



**Spraying Systems Co.®**  
Experts in Spray Technology

# GUNJET® SPRAY GUNS



[spray.com](http://spray.com)



# GUNJET® SPRAY GUNS

Whatever your application, you're sure to find a solution for your cleaning and rinsing needs in our comprehensive line of hand-held spray guns. Options range from a gentle low-pressure spray to a high-impact, high-pressure solid stream.










All of our spray guns are durable and efficient. Many of our guns also feature:


- Specially designed handles to improve control and reduce operator fatigue
- Smooth-pull triggers to enable accurate and consistent flow control
- Textured grips to minimize the chance for slippage and accidents

A complete line of accessories compliments our spray guns. Front extensions, inlet/outlet adapters, swivel connectors and strainers are available to ensure easy, trouble-free operation.



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# THE PRODUCTS YOU NEED AND PERFORMANCE YOU CAN COUNT ON

You'll find a wide variety of handheld spray guns in this catalog but you can also visit [spray.com](https://www.spray.com) to see tens of thousands additional spray products. Featured products on [spray.com](https://www.spray.com) include hydraulic spray nozzles, air atomizing nozzles, automatic hydraulic and pneumatic nozzles, tank cleaning equipment, air nozzles and nozzles for specialized operations like descaling, trim squirt, spray drying, fire protection and more. We offer nozzles in more sizes and materials than any other supplier, so you're sure to find a product that delivers the performance you need.

## PRECISE, DEPENDABLE PRODUCT QUALITY

Your satisfaction is important to us. Our products are manufactured to exacting standards to deliver the promised performance each and every time you order. We are ISO 9001:2008 and 14001:2004 certified. Products ship only after undergoing our rigorous quality control and testing programs. If you have any concerns about the quality of any of our products, contact us immediately. We will address your issues and take corrective action as needed.

## PRODUCTS WHEN YOU NEED THEM


Most of our spray nozzles are readily available and will be shipped within days of your order. If you need expedited service, let us know. Our ten manufacturing locations are strategically located around the world to help ensure we can get our products where they are needed quickly and cost-effectively.

## SPECIAL REQUIREMENTS? TELL US WHAT YOU NEED

If one of our standard products isn't quite right for your equipment, just let us know. Customization can range from simple changes in materials to specially-designed nozzles to meet exacting performance requirements.

**We work with hundreds of OEMs and provide services like these:**

- Special nozzle designs
- Private labeling with unique part numbers
- Special packaging
- Customized maintenance and operating instructions



# THE SERVICES YOU NEED, WHEN AND WHERE YOU NEED THEM

## OUR SOLE FOCUS ON SPRAY TECHNOLOGY ENSURES RESULTS IN YOUR OPERATIONS

Since spray technology is all we do, we have a level of expertise that can't be matched. Our sales engineers are factory-trained and only sell our spray products. Need to increase throughput in a coating operation? Eliminate waste or lower scrap? Cool products more quickly? Suppress dust? Minimize water and chemical use in cleaning operations? Just give us a call. With sales offices on six continents and more than 90 sales offices, we are in your area and ready to help.

### WHAT CUSTOMERS SAY ABOUT OUR SERVICE

"We are very pleased with Spraying Systems Co. Wish all vendors were as good."

"Very pleased – awesome is the best way to describe Spraying Systems Co. service."

"A+ on service. Sales engineer responded quickly and visited my facility to review various product options for my application."

"Rep always provides prompt answers. Knows the full product line inside and out."

"I get more technical support from Spraying Systems Co. than any other vendor."

"The local rep came right out – didn't even know the size of the project at the time."

"Spraying Systems Co. provides solutions – not just parts."

"More knowledgeable than any other equipment company we work with."

"We get the products we need, when we need them. Each and every time we order."





# HOW YOU CAN BENEFIT FROM SPRAY SYSTEM OPTIMIZATION

### WAYS TO LEARN MORE

#### EXPERT ADVICE AT YOUR PLANT

**No-charge spray system evaluation** – Your local sales engineer will inspect your current spray operations and provide suggestions on how to improve efficiency. Evaluations can focus on a specific area such as reducing water or compressed air use, tank cleaning, automation opportunities and more.

#### **Complimentary Lunch and Learn workshops** –

Select a topic, choose a date and invite your colleagues. We'll provide lunch and an informative 60-minute session. Popular topics include *Spray Nozzle Basics*, *Understanding Drop Size* and *How to Reduce Use of Costly Chemicals*.

#### **Spray demos and proof-of-concept trials at your facility** –

Your local sales engineer will conduct demos and tests on-site so you can see how a product will work in your environment. When operating conditions don't allow an on-site demo or test, other arrangements can be made.

#### TESTS AND DEMONSTRATIONS AVAILABLE AT REGIONAL SPRAY TECHNOLOGY CENTERS

Throughout North America, we have several Spray Technology Centers. These facilities are equipped to conduct proof-of-concept tests and technology demonstrations. Seminars including live demonstrations on various topics are also conducted throughout the year. Schedules vary by region so contact your local sales engineer for information.

#### MULTI-DAY SEMINARS FOR ADVANCED LEARNING

An in-depth seminar on the atomization and spraying of liquids is conducted twice a year at our facility in Wheaton, IL. Attendees spend time in the classroom and our fully equipped spray laboratories and participate in spray characterization tests. More information is available from your local sales engineer and at [sprayconsultants.com](http://sprayconsultants.com).



## EDUCATIONAL RESOURCES

### Video demonstrations and tutorials on [spray.com](http://spray.com) and [YouTube.com/sprayingystems](http://YouTube.com/sprayingystems)

Explore our video library and learn about new spray products and techniques; best practices in maintenance procedures; what to look for in a spray pattern and more.

### Technical guides and white papers on [spray.com](http://spray.com)

- [Optimizing Your Spray System, Technical Manual 410](#)
- [Change the Way You Spray to Maximize Water Conservation, Technical Manual 415](#)
- [White paper series](#) addresses topics ranging from spray automation, solving clogging problems, water conservation and more

### Case studies on [spray.com](http://spray.com)

More than 75 case studies demonstrate the benefits other processors have experienced through spray optimization. See [spray.com/results](http://spray.com/results).

### Catalogs on [spray.com](http://spray.com)

- [Air Atomizing and Automatic Air Atomizing Nozzles](#)
- [Industrial Hydraulic Spray Products](#)
- [TankJet® Tank Cleaning Products](#)
- [WindJet® Air Products](#)
- [SprayDry® Nozzles](#)
- [Spray Technology for Steelmaking](#)
- [Spray Technology for Pulp and Papermaking](#)
- [Car Wash Products](#)
- [GunJet® Handheld Spray Guns](#)
- [Plus dozens of market- and product-specific technical bulletins](#)





## ORDERING PRODUCTS

In each product section, you'll find ordering examples. Start by reviewing the example and then create the part number by indicating the gun model, material and capacity size.

|                 |   |                  |   |          |         |        |   |    |   |    |
|-----------------|---|------------------|---|----------|---------|--------|---|----|---|----|
| GunJet<br>Model | — | Material<br>Code | — | Capacity | Example | CU150A | — | AL | — | 22 |
|-----------------|---|------------------|---|----------|---------|--------|---|----|---|----|

For your convenience, there are multiple ways to place an order: phone, fax and online.

### In North America

Phone: 1.800.95.SPRAY | Fax: 1.888.95.SPRAY

### Outside North America

Phone: 1.630.665.5000 | Fax: 1.630.260.0842

Online ordering with a credit card is also available. Visit [spray.com/ispray](http://spray.com/ispray). You'll find helpful selection tools and a Live Chat option for immediate assistance.









## FINDING PRODUCTS

- Consult the Product Index on **page i-2** if you know the name of the product
- Consult the Part Number Index on **page i-3** if you have the part number. Part numbers are shown numerically and alpha-numerically

Selection assistance is also available by calling **1.800.95.SPRAY**. Representatives in your local sales office will help you determine which products best meet your application requirements. (Call **1.630.665.5000** outside North America or visit [spray.com](http://spray.com) to find information for the sales office in your area.)



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Spray nozzles are precision components designed to yield very specific performance under specific conditions. To help you determine the best nozzle type for your application, the following chart summarizes the performance that each nozzle type is designed to deliver. Visit [youtube.com/sprayingystems](https://www.youtube.com/sprayingystems) for video demonstrations of spray patterns.



**FLAT (EVEN) NOZZLES**

- Provides even distribution of medium-sized drops throughout the thin, rectangular spray pattern
- When used on a header, nozzles are positioned for edge-to-edge pattern contact



**FULL CONE NOZZLES**

- Uses a unique internal vane design to produce a solid cone-shaped spray pattern
- Spray pattern consists of medium- to large-sized drops



**FLAT SPRAY (TAPERED) NOZZLES**

- Produces a tapered-edge flat spray pattern
- Used on spray headers to provide uniform coverage as a result of overlapping distributions



**ATOMIZING (HYDRAULIC, FINE MIST) NOZZLES**

- Produces a finely atomized, low capacity spray in a hollow cone pattern without use of compressed air



**FLAT SPRAY (DEFLECTED-TYPE) NOZZLES**

- Uses a deflector surface to form an even flat spray pattern consisting of medium-sized drops
- Large free passage design reduces clogging through the round orifice



**AIR ATOMIZING AND AIR ASSISTED NOZZLES**

- Produces a variety of cone and flat spray patterns through atomization of liquid by compressed air
- Internal mix impingement atomization forms very fine drops



**SOLID STREAM NOZZLES**

- Produces a solid stream spray with the highest impact per unit area

**CAPACITY – FLUID CAPACITY VARIES WITH SPRAYING PRESSURE**

The relationship of pressure and flow with a given orifice is:

$$\frac{Q_1}{Q_2} \sim \left(\frac{P_1}{P_2}\right)^n$$

**Q** = Flow Rate (in gpm or lpm)  
**P** = Liquid pressure (in psi or bar)  
**n** = Flow exponent

To approximate any unknown flow or pressure, use this formula when the other variables are known. The "n" exponent is used to approximate the ratio of pressure to flow based on the type of spray pattern.

**Example:**

To determine the flow rate of water for a 1/4G-10 standard full cone nozzle at 150 psi or at 10 bar, consult the performance charts in this catalog.

You will find that:

- The spray angle is 65°
- Flow (Q<sub>1</sub>) at 40 psi = 1.9 gpm
- Pressure (P<sub>1</sub>) = 40 psi
- Pressure (P<sub>2</sub>) = 150 psi

Solving for Q<sub>2</sub> = 3.5 gpm

$$Q_2 = \frac{Q_1}{(P_1/P_2)^n} = \frac{1.9 \text{ gpm}}{(40/150)^{.46}}$$

- The spray angle is 65°
- Flow (Q<sub>1</sub>) at 3 bar = 7.5 lpm
- Pressure (P<sub>1</sub>) = 3 bar
- Pressure (P<sub>2</sub>) = 10 bar

Solving for Q<sub>2</sub> = 13 lpm

$$Q_2 = \frac{Q_1}{(P_1/P_2)^n} = \frac{7.5 \text{ lpm}}{(3/10)^{.46}}$$

**FLOW EXPONENT FOR SPECIFIC NOZZLE TYPES**

| Nozzle Type   | Exponent "n" |
|---|--------------|
| Hollow Cone Nozzles – All<br>Full Cone Nozzles – Vaneless, 15° and 30° Series<br>Flat Spray Nozzles – All<br>Solid Stream Nozzles – All<br>Spiral Nozzles – All | .50          |
| Full Cone Nozzles – Standard, Square, Oval and Large Capacity   | .46          |
| Full Cone Nozzles – Wide Spray and Wide Square Spray  | .44          |

Visit [spray.com/sprayware](http://spray.com/sprayware) for online flow rate and spray coverage calculators.

**SPECIFIC GRAVITY**

**All capacity tabulations in this catalog are based on water.** Since the specific gravity of a liquid affects its flow rate, tabulated catalog capacities must be multiplied by the conversion factor that applies to the specific gravity of the liquid being sprayed as explained below.

Specific gravity is the ratio of the density of a fluid compared to the density of water. The specific gravity of water is defined as 1. When spraying fluids other than water, specific gravity must be considered in the flow calculations.

$$Q_2 = Q_1(\text{water}) \times \frac{1}{\sqrt{SG}}$$

**Using the previous example:**

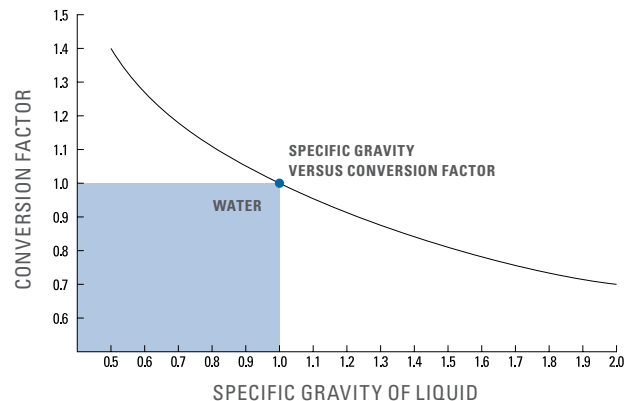
- Fluid sprayed is heavier than water and has a specific gravity of 1.4
- Flow of water at 150 psi = 3.5 gpm
- Heavy fluid (Q<sub>2</sub>) = Q<sub>1</sub>(water)\*1/√1.4

$$Q_2 = \frac{3.5 \text{ gpm} * 1}{\sqrt{1.4}} = 2.95 \text{ gpm}$$

- Fluid sprayed is heavier than water and has a specific gravity of 1.4
- Flow of water at 10 bar = 13 lpm
- Heavy fluid (Q<sub>2</sub>) = Q<sub>1</sub>(water)\*1/√1.4

$$Q_2 = \frac{13 \text{ lpm} * 1}{\sqrt{1.4}} = 11 \text{ lpm}$$

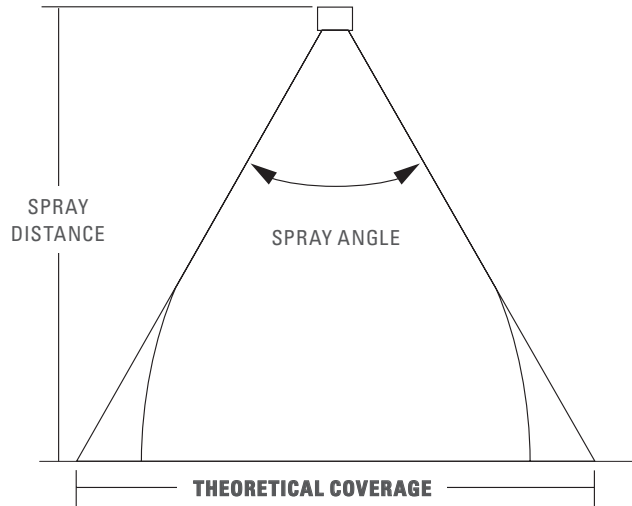
**SPECIFIC GRAVITY VERSUS CONVERSION FACTOR**



KEY: Conversion factor multiplied by the capacity of the nozzle when spraying water gives the capacity of the nozzle when spraying a liquid with a specific gravity corresponding to the conversion factor. This conversion factor accounts only for the effect of specific gravity on capacity and does not account for other factors affecting capacity.

SPRAY ANGLE AND COVERAGE

Tabulated spray angles indicate approximate spray coverage based on spray or distribution of water. In actual spraying, the effective spray angle varies with spray distance. Liquids more viscous than water form relatively smaller spray angles (or even a solid stream), depending upon viscosity, nozzle capacity and spraying pressure. Liquids with surface tensions lower than water will produce relatively wider spray angles than those listed for water. This table lists the theoretical coverage of spray patterns as calculated from the included spray angle of the spray and the distance from the nozzle orifice. Values are based on the assumption that the spray angle remains the same throughout the entire spray distance. In actual practice, the tabulated spray angle does not hold for long spray distances. If the spray coverage requirement is critical, request data sheets for specific spray coverage data.



**Example:** A spray nozzle with an angle of 65° spraying 15" (39 cm) from the target provides 19.2" (48.8 cm) of coverage

THEORETICAL SPRAY COVERAGE AT VARIOUS DISTANCES IN INCHES (CM) FROM NOZZLE ORIFICE

| Spray Angle | 2 in. | 5 cm | 4 in. | 10 cm | 6 in. | 15 cm | 8 in. | 20 cm | 10 in. | 25 cm | 12 in. | 30 cm | 15 in. | 40 cm | 18 in. | 50 cm | 24 in. | 60 cm | 30 in. | 70 cm | 36 in. | 80 cm | 48 in. | 100 cm |
|-------------|-------|------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|--------|
| 5°          | .2    | .4   | .4    | .9    | .5    | 1.3   | .7    | 1.8   | .9     | 2.2   | 1.1    | 2.6   | 1.3    | 3.5   | 1.6    | 4.4   | 2.1    | 5.2   | 2.6    | 6.1   | 3.1    | 7.0   | 4.2    | 8.7    |
| 10°         | .4    | .9   | .7    | 1.8   | 1.1   | 2.6   | 1.4   | 3.5   | 1.8    | 4.4   | 2.1    | 5.3   | 2.6    | 7.0   | 3.1    | 8.8   | 4.2    | 10.5  | 5.2    | 12.3  | 6.3    | 14.0  | 8.4    | 17.5   |
| 15°         | .5    | 1.3  | 1.1   | 2.6   | 1.6   | 4.0   | 2.1   | 5.3   | 2.6    | 6.6   | 3.2    | 7.9   | 3.9    | 10.5  | 4.7    | 13.2  | 6.3    | 15.8  | 7.9    | 18.4  | 9.5    | 21.1  | 12.6   | 26.3   |
| 20°         | .7    | 1.8  | 1.4   | 3.5   | 2.1   | 5.3   | 2.8   | 7.1   | 3.5    | 8.8   | 4.2    | 10.6  | 5.3    | 14.1  | 6.4    | 17.6  | 8.5    | 21.2  | 10.6   | 24.7  | 12.7   | 28.2  | 16.9   | 35.3   |
| 25°         | .9    | 2.2  | 1.8   | 4.4   | 2.7   | 6.7   | 3.5   | 8.9   | 4.4    | 11.1  | 5.3    | 13.3  | 6.6    | 17.7  | 8.0    | 22.2  | 10.6   | 26.6  | 13.3   | 31.0  | 15.9   | 35.5  | 21.2   | 44.3   |
| 30°         | 1.1   | 2.7  | 2.1   | 5.4   | 3.2   | 8.0   | 4.3   | 10.7  | 5.4    | 13.4  | 6.4    | 16.1  | 8.1    | 21.4  | 9.7    | 26.8  | 12.8   | 32.2  | 16.1   | 37.5  | 19.3   | 42.9  | 25.7   | 53.6   |
| 35°         | 1.3   | 3.2  | 2.5   | 6.3   | 3.8   | 9.5   | 5.0   | 12.6  | 6.3    | 15.8  | 7.6    | 18.9  | 9.5    | 25.2  | 11.3   | 31.5  | 15.5   | 37.8  | 18.9   | 44.1  | 22.7   | 50.5  | 30.3   | 63.1   |
| 40°         | 1.5   | 3.6  | 2.9   | 7.3   | 4.4   | 10.9  | 5.8   | 14.6  | 7.3    | 18.2  | 8.7    | 21.8  | 10.9   | 29.1  | 13.1   | 36.4  | 17.5   | 43.7  | 21.8   | 51.0  | 26.2   | 58.2  | 34.9   | 72.8   |
| 45°         | 1.7   | 4.1  | 3.3   | 8.3   | 5.0   | 12.4  | 6.6   | 16.6  | 8.3    | 20.7  | 9.9    | 24.9  | 12.4   | 33.1  | 14.9   | 41.4  | 19.9   | 49.7  | 24.8   | 58.0  | 29.8   | 66.3  | 39.7   | 82.8   |
| 50°         | 1.9   | 4.7  | 3.7   | 9.3   | 5.6   | 14.0  | 7.5   | 18.7  | 9.3    | 23.3  | 11.2   | 28.0  | 14.0   | 37.3  | 16.8   | 46.6  | 22.4   | 56.0  | 28.0   | 65.3  | 33.6   | 74.6  | 44.8   | 93.3   |
| 55°         | 2.1   | 5.2  | 4.2   | 10.4  | 6.3   | 15.6  | 8.3   | 20.8  | 10.3   | 26.0  | 12.5   | 31.2  | 15.6   | 41.7  | 18.7   | 52.1  | 25.0   | 62.5  | 31.2   | 72.9  | 37.5   | 83.3  | 50.0   | 104    |
| 60°         | 2.3   | 5.8  | 4.6   | 11.6  | 6.9   | 17.3  | 9.2   | 23.1  | 11.5   | 28.9  | 13.8   | 34.6  | 17.3   | 46.2  | 20.6   | 57.7  | 27.7   | 69.3  | 34.6   | 80.8  | 41.6   | 92.4  | 55.4   | 115    |
| 65°         | 2.5   | 6.4  | 5.1   | 12.7  | 7.6   | 19.1  | 10.2  | 25.5  | 12.7   | 31.9  | 15.3   | 38.2  | 19.2   | 51.0  | 22.9   | 63.7  | 30.5   | 76.5  | 38.2   | 89.2  | 45.8   | 102   | 61.2   | 127    |
| 70°         | 2.8   | 7.0  | 5.6   | 14.0  | 8.4   | 21.0  | 11.2  | 28.0  | 14.0   | 35.0  | 16.8   | 42.0  | 21.0   | 56.0  | 25.2   | 70.0  | 33.6   | 84.0  | 42.0   | 98.0  | 50.4   | 112   | 67.2   | 140    |
| 75°         | 3.1   | 7.7  | 6.1   | 15.4  | 9.2   | 23.0  | 12.3  | 30.7  | 15.3   | 38.4  | 18.4   | 46.0  | 23.0   | 61.4  | 27.6   | 76.7  | 36.8   | 92.1  | 46.0   | 107   | 55.2   | 123   | 73.6   | 153    |
| 80°         | 3.4   | 8.4  | 6.7   | 16.8  | 10.1  | 25.2  | 13.4  | 33.6  | 16.8   | 42.0  | 20.2   | 50.4  | 25.2   | 67.1  | 30.3   | 83.9  | 40.3   | 101   | 50.4   | 118   | 60.4   | 134   | 80.6   | 168    |
| 85°         | 3.7   | 9.2  | 7.3   | 18.3  | 11.0  | 27.5  | 14.7  | 36.7  | 18.3   | 45.8  | 22.0   | 55.0  | 27.5   | 73.3  | 33.0   | 91.6  | 44.0   | 110   | 55.0   | 128   | 66.0   | 147   | 88.0   | 183    |
| 90°         | 4.0   | 10.0 | 8.0   | 20.0  | 12.0  | 30.0  | 16.0  | 40.0  | 20.0   | 50.0  | 24.0   | 60.0  | 30.0   | 80.0  | 36.0   | 100   | 48.0   | 120   | 60.0   | 140   | 72.0   | 160   | 96.0   | 200    |
| 95°         | 4.4   | 10.9 | 8.7   | 21.8  | 13.1  | 32.7  | 17.5  | 43.7  | 21.8   | 54.6  | 26.2   | 65.5  | 32.8   | 87.3  | 39.3   | 109   | 52.4   | 131   | 65.5   | 153   | 78.6   | 175   | 105    | 218    |
| 100°        | 4.8   | 11.9 | 9.5   | 23.8  | 14.3  | 35.8  | 19.1  | 47.7  | 23.8   | 59.6  | 28.6   | 71.5  | 35.8   | 95.3  | 43.0   | 119   | 57.2   | 143   | 71.6   | 167   | 85.9   | 191   | 114    | 238    |
| 110°        | 5.7   | 14.3 | 11.4  | 28.6  | 17.1  | 42.9  | 22.8  | 57.1  | 28.5   | 71.4  | 34.3   | 85.7  | 42.8   | 114   | 51.4   | 143   | 68.5   | 171   | 85.6   | 200   | 103    | 229   | -      | 286    |
| 120°        | 6.9   | 17.3 | 13.9  | 34.6  | 20.8  | 52.0  | 27.7  | 69.3  | 34.6   | 86.6  | 41.6   | 104   | 52.0   | 139   | 62.4   | 173   | 83.2   | 208   | 104    | 243   | -      | -     | -      | -      |
| 130°        | 8.6   | 21.5 | 17.2  | 42.9  | 25.7  | 64.3  | 34.3  | 85.8  | 42.9   | 107   | 51.5   | 129   | 64.4   | 172   | 77.3   | 215   | 103    | 257   | -      | -     | -      | -     | -      | -      |
| 140°        | 10.9  | 27.5 | 21.9  | 55.0  | 32.9  | 82.4  | 43.8  | 110   | 54.8   | 137   | 65.7   | 165   | 82.2   | 220   | 98.6   | 275   | -      | -     | -      | -     | -      | -     | -      | -      |
| 150°        | 14.9  | 37.3 | 29.8  | 74.6  | 44.7  | 112   | 59.6  | 149   | 74.5   | 187   | 89.5   | 224   | 112    | 299   | -      | -     | -      | -     | -      | -     | -      | -     | -      | -      |
| 160°        | 22.7  | 56.7 | 45.4  | 113   | 68.0  | 170   | 90.6  | 227   | 113    | 284   | -      | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -      |
| 170°        | 45.8  | 114  | 91.6  | 229   | -     | -     | -     | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -     | -      | -      |

Visit [spray.com/sprayware](http://spray.com/sprayware) for online flow rate and spray coverage calculators.



**PUMPS**

Every operation using spray nozzles requires a method to provide fluid flow. Fluid flow can be provided by gravity, air pressure or mechanical pumps. It is important to understand that pumping systems provide flow, not pressure. Pressure is the result of restricting flow. The output of an unrestricted pump is 0 psi (bar). When a restriction is placed in the flow, line pressure will result.

The main types of pumps are positive displacement and centrifugal. There are others, but the operational principles are the same as for positive displacement and centrifugal pumps.

**Positive displacement pumps**

A fixed volume of fluid is delivered for every stroke of a piston, or plunger or rotation of a shaft. Examples include piston pumps, plunger pumps, peristaltic pumps and gear pumps. Positive displacement pumps provide high pressure, and regardless of the system characteristics, will deliver a fixed flow every rotation. These pumps must have an unrestricted bypass valve and a pressure relief valve.

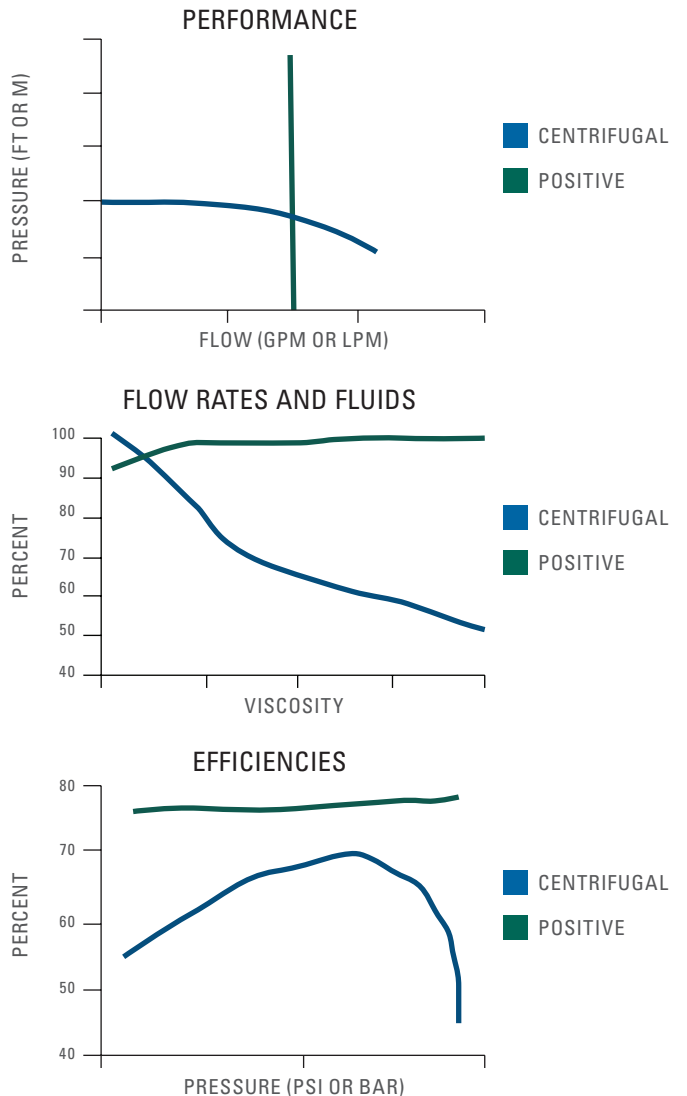
**Centrifugal pumps (velocity pumps)**

These pumps typically consist of a large vane (impeller) which is turned by a shaft inside a cavity (casing). The geometry of the impeller and casing moves the fluid in a tangential motion. The fluid gets restricted to a smaller volume and is then discharged into the system piping. These types of pumps typically operate at low pressure and high volume. They may also consist of several stages to increase the number of pressures available. These pumps have the unique feature of being able to run while the outlet is blocked. Since the pumps are velocity based, the impeller will spin in the casing fluid without “dead heading” the system itself. It will produce heat and may cavitate the fluid, but it will not build pressure like positive displacement pumps. However, a system bypass and pressure safety valve is still installed in the system to protect components.

**HOW PUMP TYPE AFFECTS NOZZLE SELECTION**

The flow rates and pressures required by the system will determine the pump choice. There are many styles, sizes and types of pumps available but these general guidelines should prove helpful.

- High flows usually require a centrifugal style pump
- High pressures usually require a positive displacement pump
- Variable Frequency Drive (VFD) pumps may be an option. These pumps allow variable control of speed and flow rates
- Consider the fluid. Specific gravity will affect pump flow rates just as it affects nozzle flow rates
- Pump efficiencies, heat, available power, maintenance and plant conditions should also be considered



**ESTIMATING PRESSURE DROPS THROUGH FLUIDLINE ACCESSORIES**

The rated capacities listed in this catalog for valves, strainers and fittings typically correspond to pressure drops of approximately 5% of their maximum operating pressure.

Visit [spray.com/sprayware](http://spray.com/sprayware) for an online pressure drop calculator. Or contact your local sales engineer.

**APPROXIMATE FRICTION LOSS IN PIPE FITTINGS IN EQUIVALENT FEET (METERS) OF STRAIGHT PIPE**

Use the chart below to determine the equivalent length of pipe through fittings to equate the friction loss.

| Pipe Size Standard Wt. (in.) | Actual Inside Dia. in. (mm) | Gate Valve FULL OPEN ft. (m) | Globe Valve FULL OPEN ft. (m) | 45° Elbow ft. (m) | Run of Standard Tee ft. (m) | Standard Elbow or Run of Tee Reduced 1/2 ft. (m) | Standard Tee Through Side Outlet ft. (m) |
|------------------------------|-----------------------------|------------------------------|-------------------------------|-------------------|-----------------------------|--|--|
| 1/8                          | .269 (6.8)                  | .15 (.05)                    | 8.0 (2.4)                     | .35 (.11)         | .40 (.12)                   | .75 (.23)  | 1.4 (.43)                                |
| 1/4                          | .364 (9.2)                  | .20 (.06)                    | 11.0 (3.4)                    | .50 (.15)         | .65 (.20)                   | 1.1 (.34)  | 2.2 (.67)                                |
| 1/2                          | .622 (15.8)                 | .35 (.11)                    | 18.6 (5.7)                    | .78 (.24)         | 1.1 (.34)                   | 1.7 (.52)  | 3.3 (1.0)                                |
| 3/4                          | .824 (21)                   | .44 (.13)                    | 23.1 (7.0)                    | .97 (.30)         | 1.4 (.43)                   | 2.1 (.64)  | 4.2 (1.3)                                |
| 1                            | 1.049 (27)                  | .56 (.17)                    | 29.4 (9.0)                    | 1.2 (.37)         | 1.8 (.55)                   | 2.6 (.79)  | 5.3 (1.6)                                |
| 1-1/4                        | 1.380 (35)                  | .74 (.23)                    | 38.6 (11.8)                   | 1.6 (.49)         | 2.3 (.70)                   | 3.5 (1.1)  | 7.0 (2.1)                                |
| 1-1/2                        | 1.610 (41)                  | .86 (.26)                    | 45.2 (13.8)                   | 1.9 (.58)         | 2.7 (.82)                   | 4.1 (1.2)  | 8.1 (2.5)                                |
| 2                            | 2.067 (53)                  | 1.1 (.34)                    | 58 (17.7)                     | 2.4 (.73)         | 3.5 (1.1)                   | 5.2 (1.6)  | 10.4 (3.2)                               |
| 2-1/2                        | 2.469 (63)                  | 1.3 (.40)                    | 69 (21)                       | 2.9 (.88)         | 4.2 (1.3)                   | 6.2 (1.9)  | 12.4 (3.8)                               |
| 3                            | 3.068 (78)                  | 1.6 (.49)                    | 86 (26)                       | 3.6 (1.1)         | 5.2 (1.6)                   | 7.7 (2.3)  | 15.5 (4.7)                               |
| 4                            | 4.026 (102)                 | 2.1 (.64)                    | 113 (34)                      | 4.7 (1.4)         | 6.8 (2.1)                   | 10.2 (3.1)                                       | 20.3 (6.2)                               |
| 5                            | 5.047 (128)                 | 2.7 (.82)                    | 142 (43)                      | 5.9 (1.8)         | 8.5 (2.6)                   | 12.7 (3.9)                                       | 25.4 (7.7)                               |
| 6                            | 6.065 (154)                 | 3.2 (.98)                    | 170 (52)                      | 7.1 (2.2)         | 10.2 (3.1)                  | 15.3 (4.7)                                       | 31 (9.4)                                 |

**AIR FLOW (SCFM AND NLPM) THROUGH SCHEDULE 40 STEEL PIPE**

| Applied Pressure psig | Nominal Standard Pipe Size (scfm) |      |      |      |      |      |        |        |     |        |      | Applied Pressure bar | Nominal Standard Pipe Size (nlpm) |      |      |      |      |      |        |        |       |        |       |
|-----------------------|-----------------------------------|------|------|------|------|------|--------|--------|-----|--------|------|----------------------|-----------------------------------|------|------|------|------|------|--------|--------|-------|--------|-------|
|                       | 1/8"                              | 1/4" | 3/8" | 1/2" | 3/4" | 1"   | 1-1/4" | 1-1/2" | 2"  | 2-1/2" | 3"   |                      | 1/8"                              | 1/4" | 3/8" | 1/2" | 3/4" | 1"   | 1-1/4" | 1-1/2" | 2"    | 2-1/2" | 3"    |
| 5                     | .5                                | 1.2  | 2.7  | 4.9  | 6.6  | 13.0 | 27     | 40     | 80  | 135    | 240  | 0.3                  | 14.2                              | 34.0 | 76.5 | 139  | 187  | 370  | 765    | 1130   | 2265  | 3820   | 6796  |
| 10                    | .8                                | 1.7  | 3.9  | 7.7  | 11.0 | 21   | 44     | 64     | 125 | 200    | 370  | 0.7                  | 22.7                              | 48.1 | 110  | 218  | 310  | 595  | 1245   | 1810   | 3540  | 5665   | 10480 |
| 20                    | 1.3                               | 3.0  | 6.6  | 13.0 | 18.5 | 35   | 75     | 110    | 215 | 350    | 600  | 1.4                  | 36.8                              | 85.0 | 187  | 370  | 525  | 990  | 2125   | 3115   | 6090  | 9910   | 16990 |
| 40                    | 2.5                               | 5.5  | 12.0 | 23   | 34   | 62   | 135    | 200    | 385 | 640    | 1100 | 2.8                  | 70.8                              | 155  | 340  | 650  | 960  | 1755 | 3820   | 5665   | 10900 | 18120  | 31150 |
| 60                    | 3.5                               | 8.0  | 18.0 | 34   | 50   | 93   | 195    | 290    | 560 | 900    | 1600 | 4.1                  | 99.1                              | 227  | 510  | 965  | 1415 | 2630 | 5520   | 8210   | 15860 | 25485  | 45305 |
| 80                    | 4.7                               | 10.5 | 23   | 44   | 65   | 120  | 255    | 380    | 720 | 1200   | 2100 | 5.5                  | 133                               | 297  | 650  | 1245 | 1840 | 3400 | 7220   | 10760  | 20390 | 33980  | 59465 |
| 100                   | 5.8                               | 13.0 | 29   | 54   | 80   | 150  | 315    | 470    | 900 | 1450   | 2600 | 6.9                  | 164                               | 370  | 820  | 1530 | 2265 | 4250 | 8920   | 13310  | 25485 | 41060  | 73625 |



FLOW OF WATER THROUGH SCHEDULE 40 STEEL PIPE – PRESSURE DROP

| Flow | Pressure Drop in psi for Various Pipe Diameters<br>10 ft. Length Pipe |      |      |      |      |      |     |        |        |     |        |     |        |     |     |     | Flow | Pressure Drop in bar for Various Pipe Diameters<br>10 m Length Pipe |     |      |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
|------|---|------|------|------|------|------|-----|--------|--------|-----|--------|-----|--------|-----|-----|-----|------|---|-----|------|------|------|------|------|------|--------|--------|------|--------|------|--------|-----|----|----|----|
|      | gpm   | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1"  | 1 1/4" | 1 1/2" | 2"  | 2 1/2" | 3"  | 3 1/2" | 4"  | 5"  | 6"  |      | 8"  | lpm | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2" | 2"   | 2 1/2" | 3"   | 3 1/2" | 4"  | 5" | 6" | 8" |
| .3   | .42   |      |      |      |      |      |     |        |        |     |        |     |        |     |     |     | 1    | .07   |     |      |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| .4   | .70   | .16  |      |      |      |      |     |        |        |     |        |     |        |     |     |     | 1.5  | .16   | .04 |      |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| .5   | 1.1   | .24  |      |      |      |      |     |        |        |     |        |     |        |     |     |     | 2    | .26   | .06 |      |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| .6   | 1.5   | .33  |      |      |      |      |     |        |        |     |        |     |        |     |     |     | 2.5  | .40   | .08 |      |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| .8   | 2.5   | .54  | .13  |      |      |      |     |        |        |     |        |     |        |     |     |     | 3    | .56   | .12 | .03  |      |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 1.0  | 3.7   | .83  | .19  | .06  |      |      |     |        |        |     |        |     |        |     |     |     | 4    | .96   | .21 | .05  | .02  |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 1.5  | 8.0   | 1.8  | .40  | .12  |      |      |     |        |        |     |        |     |        |     |     |     | 6    | 2.0   | .45 | .10  | .03  |      |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 2.0  | 13.4  | 3.0  | .66  | .21  | .05  |      |     |        |        |     |        |     |        |     |     |     | 8    | 3.5   | .74 | .17  | .05  | .01  |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 2.5  |   | 4.5  | 1.0  | .32  | .08  |      |     |        |        |     |        |     |        |     |     |     | 10   |   | 1.2 | .25  | .08  | .02  |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 3.0  |   | 6.4  | 1.4  | .43  | .11  |      |     |        |        |     |        |     |        |     |     |     | 12   |   | 1.7 | .35  | .11  | .03  |      |      |      |        |        |      |        |      |        |     |    |    |    |
| 4.0  |   | 11.1 | 2.4  | .74  | .18  | .06  |     |        |        |     |        |     |        |     |     |     | 15   |   | 2.6 | .54  | .17  | .04  | .01  |      |      |        |        |      |        |      |        |     |    |    |    |
| 5.0  |   |      | 3.7  | 1.1  | .28  | .08  |     |        |        |     |        |     |        |     |     |     | 20   |   |     | .92  | .28  | .07  | .02  |      |      |        |        |      |        |      |        |     |    |    |    |
| 6.0  |   |      | 5.2  | 1.6  | .38  | .12  |     |        |        |     |        |     |        |     |     |     | 25   |   |     | 1.2  | .45  | .11  | .03  |      |      |        |        |      |        |      |        |     |    |    |    |
| 8.0  |   |      | 9.1  | 2.8  | .66  | .20  | .05 |        |        |     |        |     |        |     |     |     | 30   |   |     | 2.1  | .62  | .15  | .04  | .01  |      |        |        |      |        |      |        |     |    |    |    |
| 10   |   |      |      | 4.2  | 1.0  | .30  | .08 |        |        |     |        |     |        |     |     |     | 40   |   |     |      | 1.1  | .25  | .08  | .02  |      |        |        |      |        |      |        |     |    |    |    |
| 15   |   |      |      |      | 2.2  | .64  | .16 | .08    |        |     |        |     |        |     |     |     | 60   |   |     |      | .54  | .16  | .04  | .02  | .006 |        |        |      |        |      |        |     |    |    |    |
| 20   |   |      |      |      | 3.8  | 1.1  | .28 | .13    | .04    |     |        |     |        |     |     |     | 80   |   |     |      | .93  | .28  | .07  | .03  | .009 |        |        |      |        |      |        |     |    |    |    |
| 25   |   |      |      |      |      | 1.7  | .42 | .19    | .06    |     |        |     |        |     |     |     | 100  |   |     |      |      | .43  | .12  | .05  | .01  |        |        |      |        |      |        |     |    |    |    |
| 30   |   |      |      |      |      | 2.4  | .59 | .27    | .08    |     |        |     |        |     |     |     | 115  |   |     |      |      | .58  | .14  | .06  | .015 |        |        |      |        |      |        |     |    |    |    |
| 35   |   |      |      |      |      | 3.2  | .79 | .36    | .11    | .04 |        |     |        |     |     |     | 130  |   |     |      |      | .72  | .18  | .08  | .02  | .01    |        |      |        |      |        |     |    |    |    |
| 40   |   |      |      |      |      |      | 1.0 | .47    | .14    | .06 |        |     |        |     |     |     | 150  |   |     |      |      |      | .23  | .10  | .03  | .012   |        |      |        |      |        |     |    |    |    |
| 45   |   |      |      |      |      |      | 1.3 | .59    | .17    | .07 |        |     |        |     |     |     | 170  |   |     |      |      |      | .29  | .13  | .04  | .016   |        |      |        |      |        |     |    |    |    |
| 50   |   |      |      |      |      |      | 1.6 | .72    | .20    | .08 |        |     |        |     |     |     | 190  |   |     |      |      |      | .36  | .16  | .05  | .02    |        |      |        |      |        |     |    |    |    |
| 60   |   |      |      |      |      |      | 2.2 | 1.0    | .29    | .12 | .04    |     |        |     |     |     | 230  |   |     |      |      |      | .50  | .23  | .07  | .03    | .009   |      |        |      |        |     |    |    |    |
| 70   |   |      |      |      |      |      |     | 1.4    | .38    | .16 | .05    |     |        |     |     |     | 260  |   |     |      |      |      |      | .32  | .09  | .04    | .01    |      |        |      |        |     |    |    |    |
| 80   |   |      |      |      |      |      |     | 1.8    | .50    | .20 | .07    |     |        |     |     |     | 300  |   |     |      |      |      |      | .38  | .11  | .04    | .02    | .007 |        |      |        |     |    |    |    |
| 90   |   |      |      |      |      |      |     | 2.2    | .62    | .25 | .09    | .04 |        |     |     |     | 340  |   |     |      |      |      |      | .50  | .14  | .06    | .02    | .009 |        |      |        |     |    |    |    |
| 100  |   |      |      |      |      |      |     | 2.7    | .76    | .31 | .11    | .05 |        |     |     |     | 380  |   |     |      |      |      |      | .61  | .18  | .07    | .03    | .01  |        |      |        |     |    |    |    |
| 125  |   |      |      |      |      |      |     |        | 1.2    | .47 | .16    | .08 | .04    |     |     |     | 470  |   |     |      |      |      |      |      | .28  | .11    | .04    | .02  | .009   |      |        |     |    |    |    |
| 150  |   |      |      |      |      |      |     |        | 1.7    | .67 | .22    | .11 | .06    |     |     |     | 570  |   |     |      |      |      |      |      | .39  | .15    | .05    | .03  | .01    |      |        |     |    |    |    |
| 200  |   |      |      |      |      |      |     |        | 2.9    | 1.2 | .39    | .19 | .10    |     |     |     | 750  |   |     |      |      |      |      |      | .64  | .26    | .09    | .04  | .02    | .007 |        |     |    |    |    |
| 250  |   |      |      |      |      |      |     |        |        | .59 | .28    | .15 | .05    |     |     |     | 950  |   |     |      |      |      |      |      |      | .14    | .06    | .03  | .01    |      |        |     |    |    |    |
| 300  |   |      |      |      |      |      |     |        |        |     | .84    | .40 | .21    | .07 |     |     | 1150 |   |     |      |      |      |      |      |      | .19    | .09    | .05  | .02    |      |        |     |    |    |    |
| 400  |   |      |      |      |      |      |     |        |        |     |        | .70 | .37    | .12 | .05 |     | 1500 |   |     |      |      |      |      |      |      |        | .16    | .08  | .03    | .01  |        |     |    |    |    |
| 500  |   |      |      |      |      |      |     |        |        |     |        |     | .57    | .18 | .07 |     | 1900 |   |     |      |      |      |      |      |      |        |        | .13  | .04    | .02  |        |     |    |    |    |
| 750  |   |      |      |      |      |      |     |        |        |     |        |     |        | .39 | .16 | .04 | 2800 |   |     |      |      |      |      |      |      |        |        |      | .09    | .03  | .009   |     |    |    |    |
| 1000 |   |      |      |      |      |      |     |        |        |     |        |     |        |     | .68 | .27 | .07  | 3800  |     |      |      |      |      |      |      |        |        |      |        | .16  | .06    | .02 |    |    |    |
| 2000 |   |      |      |      |      |      |     |        |        |     |        |     |        |     |     | 1.0 | .26  | 7500  |     |      |      |      |      |      |      |        |        |      |        |      | .23    | .06 |    |    |    |

Recommended capacity range for each size is shown in shaded areas.  
 For pipe lengths greater than 10 ft. (3 m), the pressure loss is proportional to the length. For 50 ft. (15 m) of pipe, the pressure drop is approximately 5 times the value in the table.

## MAINTAINING SPRAY NOZZLES

Like any precision component, spray nozzles wear over time. Spray nozzle wear can be hard to detect. Small changes in performance can result in quality problems and wasted water, chemicals and electricity. The cost of using worn nozzles can be very significant – tens of thousands of dollars or more per year. Detecting nozzle wear in the early stages can prevent a significant profit drain.

### USING NOZZLES THAT ARE SPRAYING JUST 15% OVER THE RATED CAPACITY\*

|  | WASTE                                   | COST OF EXCESS      |
|--|---|---------------------|
| WATER                                    | 1,701,835 gallons<br>(6,442,146 liters) | US \$4,680          |
| CHEMICALS                                | 170,165 gallons<br>(644,145 liters)     | US \$170,164        |
| WASTEWATER DISPOSAL                      | 1,872,000 gallons<br>(7,086,291 liters) | US \$7,956          |
| <b>TOTAL COST OF USING WORN NOZZLES:</b> |   | <b>US \$182,800</b> |

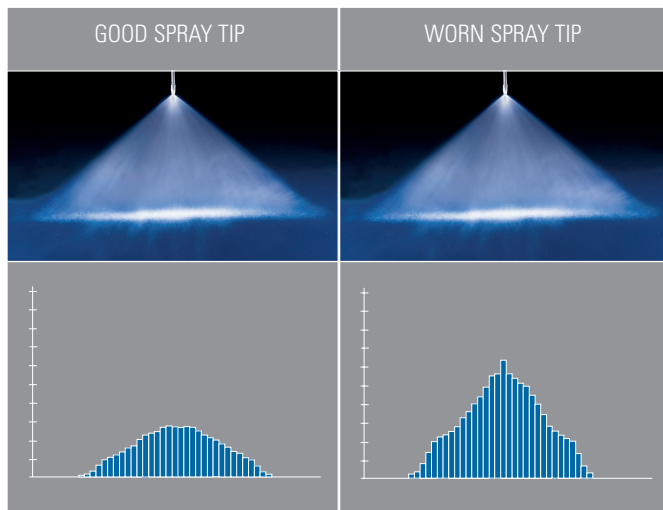
\*Based on total system flow of 100 gpm (379 lpm). Water cost of US \$2.75/1000 gallons (3,785 liters). Chemical cost of US \$1.00 per gallon (liter) and a dilution ratio of 10:1. System operates 2080 hours per year. Increased electricity cost, scrap and downtime due to quality problems are not included.



## DETECTING WORN SPRAY NOZZLES

Visually inspecting nozzles is a start but unless wear is significant, it may not be detectable.

The graphic below illustrates this problem. The spray tip on the left is new and sprays properly. The spray tip on the right is worn and sprays 30% over capacity. The difference is undetectable by inspecting the nozzle, but spray collection data reveals the difference between the two tips.



### WATCH FOR THESE SIGNS OF NOZZLE WEAR:

- **Quality control issues and increased scrap.** Check for uneven coating, cooling, drying or cleaning and changes in temperature, dust content and humidity
- **Flow rate change:**
  - For centrifugal pumps: monitor flow meter readings to detect increases or collect and measure the flow from the spray nozzle for a given period of time at a specific pressure and compare them to flow rate readings from new, unused spray nozzles
  - For positive displacement pumps: monitor the liquid line pressure for decreases; the flow rate will remain constant
- **Spray pressure in the nozzle manifold:**
  - For centrifugal pumps: monitor for increases in liquid volume sprayed. The spraying pressure is likely to remain the same
  - For positive displacement pumps: monitor pressure gauge for decreases in pressure and reduction in impact on sprayed surfaces. The liquid volume sprayed is likely to remain the same. Also, monitor for increases in pressure due to clogged spray nozzles
- **Deterioration of spray pattern quality.** Visually inspect the spray pattern for changes. Check the spray angle with a protractor. Measure the width of the spray pattern on the sprayed surface

## REPLACING WORN NOZZLES

Inspecting and maintaining your nozzles on a regular basis will help identify wear and extend service life. However, wear will occur over time and the only solution is to replace your nozzles.

Here are a few guidelines to help you determine the optimal replacement interval:

- Are worn nozzles affecting product or process quality? If so, replace nozzles as soon as any wear is evident
- Is water conservation a priority? If so, replace nozzles as soon as wear is evident
- How much are you spending by continuing to use worn nozzles? How do the additional costs for water, chemicals, electricity and wastewater disposal compare with the cost of replacement nozzles?
- Is precise spray performance important to your overall process? If so, you may want to set pre-determined dates for nozzle replacement such as annual or semi-annual maintenance shutdowns

**For more information on nozzle maintenance and replacement, visit [spray.com](http://spray.com). Or, contact your local sales engineer for assistance developing a nozzle maintenance program.**





TABLE OF EQUIVALENTS

VOLUMETRIC UNIT

|                  | Cubic Centimeter  | Fluid Ounce        | Pound of Water       | Liter | US Gallon             | Cubic Foot            | Cubic Meter           |
|------------------|-------------------|--------------------|----------------------|-------|-----------------------|-----------------------|-----------------------|
| Cubic Centimeter | •                 | .034               | $2.2 \times 10^{-3}$ | .001  | $2.64 \times 10^{-4}$ | $3.53 \times 10^{-5}$ | $1.0 \times 10^{-6}$  |
| Fluid Ounce      | 29.4              | •                  | .065                 | .030  | $7.81 \times 10^{-3}$ | $1.04 \times 10^{-3}$ | $2.96 \times 10^{-5}$ |
| Pound of Water   | 454               | 15.4               | •                    | .454  | .12                   | .016                  | $4.54 \times 10^{-4}$ |
| Liter            | 1000              | 33.8               | 2.2                  | •     | .264                  | .035                  | .001                  |
| US Gallon        | 3785              | 128                | 8.34                 | 3.785 | •                     | .134                  | $3.78 \times 10^{-3}$ |
| Cubic Foot       | 28320             | 958                | 62.4                 | 28.3  | 7.48                  | •                     | .028                  |
| Cubic Meter      | $1.0 \times 10^6$ | $3.38 \times 10^4$ | 2202                 | 1000  | 264                   | 35.3                  | •                     |

LIQUID PRESSURE

|                          | lb/in <sup>2</sup> (psi) | Ft Water | Kg/Cm <sup>2</sup> | Atmosphere | Bar  | Inch Mercury | kPa (kilopascal) |
|--------------------------|--------------------------|----------|--------------------|------------|------|--------------|------------------|
| lb/in <sup>2</sup> (psi) | •                        | 2.31     | .070               | .068       | .069 | 2.04         | 6.895            |
| Ft Water                 | .433                     | •        | .030               | .029       | .030 | .882         | 2.99             |
| Kg/Cm <sup>2</sup>       | 14.2                     | 32.8     | •                  | .968       | .981 | 29.0         | 98               |
| Atmosphere               | 14.7                     | 33.9     | 1.03               | •          | 1.01 | 29.9         | 101              |
| Bar                      | 14.5                     | 33.5     | 1.02               | .987       | •    | 29.5         | 100              |
| Inch Mercury             | .491                     | 1.13     | .035               | .033       | .034 | •            | 3.4              |
| kPa (kilopascal)         | .145                     | .335     | .01                | .009       | .01  | .296         | •                |

LINEAR UNIT

|            | Micron             | Mil                | Millimeter            | Centimeter            | Inch                  | Foot                  | Meter |
|------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|
| Micron     | •                  | .039               | .001                  | $1.0 \times 10^{-4}$  | $3.94 \times 10^{-5}$ | –                     | –     |
| Mil        | 25.4               | •                  | $2.54 \times 10^{-2}$ | $2.54 \times 10^{-3}$ | .001                  | $8.33 \times 10^{-5}$ | –     |
| Millimeter | 1000               | 39.4               | •                     | .10                   | .0394                 | $3.28 \times 10^{-3}$ | .001  |
| Centimeter | 10000              | 394                | 10                    | •                     | .394                  | .033                  | .01   |
| Inch       | $2.54 \times 10^4$ | 1000               | 25.4                  | 2.54                  | •                     | .083                  | .0254 |
| Foot       | $3.05 \times 10^5$ | $1.2 \times 10^4$  | 305                   | 30.5                  | 12                    | •                     | .305  |
| Meter      | $1.0 \times 10^6$  | $3.94 \times 10^4$ | 1000                  | 100                   | 39.4                  | 3.28                  | •     |

MISCELLANEOUS EQUIVALENTS

| Unit                 | Equivalent            |
|----------------------|-----------------------|
| Ounce                | 28.35 g               |
| Pound                | .4536 kg              |
| Horse-Power          | .746 kW               |
| British Thermal Unit | .252 kcal             |
| Square Inch          | 6.452 cm <sup>2</sup> |
| Square Foot          | .09290 m <sup>2</sup> |

MISCELLANEOUS FORMULAS

| Unit                      | Formula                           |
|---------------------------|-----------------------------------|
| Fahrenheit (°F)           | = $9/5$ (°C) + 32                 |
| Celsius (°C)              | = $5/9$ (°F) – 32                 |
| Circumference of a Circle | = $3.1416 \times \text{Dia.}$     |
| Area of a Circle          | = $.7854 \times (\text{Dia.})^2$  |
| Volume of a Sphere        | = $.5236 \times (\text{Dia.})^3$  |
| Area of a Sphere          | = $3.1416 \times (\text{Dia.})^2$ |

DIMENSIONS

The catalog tabulations show orifice dimensions as “Nom.” (nominal).



READ THE FOLLOWING INSTRUCTIONS:



**WARNING:**

All safety related and operating instructions should be read before the nozzle is operated. Follow all operating instructions. Failure to do so could result in serious or fatal injury.



**WARNING:**

Spraying Systems Co. strongly recommends the use of appropriate safety equipment when working with potentially hazardous chemicals.

**This equipment includes but is not limited to:**

- Protective hat
- Safety glasses or face shield
- Chemical-resistant gloves and apron
- Long sleeve shirt and long pants



**WARNING:**

It is important to recognize proper safety precautions when using a pressurized spray system. Fluids under pressure can penetrate skin and cause severe injury. Seek medical attention immediately.



**WARNING:**

Before use, be sure appropriate connections are secure and made to withstand weight and reaction forces of the operating unit.

NOTE: Always remember to carefully read the chemical manufacturer's label and follow all directions.



**WARNING:**

When dealing with pressure applications, the system pressure should never exceed the lowest rated component. Always know your system and all component capabilities, maximum pressures and flow rates.



**WARNING:**

It is important to operate equipment within the temperature range of all components. Also, insure appropriate time lapse or proper safety equipment is used when handling components after they're exposed to high temperatures.



**WARNING:**

Before performing any maintenance, make sure all liquid supply lines to the machine are shut off and/or disconnected and chemicals/fluids are drained and not pressurized.



**WARNING:**

Do not use any equipment outside the intended purposes of the product. Misuse can result in personal injury or product damage.



**WARNING:**

The use of any chemicals requires careful control of all worker hygiene. Follow all MSDS or safety precautions provided by the manufacturer.



**WARNING:**

Spraying Systems Co. does not manufacture or supply any of the chemicals used with our nozzles and is not responsible for their effects. Because of the large number of chemicals that could be used and their different chemical reactions, the buyer and user of this equipment should determine compatibility of the materials used and any of the potential hazards involved.



LOW PRESSURE  
GUNJET® SPRAY GUNS

HOT WATER WASHDOWN  
RINSING · CHEMICAL DOSING  
PEST CONTROL · SANITIZING  
AIR BLOW-OFF · COOLING PARTS  
PRODUCE WASHING



# LOW PRESSURE SPRAY GUNS INTRODUCTION



## LOW PRESSURE SPRAY GUNS


- Ergonomic designs assure positive control and operator comfort even at maximum flow and pressure conditions
- Sturdy design and materials mean long, productive equipment life
- Versatile GunJet® low pressure spray guns are designed for use with a wide variety of spray tips to meet particular pattern and flow specifications
- Adjustable spray patterns and air atomizing sprays provided by some models
- Handles remain comfortable even during hot spraying operations
- Adapters convert thread sizes, allowing the attachment of optional accessories
- Extensions available for many models to improve spray gun stability
- Trigger locks prevent accidental discharge when the gun is not in use
- In-line swivels provide smooth 360° operation, eliminating hose kinking and reducing operator fatigue
- In-line strainers available to prevent clogging and improve purity of sprayed liquid
- Spare parts kits available for easy maintenance




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# LOW PRESSURE GUNJET® SPRAY GUNS

## OVERVIEW:

### LOW PRESSURE GUNJET SPRAY GUNS

- Capacity ranging from 2 gpm (7.6 lpm) to 22 gpm (83 lpm)
- Maximum pressure ranging from 75 psi (5 bar) to 250 psi (17 bar)
- Sturdy design and materials ensure long, productive equipment life
- Designed for use with a wide variety of spray tips to meet particular pattern and flow specifications

See page [B7](#) for gun and tip compatibility table and pages [E10-E11](#) for specific tip information.



## LOW PRESSURE GUNJET SPRAY GUN OPTIONS

### AA30L

Max. operating pressure:  
250 psi (17 bar)

Max. temperature:  
200°F (93°C)

Capacity: 5 gpm (19 lpm)

Material: Brass or polypropylene valve body with nylon handle

Trigger lock and guard

Light trigger pull

Front hose connection keeps grip cool



### AA30-20940

Max. operating pressure:  
250 psi (17 bar)

Max. temperature:  
300°F (150°C)

Capacity: 10 gpm (38 lpm)

Material: Brass valve body with nylon handle

Trigger lock and guard

Light trigger pull

Trigger-activated variable spray pattern

Front hose connection keeps grip cool



### 23624-30L

Max. operating pressure:  
75 psi (5 bar)

Max. temperature:  
200°F (93°C)

Capacity: 1 to 16 ml dosage range

Material: Brass valve body with nylon handle

Trigger lock and guard

Adjustable metering assembly

Auto recharge



### AA60-21580

Max. operating pressure:  
250 psi (17 bar)

Max. temperature:  
300°F (150°C)

Capacity: 16 gpm (60 lpm)

Material: Brass or stainless steel valve body with nylon handle

Trigger lock and guard

Trigger-activated variable spray pattern

Front hose connection keeps grip cool



LOW PRESSURE GUNJET SPRAY GUN OPTIONS

**CU150A**

Max. operating pressure: 150 psi (10 bar)  
 Max. temperature: 200°F (93°C)  
 Capacity: 10 to 22 gpm (38 to 83 lpm)  
 Material: Brass, aluminum or stainless steel valve body  
 Black or white rubber outer cover  
 Color bands for easy identification of flow capacities  
 Adjustable spray pattern from hollow cone to solid stream  
 Optional swivel connector with trigger lock



**22650-PP TriggerJet®**

Max. operating pressure: 150 psi (10 bar)  
 Max. temperature: 120°F (50°C)  
 Capacity: 2 gpm (7.6 lpm)  
 Material: Polypropylene valve body  
 Trigger lock  
 Corrosion-resistant lightweight design  
 Choice of threaded or hose inlet connection  
 UniJet® strainer option



**23623-31-1/4F MeterJet®**

Max. operating pressure: 75 psi (5 bar)  
 Max. temperature: 200°F (93°C)  
 Capacity: 1 to 16 ml metering range  
 Material: Brass valve body  
 Special spring available for low dosage applications  
 Adjustable metering  
 Auto recharge  
 Visual charging indicator



**AA36 Trigger Valve**

Max. operating pressure: 150 psi (10 bar)  
 Max. temperature: 140°F (60°C)  
 Capacity: 7 gpm (27 lpm)  
 Material: Brass or stainless steel valve body  
 Trigger lock  
 Internal strainer with choice of mesh sizes  
 Quick acting "on-off" valve



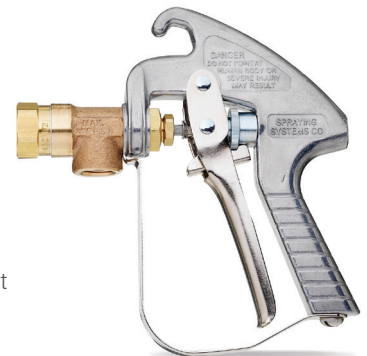
**D41663-18JAN00V-0H-PA/SS**

Max. operating pressure: 75 psi (5 bar)  
 Max. temperature: 158°F (70°C)  
 Capacity: 3.9 gpm (14.7 lpm)  
 Material: Stainless steel with nylon handle  
 Used with standard air atomizing setups  
 Removable adapter and grip for easy cleaning  
 Hose connectors can be turned in any position  
 Specially designed soft grip improves control and reduces operator fatigue  
 Handle remains comfortable during hot spraying operations



**AA43LC**

Max. operating pressure: 200 psi (14 bar)  
 Max. temperature: 200°F (93°C)  
 Capacity: 15 gpm (57 lpm)  
 Material: Brass, aluminum or stainless steel valve body with aluminum handle  
 Trigger lock and guard  
 Front inlet  
 Designed to withstand high impact



# LOW PRESSURE GUNJET® SPRAY GUNS

## LOW PRESSURE GUNJET SPRAY GUN OPTIONS

### 4688

Max. operating pressure:  
250 psi (17 bar)  
Max. temperature:  
140°F (60°C)  
Capacity: 2 gpm (7.6 lpm)  
Material: Brass or  
stainless steel valve body  
Trigger lock  
Quick acting "on-off" valve  
Trigger designed for ease and  
comfort in operation



### 6104

Max. operating pressure:  
250 psi (17 bar)  
Max. temperature:  
140°F (60°C)  
Capacity: 2 gpm (7.6 lpm)  
Material: Brass or  
stainless steel valve body  
Trigger lock  
Same as 4688 except with  
1/4" NPT or BSPT (F) inlet  
and outlet connections



### 6466

Max. operating pressure: 250 psi (17 bar)  
Max. temperature: 140°F (60°C)  
Capacity: 2 gpm (7.6 lpm)  
Material: Brass or stainless  
steel valve body  
Internal strainer with  
choice of mesh sizes  
Extra long trigger



### 6590

Max. operating pressure: 250 psi (17 bar)  
Max. temperature: 140°F (60°C)  
Capacity: 2 gpm (7.6 lpm)  
Material: Brass or stainless  
steel valve body  
Trigger lock  
Extra long trigger



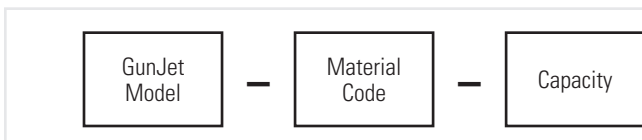
### MATERIAL

### CODE

|                 |         |
|-----------------|---------|
| Aluminum        | AL      |
| Brass           | No code |
| Polypropylene   | PP      |
| Stainless steel | SS      |

## ORDERING INFORMATION

### COMPLETE SPRAY GUN ASSEMBLY

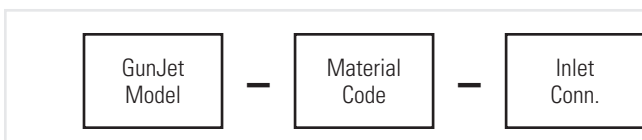


#### Example



BSPT connections require the addition of a "B" in the prefix of the part number. Example: BCU150A.

### COMPLETE SPRAY GUN ASSEMBLY



#### Example



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B22650.















SPECIFICATIONS

| Model                          | Max. Operating Pressure<br>psi (bar) | Capacity<br>gpm (lpm)  | Max. Temperature<br>°F (°C) | Inlet Conn.<br>in.                            | Outlet Conn.<br>in.         | Weight<br>oz. (kg) | Spray Tips                               | Extensions  | Adapters/<br>Swivel<br>Connectors | Spare Parts<br>Kits                         |
|--------------------------------|--------------------------------------|--|-----------------------------|---|-----------------------------|--------------------|--|---|-----------------------------------|---|
| <b>AA30L</b>                   | 250 (17)                             | 5 (19)   | 200 (93)                    | 1/4 NPT or<br>BSPT (F)                        | 11/16–16<br>UniJet® THD     | 15 (.43)           | TB, TG, TK,<br>TN, TPU, TX<br>UniJet     | 4673, 6671,<br>6960, 7715,<br>9004-SS, 9527,<br>9702A, 9702C,<br>9702S, 12086,<br>13781S, 14975 | 4676, 20897                       | AB30L-KIT<br>AB30L-PP-KIT<br>AB30L-VI-KIT   |
| <b>AA30-20940</b>              | 250 (17)                             | 10 (38)  | 300 (150)                   | 1/4 NPT or<br>BSPT (F)                        | –                           | 12 (.34)           | –  | –   | 20897                             | AB30-20940-KIT                              |
| <b>23624-30L</b>               | 75 (5)                               | 1 to 16 ml<br>dosage range   | 200 (93)                    | 1/4 NPT or<br>BSPT (F)                        | 11/16–16<br>UniJet THD      | 24 (.68)           | TG, TK, TN, TX<br>UniJet                 | –   | –                                 | AB23624-30L-KIT                             |
| <b>AA60-21580</b>              | 250 (17)                             | 16 (60)  | 300 (150)                   | 3/8 NPT or<br>BSPT (F)                        | –                           | 19.25 (.55)        | –  | –   | 20897                             | AB60-21580-KIT,<br>AB60-21580A-KIT          |
| <b>CU150A</b>                  | 150 (10)                             | 10 to 22<br>(38 to 83)   | 200 (93)                    | 1/2 NPT or<br>BSPT (F)                        | –                           | 36 (1)             | –  | –   | 36466, 36467                      | AB63140-KIT<br><br>AB63140-<br>316EPR-KIT   |
| <b>CU150A-AL</b>               |                                      |  |                             |   |                             | 22 (.62)           |  |   |                                   |   |
| <b>CU150A-SS</b>               |                                      |  |                             |   |                             | 32 (.91)           |  |   |                                   |   |
| <b>22650-PP</b>                | 150 (10)                             | 2 (7.6)  | 120 (50)                    | 1/4, 3/8 hose<br>or<br>1/4 NPT or<br>BSPT (F) | 11/16–16<br>UniJet THD      | 3 (.08)            | 5500-PPB<br>ConeJet®                     | 22665   | 22664, 22673                      | AB22650-PP-KIT                              |
| <b>23623-31</b>                | 75 (5)                               | 1 to 16 ml<br>metering range   | 200 (93)                    | 1/4 NPT or<br>BSPT (F)                        | 11/16–16<br>UniJet THD      | 21 (.60)           | UniJet                                   | –   | 20897                             | AB-23623-31-KIT                             |
| <b>AA36</b>                    | 150 (10)                             | 7 (27)   | 140 (60)                    | 1/4, 3/8 NPT<br>or BSPT (F)                   | 1/4, 3/8 NPT<br>or BSPT (F) | 11 (.32)           | HH FullJet®,<br>VeeJet®                  | 20400-1/4M,<br>20400-1/8F   | 4272, 4725,<br>4754, 5820         | AB36-KIT,<br>AB36-SS-KIT,<br>AB36-21140-KIT |
| <b>D41663-<br/>18JAN00V-OH</b> | 75 (5)                               | Liquid: 15 l/min<br>at 0.5 Mpa (5),<br>Air: 33 Nm3/h<br>at 0.5 Mpa (5) | 158 (70)                    | 1/4 NPT or<br>BSPT (F)                        | 1/4 NPT or<br>BSPT (F)      | 13 (.36)           | 1/8J, 1/4J<br>air atomizing<br>set-ups   | –   | –                                 | –   |
| <b>AA43LC</b>                  | 200 (14)                             | 15 (57)  | 200 (93)                    | 1/2, 3/4 NPT<br>or BSPT (F)                   | 1/2, 3/4 NPT<br>or BSPT (F) | 35.25 (1)          | FloodJets,<br>FullJets,<br>VeeJets       | –   | 7029, 11990,<br>13212             | AB43-KIT,<br>AB43-AL-KIT                    |
| <b>4688</b>                    | 250 (17)                             | 2 (7.6)  | 140 (60)                    | 1/4 NPT or<br>BSPT (F)                        | 11/16–16<br>UniJet THD      | 5 (.14)            | TB, TG, TK, TN,<br>TP, TPU, TX<br>UniJet | 4673, 6671,<br>9004-SS, 9527,<br>9702A, 9702C,<br>9702S, 12086,<br>13781S, 14975,<br>15699      | 4676                              | AB4688-KIT                                  |
| <b>6104</b>                    | 250 (17)                             | 2 (7.6)  | 140 (60)                    | 1/4 NPT or<br>BSPT (F)                        | 1/4 NPT or<br>BSPT (F)      | 5 (.14)            | FullJets,<br>H-U, H-VV<br>VeeJet         | 20400-1/4M,<br>20400-1/8F,<br>CP12087   | 4676                              | AB6104-KIT                                  |
| <b>6466</b>                    | 250 (17)                             | 2 (7.6)  | 140 (60)                    | 1/4 NPT or<br>BSPT (F)                        | 11/16–16<br>UniJet THD      | 5 (.14)            | TB, TG, TK, TN,<br>TP, TPU, TX<br>UniJet | 4673, 6671,<br>9004-SS, 9527,<br>9702A, 9702C,<br>9702S, 12086,<br>13781S, 14975,<br>15699      | 4676                              | AB6466-KIT                                  |
| <b>6590</b>                    | 250 (17)                             | 2 (7.6)  | 140 (60)                    | 1/4 NPT or<br>BSPT (F)                        | 1/4 NPT or<br>BSPT (F)      | 6 (.16)            | FullJets,<br>H-U, H-VV<br>VeeJet         | 20400-1/4M,<br>20400-1/8F,<br>CP12087   | 4676                              | AB6590-KIT                                  |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional configuration options.  
See Spraying Systems Co. Hydraulic Spray Products Catalog 75 for spray tip performance data.










## EXTENSIONS FOR LOW PRESSURE GUNJET SPRAY GUNS

| Extension   | Extension Type | Max. Pressure psi (bar) | Inlet Conn. in.     | Outlet Conn. in.    | Material                     | Lengths in. (mm) | Special Features  |
|---|----------------|-------------------------|---------------------|---------------------|------------------------------|------------------|---|
|    | <b>6960</b>    | 100 (7)                 | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 8.5 (216)        | Siphon with adjustable flow                               |
|    | <b>4673</b>    | 125 (8.6)               | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 18 (457)         | Curved with swivel nozzle body                            |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 30 (762)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
|    | <b>22665</b>   | 150 (10)                | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Polyester                    | 15 (381)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|    | <b>14975</b>   | 250 (17)                | 11/16-16 UniJet THD | 1/8 NPT or BSPT (M) | Brass                        | 10 (254)         |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|    | <b>6671</b>    | 250 (17)                | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Curved body   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (609)         |   |
|   |                |                         |                     |                     |                              | 30 (762)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
|   | 48 (1219)      |                         |                     |                     |                              |                  |   |
|   | 500 (35)       | 11/16-16 UniJet THD     | 11/16-16 UniJet THD | Stainless steel     | 8 (203)                      |                  |   |
|   |                |                         |                     |                     | 18 (457)                     |                  |   |
|   |                |                         |                     |                     | 24 (609)                     |                  |   |
|   |                |                         |                     |                     | 30 (762)                     |                  |   |
| 36 (914)  |                |                         |                     |                     |                              |                  |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>7715</b>    | 250 (17)                | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 8 (203)          |   |
|   |                |                         |                     |                     |                              | 12 (305)         |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 30 (762)         |   |
|   | 36 (914)       |                         |                     |                     |                              |                  |   |
|   | 48 (1219)      |                         |                     |                     |                              |                  |   |
|   | 500 (35)       | 11/16-16 UniJet THD     | 11/16-16 UniJet THD | Stainless steel     | 8 (203)                      |                  |   |
|   |                |                         |                     |                     | 12 (305)                     |                  |   |
|   |                |                         |                     |                     | 18 (457)                     |                  |   |
| 24 (610)  |                |                         |                     |                     |                              |                  |   |
| 30 (762)  |                |                         |                     |                     |                              |                  |   |
| 36 (914)  |                |                         |                     |                     |                              |                  |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>9527</b>    | 1000 (69)               | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Curved, rubber insulated                                  |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>15699</b>   | 1000 (69)               | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Rubber insulated. (8"/203 mm length not rubber insulated) |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>12086</b>   | 1000 (69)               | 11/16-16 UniJet THD | 11/16-16 UniJet THD | Aluminum with brass ferrules | 8 (203)          |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>CP12087</b> | 1000 (69)               | 1/4 NPT or BSPT (M) | 1/4 NPT or BSPT (M) | Aluminum                     | 8 (203)          |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.

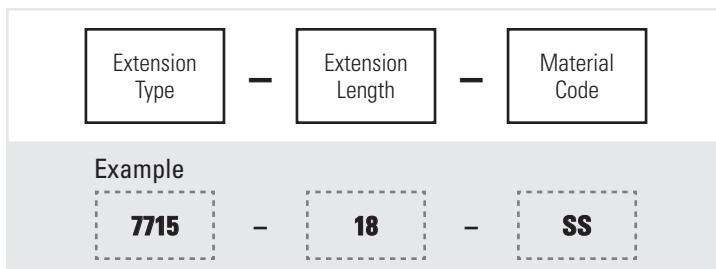


| Extension   | Extension Type    | Max. Pressure psi (bar) | Inlet Conn. in.     | Outlet Conn. in.    | Material                             | Lengths in. (mm) | Special Features  |
|---|-------------------|-------------------------|---------------------|---------------------|--------------------------------------|------------------|---|
|    | <b>9702A</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Projects spray at 90° angle to inlet. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1 |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|    | <b>9702C</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Curved body. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                          |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|    | <b>9702S</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                                       |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|   | <b>13781S</b>     | 2000 (138)              | 11/16–16 UniJet THD | 1/4–28              | Mild steel                           | 10 (254)         | Usually supplied with 7890 inlet cap and 13783 hollow cone spray tip (order cap and tip separately) Refer to Data Sheet 13775   |
|   |                   |                         |                     |                     |                                      | 16 (406)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
|  | <b>20400-1/4M</b> | 3000 (207)              | 1/4 NPT or BSPT (M) | 1/4 NPT or BSPT (M) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|  | <b>20400-1/8F</b> | 3000 (207)              | 1/4 NPT or BSPT (M) | 1/8 NPT or BSPT (F) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|  | <b>9004-SS</b>    | 4000 (275)              | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Stainless steel                      | 4 (101.6)        |   |
|   |                   |                         |                     |                     |                                      | 8 (203)          |   |
|   |                   |                         |                     |                     |                                      | 12 (305)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 40 (1016)        |   |
|   |                   |                         |                     |                     |                                      | 60 (1524)        |   |
|   |                   |                         |                     |                     |                                      | 72 (1829)        |   |
|   |                   |                         |                     |                     |                                      | 84 (2133)        |   |
|   |                   |                         |                     |                     |                                      | 96 (2438)        |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.

## ORDERING INFORMATION

### COMPLETE EXTENSION ASSEMBLY



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B20400.







## MATERIAL

## CODE

|                   |         |
|-------------------|---------|
| Aluminum          | AL      |
| Brass             | No code |
| Polyester         | PYR     |
| Mild steel        | I       |
| Stainless steel   | SS      |
| Zinc-plated steel | IZP     |



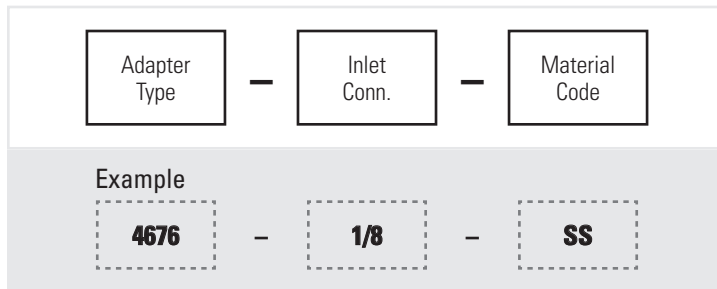
## ADAPTERS FOR LOW PRESSURE GUNJET SPRAY GUNS

| Adapter   | Adapter Type            | Max. Pressure psi (bar) | Inlet Conn. in.      | Outlet Conn. in.                        | Material        |
|---|-------------------------|-------------------------|----------------------|---|-----------------|
|  | <b>14269</b>            | 125 (8.6)               | 3/4" garden hose (F) | 1/4 NPS or NPT (F)                      | Brass           |
|  | <b>20897</b>            | 125 (8.6)               | 3/4" garden hose (F) | 1/4 NPT or BSPT (M)                     | Brass           |
|  | <b>13212</b>            | 150 (10.4)              | 3/4" garden hose (F) | 3/8, 1/2 NPT or BSPT (M)                | Brass           |
|  | <b>22664 (straight)</b> | 150 (10.4)              | 11/16–16 UniJet® THD | 11/16–16 UniJet THD                     | Polypropylene   |
|   | <b>22673 (45°)</b>      |                         |                      |   |                 |
|  | <b>7029</b>             | 500 (34.4)              | 3/4" garden hose (F) | 1/2 NPT or BSPT (M)                     | Brass           |
|  | <b>4676</b>             | 1000 (69)               | 11/16–16 UniJet THD  | 1/8, 1/4, 3/8, 1/2, 3/4 NPT or BSPT (F) | Brass           |
|   | <b>4676-__-SS</b>       | 2000 (138)              |                      |   | Stainless steel |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.

## ORDERING INFORMATION

### COMPLETE ADAPTER ASSEMBLY



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B4676.

### MATERIAL

### CODE

|                 |         |
|-----------------|---------|
| Brass           | No code |
| Polypropylene   | PP      |
| Stainless steel | SS      |

## SPARE PARTS KITS FOR LOW PRESSURE GUNJET SPRAY GUNS

| Spare Parts Kit        | Kit includes:   |
|------------------------|---|
| <b>AB30L-KIT</b>       | Valve seat, stem sub-assembly, cup packing, gasket, spring  |
| <b>AB30L-VI-KIT</b>    |   |
| <b>AB30L-PP-KIT</b>    | Cap, valve seat, cup packing  |
| <b>AB30-20940-KIT</b>  | Cap sub-assembly, valve seat ring & tip sub-assembly, stem sub-assembly, packing cup, gasket            |
| <b>AB36-KIT</b>        | O-rings, washer, valve seat, valve spring, gasket   |
| <b>AB36-SS-KIT</b>     | O-rings, washer, valve seat, valve spring   |
| <b>AB36-21140-KIT</b>  | Valve stem, O-rings, gasket, spring   |
| <b>AB43-KIT</b>        | Gasket, seat plug, seat plate, washer & core sub-assembly, packing washer, packings                     |
| <b>AB43-AL-KIT</b>     |   |
| <b>AB60-21580-KIT</b>  | Pintle, seat, main stem & seat holder sub-assembly, spring, cup packing, back-up ring, seat plug gasket |
| <b>AB60-21580A-KIT</b> |   |

| Spare Parts Kit           | Kit includes:   |
|---------------------------|---|
| <b>AB4688-KIT</b>         | Gasket, valve spring, valve stem sub-assembly, guide sleeve, O-ring     |
| <b>AB6104-KIT</b>         | Gasket, valve spring, valve stem sub-assembly, guide sleeve, O-ring     |
| <b>AB6466-KIT</b>         | Gasket, valve spring, valve stem sub-assembly, guide sleeve, O-ring     |
| <b>AB6590-KIT</b>         | Gasket, valve spring, valve stem sub-assembly, guide sleeve, O-ring     |
| <b>AB22650-PP-KIT</b>     | Spring, diaphragm, O-ring   |
| <b>AB23623-31-KIT</b>     | Packings, spring, stem sub-assembly, valve seat, O-ring                 |
| <b>AB23624-30L-KIT</b>    | Valve seat, main stem sub-assembly, O-ring, cup packing, gasket, spring |
| <b>AB63140-KIT</b>        | Main stem, O-ring, rivet  |
| <b>AB63140-316EPR-KIT</b> |   |





## MEDIUM PRESSURE GUNJET® SPRAY GUNS

ADHESIVE SPRAY · PARTS WASHING  
AIR BLOW-OFF · FILTER CLEANING  
PRODUCT COATING · CAR WASHING  
PAINTING · CHEMICAL COATING



# MEDIUM PRESSURE SPRAY GUNS INTRODUCTION




## MEDIUM PRESSURE SPRAY GUNS

- Ergonomic designs assure positive control and operator comfort even at maximum flow and pressure conditions
- Sturdy design and materials mean long, productive equipment life
- Designed for use with UniJet® spray tips to meet a wide variety of pattern and flow specifications
- Standard one-piece nozzles, such as VeeJet® flat spray nozzles, can be used when mated with proper adapters
- Handles remain comfortable even during hot spraying operations
- Adapters convert thread sizes, allowing the attachment of optional accessories
- Extensions available for many models to improve spray gun stability
- For safety, trigger guards are designed to prevent accidental discharge
- In-line swivels provide smooth 360° operation, eliminating hose kinking and reducing operator fatigue
- In-line strainers available to prevent clogging and improve purity of sprayed liquid
- Spare parts kits available for easy maintenance




# MEDIUM PRESSURE SPRAY GUNS TABLE OF CONTENTS

## MEDIUM PRESSURE GUNJET® SPRAY GUNS

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## MEDIUM PRESSURE GUNJET® SPRAY GUNS

### OVERVIEW:

#### MEDIUM PRESSURE GUNJET SPRAY GUNS

- Capacity ranging from 5 gpm (19 lpm) to 15 gpm (57 lpm)
- Maximum pressure ranging from 250 psi (17 bar) to 1000 psi (69 bar)
- Available outlet adapters convert any standard thread allowing the attachment of many optional accessories
- Designed for use with UniJet spray tips to meet a wide variety of pattern and flow specifications

See page C6 for gun and tip compatibility table and pages E10-E11 for specific tip information.



### MEDIUM PRESSURE GUNJET SPRAY GUN OPTIONS

#### 36533-60

Max. operating pressure:  
600 psi (41 bar)  
Max. temperature:  
200°F (93°C)  
Capacity: 12 gpm (45 lpm)  
Material: Brass or stainless steel  
valve body with nylon handle  
Trigger lock and guard  
Smooth and easy to operate  
Designed to withstand high impact



#### AA23L

Max. operating pressure:  
250 psi (17 bar)  
Max. temperature: 200°F (93°C)  
Capacity: 5 gpm (19 lpm)  
Material: Nickel-plated steel  
valve body with aluminum  
handle (23L-SS features  
stainless steel inlet body  
and tip retainer)  
Trigger guard  
Four finger trigger for ease  
of operation



#### AA23L-45885

Max. operating pressure:  
250 psi (17 bar)  
Max. temperature: 200°F (93°C)  
Capacity: 0.7 gpm (2.7 lpm)  
Material: Nickel-plated steel  
valve body with aluminum handle  
Trigger guard  
Stop adjusting nut provides  
metered flow capabilities  
Tapered needle  
Threaded valve seat



#### AA23H

Max. operating pressure:  
1000 psi (69 bar)  
Max. temperature: 200°F (93°C)  
Capacity: 5 gpm (19 lpm)  
Material: Nickel-plated steel  
valve body with aluminum  
handle (23H-SS features  
stainless steel inlet body  
and tip retainer)  
Trigger guard  
Four finger trigger for ease  
of operation

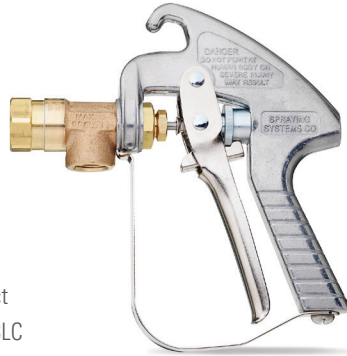




MEDIUM PRESSURE GUNJET SPRAY GUN OPTIONS

**AA43HC**

Max. operating pressure:  
800 psi (55 bar)  
Max. temperature: 200°F (93°C)  
Capacity: 15 gpm (57 lpm)  
Material: Brass, aluminum  
or stainless steel valve body  
with aluminum handle  
Trigger lock and guard  
Front inlet  
Designed to withstand high impact  
Higher operating pressure than 43LC



**D41663-23L-QJ-PA/SS**

Max. operating pressure:  
300 psi (20 bar)  
Max. temperature:  
158°F (70°C)  
Capacity: 11 gpm (40 lpm)  
Material: Stainless steel  
valve body with nylon handle  
Quick change of sealing unit  
Specially designed softgrip  
improves control  
Grip remains cool during hot  
spraying operations  
Wetted parts are made of  
FDA compliant materials



**AA31**

Max. operating pressure:  
500 psi (35 bar)  
Max. temperature:  
200°F (93°C)  
Capacity: 5 gpm (19 lpm)  
Material: Brass valve body  
Optional trigger lock  
Can be used with air  
Positive trigger action for  
drip-free shut off



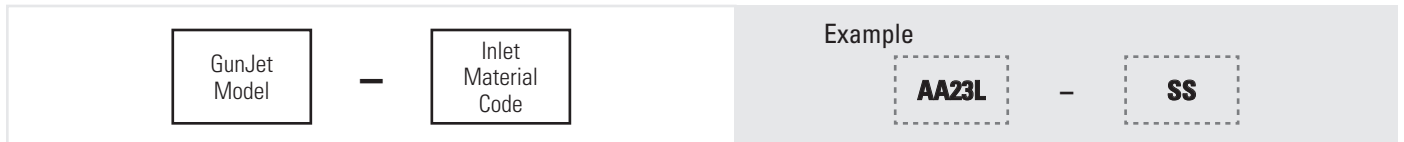
**MATERIAL**

**CODE**

| MATERIAL            | CODE    |
|---------------------|---------|
| Brass               | No code |
| Nickel-plated steel | INP     |
| Stainless steel     | SS      |

**ORDERING INFORMATION**

**COMPLETE SPRAY GUN ASSEMBLY**



BSPT connections require the addition of a "B" in the prefix of the part number. Example: AAB43HC.



# MEDIUM PRESSURE GUNJET® SPRAY GUNS

## SPECIFICATIONS

| Model                           | Max. Operating Pressure<br>psi (bar) | Capacity<br>gpm (lpm) | Max. Temperature<br>°F (°C) | Inlet Conn.<br>in.                | Outlet Conn.<br>in.         | Weight<br>oz. (kg) | Spray Tips   | Extensions  | Adapters/<br>Swivel<br>Connectors                    | Spare Parts<br>Kits   |
|---------------------------------|--------------------------------------|-----------------------|-----------------------------|-----------------------------------|-----------------------------|--------------------|--|---|--|---|
| <b>36533-60</b>                 | 600 (41)                             | 12 (45)               | 200 (93)                    | 3/8 NPT or<br>BSPT (F)            | 11/16–16<br>UniJet® THD     | 16 (.45)           | EG, TG, TK,<br>TN, TPU<br>UniJet                               | 9004-SS,<br>20400-1/4M*,<br>20400-1/8F*                           | 4676, 11990,<br>13212, 14643                         | AB36533-60-KIT  |
| <b>AA23L</b>                    | 250 (17)                             | 5 (19)                | 200 (93)                    | 1/4 NPS (M)                       | 11/16–16<br>UniJet THD      | 15 (.43)           | TB, TG, TK,<br>TN, TPU, TX<br>UniJet                           | 6671, 7715,<br>9004-SS, 9527,<br>12086, 14975,<br>15699           | 4676, 7599,<br>8603, 8604,<br>11990, 14269,<br>14643 | AB23L-KIT,<br>AB23L-SS-KIT,<br>AB23L-7676-KIT,<br>AB23L-7676-SS-KIT   |
| <b>AA23L-45885</b>              | 250 (17)                             | 0.7 (2.7)             | 200 (93)                    | 1/4 NPS (M)                       | 11/16–16<br>UniJet THD      | 16 (.45)           | TPU UniJet   | 6671, 7715,<br>9004-SS, 9527,<br>12086, 14975,<br>15699           | 4676, 7599,<br>8603, 8604,<br>11990, 14269,<br>14643 | AB23L-45885-KIT,<br>AB23L-45885-SS-KIT  |
| <b>AA23H</b>                    | 1000 (69)                            | 5 (19)                | 200 (93)                    | 1/4 NPS (M)                       | 11/16–16<br>UniJet THD      | 16 (.45)           | EG, TC, TG,<br>TK, TN,<br>TN-SSTC,<br>TP, TP-TC,<br>TPU UniJet | 9004-SS, 9527,<br>9702A, 9702C,<br>9702S, 12086,<br>13781S, 15699 | 4676, 7599,<br>8603, 8604,<br>11990, 14269,<br>14643 | AB23H-KIT<br>AB23H-SS-KIT   |
| <b>AA43HC</b>                   | 800 (55)                             | 15 (57)               | 200 (93)                    | 1/2, 3/4 NPT<br>or BSPT (F)       | 1/2, 3/4 NPT<br>or BSPT (F) | 35.25 (1)          | FloodJet®,<br>FullJet®,<br>VeeJet®                             | –   | 7029, 11990  | AB43-KIT,<br>AB43-AL-KIT,<br>AB43B-KIT,<br>AB43C-KIT,<br>AB43D-KIT,<br>AB43-11767-KIT,<br>AB43-12605-KIT,<br>AB43-20962-KIT |
| <b>D41663-23L-<br/>QJ-PA/SS</b> | 300 (20)                             | 10.5 (40)             | 158 (70)                    | 1/4 BSPP (M)                      | –                           | 13 (.36)           | UniJet   | –   | –  | –   |
| <b>AA31</b>                     | 500 (35)                             | 5 (19)                | 200 (93)                    | 1/4 NPS (M) or<br>NPT or BSPT (F) | 11/16–16<br>UniJet THD      | 12.5 (.35)         | EG, TB, TG,<br>TK, TN, TP,<br>TPU UniJet                       | 6671-SS,<br>7715-SS,<br>9004-SS, 9527,<br>12086, 15699            | 4676, 7599,<br>8603, 8604,<br>11990, 14269,<br>14643 | AB31-KIT,<br>AB31-39430-KIT,<br>AB31-9525-KIT,<br>AB31-PGA-KIT  |


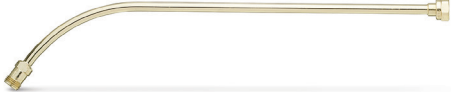




\* Use with adapter 4676.

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional configuration options.

See Spraying Systems Co. Hydraulic Spray Products Catalog 75 for spray tip performance data.










EXTENSIONS FOR MEDIUM PRESSURE GUNJET SPRAY GUNS

| Extension   | Extension Type | Max. Pressure psi (bar) | Inlet Conn. in.     | Outlet Conn. in.    | Material                     | Lengths in. (mm) | Special Features  |
|---|----------------|-------------------------|---------------------|---------------------|------------------------------|------------------|---|
|    | <b>14975</b>   | 250 (17)                | 11/16–16 UniJet THD | 1/8 NPT or BSPT (M) | Brass                        | 10 (254)         |   |
| 18 (457)  |                |                         |                     |                     |                              |                  |   |
|    | <b>6671</b>    | 250 (17)                | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Brass                        | 8 (203)          | Curved body   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (609)         |   |
|   |                |                         |                     |                     |                              | 30 (762)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
|   | 48 (1219)      |                         |                     |                     |                              |                  |   |
|   | 500 (35)       | 11/16–16 UniJet THD     | 11/16–16 UniJet THD | Stainless steel     | 8 (203)                      |                  |   |
|   |                |                         |                     |                     | 18 (457)                     |                  |   |
|   |                |                         |                     |                     | 24 (609)                     |                  |   |
|   |                |                         |                     |                     | 30 (762)                     |                  |   |
| 36 (914)  |                |                         |                     |                     |                              |                  |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>7715</b>    | 250 (17)                | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Brass                        | 8 (203)          |   |
|   |                |                         |                     |                     |                              | 12 (305)         |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 30 (762)         |   |
|   | 36 (914)       |                         |                     |                     |                              |                  |   |
|   | 48 (1219)      |                         |                     |                     |                              |                  |   |
|   | 500 (35)       | 11/16–16 UniJet THD     | 11/16–16 UniJet THD | Stainless steel     | 8 (203)                      |                  |   |
|   |                |                         |                     |                     | 12 (305)                     |                  |   |
|   |                |                         |                     |                     | 18 (457)                     |                  |   |
| 24 (610)  |                |                         |                     |                     |                              |                  |   |
| 30 (762)  |                |                         |                     |                     |                              |                  |   |
| 36 (914)  |                |                         |                     |                     |                              |                  |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |
|  | <b>9527</b>    | 1000 (69)               | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Brass                        | 8 (203)          | Curved, rubber insulated                                  |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
|  | <b>15699</b>   | 1000 (69)               | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Brass                        | 8 (203)          | Rubber insulated. (8"/203 mm length not rubber insulated) |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
|  | <b>12086</b>   | 1000 (69)               | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Aluminum with brass ferrules | 8 (203)          |   |
|   |                |                         |                     |                     |                              | 18 (457)         |   |
|   |                |                         |                     |                     |                              | 24 (610)         |   |
|   |                |                         |                     |                     |                              | 36 (914)         |   |
| 48 (1219)   |                |                         |                     |                     |                              |                  |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.

## EXTENSIONS FOR MEDIUM PRESSURE GUNJET SPRAY GUNS

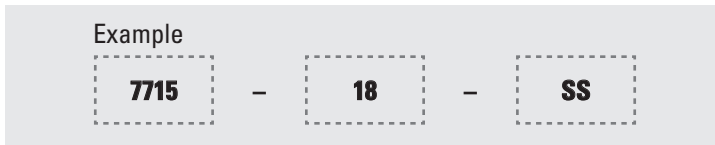
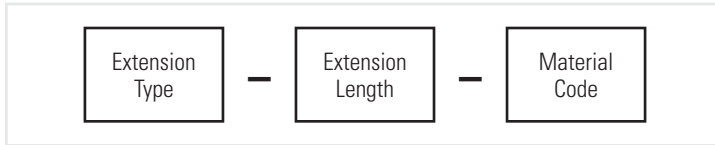
| Extension   | Extension Type    | Max. Pressure<br>psi (bar) | Inlet Conn.<br>in.     | Outlet Conn.<br>in.    | Material                                   | Lengths<br>in. (mm) | Special Features  |
|---|-------------------|----------------------------|------------------------|------------------------|--|---------------------|---|
|    | <b>9702A</b>      | 2000 (138)                 | 11/16–16<br>UniJet THD | –                      | Mild steel                                 | 8 (203)             | Projects spray at 90° angle to inlet. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1 |
|   |                   |                            |                        |                        |  | 10 (254)            |   |
|   |                   |                            |                        |                        |  | 18 (457)            |   |
|   |                   |                            |                        |                        |  | 24 (610)            |   |
|   |                   |                            |                        |                        |  | 30 (762)            |   |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|   |                   |                            |                        |                        |  | 48 (1219)           |   |
| 60 (1524)   |                   |                            |                        |                        |  |                     |   |
|    | <b>9702C</b>      | 2000 (138)                 | 11/16–16<br>UniJet THD | –                      | Mild steel                                 | 8 (203)             | Curved body. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                          |
|   |                   |                            |                        |                        |  | 10 (254)            |   |
|   |                   |                            |                        |                        |  | 18 (457)            |   |
|   |                   |                            |                        |                        |  | 24 (610)            |   |
|   |                   |                            |                        |                        |  | 30 (762)            |   |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|   |                   |                            |                        |                        |  | 48 (1219)           |   |
| 60 (1524)   |                   |                            |                        |                        |  |                     |   |
|   | <b>9702S</b>      | 2000 (138)                 | 11/16–16<br>UniJet THD | –                      | Mild steel                                 | 8 (203)             | Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                                       |
|   |                   |                            |                        |                        |  | 10 (254)            |   |
|   |                   |                            |                        |                        |  | 18 (457)            |   |
|   |                   |                            |                        |                        |  | 24 (610)            |   |
|   |                   |                            |                        |                        |  | 30 (762)            |   |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|   |                   |                            |                        |                        |  | 48 (1219)           |   |
| 60 (1524)   |                   |                            |                        |                        |  |                     |   |
|  | <b>13781S</b>     | 2000 (138)                 | 11/16–16<br>UniJet THD | 1/4–28                 | Mild steel                                 | 10 (254)            | Usually supplied with 7890 inlet cap and 13783 hollow cone spray tip (order cap and tip separately) Refer to Data Sheet 13775   |
|   |                   |                            |                        |                        |  | 16 (406)            |   |
|   |                   |                            |                        |                        |  | 48 (1219)           |   |
|  | <b>20400-1/4M</b> | 3000 (207)                 | 1/4 NPT or<br>BSPT (M) | 1/4 NPT or<br>BSPT (M) | Stainless steel<br>or zinc-plated<br>steel | 18 (457)            | Neoprene insulated cover  |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|  | <b>20400-1/8F</b> | 3000 (207)                 | 1/4 NPT or<br>BSPT (M) | 1/8 NPT or<br>BSPT (F) | Stainless steel<br>or zinc-plated<br>steel | 18 (457)            | Neoprene insulated cover  |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|  | <b>9004-SS</b>    | 4000 (275)                 | 11/16–16<br>UniJet THD | 11/16–16<br>UniJet THD | Stainless steel                            | 4 (101.6)           |   |
|   |                   |                            |                        |                        |  | 8 (203)             |   |
|   |                   |                            |                        |                        |  | 12 (305)            |   |
|   |                   |                            |                        |                        |  | 18 (457)            |   |
|   |                   |                            |                        |                        |  | 24 (610)            |   |
|   |                   |                            |                        |                        |  | 36 (914)            |   |
|   |                   |                            |                        |                        |  | 40 (1016)           |   |
|   |                   |                            |                        |                        |  | 60 (1524)           |   |
|   |                   |                            |                        |                        |  | 72 (1829)           |   |
|   |                   |                            |                        |                        |  | 84 (2133)           |   |
| 96 (2438)   |                   |                            |                        |                        |  |                     |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.



**ORDERING INFORMATION**

**COMPLETE EXTENSION ASSEMBLY**








BSPT connections require the addition of a "B" in the prefix of the part number. Example: B20400.

**MATERIAL**

**CODE**

|                   |         |
|-------------------|---------|
| Brass             | No code |
| Mild steel        | I       |
| Stainless steel   | SS      |
| Zinc-plated steel | IZP     |

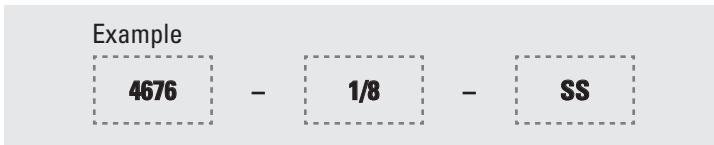
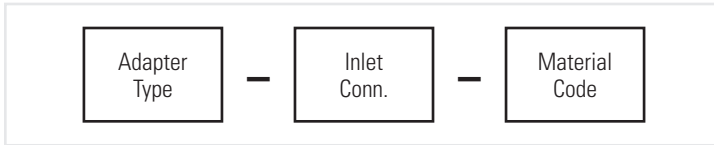
**ADAPTERS FOR MEDIUM PRESSURE GUNJET SPRAY GUNS**

| Adapter   | Adapter Type    | Max. Pressure psi (bar) | Inlet Conn. in.          | Outlet Conn. in.                        | Material                             |
|---|-----------------|-------------------------|--------------------------|---|--------------------------------------|
|  | <b>4676</b>     | 1000 (69)               | 11/16–16 UniJet THD      | 1/8, 1/4, 3/8, 1/2, 3/4 NPT or BSPT (F) | Brass                                |
|  | <b>7599</b>     | 1000 (69)               | 1/4, 3/8 NPT or BSPT (F) | 1/4, 3/8 NPS                            | Nickel-plated brass                  |
|  | <b>4676__SS</b> | 2000 (138)              | 11/16–16 UniJet THD      | 1/8, 1/4, 3/8, 1/2, 3/4 NPT or BSPT (F) | Stainless steel                      |
|  | <b>7599__SS</b> | 2000 (138)              | 1/4, 3/8 NPT or BSPT (F) | 1/4, 3/8 NPS                            | Stainless steel                      |
|  | <b>14643</b>    | 4000 (275)              | 11/16–16 UniJet® THD     | 1/8, 1/4 NPT or BSPT (F)                | Nickel-plated steel, Stainless steel |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.

## ORDERING INFORMATION

### COMPLETE ADAPTER ASSEMBLY



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B4676.

### MATERIAL

### CODE

| MATERIAL            | CODE    |
|---------------------|---------|
| Brass               | No code |
| Nickel-plated brass | NP      |
| Nickel-plated steel | INP     |
| Stainless steel     | SS      |

### SPARE PARTS KITS FOR MEDIUM PRESSURE GUNJET SPRAY GUNS

| Spare Parts Kit           | Kit includes:   |
|---------------------------|---|
| <b>AB23H-KIT</b>          | Valve seat, main stem assembly, cup packing, main spring                |
| <b>AB23H-SS-KIT</b>       |   |
| <b>AB23L-KIT</b>          | Valve seat, main stem assembly, cup packing, main spring                |
| <b>AB23L-SS-KIT</b>       |   |
| <b>AB23L-7676-KIT</b>     | Main spring, cup packing, stem end, valve seat                          |
| <b>AB23L-7676-SS-KIT</b>  |   |
| <b>AB23L-45885-KIT</b>    | Valve seat retainer sub-assembly, packings, main spring, spring         |
| <b>AB23L-45885-SS-KIT</b> |   |
| <b>AB31-KIT</b>           | Seat, stem & guide sub-assembly, spring, packings                       |
| <b>AB31-9525-KIT</b>      | Seat, stem & guide sub-assembly, spring, packings                       |
| <b>AB31-39430-KIT</b>     | Valve seat ring & tip sub-assembly, stem sub-assembly, spring, packings |

| Spare Parts Kit       | Kit includes:  |
|-----------------------|--|
| <b>AB31-PGA-KIT</b>   | Tip gasket, gaskets, seat plug gasket, packings  |
| <b>AB43-KIT</b>       | Gasket, seat plug, seat plate, washer & core sub-assembly, packing washer, packings                    |
| <b>AB43-AL-KIT</b>    |  |
| <b>AB43B-KIT</b>      | Seat plate, packings   |
| <b>AB43C-KIT</b>      |  |
| <b>AB43D-KIT</b>      |  |
| <b>AB43-11767-KIT</b> | Seat plate, retaining ring, gasket, packings   |
| <b>AB43-12605-KIT</b> | Seat plate, retaining ring, gasket, packings   |
| <b>AB43-20962-KIT</b> | Seat plate, packings   |
| <b>AB36533-60-KIT</b> | Screw, seat, main stem & seat holder sub-assembly, spring, cup packing, back-up ring, seat plug gasket |





HIGH PRESSURE  
GUNJET® SPRAY GUNS

H I G H P R E S S U R E W A S H I N G  
P L A N T C L E A N - U P · S T E A M C L E A N I N G  
R E L E A S E A G E N T S P R A Y I N G  
S E A L C O A T I N G · F L O O R C L E A N I N G  
H E A V Y E Q U I P M E N T W A S H I N G



# HIGH PRESSURE SPRAY GUNS INTRODUCTION



## HIGH PRESSURE SPRAY GUNS








- Ergonomic designs assure positive control and operator comfort even at maximum flow and pressure conditions
- Sturdy design and materials mean long, productive equipment life
- Ultimate versatility is available with a complete selection of UniJet® spray tips to meet pattern and flow specifications
- Standard one-piece nozzles, such as VeeJet® flat spray nozzles, can be used when mated with proper adapters
- Handles remain comfortable even during hot spraying operations
- Optional “weep” feature (30A and 70) helps prevent freezing in cold conditions
- Adapters convert thread sizes, allowing the attachment of optional accessories
- Extensions available for many models to improve spray gun stability
- Trigger locks prevent accidental discharge when the gun is not in use
- In-line swivels provide smooth 360° operation, eliminating hose kinking and reducing operator fatigue
- In-line strainers available to prevent clogging and improve purity of sprayed liquid
- Spare parts kits available for easy maintenance






# HIGH PRESSURE SPRAY GUNS TABLE OF CONTENTS

## HIGH PRESSURE GUNJET® SPRAY GUNS

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|  <b>Specifications</b> | <b>D6</b> |

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|  <b>SPRAY GUN EXTENSIONS</b> | <b>D7</b> |

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|  <b>SPRAY GUN INLET AND OUTLET ADAPTERS</b> | <b>D8</b> |

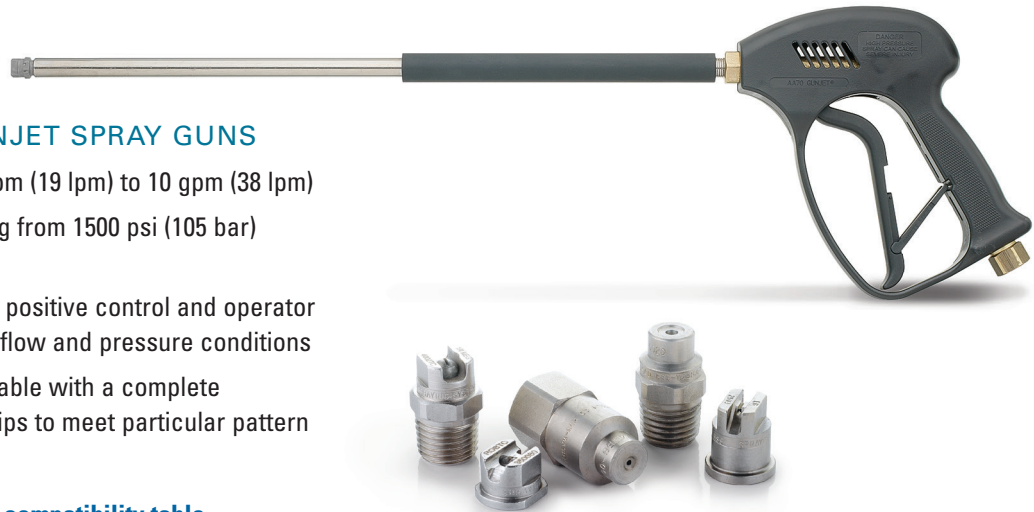
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## OVERVIEW: HIGH PRESSURE GUNJET SPRAY GUNS

- Capacity ranging from 5 gpm (19 lpm) to 10 gpm (38 lpm)
- Maximum pressure ranging from 1500 psi (105 bar) to 5000 psi (345 bar)
- Ergonomic designs assure positive control and operator comfort even at maximum flow and pressure conditions
- Ultimate versatility is available with a complete selection of UniJet spray tips to meet particular pattern and flow specifications

See page [D6](#) for gun and tip compatibility table and pages [E10-E11](#) for specific tip information.



## HIGH PRESSURE GUNJET SPRAY GUN OPTIONS

### AA30A

Max. operating pressure:  
1500 psi (105 bar)  
Max. temperature: 200°F (93°C)  
Capacity: 5 gpm (19 lpm)  
Material: Brass valve body with  
nylon handle  
Trigger lock and guard  
Designed to withstand high impact  
Ergonomic design with light trigger pull  
Front hose connection keeps grip cool  
Optional weep feature prevents freezing



### AA60

Max. operating pressure:  
2500 psi (175 bar)  
Max. temperature:  
300°F (150°C)  
Capacity: 6 gpm (23 lpm)  
Material: Brass or stainless  
steel valve body with nylon handle  
Trigger lock and guard  
Designed to withstand high impact  
Ergonomic design with light trigger pull  
Front hose connection keeps grip cool



### AA70

Max. operating pressure:  
5000 psi (345 bar)  
Max. temperature: 300°F (150°C)  
Capacity: 10 gpm (38 lpm)  
Material: Brass valve body with  
nylon handle  
Trigger lock and guard  
Designed to withstand high impact  
Ergonomic design with light trigger pull  
Large grip area to accommodate  
work gloves  
Vented handle remains comfortable during  
hot spraying operations  
Optional weep feature prevents freezing



### AA80

Max. operating pressure:  
3000 psi (207 bar)  
Max. temperature:  
300°F (150°C)  
Capacity: 10 gpm (38 lpm)  
Material: Brass valve body  
with nylon handle  
Trigger lock and guard  
Designed to withstand  
high impact  
Ergonomic design with light  
trigger pull  
Handle remains comfortable during  
hot spraying operations



## HIGH PRESSURE GUNJET SPRAY GUN OPTIONS

### PW4000A

Max. operating pressure:  
4000 psi (275 bar)  
Max. temperature: 300°F (150°C)  
Capacity: 10 gpm (38 lpm)  
Material: Brass valve body with  
nylon handle  
Trigger lock and guard  
Designed to withstand high impact  
Ergonomic design with light  
trigger pull  
Handle remains comfortable during  
hot spraying operations



### PW4000AS

Max. operating pressure:  
4000 psi (275 bar)  
Max. temperature: 300°F (150°C)  
Capacity: 10 gpm (38 lpm)  
Material: Brass valve body with  
nylon handle  
Trigger lock and guard  
Designed to withstand high impact  
Ergonomic design with light trigger pull  
Bottom trigger pivot and inlet swivel  
rotate freely at high pressures  
Handle remains comfortable during hot  
spraying operations



### MATERIAL

### CODE

|                 |         |
|-----------------|---------|
| Brass           | No code |
| Stainless steel | SS      |

## ORDERING INFORMATION

### COMPLETE SPRAY GUN ASSEMBLY



### Example



BSPT connections require the addition of a "B" in the prefix of the part number. Example: AAB60.

## SPECIFICATIONS

| Model           | Max. Operating Pressure<br>psi (bar) | Capacity<br>gpm (lpm) | Max. Temperature<br>°F (°C) | Inlet Conn.<br>in.               | Outlet Conn.<br>in.   | Weight<br>oz. (kg) | Spray Tips  | Extensions  | Adapters/<br>Swivel<br>Connectors | Spare Parts<br>Kits  |
|-----------------|--------------------------------------|-----------------------|-----------------------------|----------------------------------|---|--------------------|---|---|-----------------------------------|--|
| <b>AA30A</b>    | 1500 (105)                           | 5 (19)                | 200 (93)                    | 1/4 NPT or<br>BSPT (F)           | 11/16–16<br>UniJet® THD                                     | 15 (.43)           | EG, TG<br>UniJet  | 9004-SS,<br>9702A, 9702C,<br>9702S, 13781S                                | 4676-SS-1/4,<br>9765, 11990       | AB30A-KIT<br>AB30AW-KIT<br>AB30A-50736-KIT   |
| <b>AA60</b>     | 2500 (175)                           | 6 (23)                | 300 (150)                   | 3/8 NPT or<br>BSPT (F)           | 11/16–16<br>UniJet THD                                      | 16 (.45)           | EG UniJet,<br>MEG,<br>MEG-SSTC<br>WashJet®                | 9004-SS,<br>9702A,<br>9702C, 9702S,<br>20400-1/4M*,<br>20400-1/8F*        | 14643-1/4,<br>15950-SS            | AB60-KIT,<br>AB60-SS-KIT,<br>AB60W-KIT,<br>AB60-20250-KIT<br>AB60-21580-KIT,<br>AB60-21580A-KIT,<br>AB36533-60-KIT |
| <b>AA70</b>     | 5000 (345)                           | 10 (38)               | 300 (150)                   | 3/8 NPT or<br>BSPT (F)           | 1/4 NPT<br>or BSPT (F)                                      | 25 (.71)           | IMEG, MEG<br>QCIMEG,<br>WashJet                           | 20400-1/8F  | 15950                             | –  |
| <b>AA80</b>     | 3000 (207)                           | 10 (38)               | 300 (150)                   | 3/8 NPT or<br>BSPT (F)           | 11/16–16<br>UniJet THD<br>or<br>1/4, 3/8 NPT<br>or BSPT (F) | 36 (1.02)          | EG UniJet,<br>IMEG, MEG,<br>SAQCIMEG,<br>QCMEG<br>WashJet | 9004-SS,<br>9702A, 9702C,<br>9702S, 15250,<br>20400-1/4M*,<br>20400-1/8F* | 14643-1/4,<br>15950-SS            | AB80-KIT   |
| <b>PW4000A</b>  | 4000 (275)                           | 10 (38)               | 300 (150)                   | 1/4, 3/8 NPT<br>or BSPT (F)      | 1/4, 3/8 NPT<br>or BSPT (F)                                 | 24 (.68)           | IMEG, MEG,<br>MEG-SSTC,<br>QCMEG<br>WashJet               | 15250,<br>20400-1/4M*,<br>20400-1/8F*                                     | 9765, 15950,<br>21550             | AB-PW4000A-KIT,<br>AB-PW4000AW-KIT   |
| <b>PW4000AS</b> | 4000 (275)                           | 10 (38)               | 300 (150)                   | 3/8 NPT or<br>BSPT (F)<br>swivel | 1/4, 3/8 NPT<br>or BSPT (F)                                 | 24 (.68)           | IMEG, MEG,<br>MEG-SSTC,<br>QCMEG<br>WashJet               | 15250,<br>20400-1/4M*,<br>20400-1/8F*                                     | 15950                             | AB-PW4000AS-KIT,<br>AB-PW4000ASW-KIT   |

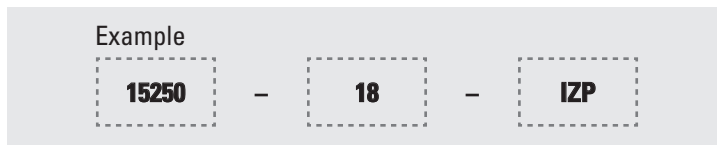
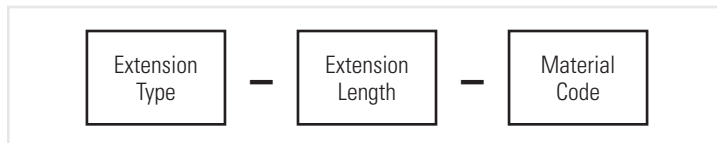
\*Use with adapter 14643-1/4-SSP or 14643-1/4-IENP.

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional configuration options.

See Spraying Systems Co. Hydraulic Spray Products Catalog 75 for spray tip performance data.

## ORDERING INFORMATION

### COMPLETE EXTENSION ASSEMBLY



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B15250.









### MATERIAL

### CODE

|                   |         |
|-------------------|---------|
| Brass             | No code |
| Mild steel        | I       |
| Stainless steel   | SS      |
| Zinc-plated steel | IZP     |





## EXTENSIONS FOR HIGH PRESSURE GUNJET SPRAY GUNS

| Extension   | Extension Type    | Max. Pressure psi (bar) | Inlet Conn. in.      | Outlet Conn. in.    | Material                             | Lengths in. (mm) | Special Features  |
|---|-------------------|-------------------------|----------------------|---------------------|--------------------------------------|------------------|---|
|    | <b>9702A</b>      | 2000 (138)              | 11/16–16 UniJet® THD | –                   | Mild steel                           | 10 (254)         | Projects spray at 90° angle to inlet. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1 |
|   |                   |                         |                      |                     |                                      | 24 (610)         |   |
|   |                   |                         |                      |                     |                                      | 48 (1219)        |   |
|   |                   |                         |                      |                     |                                      | 60 (1524)        |   |
|    | <b>9702C</b>      | 2000 (138)              | 11/16–16 UniJet THD  | –                   | Mild steel                           | 10 (254)         | Curved body. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                          |
|   |                   |                         |                      |                     |                                      | 24 (610)         |   |
|   |                   |                         |                      |                     |                                      | 48 (1219)        |   |
|   |                   |                         |                      |                     |                                      | 60 (1524)        |   |
|    | <b>9702S</b>      | 2000 (138)              | 11/16–16 UniJet THD  | –                   | Mild steel                           | 10 (254)         | Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                                       |
|   |                   |                         |                      |                     |                                      | 24 (610)         |   |
|   |                   |                         |                      |                     |                                      | 48 (1219)        |   |
|   |                   |                         |                      |                     |                                      | 60 (1524)        |   |
|  | <b>13781S</b>     | 2000 (138)              | 11/16–16 UniJet THD  | 1/4–28              | Mild steel                           | 10 (254)         | Usually supplied with 7890 inlet cap and 13783 hollow cone spray tip (order cap and tip separately) Refer to Data Sheet 13775   |
|   |                   |                         |                      |                     |                                      | 16 (406)         |   |
|   |                   |                         |                      |                     |                                      | 48 (1219)        |   |
|  | <b>15250</b>      | 3000 (207)              | 3/8 NPT or BSPT (M)  | 11/16–16 UniJet THD | Stainless steel or zinc-plated steel | 18 (457)         | Adjustable hand grip. Neoprene insulated cover  |
|   |                   |                         |                      |                     |                                      | 36 (914)         |   |
|  | <b>20400-1/4M</b> | 3000 (207)              | 1/4 NPT or BSPT (M)  | 1/4 NPT or BSPT (M) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                      |                     |                                      | 36 (914)         |   |
|  | <b>20400-1/8F</b> | 3000 (207)              | 1/4 NPT or BSPT (M)  | 1/8 NPT or BSPT (F) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                      |                     |                                      | 36 (914)         |   |
|  | <b>9004-SS</b>    | 4000 (275)              | 11/16–16 UniJet THD  | 11/16–16 UniJet THD | Stainless steel                      | 8 (203)          |   |
|   |                   |                         |                      |                     |                                      | 12 (305)         |   |
|   |                   |                         |                      |                     |                                      | 18 (457)         |   |
|   |                   |                         |                      |                     |                                      | 24 (610)         |   |
|   |                   |                         |                      |                     |                                      | 36 (914)         |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.



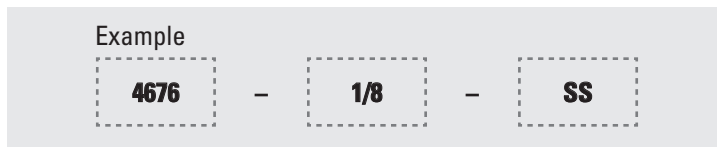
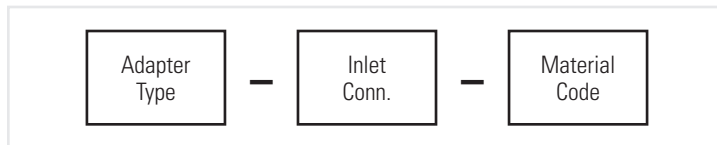
## ADAPTERS FOR HIGH PRESSURE GUNJET SPRAY GUNS

| Adapter   | Adapter Type      | Max. Pressure<br>psi (bar) | Inlet Conn.<br>in.   | Outlet Conn.<br>in.                        | Material                                |
|---|-------------------|----------------------------|----------------------|--|---|
|  | <b>4676-__-SS</b> | 2000 (138)                 | 11/16–16 UniJet® THD | 1/8, 1/4, 3/8, 1/2, 3/4 NPT<br>or BSPT (F) | Stainless steel                         |
|  | <b>14643</b>      | 4000 (275)                 | 11/16–16 UniJet THD  | 1/8, 1/4 NPT or BSPT (F)                   | Nickel-plated steel,<br>Stainless steel |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.

## ORDERING INFORMATION

### COMPLETE ADAPTER ASSEMBLY



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B4676.

### MATERIAL

### CODE

|                     |     |
|---------------------|-----|
| Nickel-plated steel | INP |
| Stainless steel     | SS  |

## SPARE PARTS KITS FOR HIGH PRESSURE GUNJET SPRAY GUNS

| Spare Parts Kit        | Kit includes:   |
|------------------------|---|
| <b>AB30A-KIT</b>       | Valve seat sub-assembly, Stem sub-assembly, Cup packing   |
| <b>AB30AW-KIT</b>      |   |
| <b>AB30A-50736-KIT</b> | Cap sub-assembly, Valve seat ring & tip sub-assembly, Stem sub-assembly, Packing cup                    |
| <b>AB60-KIT</b>        | Valve seat sub-assembly, Stem sub-assembly, Main spring, Cup packing, Back-up ring, Gasket              |
| <b>AB60W-KIT</b>       |   |
| <b>AB60-SS-KIT</b>     |   |
| <b>AB60-20250-KIT</b>  | Screw, Seat, Main stem & seat holder sub-assembly, Spring, Cup packing, Back-up ring, Seat plug gasket  |
| <b>AB60-21580-KIT</b>  | Pintle, Seat, Main stem & seat holder sub-assembly, Spring, Cup packing, Back-up ring, Seat plug gasket |
| <b>AB60-21580A-KIT</b> |   |

| Spare Parts Kit        | Kit includes:  |
|------------------------|--|
| <b>AB80-KIT</b>        | Main spring, Back-up rings, O-rings, Seat washer, Lip seal   |
| <b>AB36533-60-KIT</b>  | Screw, Seat, Main stem & seat holder sub-assembly, Spring, Cup packing, Back-up ring, Seat plug gasket |
| <b>ABPW4000A-KIT</b>   | Trigger spring, Gasket, Back-up rings, O-rings, Seat, Stem, Ball, Spring                               |
| <b>ABPW4000AW-KIT</b>  |  |
| <b>ABPW4000AS-KIT</b>  |  |
| <b>ABPW4000ASW-KIT</b> |  |





# ACCESSORIES AND SPRAY TIPS



# ACCESSORIES INTRODUCTION



## ACCESSORIES FOR GUNJET® SPRAY GUNS

- Swivel connectors help to provide a smooth, leak-proof connection preventing hose twisting when using spray guns, increasing hose life and reducing operator fatigue
- Strainers are available in a wide range of screen mesh sizes and materials to prevent particles from plugging the nozzle orifice
- A choice of extension lengths is available to improve the efficiency of your spraying operation
- Adapters convert the spray gun outlet from 11/16"-16 UniJet® thread to a choice of outlet connection sizes, allowing the attachment of other accessories and standard one piece nozzles

### SIMPLIFY INSTALLATION AND OPERATION



Model **36467** swivel features 1/2" NPT (M) threaded outlet. Threaded inlet connection is 3/4" garden hose thread (F). Commonly used with CU150A gun. [See page E4](#)



Model **8510** strainer is constructed of stainless steel and offers a choice of screen mesh sizes. The internal support prevents screen collapse at high pressure. [See page E5](#)







Model **6960** is a low pressure extension assembly which features a siphon attachment with adjustable liquid flow. The assembly includes a spray tip and is constructed of brass. The inlet connection is 11/16"-16 UniJet thread. [See page E6](#)



# ACCESSORIES

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SWIVEL CONNECTORS AND LIQUID STRAINERS

| Connector   | Type                                | Max. Pressure<br>psi (bar) | Max. Temperature<br>°F (°C) | Inlet Conn.<br>in.  | Outlet Conn.<br>in.                          | Material | Special Features   |
|---|-------------------------------------|----------------------------|-----------------------------|---|--|----------|--|
|    | <b>36466<br/>swivel</b>             | 150 (10)                   | 200 (93)                    | 1/2, 5/8, 3/4 garden<br>hose ID,<br>1-3/16 long barb inlet      | 1/2 NPT or BSPT (M)                          | Brass    | Lock ring secures trigger<br>of CU150A gun in fully<br>engaged position  |
|    | <b>36466L<br/>swivel</b>            | 150 (10)                   | 200 (93)                    | 3/4 garden hose ID,<br>2-7/16 long barb inlet                   | 1/2 NPT or BSPT (M)                          | Brass    | Lock ring secures trigger<br>of CU150A gun in fully<br>engaged position  |
|   | <b>36467<br/>swivel</b>             | 150 (10)                   | 200 (93)                    | 3/4 garden hose (F)   | 1/2 NPT (M)                                  | Brass    | Lock ring secures trigger<br>of CU150A gun in fully<br>engaged position  |
|  | <b>11990<br/>In-line<br/>swivel</b> | 1000 (69)                  | 180 (82)                    | 1/4 to 1/2 NPT<br>or BSPT (F),<br>1/4 to 1/2 NPT<br>or BSPT (M) | 1/4 NPS (M),<br>1/4 to 1/2 NPT<br>or NPS (F) | Brass    | Leakproof hose.<br>360° swivel eliminates<br>hose kinking and<br>operator fatigue.<br>See data sheet 11991 for<br>specific configurations. |
|  | <b>15950<br/>swivel</b>             | 1000 (69)                  | 200 (93)                    | 3/8 NPT or BSPT (M)   | 3/8 NPT or BSPT (F)                          | Brass    | Allows swiveling under<br>pressure and side loads  |
|  | <b>21550<br/>swivel</b>             | 1500 (103)                 | 200 (93)                    | 1/4, 3/8 NPT<br>or BSPT (F)                                     | 1/4, 3/8 NPT<br>or BSPT (M)                  | Brass    | Self-lubricating<br>PTFE-filled bearings   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.



| Connector  | Type                     | Max. Pressure<br>psi (bar) | Max. Temperature<br>°F (°C) | Inlet Conn.<br>in.  | Outlet Conn.<br>in. | Material               | Special Features   |
|--|--------------------------|----------------------------|-----------------------------|---------------------|---------------------|------------------------|--|
|   | <b>36560<br/>swivel</b>  | 2000 (138)                 | 200 (93)                    | 3/8 NPT (M)         | 3/8 NPS (F)         | Nickel-plated<br>brass | Boom swivel designed<br>for ceiling mount  |
|   | <b>15950<br/>swivel</b>  | 3000 (210)                 | 200 (93)                    | 3/8 NPT or BSPT (M) | 3/8 NPT or BSPT (F) | Stainless steel        | Allows swiveling under<br>pressure and side loads  |
|  | <b>8510<br/>strainer</b> | 4000 (275)                 | 200 (93)                    | 1/4 NPS (M)         | 1/4 NPS (F)         | Stainless steel        | Choice of screen mesh<br>sizes. Internal support<br>prevents screen collapse<br>at high pressure |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.

| MATERIAL            | CODE    |
|---------------------|---------|
| Brass               | No code |
| Nickel-plated brass | NP      |
| Stainless steel     | SS      |

**ORDERING INFORMATION**

**SPRAY GUN CONNECTORS**

|   |   |
|---|---|
| <div style="border: 1px solid black; padding: 5px; display: inline-block;">Swivel<br/>Type</div> <span style="font-size: 24px; margin: 0 10px;">-</span> <div style="border: 1px solid black; padding: 5px; display: inline-block;">Material<br/>Code</div> | <p>Example</p> <div style="border: 1px dashed gray; padding: 5px; display: inline-block;">15950</div> <span style="font-size: 24px; margin: 0 10px;">-</span> <div style="border: 1px dashed gray; padding: 5px; display: inline-block;">SS</div> |
|---|---|










BSPT connections require the addition of a "B" in the prefix of the part number. Example: B15950.

**SPRAY GUN CONNECTORS**










|   |   |
|---|---|
| <div style="border: 1px solid black; padding: 5px; display: inline-block;">Swivel<br/>Type</div> <span style="font-size: 24px; margin: 0 10px;">-</span> <div style="border: 1px solid black; padding: 5px; display: inline-block;">Inlet<br/>Conn.</div> <span style="font-size: 24px; margin: 0 10px;">x</span> <div style="border: 1px solid black; padding: 5px; display: inline-block;">Outlet<br/>Conn.</div> | <p>Example</p> <div style="border: 1px dashed gray; padding: 5px; display: inline-block;">21550</div> <span style="font-size: 24px; margin: 0 10px;">-</span> <div style="border: 1px dashed gray; padding: 5px; display: inline-block;">1/4F</div> <span style="font-size: 24px; margin: 0 10px;">x</span> <div style="border: 1px dashed gray; padding: 5px; display: inline-block;">1/4M</div> |
|---|---|

BSPT connections require the addition of a "B" in the prefix of the part number. Example: B21550.

EXTENSIONS FOR SPRAY GUNS

| Extension   | Extension Type | Max. Pressure psi (bar) | Inlet Conn. in.      | Outlet Conn. in.    | Material                     | Lengths in. (mm) | Special Features  |          |
|---|----------------|-------------------------|----------------------|---------------------|------------------------------|------------------|---|----------|
|    | <b>6960</b>    | 100 (7)                 | 11/16-16 UniJet® THD | 11/16-16 UniJet THD | Brass                        | 8.5 (216)        | Siphon with adjustable flow                               |          |
|    | <b>4673</b>    | 125 (8.6)               | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Brass                        | 18 (457)         | Curved with swivel nozzle body                            |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|   |                |                         |                      |                     |                              | 30 (762)         |   |          |
|   |                |                         |                      |                     |                              | 36 (914)         |   |          |
|    | <b>22665</b>   | 150 (10)                | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Polyester                    | 15 (381)         |   |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|    | <b>14975</b>   | 250 (17)                | 11/16-16 UniJet THD  | 1/8 NPT or BSPT (M) | Brass                        | 10 (254)         |   |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|    | <b>6671</b>    | 250 (17)                | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Curved body   |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|   |                |                         |                      |                     |                              | 24 (609)         |   |          |
|   |                |                         |                      |                     |                              | 30 (762)         |   |          |
|   |                |                         |                      |                     |                              | 36 (914)         |   |          |
|   | 48 (1219)      |                         |                      |                     |                              |                  |   |          |
|   |                |                         | 500 (35)             | 11/16-16 UniJet THD | 11/16-16 UniJet THD          | Stainless steel  |   | 8 (203)  |
|   |                |                         |                      |                     |                              |                  |   | 18 (457) |
|   |                |                         |                      |                     |                              |                  |   | 24 (609) |
|   |                |                         |                      |                     |                              |                  |   | 30 (762) |
| 36 (914)  |                |                         |                      |                     |                              |                  |   |          |
| 48 (1219)   |                |                         |                      |                     |                              |                  |   |          |
|  | <b>7715</b>    | 250 (17)                | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Brass                        | 8 (203)          |   |          |
|   |                |                         |                      |                     |                              | 12 (305)         |   |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|   |                |                         |                      |                     |                              | 30 (762)         |   |          |
|   | 36 (914)       |                         |                      |                     |                              |                  |   |          |
|   | 48 (1219)      |                         |                      |                     |                              |                  |   |          |
|   |                |                         | 500 (35)             | 11/16-16 UniJet THD | 11/16-16 UniJet THD          | Stainless steel  |   | 8 (203)  |
|   |                |                         |                      |                     |                              |                  |   | 12 (305) |
|   |                |                         |                      |                     |                              |                  |   | 18 (457) |
| 24 (610)  |                |                         |                      |                     |                              |                  |   |          |
| 30 (762)  |                |                         |                      |                     |                              |                  |   |          |
| 36 (914)  |                |                         |                      |                     |                              |                  |   |          |
| 48 (1219)   |                |                         |                      |                     |                              |                  |   |          |
|  | <b>9527</b>    | 1000 (69)               | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Curved, rubber insulated                                  |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|   |                |                         |                      |                     |                              | 36 (914)         |   |          |
|  | <b>15699</b>   | 1000 (69)               | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Brass                        | 8 (203)          | Rubber insulated. (8"/203 mm length not rubber insulated) |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|   |                |                         |                      |                     |                              | 36 (914)         |   |          |
|  | <b>12086</b>   | 1000 (69)               | 11/16-16 UniJet THD  | 11/16-16 UniJet THD | Aluminum with brass ferrules | 8 (203)          |   |          |
|   |                |                         |                      |                     |                              | 18 (457)         |   |          |
|   |                |                         |                      |                     |                              | 24 (610)         |   |          |
|   |                |                         |                      |                     |                              | 36 (914)         |   |          |
|   |                |                         |                      |                     |                              | 48 (1219)        |   |          |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.

| Extension   | Extension Type    | Max. Pressure psi (bar) | Inlet Conn. in.     | Outlet Conn. in.    | Material                             | Lengths in. (mm) | Special Features  |
|---|-------------------|-------------------------|---------------------|---------------------|--------------------------------------|------------------|---|
|    | <b>CP12087</b>    | 1000 (69)               | 1/4 NPT or BSPT (M) | 1/4 NPT or BSPT (M) | Aluminum                             | 8 (203)          |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
|    | <b>9702A</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Projects spray at 90° angle to inlet. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1 |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|    | <b>9702C</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Curved body. Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                          |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|    | <b>9702S</b>      | 2000 (138)              | 11/16–16 UniJet THD | –                   | Mild steel                           | 8 (203)          | Usually supplied with 7890 inlet cap and a tungsten carbide spray tip (order cap and tip separately) Refer to Data Sheet 9702-1                                       |
|   |                   |                         |                     |                     |                                      | 10 (254)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 30 (762)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
| 60 (1524)   |                   |                         |                     |                     |                                      |                  |   |
|  | <b>13781S</b>     | 2000 (138)              | 11/16–16 UniJet THD | 1/4–28              | Mild steel                           | 10 (254)         | Usually supplied with 7890 inlet cap and 13783 hollow cone spray tip (order cap and tip separately) Refer to Data Sheet 13775   |
|   |                   |                         |                     |                     |                                      | 16 (406)         |   |
|   |                   |                         |                     |                     |                                      | 48 (1219)        |   |
|  | <b>15250</b>      | 3000 (207)              | 3/8 NPT or BSPT (M) | 11/16–16 UniJet THD | Stainless steel or zinc-plated steel | 18 (457)         | Adjustable hand grip. Neoprene insulated cover  |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|  | <b>20400-1/4M</b> | 3000 (207)              | 1/4 NPT or BSPT (M) | 1/4 NPT or BSPT (M) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|  | <b>20400-1/8F</b> | 3000 (207)              | 1/4 NPT or BSPT (M) | 1/8 NPT or BSPT (F) | Stainless steel or zinc-plated steel | 18 (457)         | Neoprene insulated cover  |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|  | <b>9004-SS</b>    | 4000 (275)              | 11/16–16 UniJet THD | 11/16–16 UniJet THD | Stainless steel                      | 4 (101.6)        |   |
|   |                   |                         |                     |                     |                                      | 8 (203)          |   |
|   |                   |                         |                     |                     |                                      | 12 (305)         |   |
|   |                   |                         |                     |                     |                                      | 18 (457)         |   |
|   |                   |                         |                     |                     |                                      | 24 (610)         |   |
|   |                   |                         |                     |                     |                                      | 36 (914)         |   |
|   |                   |                         |                     |                     |                                      | 40 (1016)        |   |
|   |                   |                         |                     |                     |                                      | 60 (1524)        |   |
|   |                   |                         |                     |                     |                                      | 72 (1829)        |   |
|   |                   |                         |                     |                     |                                      | 84 (2133)        |   |
|   |                   |                         |                     |                     |                                      | 96 (2438)        |   |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional material or size options.

**ORDERING INFORMATION**

**COMPLETE EXTENSION ASSEMBLY**



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B20400.

**MATERIAL**

**CODE**

|                     |         |
|---------------------|---------|
| Aluminum            | AL      |
| Brass               | No code |
| Mild steel          | I       |
| Nickel-plated brass | NP      |
| Nickel-plated steel | INP     |
| Polyester           | PYR     |
| Polypropylene       | PP      |
| Stainless steel     | SS      |
| Zinc-plated steel   | IZP     |

**ORDERING INFORMATION**




**COMPLETE ADAPTER ASSEMBLY**



BSPT connections require the addition of a "B" in the prefix of the part number. Example: B4676.














ADAPTERS FOR SPRAY GUNS

| Adapter   | Adapter Type      | Max. Pressure<br>psi (bar) | Inlet Conn.<br>in.       | Outlet Conn.<br>in.                     | Material                                |
|---|-------------------|----------------------------|--------------------------|---|---|
|    | <b>14269</b>      | 125 (8.6)                  | 3/4" garden hose (F)     | 1/4 NPS or NPT (F)                      | Brass                                   |
|    | <b>20897</b>      | 125 (8.6)                  | 3/4" garden hose (F)     | 1/4 NPT or BSPT (M)                     | Brass                                   |
|    | <b>13212</b>      | 150 (10.4)                 | 3/4" garden hose (F)     | 3/8, 1/2 NPT or BSPT (M)                | Brass                                   |
|    | <b>22664</b>      | 150 (10.4)                 | 11/16-16 UniJet® THD     | 11/16-16 UniJet THD                     | Polypropylene                           |
|   | <b>22673</b>      | 150 (10.4)                 | 11/16-16 UniJet THD      | 11/16-16 UniJet THD                     | Polypropylene                           |
|  | <b>7029</b>       | 500 (34.4)                 | 3/4" garden hose (F)     | 1/2 NPT or BSPT (M)                     | Brass                                   |
|  | <b>4676</b>       | 1000 (69)                  | 11/16-16 UniJet THD      | 1/8, 1/4, 3/8, 1/2, 3/4 NPT or BSPT (F) | Brass                                   |
|  | <b>7599</b>       | 1000 (69)                  | 1/4, 3/8 NPT or BSPT (F) | 1/4, 3/8 NPS                            | Nickel-plated brass                     |
|  | <b>4676-__-SS</b> | 2000 (138)                 | 11/16-16 UniJet THD      | 1/8, 1/4, 3/8, 1/2, 3/4 NPT or BSPT (F) | Stainless steel                         |
|  | <b>7599-__-SS</b> | 2000 (138)                 | 1/4, 3/8 NPT or BSPT (F) | 1/4, 3/8 NPS                            | Stainless steel                         |
|  | <b>14643</b>      | 4000 (275)                 | 11/16-16 UniJet® THD     | 1/8, 1/4 NPT or BSPT (F)                | Nickel-plated steel,<br>stainless steel |

Do not exceed the maximum operating pressure of the lowest rated accessory item within the spray system. Contact your sales engineer for additional options.

SPRAY TIPS

| Spray Tip   | Tip Type                 | Operating Pressure |     |      | Tip Inlet Connection (in.)         | Material   | Performance Data Reference                        | Spray Pattern                        |
|---|--------------------------|--------------------|-----|------|------------------------------------|--|---|--------------------------------------|
|   |                          | Low                | Med | High |                                    |  |   |                                      |
| <b>AIR ATOMIZING</b>  |                          |                    |     |      |                                    |  |   |                                      |
|    | <b>1/8J, 1/4J setups</b> | •                  |     |      | 3/8–24                             | Brass, 303 stainless steel (SS), 316 stainless steel (316SS)<br>Ask sales engineer about other materials | Air Atomizing Spray Nozzles Catalog 75            | Flat spray, round spray, hollow cone |
| <b>FLATJET® SPRAY NOZZLES</b>   |                          |                    |     |      |                                    |  |   |                                      |
|    | <b>P</b>                 | •                  | •   |      | 1/8, 1/4, 3/8, 1/2 NPT (M)         | Brass, mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)                             | Hydraulic Spray Products Catalog 75, pages C48-49 | Narrow and flat spray                |
| <b>FLOODJET® SPRAY NOZZLES</b>  |                          |                    |     |      |                                    |  |   |                                      |
|    | <b>K</b>                 | •                  |     |      | 1/8, 1/4, 3/8, 1/2 NPT or BSPT (M) | Brass, 303 stainless steel (SS), 316 stainless steel (316SS), polyvinyl chloride (PVC)                   | Hydraulic Spray Products Catalog 75, pages C43-44 | Wide and flat spray                  |
|   | <b>TK</b>                | •                  |     |      | UniJet                             | Brass, 303 stainless steel (SS)  | Hydraulic Spray Products Catalog 75, pages C45-46 | Wide and flat spray                  |
| <b>FULLJET® SPRAY NOZZLES</b>   |                          |                    |     |      |                                    |  |   |                                      |
|  | <b>HH</b>                | •                  |     |      | 1/4, 3/8 NPT or BSPT (M)           | Brass, mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), polyvinyl chloride (PVC)   | Hydraulic Spray Products Catalog 75, page B7      | Full cone                            |
| <b>UNIJET® SPRAY TIPS</b>   |                          |                    |     |      |                                    |  |   |                                      |
|  | <b>EG</b>                |                    |     | •    | UniJet                             | Hardened stainless steel   | Hydraulic Spray Products Catalog 75, page C39     | Flat spray                           |
|  | <b>TP-TC</b>             |                    | •   | •    | UniJet                             | 416 stainless steel with tungsten carbide orifice (TC)   | Bulletin 644                                      | Flat spray                           |
|  | <b>TG</b>                | •                  | •   |      | UniJet                             | Brass, 303 stainless steel (SS)  | Hydraulic Spray Products Catalog 75, page B39     | Full cone                            |
|  | <b>TN</b>                | •                  | •   |      | UniJet                             | Brass, 303 stainless steel (SS)  | Hydraulic Spray Products Catalog 75, pages D25-26 | Hollow cone                          |
|   | <b>TN-SSTC</b>           |                    | •   | •    | UniJet                             | 303 stainless steel with tungsten carbide orifice (SSTC)   |   | Hollow cone                          |
|  | <b>TPU</b>               | •                  | •   |      | UniJet                             | Brass, 303 stainless steel (SS)  | Hydraulic Spray Products Catalog 75, pages C25-31 | Flat spray                           |
|  | <b>TX</b>                | •                  | •   |      | UniJet                             | Brass, 303 stainless steel (SS)  | Hydraulic Spray Products Catalog 75, page D22     | Hollow cone                          |



| Spray Tip   | Tip Type        | Operating Pressure |     |      | Tip Inlet Connection (in.)         | Material   | Performance Data Reference                        | Spray Pattern           |
|---|-----------------|--------------------|-----|------|------------------------------------|--|---|-------------------------|
|   |                 | Low                | Med | High |                                    |  |   |                         |
| <b>VEEJET® SPRAY NOZZLES</b>  |                 |                    |     |      |                                    |  |   |                         |
|    | <b>H-VV</b>     | •                  | •   |      | 1/8, 1/4 NPT or BSPT (M)           | Brass, mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)                           | Hydraulic Spray Products Catalog 75, pages C6-8   | Flat spray              |
|    | <b>H-U</b>      | •                  | •   |      | 1/8, 1/4, 3/8, 1/2 NPT or BSPT (M) | Brass, mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), polyvinyl chloride (PVC) | Hydraulic Spray Products Catalog 75, pages C9-13  | Flat spray              |
| <b>WASHJET® SPRAY NOZZLES AND QUICK-CONNECT TIPS</b>                                |                 |                    |     |      |                                    |  |   |                         |
|    | <b>IMEG</b>     |                    |     | •    | 1/8, 1/4 NPT or BSPT (M)           | Hardened stainless steel   | Hydraulic Spray Products Catalog 75, page C36     | High impact, flat spray |
|    | <b>MEG</b>      |                    |     | •    | 1/8, 1/4 NPT or BSPT (M)           | Hardened stainless steel   | Hydraulic Spray Products Catalog 75, pages C34-35 | High impact, flat spray |
|   | <b>MEG-SSTC</b> |                    |     | •    | 1/4 NPT or BSPT (M)                | Hardened stainless steel, tungsten carbide   | Hydraulic Spray Products Catalog 75, pages C34-35 | High impact, flat spray |
|  | <b>QCIMEG</b>   |                    |     | •    | Hydraulic quick coupling (M)       | Hardened stainless steel   | Hydraulic Spray Products Catalog 75, page C37     | High impact, flat spray |
|  | <b>QCMEG</b>    |                    |     | •    | Hydraulic quick coupling (M)       | Hardened stainless steel   | Hydraulic Spray Products Catalog 75, page C36     | High impact, flat spray |
| <b>CONEJET®</b>   |                 |                    |     |      |                                    |  |   |                         |
|  | <b>5500-PPB</b> | •                  |     |      | UniJet                             | Polypropylene  | Data sheet 5500-PPB                               | Adjustable              |



# TERMS AND CONDITIONS OF SALE

## (1) MODIFICATION OF TERMS

Seller's acceptance of any order is expressly subject to Buyer's assent to each and all of the terms and conditions set forth below and Buyer's assent to these terms and conditions shall be conclusively presumed from Buyer's receipt of this document without prompt written objection thereto or from Buyer's acceptance of all or any part of the goods ordered. No addition to or modification of said terms and conditions shall be binding upon Seller unless specifically agreed to by Seller in writing. If Buyer's purchase order or other correspondence contains terms or conditions contrary to or in addition to the terms and conditions set forth below, acceptance of any order by Seller shall not be construed as assent to such contrary or additional terms and conditions or constitute a waiver by Seller of any of the terms and conditions.

## (2) PRICE

Unless otherwise specified: (a) all prices, quotations, shipments and deliveries by Seller are f.o.b. Sellers plant; (b) all base prices together with related extras and deductions, are subject to change without notice and all orders are accepted subject to Seller's price in effect at the time of shipment; and (c) all transportation and other charges are for the account of Buyer, including all increase or decrease in such charges prior to shipment. Payment of said price shall be due at the remittance address shown on the Seller's invoice 30 days after the date of Seller's invoice. Interest will be charged at a rate of 1 to 1-1/2% per month on all balances outstanding more than 30 days after the date of the invoice.

## (3) MINIMUM BILLING

The minimum billing by the Seller for any order shall be \$50.00.

## (4) WARRANTIES

Seller warrants that its products will conform to and perform in accordance with the products' specifications. Seller warrants that the products do not infringe upon any copyright, patent, or trademark. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## (5) LIMITATION ON LIABILITIES

Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury, Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder. IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

## (6) QUALITY ASSURANCE

Seller shall have no obligation to ensure that any goods purchased from Seller meet any special Buyer quality assurance specifications and/or other special Buyer requirements unless such specifications and/or other requirements are specifically set forth in Buyer's purchase order and expressly accepted by Seller. In the event that any such goods supplied by Seller in connection therewith, are applied to an end use without the appropriate specification and/or other requirement therefore having been set forth in Buyer's purchase order and expressly accepted by Seller, Buyer shall indemnify and hold Seller harmless against any and all damages or claims for damages made by any person for any injury, fatal or nonfatal, to any person or for any damage to the property of any person incident to or arising out of such application.

## (7) CLAIMS

Claims respecting the condition of goods, compliance with specifications or any other matter affecting goods shipped to Buyer must be made promptly and, unless otherwise agreed to in writing by Seller, in no event later than one (1) year after receipt of the goods by Buyer. In no event shall any goods be returned, reworked or scrapped by Buyer without the express written authorization of Seller.

## (8) DEFAULT IN PAYMENT

If Buyer fails to make payments on any contract between Buyer and Seller in accordance with Seller's terms, Seller, in addition to any other remedies available to it, may at its option, (i) defer further shipments until such payments are made and satisfactory credit arrangements are re-established or (ii) cancel the unshipped balance of any order.

## (9) TECHNICAL ASSISTANCE

Unless otherwise expressly stated by Seller: (a) any technical advice provided by Seller with respect to the use of goods furnished to Buyer shall be without charge; (b) Seller assumes no obligation or liability for any such advice, or for any results occurring as a result of the application of such advice; and (c) Buyer shall have sole responsibility for selection and specification of the goods appropriate for the end use of such goods.

## (10) CANCELLATION OF SPECIAL ORDERS

Special Orders or goods specially manufactured for Buyer cannot be canceled or modified by Buyer, and releases cannot be held up by Buyer, after such goods are in process except with the express written consent of the Seller and subject to conditions then to be agreed upon which shall include, without limitation, protection of Seller against all loss.

## (11) PATENTS

The Seller shall not be liable for any costs or damages incurred by the Buyer as a result of any suit or proceeding brought against Buyer so far as based on claims (a) that use of any product, or any part thereof, furnished hereunder, in combination with products not supplied by the Seller or (b) that a manufacturing or other process utilizing any product, or any part thereof of furnished hereunder, constitute either direct or contributory infringement of any patent of the United States. The Buyer shall hold the Seller harmless against any expense or loss resulting from infringement of patents or trademarks arising from compliance with Buyer's designs or specifications or instructions.

## (12) COMPLETE AGREEMENT

The terms and conditions set forth herein, together with any other documents incorporated herein by reference constitute the sole and entire agreement between Buyer and Seller with respect to any order superseding completely any oral or written communications. No additions to or variations from such terms and conditions whether contained in Buyer's purchase order, any shipping release or elsewhere shall be binding upon Seller unless expressly agreed to in writing by Seller.

## (13) GOVERNING LAW

All orders are accepted by Seller at its mailing address in Wheaton, Illinois, and shall be governed by and interpreted in accordance with the laws of the State of Illinois.

## CUSTOMER RETURN POLICY

We recognize that at times it is necessary for our customers to return products for a variety of reasons...that returns are a normal part of an on-going business relationship. To make the process as straightforward and fair as possible, our policy is based upon the following:

- An error on our part: We'll credit you for the product and shipping costs, up to one year from ship date.
- An error on your part: Standard products can be returned for full credit, freight prepaid, also up to one year from date of shipment. There is the normal restocking charge of 20%.

Returns are subject to inspection.

For quick handling and authorization of returns, contact your local sales office.

Spraying Systems Co. reserves the right to make changes in specifications or design of the products shown in the catalog or to add improvements at anytime without notice or obligation.

## SPRAYING SYSTEMS CO.'S TRADEMARK USAGE

The following is a current list of Spraying Systems Co.'s trademarks registered in the United States. Some marks are registered in other countries as well.

|           |           |             |          |
|-----------|-----------|-------------|----------|
| ConeJet®  | GunJet®   | QuickJet®   | UniJet®  |
| FlatJet®  | IMEG®     | SprayDry®   | VeeJet®  |
| FloodJet® | iSpray®   | TankJet®    | WashJet® |
| FullJet®  | MeterJet® | TriggerJet® | WindJet® |

Spraying Systems Co. reserves the right to make changes in specifications or design of the products shown in the catalog or to add improvements at anytime without notice or obligation.

## ORDERING PRODUCTS

In each product section, you'll find ordering examples. Start by reviewing the example and then create the part number by indicating the part number components.

### SPRAY GUN ASSEMBLY



For your convenience, there are multiple ways to place an order: phone, fax and online

#### In North America

Phone: 1.800.95.SPRAY | Fax: 1.888.95.SPRAY

#### Outside North America

Phone: 1.630.665.5000 | Fax: 1.630.260.0842

Online ordering with a credit card is also available. Visit [spray.com/ispray](http://spray.com/ispray). You'll find helpful selection tools and a Live Chat option for immediate assistance.

## FINDING PRODUCTS

- Consult the Product Index on **page i-2** if you know the name of the product
- Consult the Part Number Index on **page i-3** if you have the part number. Part numbers are shown numerically and alpha-numerically

Selection assistance is also available by calling **1.800.95.SPRAY**. Representatives in your local sales office will help you determine which products best meet your application requirements. (Call **1.630.665.5000** outside North America or visit [spray.com](http://spray.com) to find information for the sales office in your area.)



**ADAPTERS**

4676..... B10, C9, E9  
 4676-SS ..... B10, C9, D8, E9  
 7029..... B10, E9  
 7599..... C9, E9  
 7599-SS ..... C9, E9  
 13212..... B10, E9  
 14269..... B10, E9  
 14643..... C9, D8, E9  
 20897..... B10, E9  
 22664..... B10, E9  
 22673..... B10, E9

**EXTENSIONS**

4673..... B8, C7, E6  
 6671..... B8, C7, E6  
 6960..... B8, C7, E6  
 7715..... B8, C7, E6  
 9004-SS ..... B9, C8, D7, E7  
 9527..... B8, C7, E6  
 9702A ..... B9, C8, D7, E7  
 9702C ..... B9, C8, D7, E7  
 9702S ..... B9, C8, D7, E7  
 12086..... B8, C7, E6  
 13781S ..... B9, C8, D7, E7  
 14975..... B8, C7, E6  
 15250..... D7, E7  
 15699..... B8, C7, E6  
 20400-1/8F ..... B9, C8, D7, E7  
 20400-1/4M ..... B9, C8, D7, E7  
 22665..... B8, E6  
 CP12087 ..... B8, E7

**METERJET®**

23623-31-1/4F ..... B5, B7

**SPARE PARTS KITS**

High pressure..... D8  
 Low pressure ..... B10  
 Medium pressure..... C10

**SPRAY GUNS**

**High Pressure**

AA30A ..... D4, D6  
 AA60..... D4, D6  
 AA70..... D4, D6  
 AA80..... D4, D6  
 PW4000A ..... D5, D6  
 PW4000AS..... D5, D6

**Low Pressure**

4688..... B6, B7  
 6104..... B6, B7  
 6466..... B6, B7  
 6590..... B6, B7  
 22650-PP TriggerJet® ..... B5, B7  
 23623-31-1/4F MeterJet® ..... B5, B7  
 23624-30L..... B4, B7  
 AA30-20940 ..... B4, B7  
 AA30L..... B4, B7  
 AA36 ..... B5, B7  
 AA43LC..... B5, B7  
 AA60-21580 ..... B4, B7  
 CU150A..... B5, B7  
 D41663-18JAN00V-0H-PA/SS..... B5, B7

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36533-60..... C4, C6  
 AA23H ..... C4, C6  
 AA23L..... C4, C6  
 AA23L-45885 ..... C4, C6  
 AA31..... C5, C6  
 AA43HC ..... C5, C6  
 D41663-23L-QJ-PA/SS..... C5, C6

**SPRAY TIPS** ..... E10-E11

**STRAINER**

8510..... E5

**SWIVEL CONNECTORS**

11990..... E4  
 15950..... E4  
 15950-SS ..... E5  
 21550..... E4  
 36466..... E4  
 36466L..... E4  
 36467..... E4  
 36560..... E5

**TRIGGERJET®**

22650-PP ..... B5, B7



**NUMERIC**

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11990..... E4  
 12086..... B8, C7, E6  
 13212..... B10, E9  
 13781S..... B9, C8, D7, E7  
 14269..... B10, E9  
 14643..... C9, D8, E9  
 14975..... B8, C7, E6  
 15250..... D7, E7  
 15699..... B8, C7, E6  
 15950..... E4  
 15950-SS..... E5

**2**

20400-1/4M..... B9, C8, D7, E7  
 20400-1/8F..... B9, C8, D7, E7  
 20897..... B10, E9  
 21550..... E4  
 22650-PP TriggerJet®..... B5, B7  
 22665..... B8, E6  
 22664..... B10, E9  
 22673..... B10, E9  
 23623-31-1/4F MeterJet®..... B5, B7  
 23624-30L..... B4, B7  
 AA23H..... C4, C6  
 AA23L..... C4, C6  
 AA23L-45885..... C4, C6

**3**

36466..... E4  
 36466L..... E4  
 36467..... E4  
 36533-60..... C4, C6  
 36560..... E5  
 AA30A..... D4, D6  
 AA30L..... B4, B7  
 AA30-20940..... B4, B7  
 AA31..... C5, C6  
 AA36..... B5, B7

**4**

4673..... B8, C7, E6  
 4676..... B10, C9, E9  
 4676-SS..... B10, C9, D8, E9  
 4688..... B6, B7  
 AA43HC..... C5, C6  
 AA43LC..... B5, B7

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6104..... B6, B7  
 6466..... B6, B7  
 6590..... B6, B7  
 6671..... B8, C7, E6  
 6960..... B8, C7, E6  
 AA60..... D4, D6  
 AA60-21580..... B4, B7

**7**

7029..... B10, E9  
 7599..... C9, E9  
 7599-SS..... C9, E9  
 7715..... B8, C7, E6  
 AA70..... D4, D6

**8**

8510..... E5  
 AA80..... D4, D6

**9**

9004-SS..... B9, C8, D7, E7  
 9527..... B8, C7, E6  
 9702A..... B9, C8, D7, E7  
 9702C..... B9, C8, D7, E7  
 9702S..... B9, C8, D7, E7

**ALPHABETICAL**

CP12087..... B8, E7  
 CU150A..... B5, B7  
 D41663-18JAN00V-0H-PA/SS..... B5, B7  
 D41663-23L-QJ-PA/SS..... C5, C6  
 PW4000A..... D5, D6  
 PW4000AS..... D5, D6









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