This manual contains important safety information and should be made available to all personnel who operate and/or maintain this product. Carefully read this manual before attempting to operate or perform maintenance on this equipment.

Manual No. 65507-1A

May 2008 Edition
Update: January 2009
## Table of Contents

### Section I - General Information
- Introduction .........................................................................................................................1
- Applications .........................................................................................................................1
- Safety ..................................................................................................................................2
- Available Models, Spare Parts & Accessories .................................................................3

### Section II - QCS100
- QCS100 Function ................................................................................................................4
- QCS100 Components .........................................................................................................5
- QCS100 Installation .............................................................................................................6
- Installation Site ....................................................................................................................7
- Putting into Operation ........................................................................................................8
- QCS100 Maintenance .........................................................................................................9

### Section III - QCS450
- QCS450 Function ..............................................................................................................12
- QCS450 Installation *(Update 01/09)* ..............................................................................12
- Installation Site ..................................................................................................................12
- Putting into Operation ......................................................................................................14
- QCS450 Maintenance .......................................................................................................15

### Section IV - QCS900 & 1600
- QCS900/1600 Function .....................................................................................................16
- QCS900/1600 Components ..............................................................................................17
- QCS900/1600 Installation .................................................................................................18
- Installation Site ..................................................................................................................19
- Putting into Operation ......................................................................................................22
- QCS900/1600 Maintenance ..............................................................................................23

### Appendix A - Dimensional Drawings & Technical Data
- QCS100 .............................................................................................................................26
- QCS450 .............................................................................................................................28
- QCS900/QCS1600 ............................................................................................................30
Section I - General Information

Introduction

Thank you for purchasing a QCS emulsion separator. Please read these instructions carefully before installing your QCS unit and putting it into service. Trouble free functioning of QCS emulsion separators - and thus reliable condensate treatment - can only be guaranteed if the recommendations and conditions stated here are adhered to.

Applications

QCS separators are designed for the treatment of demulsifiable compressor condensates in compliance with legal requirements. Your local “lower-level water authority” should be notified about the operation of an oil/water separator.

Oil-contaminated condensate.

Oil-contaminated condensate contains substances that are hazardous both to health and the environment. These substances may cause irritation or damage to the skin, eyes and mucous linings. Oil-contaminated condensate must not be allowed to get into the sewer system, water bodies or soil. Contaminated objects must be cleaned or disposed of according to the legal regulations.

Wastewater destined for indirect discharge must not exceed a hydrocarbon concentration of 20 ppm.

Please note that the national legal limit values for indirect discharge may vary regionally.

♦ Media / ambient temperature: +41...+140 °F
♦ QCS separators are suitable for stationary application only.
Section I - General Information

Safety

⚠️ NOTICE
It is absolutely essential to observe these instructions for installation and operation.

⚠️ WARNING
Compressed air.
Contact with quickly or suddenly escaping compressed air or with bursting plant components carries a risk of serious injury or death.
Only use pressure-resistant installation material.
Ensure that condensate cannot squirt or splash onto persons or objects.

♦ Non-observance of these safety guidelines can result in injuries or damage to devices. For installation, the national regulations and safety instructions in force also need to be observed.

♦ Transport the QCS unit only when it is empty.

♦ Do not install the QCS outdoors.

♦ Protect the QCS against direct exposure to sunlight.

♦ Take measures to ensure that oil or untreated condensate cannot enter the sewer system in the event of unit damage.

♦ Do not fill any foreign liquid or substances into the preseparation tank since this may impair the filter function.

♦ Only use original manufacturer replacement filter sets.

♦ In the event of significant differences compared with the specifications of the general technical approval, e.g. the employment of non-original filters, the approval no longer covers the usability of the QCS product. In such cases, individual approval of the responsible local authority will be required. Moreover, there will be no entitlement to the remedy of defects within a 2-year period.

The operator’s responsibilities include installation, maintenance, repair and cleaning.

♦ These tasks must be carried out by an authorized technician, as required by law, unless the operator himself possesses the necessary qualifications and entitlements.

♦ The statutory limits for indirect clean-water discharge into the sewer system may be subject to regional variations.

♦ All maintenance reports must be filed and presented to the responsible local authority, if requested.

♦ The operator must ensure that the QCS oil/water separator is in a leaktight condition and functioning correctly.

♦ Check the oil/water separator for leaks regularly.

♦ Check the outflowing clean water every week using the reference test kit.

♦ Always keep a spare filter set.
**Available Models, Spare Parts & Accessories**

<table>
<thead>
<tr>
<th>QUINCY MODEL PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>QCS100</td>
<td>HIGH EFFICIENCY EMULSION SEPARATOR - 100 cfm</td>
</tr>
<tr>
<td>QCS450</td>
<td>HIGH EFFICIENCY EMULSION SEPARATOR - 450 cfm</td>
</tr>
<tr>
<td>QCS900</td>
<td>HIGH EFFICIENCY EMULSION SEPARATOR - 900 cfm</td>
</tr>
<tr>
<td>QCS1600</td>
<td>HIGH EFFICIENCY EMULSION SEPARATOR - 1600 cfm</td>
</tr>
<tr>
<td>BK4010719</td>
<td>QCS100 FILTER KIT</td>
</tr>
<tr>
<td>BK4007481</td>
<td>QCS450 FILTER KIT</td>
</tr>
<tr>
<td>BK4010713</td>
<td>QCS900 FILTER KIT</td>
</tr>
<tr>
<td>BK4010714</td>
<td>QCS1600 FILTER KIT</td>
</tr>
</tbody>
</table>
QCS100 Function

The oil-contaminated condensate can be fed under pressure to the QCS unit (1). The pressure is reduced in the pressure relief chamber (2). The condensate flows steadily into the subjacent filter stage without turbulence and runs through the two-stage filter. The filter unit (3) comprises a prefilter and a main filter for binding any residual oil constituents. The water flows out of the QCS oil/water separator through the water outlet (6) and can be discharged directly into the sewer system.

A sampling valve (5) is provided so that the wastewater quality can be checked at any time.

1  CONDENSATE INLET
2  PRESSURE RELIEF CHAMBER
3  FILTER
4  RISER DUCT
5  SAMPLING VALVE
6  WATER OUTLET
QCS100 Components

1. Cap
2. Filter Mat
3. Inlet Pipe
4. Filter
5. Hose Connector (G ½, DI = 10 mm)
6. Screw Plug (G ½)
7. Sample Valve
8. Test Tube
9. Washer
10. Tubular Rivet (C1-8x15)
11. Wood Screw (5x50)
12. Dowel
13. Wall Mounting Bracket
QCS100 Installation

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>The condensation collecting line must at all times have a downward slope of at least 1°.</td>
<td><img src="image1" alt="Correct Diagram" /> <img src="image2" alt="Incorrect Diagram" /></td>
</tr>
<tr>
<td>Avoid water pocket of the feed hose to the pressure relief chamber.</td>
<td><img src="image3" alt="Correct Diagram" /> <img src="image4" alt="Incorrect Diagram" /></td>
</tr>
<tr>
<td>Avoid sagging of the hose to the waste water outlet.</td>
<td><img src="image5" alt="Correct Diagram" /> <img src="image6" alt="Incorrect Diagram" /></td>
</tr>
</tbody>
</table>
Installation Site
A sealed floor or spill basin (> 10L) is required. It is crucial to ensure that untreated condensate or oil cannot get into the sewer system in the event of damage.

The floor area must be stable and level (maximum inclination 1°) to ensure reliable functioning of the QCS.

Floor Mounted Installation
Use elongated holes of the 4 mounting (1) feet. Screws and dowels supplied with unit. Install the QCS unit true to plumb line (± 1°).

Wall Mounted Installation
Install mounting brackets (2) perpendicularly on the wall. Push in QCS with mounting area (3) and lock home clamp (4).

Lay condensate feed line(s) along the wall with a downward slope.

Lay water discharge line with a continuous downward slope to the wastewater discharge point. Install siphon to avoid disagreeable smells.

NOTICE
Shut off condensate drain outlet until the oil/water separator has been installed and is ready to be put into service.
Putting into Operation

Fill the QCS with clean water:

♦ Take off the cap, remove filter mat from the pressure relief chamber.

♦ Let water in through the inlet opening (container and filter chamber are filling up).

♦ Shut off the water when it starts to come out at the water outlet.

[NOTICE]
The water level will drop due to the gradual water intake of the filter.

♦ Add clean water as required, re-install the filter mat in the pressure relief chamber and reinstall the cap.

The QCS unit is now ready for operation: Compressor condensate can now flow into the QCS via the pressure relief chamber.

[NOTICE]
Open the outlet of the condensate drain and check all connections for leaks.
QCS100 Maintenance

Preparing for Maintenance

♦ Shut off condensate inlet and switch off compressor if necessary.
♦ Inspect hoses and hose connections regularly.

Weekly wastewater test:

♦ Fill test tube at the sample valve.
♦ Compare the test tube sample cloudiness with the reference jar.
♦ If the sample is clearer than the reference jar the filter is okay (Figure 1).
♦ If the sample is cloudier than the reference jar the filter needs to be changed (Figure 2).

NOTICE

Never pour any foreign liquid into the pressure relief chamber. This can impair the filter efficiency.
Filter Replacement
Replace the filter when the water being discharged is too cloudy or the filter is clogged.

**NOTICE**
Observe the legal regulations in your country pertaining to the use and handling of filters, particularly with regard to keeping a spare filter set.

Use only manufacturer approved filter sets in order to ensure operational reliability and warranty compliance.

Remove the PE bag prior to inserting the filters and use it as a packaging for the used filter.

Filter Replacement Procedure
♦ Shut off condensate inlet.
♦ Open the QCS cover, and remove the filter mat and the inlet.
♦ Slowly remove the used pre-filter and the main filter from the container and let them drain.
♦ Put the drained filter set into the PE packaging and dispose of in accordance with local regulations.
♦ Insert a new filter set into the filter receptacle.
♦ Insert the filter mat into the pressure relief chamber and re-install the cap.
♦ Open condensate inlet.
General Cleaning (recommended every 12 months)

♦ Remove the cap and filter mat.
♦ Remove the filter.
♦ Pump out the container.
♦ Clean the container.
♦ Ensure correct disposal of the liquid.
♦ Replace the filter and filter mat.

⚠️ **NOTICE**

Do not add any cleaning agents (surfactants or flammable cleaners). They impair the filter efficiency.

♦ Refill the QCS unit with fresh water.
♦ Open the condensate inlet.
♦ Dispose of used filters in accordance with local regulations.
Section III - QCS450

QCS450 Function

Oil contaminated condensate can be discharged under pressure into the QCS450 oil/water separator (maximum system pressure 16 bar).

Overpressure is reduced in the pressure relief chamber (2) without creating turbulence in the separation container.

The calmed condensate flows into the filter stage where it passes slowly through the cartridge.

The first stage removes large oil drops and dirt particles, the second stage removes small oil droplets and the third stage removes residual mineral hydrocarbons.

The clean water is discharged through the outlet connection (4).

1  CONDENSATE INLET
2  PRESSURE RELIEF CHAMBER
3  FILTER CARTRIDGE
4  WATER OUTLET

QCS450 Installation

Installation Site

A sealed floor or spill basin (>18 gallons or 69 liters) is required. It is crucial to ensure that untreated condensate or oil cannot get into the sewer system in the event of damage.

The floor area must be stable and level (maximum inclination 1°) to ensure reliable functioning of the QCS.
Installation Options

Up to 3 condensate lines can be connected directly to the QCS450 unit using the multiple inlet adapter.

The inlet adapter can be mounted on the wall. It has three 1/2" hose connectors for condensate inflow and a 1" hose connector for connecting to the separator.

If there are more than 4 feed points, a 1" diameter header must be installed above the QCS450 inlet (height 24" above floor) with a slight slope down to the QCS450 unit (minimum slope 1°).

Up to 4 QCS450 units can be joined using a flow splitter.

The condensate must be fed in from the top.

The 1/2" connector on the QCS450 must not be removed.

The 1" hose can be pulled over the 1/2" connector.

Wastewater Drain

The wastewater drain must be lower than the water outlet of the separator.

Install a trap against odors.

Connecting the wastewater hose:

Use the hose supplied and attach it to the QCS450 water outlet.

Lay the hose with a continuous slope down to the wastewater drain (trap).
Section III - QCS450

Putting into Operation

Fill the QCS450 with clean water:
♦ Open the lid.
♦ Make sure the plastic bag around the cartridge has been removed.
♦ Pour water in the top.
♦ Shut off the water when it starts to come out at the water outlet.

The QCS450 unit is now ready for operation. Compressor condensate can now flow into the QCS.

NOTICE
Open the outlet of the condensate drain and check all connections for leaks.

NOTICE
The treated water may initially have a dark colour. This will be momentary, and can be discharged to sanitary sewer.
QCS450 Maintenance

Filter Cartridge Replacement:
♦ Shut off condensate inlet and switch off compressor if necessary.
♦ Open the QCS450 lid.
♦ Lift cartridge and allow it to drain.
♦ Place the old filter cartridge into the plastic bag that the new cartridge came in and close the bag tightly.
♦ Clean the cartridge area.
♦ Insert the new cartridge slowly and ensure that the guide pins fit into the container holes.
♦ Secure the lid and open the condensate inlet.
♦ Inspect the hoses and hose connections.
♦ Ensure correct disposal of the used cartridge.

⚠️ NOTICE
It is recommended that an original manufacturers filter cartridge be kept in stock at all times. Reference available spare parts.
QCS900/1600 Function

The oil-contaminated condensate can be fed under pressure to the QCS unit (1). The pressure is reduced in the pressure relief chamber (2).
The condensate flows steadily into the subjacent filter stage without turbulence and runs through the two-stage filter.
The filter unit (3) comprises a prefilter (4) and a main filter (5) for binding any residual oil constituents. The water flows out of the QCS oil/water separator through the water outlet (8) and can be discharged directly into the sewer system.
A sampling valve (5) is provided so that the wastewater quality can be checked at any time.

1 CONDENSATE INLET
2 PRESSURE RELIEF CHAMBER
3 LEVEL INDICATOR
4 PREFILTER
5 MAIN FILTER
6 RISER DUCT
7 SAMPLING VALVE (NOT SHOWN)
8 WATER OUTLET
QCS900/1600 Components

1. HOSE CONNECTOR, G½"
2. COVER
3. PANHEAD SCREW, M6 x 35
4. WASHER, 18 x 5.8
5. WASHER
6. O-RING, 21.82 x 3.53
7. CHEESEHEAD SCREW, M10x110
8. WASHER
9. SCREW PLUG, G½"
10. O-RING, 18.77 x 1.78
11. SCREW PLUG, G1"
12. O-RING, 30 x 2
13. CONNECTING ADAPTOR
14. FILTERMAT
15. PRESSURE RELIEF CHAMBER
16. TEST TUBE
17. LID
18. STAR GRIP
19. WASHER
20. LEVEL INDICATOR
21. PREFILTER
22. HANDLE
23. MAIN FILTER
24. SCREW PLUG, G½"
25. CONTAINER
26. PLUG, Ø70
27. O-RING, 30 x 2.5
28. HOSE CONNECTOR, G1"
29. FLAT GASKET, 13 x 20.5 x 2
30. SAMPLING VALVE
31. HOSE CONNECTOR, R¼"
32. SERVICE VALVE
33. HOSE CONNECTOR, G½"
QCS900/1600 Installation

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>The condensation collecting line must at all times have a downward slope of at least 1°.</td>
<td><img src="image1.png" alt="Correct" /> <img src="image2.png" alt="Incorrect" /></td>
</tr>
<tr>
<td>Avoid water pocket of the feed hose to the pressure relief chamber.</td>
<td><img src="image3.png" alt="Correct" /> <img src="image4.png" alt="Incorrect" /></td>
</tr>
<tr>
<td>Avoid sagging of the hose to the waste water outlet.</td>
<td><img src="image5.png" alt="Correct" /> <img src="image6.png" alt="Incorrect" /></td>
</tr>
</tbody>
</table>
Installation Site
A sealed floor or spill basin is required. It is crucial to ensure that untreated condensate or oil cannot get into the sewer system in the event of damage.
The floor area must be stable and level (maximum inclination 1°) to ensure reliable functioning of the QCS.

Oil Collector Connection
Place the collector on the same floor level as the QCS separator to ensure proper discharge.
Firmly screw the outlet pipe to the collector so that the discharge cannot leak out (in the event of overloading).

Inflow
Up to 4 feed points can be connected directly to the QCS900 and QCS1600 oil water separator.
If there are more than 4 feed points, it will be necessary to lay a collecting line.
Ring system along the wall:
- nominal diameter 1" (DN 25)
- above QCS inlet (height above floor)
- slight slope down to the QCS unit (min. 1°)
Feed in the condensate from the top into collecting line (swan-neck pipe bend).
Connecting the Feed Line
The connecting adaptor can be turned in relation to the inflow direction:

♦ Remove the screws (notice O-ring and washers of connecting adaptor).
♦ Place connecting adaptor into position.
♦ Replace the screws and tighten.

♦ Connect the inlet hose to any adapter inlet point using a hose clamp (use the hose connectors supplied with the unit).
♦ Make sure that the unused inlet points are tightly plugged.

[NOTICE]
Shut off condensate drain outlet until the oil/water separator has been installed and is ready to be put into service.
Wastewater Outlet
Attach the water outlet hoses to the water outlet and to the service valve of the QCS unit and lead it to the wastewater connection with a continuous downward slope.

**NOTICE**
The service valve should be closed during operation.

Install a siphon to seal off odors.

Optional Heating
Please follow the instructions for installation and operation of heating systems.

The electrical installation must only be carried out by suitably qualified and authorised personnel.

If the temperature of the medium drops below approximately $41^\circ F$, the heating will switch on automatically.

When the setpoint temperature of $59^\circ F$ is attained, the heating will switch off automatically.

Built-in overheating protection limits the temperature of the heating system to a maximum of $167^\circ F$. 
Putting into Operation

QCS900/1600 Filter Set(s):
Each QCS oil/water separator supplied by the manufacturer is equipped with a filter set.
Check the correct seating of the filters before putting the unit into service:
♦ Open the container lid.
♦ The handles of the main filter must be locked into place on the inner wall.
♦ When closing the housing lid, fit the prefILTER onto the guide pipe.

Fill the QCS with clean water:
♦ Fill water into the pre-separator.
♦ Fill water into the main container.
♦ Shut off the water when it starts to come out at the water outlet.

⚠️ NOTICE
The water level will drop due to the gradual water intake of the filter.
♦ Add clean water as required and reinstall the lid.

The QCS unit is now ready for operation:
Compressor condensate can now flow into the QCS via the pressure relief chamber.

⚠️ NOTICE
Open the outlet of the condensate drain and check all connections for leaks.
The service valve must be closed during operation.
QCS900/1600 Maintenance

Preparing for Maintenance

♦ Shut off condensate inlet and switch off compressor if necessary.
♦ Inspect container, hoses and hose connections for leaks regularly.

Weekly wastewater test:
♦ Fill test tube at the sample valve.
♦ Compare the test tube sample cloudiness with the reference jar.
♦ If the sample is clearer than the reference jar the filter is okay (Figure 1).
♦ If the sample is cloudier than the reference jar the filter needs to be changed (Figure 2).

Level Indicator:
Level indicator not visible:
♦ Filter condition of both stages is okay.

Red ring area visible:
♦ Main filter stage is clogged. Replace filter set.

The level indicator can be equipped with an alarm contact as an option. This contact switches in the event of a rising fill level inside the QCS unit due to:
♦ Excessive inflow quantity.
♦ Clogged filter.
♦ Water outlet not functioning correctly.

NOTICE
Never pour any foreign liquid into the pressure relief chamber. This can impair the filter efficiency.
Filter Replacement

Replace the filter when:
- The water being discharged is too cloudy.
- The level indicator indicates that the filter is clogged.

**NOTICE**

Always observe the requirements of the Water Resources Act and other legal regulations pertaining to the use and handling of filters.

Always keep a spare filter set on hand.

Only use original manufacturer filter sets in order to ensure operational reliability and warranty compliance.
- Remove the plastic bag before installing the filter set.
- Place the new filter set near the unit and retain packaging for disposing of the old filters.
- Shut off condensate inlet.
- Open the QCS lid.
- Open the service valve and let the liquid drain off to below the level of the filter cartridge.
- Slowly lift the old prefilter and main filter out of the container, turn filters counterclockwise 45° and place on the top edge of the container to allow to drain.
- Remove the handles and fit them onto the new main filter.
- Put the drained filter set into the plastic bag and ensure correct disposal.
- Using the handles, insert the main filter into the filter receptacle of the container. When noticeable resistance is felt, manually push the filter into position and snap the handles into place at the side of the filter receptacle.
- Insert the prefilter above the main filter and fit onto the guide pipe when closing the housing lid.
- Open condensate inlet.
- Close the service valve.
General Cleaning (recommended every 12 months)

♦ Empty main tank.
♦ Clean main tank.

⚠️ NOTICE

Do not add any cleaning agents (surfactants or flammable cleaners). They impair the filter efficiency.

After cleaning, insert a new filter set and fill the unit with clean water.
DIMENSIONS ARE IN INCHES (MILLIMETERS).
<table>
<thead>
<tr>
<th><strong>Container Capacity</strong></th>
<th>2.64 Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Filling Volume with Pre-separation</strong></td>
<td>1.14 Gallons</td>
</tr>
<tr>
<td><strong>Condensate Feed (Hose)</strong></td>
<td>2 x ½&quot; (d1 = 10 mm)</td>
</tr>
<tr>
<td><strong>Water Outlet (Hose)</strong></td>
<td>½&quot; (d1=10 mm)</td>
</tr>
<tr>
<td><strong>Weight Empty</strong></td>
<td>8.8 lb</td>
</tr>
<tr>
<td><strong>Min./Max. Temperature</strong></td>
<td>+41 ... +140 °F</td>
</tr>
<tr>
<td><strong>Maximum Operating Pressure at Inlet</strong></td>
<td>232 PSIG*</td>
</tr>
<tr>
<td><strong>Prefilter</strong></td>
<td>0.66 gal</td>
</tr>
<tr>
<td><strong>Main Filter</strong></td>
<td>0.53 gal</td>
</tr>
</tbody>
</table>

* A high-pressure relief chamber should be used in the case of higher pressures.
* Para presiones superiores, usar cámara de relajación de alta presión.
NOTES:
1) DIMENSIONS ARE IN INCHES (MILLIMETERS).
2) DO NOT REMOVE THE 1/2 INCH CONNECTOR WHEN USING A 1 INCH HOSE.
## QCS450

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Container Capacity</strong></td>
<td>17.7 gal</td>
</tr>
<tr>
<td><strong>Filling Volume</strong></td>
<td>12.4 gal</td>
</tr>
<tr>
<td><strong>Condensate Feed (Hose)</strong></td>
<td>½&quot; / 1&quot;</td>
</tr>
<tr>
<td><strong>Water Outlet (Hose)</strong></td>
<td>1&quot;</td>
</tr>
<tr>
<td><strong>Weight Empty</strong></td>
<td>19.5 lbs</td>
</tr>
<tr>
<td><strong>Min./Max. Temperature</strong></td>
<td>34 ... 140 °F</td>
</tr>
<tr>
<td><strong>Maximum Operating Pressure at Inlet</strong></td>
<td>230 psig</td>
</tr>
<tr>
<td><strong>Prefilter</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Main Filter</strong></td>
<td>10.65 gal</td>
</tr>
</tbody>
</table>
Appendix A - Dimensional Drawings & Technical Data

QCS900/QCS1600

<table>
<thead>
<tr>
<th></th>
<th>A (INCH)</th>
<th>B (INCH)</th>
<th>C (INCH)</th>
<th>D (INCH)</th>
<th>E (INCH)</th>
<th>F (INCH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QCS900</td>
<td>44.1 (1120)</td>
<td>20.9 (531)</td>
<td>22.5 (572)</td>
<td>21.7 (551)</td>
<td>19.9 (505)</td>
<td>10.6 (269)</td>
</tr>
<tr>
<td>QCS1600</td>
<td>47.3 (1201)</td>
<td>25.95 (659)</td>
<td>27.7 (704)</td>
<td>22.8 (579)</td>
<td>21.1 (536)</td>
<td>7.9 (201)</td>
</tr>
</tbody>
</table>
### Appendix A - Dimensional Drawings & Technical Data

<table>
<thead>
<tr>
<th></th>
<th>QCS</th>
<th>900</th>
<th>1600</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Container Capacity</strong></td>
<td></td>
<td>30.5 GAL</td>
<td>60.3 GAL</td>
</tr>
<tr>
<td><strong>Filling Volume</strong></td>
<td></td>
<td>19.2 GAL</td>
<td>36.2 GAL</td>
</tr>
<tr>
<td><strong>Condensate Feed (hose)</strong></td>
<td>3 x ½&quot; (DI = 13 MM) / 1 x 1&quot; (DI = 25 MM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Outlet (hose)</strong></td>
<td></td>
<td>1&quot; (DI=25 MM)</td>
<td></td>
</tr>
<tr>
<td><strong>Service Valve (hose)</strong></td>
<td></td>
<td>¼&quot; (DI=13 MM)</td>
<td></td>
</tr>
<tr>
<td><strong>Oil Collector</strong></td>
<td></td>
<td>2 x 2.6 GAL</td>
<td>2 x 5.3 GAL</td>
</tr>
<tr>
<td><strong>Weight Empty</strong></td>
<td></td>
<td>70.55 LB</td>
<td>92.59 LB</td>
</tr>
<tr>
<td><strong>Minimum/Maximum Temperature</strong></td>
<td></td>
<td>+41°F/+140°F</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Operating Pressure at Inlet</strong></td>
<td></td>
<td>232 PSIG</td>
<td></td>
</tr>
<tr>
<td><strong>Prefilter</strong></td>
<td></td>
<td>4.89 GAL</td>
<td>9.6 GAL</td>
</tr>
<tr>
<td><strong>Main Filter</strong></td>
<td></td>
<td>5.42 GAL</td>
<td>10.65 GAL</td>
</tr>
</tbody>
</table>

* A high-pressure relief chamber should be used in the case of higher pressures.
LEGAL EFFECT: Except as expressly otherwise agreed to in writing by an authorized representative of Seller, the following terms and conditions shall apply to and form a part of this order and any additional and/or different terms of Buyer’s purchase order or other form of acceptance are rejected in advance and shall not become a part of this order.

The rights of Buyer hereunder shall be neither assignable nor transferable except with the written consent of Seller.

This order may not be canceled or altered except with the written consent of Seller and upon terms which will indemnify Seller against all loss occasioned thereby. All additional costs incurred by Seller due to changes in design or specifications, modification of this order or revision of product must be paid for by Buyer.

In addition to the rights and remedies conferred upon Seller by this order, Seller shall have all rights and remedies conferred at law and in equity and shall not be required to proceed with the performance of this order if Buyer is in default in the performance of such order or of any other contract or order with seller.

TERMS OF PAYMENT: Unless otherwise specified in the order acknowledgment, the terms of payment shall be net cash within thirty (30) days after shipment. These terms shall apply to partial as well as complete shipments. If any proceeding be initiated by or against Buyer under any bankruptcy or insolvency law, or in the judgment of Seller the financial condition of Buyer, at the time the equipment is ready for shipment, does not justify the terms of payment specified, Seller reserves the right to require full payment in cash prior to making shipment. If such payment is not received within fifteen (15) days after notification of readiness for shipment, Seller may cancel the order as to any unshipped item and require payment of its reasonable cancellation charges.

If Buyer delays shipment, payments based on date of shipment shall become due as of the date when ready for shipment. If Buyer delays completion of manufacture, Seller may elect to require payment according to percentage of completion. Equipment held for Buyer shall be at Buyer’s risk and storage charges may be applied at the discretion of Seller.

Accounts past due shall bare interest at the highest rate lawful to contract for but if there is no limit set by law, such interest shall be eighteen percent (18%). Buyer shall pay all cost and expenses, including reasonable attorney’s fees, incurred in collecting the same, and no claim, except claims within Seller’s warranty of material or workmanship, as stated below, will be recognized unless delivered in writing to Seller within thirty (30) days after date of shipment.

TAXES: All prices exclude present and future sales, use, occupation, license, excise, and other taxes in respect of manufacture, sales or delivery, all of which shall be paid by Buyer unless included in the purchase price at the proper rate or a proper exemption certificate is furnished.

ACCEPTANCE: All offers to purchase, quotations and contracts of sales are subject to final acceptance by an authorized representative at Seller’s plant.

DELIVERY: Except as otherwise specified in this quotation, delivery will be F. O. B. point of shipment. In the absence of exact shipping instruction, Seller will use its discretion regarding best means of insured shipment. No liability will be accepted by Seller for so doing. All transportation charges are at Buyer’s expense. Time of delivery is an estimate only and is based upon the receipt of all information and necessary approvals. The shipping schedule shall not be construed to limit seller in making commitments for materials or in fabricating articles under this order in accordance with Seller’s normal and reasonable production schedules.

Seller shall in no event be liable for delays caused by fires, acts of God, strikes, labor difficulties, acts of governmental or military authorities, delays in transportation or procuring materials, or causes of any kind beyond Seller’s control. No provision for liquidated damages for any cause shall apply under this order. Buyer shall accept delivery within thirty (30) days after receipt of notification of readiness for shipment. Claims for shortages will be deemed to have been waived if not made in writing within ten (10) days after the receipt of the material in respect of which any such shortage is claimed. Seller is not responsible for loss or damage in transit after having received “In Good Order” receipt from the carrier. All claims for loss or damage in transit should be made to the carrier.
TITLE & LIEN RIGHTS: The equipment shall remain personal property, regardless of how affixed to any realty or structure. Until the price (including any notes given therefore) of the equipment has been fully paid in cash, Seller shall, in the event of Buyer’s default, have the right to repossess such equipment.

PATENT INFRINGEMENT: If properly notified and given an opportunity to do so with friendly assistance, Seller will defend Buyer and the ultimate user of the equipment from any actual or alleged infringement of any published United States patent by the equipment or any part thereof furnished pursuant hereto (other than parts of special design, construction, or manufacture specified by and originating with Buyer), and will pay all damages and costs awarded by competent court in any suit thus defended or of which it may have had notice and opportunity to defend as aforesaid.

STANDARD WARRANTY: Seller warrants that products of its own manufacture will be free from defects in workmanship and materials under normal use and service for the period specified in the product instruction manual. Warranty for service parts will be ninety (90) days from date of factory shipment. Electric Motors, gasoline and diesel engines, electrical apparatus and all other accessories, components and parts not manufactured by Seller are warranted only to the extent of the original manufacturer’s warranty.

Notice of the alleged defect must be given to the Seller, in writing with all identifying details including serial number, type of equipment and date of purchase within thirty (30) days of the discovery of the same during the warranty period.

Seller’s sole obligation on this warranty shall be, at its option, to repair or replace or refund the purchase price of any product or part thereof which proves to be defective. If requested by Seller, such product or part thereof must be promptly returned to seller, freight prepaid, for inspection.

Seller warrants repaired or replaced parts of its own manufacture against defects in materials and workmanship under normal use and service for ninety (90) days or for the remainder of the warranty on the product being repaired.

This warranty shall not apply and Seller shall not be responsible or liable for:

(a) Consequential, collateral or special losses or damages;
(b) Equipment conditions caused by fair wear and tear, abnormal conditions of use, accident, neglect or misuse of equipment, improper storage or damage resulting during shipping;
(c) Deviation from operating instructions, specifications or other special terms of sale;
(d) Labor charges, loss or damage resulting from improper operation, maintenance or repairs made by person(s) other than Seller or Seller’s authorized service station.

In no event shall Seller be liable for any claims whether arising from breach of contract or warranty or claims of negligence or negligent manufacture in excess of the purchase price.

THIS WARRANTY IS THE SOLE WARRANTY OF SELLERS AND ANY OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED IN LAW OR IMPLIED IN FACT, INCLUDING ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR USE ARE HEREBY SPECIFICALLY EXCLUDED.

LIABILITY LIMITATIONS: Under no circumstances shall the Seller have any liability for liquidated damages or for collateral, consequential or special damages or for loss of profits, or for actual losses or for loss of production or progress of construction, whether resulting from delays in delivery or performance, breach of warranty, negligent manufacture or otherwise.

ENVIRONMENTAL AND OSHA REQUIREMENTS: At the time of shipment of the equipment from the factory, Quincy Compressor / Ortman Fluid Power will comply with the various Federal, State and local laws and regulations concerning occupational health and safety and pollution. However, in the installation and operation of the equipment and other matters over which the seller has no control, the Seller assumes no responsibility for compliance with those laws and regulations, whether by the way of indemnity, warranty or otherwise.