ST10V CONTROL VALVE Engineered simply for exceptional performance with no emissions.





# SUR-TECH ST10V CONTROL VALVE Can simple design make life easier?

Yes, when it's engineered with the end-user in mind. The ST10V is comprised of just four parts – but this simplicity delivers virtually bullet-proof performance. Our axial flow design handles extreme flow rates, delivering precise control in a range of applications without hunting or noise. Best of all, the ST10V is so durable that you can practically install and forget about it.

#### Here's why:



#### **ST10V ADVANTAGES:**

The ST10V is uniquely engineered to to utilize the process gas or supplied nitrogen to control the valve, allowing it to dump excess fluid downstream. The ST10V does not need to vent into the atmosphere.

Customizing options for the body and cone assembly, including carbon steel, stainless steel, tool steel and viton, combined with high pressure or low pressure sleeves, provide superior resistance to abrasions and corrosion. This makes the valve compatible with most process applications.

The elastomer sleeve, used in place of the spring and diaphragm parts found on conventional flow meters, eliminates hunting and offers exceptional pressure control.

With just four main components, the simple designof the ST10V makes it easy to service in the field, saving time and adding productivity.

Because of their unique cone and sleeve assembly, Sur-Tech valves are much more compact than conventional spring and diaphragm valves. An 8-inch 600 ANSI Sur-Tech valve can do the work of a 5-foot spring and diaphragm valve.

Engineered for accuracy. Meets the AGA 2000 Interchangeable parts for valve applications (back pressure control valve, pressure reducing, flow control valve, etc.) reduce the need to stock part inventory.



# Putting the ST10V to work.



Sur-Tech control valves are engineered for the rigors of industry. Simple, durable contstruction, customizeable materials and a compact axial flow design make the ST10V a workhorse that can stand-up to industry-specific challenges such as:

#### **OIL AND GAS**

- Corrosive/abrasive conditions
- Intensive recovery methods (shale)
- High pressure conditions
- Strict environmental regulations
- Extreme temperatures
- Remote locations

#### **CHEMICAL**

- Hazardous liquids/gases
- Corrosive/abrasive conditions
- Extreme temperatures
- Strict emission/effluent regulations
- High pressure conditions

#### MINING

- Remote locationss
- Extreme temperatures
- Strict environmental regulations
- Corrosive/abrasive slurries
- Heavy vibration
- High fluid velocity

## WATER AND WASTEWATER MANAGEMENT

- Influent flow rate (usage, etc.)
- Constant operation
- Variable fluid contents
- Strict effluent standards
- Weather impacts on flow
- Strict environmental regulations

#### **PROCESS APPLICATIONS**

- BACK PRESSURE VALVE
- DUMP VALVE
- BY-PASS VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- CHOKE VALVE
- DIFFERENTIAL PRESSURE VALVE





APPLICATION: gas separators
SERVICE CONDITIONS: scaling deposits,

saline (<80 ppm chlorides), acids, H2S, sand and debris

FAIRVIEW, ALBERTA

CASE STUDY

MAINTAINS BACK PRESSURE IN IOW GAS
HANDLES HIGH PRESSURE
MAINTENANCE FREE OPERATION

**BENEFITS** 



# **Zero** maintenance for the Sur-Tech ST10V.

Billy Gaugler is an electrician and instrumentation specialist at CNRL. In 2016, frustrated with breakdowns on conventional control valves, Billy installed Sur-Tech ST10V valves. He hasn't had to do a thing with them since.

#### **Challenge: Low Gas Volume**

On a well site, the separator receives process fluids from a wellhead and then divides that emulsion into gas, oil and produced water. To do that, the separator needs to be outfitted with a control valve that can maintain consistent pressure inside the vessel. Not every valve is up to the task.

Before 2016, Billy, an electrician and instrumentation specialist at CNRL answered frequent repair

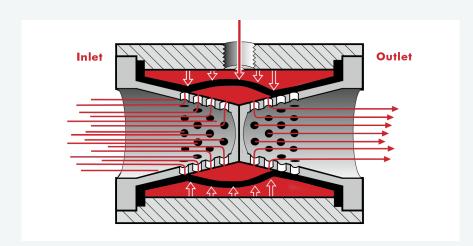
calls for control valves on his company's satellite wells near Fairview, Alta. The spring and diaphragm valves were filling with emulsion and failing to hold back-pressure. Each time, he had to depressurize the line, shut down the separator and clean the valve. It was a costly hassle. A colleague suggested they try Sur-Flo valves.

#### **Sur-Tech Solution:**

The unique axial flow design of the Sur-Tech SF10V valve

is engineered to maintain pressure under tough conditions. Perforations in the cone assembly allow fluids to pass through the valve without affecting performance.

It's a design advantage that has made Billy's job easier. He's had no maintenance issues on these valves since he installed them in 2016. "I literally installed them and walked away," he says. "I never hear anything about them except that they work well."



Unlike the design of conventional control valves, the sleeve and perforated cone assembly of the ST10V can maintain consistent pressure while letting process fluids from the separator pass through the valve.

# Sold by Sur-Tech. Made by Sur-Flo.

At Sur-Flo, our skilled manufacturing staff take pride in making innovative, durable meters and controls.

Custom orders are one of our strengths. Sur-Flo can customize the Roto-Boss<sup>TM</sup> meter run to suit application specs, pressure ratings and site requirements.

At Sur-Tech, we're proud to offer customer-centred support, technical assistance and one of the best turn-around times in the industry.





#### **SPECIFICATIONS**

Standard Sizes	Up to 8" (contact Sur-Flo for larger sizes)
Pressure Rating	150 – 1500 ANSI
Process/Ambient Temperature Range	-50° C – 149° C
Pipe Materials	A106 / 316SS
Flange Materials	A105N / 316SS
Cone Material	316 SST Standard, Optional Tool Steel Available
Seal Material	HSN
Flow Conditioner Material	316SS
NACE Specification (when requested)	MR0175







### YOUR PRODUCTIVITY. ENGINEERED.

Since 1979, Sur-Flo has been designing and manufacturing products that make work easier for our customers. We take tried-and-true process control and measurement technologies and make them better, safer and easy to maintain. Our control valves and flow meters are engineered to perform and built to last.

Sur-Tech Instruments Ltd. Global Measurement Solutions

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