

# API490 Series Dry Break Bottom Loading Valve

The API490 series is a bottom loading and discharge adaptor that conforms to API RP1004. Models available can be optioned to include sight glass and drain boss. Mounts to match industry standard air interlock valves, e.g. Liquip model CV300.

The API490 series also features a two-piece body construction with replaceable nosecone.

## Key Features

- Complies to API RP1004 – compatible with all 4" API couplers.
- Ease of maintenance for reduced downtime.
- The bulk of internal components are stainless steel for increased strength and product service life.
- Ergonomically designed handle.
- Set of mounts to match industry standard air interlock valves such as the Liquip CV300.
- Tough, heat treated aluminium design reduces weight to a mere 4.8kg.
- High strength, transparent nylon material sightglass to visually check for retained product (Blank plate also provided).
- Flange has a gramophone finish for improved sealing.
- 100mm bore all through for minimum pressure drop.
- 52mm long poppet travel.
- Electrical continuity is assured by use of non-anodised nose cone.
- API496 variants have a 1/2" BSP threaded drain point at the bottom of the adaptor.



## Variants

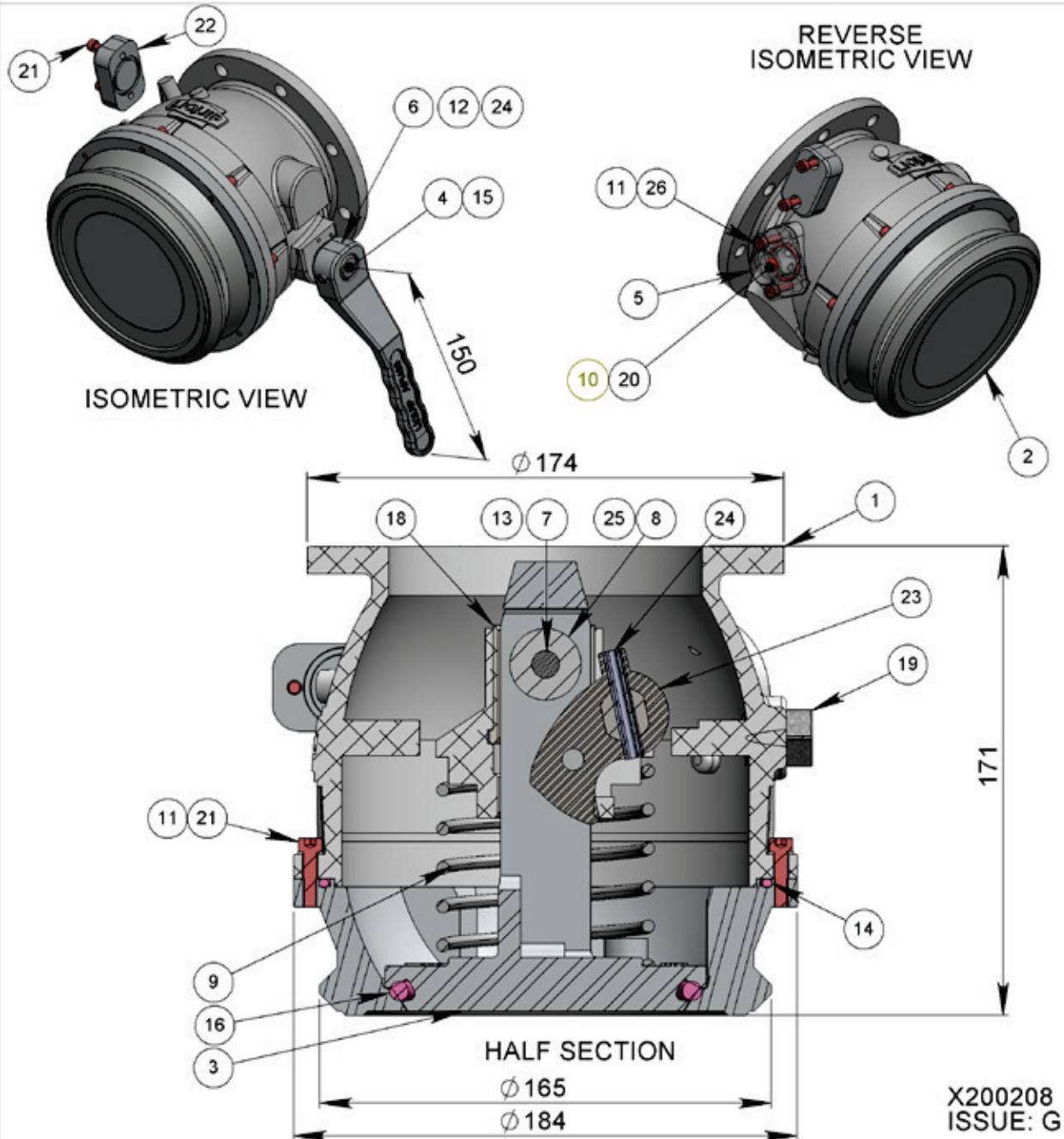
- API491 No sight glass or drain.
- API491D Handle moves down, no sight glass or drain.
- API496 Complete with sight glass & drain.
- API496D Handle moves down, complete with sight glass & drain.
- API496J Jet Selective, complete with sight glass & drain.
- API496DJ Jet Selective, handle moves down, complete with sight glass & drain.
- API496G Avgas Selective, complete with sight glass & drain.
- API496DG Avgas Selective, handle moves down, complete with sight glass & drain.

## Specifications

<b>OPERATING TEMPERATURE</b>	-10°C to +60°C
<b>WEIGHT</b>	4.8kg
<b>STANDARDS</b>	API RP1004 (517kPa working pressure)
<b>MATERIALS OF CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>• Aluminium body, nosecone and poppet.</li> <li>• Stainless steel shaft, cam &amp; roller.</li> <li>• Viton o-rings.</li> <li>• Acetal poppet bush.</li> </ul>
<b>OPERATION</b>	<p>The valve can be opened manually using the handle for discharge, or by an API coupler for bottom loading or unloading. (For safety, the handle is designed to not move when connected to coupler).</p> <p>The handle configuration can be either "pull-up -to-open" or "push-down-to-open", which when actuated rotates an internal cam to open the poppet. The cam uses the over-centre principle to hold poppet in its open position while unloading. Dual o-ring seals on shaft prevent leaks.</p> <p>No set period. Service as required.</p>
<b>PERIODIC SERVICE</b>	<ul style="list-style-type: none"> <li>• Inspect for seal wear/leakage on poppet and shaft.</li> <li>• Inspect handle return spring for spring set.</li> <li>• Inspect general condition of seal face and nosecone.</li> </ul>
<b>MOUNTING</b>	Flange is 100mm TTMA standard. Mount so that when viewed from the front, the handle is on the right hand side.

# LIQUIP

## API49x SERIES



METERS - VALVES - VENTS - MANHOLES - PUMPS - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS



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# LIQUIP

## API49x SERIES

X200208  
ISSUE: G



CLOSED



OPEN

ITEM NO.	PART NUMBER	DESCRIPTION	API490	API491	API496	API497	MATERIAL
1	API490-1	VALVE BODY, API DRY BREAK	1	-	-	-	ALUMINIUM
1	API491-1	VALVE BODY, API DRY BREAK	-	1	-	-	ALUMINIUM
1	API496-1	VALVE BODY, API DRY BREAK	-	-	1	-	ALUMINIUM
1	API497-1	VALVE BODY, API DRY BREAK	-	-	-	1	ALUMINIUM
2	API490-2	NOSE CONE	1	1	1	1	ALUMINIUM
3	API490-3	POPPET VALVE DRY BREAK	1	1	1	1	ALUMINIUM
4	API490-5	SHAFT OPERATING	1	1	1	1	ST STEEL
5	API490-24	API490 SIGHTGLASS	1	-	1	-	NYLON
6	API490-17	HANDLE, ACTUATING	1	1	1	1	ALUMINIUM
7	API490-18	PIN FOR ROLLER	1	1	1	1	ST STEEL
8	API490-19	ROLLER	1	1	1	1	ST STEEL
9	6168	SPRING	1	1	1	1	ST STEEL
10	5725	BALL INDICATOR	1	-	1	-	POLYPROPYLENE
11	6498	WASHER SPRING	10	8	10	8	Z/P STEEL
12	6173	RETURN SPRING	1	1	1	1	ST STEEL
13	PURCHASED	CIRCLIP EXTERNAL	2	2	2	2	ST STEEL
14	0155	O-RING	1	1	1	1	VITON (FKM)
15	0235	O-RING	2	2	2	2	VITON (FKM)
16	0289	O-RING - LIQUIP SPECIAL SIZE	1	1	1	1	VITON (FKM)
17	3395	GREASE SOLVENT RESIST ENERGREASE	1	1	1	1	GREASE
18	API490-6A	BUSH FOR API490 POPPET VALVE	1	1	1	1	ACETAL
19	0614	PLUG BSP HEX -(1/2")	-	-	1	1	STEEL
20	4647	O-RING	1	-	1	-	VITON A
21	6502	CAPSCREW METRIC	8	8	10	8	Z/P STEEL
22	API490-21	BLANK PLATE	-	-	1	-	ALUMINIUM
23	API490-4	CAM, OPENING	1	1	1	1	ST STEEL
24	4060	SPIROL PIN	2	2	2	2	ST STEEL
25	PURCHASED	WASHER FLAT	2	2	2	2	ST STEEL
26	0709	CAPSCREW METRIC	2	-	2	-	Z/P STEEL

METERS - VALVES - VENTS - MANHOLES - PUMPS - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS

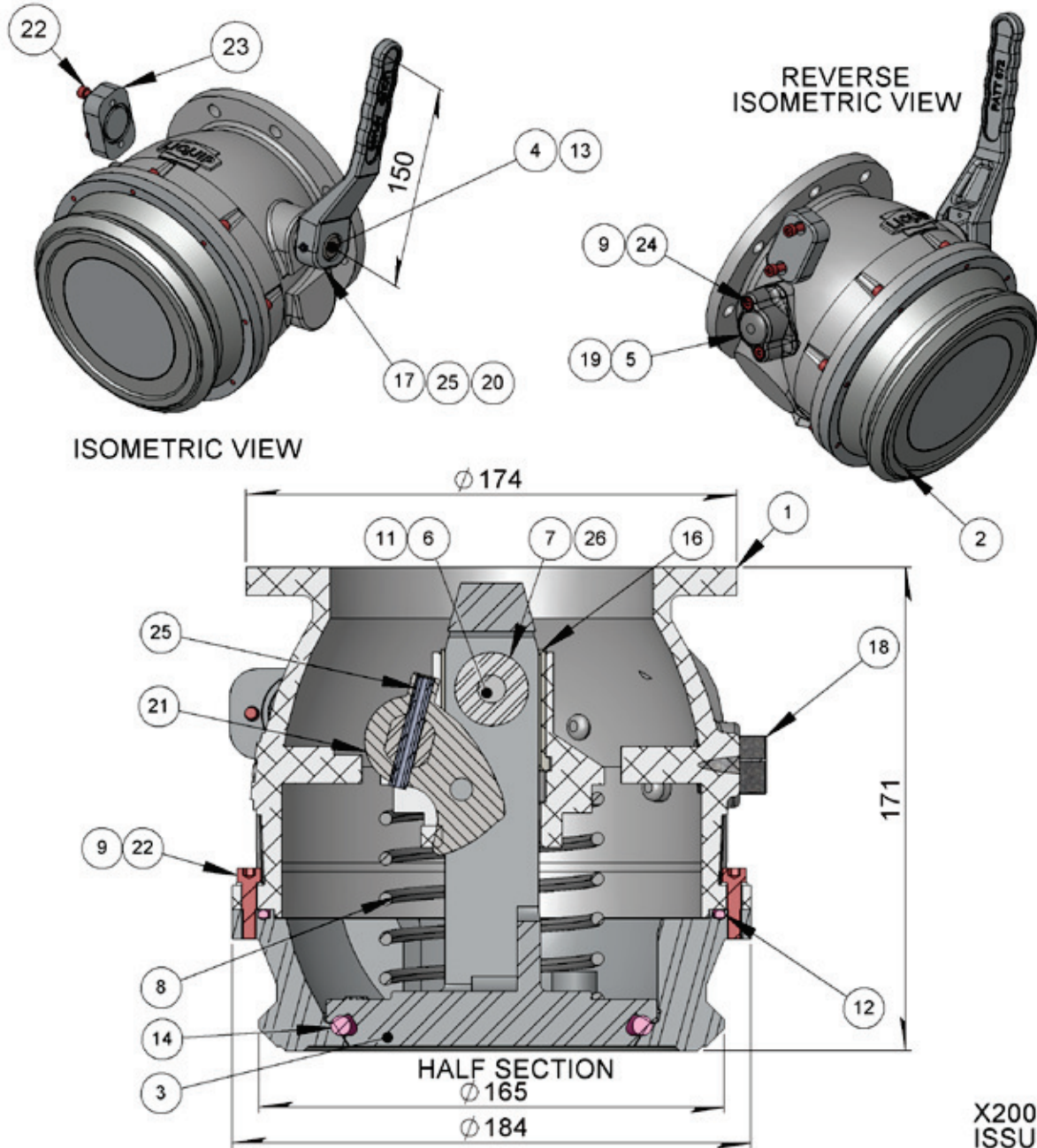


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# LIQUIP

## API49xD SERIES



X200007  
ISSUE: J

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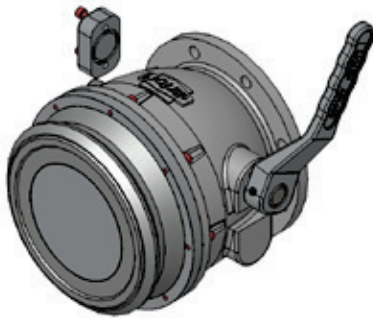


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# LIQUIP

## API49xD SERIES

X200007  
ISSUE: J



CLOSED



OPEN

ITEM	PART No.	DESCRIPTION	API490D	API491D	API496D	API497D	MATERIAL
1	API490-1D	VALVE BODY, API DRY BREAK	1	-	-	-	ALUMINIUM
1	API491-1D	VALVE BODY, API DRY BREAK	-	1	-	-	ALUMINIUM
1	API496-1D	VALVE BODY, API DRY BREAK	-	-	1	-	ALUMINIUM
1	API497-1D	VALVE BODY, API DRY BREAK	-	-	-	1	ALUMINIUM
2	API490-2	NOSE CONE	1	1	1	1	ALUMINIUM
3	API490-3	POPPET VALVE DRY BREAK	1	1	1	1	ALUMINIUM
4	API490-5	SHAFT OPERATING	1	1	1	1	ST STEEL
5	API490-24	API490 SIGHTGLASS	1	-	1	-	NYLON
6	API490-18	PIN FOR ROLLER	1	1	1	1	ST STEEL
7	API490-19	ROLLER	1	1	1	1	ST STEEL
8	6168	SPRING	1	1	1	1	ST STEEL
9	6498	WASHER SPRING	10	8	10	8	Z/P STEEL
10	5725	BALL INDICATOR	1	-	1	-	POLYPROPYLENE
11	PURCHASED	CIRCLIP EXTERNAL	2	2	2	2	ST STEEL
12	0155	O-RING	1	1	1	1	VITON (FKM)
13	0235	O-RING	2	2	2	2	VITON (FKM)
14	0289	O-RING - LIQUIP SPECIAL SIZE	1	1	1	1	VITON (FKM)
15	3395	GREASE SOLVENT RESIST ENERGREASE	1	1	1	1	GREASE
16	API490-6A	BUSH FOR API490 POPPET VALVE	1	1	1	1	ACETAL
17	API490-17	HANDLE, ACTUATING	1	1	1	1	ALUMINIUM
18	0614	PLUG BSP HEX -(1/2")	-	-	1	1	STEEL
19	4647	O-RING	1	-	1	-	VITON A
20	6173D	RETURN SPRING	1	1	1	1	ST STEEL
21	API490-4	CAM, OPENING	1	1	1	1	ST STEEL
22	6502	CAPSCREW METRIC	8	8	10	8	Z/P STEEL
23	API490-21	BLANK PLATE	-	-	1	-	ALUMINIUM
24	0709	CAPSCREW METRIC	2	-	2	-	Z/P STEEL
25	4060	SPIROL PIN	2	2	2	2	ST STEEL
26	PURCHASED	WASHER FLAT	2	2	2	2	ST STEEL

METERS - VALVES - VENTS - MANHOLES - PUMPS - HOSEREELS - OVERFILL PROTECTION - LOADING ARMS - ELECTRONIC DIPSTICKS

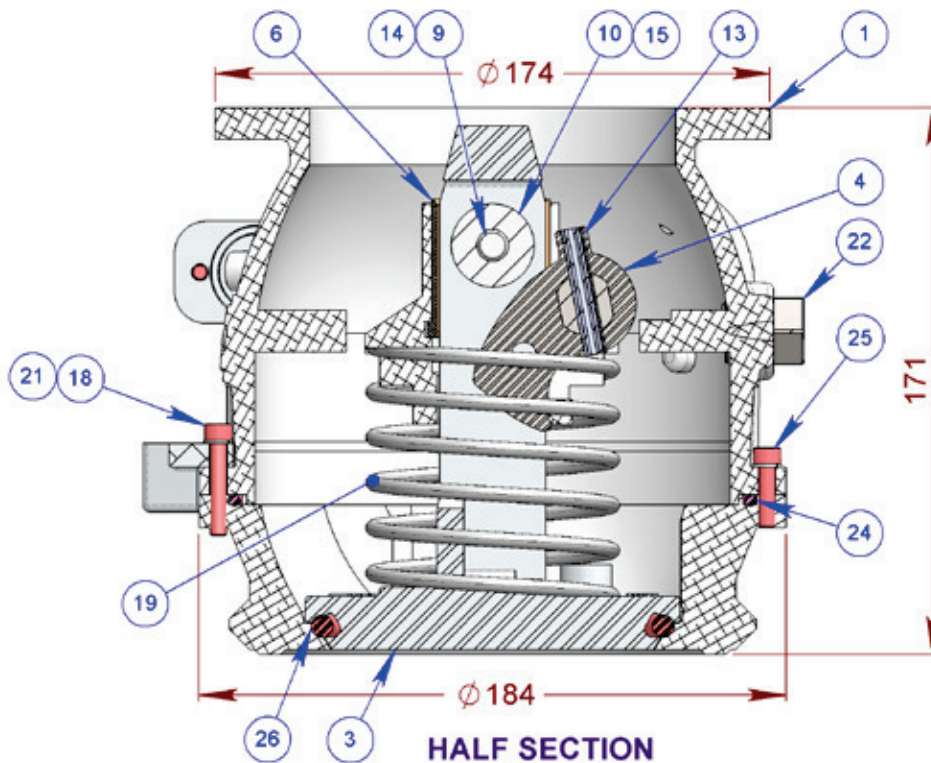
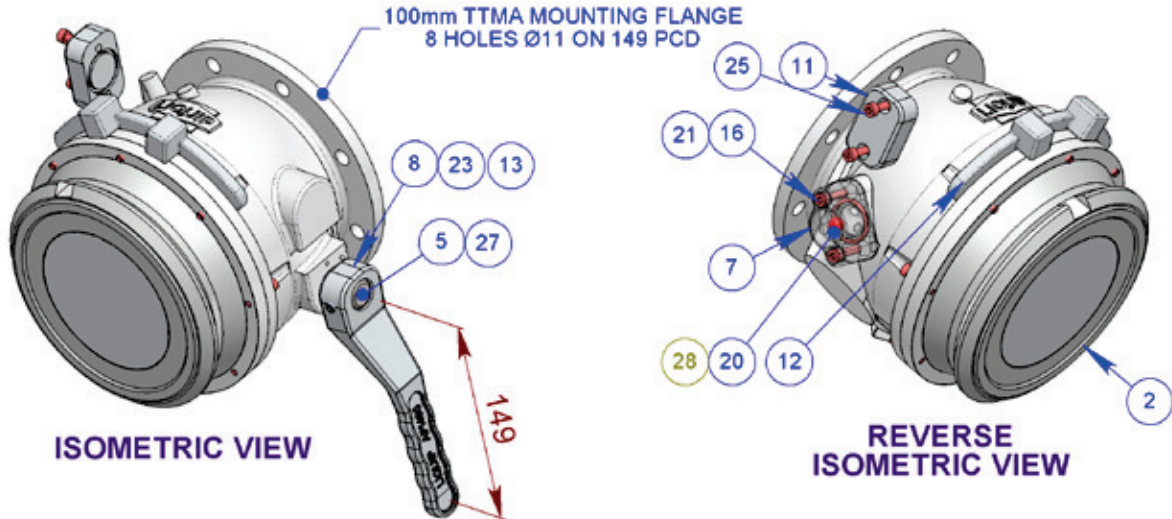


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# LIQUIP

## API496J & G ADAPTORS



**X200813**

Issue: C

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# LIQUIP

## API496J & G ADAPTORS



**CLOSED**



**OPEN**

ITEM NO.	PART NUMBER	DESCRIPTION	API496J/ QTY.	API496G/ QTY.	MATERIAL
1	API496-1	VALVE BODY, API DRY BREAK	1	1	ALUMINIUM
2	API490-2J	NOSE CONE - API490 SERIES (FOR JET & AVGAS)	1	1	USE STANDARD NOSECONE API490-2
3	API490-3	POPPET VALVE DRY BREAK	1	1	ALUMINIUM
4	API490-4	CAM, OPENING	1	1	ST STEEL
5	API490-5	SHAFT OPERATING	1	1	ST STEEL
6	API490-6A	BUSH FOR API490 POPPET VALVE	1	1	ACETAL
7	API490-24	API490 SIGHTGLASS	1	1	NYLON
8	API490-17	HANDLE, ACTUATING	1	1	ALUMINIUM
9	API490-18	PIN FOR ROLLER	1	1	ST STEEL
10	API490-19	ROLLER	1	1	ST STEEL
11	API490-21	BLANK PLATE	1	1	ALUMINIUM
12	API490-22J	BRACKET FOR API490	1	-	ALUMINIUM
	API490-22G	BRACKET FOR API490	-	1	ALUMINIUM
13	4060	SPIROL PIN	2	2	ST STEEL
14	PURCHASED	CIRCLIP EXTERNAL	2	2	ST STEEL
15	PURCHASED	WASHER FLAT	2	2	ST STEEL
16	0709	CAPSCREW METRIC	2	2	Z/P STEEL
17	3395	GREASE SOLVENT RESIST ENERGREASE	1	1	GREASE
18	55010	CAPSCREW METRIC	3	3	ST STEEL
19	6168	SPRING	1	1	ST STEEL
20	5725	BALL INDICATOR	1	1	POLYPROPYLENE
21	6498	WASHER SPRING	10	10	Z/P STEEL
22	0636	PLUG BSP HEX	1	1	ST STEEL
23	6173	RETURN SPRING	1	1	ST STEEL
24	0155	O-RING	1	1	VITON (FKM)
25	6502	CAPSCREW METRIC	7	7	Z/P STEEL
26	0289	O-RING - LIQUIP SPECIAL SIZE	1	1	VITON (FKM)
27	0235	O-RING	2	2	VITON (FKM)
28	4647	O-RING	1	1	VITON A

**X200813**

**Issue: C**

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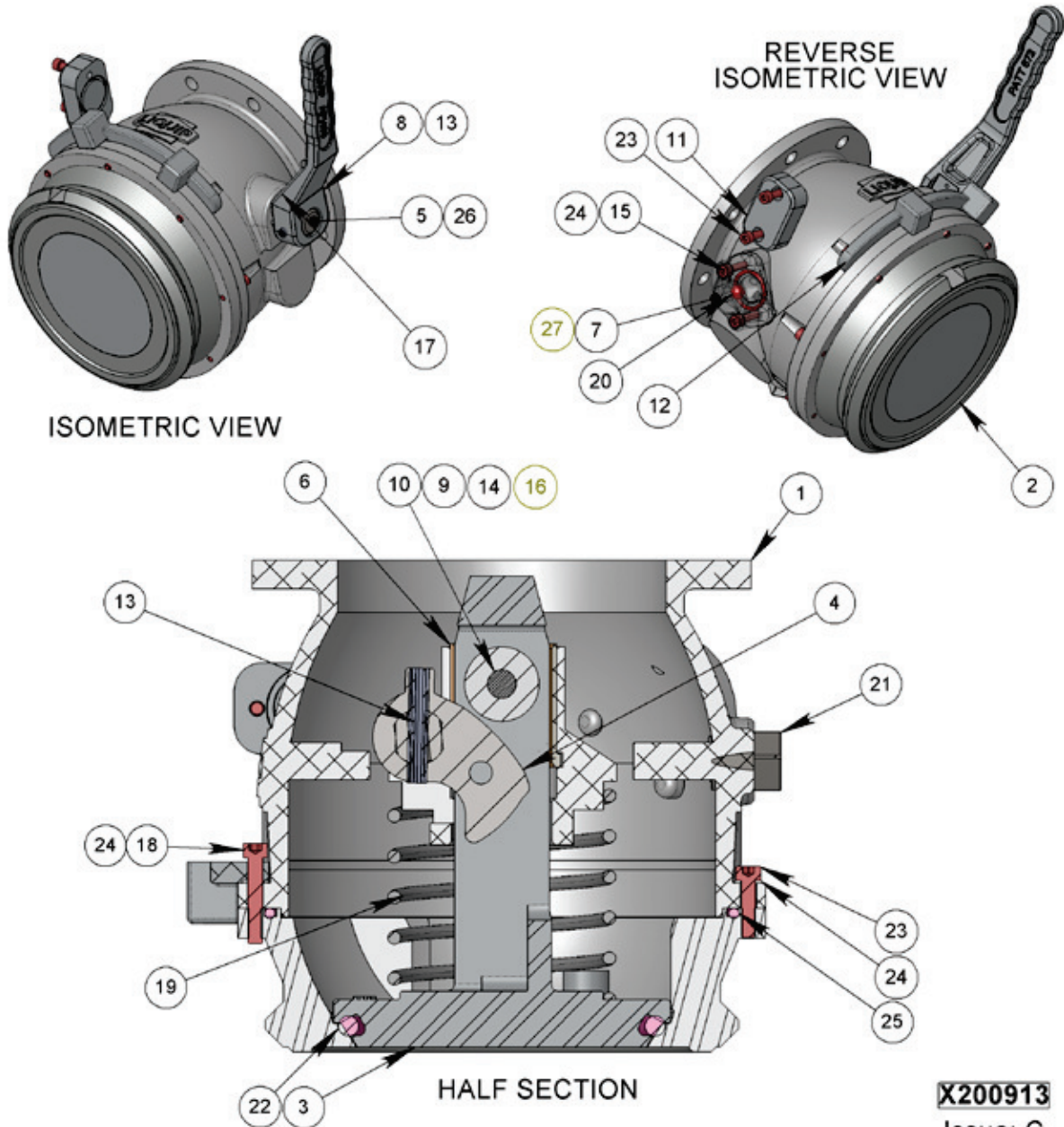


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## API496DJ & DG ADAPTORS



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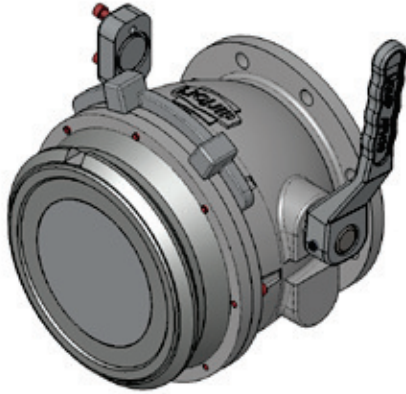


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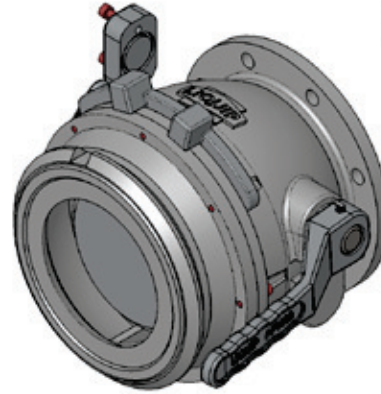


# LIQUIP

## API496DJ & DG ADAPTORS



**CLOSED**



**OPEN**

**X200913**

Issue: C

ITEM NO.	PART NUMBER	DESCRIPTION	API496DJ	API496DG	MATERIAL
1	API496-1D	VALVE BODY, API DRY BREAK	1	1	ALUMINIUM
2	API490-2J	NOSECONE, JET & AVGAS SELECTIVE	1	1	ALUMINIUM
3	API490-3	POPPET VALVE DRY BREAK	1	1	ALUMINIUM
4	API490-4	CAM, OPENING	1	1	ST STEEL
5	API490-5	SHAFT OPERATING	1	1	ST STEEL
6	API490-6A	BUSH FOR API490 POPPET VALVE	1	1	ACETAL
7	API490-24	API490 SIGHTGLASS	1	1	NYLON
8	API490-17	HANDLE, ACTUATING	1	1	ALUMINIUM
9	API490-18	PIN FOR ROLLER	1	1	ST STEEL
10	API490-19	ROLLER	1	1	ST STEEL
11	API490-21	BLANK PLATE	1	1	ALUMINIUM
12	API490-22J	BRACKET FOR API490	1	-	ALUMINIUM
	API490-22G	BRACKET FOR API490	-	1	ALUMINIUM
13	4060	SPIROL PIN	2	2	ST STEEL
14	PURCHASED	WASHER FLAT	2	2	ST STEEL
15	0709	CAPSCREW METRIC	2	2	Z/P STEEL
16	PURCHASED	CIRCLIP EXTERNAL	2	2	ST STEEL
17	6173D	RETURN SPRING	1	1	ST STEEL
18	55010	CAPSCREW METRIC	3	3	ST STEEL
19	6168	SPRING	1	1	ST STEEL
20	5725	BALL INDICATOR	1	1	POLYPROPYLENE
21	0636	PLUG BSP HEX	1	1	ST STEEL
22	0289	O-RING - LIQUIP SPECIAL SIZE	1	1	VITON (FKM)
23	6502	CAPSCREW METRIC	7	7	Z/P STEEL
24	6498	WASHER SPRING	10	10	Z/P STEEL
25	0155	O-RING	1	1	VITON (FKM)
26	0235	O-RING	2	2	VITON (FKM)
27	4647	O-RING	1	1	VITON A
28	3395	GREASE SOLVENT RESIST ENERGREASE	1	1	GREASE

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