

### **FOCUS**



ACHEMPS018

Frankfurt

II – I5 June 2018 Hall 8; Booth A85



### COUNTDOWN IS RUNNING ACHEMA IN FRANKFURT

Use the international network of ACHEMA in Frankfurt (Germany) from 11 to 15 June 2018 to learn more about the latest developments and trends in the field of Instrumentation and Double Block & Bleed Valves.

Visit us at our

### Booth A85 in Hall 8

and get in touch with our solutions for a wide variety of applications which will help you cope with challenges that you encounter in your day-to-day work. No matter how tricky and complex they may be.



### Schneider DirectMount Systems

## NATURAL GAS MEASUREMENT OPTIMIZED

### Flow Measurement of Natural Gas in Pipelines

When transporting natural gas through pipelines it is especially important to pinpoint the flow rates exactly. This is because inaccuracies have a huge financial impact. Therefore, special hook-ups are used which are mounted directly to the orifice meter. For this application AS-Schneider is offering the Schneider DirectMount Systems (SDMS).

SDMS is designed for a safe, efficient method of close coupling Electronic Flow Measurement Devices (EFM) resp. transmitters to the orifice meter, eliminating or reducing the effects of Gauge Line Error.

### How to connect Manifolds and Orifice Meter?

Stabilized Connectors are used to connect manifolds to an orifice meter. Three different types are available. The Integral Valve Type is the perfect solution for your application. The Stabilized Connectors are supported on the orifice meter providing a very solid connection even at higher loads of the hook-up or pulsations created by some piping configurations.

### **Patented Stabilized Connector**

The patented AS-Schneider Integral Valve Type Stabilzed Connector is equipped with a swivel adapter enabling the easy positioning of the valve head unit in any direction through 360° for a safe and efficient installation. The pre-assembled and pre-tested assembly reduces installation costs and improves the reliability. A subsequent assembly of the valve head unit becomes unnecessary. The user receives a safe, compact and leak free hook-up.

### PATENTED TECHNOLOGY







### **Double Block & Bleed Ball Valves**

# RELEMENTS RESERVED

### DOUBLE BLOCK & BLEED BALL VALVES WITH BODY CAVITY RELIEF

Pipelines that transport oil and gas over long distances often pass through rough environments. They are exposed to temperature variations and other weather influences. The used technology must meet the highest quality standards to ensure a smooth distribution of liquids and gases and to avoid any leakages.

AS-Schneider is offering with its Double Block & Bleed Ball Valve Taurus Series and VariAS-Block Series the perfect solution for these kind of applications. In pipelines, media will be transported, which can expand extreamly when heated. If the media cannot expand because it is trapped in a fixed space, the pressure will increase, like in a isolated ball valve. However, it is important, that the body cavity is not released to atmosphere.

AS-Schneider's Double Block & Bleed Ball Valve solutions meet this requirement as a standard feature.



### DIFFERENT STANDARDS REQUIRE DIVERSE SOLUTIONS

AS-Schneider's solutions are based on the two technical standards SHELL MESC SPE 77/170, which stipulates a pressure equalizing hole of min. 3 mm in the ball and EEMUA 182, which prohibits such a hole. In contrast it specifies that valves shall be provided with a means of automatically relieving overpressure.

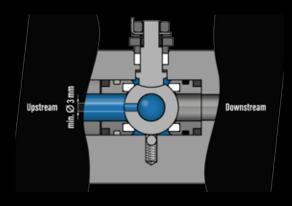




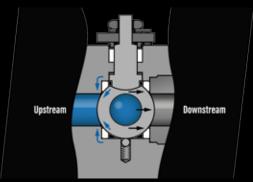
### CAVITY RELIEF OF FLOATING BALL VALVES

The ball seats are fixed in the valve body and in the closed position a lateral movement of the ball between the two elastomeric seats is possible. When closing the valve, media is trapped in the cavity.

The pressure relief hole shall connect the valve body cavity to the high pressure side (Upstream) of the ball when this is in the closed position (according to Shell MESC SPE 77/170). This design has been established successfully in the VariAS-Block Series.



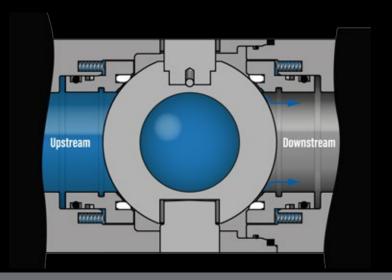
Another solution is using self venting ball seats (according to EEMUA 182). The excess pressure escapes around the upstream ball seat.





A trunnion mounted ball valve means that the ball is constrained by bearings and is only allowed to rotate but the ball seats can move. The media is also trapped in the cavity when closing the valve.

The pressure increases significantly in the cavity when heated. In this case the ball seat of the downstream side will be pushed away from the ball by rising pressure against the spring load. The pressure is being released. The AS-Schneider Taurus Ball Valves are equipped with this single piston design.



## 3 B E N COMBINED IN A ONE-PIECE DESIGN

REDUCED LEAK POINTS

LESS WEIGHT

MORE RELIABILITY

### **CHALLENGE**

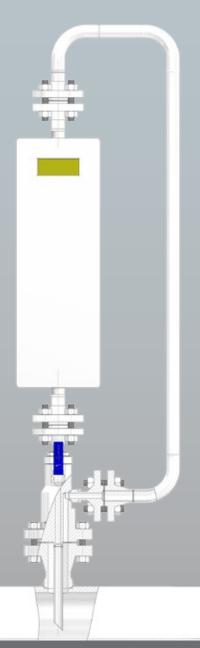
The customer is using a Two-Piece Design which they fabricate in-house. The assembly is heavy, adds an additional potential leak point and the sample probe breaks off in the process line.

Furthermore, the valve body material being used is rusting badly due to weather and proximity to Gulf of Mexico's salty air.

### **AS-SCHNEIDER SOLUTION**

The PycnoValve Design is a compact solution using a Pycnometer / Densitometer to measure the density of the process media.

Our solution provides a One-Piece Design with integral ball valve with a welded extra heavy wall sample probe.



### COMPACT SOLUTION FOR A DENSITY MEASUREMENT

### **BENEFITS**

- ✓ Prefabricated assembly minimizes site work
- √ Reduced installation and testing costs
- ✓ Reduced potential leak points
- √ Welded extra heavy wall sample probe that will not break off inline
- ✓ Body material 316SS to NACE standard



### YOUR GLOBAL PARTNER

### for Instrumentation and Double Block & Bleed Valves



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