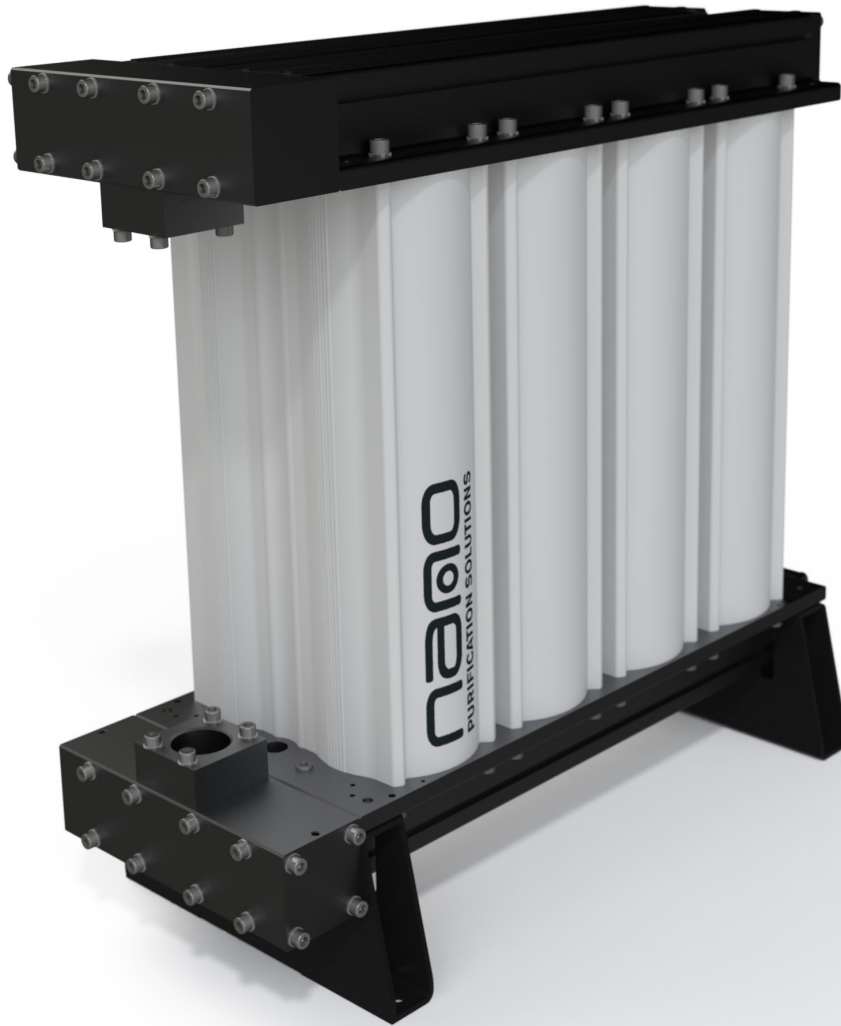


# nano



## oil vapour removal system

flow capacity: 185 -1500 scfm (315 - 2550 Nm<sup>3</sup>/hr)

# V<sup>1</sup>

# oil vapour removal system

# V<sup>1</sup>

Leading edge technology and hundreds of years of **experience**...nano-purification solutions, your world-class manufacturer of state-of-the-art compressed air and gas solutions to industry.

Our commitment at nano is to work alongside our **customers** and provide unique solutions with the highest quality products to solve your specific challenges.

A wealth of experience and leading edge products are only part of the equation. nano recognise that world-class customer service is the most important component to any successful business.

Experience. Customer. Service... **nano**



## clean and dry

Clean and dry compressed air is essential in every efficient and profitable manufacturing and process operation worldwide. nano's vast experience includes food, beverage, chemical, laboratory, medical and natural gas applications.

Nano understand your needs and has created the nano range of high-performance, energy-saving compressed air and gas purification products to provide clean and dry compressed air and gases at an affordable price with unrivaled reliability.



## design

Our experienced team of design engineers are always looking for new and unique technologies and products to bring you the highest level of performance and lowest overall operating cost.



## research & development

Our R&D team endeavour to provide solutions that go beyond developing an existing product. They are continually researching new technologies which can provide unique advantages over competitive offerings.



## manufacture

The reliable and energy saving nano V<sup>1</sup> range of oil vapour removal systems are manufactured in our state of the art facility to the highest standards of build quality to ensure equipment reliability and high levels of performance.

# oil vapour removal system

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The nano NVR range of oil vapour removal adsorbers has been designed to reduce oil vapour and odour from any compressed air system. The activated carbon towers will, by the use of adsorption, reduce residual oil content to lower than 0.003 mg/m<sup>3</sup> at 35°C and 7 bar inlet pressure.

The NVR has been designed to deliver air quality to ISO8573-1 (class 1 for oil) at 50°C and 16 barg inlet conditions when used in conjunction with nano water separators, coalescing filters and compressed air dryers.

Manufactured from high quality extruded aluminium, the modular construction design maintains effective operation for air quality for a minimum of 12<sup>(3)</sup> months operation. Its unique design ensures a low differential pressure for highly efficient and economical operation.

The nano NVR range utilises a unique adsorbent filled activated carbon cartridge complete with integral diffusers and built-in 1micron dust filter as standard.

## benefits - odour free

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### air quality guarantee

- When matched to inlet conditions, the absorber will deliver air quality to ISO 8573-1 class 1 for oil.
- Can be installed in the compressor room, or at the point of use to protect critical applications and personnel.

### modular construction

- Compact and lightweight design compared to the traditional carbon towers technology.
- Flexible outlet piping arrangement, allows ease of access and simple installation.

### simple maintenance

- The use of cartridges allows quick, clean and efficient maintenance.
- Filtration within the cartridge eliminates the need for external downstream filtration and guaranteeing performance.
- Cartridges are snow storm filled ensuring optimum performance, whilst eliminating the heavy attrition and blocked filters associated with traditional twin tower designs.

# sizing & specifications

model	service kit <sup>(2)</sup>		inlet & outlet	rated flow <sup>(1)</sup>		dimensions (mm)			approx. weight
	part no.	qty	BSPP	scfm	Nm <sup>3</sup> /h	A	B	C	kg
NVR 0185	NVR SK 185	1	1"	185	315	440	246	645	40
NVR 0370	NVR SK 370	1	1"	370	630	440	246	800	50
NVR 0750	NVR SK 370	2	2"	750	1275	400	575	870	103
NVR 1100	NVR SK 370	3	2"	1100	1870	400	742	870	142
NVR 1500	NVR SK 370	4	2 ½"	1500	2550	400	910	870	180

## specifications

maximum working pressure	16 barg
recommended operating temperature range	2 to 35°C
maximum operating temperature	50°C
estimated cartridge life	12 months <sup>(3)</sup>

## inlet air quality requirements <sup>(4)</sup>

maximum particulate size	0.01 micron
maximum pressure dew point	-40°C pdp
maximum oil content	0.05 mg/m <sup>3</sup>

## performance

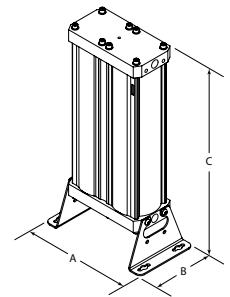
maximum outlet air oil content (@ 35°C)	0.003 mg/m <sup>3</sup> (ppm)
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## pressure correction factors <sup>(5)</sup>

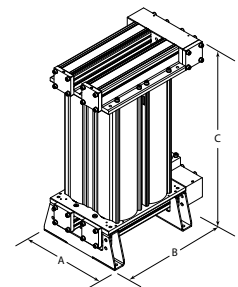
inlet air pressure (barg)	1	2	3	4	5	6	7 - 16
correction factor	0.25	0.37	0.05	0.62	0.75	0.87	1.00

## temperature & dew point correction factors <sup>(5)</sup>

inlet air temperature (°C)	<35	40	45	50	inlet dew point (°C)	>+3	<+3
correction factor	1.00	0.98	0.96	0.95	correction factor	0.25	1.00



NVR 0185 to 0370



NVR 0750 to 1500

(1) at inlet conditions of 7 barg and 35°C, and 35°C ambient temperature. For all other operating conditions contact enquiries@n-psi.co.uk for sizing assistance

(2) includes purification cartridges (including integral inlet diffusers and outlet particulate filters) and all o-rings

(3) provided as an estimate only. Cartridges must be replaced as required to maintain adequate air quality in accordance with all applicable codes and regulations

(4) if the air doesn't meet these conditions, contact enquiries@n-psi.co.uk to confirm the additional treatment required

(5) to be used as an approximate guide only. All applications should be confirmed by n-psi. Contact enquiries@n-psi.co.uk

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