

# SIEKMANN ECONOSTO

An **ERIKS** Company



More than just a supplier.

## Gate Valves



## Versions

# Siekmann Econosto – product excellence and much more

We are a highly motivated, experienced team that sees itself as a manufacturer and problem solver with a focus on 100% precision. Relationship based on partnership and fair treatment of customers, employees and other business partners is a top priority for us. We advise our domestic and international customers and supply them with our high-quality valves for plant, pipeline and boiler construction. Our customers include operators of power plants, oil and gas plants and chemical plants. We also offer flexible, reliable and sustainable solutions for special customer requirements.

### DIN Valves

The series of DIN Valves developed by Siekmann Econosto also includes high-quality Gate Valves. These are available in a wide range of variants and designs and conform to the Pressure Equipment Directive (PED), AD 2000 Merkblätter, TA-Luft & DIN EN ISO 15848 as well as the factory standards and technical regulations of plant operators and construction companies.



## Product description

# Applications, approvals and descriptions

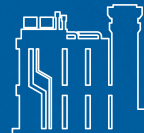
From the selection and use of materials to production, testing and inspection, the DIN Gate Valves conform to the European Pressure Equipment Directive and applicable standards.



Power plants



Oil and  
gas plants



Petrochemical and  
chemical plants

The requirements of the European Pressure Equipment Directive (PED) 2014/68/EU and the German AD 2000-A4 Merkblatt, including the manufacturer certification in accordance with

AD 2000-HP0, as well as approval of the semi-finished manufacturer in accordance with AD 2000-W0 are complied with in full. The gas-kets and gland packings are certified in accordance with TA-Luft & DIN EN ISO 15848.



Pressure Equipment Directive  
Module H1

DIN EN ISO 9001:2015

AD 2000-HP0 & DIN EN 3834

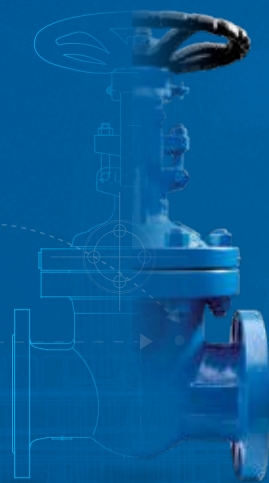
AD 2000-W0



## Idea & Engineering

# We provide solutions Always innovative. Always tailor-made.

The Siekmann Econosto product series of DIN Gate Valves was developed to meet the highest requirements for applications in industrial process plants, oil and gas systems and the petrochemical, chemical and power plant technology.



**DIN Gate Valves**  
Production and testing



The pressure bearing components made from cast steel, such as the body and bonnet, comply with the requirements for the casting process in accordance with AD 2000-A4 Merkblatt. The casting quality is certified and documented in accordance with DIN 1690 T10.

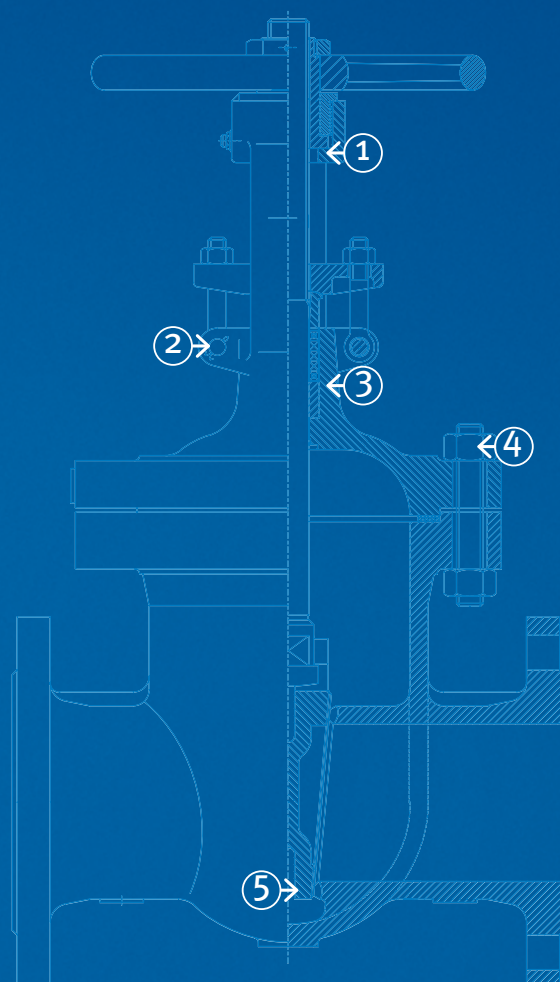


**DIN Gate Valves**  
Design and special features



The Gate Valves are designed and constructed in accordance with the current European regulations and the specific requirements of the AD 2000 Merkblätter. The construction is designed in accordance with DIN EN 12516. The face-to-face dimension has been specified in accordance with DIN EN 588 and DIN EN 1092 has been implemented for the flange dimensions.





Detail view for point 1.

1) To keep the load at the spindle and the actuating torques to a minimum, an axial bearing is provided for nominal sizes from DN200.

2) Eye bolts are used to prevent the bolts of the gland packing from being lost during maintenance.

3) For all valves, only gaskets and packing certified in accordance with the TA-Luft & DIN EN ISO 15848 are used.

4) The pressure retaining connecting elements such as bolts and nuts, are designed according to AD 2000-W2 or W7.

5) The body seat is stellited. This guarantees high wear resistance, even at the highest possible operating temperatures and pressures.

## Technical data

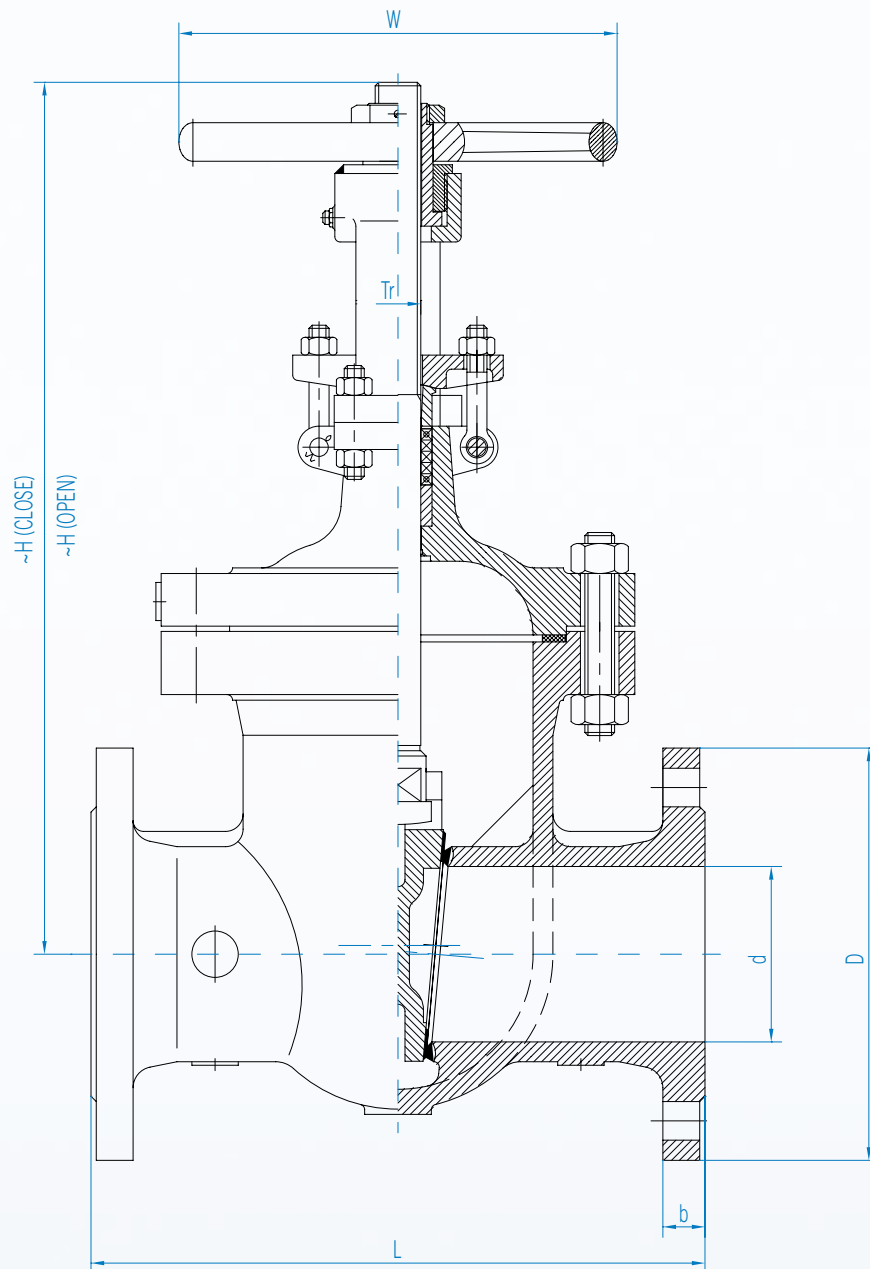
# Materials

### Note

The table below shows standard material combinations.  
Other materials and material combinations can be supplied  
on request!

Name	Carbon steel	Stainless steel
Body	1.0619	1.4408
Bonnet	1.0619	1.4408
Wedge	< DN 250 = 13Cr	1.4408
	≥ DN 250 = 1.0619+13Cr	
Body seat	Stellite	Stellite
Stem	13Cr	17-12-2 CrNiMo
Stem Nut	Austenitic cast iron	Austenitic cast iron
Handwheel	Cast steel	Cast steel
Gland Flange	1.0619	1.4408
Spacer	13Cr	CrNi
Gland	13Cr	CrNi
Gland Packing	Graphite	Graphite
Gasket	Spiralwound graphite	Spiralwound graphite
Stud	25CrMo4	A4-70
Nut	25CrMo4	A4
Eye Bolt	25CrMo4	A4-70
Nut	25CrMo4	A4
Pin	C25	CrNi
Locking Pin	CrNi	CrNi
Handwheel Nut	C25	CrNi
Screw	C25	CrNi
Grease Fitting	C25	CrNi
Name Plate	Stainless steel	Stainless steel
Rivet	Stainless steel	Stainless steel

# Sectional drawing



## Nominal sizes | dimensions | weights

# DIN Gate Valve PN 10

DN	L	d	D	b	W	H	Weight	number U/HUB	Spindle thread	Option	Stroke
	mm	mm	mm	mm	mm	mm	kg	mm	ISO2902	ISO 5210	mm
50	250	50	165	18	200	327	25	16	Tr20x4LH-8c	F10, Form B1	65
80	280	78	200	20	250	422	41	16	Tr24x5LH-8c	F10, Form B1	91
100	300	100	220	20	250	497	59	18	Tr26x5LH-8c	F10, Form B1	112
150	350	150	285	22	300	601	100	14	Tr32x12(6P)LH-8c	F14, Form B1	168
200	400	200	340	24	350	738	151	18	Tr32x12(6P)LH-8c	F14, Form B1	219
250	450	250	395	26	400	879	250	23	Tr36x12(6P)LH-8c	F14, Form B1	277
300	500	300	445	26	500	1028	348	23	Tr40x14(7P)LH-8c	F14, Form B1	319
350	550	343	505	26	305	1526	460	78	Tr42x14(7P)LH-8c	F16, Form B1	366
400	600	394	565	26	458	1730	621	78	Tr46x16(8P)LH-8c	F16, Form B1	418
450	650	445	615	28	458	1913	813	85	Tr48x16(P8)LH-8c	F25, Form B1	472
500	700	495	670	28	610	2145	1005	133	Tr52x16(P8)LH-8c	F25, Form B1	520
600	800	597	780	34	610	2520	1443	156	Tr60x18(P9)LH-8c	F25, Form B1	624

\* Flange connection in accordance with EN 1092-1 Form B1

## Nominal sizes | dimensions | weights

# DIN Gate Valve PN 16

DN	L	d	D	b	W	H	Weight	number U/HUB	Spindle thread	Option	Stroke
	mm	mm	mm	mm	mm	mm	kg	mm	ISO2902	ISO 5210	mm
50	250	50	165	18	200	327	25	16	Tr20x4LH-8c	F10, Form B1	65
80	280	78	200	20	250	422	41	18	Tr24x5LH-8c	F10, Form B1	91
100	300	100	220	20	250	497	59	23	Tr26x5LH-8c	F10, Form B1	115
150	350	150	285	22	300	601	100	14	Tr32x12(6P)LH-8c	F14, Form B1	171
200	400	200	340	24	350	738	151	18	Tr32x12(6P)LH-8c	F14, Form B1	219
250	450	250	405	26	400	879	250	23	Tr36x12(6P)LH-8c	F14, Form B1	277
300	500	300	460	28	500	1028	348	23	Tr40x14(7P)LH-8c	F14, Form B1	319
350	550	343	520	30	305	1526	460	78	Tr42x14(7P)LH-8c	F16, Form B1	366
400	600	394	580	32	458	1730	621	78	Tr46x16(8P)LH-8c	F16, Form B1	418
450	650	445	640	40	458	1913	813	85	Tr48x16(P8)LH-8c	F25, Form B1	472
500	700	495	715	44	610	2145	1005	133	Tr52x16(P8)LH-8c	F25, Form B1	520
600	800	597	780	54	610	2520	1443	156	Tr60x18(P9)LH-8c	F25, Form B1	624

\* Flange connection in accordance with EN 1092-1 Form B1



## Nominal sizes | dimensions | weights

DIN Gate Valve **PN 25**

DN	L	d	D	b	W	H	Weight	number U/HUB	Spindle thread	Option	Stroke
	mm	mm	mm	mm	mm	mm	kg	mm	ISO2902	ISO 5210	mm
50	250	50	165	20	200	327	26	16	Tr20x4LH-8c	F10, Form B1	65
80	280	78	200	24	250	422	43	18	Tr24x5LH-8c	F10, Form B1	91
100	300	100	235	24	250	497	62	23	Tr26x5LH-8c	F10, Form B1	115
150	350	150	300	28	350	601	107	14	Tr32x12(6P)LH-8c	F14, Form B1	171
200	400	200	360	30	400	738	166	18	Tr36x12(6P)LH-8c	F14, Form B1	219
250	450	250	425	32	450	879	279	23	Tr36x12(6P)LH-8c	F14, Form B1	277
300	500	300	485	34	458	1475	396	23	Tr40x14(7P)LH-8c	F16, Form B1	320
350	550	336	555	38	458	1641	532	218	Tr46x16(8P)LH-8c	F16, Form B1	366
400	600	387	620	40	610	1780	731	106	Tr48x16(8P)LH-8c	F25, Form B1	413
450	650	438	670	46	610	1970	972	120	Tr52x16(8P)LH-8c	F25, Form B1	472
500	700	488	730	48	610	2205	1210	145	Tr52x16(8P)LH-8c	F25, Form B1	567
600	800	590	845	58	610	2599	1745	165	Tr65x20(10P)LH-8c	F25, Form B1	638

\* Flange connection in accordance with EN 1092-1 Form B1

## Nominal sizes | dimensions | weights

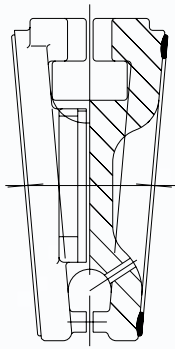
DIN Gate Valve **PN 40**

DN	L	d	D	b	W	H	Weight	number U/HUB	Spindle thread	Option	Stroke
	mm	mm	mm	mm	mm	mm	kg	mm	ISO2902	ISO 5210	mm
50	250	50	165	20	200	327	28	16	Tr20x4LH-8c	F10, Form B1	65
80	310	78	200	24	250	422	54	18	Tr24x5LH-8c	F10, Form B1	91
100	350	100	235	24	250	497	71	23	Tr26x5LH-8c	F14, Form B1	115
150	450	150	300	28	400	601	172	14	Tr32x12(6P)LH-8c	F14, Form B1	171
200	550	200	375	34	450	738	246	18	Tr36x12(6P)LH-8c	F14, Form B1	219
250	650	250	450	38	600	879	374	20	Tr40x14(7P)LH-8c	F16, Form B1	274
300	750	300	515	42	458	1475	558	23	Tr42x14(7P)LH-8c	F16, Form B1	320
350	850	336	580	46	458	1641	840	218	Tr46x16(8P)LH-8c	F16, Form B1	366
400	950	387	660	50	610	1780	1186	106	Tr48x16(8P)LH-8c	F25, Form B1	413
450	1050	432	685	57	610	1970	1512	120	Tr52x16(8P)LH-8c	F25, Form B1	472
500	1150	483	755	57	610	2205	1790	145	Tr52x16(8P)LH-8c	F25, Form B1	567
600	1350	584	890	72	610	2599	2700	165	Tr65x20(10P)LH-8c	F25, Form B1	638

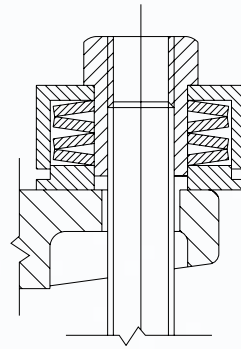
\* Flange connection in accordance with EN 1092-1 Form B1

## Gate Valves

# Special designs and accessories

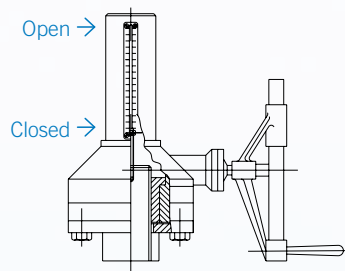
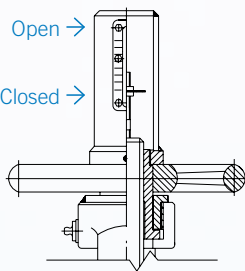
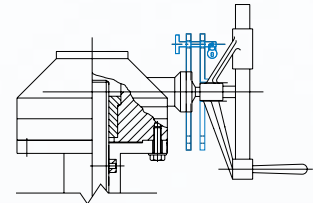
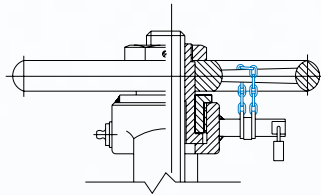


Pressure relieve hole



Belleville spring loaded TA-Luft gland packing

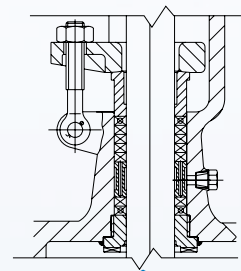
Locking device



Position indicator /  
stem protection

### Also available:

- Remote position feedback
- Electrical, pneumatic and hydraulic actuators
- System locking with key cabinet



Gland packing with  
seal-water connection



Customer-specific solutions  
modifications and more

Product portfolio

11

Siekmann Econosto

## Customer-specific solutions

# Modifications and more

**Thanks to our qualified employees and modern, flexible production and testing equipment, we can materialize all types of modifications on our valves. In short: We adapt our valves to meet the customer's requirements. The high level of quality and flexibility assure a tailor-made, reliable and finely tuned result. Special solutions / modifications include:**

- > Product engineering
- > CAD development
- > Work preparation
- > Inspection and test plans
- > Production control
- > As-built documentation

Our quality management and our comprehensive range of inspection and testing devices ensure that your modified valves conform with all applicable standards and statutory regulations. Our special solutions include:

- > Adaption and test run of actuators (electrical, pneumatic or hydraulic)
- > Installation of position indicators, locks, chain wheels, seal water connections and stem extensions
- > Special machining of welding ends
- > Production and conditioning of valves for use in pure oxygen

In addition, we offer comprehensive, professional testing services, such as:

- > Shell, tightness and functional testing
- > Spectroscopic analysis of alloy elements (PMI test)
- > Testing of surface characteristics with magnetic particle and liquid penetrant inspection (MT & PT)
- > Volumetric testing by means of ultrasonic and X-ray (UT & RT)
- > Hardness and roughness testing on surfaces of functionally relevant components

For inspections, maintenance, repairs and other services on site, our professional service team is available to you quickly and at any time with state-of-the-art, mobile special equipment.



# Product portfolio

## → Design code:

DIN, AD 2000, ASME, API, BS, JIS, GOST, AFNOR

## → End connections:

Flanged Ends, Butt weld Ends, Socket Weld Ends, Threaded Ends, special connections

## → Certification:

ISO 9001, PED 2014/68/EU, EAC (TR-CU 032 & TR-CU 010) AD2000-HP0 / -W0, API- & ISO Industrial standards

		Nominal size			Nom. pressure	
		DN 15 – 50 / NPS 1/2" – 2"	DN 50 – 600 / NPS 2" – 24"	> DN 600 / NPS > 24"	PN10 – 100 / CL 150 – 600	PN160 – 640 / CL 600 – 4500
Gate Valves	Small Gate Valve forged	√			√	√
	Gate Valve casted		√	√	√	√
	Gate Valve forged		√	√	√	√
	Pipeline Through Conduit Gate Valve API 6D		√	√	√	√
Globe Valves	Small Globe Valve forged	√	√	√	√	√
	Globe Valve casted	√	√	√	√	√
	Globe Valve forged	√	√		√	√
	3-way Globe Valves	√	√		√	√
Check Valves	Small Check Valve forged	√			√	√
	Check Valves wafer type	√	√		√	√
	Swing Check Valves forged	√	√	√	√	√
	Swing Check Valves casted	√	√	√	√	√
Ball Valves	Ball Valves soft seated	√	√		√	
	3-way Ball Valves	√	√		√	
	Ball Valves split body	√	√	√	√	√
	Ball Valves fully welded	√	√	√	√	√
	Ball Valves metal seated	√	√	√	√	√
	Top entry Ball Valves		√	√	√	√
Butterfly Valves	Butterfly Valve concentric	√	√	√	√	
	Butterfly Valve excentric		√	√	√	
	Butterfly Valve triple excentric		√	√	√	√
Special Valves	Piggable Valves		√	√	√	√
	Blow-down Valves	√			√	√
	Nozzle-type Check Valves	√	√	√	√	√
	Safety Valves	√	√	√	√	√
	Sight Glasses	√	√	√	√	
	Steam Traps	√	√		√	
	Strainer	√	√	√	√	√
	Control Valves	√	√	√	√	√

## Options and variants

Actuated valves (Electrical, pneumatic and hydraulic) Cryo (BS6364; ISO)	Bellow seal: TA-Luft & DIN EN ISO 15848.; API 622	Heating jacket	Pressure seal design	Bypass	Fire-Safe (API 6FA, API 607, ISO 10497)
√	√	√			
√	√	√	√	√	√
√	√	√	√	√	
√				√	
√	√	√	√	√	
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		√			
			√		
√	√	√			√

Warehouse,  
logistics, service


For [Siekmann Econosto](#), close proximity to the customer means delivery of our products as quickly as if we were on site. Our customer specific deliveries are realized via our logistics centre in Zwenkau near Leipzig. With [one of the largest valve warehouses in Europe](#) (approx. 4,000 m²), we stock an assortment of industrial valves to match our customers' requirements.

## Notes

## → Material:

Non-alloy steel; highly heat-resistant steel; stainless steel; Duplex steel, Super Duplex steel; special materials (e.g. Ni-alloys; bronze)

## → Areas of application:

Oil and gas; refineries and petrochemical applications; liquefied gas applications and cryogenic technology; chemical and process technology; power plants

## → Specifics:

Extensive warehouse, inspection and consulting with troubleshooting with troubleshooting, development of customer-specific solutions, special valves designed and produced according to customer needs

Over 80,000 m<sup>2</sup>  
of valve storage area



8,000  
employees

More than 60 years  
in the market



Locations  
Siekmann Econosto



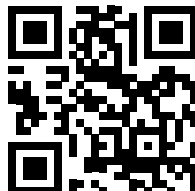
Locations of the  
corporate group

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