

SYSTEMS

With helical tri-lobe blower air injection cooled



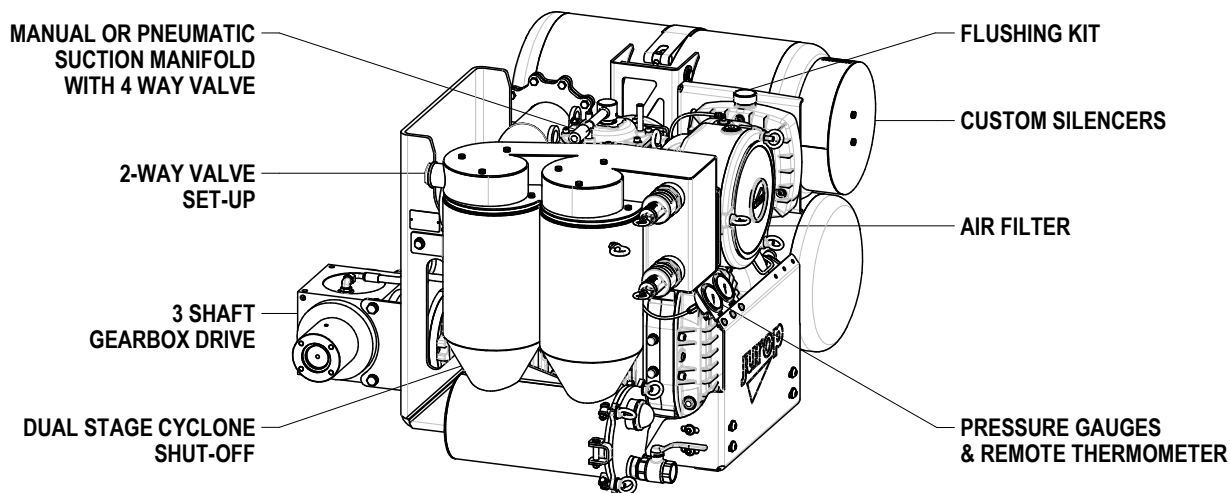
COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

COMPANY WITH
ENVIRONMENTAL SYSTEM
CERTIFIED BY DNV
ISO 14001

TECHNICAL DATA

HELIX SYSTEM is a module consisting of a vacuum pump/compressor with a three-axis gearbox to be connected to the power transmission of the equipment on which it is mounted. With the gearbox, the use of the coupling joint is not required. The version with hydraulic motor has no gearbox.

STANDARD EQUIPMENT	AVAILABLE ON REQUEST
<ul style="list-style-type: none"> • Helix blower with three-axis gearbox. • Vacuum gauge and remote thermometer. • Cyclone purifier with 4-way flange 4" NPT. • Injection/discharge silencers. • Air filter. • Flushing kit. • Optical oil level switches. 	<ul style="list-style-type: none"> • Hydraulic motor. • Cooling impeller for gearbox. • Swiveling conveyors. • 2-way valve set-up.



PERFORMANCES

The unit can be equipped with gearbox. The gearbox reduction ratio is 1:2. This means that the speed required at the gearbox input is half the speed required by the vacuum pump.

The rotation speed values, found in the following table, are those of the required speed at the gearbox input. This does not apply to units with hydraulic motor.

HELIX SYSTEM	140	180	220	300
Free inlet air flow rate (at rpm max)	500 cfm (14200 l/min)	642 cfm (18200 l/min)	755 cfm (21350 l/min)	1090 cfm (30800 l/min)
Max. rotation speed (with gearbox)	2000 rpm	2000 rpm	2000 rpm	1500 rpm
Recommended rotation speed (with gearbox)	1800 rpm	1800 rpm	1800 rpm	1400 rpm
Recommended rotation speed (with HDR motor)	4000 rpm	4000 rpm	4000 rpm	2900 rpm
Maximum vacuum	27,3 Hg (91 %)	27,3 Hg (91 %)	27,8 Hg (93 %)	27,8 Hg (93 %)
Maximum no-load power	32 HP (24 kW)	43,5 HP (32 kW)	47 HP (35 kW)	75 HP (56 kW)
Maximum pressure	15 psig (1 bar)	15 psig (1 bar)	15 psig (1 bar)	15 psig (1 bar)
Power at maximum pressure	37,5 HP (28 kW)	48 HP (36 kW)	58 HP (43 kW)	79 HP (59 kW)
Helix System weight with gearbox	882 lbs (400 kg)	908 lbs (412 kg)	941 lbs (427 kg)	1200 lbs (544 kg)
Helix System weight with HDR motor	844 lbs (383 kg)	871 lbs (395 kg)	904 lbs (410 kg)	1131 lbs (513 kg)

REFERENCE CONDITIONS - The data shown in the table are subject to a tolerance of +/- 5%.

Conveyed gas: air	Reference absolute pressure: 1013mbar (14.7psi)	Pressure operation: atmospheric intake
Reference temperature: 20°C(68°F)	Vacuum operation: atmospheric discharge	

HYDRAULIC MOTOR FEATURES

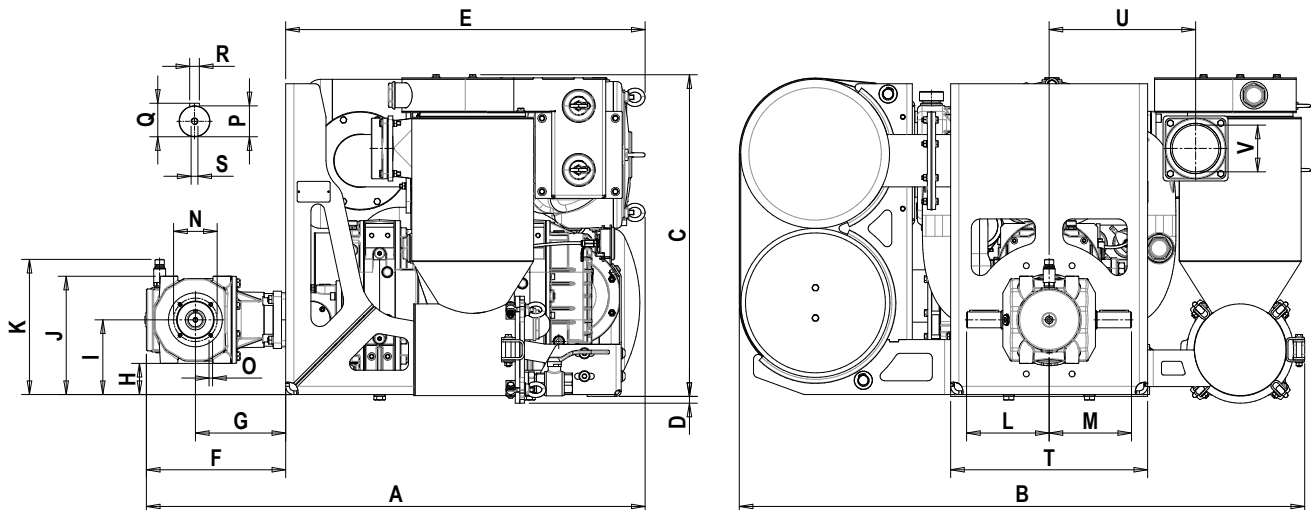
	HELIX 140-180-200 HDR SYSTEM	HELIX 300 HDR SYSTEM
Displacement	19.6 cc/rev	40 cc/rev
Continuous pressure ¹	350 bar (5075 psi)	420 bar (6090 psi)
Max. drain line pressure	1,5 bar (22 psi)	1 bar (15 psi)
Fluid	HL / HM	HLP
Filtration class	21/19/16 (ISO 4406)	20/18/13 (ISO 4406)
Optimal viscosity	15-40 cSt	15-30 cSt
Max. viscosity	800 cSt	1000 cSt
Max oil temperature ²	90 °C (194 °F)	80 °C (176 °F)

¹ Motor in continuous service. With pump operating within the prescribed operating limits, the actual working pressure is always lower.

² With reference to the temperature of the oil present in the main circuit.

DIMENSIONS

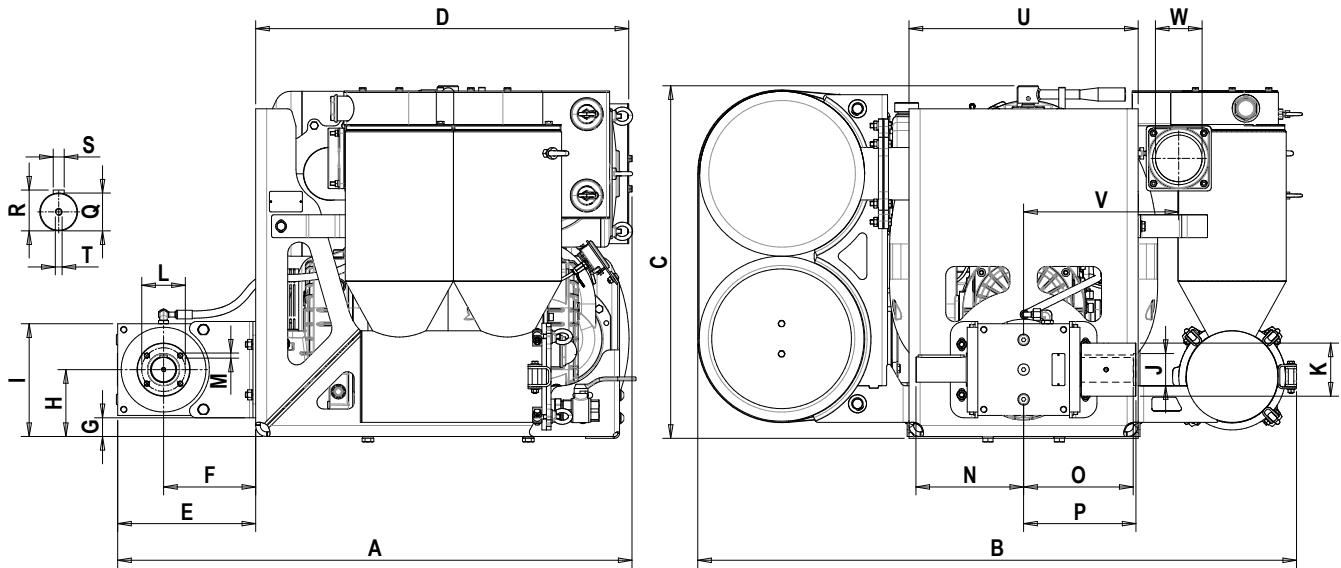
HELIX 140-180-220 SYSTEM



HELIX SYSTEM		A	B	C	D	E	F	G	H	I	J	K
140	in	41	48.6	27.6	0.6	30.9	10.1	5.8	2.7	6.4	10.2	11.6
	mm	1041	1234	702	15	784	257	147	68	163	258	295
180	in	42	48.6	27.6	0.6	30.9	11.1	6.8	2.7	6.4	10.2	11.6
	mm	1066	1234	702	15	784	282	172	68	163	258	295
220	in	42.9	48.6	27.6	0.6	30.9	12	7.8	2.7	6.4	10.2	11.6
	mm	1088	1234	702	15	784	304	197	68	163	258	295

HELIX SYSTEM		L	M	N	O	P	Q	R	S	T	U	V
140	in	7	7	Ø 3.7	0.3	Ø 1.4	1.5	0.3	0.4	16.9	12.6	Ø 4.1
	mm	180	180	Ø 95	M8	Ø 35	38.4	8	M10	430	320	Ø 102
180	in	7	7	Ø 3.7	0.3	Ø 1.4	1.5	0.3	0.4	16.9	12.6	Ø 4.1
	mm	180	180	Ø 95	M8	Ø 35	38.4	8	M10	430	320	Ø 102
220	in	7	7	Ø 3.7	0.3	Ø 1.4	1.5	0.3	0.4	16.9	12.6	Ø 4.1
	mm	180	180	Ø 95	M8	Ø 35	38.4	8	M10	430	320	Ø 102

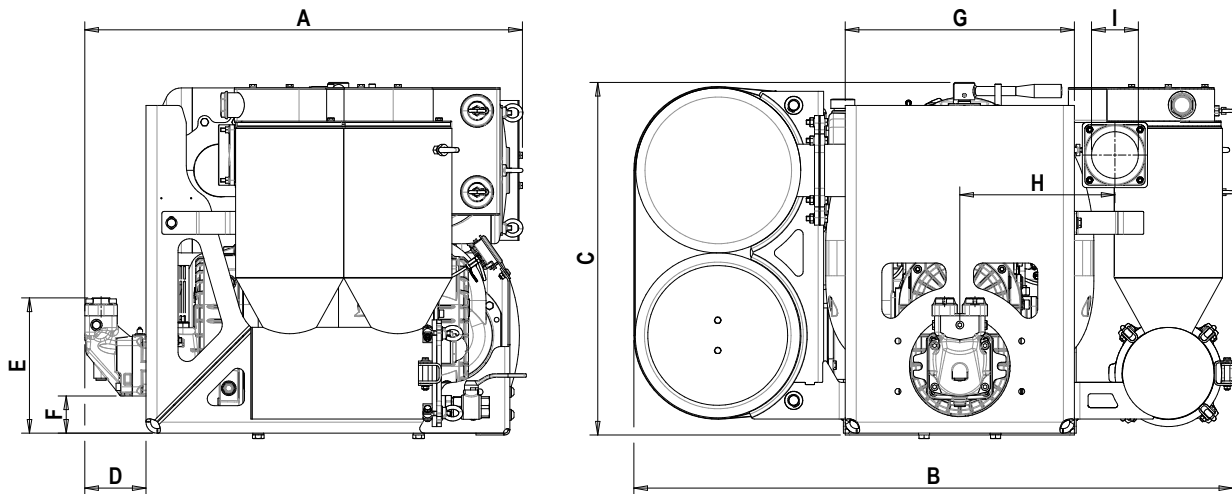
HELIX 300 SYSTEM



HELIX SYSTEM		A	B	C	D	E	F	G	H	I	J	K	L
300	in	44.2	51.5	30.3	32	11.9	7.9	1.6	5.7	9.7	Ø 2.7	Ø 4.6	Ø 3.7
	mm	1122	1307	769	814	301	201	41	146	246	Ø 70	Ø 116	Ø 95

HELIX SYSTEM		M	N	O	P	Q	R	S	T	U	V	W
300	in	7/16-20 UNF	9.3	9.3	9.6	Ø 2.2	2.3	0.6	0.4	19.7	13.3	Ø 4.1
	mm	11	235	235	245	Ø 55	59.3	16	M10	500	338	Ø 102

HELIX 140-180-220-330 SYSTEM with hydraulic motor



HELIX SYSTEM		A	B	C	D	E	F	G	H	I
140 HDR	in	37.4	48.6	27.4	6.5	10.7	4.1	16.9	12.6	Ø 4.1
	mm	950	1234	695	166	272	104	430	320	Ø 102
180 HDR	in	38.4	48.6	27.4	7.5	10.7	4.1	16.9	12.6	Ø 4.1
	mm	975	1234	695	191	272	104	430	320	Ø 102
220 HDR	in	39	48.6	27.4	8.5	10.7	4.1	16.9	12.6	Ø 4.1
	mm	989	1234	695	216	272	104	430	320	Ø 102
300 HDR	in	37.6	51.4	30.3	5.3	11.6	3.2	19.7	13.3	Ø 4.1
	mm	955	1306	769	134	295	81	500	338	Ø 102

The company reserves the right to make changes without notice. - All components are available upon request.