



VPI Autoclave Systems

Industries, Inc.

VACUUM
PRESSURE
IMPREGNATION
FOR
MANUFACTURING
INDUSTRIES



60" dia. x 48" liquid level
skid mounted arrangement
with Atmospheric Storage Tank

In support of the electrical industry, WSF VPI systems are used in the processing of coil windings, transformers, capacitors, and electronic components.

Other manufacturers have also benefited from VPI and similar processes.

† **Carbon product manufacturers**

Impregnate pitch, chemical solutions into electrodes, piping, and tubing.

† **Metallurgical manufacturers**

Impregnate porous castings with sealants improving the machinability of powdered metal parts and in preparation prior to plating processes.

† **Wood product manufacturers**

Impregnate wood products to protect against rot, insects, fire, weather effects and heavy use.



24" dia. x 33" liquid level
skid mounted arrangement
with Operating Platform

FEATURES OF WSF VPI SYSTEMS

1. WSF engineers, designs, manufacturers, and services the entire VPI system in-house. No VPI Tank sub-suppliers, or outside control system designers.
2. WSF has over 30 years experience in Vacuum-Pressure-Impregnation and has supplied over 190 VPI systems to a wide range of customers, from locally owned motor repair shops to worldwide Fortune 500 companies.
3. Autoclave and Storage Tank are sized to your production needs, eliminates costly resin inventories to accommodate existing tank sizes.
4. Multiple VPI cycles are readily selected to process varying product types and VPI profiles.
5. Cycle times and system parameters are easily changed using the Operator Interface Terminal, no programming skills required.
6. Quality process valves, sensors, and controls using major suppliers ensure years of reliable service and part availability when replacement is required.
7. Standard liquid level sensors prevent over-filling, minimize resin air bubbling. Autoclave access door interlocks provided prevent unlocking the VPI Tank door when the vessel is pressurized.
8. Optional features including part temperature monitoring, capacitance measurement, better vacuum levels, and others are selectable for compliance with even the most demanding VPI process specifications.

WSF VPI SYSTEM

COMPONENT FEATURES INCLUDE:

A VPI TANK

Designed to meet specific product requirements, internal support grating, external supports for pit grating, view port, light port, options include shaft well, false bottom, better vacuum levels.

B WSF RapiDoor®

Quick-opening closure allows fast and easy access for part loading and unloading.

C VPI SYSTEM ARRANGEMENT OPTIONS:

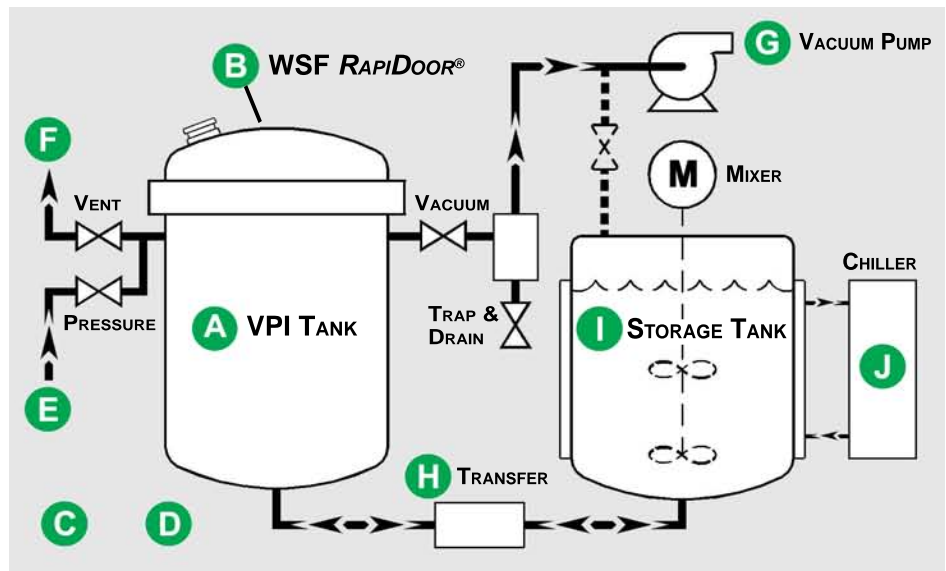
General system arrangement options include: floor mounting, full pit, skid mounting, complete or partial assembly.

D CONTROL SYSTEM OPTIONS:

VPI Cycle and Access Door controls are custom designed at WSF for each installation. Control systems range from fully automated PLC controls to semi-automated hard-wired systems. Automated systems include an HMI Operator Interface Terminal, process recorder with fan-fold chart. Options include continuous level sensing, part temperature measurement (integrated with cycle controls), capacitance monitoring, paperless data logging, remote monitoring via Ethernet communications.



VPI Tank 120" dia. x 120" liquid level



E PRESSURIZATION SYSTEM:

VPI Tank pressure valves include both Nitrogen to break Vacuum and reduce foaming and air control valves to accurately control VPI Cycle pressure and drain transfer levels.

F VPI TANK VENT:

Vent valve sized to depressurize the VPI Tank prior to opening the Access Door and unloading.

G VACUUM SYSTEM:

Includes control valves for precise VPI cycle vacuum and fill transfer levels, vacuum trap with drain to reduce contaminants, and vacuum pump capable of evacuating the chamber to required vacuum levels. Options include: better vacuum levels/capacity, 2nd pump for backup operation.

H TRANSFER SYSTEM:

Features include Fill and Drain control valves, strainer with servicable filter, VPI Tank High & Low Level sensors, Storage Tank Low Level sensor, & manual service valves.

I STORAGE TANK

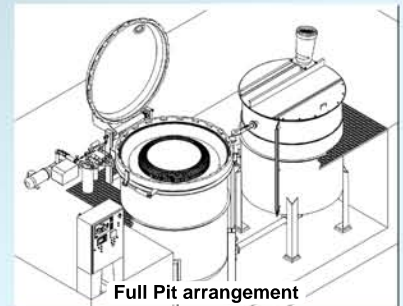
Jacketed tank custom designed and sized in proportion to the VPI Tank. Features include: Mixing system with controlled agitation times, low level sensor, level gauge, sample port, resin temperature measurement. Options include: designed for Vacuum with valving/controls, additional level controls, level capacity, reserve Storage Tank.

J CHILLER SYSTEM:

Self-contained system with local disconnect/controls for stand-alone operation.

WSF has the VPI System for Your Application

With over 30 years experience, WSF has designed over 190 VPI systems for a wide range of applications. From high voltage motors and generators rated in thousands of HP to small motors and electronics parts, WSF VPI systems offer efficient product loading and unloading, precision VPI processing, and years of reliable service.



Full Pit arrangement

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