

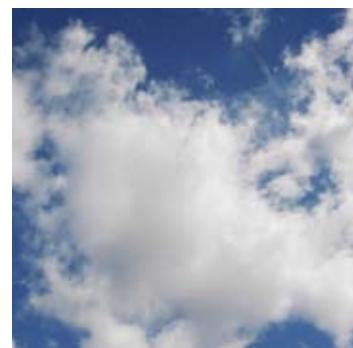


aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



# OIL-X EVOLUTION

## High Efficiency Compressed Air Filters



**Parker** | **domnick**  
**hunter**

ENGINEERING YOUR SUCCESS.

# Compressed air contamination is a real problem for industry

In today's modern production facilities, the use of compressed air is often pivotal to manufacturing processes. Irrespective of whether the compressed air comes into direct contact with the product or is used to automate a process, provide motive power, or even to generate other gases on-site, a clean, dry, reliable compressed air supply is essential to maintain efficient and cost effective production.

Most problems experienced by compressed air users derive from contamination already in the compressed air system. Typically there are 10 different contaminants from four different sources and even more in critical applications. that need to be removed or reduced to acceptable levels.



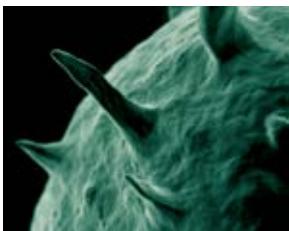
Atmospheric dirt



Water vapour



Oil vapour



Micro-organisms

**Failure to remove or reduce contamination will cause many problems with the compressed air system, for example:**

- Corrosion within compressed air storage vessels and the air distribution system
- Blocked or damaged valves, cylinders, air motors and air tools
- Damaged production equipment
- Premature and unplanned desiccant changes for adsorption dryers
- Product contamination

In addition to problems associated with the compressed air system itself, allowing contaminants such as particulate, oil and micro-organisms to exhaust from valves, cylinders and air tools, can lead to an unhealthy and unsafe working environment.

**Compressed air contamination will ultimately lead to:**

- Inefficient production processes
- Spoiled, damaged or reworked products
- Reduced production efficiency
- Increased manufacturing costs

**Parker domnick hunter has a cost effective solution for every contaminant**

| Contamination Removal               |                      |              |                |                                      |                 |            |                           |                  |
|-------------------------------------|----------------------|--------------|----------------|--------------------------------------|-----------------|------------|---------------------------|------------------|
| Purification Equipment Technologies | Bulk Condensed Water | Water Vapour | Water Aerosols | Atmospheric Dirt & Solid Particulate | Micro-organisms | Oil Vapour | Liquid Oil & Oil Aerosols | Rust & Pipescale |
| Water Separators                    | •                    |              |                |                                      |                 |            |                           |                  |
| Coalescing Filters                  |                      |              | •              | •                                    | •               |            | •                         | •                |
| Adsorption Filters                  |                      |              |                |                                      |                 |            |                           |                  |
| Adsorption Dryers                   |                      | •            |                |                                      |                 |            |                           |                  |
| Refrigeration Dryers                | •                    |              |                |                                      |                 |            |                           |                  |
| Dust Removal Filters                |                      |              |                | •                                    | •               |            |                           | •                |
| Microbiological Filters             |                      |              |                | •                                    | •               |            |                           |                  |

Many manufacturers offer compressed air filters, that look the same, claim the same, but are not the same.

**Parker domnick hunter – Your Compressed Air Purification Partner**

# Parker domnick hunter - The original name in Compressed Air Purification



The origins of modern compressed air filtration can be traced back to domnick hunter in 1963, it was the first company to use microfibre filter media for purification applications, changing the compressed air industry forever.

The OIL-X filter range was the first filter range to fully utilise this groundbreaking technology and has always been synonymous with high quality compressed air. Now in the 21st century, the OIL-X name remains, but the technology has evolved beyond recognition.

## Parker domnick hunter OIL-X EVOLUTION

Since the introduction of the first OIL-X range, Parker domnick hunter has continued to develop both the compressed air filter and the standards governing compressed air quality. Constantly innovated, OIL-X EVOLUTION has become the leading technology for compressed air filtration, providing the exact balance between air quality, energy efficiency and low lifetime costs.

- Industry leading design
- World-wide approvals for safety and reliability
- Meets or exceeds the requirements for delivered air quality shown in all editions of ISO8573-1, the international standard for compressed air quality
- Fully tested in accordance with ISO12500-1
- Performance independently validated by Lloyds Register
- The only filter range to offer a one year air quality guarantee
- 10 years guarantee on filter housings
- World-wide Parker support network
- OIL-X EVOLUTION - often copied, never matched

## APPROVALS, ACCREDITATIONS AND ASSOCIATIONS



ISO9001:2000 ISO14001



## INTERNATIONAL APPROVALS



AS1210



## The Parker domnick hunter Design Philosophy

Parker domnick hunter has been supplying industry with high efficiency filtration and purification products since 1963. Our philosophy 'Designed for Air Quality & Energy Efficiency' ensures products that not only provide the user with clean, high quality compressed air, but also with low lifetime costs and reduced CO<sub>2</sub> emissions.



# Air Quality

The primary reason for using a compressed air filter is to remove contamination and improve air quality.

Parker domnick hunter's design Philosophy of Air Quality & Energy Efficiency has led to a product that provides:

- **Highest air quality**
- **Lowest power consumption**
- **Lowest operational differential pressure**
- **Lowest CO<sub>2</sub> emissions**
- **Lowest total cost of ownership**

## Air Quality Claims

Most compressed air filter manufacturers claim that the delivered air from their filters complies with the quality classifications of ISO8573 part 1 when tested with the methods and equipment stated in ISO8573 parts 2-9, but how do they really perform?

## Filters & Elements may look the same, but they don't all perform the same.

Six of the top selling compressed air filters available today were tested against OIL-X EVOLUTION for filtration performance and energy consumption (Dirt Loading)

- 83% of General Purpose filters and 67% of High Efficiency filters tested did not meet their published performance claims for oil carryover
- 50% of manufacturers tested did not publish initial wet differential pressure figures
- 67% of the General Purpose filters and 33% of High Efficiency filters tested that did publish wet differential pressure figures did not meet their published performance claims
- 0% of General Purpose filters tested met published performance figures for both oil carryover and wet dp
- Only 17% of High Efficiency filters tested met published performance figures for both oil carryover and wet dp
- 0% Matched OIL-X EVOLUTION for filtration performance
- 0% Exceeded OIL-X EVOLUTION for filtration performance



### OIL-X EVOLUTION - #1 in filtration

- Air quality which meets or exceeds the requirements of ISO8573-1 (all revisions)
- Performance tested in accordance with ISO12500 & ISO8573
- Only filter range to offer a one year air quality guarantee
- Filtration performance independently verified by Lloyds Register



# Energy Efficiency

Any restriction to air flow within a filter housing and element will reduce the system pressure. To generate compressed air, large amounts of electrical energy are consumed, therefore any pressure losses within the system can be directly converted into a cost for wasted energy. The higher the pressure loss, the higher the energy cost.

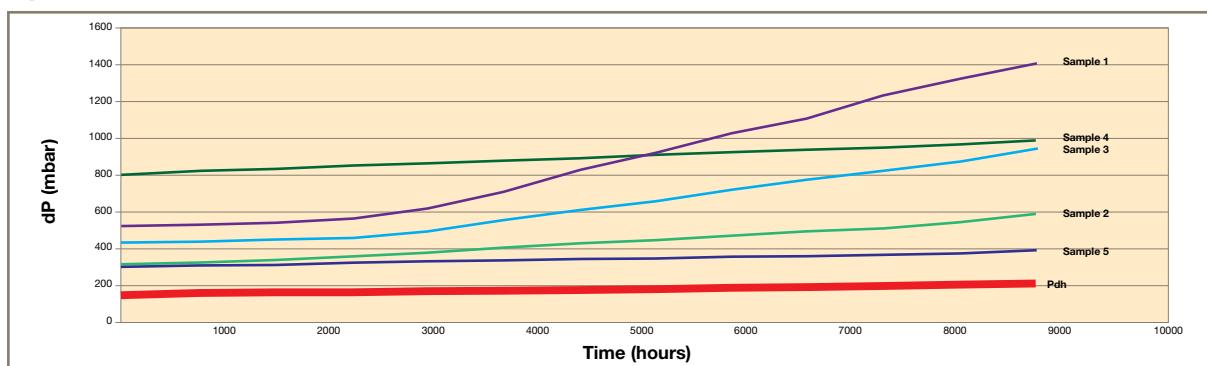
When comparing the running cost of alternative filters, many will calculate the energy cost of the filter, using the differential pressure or dP values printed in literature. As demonstrated, these figures are not always accurate. Additionally, literature values are only representative of the

filter in an "as new" condition, and do not take into consideration the initial and on-going blockage characteristics of the filter. Although filters and elements may look the same, their blockage characteristics and operational costs are quite different

## Differential Pressure – An accurate picture

In a comparative test of OIL-X EVOLUTION filters against five commonly available alternative filters, the blockage characteristics and therefore the true differential pressure of each filter can be demonstrated.

### Operational dP

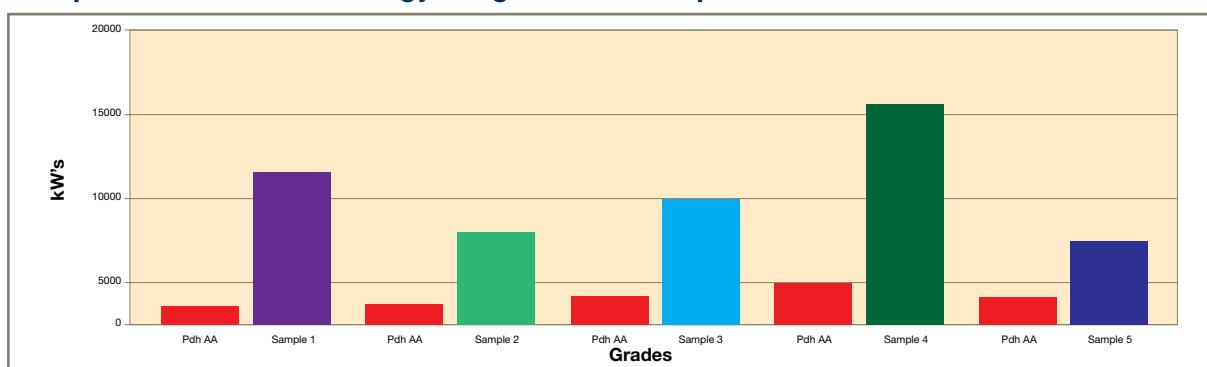


Test criteria: Filters were tested at their full rated flow and injected with ISO 12103 A4 course test dust using a pressurised dust injection system. The dust was injected in 12 intervals to simulate the monthly loading of the filter element and show a total annual differential pressure curve. OIL-X EVOLUTION filters were tested at an identical flow rate to the comparative filter and with an identical dirt loading.

### The accurate running costs of a filter

Using the above data, a true picture of energy consumption can be seen.

### Comparison of annual energy usage (4000 hrs operation)



This calculation based upon a 75kW compressor operating for 4000 hours

**OIL-X EVOLUTION – Payback within first year!**

# OIL-X EVOLUTION

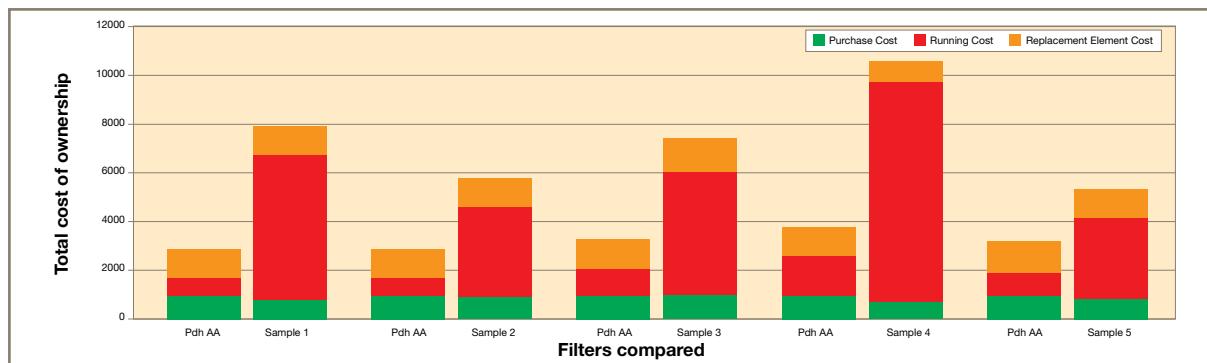
The most energy efficient compressed air filters in the world.



## Low Lifetime Cost

A filter with a low purchase price may not always turn out to be the most cost effective solution

### Five years total cost of ownership



Calculation based upon initial purchase price of the filter housing, cost of £0.10 per kWh and five annual filter element changes. An estimated annual increase of 3% was included on both energy costs and element price.

**And remember, not all filters achieved their claimed air quality!**

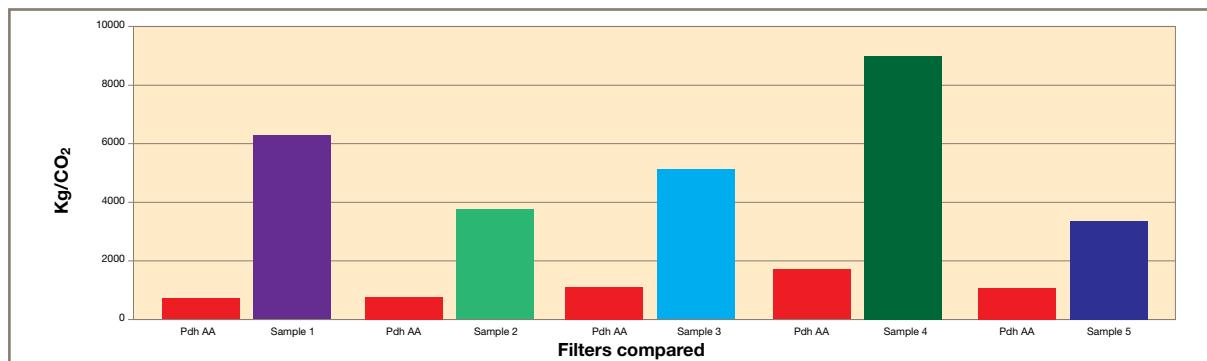


## Reduced CO<sub>2</sub> Emissions

Many countries worldwide are looking closely at their manufacturing industries in an effort to reduce the amount of harmful greenhouse gases released into the atmosphere. The use of electricity has a direct impact on

the generation and release of CO<sub>2</sub>. By significantly reducing the energy consumption of its products, Parker can help you to reduce your carbon footprint and protect the environment.

### Comparison of annual CO<sub>2</sub> emissions (4000 hrs Operation)



Calculation assumes 1KwH emits 0.544Kg/CO<sub>2</sub> (Information provided by UK Carbon Trust at time of publication)

**OIL-X EVOLUTION - The environmentally friendly filter**

# OIL-X EVOLUTION

## Water Separators - Grade WS



- The world's most energy efficient Water Separators
- For the removal of bulk condensed water and liquid oil
- Used to protect coalescing filters from bulk liquid contamination
- High liquid removal efficiencies at all flow conditions
- Tested in accordance with ISO8573-9



### How OIL-X EVOLUTION Water Separators work

Parker domnick hunter OIL-X EVOLUTION WS Water Separators utilise centrifugal technology which provides a more efficient method of bulk liquid removal. Using a combination of direction change and centrifugal action, water is effectively separated from the compressed air flow. Parker domnick hunter centrifugal separators are very efficient with varying flow conditions and have been further optimised to reduce energy costs.

- Wet air enters the inlet port and is directed into the separator module fixed turning vanes causing the air to spin inside the vessel and then change direction as it passes the impinger.
- A vortex is then created which narrows and intensifies as it reaches the lower part of the separator.
- Bulk liquid is therefore removed from the air stream due to a combination of:
  - Directional changes of the air stream.
  - Velocity changes.
  - Centrifugal action of the vortex.
- As the vortex reaches the bottom of the separator module, air is forced through the centre of the vortex.
- Aerospace turning vanes located in the outlet of the separator module now turn an “inefficient corner” into a number of more “efficient corners” to reduce turbulence, minimise pressure loss and therefore operational costs.

In addition to protecting coalescing filters from bulk liquid contamination, Grade WS Water Separators can be used on compressor inter-cooler and after-cooler stages, wet air receivers and refrigeration dryers.

# OIL-X EVOLUTION

## High efficiency coalescing and dust removal filters

- For the removal of water and oil aerosols, atmospheric dirt and solid particles, rust, pipescale and micro-organisms
- Coalescing filter performance tested to the stringent requirements of ISO12500-1 and ISO8573-2
- Dry particulate filter performance tested in accordance with the requirements of ISO8573-4

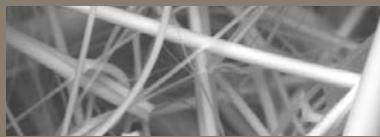


### OIL-X EVOLUTION – Features that provide air quality

The Parker domnick hunter OIL-X EVOLUTION range of die-cast compressed air filters has been designed from the outset to meet the air quality requirements of all editions of ISO8573-1, when validated in accordance with the stringent requirements of ISO12500-1.

#### Correct selection of filtration media

Coalescing and dust removal filters use a high efficiency borosilicate glass nanofibre material which has a 96% voids volume, providing media with excellent filtration efficiency and a high dirt holding capacity.



#### Construction of the filtration media into a filter element

OIL-X EVOLUTION filter media is constructed into a filter element using a unique deep bed pleating technique in place of the more conventional wrapped construction. This provides 450% more filtration surface area when compared to a traditional wrapped filter element and around 200% more surface area compared to a traditional pleated element.

Deep bed pleating also reduces the air flow velocity within the media, which further improves filtration performance.

Additionally, the high efficiency AA and AAR grade elements have a unique graded density media construction which provides even greater filtration performance without adding to pressure loss or energy consumption.



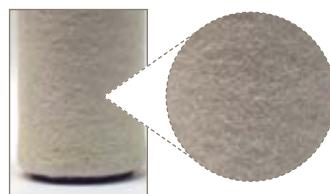
### OIL-X EVOLUTION

coalescing filters utilise four drainage methods to ensure high performance liquid removal, whilst conventional filters use only one.



#### Drainage method 1

High efficiency drainage layer provides increased liquid drainage, improved chemical compatibility and higher operational temperatures when compared to ordinary materials.



#### Typical element

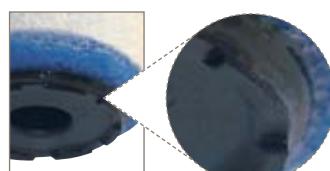


#### OIL-X EVOLUTION



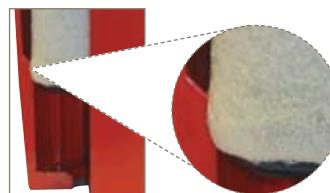
#### Drainage method 2

Typical filter elements have a build up of liquid known as a "wet band" where the drainage layer is glued into the lower endcap. The OIL-X EVOLUTION design wraps the drainage layer under the lower endcap to remove coalesced liquid from the air flow path, increasing liquid removal efficiency, and providing more usable filtration surface area.



#### Drainage method 3

Surface tension breakers on the lower filter element endcap provide fast and efficient drainage of coalesced liquid.



#### Drainage method 4

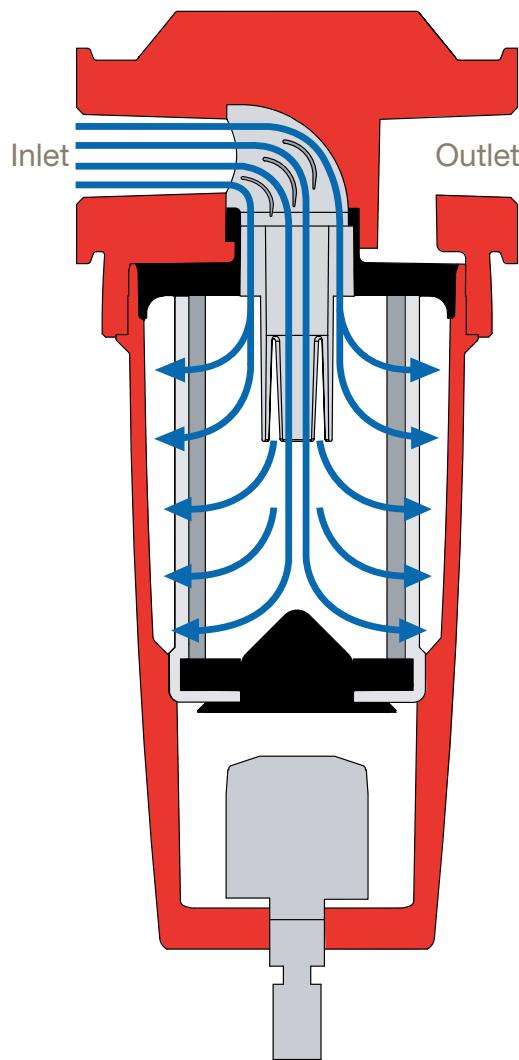
Drainage ribs cast into the filter bowl compress the lower part of the filter element, allowing bulk liquid to rapidly drain from the filter element through capillary action.

# OIL-X EVOLUTION – Features providing energy efficiency

In these times of increasing energy costs, an efficient and cost effective manufacturing process is a major factor in maintaining the profitability and growth of your business. All Parker domnick hunter products are designed to not only minimise the use of compressed air and electrical energy in their operation, but also to significantly reduce the operational costs of the compressor by minimising pressure losses.

OIL-X EVOLUTION filters incorporate a number of unique and patented design features to minimise differential pressure and provide a filter and element combination where the differential pressure starts low and stays low to maximise energy savings and provide the lowest lifetime costs without compromising air quality.

## OIL-X EVOLUTION die-cast filters optimised flow path from patented Aerospace Flow Management System



**Providing an optimal flow path for the compressed air through the filter housing and element is key to reducing system operating costs**

Pressure losses in a compressed air filter is a combination of fixed pressure losses and incremental pressure losses. Fixed pressure losses are derived from the filter housing and the interface between the filter housing and filter element. Incremental pressure losses are directly related to the filter element as it blocks up with contamination. In most filters, high operational costs can be attributed to an inefficient air flow path within the filter housing and element and poorly selected filtration media. In addition to this, the high differential pressure "change points" recommended by many filter manufacturers increase operational costs even further.



"Bell mouth" housing inlet & full flow inlet conduit



Smooth 90° elbow & aerospace turning vanes



Flow distributor



Conical flow diffuser



### Deep bed pleating

Deep bed pleating reduces the air flow velocity within the filtration media. This both improves filtration performance of the filter element and also reduces pressure losses.



### Specialist media treatment

All OIL-X EVOLUTION coalescing and dust removal filter media includes a specialist treatment. This actively repels oil and water to ensure that coalesced liquid does not reduce the voids volume. Maintaining a high voids volume reduces the risk of premature blockage, system pressure losses and high energy consumption.

# Advanced filter housings

OIL-X EVOLUTION die-cast filter housings provide simple installation and long housing life with reduced maintenance. The unique design of the OIL-X EVOLUTION die-cast filter also provides more port sizes to give greater application flexibility. A 'clean change' element design ensures that service technicians do not have to directly handle contaminated filter elements during maintenance.



No corrosion with Alocrom treatment.  
Rapid corrosion of untreated aluminium.

## Filter connections

More port sizes are available to match both pipe size and system flow rate giving additional customer choice and reduced installation costs. Standard range suitable for pressures up to 20 bar g (290 psi g).

## Compact and lightweight

Advanced element design provides a smaller, more compact filter.

## Full corrosion protection

OIL-X EVOLUTION filter housings undergo cleaning, de-greasing and Alocrom treatment before painting. This not only primes the aluminium surface for painting, but also provides corrosion protection. All OIL-X EVOLUTION filter housings are protected with a tough, durable dry powder epoxy coating.



## 'Clean change' filter element

Filter element changes are now easy and do not require the user to directly handle the contaminated element during annual maintenance.

## Minimal service clearance

Space saving design minimises service clearance and allows installation in confined spaces.



Float drain

## Choice of drains

Grade AO and AA coalescing filters are fitted with energy efficient, zero air loss float drains as standard for the removal of coalesced liquids. Grade AR and AAR dust removal filters and grade ACS adsorption filters are fitted with manual drains.

# OIL-X EVOLUTION for larger flowrates

4" Die-Cast Aluminium and Carbon Steel Fabricated Filters.

For larger flowrate applications, Parker domnick hunter manufactures cast aluminium 4" ported filters and a range of fabricated carbon steel filters from DN80 to DN300 sized flanges. These filters are also available in the standard five filtration grades.



## 4" Die-cast aluminium filters

- Cost effective alternative to flanged, fabricated carbon steel vessels
- Standard range up to 20 bar g (290 psi g)
- Alocrom and dry powder epoxy coated for full corrosion protection
- NT Easy fit element location for quick and simple maintenance

### NT Easy fit element technology

- Low pressure drop when compared to traditional wrapped filter elements
- Drainage layer is suitable for use up to 100°C and is compatible with all compressor oils



Special endcap design allows for quick and easy maintenance.



No tie-rod to reduce pressure drop and simplify installation.



Pleated element technology for increased filtration area



## Carbon steel fabricated filters

- Fabricated from carbon steel
- Standard range up to 16 bar g (232 psi g)
- Stainless steel models also available
- Designed in accordance with AD-2000
- NT Easy fit element location for quick and simple maintenance



Lower endcap design eases installation and prevents damage to drainage layer.  
High capacity drainage layer ensures that all coalesced liquids are removed.

# OIL-X EVOLUTION - OVR Oil Vapour Removal

Oil vapour is oil in a gaseous form and will pass straight through coalescing filters which are designed to remove liquid oil and oil aerosols.

Parker domnick hunter use adsorption filter technology for the removal of oil vapours. The OIL-X EVOLUTION range consists of three types of oil vapour removal filters, modular carbon towers - Grade OVR, single stage in-line filters - Grade ACS and double stage in-line filters - Grade AC which consist of both coalescing and adsorption filter elements combined into one unit.

Oil vapour removal filters are selected based upon their position in the system and the frequency with which the elements can be changed.

OIL-X EVOLUTION Grade OVR can be used for both plant scale protection and at the point of use. OIL-X EVOLUTION Grade OVR filters are also used when frequent element changes cannot be tolerated by the user.

OIL-X EVOLUTION Grades ACS and AC are used for smaller flow rate applications, point of use applications and applications where more frequent element changes can be tolerated.



Grade OVR



Grade ACS



Grade AC

**OIL-X EVOLUTION adsorption filters utilise two types of adsorbent:**

- **OIL-X EVOLUTION - Grade OVR uses activated carbon granules**
- **OIL-X EVOLUTION - Grade ACS uses 100% activated carbon cloth**
- **OIL-X EVOLUTION - Grade AC use a combination of both adsorbents (depending upon flow rate)**



Carbon granules



100% activated carbon cloth

**Removing oil vapour from compressed air is necessary to meet the air quality standards required by many critical applications and processes within industries such as pharmaceutical, medical, chemical, electronics, food and beverage and breathing air applications.**

# Maintaining Air Quality

Annual filter element changes are essential  
(coalescing and dust removal filters)



To maintain your guaranteed air quality, filter elements must be replaced every year with genuine Parker domnick hunter parts.

Throughout its' life, the filter element is constantly under bombardment from oily, acidic condensate and high velocity dirt particles, which it has to remove and retain to protect your compressed air system. Over time, this can weaken the filter media and reduce filtration performance. This potential but critical reduction in filtration performance cannot be detected by simple differential pressure monitoring techniques.

Annual filter element changes are therefore essential and failure to replace every year could result in reduced production performance, degrading air quality and increased operational costs.

## Annual filter element changes ensure:

- Optimal performance is maintained
- Air quality continues to meets international standards
- Protection of downstream equipment, personnel and processes
- Low operational costs
- Increased productivity and profitability
- Peace of mind

# Maintenance of oil vapour removal filters



Unlike oil aerosol removal filters which are changed annually to guarantee compressed air quality, the lifetime of an oil vapour removal filter can be attributed to various factors and require more frequent changes (unless OVR is used which is sized for 6000hrs life):

## Factors affecting the lifetime of adsorption filters

### Oil vapour concentration

The higher the inlet concentration of oil vapour, the faster the activated carbon capacity will expire.

### Bulk oil

Adsorption filters are designed to remove oil vapour and odours, not liquid oil or aerosols. Poorly maintained or non-existent pre-filtration will cause the OVR filter capacity to quickly expire.

### Temperature

Oil vapour content increases proportionally to inlet temperature, reducing element life. Additionally, as temperature increases, the adsorption capacity decreases, again reducing element life.

### Relative Humidity or Dewpoint

Wet air reduces the adsorptive capacity of the carbon – always try to install an adsorption filter after a dryer.

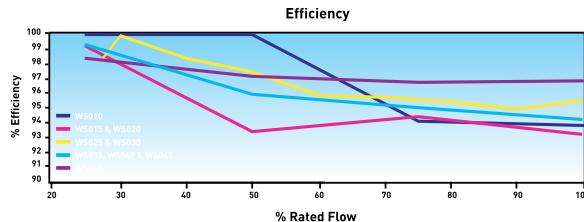
### Compressor oil changes

When compressor oil is changed, the new lubricant burns off “light ends” which increases the oil vapour content for hours or even weeks afterwards. This increase in oil vapour content is adsorbed by the OVR filter, significantly reducing its adsorptive life.

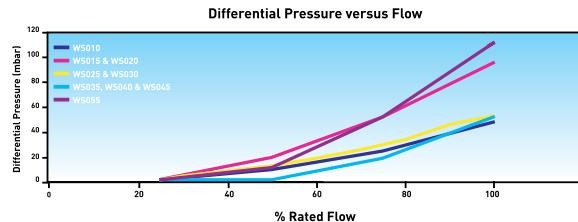
# OIL-X EVOLUTION

## Water Separators - Grade WS

### Separation Performance (models WS010 - WS055)



### Differential Pressure versus Flow (models WS010 - WS055)



### Product Selection

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure.

|                     | Model                              | Pipe Size | L/S  | m <sup>3</sup> /min | m <sup>3</sup> /hr | cfm   |
|---------------------|------------------------------------|-----------|------|---------------------|--------------------|-------|
| Cast Aluminum Range | WS010A <input type="checkbox"/> FX | 1/4"      | 10   | 0.6                 | 36                 | 21    |
|                     | WS010B <input type="checkbox"/> FX | 3/8"      | 10   | 0.6                 | 36                 | 21    |
|                     | WS010C <input type="checkbox"/> FX | 1/2"      | 10   | 0.6                 | 36                 | 21    |
|                     | WS015B <input type="checkbox"/> FX | 3/8"      | 40   | 2.4                 | 144                | 85    |
|                     | WS020C <input type="checkbox"/> FX | 1/2"      | 40   | 2.4                 | 144                | 85    |
|                     | WS020D <input type="checkbox"/> FX | 3/4"      | 40   | 2.4                 | 144                | 85    |
|                     | WS020E <input type="checkbox"/> FX | 1"        | 40   | 2.4                 | 144                | 85    |
|                     | WS025D <input type="checkbox"/> FX | 3/4"      | 110  | 6.6                 | 396                | 233   |
|                     | WS030E <input type="checkbox"/> FX | 1"        | 110  | 6.6                 | 396                | 233   |
|                     | WS030F <input type="checkbox"/> FX | 1 1/4"    | 110  | 6.6                 | 396                | 233   |
|                     | WS030G <input type="checkbox"/> FX | 1 1/2"    | 110  | 6.6                 | 396                | 233   |
|                     | WS035F <input type="checkbox"/> FX | 1 1/4"    | 350  | 21                  | 1260               | 742   |
|                     | WS040G <input type="checkbox"/> FX | 1 1/2"    | 350  | 21                  | 1260               | 742   |
|                     | WS045H <input type="checkbox"/> FX | 2"        | 350  | 21                  | 1260               | 742   |
|                     | WS055I <input type="checkbox"/> FX | 2 1/2"    | 800  | 48                  | 2880               | 1695  |
|                     | WS055J <input type="checkbox"/> FX | 3"        | 800  | 48                  | 2880               | 1695  |
| Carbon Steel Range  | WS1000                             | 4"        | 1000 | 60                  | 3600               | 2119  |
|                     | WS800F                             | DN80      | 800  | 48                  | 2880               | 1695  |
|                     | WS1000F                            | DN100     | 1000 | 60                  | 3600               | 2119  |
|                     | WS1800F                            | DN150     | 1800 | 108                 | 6480               | 3814  |
|                     | WS3000F                            | DN200     | 3000 | 180                 | 10800              | 6357  |
|                     | WS4800F                            | DN250     | 4800 | 288                 | 17280              | 10171 |
|                     | WS7200F                            | DN300     | 7200 | 421                 | 25920              | 14885 |

**Note:** Connection options (010 - 055) G = BSPP / N = NPT.  
WS1000 NPT option available on request.  
(800F - 7200F) DN = flanged.

### Correction Factors

| Line Pressure<br>bar g  | psi g | Correction Factor<br>pressure (CFP) |
|---|-------|-------------------------------------|
| 1   | 15    | 4.00                                |
| 2   | 29    | 2.63                                |
| 3   | 44    | 2.00                                |
| 4   | 58    | 1.59                                |
| 5   | 73    | 1.33                                |
| 6   | 87    | 1.14                                |
| 7   | 100   | 1.00                                |
| 8   | 116   | 0.94                                |
| 9   | 131   | 0.89                                |
| 10  | 145   | 0.85                                |
| 11  | 160   | 0.82                                |
| 12  | 174   | 0.79                                |
| 13  | 189   | 0.76                                |
| 14  | 203   | 0.73                                |
| 15  | 218   | 0.71                                |
| 16  | 232   | 0.68                                |
| When ordering a WS filter for pressures above 16 bar g (232 psi g), use manual drain. Replace F with M in product code. e.g. 015BBFX becomes 015BBMX. Models 250F - 7200F not suitable for pressures above 16 bar g (232 psi g) |       |                                     |
| 17  | 248   | 0.67                                |
| 18  | 263   | 0.65                                |
| 19  | 277   | 0.63                                |
| 20  | 290   | 0.62                                |

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating pressure of the system.

- Obtain the minimum operating pressure and maximum compressed air flow rate at the inlet of the filter.
- Select the correction factor for minimum operating pressure from the CFP table (always round down e.g. for 5.3 bar, use 5 bar correction factor)
- Calculate the minimum filtration capacity  
Minimum Filtration Capacity = Compressed Air Flow Rate x CFP
- Using the minimum filtration capacity, select a water separator model from the flow rate tables above (water separator selected must have a flow rate equal to or greater than the minimum filtration capacity)

### Water separator coding example

WS010 - WS055

| Grade        | Model                                    | Pipe Size                | Connection Type                     | Drain Option            | Incident Monitor Option |
|--------------|--|--------------------------|-------------------------------------|-------------------------|-------------------------|
| WS           | 3 digit code denotes filter housing size | Letter denotes pipe size | G = BSPP<br>N = NPT<br>DN = Flanged | F = Float<br>M = Manual | X = None                |
| Example code |  |                          |                                     |                         |                         |
| WS           | 010                                      | A                        | G                                   | F                       | X                       |

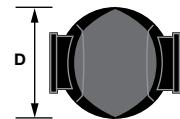
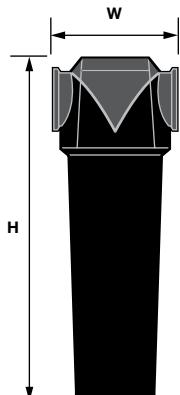
## Technical Data

| Grade | Water Separator Models  | Min Operating Pressure |       | Max Operating Pressure |       | Min Operating Temp |    | Max Operating Temp |     |
|-------|---|------------------------|-------|------------------------|-------|--------------------|----|--------------------|-----|
|       |   | bar g                  | psi g | bar g                  | psi g | °C                 | °F | °C                 | °F  |
| WS    | 010A <input type="checkbox"/> FX - 055J <input type="checkbox"/> FX | 1                      | 15    | 16                     | 232   | 2                  | 35 | 80                 | 176 |
| WS    | 1000  | 1                      | 15    | 16                     | 232   | 2                  | 35 | 66                 | 150 |
| WS    | 800F - 7200F  | 1                      | 15    | 16                     | 232   | 2                  | 35 | 66                 | 150 |

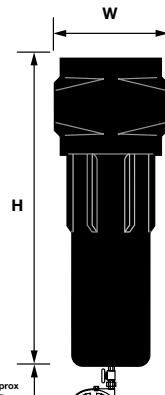
## Weights and Dimensions

| Model                              | Pipe Size | Height (H) |      | Width (W) |      | Depth (D) |      | Weight |      |
|------------------------------------|-----------|------------|------|-----------|------|-----------|------|--------|------|
|                                    |           | mm         | ins  | mm        | ins  | mm        | ins  | kg     | lbs  |
| WS010A <input type="checkbox"/> FX | 1/4"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| WS010B <input type="checkbox"/> FX | 3/8"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| WS010C <input type="checkbox"/> FX | 1/2"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| WS015B <input type="checkbox"/> FX | 3/8"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| WS020C <input type="checkbox"/> FX | 1/2"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| WS020D <input type="checkbox"/> FX | 3/4"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| WS020E <input type="checkbox"/> FX | 1"        | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| WS025D <input type="checkbox"/> FX | 3/4"      | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| WS030E <input type="checkbox"/> FX | 1"        | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| WS030F <input type="checkbox"/> FX | 1 1/4"    | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| WS030G <input type="checkbox"/> FX | 1 1/2"    | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| WS035F <input type="checkbox"/> FX | 1 1/4"    | 432        | 17   | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| WS040G <input type="checkbox"/> FX | 1 1/2"    | 432        | 17   | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| WS045H <input type="checkbox"/> FX | 2"        | 432        | 17   | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| WS055I <input type="checkbox"/> FX | 2 1/2"    | 504        | 19.9 | 205       | 8.1  | 181       | 7.1  | 10.0   | 22.0 |
| WS055J <input type="checkbox"/> FX | 3"        | 504        | 19.9 | 205       | 8.1  | 181       | 7.1  | 10.0   | 22.0 |
| WS1000                             | 4"        | 847        | 33.3 | 420       | 16.5 | 282       | 11.1 | 42.0   | 92.0 |
| WS800F                             | DN80      | 1070       | 42.1 | 370       | 14.6 | 285       | 11.2 | 66     | 146  |
| WS1000F                            | DN100     | 1120       | 44.1 | 450       | 17.7 | 340       | 13.4 | 102    | 225  |
| WS1800F                            | DN150     | 1240       | 48.8 | 580       | 22.8 | 460       | 18.1 | 191    | 434  |
| WS3000F                            | DN200     | 1585       | 62.4 | 750       | 29.5 | 640       | 25.2 | 397    | 875  |
| WS4800F                            | DN250     | 1570       | 61.8 | 862       | 33.9 | 715       | 28.2 | 537    | 1184 |
| WS7200F                            | DN300     | 1610       | 63.4 | 1000      | 39.4 | 840       | 33.1 | 675    | 1488 |

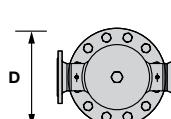
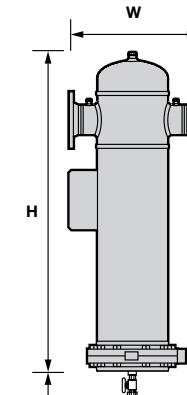
WS010 - 055



WS1000



WS800F - 7200F



# OIL-X EVOLUTION

## Coalescing & Dry Particulate Filters – Grades AO/AA/AR/AAR

### Filtration Grades

| Filtration Grade | Filter Type     | Particle removal (inc water & oil aerosols) | Max Remaining Oil Content at 21°C (70°F) | Filtration Efficiency | Initial Dry Differential Pressure | Initial Saturated Differential Pressure | Change Element Every | Precede with Filtration Grade |
|------------------|-----------------|---|--|-----------------------|-----------------------------------|---|----------------------|-------------------------------|
| AO               | Coalescing      | Down to 1 micron                            | 0.6 mg/m³ 0.5 ppm(w)                     | 99.925%               | <70 mbar (1psi)                   | <140 mbar (2psi)                        | 12 months            | WS (for bulk liquid)          |
| AA               | Coalescing      | Down to 0.01 micron                         | 0.01 mg/m³ 0.01 ppm(w)                   | 99.9999%              | <140 mbar (2psi)                  | <200 mbar (3psi)                        | 12 months            | AO                            |
| AR               | Dry Particulate | Down to 1 micron                            |  | N/A                   | 99.925%                           | <70 mbar (1psi)                         | N/A                  | 12 months                     |
| AAR              | Dry Particulate | Down to 0.01 micron                         |  | N/A                   | 99.9999%                          | <140 mbar (2psi)                        | N/A                  | 12 months                     |

### Product Selection

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

### Correction Factors

|                       | Model   | Pipe Size | L/S  | m³/min | m³/hr | cfm   | Replacement Element kit   | No. | Line Pressure |       | Correction Factor pressure (CFP) |
|-----------------------|---|-----------|------|--------|-------|-------|---|-----|---------------|-------|----------------------------------|
|                       |   |           |      |        |       |       |   |     | bar g         | psi g |                                  |
| Cast Aluminum Filters | grade 005A           | 1/4"      | 6    | 0.4    | 22    | 13    | 005    | 1   | 1             | 15    | 2.65                             |
|                       | grade 005B           | 3/8"      | 6    | 0.4    | 22    | 13    | 005    | 1   | 1.5           | 22    | 2.16                             |
|                       | grade 005C           | 1/2"      | 6    | 0.4    | 22    | 13    | 005    | 1   | 2             | 29    | 1.87                             |
|                       | grade 010A           | 1/4"      | 10   | 0.6    | 36    | 21    | 010    | 1   | 2.5           | 37    | 1.67                             |
|                       | grade 010B           | 3/8"      | 10   | 0.6    | 36    | 21    | 010    | 1   | 3             | 44    | 1.53                             |
|                       | grade 010C           | 1/2"      | 10   | 0.6    | 36    | 21    | 010    | 1   | 3.5           | 51    | 1.41                             |
|                       | grade 015B     | 3/8"      | 20   | 1.2    | 72    | 42    | 015  | 1   | 4             | 58    | 1.32                             |
|                       | grade 015C     | 1/2"      | 20   | 1.2    | 72    | 42    | 015  | 1   | 4.5           | 66    | 1.25                             |
|                       | grade 020C     | 1/2"      | 30   | 1.8    | 108   | 64    | 020  | 1   | 5             | 73    | 1.18                             |
|                       | grade 020D     | 3/4"      | 30   | 1.8    | 108   | 64    | 020  | 1   | 5.5           | 80    | 1.13                             |
|                       | grade 020E     | 1"        | 30   | 1.8    | 108   | 64    | 020  | 1   | 6             | 87    | 1.08                             |
|                       | grade 025D     | 3/4"      | 60   | 3.6    | 216   | 127   | 025  | 1   | 6.5           | 95    | 1.04                             |
|                       | grade 025E     | 1"        | 60   | 3.6    | 216   | 127   | 025  | 1   | 7             | 100   | 1.00                             |
|                       | grade 030E     | 1"        | 110  | 6.6    | 396   | 233   | 030  | 1   | 7.5           | 110   | 0.97                             |
|                       | grade 030F     | 1 1/4"    | 110  | 6.6    | 396   | 233   | 030  | 1   | 8             | 116   | 0.94                             |
|                       | grade 030G     | 1 1/2"    | 110  | 6.6    | 396   | 233   | 030  | 1   | 8.5           | 124   | 0.91                             |
|                       | grade 035F     | 1 1/4"    | 160  | 9.6    | 576   | 339   | 035  | 1   | 9             | 131   | 0.88                             |
|                       | grade 035G     | 1 1/2"    | 160  | 9.6    | 576   | 339   | 035  | 1   | 9.5           | 139   | 0.86                             |
|                       | grade 040G     | 1 1/2"    | 220  | 13.2   | 792   | 466   | 040  | 1   | 10            | 145   | 0.84                             |
|                       | grade 040H     | 2"        | 220  | 13.2   | 792   | 466   | 040  | 1   | 10.5          | 153   | 0.82                             |
|                       | grade 045H     | 2"        | 330  | 19.8   | 1188  | 699   | 045  | 1   | 11            | 160   | 0.80                             |
|                       | grade 050I     | 2 1/2"    | 430  | 25.9   | 1548  | 911   | 050  | 1   | 11.5          | 168   | 0.78                             |
|                       | grade 050J     | 3"        | 430  | 25.9   | 1548  | 911   | 050  | 1   | 12            | 174   | 0.76                             |
|                       | grade 055I     | 2 1/2"    | 620  | 37.3   | 2232  | 1314  | 055  | 1   | 12.5          | 183   | 0.75                             |
|                       | grade 055J     | 3"        | 620  | 37.3   | 2232  | 1314  | 055  | 1   | 13            | 189   | 0.73                             |
|                       | grade 060K     | 4"        | 1000 | 60     | 3600  | 2119  | 060  | 3   | 13.5          | 197   | 0.72                             |
|                       | grade 065ND    | DN80      | 620  | 37.2   | 2232  | 1312  | 200  | 1   | 14            | 203   | 0.71                             |
|                       | grade 0700D    | DN100     | 1240 | 74.4   | 4464  | 2625  | 200  | 2   | 14.5          | 212   | 0.69                             |
|                       | grade 075PD    | DN150     | 1860 | 111.6  | 6696  | 3938  | 200  | 3   | 15            | 218   | 0.68                             |
|                       | grade 080PD    | DN150     | 2480 | 148.8  | 8928  | 5251  | 200  | 4   | 15.5          | 226   | 0.67                             |
|                       | grade 085QD    | DN200     | 3720 | 223.2  | 13392 | 7877  | 200  | 6   | 16            | 232   | 0.66                             |
|                       | grade 090RD    | DN250     | 6200 | 372    | 22320 | 13129 | 200  | 10  | 16.5          | 241   | 0.65                             |
|                       | grade 095SD    | DN300     | 8680 | 520.8  | 31248 | 18380 | 200  | 14  | 17            | 248   | 0.64                             |
|                       |   |           |      |        |       |       |   |     | 17.5          | 256   | 0.63                             |
|                       |   |           |      |        |       |       |   |     | 18            | 263   | 0.62                             |
|                       |   |           |      |        |       |       |   |     | 18.5          | 270   | 0.62                             |
|                       |   |           |      |        |       |       |   |     | 19            | 277   | 0.61                             |
|                       |   |           |      |        |       |       |   |     | 19.5          | 285   | 0.60                             |
|                       |   |           |      |        |       |       |   |     | 20            | 290   | 0.59                             |

When ordering an AO/AA filter for pressures above 16 bar g (232 psi g), use manual drain. Replace F with M in product code. e.g. 015BBF becomes 015BBMX. Models 150 - 500 not suitable for pressures above 16 bar g (232 psi g)

Note: Connection options (005 - 060) G = BSPP / N = NPT / (065 - 095) DN = flanged.

Drain options (005 - 060) F = Float / M = Manual / (065 - 095) E = Electronic drain / M = Manual.

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating pressure of the system

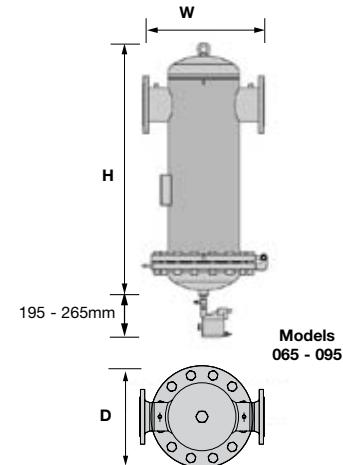
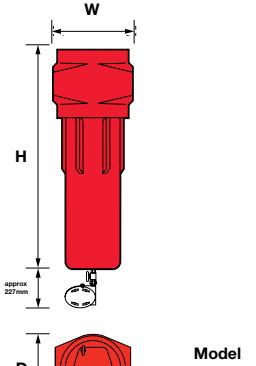
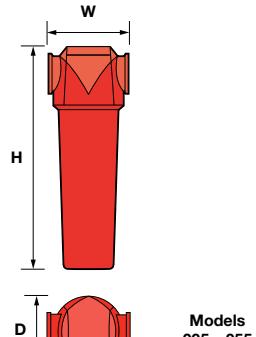
1. Obtain the minimum operating pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum operating pressure from the CFP table (always round down e.g. for 5.3 bar, use 5 bar correction factor)
3. Calculate the minimum filtration capacity : Minimum Filtration Capacity = Compressed Air Flow Rate x CFP
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity)

## Technical Data

| Filter Grade | Filter Models   | Min Operating Pressure |       | Max Operating Pressure |       | Min Operating Temp |    | Max Operating Temp |     |
|--------------|---|------------------------|-------|------------------------|-------|--------------------|----|--------------------|-----|
|              |   | bar g                  | psi g | bar g                  | psi g | °C                 | °F | °C                 | °F  |
| AO/AA        | 005 <input type="checkbox"/> FX - 055 <input type="checkbox"/> FX | 1                      | 15    | 16                     | 232   | 2                  | 35 | 80                 | 176 |
| AO/AA        | 005 <input type="checkbox"/> MX - 055 <input type="checkbox"/> MX | 1                      | 15    | 20                     | 290   | 2                  | 35 | 100                | 212 |
| AO/AA        | 060 K <input type="checkbox"/> FX                                 | 1                      | 15    | 16                     | 232   | 2                  | 35 | 66                 | 150 |
| AO/AA        | 060 K <input type="checkbox"/> MX                                 | 1                      | 15    | 20                     | 290   | 2                  | 35 | 100                | 212 |
| AO/AA        | 065 NDEX - 095 SDEX   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 60                 | 140 |
| AO/AA        | 065 NDMX - 095 SDMX   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 100                | 212 |
| AO/AA        | 065 NDEI - 095 SDEI   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 60                 | 140 |
| AO/AA        | 065 NDMI - 095 SDMI   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 80                 | 176 |
| AR/AAR       | 005 <input type="checkbox"/> MX - 055 <input type="checkbox"/> MX | 1                      | 15    | 20                     | 290   | 2                  | 35 | 100                | 212 |
| AR/AAR       | 060 K <input type="checkbox"/> MX                                 | 1                      | 15    | 20                     | 290   | 2                  | 35 | 100                | 212 |
| AR/AAR       | 065 NDMX - 095 SDMX   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 100                | 212 |
| AR/AAR       | 065 NDMI - 095 SDMI   | 1                      | 15    | 16                     | 232   | 2                  | 35 | 80                 | 176 |

## Weights and Dimensions

| Model | Pipe Size | Height (H) |      | Width (W) |      | Depth (D) |      | Weight |      |
|-------|-----------|------------|------|-----------|------|-----------|------|--------|------|
|       |           | mm         | ins  | mm        | ins  | mm        | ins  | kg     | lbs  |
| 005A  | 1/4"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| 005B  | 3/8"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| 005C  | 1/2"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| 010A  | 1/4"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| 010B  | 3/8"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| 010C  | 1/2"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| 015B  | 3/8"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| 015C  | 1/2"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| 020C  | 1/2"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| 020D  | 3/4"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| 020E  | 1"        | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| 025D  | 3/4"      | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| 025E  | 1"        | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| 030E  | 1"        | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| 030F  | 1 1/4"    | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| 030G  | 1 1/2"    | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| 035F  | 1 1/4"    | 432        | 17.0 | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| 035G  | 1 1/2"    | 432        | 17.0 | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| 040G  | 1 1/2"    | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| 040H  | 2"        | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| 045H  | 2"        | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| 050I  | 2 1/2"    | 641        | 25.3 | 205       | 8.1  | 181       | 7.1  | 11.1   | 24.4 |
| 050J  | 3"        | 641        | 25.3 | 205       | 8.1  | 181       | 7.1  | 11.1   | 24.4 |
| 055I  | 2 1/2"    | 832        | 32.8 | 205       | 8.1  | 181       | 7.1  | 13.9   | 30.6 |
| 055J  | 3"        | 832        | 32.8 | 205       | 8.1  | 181       | 7.1  | 13.9   | 30.6 |
| 060K  | 4"        | 847        | 33.3 | 420       | 16.5 | 282       | 11.1 | 44.5   | 98.1 |
| 065ND | DN80      | 1065       | 42   | 440       | 17.3 | 340       | 13.4 | 70     | 154  |
| 070OD | DN100     | 1152       | 45.4 | 500       | 19.7 | 405       | 16   | 97     | 214  |
| 075PD | DN150     | 1256       | 49.5 | 600       | 23.6 | 520       | 20.5 | 148    | 326  |
| 080PD | DN150     | 1332       | 52.4 | 650       | 25.6 | 580       | 22.8 | 187    | 412  |
| 085QD | DN200     | 1415       | 55.7 | 750       | 29.5 | 640       | 25.2 | 240    | 529  |
| 090RD | DN250     | 1603       | 63.1 | 1000      | 39.4 | 840       | 33   | 470    | 1036 |
| 095SD | DN300     | 1706       | 67.2 | 1050      | 41.3 | 910       | 35.8 | 580    | 1279 |



## Filter coding examples

Cast aluminium filters 005 - 060

| Grade               | Model                                    | Pipe Size                | Connection Type     | Drain Option            | Incident Monitor Option |
|---------------------|--|--------------------------|---------------------|-------------------------|-------------------------|
| A0, AA, AR, AAR     | 3 digit code denotes filter housing size | Letter denotes pipe size | G = BSPP<br>N = NPT | F = Float<br>M = Manual | X = None                |
| <b>Example code</b> |  |                          |                     |                         |                         |
| AA                  | 010                                      | A                        | G                   | F                       | X                       |

Carbon steel filters 065 - 095

| Grade               | Model                                    | Pipe Size                        | Connection Type | Drain Option                       | Incident Monitor Option          |
|---------------------|--|----------------------------------|-----------------|------------------------------------|----------------------------------|
| A0, AA, AR, AAR     | 3 digit code denotes filter housing size | Letter denotes Flange Connection | D = DN          | E = Electronic Drain<br>M = Manual | X = None<br>I = Incident Monitor |
| <b>Example code</b> |  |                                  |                 |                                    |                                  |
| A0                  | 065                                      | N                                | D               | E                                  | X                                |

## Optional accessories 005 - 060



### Incident monitor

Used to indicate premature high differential pressure. Indicator can be retrofitted to existing housings without depressurising the system.



### Filter fixing kits

Fixing clamp allows quick and simple connection of multiple filter housings.



### Filter mounting brackets

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.

| Filter model |
|--------------|
| 015 - 055    |
| 060          |

| Filter model |
|--------------|
| 005 - 010    |
| 015 - 020    |
| 025 - 030    |
| 035 - 045    |
| 050 - 055    |

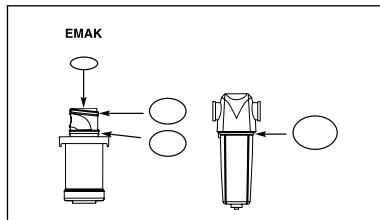
| Filter model |
|--------------|
| 005 - 010    |
| 015 - 020    |
| 025 - 030    |
| 035 - 045    |
| 050 - 055    |



### Oil Indicator



### Replacement Drains



| Filter Models |
|---------------|
| AC010 - AC030 |

| EF1 Float Drain  |
|--|
| WS/AO/AA Grade filters fitted with float drains as standard. |

| EM1 Manual Drain                                     |
|--|
| AR/AAR/ACS Grade filters fitted with a manual drain. |

| Filter Models |
|---------------|
| 005 - 010     |
| 015 - 020     |
| 025 - 030     |
| 035 - 045     |
| 050 - 055     |

EMAK

## Replacement items and optional accessories 065 - 095

### Condensate drains

| Order no.   | Description                       |
|-------------|-----------------------------------|
| ED3007-G230 | electronic drain for 065          |
| ED3030-G230 | electronic drain for 070 - 085    |
| ED3100-G230 | electronic drain for 090 - 095    |
| 398H473471  | 1/2" manual drain kit for 065     |
| 398H473472  | 1" manual drain kit for 070 - 095 |
| SKED3000    | Annual ED maintenance kit         |

Other drains available as loose accessories.

### Differential pressure gauge (DPG) - mounted

| Order no.                      | Factory fit option<br>I = Incident Monitor |
|--------------------------------|--|
| ZD95FL                         | calibrated analogue DPG                    |
| <b>Non factory fit options</b> |  |
| ZDE95FL                        | calibrated analogue DPG with Reed contact  |
| ZDE125FL                       | electronic DPG                             |

All DP gauges suitable for 065 - 095

### Replacement body gasket

| Model                      | Order no.  |
|----------------------------|------------|
| Gasket DN200 for model 065 | 398H240245 |
| Gasket DN250 for model 070 | 398H240270 |
| Gasket DN350 for model 075 | 398H240292 |
| Gasket DN400 for model 080 | 398H240293 |
| Gasket DN450 for model 085 | 398H240295 |
| Gasket DN600 for model 090 | 398H240296 |
| Gasket DN700 for model 095 | 398H240297 |

# OIL-X EVOLUTION

## Plant scale / point of use

### Oil vapour removal filters - Grades OVR

#### Filtration Performance

| Filtration Grade | Filter Type        | Particle removal (inc water & oil aerosols) | Max Remaining Oil Content at 21°C (70°F) | Filtration Efficiency | Test Methods Used | ISO12500-1 Inlet Challenge Concentration | Initial Dry Differential Pressure | Initial Saturated Differential Pressure | Absorbent Life | Precede with Filtration Grade |
|------------------|--------------------|---|--|-----------------------|-------------------|--|-----------------------------------|---|----------------|-------------------------------|
| OVR              | Oil Vapour Removal | N/A   | 0.003 mg/m <sup>3</sup><br>0.003 ppm(w)  | N/A                   | ISO8573-5         | N/A                                      | <350 mbar (5psi)                  | N/A                                     | 6000 hrs*      | AA                            |

\* When corrected to match system conditions

#### Product Selection - Grade OVR Plant scale and point of use oil vapour removal

| Modular Aluminum range | Model        | Pipe Size | Flow Rates |                     |                    |      | Replacement Element Kit | No. Req'd |
|------------------------|--------------|-----------|------------|---------------------|--------------------|------|-------------------------|-----------|
|                        |              |           | L/s        | m <sup>3</sup> /min | m <sup>3</sup> /hr | cfm  |                         |           |
|                        | OVR100E □ XX | G 1       | 80         | 4.8                 | 288                | 170  | 100OVR                  | 1         |
|                        | OVR150H □ XX | G 2       | 160        | 9.6                 | 576                | 339  | 100OVR                  | 2         |
|                        | OVR200H □ XX | G 2       | 330        | 19.8                | 1188               | 699  | 100OVR                  | 4         |
|                        | OVR250J □ XX | G 3       | 620        | 37.2                | 2232               | 1314 | 100OVR                  | 6         |
|                        | 2 x OVR250J  | G 3       | 1240       | 74.5                | 4465               | 2628 |                         |           |
|                        | 3 x OVR250J  | G 3       | 1860       | 111.8               | 6696               | 3941 |                         |           |
|                        | 4 x OVR250J  | G 3       | 2480       | 149.1               | 8928               | 5255 |                         |           |
|                        | 5 x OVR250J  | G 3       | 3100       | 186.4               | 11160              | 6569 |                         |           |

CONNECTION TYPE  
G = BSPP  
N = NPT

#### Correction Factors Temperature (CFT)

##### Oil Lubricated Compressors

| CFT Inlet Air Temperature |     | Correction Factor |
|---------------------------|-----|-------------------|
| °C                        | °F  |                   |
| 20                        | 68  | 1.00              |
| 25                        | 77  | 1.53              |
| 30                        | 86  | 2.33              |
| 35                        | 95  | 3.55              |
| 40                        | 104 | 5.47              |
| 45                        | 113 | 8.55              |
| 50                        | 122 | 13.23             |

##### Oil-free Compressors

| CFT Inlet Air Temperature |     | Correction Factor |
|---------------------------|-----|-------------------|
| °C                        | °F  |                   |
| 20                        | 68  | 1.00              |
| 25                        | 77  | 1.02              |
| 30                        | 86  | 1.03              |
| 35                        | 95  | 1.05              |
| 40                        | 104 | 1.07              |
| 45                        | 113 | 1.09              |
| 50                        | 122 | 1.10              |

#### Correction Factors Pressure (CFP)

| CFP Inlet Pressure bar g | CFP Inlet Pressure psi g | Correction Factor | CFP Inlet Pressure |       | Correction Factor |
|--------------------------|--------------------------|-------------------|--------------------|-------|-------------------|
|                          |                          |                   | bar g              | psi g |                   |
| 3                        | 44                       | 2.00              | 10                 | 145   | 1.00              |
| 4                        | 58                       | 1.60              | 11                 | 160   | 1.00              |
| 5                        | 73                       | 1.33              | 12                 | 174   | 1.00              |
| 6                        | 87                       | 1.14              | 13                 | 189   | 1.00              |
| 7                        | 100                      | 1.00              | 14                 | 203   | 1.00              |
| 8                        | 116                      | 1.00              | 15                 | 218   | 1.00              |
| 9                        | 131                      | 1.00              | 16                 | 232   | 1.00              |

#### Filter Selection - Grade OVR

To correctly select an OVR oil vapour removal filter, the flow rate of the OVR must be adjusted for the minimum operating pressure, maximum operational temperature and pressure dewpoint of the system.

- Obtain the minimum operating pressure, maximum inlet temperature, maximum compressed air flow rate and dewpoint of the compressed air at the inlet of the OVR.
- Select correction factor for maximum inlet temperature from the CFT table that corresponds to compressor type (always round up e.g. for 37°C use 40°C correction factor).
- Select correction factor for minimum inlet pressure from the CFP table that corresponds to compressor type (always round down e.g. for 5.3 bar use 5 bar correction factor).
- Select correction factor for pressure dewpoint from the CFD table.
- Calculate minimum filtration capacity.

Minimum filtration Capacity =  
Compressed Air Flow x CFT x CFP x CFD

- Using the minimum filtration capacity, select an OVR model from the flow rate tables above (OVR selected must have a flow rate equal to or greater than the minimum filtration capacity).

If the minimum filtration capacity exceeds the maximum values of the models shown within the tables, please contact Parker domnick hunter for advice regarding larger multi-banked units.

#### Correction Factors Dewpoint (CFD)

| CFD Dewpoint | °C           | °F            | Correction Factor |
|--------------|--------------|---------------|-------------------|
| Dry          | -70 to +3    | -100 to +38   | 1.00              |
| Wet          | +3 and above | +38 and above | 2.00              |

It is assumed inlet oil vapour concentration does not exceed 0.05mg/m<sup>3</sup> at 21°C (70°F). For applications with higher oil vapour concentrations, please contact Parker domnick hunter for accurate sizing.

# OIL-X EVOLUTION

## Point of use Oil vapour removal filters - Grade ACS

### Filtration Performance

| Filtration Grade | Filter Type        | Particle removal (inc water & oil aerosols) | Max Remaining Oil Content at 21°C (70°F) | Filtration Efficiency | Test Methods Used | ISO12500-1 Inlet Challenge Concentration | Initial Dry Differential Pressure | Initial Saturated Differential Pressure | Absorbent Life                       | Precede with Filtration Grade |
|------------------|--------------------|---|--|-----------------------|-------------------|--|-----------------------------------|---|--------------------------------------|-------------------------------|
| ACS              | Oil Vapour Removal | N/A   | 0.003 mg/m <sup>3</sup><br>0.003 ppm(w)  | N/A                   | ISO8573-5         | N/A                                      | <200 mbar (3psi)                  | N/A                                     | When oil vapour or odour is detected | AA                            |

### Product Selection - Grade ACS Point of use oil vapour removal

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

|                       | Model         | Pipe Size | L/S  | m <sup>3</sup> /min | m <sup>3</sup> /hr | cfm  | Replacement Element kit | No. |
|-----------------------|---------------|-----------|------|---------------------|--------------------|------|-------------------------|-----|
| Cast Aluminum Filters | ACS 005A □ MX | 1/4"      | 6    | 0.4                 | 22                 | 13   | 005 ACS                 | 1   |
|                       | ACS 005B □ MX | 3/8"      | 6    | 0.4                 | 22                 | 13   | 005 ACS                 | 1   |
|                       | ACS 005C □ MX | 1/2"      | 6    | 0.4                 | 22                 | 13   | 005 ACS                 | 1   |
|                       | ACS 010A □ MX | 1/4"      | 10   | 0.6                 | 36                 | 21   | 010 ACS                 | 1   |
|                       | ACS 010B □ MX | 3/8"      | 10   | 0.6                 | 36                 | 21   | 010 ACS                 | 1   |
|                       | ACS 010C □ MX | 1/2"      | 10   | 0.6                 | 36                 | 21   | 010 ACS                 | 1   |
|                       | ACS 015B □ MX | 3/8"      | 20   | 1.2                 | 72                 | 42   | 015 ACS                 | 1   |
|                       | ACS 015C □ MX | 1/2"      | 20   | 1.2                 | 72                 | 42   | 015 ACS                 | 1   |
|                       | ACS 020C □ MX | 1/2"      | 30   | 1.8                 | 108                | 64   | 020 ACS                 | 1   |
|                       | ACS 020D □ MX | 3/4"      | 30   | 1.8                 | 108                | 64   | 020 ACS                 | 1   |
|                       | ACS 020E □ MX | 1"        | 30   | 1.8                 | 108                | 64   | 020 ACS                 | 1   |
|                       | ACS 025D □ MX | 3/4"      | 60   | 3.6                 | 216                | 127  | 025 ACS                 | 1   |
|                       | ACS 025E □ MX | 1"        | 60   | 3.6                 | 216                | 127  | 025 ACS                 | 1   |
|                       | ACS 030E □ MX | 1"        | 110  | 6.6                 | 396                | 233  | 030 ACS                 | 1   |
|                       | ACS 030F □ MX | 1 1/4"    | 110  | 6.6                 | 396                | 233  | 030 ACS                 | 1   |
|                       | ACS 030G □ MX | 1 1/2"    | 110  | 6.6                 | 396                | 233  | 030 ACS                 | 1   |
|                       | ACS 035F □ MX | 1 1/4"    | 160  | 9.6                 | 576                | 339  | 035 ACS                 | 1   |
|                       | ACS 035G □ MX | 1 1/2"    | 160  | 9.6                 | 576                | 339  | 035 ACS                 | 1   |
|                       | ACS 040G □ MX | 1 1/2"    | 220  | 13.2                | 792                | 466  | 040 ACS                 | 1   |
| Carbon Steel Filters  | ACS 040H □ MX | 2"        | 220  | 13.2                | 792                | 466  | 040 ACS                 | 1   |
|                       | ACS 045H □ MX | 2"        | 330  | 19.8                | 1188               | 699  | 045 ACS                 | 1   |
|                       | ACS 050I □ MX | 2 1/2"    | 430  | 25.9                | 1548               | 911  | 050 ACS                 | 1   |
|                       | ACS 050J □ MX | 3"        | 430  | 25.9                | 1548               | 911  | 050 ACS                 | 1   |
|                       | ACS 055I □ MX | 2 1/2"    | 620  | 37.3                | 2232               | 1314 | 055 ACS                 | 1   |
|                       | ACS 055J □ MX | 3"        | 620  | 37.3                | 2232               | 1314 | 055 ACS                 | 1   |
|                       | ACS 060K □ MX | 4"        | 1000 | 60                  | 3600               | 2119 | 060 ACS                 | 3   |
|                       | ACS 065ND MX  | DN80      | 620  | 37.2                | 2232               | 1312 | 200 ACS                 | 1   |
|                       | ACS 070OD MX  | DN100     | 1240 | 74.4                | 4464               | 2625 | 200 ACS                 | 2   |
|                       | ACS 075PD MX  | DN150     | 1860 | 111.6               | 6696               | 3938 | 200 ACS                 | 3   |

Note: Connection options (005 - 060) G = BSPP / N = NPT / (065 - 095) DN = flanged.

### Filter Coding Examples

ACS 005 - 060

| Grade        | Model                    | Pipe Size                | Connection Type     | Drain Option | Incident Monitor |
|--------------|--------------------------|--------------------------|---------------------|--------------|------------------|
| ACS          | 3 digit code shown above | Letter denotes pipe size | G = BSPP<br>N = NPT | M = Manual   | X = None         |
| Example code |                          |                          |                     |              |                  |
| ACS          | 010                      | A                        | G                   | M            | X                |

### Correction Factors

Grades ACS and AC only

| Line Pressure<br>bar g  | Correction<br>Factor pressure<br>(CFP)<br>psi g | Grade ACS |   |
|---|---|-----------|---|
|   |   | 1         | 2 |
| 1   | 15  | 2.65      |   |
| 2   | 29  | 1.87      |   |
| 3   | 44  | 1.53      |   |
| 4   | 58  | 1.32      |   |
| 5   | 73  | 1.18      |   |
| 6   | 87  | 1.08      |   |
| 7   | 100   | 1.00      |   |
| 8   | 116   | 0.94      |   |
| 9   | 131   | 0.88      |   |
| 10  | 145   | 0.84      |   |
| 11  | 160   | 0.80      |   |
| 12  | 174   | 0.76      |   |
| 13  | 189   | 0.73      |   |
| 14  | 203   | 0.71      |   |
| 15  | 218   | 0.68      |   |
| 16  | 232   | 0.66      |   |
| All ACS models are fitted with a manual drain. AC models are supplied with a float drain as standard. For Pressures of 16 to 20 bar g (232 to 290 psi g) a manual drain must be used. |   |           |   |
| 17  | 248   | 0.64      |   |
| 18  | 263   | 0.62      |   |
| 19  | 277   | 0.61      |   |
| 20  | 290   | 0.59      |   |

# OIL-X EVOLUTION

## Point of use Oil vapour removal filters - Grade AC

### Filtration Performance

| Filtration Grade | Filter Type        | Particle removal (inc water & oil aerosols) | Max Remaining Oil Content at 21°C (70°F) | Filtration Efficiency | Test Methods Used | ISO12500-1 Inlet Challenge Concentration | Initial Dry Differential Pressure | Initial Saturated Differential Pressure | Absorbent Life                       | Precede with Filtration Grade |
|------------------|--------------------|---|--|-----------------------|-------------------|--|-----------------------------------|---|--------------------------------------|-------------------------------|
| AC               | Oil Vapour Removal | N/A   | 0.003 mg/m <sup>3</sup><br>0.003 ppm(w)  | N/A                   | ISO8573-5         | N/A                                      | <775 mbar (11psi)                 | N/A                                     | When oil vapour or odour is detected | AO                            |

### Product Selection - Grade AC point of use oil vapour removal

|                       | Model       | Flow Rates     |     |                     |                    |     | Replacement Elements |        |
|-----------------------|-------------|----------------|-----|---------------------|--------------------|-----|----------------------|--------|
|                       |             | Pipe Size BSPT | L/s | m <sup>3</sup> /min | m <sup>3</sup> /hr | cfm |                      |        |
| Cast Aluminum Filters | AC010A □ FI | 1/4"           | 6   | 0.4                 | 22                 | 13  | 010AA                | 010AC  |
|                       | AC010B □ FI | 3/8"           | 6   | 0.4                 | 22                 | 13  | 010AA                | 010AC  |
|                       | AC010C □ FI | 1/2"           | 6   | 0.4                 | 22                 | 13  | 010AA                | 010AC  |
|                       | AC015B □ FI | 3/8"           | 13  | 0.8                 | 46                 | 27  | 015AA                | 015AC  |
|                       | AC015C □ FI | 1/2"           | 13  | 0.8                 | 46                 | 27  | 015AA                | 015AC  |
|                       | AC020C □ FI | 1/2"           | 25  | 1.5                 | 90                 | 53  | 020AA                | 020AC  |
|                       | AC020D □ FI | 3/4"           | 25  | 1.5                 | 90                 | 53  | 020AA                | 020AC  |
|                       | AC020E □ FI | 1"             | 25  | 1.5                 | 90                 | 53  | 020AA                | 020AC  |
|                       | AC025D □ FI | 3/4"           | 40  | 2.4                 | 143                | 84  | 025AA                | 025DAC |
|                       | AC025E □ FI | 1"             | 65  | 3.9                 | 231                | 136 | 025AA                | 025EAC |
|                       | AC030E □ FI | 1"             | 85  | 5.1                 | 305                | 180 | 030AA                | 030AC  |
|                       | AC030F □ FI | 1 1/4"         | 85  | 5.1                 | 305                | 180 | 030AA                | 030AC  |
|                       | AC030G □ FI | 1 1/2"         | 85  | 5.1                 | 305                | 180 | 030AA                | 030AC  |

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating pressure of the system

1. Obtain the minimum operating pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum operating pressure from the CFP table (always round down e.g. for 5.3 bar, use 5 bar correction factor)
3. Calculate the minimum filtration capacity      Minimum Filtration Capacity = Compressed Air Flow Rate x CFP
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity)

### Filter Coding Examples

AC 010 - 030

| Grade        | Model                    | Pipe Size                | Connection Type     | Drain Type | Bulk Oil Indicator     |
|--------------|--------------------------|--------------------------|---------------------|------------|------------------------|
| AC           | 3 digit code shown above | Letter denotes pipe size | G = BSPP<br>N = NPT | F = Float  | I = Bulk Oil Indicator |
| Example code |                          |                          |                     |            |                        |
| AC           | 010                      | A                        | G                   | F          | I                      |

AC models are supplied with a float drain as standard. For Pressures of 16 to 20 bar g (232 to 290 psi g) a manual drain must be used.

Ref: Accessories - EM1

# OIL-X EVOLUTION

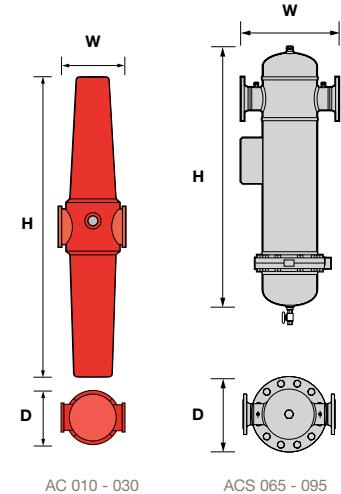
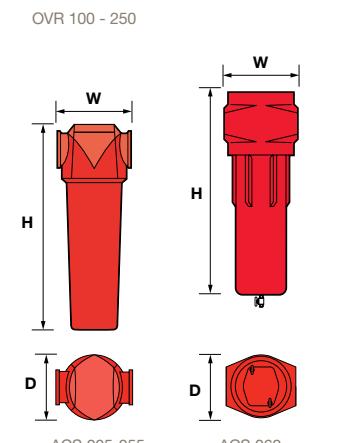
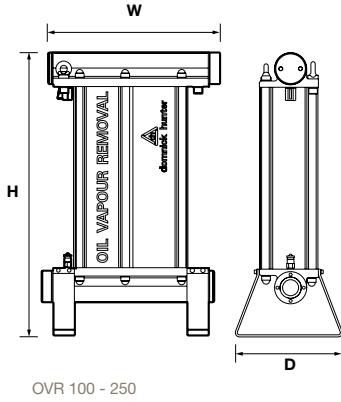
## Oil vapour removal (continued)

### Technical Data

| Filter Grade | Filter Models         | Min Operating Pressure |       | Max Operating Pressure |       | Min Operating Temp |    | Max Operating Temp |     |
|--------------|-----------------------|------------------------|-------|------------------------|-------|--------------------|----|--------------------|-----|
|              |                       | bar g                  | psi g | bar g                  | psi g | °C                 | °F | °C                 | °F  |
| OVR          | 100E □ XX - 250J □ XX | 1                      | 15    | 16                     | 232   | 2                  | 35 | 50                 | 122 |
| ACS          | 005A □ MX - 060K □ MX | 1                      | 15    | 20                     | 290   | 2                  | 35 | 50                 | 122 |
| ACS          | 065NDMX - 095SDMX     | 1                      | 15    | 16                     | 232   | 2                  | 35 | 50                 | 122 |
| AC           | 010A □ FI - 030G □ FI | 1                      | 15    | 16                     | 232   | 2                  | 35 | 30                 | 86  |

### Weights and Dimensions

| Model         | Pipe Size | Height (H) |      | Width (W) |      | Depth (D) |      | Weight |      |
|---------------|-----------|------------|------|-----------|------|-----------|------|--------|------|
|               |           | mm         | ins  | mm        | ins  | mm        | ins  | kg     | lbs  |
| OVR100E       | G 1       | 670        | 26.3 | 352       | 13.8 | 250       | 9.8  | 25     | 55   |
| OVR150H       | G 2       | 797        | 31.3 | 504       | 19.9 | 300       | 11.8 | 42     | 93   |
| OVR200H       | G 2       | 797        | 31.3 | 829       | 32.6 | 300       | 11.8 | 74     | 163  |
| OVR250J       | G 3       | 816        | 32.1 | 1194      | 47.0 | 300       | 11.8 | 107    | 235  |
| ACS 005A □ MX | 1/4"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| ACS 005B □ MX | 3/8"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| ACS 005C □ MX | 1/2"      | 154        | 6.1  | 76        | 3.0  | 64        | 2.5  | 0.5    | 1.1  |
| ACS 010A □ MX | 1/4"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| ACS 010B □ MX | 3/8"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| ACS 010C □ MX | 1/2"      | 181        | 7.2  | 76        | 3.0  | 64        | 2.5  | 0.6    | 1.3  |
| ACS 015B □ MX | 3/8"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| ACS 015C □ MX | 1/2"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| ACS 020C □ MX | 1/2"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| ACS 020D □ MX | 3/4"      | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| ACS 020E □ MX | 1"        | 235        | 9.3  | 97        | 3.8  | 84        | 3.3  | 1.1    | 2.4  |
| ACS 025D □ MX | 3/4"      | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| ACS 025E □ MX | 1"        | 275        | 10.8 | 129       | 5.1  | 115       | 4.5  | 2.2    | 4.8  |
| ACS 030E □ MX | 1"        | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| ACS 030F □ MX | 1 1/4"    | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| ACS 030G □ MX | 1 1/2"    | 364        | 14.3 | 129       | 5.1  | 115       | 4.5  | 2.7    | 5.9  |
| ACS 035F □ MX | 1 1/4"    | 432        | 17.0 | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| ACS 035G □ MX | 1 1/2"    | 432        | 17.0 | 170       | 6.7  | 156       | 6.1  | 5.1    | 11.2 |
| ACS 040G □ MX | 1 1/2"    | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| ACS 040H □ MX | 2"        | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| ACS 045H □ MX | 2"        | 524        | 20.6 | 170       | 6.7  | 156       | 6.1  | 5.7    | 12.5 |
| ACS 050I □ MX | 2 1/2"    | 641        | 25.3 | 205       | 8.1  | 181       | 7.1  | 11.1   | 24.4 |
| ACS 050J □ MX | 3"        | 641        | 25.3 | 205       | 8.1  | 181       | 7.1  | 11.1   | 24.4 |
| ACS 055I □ MX | 2 1/2"    | 832        | 32.8 | 205       | 8.1  | 181       | 7.1  | 13.9   | 30.6 |
| ACS 055J □ MX | 3"        | 832        | 32.8 | 205       | 8.1  | 181       | 7.1  | 13.9   | 30.6 |
| ACS 060K □ MX | 4"        | 847        | 33.3 | 420       | 16.5 | 282       | 11.1 | 44.5   | 98   |
| ACS 065ND MX  | DN80      | 1065       | 42   | 440       | 17.3 | 340       | 13.4 | 70     | 154  |
| ACS 070OD MX  | DN100     | 1152       | 45.4 | 500       | 19.7 | 405       | 16   | 97     | 214  |
| ACS 075PD MX  | DN150     | 1256       | 49.5 | 600       | 23.6 | 520       | 20.5 | 148    | 326  |
| ACS 080PD MX  | DN150     | 1332       | 52.4 | 650       | 25.6 | 580       | 22.8 | 187    | 412  |
| ACS 085QD MX  | DN200     | 1415       | 55.7 | 750       | 29.5 | 640       | 25.2 | 240    | 529  |
| ACS 090RD MX  | DN250     | 1603       | 63.1 | 1000      | 39.4 | 840       | 33   | 470    | 1036 |
| ACS 095SD MX  | DN300     | 1706       | 67.2 | 1050      | 41.3 | 910       | 35.8 | 580    | 1279 |
| AC010A □ FI   | 1/4"      | 311        | 12.3 | 76        | 3.0  | 65        | 2.6  | 0.8    | 1.8  |
| AC010B □ FI   | 3/8"      | 311        | 12.3 | 76        | 3.0  | 65        | 2.6  | 0.8    | 1.8  |
| AC010C □ FI   | 1/2"      | 311        | 12.3 | 76        | 3.0  | 65        | 2.6  | 0.8    | 1.8  |
| AC015B □ FI   | 3/8"      | 474        | 18.7 | 97        | 3.8  | 84        | 3.3  | 1.6    | 3.5  |
| AC015C □ FI   | 1/2"      | 474        | 18.7 | 97        | 3.8  | 84        | 3.3  | 1.6    | 3.5  |
| AC020C □ FI   | 1/2"      | 474        | 18.7 | 97        | 3.8  | 84        | 3.3  | 1.45   | 3.2  |
| AC020D □ FI   | 3/4"      | 474        | 18.7 | 97        | 3.8  | 84        | 3.3  | 1.45   | 3.2  |
| AC020E □ FI   | 1"        | 474        | 18.7 | 97        | 3.8  | 84        | 3.3  | 1.45   | 3.2  |
| AC025D □ FI   | 3/4"      | 554        | 21.8 | 129       | 5.1  | 115       | 4.5  | 3.5    | 7.8  |
| AC025E □ FI   | 1"        | 554        | 21.8 | 129       | 5.1  | 115       | 4.5  | 3.4    | 7.6  |
| AC030E □ FI   | 1"        | 733        | 28.9 | 129       | 5.1  | 115       | 4.5  | 4.1    | 9.0  |
| AC030F □ FI   | 1 1/4"    | 733        | 28.9 | 129       | 5.1  | 115       | 4.5  | 4.1    | 9.0  |
| AC030G □ FI   | 1 1/2"    | 733        | 28.9 | 129       | 5.1  | 115       | 4.5  | 4.1    | 9.0  |



# Aftermarket



## ELEMENTS

Parker filters are designed to produce clean compressed air, gas and liquid to the highest industry standards. To maintain impeccable results, elements within the filter must be replaced annually.

Choosing the Parker brand means you can be assured that elements are readily available, affordable and the most energy efficient product of its kind on the market. The elements are also supplied in 100% recyclable packaging. An additional advantage of purchasing Parker elements is that our customers can reduce their company's carbon footprint by 190kg. This is the equivalent of a 700 mile flight from Edinburgh to Berlin!

Parker filter elements also prove to be highly efficient when used in any leading competitor's filters.



## PARTS

Parker kits make everyday maintenance easy. They are available for all of our products and are simply value-for-money. The parts within the kits support our customers' varied maintenance, repair and overhaul activities.

Additionally, Preventative Maintenance Kits can be purchased for dryers and gas generators. These kits mean our customers' dryers and generator's can be serviced easily to ensure optimum performance.

An extensive range of durable Parker parts can be obtained within 24 hours to any European, Middle East or African destination.



## SPECIALISED SERVICES

Parker Specialist Service Engineers test on-site efficiency measuring many variables including airflow, pressure, temperature, dewpoint and power consumption.

Our team of highly trained experts are the best in the industry. They take into account a range of environmental factors that could affect your system's performance. The results from this specialist service are extremely accurate and produce invaluable information.

Importantly, Parker informed recommendations lead to significant savings for our customers, which mean they return time and time again for our advice and products.



## M.R.O.

Maintenance Repair & Overhaul - Parker Technicians are the industry's finest. Their skills and qualifications are annually approved to keep their product and legislation knowledge fresh and expertise relevant.

With this in mind, Parker offers onsite and on demand servicing to meet customers' unique requirements in a timely and efficient manner.

Parker MRO service ranges from a basic maintenance check covered under product warranty right through to a comprehensive programme, which even puts the onsite application under the microscope.

With customers at the heart of everything Parker does, the MRO service is no exception to this.



## SUPPORT SERVICES

Parker Support Services are the first port of call for customers in need of help or guidance.

The fact that this team is responsible for the production of user guides and manuals gives you an insight into the level and detail of their parts and product knowledge.

Over-the-phone support is just one way in which Parker's extremely knowledgeable team, quickly reduces downtime or resolves product queries.

On some occasions engineers need to be on site to carry out a repair. In these cases, the local engineer will be quickly dispatched to ensure our customers can return to production as soon as possible.

One-to-one training can also be provided by our support services team. This has enabled hundreds of Parker distributors to gain an in-depth understanding. Training will also ensure distributors can make timely repairs and easily maintain their customers' products.





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