

Vigtig sikkerhedsinformation

DK



Læs denne vejledning grundigt inden installationen af kugleventilen påbegyndes.

Anvend ikke ventilen til højere tryk eller temperaturer end angivet i databladet. Forkert anvendelse kan medføre skader på personer og/eller materiel.

Important safety information

UK

Carefully read this instruction before installation of the ball valve.

Do not use the valve for higher pressure or temperature than allowed in the datasheet. Improper use can lead to person injury or broken materiel.

Installation

DK



Rørføring

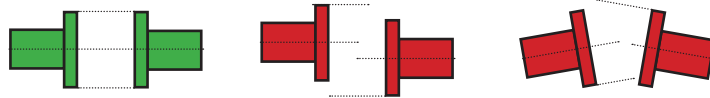
- Rørføringen skal være præcis oplinet uden forskydninger i rørsystemet.
- Der skal være netop den afstand mellem flangerne svarende til kugleventilens indbygningsmål.
- Inden ventilen tages i brug skal rørsystemet gennemskylles grundigt.
- Der skal etableres understøtning af rørføringen.

Installation

UK

General pipe alignment

- Pipe alignment have to be accurate without displacement.
- The distance between valve flanges have to be exactly like the "face to face" of the valve body.
- The pipe and valve have to be flushed before operating the valve first time.
- Support of the pipework have to be established.



Montering mellem ventilflanger

Vær opmærksom på at benytte løfteværktøj, til de store og tunge ventiler.

Ventilen indføres mellem rengjorte flanger uden at beskadige huspakningerne.

Husboltene spændes jævnt med passende moment (se side 4).

Mounting between valve flanges

Remember to use lifting tools for the larger heavier valves.

The valve body is slid in between cleaned flanges, without damaging the body gaskets.

The body bolts are placed and tightened evenly with an appropriate torque (see page 4).

Vedligeholdelse

DK



Vigtig sikkerhedsinformation

Vedligeholdelse må kun udføres af uddannet personale, iført det fornødne sikkerhedsudstyr.

Før der arbejdes på ventilen skal det sikres, at anlægget er trykløst og ved omgivelsestemperatur. Desuden skal man være opmærksom på, at medie fra rørsystemet undslipper ved adskillelse.

Efterspænding af spindelpakdåse

Spindelpakdåsen på en kugleventil fra os er forsynet med en dynamisk tætning, hvilket vil sige, at pakdåsen holdes sammenspændt ved hjælp af tallerkenfjedre, der optager forskelle i temperaturudsving samt evt. slitage. **Hvis pakdåsen skulle blive utæt**, kan det skyldes, at pakningerne er slidt mere end fjedrene kan optage. Man kan som udgangspunkt efterspænde sin pakdåse for at løse dette problem. Dette gøres ved at afmontere sikringssskiven, der fastholder spindelmøtrikken og efterspænde spindelmøtrikken. Vær opmærksom på at tallerkenfjedrene sammenspændes i henhold til momenttabellen og løsnes let. Skulle ventilens pakdåse stadig være utæt, bør denne udskiftes.

Maintenance

UK

Important security information

Maintenance may only be carried out by trained personnel, dressed in the proper safety equipment.

Before work on the valve is begun, it is important that the systems is de-pressurized, and that the temperature is at a normal level. Be aware that the contained medium, escapes the system when dismantling the valve.

Retightening the stem packing

On a ball valve from us the stem packing is fitted with a dynamic seal, which means that the packing is held tight by a pair of Belleville washers that keep the packing functional during changes in temperature and wear.

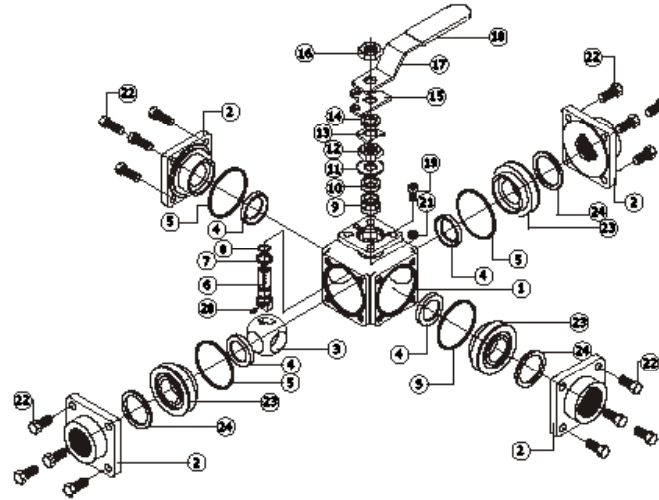
Should the packing begin to leak, it may be too worn for the washers to compensate.

Generally the leaking is stopped by re-tightening the packing. This is done by removing the lockingwasher that retains the nut and then tighten it. Pay attention not to fully tighten the Belleville washers, because it will disable the functionality.

If the packing is still leaking, replacement is necessary.

Oversigt over ventilens enkeltdele

POS	BESKRIVELSE
1	HUS
2	TILSLUTNINGSENDE
3	KUGLE
4	SÆDERINGE
5	HUSPAKNING
6	SPINDEL
7	NEDRE SPINDELPÅKNING
8	O-RING
9	SPINDELPÅKNING
10	BØSNING
11	TALLERKENFJEDRE
12	SPINDELMØTRIK
13	SIKRINGSKIVE
14	AFSTANDSSKIVE
15	STOP PLADE
16	MØTRIK
17	HÅNDBTAG
18	PVC GREB
19	STOP BOLT
20	LÅSE STIFT
21	MØTRIK FOR STOP BOLT
22	HUSBOLT
23	BACK-UP RING
24	PAKNING



Individual parts of the valve

POS	DESCRIPTION
1	BODY
2	END CAP
3	BALL
4	SEAT
5	JOINT GASKET
6	STEM
7	THRUST WASHER
8	O-RING
9	STEM PACKING
10	GLAND
11	BELLEVILLE WASHER
12	STEM NUT
13	LOCK NUT CAP
14	SPACE WASHER
15	STOPPER PLATE
16	HANDLE NUT
17	HANDLE
18	PVC SLEEVE
19	STOP PIN
20	INSERT PIN
21	STOP PIN NUT
22	BOLTS
23	BACK-UP RING
24	PACKING

Udskiftning af spindelpakning og sæder



Replacing the stem packing and seats



Adskillelse

- Afmonter husbolte (22), og fjern ventilen fra rørstrengen. Undgå at beskadige pakningen. Vær opmærksom på at ventilen er tung - løftegrej kan være nødvendigt.
- Løsne spindelmøtrikken, fjern håndtag og alle skiver inkl. bøsning.
- Adskil ventilen - afmonter sæderne.
- Afmonter huspakningen.
- Afmonter kuglen og undgå at ridse denne.
- Spindlen fjernes ved at denne slås forsigtigt ind i huset. Den nedre spindelpakning bør sidde fast på spindlen og afmonteres sammen med denne.
- Afmonter spindelpakningen.

Disassembly

- Remove body bolts (22) and remove the valve from the line. Care should be taken to avoid scratching or damaging serrated gasket. The valves are heavy and should be adequately supported before removing them from the line.
- Loosen the stem nut and remove the handle and the stop plate. Next, remove lock saddle, packing nuts, Belleville washers and gland.
- Lift off body ends. The seats should come out with the body end.
- Remove body seal.
- Lift ball from the body, using a strap and lift device, if necessary. Extreme caution should be taken to avoid damage to the ball.
- The stem must be removed from inside the body. A tap to the top of the stem should loosen it. The thrust washer should come out with the stem.
- Then, remove the stem packing.



Samling

- Montér et sæde i husets hulrum med den sfæriske krumning mod kuglen. Se splittegning på forrige side.
- Montér den nedre spindelpakning på spindlen og før denne op gennem huset. Montér pakning, tallerkenfjedre og låseblik. Skru møtrik løseligt på spindlen.
- Montér kuglen i huset.
- Montér de andre sæder i husets hulrum med den sfæriske krumning mod kuglen.
- Montér huspakningen i huset.
- Saml hus delene og vær opmærksom på både at line flangeenden korrekt op i forhold til huset men også til rørets flange. OBS! det kan lade sig gøre at samle ventilen forkert. Vær også opmærksom på ikke at beskadige huspakningen under samlingen.
- Montér husbolte og møtrikker, og tilspænd jævnt i et stjernemønster efter de momenter som er angivet i tabellen på sidste side. Vær sikker på at kuglen er i åben position.
- Åben gradvist ventilen indtil den fulde kvarte omgang nås. Dette gøres for at forme PTFE sædet til kuglens form og skabe optimal tætning. Et hurtigt drej kan her foresage skade på sæderne.

Reassembly

- Install one seat in the body cavity with the spherical curvature facing the ball. A split drawing is found on the previous page.
- Install the thrust washer on the stem and slide the stem up through the body. Install packing, gland, Belleville washers and locking saddle. Screw the packing nut onto the stem. Lock the saddle in place.
- Install stop plate, handle and washer. Screw the stem nut onto the stem until the handle is secure.
- Line up the ball slot with the stem end and slide the ball into position.
- Install the remaining seats into the body side.
- Put the body seal gasket into the body and line-up the end flange. Because the body flange bolt pattern is different from the line flange bolt pattern, it is possible to assemble the valve in a way that the line flanges bolt pattern does not line-up. Be certain to align the end flanges bolt holes to the straddle valve center lines. Be careful not to damage the body seal when putting the cap end into body.
- Install the cap end nuts and tighten in the "star" pattern to the proper torque, please look at TORQUE OF BODY BOLTS AND STEM NUT table last page. Make sure that the ball is in an open position. Extreme care must be exercised during adjustment of the cap end nuts to make sure that complete engagement of the studs with the body flange is maintained.
- Cycle the valve slowly, with a gentle back and forth motion, to build gradually to the full quarter turn. By cycling slowly, the seat lips will assume a permanent seal shape against the ball. A fast turning motion, at this point, may cut the seats before they are able to form the proper seal.

Manual for 3-vejs kugleventil Type DVC1616/1716

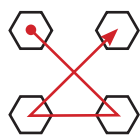
Manual for 3-way ball valve Type DVC1616/1716

DN15FB 1/2"	DN20FB 3/4"	DN25FB 1"	DN32FB 1-1/4"	DN40FB 1-1/2"	DN50FB 2"	DN65FB 2-1/2"	DN80FB 3"	DN100FB 4"
Tilspændingsmomenter for husbolte - Body bolt torque								
11 [Nm]	14 [Nm]	19 [Nm]	22 [Nm]	37 [Nm]	41 [Nm]	46 [Nm]	48 [Nm]	54 [Nm]
Tilspændingsmomenter for spindelmøtrik - Stem nut torque								
8,8 [Nm]	8,8 [Nm]	10,8 [Nm]	10,8 [Nm]	15,7 [Nm]	15,7 [Nm]	18,6 [Nm]	20,6 [Nm]	22,5 [Nm]
Efter tilspænding af spindelpakningen skal møtrikken løsnes mellem 20-60° til nærmeste flade ud for låseblikket After tightening the stem gasket the nut has to be loosened between 20-60° to nearest fixing point of the lock saddle								

Tilspænding af husbolte

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Tilspænding af husboltene skal foregå ensartet og jævnt. For at indspænde sæderinge og huspakninger korrekt, skal momenterne i tabellen ovenfor følges.

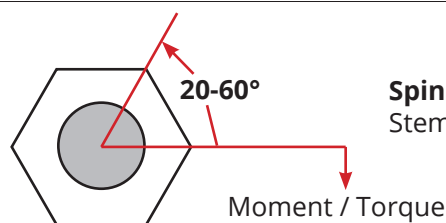


Husbolte
Body bolts

Tightening the body bolts

UK

Tighten the body bolts evenly and steady. To ensure correct compression of gaskets please apply the torque figures in the table above.



Spindelmøtrik
Stem nut

Tilspænding af spindelmøtrik

DK

I forbindelse med udskiftning af spindelpakninger eller efterspænding af pakdåsen er det vigtigt at følge de i tabellen anførte momenter. Efterfølgende skal spindelmøtrikken løsnes lidt for at sikre funktionen af fjedreskiverne (20-60° til nærmeste flade ud for låseblikket).

Tightening the stem nut

UK

During replacement of stem gaskets or during maintenance, it is of great importance to tighten the stem nut according to the figures given in the table. After tightening the stem nut it must be loosened to ensure proper function of the spring washers (20-60° to nearest fixing point of the lock saddle).

Brug for hjælp?

DK

Er der spørgsmål, eller har du brug for reservedele er du mere end velkommen til at kontakte:

Armatec A/S +45 75 72 33 00



Need help?

UK

If you have any questions or need spare parts do not hesitate to contact:

Armatec A/S +45 75 72 33 00