

Roots Blowers

RUTA Vacuum Systems Introduction

Ideal Vacuum Products is proud to supply Oerlikon Leybold RUTA Roots blower vacuum systems and when at all possible, we strive to ship our stocked inventory of vacuum pump systems within 24-hours of your order. Roots blower systems are the vacuum workhorse of many industrial applications and research systems. The reasoning is that the Roots blower super-charges the roughing pump, which greatly increases the vacuum systems pumping speed, below the 10 Torr pressure range. On the atmosphere pressure side the vacuum systems pumping speed is more close to the pumping speed for the single independent roughing pump, but as the pressure in the system falls the Roots blower really increases the vacuum systems pumping speed. The pumping speed approaches the maximum pumping speed of the blower near 1 Torr.



**Chemical Series
WSU Blower
PFPE Oil**

**Industrial Series
WAU Blower
Hydrocarbon Oil**

The ultimate pressure of a vacuum pump system depends on the number of stages it has, this is the reason our Oerlikon Leybold RUTA vacuum pump packages have a lower ultimate pressure than the single independent roughing vacuum pump. Final pressures of 1×10^{-4} Torr or lower are common. We carry single pump blowers as replacements and complete system packages with a blower and roughing pump. They can be built for standard pumping processes with hydrocarbon oil or for processes pumping harsher chemical gases which require PFPE oils. These mechanical vacuum systems are very durable & long lasting with easy preventive maintenance (PM), only requiring oil & oil filter changes.

Options to Choose from:

We stock Oerlikon Leybold RUTA Roots blower vacuum system packages that have maximum pumping speed ranging from 125 to 1,000 CFM, with single or dual stage backing pumps built from rotary vane or rotary piston technology.

Large Range of Pumping Speeds to Choose From:

Backing pumps as small as the Oerlikon Leybold D40B (33 CFM - dual stage) to as large as the SV630B (massive 444 CFM - single stage) are available on our Roots blower vacuum pump systems. These roughing pumps can be combined with our Oerlikon Leybold blowers ranging in sizes of 251, 501, 1001, and 2001 to produce the pumping speed and ultimate pressures you require.

Available in Corrosive or Standard Industrial Systems:

Ideal Vacuum Products stocks both corrosive duty and standard industrial service Oerlikon Leybold RUTA Roots blower vacuum pump system packages. The standard industrial vacuum pump systems, are equipped with WAU blowers, and use standard hydrocarbon oil. The corrosive duty vacuum pump systems, typically come with WSU blowers, and use PFPE (perfluoro-polyether) oils, such as Fomblin fluids. PFPE is chemically inert and is therefore resistant to oxidizing agents, such as Fluorine (F) and Chlorine (Cl) and is used in vacuum pumping systems with chemical applications. These properties enable the PFPE fluid to withstand even the most harsh chemical environments while maintaining excellent high vacuum performance. We carry both hydrocarbon and PFPE oils.

6 Vacuum Pumps

Roots Blowers Boosters

Roots Blowers

RUTA Vacuum Systems

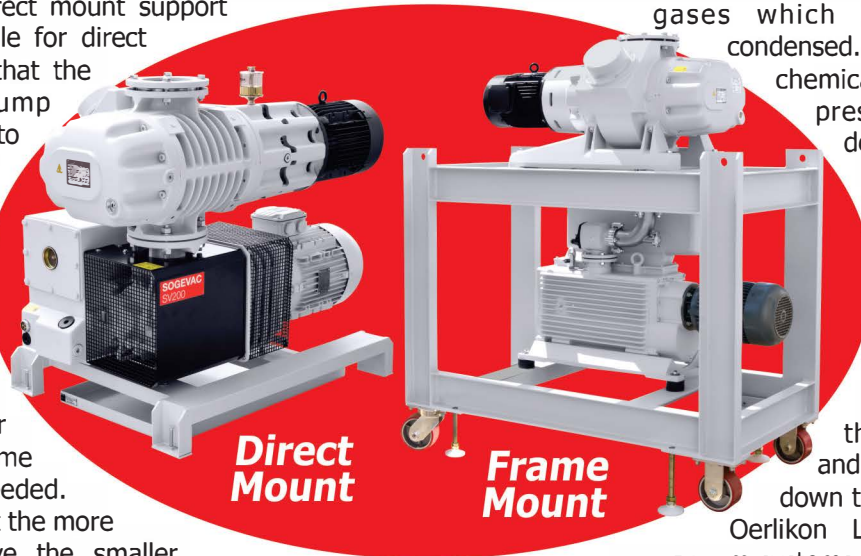
Frame or Direct Mount: We offer Oerlikon Leybold RUTA vacuum systems that have either frame mounted or direct mounted Roots blowers. With direct mounted, the blower is supported directly on top of the lower roughing pump with a solid direct mount support adapter. The basic rule for direct mounted systems is that the lower roughing pump needs to be able to support the mass of the upper blower. That is, direct mounted RUTA systems have an upper limit on the maximum blower size that can be connected. If a larger blower is desired a frame mounted system is needed. The frame can support the more massive blower above the smaller roughing pump. The advantages are that direct mounted RUTA systems are more compact having the lowest height to blower intake flange. The frame mounted systems are taller but very robust.

RUTA Pump Systems for Metal Producing and The Processing Industry: In common vacuum furnace processes such as hardening, annealing, brazing, melting, and casting, oil-sealed or dry compressing standard vacuum pump systems are commonly used. The oil-sealed systems consist of a combination of a Roots vacuum pump and a single or two stage rotary vane or rotary piston pump. On small furnaces RUTA WAU blowers vacuum systems are the most suitable because these may be cut in at the higher operating pressure, while on larger furnaces and particularly where short pump-down cycles are required the use of larger RA series blowers with suitable sized backing pumps is advisable. For special processes, e.g. fusion or degassing of molten masses, due to the high dust contents, the additional use of a dust separator is required as well as equipping the backing pumps with oil filtering units.

RUTA Pump Systems with Condensers: If the vacuum systems must pump larger quantities of vapor or of vapor gas mixtures, it is economical to insert cold condensers within the pump system. Cooled condensers are themselves effective partial pumps which condense most of the vapors from the pumped media. The downstream mechanical pumps will then only need to pump those gases which have not already condensed.

The quantity and chemical properties of vapor present in each case determines the size of the condenser and the temperature at which it is operated. The size of the downstream pump is determined by the quantity of the non-condensable gases, the required pressure, and the required pump-down time for the system. All Oerlikon Leybold RUTA series vacuum systems may be equipped with

one or several condensers. These are often used in the chemical industry where RUTA vacuum pump systems with condensers are not only used to generate vacuum but they are often employed in recovery of solvents.



Applications:

- Industry
- Research & Chemistry
- Processes for metal production and drying
- Degassing
- Thermal Treatment
- Coating in semi conductor manufacturing
- Surface refinement
- Backing pump sets for high vacuum in combination with diffusion pumps, turbomolecular and cryo pumps

Roots Blowers

Stand Alone Replacement Blowers *(must be used with a roughing pump)*

Difference between WSU and WAU blowers: One major difference between the WSU and WAU Roots blowers is that the WSU blowers are hermetically sealed and have a canned motor. They do not have a shaft seal, the motor is inside the vacuum so no shaft seal is needed. The hermetically sealed property is important for harsh chemical applications where the WSU PFPE prepared blowers are commonly found. The standard series WAU blowers are not hermetically sealed, have the motor outside the vacuum, and do contain a shaft seal. We are excited to announce that both the RUTA WAU & WSU pumps can be operated at any pressure between atmosphere and ultimate vacuum! Common to all RUTA "U" series blowers WAU & WSU have the integrated bypass valve feature which permits switching on the blower pump at the same time as the backing pump.

The bypass valve maintains the maximum permissible pressure differential across the blower rotors. This is important when the vacuum chamber pressure is high and the roughing pump is unable to keep the blower's discharge pressure adequately low. The gain is additional pumping speed and shorter cycle times. This is an edge advantage to load lock applications and time critical processes. The WS and WA (versions without the bi-pass valve) are available but require additional electronics and control systems to turn the blower motor off above 20 Torr. If your applications needs are WS or WA pumps, please let us know and we will quote the best stand alone blower or system for your process.

WSU vs. WAU BLOWERS

WSU

Hermetically sealed, canned motor, no shaft seal, best for harsh chemical processes. Prepared for PFPE oils.

WAU

Has shaft seal, not hermetically sealed, best for standard industrial processes. Prepared for hydrocarbon oils.



6 Vacuum Pumps

Roots Blowers Boosters

Oerlikon Leybold Roots Blower Booster Packages

Chemical or Standard Systems With **MASSIVE** Pumping Speeds

RUTA Vacuum Systems

Ideal Vacuum Products is proud to supply Oerlikon Leybold RUTA Roots blower vacuum systems and when at all possible, we strive to ship our stocked inventory of vacuum pump systems within 24-hours of your order. Roots blower systems are the vacuum workhorse of many industrial applications and research systems. The reasoning is, that the Roots blower super-charges the roughing pump, which greatly increases the vacuum systems pumping speed, below the 10 Torr pressure range. On the atmosphere pressure side the vacuum systems pumping speed is more close to the pumping speed for the independent roughing pump, but as the pressure in the system falls the Roots blower really increases the vacuum systems pumping speed. The pumping speed approaches the maximum pumping speed of the blower near 1 Torr. The ultimate pressure of a vacuum pump system depends on the number of stages it has, this is the reason our Oerlikon Leybold RUTA vacuum pump packages have a lower ultimate pressure than the independent roughing pump, final pressures of 1×10^{-4} Torr or lower are common. These mechanical vacuum systems are very durable & long lasting with easy preventive maintenance (PM), only requiring oil & oil filter changes.

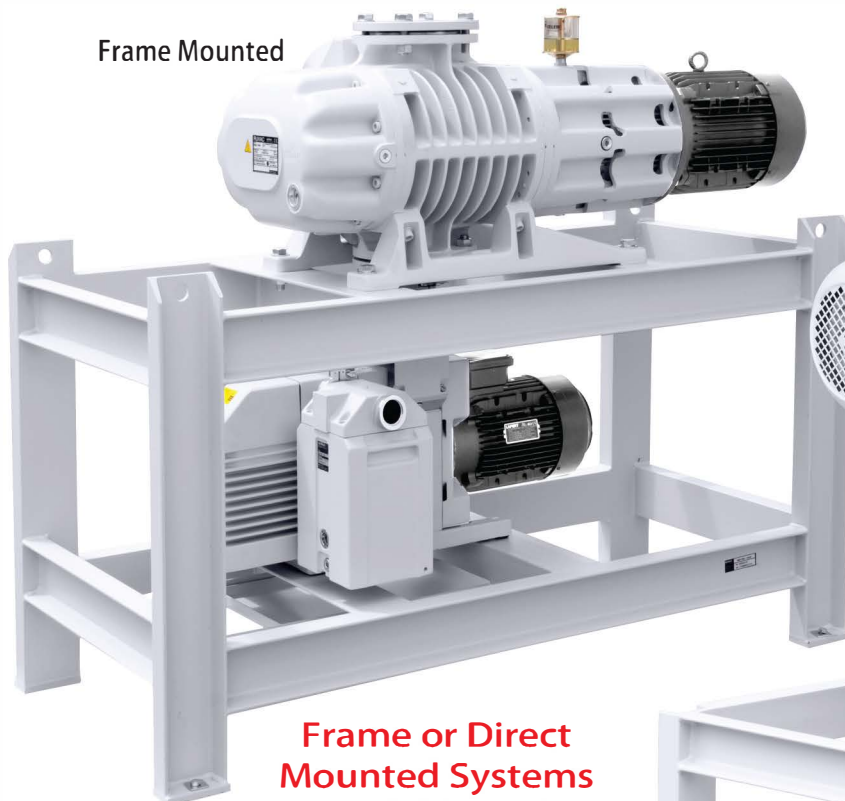
Features Include:

- Ultimate pressures down to 1×10^{-4} Torr (with dual stage roughing pump)
- Sizes from 100 to 1100 CFM
- Available for Chemical or Standard Applications
- Frame, Direct Mount, and Mobile for each version
- WSU Blowers (hermetically sealed, no shaft seals)
- WAU Blowers (shaft seals, motor outside)
- "U" Series blowers (bypass valve, switch blower & backing pump on at same time, gain of better pumping speed & shorter cycle times)

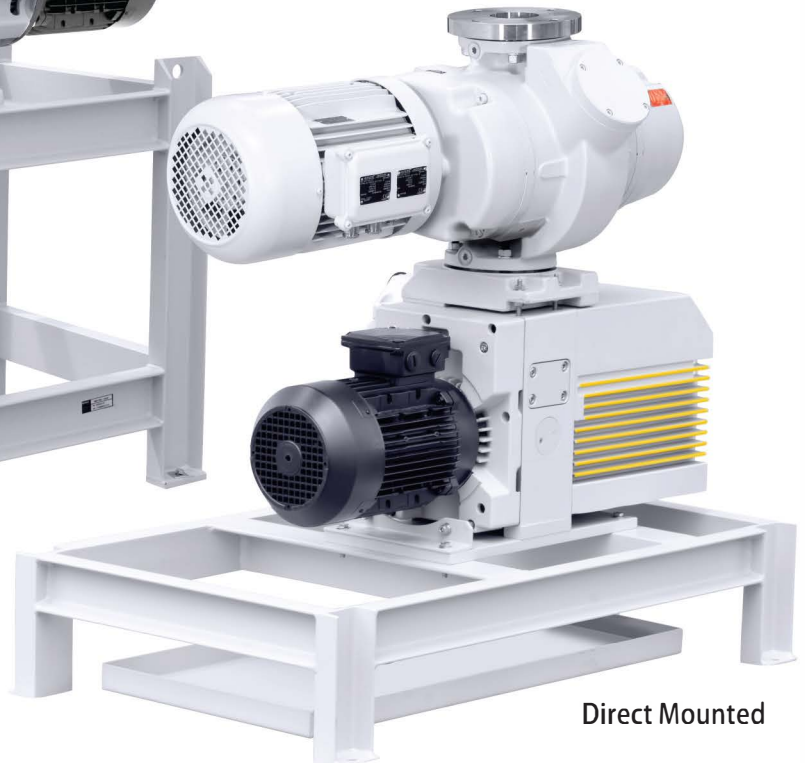
Applications Include:

- Industry, Research & Chemistry
- Processes for Metal Production
- Drying & Degassing, Thermal Treatment
- Coating in Semiconductor Manufacturing
- Vacuum Furnace Processes
- Backing Pump Sets for High Vacuum in Combo with Diffusion, Turbomolecular or Cryo Pumps

Frame Mounted



Frame or Direct Mounted Systems Available with Heavy Duty Wheels For Mobile Operations



Direct Mounted

Roots Blowers Boosters

Derlikon Leybold Roots Blower Booster Packages

Direct Mounted or Frame Mounted

IDEAL P/N	Mount	Blower Booster	With Roughing Vacuum Pump	CFM	Connection Flanges In/Out	OIL	Price*
P105271	Direct Mount Skid	RUVAC WSU-251	TriVac D40BCS	142	63 ISO-K / 40 ISO-KF	(1)	\$23,000.00
P105296	"	RUVAC WSU-501	TriVac D40BCS	262	63 ISO-K / 40 ISO-KF	(1)	\$23,995.00
P105272	"	RUVAC WSU-251	TriVac D65BCS	148	63 ISO-K / 40 ISO-KF	(1)	\$23,995.00
P105273	"	RUVAC WSU-501	TriVac D65BCS	269	63 ISO-K / 40 ISO-KF	(1)	\$26,995.00
P105269	Direct Mount Mobile	RUVAC WSU-251	TriVac D40BCS	142	63 ISO-K / 40 ISO-KF	(1)	\$22,995.00
P105270	"	RUVAC WSU-501	TriVac D40BCS	262	63 ISO-K / 40 ISO-KF	(1)	\$23,995.00
P105268	"	RUVAC WSU-251	TriVac D65BCS	148	63 ISO-K / 40 ISO-KF	(1)	\$23,995.00
P105267	"	RUVAC WSU-501	TriVac D65BCS	269	63 ISO-K / 40 ISO-KF	(1)	\$26,995.00
P105293	Frame Mount	RUVAC WSU-251	TriVac D40BCS	142	63 ISO-K / 40 ISO-KF	(1)	\$23,495.00
P105289	"	RUVAC WSU-501	TriVac D40BCS	262	63 ISO-K / 40 ISO-KF	(1)	\$23,495.00
P105290	"	RUVAC WSU-251	TriVac D65BCS	148	63 ISO-K / 40 ISO-KF	(1)	\$23,995.00
P105291	"	RUVAC WSU-501	TriVac D65BCS	269	63 ISO-K / 40 ISO-KF	(1)	\$26,995.00
P105321	"	RUVAC WSU-1001	TriVac D65BCS	438	100 ISO-K / 40 ISO-KF	(1)	\$29,995.00
P105292	"	RUVAC WSU-2001	TriVac D65BCS	739	160 ISO-K / 40 ISO-KF	(1)	\$34,995.00
P105277	Frame Mount Mobile	RUVAC WAU-1001	Rotary Piston DK-200	576	100 ISO-K / 63 ISO-K	(2)	\$37,895.00
P105274	"	RUVAC WAU-2001	Rotary Piston DK-200	950	160 ISO-K / 63 ISO-K	(2)	\$39,950.00
P105276	"	RUVAC WAU-1001	Rotary Piston E250	565	100 ISO-K / 63 ISO-K	(2)	\$37,995.00
P105275	"	RUVAC WAU-2001	Rotary Piston E250	954	160 ISO-K / 63 ISO-K	(2)	\$39,995.00
P105434	Direct Mount Skid	RUVAC WAU-251	SogevacSV100B	161	63 ISO-K / 1 1/2" NPT	(2)	\$14,600.00
P105435	"	RUVAC WAU-501	SogevacSV100B	270	63 ISO-K / 1 1/2" NPT	(2)	\$17,600.00
P105436	"	RUVAC WAU-251	Sogevac SV200	205	63 ISO-K / 2" NPT	(2)	\$15,995.00
P105437	"	RUVAC WAU-501	Sogevac SV200	258	63 ISO-K / 2" NPT	(2)	\$16,995.00
P105438	"	RUVAC WAU-1001	Sogevac SV200	505	100 ISO-K / 2" NPT	(2)	\$18,995.00
P105439	"	RUVAC WAU-501	SogevacSV300B	380	63 ISO-K / 2" NPT	(2)	\$19,995.00
P105440	"	RUVAC WAU-1001	SogevacSV300B	516	100 ISO-K / 2" NPT	(2)	\$23,375.00
P105441	"	RUVAC WAU-2001	SogevacSV300B	1020	160 ISO-K / 2" NPT	(2)	\$26,995.00
P105442	"	RUVAC WAU-1001	SogevacSV630B	552	100 ISO-K / 100 ISO-K	(2)	\$31,995.00
P105443	"	RUVAC WAU-2001	SogevacSV630B	1194	160 ISO-K / 100 ISO-K	(2)	\$33,995.00
P105278	Direct Mount Mobile	RUVAC WAU-251	TriVac D40B	142	63 ISO-K / 40 ISO-KF	(2)	\$18,200.00
P105279	"	RUVAC WAU-501	TriVac D40B	262	63 ISO-K / 40 ISO-KF	(2)	\$19,450.00
P105280	"	RUVAC WAU-251	TriVac D65B	148	63 ISO-K / 40 ISO-KF	(2)	\$19,450.00
P105281	"	RUVAC WAU-501	TriVac D65B	269	63 ISO-K / 40 ISO-KF	(2)	\$19,995.00
P105294	Direct Mount Skid	RUVAC WAU-251	TriVac D40B	142	63 ISO-K / 40 ISO-KF	(2)	\$19,200.00
P105284	"	RUVAC WAU-501	TriVac D40B	262	63 ISO-K / 40 ISO-KF	(2)	\$20,450.00
P105282	"	RUVAC WAU-251	TriVac D65B	148	63 ISO-K / 40 ISO-KF	(2)	\$20,450.00
P105283	"	RUVAC WAU-501	TriVac D65B	269	63 ISO-K / 40 ISO-KF	(2)	\$20,995.00
P105287	Frame Mount	RUVAC WAU-251	TriVac D40B	142	63 ISO-K / 40 ISO-KF	(2)	\$19,200.00
P105288	"	RUVAC WAU-501	TriVac D40B	262	63 ISO-K / 40 ISO-KF	(2)	\$20,200.00
P105295	"	RUVAC WAU-251	TriVac D65B	148	63 ISO-K / 40 ISO-KF	(2)	\$20,200.00
P105285	"	RUVAC WAU-501	TriVac D65B	269	63 ISO-K / 40 ISO-KF	(2)	\$21,200.00
P105266	"	RUVAC WAU-1001	TriVac D65B	438	100 ISO-K / 40 ISO-KF	(2)	\$23,950.00
P105286	"	RUVAC WAU-2001	TriVac D65B	739	160 ISO-K / 40 ISO-KF	(2)	\$26,995.00

WSU
Direct Mounted Skid



WSU
Direct Mounted Mobile



WSU
Frame Mounted



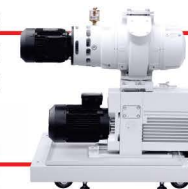
WAU
Frame Mounted Mobile



WAU
Direct Mount Skid



WAU
Direct Mount Mobile



WAU
Direct Mount Skid



WAU
Frame Mounted



(1) Chemical Series Pumps prepared for Chemical Processes, Use PFPE Inert Oil
 (2) Standart Series Pumps prepared for Standard Processes, Use Hydrocarbon Oil

ALL Packages are 3 phase 200-230 or 440-480 VAC input power

* Catalog Pricing
 Subject to Change

6 Vacuum Pumps Roots Blowers Boosters

Oerlikon Leybold

Blowers Only

Pump Models Ruvac WAU Standard Series

Prepared for Hydrocarbon LVO-100 Oil and 3 phase 200-240/380-480 VAC 60hz. Motors

Stand Alone Units

Ruvac WAU Booster Blower Pumps	Connection Flange	Ultimate Total Pressure Torr	Max. effective pumping speed with backing pump (CFM)	Nominal Pump Speed CFM	IDEAL VACUUM P/N	Price*
WAU-251	63 ISO-K	6 x 10 ⁻⁴	D65B (148)	179	P105162	\$9,500.00
WAU-501	63 ISO-K	6 x 10 ⁻⁴	SV200 (312)	357	P105163	\$12,500.00
WAU-1001	100 ISO-K	6 x 10 ⁻⁴	SV300 (588)	707	P105164	\$16,500.00
WAU-2001	160 ISO-K	6 x 10 ⁻⁴	SV630 (1236)	2100	P105165	\$21,000.00

Pump Models Ruvac WSU CHEMICAL Series

Prepared for PFPE LVO-400 Oil and 3 phase 200-240/380-480 VAC 60hz. Motors

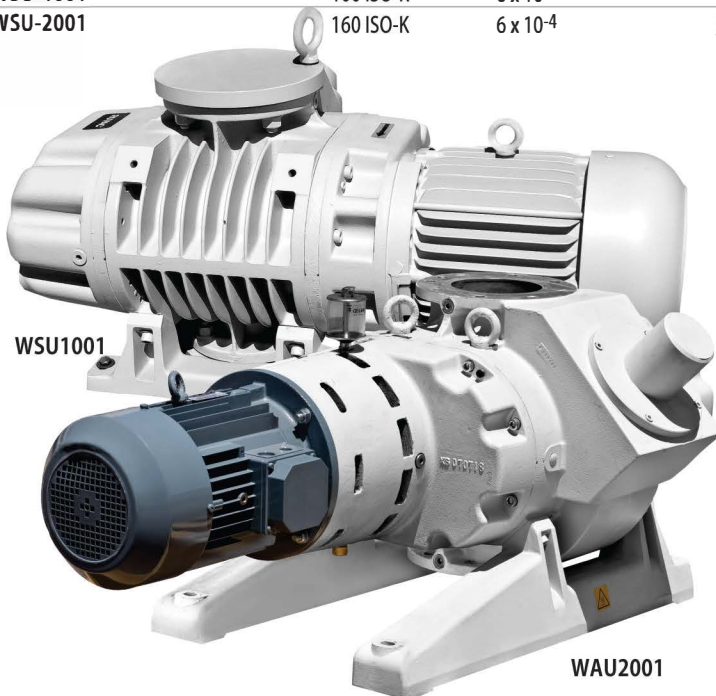
Ruvac WSU Booster Blower Pumps	Connection Flange	Ultimate Total Pressure Torr	Max. effective pumping speed with backing pump (CFM)	Nominal Pump Speed CFM	IDEAL VACUUM P/N	Price*
WSU-251	63 ISO-K	6 x 10 ⁻⁴	D65BCS (148)	179	P105155	\$12,000.00
WSU-501	63 ISO-K	6 x 10 ⁻⁴	SV200 (312)	357	P105156	\$15,000.00
WSU-1001	100 ISO-K	6 x 10 ⁻⁴	SV300 (588)	707	P105142	\$24,500.00
WSU-2001	160 ISO-K	6 x 10 ⁻⁴	SV630 (1236)	2100	P105157	\$25,500.00

Pump Models Ruvac WSU Standard Series

Prepared for Hydrocarbon LVO-100 Oil and 3 phase 200-240/380-480 VAC 60hz. Motors

Electrical Supply Voltage for all these Booster Blowers
is 3 phase 60hz. 200-240/380-480 VAC

Ruvac WSU Booster Blower Pumps	Connection Flange	Ultimate Total Pressure Torr	Max. effective pumping speed with backing pump (CFM)	Nominal Pump Speed CFM	IDEAL VACUUM P/N	Price*
WSU-251	63 ISO-K	6 x 10 ⁻⁴	D65B (148)	179	P105158	\$11,000.00
WSU-501	63 ISO-K	6 x 10 ⁻⁴	SV200 (312)	357	P105159	\$14,600.00
WSU-1001	100 ISO-K	6 x 10 ⁻⁴	SV300 (588)	707	P105160	\$18,500.00
WSU-2001	160 ISO-K	6 x 10 ⁻⁴	SV630 (1236)	2100	P105161	\$23,000.00



Roots Blower Direct Mount Adapter Kits

Booster to	Vacuum Pump	Ideal P/N	Price*
WS/WSU 151, 251, & 501	D40 / D65 B/BCS	P102958	\$510.00
WA/WAU/WS/WSU 251 & 501	SV100B	P105608	\$695.00
WA/WAU/WS/WSU 501	SV200 / SV300	P105609	\$750.00
WA/WAU/WS/WSU 1001	SV200 / SV300	P105610	\$825.00
WA/WAU/WS/WSU 501	SV300B	P105604	\$895.00
WA/WAU/WS/WSU 1001	SV300B	P105605	\$899.95
WA/WAU/WS/WSU 1001	SV630B/SV750B/SV750BF	P105607	\$999.95
WA/WAU/WS/WSU 2001	SV630B/SV750B/SV750BF	P105606	\$999.95



These direct mount adapters offer a low cost solution to frame mounting. The weight of the blower is supported directly by the roughing pump intake. Therefore, direct mounting is the lowest height way to mount packages, offering the most clearance above the package as possible. These kits are quick and easy to install.

* Catalog Pricing
Subject to Change

Oerlikon Leybold Rotary Piston Pumps

E250 - DK200

(Single Stage)

(Two Stage)



Stand Alone
E250 / DK200

Leybold E-DK Rotary Piston Vacuum Pumps are designed for dependable performance and a long operating life. The E-DK employs pistons in series to achieve lower ultimate pressures. They offer a direct drive motor with reverse rotation lock, separate gear box lubrication and an internal adjustable gas ballast. They have corrosion resistant seals, air cooling and continuous operation from 10-4 Torr to rough vacuum. These are excellent pumps combined with a roots blower system. Applications include, vacuum drying, impregnation, heat treating, vacuum packaging, mixing, degassing and molding of plastics, production of lighting devices, electron and cathode-ray tubes, transformer oil degassing, vacuum distillation, low pressure chemical vapor deposition (LPCVD), plasma processes and general vacuum service.

Model	IDEAL VACUUM P/N	Oerlikon Leybold P/N	OIL	Voltage Ranges (60hz)	Price*
DK200 (2 stage)	P105449	89510	LVO 100	200-230/460VAC 3Ø	\$20,400.00
E250 (single stage)	P105450	89509	LVO 100	200-230/460VAC 3Ø	\$19,400.00
Minor Gasket Repair Kit, DK200/E250	NA	19623	NA	NA	\$175.00
Bushing Shaft, DK200/E250	NA	27027125	NA	NA	\$69.95
Bushing Pistons set of 2, DK200/E250	NA	20066099	NA	NA	\$225.00

Rotary Piston Pumps SPECIFICATIONS

	E250 (Single Stage)	DK200 (Two Stage)
Nominal Pumping Speed m ³ xh ⁻¹ (cfm)	290 (170.80)	225 (132.5)
Ultimate Partial Pressure		
Without Gas Ballast	4x10 ⁻² (2.4x10 ⁻²)	5x10 ⁻⁴ (3x10 ⁻⁴)
Water Vapor Tolerance	60 (45)	26 (19.5)
Average Noise Level to DIN 45 635	76	76
Speed of the Pump	540	540
Oil Filling	8.4 (8.9)	4.4 (4.6)
Weight	375 (827)	375 (827)
Intake Port	63 ISO-K	63 ISO-K
Exhaust Port	63 ISO-K	63 ISO-K
Mains Voltage 3 phase	vac 208-230/460	208-230/460



Used as Backing Pumps
E250 / DK200

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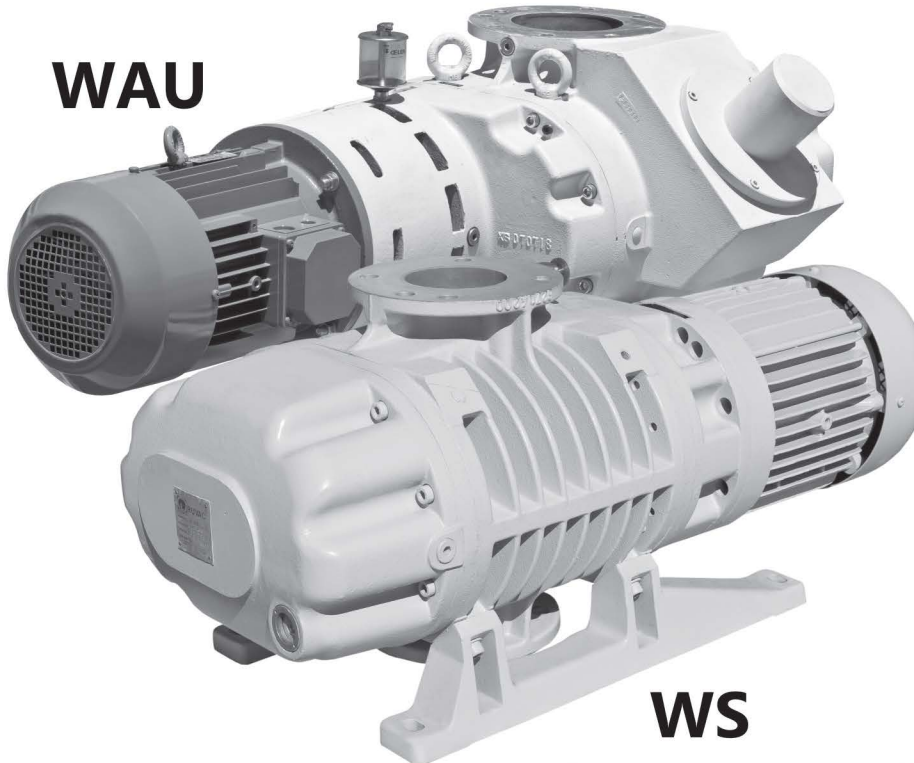
6 Vacuum Pumps Roots Blowers Boosters (Kits)

Leybold Oerlikon

Pump Models REBUILD KITS

Seal & Gasket Kit Includes: O-rings, shaft seals, gaskets & other parts for light overhaul.

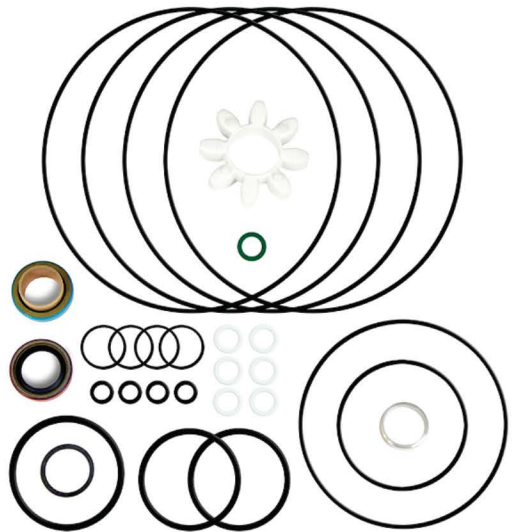
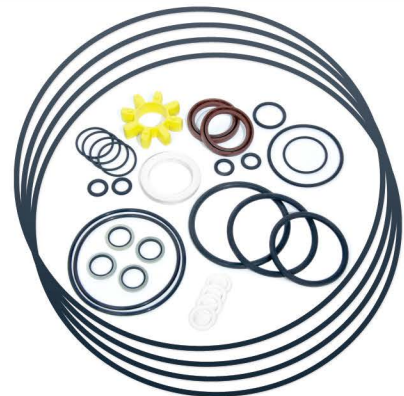
WA/WAU Booster Blower Pumps	Ideal P/N	Oerlikon P/N	Price*
WA 150/250 (Viton)		19366A	\$154.70
WA 150/250 (Teflon)	P105635	P29366A	\$240.00
WA500 (Viton)		19371A	\$209.30
WA500	P105637	19371AU	\$181.00
WA/WAU 1000(Viton)		19376A	\$353.35
WA/WAU 2000(Viton)		19381A	\$405.15
WA/WAU 151/251	P105361	19460	\$152.50
WA/WAU 151/251(Teflon)		P29460	\$60.06
WA/WAU 501	P105360	19464	\$155.00
WA/WAU 1001		19468	\$181.00
WA/1001 (Teflon)		29468	
WA/WAU 2001		19472	\$212.00
WAU 150/250		19366AU	\$167.00
WAU 150/250 (Teflon)		P29366AU	\$250.00
WAU 500	P105636	29371AU	\$300.00
WAU 1000		19376AU	\$206.00
WAU 2000		19381AU	\$270.00



Pump Models REBUILD KITS

Seal & Gasket Kit Includes: O-rings, shaft seals, gaskets & other parts for light overhaul.

WS/WSU Booster Blower Pumps	Ideal P/N	Oerlikon P/N	Price*
WS 150/250		19366S	\$65.00
WS 500		19371S	
WS 1000		19376S	\$90.00
WS 2000		19381S	
WS/WSU 151/251		P19462	\$99.99
WS/WSU 501		P19466	\$70.00
WS/WSU 1001	P103890	19470	\$199.95
WS/WSU 2001	P105362	19474	\$255.00
WSU 150/250	P105638	P19366SU	\$100.00
WSU 500		19371SU	\$73.00
WSU 1000		19376SU	\$108.00
WSU 2000		19381SU	\$168.00



* Catalog Pricing
Subject to Change

Roots Blowers Boosters (Kits)

Edwards

Pump Models **REBUILD KITS**

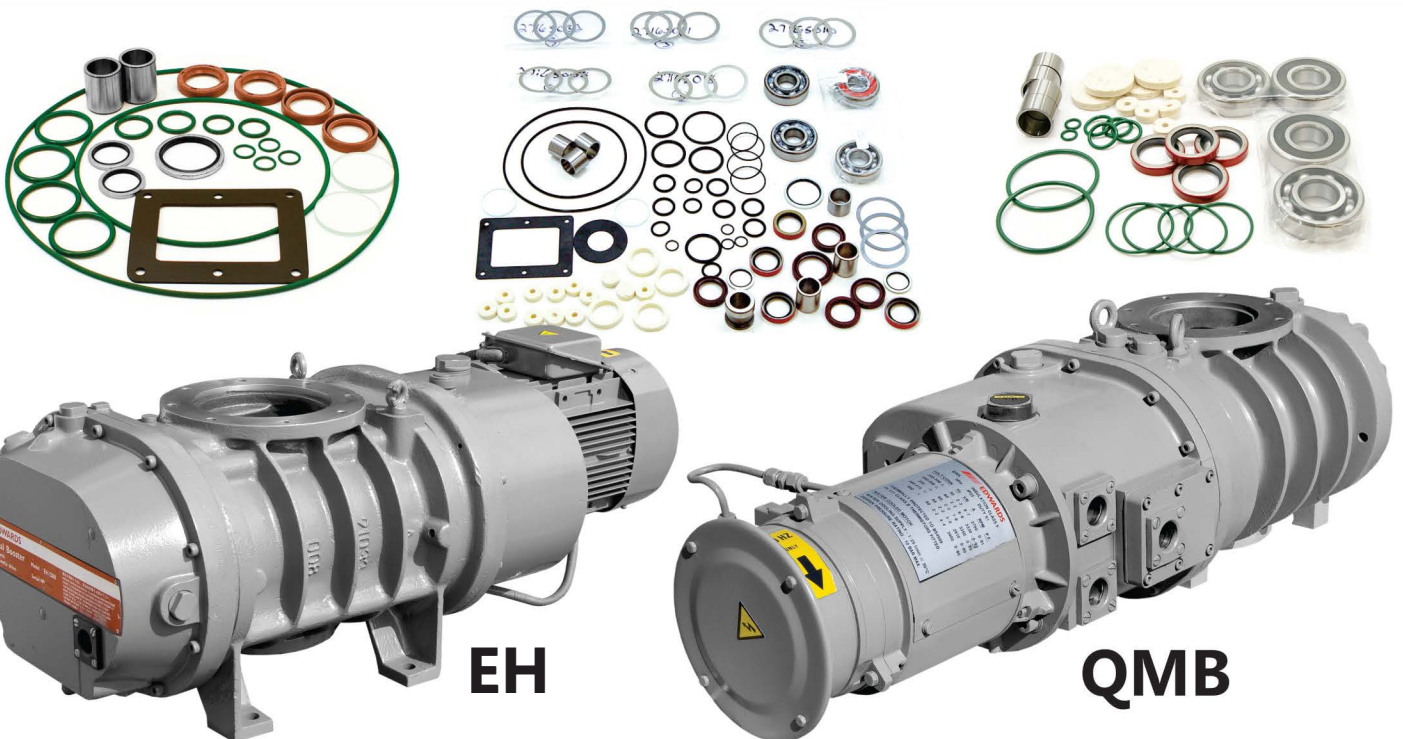
CLEAN and OVERHAUL and COMPLETE KITS

EH Booster Blower Pumps	Ideal P/N	Edwards P/N	Price*
EH250, EH500 Booster Blower Clean and Overhaul Pre-Conical Kit	P102841	30151810	\$195.00
EH250, EH500 Booster Blower Clean and Overhaul Conical Kit	P102842	30151815	\$205.00
EH250, EH500 Booster Blower Complete Rebuild Kit	P102839	30151800	\$495.00
EH1200 Booster Blower Clean and Overhaul Conical Kit	P102848	30551815	\$350.00
EH1200 Booster Blower Module Service Kit	P102847	30551820	\$806.40
EH1200 Booster Blower Complete Rebuild Kit	P102849	30551800	\$825.00

Pump Models **REBUILD KITS**

CLEAN and OVERHAUL and COMPLETE KITS

QMB, iQMB Booster Blower Pumps	Ideal P/N	Edwards P/N	Price*
QMB250, QMB500, iQMB250, iQMB500 Booster Blower Clean and Overhaul Conical Shim Kit	P102843	30151815	\$205.00
QMB250, QMB500, iQMB250, iQMB500 Booster Blower Repair Kit	P102840	30151800	\$495.00
QMB1200, iQMB1200 Booster Blower Clean and Overhaul Conical Kit	P102846	30551815	\$350.00
QMB1200, iQMB1200 Booster Blower Module Service Kit	P102844	30551820	\$806.40
QMB1200, iQMB1200 Booster Blower Complete Rebuild Kit	P102845	30551800	\$825.00



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* Catalog Pricing
Subject to Change