

# PRODUCT PROFILE

## 100 LITER QVF GLASS DISTILLATION SYSTEM

### Overview

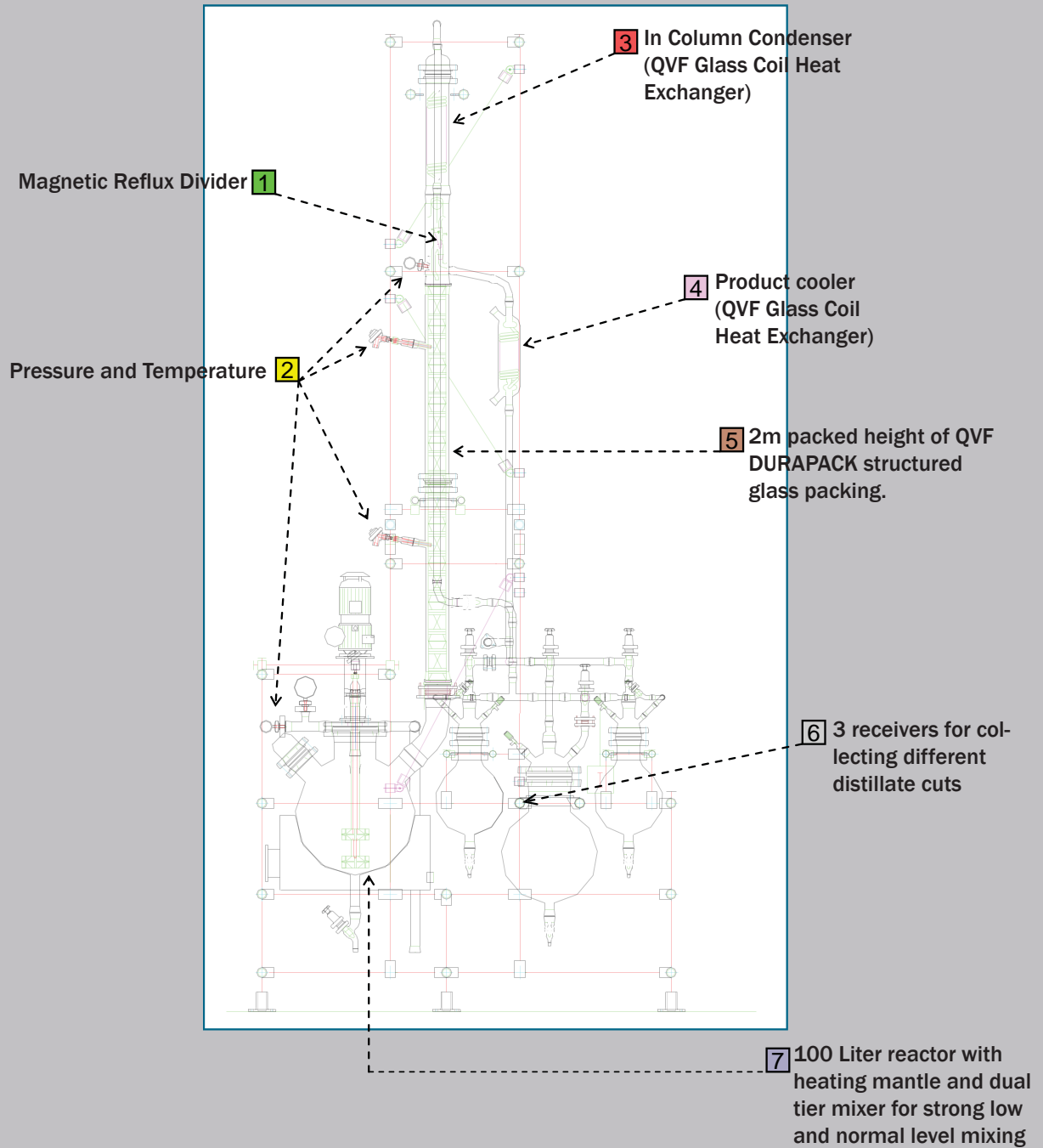
This purpose designed, electrically heated, QVF PILOT PLANT DISTILLATION SYSTEM by De Dietrich Process Systems permits mechanically agitated reaction and boiling with efficient rectification and separation of selected overhead product cuts. Only borosilicate glass or PTFE components are used thereby assuring maximum process visibility, superior corrosion resistance and product untainted by impurities.

### Specifications

<i>System Design Pressure:</i>	-1 / 0.6 barg
<i>System Design Temperature:</i>	-20 °C to 150 °C
<i>Glass Still Pot Volume:</i>	100 Liter
<i>Electric Power Requirement:</i>	7.2 kW @ 230/400VAC
<i>Glass Receiver Volume:</i>	(Three): 50 L, 20 L & 20 L
<i>Glass Reflux Condenser:</i>	0.5 m <sup>2</sup> Heat Transfer Area
<i>Pressure Rating Coil:</i>	3.0 barg
<i>Glass Product Cooler:</i>	0.3 m <sup>2</sup> Heat Transfer Area
<i>Pressure Rating Coil:</i>	3.0 barg

### Scope of Supply

- 1 x QVF Spherical Glass Reactor vessel and bottom QVF drain valve with PTFE plunger; includes one DN200, two DN100 and four DN40 nozzles.
- 1 x Air or N<sub>2</sub> Purged 6.0 kW Electric heating mantle.
- 1 x Agitation System with dual tier PTFE blade turbine impeller; a 230/460 VAC, 0.5 Hp motor with infinite manual speed adjustment from 125 to 750 RPM; single mechanical seal.
- 1 x QVF borosilicate glass, packed column, DN100 (4" dia.) x 2 meter (6-½') packed height with thermometer branches at center and top; rated for -60oC to 200 °C; electromagnetic reflux divider, and pressure transmitter.
- QVF DURAPACK® borosilicate structured glass column packing, DN100 nominal diameter by 2 meters height with specific surface area of 300 m<sup>2</sup>/m<sup>3</sup>.
- QVF Water Cooled, Coil Condenser, borosilicate glass; 0.5m<sup>2</sup> heat transfer area.
- QVF Water Cooled Coil Product Cooler, borosilicate glass; 0.3m<sup>2</sup> heat transfer area.
- QVF Distillate Receivers, borosilicate glass, with bottom drain valves and hose connections, two 20 liter spherical and one 50 liter spherical. Each vessel can be individually isolated and drained while the main system is under vacuum.
- Schedule 40 tubular stainless steel support structure with PTFE coated connectors.
- Complete engineering design package including:
  - P&ID
  - General Arrangement Drawings and Parts List
  - Documentation and Owner's Manual



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