

## SCP Cylindrical Plug Valves plastomer-lined



### 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 hand lever

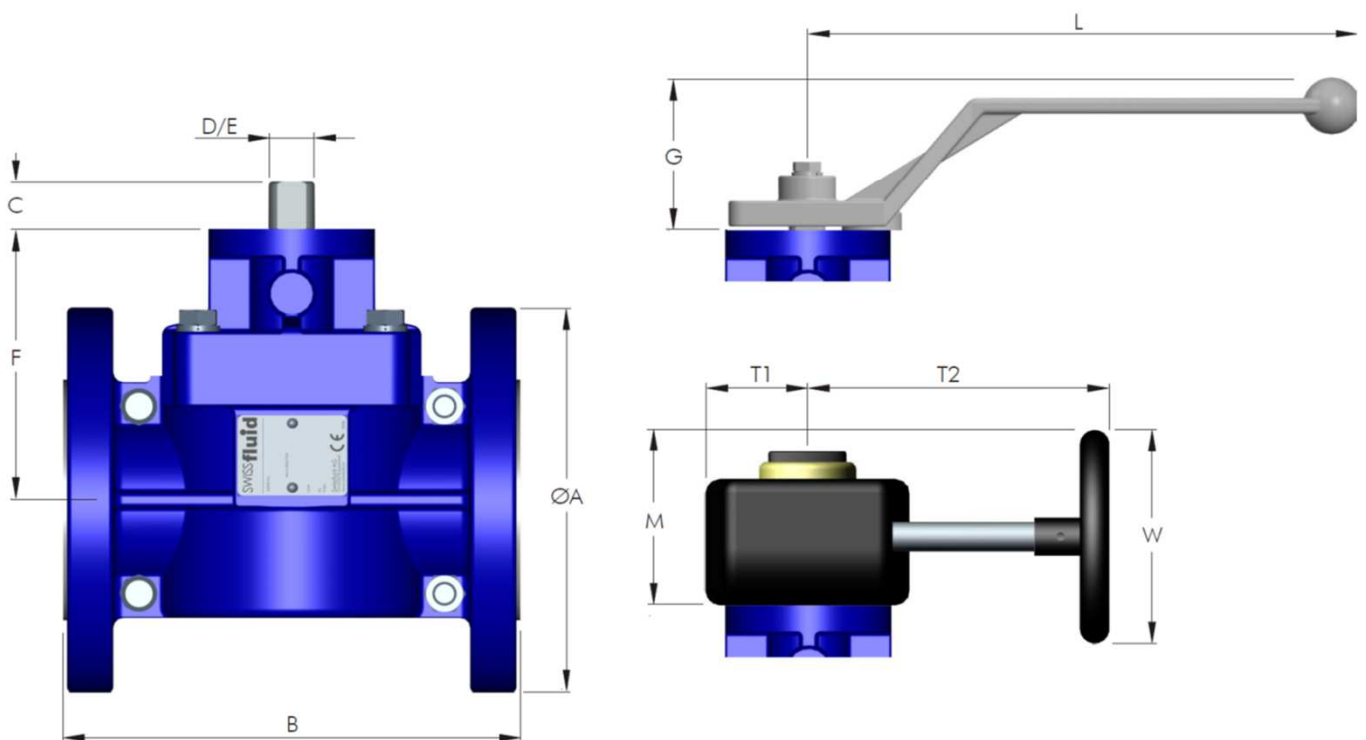
### Operating Conditions

- Temperature range from  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) 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 Size nom.	ØA DIN	ØA ANSI	B DIN	B ANSI	C	D Ø	E DD	F	G	L	M	T1	T2	W	ISO Top	kg DIN	kg ANSI	kg Handle	kg 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 top flange acc. to EN ISO 5211, incl. O-ring

Double-D shaft acc. to EN 12116

Rated breaking point

Marking acc. to EN 19

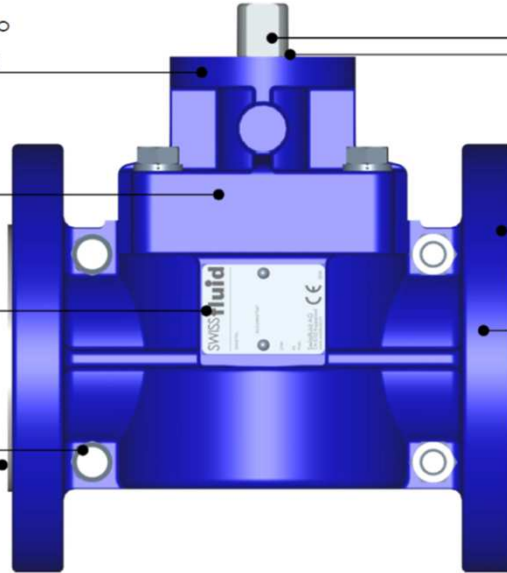
Body and bonnet made of cast steel 1.0619 (WCB), powder-coated RAL 5005 signal-blue or stainless steel casting 1.4408 (CF-8M)

Name plate SS304

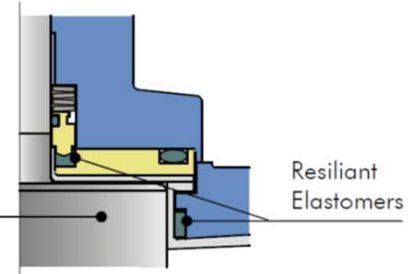
Flange Standard acc. to EN 1092 or ASME B16.5

Body bolts and nuts 1.4301, A2-70

Liners made of PFA or PFA-AS (anti-static), with VMQ or FPM backing

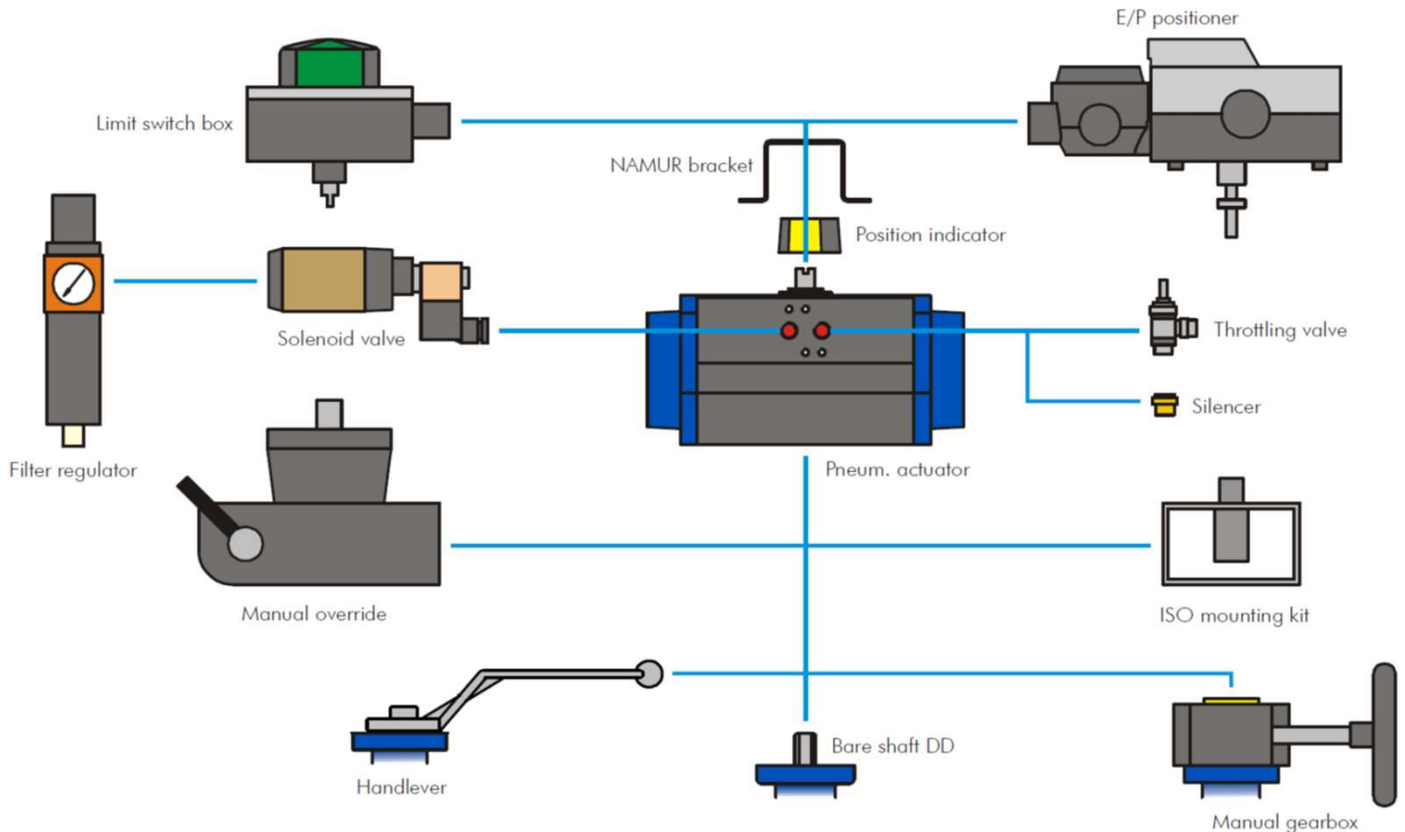


One-piece cylinder/shaft, solid or encapsulated min. 2.5 mm thick

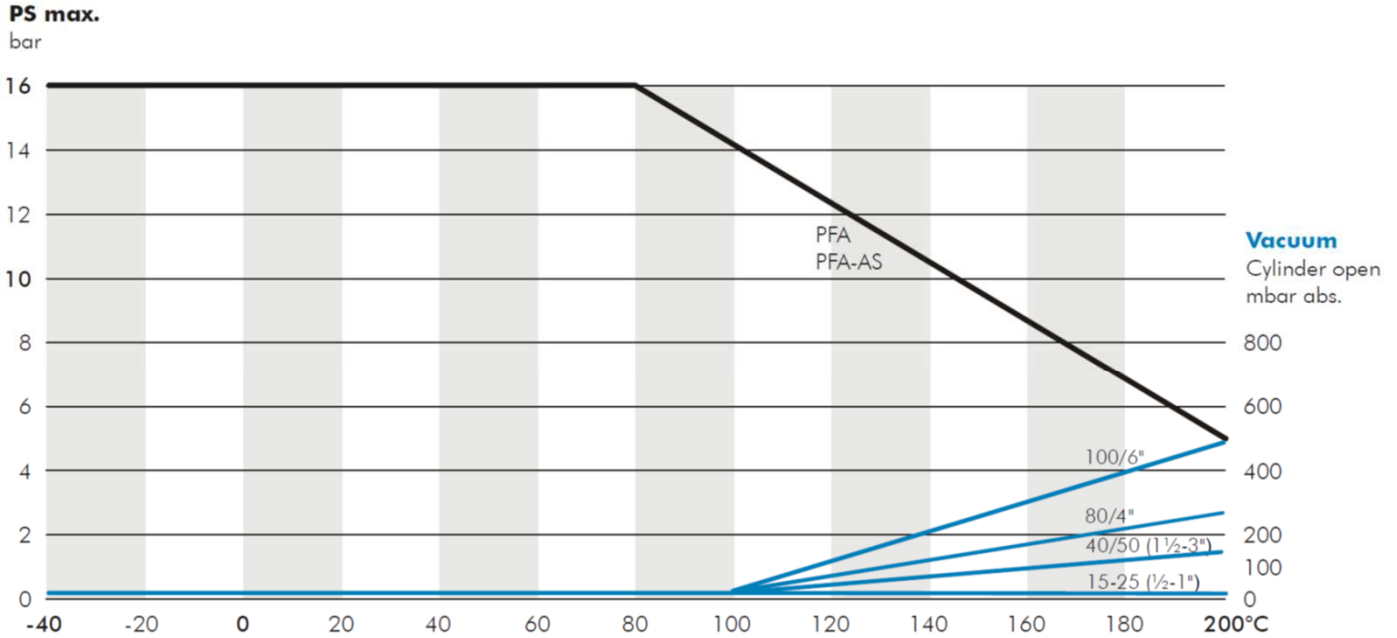


**Dynamic Shaft Seal**  
acc. to TA-Luft

## Mounting Options



### Pressure-/Temperature Diagram



### 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.

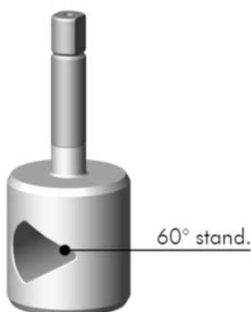
### Flow Rate Values Cv usg/min. (Kv = Cv/1.16)

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	18	36	70	216	321	930	1'425

### Options

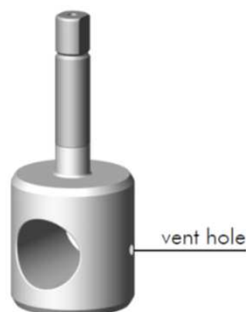
#### V-port Cylinder

for control applications,  
with various contours



#### Vented Cylinder

with drilled vent hole  
for upstream pressure relief



### Typical Service Applications

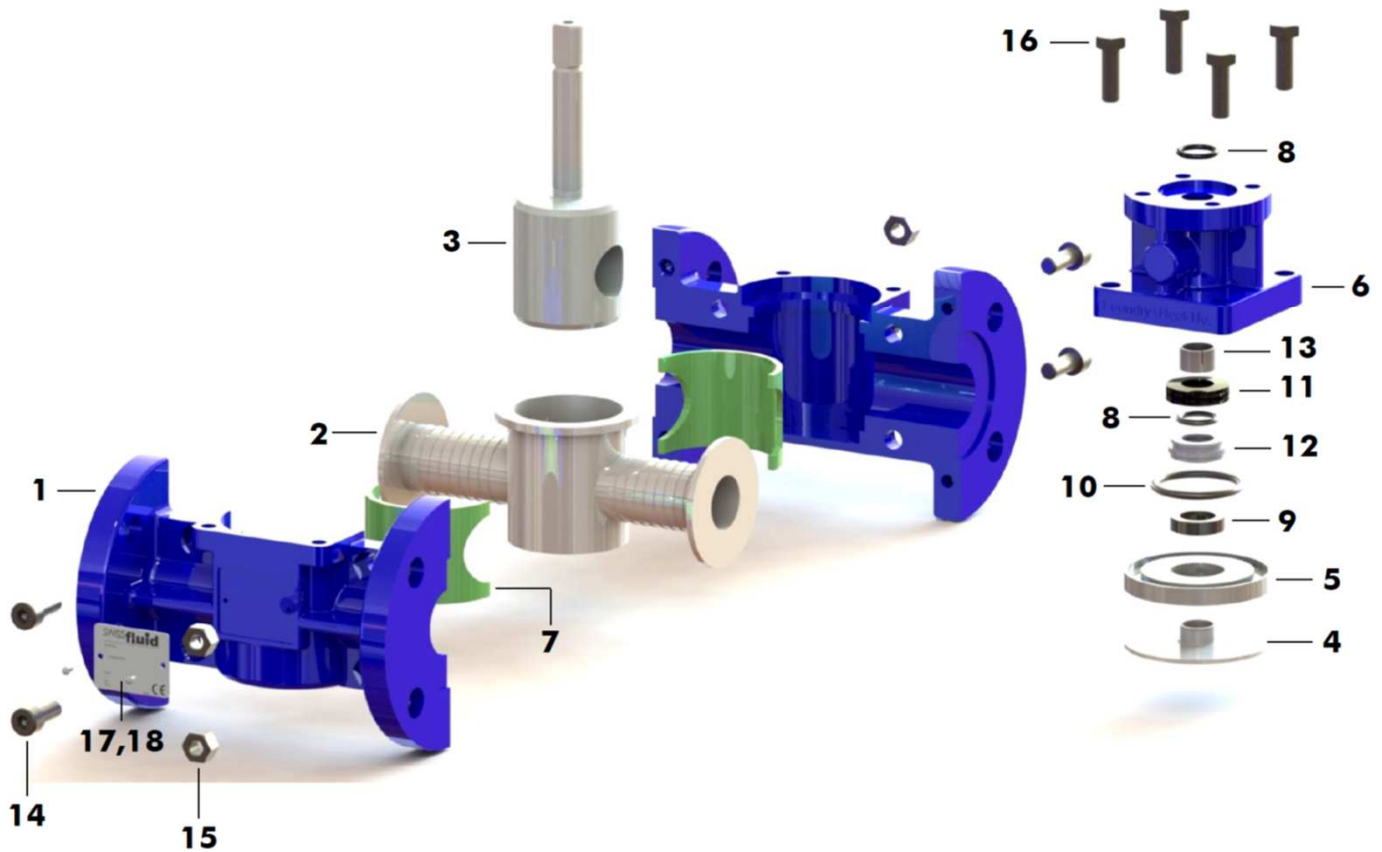
- Chemical CPI
- Petro-Chemical
- Bio-Technical
- Pharmaceutical Industry
- Semi-Conductors
- Pulp and Paper
- Food Processing
- Paint and Pigments
- Fertilizers
- Textile Industry
- Mining and Steel



Parts List

Manual Valve compl.

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



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