



### **COMPONENTS FOR HYDROGEN APPLICATIONS**

HOKE® Tube Fittings, Small Bore Valves and Pressure Regulators for Hydrogen Applications







### Global Flow Control Solutions For The Evolution Of Energy



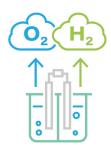
Crane Instrumentation & Sampling designs and manufactures instrumentation valves, tube fittings, and pressure regulators, fit for Hydrogen Service.

For over 35 years we have manufactured hydrogen compatible valves, fittings, and systems to enable safe and efficient operation from vacuum to 414 bar (6,000 psi) and temperatures from -253°C to +538°C (-423°F to +1000°F). HOKE® delivers high quality valves, tube fittings, and pressure regulators that provide proven service for hydrogen production and infrastructure applications such as electrolyzer systems, storage tanks, compressors & pumps, heat exchangers, and dispensing panels.

HOKE® is able to support the the global shift in energy generation and consumption by offering a broad range of solutions for a variety of applications.



# **Hydrogen Process Chain**



**Hydrogen Production** 



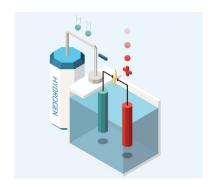






Transportation

HOKE® provides products that support the entire hydrogen process chain from electrolysis, compression and storage to transportation and dispensing. HOKE® is prepared for the energy transition and hydrogen ready.



Production



Compression and Storage



Refuelling



## Components for Hydrogen Applications

#### **GYROLOK® Two Ferrule Tube Fittings**

GYROLOK's® controlled ferrule drive prevents overstressing, which causes tubing failure and possible injury. System efficiency is improved by maximizing flow and reducing leakage with GYROLOK's® secondary butt seal.

Available Sizes	MWP	Temperature	Hydrogen Form
1/4" to 1/2" (6mm to 12mm)	414 bar (6,000 psi)*	-253°C to +538°C (-423°F to +1000°F)	Gas, Liquid

<sup>\*</sup> Refer to the HOKE® Tubing Data Charts for specific information. If no pressure is identified for a given tube size and tube wall thickness, that tubing is not considered suitable for use with GYROLOK® tube fittings.



#### **Ball Valves Isolation and Directional Control Valves**

HOKE®'s valves are uni-directional, high cycle valves that exceed 100,000 cycles with zero seat leakage. In applications where bi-directional flow is required, HOKE® D and T series valves exceed 50,000 cycles. Spring-loaded PTFE seal compensates for wear and thermal cycling with zero leakage, providing excellent durability and reliability.

Available Sizes	MWP	Temperature	Hydrogen Form
1/8" to 3/8"	414 bar	-40°C to +177°C	Gas
(6mm to 10mm)	(6,000 psi)*	(-40°F to +350°F)*	

<sup>\*</sup> Depending on seat, seal, and washer material selected.



#### **Needle Valves**

HOKE® manufactures a complete line of precision needle valves suitable for Hydrogen applications.

Before making your valve selection, be sure to consider the system pressure, operating temperature, required flow and materials of construction.

Available Sizes	MWP	Temperature	Hydrogen Form
1/4" to 1" (2mm to 25mm)	414 bar (6,000 psi)*	-75°C to +538°C (-100°F to +1000°F)**	Gas



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# **Components for Hydrogen Applications**

#### **Check Valves & Excess Flow Valves**

HOKE®'s check valves provide high performance, quick acting, zero leakage, low maintenance to help provide a reliable and safe working environment.

Available Sizes	MWP	Temperature	Hydrogen Form
1/8" to 1"	414 bar	-54°C to +288°C	Gas
(6mm to 25mm)	(6,000 psi)*	(-65°F to +550°F)*	

<sup>\*</sup>Depending on seat, seal, and washer material selected.





#### **Relief Valves**

R6000 right angle relief valves provide users with high accuracy and consistency of cracking and reseat pressures. Furthermore, narrow pressure ranges (cracking pressures) for each model can be factory pre-set according to customer specifications.

Available Sizes	MWP	Temperature	Hydrogen Form
1/4"	414 bar (6000 psi)*	-57°C to +288°C (-70°F to +550°F)*	Gas

 $<sup>{\</sup>it *Depending on seat, seal, and washer material selected}.$ 





# **Components for Hydrogen Applications**

#### **Pressure Regulators**

GO REGULATORS® offers a versatile line of single/two stage pressure regulators, back pressure regulators, and heated vaporizing regulators in various materials and end connections to suite your application needs.

Available Sizes	MWP	Temperature	Hydrogen Form
1/8" to 1/2"	700 bar (10,000 psi)*	-40°C to +260°C (-40°F to +500°F)*	Gas

<sup>\*</sup> Depending on seat, seal, and washer material selected.



#### **Modular Sampling Systems**

The CT76 modular platform, combined with the diaphragm valve technology, provides a low dead volume and compact design.

Available Sizes	MWP	Temperature	Hydrogen Form
1/8″	34 bar (500 psi)*	-57°C to +204°C (-71°F to +399°F)*	Gas

 $<sup>{\</sup>it *Depending on seat, seal, and washer material selected}.$ 





## The Small Bore Instrumentation Specialists



We specialize in small bore instrumentation products up to 2" that deliver benchmark performance quality & safety; provide the broadest array of superior alloy offerings in the market; decades of proven success in a wide range of industries; a roster of "who's who" customers & projects globally; original "Best Solution" engineering & designs; and are focused on continuous improvement in all aspects of our business.



### CRANE INSTRUMENTATION & SAMPLING PFT, CORP.

405 Centura Ct. Spartenburg, SC 29305 United States

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