

**BA26E002**



# **User manual and Maintenance Instructions**

## **ERHARD – Resilient-seated Gate Valve DN 400/500**

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These operating instructions must always be used in combination with operating instructions BA01E001!

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## Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

### 1 Description of Function

#### 1.1.0 ERHARD- Resilient-seated Gate Valve, oval valve

DIN 3352- 4B PN10	260 . . . 010	3. 64714 (DN 400)	3. 64715 (DN500)
DIN 3352- 4B PN16	260 . . . 016	3. 64714 (DN 400)	3. 64715 (DN500)

overall length R15 EN 558-1  
with flanges

#### 1.1.1 ERHARD- Resilient-seated Gate Valve, overall length

DIN 3352- 4A PN10	260 . . . 010	3. 64714	(DN 400)
DIN 3352- 4A PN16	260 . . . 016	3. 64714	(DN 400)

DN 500 in short overall length not available

overall length R14 EN 558-1  
with flanges

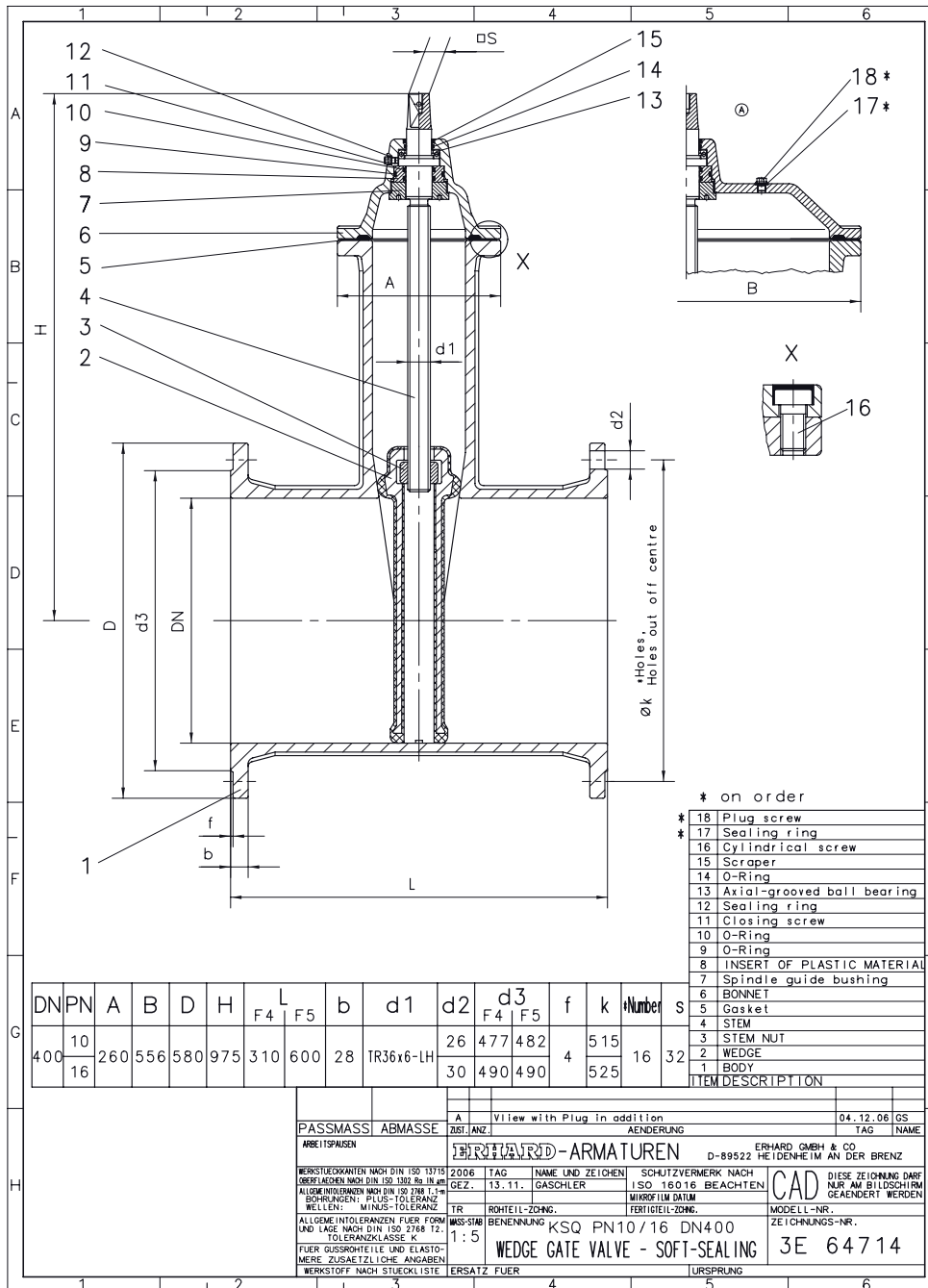
#### Pressures

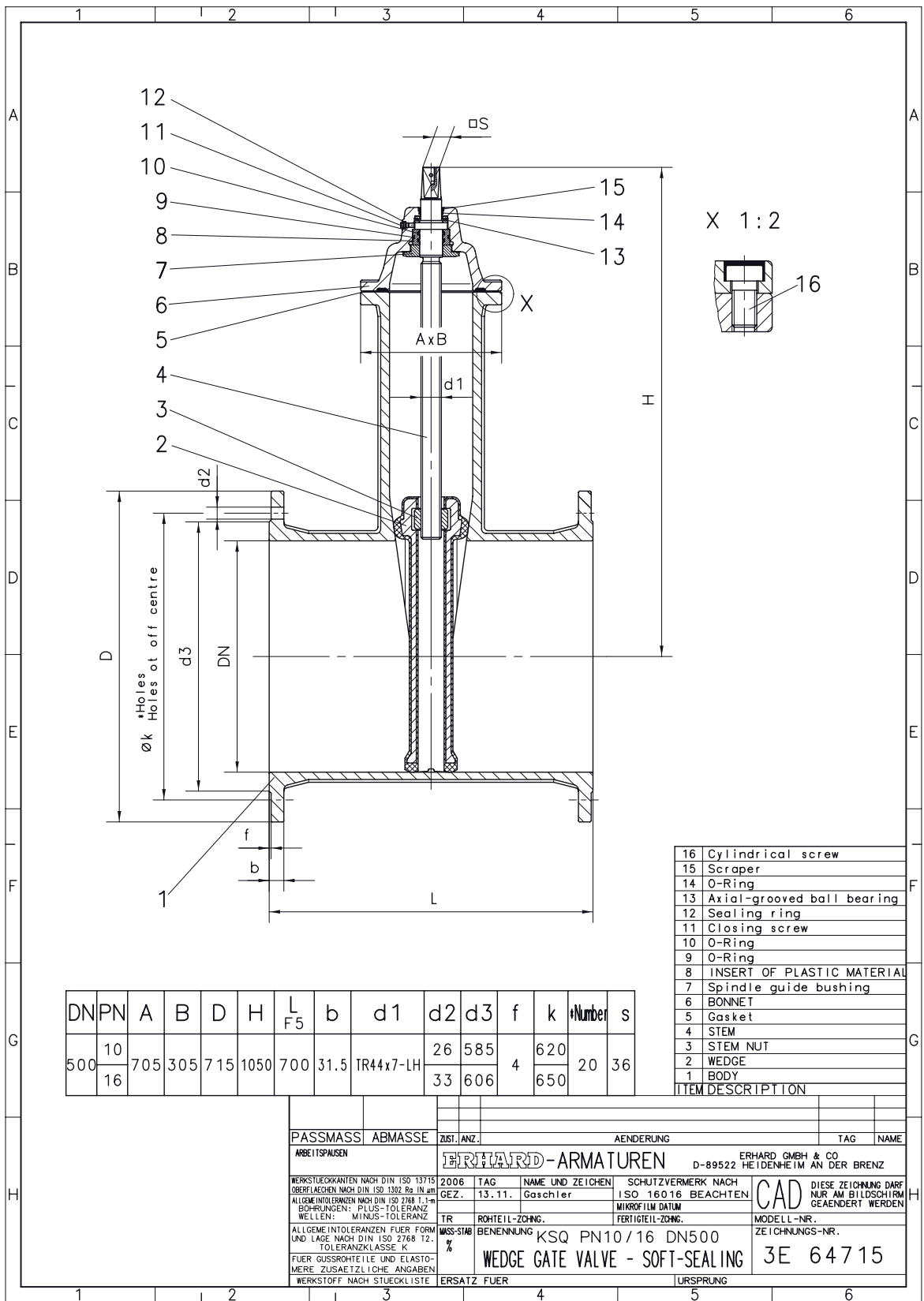
Product-no.	Nominal width	PN 10 16	Material			Water pressure test [bar] for housing end plate		Permissible pressure. in [bar] at operating temperature < 70° C
			PFA [bar] 10 16	PMA [bar] 12 20	PEA [bar] 17 25			
260...010	400/500					17	11	10
260...016	400/500					25	17.6	16

The valves are tested at the manufacturer's site for strength and tightness according to DIN EN 12266 and DIN EN 1074. They may be used in any flow direction.

# Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

## 1.2 Design features





16	Cylindrical screw
15	Scraper
14	O-Ring
13	Axial-grooved ball bearing
12	Sealing ring
11	Closing screw
10	O-Ring
9	O-Ring
8	INSERT OF PLASTIC MATERIAL
7	Spindle guide bushing
6	BONNET
5	Gasket
4	STEM
3	STEM NUT
2	WEDGE
1	BODY
ITEM DESCRIPTION	

DN/PN	A	B	D	H	L F5	b	d1	d2	d3	f	k	#Number	s
500	10	705	305	715	1050	700	31.5	TR44x7-LH	26	585	4	620	20
	16								33	606		650	36

PASSMASS	ABMASSE	ZUSL. ANZ.	ÄNDERUNG		TAG	NAME
ARBEITSPAUSEN		<b>ERHARD-ARMATUREN</b>		ERHARD GMBH & CO D-89522 HEIDENHEIM AN DER BRENZ		
WERKSTÜCKKANTEN NACH DIN ISO 13715	2006	TAG	NAME UND ZEICHEN	SCHUTZVERMERK NACH ISO 16016	BEACHTEN	
OBERFLÄCHEN NACH DIN ISO 1302, Ra 1,6	GEZ.	13.11.	Gaschler	CAD		
ALLGEMEINTOLERANZEN NACH DIN ISO 2768 T, 1mm	BOHRUNGEN: PLUS-TOLERANZ		WELLEN: MINUS-TOLERANZ		TR	
ALLGEMEINTOLERANZEN FUER FORM UND LAGE NACH DIN ISO 2768 T2, TOLERANZKLASSE K		WISS-STAB		BENENNUNG		KSQ PN10/16 DN500
FUER GUSSRHEILE UND ELASTOMERE, ZUSÄTZLICHE ANGABEN		ERSATZ FUER		URSPRUNG		WEDGE GATE VALVE - SOFT-SEALING
WERKSTOFF NACH STUECKLISTE						3E 64715

## Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

### 1.3 Description of function

ERHARD- Resilient-seated Gate Valves are gate valves for „OPEN-CLOSE“-operation. They meet the normative requirements of DIN 3352, part 4 and part 13. By rotating for example the hand wheel or square cap to the right, clockwise, the valve will be closed.

### 1.4 Intended use

The Resilient-seated Gate Valves are used in the areas (see BA01D001 item 1.2.2) because of their design.

### 1.5 Permissible mode of operation

The valve is operated by hand wheel, chain wheel or 4kt without any need of extensive forces.

At usage in technically pure liquids, such as drinking water, flow speeds of up to 4 m/s are possible at fully open gate valve.

### 1.6 Not permissible operating mode

Long-term operation in throttled position leads to higher wear. This type of gate valve is suitable for „OPEN-CLOSE“-service. For explicit regulation service special valve types have to be used. Extension of the operating elements, for example by means of levers or similar are not allowed.

Do not exceed limiting values of the flow medium temperature.

Do not exceed limiting values of the operational pressure.

Closed valve may only be charged up to the nominal pressure.

If you are equipping the Erhard-Resilient-seated Gate Valve with EPDM-gaskets, the EPDM-parts may not come in contact with oil or grease, since EPDM swells up.

For hot media there is exposure to burning injuries. Isolate valve at site against heat.



**+ Extension of the operating elements, for example by means of levers or similar are not allowed – risk of damage!**

# Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

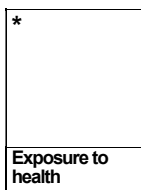
## 1.7 Installation in the pipe line

Remove all packing materials from the valve. In order to protect the valve against damages they must be moved with suitable lifting gears, such as wide straps. Avoid chains and ropes. Check pipe line prior to installation on debris and pollution and clean it if necessary. The valves are installed with their stem in vertical position. For technically pure media the installation position is freely selectable. Please ensure to leave all around the valve free space for operation and maintenance access. For outdoor installation, the customer has to protect the valve against direct influence of the weather.



**Warnung**

**Warning**  
Observe the applicable safety regulations according to VGB 9a and wear the required personal protection equipment.  
**Risk of injury**



### **Warning**

During transportation or installation, respectively, of the valves, there might be risks for your health if not using load support means.



**Vorsicht! Quetschgefahr**



Schutz-  
handschuhe  
benutzen

During the functional test (pneumatic or electric) of the gate valve, there might be a risk for squeezing your fingers while operating the gate valve.

## Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

### 1.7.1 Installation “Flange valve“

Valve manufacturing no. 260....

Steel reinforced rubber gaskets are recommended for flange gaskets. During installation of the valve the distance between the pipe line flanges should be at least 20 mm or more than the overall length of the valve, in order not to damage the working strips, and the gaskets can be inserted.

The pipe line counter flanges have to be plane-parallel and concentric. The jointing bolts must be mounted equally (tension free) and have to be tightened crosswise. The pipe line has to be installed tension free.

See also installation guide line according to  
DVGW-work sheet W332, part IV and DIN 19630.



# Operating Instruction ERHARD-Resilient-seated Gate Valve DN 400/500, 4kt, HR-operating

## 2. Servicing

### 2.1 Maintenance

ERHARD-Resilient-seated Gate Valves are maintenance free. We have however no influence on the material characteristics of the flow media and recommend for flow media which tend to built up residues and incrustations, the installation of resilient-seated gate valves with ERHARD enamel coating.

An inspection for functionality and tightness should be performed regularly at least every 4 years according to DVGW instruction leaflet W 392.

Recommended grease:  
Klübersynth VR69-252

Fa. Klüber Lubrication, Munic



### WARNING

**Prior to maintenance works the pressure pipes should be released from pressure and secured against restarting with pressure!**

**After completing the maintenance works all joints have to be checked for tightness and solid mounting**



Gefahr

### DANGER

**If hazardous liquids, materials, gas and vapors escape, the plant has to be shut down immediately, the responsible supervisor has to be notified and appropriate repair measures have to be taken.**

**A personal protection equipment according to the regulation of the professional association must be used. According to the flow medium there is a danger of poisoning, cauterizing, scalding and by biological and micro biological materials, as well as fire and explosion risk!**



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