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KTN
Kara Technology News

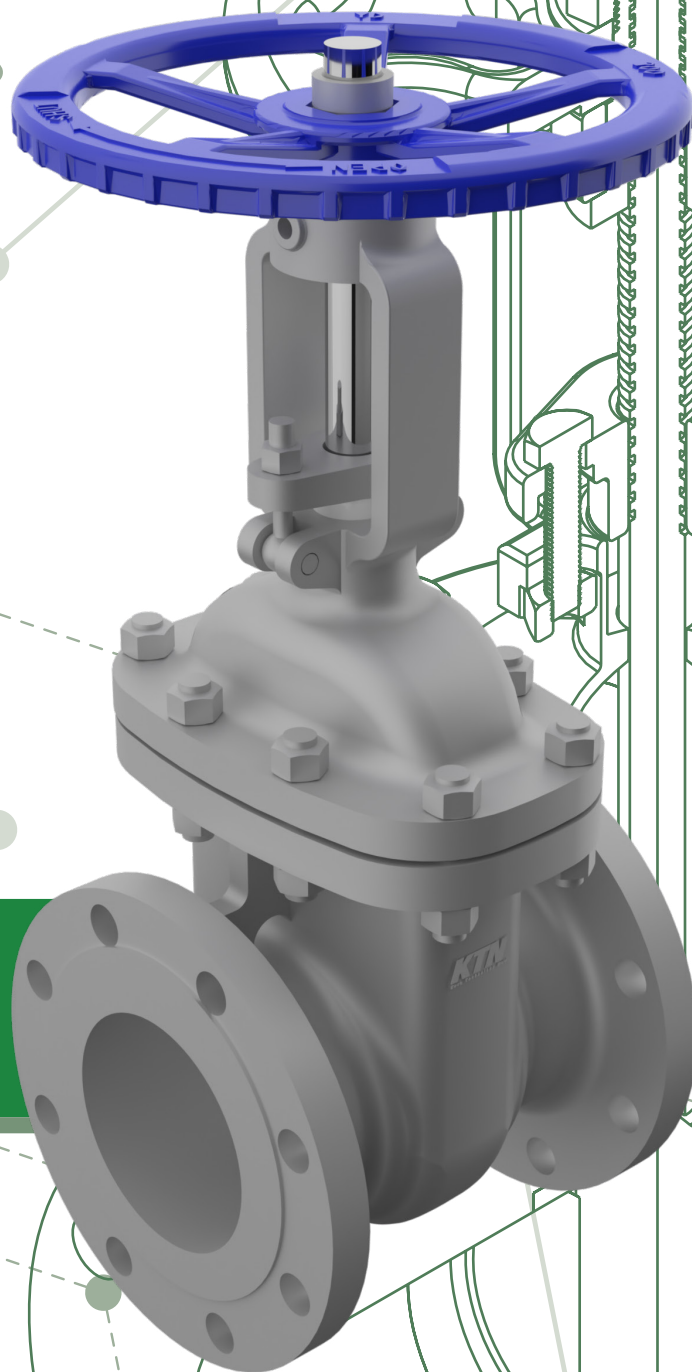


FIG. 323

CS DIN FLANGED GATE VALVE

DN40-300 | PN16/40

KTN FLANGED DIN GATE VALVE:

The **KTN 323** is our **DIN-standard gate valve**, designed in accordance with **DIN 3352**. Face-to-face dimensions comply with DIN 3202, and the flanged ends follow **EN 1092-1 RF** standards. All pressure and sealing tests are performed according to **EN 12266**.

The body is made of **cast carbon steel A216 WCB**, with other materials available upon request (see material list). The available dimension range goes from **DN40 to DN300**, and pressure classes from **PN6 up to PN40**. It is suitable to conduct and shut off the flow of **water, oil, and gas**, working under a temperature range of **-29°C to 425°C**.

The **KTN 323** gate valve is produced using **state-of-the-art technology** in our most advanced facility. The final product has a **precise machined finish**, and a smooth surface obtained through CNC turning and quality-controlled processes.

Our design **exceeds standard specifications**, delivering **exceptional wear resistance** and a long service life. It is suitable for **severe service conditions**, complying with **API 600 destruction tests**. Additionally, the **increased flange thickness** and **spot-facing at the rear flange holes** ensure maximum safety under demanding applications.

1 Design:

Ultimate casting software to optimize manufacturing process parameters. The probability of casting defects, such as shrinkage, porosity and crack will be highly minimized.

2 Body & bonnet:

Manufacturing includes pouring riser to reduce internal defects of castings, and casting heat treatment to improve mechanical properties of materials, eliminate residual stress and improve machinability of metal. Our manufacturing process totally meet API standard, the average thickness exceeds the standard by 10%.

3 Stem nut, gland and backseat ring:

To ensure perfect stem isolation, API600 standard bronze or D2 stem nut, bronze stem nuts have high wear resistance and high corrosion resistance. Packing is reinforced by gland and backseat ring made in stainless steel. Renewable backseat API600 standard with better sealing performance.

4 Sealing parts:

Heat resistant graphite corrugated gasket for fast adaptability to dramatic temperature changes. Composite packing which means smaller torque and better sealing performance.

5 Stem:

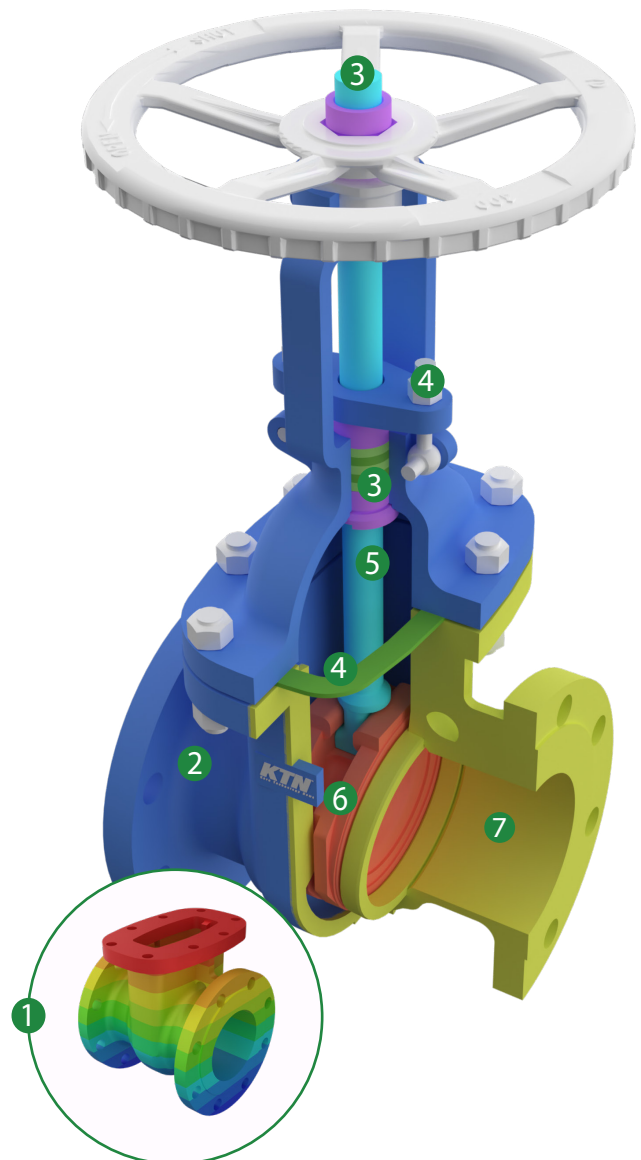
Strong and rigid stainless steel stem which meets API600 standard which makes it almost undestructable.

6 Disc:

Fully open/close disc which makes it great for improving flow performance and reducing fluid resistance. CA15+13Cr (size 2"-4") or WCB+13Cr(Above 5") to meet API600 destruction test requirements.

7 Backseat:

Renewable seats according to API600 standard, zero leakage after 2000 times opening and closing service.

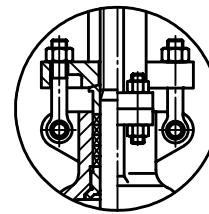
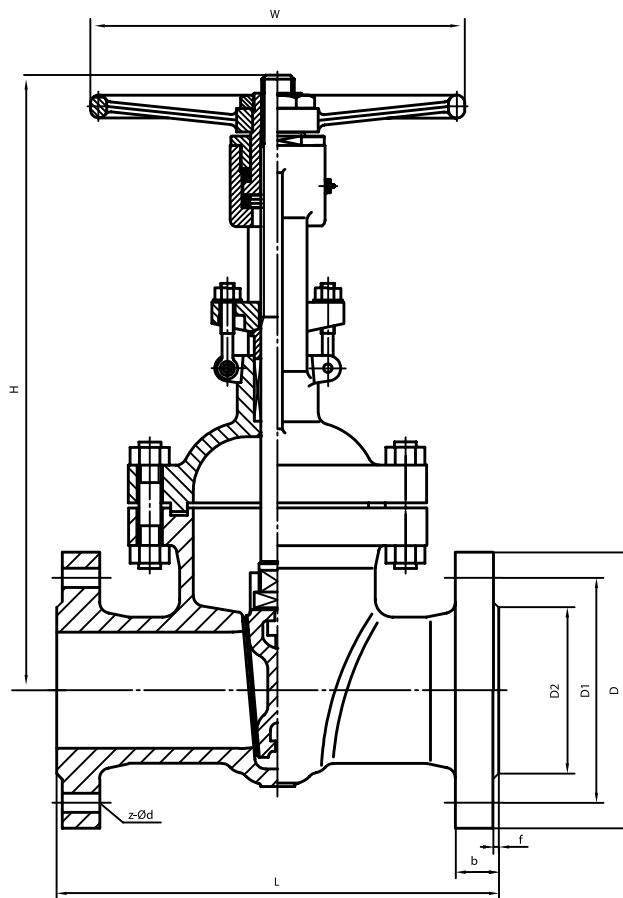


KTN 323

CAST CARBON STEEL GATE VALVE WITH DIN EN 1092-1 RF FLANGED ENDS

GENERAL SPECIFICATIONS

DESIGN	DIN 3352
FACE TO FACE	DIN 3202
FLANGED ENDS	EN 1092-1 RF
TEST	EN 12266
WORKING TEMPERATURE	-29°C ~ 425°C
MEDIUM	Water, oil and gas



WITH YOKE FOR BIGGER SIZES
DN≥80

MAIN EXTERNAL DIMENSIONS PN 6

SIZE	L	D	D ₁	D ₂	b	Z-Ød	f
DN50	250	140	110	90	14	4-Ø14	3
DN65	270	160	130	100	14	4-Ø14	3
DN80	280	190	150	128	16	4-Ø18	3
DN100	300	210	170	148	16	4-Ø18	3
DN125	325	240	200	178	18	8-Ø18	3
DN150	350	265	225	202	18	8-Ø18	3
DN200	400	320	280	258	20	8-Ø18	3
DN250	450	375	335	312	22	12-Ø18	3

MAIN EXTERNAL DIMENSIONS PN 10

SIZE	L	D	D ₁	D ₂	b	Z-Φd	f
DN50	250	165	125	102	18	4-Φ18	3
DN65	270	185	145	122	18	8-Φ18	3
DN80	280	200	160	138	20	8-Φ18	3
DN100	300	220	180	158	20	8-Φ18	3
DN125	325	250	210	188	22	8-Φ18	3
DN150	350	285	240	212	22	8-Φ22	3
DN200	400	340	295	268	24	8-Φ22	3
DN250	450	395	350	320	26	12-Φ22	3

MAIN EXTERNAL DIMENSIONS PN 16

SIZE	L	D	D ₁	D ₂	b	f	Z-Φd	H	W
DN50	250	165	125	102	18	3	4-Φ18	319	250
DN65	270	185	145	122	18	3	8-Φ18	367	250
DN80	280	200	160	138	20	3	8-Φ18	427	250
DN100	300	220	180	158	20	3	8-Φ18	514	300
DN125	325	250	210	188	22	3	8-Φ18	523	300
DN150	350	285	240	212	22	3	8-Φ22	625	350
DN200	400	340	295	268	24	3	12-Φ22	715	350
DN250	450	405	355	320	26	3	12-Φ26	925	450

MAIN EXTERNAL DIMENSIONS PN 25

SIZE	L	D	D ₁	D ₂	b	f	Z-Φd	H	W
DN50	250	165	125	102	20	3	4-Φ18	319	250
DN65	270	185	145	122	22	3	8-Φ18	367	250
DN80	280	200	160	138	24	3	8-Φ18	427	250
DN100	300	235	190	162	24	3	8-Φ22	514	300
DN125	325	270	220	188	26	3	8-Φ26	523	300
DN150	350	300	250	218	28	3	8-Φ26	625	350
DN200	400	360	310	278	30	3	12-Φ26	715	350
DN250	450	425	370	335	32	3	12-Φ30	925	450

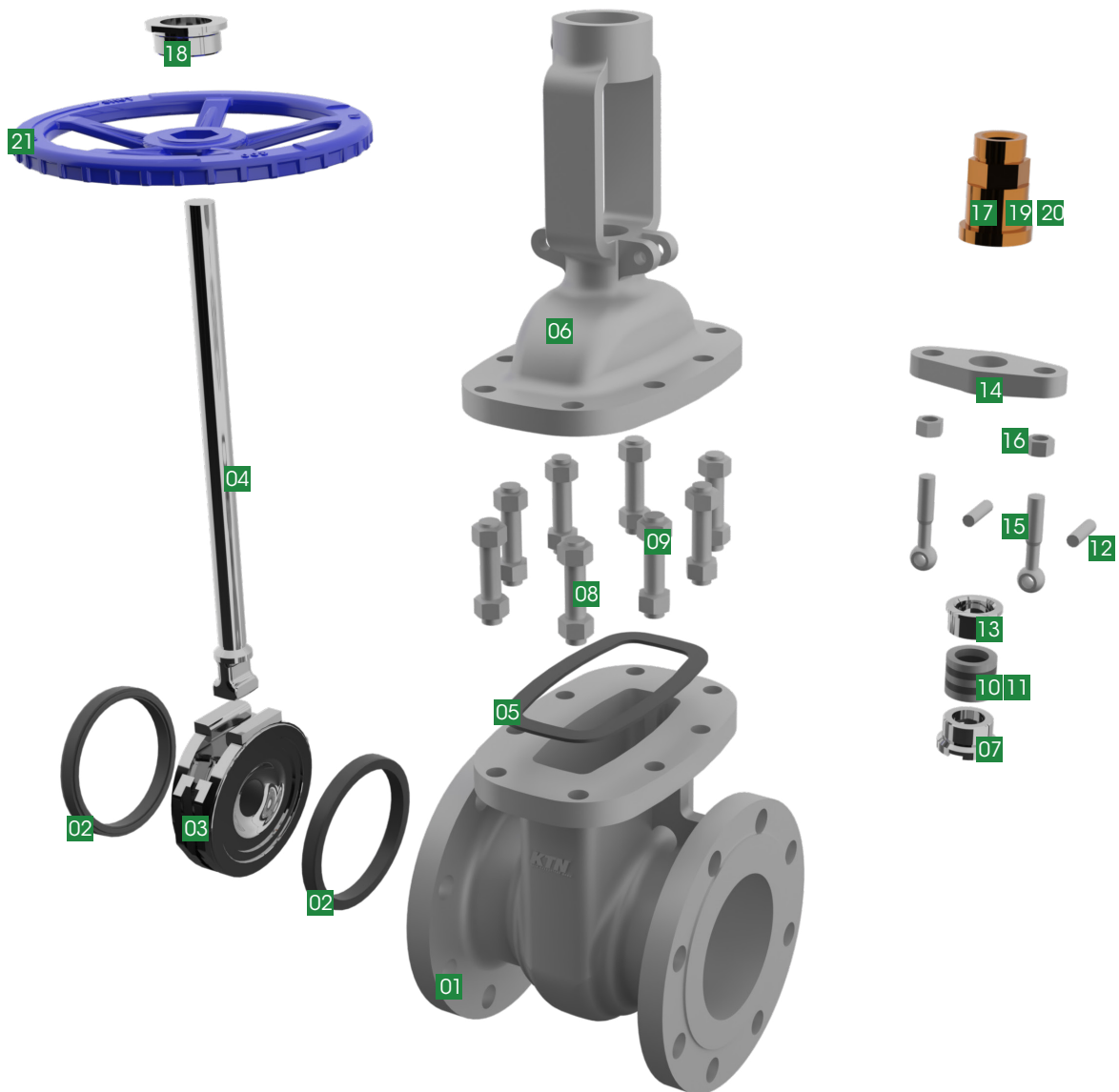
MAIN EXTERNAL DIMENSIONS PN 40

SIZE	L	D	D ₁	D ₂	b	f	Z-Φd	H	W
DN50	250	165	125	102	20	3	4-Φ18	319	250
DN65	280	185	145	122	22	3	8-Φ18	367	250
DN80	310	200	160	138	24	3	8-Φ18	427	250
DN100	350	235	190	162	24	3	8-Φ22	514	300
DN125	400	270	220	188	26	3	8-Φ26	523	300
DN150	450	300	250	218	28	3	8-Φ26	625	350
DN200	550	375	320	285	34	3	12-Φ30	715	350
DN250	650	450	385	345	38	3	12-Φ33	925	450

KTN 323

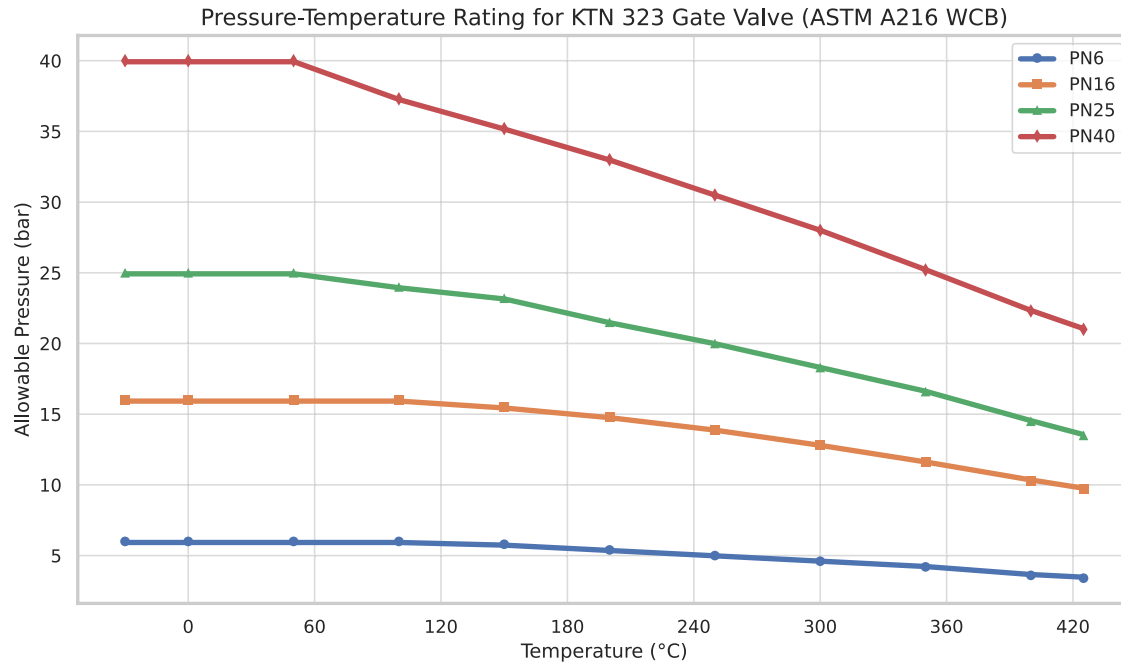
CAST CARBON STEEL GATE VALVE WITH DIN EN 1092-1RF FLANGED ENDS

21	Handwheel	Malleable iron / CS
20	Retaining nut	CS
19	Lubricator	H62
18	Handwheel nut	CS
17	Stem nut	Copper alloy
16	Nut	ASTM A194 2H
15	Eye bolt	ASTM A193 B7
14	Gland flange	WCB (1.0619)



06	Bonnet	WCB (1.0619)
05	Gasket	SS304+Graphite
04	Stem	ASTM A182 F6a
03	Wedge	WCB (1.0619)+STL
02	Seat	WCB (1.0619)+STL
01	Body	WCB (1.0619)

13	Cotter	Q235
12	Pin	ASTM A276 410
11	Packing II	Graphite ring
10	Packing I	Braided graphite
09	Nut	ASTM A194 2H
08	Bolt	ASTM A193 B7
07	Back seat	WCB (1.0619)+13Cr



Flow Coefficient Table (KTN 323 Gate Valve)		
DN (mm)	Cv (US gpm/psi ^{0.5})	Kv (m ³ /h at 1 bar ΔP)
40	50	43.2
50	84	72.7
65	135	116.8
80	210	181.7
100	330	285.4
125	480	415.2
150	700	605.5
200	1250	1081.2
250	1950	1686.8
300	2800	2422.0