

MART STEAM CONDENSER



The MART Steam Exhaust Condenser system eliminates the discharge of visible steam into the plant without requiring an atmospheric exhaust stack. This system is ideal in installations where an exhaust stack would interfere with an overhead crane, when the Power Washer is located a great distance from an exterior wall, and when it is difficult to obtain a permit for an exhaust stack.

The MART Condenser is built entirely of PVC and non-corrosive metals for long life, has valves that adjust for varying water input temperatures and pressures, and can be retrofitted on all MART Power Washers.

The MART system removes heat from the exhaust airstream so that the steam is no longer visible. The Steam Exhaust Condenser provides two operating modes: high flow during the wash and rinse cycles, and low flow for standby operation. The MART design automatically modulates the cooling water and airflow for each mode.

OPERATING THEORY: A venturi and fan induce an air flow in the exhaust duct which pulls steam from inside the washing machine, creating a slight negative pressure inside the Washer cabinet. The negative pressure prevents visible steam from discharging into the shop area. A series of water mists, injected directly into the exhaust stream, “scrub” the exhaust vapors cooling & condensing the steam. The scrubbed vapors continue through the venturi of the exhaust fan where ambient air is mixed with the exhaust steam, further reducing temperature before exiting the duct.

ENVIRONMENTAL TESTS: In tests for metals and hazardous substances in the steam exhaust of a MART Power Washer, environmental engineers found the substances in the discharge to be Below Detection Levels (BDL) set by the EPA and OSHA.

Thus the air discharge of the MART Steam Exhaust Condenser is deemed acceptable for discharge into the general shop area.

Because local disposal regulations vary widely, discharging the condensate into the sewer should be verified at the installation site.

COMPONENTS:

Stainless Steel Venturi
Blower and Fan
Dual Regulated Cooling Water Valves
Filter

Spray Nozzle Manifold
Water Flow Meter
PVC Ducting
External Cooling Water 5gpm 50° F



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