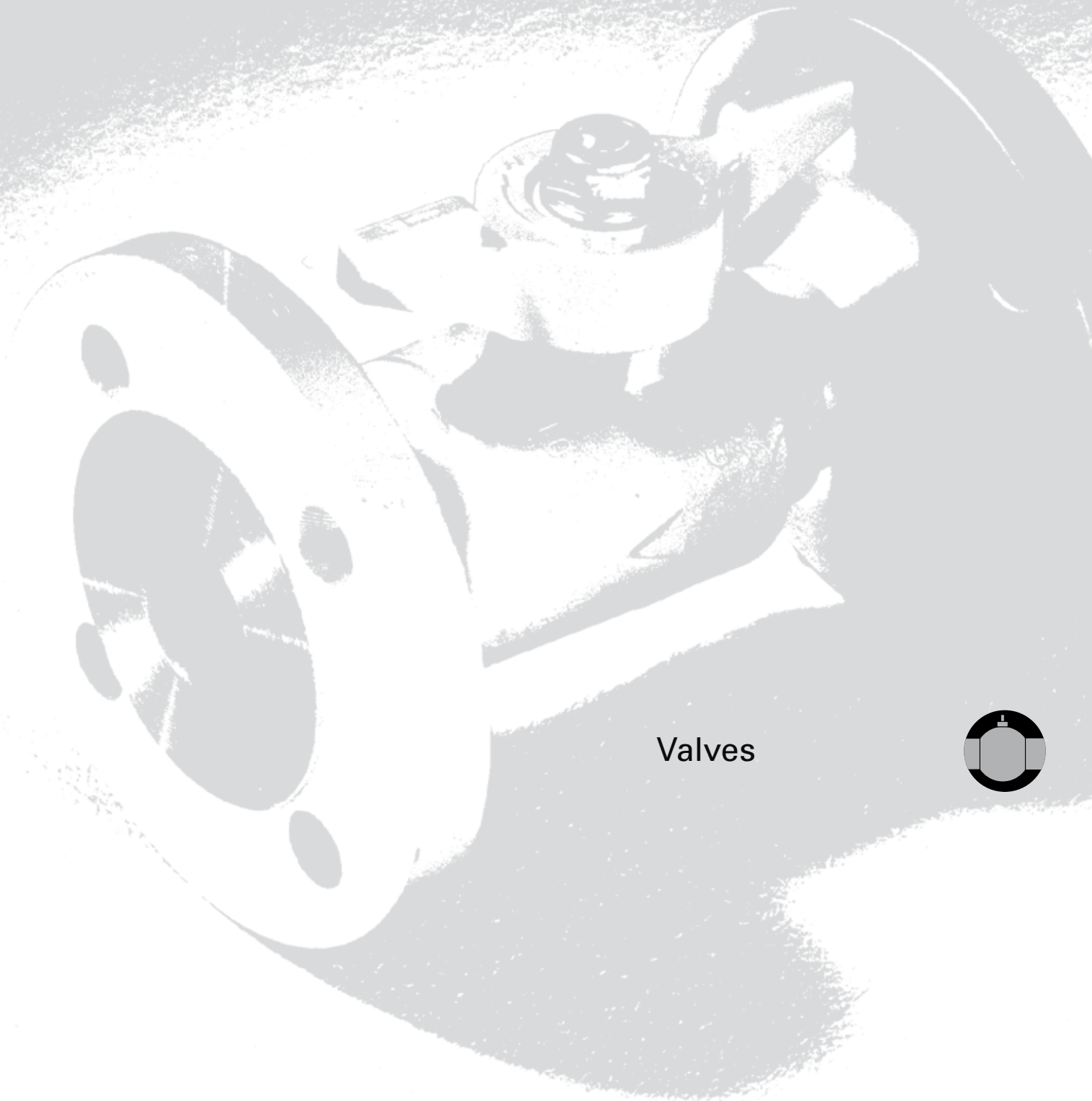


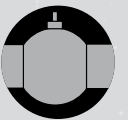
EMMER
service

Industriestrasse 4 – 4700 EUPEN
Tel : +32 87 590 680
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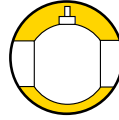
 **SCHUCK**



Valves







Valves

4 **Quality assurance**

5 **Manufacturing**

Ball valves

Type AT

6–7 **Drilling T-Piece**

Type SA...

8–9 **PS 4/16, purging ball valves**

Type SK...GTN

10–11 **PS 5, steel ball valves**

Underground ball valves

Type SKPE-E

12–13 **PS 4/PN 10, steel with PE
weld-on ends**

Type SKS-E

14–15 **PS 16, steel with steel weld-on
ends**

Type PEK-FB

16–17 **Full Bore, PS 10 for gas,
PS 16 for water**

Intelligent solutions

Our innovative products are the result of intelligent engineering. Especially in the sensitive area of supplying natural gas even the minutest details are of decisive importance.

Consequently our design team is constantly searching for new improvements to its ball valves.

The extensive patents that they have already acquired and the award of the "German Industry Prize for Innovation" are proof of the value of these intelligent solutions.

Tested and approved

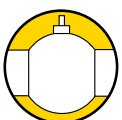
The outstanding quality of SCHUCK valves can stand any comparison. The company carries out its own destructive and non-destructive testing.

Our quality management system has been certificated by leading institutions such as TÜV and API. Auditing in conformity with DIN ISO 9001 and API 6D enables us to supply valves and pipeline equipment all over the world.



Quality DIN ISO 9001

- DIN ISO 9001
- API 6D
- TÜV
- DVGW, ÖVGW, SVGW





Flexibility

Economic independence and a wide manufacturing scope are features of our company. The Steinheim plant has steadily expanded over the past 35 years and now covers more than 35,000 square metres. The forming and plastic department as well tool and production are in close proximity to one another. The short distances and lack of hierarchical constraints enable us to meet our customers' requirements quickly and easily.



Design

For welding on to convex surfaces.

For use on drilling clamps with threaded connection with external and internal thread. Options of integral non return valve or hex head plug.

Plug with and without O-ring seal. Production range of outlet neck of DN 25 (DA 32) to DN 50 (DA 63) with steel weld end or PE outlet.

Housing body DN 1 1/2"

Thread $D_i = 1\ 1/2"$, $D_S = 2"$.

Housing body DN 2"

Thread $D_i = 2"$, $D_S = 2\ 1/2"$.

Special version:

with thread or saddle surface.

Application Ranges

For initial drilling of main pipeline under pressure without gas escaping. As a non-return assembly by installing a non-return valve or a plug.

Plug and valve can be welded to the forged housing.

Version, Type AT-V, suitable for use with non-return valve.

Version, Type AT, suitable for use with plug.

When the valve is in open position, the valve plate provides an automatic return flow seal.

Production and Inspection

Requirement and inspection in acc. with DVGW-VP300 Type inspection.

Housing and plug made of forged steel S355J2G4.

Valve spindle made of stainless steel

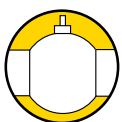
Bronze valve plate with rubber sheath.

Rubber gasket made of aging-resistant.

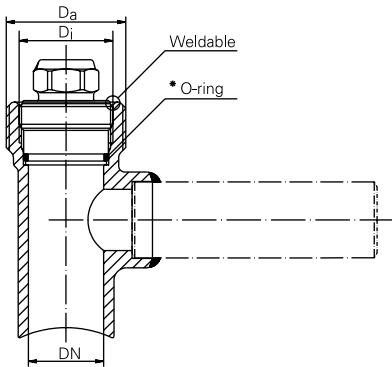
Perbunan in acc. with DIN 3535, Part 3/EN 682.

Technical description for PE steel connectors, Type PESV, and PE steel clamp connector.

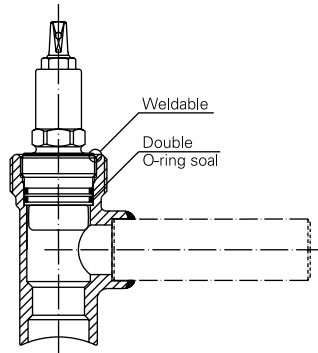
Type PESK; refer to separate brochure.



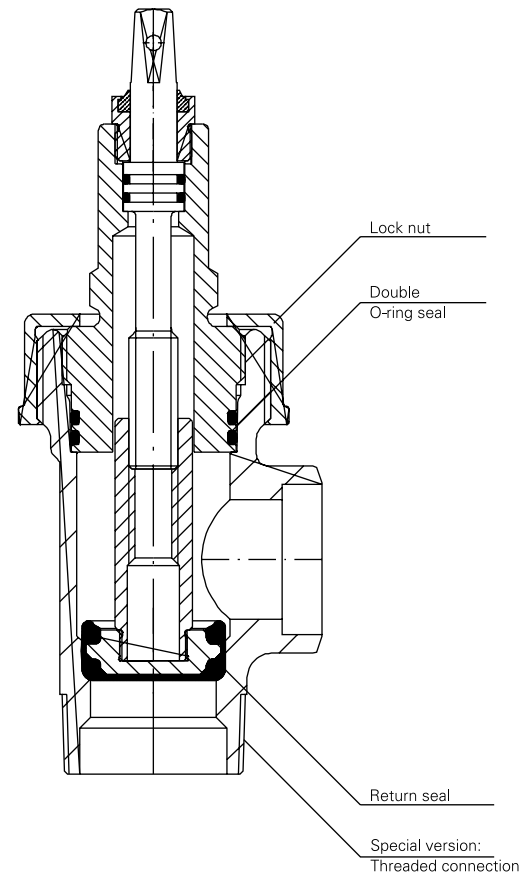
AT-S
with plug and steel welding connection



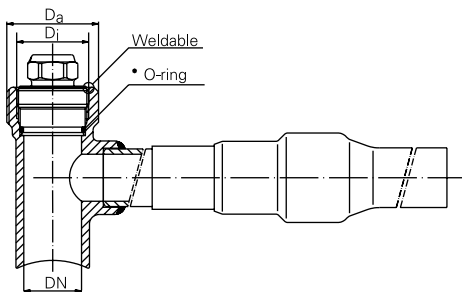
AT.V-S
With non-return and steel welding connection



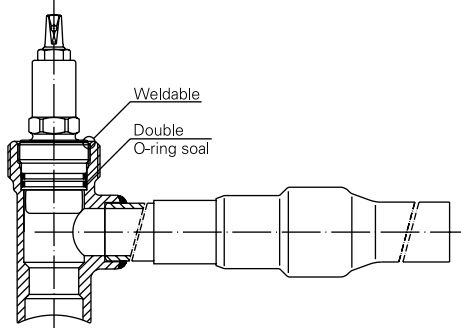
Design variants with lock nut and thread or steel connection.



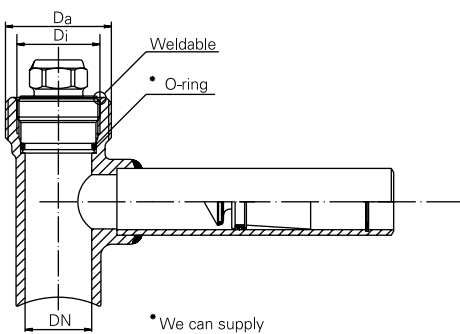
AT-PE
With plug and PE connection



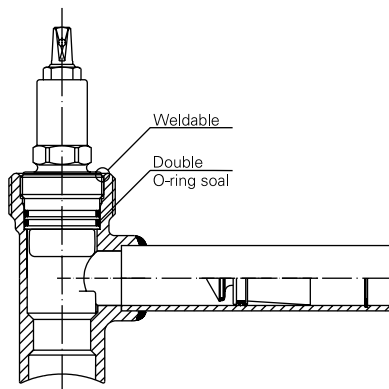
AT.V-PE
With non return valve and steel welding connection



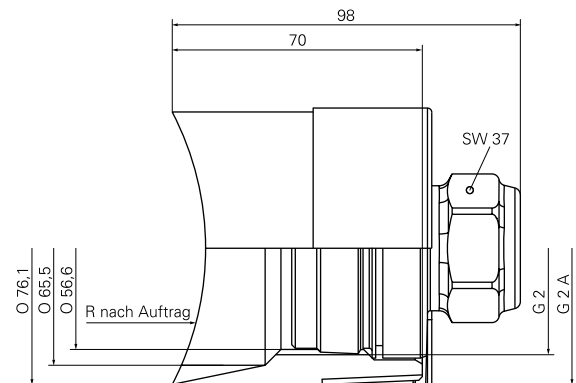
AT-GS
With plug and integrated Gas flow safety device



AT.V-GS
With non-return valve and integrated Gas flow safety device



AS
Weld-on neck



Features

SCHUCK-SA... ball valves are designed to comply with DIN 3547 part 1/EN 13774.

In order to extend the purging line the basic design can be supplied with internal threads and plugs or flanges.

SA... ball valves provide a thoroughly effective seal and excellent resistance to deformation, and even after long periods of inactivity they are guaranteed to operate smoothly and leak-free.

SCHUCK-SA... ball valves are completely maintenance-free.

Sealing system

Seals made of age-resistant Perbunan quality DIN 3535 T3/EN 682.

This compensates for any thermal or mechanical changes.

Operating lever in the form of a handle

To enable the ball valve to be operated where space is limited, the operating lever is in the form of a handle.



Design

SCHUCK-SA... ball valves

Series:

Outlet with internal thread connection with threaded plug and threaded cover or with flange connection (standard design). Inlet side with steel or PE-HD weld-on end such as

- gas pipe made of P235TR2 in accordance with DIN 1626/DIN 1629
- plastic connecting pipe in accordance with EN 1555-2 and GW 335-A2
- PE 100 SDR 11
- polyurethane outer coating DIN 30677
- temperature range -20°C to 60°C

Tests

- in conformity with DIN 3230 Part 5
- quality certification with DIN-DVGW registration

Advantages

- forged and welded construction
- maintenance-free seals and mountings
- parts cannot seize-up
- actuating bolts with dual O ring seal

Applications

In gas supply lines for gas quality in accordance with DVGW Worksheet G 260.

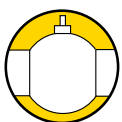
Applications

As a purging valve in valve boxes for welding into the pipeline network.

The connection for continuing the purging line can be made with either a flange or thread.

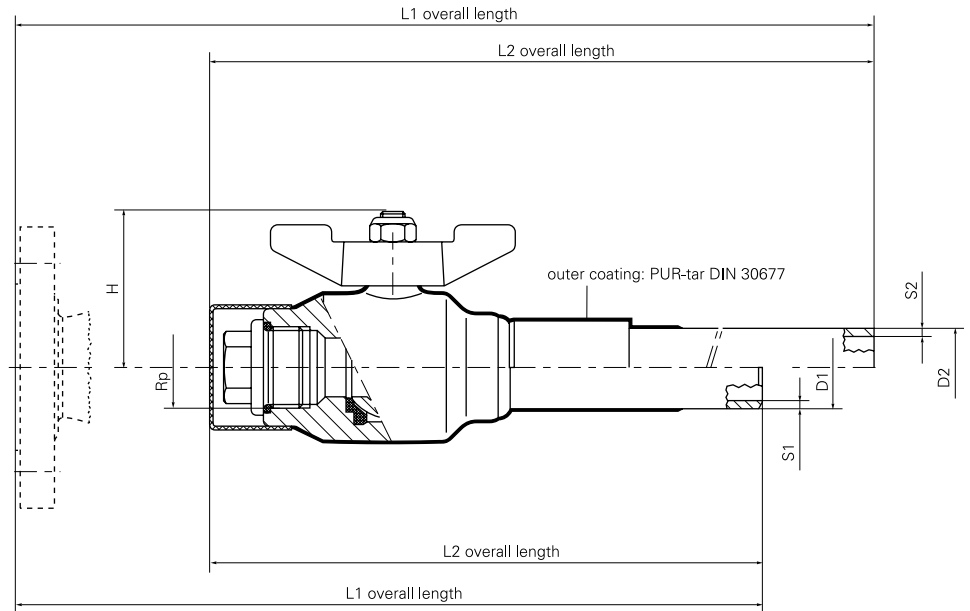
Apart from the welded-on end, the ball valves are coated on all sides with polyurethane and no further insulation is required if they are to be installed underground.

Max. operating pressure 16 bar with: PE 100 connection 10 bar.



Type

requirements in accordance with EN 13774, DVGW-VP 600.
 housing made of steel, welded.
 brass ball, polished.
 brass actuating bolts,
 sealed with two O rings.
 seals made of age-resistant Perbunan quality DIN 3535 T3/EN 682.
 On inlet side option of steel or PE-HD welded-on ends, on outlet side option of threaded plugs and threaded cover or flange closure PN 16 DIN 2633.
 outer coating: polyurethane DIN 30677.



Materials

housing	steel S355J2G4
actuator shaft	brass
ball	brass, polished
seals	Perbunan (DIN 3535 T3/EN 682)

Typical order

SCHUCK SAPEV ball valve
 Example: inlet with PE-HD welded-on end, outlet with thread, nominal width, medium, operating pressure, temperature, and quantity to be indicated. Other materials and versions possible on request (customer specification).

To follow

SA = Schuck Ausbläser
 S = Stahl-Anschweißende
 PE = PE-Anschweißende
 M = mit Gewinde
 K = Kurze Baulänge
 V = Verschlussstopfen

DN	PS ¹⁾	Rp	D ₁	D ₂	H	S ₁ steel	S ₂ PE-HD	SASF SAPEF L ₁ length	SASV SAPEV L ₂ length	SASKF L ₃ length	SASKV L ₄ length
25	4/10/16	1"	33,7	32	64	4,0	3,0	1130	1110	330	310
40	4/10/16	1 1/2"	48,3	50	76	4,0	4,6	1170	1140	350	330
50	4/10/16	2"	60,3	63	83	4,0	5,8	1180	1160	380	360

1) max. PN 4 for all types in which plastic pipe is used. At PE 100 – PN 10.
 Details conform to the latest technical developments. We reserve the right to make alterations.

Features

SCHUCK-SK...GTN ball valves are designed in conformity with DIN EN 331 and DIN 3389 and are certified in conformity with DIN-DVGW. The basic model can be provided either with an internal thread or flanges on both sides.

SK...GTN ball valves provide a thoroughly effective seal and excellent resistance to deformation and are guaranteed to operate smoothly and leak-free even after long periods of inactivity.

SCHUCK-SA...GTN ball valves are completely maintenance-free.

Sealing system

Seals made of age-resistant Perbunan quality DIN 3535 T1/DIN EN 549.

This easily compensates for any thermal or mechanical changes.

Firesafe

SCHUCK-SK...GTN ball valves up to DN 50 can be fitted with a self-closing, thermally activated SCHUCK FIRE SAFE lever.

Retrofit conversion is also possible at any time without depressurising the line.

Design

SCHUCK-SK...GTN ball valves

Product lines:

internal thread connection or flange connection (basic design)

- gas pipe made of P235TR2 in conformity with DIN 1626/DIN 1629
- outer coating of yellow synthetic resin varnish RAL 1021
- temperature range -20°C to 60°C

Tests

- in conformity with DIN 3230 Part 5 and DIN 3389
- proof of quality with DIN-DVGW registration

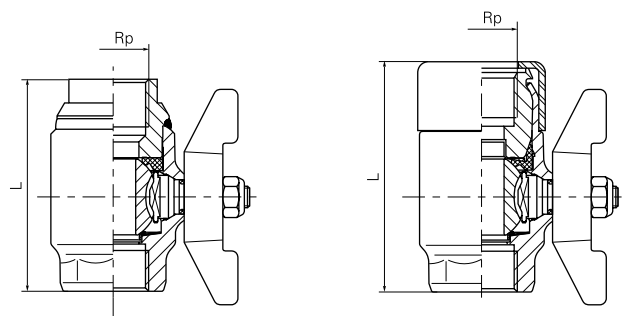
Advantages

- forged and welded construction or with recessed insulating joint
- floating ball
- brass ball, polished
- low torques
- maintenance-free sealing and mounting systems
- parts cannot seize-up
- actuating bolts with dual O ring seal
- device to prevent blow out
- no special installation measures required

Applications

In gas supply lines for gas quality in accordance with DVGW Worksheet G 260.

When SCHUCK-SK...GT ball valves are installed upstream on non-HTB tested gas meters and pressure regulators the high load capacity required for this equipment in conformity with TRGI can be subsequently attained.

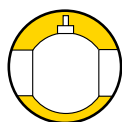


SKMGTN

SKIGTN

To follow

- SK = Schuck Kugelhahn
 E = Eckausführung
 I = integrierte Trennstelle
 M = mit Gewinde
 F = Flansch
 GTN = Gasthermisch belastbar
 Niederdruckdicht



Type

Option of integrated insulating joint to DN 50 and thermally self-closing Fire-Safe operating lever. Retrofit conversion is also possible.

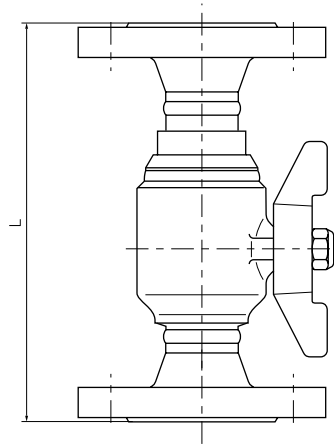
Materials

- housing steel S355J2G4
- operating lever brass
- ball polished brass (up to DN 50)
- or hard chromium-plated steel (>DN 50)
- seals Perbunan (DIN 3535 T1/ DIN EN 549)

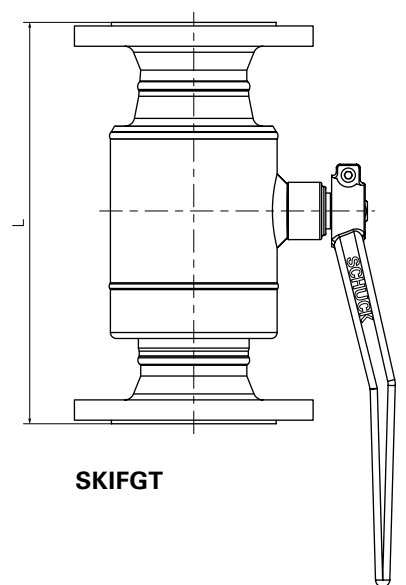
Typical order

SCHUCK-SKIGTN ball valve Corner type, connection with thread and insulating piece.

When ordering or making enquiries please state nominal width, medium, operating pressure and quantity. Other materials and versions available on request (customer specification).



SKFGT



SKIFGT

DN	PS	SKMGTN		SKIGTN		SKFGT/SKIFGT
		Rp	L	Rp	L	L
25	5	1"	90	1"	110	160
32	5	1 1/4"	125	1 1/4"	135	180
40	5	1 1/2"	125	1 1/2"	135	200
50	5	2"	140	2"	150	230
80	5					310
100	5					350
150	5					450

dimensions in mm

Details conform to the latest technical developments. We reserve the right to make alterations.

Features

SCHUCK-SKPE-E underground ball valves are designed in conformity with EN 13774 and DVGW-VP 600.

The welded-on ends on both sides on the basic model are suitable for double welding and can be provided with other connection combinations.

SKPE-E ball valves provide a thoroughly effective seal and excellent resistance to deformation and are guaranteed to operate smoothly and leak-free even after long periods of inactivity.

SCHUCK-SKPE-E ball valves are completely maintenance-free.

SKPE-E Ball valves can be supplied without the actuating device or as a complete set, with adjustable telescopic key bar or rigid key bar, upon which a 4 kt protector 14 is installed and secured, or with a 27/32 protective tube for the stem, and a cover.

Sealing system

The seal on the passage is created using a Teflon or Perbunan sealing ring on a chromium-plated or brass ball. This combination prevents seizing-up of the sealing rings. This compensates for any thermal or mechanical changes.



Design

SCHUCK-SKPE-E underground ball valves

Series:

Weld-on ends (basic design)

Connecting pipes in conformity with EN 1555-2 and GW 335-A2

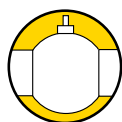
- PE 100, PEX
- Outer coating of polyurethane in conformity with DIN 30677
- Temperature range -20°C to 60°C

Tests

- in conformity with DIN 3230 Part 5
- proof of quality with DIN-DVGW registration or approval certificate 3.1 in conformity with EN 10204

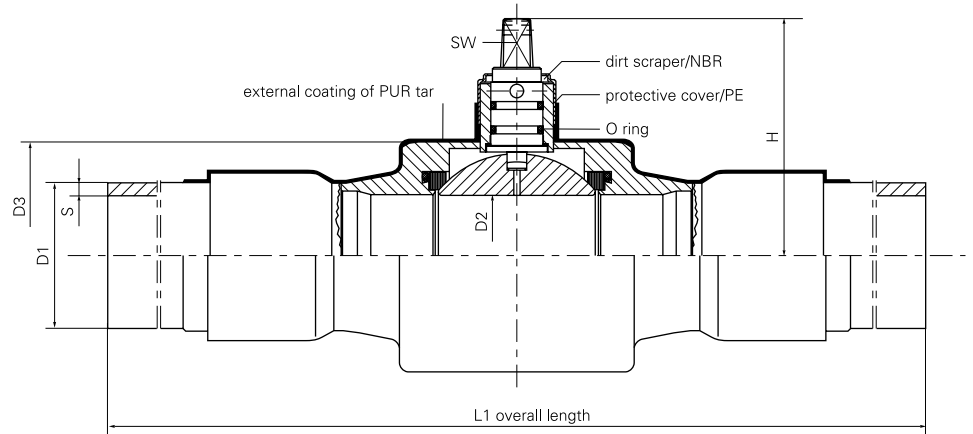
Advantages

- fully welded construction
- unrestricted passage
- suitable for pig
- floating ball
- low torques
- maintenance-free seals and mountings
- parts cannot seize-up
- can be laid underground



Applications

In underground PE gas pipelines for gas quality in accordance with DVGW Work-sheet G 260.



Materials

housing:	steel
connecting pipe	PE 100 SDR 11
actuator	shaft brass
ball	steel, hard chromium-plated
seals	Perbunan (DIN 3535 T3/EN 682), or Teflon

Typical order

SCHUCK-SKPE-E underground ball valves
Connecting pipe made of PE 100 SDR 11.
When ordering or making enquiries please state nominal width, medium, operating pressure and quantity. Other materials and versions available on request (customer specification).

Connection dimensions for weld-on ends in accordance with table.

DN	PS	D ₁	D ₂	D ₃	H	L ₁ overall length	S	sw	sealing system	weight/kg
25	4/10	32	24	56	100	490	2,9	14	NBR	2,1
32	4/10	40	39	80	110	520	3,7	14	NBR	4,0
40	4/10	50	39	80	110	520	4,6	14	NBR	4,3
50	4/10	63	45	95	120	625	5,8	14	NBR	6,2
80	4/10	90	74	140	145	940	8,2	20	PTFE	16,7
100	4/10	110	95	170	160	1030	10,0	20	PTFE	24,8
100	4/10	125	95	170	160	1050	11,4	20	PTFE	25,2
150	4/10	160	142	250	195	1100	14,6	20	PTFE	65,5
150	4/10	180	142	250	195	1100	16,4	20	PTFE	65,0
200	4/10	225	147	250	195	1200	20,5	20	PTFE	80,2

dimensions in mm / weight in kg

Details conform to the latest technical developments. We reserve the right to make alterations.

Features

SCHUCK-SKS-E underground ball valves are designed in conformity with EN 13774.

SKS-E ball valves provide a thoroughly effective seal and excellent resistance to deformation, and even after long periods of inactivity they are guaranteed to operate smoothly and leak-free.

SCHUCK-SKS-E ball valves are completely maintenance-free.

SKS-E ball valves can be equipped without the actuating device or as a complete set, with adjustable telescopic key bar or rigid key bar, upon which a 4 kt protector 14 is installed and secured, or a 27/32 protective tube for the stem and a cover.

Sealing system

The seal on the passage is created using a Teflon or Perbunan sealing ring on a chromium-plated or brass ball. This combination prevents seizing-up of the sealing rings.

This compensates for any thermal or mechanical changes.

Design

SCHUCK-SKS-E underground ball valves Series:

Weld-on ends (basic design)

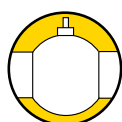
- gas pipes made of P235TR2 in conformity with DIN 1626/1629
- PE 80, PE 100, PEX
- outer coating of polyurethane in conformity with DIN 30677
- Temperature range -20°C to 60°C

Tests

- in conformity with DIN 3230 Part 5
- proof of quality with DIN-DVGW registration or approval certificate 3.1 in conformity with EN 10204

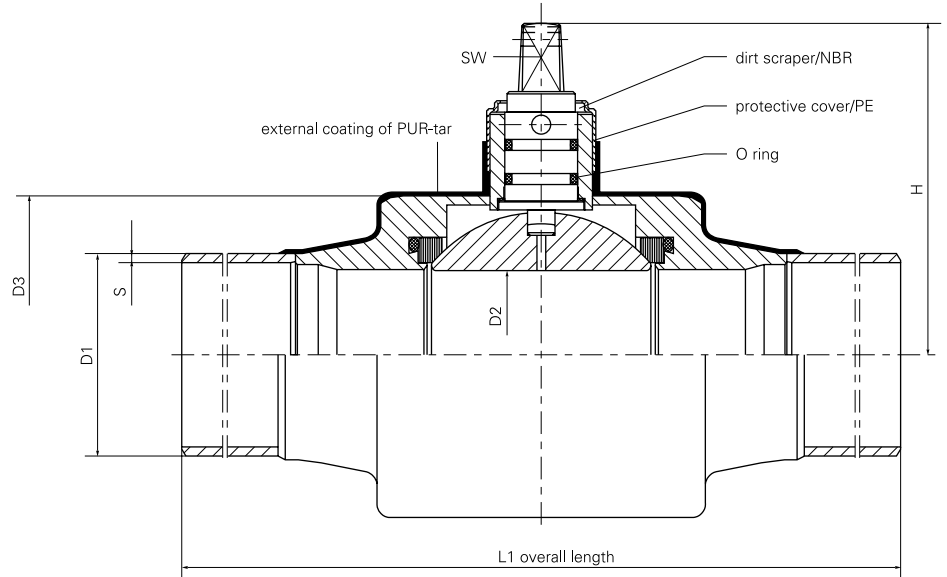
Advantages

- fully welded construction
- unrestricted passage
- suitable for pig
- floating ball
- low torques
- maintenance-free seals and mountings
- parts cannot seize-up
- can be laid underground



Applications

In underground gas pipelines for gas quality in accordance with DVGW Worksheet G 260.



Materials

housing	steel
connecting pipe	steel P235TR2
actuator shaft	brass
ball	brass
or	steel, hard chromium plated
seals	Perbunan (DIN 3535 T3/EN 682),
or	Teflon

Typical order

SCHUCK-SKS-E underground ball valves
 Connecting pipe made of steel.
 When ordering or making enquiries please state medium, operating pressure and quantity. Other materials and versions available on request (customer specification).
 Connection dimensions for weld-in ends in accordance with table.

DN	PS	D ₁	D ₂	D ₃	H	L ₁ overall length	S	sw	sealing system	weight/kg
25	16	33,7	24	56	100	490	4,0	14	NBR	2,8
32	16	42,4	39	80	110	520	4,0	14	NBR	4,5
40	16	48,3	39	80	110	520	4,0	14	NBR	4,7
50	16	60,3	45	95	120	540	4,0	14	NBR	6,2
80	16	88,9	74	140	145	515	4,0	20	PTFE	12,4
100	16	108	95	170	160	550	4,0	20	PTFE	18,4
100	16	114,3	95	170	160	550	4,0	20	PTFE	18,6
125	16	133	95	170	160	550	4,0	20	PTFE	19,8
125	16	139,7	95	170	160	550	4,0	20	PTFE	20,1
150	16	159	142	250	195	560	4,5	20	PTFE	35,0
150	16	168,3	142	250	195	560	4,5	20	PTFE	35,3
200	16	219,1	142	250	195	700	4,5	20	PTFE	43,2

dimensions in mm / weight in kg

Details conform to the latest technical developments. We reserve the right to make alterations.

Features

SCHUCK PEK-FB underground ball valves are designed in conformity with VP 302 and EN 1555-4.

The welded-on ends on both sides on the basic model are suitable for double welding and can be provided with other connection combinations. The special design of the PEK-FB provides complete longitudinal adhesion, imperviousness and resistance to deformation. PEK-KB ball valves are guaranteed to operate smoothly and leak-free even after long periods of inactivity. SCHUCK PEK-KB ball valves are completely maintenance-free.

Sealing system

The sealing system, with sprung Teflon seals, prevents the sealing rings from seizing-up on the ball. This easily compensates for any thermal or mechanical changes.

Actuation using the stem extension

PEK-FB ball valves can be supplied as a complete set with adjustable telescopic key bar or rigid key bar, upon which a protective tube for the stem and a cover are installed. If required the ball valve can be supplied on its own.



Torque limiter

A safety clutch can be supplied to prevent damage to the actuating mechanism caused by incorrect operation for up to DN 100. If there is excessive operating torque, a freewheel comes into action and is stopped again after the unit has rotated by 180°.

Base plate

PEK-FB ball valves can be fitted with a base plate, either on site or already installed.

Design

SCHUCK-PEK-FB underground ball valves
Series:

Weld-in ends (basic model)

Connecting pipes in conformity with
EN 1555-2 and GW 335-A2

- PE 100
- SDR 11
- MFR Group 003-005 (190/5)

Applications

Underground water and gas pipelines.

If they are installed while the pipeline is being laid, SCHUCK-PEK-FB underground ball valves do not require any special installation work.

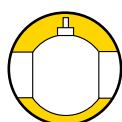
SCHUCK-PEK-FB underground ball valves can be connected to the pipeline system using all current and approved PE-HD welding equipment.

Advantages

- fully welded construction
- unrestricted passage
- suitable for pig
- floating ball
- low torques
- maintenance-free seals and mountings
- parts cannot seize up
- can be laid underground
- no special installation work necessary
- can be welded using all current and approved PE-HD welding equipment.

Optional

- Limiter, in the form of a safety clutch



Materials

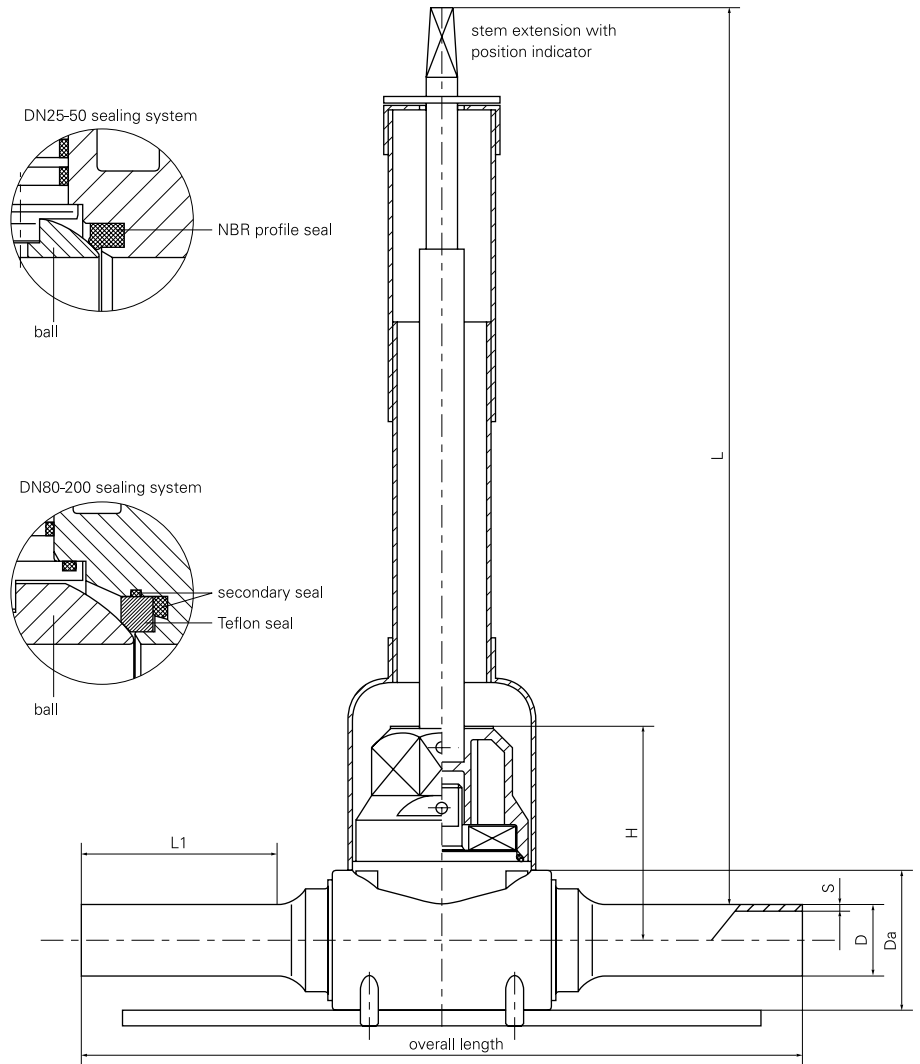
housing and cover	PE 100
connecting pipe	PE 100
ball	POM
seals	Perbunan (DIN 3535 T3/ EN 682), Teflon
or	
actuating boss	POM
actuating stem	POM

Typical order

SCHUCK-PEK underground ball valves
PE 100 connecting pipe Steel connecting pipe.

When ordering or making enquiries please state medium, operating pressure, temperature, flow rate and quantity. Other materials and versions available on request (customer specification).

Connection dimensions for weld-on ends in accordance with table.

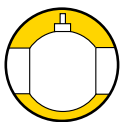


DN	PS		D _{PE} *	S	Da ± 2	Di _{ball}	H ± 2	overall length ± 5	L ₁	L	sealing system
	gas	water									
25	10	16	32	2,9	63	24	96	300	90	600-1200	NBR
32	10	16	40	3,7	70	30	100	330	102	600-1200	NBR
40	10	16	50	4,6	84	38	106	360	110	600-1200	NBR
50	10	16	63	5,8	103	48	114	360	110	600-1200	NBR
80	10	16	90	8,2	150	68	147	480	150	700-1300	PTFE
100	10	16	110	10,0	177	83	161	520	160	700-1300	PTFE
150	10	16	160	14,6	325	121	215	600	160	700-1300	PTFE
200	10	16	225	20,5	325	121	215	700	240	700-1300	PTFE

dimensions in mm

Details conform to the latest technical developments. We reserve the right to make alterations.

* DPE 125, DPE 160 and DPE 225: reduced bore.



Schuck connects.



Schuck supplies all the various systems used to deliver gas, oil, water or district heating from the source to the user. As a systems supplier Schuck sets the standards worldwide. All products and services are carefully co-ordinated with one another. "Supply requires complete systems."

International energy suppliers appreciate the advantages that come with compatibility, functionality, reliable guarantees and efficiency.

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