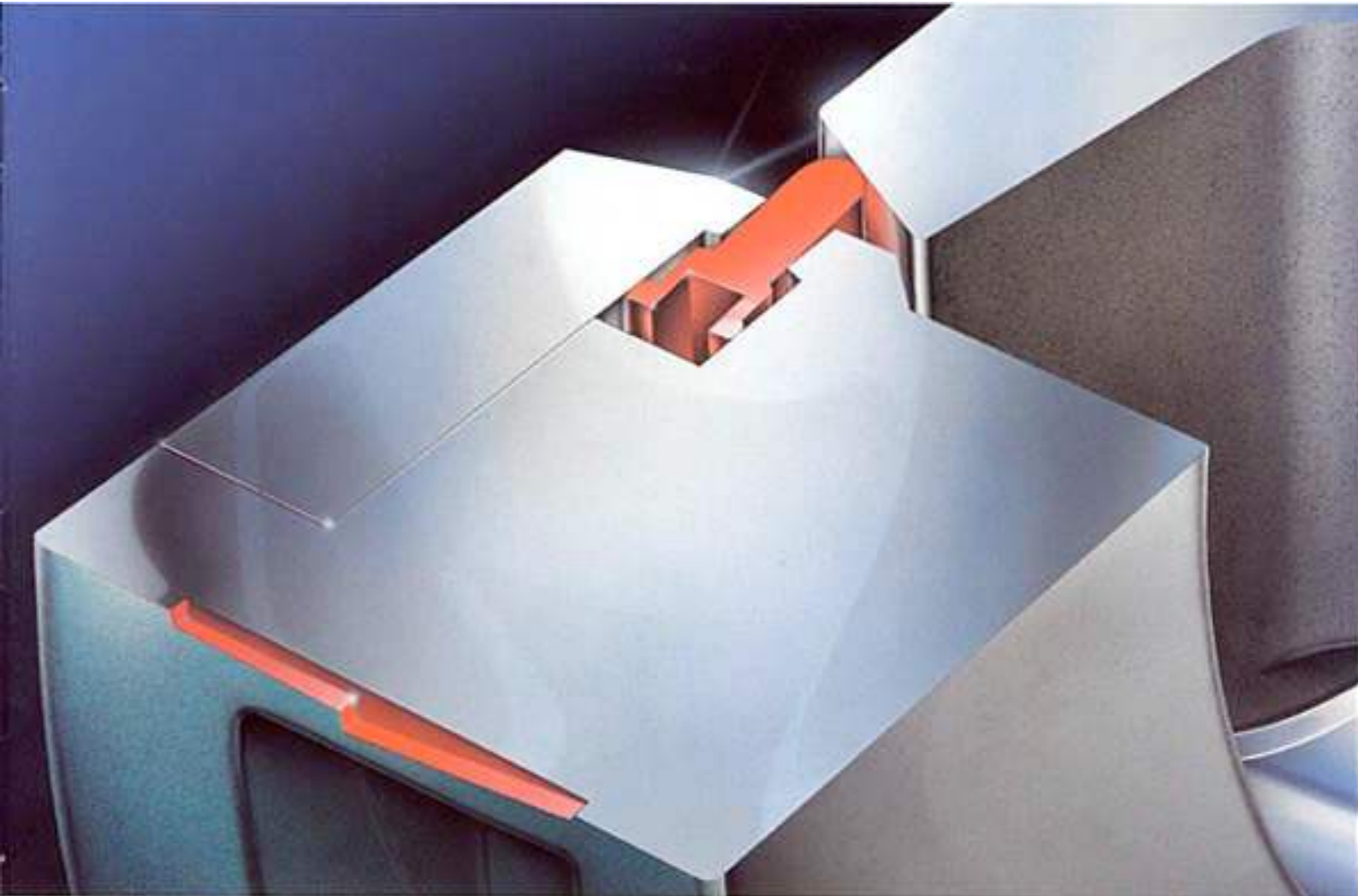


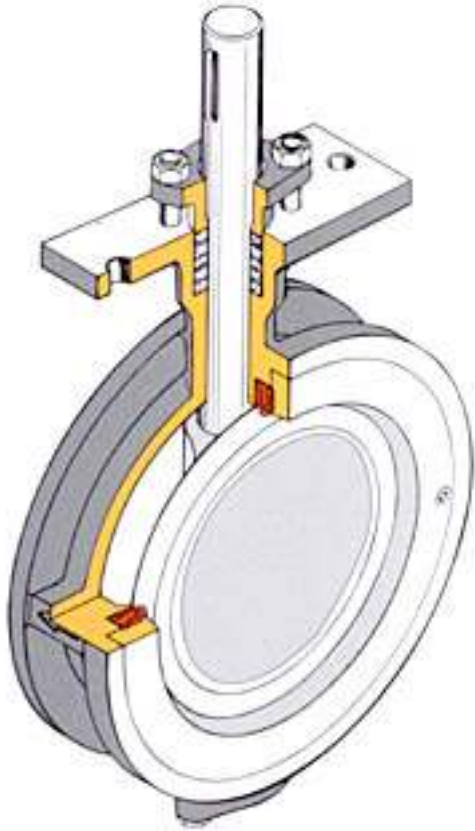
Somas Butterfly valves

DN 80-1200 PN 10-50



Somas butterfly valves type VSS and MTV have a solid stainless steel seat. Tight shut-off is achieved by the unique design of the disc and the seat. The combination of design and choice of materials provides the widest possible range of applications for control as well as on-off.

With sizes up to DN 1200 and pressure classes PN 10 - 50 we are able to cope with most process industry applications.



The Somas butterfly valve type MTV is an interesting development from a technical as well as an economical point of view. Our designers have combined the latest machining techniques with a light weight design – making the MTV-valve a cost-effective alternative for most installations.

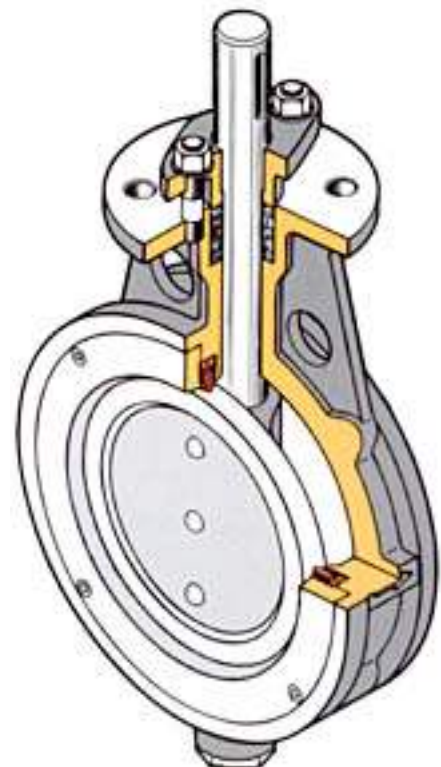
The MTV-valve offers:

- double eccentric design.
- seat of solid stainless steel, unaffected by high flow velocities.
- unique disc design combined with a solid seat for tightness to ANSI B 16.104 class V as standard.
- replaceable seat in alternative materials.

The Somas butterfly valve type VSS is used in tens of thousands of installations. With all the experience we have from metal seated butterfly valves, we can claim that our concept is the basis for the future development of metal seated butterfly valves.

The VSS-valve offers:

- sizes from DN80 - DN 1200 (3 - 48 inches).
- pressure classes PN 10 - PN 50 (ANSI 150-300).
- wafer type and lug type body.
- alternative seat materials.
- alternative face to face dimensions.
- tightness to ANSI B 16.104 class V as standard.





Butterfly valves with control actuators and alternatively gear operators.

Products

To meet the wide variety of applications there are a number of alternatives available. All alternatives are based upon the unique disc shape and the solid seat design. The alternatives consist of different body style, accessories etc. Furthermore, this design allows selection of alternative stainless steel qualities, stellite or PTFE.



Wafer type

This body style has a short face to face dimension requiring a minimum of space. This, combined with low weight and easy installation, make it our most popular design.



Lug type body

Some applications demand a valve which maintains shut off whilst downstream piping is removed. A valve with a lug type body is then the ideal solution.



With silencer

The process industry demands quiet valves for difficult applications. By using a butterfly valve with a silencer, built into the valve, the noise can be reduced on high differential pressure applications and where cavitation can occur. A reduction of 10 dBA is possible.

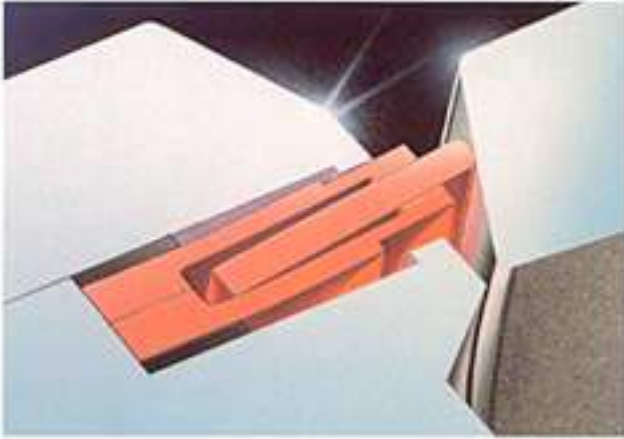


Cryogenic applications

For applications down to minus 196° C the Somas butterfly valve, equipped with an extended bonnet, can be used. The bonnet extension locates the stuffing box away from the pipe and eliminates the risk of freezing.

Seat

The seat construction in a valve is a matter of vital importance for the valve function. At Somas you find more than 20 years' of experience of metal seated valves. Some of the advantages with a seat made from solid stainless steel are: Wide temperature range, unaffected by high flow velocities and less sensitive to polluted medias.



Type VSS

The solid seat and the two spring washers are made from the same material. By increasing the torque on the shaft the surface pressure between the seat and the disc is increased. Galling is prevented by the flexibility of the spring washers, which allow a rolling motion between seat and disc.



Type MTV

Butterfly valve type MTV has a solid seat made in one piece. The rolling motion between the seat and disc is obtained by the two flexible "legs". When increasing the torque, a rolling motion occurs between the disc and the solid seat due to the flexibility. With this rolling motion a high surface pressure can be obtained without any risk of galling.

Material

The butterfly valve type VSS is produced from many different stainless steel qualities, while the butterfly valve type MTV is made of stainless steel SS 2343. The most frequently used are listed below.

Material combinations as standard			
Type	Body	Disc	Seat
VSS	SS 2343	SS 2343	SS 2377
VSS	SS 2343	SS 2343	SS 2378
VSS	SS 2343	SS 2343	SS 2562
VSS	SS 2343	SS 2343/Stellite	Stellite
VSS	SS 2343	SS 2343	PTFE
VSS	SS 2378	SS 2378	SS 2378
MTV	SS 2343	SS 2343	SS 2377
MTV	SS 2343	SS 2343	PTFE

For more information about the materials used in our valves, see our technical information sheet Ti-915.

Sizes, nominal pressure, face to face dimensions, etc.

Butterfly valves type VSS and MTV are available in different sizes and pressure classes.

Type	Material, body	Body type	Size	PN 6	PN 10	PN 16	PN 20 (ANSI 150)	PN 25	PN 50 (ANSI 300)
VSS	SS 2343	Wafer type	DN 80 - 800	-	X	X	X	X	-
VSS	SS 2343	Wafer type	DN 900 - 1200	-	X	-	-	-	-
VSS	SS 2343	Wafer type	DN 1200	X	-	-	-	-	-
VSS	SS 2343	Wafer type	DN 80 - 500	-	-	-	-	-	X
VSS	SS 2343	Lugged type	DN 80 - 600	-	X	X	-	X	-
VSS	SS 2343	Lugged type	DN 80 - 400	-	-	-	-	-	X
VSS	SS 2378	Lugged type	DN 80 - 600	-	-	-	X	-	-
VSS	SS 2378	Lugged type	DN 80 - 400	-	-	-	-	-	X
MTV	SS 2343	Wafer type	DN 80 - 500	-	X	X	X	X	-

Face to face dimensions: PN 6 - PN 25 ISO 5752, Series 20, SSG 1036
(ANSI 150)

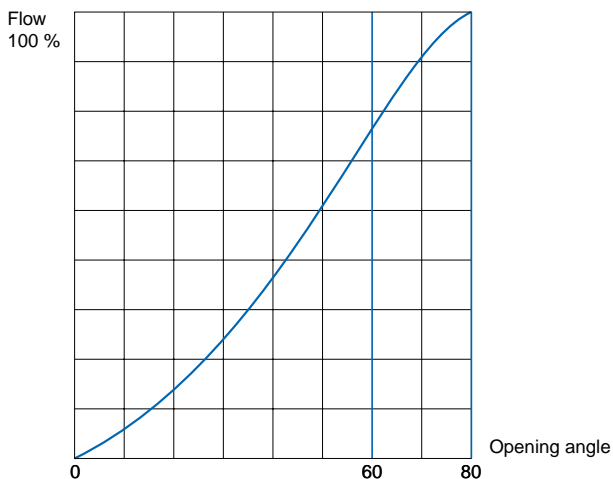
PN 50 ISO 5752, Series 16
(ANSI 300)

Data sheet - Reference

For further information, see our data sheets listed as shown below:

Type	Body type	Size	Pressure class	Data sheet
VSS	Wafer type	DN 80 - 1200	PN 6 - 25 (ANSI 150)	Si-203 GB
VSS	Wafer type	DN 80 - 500	PN 50 (ANSI 300)	Si-204 GB
VSS	Lugged type	DN 80 - 600	PN 10 - 25 (ANSI 150)	Si-203 GB
VSS	Lugged type	DN 80 - 400	PN 50 (ANSI 300)	Si-204 GB
MTV	Wafer type	DN 80 - 500	PN 10 - 25 (ANSI 150)	Si-205 GB

Valve Characteristic

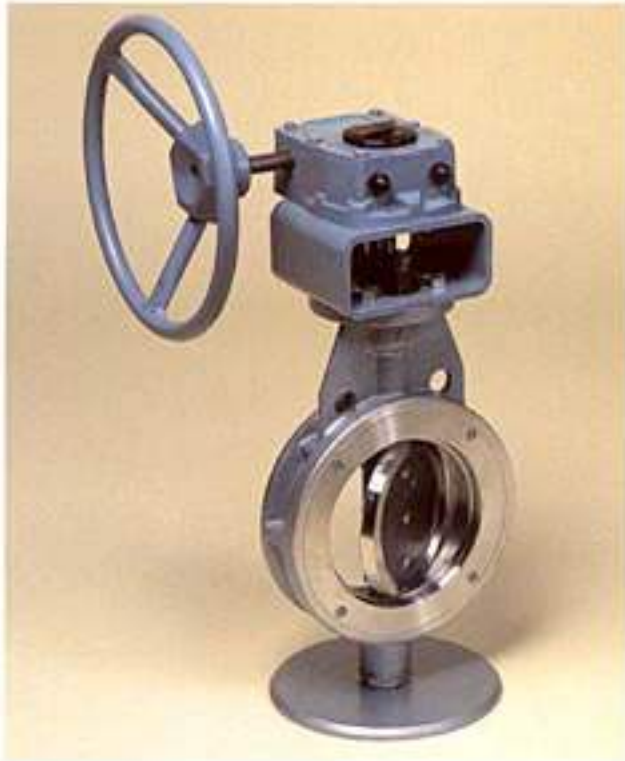


For control applications the installed characteristic of a control valve is very important. The Somas butterfly valve, combined with a pneumatic actuator and positioner, offers linear or equal percentage characteristic. The curve shows the inherent flow characteristic of the valve at 80 degrees of opening.

Accessories

Depending on the function within the system you can equip the valve with different types of actuators, positioners, solenoid valves, switches etc.

All to give you exactly the function you need for your installation.



As a shut-off valve

Butterfly valves type VSS and MTV are excellent shut-off valves for most medias. They can be used for both clean and contaminated fluids, gases and vapours.

The universal design, enabling the valves to be manufactured in several different materials, broadens its field of application.

When, for example, the Somas VSS valve is manufactured in SS 2378 (254 SMO) it is suitable for media containing chlorides in bleach plant applications and in salt water. The combination of low weight, short face to face dimension, simple operation, and above all good tight shut-off make the Somas butterfly valves type VSS and MTV the best choice for most shut-off applications.

Valve sizing

To obtain the maximum performance from a control valve the sizing is of utmost importance. Data like flow, pressure, pressure drop etc must be as true as possible. For sizing we use our valve sizing program, which is based upon the standards IEC 534-2, IEC 534-2-2 and VDMA 24422.

The sizing program is available on diskette for IBM compatible computers.



As a control valve

The butterfly valve is an excellent control valve for large flows of gases, vapour and fluids.

The high velocity will have no effect on the metal seat and the valve will keep its tight shut-off capability for many years of operation. The requirement for most control valves is – besides a good control function – reliable tight shut-off.

For control installations the valves are fitted with Somas pneumatic actuators and positioners. Other types, such as electrical actuators, are available on request.