

R 5 Central Vacuum Systems



R 5 Central Vacuum Systems

R 5 Rotary Vane Vacuum Pumps

The modular designed Busch R 5 series rotary vane vacuum pumps are single stage, air-cooled, and direct driven. This oil-recirculating design is one of the simplest and most reliable vacuum pumps available on the world market. These rugged pumps are used in a variety of industries such as packaging and food processing, rubber molding, thermoforming, printed circuit board testing, hospitals, laboratories, robotics, vacuum lamination, printing, and many others.

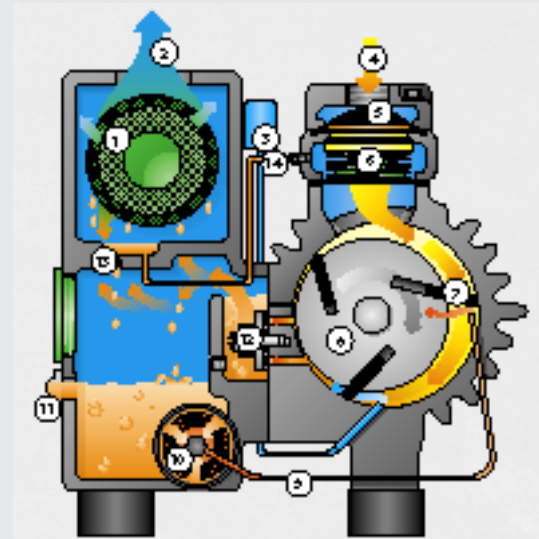
Displacements range from 3 to 1130 CFM. The RC model is for applications to 15 torr (29.3" Hg), and the RA model is for applications to 0.5 torr (29.9" Hg).



R 5 rotary vane vacuum pumps

R 5 Operating Principle

Rotation of the pump rotor, which is mounted eccentrically in the pump cylinder, traps entering vapor between rotor vane segments. As rotation continues, vapor is compressed and discharged into the exhaust box. Vapors then pass through several stages of internal oil and mist eliminators to remove 99.9% of lubricating oil from the exhaust. Oil is then returned to the oil reservoir. Additional features include an automotive type spin-on oil filter, and a built-in inlet anti-suckback valve that prevents the pump from rotating backwards. A built-in gas ballast is available on most models, which permits pumping with high water vapor loads.

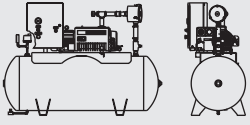
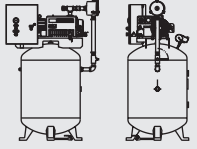
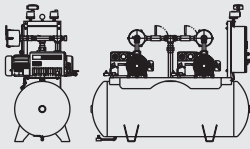
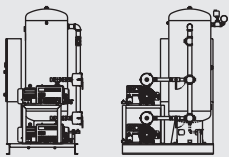


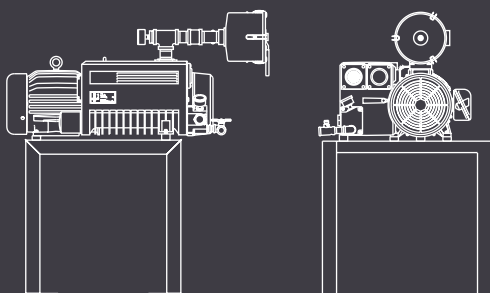
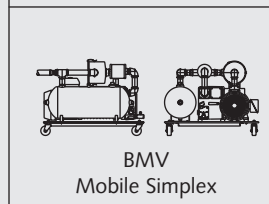
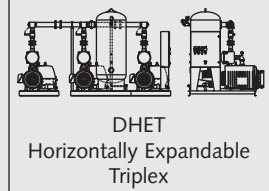
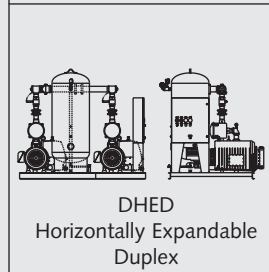
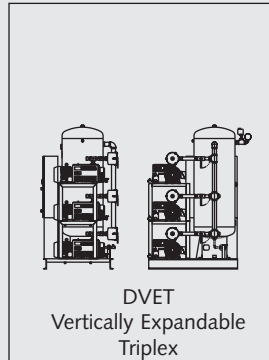
- | | |
|------------------------|------------------------|
| 1. Oil Mist Eliminator | 8. Rotor |
| 2. Exhaust | 9. Main Oil Feed Line |
| 3. Gas Ballast (RA) | 10. Spin-On Oil Filter |
| 4. Inlet | 11. Oil Sight Glass |
| 5. Inlet Screen | 12. Exhaust Valve |
| 6. Anti-Suckback Valve | 13. Oil Return Valve |
| 7. Vane | 14. Oil Return Line |

Busch R 5 Vacuum System Advantages

- Expandable with easy-to-install mechanical and electrical modules
- Remote location reduces noise and heat near work stations
- Lower operation and energy costs
- Automatic alternation for even pump wear
- Easy access for servicing
- Backup pump eliminates downtime
- Air-cooled pumps eliminate the expense of water use and disposal

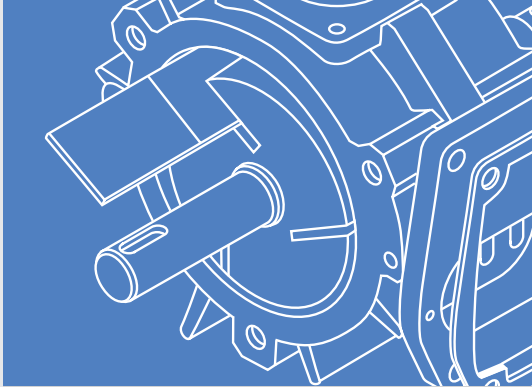
System Configurations and Sizes

 <p>OTMS Horizontal Tank Mounted Simplex</p>	<p>OTMS Systems – with Motor Control Center</p> <table border="1"> <thead> <tr> <th>Model w/Inlet</th> <th>CFM</th> <th>HP</th> <th>Tank Size (gal)</th> <th>Weight (lbs)</th> <th>LxWxH</th> </tr> </thead> <tbody> <tr><td>OTMS-1-RC0025</td><td>20</td><td>1.5</td><td>60</td><td>395</td><td>50x25x47</td></tr> <tr><td>OTMS-1-RC0040</td><td>28</td><td>2</td><td>80</td><td>485</td><td>65x25x47</td></tr> <tr><td>OTMS-1-RC0063</td><td>41</td><td>3</td><td>120</td><td>685</td><td>70x27x50</td></tr> <tr><td>OTMS-1-RC0100</td><td>63</td><td>5</td><td>120</td><td>745</td><td>70x27x50</td></tr> <tr><td>OTMS-1-RA0165</td><td>117</td><td>7.5</td><td>200</td><td>1120</td><td>73x35x64</td></tr> <tr><td>OTMS-1-RA0205</td><td>141</td><td>7.5</td><td>200</td><td>1140</td><td>73x35x64</td></tr> <tr><td>OTMS-1-RA0255</td><td>180</td><td>10</td><td>200</td><td>1165</td><td>73x35x64</td></tr> <tr><td>OTMS-1-RA0305</td><td>212</td><td>12</td><td>200</td><td>1280</td><td>73x35x64</td></tr> </tbody> </table>	Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH	OTMS-1-RC0025	20	1.5	60	395	50x25x47	OTMS-1-RC0040	28	2	80	485	65x25x47	OTMS-1-RC0063	41	3	120	685	70x27x50	OTMS-1-RC0100	63	5	120	745	70x27x50	OTMS-1-RA0165	117	7.5	200	1120	73x35x64	OTMS-1-RA0205	141	7.5	200	1140	73x35x64	OTMS-1-RA0255	180	10	200	1165	73x35x64	OTMS-1-RA0305	212	12	200	1280	73x35x64																		
Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH																																																																				
OTMS-1-RC0025	20	1.5	60	395	50x25x47																																																																				
OTMS-1-RC0040	28	2	80	485	65x25x47																																																																				
OTMS-1-RC0063	41	3	120	685	70x27x50																																																																				
OTMS-1-RC0100	63	5	120	745	70x27x50																																																																				
OTMS-1-RA0165	117	7.5	200	1120	73x35x64																																																																				
OTMS-1-RA0205	141	7.5	200	1140	73x35x64																																																																				
OTMS-1-RA0255	180	10	200	1165	73x35x64																																																																				
OTMS-1-RA0305	212	12	200	1280	73x35x64																																																																				
 <p>OVTMS Vertical Tank Mounted Simplex</p>	<p>OVTMS Systems – with Motor Control Center</p> <table border="1"> <thead> <tr> <th>Model w/Inlet</th> <th>CFM</th> <th>HP</th> <th>Tank Size (gal)</th> <th>Weight (lbs)</th> <th>LxWxH</th> </tr> </thead> <tbody> <tr><td>OVTMS-1-RC0025</td><td>20</td><td>1.5</td><td>80</td><td>490</td><td>41x28x75</td></tr> <tr><td>OVTMS-1-RC0040</td><td>28</td><td>2</td><td>80</td><td>510</td><td>41x28x75</td></tr> <tr><td>OVTMS-1-RC0063</td><td>41</td><td>3</td><td>120</td><td>710</td><td>47x32x70</td></tr> <tr><td>OVTMS-1-RC0100</td><td>63</td><td>5</td><td>120</td><td>775</td><td>47x32x71</td></tr> </tbody> </table>	Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH	OVTMS-1-RC0025	20	1.5	80	490	41x28x75	OVTMS-1-RC0040	28	2	80	510	41x28x75	OVTMS-1-RC0063	41	3	120	710	47x32x70	OVTMS-1-RC0100	63	5	120	775	47x32x71																																										
Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH																																																																				
OVTMS-1-RC0025	20	1.5	80	490	41x28x75																																																																				
OVTMS-1-RC0040	28	2	80	510	41x28x75																																																																				
OVTMS-1-RC0063	41	3	120	710	47x32x70																																																																				
OVTMS-1-RC0100	63	5	120	775	47x32x71																																																																				
 <p>ATMD Tank Mounted Duplex</p>	<p>ATMD Systems – with Duplex Motor Control Center</p> <table border="1"> <thead> <tr> <th>Model w/Inlet</th> <th>CFM</th> <th>HP</th> <th>Tank Size (gal)</th> <th>Weight (lbs)</th> <th>LxWxH</th> </tr> </thead> <tbody> <tr><td>ATMD-2-RC0025</td><td>20</td><td>1.5</td><td>80</td><td>600</td><td>65x29x56</td></tr> <tr><td>ATMD-2-RC0040</td><td>28</td><td>2</td><td>80</td><td>640</td><td>65x30x56</td></tr> <tr><td>ATMD-2-RC0063</td><td>41</td><td>3</td><td>120</td><td>850</td><td>70x31x60</td></tr> <tr><td>ATMD-2-RC0100</td><td>63</td><td>5</td><td>120</td><td>925</td><td>70x32x60</td></tr> <tr><td>ATMD-2-RA0165</td><td>117</td><td>7.5</td><td>200</td><td>1850</td><td>73x42x68</td></tr> <tr><td>ATMD-2-RA0205</td><td>141</td><td>7.5</td><td>200</td><td>1870</td><td>73x42x68</td></tr> <tr><td>ATMD-2-RA0255</td><td>180</td><td>10</td><td>200</td><td>1910</td><td>73x44x68</td></tr> <tr><td>ATMD-2-RA0305</td><td>212</td><td>12</td><td>200</td><td>2140</td><td>73x44x68</td></tr> </tbody> </table>	Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH	ATMD-2-RC0025	20	1.5	80	600	65x29x56	ATMD-2-RC0040	28	2	80	640	65x30x56	ATMD-2-RC0063	41	3	120	850	70x31x60	ATMD-2-RC0100	63	5	120	925	70x32x60	ATMD-2-RA0165	117	7.5	200	1850	73x42x68	ATMD-2-RA0205	141	7.5	200	1870	73x42x68	ATMD-2-RA0255	180	10	200	1910	73x44x68	ATMD-2-RA0305	212	12	200	2140	73x44x68																		
Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH																																																																				
ATMD-2-RC0025	20	1.5	80	600	65x29x56																																																																				
ATMD-2-RC0040	28	2	80	640	65x30x56																																																																				
ATMD-2-RC0063	41	3	120	850	70x31x60																																																																				
ATMD-2-RC0100	63	5	120	925	70x32x60																																																																				
ATMD-2-RA0165	117	7.5	200	1850	73x42x68																																																																				
ATMD-2-RA0205	141	7.5	200	1870	73x42x68																																																																				
ATMD-2-RA0255	180	10	200	1910	73x44x68																																																																				
ATMD-2-RA0305	212	12	200	2140	73x44x68																																																																				
 <p>DVED Vertically Expandable Duplex</p>	<p>DVED Systems – with Duplex Motor Control Center</p> <table border="1"> <thead> <tr> <th>Model w/Inlet</th> <th>CFM</th> <th>HP</th> <th>Tank Size (gal)</th> <th>Weight (lbs)</th> <th>LxWxH</th> </tr> </thead> <tbody> <tr><td>DVED-2-RC0025</td><td>20</td><td>1.5</td><td>80</td><td>825</td><td>45x43x66</td></tr> <tr><td>DVED-2-RC0040</td><td>28</td><td>2</td><td>80</td><td>855</td><td>45x43x66</td></tr> <tr><td>DVED-2-RC0063</td><td>41</td><td>3</td><td>120</td><td>1180</td><td>61x46x85</td></tr> <tr><td>DVED-2-RC0100</td><td>63</td><td>5</td><td>120</td><td>1300</td><td>61x46x85</td></tr> <tr><td>DVED-2-RA0165</td><td>117</td><td>7.5</td><td>200</td><td>1975</td><td>69x52x89</td></tr> <tr><td>DVED-2-RA0205</td><td>141</td><td>7.5</td><td>200</td><td>2000</td><td>69x52x89</td></tr> <tr><td>DVED-2-RA0255</td><td>180</td><td>10</td><td>200</td><td>2150</td><td>69x52x89</td></tr> <tr><td>DVED-2-RA0305</td><td>212</td><td>12</td><td>200</td><td>2380</td><td>69x52x89</td></tr> <tr><td>DVED-2-RC0400</td><td>330</td><td>15</td><td>200</td><td>3500</td><td>101x77x89</td></tr> <tr><td>DVED-2-RC0502</td><td>413</td><td>20</td><td>200</td><td>3835</td><td>103x84x89</td></tr> <tr><td>DVED-2-RC0630</td><td>490</td><td>25</td><td>200</td><td>4200</td><td>103x84x89</td></tr> </tbody> </table>	Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH	DVED-2-RC0025	20	1.5	80	825	45x43x66	DVED-2-RC0040	28	2	80	855	45x43x66	DVED-2-RC0063	41	3	120	1180	61x46x85	DVED-2-RC0100	63	5	120	1300	61x46x85	DVED-2-RA0165	117	7.5	200	1975	69x52x89	DVED-2-RA0205	141	7.5	200	2000	69x52x89	DVED-2-RA0255	180	10	200	2150	69x52x89	DVED-2-RA0305	212	12	200	2380	69x52x89	DVED-2-RC0400	330	15	200	3500	101x77x89	DVED-2-RC0502	413	20	200	3835	103x84x89	DVED-2-RC0630	490	25	200	4200	103x84x89
Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH																																																																				
DVED-2-RC0025	20	1.5	80	825	45x43x66																																																																				
DVED-2-RC0040	28	2	80	855	45x43x66																																																																				
DVED-2-RC0063	41	3	120	1180	61x46x85																																																																				
DVED-2-RC0100	63	5	120	1300	61x46x85																																																																				
DVED-2-RA0165	117	7.5	200	1975	69x52x89																																																																				
DVED-2-RA0205	141	7.5	200	2000	69x52x89																																																																				
DVED-2-RA0255	180	10	200	2150	69x52x89																																																																				
DVED-2-RA0305	212	12	200	2380	69x52x89																																																																				
DVED-2-RC0400	330	15	200	3500	101x77x89																																																																				
DVED-2-RC0502	413	20	200	3835	103x84x89																																																																				
DVED-2-RC0630	490	25	200	4200	103x84x89																																																																				



Expansion Modules

For Busch R 5 vacuum systems that are expandable, mechanical and electrical expansion modules simplify conversion by including easy-to-install mechanical components, electrical components, and updated programming for motor control centers.



DVET Systems – with Triplex Motor Control Center

Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH
DVET-3-RC0025	20	1.5	80	980	45x43x66
DVET-3-RC0040	28	2	80	1050	45x43x66
DVET-3-RC0063	41	3	120	1400	61x46x85
DVET-3-RC0100	63	5	120	1600	61x46x85
DVET-3-RA0165	117	7.5	200	2910	69x52x89
DVET-3-RA0205	141	7.5	200	3110	69x52x89
DVET-3-RA0255	180	10	200	3250	69x52x89
DVET-3-RA0305	212	12	200	3530	69x52x89
DVET-3-RC0400	330	15	200	5300	155x77x89
DVET-3-RC0502	413	20	200	5792	155x84x89
DVET-3-RC0630	490	25	200	6250	155x84x89

DHED Systems – with Duplex Motor Control Center

Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH
DHED-2-RC0400	330	15	200	3550	103x78x88
DHED-2-RC0502	413	20	200	3865	103x84x88
DHED-2-RC0630	490	25	200	4200	103x84x88
DHED-2-RC1000	704	40	400	6250	185x94x111
DHED-2-RC1600	1130	50	400	8200	185x105x111

DHET Systems – with Triplex Motor Control Center

Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH
DHET-3-RC0400	330	15	200	5300	155x78x88
DHET-3-RC0502	413	20	200	5750	155x84x88
DHET-3-RC0630	490	25	200	6250	155x84x88
DHET-3-RC1000	704	40	400	9000	252x94x111
DHET-3-RC1600	1130	50	400	11650	252x105x111

Mobile Vacuum Systems – with Motor Control Center

Model w/Inlet	CFM	HP	Tank Size (gal)	Weight (lbs)	LxWxH
BMV-025-0	20	1.5	9	355	32x29x22
BMV-040-0	28	2	9	375	32x29x22
BMV-063-0	41	3	9	400	32x30x23
BMV-100-0	63	5	9	420	32x30x24

Quadruplex Systems – All expandable systems can be expanded up to quadruplex systems by adding mechanical and electrical expansion modules. Systems with more than four pumps are available by special request.

Manual Start Simplex Systems – Manual start simplex systems are also available. Contact your Busch representative for model numbers.

R 5 Vacuum Systems and R 5 Expandable Vacuum Systems

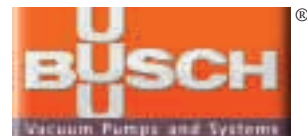
Centrally located Busch R 5 vacuum systems reduce both maintenance and energy costs compared to multiple point-of-use vacuum pumps.

Busch offers a variety of standard vacuum systems plus custom designed systems for a wide range of applications in many different industries.

Busch application engineers will work with you to determine which vacuum system configuration best meets your requirements.

Applications

- Packaging
- Printing
- Rubber molding
- Woodworking
- Thermoforming
- Lamination
- Printed circuit board testing
- Food processing
- Hospitals
- Robotics
- Laboratories
- And many others



R 5 Standard Vacuum Systems

R 5 vacuum systems are available in a variety of vertical and horizontal configurations and are designed for easy expansion using mechanical and electrical expansion modules.



Tank mounted duplex vacuum system



Vertical expandable duplex vacuum system

Laboratory Vacuum Systems

Designed specifically for laboratories, these Busch vacuum systems are equipped with a manual or automatic purge assembly to remove condensable vapors from the pump prior to shutdown. They also feature special seal materials; corrosion resistant components in the exhaust box; and an exhaust flange adapter to permit remote exhausting of gases. Busch laboratory systems are available in many configurations.



Vertical tank mounted simplex laboratory vacuum system



Vertical expandable duplex laboratory vacuum system

R 5 Advantages

- Compact, simple design for easy installation and low maintenance
- Air-cooled, requiring no water
- Direct drive, eliminating belts and gears to loosen or wear
- Oil mist eliminator for 99.9% oil-free exhaust
- Quiet operation
- Water-cooled versions available

Standard Equipment

- TEFC motor
- NPT inlet on all models
- Exhaust pressure gauge
- Anti-suckback valve
- Built-in exhaust filters
- Wire mesh inlet screen
- Non-metallic, non-asbestos vanes
- Vibration isolators
- Automotive type spin-on oil filter
- Oil level sight glass

Laboratory Systems

All R 5 vacuum systems are available as laboratory systems. R 5 lab systems have pneumatically or electrically actuated isolation valves along with a purge arrangement. The system program includes an automatic purge cycle. Contact factory for more information.





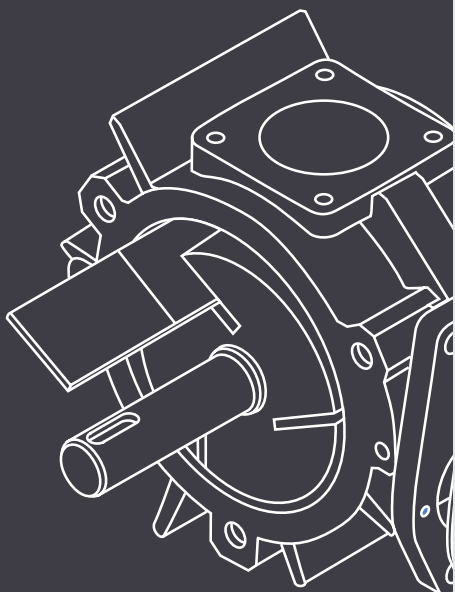
Busch, Inc
516 Viking Drive
Virginia Beach, VA 23452
Phone (757) 463-7800
FAX (757) 463-7407

www.buschpump.com

1-800-USA-PUMP

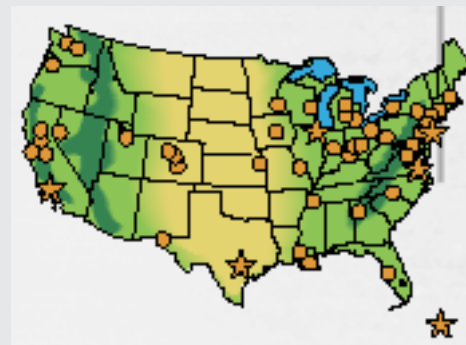


ISO 9001 Registered Company



Nationwide Sales, Distribution and Service Centers

Strategically located regional service centers maintain a wide selection of in-stock vacuum pumps, systems, and parts and are staffed with factory trained service technicians, who are ready to assist you with all your equipment needs.



R 5 Maintenance Items

Exhaust Filters

Designed for proper oil and air separation with minimal back pressure. End caps resist corrosion. Filter materials are manufactured for long service life.

Inlet Filters

Filter incoming air and protects vacuum pump against particulates.

Oil Filters

Filter out impurities in the oil. Designed for low pressure filtration for proper oil flow.

Vacuum Pump Oil

Vacuum pump oils are odorless, detergent free, and derived from highly refined paraffinic crudes with excellent lubrication properties for longer pump life.

Overhaul Kits

Genuine Busch parts consisting of vanes, O-rings, gaskets, bearings and shaft seals, designed specifically for R 5 vacuum pumps.

Maintenance Kits

Includes 12 month supply of exhaust filters, inlet filter, pump oil, and oil drain plugs. Synthetic baffles are included with vacuum pump models 0165 to 1600.

Vacuum Pump Exchange Program

With the Busch vacuum pump exchange program, a remanufactured replacement pump with a 12 month warranty is quickly shipped to you in exchange for your pump.



Maintenance kit for R 5 0025 vacuum pump



Busch genuine parts