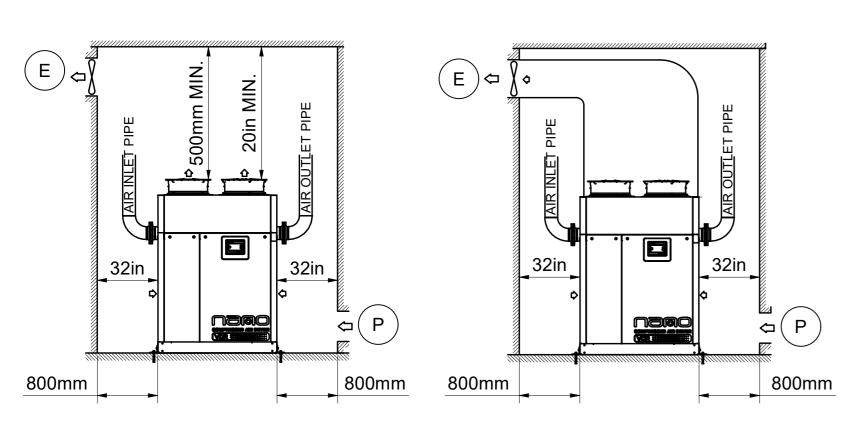


# VENTILATION PROPOSAL 1

# **VENTILATION PROPOSAL 2**



	\	VENTILATION REQUIREMENTS					
	ME	TRIC	IMPERIAL				
Dryer Type /	Cooling air	Max. cooling	Cooling air	Max. cooling			
Ambient version	temp. limits	air flow	temp. limits	air flow			
VDR2600 / 46°C	0-46°C	31600 m³/h	32-115°F	18600 ft³/min			
VDR3150 / 46°C	0-46°C	28600 m³/h	32-115°F	16830 ft <sup>3</sup> /min			
VDR3700 / 46°C	0-46°C	28600 m³/h	32-115°F	16830 ft³/min			
VDR4200 / 46°C	0-46°C	28600 m³/h	32-115°F	16830 ft³/min			
VDR5050 / 40°C	0-40°C	28600 m³/h	32-104°F	16830 ft³/min			

### 1: DRYER UNIT

The unit should be installed on a level floor capable of taking the weight of the dryer. Dimensions stated on this drawing are minimum distances.

There must be a free space of 800mm / 32in around the dryer.

## 2: COMPESSED AIR PIPES

All pipes should be installed stress free to the dryer unit.

All pipes should be installed so that there is no obstruction accessing the unit trough the removing panels.

Inlet pipe orientation must be straight or with a 90° upward bend to ensure equal air flow to all internal heat exchangers.

Compressed air pressure should never exceed the dryers design pressure. It is recommended to install a full flow safety valve at the dryer inlet.

The maximum total pipe lenght (including interconnecting piping between dryer and receiver) can be calculated as follows:

 $\Delta p = (L \times 450 \times Qc)/(d \times p)$ 

L = lenght of pipe (m)

 $\Delta p$  = pressure drop (recommended maximum = 0.1 bar / 1.5 psi )

d = inner diameter of pipe (mm)

p = absolute pressure at dryer outlet (bar(a))

Qc = Free air delivery of the compressor (I/s)

### 3 : FILTER (optional)

It is recommended to install compressed air filter at dryer inlet to achieve air purity class: iso 8573 - 1 : 2010 [2 : - : - ]

The air filter has to be supported and can't be mounted to the dryer directly without extra supports.

### 4: AIR RECEIVER (optional)

Should be installed in a frost free room on a solid, level floor.

The prefered position depends of the most fluctuating flow.

Alternative 1 : In front of the dryer when the air flow from the compressor fluctuates the most.

Alternative 2: Behind the dryer when the air demand fluctuates the most.

#### POWER SUPPLY

The cable has to be sized and installed by a qualified electrician.

### 5: VENTILATION (Air cooled dryer variant)

The inlet grid(s) (P) and ventilation fan (E) (if applicable) should be installed in such a way that natural circulation of air is guaranteed and recirculation of cooling air is avoided.

The required ventilation to limit the dryer room temperature is noted in the ventilation requirement table.

In ventilation proposal 2 the fan (E) capacity should match the dryer fan capacity at a pressure head equal to the pressure drop caused by cooling air ducting.

Max. allowable pressure drop in ducting after the dryer = 30 Pa

The air velocity to the grid(s) has to be limited to 5 m/s.

The direction of the cooling flows may never be inverted.

### **DRAIN PIPES**

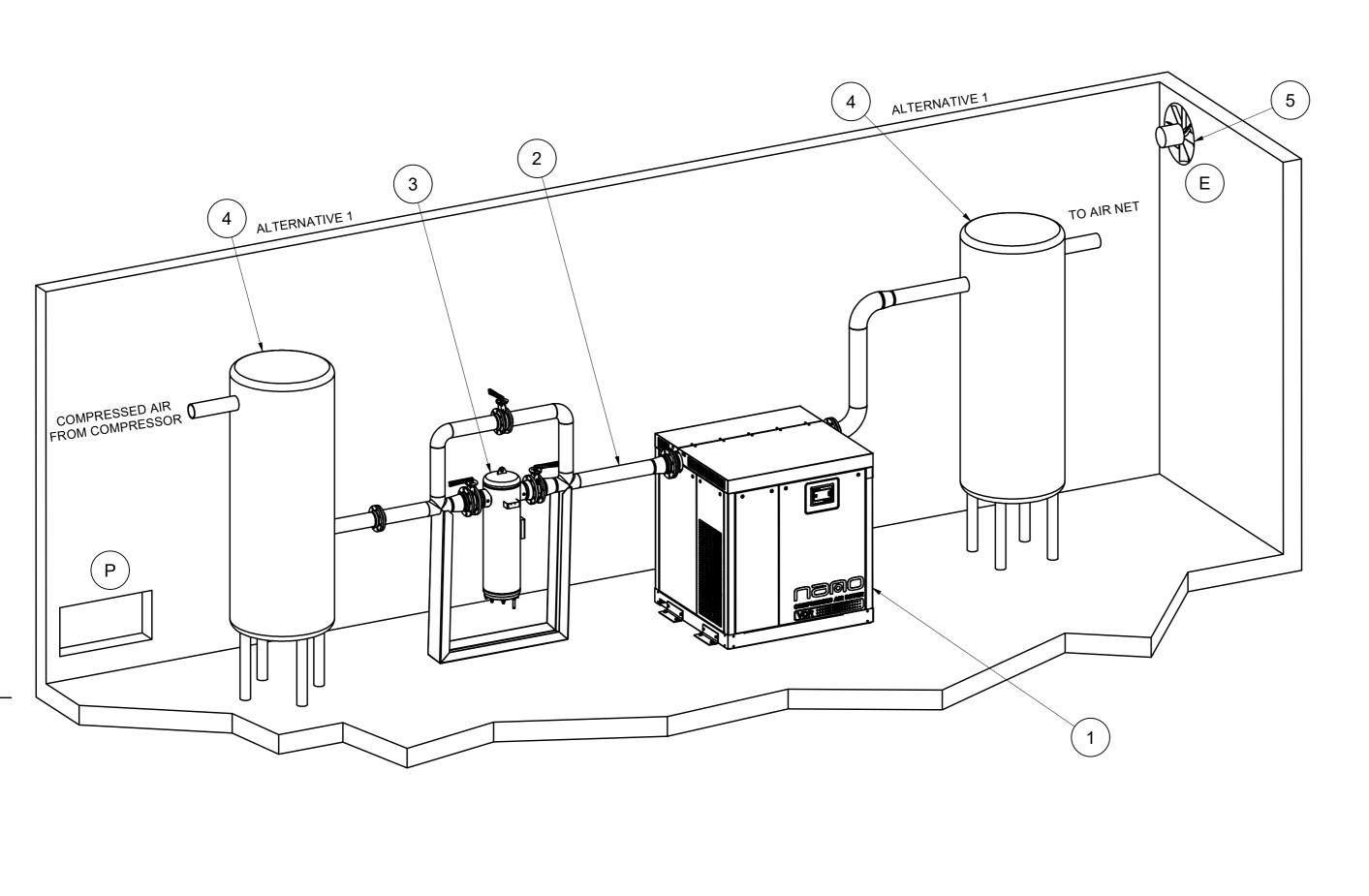
Drain pipes to drain collector must not dip into the water. For draining of pure condensate water, install an oil / water separator. Consult Nano.

Tolerances, if not indica									
STANDARD CLASS									
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Treatment Not Applicable							INV		7 )
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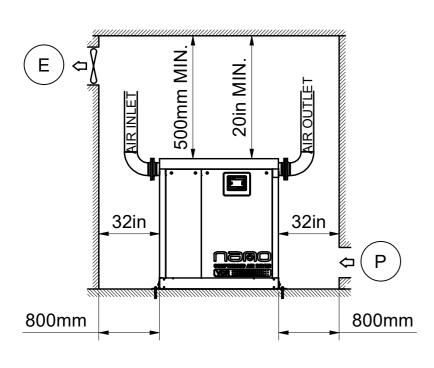
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CONFIDENTIAL:

The unit should be in



# **VENTILATION PROPOSAL**



Ed Position Modified from Date Intr./Appd.

CONFIDENTIAL:

#### 1: DRYER UNIT

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### 2 : COMPESSED AIR PIPES

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All pipes should be installed so that there is no obstruction accessing the unit trough the removing panels.

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 $\Delta p = (L \times 450 \times Qc) / (d \times p)$ 

L = lenght of pipe (m)

 $\Delta p$  = pressure drop (recommended maximum = 0.1 bar / 1.5 psi )

d = inner diameter of pipe (mm)

p = absolute pressure at dryer outlet (bar(a))

Qc = Free air delivery of the compressor (I/s)

### 3: FILTER (optional)

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The air filter has to be supported and can't be mounted to the dryer directly without extra supports.

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The prefered position depends of the most fluctuating flow.

Alternative 1: In front of the dryer when the air flow from the compressor fluctuates the most.

Alternative 2: Behind the dryer when the air demand fluctuates the most.

## **POWER SUPPLY**

The cable has to be sized and installed by a qualified electrician.

# <u>5 : VENTILATION</u> ( Air cooled dryer variant )

The inlet grid(s) P and ventilation fan E (if applicable) should be installed in such a way that natural circulation of air is guaranteed and recirculation of cooling air is avoided.

# **DRAIN PIPES**

1839007683-M1

Parent 3D model

Ed . Version 3D

Drain pipes to drain collector must not dip into the water. For draining of pure condensate water, install an oil / water separator. Consult Nano.

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Tolerances, if not indicated, according to:			:									
STANDARD CLASS												
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