

## DFS ACvFLO™ BULK GAS EQUIPMENT

ACvFLO™

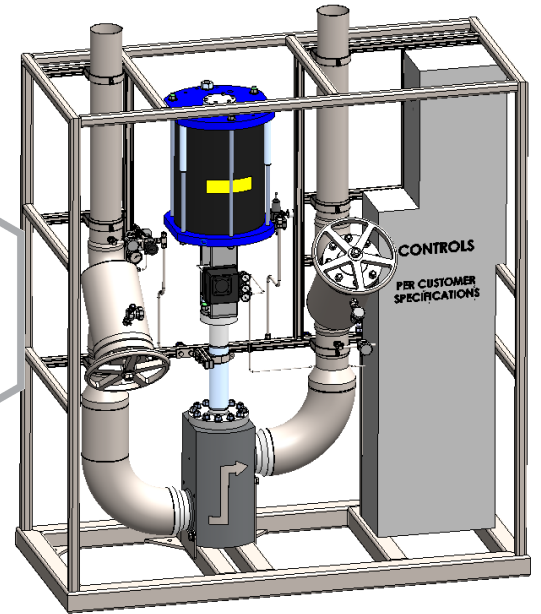
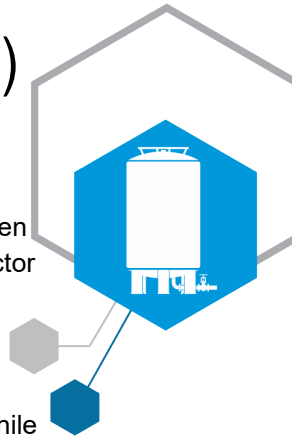


## High Purity Nitrogen (HPN<sub>2</sub>) Purifier Bypass Skid

**Application:** Automatic bypass of large facility Nitrogen purifiers, to ensure continuity of supply to semiconductor fab distribution.

DFS Bulk Gas Equipment is delivered as a complete factory-tested packaged system. Compact design minimizes gas pad or purifier room space required, while preserving ergonomic operation and maintenance access.

Pre-engineered options practically eliminate design time, minimize lead-times, and reduce installation cost and schedule.



### Standard Features

- ▶ All-welded stainless skid frame
- ▶ I&C junction box
- ▶ Bellows-sealed manual isolation valves
- ▶ Fast-acting fail-open globe control valve
- ▶ Pressure transmitter

### Quality Assurance

- ▶ Designed, manufactured, and tested under our ISO9001:2015 certified quality management system, in accordance with ASME B31:3 Chap X
- ▶ Welded under high purity Argon purge, by AWS certified welders in a ISO-6 clean room
- ▶ 100% weld examination by ASNT-IIIs
- ▶ Pneumatic testing to 110% of MAWP
- ▶ Helium leak checked to 10<sup>-9</sup> atm.cc/s
- ▶ Particle testing optional
- ▶ Connections capped, shipped under dry N<sub>2</sub> positive pressure

### Configurable Options

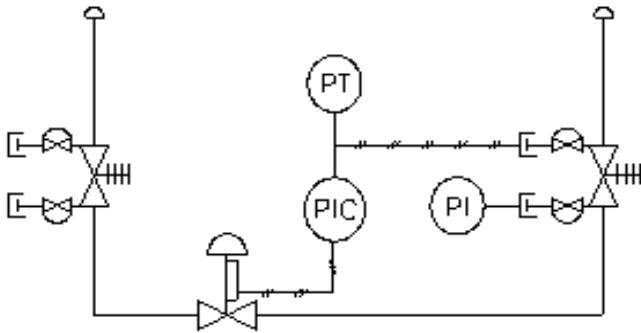
- ▶ Indoor or outdoor installation
- ▶ Customer preferred Control strategy
- ▶ Valve positioning: Pneumatic, electronic
- ▶ On-skid instrument N<sub>2</sub> distribution
- ▶ Choice of bellows-sealed isolation valves
- ▶ Customer-specific material and component specification compliance
- ▶ Optionally EU Pressure Equipment Directive (2014/68/EU) compliant, CE marked



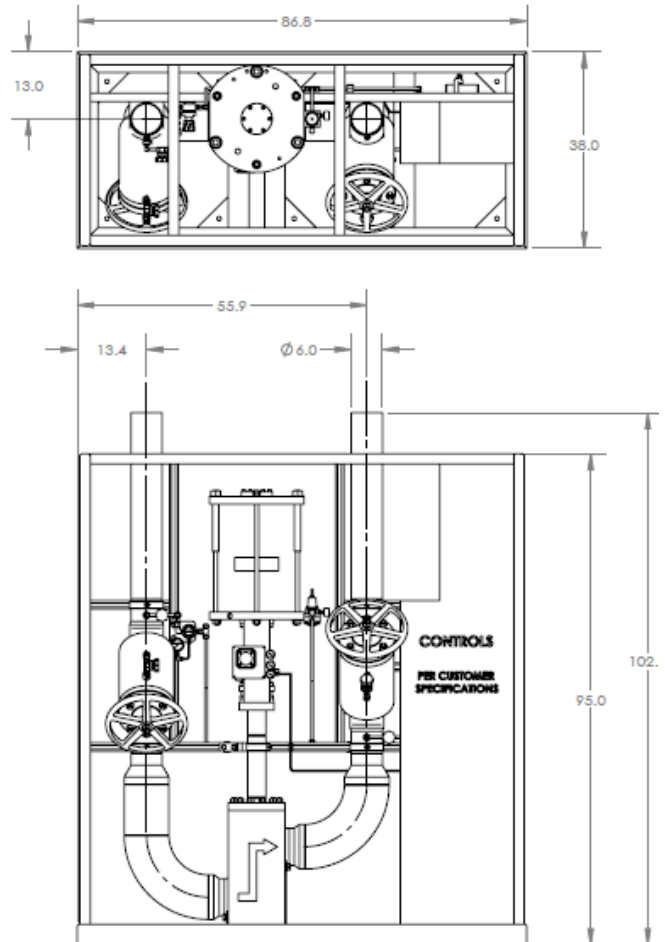
Bulk Gas  
Equipment

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Example Process Flow Diagram



Example Skid Dimensions



## Technical Specifications

Nominal Size	4-inch	6-inch	8-inch
Max Flow: NM <sup>3</sup> /hr (SCFM)	6,400 (4,000)	14,400 (9,000)	22,500 (14,000)
MAWP psig	250	250	250
Process Lines	ASTM A269 316SS tube	ASTM A269 316SS tube	ASTM A312 316SS S10 pipe
Wetted Surface Finish	Electro-polished Ave. 15 Ra, < 20 Ra max	Electro-polished Ave. 15 Ra, < 20 Ra max	EP Ave. 20 Ra, < 25 Ra max
Filtration	PTFE High flow media, Removal rating > 3nm		
Isolation Valves	Bar-stock or forged 316 SS, Bellows sealed, <15 Ra		



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For more information: [www.dfsolution.com](http://www.dfsolution.com)  
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