

# PRODUCT PROFILE

## QVF MINIPLANT 4 LITER REACTION SYSTEM WITH MIXER-SETTLER

### Description

This custom designed QVF MINIPLANT SERIES REACTION SYSTEM WITH PHASE SEPARATOR by De Dietrich Process Systems permits agitated reaction, simple distillation, boiling with reflux and phase separation. All process-wetted parts are either borosilicate glass or PTFE thereby assuring complete process visibility, superior corrosion resistance and a product untainted by impurities.

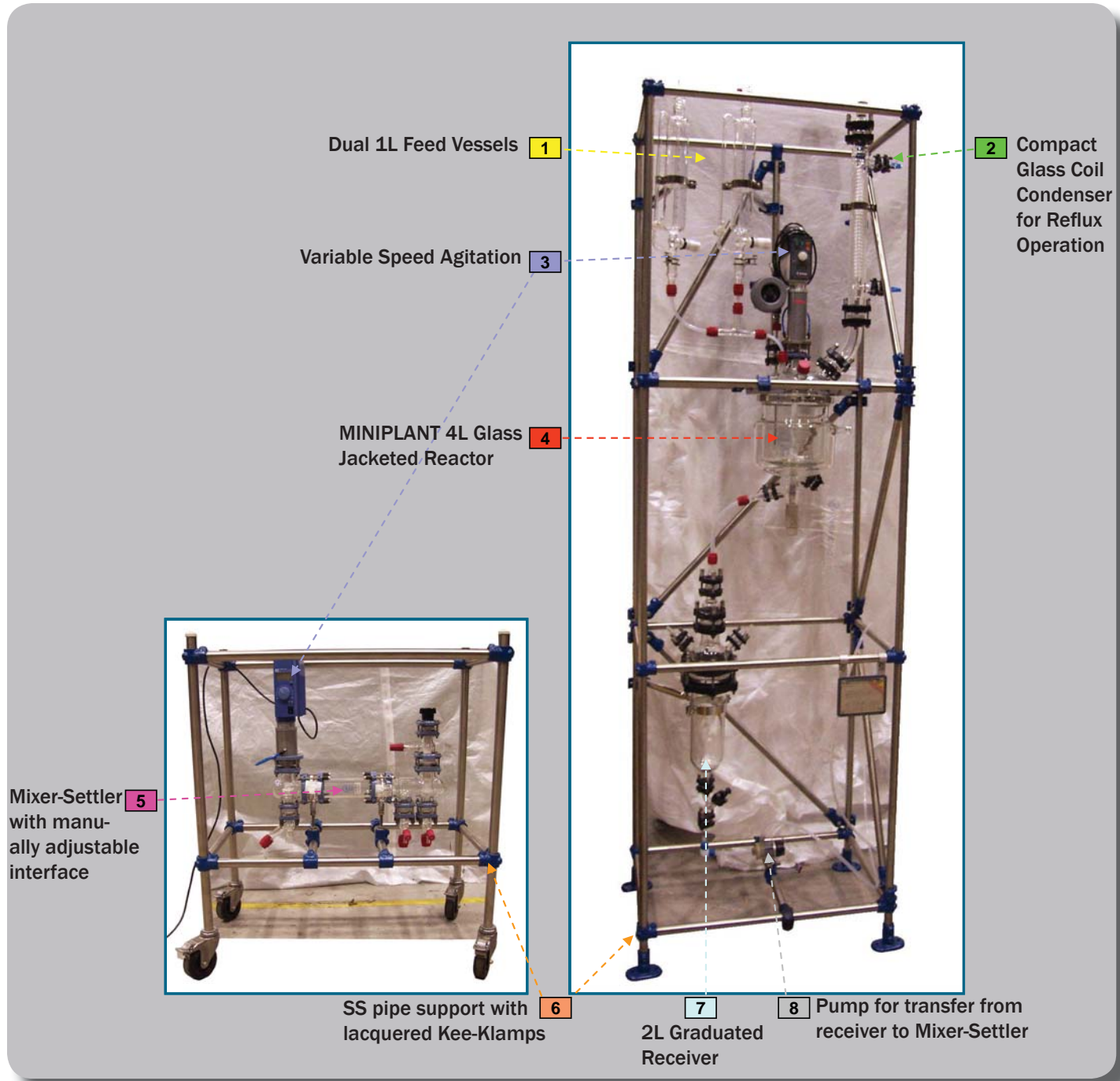
### Specifications

System Design Pressure:	-1/0.1 barg
System Design Temperature:	-20 °C to 150 °C
Jacketed Glass Reactor Volume:	4 Liter
Glass Feed Vessel Volume (Quantity 2):	1 Liter, Graduated
Glass Receiver Volume:	2 Liter, Graduated
Glass Reflux Condenser:	0.2 m <sup>2</sup> Heat Transfer Area
Coil Pressure Rating:	3.0 barg
Heating Media Pressure Maximum:	0.5 barg

### Scope of Supply

- 1 x QVF MINIPLANT jacketed, graduated, borosilicate glass reaction vessel and bottom drain valve with PTFE plunger.
- 1 x QVF borosilicate glass reactor cover with 5 connecting ports: 2 x DN40mm, 1 x GL32 mm w/screw cap, 1 x GL25, 1 x DN 25.
- Agitation systems with 12-400 rpm and 20-2000 rpm, hand adjusted, 115V / 60 Hz gear motor, protection class IP40, digital speed indicator, electronic speed control, digital torque indicator and analog / digital interface; single mechanical seal (SiC Slide Rings, Kalrez O-ring), and PTFE inclined blade stirrer and PTFE coated shaft.
- 1 x QVF Coil Condenser, DN1.5" , 0.2 m<sup>2</sup> heat transfer area; maximum cooling media pressure, 3.0 barg.
- 2 x QVF graduated borosilicate glass feed vessels, 1 liter.
- 1 x QVF graduated borosilicate glass receiving vessel, 2 liter.
- 1 x DN50 horizontal, Mixer-Settler assembly w/ electric motor and PTFE coated turbine stirrer, mixing and settling heads and adjustable interface level. Mounted on a mobile, independent skid. Flexible connection with PFA tubing can be made to the reactor system or other equipment.
- Stainless steel tubular support structures for reactor assembly and Mixer-Settler assembly.
- Pump for liquid transfer from Reactor to Mixer-Settler, Kynar wetted pump surfaces.
- Complete engineering design package including:
  - General Arrangement Drawings and Parts List
  - Documentation and Owner's Manual

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**REACTION SYSTEM**  
**WITH MIXER-SETTLER**



Dual 1L Feed Vessels **1**

**2** Compact Glass Coil Condenser for Reflux Operation

Variable Speed Agitation **3**

MINIPLANT 4L Glass Jacketed Reactor **4**

Mixer-Settler with manually adjustable interface **5**

SS pipe support with lacquered Kee-Klamps **6**

**7** 2L Graduated Receiver

**8** Pump for transfer from receiver to Mixer-Settler

**De Dietrich Process Systems, Inc.**

244 Sheffield Street  
Mountainside, NJ 07092

P 908.317.2585  
F 908.889.4960

www.ddpsinc.com  
sales@ddpsinc.com

