

VIGOUR

We offer solutions regarding your ideas!

GAS DELIVERY SYSTEM

Gas
Control
Solutions



VGDS
VUPS
VHPS
VIGS

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Specialty Gas Rack

VGR Series

Product Features

- Continuous and uninterrupted safe supply of electronic-grade bulk gases.
- Optional venting and purging functions, with safety pressure relief.
- Class 100 cleanroom welded assembly.
- Optional PLC control with communication interface, which can be accessed by the intelligent monitoring platform system.
- High pressure / Low pressure alarm with audible and visual signals, capable of emergency shutoff.
- Touchscreen display for cylinder pressure and other data.

Product Applications

- University/Research Laboratories
- Industrial Manufacturing
- Photovoltaic Solar Energy
- Pharmaceuticals and Biotechnology
- Semiconductor Integrated Circuit Manufacturing

Design Standards

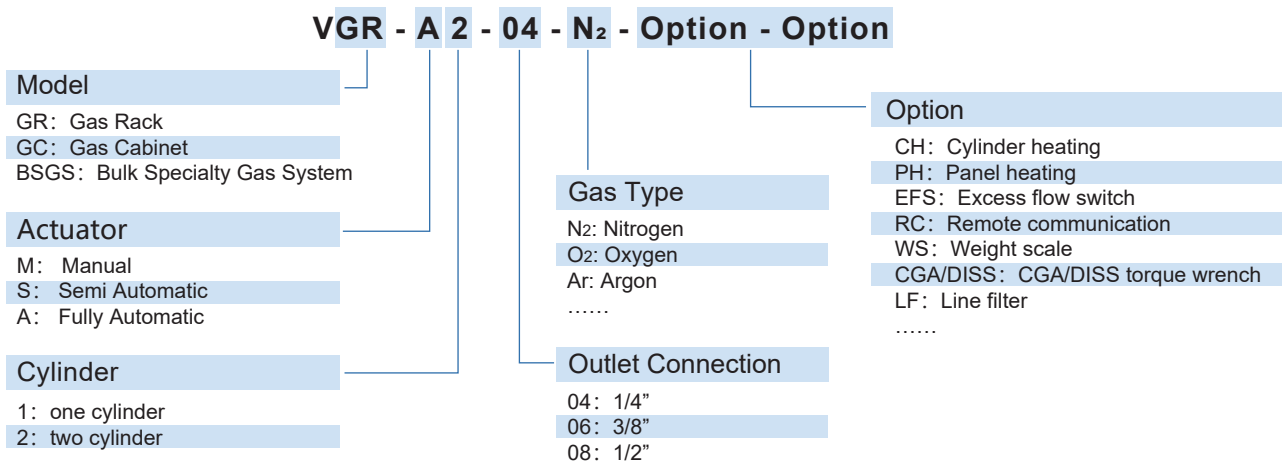
- Complies with SEMI S2 standards.
- Complies with international building fire safety codes.
- Maximum working pressure: 110% of proof test pressure.
- Helium leak detection rate: 1×10^{-9} mbar l/s He.



Technical Specifications

Type:	Special Gas Control Rack
Material:	SS 316L for valves and piping components
Applicable gases:	inert gases (Ne, Kr, Ar, He etc.)
Gas Supply Method:	Gas cylinder
Power supply:	110~240V AC
Configurations:	Single-cylinder, dual-cylinder

Ordering information



Product Features

- Continuous and uninterrupted safe supply of electronic-grade specialty gases.
- Optional evacuation and purging functions, with safety pressure relief.
- Class 100 cleanroom welded assembly.
- Optional PLC control with communication interface, which can be accessed by the intelligent monitoring platform system.
- High pressure / Low pressure alarm with audible and visual signals, capable of emergency shutoff.
- 10" display screen showing cylinder pressure and other data.

Product Applications

- University/Research Laboratories
- Industrial Manufacturing
- Photovoltaic Solar Energy
- Pharmaceuticals and Biotechnology
- Semiconductor Integrated Circuit Manufacturing

Design Standards

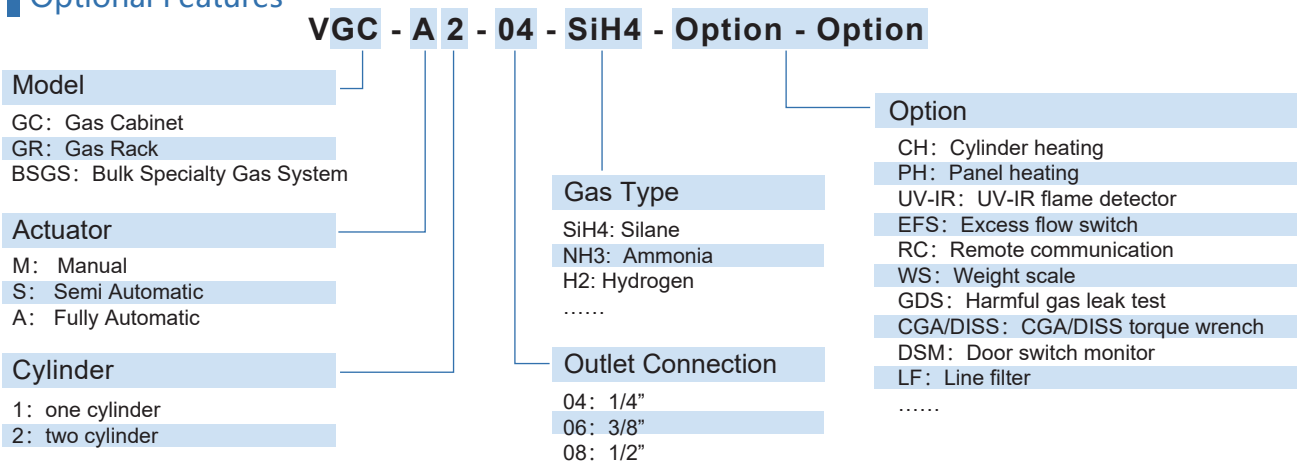
- Complies with SEMI S2 standards.
- Complies with international building fire safety codes.
- Maximum working pressure: 110% of proof test pressure.
- Helium leak detection rate: 1×10^{-9} mbar l/s He.



Technical Specifications

Type:	Specialty Gas Cabinet
Material:	SS 316L for valves and piping components
Applicable gases:	Flammable/self-igniting gases, corrosive gases, toxic gases (e.g., SiH ₄ , HCl)
Gas Supply Method:	Gas cylinder
Power Supply:	110~240V AC
Configurations:	Single-cylinder, dual-cylinder
Enclosure:	Corrosion-resistant welded steel
Glass Window:	Switchable, 1/4" wire-reinforced glass
Door:	Auto-closing
Exhaust Pipe:	Top-mounted exhaust pipe

Optional Features



Valve Manifold Box

VVMB Series

Product Features

- Multi-point distribution of raw materials from the supply source to the usage points.
- Optional evacuation and purging functions, with safety pressure relief.
- Class 100 cleanroom welded assembly.
- Optional PLC control with communication interface, which can be accessed by the intelligent monitoring platform system.
- High pressure / low pressure alarm with audible and visual signals, capable of emergency shutoff.
- Touchscreen display for cylinder pressure and other relevant data.

Product Applications

- University/Research Laboratories
- Industrial Manufacturing
- Photovoltaic Solar Energy
- Pharmaceuticals and Biotechnology
- Semiconductor Integrated Circuit Manufacturing

Design Standards

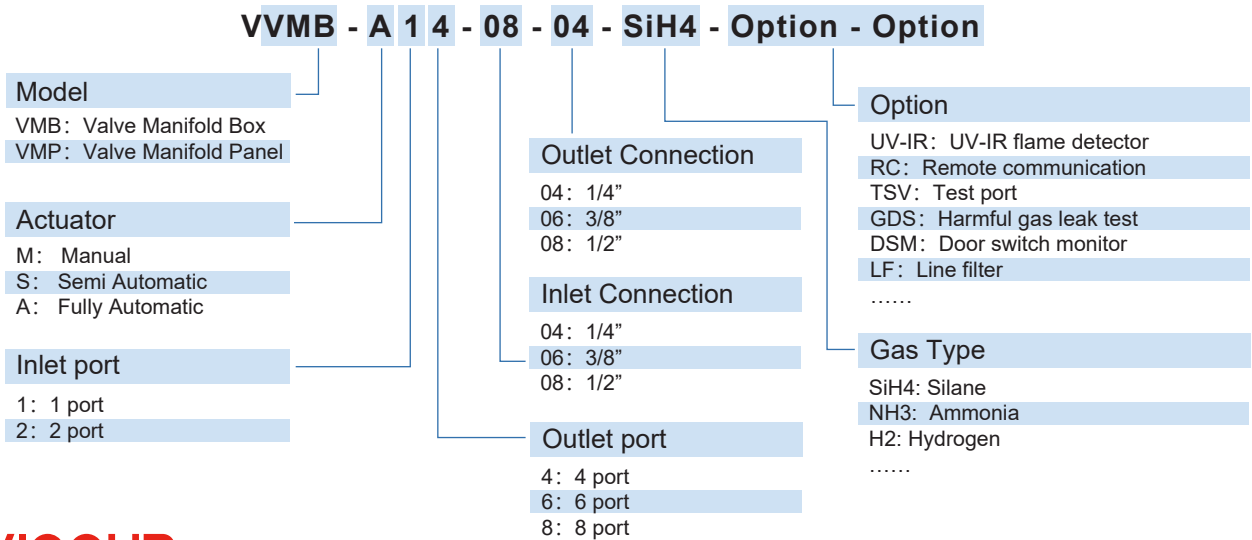
- Complies with SEMI S2 standards.
- Complies with international building fire safety codes.
- Maximum working pressure: 110% of proof test pressure.
- Helium leak detection rate: 1×10^{-9} mbar l/s He.



Technical Specifications

Type:	Valve and electrical control box
Material:	SS 316L for valves and piping components
Applicable gases:	Flammable/self-igniting gases, corrosive gases, toxic gases (e.g., SiH ₄ , HCl)
Power Supply:	110~240V AC
Enclosure:	Corrosion-resistant welded steel
Glass Window:	Switchable, 1/4" wire-reinforced glass
Door:	Auto-closing
Exhaust Pipe:	Top-mounted exhaust pipe

Optional Features



Product Features

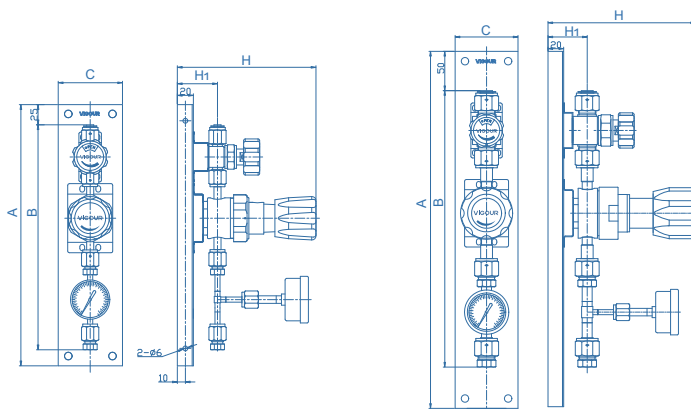
- Ultra high purity gas stick for all gas delivery systems
100TG: ≤30 slpm delivery 1/4" VFS
200TG: ≤300 slpm delivery 3/8" VFS
300TG: ≤600 slpm delivery 1/2" VFS
- The product is fabricated in compliance with the VS001A process specification
- High control accuracy
- All connections welded or VFS
- Manual or pneumatic diaphragm valve option
- 100% Helium-leak-tested

Technical Data

Inlet pressure P1:	300 psig (20bar)
Outlet pressure P2:	Vac to 30/60/100/150 psig (1/2/4/7/10bar)
Diaphragm valve materials	
body:	316L
Valve seat:	PCTFE
Diaphragm:	Elgiloy®
Regulator materials	
body:	316L / 316L secondary remelt
Valve seat:	PCTFE
Diaphragm:	Hastelloy® C276
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He



Dimensions (mm)



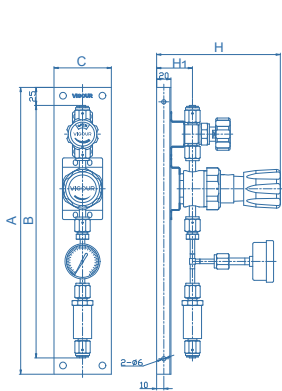
VUP-100TG (A Type)

VUP-200TG / VUP-300TG (A Type)

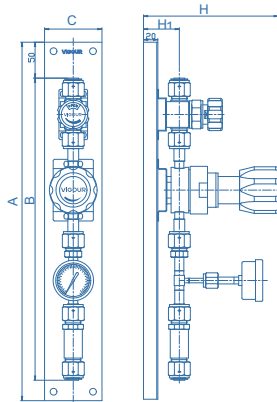
Type	Panel Thickness mm	Ordering Number	Dimensions, mm				
			A	B	C	H	H1
100TG	20	VUP-100TG-A	325	280	80	172.5	50
200TG	20	VUP-200TG-A	455	352.4	80	188	50
300TG	20	VUP-300TG-A	455	349.2	80	188	50

Gas Stick Assemblies

VUP Series

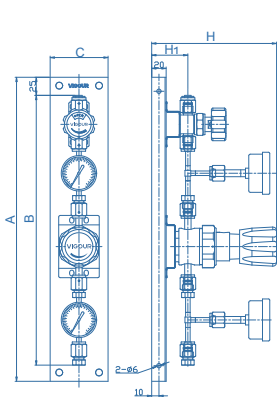


VUP-100TG (B Type)

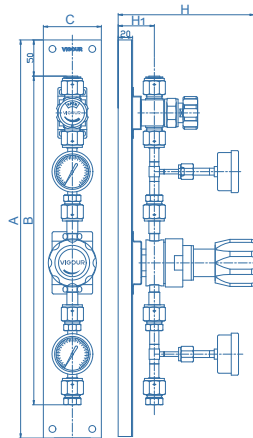


VUP-200TG / VUP-300TG (B Type)

Type	Panel Thickness mm	Ordering Number	Dimensions, mm				
			A	B	C	H	H1
100TG	20	VUP-100TG-B	400	352.3	80	172.5	50
200TG	20	VUP-200TG-B	500	421.4	80	188	50
300TG	20	VUP-300TG-B	500	418.2	80	188	50

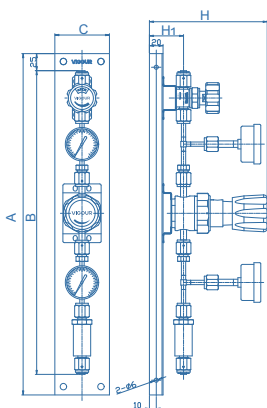


VUP-100TG (C Type)

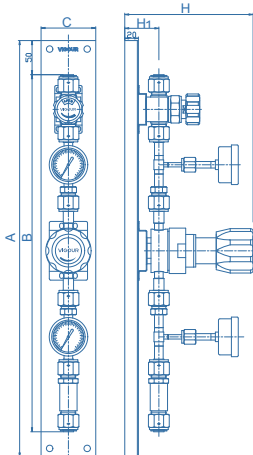


VUP-200TG / VUP-300TG (C Type)

Type	Panel Thickness mm	Ordering Number	Dimensions, mm				
			A	B	C	H	H1
100TG	20	VUP-100TG-C	420	372.6	80	172.5	50
200TG	20	VUP-200TG-C	550	454.1	80	188	50
300TG	20	VUP-300TG-C	550	447.7	80	188	50



VUP-100TG (D Type)



VUP-200TG / VUP-300TG (D Type)

Type	Panel Thickness mm	Ordering Number	Dimensions, mm				
			A	B	C	H	H1
100TG	20	VUP-100TG-D	500	444.9	80	172.5	50
200TG	20	VUP-200TG-D	610	523.1	80	188	50
300TG	20	VUP-300TG-D	610	516.7	80	188	50

Ordering Information

VUP - 100TG - D - 20 - 10 - FV4 - P - P - FV4 - F - PC

Series

100TG: ≤30 slpm delivery 1/4"VFS
 200TG: ≤300 slpm delivery 3/8"VFS
 300TG: ≤600 slpm delivery 1/2"VFS

Type

A: Single gauge, No filter included
 B: Single gauge, included filter
 C: Dual gauge, No filter included
 D: Dual gauge, included filter
 E: Inlet and Outlet diaphragm valves

Inlet Pressure P1

20: 300 psig

Outlet Pressure P2

V1: Vac to 10 psig
 V2: Vac to 30 psig
 V4: Vac to 60 psig
 V7: Vac to 100 psig
 V10: Vac to 150 psig
 1: to 10 psig
 2: to 30 psig
 4: to 60 psig
 7: to 100 psig
 10: to 150 psig

Inlet Valve

None: No inlet valve
 MV4: 1/4"VFS male
 FV4: 1/4"VFS female
 MV8: 1/2"VFS male
 FV8: 1/2"VFS female

Diaphragm Valve Option

None: Manual valve
 PC: Pneumatic valve
 (normally closed)

Outlet Option

None: Without
 F: Filter (0.003 μm)

Outlet Valve

MV4: 1/4"VFS male
 FV4: 1/4"VFS female
 MV8: 1/2"VFS male
 FV8: 1/2"VFS female

Outlet Pressure Indication

None: No inlet gauge
 P: Pressure gauge
 K: Contact pressure gauge
 PT: Pressure mitter transmitter

Inlet Pressure Indication

None: No outlet gauge
 P: Pressure gauge
 K: Contact pressure gauge
 PT: Pressure transducer

Pressure Control Panels

VUP-1U Series

Product Feature

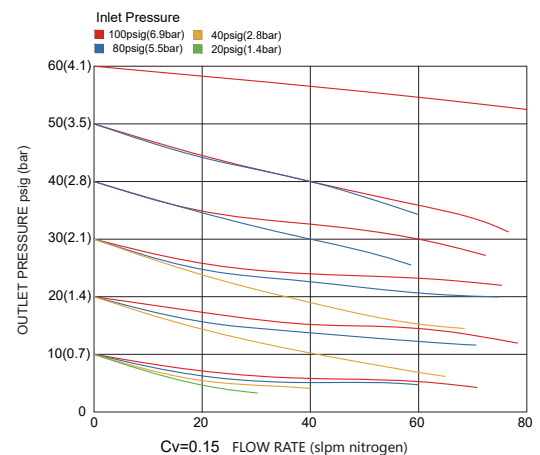
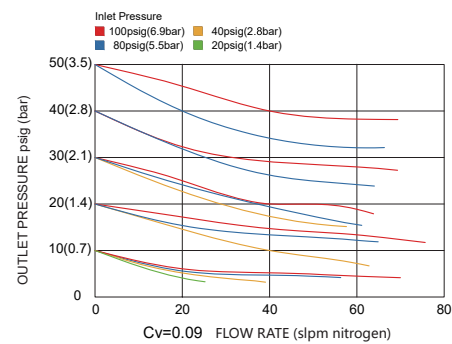
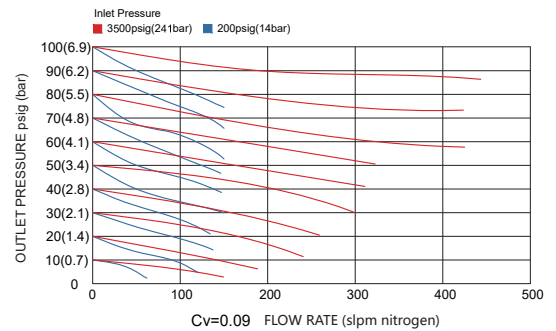
- Pressure Control Panels (Single side type)
- VSR-100UBS / UCS Series Single Stage Regulator
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3500 psig (250bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

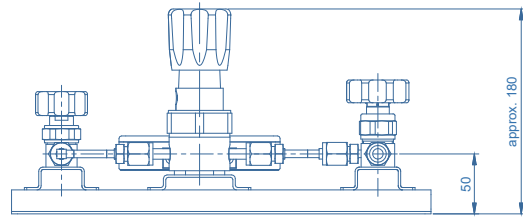
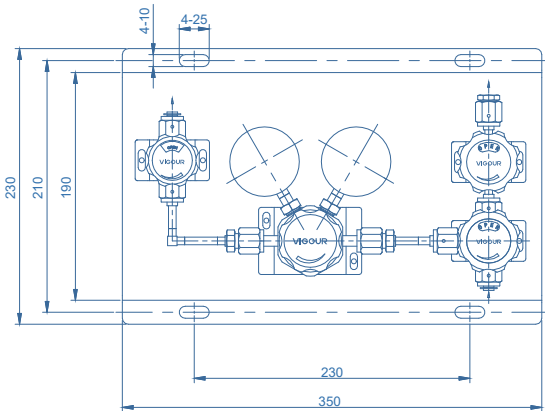
Type:	single-stage
Inlet pressure P1:	max. 3500 psig (250bar)
Outlet pressure P2:	Vac to 10/30/60/100/150 psig (0.7/2/4/7/10 bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator): (diaphragm valve):	PCTFE (VespeI® optional) PEEK
Diaphragm (regulator): (diaphragm valve):	Hastelloy® C276 Elgiloy®
Inlets and Outlets:	1/4" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere) (via seat)	1x10 ⁻⁹ mbar l/s He 1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	0.35 psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.09 0.5psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.15
Flow capacity:	Cv=0.09 (Cv=0.15 option)

Flowchart



Pressure Control Panels VUP-1U Series

Dimensions (mm)



Ordering Information

VUP - 1US - 250 - 10 - MV4 - MV4 - P - R25 - HF - VS

<p>Body Material</p> <ul style="list-style-type: none"> S: 316L SLV: 316L secondary remelt SHP: 316L body and nozzle Hastelloy® C22 poppet <p><small>*All options diaphragm material is Hastelloy® C276</small></p>	<p>Inlet Pressure P₁</p> <ul style="list-style-type: none"> 20: 300 psig 250: 3500 psig 	<p>Outlet Pressure P₂</p> <ul style="list-style-type: none"> V0.7: Vac to 10 psig * V2: Vac to 30 psig V4: Vac to 60 psig V7: Vac to 100 psig V10: Vac to 150 psig 0.7: to 10 psig * 2: to 30 psig 4: to 60 psig 7: to 100 psig 10: to 150 psig 	<p>Valve seat Option</p> <ul style="list-style-type: none"> None: PCTFE VS: Vespel® 	<p>Cv Option</p> <ul style="list-style-type: none"> None: Cv=0.09 HF: Cv=0.15 	<p>Surface Finish</p> <ul style="list-style-type: none"> None: 10 µin. Ra R25: 25 µin. Ra 	<p>Pressure Indication</p> <ul style="list-style-type: none"> None: Inlet / Outlet Pressure gauge K: Contact gauge 	<p>outlet Connection</p> <ul style="list-style-type: none"> MV4: 1/4" face seal male FV4: 1/4" face seal female 	<p>Inlet Connection</p> <ul style="list-style-type: none"> MV4: 1/4" face seal male FV4: 1/4" face seal female
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* When the outlet pressure is "V0.7" and "0.7", the inlet pressure can only be "20".

Pressure Control Panels

VUP-2U Series

Product Feature

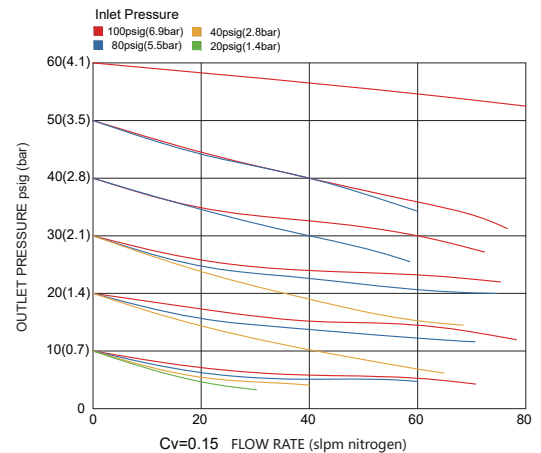
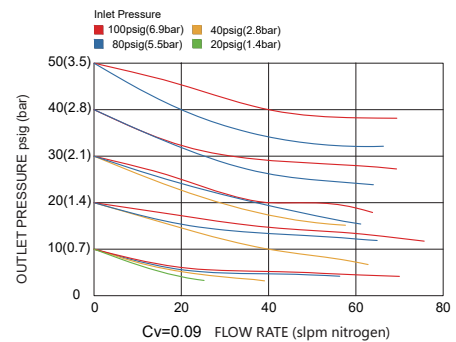
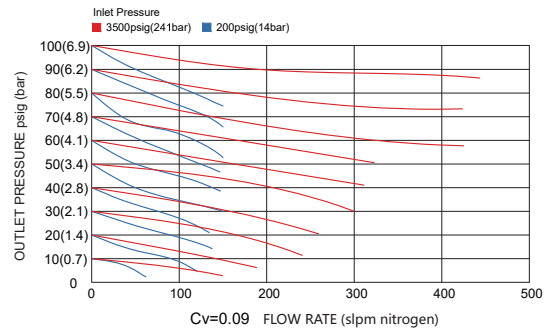
- Pressure Control Panels (Two-sided type)
- VSR-100UBS / UCS Series Single Stage Regulator
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3500 psig (250bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

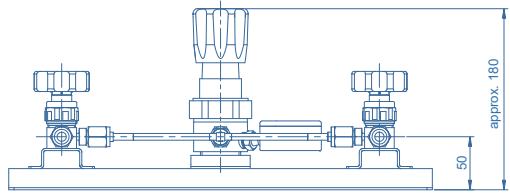
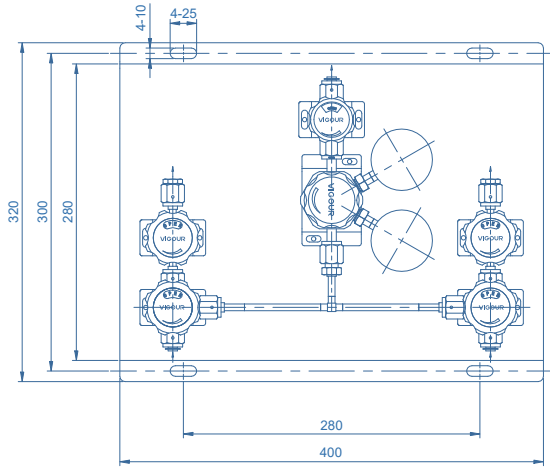
Type:	single-stage
Inlet pressure P1:	max. 3500 psig (250bar)
Outlet pressure P2:	Vac to 10/30/60/100/150 psig (0.7/2/4/7/10 bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator):	PCTFE (Vespel® optional)
(diaphragm valve):	PEEK
Diaphragm (regulator):	Hastelloy® C276
(diaphragm valve):	Elgiloy®
Inlets and Outlets:	1/4" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	0.35 psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.09 0.5psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.15
Flow capacity:	Cv=0.09 (Cv=0.15 option)

Flowchart



Pressure Control Panels VUP-2U Series

Dimensions (mm)



Ordering Information

VUP - 2US - 250 - 10 - MV4 - MV4 - P - R25 - HF - VS

<p>Body Material</p> <ul style="list-style-type: none"> S: 316L SLV: 316L secondary remelt SHP: 316L body and nozzle Hastelloy® C22 poppet <p><small>*All options diaphragm material is Hastelloy® C276</small></p> <p>Inlet Pressure P₁</p> <ul style="list-style-type: none"> 20: 300 psig 250: 3500 psig <p>Outlet Pressure P₂</p> <ul style="list-style-type: none"> V0.7: Vac to 10 psig * V2: Vac to 30 psig V4: Vac to 60 psig V7: Vac to 100 psig V10: Vac to 150 psig 0.7: to 10 psig * 2: to 30 psig 4: to 60 psig 7: to 100 psig 10: to 150 psig <p><small>* When the outlet pressure is "V0.7" and "0.7", the inlet pressure can only be "20".</small></p>	<p>Valve seat Option</p> <ul style="list-style-type: none"> None: PCTFE VS: Vespel® <p>Cv Option</p> <ul style="list-style-type: none"> None: Cv=0.09 HF: Cv=0.15 <p>Surface Finish</p> <ul style="list-style-type: none"> None: 10 µin. Ra R25: 25 µin. Ra <p>Pressure Indication</p> <ul style="list-style-type: none"> None: Inlet / Outlet Pressure gauge K: Contact gauge <p>outlet Connection</p> <ul style="list-style-type: none"> MV4: 1/4" face seal male FV4: 1/4" face seal female <p>Inlet Connection</p> <ul style="list-style-type: none"> MV4: 1/4" face seal male FV4: 1/4" face seal female
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Pressure Control Panels

VUP-3U Series

Product Feature

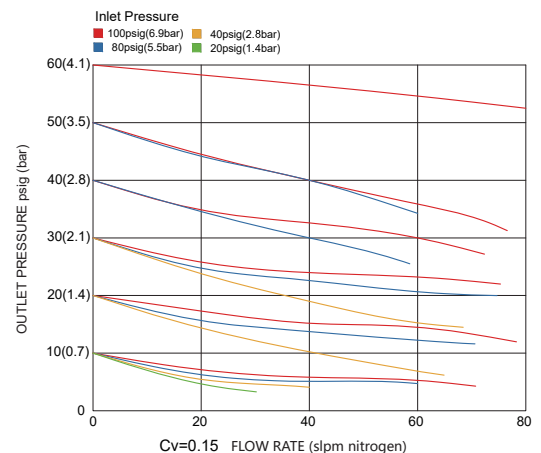
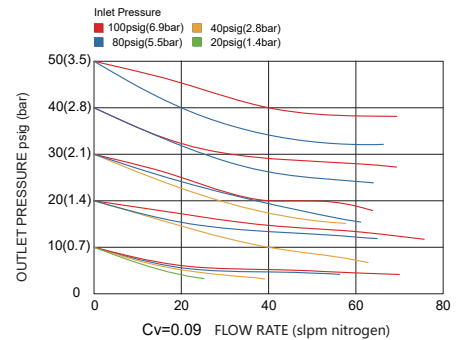
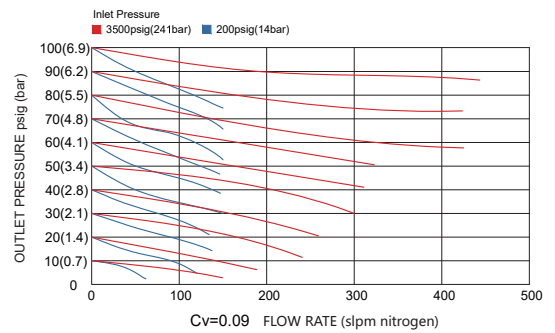
- Pressure control panels with automatic change-over function
- VSR-100UBS / UCS Series Single Stage Regulator
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3500 psig (250bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

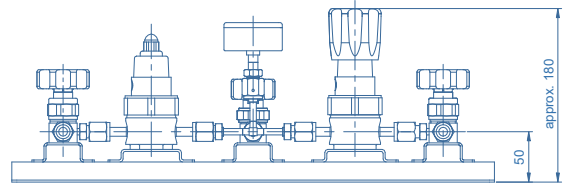
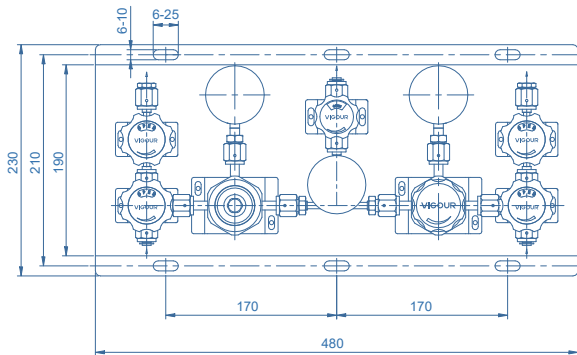
Type:	single-stage
Inlet pressure P1:	max. 3500 psig (250bar)
Outlet pressure P2:	Vac to 10/30/60/100/150 psig (0.7/2.1/4.1/10/15 bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator):	PCTFE (VespeI® optional)
(diaphragm valve):	PEEK
Diaphragm (regulator):	Hastelloy® C276
(diaphragm valve):	Elgiloy®
Inlets and Outlets:	1/4" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	0.35 psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.09 0.5psig rise in delivery pressure per 100 psig source pressure drop @Cv=0.15
Flow capacity:	Cv=0.09 (Cv=0.15 option)

Flowchart



Pressure Control Panels VUP-3U Series

Dimensions (mm)



Ordering Information

VUP - 3US - 250 - 10 - MV4 - MV4 - P - R25 - HF - VS

Body Material

S: 316L

SLV: 316L secondary remelt

SHP: 316L body and nozzle

Hastelloy® C22 poppet

*All options diaphragm material is Hastelloy®C276

Inlet Pressure P₁

20: 300 psig

250: 3500 psig

Outlet Pressure P₂

V0.7: Vac to 10 psig *

V2: Vac to 30 psig

V4: Vac to 60 psig

V7: Vac to 100 psig

V10: Vac to 150 psig

0.7: to 10 psig *

2: to 30 psig

4: to 60 psig

7: to 100 psig

10: to 150 psig

* When the outlet pressure is "V0.7" and "0.7", the inlet pressure can only be "20".

Valve seat Option

None: PCTFE

VS: Vespel®

Cv Option

None: Cv=0.09

HF: Cv=0.15

Surface Finish

None: 10 µin. Ra

R25: 25 µin. Ra

Pressure Indication

None: Inlet / Outlet Pressure gauge

K: Contact gauge

outlet Connection

MV4: 1/4" face seal male

FV4: 1/4" face seal female

Inlet Connection

MV4: 1/4" face seal male

FV4: 1/4" face seal female

Pressure Control Panels

VUP-4U Series

Product Feature

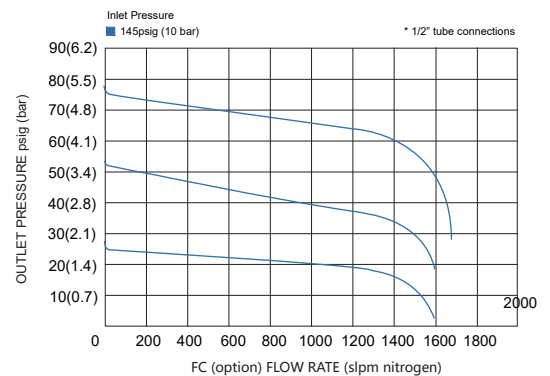
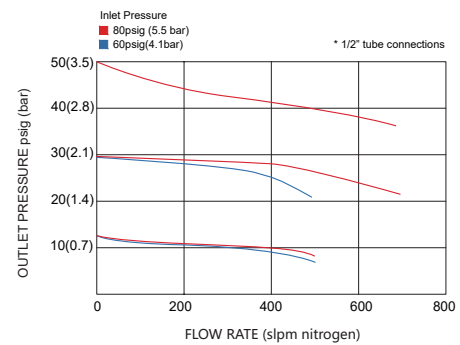
- Pressure Control Panels (Single side type)
- VSR-210UBS / UCS Series Single Stage Regulator
- Tied-diaphragm design
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3000 psig (200bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

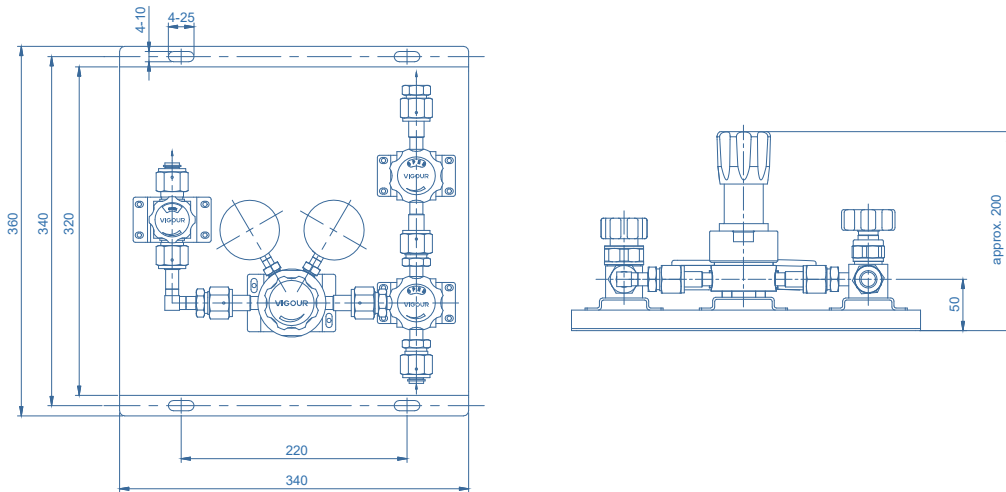
Type:	single-stage
Inlet pressure P1:	max. 3000 psig (200bar)
Outlet pressure P2:	Vac to 30/60/100/150 psig (2/4/7/10bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator):	PCTFE (VespeI® optional)
(diaphragm valve):	PEEK
Diaphragm (regulator):	Hastelloy® C276
(diaphragm valve):	Elgiloy®
Inlets and Outlets:	1/2" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	3.5 psig rise in delivery pressure per 100 psig source pressure drop 4.2 psig rise in delivery pressure per 100 psig source pressure drop (FC option)
Flow capacity:	Cv=0.65, Cv=1.1 (HF optional)

Flowchart



Pressure Control Panels VUP-4U Series

Dimensions (mm)



Ordering Information

VUP - 4US - 200 - 10 - MV8 - MV8 - P - R25 - HF - FC - VS

<p>Body Material</p> <ul style="list-style-type: none"> S: 316L SLV: 316L secondary remelt SHP: 316L body Hastelloy® C22 poppet <p><small>*All options diaphragm material is Hastelloy® C276</small></p> <p>Inlet Pressure P₁</p> <ul style="list-style-type: none"> 20: 300 psig 117: 1700 psig (standard) 200: 3000 psig* <p><small>* Not available with outlet pressure: V2 / V4 / 2 / 4</small></p> <p>Outlet Pressure P₂</p> <ul style="list-style-type: none"> V2: Vac to 30 psig V4: Vac to 60 psig V7: Vac to 100 psig V10: Vac to 150 psig 2: to 30 psig 4: to 60 psig 7: to 100 psig 10: to 150 psig <p>Inlet Connection</p> <ul style="list-style-type: none"> MV8: 1/2" face seal male FV8: 1/2" face seal female <p>Outlet Connection</p> <ul style="list-style-type: none"> MV8: 1/2" face seal male FV8: 1/2" face seal female 	<p>Valve seat Option</p> <ul style="list-style-type: none"> None: PCTFE VS: VespeI® <p>Option</p> <ul style="list-style-type: none"> FC: Force compensation <p><small>* Force compensation feature inlet pressure Max. 300 psig</small></p> <p><small>* FC option is available with connection size 1/2 inch</small></p> <p><small>* Not available with outlet pressure: V2 / V4 / 2 / 4</small></p> <p>Cv Option</p> <ul style="list-style-type: none"> None: Cv=0.65 HF: Cv=1.1 <p>Surface Finish</p> <ul style="list-style-type: none"> None: 10 µin. Ra R25: 25 µin. Ra <p>Pressure Indication</p> <ul style="list-style-type: none"> None: Inlet / Outlet Pressure gauge K: Contact gauge
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Pressure Control Panels

VUP-5U Series

Product Feature

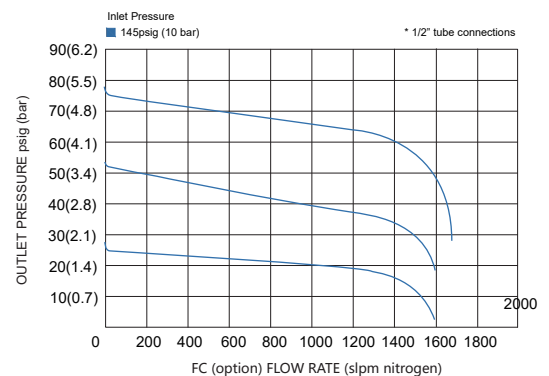
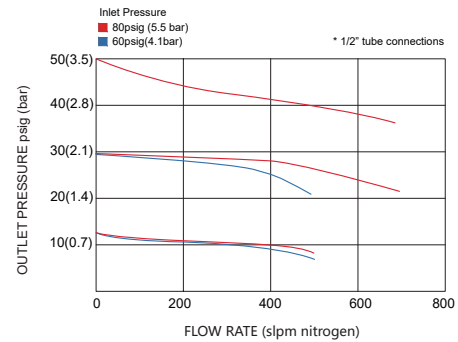
- Pressure Control Panels (Two-sided type)
- VSR-210UBS / UCS Series Single Stage Regulator
- Tied-diaphragm design
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3000 psig (200bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

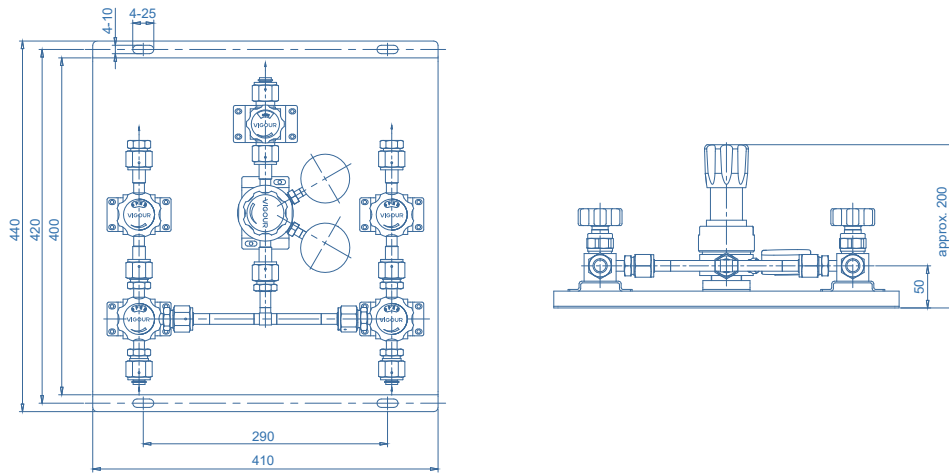
Type:	single-stage
Inlet pressure P1:	max. 3000 psig (200bar)
Outlet pressure P2:	Vac to 30/60/100/150 psig (2/4/7/10bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator):	PCTFE (VespeI® optional)
(diaphragm valve):	PEEK
Diaphragm (regulator):	Hastelloy® C276
(diaphragm valve):	Elgiloy®
Inlets and Outlets:	1/2" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	3.5 psig rise in delivery pressure per 100 psig source pressure drop 4.2 psig rise in delivery pressure per 100 psig source pressure drop (FC option)
Flow capacity:	Cv=0.65, Cv=1.1 (HF optional)

Flowchart



Pressure Control Panels VUP-5U Series

Dimensions (mm)



Ordering Information

VUP - 5US - 200 - 10 - MV8 - MV8 - P - R25 - HF - FC - VS

Body Material

- S: 316L
- SLV: 316L secondary remelt
- SHP: 316L body
- Hastelloy® C22 poppet

*All options diaphragm material is Hastelloy® C276

Inlet Pressure P₁

- 20: 300 psig
- 117: 1700 psig (standard)
- 200: 3000 psig*

* Not available with outlet pressure:
V2 / V4 / 2 / 4

Outlet Pressure P₂

- V2: Vac to 30 psig
- V4: Vac to 60 psig
- V7: Vac to 100 psig
- V10: Vac to 150 psig
- 2: to 30 psig
- 4: to 60 psig
- 7: to 100 psig
- 10: to 150 psig

Inlet Connection

- MV8: 1/2" face seal male
- FV8: 1/2" face seal female

Outlet Connection

- MV8: 1/2" face seal male
- FV8: 1/2" face seal female

Valve seat Option

- None: PCTFE
- VS: Vespel®

Option

FC: Force compensation

* Force compensation feature inlet pressure Max. 300 psig

* FC option is available with connection size 1/2 inch

* Not available with outlet pressure:
V2 / V4 / 2 / 4

Cv Option

- None: Cv=0.65
- HF: Cv=1.1

Surface Finish

- None: 10 µin. Ra
- R25: 25 µin. Ra

Pressure Indication

- None: Inlet / Outlet Pressure gauge
- K: Contact gauge

Pressure Control Panels

VUP-6U Series

Product Feature

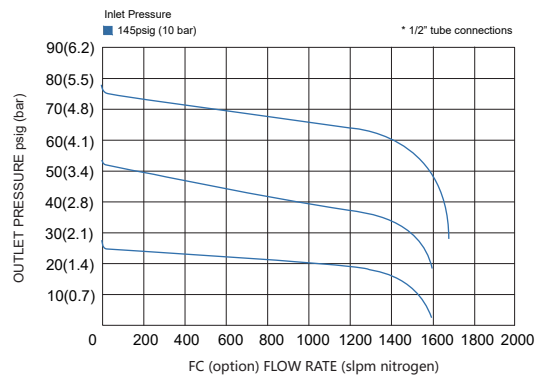
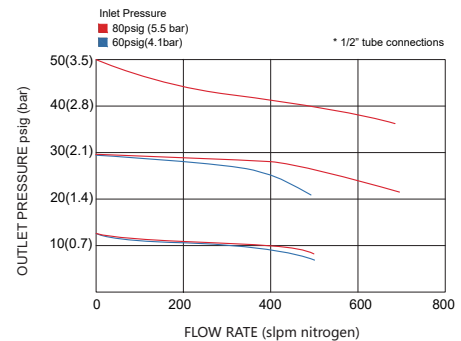
- Pressure control panels with automatic change-over function
- VSR-210UBS / UCS Series Single Stage Regulator
- Tied-diaphragm design
- VDV33UBS Series vent diaphragms Valves
VDV33UBS Series Inlet process diaphragm valves
- Orbital welded VFS-face seal connections
- Modular design
- Suitable for inlet pressure up to 3000 psig (200bar)
- Easy installation into safety cabinet for gas cylinders
- 100% Helium leak tested



Technical Data

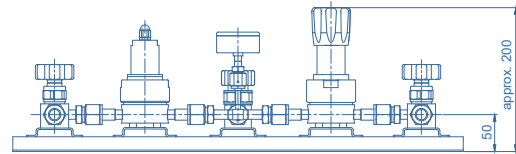
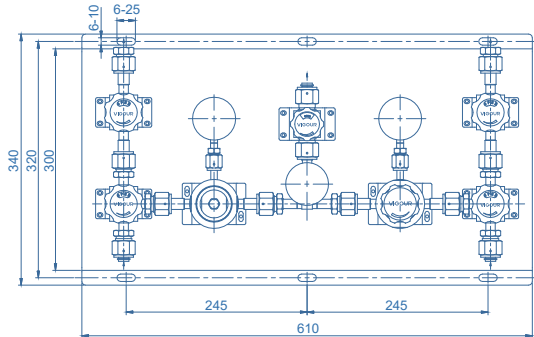
Type:	single-stage
Inlet pressure P1:	max. 3000 psig (200bar)
Outlet pressure P2:	Vac to 30/60/100/150 psig (2/4/7/10bar)
Surface finish:	10µin. Ra (25µin. Ra optional)
Materials	
Body:	see ordering info
Valve seat (regulator):	PCTFE (VespeI® optional)
(diaphragm valve):	PEEK
Diaphragm (regulator):	Hastelloy® C276
(diaphragm valve):	Elgiloy®
Inlets and Outlets:	1/2" VFS Fitting
Temperature range:	-40°F to +160°F (-40°C to +71°C)
Leak rate: (to atmosphere)	1x10 ⁻⁹ mbar l/s He
(via seat)	1x10 ⁻⁸ mbar l/s He
Supply pressure effect:	3.5 psig rise in delivery pressure per 100 psig source pressure drop 4.2 psig rise in delivery pressure per 100 psig source pressure drop (FC option)
Flow capacity:	Cv=0.65, Cv=1.1 (HF optional)

Flowchart



Pressure Control Panels VUP-6U Series

Dimensions (mm)



Ordering Information

VUP - 6US - 200 - 10 - MV8 - MV8 - P - R25 - HF - FC - VS

Body Material

- S: 316L
- SLV: 316L secondary remelt
- SHP: 316L body
- Hastelloy® C22 poppet

*All options diaphragm material is Hastelloy® C276

Inlet Pressure P₁

- 20: 300 psig
- 117: 1700 psig (standard)
- 200: 3000 psig*

* Not available with outlet pressure:
V2 / V4 / 2 / 4

Outlet Pressure P₂

- V2: Vac to 30 psig
- V4: Vac to 60 psig
- V7: Vac to 100 psig
- V10: Vac to 150 psig
- 2: to 30 psig
- 4: to 60 psig
- 7: to 100 psig
- 10: to 150 psig

Inlet Connection

- MV8: 1/2" face seal male
- FV8: 1/2" face seal female

Outlet Connection

- MV8: 1/2" face seal male
- FV8: 1/2" face seal female

Valve seat Option

- None: PCTFE
- VS: Vespel®

Option

FC: Force compensation

* Force compensation feature inlet pressure Max. 300 psig

* FC option is available with connection size 1/2 inch

* Not available with outlet pressure:
V2 / V4 / 2 / 4

Cv Option

- None: Cv=0.65
- HF: Cv=1.1

Surface Finish

- None: 10 µin. Ra
- R25: 25 µin. Ra

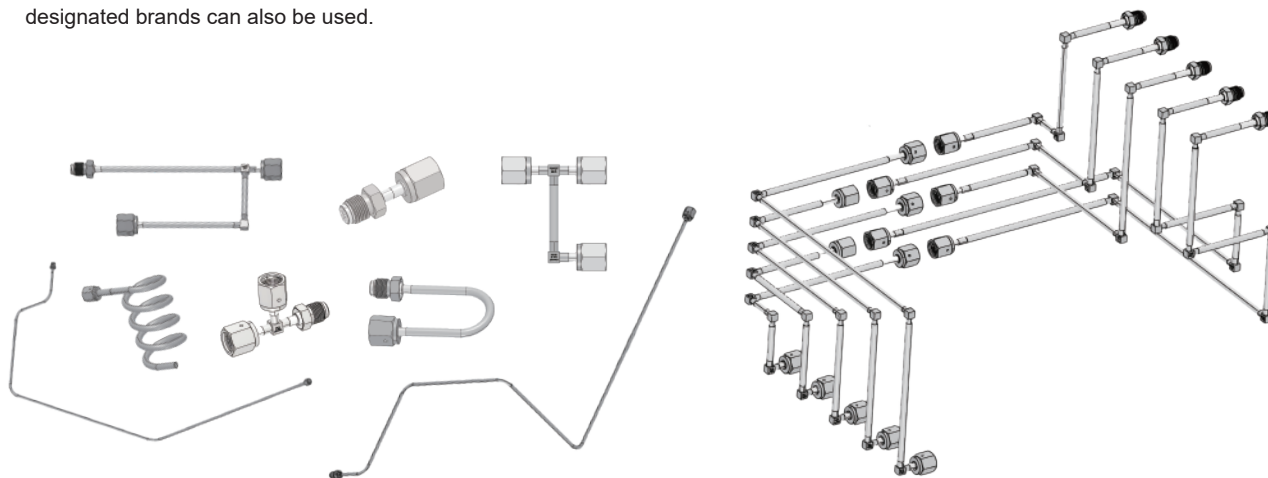
Pressure Indication

- None: Inlet / Outlet Pressure gauge
- K: Contact gauge

Specialized Customization Series

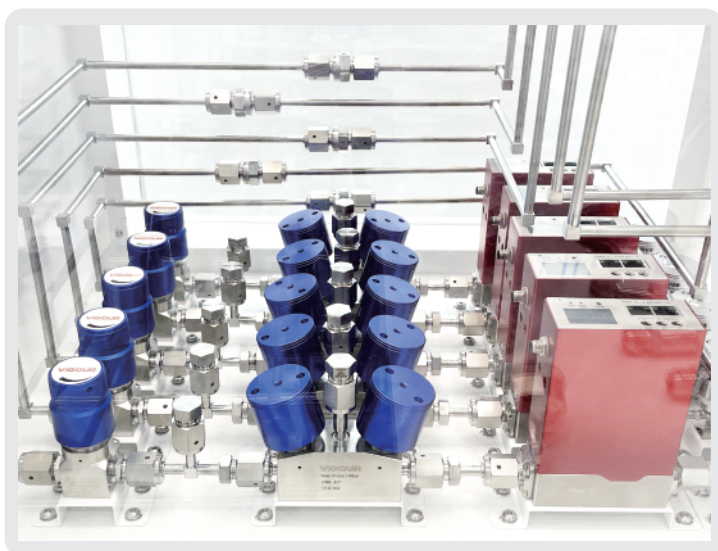
GasLine

- GasLine non-standard customization
- Individual or batch custom welding of conventional and special-shaped GasLine.
- Welding materials are well-known brands in the industry, designated brands can also be used.



GasBOX

GasBOX is a key subsystem of process equipment for conveying ultra-high purity gases/chemical media. According to the schematic diagram, Using 3D modeling technology, we can create a 1:1 simulation and prefabrication, providing both appearance and internal pipeline design, as well as recommendations for internal component selection.



UHP gas delivery systems provide the highest level of purity, and all materials used for this level are to minimize. Common applications that require high purity and precise instrumentation include: Semiconductor, pharmaceutical, medical, R&D research and university labs, and gas chromatography applications.

UHP gas delivery systems and related gas system products offer many advantages for users. No matter what the application, UHP gas delivery systems provide:

1. Increased productivity: As previously mentioned, this allows for the continuous improvement and simplification of cylinder handling.
2. Enhanced Safety: One of the main purposes of a gas delivery system is to protect your facility and employees from toxic and hazardous materials. With UHP gas delivery system, your employees are trained to use the equipment on toxic and hazardous gases to further enhance safety.
3. Additional System Enhancements: Many features can be added to a gas delivery system including an emergency shut-off valve that stops gas leaks by automatically shutting off the flow from the cylinder or excess flow switches when the flow exceeds a specified level. This feature along with many others adds additional safety

Class 100 Cleanrooms

- we weld all tubing in a Class 100 cleanroom, using a Ultrahigh-Purity Manufacturing and Cleanliness Standards.
- High purity welding is crucial to maintaining clean parts during the manufacturing process.
- Maintain high cleanliness of assembly



Production Process of ultra-high purity products



Welding in a Cleanroom

Helium Mass SpectrometerLeakDetector



Moisture Analyzer



Oxygen Analyzer



particulate monitor

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