



Nu/Clean 800 XLR-Flood Box Series

Inline Aqueous Cleaner
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.

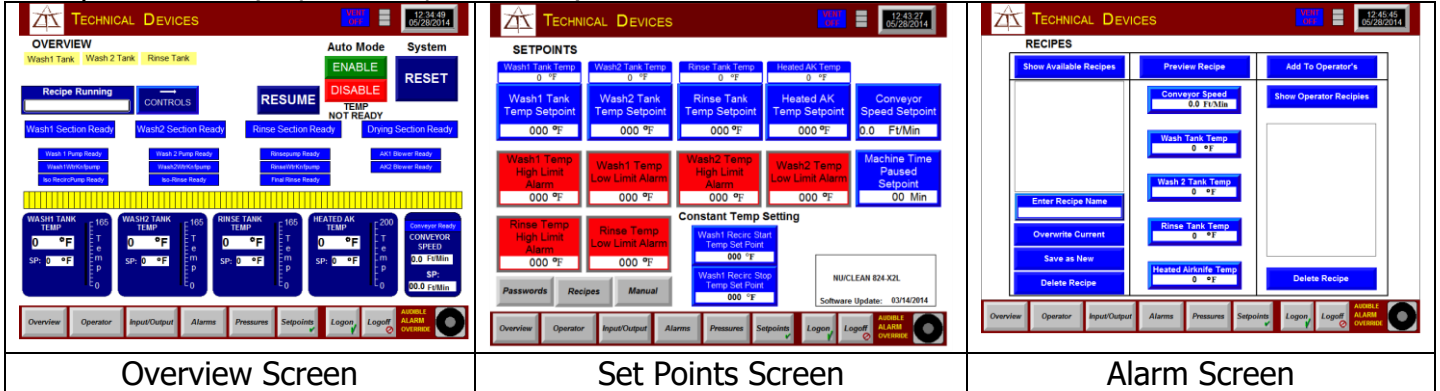
Even with all of these technological and environmental advances, the Nu/CLEAN aqueous cleaners are easy to operate and maintain. The touch screen control system is intuitive and straightforward while being robust enough to control and monitor all critical functions of the cleaner. The alarms and maintenance 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

Sample Screens (may include optional items)



- ❑ Robust, Windows based platform
- ❑ Password controlled access to programming screens
- ❑ Easy operator interface
- ❑ Alarm Package included in software
- ❑ Recipe Capability
- ❑ 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

- ❑ Auto Start / Stop with sequential power on / off to pumps and blowers
- ❑ Emergency Stop Button
- ❑ Personnel Grounding Socket
- ❑ 12" Fixed Entrance Extension (Up to 36" at no additional charge, specify at time of order)

SEPARATION STAGE -OR- OPTIONAL PREWASH STAGE (Specify at time or order)

- ❑ Recaptures atomized wash water particles, reducing chemistry loss

AIR CURTAIN STAGE

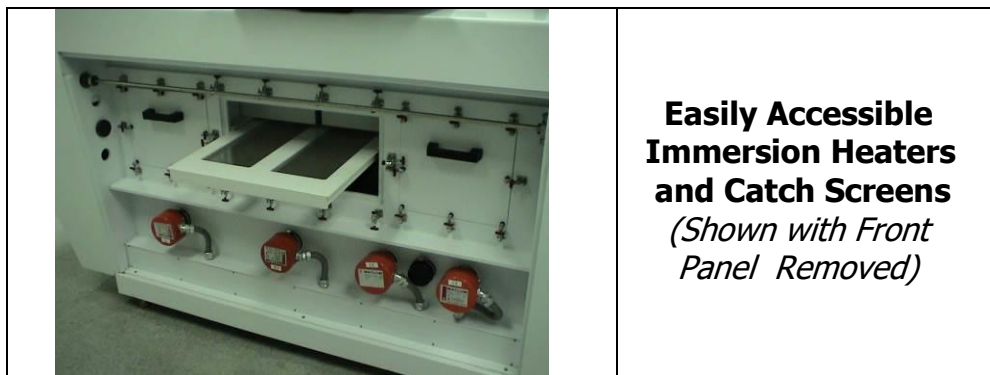
- ❑ Air curtain recaptures wash water particles and directs them back into wash tank



WASH STAGE FLOOD BOX CONFIGURATION

- ❑ 4 Incoloy 13 kW Immersion Heaters mounted on accessible front bulkhead *[See Figure 1]*
- ❑ Completely submerges the circuit board under the wash fluid
- ❑ Penetrates under low standoff components
- ❑ Penetrates between components on high density printed circuit boards
- ❑ Upper and Lower spray bars within the Flood Box
- ❑ Conveyor remains level through the Flood Box
- ❑ Over Temperature Protection
- ❑ Redundant low liquid level protection
- ❑ Automatic Fill with Level Control
- ❑ Auto Chemistry System -- includes metering pump controlled by flow sensor, which delivers balanced chemistry to the wash section (Optional)
- ❑ Two Patented Barrier Water Knives powered by a dedicated 10 HP pump
- ❑ 4 Spray Modules with Quick Disconnect Spray Bars (TOP)
- ❑ Independent Gate Valves Spray Pressure Control for upper and lower spray bars
- ❑ Rear pressure gauges 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 *[See Figure 1]*
- ❑ 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





Flood Box



Flood Box
Printed Circuit Board
traveling through the
Flood Box

ANTI-DRAGOUT AIR KNIFE STAGE

- ❑ Custom Two Upper and One Lower Air Knife
- ❑ Increased capability to reduce Liquid Dragout from Wash tank
- ❑ Driven by dedicated Air Knife Blower
- ❑ Tempered glass window for In-Process Inspection
- ❑ 15 HP Blower with Self Tensioning Belt to power Dragout Air Knives

ISOLATION RINSE STAGE

- ❑ Prevents chemical drag out from wash to rinse tank
 - ❑ 2 Quick Disconnect Spray Bars
 - ❑ One adjustable upper and lower Air Knife Tube
 - ❑ Increases liquid penetration under components

 - ❑ 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 Air Knife Tube (post isolation rinse)
 - ❑ Transparent interior slide panel lid and exterior access tempered glass window for in-process inspection



Flood Box



Flood Box
Printed Circuit Board
completely submerged
within the Flood Box

RECIRCULATING RINSE STAGE FLOOD BOX CONFIGURATION

- ❑ 4 Incoloy 13 kW Immersion Heaters mounted on accessible front bulkhead *[See Figure 1]*
- ❑ Over temperature Protection
- ❑ Redundant low liquid level protection
- ❑ Automatic Fill with Level Control
- ❑ Two Patented Barrier Water Knives powered by a 10 HP pump
- ❑ 2 Spray Modules with Quick Disconnect Spray Bars (TOP)
- ❑ Independent Gate Valve Spray Pressure Controls for upper and lower spray bars
- ❑ Rear pressure gauges 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 *[See Figure 1]*
- ❑ 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

- ❑ 1 Spray Module with Quick Disconnect Spray Bars
- ❑ Nozzle Spray is controlled and monitored by valve and flow meter
- ❑ Drag Out Air Knife Removes and Flushes Rinse Water
- ❑ 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 *[See Figure 1]*



DRYER STAGE

- ❑ 2 Air Knife Modules each with 2 Upper and 1 Lower Air Knives
- ❑ 2 each High Performance 15 HP Turbine Air Blower with Self Tensioning Belt
- ❑ 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, complying with OSHA Standards
- ❑ 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
- ❑ Dryer Section utilizes non-recirculating air to reduce humidity in drying chamber

Figure 3

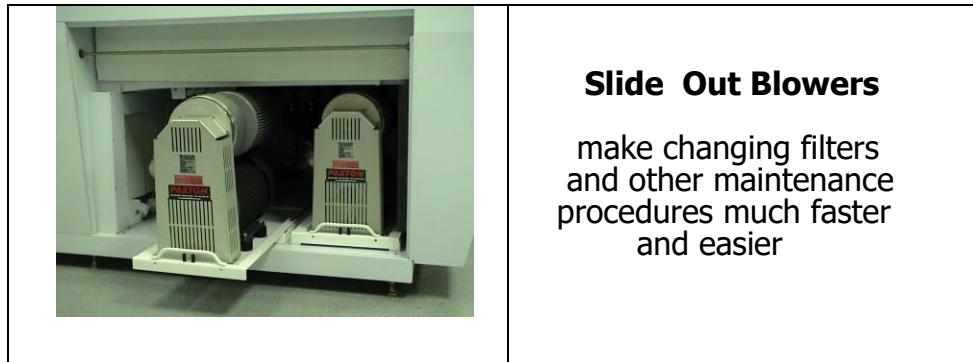
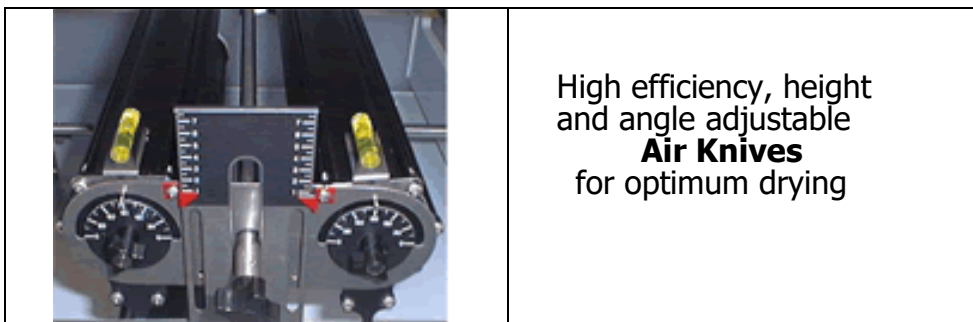


Figure 4





RADIANT CONVECTED THERMAL DRYING STAGE

- 1. Replaces 1 Air Knife Module-Standard** *(Specify at time of order)*
 - OR-**
 - 2. Can also be in addition to the 2 Air Knife Modules Above - Optional**
- ❑ 1 Upper and 1 Lower 6.5 KW Black Body IR Heater
 - ❑ Reflective Stainless Steel Side Panels
 - ❑ Insulated to reduce Heat Loss
 - ❑ Improved Drying Capability
 - ❑ Inline Capability Directly to Conformal Coating or Test Equipment

Figure 5



UNLOAD

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



CONVEYOR

- ❑ Full 18" or 24" Process Widths Standard
- ❑ Conveyor rail cutouts at spray bar and air knife locations
- ❑ Lower Stainless Steel
- ❑ Upper Stainless Steel (Optional)
- ❑ Custom belts with Pockets, Lanes, or Coatings (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) *with Optional Top Belt*
- ❑ 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 Standard (*380 VAC Optional*)

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

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

PRODUCT CLEARANCE: 3.0"

WEIGHT: 9,000 lbs. Approx.

LENGTH: 299"

WIDTH: 68.6"

BELT HEIGHT: 35 -37" (adj.)

HEIGHT: 62.4 – 64.9" (adj.)



SYSTEM BASE PRICE – Nu/Clean 800 XLR-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 (Flood Box) | <i>Included</i> |
| <input type="checkbox"/> Recirculating Heated Water in Flood Box (Rinse) | <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"/> Two Patented Barrier Water Knives (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"/> Two 15HP Air Knife Blowers | <i>Included</i> |
| <input type="checkbox"/> One 15HP Dedicate Anti-Dragout / Isolation Air Knife Blower | <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 800XLR-Flood Box

| | |
|--|--|
| <input type="checkbox"/> Upper Belt (Dual Belt Configuration) | |
| <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"/> Adjustable Incline Load Module (36") | |
| <input type="checkbox"/> 380 VAC, 3 Phz, 50 HZ (Must Specify at time of order) | |
| <input type="checkbox"/> Auto Chemistry (Wash Tank) | |
| <input type="checkbox"/> Chemistry Sampling Port | |
| <input type="checkbox"/> Wash Tank Filtration System | |
| <input type="checkbox"/> Canister (Bag) Filter After Pump (EACH) | |
| <input type="checkbox"/> Pump Failure Alarm | |
| <input type="checkbox"/> Variable Speed Pump (each) | |
| <input type="checkbox"/> Resistivity Meter | |
| <input type="checkbox"/> Inline Water Heater | |
| <input type="checkbox"/> Hybrid Natural Gas Heaters (WASH & RINSE Sections) powered by 235,000 BTU Heat Exchangers | |
| <input type="checkbox"/> pH Meter | |
| <input type="checkbox"/> SMEMA Kit | |
| <input type="checkbox"/> 2 Additional Emergency Stops | |
| <input type="checkbox"/> Sink with Spray Wand | |
| <input type="checkbox"/> Electric Drain Valves | |
| <input type="checkbox"/> Automatic Sump Pump w/Tank | |
| <input type="checkbox"/> Closed Loop Isolation Section | |
| <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"/> Radiant Convected Thermal Drying Chamber (Replaces of 1 Air Knife Unit) <i>Must Specify at time of Order</i> | |
| <input type="checkbox"/> Radiant Convected Thermal Drying Chamber AND 2 Air Knife Units | |
| <input type="checkbox"/> Air Knife Heater with SS Plenum Assembly | |
| <input type="checkbox"/> Blower Failure Indicator | |
| <input type="checkbox"/> Side Edge Air Fins | |
| <input type="checkbox"/> Air Intake Plenum | |
| <input type="checkbox"/> 818 XLR-FB Polypro Drip Tray | |
| <input type="checkbox"/> Stainless Steel Exit Chute | |
| <input type="checkbox"/> Rotary Offload Table (42" Anti-Static Top) | |
| <input type="checkbox"/> Crating | |
| <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 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 Schedules

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

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.