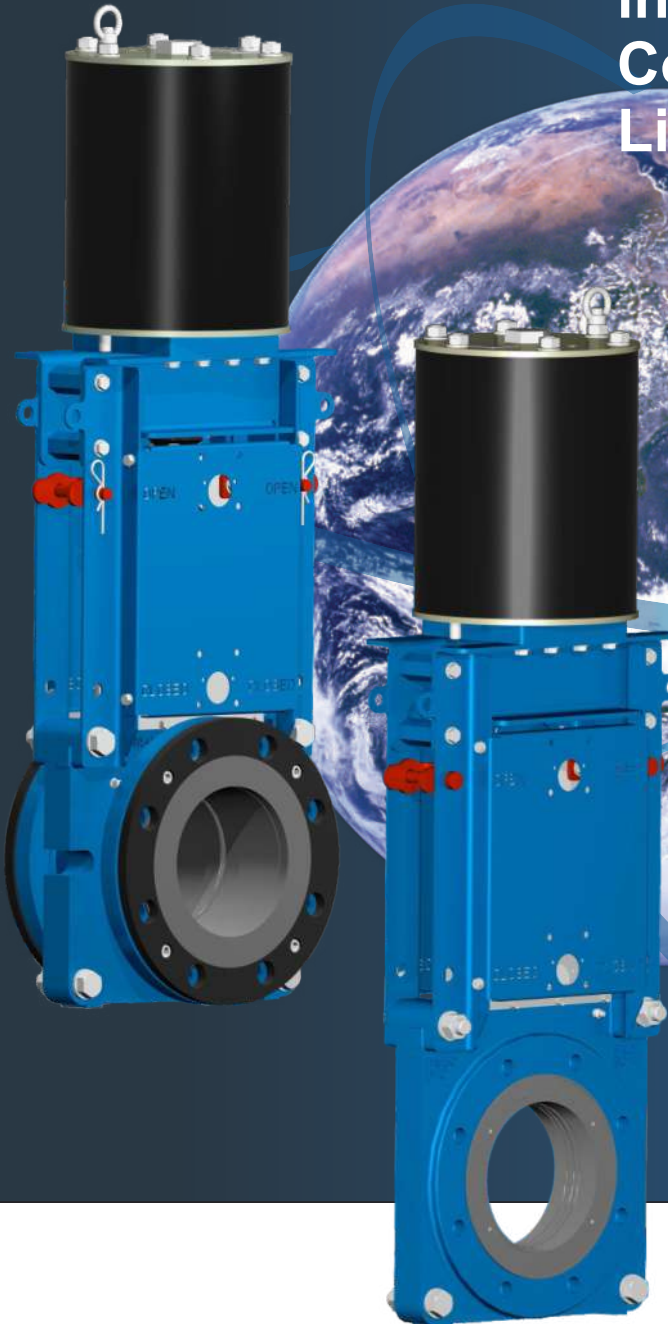
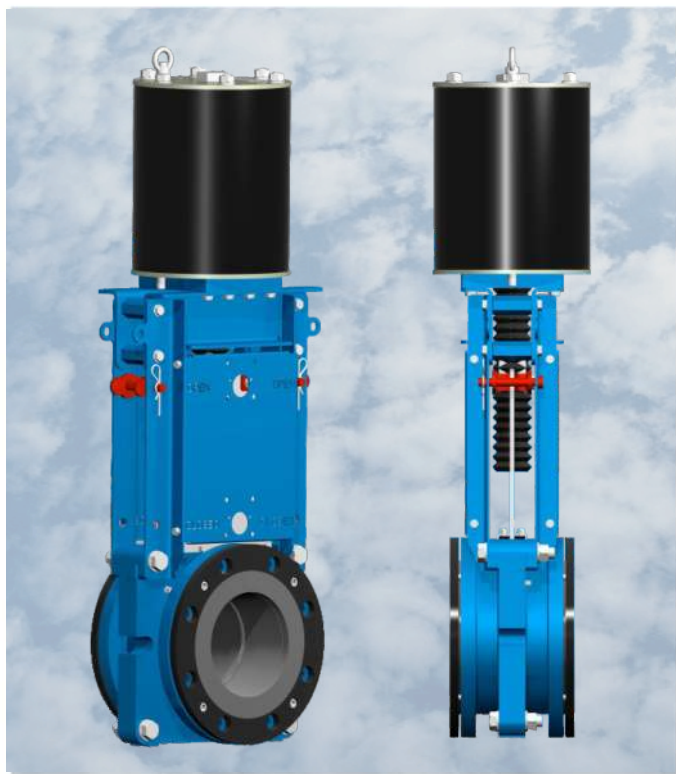


**World Class Performance  
in Abrasive, Scaling and  
Corrosive Slurries, Sludge,  
Liquids, and Bulk Solids**



***INSAMCOR SKG-F, SKG-W & SKG-LB***

***Flanged, Wafer and Large Bore Slurry Knife Gate Valves***



**INSAMCOR® SKG F (Flanged)**



**INSAMCOR® SKG W (Wafer)**

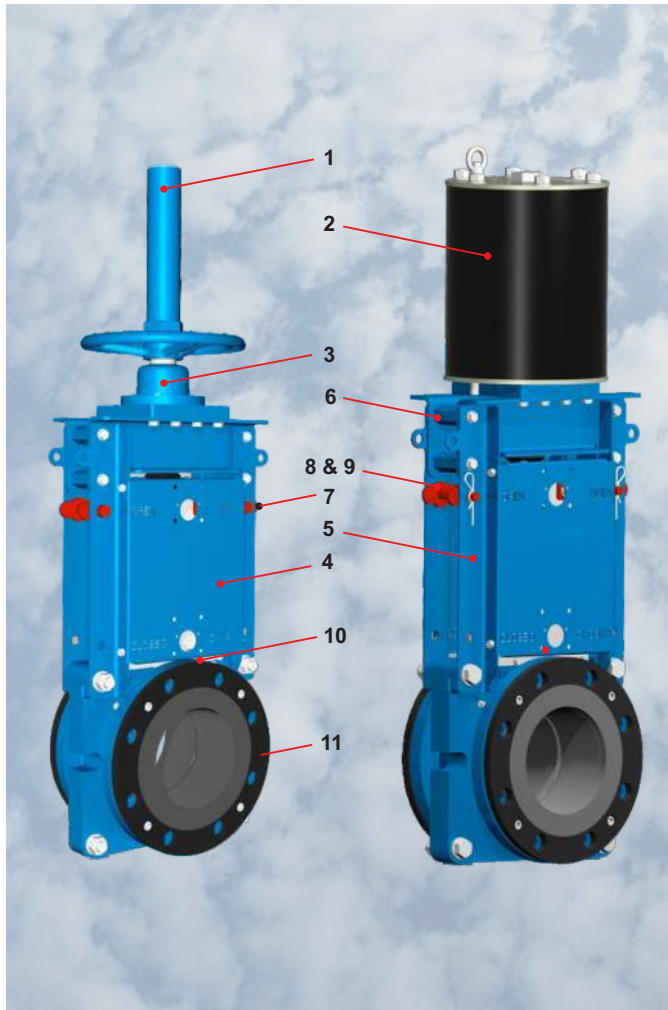
INSAMCOR's purpose is to solve typical and perennial valve problems. We achieve this by providing quality valves that provide the lowest cost of ownership and operation, highest reliability and minimum lifetime maintenance.

INSAMCOR SKG range of wafer and flanged knife gate valves features a packingless design, replaceable elastomer sleeves and a fully enclosed yoke for severe slurry applications.

## Design Features and Advantages

- ✓ Bi-directional flow and shut-off resulting in zero downstream leakage
- ✓ No metal parts in contact with the flowing media when the valve is in the fully open position
- ✓ No seat cavity for unwanted solids to build-up and prevent full gate closure
- ✓ Field replaceable heavy duty elastomer sleeves
- ✓ Suitable for wet or dry service
- ✓ 3" - 24" / DN80 - DN600 standard pressure rating of 150PSI CWP (10 bar)
- ✓ 28" - 48" / DN700 – DN1200 standard pressure rating of 90PSI CWP (6 bar) with 150PSI CWP (10 bar) available on request.





## INSAMCOR® SKG-F Specifications

The heavy duty slurry knife gate valve shall be a flanged, bi-directional valve with a packingless design. The full port bore shall be formed by two heavy duty elastomer sleeves. one on either side of the gate. Each sleeve shall have a J-ring design stiffener to maintain the shape of the sleeve. Upon closing, the gate will progressively separate the sleeves and once fully closed, will form a bubble tight seal with the upstream sleeve. The yoke shall consist of two yoke plates that fully enclose the gate, spindle and clevis to protect these components from slurry splatter. The yoke design will allow for easy mounting of proximity or limit switches. Steel proximity switch covers must be provided to prevent damage during transport and operation. Provision must be made for lockouts in the open and closed position with open and closed indicators. The top bracket must accept manual, pneumatic or electric actuation for easy conversion in the field.

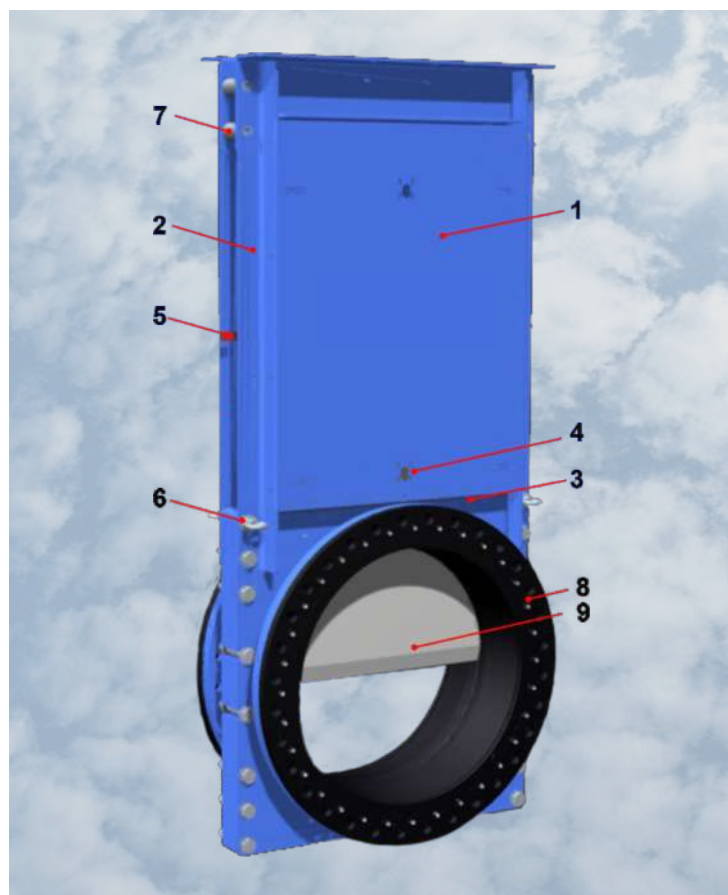
## Features (3" - 24" / DN80 - DN600)

1. **Spindle Cover** - to protect the spindle against slurry splatter.
  2. **Actuators** - pneumatic, electric and hydraulic cylinder, manual bevel gear and hand wheel with rising stem
  3. **Thrust housing assembly** - generous oversizing of the thread length of the gunmetal (LG2) thrust nut ensures lowest possible thread loading for longevity. Sizes 12"(DN300) to 16"(DN400) comes standard with thrust bearings and smaller sizes are fitted with vesconite thrust pads.
  4. **Cover plate** - design consists of two cover plates that enclose the gate, spindle and clevis. Light weight for easy removal upon servicing and maintenance.
  5. **Heavy Duty Frame** - heavy duty frame to handle higher thrust associated with Large Bore installations.
  6. **Open supports** - ease of maneuvering valve during installation
  7. **Steel proximity switch covers** - to prevent damage during transport and operation.
  8. **Indicator** - open and close indicators (standard)
  9. **Lockout** - provision for lockouts in the open and closed position (available on sizes 3"- 24")
  10. **Wiper blade** - retains internal lubricants.
  11. **Retainer flange** - standard on the SKG F range
- Washout chamber** - closure plate with flush-out connection (optional)
- \* **Standard bellows** - provide additional protection for the spindle against scoring from abrasive particles

**Note:** '\*' not shown in image

## INSAMCOR® SKG-W Specifications

The heavy duty slurry knife gate valve shall be a wafer style, bi-directional valve with a packingless design. The full port bore shall be formed by two heavy duty elastomer sleeves, one on either side of the gate. The roundness of the sleeve shall be maintained by an embedded stiffener ring near the sealing face and a steel disc on the mating face. Upon closing, the gate will progressively separate the sleeves and once fully closed, will form a bubble tight seal with the upstream sleeve. The yoke shall consist of two yoke plates that fully enclose the gate, spindle and clevis to protect these components from slurry splatter. The yoke design will allow for easy mounting of proximity or limit switches. Steel proximity switch covers must be provided to prevent damage during transport and operation. Provision must be made for lockouts in the open and closed position with open and closed indicators. The top bracket must accept manual, pneumatic or electric actuation for easy conversion in the field.



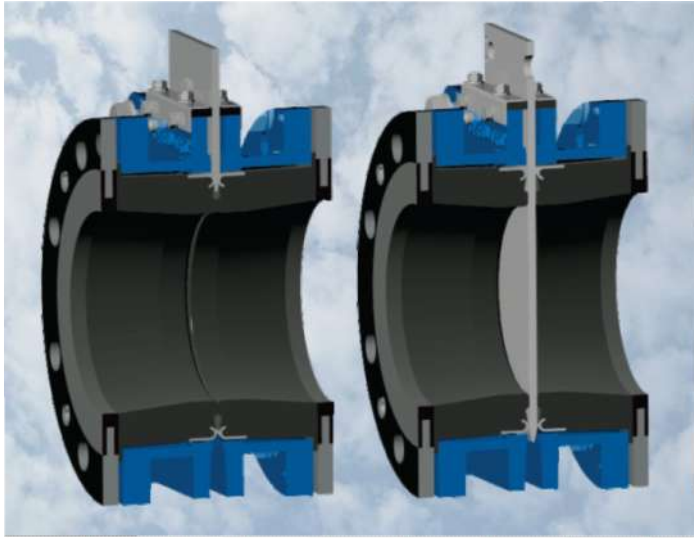
## Features (28" - 48"/DN700 - DN1200)

1. **Cover plate** - design consists of two cover plates that enclose the gate, spindle and clevis. Light weight for easy removal upon servicing and maintenance.
  2. **Heavy Duty Frame** - heavy duty frame to handle higher thrust associated with Large Bore installations.
  3. **Wiper blade** - easy, replaceable wiper blade to prevent outside contaminants from getting inside the valve and to maintain internal lubricants.
  4. **Steel proximity switch covers** - to prevent damage during transport and operation
  5. **Indicator** - open and close indicators (standard)
  6. **Lifting lugs** - eye bolts situated on four locations for ease of installation and storage
  7. **Open supports** - ease of maneuvering valve during installation
  8. **Retainer flange** - standard on the SKG F for sizes 3" (DN80) to 48" (Dn1200)
  9. **Gate** - Standard gate material is 316L for 90PSI/6 Bar pressure rating, with SAF2205 as an additional option for 150PSI/10 Bar pressure rating
- \* **Spindle cover** - to protect the spindle against slurry splatter
  - \* **Actuators** - pneumatic, electric and hydraulic

**Note: '\*' not shown in image**

## INSAMCOR® SKG-LB Specifications

The heavy duty slurry knife gate valve shall be a flanged, bi-directional valve with a packingless design. The full port bore shall be formed by two heavy duty elastomer sleeves, one on either side of the gate. Each sleeve shall have an integrally moulded encapsulated stiffener ring to maintain the shape of the sleeve. Upon closing, the gate will progressively separate the sleeves and once fully closed, will form a bubble tight seal with the upstream sleeves. The yoke shall consist of two cover plates and four heavy duty angular supports, that fully enclose the gate, spindle and clevis to protect these components from slurry splatter. The yoke design will allow for easy mounting of proximity or limit switches. Steel proximity switch covers must be provided to prevent damage during transport and operation. The top bracket must accept pneumatic, electric or hydraulic actuation for easy conversion in the field. The valve shall have lifting lugs close to the centre of gravity of the valve with open supports at the top of the yoke for ease of maneuvering during installation and storage.



**SKG-F in Open and Closed Position**

## Sealing Principle

When the valve is fully opened the two identical elastomer sleeves push against each other to form a cavity free, bubble tight seal to contain the line pressure.

When the gate moves from the open to closed position, the gate separates the facing sleeves until it completely closes and seals the bore from both directions.

The INSAMCOR SKG-F valve utilizes a J-ring design with stiffener lugs to maintain the rounded shape of the sleeves during opening and closing

## Specifications

### Size Range

3"- 24"(DN80 - DN600)

### Pressure Rating

150PSI CWP (10 bar)

### Body & Yoke

Fusion bonded epoxy coated ductile iron body with fusion bonded epoxy coated mild steel yoke plates

### Sleeves

Natural rubber standard

### Gate

316L stainless steel standard

### Retainer/Counter Flanges

Natural rubber encapsulated mild steel

### Flange Drilling

ANSI B16.5 Class 150

AS 2129 Table D & E

PN10 & PN16



**SKG-W in Open and Closed Position**

The rounded shape of the INSAMCOR SKG-W sleeve is maintained by an embedded stiffener ring located near the seating face and a steel disc on the mating face. Flexibility in the axial direction is achieved through the provision of a 360 degree groove located along the inner surface of the sleeve, which allows the rubber displaced by the closing gate to move axially.

## Optional

### Pressure Rating

Optional gate materials can be used to increase the pressure rating if the INSAMCOR SKG-F and INSAMCOR SKG-W depending on the valve size and application - please consult the factory

### Sleeves

EPDM, CR or NBR

### Gate

DUPLEX 2205, Titanium-Gr-2

### Actuators

Manual, manual bevel gear, pneumatic, electromechanical and hydraulic

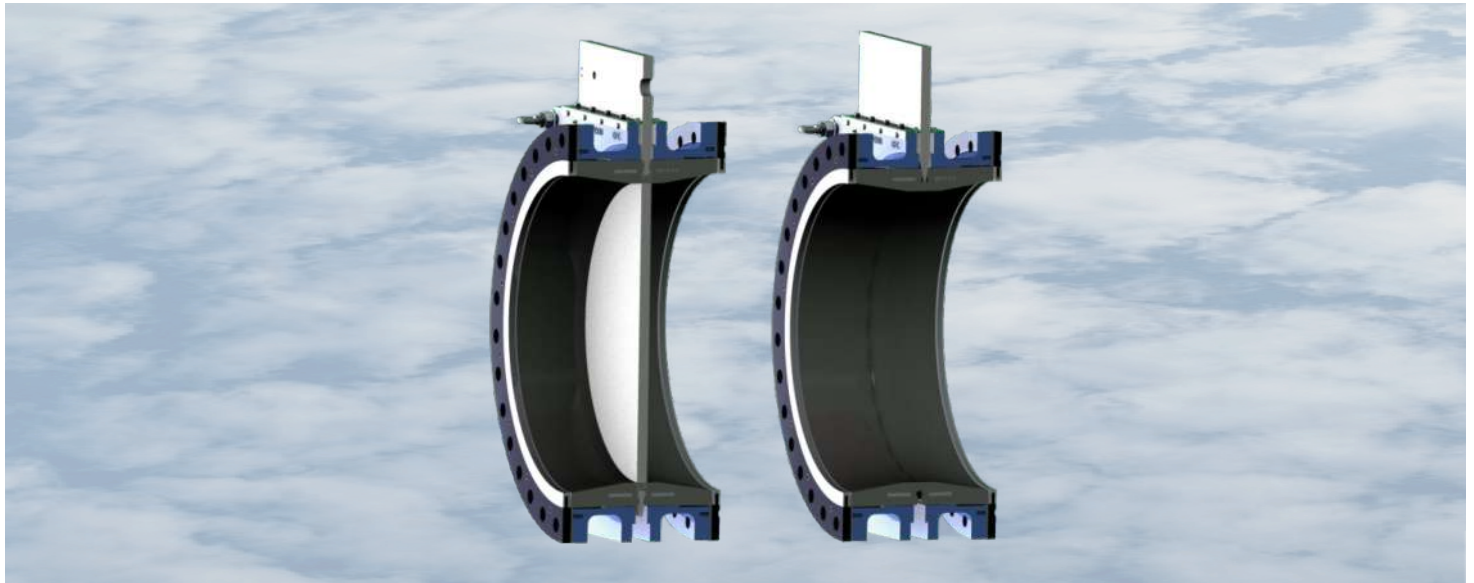
### Retainer Flanges

Standard on the SKG F range

### Purge Ports

Removable bottom cover with flush-out connections





## Sealing Principle

When the valve is fully opened the two identical elastomer sleeves push against each other to form a cavity free , bubble tight seal to contain the line pressure.

When the gate moves from the open to closed position, the gate separates the facing sleeves until it completely closes and seals the bore from both directions.

As the gate strokes, the gate tip creates a gap between the facing sleeves allowing media that could potentially clog or jam the valve to be purged to atmosphere.

The INSAMCOR SKG-LB valve utilizes an integrally moulded encapsulated stiffener ring to maintain the rounded shape of the sleeves under heavy shearing forces.

## Specifications

### Size Range

28" - 48" (DN700 - DN1200)

### Pressure Rating

90PSI CWP (6 Bar)

### Body & Topworks

Fusion bonded epoxy coated ductile iron body with fusion bonded epoxy coated angular support and cover plates

### Sleeves

Natural rubber standard

### Gate

316L standard

### Retainer/Counter Flanges

Natural rubber encapsulated mild steel

### Flange Drilling

MSS SP-44 Class 150 / ANSI B16.47 Class 150

AS 2129 Table D

PN6 and PN10

## Optional

### Pressure Rating

Optional gate materials can be used to increase the pressure rating of the INSAMCOR SKG-LB depending on the valve size and application - please consult the factory.

### Gate

SAF2205 (150PSI/10 Bar), Titanium Gr-2 (75PSI/5 Bar)

### Actuators

Pneumatic, electric and hydraulic

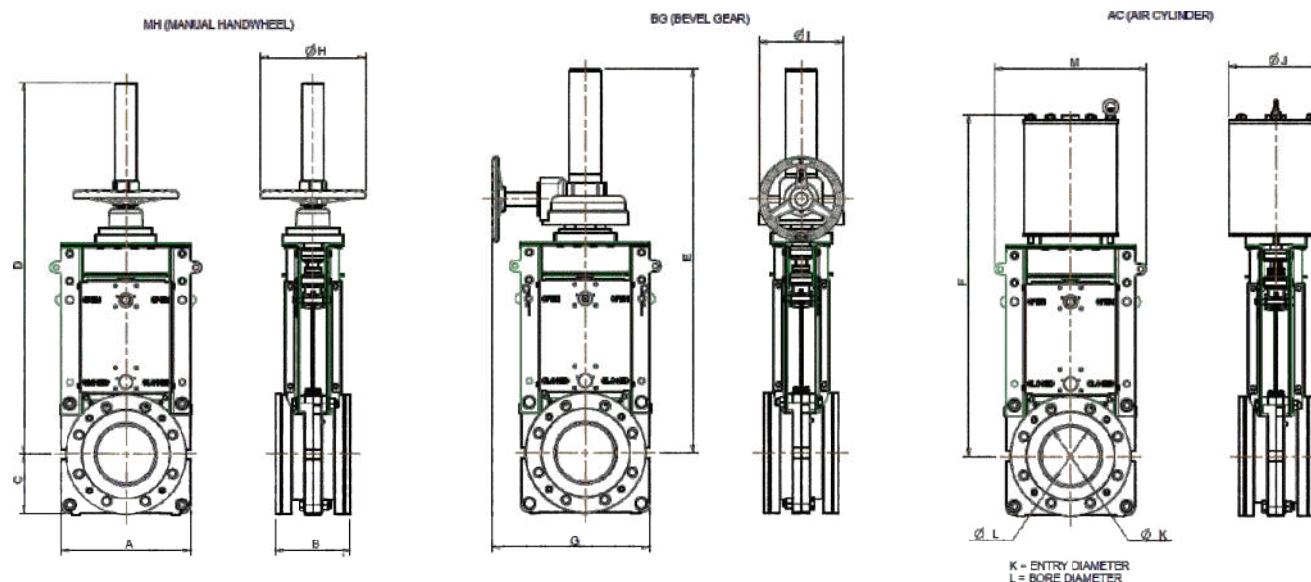
### Retainer Flanges

Standard on the SKG LB range

### Sleeves

EPDM

## Dimensions and Weights of the SKG-F (Flanged)



**Dimensions (mm) and Weights (kg)**

| Valve Size | A   | B   | C   | D    | E    | F    | G   | H   | I   | J   | K   | L   | Weight MH | Weight BG | Weight AC |
|------------|-----|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----------|-----------|-----------|
| 80         | 219 | 175 | 100 | 643  | -    | 551  | -   | 200 | -   | 160 | 71  | 65  | 25        | -         | 40        |
| 100        | 256 | 175 | 116 | 711  | -    | 645  | -   | 200 | -   | 225 | 98  | 90  | 30        | -         | 45        |
| 150        | 307 | 177 | 140 | 885  | 416  | 796  | 415 | 250 | 250 | 225 | 149 | 138 | 53        | 72        | 60        |
| 200        | 359 | 183 | 176 | 957  | 458  | 902  | 441 | 250 | 250 | 283 | 200 | 182 | 90        | 106       | 97        |
| 250        | 409 | 225 | 208 | 1167 | 1108 | 1087 | 466 | 315 | 315 | 320 | 252 | 234 | 95        | 108       | 148       |
| 300        | 481 | 257 | 244 | 1352 | 1251 | 1277 | 530 | 400 | 315 | 400 | 292 | 272 | 127       | 150       | 210       |
| 350        | 534 | 257 | 267 | 1496 | 1425 | 1372 | 610 | 400 | 315 | 485 | 328 | 305 | 182       | 205       | 236       |
| 400        | 505 | 280 | 280 | 1580 | 1619 | 1530 | 690 | 630 | 400 | 485 | 978 | 352 | 270       | 295       | 328       |
| 450        | 639 | 316 | 320 | -    | 1744 | 1695 | 712 | -   | 400 | 540 | 430 | 392 | -         | 400       | 430       |
| 500        | 695 | 364 | 348 | -    | 2240 | 1840 | 801 | -   | 500 | 640 | 473 | 438 | -         | 480       | 565       |
| 600        | 815 | 378 | 408 | -    | -    | 2180 | -   | -   | -   | 640 | 590 | 540 | -         | -         | 652       |

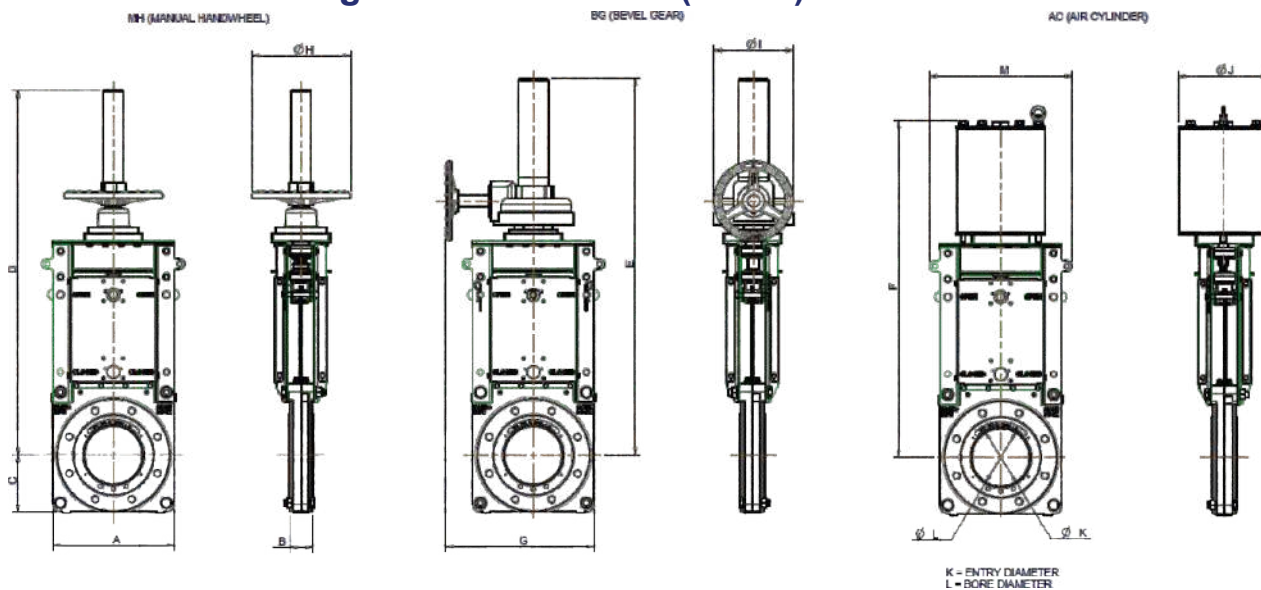
**Dimensions (inches) and Weights (lbs)**

| Valve Size | A     | B     | C     | D     | E     | F     | G     | H     | I     | J     | K     | L     | Weight MH | Weight BG | Weight AC |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|
| 3          | 8.62  | 6.89  | 3.94  | 25.31 | -     | 21.69 | -     | 7.87  | -     | 6.30  | 2.80  | 2.56  | 55        | -         | 88        |
| 4          | 10.08 | 6.89  | 4.57  | 27.99 | -     | 25.39 | -     | 7.87  | -     | 8.86  | 3.86  | 3.54  | 66        | -         | 99        |
| 6          | 12.09 | 6.97  | 5.51  | 34.84 | 16.38 | 31.34 | 16.34 | 9.84  | 9.84  | 8.86  | 5.87  | 5.43  | 117       | 159       | 132       |
| 8          | 14.13 | 7.20  | 6.93  | 37.68 | 18.43 | 35.51 | 17.36 | 9.84  | 9.84  | 11.14 | 7.87  | 7.17  | 198       | 234       | 214       |
| 10         | 16.10 | 8.80  | 8.19  | 45.94 | 43.62 | 42.80 | 18.35 | 12.40 | 12.40 | 12.60 | 9.92  | 9.21  | 209       | 238       | 326       |
| 12         | 18.94 | 10.12 | 9.61  | 53.23 | 49.25 | 50.28 | 20.87 | 15.75 | 12.40 | 15.75 | 11.50 | 10.71 | 280       | 331       | 463       |
| 14         | 21.02 | 10.12 | 10.51 | 58.90 | 56.10 | 54.02 | 24.02 | 15.75 | 12.40 | 19.09 | 12.91 | 12.01 | 401       | 452       | 520       |
| 16         | 23.43 | 11.02 | 11.02 | 68.5  | 63.74 | 60.24 | 27.17 | 24.80 | 15.75 | 19.09 | 14.88 | 13.86 | 594       | 650       | 723       |
| 18         | 25.16 | 12.44 | 12.60 | -     | 68.66 | 66.73 | 28.03 | -     | 15.75 | 21.26 | 16.93 | 15.43 | -         | 882       | 948       |
| 20         | 27.36 | 14.33 | 13.70 | -     | 88.19 | 72.44 | 31.54 | -     | 19.69 | 25.20 | 18.62 | 17.24 | -         | 1058      | 1246      |
| 24         | 32.09 | 14.88 | 16.06 | -     | -     | 85.83 | -     | -     | -     | 25.20 | 23.23 | 21.26 | -         | -         | 1438      |

Face to face dimensions (B) includes the counter / retainer flanges.



## Dimensions and Weights of the SKG-W (Wafer)



Dimensions (mm) and Weights (kg)

| Valve Size | A   | B1  | B2  | C   | D    | E    | F    | G   | H   | I   | J   | K   | L   | Weight MH | Weight BG | Weight AC |
|------------|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----------|-----------|-----------|
| 80         | 219 | 57  | 62  | 100 | 656  | -    | 564  | -   | 200 | -   | 160 | 83  | 78  | 20        | -         | 35        |
| 100        | 256 | 57  | 62  | 116 | 741  | -    | 675  | -   | 200 | -   | 106 | 106 | 100 | 24        | -         | 39        |
| 150        | 307 | 64  | 70  | 140 | 923  | 454  | 834  | 415 | 250 | 250 | 149 | 149 | 146 | 51        | 70        | 59        |
| 200        | 359 | 76  | 83  | 176 | 997  | 508  | 942  | 441 | 250 | 250 | 207 | 207 | 200 | 82        | 98        | 89        |
| 250        | 409 | 76  | 83  | 208 | 1198 | 1139 | 1118 | 466 | 315 | 315 | 251 | 251 | 248 | 68        | 90        | 130       |
| 300        | 481 | 83  | 90  | 244 | 1377 | 1276 | 1302 | 530 | 400 | 315 | 301 | 301 | 299 | 103       | 126       | 186       |
| 350        | 534 | 83  | 90  | 267 | 1544 | 1473 | 1420 | 610 | 400 | 315 | 348 | 348 | 346 | 145       | 169       | 200       |
| 400        | 595 | 96  | 103 | 280 | 1745 | 1709 | 1620 | 690 | 630 | 400 | 391 | 391 | 383 | 235       | 260       | 292       |
| 450        | 639 | 96  | 103 | 320 | -    | 1804 | 1755 | 712 | -   | 400 | 442 | 442 | 436 | -         | 350       | 380       |
| 500        | 695 | 121 | 131 | 348 | -    | 2310 | 1910 | 801 | -   | 500 | 490 | 490 | 486 | -         | 430       | 515       |
| 600        | 815 | 121 | 131 | 408 | -    | -    | 2260 | -   | -   | -   | 595 | 595 | 589 | -         | -         | 602       |

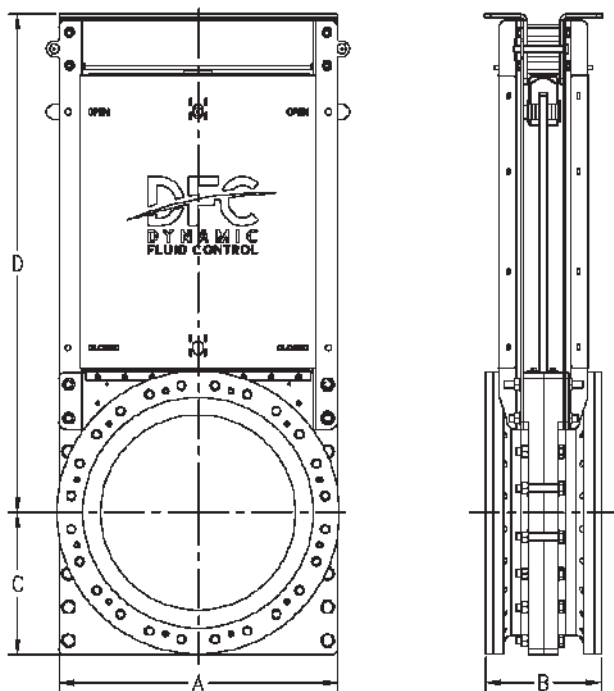
Dimensions (inches) and Weights (lbs)

| Valve Size | A     | B1   | B2   | C     | D     | E     | F     | G     | H     | I     | J     | K     | L     | Weight MH | Weight BG | Weight AC |
|------------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|
| 3          | 8.62  | 2.24 | 2.44 | 3.94  | 25.83 | -     | 22.20 | -     | 7.87  | -     | 6.30  | 3.27  | 3.07  | 44        | -         | 77        |
| 4          | 10.08 | 2.24 | 2.44 | 4.57  | 29.17 | -     | 26.57 | -     | 7.87  | -     | 8.86  | 4.17  | 3.94  | 53        | -         | 86        |
| 6          | 12.09 | 2.52 | 2.76 | 5.51  | 36.34 | 17.87 | 32.83 | 16.34 | 9.84  | 9.84  | 8.86  | 5.87  | 5.75  | 112       | 154       | 128       |
| 8          | 14.13 | 2.99 | 3.27 | 6.93  | 39.25 | 20.00 | 37.09 | 17.36 | 9.84  | 9.84  | 11.14 | 8.15  | 7.87  | 180       | 216       | 196       |
| 10         | 16.10 | 2.99 | 3.27 | 8.19  | 47.17 | 44.84 | 44.02 | 18.35 | 12.40 | 12.40 | 12.60 | 9.88  | 9.76  | 150       | 198       | 286       |
| 12         | 18.94 | 3.27 | 3.54 | 9.61  | 54.21 | 50.24 | 51.26 | 20.87 | 15.75 | 12.40 | 15.75 | 11.85 | 11.77 | 227       | 277       | 409       |
| 14         | 21.02 | 3.27 | 3.54 | 10.51 | 60.79 | 57.99 | 55.91 | 24.02 | 15.75 | 12.40 | 19.09 | 13.70 | 13.62 | 321       | 372       | 440       |
| 16         | 23.43 | 3.78 | 4.06 | 11.02 | 68.7  | 67.28 | 36.78 | 27.17 | 24.80 | 15.75 | 19.09 | 15.39 | 15.08 | 517       | 572       | 642       |
| 18         | 25.16 | 3.78 | 4.06 | 12.60 | -     | 71.02 | 69.09 | 28.03 | -     | 15.75 | 21.26 | 17.40 | 17.17 | -         | 770       | 836       |
| 20         | 27.36 | 4.76 | 5.16 | 13.70 | -     | 90.94 | 75.20 | 31.54 | -     | 19.69 | 25.20 | 19.29 | 19.13 | -         | 946       | 1133      |
| 24         | 32.09 | 4.76 | 5.16 | 16.06 | -     | -     | 88.98 | -     | -     | -     | 25.20 | 23.43 | 23.19 | -         | -         | 1324      |

B1 = installed face-to-face dimension, B2 = recommended installation allowance



## Dimensions and Weights of the SKG-LB (Large Bore)



**Note: For dimensions of valves equipped with pneumatic, electromechanical or hydraulic actuators, please consult the factory.**

| Dimensions (mm) and Weights (kg) |      |     |     |      |      |      |        |
|----------------------------------|------|-----|-----|------|------|------|--------|
| Valve Size                       | A    | B   | C   | D    | E    | F    | Weight |
| 700                              | 915  | 378 | 466 | 1635 | 690  | 640  | 830    |
| 750                              | 1060 | 395 | 530 | 1793 | 750  | 700  | 975    |
| 800                              | 1060 | 411 | 530 | 1895 | 790  | 740  | 1150   |
| 900                              | 1175 | 470 | 588 | 2088 | 890  | 840  | 1550   |
| 1000                             | 1290 | 537 | 645 | 2247 | 990  | 910  | 2525   |
| 1200                             | 1510 | 537 | 775 | 2720 | 1190 | 1100 | 3500   |

| Dimensions (inches) and Weights (lbs) |       |       |       |        |       |       |        |
|---------------------------------------|-------|-------|-------|--------|-------|-------|--------|
| Valve Size                            | A     | B     | C     | D      | E     | F     | Weight |
| 28                                    | 36.02 | 14.86 | 18.35 | 64.37  | 27.17 | 25.20 | 1830   |
| 30                                    | 41.73 | 15.55 | 20.87 | 70.59  | 29.53 | 27.56 | 2150   |
| 32                                    | 41.73 | 16.18 | 20.87 | 74.61  | 31.10 | 29.13 | 2535   |
| 36                                    | 46.26 | 18.50 | 23.15 | 82.20  | 35.04 | 33.07 | 3417   |
| 40                                    | 50.79 | 21.14 | 25.39 | 88.46  | 38.98 | 35.83 | 5567   |
| 48                                    | 59.45 | 21.14 | 30.51 | 107.09 | 46.85 | 43.31 | 7716   |

Face to face dimensions (B) includes the counter / retainer flanges.



## Thrust and Torque Figures for SKG

| SKG Valve Thrusts |                                  |       |       |       |       |       |       |       |       |       |
|-------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pressure          | PN1                              | PN2   | PN3   | PN4   | PN5   | PN6   | PN7   | PN8   | PN9   | PN10  |
| Size(DN)          | SKG Minimum Required Thrust (kN) |       |       |       |       |       |       |       |       |       |
| DN80              | 1.0                              | 1.2   | 1.4   | 1.6   | 1.8   | 2.0   | 2.2   | 2.4   | 2.6   | 2.8   |
| DN100             | 1.2                              | 1.5   | 1.8   | 2.1   | 2.4   | 2.7   | 3.0   | 3.3   | 3.6   | 3.9   |
| DN150             | 1.6                              | 2.2   | 2.9   | 3.6   | 4.3   | 5.0   | 5.6   | 6.3   | 7.0   | 7.7   |
| DN200             | 2.4                              | 3.6   | 4.8   | 6.0   | 7.3   | 8.5   | 9.7   | 10.9  | 12.1  | 13.3  |
| DN250             | 3.4                              | 5.3   | 7.2   | 9.1   | 11.0  | 12.9  | 14.8  | 16.7  | 18.6  | 20.5  |
| DN300             | 4.7                              | 7.4   | 10.1  | 12.8  | 15.6  | 18.3  | 21.0  | 23.7  | 26.5  | 29.2  |
| DN350             | 5.8                              | 9.5   | 13.2  | 16.9  | 20.6  | 24.3  | 28.0  | 31.7  | 35.4  | 39.1  |
| DN400             | 7.8                              | 12.6  | 17.4  | 22.3  | 27.1  | 31.9  | 36.8  | 41.6  | 46.5  | 51.3  |
| DN450             | 9.2                              | 15.3  | 21.4  | 27.6  | 33.7  | 39.8  | 45.9  | 52.1  | 58.2  | 64.3  |
| DN500             | 11.6                             | 19.2  | 26.8  | 34.3  | 41.9  | 49.4  | 57.0  | 64.6  | 72.1  | 79.7  |
| DN600             | 16.7                             | 27.6  | 38.5  | 49.4  | 60.3  | 71.2  | 82.1  | 92.9  | 103.8 | 114.7 |
| DN700             | 21.3                             | 36.1  | 50.9  | 65.7  | 80.5  | 95.3  | 110.2 | 125.0 | 139.8 | 154.6 |
| DN750             | 25.3                             | 42.3  | 59.3  | 76.3  | 93.3  | 110.3 | 127.3 | 144.3 | 161.8 | 178.3 |
| DN800             | 28.2                             | 47.5  | 66.9  | 86.2  | 105.6 | 124.9 | 144.3 | 163.6 | 183.0 | 202.3 |
| DN900             | 36.2                             | 60.7  | 85.2  | 109.7 | 134.2 | 158.6 | 183.1 | 207.6 | 232.1 | 256.6 |
| DN1000            | 45.5                             | 75.7  | 105.9 | 136.2 | 166.4 | 196.6 | 226.9 | 257.1 | 287.4 | 317.6 |
| DN1200            | 65.5                             | 109.0 | 152.6 | 196.1 | 239.7 | 283.2 | 326.8 | 370.3 | 413.8 | 457.4 |

| SKG Valve Torques |                                  |        |        |        |        |        |        |        |        |        |
|-------------------|----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Pressure          | PN1                              | PN2    | PN3    | PN4    | PN5    | PN6    | PN7    | PN8    | PN9    | PN10   |
| Size(DN)          | SKG Minimum Required Torque (Nm) |        |        |        |        |        |        |        |        |        |
| DN80              | 5.2                              | 6.2    | 7.2    | 8.1    | 9.1    | 10.1   | 11.0   | 12.0   | 13.0   | 13.9   |
| DN100             | 5.8                              | 7.3    | 8.8    | 10.3   | 11.8   | 13.4   | 14.9   | 16.4   | 17.9   | 19.4   |
| DN150             | 8.7                              | 12.4   | 16.2   | 20.0   | 23.8   | 27.5   | 31.3   | 35.1   | 38.8   | 42.6   |
| DN200             | 13.4                             | 20.1   | 26.8   | 33.5   | 40.2   | 46.9   | 53.6   | 60.3   | 67.0   | 73.7   |
| DN250             | 19.1                             | 29.6   | 40.0   | 50.5   | 61.0   | 71.5   | 81.9   | 92.4   | 102.9  | 113.3  |
| DN300             | 29.8                             | 47.1   | 64.4   | 81.7   | 99.0   | 116.3  | 133.6  | 150.9  | 168.2  | 185.6  |
| DN350             | 40.9                             | 67.2   | 93.4   | 119.6  | 145.9  | 172.1  | 198.3  | 224.6  | 250.8  | 277.0  |
| DN400             | 61.2                             | 99.5   | 137.7  | 175.9  | 214.2  | 252.4  | 290.6  | 328.8  | 367.1  | 405.3  |
| DN450             | 72.7                             | 121.1  | 169.5  | 217.9  | 266.3  | 314.6  | 363.0  | 411.4  | 459.8  | 508.2  |
| DN500             | 100.4                            | 165.6  | 230.8  | 295.9  | 361.1  | 426.3  | 491.5  | 556.7  | 621.9  | 687.1  |
| DN600             | 180.8                            | 298.4  | 416.1  | 533.7  | 651.3  | 768.9  | 886.5  | 1004.1 | 1121.7 | 1239.3 |
| DN700             | 168.0                            | 285.1  | 402.2  | 519.2  | 636.3  | 753.4  | 870.5  | 987.5  | 1104.6 | 1221.7 |
| DN750             | 217.9                            | 364.5  | 511.2  | 657.9  | 804.6  | 951.3  | 1097.9 | 1244.6 | 1391.3 | 1538.0 |
| DN800             | 242.8                            | 409.7  | 576.6  | 743.5  | 910.4  | 1077.2 | 1244.1 | 1411.0 | 1577.9 | 1744.8 |
| DN900             | 341.6                            | 572.9  | 804.2  | 1035.5 | 1266.8 | 1498.1 | 1729.3 | 1960.6 | 2191.9 | 2423.2 |
| DN1000            | 491.1                            | 817.8  | 1144.5 | 1471.2 | 1797.9 | 2124.5 | 2451.2 | 2777.9 | 3104.6 | 3431.3 |
| DN1200            | 832.3                            | 1385.6 | 1938.8 | 2492.1 | 3045.4 | 3598.6 | 4151.9 | 4705.1 | 5258.4 | 5811.7 |

## Applications

In-house developed and manufactured sleeves and elastomers, coupled with more than 40 years' experience in polymer and rubber technology, ensure consistent quality and superior abrasion resistance in a wide range of mineral processing applications.

INSAMCOR's range of elastomers have a proven track record and were developed to maximize rebound resilience and elastic recovery to improve abrasion resistance and sealing performance in mineral processing slurries.

The INSAMCOR SKG was developed and refined in conjunction with mineral processing end-users to solve the problems typically experienced in harsh mining conditions.

DFC has one of the largest installed bases of mineral processing valves in the world and manufacturing facilities in South Africa, Finland and the USA. With sales and support facilities in Australia, North and South America, Europe, Asia, the Middle East and Africa, DFC's staff and agents are readily available and committed to solving your problems and providing you with the best possible service wherever your business is located.

INSAMCOR SKGs are used in a wide array of industries and applications. Examples include:

### Mining Industry

- ✎ Grinding
- ✎ Size separation - hydro cyclones
- ✎ Process water
- ✎ Flotation
- ✎ Thickening
- ✎ Tailings discharge
- ✎ Water reclamation

### Coal Fired Power Plants

- ✎ Lime slurry
- ✎ Fly ash slurry
- ✎ Scrubber slurry
- ✎ Bottom ash
- ✎ FGD systems

### Other industries

- ✎ Coal washing
- ✎ Steel
- ✎ Cement
- ✎ Chemical
- ✎ Phosphates



Platinum Slurry



IsaMill™ Inlet



Uranium Slurry



Coal Washing Plant



## Elastomer Qualities Selection

| Elastomer Type                     | Natural Rubber  | Ethylene Propylene   | Fluorocarbon  | Nitrile   |
|------------------------------------|---|--|---|---|
| Abbreviation                       | NR  | EPDM   | FKM/FPM   | NBR   |
| Max continuous operating temp. (F) | 190   | 300  | 390   | 200   |
| Max continuous operating temp. (C) | 88  | 149  | 199   | 93  |
| Abrasion resistance                | Excellent   | Very Good  | Good  | Good  |
| Generally resistant to             | Moderate Chemicals, Organic Acids, Alcohols, Ketones, Aldehydes | Animal and Vegetable oils, Ozone, Strong & Oxidizing Chemicals | All Aliphatic, Aromatic & Halogenated Hydrocarbons, Acids, Oils | Many Hydrocarbons, Fats, Oils, Greases, Hydraulic Fluids, Chemicals |
| Generally attacked by              | Ozone, Strong Acids, Fats, Oils, Greases, Most Hydrocarbons     | Mineral Oils & Solvents, Aromatic Hydrocarbons                 | Ketones, Esters & Nitro containing compounds                    | Ozone, Ketones, Esters, Aldehydes, Chlorinated & Nitro Hydrocarbons |

## Other DFC World Class Performance Related Valves

### RF Valve® and aiRFlex® pinch valves

The world's most complete line of pinch valves in standard ASME/ANSI B16, DIN and ISO face-to-face dimensions from 1" to 60" (DN25 to DN1500).

- ✓ Patented non-stretch, anti-stress folds in all elastomer tubes
- ✓ In-line elastomer tube change capability without removing the valve from the pipeline
- ✓ Most advanced wear sensing technology for preventative maintenance alert



### Insamcor® MH and MLB slurry valves

Bi-directional wafer mono-flange knife gate valves suitable for end-of-line installation

- ✓ Combination primary transverse seal and secondary stuffing box seal for severe applications
- ✓ Mechanically retained moulded seat with no seat pockets
- ✓ MH sizes 2" to 24" (DN50 to DN600)
- ✓ MLB sizes 28" to 48" (DN700 to DN1200)



### Insamcor® LW semi-lugged slurry valves

Bi-directional wafer semi-lugged knife gate valve designed for slurry applications.

- ✓ Stuffing box seal to atmosphere
- ✓ Mechanically retained moulded seat with no seat pockets
- ✓ Self-cleaning flush out corners prevent slurry build-up in sealing area
- ✓ Easy mounting of proximity or limit switches
- ✓ Sizes 2" to 24" (DN50 to DN600)



### Saunders® A Type and KB Type diaphragm valves

Simplicity in design coupled with more than 75 years of cutting edge innovation has resulted in the Saunders diaphragm's ability to handle a wider range of fluids than any other valve type.

- ✓ Available in weir and straight through type
- ✓ Available in either flanged or screwed ends
- ✓ Various lining and diaphragm material options

DFC manufactures this range under license from CPFT Ltd and is only available in selected African countries



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