Custom-Designed Equipment for the Galvanizing Industry
Westech Acid Fume Scrubbers

- Quality-built, Rugged Design for the Galvanizing Environment
- Corrosion Resistant Materials and Construction
- Utilizes Wetted, Packed-bed Technology
- Removes Water Soluble Contaminants, Soluble Gas, and Particulate Matter
- Contaminants are removed by Impingement* and Gas Absorption*

*Impingement:
Particulate matter is forced through a wetted packed bed, then through a chevron blade or mesh pad filter section.

*Gas Absorption:
Gasses are absorbed into the liquid

Features:
- Vertical Counter-Flow
- Clear, Quick Access Inspection Windows
- Bolt-on Pack Fill
- Removable Packing and Mist Eliminator
- Easy Access Bolt-on Clean-out Doors
- Fresh Water Make-up Flow Meter
- In-line Y-strainer
- CPVC Pump with Motor
- Diaphragm Valve
- Removable Spray Headers
- Overflow and Drain

Click to return to table of contents or to move on to the next page
Westech Automatic Flux Treatment System

Preflux Treatment

- 1.15 m³ (40 ft³) filter capacity
- Removes iron
- Adjusts PH
- Reduces Dross Production
- Low operating cost
- Includes Polypro filter with 40 bags
- One-piece construction
- Fully automatic
- Automatic ph control
- Automatic injection of oxidizing agent
- Iron maintained below 2 gr/Liter
- ZnCl³ is not removed by filtration
- Consistent flux bath quality
- Maintains pH level
- Sharply reduces iron in flux
- Reduces coating defects and rework
- Properly maintained flux bath can reduce immersion time, lowering zinc pick up and dross formation

Includes

- Polypropylene Reactor
- Filter with bags (x40)
- Control Panel
- Dosing Solenoids (x2)
- Supply (Feed) Pump
- Return Pump
- Circulation Pump
- pH meter with digital read-out
- Redox meter with digital read-out
- All internal pipework and electronics
- Includes all switches, alarms, and over level shut off switch.
Westech Baghouse Fume Filter
Guaranteed to meet or exceed all European standards

- Specifically designed for the demanding galvanizing operation
- Experienced international manufacturer of fume particulate collection systems
- Heavy duty
- Modular design
- Pulse jet self cleaning
- Hopper base for particulate collection and discharge
- Easy access for bag inspection and “tool-free” bag removal
- Automatic precoat system
- Epoxy painted internal and external surfaces, with enamel top coat externally
- Skid frame mounted fan and motor
- Heavy duty housing construction
- Epoxy coated steel venturis
- Differential pressure indication

Options available:
- Broken bag detection system
- Trace heating
- Insulation
- Compressor system
- Fan silencer

Click to return to table of contents or to move on to the next page
Westech Centrifuge Machines

- Proven reliable equipment
- Pneumatic, automatic lid
- Cost effective
- Safety systems for operators

- Reliable design - designed for galvanizing by galvanizers
- Extremely Heavy Duty
- Electric Brake Available

[Watch Video]
Westech Containment Pit Liner Systems
Welded Copolymer Polypropylene

- Custom - made for any application
- Welded in place for perfect fit
- High Density Copolymer Polypropylene will support any load
- Protects against chemical attack on foundations and concrete
  - Protects against ground contamination
  - Sumps can be included for easy cleaning
Westech Degrease Filtration

- Very Large Capacity
- Low Operating Cost
- Utilizes 40 Filter Bags
- Modular Construction
- Fully Automatic
- Removes Suspended Oils
- Skid Mounted - Polypro

Includes:

- Filter with 40 bags
- Supply Pump
- Return Pump
- All Internal Piping
- Control Panel
- Safety Switches
Westech
Dryer / Preheaters
With or without conveyor

- Reduces zinc consumption by reducing splash and dross
- Reduces dip time
- Improves quality
- Specifically designed for the demanding galvanizing operation
- Engineered specifically for each unique application
- High volume circulation fan
- In-line burner with safety systems
- Heavy duty distribution plenums
- Powered doors
- Relay Logic Control Panel with precise temperature control
- Dual push button stations for operators
- Heavy Duty Construction

Options available:
- PLC control system
- High temperature conveyor
- Heat recovery from furnace
Westech Duracouple® Thermocouples

- Kettle quality steel - Low carbon, silicon traces
- Two dual-wire leads in each unit (4 wires total)
  - Custom built for any furnace
  - Durable - Lasts up to 2 years
  - Durable, reliable, time-tested
Westech Enclosed Pretreatment

- State-of-the-Art Environmental Technology
- Acid Resistant Construction Throughout
- Heavy Duty Steel Exo-Structure
- Controlled Air Flow to Maintain Negative Internal Pressure
- System Designed to Work with a Wet Scrubber
- Hoist Cables Allowed to Pass Through Gasket in Roof of Enclosure
- Internal Lighting per Safety Standards
- Extends Building Life by Reducing Corrosion from Pickling Fume
- Workers Control Pickling Line from Outside Enclosure
- Reduces Health Hazard for all workers in galvanizing plant
- Transfer trolley, Conveyor, or Dryer brings loaded jigs into and out of enclosure
- Automatic Door Controls

Click to return to table of contents or to move on to the next page
“OSHA requires all lifting devices to be tested and certified”

All Westech lifting devices are
Load Tested Individually Tagged

• Serial Numbers
• Date of Manufacture
• Load Capacity

Individual certificates issued on every unit!
Westech Envirotherm Furnaces
Quality Galvanizing Furnaces

- Technologically Advanced – Proven Design
- High Velocity – End Fired Burners
- Fuel Efficient – Gas or Oil
- Automatic Temperature Control – Ensures Close Temperature Tolerance
- Flame Safety Systems - Ensure Operator Safety
- Modular “Knock Down” Construction – Allows Furnace to be Shipped in Standard 40’ Containers Anywhere in the World
- Minimal Number of Burners – Means Minimal Maintenance
- Expandable – Modular construction allows operator to change kettle size without replacing furnace
- Extended Kettle Life – 360 ° Combustion Chamber and Uniform Heating Will Add Years to Your Kettle Life
- Reduced Operating Cost – Optimal Thermal Efficiency and Heat Transfer Reduces Energy Costs
- Bath Wall Integrity Maintained – by Fully Adjustable, Retractable Props Which Support Kettle Sidewalls and Maintain Original Kettle Dimensions

Now Available in All Electric Design
Westech Furnaces

Options Available Include:

• Ultra Low-NOx and CO Burners
• Leak Detection System
• Auto Heat-up Program
• Automatic Exhaust Damper
• External Thermocouple
• PLC Control

Other furnaces available:

• Flat Flame Systems
• High Temperature Ceramic Baths
• Electrically Heated
• Gas or oil fired

WORLD RENOWNED
COMBUSTION
SYSTEMS

• Minimal number of burners - means minimal maintenance

• Exclusive 3 term PID control system - gives excellent temperature control.

• Reusable - furnace life of 20+ years without major retrofit

• Extended kettle life - 360° combustion chamber and even heating will add years to kettle life

• Exclusive Westech “Turbo” function - increases kettle life by 20%

• Reduced operating costs - optimal thermal efficiency and heat transfer reduces energy costs

• Preassembled furnace - Resulting in fast, simple installation

• Commissioning - on site personnel to oversee installation, wiring, plumbing, and start-up

• Expandable - Modular construction allows operator to change kettle size without replacing furnace

• Bath wall integrity maintained - by fully adjustable, retractable props which support kettle sidewalls and maintain original kettle dimensions

• Operator comfort - Superior insulation system virtually eliminates heat loss through furnace walls
Westech Integrated Tank Heating Systems

• Boiler systems designed and specified for optimal efficiency

• Teflon®, Titanium, zirconium, stainless, and carbon steel heating coils for maximum life

• Automatic Temperature Control

• Corrosion resistant materials throughout

• Precise temperature operating parameters

• Heating coils in process tank or secondary remote heating tank

• Each system specifically engineered for the customer’s special requirements
Westech Kettles

Since 1873 W. Pilling & Company has been involved in the fabrication of steel plate structures and galvanizing kettles. Today, modern technology and a highly skilled workforce have been combined into a world-renowned company. State-of-the-art cutting, folding and bending machinery, and well established production techniques enable work on high quality plates with great precision. Qualified personnel ensure that the renowned Pilling quality is maintained at all times. Permanent controls during production guarantees the best results in both precision and security.

- Fast deliveries
- Electro-slag welding
- Chemical Analysis of all plate certified
- Emergency deliveries available
- Highest Quality
- Ultrasonic testing
- Available in various thicknesses
- No corner welds

Click to return to table of contents or to move on to the next page
Westech Kettle Covers

• Exclusive Warp Resistant Design
• Special Stackable Modular Design
• High Density Ceramic Fiber Insulation
• Integral Lifting Beam
• Centered Lifting Eyes
• Heat Resistant Paint
• Mild Steel Construction
## Westech Material Handling Systems

**Manual Or Semi Automatic**

- Overhead Bridge Cranes
- Monorail Hoists
- Transfer Trolleys

- Universal Racks/Jigs
- Raise / Lower Stations
- Transfer Conveyors

### Designed and Built Specifically for the Galvanizing Plant

![Cranes](image.png) ![Hoists](image.png)

Click to return to table of contents or to move on to the next page
Westech Mechanical Dross Grab

- Heavy duty design
- Mild steel construction
- No “Forced” closure - will not damage lost parts or bucket
- Ideal for use with deep kettles
- The best solution with enclosures
Westech Motorized Transfer Carts
The simple, safe way to transfer between bays!

- Track Mounted
- Heavy Duty Wheel Blocks and Drives
- Heavy-Duty Construction
- Epoxy Coated
- Any Length
- Any Weight Capacity
- Anti-Tip Protection
- Bumper-Controlled Auto-Stop
- Wheels Are Not Exposed
Westech Packaged
chain-link security
fencing Plant

Westech Automatic Wire Mesh Rolling Machine with Quenching:

• Includes design, engineering, components and supply for the integrated rolling machine to be positioned in the kettle
• multi-layer rollers for individual speed control
• divides and weirs of low carbon/low silicon kettle steel
• ABB variable speed controls for rollers
• (3) 2.25 kW electric drive motors
• (1) 3.70 kW electric drive motor
• chain-drive rollers with sprockets
• cooling frame with reservior
• (1) push button control station,
• high temperature paint coating.

DRAW LINE EQUIPMENT – Optional:
Note: If high quality wire drawn to within tolerances is available locally then this Drawing Line Equipment is not necessary.

Wire Drawing Machine Model #SCWD 600:

Includes:

• Uncoiler – Model VOHP-7
• Descaler
• Non-drawing spooler
• Wire Butt-welder – 10 kVA
• Pointer
• (4) Roller Cassettes
• Ripper Die Box
• Finish Die Box
Westech Packaged Mini-Galvanizing Line

Features:

• Low Initial Investment

• Kettle Size: 2.0 long x 0.7 wide x 1.1m deep

• All Electric, just plug and play

• Modular construction

• Includes all equipment necessary for low-volume galvanizing operation

• Produces 1.0 ton per hour gross

• Ships in standard 40’ containers

Includes:

• Galvanizing Kettle: 2.0 x 0.7 x 1.1 deep

• Electric furnace with controls

• Insulated Kettle Cover

• Electric Drying Plate

• Electric Tank Heaters

• Pretreatment Tanks—8 compartments

• (4) Manual Chain Hoists

• 20.0m monorail beam

• Portable Centrifuge with manual lid

• Bucket Tipper/Quench

• (5) Polypro Pickle Boxes

• (8) Perforated Steel Spin Buckets

• Drossing Scoop

• Drawing for sorting table

• Drawing for Centrifuge Buckets

Click to return to table of contents or to move on to the next page
3.2m Gas Fired, Packaged Mini-Galvanizing Line

Includes:

- Galvanizing Kettle: 3.2 m (10'-6") Long x 1.0 m (3'-3") Wide x 2.0 m (6'-6") Deep
- EnviroTherm End Fired, High Velocity Furnace with Relay Logic Control Panel
- (8) CPP Freestanding Tanks with Steel Girth Supports, Encapsulated with CPP (No Exposed Steel)
- (2) Sets of Over the Side Style Electric Tank Heaters with Digital Controls for Degrease and Pre Flux Tanks
- (2) CPP Tank Covers for Heated Tanks
- (6) 1.0 ton, 2 Speed Chain Hoists
- 42.7m (140'-0") Monorail Beam with Electrification
- Westech Insulated Kettle Cover
- Westech Manual Dross Scoop
- Drawings for Client Fabrication of Exhaust Chimney and Flue
- Drawing for Client Supply of Full Size Quench Tank
- Export Documentation

Available Options:

- Radio Control for Chain Hoists
- Process Training for Plant Personnel
- Technician for Commissioning of Equipment
- Transport and Delivery to Site
- Full Centrifuge Line, includes:
  - Portable Centrifuge
  - Tipper Quench Machine
  - CPP Pickle Boxes
  - Perforated Centrifuge Buckets
  - Electric Dryer/Pre-Heater Plate
  - 1/4 ton Rotating Jib Crane
- Fume Extraction Equipment
  - Fume Hood (Lip Extraction)
  - Pulse-Jet Bag Filter
  - Drawings for Client Supply of Duct System

Features:

- Low Capital Investment
- Kettle Size: 3.2 m (10'-6") Long x 1.0 m (3'-3") Wide x 2.0 m (6'-6") Deep
- End Fired, High Velocity, Natural Gas Fired Burner (LPG or LNG available)
- Modular Construction
- Includes all equipment necessary for low-volume galvanizing operation
- Produces 2.7 tons per hour, gross
- Ships in standard 40' shipping containers
4.0m Gas Fired, Packaged Mini-Galvanizing Line

Includes:

- Galvanizing Kettle: 4.0 m (13'-1") Long x 1.0 m (3'-3") Wide x 2.0 m (6'-6") Deep
- EnviroTherm End Fired, High Velocity Furnace with Relay Logic Control Panel
- (8) CPP Freestanding Tanks with Steel Girth Supports, Encapsulated with CPP (No Exposed Steel)
- (2) Sets of Over the Side Style Electric Tank Heaters with Digital Controls for Degrease and Pre-Flux Tanks
- (2) CPP Tank Covers for Heated Tanks
- (6) 1.0 ton, 2 Speed Chain Hoists
- 50m (164'-0") Monorail Beam with Electrification
- Westech Insulated Kettle Cover
- Westech Manual Dross Scoop
- Drawings for Client Fabrication of Exhaust Chimney and Flue
- Drawing for Client Supply of Full Size Quench Tank
- Export Documentation

Features:

- Low Capital Investment
- Kettle Size: 4.0 m (13'-1") Long x 1.0 m (3'-3") Wide x 2.0 m (6'-6") Deep
- End Fired, High Velocity, Natural Gas Fired Burner (LPG or LNG available)
- Modular Construction
- Includes all equipment necessary for low-volume galvanizing operation
- Produces 4.0 tons per hour, gross
- Ships in standard 40’ shipping containers

Available Options:

- Radio Control for Chain Hoists
- Process Training for Plant Personnel
- Technician for Commissioning of Equipment
- Transport and Delivery to Site
- Full Centrifuge Line, includes:
  - Portable Centrifuge
  - Tipper Quench Machine
  - CPP Pickle Boxes
  - Perforated Centrifuge Buckets
  - Electric Dryer/Pre-Heater Plate
  - 1/4 ton Rotating Jib Crane
- Fume Extraction Equipment
  - Fume Hood (Lip Extraction)
  - Pulse-Jet Bag Filter
  - Drawings for Client Supply of Duct System
Westech Pro-pHx Filter

• Utilizes 40 Filter Bags
• All Polypro Construction
• Capacity 40ft³ = 1.14m³
• Automatic Level Control
• Removes Suspended Solids
• Skid Mounted
• Low Operating Cost

Includes

• Filter with 40 bags
• Supply Pump
• Return Pump
• All Internal Piping
• Control Panel
• Safety Switches
Westech Quench
Cooling and Filtration

- Removes heat from quench water
- Temperature Control
- Maintains Consistent Quench Water Temperature
- Eliminates another variable from galvanizing process
- Heavy Duty - Durable
- Filters Oxides, Carbonates, Calcium from quench water
Westech Raise / Lower Powered Lift Stations

- Adjusts to any height for your universal racks
- Suits any length of rack
- Any Weight Capacity Available
- Pushbutton Control w/ Emergency Stop

- Pendant Control available upon request
- Heavy Duty Design
- Custom designed rack interface to suit your specific rack
- Prevents Injuries
- Simple Installation
Westech Services

• **Plant Layout**
  - 30+ years of operating and design experience
  - Plants designed by an operator for maximized operations
  - Original innovative designs for new plants
  - Maximize available space in existing plants

• **Equipment Design and Supply**
  - Equipment designed for specific applications
  - Full line of galvanizing equipment for one stop shopping and support

• **Turn-key Installations**
  - Design, specifications, procurement, and project management

• **Training**
  - On-site training in galvanizing process
Westech Suspended Spinner
Revolutionary Over-Bath Spinning

- One-man Operation
- Increased Production Rates
- New Design Provides up to 3 ton Capacity
- Positive Braking - Either direction
- Reversible spinning
- Variable Speed Control - Either direction
- Proven Reliability - Operating Throughout North America and Other Countries
- Proven Technology
- Proven Profitability – Increased batch sizes, decreased labor, and reduced zinc usage, reduced wire usage

Click here to see the Suspended Spinner for Enclosures
Westech Suspended Spinner for Enclosure

Patent Pending

- Spin any length inside fume enclosure!!
- Spin inside the safety of the enclosure.
- Pendant Control—one-man operation
- 3 Ton Capacity
- Positive Braking - either direction
- Reversible Spinning
- Variable Speed Control - either direction
- Increased Production Rates
- Proven Reliability
- Proven Technology

Click to see the Suspended Spinner
Westech Tipper-Quench Machines

- Semi-automated, proven systems
- Flanged for water flow temperature control and filtration
- High volume, high frequency
- Durable, reliable, time-tested
- Hydraulically operated basket and pan tipper
- Automatic Liquid Level Control Available

Watch Video
Westech Vibrahoist

• **Reduces zinc** use by breaking up surface tension of coating and leaving excess Zinc in the kettle

• **Saves labor** costs by reducing or eliminating cleanup since drips stay in the kettle

• **Improves coating finish** by promoting uniformity and eliminating bare spots between parts

• **Transmits vibrations** to parts and racks, not the hoist

• **Isolates** up to 98% of the vibration from the hoist

• **Reduces** cook-off time

• **Helps** release trapped ash or skims

• **Variable speed** controls for a wide range of products

• **Pneumatic** model available up to 5000 lbs (2273 kg) capacity

• **Electric** model available up to 10,000 lbs (4598 kg) capacity
Westech Waste Heat Recovery Systems

• Each system specifically engineered for the customer’s special requirements
• Shell – tube heat exchanger recovers up to 20% of the gross heat input to the furnace
• Will not draw heat from kettle
• Skid mounted for easy shipment and positioning on site
• High temperature fan
• Metal clad, insulated piping to minimize heat loss through system
• Offline design for simple and non-disruptive maintenance
• Relay logic control packages
• Can be integrated with Western Technologies Tank Heating Systems

Click to return to table of contents or to move on to the next page
Westech Welded Polypro Pretreatment Tanks and Tank Liners

- All welded copolymer polypropylene (cpp)
- Individually Encapsulated Tube Support Frame
- With or Without Steel Support Frame
- Welded copolymer polypropylene drop-in liners
- Custom designed for your specific application
- Experienced, efficient, high-quality manufacturer
- Quick, reliable deliveries
- Retrofit existing steel or brick tanks
- Integral heat exchanger guards
- Flanged for recycling systems
- End-wall crash protection available
- Reinforced corners
- Cost effective installation
- Additional bottom protection available
- Drop-In Liners for quick, cost effective retrofit of existing tanks
- Secondary containment for existing tanks!
Westech White Fume Enclosures

“Cross-Shop”

- Captures more than 95% of fume
- Heavy Duty Construction, Designed for the Galvanizing Environment
- Easy Accessibility for Skimming/Ashing and Maintenance
- Safety Systems For All Operator Interfaces
- Minimizes Extraction Requirements
- Uniform Efficient Extraction
- Pneumatically and Hoist Operated Doors

“In-Line”

- Side Doors Open in Event of Power Loss
- Splash-proof Fresh Air Inlets and Doors
- Push Button Controls for all Doors
- Manual Override on Side Doors
- Durable, Built to Last
- In-Line or Cross-Shop Systems
- Counter-Weighted Side Doors
- Infra-Red Safety Beams

Photograph by kind Permission of Chmiel Overton Partnership
Westech Electric Zinc Pumps

- Prevent costly damage to furnace from kettle failures
- One man operation during emergencies
- Eliminates slow and dangerous bailing or dipping
- Reduces Zinc loss from skims over bailing
- Makes periodic inspection of kettle walls practical
- Allows transfer of molten Zinc from one kettle to another -or safely to drums
- Maximum capacity 4,840 lbs/minute (2,200 kgs/minute)

Westech Pneumatic Zinc Pumps

- Powerful, dependable 3hp air motor
- Motor can be throttled to adjust flow rate
- Self draining - Store without cleanup after each use
- Shaft lengths from 4’ to 10’ (1.2 m to 3.05 m)
- Maximum capacity at 4’ lift (1.2 m) is 6,000 lbs/minute (2,720 kgs/minute) with 80 psi (5.5 bar) air supply, 100 cfm (2.8 cubic meters per minute) free air consumption