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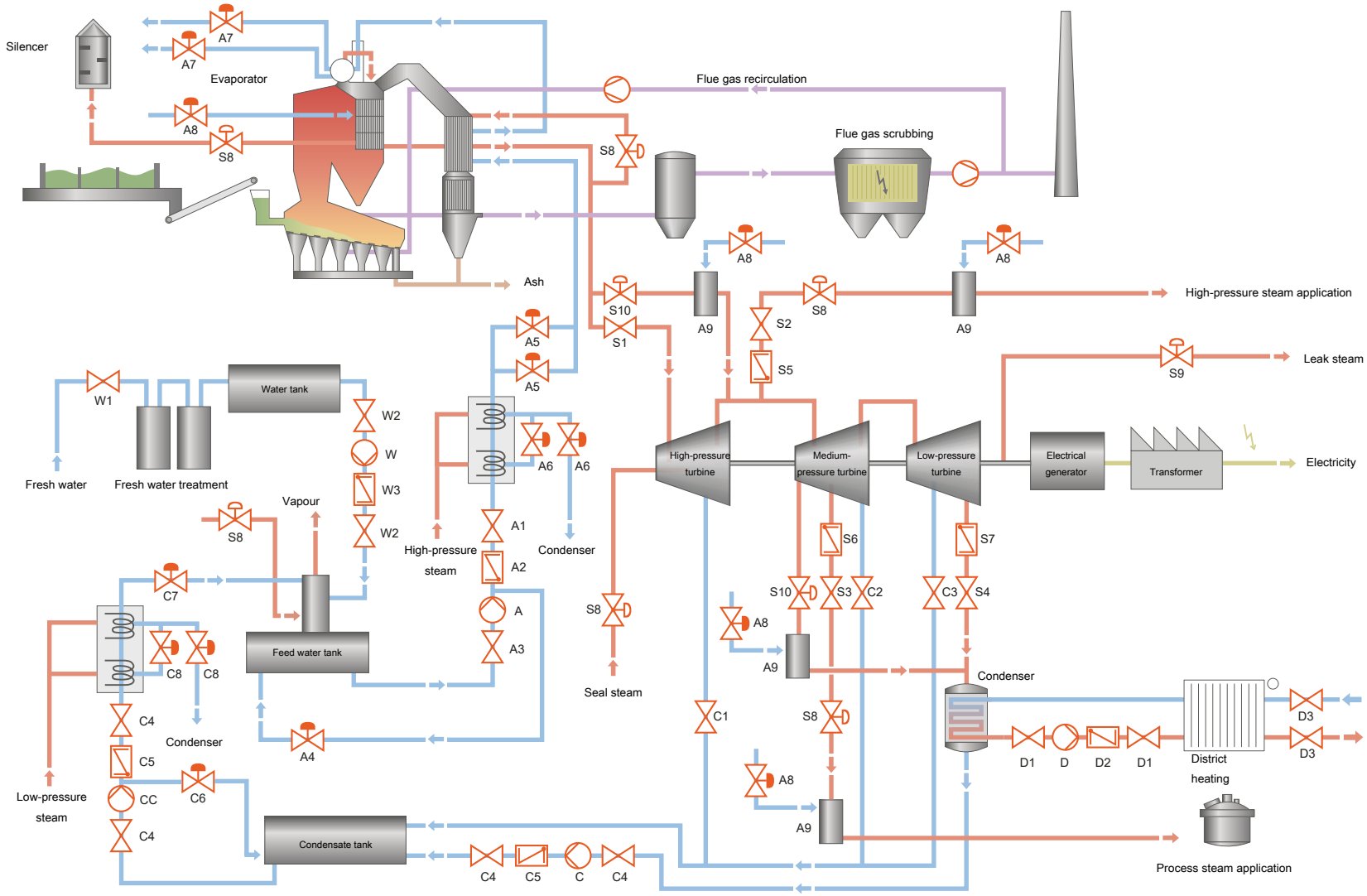
Product Portfolio

Decentralised Power Plants to ANSI/ ASME Standards

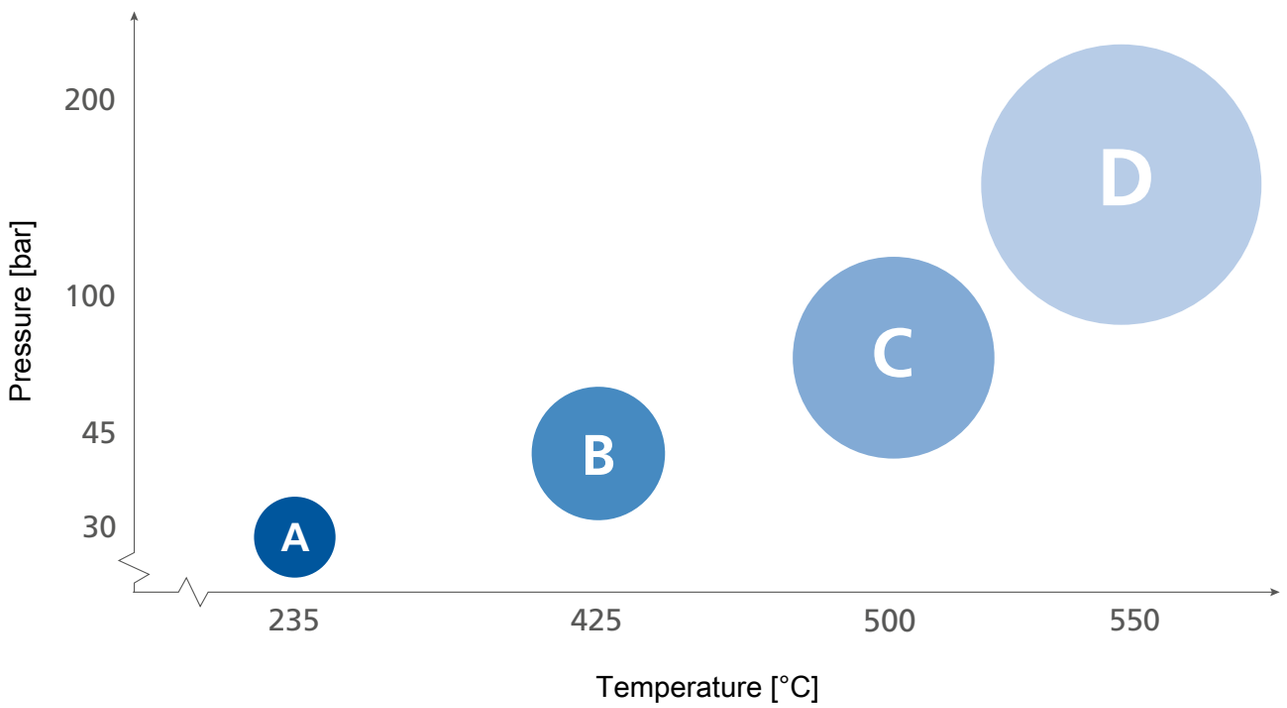
Combined Heat and Power

General schematic of a decentralised power plant



Code	Design
A	Pump for feed water applications
A1	Gate valve Class 300 - 3600
A2	Swing check valve Class 300 - 3600
A3	Gate valve Class 150 - 300
A4	Control valve Class 300 - 4500
A5	Control valve Class 300 - 4500
A6	Control valve Class 150 - 2500
A7	Control valve Class 150 - 2500
A8	Control valve Class 150 - 4500
A9	Desuperheater Class 300 - 2500
S1	Gate valve Class 300 - 3600
S2	Globe valve – Shut-off function – Class 900
S3	Globe valve – Throttling function – Class 900
S4	Globe valve Class 150 - 300
S5/6	Swing check valve Class 900
S7	Swing check valve Class 150 - 300
S8	Control valve Class 150 - 4500
S9	Control valve Class 150 - 2500
S10	Bypass Class 150 - 2500
C	Pump for condensate extraction
CC	Pump for condensate transport
C1/2	Globe valve Class 900 - 2500
C3	Globe valve Class 300
C4	Gate valve Class 150 - 300
C5	Swing check valve Class 150 - 300
C6	Control valve Class 150 - 300
C7	Control valve Class 150 - 300
C8	Control valve Class 150 - 300
D	Pump for district heating circuits
D1	Gate valve Class 150 - 300
D2	Swing check valve Class 150 - 300
D3	Globe valve Class 150 - 300
W	Pump for auxiliary circuits
W1/2	Butterfly valve Class 150
W3	Swing check valve Class 150

Different pressure classes (live steam) of valves for specific applications:



A **Heat recovery systems (Class 300):**
Mostly gas (biogas) combustion in combustion engines and use of exhaust gases for recovery boilers; heat used directly in nearby buildings/facilities (no steam turbine).

B **Small CHP (Class 600):**
Less than 50 t/h of steam (combined cycle power plant, municipal solid waste, biomass)

C **Medium CHP (Class 900):**
Approx. 100-200 t/h of steam (combined cycle power plant, municipal waste, biomass)

D **Large CHP (> Class 900):**
More than 200 t/h of steam (combined cycle power plant, liquid and gaseous waste, biomass)

Each individual subsystem has specific operating parameters that are usually lower than those of the steam system. Some of them are independent from the size of the CHP plant and result from the process, e.g. fresh water treatment.

Detailed pump selection will be done in accordance with customer performance data of Capacity and Head (Q/H).

Code	Type series		DN	Q [m³/h]	H [m]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
A	**Pump for feed water applications**									
A		HGC (⇨ Page 23)	40 - 400	≤ 2300	≤ 5300	≤ +210	-	-	✗	✗
A		HGI (⇨ Page 23)	80 - 150	≤ 600	≤ 2000	≤ +180	-	-	✗	✗ (≤ 200)
A		HGM (⇨ Page 23)	25 - 125	≤ 390	≤ 1400	≤ +160	-	-	✗	-
A		HGM-S (⇨ Page 23)	25 - 125	≤ 390	≤ 1000	≤ +160	-	✗	✗	-
A		Multitec (⇨ Page 22)	32 - 250	≤ 1500	≤ 1000	≤ +200	✗	✗	-	-

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
A1	**Gate valve**									
A1		SICCA 150-600 GTC Low pressure (⇨ Page 15)	150 - 600	2 - 48	≥ -29	≤ +593	✗	✗	-	-
A1		SICCA 900-3600 GTC High pressure (⇨ Page 15)	900 - 3600	2 - 32	≥ -29	≤ +650	-	-	✗	✗
A2	**Swing check valve**									
A2		SICCA 150-600 SCC Low pressure (⇨ Page 16)	150 - 600	2 - 44	≥ -29	≤ +593	✗	✗	-	-
A2		SICCA 900-3600 SCC High pressure (⇨ Page 16)	900 - 3600	2 - 28	≥ -29	≤ +650	-	-	✗	✗
A3	**Gate valve**									

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
A3		SICCA 150-600 GTC Low pressure (⇨ Page 15)	150 - 600	2 - 48	≥ -29	≤ +593	✗	✗	✗	✗
A4	**Control valve – Function: minimum flow control, feed water recirculation**									
A4		MIL 78000 (⇨ Page 18)	150 - 2500	½ - 6	≥ -29	≤ +260	-	✗	✗	✗
A4		MIL 91000 (⇨ Page 18)	150 - 3400	¾ - 12	≥ -29	≤ +566	-	-	-	✗
A4		MIL 90000 (⇨ Page 18)	150 - 2500	1,5 - 12	≥ -29	≤ +260	-	✗	✗	✗
A5	**Control valve – Function: feed water control valve**									
A5		MIL 41000 Full load (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	✗	✗	✗
A5		MIL 78000 Low load (⇨ Page 18)	150 - 2500	½ - 6	≥ -29	≤ +260	-	-	✗	✗
A5		MIL 91000 Low load (⇨ Page 18)	150 - 3400	¾ - 12	≥ -29	≤ +566	-	-	✗	✗
A6	**Control valve – Function: feed water heater steam supply**									
A6		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	✗	✗
A7	**Control valve – Function: blowdown and pH value maintenance, intermittent or continuous**									
A7		MIL 70000 (⇨ Page 18)	150 - 2500	½ - 10	≥ -100	≤ +566	-	✗	✗	✗
A7		MIL 76000 (⇨ Page 18)	150 - 2500	1 - 2	≥ -27	≤ +566	-	-	-	✗
A8	**Control valve – Function: temperature control**									
A8		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	-	-

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
A8		MIL 41000 (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	-	✗	✗
A8		MIL 78000 (⇨ Page 18)	150 - 2500	½ - 6	≥ -29	≤ +260	-	-	✗	✗
A9	**Desuperheater – Function: steam cooling**									
A9		MIL 63000 (⇨ Page 17)	300 - 2500	2 - 32	≥ room temperature	≤ +566	-	✗	✗	✗

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
S1	**Gate valve**									
S1		SICCA 150-600 GTC Low pressure (⇨ Page 15)	150 - 600	2 - 48	≥ -29	≤ +593	✗	✗	-	-
S1		SICCA 900-3600 GTC High pressure (⇨ Page 15)	900 - 3600	2 - 32	≥ -29	≤ +650	-	-	✗	✗
S2	**Globe valve – Shut-off function**									
S2		SICCA 900-2500 GLC High pressure (⇨ Page 16)	900 - 2500	2 - 10	≥ -29	≤ +650	-	-	✗	✗
S3	**Globe valve**									
S3		SICCA 150-600 GLC Low pressure (⇨ Page 15)	150 - 600	2 - 28	≥ -29	≤ +593	-	✗	✗	✗
S4	**Globe valve – Throttling function**									
S4		SICCA 150-600 GLC Low pressure (⇨ Page 15)	150 - 600	2 - 28	≥ -29	≤ +593	-	✗	✗	✗
S5/6	**Swing check valve**									
S5/6		SICCA 900-3600 SCC High pressure (⇨ Page 16)	900 - 3600	2 - 28	≥ -29	≤ +650	-	-	✗	✗
S7	**Swing check valve**									
S7		SICCA 150-600 SCC Low pressure (⇨ Page 15)	150 - 600	2 - 44	≥ -29	≤ +593	-	✗	✗	✗
S8	**Control valve – Function: start control valve, soot blower pressure control, seal steam, deaerator pegging, tapping**									
S8		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	-	-
S8		MIL 41000 (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	✗	✗	✗
S9	**Control valve – Function: leak steam**									
S9		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	✗	✗

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
S10	**Bypass**									
S10		MIL 74000 Valve on request, please contact us.	150 - 2500	3 - 24	≥ -29	≤ +566	-	✗	✗	✗

Code	Type series		DN	Q [m³/h]	H [m]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
C	**Pump for condensate extraction**									
C		Movitec (⇨ Page 22)	25 - 125	≤ 160	≤ 401	≤ +140	✗	✗	-	-
C		Etanorm (⇨ Page 20)	25 - 150	≤ 1930	≤ 160	≤ +140	-	-	✗	-
C		MegaCPK (⇨ Page 21)	25 - 250	≤ 3300	≤ 162	≤ +400	-	-	✗	-
C		WKTB (⇨ Page 24)	150 - 300	≤ 1500	≤ 370	≤ +140	-	-	-	✗
C		Multitec (⇨ Page 22)	32 - 250	≤ 1500	≤ 1000	≤ +200	-	-	-	✗
CC	**Pump for condensate transport**									
CC		Movitec (⇨ Page 22)	25 - 125	≤ 160	≤ 401	≤ +140	-	✗	-	-
CC		Etanorm (⇨ Page 20)	25 - 150	≤ 1930	≤ 160	≤ +140	-	-	✗	-
CC		MegaCPK (⇨ Page 21)	25 - 250	≤ 3300	≤ 162	≤ +400	-	-	✗	-
CC		WKTB (⇨ Page 24)	150 - 300	≤ 1500	≤ 370	≤ +140	-	-	-	✗
CC		Multitec (⇨ Page 22)	32 - 250	≤ 1500	≤ 1000	≤ +200	-	-	-	✗

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
C1	**Globe valve**									
C1		SICCA 150-4500 GLF High pressure (⇨ Page 16)	150 - 4500	¼ - 2½	≥ -29	≤ +650	-	✗	✗	✗
C1	**Control valve**									
C1		MIL 76000 (⇨ Page 18)	150 - 2500	1 - 2	≥ -27	≤ +566	-	✗	✗	✗
C2	**Globe valve**									
C2		SICCA 150-4500 GLF High pressure (⇨ Page 16)	150 - 4500	¼ - 2½	≥ -29	≤ +650	-	✗	✗	✗
C2	**Control valve**									
C2		MIL 70000 (⇨ Page 18)	150 - 2500	½ - 10	≥ -100	≤ +566	-	✗	✗	✗
C3	**Globe valve**									
C3		SICCA 150-4500 GLF High pressure (⇨ Page 16)	150 - 4500	¼ - 2½	≥ -29	≤ +650	-	✗	✗	✗
C4	**Gate valve**									
C4		SICCA 150-600 GTC Low pressure (⇨ Page 15)	150 - 600	2 - 48	≥ -29	≤ +593	✗	✗	✗	✗
C5	**Swing check valve**									
C5		SICCA 150-600 SCC Low pressure (⇨ Page 16)	150 - 600	2 - 44	≥ -29	≤ +593	✗	✗	✗	✗
C6	**Control valve – Function: condensate recirculation**									
C6		MIL 41000 (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	-	✗	✗
C6		MIL 78000 (⇨ Page 18)	150 - 2500	½ - 6	≥ -29	≤ +260	-	-	-	✗
C6		MIL 90000 (⇨ Page 18)	150 - 2500	1,5 - 12	≥ -29	≤ +260	-	✗	✗	✗
C7	**Control valve – Function: deaerator level control**									

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	Capacity B Small	Capacity C Medium	Capacity D Large
C7		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	-	-
C7		MIL 41000 (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	-	✗	✗
C8	**Control valve – Function: feed water heater steam supply**									
C8		MIL 21000 (⇨ Page 17)	150 - 2500	½ - 12	≥ -196	≤ +540	-	✗	✗	✗
C8		MIL 41000 (⇨ Page 17)	150 - 3000	½ - 32	≥ -196	≤ +566	-	-	✗	✗

Code	Type series		DN	Q [m³/h]	H [m]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
D	**Pump for district heating circuits**									
D		Omega (⇨ Page 22)	80 - 400	≤ 4400	≤ 210	≤ +140	-	-	✗	✗
D		RDLO (⇨ Page 23)	350 - 700	≤ 10000	≤ 290	≤ +140	-	-	✗	✗
D		HPK (⇨ Page 21)	150 - 400	≤ 4150	≤ 185	≤ +400	-	-	✗	✗
D		MegaCPK (⇨ Page 21)	25 - 250	≤ 3300	≤ 162	≤ +400	✗	✗	✗	✗
D		Etanorm SYT (⇨ Page 21)	25 - 300	≤ 1900	≤ 102	≤ +350	✗	✗	✗	-

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
D1	**Gate valve**									
D1		SICCA 150-600 GTC Low pressure (⇨ Page 15)	150 - 600	2 - 48	≥ -29	≤ +593	✗	✗	✗	✗
D2	**Swing check valve**									
D2		SICCA 150-600 SCC Low pressure (⇨ Page 16)	150 - 600	2 - 44	≥ -29	≤ +593	✗	✗	✗	✗
D2		SERIE 2000 (⇨ Page 19)	150/300	50 - 600	≥ -196	≤ +538	✗	✗	✗	✗
D3	**Globe valve**									
D3		SICCA 150-600 GLC Low pressure (⇨ Page 15)	150 - 600	2 - 28	≥ -29	≤ +593	✗	✗	✗	✗

Code	Type series		DN	Q [m³/h]	H [m]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
W	**Pump for make-up water system**									
W		Movitec (⇨ Page 22)	25 - 125	≤ 160	≤ 401	≤ +140	-	-	✗	✗
W		MegaCPK (⇨ Page 21)	25 - 250	≤ 3300	≤ 162	≤ +400	-	-	✗	✗
W		Etanorm (⇨ Page 20)	25 - 150	≤ 1930	≤ 160	≤ +140	✗	✗	✗	✗
W		Etachrom B (⇨ Page 20)	25 - 80	≤ 260	≤ 105	≤ +110	✗	✗	✗	✗
W		Etachrom L (⇨ Page 20)	25 - 80	≤ 260	≤ 105	≤ +110	✗	✗	✗	✗

Code	Type series		Class	NPS [inch]	Temperature Min. [°C]	Temperature Max. [°C]	Capacity A Heat recovery boiler	B Small	C Medium	D Large
W1/2	**Butterfly valve**									
W1/2		BOAX-S/SF (⇨ Page 19)	150 - 300	20 - 600	≥ -10	≤ +130	✗	✗	✗	✗
W1/2		ISORIA 10/16 (⇨ Page 19)	150 - 300	40 - 1000	≥ -10	≤ +200	✗	✗	✗	✗
W3	**Swing check valve**									
W3		SICCA 150 SCC Low pressure (⇨ Page 16)	150	2 - 44	≥ -29	≤ +593	✗	-	-	-

Gate valves to ANSI/ASME

SICCA 150-600 GTC

Class	150 - 600
NPS [inch]	2 - 24
T [°C]	≥ 0 - ≤ +593

Description
Gate valve to ANSI/ASME with flanged or butt weld ends, with bolted bonnet, outside screw and yoke, flexible wedge, rising stem, non-rising handwheel, Stellite hard-faced seat/disc interface made of 13 % chrome steel, with graphite gasket and gland packing. Available in carbon steel, low-alloy steel and stainless steel.

Applications
Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

m, e

https://www.ksb.com/de-de/lc/S77A

SICCA 900-3600 GTC

Class	900 - 3600
NPS [inch]	2 - 32
T [°C]	≥ 0 - ≤ +650

Description
Gate valve to ANSI/ASME with butt weld ends, pressure seal design, split wedge, outside screw and yoke, rising stem and non-rising handwheel, Stellite hard-faced seat/disc interface and back seat, with graphite gasket and gland packing. Available in carbon steel and alloy steel.

Applications
Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

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https://www.ksb.com/de-de/lc/S83A

SICCA 150-2500 GTF

Class	150 - 2500
NPS [inch]	¼ - 2½
T [°C]	≥ 0 - ≤ +816

Description
Gate valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, or integral flange (Class 150 - 600) with bolted bonnet (Class 150 - 800) or welded bonnet (Class 1500/2500), solid wedge, outside screw and yoke, Stellite hard-faced seat/disc interface made of 13 % chrome steel, with graphite gaskets and gland packing. Available in carbon steel, low-alloy steel and stainless steel.

Applications
Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

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https://www.ksb.com/de-de/lc/S79A

Globe valves to ANSI/ASME with gland packing

SICCA 150-600 GLC

Class	150 - 600
NPS [inch]	2 - 10
T [°C]	≥ 0 - ≤ +593

Description
Globe valve to ANSI/ASME with flanged or butt weld ends, bolted bonnet, outside screw and yoke. Rising stem, Stellite hard-faced seat/disc interface made of 13 % chrome steel, with graphite gasket and gland packing, available in carbon steel, low-alloy steel and stainless steel.

Applications
Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

m, e

https://www.ksb.com/de-de/lc/S76A

SICCA 900-2500 GLC

Class	900 - 2500
NPS [inch]	2 - 10
T [°C]	≥ 0 - ≤ +650

Description
Globe valve to ANSI/ASME with butt weld ends, Y-pattern, pressure seal design, outside screw and yoke, rising stem and non-rising handwheel, Stellite hard-faced seat/disc interface and back seat, with graphite gasket and gland packing. Available in carbon steel and alloy steel.

Applications
Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

m, e

https://www.ksb.com/de-de/lc/S82A

SICCA 150-4500 GLF

Class	150 - 4500
NPS [inch]	¼ - 2½
T [°C]	≥ 0 - ≤ +816

Description
Globe valve to ANSI/ASME with NPT (F) threaded ends or socket weld ends, or integral flange (Class 150 - 600) with bolted bonnet (Class 150 - 800) or welded bonnet (Class 1500/2500/4500), outside screw and yoke, Stellite hard-faced body seat, disc seating face made of Stellite hard-faced 13 % chrome steel, with graphite gaskets and gland packing. Available in carbon steel, low-alloy steel and stainless steel.

Applications
Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

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https://www.ksb.com/de-de/lc/S80A

Swing check valves to ANSI/ASME

SICCA 150-600 SCC

Class	150 - 600
NPS [inch]	2 - 24
T [°C]	≥ 0 - ≤ +593

Description
Swing check valve to ANSI/ASME with flanged or butt weld ends, with bolted cover, internally bracket-mounted hinge pin (up to NPS 12) and body-mounted hinge pin (NPS > 12). Bigger nominal sizes with anti-slam/dash pot arrangement (optional), graphite gaskets. Stellite hard-faced seat/disc interface made of 13 % chrome steel. Available in carbon steel, low-alloy steel and stainless steel.

Applications
Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

https://www.ksb.com/de-de/lc/S78A

SICCA 900-3600 SCC

Class	900 - 3600
NPS [inch]	2 - 28
T [°C]	≥ 0 - ≤ +650

Description
Swing check valve to ANSI/ASME with butt weld ends, pressure seal design, internally mounted hinge pin, Stellite hard-faced seat/disc interface, with graphite gasket. Available in carbon steel and alloy steel.

Applications
Power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

https://www.ksb.com/de-de/lc/S84A

Lift check valves to ANSI/ASME

SICCA 150-4500 PCF

Class	150 - 4500
NPS [inch]	¼ - 2½
T [°C]	≥ 0 - ≤ +816

Description
Lift check valve to ANSI/ASME with threaded sockets (NPT), butt weld ends (BW) or socket weld ends (SW) or integral flange (Class 150 - 600), Trim 8 (Stellite/13 % chrome steel), with bolted cover (Class 150 - 800) or welded cover (Class 1500/2500/4500), spring-loaded check disc, available in carbon steel, low-alloy steel and stainless steel.

Applications
Refineries, power stations, general industry and process engineering. For water, steam, oil, gas and non-aggressive fluids. Other fluids on request.

https://www.ksb.com/de-de/lc/S81A

Control valves to ANSI/ASME

MIL 21000

Class	150 - 2500
NPS [inch]	½ - 12
T [°C]	≥ -196 - ≤ +540

Description
Top-guided single-ported heavy post-guided control valve for a wide temperature range.

Applications
Industry, power stations, process engineering.

e, h, p

https://www.ksb.com/de-de/lc/M57A

MIL 41000

Class	150 - 3000
NPS [inch]	½ - 32
T [°C]	≥ -196 - ≤ +566

Description
Cage-guided single-ported heavy-duty control valves, high pressure drop capability; noise reduction and anti-cavitation solution available by replacing the standard cage.

Applications
Industry, power stations, process engineering, chemical and petrochemical engineering.

e, h, p

https://www.ksb.com/de-de/lc/M37A

MIL 63000

Class	300 - 2500
NPS [inch]	2 - 32
T [°C]	≥ room temperature - ≤ +566

Description
Desuperheater with nozzles ranging from fixed-area nozzles to variable-area spring-loaded nozzles.

Applications
Energy applications, process engineering, paper and pulp industry, chemical industry

MIL 70000

Class	150 - 2500
NPS [inch]	½ - 10
T [°C]	≥ -100 - ≤ +566

Description
Top-guided single-ported heavy-duty control valves in angle pattern.
Applications
Industry, power stations, process engineering, chemical and petrochemical engineering

e, h, p

https://www.ksb.com/de-de/lc/M40A

MIL 76000

Class	150 - 2500
NPS [inch]	1 - 2
T [°C]	≥ -27 - ≤ +566

Description
The letdown control valves in angle pattern are designed for all applications where flashing (flash evaporation) or two-phase (liquid and gaseous) flows may occur; no body/trim erosion, vibration or noise. Due to its angle pattern, the globe valve is self-draining.
Applications
Industry, power stations, process engineering, chemical and petrochemical engineering.

e, h, p

https://www.ksb.com/de-de/lc/M54A

MIL 78000

Class	150 - 2500
NPS [inch]	½ - 6
T [°C]	≥ -29 - ≤ +260

Description
Multistage control valve in anti-cavitation design with wear-resistant multistage trim and detachable flow bush / spacer.
Applications
Industry, power stations, process engineering, chemical and petrochemical engineering.

e, h, p

https://www.ksb.com/de-de/lc/M64A

MIL 91000

Class	150 - 3400
NPS [inch]	¾ - 12
T [°C]	≥ -29 - ≤ +566

Description
Multistage multi-path control valve with Matrix trim; pressures of up to 420 bar can be reduced by up to 50 pressure reduction stages, preventing cavitation and greatly reducing fluid velocity.
Applications
Industry, power stations, process engineering, chemical and petrochemical engineering.

e, h, p

https://www.ksb.com/de-de/lc/M76A

Automatic recirculation valves

MIL 90000

Class	150 - 2500
NPS [inch]	1,5 - 12
T [°C]	≥ -29 - ≤ +260

Description
The automatic recirculation valve (ARV) is a multifunctional valve whose primary function is to ensure a pre-determined minimum flow through the centrifugal pump at all times.
Applications
Power stations, refineries, petrochemical industry.

e, h, p

https://www.ksb.com/de-de/lc/M74A

Not available for worldwide sale Actuator/Automation

Swing check valves to DIN/EN

SERIE 2000

PN	16
Class	150/300
DN	50 - 600
T [°C]	≥ -196 - ≤ +538

Description
Dual-plate check valve with single-piece, wafer-type body made of lamellar graphite cast iron, nodular cast iron, steel or stainless steel; metal/elastomer-seated or metal/metal-seated, maintenance-free, connections to EN, ASME or JIS.

Applications
Building services: heating, air-conditioning, water supply, irrigation, water treatment. General processes: water, air, gas. Process engineering, chemical and petrochemical industry, sugar industry, paper industry, water supply, desalination, marine applications: water, air, gas, hydrocarbons.

https://www.ksb.com/de-de/lc/S51A

Centred-disc butterfly valves

BOAX-S/SF

PN	6/10/16
DN	20 - 600
T [°C]	≥ -10 - ≤ +130

Description
Centred-disc butterfly valve with ISO 5211 compliant square shaft end for butterfly valves from DN 350, with heat barrier and elastomer liner (EPDM XU or nitrile K), with lever, manual gearbox or electric actuator (BOAXMAT-S and BOAXMAT-SF); semi-lug body (T2) or full-lug body (T4) for downstream dismantling and dead-end service. Valve disc made of stainless steel 1.4308, connections to EN.

Applications
Building services, heating, ventilation, air-conditioning systems, for drinking water.

m, e, p + AMTROBOX/AMTRONIC U/SMARTRONIC U

https://www.ksb.com/de-de/lc/B12A

ISORIA 10/16

PN	10/16
DN	40 - 1000
T [°C]	≥ -10 - ≤ +200

Description
Centred-disc butterfly valve with ISO 5211 compliant square shaft end, sealed by elastomer liner, with lever or manual gearbox, pneumatic, electric or hydraulic actuator. Wafer-type body (T1), semi-lug body (T2), full-lug body (T4) or U-section body with flat faces (T5). Body types T2 and T4 are suitable for downstream dismantling and dead-end service with counterflange. Connections to EN, ASME, JIS.

Applications
Shut-off and control duties in all industrial and energy sectors.

m, e, h, p + AMTROBOX/AMTRONIC U/SMARTRONIC U

https://www.ksb.com/de-de/lc/I00A

Standardised / close-coupled pumps

Etanorm

DN	25 - 150
Q [m³/h]	≤ 1930
H [m]	≤ 160
p [bar]	≤ 16
T [°C]	≥ -30 - ≤ +140
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal volute casing pump, single-stage, with ratings and main dimensions to EN 733, long-coupled, back pull-out design, with replaceable shaft sleeves / shaft protecting sleeves and casing wear rings, with motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.

Applications
Pumping clean or aggressive liquids not chemically or mechanically aggressive to the pump materials in water supply systems, cooling circuits, swimming pools, fire-fighting systems, irrigation systems, drainage systems, heating systems, air-conditioning systems, spray irrigation systems

https://www.ksb.com/de-de/lc/E04B

Etachrom B

DN	25 - 80
Q [m³/h]	≤ 260
H [m]	≤ 105
p [bar]	≤ 12
T [°C]	≥ -30 - ≤ +110
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal single-stage close-coupled circular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings and motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.

Applications
Cleaning systems (bottle rinsing, crate washing, etc.), water treatment plants, water supply systems, fire-fighting systems, spray irrigation systems, general irrigation systems, drainage systems, hot-water heating systems, air-conditioning systems, industrial washing plants, general industry, disposal of paint sludge, surface treatment

https://www.ksb.com/de-de/lc/E02A

Etachrom L

DN	25 - 80
Q [m³/h]	≤ 260
H [m]	≤ 105
p [bar]	≤ 12
T [°C]	≥ -30 - ≤ +110
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal single-stage circular casing pump, with ratings and main dimensions to EN 733, with replaceable casing wear rings and motor-mounted variable speed system. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.

Applications
Cleaning systems (bottle rinsing, crate washing, etc.), water treatment plants, water supply systems, fire-fighting systems, spray irrigation systems, general irrigation systems, drainage systems, hot-water heating systems, air-conditioning systems, industrial washing plants, general industry, disposal of paint sludge, surface treatment

https://www.ksb.com/de-de/lc/E08A

Hot water pumps

HPK

DN	150 - 400
Q [m³/h]	≤ 4150
H [m]	≤ 185
p [bar]	≤ 40
T [°C]	≥ 0 - ≤ +400
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to ISO 2858 / ISO 5199. Optional TRD type testing by TÜV. ATEX-compliant version available.

Applications
Pumping hot water and thermal oil in piping systems or tank systems, particularly in medium-sized and large hot-water heating systems, forced circulation boilers, district heating systems

https://www.ksb.com/de-de/lc/H02A

Hot water / thermal oil pumps

Etanorm SYT / RSY

DN	25 - 300
Q [m³/h]	≤ 1900
H [m]	≤ 102
p [bar]	≤ 16
T [°C]	≥ -30 - ≤ +350
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal volute casing pump in back pull-out design, single-stage, with ratings and dimensions to EN 733, radially split volute casing with integrally cast pump feet, replaceable casing wear rings, closed radial impeller with multiply curved vanes, single mechanical seal to EN 12756, double mechanical seal to EN 12756, drive-end bearings: rolling element bearings, pump-end bearings: plain bearings, with magnetless KSB SuPremE motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 and PumpDrive variable speed system; ATEX-compliant version available.

Applications
Heat transfer systems, hot water recirculation

KSB Leakage Sensor

https://www.ksb.com/de-de/lc/E44B
https://www.ksb.com/de-de/lc/E23A

Standardised chemical pumps

MegaCPK

DN	25 - 250
Q [m³/h]	≤ 3300
H [m]	≤ 162
p [bar]	≤ 25
T [°C]	≥ -40 - ≤ +400
Data for 50 Hz operation	
Also available for 60 Hz	

Description
Horizontal radially split volute casing pump in back pull-out design, with radial impeller, single-entry, single-stage, to DIN EN ISO 2858 / ISO 5199, in a large range of material and seal variants; also available as a variant with "wet" shaft and conical seal chamber. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.

Applications
Pumping aggressive, toxic, explosive, valuable, flammable, malodorous or harmful liquids in the chemical and petrochemical industries, in refineries, power stations and desalination plants as well as in the food industry and general industry.

https://www.ksb.com/de-de/lc/M48A

High-pressure pumps

Movitec

Rp	1 - 2
DN	25 - 125
Q [m³/h]	≤ 160
H [m]	≤ 401
p [bar]	≤ 40
T [°C]	≥ -20 - ≤ +140
n [rpm]	≤ 2900

Data for 50 Hz operation
Also available for 60 Hz

Description
Multistage vertical high-pressure centrifugal pump in ring-section design with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design), close-coupled. With KSB SuPremE, a magnetless synchronous reluctance motor (exception: motor sizes 0.55 kW / 0.75 kW with 1500 rpm are designed with permanent magnets) of efficiency class IE4/IE5 to IEC TS 60034-30-2:2016, for operation on a KSB PumpDrive 2 or KSB PumpDrive 2 Eco variable speed system without rotor position sensors. Motor mounting points in accordance with EN 50347, envelope dimensions in accordance with DIN V 42673 (07-2011). ATEX-compliant version available.

Applications
Spray irrigation, general irrigation, washing, water treatment, fire-fighting and pressure booster systems, hot water and cooling water recirculation, boiler feed systems, etc.

KSB SuPremE, PumpDrive, PumpMeter https://www.ksb.com/de-de/lc/M12A

Multitec

DN	32 - 250
Q [m³/h]	≤ 1500
H [m]	≤ 1000
p [bar]	≤ 100
T [°C]	≥ -10 - ≤ +200
n [rpm]	≤ 3500

Description
Multistage horizontal or vertical centrifugal pump in ring-section design, long-coupled or close-coupled, with axial or radial suction nozzle, cast radial impellers and motor-mounted variable speed system. ATEX-compliant version available.

Applications
Water supply, drinking water supply, industry, pressure boosting, irrigation, power stations, heating systems, filtering systems, fire-fighting systems, reverse osmosis systems, snow-making systems and washing plants, and geothermal systems (re-injection of geothermal water into the aquifer).

KSB SuPremE, PumpDrive, PumpMeter https://www.ksb.com/de-de/lc/M07A

WKL

DN	32 - 150
Q [m³/h]	≤ 450
H [m]	≤ 300
p [bar]	≤ 30
T [°C]	≥ -10 - ≤ +110
n [rpm]	≤ 3500

Description
Multistage horizontal centrifugal pump in ring-section design, with radial suction nozzle and closed radial impellers.

Applications
Transport of raw water and drinking water, applications in industry, pressure boosting, irrigation, sprinkler systems, drainage, etc.

https://www.ksb.com/de-de/lc/W15B

Axially split pumps

Omega

DN	80 - 400
Q [m³/h]	≤ 4400
H [m]	≤ 210
p [bar]	≤ 25
T [°C]	≥ 0 - ≤ +140
n [rpm]	≤ 2900

Data for 50 Hz operation
Also available for 60 Hz

Description
Single-stage axially split volute casing pump for horizontal or vertical installation, with double-entry radial impeller, mating flanges to DIN, EN or ASME.

Applications
Pumping water with a low solids content, e.g. in waterworks, irrigation and drainage pumping stations, extraction duties in desalination systems, power stations, fire-fighting systems, shipbuilding, district heating or cooling.

PumpDrive, PumpMeter, Frequency inverter https://www.ksb.com/de-de/lc/O00A

Not available for worldwide sale · Factory-automated · Automation available

RDLO

DN	350 - 700
Q [m³/h]	≤ 10000
H [m]	≤ 290
p [bar]	≤ 30
T [°C]	≥ 0 - ≤ +140
n [rpm]	≤ 1450

Data for 50 Hz operation

Also available for 60 Hz

Description
Single-stage axially split volute casing pump for horizontal or vertical installation, with double-entry radial impeller, mating flanges to DIN, EN or ASME.

Applications
Pumping water with a low solids content, e.g. in waterworks, irrigation and drainage pumping stations, extraction duties in desalination systems, power stations, fire-fighting systems, shipbuilding, district heating or cooling.

PumpMeter, Frequency inverter

https://www.ksb.com/de-de/lc/R08A

Pumps for power station conventional islands

HGB / HGC / HGD

DN	40 - 400
Q [m³/h]	≤ 2300
H [m]	≤ 5300
p [bar]	≤ 560
T [°C]	≤ +210
n [rpm]	≤ 7000

Also available for 60 Hz

Higher ratings possible upon request

Description
Horizontal radially split ring-section pump with radial impellers, single-entry or double-entry, multistage.

Applications
Pumping feed water and condensate in power stations and industrial plants, pumping gas turbine fuels, generating pressurised water for bark peeling and descaling units, snow guns, etc.

https://www.ksb.com/de-de/lc/H63A
https://www.ksb.com/de-de/lc/H23A

HGI

DN	80 - 150
Q [m³/h]	≤ 600
H [m]	≤ 2000
p [bar]	≤ 200
T [°C]	≤ +180
n [rpm]	≤ 3600

Also available for 60 Hz

Description
Horizontal radially split ring-section pump with radial impellers, single-entry, multistage.

Applications
Pumping feed water and condensate in power stations and industrial plants.

https://www.ksb.com/de-de/lc/H08A

HGM

DN	25 - 125
Q [m³/h]	≤ 390
H [m]	≤ 1400
p [bar]	≤ 140
T [°C]	≤ +160
n [rpm]	≤ 3600

Also available for 60 Hz

Higher ratings possible upon request

Description
Horizontal radially split product-lubricated multistage ring-section pump with radial impellers, axial and radial single-entry inlet.

Applications
Pumping feed water in power stations, boiler feed systems and condensate transport in industrial plants.

https://www.ksb.com/de-de/lc/H00A

HGM-S

DN	25 - 125
Q [m³/h]	≤ 390
H [m]	≤ 1000
p [bar]	≤ 100
T [°C]	≤ +160
n [rpm]	≤ 3600

Also available for 60 Hz

Higher ratings possible upon request

Description
Horizontal radially split product-lubricated multistage ring-section pump with radial impellers, axial and radial single-entry inlet.

Applications
Pumping feed water in power stations, boiler feed systems and condensate transport in industrial plants.

https://www.ksb.com/de-de/lc/H00A

WKTB

DN	150 - 300
Q [m³/h]	≤ 1500
H [m]	≤ 370
p [bar]	≤ 40
T [°C]	≤ +140
n [rpm]	1500

Data for 50 Hz operation

Also available for 60 Hz

Description

Vertical can-type ring-section pump on base frame, multistage, first-stage impeller designed as a double-entry suction impeller, radial impellers. Flanges to DIN or ANSI.

Applications

Pumping condensate in power stations and industrial plants.

https://www.ksb.com/de-de/lc/W07A

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