



Nu/Clean 300 XLR-Flood Box Series
Inline Aqueous Cleaner
(Shown with optional Top Belt)
Technical Specifications



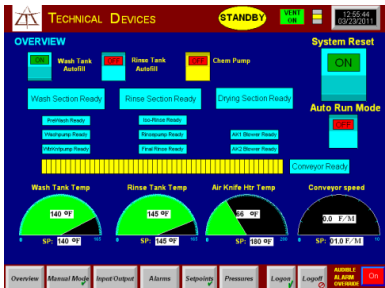
Since 1952, Technical Devices has been supplying the electronics industry with the highest quality production equipment, and has an enviable reputation for after-market service and product support. In addition Technical Devices continues to be on the cutting edge of cleaning technology with innovative products and features that produce excellent, reliable cleaning results while making a minimal impact on the environment. The Nu/CLEAN line of Aqueous cleaners are the safest, quietest, and most energy efficient machines on the market today.

Even with all of these technological and environmental advances, the Nu/CLEAN aqueous cleaners are easy to operate and maintain. The touch screen control system is intuitive and straightforward while being robust enough to control and monitor all critical functions of the cleaner. The alarms and maintenance screens let the operator know immediately what actions need to be taken. The physical design of the tanks, cabinets, and controls make regular maintenance quick and easy.

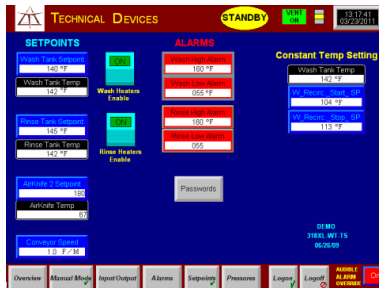
With decades of cleaning experience and an established network of customer service personnel, Technical Devices Company is the best choice to meet your cleaning needs.



TOUCH SCREEN CONTROL SYSTEM



Overview Screen



Set Points Screen



Alarm Screen

- ❑ Robust, Windows based platform
- ❑ Password controlled access to programming screens
- ❑ Easy operator interface
- ❑ Alarm Package included in software
- ❑ Touch screen displays and sounds alarms when machine controls are out of tolerance
- ❑ Light Tower
- ❑ Auto Start / Stop with photo sensor at entrance
- ❑ 12" LCD Touch screen

STANDARD FEATURES in order of MODULE CONFIGURATION

LOAD

- ❑ Emergency Stop Button
- ❑ Personnel Grounding Socket
- ❑ 12" Fixed Entrance Extension (Up to 36" at no additional charge, specify at time of order)

WASH STAGE (36" length)

- ❑ 4 Incoloy 12 kW Immersion Heaters mounted on accessible front bulkhead
- ❑ Over Temperature Protection
- ❑ Redundant low liquid level protection
- ❑ Automatic Fill with Level Control
- ❑ Auto Chemistry System (*optional*) includes metering pump controlled by flow sensor, which delivers balanced chemistry to the wash section
- ❑ Spray Modules (Flood Box – see below)
- ❑ Independent Gate Valves Spray Pressure Control for upper and lower spray bars
- ❑ Rear pressure gauges next to spray control valves for upper and lower spray bars
- ❑ High Performance 15 H.P. Stainless Steel Pump
- ❑ Stainless Steel High Pressure Plumbing
- ❑ Removable Low Loss Pump Intake Screen Strainer (60 Mesh - .01")
- ❑ Easy Access Catch Screen
- ❑ Removable Access Ports for Tank cleaning
- ❑ Transparent interior slide panel lid and exterior access tempered glass window for in-process inspection
- ❑ Independent Tank Drain Valve



Figure 1



**Quick Disconnect
Spray Bars**

Figure 2



**Easily Accessible
Immersion Heaters
and Catch Screens**
*(Shown with Front Panel
Removed)*

FLOOD BOX WASH CONFIGURATION (Within Wash Stage)

- ❑ Completely submerges the circuit board under the wash fluid
- ❑ Penetrates under low standoff components
- ❑ Penetrates between components on high density printed circuit boards
- ❑ One each upper and lower water knife at entrance of the Flood Box
- ❑ Upper and Lower spray bars within the Flood Box
- ❑ Level conveyor transportation through the Flood Box
- ❑ One each upper and lower water knife at exit of the Flood Box

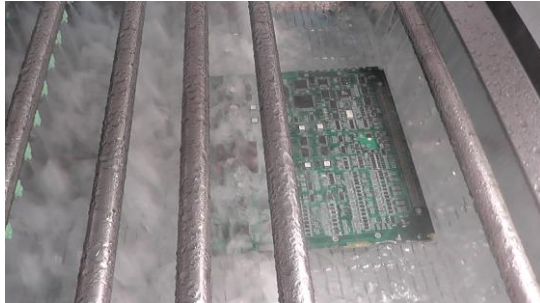
Flood Box



Flood Box
Printed Circuit Board
traveling through the
Flood Box



Flood Box



Flood Box
Printed Circuit Board
completely submerged
within the Flood Box

ISOLATION RINSE STAGE (20" Length)

- ❑ Prevents chemical drag out from wash to rinse tank
- ❑ Increases liquid penetration under components
- ❑ One each upper and lower Air Knife Tubes with adjustable rotation
- ❑ 2 Quick Disconnect Spray Bars totaling 16 nozzles [See Figure 1]
- ❑ Outside water supply controlled and monitored by valve and flow meter with direct flow to drain

OR

- ❑ Water supplied from rinse pump controlled and monitored by valve and flow meter with direct flow to drain
- ❑ One Upper and One Lower Dragout Air Knife Tube with adjustable rotation (post isolation rinse)
- ❑ Transparent interior slide panel lid and exterior access tempered glass window for in-process inspection

RECIRCULATING RINSE STAGE (16" Length)

- ❑ 3 Incoloy 12 kW Immersion Heaters mounted on accessible front bulkhead
- ❑ Redundant low liquid level protection
- ❑ Automatic Fill with Level Control
- ❑ 1 Spray Module totaling 6 Quick Disconnect Spray Bars (48 nozzles)
- ❑ Independent Gate Valve Spray Pressure Controls for upper and lower spray bars
- ❑ Rear pressure gauges next to spray control valves for upper and lower spray bars
- ❑ High Performance 15 H.P. Centrifugal Stainless Steel Pump
- ❑ Stainless Steel High Pressure Plumbing
- ❑ Removable Low Loss Pump Intake Screen Strainer (60 Mesh - .01")
- ❑ Easy Access Catch Screen Removable Access Ports for Tank Cleaning



- ❑ Transparent Interior slide panel lid and exterior access tempered glass window for in process inspection
- ❑ Independent Tank Drain Valve
- ❑ Direct to drain or cascade

FINAL RINSE STAGE (11" Length)

- ❑ 1 Spray Module with 2 Quick Disconnect Spray Bars (12 nozzles)
- ❑ Water pressure determined by incoming water supply
- ❑ Nozzle Spray is controlled and monitored by valve and flow meter
- ❑ Removable Access Ports for Tank Cleaning
- ❑ Transparent Interior slide panel lid and exterior access tempered glass window for in-process inspection
- ❑ Easy access catch screen
- ❑ Drag Out Air Knife Removes and Flushes Rinse Water

DRYER STAGE

- ❑ 2 Air Knife Modules each with 2 Upper and 1 Lower Air Knives (Standard)
- ❑ 1 each High Performance 10 HP Turbine Air Blower with Self Tensioning Belt
- ❑ 1 each High Performance 15 HP Turbine Air Blower with Self Tensioning Belt (15 HP Blower Shared with Isolation Section)
- ❑ Magnehelic Pressure Gauge for each blower
- ❑ Slide out Blowers for easier access *[See Figure 3]*
- ❑ Exterior Tempered Glass Window for In-process Inspection
- ❑ Insulated Blower and Air Knife compartments for lower decibel operation
- ❑ Custom Designed Stripping Air Knives for High Efficiency drying *[See Figure 4]*
- ❑ Height & Angle Adjustable Upper Air Knives
- ❑ Angle Adjustable Lower Air Knives
- ❑ Double Paned Glass Viewing Windows for Noise Reduction
- ❑ Reusable polypro Air Knife Filters
- ❑ Dryer Section utilizes non-recirculating air to reduce humidity in drying chamber

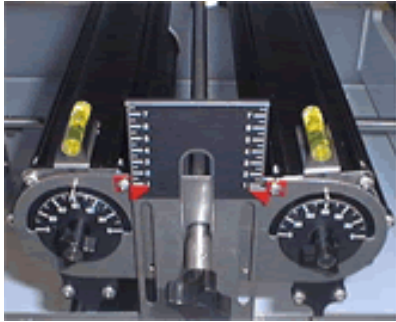
Figure 3



**Our Roll Out Blowers
make changing filters and
other maintenance
procedures much faster
and easier**



Figure 4



**High efficiency, height
and angle adjustable
Air Knives**
for optimum drying

OPTIONAL IR TUNNEL

(Replaces One Air Knife Section and One Blower from Standard Configuration)

- Radiant Convected Thermal Drying Section
- No additional Charge, must specify at time of order
- 1 Upper and 1 Lower 6.5 KW IR Heater
- Reflective Stainless Steel Side Panels
- Insulated to reduce Heat Loss
- Maximum Drying under Low Stand-off Parts
- Inline Capability with Conformal Coating Equipment

Figure 5



IR Heater Tunnel
Extra Heat at the end of
the drying stage to make
sure difficult to dry boards
come out clean and dry

UNLOAD

- Emergency Stop Button
- Insulated Silencing Shroud
- Personnel Grounding Strap Socket
- Stainless Steel Exit Ramp
- Fixed 12" Exit Extension (Up to 36" at no additional charge, specify at time of order)



CONVEYOR

- ❑ Full 18" or 24" Process Width Standard
- ❑ Conveyor rail cutouts at spray bar and air knife locations
- ❑ Stainless Steel Wire Belt Conveyor (standard)
- ❑ Upper (Hold Down Belt) Stainless Steel Wire Belt (optional)
- ❑ Drive protected by Slip Clutch
- ❑ Conveyor is grounded for ESD Protection
- ❑ Return Conveyor Belt routed outside of rinse and wash modules
- ❑ Uni-Drive Top & Bottom Belts (Single Drive Motor)
- ❑ Standard 3" product clearance

EXHAUST

- ❑ Concealed Integral Ducting
- ❑ Three 10" External Exhaust Ports with Dampers
- ❑ Reclamation Exhaust System with Coalescing Screen for the lowest chemistry loss in the industry

SPECIFICATIONS

ELECTRICAL: 480 VAC 3PHZ (**Optional** 380VAC available)

EXHAUST: 1200 CFM @ 1.5" SP **Per Stack** (3 stacks)

WATER INPUT: 4.5 – 7.5 GPM depending on options and configuration

PRODUCT CLEARANCE: 3.0"

WEIGHT: 4,000 lbs. Approx.

LENGTH: 180" (Plus Entrance/Exit)

WIDTH: 68"

BELT HEIGHT: 35 -36" (adj.)

HEIGHT: 66 - 67" (adj.)



SYSTEM BASE PRICE – Nu/Clean 300XLR –Flood Box Series

<i>Touch Screen System</i>	
<input type="checkbox"/> Touch Screen Control with Recipe Capability	<i>Included</i>
<input type="checkbox"/> Automatic Sequential Start / Stop with Photo Sensor	<i>Included</i>
<input type="checkbox"/> Alarm Package	<i>Included</i>
<input type="checkbox"/> Key Password Control	<i>Included</i>
<input type="checkbox"/> Remote Access Capability	<i>Included</i>
<i>Cleaner Construction</i>	
<input type="checkbox"/> Light Tower	<i>Included</i>
<input type="checkbox"/> Ergonomic Front Panel Controls	<i>Included</i>
<input type="checkbox"/> Rigid Steel One Piece Welded Cabinet Base 3" x 3" x .187" Steel	<i>Included</i>
<input type="checkbox"/> Dual Tank Walls (<i>Only available at Technical Devices</i>)	<i>Included</i>
<input type="checkbox"/> Translucent Front and Back Bulkheads	<i>Included</i>
<i>Conveyor and Sound Insulation</i>	
<input type="checkbox"/> Lower Conveyor Belt	<i>Included</i>
<input type="checkbox"/> Isolated Dry Return for Conveyor Belt	<i>Included</i>
<input type="checkbox"/> 12" fixed extensions at Entry and 12" at Exit	<i>Included</i>
<input type="checkbox"/> Noise Insulation Package	<i>Included</i>
<input type="checkbox"/> Silencing Shroud at Exit End	<i>Included</i>
<i>Plumbing</i>	
<input type="checkbox"/> Tank Catch Screens	<i>Included</i>
<input type="checkbox"/> Upper and Lower Spray Bar Controls	<i>Included</i>
<input type="checkbox"/> Quick Disconnect Spray Bars	<i>Included</i>
<input type="checkbox"/> Plumbing and Valves Labeled	<i>Included</i>
<input type="checkbox"/> Stainless Steel High Pressure Plumbing	<i>Included</i>
<i>Wash & Rinse</i>	
<input type="checkbox"/> Front Mounted Immersion Heaters for ease of maintenance	<i>Included</i>
<input type="checkbox"/> Pressure Gauges on back of cleaner for ease of adjustment (and on Touch Screen)	<i>Included</i>
<input type="checkbox"/> Two 15 HP Stainless Steel Pumps	<i>Included</i>
<input type="checkbox"/> Recirculating Heated Water in Wash	<i>Included</i>
<input type="checkbox"/> Two Patented Barrier Water Knives with Dedicated 10 HP Pump (Wash)	<i>Included</i>
<input type="checkbox"/> High-Flow nozzle configuration in Flood Box (Wash)	<i>Included</i>
<input type="checkbox"/> Recirculating Heated Water in Flood Box (Wash)	<i>Included</i>
<input type="checkbox"/> Chemical Wet Isolation with Dragout	<i>Included</i>
<input type="checkbox"/> Recirculating Heated Water in Rinse	<i>Included</i>
<input type="checkbox"/> 60 Mesh (.01") Pump Inlet Filters	<i>Included</i>
<i>Drying</i>	
<input type="checkbox"/> Slide Out Blowers	<i>Included</i>
<input type="checkbox"/> One 10 HP and One 15HP Air Knife Blowers	<i>Included</i>
<input type="checkbox"/> Manual Butterfly Valves (N/A on Optional Heated Air Knife)	<i>Included</i>
<input type="checkbox"/> Repeatable and Precise Airknife Adjustments	<i>Included</i>
<i>Vent, Drain, and Utilities</i>	
<input type="checkbox"/> Coalescing Screen in Vent System	<i>Included</i>
<input type="checkbox"/> Exhaust Ports with Dampers	<i>Included</i>
<input type="checkbox"/> Dual Inlet / Drain System	<i>Included</i>
<input type="checkbox"/> UL Listing	<i>Included</i>
<input type="checkbox"/> 480VAC, 3Phz, 60Hz	<i>Included</i>
<input type="checkbox"/> Installation & Training	



Available Options for Nu/Clean 300 XLR-Flood Box Series

<input type="checkbox"/> Adjustable Incline Load Module (36")	
<input type="checkbox"/> Dual Belt	
<input type="checkbox"/> Custom Pitch for Belt (Price is per belt)	
<input type="checkbox"/> Special Belt - Coated Belt, and/or Belt Flights	
<input type="checkbox"/> Resistivity Meter	
<input type="checkbox"/> External Software Package	
<input type="checkbox"/> Auto Chemistry (Wash Tank) (0.33% - 23%)	
<input type="checkbox"/> Chemistry Sampling Port	
<input type="checkbox"/> Variable Speed Pump (each)	
<input type="checkbox"/> IR Tunnel (Replaces One Standard Air Knife Drying Section and One Blower – Specify at time of order)	
<input type="checkbox"/> Air Knife Heater with SS Plenum Assembly	
<input type="checkbox"/> <i>Note: Not Available with IR Tunnel Option</i>	
<input type="checkbox"/> Silencing Shroud at Exit End– 12" Exit Extension	
<input type="checkbox"/> Drip Tray	
<input type="checkbox"/> Automatic Sump Pump w/Tank	
<input type="checkbox"/> Drip Tray for Sump Pump Tank (External Version Only)	
<input type="checkbox"/> Dual Auto Sump Pump w/2 Tanks & 2 pumps	
<input type="checkbox"/> Drip Tray for Dual Sump Pump Tank	
<input type="checkbox"/> Dual Inlet / Drain System	
<input type="checkbox"/> Quick Change Cascade Water Knife in WASH SECTION with 5 HP Pump (Upper)	
<input type="checkbox"/> Dual Quick Change Cascade Water Knife in WASH SECTION with 5 HP Pump (Upper & Lower)	
<input type="checkbox"/> Inline Water Heater	
<input type="checkbox"/> Rotary Offload Table (42" Anti-Static Top)	
<input type="checkbox"/> Air Intake Plenum	
<input type="checkbox"/> Sink with Spray Wand	
<input type="checkbox"/> Canister (Bag) Filter After Pump (EACH)	
<input type="checkbox"/> Pump Failure Alarm	
<input type="checkbox"/> Wash Tank Filtration System	
<input type="checkbox"/> 2 Additional Emergency Stops	
<input type="checkbox"/> Hybrid Natural Gas Heaters (WASH & RINSE Sections) powered by 235,000 BTU Heat Exchangers	
<input type="checkbox"/> SMEMA Kit	
<input type="checkbox"/> Additional Set of Manual Butterfly Valves	
<input type="checkbox"/> pH Meter	
<input type="checkbox"/> Blower Failure Indicator	
<input type="checkbox"/> Electric Drain Valves	
<input type="checkbox"/> Crate	
<input type="checkbox"/> 380 Volt, 3 Phase, 50 Hz	
<input type="checkbox"/> 240 Volt, 3 Phase, 60 Hz	
<input type="checkbox"/> CE Approval	
<input type="checkbox"/> Spare Parts Kit – Level 1 (See SK 5298 REV A)	
<input type="checkbox"/> Spare Parts Kit – Level 2 (See SK 5298 REV A)	



WARRANTY

Technical Devices Company warrants all component parts or subsystems for a period of **one year** from date of purchase against all defects in material and workmanship and will replace or repair any part found to be defective during the warranty period. Warranty time period is based on 40 hours of operation per week with regular maintenance. Warranty work done at Technical Devices Company is at no charge. Any warranty work done in the field is billed at a labor rate of \$50.00/hour plus travel expenses.

START-UP and TRAINING

1-2 days of training are provided by a factory-trained technician for a total cost of \$3600.00.

Please note: An advance notice of 2 weeks is required by the Technical Devices' Service Department for installations. Any shorter notice may require the customer to pay for additional airfare costs.

SERVICE

Normal service is provided from our factory in Torrance, CA.

PRICING

Our prices are firm for 30 days, F.O.B. factory, Torrance, California.

SHIPMENT

Shipment can be accomplished within **8-10 weeks** after receipt of purchase order and down payment. Padded, air-ride van is required. Shipments are freight collect.

TERMS

50% down payment with the purchase order, 40% Prior to shipment, balance net 30 days after shipment upon approval of credit.

See Terms and Conditions for Cancellation Fees and Schedule

Transportation: EXW (Torrance, CA); shipped air-ride van, collect.

SK 5436

For General Sales Terms & Conditions, please visit our website www.TechnicalDev.com/TandC.html. These terms are applicable to all sales, unless otherwise noted. Receipt of your purchase order is an acknowledgement of these terms and conditions.