



domnick hunter



## ES2000 Series Oil/Water Separators

**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 3500m<sup>2</sup> of water surface.**

**One gallon of oil can cover 4 acres of water surface**

## The Problem

Compressed air is an essential power source that is widely used throughout industry. This safe, powerful and reliable utility can be the most important part of your production process. However, your compressed air contains water, dirt, wear particles and degraded lubricating oil, which all mix together to form an unwanted condensate. This condensate, often acidic, rapidly wears tools and pneumatic machinery, blocks valves and orifices and corrodes piping, resulting in high maintenance costs and product spoilage which can bring your production process to an extremely expensive standstill!

Separation, filtration and drying products are employed to remove this problematic and costly condensate, however the oily mix discharged now creates other problems.

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 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.

## The Solution

### **Efficient on-site disposal of compressed air condensate with the domnick hunter ES2000 oil/water separators.**

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.

domnick hunter ES2000 Series Oil / Water Separators are a simple, economical and environmental solution.

ES2000 Series 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.



## User 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.**



**This will also assist a company in achieving ISO 14001**

## 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

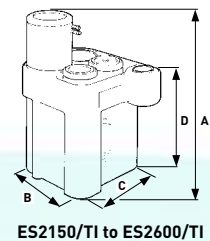
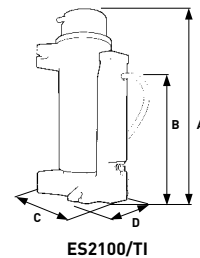


## Accessories

- 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 Specifications

Model	ES2100/TI	ES2150/TI	ES2200/TI	ES2300/TI	ES2400/TI	ES2500/TI	ES2600/TI	
<b>Inlet* Connections</b>	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"	
<b>Outlet Hose Connection (I/D)</b>	19mm(3/4")	25mm (1")	19mm(3/4")	25mm (1")	25mm (1")	25mm (1")	25mm (1")	
<b>Settlement Tank Capacity</b>	N/A	60L	75 L	125 L	185 L	355 L	485 L	
	N/A	16 US G	20 US G	33 US G	49 US G	94 US G	128 US G	
<b>Max. Pressure</b>	16 bar g (232 psi g)							
<b>Min/Max Temperature</b>	°C 5 to 35							
	°F 41 to 95							
<b>Material (Re-cyclable)</b>	Polyethylene							
<b>Weight</b>	Empty kg (lbs)	6 (13)	10 (22)	12 (26)	27 (59)	36 (79)	70 (154)	97 (214)
	Full kg (lbs)	24.5 (54)	78.5 (172.7)	93.5 (206)	159 (350)	217 (477)	400 (880)	550 (1210)
<b>Dimensions</b>	A	842 (33)	810 (32)	803 (32)	1195 (47)	1195 (47)	1535 (60)	1535 (60)
	B	550 (21.6)	350 (14)	350 (14)	650 (26)	650 (26)	860 (34)	860 (34)
	C	316 (12.4)	433 (17)	450 (18)	500 (20)	650 (26)	700 (28)	1000 (39)
	D	270 (10.6)	675 (26.6)	675 (27)	750 (30)	750 (30)	1090 (43)	1090 (43)



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)
Relative Humidity:	65%	Min. System Temp. Without Refrigeration Dryer	30°C (86°F)
Compressor Discharge Temperature:	35°C (95°F)	System Pressure:	7 bar g (102psi g)

[For conditions other than those shown, e.g. higher ambient temperatures, please contact domnick hunter]

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	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm
Rotary Screw, Vane	ES2100/TI	1.2	74	43	1.0	62	36	0.9	51	30
	ES2150/TI	3.5	211	124	3.0	179	106	2.4	146	86
	ES2200/TI	5.4	325	191	4.6	276	162	3.7	224	132
	ES2300/TI	7.6	456	268	6.4	383	225	5.2	314	185
	ES2400/TI	15.1	909	535	12.7	764	450	10.5	628	370
	ES2500/TI	30.1	1804	1062	25.5	1530	900	20.8	1247	734
ES2600/TI	59.8	3590	2113	51.0	3057	1800	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	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm
Rotary Screw, Vane	ES2100/TI	0.9	55	33	0.8	46	27	0.6	38	22
	ES2150/TI	2.6	158	93	2.2	134	79	1.8	109	64
	ES2200/TI	4.1	243	143	3.4	207	122	2.8	168	99
	ES2300/TI	5.7	341	201	4.8	286	169	3.9	235	138
	ES2400/TI	11.3	680	400	9.5	572	337	7.8	470	277
	ES2500/TI	22.5	1351	795	19.1	1145	674	15.6	934	549
ES2600/TI	44.8	2687	1582	38.1	2288	1347	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)
Relative Humidity:	85%	Min. System Temp. Without Refrigeration Dryer	40°C (104°F)
Compressor Discharge Temperature:	45°C (113°F)	System Pressure:	7 bar g (102psi g)

[For conditions other than those shown, e.g. higher ambient temperatures, please contact domnick hunter]

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	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm
Rotary Screw, Vane	ES2100/TI	0.5	28	16	0.4	23	14	0.3	19	11
	ES2150/TI	1.3	80	47	1.1	68	40	0.9	55	33
	ES2200/TI	2.1	123	73	1.7	105	62	1.4	85	50
	ES2300/TI	2.9	173	102	2.4	145	85	2.0	119	70
	ES2400/TI	5.7	345	203	4.8	290	171	4.0	238	140
	ES2500/TI	11.4	684	403	9.7	580	341	7.9	473	278
ES2600/TI	22.7	1361	801	19.3	1159	682	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	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm	m³/min	m³/hr	cfm
Rotary Screw, Vane	ES2100/TI	0.4	23	13	0.3	19	11	0.3	16	9
	ES2150/TI	1.1	64	38	0.9	55	32	0.7	45	26
	ES2200/TI	1.7	99	58	1.4	84	50	1.1	69	40
	ES2300/TI	2.3	139	82	1.9	117	69	1.6	96	56
	ES2400/TI	4.6	278	163	3.9	234	137	3.2	192	113
	ES2500/TI	9.2	551	324	7.8	467	275	6.4	381	224
ES2600/TI	18.3	1097	645	15.6	934	550	12.6	758	446	

For systems using 1 or 2 stage piston/reciprocating compressors multiply compressor flow by 1.4 and selector 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 domnick hunter.



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