

## GLOBE VALVES FOR CONTROL AND ON-OFF OPERATION

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## 1. Introduction

A Globe valves is a linear motion valve and are primarily designed to stop, start and regulate flow. The disc of a Globe valve can be totally removed from the flow path or it can completely close the flow path.

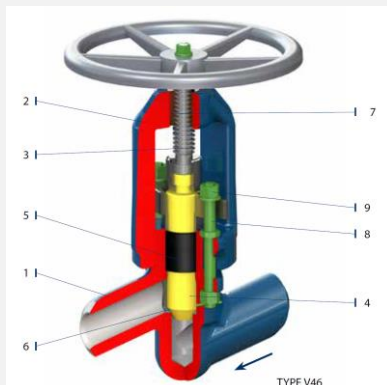
Conventional Globe valves may be used for isolation and throttling services. Although these valves exhibit slightly higher pressure drops than straight-through valves (e.g., gate, plug, ball, etc.), they may be used where the pressure drop through the valve is not a controlling factor.

Generally, the maximum differential pressure across the valve plug should not exceed 20 percent of the maximum upstream pressure or 200 psi (1380 kPa), whichever is less.

Globe valves (ET-000V46EX) are industrial valves designed to open or close the service fluid flow fully. Control (ET-000V40EX) valves are used to regulate flowing fluid. Both types are used especially in power engineering, chemical industry as well as other industries putting great demands on functionality at high pressures and high temperatures

### 1.1 Technical description ET-000V46EX y ET-000V40EX

The valve has a one-piece body which can be a forged or a cast depending on nominal size and nominal pressure. The yoke-type bonnet is also cast or forged and connected with the body by means of a bolted or flanged joint. The seat and the disc are hard faced. The disc is made as either a plug type disc (valves ET-000V46EX) or a regulating disc (valves ET-000V40EX). Valves with regulating disc have a linear regulating characteristic. Tightness is achieved by means of special graphite gaskets and packing rings. Tightness of the stem of valve type ET-000V46.6 is achieved by a bellow. The valves are designed as to be earthquake resistant.



Pos	Component
1	Body
2	Bonnet
3	Top stem
4	Bottom stem
5	Packing
6	Seat
7	Stem nut
8	Bolts
9	Nuts

### 1.2 Applications

- Water
- Steam
- Gas
- Seawater
- Other fluids

### **1.3 Operation**

Globe valves can be operated by:

- Manual (hand wheel or chain wheel)
- Electric actuator
- Pneumatic actuator
- Hydraulic actuator
- External located actuator

Locking device is installed as standard

On request a position indicator can be adapted

### **1.4 Connection to the pipe**

Valve with flanged ends according to EN 1092-1, ISO 7005-1

Valves with weld ends according to EN 12627

Other type of connections upon request

### **1.5 Test**

Valves are subject to following tests according to EN 12266 performed with water:

- Shell strength test
- Shell tightness test
- Seat tightness test
- Functional test

Other tests on request

### **1.6 Installation**

Valves may be installed in any position. The flow direction shall correspond to the arrow on the valve body.

## **2. Control globe valves, type ET-000V46EX, ET-000V40EX**

### **2.1 Type ET-000V46EX, ET-000V40EX**

#### **Sizes**

DN 15 up to DN 200

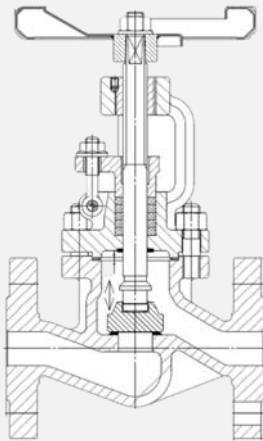
#### **Pressure class**

PN 16 up to PN 40

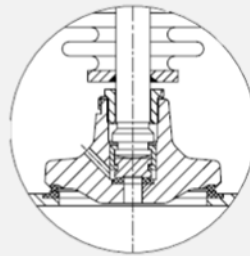
\*Maximum operating temperature: 450°C (Optional 600°C)

## Materials

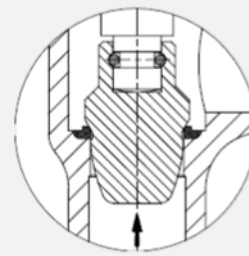
Component	450°C	530°C	560°C	600°C
Body, bonnet	1.0619	1.5419	1.7357	1.4408
Seat	Cr13	Cr13 + stellite		A182 F316 + stellite
Disc DN 15-32	Cr13	1.5415	1.7335	1.4401
Disc DN 40-200	1.0460	1.5415	1.7335	1.4408
Disc ring	Cr13	Cr13 + stellite		A182 F316 + stellite
Stem	Cr13			A182 F316
Gasket	Graphite with SS inserts			



DN 125-200



Equilibrant disc



Throttle plug

## 2.2 Type ET-000V46EX, ET-000V40EX

### Sizes

DN 10 up to DN 200

### Pressure class

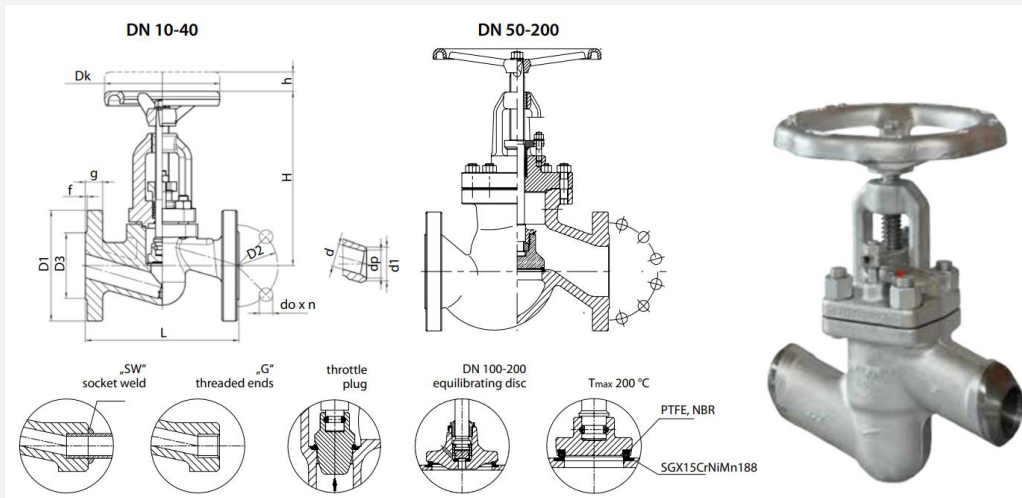
PN 63 up to PN 100

\*Maximum operating temperature: 450°C (Optional 560°C)

### Materials:

Component	450°C	530°C	560°C	Other versions
Body bonnet DN15 / 40	1.0460	1.5415	1.7335	1.0460 / 1.5415 / 1.7335
Body bonnet DN 50 / 200	1.0619	1.5419	1.7357	1.0619 / 1.5419 / 1.7357
Seat	Cr13	Cr13 + stellite		Cr13 / PTFE / NBR
Disc DN 15 / 50	1.0460	1.5415	1.7335	X30Cr13 / 1.7335
Disc DN 65 / 200	1.0460	1.5415	1.7335	1.0460 / 1.7335
Disc ring	Cr13	Cr13 + Stellite		Cr13 / PTFE / NBR
Stem	Cr13			1.4923
Gasket	Graphite with SS inserts			

\* We recommend Stellite overlay for steam as a medium (Trim.5)



## 2.3 Type ET-000V46EX, ET-000V40EX

### Sizes

DN 10 up to DN 200

### Pressure class

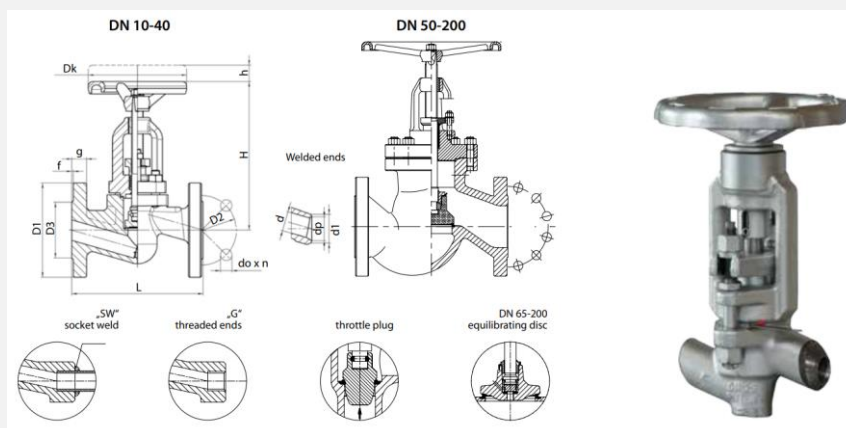
PN 160

\*Maximum operating temperature: 450°C (Optional 560°C)

### Materials:

Component	450°C	530°C	560°C	Other versions
Body bonnet DN15 / 40	1.0460	1.5415	1.7335	1.0460 / 1.5415 / 1.7335
Body bonnet DN 50 / 200	1.0619	1.5419	1.7357	1.0619 / 1.5419 / 1.7357
Seat	Cr13	Cr13 + stellite		Cr13
Disc DN 15 / 50	1.4028	1.4028	1.7335	X30Cr13 / 1.7335
Disc DN 65 / 200	1.0460	1.5415	1.7335	1.0460 / 1.7335
Disc ring	Cr13	Cr13 + Stellite		Cr13 + stellite
Stem	Cr13			1.4923
Gasket	Graphite with SS inserts			

\* We recommend Stellite overlay for steam as a medium (Trim.5)



## 2.4 Type ET-000V46EX, ET-000V40EX

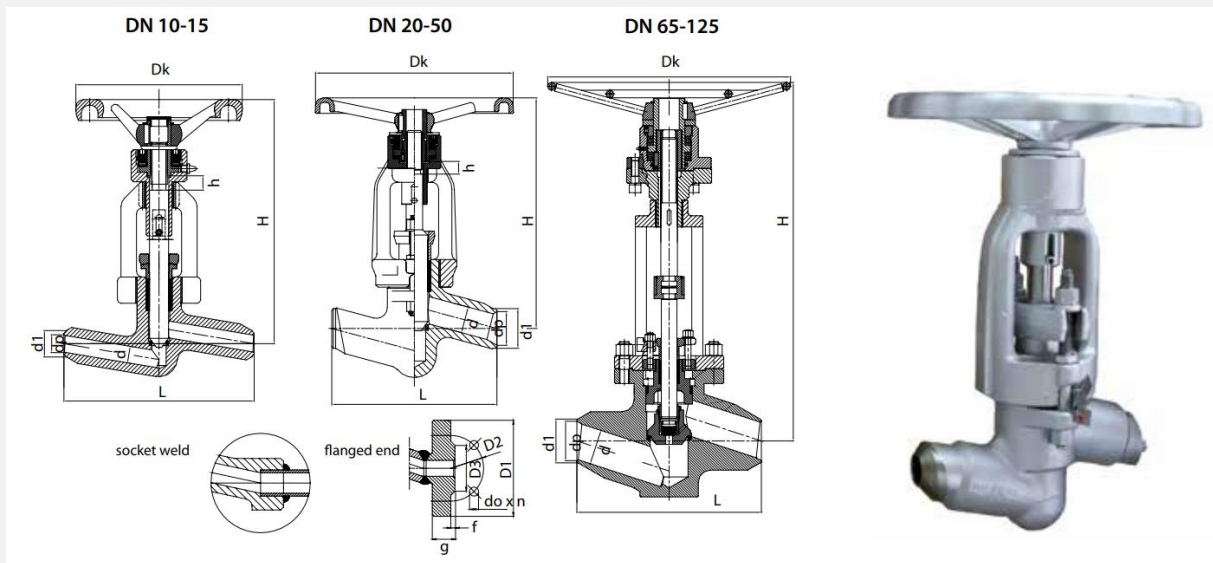
### Sizes

DN 10 up to DN 125

### Pressure class

PN 250 up to PN 420

\*Maximum operating temperature: 450°C (Optional 670°C)



### Materials:

Component	450°C	530°C	560°C	600°C	570°C	670°C
Body	1.0460	1.5415	1.7335	1.7383	1.7715	1.4903
Bonnet	DN15-25: 1.7335 / DN 32/125: 1.7357					
Stem	1.4122 / 1.4923					1.4923
Disc	1.0460	1.5415	1.7335	1.7383	1.7715	1.4903
Seat	Titanium VT9	Stellite				
Upper stem	1.4057 / 1.4122					1.4923
Gasket	Graphite					
Packing	Graphite					

## 3. Globe valves type ET-000V46.6EX with bellows

### Sizes

DN 15 up to DN 200

### Pressure class

PN 63 up to PN 160

\*Maximum operating temperature: 450°C (optional 550°C)

### Materials:

Component	450°C	530°C	560°C	450°C	530°C	550°C
	DN 15 / DN 40			DN 50 / DN 200		
Body, bonnet	1.0460	1.5415	1.7335	1.0619	1.5419	1.7357
Packing seat ring	Cr13	Cr13 + stellite		Cr13	Cr13 + stellite	
Disc	1.0460	1.7335		1.0460	1.7335	
Disc ring	Cr13	Cr13 + stellite		Cr13	Cr13 + stellite	
Stem	Cr13					
Gasket	Graphite with SS inserts					

