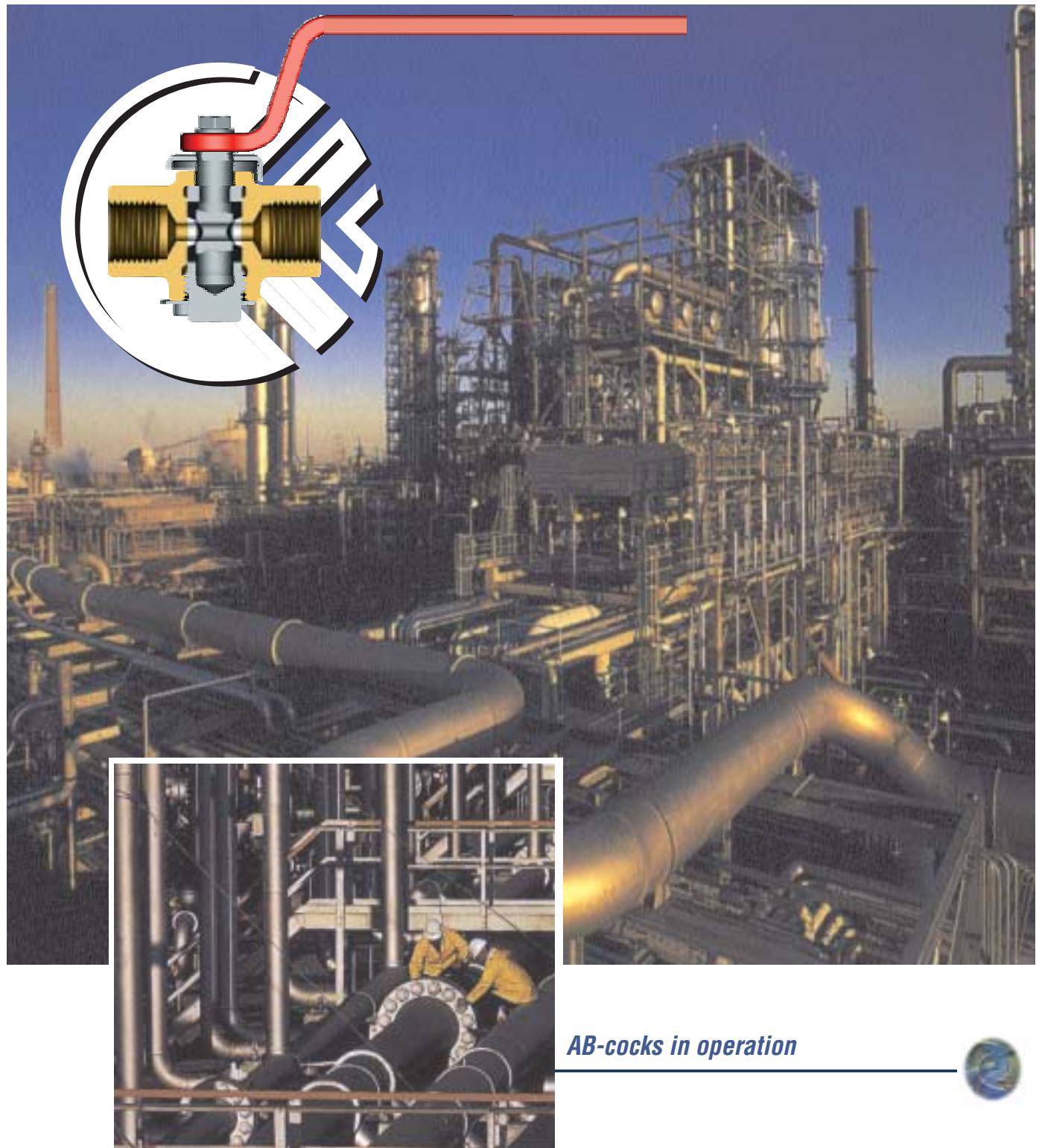




AB-cocks

Reliability for decades

Simple handling
Safe and robust
Economical and reliable
Easy to maintain



AB-cocks in operation

AB-cocks

Robust shut-off valves



Advantage and function principle of AB-cocks
03

*Packing sleeve
The strong heart*
05

Maintenance and installation
06

Materials for AB-cocks and packing sleeves
07

Pressure- and temperature limits
08 – 09

Applicable in many cases
10

Summary of AB-cocks
11

Proved by the million

Every KLINGER-AB cock contains a KLINGER packing sleeve

Simple maintenance

Reliable in all applications

How to find the most economical AB-cock

Our best reference are our users

Large variety

Safety through experience in seal and valve construction

Straight-way cocks female, male and with weld ends
12 – 15

Drain cocks, male
16

Indicator cocks, male, acc. to Maihak and Burmeister
17 – 20

Pressure gauge cocks, female, male and with test flange
21 – 26

Table of chemical resistance
27 – 29

For each application a proper AB-cock

All types are available in forged steel and / or stainless steel; pressure gauges also in brass

Packing sleeves of PTFE, KFG, KOR-AF or KAF cover all of the required temperature ranges

Safe for all the media listed

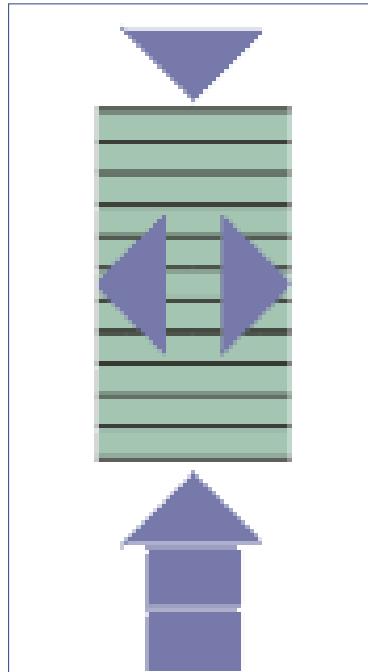
***Straight-way cocks
Drain cocks
Indicator cocks
Pressure-gauge cocks***

KLINGER AB-cocks are simple, extremely robust shut-off valves which have been developed to meet the special requirements of Instrumentation services. Due to their absolute reliability and economy they are employed by the million.

Operating principle

A cylindrical cock plug, which has a stop rigidly attached by a circlip, and an elastic packing sleeve ensure fast opening and shutting of the cock via 90° rotation. Pressure gauges of the type MAB do not have a stop but type MABAL is equipped with a stop.

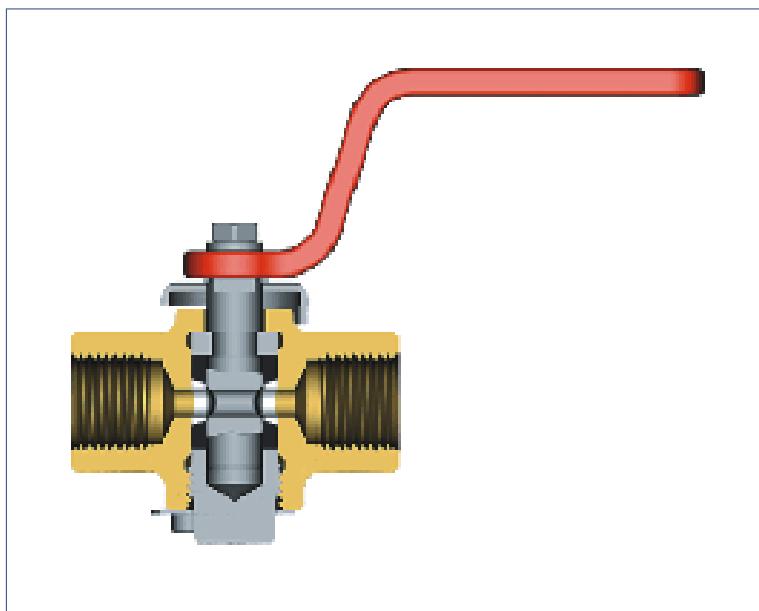
The cock is operated with a handle which can be removed (protection against unauthorized operation). All cocks are shut by a clockwise rotation except types ABIE and MABAL which are shut via counter-clockwise rotation.



Elastic packing sleeve of KAF or KOR-AF: Under pressure the lamellas are pressed against the wall of the body and thereby achieve an excellent seal.

Advantages of AB cocks

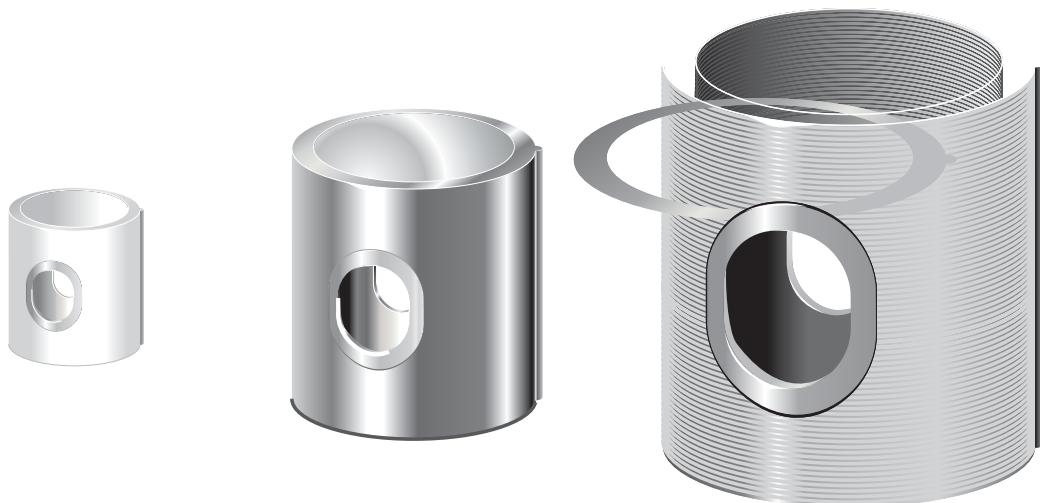
- 90° operation permits immediate opening and shutting
- Generously dimensioned sealing surface guarantees leak-tight seal across the ports and to the atmosphere – hence no false instrument readings.
- May be used for throttling purposes and therefore in blow-down lines.
- Simple design (only one moving part) ensures uninterrupted operation.
- The packing sleeve, the only part subjected to wear, can be replaced within minutes with the cock staying in the line.
- KLINGER AB-cocks are provided with a plug of stainless steel (1.4401)
- No jamming through corrosion
- Special designs for application with pressure gauges, indicators and liquid level gauges are available.



Cross section of AB-cock type ABM 12

KLINGER is world wide the only producer who has accumulated experience over decades in manufacturing both seals and valves.

The packing sleeve The heart of the AB-cock



PTFE

Suitable for chemicals and aggressive media in the food industry

KAF

Suitable for high temperatures up to 400 °C

KOR-AF

The material used at most for temperatures up to 250 °C



KLINGER

The KLINGER-name has become a synonym for valves and seals in Europe. The enterprise produces valves since more than hundred years. In 1886 the founder of the company, Richard KLINGER, discovered the reflex glass which became the first reliable liquid level gauge. Other world-wide known products followed such as "Klingerit" (the first It-sealing material) and the piston valve.

KLINGER is an international group which originates from Austria. The parent factory was built in 1892 in Gumpoldskirchen, near Vienna, and is now only one out of many all over the world. Further companies were established in Germany, England, Australia, South Africa, South-, Central and North America and manufacturing licences were assigned in several countries. All these companies together cover the

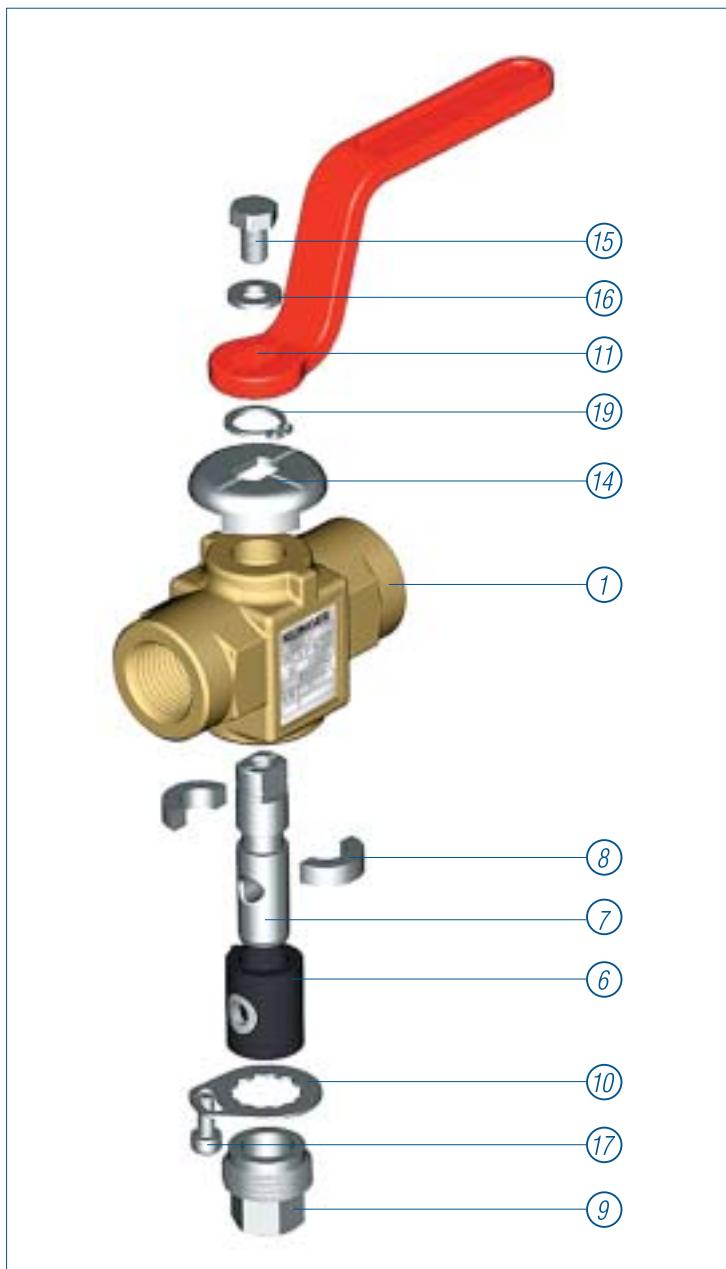
worldwide demand for Klinger products today.

The KLINGER research centre in Switzerland is responsible for continuously developing our products in order to meet the demands of all branches of industry

Because of new regulations in 1990, asbestos-free sealing material has been developed and is since used in KLINGER valves.

AB cocks

Maintenance and installation



Disassembly / installation

Note: Each KLINGER-cock comes with a detailed mounting instruction.

Loosen the cap screw (17), remove locking disc (10), unscrew tightening nut (9), loosen the lever screw (15), remove washer (16) and lever (11) from the cock plug (7). Remove safety ring (19) and the stop (14) from the cock plug (7). Knock the cock plug (7) to-

gether with the split ring (8) and the packing sleeve (6) out of the body (1). Remove the split ring (8) and push the plug (7) through the packing sleeve (6). Now replace the packing sleeve and together with plug and split ring push it back into the body whereby you have to align the tongue of the packing sleeve with the groove inside the body. Put stop, safety ring and lever back into

place and fix with the lever screw. Bring cock to open position, tighten screw with indicated torque (15 Nm $\pm 15\text{Nm}$) and secure with locking disc.

AB-cocks Materials

Materials for AB-cocks

Material code	Body	Cock plug	Tightening nut	Split ring
IV	Hot pressed brass Ms 58p (2.0401)	Hot pressed brass Ms 58p, (2.0401)	2.0401 1.4401	Stainless steel 1.4401
VII, VIII	Forged steel C 22,8 (1.0460)	Stainless steel 1.4401	1.4016	
X, Xc	Stainless steel 1.4571	Stainless steel 1.4401	Stainless steel 1.4401	

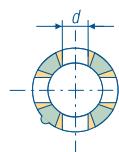
Equivalent material codes

Material code acc. to KLINGER	Material class	DIN-code	ANSI-code	BS-code	ASTM-code
C22,8 VIII	Forged steel	C22,8	M1020	1503-161 Gr.B	A181 Gr. II
Ms58p IV	Hot pressed brass	Ms58p	—	B36-Nr. 8	—
9SMn28K	Machining steel	9SMn28K	1213	2030Mo7	—
St 37.2	Steel	1.0037	—	—	—
1.4571 Xc	Stainless steel	X8CrMoTi 17	316 Ti	320 S 31	—
1.4401	stainless cr.-steel	X5CrNiMo 1810	316	316-S 16	A182-F316

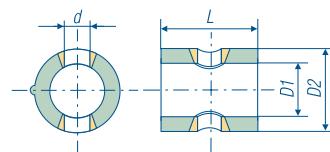
* AISI- BS- and ASTM-codes are the nearest to DIN

Materials and measurements of packing sleeves

Four-hole packing sleeve



Two-hole packing sleeve

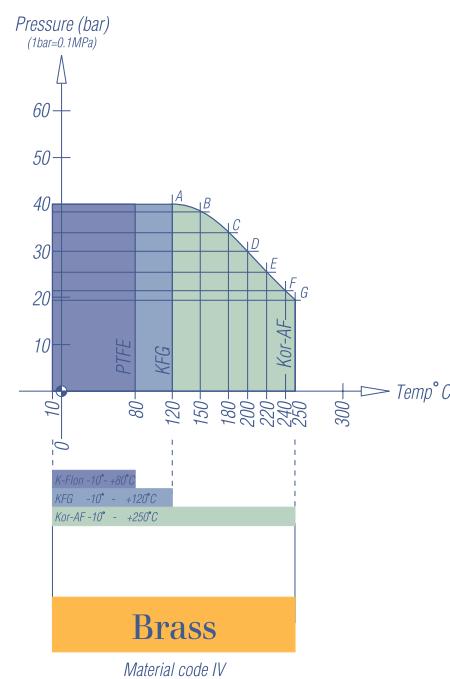


Cock size	Nominal width mm	Internal Ø D1	External Ø D2	Length L	Number of holes	Weight ca. kg	Suitable for cock type	Material
AB 10							ABB 10 on request	PTFE, KFG
AB 12	6	1/4	12	18	23	2	0,006	ABL 12, ABM 12, ABZ 12, MABI 12, ABI 12, ABIE 12, ABS 12
AB 12	3,25	1/8	12	18	23	4	0,007	MABA 12, MABC 12, MABU 12
AB 18	8	5/16	18	26	32	2	0,019	KAF, KOR-AF PTFE, KFG

Pressure- temperature limits to ISO 7005/3 and EN 1092-3

Type: Klinger AB-cock MAB 12
 Material: 2.0401
 CuZn39Pb3
 Klinger Wkz. IV
 Pressure rate: PN 40

Point	Temperature °C	Pressure (bar)
A	120	40
B	150	38.5
C	180	34
D	200	30
E	220	25.5
F	240	21.5
G	250	19.5

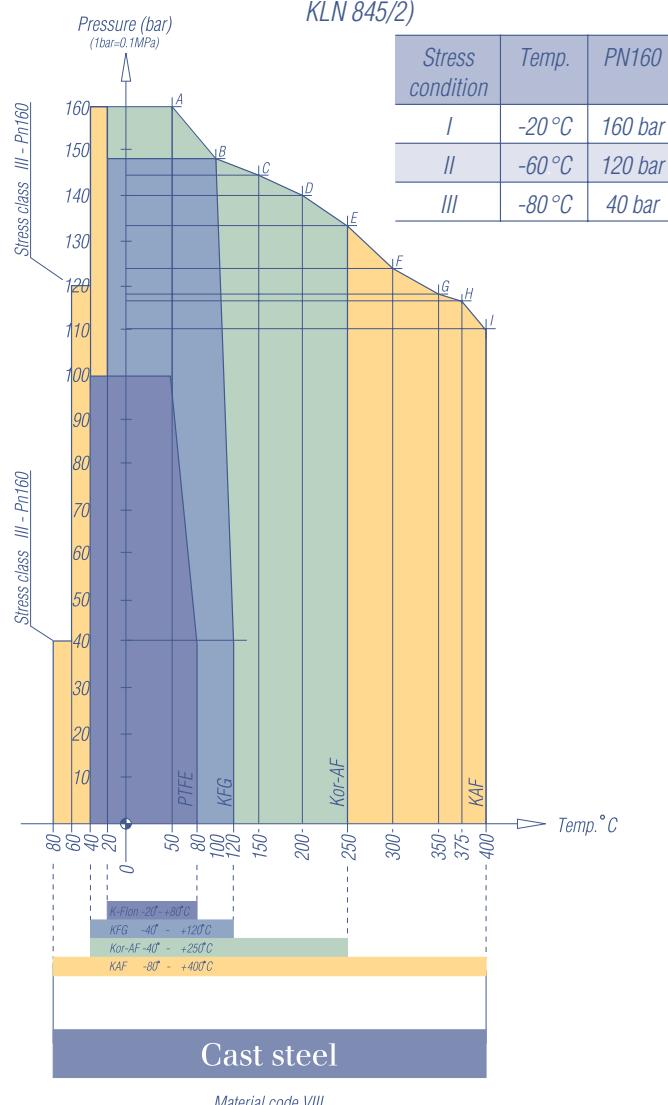

Pressure- temperature limits to ISO 7005/1

Type: Klinger AB-cock AB12, MAB12, AB18
 Material: 1.0460
 C22.8
 Klinger m. c. VIII
 Pressure rate: PN 160

Point	Temperature °C	Pressure (bar)
A	50	160
B	100	148.3
C	150	144.7
D	200	140.2
E	250	133.5
F	300	123.9
G	350	118.2
H	375	116.6
I	400	110.4

Low temperature limits

(acc. to AD-code of practice W10 or KLN 845/2)



With the pT-diagram you find the most efficient AB-cock

Pressure- temperature limits according to ISO 7005/1

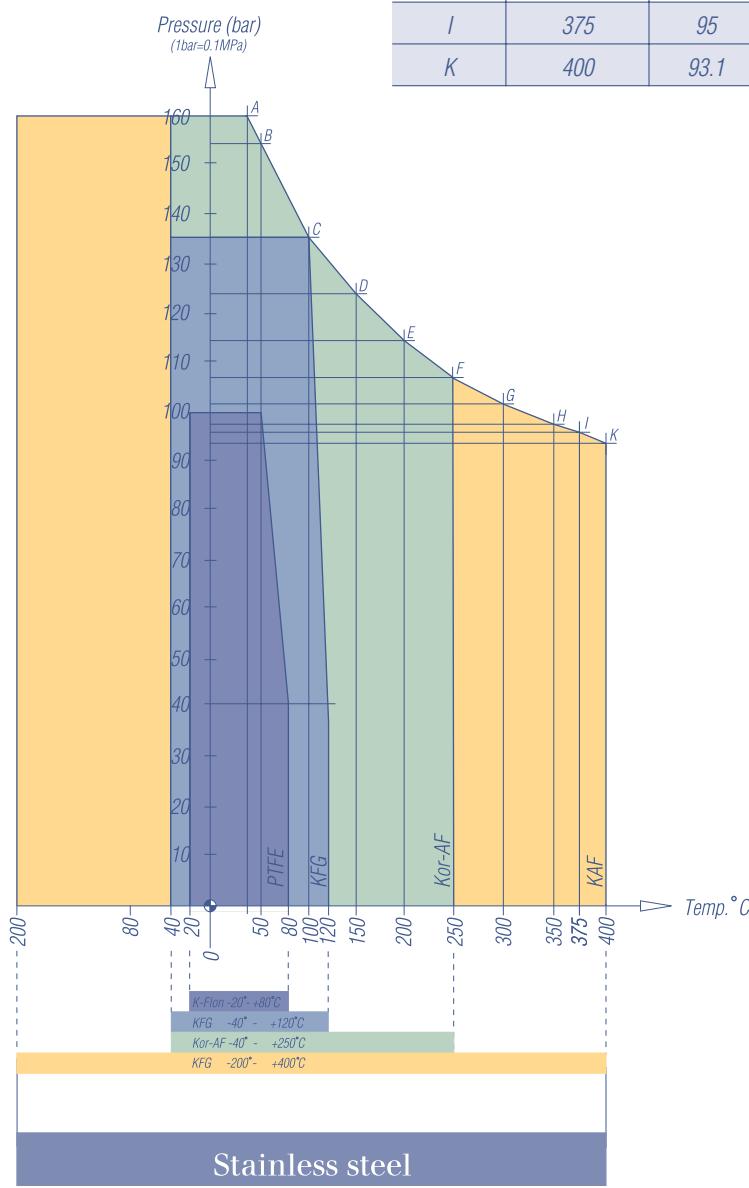
Type: Klinger AB-cock AB12,
MAB12, AB18
Material: 1.4571
X 10 CrNiMo Ti 1810
Klinger m. c. Xc
Pressure rate: PN 160

Point	Temperature °C	Pressure (bar)
A	38	160
B	50	154
C	100	135
D	150	123.2
E	200	114.1
F	250	106.8
G	300	101.2
H	350	97.3
I	375	95
K	400	93.1

Pressure- temperature limits

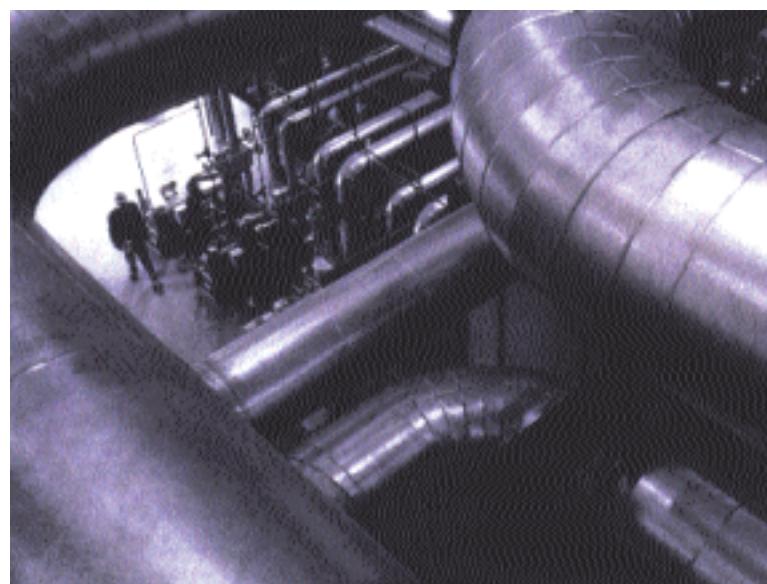
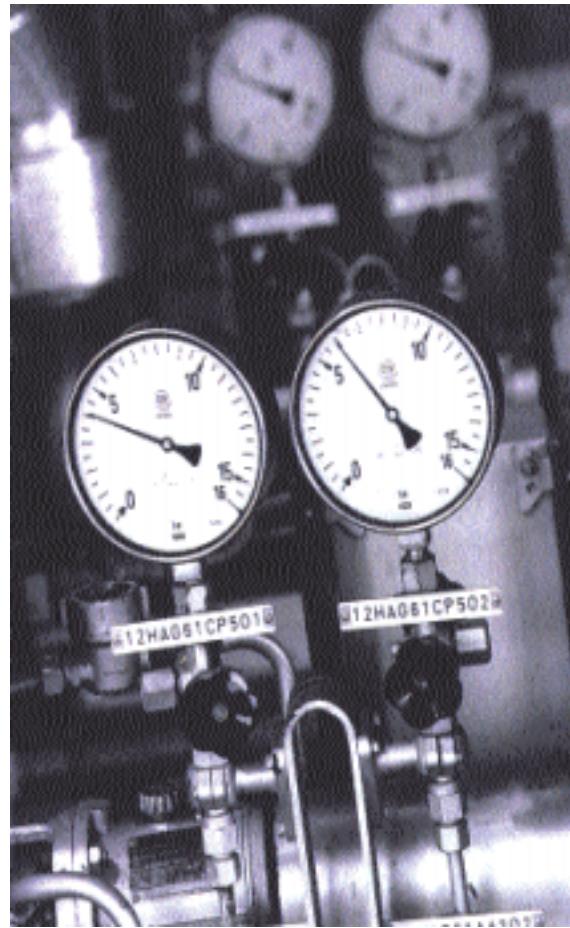
As seen on the pt-diagram it depends a great deal on the sealing material for which area of application an AB-cock is suitable. By placing a point representing your operation condition on the respective diagram field you will find the most suitable sealing material according to your needs. If the operation pressure drops within the nominal-pressure range the application field within the temperature range increases.

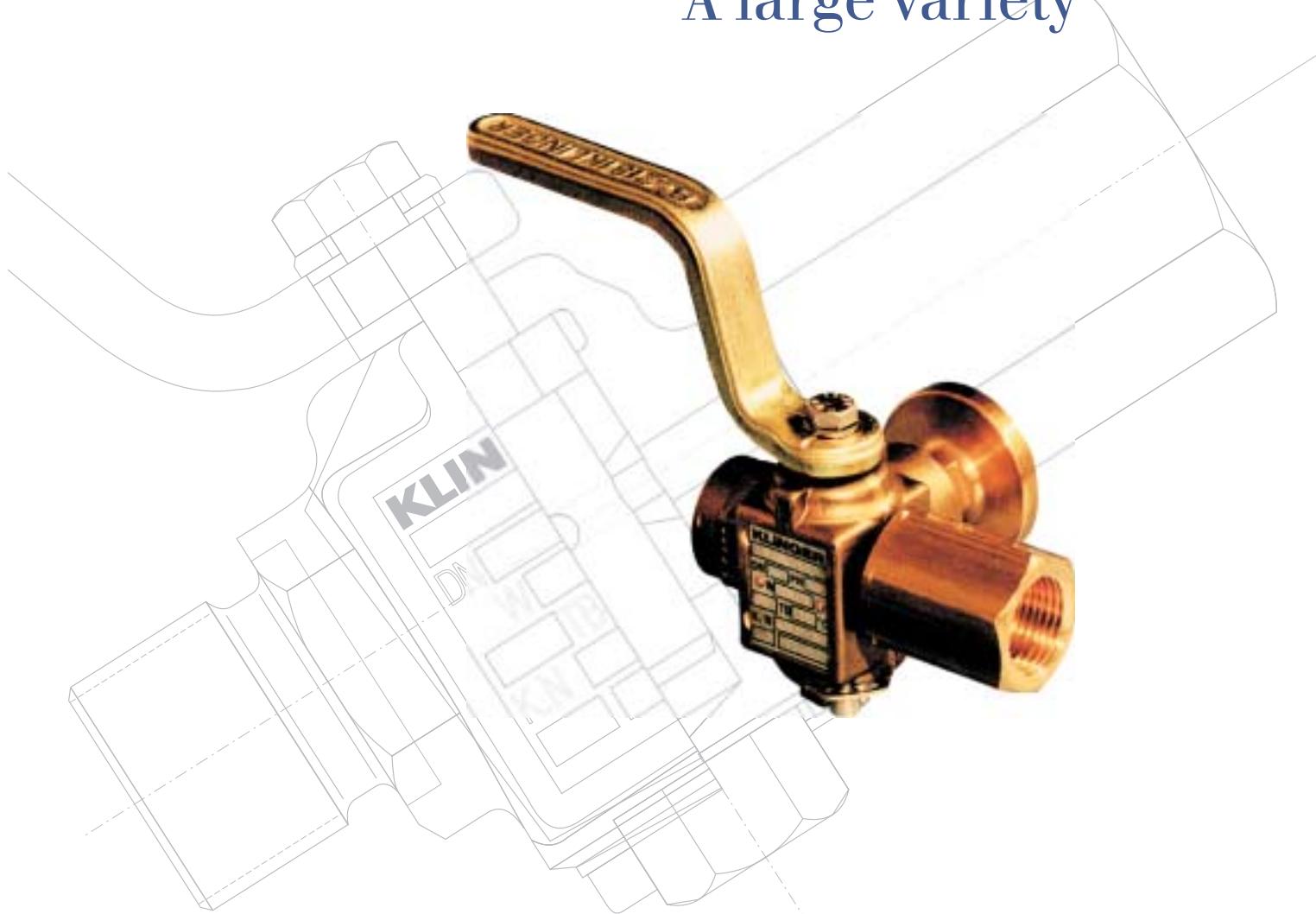
Choosing your AB-cock based on this diagram will optimize the efficiency of your valve.



A wide application range

Processing industry, automation, shipbuilding industry, diesel engines, compressed-air supply, instrumentation and control, electric supply, energy generating companies and many more.





Summary of types

Type	Connection	Material	Pressure	Page
ABM 12	Female	VIII, Xc	PN 160	12
ABZ 12	Male	VIII, Xc	PN 160	13
ABMZ 12	Female/Male	VIII, Xc	PN 160	14
ABI 12/A – ABI 12/D	Male (Maihak)	VII	PN 160	15
ABIE 12/A – ABIE 12/D	Male (Maihak)	VII	PN 160	16
ABIE 12/D	Male (Burmeister)	VII	PN 160	17
MABI 12	Female/Male	VIII, Xc	PN 160	18
MABA 12 – MABC 12	Female/test flange	VIII, Xc	PN 160	19
MABU 12	Female/Male	VIII, Xc	PN 160	20
MABAL 12	Female	VIII	PN 160	21
<i>Safe with every medium (table)</i>				22ff

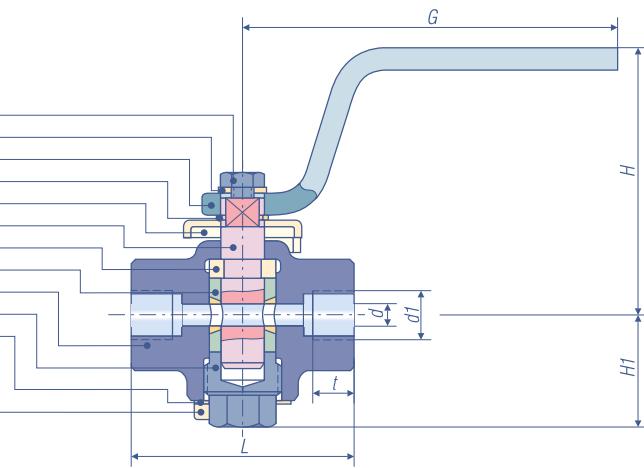
ABM 12

Straight-way cocks, female

Connection: Female with pipe thread to DIN/ISO 228/1 or NPT- thread to ANSI B2.1
 Material: VIII/steel, Xc/stainless steel PN 160

Material	VIII	Xc
Hexagon head screw	A4	A4
Disc	A4	A4
Lever	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC
Seeger circlip	1.4034	1.4034
Stop AB 12	1.4401	1.4401
Cock plug	1.4401	1.4401
Split ring	1.4401	1.4401
Packing sleeve	1)	1)
Body	1.0460 Zn 8-15 cC	1.4571
Tightening nut	1.4401	1.4401
Locking disc	1.4401	1.4401
Fillister head screw	A4	A4
Type plate	1.4301	1.4301

1) Sealing material: KAF, PTFE, KFG, KOR-AF



Characteristics

Cylindrical plug, elastic packing sleeve, 90°-rotation with stop, to close with clockwise rotation, removable handle, simple maintenance.

Application limits acc. to pt-diagram

Suggested order specification

Straight-way cock as cylinder cock, sealed by elastic packing sleeve which can be retightened. Body of steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Female with pipe thread to DIN/ISO 228/1 or NPT-thread to ANSI B2.1.

Make: KLINGER

Type: ABM 12

Ordering example:

ABM 12-G 1/2" VIII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension				Connection dimension		Weight ca. kg
		H	H1	L	G	d1	t	
ABM 12-G 1/4"	6	72	31,5	70	100	G 1/4"	10,5	0,36
ABM 12-G 3/8"	6	72	31,5	70	100	G 3/8"	11,5	0,38
ABM 12-G 1/2"	6	72	31,5	70	100	G 1/2"	15,5	0,38
ABM 12-1/4" - 18 NPT	6	72	31,5	70	100	1/4" - 18 NPT	10	0,34
ABM 12-1/2" - 14 NPT	6	72	31,5	70	100	1/2" - 14 NPT	13,5	0,35

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

ABZ 12

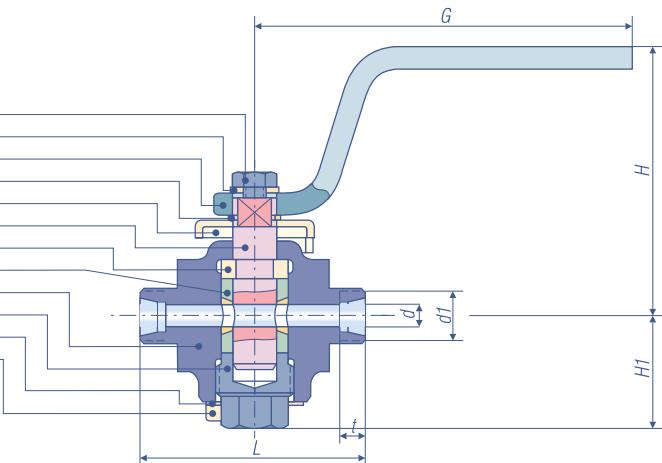
Straight-way cocks, male

Connection: Male with pipe thread acc. to DIN/ISO 228/1
Ermeto cutting ring connection to DIN 2353

Material: VIII, Xc
PN 160

Material	VIII	Xc
Hexagon head screw	A4	A4
Disc	A4	A4
Lever	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC
Seeger circlip	1.4034	1.4034
Stop AB 12	1.4401	1.4401
Cock plug	1.4401	1.4401
Split ring	1.4401	1.4401
Packing sleeve	1)	1)
Body	1.0460 Zn 8-15 cC	1.4571
Tightening nut	1.4401	1.4401
Locking disc	1.4401	1.4401
Fillister head screw	A4	A4
Type plate	1.4301	1.4301

1) Sealing material: KAF, PTFE, KFG, KOR-AF



Characteristics

Cylindrical cock plug, elastic packing sleeve, 90°-rotation with stop, to close with clockwise rotation. Removable handle. Simple maintenance.

Application limits acc. to pt-diagram (see page 8-9)

Suggested order specification

Straight-way cock as cylinder cock, sealed by elastic packing sleeve which can be retightened. Body of steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Male with pipe thread acc. to DIN/ISO 228/1 or Ermeto cutting ring connection to DIN 2353

Make: KLINGER
Type: ABZ 12

Ordering example:
ABZ 12-S 10 VIII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension				Connection dimension					Weight ca. kg
		H	H1	L	G	d1	d2	t	d3	t2	
ABZ 12-L8	6	72	31,5	70	100	M14×1,5	8	7	—	—	0,55
ABZ 12-L10	6	72	31,5	70	100	M16×1,5	10	8	—	—	0,55
ABZ 12-L12	6	72	31,5	70	100	M18×1,5	12	8	—	—	0,55
ABZ 12-S 8	6	72	31,5	70	100	M16×1,5	8	9	—	—	0,55
ABZ 12-S 10	6	72	31,5	70	100	M18×1,5	10	9	—	—	0,55
ABZ 12-S 12	6	72	31,5	70	100	M20×1,5	12	9	—	—	0,55
ABZ 12-1/2" - 14 NPT/S 12 ²⁾	6	72	31,5	80	100	M20×1,5	12	9	1/2"-14 NPT	13,5	0,65
ABZ 12-1/4" - 18 NPT/S 12 ²⁾	6	72	31,5	80	100	M20×1,5	12	9	1/4"-18 NPT	10	0,65

2) Not shown in illustration

Version: L = light (leicht), S = heavy (schwer)

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

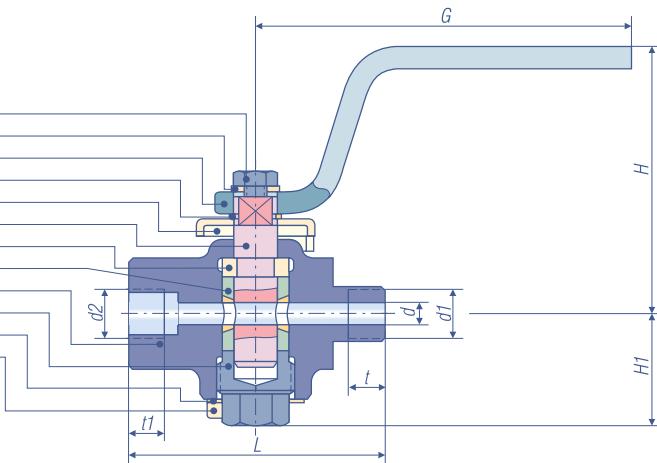
ABMZ 12

Straight-way cocks with female and male

Connections: female and male with thread
acc. to DIN/ISO 228/1 or
NPT-thread to ANSI B2.1
Material: VIII, Xc PN 160

Material	VIII	Xc
Hexagon head screw	A4	A4
Disc	A4	A4
Lever	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC
Seeger circlip	1.4034	1.4034
Stop AB 12	1.4401	1.4401
Cock plug	1.4401	1.4401
Split ring	1.4401	1.4401
Packing sleeve	1) 1.0460 Zn 8-15 cC	1) 1.4571
Body	1.4401	1.4401
Tightening nut	1.4401	1.4401
Locking disc	1.4401	1.4401
Fillister head screw	A4	A4
Type plate	1.4301	1.4301

1) Sealing material: KAF, PTFE, KFG, KOR-AF



Characteristics

Cylindrical cock plug, elastic packing sleeve, 90°-rotation with stop, to close with clockwise rotation. Removable handle. Simple maintenance. Application limits acc. to pT-diagram (see page 8-9)

Suggested order specification

Straight-way cock as cylinder cock, sealed by elastic packing sleeve which can be retightened. Body of steel or stainless steel, handle of St 37.2, cock plug of stainless special steel. Female and male with pipe thread acc. to DIN/ISO 228/1 or or NPT-thread to ANSI B2.1

Make: KLINGER

Type: ABMZ 12

Ordering example:

ABMZ 12 1/4" – 18 NPT/G 1/2" VIII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension				Connection dimension				Weight ca. kg
		H	H1	L	G	d2	t1	d1	t	
ABMZ 12 1/4" – 18 NPT/G 1/4"	6	72	31,5	70	100	1/4" – 18 NPT	10	G 1/4"A	10,5	0,65
ABMZ 12 G 1/2" – 14 NPT/G 1/2"	6	72	31,5	70	100	G 1/2"	14	1/2" – 14 NPT	13,5	0,65

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

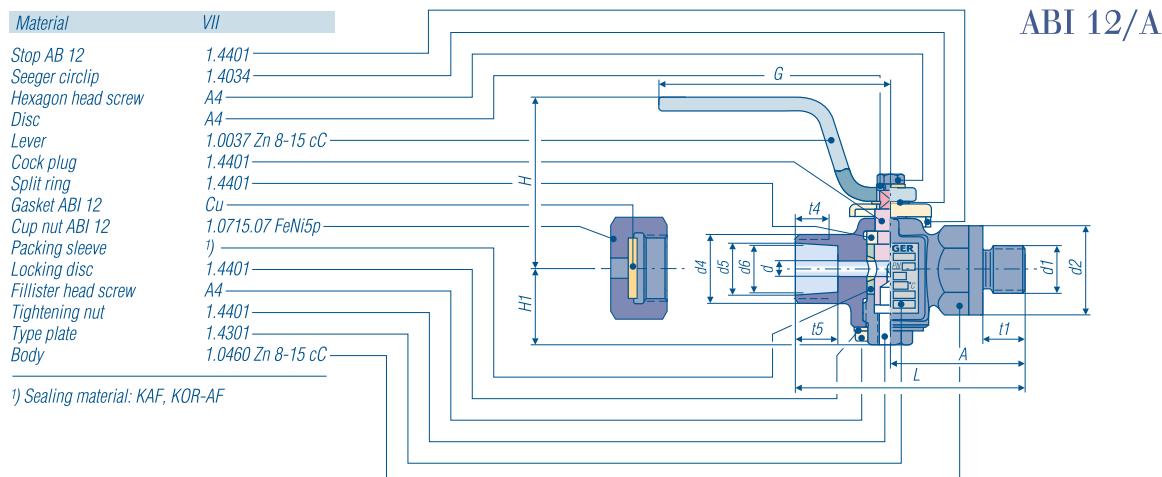
ABI 12/A and ABI 12/D Indicator cocks, male

ABI 12/A: Indicator cock male

ABI 12/D: Indicator cock male and lock nut
male with connection for Maihak-Indicator

Material: VII/steel

PN 160



Suggested order specification

Indicator cock as cylinder cock, sealed with elastic packing sleeve which can be retightened. 90°-rotation with stop, to close with clockwise rotation. Body of steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Male with pipe thread to DIN/ISO 228/1 connection for Maihak-Indicator.

Application limits acc. to pt-diagram (see page 8-9)

Attention

Without indicator the cap nut and gasket should seal the cock to the atmosphere; the cock plug should be in open-position in order to avoid deposits on the plug. It prevents the packing sleeve and plug cock from overstress caused by shock pressures. Before removing the cap nut the cock has to be shut. It is of advantage to place an intermediary between cylinder and cock.

Make: KLINGER

Type: ABI 12/A, ABI 12/D – Maihak

Ordering example:
ABI 12/A VII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension					Threaded stem			Counter nut		Indikator connection					Weight ca. kg
		H	H1	L	A	G	d1	t1	d2	d3	t3	d4	t4	d5	t5	d6	
ABI 12/A	6	72	31,5	92	54	100	3/4"	17,5	32	—	—	W27x 1/10"	14	20	17	17,9	0,60
ABI 12/D	6	72	31,5	92	54	100	3/4"	17,5	—	G ⁵ /8" A	14	W27x 1/10"	14	20	17	17,9	0,60

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

ABIE 12/A and ABIE 12/D Indicator cocks, male

ABIE 12/A: Indicator cock, male
 ABIE 12/D: Indicator cock, male with lock nut
 male with connection for Maihak indicator
 Material: VII/steel PN 160

Material	VII
Hexagon head screw	A4
Disc	A4
Lever	0.8135 Zn 8-15 cC
Seeger circlip	1.4034
Stop AB 12	1.4401
Split ring	1.4401
Cock plug ABI	1.4401
Packing sleeve	1)
Body	1.0460 Zn 8-12 cC
Counter nut	1.0715.07 FeNi5p
Locking disc	1.4401
Fillister head screw	A4
Tightening nut	1.4401
Screw plug	1.4571
Gasket	Softnickel
Gasket	Softnickel
Cup nut ABI 12	1.0715.07 FeNi5p
Sealing cones ABI 12	1.4301
Type plate	Cu
Gasket	1.0715.07 FeNi5p
Plug	1.0715.07 FeNi5p

1) Sealing material: KAF, KOR-AF

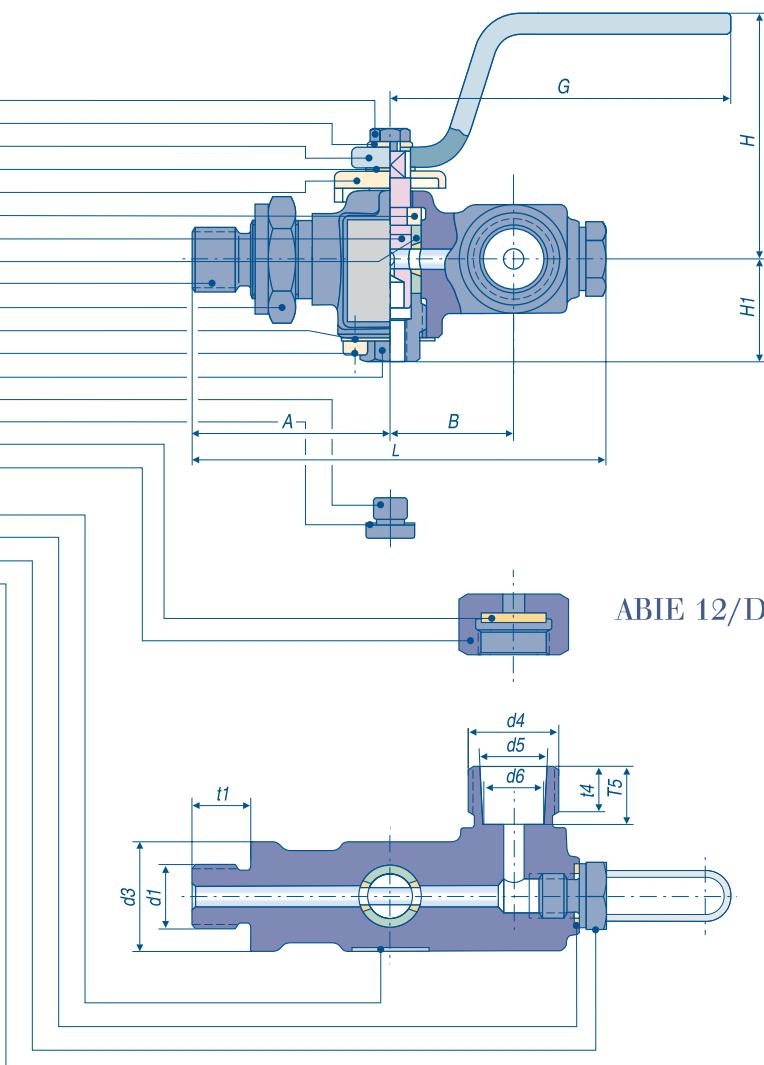
Characteristics:

Cylinder cock, elastic packing sleeve, 90°-rotation with stop, to close with a counter-clockwise rotation. Removable handle, simple maintenance.

Application limits acc. to pt-diagram (see page 8-9)

Suggested order specification

Indicator cock as cylinder cock, sealed with elastic packing sleeve which can be retightened. Body of steel or stainless steel, handle of St 37.2, cock plug of stainless steel. Male screwed ends with pipe thread to DIN/ISO 228/1 connection for Maihak.



Attention

see type ABIE 12/A and 12/D

Make: KLINGER

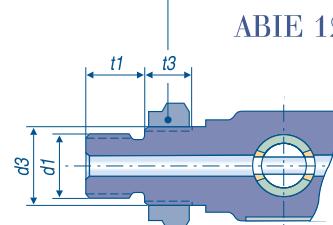
Type: ABIE 12/A, ABIE 12/D – Maihak

Ordering example:

ABIE 12/A VII, PN 160

ABIE 12/D

ABIE 12/A



Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension						Threaded stem			Counter nut		Indikator connection					Weight ca. kg
		H	H1	L	A	B	G	d1	t1	d2	d3	t3	d4	t4	d5	t5	d6	
ABIE 12/A	6	72	31,5	121,5	58	36	100	3/4"	17,5	32	—	—	W27x 1/10"	17	20	17	17,9	0,65
ABIE 12/D	6	72	31,5	121,5	58	36	100	3/4"	17,5	—	G5/8" A	14	W27x 1/10"	17	20	17	17,9	0,65

Minimum order: 32 pieces.

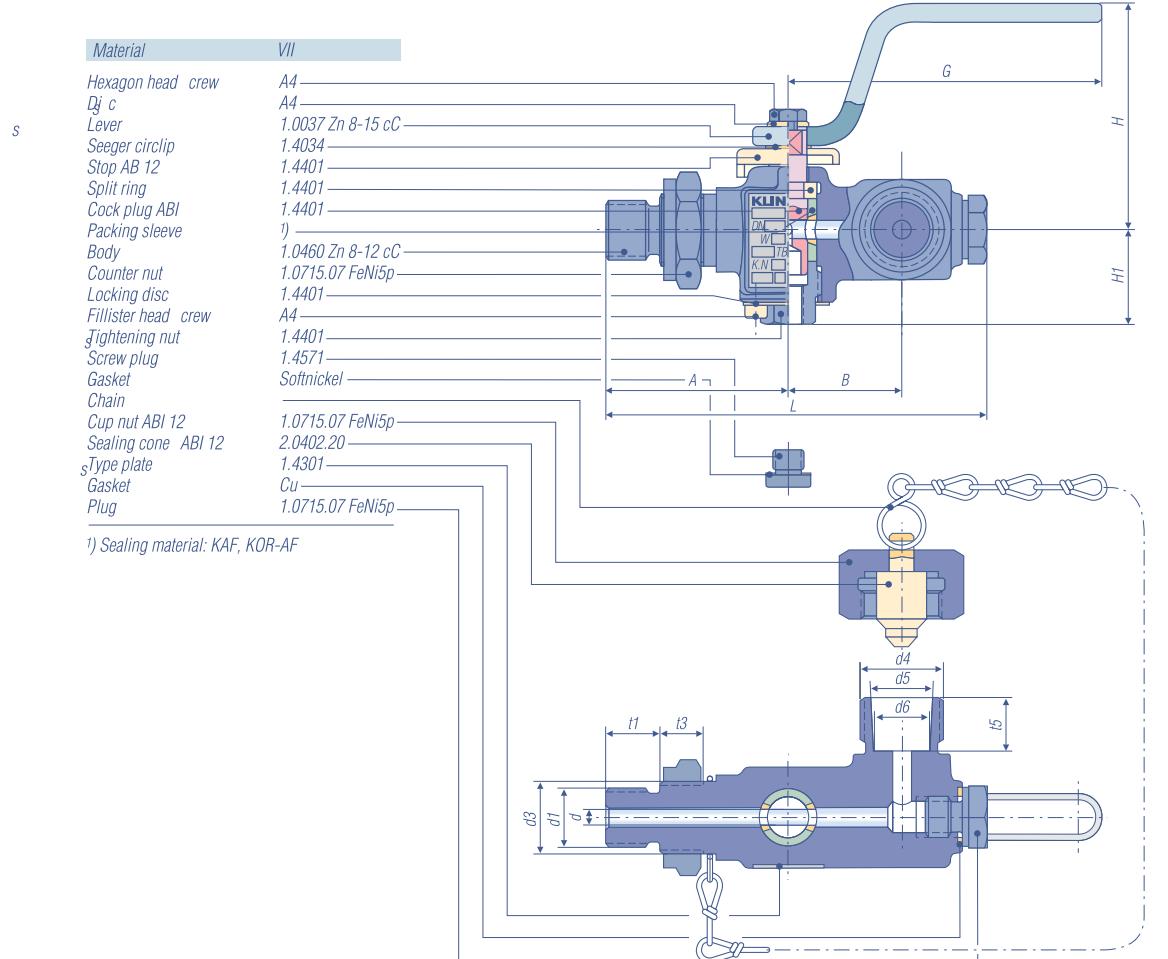
As a result of technical progress construction and design are subject to modification

Indicator cocks, male with lock nut

Indicator cock male with lock nut

Design Burmeister

Material: VII/steel PN 160



Characteristics

Cylinder cock, elastic packing sleeve, 90°-rotation with stop, to close with a counter-clockwise rotation. Removable handle, simple maintenance.

Application limits acc. to pt-diagram (see page 8–9)

Suggested order specification

Indicator cock as cylinder cock, sealed with elastic packing sleeve which can be retightened. Body of steel

or stainless steel, handle of GTS 35, cock plug of stainless steel. Male with pipe thread to DIN/ISO 228/1 connection for Burmeister.

Attention

Without indicator the cap nut and gasket should seal the cock to the atmosphere; the cock plug should be in open-position in order to avoid deposits on the plug and prevent packing sleeve and plug cock from overstress

caused by shock pressures. Before removing the cap nut the cock has to be closed. It is of advantage to place an intermediary between cylinder and cock.

Make: KLINGER

Type: ABIE 12/D – Burmeister

Ordering example:

ABIE 12/D VII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension						Threaded stem			Counter nut		Indikator connection						Weight ca. kg
		H	H1	L	A	B	G	d1	t1	d2	d3	t3	d4	t4	d5	t5	d6		
ABIE 12/D	6	72	31,5	121,5	58	36	100	3/4"	17,5	–	G5/8" A	14	W27x 1/10"	17	20	17	17,9	0,65	

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

MABI 12

Two-way pressure gauge shut-off cocks

Two-way pressure gauge shut-off cock female and male

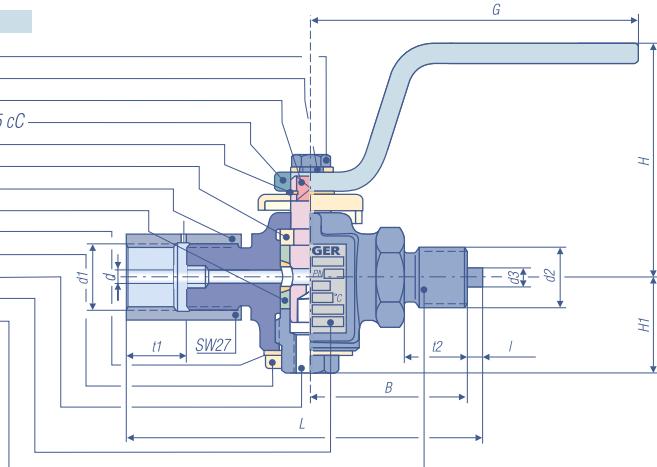
Connection: pipe thread to DIN/ISO 228/1

Material: VIII/steel, Xc/stainless steel

PN 160

Material	VIII	Xc
Hexagon head screw	A4	A4
Disc	A4	A4
Cock plug	1.4401	1.4401
Lever	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC
Seeger circlip	1.4034	1.4034
Split ring	1.4401	1.4401
Tightening screw	1.0711.07 FeNi5p	1.4571
Packing sleeve	1)	1)
Locking disc	1.4401	1.4401
Fillister head screw	A4	A4
Tightening nut	1.4401	1.4401
Type plate	1.4301	1.4301
Body	1.0460 Zn 8-15 cC	1.4571
Screw plug	1.4571	1.4571
Gasket	Softnickel	Softnickel

1) Sealing material: KAF, KOR-AF, PTFE, KFG



Material	VIII	Xc
Screw plug	1.4571	1.4571
Gasket	Softnickel	Softnickel

Characteristics

Cylinder cock, elastic packing sleeve, 90°-rotation with stop, to close with a clockwise rotation. Removable handle, simple maintenance.

Application limits acc. to pt-diagram (see page 8-9)

Suggested order specification

Make: KLINGER

Type: MABI 12

Two-way pressure gauge shut-off cock as cylinder cock, sealed with elastic packing sleeve which can be re-tightened. Body of steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Female and male with pipe thread to DIN/ISO 228/1.

Ordering example:
MABI 12 VIII, PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension						Connection dimension					Weight ca. kg
		H	H1	L	B	G	d2	t2	d1	t1	d3	I	
MABI 12	4	72	31,5	111	49	100	G1/2"A	20	G1/2"	19	6	5	0,50

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

MABA 12 / MABC 12

Three-way pressure gauge shut-off cocks

MABA 12: Three-way pressure gauge shut-off cock, female with plugs

MABC 12: Three-way pressure gauge shut-off cock, female with test flange

Connection: pipe thread to DIN/ISO 228/1

Material: IV/brass PN 40, VIII/steel PN 160, Xc/stainless steel PN 160

Material	IV	VIII	Xc
Hexagon head screw	A4	A4	A4
Disc	A4	A4	A4
Lever	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC	1.0037 Zn 8-15 cC
Cock plug	1.4401	1.4401	1.4401
Split ring	1.4401	1.4401	1.4401
Type plate	1.4301	1.4301	1.4301
Packing sleeve	1)	1)	1)
Locking disc	1.4401	1.4401	1.4401
Fillister head screw	A4	A4	A4
Tightening nut	1.4401	1.4401	1.4401
Body	2.0401	1.0460 Zn 8-15 cC	1.4571
Tightening screw	2.0401	1.0711.07 FeNi5p	1.4571
Plug	1.0715.07 FeNi5p	1.0715.07 FeNi5p	1.4305
Gasket	Softnickel	Softnickel	Softnickel
Test flange 40	2.0402.20	1.0715.07 FeNi5p	1.4401
Gasket	Softnickel	Softnickel	Softnickel

1) Sealing material: PTFE, KFG, KOR-AF

Suggested order specification

Three-way pressure gauge shut-off cock as cylinder cock, female with plugs (Type MABA) or female with test flange (Type MABC), sealed with elastic packing sleeve which can be retightened. Body of brass, steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Female with pipe thread to DIN/ISO 228/1.

Make: KLINGER

Type: MABA 12, MABC 12

Application limits acc. to pt-diagram (see page 8-9)

Ordering example:
MABC 12 Xc PN 160

Overall and connection dimensions in mm

Cock type	Bore d	Overall dimension					Connection dimension				Control connection				Weight ca. kg	
		H	H1	A	B	G	d1	t1	d2	t2	d3	C	D	b		
MABA 12	5	68	31	88	30	100	G1/2"	19	G1/2"	14	G1/2"	28	-	-	-	0,80
MABC 12	5	68	31	88	30	100	G1/2"	19	G1/2"	14	-	-	40	6	45	0,80

Minimum order: 32 pieces.

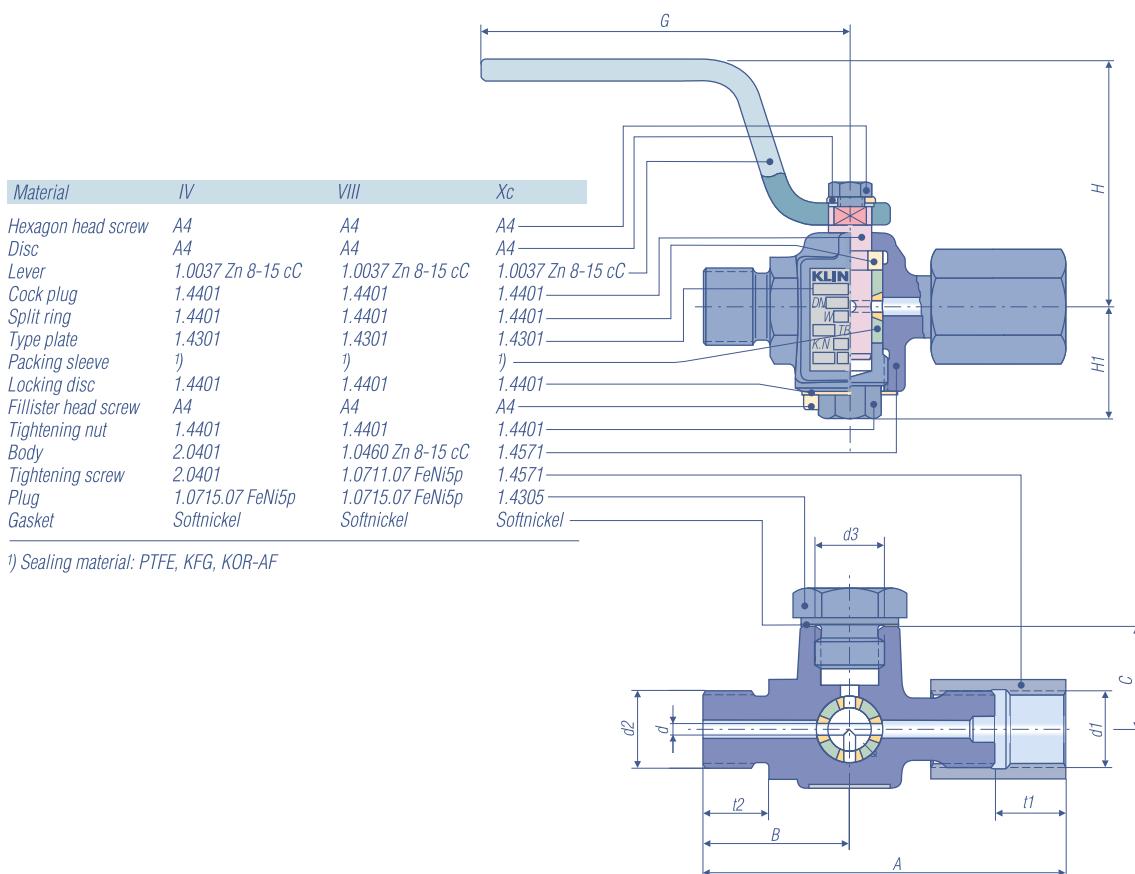
As a result of technical progress construction and design are subject to modification

Three-way pressure gauge shut-off cocks

Three-way pressure gauge shut-off cock female and male with plug

Connection: pipe thread to DIN/ISO 228/1

Material: IV/brass PN 40, VIII/steel PN 160, Xc/stainless steel PN 160



Characteristics

Cylinder cock, elastic packing sleeve, 90°-rotation without stop, to close with a clockwise rotation. Removable handle, simple maintenance.

Application limits acc. to pt-diagram (see page 8-9)

Suggested order specification

Three-way pressure gauge shut-off cock as cylinder cock, female and male with plug, sealed with elastic packing sleeve which can be retightened. Body of brass, steel or stainless steel, handle of GTS 35, cock plug of stainless steel.

Female and male with pipe thread to DIN/ISO 228/1.

Make: KLINGER

Type: MABU 12

Ordering example:
MABU 12 Xc, PN 160

Overall and connection dimensions in mm

Cock type	Bore <i>d</i>	Overall dimension					Connection dimension			Kontrollanschluß		Weight ca. kg	
		<i>H</i>	<i>H1</i>	<i>A</i>	<i>B</i>	<i>G</i>	<i>d1</i>	<i>t1</i>	<i>d2</i>	<i>t2</i>	<i>d3</i>	<i>C</i>	
MABU 12	5	68	31	98	40	100	$G\frac{1}{2}''$	19	$G\frac{1}{2}''$	18	$G\frac{1}{2}''$	28	0,70

Minimum order: 32 pieces.

As a result of technical progress construction and design are subject to modification

MABAL 12

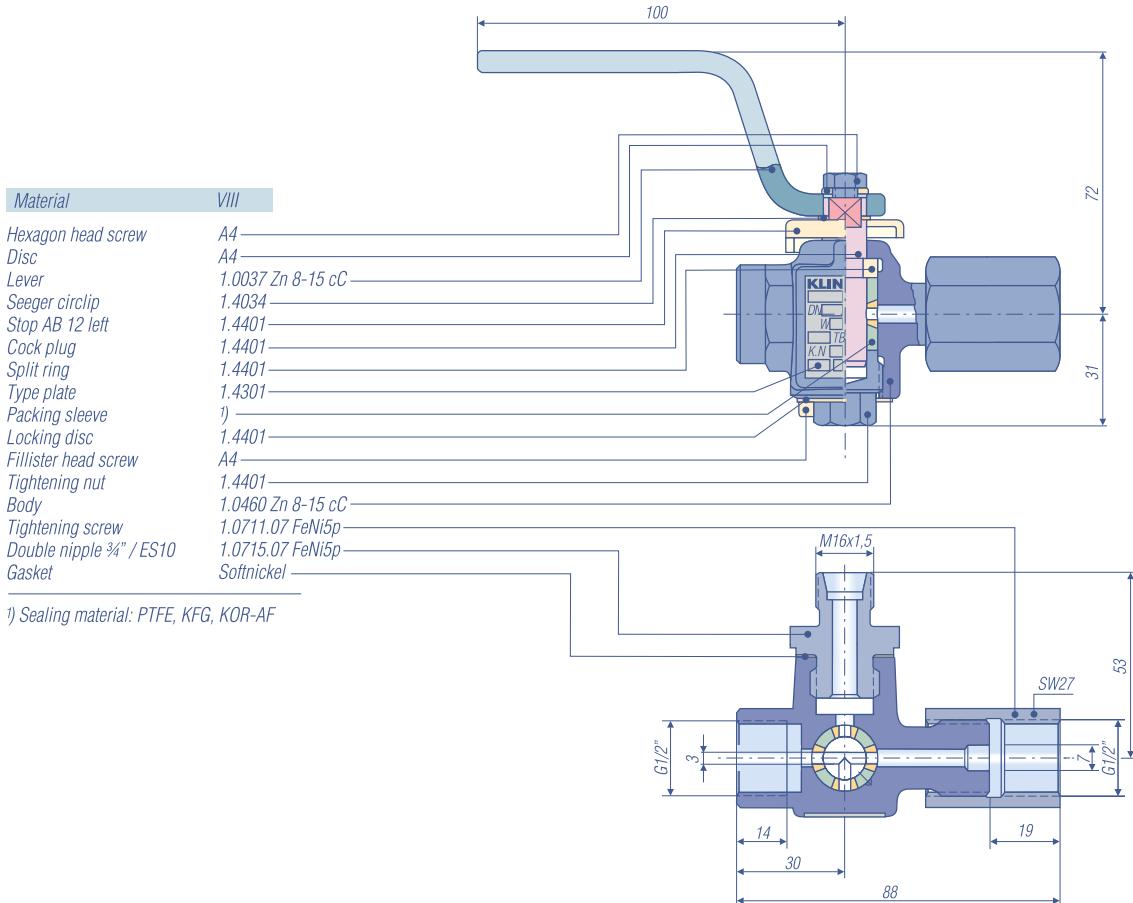
Three-way pressure gauge shut-off cocks

Three-way pressure gauge shut-off cock female and
Ermeto cutting ring connection

Connection: Female with pipe thread acc. to DIN/ISO 228/1

Ermeto cutting ring connection to DIN 2355

Material: VIII/steel, Xc/stainless steel PN 160; IV, PN 40



Suggested order specification

Three-way pressure gauge cock, designed as a shut-off and control valve, in particular for differential-pressure measuring at three measuring points, 90°-rotation with stop. With female screwed ends for pressure gauge R 1/2, for pipe connection R 1/2 and Ermeto ES 10. Can be retightened. Body of 1.0460. Cock plug of Niro-special steel. Sealed with elastic packing sleeve. Simple maintenance.

Application limits acc. to pt-dia-

gram (see page 8-9)
Make: KLINGER
Type: MABAL 12-VII

Ordering example:
MABAL 12 VIII, PN 160

The recommendations given here are intended to help in selecting suitable materials and cock types. No guarantee can be given since the performance and service life of the products depend on a series of factors on which the manufacturer has no influence.

If special regulations apply these must be observed. Please contact us in cases of doubt. Where solid media are

listed in the table, these are to be understood as aqueous solutions or suspensions.

Abbreviations:

Kp = boiling point
conc. = concentrated
satd. = saturated
 • = recommended
 – = not recommended

Foot note:

*) With heat-transfer media please inquire in our Gumpoldskirchen factory regarding choice of packing sleeves. Please state the type of medium and the temperature range.

Fluid	Concentration and temperature		Packing sleeve	Material code	Fluid	Concentration and temperature		Packing sleeve	Material code
	%	°C	KAF KOR-AF KFG PTFE			%	°C	KAF KOR-AF KFG PTFE	
Aceton		20	• •	all	Boric acid	4	20	• •	Xc
Acetylen			• •	VIII, Xc	Boric acid	4	100	• •	Xc
Air, dry			• •	all	Boric acid	100	100	• •	Xc
Alum	10	20	• •	Xc	Butane			• •	all
Alum	10	100	• •	Xc	Buttermilk		20	–	• Xc
Aluminium acetate			• •	Xc	Butyl acetate			• •	all
Aluminium ethylate			• •	all	Butyl alcohol			• •	all
Aluminium chlorate			• •	Xc	Calcium bisulphite	20		• •	Xc
Aluminium fluoride			– •	alle	Calcium bisulphite	200		• •	Xc
Aluminium oxyde			• •	all	Calcium chloride	ges.	20	• •	Xc
Ammonia	10	20	• •	VIII, Xc	Calcium chloride	ges.	100	• •	Xc
Ammonia, Ammonium hydroxyde	10	100	• •	VIII, Xc	Calcium hydroxide			• •	all
Ammonium carbonate		Kp.	• •	Xc	Calcium hypochlorite			• •	Xc
Ammonium chloride	5	20	• •	all	Calcium sulphate			• •	all
Ammonium chloride	10	20	• •	all	Carbon dioxyde, dry		150	• •	all
Ammonium chloride	10	100	• •	Xc	Carbon dioxyde, dry		400	• –	VIII, Xc
Ammonium chloride	50	20	• •	Xc	Carbon disulfide		20	• •	VIII, Xc
Ammonium nitrate		Kp.	• •	Xc	Carbon tetrachloride			• •	all
Ammonium sulphate		Kp.	• •	Xc	Chlor sulphonic acid		20	• –	all
Ammoniumdiphosphate (=Diammoniumphosphate)			• •	VIII, Xc	Chloroform		Kp.	• •	all
Amylacetate			• •	all	Chromic acid	10	20	– –	VIII, Xc
Aniline		–	•	all	Chromic acid	10	Kp.	– –	Xc
Arsenic acid		–	•	Xc	Chromic acid	50	20	– –	VIII, Xc
Asphalt		• •		Xc	Citric acid		20	• •	Xc
Beer		• •		Xc	Citric acid		Kp.	• •	Xc
Benzene		• •		all	Clophen T 64			• •	all
Benzine		• •		all	Copper acetate		20	• •	Xc
Bleaching liquor (chloride of lime)		• •		Xc	Copper acetate		Kp.	• •	Xc
Borax	ges.		• •	Xc	Copper sulphate		20	• •	Xc
					Copper sulphate		Kp.	• •	Xc
					Diazotation bath		20	• •	Xc
					Diazotation bath		80	• •	Xc
					Diesel oil		80	• •	all

Fluid	Concentration and temperature		Packing sleeve	Material code	Fluid	Concentration and temperature		Packing sleeve	Material code
	%	°C	KAF KORAF KFG PTFE			%	°C	KAF KORAF KFG PTFE	
Diphyl		*)	—	all *)	Lead arsenate			•	• Xc
Dowtherm A		*)	—	all *)	Linseed oil	20	•	•	Xc
Dye liquor, alkaline or neutral	20	•	•	Xc	Linseed oil	Kp.	•	•	Xc
Dye liquor, alkaline or neutral	Kp.	•	•	Xc	M.E.K (Butanone)	Kp.	•	•	all
Dye liquor, organic acid	20	•	•	Xc	Magnesium sulphate	20	•	•	all
Dye liquor, organic acid	Kp.	•	•	Xc	Magnesium sulphate	Kp.	•	•	all
Dye liquor, weakly sulphuric acid	Kp.	•	•	Xc	Manganous chloride	20	•	•	Xc
Dye liquor, weakly sulphuric acid	20	•	•	Xc	Manganous chloride	Kp.	•	•	Xc
Dye liquor, weakly sulphuric acid	Kp.	•	•	Xc	Mercury	20	•	•	VIII, Xc
Ethane		•	•	all	Mercury (II) chloride	20	•	•	Xc
Ethanol		•	•	all	Mercury (II) nitrate	20	•	•	Xc
Ethyl acetate		Kp.	•	•	Methyl alcohol	20	•	•	all
Ethyl ether			•	•	Methyl alcohol	Kp.	•	•	all
Ethylen chloride	20		•	•	Methylene chloride	20	•	•	Xc
Ethylene			•	•	Methylene chloride	Kp.	•	•	Xc
Fatty acids from C ₆	—	—	•	all	Milk		•	•	Xc
Formaldehyde	40	20	•	•	Milk of lime	20	•	•	all
Formaldehyde	40	Kp.	•	•	Milk of lime	Kp.	•	—	all
Formic acid	10	20	•	•	Natrium acetate		•	•	all
Formic acid	10	100	•	•	Natural gas		•	•	all
Formic acid	100	20	•	•	Nitric acid	10	20	•	• Xc
Formic acid	100	100	•	•	Nitric acid	10	Kp.	•	• Xc
Freon 12, Frigen 12			•	•	Nitric acid	40	20	—	• Xc
Glacial acetic acid	20	—	•	Xc	Nitric acid	40	Kp.	—	• Xc
Glacial acetic acid	10	20	•	•	Nitric acid	konz.	20	—	• Xc
Glacial acetic acid	10	Kp.	•	•	Nitric acid	konz.	Kp.	—	• Xc
Glacial acetic acid	50	20	•	•	Nitric acid	0,2	20	•	• Xc
Glacial acetic acid	50	Kp.	•	•	Nitric acid	0,2	50	•	• Xc
Glacial acetic acid	80	20	•	•	Nitric acid	1	20	•	• Xc
Glacial acetic acid	80	Kp.	•	•	Nitrogen		•	•	all
Glyzerin		20	•	•	Oils (lubricating oils, mineral)	20	•	•	all
Glyzerin		100	•	•	Oils (vegetable)	20	•	•	all
Grape vinegar		20	•	•	Oleic acid		•	•	all
Heat transfer oils *)	*)	—	all *)		Oxalic acid		•	•	Xc
Hydrochloric acid, dry	20	•	•		Oxygen	20	•	•	all
Hydrochloric acid, dry	100	•	•		Paraffin oil	20	•	•	all
Hydrogen peroxide	20	•	•		Phenol		•	•	Xc
Hydrogen peroxide	50	•	•		Phosphoric acid	10	20	•	• Xc
Hydrogen sulphide, gas, dry	20	•	•		Phosphoric acid	10	Kp.	•	• Xc
Hydrogen sulphide, gas, wet	20	•	•		Phosphoric acid	50	20	•	• Xc
Hydroxylamine sulphate	10	20	—	• Xc	Phosphoric acid	50	Kp.	•	• Xc
Hydroxylamine sulphate	10	Kp.	—	• Xc	Phosphoric acid	80	20	•	• Xc
Illuminating gas			•	•	Phosphoric acid	80	Kp.	•	• Xc
Kreosote		20	•	•	Potassium acetate	Kp.	•	•	all
Kreosote		Kp.	•	•	Potassium bitartrate	20	•	•	Xc
Lead acetate (lead sugar)	100	Kp.	•	•	Potassium bitartrate	ges.	Kp.	•	• Xc

Fluid	Concentration and temperature	Packing sleeve	Material code	Fluid	Concentration and temperature	Packing sleeve	Material code
	% °C	KAF KOR- AF KFG PTFE			% °C	KAF KOR- AF KFG PTFE	
Potassium carbonate (potash)	50 20	• •	all	Sulfphuric acid	1 20	• •	Xc
Potassium carbonate (potash)	Kp. 20	• •	all	Sulfphuric acid	10 20	• •	Xc
Potassium chlorate	Kp. 20	• •	Xc	Sulfphuric acid	90 20	• •	all,
Potassium chromium sulphate (chromic alum)	20 20	• •	Xc	Sulfphuric acid	konz. 20	• •	except for IV all
Potassium chromium sulphate (chromic alum)	Kp. 20	• •	Xc	Sulphite lye (fresh cooking li- quor, spent liquor)	20	• •	Xc
Potassium cyanide	20 20	• •	Xc	Sulphite lye (fresh cooking li- quor, spent liquor)	80	• •	Xc
Potassium dichromate	25 20	• •	all	Sulphur dioxide		• •	Xc
Potassium dichromate	Kp. 20	• •	Xc	Sulphurous acid	ges. 20	• •	Xc
Potassium hydrochlorite up to 20g akt. Cl2/	40 20	• •	Xc	Tannic Acid	10 20	• •	Xc
Potassium hydroxide	25 20	• •	all	Tannic Acid	10 Kp. 20	• •	Xc
Potassium hydroxide	25 Kp. 20	• •	Xc	Tannic Acid	50 20	• •	Xc
Potassium hydroxide	50 20	• •	all	Tar (neutral)		180	• • VII, Xc
Potassium hydroxide	50 Kp. 20	• •	Xc	Tartaric acid		20	• • Xc
Potassium iodide	20 20	• •	VIII, Xc	Toluol		20	• • all
Potassium iodide	Kp. 20	• •	Xc	Trichlorethylene		• •	all
Potassium nitrate	20 20	• •	all	Turpentine oil		20	• • all
Potassium nitrate	ges. Kp. 20	• •	Xc	Urea		20	• • all
Potassium permanganate	20 20	• •	all	Water (fresh-a.drinking water)		• •	all
Potassium permanganate	Kp. 20	• •	Xc	Water glass		• •	all
Propane	20 20	• •	all	Water glass (K- and Na-silicate)		• •	all
Salicylic acid	20 20	• •	Xc	Xylene		20	• • all
Sea water	20 20	• •	Xc				
Sea water	Kp. 20	• •	Xc				
Silicone oil		• -	all				
Soap		• •	all				
Soda (Sodium carbonate)	Kp. 20	• •	all				
Sodium carbonate	20 20	• •	all				
Sodium carbonate	Kp. 20	• •	all				
Sodium hydroxide	20 20	• •	all				
Sodium hydroxide	20 Kp. 20	• •	Xc				
Sodium hydroxide	35 20	• •	all				
Sodium hydroxide	35 Kp. 20	• •	Xc				
Sodium sulphate		• •	all				
Sole	20 20	• •	Xc				
Spinbath	80 20	• •	Xc				
Starch solution		• •	Xc				
Steam		• -	all				
Stearic acid		• -	Xc				
Sugar	20 -	•	all				
Sugar	80 -	•	all				

Instruments

Compressed-air distribution

Energy production

Instrumentation

Processing industry

Plant engineering and construction

Diesel engine

Automation

Ship building

Processing

Energy distribution

Italy

Norway

Greece

Argentine

Slowakia

Equador

Spain

Mexico

Great Britain

Saudi Arabia

Sweden

Switzerland

Germany

Finnland

USA

India

Israel

Austria

Finnland

Saudi Arabia

Belgium

Canada

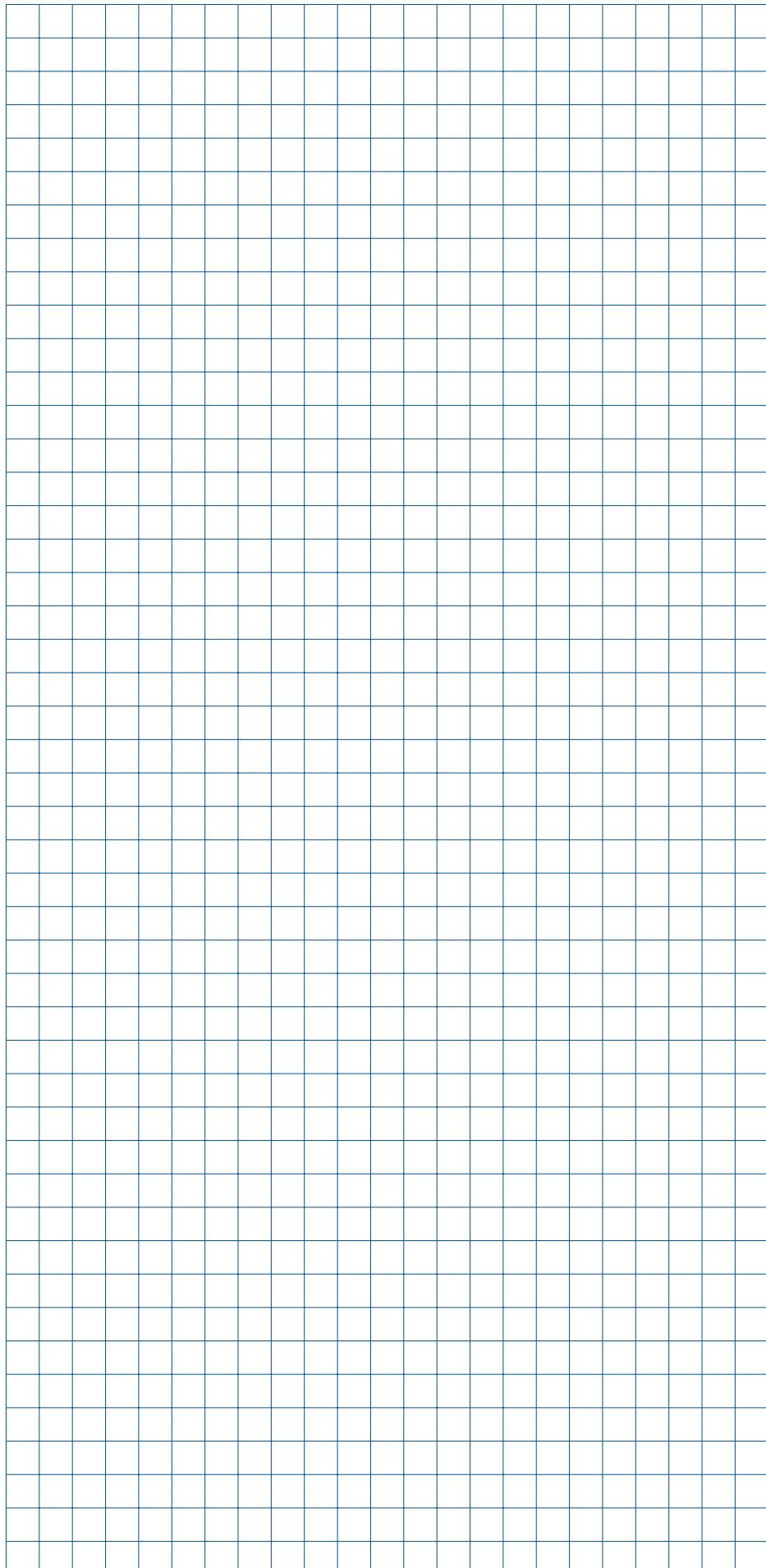
Brasil

China

Croatia

Hungary





KLINGER product range



KLINGER ball valves Ballostar KHA



KLINGER ball valves Ballostar KHI



KLINGER Monoball



KLINGER piston valves KVN



KLINGER liquid level gauges



KLINGER Borosilicat sight glasses

KLINGER product range

Product range

Ballostar®KHA

3-piece ball valve made of grey cast iron, steel and stainless cast steel

Ballostar®KHI

2-piece ball valve made of grey cast iron, steel and stainless cast steel

KLINGER Monoball®

One-piece ball valve made of steel and stainless cast steel

KLINGER Ball-o-top

Brass ball valves

Piston valves

made of grey cast iron, spheroidal cast iron, steel and stainless cast steel

KLINGERMATIC®

Actuator for piston valves and ball valves

Liquid level gauges

for steam boiler and process application, reflex and transparent

Reflex and transparent glasses

Circular sight-glasses

AB cocks

Packing-sleeve cocks and pressure-gauge cocks in brass, steel and stainless steel

Key role
Link
Innovation
Navigation
Growth
Efficiency
Routine

