# HAZARDOUS CHEMICAL, CORROSION & EXPLOSION-RESISTANT BLOWER SYSTEMS

PLASTEC® VENTILATION

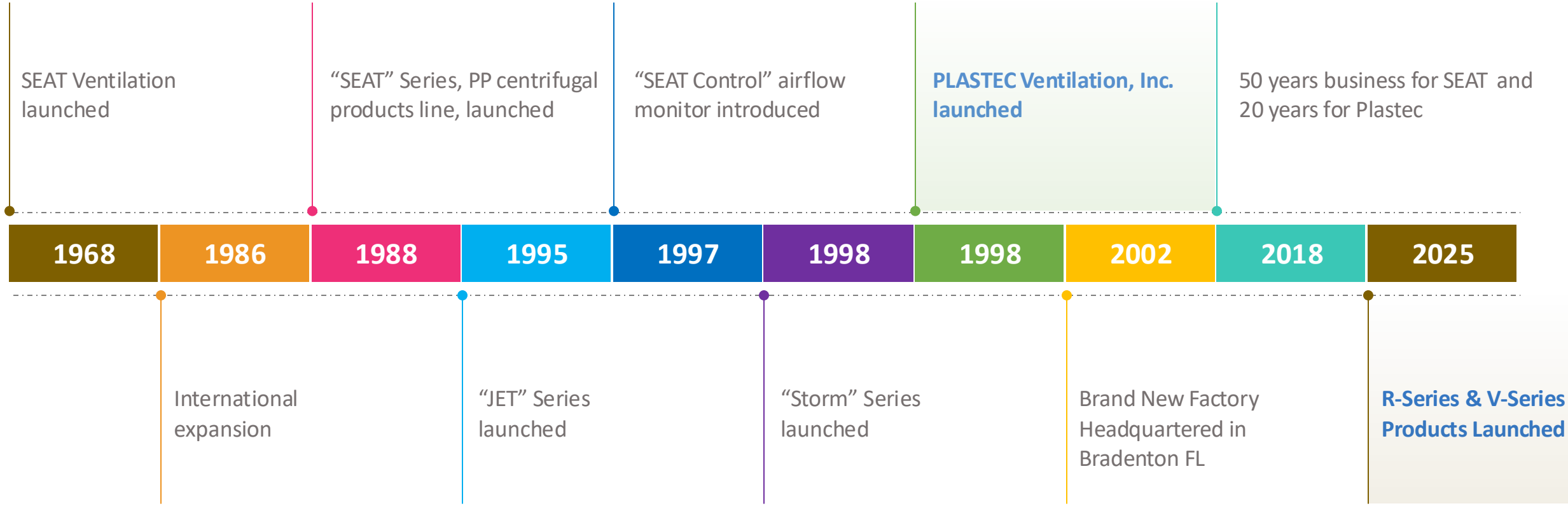
## PRODUCTS OVERVIEW

WWW.PLASTECVENTILATION.COM

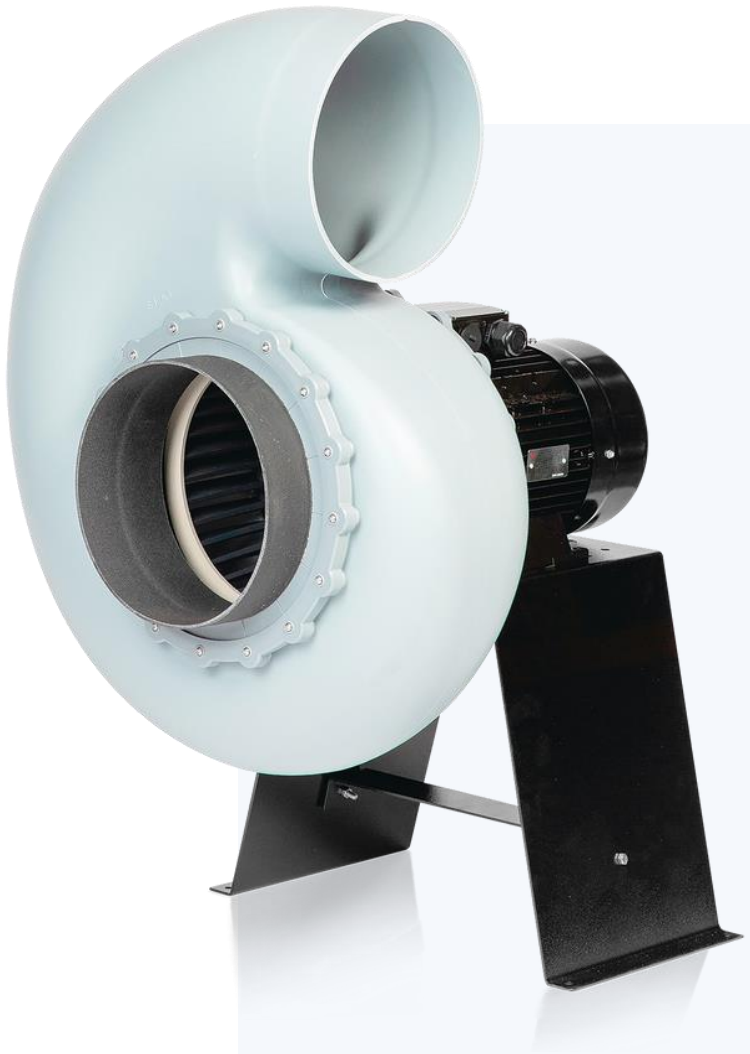
amca INTERNATIONAL MEMBER

amca WORLDWIDE CERTIFIED RATINGS SOUND AND AIR PERFORMANCE

# OVER 55 YEARS OF EXPERIENCE



# CHEMICAL RESISTANT SOLUTIONS



With extensive expertise in chemical fume extraction, **PLASTEC Ventilation** offers a comprehensive range of **high-quality, corrosion-resistant polypropylene blower systems.**

These systems are specifically engineered to address the needs of :

- Laboratories,
- Chemical plants,
- Natatoriums,
- Water treatment facilities,
- Hospitals,
- Pharmaceutical facilities,
- Other environments exposed to corrosive, hazardous, or flammable chemicals.

# CHEMICAL RESISTANT SOLUTIONS

- UV stabilizer Inhibited
- Eco-Friendly 100% Recyclable Material
- Non-Toxic, Odorless, FDA approved Polypropylene Material
- Thermal Stabilizer Inhibited, UL-94 Fire Resistance Compliance
- Highly Resistant to Corrosive and Hazardous Gases and Fumes
- High Impact, Lightweight, Durable Heavy-Duty (4~5mm (0.20”) Thickness)
- Single-Phase, Three-Phase, ECM, and XPFC Motors Availability
- Fully Seamless Material Construction, Injection or Blown Modeled Processes
- No Chemical Coatings Required
- Cost Competitive
- Resistant to Rust, Fatigue, Cracks, Delamination, and Degradation.
- Low Carbon Footprint Environmental Impact

# HIGHLIGHTS

THE SUPERIOR OPTION TO FIBERGLASS, STAINLESS-STEEL, AND GALVANIZED-STEEL BLOWERS


## High Chemical Corrosion Resistance

**Plastec Ventilation** extractors are engineered to perform exceptionally in harsh, corrosive hazardous chemical environments. Does not degrade, flake, peal, or crack over time. Is not prone to rust in moist or acidic conditions – no chemical coating required. Resistant to all chlorides, unlike stainless steel.

## Lightweight and easy to handle

Significantly lightweight design simplifies manufacturing, handling, transportation, and installation, making it suitable for various applications. This reduces labor, time, structural load weight support for installation, and logistics costs while improving overall efficiency.

## Cost Efficiency

Polypropylene blower systems material and manufacturing costs are lower than competitors, with no need for additional chemical coatings.

## Maintenance and Durability

Due to natural chemical resistance and ability to withstand wear without coatings or treatments, thus low-maintenance solution. Does not crack, delaminate, or degrade due to UV exposure. Does not require preventive rust, recoating, repainting maintenance. Does not require regular cleaning to avoid chemical buildup or pitting.

# HIGHLIGHTS

THE SUPERIOR OPTION TO FIBERGLASS, STAINLESS-STEEL, AND GALVANIZED-STEEL BLOWERS


## Fatigue resistance

Excellent flexibility, with ability to withstand repeated twisting, bending, and flexing without cracking or deforming. Polypropylene is not brittle, thus under stress does no crack unlike fiberglass. Does not deform or fatigue over time as metallic competitors.

## Noise and Vibration Damping

Contains natural damping properties thus reduce noise and vibration, leading to quitter operations.

## Environmental Impact

100% RECYCLABLE, with a lower carbon footprint compared to stainless steel or fiberglass production. (Fiberglass is difficult to recyle and high environmental impact during manufacturing. Steel & Galvanized Steel are recyclable BUT energy intense to produce. Stainless Steel is recyclable BUT has high environmental cost due to mining and production.)

## Resistance to UV Degradation

Resistant to UV explosion because additives are added, make it suitable for outdoor applications. While fiberglass can degrade or yellow over time under UV exposure and Steel/Galvanized/Stainless Steel UV explosion has no direct impact BUT can accelerate corrosion when protective coating degrade.

# MARKETS

### OIL, PETROLEUM AND GAS INDUSTRIES
Oil Refinery and Extraction Systems, Exploration/ Upstream/Midstream Facilities, Natural Gas Compressor Stations, LNG re-gasification plants, Treatment Systems, Water Process Treatments, Drying and Dehydration, Exhaust System for Of shore Platforms.

### ELECTRIC AUTOMOTIVE, BATTERY (EV & BESS) & STORAGE INDUSTRIES
Lithium-Ion Battery Storage Systems, Grid-scale Battery Storage, Battery Energy Storage Systems (BESS), Battery Enclosure Cabinets, Energy Storage Containers, Power Stations, Portable Energy Containments, Recycling Facilities.

### UNIVERSITIES/INSTITUTES/SCHOOLS
Science and Technology Laboratories, Biology/Physics/Chemistry Laboratories, Science Rooms, Chemical Storage Areas.

### PHARMACEUTICAL AND CHEMICAL INDUSTRIES
Medical Facilities, Research and Testing and Manufacturing Processes, Fluidized Systems.

### MARITIME INDUSTRIES
Cruise Ship Industry, Container Ships, Engine Room Ventilation Systems, Fuel Lockers Ventilation, Bilge Ventilation, Moisture Laden Applications.

### LABORATORY FUME HOOD
Science and Technology, Biotechnology, Pancreatic Research Centers, Medicine & Biomedical Sciences, (BSL-1 ~ 4), Cancer/Research, Beam Therapeutics, Toxicology, Forensic Science.

### AGRICULTURAL INDUSTRY, SURFACE TREATMENT AND AGRI-FOOD INDUSTRY
Fertilization Ventilation, Chemical/Insecticide Exhaust, Livestock and Poultry Exhaust Systems (AFO & CAFO), Equestrian Facilities, Dust/Humidity/Grease Control, Grain Drying, Material Handling.

### CHEMICAL STORAGE
Hazardous Material Storage Buildings, Chemical Mixing and Dispensing Storage Buildings, Chemical Containment Rooms, Paint Storage Rooms, Spray Booth Exhaust, Reagent Chemical Tanks, Chemical Cabinets, Portable Equipment/Storage Shelters.

### COSTAL HOTEL / RESORT INDUSTRY
Back of House Exhaust Systems, High Rise Exhaust and Ventilation Systems, Anti-Salt Air and Anti-Salt Water Blower Systems, Coastal Restroom Facilities.

### NATATORIUMS, WATER PARKS, MUNICIPAL AQUATIC FACILITIES
Chemical/Chlorine Storage Rooms, Surge Tank Systems, Enclosed Tube Water Slide Ventilation, Underground Equipment/Chemical Vaults, Fitness Facilities.

### CANNABIS AND HEMP INDUSTRY
Cannabis and Hemp Cultivation Facilities, Grow Rooms, Hydroponic Gardens, Greenhouses.

### WATER TREATMENT, WASTEWATER, INDUSTRIAL SCRUBBER INDUSTRY
Water Treatment Facilities, Reclamation Facilities, Wastewater Treatment Processing, Fume/Water Scrubber Systems, Aeration Applications, Sludge Processing and Drying of By-products, Pickling, Sewer and Water Tunnels,Wastewater Lift Pump Stations.

# PLASTEC'S PARTNERS

- **FAR CHEMICAL, INC.** - FL USA | Chemical Industry
- **DLS BIOGAS, INC.** - ON CANADA | Energy Industry
- **REDWOOD MATERIALS, INC.** - NV USA | Lithium-ion Battery Recycling Industry
- **BIO-TECHNE** - CT USA | Biotechnology Industry
- **CREATE COMPOUNDING PHARMA** - BC CANADA | Pharmaceutical Industry
- **WABASH VALLEY PRODUCE** - IL USA | Food Industry
- **GREAT WOLF LODGE** - USA | Entertainment Industry
- **MISSOURI STATE UNIVERSITY** - MO USA | Science & Technology
- **OMNIS ENERGY TECH** - WV USA | Green Industry
- **NORTH SHORE WATER RECLAMATION** - IL USA | Sewage Treatment Industry
- **NATIONAL PETROLEUM RESERVE (NPR-A) WILLOW CAMP** - AK USA | Gas & Oil Industry

- **EVOQUA / XYLEM** – USA | Waste/Water Treatment Plant
- **QUESTRON TECHNOLOGIES CORPORATION** – ON CANADA | Laboratory Automation
- **ALTAPURE** – IN USA | Pharmaceutical and Biomedical Laboratory
- **LIVWELL HEALTH MARIJUANA DISPENSARY** – CO USA | Cannabis and Hemp Industry
- **PELLERIN MILNOR CORPORATION** – LA USA | Commercial Industrial Laundry Industry
- **STERIS CORPORATION** – QC CANADA | Medical Equipment Manufacturing Industry
- **NEXEN GROUP, INC.** – AB CANADA | Oil and Gas Industry
- **NATIONAL HIGH MAGNETIC FIELD LABORATORY FSU** – FL USA | University Laboratory
- **RIVIAN AUTOMOTIVE PLANT** – IL USA | EV Battery Industry
- **CRYSTAL FINISHING SYSTEMS** – WI USA | Chemical Plating and Coating
- **CERMET / FLEXILAB** – Mexico | Laboratory Industry
- **LIFETIME FITNESS** – USA | Natatorium & Fitness
- **JOHN MATTHEY CATALYSTS** – TN USA | Pharmaceutical Industry
- **R&D ALTANOVA** – NJ USA | Semi-conductor Industry
- **US DIGESTIVE HEALTH AT EXTON** – PA USA | Medical (Gastroenterology)
- **FLUID-QUIP INCORPORATED** – OH USA | Agricultural & Pulp Paper Manufacturing
- **GREENFIELD ENERGY CENTRE** – ON CANADA | Natural Gas Fired Power Plant Industry
- **SCHEUGENFLUG** – GA USA | EV Battery Industry
- **CHOBANI YOGHURT** – ID USA | Food Industry
- **FISHER SCIENTIFIC COMPANY LLC** – GA USA | Laboratory Fume Hood Industry

# OVERVIEW

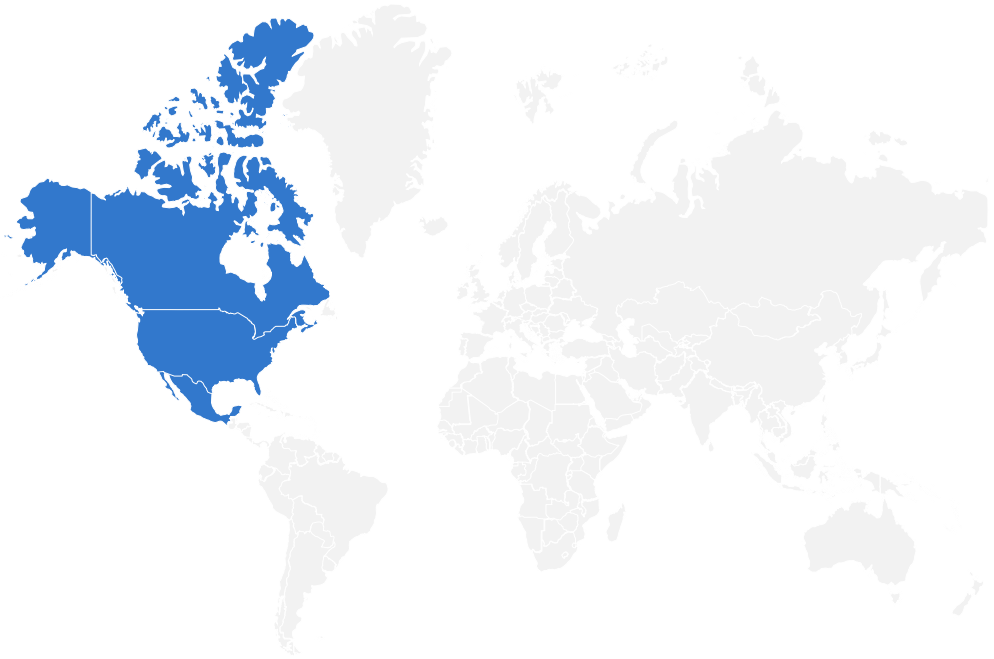
## PLASTEC Series
Centrifugal fan – General usage

## JET Series
Roof curb or In-line blower Installation

## STORM Series
Centrifugal fan
- High Static Pressure / Low CFM

## ROOF Series
Centrifugal blower Systems
Curb Installation

## V-Series
Centrifugal High Velocity
Blower Systems



**Over 500,000 products** sold every year in more than 100 countries, on all Continents

**Full 2-Year Warranty**

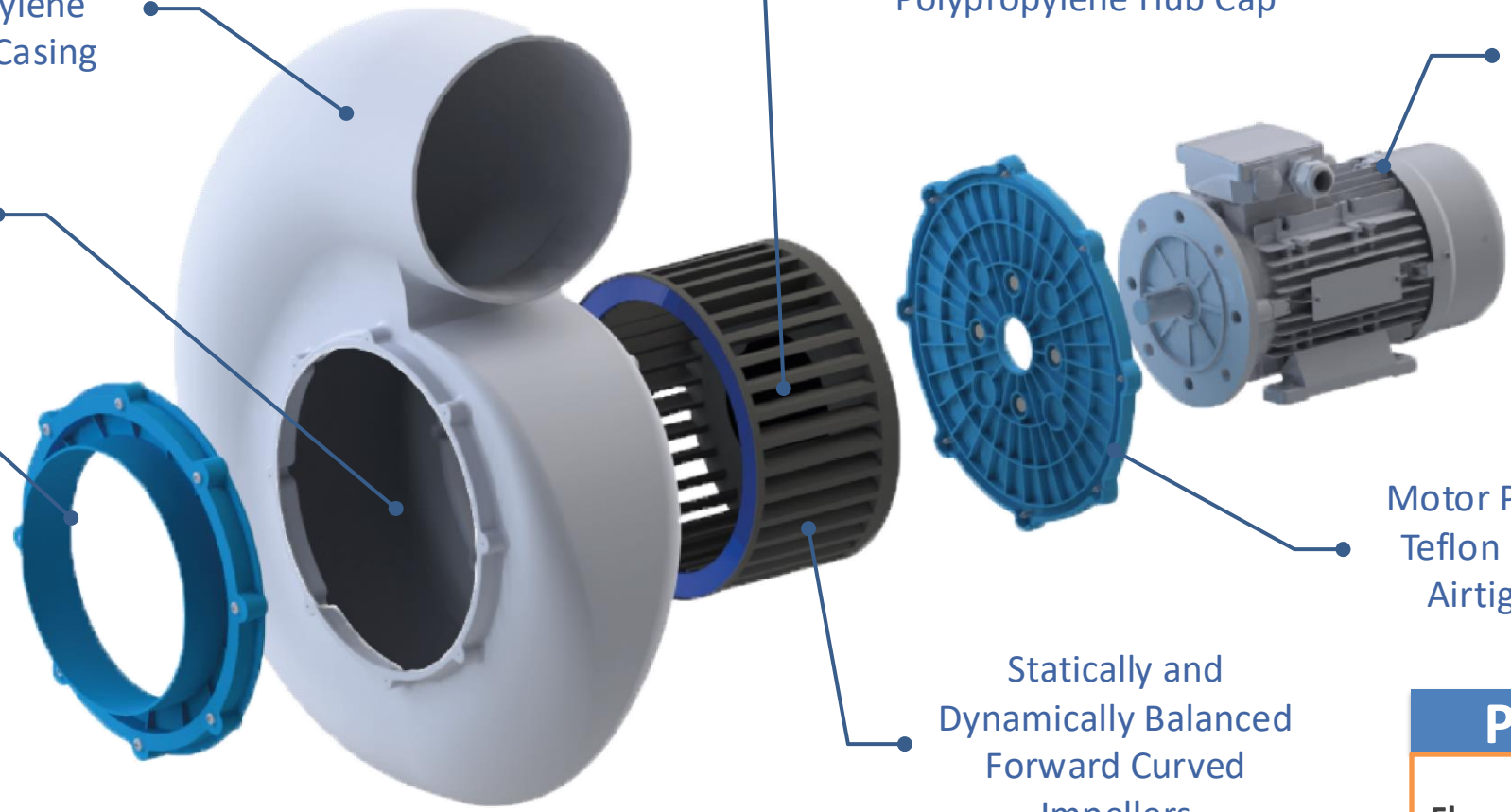
Polypropylene construction to handle **95-98% of corrosive chemicals**

# PLASTEC SERIES - EXPLODED VIEW

Fully Seamless Polypropylene Housing/Casing

No Metallic Components within Airstream

Slip-on Inlet Flange with Teflon Seals



Motor Shaft End Seal with Polypropylene Hub Cap

Aluminum Motor equipped with heat-dissipating finned sinks **(Single-Phase, Three-Phase ECM, and XPFC)**

Motor Plate with Teflon Seals for Airtightness

Statically and Dynamically Balanced Forward Curved Impellers

## Performances

**Flow range**: 15 to 10,800 CFM
**Static pressure**: 0.1 to 12 inwg

# PLASTEC SERIES

**PLASTEC 15**

15 cfm to 530 cfm
0.1 to 2.4 in.w.g.

**PLASTEC 20**

118 cfm to 1,060 cfm
0.6 to 6 in.w.g

**PLASTEC 25**

100 cfm to 2,100 cfm
0.25 to 8 in.w.g.

**PLASTEC 30**

270 cfm to 3,400 cfm
0.3 to 3.1 in.w.g.

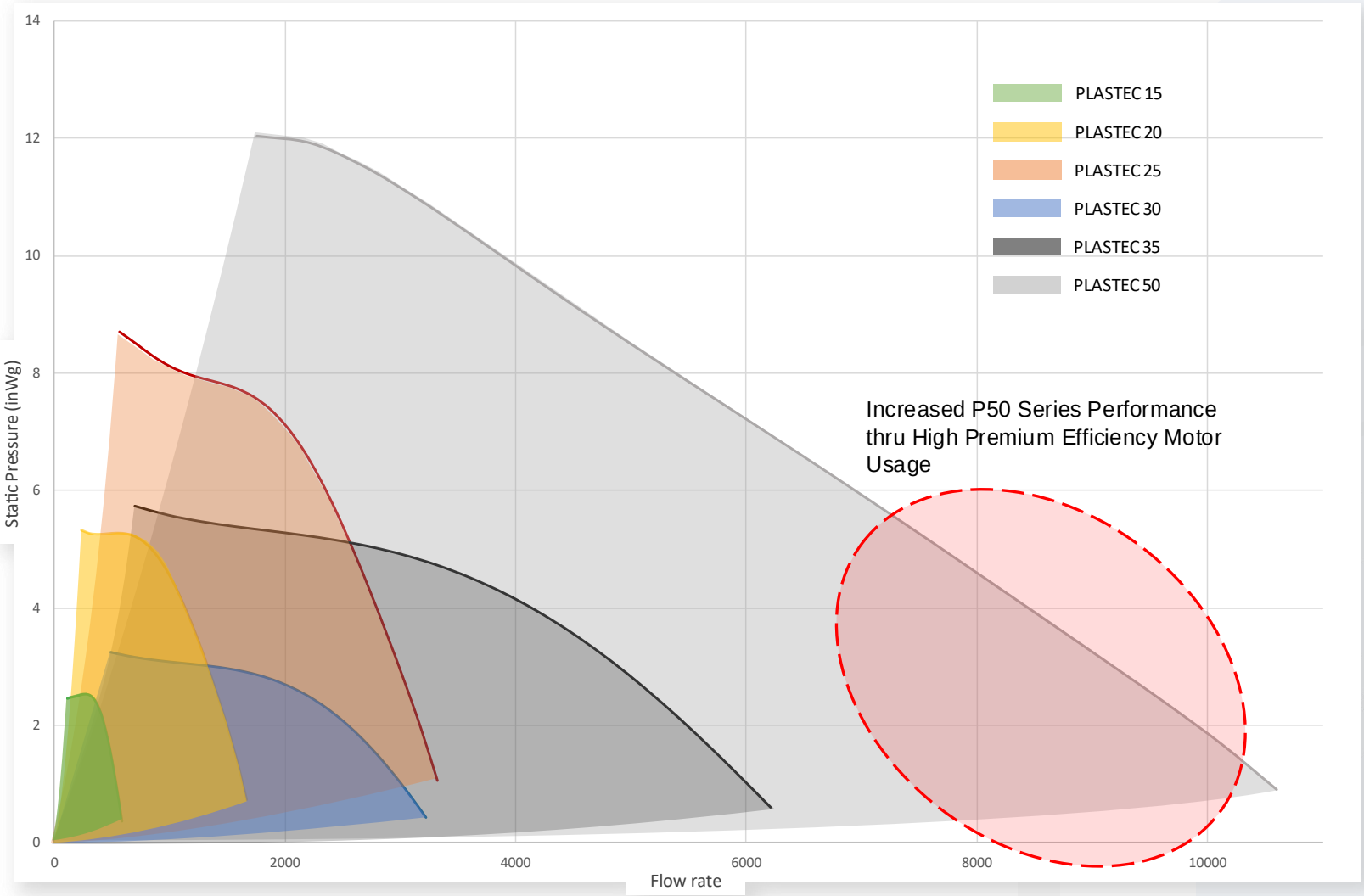
**PLASTEC 35**

500 cfm to 6,400 cfm
0.4 to 5.45 in.w.g.

**PLASTEC 50**

800 cfm to 10,800 cfm
0.3 to 12 in.w.g.

# PLASTEC SERIES




# PLASTEC SERIES

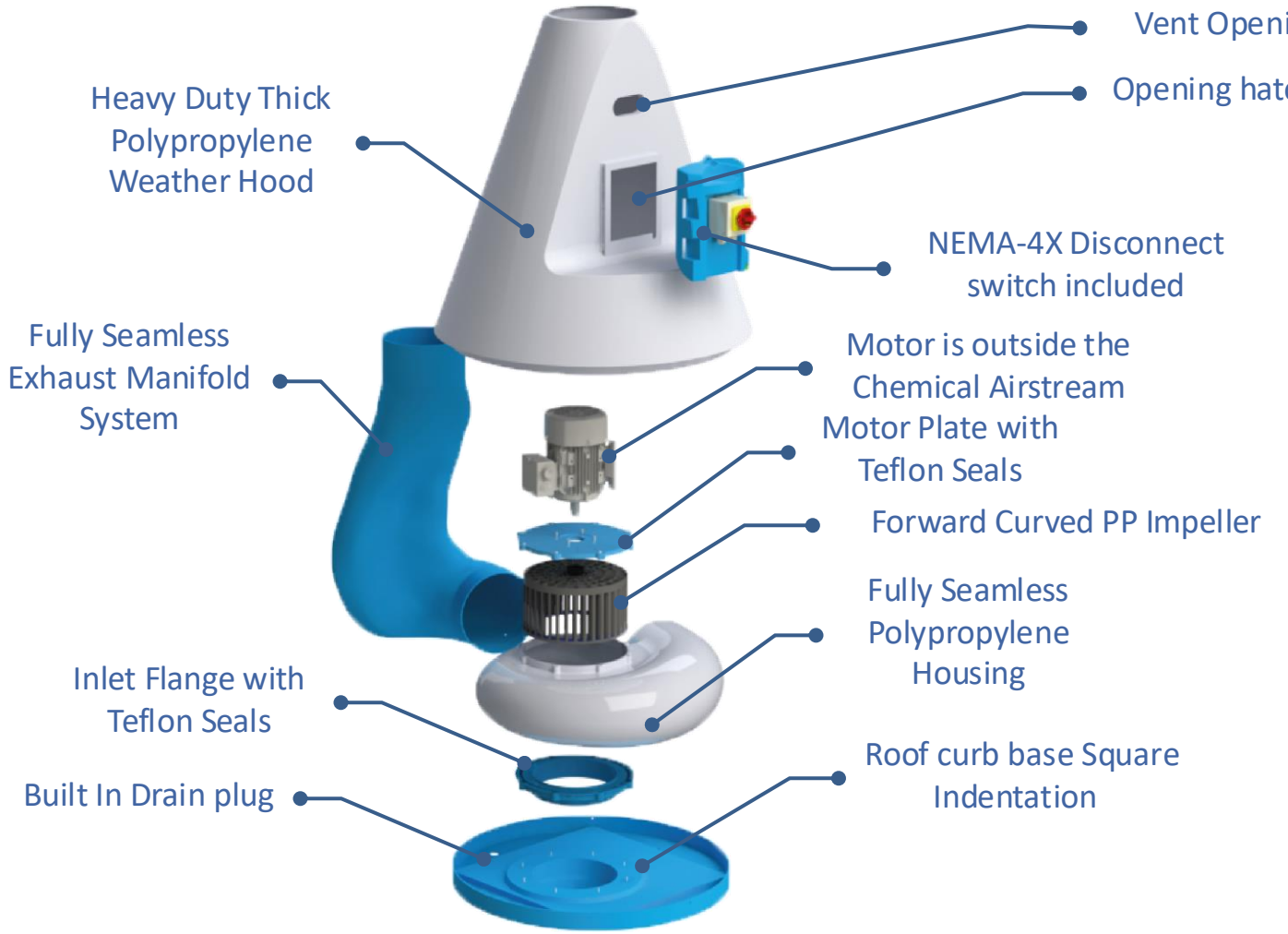
**Weather Hood**

100% Polypropylene weather hood/support stand to protect motors from outdoor elements.
Also available, fully Aluminum hood/support stand.

**Steel Coated Stand**

Steel stand with a black enamel corrosion resistant coating.
Can be used indoors or outdoors.
304 Stainless steel stand also available.

# JET SERIES - EXPLODED VIEW




## Performances

**Flow range**: 150 to 2740 CFM
**Static pressure**: 0.1 to 8.6 inwg

- No metallic components within the airstream.
- Lightweight design for Installation & Handling
- Resistant to UV and chemical degradation
- 100% Recyclable material

# JET SERIES

## JET 20

150 cfm to 1,250 cfm
0.1 to 4.2 in.w.g.

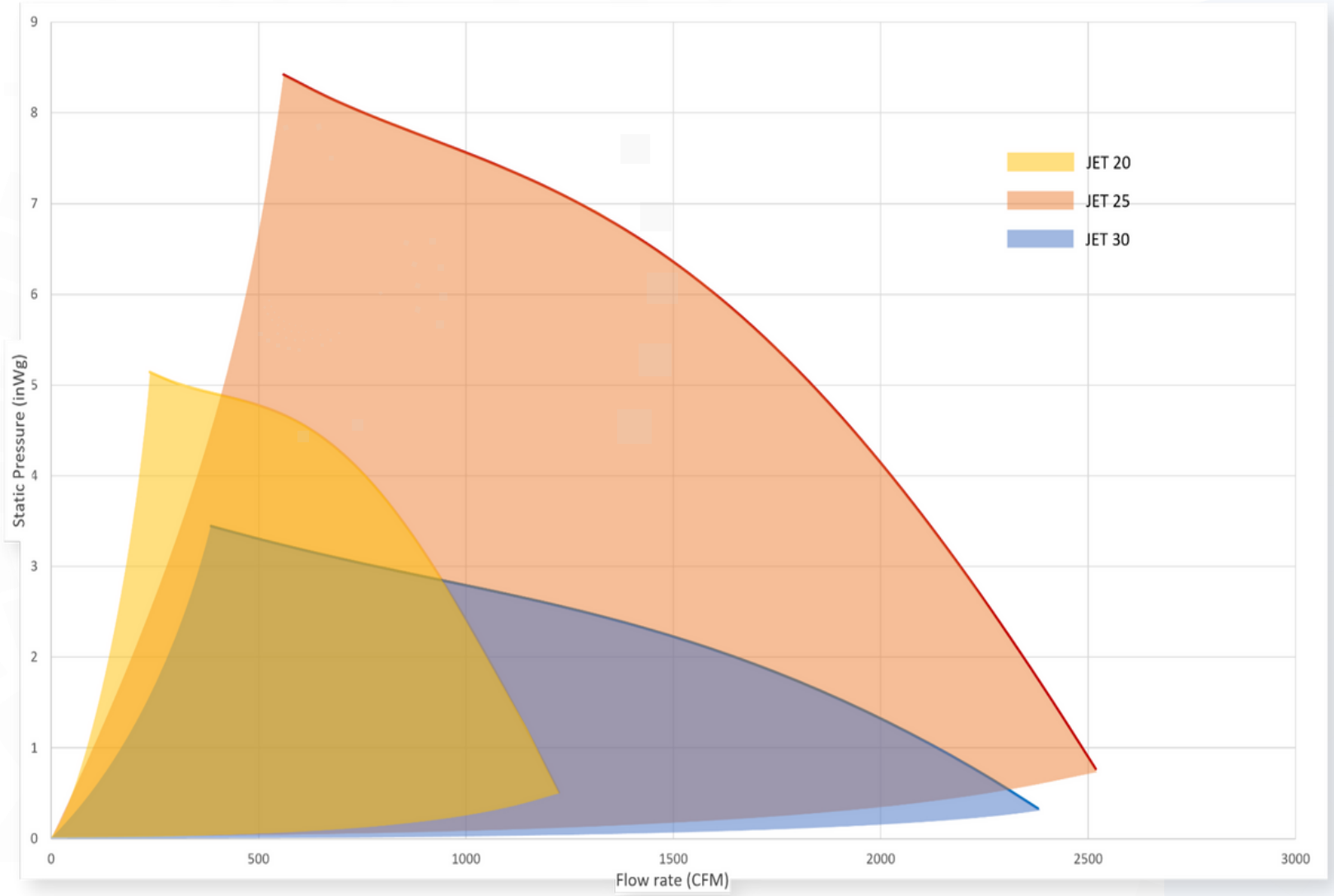
## JET 25

200 cfm to 2,740 cfm
0.15 to 8.6 in.w.g.

## JET 30

500 cfm to 2,700 cfm
0.2 to 3 in.w.g.

# JET SERIES


JET 20
JET 25
JET 30
Static Pressure (inWg)
Flow rate (CFM)
0
1
2
3
4
5
6
7
8
9
0
500
1000
1500
2000
2500
3000

# JET SERIES

# STORM SERIES

## STORM 10

**15 cfm to 130 cfm**
**0.25 to 2.35 in.w.g.**

## STORM 12

**30 cfm to 530 cfm**
**0.75 to 4.5 in.w.g.**

## STORM 14

**235 cfm to 765 cfm**
**1.5 to 7.25 in.w.g.**

## STORM 16

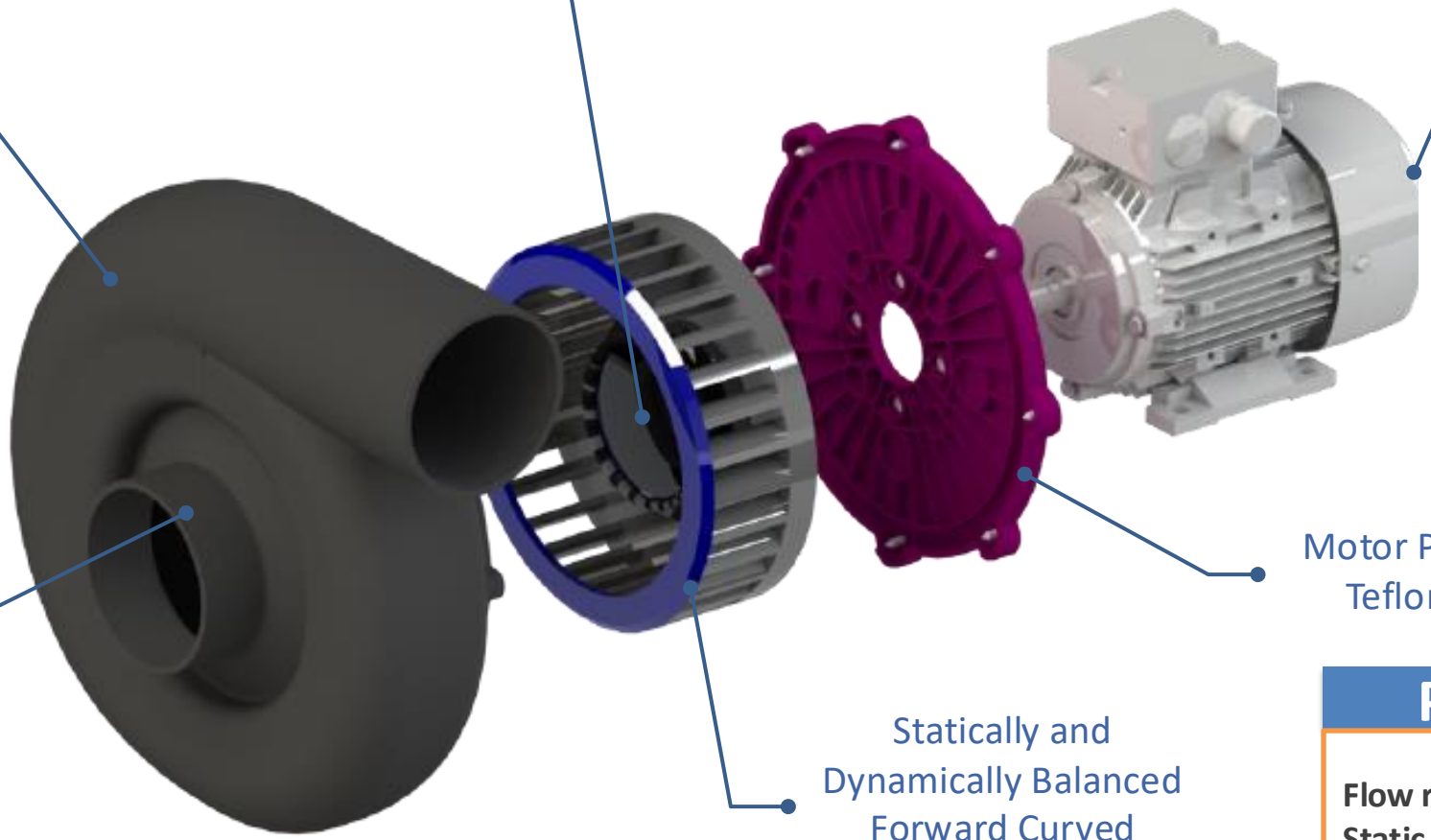
**295 cfm to 1,240 cfm**
**7.5 to 115 in.w.g.**

NEW

## STORM 18

**800 cfm to 3,000 cfm**
**8 to 18.5 in.w.g.**

# STORM SERIES - EXPLODED VIEW



Motor Shaft End Seal with Polypropylene Hub Cap

Aluminum Motor equipped with heat-dissipating finned sinks **(Single-Phase, Three-Phase, ECM, and XPFC)**

Fully Seamless Polypropylene Housing

Slip-on Inlet/Outlet Connections

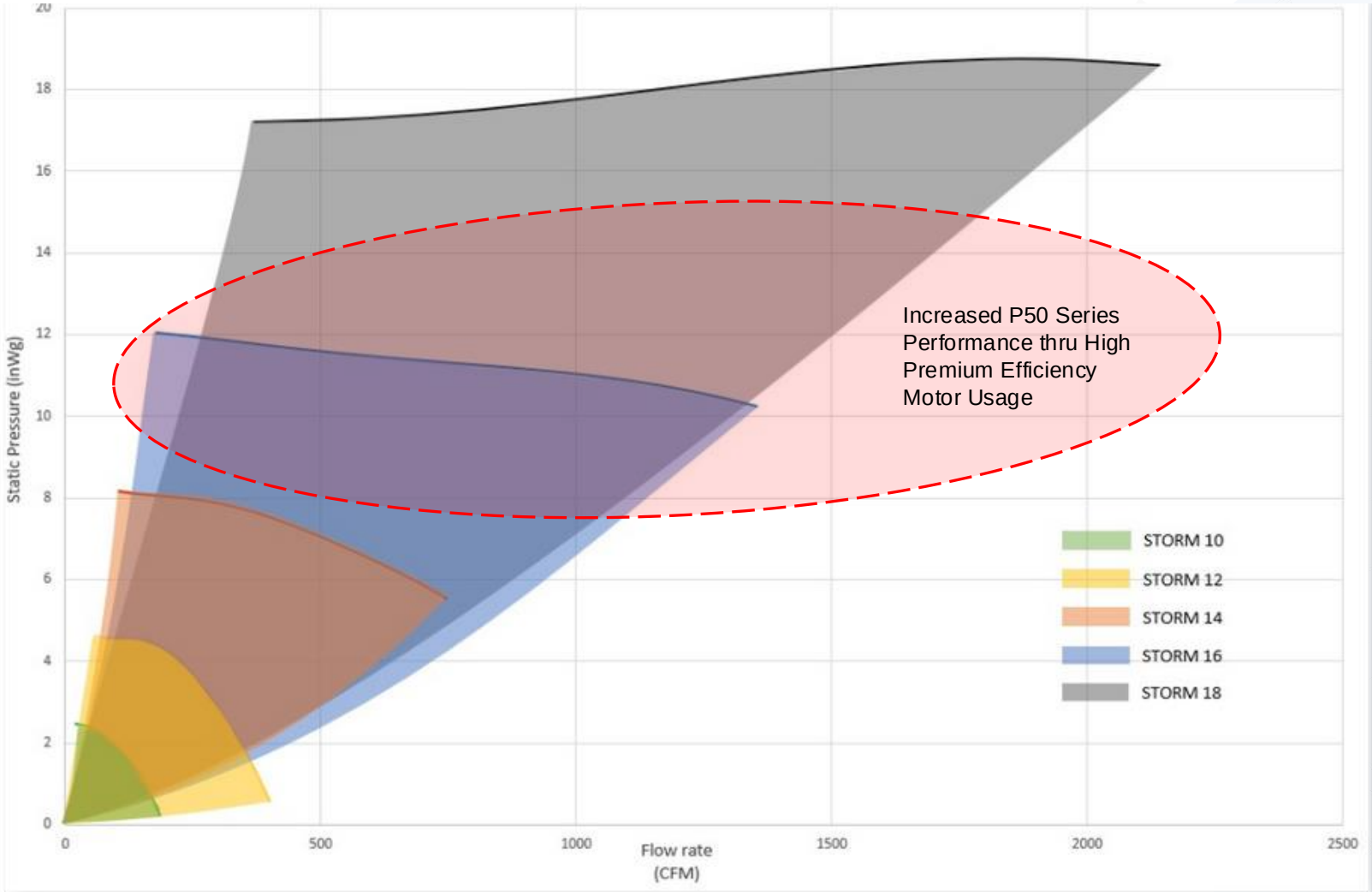
Motor Plate with Teflon Seals

Statically and Dynamically Balanced Forward Curved Impellers

## Performances

**Flow range**: 15 to 3,000 CFM
**Static pressure**: 0.25 to 18.5 inwg

# STORM SERIES




# STORM SERIES

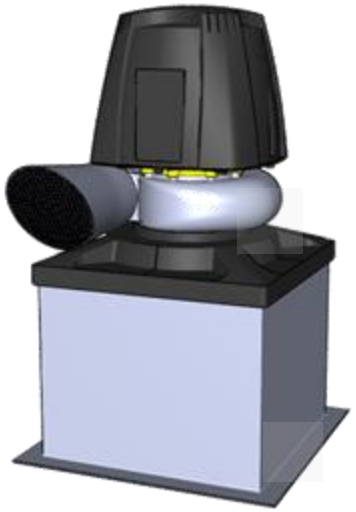
# R-SERIES

NEW PRODUCT

**RU 15**

15 cfm to 530 cfm

0.1 to 2.4 in.w.g.



**RU 20**

118 cfm to 1,060 cfm

0.6 to 6 in.w.g

**RU 25**

100 cfm to 2,100 cfm

0.25 to 8 in.w.g.

**RU 30**

270 cfm to 2,100 cfm

0.3 to 3.1 in.w.g.

**RU 35**

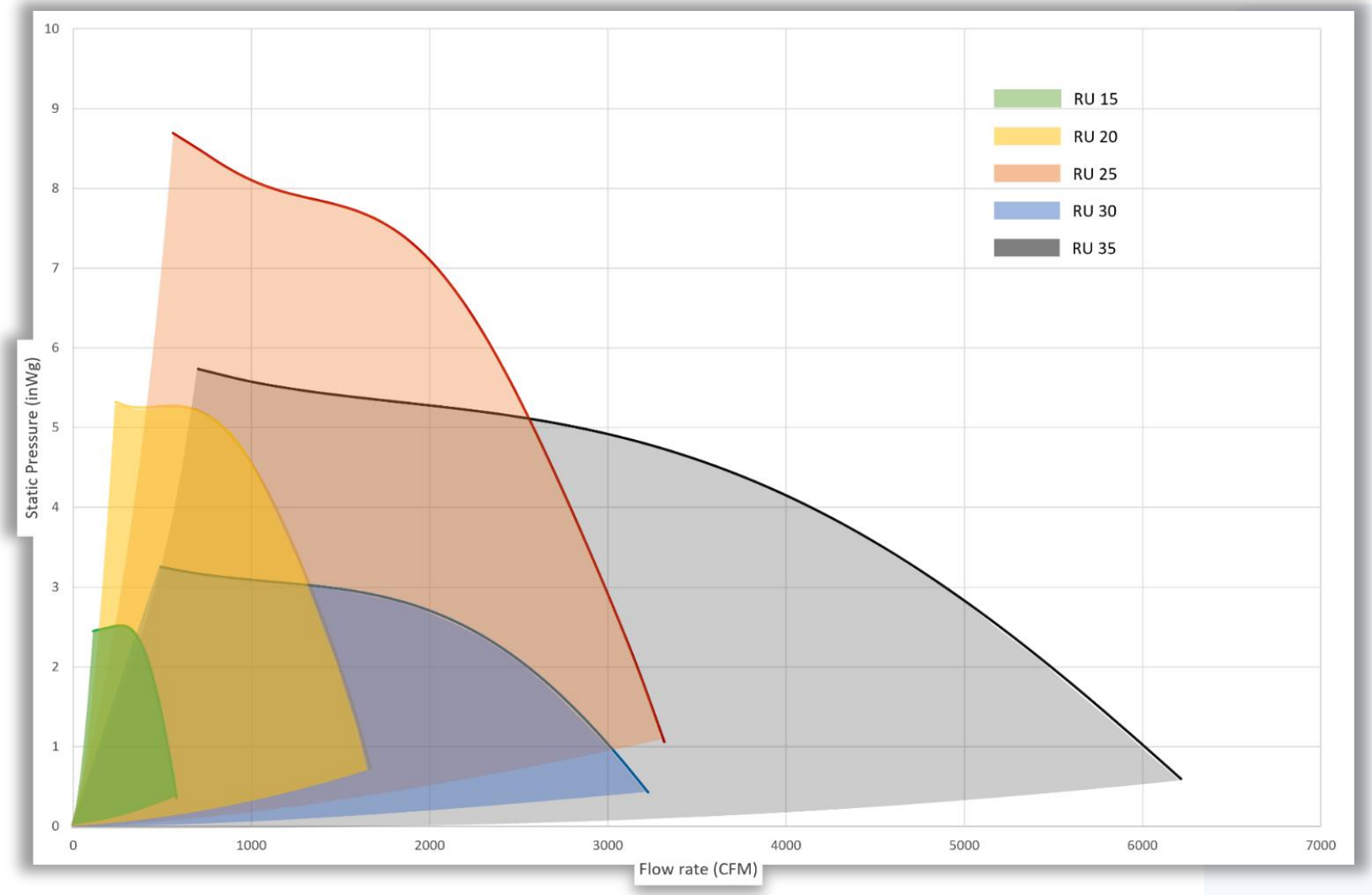
500 cfm to 6,400 cfm

0.4 to 5.45 in.w.g.

# R-SERIES

NEW PRODUCT

# R-SERIES




Fully assembled blower system and factory wired to NEMA-4X outdoor rated disconnect.

- Lightweight
- Weather protected and UV resistant.
- Designed for standard air extraction or chemical latent air extraction.

# V-SERIES

NEW PRODUCT

## V 25

100 cfm to 2,100 cfm
0.25 to 8 in.w.g.
Max: 9,700 fpm

## V 30

270 cfm to 3,400 cfm
0.3 to 3.1 in.w.g.
Max: 12,360 fpm

## V 35

500 cfm to 6,400 cfm
0.4 to 5.45 in.w.g.
Max: 12,090 fpm

# V-SERIES - HIGH VELOCITY BLOWERS

NEW PRODUCT

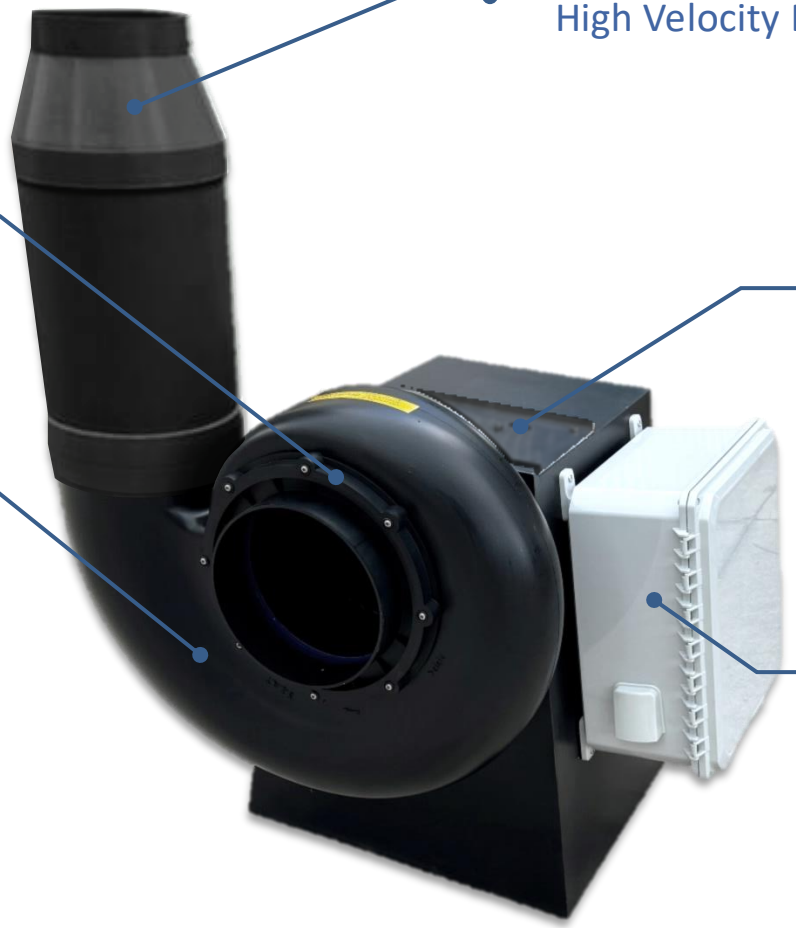
Chemical Resistant Polypropylene High Velocity Discharge Nozzle

Fully Seamless Polypropylene Material Construction

Weather Protection Hood/Support Stand

Resistant to UV Degradation

Optional NEMA-4X Control Module



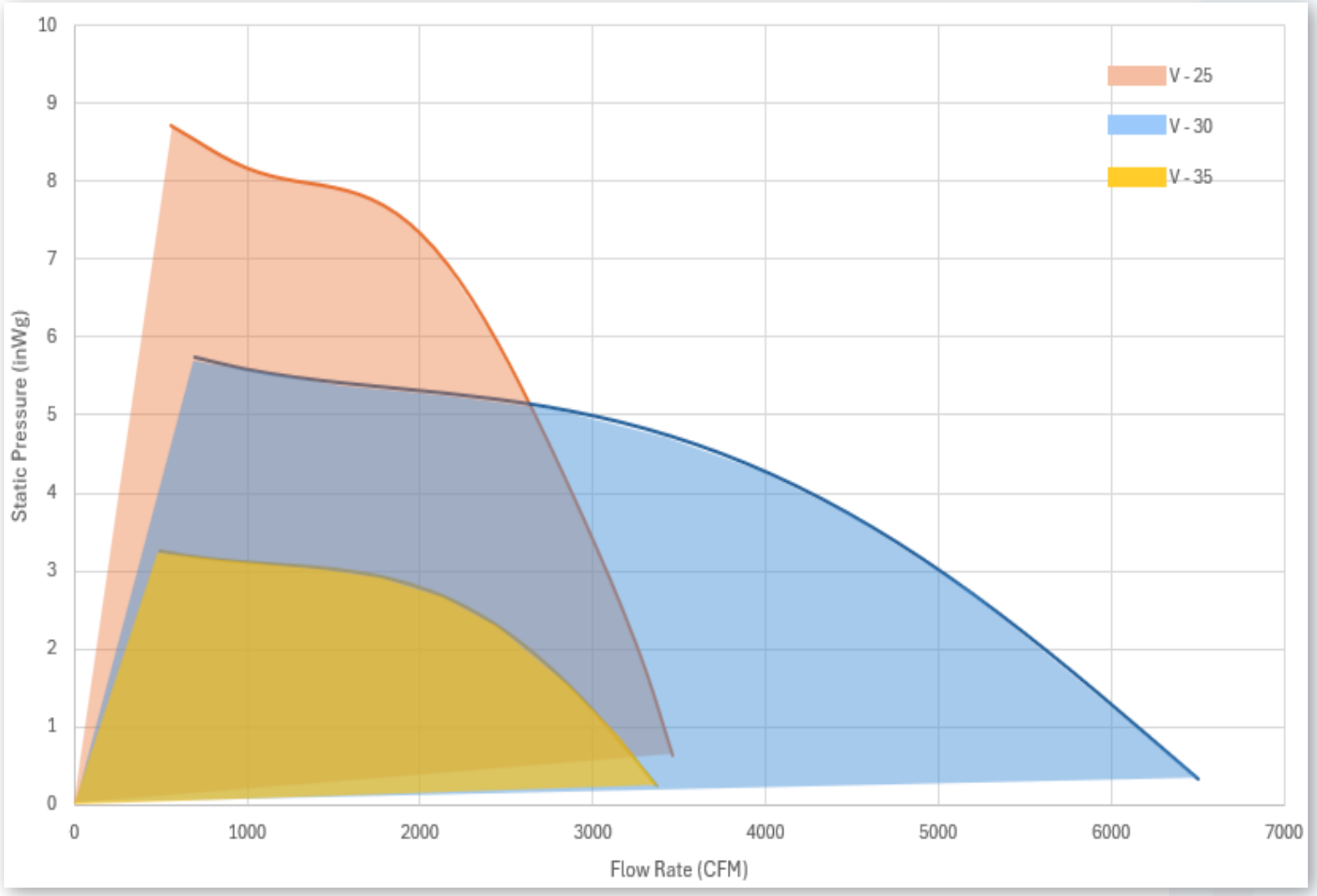
Fully Assembled Packaged Blower System for Laboratory, Pharmaceutical, and Other Industries.

**Designed for high velocity exhaust applications**

## Performances

**Flow range**: 100 to 6,400 CFM
**Static pressure**: 0.25 to 8 inWg

# V-SERIES




**FEATURES**

**NEMA-4X/IP66/UL94 Control Module Includes:**

Poly Construction

Preprogrammed VFD & Breaker

Stainless-Steel Hardware, Water-Tight Glands, Cords, Factory Assembled

Weather Resistant Ventilation

(Optional - Panel Mounted HMI Controller)

# EC MOTORS

**Features:**

- Permanent Magnet, Electronically Commutated Motor
- Single-phase, 120, 208, 230 to 277 VAC, 50/60 Hz input
- Output power: 0.12 to 1.1 kW at 1,500, 1,800 or 3,000 rpm;
- Mounting: IEC80 B3
- Aluminum frame with heat-sink fins, degree of protection IP55
- Ambient temperature: -20 to 40°C (TENV)1
- Total efficiency (motor + drive) – IE63
- Vibration Grade A
- Direction of rotation CW/CCW (selectable)

Continuous speed adjustment (200 to 1500/1800 rpm and 500 to 3000 rpm) by:

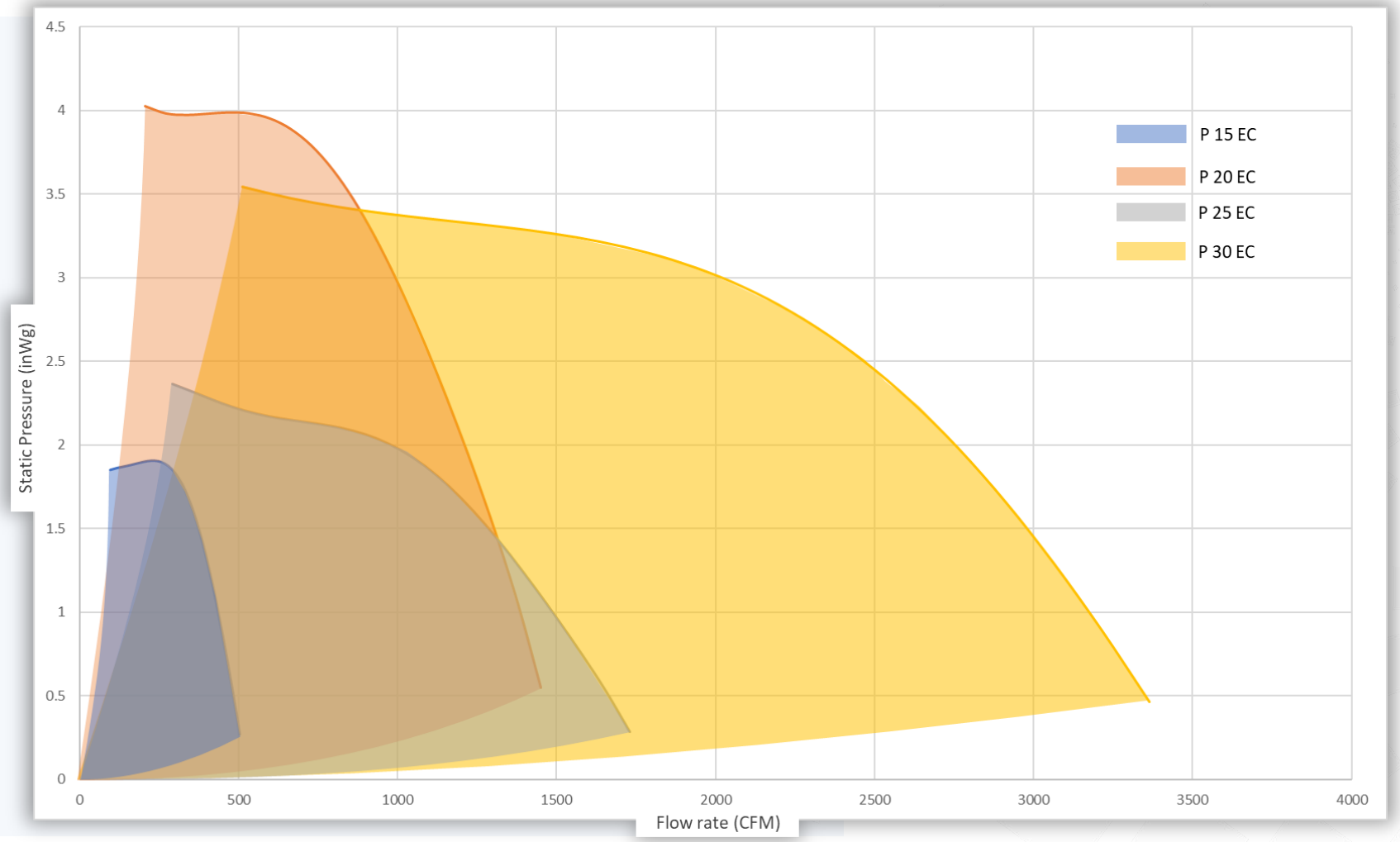
- Tact buttons (local)
- DC voltage (remote): 2 to 10 VDC
- DC current (remote): 4 to 20 mA DC

Frequency (remote): 10 to 95%
Local controls optically isolated
With drain plug and V'ring sealing
Sealed for life bearings
Drive-end bearing cap
Power and control cables 500 mm long
Electronic protection: overload, over temperature and locked-rotor.

# PLASTEC EC-SERIES

PLASTEC EC-SERIES

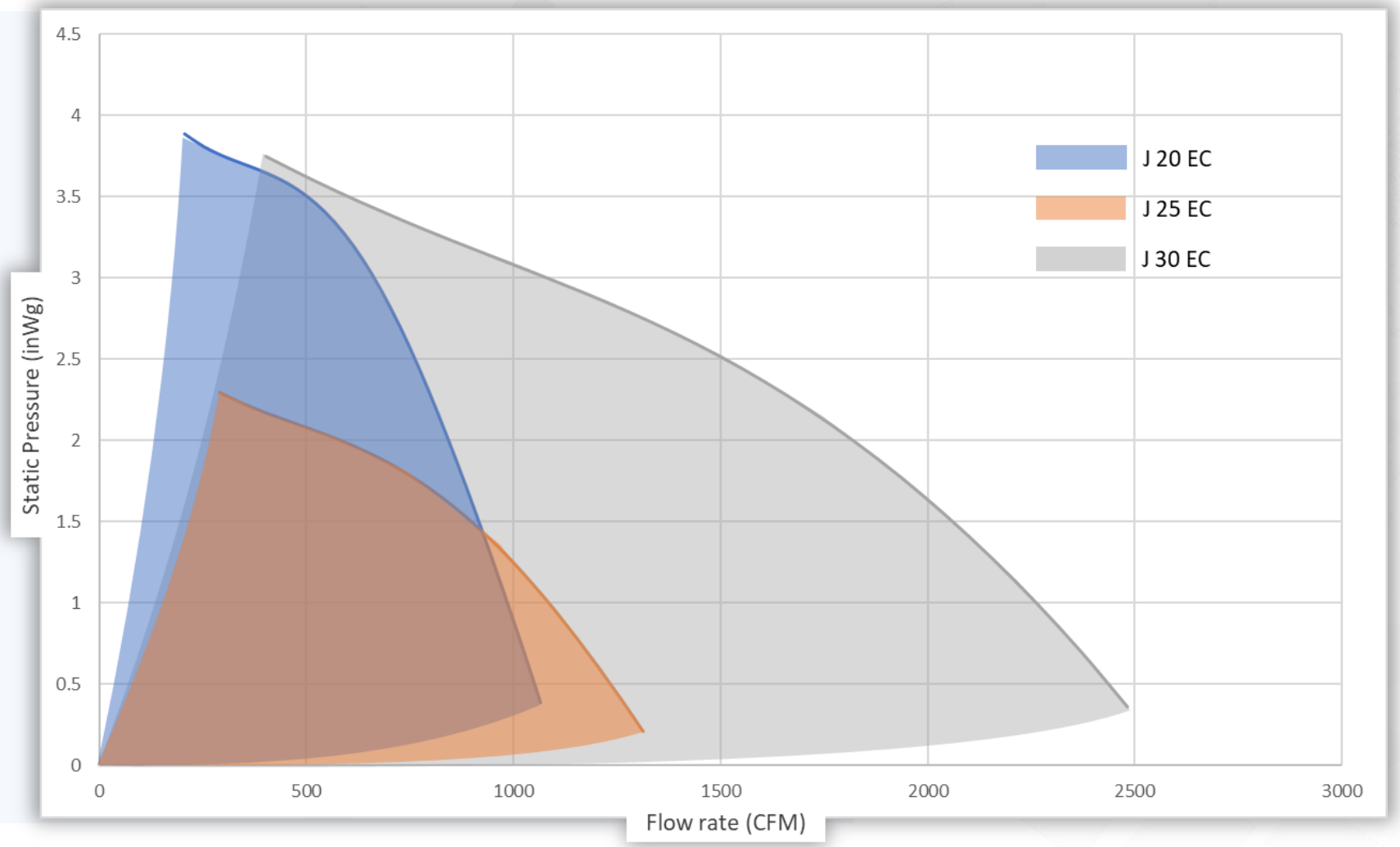
- P 15
- P 20
- P 25
- P 30



# JET EC-SERIES

**JET EC-SERIES**

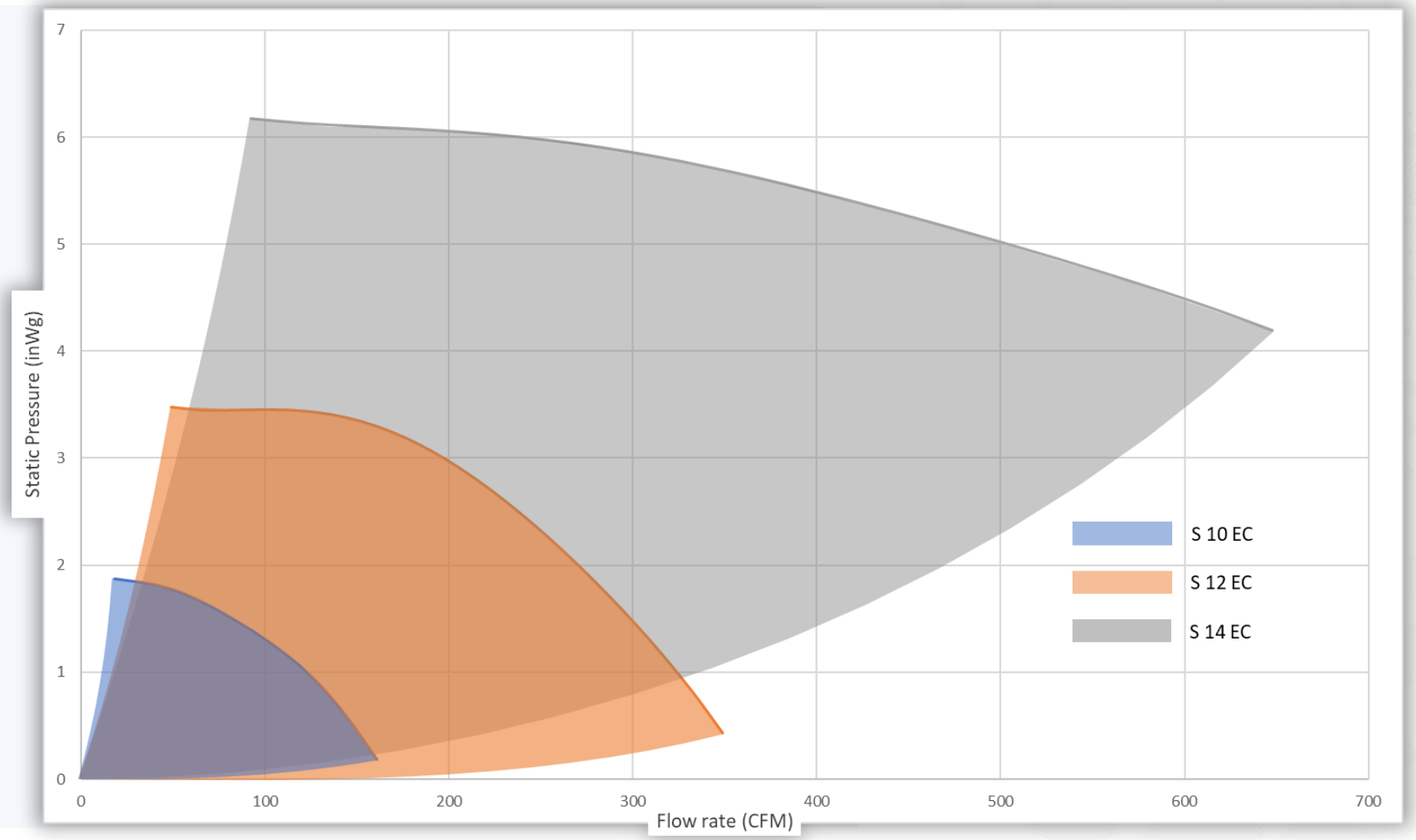
- J 20
- J 25
- J 30



# STORM EC-SERIES

STORM EC-SERIES

- S 10
- S 12
- S 14



# EXPLOSION RESISTANT

## BLOWERS DESIGNED TO WORK IN HIGHLY FLAMMABLE CORROSIVE AIR EXHAUST APPLICATIONS






CIP = Carbon Impregnated Polypropylene
All standard blower systems are available in a CIP version.

*CIP is made by mixing carbon powder with polypropylene resin, which enhances electrical conductivity and prevents spark generation. This material is particularly suited for flammable and corrosion-resistant applications, offering superior performance compared to aluminum. Additionally, CIP is commonly used in electromagnetic interference (EMI) shielding equipment.*

Explosion-Resistant Motors
All explosion-resistant fans are equipped with explosion-resistant motors.

*These motors feature premium efficiency and are inverter-duty capable. They are rated for Class 1, Division 1, Groups C & D, with a T4 temperature rating. Additional features include IP66 protection and integrated PTC & PTO thermal protection.*

AMCA Spark A Compliance
- Fully compliant with the AMCA Spark A rating,
- No ferrous components are present in the airstream.
- Additionally, all materials are UV-treated and made with fire-retardant components to meet UL94 compliance standards.

**COMPLIANT WITH ALL INTERNATIONAL STANDARDS**

- **NEC 500**: CLASS I DIV II GROUP A,B T4
- **NEC 505**: CLASS I ZONE II AEx d GROUP IIC T4
- **ATEX**: Ex II 3G Ex c GROUP IIC T4
- **AMCA:** Spark “A”
- **Motors:** IEC, UL, ANSI / UL, and CAN / CSA

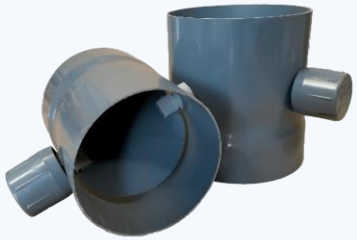
# UL-94 RATED COMPLIANCE

## FEATURES

Manufactured with fire-retardant components to meet UL94 compliance standards.
Models Plastec 15 through Plastec 35.
Fire Retardant line-up.
V-0 Vertical Burn; Burning stops within 10 seconds, no flaming drips are allowed.

**NEW FIRE RETARDAND UL94 COMPLIANT HOUSING**

# ACCESSORIES



Adjustable Dampers

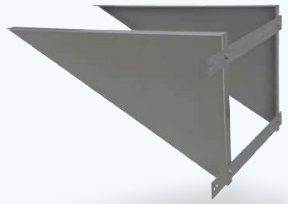
Backdraft Dampers

Exhaust/Intake Guard

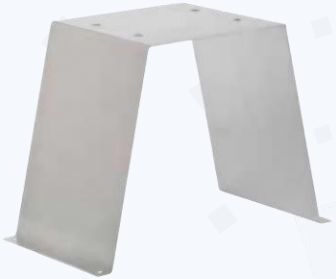
Flexible PVC Reducers/Couplings

Vibration Isolators

Disconnect Switch (NEMA 4x or 7/9)



Wall Mount Bracket



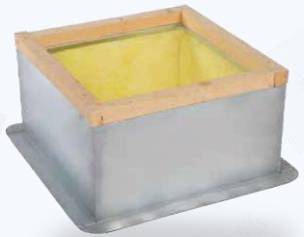
Support Stand

Weather Hood

High Speed Nozzle

Drain Plug

Aluminum Weather Hood/Pedestal

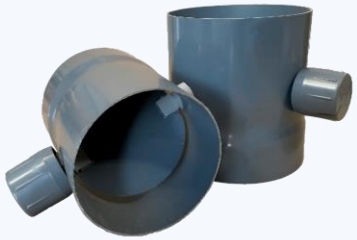


Roof Curb

Motorized Dampers

Stacks

# ACCESSORIES



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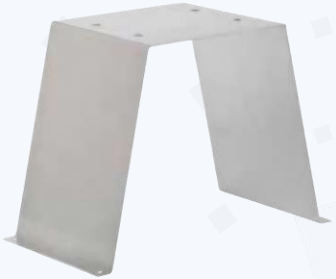
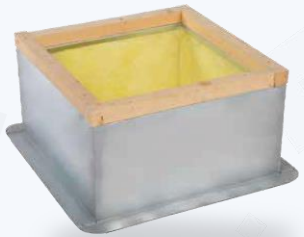


Support Stand

Weather Hood

Drain Plug

Aluminum Weather Hood/Pedestal



Roof Curb

Motorized Dampers

Stacks

# LABORATORY FUME HOOD CONTROLLERS

## Type A

- Light on/off
- On-off exhaust fan
- Alarms (visual and audible) in case of extraction problems

## Type C

- Variable airflow according to height of sash by acting on VFD or motorized damper

## CONTROL E-SEAT

- Maintains set air velocity regardless of sash height
- Communicates with CAPTUR E-Seat

## L.COM E-SEAT

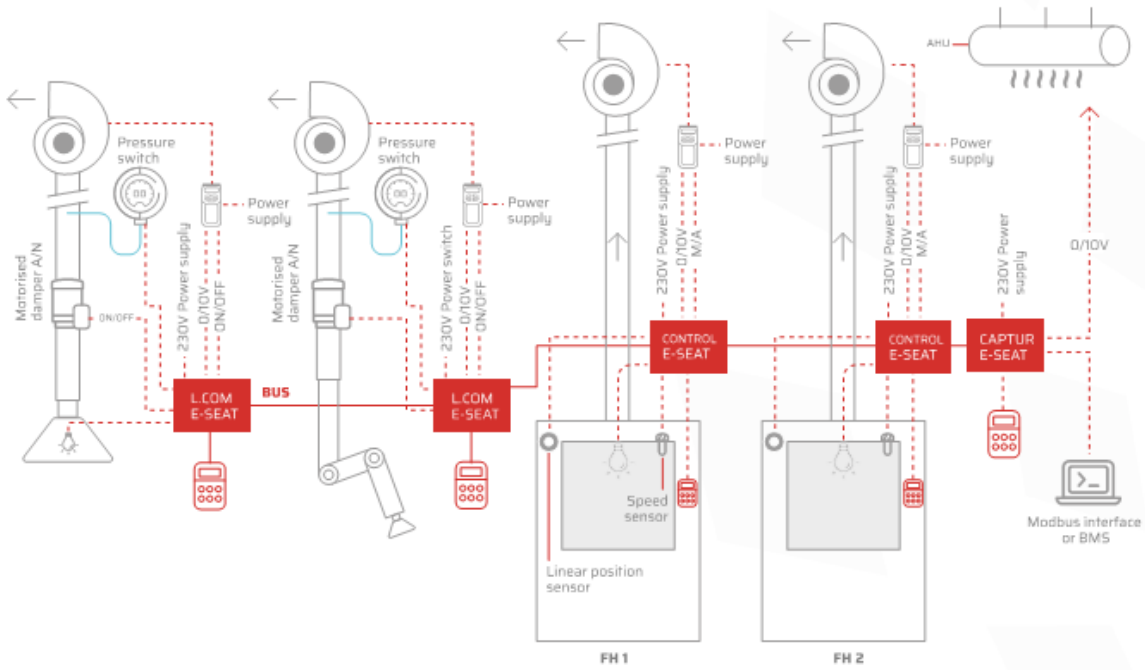
- Can operate on fume hoods AND exhaust arms

## CAPTUR E-SEAT

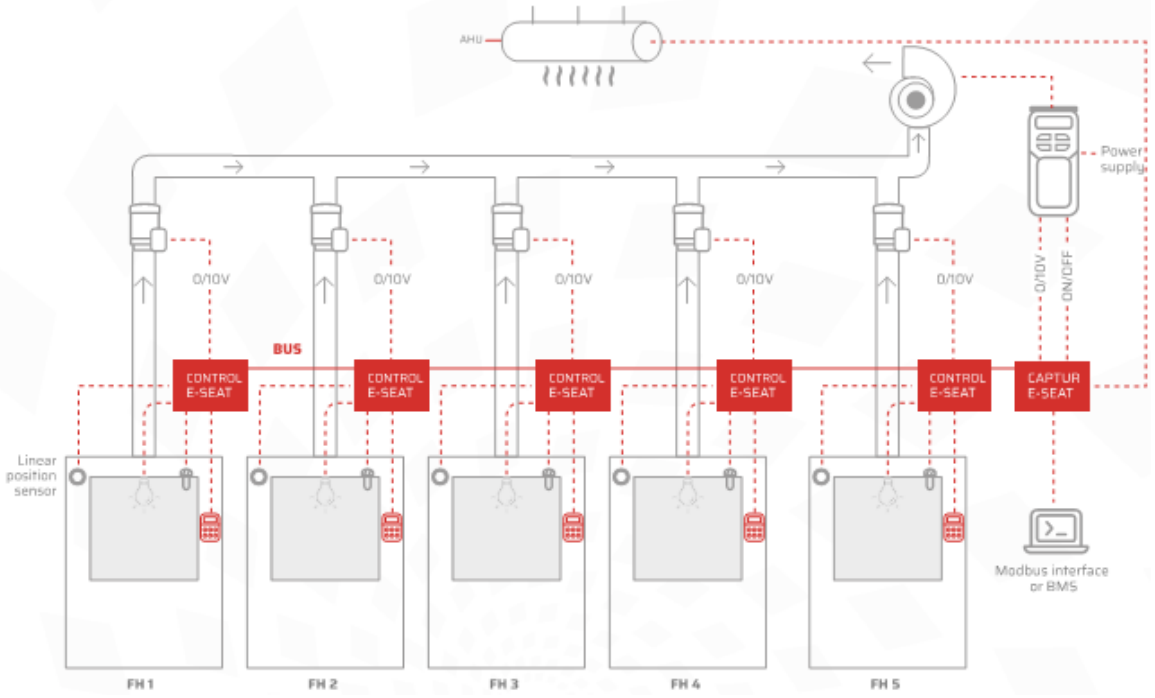
- Connects CONTROL and L.COM E-Seats (up to 31) with AHU and BMS
- Allows for exhaust and supply airflow control of entire lab

# LABORATORY FUME HOOD CONTROLLERS

## EXAMPLES OF INSTALLATIONS
## INDIVIDUAL EXTRACTION




## EXAMPLES OF INSTALLATIONS
## MANIFOLD EXTRACTION



# ZEPHYR

# FAN SELECTION SOFTWARE

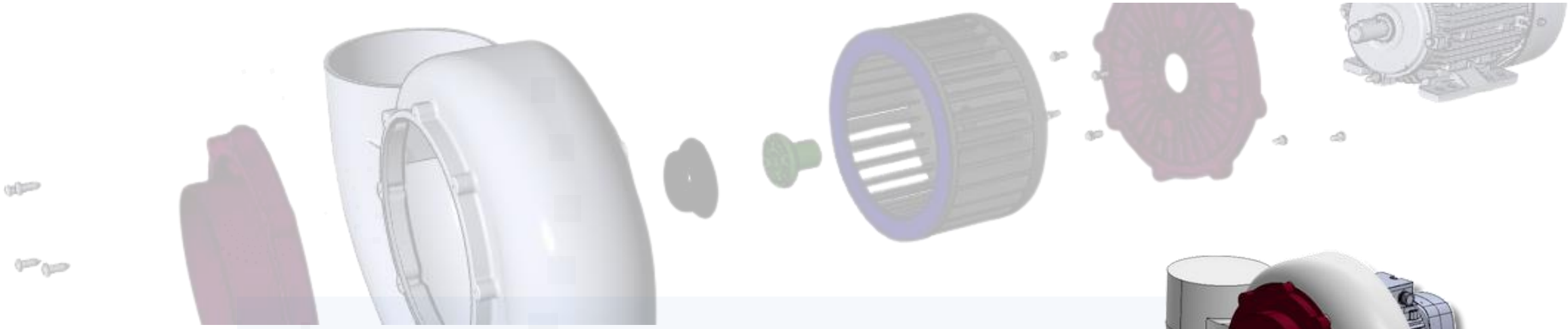
Fan performances | Fan dimensions | General data | PDF export

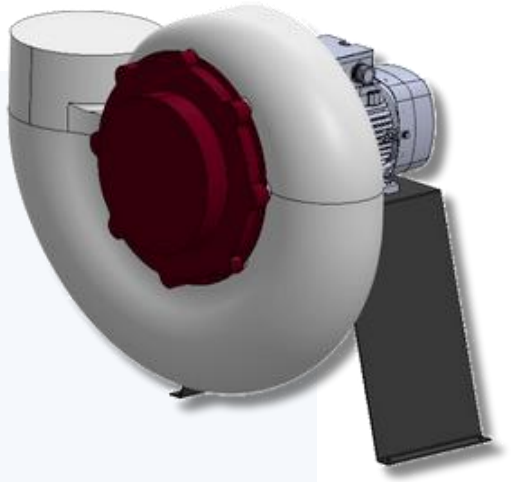
ZEPHYR fan selection software has been specially designed by PLASTEC Ventilation to respond quickly and easily to your technical enquiries about our corrosion resistant fans.

**With a simple click, the selection software helps you to choose the most suitable fan for your application.**

PLASTECSELECTION.COM

# 2D/3D BIM SOFTWARE





**Available for all Blowers**

STEP File (3D) and REVIT files available *Located under:*

Resources > CAD/BIM

PLASTECSELECTION.COM


# Thank You.

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