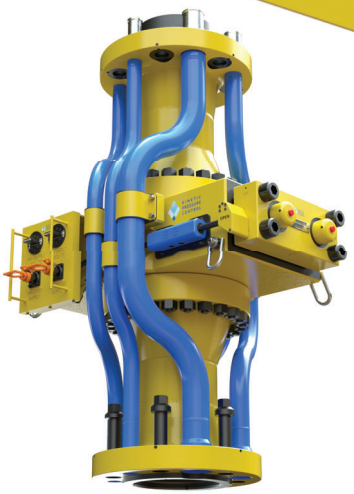
SGV

MARINE RISER VALVE

Enhancing Well Integrity | Reducing Cost



19.25" Bore 10' MRV c/w Cameron SLB LK 3.5 Riser Connection

19.25" Bore 10' MRV c/w NOV HMF Riser Connection

SGV OVERVIEW FOR MPD OPERATIONS WITH APPLIED BACK PRESSURE

Stemless Grease-free Valve (SGV) configured into the LMRP or as a Marine Riser Valve (MRV). Available in multiple sizes and pressure ratings, the SGV boasts bidirectional sealing and optional shearing capabilities, ensuring reliable performance under challenging conditions.

With its compact and lightweight design, the SGV serves as an excellent alternative to traditional blind/shear rams or gate valves, offering enhanced operational flexibility. Furthermore, it features an Extreme H2S service option, making it suitable for even the most demanding environments.

One of the standout applications of the SGV is its role as an alternative to using primary WCE such as blind / shear rams during tripping tubulars above the Blowout Preventer (BOP) in Applied Back Pressure Managed Pressure Drilling (MPD) operations. This functionality enhances operational safety and efficiency, reducing the risk associated with blind shear ram failure.

In summary, the SGV represents a cutting-edge solution that not only improves well integrity but also provides versatility and reliability in managing pressure during a wide range of oil and gas operations. Ultimately resulting in a reduction of downtime and maintenance when compared to traditional MPD practices.

VALULUE CASE: MRV FOR APPLIED BACK PRESSURE MANAGED PRESSURE DRILLING APPLICATIONS

- Enhanced Safety and Improved well integrity
  - Alternative to Blind Shear ram for applying pressure well for tripping tubulars above the BOP (reduced risk of blind shear ram failure)
  - Operational valve, not part of primary well control equipment
  - Can reduce swab/surge for tripping large OD tubulars in riser
  - Designed for dropped tubular scenario, limiting any resulting damage to easily recoverable equipment with preserved BOP well control barriers below
  - Additional barrier for SS snubbing operations

- Operational Efficiency w/ Bi-directional sealing – pressure containment above and below
  - Operational Efficiency with Bi-directional sealing – pressure containment above and below
  - Allows testing of RCD and other components without using a test plug
  - Retainer valve for Subsea BOP hop to another well
  - Retainer valve for LMRP disconnect during Emergency Disconnect Scenario

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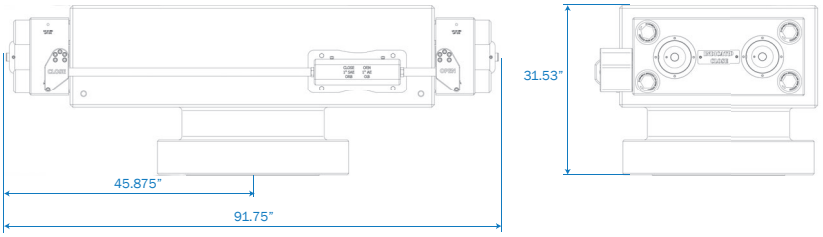
KINETIC PRESSURE CONTROL

TECHNICAL SPECIFICATION FOR SGV MODELS FOR MPD APPLICATIONS

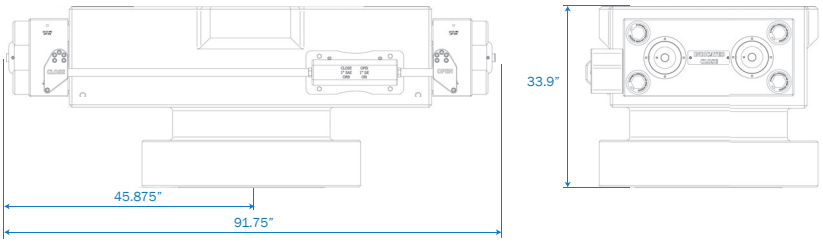
SGV Operator Type	Stemless Grease-free valve, pressure balanced		
Design Standard	API 16A 4th Ed. PR2 - Blind Ram		
Wellbore Pressure Rating	5,000 psia		
Hydraulic Working Pressure	1,500 psi		
Swept Volume	12.82 USG		
MOPFLPS	1,000 psi		
Water Depth Rating	12,000 ft		
Temperature Rating: Metallic	T-20/250 (-20F to 250F)		
Temperature Rating: Non-Metallic	EDD (20F/240F/250F)		
Sour Service	Yes, NACE		
Hydraulic Connections	1" SAE ORB		
Locking Mechanism	Yes, AutoHLD (POCV)		
Seal Configuration	Open Position Well Bore Isolation Closed Position Redundant Top and Bottom Seals Bi-directional to Rated Working Pressure Pressure Overmatch Seal Energization with 3-Way Zero Extrusion Gap - Excellent low pressure sealing Suitable for Operation Under Full Differential Pressure without Reduction to Maintenance Interval		
SGV Model Numbers	**SG18A301**	**SG18A302**	**SG19A301 (MRV)**
Connections	Studded Top with 18-3/4" bore, 5,000 psi with BX 164 ring groove Flanged Bottom with 18-3/4" bore, 5,000 psi with BX 164 ring groove	Studded Top with 18-3/4" bore, 10,000 psi with BX 164 ring groove Flanged Bottom with 18-3/4" bore, 10,000 psi with BX 164 ring groove	Studded Top with 19-1/4" bore, 21-1/4" stud pattern with BX 165 ring groove rated to 5,000 psi Studded Bottom with 19-1/4" bore, 21-1/4" stud pattern with BX 165 ring groove rated to 5,000 psi
Marine Riser Crossover	N/A	N/A	LK 3.5 or HMF crossovers with OEM connections are available

TECHNICAL DATA

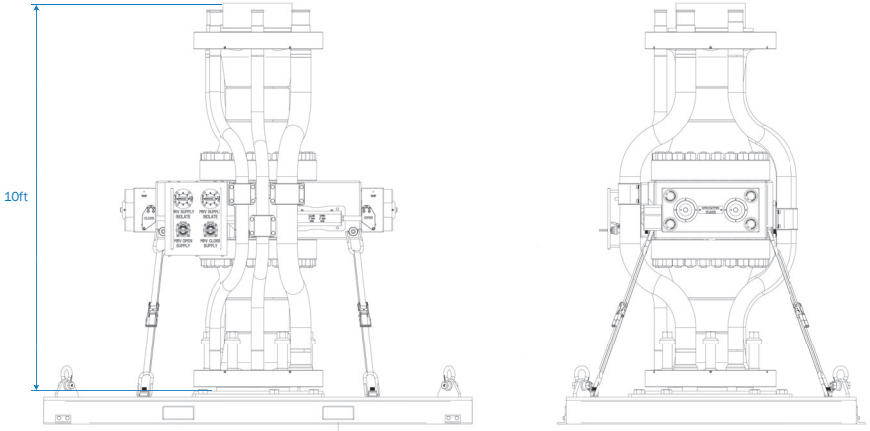
SG18A301



SG18A302



SG19A301 (MRV with LK3.5 Crossovers shown)



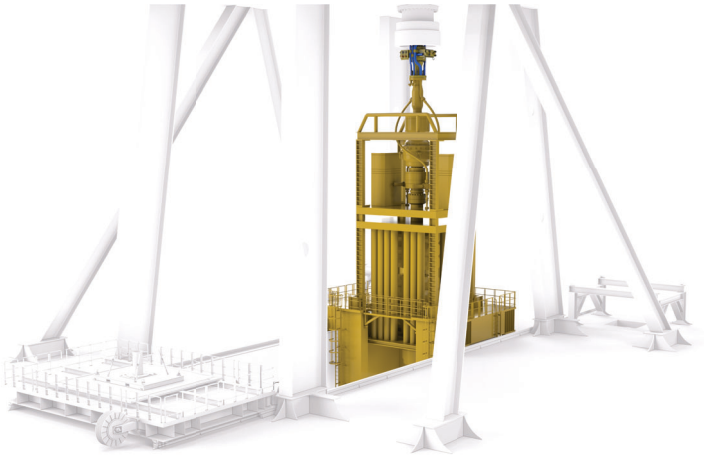
RUN SEQUENCE FOR SGV MRV

1. The MRV is run on the XT cart on a skid.

2. The MRV is positioned under well center on the XT cart.

3. The MRV is made up to the Marine Drilling Riser and lifted into the Diverter Housing.

RUN SEQUENCE FOR SGV MRV



4. The BOP is run under well center and is made up to the MRV.

5. The BOP and MRV are lifted free of the BOP cart.

6. The BOP is run subsea as normal.