DAVIS›STANDARD

Where your ideas take shape.



The most versatile range of products, services & complete lines in the industry

Blown Film Technology

BE BRAMPTON ENGINEERING
BETTER PROCESS. BETTER FILM.
A Davis-Standard Company

Gloucester Engineering

About Davis-Standard

Who We Are
Davis-Standard is a global leader in the design, development and manufacture of extrusion and converting technology. Our systems encompass over 10 product lines to support manufacturing applications and customers in a wide variety of industries, including automotive, building & construction, consumer products, medical, and packaging.

With more than 1,350 employees worldwide and a network of independent sales agents and suppliers in nearly every country, Davis-Standard is committed to engineering systems for you that are cost-effective, environmentally friendly, and offer a high return on investment. The company has manufacturing and technical facilities in the United States, Canada, China, Germany, Finland, Switzerland and the United Kingdom.

Our Purpose
We exist to help you produce products that improve everyday life. Though we are removed from final production of your end products, we are central to the manufacturing of many of the world's essential, or even life-altering, products. Many of these products would not exist without us. Like you, we take that responsibility seriously.

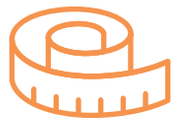
Our Promise
We optimize our customers' productivity and profitability by providing the best total solution (product + support). We serve our customers from a unique perspective. While our competition generally focuses on machine technology, we focus on providing the best total solution. That means, we supply the best combination of product and support services to help customers achieve their business goals.

Davis-Standard Offers

Proven equipment technology used by market leaders for the fastest payback due to increased productivity



Experience



Tailored Design



Technology



Global Support



Total Solutions

Let us tell you how...


BE BRAMPTON ENGINEERING



Process & Application Experience

At Davis-Standard the Process & Rheology Team is charged with ensuring that the provided equipment is optimal for producing the required films, which includes communicating with the potential customers prior to quotation, specifying the right components, designing the right Blown Film Technology, & providing process expertise from development, installation, start up to ongoing production.

- 50+ years of combined blown film experience
- Adapt & design to customer's structure and requirements
- Equipment design to match technical and business needs

Technology - Blown Film Systems

Davis-Standard supplies blown film extruders and feedscrews, dies, and associated downstream equipment including winders, for blown film processors around the globe, as complete extrusion lines or as components and upgrades.

Our mono and multi-layer blown film technology is used for applications ranging from wide agriculture and construction films, to high-performance barrier food packaging and shrink films, to polyolefin films for industrial applications and bags or sophisticated stretch and collation films. We offer high-performance extruders and a wide range of die technologies ideal for processing films made with all types of PE as well as nylon, EVOH, PVdC, and specialty sealant resins. We deliver more throughout the blown film process with proven technology including Vector® Air Rings, ITALYCS controls, and SLC winders.

Our blown film offering is defined by maximum value with a global approach. With the most versatile range of products, services and complete lines in the industry, Davis-Standard blown film capabilities are unsurpassed.



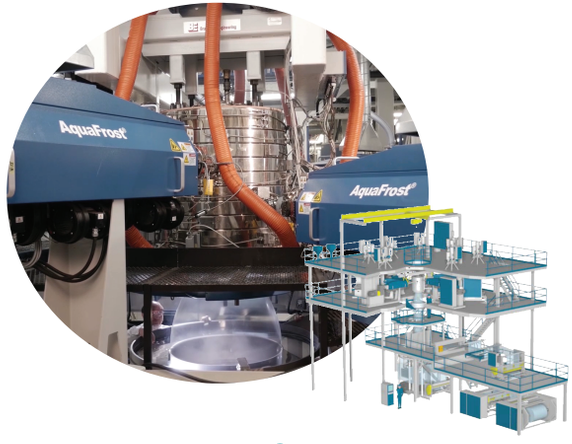
Blown Film Line Systems - Air Blown, Water Quenched and AG Films



AeroFrost®

Air blown film systems

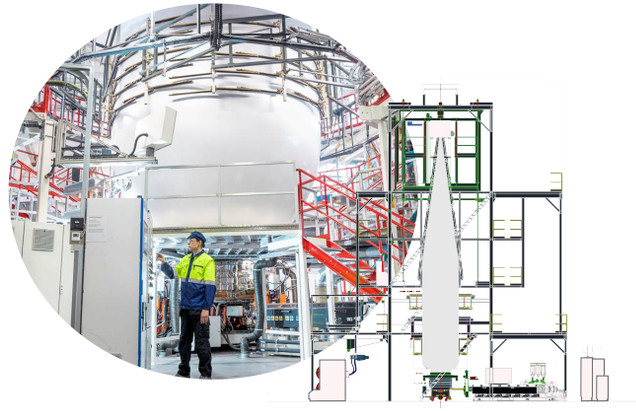
- Faster changeovers, more jobs
- Thinner & cost effective film, barrier layer as low as 4%
- Repeatable setups, reliable quality



AquaFrost®

Water quenched blown film systems

- Less crystallinity on film, faster cooling
- Strength & formable film, deeper draw
- No trim waste, superior bubble stability



Agricultural Films

Systems for films up to 25m circumference

- Perfectly centered bubble for uniform collapsing
- No edge creasing
- Segmented adjustable unfolder

The most versatile range of products, services & complete lines in the industry

Process & Operational Improvements



Layer up

Additional Layer(s) Upgrades:

- A cost effective way to gain access to new markets that require more sophisticated structures
- Reduce material costs by using less expensive resins while maintaining film properties
- Increase line flexibility by allowing a wider variety of structures to be run



Cooling

Vector Air Ring Retrofits

- Increases output with improved cooling
- Better starting gauge than with conventional designs
- Digital set-up for repeatable quality



SLC Winders

Winder Upgrades:

- Double Turret winder - increased winder productivity, product flexibility, less
- Turret winder - winder productivity, product flexibility, operator safety
- SLC Surface - center winders with automatic flying knife cut and transfer



Controls upgrade

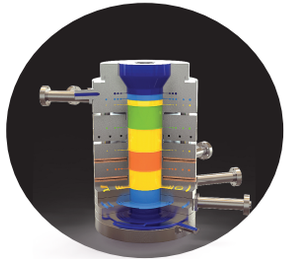
ITALYCS and Line Control System Upgrades

- ITALYCS replacement of existing non-BE control systems or ITALYCS version upgrades for existing ITALYCS lines
- The latest ITALYCS software and hardware protects against obsolescence, downtime, and costs associated with older PLCs and computers
- Now offered to replace Extrol

Blown Film Retrofit Capabilities -

upgrade your existing line - even if supplied by other OEMs

Dies



- SCD® 4.0 - high barrier film 5-11 layers
- Optiflow® - low profile blown film
- Vertex® - mono-3 non-rotating up to 24"
- Centrex® - for very wide film lines

Air Rings



- Faster changeovers, more jobs
- Thinner & cost effective film, barrier layer as low as 4%
- Repeatable setups, reliable quality

Controls

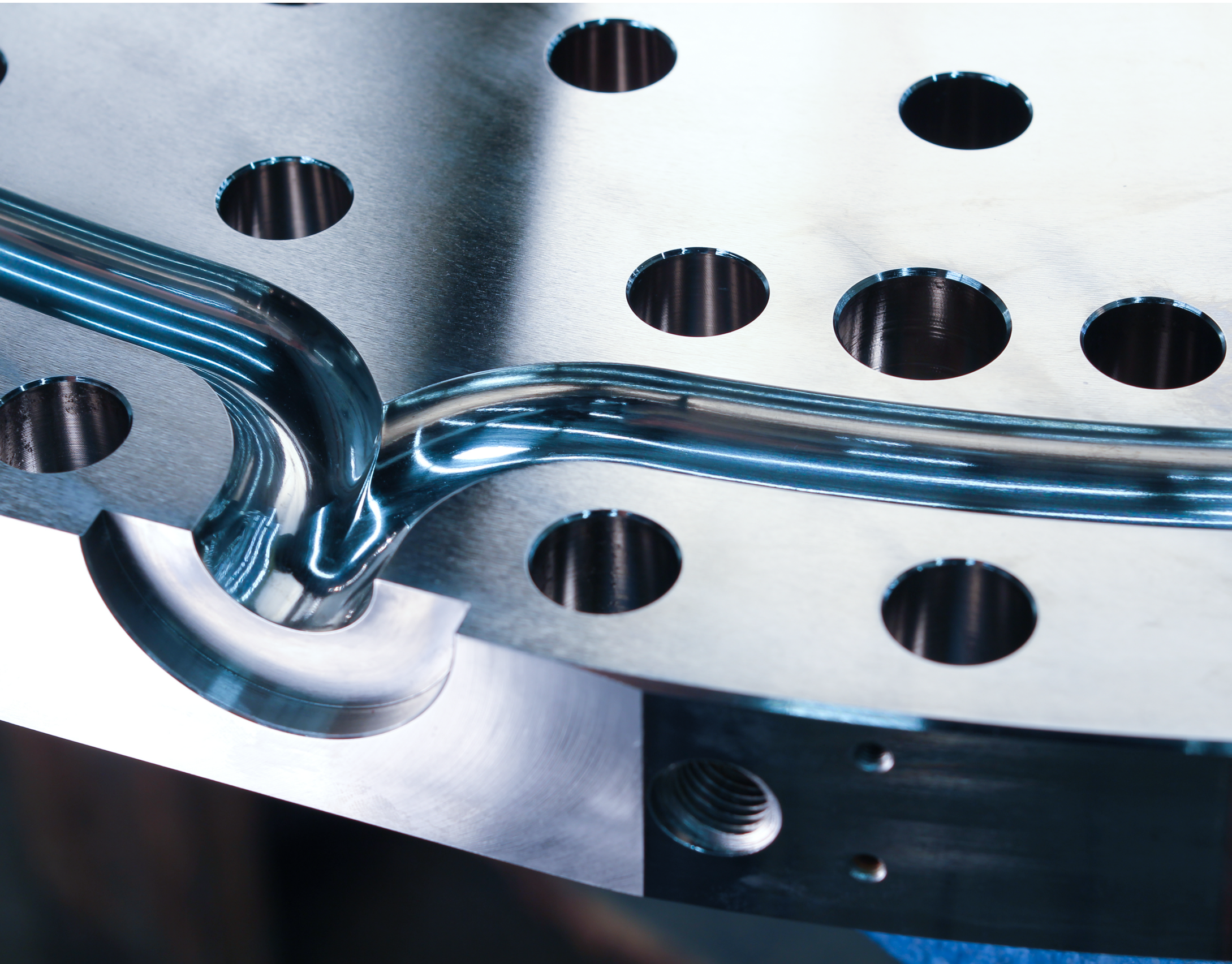


- ITALYCS® 5
- DS-activ
- Extrol retrofits

Winders



- Double Turret
- SLC surface-center winders



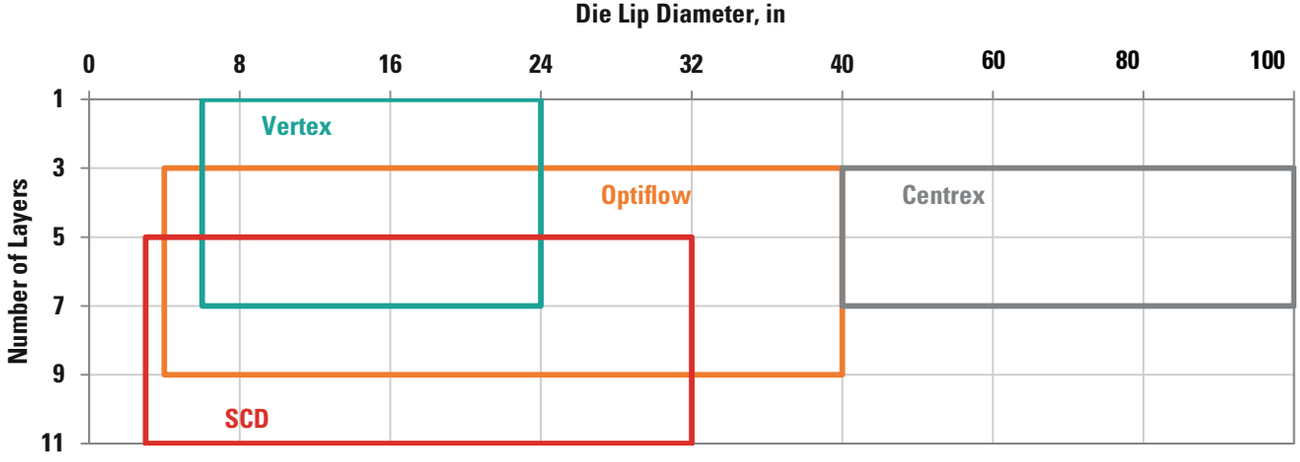
Blown Film Retrofit Capabilities -

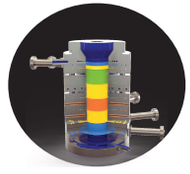
DIE TECHNOLOGY

Davis-Standard will continue to lead new blown film solutions with expanded die technology, integrated control systems, water quenched, superior extrusion technology to serve food and beverage, medical, personal care, health and beauty, retail industrial and agriculture. Our blown film solutions offer unparalleled advantages for manufacturers and consumers alike.

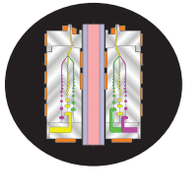
This collaborative partnership through an expanded product offering, customers can produce a full range of high-performance blown films—allowing them to capture new markets, and superior film production.

Die lip diameter ranges and number of layers

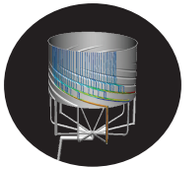




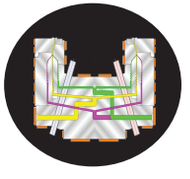
SCD 4.0



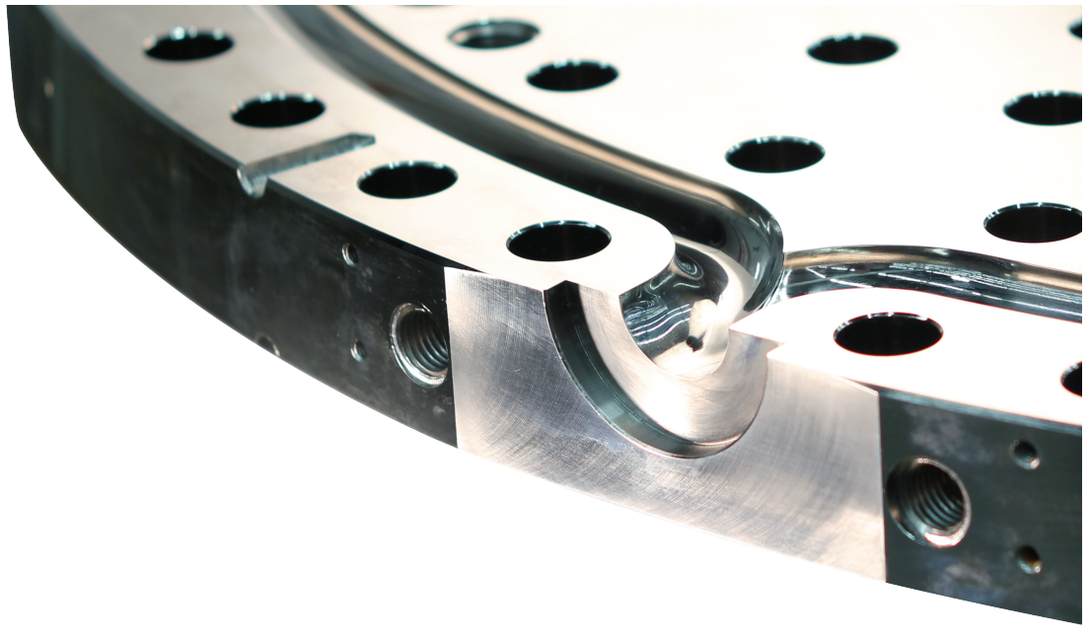
Vertex



Optiflow



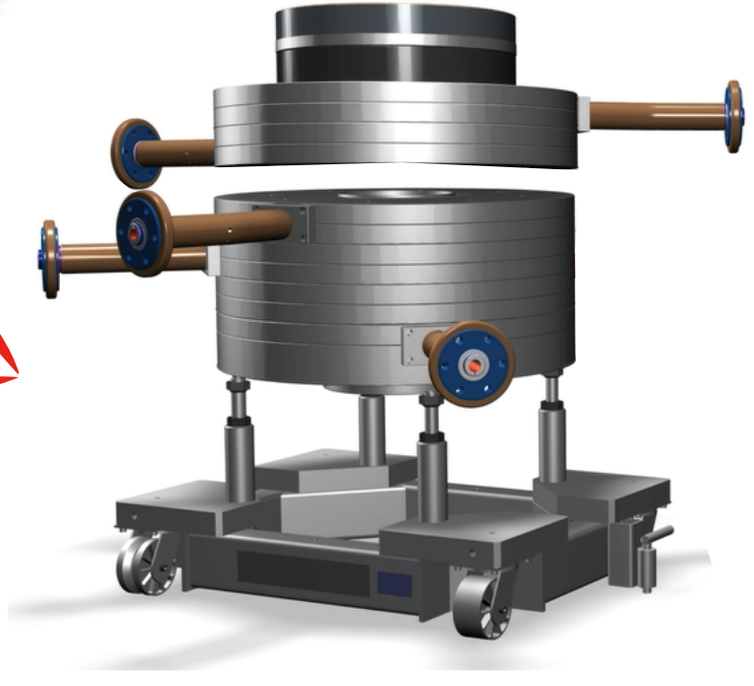
Centrex





3 Layer Die

- 25% mLLDPE
- 50% LLDPE
- 25% mLLDPE



5 Layer Die

- 10% mLLDPE
- 20% LLDPE
- 40% LLDPE
- 20% LLDPE
- 10% mLLDPE

Resin cost for 3 layer structure $2.32/kg
Resin cost for 5 Layer structure $2.05/kg
Based on 400 kg/hr x 24 hrs x 250 days/yr, resin cost
savings is ***$648,000 / annually***

Cost for additional layers = $300,000
Payback: ***< 6 months***

Additional Layer(s) Upgrades:

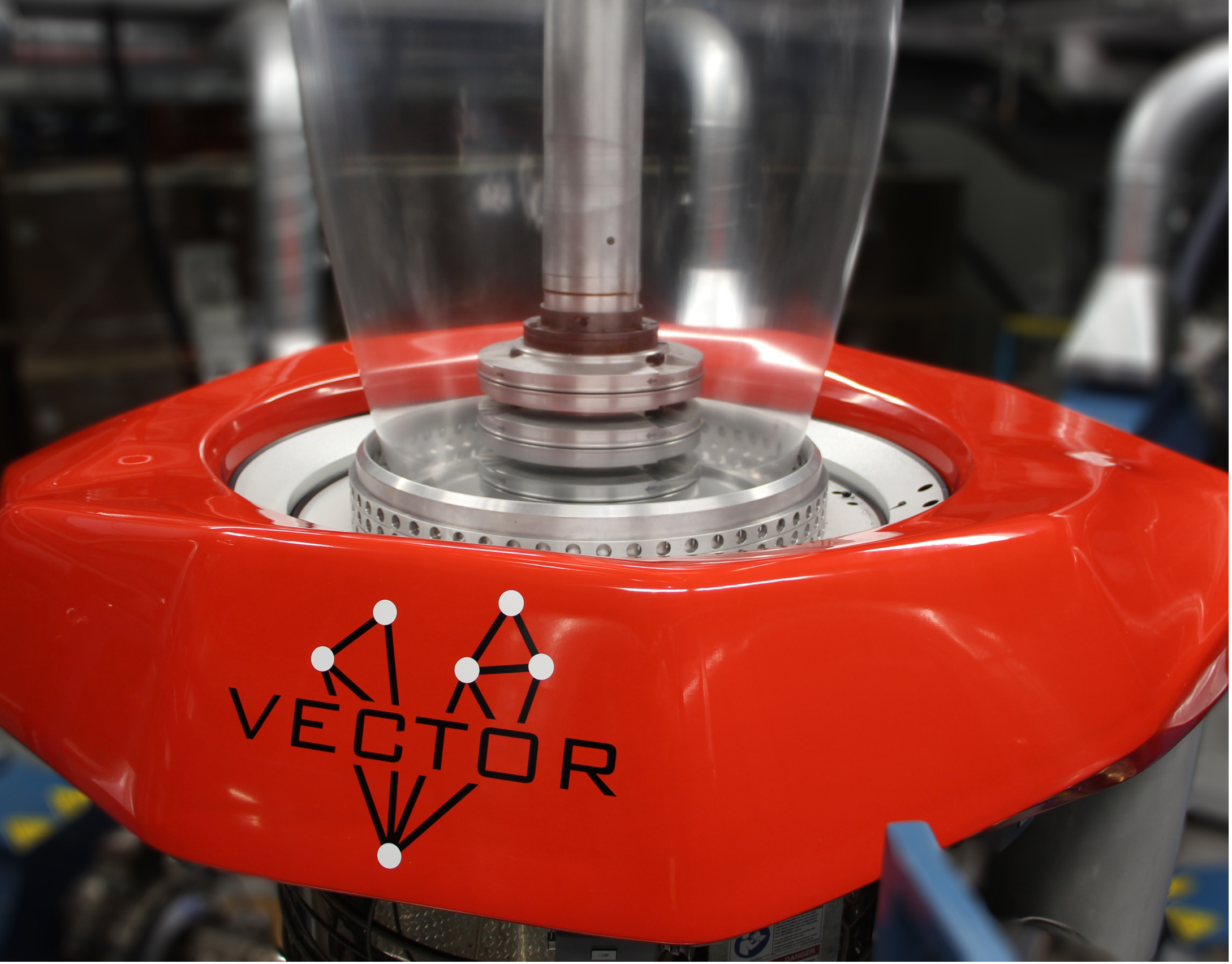
upgrade your existing line - even other OEM's Lines

Our Die Technology is scalable, which means it can grow with your needs

Today you may need to add capacity to make 5-layer films – polyolefins or simple barrier structures. But what if you plan to offer more complex films in the future? High barrier structures need at least 7 layers. Packaging film designers now use up to 9 layers to fine-tune film properties.

- Add more layers with the scalable SCD® to upgrade a 3 or 5 layer POD line to a 5, 7, or 9 layer barrier film line
- Reuse existing extruders, changing their order to make new film structures (e.g. a thick core layer can become an outside layer)
- Replace screws for better processing of new resins
- Identify and selectively upgrade other components of the line that limit productivity (output and quality)




VECTOR

Blown Film Retrofit Capabilities -
AIR RING TECHNOLOGY

Davis-Standard offers a process analysis to determine potential rate improvement on existing equipment. Factors related to line speed, blower volume, internal bubble cooling (IBC), extrusion and blending capacity are evaluated based on existing equipment specifications. This is a highly economical way to increase existing film line capacity while offering customers the opportunity to reduce their variable manufacturing cost per unit.

- Increases output with improved cooling
- Better starting gauge than with conventional designs
- Digital set-up for repeatable quality



Vector®



Wesjet®



upjet®


BRAMPTON
ENGINEERING
VECTOR

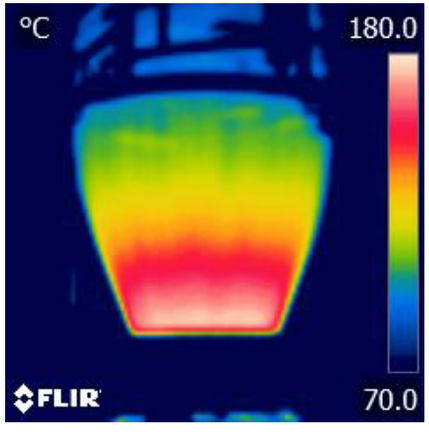
Vector Air Ring Upgrades

upgrade your existing line - even other OEM's Lines

Improved Cooling to Increase Output

A team of BE experts has completely re-invented how blown film is cooled, and our patent pending Vector® is the result. Using aerospace engineering and deep understanding of how traditional air rings work, we have developed a ground-breaking approach to efficiently distributing chilled air uniformly around the bubble using a single inlet while controlling the flow to secure stable "bubble lock" and to achieve higher output on your blown film line.

- Install the Vector Air Ring and BE eCOOL IBC for higher output better gauge, and more control with a wide variety of film types
- Identify and selectively upgrade other components of the line that limit productivity (output and quality)



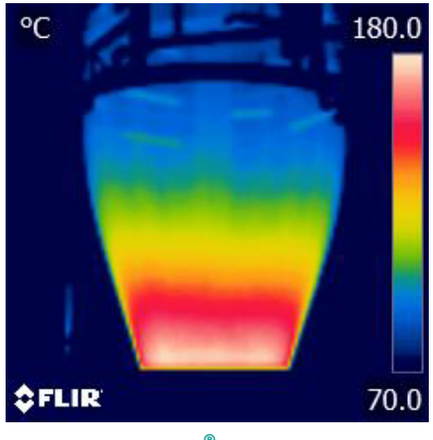
6-INLET AIR RING

55% Blower Speed

High pressure drop

IR Thermograms

Comparing the cooling of identical blown film bubbles running at the same output rate, gauge, and lay flat width, with the same frost line height.



VECTOR® AIR RING

35% Blower Speed

Less than half the pressure drop


TEMPERATURE
PROCESS
RESIN
OUTPUT
LINE SPEED
RECIPES



Italycs and Line Control System Upgrades

upgrade your existing line - even if supplied by other OEMs

ITALYCS® 5

Blown Film Line Control Technology

Usability, total repeatable control, and functionality meet in the latest version of our line control system, ITALYCS® 5. Simple tensions, speeds, recipes, lay-on force, and more, are tailored to the exact specifications of your clients' needs. Intuitive touchscreen application is fully configurable to support, delivering customizable quality control and line performance reports right into your hands.

Operate and control complex 11-layer lines, as simply as a 3-layer line, ITALYCS® 5 will allow you to monitor, control, and repeatably changeover all your vital process parameters, such as:

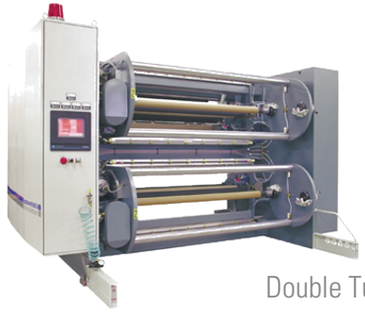
- ITALYCS replacement of existing non-BE control systems or ITALYCS version upgrades for existing ITALYCS lines
- The latest ITALYCS software and hardware protects against obsolescence, downtime, and costs associated with older PLCs and computers
- Now Offered to Replace Extrol


COFFING

Blown Film Retrofit Capabilities -
WINDING TECHNOLOGY

Efficiency, value, performance – that's the Davis-Standard Advantage™ in winding and unwinding. We have the industry's largest selection of continuous winding and unwind systems, and slitter rewinders.

We not only provide winding and unwinding technology, we provide solutions. Davis-Standard's extensive line of equipment is supported by 50 years of first-hand experience in addressing the challenges of web handling, continuous splicing techniques and the pros and cons of inline slitting. Name the process – solution coating, extrusion coating, film, non woven and specialty applications – our winding and unwinding equipment is engineered for dependability, wound roll conformation and limited downtime.



Double Turret



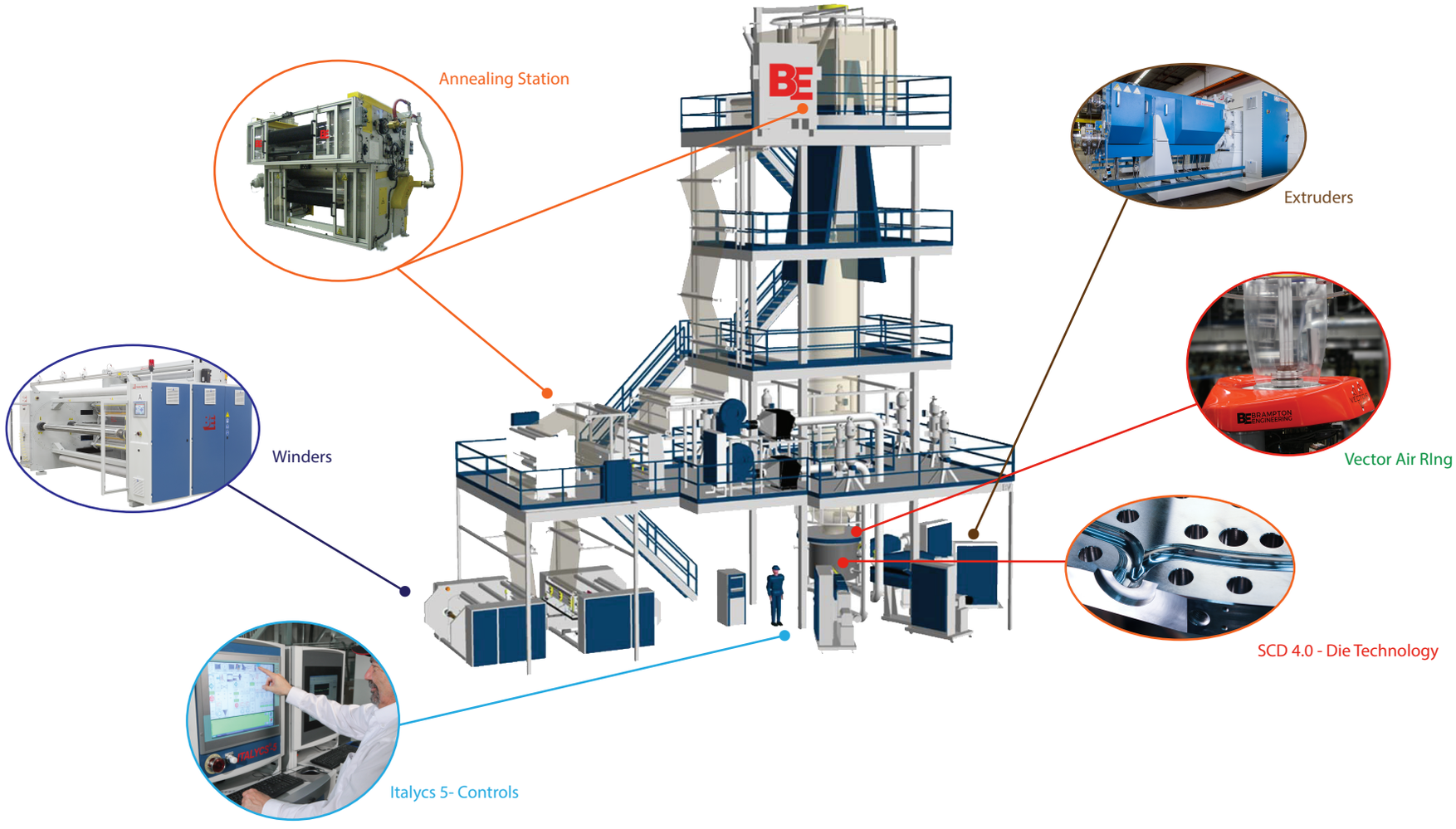
Turret

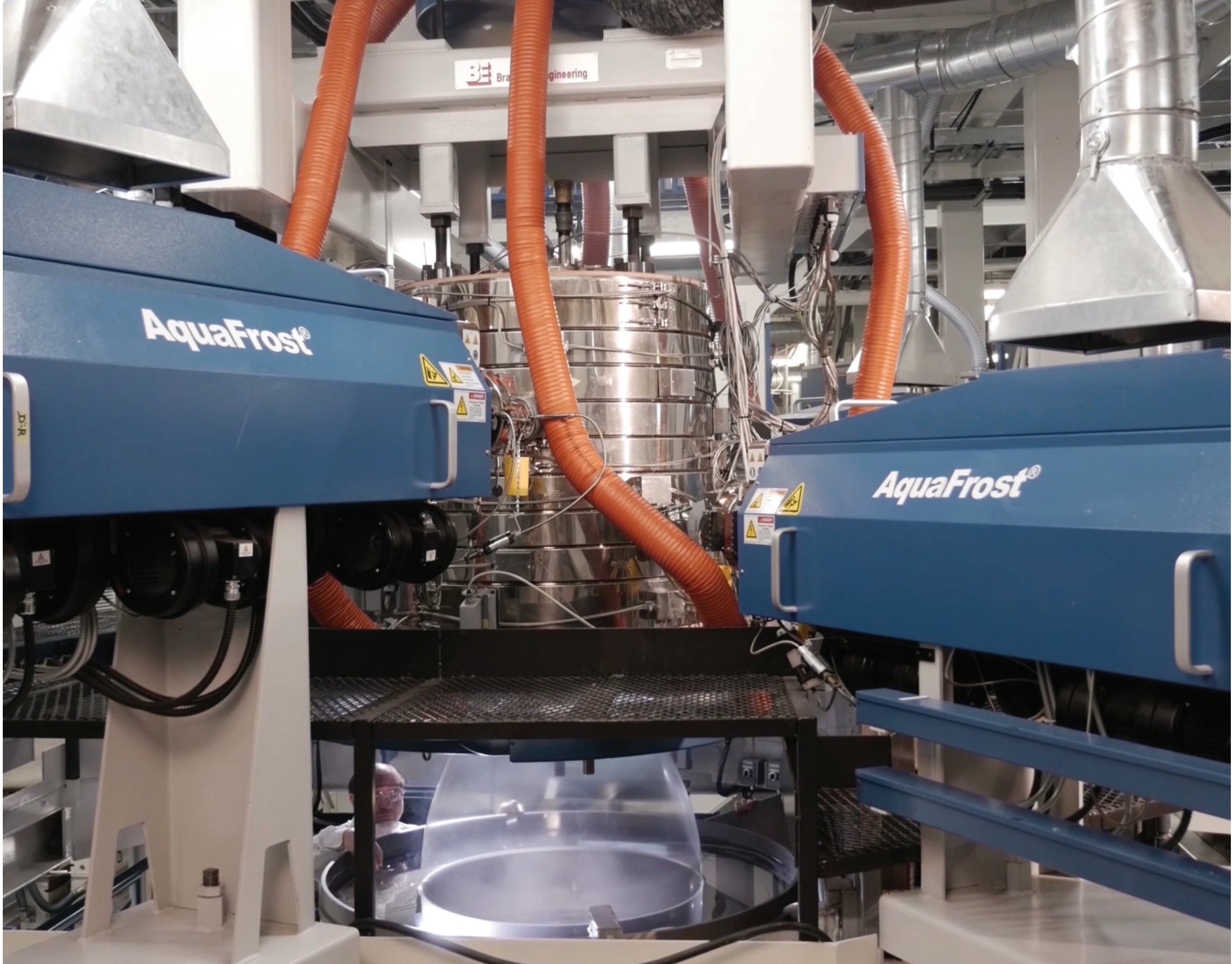


SLC Surface


BRAMPTON ENGINEERING
Brampton Engineering
Brampton Engineering
TOUCH

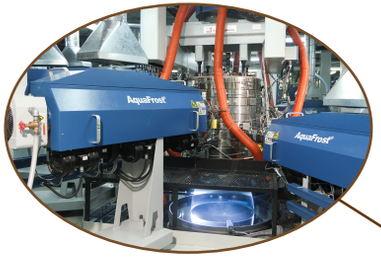
AeroFrost® - Air Blown Film Systems, flexible barrier blown film



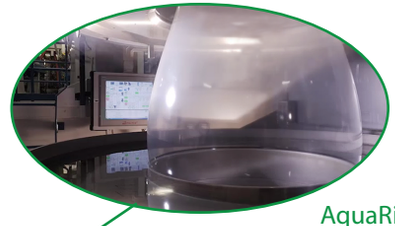

AquaFrost®
AquaFrost®

AquaFrost® - Water Quenched Blown FIlm Systems

Superior Clarity, Strength & Formable Blown Film



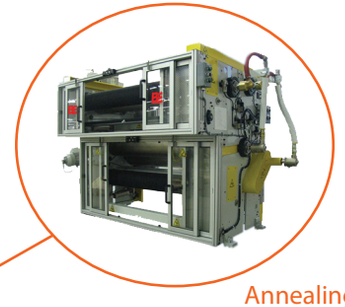
Extruders



AquaRing



SCD 4.0 - Die Technology



Annealing Station



Italycs 5- Controls

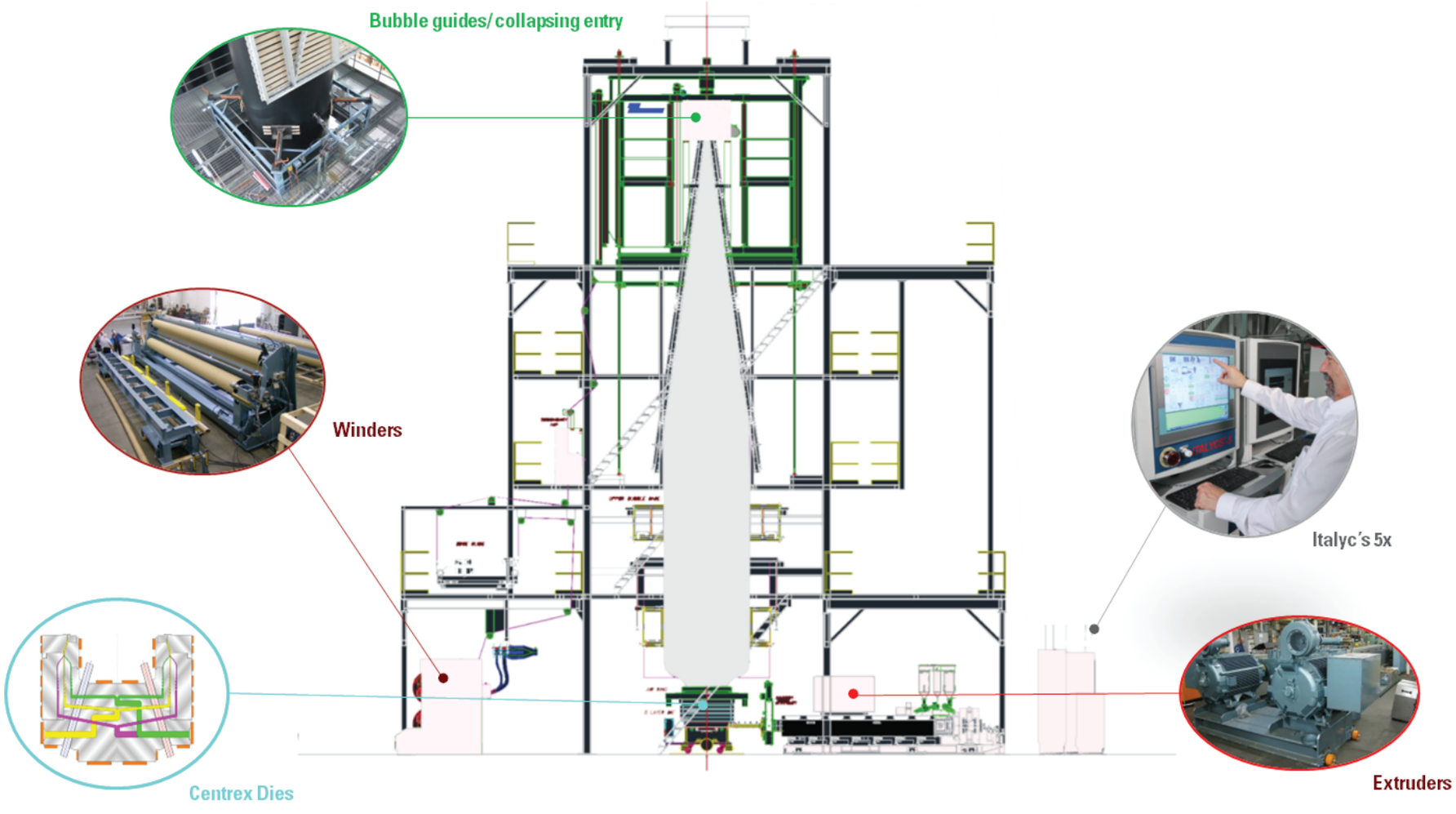


Winder



Agricultural Films- Air Blown Film Systems

Systems for films up to 25m circumference





We offer a Total Solution

Stewardship - Start to Finish

1

PRE-SALE SUPPORT

- Tailored design based on customer technical & business needs
- Pricing, timing and delivery options presented

2

PROJECT MANAGEMENT

- Workflow, process integration to track build & delivery time
- Frequent 2 way communication



3

INSTALLATION & COMMISSIONING

- Davis-Standard teams are the most experienced/skilled in the industry
- Operator & maintenance training

4

AFTERMARKET

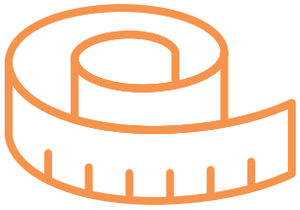
- Low cost of total ownership
- Regional locations for quick spares & support

Collaborative Partner for your Entire Line

+1 844 MY DAVIS (+1 844-693-2847)

24/7 emergency support





Tailored Solutions

Partnership to take standard offering & tailor to customer's business & technical needs

Innovation Starts Here

Davis-Standard has mastered the art of working with progressive customers and industry partners to break old paradigms and develop Blown Film Technology product platforms that provide a competitive advantage.

Packaged Solutions

From concept to reality, experienced engineering teams turn specific objectives into high performance manufacturing solutions. Well-equipped custome/pilot facilities enable customers to test and prototype concepts, building a foundation of confidence.

Customization Is Key

Major components of our Blown Film lines are often tailored to address specific customer needs. This can be as simple as combining existing design elements in a unique way or developing a new solution to enhance existing capabilities.

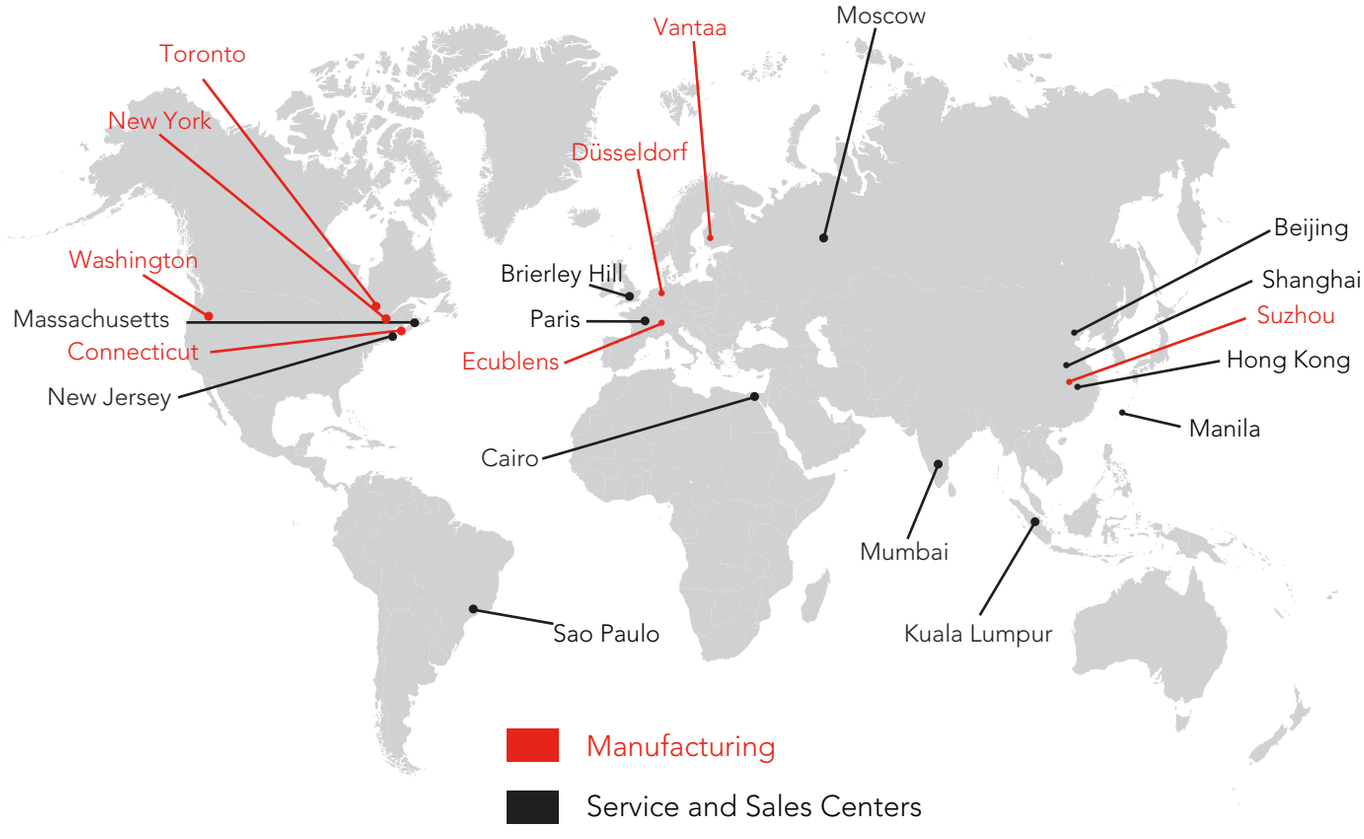
Technology Leadership

By consistently reviewing technology fundamentals, Davis-Standard addresses major industry trends of industry 4.0 & productivity improvements.


DAVIS - STANDARD

Davis-Standard- A Global Company

Production Across Three Continents - Quick Response Parts & Service





Brampton, Canada



Suzhou, China



Gloucester, MA, USA

PUT US TO WORK FOR YOU.

We strive to do whatever it takes to ensure that you are able to produce a superior end product, at a superior profit. Contact us today to learn how we can help you succeed.

+1 315-564-4375
www.davis-standard.com

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Where your ideas take shape.

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