



# High Pressure Fittings Catalogue for

- Humidifiers
- Outdoor Cooling
- Dry Mist System

# index

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	page
1. Nylon Tube	2
2. Slip Lok Fittings	7
3. Ni Plated Brass Compression Fittings	9
4. High Pressure Mist Nozzles	11
5. Stainless Steel Pipes 316 L	22
6. High Pressure Fog / Mist Pumps	23

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**Product Catalogue / Technical Data Sheet**  
**High Pressure Fog / Mist Pumps**  
**Nylon Tubes & Slip Lock Fittings**  
**Nozzles & Compression Fittings**  
**Stainless Steel Pipes**



## 1. Nylon Tube

The HybrLab nylon tubing are the ultimate in convenience and versatility when used as part of the misting system design. The easy assembly allows for a quick and simple installation reducing the time. The HybrLab high pressure nylon tubing is available in 6 mm and 9.53 mm O.D. Nylon Pipes has an operating pressure of 70 bar and tested by third party 130 bar.

Nylon tubing, can withstand higher temperatures up to 220 oC and pressures up to 160 bar that range exceed than many other tubing options. It is often used as a substitute for metal because it is lightweight and corrosion resistant. The nylon material from which the tubing is manufactured is a polymer plastic that is constructed by repeating chains of amide groups that are bonded together to form fibers. The unique material structure of the nylon plastic tubing allows it to maintain exceptional chemical, abrasion, impact, and moisture resistance and dimensional stability.

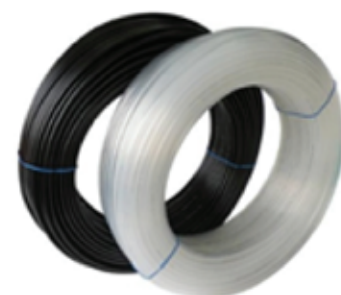


## Nylon Tube NTW0200C

Nylon tube- 9.53mm x 4.5mm

Application: misting pipe

Brand: HybrLab



Properties (Measurement Unit)	Results
<b>Color</b>	<b>White</b>
Dimensions	9.53mm x 4.5mm
Inner diameter (mm)	4.5mm±0.2mm
Outer diameter (mm)	9.53mm±0.4mm
Min. wall thickness (mm)	2.25mm
Max. wall thickness (mm)	2.6mm
Max. concentricity between ID and OD (mm)	0.4mm
Min. burst pressure at 23°C (bar)	128bar
Max. Tube thermal reversion (%) (T=110°C,t=1h)	40%
Melting point (°C)	220°C
Density (g/cm <sup>3</sup> ) (1.12~1.14g/cm)	1.13g/cm
Min. mass per unit length (g/m)	62g/m
Impact strength (energy 7.5)	at 23°C no fracture at-40°C
Material	PA6H
UV Resistance	Yes
Construction	Single layer plastic tube
Shape	Tubing in coil 200 m
Appearance	Smooth surface without cracking and chalking

## Nylon Tube NTB0100C

Nylon tube- 9.53mm x 4.5mm

Application: misting pipe

Brand: HybrLab



Properties (Measurement Unit)	Results
<b>Color</b>	<b>Black</b>
Dimensions	9.53mm x 4.5mm
Inner diameter (mm)	4.5mm±0.2mm
Outer diameter (mm)	9.53mm±0.4mm
Min. wall thickness (mm)	2.25mm
Max. wall thickness (mm)	2.6mm
Max. concentricity between ID and OD (mm)	0.4mm
Min. burst pressure at 23°C (bar)	128bar
Max. Tube thermal reversion (%) (T=110°C,t=1h)	40%
Melting point (°C)	220°C
Density (g/cm <sup>3</sup> ) (1.12~1.14g/cm)	1.13g/cm
Min. mass per unit length (g/m)	62g/m
Impact strength (energy 7.5)	at 23°C no fracture at-40°C
Material	PA6H
UV Resistance	Yes
Construction	Single layer plastic tube
Shape	Tubing in coil 100 m
Appearance	Smooth surface without cracking and chalking



- Nylon Tube NTB0100C9** Black Color  
Tubing in coil 100 m / 9.53 mm external diameter.
- Nylon Tube NTB0200C9** Black Color  
Tubing in coil 200 m / 9.53 mm external diameter.
- Nylon Tube NTW0100C9** White Color  
Tubing in coil 100 m / 9.53 mm external diameter.
- Nylon Tube NTW0200C9** White Color  
Tubing in coil 200 m / 9.53 mm external diameter.
- Nylon Tube NTB001M9** Black Color  
Tubing 1 Meter Length / 9.53 mm external diameter.
- Nylon Tube NTB002M9** Black Color  
Tubing 2 Meter Length / 9.53 mm external diameter.
- Nylon Tube NTW001M9** White Color  
Tubing 1 Meter Length / 9.53 mm external diameter.
- Nylon Tube NTW002M9** White Color  
Tubing 2 Meter Length / 9.53 mm external diameter.

**Nylon Tube NTB0100C6**

Black Color

Tubing in coil 100 m / 6 mm external diameter.

**Nylon Tube NTB0200C6**

Black Color

Tubing in coil 200 m / 6 mm external diameter.

**Nylon Tube NTW0100C6**

White Color

Tubing in coil 100 m / 6 mm external diameter.

**Nylon Tube NTW0200C6**

White Color

Tubing in coil 200 m / 6 mm external diameter.

**Nylon Tube NTB001M6**

Black Color

Tubing 1 Meter Length / 6 mm external diameter.

**Nylon Tube NTB002M6**

Black Color

Tubing 2 Meter Length / 6 mm external diameter.

**Nylon Tube NTW001M6**

White Color

Tubing 1 Meter Length / 6 mm external diameter.

**Nylon Tube NTW002M6**

White Color

Tubing 2 Meter Length / 6 mm external diameter.





## 2. Slip Lok Fittings

The HybrLab proprietary line of industrial slip-lok fittings are rated at 130 bar and have been used successfully in industrial applications for over 20 years.

These slip-lok fittings are the highest quality in the industry and carry a full 5-year warranty. The fittings include a heavy-duty body, thicker locking ferrule, and an oversized Viton O-ring.

The unique design of these fittings allows them to be easily removed, replaced, or re-installed any time after the initial installation. No special tools or crimping procedures are required.

**CFE-3C0000**

4 Way Connection  
Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 130 bar

**CFE-3T0000**

T Connection  
Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 130 bar

**CFE-3U1100**

Connection for 1 Nozzles  
Ni Plated Brass  
9.53 mm internal Diameter

**CFE-3U1218**

Connection for 2 nozzle sites -  
180± / Ni Plated Brass  
9.53 mm internal Diameter

**CFE-3U1212**

Connection 2 nozzle sites -  
120± / Ni Plated Brass  
9.53 mm internal Diameter

**CFE-3L0000**

Elbow  
Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 130 bar

**End Cap**

Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 130 bar  
CFE-3D0000  
CFE-3D1100 (1 nozzle site)  
CFE-3D1209 (2 nozzle sites - 90±)  
CFE-3D1212 (2 nozzle sites - 120±)  
CFE-3D1218 (2 nozzle sites - 180±)





### 3. Ni Plated Brass Compression Fittings

The HybrLab proprietary line of industrial related Ni Plated Brass Compression Fittings are rated at 180 bar and have been used successfully in industrial applications for over 20 years

These fittings are carrying a full 5-year warranty against corrosion. The fittings include a heavy-duty body Copper ring. The unique design of these fittings allows them to be easily removed, replaced, or re-installed any time after the initial installation. It requires simple tools or crimping

**3115-B03**

3 Way Connection  
Threaded Coupling Tee W  
Ni Plated Brass  
9.53 mm internal Diameter  
9.53 mm X 9.53 mm X 9.53 mm  
Tested up to 180 bar

**3101-B03**

Threaded Coupling Single Hole  
Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 180 bar

**3102-B03**

Threaded Coupling Double Hole 120 o  
Ni Plated Brass  
9.53 mm internal Diameter  
Tested up to 180 bar

**3115-B04**

4 Way Connection  
Threaded Coupling Tee W  
Ni Plated Brass  
9.53 mm internal Diameter  
9.53 mm X 9.53 mm X 9.53 mm  
Tested up to 180 bar



Compression Elbow  
NI Plated Brass  
9.53 mm internal diameter  
9.53 X 9.53 mm  
Tested up to 180 bar



## 4. High Pressure Mist Nozzles

### Water Mist Nozzles

Misting nozzles function in cooling by atomizing pressurized water into dry fine mist particles that "flash-evaporate". The smaller water droplets lead to better cooling

**1** Orifice: 0.2 mm

Recommended for open zones.

**2** Orifice: 0.15 mm

Recommended for semi open zones.

UV Sterilization, 5 Micron and 1 Micron Cartridge shall be used otherwise nozzles could be blocked.



- 3- Orifice: 0.10 mm  
Recommended for semi open zones.  
Reverse osmosis, UV Sterilization, 5 Micron and 1 Micron Cartridge shall be used otherwise nozzles could be blocked.
- 4- Spray Angle: 30 Degree Nozzle  
30-degree spray angle nozzle atomizing pressurized water into 30-degree spray angle shape that proposed for poles HybrLab will prepare mockup in order to proceed.
- 5- Spray Angle: 60 Degree Nozzle  
60-degree spray angle nozzle atomizing pressurized water into 30-degree spray angle shape that proposed for poles, HybrLab will prepare mockup in order to proceed.  
Spray Angle: 90 Degree Nozzle
- 6- 90-degree spray angle nozzle atomizing pressurized water into 30-degree spray angle shape that proposed for poles, HybrLab will prepare mockup in order to proceed.












## Anti-drip Ball Nozzles

All Nozzles 0.2 mm, 0.15mm, 0.10 mm proposed with Anti drip Ball, the valve closes at pressure of approximately 85 psi preventing water from dripping when the system is shut down.

## High Pressure Nozzles Specifications and Performance Data

Stainless steel with high level Ni Plated (Electroless Nickel) Finishing to improve the resistance of corrosion with removable impeller plate series with anti-drip valve

View	Material
	Stainless Steel Nozzle Head with high level Ni Plated (Electroless Nickel)
	Stainless Steel Impeller with high level Ni Plated (Electroless Nickel)
	Spring
	Viton Anti drip Ball
	Viton Oring
	Stainless Steel Nozzle Body – 1 with high level Ni Plated (Electroless Nickel)
	Viton Oring
	Stainless Steel Body – 2 with high level Ni Plated (Electroless Nickel)
	Viton Oring

## Nozzles Stainless Steel Filter Specifications and Performance Data

Diameter : 4.1 - 4.5 mm

Length : 5.7- 6.3 mm

Materials of Construction

Filter Wire Mesh : Stainless Steel or PP frame with Stainless Steel mesh

### Viton Rubber (Viton O ring Specifications)

- **Temperature** : Viton is effective within a temperature range of 20°C to 210°C. Viton are prone to failure below -15°C in dynamic applications, as they become inflexible and hard .
- **General Suitability** : Viton is optimum for diverse sealing jobs that require high temperature and chemical resistance. Applications involving contact with petroleum oils, acids, silicone fluids and gases, halogenated hydrocarbons (trichloroethylene and carbon tetrachloride) aromatic hydrocarbons usually have seals and o rings made of Viton.
- **Environmental Properties** : Viton is effective within a temperature range of 20°C to 210°C. Viton are prone to failure below -15°C in dynamic applications as they become inflexible and hard .
- **Applications**: different automotive, chemical and appliance - processing industries.

## Stainless Steel Nozzles

- Stainless Steel Nozzles with high level Ni Plated(Electroless Nickel) will be used for exposed zone.
- Ni Brass nozzles will be used for semi closed zones



## DATA SHEET OF WATER MIST & FOG NOZZLE

**MODE : AK067**

**ITEM NO. AK067010-SS-F8S50E-S7-3A63 # A10S/10E/FPP**



### Parts Material

- 1.Nozzle Head in SS
- 2.Impeller Plate in SS
- 3.316 SS Spring + EPDM ball
- 4.O-ring in NBR
- 5.Nozzle adapter in Ni plated Brass
- 6.O-ring in NBR
- 7.Filter (SS wire + PP body)
- 8.Nozzle adapter in Ni plated Brass
- 9.O-ring in NBR

### Nozzle Description

A-type Cleanable Nozzle, SS head, Ni plated Brass adapter With removable impeller plate  
 Orifice: 0.10mm/ .004" Thread No.: 10/24unc/2A  
 O-ring Material: 1st - NBR ; 2nd - NBR; 3rd - NBR  
 Anti-Drip: Dia 0.50mm S/S spring + EPDM ball  
 Filter: With Filter (SS wire + PP body)  
 Flow Rate @1,000PSI: 29ml/min (without anti-drip)

**DATA SHEET OF WATER MIST & FOG NOZZLE**
**MODE AK067**
**ITEM NO. AK067015-SS-F8S50E-S7-3A63 # A15S/10E/FPP**


**Parts Material**

- 1.Nozzle Head in SS
- 2.Impeller Plate in SS
- 3.316 SS Spring + EPDM ball
- 4.O-ring in NBR
- 5.Nozzle adapter in Ni plated Brass
- 6.O-ring in NBR
- 7.Filter (SS wire + PP body)
- 8.Nozzle adapter in Ni plated Brass
- 9.O-ring in NBR

**Nozzle Description**

A-type Cleanable Nozzle, SS head, Ni plated Brass adapter  
 With removable impeller plate Orifice: 0.15mm/ .006"  
 Thread No.: 10/24unc/2AO-ring  
 Material: 1st - NBR ; 2nd - NBR; 3rd - NBR Anti-Drip: Dia 0.50mm S/S spring + EPDM ball  
 Filter: With Filter (SS wire + PP body)  
 Flow Rate @1,000PSI: 47ml/min (without anti-drip)

**DATA SHEET OF WATER MIST & FOG NOZZLE**
**DATA SHEET OF WATER MIST & FOG NOZZLE**

<b>MODE AK067</b>	<b>ITEM NO. AK067020-SS-F8S50E-S7-3A63 # A20S/10E/FPP</b>	
		
<p style="text-align: center;"><b>Parts Material</b></p> <ol style="list-style-type: none"> <li>1.Nozzle Head in SS</li> <li>2.Impeller Plate in SS</li> <li>3.316 SS Spring + EPDM ball</li> <li>4.O-ring in NBR</li> <li>5.Nozzle adapter in Ni plated Brass</li> <li>6.O-ring in NBR</li> <li>7.Filter (SS wire + PP body)</li> <li>8.Nozzle adapter in Ni plated Brass</li> <li>9.O-ring in NBR</li> </ol>	<p style="text-align: center;"><b>Nozzle Description</b></p> <p>A-type Cleanable Nozzle, SS head, Ni plated Brass adapter With removable impeller plate                  Orifice: 0.20mm/ .008" Thread No.: 10/24unc/ 2AO-ring Material: 1st - NBR ; 2nd - NBR; 3rd - NBR Anti-Drip: Dia 0.50mm S/S spring + EPDM ball Filter: With Filter (SS wire + PP body)                  Flow Rate @1,000PSI: 66ml/min (without anti-drip)</p>	



**DATA SHEET OF WATER MIST & FOG NOZZLE**
**MODE : ASW**
**ITEM NO. ASW-M610ES-030D # A-030DES/SW10**

**Parts Material**

1. Nozzle Head in Special Coated S S
2. O-ring in VITON
3. Swivel nozzle adapter in Special Coated SS
4. O-ring in VITON
5. Swivel nozzle adapter in Special Coated SS
6. O-ring in VITON

**Nozzle Description**

A-type Cleanable, Special Coated SS head,  
 Special Coated SS Swivel body  
 Spray Angle: 30 degree  
 Thread No.: 10/24unc/2A  
 O-ring Material: 1st - Viton ; 2nd -Viton; 3rd - Viton  
 Anti-Drip: No anti-drip  
 Filter: No Filter  
 Flow Rate @1,000PSI: About 2,000 ml/min

**DATA SHEET OF WATER MIST & FOG NOZZLE**
**MODE : ASW**
**ITEM NO. ASW-M610ES-060D # A-060DES/SW10**


**Parts Material**

1. Nozzle Head in Special Coated S S
2. O-ring in VITON
3. Swivel nozzle adapter in Special Coated SS
4. O-ring in VITON
5. Swivel nozzle adapter in Special Coated SS
6. O-ring in VITON

**Nozzle Description**

A-type Cleanable, Special Coated SS head,  
 Special Coated SS Swivel body  
 Spray Angle: 60 degree  
 Thread No.: 10/24unc/2A  
 O-ring Material:  
 1st - Viton ; 2nd -Viton; 3rd - Viton Anti-Drip:  
 No anti-drip  
 Filter: No Filter  
 Flow Rate @1,000PSI: About 2,200 ml/min


## DATA SHEET


<b>Item No:</b>	<b>ADV-10-E-6</b>
<b>Descriptions</b>	<b># EDV-10/E1010</b>
	Nozzle Drain Valve, Ni-plated Brass Thread No.: 10/24unc/2AO-ring Material: 1st – NBR ; 2nd – NBR Anti-Drip: Dia 0.20mm S/S spring + NBR ball Nozzles Open @ pressure less than 10 Bar

<b>Item No:</b>	<b>AK097010-SS-F8S50V-S7-9A63</b>
<b>Descriptions</b>	<b># A10ES/10ES/FPP</b>
	A-type Cleanable Nozzle, Special Coated SS head, Special Coated SS Adapter With removable impeller plate Orifice: 0.10mm/ .004" Thread No.: 10/24unc/2AO-ring Material: 1st - Viton ; 2nd - Viton; 3rd -Viton Anti-Drip: Dia 0.50mm S/S spring + Viton ball Filter: With Filter (SS wire + PP body)



## DATA SHEET

<b>Item No:</b>	<b>AK097015-SS-F8S50V-S7-9A63</b>
<b>Descriptions</b>	<b># A15ES/10ES/FPP</b>
	A-type Cleanable Nozzle, Special Coated SS head, Special Coated SS Adapter With removable impeller plate Orifice: 0.15mm/ .006" Thread No.: 10/24unc/2AO-ring Material: 1st - Viton ; 2nd - Viton; 3rd -Viton Anti-Drip: Dia 0.50mm S/S spring + Viton ball Filter: With Filter (SS wire + PP body)

<b>Item No:</b>	<b>AK097020-SS-F8S50V-S7-9A63</b>
<b>Descriptions</b>	<b># A20ES/10ES/FPP</b>
	A-type Cleanable Nozzle, Special Coated SS head, Special Coated SS adapter With removable impeller plate Orifice: 0.20mm/ .008" Thread No.: 10/24unc/2A O-ring Material: 1st - Viton ; 2nd - Viton; 3rd -Viton Anti-Drip: Dia 0.50mm S/S spring + Viton ball Filter: With Filter (SS wire + PP body)



## 5. Stainless Steel Pipes 316 L

The Seamless Stainless-Steel Pipes 316 L used by HybrLab of CENTRAVIS are rated at 180 bar and have been used successfully in industrial applications for over 20 years. These Stainless-Steel Pipes 316 L are the highest quality in the industry and carry a full 5-year warranty. The Stainless-Steel Pipes 316 L minimum thickness 0.89 mm for pipes diameter 9.53 mm, no special tools or crimping procedures are required.



## High Pressure Pump 11 L/M for FOG and Cooling Application



Model : TA-5115 (11L)

Dimension: L570mm\*W410mm\*H350

HybrLab offers a broad range of 1000-psi high pressure FOG pumps and complete, quiet fog systems. From our standard direct drive pump to our fully customized units, all of our whisper-quiet FOG pumps are built with high-quality components and have a proven track record of over 25 years.

All of our standard direct drive and pulley drive pumps are designed and built with recognized components and include thermal and short circuit protection

HybrLab High Pressure pumps are heavy-duty outdoor rated units. These pumps are ideal for medium to heavy-duty FOG and Cooling applications and provide quality components in a small and convenient platform. The units also include a thermal overload in the motor and fuse protection for the solenoid branch circuit. They are available 230V.

If you are looking for a custom solution, HYBRLAB offers completely customized FOG pumps for a wide variety of applications that feature custom controls to suit specific needs. Our custom series pumps can be built for voltages from 230V Single Phase to 415 V 3 Phase. Additional components, such as electric zone valves, drain valves, and safety switches are also available.

- 1** Control Panel
- 2** Water inlet pipe 1.5M\*1
- 3** 240v Solenoid Valve-220v
- 4** Waterless power-off device
- 5** Pressure Sensor
- 6** Anti-vibration hose
- 7** Distribution board .
- 8** Variable-frequency Drive
- 9** 24HR Time switch .
- 10** Single Phase 2HP/1.5KW (220v)
- 11** ABB Electrical motor

## High Pressure Pump 15 L/M for FOG and Cooling Application



Dimension: L570mm\*W410mm\*H350  
HybrLab offers a broad range of 1000-psi high pressure FOG pumps and complete, quiet fog systems. From our standard direct drive pump to our fully customized units, all of our whisper-quiet FOG pumps are built with high-quality components and have a proven track record of over 25 years.

All of our standard direct drive and pulley drive pumps are designed and built with recognized components and include thermal and short circuit protection.

HybrLab High Pressure pumps are heavy-duty outdoor rated units. These pumps are ideal for medium to heavy-duty FOG and Cooling applications and provide quality components in a small and convenient platform. The units also include a thermal overload in the motor and fuse protection for the solenoid branch circuit. They are available 230V.

If you are looking for a custom solution, HYBRLAB offers completely customized FOG pumps for a wide variety of applications that feature custom controls to suit specific needs. Our custom series pumps can be built for voltages from 230V Single Phase to 415 V 3 Phase. Additional components, such as electric zone valves, drain valves, and safety switches are also available.

- 1** Control Panel
- 2** Water inlet pipe 1.5M\*1
- 3** 240v Solenoid Valve-220v
- 4** Waterless power-off device
- 5** Pressure Sensor
- 6** Anti-vibration hose
- 7** Distribution board .
- 8** Variable-frequency Drive
- 9** 24HR Time switch .
- 10** Single Phase 3HP/2.2KW (220v).
- 11** ABB Electrical motor



## High Pressure Pump 24 L/M for FOG and Cooling Application



Model : TA-5115 (24L)

Dimension: L570mm\*W410mm\*H350

HybrLab offers a broad range of 1000-psi high pressure FOG pumps and complete, quiet fog systems. From our standard direct drive pump to our fully customized units, all of our whisper-quiet FOG pumps are built with high-quality components and have a proven track record of over 25 years.

All of our standard direct drive and pulley drive pumps are designed and built with recognized components and include thermal and short circuit protection.

HybrLab High Pressure pumps are heavy-duty outdoor rated units. These pumps are ideal for medium to heavy-duty FOG and Cooling applications and provide quality components in a small and convenient platform. The units also include a thermal overload in the motor and fuse protection for the solenoid branch circuit. They are available 415V.

If you are looking for a custom solution, HYBR LAB offers completely customized FOG pumps for a wide variety of applications that feature custom controls to suit specific needs. Our custom series pumps can be built for voltages from 230V Single Phase to 415 V 3 Phase. Additional components, such as electric zone valves, drain valves, and safety switches are also available.

- 1** Control Panel
- 2** Water inlet pipe 1.5M\*1
- 3** 240v Solenoid Valve-220v
- 4** Waterless power-off device
- 5** Pressure Sensor
- 6** Anti-vibration hose
- 7** Distribution board .
- 8** Variable-frequency Drive
- 9** 24HR Time switch .
- 10** Three phase 5 HP / 4 KW ( 415 V )
- 11** ABB Electrical motor