

UCT Fluid Solutions and **CINOS E&S**
IN THE WORLD OF
SEMICONDUCTORS



WE LEAD THE FLOW

Welcome to the world of UCT. We are delighted to present our comprehensive product catalog, showcasing an array of top-of-the-line solutions designed to meet all your fluid and gas system needs. With a legacy of excellence spanning several decades, UCT has established itself as a leading manufacturer and provider of high-quality instrumentation valves, fittings, and other fluid control solutions.

Our commitment to innovation, precision engineering, and customer satisfaction has made us a trusted partner for industries across the globe, including oil and gas, semiconductor, hydrogen and more. Whether you are searching for components for general-purpose applications or require specialized solutions to handle challenging environments, our catalog offers a diverse range of products to suit every requirement.

At UCT, we take pride in our continuous pursuit of excellence, adhering to the highest industry standards and certifications. Each product in our catalog is crafted with precision and undergoes rigorous quality testing to ensure optimal performance and durability.

UCT' quality levels meet the highest standards including: ISO 9001, ISO 14001, OHSAS 18001, ISO 15848, Lloyds, ABS, DNV, S.A.E. CE (P.E.D.), ECE Regulation 110, ASME Standards and ASTM Standards.

Our team of experts is always ready to provide personalized support and technical guidance, helping you choose the ideal solutions for your specific needs. As you browse through our product catalog, we hope you will discover the reliability, ingenuity, and cutting-edge technology that defines UCT as a global leader in fluid and gas control systems.

We look forward to serving you and building a successful partnership together.

We offer a one-stop-shop for gas delivery and process instrumentation across industries



Semiconductor



Power



Industrial Gases



Oil & Gas



Analytical



Hydrogen



Transportation

OUR PRODUCT LINES

HIGH PURITY PRODUCTS



Ultra Clean
Diaphragm Valves
UCV



Modular Substrate
Component
MSC

5

6

PROCESS INSTRUMENTATION



Instrumentation
Valves & Actuators



Smart Flow Control
Iot Valves



Clean Gas
Regulator

7

8

9

COMPONENTS



Hi-Tech
Components
HTC



Connectors



Hoses



Pressure
Gauges

10

10

10

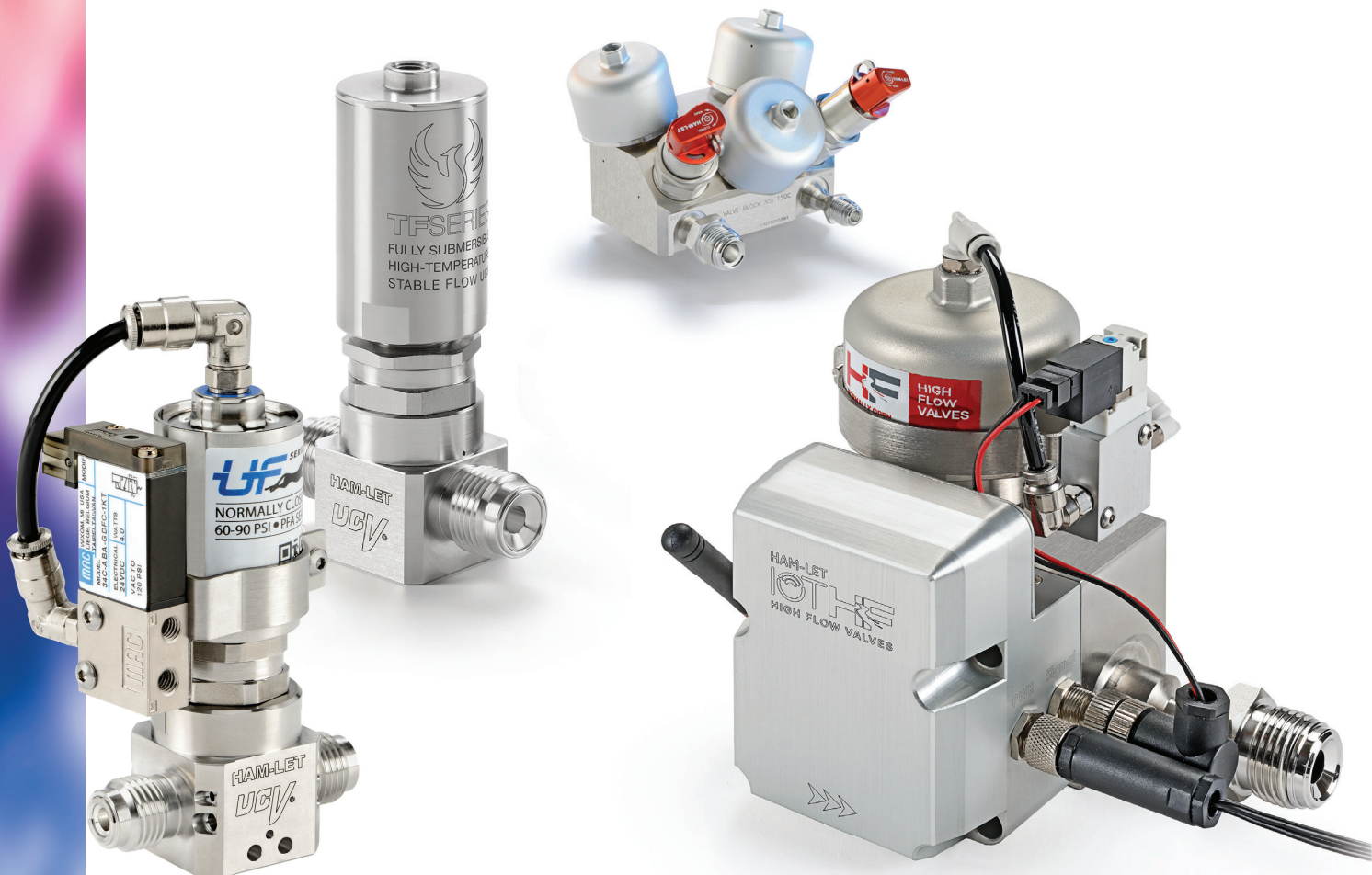
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LEADING IN INNOVATION

UCT and CINOS E&S Fluid Solutions develops, manufactures, and distributes **high-performance industrial flow control systems- connectors, fittings, and valves for gases and liquids.** We address the demanding requirements of the semiconductor industry equipped with the latest manufacturing and inspection technologies enabling precise solutions for industry opportunities. With a broad portfolio of products and decades of extensive experience, we offer a one-stop-shop for various applications.

Our know-how combined with our consultative approach enables us to deliver tailor made, sustainable solutions that abide by the stringent regulations of the semiconductor industry.

Encouraging innovation, UCT and CINOS E&S Fluid Solutions have developed patented products, environmentally friendly solutions such as fugitive emission free valves and smart wireless valves with IoT connectivity, already deployed for variety of use cases across the globe.



HIGH PURITY PRODUCTS

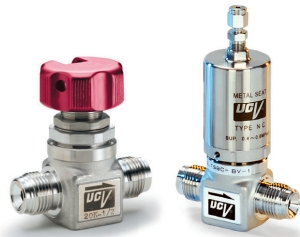


Ultra Clean Diaphragm Valves UCV



STANDARD PERFORMANCE SERIES

Temperature range -10°C to 150°C
Pressure range Up to 300 psi
Cv Up to 0.7



METAL SEAT SERIES

Temperature range -10°C to 250°C
Pressure range Up to 150 psi
Cv Up to 0.7



HIGH PRESSURE SERIES

Temperature range -10°C to 150°C
Pressure range Up to 3060 psi
Cv Up to 0.27



SURFACE MOUNT SERIES

Temperature range -10°C to 150°C
Pressure range Up to 150 psi
Cv Up to 0.7



ECONOMIC VALVES SERIES

Temperature range -10°C to 150°C
Pressure range Up to 300 psi
Cv Up to 0.7



HIGH FLOW DIAPHRAGM VALVES SERIES

Temperature range -10°C to 60°C
Pressure range Up to 250 psi
Cv Up to 2.8



MULTI-PORT MONOBLOCK VALVE HMB SERIES

Temperature range -10°C to 150°C
Pressure range Up to 300 psi
Cv Up to 0.7



ULTRA FAST DIAPHRAGM VALVE UF-LINE

Temperature range -10°C to 200°C
Pressure range Up to 150 psi
Cv Up to 0.6



FULLY SUBMERSIBLE HIGH-TEMPERATURE TF SERIES

Temperature range -10°C to 200°C
Pressure range Up to 150 psi
Cv Up to 0.8



COMPACT WELDED CHECK VALVES CMW SERIES

Temperature range -10°C to 150°C
Pressure range Up to 300 psi
Cv Up to 0.7

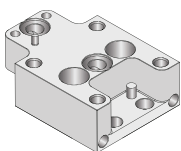
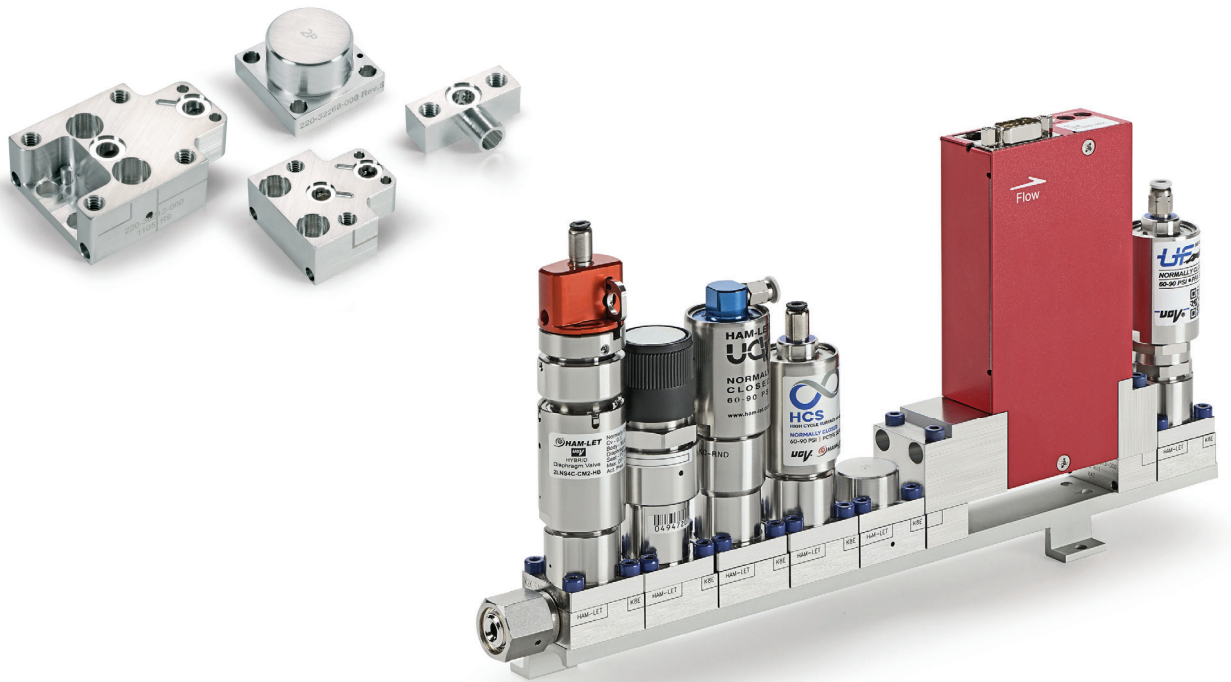
HIGH PURITY PRODUCTS



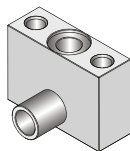
Modular Substrate Components **MSC**

Surface mount technology allows the construction of much more compact gas delivery systems when compared to in-line, face-seal construction. Each surface mount component follows SEMI dimensional standards to provide interchangeability between manufacturers.

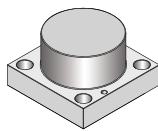
MSC enables easy configuration changes by providing premachined flow paths that can be assembled in different sequences without the need for welded assemblies.



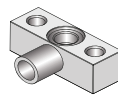
SUBSTRATE



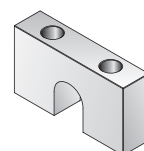
MANIFOLD



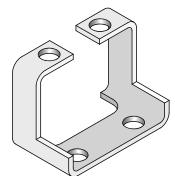
CAP



FLANGE



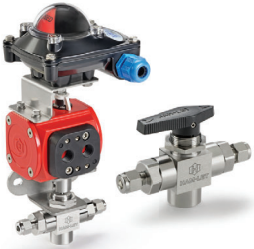
MOUNTBLOCK



BRACKET

PROCESS INSTRUMENTATION

INSTRUMENTATION VALVES & ACTUATORS



High Pressure Trunnion Ball Valves TBV Series

MAWP 10,000 psi (690 bar)
MAWT 500°F (260°C)



High Performance Ball Valves H-6800 Series

MAWP 6,000 psi (413 bar)
MAWT 500°F (260°C)



Heavy Duty Ball Valves H-1700 Series

MAWP 6,000 psi (413 bar)
MAWT 500°F (260°C)



3 Piece Ball Valves H-500 Series

MAWP 3,000 psi (206 bar)
MAWT 450°F (232°C)



Integral Bonnet Needle Valves H-300U Series

MAWP 5,000 psi (345 bar)
MAWT 446°F (230°C)



High Pressure Needle Valves H-99 Series

MAWP 10,000 psi (690 bar)
MAWT 1200°F (648°C)



Check Valves - High Pressure, One Piece & Adjustable H-400

MAWP 6,000 psi (413 bar)
MAWT -40 to 250°F (-40 to 121°C)



QCLOK® Quick Connectors 1/4", 3/8", 1/2"

MAWP 3,000 psi (413 bar)
MAWT 500°F (260°C)

Pneumatic Actuators

Pneumatic Rack and Pinion Actuators



Media Header

HMH Series



PROCESS INSTRUMENTATION



SMART FLOW CONTROL IoT VALVES

Internet of Things (IoT) Smart Valves present a unique breakthrough in the process valves industry. Our solution enables online monitoring, control and management of various processes which allow immediate response for safety events. Machine learning and optimization, machinery & equipment protection, device tracking and additional customer tailored features.

INDUSTRY CROSSING APPLICATIONS

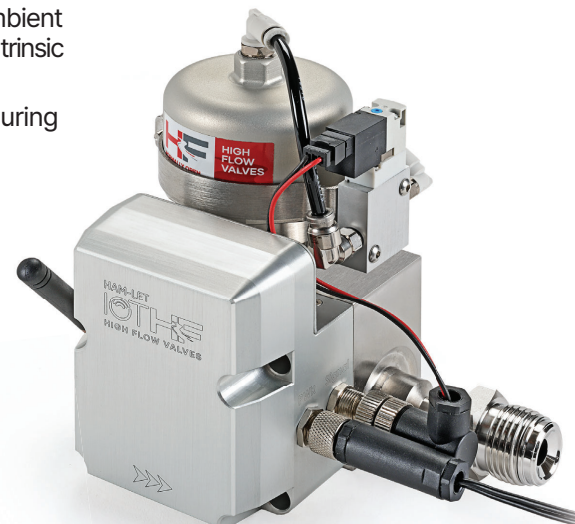
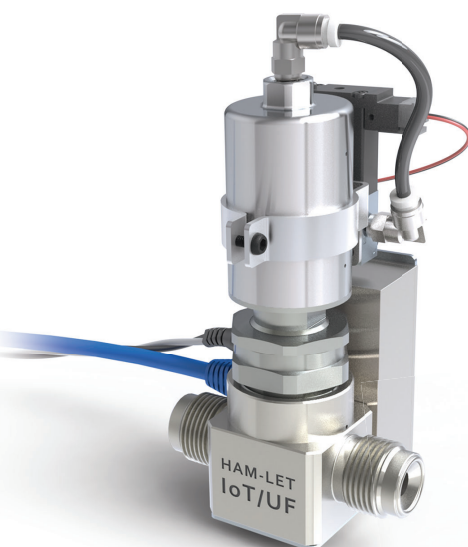
- Process control & monitoring
- Process management
- Machinery and equipment protection
- Predictive maintenance
- Failure prevention
- Safety alerts
- Data analytics

USE CASES

- Real-time inlet and outlet pressure measurement
- Use differential pressure to trigger emergency shut off events
- Measuring temperature to detect, prevent and suppress system over heating
- Measuring vibration to indicate and avoid mechanical malfunctions
- Real-time monitoring of ambient and media parameters in an intrinsic safety environment
- Integrating multiple measuring tools, reducing installation space and cost

BENEFITS

- Increased safety
- Reduced downtime costs
- Improved performance
- Lower total cost of ownership
- Optional process optimization
- Enables machine learning



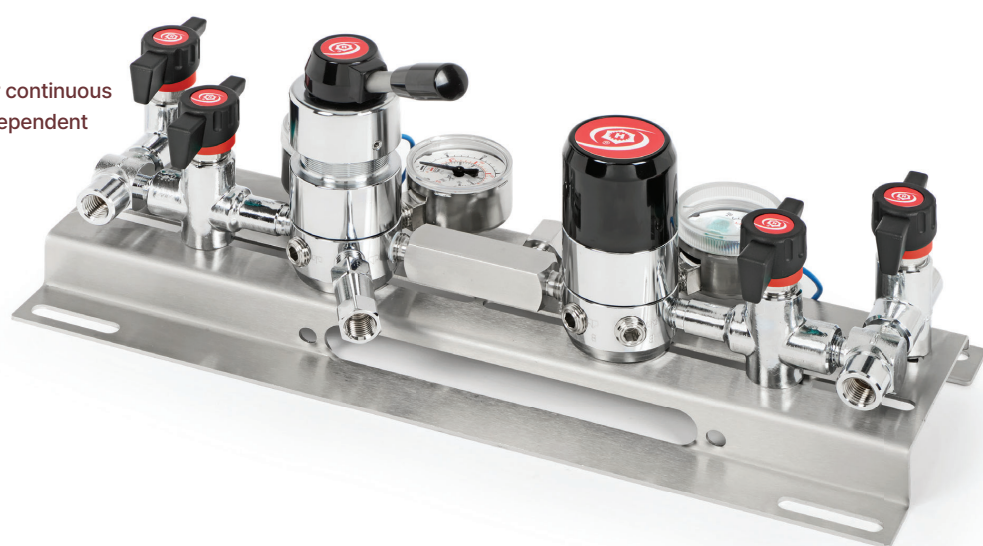
PROCESS INSTRUMENTATION

Clean Gas Regulator **HRG**



HRG5SA

Semi-automatic change over systems for continuous gas applications using more than one independent gas source



HRG5D

6-port dual-stage pressure regulator used for constant outlet pressure up to gas purity 6.0



COMPONENTS



Hi-Tech Components

HTC

SHAPED UNIONS



SWIVEL CONNECTORS



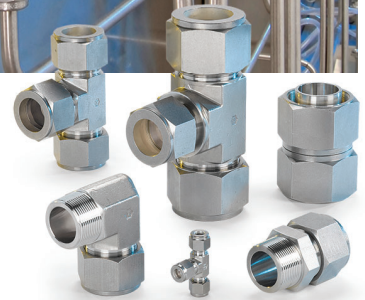
Connectors



LET-LOK® COMPRESSION TUBE FITTINGS

Size
1/16" to 2" 3mm to 50mm

Pressure
Up to 12,000 psi



Hoses

Our Hose lines include a full range of high quality SS hose assemblies, PTFE core SS braided hose assemblies and end connections. Availability of Full Vacuum to High pressure up to 6,000 psi (413bar), 1/4" up to 2" ID range custom length, all tested and individually packed.

All Hose assemblies are fitted with quality fittings providing maximum usability and exchangeability with the highest safety levels.

METAL HOSES SHV SERIES



PTFE HOSES THP SERIES

Red Silicone Covered
Smooth Core



Pressure Gauges



Features :

- Nominal case sizes:
40, 50, 63, 100, 115, 160mm (1½", 2", 2½", 4", 4½", 6")
- Pressure, Vacuum and Compound measuring ranges.
- Pressure ranges of
0-1 inH₂O up to 0-250 inH₂O (0-2.5 mbar up to 0-600 mbar),
0-10 up to 0-15,000 psi (0-0.6 up to 0-1000 bar) and above.
- Accuracy of ± 0.5/1.6/2.5 % of span
(EN 837-1 Class 1/1.6/2.5, ASME B40.1 Grade 1A/2A/B/C)
- Manufactured in accordance to EN 837 and ASME B40.1 standards.
- All wetted parts made of 316L Stainless Steel (Alloy 400 as an option).
- Connections include threaded, tube adapter and face seal.

CONTACT US

CINOS E&S is a subsidiary company of CINOS Co., Ltd.
and provides UCT Ham-let Valves as an official distributor.

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Leading Edge Technology

in Fluid Solutions

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