## **SUPERCRITICAL SCC02**

PRESSURE REGULATORS, VALVES, AND GAS DELIVERY SYSTEMS



## PREMIER REGULATORS, VALVES, & GAS DELIVERY SYSTEMS FOR USE WITH SUPERCRITICAL SCCO2

## INNOVATIVE DESIGNS FORMULATED FOR SUPERCRITICAL SCCO2.

We have been working in conversation with supercritical systems engineers to optimize a new series of regulators and valves for use in supercritical SCCO2 applications.

Premier Industries SCF Series regulators and valves are elastomer free, designed to stand up to the aggressive, solvent-like qualities of supercritical fluids like SCCO2, while providing reliable and precise pressure regulation in the most demanding application conditions.

## WE'RE EXPERIENCED AND RESPONSIVE.

We manufacture and test all our equipment to meet rigid industry specifications while keeping in mind the distinctive needs and expectations of our customers.

Our customers know, if they have a question, they can pick up the phone and give us a call. No automated messaging systems here. We have a team of engineers with over 100 years of regulator design experience ready to assist you. We are always pushing for more sophisticated processes, working on leading-edge designs, while striving to remain personable and responsive.

## PROPRIETARY SEALS DESIGNED FOR USE WITH SUPERCRITICAL SCCO2.

Supercritical processes are tough on seals. That's why we developed a proprietary sealing system that uses elastomer-free polymers, specially formulated for use in dynamic conditions.

Our unique sealing system allows us to fit a variety of Premier Industries regulators and valves for use in supercritical applications. So, whether you are looking for a pressure reducing or a back pressure regulator, a high pressure or a low pressure regulator, our team here at Premier would be happy to work with you to find a Premier SCF Series regulator for your application.

## FINDING A PRODUCT TO SUIT YOUR APPLICATION.

Premier SCF regulators are are offered in a variety of materials (with varying weights, strengths, degrees of corrosion resistance, etc.), flow capacities, and inlet/outlet pressure ranges. With the flexibility of optional port alignments, port sizes/types, relief and shut off valves, etc. Premier SCF regulators provide maximum versatility and compatibility for your application.

Contact a Premier Industries representative to configure a regulator to suit the demands of your application.



Products for pressure ratings up to to 15000 PSIG (1034.21 BAR).

Optional laser etched parts.

Elastomer free designs

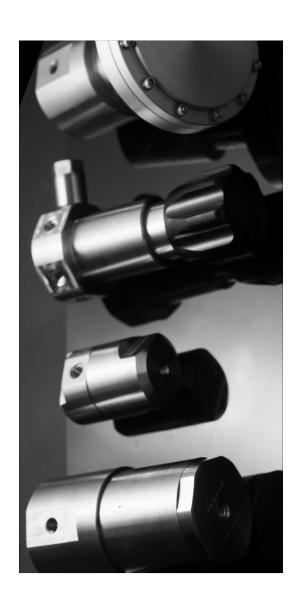
Proprietary seals suited for supercritical SCCO2 applications

A variety of mounting options to integrate seamlessly into your desired application: surface mounting, panel nuts, panel mounting brackets, flanges etc.

Optional laminar flow clean bench assembly, testing, and packaging.

Dome and air-loaded regulators for use with electro-pneumatic controllers for precision and automation.

Optional material certifications.



# PRODUCTS FOR SUPERCRITICAL SCCO2 APPLICATIONS

THIS IS A SMALL SELECTION FROM OUR PRODUCT LINE.

PLEASE CONTACT US WITH INTEREST OR VISIT OUR WEBSITE FOR A BROADER PRODUCT SELECTION.

**WWW.PREMIERIND.US** 

763.786.4020

We answer the phone, your call won't go into a black hole!

SCF 3100 SERIES	FEATURES	MAX INLET PRESSURE	FLOW CAPACITY	BODY MATERIAL
	<ul> <li>Back pressure regulator</li> <li>Piston sensed</li> <li>Optional heater core holes</li> <li>P/N: 30 -10066SCMB</li> </ul>	10000 psig / 689.5 bar	Cv: 0.03 Cv: 0.06 Cv: 0.14 Cv: 0.20	316 Stainless Steel
SCF 3100AL SERIES	FEATURES	MAX INLET PRESSURE	FLOW CAPACITY	BODY MATERIAL
	<ul> <li>Back pressure regulator</li> <li>Piston sensed</li> <li>Compatible with electro- pneumatic controllers</li> <li>P/N: 30 -10205SC</li> </ul>	10000 psig / 689.5 bar	Cv: 0.03 Cv: 0.06 Cv: 0.14 Cv: 0.20	316 Stainless Steel
SCF 3123 SERIES	FEATURES	MAX INLET PRESSURE	FLOW CAPACITY	BODY MATERIAL
SCF 3123 SERIES	FEATURES  Back pressure regulator Piston Sensed Low-torque hand knob P/N: 30 -10223SC			
SCF 3123 SERIES  SCF 3123AL SERIES	<ul><li>Back pressure regulator</li><li>Piston Sensed</li><li>Low-torque hand knob</li></ul>	PRESSURE	CAPACITY	MATERIAL



#### **FEATURES**

#### MAX INLET PRESSURE





316 Stainless Steel



- Air operatedNormally closed100 -150 PSIG (6.89-10.34 BAR) actuation
- pressure P/N: 70 00316

10000 psig / Cv: 0.80 689.5 bar

