

Pneumatic Technology, Inc.
2305 Franklin Drive
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Fax 817-625-4033

1600 VAC
PM-750
SPEC PT931 Rev.5

DATE: October 2010

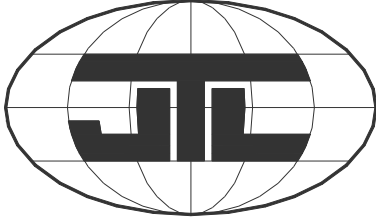
CUSTOMER: Pneumatic Technology, Inc.
(Dealer Stock)

MAKE: 2011 J & L TANK, Low Profile 102" Wide

MODEL: 1636V – Aluminum Vacuum / Pneumatic

A. VESSEL

1. **Design:**
1636 Cubic foot capacity. Four 45-deg. slope conical hoppers with 37 degree cones for pneumatic handling of low density dry flowable powders and granules, including plastics and food grade commodities. Operating pressure 14.7 PSIG, 13" HG operating vacuum. Maximum commodity temperature 160°F. **Weight distribution per JL- 1196.**
2. **Construction:**
Polished aluminum vessel - smooth exterior with external top shell stiffeners and fully welded internal bar-type rings. Extruded All Aluminum front and rear 44" width frames, new design, with tubular aluminum struts. Bevel top of internal stiffeners between hoppers.
3. **Interior Vessel Finish:**
Internal mill finished aluminum shell material taped and protected during production. W-2 internal weld treatment, all weld seams wire brushed and rough areas buffed (snag-free and weld tint removed). All weld crevices or ridges removed; vessel surfaces cleaned of all weld spatters, crayon or ink marks. Interior vessel washed and wiped down to remove all black oxides, dirt and oil film, grinding dust and buffing compounds. Test plugs in cross bar supports to be welded and buffed smooth, after final installation
4. **Manholes:**
Four 20" full opening Knappco cast aluminum pressure type covers with (6) cam-type adjustable hold-downs. Located over each hopper. Covers equipped with white gasket and hinged at roadside.

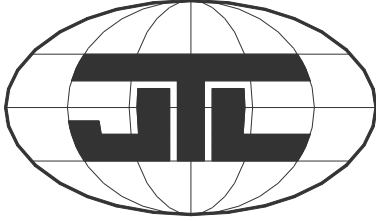


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B. PIPING

1. **Air Piping:**
4" Air inlet located roadside front equipped with 4" aluminum standard "A" adapter and cap. 4" Aluminum air supply line, roadside, with 4" aluminum proportioning line to discharge manifold.
2. **Inlet Air Cleaner:**
Install dealer furnished ZC filter, with pleated polyester, washable element, mounted on front frame.
3. **Air Cooler:**
Install dealer furnished PneuTech "Dry Cool" Air to Air cooler on front of unit, between frame upright struts, complete with dual 12V fans, automatic on/off pressure switch, air inlet and air outlet temperature gauges mounted in 4" hot air line; and wired to auxiliary pin of Berg plug.
4. **Check Valves:**
One 4" Knappco aluminum body swing check valve at inlet downstream from air cooler. No check valve in proportioning line.
5. **Aeration:**
None.
6. **Pressure Control Valve:**
4" Aluminum Sure Seal Fig. 890 butterfly valve with white seat and one piece stainless disc-stem located roadside to regulate air flow to discharge line.
7. **Blow Down Line:**
3" aluminum line with 3" Fig. 890 aluminum body butterfly valve with white seat and one piece stainless disc-stem and Sure Seal 15# mechanical relief valve, with new quick disconnect feature. Configure blow down line so that it will not suck residue out of the upper fifth wheel plate.
8. **Top Air and In line filter:**
3" aluminum line with 3" Fig. 890 aluminum body butterfly valve with white seat and one piece stainless disc-stem in combination with blow-down line.



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B. PIPING, cont

9. **Product Valves:**

Sure Seal 5" fig. 890 butterfly valve with two-piece aluminum body, one-piece polished T-255 stainless steel disc-stem and square shoulder white seat at each hopper. Product valves and air control valves to be operated from roadside.

10. **Discharge Line:**

Each hopper equipped with a low profile 5" Sure Seal "cone-tee valve drop assembly". 4" Sch. 40 aluminum tubing product manifold with 4" cast front clean out with aluminum adapter and cap. Manifold sections and discharge lines connected with Sure Seal aluminum body snap joint couplings with white flush-seal gaskets. 4" Sch. 40 aluminum discharge line extended straight out (minimize angled drop in rear line) under inverted drop center axles straight to rear and equipped with a welded on and interior weld polished 4" aluminum adapter and cap. Add cone/valve/tee swing away handle holder.

11. **Gravity Drops:**

None.

12. **Pressure Gauges:**

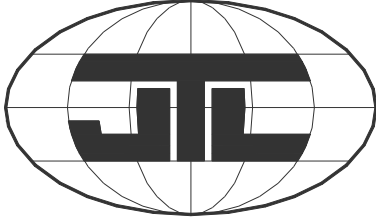
Two liquid filled 30-30# range mounted in cabinet with light, conveniently located roadside at front of rear fender with independent bracket. Door swing must clear rear tires and fender. Locate line pressure pipe coupling in grooved nipple below proportioning valve.

13. **Rear Fill Line:**

6" Schedule 40 aluminum rear fill line; run from bumper area to rear manhole. Fill line to be 8" from inside top of vessel to top of fill pipe and fill line must be parallel to top of shell and aimed at the center of the front head. 6" Adapter installed on outside inlet with 6" dust cap. 6" Male adapter installed on the internal end of fill line. Both external and internal adapters to be welded on full flow type and internal welds to be polished flush. Rear fill line cannot extend beyond plane of rear bumper.

14. **Front Fill Line;**

Install 4" front fill line in center top of front head, flush with inside of head. Angle fill line down 45 degrees with long radius bend. Install 4" aluminum full flow type, weld-on adapter and cap on end.

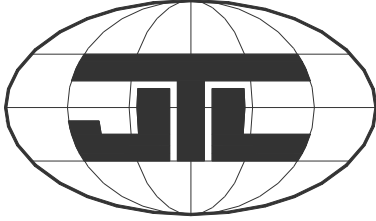


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C. VACUUM SYSTEM

1. **Vacuum Return Line:**
4" Aluminum line from filter to top rail and front roadside inlet with standard "A" adapter and cap, turned up 90 degrees.
2. **Vacuum/Filter Control**
4" Fig. 890 Butterfly valve, with white seat and one piece stainless disc-stem, in line connecting filter and tank. Valve is air actuated. Air actuator valve located in rear vacuum gauge box – install 90-deg. Elbow with 3" flex line to prevent freezing.
3. **Vacuum Relief Valve:**
15" HG vacuum in 4" vacuum line at front.
4. **Vacuum Gauges:**
One vacuum 30-30 range liquid filled gauge for the canister and one combination pressure/vacuum 30-30 range liquid filled gauge for the tank installed in a cabinet with light at roadside rear, facing to the rear. Install rubber bumper on rear frame cross member to catch and rest gauge box lid when open.
5. **Vacuum Dump:**
None.
6. **Filter:**
PneuTech Filter system, 20" dia. canister with four dealer furnished cartridge filter elements, complete with polyester sock over filter cartridge. J&L to furnish filter element plate. Canister housing outlet to angle to rear of tank with one 4" valve with white seat at end of 18" cleanout line. In center of cleanout line, install 6" long clear sight glass. Canister mounting offset to street side. (This filter system is for plastic pellets only; if powder service is required, please contact PneuTech for conversion of this specification to poly tube type filter).



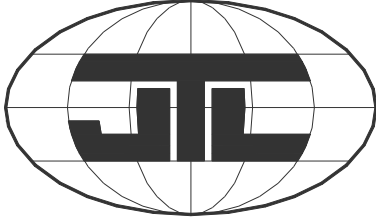
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NOTE: All butterfly valve seats and gaskets to be white non-toxic. All butterfly valve handles to be cast aluminum with 10 position aluminum throttle plate. All air control butterfly valves to be Fig. 890 with aluminum body and stainless one piece disc-stem with white seat, including air actuated valve between vacuum canister and tank which is to also be Fig. 890 with stainless one piece disc-stem and white seat. All aluminum lines are to be deburred and cleaned. All fill and discharge line adapters and couplers are to be welded on and inside walls ground smooth and buffed. Provide seal tabs or drilled holes on all product manholes, flanges, adapter caps and snap couplers to allow for seals and prevent product theft or tampering. All U-bolts on piping and hose tubes must be covered with black, poly-flow tubing.

D. ACCESSORIES

1. [X] **Fenders and Mud flaps:**
Contoured aluminum fenders at front and rear with bolt-on fender brackets. Rear fenders to be long contour at front and rear, with rear end cut flush with bottom plane of bumper. Remove standard rear mud flap mounting channel. Mount rear mud flaps on rear fender (rear support bolts). Install PneuTech black rubber anti-sail flaps - bottom of flap to be 6" off of the ground.
2. [X] **Hose Carriers:**
Two 8" x 21' aluminum tubes; one with cast aluminum door at each end mounted streetside, flush with rear of trailer. One with cast aluminum door at rear only, mounted curbside under 10" tube, with supports welded to pads on hopper slope, and tube to be mounted as far forward as possible.
3. [X] **Additional Hose Carrier:**
One 10" x 16' aluminum tube, with cast aluminum door at each end, mounted on curbside, flush with rear of trailer.
4. [X] **Fill Line Extension:**
45" Sch. 10 aluminum extension tube with internal adapter/coupler welds polished.



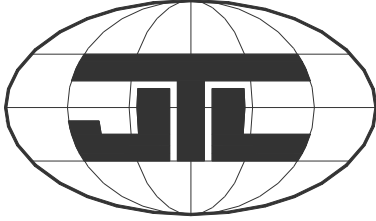
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5. **Fill Tube Carrier:**
10" x 4' Aluminum hose tube with door mounted vertically street side in rear top walkway platform for fill tube storage.

D. ACCESSORIES, cont.

6. **Hose Stand:**
Adjustable height aluminum stand mounted at front for 4" hose. Bracket for stowing free end and 4" male adapter. Engineer for minimum height with 14' long 4" hose in stowed position. Reinforced with triangulated brace.
7. **Hoses:**
None.
8. **Silencer/Muffler:**
None.
9. **Document Holder.**
Standard registration holder mounted on street side frame near landing gear. Install Dealer supplied special document holder (p/n ANT14041) at rear frame, just left of fill line, mounted in horizontal position.
10. **Ladder:**
Aluminum mounted at curbside rear with aluminum grip strut platform over fender and special ergonomic grab handles at chassis frame and at top of vessel. Ladder to have double hand rails.
11. **Walkway:**
Non-skid tape on top of vessel between full length top rails. Curbside full-length 19" wide aluminum grip strut walkway.
12. **Lights and Wiring:**
12-Volt Trucklite J&L Standard LED system, with 7-way ATA connector. Aluminum bolt-on light boxes each with two Super 44 red stop and taillights and one amber Super 44 turn signal mounted in center. Combination mid-tank clearance and turn signal mounted at center of trailer. Additional high mounted oval Trucklite seal beam stop light installed in an enclosure. FMVSS 108 conspicuity tape included.



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13. **Work Lights:**

Two swivel type work lights - one mounted at rear on filter housing, curbside, with switch in vacuum gauge box; and one mounted on front roadside outrigger facing rearward with switch in pressure gauge box.

D. ACCESSORIES, cont.

14. **Tire Carrier:**

None.

15. **Hubodometer:**

None.

16. **Bumper:**

Aluminum, full width at rear bumper with convenience step (with redesigned step brackets).

17. **Paint:**

Colar primer and silver metallic Imron Series 5000 on steel parts only - #N0217 (43523).

NOTE: No rust permitted. Stainless steel bolts, screws and fasteners required for bolt on accessories, fenders, etc.

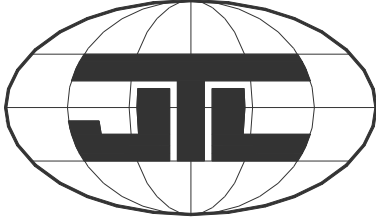
E. CHASSIS

1. **Upper Coupler:**

5/16" Hi-tensile steel pate with 2" forged kingpin and heavy gauge channel stiffeners. Assembly bolted on and adjustable. Position plate in most forward frame position.

2. **Support Legs:**

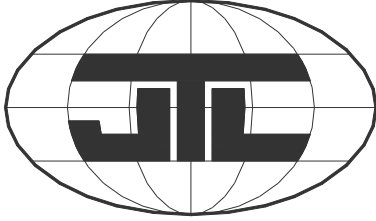
Binkley Contender two-speed with sand shoes mounted between first and second hoppers with gear-box and crank roadside.



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3. **Suspension:**
Henderson Intraax Air Ride, with integral drop center axles. Include air bag dump valve kit with auto dump – auto reset. 77 ½” track with parallel spindles.
4. **Air Scale:**
Air scale kit - gauge mounted in Vacuum gauge box at rear. Install special larger permanent scale chart inside cabinet lid.
- E. **CHASSIS , cont.**
5. **Axles:**
Two inverted drop-center, integral with suspension, 20,000# capacity, 77 ½” track with parallel spindles.
6. **Brake System:**
Air actuated 16-1/2” x 7-3/4” S-cam quick-change style. Heil’s R2R package includes extended service brake shoes. OEM type 30-30 parking-emergency spring brake (normal stroke) – Heil’s R2R package includes Life Seal Chambers. OEM type automatic slack adjuster (Haldex for Heil’s R2R package) Sealco/Meritor Wabco Easy Stop 4S/2M anti-lock premium brake system (diagnostic plug not included). Constant power on auxiliary pin of SAE J560 7-way. **Delete Roll Stability System.**
7. **Air Tanks:**
Aluminum Single Air Tank mounted over front of suspension frame.
8. **Hubs & Drums:**
10-Hole Conmet hub-piloted aluminum hubs with preset bearings, CD50 synthetic transmission fluid, visible hub caps and outboard mounted centrifuse drums (single nut mount) for parallel spindles.
9. **Oil Seals:**
Conmet standard (in Conmet hub).
10. **Wheels**
Eight 10-hole hub-piloted 22.5 x 8.25 aluminum, with four inside wheels to be mill finish and four outside wheels to be Alcoa polished Dura Brite finish.
11. **Tires:**
Eight 275/80R22.5 low profile Michelin XT-1



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NOTES: It is recommended that the interior of the vessel be cleaned professionally prior to initial loading to avoid contamination of the cargo.

Tare Weight Estimate: 10,800 lbs. with Air Cooler.