

GAS, ELECTRIC OR STEAM HEATED

ROTARY DRUM PARTS WASHER

Parts washing is an integral part of any continuous heat treating system. Selas Corporation of America offers a complete family of rotary drum washers to fit the process needs of rotary retort furnaces.

Design considerations

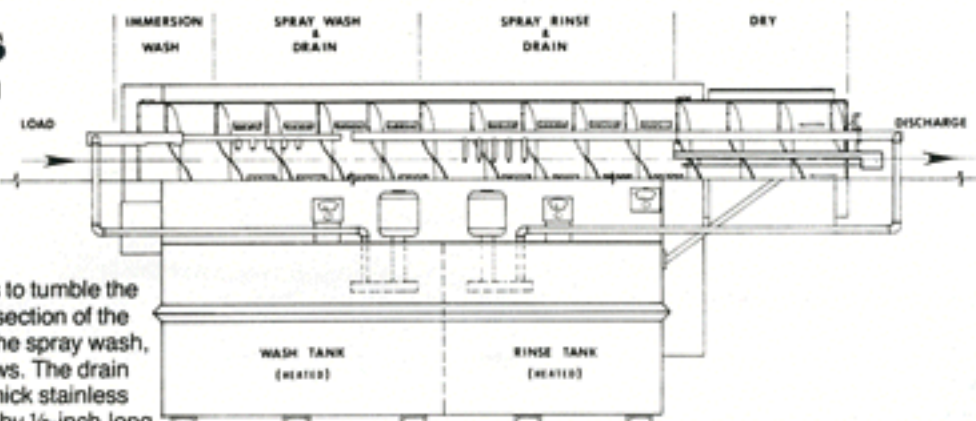
Our basic 26½-inch-diameter drum is used for all washers, with only the length changing as a function of the number of process cycles. In that the large-diameter drum affords a minimum overall length, the base washer model provides the optimum economic selection for all Selas rotary retort furnace systems.

ROTATING DRUM incorporates conveying flights to tumble the parts through the washer. The immersion (front) section of the drum is solid-walled to contain the wash water. The spray wash, rinse and dry sections have multiple drain windows. The drain windows are covered with perforated 1/16-inch-thick stainless steel plates. The perforations are 1/16-inch wide by ½-inch long, the length being perpendicular to the axis of the drum. The orientation of the slots provides a degree of self cleaning, and the edges of the windows provide a lifting action to stir the parts. The width-to-thickness ratio of the slot minimizes the opportunity for small screws to become caught. Also available, as an option, is the 1/32-inch-wide wedge wire screen for very small diameter product.

SOLUTION TANKS are provided with pump, pump chamber covered by removable screens, skimming trough and tank drain plug. The wash solution tank incorporates a float-type liquid level control. Rinse tanks use a fresh water make-up flow (adjustable to 40 GPH) to maintain level. The solution temperature is adjustable by means of a Partlow indicating temperature controller up to a maximum temperature of 180°F. Gas-fired washers use a single immersion heater and control for either a single- or two-stage system. The electric and steam-heated units use separate heating systems and controls for each solution tank.

IMMERSION WASH function is accomplished by flooding the first section of the drum, which has no drain ports, then overflowing into the spray rinse section to drain.

SPRAY WASH AND RINSE functions are accomplished by means of a series of spray nozzles directed into the product load. The **DRY** cycle is accomplished by means of electric radiant heat elements introduced into the rear part of the drum.



Washing cycles

The rotary drum washer lends itself to many functional cycles.

Cycles	Wash Only	Wash & Rinse	Wash & Dry	Wash/Rinse & Dry
Immersion Wash	✓	✓	✓	✓
Spray Wash	✓	✓	✓	✓
Drain	✓	✓	✓	✓
Clean Water Spray Rinse		✓		✓
Drain		✓		✓
Dry			✓	✓

PRE-WASHING is a necessity in that all parts entering the hardening furnace must be free of foreign matter, sulfur-bearing oil in particular.

DRY parts must be fed into the furnace in order not to upset the atmosphere (dew-point) control.

POST-WASHING requirements depend on the quenching medium. Parts must be free of oil prior to being processed in a tempering furnace. For synthetic water-based quenchants, a wash cycle may be desired to eliminate the polymer vapors which would be generated in the tempering furnace.

selas

The Heat Technology Company

Standard features

- Indicating temperature control of solution ■ Pumps ■ Motor starters
- Pump chamber screens ■ Control sub-circuit breaker
- Base assembly to match rotary furnace line height.

ELECTRIC MODELS ONLY

- Immersion heating elements
- Contactors & sub-circuit breakers

GAS-FIRED MODELS ONLY

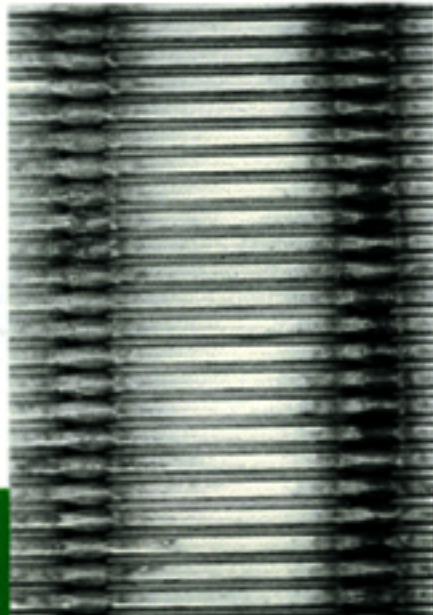
- Combustion system with multi-pass, heavy-wall immersion tube.
- Combustion blower/burner
- Electronic ignition transformer
- FM/IRI (FIA) safety equipment

STEAM-HEATED MODELS ONLY

- Plate-type coils
- Control valves
- Condensate trap



Perforated Window Slots



Wedge Wire Window Slots

Specifications

Model	Drum Length	Solution Tank Capacity (Gals.)		Heat Input		
		Wash	Rinse	E (KW)	G (BTU)	S (Lbs./Hr @ 50 psig) Start/Continuous
P-1-26-FW	94	800	-	60	750,000	700/100
P-1-26-FW-R	144	785	620	110	1,000,000	1400/180
P-1-26-FW-D	116	800	-	78	750,000 - 18KW	700/100 - 18KW
P-1-26-FW-R-D	166	785	620	128	1,000,000 - 18KW	1400/180 - 18KW

*E (KW), G (BTU), S (Lbs./Hr)

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