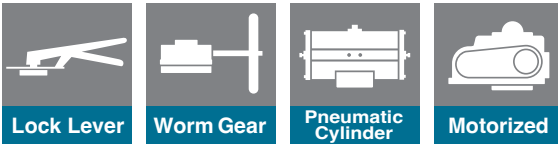
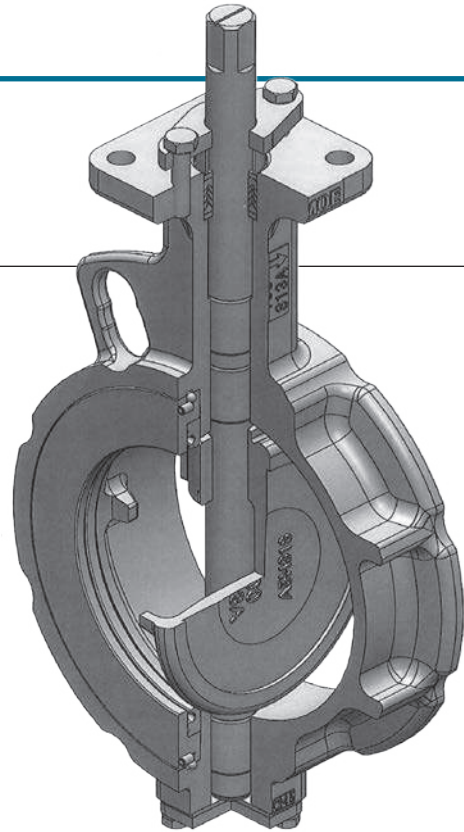


304YA Wafer



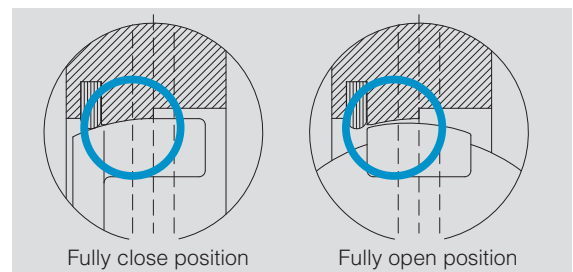
Features and Benefits

Weight saving

30% weight saving with suitable design of 1.0MPa
(compared with existing 304Y 300mm)

Self aligning disc design

Contact area of the body and the disc is spherical.
These spherical centers are displaced. When valve position
is fully close, these surfaces are attached. When valve
position is fully open, there is a clearance between the body
and the disc. It can get both of smooth rotation and seal
performance.



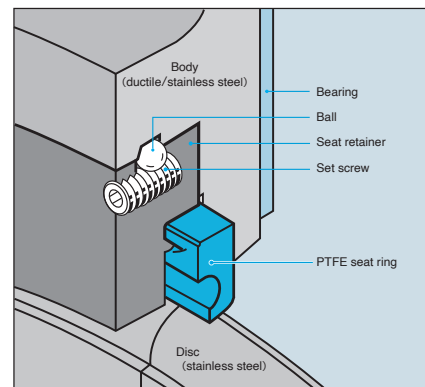
Applicable for hot/cold water supply

Low temperature range expansion

Change from -20 degrees C to -29 degrees C

Easy replacement of the seat ring

The ball lock method is used to simplify replacement of the
seat ring.



Standard Specifications

| | | | |
|----------------------------------|-------------------------|--|--|
| Valve Model | | 304YA | |
| Valve type | | Double eccentric (Water) | |
| Valve nominal size | | 40, 50, 65, 80, 100, 125, 150, 200, 250, 300mm 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12inch | |
| Max. allowable working pressure | | 1.0MPa | |
| Allowable seat leakage | | ISO 5208 leakage A (Tight shut off) | |
| Flow direction | | Bi-directional Standard direction of pressurization : Retainer side Maximum pressure on shaft side (200mm to 300mm) : 0.6MPa | |
| Applicable standards | Face to face dimensions | JIS B 2002 (Series46) / ISO 5752 (Series20) | |
| | Flange accommodation | JIS 5K / 10K / ASME Class 150 | |
| | Top flange | In compliance with ISO 5211 | |
| Standard Materials ^{※1} | Body | FCD450 | SCS13A |
| | Disc | SCS13A | |
| | Shaft | SUS420J2 | SUS630 (H1150) |
| | Seating | RPTFE (Carbon and graphite contained) | |
| | Seating retainer | SF490A ^{※2} or S25C or S45C | SCS13A ^{※2} or SUS304 |
| | Shaft bearing | PTFE+ SS400 | PTFE+ SUS316L |
| | Bottom gasket | #8121 or T#1215-A Expanded graphite (Low temperature : -29°C~200°C V#7020) | |
| | Gland packing | RPTFE (Graphite contained) | |
| Maximum Temperature Range | | FCD450 body: -20°C or over ~ less than 200°C | SCS13A body: -29°C or over ~ less than 200°C |
| Test pressure | Body Shell | working pressure × 1.5 (Hydraulic pressure) | |
| | Seat leak | working pressure × 1.1 (Pneumatic pressure) | |
| Actuators | Lock lever | 1T | 40 to 150mm (1 1/2 to 6inch) |
| | | 2U | 40 to 300mm (1 1/2 to 12inch) |
| | Worm gear | 7E | 40 to 300mm (1 1/2 to 12inch) |
| | | 7F, 7G | 40 to 200mm (1 1/2 to 8inch) |
| | | 3U, 3K | 250, 300mm (10, 12inch) |
| | Motorized | 4I | 40 to 300mm (1 1/2 to 12inch) |
| 4J | | 40 to 300mm (1 1/2 to 12inch) | |
| Fluid types | | Air Gas, Hot air, Water, Chemical solution, Steam | |
| Surface treatment | Body | FCD450 only : nitriding treatment | |
| | Disc | Hard chrome plating | |
| | Seating retainer | SF490A ^{※2} or S25C or S45C : Alkaline blackening | |
| Coating | | Silicon resin coating (Grey N7) for 200 degrees C or lower. Heat resistant silver coating for over 200 degrees C. No painting for stainless steel. | |

※1. The parts that use properly by body material and specification, please refer to the Following table.

※2. In case of 40mm

Case of SCS body : Material is SCS13A only. (Common parts is 304Y)

Case of FCD body : Material is SF490A only. (Common parts is 304Y)

※ There is possibility of seat leakage when fluid (powder/liquid) is solidified by working temperature and other cause, especially the valve is in a vertical position(e.g. at the bottom area of discharge spout of hopper and tank). Please consult us.

| Specification | Body's Material | Temperature range | Parts material | | | | |
|------------------------|-----------------|-------------------|----------------|---|----------------------|-----------------------------------|--------|
| | | | Shaft | Seating | Bottom gasket | Grand packing | |
| for Standard | SCS13A | 0°C to 200°C | SUS630 | RPTFE: (Carbon and graphite contained) | #8121 or T#1215-A | RPTFE: (Graphite contained) | |
| | FCD450 | | SUS420J2 | | V#7020 | | |
| for Low Temperature | SCS13A | -29°C to 200°C | SUS630 | | | | V#7020 |
| | FCD450 | -20°C to 200°C | SUS420J2 | | | | |

Butterfly
Valve

TRITEC

TT2

334A

344Q

302A/303Q

304A/304Q

304YA

302Y/304Y

304M

(HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

72WG/72SG/72LG

731P/732P/

732Q/752W

731R

700E/700K/700S

704G/722F/720F

227P

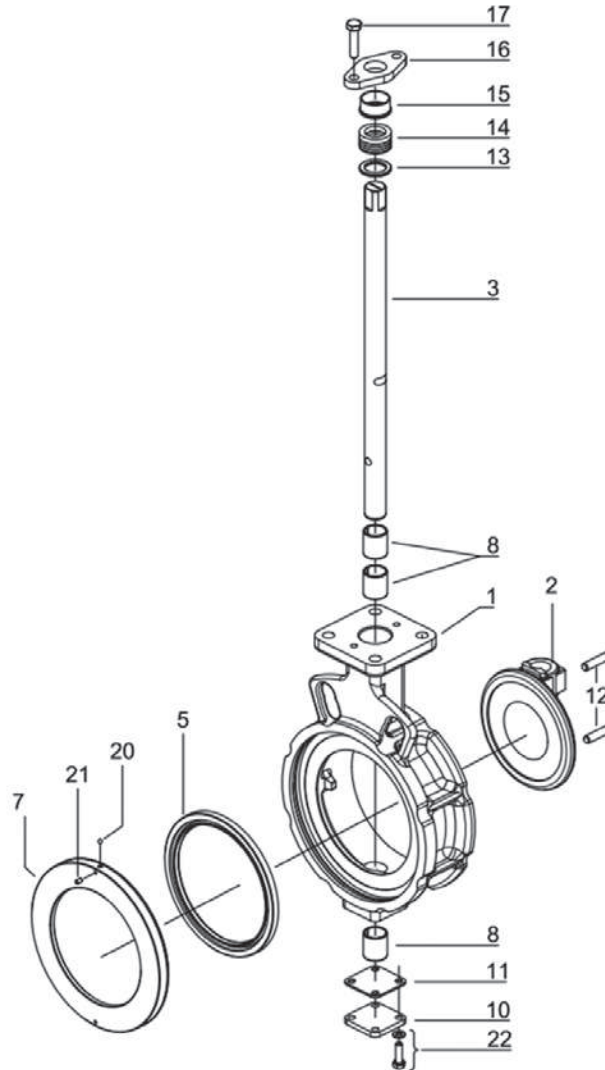
907T/908H

(MKT)

903L/901C/

905C(Bata-check)

304YA Expanded view of components



304YA Parts list

304YA Parts list

| No. | Description | Q'ty | Remarks |
|------|-----------------------------|-------|----------------|
| 1 | Body | 1 | |
| 2 | Disc | 1 | |
| 3 | Shaft | 1 | |
| ★ 5 | Seatring | 1 | |
| 7 | Seatring retainer | 1 | |
| 8 | Shaft bearing | 3 | |
| 10 | Bottom cover | 1 | |
| ★ 11 | Bottom gasket | 1 | |
| 12 | Taper pin | 2 | |
| 13 | Packing retainer | 1 | |
| ★ 14 | Gland packing | 1 set | |
| 15 | Rough gland | 1 set | |
| 16 | Gland flange | 1 | |
| 17 | Hxagon bolt | 2 | |
| ★ 20 | Ball | 2 | 40mm to 100mm |
| | | 3 | 125mm to 300mm |
| ★ 21 | Hexagon socket set screw | 2 | 40mm to 100mm |
| | | 3 | 125mm to 300mm |
| 22 | Hexagon bolt, Spring washer | 4 | |

Remark: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove set screws (Part #21 Set screw).

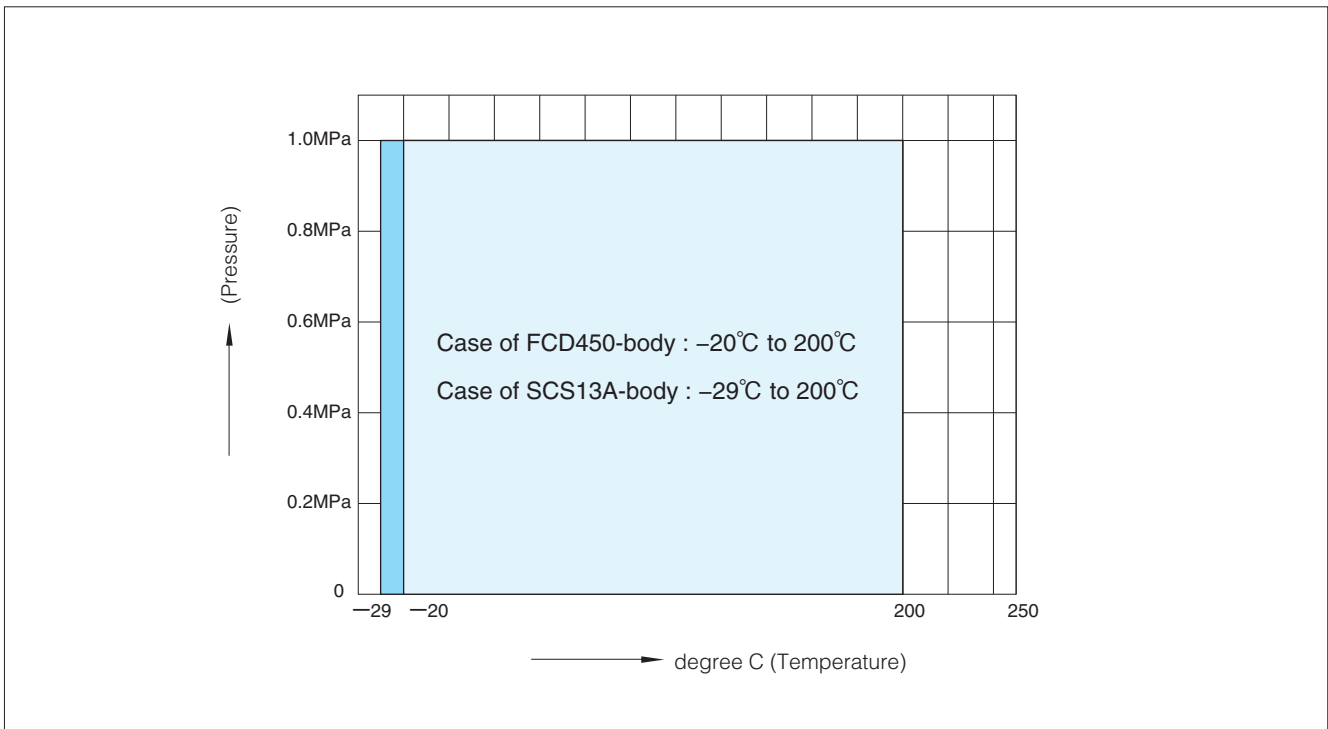
304YA Actuator selection chart

304YA

| Model | Size (mm/inch) | | | | | | | | | | | |
|-------|----------------|------|-------|------|-------|---------|--------|---------|------|-----|--|--|
| | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | | |
| | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | | |
| 1T | 1T-1 | | | | | 1T-2 | | | | | | |
| 2U | 2U-0 | 2U-1 | | | 2U-2 | | | 2U-3 | 2U-4 | | | |
| 7E | T35 | | T85 | | T200 | | T380 | | T750 | | | |
| 7G,7F | T85S | | T200S | | T380S | T750S | | | | | | |
| 3U,3K | TG-12S | | | | | | | | | | | |
| 4I | 4I-0 | | | 4I-1 | 4I-2 | | 4I-2.5 | | 4I-3 | | | |
| 4J | SRJ-010 | | | | | SRJ-020 | | SRJ-060 | | | | |

| |
|-----------------------------|
| Butterfly Valve |
| TRITEC |
| TT2 |
| 334A |
| 344Q |
| 302A/303Q |
| 304A/304Q |
| 304YA |
| 302Y/304Y |
| 304M (HLV) |
| 507V/508V |
| DTM |
| 846T/847T/847Q |
| 841T/842T |
| 700Z |
| 700G/704G/705G |
| 72WG/72SG/72LG |
| 731P/732P/732Q/752W |
| 731R |
| 700E/700K/700S |
| 704G/722F/720F |
| 227P |
| 907T/908H (MKT) |
| 903L/901C/905C (Bata-check) |

304YA Pressure and temperature rating



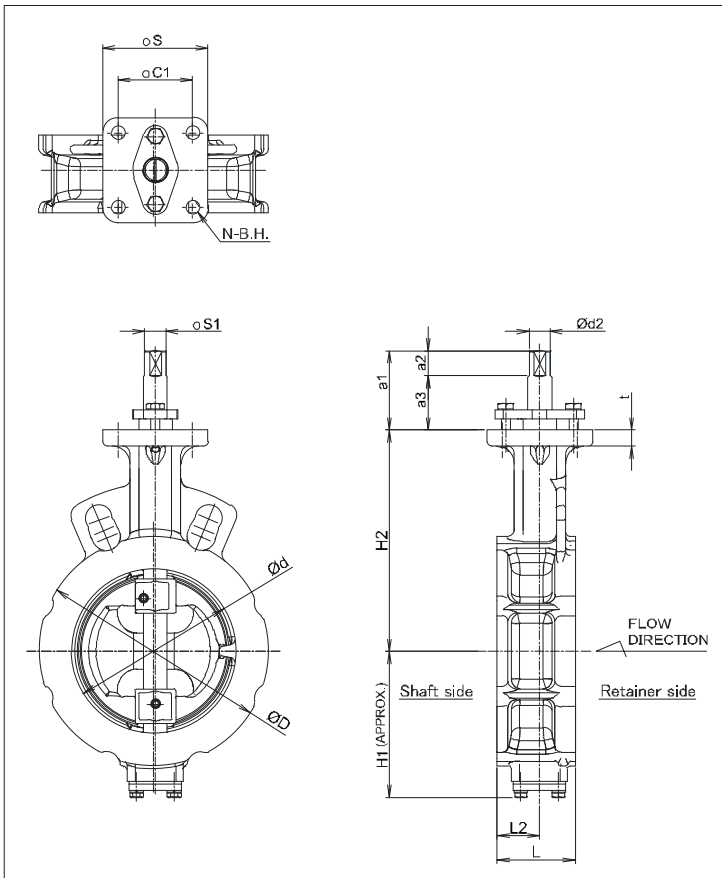
Tom Disco® 304YA

304YA Bare shaft

■ 304YA-01

| Nominal size | | Dimension (mm) | | | | | | | | | | | | | Approx. Mass (kg) | |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|----------------|------------|---------------|----|-------------|-------------------|----------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | a ₁ | a ₂ | a ₃ | ϕd_2 | $\square S_1$ | t | Flange type | SCS-body | FCD-body |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 46.5 | 10.5 | 36 | 10 | 8 | 11 | F07 | 1.7 | 1.6 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 46.5 | 10.5 | 36 | 10 | 8 | 11 | F07 | 2.3 | 2.1 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 46.5 | 10.5 | 36 | 12 | 10 | 11 | F07 | 3.0 | 2.8 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 47.5 | 11.5 | 36 | 14 | 12 | 11 | F07 | 3.5 | 3.2 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 52.5 | 16.5 | 36 | 16 | 14 | 11 | F07 | 4.6 | 4.3 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 52.5 | 16.5 | 36 | 18 | 14 | 13 | F10 | 7.1 | 6.7 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 52.5 | 16.5 | 36 | 20 | 16 | 13 | F10 | 8.9 | 8.4 |
| 200 | 8 | 213 | 257 | 62 | 30.8 | 156 | 212 | 55 | 20 | 35 | 22 | 18 | 13 | F10 | 12.3 | 11.6 |
| 250 | 10 | 263 | 322 | 70 | 33.3 | 184 | 243 | 60 | 30 | 30 | 28 | 24 | 13 | F10 | 21.0 | 19.9 |
| 300 | 12 | 315 | 367 | 80 | 40.8 | 213 | 290 | 63 | 30 | 33 | 30 | 24 | 16 | F12 | 28.2 | 26.8 |

■ 304YA-01



■ Top flange

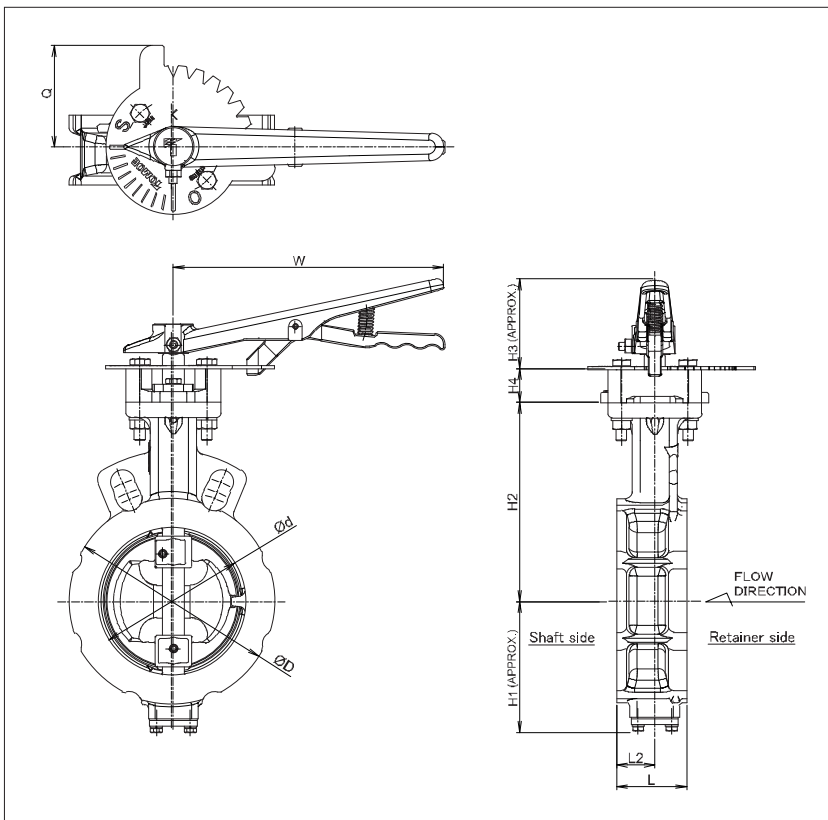
| Flange type | $\square S$ | ϕC_1 | N | B.H. |
|-------------|-------------|------------|---|------|
| F07 | 70 | 49.5 | 4 | 9 |
| F10 | 102 | 72.1 | 4 | 11 |
| F12 | 125 | 88.4 | 4 | 13 |

Lock lever type 304YA-1T (40mm to 150mm)

■ 304YA-1T

| Nominal size | | Dimension (mm) | | | | | | | | | | Lever type | Approx. Mass (kg) |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|------|-----|------------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | Q | W | | |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 66 | 25 | 75 | 200 | 1T-1 | 2.8 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 66 | 25 | 75 | 200 | 1T-1 | 3.3 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 66 | 25 | 75 | 200 | 1T-1 | 4.1 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 66 | 25 | 75 | 200 | 1T-1 | 4.5 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 66 | 25 | 75 | 200 | 1T-1 | 5.7 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 92 | 25 | 87.5 | 300 | 1T-2 | 9.3 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 92 | 25 | 87.5 | 300 | 1T-2 | 11.1 |

■ 304YA-1T



■ 1T Installation direction

| | | | |
|--|--|--|--|
| <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> |
| 1TA | 1TB | 1TC | 1TD |

| |
|------------------------------------|
| Butterfly Valve |
| TRITEC |
| TT2 |
| 334A |
| 344Q |
| 302A/303Q |
| 304A/304Q |
| 304YA |
| 302Y/304Y |
| 304M (HLV) |
| 507V/508V |
| DTM |
| 846T/847T/847Q |
| 841T/842T |
| 700Z |
| 700G/704G/705G |
| 72WG/72SG/72LG |
| 731P/732P/732Q/752W |
| 731R |
| 700E/700K/700S |
| 704G/722F/720F |
| 227P |
| 907T/908H (MKT) |
| 903L/901C/905C (Bata-check) |

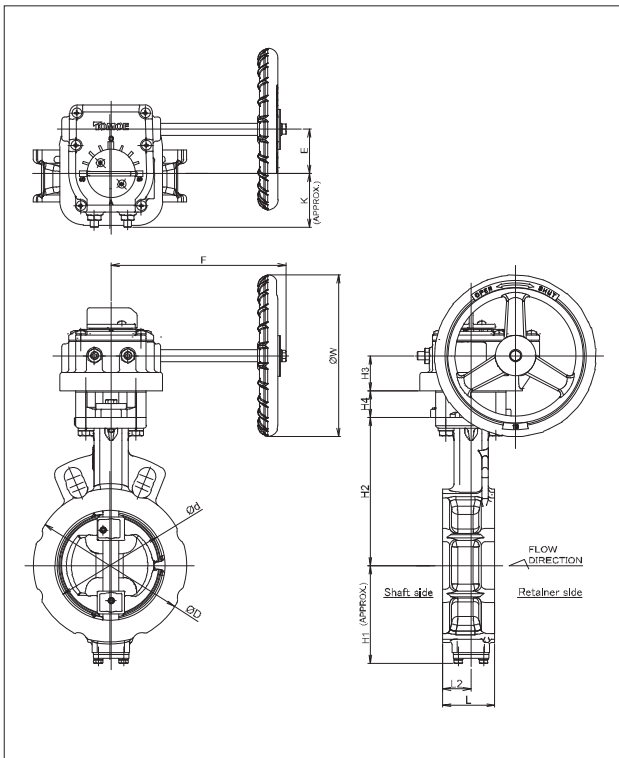
Tom Disco® 304YA

Worm gear type 304YA-2U(40mm to 300mm)

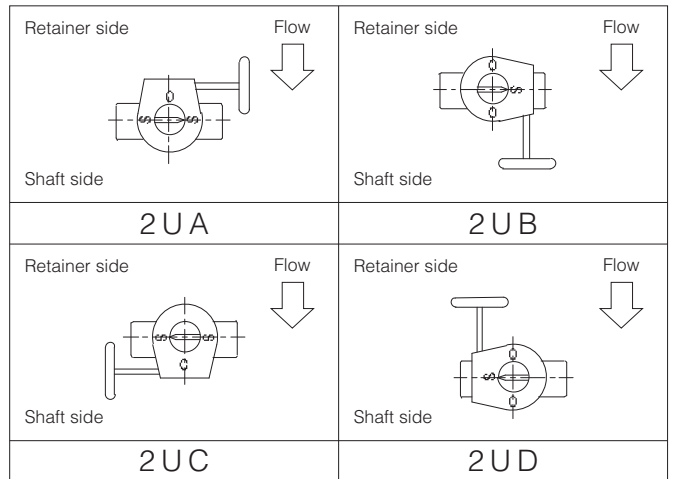
304YA-2U (40mm to 300mm)

| Nominal size | | Dimension (mm) | | | | | | | | | | | | Gear type | Approx. Mass (kg) |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|------|----|-------|----------|-----------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | E | K | F | ϕW | | |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 29.5 | 26.5 | 36 | 46 | 160 | 100 | 2U-0 | 4.3 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 29.5 | 26.5 | 36 | 46 | 160 | 100 | 2U-0 | 4.9 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 29.5 | 26.5 | 36 | 46 | 160 | 100 | 2U-1 | 5.6 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 29.5 | 26.5 | 36 | 46 | 160 | 100 | 2U-1 | 6.1 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 34.5 | 26.5 | 44 | 53 | 173.5 | 160 | 2U-2 | 9.1 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 34.5 | 26.5 | 44 | 53 | 173.5 | 160 | 2U-2 | 12.0 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 34.5 | 26.5 | 44 | 53 | 173.5 | 160 | 2U-2 | 13.8 |
| 200 | 8 | 213 | 257 | 62 | 30.8 | 156 | 212 | 41.5 | 26.5 | 67 | 75 | 198 | 200 | 2U-3 | 20.8 |
| 250 | 10 | 263 | 322 | 70 | 33.3 | 184 | 243 | 41.5 | 26.5 | 67 | 75 | 198 | 200 | 2U-3 | 29.5 |
| 300 | 12 | 315 | 367 | 80 | 40.8 | 213 | 290 | 48.0 | 29.5 | 87.5 | 90 | 222.5 | 200 | 2U-4 | 45.6 |

304YA-2U



2U Installation direction

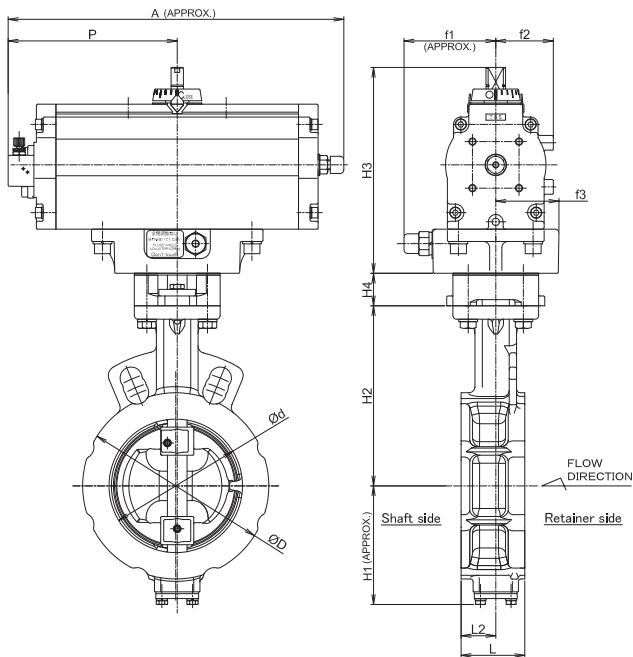


Double-acting pneumatic cylinder type 304YA-7E (40mm to 300mm)

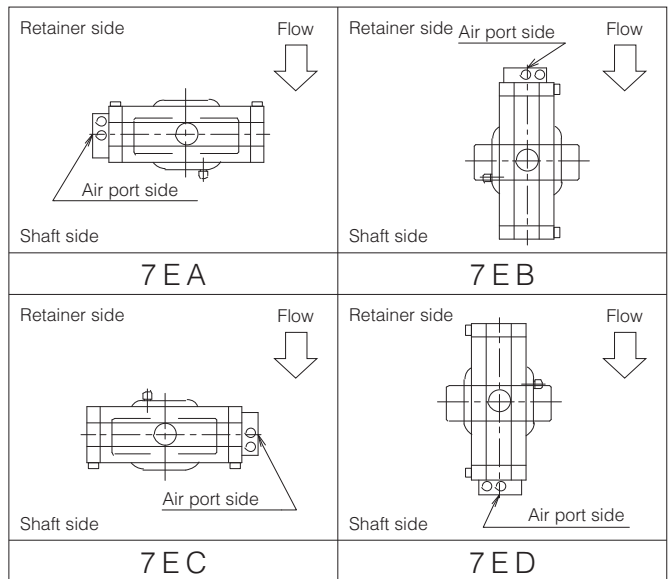
■304YA-7E

| Nominal size | | Dimension (mm) | | | | | | | | | | | | | Cylinder type | Approx. Mass (kg) |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|-----|-----|----------------|----------------|----------------|---------------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | A | P | f ₁ | f ₂ | f ₃ | | |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 125 | 26.5 | 228 | 116 | 57 | 29 | 35 | T35 | 3.8 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 125 | 26.5 | 228 | 116 | 57 | 29 | 35 | T35 | 4.4 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 125 | 26.5 | 228 | 116 | 57 | 29 | 35 | T35 | 5.1 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 168 | 26.5 | 276 | 142 | 75 | 47 | 51 | T85 | 8.5 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 168 | 26.5 | 276 | 142 | 75 | 47 | 51 | T85 | 9.6 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 203 | 26.5 | 346 | 176 | 79 | 57 | 51 | T200 | 15.8 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 203 | 26.5 | 346 | 176 | 79 | 57 | 51 | T200 | 17.6 |
| 200 | 8 | 213 | 257 | 62 | 30.8 | 156 | 212 | 231 | 26.5 | 426 | 214 | 91 | 69 | 62.5 | T380 | 27.1 |
| 250 | 10 | 263 | 322 | 70 | 33.3 | 184 | 243 | 231 | 26.5 | 426 | 214 | 91 | 69 | 62.5 | T380 | 35.8 |
| 300 | 12 | 315 | 367 | 80 | 40.8 | 213 | 290 | 269 | 29.5 | 546 | 270 | 118 | 85 | 70 | T750 | 53.6 |

■304YA-7E



■7E Installation direction



| |
|-----------------------------|
| Butterfly Valve |
| TRITEC |
| TT2 |
| 334A |
| 344Q |
| 302A/303Q |
| 304A/304Q |
| 304YA |
| 302Y/304Y |
| 304M (HLV) |
| 507V/508V |
| DTM |
| 846T/847T/847Q |
| 841T/842T |
| 700Z |
| 700G/704G/705G |
| 72WG/72SG/72LG |
| 731P/732P/732Q/752W |
| 731R |
| 700E/700K/700S |
| 704G/722F/720F |
| 227P |
| 907T/908H (MKT) |
| 903L/901C/905C (Bata-check) |

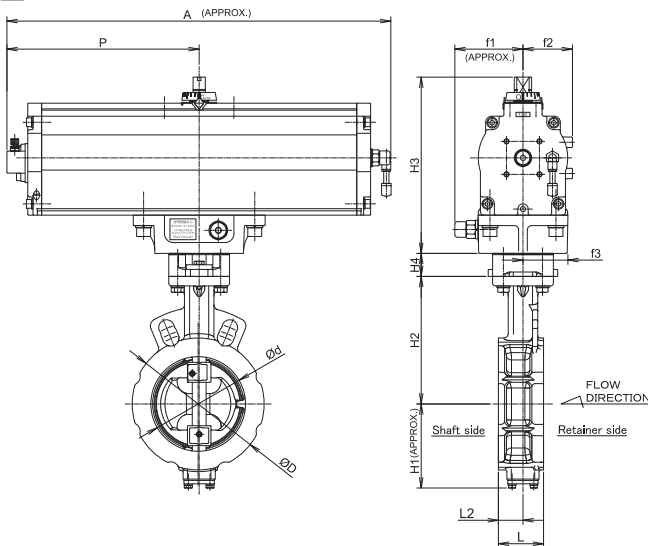
Tom Disco® 304YA

Single-acting pneumatic cylinder type 304YA-7G (Air to open: 40mm to 200mm) / 304YA-7F (Air to close: 40mm to 200mm)

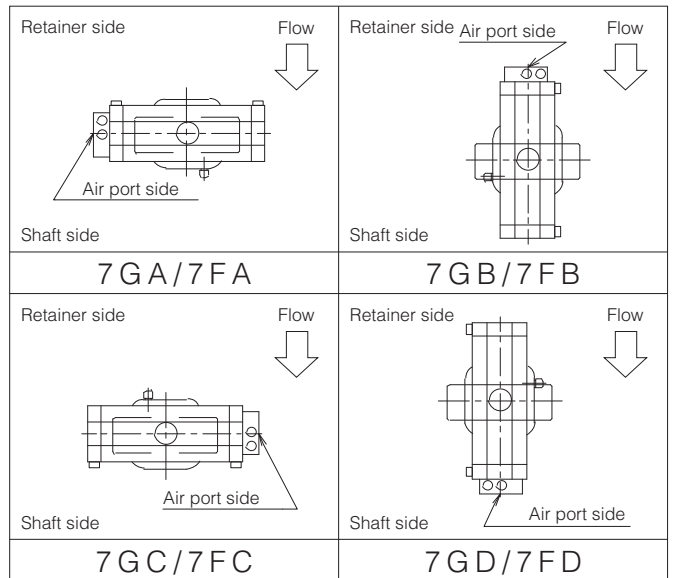
304YA-7G/7F

| Nominal size | | Dimension (mm) | | | | | | | | | | | | | Cylinder type | Approx. Mass (kg) |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|-------|-------|----------------|----------------|----------------|---------------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | A | P | f ₁ | f ₂ | f ₃ | | |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 168 | 26.5 | 363.5 | 182.5 | 75 | 47 | 51 | T85S | 8.3 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 168 | 26.5 | 363.5 | 182.5 | 75 | 47 | 51 | T85S | 8.9 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 168 | 26.5 | 363.5 | 182.5 | 75 | 47 | 51 | T85S | 9.6 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 203 | 26.5 | 448.5 | 225.5 | 79 | 57 | 51 | T200S | 14.6 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 203 | 26.5 | 448.5 | 225.5 | 79 | 57 | 51 | T200S | 15.7 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 231 | 26.5 | 549.5 | 276 | 91 | 69 | 62.5 | T380S | 26.8 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 269 | 26.5 | 722.5 | 359.5 | 118 | 85 | 70 | T750S | 42.1 |
| 200 | 8 | 213 | 257 | 62 | 30.8 | 156 | 212 | 269 | 26.5 | 722.5 | 359.5 | 118 | 85 | 70 | T750S | 45.5 |

304YA-7G/7F



7G/7F Installation direction

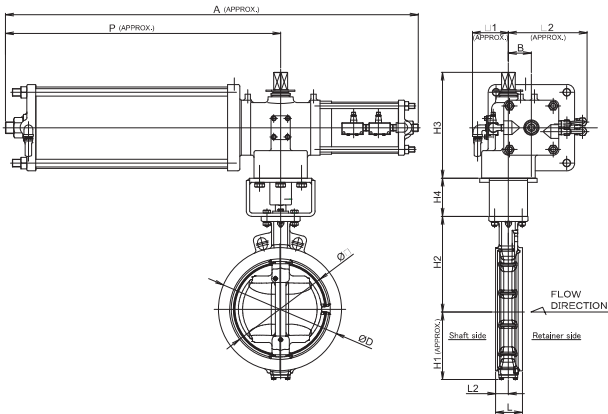


Single-acting pneumatic cylinder type 304YA-3U (Air to open: 250mm to 300mm) / 304YA-3K (Air to close: 250mm to 300mm)

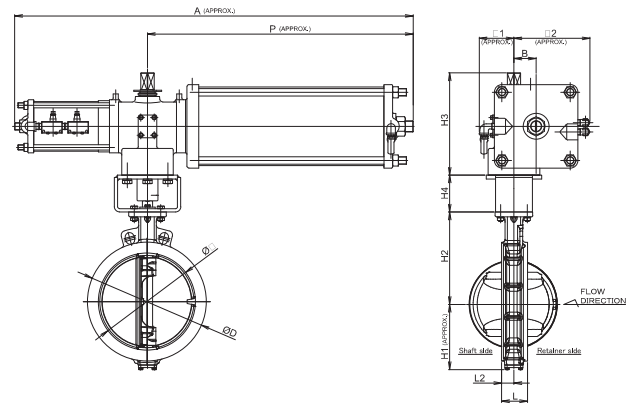
■ 304YA-3U/3K

| Nominal size | | Dimension (mm) | | | | | | | | | | | | | Cylinder type | Approx. Mass (kg) |
|--------------|------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|------|-----|----|----------------|----------------|---------------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | A | P | B | f ₁ | f ₂ | | |
| 250 | 10 | 263 | 322 | 70 | 33.3 | 184 | 243 | 277 | 100 | 1080 | 720 | 60 | 94 | 206 | TG-12S | 122 |
| 300 | 12 | 315 | 367 | 80 | 40.8 | 213 | 290 | 277 | 100 | 1080 | 720 | 60 | 94 | 206 | TG-12S | 130 |

■ 304YA-3U



■ 304YA-3K



■ 3U Installation direction

| | | | |
|---|---|---|---|
| <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 U A</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 U B</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 U C</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 U D</p> |
|---|---|---|---|

■ 3K Installation direction

| | | | |
|---|---|---|---|
| <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 K A</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 K B</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 K C</p> | <p>Retainer side</p> <p>Flow</p> <p>Shaft side</p> <p>3 K D</p> |
|---|---|---|---|

Butterfly Valve

TRITEC

TT2

334A

344Q

302A/303Q

304A/304Q

304YA

302Y/304Y

304M

(HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

72WG/72SG/72LG

731P/732P/

732Q/752W

731R

700E/700K/700S

704G/722F/720F

227P

907T/908H

(MKT)

903L/901C/

905C (Bata-check)

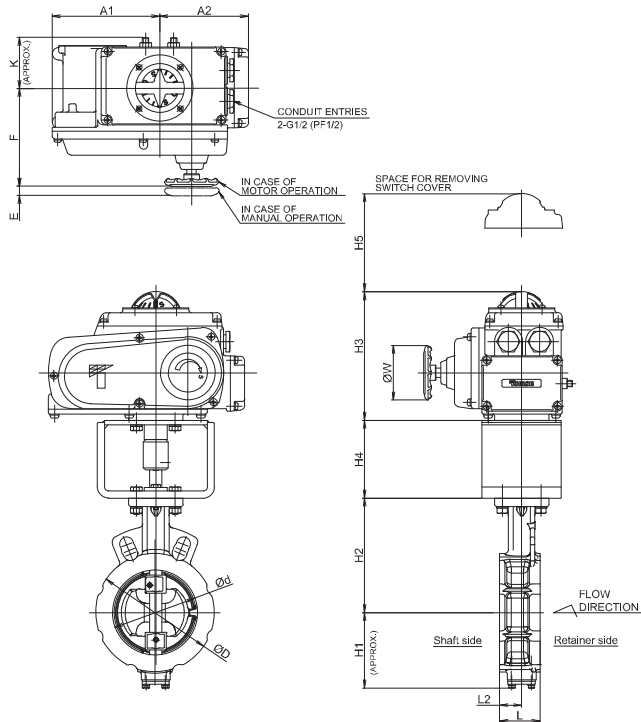
Tom Disco® 304YA

Single phase electric motor type 304YA-4 I (40mm to 300mm)

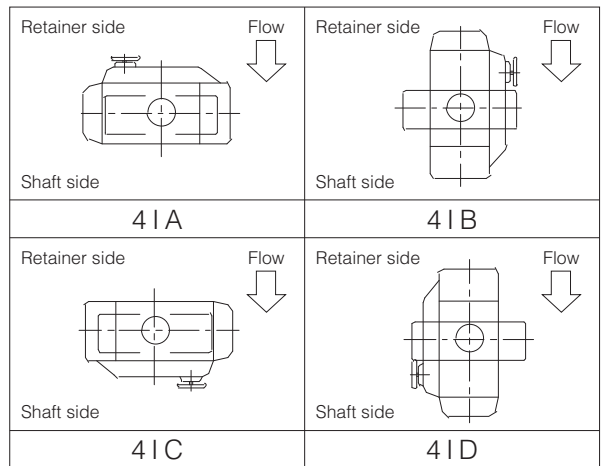
304YA-4 I

| Nominal size | | Dimension (mm) | | | | | | | | | | | | | | | Motor type | Approx. Mass (kg) |
|--------------|-------|----------------|----------|----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|------|------|----------|------------|-------------------|
| mm | inch | ϕd | ϕD | L | L ₂ | H ₁ | H ₂ | H ₃ | H ₄ | H ₅ | A ₁ | A ₂ | F | K | E | ϕW | | |
| 40 | 1 1/2 | 48 | 81 | 33 | 15 | 57 | 106 | 150 | 100 | 100 | 100 | 102 | 85 | 53.8 | 43 | — | NEL-0 | 9.3 |
| 50 | 2 | 59 | 96 | 43 | 25.4 | 67 | 114 | 150 | 100 | 100 | 100 | 102 | 85 | 53.8 | 43 | — | NEL-0 | 9.9 |
| 65 | 2 1/2 | 73 | 115 | 46 | 27.4 | 75 | 125 | 150 | 100 | 100 | 100 | 102 | 85 | 53.8 | 43 | — | NEL-0 | 10.6 |
| 80 | 3 | 87 | 127 | 46 | 24.5 | 83 | 132 | 150 | 100 | 100 | 100 | 102 | 85 | 53.8 | 43 | — | NEL-0 | 11.1 |
| 100 | 4 | 109 | 152 | 52 | 28.3 | 97 | 147 | 165 | 100 | 100 | 138 | 114 | 126 | 65 | 12 | 70 | NEL-1 | 14.4 |
| 125 | 5 | 137 | 183 | 56 | 30.1 | 111 | 166 | 198 | 100 | 100 | 167 | 143 | 154 | 85 | 14 | 100 | NEL-2 | 22.3 |
| 150 | 6 | 163 | 211 | 57 | 28.9 | 129 | 181 | 198 | 100 | 100 | 167 | 143 | 154 | 85 | 14 | 100 | NEL-2 | 24.6 |
| 200 | 8 | 213 | 257 | 62 | 30.8 | 156 | 212 | 198 | 175 | 100 | 167 | 143 | 154 | 85 | 14 | 100 | NEL-2.5 | 33.6 |
| 250 | 10 | 263 | 322 | 70 | 33.3 | 184 | 243 | 198 | 175 | 100 | 167 | 143 | 154 | 85 | 14 | 100 | NEL-2.5 | 42.3 |
| 300 | 12 | 315 | 367 | 80 | 40.8 | 213 | 290 | 230 | 175 | 100 | 223 | 98.5 | 245.5 | 136 | 22.5 | 200 | NEL-3 | 59.9 |

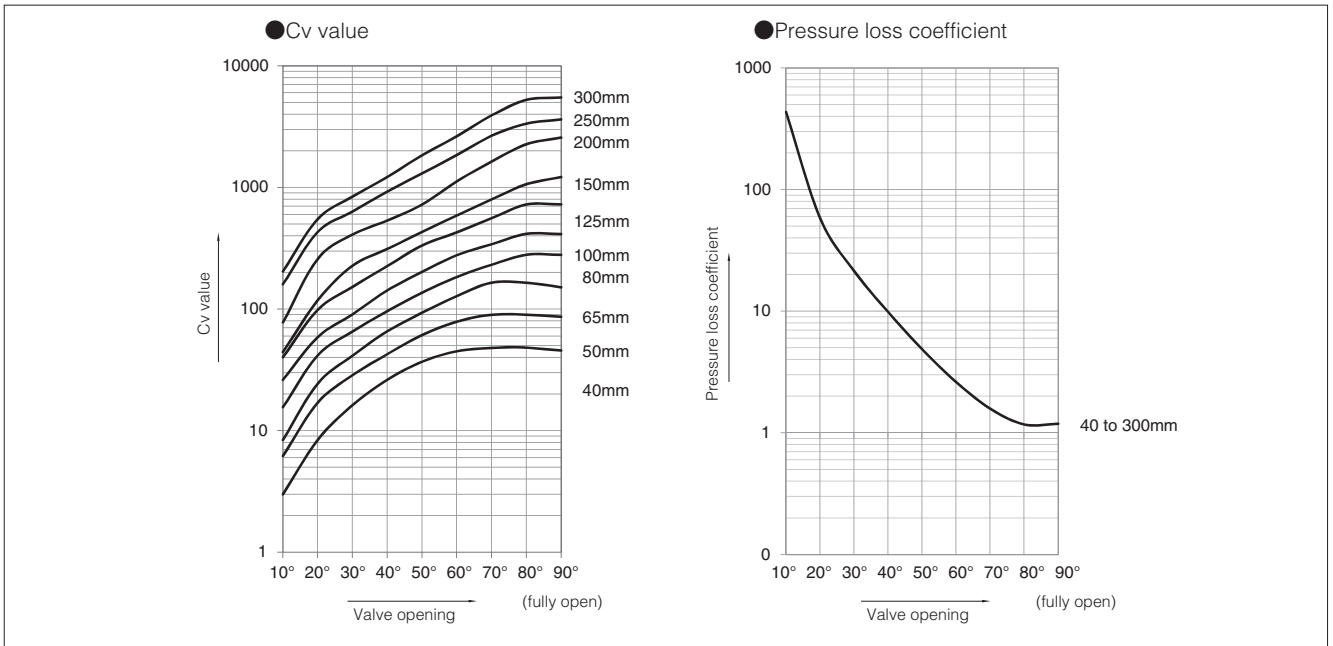
304YA-4 I



4I Installation direction



304YA Cv value/pressure loss coefficient



304YA Cv value

| Nominal size | | Valve opening | | | | | | | | |
|--------------|-------|---------------|-----|-----|------|------|------|------|------|------|
| mm | inch | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° |
| 40 | 1 1/2 | 3 | 8 | 16 | 26 | 37 | 45 | 48 | 48 | 46 |
| 50 | 2 | 6 | 17 | 29 | 43 | 61 | 79 | 90 | 90 | 87 |
| 65 | 2 1/2 | 8 | 24 | 41 | 66 | 93 | 128 | 165 | 165 | 151 |
| 80 | 3 | 16 | 42 | 65 | 96 | 137 | 184 | 232 | 280 | 280 |
| 100 | 4 | 26 | 59 | 91 | 142 | 202 | 277 | 342 | 416 | 414 |
| 125 | 5 | 40 | 99 | 152 | 226 | 334 | 428 | 559 | 725 | 725 |
| 150 | 6 | 44 | 118 | 227 | 312 | 431 | 589 | 799 | 1065 | 1219 |
| 200 | 8 | 78 | 259 | 410 | 535 | 725 | 1123 | 1632 | 2272 | 2570 |
| 250 | 10 | 160 | 431 | 634 | 926 | 1306 | 1848 | 2662 | 3352 | 3628 |
| 300 | 12 | 204 | 550 | 840 | 1220 | 1840 | 2636 | 3920 | 5260 | 5498 |

304YA Pressure loss coefficient

| Nominal size | | Valve opening | | | | | | | | |
|--------------|-------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| mm | inch | 10° | 20° | 30° | 40° | 50° | 60° | 70° | 80° | 90° |
| 40 | 1 1/2 | 608 | 78 | 21 | 8 | 4 | 3 | 2 | 2 | 3 |
| 50 | 2 | 348 | 46 | 16 | 7 | 4 | 2 | 2 | 2 | 2 |
| 65 | 2 1/2 | 541 | 64 | 22 | 9 | 4 | 2 | 1 | 1 | 2 |
| 80 | 3 | 360 | 51 | 20 | 10 | 5 | 3 | 2 | 1 | 1 |
| 100 | 4 | 311 | 62 | 26 | 11 | 5 | 3 | 2 | 1 | 1 |
| 125 | 5 | 323 | 54 | 23 | 10 | 5 | 3 | 2 | 1 | 1 |
| 150 | 6 | 554 | 77 | 21 | 11 | 6 | 3 | 2 | 1 | 1 |
| 200 | 8 | 565 | 51 | 20 | 12 | 7 | 3 | 1 | 1 | 1 |
| 250 | 10 | 326 | 45 | 21 | 10 | 5 | 2 | 1 | 1 | 1 |
| 300 | 12 | 416 | 57 | 25 | 12 | 5 | 2 | 1 | 1 | 1 |

304YA Applicable pipe list in case of **A**, **B**

Figure A

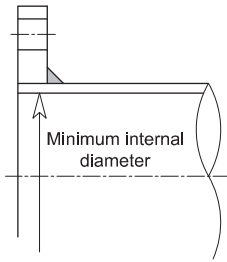
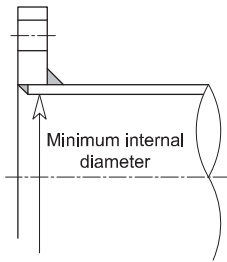


Figure B



| Nominal size | | JISG3452 | JISG3454 | | JISG3459 (Stainless) | |
|--------------|-------|----------|----------|-------|-------------------------|--------|
| mm | inch | SGP | Sch20 | Sch40 | Sch10S | Sch20S |
| 40 | 1 1/2 | ○ | — | ○ | ○ | ○ |
| 50 | 2 | ○ | ○ | ○ | ○ | ○ |
| 65 | 2 1/2 | ○ | ○ | ○ | ○ | ○ |
| 80 | 3 | ○ | ○ | ○ | ○ | ○ |
| 100 | 4 | ○ | ○ | ○ | ○ | ○ |
| 125 | 5 | ○ | ○ | ○ | ○ | ○ |
| 150 | 6 | ○ | ○ | ○ | ○ | ○ |
| 200 | 8 | ○ | ○ | ○ | ○ | ○ |
| 250 | 10 | ○ | ○ | ○ | ○ | ○ |
| 300 | 12 | ○ | ○ | ○ | ○ | ○ |

Remark 1: ○=Applicable X=Not applicable

| |
|---------------------------------|
| Butterfly Valve |
| TRITEC |
| TT2 |
| 334A |
| 344Q |
| 302A/303Q |
| 304A/304Q |
| 304YA |
| 302Y/304Y |
| 304M (HLV) |
| 507V/508V |
| DTM |
| 846T/847T/847Q |
| 841T/842T |
| 700Z |
| 700G/704G/705G |
| 72WG/72SG/72LG |
| 731P/732P/ 732Q/752W |
| 731R |
| 700E/700K/700S |
| 704G/722F/720F |
| 227P |
| 907T/908H (MKT) |
| 903L/901C/ 905C (Bata-check) |

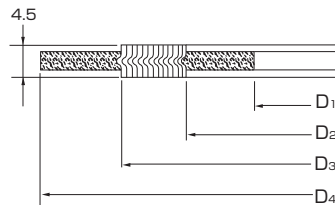
304YA Piping gasket

- In case of sheet gasket Any standard can be used excluding 65mm-JIS flange. For 65mm-JIS flange, use the sheet gasket that followed old JIS Standard: JIS B 2404_1999 for inner diameter. For other size, JIS standard products can be used.
- In case of spiral gasket Use special spiral gasket shown below.

■ Special spiral gasket

| Nominal size | | JIS 10K | | | | ASME Class 150 | | | |
|--------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| mm | inch | D ₁ | D ₂ | D ₃ | D ₄ | D ₁ | D ₂ | D ₃ | D ₄ |
| 40 | 1 1/2 | 48 | 54 | 73 | 89 | 48 | 54 | 73 | 85 |
| 50 | 2 | 61 | 69 | 88 | 104 | 61 | 69 | 88 | 104 |
| 65 | 2 1/2 | 73 | 81 | 100 | 124 | 73 | 81 | 100 | 123 |
| 80 | 3 | 89 | 97 | 120 | 134 | 89 | 97 | 120 | 136 |
| 100 | 4 | 115 | 124 | 146 | 159 | 115 | 124 | 146 | 174 |
| 125 | 5 | 140 | 151 | 177 | 190 | 140 | 151 | 177 | 196 |
| 150 | 6 | 166 | 178 | 207 | 220 | 166 | 178 | 207 | 222 |
| 200 | 8 | 217 | 227 | 257 | 270 | 217 | 229 | 257 | 279 |
| 250 | 10 | 268 | 282 | 318 | 332 | 268 | 285 | 318 | 333 |
| 300 | 12 | 319 | 331 | 362 | 377 | 319 | 335 | 362 | 409 |

Remark : In case a minute leakage of gas (less than 100PPm) becomes a problem, please consult to engineers.



■ Available punching gasket and PTFE envelope gasket

| Nominal size | | Max. allowable inner diameter D | Joint sheet and PTFE punching gasket (t≤2mm) | | | PTFE mold type gasket (NIPPON VALQUA products: 7030, 7031, 7035 series) | | |
|--------------|-------|------------------------------------|--|---------|----------------|--|---------|----------------|
| mm | inch | | JIS 5K | JIS 10K | ASME Class 150 | JIS 5K | JIS 10K | ASME Class 150 |
| 40 | 1 1/2 | 55 | ○ | ○ | ○ | ○ | ○ | ○ |
| 50 | 2 | 69 | ○ | ○ | ○ | ○ | ○ | ○ |
| 65 | 2 1/2 | 77 | × | × | ○ | × | × | ○ |
| 80 | 3 | 97 | ○ | ○ | ○ | ○ | ○ | ○ |
| 100 | 4 | 124 | ○ | ○ | ○ | ○ | ○ | ○ |
| 125 | 5 | 151 | ○ | ○ | ○ | ○ | ○ | ○ |
| 150 | 6 | 178 | ○ | ○ | ○ | ○ | ○ | ○ |
| 200 | 8 | 227 | ○ | ○ | ○ | ○ | ○ | ○ |
| 250 | 10 | 282 | ○ | ○ | ○ | ○ | ○ | ○ |
| 300 | 12 | 331 | ○ | ○ | ○ | ○ | ○ | ○ |

Remarks : The above gaskets is not applicable to JIS piping 65mm. When using a gasket for JIS piping 65mm, make sure that the inner diameter of the gasket is 77 mm. PTFE mold type gasket made by NIPPON VALQUA is only available. (Other manufacturer's gasket is not applicable due to product size.)

304YA Flange accommodation

| Nominal size | | JIS | | ASME B16.1 ASME B16.5 | | BS4504 DIN2632,DIN2633 GB/T9113.1 | |
|--------------|-------|-----|-----|--------------------------|----------|---|---------------|
| mm | inch | 5K | 10K | Class125 | Class150 | PN10 PN1.0 | PN16 PN1.6 |
| 40 | 1 1/2 | ○ | ○ | ○ | ○ | ○ | △ |
| 50 | 2 | ○ | ○ | ○ | ○ | ○ | △ |
| 65 | 2 1/2 | ○ | ○ | ○ | ○ | ○ | △ |
| 80 | 3 | ○ | ○ | ○ | ○ | ○ | ○ |
| 100 | 4 | ○ | ○ | ○ | ○ | ○ | ○ |
| 125 | 5 | ○ | ○ | ○ | ○ | ○ | ○ |
| 150 | 6 | ○ | ○ | ○ | ○ | ○ | ○ |
| 200 | 8 | ○ | ○ | ○ | ○ | ○ | ○ |
| 250 | 10 | ○ | ○ | ○ | ○ | ○ | △ |
| 300 | 12 | ○ | ○ | ○ | ○ | ○ | ○ |

○ : Possible to connect.

△ : Allows connection by additional machining.

304YA Piping bolts and nuts sizes

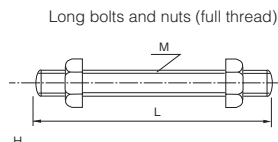
| Nominal size | | JIS 5K | JIS 10K | ASME Class 150 |
|--------------|-------|---------------|---------------|----------------|
| mm | inch | | | |
| 40 | 1 1/2 | 4-M12×100×12 | 4-M16×120×16 | 4-U1/2×115×16 |
| 50 | 2 | 4-M12×120×12 | 4-M16×130×16 | 4-U5/8×140×16 |
| 65 | 2 1/2 | 4-M12×120×12 | 4-M16×145×16 | 4-U5/8×155×16 |
| 80 | 3 | 4-M16×130×16 | 8-M16×145×16 | 4-U5/8×155×20 |
| 100 | 4 | 8-M16×145×16 | 8-M16×145×16 | 8-U5/8×155×20 |
| 125 | 5 | 8-M16×145×16 | 8-M20×170×20 | 8-U3/4×175×22 |
| 150 | 6 | 8-M16×145×16 | 8-M20×170×20 | 8-U3/4×175×22 |
| 200 | 8 | 8-M20×170×20 | 12-M20×170×20 | 8-U3/4×205×22 |
| 250 | 10 | 12-M20×190×20 | 12-M22×190×22 | 12-U7/8×215×24 |
| 300 | 12 | 12-M20×190×20 | 16-M22×190×22 | 12-U7/8×215×24 |

Remark: Bolt / nut material: SNB7 / S45C (manufacturer standard product), SUS304 / SUS304 (order-made product) Spiral gasket cannot be used. Use full-thread bolts for long bolts and heavy nuts for hexagon nuts.

Example

Long bolts: 8 - M16 × 145 × 16

N
M
L
H



| |
|------------------------------------|
| Butterfly Valve |
| TRITEC |
| TT2 |
| 334A |
| 344Q |
| 302A/303Q |
| 304A/304Q |
| 304YA |
| 302Y/304Y |
| 304M (HLV) |
| 507V/508V |
| DTM |
| 846T/847T/847Q |
| 841T/842T |
| 700Z |
| 700G/704G/705G |
| 72WG/72SG/72LG |
| 731P/732P/732Q/752W |
| 731R |
| 700E/700K/700S |
| 704G/722F/720F |
| 227P |
| 907T/908H (MKT) |
| 903L/901C/905C (Bata-check) |