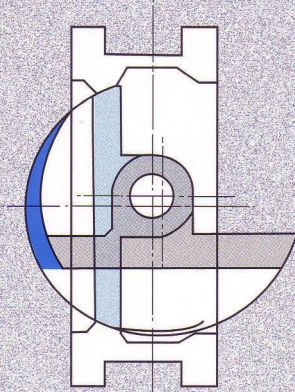


POWER-SEAL



MULTI - PURPOSE IVEX RANGE

The intervalve IVEX-Range is based on an unique quarter-turn design. The double offset shaft and disc configuration as to the seat together with the advanced high technology seat systems brings in a multi-purpose IVEX-butterfly valve range.

MAIN DESIGN FEATURES

Double offset disc design.
At the initial point of disc opening, the double offset disc provides a camlike action. Thus preventing excessive seat wear and creating the possibility for frequent operation.

Size 2" - 48"
Class 150 & 300lbs.
Asbestos free design

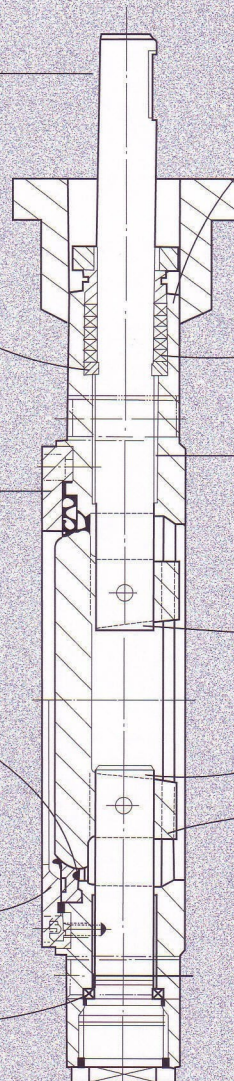
Metal header prevents cold flow of packing and centers the disc exactly in the seat (trust bearing)

Metal to Metal seat for high temperature service

Reinforced PTFE seat-ring with secondary metal seat for fire -safe protection

Body insert protects seat from abrasion and erosion

Grafoil seal-ring



Body:

The body can be lug (single flanged) and wafer design

Grafoil packing

Shaft Bearing in PTFE or AISI 316

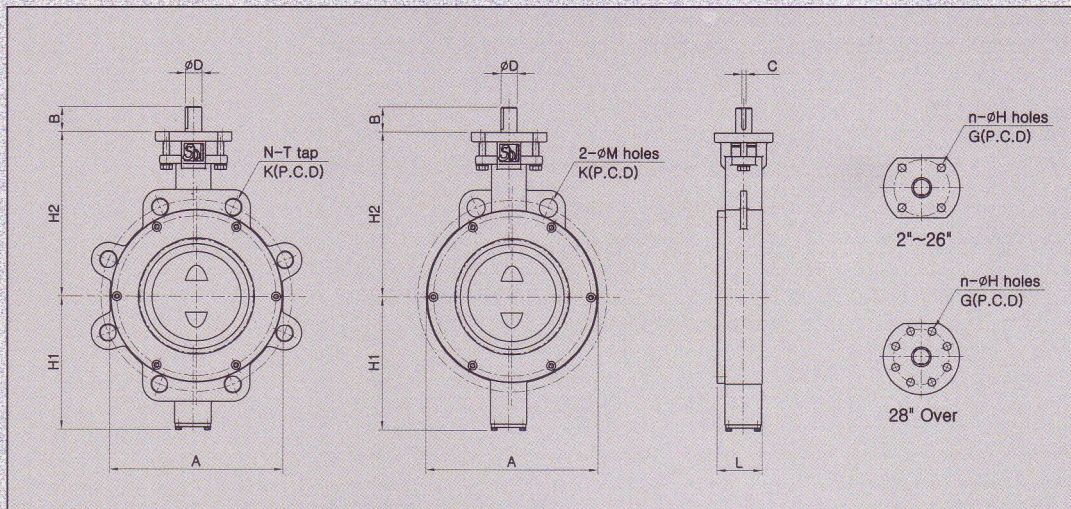
2 piece stem for extra flow

Seat removal without disassembly of shaft and disc

Face to face dimension acc. ISO 5752-5H

POWER-SEAL

DIMENSIONAL



DIMENSION CHART FOR ANSI CLASS 150

| Size | | H1 | H2 | A | B | C | ϕD | L | ANSI CL. 150 | | | | Mounting Data | | |
|------|------|-------|-------|-------|------|------|----------|-------|--------------|----------|----|---------|---------------|---|----------|
| inch | mm | | | | | | | | K | ϕM | N | T | G | n | ϕH |
| 2 | 50 | 4.33 | 3.94 | 3.86 | 0.79 | 0.20 | 0.51 | 2.28 | 4.75 | 0.75 | 4 | 5/8-11 | 2.76 | 4 | 0.38 |
| 3 | 80 | 5.24 | 4.84 | 5.20 | 0.79 | 0.20 | 0.63 | 1.89 | 6.00 | 0.75 | 4 | 5/8-11 | 2.76 | 4 | 0.38 |
| 4 | 100 | 5.71 | 5.31 | 6.34 | 0.79 | 0.24 | 0.75 | 2.13 | 7.50 | 0.75 | 8 | 5/8-11 | 2.76 | 4 | 0.38 |
| 5 | 125 | 6.50 | 6.06 | 7.32 | 1.38 | 0.24 | 0.75 | 2.28 | 8.50 | 0.88 | 8 | 3/4-10 | 2.76 | 4 | 0.38 |
| 6 | 150 | 6.89 | 6.61 | 8.54 | 1.38 | 0.31 | 0.87 | 2.28 | 9.50 | 0.88 | 8 | 3/4-10 | 2.76 | 4 | 0.38 |
| 8 | 200 | 7.87 | 7.68 | 10.71 | 1.97 | 0.31 | 1.10 | 2.52 | 11.75 | 0.88 | 8 | 3/4-10 | 4.02 | 4 | 0.47 |
| 10 | 250 | 10.43 | 9.61 | 12.87 | 2.56 | 0.39 | 1.26 | 2.83 | 14.25 | 1.00 | 12 | 7/8-9 | 4.02 | 4 | 0.47 |
| 12 | 300 | 11.42 | 10.34 | 14.88 | 2.95 | 0.47 | 1.50 | 3.19 | 17.00 | 1.00 | 12 | 7/8-9 | 5.51 | 4 | 0.71 |
| 14 | 350 | 12.21 | 11.42 | 17.21 | 2.95 | 0.55 | 1.77 | 3.62 | 18.75 | 1.12 | 12 | 1-8 | 5.51 | 4 | 0.71 |
| 16 | 400 | 14.57 | 13.78 | 19.21 | 3.54 | 0.55 | 1.97 | 4.02 | 21.25 | 1.12 | 16 | 1-8 | 6.50 | 4 | 0.81 |
| 18 | 450 | 15.35 | 14.45 | 21.18 | 3.94 | 0.63 | 2.17 | 4.49 | 22.75 | 1.25 | 16 | 1 1/8-8 | 6.50 | 4 | 0.81 |
| 20 | 500 | 16.54 | 15.75 | 23.35 | 3.94 | 0.71 | 2.36 | 5.00 | 25.00 | 1.25 | 20 | 1 1/8-8 | 6.50 | 4 | 0.81 |
| 24 | 600 | 18.50 | 18.43 | 27.32 | 3.94 | 0.71 | 2.56 | 6.06 | 29.50 | 1.38 | 20 | 1 1/4-8 | 10.00 | 8 | 0.67 |
| 28 | 700 | 21.46 | 20.28 | 30.39 | 3.94 | 0.71 | 2.76 | 9.02 | 34.00 | 1.38 | 28 | 1 1/4-8 | 10.00 | 8 | 0.67 |
| 30 | 750 | 22.44 | 21.26 | 32.40 | 5.12 | 0.67 | 2.95 | 9.02 | 36.00 | 1.38 | 28 | 1 1/4-8 | 10.00 | 8 | 0.67 |
| 32 | 800 | 23.43 | 22.24 | 34.49 | 5.12 | 0.67 | 2.95 | 9.49 | 38.50 | 1.62 | 28 | 1 1/2-8 | 11.73 | 8 | 0.81 |
| 36 | 900 | 27.56 | 26.38 | 38.70 | 5.12 | 0.67 | 3.15 | 9.49 | 42.75 | 1.62 | 32 | 1 1/2-8 | 11.73 | 8 | 0.81 |
| 42 | 1050 | 32.28 | 31.10 | 44.96 | 5.12 | 0.98 | 3.45 | 11.81 | 49.50 | 1.62 | 36 | 1 1/2-8 | 11.73 | 8 | 0.81 |
| 48 | 1200 | 35.43 | 34.25 | 51.26 | 5.51 | 0.98 | 3.54 | 13.78 | 56.00 | 1.62 | 44 | 1 1/2-8 | 14.02 | 8 | 1.25 |

DIMENSION CHART FOR ANSI CLASS 300

| Size | | H1 | H2 | A | B | C | ϕD | L | ANSI CL. 300 | | | | Mounting Data | | |
|------|------|-------|-------|-------|------|------|----------|-------|--------------|----------|----|---------|---------------|----|----------|
| inch | mm | | | | | | | | K | ϕM | N | T | G | n | ϕH |
| 2 | 50 | 3.81 | 6.38 | 3.86 | 1.25 | 0.20 | 0.63 | 1.88 | 5.00 | 0.75 | 8 | 5/8-11 | 2.76 | 4 | 0.38 |
| 3 | 80 | 4.09 | 6.63 | 5.25 | 1.25 | 0.20 | 0.63 | 1.88 | 6.62 | 0.88 | 8 | 3/4-10 | 2.76 | 4 | 0.38 |
| 4 | 100 | 4.71 | 7.50 | 6.75 | 1.25 | 0.20 | 0.63 | 2.03 | 7.88 | 0.88 | 8 | 3/4-10 | 2.76 | 4 | 0.38 |
| 5 | 125 | 5.13 | 8.00 | 8.25 | 1.25 | 0.24 | 0.75 | 2.23 | 9.25 | 0.88 | 8 | 3/4-10 | 2.76 | 4 | 0.38 |
| 6 | 150 | 6.25 | 8.75 | 8.88 | 1.25 | 0.32 | 0.87 | 2.42 | 10.62 | 0.88 | 12 | 3/4-10 | 4.92 | 4 | 0.53 |
| 8 | 200 | 7.55 | 10.00 | 10.94 | 2.00 | 0.39 | 1.18 | 2.82 | 13.00 | 1.00 | 12 | 7/8-9 | 4.92 | 4 | 0.53 |
| 10 | 250 | 9.36 | 11.38 | 13.26 | 2.00 | 0.39 | 1.38 | 3.28 | 15.25 | 1.12 | 16 | 1-8 | 4.92 | 4 | 0.53 |
| 12 | 300 | 10.89 | 13.50 | 15.57 | 2.00 | 0.39 | 1.38 | 3.62 | 17.75 | 1.25 | 16 | 1 1/8-8 | 4.92 | 4 | 0.53 |
| 14 | 350 | 12.50 | 18.25 | 17.90 | 2.50 | 0.63 | 1.97 | 4.66 | 20.25 | 1.25 | 20 | 1 1/8-8 | 6.50 | 4 | 0.81 |
| 16 | 400 | 13.88 | 21.00 | 19.94 | 4.00 | 0.71 | 2.50 | 5.35 | 22.50 | 1.38 | 20 | 1 1/4-8 | 6.50 | 4 | 0.81 |
| 18 | 450 | 15.43 | 21.60 | 22.00 | 4.00 | 0.71 | 2.50 | 5.98 | 24.75 | 1.38 | 24 | 1 1/4-8 | 10.00 | 8 | 0.67 |
| 20 | 500 | 16.80 | 22.25 | 24.10 | 4.00 | 0.87 | 3.00 | 6.34 | 27.00 | 1.38 | 24 | 1 1/4-8 | 10.00 | 8 | 0.67 |
| 24 | 600 | 19.80 | 26.25 | 28.88 | 5.25 | 0.98 | 3.50 | 7.15 | 32.00 | 1.62 | 24 | 1 1/2-8 | 11.73 | 8 | 0.81 |
| 30 | 750 | 23.40 | 32.25 | 35.12 | 5.25 | 1.26 | 4.50 | 8.98 | 39.25 | 1.87 | 28 | 1 3/4-8 | 14.02 | 8 | 1.25 |
| 36 | 900 | 27.12 | 36.25 | 42.00 | 6.00 | 1.26 | 5.00 | 10.67 | 46.00 | 2.12 | 32 | 1 5/8-8 | 14.02 | 8 | 1.25 |
| 42 | 1050 | 29.75 | 40.50 | 50.75 | 6.50 | 1.58 | 6.00 | 11.50 | 47.50 | 1.75 | 32 | 1 5/8-8 | 15.98 | 8 | 1.50 |
| 48 | 1200 | 33.16 | 44.75 | 57.75 | 7.50 | 1.77 | 7.00 | 12.50 | 54.00 | 2.00 | 32 | 1 7/8-8 | 19.02 | 12 | 1.50 |

Dimensions are subject to change without notice

POWER-SEAL

ACTUATORS

The IVEX-Butterfly Valve range will be supplied with an actuator bracket according to ISO 5211, which allows replacement of the stem seals without removal of the actuator

Every required actuator can be supplied:

- Wrench -10 positions.
- Gearbox -Weatherproof. / Buried service.
- Pneumatic actuators, double or single action.
- Electric actuators.

Furthermore Intervalve produces high-duty oil-filled stem executions as required for fire fighting lines.

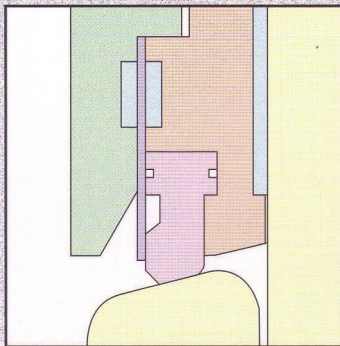
POWER-SEAL VALVE PRODUCES THE IVEX RANGE IN THREE MAIN EXECUTIONS:

IVEX-T : PTFE Seat-system.

IVEX-F : PTFE/Metal seat-system, bi-directional sealing and fire-safe design.

IVEX-M : Metal to metal seat-system. High temperature service

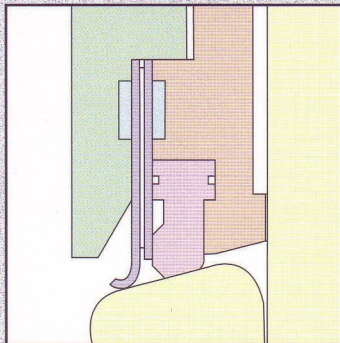
IVEX-T



PTFE-SEAT-SYSTEM

In the preferred flow-direction, as indicated, the PTFE-Seat-System will bring its optimum performance. In this design, the line pressure act as positive force in the seat-system even at fluctuating working condition. The seat-ring is well-protected by the valve-body, thus preventing distortion at negative, non-preferred flow direction.

IVEX-F



PTFE-METAL-SEAT SYSTEM

Bi-directional sealing and fire safe design.

Bi-directional.

The primary PTFE-seat-ring will be replenished with a secondary metal back-up ring. This metal seat provides a mechanical load to energize the PTFE-seat.

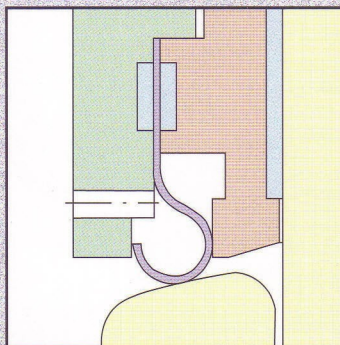
In combination with the line pressure a Bi-directional sealing against the design pressure is obtained.

Fire Safe Design.

After a fire, when the PTFE-seat-ring has burned away, the secondary metal seat gives bi-directional sealing.

This sealing systems meets the fire test requirements (API 607 and BS5146)

IVEX-M



METAL TO METAL SEAT DESIGN

High temperature service

The primary metal seal enables this execution to be used up to 670 grade C.

Seat-rings available are stainless steel AISI 316 L-chromium plated, (maximum allowable temperature: 310 grade C.) and Inconel 625 (maximum temperature:670 grade C.)

As a result the IVEX-M-Metal-to-Metal range meets the full pressure temperature rating according to the ANSI class 150 and class 300 rules.

POWER-SEAL

Valve Operating Torques for PTFE Seat (N•m)

| SIZE | P = 10bar | P = 20 bar |
|------|-----------|------------|
| 2" | 22 | 27 |
| 3" | 46 | 55 |
| 4" | 92 | 110 |
| 5" | 115 | 154 |
| 6" | 176 | 253 |
| 8" | 330 | 452 |
| 10" | 520 | 710 |
| 12" | 665 | 960 |
| 14" | 1020 | 1460 |
| 16" | 1180 | 1980 |
| 18" | 1540 | 2300 |
| 20" | 2420 | 3300 |
| 24" | 3400 | 4880 |

*- Break away

- Including safety factor 15%

For IVEX-F (fire safe) take a extra factor 20%

For IVEX-M(metal seat) take a extra factor 30%

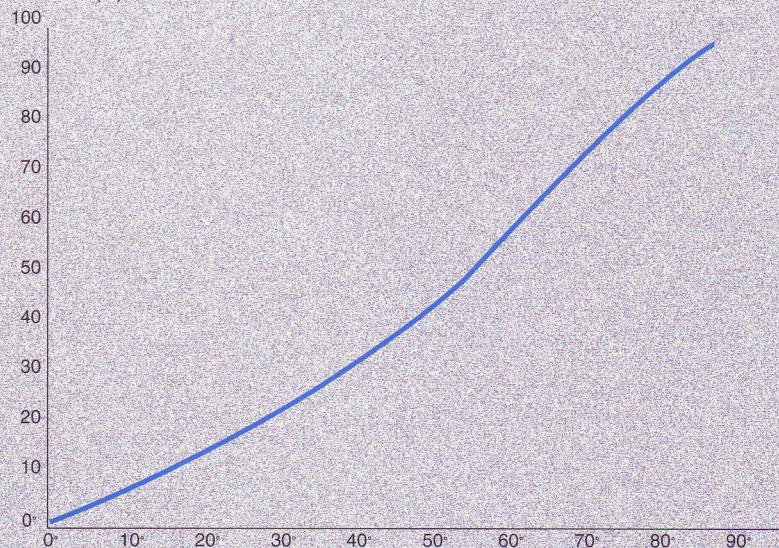
Cv-values for High Performance butterfly valves

type IVEX-F,M & T.

Cv=flow in US-gallons per minute at a pressure drop of 1 PSI and 60°F

| Size | 2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
|------|-----|-----|-----|-----|-----|------|------|------|------|------|-------|-------|-------|
| Cv | 105 | 210 | 440 | 605 | 900 | 1900 | 3100 | 4800 | 6100 | 8100 | 10800 | 13700 | 21000 |

Max.Cv(%)



Disc opening Angle

※ The manufacturer reserves the right to change product designs and specifications without notice