

## Clamshell Polypropylene Series (P - Series) Clamshell Fiberglass Series (GF - Series)



### Standard Features

- Fan base is epoxy coated mild steel plates bolted together with 304 stainless steel fasteners.
- Weather cover constructed of FRP for outdoor use.
- Motor, drive and shaft guard constructed of epoxy coated steel mesh for indoor use.
- Fasteners are a combination of 304/316 stainless steel
- Cast steel bearing blocks, 100,000 hours rated
- Maximum motor frame size: 145T
- 316 stainless steel shaft (P - Series)
- 1045 Carbon steel shaft (GF - Series)
- Adjustable motor base
- Teflon shaft seal
- Flanged outlet
- Inlet connection is slip type
- Arrangement #10

### Housing Construction (P - Series and GF - Series)

This patented housing design is unique due to the fact that the housing is a mirror image. This feature can be beneficial when designing a large number of fans in mechanical rooms with limited space. The common centerline between the inlet and outlet results in space efficiency. The molded smooth surface provides an aerodynamic passage for gas streams. Fabrication method is hand lay-up, and materials are vinyl ester resin and reinforcing glass.



### Shaft Sleeve and Teflon Seal (P - Series)

This effective design completely protects the polished ground 316 stainless steel shaft from the corrosive gas stream. The shaft is encapsulated with a solid polypropylene shaft sleeve, which protrudes out from the teflon disk shaft seal located on the housing wall. The teflon seal and shaft sleeve is a machine fit for best possible elimination of leaking gas.

### Shaft Sleeve and Teflon Seal (GF - Series)

The Teflon seal for the GF series is similar to the P - Series. The shaft is encapsulated with a solid FRP shaft sleeve, which protrudes out from the teflon disk shaft seal located on the housing wall. The teflon seal and shaft sleeve is a machine fit for best possible elimination of leaking gas. The shaft is standard carbon steel, however, 316 stainless steel shafts are available as an option.



### FRP Backward Inclined Wheel Construction (GF - Series)

The Clamshell BI impeller is of a rugged non-overloading design. The backward inclined wheel is constructed of solid Vinyl ester resin and reinforcing glass. A sprocket and bushing are used for shaft attachment and are completely covered with a minimum 3/16" (5 mm) of fiberglass lay-up. All gas contact points are FRP complete with corrosion barrier. Plasticair's commitment to quality ensures that only hand lay-up methods are utilized for fabrication. This Class 1 impeller is rated to handle 10,000 feet per minute (50.8 m/sec)



### Polypropylene Backward Inclined Wheel Construction (P- Series)

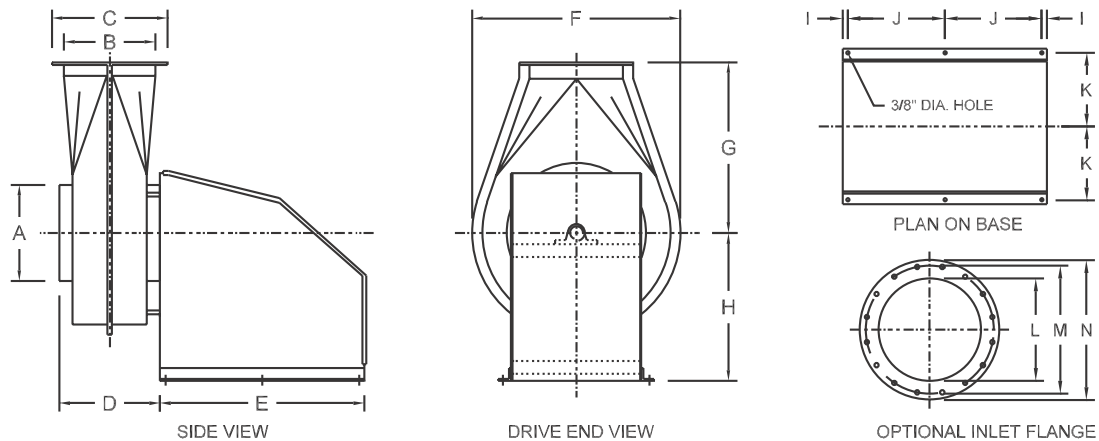
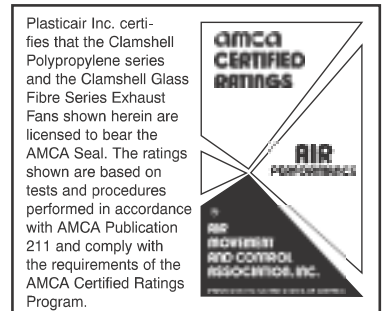
The Clamshell Series backward inclined impeller is of a non-overloading design. The solid polypropylene construction provides corrosion resistance and long life. The 316 stainless steel shaft is attached to the back-plate by way of locking keyway and a polypropylene shaft sleeve. The shaft is completely protected from the corrosive gas stream by the polypropylene construction. The impeller is dynamically and statically balanced to guarantee smooth operation.

## Available Accessories: Polypropylene and Fiberglass Series

- Flanged inlets
- PVC drains
- PVC backdraft dampers
- Outlet stacks
- Outlet stack reinforcements (recommended for stacks weighing over 50 lbs)
- Viewing ports
- Motors and drive sets as per customers specifications
- Vibration isolation
- PVC flexible inlet connection
- Companion flanges

## Available Accessories: Fiberglass Series Only

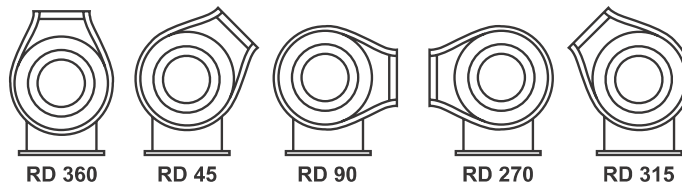
- Spark resistant construction featuring graphite lined FRP
- Nexus linings
- FRP drains
- Polyester resins
- 316 stainless steel shafts



CLAMSHELL DIMENSIONS – BASE 100: inches (mm)

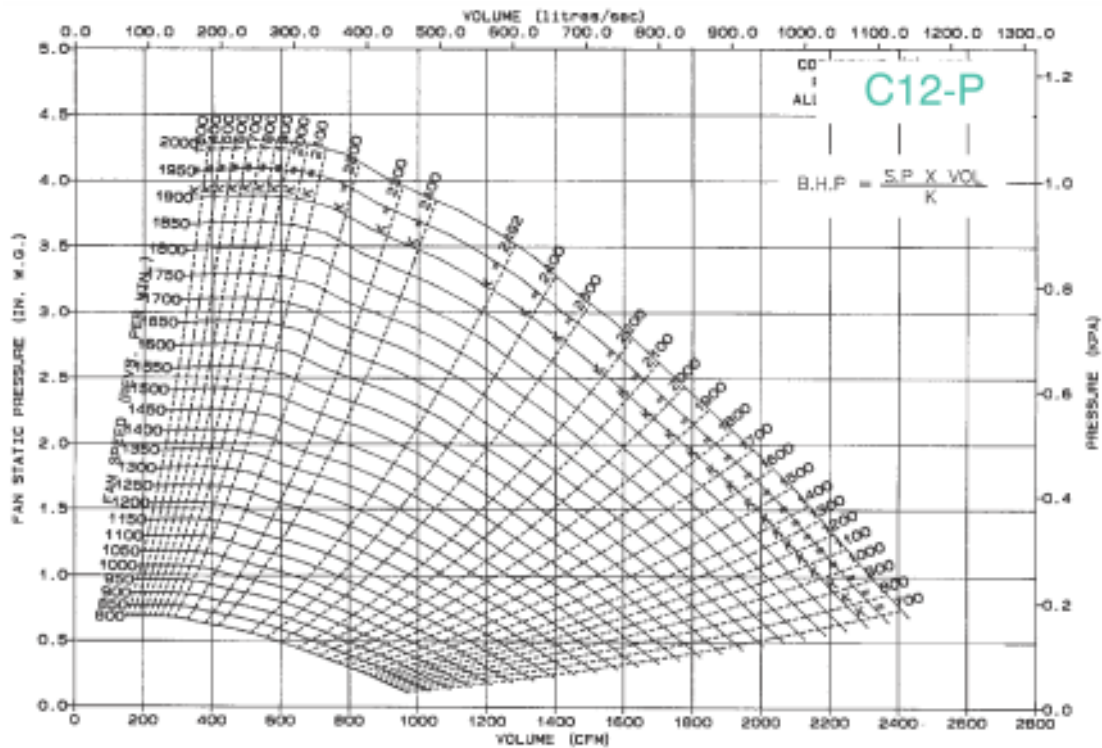
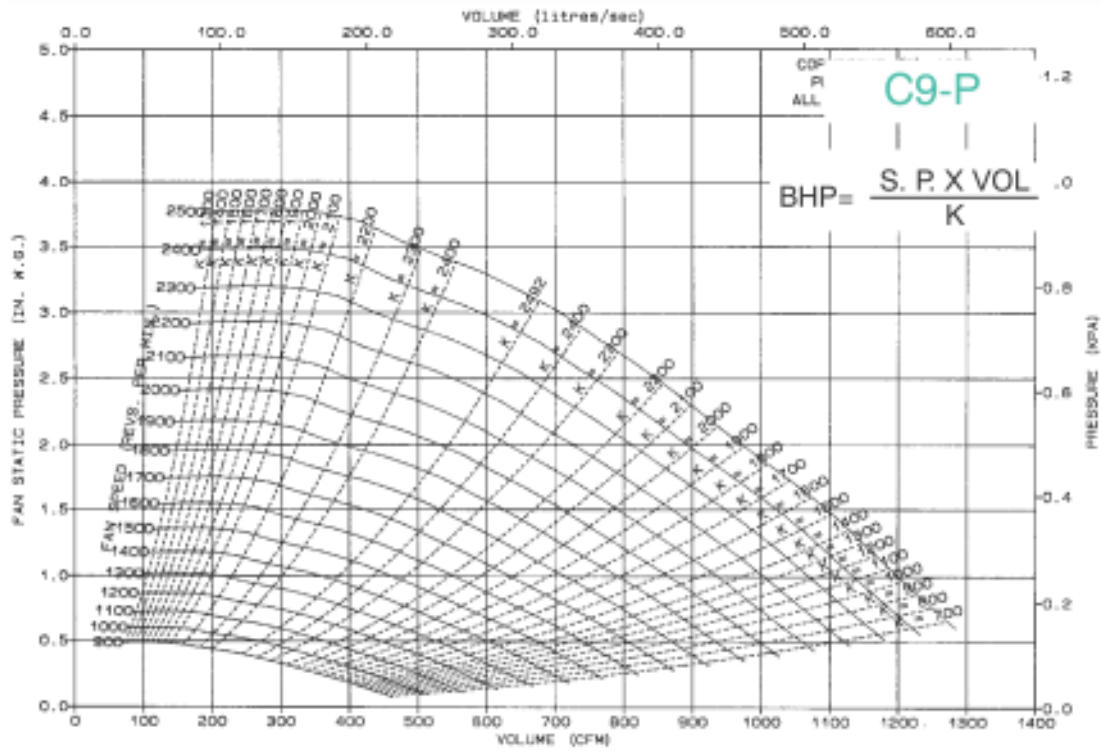
FAN SIZE	A O.D.	B I.D.	C O.D.	D	E	F	G	H	I	J	K	INLET FLANGE DIMENSIONS				
												L	M	N	Flange thickness	No. & dia. of holes
C9-P	9 (229)	9 (229)	11 1/2 (292)	9 3/4 (248)	24 (610)	22 (559)	15 (381)	17 3/8 (441)	5/8 (16)	11 3/8 (289)	8 5/8 (219)	9 (229)	12 (305)	13 3/8 (340)	3/8 (10)	8 - 7/16 (11)
C9-GF	9 (229)	9 (229)	13 (330)	9 3/4 (248)	24 (610)	22 (559)	15 (381)	17 3/8 (441)	5/8 (16)	11 3/8 (289)	8 5/8 (219)	9 (229)	12 (305)	13 3/8 (340)	3/8 (10)	8 - 7/16 (11)
C12-P	12 (305)	12 (305)	16 (406)	13 1/2 (343)	24 (610)	28 (711)	20 (508)	17 3/8 (441)	5/8 (16)	11 3/8 (289)	8 5/8 (219)	12 (305)	15 (381)	16 3/8 (416)	3/8 (10)	12 - 7/16 (11)
C12-GF	12 (305)	12 (305)	16 (406)	13 1/2 (343)	24 (610)	28 (711)	20 (508)	17 3/8 (441)	5/8 (16)	11 3/8 (289)	8 5/8 (219)	12 (305)	15 (381)	16 3/8 (416)	3/8 (10)	12 - 7/16 (11)

Note: Add 2" (51 mm) to D dimension for inlet flange option.



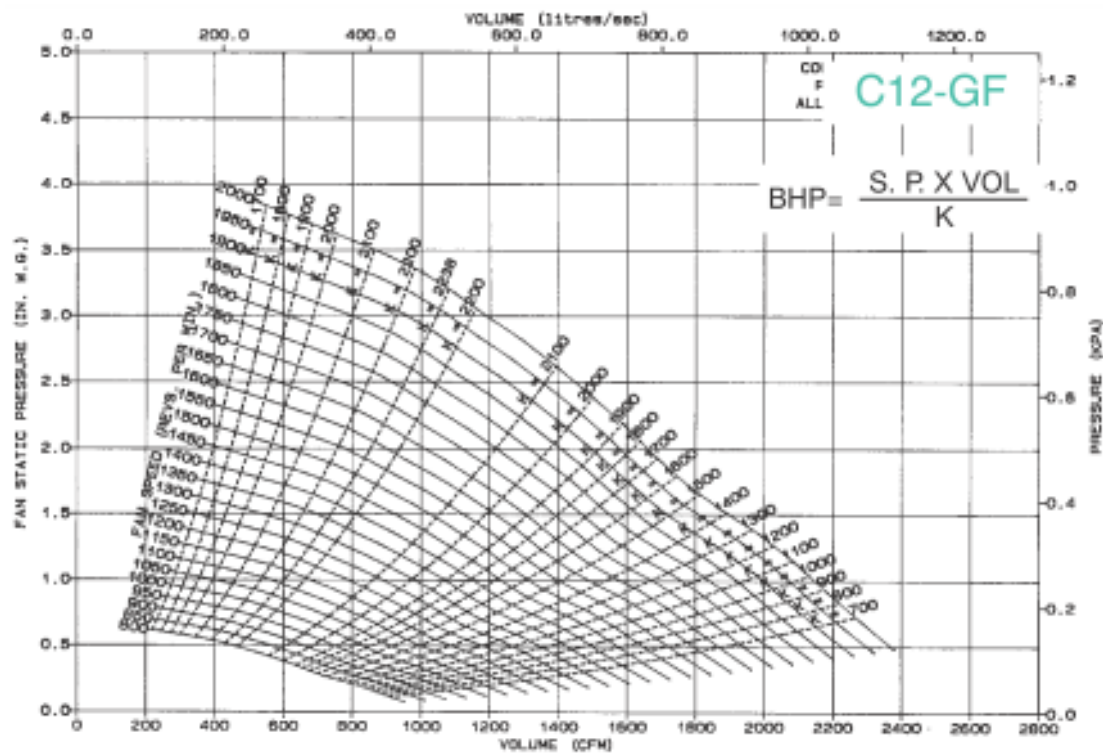
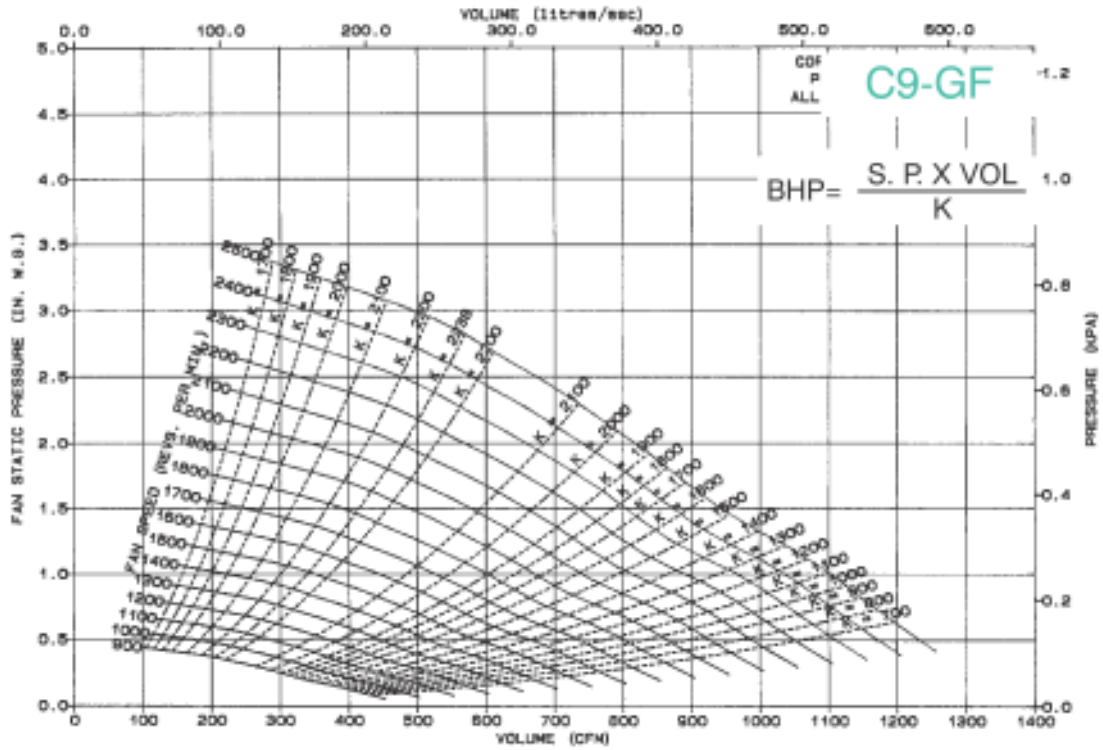
View from drive side

## Polypropylene Series Air Performance



PERFORMANCE SHOWN IS FOR INSTALLATION TYPE D - DUCTED INLET, DUCTED OUTLET. POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.  
PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTENANCES IN AIRSTREAM.

## Glass Fibre Series Air Performance



PERFORMANCE SHOWN IS FOR INSTALLATION TYPE D - DUCTED INLET, DUCTED OUTLET. POWER RATING (BHP) DOES NOT INCLUDE DRIVE LOSSES.  
PERFORMANCE RATINGS DO NOT INCLUDE THE EFFECTS OF APPURTENANCES IN AIRSTREAM.