



Vacuum Wastewater Technology

**Discover Better<sup>®</sup>**

**Mink Dry Claw Vacuum Pumps:  
Save on energy  
and operating costs.**

Mink series dry-running, non-contacting rotary claw pumps combine performance, reliability and efficiency through innovative design.

## Mink Dry Claw Vacuum Pumps

Mink claw vacuum technology by Airvac offers the highest level of energy efficiency for industrial vacuum generation, combined with the lowest level of maintenance and consistent performance.

### Efficient

Substantial energy savings compared to conventional vacuum generators, minimized operating costs

### Nearly Maintenance-free

Dry and contact-free operation

### Robust

Proven design, more than 200,000 vacuum pumps in operation



### Energy savings and Less Maintenance

The sophisticated claw vacuum technology of Mink vacuum pumps allow for decreased energy consumption and increased performance. Due to this, substantial energy savings are possible in comparison with conventional vacuum technology when operated at the same pumping speed.

Additionally, claw vacuum technology is virtually maintenance free due to its non-contacting design. As a result, wear in the pumping chamber is completely eliminated.

Maintenance in the pumping chamber, such as inspection and replacement of worn parts, is not necessary. Since operating fluids are not needed in the pumping chamber for these dry compression, air-cooled pumps, there are no additional costs for purchase, provision or disposal.

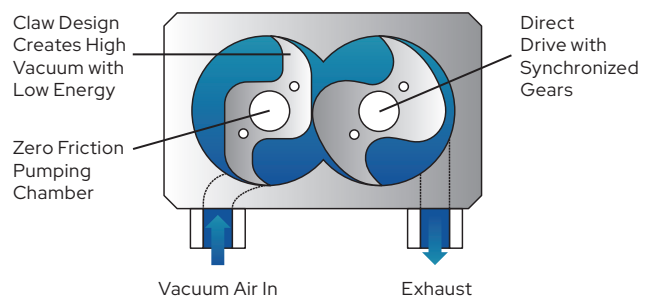
The non-contacting, dry compression operation of Mink claw vacuum pumps allow for high operational reliability and long life cycles. Without wear in the pumping chamber, vacuum and suction performance remains consistently high throughout the life cycle of the pump. Additionally, a smart silencer design enables quiet operation.

Mink claw vacuum pumps are the result of continuous development in claw technology. Decades of experience

in countless applications have led to substantial improvements. Mink claw technology combines performance, reliability and efficiency through an innovative design. The dry and contact-free operating principle provides the benefit of nearly maintenance-free operation.

### Mink Pumps Operating Principle

Mink claw vacuum pumps feature two claw-shaped rotors. The rotors are mounted in a housing and move in opposite directions. The shape of these claw rotors extracts, compresses and expels the pumped medium. The minimal clearance between the rotors and the chamber housing optimizes the internal seal. So, no lubricants or operating fluids are required in the compression chamber. Mink vacuum pumps are driven by a directly flange-mounted motor. A synchronizing gearbox maintains precise rotor timing.



## Airvac's Vacuum Pump Modulation (Patent Pending)

Modulation is Airvac's patent pending program logic that improves the functionality of your vacuum system. The modulation sequence controls the speed of the vacuum pumps to maintain a tighter vacuum range, and speeds up and slows down, depending on the demand of the system (Figure 1 & 2). It is unusual for the pumps to ever operate at full speed. And since the pumps are not turning on and off as frequently, overall power consumption is reduced, and less heat and noise are created.

- Vacuum pump modulation uses vacuum pressure transmitter, a programmable logic controller (PLC) and variable frequency drives (VFDs) to modulate vacuum pump speed and maintain a more constant vacuum level in the system. This typically results in significantly higher end-of-line vacuum levels.
- This technology can be retrofitted to existing systems.

Timestamp	Hz	" Hg	KPA
2023-07-11 06:04:22	23.39	20.79	-0.69
2023-07-11 06:04:26	29.55	20.86	-0.70
2023-07-11 06:04:30	28.67	20.93	-0.70
2023-07-11 06:04:32	27.81	20.51	-0.68
2023-07-11 06:04:36	28.16	20.03	-0.67
2023-07-11 06:04:41	29.51	19.37	-0.65
2023-07-11 06:04:43	31.59	18.07	-0.60
2023-07-11 06:04:46	33.68	17.34	-0.58
2023-07-11 06:04:48	35.34	17.29	-0.58
2023-07-11 06:04:52	36.21	17.52	-0.58
2023-07-11 06:04:56	35.69	17.72	-0.59
2023-07-11 06:04:58	35.52	17.76	-0.59
2023-07-11 06:05:02	34	17.68	-0.59
2023-07-11 06:05:06	34.35	17.49	-0.58
2023-07-11 06:05:09	32.82	17.32	-0.58
2023-07-11 06:05:12	32.04	17.21	-0.57
2023-07-11 06:05:14	32.38	17.39	-0.58
2023-07-11 06:05:18	32.37	17.5	-0.58
2023-07-11 06:05:22	32.46	17.78	-0.59
2023-07-11 06:05:24	31.9	17.81	-0.59
2023-07-11 06:05:29	33.63	18.05	-0.60
2023-07-11 06:05:30	33.97	18.23	-0.61

Figure 1

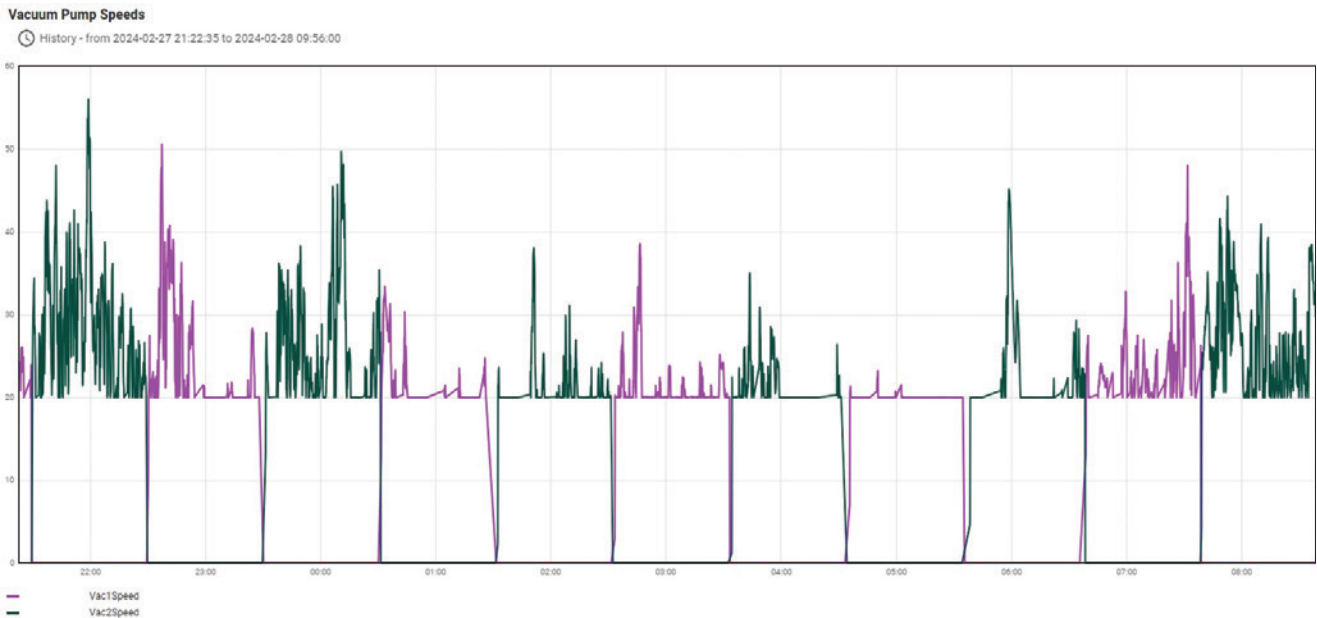


Figure 2

## Airvac's Exclusive Mink Vacuum Pump is Designed Specifically for Vacuum Sewers

Busch and Airvac have collaborated on the design of a Mink vacuum pump that is perfectly suited for vacuum sewer applications, with a high-efficiency motor, internal coating, and internal pump geometry that has been adjusted to efficiently and effectively prevent moisture pooling, avoiding corrosion and extending the life of the pump.

### Airvac Mink Vacuum Pump Model Numbers

Airvac Part #	Description	Busch Part #	Model #	ACFM	Horsepower
970000000	MINK MM1202AV	1342.913.142	MM1202.AVA6.11XZ	141	6.4
970000001	MINK MM1252AV	1342.928.006	MM1252.AVA6.11XZ	170	7.5
970000002	MINK MM1322AV	1342.928.050	MM1322.AVA6.11XZ	212	9
970000003	MINK MM1402AV	1342.932.094	MM1402.AVA6.ZZXZ	277	15
970000004	MINK MM1502AV	1342.932.095	MM1502.AVA6.ZZXZ	353	15
970000005	MINK MV0502 VERTICAL	1342.934.168	MV0502.BOA6.11XX	277	12
970000006	MINK MV0602 VERTICAL	1342.933.843	MV0602.BOA6.11XZ	353	15
970000007	MINK MV1202 VERTICAL	1342.933.593	MV1202.AOA6.11RZ	677	30

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The **world leader** in vacuum sewer collection technology.