



# MAKER ARIES

## Description

Range of oils of the so-called turbine type, both due to their manufacturing process and because, in fact, some of the oils are specifically formulated for said application. They are obtained from selected paraffinic bases to which oxidation, rust and anti-foam inhibitor additives are added to endow them with excellent properties and magnificent performance in service.

The lowest viscosity oils (ISO grades 15 and 22) are generally used in high precision or highly revolutionary mechanisms. ISO grades between 32 and 100 (inclusive) are normally used in turbines, mainly steam or hydraulic, but they are also highly suitable for compressors, hydraulic systems, etc. The higher viscosity oils (types 125, 150, 220 and 380) are suitable for the lubrication of various types of mechanical equipment, in casing or by circulation.

## Properties

- High resistance to ageing and sludge formation
- Excellent anti-foam properties and air separation capacity.
- Great water separation capacity and resistance to rust.

## Quality levels, approvals and recommendations

- BURCKHARDT COMPRESSION: VSB 1001132/1001133\* (150)
- DIN: 51506, L-VBL (100, 125, 15, 150, 22, 220, 32, 46, 68)
- DIN: 51517 parte 2 - CL (100, 125, 150, 220, 32, 46, 68)
- ISO: 6743/2 - FC (100, 125, 15, 150, 22, 220, 32, 46, 68)
- ISO: 6743/5 TGA/TSA (100, 125, 15, 150, 22, 220, 32, 46, 68)
- ISO: 6743-3A, DAB/DVA/DVC/DVE (100, 125, 15, 150, 22, 220, 32, 46, 68)
- DANIELLI: STANDARD No. 0.000.001 (220)
- DIN: 51515, L-TD (100, 32, 46, 68)
- DIN: 51524 HL (100, 125, 15, 150, 22, 220, 32, 46, 68)
- ISO: 6743/4 HL, 11158 HL (100, 125, 15, 150, 22, 220, 32, 46, 68)
- ISO: 6743/6-CKB (100, 125, 15, 150, 22, 220, 32, 46, 68)
- \*Formal approval



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## Technical specifications

	UNIT	METHOD	VALUE								
ISO Viscosity Grade			15	22	32	46	68	100	-	150	220
Viscosity at 40 °C	cSt	ASTM D445	15	22	32	46	68	100	125	150	220
Viscosity at 100 °C	cSt	ASTM D445	3.4	4,3	5,4	6,8	8.5	11	13	14.5	19
Viscosity index	-	ASTM D2270	95	100	100	98	98	97	97	97	95
Density at 15 °C	g/cm3	ASTM D4052	0.86	0.865	0.870	0.880	0.884	0.887	0.888	0.891	0.895
Pour point	°C	ASTM D97	-18	-15	-15	-12	-12	-12	-12	-12	-12
Flash point, open cup	°C	ASTM D92	180	200	215	220	230	245	255	260	260
Pour point	°C	ASTM D92	200	230	254	260	273	291	304	311	313
Air release at 50 °C	min	ASTM D3427	<4	<4	<4	5	6	-	-	-	-
Air release at 75 °C	min	ASTM D3427	-	-	-	-	-	5	5,1	6.7	10.5
Rust resistance, method A	-	ASTM D665	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Water separability at 54 °C	min	ASTM D1401	<20	<20	<20	<20	<30	-	-	-	-
Water separability at 82 °C	min	ASTM D1401	-	-	-	-	-	<40	<40	<40	<40
Corrosion Cu, 3hrs 100 °C	-	ASTM D130	1b	1b	1b	1b	1b	1b	1b	1b	1b
TAN	mgKOH/g	ASTM D664	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Water content	%	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Foams: Sec I, II, III formation	mL	ASTM D892	50/50/50	50/50/50	50/50/50	50/50/50	50/50/50	50/50/50	50/50/50	50/50/50	50/50/50
Foams: Sec I, II, III, stability	mL	ASTM D892	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0
Oxidation (TAN = 2)	h	ASTM D943	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000

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