

Sprinkler and Spray Nozzle



We Offer
Creative
Design

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Welcome to Arka Sanat Pishroo

Our dreams is build a new generation of high quality design and development with professional skills and efficiency technology in firefighting and fire alarm systems.

Arka Sanat is specialized in designing, manufacturing and installation Firefighting and Fire Alarm systems. When it comes to fire safety and extinguishing solutions, reliability is essential. Therefore, Arka Sanat exclusively cooperates with internationally acknowledged partners.

Arka Sanat with his brand that name is "Trust" has multiple experiences of consulting and performing in national industries of Oil and Gas, Petrochemical, Refinery, Mining, Municipality, Airport, Fire department, Administrative and Commercial centers.

However Arka Sanat offers a lot more than products and services. By all means, we are involved during the complete project and the final commissioning to finish every project successfully.

Why Choose Us?

Our strong sense of identification with client projects means that we are constantly striving to provide solutions, even for issues they aren't yet aware of. To this end, we adopt a progressive approach to technology and marketing techniques.

This sense of identification also means we value and promote seamless interaction with clients' own teams, and ensure the best value is obtained from their event budget.

We love what we do, some might say a bit too much & we bring enthusiasm and commitment to every project we work on.



Focus on quality



20 years of experiences



Professional



Great company value



Passionate team



Quick response

Our Best Services

Today, The Arka Sanat provides Fire Safety Systems with integrated solutions for any fire protection challenge. The Arka Sanat profession focuses on Designing and Construction a wide variety of safety equipment to human health and safety in the workplace. Rely on Arka Sanat to deliver:



Design & Engineering

Arka Sanat engineering services leverage the cross-functional group of experts at RK to deliver creative, accurate solutions to complicated challenges in a shorter period of time.



Procurement

Making the details come together is critical to a projects success. Our team works with suppliers to negotiate competitive pricing, delivery expectations, logistics, and administrative details. They also work closely with project management to assure all items are at the site when needed in good condition.



Construction

Arka Sanat provides predictable and reliable service for firefighting and Fire Alarm Systems. we offer accountability for results. Safety was the driving force behind the decision to start our company, and it remains a crucial factor on every construction project.



About Our Product

We are a professional & solid company team who works with passion & skills to provide the best design for business needed.

Arka Sanat Company will provide any Type of Fire Spray Nozzle and Sprinkler & Accessories with the highest quality as follows:

- Full Cone Spray Nozzle
- Flat Type Spray Nozzle
- Fire Water Sprinkler
- High Velocity Spray Nozzle
- Foam/Water Spray Nozzle
- Spiral Type Spray Nozzle

These are manufactured in corrosion resistant material, Stainless Steel, Galvanised Carbon Steel, Brass, Bronze, Chrome Plate and are suitable for both onshore and offshore applications.



We can imagine that you still have some question about you own specific situation after reading this leaflet. Our colleagues will be pleased to help you by making a good chance for your kind of risk. Please contact us:

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Arka Fire Safety Solution

Full Cone Spray Nozzle

Arka Sanat supply a wide range of full cone spray nozzles that are used in various applications.

Arka Sanat Medium Velocity Water Spray Nozzle is an open orifice, directional spray nozzle, designed for use in water spray fixed systems for fire protection applications. MV nozzle comes in various materials such as: Brass, Bronze, Ni-Al-Bronze, Aluminum, Chrome Plate and Stainless Steel.

Description:

- Size 1/2" NPT
- Open orifice design used in deluge water spray system
- Several combination of different orifice sizes & spray angles
- K-factor(Metric): 18, 22, 30, 35, 41, 51, 64, 79, 91 & 102
- Spray angle: 65°, 80°, 90°, 100°, 110°, 120° & 140°
- Each Nozzle body permanently marked with model number, batch number, spray angle, K-factor
- Finish: Brass, Bright Nickel Chrome or Natural Finish

It is better to fail in originality than to succeed in imitation



Model No.: RK-SPN-212



Flat Type Spray Nozzle

Arka Sanat Pishroo Tank Cooling Water Spray Nozzle is an open orifice and non-automatic spray nozzle. Flat Type nozzle is designed for use in fixed water spray fire protection systems, especially for protection of fuel storage tanks. Tank Cooling Nozzle is typically mounted in upright position at a distance from the exterior wall of the tank for cooling of the tank. In case of fire in the vicinity of the tank it prevents the tank from absorbing the heat radiation.



Model No.: RK-SPN-112

Description:

- Model: RK-SPN-112
- Size: 1/2", 3/4", 1" NPT
- K-Factors: K20, K30, K37, K42, K58, K79
- Non-automatic open orifice
- Material: Brass, Bronze, Stainless Steel
- Finish: Brass, Bright Nickel Chrome or Natural Finish
- Each Nozzle body permanently marked with model number, batch number, spray angle, K-factor

Fire Water Sprinkler

Arka Sanat deliver an extensive package of Nozzles such as the Sprinklers are available in four types: Standard Upright, Standard Pendent, Conventional. and Sidewall. Our Spray Nozzles for use in fixed water spray or deluge systems for fire protection applications.

Descriptions:

- Bulb type frangible element for use in closed head systems
- Discharges a filled cone of water droplets at relatively low velocity
- The Type RK-SPN-301 Nozzles are also especially effective for area coverage and are sometimes used in standard sprinklers where directional spray is considered more appropriate.
- Materials: Brass, Bronze, Chrome Plate
- Spray angles available: 65°, 80°, 95°, 110°, 125°, 140°, 160°, and 180°
- Sprinkler Nominal Temperature Range: 57 , 68 , 79 , 93 , 141 (C)

Model No.: RK-SPN-8112



There are four main types of fire sprinkler system:

- Wet pipe
- Dry pipe
- Deluge
- Pre-action

Wet Pipe:

In a wet pipe fire sprinkler system, the most common type in residential buildings, cold water is stored under pressure in the pipes and is released immediately by sprinkler heads when the predetermined heat level is reached.

Dry Pipe:

Dry pipe sprinkler systems take slightly longer to activate and are used in unheated/unoccupied buildings where pipes may freeze and burst. Nitrogen gas or pressurised air is stored in the pipes, connected to a water storage tank or main. On activation by a fire, the air leaks out of the pipes, causing the water to flow through the pipes to the sprinkler heads.



Deluge:

Deluge sprinkler systems are typically used in areas where rapid fire damage is a major concern, such as warehouse loading bays and high-rise buildings. In these systems, the nozzle is always open. They are triggered by an alarm that opens a water release valve.

Pre-action:

Pre-action sprinkler systems are a combination of wet and dry pipe systems, typically used in areas at high-risk of water damage. Water is not stored in the pipes until a fire is detected, when the water is released to the sprinkler heads. The response time is as fast as a standard wet pipe sprinkler system. Automatic fire sprinkler systems are also available and are effective in large areas such as offices and shopping centres.

High Velocity Spray Nozzle

High Velocity Water Spray Nozzles are internal swirl plate type open nozzles designed for use in fixed water spray or deluge system for the fire protection application. These nozzles produce solid uniform and dense core of high velocity water spray to effect fire control. Nozzles are normally used to cool the surface as well as for extinguishment. Nozzles are typically used for Deluge protection of special hazards such as oil filled transformers, switch-gear, chemical process equipments, conveyor system and flammable liquid storage areas. The minimum desirable pressure to achieve a reasonable spray pattern is 3.5 Kg./sq.cm. (50 psi). The water distribution pattern is as shown in the graph in following pages giving maximum effective axial distance from the nozzle. The spray pattern shown is with indoor application.

Model No.: RK-SPN-312

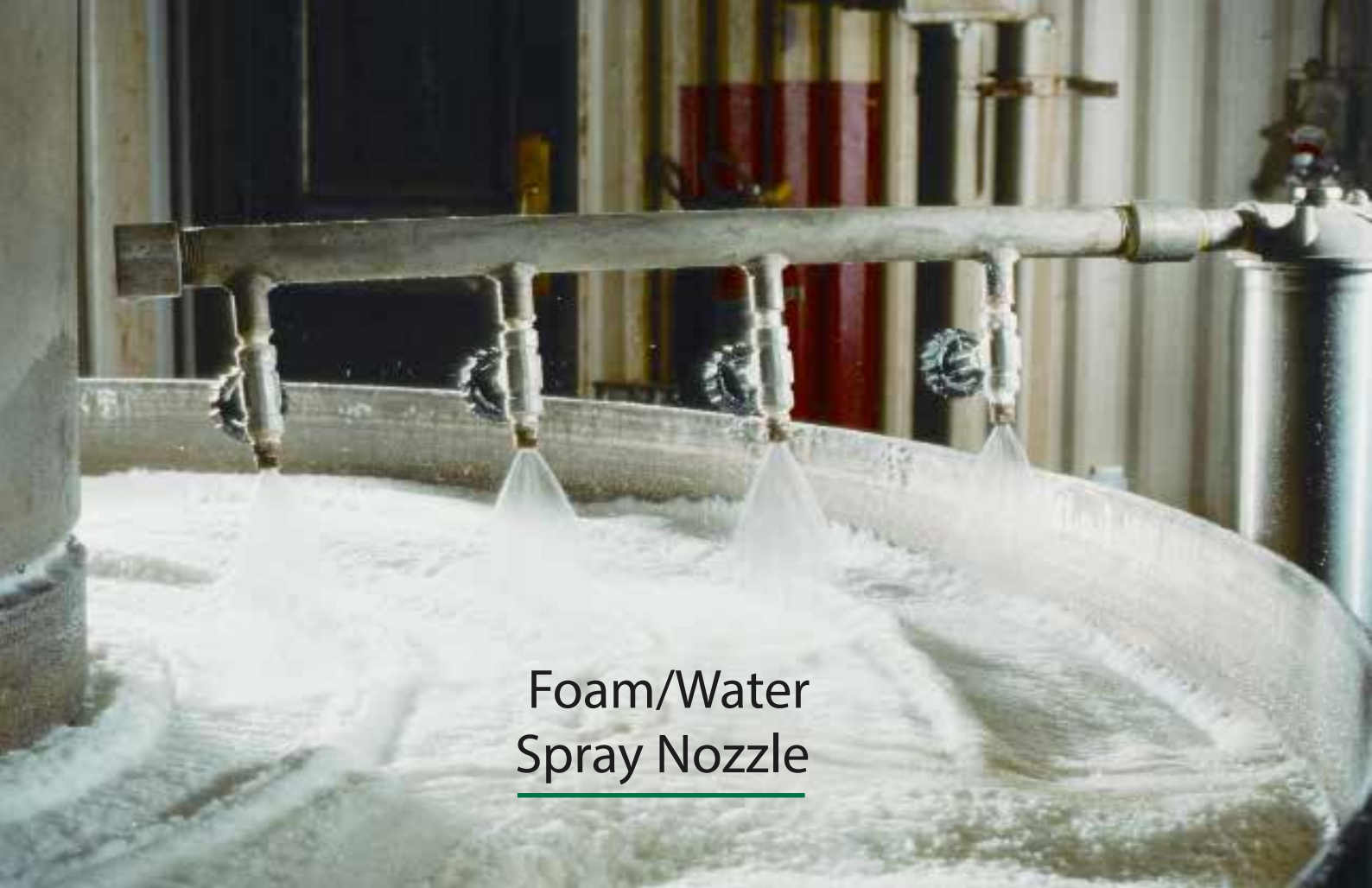


These nozzles are designed to be installed in groups or zones of protection and operate simultaneously to rapidly extinguish high intensity oil fires. The type of nozzle, the flow rate, and discharge angle is determined by the type of risk involved.

High Velocity Water Spray Nozzles are internal swirl plate type open nozzles designed for use in fixed water spray or deluge system for the fire protection application.







Foam/Water Spray Nozzle

Foam can be a problem in many industrial, chemical, water treatment and food production processes. Sprays of foam-retarding chemicals or even simply water can be used to knock down the foam and prevent build up.

When selecting foam control nozzles there are a number of engineering factors to consider. Each of these is detailed within its own page accessible by clicking on the blue menu to the right hand side of this page. Information on the various nozzle designs that might be suitable for foam control applications can be accessed by the grey menu bar also to the right. The orange button to the right links to the foam control nozzle selection Foam-Control-1cheat sheet which summaries the information contained within the other pages of this foam control application section of the Arka Sanat website.

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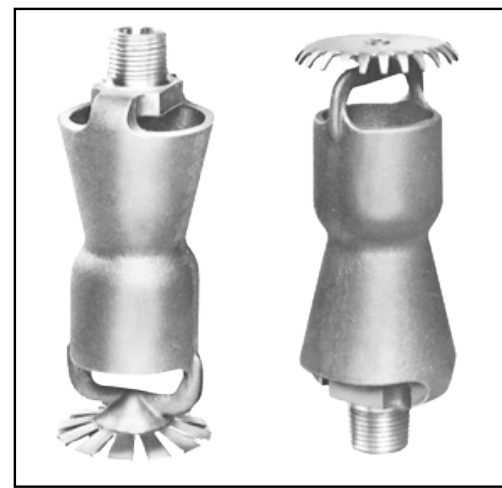
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Foam is a dispersion of gas (typically air) in a liquid. Air/gas can be entrained via agitation at the surface, such as a spinning impeller partially out of the liquid or a stream entering the free surface of a liquid (e.g., where a waterfall meets the pool at its base) or be created by biological or chemical reactions or processes. Foam is undesirable because it can overflow vessels, create slippery and unsafe working conditions, interfere with processing, damage materials, and cause tanks to drain and dry slowly. Controlling foam can be accomplished by spraying liquid onto the surface of the pool, vessel or reservoir, and allowing the droplets of the spray to impact the foam bubbles, causing them to break.

The Model SPN-501 Upright and Pendent Foam-Water Sprinklers manufactured by Johnson Controls are air-aspirating foam discharge outlets designed for use in foam-water deluge systems. They are designed for flammable liquid risks where it is desired to apply foam from overhead sprinklers (either upright or pendent) and where follow-up with plain water in a standard spray sprinkler pattern is necessary. See NFPA 16, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, for more information.

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Model No.: RK-SPN-412



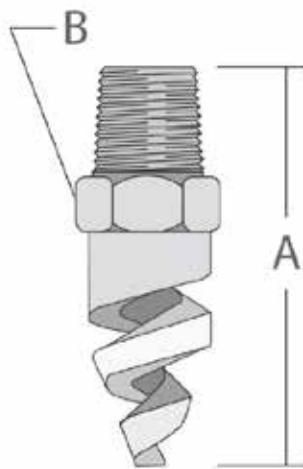
Spiral Type Spray Nozzle

Spiral spray nozzles, also called helix, pigtail, or corkscrew, disperse liquid as shear along the turns of the spiral. There are no internal parts, but instead it has an external spiral vane.

If you desire a small drop size, the spiral design can increase process efficiency. If you need more coverage or increased angle formation at higher pressures, spiral nozzles provide excellent results.



Size	A Dimension (Length) mm	B Dimension (Hexagon) mm
1/4"	47.6	14.3
3/8"	47.6	17.5
1/2"	63.5	22.2
3/4"	69.9	28.6
1"	92.1	34.9
1 1/2"	111	50.8
2"	176	63.5
3"	219	88.9
4"	257	114



Model No.: RK-SPN-512

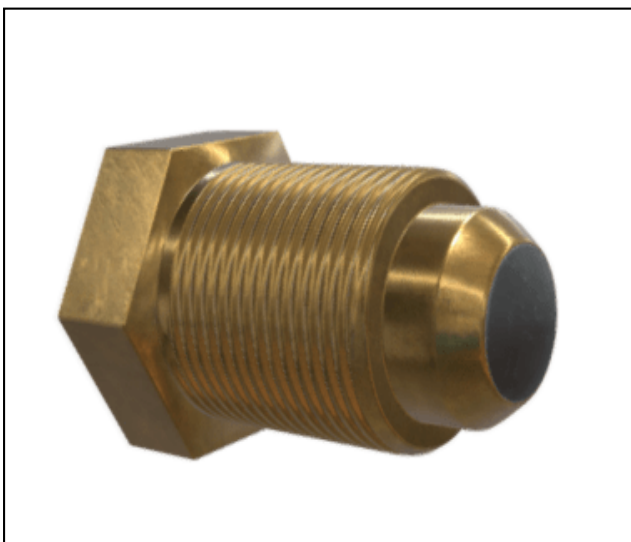
A fusible plug is a threaded metal cylinder usually of bronze, brass or gunmetal, with a tapered hole drilled completely through its length. This hole is sealed with a metal of low melting point that flows away if a pre-determined, high temperature is reached. The initial use of the fusible plug was as a safety precaution against low water levels in steam engine boilers, but later applications extended its use to other closed vessels, such as air conditioning systems and tanks for transporting corrosive or liquefied petroleum gasses.

Fusible plugs are installed between the fireside of either the plate, flue or tube of the boiler and below the water level

28-400 models are manufactured to conform to ASME standards and meet U.S. Coast Guard requirements

Fire-activated fusible plugs are filled with pure tin and feature a melting point between 445°F and 450°F. 28-400.

A fusible plug operates as a safety valve when dangerous temperatures, rather than dangerous pressures, are reached in a closed vessel. In steam engines, the fusible plug is screwed into the crown sheet (the top plate) of the firebox, typically extending about an inch (25mm) into the water space above. Its purpose is to act as a last-resort safety device in the event of the water level falling dangerously low: when the top of the plug is out of the water it overheats, the low-melting-point core melts away and the resulting noisy release of steam into the firebox serves to warn the operators of the danger before the top of the firebox itself runs completely dry, which could result in catastrophic failure of the boiler.



Accessories for Spray Nozzle

Sprinkler Cap



Deluge Valve & Fire Pump



Concealed



Sprinkler Flexible Hose



Installation of Sprinkler Flexible Hose



Cap



Sprinkler System



Spray Nozzle





“A satisfied
customer
is the best business
strategy of all”



Every client is unique, every situation is different. Practices turn to Arka Sanat for lots of reasons. But, in most cases, it distills down to a single word: Trust.

- Trust in our experience.
- Trust in our solutions.
- Trust in our results.

Contact Us

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