

Fertilizer Equipment



Lil' Thumper Piston Pumps

Ground Driven Pump Accessories

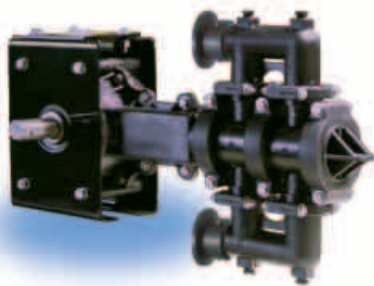
Hose & Plumbing Kits

Pump Parts & Sprockets

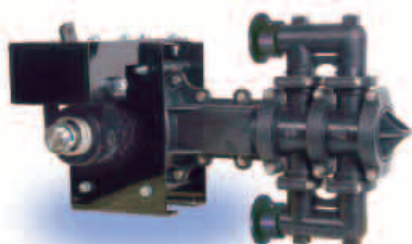


Lil' Thumper Ground Driven Pumps

5232



5230



Features

- Lil' Thumper piston pumps can be mounted on most planters and will adapt to other application equipment.
- Ground wheel drive assures accurate rate of application regardless of speed. Rate is easily set by dial pointer.
- Available with manually operated throw-out clutch, hydraulic clutch, or 12 volt electric clutch.
- Color coded reinforced synthetic valves with stainless steel springs and retainers. Stainless steel cage type valves virtually eliminate sticking and leaking and are easily serviced.
- All parts in contact with solution are various types of reinforced synthetic materials and stainless steel for unequaled corrosion resistance and years of service.
- Two self tightening stack-packing glands and drive case seals, with drain between, provide excellent crankcase protection.
- Single piston pump has 7.35 GPM output at 100 RPM full stroke. Double piston pump has 14.7 GPM output at 100 RPM full stroke. Maximum RPM 210. Maximum operating pressure 100 PSI. Recommended operating pressure 20 - 40 PSI.

NOTE: ANY AMOUNT OF LIQUID FERTILIZER, WITH OR WITHOUT ADDITIVES, MAY CAUSE GERMINATION DAMAGE WHEN PLACED IN DIRECT CONTACT WITH THE SEED.

Injection molded case is made of durable du Pont™ Rynite® to resist corrosion from agricultural chemicals and clear liquid fertilizer. Eccentric drive system permits a variable application rate (see "PISTON PUMP" application rate chart). Eccentrics are specially machined 4140 steel bearing material. Case bolts, washers and nuts are stainless steel to resist corrosion.

LIL' THUMPER PISTON PUMPS MAXIMUM APPLICATION CAPACITIES

Based on a tire size with 15" loaded radius and 2:1 ratio.

Swath	Gallons Per Acre	
	PP1	PP2
15 ft.	0 - 78	0 - 156
20 ft.	0 - 58	0 - 116
25 ft.	0 - 47	0 - 94
30 ft.	0 - 39	0 - 78
35 ft.	0 - 33.5	0 - 67
40 ft.	0 - 29	0 - 58
45 ft.	0 - 26	0 - 52
50 ft.	0 - 23.5	0 - 47
60 ft.	0 - 18.5	0 - 37

To increase volume, increase sprocket ratio



PP1

HOW TO ORDER Choose in this order: 1.Pump with desired shut-off 2.Drive and Drive Accessories



Single Piston Pumps

Lil'Thumper Single Piston 1.25" Diameter Solid Shaft	5232	52 lbs.	\$1,336.00
Lil'Thumper Single Piston with clutch, less Shut-off	5230	70 lbs.	\$1,482.00
Lil'Thumper Single Piston with manual shut-off	PP1	80 lbs.	\$1,471.00

Double Piston Pumps

Lil'Thumper Double Piston 1.25" Diameter Solid Shaft only	5233	70 lbs.	\$2,036.00
Lil'Thumper Double Piston with manual shut-off	PP2	100 lbs.	\$2,142.00



Pump, tire and sprocket not included

Ground Drive for Piston Pump

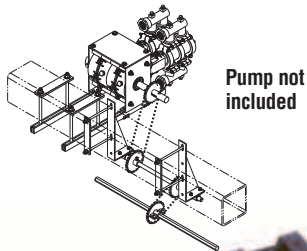
PPGDW	Ground Drive Wheel for Lil' Thumper Piston Pump Mounting for 7" X 7" tool bar. Includes chain, hub and necessary mounting hardware (less tire). Unit designed to be pushed, not pulled.	200 lbs.	\$1,169.00
T590L	Traction Tire for Ground Drive Wheel (590 X 15")	20 lbs.	Net \$71.00
07209-30	18 tooth sprocket, 1 1/4" bore, #50 chain	4 lbs.	\$73.28



PP6D

Drive Packages

PP6D	Drive Package for 5 and 6 Bolt Hub	32 lbs.	\$313.00
PP8D	Drive Package for 8 Bolt Hub	40 lbs.	\$253.00



Pump not included

Lil' Thumper Pump Mounting

5228	Universal Mounting Kit for Planter Includes mounting rails, plates, four 28 tooth sprockets, 6 feet of # 40 roller chain w/ connecting link, jack shaft and all necessary hardware. <i>Note: Modifications may be necessary for some planters.</i>	51 lbs.	\$303.00
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5228

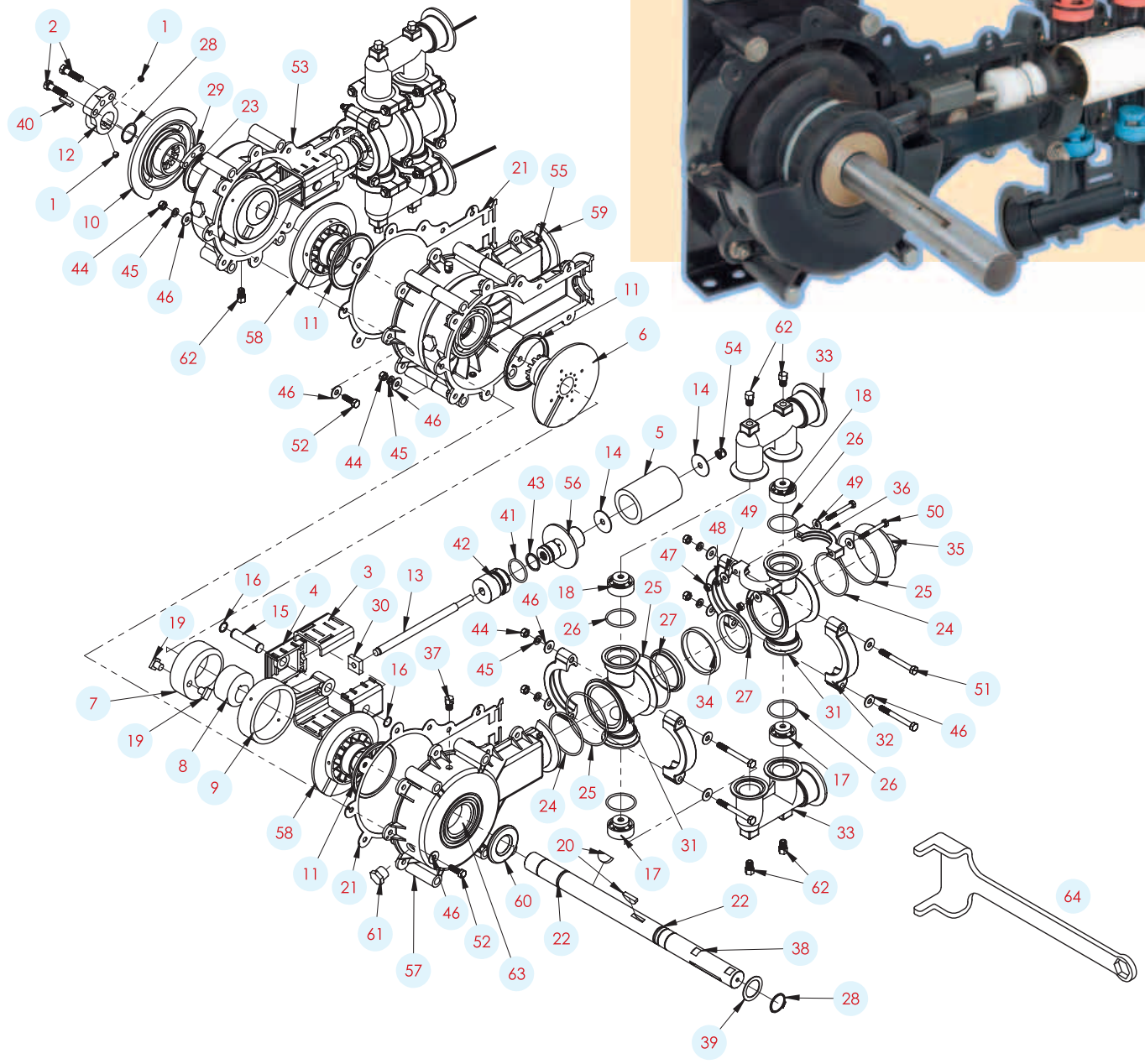
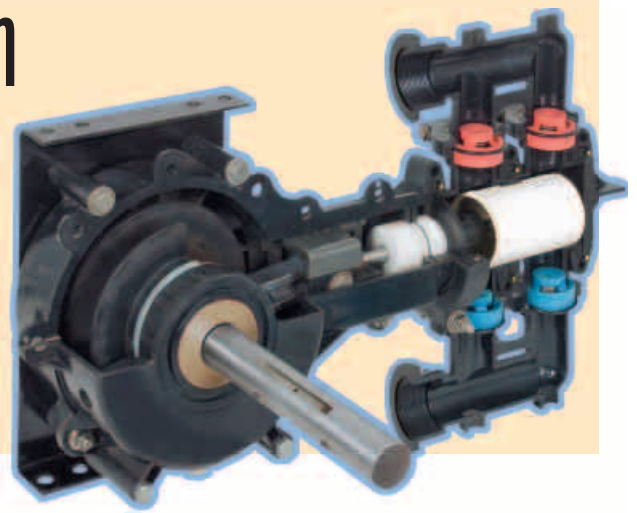
Drive Sprockets

07325	15 tooth sprocket, 1 1/4" bore, #40 chain	1 lbs.	\$36.70
28TS 1-30	28 tooth split sprocket for 7/8" hex shaft #40 chain	2 lbs.	\$48.35
28TH 1 1/4-30	28 tooth sprocket, 1 1/4" bore, #40 chain	2 lbs.	\$61.83
07209-30	18 tooth sprocket, 1 1/4" bore, #50 chain	4 lbs.	\$73.28



28TH 1/4-30

Piston Pump Parts Breakdown



PISTON PUMP PARTS LIST for pumps with serial numbers 250000 and larger

REF. NO.	PART NO.	DESCRIPTION	PRICE	REF. NO.	PART NO.	DESCRIPTION	PRICE	REF. NO.	PART NO.	DESCRIPTION	PRICE
1.	00087	Set Screw 3/8 X 3/8 Socket Head	\$0.52	23.	01517	Oil Seal (Clutch Side)	\$17.79	44.	01996	Nut, 3/8 NC SS	\$0.28
2.	00914	Bolt, 1/2 NC X 1.50 Hex Head GR.5	\$0.57	24.	01520	O-Ring Small Cylinder	\$2.74	45.	01997	Washer, Spring Lock 3/8	\$0.11
3.	01166	Slide Cover	\$11.66	25.	01521	O-Ring Large Clamp	\$2.83	46.	01998	Washer, Flat, 3/8	\$0.13
4.	01167	Piston Slide	\$26.78	26.	01522	O-Ring Check Valve	\$1.40	47.	02000	Nut 1/2 NC Hex SS	\$0.15
5.	01168	UHMW Piston	\$77.45	27.	01524	Piston Wiper	\$11.81	48.	02001	Washer, 1/4 Spring Lock SS	\$0.05
6.	01169	Drive Hub Adjustment Side	\$67.90	28.	01528	Snap Ring (1.172" ID)	\$0.59	49.	02002	Washer, Flat, 1/4 SS	\$0.09
7.	01171	Eccentric, Large	\$177.43	29.	01529-95	Adjustment Pointer Locking Plate	\$11.27	50.	02004	Bolt, 1/2 NC X 2.25 SS	\$0.96
8.	01172	Eccentric, Small	\$120.26	30.	01530	Piston Rod Retaining Block	\$10.63	51.	02005	Bolt, 3/8 NC X 3 SS	\$1.60
9.	01173	Connecting Rod	\$109.66	31.	01534	Cylinder Housing	\$41.46	52.	02006	Bolt, 3/8 NC X 1.00 SS	\$0.83
10.	01176	Adjustment Disc	\$40.94	32.	02202	Large Clamp Half	\$7.25	53.	02200	Half Drive Case (Includes Bearing)	\$304.68
11.	01177	Bearings Trust Drive Hub	\$9.00	33.	01313	Manifold (Intake/Exhaust)	\$53.48	54.	04632	Nut, 3/8 NC Nylon Lock	\$1.00
12.	01191-95	Adjustment Pointer	\$33.82	34.	01537	Support Ring Piston Wiper	\$2.69	55.	04642	Zerk, Grease, 1/4 UNF	\$0.40
13.	01265	Piston Rod	\$47.21	35.	01538	End Cap	\$10.63	56.	5136	Stack Pack Subassembly	\$140.06
14.	01313	Piston Washer	\$4.26	36.	01539	Small Clamp	\$3.74	57.	11924	Half Drive Case (Includes Bearing)	\$304.68
15.	01317	Wrist Pin	\$18.00	37.	01597	Plug Breather, 1/4 MPT	\$2.15	58.	11926	Drive Hubs Adjustment Side	\$73.44
16.	01318	Pump Snap Ring	\$0.33	38.	01596	Drive Shaft (PP1)	\$130.00	59.	11927	Center Drive Case	\$382.40
17.	01320	Intake Valve (Blue)	\$33.01	39.	01599	Drive Shaft (PP2)	\$186.24	60.	11929	Oil Seal (Drive Hub)	\$25.59
18.	01321	Exhaust Valve (Red)	\$33.01	40.	01979	1.25" Machine Bushing	\$0.58	61.	F1200	FTG, Plug 1/2 MPT	\$0.76
19.	01390	Drive Hub Adjusting Pin	\$6.12	41.	01989	Adjustment Clamp Drive Key	\$1.23	62.	F1400	FTG, Plug 1/2 MPT	\$0.32
20.	01391	Woodruff Key 1 1/4 X 1 1/8	\$1.03	42.	01596	O-Ring Piston Rod Guide	\$0.90	63.	02501	Bearing, Drive Case	\$58.39
21.	01426	Gasket	\$21.92	43.	01992	Bushing	\$47.47	64.	11521-95	Pump Adjusting Tool	\$13.08
22.	01516	O-Ring Main Shaft	\$0.74								

setting the piston pump rate for gallons per acre (GPA)

Calibrate your piston pump from our website: www.demco-products.com. Use "calibration" in the Keyword Search.

1. Measure and record drive wheel tire air pressure. Maintain pressure at all times.
2. Measure the distance from the surface of the ground to the center of the drive wheel. This is your **Loaded Radius**.

Determining Sprocket Ratios for Piston Pumps

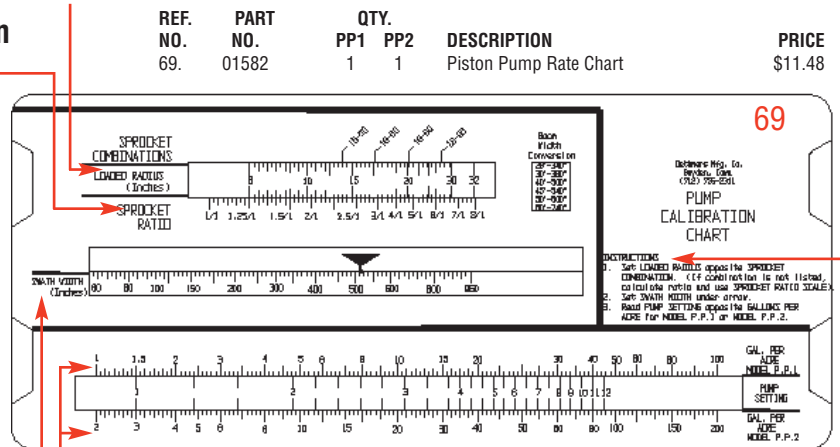
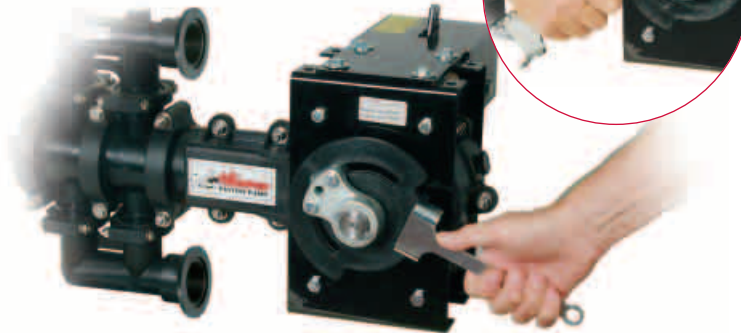
1. Count the number of teeth on the Drive Wheel Sprocket.
2. Count the number of teeth on the Driven Sprocket.
3. Divide the number of teeth on the Drive Sprocket by number of teeth on the Driven Sprocket to determine Sprocket Ratio.

For Equipment With Jack Shafts.

1. Multiply the number of teeth on all Drive Sprockets together.
2. Multiply the number of teeth on all Driven Sprockets together.
3. Divide Drive Sprocket total by Driven Sprocket total which equals the Sprocket Ratio.

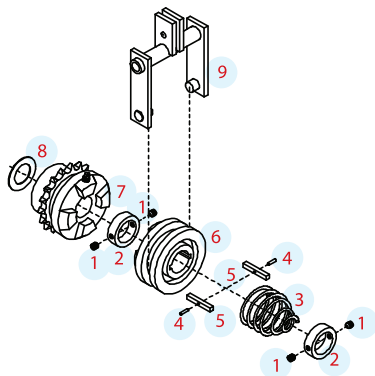
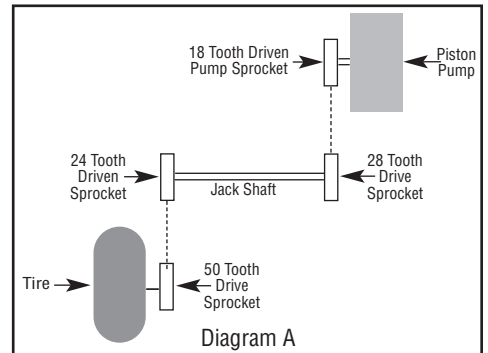
Example - (See Diagram A)
 (A) Drive Sprockets 50 x 28 = 1400
 (B) Driven Sprockets 24 x 18 = 432
 (C) $\frac{1400}{432} = 3.24$

NOTE: On units with press wheels, the radius in inches of the drive wheel can be considered as the number of teeth on the drive sprocket and the radius of the press wheel can be considered as the number of teeth on the driven sprocket.



Instructions for Pump Setting

1. Set LOADED RADIUS opposite SPROCKET COMBINATION. (If combination is not listed, calculate ratio and use SPROCKET RATIO SCALE).
2. Set SWATH WIDTH under arrow.
3. Read PUMP SETTING opposite GALLONS PER ACRE for MODEL PP1 or MODEL PP2.



PISTON PUMP CLUTCH PARTS

REF. NO.	PART NO.	DESCRIPTION	PRICE
1.	00087	3/8" x 3/8" Cup Point Set Screw	\$0.52
2.	01598-95	1 1/4" I.D. Lock Collar	\$13.36
3.	01193	Clutch Spring	\$6.23
4.	01976	1/2" x 1/2" Roll Pin	\$0.19
5.	01549	3/4" x 3/4" x 1 3/8" Key	\$2.92
6.	01184	1 1/4-30	\$60.67
7.	01183	1 1/4-30	\$69.44
8.	01979	1-1/2" I.D. 18 Ga. Machine Washer	\$0.58
9.	01576-30	Clutch Throw Out Yoke	\$50.59

PISTON PUMP PARTS KITS

PART. NO.	DESCRIPTION	PRICE
5161	Drive Case Repair Kit for PP1 Prior to Serial #250001) Consists of (1) Ref. 21 Gasket, (2) Ref. 22 O-Ring (1) O-Ring and (2) Ref. 23 Seal	\$56.40
5162	Drive Case Repair Kit for PP2 (Prior to Serial #250001) Consists of (2) Ref. 21 Gasket, (2) Ref. 22 O-Ring (2) O-Ring and (2) Ref. 23 Seal	\$77.92
5224	Wiper Repair Kit (Requires 2 Kits for PP2) Consists of (2) Ref. 27 Wiper, (2) Ref. 24 O-Ring (3) Ref. 25 O-Ring (4) Ref. 26 O-Ring and (1) Ref. 43 O-Ring	\$30.15

Pressure Hose Kits

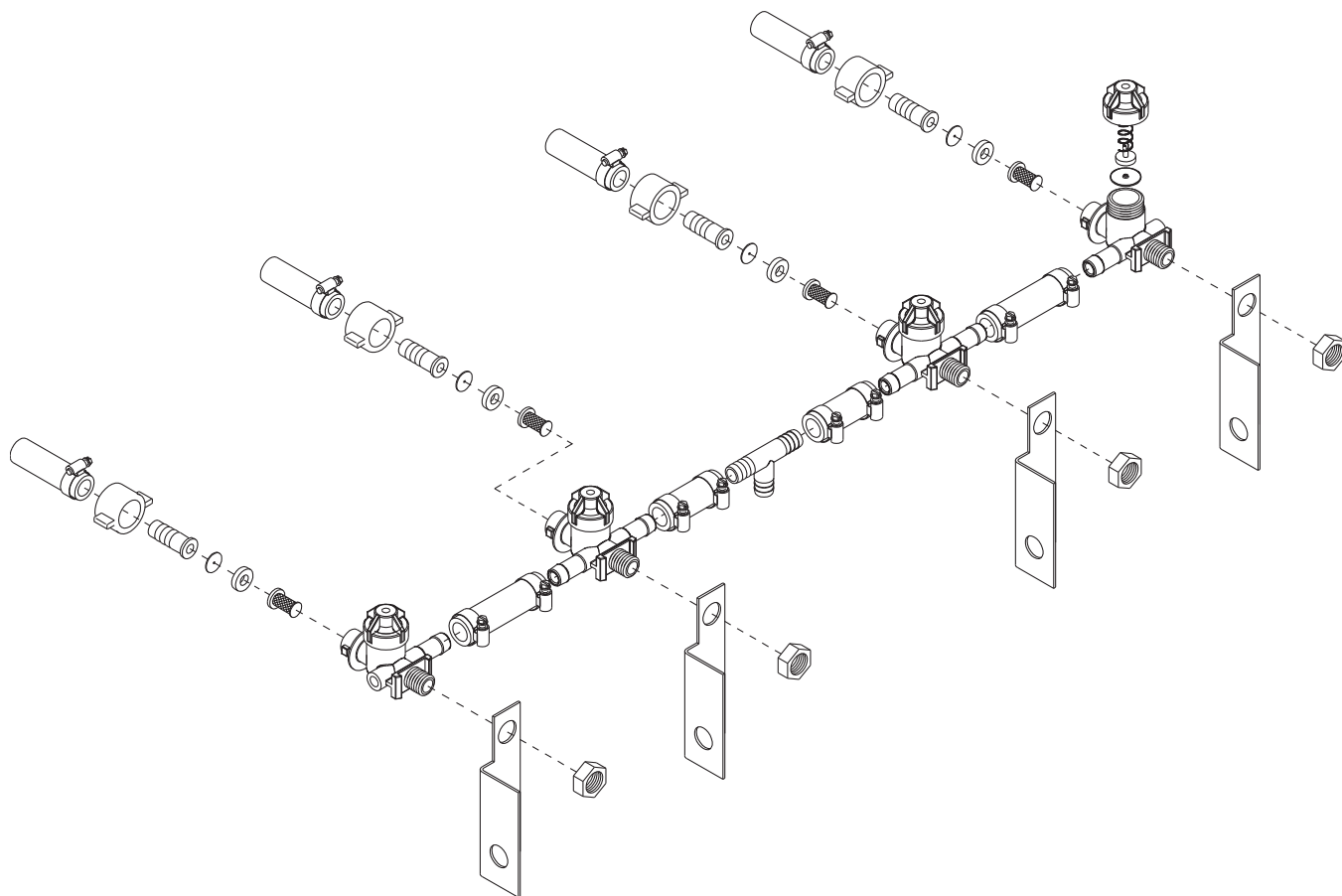


Chart is based on water and 30" row spacing.

Orifice No.	PSI	Gallons Per Acre		
		4 MPH	5 MPH	6 MPH
4916 40	20	7.1	5.7	4.7
	30	8.6	6.9	5.8
	40	10.0	8.1	6.7
4916 52	20	11.6	9.3	7.7
	30	14.5	11.4	9.5
	40	16.4	13.1	11.0
4916 65	20	17.8	14.5	12.1
	30	22.4	17.8	14.5
	40	25.6	20.5	17.0

Features

- Pressure hose kit used for applying liquid fertilizers or pesticides during planting or cultivating with a piston pump or pressure pump.
- Kits include 1/4" sprayer hose, 1/2" manifold hose, check valves and metering orifices No. 4916 40, 4916 52, and 4916 65.

Planter Hose Kits

4 row hose kit	PTC4DF	6 lbs.	\$106.00
6 row hose kit	PTC6DF	8 lbs.	\$153.00
8 row hose kit	PTC8DF	12 lbs.	\$201.00
12 row hose kit	PTC12DF	23 lbs.	\$290.00
16 row hose kit	PTC16DF	35 lbs.	\$391.00
24 row hose kit	PTC24DF	60 lbs.	\$520.00