



# Washers

## Multi-Stage, Pre-Treatment Systems and Parts Washers



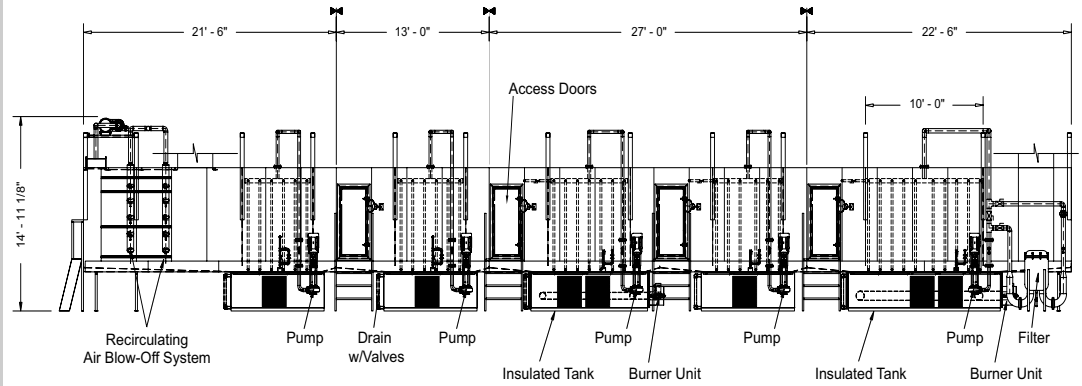
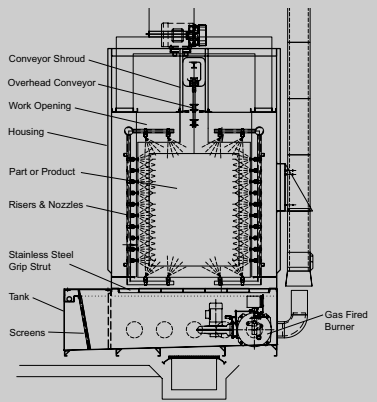
Multi-Stage Surface Preparation Systems are utilized for metal and plastic substrates. These systems are used extensively to prepare surfaces prior to painting or to clean parts after machining or forming operations.



GFS Washers are used in the electro coat process and pre-treatment of Class A finished surfaces. Parts requiring high corrosion protection such as: exterior automobile parts, aluminum wheels, appliances and office furniture may require multiple washer stages as determined by your specific process. Washers are used to clean and prepare substrates prior to powder and liquid coating, electro coating and auto phoretic coating, GFS Washers are used before or after machining or forming of component parts. GFS also designs and builds heated Blow-Off Units and Dry-Off Ovens to completely dry parts after washing operations.

# Washers

The number of stages and the design of a Washer System depend upon the customers' finish specifications and the complexity of the parts to be washed. A GFS Washer can be designed and customized as a spray, immersion, or combination of both types. Most basic Washer Systems include a chemical cleaning stage, followed by water rinse, and seal rinse stages. Per specification requirements, the washer may include the addition of phosphate stages, additional rinse stages, and RO or surfactant final rinse stages.



## Standard Washer Features

### Tanks

- Stainless steel tanks (T-304) (3/16")
- Overflow gutters on all stages
- Dual 304 filter screens, with bottom sludge dam
- Heating equipment (gas fired immersion)
- Removable water sealed access covers
- Sloped tanks to sump drain for easy cleanout

### Housing

- 304 Stainless steel housing / Polypropylene roof panels
- Drain decks sloped (70/30 with 2" center dam)
- Bulkhead-type access doors in drain stages
- Entrance and Exit exhaust vestibules
- Silhouettes in between all spray sections
- Stainless steel grating in solution tanks
- Special housing construction (Bolted construction)

### Piping

- CPVC schedule 80 header piping with quick disconnects (Overhead)
- CPVC schedule 80 risers with quick disconnects
- Drains, overflows, and counter-flow piping (schedule 80 CPVC)
- Rapid fill bypass on all stages
- Vertical pumps with SS fitted components and schedule 80 CPVC piping
- Thermometers (heated stages)
- Pressure gauges (all stages)

### Controls

- (UL) (MCP) Main control panel (PLC) based.
- Electronic solution level controls on all stages
- Gas trains
- Control thermocouples (Heated stages)



## Optional Construction and Maintenance Equipment:

- Polypropylene Housing and rinse tanks construction
- Mild Steel tank and canopy construction
- Insulated tanks with SS 20 gauge sheeting
- Insulated Housing with 20 gauge sheeting
- Manual solution level controls
- Automatic chemical control and feed systems
- Particle filtration systems
- Oil separation systems
- Access stairs and platforms
- Evaporator (zero discharge) Wastewater treatment systems
- Conveyor shrouds in spray and drain stages
- Pressurized conveyor shrouds
- Tank clean out marine doors