



# **1 MBF model**

## **1) Disassembly of the motor and impeller**

- a) Dismantle any vertical side panels of the fan by removing the panel screws
- b) Dismantle the 8 holding screws of the motor base
- c) Pull the motor, motor base and impeller together backwards and slide out from the opened panel
- d) Remove the taper lock as indicated in Appendix A
- e) Remove the holding screws on the motor and the base
- f) Change the motor or impeller where necessary

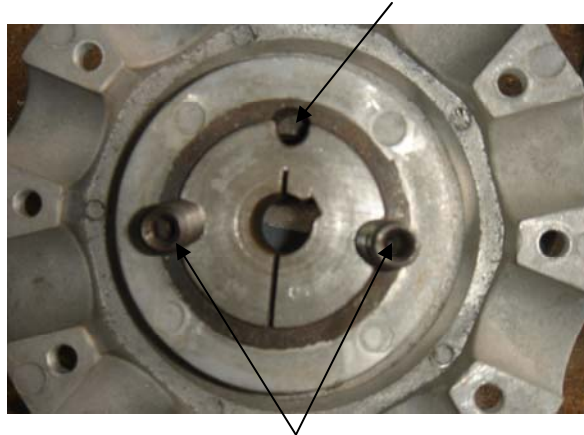
## **2) Assembly of the motor and impeller**

- a) Screw the motor to the motor base
- b) Fix the impeller as in Appendix A explanations
- c) Fix back the motor base, motor and impeller to the motor support
- d) Align the inlet cone to make sure impeller is not rubbing the cone
- e) Fix back the panel

## Dismantling of Taper Lock Bush

### Appendix A

Jacking holes for removing bush



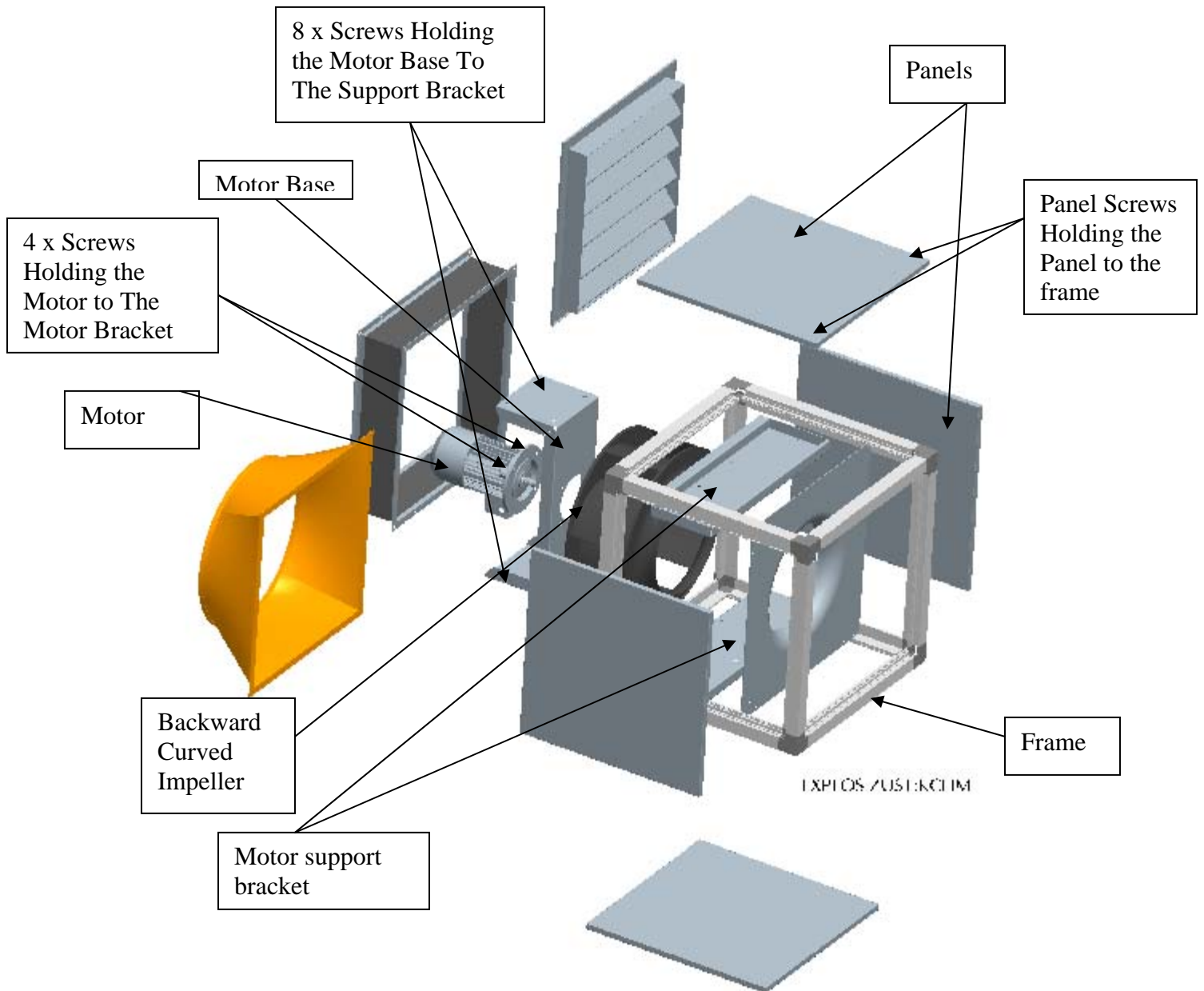
Locking screws

## Removal of taper lock bush

- a) Using a hexagon allen key, slacken and remove both the locking set screws
- b) Use one of the set screw and screw to the jacking holes
- c) Tighten screws until taper lock bush is loosened in hub and free on the shaft.
- d) Remove the bush and then the impeller

## Installing the taper lock bush

- a) Clean, polish and grease the motor shaft before putting on the key
- b) Put the impeller on the motor shaft
- c) Insert the taper lock bush and tap lightly till it seat squarely on the shaft and impeller hub
- d) Align the holes of the screw and tighten the two locking screws till the hub is in firm position



## **Flexibility in the Air Discharge Direction**

- 1) Remove the panel that you want to be discharge position
- 2) Fix the panel on the open side
- 3) The air direction is thus changed

## **Common Faults and Answers**

### **1. What to do if fan running current is higher than specified**

#### **a) Check electrical**

- Make sure supply voltage are as accordance to what is specified in the name plate
- Make sure all electrical phases have constant supply for 3 phase motor
- Make sure all electrical terminals are tightened
- Make sure capacitor is correct and functioning for single phase motor
- Make sure resistance of motor winding is constant [measure (U1,U2), (V1,V2), (W1,W2)] for 3 phase motor
- Make sure all connection are as per our electrical diagram given

#### **c) Check for fan vibration**

- Check that fan is running smoothly and not shaken vigorously
- Check that fan blade is not rubbing against the casing

#### **d) Make sure inlet or outlet air passage is not blocked**

### **2) What to do if fan cannot run**

#### **a) Check that there is incoming electrical supply to the motor**

- ❖ If no supply voltage across the motor
  - Check the MCB, overload, thermistor is not open circuit
  - Electrical panel circuit is functioning properly

#### **b) Check that termination is correct at the motor**

#### **c) Check that capacitor is correct and is in working condition for single phase motor**

#### **d) Check that fan impeller is not stuck**

#### **e) Check that motor windings is OK as mentioned above**

### **3) What to do if fan has abnormal normal noise and vibration**

- a) Stop fan immediately
- b) Check that fan rotation is correct
- c) Check that fan blades are not touching casing or inlet cone
- d) Check that no foreign materials are stuck at the fan blades
- e) Check that fan blades are not broken
- f) Check that all fasteners are tightly secured
- g) Check that fan is isolated completely
- h) Check that inlet and outlet air passage is not blocked

#### **If non of the above,**

- ❖ Fan balancing is required
- ❖ Motor bearing may be faulty
- ❖ Fan may be running in unstable stage