

ALPHA

PRODUCTION SOLUTIONS

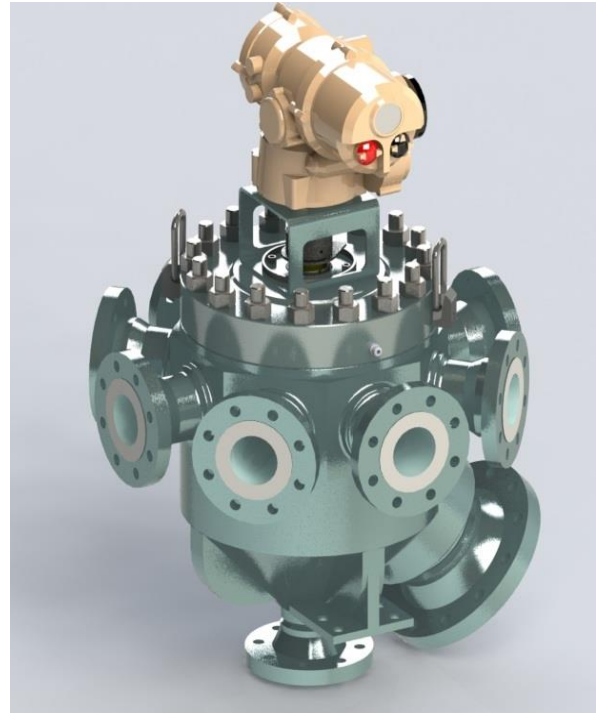
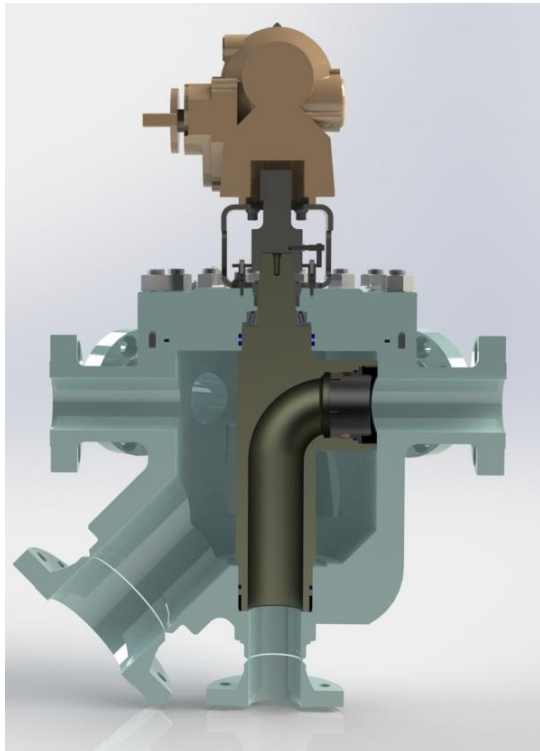
MULTIPOINT SELECTOR VALVE (MSV)

The Concept

The Multiport Selector Valve (MSV) is a compact manifold system with eight inlets and two outlets. Multiple wells streams can be connected to a single body and by means of the special designed internal selector is possible to select and divert the fluids from one well to the test line while all the other remain connected to the production header through the common group outlet.

With this configuration up to seven wells can be connected to each MSV, leaving one inlet free for field seal integrity testing and to allow tandem installations of multiple MSV sharing a single test header featuring in line a Multiphase Flow Measurement System or Test Separator.

The MSV is also successfully used in water injection for Enhanced Oil Recovery projects. In this case the common inlet is diverted to multiple injection points allowing, using the test line, to calibrate each injection point volume, one at a time.



The MSV positioning system can be provided as a Manual system with a lever bar and position mechanical lock device or as an Electric-mechanic system specifically designed and configured for simplicity and reliability. The Multiport Selector Valve is very competitive respect to conventional manifold because have only one operation point for the control of up to seven wells versus fourteen or seven operation points for conventional two way or three way valves production manifolds. This advantage result in important benefits as noted:

Reduced Installation Cost:

- Lower Skid weight and size
- Lower piping and valves installation
- Lower automation and wiring required
- Lower site space and environmental impact

Reduced Ownership and Operation Cost

- Lower operation cost
- Lower maintenance cost

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SIZES AND PRESSURE RATINGS

SIZES			RATING ASME/ANSI CLASS					
Inlet	Test Outlet	General Outlet	150#	300	600	900	1500	2500
2"	2"	4"	RF	RF	RF (1)	RF - RTJ	RF-RTJ (1)	RTJ
3"	3"	6"	RF	RF	RF	RF - RTJ	RF - RTJ	RTJ
4"	4"	8"	RF	RF	RF	RF - RTJ	RF - RTJ	RTJ
4"	4"	10"	RF	RF	RF	RF - RTJ	RF - RTJ	RTJ
6"	6"	16"	RF	RF	RF	RF - RTJ	RF - RTJ	RTJ – (2)

(1) MSV 2" x 4" available with threaded NPTF connections at request.

(2) Special group outlet connection

(3) Other sizes available on request

Model designation: MSV A" X B" – CLASS XXX

A"= NPS FOR INLETS AND TEST OUTLET

B"= NPS FOR COMMON GROUP OULET

CLASS XXX= PRESSURE RATING FOR CONNECTING FLANGES AS PER ASME/ANSI B16.5

Operating Conditions

Fluid: OIL, GAS AND WATER all G.O.R. / W.O.R. / API DEGREE combination

Temperature: -20 F to +437 F (-29°C to +225 °C)

Electrical: 24 VDC, Single phase VAC, Three phases VAC

Certified Explosion Proof: Class I, Div I, Groups C&D / EEX d IIBT4

Network Protocols: Modbus RTU. Other protocols available at request

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Constructive Materials

Pos No.	DESCRIPTION	Standard	Special I	Special II	Special III	Special IV	Special V	Special VI
		CS	SS 316	Duplex (DSS)	Super Duplex (SDSS)	STD/ DSS + WOL (625)	STD / SDSS + 625 WOL	STD / Inconel + 625 WOL
1	BODY	A-216 WCB	A-351 CF3M	A-995 Gr 1B	A-995 Gr 6A	A-216 WCB + WOL 625 wetted areas	A-216 WCB + WOL 625 wetted areas	A-216 WCB + WOL 625 wetted areas
2	FLANGES- WNRF	A 105	A-182 F316L	A-182 Gr. F51	A-182 Gr. F55	A 105 + 625 WOL wetted areas	A 105 + 625 WOL wetted areas	A 105 + 625 WOL wetted areas
3	ROTOR	A-216 WCB	A-351 CF3M	A-995 Gr 1B	A-995 Gr 6A	A-995 Gr 1B	A-995 Gr 6A	A-494 CU5MCuC
4	COVER	A 105 / ASTM A 29 Gr 4130	A-351 CF3M / UNS 31603	A-995 Gr 1B / UNS 31803	A-995 Gr 6A / UNS 32760	A 105 + ALLOY 625 WOL wetted areas	A 105 + ALLOY 625 WOL wetted areas	A 105 + ALLOY 625 WOL wetted areas
5	INTERNAL PARTS	UNS 31603	UNS 31603	UNS 31803	UNS 32760	UNS 31803	UNS 32760	UNS N08825
6	SEAL	PTFE+25%C	PTFE+25% C	PTFE+25% C	PTFE+25% C	PTFE+25%C	PTFE+25% C	PTFE+25% C
7	O'RINGS	AFLAS	AFLAS	AFLAS	AFLAS	AFLAS	AFLAS	AFLAS
8	SPRINGS	INCONEL X- 718	INCONEL X- 718	INCONEL X-718	INCONEL X-718	INCONEL X- 718	INCONEL X- 718	INCONEL X- 718
9	STEM PACKING RINGS	GRAFOIL	GRAFOIL	GRAFOIL	GRAFOIL	GRAFOIL	GRAFOIL	GRAFOIL
10	STEM PACKING GLAND	SS 316 L	SS 316 L	UNS 31803	UNS 32760	UNS 31803	UNS 32760	UNS N08825
11	GREASE FITTING	CS / Zinc Plated	SS316	MONEL	MONEL	MONEL	MONEL	MONEL
12	STUD BOLT	A 193 B7M CADMIUM PLATED	A 193 B8M	A 193 B7M CADMIUM PLATED	A 193 B7M CADMIUM PLATED	A 193 B7M CADMIUM PLATED	A 193 B7M CADMIUM PLATED	A 193 B7M CADMIUM PLATED
13	HEAVY HEX NUT	A 194 2HM CADMIUM PLATED	A 194 8M	A 194 2HM CADMIUM PLATED	A 194 2HM CADMIUM PLATED	A 194 2HM CADMIUM PLATED	A 194 2HM CADMIUM PLATED	A 194 2HM CADMIUM PLATED
14	SOCKET HEAD CAP SCREWS + LOCK WASHERS	SS316L	SS316L	SS316L	SS316L	SS316L	SS316L	SS316L
15	ACTUATOR	ROTORK IQTF	ROTORK IQTF	ROTORK IQTF	ROTORK IQTF	ROTORK IQTF	ROTORK IQTF	ROTORK IQTF

Others materials, internal coatings and combinations available upon request.
 Internal Coatings: Electroless Nickel Plating. Tungsten Carbide. Ceramic
 Standar External Painting: Tri-coat system with Polyurethane top coat.