

Technical Specification

**GOCO Nozzle [Aluminium] (1" and 1.5" Pipe)**



**Description**

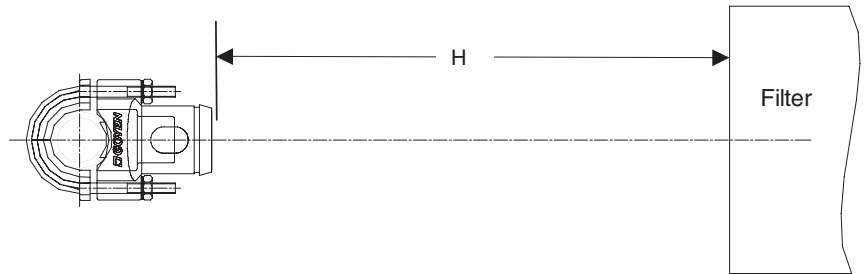
Goyen's range of nozzles measurably increase developed pressures in filters during reverse pulse cleaning by balancing the flow through all holes along the blowtube, ensuring that the pulse jet is directed fully into the filters, and minimising the pressure drop through the blowtube holes. Goyen's nozzles ensure effective cleaning is achieved at  $A_n/A_p$  (total blowtube hole area/blowtube cross-sectional area) values up to 1.5, extracting maximum pulse performance from the diaphragm valves. Typical systems not using the Goco nozzle perform at 0.5 to 0.8.

**Suitable for**

1" and 1.5" pipe diameters in reverse pulse jet filter cleaning applications and its variations including bag filters, cartridge filters, ceramic filters, and sintered metal fibre filters.

**Installation**

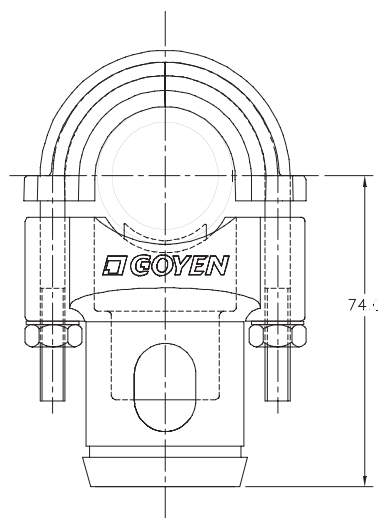
For best performance,  $H = (\text{Ø Filter} - 48)/0.353$  (mm) or  $H = (\text{Ø Filter} - 1.88)/0.353$  (inches). Prepare  $\text{Ø}27\text{-}28\text{mm}$  ( $\text{Ø}1.06 - 1.10"$ ) holes in the blowtube.



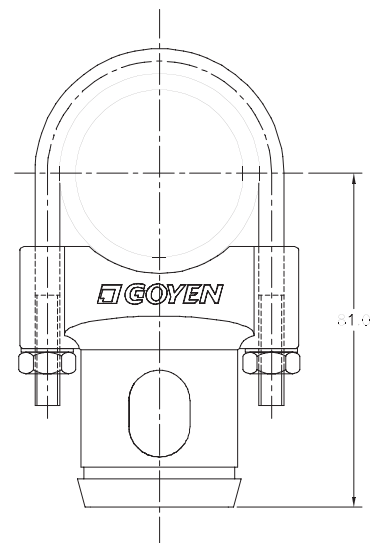
**Dimensions and Weights**

(Dimensions in mm)

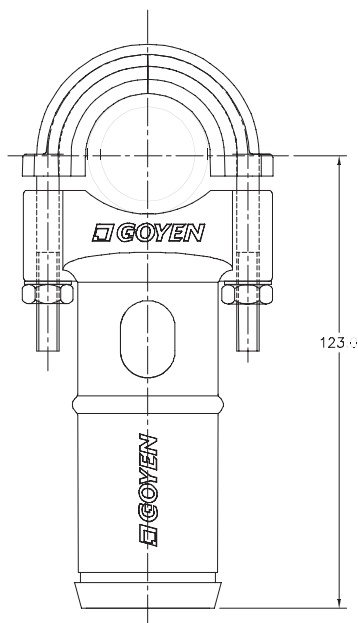
| Item                    | Mass Kg (lbs) | Item       | Mass Kg (lbs) |
|-------------------------|---------------|------------|---------------|
| VNA25C-50               | 0.175 (0.366) | VNA25C-100 | 0.220 (0.485) |
| VNA45C-50               | 0.160 (0.353) | VNA45C-100 | 0.205 (0.452) |
| AL25-B/BD# & AL45-B/BD# | 0.055 (0.121) | REG-#      | 0.020 (0.044) |



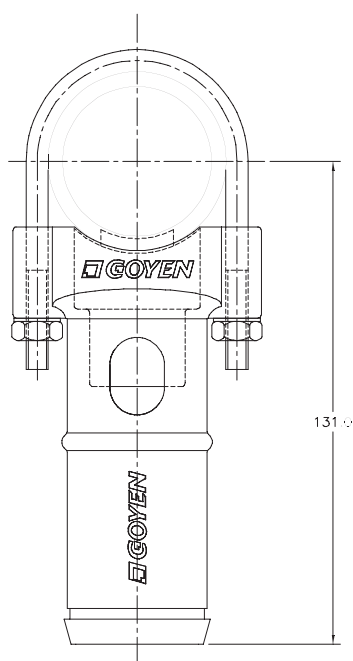
VNA25C-50  
To suit 1" schedule 40 pipe.



VNA45C-50  
To suit 1.5" schedule 40 pipe.



VNA25C-100  
To suit 1" schedule 40 pipe.



VNA45C-100  
To suit 1.5" schedule 40 pipe.

## Order Code and Characteristics

### Diecast Nozzles

| Code       | Description  | Material  |
|------------|--|---|
| VNA25C-50  | Diecast venturi nozzle assembly to suit 1" pipe, short barrel.   | Body and saddle: diecast aluminium<br>Clamp, nuts & washers: nickel plated mild steel |
| VNA25C-100 | Diecast venturi nozzle assembly to suit 1" pipe, long barrel.    | Body and saddle: diecast aluminium<br>Clamp, nuts & washers: nickel plated mild steel |
| VNA45C-50  | Diecast venturi nozzle assembly to suit 1.5" pipe, short barrel. | Body and saddle: diecast aluminium<br>Clamp, nuts & washers: nickel plated mild steel |
| VNA45C-100 | Diecast venturi nozzle assembly to suit 1.5" pipe, long barrel.  | Body and saddle: diecast aluminium<br>Clamp, nuts & washers: nickel plated mild steel |

### Nozzle Inserts

| Code     | Description   | Material                                    | Temperature Range<br>°C °(F) |
|----------|---|---|------------------------------|
| AL25-B   | Diecast nozzle insert to suit VNA25 series. Insert orifice to be drilled by customer. No seals required.  | Diecast aluminium                           | -60 (-76) to 400 (752)       |
| AL25-BD# | Diecast nozzle insert to suit VNA25 series. Insert comes pre drilled by the factory to the size specified by #. (#=4mm to 22mm)No seals required. | Diecast aluminium                           | -60 (-76) to 400 (752)       |
| AL45-B   | Diecast nozzle insert to suit VNA45 series. Insert orifice to be drilled by customer.No seals required.   | Diecast aluminium                           | -60 (-76) to 400 (752)       |
| AL45-BD# | Diecast nozzle insert to suit VNA45 series. Insert comes pre drilled by the factory to the size specified by #. (#=4mm to 22mm)No seals required. | Diecast aluminium                           | -60 (-76) to 400 (752)       |
| REG-#    | Plastic nozzle insert with rubber seal. Suits both VNA25 and VNA45 series. (#=4mm to 22mm)  | Insert: PA-6 30% glass filled.Seal: Nitrile | -40 (-40) to 80 (176)        |

To order specify nozzle and nozzle insert codes separately. For example:

VNA25C-50 and REG-14 for a short nozzle to suit a 1" pipe with a 14mm plastic insert.

VNA45C-100 and AL45-BD10 for a long nozzle to suit a 1.5" pipe with a 10mm aluminium insert.

Nozzle sizes can be optimised using Goyen's GOCO software. Contact your local Goyen representative.

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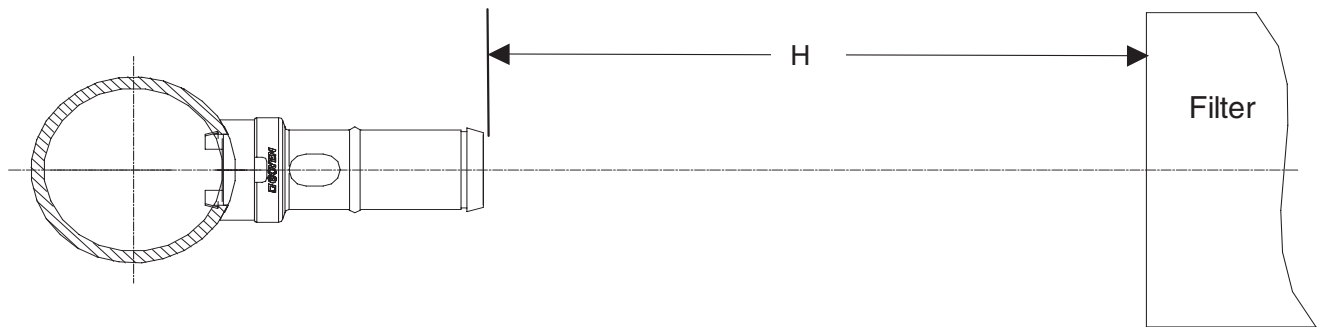
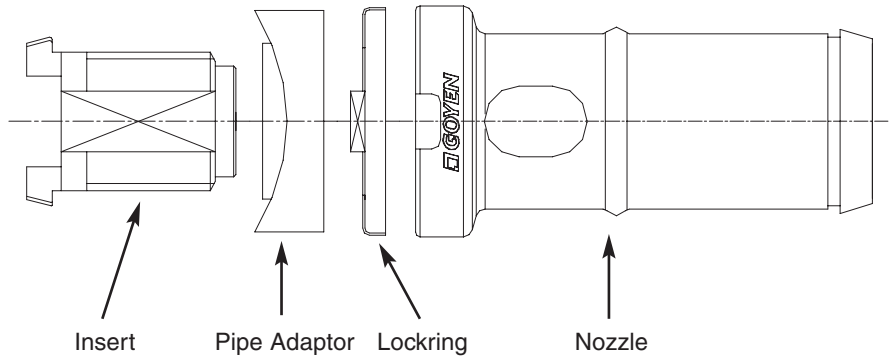
**GOCO Nozzle [Strapless] (2"2.5", 3" and 4" Pipe)**

**Description**

Goyen's range of nozzles measurably increase developed pressures in filters during reverse pulse cleaning by balancing the flow through all holes along the blowtube, ensuring that the pulse jet is directed fully into the filters, and minimising the pressure drop through the blowtube holes. Goyen's nozzles ensure effective cleaning is achieved at An/Ap (total blowtube hole area/blowtube cross-sectional area) values up to 1.5, extracting maximum pulse performance from the diaphragm valves. Typical systems not using the Goco nozzle perform at 0.5 to 0.8.

**Installation**

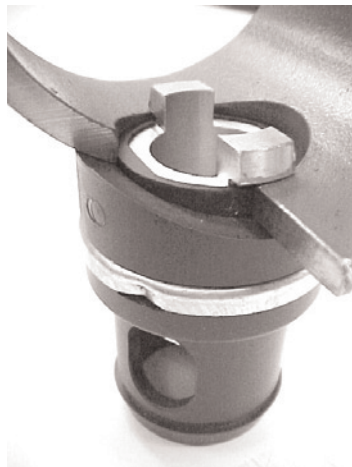
For best performance,  $H = (\text{Ø Filter} - 48) / 0.353$  (mm) or  $H = (\text{Ø Filter} - 1.88) / 0.353$  (inches). Prepare Ø27-28mm (Ø1.06 - 1.10") holes in the blowtube.



**Suitable for**

2", 2.5", 3" and 3" schedule 40 pipe diameters as used in reverse pulse jet filter cleaning applications and its variations including bag filters, cartridge filters, ceramic filters, and sintered metal fibre filters.

1. Ensure holes prepared in the blowtube are free from burrs.
2. Assemble the insert into nozzle passing through the pipe adaptor and locking as illustrated above. Only screw the insert part way into the nozzle.
3. Align the insert lugs along the axis of the blowtube, and hook one lug into the blowtube
4. Swing the second lug up into the blowtube and slide the pipe adaptor up and onto the blowtube hole.
5. Screw the nozzle up onto the insert checking that all components are aligned. Hand tight is sufficient.
6. Dent the locking into one or both of the nozzle cavities, this will ensure the assembly is permanently locked in place. To remove the nozzle bend the dent out using a screwdriver blade.

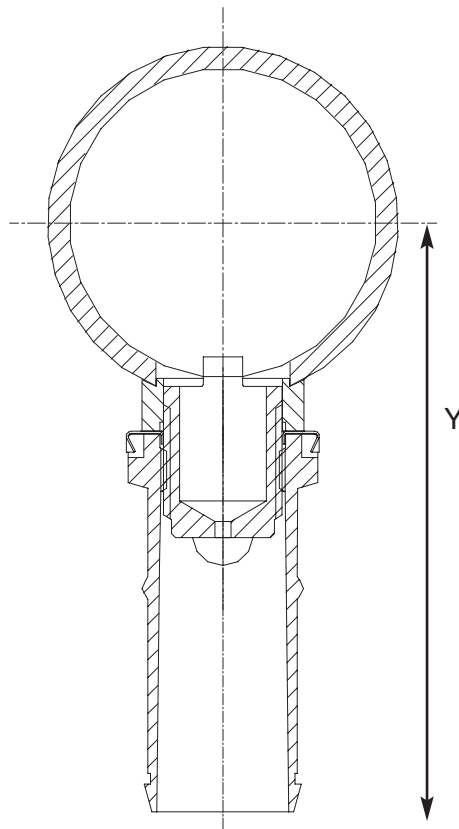


## Dimensions and Weights

(Dimensions in mm)

| Item       | Mass Kg (lbs) | Item        | Mass Kg (lbs) |
|------------|---------------|-------------|---------------|
| VNA50I-50  | 0.115 (0.254) | VNA50I-100  | 0.205 (0.452) |
| VNA62I-50  | 0.115 (0.254) | VNA62I-100  | 0.205 (0.452) |
| VNA76I-50  | 0.115 (0.254) | VNA76I-100  | 0.205 (0.452) |
| VNA102I-50 | 0.115 (0.254) | VNA102I-100 | 0.205 (0.452) |

| Order Code | Y mm (inches) | Order Code  | Y mm (inches) |
|------------|---------------|-------------|---------------|
| VNA50I-50  | 88 (3.46)     | VNA50I-100  | 138 (5.43)    |
| VNA62I-50  | 94 (3.71)     | VNA62I-100  | 145 (5.68)    |
| VNA76I-50  | 102 (4.03)    | VNA76I-100  | 152 (6.00)    |
| VNA102I-50 | 115 (4.53)    | VNA102I-100 | 165 (6.50)    |



## Order Code and Characteristics

### Diecast Nozzles

| Code        | Schedule 40 Pipe (inches) | Description  | Material  | Temperature Range °C °(F) |
|-------------|---------------------------|--------------|---|---------------------------|
| VNA50I-50   | 2                         | Short barrel | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA62I-50   | 2.5                       | Short barrel | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA76I-50   | 3                         | Short barrel | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA102I-50  | 4                         | Short barrel | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA50I-100  | 2                         | Long barrel  | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA62I-100  | 2.5                       | Long barrel  | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA76I-100  | 3                         | Long barrel  | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |
| VNA102I-100 | 4                         | Long barrel  | Diecast aluminium & galvanised steel (lockring) | -60 (-76) - 400 (752)     |

Note that assemblies include nozzle, pipe adaptor, nozzle insert and lockring. Nozzle inserts must be drilled to required orifice size. Nozzle sizes can be optimised using Goyen's GOCO software. Contact your local Goyen representative