



# MAK COMPRESSOR OIL

## Superior quality reciprocating air compressor oil

MAK Compressor Oils are high quality, high performance mineral oils developed for reciprocating air compressors. They are formulated from highly refined, high viscosity index base stocks and high performance additives with ashless chemistry. Reciprocating compressors operate at high temperatures and pressures. The lubricant creates a strong film in order to avoid surface wear. These oils have exceptional resistance to oxidation and thermal degradation. The thermal stability and oxidation resistance of these fluids can help maintain cleaner compressors, thereby enabling longer running periods between scheduled maintenance and oil changes. The outstanding anti-wear and corrosion protection are designed to enhance equipment life, while reducing maintenance requirements. They are designed to provide outstanding protection and lubrication to crankcase, cylinder and piston rings of reciprocating compressors. They exhibit reduced carbon forming tendency, anti-foam characteristics and excellent rust corrosion protection. MAK Compressor oils are compatible with seal materials and paints normally specified for use in compressor systems with mineral oils.

**Grades:** MAK Compressor Oil range is available in the following ISO VG grades – **32, 46, 68, 100, 150, 220** and **320**

### Applications:

MAK Compressor Oil range is recommended for high pressure, high performance reciprocating single or multistage air compressors. It is suitable for reciprocating compressors where air discharge temperature goes as high as 220°C. They can also be used in other industrial pneumatic applications but not suitable for breathing air or oxygen compression.

### Performance/ Benefits:

**Outstanding Oxidation Stability** – outstanding resistance to the effects of oxidising agents. Resists sludge and deposit formation. Ensures longer operating life, less maintenance and reduction in operating cost.

**Good Thermal Stability** – provides good resistance to thermal break down and capability to work under varied ambient temperatures to offer optimum life and performance.

**Excellent Wear Protection** – excellent protection to the internal metal surfaces, valve and other system components. Advanced ashless additive system is not reactive to the bearing materials. Operates on a wide range of load conditions – moderate to severe.

**Rapid Air Release and Resistance to Foaming** – rapid release of foam and air, protecting components from aeration and cavitation damage, leading to reduced wear.

**Excellent Demulsibility** – the rate of water separation from oil is very high. Less carryover to downstream utilities. Reduced formation of sludge and deposit. Increases system efficiency and reliability.

**Low Ash and Carbon Formation** – reduces deposits in discharge lines and the potential fire hazards, improves valve and compressor performance.

**Increased System Reliability and Safety** – by resisting thermal and chemical break down of the oil these oils minimise the risk of formation of the harmful sludge and carbonaceous deposits. These deposits in the presence of heat from the compressed air may pose fire hazard.

### Specification:

- DIN 51506 – VDL
- ISO/ DP 6521
- IS 13256:1992 (Reaffirmed 2014) DAA and DAB Type

### Approval:

- MAK Compressor Oil 150 is approved by RDSO for Expressors/ Compressors on diesel and electric locomotives of Indian Railways.

**Storage & Handling:**

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 5 yrs. under protected storage conditions.

**Health & Safety:**

They are unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

**Typical Physico-Chemical Data: MAK Compressor Oil**

Characteristics	Method	32	46	68	100	150	220	320
Appearance	Visual	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright
Density, g/cc @15°C	ASTM D1298	0.8533	0.8567	0.8618	0.8661	0.8703	0.8872	0.8923
Kinematic Viscosity @40°C, cSt	ASTM D445	32.4	46.2	68.8	100.2	150.3	220.2	320.7
Kinematic Viscosity @100°C, cSt	ASTM D445	5.67	7.18	9.44	12.14	15.51	19.5	24.67
Viscosity Index	ASTM D2270	115	115	115	110	105	100	98
Flash Point, COC, °C	ASTM D92	230	242	244	250	252	260	264
Pour Point, °C	ASTM D97	-15	-15	-15	-12	-12	-9	-9
Copper Corrosion, 100°C, 3 hrs.	ASTM D130	1b	1b	1b	1b	1b	1b	1b
Rust Test	ASTM D665	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Foaming Characteristics/ Stability, ml Sequence I/ II/ III	ASTM D892	NIL	NIL	NIL	NIL	NIL	NIL	NIL