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BULLETIN No. 102

RECOMMENDED SET SCREW TORQUES AND BEST PRACTICES

Published By Jan-Air Engineering Department

August 17, 2018

The set screws are the most important component for attaching the impeller securely to the shaft. It is most common for Jan-Air to use two set screws at placed at 90 degrees from each other. One set screw commonly holds the key in place, and the other drives into the shaft to prevent any movement.

Jan-Air normally uses 5/16-18 set screws with either internal hex or external square heads depending on the product category. Alternate sizes or types can be used upon request.

The set screw tip is nearly always a cup-point style, meaning the cup end is intended to cut into the shaft surface in order to prevent the set screw from backing out during equipment operation. To achieve the maximum friction-based interface, it is important to only use new screws with sharp cup-points. **Reusing cup-point set screws is not recommended.**

When installing the cup-point set screw, it is important to install the screws to a specific torque range depending on the hub material type. Achieving the right minimum torque ensures that the set screw will be under pretension. Also, staying under the maximum torque limit will prevent the hub body and threads from being cracked or damage.

The following ranges are recommended by hub material:

Aluminum, Cast Aluminum, and Monel: Range 10-11 ft-lbs. Max 13 ft-lbs.

Cast Iron, Dura-Bar, Steel, and Stainless: Range 11-13 ft-lbs. Max 15 ft-lbs.

Some specialty applications may require additional considerations to the set screw properties selected and/or the recommended installation torque. Please consult Jan-Air's Engineering Department directly with any questions on this topic.