Industrial Spray Headers, Nozzles, and More

For Industrial Applications

Spraying Systems Co.®

Achieving superior spray header performance begins by specifying Spraying Systems Co.

With more than 60 years of experience, Spraying Systems Co. is the world's leading manufacturer of spray products. We offer a complete line of spray nozzles, spray headers, and accessories that are designed to provide precise performance and innovative solutions in every type of spray application.

In addition to spray products, we also provide the technical support you need

Our local sales engineers and factory technical support staff conduct spray system evaluations on a daily basis to solve spray system problems. They can assist you every step of the way — identifying problems, suggesting solutions, selecting spray nozzles and accessories, testing, and evaluating — in finding the right spray product to fit your needs.

To keep your spray system operating at peak levels, we also offer a Spray Nozzle Maintenance Workshop. Presented by your local Spraying Systems Co. sales engineer, the custom-designed workshop is an informative session on how to spot and solve spray nozzle problems. During the workshop, we'll demonstrate how to check for nozzle wear and we'll work with you to set up a regular maintenance program that works.

Spray headers are available in a variety of configurations

On the following pages, you'll find information about our customized spray headers that are performance engineered for spraying accuracy and ease of maintenance. For example, if you need thorough cleaning, one of our five models of stainless steel spray headers might be the answer. Not only

do these spray headers eliminate nozzle clogging, which thereby reduces maintenance downtime and water consumption, they also provide greater efficiency and improve system productivity. In addition, manual or automatic internal cleaning brushes can be added to any ShowerJet header design to help reduce nozzle plugging. Special air atomizing headers using our VAU AutoJet® nozzles are also available for more critical moisturizing and coating applications where a greater degree of control is required.

Contact us today for more information

Please take a few minutes now to review this information on our line of spray headers. Then take us up on a spray system evaluation conducted at your facility. It's free and there's no obligation. Just contact your local Spraying Systems Co. sales engineer. Or visit our Web site at www.spray.com.

Automatic Brush, Manual Brush, and Brushless Spray Headers

Our stainless steel spray headers are available in three versions — automatic brush, manual brush, and brushless. With the automatic version, a motor assembly automatically rotates the interior brushes. Cleaning cycles can be pre-set at intervals from 15 minutes to approximately 50 hours. When the brush assembly is activated, the spraying operation does not shut down.

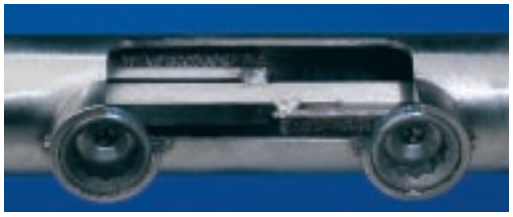
The manual brush version utilizes a hand wheel to rotate the brush assembly. Again, the brushes do not shut down the spraying operation. The spray header can also be ordered with ShowerJet disc-type nozzles without a brush assembly. And a self-cleaning brush-type assembly can be added later, should the need arise.

Automated or manual, these spray headers are ideal for use in recirculating systems where nozzle plugging may be a problem. During the cleaning cycle, the brushes scrub the interior of the spray header as well as each nozzle orifice. In seconds, accumulated debris is removed and discharged through the flush-out valve. This restores full liquid flow to the system without contaminating the sprayed surface.

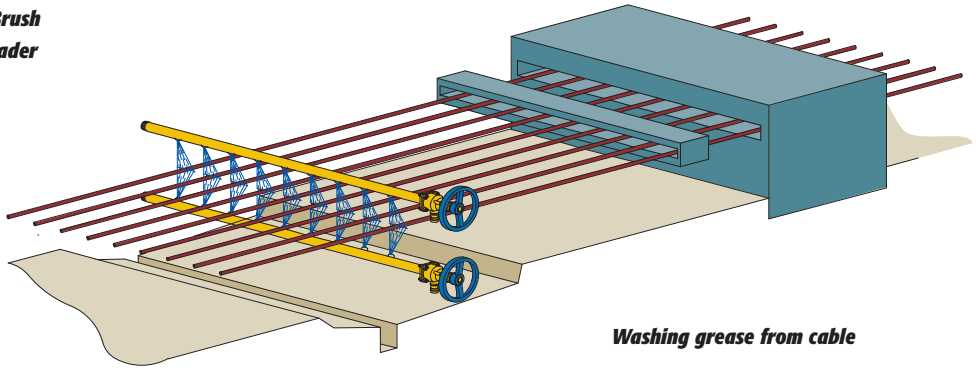
These headers offer an important improvement in spray applications where accurate spray distribution and clog-free performance are critical.

The spray header also continues to spray during the flush-out operation. The brush sections are staggered at 120˚ intervals along the spray header. Large passages between brush sections allow full flow while the system operates. Brush interference with the nozzle inlets does not adversely affect performance when the flush-out valve is in the full operating position.

Universal brush-type headers are fitted with an adapter to accept a wide range of Spraying Systems Co. spray nozzles to suit the needs of a variety of applications. All of these headers are custom made and can be manufactured to meet the specific needs of various installations, inlet connections, and nozzle sizes.

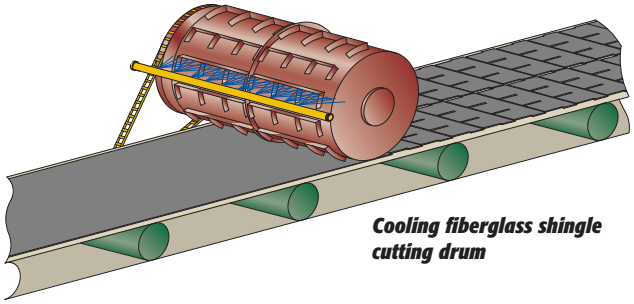


Manual Brush Spray Header



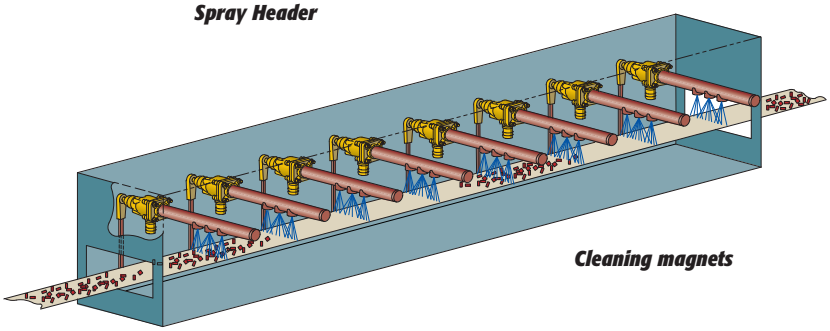
Washing grease from cable

Brushless Spray Header



Cooling fiberglass shingle cutting drum

Automatic Brush Spray Header



Cleaning magnets

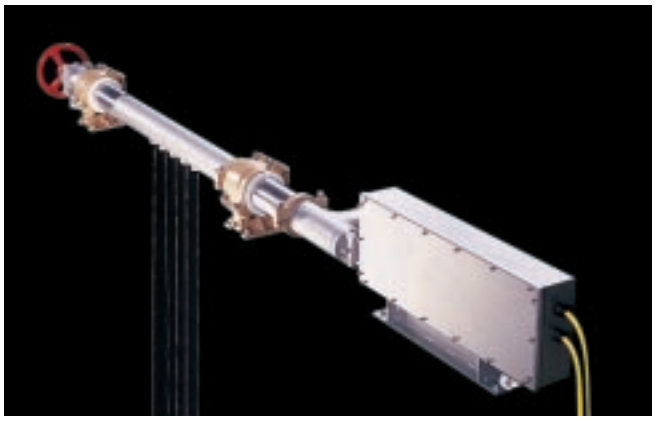
Spray Header Design Features

- Brushes are staggered at 120° intervals to allow full system flow.
- Brushes sweep along the full length of the nozzle to prevent clogging — making them ideal for recirculating systems.
- A hand wheel or electric motor operates the brush versions.
- Automatic version is designed for continuous cleaning so as not to disrupt system operation.
- Pipe diameter size ranges from 1-1/2" to 6". Custom-designed pipe lengths available.
- Elbows, flanges, hose adapters, and a variety of mounting options are available for inlet/outlet connections. A rebuilding kit is also offered.
- All headers are custom made to suit specific application requirements.

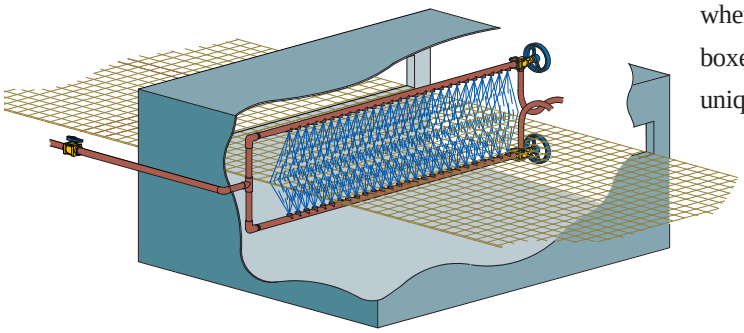
Oscillating and Air Atomizing/ Hydraulic Spray Headers

Oscillating Spray Header

Our oscillator assembly provides continuous movement of a spray header to assure complete, uniform coverage with minimal water usage. It is an electromechanical unit that consists of an oscillator, oscillator base, and a control unit.



The oscillator uses a linear actuator to supply thrust loads up to 2000 lbs. (907 kg). Minimum dwell time in the reverse position in as little as 10 milliseconds. The oscillator's control unit has operator adjustable stroke settings up to 12" (200 mm) in 0.10" (2.5 mm) increments, and speed settings up to 10" (250 mm) per minute in 0.10" (2.5 mm) per minute increments are possible.



Cleaning conveyor belts

Air Atomizing/Hydraulic Spray Headers

Spraying Systems Co.'s air atomizing/hydraulic spray headers can be used where a more critical spray application is required. One or more of our wide range of air atomizing nozzles can be added to the spray header and fine-tuned for accurate, uniform spray distribution across the contact area. This makes these units ideal for moisturizing and coating applications.

One of the air atomizing nozzle options is our VAU variable spray AutoJet® nozzles. The nozzles are positioned across the spray header to afford independent adjustment of the liquid flow, atomizing air, and fan air pressures to provide exceptional spray control. Each nozzle's clean-out needle is activated when the cylinder air flow is shut off, reducing the incidence of clogging.

The spray header has two basic designs. An open channel design in either stainless steel or aluminum is offered along with an enclosed box-style design in 316 stainless steel or 304 stainless steel. The box-style header's protective stainless steel enclosure houses the nozzles and feed lines. Hinged doors provide easy access and an optional mounting assembly permits rotation of the spray header. The open channel arrangement is designed for use in areas where damage to the header and nozzles is less likely to occur.

The spray header can also be customized for zone spraying where additional application widths are needed. Control boxes are also available and can be custom designed for each unique application.

Additional spray header products...

DiscJet® Nozzles

When space is critical, the DiscJet nozzle is an excellent choice for use on your spray header. This flat fan spray nozzle can be flush-mounted to a spray header pipe. It provides effective cleaning with minimum water usage and minimal clogging.

Self-cleaning Nozzles

By simply adding our self-cleaning nozzles to a spray header, you have the added benefit of significantly reduced maintenance downtime. When line pressure is reduced, the nozzle's purge piston retracts to purge suspended solids from the clogged nozzle orifice.

NeedleJet® Nozzle/Adapter

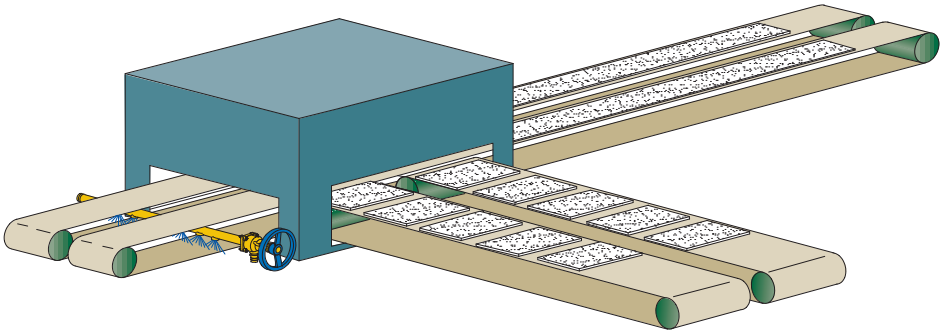
This solid stream, high performance nozzle is ideal for high impact cleaning. Precision machined to provide exact flow control and superior spray integrity. A NeedleJet Adapter makes adding the nozzle to a spray header exceptionally easy.

ShowerJet Nozzles

ShowerJet nozzles are disc-type nozzles for use with brush-type spray headers. They are available in stainless steel and ceramic. A lock ring on the header holds these self-locating nozzles in place. Spray angle and distance from the impact area determine how many nozzles are required for the header.

Liquid Strainers

Spraying Systems Co. offers a variety of different strainers to guard against foreign matter in the line. You can select from low, medium, and high pressure liquid strainers in a choice of connection sizes and materials.



Cleaning return screens

Industrial Spray Header Specification Sheet

This form will be useful in describing your specific industrial spray header requirements. Make a copy of the form and complete the information requested. For quoting purposes, submit this form to your local Spraying Systems Co. sales office.

Company _____ Date _____

Address _____

Name _____ Phone _____

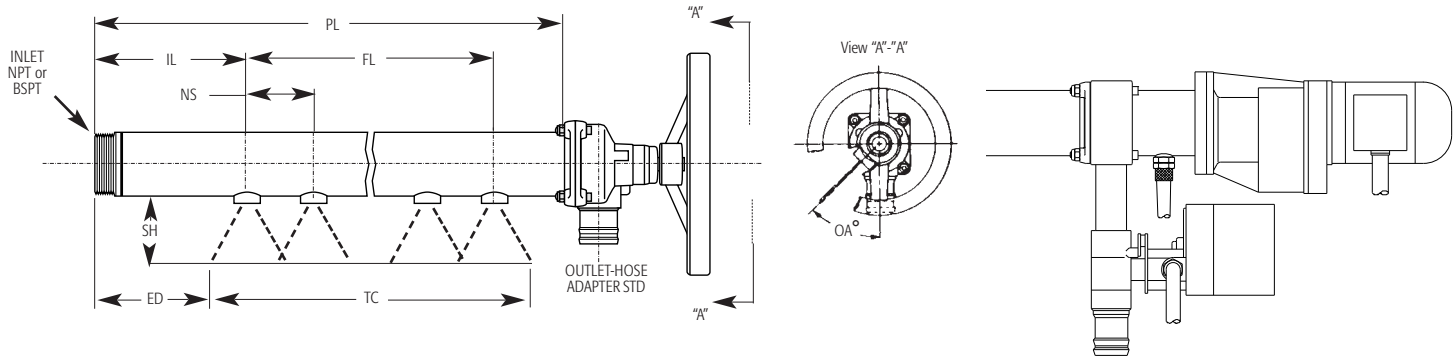
Telex No. _____ Fax No. _____

Office _____ Rep _____

Originator _____ Date req'd _____

Type of business _____

Location in plant _____



TC*: _____ OA: _____ NS: _____ SH*: _____

(See view "A"-"A")

*Note: Dimension MUST be provided.

Legend

PL: Pipe length
IL: End of inlet to centerline of first nozzle
FL: Centerline of first nozzle to centerline of last nozzle
NS: Nozzle spacing
SH: Spray height
TC: Theoretical coverage
ED: End of inlet to the edge of sprayed surface
OA: Angle between plane of sprays and outlet centerline

Engineering recommendations:

PL: Must be greater than IL + FL + 2.0" (5.08 cm)
IL: Must be greater than 4.0" (10.16 cm)
SH: Minimum is 2.5" (6.35 cm)

Please provide us with as much information as possible.

Industrial spray header type required: Brushless [ ] Brush-type [ ] Auto brush [ ] Oscillating [ ]

Pipe size: _____ Material: 304LSS [ ] 316LSS [ ] Stroke: _____

No. of headers required: _____ Quantity of nozzles per header: _____ Orifice size: _____

Angle: _____ Operating pressure: _____ (40 psig min. recommended) Total flow rate per header: _____

Type of liquid being sprayed: _____ Manufacturer and model of machine: _____

Distance from pivot to first nozzle (oscillating): _____

Comments or special requirements: _____

Helpful resources and product information for Industrial Applications

Spray Nozzle Maintenance Handbook

This 52-page handbook is packed with tips for keeping spray nozzle systems in peak operating condition. *Request Technical Manual No. 403.*

Industrial Spray Products Catalog

Our full line catalog features tens of thousands of spray system solutions. You'll find performance data, exploded views of nozzle assemblies, product materials, and ordering information all in a readable and easy-to-follow format. *Request Industrial Spray Products Catalog 60.*

Design Engineers Guide to Spraying Systems Co.'s Nozzles and Services

This eight-page guide is packed with tips for selecting spray nozzles and accessories. *Request Technical Manual No. 404.*

Oscillator Assembly Bulletin

Here's the inside story on our Oscillator Assembly. Complete information on the assembly, full dimensional and performance data, along with ordering information is provided. *Request Bulletin No. 466.*

Nozzle Maintenance Workshop and Video

Spraying Systems Co. will personally conduct a workshop on spray nozzle maintenance for you and your staff. We've also produced a video program entitled "Making Your Success Our Business." *Ask your sales engineer for details about the workshop and video.*

Represented by:

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