



Owner's Manual

For professional use only

Do not use this equipment
before reading this manual!

SPEEFLO PowrTex 15:1 Heavy Material Sprayer



Model Numbers:
Cart Mount
Drum Mount

515-592
515-597

NOTE: This manual contains important warnings and instructions. Please read and retain for reference.



Important Safety Information • Read all safety information before operating the equipment. **SAVE THESE INSTRUCTIONS.**



This symbol indicates a hazardous situation, which, if not avoided could result in death or serious injury.

HAZARD: EXPLOSION HAZARD DUE TO INCOMPATIBLE MATERIALS

Will cause property damage or severe injury.



PREVENTION:

- Do not use materials containing bleach or chlorine.
- Do not use halogenated hydrocarbon solvents such as bleach, mildewcide, methylene chloride and 1,1,1 - trichloroethane. They are not compatible with aluminum.
- Contact your coating supplier about the compatibility of material with aluminum.

HAZARD: DUST INHALATION

Dust or mist created by this sprayer may cause eye, skin, throat, or respiratory irritation.

- Avoid inhalation of mist or dust. Wear a NIOSH / MSHA approved respirator when using this equipment or for anyone entering the work area.
- Maintain proper ventilation to reduce mist / dust exposure.
- NO EATING, DRINKING, OR SMOKING should be done in the work area to prevent ingesting contaminated material particles. Workers should wash and clean up before eating, drinking, and smoking. Articles of food, drink, or smoking should not be left in the work area where dust would settle on them.
- Follow all warnings and recommendations provided by the textured coating manufacturer.

HAZARD: GENERAL

Can cause severe injury of property damage.

- Read all instructions and safety precautions for equipment and spray material before operating any equipment.
- Comply with all appropriate local, state and national codes governing ventilation, fire prevention and operation.
- This unit is intended for use with **water-based textured materials only**. **DO NOT** use this sprayer with any flammable or oil-based materials.
- Keep sprayer out of the reach of children.
- Hearing protection is recommended for extended use.
- Always wear appropriate gloves, eye protection, clothing and a respirator or mask when spraying.
- Do not aim the gun at or spray any person or animal.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not leave the sprayer energized or under pressure while unattended. When the unit is not in use, turn off the sprayer and relieve the pressure in accordance with the Pressure Relief Procedure.
- Always follow the Pressure Relief Procedure when shutting the sprayer down for any purpose, including servicing or adjusting any part of the spray system, changing or cleaning spray nozzles, or preparing for cleanup.
- This system is capable of producing 100 PSI / 0.69 MPa. Only use replacement parts or accessories that are specified by the manufacturer and that are rated a



minimum of 100 PSI. This includes spray nozzles, spray guns, extensions, fittings, and hose.

- Use only manufacturer authorized parts. User assumes all risks and liabilities when using parts that do not meet the minimum specifications and safety devices of the sprayer manufacturer.
- Do not overreach or stand on an unstable support. Certain material overspray can make floors slippery. Keep effective footing and balance at all times. Wear rubber-soled shoes.
- Stay alert and watch what you are doing.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Never modify the pump assembly, air compressor, spray gun, or any other component of the spray system.
- Check all components of the spray system daily. Repair or replace any worn or damaged parts immediately.
- Never directly inhale compressed air. Compressed air may contain toxic vapors.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.
- Fittings on the hose, compressor, radiator, and pump become hot during use. Avoid skin contact with any fittings when they are hot. Allow the fittings to cool before touching.
- Know the contents of the material being sprayed. Read all Material Safety Data Sheets (MSDS) and container labels provided with the materials. Follow the material manufacturer's safety instructions.
- Do not use the hose as a strength member to pull or lift the equipment.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over-bend the hose. Hoses can develop leaks from wear, kinking and abuse.
- Do not expose the hose to temperatures or pressures in excess of those specified by manufacturer.
- Install the supplied hopper cover onto the hopper before starting the spray system. When the system is turned on with only a small amount of material in the hopper, the hopper cover will prevent material from spraying out of the hopper.



HAZARD: EXPLOSION OR FIRE

Solvent and paint fumes can explode or ignite. Property damage and/or severe injury can occur.

PREVENTION:

- Provide extensive exhaust and fresh air introduction to keep the air within the spray area free from accumulation of flammable vapors. Solvent and paint fumes can explode or ignite.
- Do not spray in a confined area.
- Avoid all ignition sources such as static electric sparks, open flames, pilot lights, electrical appliances, and hot objects. Connecting or disconnecting power cords or working light switches can make sparks. Paint or solvent flowing through the equipment is able to result in static electricity.
- Do not smoke in spray area.
- Fire extinguisher must be present and in good working order.





Important Safety Information • Read all safety information before operating the equipment. SAVE THESE INSTRUCTIONS.

- Place paint pump at least 20 feet from the spray object in a well ventilated area (add more hose if necessary). Flammable vapors are often heavier than air. Floor area must be extremely well ventilated.
- The equipment and objects in and around the spray area must be properly grounded to prevent static sparks.
- Keep area clean and free of paint or solvent containers, rags and other flammable materials.
- Use only conductive or grounded high pressure fluid hose. Gun must be grounded through hose connections.
- Power cord must be connected to a grounded circuit.
- Always flush unit into a separate metal container, at low pump pressure, with spray tip removed. Hold gun firmly against side of container to ground container and prevent static sparks.
- Follow the material and solvent manufacturer's warnings and instructions. Know the contents of the paints and solvents being sprayed. Read all Material Safety Data Sheets (MSDS) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions.
- Use extreme caution when using materials with a flashpoint below 100°F (38°C). Flashpoint is the temperature that a fluid can produce enough vapors to ignite.
- Plastic can cause static sparks. Never hang plastic to enclose a spray area. Do not use plastic drop cloths when spraying flammable materials.
- Use lowest possible pressure to flush equipment.
- Do not spray onto pump assembly.

Grounding Instructions



Proper grounding is important. This applies to gas, electric and air powered models. The passage of some materials through the nylon fluid hose will build up a static electric charge, which is discharged, could ignite solvent vapors present and create an explosion.

Grounding the Pump

Be sure the PowrTex 15:1 system is grounded. All Titan units are equipped with a grounding lug. A Grounding Clamp, Part No. 101-208 and Ground Wire, Part No. 101-212 should be used to connect the unit to a true earth ground. These accessories can be ordered from your local distributor.

Loosen the grounding screw. Insert one end of the grounding wire to a true earth ground. Check local electrical regulations to detailed grounding instructions.

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Specifications

PowrTex 15:1 Heavy Materials Sprayer

Gallons per minute (GPM) 3.0 (11.1 LPM)
Maximum pressure 1500 PSI (103.4 BAR)

Mounting:

Cart Mount Cart
Drum Mount Drum Clamp

Supply:

Cart Mount 5 gallon (19 liters)
Drum Mount 55 gallon (208 liters)

Ratio 15:1

Compressor Requirements 50 CFM @ 90 PSI

Surge Control StediFlo™

Cycles Per Gallon 20 (5 per liter)

Pole Gun 2 ft (61 meters)

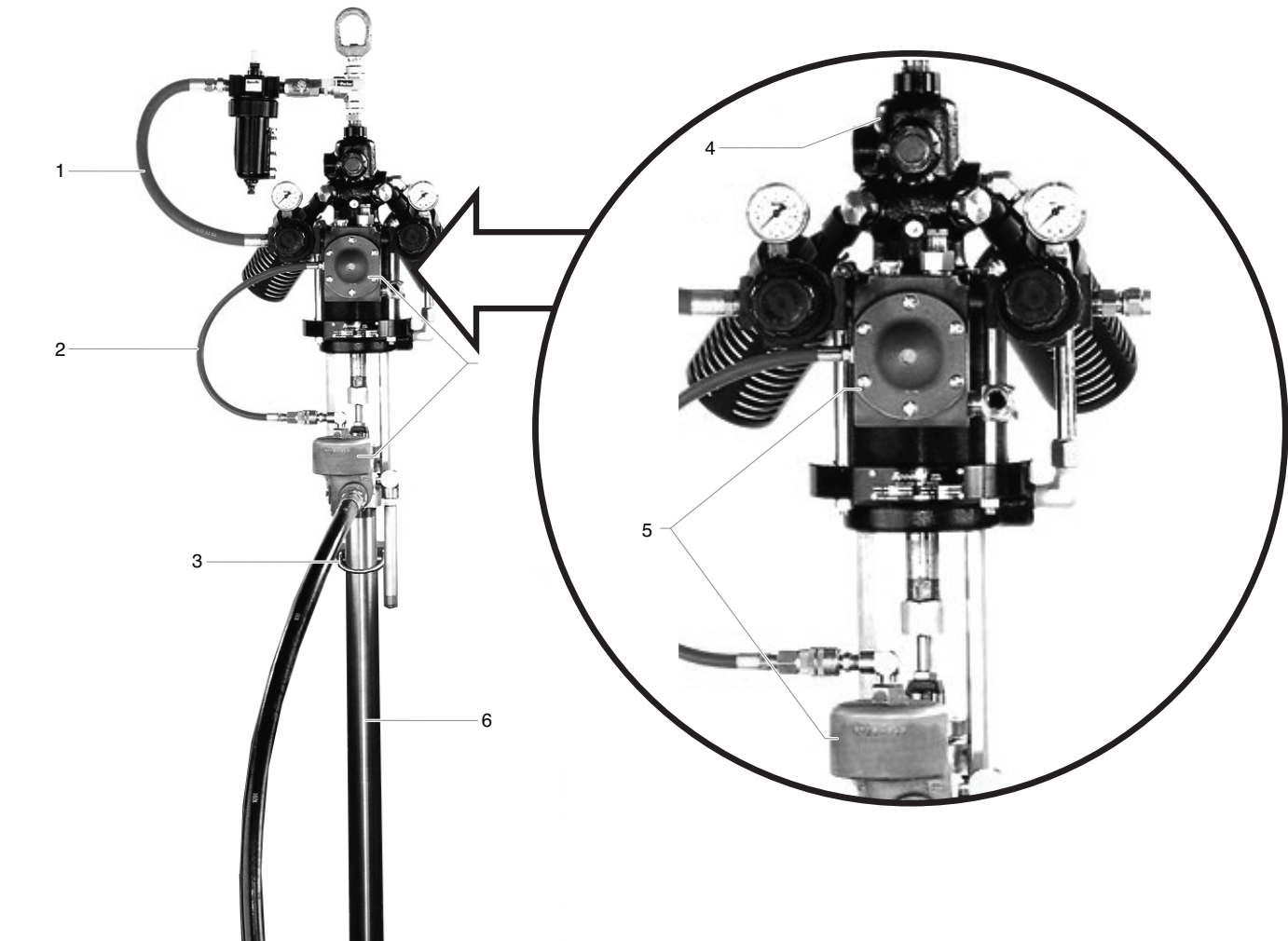
Hose Length 50 ft (15.2 meters) standard
equipment and 200 ft (61m)
maximum hose length

General Description

Titan PowrTex model 15:1 is suitable for most textures and mastics. The slow stroking hard chrome pump resists wear from coarse aggregates. Titan's StediFlo™ control minimizes pulsing and prevents material flow until atomizing air is turned on.

PowrTex 15:1 Assemblies

Pump Assembly

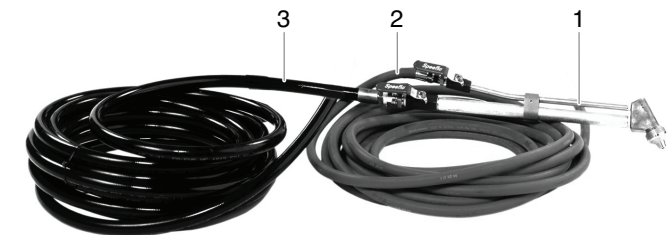


Item	Part #	Description	Quantity
1	542-015	Air hose assembly, 1/2" x 14"	1
2	539-015	Hose assembly, 1/4" x 22"	1
3	239-400	Drum clamp assembly (drum mount)	1
4	525-555	Motor assembly	1
5	928-509	StediFlo™ air control assembly	1
6	174-565	Pump assembly (cart mount).....	1
	174-557	Pump assembly, (drum mount)	1

Not pictured:

590-301	Cart assembly, cart mount.....	1
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Pole Gun Assembly



Item	Part #	Description	Quantity
1	701-802	Heavy material pole gun w/ 3/8" nozzle....	1
2	450-034	Fluid hose assembly, 3/4" x 50'	1
3	550-112	Air hose assembly, 1/2" x 50'	1

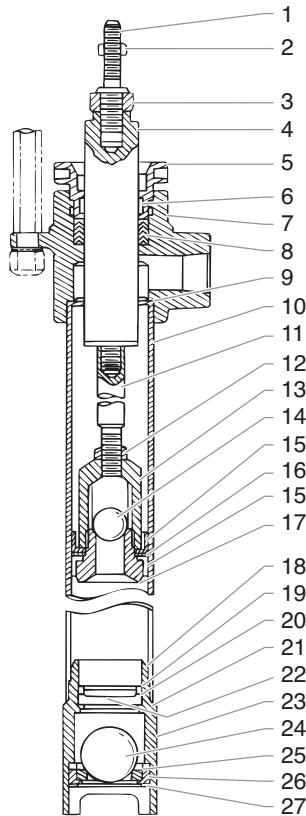
Setup Instructions

1. Attach 1/2" x 50 ft air hose (supplied) from air regulator to gun.
2. Attach 3/4" x 50 ft fluid hose (supplied) from StediFlo™ Material Valve to gun.
3. Attach a 1/2" minimum air hose (not supplied) from compressor to inlet of StediFlo™ Air Valve.

NOTE: See specifications for compressor air requirements.

NOTE: Do not use more than 200 ft (61m) of air or fluid hose.

Fluid Pump Assemblies, 174-557 (drum) and 174-565 (cart)



Item	Part #	Description	Quantity
1	239-103	Rod, connecting.....	1
2	862-701	Nut, jam	1
3	866-601	Nut, jam	1
4	175-981	Rod, displacement (cart mount)	1
	0533202	Rod, displacement (drum mount)	1
5	176-918	Nut, packing.....	1
6	176-006	Wear, ring	1
7	174-903	Block, pump.....	1
8	175-001	Packing set, upper.....	1
9	176-005	Gasket, nylon.....	1
10	173-932	Cylinder, 5 gallon (cart mount)	1
	239-933	Cylinder, 55 gallon (drum mount)	1
11	239-004	Rod, lower connecting (drum mount only)	1
12	866-601	Nut, jam (drum mount only)	1
13	173-130	Body, piston.....	1
14	920-103	Ball, SS.....	1
15	0507512	Packing set, cup	2
16	176-919	Washer, SS	1
17	174-922	Seat, piston.....	1
18	174-001	O-ring, PTFE	1
19	138-036	Ring, retainer	1
20	173-134	Ring, ball stop.....	1
21	742-223	O-ring.....	1
22	173-132	Pin, ball stop.....	1
23	173-136	Body, foot valve	1
24	314-180	Ball, SS.....	1
25	173-133	O-ring, PTFE	1
26	174-990	Seat, foot valve.....	1
27	0507511	Ring, retainer	1
	173-051	Service kit, minor (includes items 6, 8-9, 14-16, 18, 21, 24-25)	
	173-502	Service kit, major, drum mount (includes items 4, 10, 17, 23 and minor service kit 173-051).	
	173-503	Service kit, major, cart mount (includes items 4, 10, 17, 23 and minor service kit 173-051).	

Service Instructions

IMPORTANT: USE OF NON-TITAN MANUFACTURED SERVICE PARTS MAY VOID WARRANTY.

Disassembly

1. Disconnect Upper Connecting Rod (1).
2. Remove lower stanchion nuts and washers.
3. Remove pump assembly from air motor.
4. Hold pump block (7) in vise, and remove pump cylinder (10) with foot valve intact.
5. Pull displacement rod (4) down and remove from the pump block.
6. Hold displacement rod (4) in vise and remove piston seat (17), packing set (15), ball (14), and piston body (13).
7. Hold foot valve (23) in vise and unthread pump cylinder (10). Remove O-ring (18, 21) and disassemble foot valve (23) by removing retainer ring (27) to release valve seat (26), O-ring (25) and ball (24).
8. Remove packing nut (5) with wear ring (6) and upper packing set (8).

Reassembly

1. Replace packing set (8) into pump block (7). Apex of packings (8) should point toward air motor.
2. Replace packing set (15) and washer (16) onto piston body (13).
3. Put piston ball (14) into piston body and thread piston seat (17) up to piston body to full tight position. NOTE: Place blue Loctite on threads of piston seat (17).
4. Thread piston body (13) onto displacement rod or lower connecting rod (11) on 55 gallon models.
5. Insert displacement rod (4) through pump block (7). Replace wear ring (6) on packing nut (5). Push packing nut (5) over displacement rod (4) and fasten to pump block (7).

NOTE: Do not over-tighten packing nut (5). Tighten sufficiently to prevent leakage.

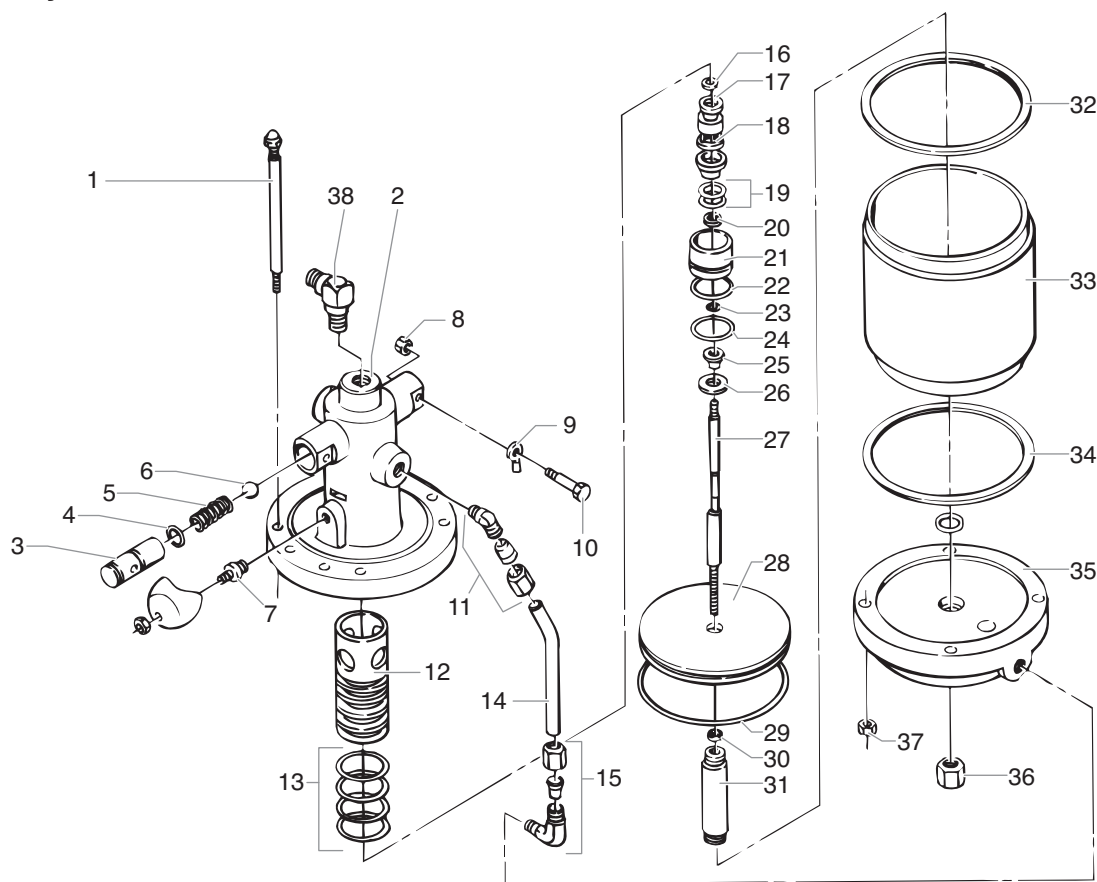
6. Install nylon gasket (9) in pump block (7) followed by the pump cylinder (10).
7. Insert PTFE O-ring (18) into pump cylinder (10).

IMPORTANT: Do not put this O-ring (18) on the foot valve in reassembly.

8. Drop the foot valve ball (24) into foot valve (23) and replace O-ring and foot valve seat (16) followed by the retainer ring (27). Place rubber O-ring (21) on foot valve.
9. Thread foot valve into pump cylinder to full clockwise position and tighten.
10. Attach pump to stanchions (see air motor sheet) and replace washers and nuts and tighten.
11. Connect upper connecting rod (1) to air motor.

PowrTex 15:1 Assemblies

Pump Assembly



Item	Part #	Description	Quantity	Item	Part #	Description	Quantity
1	525-028	Bolt	4	21	742-011	Bushing.....	1
2	525-967	Cylinder head	1	22	742-223	O-ring.....	1
3	742-905	Trip spring.....	2	23	890-114	O-ring.....	1
4	742-001	O-ring.....	2	24	742-018	Retainer clip.....	1
5	738-213	Trip spring.....	2	25	738-985	Piston nut.....	1
6	138-340	Valve ball.....	2	26	742-005	Piston washer	1
7	925-103	Adaptor.....	2	27	743-011	Valve rod assembly	1
8	858-611	Stop nut	2	28	525-987	Piston.....	1
9	101-205	Ground lug.....	1	29	525-016	Piston O-ring.....	1
10	858-660	Bolt	2	30	743-227	Valve trip collar	1
11	525-017	Elbow, 45°	1	31	738-937	Piston rod	1
12	742-913	Valve sleeve	1	32	525-004	Gasket	2
13	742-223	O-ring.....	4	33	525-952	Cylinder	1
14	525-943	Air line.....	1	34	738-021	O-ring.....	1
15	432-629	Elbow, 90°	1	35	525-977	Motor base.....	1
16	858-812	Elastic stop nut	1	36	138-007	Coupling nut	1
17	738-218	Upper valve keeper	1	37	-----	Jam nuts	6
18	740-925	Air valve.....	1	38	818-001	Elbow, 90°	1
19	738-224	Valve O-ring.....	2				
20	740-985	Lower valve keeper	1				
				525-942	Air line assembly - includes item 16, and Ferrule (Qty 2), Part # 432-644 and Compression nut (Qty 2), Part# 432-645. Ferrule and compression nut are components of items 13 and 17).		
				743-012	Valve spring and rod assembly (includes items 18, 29 and 32)		
				525-051	Motor service kit, minor (includes items 4-6, 15, 18, 21, 24-25, 31, 34, and 36)		
				525-501	Motor service kit, major (includes items 14, 19-20, 22, 29, and 32)		

Air Motor Assembly Service Instructions

Service Procedure

This Air Motor requires a normal maintenance and service inspection at 1500 hours usage. Service procedure includes replacement of the Motor Service Kit, Minor # 525-051 listed below. It is suggested that one Motor Service Kit, Major # 525-501 (which includes the minor kit) be kept on hand for normal maintenance and emergency repairs.

Warranty Information

This Air Motor is covered by the standard Titan Warranty against defective material and workmanship for a period of one (1) year. This warranty excludes expendable parts such as gaskets, O-rings, and rubber parts which will deteriorate with normal wear. Warranty card must be returned. See reference to use Automatic Lubricator or daily lubrication.

Warranty will not be extended for damage to any parts resulting from failure to operate or maintain the equipment according to the instructions and routine maintenance recommendations.

Maintenance

The 525 Air Motor should be served with moisture-free air if possible, and for this, a water trap such as Titan model 141-157 is recommended. For use under very cold and humid air conditions coupled with high speed and high operating pressure, a Moisture Separator and an Automatic Lubricator may be necessary to avoid icing. Air Line Filter / Moisture Separator should be drained as needed.

Fill Automatic Lubricator, part # 151-155, with AirCare™ Air Motor Lubricant, part # 311-101. Automatic Lubricator should be set to provide one drop every 90-125 cycles. In cold weather, when icing may occur, increase to one drop every 50-60 cycles.

Disassembly Procedure

1. Disconnect air line (23) from elbow (13) and elbow (17).
2. Remove locking bolts and stop nuts (10, 12), the trip spring retainers (3), O-rings (4), trip springs (5) and valve balls from both sides of the cylinder head (2).
3. Remove four jam nuts (7) and four bolts (1).
4. With piston (30) in down position, place wrench on flats of piston rod (33) and disconnect piston rod from pump connecting rod.
5. With piston (30) at top of stroke, raise cylinder head (2) and remove retainer clip (26). Lift off cylinder head (2). Valve sleeve (14) may pull out of cylinder head. If so, lift valve sleeve (14) off separately.
6. Remove stop nut (18) and then unthread upper valve keeper (19).
7. Remove air valve (20) followed by lower valve keeper (22) and bushing (23).
8. If valve sleeve is still in cylinder head, leave it there unless it is necessary to change O-rings. To remove, insert head of bolt (1) into large hole in valve sleeve (14) and pull it out very carefully.
9. Remove cylinder (35).
10. Remove piston rod (33) and piston from motor base (37).
11. Secure piston (30) in vise and remove piston nut (27) and piston washer (28).
12. Remove valve rod assembly (29) and valve trip collar (32).
13. Unscrew piston rod (33) from piston (30).
14. Remove O-ring (31) from piston (30).
15. Remove O-rings (24, 25) from bushing (23) and O-ring (36) from motor base (37).

Reassembly procedure

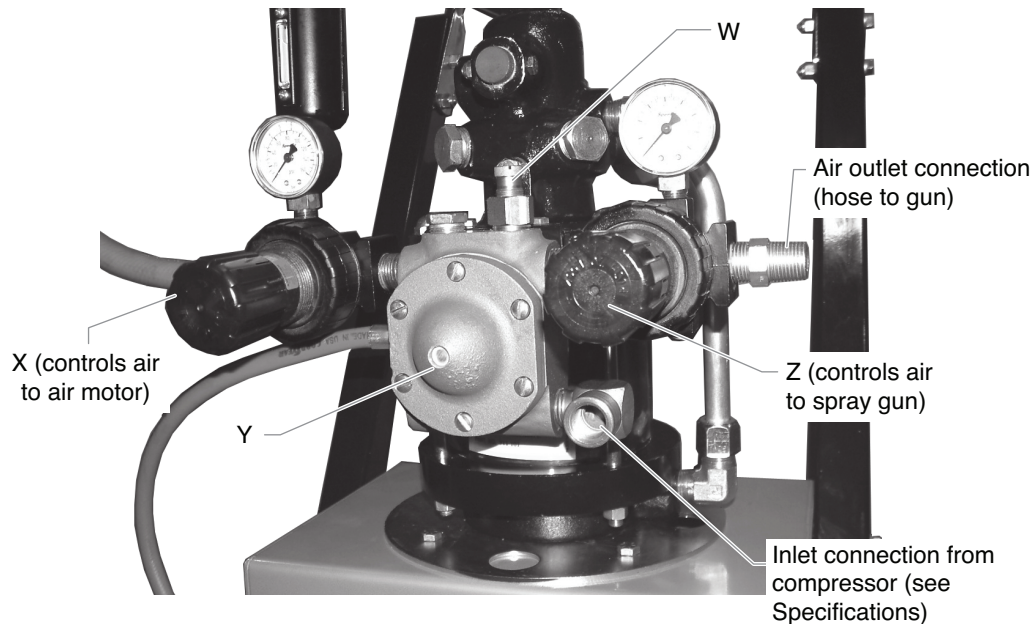
Wash all replaceable parts thoroughly with kerosene and lubricate with Lubri-Plate or similar non-water soluble grease. For routine servicing, use new parts from #525-051 Air Motor Service Kit. For major overhaul, replace all parts contained in the 525-501 Air Motor Service Kit. Inspect all other parts for abnormal wear or damage and replace if necessary.

1. Install new O-ring (34) into motor base (37) and new O-rings (24, 25) into bushing (23). Use care to avoid damaging O-rings and make sure they are properly seated in the O-ring grooves.
2. Place valve trip collar (32) into piston (30). Replace piston nut (27) and piston washer (28).
3. Screw piston rod (33) into piston (30). Replace piston nut (27) and piston washer (28).
4. Install piston O-ring (31) into piston (30).
5. Place new gasket (34) into position in motor base (37).
6. Place piston assemble (30, 33) into motor base (37). Use care not to damage O-ring (36).
7. Place new valve O-rings (21) on air valve (20).
8. Mount air valve assembly (20) onto valve rod assembly (29), followed by lower valve keeper (22), air valve (20), and upper valve keeper (22) which should be threaded down on air valve hand-tight, and then loosened approximately 1/4 turn or .009" gap. Place wrench on flats of valve rod (29) and hold to prevent valve rod from turning. Thread stop nut (18) down on valve rod (29) to lock upper valve keeper (22) in position. Be sure upper valve keeper (22) does not change position.
9. Grease inside of cylinder (35) and work cylinder down over piston gently in order to avoid damage to piston O-ring (31).
10. Install new O-rings (15) on valve sleeve (14). Grease valve sleeve and install into cylinder head (2) to large holes in the valve sleeve line up with trip retainer holes in the cylinder head (2). Put one trip retainer (3) with O-ring (4) into cylinder head (2) without ball (6) or trip spring (5) and hold in position temporarily with locking bolt (12) and stop nut (10).
11. Place new gasket (34) into position in cylinder head and hold with grease.
12. Carefully position air valve assembly (20) up into cylinder head (2).
13. Push bushing (23) into bottom of cylinder head (2) sufficiently to permit installation of retainer clip.
14. To install trip spring retainer (3), be sure one of the detents of air valve (20) is properly lined up with hole in cylinder head (2). Place O-ring (4) onto remaining trip spring retainer (3). Install valve ball (6) followed by trip spring (5) and trip spring retainer (3) into hole in cylinder head (2). Lock into position with bolt (12) and stop nut (10).
15. Remove opposite trip spring retainer (3) and repeat step #14.
16. Connect air line (16) to elbows (13, 17).
17. Replace bolts (1) and jam nuts (7). Always tighten nuts 180 degrees apart in order to obtain proper and even compression. Do not over-tighten.
18. Place wrench on the flats of the piston rod (33) and connect pump connecting rod.

StediFlo™ Air Control Assembly

Installation Instructions

There are three control devices on the PowrTex Air Assembly (Part # 928-509), two conventional air regulators X and Z, and a surge control StediFlo™ Valve W, which requires adjustment. Air regulator Z provides atomizing air, from the right hand outlet the StediFlo™ Valve W to the air motor. Air motor pressure usually ranges from 10-40 psi.



The 950-556 StediFlo™ is a surge control valve which disconnects the air pressure to the motor whenever the atomizing air flow to the gun is stopped by releasing the spray gun trigger. The removal of the air pressure to the motor prevents further pressure build in the fluid hose line and avoids a surge of high pressure material when the gun is opened.

The StediFlo™ Valve has an adjustment screw which will ensure that the spray gun and air motor will receive enough air pressure for proper operation.

Set atomizing air regulator (Z) to desired atomizing level (i.e. 40 PSI). Adjust the knurled adjustment screw by turning it all the way down (clockwise), open spray gun fluid valve and back off knurled adjustment screw until the valve stem of StediFlo™ valve is approximately flush in the cover at point (Y), indicating the diaphragm has moved. Set motor air regulator (X) to lowest setting needed to supply materials to the gun. Operation of the gun will actuate the air motor.

The 951-556 material valve is installed at the pump outlet. The instant the spray gun fluid valve is opened, the StediFlo™ valve releases air to the motor and closes the material vent. When the spray gun trigger is released, the motor stops and the vent opens, permitting the line pressure to discharge material back into the drum.

Coating materials vary widely in spray ability. See air data sheet for air cap and nozzle selection. Texture products will pump more easily when particles are well-mixed and kept in suspension by agitation or other means.

After refilling the reservoir, the Automatic Lubricator will need adjusting. Turn the adjusting screw clockwise to increase the AirCare™ injection rate and counterclockwise to decrease it. Check the injection rate by observing the flow through the sight dome. The proper flow rate is one (1) drop of AirCare™ per minute or every 90-125 cycles. In cold weather when icing may occur, increase to one (1) drop every 50-60 cycles.

Operation at very high cycle rates (i.e. greater than 60) will require a higher AirCare™ injection rate.

IMPORTANT: Use only Titan AirCare™ part # 311-101 lubricant. Use of any detergent-type lubricants will cause a serious problem with the pump and void the warranty.

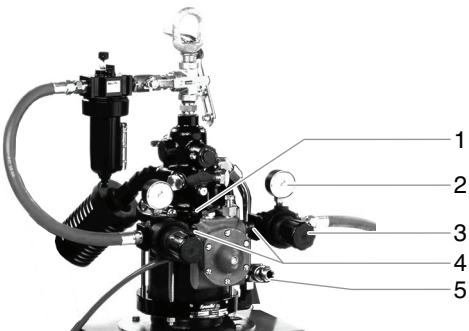
Operation Instructions

The 950 StediFlo™ is a surge control valve which disconnects the air pressure to the motor whenever the atomizing air flow to the gun is stopped by releasing the spray gun trigger. The removal of air pressure to the motor prevents further pressure build in the fluid hose line and avoids a surge of high pressure material when the gun is opened.

The 951 Material Valve is installed at the pump outlet. The instant the spray gun trigger is depressed, the 950 Valve releases air to the motor and if a 951 Material Valve is in the system, the material valve is closed. When the spray gun trigger is released, the motor stops and the valve opens, permitting the line pressure to discharge material back into the drum.

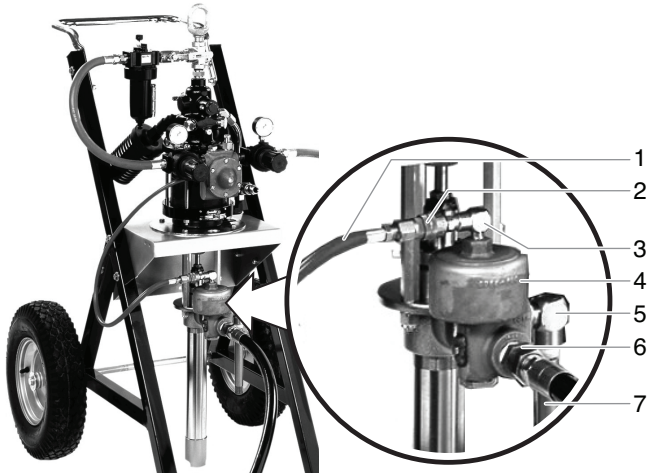
The 950 StediFlo™ Valve has an adjustment screw which will ensure that the spray gun and air motor will receive enough air pressure for proper operation. When air is connected and the atomizing air regulator is adjusted to the atomizing pressure required (usually 40-80 PSI), adjust the 950-203 Adjustment Screw by turning it all the way down (clockwise), open spray gun and back off adjustment screw until the stem of 950-218 is approximately flush to cover at point A, indicating the diaphragm has moved.

Air Valve Assembly



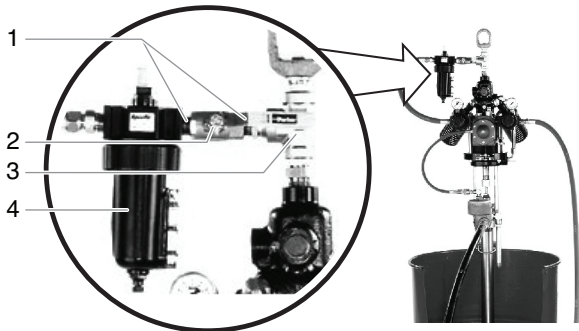
Item	Part #	Description	Quantity
1	950-556	Air valve, StediFlo™	1
2	227-100	Air gauge	2
3	112-204	Nipple, 1/2" x 1 1/2"	2
4	921-712	Air regulator	2
5	818-003	Elbow, 90°	1

Material Valve Assembly



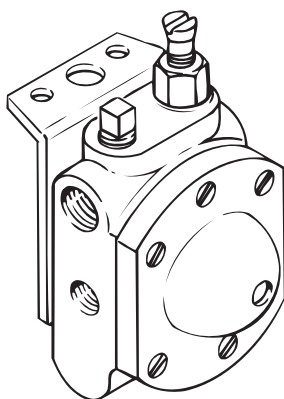
Item	Part #	Description	Quantity
1	539-015	Hose assembly, 22"	1
2	827-140	Quick-connect	1
3	810-555	Elbow, 90°	1
4	951-556	Material valve	1
5	818-003	Elbow, 90°	1
6	138-037	Swivel adapter	1
7	819-005	Pipe	1

Automatic Lubricator



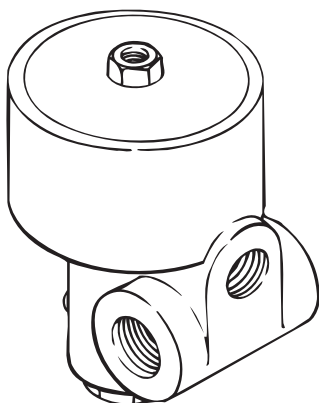
Item	Part #	Description	Quantity
1	814-007	3/4" hex nipple	2
2	940-561	Shut-off valve	1
3	830-564	Elbow, 90°	1
4	151-155	Lubricator assembly	1

StediFlo™ Air Valve Service Kit (950-051)



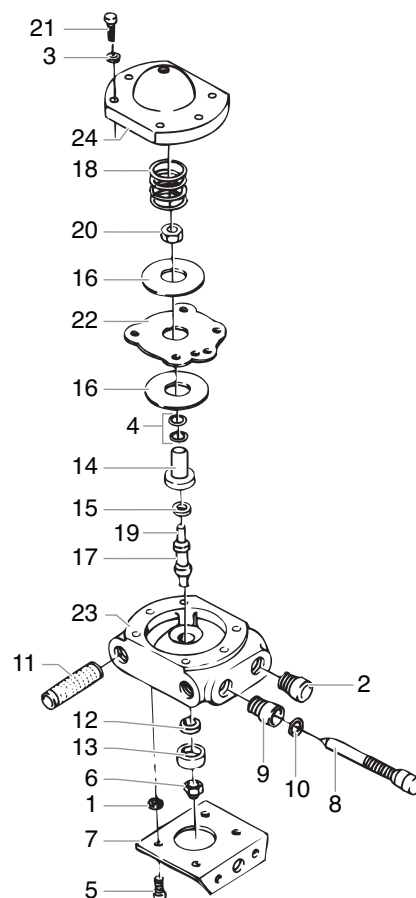
Part #	Description	Quantity
234-702	O-ring.....	2
858-812	Elastic stop nut.....	1
950-205	O-ring.....	1
950-212	Lower valve seat.....	1
950-216	Upper valve seat.....	1
541-016	Pin	1
950-239	Diaphragm.....	1

Material Valve Service Kit (951-051)



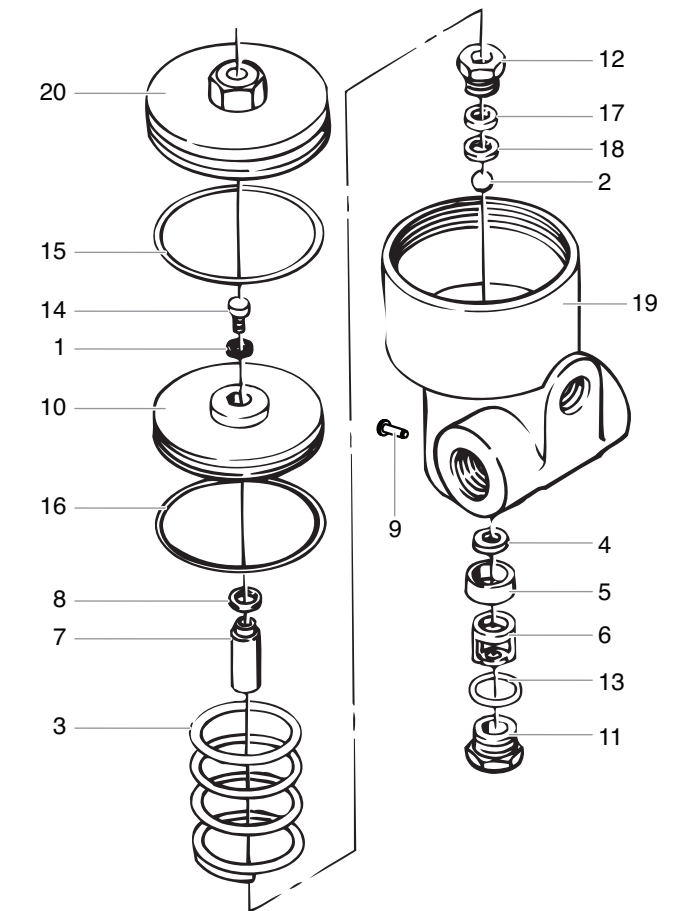
Part #	Description	Quantity
858-002	Lock washer, 1/4".....	1
951-002	Washer	1
951-006	Gasket	1
951-007	Set screw.....	1
951-011	O-ring, PTFE	1
951-012	Pan head screw, 1/4".....	1
951-013	O-ring.....	1
951-014	O-ring 033.....	1
951-016	PTFE ball seal	1
951-017	Gasket	1

StediFlo™ Valve (950-556)



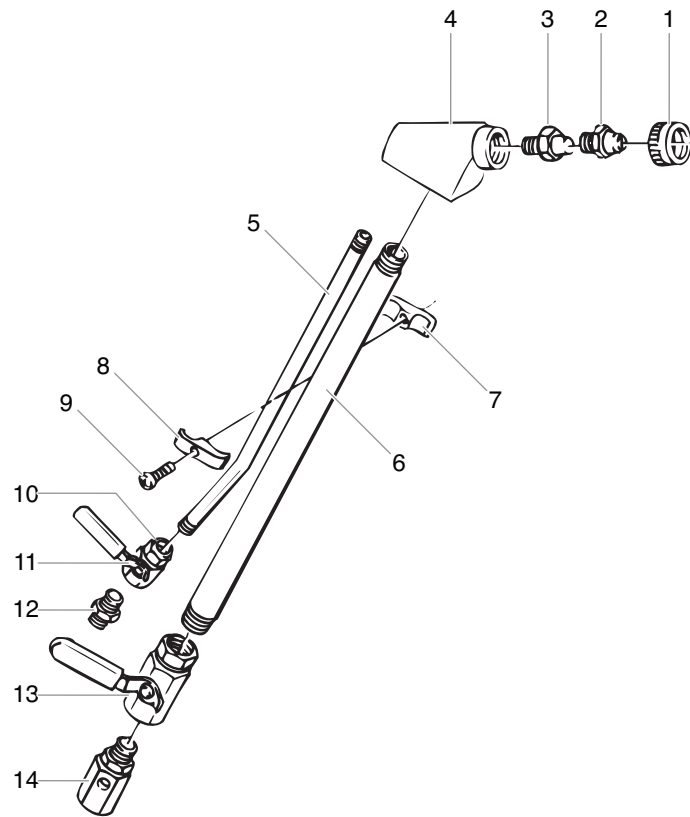
Item	Part #	Description	Quantity
1	858-002	Lock washer, 1/4"	4
2	210-023	Plug, 1/2"	1
3	234-250	Copper washer	6
4	234-702	O-ring.....	2
5	858-625	Cap screw and nut.....	4
6	858-812	Elastic stop nut	1
7	950-031	Bracket	1
8	950-203	Needle valve.....	1
9	950-204	Valve adaptor	1
10	950-205	O-ring.....	1
11	950-209	Filter screen.....	1
12	950-212	Lower valve seat.....	1
13	950-214	Seat retainer	1
14	950-218	Shaft, pilot.....	1
15	950-216	Upper valve seat.....	1
16	950-217	Diaphragm support.....	2
17	950-215	Extension, pilot shaft	1
18	950-220	Spring	1
19	541-016	Pin	1
20	950-222	Pilot shaft nut.....	1
21	950-223	Screw, 1/4" x 1/4"	6
22	950-239	Diaphragm.....	2
23	950-907	Central housing	1
24	950-917	Diaphragm cover	1

Material Valve (951-556)



Item	Part #	Description	Quantity
1	858-002	Lock washer, 1/4"	1
2	138-340	Ball, stainless	1
3	951-001	Piston spring	1
4	951-017	Gasket	1
5	951-003	Valve seat	1
6	951-004	Spacer	1
7	951-005	Piston rod	1
8	951-006	Gasket	1
9	951-007	Set screw	1
10	951-008	Piston	1
11	951-009	Fluid body plug	1
12	951-010	Packing nut	1
13	951-011	O-ring	1
14	858-620	Pan head screw, 1/4"	1
15	951-013	O-ring	1
16	951-014	O-ring	1
17	951-016	Seat, PTFE	1
18	951-002	Washer	1
19	951-907	Valve body	1
20	951-917	Valve body cap	1

Pole Guns, Mastic, Air Atomizing, 701 Series



Item	Part No.	Description	Models		
			701-302	701-402	701-802
1	701-602	Retainer ring (for slotted caps)	Optional	Optional	Optional
2	701-616	Air cap, 3/16", slotted	Optional		
2	701-617	Air cap, 1/4", slotted		Optional	
2	701-619	Air cap, 3/8", slotted			Optional
2	701-620	Air cap, 3/16", round	x		
2	701-621	Air cap, 1/4", round		x	
2	701-622	Air cap, 3/8", round			x
3	701-626	Fluid nozzle, 3/16"	x		
3	701-624	Fluid nozzle, 1/4"		x	
3	701-628	Fluid nozzle, 3/8"			x
4	701-968	Gun head	x	x	x
5	103-402	Tube, air, 1/4" x 1/4"	x	x	x
6	103-517	Tube, fluid, 3/4" x 17"	x	x	x
7	701-916	Clamp, threaded	x	x	x
8	701-914	Clamp, drilled	x	x	x
9	701-905	Flat head screw	x	x	x
10	929-061	Bushing	x	x	x
11	940-553	Air valve, 1/4"	x	x	x
12	814-003	Adaptor	x	x	x
13	940-558	Material valve, 3/4"	x	x	x
14	138-037	Swivel adaptor	x	x	x

Pole Guns Operation

Independent controls are provided for air and fluid. Those controls will give positive shut-off or may be used for throttling flow for full control of spray. Accordingly, a small amount of fluid and air permit spot application and control at roof edges and around masked areas. Fully opened valves allow maximum production on open areas.

NOTE: Air valve (11) must be opened or closed to activate the StediFlo™ valve. If material valve (13) is closed and the air valve is left open, the pump will not stop until pressure builds. The resultant surge when the material valve is opened will give a momentary quantity of excessive material.

Maintenance

A faulty spray may be caused by dried material around the fluid nozzle or the air cap. Soak in thinners to soften and remove with brush or cloth. Never use metal objects to clean the air cap or fluid nozzle. Should either become damaged or worn, they must be replaced to obtain a perfect spray.

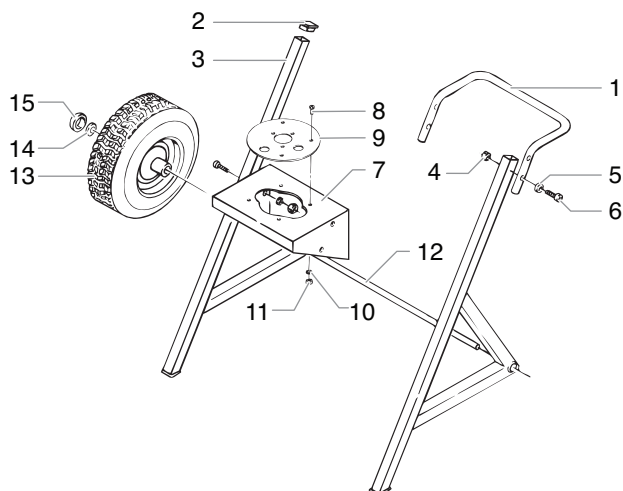
Intermittent spray may be caused by dirt between the fluid nozzle seat and the gun head, or a loose nozzle. To correct, remove the fluid nozzle and clean seating surfaces with thinners and refit nozzle tightly.

Specifications

Type of work	Nominal air consumption		Air pressure		Air cap Part No.	Fluid nozzle	Spray
	cfm	1/m	psi	atm			
Mastics, Textures, Fibrated Coatings Fireproofing, Ingulation	5-15	142-426	40-80	3 - 5.5	701-620	701-626 3/16"- 4.75mm	Round
	5-15	142-426	40-80	3 - 5.5	701-616	701-626 3/16"- 4.75mm	Flat
As above but capable of higher speed of application	10-20	284-528	40-80	3 - 5.5	701-621	701-624 1/4"- 6.3mm	Round
	10-20	284-528	40-80	3 - 5.5	701-617	701-624 1/4"- 6.3mm	Flat
As above but capable of higher speed of application	15-25	426-710	40-80	3 - 5.5	701-622	701-628 3/8"- 9.5mm	Round
	15-25	426-710	40-80	3 - 5.5	701-619	701-628 3/8"- 9.5mm	Flat

Miscellaneous Parts Lists

Cart Assembly (590-301)



Item	Part #	Description	Quantity
1	590-201	Handle	1
2	935-014	Cap, end	2
3	590-350	Frame, cart	2
4	862-410	Nut	10
5	862-001	Washer	14
6	862-472	Screw	10
7	590-131	Bracket	1
8	360-515	Screw	4
9	219-363	Plate	1
10	860-001	Washer, flat	4
11	860-502	Nut	4
12	590-353	Axle	1
13	670-105	Wheel	2
14	870-003	Washer	2
15	590-100	Retaining ring	2

Accessories

Nozzles - Air Cap Slotted*

Part #	Size
701-618	3/16" (4.76 mm)
701-617	1/4" (8.35 mm)
701-619	3/8" (9.52 mm)

*requires retainer ring 701-082

Nozzles - Air Cap round

Part #	Size
701-620	3/16" (4.76 mm)
701-621	1/4" (8.35 mm)
701-622	3/8" (9.52 mm)

Nozzles - Fluid nozzle

Part #	Size
701-626	3/16" (4.76 mm)
701-624	1/4" (8.35 mm)
701-628	3/8" (9.52 mm)

Optional Mounting Hardware

Part #	Size
239-001	Bung adapter

Hose Assemblies

Part #	Size
450-034	3/4" x 50' (15.2 m) 1800 psi (124.1 BAR)

Air Hose Assemblies

Part #	Size
550-112	1/2" x 50' (15.2 m)

Pole Guns

Part #	Length	Fluid Nozzle
701-302	2 ft (61 cm)	3/16" (4.76 mm)
701-402	2 ft (61 cm)	1/4" (6.35 mm)
701-802	2 ft (61 cm)	3/8" (9.52 mm)

Troubleshooting

Problem

Cause

Solution

- | | | |
|---|--|--|
| A. Pump delivers on upstroke only or goes up slowly and down fast (commonly called down stroke dive). | <ol style="list-style-type: none"> 1. Lower foot valve ball is not seating due to trash or wear. 2. Material too viscous to siphon. 3. Air leaking in on siphon side or damaged siphon hose. Siphon may be too small for heavy material. 4. Upper packing nut (if applicable) is loose or upper packings are worn. | <ol style="list-style-type: none"> 1. Remove foot valve assembly. Clean and inspect. Test foot valve by filling with water. If ball fails to seal the seat, replace the ball. 2. Thin material – contact manufacturer for proper thinning procedures. 3. Tighten all connections between pump and paint container. If damaged, replace. Switch to bigger siphon set. 4. If tightening upper packing nut does not correct, change upper packings. |
| B. Pump delivers on down stroke only or goes up fast and down slowly. | <ol style="list-style-type: none"> 1. Upper ball is not seating due to trash or wear. 2. Lower packing set is worn. | <ol style="list-style-type: none"> 1. Check upper seal and ball with water. If ball fails to seal the seat, replace. 2. Replace packing kit if worn. |
| C. Pump moves up and down fast, not delivering material. | <ol style="list-style-type: none"> 1. Material container is empty or material is too thick to flow through siphon hose. 2. Bottom ball stuck to foot valve seat. 3. Siphon hose is kinked or loose. | <ol style="list-style-type: none"> 1. Refill with new material. If too thick, remove siphon hose and immerse pump or add thinner to material. Change to bigger siphon set. Open bleed valve to remove air and restart pump. 2. Remove foot valve. Clean ball and seat. 3. Straighten. |
| D. Pump moves up and down slowly when spray gun is shut off. | <ol style="list-style-type: none"> 1. Loose connections. Bleed valve is open partially or bleed valve is worn. Lower packing set is worn. 2. Upper and/or lower ball not seating. | <ol style="list-style-type: none"> 1. Check all connections between pump and gun. Tighten as necessary. If material is flowing from bleed hose, close bleed valve or replace if necessary. Should none of above be evident, change lower packing. 2. Reseat balls by cleaning. |
| E. Not enough fluid pressure at gun. | <ol style="list-style-type: none"> 1. Spray tip is worn. 2. Compressor (air operated units only) too small. Outlet filter or gun filter is clogged. 3. Low voltage and/or inadequate amperage. 4. Hose size or length is too small or too long | <ol style="list-style-type: none"> 1. Replace. 2. Clean or replace filter. Recommend proper hose size and/or air compressor size. 3. Check electrical service. Correct as required. 4. Increase hose size to minimize pressure drop though hose and/or reduce hose lengths. |
| F. Pump chatters on up or down stroke. | <ol style="list-style-type: none"> 1. Solvent has caused upper packing to swell, or packing is too tight. | <ol style="list-style-type: none"> 1. Back off upper packing nut 1/4 turn (if applicable) and restart pump. Repeat if necessary. |
| G. Motor stops at top or bottom of stroke – air does not exhaust when gun is open. | <ol style="list-style-type: none"> 1. Piston rod is loose where it connects to the fluid section. 2. Trip springs or valve spring broken. 3. Motor is frozen due to icing or lack of lubrication. | <ol style="list-style-type: none"> 1. Tighten connection. 2. Inspect and replace where necessary. 3. Add Air Motor Lubricant, AirCare™ (Part # 311-011) to manual oiler. If condition persists, install moisture separator and automatic lubricator. |
| H. Motor stops, blows air from exhaust when gun is open. | <ol style="list-style-type: none"> 1. See above 2. Air valve is dead stall position. 3. O-rings are worn or damaged. | <ol style="list-style-type: none"> 1. See above. 2. Remove one trip spring retainer, trip spring and ball. Push spool valve up or down, lubricate, reassemble and restart. 3. Install minor service kit and follow instructions in General Maintenance and Service section of manual. 4. If dust or dirt is found inside motor, check air supply for contamination. |

Warranty

Titan Tool, Inc., ("Titan") warrants that at the time of delivery to the original purchaser for use ("End User"), the equipment covered by this warranty is free from defects in material and workmanship. With the exception of any special, limited, or extended warranty published by Titan, Titan's obligation under this warranty is limited to replacing or repairing without charge those parts which, to Titan's reasonable satisfaction, are shown to be defective within twelve (12) months after sale to the End User. This warranty applies only when the unit is installed and operated in accordance with the recommendations and instructions of Titan. This warranty does not apply in the case of damage or wear caused by abrasion, corrosion or misuse, negligence, accident, faulty installation, substitution of non-Titan component parts, or tampering with the unit in a manner to impair normal operation.

Defective parts are to be returned to an authorized Titan sales/service outlet. All transportation charges, including return to the factory, if necessary, are to be borne and prepaid by the End User. Repaired or replaced equipment will be returned to the End User transportation prepaid.

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