Installation, Operating and Maintenance Instructions for KTM "PF" Type Dust Collector

Mount the corner gussets on each leg, place the legs on your footings and loosely attach all cross bracing. Mount the frame onto the legs and tighten all bolts.

Safety railings can be attached to the safety platform while on the ground. Lift the platform into place and attach to the matching holes on the filter cabinet. After tightening all bolts, attach the ladder to the platform using the large washers and bolts provided. The bottom arm of the ladder should be mounted to the frame or leg of the collector (you may need to drill matching holes).

Assemble the components of the filter box section. It may be easier to do this on the ground.

Bolt the compressed air storage tank to the side of the dust collector. It can only go one way, just under the sequential controller box. The bolts are already in the unit -- remove them. Position the tank with the bracket holes aligned with the bolt holes, insert the bolts and tighten. The little pipe nipples on the tank should face upward (see drawing for confirmation).

Remove the bolts from the inspection hatches on top of the filter box, and take off the lids. We may have put the compressed air pipes, with mounting brackets and right angle pulse valves, loose in this top section. Take them out and reinstall them from the outside.

Push the ends of the pipes through the holes in the side of the dust collector. They are located near the top of the box above the compressed air storage tank. The pipes are fitted with square mounting plates with four bolt holes which should line up with corresponding drilled and tapped holes in the box casing.

The pipes have small holes on one side and these should face down, so that the compressed air will blow into the aluminium venturi tubes already installed in the top box section. The ends of the pipes fit into holding brackets inside the top unit.

Locate the pipes in these brackets and tighten in position. The pulse valves have rubber hose connections and clamps already fitted. Slide the open ends of the hoses over the pipe nipples on the top of the storage tank and tighten the clamps. Insert the four bolts into each of the square bracket plates and tighten them against the box section.

Install the pressure relief valve/filter on the threaded nipple on one end of the compressed air storage tank.

Replace the lids on top of the box and install all the bolts. Tighten all the bolts and ensure that the lids are sealed.

Fit the ends of the clear plastic air tubes into the corresponding brass grommets on the right angle pulse valves and tighten. The tubes have already been cut to length and they will only be able to reach one valve each. NOTE: Ensure the rubber strip gasket is fitted to one side of all mating flanges before bolting together.

Bolt the back draft damper onto the inlet flange. Ensure that the hinged end is at the top of the box, so that the flap hangs down (the inlet flange is square and the outlet is rectangular).

Install the gasket rubber strip on the flange on top of the hopper. The gasket is self-adhesive, simply

peel the paper off and stick the gasket on the flange.

Lift the top box section, using the lifting lugs and position it on the hopper making sure that the orientation is correct. Insert all the bolts, fit washers and nuts and tighten.

Bolt the outlet manifold to the outlet flange on the end of the filter unit. The manifold should hang down and turn outwards to the fan (see drawing). Mount the support bracket under the bottom elbow and tighten all the bolts.

Connect the system ductwork to the dust collector inlet that has the back draft damper.

Connect the outlet ducting to the fan outlet silencer.

A licensed electrician should install the control panel in the proper location. Make the electrical connection between the fan motor and the control box located on the inlet end of the filter box section. Also connect the power supply to this same box.

The sequencer panel and the solenoid enclosure are mounted on the front of the unit above the storage tank.

The solenoid enclosure is wired and has a black, waterproof cable complete with end fittings attached.

The wiring harness comes out of the end fitting. It consists of one red wire for each corresponding diaphragm valve, one white wire and one green wire.

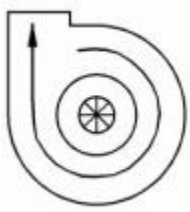
The red wires are numbered and when the end fittings on the black conduit are fitted through the bottom of the sequencer enclosure, the numbered red wires are taken to the corresponding numbers on the terminal block. The white wire is taken to the common terminal and the green wire is taken to the ground terminal. Both systems were installed, tested, removed and packaged.

The housing for the filters and the diaphragm valves are lettered to match as are the tubes from the solenoids to the diaphragm valves.

Once the dust collector is in place, the explosion vent duct can be supplied and connected to the flange surrounding the explosion doors (if applicable).

Connect the compressed air supply to the compressed air tank on your new KTM type "PF" dust collector (this compressed air must be clean and dry).

When the unit is electrically connected, allow the motor to run ONLY after all dust connections are made (otherwise, motor overload may occur). Inspect the fan rotation and ensure the fan is rotating toward the outlet (see diagram).



After the entire system is connected, the amps should be measured and they are not to exceed the amperage rating on the motor plate. If the amps are too high (this is known as motor overload), the speed will have to be reduced or more restrictions must be placed on the duct system.

The unit is now ready for operation.

Operating Instructions

Before starting the main fan motor, ensure all dust connections have been completed, all inspection doors are closed and sealed, and the container is in the proper position. These precautions will stop unwanted leaks in the system.

Pushing the green starter button on the control panel or electric switch will start the main fan motor.

Start the sequential controller by turning the on/off switch. This step could be deleted by interlinking the main fan motor starter with the sequential controller. When the green start button is pressed, both the main fan motor and the sequential controller would begin operation.

Make sure the fan is turning freely and in the correct direction (toward the outlet).

Inspect the pressure gauge on the compressed air tank to ensure there is compressed air available (the pressure should be between 80 to 100 PSI). Confirm the solenoid valves are functional and working in sequence -- this can be done by watching the gauge.

When the valve pulses, the pressure in the tank will decrease and the gauge indicator will move toward zero. The compressed air pulsing into the filters can be distinctly heard and the lights in the sequential controller panel will show which valve is pulsing.

The pressure will increase again in the tank until it reaches approximately 80 PSI and the next valve should then pulse. The time between pulses is approximately 10-15 seconds. Make sure all the valves pulse in order. When the last valve has pulsed, the sequence should revert back to the first valve.

When the work shift has ended, pushing the red stop button should stop the fan motor.

The sequential controller may now be shut off (if it is not interlinked with the fan). You may allow the sequential controller to run through an entire pulsing cycle with the fan switched off. This will enable further cleaning of the filters without new dust being introduced.

Maintenance Suggestions

The v-belts are adjusted to the correct tension when the collector is installed. An adjustment is needed after 3 to 4 days of use and again 3 to 4 weeks after start up. V-belts have to be tightened to allow ½" play, giving to the pressure of one finger in the centre between the pulleys with reasonable force. Frayed belts or cracked belts should be replaced as soon as possible.

The blower should be inspected every six weeks under normal use and the blower bearings should be greased if needed. Do not overgrease (no grease should escape the housing seals).

The condition of the filters should be examined regularly. Opening one or more doors on the main filter housing section can do this. Because the compressed air is continuously cleaning the filters, they should be fairly clean.

If the filters are dirty, they may need to be cleaned (machine-wash or dry-clean). If the filters are damaged or excessively dirty, they must be replaced.

Lubrication Requirements	
Usage / Conditions	
1 *	*One or two shifts per day*
2 *	*Normal 24 hour continuous use*
3 *	*24 Hour continuous use in dirty or moist locations*
4 *	*High vibration or shaft end hot*
5 *	*Seasonal (used only for part of the year)*

HP Range	Usage / Conditions	Relube Interval
Fractional to 7.5	*1 **	*5 years*
Fractional to 7.5	*2 **	*2 years*
Fractional to 7.5	*3 **	*6 months*
Fractional to 7.5	*4 **	*6 months*
Fractional to 7.5	*5 **	*start of season*
10 to 40	*1 **	*3 years*
10 to 40	*2 **	*1 year*
10 to 40	*3 **	*6 months*
10 to 40	*4 **	*6 months*
10 to 40	*5 **	*start of season*
50 to 200	*1 **	*1 year*
50 to 200	*2 **	*9 months*
50 to 200	*3 **	*3 months*
50 to 200	*4 **	*3 months*
50 to 200	*5 **	*start of season*

Type of Equipment	Type of Grease	Generic
Eberle Motors	*Beacon 325*	*Lithium Complex*
Hyundai Motors	*Beacon 325*	*Lithium Complex*
Leeson Motors	*Shell Dolium*	*Polyurea*
VP Motors	*Beacon 325*	*Lithium Complex*
Weg Motors	*Beacon 325*	*Lithium Complex*
Other Motors	*See Manufacturer*	*See Manufacturer*
Pillow Blocks	*Alvania Grease 2*	*Lithium*
Gearboxes	*Castrol Hypoy C*	*Gear Oil SAE 80W-90*

**** Use of any non-compatible (Aluminum, Barium, Sodium or Bentone) grease will void warranty ****

If you have any questions, please call us at 1-800-443-6443.