

TECHNICAL SUPPORT MATERIAL

Routine and Preventative Maintenance

Ventilation Systems for Conveyor Dishmachines

The ADS (pan leg) vent attachments (385-6116) are designed to draw steam exiting the dishmachine up through 4x16" ducts. The ducts are a part of and from the building's HVAC systems which typically have an electric fan motor attached on or in the roof. This fan will draw air, at cubic feet per minute, from the dishroom directly in front of the entrance and exit sides of the conveyor machine. These ducts attach to the machine at approximately 57" off the finished floor and 51.75" on center to what ADS terms "vents." The vents open over the outward face on the final curtains—and do not draw heated vapor from the inside of the wash cabinet. These are the only pant leg connections recommended by ADS. .

In point of fact, the new Energy Star requirements for Idle Energy would restrict the use of any vent attachments which opened into the machine's interior. The ADC-44 and 66 are both listed as Energy Star compliant to the current Version 2.0 and such a vent modification would void the Energy Star and DOE listing. Governmental HVAC codes are called out in ASHRAE Standards and to determine correct load and CFM values require a trained professional.

This design has been adopted by other manufactures as an energy saving measure to reduce the amount of heating needed to sustain wash temperatures; namely, the design is drawing heated vapors that exhaust from the outer most side of the entrance and exit curtains. ADS makes no HVAC specifications as these values are dependent on local conditions, machine use, building layout and engineering. Many manufacturers state that minimums for draw in pant leg ventilation systems begin at 200 CFM for entrance sides and 400 CFM for exit sides. For over hood ventilation systems, the draw begins at 1400 CFM. However, this will vary depending on local conditions.

A typical high temp dishmachine producing 40,000 BTUs will require 3.5 tons of air conditioning to balance the heat gain of the dishwashing machine if it ran

continuously. It is important to have the venting system correctly balanced with the air conditioning by qualified, trained professionals in HVAC. Failure to have the building heating, ventilation, and air conditioning systems balanced will lead to higher energy costs and discomfort of those working in the building.

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