

INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI

PRODUCT STRUCTURAL FEATURES

Inverted pressure balance acc. to ANSI is applicable to the cutting and connection of pipelines medium that are used various industries such as petroleum, chemical industry, pharmacy, chemical fertilizer, electric power industry, etc. under nominal pressure of CLASS150~900LBC and working temperature of -29~180°C.

MAIN STRUCTURAL FEATURES

1. It has logical structure, reliable seal, excellent performance and nice design.
2. It has the structure of flip-chip balanceable pressure and light on/off operation.
3. An oil groove is set between valve body and seal surface, which may infuse the seal grease to increase the seal capability.
4. The part material and flange dimension may be selected according to actual operating condition and users' requirement, so that meet the requirements of various engineering.

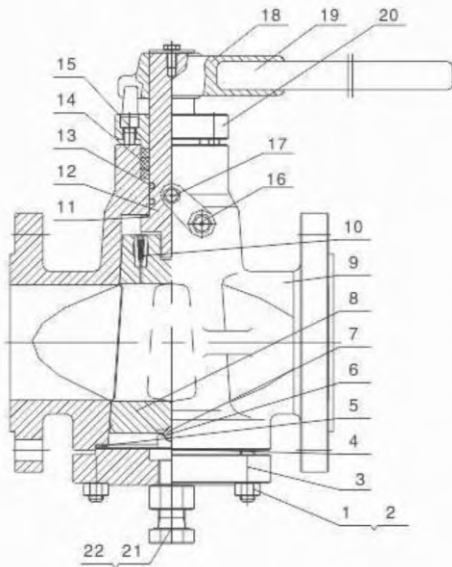
TECHNICAL SPECIFICATION

| | |
|----------------------|-------------------|
| Structural formation | BC |
| Operation | Manual |
| | Electric-actuated |
| Design standard | API 599、API 6D |
| Face to Face | ASME B16.10 |
| Flange Ends | ASME B16.5 |
| Test & Inspection | API598.API 6D |

PRODUCTS PERFORMANCE SPECIFICATION

| Nominal | Shell test (MPa) | Sealing test (MPa) | Suitable temp.(°C) | Suitable medium |
|---------|------------------|--------------------|--------------------|-------------------------|
| 150 | 30 | 22 | ≤80°C/300°C | Water、 Steam、 Gas & Oil |
| 300 | 7.5 | 5.5 | | |
| 600 | 15.0 | 11.0 | | |
| 900 | 22.5 | 16.5 | | |
| 1500 | 37.5 | 27.5 | | |
| 2500 | 63.0 | 46.2 | | |

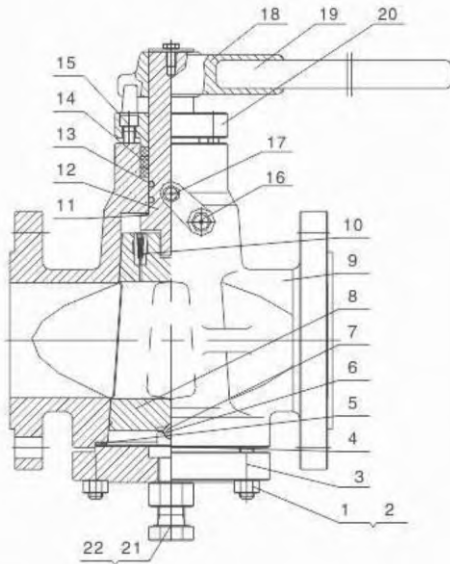
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|------------------|--------------------------|
| 1 | Bolt | ASTMA193-B7 |
| 2 | Nut | ASTMA194-2H |
| 3 | Cover | ASTMA216-WCB |
| 4 | Metal diaphragm | ASTM SS304 |
| 5 | Wind gasket | SS304+Flexible graphite |
| 6 | Ball seat | ASTM A276 410 |
| 7 | Ball | ASTM SS304 |
| 8 | Plug | ASTM A217 CA15+Nitriding |
| 9 | Body | ASTMA216-WCB |
| 10 | Check valve | UCA |
| 11 | Gasket | PTFE |
| 12 | Stem | ASTMA182F6a |
| 13 | O-Ring | Viton |
| 14 | Packing | Aexible graphite |
| 15 | Bolt | ASTMA193-B7 |
| 16 | Grease nozzle | UCA |
| 17 | Emergency Device | UCA |
| 18 | Handhole | ASTMA216-WCB |
| 19 | Pipe | ASTM A570 |
| 20 | Gland | ASTMA216-WCB |
| 21 | Lock nut | ASTMA194-2H |
| 22 | Adjusting bolt | ASTMA193-B7 |

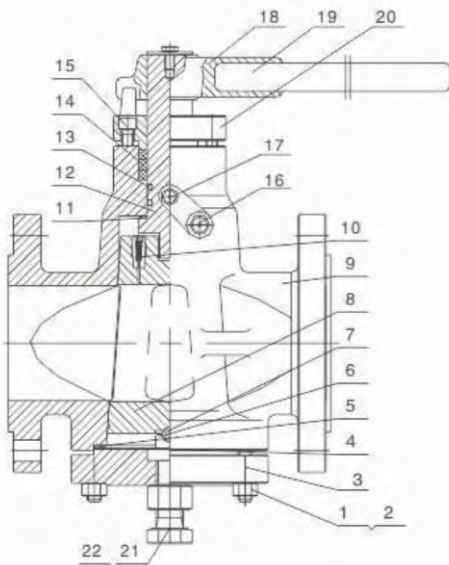
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|------------------|---------------------------|
| 1 | Bolt | ASTM A320-L7 |
| 2 | Nut | ASTMA194-4 |
| 3 | Cover | ASTMA216-LCB |
| 4 | Metal diaphragm | ASTM SS316 |
| 5 | Wind gasket | SS316+Flexible graphite |
| 6 | Ball seat | ASTM A276 316 |
| 7 | Ball | ASTM SS316 |
| 8 | Plug | ASTM A352- LCB+ Nitriding |
| 9 | Body | ASTM A352-LCB |
| 10 | Check valve | UCA |
| 11 | Gasket | PTFE |
| 12 | Stem | ASTMA182F316 |
| 13 | O-Ring | Viton |
| 14 | Packing | Flexible graphite |
| 15 | Bolt | ASTM A320-L7 |
| 16 | Grease nozzle | UCA |
| 17 | Emergency Device | UCA |
| 18 | Handhole | ASTMA216-WCB |
| 19 | Pipe | ASTM A570 |
| 20 | Gland | ASTMA216-WCB |
| 21 | Lock nut | ASTM A194-4 |
| 22 | Adjusting bolt | ASTM A320-L7 |

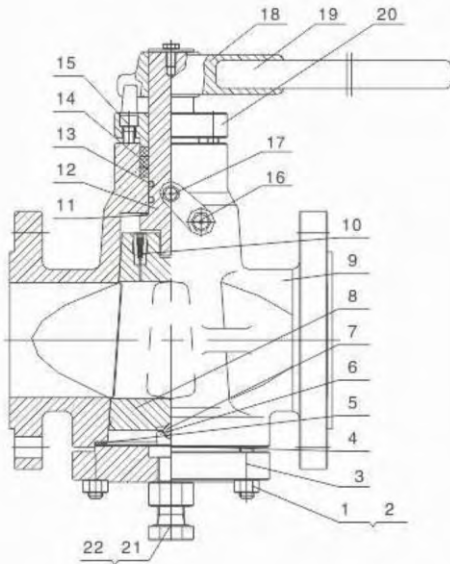
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|------------------|---------------------------|
| 1 | Bolt | ASTM A193-B7 |
| 2 | Nut | ASTMA194-2H |
| 3 | Cover | ASTMA216-WCB |
| 4 | Metal diaphragm | ASTM SS304 |
| 5 | Wind gasket | SS316+Flexible graphite |
| 6 | Ball seat | ASTM A276 316 |
| 7 | Ball | ASTM SS316 |
| 8 | Plug | ASTM A351 CF8M+ Nitriding |
| 9 | Body | ASTM A216-WCB |
| 10 | Check valve | UCA |
| 11 | Gasket | PTFE |
| 12 | Stem | ASTMA182 F316 |
| 13 | O-Ring | Viton |
| 14 | Packing | Flexible graphite |
| 15 | Bolt | ASTM A193-B7 |
| 16 | Grease nozzle | UCA |
| 17 | Emergency Device | UCA |
| 18 | Handhole | ASTMA216-WCB |
| 19 | Pipe | ASTM A570 |
| 20 | Gland | ASTMA216-WCB |
| 21 | Lock nut | ASTM A194-2H |
| 22 | Adjusting bolt | ASTM A193-B7 |

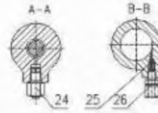
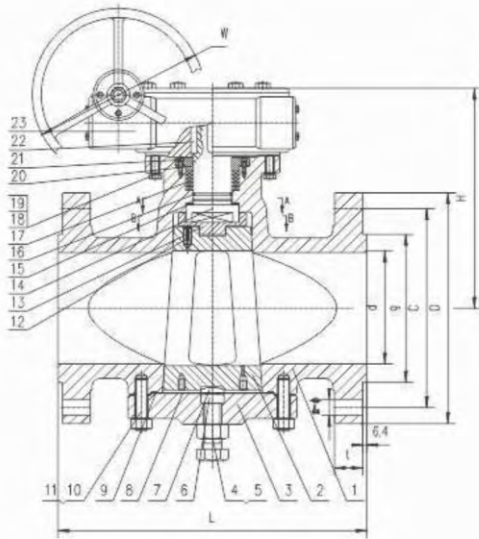
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|------------------|---------------------------|
| 1 | Bolt | ASTM A193-B8M |
| 2 | Nut | ASTM A194-8M |
| 3 | Cover | ASTM A351-CF8M |
| 4 | Metal diaphragm | ASTM SS316 |
| 5 | Wind gasket | SS316+Flexible graphite |
| 6 | Ball seat | ASTM A276 316 |
| 7 | Ball | ASTM SS316 |
| 8 | Plug | ASTM A351 CF8M+ Nitriding |
| 9 | Body | ASTM A351-CF8M |
| 10 | Check valve | UCA |
| 11 | Gasket | PTFE |
| 12 | Stem | ASTMA182 F316 |
| 13 | O-Ring | Viton |
| 14 | Packing | Flexible graphite |
| 15 | Bolt | ASTM A193-B8M |
| 16 | Grease nozzle | UCA |
| 17 | Emergency Device | UCA |
| 18 | Handhole | ASTM A216-WCB |
| 19 | Pipe | ASTM A570 |
| 20 | Gland | ASTM A351-CF8 |
| 21 | Lock nut | ASTM A194-8M |
| 22 | Adjusting bolt | ASTM A193-B8M |

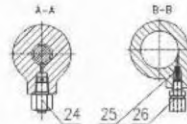
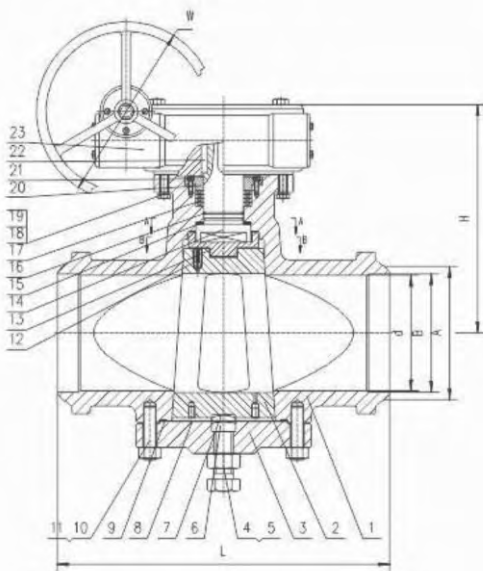
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|--------------------|--------------------|
| 1 | Body | A352 LCC |
| 2 | Plug | A352 LCC+Nitriding |
| 3 | Cover | A352 LCC |
| 4 | Nut | A194-4 |
| 5 | Bolt | A320-L7 |
| 6 | Adjustable block | A276-410 |
| 7 | Adjustable block | A276-410 |
| 8 | Metal diaphragm | Ss304 |
| 9 | Wind gasket | SS304+Graphite |
| 10 | Nut | A194-4 |
| 11 | Blot | A320-L7 |
| 12 | Check valve | UCA |
| 13 | Articulated Joint | A276-410 |
| 14 | Stem | A182-F6a |
| 15 | Gasket | PTFE |
| 16 | O-Ring | Viton |
| 17 | Packing | Graphite |
| 18 | Bolt | AISI 1035 |
| 19 | Spring Washer | AISI 1066 |
| 20 | Gland | A320 LCC |
| 21 | Blot | A320-L7 |
| 22 | Key | AISI 1045 |
| 23 | Worm-gear Actuator | UCA |
| 24 | Emergency Device | UCA |
| 25 | Check Valve | UCA |
| 26 | Grease Fitting | UCA |

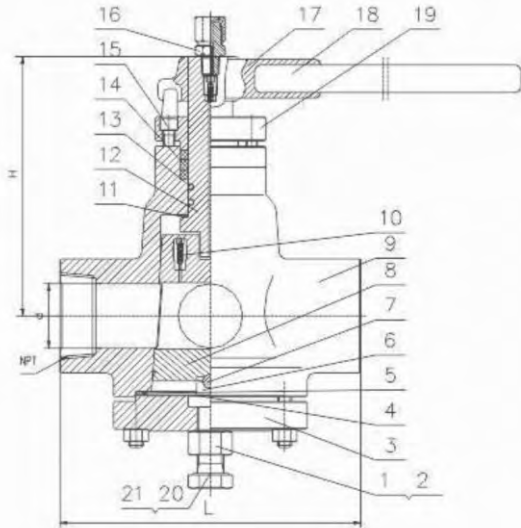
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|--------------------|-------------------------|
| 1 | Body | A216-WCB |
| 2 | Plug | A216-WCB+ENP |
| 3 | Cover | A216-WCB |
| 4 | Nut | A194-2H |
| 5 | Bolt | A193-B7 |
| 6 | Adjustable block | A276-410 |
| 7 | Adjustable block | A276-410 |
| 8 | Metal diaphragm | Ss304 |
| 9 | Wind gasket | SS316+Flexible graphite |
| 10 | Nut | A194-2H |
| 11 | Blot | A193-B7 |
| 12 | Check valve | UCA |
| 13 | Articulated Joint | A276-410 |
| 14 | Stem | A182-F6a |
| 15 | Gasket | PTFE |
| 16 | O- Ring | Viton |
| 17 | Packing | Graphite |
| 18 | Bolt | AISI 1035 |
| 19 | Spring Washer | AISI 1066 |
| 20 | Gland | A216-WCB |
| 21 | Blot | A193-B7 |
| 22 | Key | AISI 1045 |
| 23 | Worm-gear Actuator | UCA |
| 24 | Emergency Device | UCA |
| 25 | Check Valve | UCA |
| 26 | Grease Fitting | UCA |

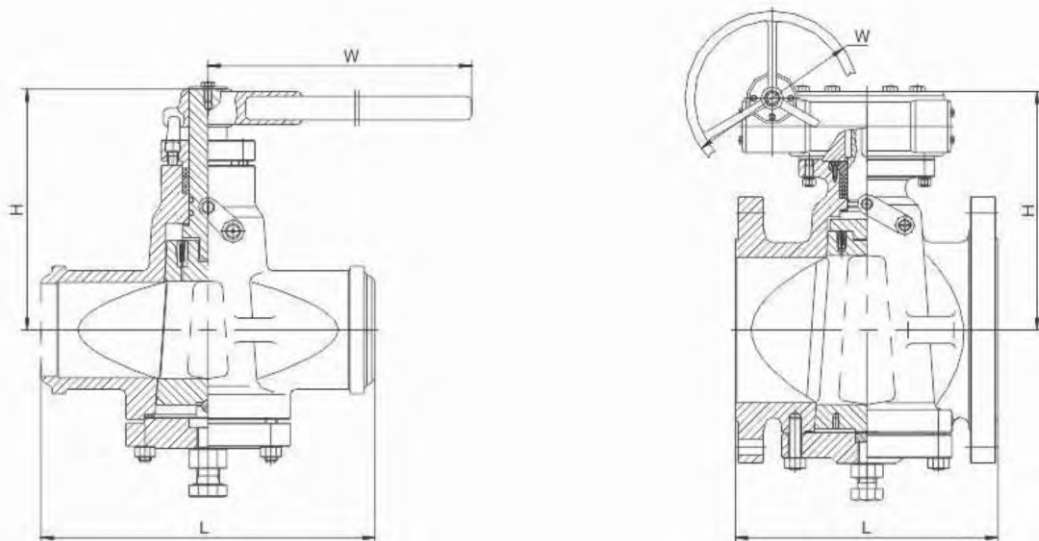
INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



MAIN PARTS MATERIALS

| NO. | Part name | Material |
|-----|------------------|--------------------|
| 1 | Blot | A193-B7 |
| 2 | Nut | A194-2H |
| 3 | Cover | A105 |
| 4 | Metal diaphragm | Ss304 |
| 5 | Wind gasket | SS304+Graphite |
| 6 | Adjustable block | A276-410 |
| 7 | Ball | SS304 |
| 8 | Plug | A182-F6a+Nitriding |
| 9 | Body | A105 |
| 10 | Check Valve | UCA |
| 11 | Gasket | PTFE |
| 12 | Stem | A182-F6a |
| 13 | O- Ring | Viton |
| 14 | Packing | Graphite |
| 15 | Bolt | A193-B7 |
| 16 | Grease Fitting | UCA |
| 17 | Pipe | A570 |
| 18 | Handhold | A216-WCB |
| 19 | Gland | A216-WCB |
| 20 | Blot | A193-B7 |
| 21 | Nut | A193-2H |

INVERTED PRESSURE BALANCE LUBRICATED PLUG VALVE ACC. TO ANSI



| Model | | X47W/X347W-150LB | | | | | | | | | | | | | | |
|------------|----|------------------|-----|-----|-------|-------|-----|-------|------|-----|-----|-----|-----|-----|------|------|
| Size | mm | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
| | in | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
| L | | 108 | 117 | 127 | 140 | 165 | 178 | 190 | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 |
| H | | 180 | 180 | 185 | 200 | 214 | 215 | 250 | 270 | 300 | 340 | 365 | 400 | 450 | 510 | 590 |
| W | | 400 | 400 | 500 | 500 | 600 | 600 | 820 | 820 | 300 | 300 | 320 | 320 | 350 | 380 | 380 |
| (Kg)Weight | | 10 | 12 | 14 | 17 | 19 | 21 | 29 | 33 | 48 | 75 | 98 | 125 | 171 | 230 | 370 |
| Model | | X47W/X347W-300LB | | | | | | | | | | | | | | |
| Size | mm | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
| | in | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
| L | | 140 | 152 | 127 | 140 | 190 | 216 | 241 | 283 | 305 | 381 | 403 | 419 | 457 | 502 | 762 |
| H | | 180 | 180 | 185 | 200 | 210 | 215 | 250 | 270 | 300 | 340 | 365 | 400 | 450 | 510 | 590 |
| W | | 400 | 400 | 500 | 600 | 600 | 820 | 1000 | 1000 | 300 | 300 | 320 | 320 | 350 | 380 | 380 |
| (Kg)Weight | | 12 | 14 | 16 | 19 | 21 | 24 | 31 | 36 | 61 | 86 | 130 | 190 | 255 | 380 | 560 |
| Model | | X47W/X347W-600LB | | | | | | | | | | | | | | |
| Size | mm | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
| | in | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
| L | | 165 | 190 | 127 | 140 | 241 | 292 | 330 | 356 | 432 | 508 | 559 | 660 | 787 | 838 | 889 |
| H | | 180 | 180 | 185 | 200 | 210 | 215 | 250 | 270 | 300 | 340 | 365 | 400 | 450 | 510 | 590 |
| W | | 400 | 400 | 500 | 500 | 600 | 600 | 820 | 820 | 300 | 300 | 320 | 320 | 350 | 380 | 380 |
| (Kg)Weight | | 14 | 16 | 18 | 20 | 24 | 29 | 35 | 47 | 91 | 129 | 210 | 320 | 660 | 920 | 1250 |
| Model | | X47W/X347W-900LB | | | | | | | | | | | | | | |
| Size | mm | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
| | in | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
| L | | 216 | 229 | 127 | 140 | 305 | 368 | 419 | 381 | 457 | 559 | 610 | 737 | 838 | 965 | 1029 |
| H | | 180 | 180 | 185 | 200 | 210 | 215 | 250 | 270 | 300 | 340 | 365 | 400 | 450 | 510 | 590 |
| W | | 400 | 400 | 500 | 600 | 600 | 820 | 1000 | 1000 | 300 | 300 | 320 | 320 | 350 | 380 | 380 |
| (Kg)Weight | | 17 | 29 | 21 | 24 | 30 | 37 | 44 | 65 | 110 | 160 | 255 | 380 | 810 | 1050 | 1460 |

FLANGE-CONNECTION LIFTING PLUG VALVE ACC. TO ANSI

PRODUCT STRUCTURAL FEATURES

Flange–connection lifting plug valve acc. to ANSI is applicable to the cutting and connection of pipelines medium that are used in various industries such as petroleum, chemical industry, pharmacy, chemical fertilizer, power industry etc. under nominal pressure of CLASS 150~1500LBS, and working temperature of –29~550°C.

MAIN STRUCTURAL FEATURES

- 1.The product has reasonable structure, reliable sealing, excellent performance and beautiful appearance.
- 2.Opening and closing of the valve carried out while the sealed surface is taken off, so it will not cause abrasion on the sealed surface.
- 3.Its characteristic double–direction flow makes installation and use more convenient.
- 4.The materials of the parts and sizes of flanges can be reasonably configured according the actual operation condition of the requirements of the customers, so as to meet the various needs of engineering.

TECHNICAL SPECIFICATION

Process of opening and closing of the valve: when opening the valve, first of all, turn the hand wheel to make the plug lifted and separated with the sealed surface, then turn the handle by 90 degree to connect the channel of plug to the channel of valve body, so that the valve is opened; when closing the valve, first of all. turn the handle by 90 degree to make the channel of plug vertical to the channel of valve body, and then turn the hand wheel to descend the plug, so that the valve is closed.

TECHNICAL SPECIFICATION

| | |
|----------------------|-------------------|
| Structural formation | BC |
| Operation | Manual |
| | Electric–actuated |
| Design standard | API 599、API 6D |
| Face to Face | ASME B16.10 |
| Flange Ends | ASME B16.5 |
| Test & Inspection | API598.API 6D |

Note: the size of serial valve connecting flange can be designed according to customers' requirement.

PRODUCTS PERFORMANCE SPECIFICATION

| Nominal | Shell test (MPa) | Sealing test (MPa) | Suitable temp.(°C) | Suitable medium |
|---------|------------------|--------------------|--------------------|-------------------------|
| 150 | 30 | 22 | ≤80°C/300°C | Water、 Steam、 Gas & Oil |
| 300 | 7.5 | 5.5 | | |
| 600 | 15.0 | 11.0 | | |
| 900 | 22,5 | 16.5 | | |
| 1500 | 37.5 | 27.5 | | |
| 2500 | 63.0 | 46.2 | | |