

ES2000 Series

Oil / Water Separators



Oil can seriously affect the efficient operation of sewage purification, as well as killing plants and animals. For this reason, very low oil in water discharge limits are permitted and rigid legislation exists in most countries to protect the environment against this type of contamination.

International standards such as ISO14001 also require the compressed air user to comply with local environmental legislation and show use of protective systems and procedures.

After the oily condensate has been efficiently removed from the compressed air system it cannot be discharged directly to the foul sewer without first having the oil content reduced to within legal disposal limits.

Parker domnick hunter ES2000 Series Oil / Water Separators are a simple, economical and environmental solution. These oil / water separators are installed as part of the compressed air system and simply reduce the oil concentration in the collected condensate to a level permitted for discharge. This allows the larger volume of clean water, up to 99.9% of the total condensate, to be discharged safely into the foul sewer and the relatively small amount of concentrated oil to be disposed of legitimately and economically.



Discharging oil contaminated condensate from compressed air systems is not only harmful to the environment, it is probably illegal.

- Oil spillages from industry do not have to be big to be serious
- One litre of oil can cover 3500m² of water surface
- One gallon of oil can cover 4 acres of water surface.

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Benefits:

- Help to protect and maintain the environment
- Efficiently separate oil and water on-site and return up to 99.9% of the condensate to foul sewers
- Meet trade effluent discharge regulations
- Rapid payback over conventional disposal methods
- Simple to install, operate and maintain
- Will assist you in achieving ISO14001 certification



ENGINEERING YOUR SUCCESS.

Special Features

- Single piece units – reduce overall footprint
- Robust, corrosion resistant, polyethylene construction, includes ribbing for extra strength
- Large centrifugal inlet chamber provides effective venting of compressed air energy, whilst multiple inlet ports and four inlet chamber positions simplify installation
- Large, easily cleaned primary settlement chamber for the accumulation and removal of dirt particles
- Large main tank increases settlement time and reduces oil carryover to carbon filter stage
- Large internal galleries reduce risk of an internal blockage and simplify maintenance
- Oil absorbing pre-filter(s) protect carbon stage from bulk contamination
- Large carbon stage for increased contact time, improving water quality and extending carbon life
- High specification carbon for improved service intervals
- Adjustable oil outlet funnel for the efficient removal of separated oil
- Sealed external oil container for easy oil disposal
- Sample tap removes need to disconnect outlet piping when obtaining a test sample



Accessories

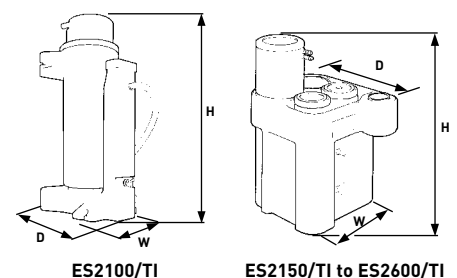
- Additional oil containers for simple maintenance
- Flow splitter provides equal distribution of condensate on multiple oil/water separator installations
- Condensate manifold - multi ported device for connection to drain ports

Technical Data

| Model | ES2100/TI | ES2150/TI | ES2200/TI | ES2300/TI | ES2400/TI | ES2500/TI | ES2600/TI |
|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Inlet* Connections | 1 x 1/2" 1 x 1/4" | 1 x 1/2" 1 x 1/4" | 1 x 1/2" 1 x 1/4" | 1 x 1/2" 3 x 1/4" | 1 x 1/2" 3 x 1/4" | 1 x 1/2" 3 x 1/4" | 1 x 1/2" 3 x 1/4" |
| Outlet Hose Connections | 19mm (3/4") | 25mm (1") | 19mm (3/4") | 25mm (1") | 25mm (1") | 25mm (1") | 25mm (1") |
| Settlement Tank Capacity | N/A | 60l | 75l | 125l | 185l | 355l | 485l |
| Max. Pressure | 16 bar g (232 psi g) | | | | | | |
| Min/ Max Temperature | °C | 5 to 35 | 5 to 35 | 5 to 35 | 5 to 35 | 5 to 35 | 5 to 35 |
| | °F | 41 to 95 | 41 to 95 | 41 to 95 | 41 to 95 | 41 to 95 | 41 to 95 |
| Material (Re-cyclable) | Polythene | | | | | | |

Weights and Dimensions

| Model | Height (H) | | Width (W) | | Depth (D) | | Weight | | | |
|-----------|------------|------|-----------|------|-----------|------|--------|-----|------|------|
| | | | | | | | Empty | | Full | |
| | mm | ins | mm | ins | mm | ins | kg | lbs | kg | lbs |
| ES2100/TI | 842 | 33.0 | 270 | 10.6 | 316 | 12.4 | 6 | 13 | 24.5 | 154 |
| ES2150/TI | 810 | 32.0 | 433 | 17.0 | 350 | 14.0 | 10 | 22 | 78.5 | 173 |
| ES2200/TI | 803 | 32.0 | 450 | 18.0 | 350 | 14.0 | 12 | 26 | 93.5 | 206 |
| ES2300/TI | 1195 | 47.0 | 500 | 20.0 | 795 | 41.7 | 27 | 59 | 159 | 350 |
| ES2400/TI | 1195 | 47.0 | 650 | 26.0 | 795 | 41.7 | 36 | 79 | 217 | 477 |
| ES2500/TI | 1535 | 60.0 | 700 | 28.0 | 980 | 38.7 | 70 | 154 | 400 | 880 |
| ES2600/TI | 1535 | 60.0 | 1000 | 39.0 | 1005 | 39.7 | 97 | 214 | 550 | 1210 |



There are many factors which play a part in the selection of a static oil/water separator, with ambient conditions of the installation and oil type being the most important. Capacities shown in this literature assume installation in two of the worlds major climatic conditions. Should the oil/water separator be installed in conditions other than those shown, please contact your local domnick hunter outlet or approved distributor/agent for correct sizing.

Climate Condition 1

| | | | | | | | |
|--------------------------|--|--|--|--|--|-------------------------------------|--|
| System Conditions | | Ambient Temperature at Compressor Inlet: 25°C (77°F) | | Refrigeration Dryer Dewpoint If Fitted: 2°C (35°F) | | System Pressure: 7 bar g (102psi g) | |
| Relative Humidity: 65% | | Compressor Discharge Temperature: 35°C (95°F) | | Min. System Temp. Without Refrigeration Dryer: 30°C (86°F) | | | |

| No Refrigeration Dryer Installed in System | | Oil Type | | | | | | | | | | | |
|--|-----------|----------------------------------|--------|-------|------|---------------------------------|--------|-------|------|------------------------------------|--------|-------|------|
| | | Band A Turbine, Additive Free | | | | Band B Mineral, PAO, TMP, PE | | | | Band C Diesters, Triesters, PAG | | | |
| Compressor Type | Model | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm |
| Rotary Screw, Vane | ES2100/TI | 20 | 1.2 | 74 | 43 | 17 | 1.0 | 62 | 36 | 14 | 0.9 | 51 | 30 |
| | ES2150/TI | 59 | 3.5 | 211 | 124 | 50 | 3.0 | 179 | 106 | 40 | 2.4 | 146 | 86 |
| | ES2200/TI | 90 | 5.4 | 325 | 191 | 77 | 4.6 | 276 | 162 | 62 | 3.7 | 224 | 132 |
| | ES2300/TI | 127 | 7.6 | 456 | 268 | 106 | 6.4 | 383 | 225 | 87 | 5.2 | 314 | 185 |
| | ES2400/TI | 252 | 15.1 | 909 | 535 | 212 | 12.7 | 764 | 450 | 174 | 10.5 | 628 | 370 |
| | ES2500/TI | 501 | 30.1 | 1804 | 1062 | 425 | 25.5 | 1530 | 900 | 346 | 20.8 | 1247 | 734 |
| | ES2600/TI | 997 | 59.8 | 3590 | 2113 | 849 | 51.0 | 3057 | 1800 | 689 | 41.4 | 2482 | 1461 |

| Refrigeration Dryer Installed in System | | Oil Type | | | | | | | | | | | |
|---|-----------|----------------------------------|--------|-------|------|---------------------------------|--------|-------|------|------------------------------------|--------|-------|------|
| | | Band A Turbine, Additive Free | | | | Band B Mineral, PAO, TMP, PE | | | | Band C Diesters, Triesters, PAG | | | |
| Compressor Type | Model | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm |
| Rotary Screw, Vane | ES2100/TI | 15 | 0.9 | 55 | 33 | 13 | 0.8 | 46 | 27 | 10 | 0.6 | 38 | 22 |
| | ES2150/TI | 44 | 2.6 | 158 | 93 | 37 | 2.2 | 134 | 79 | 30 | 1.8 | 109 | 64 |
| | ES2200/TI | 67 | 4.1 | 243 | 143 | 57 | 3.4 | 207 | 122 | 47 | 2.8 | 168 | 99 |
| | ES2300/TI | 95 | 5.7 | 341 | 201 | 79 | 4.8 | 286 | 169 | 65 | 3.9 | 235 | 138 |
| | ES2400/TI | 189 | 11.3 | 680 | 400 | 159 | 9.5 | 572 | 337 | 130 | 7.8 | 470 | 277 |
| | ES2500/TI | 375 | 22.5 | 1351 | 795 | 318 | 19.1 | 1145 | 674 | 259 | 15.6 | 934 | 549 |
| | ES2600/TI | 746 | 44.8 | 2687 | 1582 | 635 | 38.1 | 2288 | 1347 | 516 | 31.0 | 1858 | 1093 |

Climate Condition 2

| | | | | | | | |
|--------------------------|--|--|--|---|--|-------------------------------------|--|
| System Conditions | | Ambient Temperature at Compressor Inlet: 35°C (95°F) | | Refrigeration Dryer Dewpoint If Fitted: 2°C (35°F) | | System Pressure: 7 bar g (102psi g) | |
| Relative Humidity: 85% | | Compressor Discharge Temperature: 45°C (113°F) | | Min. System Temp. Without Refrigeration Dryer: 40°C (104°F) | | | |

| No Refrigeration Dryer Installed in System | | Oil Type | | | | | | | | | | | |
|--|-----------|----------------------------------|--------|-------|-----|---------------------------------|--------|-------|-----|------------------------------------|--------|-------|-----|
| | | Band A Turbine, Additive Free | | | | Band B Mineral, PAO, TMP, PE | | | | Band C Diesters, Triesters, PAG | | | |
| Compressor Type | Model | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm |
| Rotary Screw, Vane | ES2100/TI | 8 | 0.5 | 28 | 16 | 6 | 0.4 | 23 | 14 | 5 | 0.3 | 19 | 11 |
| | ES2150/TI | 22 | 1.3 | 80 | 47 | 19 | 1.1 | 68 | 40 | 15 | 0.9 | 55 | 33 |
| | ES2200/TI | 34 | 2.1 | 123 | 73 | 29 | 1.7 | 105 | 62 | 24 | 1.4 | 85 | 50 |
| | ES2300/TI | 48 | 2.9 | 173 | 102 | 40 | 2.4 | 145 | 85 | 33 | 2.0 | 119 | 70 |
| | ES2400/TI | 96 | 5.7 | 345 | 203 | 80 | 4.8 | 290 | 171 | 66 | 4.0 | 238 | 140 |
| | ES2500/TI | 190 | 11.4 | 684 | 403 | 161 | 9.7 | 580 | 341 | 131 | 7.9 | 473 | 278 |
| | ES2600/TI | 378 | 22.7 | 1361 | 801 | 322 | 19.3 | 1159 | 682 | 261 | 15.7 | 941 | 554 |

| Refrigeration dryer installed in system | | Oil Type | | | | | | | | | | | |
|---|-----------|----------------------------------|--------|-------|-----|---------------------------------|--------|-------|-----|------------------------------------|--------|-------|-----|
| | | Band A Turbine, Additive Free | | | | Band B Mineral, PAO, TMP, PE | | | | Band C Diesters, Triesters, PAG | | | |
| Compressor Type | Model | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm | L/s | m³/min | m³/hr | cfm |
| Rotary Screw, Vane | ES2100/TI | 6 | 0.4 | 23 | 13 | 5 | 0.3 | 19 | 11 | 4 | 0.3 | 16 | 9 |
| | ES2150/TI | 18 | 1.1 | 64 | 38 | 15 | 0.9 | 55 | 32 | 12 | 0.7 | 45 | 26 |
| | ES2200/TI | 27 | 1.7 | 99 | 58 | 23 | 1.4 | 84 | 50 | 19 | 1.1 | 69 | 40 |
| | ES2300/TI | 39 | 2.3 | 139 | 82 | 32 | 1.9 | 117 | 69 | 27 | 1.6 | 96 | 56 |
| | ES2400/TI | 77 | 4.6 | 278 | 163 | 65 | 3.9 | 234 | 137 | 53 | 3.2 | 192 | 113 |
| | ES2500/TI | 153 | 9.2 | 551 | 324 | 130 | 7.8 | 467 | 275 | 106 | 6.4 | 381 | 224 |
| | ES2600/TI | 305 | 18.3 | 1097 | 645 | 259 | 15.6 | 934 | 550 | 210 | 12.6 | 758 | 446 |

For systems using 1 or 2 stage piston/reciprocating compressors multiply compressor flow by 1.4 and select a separator from screw compressor flow rates shown, ensuring due consideration is given to oil type.
For 3 or 4 stage piston/reciprocating compressors, please contact Parker domnick hunter.

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