

15 AND 25 GALLON PULL TYPE LAWN & GARDEN SPRAYER



Since VAN'S EQUIPMENT'S beginnings we have used a generic owners manual. It was just too costly to have printed and keep on hand owner manuals specific to each size and type sprayer we manufacture.

We now have the technology in house to create sprayer specific manuals and to print them only as needed. We think we have made a good beginning, but these manuals are still in the development stage. At this point we would appreciate the input of our end user customer and our dealers as to how we can make these manuals more useful and user friendly.

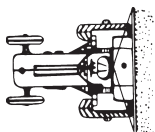
This is the prototype manual. Please look over the manual and give us your input.

CALL VANS EQUIPMENT AT 1-800-765-1101 AND ASK FOR CRAIG

We appreciate your input on these manuals.

Thanks Vans Equipment

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)



van's

EQUIPMENT COMPANY

We Appreciate You and Your Business!

P.O. BOX 3157 • 2169 SYLVESTER HIGHWAY • MOULTRIE, GEORGIA 31776-3157

(229) 985-1101

**VAN'S EQUIPMENT
BUILT FOR FARMING INTEGRITY**

WHEN SELECTING EQUIPMENT FOR FARMING THE NAME VAN'S means availability, reliability, and proven superiority. Maintaining a close association with farming customers has resulted in equipment design and manufacturing philosophy that reflects the exacting requirements of our customers.

Van's Equipment Company, Inc. appreciates your purchase of a new spray unit. This unit, is designed to give years of service with proper care. The following pages will be helpful in set-up and maintenance of your new unit.

PLEASE READ THIS MANUAL CAREFULLY BEFORE INITIAL START-UP IS ATTEMPTED.

**WE APPRECIATE YOU
AND YOUR BUSINESS**

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**15 AND 25 GALLON
PULL TYPE SPRAYER
2 WHEEL OR 3 WHEEL**



Model T25BE Shown Standard Two Wheel

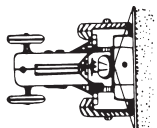
The 15 & 25 gallon models are available with two and three wheel trailer options. The compact trailer was designed with quality and dependability in mind. It is easy to maneuver so you can spray those hard to get to spots. We added a three tip boom with variable spacing outlets & adjustable heights, to handle your lawn spraying needs.

Standard Features Include:

- 1) Choice of 15 or 25 Gallon Polyethylene Tank
- 2) 5" Threaded Fillwell
- 3) Heavy Duty Trailer w/5 Year Structural Warranty
- 4) 15' Hose & Hand Gun
- 5) 3 Tip Boom w/8003 Tips, Caps & Strainers
- 6) 13 X 5.00-6 Turf Tires
- 7) Fully Assembled & Factory Tested

15 GALLON MODEL	
T15BE Trailer w/Hand Gun & Boom	
25 GALLON MODEL	
T25BE Trailer w/Boom & Hand Gun	

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ALL IN ONE LAWN AND GARDEN SPRAYER : OWNERS MANUAL

ASSEMBLY

Your VAN's ALL IN ONE Sprayer is Fully Assembled and Tested at the Factory. The Only Assembly You Need to do is to Hook the Wiring Harness Clips to a 12 Volt Power Source,(RED WIRE TO POSITIVE +,BLACK WIRE TO GROUND-).

PLEASE NOTE: PUMPS ON THESE LAWN AND GARDEN UNITS ARE FOR INTERMITTENT USE ONLY.

THEY ARE MORE THAN ADEQUATE TO SPRAY THE COMPLETE CONTENTS OF A 50 GALLON TANK.

WE RECOMMEND A 30 MINUTE DOWN TIME AFTER EVERY TANK FULL.

BEFORE USING/OPERATION

- 1 Always Test and Check for Leaks With Clean Water.
- 2 To Start/ Prime Unit the Discharge Line Must Be Open to Allow Traped Air To Escape. Once The Pump Is Running The Pressure Switch Will Shut Off The Pump When Discharge Is Closed,and Open When Discharge Is Opened.
- 3 The Tip On The Spray Gun Is Adjustable and Can Be Set From Straight Stream To Wide Fan Pattern.
- 4 On Units With Secondary Outlets ,Such as A Boom or Flood Tip,There Will Be A Ball Valve In the Feed Line To this Outlet. Release Of The Trigger On The Gun Shuts The Gun Off. These Units Will Also Have A ON/OFF Switch To The Pump. The ON/OFF Switch to the Pump Comes In Handy In Situations , Such As Turning Unit Around,When Secondary Outlet Only Needs To Be Off For A Short Time As It Is Easier To Reach. Turn Ball Valve Off When Using Only Gun.
- 5 Look Inside Tank To Make Sure It Is Clean.

MAINTANANCE AND PRECAUTIONS:

- 1 Be Certain Power Source Comforms To Pump Voltage.
- 2 Be Certain Wiring Harness RED LEAD Goes To Positive(+),and Black To Ground (-).
- 3 Do Not Use To Pump Flammable Liquids.
- 4 Follow All Instruction On Chemical Contianer.
- 5 Flush With Clean Water After Every Use.
- 6 Do Not Restrict Suction Line.
- 7 Do Not Alter Sprayer.
- 8 Do Not Store Chemical In Tank.
- 9 Always Clean Tank Thoroughly Between Sprays or When Switching Chemicals.
- 10 Do Not Run Pump Dry.
- 11 If Freezing Conditions Will Occur , The Pump Must Be Liquid Free or Winterized With Proper Anti Freezing Chemicals.

TROUBLE SHOOTING:

MOTOR FAILS TO PRIME (MOTOR OPERATES,BUT NO PUMP DISCHARGE

- 1 Restricted Intake or Discharge Line.Open All Line Valves,Check For Cloggs or Kinked Lines.
- 2 Air Leak In Intake Line.
- 3 Punctured Pump Diaphragm.
- 4 Defective Pump Check Valve.
- 5 Crack In Pump Housing.
- 6 Debris In Check Valve.

MOTOR FAILS TO TURN ON

- 1 Pump or Equipment Not Connected To Power Source.
- 2 Loose Wiring Connection.
- 3 Pressure Switch Failure.
- 4 Defective Motor or Rectifier.
- 5 Frozen Cam/Bearing.

PUMP FAILS TO TURN OFF AFTER DISCHARGE VALVES ARE CLOSED

- 1 Depletion Of Available Liquid Supply.
- 2 Punctured Pump Diaphragm.
- 3 Discharge Line Leak.
- 4 Defective Pressure Switch.
- 5 Insufficient Voltage To Pump.
- 6 Debris In Check Valve

LOW FLOW AND PRESSURE

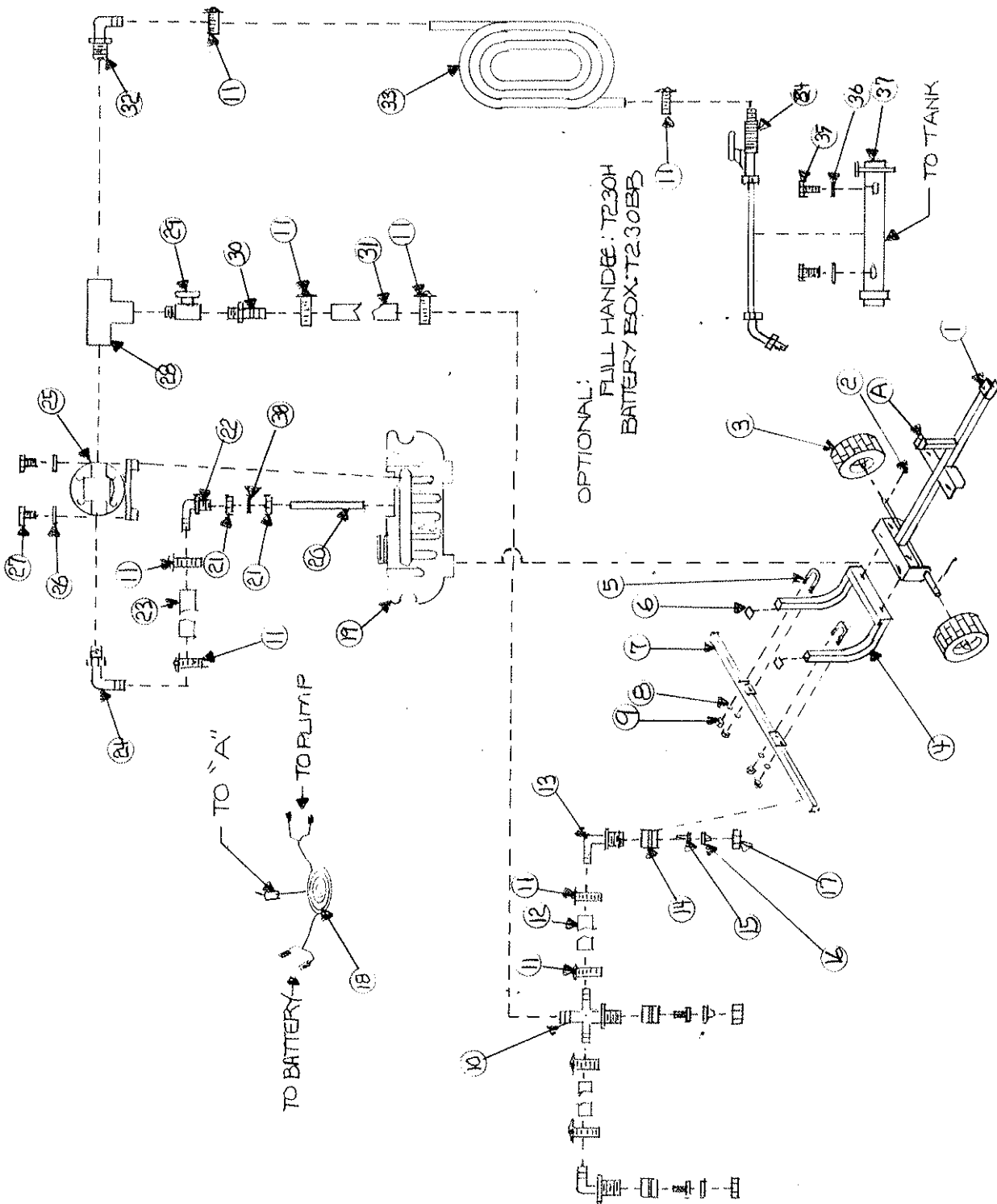
- 1 Air Leak At Pump Intake.
- 2 Accumulation of Debris Inside Pump and Plumbing
- 3 Worn Pump Bearing(Excessive Noise)
- 4 Punctured Pump Diaphragm
- 5 Defective Rectifier or Motor
- 6 Insufficient Voltage To Pump

PULSATING FLOW-PUMP CYCLING ON AND OFF

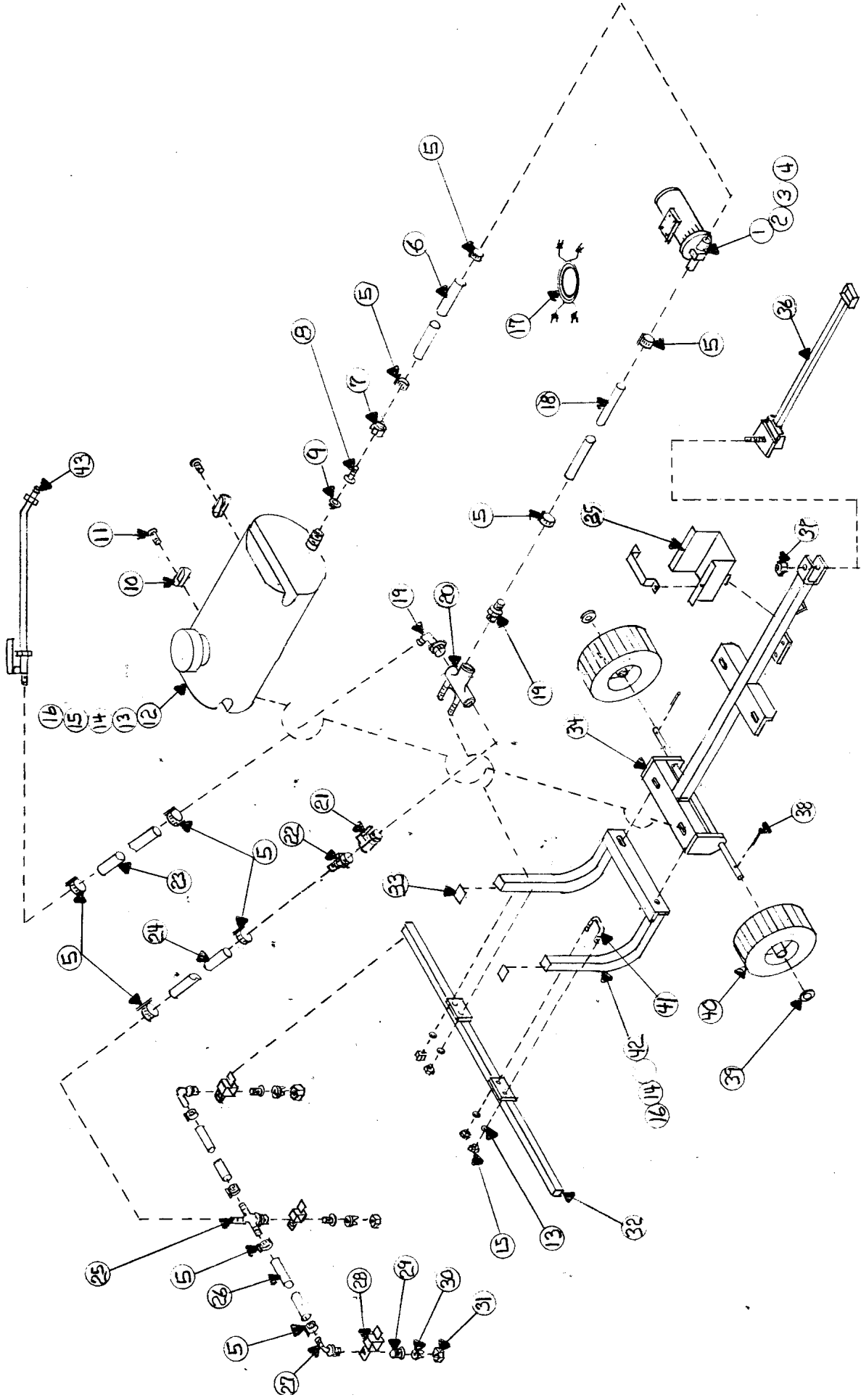
- 1 Restricted Pump Delivery,Check Discharge Line,Fittings,Valves,and Nozzle For Cloggs or Undersizing

LG 15/25 Trailer W/ Hand Gun & Boom (Standard)

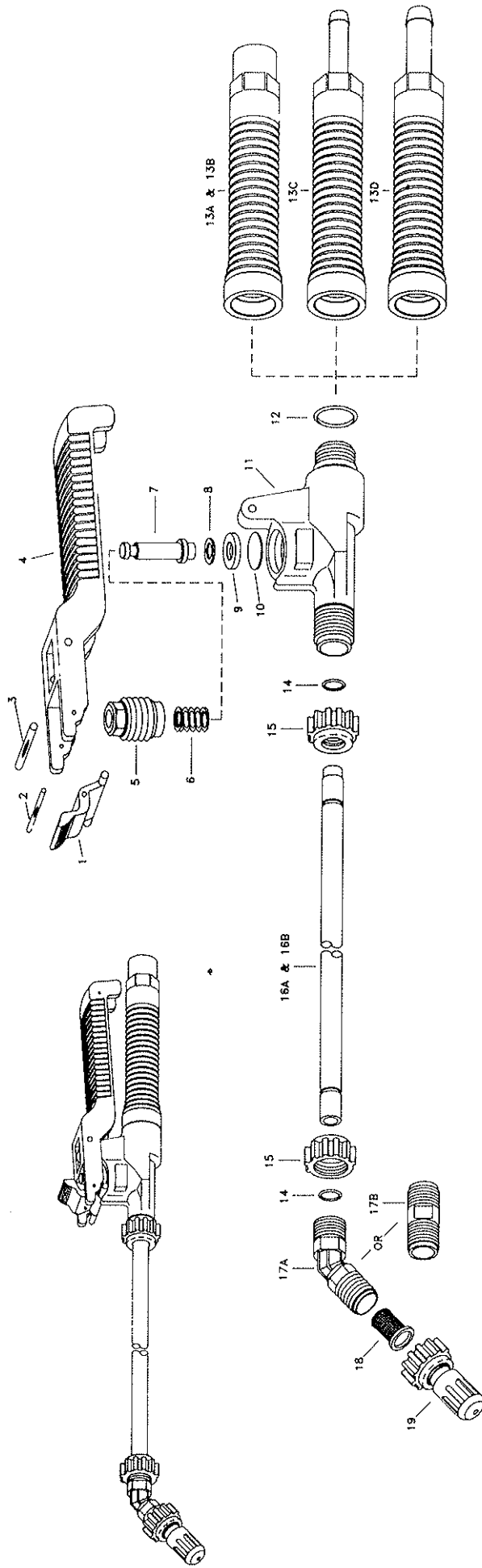
ITEM NO.	DESCRIPTION	PART NO.
1	Trailer 15 gallon lawn & garden less tire / wheel	T15NT
1A	Trailer 25 gallon lawn & garden less tire / wheel	T25NT
2	Cotter pin 1/8"x 1 1/2"	18112CP
3	Tire and rim assembly	13-500-6
4	Center section	T15CS
5	U-Bolt square 5/16"x 2"x 1 3/8"	SQU516200
6	Black cap plastic	132881202
7	3 Tip boom	B3
8	Flat washer 5/16"	FW516
9	Nut 5/16"	HN516C
10	Hose connector cross 3/8"	3T38C
11	Hose clamp 3/8"	M4P
12	Hose clear braid reinforced 3/8"	239002
13	Hose Connector elbow 3/8"	3NTL38
14	Boom clamp 1"	AA111SQ-1
15	Tip strainer 50 mesh	8079-PP-50
16	Tip Brass 8003	TP8003
17	Tip cap	CP8027-NYB
18	Wiring harness	WH-T1525
19	Tank 15 gallon lawn & garden	47029
19A	Tank 25 gallon lawn & garden	47033
20	Nipple 1/4"x10" PVC	202-100
20A	Nipple 1/4"x14" PVC	202-140
21	Tank fitting 1/4" brass	67069
22	Elbow 1/4"mpt x 3/8" barb 90	EL1438
23	Hose clear braid reinforced 3/8"	239002
24	Elbow 3/8"mpt x 3/8" barb 90	EL38
25	Pump 12 volt standard	D2131F1311
26	Flat washer 10/32"	FW10/32
27	Bolt 10/24" x 3/4"	10/24-3/4
28	Tee 3/8" fpt poly	TEE038
29	Ball valve 3/8" mpt x fpt brass (chromed)	90FMB38
30	Hose shank 3/8" Nylon	A38
31	Hose clear braid reinforced 3/8"	239002
32	Elbow 3/8"mpt x 3/8" barb 90	EL38
33	Hose clear braid reinforced 3/8"	239002
34	Spray gun	22670-PP-15-406
35	Bolt 5/16" x 3/4"	CS51634C
36	Lock washer 5/16"	FW516
37	Gun rack	L15GR
38	O-Ring	67070



ECONOMY SPRAYER BREAKDOWN



ITEM NO.	DESCRIPTION	PART NO.
1	Pump 1 GPM, 40PSI	2200-201
2	Bolt 10/24"x 3/4"	10/24/1934
3	Flat Washer 10/32"	FW10/32
4	Nut 10/24"	HN10/24
5	Hose Clamp 3/8"	M4P
6	Hose Clear Braid 3/8"	239002
7	Nut Swivel Brass x GHT 3/4"	B34B
8	Flat Seat Swivel GHT 3/8" Nylon	C38
9	Washer Black Vinyl 50/60 Screen	10373
10	Gun Clip	GC-100-KIT
11	Bolt 10/24"x 3/8"	10/24-3/8
12	Tank 15 Gallon Economy Lawn & Garden	SB00015
12A	Tank 25 Gallon Economy Lawn & Garden	SB00025
13	Bolt 5/16"x 3/4"	CS51634C
14	Flat Washer 5/16"	FW516
15	Lock Washer 5/16"	LW516
16	Bolt 5/16"x 1"	CS516100C
17	Wiring Harness	WHK-101SBC
18	Hose Clear Braid 3/8"	239002
19	Elbow 3/8"MPTx Barb 90 Nylon	EL38
20	Plumbing Mount	N/A
21	Ball Valve 3/8" Brass Chromed	90FMB38
22	Hose Shank 3/8"MPTx Barb Nylon	A38
23	Hose Clear Braid 3/8"	239002
24	Hose Clear Braid 3/8"	239002
25	Cross 3/8" Barbs x MPT	3T38C
26	Hose Clear Braid 3/8"	239002
27	Elbow 3/8"MPTx Barb 90 Nylon	3NTL38
28	Boom Clamp 1"	AA111SQ-1
29	Tip Strainer	8079-PP-50
30	Tip Brass	TP8003
31	Tip Cap	CP8027-NYB
32	Boom 3 Tip	B3
33	Cap Black Plastic	132881202
34	Frame 15 Economy	T15NTB
34A	Frame 25 Economy	T25NTB
35	Battery Box	T230BB
36	Pull Handle	T230H
37	Lock Nut 1/2"	HLN12C
38	Cotter Pin	18112CP
39	Flat Washer 5/8"	FW58
40	Tire & Rim Assembly	37-103
41	U-Bolt 5/16"x 2"x 1 3/8"	SQU516200
42	Center Section	T15CS



ITEM	PART NO.	DESCRIPTION
17A	CP22673-PP	45° Adapter, Polypropylene (Black)
17B	CP22664-PP	Straight Adapter, Polypropylene (Black)
	22665-15-PP	Extension Tube Sub-Asb. For 22670-PP-15- (Includes Items 14, 15, & 16A)
	22665-24-PP	Extension Tube Sub-Asb. For 22670-PP-24- (Includes Items 14, 15, & 16B)
18	8079-PP-50	Strainer, Polypropylene with Stl. St. Screen
19	5500-PPB-X8-VI	Adjustable ConeJet Tip Ass., Polypropylene (Black)
	No. 22670-PP-15-1/4	TriggerJet® Spray Gun with 15" Extension
	No. 22670-PP-15-3/8	TriggerJet® Spray Gun with 15" Extension
	No. 22670-PP-15-406	TriggerJet® Spray Gun with 15" Extension
	No. 22670-PP-24-1/4	TriggerJet® Spray Gun with 24" Extension
	No. B22670-PP-24-1/4	TriggerJet® Spray Gun with 24" Extension
	No. 22670-PP-24-300	TriggerJet® Spray Gun with 24" Extension
	No. 22670-PP-24-406	TriggerJet® Spray Gun with 24" Extension
	PK-AB22670-PP-KIT Spare Parts Kit (Includes all items marked with *)	

ITEM	PART NO.	DESCRIPTION
1	CP22656-NY	Trigger Lock, Nylon (Gray)
2	CP22671-I/P	Groove Pin, Steel, Zinc Plated
3	CP22672-I/P	Groove Pin, Steel, Zinc Plated
4	CP22655-PP	Trigger, Polypropylene (Black)
5	CP22658-PP	Spring Retainer, Polypropylene (Black)
6	CP22660-PHSS	Spring, Type 17-7PH Stainless Steel
7	CP22657-NY	Stem, Nylon (Gray)
8	CP22676-NY	Gasket, Neoprene
9	CP22659-PP	Washer, Polypropylene (Black)
10	CP22661-VI	Diaphragm, Viton
11	CP22651-PP	Body, Polypropylene (Black)
12	CP7717-2/016-VI	O'Ring, Viton
13A	CP22654-PP	Handle (1/4" NPT (F) Conn.), Polypropylene (Black) For 22670-PP-1/4
13B	CPB22654-PP	Handle (1/4" BSPT (F) Conn.), Polypropylene (Black) For B22670-PP-1/4
13C	CP22653-1/4-PP	Handle (1/4" Hose Shank Conn.), Polypropylene (Black) For 22670-PP-300
13D	CP22652-3/8-PP	Handle (3/8" Hose Shank Conn.), Polypropylene (Black) For 22670-PP-406
14	CP7717-2/110-VI	O'Ring, Viton (2 Req'd)
15	CP22668-PP	Cap, Polypropylene (Black) 2 Req'd
16A	CP22663-15-FRP	Extension Tube 15" Length, Polyester (Black), For 22670-PP-15-
16B	CP22663-24-PP	Extension Tube 24" Length, Polyester (Black), For 22670-PP-24-

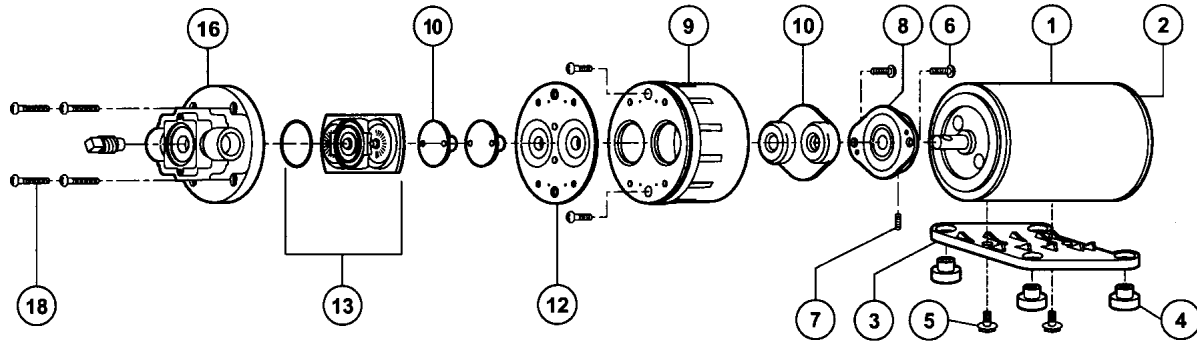


PARTS LIST
NO. 22670-PP--
TRIGGERJET® SPRAY GUN
WITH EXTENSION
AND SPRAY TIP

Spraying Systems Co.
 Spray Nozzles and Accessories
 North Avenue at Schmale Rd. • P.O. Box 7900
 Wheaton, IL 60189-7900

DATE 5/4/84 NO. PL 22670-PP

2100 SERIES DEMAND PUMP



KEY	PART NO.	DESCRIPTION	QTY.
1	02029-000	Motor 115 Volt AC TENV	1
	02039-001	Motor 230 Volt AC TENV	
	02009-004	Motor 12 Volt DC TENV	
	02019-001	Motor 24 Volt DC TENV	
2	20115-111	Brush Endbell/Rect. Assy. (AC) TENV	1
	20115-219	Brush Endbell/Rect. Assy. (AC) TEFC N/BRG.	
	20115-116	Brush Endbell Assy. (DC) TENV	
	20115-213	Brush Endbell/Rect. Assy. (DC) TEFC N/BRG.	
	20252-500	Internal Rectifier w/Leads**	1
3	11028-101	Motor Base Plate Assy. (Plastic)	1
4	20132-000	Grommets	Set of 4
5	20131-002	Baseplate Screws	Set of 2

CAM BEARING / DIAPHRAGM KIT

	21004-100	#0 Cam, VITON ® Diaphragm	1
	21004-200	#0 Cam, BUNA Diaphragm	1
	21004-400	#0 Cam, SANTO Diaphragm	1
	21004-101	#1 Cam, VITON ® Diaphragm	1
Kit	21004-201	#1 Cam, BUNA Diaphragm	1
Incl.	21004-401	#1 Cam, SANTO Diaphragm	1
6	21004-102	#2 Cam, VITON ® Diaphragm	1
7	21004-202	#2 Cam, BUNA Diaphragm	1
8	21004-402	#2 Cam, SANTO Diaphragm	1
10	21004-104	#4 Cam, VITON ® Diaphragm	1
12	21004-204	#4 Cam, BUNA Diaphragm	1
	21004-404	#4 Cam, SANTO Diaphragm	1
	21004-105	#5 Cam, VITON ® Diaphragm	1
	21004-205	#5 Cam, BUNA Diaphragm	1
	21004-405	#5 Cam, SANTO Diaphragm	1

KEY	PART NO.	DESCRIPTION	QTY.
9	20428-100	Bearing Cover Poly Pro	1
*13		Check Valve Assy. (Single Bypass)	1
	20028-002	SANTOPRENE	
	20028-012	BUNA N/FAB	
	20028-045	VITON ®	
		Check Valve Assy (Double Bypass)	
	20028-003	SANTOPRENE	
	20028-022	BUNA N/FAB	
	20028-078	VITON ®	
		Check Valve Assy (Single Bypass Vented)	
	20028-048	SANTOPRENE	
	20028-079	VITON ®	
	20028-028	BUNA N/FAB	
*14		Bypass Springs & Poppet Kit	
*15	20378-000	For 30 PSI Bypass Nominal (Yellow)	Set of 2
	20378-001	For 50 PSI Bypass Nominal (Blue)	Set of 2
		Standard Bypass Springs shown above. For correct bypass spring part number for your model, request specific parts list, giving the complete pump model number.	
	20500-507	Pump Housing Poly Pro	1
16	21050**	Pump Head Ass'y. Use Pump Dash Number for Pumphead Number	
18	20131-001	Pump Screws	Set of 6
6-18		Brush Kit	Set of 2
	20097-000	For 115 & 230 Volt AC Motor	Set of 2
	20097-001	For 12 & 24 Volt DC Motor	Set of 2
	20132-005	Fan Shroud Kit	1

* Parts included In Pump Service Kit ** Not shown in diagram

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SERVICE TIPS

Refer to exploded view for key number. To disassemble, remove six pump head screws (18), rotate bearing cover (9) so drain notch is aligned with cam/bearing assembly set screw (7), loosen set screw (use 1/8" size Allen Wrench) and slide pump head off shaft. Pistons (10) should always be replaced when new diaphragm is installed. Replace worn parts and reassemble. Be sure raised side of diaphragm faces the motor and radiused corner of pistons face diaphragm. Hex stem of inner piston (10) must be aligned (free to enter) into Hex hole in outer piston set (10). Press pistons together by hand until pistons snap tight. Install flat head screws (6) through outer piston set and tighten screws partially, center pistons in diaphragm then tighten screws securely. Place cam bearing assembly over outer piston set, align locating pins in the holes in cam

bearing assembly. Install round head screws and tighten securely. (Torque to 18 inch pounds, coat motor shaft with grease prior to assembly.) Reassemble bearing and cam bearing assembly to motor and retighten the set screw securely. Set screw **MUST** be positioned in shaft indentation. Position of the screw is critical to avoid misalignment and subsequent diaphragm damage. Reassemble pump head parts, using care to properly seat "O" ring (13) in check valve assembly. With lower housing held vertically, place bypass poppet(s) (14) and spring(s) (15) on locating post(s) molded on diaphragm. Place pump head with check valve and "O" ring installed, over bypass poppet(s) making sure poppet(s) are aligned into bypass ports in check valve housing (13). Tighten pump head screws (18) evenly.

Flojet



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Engineered for life

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FLOJET

Model 2100 Industrial Series Bypass Pump

Model 2100 Bypass Pump

PUMP INSTALLATION

MOUNTING

Flojet 2100 is a self-priming pump. It may be located several feet from the tank, above or below the liquid level. (It is not a submersible pump.) For vertical pump mounting be sure that the motor is located on top. This will prevent water from entering the motor chamber in event of a leak. Pump head may be rotated in 90° increments to simplify plumbing.

PLUMBING

For best performance, flexible 3/8-inch minimum hose is recommended instead of rigid piping at the pump. *Use plastic fittings at the pump port. Brass fittings will break pump housing if over tightened.* Do not install pump such that plumbing causes excessive stress on either port.

It is essential that a 20 mesh strainer or filter be installed in the tank or in the pump inlet line to keep large foreign particles out of the system. The use of check valves in the plumbing system may interfere with the priming ability of the pump. Check valves, if used, must have a cracking (opening) pressure of no more than 2 psi.

ELECTRICAL

On 115 Volt AC pumps, the black wire lead is common, the white is neutral and green/yellow is ground. On 230 Volt AC pumps, the brown wire lead is common, the blue is neutral and the green/yellow is ground. Never connect the green (or green/yellow) wire to a live terminal. On 12 and 24 Volt DC pumps, match red (+) and black (-) power leads with red and black leads on motor or switch.

The bypass and standard pump (no bypass, no switch) must be started and stopped by an electrical (on-off) switch.

OPERATION

Allow pump to prime with discharge line (or spray valve) open, to avoid airlock. Built-in bypass will allow the pump to bypass internally when discharge is restricted or closed and will stop bypassing when the discharge valve is open.

When liquid supply to pump is depleted pump will continue to operate. Running dry will not damage the pump. Turn off manually.

When the bypass type pump is allowed to run against a closed valve the internal bypass will automatically recirculate the flow within the pump at the preset bypass pressure.

Caution: The standard series pump is not equipped with a bypass or pressure switch. Allowed to run against a closed valve the excessive pressure developed by the pump will cause system or pump damage.

TROUBLESHOOTING

Failure to Prime-

Motor operates, but no pump discharge

- Restricted intake or discharge line. Open all line valves, check for "jammed" check valve poppets and clean clogged lines.
- Air leak in intake line.
- Punctured pump diaphragm.
- Defective pump check valve.
- Crack in pump housing.
- Debris in check valves.

Motor Fails to Turn On

- Pump or equipment not plugged in electrically. Loose wiring connection.
- Defective motor or rectifier.
- Frozen cam/bearing.

Low Flow and Pressure

- Air leak at pump intake.
- Accumulation of debris inside pump and plumbing.
- Worn pump bearing (excessive noise).
- Punctured pump diaphragm.
- Defective rectifier or motor
- Insufficient voltage to pump

WARRANTY

FLOJET warrants this product to be free of defects in material and/or workmanship for a period of one year after purchase by the customer from FLOJET. During this one year warranty period, FLOJET will at its option, at no charge to the customer, repair or replace this product if found defective, with a new or reconditioned product, but not to include costs of removal or installation. No product will be accepted for return without a return material authorization number. All return goods must be shipped with transportation charges prepaid. This is only a summary of our Limited Warranty. For a copy of our complete warranty, please request Form No. 100-101.

RETURN PROCEDURE

Prior to returning any product to FLOJET, call customer service for an authorization number. This number must be written on the outside of the shipping package. Place a note inside the package with an explanation regarding the reason for return as well as the authorization number. Include your name, address and phone number.

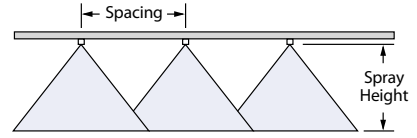
TeeJet® VisiFlo® Flat Spray Tips

Features:

- Tapered edge flat spray pattern for uniform coverage in broadcast spraying.
- VisiFlo color-coded version available in stainless steel, ceramic and polymer in 80° or 110° spray angles in selected sizes.
- Available in ceramic 80° capacities 01–20 and 110° capacities 01–015. See XR and XRC TeeJet® tips on pages 12 and 13 for larger capacities.
- Standard version (not color-coded) available in 15°, 25°, 40°, 50° and 65° spray angles in brass, stainless steel or hardened stainless steel.
- See page 39 for TeeJet even flat spray tips.
- Automatic spray alignment with 25612*-NYR Quick TeeJet® cap and gasket. Reference page 63 for more information.
- Automatic spray alignment for sizes 10 through 20 with 25610*-NYR Quick TeeJet cap and gasket. Reference page 63 for more information.



Tip	PSI	DROP SIZE	CAPACITY ONE NOZZLE IN GPM	CAPACITY ONE NOZZLE IN OZ./MIN.	20°										GALLONS PER 1000 SQ. FT.				
					GPA														
					4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH	2 MPH	3 MPH	4 MPH	5 MPH			
TP650050†	30		0.043	5.5	3.2	2.6	2.1	1.6	1.3	1.1	0.85	0.64	0.15	0.10	0.07	0.06			
TP800050†	35		0.047	6.0	3.5	2.8	2.3	1.7	1.4	1.2	0.93	0.70	0.16	0.11	0.08	0.06			
TP1100050†	40		0.050	6.4	3.7	3.0	2.5	1.9	1.5	1.2	0.99	0.74	0.17	0.11	0.09	0.07			
	50		0.056	7.2	4.2	3.3	2.8	2.1	1.7	1.4	1.1	0.83	0.19	0.13	0.10	0.08			
	60		0.061	7.8	4.5	3.6	3.0	2.3	1.8	1.5	1.2	0.91	0.21	0.14	0.10	0.08			
TP650067†	30		0.058	7.4	4.3	3.4	2.9	2.2	1.7	1.4	1.1	0.86	0.20	0.13	0.10	0.08			
TP800067†	35		0.063	8.1	4.7	3.7	3.1	2.3	1.9	1.6	1.2	0.94	0.21	0.14	0.11	0.09			
TP1100067†	40		0.067	8.6	5.0	4.0	3.3	2.5	2.0	1.7	1.3	0.99	0.23	0.15	0.11	0.09			
	50		0.075	9.6	5.6	4.5	3.7	2.8	2.2	1.9	1.5	1.1	0.26	0.17	0.13	0.10			
	60		0.082	10	6.1	4.9	4.1	3.0	2.4	2.0	1.6	1.2	0.28	0.19	0.14	0.11			
TP6501†	30	F	0.087	11	6.5	5.2	4.3	3.2	2.6	2.2	1.7	1.3	0.30	0.20	0.15	0.12			
TP8001	35	F	0.094	12	7.0	5.6	4.7	3.5	2.8	2.3	1.9	1.4	0.32	0.21	0.16	0.13			
TP11001	40	F	0.10	13	7.4	5.9	5.0	3.7	3.0	2.5	2.0	1.5	0.34	0.23	0.17	0.14			
	50	F	0.11	14	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6	0.37	0.25	0.19	0.15			
	60	F	0.12	15	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8	0.41	0.27	0.20	0.16			
TP65015†	30	F	0.13	17	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9	0.44	0.29	0.22	0.18			
TP80015	35	F	0.14	18	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1	0.48	0.32	0.24	0.19			
TP110015	40	F	0.15	19	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2	0.51	0.34	0.26	0.20			
	50	F	0.17	22	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5	0.58	0.39	0.29	0.23			
	60	F	0.18	23	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7	0.61	0.41	0.31	0.24			
TP6502†	30	M	0.17	22	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5	0.58	0.39	0.29	0.23			
TP8002	35	M	0.19	24	14.1	11.3	9.4	7.1	5.6	4.7	3.8	2.8	0.65	0.43	0.32	0.26			
TP11002	40	F	0.20	26	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0	0.68	0.45	0.34	0.27			
	50	F	0.22	28	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3	0.75	0.50	0.37	0.30			
	60	F	0.24	31	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6	0.82	0.54	0.41	0.33			
TP6503†	30	M	0.26	33	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9	0.88	0.59	0.44	0.35			
TP8003	35	M	0.28	36	21	16.6	13.9	10.4	8.3	6.9	5.5	4.2	0.95	0.63	0.48	0.38			
TP11003	40	M	0.30	38	22	17.8	14.9	11.1	8.9	7.4	5.9	4.5	1.0	0.68	0.51	0.41			
	50	M	0.34	44	25	20	16.8	12.6	10.1	8.4	6.7	5.0	1.2	0.77	0.58	0.46			
	60	F	0.37	47	27	22	18.3	13.7	11.0	9.2	7.3	5.5	1.3	0.84	0.63	0.50			
TP6504†	30	M	0.35	45	26	21	17.3	13.0	10.4	8.7	6.9	5.2	1.2	0.79	0.60	0.48			
TP8004	35	M	0.37	47	27	22	18.3	13.7	11.0	9.2	7.3	5.5	1.3	0.84	0.63	0.50			
TP11004	40	M	0.40	51	30	24	19.8	14.9	11.9	9.9	7.9	5.9	1.4	0.91	0.68	0.54			
	50	M	0.45	58	33	27	22	16.7	13.4	11.1	8.9	6.7	1.5	1.0	0.77	0.61			
	60	M	0.49	63	36	29	24	18.2	14.6	12.1	9.7	7.3	1.7	1.1	0.83	0.67			
TP6505†	30	C	0.43	55	32	26	21	16.0	12.8	10.6	8.5	6.4	1.5	0.97	0.73	0.58			
TP8005	35	M	0.47	60	35	28	23	17.4	14.0	11.6	9.3	7.0	1.6	1.1	0.80	0.64			
TP11005	40	M	0.50	64	37	30	25	18.6	14.9	12.4	9.9	7.4	1.7	1.1	0.85	0.68			
	50	M	0.56	72	42	33	28	21	16.6	13.9	11.1	8.3	1.9	1.3	0.95	0.76			
	60	M	0.61	78	45	36	30	23	18.1	15.1	12.1	9.1	2.1	1.4	1.0	0.83			
TP6506†	30	C	0.52	67	39	31	26	19.3	15.4	12.9	10.3	7.7	1.8	1.2	0.88	0.71			
TP8006	35	C	0.56	72	42	33	28	21	16.6	13.9	11.1	8.3	1.9	1.3	0.95	0.76			
TP11006	40	C	0.60	77	45	36	30	22	17.8	14.9	11.9	8.9	2.0	1.4	1.0	0.82			
	50	C	0.67	86	50	40	33	25	19.9	16.6	13.3	9.9	2.3	1.5	1.1	0.91			
	60	C	0.73	93	54	43	36	27	22	18.1	14.5	10.8	2.5	1.7	1.2	0.99			
TP6508†	30	C	0.69	88	51	41	34	26	20	17.1	13.7	10.2	2.3	1.6	1.2	0.94			
TP8008	35	C	0.75	96	56	45	37	28	22	18.6	14.9	11.1	2.6	1.7	1.3	1.0			
TP11008	40	C	0.80	102	59	48	40	30	24	19.8	15.8	11.9	2.7	1.8	1.4	1.1			
	50	C	0.89	114	66	53	44	33	26	22	17.6	13.2	3.0	2.0	1.5	1.2			
	60	M	0.98	125	73	58	49	36	29	24	19.4	14.6	3.3	2.2	1.7	1.3			
TP6510†	30		0.87	111	65	52	43	32	26	22	17.2	12.9	3.0	2.0	1.5	1.2			
TP8010†	35		0.94	120	70	56	47	35	28	23	18.6	14.0	3.2	2.1	1.6	1.3			
TP11010†	40		1.00	128	74	59	50	37	30	25	19.8	14.9	3.4	2.3	1.7	1.4			
	50		1.12	143	83	67	55	42	33	28	22	16.6	3.8	2.5	1.9	1.5			
	60		1.22	156	91	72	60	45	36	30	24	18.1	4.1	2.8	2.1	1.7			
TP6515†	30		1.30	166	97	77	64	48	39	32	26	19.3	4.4	2.9	2.2	1.8			
TP8015†	35		1.40	179	104	83	69	52	42	35	28	21	4.8	3.2	2.4	1.9			
TP11015†	40		1.50	192	111	89	74	56	45	37	30	22	5.1	3.4	2.6	2.0			
	50		1.68	215	125	100	83	62	50	42	33	25	5.7	3.8	2.9	2.3			
	60		1.84	236	137	109	91	68	55	46	36	27	6.3	4.2	3.1	2.5			
TP6520†	30		1.73	221	128	103	86	64	51	43	34	26	5.9	3.9	2.9	2.4			
TP8020†	35		1.87	239	139	111	93	69	56	46	37	28	6.4	4.2	3.2	2.5			
TP11020†	40		2.00	256	149	119	99	74	59	50	40	30	6.8	4.5	3.4	2.7			
	50		2.24	287	166	133	111	83	67	55	44	33	7.6	5.1	3.8	3.0			
	60		2.45	314	182	146	121	91	73	61	49	36	8.3	5.6	4.2	3.3			



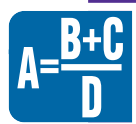
Optimum Spray Height	
65°	35"
80°	30"
110°	20"

See pages 173–187 for drop size classification, useful formulas and information.

- How to order:**
Specify tip number.
- Examples:
- TP8002VS – Stainless Steel with VisiFlo color-coding
 - TP11002VP – Polymer with VisiFlo color-coding
 - TP11001VK – Ceramic with VisiFlo polymer color-coding
 - TP11002-HSS – Hardened Stainless Steel
 - TP8002-SS – Stainless Steel
 - TP8002 – Brass

Note: Always double check your application rates. Tabulations are based on spraying water at 70°F (21°C). †Available in all brass, stainless steel and hardened stainless steel only.





Technical Information

Useful Formulas

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

$$\text{GPM (Per Nozzle)} = \frac{\text{GAL}/1000\text{FT}^2 \times \text{MPH} \times \text{W}}{136}$$

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

$$\text{GAL}/1000\text{FT}^2 = \frac{136 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

GPM – Gallons Per Minute

GPA – Gallons Per Acre

GAL/1000FT² – Gallons Per 1000 Square Feet

MPH – Miles Per Hour

W – Nozzle spacing (in inches) for broadcast spraying

– Spray width (in inches) for single nozzle, band spraying or boomless spraying

– Row spacing (in inches) divided by the number of nozzles per row for directed spraying

Nozzle Spacing

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverages by one of the following factors.

20"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
8	2.5
10	2
12	1.67
14	1.43
16	1.25
18	1.11
22	.91
24	.83
30	.66

Useful Formulas for Roadway Applications

$$\text{GPLM} = \frac{60 \times \text{GPM}}{\text{MPH}} \quad \text{GPM} = \frac{\text{GPLM} \times \text{MPH}}{60}$$

GPLM = Gallons Per Lane Mile

Note: GPLM is not a normal volume per unit area measurement. It is a volume per distance measurement. Increases or decreases in lane width (swath width) are not accommodated by these formulas.

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 ensure accuracy, conduct the speed check with a partially loaded (about half full) 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 or the table at right to determine ground speed.

$$\text{Speed (MPH)} = \frac{\text{Distance (FT)} \times 60}{\text{Time (seconds)} \times 88}$$

Speeds

SPEED IN MPH	TIME REQUIRED IN SECONDS TO TRAVEL A DISTANCE OF:		
	100 Feet	200 Feet	300 Feet
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
8.5	—	16	24
9.0	—	15	23

30"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
26	1.15
28	1.07
32	.94
34	.88
36	.83
38	.79
40	.75
42	.71
44	.68

40"	
OTHER SPACING (INCHES)	CONVERSION FACTOR
28	1.43
30	1.33
32	1.25
34	1.18
36	1.11
38	1.05
42	.95
44	.91
48	.83

Miscellaneous Conversion Factors

One Acre = 43,560 Square Feet
 = 43.56 1000FT² Blocks
 = 0.405 Hectare

One Hectare = 2.471 Acres

One Gallon Per Acre

= 2.9 Fluid Ounces per 1000FT²
 = 9.35 Liters Per Hectare

One Gallon Per 1000FT² = 43.56 GPA

One Mile = 5,280 Feet

= 1,610 Meters
 = 1.61 Kilometers

One Gallon = 128 Fluid Ounces

= 8 Pints
 = 4 Quarts
 = 3.79 Liters
 = 0.83 Imperial Gallon

One Pound Per Square Inch



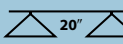
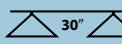
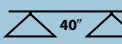
= 0.069 bar
 = 6.896 Kilopascals

One Mile Per Hour

= 1.609 Kilometers Per Hour

Suggested Minimum Spray Heights

The nozzle height suggestions in the table below are based on the minimum 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)			
				
TeeJet® Standard, TJ	65°	22–24"	33–35"	NR*
TeeJet, XR, TX, DG, TJ	80°	17–19"	26–28"	NR*
TeeJet, XR, DG, TT, TTI, TJ, DGTJ, AI, AI XR	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.

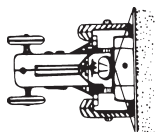
** Nozzle height based on 30° to 45° angle of orientation (see page 30 of catalog).

*** Wide angle spray tip height is influenced by nozzle orientation. The critical factor is to achieve a double spray pattern overlap.

15 AND 25 GALLON PULL TYPE LAWN & GARDEN SPRAYER



(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)



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