

DN15 – DN100 resp. 1/2" – 6" RP (red. port)

SCP Cylindrical Plug Valves are ideally suited for Shut-off, Flow Control and Throttling of corrosive, abrasive or even toxic process media in either liquid or gaseous state.

Modular Design

Valves are available as DIN- or ANSI-versions, with handle for manual operation as per standard.

The sturdy design bodies are made of cast steel 1.0619 (WCB), epoxy coating RAL 5005 signal-blue or stainless steel casting 1.4408 (CF-8M), with resistant linings such as PFA or PFA-AS (anti-static).



Main Features

- Heavy-duty, robust construction, maintenance-free
- Bubble-tight shut-off throughout the full pressure and temperature range
- Cavity-free design, max. permeation protection
- Zero stem leakage provided by an innovative stem sealing mechanism
- Consistent low operating torque through cylindrical plug design and resilient liner/cylinder contact
- Maximum flow rates at lowest pressure drops
- Easy replacement of components on site
- Flanges acc. to DIN PN10/16 resp. ANSI 150lbs for installation into existing piping systems

 **Conformity according to European Pressure Equipment Directive 2014/68/EU (PED)**

Operating Options



Standard Valve

Body 1.0619 (WCB)/PFA, bare shaft



Stainless Steel

Body CF-8M/PFA, with handlever

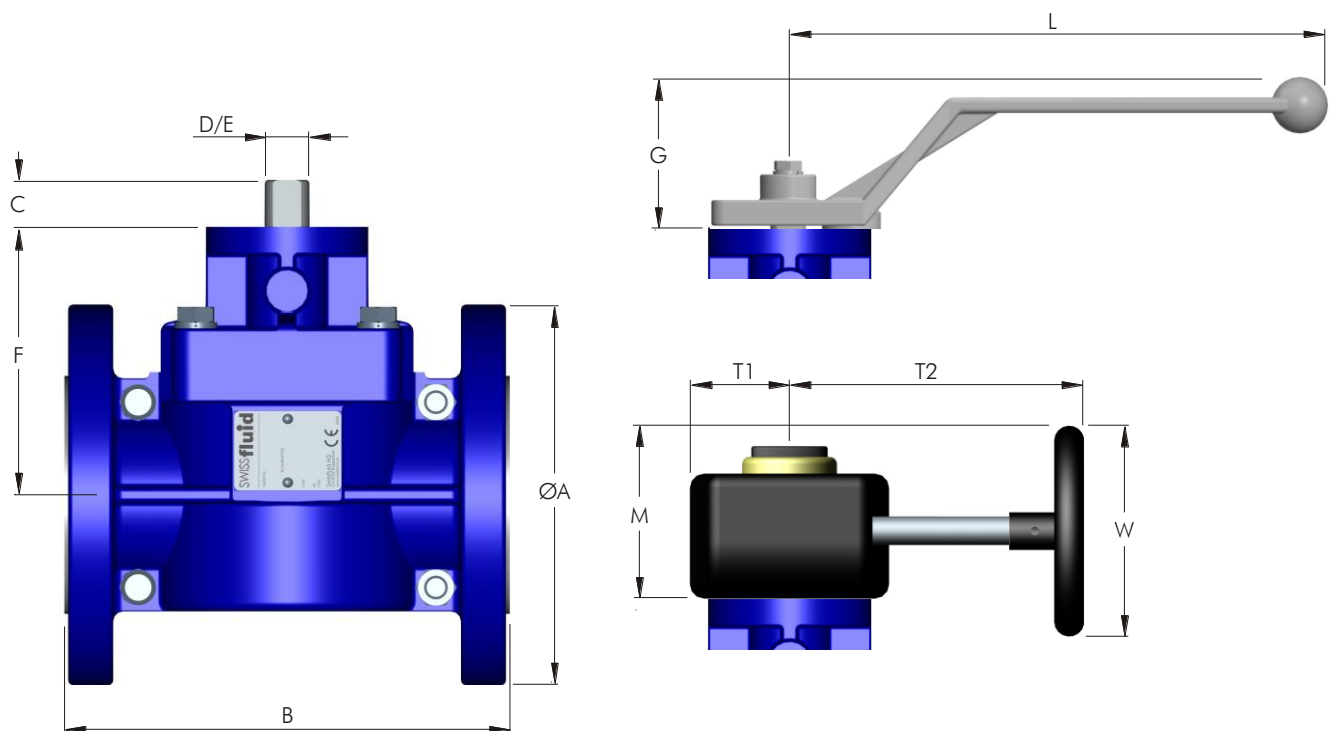
Operating Conditions

- Temperature range from -40°C (-40°F) up to $+200^{\circ}\text{C}$ ($+392^{\circ}\text{F}$), depending on lining material
- Pressure range from 1 mbar (0.01 psi) up to 16 bar (232 psi), depending on size/pressure/temperature

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, resp. API 598.
- Marking of valves on body and name plate acc. to EN 19.
- Material- resp. test certificates acc. to EN 10204-3.1/2.2/2.1

Outline Drawing / Actuator Options

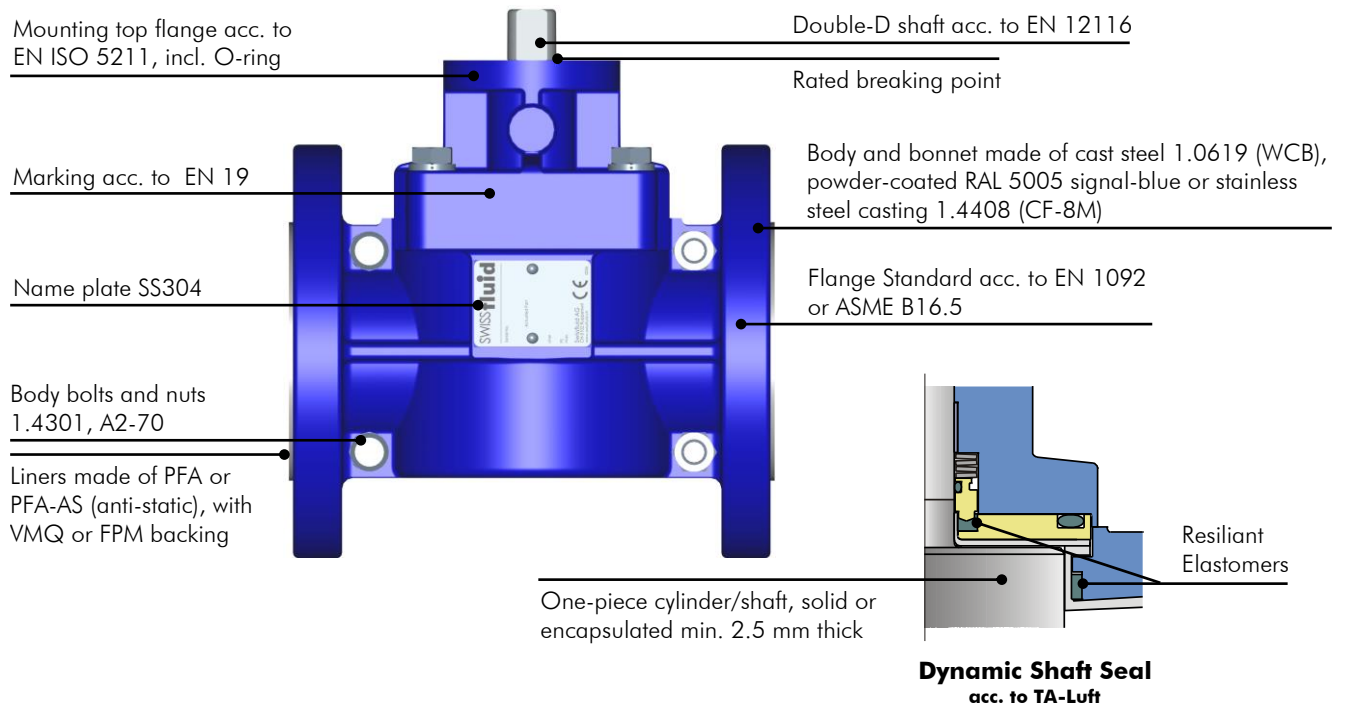

Dimensions in mm (lbs = kg x 2.2)

DN	ØA	ØA	B	B	C	D	E	F	G	L	M	T1	T2	W	ISO	kg	kg	kg	kg
Size nom.	DIN	ANSI	DIN	ANSI		Ø	DD								Top	DIN	ANSI	Handle	Gear
15/1/2"	95	95	130	130	19	14	11	86	58	211	90	58	110	125	F05	3.2	3.2	0.36	2.3
20/3/4"	105	105	150	150	19	14	11	89	58	211	90	58	110	125	F05	3.8	3.8	0.36	2.3
25/1"	115	108	160	127	19	14	11	92	58	211	90	58	110	125	F05	4.4	3.6	0.36	2.3
40/1 1/2"	150	127	200	165	19	18	14	102	58	251	90	58	110	125	F07	7.3	5.4	0.41	2.3
50/2"	165	152	230	178	19	18	14	107	58	251	90	58	110	125	F07	9.9	8.2	0.41	2.3
3"red.	-	190	-	203	19	18	14	107	58	251	90	58	110	125	F07	-	13.8	0.41	2.3
80	200	-	310	-	24	24	17	137	62	315	127	58	200	200	F07	22.8	-	0.90	3.5
4"red.	-	229	-	229	24	24	17	137	62	315	127	58	200	200	F07	-	22.9	0.90	3.5
100	220	-	350	-	24	24	17	147	-	-	127	58	200	200	F10	31.8	-	-	3.5
6"red.	-	279	-	267	24	24	17	147	-	-	127	58	200	200	F10	-	35.0	-	3.5

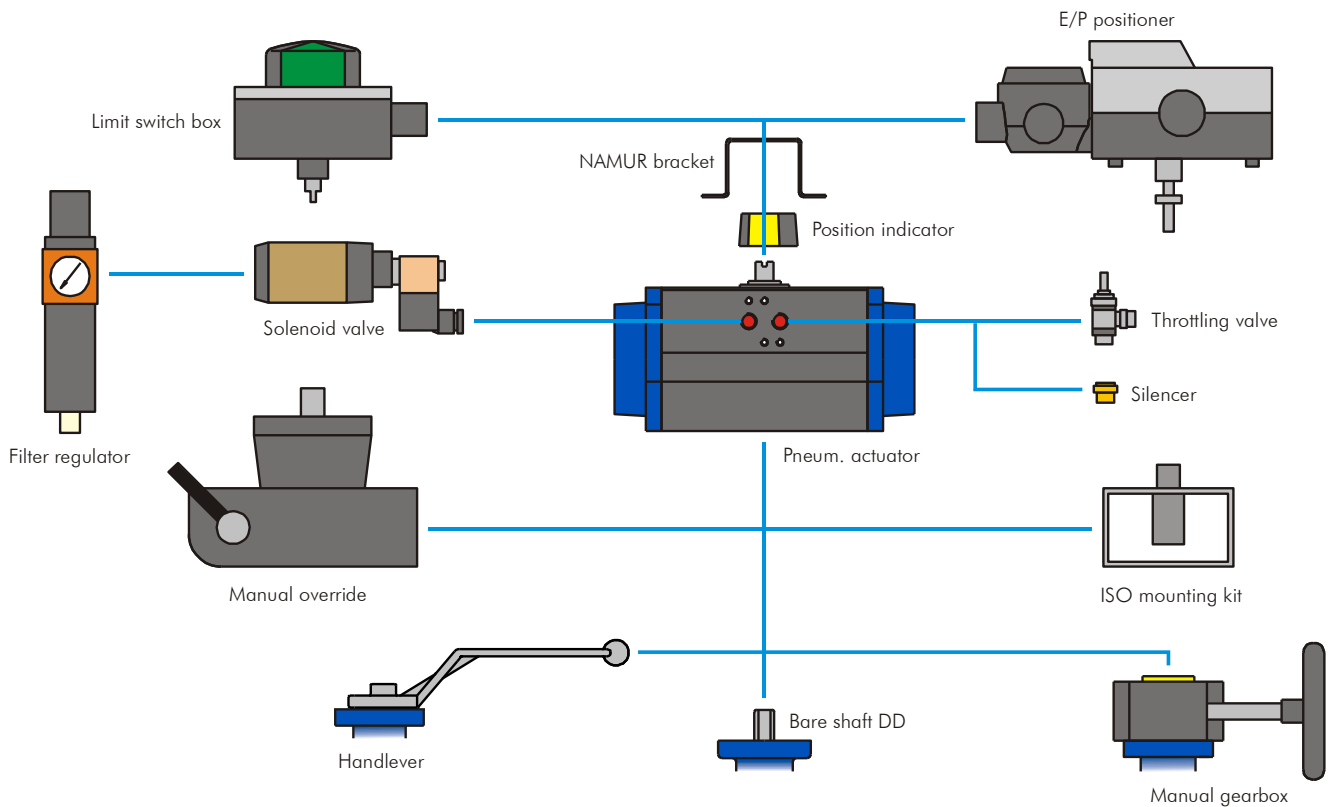
Face to face B acc. to DIN EN 558-1 range 1 resp. ASME B16.10

Size 3", 4" and 6" with reduced port to 50, 80 resp. 100 mm

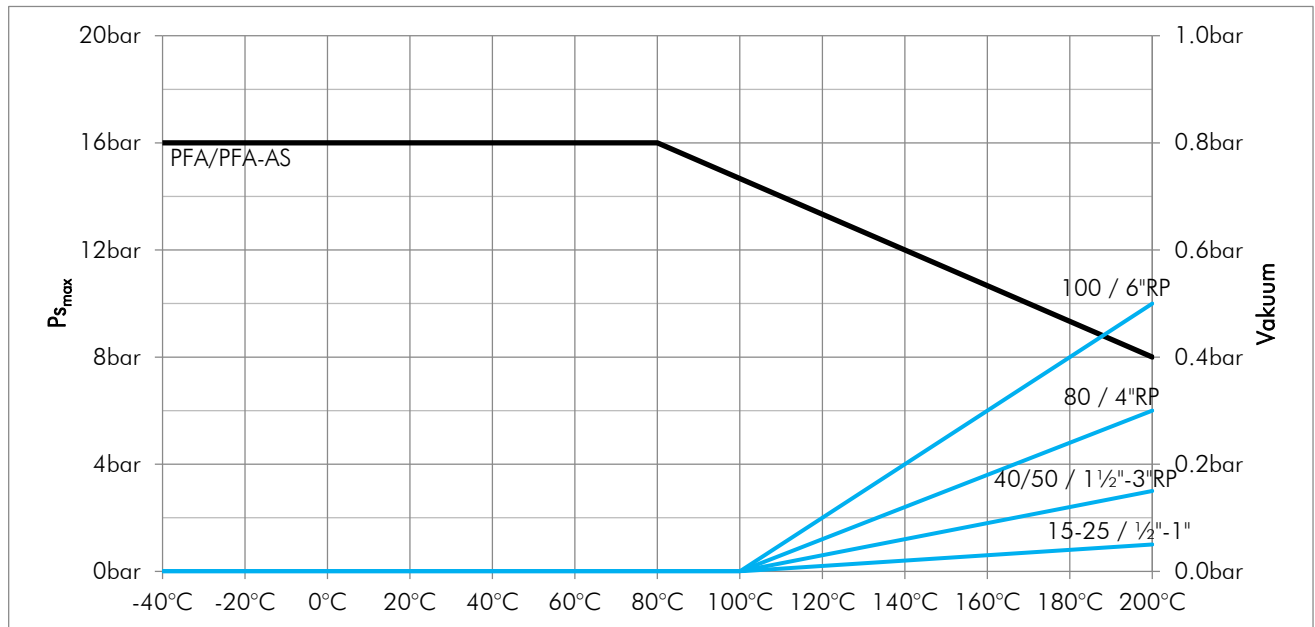
Construction of Valve



Mounting Options



Pressure-/Temperature Diagram



Low temperature or austenitic steels are required for use below -10°C (14°F) operating temperature.

Torque Values in Nm (in-lbs = Nm x 8.85)

Torque values for PFA-encapsulated cylinder and PFA-liner

DN Size nom.	15/1/2"	20/3/4"	25/1"	40/1 1/2"	50/2"/3"red.	80/4"red.	100/6"red.
Torque nom.	20	27	35	42	80	150	220
max. allowable	145	145	145	320	320	700	700

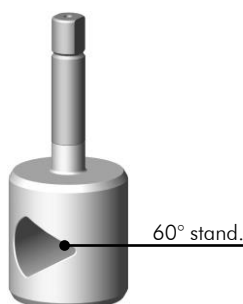
• Stated values to be break-away torques without any consideration of safety factors for actuators.

Flow Rate Values Kv m³/h (Cv = Kv • 1.16)

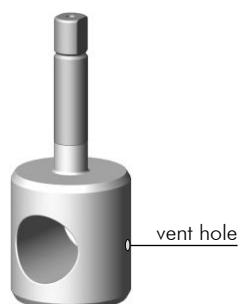
DN Size nom.	15/1/2"	20/3/4"	25/1"	40/1 1/2"	50/2"/3"red.	80/4"red.	100/6"red.
Full Port Valve	16	31	60	186	276	802	1'228

Options

V-port Cylinder
for control applications,
with various contours



Vented Cylinder
with drilled vent hole
for upstream pressure relief

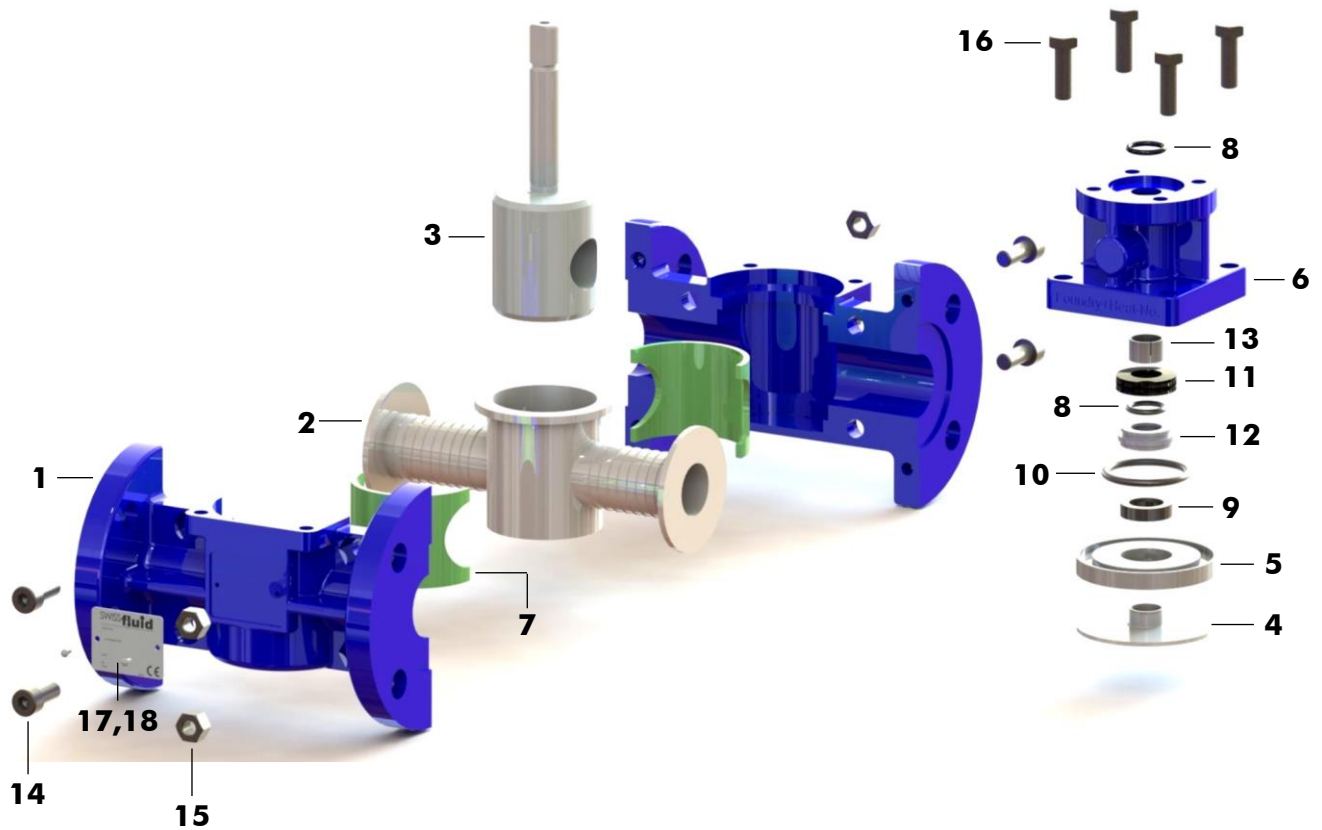


Typical Service Applications

- Chemical CPI
- Petro-Chemical
- Bio-Technical
- Pharmaceutical Industry
- Semi-Conductors
- Pulp and Paper
- Food Processing
- Paint and Pigments
- Fertilizers
- Textile Industry
- Mining and Steel

Standard Version (Picture showing Valve 2"-150lbs, PFA liner, PFA-encapsulated cylinder, bare shaft)

Parts List Manual Valve compl.



Item	Qty.	Description	Material	No.
1	1	Body two-piece, RAL 5005	WCB	1.0619
2	1	Liner	PFA	
3	1	Cylinder encapsulated	Duplex/PFA	1.4462
4	1	Diaphragm	PTFE	
5	1	Pressure Plate	Duplex	1.4462
6	1	Bonnet, RAL 5005	WCB	1.0619
7	2	Elastomer	VMQ	
8	2	O-Ring top	FPM	
9	1	Shaft Seal Ring	VMQ	
10	1	O-Ring	FPM	
11	4	Belleville Spring	Spring Steel	1.8159
12	1	Pressure Sleeve	SS316L	1.4404
13	1	Bearing DU	C.Steel/PTFE	
14	4	Socket Head Cap Screw	A2-70	1.4310
15	4	Hex. Nut	A2-70	1.4310
16	4	Hex. Head Screw	A2-70	1.4310
17	1	Name Plate 42 x 14 CE	A2	1.4301
18	2	Hammer Screw 2.49 x 4.76	A2	1.4310

Specification

Project-/Customer Data		Inquiry/Date: _____		Ref. SF _____	
Company:		Contact Person:		Phone:	
Address:		Function:		Fax:	
ZIP/Place:		Department:		E-mail:	
Project:		Phone direct:		Mobile:	

Operating Conditions

Media / Chemical Composition:

<input type="checkbox"/> liquid	<input type="checkbox"/> powdery	<input type="checkbox"/> crystallizing	<input type="checkbox"/> sticky	<input type="checkbox"/> Spec. Grav. _____
<input type="checkbox"/> gaseous	<input type="checkbox"/> Solids _____ %	<input type="checkbox"/> viscous	<input type="checkbox"/> Flow Velocity _____ m/s	
<input type="checkbox"/> abrasive	<input type="checkbox"/> Particle _____ mm	<input type="checkbox"/> Visc. _____ cp	<input type="checkbox"/> Flow Rate _____ m ³ /hr	

Pressure	Temperature	Mode	Installation / Environment	
max. _____ bar	max. _____ °C	<input type="checkbox"/> On/Off	<input type="checkbox"/> horizontal	<input type="checkbox"/> Room dry
min. _____ bar	min. _____ °C	<input type="checkbox"/> Flow Control	<input type="checkbox"/> vertical	<input type="checkbox"/> Room humid
		_____ cycles/ _____	<input type="checkbox"/> _____	<input type="checkbox"/> outdoor

Remarks:

SCP Product Code

Specification of a complete Cylindrical Plug Valve SCP Series

Product code	Nom. size	Flange conn.	Body	Lining body	Elastomer	Cylinder encaps./solid	Shaft end	Options
SCP	DN50	PN16	G10	A85	E68	U85	DD	
	DN15 - 100 1/2" - 2" 3"RP - 6"RP	PN16 PN10 ANSI150# ANSI300# JIS 10K	G10 WCB G15 CF-8M	A85 PFA A86 PFA-AS	E67 FPM E68 VMQ	U85 PFA U86 PFA-AS U88 PVDF U89 PP U91 ETFE S32 SS316L S40 Tit. Gr.2 S41 Tit. Gr.7 S43 Hast. C-276	DD DD drive SP SQ parallel SR SQ 45° rot.	Vp60 60° V-port Vh vented cylinder B7 B7 body bolts Ti Ti body bolts RAL... special paint

Note: Actuator options and accessories to be specified on orders separately.