

Butterfly valve of stainless steel PN 25



Operation

The butterfly valve is a stop and regulating valve which is tight for both directions of flow. The valve is used in demanding industrial pipelines.

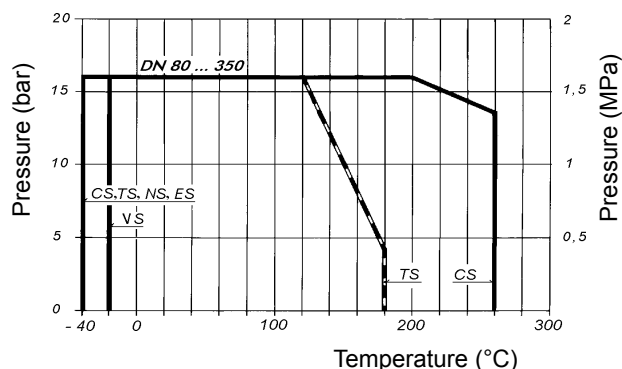
Nominal pressure 25 bar DN 80 ... 350

Closing pressure difference 16 bar DN 80 ... 350

Disc seal alternatives max./ min.

- FPM (Viton)	chemical-resistant +150 °C/ -20 °C
- EPDM	heat-resistant +100 °C/ -40 °C
- NBR (Nitril)	oil-resistant +80 °C/ -40 °C
- PTFE	chemicals +180 °C/ -40 °C
- AISI 316	+260 °C/ -40 °C

Maximum closing pressure difference depends on the working temperature



Design

The butterfly valve is flangeless and has a double eccentric disc. The disc is mounted to the shaft with tangential conical keys. The stuffing box can be tightened.

The butterfly valve is supplied complete with optional actuators

- lever for DN 80 ... 200 valves besides with metal seal DN 80 ... 150 valves
- manual gear for DN 80 ... 350 valves
- electric, pneumatic or hydraulic actuator for DN 80 ... 350 valves.

Face to face lengths according to ISO 5752 series 25
DIN 3202 K2

Tightness class ISO 5208, rate B Disc seal AISI 316
ISO 5208, rate A Other disc seals

The mounting is between drilled flanges according to DIN 2501 PN25, PN16, PN10 ANSI CLASS 150

Nominal sizes 41000__ DN 80 ... 350

Conform with the requirements of the Council Directive 97/23/EC on Pressure Equipment, marking: **CE**₀₄₃₄

Code number

41000VS ___
41000ES ___
41000NS ___
41000TS ___
41000CS ___

41000 ___
41000 ___ Z
41000 ___ M

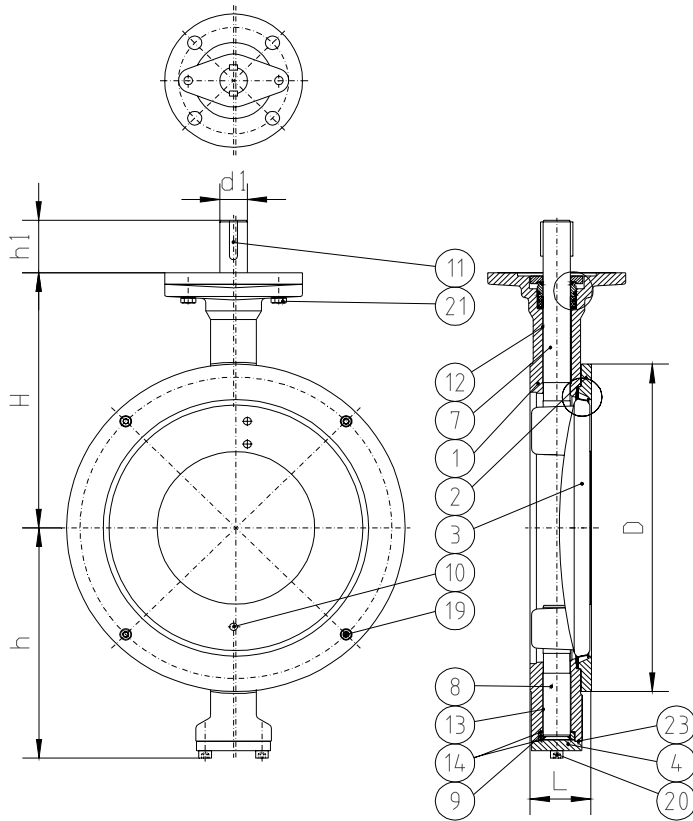
Seal

FPM (Viton)
EPDM
NBR (Nitril)
PTFE
AISI 316

with manual lever
with bare shaft
with gear

For steam on special order. Code number: **41001CS**

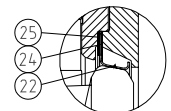
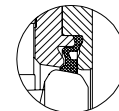
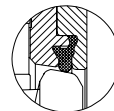
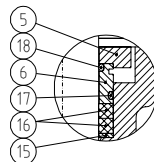
Butterfly valve



Parts

- | | |
|-------------------------|----------------------------------|
| 1. Body | CF-8M |
| 2. Counter flange | AISI316L, CF-8M |
| 3. Disc | W:no 4408 |
| 4. Subshaft cover | W:no 4401 |
| 5. Gland | AISI316L |
| 6. Back-up-ring | W:no 4401 |
| 7. Stem | W:no 4460 |
| 8. Subshaft | W:no 4460 |
| 9. Retaining ring | W:no 4401 |
| 10. Conical pin | W:no 4460 |
| 11. Key | St |
| 12. Stem bearing | PTFE+AISI316 |
| 13. Subshaft bearing | PTFE+AISI316 |
| 14. Bearing plate | PTFE+AISI316 |
| 15. Back-up-ring | AISI316L |
| 16. Box packing | Graphite |
| 17. O-Ring | FPM |
| 18. O-Ring | FPM |
| 19. Socket screw | Stainless steel |
| 20. Socket screw | Stainless steel |
| 21. Hexagonal screw | Stainless steel |
| 22. Seat ring | FPM, EPDM, NBR,
PTFE, AISI316 |
| 23. Bottom cover gasket | SFS5811 carbon fibre |
| 24. Gasket | SFS5811 carbon fibre |
| 25. Gasket | SFS5811 carbon fibre |

Seal alternatives



FPM
EPDM
NBR

PTFE+C
 carbon filled

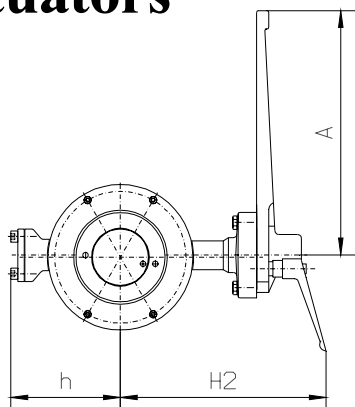
AISI 316
 hard chromed

Dimensions

DN	L	D	h	H	h1	d1	Flange ISO5211	Weight kg *)
80	49	138	114	144	45	15	F07	6,5
100	56	158	131	168	52	20	F07	8,4
125	64	188	143	179	52	20	F07	10,5
150	70	212	160	199	58	25	F10	15
200	71	268	200	224	58	25	F12	31*)
250	76	320	232	269	63	30	F12	40*)
300	83	370	275	308	69	35	F14	57*)
350	92	430	303	335	69	35	F14	71*)

*) with manual gear

Butterfly valves Actuators

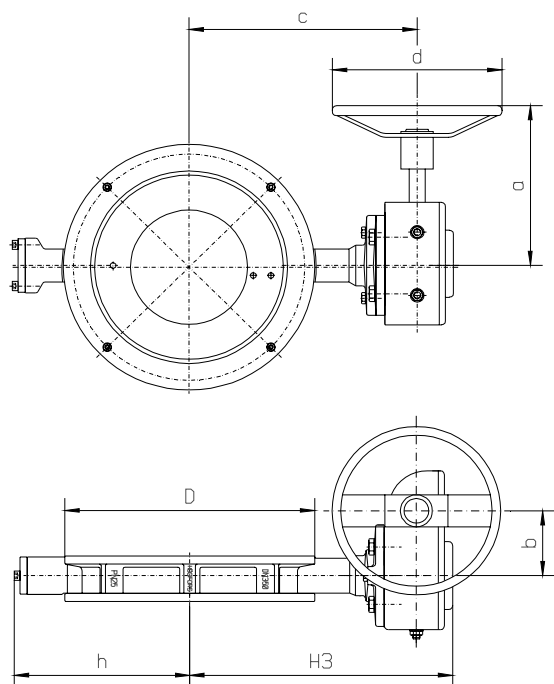


Butterfly valves are supplied with following actuator options:

- a lever or gear,
- electric, pneumatic or hydraulic actuators.

Hand lever

A lever is suitable for manual operation of small sizes of butterfly valves DN 80 to 200, except for valves with metal to metal seats, where gear and handwheel is used in size DN 200 and larger. The position of the disc can be firmly fixed in any position between open and closed by the locking device incorporated. The hand lever is supplied positioned crosswise to the pipe with the valve closed.



Dimensions

DN	h	H2	A
80	114	223	300
100	131	246	300
125	143	260	300
150	160	289	420
200	200	314	420

Manual gear

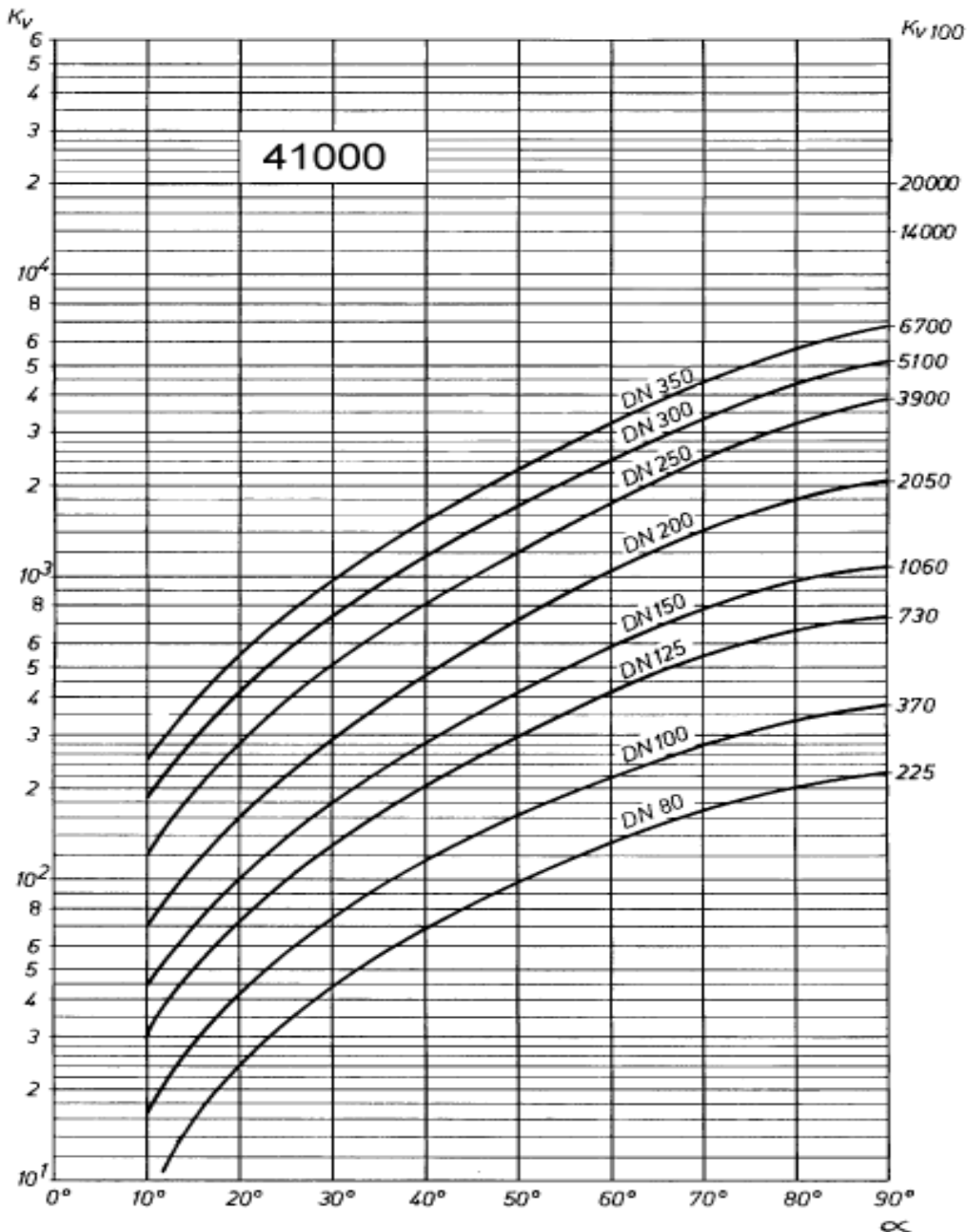
The valves are supplied with gearbox and handwheel. The disc position is shown by a mechanical indicator on the actuator.

Dimensions

DN	L	D	h	H3	a	b	c	d
80	49	138	114	211	176	52	179	203
100	56	158	131	235	176	52	203	203
125	64	188	143	246	176	52	214	203
150	70	212	160	280	202	67	241	203
200	71	268	200	305	202	67	266	203
250	76	320	232	350	247	67	311	305
300	83	370	275	402	264	90	358	305
350	92	430	303	429	264	90	405	305

Regulating curves

The diagram presents the K-values of butterfly valves
 - the capacity factors for different disc positions



WATER:

Volume flow:

$$Q = K_v \sqrt{\frac{\Delta p}{\rho}}$$

Flow velocity:

$$v = 354 \frac{Q}{DN^2}$$

- K_v = kv-value — Capacity factors
- DN = nominal valve size (mm)
- α = disc opening angle
- Q = volume flow m³/h
- Δp = pressure difference bar
- ρ = density of liquid kg/dm³
- v = flow velocity m/s