

YOUR WARRANTY.

REGARDLESS OF CAUSE, IF A PRODUCT YOU BUY FROM AEROTECH DOES NOT WORK RIGHT, AEROTECH WILL REPAIR OR REPLACE IT ONCE, AT NO CHARGE, FOR UP TO ONE YEAR FROM THE DATE OF DESPATCH FROM THE FACTORY.

IN THE COURSE OF REPAIR OR REPLACEMENT, AEROTECH MAY SEND YOU WRITTEN RECOMMENDATIONS ON HOW TO PREVENT A PROBLEM FROM HAPPENING AGAIN. AEROTECH RESERVES THE RIGHT TO WITHDRAW THIS WARRANTY IF YOU DO NOT FOLLOW THESE RECOMMENDATIONS. CUSTOMER IS RESPONSIBLE FOR P&F AND FREIGHT CHARGES BOTH TO AND FROM AEROTECH IN ALL CASES.

THIS WARRANTY DOES NOT APPLY TO ELECTRIC MOTORS, ELECTRICAL CONTROLS IF ANY, WHICH AEROTECH OBTAINS FROM OTHER MANUFACTURERS. A MOTOR CARRIES ONLY THE WARRANTY OF THE COMPANY THAT MAKES IT.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY AND OF FITNESS FOR ANY PARTICULAR PURPOSE. AEROTECH'S LIABILITY IS IN ALL CASES LIMITED TO THE REPLACEMENT PRICE OF ITS PRODUCT. AEROTECH SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES, WHETHER CONSEQUENTIAL, INDIRECT, OR INCIDENTAL, ARISING FROM THE SALE OR USE OF ITS PRODUCTS.

AEROTECH MAY MODIFY THIS WARRANTY, BUT ONLY BY SIGNING A SPECIFIC, WRITTEN DESCRIPTION OF ANY MODIFICATIONS.

**AEROTECH ENGINEERING COMPANY
39, TIRUPATY INDUSTRIAL ESTATE,
SARASPUR, AHMEDABAD – 380024.
TEL/FAX : 079-22779832.**

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BLOWER ARRANGEMENT:

Mainly consists of a dynamically balanced impeller located centrally in the bottom housing with very fine diametrical and face clearances. Impellers are directly mounted on the motor drive shaft. Both suction and pressure openings are located on the outer periphery of the Top and Bottom housing.

PRINCIPAL OF OPERATION:

In the chambers set in the periphery of the impeller, air is accelerated due to centrifugal force created as the impeller turns, and is thrown into the side channels. It then flows into the next chamber, and is again similarly accelerated, thus continuously increasing compression as the impeller turns until it reaches the outlet port.

The impeller rotates without contact with the inside of the housing, the compression space is free from oil and wear.

INSTALLATION AND OPERATION:

- The blowers are supplied as a complete unit mounted with vertical flange mounted motor. Whilst installation it is recommended that the unit be properly bolted or fixed through foundation holes provided on the bottom housing of the blower.
- Connect the suction and pressure openings to your equipment or system by means of rigid or flexible piping or non-collapsible flexible pipe of suitable diameter.
- **Electric supply to motor should be given through Star Delta connection with proper earthing and single phase preventor. Over load relay in the Star Delta should be set as per the rating of the motor or 0.5 to 1.0 amps more than current drawn during application according to rating of the motor. Direction of rotation should be as per the arrow marked on the motor or anticlockwise from top of motor.**
- **Direction of rotation should be as per the arrow marked on the motor or anticlockwise.**
- Ensure that the impeller rotates freely without any frictional noise.
- **These blowers are meant for handling clean and dry air only.**
- Recommended to provide vapor / liquid traps and **suction filters between blower and your system.**
- The blowers are designed for continuous rating but precautions to be taken during installation for better heat dissipation

ELECTRIC MOTOR STAR AND DELTA CONNECTIONS.: [Click Here to View Image](#)

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MAINTENANCE AND PRECAUTIONS:

These blowers require little day to day maintenance, since no lubrication is required. If suitable suction filter has been incorporated in the system, the blowers will give trouble free performance even when continuously used. **After prolonged use suction filter may be cleaned occasionally.**

CHECK:

Free rotation of the impeller when put off. Suction filters are cleaned periodically. Suction or exhaust pipe lines for clogging with dust.

OVERHAULING:

When the blower is to be dismantled for breakdowns or maintenance, procedure to be followed

- Switch off the power supply of the blower motor.
- Disconnect the blower from the system.
- Remove the silencers.
- Dismantle the blower by unscrewing the assembly bolts. The blower separates in to 1. Bottom housing and 2. Motor with Impeller and Top housing.
- Keep the blower up side down and detach the impeller by unscrewing the locking bolt.
- Remove the burrs if any and clean the parts.

REASSEMBLY:

- Mount the impeller on the motor shaft, tighten the locking bolt with locking washer.
- Rotate the impeller by hand for free rotation.
- Fit the bottom housing on top housing and again ensure free rotation.
- Mount the silencers and take the running trial.
- **Do not hammer or machine any part of the blower.**

TROUBLE SHOOTING & TEST AND REMEDY:

- **MOTOR OVER LOAD:** Check freeness of the blower without dismantling the motor. Run the motor alone after dismantling and check the current, voltage and connections.
- **ABNORMAL SOUND:** Check for free rotation of the blower. Dismantle the blower and check for any foreign particles inside the blower. Check the motor bearings.
- **JAMMED:** Dismantle the blower and check the shaft for resistance to rotation, bearing worn out, check for any frictional burrs / foreign particles.

Please read **Warranty** terms carefully

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NAMASTE,

PLEASE FOLLOW FOLLOWING PROCEDURE TO USE AEROTECH REGENERATIVE BLOWERS.

RECEIVE WOODEN BOX IN GOOD CONDITION.

PUT BOX IN UPRIGHT POSITION AND OPEN IT.

GENTLY TAKE IT OUT SUPPLIED BLOWER FROM BOX WITHOUT DAMAGING ANY OF PARTS AND PUT IT ON EITHER TROLLEY OR ON FLOOR.

SEARCH FOR OTHER PARTS LIKE PIPE OR NIPPLE OR ADDITIONAL FILTER OR PARTS SPECIALLY ORDERED OR REQUESTED.

CHECK FREE RUNNING OF IMPELLER BY ROTATING MOTOR FAN.

IF NOT RUNNING FREE THEN CHANCES OF COWL DAMAGE OR AXIAL PLAY GENERATED DURING TRANSPORTATION BY IMPACTING BOX IN A VERTICLE DOWN POSITION.

IF IT IS ROTATING FREELY THEN INFORM WELL TRAINED ELECTRICIAN TO FIX WIRE IN TERMINAL BOX AS PER INFORMATION GIVEN ON MOTOR NAMEPLATE. IT IS ADVISABLE TO USE STAR DELTA WITH PROPER RELY TO AVOID FAILURE OF MOTOR.

REMOVE PLASTIC ADHESIVE TAPES FROM PIPE OR NIPPLE OR FLANGES USED ON SILENCERS.

APPLY JUST A PULSE OF CURRENT TO FIND OUT DIRECTION OF ROTATION OF IMPELLER, IT MUST MATCHES WITH ARROW STUCK ON BLOWER AT DIFFERENT PARTS LIKE MOTOR COWL AND SILENCERS.

AGAIN CHECK THE FREE ROTATION OF IMPELLER AND IF IT RUNS SMOOTHLY THAT MEANS BLOWER YOU RECEIVED IS IN GOOD CONDITION. AND MEASURE THE AMPERES IN ALL 3 OR 6 WIRES AND NOTE IT DOWN AND CROSS CHECK IT AS IT IS WELL BELOW MENTIONED ON NAMEPLATE.

NOW USING YOUR HAND CLOSE THE VACUUM SIDE AND MEASURE CURRENT THIS MAY BE CLOSE TO AMPERES MENTIONED ON NAMEPLATE AND NOTE IT DOWN AND REPEAT THE SAME FOR PRESSURE SIDE AND THIS WILL BE LITTLE OR MORE ON HIGH SIDE THAN MENTIONED ON NAMEPLATE.

NOW CONNECT BLOWER PIPE OR NIPPLE WITH YOUR SYSTEM AND AGAIN MEASURE THE AMPERES CONSUMED BY MOTOR.

COMPARE IT WITH FREE RUNNING OF BLOWER AND IN CLOSED CONDITION

ACCORDING TO THE APPLICATION OF VACUUM OR PRESSURE CONDITION.

IF AMPERES CONSUMED BY MOTOR IS HIGHER THAN MENTIONED ON NAMEPLATE, YOUR SELECTED MODEL IS TO BE REPLACED BY HIGHER PERFORMED BLOWER OR SYSTEM NEEDS TO BE CHECKED AGAIN FOR ANY UNWANTED RESTRICTIONS IN YOUR SYSTEM AND ADVISABLE NOT TO RUN THE BLOWER AGAIN. AND CONSULT YOUR DESIGN DEPARTMENT AND THEN DO THE NEEDFUL.

IF AMPERES ARE BELOW THAN MENTIONED ON NAMEPLATE THEN SET RELY 0.4 TO 0.5 HIGHER THAN OBSERVED AMPERES AND AGAIN CLOSE EITHER VACUUM OR PRESSURE DEPENDS ON BLOWER SELECTED AND CHECK RELAY IS TRIPPING OR NOT. IT MUST TRIPPED OFF OR REPLACE THE RELAY OR SET IT AGAIN.

IN FUTURE AFTER RUNNING FOR SOMETIME IF RELAY TRIPPS THEN CHECK FILTER AND CLEAN IT OR CHECK YOUR PIPELINES OR HOLES ARE NOT BLOCKING AIR MOVEMENTS AND IF ANY CLEAN IT AND RUN THE BLOWER.

BUT NEVER SET RELAY HIGHER THAN AMPERES MENTIONED ON NAMEPLATE OTHERWISE MOTOR WILL BE SINGLE PHASED OR WILL BURN OUT OR GREASE USED IN BEARINGS WILL DRYOUT AND MOTOR ROTOR WILL LOCK IN STATOR AND BLOWER WILL NOT REMAIN IN ANYOF USE.

IF YOU FIND BLOWER NOT RUNNING FREELY AFTER FIRST PULSE OF POWER SUPPLY THEN OPEN THE BLOWER AND CHECK MOTOR SHAFT RUNNING FREELY WITHOUT ANY METAL TOUCHING NOISE AND ALSO CHECK BLOWER PARTS NOT LOCKED OR JAMMED WITHIN THE CASING. IF ANY, THEN APPLY LITTLE POLISH PAPER ON BOTH THE PARTS TO REMOVE SCRATCHES IF FOUND ANY.

CLEAN IT WITH PRESSURIZED AIRFLOW (COMPRESSED AIR) AND ASSEMBLE IT AND REPEAT THE ABOVE PROCEDURE AND TAKE THE USE OF BLOWER.

YOU MAY FIND SHAFT MOVING 0.3 TO 0.5 MM BY HAND THAT IS CALL AXIAL PLAY AND WE ARE TRYING TO MAINTAIN IT BETWEEN 0.2 TO 0.3 MM FOR UPTO 3 HP MODELS AND 0.3 TO 0.5 MM FOR BLOWERS ABOVE 3 HP.

INCASE YOU FINDS MORE AXIAL PLAY DUE TO IMPACT OF BLOWER IN VERTICAL POSITION DURING TRANSPORTATION, PLEASE OPEN THE MOTOR AND PUT SPACER BETWEEN BEARING AND FLANGE OR END COVER OF 0.1 TO 0.15 TO MAINTAIN AXIAL PLAY WITHIN THE LIMIT.

AND REPEAT THE SAME PROCEDURE MENTIONED ABOVE.

AGAIN WE REQUEST YOU TO VISIT OUR WEBSITE WWW.AEROTECH.CO.IN AND LEARN HOW TO USE BLOWER AND ITS WARRANTY.

THANKS

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