

## CHEMICAL INJECTION SYSTEM FOR TUNNEL WASHERS

Chem-Trak Tunnel Express is the ultimate in modularity, allowing versatile configurations to fit your laundry tunnel. With the ability to add various pumps, valves, and other accessories, Chem-Trak Tunnel Express ensures consistent wash quality and predictable costs in any plant.



- The only tunnel dispenser system with air or electric operated pumps: **Air Operated Double Diaphragm Pumps** (4.0 GPM)(25.7 LPM) or **Electric Diaphragm Pumps** (.4 GPM)(1.5 LPM)
- **Less service and maintenance** is required with the AODD and EDP pumps because there are no tubes that need to be replaced.
- High speed injection with improved accuracy / resolution of chemical dosing (+/- 2%)
- Exclusive module injection assembly allows for simple, fast, and **non-invasive one person calibration**
- Precision metering of pumps to +/- .10 oz/second
- **Flush or no flush configurations**
- Simple, multi-lingual menus (English, Spanish, French, German, Italian, Dutch)
- **Data management** reports (Excel)
- Able to network with multi-washer and conventional Knight dispensers

### Chem-Trak Tunnel Express Automates and Controls Chemical Dispensing



Chem-Trak Tunnel Express captures all the simplicity and proven reliability of a Knight engineered laundry chemical injection system with several unique features geared to reduce installation time, improve the speed of your injections and deliver quality results each and every load transfer!

**New Tunnel Express Chemical Injection Controller** - This new integrated pump/valve controller features good looks, robust function keys and multilingual displays. Electronics that store usage data and manage the chemical injection are easily accessed and easy to use because they are Knight Trak!

**Bright LED Display** – easier to see in poorly lit areas

**Multilingual Function Key Label** is available in English, Spanish, French, Italian, Dutch, and German

**Large, Alpha Numeric Key Pad** designed for use with gloves on and will withstand chemical exposure



**Attractive Watertight Stainless Steel Control Cabinet and Membrane** keeps direct spray from attacking components

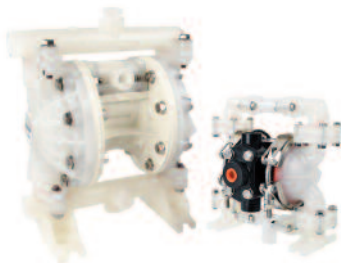
**New Intuitive Membrane Switch User Panel** is easy to use for technicians and end users.

**Security Lock**

**Bold, easy access buttons** for starting and stopping the dispensing cycle

### Exclusive Pump Options for Tunnel Dispensers

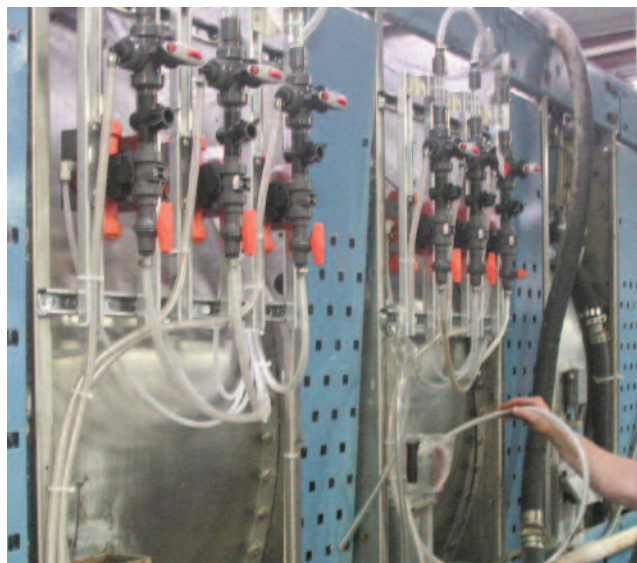
Chem-Trak Tunnel Express offers the industry's only tunnel dispenser with the choices of the industry's most reliable and carefree high speed pumps. Air operated double diaphragm pumps (AODD) and CleanGuard Electric Diaphragm pumps offer fast reliable flow rates from .4 GPM (1.5 LPM) to 12 GPM (45.4 LPM). These pumps are virtually service free!



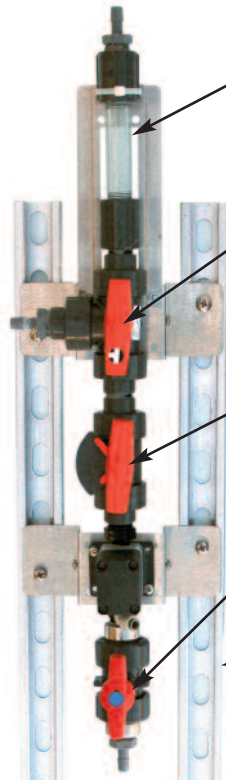
PUMP NAME	AODD PUMPS	CLEANGUARD EDP PUMPS	900 SERIES PERISTALTIC PUMPS
Pump Type	Air Operated Double Diaphragm Pump	Electric Diaphragm Pump (EDP)	Peristaltic Pump System
Flow Rate	KAP-25: 4 GPM (15 LPM) Uniflow KAP-50: 12 GPM (45.4 LPM)	.4 GPM (1.5 LPM) or 1.5 GPM (5.6 LPM) or 3.2 GPM (12.1 LPM) at 70 PSI	230 oz/min. (6.8 LPM) at 30 PSI
Power Source	Air at minimum of 8 SCFM	110 or 230 VAC	110 or 230 VAC
Chemical Compatibility	All Known Laundry Products	All Known Laundry Products	All Known Laundry Products

### Exclusive Module Injection Assembly

One of the key advantages of Tunnel Express is the ease of which pump calibration is achieved. Chem-Trak Tunnel Express offers the only injection assembly located at the washer that allows for easy and quick one person calibration and control. The module injection assembly allows for metering the chemical flow rates, dead heading the pumps during service, directing chemical to the washer or to a measuring vessel, preventing siphoning, and visualizing the chemical flow. All these controls within an arms length allows for easy one person control, and the quickest, safest calibration in the industry.



- \* Metering chemical flow rate
- \* Dead heading the pumps
- \* Directing chemical to the washer or to the measuring vessel for calibration
- \* Anti-siphoning
- \* Visualizing chemical flow



**Proof of Delivery Sight Tube:** Clear sight tube allows operators to see that chemicals are primed, supply tanks are full, and product is going into the washer. (Optional)

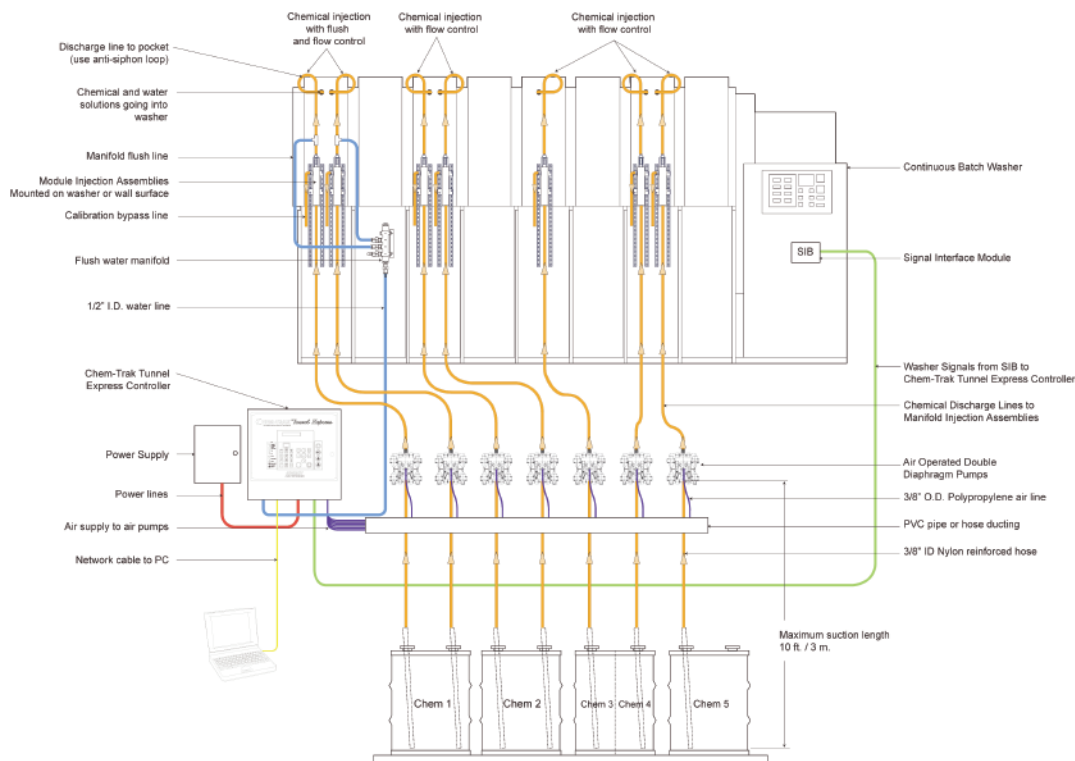
**Three Way Ball Valve:** A three way ball valve controls the flow path to the washer or to the measuring vessel. The valve eliminates the need to remove lines from the washer for calibration.

**Metering Valve:** Unique metering valve used to calibrate desired flow rates of AODD or EDP pumps. Dispense quantities as little as .25 oz (7 ml) per transfer with excellent resolution.

**On-off ball valve:** Valve used for safe service or to "dead head" pumps during calibration routine.

**Mounting Bracket:** Uni- strut mounting brackets provide versatile mounting system for the variety of Tunnel Washer designs on the market.

### Chem-Trak Installation Diagram



### Data Management

#### KNIGHT-TRAK II

DATA MANAGEMENT SYSTEM

#### Management Reports

Chem-Trak Tunnel Express windows compatible software connects the Laundry Manager directly to the system.

- \* Track and verify chemical usage in all areas
- \* Remote connection via ethernet or LAN
- \* Export laundry reports to Excel in one report
- \* Usage reports include product cost, consumption, batch tracking, and user activity
- \* Records data instantly as chemicals are allocated



## WATER FLUSH MANIFOLD

Provides water flush of chemicals for up to four injection points at washer or at dispenser location



### Signal Interface

Dimensions: 4.75"H x 6.75"W x 1.5"D  
(12.1 cm H x 17.1 cm W x 3.81 cm D)  
Signal input: 18 VAC to 230 VAC  
Output to dispenser: low voltage data

### Electric Diaphragm Pump Controller

Dimensions: 16"H x 9"W x 4"D  
(40.6 cm H x 22.9 cm W x 10.2 cm D)  
Input power from main controller: 5 wire data line  
Input power from source: 115 or 230 VAC  
Output power: 12 VDC

### Chem-Trak Tunnel Module Injection Assembly

Dimensions: 36"H x 7"W x 5"D  
(91.4 cm H x 17.8 cm W x 12.7 cm D)  
Inlet thread size: 1/2" FPT  
Outlet thread size: 1/2" FPT  
Bypass thread size: 1/2" FPT  
Materials: Schedule 80 PVC



### CleanGuard Electric Diaphragm Pump

Dimensions: 10"H x 9"W x 4.75"D  
(25.4 cm H x 22.9 cm W x 12.1 cm D)  
Flow rate: .4 GPM (1.5 LPM)  
Bypass pressure: 70 PSI (4.8 bar)  
Wetted materials: EPDM or Viton  
Power: 115 or 230 VAC  
Amperage: 1.3 Amps

### Peristaltic Pump Cabinet

Dimensions: 10" H x 42"W x 8"D  
(25.4 cm H x 106.7 cm W x 20.3 cm D)  
Max Pumps: Six  
Max Flow Pumps: KP-9270

### Chem-Trak Tunnel Express Main Controller

Dimensions: 19"H x 19"W x 7.5"D  
(48.3 cm H x 48.3 cm W x 19.1 cm D)  
Power: 12 VDC  
Air inlet capacity: 100 PSI (6.8 Bar)  
Water pressure: 100 PSI (6.8 Bar)

### Chem-Trak Tunnel Power Supply

Dimensions: 10"H x 8"W x 4"D  
(25.4 cm H x 20.3 cm W x 10.2 cm D)  
Input power: 110 or 230 VAC  
Output power: 12 VDC

### Chem-Trak Tunnel Flush Manifold

Dimensions: 16"H x 6.5"W x 2.5"D  
(40.6 cm H x 16.5 cm W x 6.4 cm D)  
Injection ports: four to washer and two inlet  
Port size: 1/2" FPT  
Materials: Schedule 80 PVC

### Air Operated Pumps

KAP-25 (1/4")  
Dimensions (in case): 7.2" H x 7"W x 5.5"D  
(235 mm H x 198 mm W x 140 mm D)  
Flow rate: 4 GPM (15 LPM)  
Max pressure: 100 PSI (7 bar)  
Wetted materials: Santoprene, PTFE  
Port size: 1/4" FPT

### Uniflow Air Operated Pumps

KAP-50 (1/2")  
Dimensions (in case): 12" H x 13"W x 8.5"D  
(30.5 cm H x 33 cm W x 21.6 cm D)  
Flow rate: 12 GPM (45 LPM)  
Max pressure: 100 PSI (6.9 bar)  
Wetted materials: Santoprene, PTFE  
Port size: 1/2" FPT

**KNIGHT DISCLAIMER**