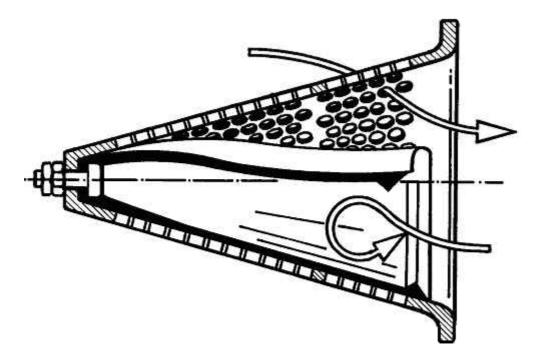
" The point of no return "



Lasso-Stop[®] check-Valves

o safe

- o long-lasting
- o reliable

| Lasso Technik Inc. | Tel. | +41 (0)61 331 40 90 |
|-----------------------------|----------|---------------------|
| Niklaus von Flüe-Strasse 33 | Fax | +41 (0)61 331 42 76 |
| CH-4059 Basel | Email | info@lasso-stop.ch |
| Switzerland | Internet | www.lasso-stop.ch |



Characteristics

Check valve for the backflow prevention of liquid and gaseous media

- tight shut off under minimum back pressure
- shuts securely even in conditions of low impurification (sand)
- almost noiseless and gentle shutting (quiet, no hammering)
- o low cracking pressure
- no movable, prone to wear parts (low in maintenance, long-lasting up to 10 years)
- shuts in media, in which mechanical valves stick (glucose, chocolate)
- o good chemical resistance, corrosion-resistant
- easy and reasonable incorporation, even later (between flanges)
- functions simultaneously as a filter (protects pumps and installations)
- secures the flow measuring (measuring error impossible because of recoil)
- o it operates in any direction

Technical Data

- o Pressure
- o Temperature
- o Speed
- o Fluid
- o Dimensions from

232 psi (16 bar) 14F up to 356F (-10° up to +180C) (no vapor) Fluids up to 10 feet/sec (2.5 m/sec) Gases up to 50 feet/sec (15 m/sec) Water, Oil, Acids, brines DN 20 up to DN 600

Fields of application

- o Water distribution
- o House and business connections
- o Fittings
- o Pumps, Compressors
- o Food industry
- o Process technology
- o Solar technology
- o Heating systems
- o Sanitary facilities
- o Pneumatic systems
- o Ground water pumps
- Foot operated valves
- o Filtration plants
- o Water meters and flow meters

- o Water-gauge installation
- o Chemical production plants
- o Petrochemical installations
- o Irrigation plants
- Air-conditioning
- o Washing machines
- o Cooling water systems
- o Fire equipment
- o Hydrant
- o Treatment of water
- o Piping
- o Ventilation systems
- o Pressure air installations

Examples of mountings

Lasso-Stop AS NU DN 25 up to DN 100

AS NU... for the incorporation into fittings Valve with the small flange diameter, built for incorporation into industrial and sanitary fittings. Gasket with O-Ring on the flange outside.

Lasso-Stop AS 41 DN 25 up to DN 200

AS 41... for the incorporation into standard unions Standardized flange diameter for mounting in unions with flat gasket, for fitment in numerous fittings.

Lasso-Stop AS 54 DN 40 up to DN 200

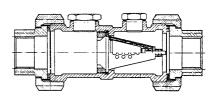
AS 54 ... for the incorporation between flanges The large flange diameter for foot-valves and for pumping plants can be easily installed and can be fitted between adjacent pipe flanges. The bulk of the valve being contained within the pipe diameter itself. This type is designed to fit in the bolt circle of mating pipe flanges.

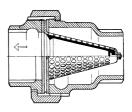
SFL-flanged-valve DN 40 up to DN 200

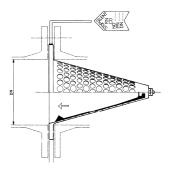
SFL ... valve body with flange From 40 mm up to 200 mm flanged valves in welded construction are manufactured. The bodies are supplied galvanized, in stainless or with "Rilsan" (Nylon) covering. For the hot galvanized type a check – muff is standard.

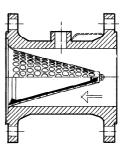
MKV-multicone-valves DN 150 up to DN 600

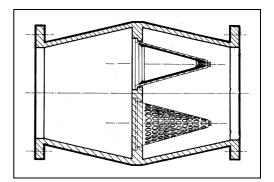
MKV- multicone-valves... valve body with flange Diameter sizes 150 mm to 600 mm, DIN in welded construction with excellent flow rates. The body is hot galvanized or surface covered with "Rilsan" (Nylon). On request, it is possible to manufacture the body in stainless steel.





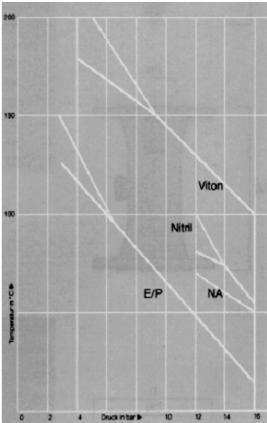






Application / Diaphragm material:

| Fluid | Di | n | | |
|--|------|---------|--------|------|
| | EPDM | Nitrile | Viton® | |
| water | 0 | | | |
| deionised, softened or radioactive | 0 | | | |
| water up to 176 € (80 °C) | | | | |
| seawater up to 104 𝕆 (40 𝔅) | 0 | | | |
| warm water up to 248 € (120 ℃) | 0 | | | |
| Chlorine and chlorinated water | 0 | | | |
| chlorinated brine | 0 | | | |
| Water with Hydrazine | 0 | | | |
| caustic soda hydrated up to max. 30% | 0 | | | |
| alcohol solution 40% from 14₽ to 104₽ (-10℃ to 40℃) | 0 | | | |
| antifreeze | 0 | | | |
| nitrogen | 0 | | | |
| sulphate of alumina solution | 0 | | | |
| phosphoric acid | 0 | | | |
| ammonia | 0 | | | |
| hydrochloric acid up to 4% | 0 | | | |
| vinegar and cold acetic acid | 0 | | | |
| hydrogen peroxide | 0 | | | |
| ozone and ozonized water | 0 | | | |
| benzine and super benzine | | 0 | | |
| mineral oil up to 176℉ (80℃) | | 0 | | |
| fuel | | 0 | | |
| lubricating oil | | 0 | | |
| spiritus | | 0 | | Th |
| propane, butane | | 0 | | und |
| natural gas | | 0 | | line |
| freon 11 and 12 | | 0 | | ter |
| concentrated sulfuric acid | 1 | | 0 | |
| nitrone acid up to 140F (60°C) | | | 0 | Di |
| toluol | | ł | 0 | 1 |
| xylol | 1 | | 0 | |
| viscose solution | | 1 | 0 | |
| | | | 0 | 1 |



Pressure / Temperature range The drawn lines indicate the application limits under constant work temperatures. The broken lines indicate the application limits under short term peak temperatures.

| 60 ℃) | | 0 | Diaphragm | Const. Working | Max. peak |
|---------------|--|---|-----------|----------------|-------------|
| | | | material | temperature | temperature |
| | | 0 | EPDM | 248℉ (120℃) | 302℉ (150℃) |
| | | 0 | Nitrile | 176℉ (80℃) | 212℉ (100℃) |
| | | 0 | Viton® | 356℉ (180℃) | 392℉ (200℃) |

Ethylene-Propylene EPDM

For cold and warm water supply. Also for short periods with steam, for example, for the sterilization in the food industry.

Nitrile, NBR

For mineral oils in the petrochemical industry, gas, alcohol and antifreeze in solar energy collectors.

Viton® Fluorcarbon

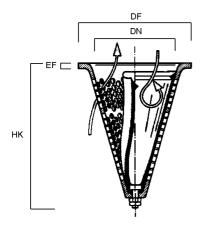
Good resistance for a great range of acids and alkalies.

Operative range of the diaphragm materials

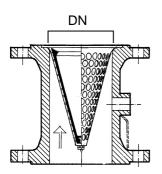
The above indications concern a large number of fluids under normal working conditions. For other applications, please contact us and give us the following specifications:

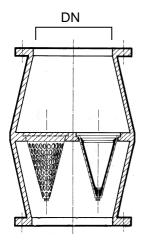
- 1. kind of fluid and viscosity
- 2. flow speed
- 3. max. flow pressure
- 4. max. back-pressure
- 5. working temperature
- 6. if there are any solid particles and large grains in the fluid

Dimensions of standard cones and valves



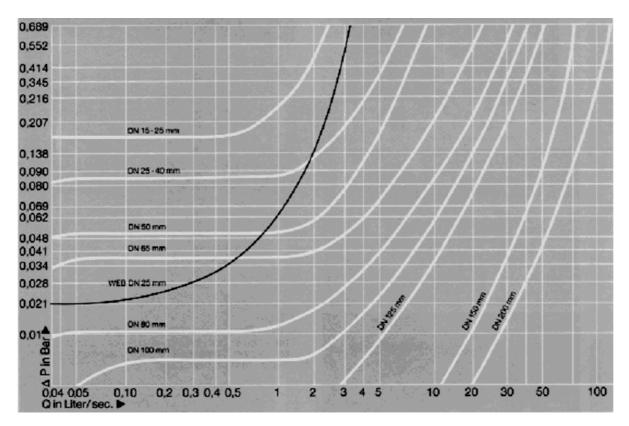
| Inch | mm | AS-NU | AS-41 | AS-54 | Thick- | Height | SFL |
|-------|-----|-------|-------|-------|--------|--------|--------|
| | | | | | ness | cone | height |
| | DN | DF | DF | DF | EF | HK | mm |
| 3⁄4" | 20 | | 29 | | 2 | 32 | |
| 1" | 25 | 32 | 36 | | 2 | 45 | |
| 1¼" | 32 | 40 | 54 | | 2 | 50 | |
| 1½" | 40 | 46 | 56 | 82 | 2 | 60 | 100 |
| 2" | 50 | 56 | 65 | 102 | 2 | 80 | 100 |
| 21⁄2" | 65 | 75.5 | 84 | 118 | 2 | 100 | 120 |
| 3" | 80 | 93 | 98 | 132 | 4 | 130 | 150 |
| 4" | 100 | 118 | 130 | 158 | 4 | 170 | 190 |
| 5" | 125 | | 160 | 188 | 6 | 220 | 300 |
| 6" | 150 | | 192 | 210 | 6 | 270 | 300 |
| 8" | 200 | | 244 | 268 | 6 | 365 | 400 |





| Dimensions of multicone-valves | | | | | |
|--------------------------------|-----|--------|---------|--------|--------|
| Nom. diameter | | Length | Nos. of | flange | flange |
| DN | | | cones | PN 10 | PN 16 |
| Inch | MM | | | Ømm | Ømm |
| | | | | | |
| 6" | 150 | 400 | 7 / 65 | | 285 |
| 8" | 200 | 500 | 7 / 80 | 340 | 340 |
| 10" | 250 | 600 | 7 / 100 | 395 | 405 |
| 12" | 300 | 700 | 8 / 100 | 445 | 460 |
| | | | 1 / 150 | | |
| 14" | 350 | 800 | 6 / 150 | 505 | 520 |
| 16" | 400 | 900 | 7 / 150 | 565 | 580 |
| 20" | 500 | 1100 | | 670 | 715 |
| 24" | 600 | 1300 | | 780 | 840 |

Pressure drop of Lasso-Stop® valves within standard fittings and cold water as medium



Supply

The Lasso-Stop® check-valves, a development of Lasso Technik AG, Basel, are manufactured under license in different countries. Constant new developments and improvements guarantee our product, which keeps pace with the latest technological developments as well as meeting the changing requirements of the customer. We export the types AS-41, AS-54, AS-NU, SFL as well as multicone-valves from Basel into various countries.

| Lasso Technik Inc. | Tel. | +41 (0)61 331 40 90 |
|-----------------------------|----------|---------------------|
| Niklaus von Flüe-Strasse 33 | Fax | +41 (0)61 331 42 76 |
| CH-4059 Basel | Email | info@lasso-stop.ch |
| Switzerland | Internet | www.lasso-stop.ch |