## SUPERMARKETS

# An Invitation to the ACR Show from

POLE STAR

We hope you'll find time to visit our stand

PRODUCTS LIMITED



Birmingham 16-18th February 2016

Refrigerated Display Cases & Cabinets A New Generation of Low Energy Fans Low Cost, Low Energy, Efficient & Reliable



Motors, Fans & Blowers

Air Conditioners | Blast Coolers | Chillers | Condensers | Bakery Cases | Bar Refrigeration
Beer Coolers | Beverage Dispensers | Bottle Coolers | Carbonators | Cellar Cooling | Cooker Hoods
Dehumidifiers | Evaporators | Freezer Units | Fan Coils | Heat Pumps | Ice Machines
Commercial Ovens | Supermarket Display Cases & Counters | Water Coolers . . .

## Pole Star... a bit about us

Back in 2003 Pole Star Products Limited and Elco Spa created, and were joint owners of, a new company called Elco Direct Limited. The business was formed to supply refrigeration fans and motors to OEM companies and wholesalers in the UK. The activity started with one factory unit in Scunthorpe and after nearly ten years trading occupied five units, before moving into a much larger factory in Bardney, near Lincoln. Shortly afterwards, Elco Direct Limited was acquired by an American company called Regal Beloit, along with numerous other motor brands, and in due course ceased trading.

**Pole Star** continues to operate completely independently in the same factory in Bardney, and still employs all of the staff who were previously working for Elco Direct Limited. Our business has remained unaffected, and since the changes we have continued to assemble our own range of refrigeration fans using shaded pole or EC motors. Our sales and customer base has grown steadily. OEM companies manufacturing refrigerated display cases, cabinets, commercial catering equipment, etc. use our fans to supply some of the demand from nearly all the UK supermarkets.

**Pole Star** assembles a range of refrigeration fans from 154mm to 300mm diameter, with direct equivalents to most competitor models. Fans are assembled to customer specification with any mix of metal or plastic components, using either a ring or grid for mounting, depending on application. Shaded pole and EC motors fitted with either sleeve or ball bearings are available. OEM customers demand fans with high efficiency and reliability, low prices and good service. Pole Star delivers all of this.

Supermarkets are operating in a very competitive market where costs are a big factor. The emergence of new chains offering lower prices has had a big impact. After initial reluctance, many shoppers have gained confidence in the quality of emerging brands which challenge the established names. Exactly the same situation exists in the market for refrigeration fans, where relatively new companies like Pole Star offering much lower prices, great efficiency and reliability are steadily gaining favour.

#### **Pole Star EC Fans (Electronically Commutated)**

Our current range of EC fans use motors which are multi-purpose, requiring sophisticated electronics and use on board devices. This enables our motor to calculate the load (blade diameter and pitch angle) and run at a constant speed, typically 1300 or 1400RPM. Our 7W EC motor will drive fan blades from 154mm/11' through to 200mm/28'. Our 14W EC motor will drive fan blades from 200mm/28' through to 254mm/34'. This solution is quite popular and found in many of our competitors fans.

Our 2016 range of EC fans includes motors which are specialised, yet still running at a constant set speed. Each model is matched to the individual load which makes the on-board electronics much simpler and cheaper to produce. Motor reliability is increased by reducing complexity, whilst efficiency remains class leading. Since most refrigeration equipment is unique, with specific requirements in terms of airflow and performance, a low cost dedicated energy saving fan offers the ideal solution.

Fan Sizes: 154mm 165mm 172mm 200mm 230mm 254mm 300mm







### Ring & Grid Mounts



#### **Aluminium Parts**

Shaded pole motor with aluminium mounting ring and fan blade. The most common configuration, favoured by OEM refrigeration companies due to low cost and well proven performance.





#### **Plastic Parts**

Black thermoplastic mounting rings with black or white plastic fan blades for freezer or chiller applications.
Superior airflow performance, reduced noise levels and damage resistant.





#### **Square Cut Ring**

The square cut aluminium ring allows the fan to be installed in tighter spaces and closer to the panel edges in refrigeration applications; popular in compact supermarket display cases.





#### **Deep Ring Fans**

The four mounting arms are longer to position the motor and fan blade further back from the flange. The fan blade tip is behind the mounting ring. Used with punched outlet grilles.





#### **Energy Saving Fans**

Low energy EC motors in two power outputs drive fan blades from 154mm to 254mm diameter. They use less than one third the energy of shaded pole motors and generate little heat.





#### Combined Ring & Guard

This design combines a metal mounting ring with wire guard to shield the fan blade from the motor side. It is used in conjunction with our WPG fan guard for all round protection.





#### **Wire Grid Mount**

Coated wire grid mounts motor to refrigeration unit. This arrangement is popular in commercial catering units. Shallow basket shape places the fan blade correctly in the aperture.





#### **20 Range Fans**

Our smallest ring mount fan fitted with 96mm diameter blade and aluminium shaded pole motor. Same size fan also available in black plastic with ring sides cut out.





#### **Pedestal Mount Fans**

Pedestal mounting brackets are straight leg or angle leg (V Form). Motor mounts by two studs, 18mm or 26mm centres. A full range of bracket heights to match all blade diameters are available.





We look forward to seeing you at the show,

stand **C40** 





### THE ACR SHOW 2016 First person | Air Conditioning | Heat Pumps | Heating | Ventilation

### REFRIGERATION MOTORS | FANS | BLOWERS



























