

API 6D Forged Ball Valve

Product instruction for use

JDBV Valve Co.Ltd.,

一、OVERVIEW

二、 The forging steel ball valve is synthesizes the domestic and foreign new crafts, the new technical development development new product. Widely uses in long transporting the pipeline as well as each corrosiveness and the non-corrosive medium, has the fine sealing property in the wide temperature and in the pressure variation scope. When work in the pipeline in front of the valve the medium pressure the action which produces on the spheroid transmits completely gives the lower bearing, the spheroid cannot have the relative position migration, behind the seal packing collar use valve seat the spring tension has the enough pretightening up force guarantee valve good seal, therefore, the valve packing surface stress is even, the operation moment of force is small, sealing property safe reliable, the service life is long, is suitable

specially for high temperature, high-pressured, the big latus rectum, the medium mixture also has the little pellet situation.

三、 Applicable scope: Professions and so on food, medicine, petroleum, chemical industry, natural gas, steel and iron, military installation, papermaking, environmental protection.

四、 Product structure features

1、 The operation reduces effort: The spheroid by on lower bearing support, reduces the friction, eliminated because the inlet pressure impetus spheroid and the seal place form the huge seal load creates the oversized torque. Even if also can achieve the small torque under the highest service pressure.

2、 Seal Function Reliable: Nonmetallic (nylon) the material seal packing collar inlays in the stainless steel valve seat, End the metal valve seat is equipped with the spring to guarantee the seal packing collar has the enough pre tightening up force, Valve when use process packing surface attrition, continues in the spring function lower valve to guarantee the good sealing property。

3. Guards against the static electricity function: In order to prevent produces the static electricity by the medium flowing or the spheroid and the valve lever and the seal packing collar corresponding friction, overcame the static electricity flame to light the flammable medium 'OR' operation personnel to receive an electric shock, established between the valve lever and the spheroid and the valve lever and the valve chest leads the static electricity the contact and the spring, caused the static electricity to induct

underground through the pipeline, guarantee system safety.

4. Fire protection structure: In order to prevent as a result of the fire or the hot appearance, causes the seal packing collar over burning suddenly, occurs divulges greatly, but encourages the fire intensity, establishes the fire protection packing ring in between the spheroid and the valve seat, burns down when the valve seat, in the spring and the medium pressure role, pushes to rapidly the spheroid the downstream end on the fire protection packing ring, forms the metal and the metallic contact, plays certain degree seal effect.

5. Anti-curing stress cracking: The valve contact medium material all is requests according to the American Country Corrosion preventing Engineer Association standard NACE MR0175 standard to carry on the choice, and makes the strict quality control and the examination in the manufacture process, can satisfy the curing environment operating mode the request.

6. Drain line: About the valve chest establishes the drain hole, may inspect the valve seat whether has divulging, when the work, the valve is in all opens or the entire pass, downloads the mesocoele pressure, may replace the padding directly; May discharge the mesocoele detention, reduces the medium to the valve pollution.

7. The assistance seal establishment system (user has when request): This valve seat and the valve lever packing box may design has the urgent full-pressure system. Once the seal damage or appears when the emergency case cannot seal, through the assistance full-pressure system to the packing surface injection corresponding aquaseal

then repairs, achieves the urgent seal. When transports when the medium unclean or includes the few pellets, is the protection packing surface, guarantees achieves the reliable long-time seal, but also may give this installment injection corresponding cleansing agent or the lubricant carries on the clean to the packing surface.

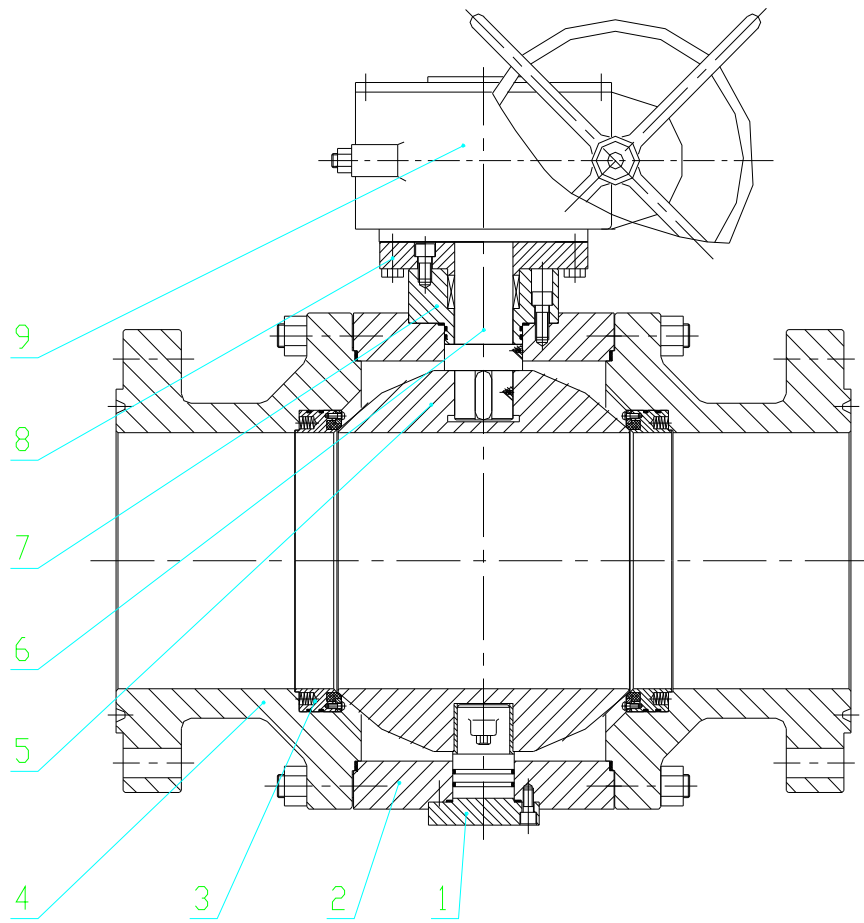
三、 Performance standard and technical parameter

Class	nomina Pressure MPa	Test Pressure			Normal temperature highest working pressure
		Shell intensity	Seal (liquid)	Seal (Gas)	
600Lb	11.0	16.5	12.1	0.6	11.0
Drive Way	Worm gear、 electric、 air-powered、 hydraulic		Connect Way	Flange、 Jointing	
Working temperature	-10~+180℃		Suitable medium	Water、 Steam、 Oil	

四、 Main execution, execution standard

- 1、 API 6D Petroleum and gas industry - pipeline expulsion system – pipe-line valve
- 2、 API 598 Valve inspection and experiment
- 3、 API 607 Soft 1/4 week soft valve seat valve fireproof experiment
- 4、 NACE MR0175 Oil field equipment anti-curing stress crack metal material
- 5、 ASME B16.10 Valve Struction Length
- 6、 ASME B16.5 Tube flange and flange fitting
- 7、 ASME B16.34 The flange, the thread and weld the connection the valve

五、 Structure drawing



- 1、Back cap 2、Valve body 3、Valve seat 4、Valve deck 5、Ball body
 6、valve handle 7、Filling box 8、pressure pad 9、Worm gear head

五、 Main Parts Material:

Product Type	Valve body	Valve Seat	Valve Handle	Ball body	Valve Deck	Filling
DQ347N-300Lb	A105	A105	2Cr13	A105 nickelage	A105	flexible graphite

六、 Install and defend

1. Before ball valve exwork already according to API 6D "Pipe-line valve Aerodynamic pressure Experiment" the standard has carried on the intensity, the seal, the switch and so on each performance experiment, achieves the standing operating procedure the request. And eliminates valve cavity inside and outside greasy dirt and the sundry goods, the ball valve both sides with seals covers the trap.
2. The user before the installment, should check the data plate content and the exploitation conditions carefully whether tallies. The valve forbid strictly the overpressure - temperature rank installing the use.
3. Before the installment, should take down the import and export both sides to seal the lid, inspects in earnestly the valve cavity whether has the contamination to adhere to stick cohere, if has should adhere to stick cohere sundry goods cleaning to be clean. Simultaneously inspects the valve the connection spot bolt, the nut and the padding gland and so on whether has the loose phenomenon, if discovered has the loose phenomenon to be supposed prompt to screw tight evenly.

4. Fixes according to the design connection way the ball valve connection on the pipeline, the fixed late gate did not accept big is pulled, presses, curving and the distortion stress, in order to avoid damages the valve.
5. The ball valve type of drive has, the worm drive manually, air operated, electrically operated, the fluid moves and so on many kinds of drive type. The manual operation uses the trigger (or handle). Air operated, electrically operated, the fluid moves and so on to install the corresponding drive above the ball valve.
6. Only if stipulated specially, the ball valve trigger (handle) the turn clockwise valve lever for closes the valve, the anti-clockwise rotation for opens the valve, the trigger (handle) revolves 90° then realizes the ball valve to open shuts the operation.
7. Regarding the manual ball valve, the valve lever crown has the trench which the instruction opens shuts, the ball valve crown also has the instruction to open shuts the condition the spacing organization. When the trigger (handle) and the trench and the pipeline become a straight line, the ball valve is at the opening condition, otherwise when the trigger (handle) and the trench and the pipeline become vertically, the ball valve is at the off-position
8. The ball valve should deposit in the dry well ventilated room, does not permit open-air depositing. The both sides channel with the shell cover trap, guards against the sundry goods to enter.

9. When depositing, the ball valve should be at the entire opening condition, protects the spheroid packing surface and the valve seat packing surface
10. The long-term storage ball valve periodic inspection, eliminates the cavity contamination, and spreads the butter in the processing surface.
11. Installs the movement on the pipeline the ball valve to be supposed the periodic inspection to move whether normally. Discovered the glitch should remove promptly, if has the big breakdown to be supposed to dismantle delivers this company to service or please the professional to service.
12. After uses when the ball valve passes through disassembles assembles, must strictly according to the related national standards stipulation carry on the inspection and the experiment, after and writes up the certificate only then once more to use.
13. When in the ball valve has the medium pressure, forbid strictly the replacement or the increase padding, forbid strictly disassembling on the valve any components and becomes less crowded any firm firmware, otherwise has the possibility to create the accident.
14. Valve depositing, the use, the service and the breakdown elimination should have the detailed record.
15. Presses the movement in the valve belt under the condition to forbid strict carrying

on works and so on welding, service or replacement spare part.

七、 Possibly occurs breakdown and elimination method

Possibly occurs breakdown	Reason	Abate method
Seal Surface Leakage	<ol style="list-style-type: none"> 1.Pretightening not-enough 2. The seal surface damage or contamination 3. The seal surface distorts or expires。 	<ol style="list-style-type: none"> 1.Add Pretightening; 2. Repairs and maintains or attrition seal surface and eliminates contamination 3.Renew seal ring
<i>valve handle turn un work</i>	<ol style="list-style-type: none"> 1.filling press too tight; 2. The valve lever has the damage or the product with some coordinate spot has the contamination; 3. The switch number of times excessively are many or the spheroid surface has the contamination。 	<ol style="list-style-type: none"> 1. loose nut readjusts; 2. Disassembles the conditioning elimination contamination; 3. Disassembles the clean, removes the contamination。
back up supporting and valve	Seal filling piece damage or	Change seal filling piece

body fitting leakage	lose efficacy	
valve handle filling place leakage	1.filling compact not enough ; 2.filling use too long lose efficacy。	1.re-adjust or change nut ,double-screw bolt 2.change filling。
Middle flange(valve body and back up connecting)leakage	Middle flange bolt loose	Renew equably tight nut