



SPECIFICATION SUBMITTAL DATA

PLASTEC XP CIP SERIES

APPLICATION

PLASTEC® Series Explosion Resistant blower systems are designed to operate in highly corrosive, hazardous, and explosive atmospheric air applications such as: Laboratories, Chemical / Pharmaceutical Industries, Wastewater Treatment Plants, Petroleum Industries, EV Industries, Aquatic Industries, etc...

MANUFACTURER

PLASTEC® Series Explosion Resistant blower systems shall be manufactured under the authority of PLASTEC Ventilation, Inc. located in Bradenton, Florida.

HOUSING (CARBON FIBER IMPREGNATED POLYPROPYLENE – CIP)

The housing is manufactured from a robust high-density UV treated carbon fiber impregnated polypropylene (CIP) Spark “A” compliant composite material to ensure superior corrosion resistance and flame resistance. Constructed as a single seamless piece, either blow molded or injection molded, to prevent any gas or fume leakage. Split molded housings are not permitted. Housing comes with high-grade stainless-steel hardware, which supports the carbon fiber impregnated polypropylene (CIP) motor plate to the housing securely. It allows for field reversibility, except for PLASTEC® 35 & 50 CIP models, and can be rotated to any eight (8) standard discharge positions. It’s essential to note that the presence of metal within the housing’s air stream will not be tolerated.

IMPELLER

The impeller shall be of forward-curved type, constructed of robust and uniformly infusion molded high-density carbon fiber impregnated polypropylene (CIP) Spark “A” compliant composite material. The impeller shall be both electronically and dynamically balanced. The blower impeller shall be equipped with a keyed motor hub bushing and O-ring sealed hubcap manufactured from carbon fiber impregnated polypropylene (CIP) material to fully safeguard the motor shaft end from any contact with corrosive gases and fumes. The impeller will be suitable for up to 3600RPM on models PLASTEC® 15, 20, and 25, and up to 1800RPM on models PLASTEC® 30 and 35. *(Option: High-grade stainless-steel impeller available for models PLASTEC® 20, 25, 30 & 35 upon specific request)*

SUPPORT STRUCTURE

The PLASTEC® Series blower system offers multiple optional support stands: 1. A galvanized enamel pickled black coated support stand with high-grade stainless-steel hardware. 2. A high-grade stainless steel support stand with high-grade stainless-steel hardware. 3. A Weather Hood/Pedestal enclosure manufactured from high-density UV treated carbon fiber impregnated polypropylene (CIP) Spark “A” compliant composite material. This enclosure is designed to protect the motor against elements and provide support for the entire blower system. 4. An Aluminum gray powder coated finish Weather Hood/Pedestal enclosure. This enclosure is designed with a reversible inspection access hood, ensuring complete protection for the motor against elements while supporting the entire blower system.

CONDUCTIVE

The housing, internal components, and accessories of the CIP PLASTEC® Series Explosion Resistant blower systems are manufactured from a carbon fiber impregnated polypropylene (CIP) composite material. This material exhibits electrical resistivity between $10^4\Omega$ and $10^6\Omega$, surpassing the recommended limit of $10^9\Omega$ ohms as outlined in many international standards. The highly conductive properties of the carbon fiber impregnated polypropylene (CIP) material ensure these blower systems are Spark “A” compliant, safeguarding operations in dangerous hazardous environments.

GROUNDING

For proper installation of CIP PLASTEC® Series Explosion Resistant blower systems, it is crucial to establish effective grounding through both the motor and the housing. All grounding procedures must comply with applicable local and state code regulations and requirements.

SPARK RESISTANT

The CIP PLASTEC® Series Explosion Resistant blower systems are manufactured from a carbon fiber impregnated polypropylene (CIP) composite material, without any ferrous material coming into contact within the potentially explosive airstream. This design complies with the stringent requirements as outlined in the AMCA Standard Classification for Spark Resistant Construction Fan (Spark “A”) compliance.

XP / ATEX

The PLASTEC® Series Explosion Resistant carbon fiber impregnated polypropylene (CIP) blower systems meet Declaration of Conformity for applications with explosive atmospheres as required.



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MOTORS

The motors shall be of high premium efficiency, direct drive, heavy-duty ball bearing type, suitable for continuous and/or inverter duty operations with multi-voltage capability. Explosion Proof Fan Cooled (XPFC) IP66 rated with a 1.15 safety factor. Motors will have an aluminum material construction with heatsink fins throughout, ensuring efficient cooling. PTC+PTO thermal electrical protection connections included. Rated as: Class I Division I motor. Motor features a high-strength high carbon steel shaft, which is electronically and dynamically balanced, specifically selected for continuous operations at indicated rated RPM on the nameplate. Includes an airtight seal around shaft on drive side to prevent any internal motor exposure. All motors comply with IEC, ANSI / UL, and CAN / CSA approval standards. *(Option: IEC Ex motors for applications requiring ATEX (International Standards for Explosive Atmospheric Conformity) motors available upon specific request)*

MATERIALS OF CONSTRUCTION TEMPERATURE LIMITATION

The carbon fiber impregnated polypropylene (CIP) housing and impeller are designed and approved for continuous operation within a temperature range of -40°F to 140°F. Also, capable of handling short periods of operations at high temperatures, up to 190°F, in 15-minute intervals.

PERFORMANCE

PLASTEC Ventilation, Inc. certifies that the PLASTEC® Series Explosion Resistant, JET® Series Explosion Resistant, and STORM® Series Explosion Resistant are licensed to bear the AMCA Seal. The ratings are based on the tests and procedures performed in accordance with AMCA publication 211 and 311 comply with the requirements of the AMCA CRP. Performance certified is for installation type D – Ducted inlet, Ducted outlet. The sound power level ratings shown are calculated per AMCA standard 301. Acoustic values shown are sound power levels for installation Type D: Ducted inlet, Ducted outlet. Ratings include the effects of duct end corrections.

WARRANTY

Plastec Ventilation, Inc. warrants its equipment, products, and parts, to be free from defects in workmanship and material under normal use and service for two years (2) after delivery to the first user. Motors carry a one-year (1) warranty. *(See full warranty available in the Installation, Operation & Maintenance Manual)*