# The Original Seat Valve

# SRC-LS Sanitary Long-Stroke Valve

#### **Application**

SRC-LS is specially suited for use in sanitary and non-sanitary applications where suspended solids or high viscosity products are processed. This has been achieved by increasing the stroke of the valve plug considerably compared to the standard SRC valve.

#### Working principle

The valve is operated by means of compressed air and can be supplied with or without spring return. It has few and simple moving parts which results in a very reliable valve.

#### Standard design

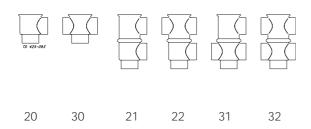
SRC-LS consists of a long actuator and bonnet, lip seal, a special valve plug and SRC valve body. All parts are assembled by clamp rings and a stem clip-system.

The valve has welding ends as standard.

#### **Actuator function**

- · Pneumatic downward movement, spring return (NO).
- · Pneumatic upward movement, spring return (NC)
- Pneumatic upward and downward movement (AA).

#### Valve body combinations

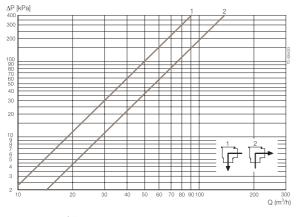




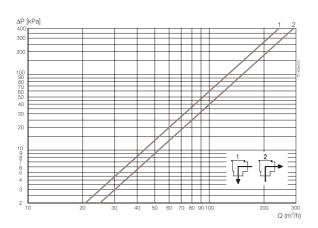
SRC-LS with valve body combination 21

## Pressure drop/capacity diagrams

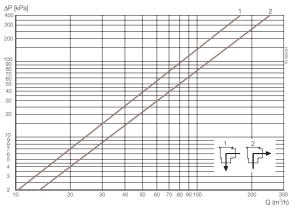
# Stop valve



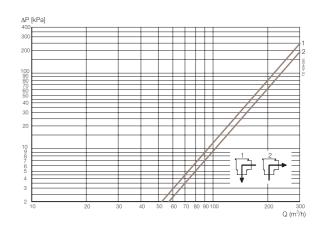
51 mm / DN50.



76 mm / DN80.



63.5 mm / DN65.



101.6 mm / DN100.

#### Pressure data for SRC-LS

- 10. Pneumatic downward movement, spring return (NO-lower seat).
- 20. Pneumatic upward movement, spring return (NC-lower seat).
- 30. Pneumatic upward and downward movement (A/A).

Table 1: Stop and change-over valves - Max. static pressure in bar without leakage, valve seat fully closed

| Actuator / Valve body<br>combination and<br>Direction of | Actuator<br>type/<br>function | DN50<br>51<br>mm  | Valve<br>DN65<br>63.5<br>mm | e size<br>DN80<br>76.1<br>mm | DN100<br>101.6<br>mm | Air consumption<br>(Litres free air/stroke)<br>p=air pressure in bar<br>51mm 63.5-101.6mn |         |
|--|-------------------------------|-------------------|-----------------------------|------------------------------|----------------------|---|---------|
| Spring closes  | 10 (NO)                       | 3.9               | 7.8                         | 5.0                          | 3.2                  | 0.32 x p  | 1.0 x p |
| Air closes (5 bar)                                       | ISO<br>DIN<br>10 (NO)<br>ISO  | 3.5<br>3.2<br>5.6 | 7.2                         | 5<br>4.0<br>7.5              | 3.6<br>5.3           | 0.32 x p  | 1.0 x p |
| Air closes (6 bar)  Air closes (5 bar)  Air              | DIN<br>20 (NC)                | 5.1<br>5.5        | 9.2                         | 6.0<br>4.2                   | 3.6                  | 0.32 x p  | 1.0 x p |
| Air closes (6 bar)                                       | ISO                           | 7.4               | 13.0<br>7.0                 | 7.2<br>4.0                   | 5.4                  | 0.32 λ β  | 1.0 λ β |
| Spring closes  | 20 (NC)                       | 2.4               | 7.0                         | 3.2                          | 3.6                  | 0.32 x p  | 1.0 x p |
| Air closes (5 bar)                                       | 30 (A/A)                      | 10                | 10                          | 4.0                          | 3.5                  | 0.64 x p  | 2.0 x p |
| Air closes (6 bar)  Air closes (5 bar)  Air              | ISO                           | 10                | 10                          | 10                           | 10<br>8.5            |   |         |
| Air closes (6 bar)                                       | 30 (A/A) ISO DIN              | 8.2<br>10<br>9.1  | 10                          | 8.0<br>10<br>8.0             | 10                   | 0.64 x p  | 2.0 x p |

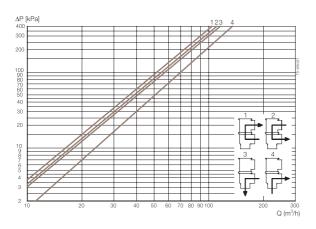
# Pressure data for SRC-LS

Table 2: Stop and change-over valves - Approx. static liquid pressure in bar.

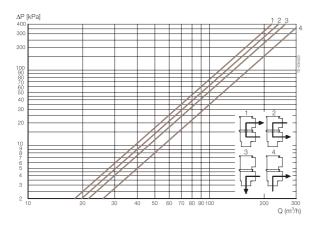
| Actuator / valve body combination and    | Actuator<br>type/function |         | DN50     | DN100      |            |             |
|--|---------------------------|---------|----------|------------|------------|-------------|
| direction of pressure                    |                           |         | 51<br>mm | 63.5<br>mm | 76.1<br>mm | 101.6<br>mm |
| P to |                           | ISO     |          |            | 8.5        |             |
|  | 10 (NO)                   | ISO/DIN | 7.2      | 12.3       |            | 5.5         |
| Spring opens                             |                           | DIN     |          |            | 7.2        |             |
| Air opens (6 bar)                        | 10 (NO)                   |         | 7.8      | 13.3       | 8.5        | 6.2         |
| Air                                      |                           | ISO     |          |            | 9.0        |             |
|  | 20 (NC)                   | ISO/DIN | 8.       | 4          | 14.2       | 6.4         |
| Air opens                                |                           | DIN     |          |            | 7.6        |             |
| Spring appre                             | 20 (NC)                   |         | 6.0      | 12.3       | 7.1        | 5.5         |
| Spring opens                             |                           |         |          |            |            |             |

## Pressure drop/capacity diagrams

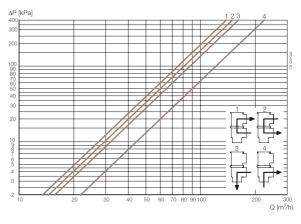
## Change-over valve



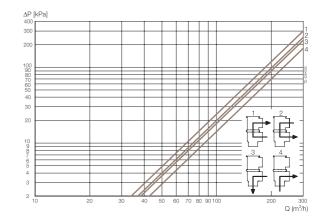
51 mm / DN50.



76.1 mm / DN80.



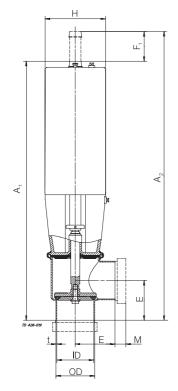
63.5 mm / DN65.



101.6 mm / DN100.

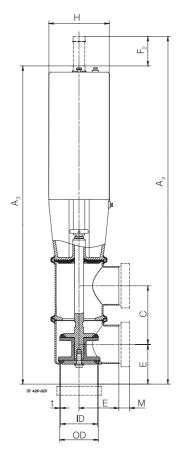
# Dimensions (mm)

| Ciao           | 51   | 63.5 | 76.1 | 101.6 | 50   | 65   | 80   | 100   |
|----------------|------|------|------|-------|------|------|------|-------|
| Size           | mm   | mm   | mm   | mm    | DN   | DN   | DN   | DN    |
| A <sub>1</sub> | 398  | 571  | 576  | 648   | 397  | 568  | 577  | 647   |
| $A_2$          | 441  | 634  | 641  | 713   | 440  | 631  | 642  | 712   |
| $A_3$          | 487  | 682  | 707  | 800   | 486  | 679  | 708  | 799   |
| $A_4$          | 530  | 742  | 767  | 860   | 529  | 739  | 768  | 859   |
| С              | 94   | 113  | 129  | 163   | 94   | 113  | 129  | 160   |
| OD             | 50.8 | 63.5 | 76.1 | 101.6 | 53   | 70   | 85   | 104   |
| ID             | 47.6 | 60.3 | 72.1 | 97.6  | 50   | 66   | 81   | 100   |
| t              | 1.6  | 1.6  | 2.0  | 2.0   | 1.5  | 2.0  | 2.0  | 2.0   |
| E              | 61.5 | 82.3 | 87.3 | 133.5 | 61.5 | 82.3 | 87.3 | 133.5 |
| F <sub>1</sub> | 43   | 63   | 65   | 65    | 43   | 63   | 65   | 65    |
| F <sub>2</sub> | 43   | 60   | 60   | 60    | 43   | 60   | 60   | 60    |
| Н              | 87   | 133  | 133  | 133   | 87   | 133  | 133  | 133   |
| M/ISO clamp    | 21   | 21   | 21   | 21    |      |      |      |       |
| M/ISO male     | 21   | 21   | 21   | 21    |      |      |      |       |
| M/DIN male     |      |      |      |       | 22   | 23   | 25   | 25    |
| M/SMS male     | 20   | 20   | 24   | 24    |      |      |      |       |
| M/BS male      | 22   | 22   | 22   | 22    |      |      |      |       |
| Weight (kg)    |      |      |      |       |      |      |      |       |
| Stop           | 7    | 12   | 14.5 | 17.5  | 7    | 12   | 14.5 | 17.5  |
| Change-over    | 9    | 16.5 | 19   | 22    | 9    | 16.5 | 19   | 22    |



Dimensions.

a. Stop valve.



b. Change-over valve.

#### Materials

Product wetted steel parts: Acid-resistant steel 1.4401 (316L). Other steel parts: Stainless steel 1.4301(304).

Product wetted seals: EPDM rubber. Finish: Semi bright.

#### Technical data

Max. product pressure: 1000 kPa (10 bar). Min. product pressure: Full vacuum.

Temperature range: -10°C to +140°C (EPDM)
Air pressure: 500-600 kPa (5-6 bar).
Max. 700 kPa (7 bar).

| Max. size         |          | Valve  |        |         |
|-------------------|----------|--------|--------|---------|
| of solids (mm)    | 51mm     | 63.5mm | 76.1mm | 101.6mm |
| Stop valve        | 35       | 55     | 50     | 50      |
| Change-over valve | <u>)</u> |        |        |         |
| Valve plug up     | 30       | 50     | 50     | 50      |
| Valve plug down   | 15       | 18     | 24     | 31      |

#### **Options**

- A) Male parts or clamp liners in accordance with required standard.
- B)  $ThinkTop^{\mathbb{R}}$
- C) Bracket system indication unit.
- D) Stainless steel seal disc replacing standard lip seal.
- NOT-element for extra air pressure supply (spring-closed position).
- F) Tangential side port valve.
- G) Product wetted seals of Nitrile (NBR), Fluorinated rubber (FPM) or PTFE.
- H) Service tools for actuator.

## Ordering

Please state the following when ordering:

- Size.
- Actuator function NC, NO or A/A.
- Valve body combination.
- Options.
- Connections if not welding ends.