

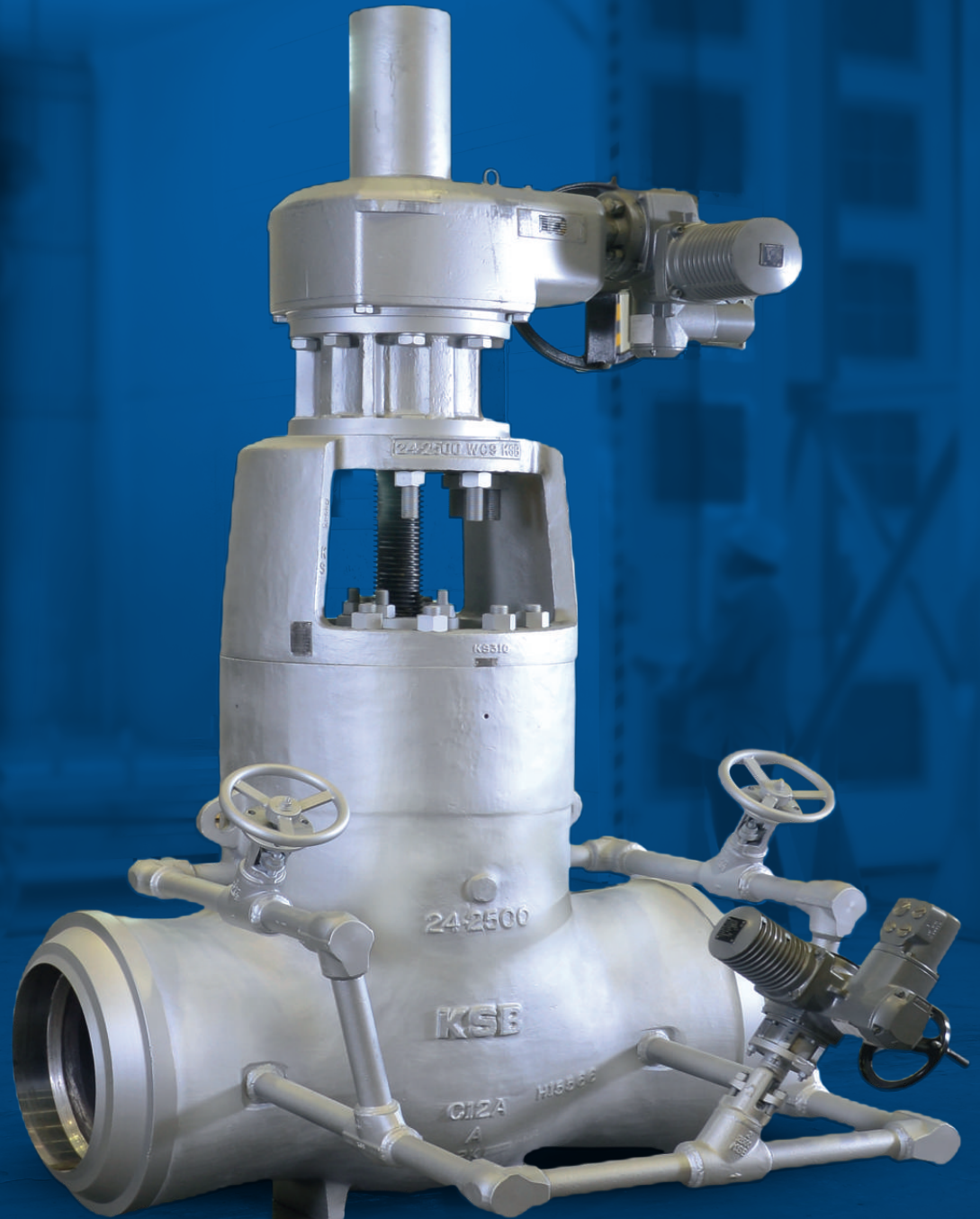
SICCA

ASME GATE, GLOBE, CHECK VALVES

 **KSB**
Solutions. For Life.

APPLICATIONS

- Boiler Feed Applications
- Fossil-Fuelled Power Stations
- Paper Industry / Pulp Industry
- Petrochemical Industry
- Pharmaceutical Industry
- Pipelines And Tank Farms
- Rainwater Harvesting
- Process Engineering
- Heat Recovery Systems
- Water Extraction
- Water Supply Systems
- Refinery
- Mining
- Chemical Industry
- Descaling Units
- Domestic Water Supply
- Boiler Recirculation
- Cooling Circuits
- Hot-water Heating Systems
- Sugar Industry
- Energy Storage
- Oil And Gas
- Hydrogen Application
- Machineries And Equipments



KSB Limited - Valve Division

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For more information - www.ksb.com



GATE - GTC



GLOBE - GLC



CHECK - SCC

RANGE AND STANDARD

Type	Class Ratings	Size Range [inch]	Design Standard
SICCA GTC	150, 300, 600	2" - 48"	API 600
SICCA GLC	150, 300, 600	2" - 28"	BS 1873, API 623
SICCA SCC	150, 300, 600	2" - 44"	BS 1868, API 594

OPERATING PARAMETER

Characteristic	Value
Max. permissible pressure [bar]	103
Max. permissible pressure [psi]	1500
Min. permissible temperature [°C]	≥ 0
Max. permissible temperature [°C]	≤ +595

VALVE BODY MATERIALS

Material	Temperature limit	
	°C	°F
ASTM A216 WCB	≤ 425	≤ 800
ASTM A217 WC6	≤ 595	≤ 1100
ASTM A217 WC9	≤ 595	≤ 1100
ASTM A351 CF8	≤ 538	≤ 1000
ASTM A351 CF8M	≤ 538	≤ 1000
ASTM A351 CF3	≤ 425	≤ 800
ASTM A351 CF3M	≤ 455	≤ 850
ASTM A352 LCC	≤ 345	≤ 650
ASTM A352 LCB	≤ 345	≤ 650

** Other material on request.

DESIGN DETAILS

- Cast steel body
- Hard-faced seat/disc interface (13 % chrome steel / Stellite)
- Trim to API 600
- Bolted bonnet / cover
- Outside screw and yoke
- Graphite packing with braided packing end rings offering wiping action
- Graphite gasket with stainless steel reinforcement for Gate Class 150 only. Stainless steel spiral wound gasket for Globe, Check Class150, Class 300 and Class 600.
- Fully confined cover gasket
- Stem with burnished shank
- Seat ring welded into body
- Flanged and Butt weld ends
- Check: Self-aligning free-floating and non-rotating valve disc
- Gate: Non-rotating stem Globe: rotating stem
- Gate: Non-rising handwheel, Globe: rising handwheel
- Gate: Solid flexible wedge

MATING DIMENSIONS AS PER STANDARD

Connection	Standard
Face-to-face lengths	ASME B16.10
Flanges	ASME B16.5 (up to and including NPS 24 in.) ASME B16.47 (from NPS 26 in.) Series B. (Flanges in Series A available on request.)
Butt weld ends	ASME B16.25**

** Refer catalogue for standard schedule. Alternative schedules on request.

VALVE TESTING

Valves are tested as per API 598 standard

QUALIFICATIONS AND CERTIFICATIONS

- PED 2014/68/EU
- UKCA
- TSG 07 and D7002
- Fugitive Emission – ISO 15848-1,2 & API 624
- Fire Safe -API 6FA & API 607
- API RP 591



GATE - GTC



GLOBE - GLC



CHECK - SCC

RANGE AND STANDARD

Type	Class Ratings	Size Range [inch]	Design Standard
SICCA GTC	900, 1500, 2500, 3135, 3600	2" - 34"	ASME B 16.34
SICCA GLC	900, 1500, 2500	2" - 10"	ASME B 16.34
SICCA SCC	900, 1500, 2500, 3135, 3600	2" - 28"	ASME B 16.34

OPERATING PARAMETER

Characteristic	Value
Max. permissible pressure [bar]	620
Max. permissible pressure [psi]	9000
Min. permissible temperature [°C]	≥ 0
Max. permissible temperature [°C]	≤ +650

VALVE BODY MATERIALS

Material	Temperature limit	
	°C	°F
ASTM A216 WCB	≤ 425	≤ 800
ASTM A216 WCC	≤ 425	≤ 800
ASTM A217 WC6	≤ 595	≤ 1100
ASTM A217 WC9	≤ 595	≤ 1100
ASTM A217 C12A	≤ 650	≤ 1200

** Other material on request.

MATING DIMENSIONS AS PER STANDARD

Connection	Standard
Face-to-face lengths	ASME B16.10
Flanges	ASME B16.5 (up to and including NPS 24 in.) ASME B16.47 (from NPS 26 in.) Series B. (Flanges in Series A available on request.)**
Butt weld ends	ASME B16.25 **

** Valve with BW ends is standard execution and valve with flanged ends can be offered as new variant.

** Refer catalogue for BW standard schedule. Alternative schedules on request.

DESIGN DETAILS

- Cast steel body
- Pressure seal design
- Seat/disc interface made of wear-resistant and corrosion proof Stellite
- Outside screw and yoke
- Split and Internally balanced wedge type Gate valve
- Graphite gaskets and graphite packing with braided packing end rings offering wiping action
- Internal pressure relief arrangement for gate valve
- "Special Class" version
- Globe valve are straight-way Y-type valves by default. However T type can be offered on request.
- Gate and Globe: Non-rotating and rising stem with non-rising handwheel

VALVE TESTING

Valves are tested as per API 598 standard

QUALIFICATION AND CERTIFICATIONS

- PED 2014/68/EU
- UKCA
- TSG 07 and D7002
- Fugitive Emission - ISO 15848-1,2

SAFETY POINTS

KSB offers pressure relief for Gate valves by way of drilled hole on the disc, thereby relieving the pressure on the upstream side, by default. Thus Valve becomes Uni-Directional.

However, KSB advises the user to select a suitable pressure relieving option.



GATE - GTF



GLOBE - GLF



CHECK - PCF

RANGE AND STANDARD

Type	Class Ratings	Size Range [inch]	Design Standard
SICCA GTF	800, 1500, 2500	1/4" – 2 1/2" 1/4" – 2 1/2"	API 602 ASME B 16.34
SICCA GLF	800, 1500, 2500, 4500	1/4" – 2 1/2" 1/4" – 2 1/2"	API 602 ASME B 16.34
SICCA PCF	800, 1500, 2500, 4500	1/4" – 2 1/2" 1/4" – 2 1/2"	API 602 ASME B 16.34

OPERATING PARAMETER

Characteristic	Value
Max. permissible pressure [bar]	431
Max. permissible pressure [psi]	6250
Min. permissible temperature [°C]	≥ 0
Max. permissible temperature [°C]	≤ +816

VALVE BODY MATERIALS

Material	Temperature limit	
	°C	°F
ASTM A105	≤ 425	≤ 800
ASTM A182 304L	≤ 450	≤ 850
ASTM A182 316L	≤ 450	≤ 850
ASTM A182 F22	≤ 593	≤ 1100
ASTM A182 F91	≤ 650	≤ 1200
ASTM A182 F304	≤ 816	≤ 1500
ASTM A182 F316	≤ 816	≤ 1500
ASTM A350 LF2	≤ 425	≤ 800

** Other material on request.

MATING DIMENSIONS AS PER STANDARD

Connection	Standard
Face-to-face lengths	Manufacturing Standard
Flanges	ASME B16.5
Butt weld ends	ASME B16.25 **
Socket weld ends	ASME B16.11
Threaded ends	ASME B 1.20.1

** Refer catalogue for standard schedule. Alternative schedules on request.

DESIGN DETAILS

- Body made of forged steel
- Straight-way pattern
- Bolted bonnet (Class 800)
- Welded bonnet (Class 1500 / 2500 / 4500)
- Seal-welded body/bonnet joint (Class 1500/2500/4500)
- Fully confined bonnet gasket (Class 800)
- Two-piece self-aligning gland follower
- Graphite gland packing with braided graphite packing end rings
- Stem with burnished shank
- Solid wedge / disc
- Gate: non-rotating and rising stem with non-rising handwheel
- Rotating and rising stem with rising handwheel
- Outside screw and yoke

VALVE TESTING

Valves are tested as per API 598 standard.

QUALIFICATION AND CERTIFICATIONS

- PED 2014/68/EU
- UKCA
- TSG 07 and D7002 (**applicable only for 2 1/2")
- Fugitive Emission - ISO 15848-1,2 & API 624
- API RP 591