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APPLICATION ENGINEERING
BULLETIN Number # AE-000-00

- TOPIC: Coil cleaning

- SCOPE & PURPOSE:
  - The purpose of this bulletin is to explain the methodology of cleaning coils with high pressure washing methods to prevent damage to existing coils and air heat transfer surfaces associated with York Unitary pkg equipment.

- CONTENT:
  - Type of pressure washer to be used;

The washer will consist of a water pump driven with either a gasoline engine and or electric motor. The pump capacity should not be more that 7.5 Gallons per minute and not less than 5.0 gpm. Pump output volume can be controlled by engine or motor speed.

The working pressure does not need to be more than 1500psi working at the tip. Pressure will degrade rapidly as the distance from the wand increases.

The wand should always be activated away from the coil and the introduced at a distance of 16 inches or greater to prevent folding of fin surfaces.
This must be practiced to become proficient. This means that he user must understand that more gallons per minute to create flushing action is preferable to higher pressure at the fin surface.

Chemical cleaning is never the preferred method of cleaning coils. The interaction of the chemicals with the less noble metals actually creates a environment where a thin layer of metal is actually taken away from the fin surface. This will cause a

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weakening of the overall fin structure and if improperly rinsed the chemical will remain on the fin surface. This will create another problem with reactivation of the chemical structure every time it gets wet. This will cause further metal to be removed and the base of the chemical compound will remain on the coil. The other continuing problem with using harsh chemicals is that they will damage modified butuma roofing. The chemical is usually a high alkalinity creating a breakdown of the bonding agent within the membrane itself creating roof leakage problems.

If any other compound is used to clean coils it should be a neutral based PH soap/detergent. The neutral PH base of the detergent will not harm coils or fin surfaces and if the soap is not rinsed well it will pose no further problems with the coils with regard to deterioration. It will not harm rubber roofing as it is just soap neutral in nature.

The types of tips used on the wand are varied and can be tailored to the individuals need and level of contamination. The preferred type is a two position low and high pressure combination tip that has a wide adjustable fan angle from around 120 degrees down to 30 degrees. In this way the tip will be adjustable for the pressure angle of the water under high pressure to be delivered at right angles to the coil; this further lessens the ability of the operator to damage the coil.

SUMMARY/CONCLUSION:

- Coil cleaning should be performed by individuals with a high level of understanding of damages that can occur when operation is preformed incorrectly.

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KEY WORDS: (For searches)

- Cleaning, pressure,

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