

# Frascold Z40-154Y

Category: Refrigeration

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Frascold Z40-154Y is a semi-hermetic reciprocating compressor from Italy, rated at 40 horsepower for refrigeration applications with a displacement of 154 m<sup>3</sup>/h

## **Frascold Z40-154Y 40 HP Italian Freezer Compressor: Full Technical Overview**

The photos show a heavy-duty **Frascold** semi-hermetic reciprocating compressor, type **Z 40 154 Y**, made in Rescaldina, Italy, prepared on pallets and ready for reuse in industrial cold rooms and freezer applications. The metal nameplate is clearly visible, which allows accurate identification of the model, displacement and electrical data, exactly what technicians look for when buying a second-hand compressor in the field.

### **Main technical data from the nameplate**

On the front plate, the compressor is marked **Type Z 40 154 Y, Nr 3B000095**, with the manufacturer line "Frascold S.p.A. - Rescaldina Italy". The first line shows the displacement in cubic metres per hour and the nominal rpm at different frequencies. At 50 Hz, the displacement is listed around 154 m<sup>3</sup>/h with a speed close to 1450 rpm, while at 60 Hz it rises with a higher rpm figure. The label also shows maximum operating discharge pressure of 30 bar and maximum static suction pressure of 20.5 bar, indicating a machine designed for tough low-temperature duty in modern refrigerants.

In the lower section, the electrical box data indicate three-phase power supply options. Voltages are shown as 380-420 V for 50 Hz and 440-480 V for 60 Hz, with typical MRA and LRA values that help size magnetic contactors and protection devices. This combination of mechanical and electrical information on the nameplate allows installers to check compatibility with existing plants before making any connection on site.

### **Construction and visual condition of the compressor**

The images reveal a robust cast-iron body with multiple cylinder heads and a large suction side assembly, typical of Frascold's Z-series semi-hermetic line used in commercial and industrial refrigeration. The compressor sits on a steel base and is coupled to an integrated oil sump, showing the familiar blue Frascold paint, even if dust and minor oxidation are visible after years of service and storage.

Several units are shown together on wooden pallets, some with pressure switches and control

accessories still mounted on the discharge line. This suggests the compressors were removed as complete condensing sets from operating plants, which is often appreciated by technicians who want to reuse existing safety controls, crankcase heaters and connection fittings. The general structure appears intact, without obvious cracks in the casting or broken mounting feet, a key point when evaluating second-hand equipment.

## Typical applications and performance context

With its 40 HP rating and high volumetric displacement, the Frascold Z40-154Y is usually selected for low-temperature freezer rooms, blast freezers and industrial cold storage where evaporating temperatures can reach well below zero and the refrigeration load is very demanding. In many markets around the Mediterranean and Middle East, such compressors are widely used with refrigerants like R404A or direct alternatives specified in Frascold's official catalogues, always respecting the authorised pressure limits and oil type recommendations.

The multi-cylinder semi-hermetic design offers easier maintenance than hermetic units because the heads and valve plates can be opened for inspection, valve replacement or piston work without cutting any welded shell. For owners of older plants, buying a used Italian compressor in good mechanical condition can be an economical way to extend the life of a cold room while still benefiting from European build quality.

## Practical buying tips for used Frascold compressors

Before installing a second-hand Z40-154Y, technicians usually perform a sequence of standard checks. These include measuring insulation resistance on the motor windings, verifying that the crankshaft turns smoothly by hand, and inspecting for oil leaks around shaft seals and service valves. If the compressor passed a nitrogen pressure test and the oil is reasonably clean, the chances of successful commissioning are significantly higher.

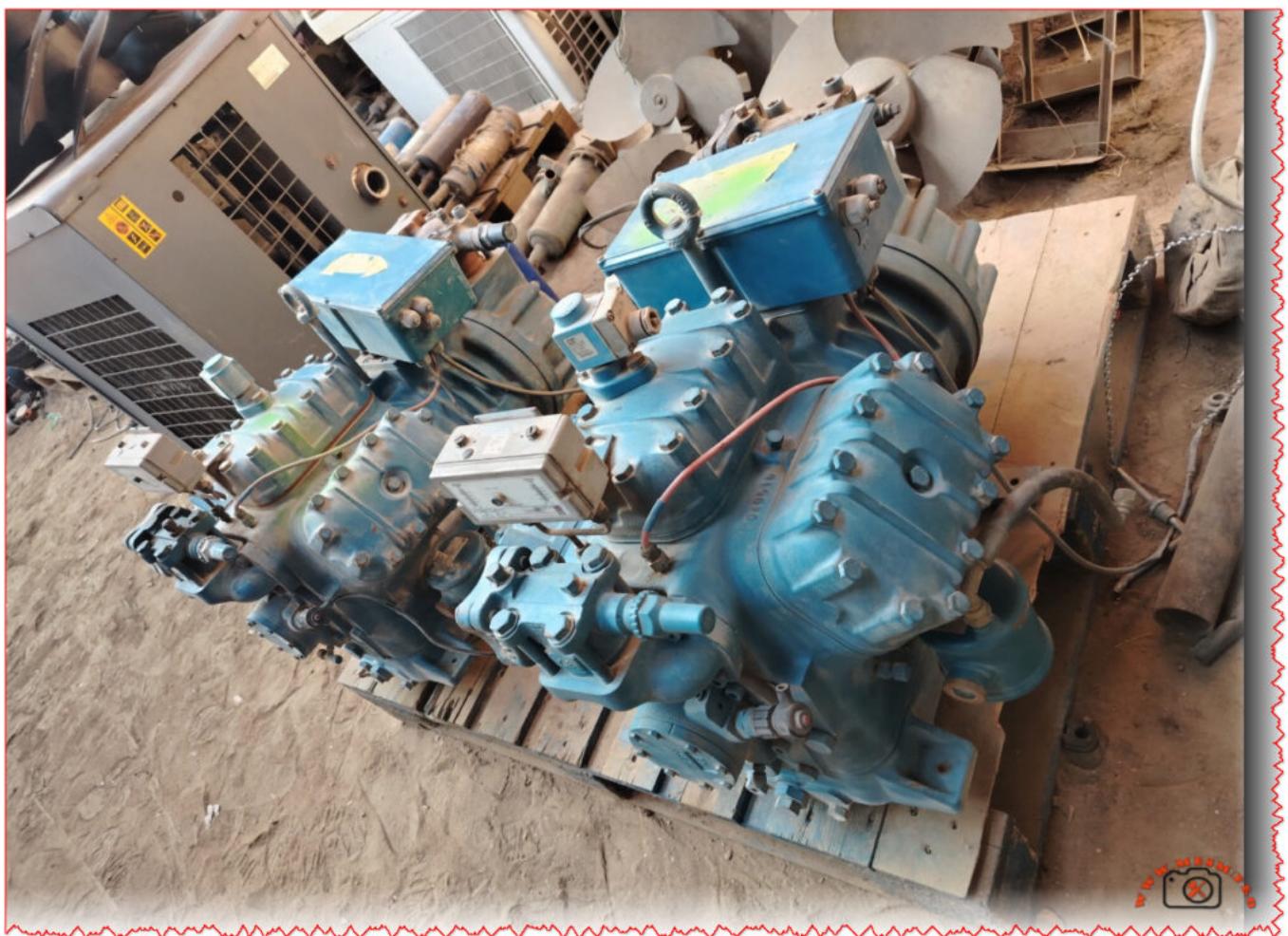
It is also recommended to recover and replace the oil according to Frascold's documentation and to install new filter-driers in the system to protect the machine from moisture and acids. Finally, using the exact nameplate data for voltage, frequency and MRA/LRA, the electrician can correctly size breakers, contactors and cables, avoiding nuisance tripping and overheating during the first start-ups of the refurbished refrigeration unit.

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## Technical data table (indicative values for Z40-154Y)

Specification	Value / Description
Compressor type	Semi-hermetic reciprocating, Frascold Z40-154Y
Nominal power	Approx. 40 HP
Displacement at 50 Hz	About 154 m <sup>3</sup> /h (nameplate value)
Nominal speed at 50 Hz	Around 1450 rpm (nameplate value)
Supply voltage (50 Hz)	380-420 V, 3-phase
Supply voltage (60 Hz)	440-480 V, 3-phase
Max operating discharge pressure	30 bar (nameplate)
Max static suction pressure	20.5 bar (nameplate)
Country of manufacture	Rescaldina, Italy







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