



# Johndec Engineering Plastics

## Chemco Chemical Resistant Plastic Fans – Direct Drive

### Role

Johndec has played a leading role in the manufacturing of equipment made from anti-corrosive and chemical resistant plastics. The fans are specially designed for high efficiency, reliability, with superior corrosion resistance quality. They are also developed to give trouble-free service, and are economical in use.

### Quality

Johndec supply a complete range of highly quality and efficient radial tip backward curve fans, which offer an excellent performance with a low noise level. All fan drives and accessories are produced to strict quality standards. Only the best quality materials are used and all fans are tested and rated in accordance with DIN 24163 and ISO 5801.

### Casing

The fan casing is constructed from thermoplastics such as PP, PVC, PE PVDF or Glass reinforced plastic-Vinyl ester grade (GRP or FRP). The fan casing is built to a true volute form and has high efficiency inlet cone to give an even distribution of air over the full width of the runner.

The smaller range of casings, Model CHEM 75 – 315 are completely plastic injection moulded suitable for dual rotation at any position. The plastic injection moulded backplate or inlet cover can be easily removed for changing of rotation, maintenance and services. CHEM 125-200 fan casings with outlet flange come with chemical resistant seal to prevent air leakage. CHEM 75 – 110 and CHEM 250 – 315 come with round straight outlets suitable for direct connection to flexible connector. Casing usually with PP as standard.

The CHEM 400 casing is usually of GRP construction. The GRP fan casings come with round straight outlet suitable for direct connection to flexible connector.



## Radial Tip Backward Curve Impellers

Chemco fan impellers are of single inlet Single width (SISW) type. Impellers are of precision plastic injection moulded design with cast-in metal hub and mechanically welded to highest quality standard with excellent aerodynamic properties.

Impeller is usually of PP however, depending on the type of applications; impeller can be made of PA, PC, PVC or PVDF. Impeller can be thermoplastic material blended with composites to overcoming high temperature, flame retardant resistant, ultraviolet or Electrostatic Discharge protection to suit customer's requirements.

Each impeller is statically and dynamically balanced in two planes in accordance with Q2.5 of VDI 2060. The hubs are designed for use with taper-bushes and are made of high-grade cast plates to guarantee high reliability at the high peripheral speeds.

## Fan Base And Support

The fan supporting steel stands and fan bases are manufactured from heavy gauge mild steel and are applied with a zinc primer and powder coated top coat to provide maximum protection in the most adverse condition. Special surface treatment can be done on request. Fans can be rotated to suit different discharge directions.

## Drives

Standard pulley drive with taper bush type, accurately balanced and conform to SO 4183-1980 standards. All fan models can be supplied in direct drive and belt drive arrangements.

## Motor

Depending on the application, standard electric motors of IP55 are fitted, but other rated motors to suit customer requirements can be supplied. For direct driven fans, motors are usually of B5 flange mounting and for belt driven fans, motors are of B3 foot mounting. All motors are totally enclosed and fan cooled complying with BS 2613. The motors are single / three phase, 50/60 Hz suitable for 240/415 or 230/400 volts standards. All other voltage can be supplied upon request.

## Standard Colour

All PP: Equivalent to PANTONE Warm Grey 1C,  
All GRP: Equivalent to PANTONE 430  
Other colour as optional required.

## Safety Features

All drive-belts, pulleys, projecting set screws, keys and other rotating parts have heavy-duty perforated sheet as protective guards to meet safety requirement. All fans are labelled with nameplate securely attached on each fan showing the serial and model number, fan & drive duties, rotation of flow and date of manufacture.

## Accessories

- ▶ Anti-vibration spring mounting
- ▶ Condense water drain socket and plug
- ▶ Motor, motor guard, slide rails, belt guard, belt drive
- ▶ Bearing, bearing and shaft cover
- ▶ Fan and motor support base frame
- ▶ Inlet flanges, Inlet sleeve with clamping bands
- ▶ Splinter protection cover.

## Optional

- ▶ Full range of colour matching
- ▶ Flame Retardant
- ▶ High Temperature
- ▶ Electrostatic Discharge - Anti-static, Static dissipative or Conductive
- ▶ Ultra Violet

## Thermal And Chemical Resistant

The temperature of the air and gases must not exceed that specified for the materials:

Material	Max. TEMP. (°C)
PVC	60
PP	100
GRP	100
PVDF	120

Please contact our local sales engineers for detailed list of Chemical Application Information.

