



# AB-cocks

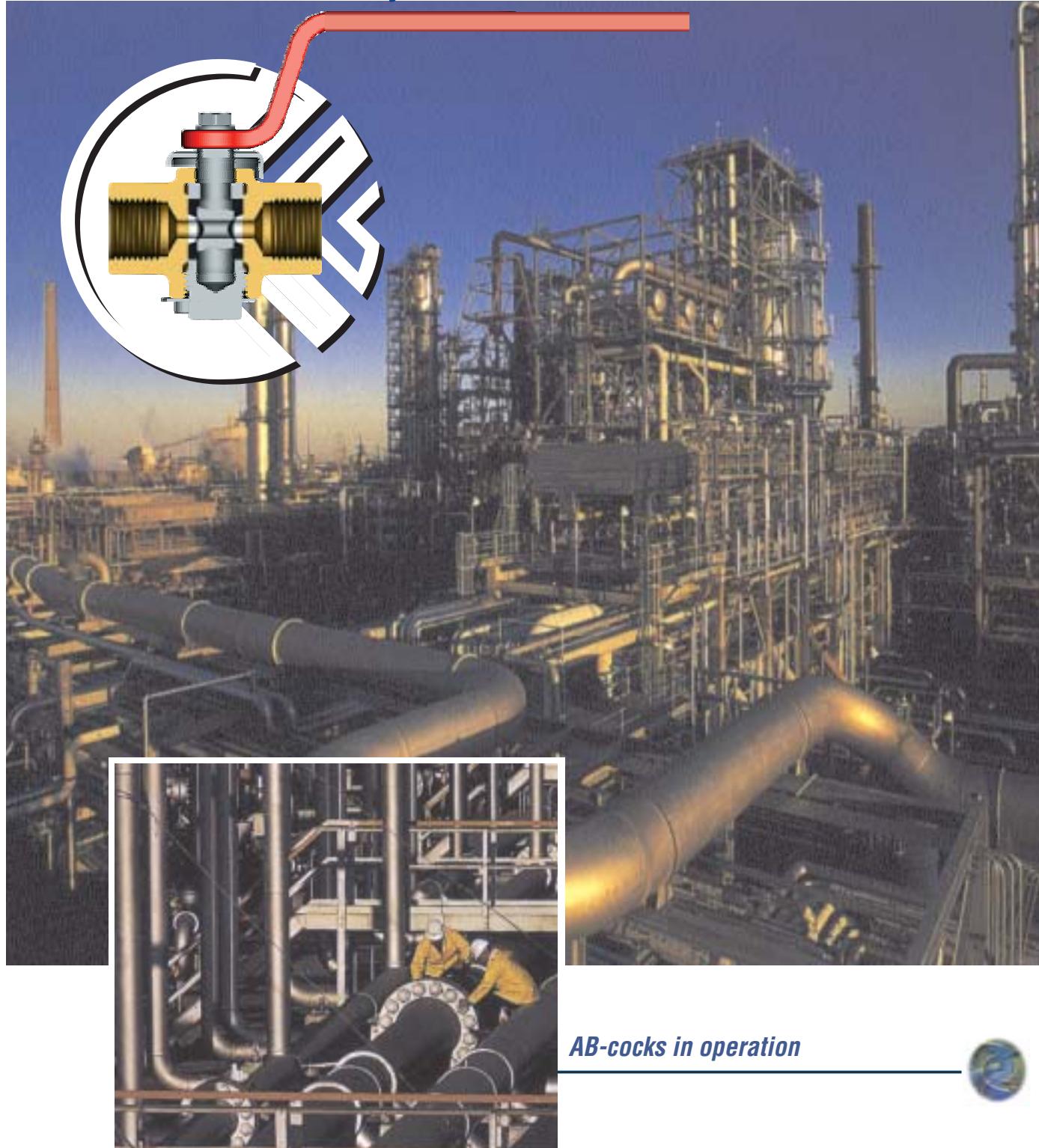
## Reliability for decades

*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*  
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*Packing sleeve  
The strong heart*  
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*Maintenance and installation*  
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*Materials for AB-cocks and packing sleeves*  
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*Pressure- and temperature limits*  
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*Applicable in many cases*  
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*Summary of AB-cocks*  
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*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*  
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*Indicator cocks, male, acc. to Maihak and Burmeister*  
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*Pressure gauge cocks, female, male and with test flange*  
**21 – 26**

*Table of chemical resistance*  
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*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*

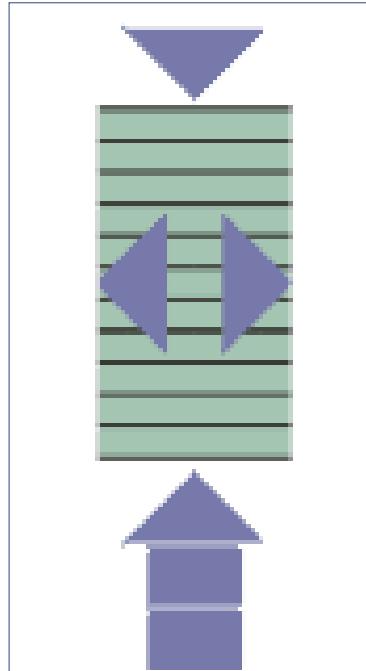
***Straight-way cocks  
Drain cocks  
Indicator cocks  
Pressure-gauge cocks***

*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.

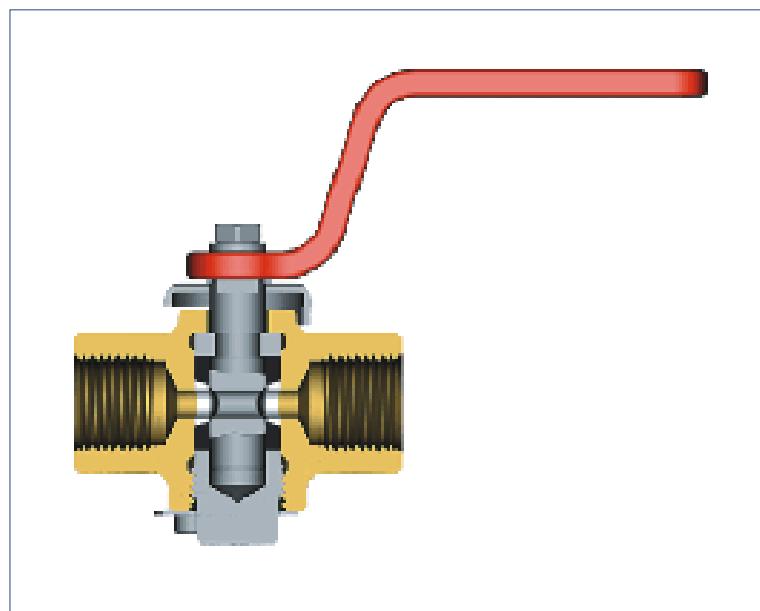
The cock is operated with a handle which can be removed (protection against unauthorized operation). All cocks are shut by a clockwise rotation except types ABIE and MABAL which are shut via counter-clockwise rotation.



*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.



*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®

**Decades of experience  
in sealing and valve  
manufacturing**

## 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.

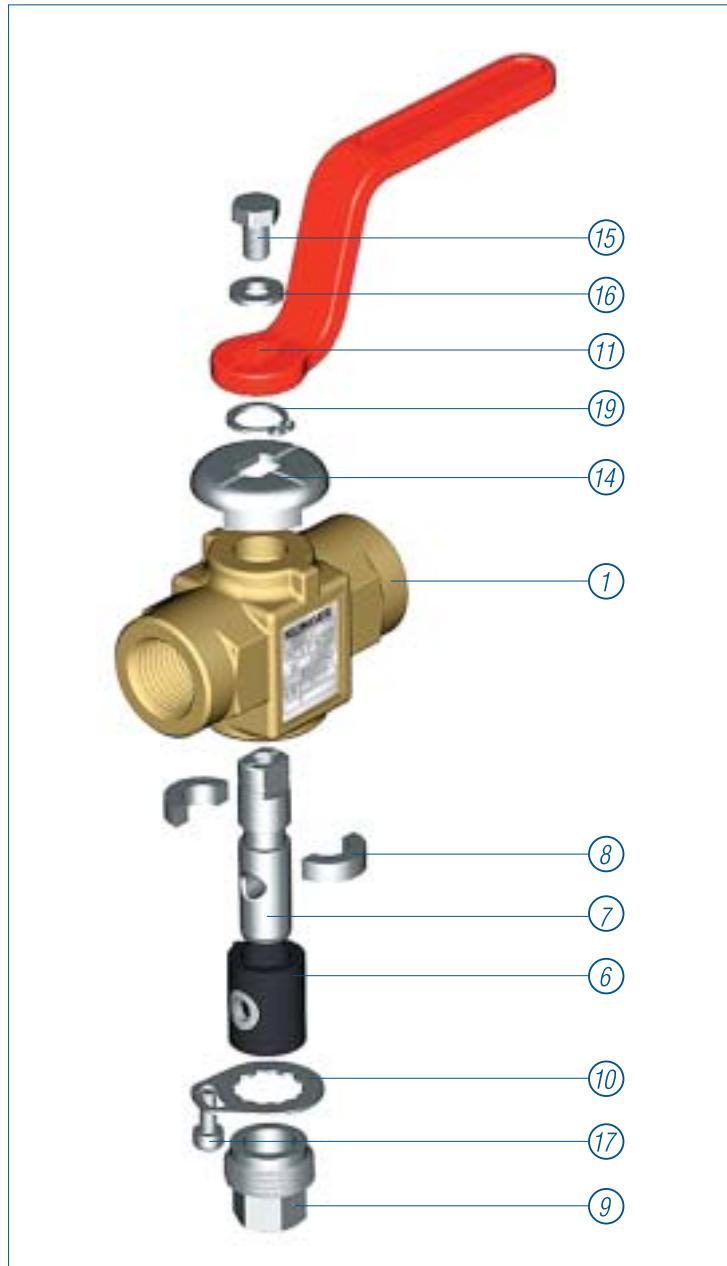
KLINGER is an international group which originates from Austria. The parent factory was built in 1892 in Gumpoldskirchen, near Vienna, and is now only one out of many all over the world. Further companies were established in Germany, England, Australia, South Africa, South-, Central and North America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

# 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

- Packing sleeves of KAF and KOR-AF – fabricated from graphite or SIL-laminate – are treated with PTFE which ensures smooth operation of the cock throughout the life time of the packing sleeve.
- Resistant to nearly every medium met in the different branches of industry such as steam, hot water, oils, solutions, many alkalis, acids and numerous chemicals.
- Suitable for especially aggressive media are packing sleeves of the quality KFG (= PTFE reinforced with glass fibre) and PTFE.

## Simple maintenance

If after years an AB- or MAB-cock starts to leak all that needs to be done is for the nut to be fastened so that the packing sleeve is tightly enclosing the plug. Therefore the cock must be in OPEN position. Economical because replaceable without problems.

# 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 1.4016	Stainless steel 1.4401
VII, VIII	Forged steel C 22,8 (1.0460)	Stainless steel 1.4401	Stainless steel 1.4401	
X, Xc	Stainless steel 1.4571			

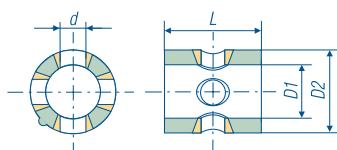
### Equivalent material codes

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

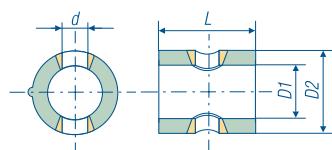
\* AISI- BS- and ASTM-codes are the nearest to DIN

### Materials and measurements of packing sleeves

Four-hole packing sleeve



Two-hole packing sleeve

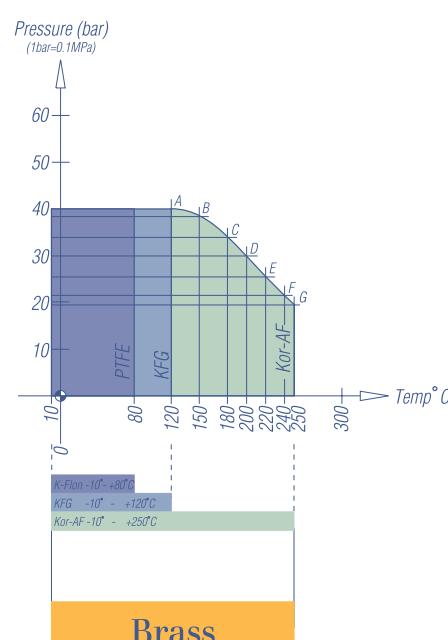


Cock size	Nominal width mm Zoll d	Internal Ø D1	External Ø D2	Length L	Number of holes	Weight ca. kg	Suitable for cock type	Material
AB 10							ABB 10 on request	PTFE, KFG
AB 12	6	1/4	12	18	23	2	0,006	ABL 12, ABM 12, ABZ 12, MABI 12, ABI 12, ABIE 12, ABS 12
AB 12	3,25	1/8	12	18	23	4	0,007	MABA 12, MABC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

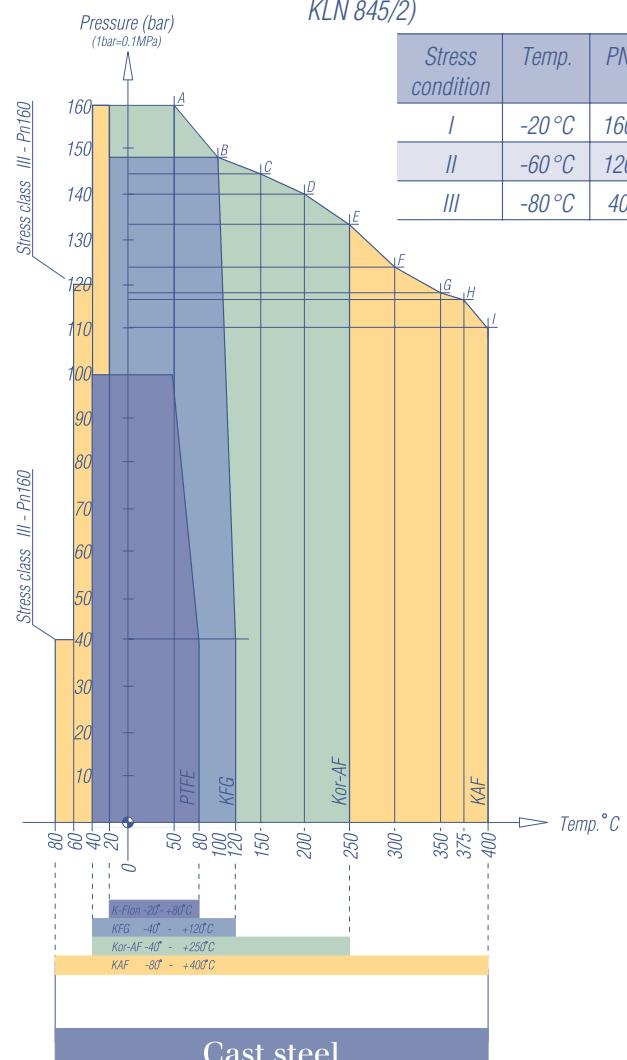

**Pressure- temperature limits to ISO 7005/1**

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)

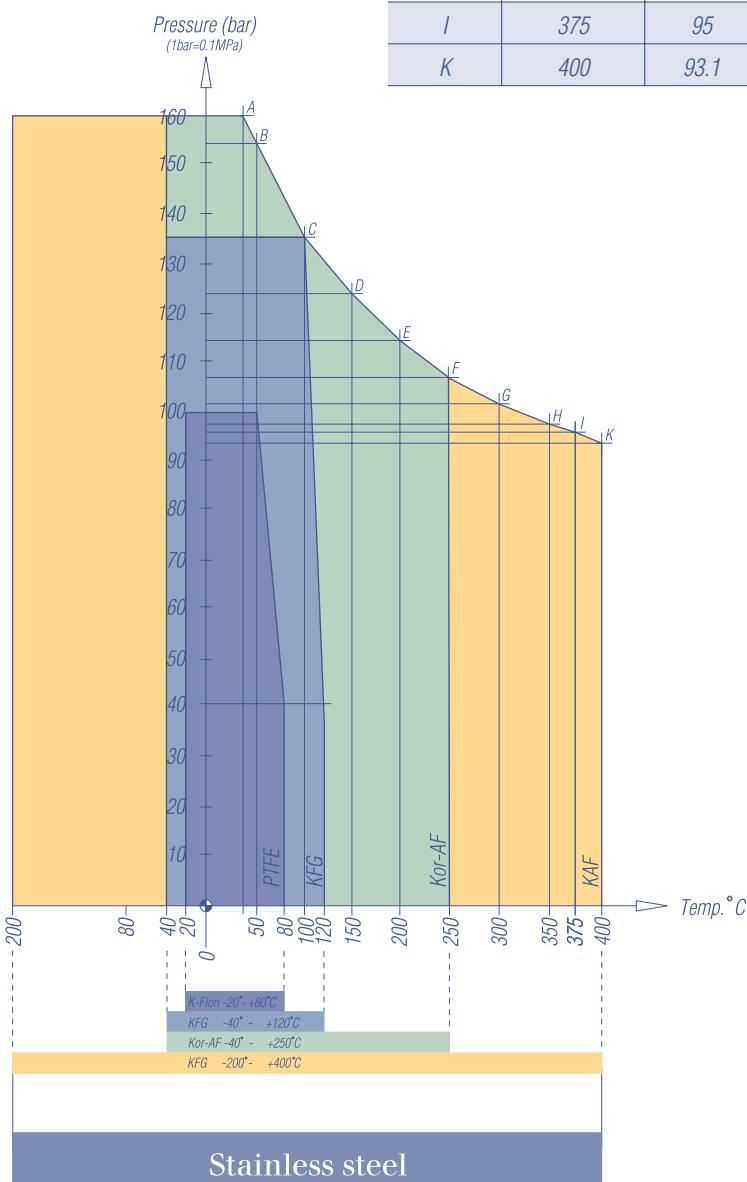


# With the pT-diagram you find the most efficient AB-cock

## 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



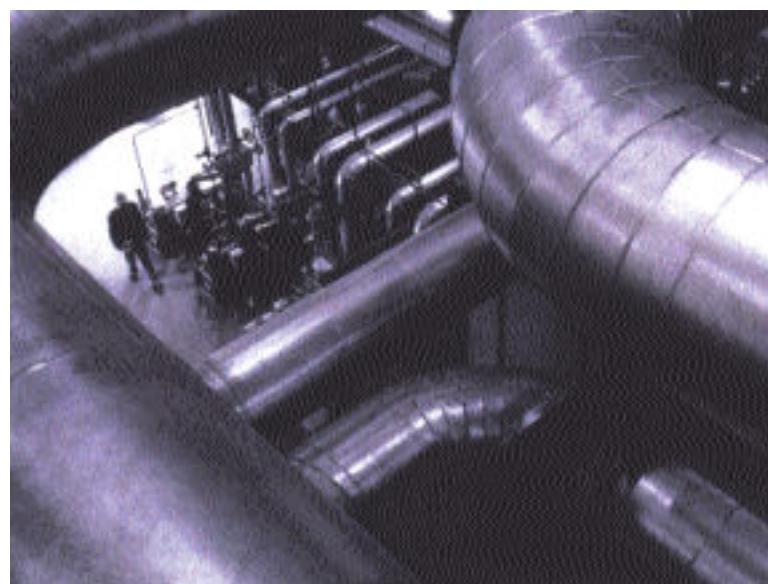
## Pressure- temperature limits

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.



# AB-cocks

## A large variety



### Summary of types

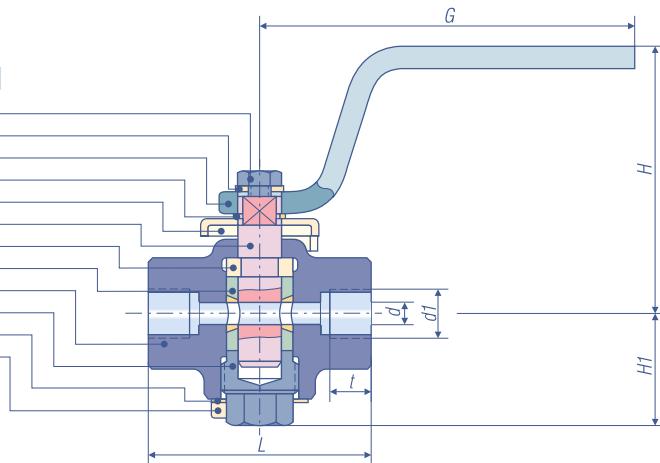
Type	Connection	Material	Pressure	Page
ABM 12	Female	VIII, Xc	PN 160	12
ABZ 12	Male	VIII, Xc	PN 160	13
ABMZ 12	Female/Male	VIII, Xc	PN 160	14
ABI 12/A – ABI 12/D	Male (Maihak)	VII	PN 160	15
ABIE 12/A – ABIE 12/D	Male (Maihak)	VII	PN 160	16
ABIE 12/D	Male (Burmeister)	VII	PN 160	17
MABI 12	Female/Male	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
Safe with every medium (table)				22ff

# 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	H	Overall dimension			Connection dimension d1	t	Weight ca. kg
			H1	L	G			
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

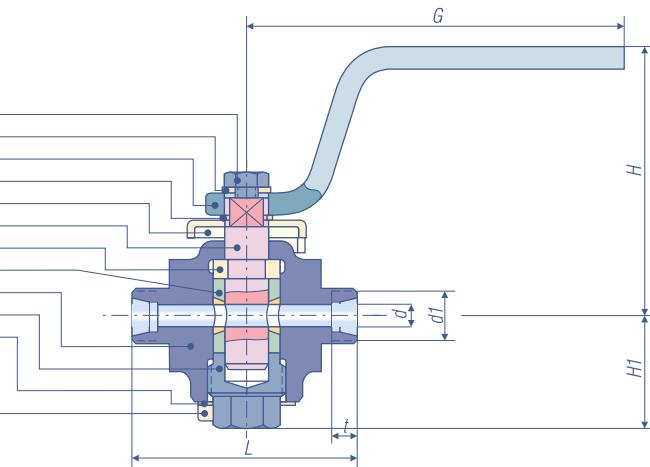
# ABZ 12

## 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 <sup>1)</sup>	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 <sup>2)</sup>	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 <sup>2)</sup>	6	72	31,5	80	100	M20×1,5	12	9	1/4"-18 NPT	10	0,65

<sup>2)</sup> Not shown in illustration

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

Minimum order: 32 pieces.

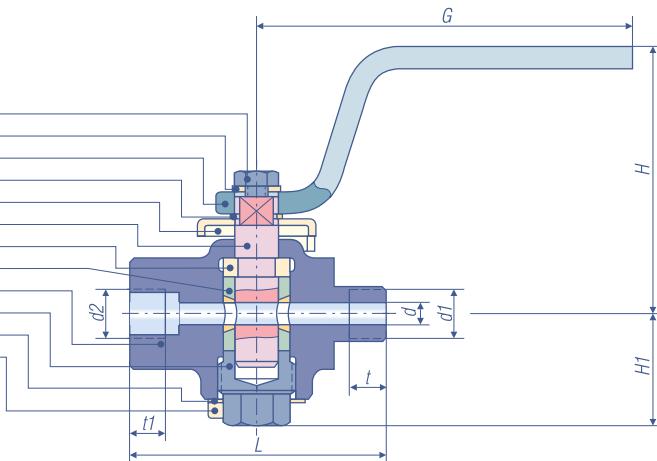
As a result of technical progress construction and design are subject to modification

# 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)
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 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:

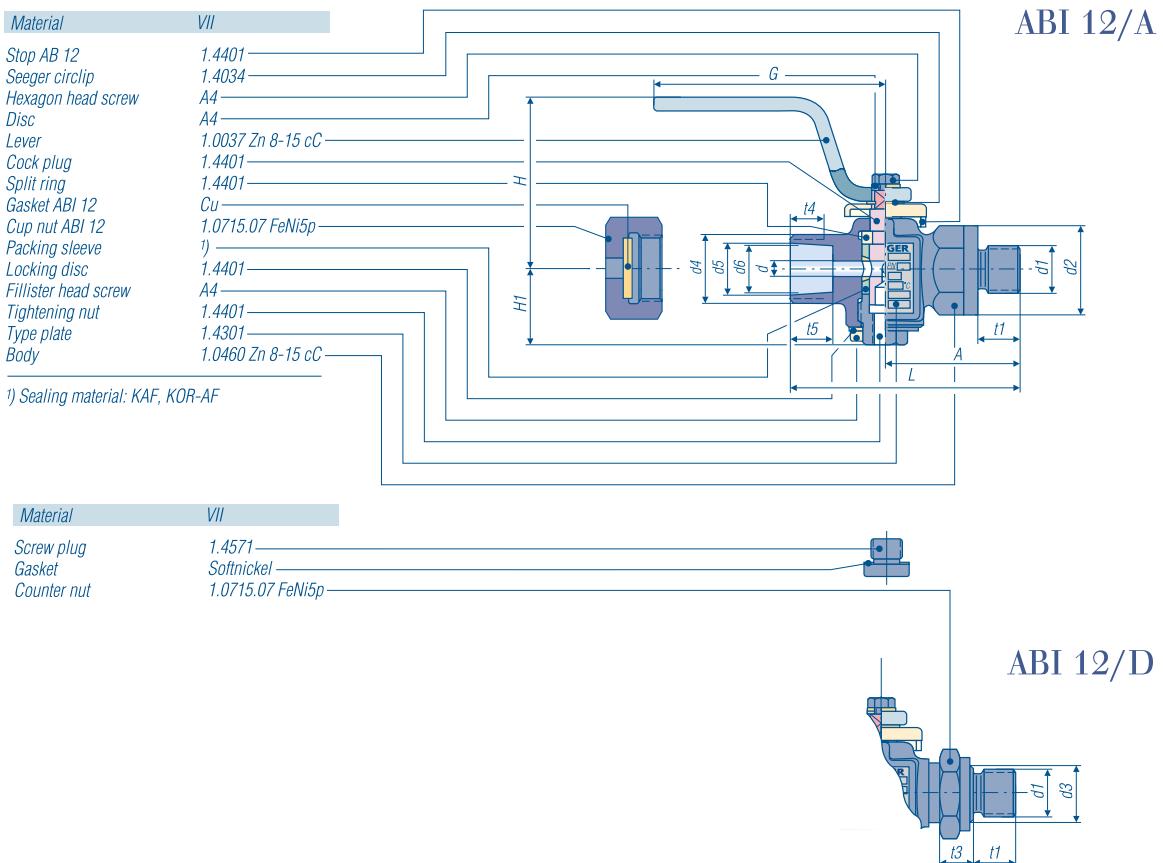
ABMZ 12 1/4" – 18 NPT/G 1/2" VIII,  
PN 160

## 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

# 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	—	—	W27 x 1/10"	14	20	17	17,9	0,60
ABI 12/D	6	72	31,5	92	54	100	3/4"	17,5	—	G5/8"A	14	W27 x 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

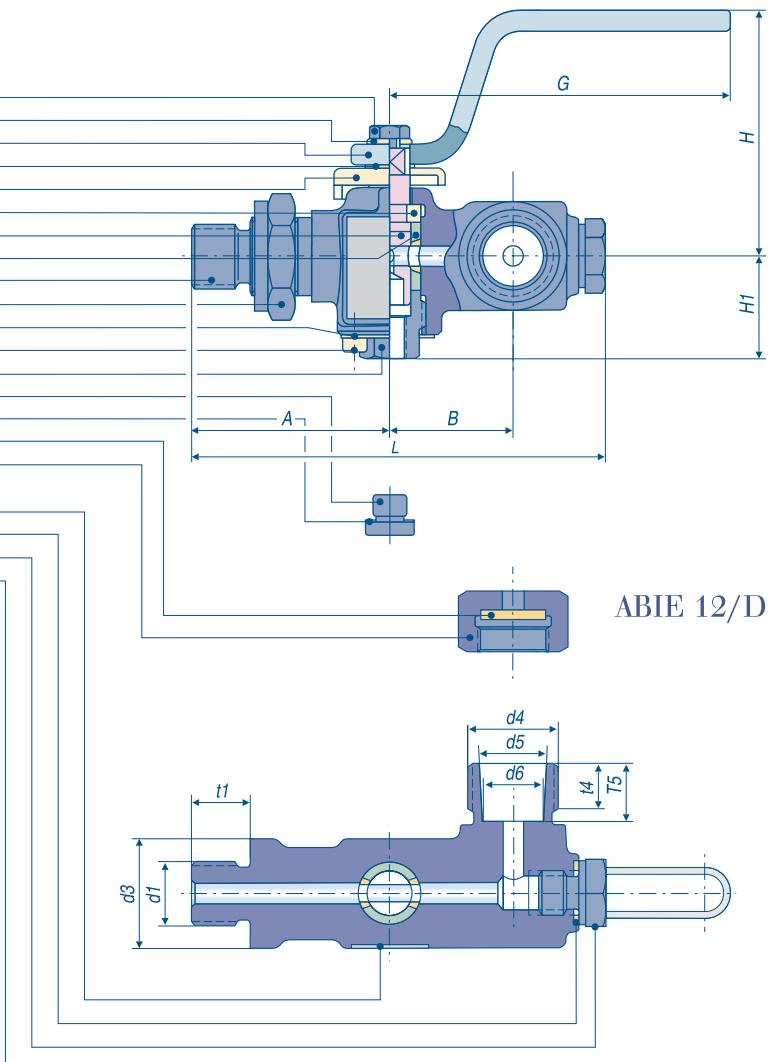
## Characteristics:

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.



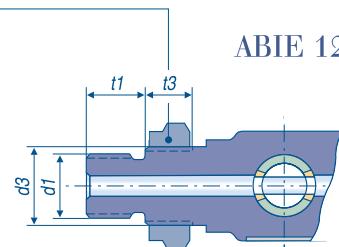
## Attention

see type ABI 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	
ABIE12/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

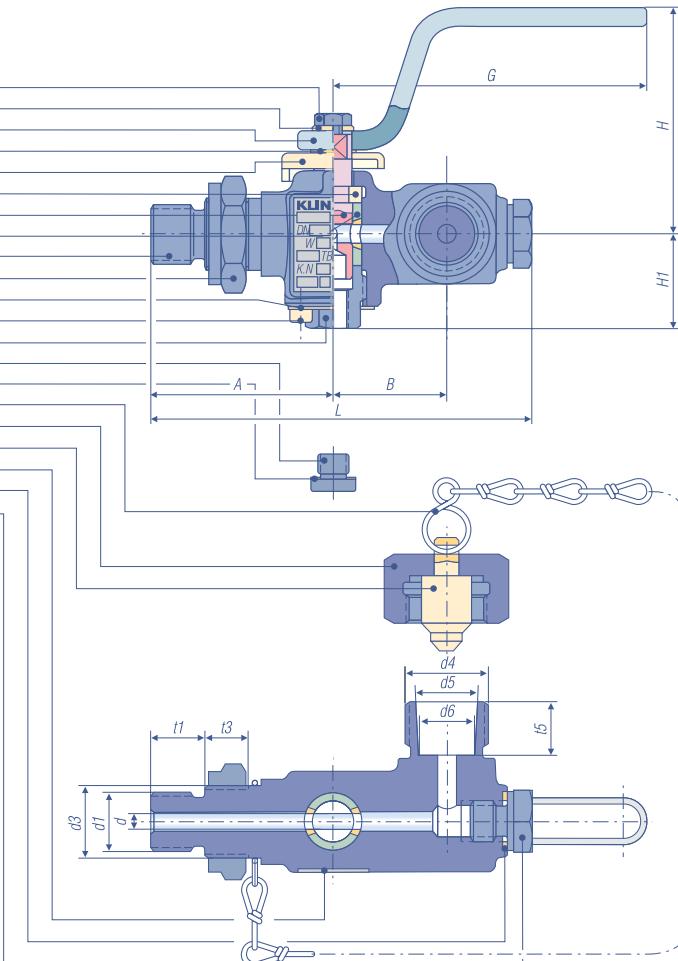
# ABIE 12/D

## Indicator cocks, male with lock nut

Indicator cock male with lock nut  
Design Burmeister  
Material: VII/steel PN 160

Material	VII
Hexagon head screw	A4
Disc	A4
Lever	1.0037 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
Chain	
Cup nut ABI 12	1.0715.07 FeNi5p
Sealing cones ABI 12	2.0402.20
Type plate	1.4301
Gasket	Cu
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 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

# Two-way pressure gauge shut-off cocks

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

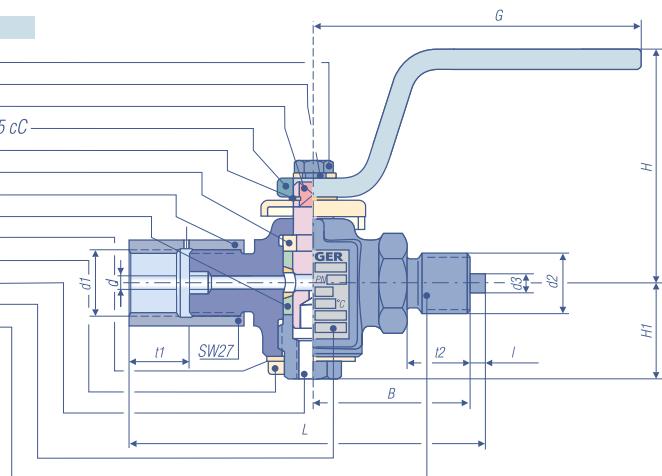
Connection: pipe thread to DIN/ISO 228/1

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 retightened. 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	G1½" A	20	G1½"	19	6	5	0,50

# 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

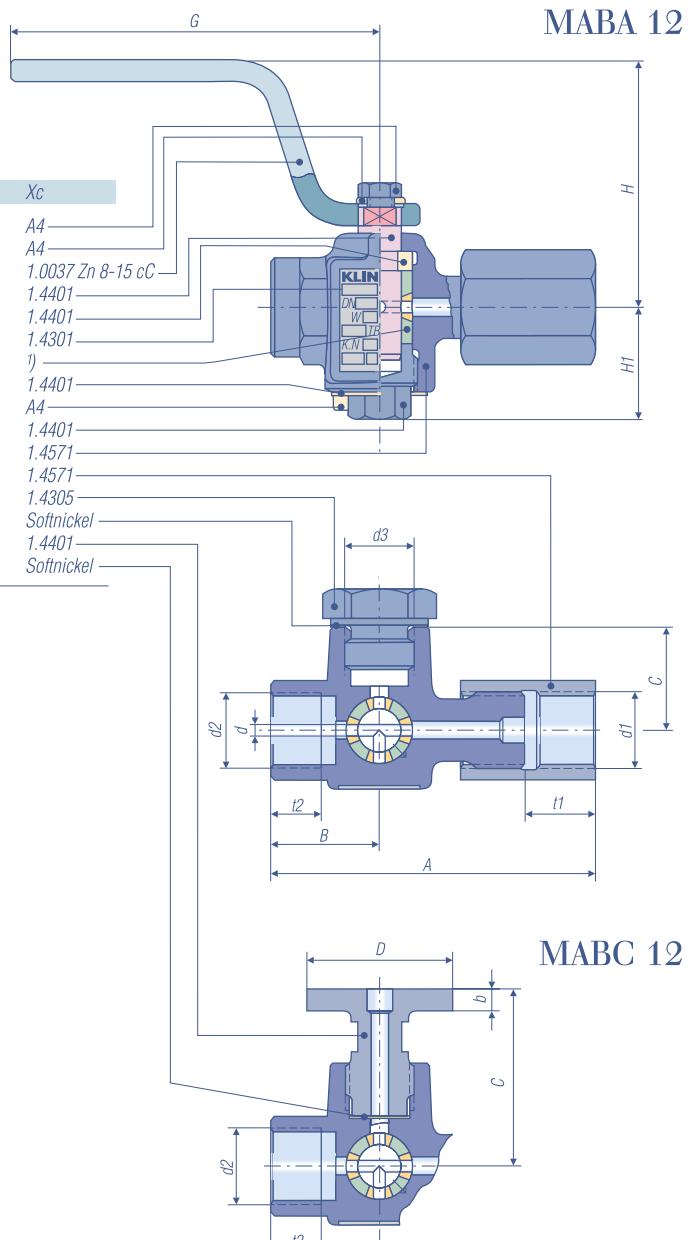
Three-way pressure gauge shut-off cock as cylinder cock, female with plugs (Type MABA) or female with test flange (Type MABC), sealed with elastic packing sleeve which can be retightened. Body of brass, steel or stainless steel, handle of GTS 35, cock plug of stainless steel. Female with pipe thread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

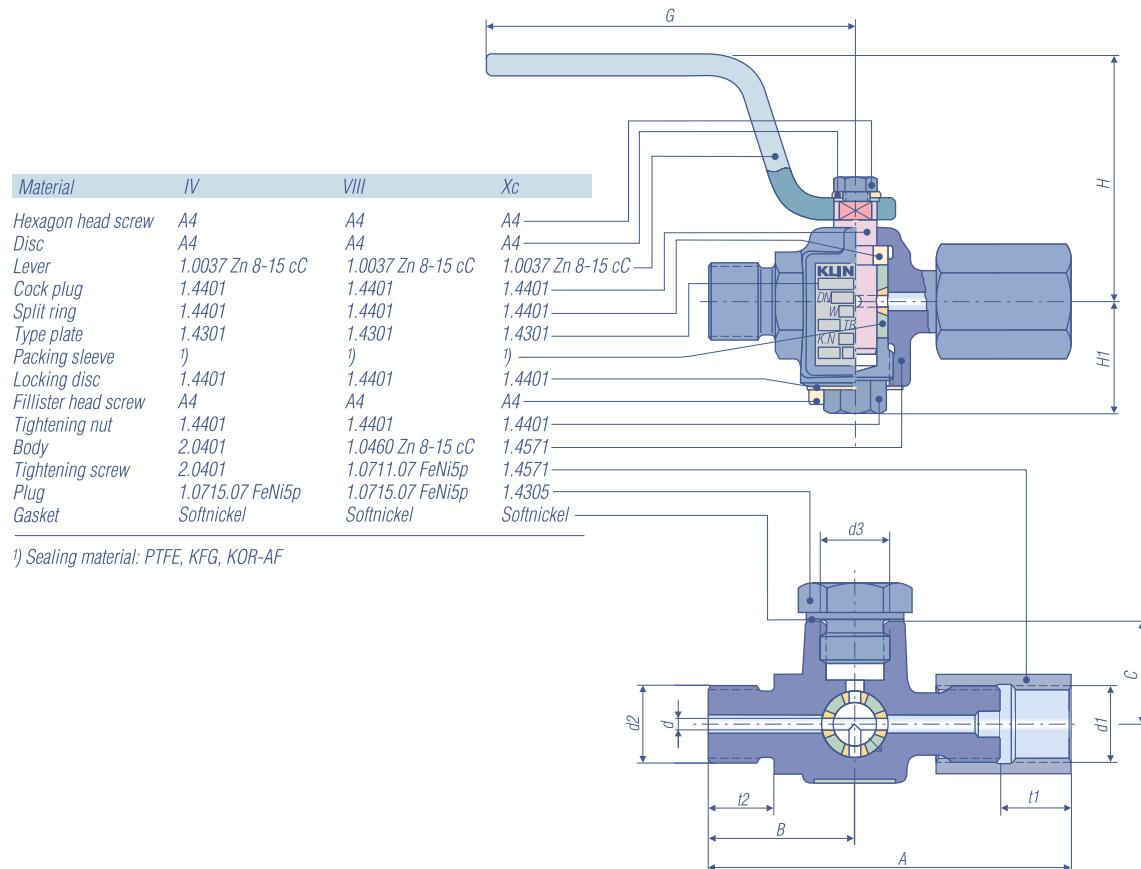
Cock type	Bore d	Overall dimension					Connection dimension				Control connection					Weight ca. kg
		H	H1	A	B	G	d1	t1	d2	t2	d3	C	D	b	C	
MABA 12	5	68	31	88	30	100	G1/2"	19	G1/2"	14	G1/2"	28	—	—	—	0,80
MABC 12	5	68	31	88	30	100	G1/2"	19	G1/2"	14	—	—	40	6	45	0,80

# 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

# MABAL 12

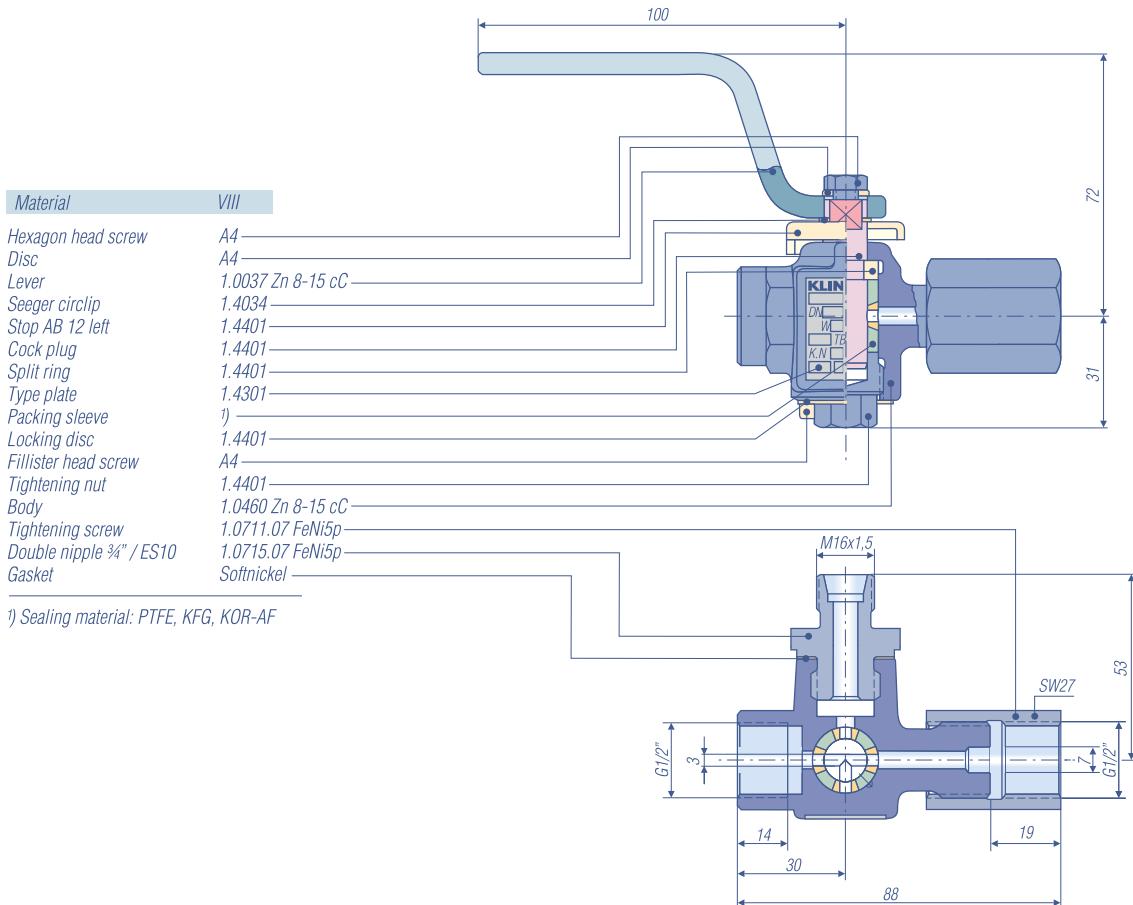
## Three-way pressure gauge shut-off cocks

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 2353

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:*

*K<sub>p</sub>* = boiling point

*conc.* = concentration

*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,						Calcium hydroxide			•	•	all
Ammonium hydroxyde	10	100	•	•	VIII, Xc	Calcium hypochlorite			•	•	Xc
Ammonium carbonate			Kp.	•	Xc	Calcium sulphate			•	•	all
Ammonium chloride	5	20	•	•	all	Carbon dioxyde, dry	150	•	•	all	
Ammonium chloride	10	20	•	•	all	Carbon dioxyde, dry	400	•	—	VIII, Xc	
Ammonium chloride	10	100	•	•	Xc	Carbon disulfide	20	•	•	VIII, Xc	
Ammonium chloride	50	20	•	•	Xc	Carbon tetrachloride			•	•	all
Ammonium nitrate			Kp.	•	Xc	Chlor sulphonic acid	20	•	—	all	
Ammonium sulphate			Kp.	•	Xc	Chloroform			Kp.	•	all
Ammoniumdiphosphate (=Diammoniumphosphate)			•	•	VIII, Xc	Chromic acid	10	20	—	—	VIII, Xc
Amylacetate			•	•	all	Chromic acid	10	Kp.	—	—	Xc
Aniline			—	•	all	Chromic acid	50	20	—	—	VIII, Xc
Arsenic acid			—	•	Xc	Citric acid	20	•	•	Xc	
Asphalt			•	•	Xc	Citric acid		Kp.	•	•	Xc
Beer			•	•	Xc	Clophen T 64			•	•	all
Benzene			•	•	all	Copper acetate	20	•	•	Xc	
Benzine			•	•	all	Copper acetate		Kp.	•	•	Xc
Bleaching liquor (chloride of lime)			•	•	Xc	Copper sulphate	20	•	•	Xc	
Borax	ges.		•	•	Xc	Copper sulphate		Kp.	•	•	Xc
					Diazotation bath	20	•	•	Xc		
					Diazotation bath	80	•	•	Xc		
					Diesel oil	80	•	•	all		

# Safe with every medium

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	
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	•	•	all	Methylene chloride	20	•	•	Xc	
Ethylene		•	•	all	Methylene chloride	Kp.	•	•	Xc	
Fatty acids from C <sub>6</sub>		—	•	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		•	•	all	Nitric acid	40	20	—	•	Xc
Glacial acetic acid		20	—	•	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	•	•	all	Oxygen	20	•	•	all	
Hydrochloric acid, dry	100	•	•	all	Paraffin oil	20	•	•	all	
Hydrogen peroxide	20	•	•	Xc	Phenol		•	•	Xc	
Hydrogen peroxide	50	•	•	Xc	Phosphoric acid	10	20	•	•	Xc
Hydrogen sulphide, gas, dry	20	•	•	Xc	Phosphoric acid	10	Kp.	•	•	Xc
Hydrogen sulphide, gas, wet	20	•	•	Xc	Phosphoric acid	50	20	•	•	Xc
Hydroxylamine sulphate	10	20	—	•	Phosphoric acid	50	Kp.	•	•	Xc
Hydroxylamine sulphate	10	Kp.	—	•	Phosphoric acid	80	20	•	•	Xc
Illuminating gas		•	•	all	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
	%	°C		
Potassium carbonate (potash)	50	20	• •	all
Potassium carbonate (potash)		Kp.	• •	all
Potassium chlorate		Kp.	• •	Xc
Potassium chromium sulphate (chromic alum)		20	• •	Xc
Potassium chromium sulphate (chromic alum)		Kp.	• •	Xc
Potassium cyanide		20	• •	Xc
Potassium dichromate	25	20	• •	all
Potassium dichromate		Kp.	• •	Xc
Potassium hydrochlorite up to 20g akt. Cl2/		40	• •	Xc
Potassium hydroxide	25	20	• •	all
Potassium hydroxide	25	Kp.	• •	Xc
Potassium hydroxide	50	20	• •	all
Potassium hydroxide	50	Kp.	• •	Xc
Potassium iodide		20	• •	VIII, Xc
Potassium iodide		Kp.	• •	Xc
Potassium nitrate		20	• •	all
Potassium nitrate	ges.	Kp.	• •	Xc
Potassium permanganate		20	• •	all
Potassium permanganate		Kp.	• •	Xc
Propane		20	• •	all
Salicylic acid		20	• •	Xc
Sea water		20	• •	Xc
Sea water		Kp.	• •	Xc
Silicone oil			• –	all
Soap			• •	all
Soda (Sodium carbonate)		Kp.	• •	all
Sodium carbonate		20	• •	all
Sodium carbonate		Kp.	• •	all
Sodium hydroxide	20	20	• •	all
Sodium hydroxide	20	Kp.	• •	Xc
Sodium hydroxide	35	20	• •	all
Sodium hydroxide	35	Kp.	• •	Xc
Sodium sulphate			• •	all
Sole		20	• •	Xc
Spinbath		80	• •	Xc
Starch solution			• •	Xc
Steam			• –	all
Stearic acid			• –	Xc
Sugar		20	– •	all
Sugar		80	– •	all

Fluid	Concentration and temperature		Packing sleeve	Material code
	%	°C		
Sulphuric acid	1	20	• •	Xc
Sulphuric acid	10	20	• •	Xc
Sulphuric acid	90	20	• •	all,
Sulphuric acid	konz.	20	• •	except for IV all
Sulphite lye (fresh cooking liquor, spent liquor)		20	• •	Xc
Sulphite lye (fresh cooking liquor, spent liquor)		80	• •	Xc
Sulphur dioxide			• •	Xc
Sulphurous acid	ges.	20	• •	Xc
Tannic Acid		10	20	Xc
Tannic Acid		10	Kp. • •	Xc
Tannic Acid		50	20	Xc
Tar (neutral)		180	• •	VII, Xc
Tartaric acid		20	• •	Xc
Toluol		20	• •	all
Trichlorethylene			• •	all
Turpentine oil		20	• •	all
Urea		20	• •	all
Water (fresh-a.drinking water)			• •	all
Water glass			• •	all
Water glass (K- and Na-silicate)			• •	all
Xylene		20	• •	all

# Applications worldwide

Instruments

Compressed-air distribution

Energy production

Instrumentation

Processing industry

Plant engineering and construction

Diesel engine

Automation

Ship building

Processing

Energy distribution

Italy

Equador

Sweden

India

Canada

Norway

Spain

Switzerland

Israel

Brasil

Greece

Mexico

Germany

Austria

China

Argentine

Great Britain

Finnland

Croatia

Slowakia

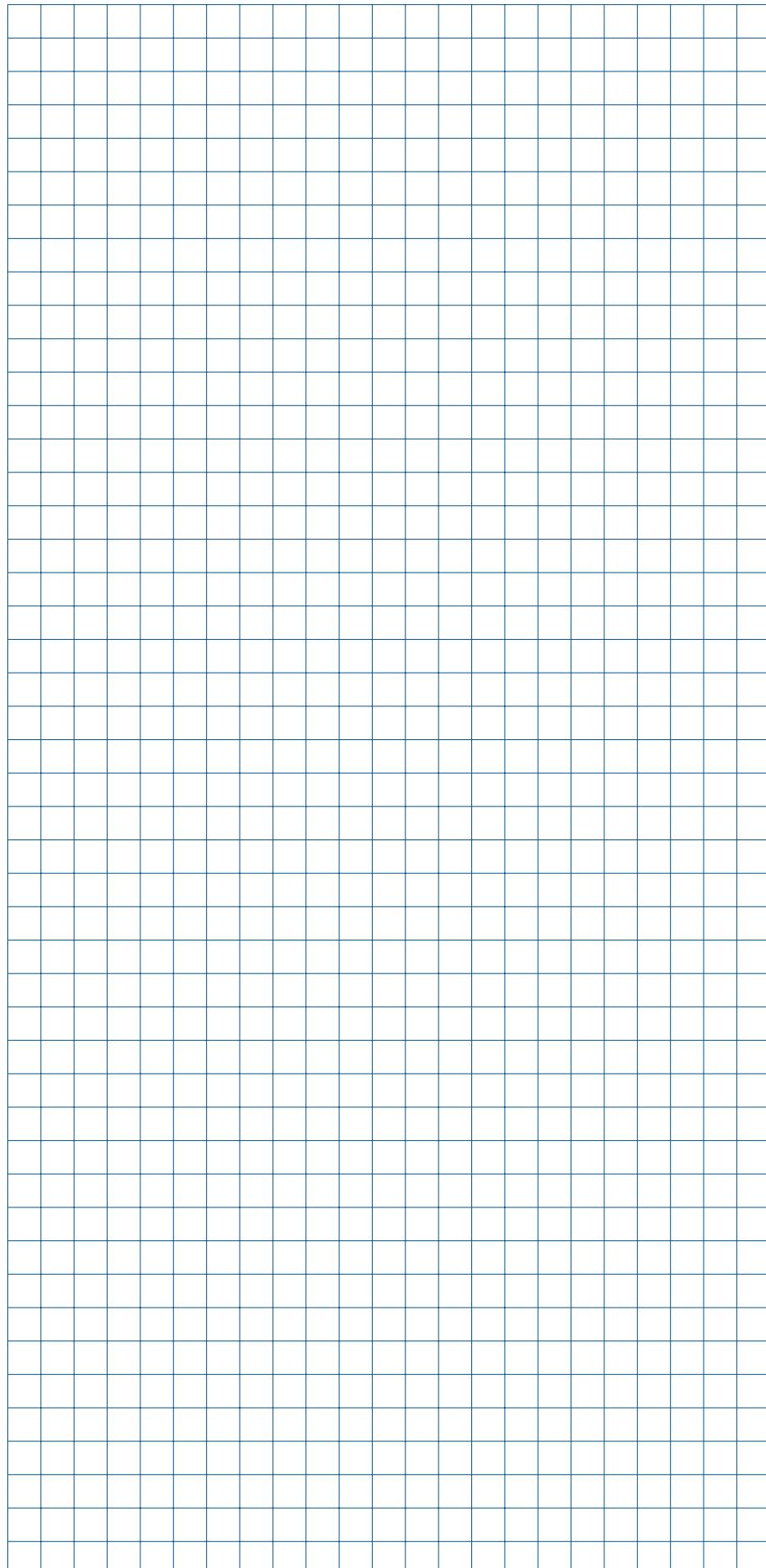
Saudi Arabia

Hungary

USA

Belgium





# 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

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