



SEALANT &
ADHESIVE
SOLUTIONS



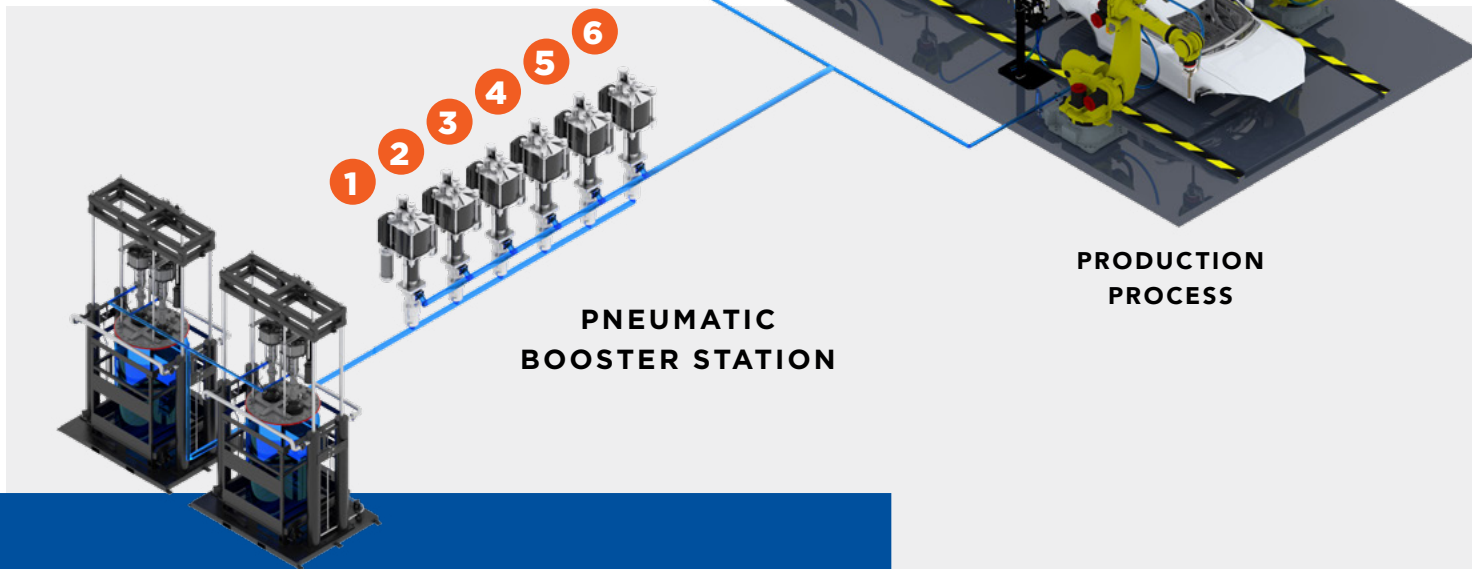
A Smarter Way to Supply

Binks® SmartHP™ Electric Sealer Pump
Binks® SmartHP™ Integral Control Cabinet

BEFORE

Traditional Booster Station

(Example with **Six** Pneumatic Pumps)



Automotive paint shops have many challenges. The rise of robotic applicators for sealants and adhesives have helped increase production rates, but they demand higher flow rates. This need for increased flow rates puts more strain on the booster stations, and additional pneumatic pumps traditionally have been added to keep up with demand. Unfortunately, more pumps mean increased maintenance time, costs, safety concerns and downtime.

In order to overcome power limitations, pneumatic booster stations run multiple pumps together to try to provide enough flow. But they never run completely balanced, and workers must spend time each day adjusting the pumps.

On top of frequent maintenance needs, multiple pumps can also increase total expenditures for spares and parts. More pumps, more parts ... more valuable space.

But that's just how it is. Right? Not anymore with revolutionary *Binks® SmartHP™*.

Pneumatic

Each pump operates independently, requiring daily balancing and system management

High energy waste

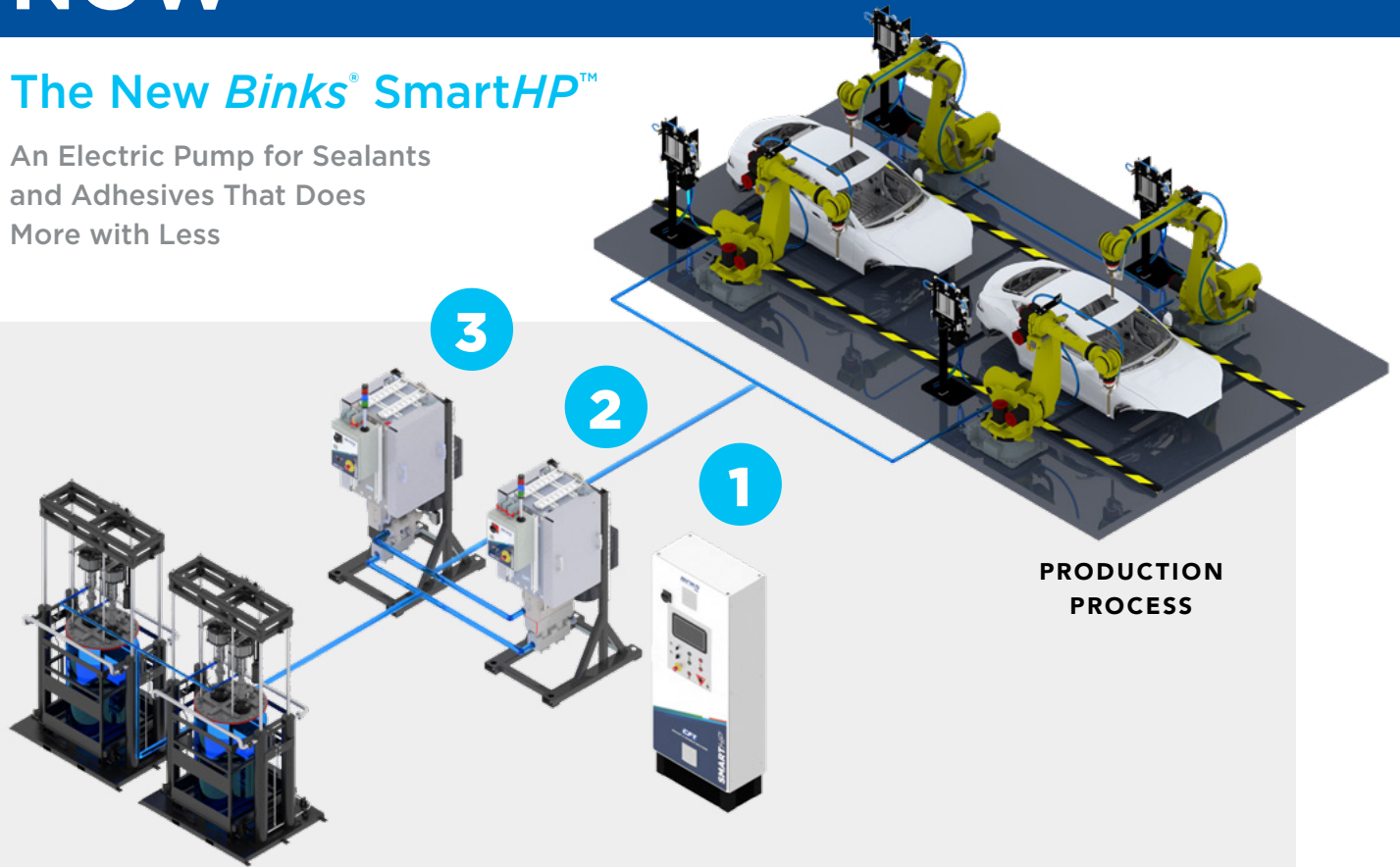
Dangerously high sound levels

Servicing requires lengthy demounting and disassembly process

NOW

The New *Binks® SmartHP™*

An Electric Pump for Sealants
and Adhesives That Does
More with Less



**PRODUCTION
PROCESS**

Binks® SmartHP™

Integral controls package is “plug and play” and is built/tested with the pumps at the factory

Electric drive reduces energy usage up to 75%

Electric drives and fewer pumps reduce sound levels

Total reduction up to 30%

Simple packing servicing in 15 minutes while on line

- 1 **Binks® SmartHP™ Integral Control Cabinet***
- 2 **Binks® SmartHP™ Electric Sealer Pump – Working****
- 3 **Second Binks® SmartHP™ Electric Sealer Pump – Standby****

*Rated for placement inside or outside the pump room (non-hazardous zones) **E14-210 model shown

Use SmartHP™ to reduce maintenance demands, spares and labor. Improve worker health and safety with reduced noise levels. You can save operation time and increase end process repeatability.

SmartHP™ enables future expansion to meet your goals. The system supports diverse applications — including flexible PVC, acoustic damping, liquid applied sound deadener, underbody seam seal, wax applications, sealing, anti-gritting, decorative film and more.

The New Generation of Flow

Carlisle Fluid Technologies is helping you revolutionize the way you apply sealants and adhesives. We have reimagined the entire material supply system — from supply pumps to booster stations to dosing systems — and we are introducing the first members of an extensive family of electric, high-pressure, high-flow pumps for the automotive paint shop.

Pneumatic pumps lose pressure capability as flow demand increases. The air motor cannot increase power when this flow demand occurs.

In contrast, the SmartHP™ Electric Sealer Pump will maintain pressure as demand for flow increases. The electric motor can increase the power supply to match the demand.

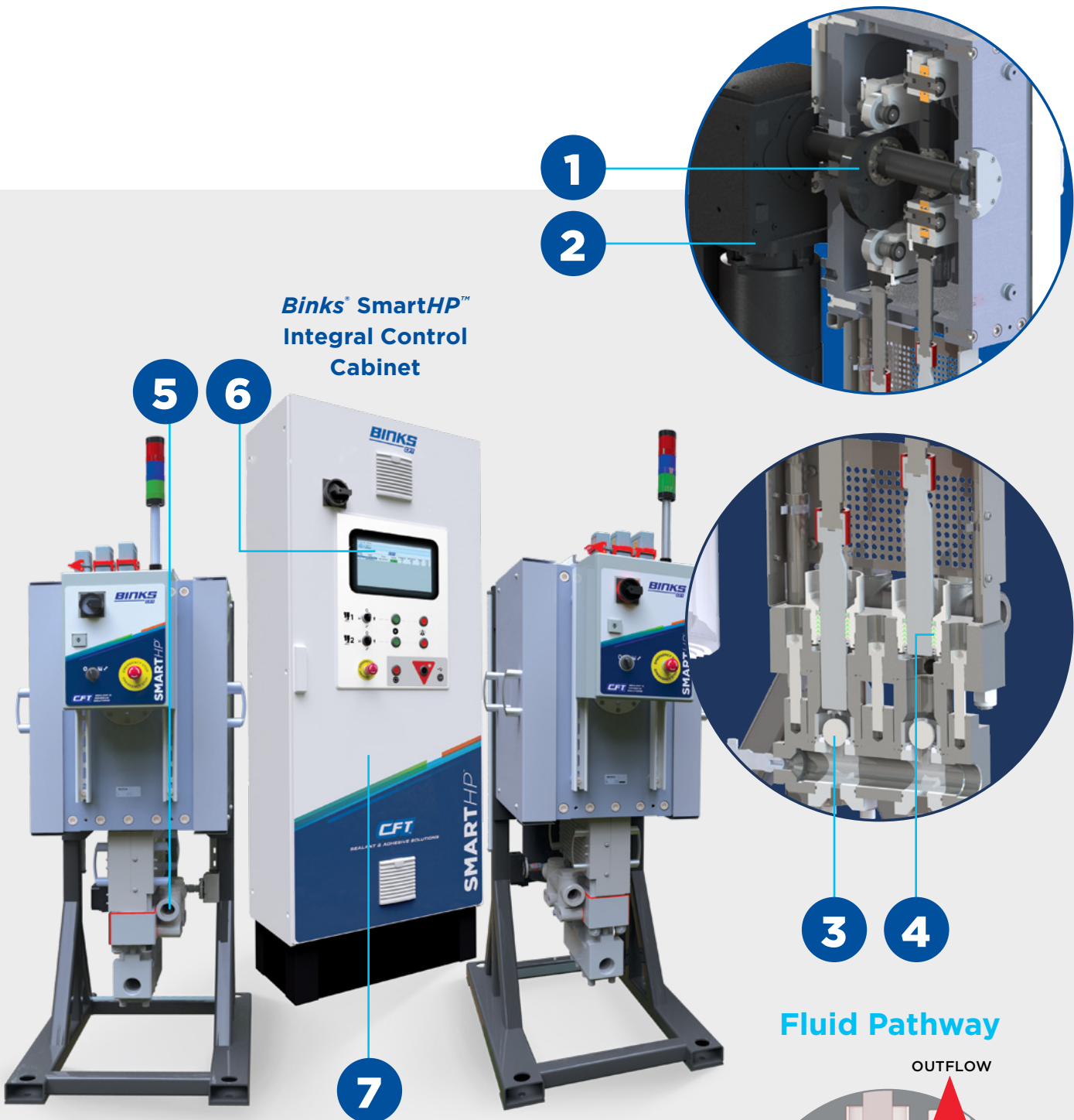
Doing More with Less

How are we able to do more with fewer pumps? We dared to be different. Instead of using many small pneumatic pumps in parallel to generate the flows and pressures demanded by modern sealing processes, we reimagined the traditional booster station as a single, powerful, scalable electric pump.

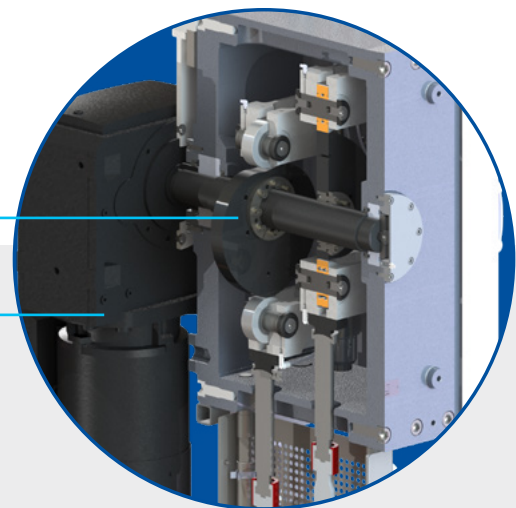
The first entrants in the new SmartHP™ line are designed to replace two to eight pneumatic booster pumps. Using one working SmartHP™ Pump and another on standby, for example, our approach guarantees repeatable production outcomes. Instead of adding more and more small pumps to a booster station, each of which requires maintenance, spares and daily adjustments to meet process requirements, isn't it time to just go bigger?

Pump Design and Specifications

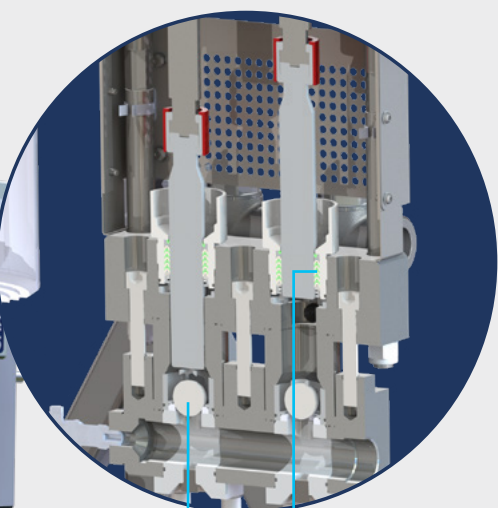
- 1** Patented core technologies shared with low-pressure *Binks*® Smart Pumps for paint circulation (the proven constant velocity cam-driven design eliminates pressure winks and ensures smooth operation)
- 2** Electric motors eliminate many drawbacks of air motors, including compression losses, size limitations and icing, while delivering significant cost savings from the elimination of compressed air production
- 3** Due to multiple fluid sections sharing a drive, the lower packings, internal ball checks and cylinders are eliminated as wear parts, providing greater uptime and easier access to components for in situ maintenance (higher MTTF and lower MTTR)
- 4** Upper packings and ball checks can be replaced in situ in less than 30 minutes, creating significant savings in required maintenance effort
- 5** Integral controls include a pressure switch to ensure the pump is stopped in the event of an unsafe system overpressure
- 6** Integral controls provide a single centralized interface to control and monitor dozens of system parameters, allowing for alarms and remedies prior to production failures
- 7** *Binks*® SmartHP™ Integral Control Cabinet



**Binks® SmartHP™
Integral Control
Cabinet**

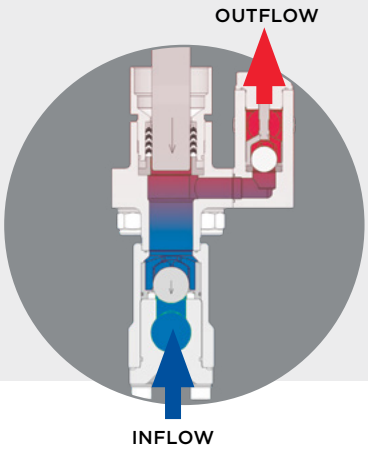


1
2



3 **4**

Fluid Pathway



OUTFLOW
INFLOW

**Binks®
SmartHP™ Pump**
Model E14-210 shown

**Binks®
SmartHP™ Pump**
Model E14-210 shown

How Will *Binks*[®] SmartHP™ Help You?

Plant Managers

- With better pump process control, the flow is more precise and consistent, resulting in improved production line process capabilities
- A single electric pump is capable of meeting process flow rate demands, saving energy and improving footprint utilization as flow rates scale in the future
- Better plant health and safety compliance
 - Ultra-quiet operation for significantly reduced noise levels
 - No exhausting of airborne contaminants
- Integral controls package is “plug and play” and has been built and tested with the pumps at the factory prior to shipment, simplifying the installation and commissioning process

Operators

- Instant startup with no pump balancing time required
- Set the pressure required for the job and the system delivers automatically, with no manual adjusting required

Maintenance

- Greatly reduced number of wear parts increases the system MTTF
- Fewer pumps mean less maintenance effort and fewer spare parts kits
- Designed for easier maintenance (lower MTTR)
 - All wear parts are easily removable from the pump *in situ*
 - Easier external access to ball checks, without stripping down the pump
 - Only one set of seals (instead of two)

Current Range of the Binks[®] SmartHP™ Electric Sealer Pump Family

<i>Binks</i> [®] Model	Applications	Maximum Flow	Maximum Pressure
E20-140	<ul style="list-style-type: none"> • For applications requiring very high flow but low pressure demands • Can capture additional value, with one SmartHP™ Pump fulfilling both supply and booster pump requirements (requires installation of larger diameter pipework) • Greenfield solution 	20 L/minute (5.3 gal/minute)	140 bar (2,030 psi)
E14-210	<ul style="list-style-type: none"> • For higher pressure with lower flow applications • Brownfield retrofit solution (existing pipework limitations) 	14 L/minute (3.7 gal/minute)	210 bar (3,045 psi)
E10-280	<ul style="list-style-type: none"> • Highest pressure for restrictive pipework • Brownfield retrofit solution (existing pipework limitations) 	10 L/minute (2.6 gal/minute)	280 bar (4,060 psi)



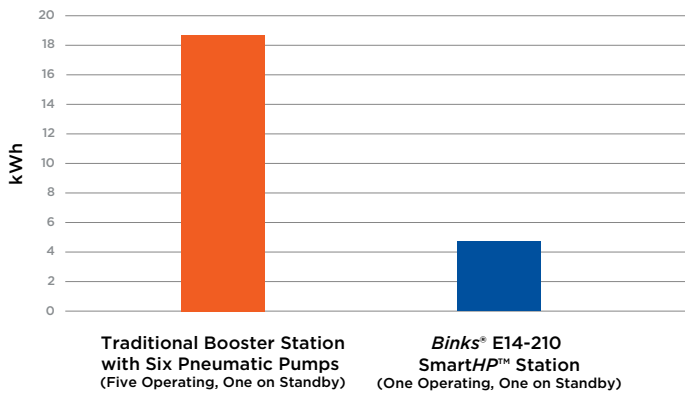
Improved Energy Usage

Traditional pneumatic pump stations require copious amounts of compressed air to operate. That air must be generated, stored, filtered and delivered to the pumps. This air system is inefficient and is expensive to run and maintain.

By comparison, the SmartHP™ electric drive eliminates the inefficiencies of the compressor and delivery system, resulting in a reduction of total energy usage of up to 75%.



Total Energy Demand
(Pressure = 175 bar, Flow Rate = 10 L/min)



Improved Sound Levels

During the course of normal operations, traditional air motors emit bursts of air exhaust at regular intervals. However, when multiple pumps are all firing in a system, each working slightly differently for performance, the noise in the pump room can be deafening.

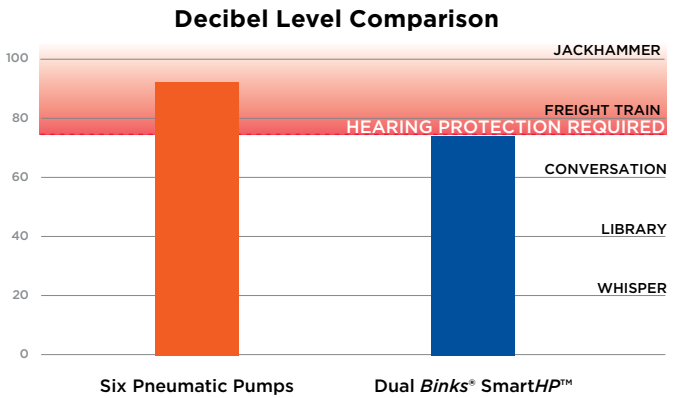
The SmartHP™ Electric Sealer Pump eliminates this source of noise, drastically reducing the overall noise levels in the pump room or on the production floor.



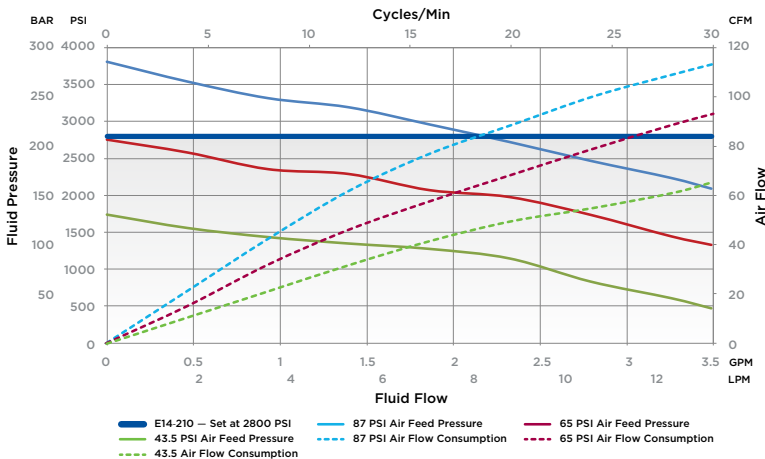
Performance Gains

Because air is compressible, in an air-driven system the air motor efficiency and pressure output decrease as you demand more fluid flow from the pump.

In contrast, electric SmartHP™ Pumps provide instant torque and constant power throughout their operating window – at any flow rate.



Performance Comparison of the Binks® SmartHP™ Electric Pump Versus Pneumatic Pumps



Innovation *Applied*

CFT™ Sealant & Adhesive Solutions

Helping You Apply Sealants and Adhesives Throughout the Vehicle



The brands you trust

Carlisle Fluid Technologies, a wholly-owned subsidiary of Carlisle Companies, Inc., is dedicated to providing customers industry-leading solutions for the supply, control, application and curing of a wide range of paints, powders, sealants, adhesives and other application materials. From manual finishing equipment, to highly automated mass-production installations, the company solves customers' material application challenges through the combination of product innovation and decades of technical expertise. Focused on efficient, cost-effective global solutions for the transportation and other industrial markets, the company offers an expanding collection of pioneering product brands — *DeVilbiss*®, *Ransburg*®, *ms*®, *BGK*®, *Binks*®, *Hosco*® and *Ecco*™. Today Carlisle Fluid Technologies provides innovative process solutions under the CFT™ brand platform for customers' wide range of material application demands.

Let's start a conversation

We want to work together to help answer your application challenges. To learn more about what we can offer, visit our website at **CarlisleFT.com** or call us today.



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