Sprayers for Research & Demonstration

Catalog 18

BELLSPRAY, INC.
d.b.a
R & D Sprayers

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FOR YOUR INFORMATION

We would like to offer suggestions and explain some of the features of our spray equipment. Specific needs vary with each user. If you cannot find what you need illustrated, we can modify to fit each specific need. The following list may assist you in selecting the right equipment for your needs.

HOW TO ORDER

A. ATV or Tractor Mounted Units —— pages 11-19

The three liter containers are the smallest spray size containers designed to be used on ATV and tractor mounted units. You will use more spray solution with these units because it takes more solution to fill all spray lines going to each nozzle. You should not run the spray out while actually spraying plots. When the spray container is emptied, the pressure will increase until the boom is emptied. All spray booms are constructed using 3/8 and 1/2 inch spray hose and Quick TeeJet® diaphragm check valve nozzle bodies.

Three Sectional Spray Boom —— If the motorized vehicle straddles one row, the center section of the spray boom should consist of two nozzles with each lateral section having four nozzles. This will provide a spray boom with 10 nozzles. If your tractor straddles two rows, the center section should consist of four nozzles with four nozzles on each lateral section for a total of 12 nozzles. When ordering tractor mounted sprayers, please specify the number of nozzles you desire on the center section. The lateral four nozzle section can be replaced with a two nozzle section. Nozzle spacing on all booms is 20 inches unless otherwise specified. All nozzles are suppled with TeeJet® 8002VS tips unless otherwise specified.

ATV Units with Diaphragm Pump —— pages 11 & 12

Each diaphragm unit is supplied with a Shurflo high capacity pump (2088-4-135) capable of dispersing 3.6 gallons per minute open flow. Actual spray boom volume and pressure is directly dependent on total orifice size. The total capacity of all spray tips should not exceed 2.0 gallons per minute (gpm) at 30 psi. Example: ten 8002 spray tips will supply 1.7 gpm at 30 psi. Higher pressure can be obtained by reducing the total capacity of all spray tips.

B. Spray Headers —— pages 24-25

Spray headers with drop tubes are designed to be used upright. If wettable powder or dispersible granules are to be mixed, each container should be shaken before pressurizing. This will prevent a higher concentration of chemical being applied at the beginning of the first replicate. If spray solution remains after treatment is applied, invert spray container and spray boom clear. The spray container should then be placed upright and air disconnect removed for depressurizing before spray hose is removed. The spray hose should always be inserted on top of spray header before pressurizing.

Inverted spray headers have an extended air tube and no drop tube. The spray headers must be inverted to spray. Brass spray headers with 28mm threads can be used with 20 oz., 1 liter and 2 liter plastic containers, whereby spray headers with ss drop tubes are cut for each specific size container.

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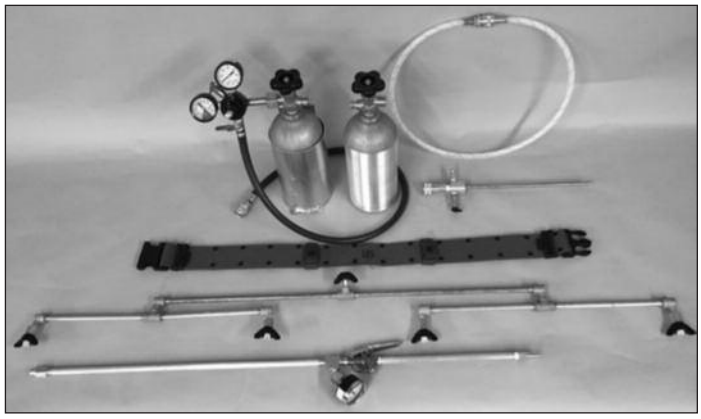
HAND HELD SPRAYER UNITS

Complete Hand Held Models

Size of spray container will determine each specific unit. Determine the total area sprayed per each treatment. Based on spray volume per unit acre or hectare you can figure the minimum size of spray container. Your plot size and volume may vary so various sizes of spray containers may be required. If the complete spray units do not meet your requirements, specific parts may be substituted. Give one of our product specialists a call or when placing an order online, place special requirements in the comment section of your order. Pricing may vary according to changes. Example of substitution: Boom type nozzle spacing or container size.

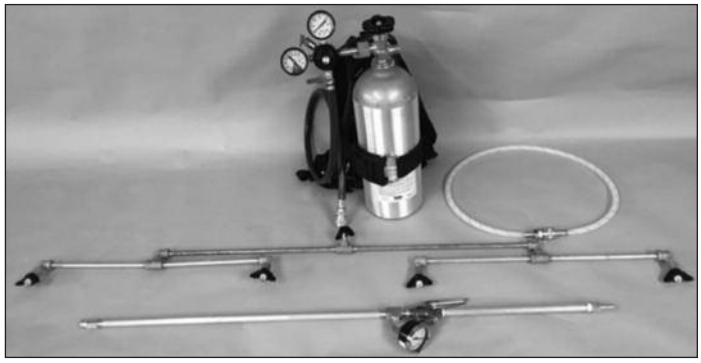


MODEL GS

Equipped with two 2.5 lb. Aluminum CO2 cylinders (104), twin gauge pressure regulator (J062KS), 3 ft. air hose (407A), Brass Spray Header (201S), carrying bracket (CB-104A) for CO2 cylinder, waist belt (205BL), 4 nozzle Aluminum spray boom (601C), and spray hose (408A).

MODEL G3S

Same as Model GS except equipped with Aluminum Spray Header (203S) for the three liter plastic containers.



MODEL D

Back pack (110) specially designed to hold a 5 lb. or 2.5 lb. CO2 cylinder. Comes with one 5 lb. Aluminum CO2 cylinder (104B), also equipped with 4 nozzle spray boom (601C), 0-60 psi presssure gauge on boom (174), twin gauge pressure regulator (J062KS), 3.5 ft. air hose (407AA), spray hose (408A). Spray hose and air hose have industrial disconnects. (Model D is priced without a container.) Select a container of your choice as a separate item.

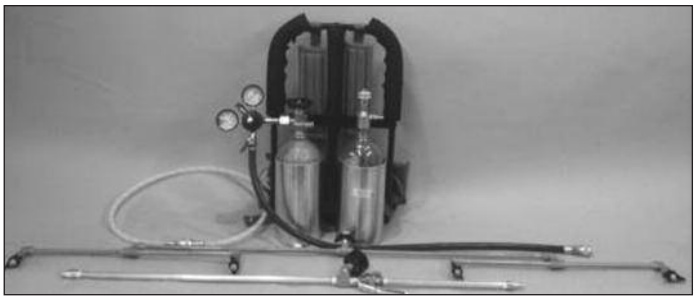
D-201S – Same as Model D and includes one brass spray header (201S).
D-203S – Same as Model D and includes one aluminum spray header (203S).

MODEL BBM

Equipped with two 2.5 lb. Aluminum CO2 cylinders (104), carrying bracket and waist belt (CB-104A & 205BL), one 3 gallon SS tank with disconnects (107-BG), 4 nozzle spray boom (601C), twin gauge pressure regulator (NOR-100), air hose (407A), Spray hose (408A). Industrial connections will interchange with Brass spray header (201) and other SS tanks.

MODEL E

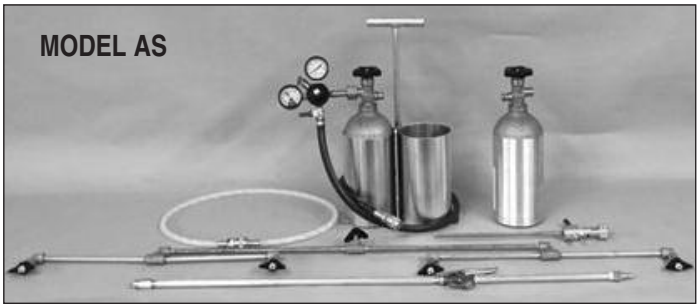
Equipped with two 2.5 lb. Aluminum CO2 cylinders (104), carrying bracket and waist belt for CO2 cylinder (CB-104A & 205A), twin gauge pressure regulator (J0102KS), 4 nozzle spray boom (601C), air hose with industrial disconnects (407A), spray hose with industrial disconnects (408A) (not equipped with spray container).



MODEL JR

Equipped with JR Backpack (315JR), 2 or 3 Liter Bracket (JR282 or JR 283), 2.5 lb. Cylinder Bracket (JR104), 60 psi regulator (JO62KS), Air Hose (407A), Spray Hose (408A), 2.5 lb. Co2 Cylinder (104), Spray Header (201S or 203S), and 4 Nozzle Boom (601C-on 19" spacing). Boom can be changed to desired spacing. Please specify when ordering.

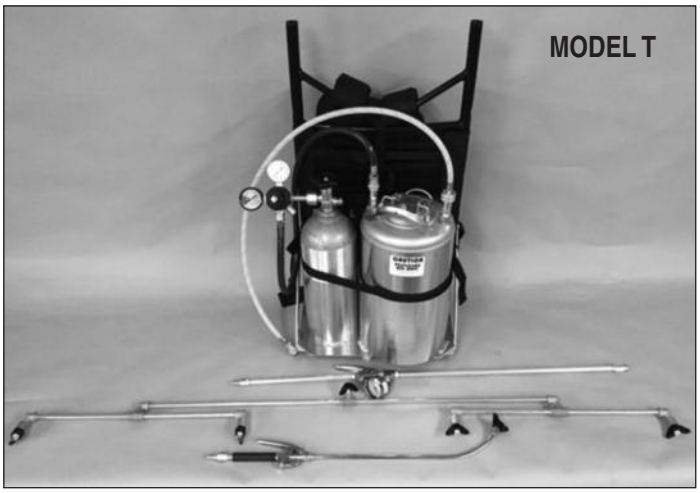
JR-201S – JR backpack with 2 liter spray unit.
JR-203S – JR backpack with 3 liter spray unit.



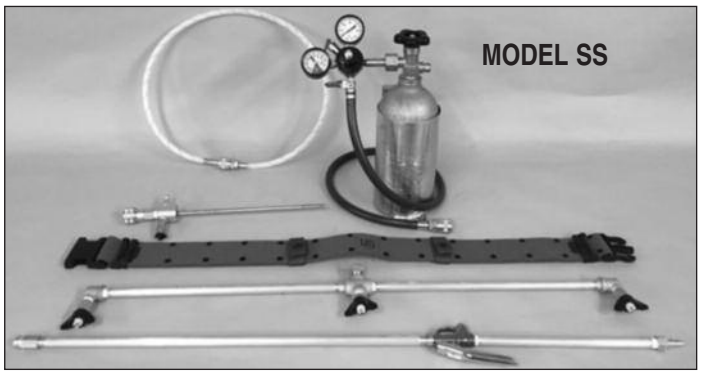
Equipped with two 2.5 lb. Aluminum CO2 cylinders (104), Brass Spray Header (201S), pressure regulator (J062KS), carrying bracket for Aluminum CO2 cylinder and two liter plastic container (720A), 4 nozzle Aluminum spray boom (601C), air hose (407A), and spray hose (408A). (Bottles sold separately).

MODEL A3S

Same as Model AS except equipped with Aluminum Spray Header for 3 liter plastic container (203S) and carrying bracket for three liter plastic container and 2.5 lb. CO2 cylinder (723A).



Designed for application to large areas. At broadcast rate of 10 gallons per acres, three gallons of total spray will cover 13,000 square ft. Comes equipped with 3-gallon stainless steel container (**107-BG**), 5 lb. aluminum CO2 cylinder (**104B**), pressure regulator (**NOR-100**), air hose (**407A**), spray hose (**408A**), 4 nozzle spray boom (**601C**), pressure gauge and adapter (**174**), single nozzle boom (**601F**). Comes equipped with **315 Backpack**.



Equipped with one 2.5 lb. Aluminum CO2 cylinder (104), carrying bracket for CO2 cylinder (CB104A), waist belt (205BL), twin gauge pressure regulator (J062KS), Brass Spray Header (201S), 3-nozzle spray boom (601D), air hose with industrial disconnects (407A), and spray hose with industrial disconnects (408A). (Bottles sold separately).

MODEL S3S

Same as Model SS except equipped with Aluminum Spray Header (203S) for 3 liter plastic containers.

Same as MODEL T except equipped with only 4 nozzle spray boom (601C) with pressure gauge and adapter (174).

MODEL TS

Same as MODEL T except equipped with only single nozzle spray boom and adjustable cone tip (5500). (Select orfice size of adjustable cone tip from the catalog, X3, X4, X6, X8, X10 or X12.)

MODEL 315FG (Flash Gordon Model)

Spray unit is designed with capabilities of applying up to 4 treatments before refilling. Spray boom can be cleaned between treatments. Spray bracket is designed to hold two 3-liter plastic bottles, four 2-liter plastic bottles or a 3-gallon stainless steel can. All controls are at your fingertips. Spray unit comes complete with heavy duty aluminum back pack frame, air and spray manifold, 5 lb. aluminum CO2 cylinder, pressure regulator, air hose, spray hose, and 601C spray boom.

MODEL 315FG2

Complete unit with air and spray manifold to operate two 3-liter plastic bottles. Two aluminum spray headers (203S) included.

MODEL 315FG4

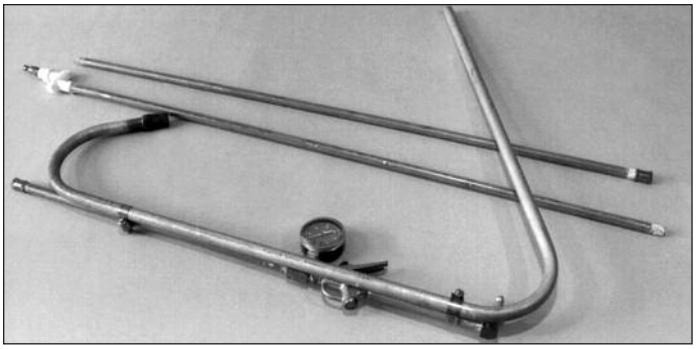
Same as above except manifolds designed to operate four 2-liter plastic spray bottles. Four brass spray headers (201S) included.

MODEL 4F

Designed to simulate aerial application on brush and sugarcane

Equipped with heavy duty Aluminum back pack frame, padded shoulder straps and 8 inch padded waist belt with quick disconnects (315); removable curved boom support with hand valve, pressure gauge, two 3 ft. extensions, nylon swivel body with KLC-9 flood tip spraying 30 ft. wide at 11 ft. above ground (4FBMCV); equipped with one 5 lb. Aluminum CO2 cylinder (104B), one 3 gallon SS container with industrial disconnects (107BG), twin gauge pressure regulator (NOR-100), air hose with industrial disconnects (407A), spray hose with industrial disconnects (408A).

315-RBF: The RBF frame is designed to attach to the **315** and **315JR** backpack frames. It's pivoting design allows for quick and easy height adjustment from 18" to 48" from ground level. Frame comes complete with trigger valve, gauge and hose to reach boom. (Boom and backpack not included.) For boom option refer to part **#315-RBF-4** through **8**.

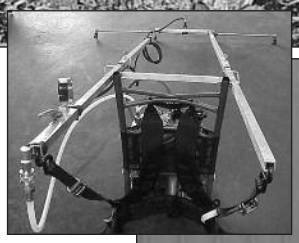


Change Your Model T Sprayer Into A Model 4F Brush Sprayer

4FBMCV – Removable curved boom for heavy duty aluminum back pack frame (315). Consists of curved boom support, hand valve, pressure gauge and adapter, two 3 ft. extension, nylon swivel with KLC-9 flood tip. Fits back pack #315.

4FCS – Curved boom support only, fits back pack #315.

315-HCB



315-HCB:
HCB frame less lateral boom.

315-HCB-4:
with 4 nozzle lateral boom

315-HCB-6:
with 6 nozzle lateral boom

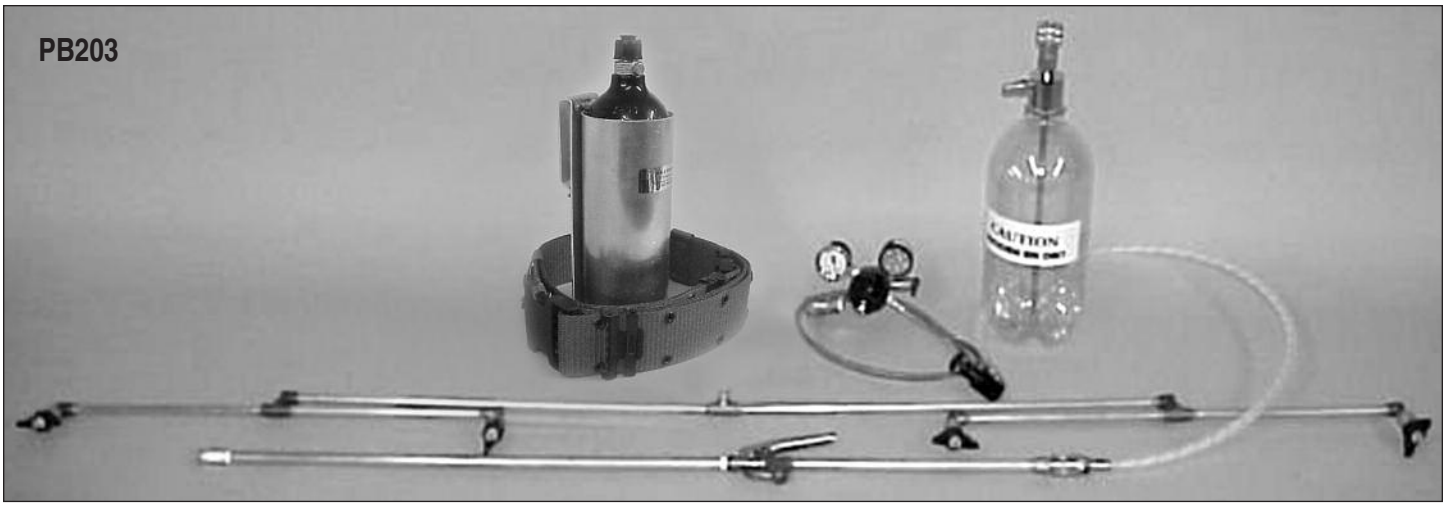
315-HCB: High clearance boom designed to spray over the top of tasseling corn, sugar cane, etc. Telescoping and pivoting frame allows spray heights from 2 ft. to 14 ft. Quickly attaches to Backpack Model 315 (315 not included), comes complete with trigger valve, gauge, hose to reach boom, and adjustable nylon straps to maintain variable heights.

BSH (Boom Support Harness)

The boom support harness makes even the heaviest hand booms seem almost effortless to operate. Construted from super light weight 1" nylon strapping and quick release/adjustment buckles can be attached and re-attached in seconds. The padded belly bar quickly slides over the 1410 (trigger handle), has thumb screw tension setting and comfortably rest against the waist area. The quick release buckle also has cinch adjustment for various boom heights. The BSH also works great w/ off set booms. BSH can be used with all R&D hand held spraying units. Includes boom support strap and belly bar. Backpack and boom not included.

LIGHTWEIGHT ALUMINUM CO2 "PAINTBALL" CYLINDERS & EQUIPMENT

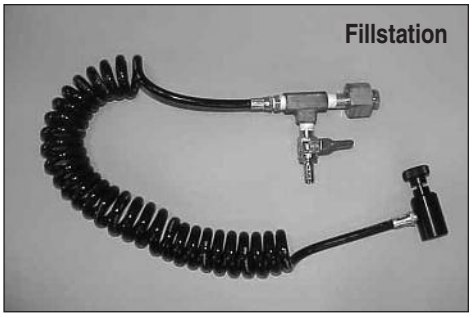
These cylinders are smaller, lighter and easier to carry than our beverage type CO2 cylinders. Space saving and economical, paintball cylinders will be very useful to all aspects of small plot and demo plot applications. Regulators, refill adapters, and carrying accessories are available to make a complete lightweight spray unit.



CB-12A – carrying bracket for 12 oz. paint ball cylinders
CB-20A – carrying bracket for 20 oz. paint ball cylinders

Replacement Gauges for Regulator:

GA402DS – Spray pressure 0-100 psi
GA3043 – Tank pressure 0-2000 psi



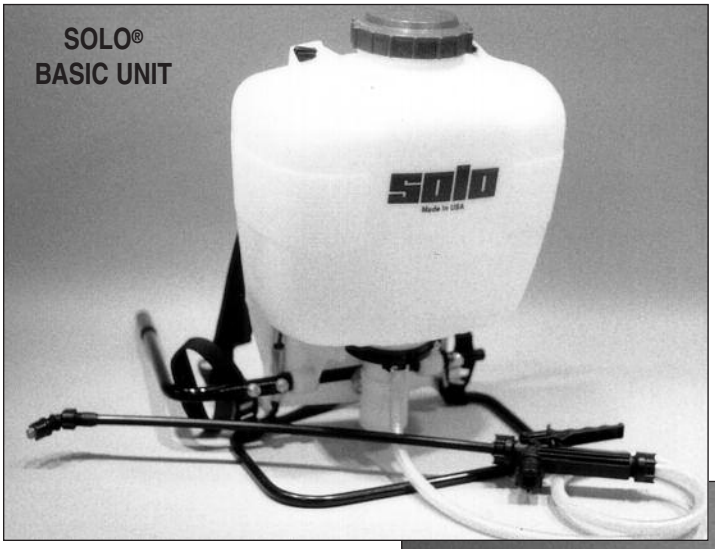
TT 12 oz. – 12 oz. cylinder

TT 20 oz. – 20 oz. cylinder

Fillstation – Refill adapter for paintball cylinder

J0102K5-19 – Regulator for paintball cylinder

PB203 – Includes 4 nozzle spray boom (601C), spray hose (408A), 3-liter header (203S), regulator (J0102K5-19), two 20-oz. CO2 cylinders (TT20OZ), waist belt (205A), carry bracket (CB-20A), and refill adapter (Fill Station).

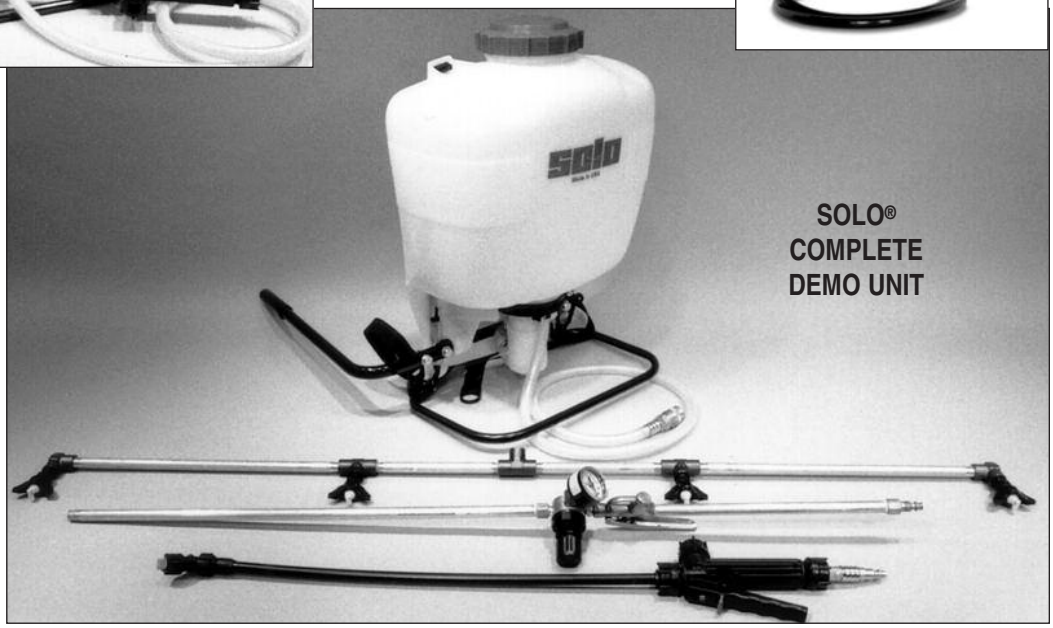


425-ST - Solo Basic Unit consists of 4-gallon/15-liter capacity sprayer, piston pump, built-in pressure relief valve, padded shoulder straps, and single nozzle boom.

425-DS - Solo Complete Demo Unit

SRS-600-ST - 12 Volt Electric Shurflo Backpack. Can attach to R&D Sprayer hand booms. Can substitute for CO2 where not available.

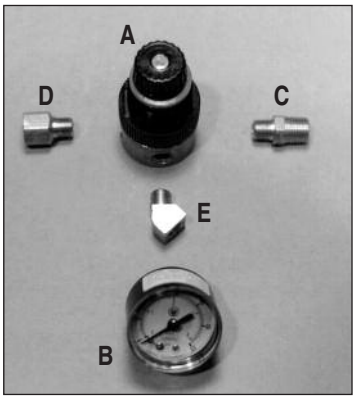
SRS-600-DS - Same as SRS-600-ST with 4 nozzle booms and regulating valve attached.



Solo complete spray units have all options to accurately apply Demonstration Plots. They have been designed with an **Inline Pressure Regulator** (Part No. 425-REG). This will enable the operator to set a desired pressure and maintain this pressure throughout the test. Included is a 4-nozzle spray boom on 19 inch spacing (601BF-19) and equipped with TT110015VP Turbo TeeJet Flat Spray tips. The single nozzle boom is equipped with an adjustable tip. At a walking speed of 2.8 - 3.0 mph, boom pressure at 15 - 18 psi and using TT110015VP Turbo TeeJet or 8001LP Low Pressure Flat Spray TeeJet tips, you can accurately apply 10 gallons per acre. An Operation Manual on calibration, mixing and application is included. See **Metronome** (pg. 52) for maintaining constant ground speed and supplies for mixing and measuring (pg. 53).

MINI INLINE PRESSURE REGULATOR

425-REG - Chemical resistant diaphragm, pressure gauge, and brass body to prevent corrosion. Complete with 0-60 psi gauge and 1/4" npt(m) and 1/4" npt(f) fittings for inserting in 6590 TeeJet Trigger Valve and down pipe.



425-REG

A. **NOR-V06 -** Mini In-Line Pressure Regulator, brass body with plastic bonnet, non corrosive, one inlet and three outlet ports, all 1/8" npt(f), designed for liquids, two plugs supplied, nitrile diaphragm.
B. **GA193DS -** 0-60 psi pressure gauge with 1/8" npt(m) fitting on back, dual scale, psi/bar.
C. **RM1418-BR -** 1/4"(m) x 1/8"(m) reducing nipple.
D. **A1418 -** 1/4"(f) x 1/8"(m) brass adapter.
E. **915B-1D -** 1/8" 45 degree street elbow.

SOLO-AD

Quick disconnects for SOLO or other hand pump backpack sprayers (**238HB** & **238HN**). Supplied with hose clamp.

FEATURES:

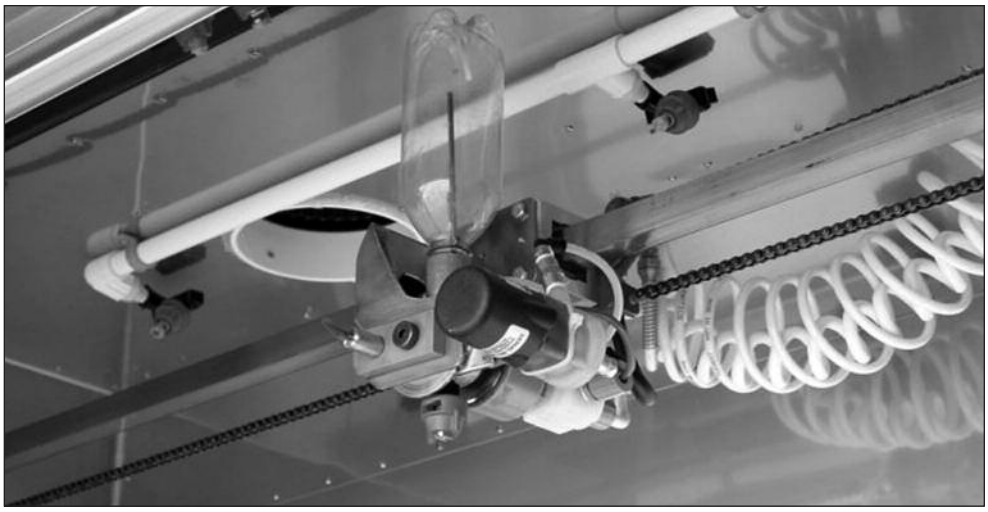
- Standard serveo drive motor travels 0-4 mph and can be accurately controlled to a hundredth of a mph.
- Spray length can be set from the entire length of travel all the way down to just spraying the center inch..
- Standard touch screen controls allow you to operate the sprayer and options with the tip of your finger.
- Inverted chemical container design allows use of a very small quantity of solution - virtually no waste.
- Construction consists of 5/8" glass board attached to a 3/16" x 1-1\2" welded angle frame
- Sliding doors made of 1/4" safety glass
- Lined with 22 gauge stainless steel and standard all stainless shelf make the interior durable and easy to clean
- Floor of chamber tapers to center where waste chemical is collected in container under chamber floor
- Mounted on caster wheels for easy moving
- Compact size allows through standard 36" door
- Design is simple and easy to use
- Entire front of booth is clear for unobstructed vision to the inside
- Uses 110 or 220 volt, 50-60 cycle electrical current
- Explosion proof design
- Adjustable shelf for accurate positioning of plants in relation to nozzle
- May be vented by connecting vent hole in roof to an existing vent system
- Spray head rides on ball bearings over stainless steel shaft for smooth operation and uniform pattern
- Pressurized by CO2 or compressed air
- Spray automatically starts and stops with track drive for uniform pattern
- Bottle change features allows operator to change bottles, charge and flush nozzle without moving spray head
- All components on sprayer are warranted by manufacturer for 9 months from date of delivery
- Set up instruction and operators manual sent with sprayer
- Each spray booth can be customized - Call for details before ordering.

Duct work from exhaust fan to filter or other exhaust exit to be suppled by customer. Water supply for the rainfall and washdown options to be supplied by the customer. Air supply for spraying to be supplied by customer unless SB-CO2PRG is ordered.

GENERATION III SPRAY BOOTH

Designed Primarily for Application of Herbicides and Pesticides

SB8: *Shown with rainfall nozzle, solvent flush, electrically powered stainless steel shelf and standard touch screen controls*



Spray head with optional mixer pump

Inside Dimension:	Outside Dimension:
Depth - 30 inches	Depth - 31 inches
Height - 53 inches	Height - 79.5 inches

Nozzle to Shelf: 4 inches to 38 inches

Approximate weights of spray booths (less options)

	uncrated	crated	crated dimensions (LxWxH)
SB6	730 lbs.	1290 lbs.	7 ft. x 3 ft. x 7 ft.
SB8	850 lbs.	1525 lbs.	9 ft. x 3 ft. x 7 ft.

Optional external stainless steel waste water tank and optional carbon waste water filter

Control Panel with standard touch screen controls for precise and easy operation

Optional washdown, light and mixer pump

SB6: width 72 inches inside, 80 inches outside, effective spray distance - 54 inches.

SB8: width 96 inches inside, 104 inches outside, effective spray distance - 78 inches.

Following options most often order with spray booth:

SB-EPDP: ***Electro Pneumatic Pressure Regulator:*** Air pressure regulator that can control the spray pressure to a hundreth of a PSI, operated by using the touch screen

SB-IL: ***Interior Lighting:*** A double tube florescent light illuminates interior of spray chamber.

SB-SSM: ***Spray Solution Mixer Pump:*** Spray head mounted mixer pump that circulates the spray solution to keep it uniform.

SB-MEF: ***Roof Mounted Exhaust Fan:*** Used to remove fumes from inside chamber. It is mounted on top of sprayer.

SB-CVF: ***Carbon V Filter:*** In some facilities fumes may need to be vented through this kind of filter before leaving the building.

SB-AS: ***Automatic Start for Exhaust Fan:*** When doors are opened a switch is activated that starts the exhaust fan.

SB-IWS: ***Internal Wash Down System:*** A momentary on switch opens an electric solenoid that allows water to be sprayed throughout the inside of the booth to rinse chemical residue off the walls.

SB-WWPT: ***Waste Water Pump:*** Waste water is collected in a stainless steel container under the floor and can be pumped through a carbon filter or to the destination of your choice

SB-EWWTP: ***External Waste Water Tank and Pump:*** Similar to the SB-WWP, only waste is collected in a stainless steel tank located near the floor on the right end of the sprayer

SB-WWF: Carbon waste water filter mounted on sprayer

SB-DSF: ***Door Safety Feature:*** Renders the spray booth inoperable until all doors are closed

SB-SR: ***Simulated Rainfall:*** This allows the spray head to cycle back and forth while spraying water out of an additional nozzle. Can be set to run from 1 minute to 999 minutes

SB-SF: ***Solvent Flush:*** Pressurized container can be filled with the solvent of your choice and can be released into the bottle and flushed out the nozzle to clean the system before switching sprays.

SB-EPS: ***Electrically Powered Shelf:*** The shelf may be moved up or down by use of the touch screen.

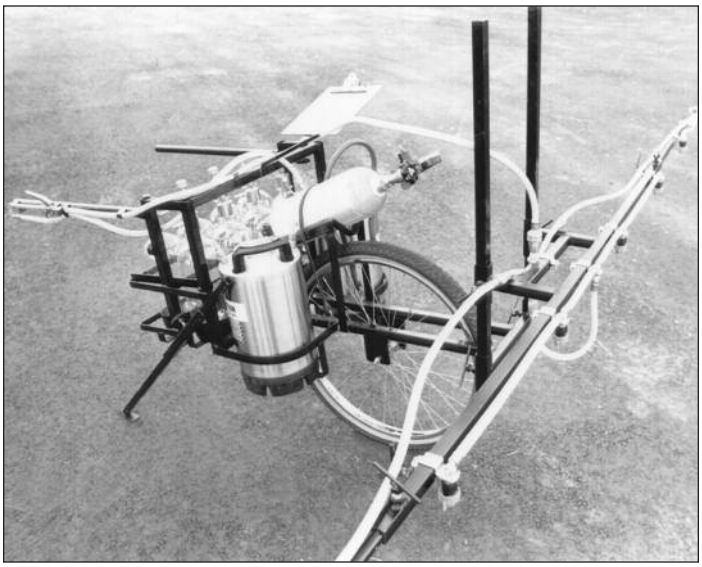
SB-CO2C: 5 lb. Aluminum CO^2 Cylinder.

SB-PRG: Pressure Regulator with gauge, for use with SB-CO2C.

SB-RSHP: Removable spray head package.

SB8 *delivered and set up by DeVries MFG. We will also train the operator.*

Delivery and Set-Up Fee quotes available.



MODEL EX

The single wheel sprayer is designed to fit a wide range of applications. It will fit any row spacing without adjustment, will not twist when spraying on uneven ground. Frame is designed to interchange from single wheel to Dual wheel with conversion kit. Excellent for various height of row crop and broadcast production. Weight - 100 lbs. (Header and bottles not included.)

MODEL EXD

Dual wheel sprayer is designed for applications that desire dual wheel features. Wheel spacing is adjustable from 30" to 40". (Header and bottles not included.)

STANDARD FEATURES FOR EX AND EXD MODELS

Both spray units are equipped with the following features:

1. Removable balloon tires, size 26" x 2.125".
2. Three piece sectional boom with eight nozzles on 20" spacings and equipped with Quick TeeJet® self-aligning nozzle bodies and caps. Center section consists of 4 nozzles and 2 nozzles on each outside lateral. Each section can be sprayed independently. Tips and screens not included. (Boom height adjustment from 12" to 48".)
3. Two 3 gal. SS tanks (107-BG).
4. One 5 lb. Aluminum CO2 clylinder (104B) in a special carrying rack. Twin gauge pressure regulator (Nor-100) with air hose and spray hose.
5. Spray valve on right handle.
6. Spray arms will unscrew for shipping and height adjustment.
7. Two ground support arms have adjustments and will slide forward for transporting.
8. Removable clipboard for plot plan and recording data.
9. DM-70 metronome supplied with each unit, providing the most accurate means of maintaining constant desired speed under field conditions.

See specific EX and EXD Models for spray header selection.

EX MODELS

EX-201S: single wheel unit with 8 brass spray headers (201S) and 8 two-liter plastic containers.

EX-203S: single wheel unit with 6 aluminum spray headers (203S) and 6 three-liter plastic containers.

EX-FR: spray frame, wheel and boom for single wheel sprayer *(Not equipped with headers, stainless steel cans, CO2 cylinder or regulator).*

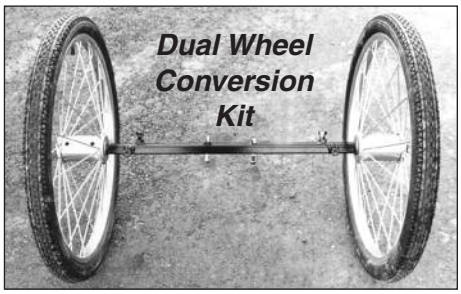
EXD MODELS

EXD-201S: dual wheel unit with 8 brass spray headers (201S) and 8 two-liter plastic containers.

EXD-203S: dual wheel unit with 6 aluminum spray headers (203S) and 6 three-liter plastic containers.

EXD-FR: spray frame, wheels and boom for dual wheel sprayer. Frame and plumbing only. *(Not equipped with headers, stainless steel cans, CO2 cylinder or regulator).*

EXCV:
dual wheel conversion kit consisting of two 26" heavy duty wheels on a 3/4" adjustable axle.



ATV SPRAYERS

MODEL ATV-315

Designed for applying large demonstration plots and maintenance spray. Consists of 3 stainless steel containers and one 15-gallon polyethylene tank. Each unit can be operated separately. Separate by-pass agitation in each tank. Push button switch for handle bar mounting, three sectional spray boom with 10 TeeJet diaphragm nozzle bodies, caps, tips and screens. Universal mounting bracket.

ATV-515 Complete system - both front and rear units. Rear unit is equipped with five 3-gallon stainless steel spray containers and manifolds to operate.

ATV-1015 Complete system - both front and rear units. Rear unit is equipped with 10 aluminum spray headers and plastic spray containers.

ATV-15 Front mounted 15-gallon tank complete. To be added to an existing rear mounted ATV spray unit.

OPTIONAL EQUIPMENT: Matrix Pro GPS Guidance System

Optional laterals for ATV & Tractor mounted sprayers.
ATV-2L 2 nozzle lateral extension (2 ea.)
ATV-4L 4 nozzle lateral extension (2 ea.)

ALLEY WIPER

ATV-AW

Designed with the highly effective super sponge. Kills in one pass. Designed to attach to most ATV, UTV models. Includes height and width adjustments from ground levels to 60" above and 33" to 55" in width. The liquid supply can be any existing pump or co2 powered sprayer or, the unit can be with the R&D Sprayers econo 15 or 25 gallon sprayers.

15ATV-SP1.8 15 Gal.
25ATV-SP1.8 25 Gal.

Other designs and widths are also available upon request.

THE ULTIMATE SPRAYING MACHINE

MODEL ATV-615

Six 3-liter bottles for replicate small plot and 15-gallon for large plot demonstration or overlay for small plot maintenance. This unit comes equipped with six (203S) Aluminum Spray Headers for 3 liter plastic containers, one 15-gallon polyethylene tank, Shurflow 3.6 GPM diaphragm pump, handlebar mounted push button switch for diaphragm pump. Air and spray manifold for 6 spray containers and washout system, one 10-lb. aluminum CO2 cylinder and pressure regulator, one 3-gallon stainless steel wash can, 3 sectional spray boom with 10 diaphragm TeeJet nozzles, height adjustments, and universal mounting brackets for all ATV bikes.

CRATING & SHIPPING AVAILABLE for Fully Equipped Motorized Sprayers!

WORLD WIDE

EDM-1515 Demonstration sprayer to fit all large four wheel ATV units. Equipped with front and rear mounted 15-gallon tanks (0015LG). Electric diaphragm pump (2088-4-135 — 3.6 gpm) with high capacity filter wired directly to ATV power source with on-off switch. Tanks are equipped with independent suction and by-pass valves so that tanks can be operated separately. Three piece spray boom attached to rear mounted rack and is equipped with 10 Quick TeeJet® nozzle bodies and diaphragm check valves. Capable of spraying up to five 40 inch rows. Each section can be worked independently. It can be lowered or raised to a maximum of six feet. **ATV and trailer not included.**

EDM-1525 Similar to EDM-1515 except equipped with front mounted 15-gallon tank (0015LG) and 25-gallon rear mounted tank (0025LG).

EDM-15 Econo Demonstration Sprayer - Equipped with one 15-gallon (0015LG) rear mounted polyethylene tank. Three sectional boom. 3.6 gpm electric pump (2088-4-135) and filter wired and ready to connect to ATV power source. Bypass agitation.

TRAILER-612 - 6 ft. x 12 ft. trailer, swing jack, 50-gallon water tank, diaphragm pump, built-in rack for spray boom, spare tire with rack, 25-ft. filler hose, loading ramp and 2" ball hitch.

CALC-AN-ACRE features a large easy-to-read liquid crystal display, easy-to-use rotary dial and lighted display.

AREA (1) (2) (3): Three independent counters keep a running count of the total acres (hectares) (thousands of square feet) worked. May be reset.

SPEED: Displays ground speed in miles per hour (kilometers per hour).

AREA/HOUR: Displays current work rate in acres per hour or hectares per hour or thousands of square feet per hour.

TOTAL HOURS: Shows hours of operation (can be reset).

RPM: Displays shaft RPM (requires Shaft Senior Kit P/N 01539).

DISTANCE: Displays distance traveled in feet (meters). May be reset.

WIDTH =/-: Displays effective working width. Width can be changed on the go, in 25% increments.

SUB HOURS: Shows sub hours of operation (can be reset).

GPS RECEIVER

The GPS receiver and digital display speed odometer can be used in almost any application. Simply plug into your 12 volt power point supply, magnetically attach the mushroom antenna to any metal surface and you have true GPS speed display. Works great for ATV and Tractor sprayers.

DS-GPSMD-1HZ: 1 update per second
DS-GPSMD-5HZ: 5 updates per second

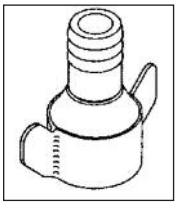
Switch: handle bar mounted on/off switch.

SHURFLOW PUMPS & FITTINGS

2088-4-135 Shurflo 12-volt, electric diaphragm pump, 3.6 gallon per minute open flow, viton valves, 1/2" npt(M) ports and 45 psi demand switch. 90 day manufacturer warranty only.

2088-3-135 Shurflo 12-volt electric diaphragm pump, 3.0 gallon per minute open flow, viton valves, 1/2" npt(M) ports and 50 psi demand switch. 90-day manufacturer warranty only.

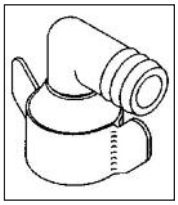
8000-541-236 1.0 GPM 60PSI **8000-543-236** 1.8 GPM 60PSI

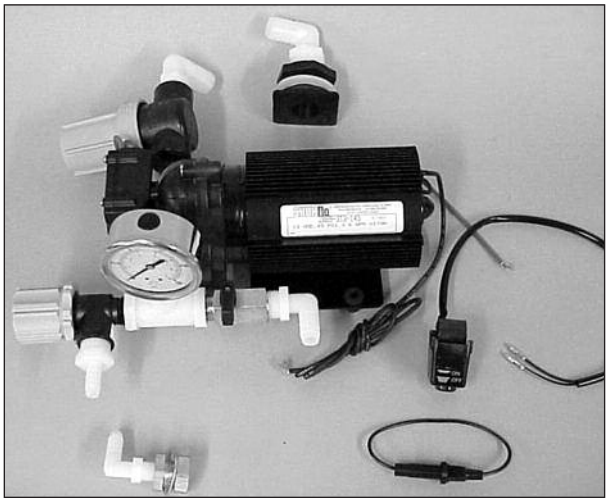


★ ***Repair Kits for Shurflow Pumps are available*** ★

8-156-01: 1/2"-14 npt (F) x 3/4" hose barb.
8-161-01: 1/2"-14 npt (F) x 1/2" hose barb.
8-162-01: 1/2"-14 npt (F) x 3/8" hose barb.

8-157-01: 1/2"-14 npt (F) x 3/4" hose barb elbow.
8-158-01: 1/2"-14 npt (F) x 1/2" hose barb elbow.
8-159-01: 1/2"-14 npt (F) x 3/8" hose barb elbow.





EDM PUMP KITS

The EDM Pump Kit provides all the components necessary for setting up your own demonstration spray tank. These are the same parts we use on the EDM-1515 and EDM-15.

FEATURES:

- 12-volt electric diaphragm pump with automatic demand control
- High capacity filter
- Bypass agitation with 0-100 psi glycerin gauge.

EDM KIT comes complete with pump, filter, pressure gauge, tank inserts on-off switch with in line fuse holder, and all fittings and valves necessary for assembly.

EDM-3: pump kit with 3 gallon per minute, open flow pump (2088-3-135).

EDM-4: pump kit with 3.6 gallon per minute, open flow pump (2088-4-135).

CRUISE CONTROL

ATV-CC: Cruise Control for ATV, 4-Wheeler, and Quad Bike. "QuadCruise" is the world's only fully electronic, model-specific, after-market speed and spray control built for ATV's, RTV's, and UTV's. It delivers unparalleled speed control combined with spray control. Slow speed ATV operations - particularly in agriculture and weed spraying, fertilizer spreading and trimming or pruning operations. Works great with research sprayers. **Specify ATV brand and model. Prices will vary.** Call for availability.

MATRIX PRO 570G

Matrix Pro, the next generation of Matrix, adds many new capabilities to the system. Matrix Pro helps growers save time by storing multiple field boundaries and multiple guidelines for use in future operations. Two-way data transfer allows uploading and downloading of job data, boundaries, no spray zones, AB lines and more. Matrix Pro's unique NextRow feature guides operators through turns in row crop environments, helping them find the correct rows to steer between for the next pass. An enhanced user interface is also part of Matrix Pro ensuring easy, intuitive operation.

90-02602: Kit Matrix 570G, Patch Antenna

MATRIX PRO 430G

The compact Matrix 430G is an easy-to-use, low-cost, graphical guidance system ideal for first time users. The full-color, touchscreen display allows the operator to efficiently navigate fields with minimal skips and overlaps in coverage.

- High-contrast, full-color, 4.3 in / 110 mm graphic touchscreen display provides superior visibility in bright light conditions
- Minimal set-up needed before operating
- Applied alert provides operator with audible alarm when entering into previously applied areas.

NEW!

"SpeedSafe" SPEED LIMITER

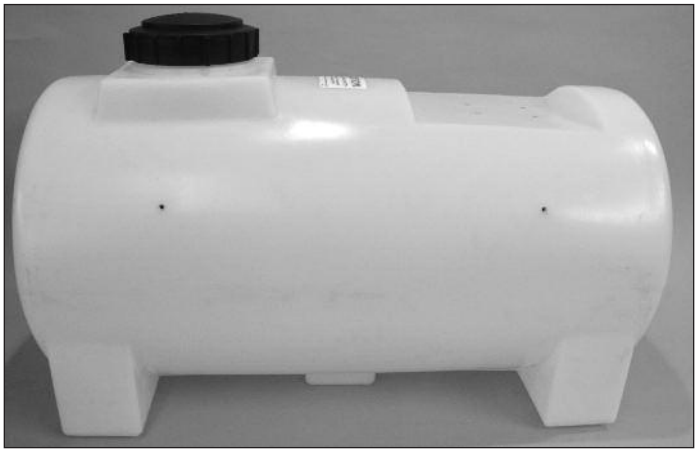
A new stand-alone speed limiter for ATVs, UTVs, and side-by-sides. Saves customers in many ways, including:

- increasing productivity by decreasing accidents, staff downtime and associated costs;
- potentially decreasing liability insurance costs;
- reducing on-going maintenance costs; and
- satisfying global Occupational Health & Safety organizations which have been targeting ATV accidents and safety issues.

'SpeedSafe' is also a new option for our 'QuadCruise' electronic cruise control for ATV's. The **'SpeedSafe'** speed limiter may be added to an existing 'QuadCruise' installation or fitted as a stand alone speed limiter without the 'QuadCruise' cruise control. A 'QuadCruise' cruise control may also be fitted after the speed limiter is fitted, using some of the parts already supplied with the speed limiter. **'SpeedSafe'** allows full use of the available power on the ATV up to the limiting speed. When the vehicle reaches the limiting speed, the speed limiter progressively cuts engine power. At the limiting speed the engine develops a slight misfire, however if the operator tries to go faster by applying more throttle, the speed limiter gradually makes the misfire worse. The speed limiter defaults to 25kph (15mph) when it is enabled, however the owner or supervisor may set this to any speed desired.

POLYETHYLENE TANKS

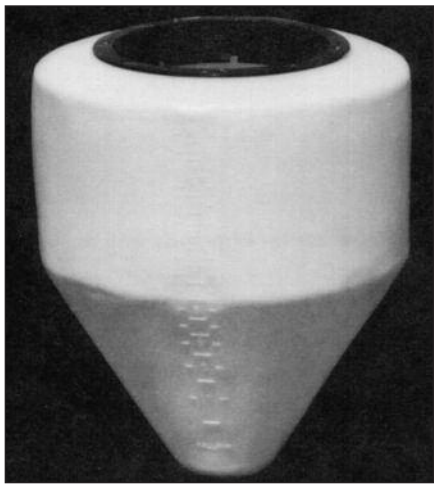
Specifically designed for agricultural and industrial chemical handling. Tanks are manufactured from medium- or high-density polyethylene with U.V. inhibitors. These tanks should not be used to store gasoline, oil, diesel or other hydrocarbons . Corrosion resistant and easy to clean between loads of chemicals. Molded in gallonage markers.



SPOT SPRAYER TANKS - With bottom sump, 5" screw-on cap. Pump installation location on top surface is recessed and supplied with standard 10" x 24" nut inserts, two 10" x 24" wand nut inserts and four 5/16" insert mounting nuts located under the tank legs. **TANK FITTINGS NOT INCLUDED. SEE TANK FITTING CHOICES BELOW.**

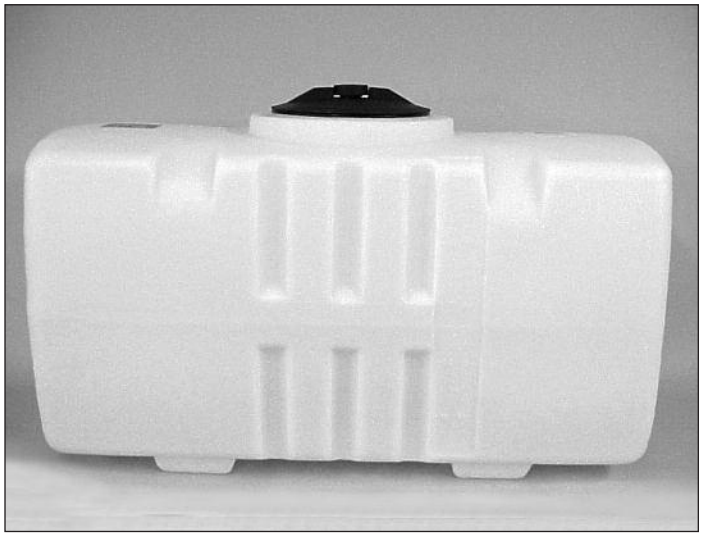
0015LG: 15 gallon **0025LG:** 25 gallon

Part Number	Capacity	Weight	Dimensions (diameter X height)	Lid
0015LG	15 gallon	11 lbs.	14" x 30"	5"
0025LG	25 gallon	15 lbs.	16" x 34"	5"
0015	15 gallon	10 lbs.	19" x 24"	5"
0030	30 gallon	15 lbs.	24" x 30"	5"
Part Number	**Capacity**	**Weight**	**Dimensions (width X length X height)**	**Lid**
50G	50 gallon	25 lbs.	19" x 38" x 23"	8"
100G	100 gallon	48 lbs.	27" x 43" x 29"	8"



TAPERED CONE bottom tanks for improved drainage, crowned top design with a 10" positive locking fill well cover attached to the tank by a tether, 3/4" polyethlene spin weld fitting is installed at the base of the tank. **TANK FITTINGS NOT INCLUDED. SEE TANK FITTING CHOICES BELOW.**

0015: 15-gal. cone tank
0030: 30-gal. cone tank

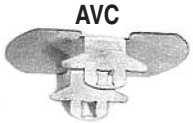


POLYETHYLENE NURSE TANK

Polyethylene Nurse Tank with large fill opening and 3/4" npt(F) side outlet. Compact design requiring no support structure for mounting. Ideal for placement in pickup bed or front of trailer. **TANK FITTINGS NOT INCLUDED. SEE TANK FITTING CHOICES ON LEFT.**

50G: 50 gallon **100G:** 100 gallon
55G: Round **110G:** Round

TANK FITTINGS



AVC

Anti Vortex Cap (Fits PN# 10501 ONLY)

10508

2" NPT (F) requires 3" hole through tank

10484

3/4" NPT (F) requires 1-5/8" hole through tank

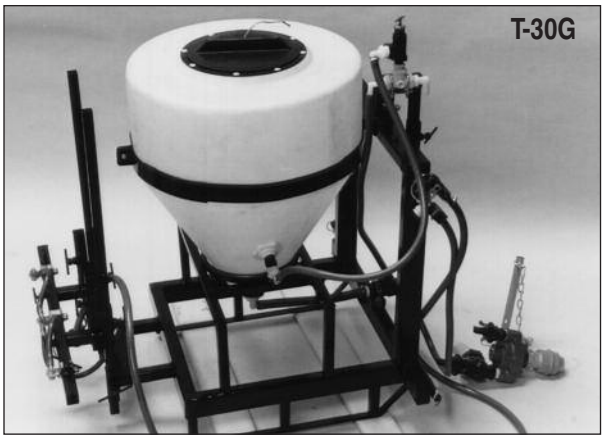
10501

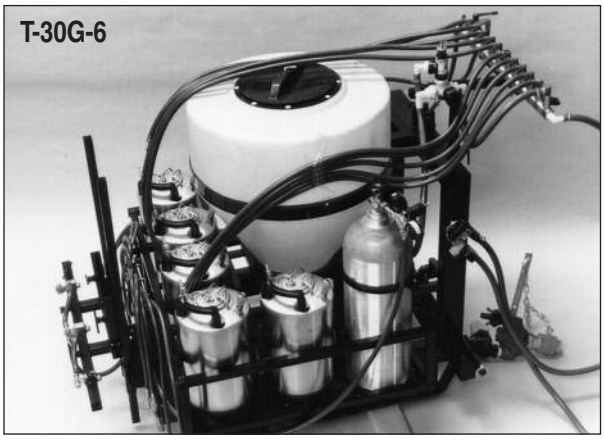
3/4" NPT (F) requires 1-3/8" hole through tank

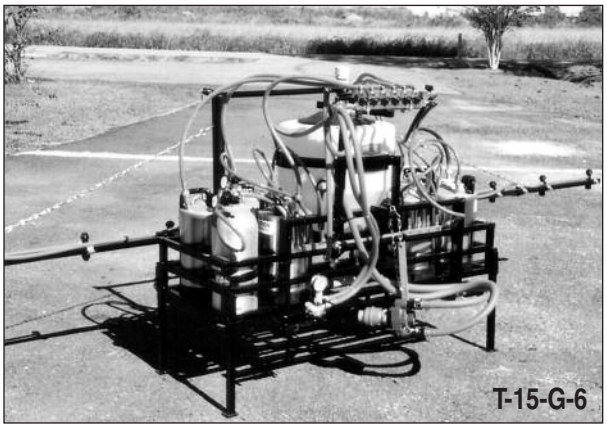
100897

1/4" NPT (F) requires 3/4" hole through tank

TRACTOR MOUNTED RESEARCH SPRAYERS


T-30G


T-30G-6


T-15-G-6

All units are equipped with three sectional spray booms. All booms are supplied with TeeJet® 8002VS tips and nozzle spacing is 20 inches unless otherwise specified.

If the motorized vehicle straddles one row, the center section of the spray boom should consist of two nozzles with each lateral section having four nozzles. This will provide a spray boom with 10 nozzles.

T-30G 30 gallon tapered cone bottom tank mounted on a Category II - three point hitch frame and equipped with a 540 PTO roller pump, pressure relief valve, bypass agitation and three sectional spray boom.

T-30G-3 Basic T-30G sprayer equipped with three 3 gallon stainless steel containers, one 20 lb. aluminum CO2 cylinder, pressure regulator, air and spray manifold and three piece sectional spray boom (not shown).

T-30G-6 Same as T-30G except frame is designed and equipped with six 3 gallon stainless steel spray cans and one 3 gallon wash can. Unit comes complete with all containers, 20 lb. aluminum CO2 cylinder, pressure regulator, and spray manifolds, and three piece sectional spray boom.

T-30G-10 Same as T-30G-6 except equipped with 10 aluminum spray headers (203S) and plastic spray containers (283).

T-15G-6 - 15-gallon tapered cone bottom tank on a Category II - 3 point hitch frame and equipped with a 540 PTO roller pump, pressure relief valve, bypass agitation, and 3 sectional, 12 nozzle fold up spray boom on 20" spacing. Separate 6 treatment CO2 system has (7) 3-gallon stainless steel containers (6 treatment and 1 wash), 10 lb. aluminum CO2 cylinder, 100 psi regulator and spray manifold.

Three Point Multi Boom also available.

6500C: 540 PTO 6 roller pump, 3/4" npt (f) ports, pressures to 300 psi. PTO Quick Coupler sold separately.

1321-0012: PTO Quick Coupler

Custom designs available ... call with or for suggestions.

See hypropumps.com for complete pumps and accessories.

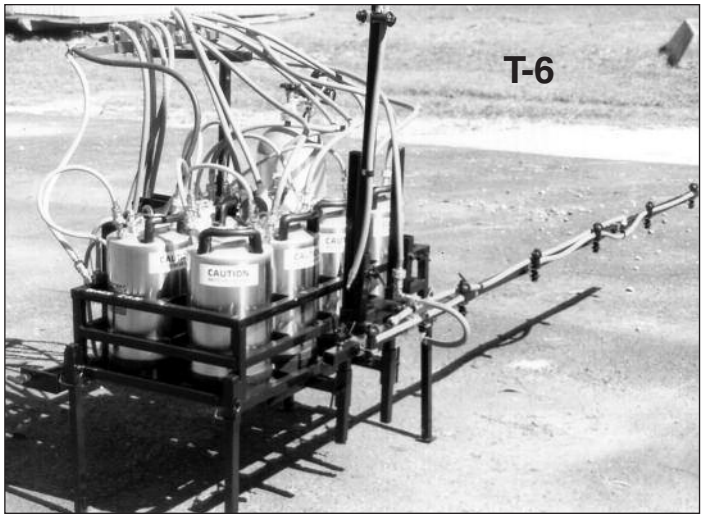
3-POINT MULTI-BOOM SELF CONTAINED RESEARCH SPRAYER

- Category 1-2, three point hitch frame
- Container frame to hold Ten- 1.7 thru 5 gallon SS spray containers
- 15 gallon cone tank with 12 volt electric diaphragm pump equipped for multi-purpose use as rinsing booms upon spray completion. Attached garden hose to rinse and fill spray tanks/spray bottles. It can also be quick coupled to one of the multi booms and used for over spray or maintenance spraying. Equipped with return valve and gauge to set spray pressure.
- Spray bottle heads can be inverted and attached directly to the solenoid valves; sprayed out and rinsed in place. When using stainless steel container, additional pig tail spray hoses with quick connects can be used to attach spray containers to the solenoid valves.
- 12 volt Ten gallon air compressor with auxiliary battery to pressurize spray tanks/spray bottles for spraying.
- Air manifold with pressure regulator to pressurize all containers and set spray pressure.
- Ten 12 volt electric solenoid valves to operate each boom separately.
- Ten 8 nozzle booms with quick nozzle spacing adjustable from 15-20" plumbed with ¼" OD tubing to minimize boom priming and mix size.
- Boom can be mounted under sprayer frame to minimize distance from the operator to the spray boom. The Three point hitch is adjustable from sprayer frame to add additional crop clearance when booms are mounted under frame.
- The boom can also be installed behind the frame and raised for additional crop clearance.
- Spray container and/or spray headers sold separately.

Call or email for more information and pricing.

T-6

Tractor mounted sprayer on 3-point hitch designed and equipped with six 3-gallon stainless steel spray cans and one 3-gallon wash can. Unit comes complete with all containers, 10 lb. aluminum CO2 cylinder, pressure regulator, air manifold, spray manifold and three piece sectional spray boom with 8 or 10 diaphragm TeeJet nozzles on 20" spacing.



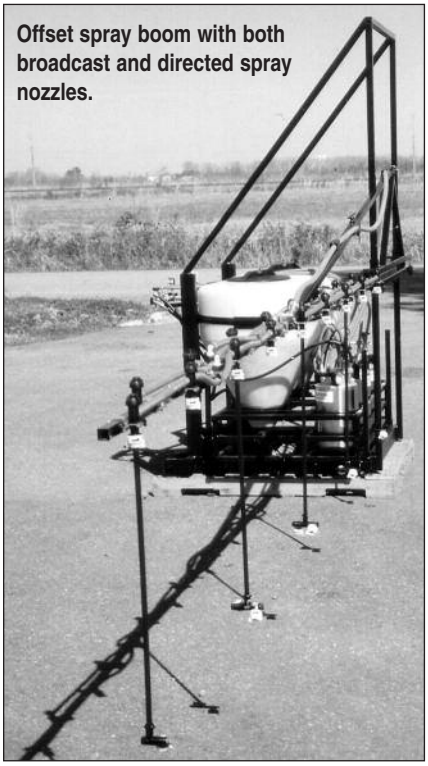
T-10

Same as T-6 except the air and spray manifolds are equipped to operate ten 3-liter plastic spray bottles. Ten spray headers are included.

T-2-30-G: Basic unit designed and equipped with two 30-gallon tanks, four 3-gallon stainless steel containers (107BG) and one 3-gallon wash can. Both 30 gallon tanks have independent suction and by-pass valves so that tanks can be sprayed separately. Standard features are with a 540 PTO pump, 3 section spray boom with 10 Quick TeeJet® nozzle bodies and diaphragm check valves, one 20 lb. CO2 cylinder, fender mounted boom control valve is magnetically mounted for ease of operation. Unit is also equipped with a 100 PSI reg. with air and spray manifolds mounted on the unit.

T-2-15-G: Similar to T-2-30-G except equipped with two 15 gallon cone tanks.

OFFSET PIVOTING SPRAY UNIT



Offset spray boom with both broadcast and directed spray nozzles.

T130-OS or T230-OS Tractor mounted offset pivoting spray boom. Spray boom can be moved from right side to left side. Heavy duty frame comes equipped with (1) or (2) 30 gallon cone tanks with separate bypass agitation. Each tank can be operated independently.

Spray boom consists of two sectional offset with either eight Quick TeeJet diaphragm bodies for broadcast application or nine nozzle directed boom than can be attached to front of offset broadcast boom. Directed boom is supplied with 5 drop nozzles 24 inches in length. Manual boom height adjustments of 7 ft. Add tractor's hydraulic lifts for total boom height. The offset boom can be removed from spray unit by removing single pivot pin, and attaching optional rear mounted broadcast boom.

Spray unit comes equipped with a 6-roller pump for PTO operation, 20 lb. aluminum CO2 cylinder with pressure regulator for replicated small plot and one 3-gallon stainless steel wash can (**107-BG**).

The spray rack and manifolds can be designed to operate 3, 6 or 10 spray containers. (See specific models listed.) Stainless steel spray containers (**107-BG**), and aluminum spray headers (**203S**) are not included in price of spray unit.

Optional Electric Solenoid Valve can be added. **Specify nozzle or row spacing for broadcast and directed spray boom.** NOTE: All units are priced without spray boom nozzle attachments on offset.

T230-OS3 Two 30-gallon cone tanks with offset boom. Designed to operate three 3-gallon stainless steel containers.

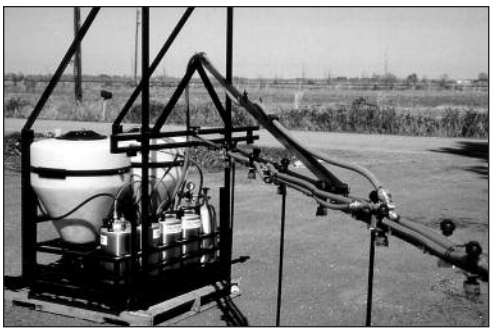
T230-OS6 Same as above except designed to operate six 3-gallon stainless steel containers or six 3-liter plastic spray bottles.

T230-OS10 Same as above except designed to operate up to ten 3-liter plastic bottles.

T130-OS3 Same as **T230-OS3** except equipped with only (1) 30-gallon cone tank.

T130-OS6 Same as **T230-OS6** except equipped with only (1) 30-gallon cone tank.

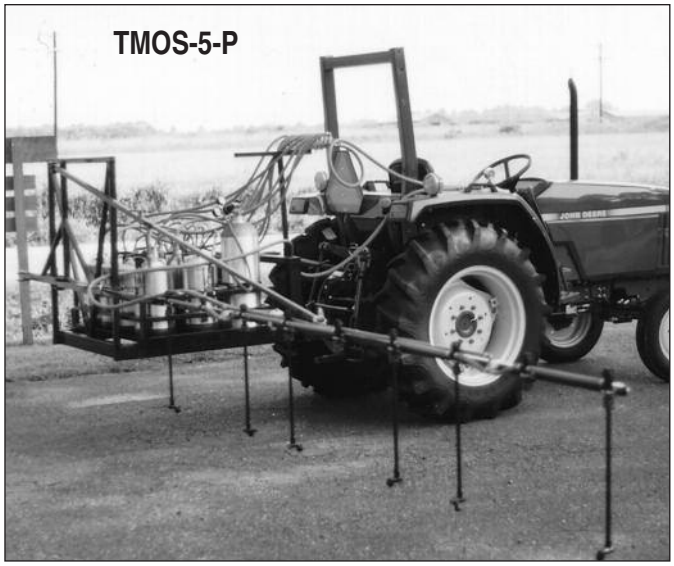
T130-OS10 Same as **T230-OS10** except equipped with only (1) 30-gallon cone tank.



Swing away offset boom with center pivoting point.

Offset spray boom with rear mounted 8-nozzle foldup boom.

OFFSET SPRAYERS



TMOS-5-P

Tractor mounted sprayer with heavy duty frame offset boom (with adjustable support brackets) allows the applications of pesticides to either 2 or 4 rows to either side of tractor. A 2-sectional spray boom with 4 nozzles per section is equipped with 8 diaphragm check valves and Quick TeeJet bodies and caps on 20" spacings. Each boom section can be operated independently. Adjustable height positions are available for various stages of crop growth. Sprayer comes equipped with a 20-lb. CO2 cylinder, pressure regulator, air and spray manifolds, and 2-sectional spray boom. Boom control is designed to accommodate various combinations of spray containers listed below.

TMOS-5 3-point sprayer and pivoting offset boom equipped with air and spray manifold capable of operating five 3-gallon stainless steel spray cans. **Priced without any containers.**

TMOS-10 Same as above except the air and spray manifold are equipped to operate ten 3-liter plastic spray containers or five 3-gallon stainless steel spray cans. **Priced without any containers.**

TMOS-5-P 3-point sprayer and pivoting offset boom equipped with air and spray manifold capable of operating five 3-gallon stainless steel spray cans with pivoting boom. **Priced without any containers.**

TMOS-10-P Same as above except the air and spray manifold are equipped to operate ten 3-liter plastic spray containers or five 3 gallon stainless steel spray cans with pivoting boom. **Priced without any containers.**

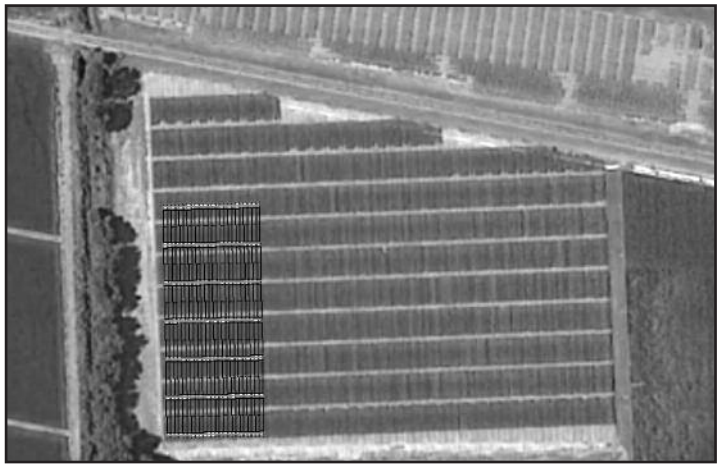
Equip one of these machines with the R & D Sprayers Brand Multi-Boom to produce the ULTIMATE Research Plot Sprayer:

Lee Spider XD:
- 23HP Gasoline Engine
- Adjustable Row Width (60 in. -100 in.)
- Adjustable Under Frame Clearance of 39in. – 69in.
- 7.5 x20in. Cleated Tire with Implement Wheel
- Top Speed 9 mph
- 90in. Minimum Turning Radius

Lee Agra Avenger:
- Highly Configurable; choose from endless options to make the perfect tractor to fit your application.
- More Horsepower; power your way through challenging environments with the new 84HP Kubota Turbo Diesel.
- Charcoal Filtered Cab; increased air quality with the newly designed operator's cabin.
- Small Footprint; the high clearance and articulated steering allow the tractor to glide over the crop.
- Adjustments; don't plant your crop to fit your tractor. Adjust your tractor to fit your crop! The Avenger is height and width adjustable so you can plant more rows or use the hydraulic legs to automatically adjust to multiple crop configurations

The Spider Trac is a larger plot sprayer that can be used with a multi-boom system. The advantage of the multi-boom is that once all the treatment containers are set up and booms are primed, you can travel straight through each rep while switching from one treatment to the next without stopping. The multi-boom sprayer is set up with electrical solenoid valves. When using the solenoid valves, this allows the containers to be directly above the boom with shorter hosing to reduce mix sizes when priming booms.

GPM SPRAY MODULE



The new GPM Spray Module is a control system for a multi-boom plot sprayer using GPS and a fixed RTK signal. The GPM spray module has the ability to control up to 30 booms. When laying out your planting maps, spray treatment can be assigned just like adding seed population.

The GPM Spray Module allows the flexibility of setting the number of inches before the plot to turn ON and the number of inches to turn OFF after the plot. Setting the before and after plot inches is also used on calibrating speed with solenoids. There is a function for priming each boom by setting the number of seconds for each boom to turn on so that you know it is primed and operating properly.

If you don't have an SRES Step 4 planter, the GPM Spray Module can still be used. A map of your field will need to be created in Field Layout, and spray treatments assigned. Next, set the origin point you want in the field and begin spraying.

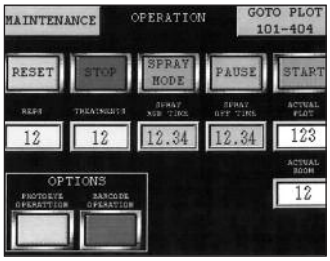
MONITOR & CAMERA KIT

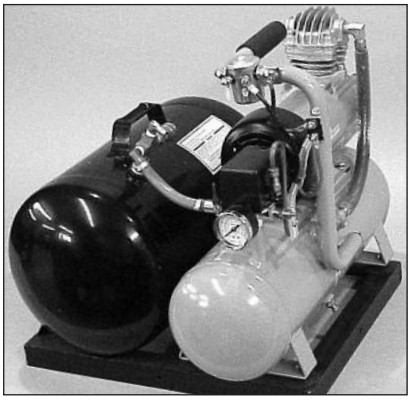
VWIC700: 7" Monitor and Camera kit.

Great for monitoring the R&D Multi Research booms. Magnetically mount the camera under the boom frame and the monitor in a visible area on the tractor to ensure when you flip the switch the boom is spraying. Also available, dual cameras option for wider boom. Can be used in many other farm related applications. Kit consists of monitor, camera with magnet, main harness, video extension cable (30 ft.), AV accessory cable, and remote control (CR2025 battery included).

MULTI BOOM AUTOMATOR

- User friendly PLC touch screen
- Programs up to 20 booms to spray in a designated plot for desired amount of time.
- Features 8 reps x 20 booms
- Auto prime, wash & air purge
- Accommodates most existing multi booms





AC-12V:
12 Volt DC Air Compressor for tractors and high clearance machines.

- High volume 3.4 CFM
- 3/4 HP motor
- Capable of supplying enough volume to operate single and multi boom research sprayers
- Requires full size automotive battery and alternator

STAINLESS STEEL SPRAY CONTAINERS & PARTS

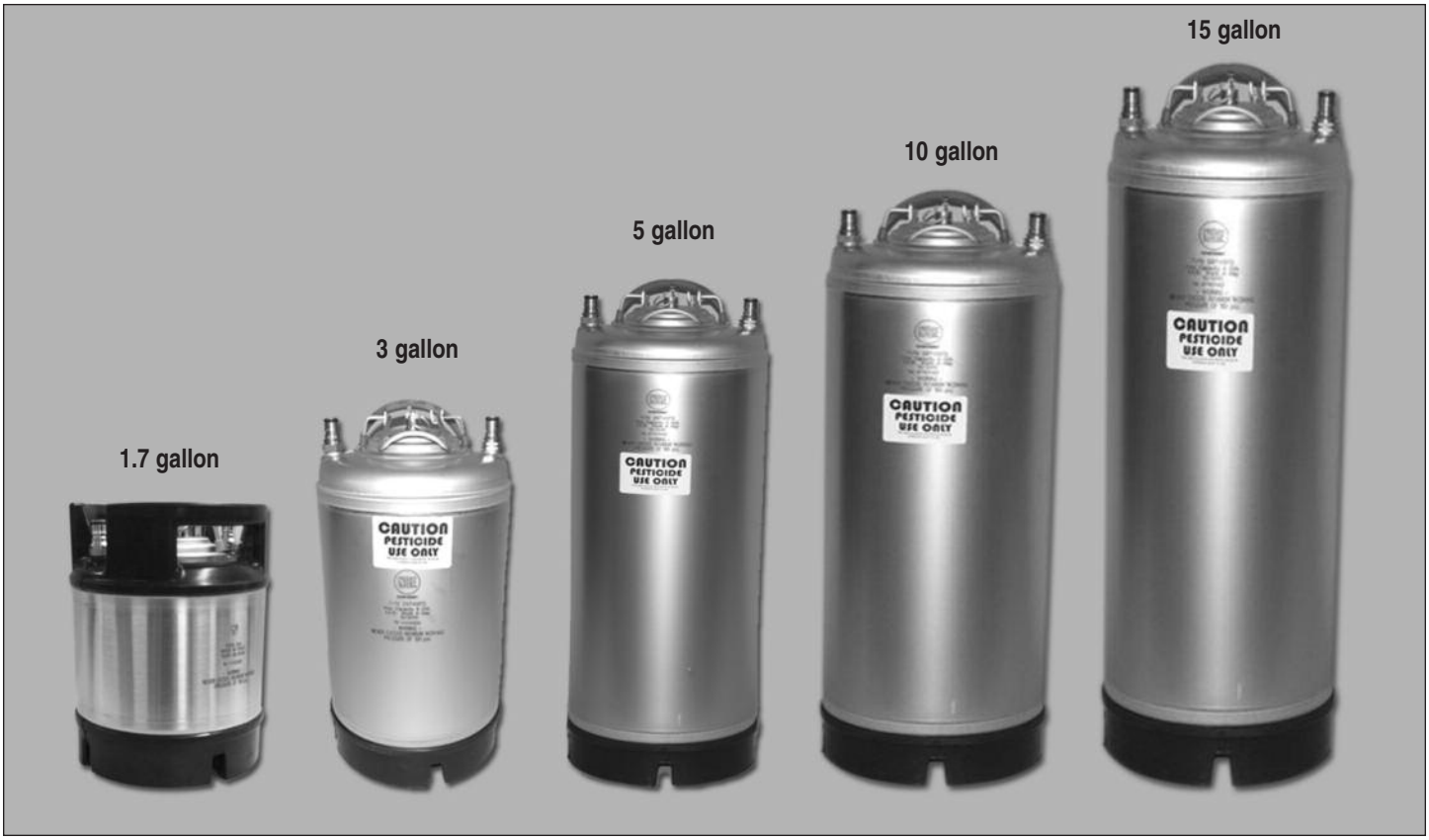
STAINLESS STEEL BEVERAGE CONTAINERS

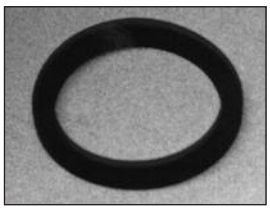
R & D Sprayers recommends containers without beverage type of disconnects to prevent any chance of a contaminated container getting into the beverage trade. (130 P.S.I. Pop off safety on lid). Brand: AEB

DIMENSIONS: 3-gal., 8.5”x17” 10-gal., 12 1/2”x25”
5-gal., 8.5”x26” 15-gal., 12 1/2”X36”

1071.7A: 1.7gal. SS container with beverage connections.
107A: 3-gal. SS container with male plugs.
1075A: 5-gal. SS container with male plugs.
10710A: 10-gal. SS container with male plugs.
10715A: 15-gal. SS container with male plugs.

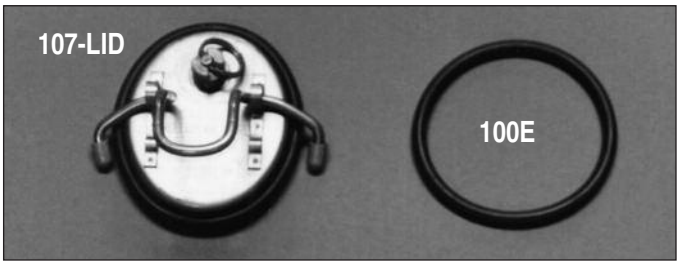
1071.7-BG 1.7-gal. SS container with Industrial connections.
107-BG: 3-gal. SS container with Industrial connections.
1075-BG: 5-gal. SS container with Industrial connections.
10710-BG: 10-gal. SS container with Industrial connections.
10715-BG: 15-gal. SS container with Industrial connections.





100A: O-ring for “T” handle

BEVERAGE PARTS AND CONNECTIONS



107-LID: Lid for 3, 5 & 10-gallon SS spray container, equipped with O-ring and pop-off safety.

100E: O-ring for lid.

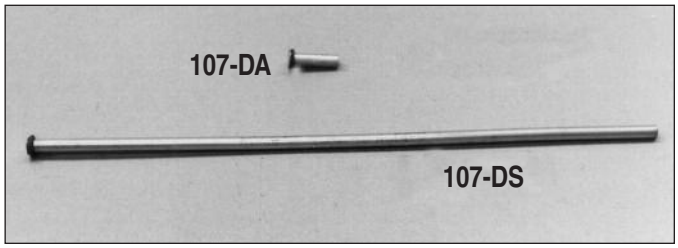
107-POS: 130 psi pop-off safety on lid.

107-LLC: Rubber caps for lid lock on 107-LID (sold separately).

BEVERAGE DISCONNECTS

274206 - female spray coupler with 1/4" SAE male flare fitting.

274205 - female air coupler with 1/4" SAE male flare fitting.



107-DA: SS drop tube for 3-gallon SS container, Air Side. Fits all SS containers.

107-DS: SS drop tube for 3-gallon SS container, Spray Side.

107-DS5: SS drop tube for 5-gallon SS container, Spray SIde.

100H: "O" ring for drop tubes in 3 & 5-gallon Beverage Tanks.

HOSE BARB & NUT FOR BEVERAGE DISCONNECTS

14-B: 1/4" flare nut and 1/4" hose barb.

38-B: 1/4" flare nut and 3/8" swivel hose barb.

100D - O-ring for male beverage plug. Resistant against all agricultural chemicals.

100DD - O-ring for male beverage plug. Resistant against CO2 only.

TANK PLUGS

BEVERAGE MALE PLUGS AND SPRING VALVES

TANK	Part # Air Side	Female Thread	Part # Spray Side	Female Thread
AEB	**1107B**	19/32-18"	**1107C**	19/32-18"
Cornelius	**1107B**	19/32-18"	**1107C**	19/32-18"
Spartanburg Challenger VI	**1107BF**	9/16-18"	**1107CF**	5/8-18"
Firestone	**1107BF**	9/16-18"	**1107CF**	5/8-18"

STAINLESS STEEL BEVERAGE DISCONNECTS

3SL-L4:
LIQUID SOCKET
1/4" Male Flare

3SG-L4:
GAS SOCKET
1/4" Male Flare

Flare nut and hose barb not included.

The new 3SG and 3SL sockets are made of stainless steel to last a lifetime. 1/4" male flare inlet fitting is 45˚ to the body to keep hose from kinking. Other fittings can easily be substituted if required. They fit all standard transfer tank plugs. Gas sockets are coded with bright red band and marked gas in. Liquid sockets are marked liquid out. They are non-interchangeable so as to eliminate any error when making connections.

BEVERAGE COUPLERS

207A: slotted coupler for SS can - Air side - two slots.

207S: slotted coupler for SS can - Spray side - three slots.

1207A: Male plug for SS can. AIR side. Two pins.

1207S: Male plug for SS can. SPRAY side. Three pins.

STAINLESS STEEL BEVERAGE ADAPTERS

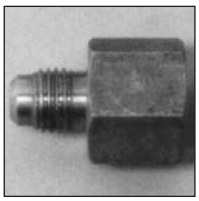
2HKM-CORN
adapter with 19/32"-18(M) x 1/4" SAE female flare.

B-88-44
1/4" SAE male flare x 1/4" NPT (M).

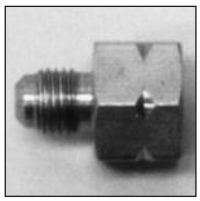
S-86-44
1/4" SAE male flare x 1/4" NPT (F).

S-88-42
1/4" SAE male flare x 1/8" NPT (M).

S-82-4
1/4" SAE male flare x 1/4" SAE male flare.



S1-WOD
1/4" SAE male flare x 5/8"-18(F) thread spray outlet for Firestone series.

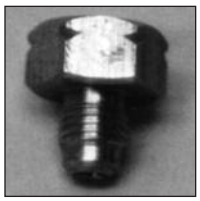


S2-WOD
1/4" SAE male flare x 9/16"-18(F) thread air inlet for Firestone series.

NP445-4
1/4" nylon flare gasket for SAE fittings.

2KGF-O
5/8"-18(M) x 1/4" NPT(F) stainless adapter for Firestone spray side plug.

S1-FIR
1/4" SAE male flare x 3/4" female thread outlet fits old Firestone cans.

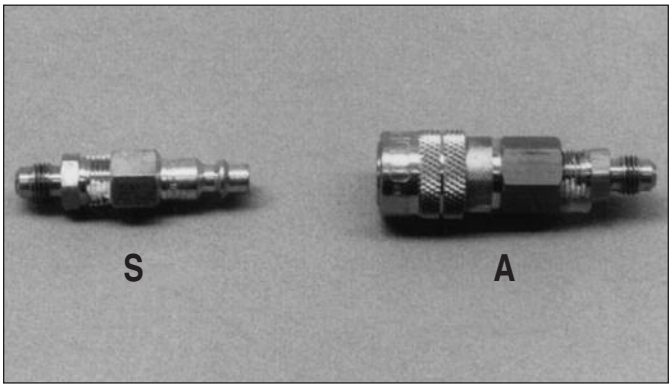


SS2-FIR
1/4" SAE male flare x 11/16" female thread air inlet fits old Firestone cans.

SOLD AND PRICED AS SET

107-MIL: Change Cornelius brand beverage tank fittings to quick disconnects. Unscrew male plugs, part #1107B & #1107C, and replace with disconnects and adapter. Adapter marked "spray" goes on the (out) side of can and the adapter marked "air" goes on the (in) side of can. Sold and priced as set. 19/32" fittings on both sides.

107-MIL-FIR: SS Adapter and disconnects for Firestone "VI" series beverage tank. AIR side is 9/16" and SPRAY side is 5/8". Sold and priced as set.



107-201: Adapter and disconnects to change beverage connections. Unscrew gray or air beverage disconnect (107B) from flare nut and replace with "A" coupler and adapter. Unscrew black or spray beverage disconnect (107C) from spray hose and replace with "S" plug and adapter.

107-SSA: SS adapter for Cornelius brand tanks. 19/32"-18(F) x 1/4" npt(M) for both air and spray sides.

SSA-FIR-A

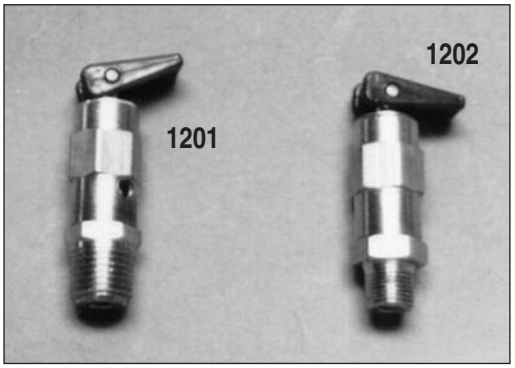
SSA-FIR-A: SS adapter AIR side for Firestone or Spartanburg Challenger VI series tanks. 9/16"-18(F) x 1/4" npt(M).

SSA-FIR-S

SSA-FIR-S: SS adapter SPRAY side for Firestone or Spartanburg Challenger VI series tanks. 5/8"-18(F) x 1/4" npt(M).

POP-OFF SAFETY

1201: 60 psi pop-off safety, 1/4" npt(m).
1202: 60 psi pop-off safety, 1/8" npt(m).
1203: 100 psi pop-off safety, 1/8" npt(m) (not shown).
1204: 100 psi pop-off safety, 1/4" npt(m) (not shown).



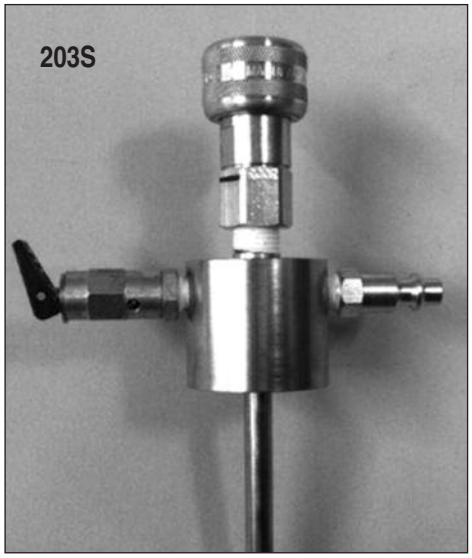
SPRAY HEADERS FOR PLASTIC CONTAINERS

STANDARD SPRAY HEADERS WITH 60 PSI POP-OFF SAFETY VALVES

38mm aluminum and 28mm brass spray headers are manufactured to R & D Sprayers specifications. They are both designed with a 1/8" npt(f) air inlet and 1/4" npt(m) spray outlet. All headers are equipped with 60 psi pop off valves.

28MM
201S: fits 2 liter plastic spray containers.
201S1: fits 1 liter plastic spray containers.
201S0: fits 20 oz. plastic spray containers.

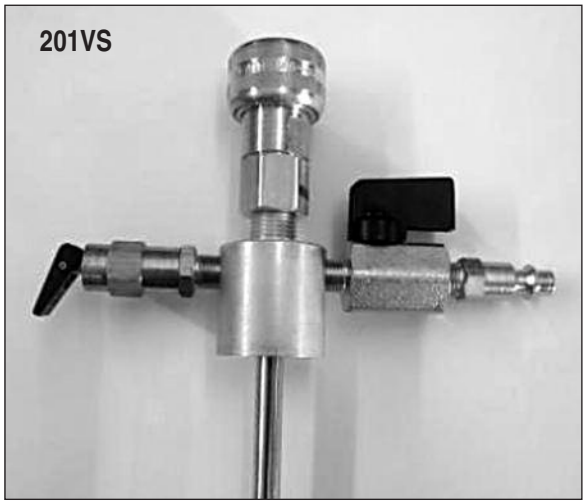
38MM
203S: fits 3 liter plastic spray containers.

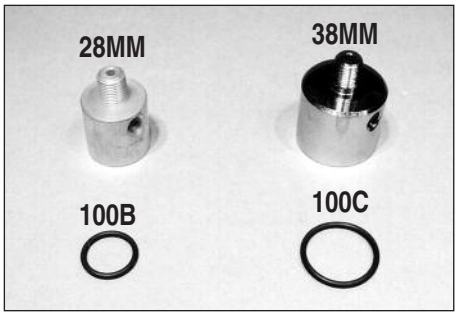


STANDARD SPRAY HEADERS WITH SHUT-OFF VALVE (18-FMB)

28MM
201VS: fits 2 liter plastic spray containers.
201VS1: fits 1 liter plastic spray containers.
201VS0: fits 20 oz. plastic spray containers.

38MM
203VS: fits 3 liter plastic spray containers.

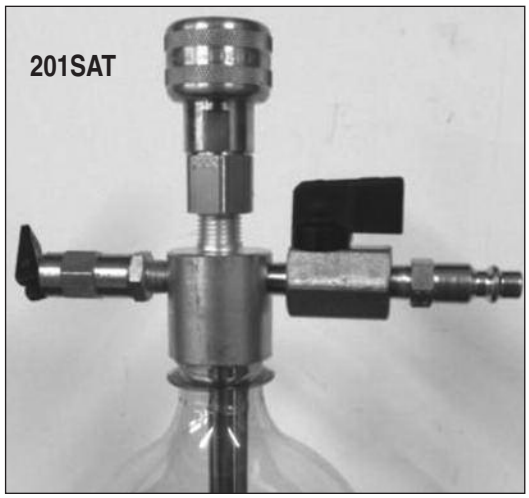




28MM: Basic header, no fittings.
38MM: Basic header, no fittings.
100B: O-ring for 28MM header.
100C: O-ring for 38MM header.

AGITATING SPRAY HEADER

Spray header designed with extended air tube. Agitates spray mixture during spraying or manually by releasing air through pop off safety. Air enters spray container at base and helps keep solids in suspension. To disconnect spray container between treatments, operator closes air valve and releases pressure through 60 psi pop off safety. Once container is depressurized, spray header can be removed from plastic spray container.



28MM
201SAT: fits 2 liter plastic spray cont./ind. disconnects.
201SATB: fits 2 litter plastic spray cont./bev. disconnects.
201S1AT: fits 1 liter plastic spray cont./ind. disconnects.
201S1ATB: fits 1 liter plastic spray cont./bev. disconnects.

38MM
203SAT: fits 3 liter plastic spray cont./ind. disconnects.
203SATB: fits 3 liter plastic spray cont./bev. disconnects.

STANDARD SPRAY HEADERS WITH 60 PSI PRESSURE GAUGE (GA192DS) AND SHUT-OFF VALVE (18-FMB)

28MM

201SVG: fits 2 liter plastic spray containers
201S1VG: fits 1 liter plastic spray containers
201S0VG: fits 20 oz. plastic spray containers

38MM

203SVG: fits 3 liter plastic spray containers

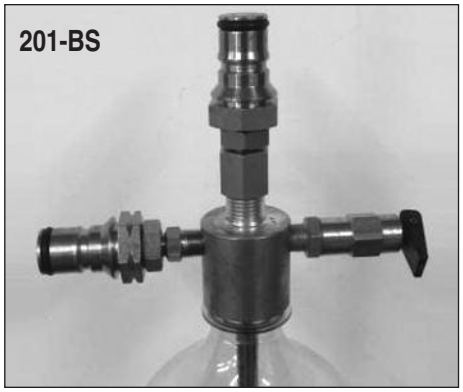
STANDARD SPRAY HEADERS WITH 60 PSI PRESSURE GAUGE (GA192DS)

28MM

201SG: fits 2 liter plastic spray containers
201S1G: fits 1 liter plastic spray containers
201S0G: fits 20 oz. plastic spray containers

38MM

203SG: fits 3 liter plastic spray containers



STANDARD SPRAY HEADERS EQUIPPED WITH BEVERAGE DISCONNECTS (1107B & 1107C) AND 60 PSI POP-OFF SAFETY

28MM

201-BS: fits 2 liter plastic spray containers
201S1-BS: fits 1 liter plastic spray containers
201S0-BS: fits 20 oz. plastic spray containers

38MM

203-BS: fits 3 liter plastic spray containers

INVERTED SPRAY HEADERS

28MM

202: fits 2-liter, 1-liter and 20 oz. plastic spray containers
202B: with beverage disconnect

38MM

203I: fits 3-liter plastic spray containers
203IB: with beverage disconnect

INVERTED SPRAY HEADERS WITH SHUT-OFF VALVE (18-FMB)

28MM

202V: fits 2 liter, 1 liter and 20 oz. plastic spray containers

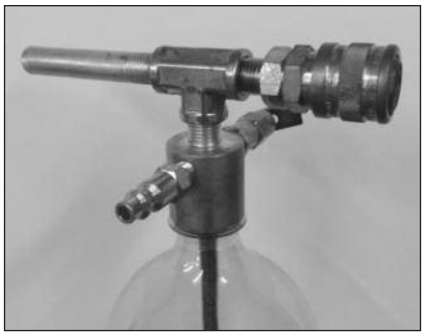
38MM

203IV: fits 3 liter plastic spray containers

HOW SPRAY HEADERS ARE OPERATED

Spray Header with stainless steel drop tube operated in the upright position.

Inverted Spray Header operated in inverted position – extended air tube.



201HS: Fits one liter plastic containers
202HS: Fits two liter plastic containers
203HS: Fits three liter plastic containers

HS SERIES HEADERS

The HS series header offers a handle to grasp while carrying the spray containers, making it more comfortable to handle. Available on all 38mm and 28mm headers.

PLASTIC SPRAY CONTAINERS

Plastic containers become beverage containers only after a beverage label is attached. Never use a plastic bottle that has a beverage label or has a trademark shape.

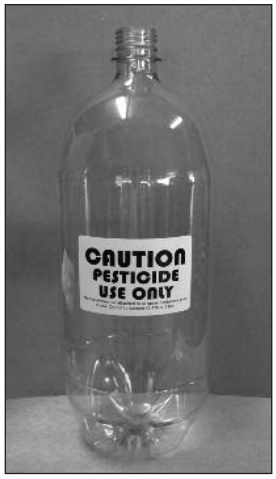
Plastic Spray Containers are manufactured in various locations throughout the world. The diameter and height of the containers may vary depending on where it was manufactured. We have found that the height of containers manufactured in South America and Europe are different from those manufactured in the United States. ***BECAUSE OF THESE VARIOUS HEIGHTS FOUND THROUGHOUT THE WORLD, THE INVERTED SPRAY HEADERS DESIGNED WITHOUT DROP TUBES ACCOMODATES ALL BOTTLE HEIGHTS.***

When ordering spray headers with SS drop tubes it is important for us to know the inside height of the spray containers you will be using. This will allow us to install the proper tube length on your headers. Our spray headers come equipped with SS tubes that fit the plastic containers found in the U. S.

To measure your spray container:

- Insert a ruler or measuring tape into the container
- Record the measurement from the bottom of the container to the rim at the top to the nearest centimeter. This will be the height of the spray container. Give this measurement when ordering headers with SS drop tubes.

PLASTIC SPRAY CONTAINERS and REUSABLE PLASTIC CAPS



<u>NOTE:</u> The star bottom plastic bottles are the only type of plastic bottles available on the market. Since the average height of these bottles have proven to be very inconsistent, you should always check to make sure that your drop tube fits the bottles you are currently using.

Plastic containers manufactured in the U.S.

Note: Caution label and cap included with bottle.

Part No.	Description & Opening Size	Height in CM	Qty./Cs.
283-6	3-liter container. 38mm	32.1	6
283-12	3-liter container. 38mm	32.1	12
282-6	2-liter container. 28mm	29.6	6
282-12	2-liter container. 28mm	29.6	12
281-12	1-liter container. 28mm	24.1	12
280-24	20-oz. container. 28mm	19.6	24
— CONTAINERS SOLD IN CASE LOTS ONLY —			

CAPS-28MM: 28mm reusable plastic caps.
CAPS-38MM: 38mm reusable plastic caps with seals.
— ***Additional caps are sold individually***.—

THE FOLLOWING SHOULD BE ENLARGED AND PLACED IN ALL LABS.

NOTE: STANDARD OPERATING PROCEDURE (SOP) for plastic spray containers should be available to all research personnel involved in the application and testing of agricultural chemicals. The SOP should include the following:

1. All original plastic containers must be purchased new, with appropriate caution labels attached before use.
2. Spray solution for testing must be placed in plastic containers immediately before use and rinsed with proper solvent immediately after use. During use and before disposal, all used spray containers must be kept under lock and key and accessed only by approved personnel.
3. Discarded bottles must be crushed and perforated before disposal in an approved waste sight.
4. **CAUTION:** Inspect bottles for damage; such as dents, discoloration and soft areas before initial use.

CAUTION LABELS

Skull and crossbone warning labels for plastic spray containers. Specify container size when ordering.

SCV-1: (10" x 3-1/2") for 2 & 3 liter plastic containers

SCV-5: (5" x 3-1/2") for 1 liter & 20 oz. plastic containers

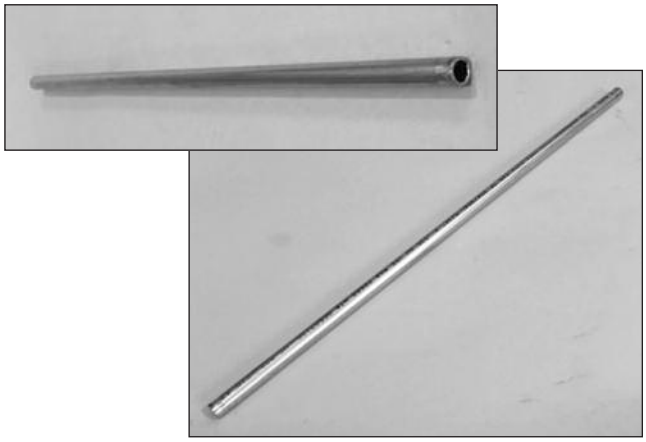
CAUTION LABELS:

Labels for use with stainless steel containers or plastic containers. Wording as such: CAUTION PESTICIDE USE ONLY.

100LP: Plastic Container

100LSS: Stainless Steel Container

5/16" OD STAINLESS STEEL DROP TUBES FOR SPRAY HEADERS



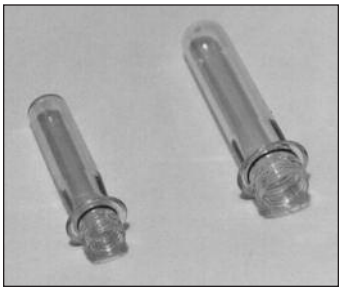
SS203: For three liter plastic container.
SS201: For two liter plastic container.
SS201S1: For one liter plastic container.
SS201S0: For 20 oz. plastic container.
5/16-FT: 5/16" OD stainless steel tubing per foot.

SPRAY HEADERS FOR PREFORMED TUBES

(Ideal for Greenhouses, Individual Spot Treatments for leaching study and single nozzle multicrop screen.)

203GP: 38mm aluminum spray header equipped with trigger valve and cap. Invert header to spray.

202GP: 28mm brass header equipped with trigger valve and cap. Invert header to spray.



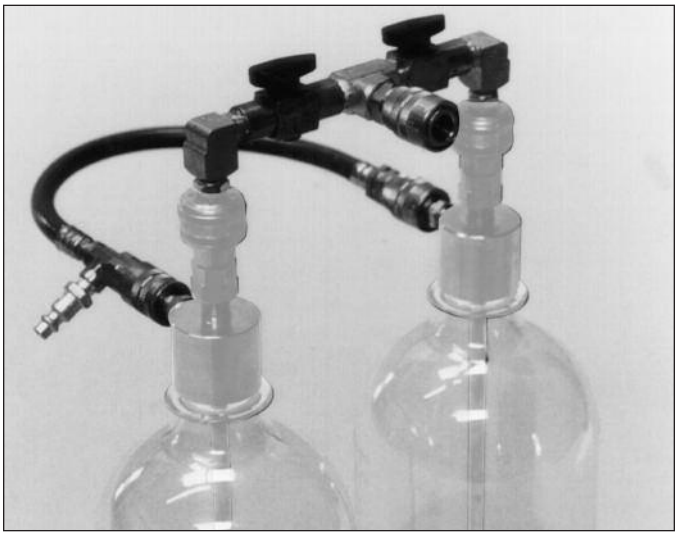
282P: Preformed 2 liter plastic containers. 28mm openings, 40 mls. volume.

283P: Preformed 3 liter plastic containers. 38mm openings, 80 mls. volume.

Caps and labels not included with preformed tubes.

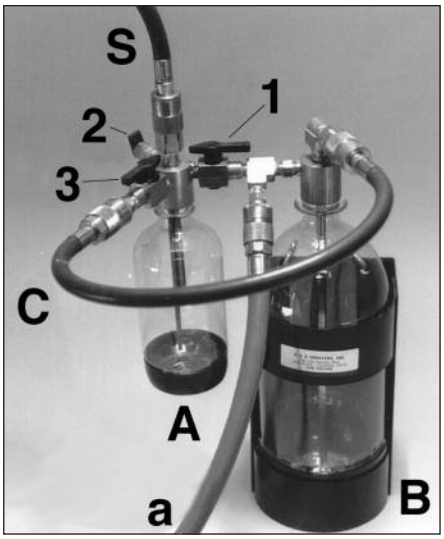
SPRAY CONTAINER CONNECTOR

Designed to connect two plastic containers.



SBC: *allows applicator to do the following:*

1) Spray twice the capacity of one plastic container.
2) Spray two different treatments by opening and closing individual valves.
3) Mixing and applying two chemicals not compatible as a tankmix. (Headers not included).



740-201: HALF STEP LOG SPRAYER

A known amount is sprayed in each specific area based on volume per unit acre

"**A**" container is 20 oz. in size and "**B**" container is two liter. When half of "**A**" container is applied, spray will cut off. Pressurized 2 liter container will then refill the 20 oz. container for the next treatment at one-half of previous dilution rate.

"**a**" connects to air hose; "**S**" connects to boom spray hose. "**C**" hose refills "**A**" container.

When "**A**" container is half empty it will cut off. Close #1 valve thus cutting pressure off to "**A**" container. "**B**" container will remain pressurized. Release pressure on "**A**" container by opening valve. Refill "**A**" container to original starting level by opening #3 valve. When filled to starting level, close #3 and #2 valves. Repressurize "**A**" container by opening #1 valve. You are now ready to spray one-half of previous dilution.

HERE ARE SOME EXAMPLES of how part #740-201, Half Step Log Sprayer, can be used. Also please find dilution chart based on each refill.

EXAMPLE A: After sprayer is calibrated and chemical mixed proportionately, "A" container is filled with 4 lbs. active of a known solution and "B" container is filled with water. The first treatment sprayed will be 4 lbs. ai/A. "A" container then will be only half empty. When refilled from "B" container, "A" will contain 2 lbs. of solution or 50% of original starting.

EXAMPLE B: If "A" and "B" contain 4 lbs. of the same chemical but "A" container contains 50% surfacant, first treatment will be the original starting. After refilling the first time, "A" container will contain the original 4 lbs. of chemical but only 25% surfacant.

EXAMPLE C: "A" container contains 4 lbs. of "Compound R" and "B" container contains 4 lbs. of "Compound D". The first treatment sprayed will contain 4 lbs. of "Compound R". When "A" is refilled from "B" container, the first time, "A" container will contain 2 lbs. of "Compound R" and 2 lbs. of "Compound D", or half the original solution. When "A" container is refilled the fourth time, "A" container will contain .25 lb. ai of "Compound R" and 3.75 lb. ai of "Compound D". This is 0.625% of the original 4 lbs. of "Compound R" and .9375% of "Compound D".

EXAMPLE OF OPERATION: The sprayer is designed to spray only 1/2 of the 20 oz. container. (Mark level of 20 oz. on container). At 20 gallons per broadcast acre, the 10 ozs. sprayed out will cover 170 sq. ft. If you are using a 4 nozzle boom with spacing of 18", it will cover an area of 6 ft. in width. Therefore, you should spray a distance of 28 ft. deep before you spray out 10 ozs. from the 20 oz. plastic container. You will then refill the 20 oz. container from the 2 liter container and the next application will be applied at 1/2 the previous application.

We recommend using a 2 nozzle or 4 nozzle boom that will fill and supply at one time, such as the 6012 or 601C spray boom. We can make these booms any desire nozzle spacing.

740-201: Supplied with carrying bracket, waist belt and disconnects to fit air hose and spray hose.

"A" CONTAINER WILL CONTAIN:

Refills	% of Original Starting	
No.	**"A"**	**"B"**
1st	.50	.50
2nd	.25	.75
3rd	.125	.8750
4th	.0625	.9375
5th	.0312	.9687
6th	.0156	.9843
7th	.0078	.9921
8th	.0039	.9960

Step log sprayer will stop spraying after 1/2 of solution is sprayed.

Spray bottle is being refilled through extended brass tube.

740-201 SPRAYER WITH 4-NOZZLE SPRAY BOOM (601C)

We recommend that a single nozzle, 2-nozzle, or 4-nozzle (601C) spray boom should be used. These booms will spray and stop at one time.

CARRYING BRACKETS

FOR PLASTIC CONTAINERS
IMPROVED QUICK STYLE BELT CLIPS

Waist belt not included. —Select waist belt of choice —

CB-203A: Carrying bracket for three liter plastic container.
CB-201A: Carrying bracket for two liter plastic container.
CB-201S1A: Carrying bracket for one liter plastic container. (not shown)

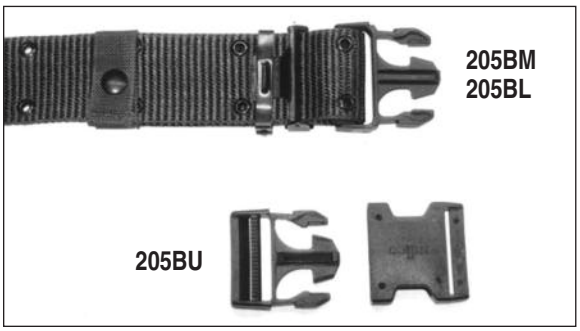
FOR CO^2 CYLINDERS
IMPROVED QUICK STYLE BELT CLIPS

CB104A
Carrying bracket for 2.5 lb. aluminum CO2 cylinder used with waist belt.

CB104B
Carrying bracket for 5 lb. aluminum CO2 cylinder used with waist belt.

Waist belt not included.
Select waist belt of choice

CB-202A: Carrying bracket for inverted two liter plastic container. (not shown)
CB-203IA: Carrying bracket for inverted three liter plastic container. (not shown)
CB-201IA: Carrying bracket for inverted one liter plastic container. (not shown)



ADJUSTABLE 2-1/4" WAIST BELTS FOR CARRYING BRACKETS

205BM: New issue USMC nylon belt with quick attach & release plastic buckle, U. S. made fits waist size 24-40 inches.

205BL: New issue USMC nylon belt with quick attach & release plastic buckle, U. S. made fits waist size 30-50 inches.

205BU: 2-1/4" replacement quick attach & release plastic buckle for waist belts 205A, 205BM, 205BL.

205S: Nylon suspenders for use with waist belts.

720A: Carrying bracket with handle for 2.5 lb. aluminum CO2 cylinder and two liter plastic container.

723A: Carrying bracket with handle for 2.5 lb. aluminum CO2 cylinder and three liter plastic container.

ALUMINUM BACK PACK FRAME

315: Heavy duty aluminum back pack frame with curved back support. Padded shoulder straps & 8" waist belt with quick disconnects. 1" aluminum tubing. Designed to carry 2.5- or 5-lb. cylinders and 3- or 5-gallon SS spray containers. Container bracket **315-107** included.

315-ST: Backpack frame only, less container bracket.

315-107: Aluminum base plate and brackets for 3 gal. SS container along with 5 lb. aluminum CO2 cylinder.

315-203: Aluminum base plate and brackets for two 3 liter plastic container along with 2.5 or 5 lb. aluminum CO2 cylinder.

315-FG: Aluminum base plate and bracket to hold two 3-liter plastic containers, four 2-liter plastic containers or one 3-gallon stainless steel tank, along with 5 lb. aluminum CO2 cylinder.

315JR: Smaller even lighter weight than the original **315**. Includes backpack frame w/padded shoulder straps and lumbar support. (Note: Does not include carrying brackets). See brackets choices below.

315JR: Backpack frame only

315JR-282: includes back pack and carrying bracket for one 2.5 co2 cylinder and one 2 liter spray bottle.

315JR-283: includes back pack and carrying bracket for one 2.5 co2 cylinder and one 3 liter spray bottle.

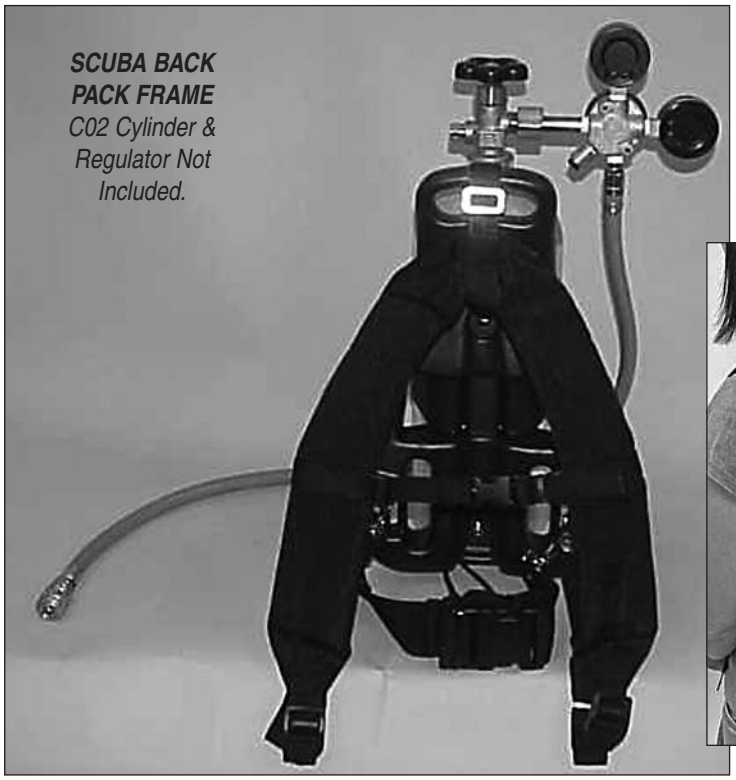
JR104: 2.5 lb. co2 cylinder bracket only to attach to **315JR**

JR282: Two liter bottle bracket only to attach to **315JR**

JR283: Three liter bottle bracket only to attach to **315JR**

JR-201S: JR backpack with 2 liter spray unit. Complete Unit. *(See page 3 for list of components.)*

JR-203S: JR backpack with 3 liter spray unit. Complete Unit. *(See page 3 for list of components.)*



SCUBA BACK PACK FRAME
C02 Cylinder & Regulator Not Included.

SCUBA BACK PACK FRAME

Includes cylinder shelf, shoulder strap and hip belt with adjustable quick release buckle. Fits 2.5 or 5 lb. CO2 cylinders.

110: Scuba back pack frame.

Replacement Parts

110-BELT: Belt for the 110.

110-STRAP: Padded Shoulder Strap for the 110.

GAS CYLINDERS

CARBON DIOXIDE CYLINDERS WITH VALVES

104: 2.5 lb. ALUMINUM CO^2 cylinder; empty weight - 4.5 lbs.; height - 15"; diameter - 4.5.
104B: 5 lb. ALUMINUM CO^2 cylinder; empty weight - 7.5 lbs; height - 18"; diameter - 5.35".
104C: 10 lb. ALUMINUM CO^2 cylinder; empty weight - 14.5 lbs.; height - 20"; diameter - 7".
104D: 20 lb. ALUMINUM CO^2 cylinder.
104E: 50 lb. ALUMINUM CO^2 cylinder.*

NITROGEN CYLINDERS SUPPLIED WITH NITROGEN VALVE

NIT-5: 5 lb. Aluminum Nitrogen cylinder.
NIT-10: 10 lb. Aluminum Nitrogen cylinder.

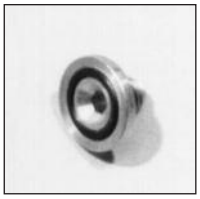
LARGER NITROGEN CYLINDERS AVAILABLE PRICE ON REQUEST

CAPACITY OF CO2 CYLINDERS: a full 2.5 lb. cylinder, at room temperature, and set to operate at 30 psi, will pressurize and spray approximately 90-100 2-liter plastic bottles and approximately 8-10 3-gallon cans.

VALVES FOR CO^2 CYLINDERS (CGA 320)

910319: 3/4" threads for 2.5 lb. aluminum cylinders.
910320: 1-1/8" threads for 5 lb. or larger aluminum cylinders.

General: *Seamless Aluminum Compressed Gas Cylinders are manufactured in compliance with Department of Transportation 3AL Specification and CTC Special Permit 922. Aluminum Alloy 6351-T6.*
The above cylinders include testing by an independent inspection agency approved by the Associate Director for Operations and Enforcement, U. S. Department of Transportation. Cylinders include commercially cleaned interior and exterior and the standard DOT markings.

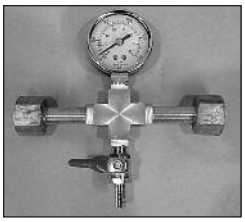


ABC: Valve for aluminum CO^2 cylinder. Will screw into head of aluminum CO^2 cylinders or CO^2 regulators. Replaces the need for the fiber washers.

FIBER: Fiber Washer (not shown).

VALVES FOR NITROGEN CYLINDERS (CGA 580)

910580: 1-1/8" threads for 5 & 10 lb. aluminum cylinders.



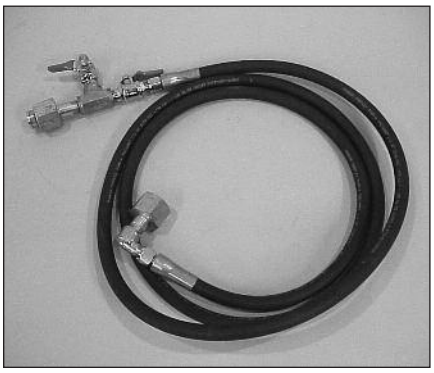
CO2-TR: CO^2 transfer unit.

1100-HF: Replacement hand wheel for CO2 Cylinders, Female Pop Off

1100-HM: Replacement hand wheel for CO2 Cylinders, Male Pop Off

FEMALE
SRV-F: Safety relief valve assembly for aluminum CO^2 cylinder.

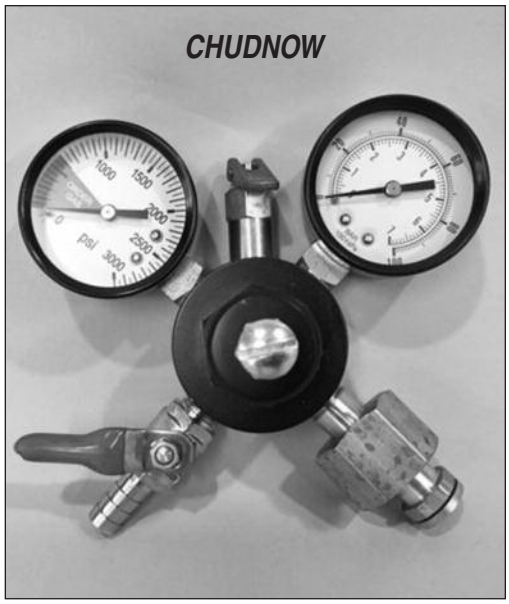
MALE
SRV-M: Safety relief valve assembly for aluminum CO^2 cylinder.



CO-THV: 72" CO^2 transfer hose with filler and bleed-off valve.

BELLSPRAY, INC.
d.b.a
R & D
Sprayers

CO2 REGULATORS



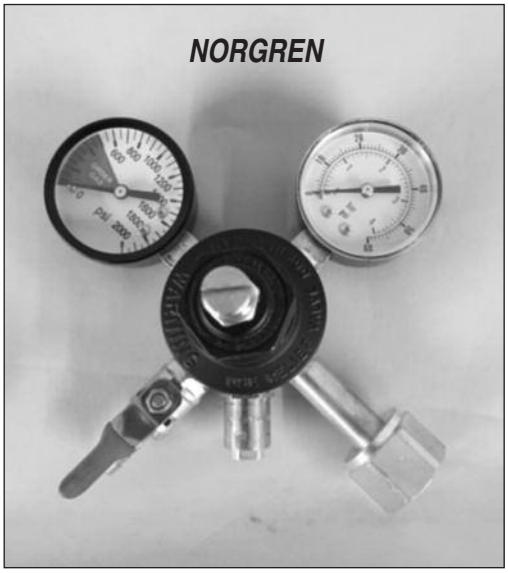
CHUDNOW REGULATOR
(The Best for the Money)

Designed for R & D Sprayers. Twin gauge CO2 regulator with 0-60 psi operating gauge, 0-2000 lb. tank pressure gauge and 60 psi pop-off safety. All primary regulators are equipped with external safety, set to open before gauge reaches its maximum pressure reading, provided it is used and maintained properly. Toggle shutoff 3/8" hose barb. When shut down, spring tension can be released through pop-off safety. Pop-off safety outlets are either 1/4" npt or 1/8" npt. Please check pop-off safety before ordering. Equipped with ABC valve, no need for fiber washer.

J062KS: 60 psi pop-off safety.
J0102KS: 100 psi pop-off safety.

REPLACEMENT PARTS:

JO-A: Repair kit for Chudnow regulator.
GA172DS: Replacement gauge 0-60 psi 1/4" npt(M).
GA406DS: Replacement gauge 0-100 psi 1/4" npt(M).
GA3041: Replacement gauge 0-2000 psi, 1/4" npt(M).
62PO: 60 psi pop-off safety, 1/4" npt.
100PO: 100 psi pop-off safety, 1/4" npt.
62PONS: 60 psi pop-off safety, 1/8" npt.
100PONS: 100 psi pop-off safety, 1/8" npt.



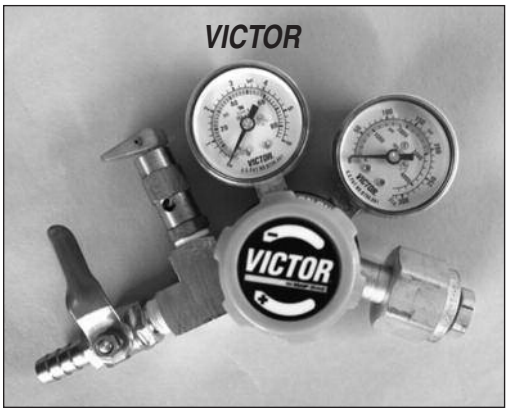
NORGREN REGULATOR

Norgren CO^2 regulator assembled per R & D specification. Operating gauge and tank pressure gauge. External pop-off safety. Toggle shut-off and 3/8" hose barb. All fittings are 1/4" NPT (M). Equipped with ABC valve, no need for fiber washer. Complete as shown.

Nor-60: 60 psi pop-off safety.
Nor-100: 100 psi pop-off safety.

REPLACEMENT PARTS:

Nor-V: 1/4" npt(m) x 3/8" hb toggle shut off valve, no backcheck.
Nor-A: Repair kit for Norgren Regulator.
GA172: 0-60 psi gauge - single scale 1/4" npt.
GA406: 0-100 psi gauge - single scale 1/4" npt.
GA3041: 0-2000 psi gauge.



VICTOR REGULATOR

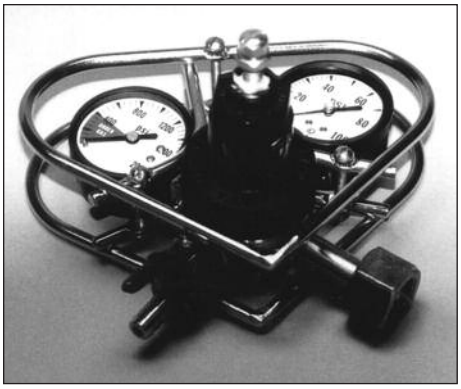
The Victor **SR5B** regulator is a high quality CO^2 regulator that out performs all regulators in its class. Made of the finest quality materials, Victor regulators have a reputation of being number one in the industry.

SR5B: Victor Regulator

REPLACEMENT PARTS FOR ALL BRANDS:

Nor-V: 1/4" npt(m) x 3/8" hb toggle shut off valve, no backcheck.
307V: 1/4" npt(m) X 3/8" hosebarb toggle shutoff valve, with backcheck.
NIT-NUT: To change CO2 Regulator to Nitrogen
JO-11-4: Stem
JO-12: Nut
ABC: Thread In Seal
FIBER: Fiber Washer

CO2 regulators do not include air hoses. See pg. 33.



Regulator gauge protector, attaches directly to regulator body without impairing gauges. Protects all Norgren and Chudnow gauges from damage due to impact.

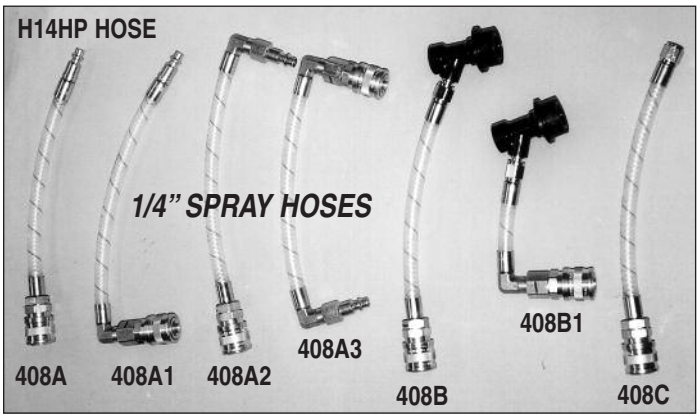
GG-NC: Regulator gauge protector (Regulator not included)

100 psi liquid filled pressure gauge with male nipples to check operating pressure. This will give actual spray pressure. Connects to end of air hose.

PGA: with industrial nipple (14FN).

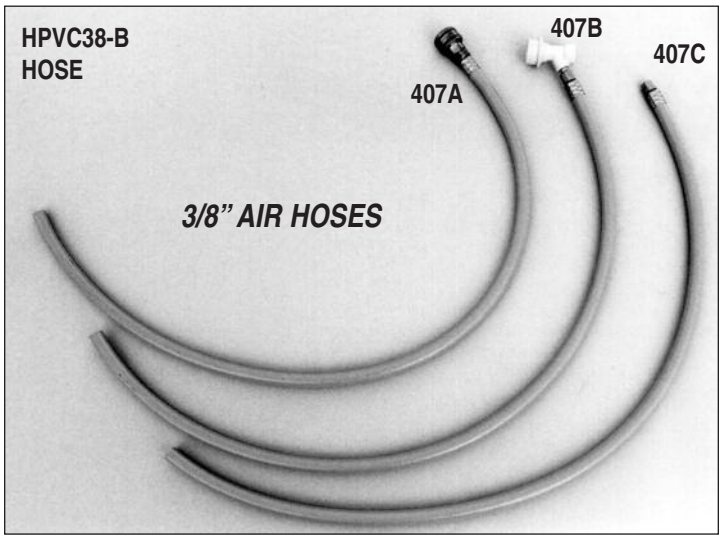
PGA-B: with male beverage plug (1107B)

SPRAYER PARTS



408A: 3.5 ft. spray hose with straight body and nipple. Standard on all hand-held units.
408A1: 3.5 ft. spray hose with 90° elbow on coupler end.
408A2: 3.5 ft. spray hose with 90° elbow on nipple end.
408A3: 3.5 ft. spray hose with 90° elbow on both ends.
408B: 3.5 ft. spray hose with beverage coupler and no elbow.
408B1: 3.5 ft. spray hose with 90° elbow on coupler end.
408C: 3.5 ft. spray hose with straight coupler and 1/4 inch SAE nut on beverage end.

See price list for additional lengths (H14HP).



407A: 3 ft. air hose with coupler (238HB).
407AA: 3-1/2 ft. back pack air hose with coupler (238HB).
407B: 3 ft. air hose with #274205 beverage connection.
407BB: 3-1/2 ft. back pack air hose with #274205 beverage connection.
407C: 3 ft. air hose with 1/4" flare nut (38-B). Connects to part #107B beverage connection.

See price list for additional lengths (HPVC38-B).

HOSES

PVC AIR & SPRAY HOSE

Therm-o-Blue and Therm-o-Red are made for air, water and moderate chemical application. Prime PVC with ORS additives to increase the amount of resistance. The non marking cover is available in bright Red or Blue. Working Pressure is 300 psi.

HPVC14-B: (1/4" ID x 1/2" OD)
Therm-o-Blue, requires clamp #133, 1113 or 30-4.

HPVC38-B: (3/8" ID x 41/64" OD)
Therm-o-Blue, requires clamp #170, 1518 or 30-6.

E.V.A. BLUE LINE CLEAR HOSE

Made of ethylene-vinyl acetate with an internal blue nylon cord braid molded together to form one piece tube. **Used in Part No. 408A spray hoses.**

H14HP: (1/4" ID x 15/32" OD)
Tubing - WP 375 psi.

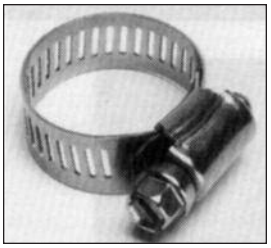
HEPDM14R: (1/4" ID x 1/2" OD)
EPDM Red Hose, requires clamp #133, 1113 or 30-4.

HEPDM38R: (3/8" ID x 11/16" OD)
EPDM Red Hose, requires clamp #170, 1518 or 30-6.

HEPDM12R: (1/2" ID x 13/16" OD)
EPDM Red Hose, requires clamp #825 or 30-6.

HEPDM75R: (3/4" ID x 1-1/8" OD)
EPDM Red Hose, requires clamp #30-12.

HEPDM10R: (1" ID x 1-3/8" OD)
EPDM Red Hose.



WORM EAR CLAMP

All stainless band

Part No.	Nominal Size Hose OD
30-4	1/4”
30-6	3/8”
30-8	1/2”
30-10	5/8”
30-12	3/4”
30-16	1”
30-20	1-1/4”
30-24	1-1/2”

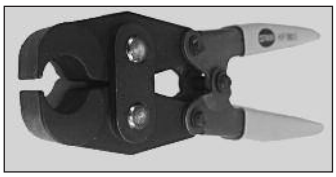
HOW TO ORDER CLAMPS TO PROPERLY FIT HOSE:

In general: Fitting a clamp over hose is similar to fitting a ring on your finger. There should be sufficient “play” to get clamp off and on.

For smaller than 5/8” O.D. hose: Rule of thumb next size larger for clamp.

For larger than 5/8” O.D. hose: Normally there is sufficient “play” built into clamp to allow for clamp to fit properly when same size is ordered.

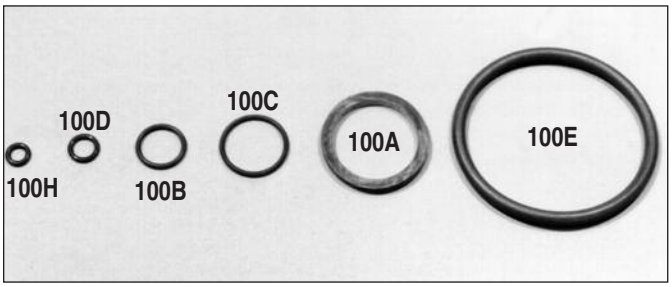
NOTE: All clamps priced each.



TC-PINCER: Standard jaw pincer for one and two ear clamps.

TC-SJP: Side jaw pincers for one and two ear clamps. Made for hard to reach areas.

O-RINGS



100A: O-ring for “T” handle on B&G containers.

100B: O-ring for Brass Spray Headers, 28mm openings *(Ag .chem. resistant)*.

100C: O-ring for Aluminum Spray Header, 38mm openings. *(Ag. chem. resistant)*.

100D: O-ring for beverage plugs. (Ag. chem. resistant).

100DD: O-ring for beverage plugs. (CO^2 resistant only).

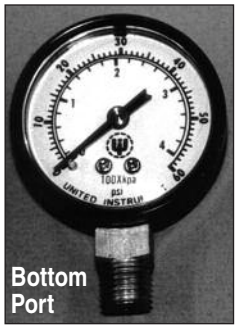
100E: O-ring for lid on 3 and 5 gallon SS containers.

100H: O-ring for drop tubes in 3 & 5 gallon beverage tanks.

ONE EAR HOSE CLAMPS

Part No.	Nominal Size Hose OD
123	15/32”
133	1/2”
170	11/16”
185	23/32”
226	7/8”
825	13/16”
925	15/16”

REPLACEMENT GAUGES



Dual Scale Gauge psi/bar

GA172BDS/ GA193DS

BOTTOM PORTS:

GA182: 2” face, 0-60 psi, 1/8” npt(M).
GA183: 2” face, 0-100 psi, 1/8” npt(M).
GA400: 1.5” face, 0-30 psi, 1/8” npt(M).
GA3041: 2” face, 0-2000 psi, 1/4” npt(M)..
GA3042: 2” face, 0-2000 psi, **left handed** 1/4” npt(M).
GA3043: 0-2000 for paint ball reg. 1/8 MPT.
GA172DS: 2” face, 0-60 psi, 1/4” npt(M) dual scale.
GA406DS: 2” face, 0-100 psi, 1/4” npt(M) dual scale.
GA192DS: 1.5” face, 0-60 psi, 1/8” npt(M) dual scale.
GA402DS: 1.5” face, 0-100 psi, 1/8” npt(M) dual scale.

BACK PORTS:

GA193BDS: 1.5” face, 0-60 psi, 1/8” back port npt(M) dual scale.
GA172BDS: 2” face, 0-60 psi, 1/4” npt(M) back port, dual scale.

Note:

1 psi = 0.069 bar = 6.896 kpa
1 bar = 100 kpa = 14.5 psi

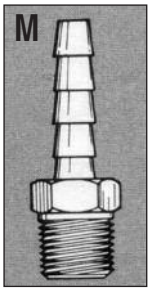
To Replace Gauges for CO2 Regulators:

GA172DS: 2” face, 0-60 psi, 1/4” npt(M) dual scale.
GA3041: 2” face, 0-2000 psi, 1/4” npt(M).
GA406DS: 2” face, 0-100 psi, 1/4” npt(M) dual scale.

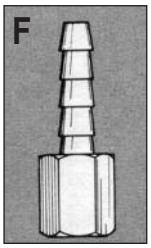
GG-060: 2-1/2” face 0-60 psi glycerin filled gauge, 1/4” npt(M), dual scale.

GG-100: 2-1/2” face 0-100 psi glycerin filled gauge, 1/4” npt(M), dual scale.

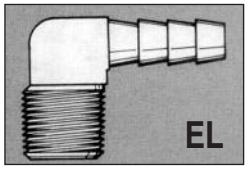
HOSE ENDS



M1814: brass 1/8" npt(M) x 1/4" h.b.
M1414: brass 1/4" npt (M) x 1/4" h.b.
M3814: brass 3/8" npt (M) x 1/4" h.b.
M1438: brass 1/4" npt (M) x 3/8" h.b.
M3838: brass 3/8" npt (M) x 3/8" h.b.
M1412: brass 1/4" npt (M) x 1/2" h.b.
M3812: brass 3/8" npt (M) x 1/2" h.b.
M1414-NY: nylon 1/4" npt (M) x 1/4" h.b.
M1438-NY: nylon 1/4" npt (M) x 3/8" h.b.
M1412-NY: nylon 1/4" npt (M) x 1/2" h.b.
M3838-NY: nylon 3/8" npt (M) x 3/8" h.b.
M3812-NY: nylon 3/8" npt (M) x 1/2" h.b.
M1214-NY: nylon 1/2" npt (M) x 1/4" h.b.
M1238-NY: nylon 1/2" npt (M) x 3/8" h.b.
M1212-NY: nylon 1/2" npt (M) x 1/2" h.b.
M1234-NY: nylon 1/2" npt (M) x 3/4" h.b.
M3412-NY: nylon 3/4" npt (M) x 1/2" h.b.
M3434-NY: nylon 3/4" npt (M) x 3/4" h.b.



F1414: brass 1/4" npt (F) x 1/4" h.b.
F3814: brass 3/8" npt (F) x 1/4" h.b.
F1438: brass 1/4" npt (F) x 3/8" h.b.
F3838: brass 3/8" npt (F) x 3/8" h.b.
F1412: brass 1/4" npt (F) x 1/2" h.b.

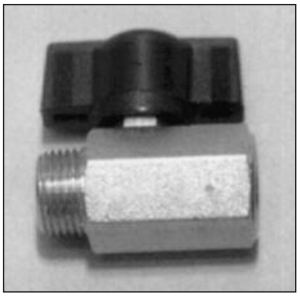


EL1414-BR: brass 1/4" npt (M) x 1/4" h.b. elbow.
EL1438-BR: brass 1/4" npt (M) x 3/8" h.b. elbow.
EL3838-BR: brass 3/8" npt (M) x 3/8" h.b. elbow.
EL3812-BR: brass 3/8" npt (M) x 1/2" h.b. elbow.
EL1414-NY: nylon 1/4" npt (M) x 1/4" h.b. elbow.
EL1438-NY: nylon 1/4" npt (M) x 3/8" h.b. elbow.
EL3838-NY: nylon 3/8" npt (M) x 3/8" h.b. elbow.
EL3812-NY: nylon 3/8" npt (M) x 1/2" h.b. elbow.
EL1212-NY: nylon 1/2" npt (M) x 1/2" h.b. elbow.
EL1234-NY: nylon 1/2" npt (M) x 3/4" h.b. elbow.
EL3438-NY: nylon 3/4" npt (M) x 3/8" h.b. elbow.
EL3412-NY: nylon 3/4" npt (M) x 1/2" h.b. elbow.
EL3434-NY: nylon 3/4" npt (M) x 3/4" h.b. elbow.
EL10034-NY: nylon 1" npt (M) x 3/4" h.b. elbow.

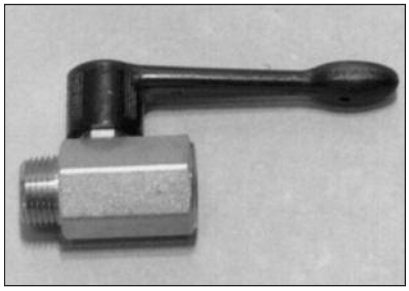
HOW TO MEASURE NPT FITTINGS

1/8" NPT Fitting = .375 inch OD width or .95 cm
1/4" NPT Fitting = .50 inch OD width or 1.27 cm
3/8" NPT Fitting = .625 inch OD width or 1.58 cm
1/2" NPT Fitting = .75 inch OD width or 1.9 cm
3/4" NPT Fitting = 1.0 inch OD width or 2.54 cm

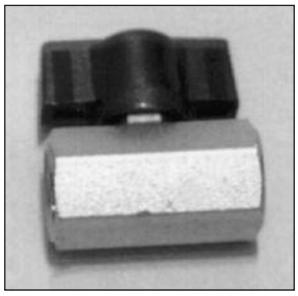
CHROMED BRASS BALL VALVES



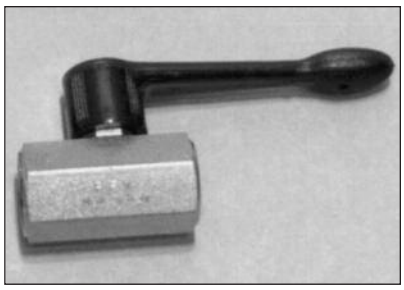
18FMB: 1/8" npt (F)(M).
14FMB: 1/4" npt (F)(M).
38FMB: 3/8" npt (F)(M).
12FMB: 1/2" npt (F)(M).



14FML: 1/4" npt (F)(M).
38FML: 3/8" npt (F)(M).
12FML: 1/2" npt (F)(M).



14FFB: 1/4" npt (F)(F).
38FFB: 3/8" npt (F)(F).
12FFB: 1/2" npt (F)(F).



14FFL: 1/4" npt (F)(F).
38FFL: 3/8" npt (F)(F).
12FFL: 1/2" npt (F)(F).

MOUNTING STYLES

1/2", 3/4", 1"

1-1/4"

1-1/2", 2"

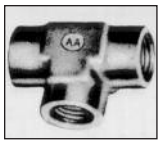
Two Way Polypropylene Ball Valves - high strength and chemical resistant, EPDM o-rings, double o-ring in stem area, 200 psi working pressure, mounting inserts on 1-1/4" to 2" valves.

454132N - 1/2" poly ball valve.
454133N - 3/4" poly ball valve.
454134N - 1" poly ball valve.
454135N - 1-1/4" poly ball valve.
454136N - 1-1/2" poly ball valve.
454137N - 2" poly ball valve.

ALUMINUM FITTINGS

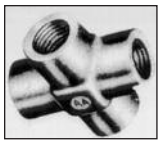
BLUE ANODIZED ALUMINUM FITTINGS
LIMITED AVAILABILITY

AN914-1D: 1/8" npt (F)(M) elbow 90˚.
AN914-2D: 1/4" npt (F)(M) elbow 90˚.



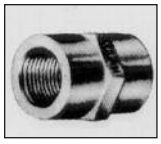
AN917-1D: 1/8" npt (F) tee.
AN917-2D: 1/4" npt (F) tee.

AN915-1D: 1/8" npt (F)(M) elbow 45˚.
AN915-2D: 1/4" npt (F)(M) elbow 45˚.



AN918-1D: 1/8" npt (F) cross.
AN918-2D: 1/4" npt (F) cross.

AN916-1D: 1/8" npt (F)(F) elbow 90˚.
AN916-2D: 1/4" npt (F)(F) elbow 90˚.



AN910-1D: 1/8" npt (F) coupling.
AN910-2D: 1/4" npt (F) coupling.

AN911-1D: 1/8" npt (M) nipple.
AN911-2D: 1/4" npt (M) nipple.

AN913-1D: 1/8" npt (M) plug.
AN913-2D: 1/4" npt (M) plug.

RB1418-BR: 1/8" npt (F) x 1/4" npt (M) bushing.

FORGED (GREY) ALUMINUM FITTINGS
(now being used in the manufacture of all hand held spray booms)

AL914-1D: 1/8" npt (F)(M) elbow 90˚.
AL914-2D: 1/4" npt (F)(M) elbow 90˚.

AL911-1D: 1/8" npt (M) nipple.
AL911-2D: 1/4" npt (M) nipple.

AL916-1D: 1/8" npt (F)(F) elbow 90˚.
AL916-2D: 1/4" npt (F)(F) elbow 90˚.

AL917-1D: 1/8" npt (F) tee.
AL917-2D: 1/4" npt (F) tee.

AL913-1D: 1/8" npt (M) plug.
AL913-2D: 1/4" npt (M) plug.

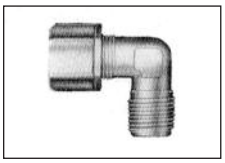
AL918-1D: 1/8" npt (F) cross.
AL918-2D: 1/4" npt (F) cross.

AL910-1D: 1/8" npt (F) coupling.
AL910-2D: 1/4" npt (F) coupling.

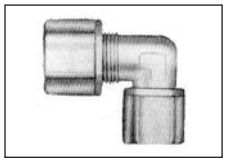
Note:
45 Degree (F)(M) Elbow Not Available.
Use 915B-1D or 2D as substitute.

CELCON COMPRESSION FITTINGS

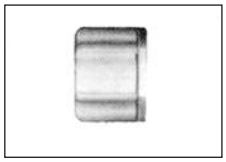
To be used with 3/8" Aluminum Tubing



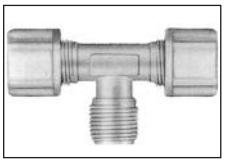
4064CO: Male elbow with 3/8" tube and 1/4" npt (M).



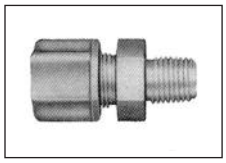
4564CO: Female elbow with 3/8" tube and 1/4" npt (F).



CO6: Ferrule nut to fit compression fittings.



6064CO: Male branch tee with 3/8" tube and 1/4" npt (M).

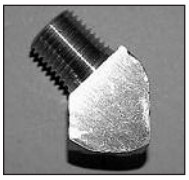


1064CO: Male connectors with 3/8" tube and 1/4" npt (M).

ACT38: Aluminum male branch tee with 1/4" npt (M).

BRASS PIPE FITTINGS

914B-1D: 1/8" npt (F)(M) elbow 90˚.
914B-2D: 1/4" npt (F)(M) elbow 90˚.
914B-3D: 3/8" npt (F)(M) elbow 90˚.

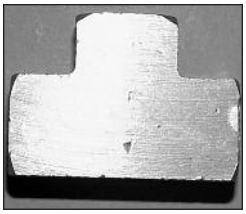


915B-1D: 1/8" npt (F)(M) elbow 45˚.
915B-2D: 1/4" npt (F)(M) elbow 45˚.

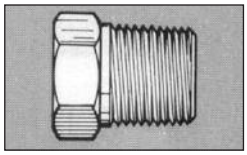
918B-1D: 1/8" npt (F) cross.
918B-2D: 1/4" npt (F) cross.
918B-3D: 3/8" npt (F) cross.

911B-1D: 1/8" npt (M) nipple.
911B-2D: 1/4" npt (M) nipple.
911B-3D: 3/8" npt (M) nipple.

BRASS PIPE FITTINGS cont.



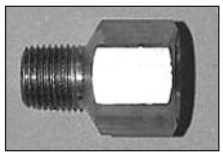
917B-1D: 1/8" npt (F) tee.
917B-2D: 1/4" npt (F) tee.



913B-1D: 1/8" npt (M) plug.
913B-2D: 1/4" npt (M) plug.
913B-3D: 3/8" npt (M) plug.

910B-2D: 1/4" npt (F) coupling.

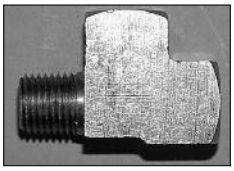
682010: 1/4" npt(m) x 1/4" sae(m) back - check.



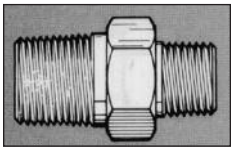
A1418: 1/4" npt(F) x 1/8" npt(M) brass adapter.
A1414: 1/4" npt(F) x 1/4" npt(M) brass adapter.

RB1418-BR: 1/4" npt (M) x 1/8" npt (F) reducer bushing.
RB3814-BR: 3/8" npt (M) x 1/4" npt (F) reducer bushing.

14YT: Y adapter 1/4"npt (M)(F)(F).



18ST: 1/8" npt (F)(F) x (M) brass street tee.
14ST: 1/4" npt (F)(F) x (M) brass street tee.
38ST: 3/8" npt (F)(F) x (M) brass street tee.



RM1418-BR: 1/4" npt(m) x 1/8" npt(m) brass reducer nipple.

B-88-44
1/4" SAE male flare x 1/4" NPT (M).

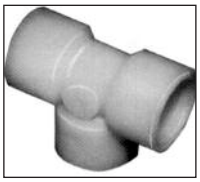
S-88-42
1/4" SAE male flare x 1/8" NPT (M).

S-82-4
1/4" SAE male flare x 1/4" SAE male flare.

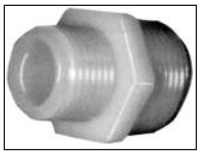
NYLON PIPE FITTINGS

914N-2D: 1/4" npt (F)(M) elbow 90˚.
914N-4D: 1/2" npt (F)(M) elbow 90˚.
914N-6D: 3/4" npt (F)(M) elbow 90˚.

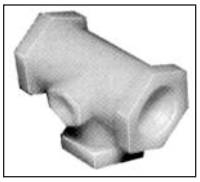
915N-2D: 1/4" npt (F)(M) elbow 45˚.



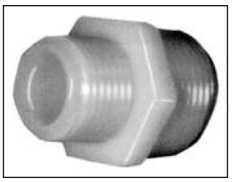
917N-2D: 1/4" npt (F) tee.
917N-4D: 1/2" npt (F) tee.
917N-6D: 3/4" npt (F) tee.



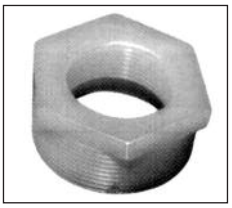
RM1214-NY: 1/2" npt (M) x 1/4"(M) nipple reducer.
RM3412-NY: 3/4" npt (M) x 1/2"(M) nipple reducer.



GTT1214HEX: 1/2" npt (F) tee with 1/4" npt (F) gauge port.
GTT3414HEX: 3/4" npt (F) tee with 1/4" npt (F) gauge port.

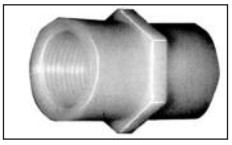


911N-3D: 3/8" npt (M) nipple.
911N-4D: 1/2" npt (M) nipple.
911N-6D: 3/4" npt (M) nipple.



RB1418-NY: 1/4" npt(M) x 1/8"(F) reducer bushing.
RB3814-NY: 3/8" npt(M) x 1/4"(F) reducer bushing.

RB1214-NY: 1/2" npt (M) x 1/4" (F) reducer bushing.
RB1238-NY: 1/2" npt (M) x 3/8" (F) reducer bushing.
RB3438-NY: 3/4" npt (M) x 3/8" (F) reducer bushing.
RB3412-NY: 3/4" npt (M) x 1/2" (F) reducer bushing.



910N-4D: 1/2" npt (F) coupling.

TEFLON TAPE
1/2" wide x 520 ft. long

****NYLON BARBED FITTINGS AVAILABLE ON PAGE 35****

DISCONNECTS

SERIES 2
1/4" ID Opening

SERIES 3
3/8" ID Opening

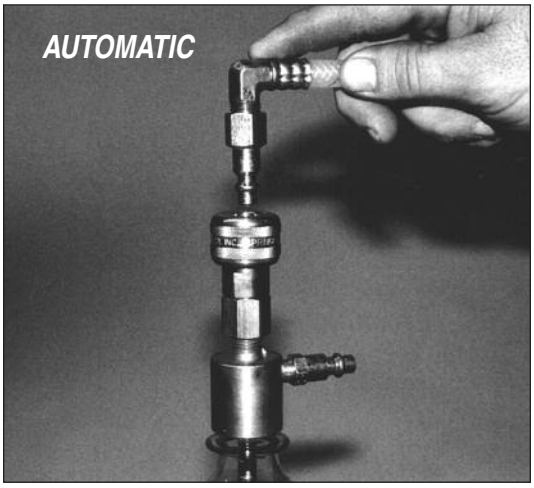
Series 2 & 3 One Way Shut-off Couplings

SERIES 2 COUPLERS ARE USED ON SPRAY HEADERS AND HAND BOOMS.

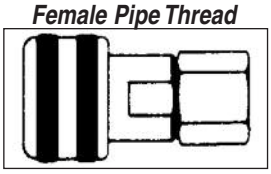
- Series 2 - 1/4" openings
- Series 3 - 3/8" openings
- Couplers constructed of brass and stainless steel
- Precision leak proof EPDM seal
- Coupler is valved, shutting off supply line at disconnect
- Couplers available in manual or automatic
- Standard industrial design completely interchangeable with similar "industrial interchange" couplings that conform to MIL-C-1409 dimensional specifications

Series 2 Couplings - 1/4" Opening

Used on Hand Held Booms, Spray Headers, and Stainless Steel Spray Cans, etc.

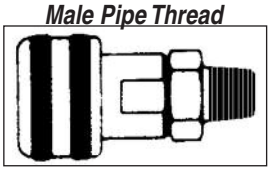


Female Pipe Thread



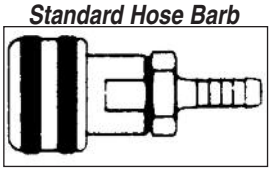
218FBA: 1/8" npt (F) coupler body.
214FBA: 1/4" npt (F) coupler body.

Male Pipe Thread

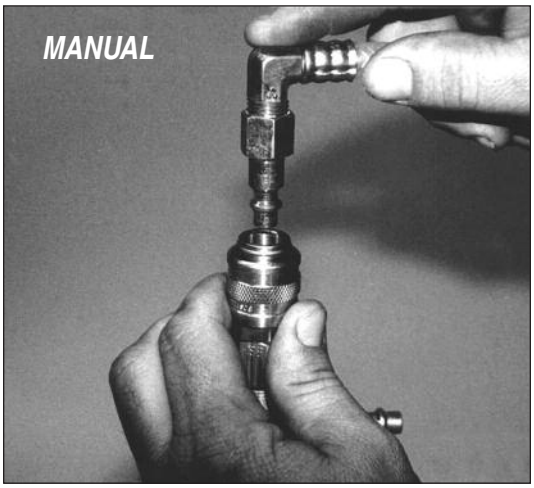


218MBA: 1/8" npt (M) coupler body.
214MBA: 1/4" npt (M) coupler body.

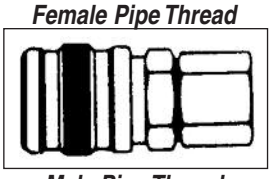
Standard Hose Barb



214HBA: 1/4" hose barb coupler body.
238HBA: 3/8" hose barb coupler body.

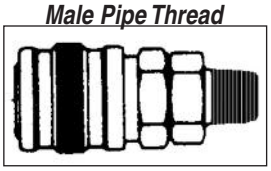


Female Pipe Thread



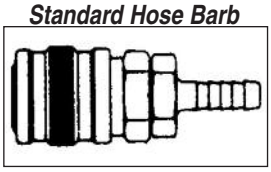
218FB: 1/8" npt (F) coupler body.
214FB: 1/4" npt (F) coupler body.
214FB-SS: 1/4" npt (F) coupler body SS.

Male Pipe Thread



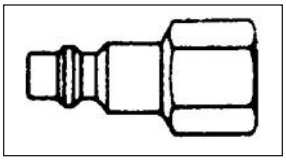
218MB: 1/8" npt (M) coupler body.
214MB: 1/4" npt (M) coupler body.

Standard Hose Barb



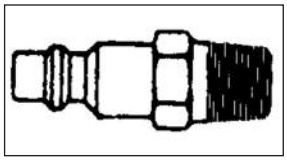
214HB: 1/4" hose barb coupler body.
238HB: 3/8" hose barb coupler body.

SERIES 2 NIPPLES WITH 1/4" OPENINGS



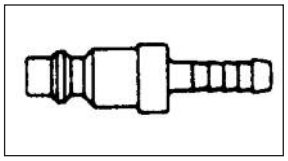
Female Pipe Thread

218FN: 1/8" npt(f) nipple.
214FN: 1/4" npt(f) nipple.
214FN-SS: 1/4" npt(f) nipple stainless steel.
214FN-B: 1/4" npt(f) nipple brass.



Male Pipe Thread

218MN: 1/8" npt(m) nipple.
214MN: 1/4" npt(m) nipple.



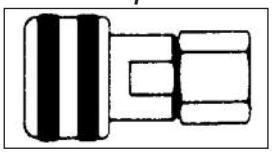
Standard Hose Barb

238HN-B: 3/8" hose barb nipple.
214HN-B: 1/4" hose barb nipple - brass.

SERIES 3 COUPLINGS WITH 3/8" OPENINGS TYPICALLY USED IN TRACTOR & ATV APPLICATIONS

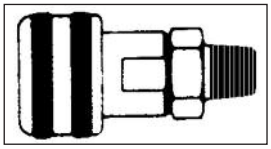
AUTOMATIC

Female Pipe Thread



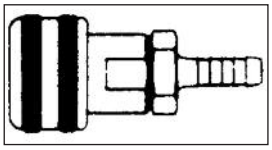
314FBA: 1/4" npt (F) coupler body.
312FBA: 1/2" npt (F) coupler body.

Male Pipe Thread



314MBA: 1/4" npt (M) coupler body.
312MBA: 1/2" npt (M) coupler body.
338MBA: 3/8" npt (M) coupler body.

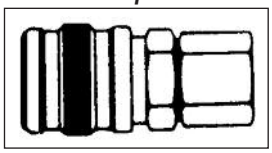
Standard Hose Barb



338HBA: 3/8" hose barb coupler body.
312HBA: 1/2" hose barb coupler body.

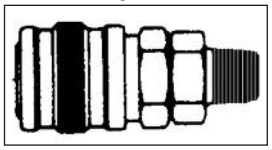
MANUAL

Female Pipe Thread



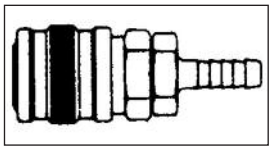
314FB: 1/4" npt (F) coupler body.
312FB: 1/2" npt (F) coupler body.

Male Pipe Thread



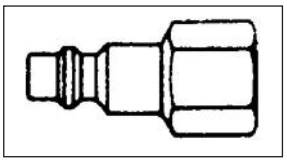
314MB: 1/4" npt (M) coupler body.
312MB: 1/2" npt (M) coupler body.
338MB: 3/8" npt (M) coupler body.

Standard Hose Barb



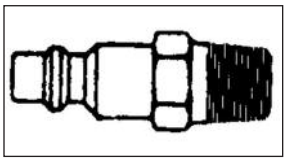
338HB: 3/8" hose barb coupler body.
312HB: 1/2" hose barb coupler body.

SERIES 3 NIPPLES WITH 3/8" OPENINGS



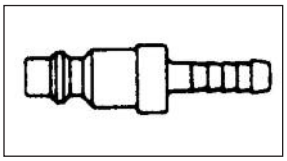
Female Pipe Thread

314FN: 1/4" npt(f) nipple.
312FN: 1/2" npt(f) nipple.



Male Pipe Thread

314MN: 1/4" npt(m) nipple.
312MN: 1/2" npt(m) nipple.

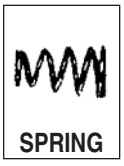


Standard Hose Barb

338HN: 3/8" hose barb nipple.
312HN: 1/2" hose barb nipple.

SEAL

VALVE



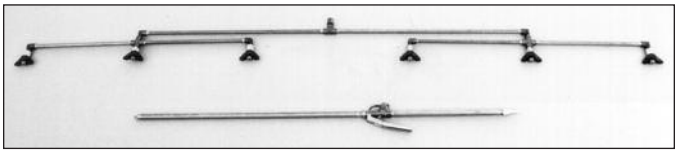
SPRING

Coupler Body Internal Replacement Parts

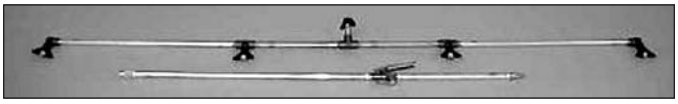
W2-2:	Seal, Series 2 coupler body.
V2-2:	Valve, Series 2 coupler body.
VS2-2:	Spring, Series 2 coupler body.
W3-3:	Seal, Series 3 coupler body.
V3-3:	Valve, Series 3 coupler body.
VS3-3:	Spring, Series 3 coupler body.

ALUMINUM SPRAY BOOMS

All Aluminum booms are made with Schedule 40 aluminum pipe and aluminum fittings. Standard equipment is 50 mesh dripless screens (50 BR-CK), aluminum nozzle bodies, SS spray tips (8002VS) and Spraying Systems winged caps. Included in the price of boom is the downpipe, valve, and handle. All nozzle spacing and tips size as listed unless otherwise specified. No charge for spacing changes and exchange of nozzles of same value. ***If QJ nozzles and caps are desired, add the letters QJ to the spray boom, (Example: "6016QJ"). To request specific nozzle spacing, place desired spacing after part number of spray boom. (Example: 601C-15 is 4 nozzle boom on 15 inch spacing.)***



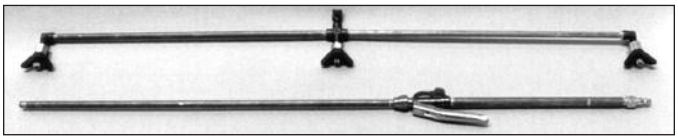
601AA: 6 nozzles on 18" spacing. Lateral pipe is 1/4" and sublateral is 1/8". Downpipe is 1/4" with quick breakdown.



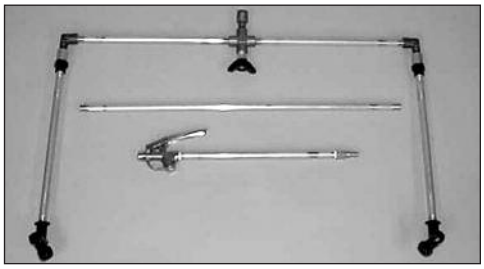
601B: 4 nozzles on 19" spacing. Lateral pipe is 1/4" and the downpipe on handle is 1/4" with quick breakdown.

601C: *OUR MOST POPULAR BOOM* – standard in most of our Model Sprayer Units. 4 nozzles on 19" spacing. Lateral pipe is 1/8" and the down pipe is 1/4" with quick breakdown.

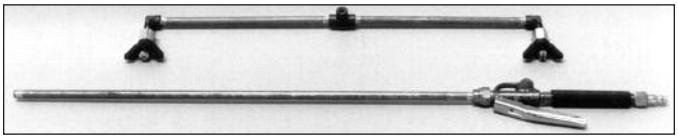
601C-QJ: 4 nozzle sublateral boom on 1/8" pipe, 19" spacing, with QJ quick caps.



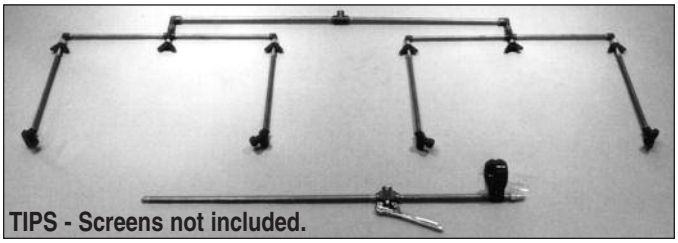
601D: 3 nozzles on 19" spacing. All pipe is 1/8".
601D4: 3 nozzles, all pipe 1/4".



6011: One row directed spray boom. Three nozzles per row. Drop nozzles have swivels. All pipe is 1/4". Tips and screens not included.

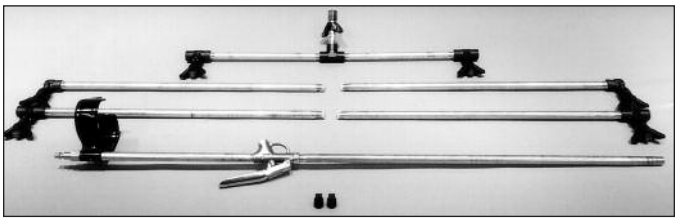


6012: 2 nozzles on 19" spacing. All pipe is 1/8".



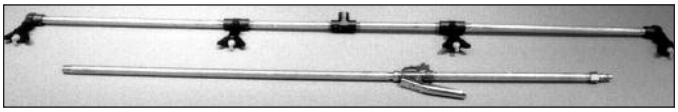
TIPS - Screens not included.

6013: Two row directed spray boom. 3 nozzles per row. Drop nozzles have swivels. All pipe is 1/4". Equipped with 6590 valve and forearm support on valve handle. **Please specify row spacing so center nozzles can be centered over row.**

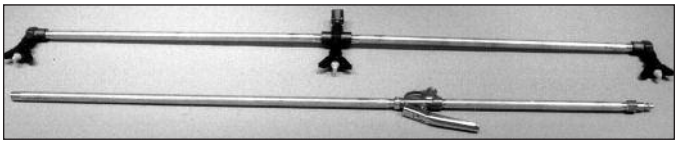


6016: 6 nozzle boom on 18" spacing. All 1/4" pipe. (If other spacing is required, please advise.) 1/4" plugs are supplied. Forearm support bracket is on extended handle for extra comfort. Downpipe is 1/4" with quick breakdown.

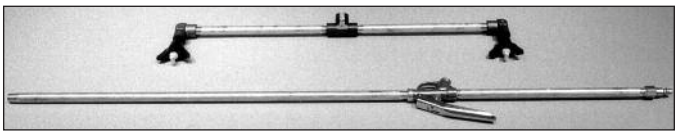
6016QJ: Same as 6016 except equipped with Quick TeeJet® nozzle bodies and self aligning caps.



601BF-19: Aluminum four nozzle straight boom on 19" spacing, all 1/4" pipe and TT110015VP tips.

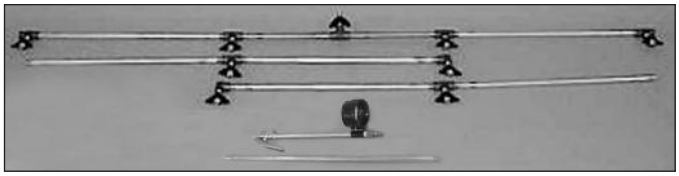


601DF-19: Aluminum three nozzle boom on 19" spacing, all 1/4" pipe and TT110015VP tips.



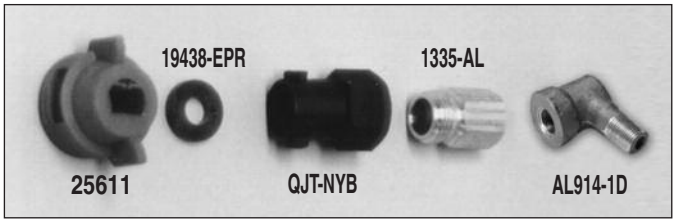
6012F-19: Aluminum two nozzle boom on 19" spacing, all 1/4" pipe and TT110015VP tips.

601F4: Single nozzle spray boom, 1/4" aluminum downpipe, 5500PP adjustable nozzle. Capable of using all nozzle types.

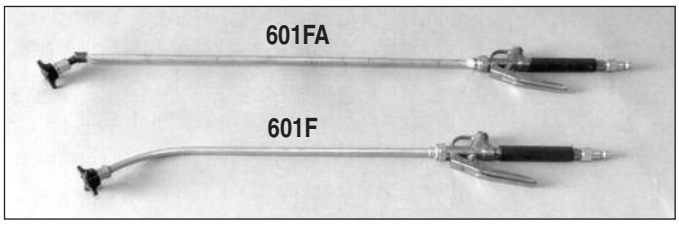


6018: Very versatile 8 nozzle boom. All pipe is 1/4". Forearm support bracket is on extended handle for extra comfort. No. 6590 valve supplied. Down pipe is 1/4". **Nozzle spacing 18"**

How to Change Spray Boom from Standard 11/16" Teejet Nozzle Bodies into Quick TeeJet® Bodies:

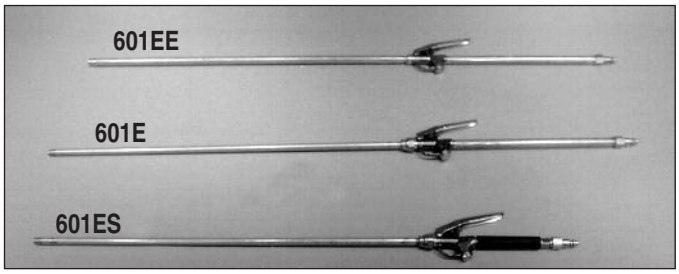


Remove wing cap from standard nozzle body. Attach QJT-NYB Quick Teejet Adapter onto standard nozzle body.



601FA: Single nozzle spray boom with 1/8" aluminum downpipe, 22" long and 45 degrees elbow.
601F: Single nozzle spray boom with 18" curved extension.

DOWNPIPE WITH TRIGGER VALVE & HANDLE EXTENSION

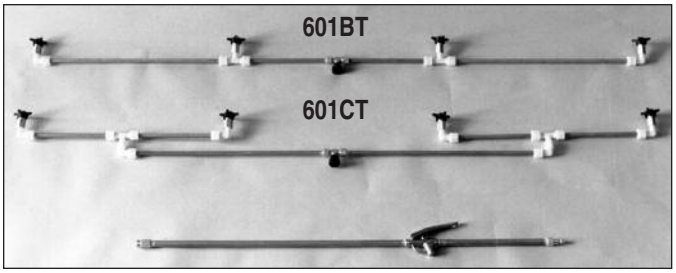


601EE: 1/4" downpipe, 6590 trigger valve and handle.
601E: 1/8" downpipe, 6466 valve and handle.
601ES: 1/8" downpipe, 6466 valve and rubber handle.
All downpipes are 22" in length.

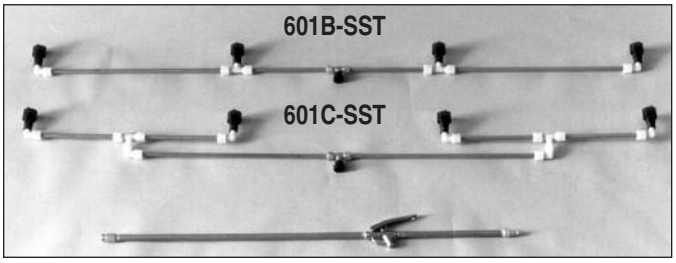
BC51: Hand boom storage and transport hard case. Lateral and sublateral quick break down assemblies required when using boom case. See breakdown options. Inside max useable space is about 49 inches.

LIGHT WEIGHT PDQ BOOMS

Multi-nozzle spray boom constructed of 3/8" aluminum tubing and celcon compression fittings. These fittings have shown excellent chemical resistance to salts, clorinated solvents, strong bases, esters, keytones, aromatic and aliphatic solvents. The center fitting connecting to the downpipe is constructed of aluminum for extra strength. These booms will breakdown for transportation and storage.

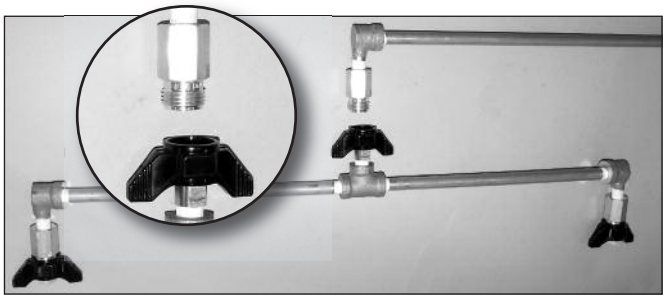


601BT: 4 nozzle lateral boom on **19" spacings** with standard nylon nozzle bodies.
601CT: 4 nozzle boom with sub-lateral on **19" spacings** with standard nylon nozzle bodies.

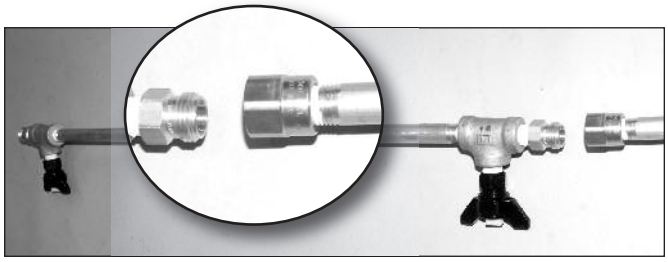


601B-SST: 4 nozzle lateral boom on **19" spacings** with spraying systems Quick TeeJet® nozzles and caps.
601C-SST: 4 nozzle boom with sub-lateral on **19" spacings** with Spraying Systems Quick TeeJet® nozzles and caps.

(Above booms priced with 1/4" downpipe and trigger valve **(601EE)**. *If other spacing is desired, please specify.)*



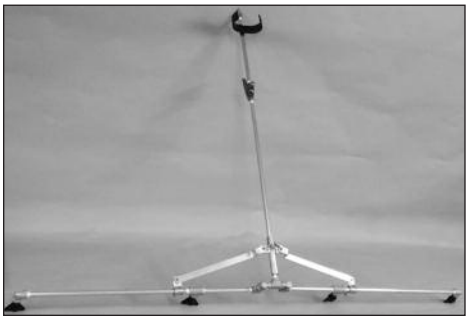
601-BD8-SL: Quick breakdown for sublateral nozzle branch. Requires two per boom. Sold each.

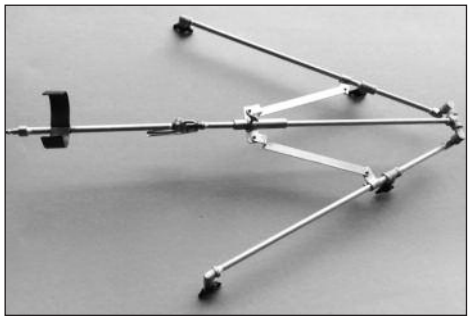


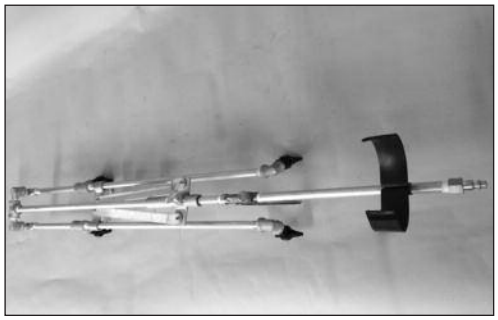
601-BD4-L1/4: Quick breakdown for lateral nozzle branch. Includes shorter pipe required to maintain nozzle spacing. Specify nozzle spacing. Requrires at least 2 per boom. Sold each.

FOLDING HAND BOOM

The folding hand boom is designed w/ our standard ¼" aluminum pipe with swivel joints and linkage that allows the boom to be folded open when in use and closed to store when not in use. Kits are available to adapt existing ¼" spray booms.





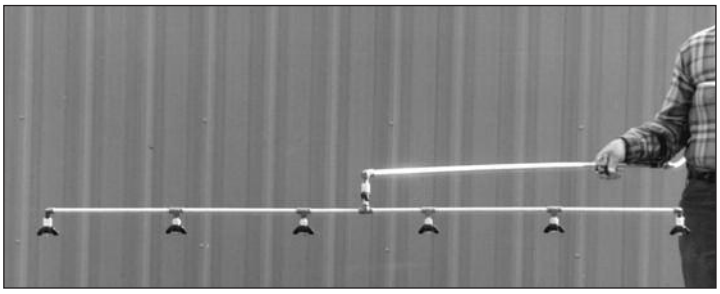


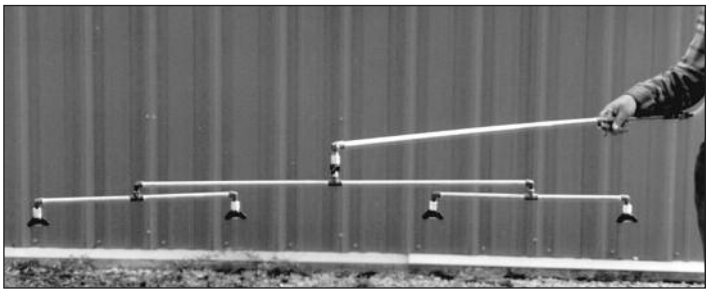
FHB-4: Folding 4 nozzle boom, ¼" aluminum pipe on 20" spacing

FHB-6: Folding 6 nozzle boom, ¼ aluminum pipe on 20" spacing

ONE MAN OFFSET BOOM

The one man offset boom is designed to apply pesticides while walking to one side of the treated area. These booms are equipped with an an extended 36" downpipe, forearm support, and quick breakdown. The 3' downpipe allows the spray nozzles to be offset, while the forearm support provides comfort and stability.



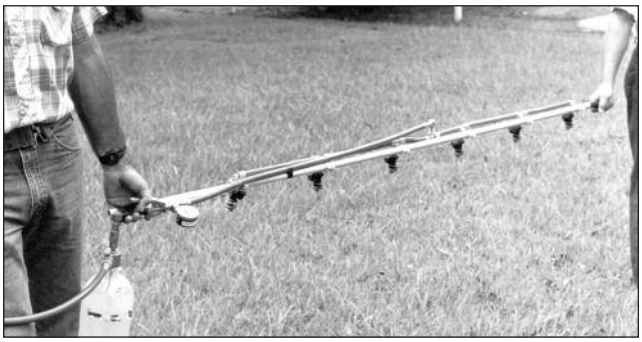


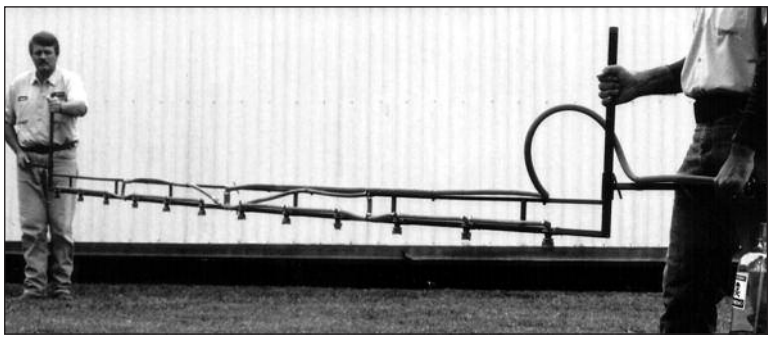
60612OS: Six nozzle boom on 12 inch spacings. Lateral pipe is 1/8 inch. Down pipe is 1/4 inch.

601COS: Four nozzle boom on 19 inch spacings. Lateral and sublateral pipe is 1/8 inch. Downpipe is 1/4 inch.

601EOS: Conversion kit for existing spray booms includes a three foot downpipe (1/4" npt), trigger valve (6590) with valve handle, forearm support (602), 90 degree elbow (AL914-2D), and quick breakdown,

TWO MAN SPRAY BOOM





Designed to apply pesticides without walking through plots. Comes equipped with Diaphragm Quick TeeJet® nozzle bodies, trigger valve, and 0-100 pressure gauge all mounted on 1" square tubing. For even distribution spray hose feeds into the center of all nozzles. (408A) spray hose will connect to boom handle or spray headers can be connected directly to trigger valve. Tips and screens not included.

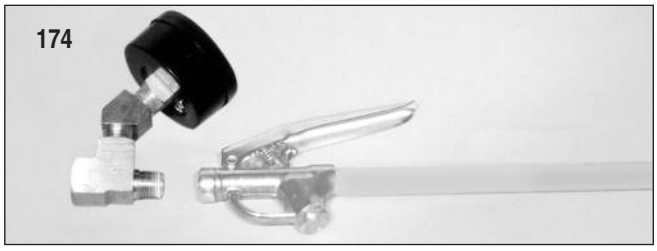
2M-612: Six nozzle boom on 12 inch spacing.
2M-618: Six nozzle boom on 18 inch spacing.
2M-812: Eight nozzle boom on 12 inch spacing.
2M-818: Eight nozzle boom on 18 inch spacing.

Two Man Extra Wide Boom: Attach spray bottle directly to boom handle. Carrying arm adjusts for height. Ridged construction. No bounce during movement. Two sectional boom. Spray hose feed in center of both sections. Supplied with diaphragm Quick TeeJet nozzle bodies. Order screens and tips separately.

2M1018: Ten nozzle boom on 18 inch spacing.
2M1020: Ten nozzle boom on 20 inch spacing.
2M1218: Twelve nozzle boom on 18 inch spacing.
2M1220: Twelve nozzle boom on 20 inch spacing.

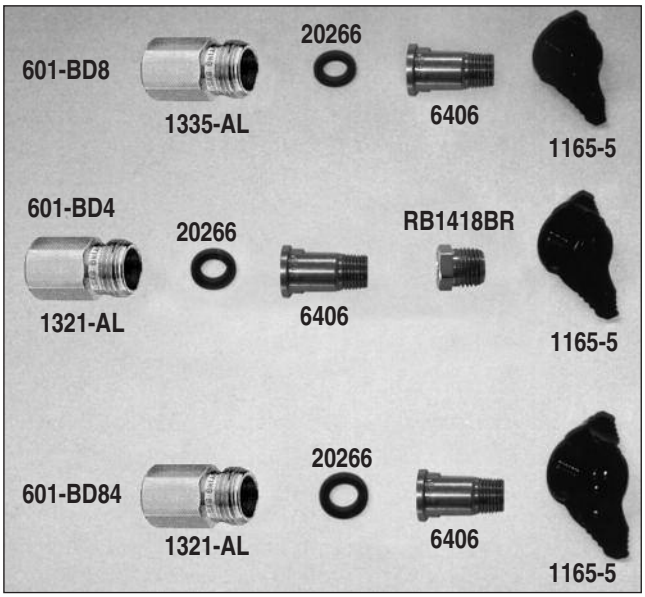
SPRAY BOOM ACCESSORIES AND PARTS

0-60 PRESSURE GAUGE AND ADAPTER FOR BOOM HANDLES



173: Use on booms, numbers, 601D and 6012. 1/8" fittings.
174: Use on booms, numbers 601A, 601AA, 601B, 601C, 6011, 6013, 601D4, 6016 and 6018. 1/4" fittings.
174G: Same as above except equipped with glycerin gauge, 1/4" fittings.
GA172BDS: Replacement gauge only for 173.
GA193BDS: Replacement gauge only for 174.
GA172BDSL: Replacement gauge only for 174G.

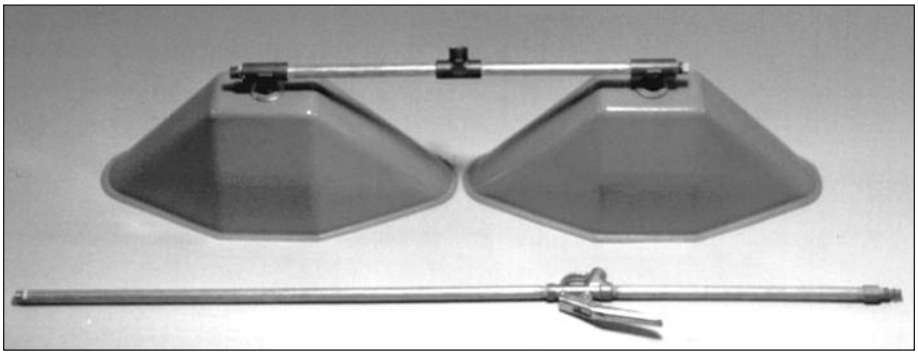
602: Coated forearm support for spray handle extension.



QUICK BREAKDOWN FOR SPRAY BOOM HANDLES

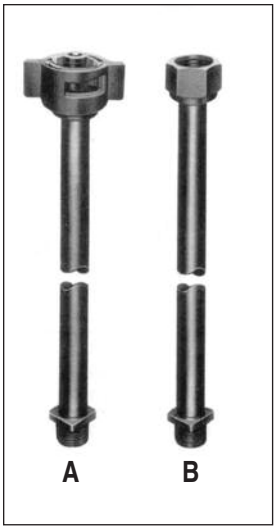
601-BD8: Fits 1/8" downpipe on boom handle. Use with booms: 601D, and 6012.
601-BD84: Fits 1/4" downpipe on handle and 1/8" pipe on boom. Use with booms: 601A, 601C, and 6011.
601-BD4: Fits 1/4" downpipe on boom handle. Use with booms: 601AA, 601B, 601D4, 6016 and 6018.
6406: Brass adapter for quick breakdown (601-BD8, 601-BD4, and 601-BD84) 1/8" npt(M) outlet connection.
RB1418BR: Brass reducer bushing 1/4" x 1/8".
1165-5: Cap for 601-BD8, 601-BD4, and 601-BD84.
20266: Seal.

HOODED SPRAYERS



Designed to be used in areas where wind can affect spray pattern. Hoods are available in 15 inches. Use 80 degree tips and 20 PSI for best coverage. Each unit complete with trigger valve and downpipe. **Spray tips and screens not included.** All pipe is 1/4 " in size.

601FHD-15: Single nozzle 15" hooded sprayer.
6012HD-15: Two nozzle 15" hooded sprayer.
6013HD-15: Three nozzle 15" hooded sprayer.
6014HD-15: Four nozzle 15" hooded sprayer.
SPR.SHLD15: Replacement shield.



HOSE DROPS

Select desired swivel nozzle body of choice.

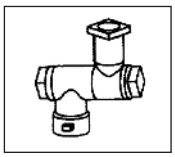
Item	Hose Drop No.	Length	Hose Drop Material
A Inlet Quick TeeJet® Cap and Seat Gasket	206QJ-6 206QJ-12	6” 12”	1/4” aluminum pipe with 1/4” npt(M) adapter
	206NYQJ-6 206NYQJ-12 206NYQJ-18 206NYQJ-24	6” 12” 18” 24”	3/8” nylon with 1/4” npt(M)
B Inlet Standard 11/16”-16 Nozzle Caps	206A-6 206A-12	6” 12”	1/4” aluminum pipe with 1/4” npt(M) adapter
	206NY-6 206NY-12 206NY-18 206NY-24	6” 12” 18” 24”	3/8” nylon with 1/4” npt(M)

NYLON SWIVEL NOZZLE BODIES

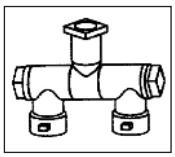
Swivel bodies with 1/8” npt(F) are no longer manufactured. They are all made with 1/4” npt(F) fittings. If 1/8” npt(F) is required, use RB1418-BR adapter (listed on page 37) with 1/4” npt(F) swivel.

8600-1/4-NY: Single 1/4” npt(F). Standard 11/16” threads.

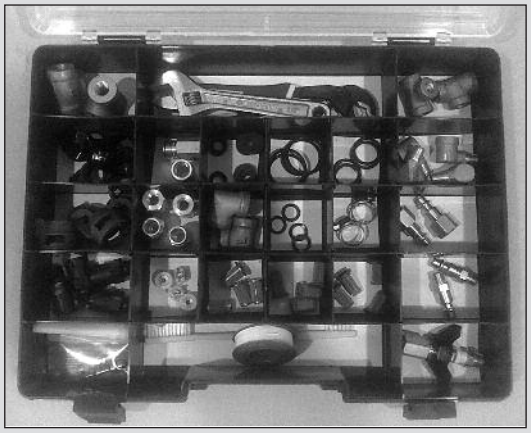
8600-214-NY: Double 1/4” npt(F). Standard 11/16” threads.



QJ8600-1/4-NY: Single 1/4” npt(F). Quick TeeJet body.



QJ8600-2-1/4-NY: Single 1/4” npt(F). Quick TeeJet body.



SPK-C: Repair Parts Kit This kit has a variety of parts to assist in general repairs for your R&D Sprayer.

SPK-B: Organizer Box only

Kit contains:
AL917-1D (2)
AL914-1D (4)
218MN (2)
214FN-B (2)
QJ1/4TT-NYB (4)
100C (4)
25611-B (4)
19438-EPR (4)
100B (4), 100D (2)
100DD (2)
601-BD4 (1)
50BR-CK (4)
50NY-CK (4)
100NY-CK (4)
646R (1)
8002VS (4)
1335-AL (4)
20266 (4)
30-4 (2), 1165-5 (4)
1321-AL (2)
AL9172D (2)
AL916-2D (2)
CP20016-NY (1)
Teflon Tape (1)
6” Wrench (1)
8” Pliers
Organizer Box (1)

EZO-14: Easy Out Pipe Extractor for 1/4” pipe.

EZO-18: Easy Out Pipe Extractor for 1/8” pipe.

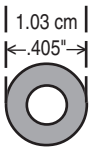
TD14: 1/4” pipe and fitting thread repair tool.

TD18: 1/8” pipe and fitting thread repair tool.

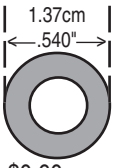
SCHEDULE 40 ALUMINUM PIPE & TUBING

When ordering aluminum pipe or tubing use the diameter charts to determine pipe size needed.

Illustrations show actual size of pipe.



18: 1/8" schedule 40 aluminum pipe.



14: 1/4" schedule 40 aluminum pipe.

38: 3/8" aluminum thin wall tubing. CAN NOT BE THREADED

When cut to your specifications and threaded, add $0.60 per end. Straight pipe cut in 3 or 6 foot lengths. Add $2.00 for hard shipping tube. No return on pipe cut and threaded.

Part No.	Inside Diameter	Outside Diameter	Wall
18	1/4” / 0.63 cm	13/32” (.405) / 1.03 cm	.068 / 0.17 cm
14	11/32” / 0.87 cm	18/32” (.540) / 1.37 cm	.088 / 0.22 cm
38T	10/32” / 0.79 cm	3/8” (.375) / 0.95 cm	.035 / 0.09 cm

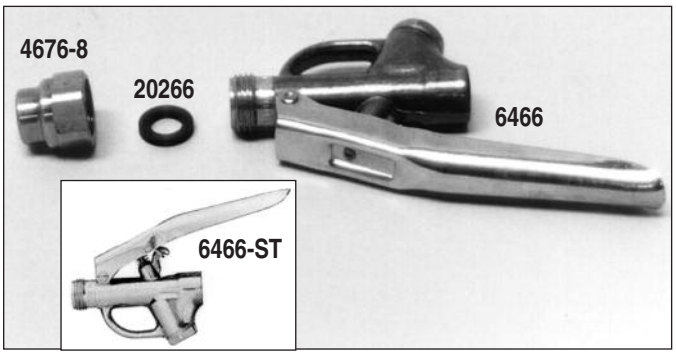
When ordering pipe, give size, length and/or threading.

Example: **18** – **12** **T**

Pipe Size **Pipe Length** **Threaded (both ends)**

18-12T = 1/8” pipe (18), 12 inches long and threaded both ends.
—— Leave off (T) if threading is not desired. ——

TRIGGER VALVES AND HANDLES

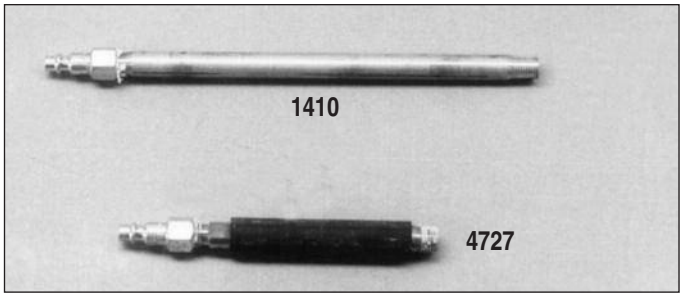


6466: Brass Trigger valve with 11/16"-16 NS standard threads and 1/4" npt (F) for handle; comes with 4676-8 female pipe adapter and seal.

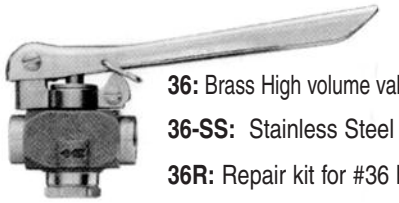
6466-ST: Brass trigger valve with 1/4" npt(f) inlet and 11/16" ns(m) outlet.

646R: Repair kit for #4688, 6466 & 6590 hand valve.

20266: Seal for brass adapter.



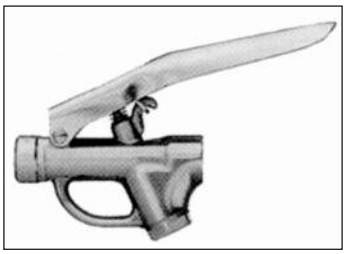
1410: 1/4" npt(M) extended valve handle and plug.
4727: 1/4" npt(M) valve handle w/plug for spray hose.



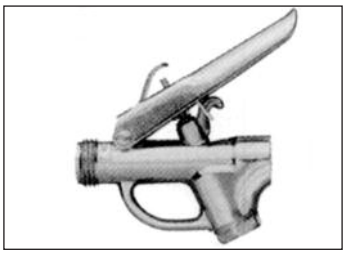
36: Brass High volume valve with both outlets 1/4" npt(F).

36-SS: Stainless Steel Valve.

36R: Repair kit for #36 hand valve.



6590: Brass Trigger valve with both outlets 1/4" npt(F).



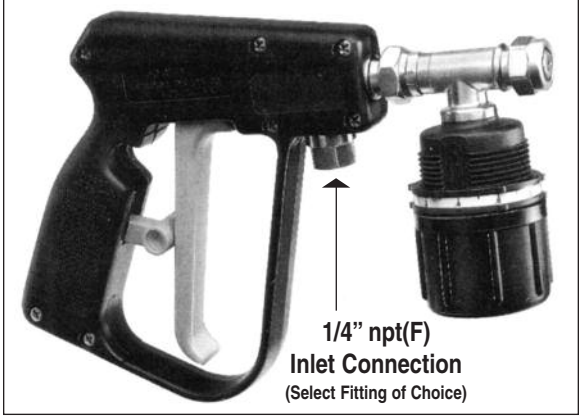
4688: Brass Locking trigger valve with 11/16-16 NS outlet and 1/4" npt(F) inlet for handle.

30L: Spray gun with coupler plug and 1/4" npt(F) brass adapter.

43LA-AL Teejet GunJet Spray Gun 13"
Designed for heavy duty service. Operating pressures up to 200 psi. Overall Length: 13"

43L-AL Teejet GunJet Spray Gun 22"
Designed for heavy duty service. Operating pressures up to 200 psi. Overall Length: 22"

METERJET® SPRAY GUN

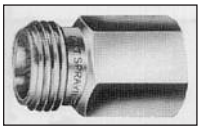


23624: The MeterJet Spray Gun is designed to deliver a precisely metered volume of spray for low pressure spot applications of herbicides, or other agricultural chemicals. It can be used to spot apply herbicides to the soil, plant foliage, basal bark, and tree stumps. The adjustable metering sub-assembly allows the applicator to discharge precise volumes from 1 to 16 milliliter with a single pull of the MeterJet® trigger. Release of the trigger automatically recharges the unit for the next dosage.

Features:
- Vertical and adjustable vernier scales to accurately set volumes to nearest 0.1 milliliter.
- Charge indicator (located on bottom of metering sub-assembly) provides positive verification of full pressure in chamber.
- Maximum operating pressure 75 psi (5.2 bar).
- Minimum operating pressure of 25 psi (1.7 bar) to charge unit. Optional spring to reduce charging pressure for low volume applications available.
- Inlet connection 1/4" npt (F).
- Wetted parts are nylon, teflon, viton, brass and stainless steel.

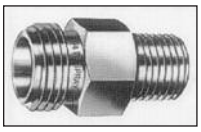
NOZZLE PARTS

11/16" Standard Nozzle Bodies



NPT (F)

1335-AL: 1/8" aluminum
1321-AL: 1/4" aluminum
1335-BR: 1/8" brass
1321-BR: 1/4" brass
1321-SS: 1/4" stainless steel
8470: 1/4" nylon

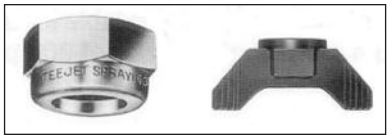


NPT (M)

1336-AL: 1/8" aluminum
1322-AL: 1/4" aluminum
1336-BR: 1/8" brass
1322-BR: 1/4" brass
1322-SS: 1/4" stainless steel
8474: 1/4" nylon

TeeJet® Standard Thread Nozzle Caps

11/16" - 16 NS Threads (standard)



1165-1: brass caps
1165-2: aluminum caps
1165-3: nylon caps
1165-5: TeeJet® nylon winged nozzle cap

CP3942: brass nozzle blank

8360: Made of nylon with polypropylene and retainer ring. Check valve opens at 7 psi pressure. 1/4" npt male inlet connection. For flow rates up to 2 gpm. Overall length 2". Weight 1 ounce. Less cap, tip and screen.

Nozzle Screens

TeeJet® Strainers

Strainer protects spray tip orifice from clogging and damage. Designed with stainless steel screens.

50BR: 50 mesh – brass body
100BR: 100 mesh – brass body
50NY: 50 mesh – nylon body
100NY: 100 mesh – nylon body

TeeJet® Strainer and Check Valve

Minimizes nozzle dripping . . . fits all TeeJet and Delevan nozzles. Ball check opens at 5 psi. Recommended for flow rates up to 0.8 gpm.

50BR-CK: 50 mesh – brass body
100BR-CK: 100 mesh – brass body
50NY-CK: 50 mesh – nylon body
100NY-CK: 100 mesh – nylon body

TeeJet® Check Valve

For larger capacity TeeJet nozzles where strainers are not required. Recommended for flow rates from .40 to 1.5 gpm. Made with stainless steel ball and spring.
11750: brass body

Outlet adapters fits the outlet of standard 11/16 nozzle bodies as well as trigger valve 6466. Downpipe on boom screws into this adapter.
4676-8: 1/8" brass npt(F) with seal
4676-4: 1/4" brass npt(F)
4676-NY: 1/4" nylon npt(F)

ADJUSTABLE CONE JET TIP

Made to fit standard 11/16" nozzle body threads. Tip rotates from hollow cone to straight stream.

Brass - Specify Tip No.: **5500-X3, 5500-X4, 5500-X6, 5500-X8, 5500-X10, 5500-X12, 5500-X18**

Polypropylene - Specify Tip No.: **5500-PPX12, 5500-PPX18**

Tip No.	(GPM 30 psi)	Max Throw (Ft.)
5500-X3	.043	30
5500-X4	.058	34
5500-X8	.116	37
5500-X12	.173	39

CF VALVE™ - Developed by Global Agricultural Technology & Engineering LLC, these valves can be used when total accuracy is needed. Designed for use with knapsack and compression sprayers, the CF Valve™ maintains a constant pressure for accurate applications. Effective and economical, they can also be used on CO^2 powered sprayers as an added assurance that pressure will be maintained.

Turbo TeeJet: Ex.: TT1100(2)VP
Large droplets for less drift, 15-90 PSI.

Turbo TwinJet: Ex.: TTJ60-11002VP
Providing drift reducing properties with increased canopy coverage and penetration.

Turbo TeeJet Induction: Ex.: TTI110015
Produces large air-filled drops through a Venturi air aspirator resulting in less drift.

Air Induction Turbo TwinJet: Ex.: AITTJ60-11002VP
Air induction with dual 110° flat fan patterns. Excellent drift control with coarse to very coarse droplets.

XR: Ex.: XR8002
XRC TeeJet: Ex.: XRC8002
Excellent spray distribution over a wide range of pressure, 15-60 PSI (1-4 bar).

AIXR TeeJet: Ex.: AIXR11002VP
Air induction technology offers better drift management with XR-PSI 15-90 (1-6 bar).

AI: Ex.: AI11002VS
AIC TeeJet: Ex.: AIC11002VS
Large air-filled drops through the use of a Venturi air aspirator. PSI range 30-115 (2-8 bar).

TwinJet: Ex.: TJ60-8002VS
Penetrates crop residue or dense foliage, smaller droplets for thorough coverage.

DG TwinJet: Ex.: DGTJ60-11002VS
Offers larger droplets and improved drift control compared to a standard TwinJet.

Turbo FloodJet: Ex.: TF-VS4 / TFVP-4
Nozzle design incorporates a pre-orifice to produce larger droplets for less drift. Large round orifice reduces clogging.

StreamJet: ***(7-Orifice)*** **Ex.: SJ7-02-VP**
7-Stream pattern is ideal for broadcast applications.

StreamJet: ***(3-Orifice)*** **Ex.: SJ3-02-VP**
3-Stream pattern is ideal for direct applications.

StreamJet: ***(Single-Orifice)*** **Ex.: TP00015-SS**
Large orifice with no internal obstruction permits non-clogging suspension application.

TeeJet Even: Ex.: TP8002E
Ideal for banding over the row or in row middles.

AITX ConeJet: Ex.: AITX-8002VK
Air induction hollow cone.

ConeJet: Ex.: TXA-8002VK
Ideal for banding with 2 or 3 nozzles over the row.

NOZZLE NOMENCLATURE

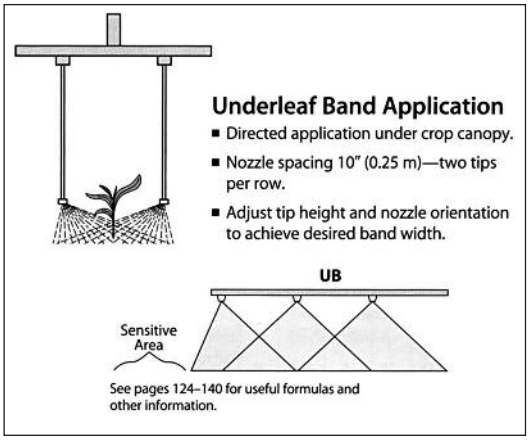
8 0 0 1 V S
degree of angle — gpm @ 40 psi — material

SUGGESTED MINIMUM SPRAY HEIGHTS

The nozzle height suggestions in the table below are based on the mininum overlap required to obtain uniform distribution. However, in many cases, typical height adjustments are based on a 1 to 1 nozzle spacing to height ratio. For example, 110° flat spray tips spaced 20 inches apart are commonly set 20 inches above the target.

	(inches)			
		20"	30"	40"
TeeJet Standard, TJ	65°	22-24"	33-35"	NR*
TeeJet, XR, TX, DG, TJ	80°	17-19"	26-28"	NR*
TeeJet, XR, DG, TT, TJ, AI	110°	16-18"	20-22"	NR*
FullJet	120°	10-18"**	14-18"**	14-18"**
FloodJet TK, TF	120°	14-16"***	15-17"***	18-20"***

*Not recommended.
**Nozzle height based on 30° to 45° angle of orientation.
***Wide angle spray tip height is influenced by nozzle orientation. The critical factor is to achieve a double spray pattern overlap.

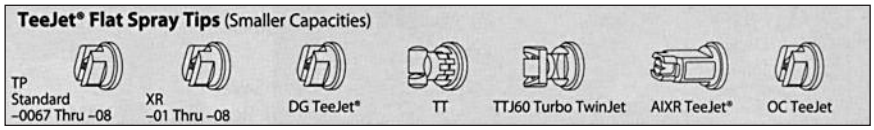


Quick TeeJet® CAPS

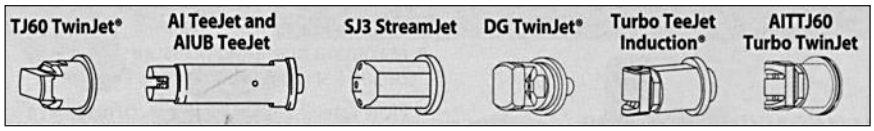
Visit **TeeJet.com** *for specific part numbers and flow rates.*

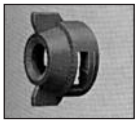
PART NO. ***(Includes Gasket)***

25612-

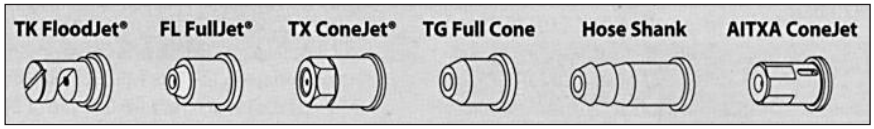


25598-





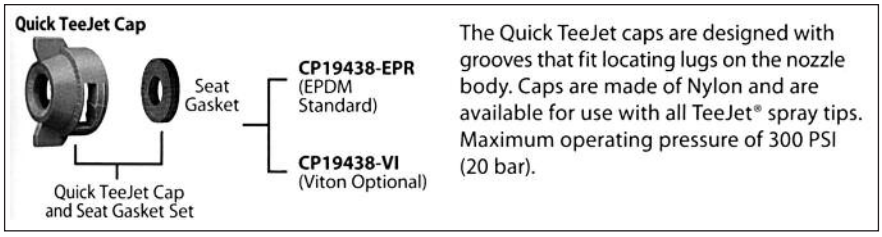
25608-



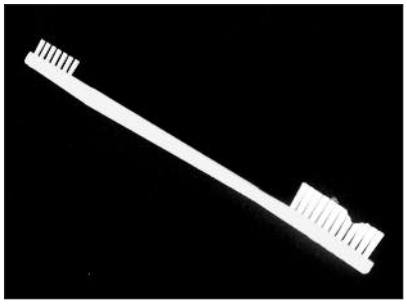
QJ367601/8-NYR Permits use of standard 1/8" and 1/4" nozzles. Can be used for mounting pressure gauge at the nozzle. See Data Sheet 20055 for more information.

QJ(B)4676-1/4-NYR (B) = BSPT

19843-NYR Provides shutoff at nozzle for quick spacing change or change in spray swath.



The Quick TeeJet caps are designed with grooves that fit locating lugs on the nozzle body. Caps are made of Nylon and are available for use with all TeeJet® spray tips. Maximum operating pressure of 300 PSI (20 bar).



CP20016-NY: TeeJet Clean Off Brush

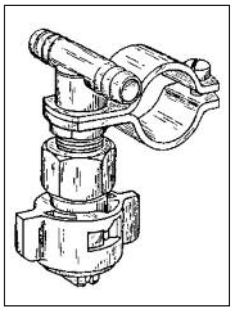
ADAPTERS FOR RETROFITTING

Permit usage of Quick TeeJet caps and TeeJet tips with standard TeeJet Nozzle Bodies.

QJT8360-NYB:
Diaphragm Check Valve Quick TeeJet Body subassembly with 11/16" -16 TeeJet thread. Drip free shut-off. ***(Includes gasket.)***

QJT-NYB: Quick TeeJet Adapter with 11/16"-16 TeeJet thread.
(Includes gasket.)

TYPICAL USE



HOW TO ORDER:
Specify Part No., Name
Example: QJT-NYB Quick TeeJet Adapter

QJ1/4TT-NYB: 1/4" npt(M)

QJ8360 Diaphragm Check Valve Quick TeeJet Nozzle Body Assembly.

QJ8360-NYB: 1/4" npt(M)

QJ1/4T-NYB: 1/4" npt(F)

21953: EPDM replacement diaphragm for diaphragm check valves.
21950-10-NYB: End cap sub assembly for diaphragm check nozzle bodies.

MISCELLANEOUS SPRAYER PARTS

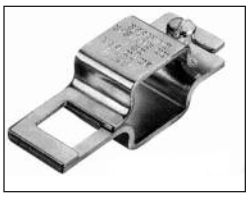
Quick TeeJet® Clamps and Nozzle Assemblies

QJ111-1/2: Round boom clamp 1/2" pipe.

QJ111-3/4: Round boom clamp 3/4" pipe.

QJ111-1: Round boom clamp 1" pipe.

QJ111-1-1/4: Round boom clamp 1-1/4" pipe.



QJ111SQ-3/4: Square boom clamp 3/4".

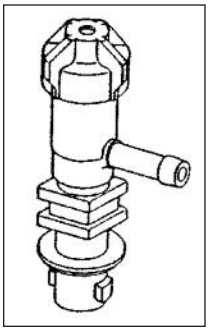
QJ111SQ-1: Square boom clamp 1".

QJ111SQ-1-1/4: Square boom clamp 1-1/4".

QJ111SQ-1-1/2: Square boom clamp 1-1/2".

Triple nozzle body with diaphragm check valve. Designed to greatly simplify changing spray tips in the field. Provides three spray positions for easy change of spray tips. Positive shut-off between each spray position.

24230-1-375: Single hose shank fits 3/8" hose.
24230-2-375: Double hose shank fits 3/8" hose.
24230-1-540: Single hose shank fits 1/2" hose.
24230-2-540: Double hose shank fits 1/2" hose.



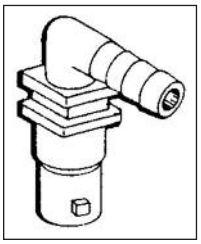
22251-375: 3/8" single hose shank with diaphragm check valve.

22251-500: 1/2" single hose shank with diaphragm check valve.

22252-375: 3/8" double hose shank with diaphragm check valve.

22252-500: 1/2" double hose shank with diaphragm check valve.

Quick TeeJet® Hose Shank Nozzle Bodies



18635-111: Nylon single hose shank elbow fits 3/8" hose.

18638-111: Nylon single hose shank elbow fits 1/2" hose.

18636-112: Nylon double hose shank elbow fits 3/8" hose.

18639-112: Nylon double hose shank elbow fits 1/2" hose.

THROTTLING VALVES

For regulating flow in systems equipped with Shurflow pumps. Adjustable to maintain control of line pressure. Lock nut holds pressure firmly in place. Constructed of polypropylene with stainless steel spring and EPDM o-rings.

23520-1/2-PP

23520-3/4-PP

PRESSURE RELIEF VALVES

For regulating flow in systems equipped with roller pumps. Adjustable to maintain control of line pressure. Lock nut holds pressure firmly in place. Constructed of polypropylene with stainless steel spring and EPDM o-rings.

23120-1/2-PP

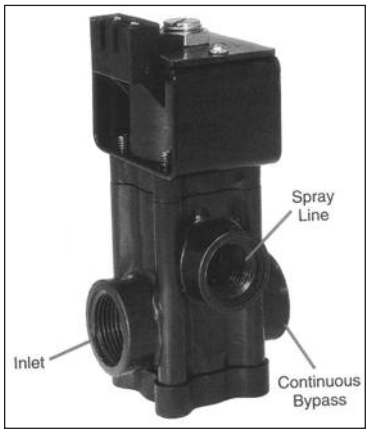
23120-3/4-PP

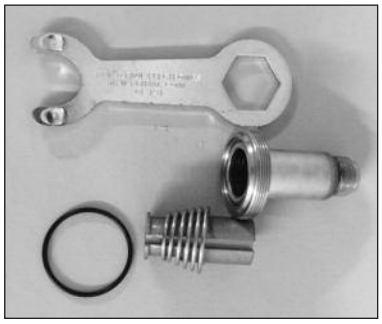
SOLENOID VALVES

22N9CM: 1/4" FPT with 1/8" orfice solenoid valve.

72N9CM: 1/4" FPT with 1/4" orfice solenoid valve.

Used in manufacturing our multi-boom sprayers, this solenoid has proven to be economical and reliable. Can be used in many different spray applications.





K22NDD-DC: Repair Kit for **22N9CM** solenoids

K72RDD-D: Repair Kit for **72N9CM** solenoids

144A: DirectoValve - electrically operated valve, inlet size 3/4", outlet size 1/2".

144P: Higher corrosion resistant; also available.

TeeJet® CHECK VALVES

55280: ***e-ChemSaver Electric Solenoid Shutoff Valve***

Use with most diaphragm check valve equipped TeeJet nozzle bodies.

58140: ***ChemSaver Manual Shutoff***

Use with any application where individual shutoff is important such as golf course and estate sprayers.
•150 PSI (10 bar) maximum pressure rating
•Nylon construction

TeeJet® Line Strainers

122-1/2-PP

Polypropylene body with stainless steel 80 mesh screen 1/2" npt(F) inlet and outlet.

REPLACEMENT SCREENS
23174-4: 80 Mesh.
23174-3: 50 Mesh.

126ML-PP-3/4
Flush Out LIne Strainer

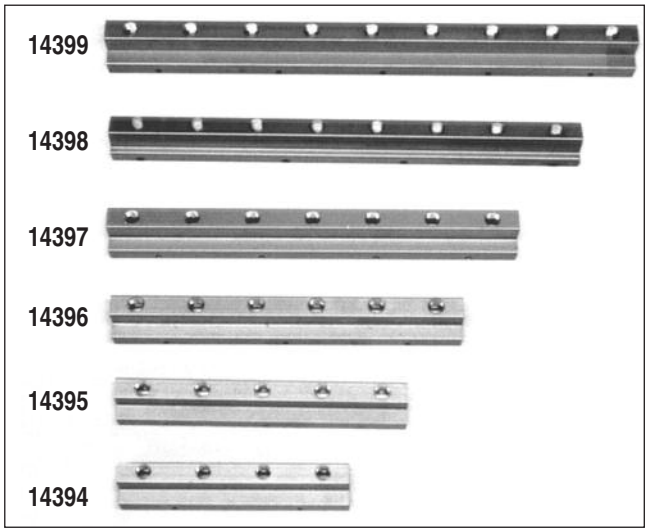
Polypropylene body with stainless steel 80 mesh screen 3/4" npt(F) inlet and outlet.

REPLACEMENT SCREENS
16903-5: 80 Mesh

FOR SPRAYING SYSTEMS TeeJet® CATALOG METRIC OR U.S. - CALL OR E-MAIL

MISCELLANEOUS SPRAYER PARTS

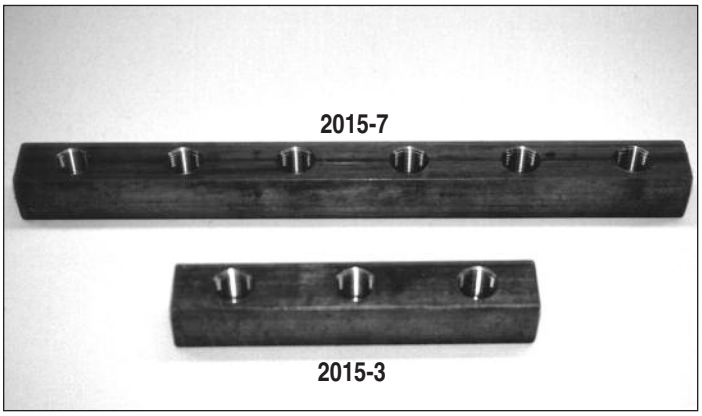
AIR MANIFOLDS



Aluminum one piece extruded air manifolds with wall mounting holes. All manifolds have two end ports and various number of outlets. (1/4" npt) (F)

14394: 4 outlets
14395: 5 outlets
14396: 6 outlets
14397: 7 outlets
14398: 8 outlets
14399: 9 outlets

SPRAY MANIFOLDS



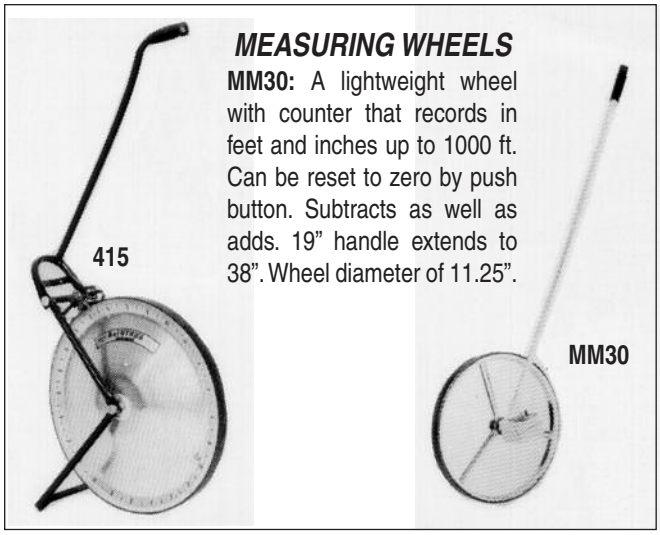
2015-7: One inch square heavy duty brass manifold with two 3/8" npt(F) end port and six 3/8" npt(F) top ports.

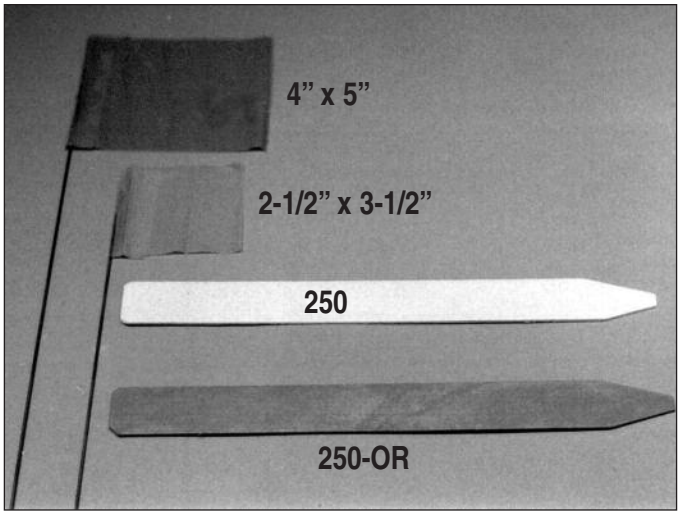
2015-3: Same as above except with one 3/8" npt(F) end port and three 3/8" npt(F) top ports.

911B-3D: Close nipple to connect spray manifolds.

MEASURING WHEELS

MM30: A lightweight wheel with counter that records in feet and inches up to 1000 ft. Can be reset to zero by push button. Subtracts as well as adds. 19" handle extends to 38". Wheel diameter of 11.25".





SweepNet: For sweeping fields or using in heavy brush. Hardwood handle is 2' long. Stiff, galvanized steel net hoop is 15" diameter. Net bag is rugged sailcloth, banded at top with sail tape.

SweepBag: Replacement bag only, for SweepNet.

4" x 5"
with 30" WIRE FLAGS
100 per bundle

39547: White
39393: Yellow
39293: Red
33766: Flourescent Orange
33706: Flourescent Pink

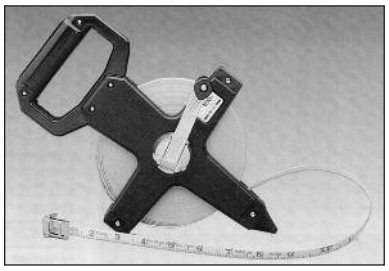
2-1/2" x 3-1/2"
with 15" WIRE FLAGS
(100 per bundle)

33500: Red
33502: Yellow
33505: White
33506: Flourescent Orange
33507: Flourescent Pink

12" x 1-1/8"
STANDARD WOOD STAKES
250 per box

250: Plain wood stakes
250-OR: Orange wood stakes

15943: 9"x12" triangle flag on 5/16"x 96" fiberglass pole. Maximum length 8 ft. Shorter lengths available.

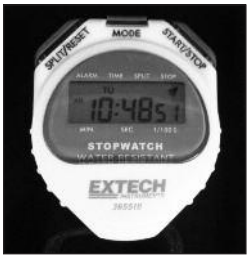


NYLON-CLAD STEEL TAPE

Nylon coating prevents rust and corrosion. Zero begins at end hook.

9100: 100 feet. **9200**: 200 feet.
9300: 50 meters.

DM-SW: Digital stop watch



METRONOMES

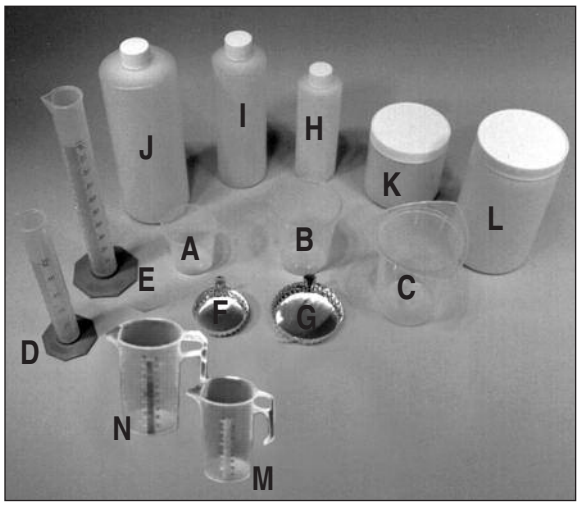
Metronomes aid in maintaining constant desired speed when spraying small research plots. Portable metronomes will produce an audible tempo that can be adjusted to your own stride or step. To use the metronome, measure a known distance in the terrain where spraying is to be done. Select comfortable pace to cover this known distance. Now adjust the tempo of the metronome up or down to where the audible signal coincides with your step. Record tempo and with a stop watch, determine the time required to spray over the measured distance. Now calibrate your sprayer based on this time and distance. Each operator adjusts the tempo to his or her length of stride. When moving to different terrain, readjust the tempo and make corrections in walking speed. When spraying in flooded rice plots, the use of an earphone is recommended. Excellent when using Model EX Bicycle Sprayer.

DM-50

DM-70

DM-50 - Clip style metronome.
DM-70 - Compact credit card style.
DMCR2025X1 - Replacement battery for DM-50 and DM-70.

MIXING AND MEASURING ACCESSORIES



A. MB100 . . . .Poly-p beaker, 100 ml (5 ml graduations)
B. MB250 . . . .Poly-p beaker, 250 ml (10 ml graduations)
C. MB400 . . . .Poly-p beaker, 400 ml (20 ml graduations)
D. MC50 . . . . .NALGENE® Economy Graduated Cylinder, 50 ml
E. MC100 . . . .NALGENE® Economy Graduated Cylinder, 100 ml
F. MD57 . . . . .57 mm Aluminum weighing dish
G. MD70 . . . . .70 mm Aluminum weighing dish
H. MNM8 . . . .Narrow mouth Poly-e sample bottle w/cap, 8 oz. (236 ml)
I. MNM16 . . .Narrow mouth Poly-e sample bottle w/cap, 16 oz. (473 ml)
J. MNM32 . . .Narrow mouth Poly-e sample bottle w/cap, 32 oz. (946 ml)
K. MWM16 . . .Wide mouth Poly-e sample jar w/lid, 1 pint (473 ml)
L. MWM32 . . .Wide mouth Poly-e sample jar w/lid, 1 quart (946 ml)
M. MP32 . . . . .32 oz. / 1 liter Pitcher
N. MP64 . . . . .64 oz. / 2 liter Pitcher

WATER AND OIL SENSITIVE PAPER

The specially coated yellow paper is stained blue following exposure to aqueous spray droplets. Water sensitive paper can be used to evaluate spray distributions, swath widths, droplet densities and penetration of spray into the crop canopy. Call or write for Data Sheet 20367 for additional information.

20301-2: 3” x 2” card, quantity of 50

ST158: Digital Soil Thermometer
Features patented Self-Set™ Calibration and Quick Tip™ Rapid Response for fast readings in either *F or *C. Other features include maximum memory, data hold, and automatic shutoff after 10 minutes. Submersible and waterproof, the thermometer features a stainless steel body and a 5” probe.

NSF® certified, CE Mark certified and RoHS compliant. Batteries and probe cover with pocket clip included. Temperatures Range: -40*F to 450*F (-40*C to 232*C).
Dimensions: 1.4”H x 6”L

WM-300: WindMate 300
Humidity, Wet Bulb, Delta T make this the ultimate wind meter for forestry, agriculture, first responders, and professionals in the field. Humidity sensor does not require calibration. 2-year warranty. Lanyard and battery included. Size 5.5"x1.75"x.75"

ACCULAB POCKET PRO

MBAL: Professional digital pocket scales with four different weight units.

- Capacity 500 g / 17.65 oz. / 321.5 dwt / 7716 gn
- Readability 0.1 g / 0.01 oz. / 0.1 dwt / 1.5 gn
- Power: 2 AAA batteries
- Dimensions: 5” x 3.03” x 0.75”
- Calibration: English and Metric combination
- Precise Measuring Results

Kestrel 3000 Hand-Held Portable Weather Station

ST89183: This hand-held easy-to-use portable weather station is lighweight and durable, waterproof and drop proof to 6 feet. The meter reads wind speeds from 0.7-89 mph (±3%) and can read out in kt, m/s, km/h, fpm, and mph. Measures temperature and wind chill from 5°F to 122°F (±1°F), relative humidity ±3%, dew point temperature ±2°F, heat index ±3%. Includes hard case, lanyard and user-replaceable battery. USA made.

SPOT ON SPRAYER CALIBRATOR

Finds true flow of old or new spray tips.

Best for flow rates below 1 GPM, including spray tips for herbicide and insecticide application. Measurement Range: .02 to 1.00 GPM, 3 to 128 oz./min., .08 to 3.79 L/min. (higher flow rates possible with reduced accuracy). Accuracy: Greater of ±2.5% or one least significant digit. Resolution: 0.01 GPM, 1 oz./min., 0.01 L/min. Battery: Two N size alkaline batteries (included). Battery Life: Two years, meter has low battery indicator. Dimensions: 9.25"H x 2.25" dia. Weight: 0.52 lbs.

SpotOn SC-1 Sprayer Calibrator

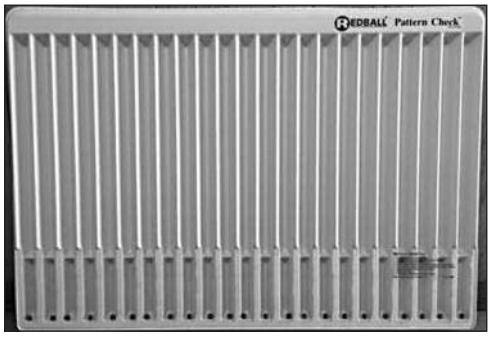
Accurately check the flow rate of individual sprayer nozzles in just seconds with this calibrator! By obtaining the true flow rate, you can avoid costly over or under application of chemicals and also identify worn spray nozzle tips that need to be replaced. To use, simply hold the calibrator under the nozzle at a slight angle. Allow the calibrator to fill until the display shows the flow rate. Readings are obtained in 10 seconds or less per tip and are shown in GPM, oz./min., or Liter/min. The display holds the reading for 90 seconds. The waterproof calibrator is constructed of break-resistant plastic and stainless steel, features a clear design for easy cleaning, and has no moving parts.

SPOT ON MINI PATTERNATOR

Innovative handheld patternator allows visualization of nozzle and sprayer coverage. Most readings are made in less than 10 seconds due to the special channel design.

SPOT ON TIP CLEANER

Get both the innovative air blast Nozzle Cleaner and 4-in-1 Tip Tool multi-tool. These tools are designed specifically for spray tip and nozzle body cleaning and maintance. The SpotOn Nozzle Cleaner provides a 50 PSI air blast for clearing debris from spray tips. The 4-in-1 Tip Tool features a brush, foldout plastic pick, spanner wrench, and utility hook that make tip maintance quick and easy.



PATTERN CHECK

5000-9: Successful applications depend on a quality pattern from your spray tips and proper operation of your spraying equipment. The pattern check makes it easy to see if your sprayer is properly set up to provide the even distribution needed for safe and effective pest control. By sliding the pattern check under the sprayer boom while spraying clean water, you get an immediate indication of the spray distribution along the boom.

The calibration cup stand is designed to hold the **MP32** measuring pitcher. The distance between cups can quickly and easily be adjusted for different nozzle spacing. The cup ring and ell bracket also makes cup removal quick and easy. The stand is constructed of corrosion free light weight aluminum. It quickly disassembles for storage or transport. **MP32** *Measuring Pitcher not included.*

CCS-4: Designed to accommodate up to 4 nozzle booms.

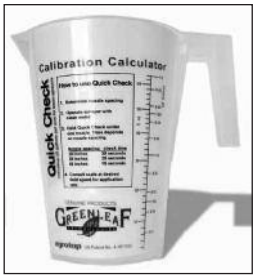
CCS-6: Designed to accommodate up to 6 nozzle booms.

CCS-8: Designed to accommodate up to 8 nozzle booms.

Greenleaf 1/2 Gallon Calibration Calculator

The GreenLeaf Quick Check Calibration Calculator is a patented 1/2 gallon container that is precisely molded for accuracy. It show the GPA rate for whatever speed the applicator plans to travel. It can also be used to adjust nozzle flow rates, determine nozzle accuracy, and evaluate line pressure losses. Volume measurements can be made in both ounces and gallons.

8987: Calibration Container



PERSONAL PROTECTIVE EQUIPMENT

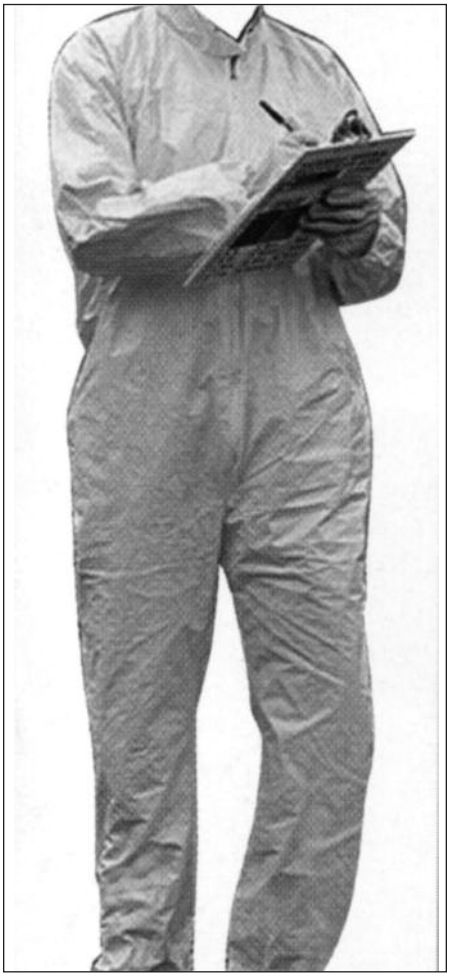
SGL-30021: Green Nitrile lined 15 mil, 13" gloves

SDLG-32030: Disposable Latex industrial grade, textured, powder gloves

Sizes:
M (Medium)
L (Large)
XL (Extra Large)

When ordering gloves, please add size to part number.

Example:
SDLG-32030XL

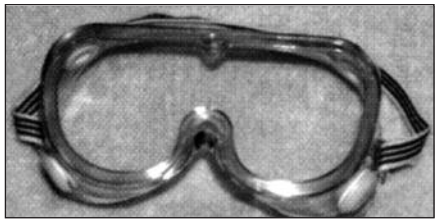


SC-2025:
Tyvek White
Coverall
Zipper Front

Sizes:
M (Medium)
L (Large)
XL (Extra Large)
2XL (2x Large)

When ordering coveralls, please add size to part number.

Example:
SC-2025L



SG-52002:
Clear indirect
vented goggles

SM-91003:
3M 6000 Series
1/2 Mask Respirator

SMC-91501:
3M 1 Piece Organic
Vapor/P100
Cartidge System

NOTE: The Personal Protective Equipment shown here may not be resistant or accomodate all chemical exposure. Check chemical labeling before use.

BELLSPRAY, INC.
d.b.a
R & D Sprayers

P. O. BOX 267
OPELOUSAS, LA 70571-0267

Speed in MPH	Time Required in SECONDS to Travel a Distance of:		
	100 Feet	200 Feet	300 Feet
0.5	136	273	409
1.0	68	136	205
1.5	45	91	136
2.0	34	68	102
2.5	27	55	82
3.0	23	45	68
3.5	19	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
5.5	—	25	37
6.0	—	23	34
6.5	—	21	31
7.0	—	19	29
7.5	—	18	27
8.0	—	17	26

TABLE OF CONVERSION FACTORS

To Convert From	To	Multiply By
Cubic feet	gallons	7.48
Cubic feet	liters	28.3
Gallons	milliliters	3785
Grams	pounds	.0022
Grams/liter	parts/million	1000
Grams/liter	pounds/gallon	.00834
Liters	cubic feet	.0353
Milligrams/liter	parts/million	1
Milliliters	gallons	.00026
Ounces	grams	28.35
Parts/million	grams/liter	.001
Parts/million	pounds/million gallons	8.34
Pounds	grams	453.59
Pounds/gallon	grams/liter	111.83

1 gram = .035 ounce
1 metric = 1000 kg - 2,205 lbs.
1 kilogram = 2.2 lbs.
1 hectare = 2.471 acres
1 qunital - 100 kg = 221
1 kilometer = .6 mile
1 liter = 1000 mls

U. S. MEASUREMENTS

Useful Formulas:

$$\text{GPM (Per Nozzle)} = \frac{\text{GPA x mph x W}}{5{,}940}$$

$$\text{GPA} = \frac{\text{5,940 x GPM (Per Nozzle)}}{\text{mph x W}}$$

GPM — Gallons Per Minute
GPA — Gallons Per Acre
mph — Miles Per Hour
W — Nozzle spacing (in inches) for broadcast spraying
— Spray width (in inches) for single nozzles, band spraying or boomless spraying.
— Row spacing (in inches) divided by the number of nozzles per row for directed spraying.

Measuring Travel Speed

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 mph respectively. Determine the time required to travel the test course. To help insure accuracy, conduct the speed check with a loaded sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation:

$$\text{Speed (mph)} = \frac{\text{Distance (ft) x 60}}{\text{Time (seconds) x 88}}$$

SUGGESTED MINIMUM SPRAY HEIGHTS

Nozzle Type	Nozzle Height			
	Spray Angle	20" Spacing	30" Spacing	40" Spacing
TeeJet (Flat Spray)	65°	22-24"	33-35"	NR*
TeeJet, XR TeeJet	80°	17-19"	26-28"	NR*
TeeJet, XR TeeJet	110°	15-18"	20-22"	NR*
FullJet	120°	10-18"**	14-18"**	14-18"**
FloodJet	120°	***	***	***

*Not recommended. **Nozzle height based on 30° to 45° angle of orientation.
*** Wide angle spray tip height is influenced by nozzle orientation. The critical factor is to achieve a double spray pattern overlap.

MISCELLANEOUS CONVERSION FACTORS

One Acre = 43,560 Sq. Ft. = 0.405 Hectares
One Hectare = 2.471 Acres
One Gallon Per Acre = 9.35 Liters Per Hectare
One Mile = 5,280 Ft. = 1,610 Meters = 1.61 Kilometers
One Gallon = 128 Fluid Oz. = 8 Pints = 4 Qts.
One Gallon = 3.79 Liters = 0.83 Imperial Gallons
One Pound Per Square Inch = 0.069 bar = 6.896 Kilopascal
One Mile Per Hour = 1.609 Kilometers Per Hour

METRIC MEASUREMENTS

Useful Formulas:

$$\text{L/min (Per Nozzle)} = \frac{\text{L/ha x km/h x W}}{60{,}000}$$

$$\text{L/ha} = \frac{\text{60,000 x L/min (Per Nozzle)}}{\text{km/h x W}}$$

L/min — Liters Per Minute
L/ha — Liters Per Hectare
km/h — Kilometers Per Hour
W — Nozzle spacing (in cm) for broadcast spraying
— Spray width (in cm) for single nozzles, band spraying or boomless spraying.
— Row spacing (in cm) divided by the number of nozzles per row for directed spraying.

Measuring Travel Speed

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 30 and 60 meters are recommended for measuring speeds up to 8 and 14 km/h respectively. Determine the time required to travel the test course. To help insure accuracy, conduct the speed check with a loaded sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation:

$$\text{Speed (km/h)} = \frac{\text{Distance (m) x 3.6}}{\text{Time (seconds)}}$$

SUGGESTED MINIMUM SPRAY HEIGHTS

Nozzle Type	Minimum Nozzle Height (cm)			
	Spray Angle	50cm Spacing	75cm Spacing	100cm Spacing
TeeJet (Flat Spray)	65°	60	80	NR*
TeeJet, XR TeeJet	80°	50	70	NR*
TeeJet, XR TeeJet	110°	40	50	NR*
FullJet	120°	30**	40**	40**
FloodJet	120°	***	***	***

*Not recommended. **Nozzle height based on 30° to 45° angle of orientation.
*** Wide angle spray tip height is influenced by nozzle orientation. The critical factor is to achieve a double spray pattern overlap.

MISCELLANEOUS CONVERSION FACTORS

One Acre = 9,996 Sq. Meters = 2.47 Acres
One Hectare = 0.405 Hectare
One Liter Per Hectare = 0.1069 Gallon per Acre
One Kilometer = 1,000 Meters = 3,300 Feet = 0.621 Miles
One Liter = 0.26 Gallons = 0.22 Imperial Gallons
One Bar = 100 Kilopascal = 14.51 Pounds per Square Inch
One Kilometer per Hour = 0.62 Miles per Hour