

FIREFIGHTING COMPONENTS AND PRODUCTS

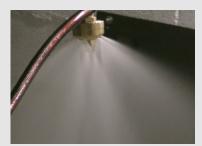
Water Mist nozzles





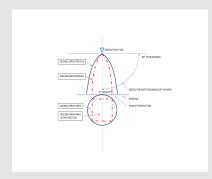


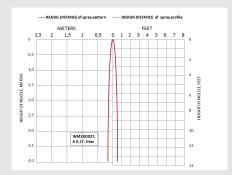


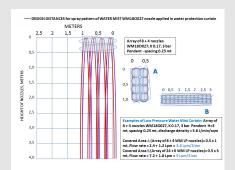




General considerations on the distribution of a directional nozzle water mist at low pressure, that have to be considered at the design phase in the following figures:









Test of a water mist curtain Spraytecs for the protection of a theater curtain and the surrounding décor.



Barrier with water mist blade Spraytecs installed in a compartment of access to industrial warehouse.

As general, Water Mist nozzles are designed to obtain spray pattern based on more than 90% of very fine droplets, with single droplet size less than 1000 microns.

But this is only a basic standard definition of Water Mist, because many of these nozzles can make very small droplets, in the range between 5 to 50 microns.

There are many applications where Water Mist nozzles are a key factor for the best final result, such Fire Protection systems, Explosion Protection systems, Lumber Drying and Humidification systems.

So the WM nozzle drawing accuracy and the material quality, together with a good technical support to the customer, make the difference between the minimal and the best process result.

We, in Spraytecs Technologies Ltd, design and manufacture water mist nozzles in both High Pressure (> 50 bar) and in Low Pressure (3 to 7 bar) according to your requests, specifically designed for your application, with an approach highly collaborative towards your technicians from the first contact.

Water Spray nozzles - UP Series



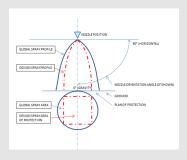


Fig. 1: Water Spray Nozzle UP Series Codes, Dimensions, Wrench sizes and K-factor

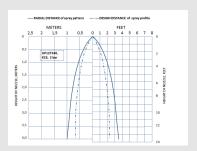


Fig. 2a: Water Distribution **Design Data and Design** Criteria

SPRAYTECS Series UP are High Velocity, Open (Non-Automatic) Directional Spray nozzles and they are designed for use in Water Spray fixed systems for fire protection applications.

They provide a spray angle of medium value, and they discharge a uniformly filled cone of high velocity water droplets of medium size.

The SPRAYTECS UP Water Spray series is produced today with a spray angle of 80°, but other values of openness of the jet are in development and will be very soon available.

As general consideration, these Water Spray nozzles are suitable when a high velocity water application is required, such in case of protection of flammable liquids.

The UP series SPRAYTECS Nozzles have good performances in covering exposed vertical, horizontal, curved, and irregular shaped surfaces in cooling spray systems to prevent excessive absorption of heat from an external fire and consequent structural damage or spread of fire to the protected equipment.

Are available in these materials: brass, bronze, stainless steel 316L, with connections 1/2 " BSP and NPT.

SPRAYTECS Water Spray nozzles may have individual Strainers and Dust Caps as options.



Pipes (Pre-Drilled and Threaded)





We make in Stainless Steel (and in many special Alloys as Hastelloy C276, Inconel, Monel and in Titanium or other materials) Special Pipes Ready-to-Mount, already drilled and threaded (or with welded nipples). PVC, PVDF and other plastics and elastomers materials are also available.

Special Ready-to-Mount Pipes are suitable for time saving in plant construction in foods industry, beverage industry, chemical industry, fire-fighting, oil & gas, steelworks, air-conditioning and air-pollution reduction.

Threads may be BSPP, BSPT, NPT or Dovetail in case of welding nipples needed.

Various diameters, lenghts and thicknesses are available. The normal lenght of pipes is 6 meters, and they can be cutted at desired lenghts.

Drills number in the pipe, drills positioning and threads must be specified in the order.

It is also possible to make couples of drills and threads at the same distance from the pipe top, with a fixed angle (i.e. 90° angle, 120° angle or similar angles).

Various formats of pipes are available ready to be drilled and threaded before shipment to your premises.

Wide Angle Jet nozzles UD Series



Shape of the spray





These nozzles are ideal in processes that require a wide angle of coverage as in the field of fire-fighting, or to isolate, clean and cool vertically areas, as in the case of water curtains.

Angles: from 130° to 180°- Flow Rate: from 0,4 lpm to 350 lpm /3 bar - Threads Dimensions: from 1/8" to 1" $\,$

Spiral nozzles US series



Shape of the spray





In these nozzles as it exits, the fluid deflects off the spiral surfaces to form the hollow cone pattern. This fact assures minimal clogging and maximum flow through passages than other nozzles of comparable size. They are ideal in special offshore and in-shore fire protection applications or in tanks cooling.

Angles: from 60° to 180° - Flow Rate: from 5,5 lpm to 165 lpm /3 bar - Threads Dimensions: from $3/8^\circ$ to $3/4^\circ$

Bladder tanks with foam mixers



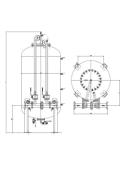
Technical construction data

- Construction Standards: PED 97/23 (ASME VIII Div.1 on request)
- **Design pressure**: 12 bar
- Max working pressure: 12 bar
- Test pressure: 18 bar
- Operating temperature : -10° + 50°C

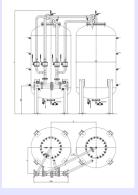
Performances range

- Max Flow:

from 800 to 2500 liters/min - 3" body from 2600 to 6000 liters/min - 4" body



Liquid displacement foam premixer



Double liquid displacement foam premixer

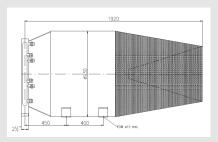
The Bladder Tanks to Moving Liquid are fire apparatus that constitute a dosing system foam pressure-balanced, and are constituted by a pressure tank with an internal elastomeric bladder for the generation of foam liquid.

Our Bladder to Moving Liquid models are available in horizontal, vertical and pre-connected.



Foam Generator— Class 1





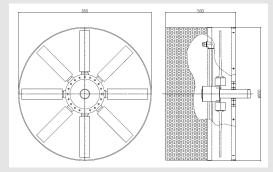
Technical construction data

- Construction Standards: PED 97/23 (ASME VIII Div.1 on request)
- **Max Flow**: 200 liters/min or 400 liters/min, depending on the version **Expansion Ratio**: 1:700



High expansion Foam Generator Class 2





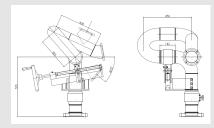
Technical construction data

- Construction Standards: PED 97/23 (ASME VIII Div.1 on request)
- **Max Flow**: 200 liters/min or 400 liters/min, depending on the version **Expansion Ratio**: 1:700



Manual monitors—Class 1.0





Technical construction data

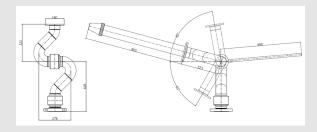
- Construction Standards: PED 97/23 (ASME VIII

Div.1 on request)

- Max Flow: 4,000 liters/min



Manual monitors—Class 2.0



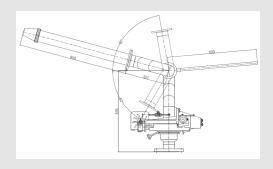
Technical construction data

- Construction Standards: PED 97/23 (ASME

VIII Div.1 on request)
- *Max Flow*: 2,500 liters/min



Self Swinging Monitor



Technical construction data

- Construction Standards: PED 97/23 (ASME

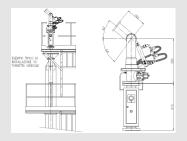
VIII Div.1 on request)

- Max Flow: 2500 liters/min



Platform Tower Hydraulic Monitors





Technical construction data

- Construction Standards: PED 97/23

(ASME VIII Div.1 on request)

- Max Flow: 5000 liters/min



Water Shields 180°



Technical construction data

Materials

- Body: Carbon steel - Stainless steel AISI 304

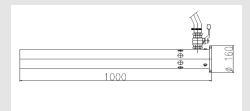
- Inlet Flange: ANSI 150 RF – UNI/DIN - Flanges Material: ASTM A 105 or AISI 304

- Body size: 11/2"

- Diffuser material: AISI 304



Foam Branchpipe - Class 1

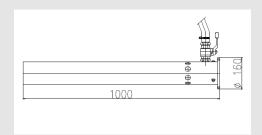


Performances range

- Max Flow: from 800 to 2500 liters/min - 3" body from 2600 to 6000 liters/min - 4" body



Selfsucking Foam Branchpipe Class 2

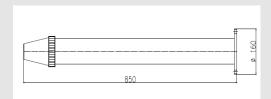


Performances range

- Max Flow: from 800 to 3000 liters/min -3" body from 3100 to 6000 liters/min - 4" body



Water Branchpipe Class 3



Performances range

- Max Flow: from 800 to 2500 liters/min - 3" from 2600 to 6000 liters/min - 4"



Steam Branchpipe



Technical construction data

Materials

- **Body:** Carbon Steel **Inlet thread:** 1" Gas M.

- Body size: 1"Water nozzle: carbon steel
- Thermally insulated body





After more than 100 installations in the world inside many different kind of machine tools, we introduced in the global market the security assured by our family of Fire Protection Systems for Machine Tools.

Main features:

- ●Protection 24h/7 days without Operator
- Minimizing of the damage
- Continuity of production
- Employees safe guarded from risks of fire
- Specialized assistance
- Complete recovery of the lubrificating oil
- Ease of recovery after use
- •High security because the system works also without power supply (t. max. 3 days)

Programming error or mechanical malfunctions can rapidly create dangerous situations. People often think to can control the situation with a portable extinguisher, but unfortunately this may be not enough to extinguish a fire. The right reaction in the first seconds is fundamental to not lose the machine.

The damage caused by a fire can therefore be very serious, but it is estimated that the interruption of production or the failure to meet deadlines can be a damage value of 4 times more for the company.

KeepGuard dispels all your worries ... protect the safety and health of your workers, safeguard yourself from legal responsibility, and protect your investments and your business.

Find out more about it in the KeepGuard Catalog



