

### Type A - Auto Equalizers - Compressors

#### Compressors - An Overview

All **Auto Equalizer** systems require a source of compressed air as their primary power source. Experience shows that a reliable supply of quiet compressed air is the best option. The Relcross oil-lubricated range of compressors is the perfect choice. The noise level is as low as 45 dB(A) - far below the level of normal conversation. These quiet, vibration-free and reliable compressors have a compact design and are mounted easily adjacent to doors, out of sight in storage cupboards or in the ceiling void. Oil-lubricated piston compressors are supplied ready for use with a range of receiver sizes.

Compressors are available with various types of accessories, including trolleys, wall brackets and different filters for removal of oil and dirt particles as well as possible oil vapour and odours to improve the air quality.

#### Quiet Oil-Lubricated Compressors

Relcross oil-lubricated piston compressors are not supplied with piston rings. Instead the tolerance between the piston and the cylinder has been reduced, minimizing the heat development and the energy loss.

The unique synthetic SJ-27 oil optimizes the lubrication of the compressor and is also used for cooling the motor. The oil minimizes the wear and tear of vital parts, prolonging their life and, at the same time, ensuring low maintenance costs.

The motor is mounted on springs inside the motor housing, which means that hardly any vibrations are imparted to the surroundings. Two noise reduction chambers on the intake side and two noise reduction chambers on the pressure side ensure absorption of the noise. The internal motor part is mounted in a closed motor housing, reducing the noise level even further.

The compressor is supplied with rubber feet, preventing vibrations from imparting to the mounting bolts and foundation. The noise level of the oil-lubricated compressor is as low as 45 dB(A) – below the noise level of a refrigerator. Oil-lubricated compressors may, therefore, be installed directly at the place of use.

#### Compressors and their Capacity

When setting up a compressor to work with an **Auto Equalizer** system it is recommended that it be set to deliver air at 82 psi since pressure in the tank will drop immediately the first door is switched. Once pressure in the tank drops by 2 psi replenishment is triggered giving a constant 80 psi for the duration of that series of operations. All Relcross **REL.4000** series compressors perform at a 50/50 ratio. In other words they will happily keep the tank full (i.e. compressed air available for immediate use) for **up to 15 minutes** continuously but they must then rest for the equivalent period of time before resumption.

Where a compressor's workload falls outside these strict parameters it is necessary to upgrade the specification from the **REL.4000** series to the **REL.6000** series (not shown in this brochure) or greater depending upon the system's anticipated requirement. Simply adding additional tank capacity is not recommended.

The pressure of the oil-lubricated compressors is adjusted to 8 bar - with the unadjusted maximum pressure available being 16 bar.

**Additional information** – The rate of air displacement falls as the requirement for pressure increases. The displacement values given opposite are values at 0 psi. The relevant data is the capacity (or free air delivery) - that is the rate at which the reserve tank is replenished. Larger compressors (for multiple door systems) are available to special order. Consult the sales office.

#### Compressors and their Location

All Relcross supplied compressors include an automatic drain feature to exhaust condensation periodically from the pressure tank. When selecting compressor locations consideration should be given to the sound level, vibration, space requirements, condensation drainage, mounting, maintenance access and placement of air lines.

Provide adequate ventilation to avoid overheating the compressor. Compressors carry the compressor manufacturer's limited one year warranty. Contact Relcross for details.

#### REL.4-4 Compressor

The model **REL.4-4** oil lubricated compressor is the standard offering for smaller systems where traffic levels are moderate - up to four operations per minute (See page 8).

**Tank Size** - 4 litres.

**Displacement** - 44 litres (1.55 cubic feet) per minute.

**Max. Adjusted Pressure** - 120 psi (8 bar).

**Capacity (Free air delivery into tank)**  
@ 80 psi  
= 30 litres/min. approx.

**Dimensions** - 325mm x 300mm x 295mm high.

**Electrical** - Voltage 230V, frequency 50Hz.

**Max. Current** - 1.75A.

**Acoustical** - 45 dB (A) at 1 metre.



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#### REL.4-25 Compressor

The model **REL.4-25** oil lubricated compressor is the upgraded offering for larger systems where traffic levels are moderate to high - up to eight operations per minute (See page 9).

**Tank Size** - 25 litres.

**Displacement** - 44 litres (1.55 cubic feet) per minute.

**Max. Adjusted Pressure** - 120 psi (8 bar).

**Capacity (Free air delivery into tank)**  
@ 80 psi  
= 30 litres/min. approx.

**Dimensions** - 380mm x 380mm x 542mm high.

**Electrical** - Voltage 230V, frequency 50Hz.

**Max. Current** - 1.75A.

**Acoustical** - 45 dB (A) at 1 metre.



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**Important Note** - Compressor size recommendations are based on normal useage. This is a function of the number of operators in the system.