



# MAKER ASTRA

## Description

They are extreme pressure oils, especially suited to lubricating drills, hammers and pneumatic tools, even under severe working conditions. Also for all pneumatic mechanisms that require a fluid with the ability to capture water drops, thus preventing contact with metal surfaces.

Maker Astra fluids are made with mineral oils obtained from paraffinic crude oils treated specially with solvents during the refining process in order to achieve excellent oxidation resistance properties. They include additives which increase their ability to support large loads and promote the formation of stable emulsions.

## Properties

- Good anticorrosive and antirust properties, both at high and low temperatures.
- Emulsion form stable with water.
- Excellent EP properties preventing the wear of mobile parts and reducing the formation of deposits and pollutants.
- Good adhesion.

## Quality levels, approvals and recommendations

- Atlas Copco
- Gardner Denver
- Ingersol Rand
- ISO: 6743/11 - PAC/PBC

## Technical specifications

	UNIT	METHOD	VALUE		
ISO Viscosity Grade			46	100	150
Viscosity at 40 °C	cSt	ASTM D445	46	100	150
Viscosity at 100 °C	cSt	ASTM D445	7	11,3	14,67
Viscosity index	-	ASTM D2270	100	97	97
Flash point, open cup	°C	ASTM D92	220	230	230
Density at 15 °C	g/cm3	ASTM D4052	0.877	0,887	0.892
Pour point	°C	ASTM D97	-24	-18	-15
Emulsion at 54 °C and 30 min	mL	ASTM D1401	80	80	80
Four ball wear, scar diameter (1h, 15 kg, 75 °C)	mm	ASTM D4172	0,31	0,25	0,25
Four ball wear, scar diameter (1h, 40 kg, 75 °C)	mm	ASTM D4172	0,42	0,36	0,36
Four ball-engine, soldering load	kg	ASTM D2783	250	315	315
Four-ball engine, wear load index	-	ASTM D2783	43,5	57,8	48,7
Rust resistance, method A	-	ASTM D665	Pass	Pass	Pass

The above mentioned characteristics are typical values and should not be considered product specifications.