

# **TECHNICAL SPECIFICATION**

## *Aluminium Nozzle – Adaptor*

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## **PRODUCT DESCRIPTION**

Goyen's Clamp on Aluminium Nozzles (CAN) range has been designed to improve cleaning system flow performance to clean a wide range of filter bag sizes. These products are also designed for simple screw clamp installation to the blowtubes within reverse pulse cleaning systems.

## **Typical Applications**

The Aluminium clamp on nozzle is assembled to reverse pulse cleaning system blowtubes used in fabric filter baghouses. The nozzle inserts that are mounted into the aluminium nozzle have superior hole preparation that provides for an optimized delivery of the cleaning pulse from the blowtube to the venturi or filter bag. The Aluminium clamp on nozzles can be prepared with holes to suit most required sizes (up to 22mm (0.87") diameter). Goyen's Go-Co program should be used to predict the required hole sizes for the cleaning system in question.

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## **PRINCIPLE OF OPERATION**

### **Functionality**

Goyen's 25mm (1") through to 50mm (2") nozzles are designed to suit American National Standard schedule 40 blowtubes, commonly used in the design of fabric filter cleaning systems.

Functional features are as follows:

- Flow straightening through a controlled orifice.
- Secondary air entrainment that supports more air delivery into the filter and, therefore, improves performance and efficiency of reverse pulse filter cleaning systems.
- Positively securing to the blowtube.

## PERFORMANCE

### Flow Performance

Refer to the Go-Co software for performance predictions for your particular application.

### Pressure Rating

Maximum Working Pressure:	860 kPa (125 psi)
Recommended Working Pressure:	760 kPa (110 psi)
Recommended Maximum Negative Pressure:	2500 Pa (10" Wg)

### Temperature Rating

Working Temperature Range:

Standard Operating Temperature	-40°C to 80°C (-40°F to 176°F)
Standard High Temperature	above 80°C and up to 200°C (-176°F to 400°F)

For temperatures between 200°C (400°F) and 400°C (750°F) Goyen outlets can advise appropriate equipment.

### Fluid Media

Dry air or inert gas

### Unit Weight

Product Code	Unit Weight Kg (lbs)
VN-25-AN-S	0.158 (0.348)
VN-25-AN-L	0.203 (0.448)
VN-45-AN-S	0.171 (0.377)
VN-45-AN-L	0.217 (0.478)
VN-50-AN-S	0.192 (0.423)
VN-50-AN-L	0.315 (0.695)

## PRODUCT VARIATIONS

### Diaphragms and Seals

Product Code	Schedule 40 Blowtube Size	Pipe Seal
690255	1"	Nitrile
690255-2	1"	Viton
690256	1 1/2"	Nitrile
690256-2	1 1/2"	Viton
690302	2"	Nitrile
690302-2	2"	Viton

### Connection Types

Clamp on Aluminium Nozzles should be fitted to American National Standard Schedule 40 Wrought Steel Pipe. Pipe sizes per schedule are as listed below:

1" schedule 40 pipe	33.4mm (1.315") O/D
1½" schedule 40 pipe	48.26mm (1.900") O/D
2" Schedule 40 pipe	60.32mm (2.375") O/D

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## **CONSTRUCTION**

### **Body**

#### **Aluminium nozzle**

Pressure Die Cast Aluminium CA313

Specification standards:

Australia	CA313
British	LM24
European	AlSi8Cu3Fe
AL Association Alloy	A380.0
Glass Filled Nylon Inserts	Injection molded Nylon 6
Aluminium Inserts	Free Machining Aluminium Bar

### **Strap Assembly**

304 Stainless Steel

### **Pipe Seal**

Nitrile

Viton

### **Nozzle Insert**

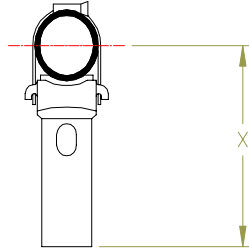
Glass filled nylon

Aluminium

## DIMENSIONAL DETAILS

### Envelope Size

Fitted Heights:



Nozzle Assembly	Dimension mm (inches)
VN-25-AN-S/VN-25-AV-S	74.7 (2.94)
VN-45-AN-S/VN-45-AV-S	82.13 (3.233)
VN-50-AN-S/VN-50-AV-S	95.16 (3.746)
VN-25-AN-L/VN-25-AV-L	136.7 (5.382)
VN-45-AN-L/VN-45-AV-L	144.13 (5.674)
VN-50-AN-L/VN-50-AV-L	190.16 (7.486)

### Mounting Details

Nozzle assembly mounting hole details

Product Code	Schedule 40 Blowtube Outside Diameter mm (inches)	Blowtube Hole Diameter mm (inches)	Maximum Nozzle Nozzle Diameter mm (inches)
VN-25-AN-S/VN-25-AV-S/ VN-25-AN-L/VN-25-AV-L	33.4 (1.32)	22 (.87)	18 (.71)
VN-45-AN-S/VN-45-AV-S/ VN-45-AN-L/VN-45-AV-L	48.3 (1.9)	26 (1.02)	22 (.87)
VN-50-AN-S/VN-50-AV-S/ VN-50-AN-L/VN-50-AV-L	60.3 (2.37)	26 (1.02)	22 (.87)

Refer to the Operating Guide for detailed assembly instructions.

## HOW TO ORDER

Product Code	Pipe Seal	Description
VN-25-AN-S	Nitrile	1" Nozzle Assembly
VN-45-AN-S	Nitrile	1.5" Nozzle Assembly
VN-50-AN-S	Nitrile	2" Nozzle Assembly
VN-25-AN-L	Nitrile	1" Nozzle Assembly
VN-45-AN-L	Nitrile	1.5" Nozzle Assembly
VN-50-AN-L	Nitrile	2" Nozzle Assembly
VN-25-AV-S	Viton	1" Nozzle Assembly
VN-45-AV-S	Viton	1.5" Nozzle Assembly
VN-50-AV-S	Viton	2" Nozzle Assembly
VN-25-AV-L	Viton	1" Nozzle Assembly
VN-45-AV-L	Viton	1.5" Nozzle Assembly
VN-50-AV-L	Viton	2" Nozzle Assembly

Nylon and Aluminium insert should be ordered separate to Aluminium Venturi Nozzle assemblies.

### For operating temperatures between -40°C to 80°C (-40°F to 176°F)

Product Code	Nozzle Description	Product Code	Nozzle Description
GFN-B	Blank Nylon Nozzle	GFN-13	13 mm Nylon Nozzle
GFN-4	4 mm Nylon Nozzle	GFN-14	14 mm Nylon Nozzle
GFN-5	5 mm Nylon Nozzle	GFN-15	15 mm Nylon Nozzle
GFN-6	6 mm Nylon Nozzle	GFN-16	16 mm Nylon Nozzle
GFN-7	7 mm Nylon Nozzle	GFN-17	17 mm Nylon Nozzle
GFN-8	8 mm Nylon Nozzle	GFN-18	18 mm Nylon Nozzle
GFN-9	9 mm Nylon Nozzle	GFN-19	19 mm Nylon Nozzle
GFN-10	10 mm Nylon Nozzle	GFN-20	20 mm Nylon Nozzle
GFN-11	11 mm Nylon Nozzle	GFN-21	21 mm Nylon Nozzle
GFN-12	12 mm Nylon Nozzle	GFN-22	22 mm Nylon Nozzle

**For operating temperatures between 80°C to 200°C (-176°F to 400°F)**

Product Code	Nozzle Description	Product Code	Nozzle Description
ALN-B	Blank Aluminium Nozzle	ALN-13	13 mm Aluminium Nozzle
ALN-4	4 mm Aluminium Nozzle	ALN-14	14 mm Aluminium Nozzle
ALN-5	5 mm Aluminium Nozzle	ALN-15	15 mm Aluminium Nozzle
ALN-6	6 mm Aluminium Nozzle	ALN-16	16 mm Aluminium Nozzle
ALN-7	7 mm Aluminium Nozzle	ALN-17	17 mm Aluminium Nozzle
ALN-8	8 mm Aluminium Nozzle	ALN-18	18 mm Aluminium Nozzle
ALN-9	9 mm Aluminium Nozzle	ALN-19	19 mm Aluminium Nozzle
ALN-10	10 mm Aluminium Nozzle	ALN-20	20 mm Aluminium Nozzle
ALN-11	11 mm Aluminium Nozzle	ALN-21	21 mm Aluminium Nozzle
ALN-12	12 mm Aluminium Nozzle	ALN-22	22 mm Aluminium Nozzle

Nozzles for operating temperatures above 200°C (400°F) request advise from your local Goyen agent.