function	valve series	Available materials				Stainless steel 1.4404/4571	Construction and sealing system			Actuator type			Extras and accessories
		moulded body	PP	PVDF	PTFE		PTFE- bellows	Packing box	Nominal diameter DIN/ANSI	Manual or under pressure of medium	Pneumatic	Electrical AC/DC	
ON / OFF valve	610	●	●	●	●		●		15 - 100		piston actuator		limit switch solenoid valve
Pressure relief valve	620	●	●	●	●		●		15 - 100	●			
Manual control valve	630	●	●	●	●		●		15 - 100	●			
Control valve	640	●	●				●		15 - 100		actuator K220, K330	24 / 115 / 230 V	limit switch interface for PC /field bus potentiometer positioner
	650			●	●		●	⊙					
Milk of lime control valve	680					● Plug /seat CR N- covered		●	25 - 80		actuator K220, K330	24 / 115 / 230 V	limit switch interface for PC /field bus potentiometer positioner

⊙ on request

Design characteristics



Product characteristics create advantages for your benefit
Proven, high-quality plastics Certified materials	Optimum resistance to chemicals	High level of safety No rustproofing necessary
Thick-walled plastic body	Increased permeation resistance Longer service life	No leakage or external corrosion
Bellows seal made of PTFE (or Hastelloy)	100% seal to stem	Maintenance-free sealing, prevents material leakage
Metallic reinforcement of valve in the case of PTFE and for high pressures	Plastic valves for operating pressures up to 16 bar	Expansion of application area
Downstream safety packing box in accordance with "TA-Luft Germany"	Extra safety for small molecules of sensitive materials such as chlorine	Wide range of possible applications, e.g. exposed areas
Actuators made of plastic (GFK)	Corrosion-proof housing	Reduction of maintenance costs, highly economical
Installation of positioner in accordance with NAMUR	Free choice of makes, easy installation	Varied options of automation

The control trim set forms the heart of the control valve and consists of the plug head with its characteristic curve and the defined seat. We manufacture this trim set from the same materials as used in the body or from special materials such as Hastelloy C4 or titanium.

To seal off components subject to static load O-rings made of EPDM or FPM, or Teflon-coated rings are used. The most important seal to the stem is the maintenance-free bellows made of PTFE.

PVC
Polyvinylchloride

PP
Polypropylene

PVDF
Polyvinylidene fluoride

PTFE
Polytetrafluoroethylene

FKM
Viton® FPM

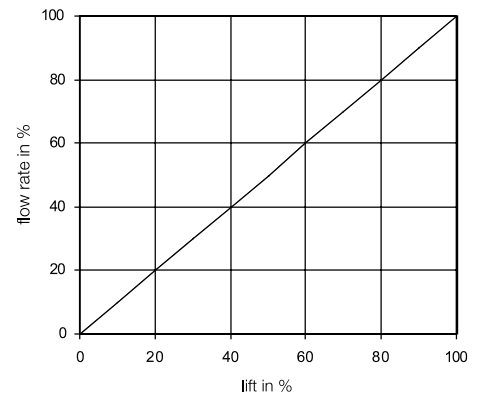
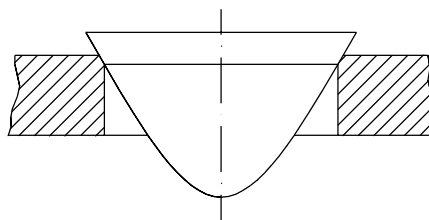
FEP/FKM
FEP encapsulated Viton®-Ring

Kalrez®

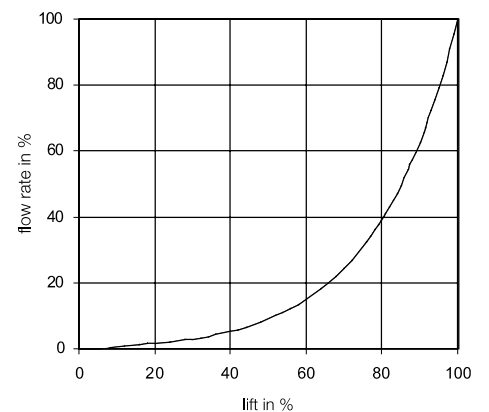
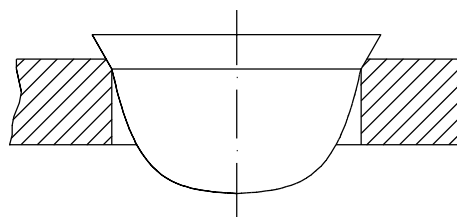


Exner valves provide the possibility to choose different regulating characteristics and selectable Cvs – values; this enables selection of an ideal control valve for any application.

Linear characteristics



Equal characteristics



Actuator housing made of GFRP

The distinctive valve body construction made of solid plastic is enhanced by a sophisticated actuator design. The actuator housing is made of fibre-glass reinforced polyester resin for high mechanical durability. The construction of both corrosion-resistant housing covers is reversible to allow the operating mode to be reversed. The housing holds the colour-coded sets of springs which are necessary for the two safety settings - "Spring OPEN (NO)" or "Spring CLOSED (NC)".

The Exner actuator model K 220 is used for small nominal diameters up to size DN 50, while model K 330 is used for larger nominal diameters DN 65 up to size DN 100. Should the control medium fail, both guarantee actuation of the control valve to the safety position in question.

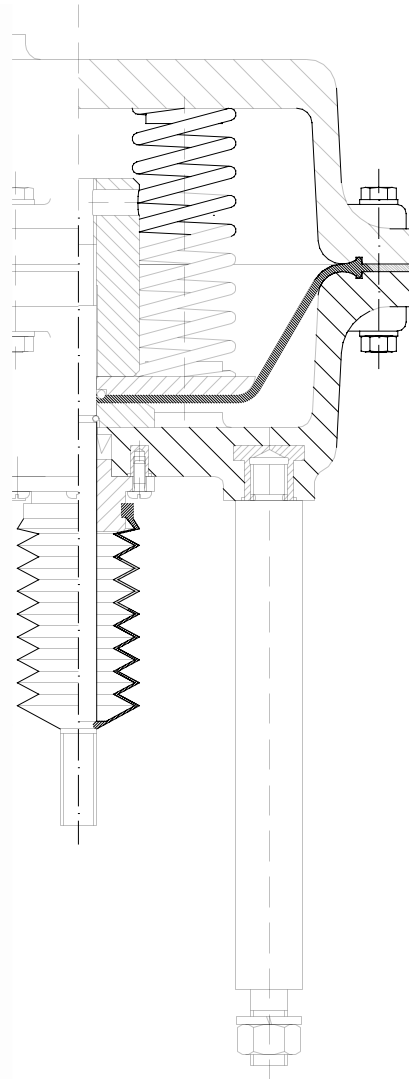
The fabric-backed seal diaphragm has certainly proved its worth. A contoured rim on the rubber diaphragm behaves like an O-ring, preventing the control air from being released via the seal surfaces of the actuator diaphragm.

Advantages

- **Stable, corrosion-free housing made of duroplastic**
- **Air-tight and tear-resistant diaphragm for set pressure of 6 bar**
- **Controller installation according to NAMUR**



Type K220



Complete Plastic Pipeline Systems

Plastic Piping Systems

- made of PE, PP, PVDF and ECTFE from PN 1 up to PN 20 for butt welding, socket or electro fusion socket welding from d 16 mm up to d 1400 mm
- special materials: electroconductive, hardly inflammable
- piping systems for gas and water applications
- Sureline®II Pipes without sand embedding
- industrial piping systems for chemicals, pure water, compressed air
- spiral pipes made out of PE and PP from d 300 up to d 3500
- double containment piping systems for enhanced safety materials for media and protection pipes are free/open combined
- geosynthetics for pipe protection in underground installations



Disposal Systems

- PKS - the Profiled Sewer Piping System made out of PE up to ND 3500 mm with bright inner surface and electrofusion socket up to ND 2000 mm
- PKS manholes and storage sewers
- Sure Grip® Concrete Protective Liners out of PE, PP, PVDF and ECTFE for tank and sewerage lining up to 12 mm thickness, also as double sealing system

Valves, Control and Monitoring Systems

- hand-operated and actuated valves from DN 15 mm up to DN 2500 mm available in the following materials PP, PVDF, PVC-U, PVC-C
- high pressure resistance even at higher temperatures
- valves in high purity quality, e.g. T-diaphragm valves, diaphragm valves, ball valves, lab cocks
- measurement and control technology for sophisticated use according to the latest regulations of DIN, NAMUR and VDI
- leakage monitoring with sensor or sensor cable
- special valves and solutions for nearly any application based on long experience
- EXNER control valves



Welding Technology

- CNC controlled construction site and workshop machines with data recording
- polymatic® welding device for welding of all common PE electro fusion fittings with data recording
- welding extruder with electronic control and display of mass and air temperature
- high purity welding technology for non contact butt welding (IR) for the materials PVDF, ECTFE, PFA and PP

Our service

i Do you need technical support, or have any questions about plastic pipe systems, fittings, installation guidelines, inspection certificates, plastic welding etc., then please do not hesitate to contact us or visit our internet homepage.



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