



Read all of the maintenance instructions and safety procedures before proceeding.

1	FRONT FLANGE	1
2	SHAFT	1
3	CENTRE FLANGE	1
4	BOTTOM FLANGE	1
5*	BACK-UP	1
6*	O-RING	1
7*	BALL BEARING	x
8	GREASE RING	1
9	STUD BOLT	x
10	NUT	x
11	SPACER	x
12	BALL PLUG	1
13	CAP SCREW	1

8000 Series swivel joint design allows seals to be changed without removing the ball bearings. No need to disassemble the joint from the system. If only seal ring change is needed, apply steps 1-14.

1. Close inlet and outlet valves and wait for all the medium in the system to be drained completely. If hot medium is used, wait system to be cooled down to normal temperature. If ball bearings need to be changed, skip to step 15.

2. Remove nuts (10.3) with an appropriate wrench and take out the nuts and spacer(11).

3. Do not loosen nuts(10.2) of the centre flange(3), sealing distance will be damaged.

4. Be careful not to loosen nuts(10.1) of the front flange.

5. Remove front flange with stud bolts and nuts from shaft(2).

6. Take out the deformed seal ring(6) and back-up(5) from the sealing chamber.

7. Clean all sealing surfaces of the shaft and front flange. Pay attention not to leave any dirt, burr, etc. inside the sealing chamber.

8. Apply grease to a new seal ring(6) and back-up(5) and place it inside sealing chamber.

9. Be careful not to dislocate the seal ring and back-up when aligning stud bolts to the holes of the centre flange.

10. Assemble front flange onto the shaft. Place cleaned spacer(11) and tightened smoothly with nuts(10.3).

11. Control tightness of the nuts(10.2) of the middle flange.

12. Control rotation of the swivel joint, if necessary apply grease to the ball bearings.

13. If there is a problem with the rotation of the swivel joint, skip to step 15 and apply all steps.

14. Open inlet and outlet valves, check if any leaking occurs from the drain port. If there is no leakage, the swivel joint is ready to be placed back in service.



8000 SERIES DISASSEMBLY & MAINTENANCE INSTRUCTIONS



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15. Disassemble the swivel joint from the system with an appropriate tool.
16. Now the joint is ready for maintenance.
17. Put the swivel joint on a clean table on to the bottom flange(4) side of the joint.
18. First of all, remove grease ring(10) from the joint.
19. Remove nuts (10.3) of the centre flange with an appropriate wrench and take out the nuts(10.3) and spacer(11).
20. Take out the front flange(1) with all the nuts(10.1-2) and stud bolts(9).
21. Remove the deformed seal ring(6) and back-up(5) from the sealing chamber.
22. After disassembling the cap screw(13) and ball plug(12) from the centre flange, be sure to take out all the bearings. Then take the centre flange(3) from the shaft(2) carefully.
23. Clean the ball races of the centre flange and shaft and examine the races against corrosion. If necessary change the shaft and the centre flange with new ones.
24. Change all ball bearings with new ones. Assemble the centre flange onto the shaft until ball races are aligned. Fill the ball bearings into the joint. Assemble the ball plug and and tighten cap screw on top of it.
25. Disassemble the stud bolts(9) from the front flange(1). Inspect the front flange against corrosion and if necessary change it with a new one.
26. Clean all bolts, nuts and washers with a non-corrosive liquid.
27. Clean sealing chamber of the front flange and the shaft.
28. Apply grease and place a new seal ring(6) and back-up(5) onto the shaft.
29. After assembling the cleaned stud bolts to the front flange, place slip nuts(10.1) to the stud bolts and tighten on them to the front flange. Then assemble the centre nuts(10.2) to the stud bolts and nuts.
30. Align stud bolts and holes of the centre flange, assemble front flange to the shaft. Place spacers onto the stud bolts and thighten with nuts(10.3).
31. Tighten centre flange nuts(10.2) to the centre flange correspondingly.
32. Assemble grease ring. Apply enough grease to the ball bearings.
33. If there is a problem with the rotation of the swivel joint, skip to step 15 and apply all steps.
34. Without applying force on the joint, assemble joint to the system, by assembling the joint's front and bottom flange to the corresponding flanges with the suitable bolts.
35. After assembling the joint to the system, sealing and tightness adjustment must be made by tightening the nuts(10.3) By tightening nuts, shaft will press the seal to the front flange to achieve the sealing.
36. Lastly tighten nuts of the centre flange(10.2).
37. Open inlet and outlet valves, check if any leaking occurs .If there is no leakage, the swivel joint is ready to be placed back in service.