

Construction and Manufacture

Blower

The blower has three-lobe rotors and the cylinder housing has pre-inlet channels to reduce sound emissions through pulsation cancellation.

The cylinder, end plates and covers are made of EN-GJL-200.

Rotors

Three-lobe rotors, sizes GM 3 S to GM 80 L are in one-piece-drop-forged steel of C 45 N. GM 90 S and GM 130 L rotors and shafts in one piece of EN-GJS-500-7. GM 150 S to GM 240 S out of EN-GJS-400-18-LT, shafts out of C 45 N.

Cooling

Convection cooling via the housing surface is adequate for blowers operating within their thermal range as shown in the performance tables.

Lubrication

Bearings and timing gears are splash lubricated.

Oilfree conveying (Sealing)

The conveying chamber (cylinder) is sealed from the gear case and the front cover by piston ring labyrinth seals. These seals have a central, neutral chamber which is open to the atmosphere.

Timing Gears

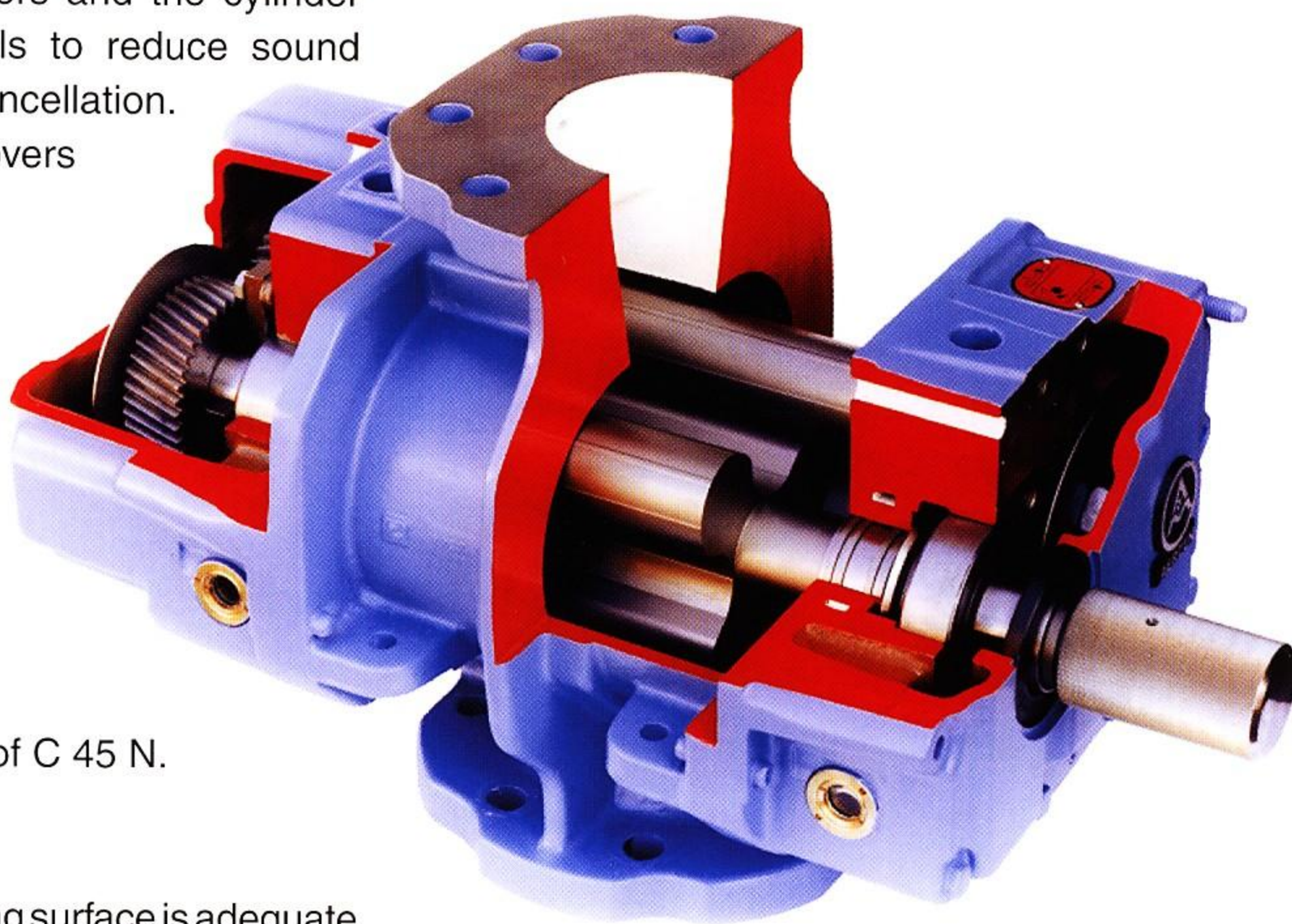
The helical timing gears are hardened and ground. They are fitted to the shafts by the oil expanded taper method.

The Blower Unit

By using a three-lobe blower in combination with the pre-inlet a pulsation decrease can be obtained and a completely new concept in package design is possible.

The ancillary items used to make up the complete unit are all mounted on the discharge silencer / base assembly.

This assembly contains no absorption material and is wear-resistant, it has been designed to produce



constant noise reduction over the total speed range of the blower fitted to it. This silencer corresponds to pressure equipment directive PED 97/23/EC. Additional silencers are not required under normal use.

Experience over many years with the use of V-belt drives has led us to develop them further. The drive motor is mounted on a hinged motor plate, this configuration means that the belt drive is always at its optimum tension and is retained automatically by the weight of the motor.

Each unit is delivered with all the standard items needed to operate the unit. Anti-vibration mountings are supplied as a standard, therefore, no special foundations are required.

Modified DELTA BLOWER-units for the North-American market (with NEMA-motors) can be supplied up to nominal width DN 200.

Prompt ability of application

Connect conveying pipings, fill up lube oil, effect electrical connection and the blower is ready for operation. The mounting costs are kept to a minimum with this installation.