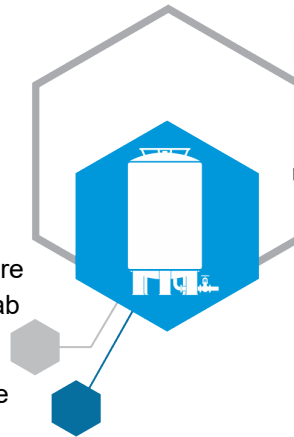
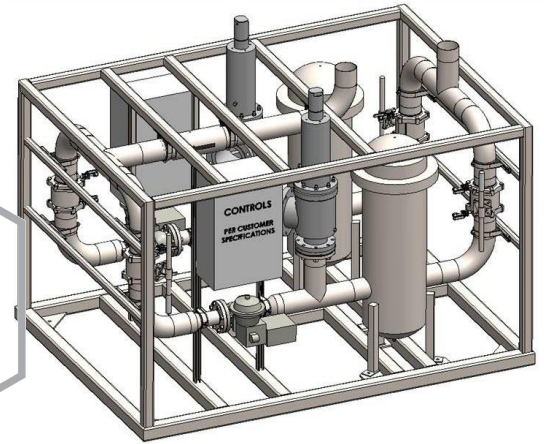




Utility Nitrogen (UN₂) Pressure Control and Filtration Skid

Application: Pressure regulation and particle capture between bulk Nitrogen source and 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. Systems are configurable to customer's needs from field-proven base designs.



Standard Features

- ▶ Redundant flow path
- ▶ All-welded stainless skid frame
- ▶ I&C junction box
- ▶ Globe or v-ball control valve, pneumatic actuation
- ▶ >3nm Filtration, stainless non-EP housing
- ▶ Ball isolation valves with purge valves
- ▶ 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 10⁻⁹ atm.cc/s
- ▶ Particle testing optional
- ▶ Connections capped, shipped under dry N₂ positive pressure

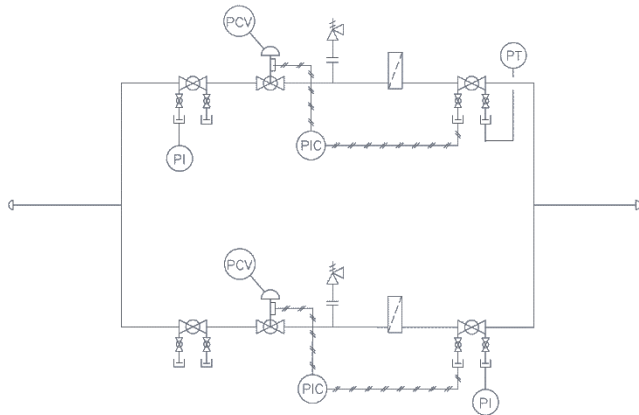
Configurable Options

- ▶ Indoor or outdoor installation
- ▶ Customer preferred control strategy
- ▶ Valve positioning: pneumatic &/or electronic
- ▶ On-skid instrument N₂ distribution
- ▶ Choice of globe or v-ball valves
- ▶ Choice of filter element types and housings
- ▶ Customer-specific material and component specification compliance
- ▶ Optionally EU Pressure Equipment Directive (2014/68/EU) compliant, CE marked

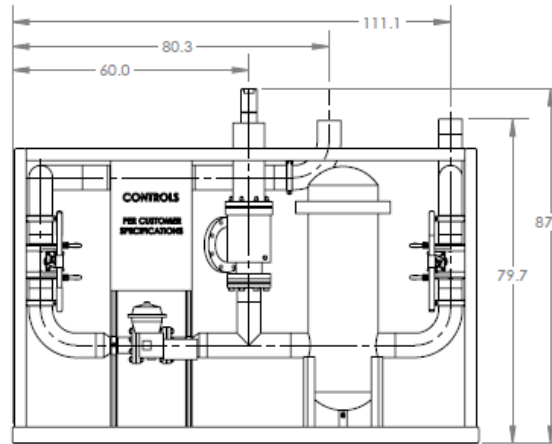
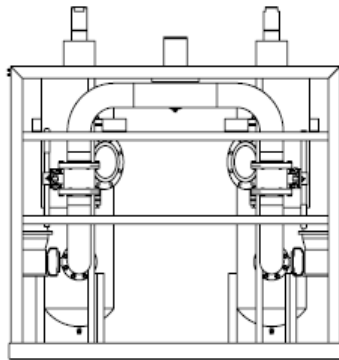
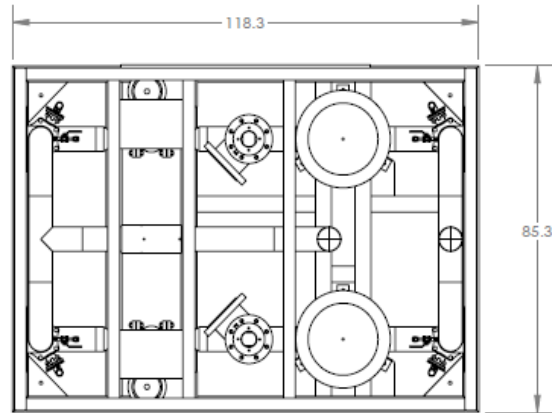


DFS AcvFLO™ BULK GAS EQUIPMENT

Example Process Flow Diagram



Example Skid Dimensions



Technical Specifications

Nominal Size	4-inch	6-inch	8-inch
Max Flow*: NM ³ /hr (SCFM)	6,800 (4,250)	17,600 (11,000)	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		Cleaned for Oxygen Service (CFOS) < 25 Ra	
Filtration		PTFE High flow media, Removal rating > 3nm	
Isolation Valves		3 piece ball valves, with purge ports, 316 SST	

*Inlet/outlet pressures 145/115 psig

