M-D Pneumatics®

MD Lubricants

M-D Pneumatics® Oil for Rotary Positive Displacement Blowers

M-D Pneumatics | www.mdpneumatics.com | (800) 825-6937

M-D PNEUMATICS LUBRICANTS

FOR POSITIVE DISPLACEMENT BLOWERS & BOOSTERS

M-D Pneumatics positive displacement blowers and Kinney boosters are known worldwide for superior quality and performance. MD full synthetic lubricants are specifically formulated for use in M-D Pneumatics' high-performing blowers and Kinney boosters and is the only lubricant recommended. MD lubricants ensure the highest quality of operation, allowing you to achieve a longer life over mineral oil or semi-synthetic lubricants due to its specific formulation, especially in high temperature conditions. Improper lubrication is one of the main causes of blower and booster failures. Don't take a chance using anything other than MD lubricants by M-D Pneumatics.

BENEFITS

- Positive displacement blowers and boosters can often operate at temperatures near 300°F. These extreme operating temperatures require a full synthetic lubricant that is blended from synthetic hydrocarbon polyalphaolefin (PAO) to ensure maximum performance and product life.
- PAOs have greater thermal oxidative stability and a high viscosity index, allowing for greater film strength at higher temperatures and decreased viscosities at low temperatures for minimal friction and better lubrication.
- This PAO synthetic base fluid allows oil to demulsify water in high humidity and water conditions by easily separating water from the fluid. MD full synthetic lubricants provide better rust and corrosion protection for increased equipment life and has the highest 1A rating for copper corrosion under ASTM D130.
- MD full synthetic lubricants contain a formulation of anti-wear and anti-foaming additives that are specifically designed to prolong the life of M-D Pneumatics blowers and Kinney boosters.
- MD full synthetic lubricants can last up to 5 times longer than mineral oil and twice as long as many semi-synthetic lubricants, meaning fewer oil change intervals, reduced down time, and greater cost savings.
- MD full synthetic lubricants have an average oil life of 8,000-hours at temperatures up to 220°F. Mineral oils oxidize at temperatures as low as 160°F, resulting in an oil life of 1,500-hours.
- MD lubricants have a low coefficient of dynamic friction that substantially reduces power consumption by minimizing gear and bearing friction, resulting in improved efficiency.

NOT ALL LUBRICANTS PERFORM THE SAME

Blowers and boosters can often operate at high temperatures. The lubricant can equal that of the discharge temperature. Oil life drops by half for every 18°F above 220°F. This is why it is important to use MD lubricants that are formulated to extend oil life, even at high temperatures.

MD LUBRICANTS VS. SEMI-SYNTHETIC & MINERAL OIL

MD LUBRICANTS	SEMI-SYNTHETICS & MINERAL OILS
Contains tailored list of additives for specific product application	Mineral oils do not contain any additional additives that protect the seals, bearings, or gears. Semi-Synthetics may only contain a small amount of additional additives
Higher oxidation resistance, improving lubricity	Lower oxidation resistance, increasing risk of sludge formation
Protects from oxidation at 220°F	Semi-synthetics begins to oxidize at 180°F and mineral oil start oxidizing at only 160°F
PAO based fluids provide higher anti-wear properties resulting in increased product life	Lack of anti-wear properties results in decreased product life
Up to a 30% reduction in cost of oil change intervals over the life of the product	Reduced oil life results in increased oil change intervals and higher overall maintenance cost
Environmentally friendly due to fewer oil changes	Increased disposal costs due to increased oil change intervals

COST SAVINGS

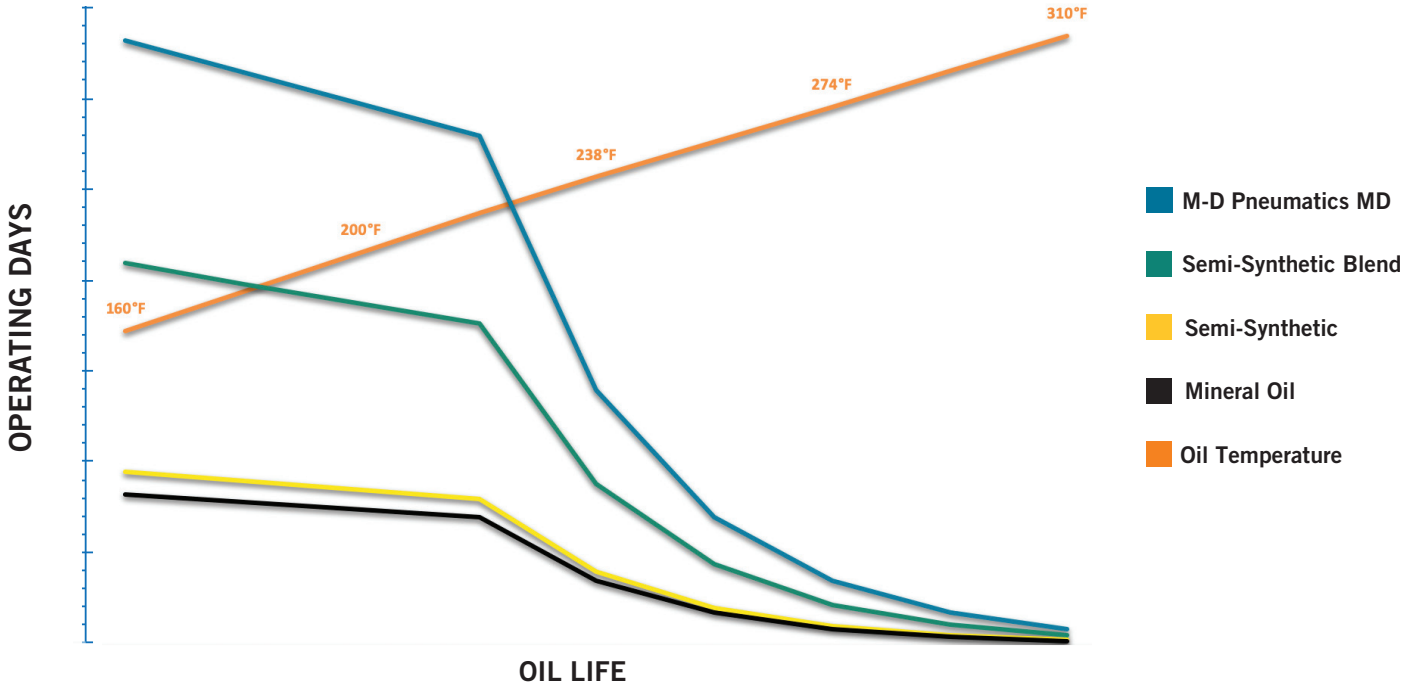
USING MD ONE VS SEMI-SYNTHETIC AND MINERAL OIL

MD full synthetic lubricants not only better protect your product from premature failure but you will also save money in reoccurring maintenance costs. The example below shows an initial fill of MD ONE oil in a M-D Pneumatics PD Plus 5511 blower. In 8,000 hours of run time, using a mineral oil or semi-synthetics can cost you up to 3 times the expense.

M-D PNEUMATICS 5511 BLOWER	MD ONE	SEMI-SYNTHETIC	MINERAL OIL
INITIAL FILL OF OIL (1 GALLON)	$75	$60	$35
LUBE CHANGE INTERVAL	8,000 hrs	4,000 hrs	1,500 hrs
COST OF REPLACEMENT OIL	$0	$60	$140
LABOR ($50/CHANGE)	$50	$100	$250
TOTAL COST	$125	$200	$425

Savings will vary based on individual operating conditions. Pricing does not include shipping.

OIL TEMPERATURE VS. OIL LIFE



MD ONE

MD ONE is a great all-purpose, full synthetic lubricant suited for most blower and booster applications, working well in low or high ambient conditions. It is formulated using synthesized hydrocarbon fluid and select additives to enhance oxidation resistance and provide maximum protection against wear, rust corrosion, and foaming.

MD PLUS

MD PLUS full synthetic lubricant provides significantly better thermal and oxidation stability at higher temperatures. Compared to mineral oil, MD PLUS contains specific additives that reduce oxidation, protect against breakdown of the lubricant, and greatly prolongs the life of the oil.

MD MAX

MD MAX full synthetic lubricant provides the highest protection against maximum operating temperatures for blower and booster applications. The viscosity and the additive formulation of MD MAX creates an additional layer of protection for the gears, bearings, and seals to increase durability and maintain adequate endurance in extreme operating conditions.

MD FG (FOOD GRADE)

MD FG is a full synthetic lubricant that is approved by the CFIA and the USDA for H-1 applications that is compliant with FDA 21 CFR 178.3570 requirements and is also Halal Certified by the Islamic Food and Nutrition Council of America. MD FG oil is fortified with oxidation inhibitors, corrosion inhibitors, and anti-wear additives to enhance the superior qualities offered by the synthetic hydrocarbon base stock.

MD LITHIUM GREASE

MD LITHIUM GREASE is a multi-purpose grease that is recommended for use in select CP Series blower models. This grease is shear stable with extreme pressure characteristics and outperforms conventional greases. It satisfies nearly all grease requirements found in industrial blower applications.

M-D PNEUMATICS LUBRICATION RECOMMENDATION

The selection of the correct lubricant is an important decision. The application and operating conditions must be taken into consideration to achieve maximum performance and life of the product. Determination of lubricant should not be decided solely on ambient temperature. M-D Pneumatics provides a recommendation tool for its MD lubricants based on discharge temperature, inlet temperature, RPM, and model to better safeguard that you are selecting the right lubricant. The chart below is for informational guidance only. Contact M-D Pneumatics or a M-D Pneumatics distributor for assistance in choosing the best lubricant for your specific application and operating conditions.

RPM	DISCHARGE TEMPERATURE (°F)										
	150	170	190	210	230	250	270	290	310	330	350
1150	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX
1395	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX
1640	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX	MD MAX
1885	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
2130	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
2375	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
2620	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
2865	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
3110	MD ONE	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
3355	MD ONE	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX
3600	MD ONE	MD ONE	MD ONE	MD ONE	MD PLUS	MD PLUS	MD PLUS	MD MAX	MD MAX	MD MAX	MD MAX

MD BLOWER & BOOSTER LUBRICANTS SPECIFICATIONS:

PRODUCTS	MD ONE	MD PLUS	MD MAX	MD FG
VISCOSITY INDEX	150	154	157	141
@40°C, CST	99.1	231.7	340.9	99.3
@100°C, CST	14.4	27.6	37.2	13.9
FLASH POINT °F (°C)	510 (266)	480 (249)	491 (255)	515 (268)
POUR POINT °F (°C)	-44 (-43)	-49 (-45)	-54 (-48)	-60 (-51)

ORDERING MADE EASY

M-D Pneumatics lubricants are available in a variety of convenient quantities and sizes. Contact your local M-D Pneumatics distributor or contact M-D Pneumatics directly at 1-800-825-6937.

	QUART	GALLON	5 GALLON	55 GALLON BARREL	CASE - 12 QUARTS
MD ONE	16444-MD1-Q	16444-MD1-G	16444-MD1-5G	16444-MD1-B	16444-MD1-Q-C
MD PLUS	16444-MD2-Q	16444-MD2-G	16444-MD2-5G	16444-MD2-B	16444-MD2-Q-C
MD MAX	16444-MD3-Q	16444-MD3-G	16444-MD3-5G	16444-MD3-B	16444-MD3-Q-C
MD FG	16444-MD1-Q-FG	16444-MD1-G-FG	16444-MD1-5G-FG	16444-MD1-B-FG	16444-MD1-Q-C-FG

OIL ANALYSIS

Anticipate complications and avoid downtime by using M-D Pneumatics' Oil Sampling Program that provides a comprehensive laboratory analysis of the physical and chemical characteristics of your oil over a select period of time. The analysis is designed to determine lubricant deterioration, suggest a frequency for lubricant renewal, and detect any mechanical complications prior to disrepair. These benefits can be realized through creation of your own trend analysis over a series of 3-4 samples.

Each oil sample kit contains supplies to collect four different oil samples. The provided packaging material makes sending your oil sample to the laboratory easy. You will receive timely results which will enable you to make prompt maintenance decisions regarding your equipment and oil. Purchase your M-D Pneumatics oil analysis kit by ordering part number 19266.

CONTACT US

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