

Technical Data

SCREWLINE SP630

		50 Hz	60 Hz
Pumping speed	m ³ x h ⁻¹ (cfm)	630 (371)	630 (371)
Ultimate total pressure	mbar (Torr)	≤ 0.01 (≤ 0.0075)	≤ 0.01 (≤ 0.0075)
Maximum exhaust pressure with reference to the ambient pressure		$p_{ex} = p_{amb} + 200 \text{ mbar (150 Torr)}$ $- 50 \text{ mbar (37 Torr)}$	$p_{ex} = p_{amb} + 200 \text{ mbar (150 Torr)}$ $- 50 \text{ mbar (37 Torr)}$
Intake pressure limits, max.	mbar (Torr)	1030 (773)	1030 (773)
Noise level ¹⁾	dB(A)	73	75
Permissible ambient temperature	°C (°F)	+10 to +40 (+50 to +104)	+10 to +40 (+50 to +104)
Contamination degree ²⁾		3	3
Water vapour tolerance (with gas ballast)	mbar (Torr)	40 (30)	40 (30)
Water vapour capacity (with gas ballast)	kg x h ⁻¹ (gal x h ⁻¹)	14 (3.7)	14 (3.7)
Relative humidity of the ambient air ³⁾	%	max. 95	max. 95
Installation location		up to 3000 metres (9.800 feet) (above sea level)	up to 3000 metres (9.800 feet) (above sea level)
Cooling		Air	Air
Power supply	△△ △	56 A / 200 V 28 A / 400 V	52 A / 210 V 24 A / 460 V
cos φ		0.89	0.90
Nominal power	kW (HP)	15 (20)	15 (20)
Power consumption at ultimate pressure	kW (HP)	< 11 (< 15)	< 11 (< 15)
Motor rotational speed	rpm	2930	3530
Type of protection	IP	55	55
Thermal protection class		F	F
Lubricant filling (ANDEROL 555)	l	15	15
Intake flange and exhaust flange compatible with bolt flanges		EN 1092-2 - PN 6 - DN 100 EN 1092-2 - PN 16 - DN 100 ISO 1609-1986 (E)-100 (DN 100 ISO-K) ⁴⁾ ASME B 16.5 NPS4 class 150	EN 1092-2 - PN 6 - DN 100 EN 1092-2 - PN 16 - DN 100 ISO 1609-1986 (E)-100 (DN 100 ISO-K) ⁴⁾ ASME B 16.5 NPS4 class 150
Materials (components in contact with the gas)		Aluminum, aluminium anodic oxidised, C steel, CrNi steel, grey cast-iron, FPM (FKM) (Viton))	Aluminum, aluminium anodic oxidised, C steel, CrNi steel, grey cast-iron, FPM (FKM) (Viton))
Weight, approx.	kg (lbs)	530 (1166)	530 (1166)
Dimensions (W x D x H)	mm (in.)	1630 x 660 x 880 (64 x 26 x 35)	1630 x 660 x 880 (64 x 26 x 35)

¹⁾ With sealed off lines at ultimate pressure (in accordance with ISO 4871)

²⁾ In accordance with EN 50178

³⁾ In accordance with EN 60721-3-3

⁴⁾ This flange is required when ISO-K flanges are to be connected (P/N 267 50)

Additional Technical Data**SCREWLINE SP630 F**

		50 Hz	60 Hz
Cooling		Water	Water
Water connection	G	1/2" ISO 228-1	1/2" ISO 228-1
Water temperature	°C (°F)	+5 to +35 (+41 to +95)	+5 to +35 (+41 to +95)
Minimum water feed pressure			
	bar (psi, gauge)	2 (15)	2 (15)
Nominal flow at a water feed temperature of 25° C (77 °F)			
	l/min (gal/min)	12 (3)	12 (3)
Noise level ¹⁾	dB(A)	71	71

¹⁾ With sealed off lines at ultimate pressure (in accordance with ISO 4871)

Ordering Information

SCREWLINE SP630/SP630 F

50 Hz

60 Hz

SCREWLINE SP630 air cooled, with adapter for RUVAC 2001, SP-GUARD and electromagnetic gas ballast	Part No. 117 005	Part No. 117 006
with SP-GUARD and manual gas ballast	Part No. 117 007	Part No. 117 008
with SP-GUARD and electromagnetic gas ballast	Part No. 117 009	Part No. 117 010
with adaptor for RUVAC 2001, SP-GUARD and manual gas ballast	Part No. 117 011	Part No. 117 012
with electromagnetic gas ballast	Part No. 117 021	Part No. 117 022
with manual gas ballast	Part No. 117 023	Part No. 117 024
SCREWLINE SP630 F water cooled, with adapter for RUVAC 2001, SP-GUARD and electromagnetic gas ballast	Part No. 117 105	Part No. 117 106
with SP-GUARD and manual gas ballast	Part No. 117 107	Part No. 117 108
with SP-GUARD, purge gas kit and manual gas ballast	Part No. 117 113	Part No. 117 114
SCREWLINE SP630 S1 water cooled, with adapter for RUVAC 2001, castors, SP-GUARD, purge gas kit and electromagnetic gas ballast	Part No. 117 117	Part No. 117 118
SCREWLINE SP630 FK water cooled, with adapter for RUVAC 1001, castors, SP-GUARD, purge gas kit and electromagnetic gas ballast	Part No. 117 125	-
Exhaust silencer	Part No. 119 001	Part No. 119 001
Roots pump adapter for RUVAC 1001 ¹⁾ for RUVAC 2001	Part No. 500 003 173 Part No. 119 021	Part No. 500 003 173 Part No. 119 021
Dust filter ²⁾ Elbow 90° (DN 100 ISO-K) Clamping screws for DN 63-250 ISO-K Centering ring for DN 100 ISO-K	Part No. 951 72 Part No. 887 26 Part No. 267 01 Part No. 268 06	Part No. 951 72 Part No. 887 26 Part No. 267 01 Part No. 268 06
Inlet filter adapter DN 100 ISO-K	Part No. 119 020	Part No. 119 020
Gas ballast, manual	Part No. 119 051	Part No. 119 051
Gas ballast, 24 V DC (DN 16 KF) ³⁾	Part No. 119 052	Part No. 119 052
SP-GUARD kit, complete ⁴⁾	Part No. EK 110 000 809	Part No. EK 110 000 809
Non-return valve (DN 100 PN 6)	Part No. 119 010	Part No. 119 010
Purge gas retrofit kit ³⁾	Part No. 119 030	Part No. 119 030
Flushing kit / air inlet kit ⁵⁾	Part No. 119 015 and 119 016	Part No. 119 015 and 119 016
Transportation drawbar for Part No. 117 117 / 117 118	Part No. 119 017	Part No. 119 017
Maintenance kit, level 1	Part No. EK 110000792	Part No. EK 110000792
Maintenance kit, level 2	Part No. EK 110000793	Part No. EK 110000793
Seal kit, level 1	Part No. EK 110000814	Part No. EK 110000814
Purge gas connection servicing kit	Part No. EK 110000827	Part No. EK 110000827
Filter for gas ballast	Part No. E 110000980	Part No. E 110000980
Filter for purge gas valve unit	Part No. E 110000850	Part No. E 110000850
Water filter maintenance kit for SP630 F	Part No. EK 110000813	Part No. EK 110000813

¹⁾ Must mount to adapter Part No. 119 021

²⁾ For information on the dust filter please refer to the Product Section C02, Section "Accessories"

³⁾ Not for ATEX pumps

⁴⁾ Can only be installed as a service provided by Oerlikon Leybold Vacuum

⁵⁾ Flushing kit / air inlet kit used together

Ordering Information

SCREWLINE SP630 / SP630 F ATEX

50 Hz

60 Hz

SCREWLINE SP630 with SP-GUARD, purge gas kit and manual gas ballast Category 3G IIC (160 °C) inside	Part No. 117 017	Part No. 117 018
with SP-GUARD, purge gas kit and electromagnetic gas ballast Category 3G IIC (160 °C) inside	Part No. 117 019	Part No. 117 020
SCREWLINE SP630 F, water cooled Category 2G3D IIC (160 °C) Category 3G IIC T3 (160 °C) with purge gas monitor, SP-GUARD, adapter for RUVAC 2001 and electromagnetic gas ballast	Part No. 117 111	Part No. 117 112
Category 3G IIC 160 °C inside SP-GUARD, purge gas kit and electromagnetic gas ballast	Part No. 117 115	Part No. 117 116
Exhaust silencer	Part No. 119 001	Part No. 119 001
Roots pump adapter for RUVAC 1001 ¹⁾ for RUVAC 2001	Part No. 500 003 173 Part No. 119 021	Part No. 500 003 173 Part No. 119 021
Inlet filter adapter DN 100 ISO-K	Part No. 119 020	Part No. 119 020
Non-return valve (DN 100 PN 6)	Part No. 119 010	Part No. 119 010
Flushing kit / air inlet kit ²⁾ Category 2G Ex em II T5	Part No. 119 015 and 119 016	Part No. 119 015 and 119 016
Maintenance kit, level 1	Part No. EK 110000792	Part No. EK 110000792
Maintenance kit, level 2	Part No. EK 110000793	Part No. EK 110000793
Seal kit, level 1	Part No. EK 110000814	Part No. EK 110000814
Purge gas connection servicing kit	Part No. EK 110000827	Part No. EK 110000827
Filter for gas ballast	Part No. E 110000980	Part No. E 110000980
Water filter maintenance kit for SP630 F	Part No. EK 110000813	Part No. EK 110000813

Ordering Information

SCREWLINE SP630 O₂

50 Hz

60 Hz

SCREWLINE SP630 with SP-GUARD, purge gas monitor and electromagnetic gas ballast	Part No. 117 039	Part No. 117 040
Exhaust silencer	Part No. 119 001	Part No. 119 001
Roots pump adapter for RUVAC 1001 ¹⁾ for RUVAC 2001	Part No. 500 003 173 Part No. 119 021	Part No. 500 003 173 Part No. 119 021
Maintenance kit, level 1	Part No. EK 110000792	Part No. EK 110000792
Maintenance kit, level 2	Part No. EK 110000793	Part No. EK 110000793
Seal kit, level 1	Part No. EK 110000814	Part No. EK 110000814
Purge gas connection servicing kit	Part No. EK 110000827	Part No. EK 110000827
Filter for gas ballast	Part No. E 110000980	Part No. E 110000980
Filter for purge gas valve unit	Part No. EK 110000850	Part No. EK 110000850

¹⁾ Must mount to adapter Part No. 119 021

²⁾ Flushing kit / air inlet kit used together

For all enquiries and orders relating to category 1 and 2 ATEX products please exclusively use our ATEX questionnaire. You can find this questionnaire at the end of the full-line catalog together with the fax forms or in the Internet under "www.oerlikon.com/leyboldvacuum" under Download Documents in the area Documentation.

Accessories

SP-GUARD



The monitoring system SP-GUARD was specially developed for constantly monitoring the operational status of the screw vacuum pump SCREWLINE SP630 in real-time.

The operational parameters are constantly collected and evaluated.

In this way a high degree of reliability is attained.

Technical Data

SP-GUARD

Power supply through power supply unit	V DC	24
Current consumption	A	0.2

Ordering Information

SP-GUARD

SP-GUARD kit, complete ¹⁾	Part No. EK 110 000 809
Supply 24 V DC, 230/120 V AC, 50/60Hz for SP-GUARD	Part No. 152 50

¹⁾ Can only be installed as a service provided by Oerlikon Leybold Vacuum

Miscellaneous

Vacuum Pump Oils

Lubricating oils for vacuum pumps must meet tough requirements. They need to have excellent lubricating properties and resistant against thermal decomposition and increased mechanical stress.

The vacuum pump oil ANDEROL 555 detailed below was qualified for usage in the SCREWLINE line of pumps through a comprehensive series of experiments under application conditions in our own factory laboratories.

Our oils are subjected to an involved qualification process with respect to their technical suitability in our vacuum pumps.

Our warranty commitment is dependent on the usage of lubricating oils which are qualified by us.

No liability will be assumed for any damage caused by the use of types of oil which have not been qualified or which are unsuitable.

Safety data sheets are available to professional users from:

E.mail "documentation.vacuum@oerlikon.com" or Internet "www.oerlikon.com/leyboldvacuum".

Application Data

ANDEROL 555

Type of oil	Diester oil
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Ordering Information

Maintenance Kit for changing the Gear Oil

Maintenance kit stage 1 SP250 for changing the gear oil 7 l ANDEROL 555, oil filter cartridge and gaskets	Part No. EK 110 000 820
SP630 for changing the gear oil 15 l ANDEROL 555, oil filter cartridge and gaskets	Part No. EK 110 000 792
Oil ANDEROL 555 1 liter (1.1 qt) 5 liters (5.3 qt) 20 liters (21.1 qt)	Part No. EK 200 10 272 Part No. EK 200 10 891 Part No. EK 200 00 193