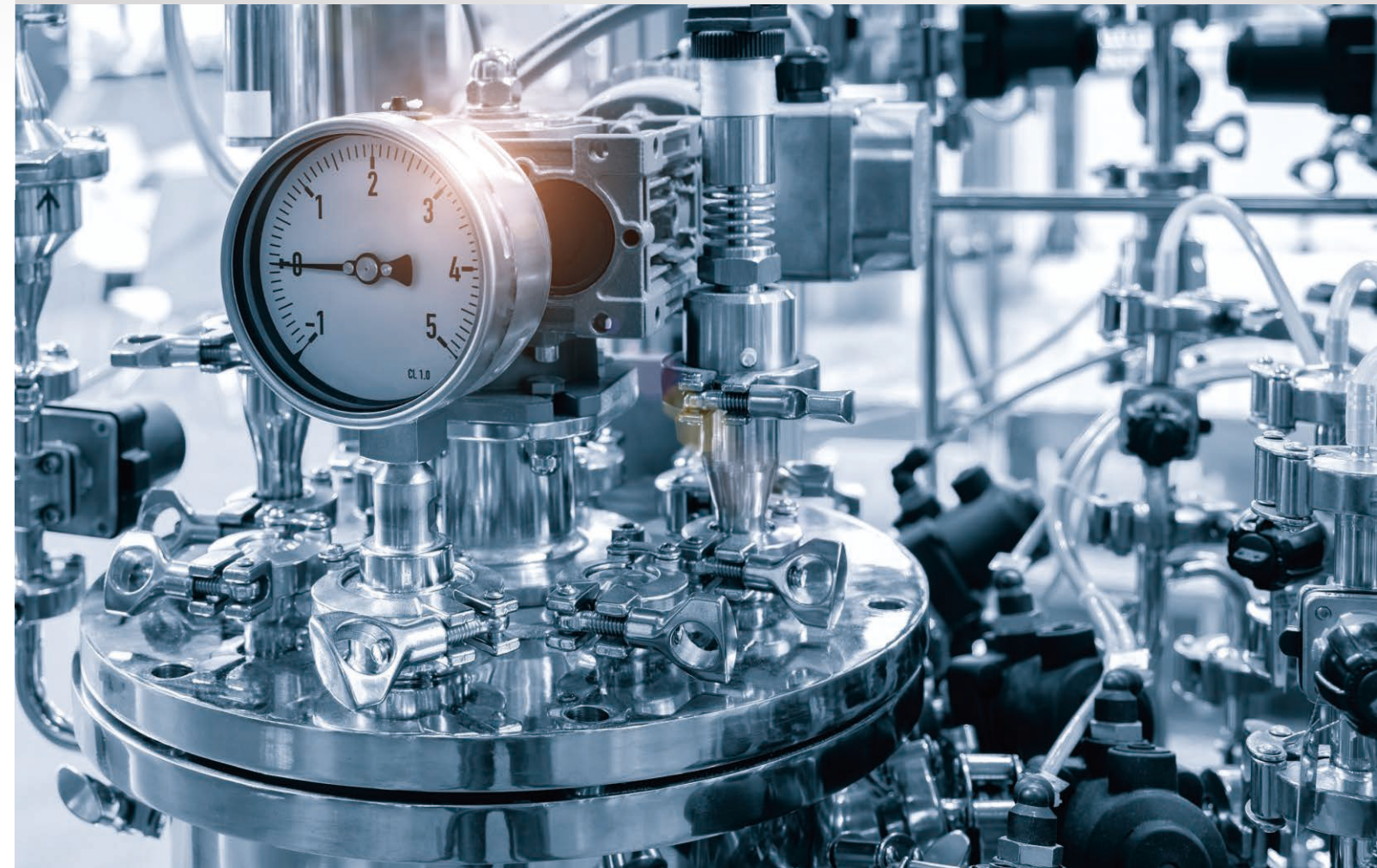
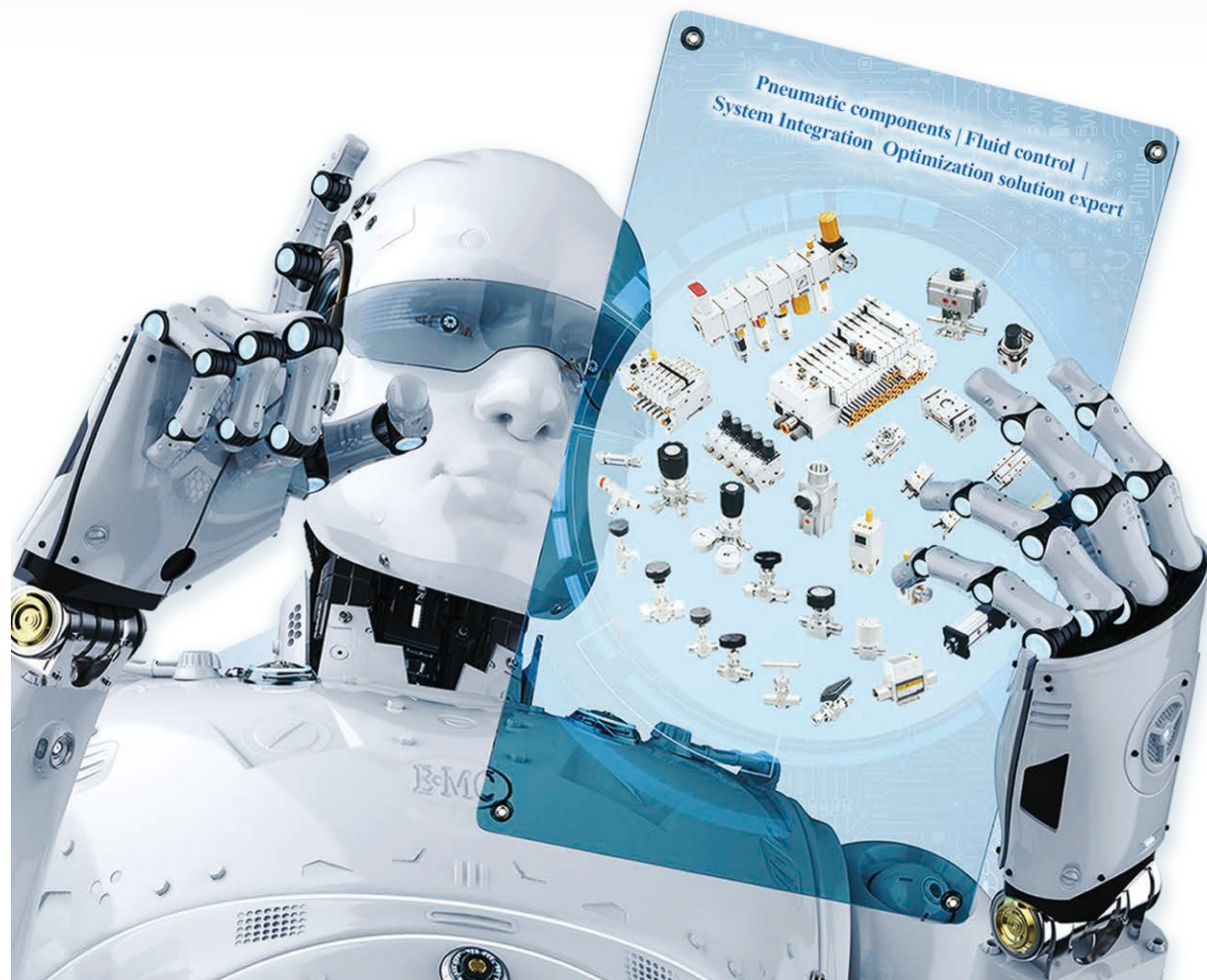




UHP Process Gas Control System



E·MC GROUP

ADD : No.228 Jiangning Road, Fenghua, Ningbo,China, 315504
TEL : 400-1177-868
FAX : +86-574-2856 5767
Website : www.emc-machinery.com
E-Mail : emcsales@emc-machinery.com



Website



E·MC GROUP

EFEF2502A

EDP Diaphragm Valve

- Suitable for ultra-high purity gases and special gases
- Working Pressure: 145psig (10bar), 3000psig (207bar)
- Working Temperature: -10-80°C (14-176°F)
- Actuating Pressure: 60-90psig (6-8bar)
- Diaphragm material: Nickel cobalt alloy
- Body Size: 1/4"-3/4"
- 316L、316L VAR、316L VIM-VAR Accord with SEMI F20
- Sealing material: PCTFE、Vespel® 、PFA
- Valve body leakage rate
(inward leakage): $<1.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
(outward leakage): $<1.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
- Cycle life: over 4 million cycles
- Electrolytic polishing treatment
 $Ra \leq 0.13 \mu\text{m}$, $Ra \leq 0.25 \mu\text{m}$



Semiconductor ultra clean application

CVW UHP Welding Check Valve

- Port size: 1/4"-1/2" • Flow rate(Cv): 0.55、0.7
- Positive pressure <2psig (0.14bar), positive flow
- Back pressure <2psig (0.14bar), valve closed
- SUS 316L、SUS 316L VAR
- Max. Working pressure: 3000psig (207bar)
- Max pressure drop: 145psig (10bar)
- Working Temperature: -23-190°C (-10°F-375°F)
- Internal Helium Leak Rate: $<1.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
- External Helium Leak Rate: $<1.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$



Semiconductor ultra clean application

GB/UB/MB Ferrule ball valve

- Only used for bulk gas pipelines
- Max. Working pressure: GB/UB: 1000psig (68.9bar)
MB: 3000psig (207bar)
- Working Temperature: -28-80°C (-20-176°F)
- Port size: GB: 1/8"-1", 6mm-25mm
UB: 1/8"-3/4", 3mm-20mm
MB: 1/8"-3/4", 3mm-18mm
- Connection method: Ferrule, Thread
- Body material: SUS 316
- Sealing material: PTFE
- Features:
Strong circulation capacity, fast switching speed, selectable actuators, selectable handle colors, optional panel installation



MB series



UB series



GB series

CV/CVH Check Valve

- Max. Working pressure: CV: 3000psig (207bar) / CVH: 6000psig (413bar)
- Activate pressure: 0-3psig、3-7psig、7-15psig、15-30psig
- Working Temperature:
CV: -23-190°C (-10-375°F)
CVH: -23-204°C (-10-400°F)
- Size: 1/8"-1", 3mm-25mm / • SUS 316
- Connection method: Ferrule, Thread, welding
- Sealing material: FKM、NBR、EPDM
- Features: Control fluid flow in one direction to prevent backflow.



PR/PZ/PK Regulator

- Suitable for ultra-high purity gases and special gases
- Working Temperature: PCTFE: -40-71°C (-40-160°F) / Vespel®: -10-90°C (14-194°F)
- Inlet pressure: 0-3500psig (0-241 bar)
- Output pressure: 1-300psig (0.07-20.7bar)
- Body size: 1/4"-1"
- Diaphragm material: Hastelloy alloy
- 316L、316L VAR Accord with SEMI F20
- Sealing material: PCTFE、Vespel®
- Valve body leakage rate
(inward leakage): $<2.0 \times 10^{-11} \text{ Pa} \cdot \text{m}^3/\text{s}$
(outward leakage): $<2.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
- Valve seat leakage rate: $4.0 \times 10^{-9} \text{ Pa} \cdot \text{m}^3/\text{s}$ less than
- Electrolytic polishing treatment $Ra \leq 0.25 \mu\text{m}$

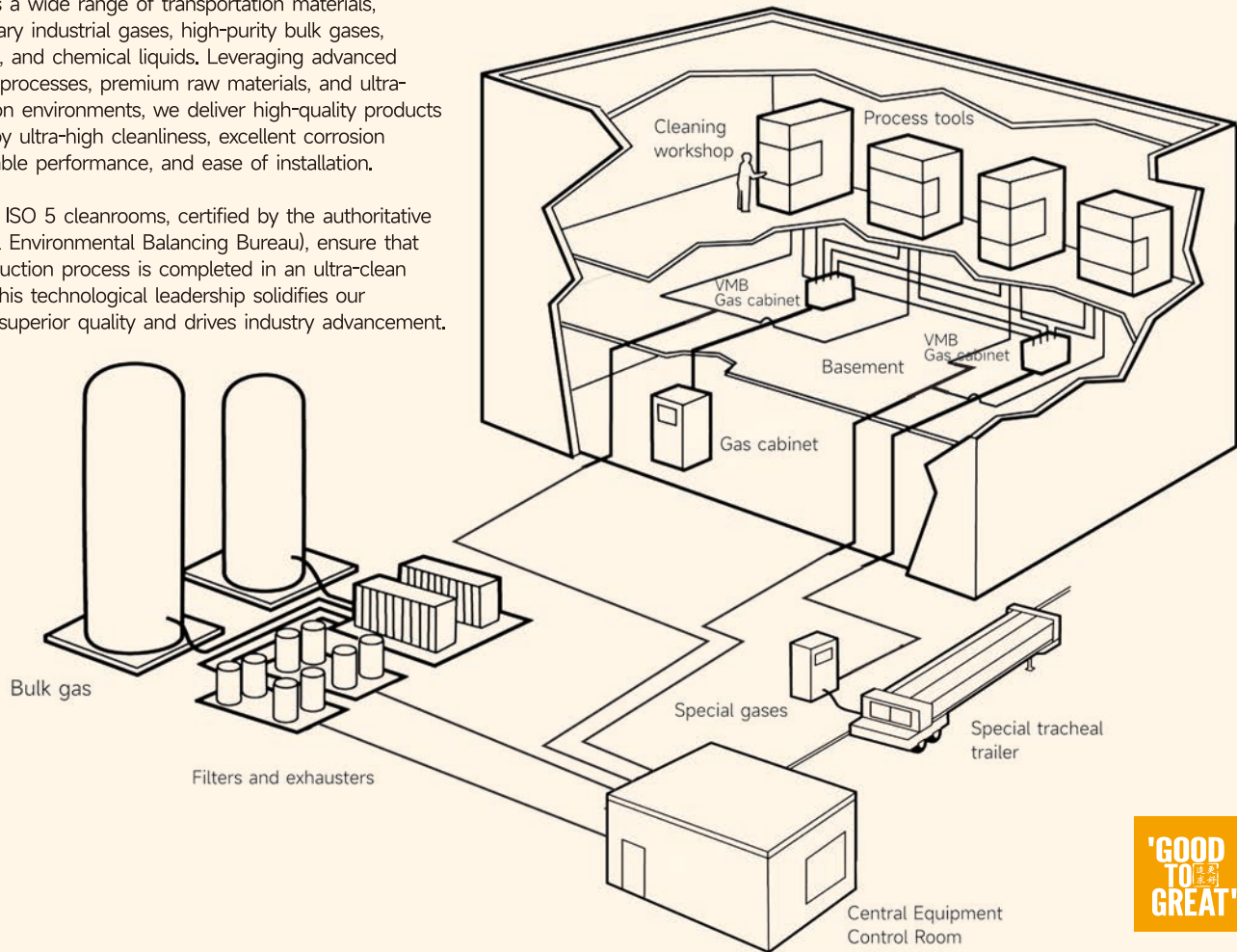


Semiconductor ultra clean application

UHP Process Gas Control System

We are technology-driven, empowering materials for the transportation of gases and chemical liquids. Our product portfolio covers a wide range of transportation materials, including ordinary industrial gases, high-purity bulk gases, specialty gases, and chemical liquids. Leveraging advanced manufacturing processes, premium raw materials, and ultra-clean production environments, we deliver high-quality products characterized by ultra-high cleanliness, excellent corrosion resistance, reliable performance, and ease of installation.

Our ISO 4 and ISO 5 cleanrooms, certified by the authoritative NEBB (National Environmental Balancing Bureau), ensure that the entire production process is completed in an ultra-clean environment. This technological leadership solidifies our foundation for superior quality and drives industry advancement.



'GOOD TO GREAT'

ECR Tube Fitting

- Suitable for ultra-high purity gases and special gases
- Size: 1/8"-1"
- Material: 316L、316L VAR Accord with SEMI F20
- Electrolytic treatment $Ra \leq 0.13 \mu\text{m}$ 、 $Ra \leq 0.25 \mu\text{m}$
- Helium leakage rate: $1.0 \times 10^{-10} \text{ Pa} \cdot \text{m}^3/\text{s}$
- Features:
Strong sealing, no particle generation, high corrosion resistance



Semiconductor ultra clean application

EMT Tube Fitting

- Suitable for ultra-high purity gases and special gases
- Size: 1/8"-1"
- Material: 316L、316L VAR、316L VIM-VAR Accord with SEMI F20
- Surface roughness: $Ra 0.13 \mu\text{m}$ 、 $Ra 0.25 \mu\text{m}$
- Features:
Automatic and manual welding, no particle generation, ultra-high corrosion resistance



Semiconductor ultra clean application

PB Clean Ball Valve

- Suitable for use in bulk gas clean pipeline systems
- Max. Working pressure:
Below 1": 1000psi, 1.25"-2": 600 psi, Above 2.5": 232 psi
Below 20A: 1000psi, 25A-40A: 600 psi, Above 50A: 232 psi
- Working Temperature: -28-80°C (-18.4-176°F)
- American Standard 1/2"-8", Japanese Standard 15A-200A
- 316L、304L / Sealing: PTFE
- Connection Methods: Automatic welding, manual welding, ferrule, flange.



Semiconductor ultra clean application

MH Metal Hose

- Suitable for various high and low pressure bulk gases
- Max. Working pressure: 3000psig (213bar)
- Port size: 1/8"-1" Thread,
1/4"-1" Double ferrule,
6-22mm Double ferrule
- Hose size: 1/4"-2"
- Connection method: Ferrule, Thread
- SUS 316 • Flexible length
- Features: Strong and reliable connection



Semiconductor ultra clean application

NV/NVH Needle Valve

- Suitable for ordinary gases and liquids
- Max. Working pressure: 6000psig (413bar)
- Size: 1/8"-1", 3mm-25mm
- Working Temperature:
NV: -54-315°C (-65-600°F)
PTFE, achieve 232°C (454°F)
PEEK, achieve 315°C (600°F)
NVH: PTFE, achieve -53-232°C (-65-450°F)
PEEK, achieve 315°C (600°F)
Graphite, achieve 648°C (1200°F)
- Connection method: Ferrule, Thread
- SUS 316 • PTFE、PEEK、Graphite(only NVH available)



Tube Fitting

- Size: 1/16"-1", 2mm-25mm
- SUS 316
- Features: Easy to operate, firmly connected, Reliable sealing performance, capable of handling various working conditions

