



# High Pressure Compressed Air Dryer

The domnick hunter five-stage high pressure (HP) heatless desiccant compressed air purification package will provide a continuous supply of clean, oil-free and dry compressed air at a maximum working pressure of 276 bar g. (4000 psi g). Fully automatic in operation, the HP unit can be bulkhead, wall or deck mounted.

An automatic control system allows operation of the dryer whilst operating on ship system or shore air supplies.

The HP compressed air purification package features integral high-efficiency inlet and outlet filtration, a constant dewpoint of  $-64^{\circ}\text{C}$  ( $-84^{\circ}\text{F}$ ) a dp at 1 bar g and electric control as standard.



**domnick hunter**

# Technical Specifications

## Air Quality

<b>Particulate Removal down to:</b>	1 micron
<b>Dewpoint:</b>	-64°C (84°F) adp @ 1 bar g
<b>Oil Aerosols:</b>	Less than 0.003 mg/m <sup>3</sup>

## Normal Operation

<b>Maximum Design Pressure:</b>	345 bar g (5000 psi g)
<b>Normal Working Pressure:</b>	276 bar g (4000 psi g)
<b>Minimum Working Pressure:</b>	240 bar g (3480 psi g)
<b>Maximum Inlet Capacity:</b>	84cfm (40L/sec) @ 276 bar g and 50°C
<b>Maximum Inlet Temperature:</b>	50°C
<b>Minimum Inlet Temperature:</b>	5°C
<b>Purge Air Loss:</b>	3.5%
<b>Inlet/Outlet Connections:</b>	3/8" BSPP Female
<b>Voltage:</b>	110V ac 50/60 Hz (standard) 240V ac (optional)

## Filtration:

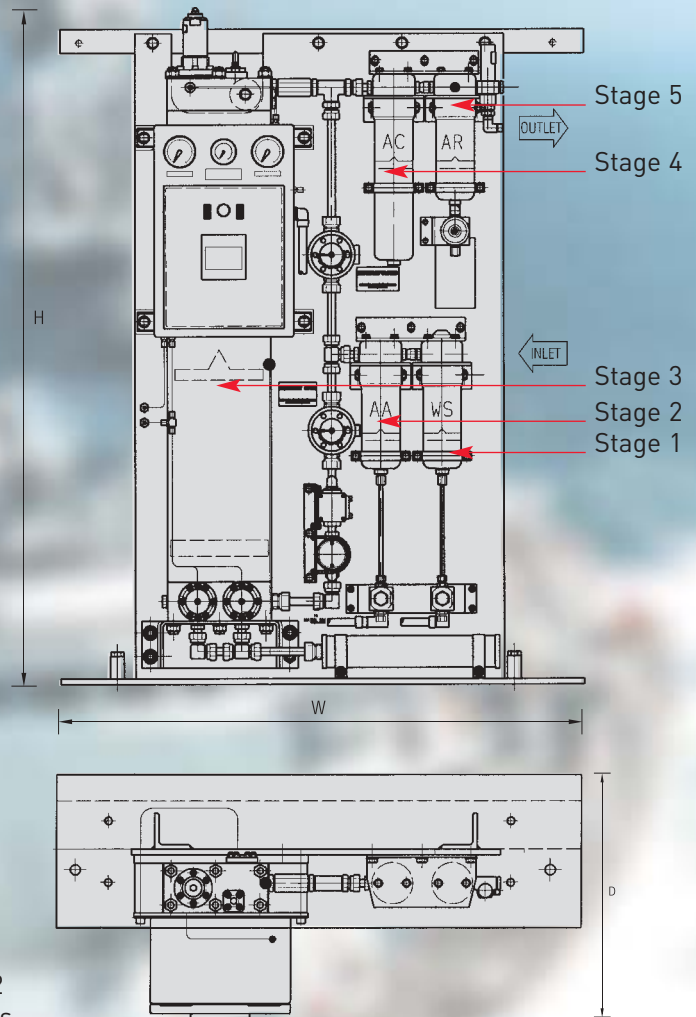
<b>Inlet - Water Separator:</b>	90% condensate and aerosol @ 21°C 80% particle removal (10 micron and above)
<b>High Efficiency filter:</b>	Particle removal to 0.01 micron (0.01mg/m <sup>3</sup> oil)
<b>Outlet - Activated Carbon filter:</b>	Oil vapour removal to 0.003mg/m <sup>3</sup> @ 21°C (70°F)
<b>Dust filter:</b>	Particle removal to 1 micron

## Dimensions and Weight

<b>Height (H):</b>	1390mm
<b>Width (W):</b>	510mm
<b>Depth (D):</b>	800mm
<b>Weight:</b>	420 Kgs (inc. backplate & filters)

**NOTE: Heat Regenerative versions with PLC Controllers now available**

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## Operation:

Bulk liquid contamination is removed from the inlet airstream by the Stage 1 vortex operation water separator and the Stage 2 high efficiency coalescing filter, both fitted with automatic drains. The frequency and duration of draining can be manually adjusted depending on climatic or high ambient conditions.

Water vapour is then removed by the Stage 3 desiccant air dryer which is controlled by an electrically operated cam timer. Dewpoint (air quality) is monitored by a hygrometer installed in the control cabinet.

Any remaining oil vapour is removed by the Stage 4 activated carbon filter and any remaining dust particles are then removed by the final Stage 5 dust filter. A pressure maintaining valve is fitted to the outlet to ensure a minimum working pressure of 240 bar g is maintained.

For further information, please contact Jim Smith (Protective Systems) by Direct Dial Tel: +44 (0) 191 9228 or Email: jim.smith@domnickhunter.com

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