

Products

Technical Data

SCREWLINE SP250

		50 Hz	60 Hz
Effective pumping speed	m ³ x h ⁻¹ (cfm)	270 (≥ 157)	330 (≥ 194)
Ultimate pressure, total	mbar (Torr)	≤ 0.01 (≤ 0.0075)	≤ 0.005 (≤ 0.0038)
Permissible intake pressure, max.	mbar (Torr)	1030 (773)	1030 (773)
Maximum exhaust pressure with reference to the ambient pressure		$p_{ex} = p_{amb} + 200 \text{ mbar (150 Torr)}$ $- 50 \text{ mbar (37 Torr)}$	$p_{ex} = p_{amb} + 200 \text{ mbar (150 Torr)}$ $- 50 \text{ mba (37 Torr)}$
Noise level ¹⁾	dB(A)	67	72
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)	60 (45)	75 (56)
Water vapour capacity (with gas ballast)	kg x h ⁻¹ (gal x h ⁻¹)	10 (2.7)	18 (4.9)
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 at operating voltage	ΔΔ Δ	32.0 A / 200 V (cos phi 0.88) 16.0 A / 400 V (cos phi 0.88)	31.5 A / 210 V (cos phi 0.88) 15.5 A / 460 V (cos phi 0.88)
3-ph. nominal current at operating voltage	Δ	14.5 A / 500 V (cos phi 0,88)	–
Nominal power	kW (HP)	7.5 (10.0)	11.5 (15.6)
Power consumption at ultimate pressure	kW (HP) kW (HP)	5.9 (8.0) at 3-ph. 200 V / 400 V 6.5 (8.8) at 3-ph. 500 V	7.2 (9.8) –
Motor rotational speed	rpm	2920	3505
Type of protection	IP	55	55
Thermal protection class		F	F
Lubricant filling (ANDEROL 555)	l	7	7
Intake flange, standard			
Clamping flange		ISO 1609-1986 (E)-63 (DN 63 ISO-K) ⁴⁾	ISO 1609-1986 (E)-63 (DN 63 ISO-K) ⁴⁾
Bolt flange		ASME B 16.5 NPS 3 class 150	ASME B 16.5 NPS 3 class 150
Bolt flange		EN 1092-2-PN 6 - DN 65	EN 1092-2-PN 6 - DN 65
Exhaust flange, standard			
Clamping flange		ISO 1609-1986 (E)-63 (DN 63 ISO-K)	ISO 1609-1986 (E)-63 (DN 63 ISO-K)
Exhaust flange, optional			
Clamping flange		ISO 1609-1986 (E)-63 (DN 63 ISO-K) ⁴⁾	ISO 1609-1986 (E)-63 (DN 63 ISO-K) ⁴⁾
Bolt flange		ASME B 16.5 NPS 3 class 150	ASME B 16.5 NPS 3 class 150
Bolt flange		EN 1092-2-PN 16 - DN 65	EN 1092-2-PN 16 - DN 65
Bolt flange		EN 1092-2-PN 6 - DN 65	EN 1092-2-PN 6 - DN 65
Materials (components in contact with the gas)		Aluminum, aluminum anodic oxidised, C steel, CrNi steel, grey cast-iron, FPM (FKM) (Viton))	Aluminum, aluminum anodic oxidised, C steel, CrNi steel, grey cast-iron, FPM (FKM) (Viton))
Weight, approx.	kg (lbs)	450 (992)	450 (992)
Dimensions (W x D x H)	mm (in.)	1350 x 530 x 880 (53.1 x 20.9 x 34.6)	1350 x 530 x 880 (53.1 x 20.9 x 34.6)

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 (Part No. 267 47)

Ordering Information

SCREWLINE SP250

	Standard	ATEX	O ₂
SCREWLINE SP250 (50/60 Hz) with SP-GUARD and manual gas ballast	Part No. 115 001	-	-
with SP-GUARD and electromagnetic gas ballast	Part No. 115 002	-	-
with manual gas ballast	Part No. 115 004	-	-
with electromagnetic gas ballast	Part No. 115 005	-	-
with SP-GUARD, purge gas unit, castors and manual gas ballast valve	Part No. 115 006	-	-
with SP-GUARD, electromagnetic gas ballast and purge gas unit Category 3GD IIC 160 °C inside	-	Part No. 115 003 ¹⁾	-
with SP-GUARD, special gaskets, electromagnetic gas ballast and purge gas unit Category 3GD IIC 160 °C inside	-	Part No. 115 009	-
with SP-GUARD, electromagnetic gas ballast and purge gas unit Category 3GD IIC 160 °C inside / Category 3GD Ex nA IIC 160 °C outside	-	Part No. 115 010	-
with SP-GUARD, electromagnetic gas ballast and purge gas unit Category 2G3D b IIC 135 °C inside / Category 3GD Ex nA IIC 160 °C outside (50 Hz only)	-	Part No. 115 011	-
Category 2Gb IIC T4 3D T 130 °C X inside / Category 2Gb IIC T4 3D T 130 °C X outside electropneumatic gas ballast, purge gas unit, sensors, wired including junction box (3-ph. only, 400 V, 50 Hz; DN 65 PN 16)	-	Part No. 115 013	-
Category 2Gb IIC T4 3D T 130 °C X inside / Category 2Gb IIC T4 3D T 130 °C X outside electropneumatic gas ballast, sensors, wired including junction box, purge gas unit (3-ph. only, 500 V, 50 Hz; DN 65 PN 16) ²⁾	-	Part No. 115 015	Part No. 115 019
Exhaust silencer	Part No. 119 002	Part No. 119 002	Part No. 119 002
Exhaust non-return valve (DN 65 PN 6)	Part No. 119 011	-	-
Adaptor for RUVAC 501/1001	Part No. 119 022	Part No. 119 022	Part No. 119 022
Purge gas retrofit kit	Part No. 119 031	-	-
Inlet filter adapter DN 63 ISO-K	Part No. 119 019	Part No. 119 019	-
Dust filter	Part No. 951 68	-	-
Flushing kit	Part No. 119 015	Part No. 119 015	-
Transportation drawbar (upon request)	Part No. 119 017	-	-
Maintenance kit, level 1	Part No. EK 110000820	Part No. EK 110000820 ³⁾	Part No. EK 110000820
Maintenance kit, level 2	Part No. EK 110000821	Part No. EK 110000821 ³⁾	Part No. EK 110000821
Seal kit, level 1	Part No. EK 110000837	Part No. EK 110000837 ³⁾	Part No. EK 110000837
Purge gas connection servicing kit	Part No. EK 110000834	Part No. EK 110000834 ³⁾	-
Filter for gas ballast	Part No. E 110000980	Part No. E 110000980 ³⁾	Part No. E 110000980
Filter for purge gas valve unit	Part No. E 110000850	Part No. E 110000850	Part No. E 110000850
Absorbing felt	Part No. E 110002435	Part No. E 110002435	Part No. E 110002435

¹⁾ ATEX Category 3 as standard (Directive 94/9/EG)

²⁾ T4 with max. $p_{ex} = p_{amb} + 200 \text{ mbar}$
 $+ 050 \text{ mbar}$

³⁾ Spare Parts can only be used for Part No.115 003, 115 010 and 115 011

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.