

Instruction & Operation Manual for DX60 Series Valve



Read and understand this manual prior to installing, operating or servicing this equipment.



The Right Connection®

04/20/20

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Safety Information

The following DANGER, WARNING and CAUTION signs are contained in this manual. To avoid serious injury and/or possible damage to equipment, pay attention to these messages. Hazards or unsafe practices could result in severe personal injury or death.



DANGER is used in the most extreme cases.



Hazards or unsafe practices which could result in minor or moderate injury. May also be used to alert against an unsafe operating or maintenance practice.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Safety logos, which appear throughout this manual, are used as a reminder that the user should carefully review for the appropriateness of the product for the media, application and environment in which it will be used.

Use only replacement parts and devices recommended by the manufacturer to maintain the integrity of the equipment. Make sure the parts are properly matched to the series, model, serial number and revision level of the equipment.

Safety labels are placed on equipment where appropriate. Do not remove any labeling from any piece of equipment. Replace any label that is missing.

DO NOT modify any Dixon product. Non-factory modifications could create hazardous conditions and void all warranties. DO NOT attempt to use a Dixon product in any application that exceeds the product rating.

General Guidelines

- The owner must comply exclusively with these operating instructions and the authorized use of this piece of equipment. Should problems arise that cannot be solved using these operating instructions, please contact Dixon® – Sanitary Division. We will be happy to provide further assistance.
- If any modification work is performed on the product by the owner themselves, Dixon® shall no longer be considered the manufacturer of the device. In such cases, all components must be subjected to a new certification process for any applicable certifications that the equipment holds. Unless agreed to in writing by Dixon®, liability, warranties and guarantees shall immediately be deemed null and void as soon as you:
 - o Perform modifications/conversion work on the product.
 - o Use the product for unauthorized purposes.
 - o Remove or disable safety elements.
 - o Process products whose material, form and size do not correspond exactly to the description provided.
 - o Make alterations to the original state of the device.
- The operating instructions are regarded as part of the valve.
- The operating and maintenance personnel must always be able to access the operating instructions.
- The safety instructions provided in the operating instructions must be observed.
- The operating instructions shall be valid for the entirety of the device's lifespan.
- The operating instructions must be maintained and updated as necessary.
- The operating instructions must be passed on to any subsequent owners or operators of the valve.

Safety Information

Owner Must Ensure

- The valve is only used as authorized in this manual.
- The valve is only used when it is in fault-free, fully functional condition, and that the safety equipment is regularly checked to ensure that it is fully functional.
- The valve is only operated, maintained and repaired by personnel with the appropriate qualifications and authorization.
- Checks are made before the valve is put into operation to ensure that only the authorized person is in the work area, and no one is in danger of being injured if the product is in operation.
- The valve is checked for visual damage prior to commissioning to ensure that it is only operated when free of faults.
- Any defects are reported immediately to the appropriate supervisor.
- All safety and warning notices attached to the valve or near the valve are legible and none are removed.
- The operating instructions are always kept close to the valve operation site, in a legible and complete state.
- Personnel are regularly instructed on all occupational safety and environmental protection issues, and are familiar with and observe the operating instructions, especially the safety instructions contained herein.
- Personnel are trained and supervised to ensure that they follow safety measures, including the obligatory use of personal protective equipment.
- The valve is only connected to pipelines that are depressurized at the time of connection.
- There is no tensile or compressive stress acting on the valve connections.
- There is no residual risk at any point where high pressure could occur. High pressure can cause sudden failure in or damage to the lines and connections.
- Warning notices in the documentation for supplier modules are observed and integrated into the risk assessments in the workplace.

Care of Stainless Steel

The stainless-steel components in Dixon Sanitary equipment are machined, welded and assembled by skilled craftsmen using manufacturing methods that preserve the corrosion-resistant quality of the stainless-steel. Retention of corrosion-resistant qualities under processing conditions requires regular attention to the precautions listed below.

1. Regularly check all electrical devices connected to the equipment for stray currents caused by improper grounding, damaged insulation or other defects. Corrosion: Pitting often occurs when stray currents encounter moist stainless-steel.
2. Never leave rubber mats, fittings, wrenches, etc. in contact with stainless-steel. Corrosion: Pitting or galvanic action. Objects retard complete drying, preventing air from reforming the protective oxide film. Galvanic corrosion occurs when two dissimilar metals touch when wet.
3. Immediately rinse equipment after use with warm water until the rinse water is clear. Clean the equipment (manual or CIP) as soon as possible after rinsing. Corrosion: discoloration, deposits, pitting. Product deposits often cause pitting beneath the particles.
4. Use only recommended cleaning compounds. Purchase chemicals from reputable and responsible chemical manufacturers familiar with stainless-steel processing equipment they continuously check the effects of their products on stainless-steel.
5. Use cleaning chemicals exactly as specified by the manufacturer. Do not use excessive concentrations, temperatures or exposure times. Corrosion: Pitting, discoloration, stress cracks. Permanent damage often occurs from excessive chemical concentrations, temperatures or exposure times.
6. For manual cleaning, use only soft non-metallic brushes, sponges or pads. Brush with the grain on polished surfaces to avoid scratching the surface. Corrosion: Pitting, scratches. Metal brushes or sponges will scratch the surface and promote corrosion over a period of time. Metal particles allowed to remain on a stainless-steel surface will cause pitting.
7. Use chemical bactericides exactly as prescribed by the chemical manufacturer in concurrence with the local health authority. Use the lowest permissible concentration, temperature and exposure time possible. Flush immediately after bacterial treatment. In no case should the solution be in contact with stainless-steel for more than 20 minutes. Corrosion: Protective film destroyed. Chlorine and other halogen bactericides can destroy the protective film. A few degrees increase in temperature greatly increases chemical activity and accelerates corrosion.
8. Regularly inspect the joints in pipelines. Be sure all connections are tight fitting without binding. Corrosion: Crevice corrosion. Small crevices caused by improperly seated gaskets will promote crevice corrosion. Stainless-steel under stress will develop stress cracking, especially in the presence of bactericides containing chlorine.
9. Regularly inspect equipment for surface corrosion (i.e. pitting deposits, stress cracks, etc.). If deposit or color corrosion is detected, remove it immediately using mild scouring powder and detergents. Rinse thoroughly and allow to air dry. Review production and cleaning procedures to determine the cause. Note: If corrosion is not removed, the protective film cannot be restored, and corrosion will continue at an accelerated rate.



Technical Specifications

Materials of Construction Technical Data

- product contact components: 304
- non-product contact components: refer to BOM for individual component materials.

Sealing Materials Technical Data

- product contact components: 3A & FDA Grade FKM or Buna
- non-product contact components: refer to BOM for individual component materials.

Line Pressure Technical Data

- max product line pressure: 75 **PSI (5.17bar)**

Product Temperature Technical Data

- max operating temperature: 212°F (100°C) For higher temperatures, consult factory.
- minimum operating temperature: -20°F (-28.9°C) For lower temperatures, consult factory.
- max ambient temperature: 140°F (60°C)

Surface Finish Technical Data

- product contact components: Ra ≤ 32
- optional finishes: upon request
- non-product contact components: Ra ≤ 63

Connections

- Flange with ANSI B16.5 Class 150# Flange Bolt Circle x Sanitary Male Threaded Bevel
- 6in Sanitary Triclamp Flange x Sanitary Male Threaded Bevel

Sizes

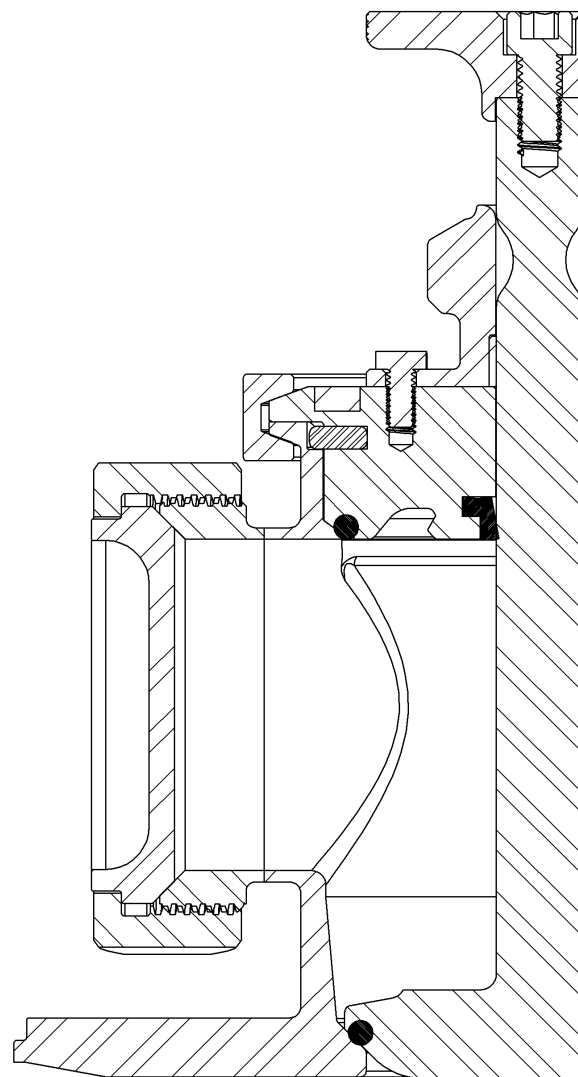
- 3in
- 6in Triclamp x 3in Threaded Bevel

Cleaning Method

- CIP – models: sizes: DX60-Series. All Sizes.
- COP – models: sizes: DX60-Series. All Sizes.

Weight

- Valve with standard plunger and valve cover: 27.0lbs
- Valve with standard plunger and without valve cover: 24.6lbs
- Valve with freeze rod plunger and valve cover: 28.0lbs
- Valve with freeze rod plunger and without valve cover: 25.7lbs

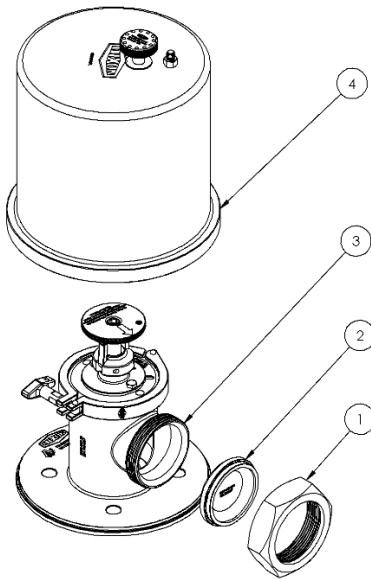


Installation & Start-Up

The following should be performed upon receiving the valve and prior to installation and use of the valve. It is important that all the following processes and procedures are carefully followed and adhered to. Dixon® is not responsible for any damage that occurs during the unpacking or installation process.

Unpacking

Carefully unpack the valve and inspect each part for any damage that may have occurred during shipment. The valve is shipped with a protective dust cover attached, so be sure to inspect the cover for any signs of damage as well as the valve itself. Report any damage to the carrier immediately. The valve is shipped with all necessary certificates and manuals. Please add this paperwork to the plant maintenance files for future use and reference. Additional information for the valve can be found at dixonvalve.com.



The following items should be inspected for damage:

Item #	Description
1	Bevel Seat Nut
2	Bevel Seat Cap
3	Valve Housing
4	Valve Housing Cover

Tools Needed

The following tools will be required for any maintenance of the valve:

- **Item 1:** Hammer
- **Item 2:** 5/16" Allen Tool
- **Item 3:** Punch
- **Item 4:** 7/16" Box Wrench
- **Item 5:** Jax PURgel KLEAR®
- **Item 6:** O-Ring Pick
- **Item 7:** Liquid Thread Locker (Not Shown)



Installation & Start-Up

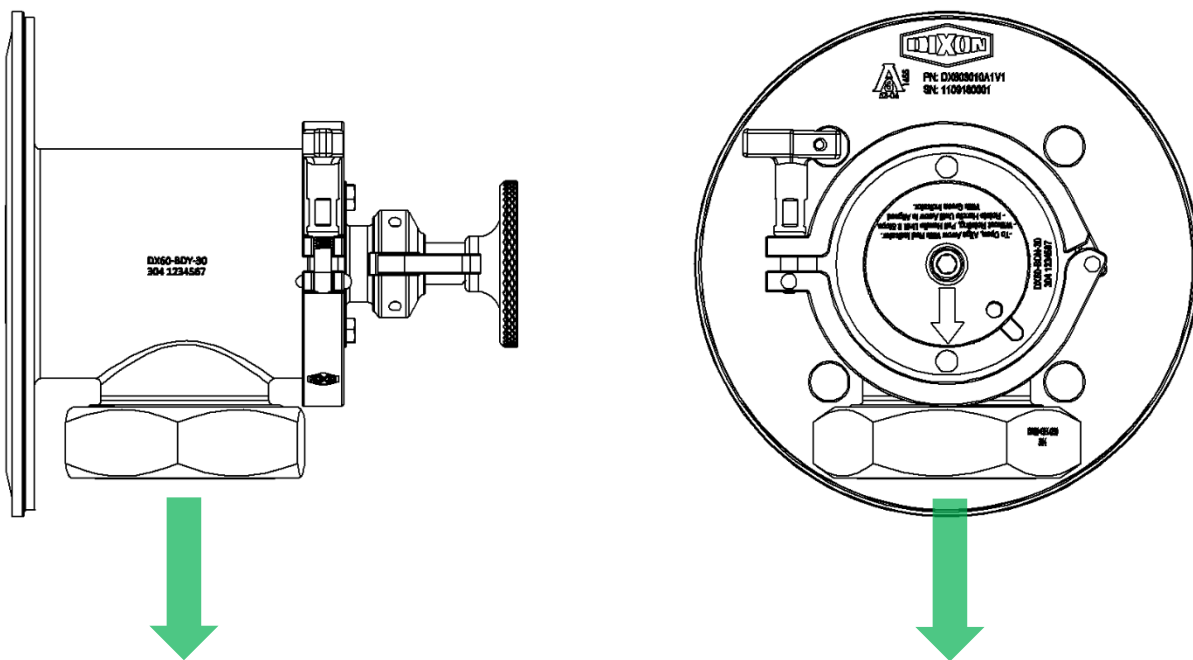
Function Testing

- Check visually to ensure that the equipment is not leaking.
- Any defective seal that could have been damaged during disassembly or assembly must be replaced.
- Check all equipment components for any signs of damage and replace damaged components.
- Ensure that all bolts and clamps are securely tightened.
- Ensure that any pneumatic hose connections are free of leaks if applicable.
- Confirm all pipes and fittings connected to the equipment permitted for use are in the intended pressure range.
- Check that the maximum pressure indicated on the equipment or in the specifications section of this manual has been complied with.

Installation Orientation

Equipment must be installed in the proper orientation to ensure proper functionality and cleanability. Please refer to the following diagrams below for proper installation.

Figure 1 – Installation Orientation



IMPORTANT: The valve must be installed with the outlet port facing downward if the valve is going to be cleaned-in-place (CIP'd). If the valve is installed with the outlet port in any other orientation other than what is depicted in Figure 1, the valve must be cleaned-out-of-place (COP'd) in a COP tank.

Operation & Safety Labels



Figure 2 – Sticker Location



IMPORTANT: Each valve is supplied with operation instructions in the form of a 5in X 7in weatherproof sticker that must be installed on the back of the trailer so that the sticker can be clearly seen while operating the valve. This sticker is provided in both English & Spanish. **Figure 2** shows an example of how the sticker should be placed on the trailer. Alternately, the sticker could be placed below or to the side of the valve, but it **MUST** be visible. Should the sticker degrade over time to the point that it is no longer readable, replace the sticker immediately. The sticker part number can be found in the BOM section of this manual.

Sticker Technical Specifications

- Total Thickness	0.0073in ±10%
- Adhesive Type	Solvent Acrylic
- Min. Application Temperature	+45°F
- Service Temperature Range	-40°F to +300°F
- Typical Service Life	5 Years
- Peel Adhesion (Stainless)	4.2 lbs.

Instructions For Valve Operation

To Open Valve

1. Remove safety seal from cam arms and pull cam arms down from the open position. (See Fig. A)
2. Align arrow on handle with red indicator on the valve bonnet and pull the handle to it's fullest extent. (Note: keep arrow aligned with red indicator as you pull open.)
3. Rotate handle so that the arrow on the handle is aligned with the green indicator on the bonnet—this is the locked position. (See Fig. B)
4. Push in on the handle to verify that the plunger is locked and cannot move forward. If not locked, repeat steps 2 & 3.

To Close Valve

1. Rotate handle so that the arrow on the handle is aligned with the red indicator on the valve bonnet.
2. Push on handle to close the plunger completely.
3. Pull cam arms up to the locked position and press in on the arms to lock in position. (See Fig. C)
4. Attach safety seal tag through the holes in the cam arms and tighten. **NOTE:** Safety seal must be installed after loading product into trailer. (See Fig. D)



Fig. A

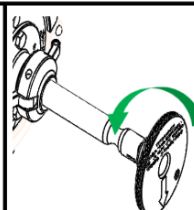


Fig. B

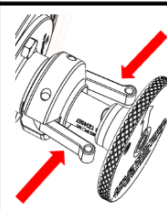


Fig. C

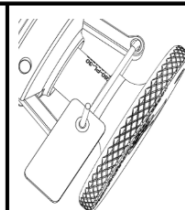



Fig. D

Figure 3 – Sticker Example

Cleaning

IMPORTANT: Before operating the equipment during formal production, please follow the guidelines listed below to ensure that your equipment is clean and ready for service.

- Ensure that the equipment is installed in a proper orientation to allow the equipment to be cleaned and drained properly. Reference the installation and startup section of the manual for orientation guidelines.
- Flush the equipment with an appropriate cleaning agent to remove any residue that may be on the equipment from shipping.
IMPORTANT: DO NOT use cleaning agents that will attack stainless-steel or the elastomers that were supplied with the valve. If you are unsure what elastomer is used in the valve, reference the part number key in this manual to make the determination.
- Follow any MSDS instructions for proper use or handling of cleaning agents. 
- Flush the equipment sufficiently to remove any soiling from the product contact components. Depending on the process, there may be varying amounts of soiling. Cleaning times and cleaning agent concentrations will vary depending on the product being processed. It is the responsibility of the operator to determine and adjust these cleaning specifications as necessary.
- The equipment should not be allowed to sit with product present in it for extended periods of time. Equipment should be cleaned immediately after processing is complete.

General Maintenance

To ensure proper operation of your Dixon® valve, proper maintenance must be performed at regular intervals. To prevent damage, check all fitting connections and screw connections for any loosening of the connections during equipment operation. Maintain adequate spare parts stock for all replacement components on the piece of equipment. Please refer to the repair kits section of the manual for complete component part numbers and kit part numbers.

Servicing Intervals

Recommended intervals for one shift operation would be 3 months. However, only the user/owner can determine the appropriate service intervals as the length between service intervals is dependent on the following parameters:

- duration of use per day – number of cycles
- type of product
- product temperature
- product viscosity
- cleaning agent
- type of cleaning (CIP/COP)

Lubrication

Please use the following chart below for proper grease type for varying component materials. DO NOT use mineral or animal-product-based greases. Check all visible seals for any signs of damage and replace as necessary. For sliding surfaces, use Jax® PurGel Klear food grade grease. If a different grease is used other than what is specified in this manual, there is risk of damaging the seals. Lubrication is only required when the equipment is being reassembled after servicing.

Seal Material	Grease Type
FKM	JAX® PurGel Klear
BUNA	JAX® PurGel Klear
PTFE	Do Not Grease

General Maintenance

Inspection

Inspection of the components listed below should be done during regular servicing intervals. Before removing the valve from the trailer, please take care to do the following:

- Clean the trailer completely to remove any product that may be harmful if contacting a person.
- Drain the trailer completely that connects to the valve being serviced.
- Make sure the valve is completely free of any product before removing from the trailer.
- Once the valve has been removed from the trailer, cover the outlet of the trailer with a clean cotton rag to prevent any foreign material from entering the trailer.

Components to be inspected (Refer to BOM Section of the manual):

- **Lip Seal** (Item No. 6)
- **Plunger Seal** (Item No. 8)
- **Bonnet Seal** (Item No. 9)
- **Plunger** (Item No. 4)
- **Bonnet** (Item No. 3)
- **Valve Housing** (Item No. 1)

Any components that show signs of severe wear or damage should be replaced during the scheduled maintenance time for the equipment. Please refer to the assembly and disassembly section of this manual for proper instructions on removing and replacing any worn or damaged components. Replacement components and repair kits can be found in the BOM or repair kits section of this manual.

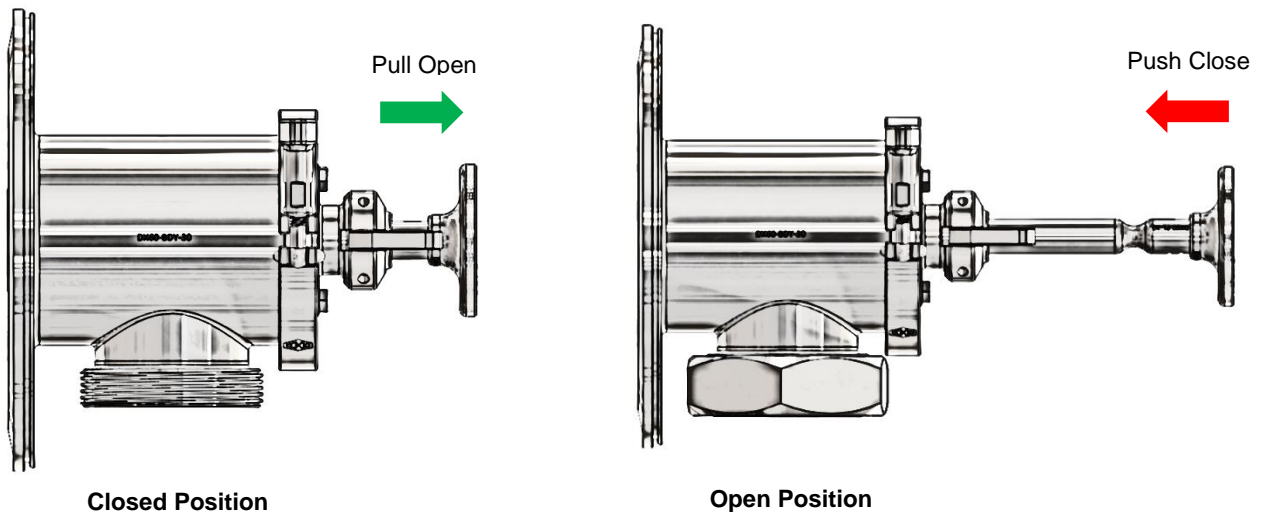
Manual Cleaning (COP)

1. Refer to the disassembly section of the manual and follow instructions to remove all product contact components.
2. Inspect the product contact components of the equipment for any signs of possible damage. Replace components as necessary. (See the equipment BOM in this manual for replacement component part numbers.)
3. Clean all surfaces of the product contact components by manually brushing in a bath of cleaning solution (acid detergents or simple alkaline soda type detergents).
4. After cleaning, rinse all components thoroughly with water.
5. Refer to the assembly section of the manual and follow instructions to properly reassemble the equipment.

Cleaning in Place (CIP)

Note: Not all models or sizes may be certified for CIP. Please check the specifications section of the manual to determine what cleaning method is suitable.

1. Regularly flush the valve with a suitable medium to preserve seals and integrity of the product contact surfaces, such as when there is a product changeover or downtime. These intervals shall be determined by the end user.
2. Important: Only use cleaning agents which will not harm the seals and stainless-steel.
3. Follow any MSDS instructions for proper use or handling of cleaning agents.
4. The necessary cleaning times, temperatures and cleaning agents will depend on the degree of contamination and must be adapted accordingly.
5. Cleaning flow velocities of 5-6 ft/s should be maintained for proper cleaning of the equipment.
6. The valve plunger must be cycled between the "open" and "closed" positions during the CIP cleaning process to ensure that all product contact surfaces are properly exposed to the cleaning fluid. (See diagram)



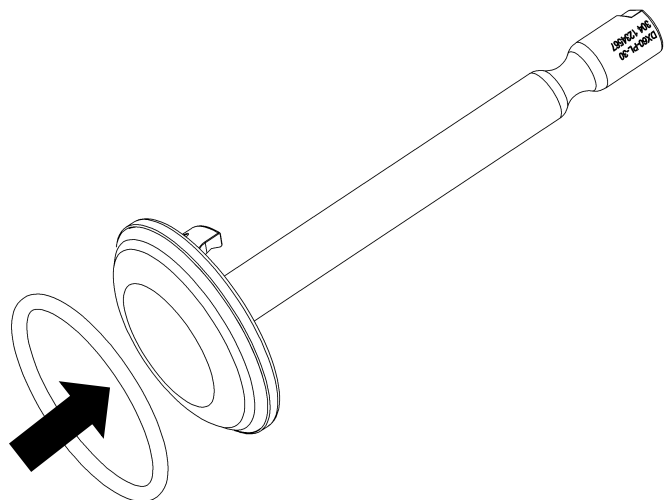
7. After cleaning, rinse the equipment thoroughly with water.

Assembly and Disassembly

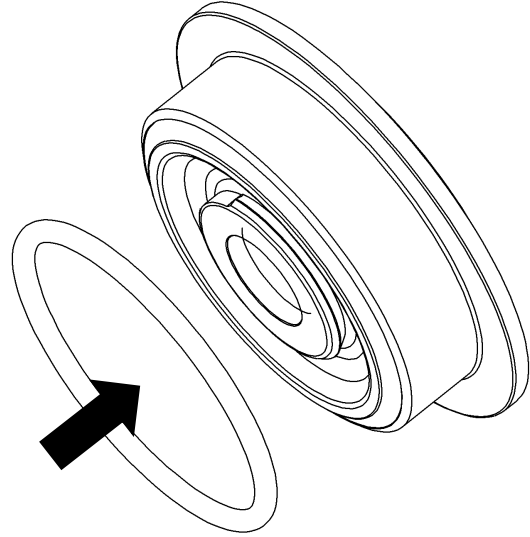
To ensure quality operation of your Dixon® equipment, the equipment must be disassembled and assembled properly to prevent equipment damage during operation. Please follow the instructions contained in this manual carefully and be sure to follow any safety warnings contained herein. If any questions should arise during the assembly or disassembly process that are not addressed in this manual, please feel free to contact Dixon® – Sanitary Division at 800.789.1718.

Assembly

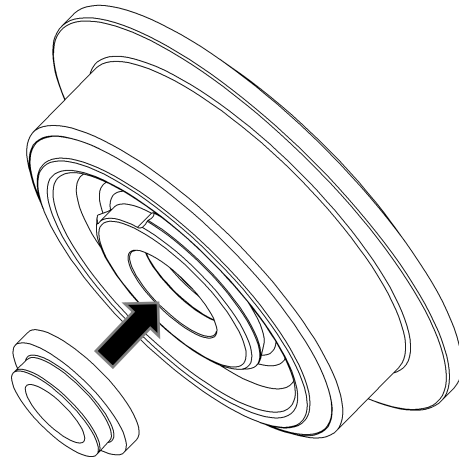
1. Grease the plunger seal O-Ring **DX60-PS-V-30** with food grade grease install the plunger seal O-Ring onto the plunger **DX60-PL-30** by pressing the O-Ring firmly into the O-Ring groove of the plunger. Press evenly around the diameter of the O-Ring to ensure that the O-Ring is sitting firmly in the groove.



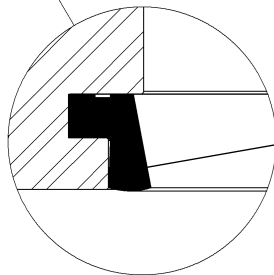
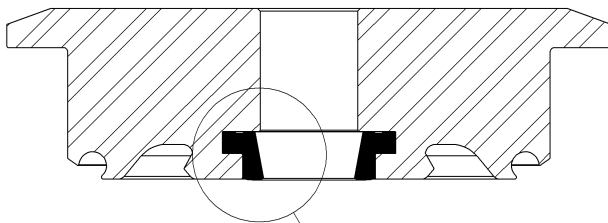
2. Grease the bonnet seal O-Ring **DX60-PS-V-30** and the lip seal **DX60-LS-V-30** with food grade grease. Install the bonnet seal O-Ring on the bonnet by pressing the O-Ring firmly into the O-Ring groove of the bonnet being careful not to roll the O-Ring.



3. Grease the bonnet lip seal **DX60-LS-V-30** liberally with food grade grease. Install the lip seal into the gland in the bonnet and press firmly into place. Pinching the lip seal will help to fit the seal into the gland groove. Ensure the seal is sitting securely in the bonnet and that there are no gaps between the lip seal and the bonnet face.



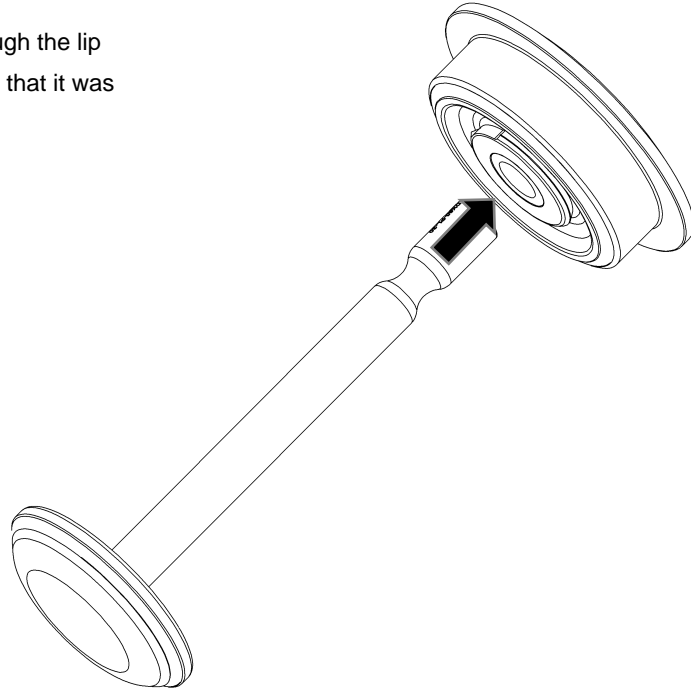
Bonnet Cross Section



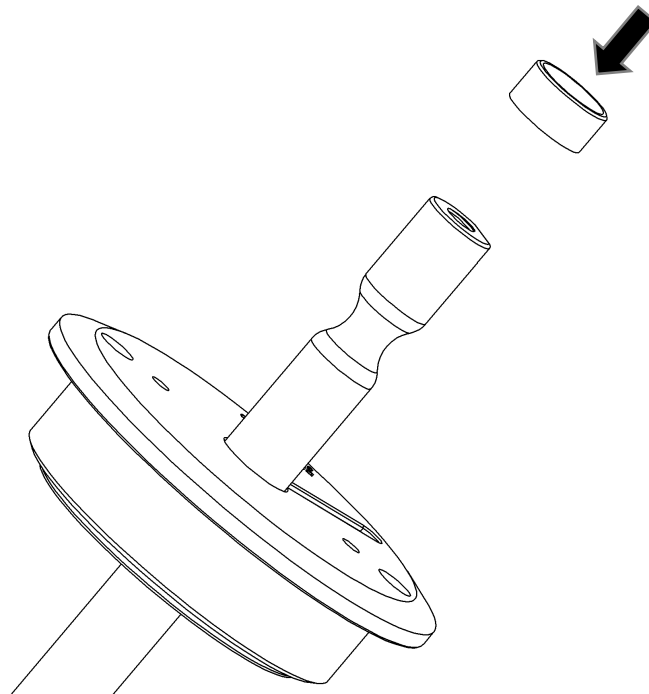
There should be no large gaps between the stainless & the rubber.

Assembly

4. Insert the plunger **DX60-PL-30** carefully through the lip seal and bonnet. Check the lip seal to ensure that it was not damaged in any way.

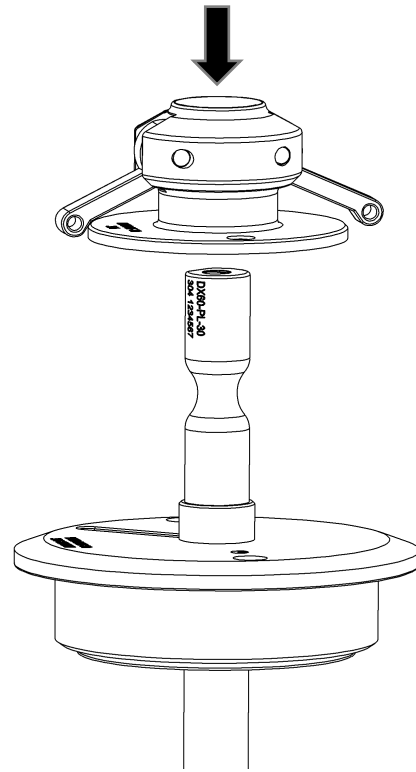
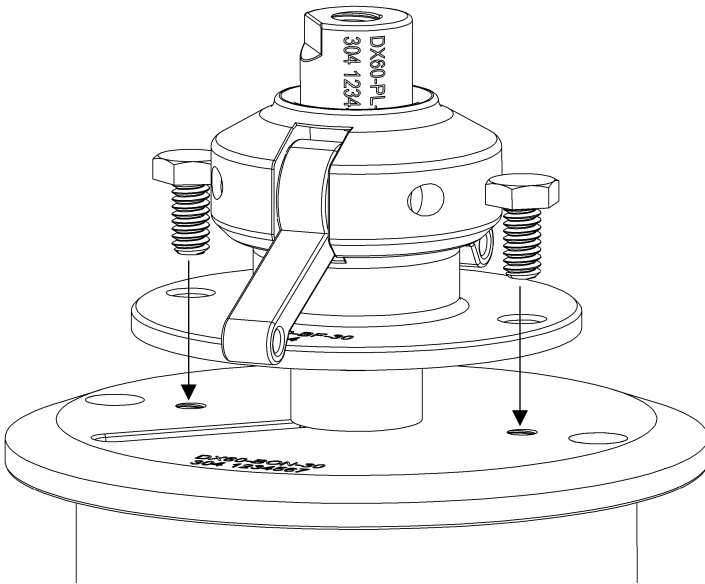


5. Install stem bushing **DX60-SB-30** onto the plunger stem and slide bushing down until it contacts the bonnet securely.

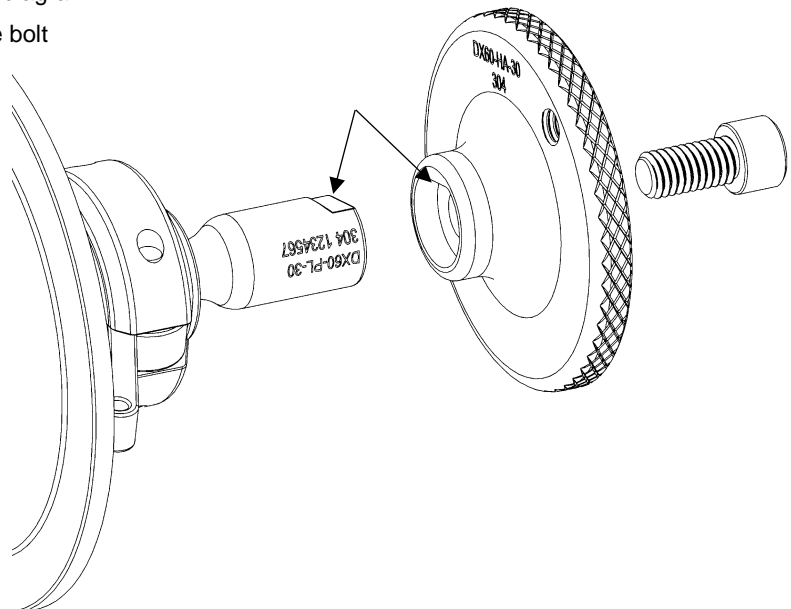


Assembly

6. Install bonnet hub flange **DX60-BF-30** by sliding it onto the plunger stem and pressing down until it contacts the bonnet. Align the clearance holes in the bonnet hub flange with the threaded holes in the bonnet. Insert the bonnet hub flange bolts **DX60-BFHB-30** through the clearance holes and tighten the bolts to 75in-lb. **Note:** apply thread locker to the bolts.

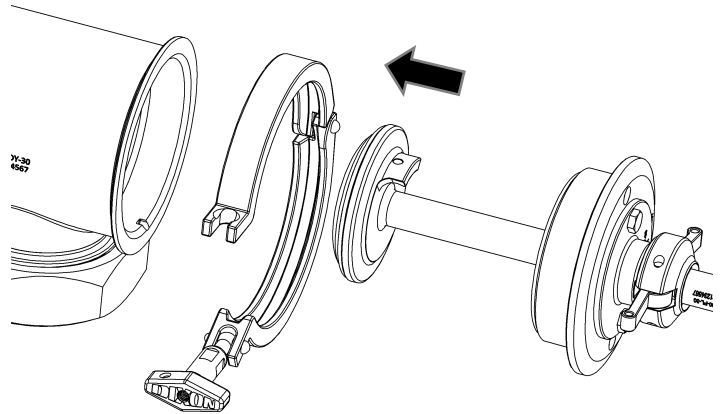


7. Install the handle **DX60-HA-30** onto the plunger stem being sure to line up the machined flat on the handle with the machined flat on the plunger stem. See diagram below. Apply thread locker to the plunger handle bolt **DX60-HAB-30** & tighten using a 5/16" Allen.



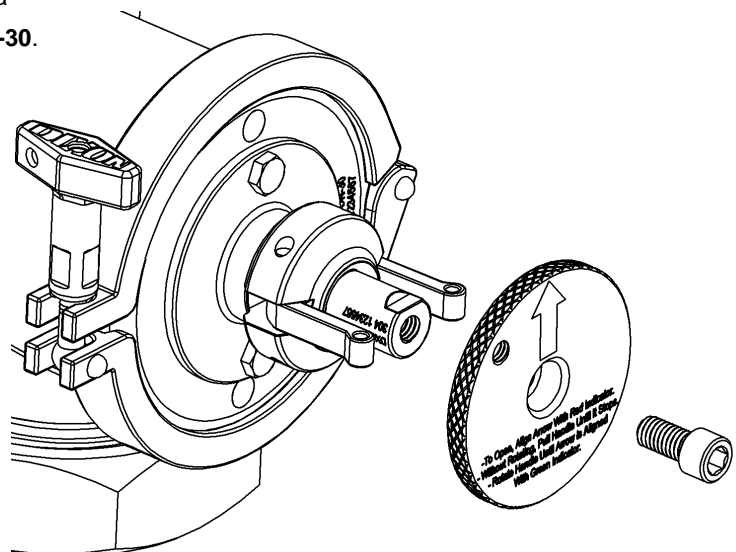
Assembly

8. Insert the plunger/bonnet/handle assembly into the valve housing making sure to align the bonnet locating pin with the notch in the valve housing. Install the body clamp **DX60-CLMP-30** and tighten the wing nut securely.

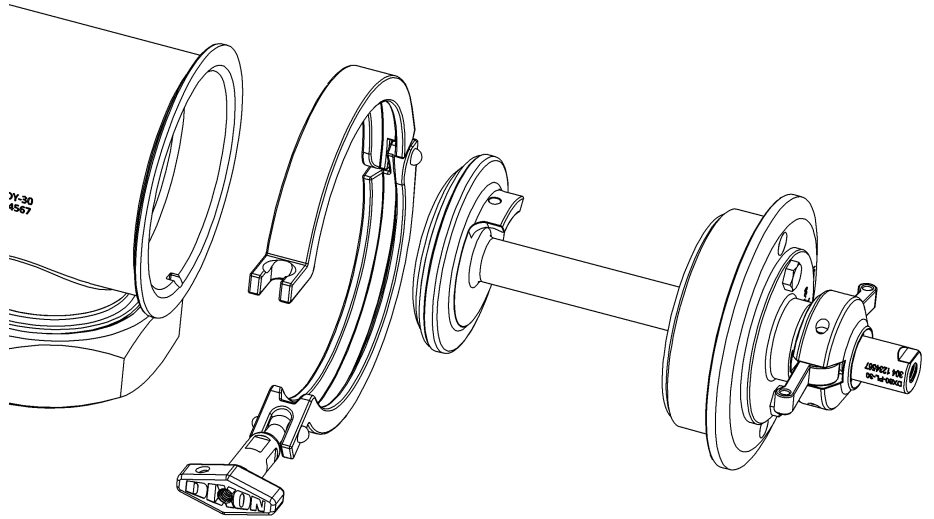


Disassembly

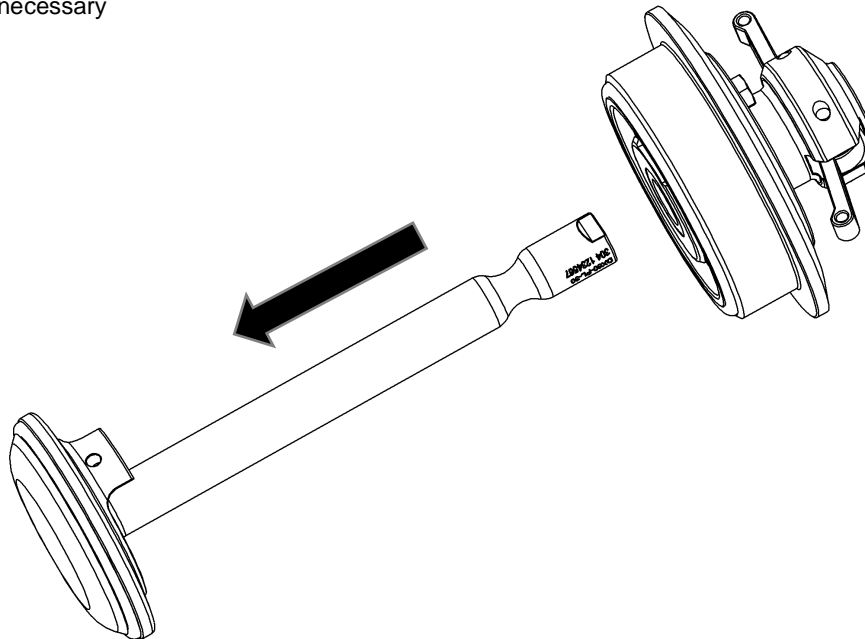
1. Remove plunger handle bolt **DX60-HAB-30** using a 5/16" Allen tool and then remove handle **DX60-HA-30**.



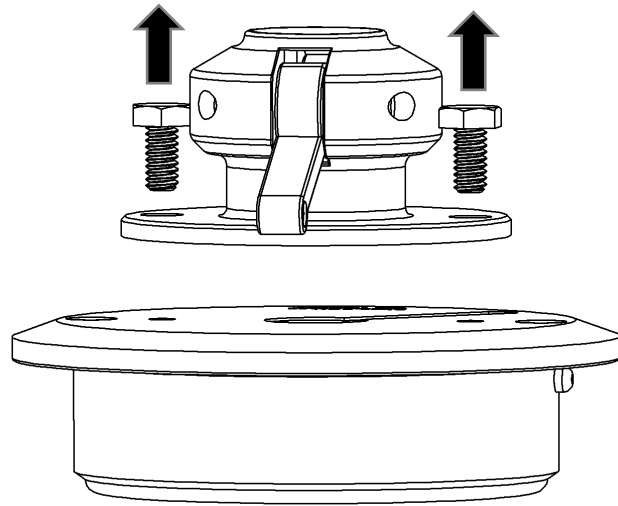
2. Remove body clamp **DX60-CLMP-30** by loosening the wing nut with your hand. Remove the plunger & bonnet assembly from the valve body **DX60-BDY-30**.



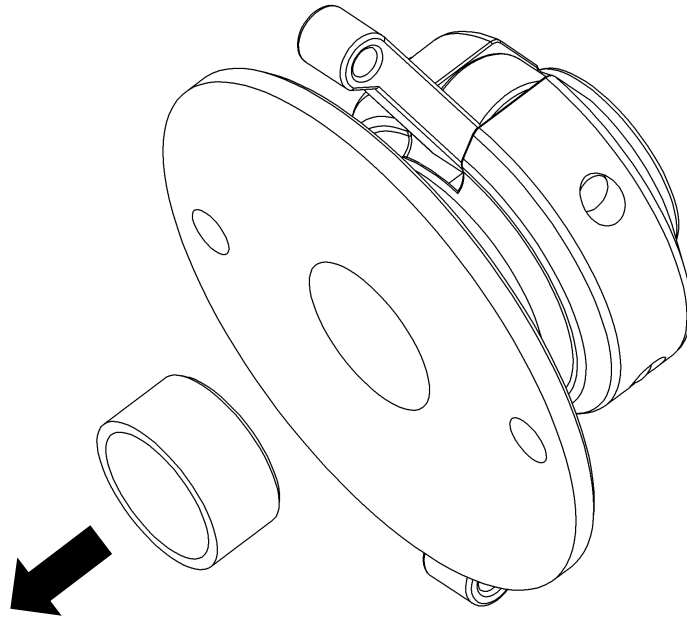
3. Remove the plunger **DX60-PL-30** from the valve bonnet **DX60-BON-30** and inspect for any signs of damage. Replace any components as necessary



4. Remove the bonnet flange bolts **DX60-BFHB-30** from the bonnet hub flange **DX60-BF-30** using a 7/16" box wrench. Remove the bonnet hub flange from the bonnet **DX60-BON-30**.

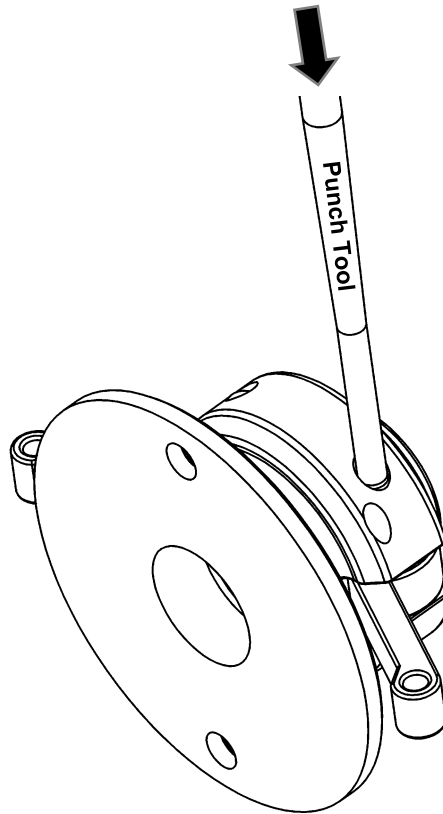


5. Remove the stem bushing **DX60-SB-30** from the bonnet hub flange **DX60-BF-30**.

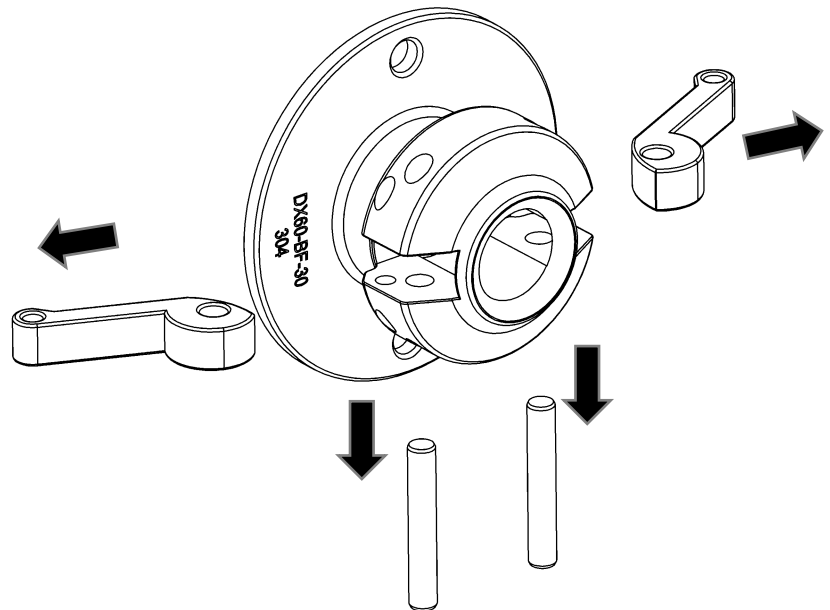


5a. Using a punch tool and hammer, knock out the handle pins **G100HRP** from the bonnet hub flange.

Note: Handle cam arms **G100HR** only require disassembly if arms are damaged or worn and require replacement.

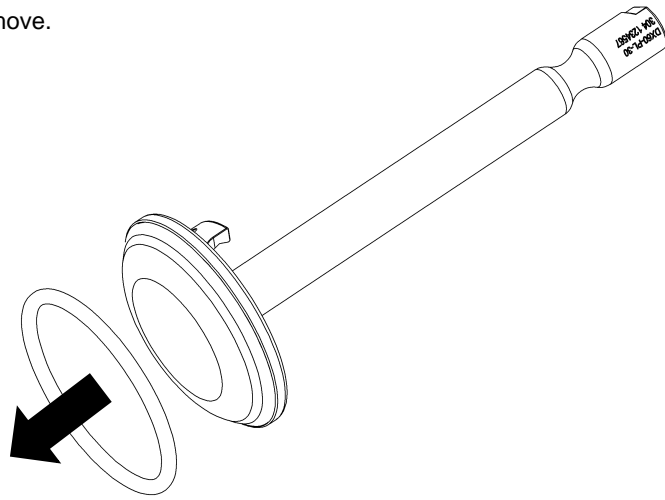


5b. Remove handle pins **G100HRP** and handle cam arms **G100HR** from bonnet hub flange **DX60-BF-30**.

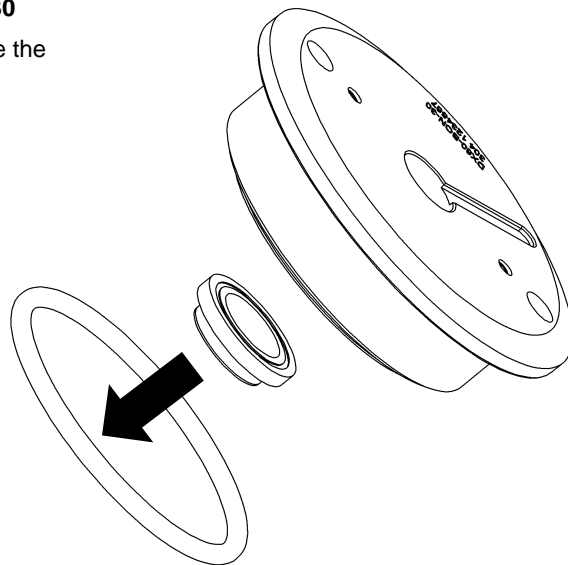


Disassembly

6. Remove the plunger seal O-Ring **DX60-PS-V-30** from the plunger **DX60-PL-30** using an O-Ring pick tool. You may need to pierce the O-Ring through to remove.

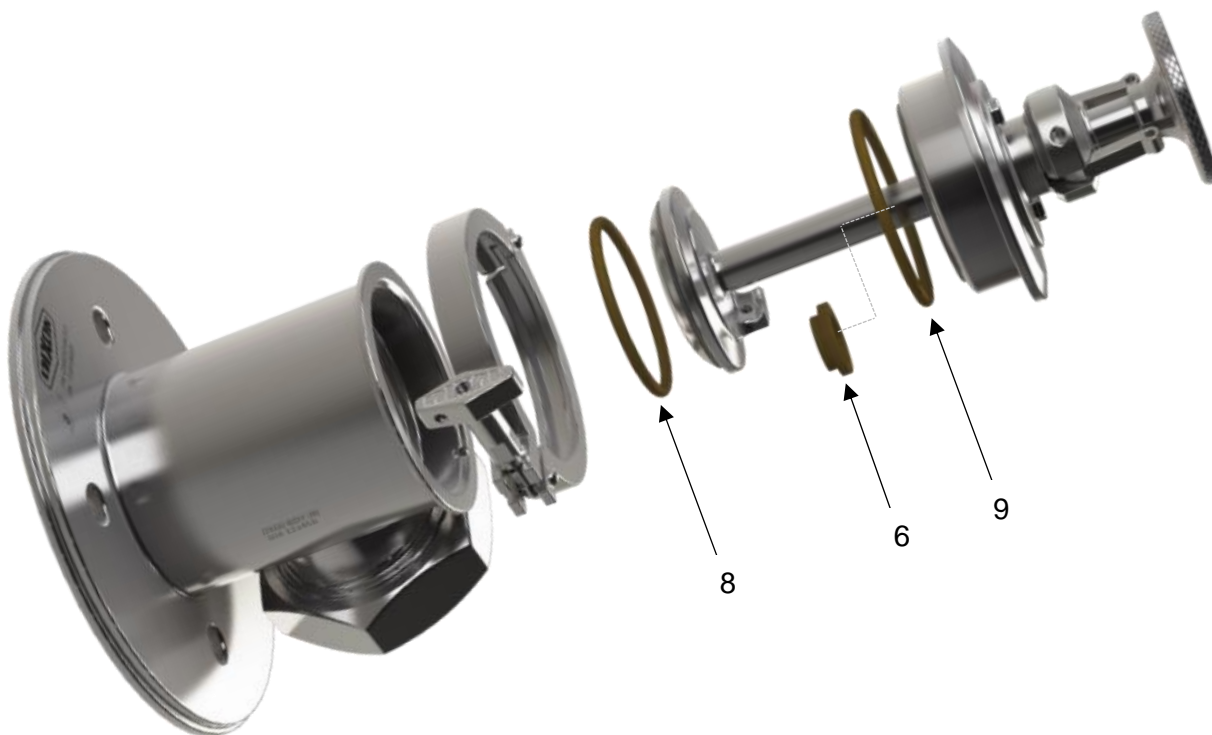


7. Remove bonnet seal O-Ring **DX60-BS-V-30** and the lip seal **DX60-LS-V-30** from the bonnet **DX60-BON-30** using an O-Ring pick tool. You will need to pierce the lip seal to remove.



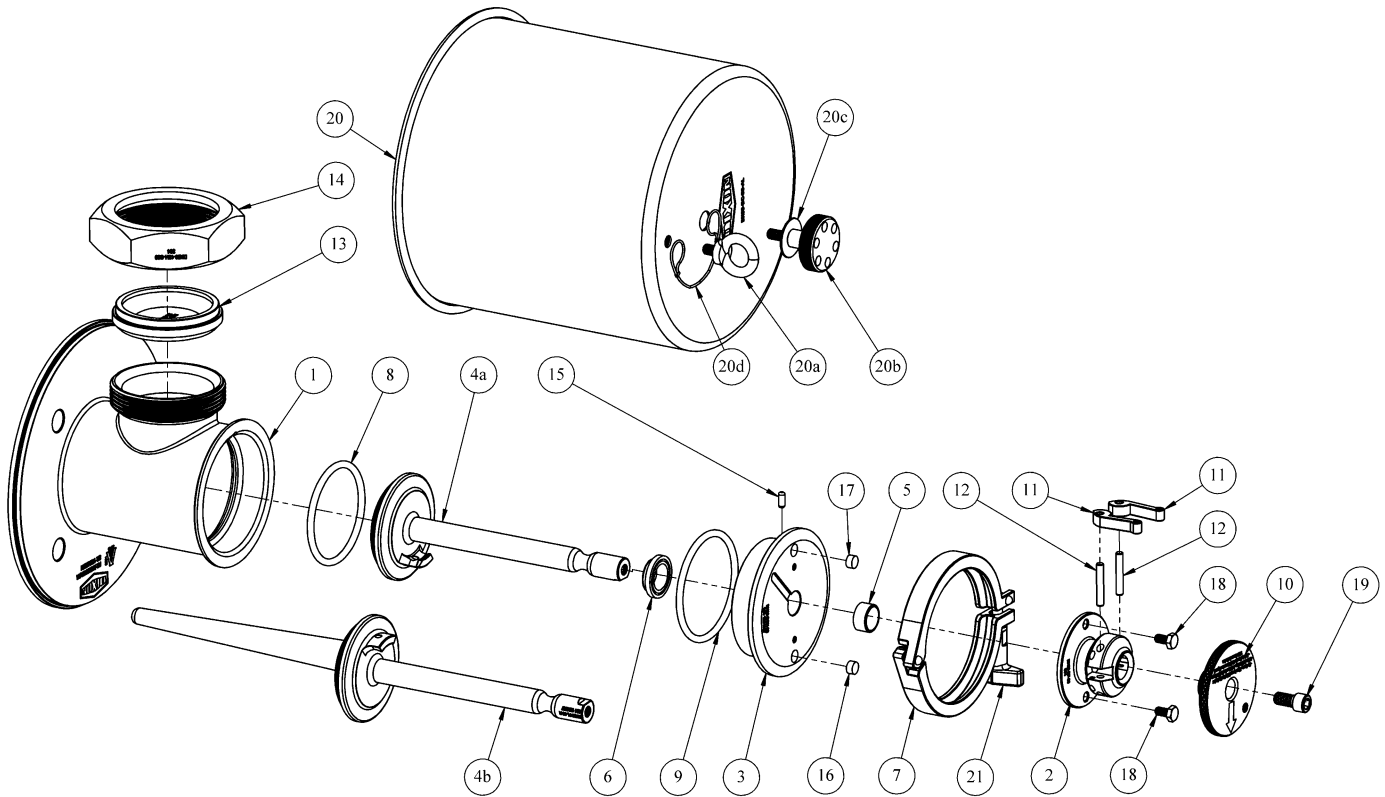
Repair Kits

To ensure proper operation of your Dixon® valve, proper maintenance must be performed at regular intervals. To prevent damage and improper operation, use only genuine replacement parts and kits offered by Dixon® to maintain the integrity of the valve. Make sure the parts are properly matched to the series, model, serial number and revision level of the equipment. Please see the list of kits below offered for this piece of equipment:



Valve Size	Lip Seal Material (Item 6)	Plunger Seal Material (Item 8)	Bonnet Seal Material (Item 9)	Kit Part Number	Kit Includes
3"	—	FKM	FKM	DX60-30-SK1-V	Items 8, 9
3"	FKM	FKM	FKM	DX60-30-SK2-V	Items 6, 8, 9
3"	—	Buna	Buna	DX60-30-SK1-B	Items 8, 9
3"	Buna	Buna	Buna	DX60-30-SK2-B	Items 6, 8, 9

Bill of Materials



Part Type	Part Number	Item No.	Material	Description	Qty
Body Housing	DX60-BDY-30	1*	304	DX60 Body [3in Valve] 150# Flange	1
Body Housing	DX60-BDY-60103	1	304	Alternate Body [6in Triclamp x 3in Bevel]	
Bonnet Hub Flange	DX60-BF-30	2	304	DX60 Bonnet Hub Flange [3in Valve]	1
Bonnet	DX60-BON-30	3*	304	DX60 Bonnet [3in Valve]	1
Plunger	DX60-PL-30	4a*	304	DX60 Plunger [3in Valve]	1
Plunger - Freeze Rod (Optional)	DX60-PL-30-R	4b	304	DX60 Plunger With Freeze Rod [3in Valve}	1
Stem Bushing	DX60-SB-30	5	PTFE	DX60 Stem Bushing [3in Valve]	1
Lip Seal	DX60-LS-V-30	6*	FKM	DX60 FKM Lip Seal [3in Valve]	1
Body Clamp	DX60-CLMP-30	7	304	DX60 Body Clamp [3in Valve]	1
Plunger Seal	DX60-PS-V-30	8*	FKM	DX60 FKM Plunger Seal [3in Valve]	1
Bonnet Seal	DX60-BS-V-30	9*	FKM	DX60 FKM Bonnet Seal [3in Valve]	1
Plunger Handle	DX60-HA-30	10	304	DX60 Plunger Handle [3in Valve]	1
Handle Cam Arm	G100HR	11	304	Handle Cam Arm	2
Pin	G100P	12	304	Handle Pin	2
Bevel Seat Cap	DX60-16A-G30	13*	304	DX60 Bevel Seat Cap [3in Valve]	1
Bevel Seat Nut	13H-G300	14	304	3in Bevel Seat Nut	1
Bonnet Locating Pin	DX60-BLP-30	15	ABS	DX60 Bonnet Locating Pin [3in Valve]	1
Bonnet Marker - Red	DX60-BMR	16	Nylon	DX60 Red Bonnet Marker	1
Bonnet Marker - Green	DX60-BMG	17	Nylon	DX60 Green Bonnet Marker	1
Bonnet Flange Bolt	DX60-BFHB-30	18	18-8	DX60 Bonnet Flange Bolt [3in Valve]	2
Plunger Handle Bolt	DX60-HAB-30	19	304	DX60 Plunger Handle Bolt	1

Valve Housing Cover	DX60-DC-30-AL	20**	AL	DX60 Valve Housing Cover [3in Valve]	1
Dust Cover Eye Bolt	DX60-DCEB-30	20a	304	DX60 Dust Cover Eye Bolt	1
Dust Cover Nut Washer	DX60-DCNW-30	20b	18-8	DX60 Dust Cover Nut Washer	1
Dust Cover Nut Washer	DX60-DCN-30	20c	AL	DX60 Dust Cover Nut	1
Dust Cover Lanyard	DX60-DCL-30	20d	304	DX60 Dust Cover Lanyard	1
Body Clamp Wing Nut	DX60-13DWN	21	304	DX60 Body Clamp Wing Nut	1

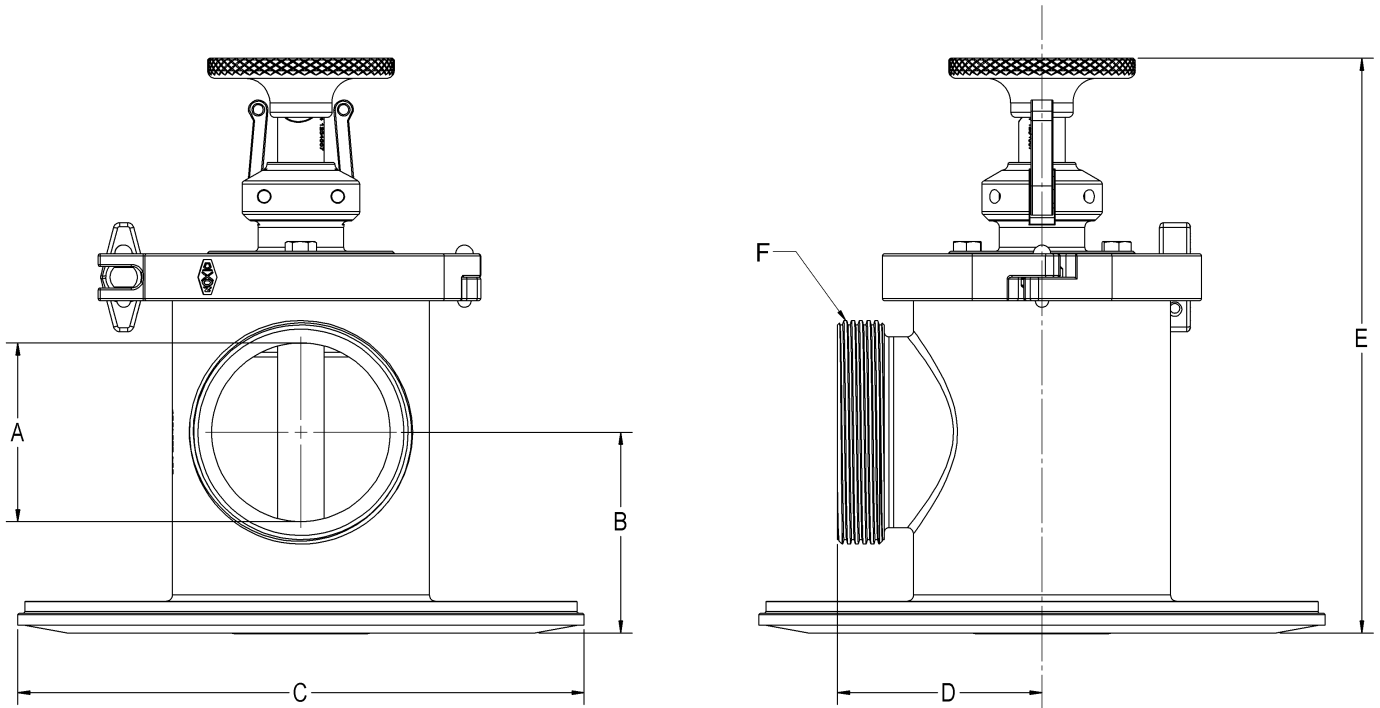
*** Optionally Available Materials (See Table Below For Component Part Numbers)**

Part Type	Part Number	Item No.	Material	Description	Qty
Body Housing	DX60-BDY-30R	1	316L	DX60 Body [3in Valve], 316L	1
Bonnet	DX60-BON-30R	3	316L	DX60 Bonnet [3in Valve], 316L	1
Plunger	DX60-PL-30R	4a	316L	DX60 Plunger [3in Valve], 316L	1
Bevel Seat Cap	DX60-16A-G30R	13	316L	DX60 Bevel Seat Cap [3in Valve], 316L	1
Lip Seal	DX60-LS-B-30	6	Buna	DX60 Buna Lip Seal [3in Valve]	1
Plunger Seal	DX60-PS-B-30	8	Buna	DX60 Buna Plunger Seal [3in Valve]	1
Bonnet Seal	DX60-BS-B-30	9	Buna	DX60 Buna Bonnet Seal [3in Valve]	1

**** When ordering the cover as a repair part, order using part number DX60-DC-30-ALRK**

Dimensions

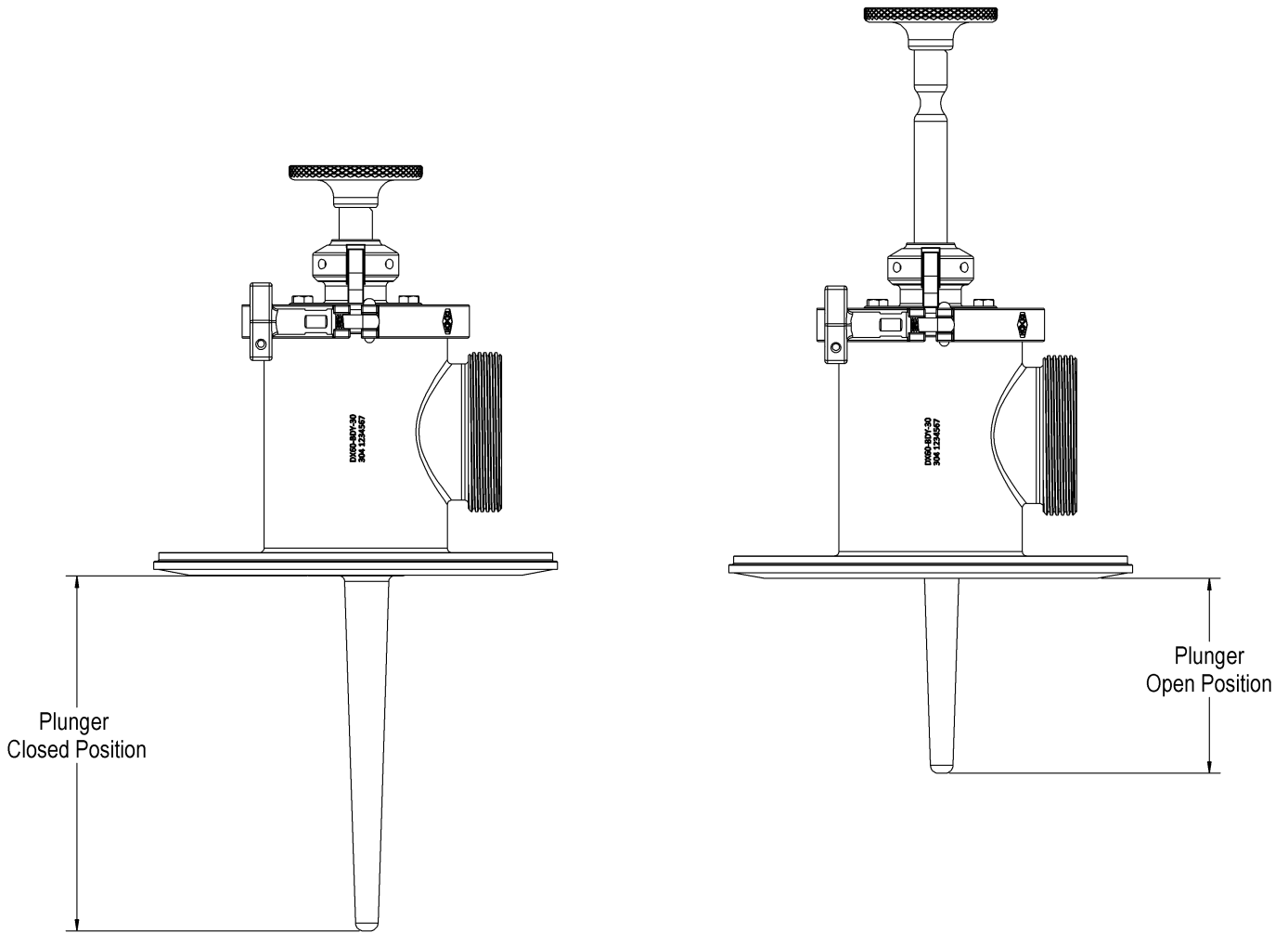
DX60 With Standard Plunger – Cover Removed



Valve Size	A	B	C	D	E	F
3in	2.87in	3.22in	9.10in	3.29in	9.23in	3in Male Threaded Bevel

Dimensions cont.

DX60 With Freeze Rod Plunger – Cover Removed

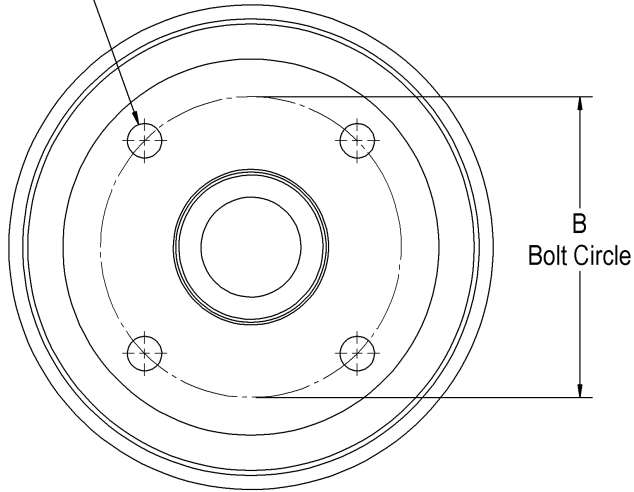


Valve Size	Plunger Closed Position	Plunger Open Position
3in	8.00in	4.44in

Note: All other dimensions of DX60 valve with optional freeze rod plunger are the same as the valve with standard plunger. Refer to the drawing on the previous page for additional dimensions.

Dimensions cont.

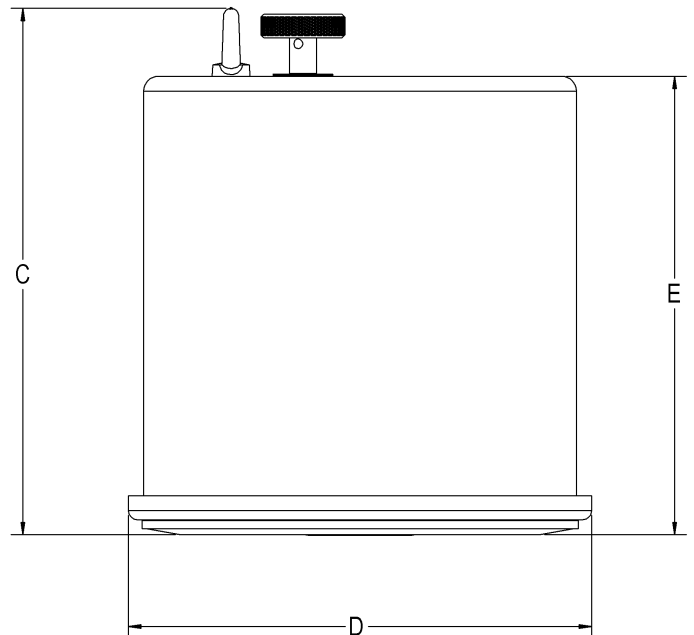
A 4X
Equally Space Around
B.C.



Valve Size	A (4X)	ØB
3in	0.69in	6.00in

DX60 Valve – Flange Bolt Circle

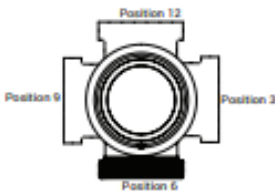
Valve Size	C	D	E
3in	10.98in	9.66in	9.57in



DX60 Valve – Cover Installed

Part Number Key

To ensure proper specification of your Dixon® DX60-Series valve, below is the complete valve part number key to configure the valve with the options that meet your specific requirements. To determine what seal material or valve component material your current valve is constructed of, refer to the complete part number that is laser marked on the flange of the valve. If you require an option that is not listed in this key, please feel free to contact Dixon® – Sanitary Division at 800.789.1718.

DX60 Series Hygienic Tanker Valve Part Number Key		Valve Series	Valve Body				Material	Seal Material	Valve Cover	Options	Valve Body Style Port Configurations
		DX60	30	10	A	1	G	V	1		
Valve Size	Code										
3"	30										
3" at position 6 / 2" at positions 3, 9, or 12	32										
3" at position 6 / 2½" at positions 3, 9, or 12	35										
6" to trailer / 3" at 3, 6, 9, or 12	63										
Valve Body Style	Code										
L (2-port shut-off) position 6	10										
Multiport (3-port shut-off) positions 6 and 3	20										
Multiport (3-port shut-off) positions 6 and 9	30										
Multiport (3-port shut-off) positions 6 and 12	40										
Surface Finish	Code										
32R _s (ID mechanical polish)	A										
Connections	Code										
Flange (to trailer) x male threaded bevel ¹	1										
Plain bevel (to trailer) x male threaded bevel	2										
Stainless Steel Wetted Parts	Code										
304	G										
316L (optional)	R										
Seal Material	Code										
FKM	V										
Buna (optional)	B										
Valve Cover	Code										
Aluminum	1										
No cover	2										
Options	Code										
None	Blank										
Plunger with freeze rod	R										

¹When used with valve size code 63, the flange is a triclamp style connection.

Troubleshooting

Problem	Possible Cause	Suggested Action
Valve is leaking	Plunger seal, bonnet seal, or lip seal damaged.	Check seals for any type of damage and replace as necessary.
	Body clamp is not tightened properly.	Tighten wing nut on body clamp.
	Handle cam arms are not engaged.	Push cam arms in tightly so they are completely secure.
Valve won't open	Plunger seal may be frozen to the valve housing.	Rotate handle to break free.
	Valve was not cleaned after running a sticky or tacking product.	Clean valve according to the cleaning instructions found in this manual.
Valve will not lock open	Check plunger lock arm or bonnet damaged.	Check plunger lock arm & bonnet for any signs of damage. Repair as necessary.
	Accumulated product on the plunger or bonnet from not cleaning properly.	Clean valve according to the cleaning instructions found in this manual.
Dust cover will not go on	Damaged dust cover.	Inspect cover for any signs of warping or damage around the diameter. Replace as necessary.
	Significant damage to the valve housing flange.	Inspect valve housing flange for any signs of damage around where the cover meets the flange. Repair as necessary.
Plunger alignment loose	Worn PTFE stem bushing.	Inspect bushing for signs of wear and replace as necessary.
	Bonnet flange bolts are loose.	Tighten bolts properly per the assembly instructions given in this manual.

Certificates

ISSUE DATE: June 21, 2012

CERTIFICATE AUTHORIZATION NUMBER: 1655



THIS IS TO CERTIFY THAT

Dixon Sanitary

N25 W23040 Paul Road, Pewaukee, WI 53072

is hereby authorized to continue to apply the
3-A Symbol to the models of equipment, conforming to 3-A Sanitary Standards for:

Number 53-06
53-06 (Compression-Type Valves)

set forth below

CIP Models: SVSAC**B, SVSBC**B, SVSCC**B, SVTDC**B, SVDEC**B, SVDFC**B, SVDGC**B,
SVDHC**B and SVDIC**B in sizes 1"- 4".
SSV Series; S or D ** * ** C or B **** in sizes 1"- 4".

COP Models: SVSAC**A, SVSBC**A, SVSCC**A, SVTDC**A, SVDEC**A, SVDFC**A, SVDGC**A,
SVDHC**A and SVDIC**A in sizes 1"- 4". SPR-TCV and SPR-LCV in sizes 1.5" & 2".

CIP/COP Models: DX60 Series

VALID THROUGH: **December 31, 2019**

Timothy R. Rugh
Executive Director
3-A Sanitary Standards, Inc.

The issuance of this authorization for the use of the 3-A Symbol is based upon the voluntary certification, by the applicant for it, that the equipment listed above complies fully with the 3-A Sanitary Standard(s) designated. Legal responsibility for compliance is solely that of the holder of this Certificate of Authorization, and 3-A Sanitary Standards, Inc. does not warrant that the holder of an authorization at all times complies with the provisions of the said 3-A Sanitary Standards. This in no way affects the responsibility of 3-A Sanitary Standards, Inc. to take appropriate action in such cases in which evidence of nonconformance has been established.

NEXT TPV INSPECTION/REPORT DUE: **June 2022**

Limited Warranty

DIXON VALVE AND COUPLING COMPANY (herein called "Dixon") warrants the products described herein and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. Its sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) to normal maintenance services and the replacement of service items (such as washers, gaskets and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

Other than the obligation of Dixon set forth herein, Dixon disclaims all warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, and any other obligation or liability. The foregoing constitutes Dixon's sole obligation with respect to damages, whether direct, incidental or consequential, resulting from the use or performance of the product.

Some products and sizes may be discontinued when stock is depleted or may require a minimum quantity for ordering.