400-038-5808











APPLICATION INDUSTRY

Sewage treatment industry,Cement industry,Paper industry,
Thermal power industry,Food industry,Bio-pharmaceutical industry,
Semiconductor industry,Textile printing and dyeing,Steel industry,
Fermentation industry,Chemical industry,Brewing industry

RAETTS®

Maglev Turbo Compressor

Pressure up to ***8bar*** | Maglev bearing

Maintenance-free | Energy saving and efficiency



RAETTS High-tech Park, No.3,Juyuan Second Road , Shangtun,Liaobu Town,
Dongguan City , Guangdong Province, China

sales@raettsgroup.com www.raettsgroup.com

RAETTS Intelligent Equipment (Guangdong) Co., Ltd.

GLOBAL INNOVATOR OF ENERGY SOLUTIONS

RAETTS CORE TECHNOLOGY EXPERTS



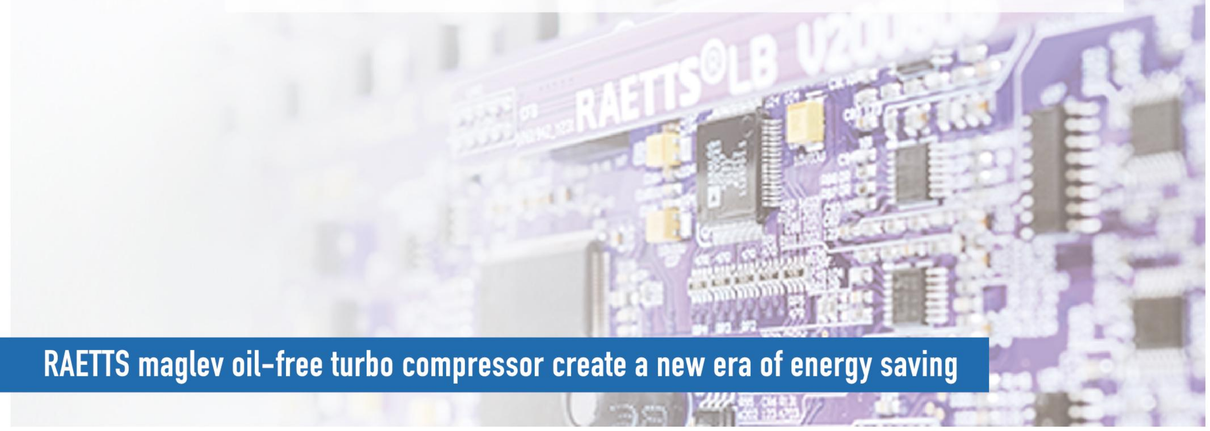
Yanhua Sun- Chief Scientist of RAETTS

Famous scientists in the field of magnetic levitation and high-speed motor;Associate professor and doctoral supervisor of Xi'an Jiaotong University;PhD of Mechanical Engineering, Xi'an Jiaotong University; Government-sponsored student, graduated from the University of Virginia, USA;Visiting scholar of The Hong Kong Polytechnic University; Expert member of the Magnetic Suspension Technology and Vibration Control Professional Committee of the Chinese Society of Vibration Engineering.



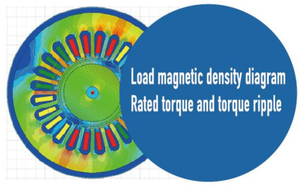
Baisong Yang- RAETTS Chief Engineer

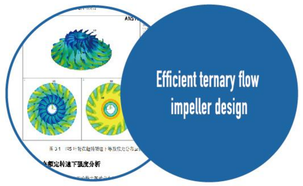
Famous experts in suspension blowers and high-speed motors.
Post-doctor and associate researcher of Xi'an Jiaotong University
Research fields include elastic foil air bearing, ultra-high speed permanent magnet synchronous motor, fuel cell ultra-high speed air compressor and sewage treatment aeration blower.



RAETTS maglev oil-free turbo compressor create a new era of energy saving

RAETTS MAGLEV TURBO COMPRESSOR





RAETTS maglev turbo compressor is a high-tech product integrating mature technologies such as magnetic levitation, frequency conversion, high-speed permanent magnet synchronous motor and high-speed impeller. Its R&D and manufacturing involve the deep integration of hydrodynamics, mechanics, electronics, electromagnetics, rotor dynamics, control engineering, computer science and other disciplines.

RAETTS maglev turbo compressor with active levitation magnetic bearing, which can keep the compressor rotor in the best position. The frequency conversion technology realizes the low current start-up of the compressor and intelligent adjustment of all working conditions. The application of permanent magnet synchronous motor and high-efficiency ternary impeller realizes the advantages of high efficiency, small volume and light weight of the whole machine.

Compared with traditional air compressor, can save energy more than

20%

Compared with the same type of air compressor, can save energy more than

5%

The noise is below

70dB

Production process of maglev turbo compressor









CORE TECHNOLOGY



Ultra-efficient permanent magnet synchronous motor

The motor efficiency up to 96%. Compared with other motors, it has the advantages of small size, small power loss and good cooling effect.

Magnetic suspension bearing

Independent R&D and production, meeting the requirement of falling more than10 times at full speed. The coil has good dust-proof and anti-aging effect.

Ternary flow impeller technology

Use ternary flow theory to avoid blade flow separation, reduce flow loss, ensure the smooth flow of air, uniform transmis-sion, and ensure the best flow and efficiency.

Maglev bearing controller

High reliability, high stability, selfidentificationself-calibration and adjustment, without manual intervention avoiding downtime and other risks.

PLC communication system

Built-in remote control communication function, support RS485/RS232 /THERNET. All wiring is clear, and easy maintenance.

Efficient cooling system

The motor using air cooling and interstage cooling, two completely independent cooling circulation systems, with better and stable cooling effect.

PRODUCT ADVANTAGES

Self-scanning function 0~2000Hz

Accurately captures pre-rotation and rotation anti-disturbance performance parameters

Advanced UFRC algorithm

Negative feedback control +UFRC algorithm, effectively ensure the machine to work safely and reliably for a long time

Implementation standards

Implementation of IS014839 international standards



Control cable

German technology, good performance, strong anti-interference ability, good control stability,with shielding function

Sensor

German design, static and stable suspension, axis runout less than 1um

Air inlet filter

Pure air filter system without lubricating oil, more convenient for material replacement

SELECTION OF MAGLEV TURBO COMPRESSOR

Model	Power		Pressure	Air Displacement	Specific Power
	(hp)	(kW)	(MPaG)	(m^3/min)	
CXPLC100-20	100	75	0.2	28.5	2.63
CXPLC100-25			0.25	25.5	2.94
CXPLC100-30			0.3	21	3.57
CXPLC100-35			0.35	19	3.95
CXPLC100-40			0.4	17.2	4.36
CXPLC100-50			0.5	15.5	4.84
CXPLC100-60			0.6	14.2	5.28
CXPLC150-20	150	110	0.2	42	2.62
CXPLC150-25			0.25	38	2.89
CXPLC150-30			0.3	32	3.44
CXPLC150-35			0.35	29	3.79
CXPLC150-40			0.4	25.5	4.31
CXPLC150-50			0.5	23.5	4.68
CXPLC150-60			0.6	21	5.24
CXPLC200-20	200	150	0.2	58	2.59
CXPLC200-25			0.25	52	2.88
CXPLC200-30			0.3	43	3.49
CXPLC200-35			0.35	39	3.85
CXPLC200-40			0.4	35	4.29
CXPLC200-50			0.5	32	4.69
CXPLC200-60			0.6	29	5.17
CXPLC250-20	250	185	0.2	72.5	2.55
CXPLC250-25			0.25	64	2.89
CXPLC250-30			0.3	53	3.49
CXPLC250-35			0.35	50	3.70
CXPLC250-40			0.4	45	4.11
CXPLC250-50			0.5	40	4.63
CXPLC250-60			0.6	37	5.00

Model	Power		Pressure	Air Displacement	Specific Power
	(hp)	(kW)	(MPaG)	(m^3/min)	
CXPLC300-20	300	220	0.2	88	2.50
CXPLC300-25			0.25	78	2.82
CXPLC300-30			0.3	65	3.38
CXPLC300-35			0.35	61	3.61
CXPLC300-40			0.4	55	4.00
CXPLC300-50			0.5	49.5	4.44
CXPLC300-60			0.6	46	4.78
CXPLC400-20	400	300	0.2	121	2.48
CXPLC400-25			0.25	107	2.80
CXPLC400-30			0.3	89	3.37
CXPLC400-35			0.35	84.5	3.55
CXPLC400-40			0.4	75	4.00
CXPLC400-50			0.5	67.5	4.44
CXPLC400-60			0.6	63	4.76
CXPLC150-70	150	110	0.7	19.5	5.64
CXPLC150-80			0.8	18	6.11
CXPLC220-70	220	165	0.7	30.5	5.41
CXPLC220-80			0.8	28	5.89
CXPLC350-70	350	260	0.7	50.5	5.15
CXPLC350-80			0.8	46	5.65
CXPLC415-70	415	305	0.7	60	5.08
CXPLC415-80			0.8	52	5.87
CXPLC560-30	560	410	0.7	82.5	4.97
CXPLC560-35			0.8	78.5	5.22

Note: Air Displacement = inhalation flow, the error of practical measurement values of specific power is not exceed 5%