

# One platform Multiple options

The SVL Line Components - members of the SVL Flexline™ family. Flexibility is the key word and based on a common housing (angle- or straightway). The inserts in the SVL platform offer five different functions.

**One**

specification for the entire platform. Five different function modules could share a common housing.



# Danfoss SVL Flexline™

## The flexible range of line components for Industrial Refrigeration

SVL Flexline™ offers flexibility, simplicity and efficiency. The backbone of the platform is the common housing which is available as angle- or straightway. All five function modules: stop, regulating, stop/check, check and filter fit the same housing and they all have the same high specification making selection, system design and mounting simple and trouble free.

### **Benefits from the SVL Flexline™ platform**

One specification makes it very easy to select the right valve for your application. Approved for –60 °C to 150 °C (–76 °F to 302 °F) and up to 52 bar/754 psi. Suitable for sub-critical CO<sup>2</sup> and heat pump systems. Approvals for all regions and countries.

One common housing allows easy and timesaving switch between the functions. If, for some reason, a component has been mounted in the wrong location in the system, it may be quickly solved by replacing the insert.

Shared spare parts and modular design reduces complexity and stocking costs while allowing for fast and easy service. Selection of spare parts is easier by virtue of fewer code numbers needed to cover all configurations.

With multiple applications for a given spare part code number, spare parts inventories will be more flexible, and useful.

### **Colour coding**

The SVL Flexline™ platform features coloured seal caps for easy identification of valve function. Red caps for standard and long neck SVA stop valves. Yellow caps for REG-S regulating valves and Green caps and markings for SCA-X stop check valves and CHV-X check valves. Matching colour of laser engraved aluminium name tag mounted on valve bonnet.

### **Packing gland**

The packing gland features static and dynamic sealing components that ensure a, tight and secure seal throughout the operating conditions covering all approved refrigerants and temperatures in the specification. As a result, the SVL delivers a smooth opening and closing operation, along with very high reliability.

### **Stainless Steel: longer life span and lower maintenance cost**

Wherever hygiene really matters and corrosion is a real risk due to the harshness of the environment, stainless steel is your ideal choice for refrigeration systems. The stainless steel component range is based on the same principle as SVL Flexline™. Please visit our website: [www.danfoss.com/svl](http://www.danfoss.com/svl) for the latest technical literature.

# SVA stop valves standard and long neck

Refrigerant neutral packing gland with "dual seal technology"

## Primary sealing

The primary sealings are in contact with the refrigerant. Made of aluminium or PTFE, the sealings effectively withstands any refrigerant.

Spindle sealings are spring loaded lip-sealings. The packing gland/ bonnet sealing design is standard for the entire SVL Flexline™ platform. The aluminium gasket placed beneath the packing gland, together with the spring loaded PTFE lip sealing, allows the packing gland to be used with flammable and high pressure refrigerants. Primary sealing solutions are suitable for high pressure and both low and high temperatures.

## Secondary sealings

The secondary sealings are back-up sealings consisting of two o-rings.

## Top cover gasket

The gaskets are robust, refrigerant independent and suitable for the whole operating range. The gasket material is non asbestos fiber, which is proven and well known from the ICV products.

## Securing function of cone

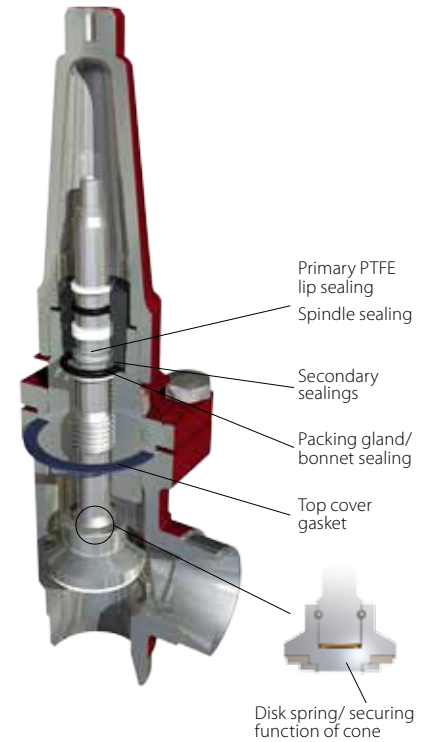
A securing function limits the cone spin during system vibration, thereby avoiding fatigue wear on the piston assembly.

## Scraper ring

Preventing dirt and ice from penetrating the packing gland which could affect the sealing capability.

## Build in lubricant depot

Lubricant depots ensure a perfect sealing.



# REG-S regulating valves

The REG-S regulating valves feature an insert design that allows it to be installed in the standard SVL housing.

## Capacity

Capacity-wise, the REG-S valves have been changed to better match our customers' needs. The valves are available in two different versions – an A cone and a B cone (see table). The A cone is designed for expansion lines, while the B cone is designed for regulating purposes e.g. liquid lines.

## Capacity table

	K <sub>v</sub> -value [m³/h]		C <sub>v</sub> -value [Usgal/min]	
	REG-SA	REG-SB	REG-SA	REG-SB
DN 10	0.15	0.6	0.18	0.7
DN 15	1.5	5	1.75	5.85
DN 20	1.5	5	1.75	5.85
DN 25	7	20	8.19	23.4
DN 32	7	20	8.19	23.4
DN 40	7	20	8.19	23.4
DN 50		45		52.6
DN 65		80		93.6



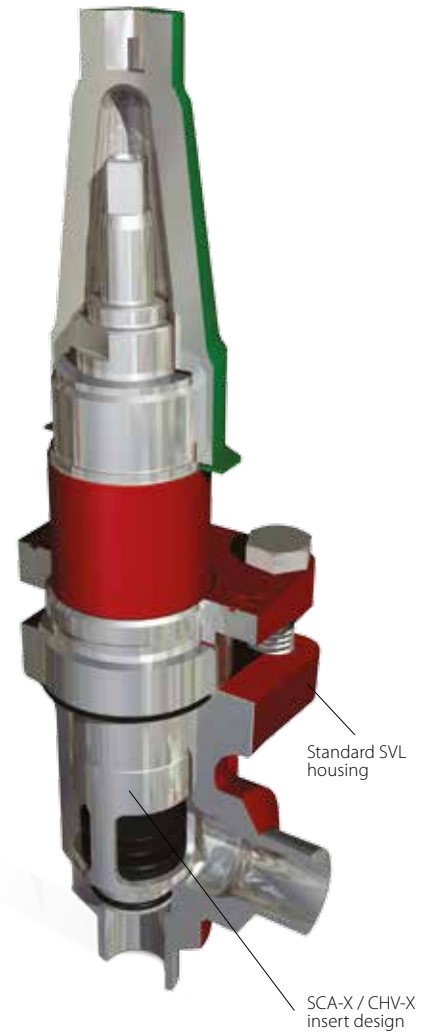
# SCA-X stop check valves

## CHV-X check valves

SCA is a check valve with a built-in stop valve function. CHV is a check valve only. The valves are designed to open at very low differential pressures, allow favorable flow conditions and are easy to disassemble for inspection and service. SCA valves are equipped with vented caps and have internal back seating, enabling the spindle seal to be replaced whilst the valve is still under pressure. Laser cut V-ports provide excellent opening characteristics. The valve cone has a built-in flexibility to ensure a precise and tight closing towards the valve seat. A well-balanced dampening effect between the piston and the cylinder gives an optimal protection during low loads and against pulsations.



Standard SVL housing



Standard SVL housing

SCA-X / CHV-X insert design

## FIA filters

The FIA filters have been carefully designed to ensure favourable flow conditions. The flexible parts programme of the filters, is in line with the complete SVL Flexline™ platform range.



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## The SVL Flexline™ platform

Valve type		Sizes [DN]	
		mm	in.
SVA-S/SVA-L	Stop valves	6 - 200	¼ - 8
REG-SA/REG-SB	Regulating valves	10 - 65	¾ - 2½
SCA-X	Stop / Check valves	15 - 125	½ - 5
CHV-X	Check valves	15 - 125	½ - 5
FIA	Filters	15 - 200	½ - 8

# Danfoss Industrial Refrigeration

## A world of expertise at the click of a button

Turn to Danfoss if you want to combine quality components with expert knowhow and support. Try out these free tools, designed to make your work much easier.



### Coolselector® 2 – New calculation software for Industrial Refrigeration

Coolselector®2 is your brand new Danfoss calculation and selection software designed to make selection processes for all industrial refrigeration projects easier and less time consuming. Coolselector® 2 is a unique calculation and support tool for contractors and system designers, offering complete pressure drop calculations, analysis of pipe and valve design and the ability to generate performance reports. It replaces the well-known DIRcalc™ software and offers several new functionalities.



### Danfoss IR app

The free IR App gives you a spare parts tool, which makes it easy for you to find the spare part number for a given Danfoss industrial refrigeration valve. It also presents all the products and benefits of the SVL Flexline™ range – with a fun game thrown in as well.



### Download 3D CAD symbols

From our online product catalogue on our website, you can download 3D CAD symbols and illustrations to help you when designing refrigeration plants.



### IR application tool

With this interactive PowerPoint slideshow, you can explore all the details of a two-stage ammonia plant. You will find detailed cut-away drawings and information on the valves in the installation along with links to videos, literature and product animations.



### Application handbook

The Application Handbook is designed to help you every step of the way when working with industrial refrigeration systems. Among many other things, it contains examples of how to select control methods for different refrigeration systems, their design and which components to choose.

Visit [www.danfoss.com/IR-tools](http://www.danfoss.com/IR-tools) and find all the tools you need.