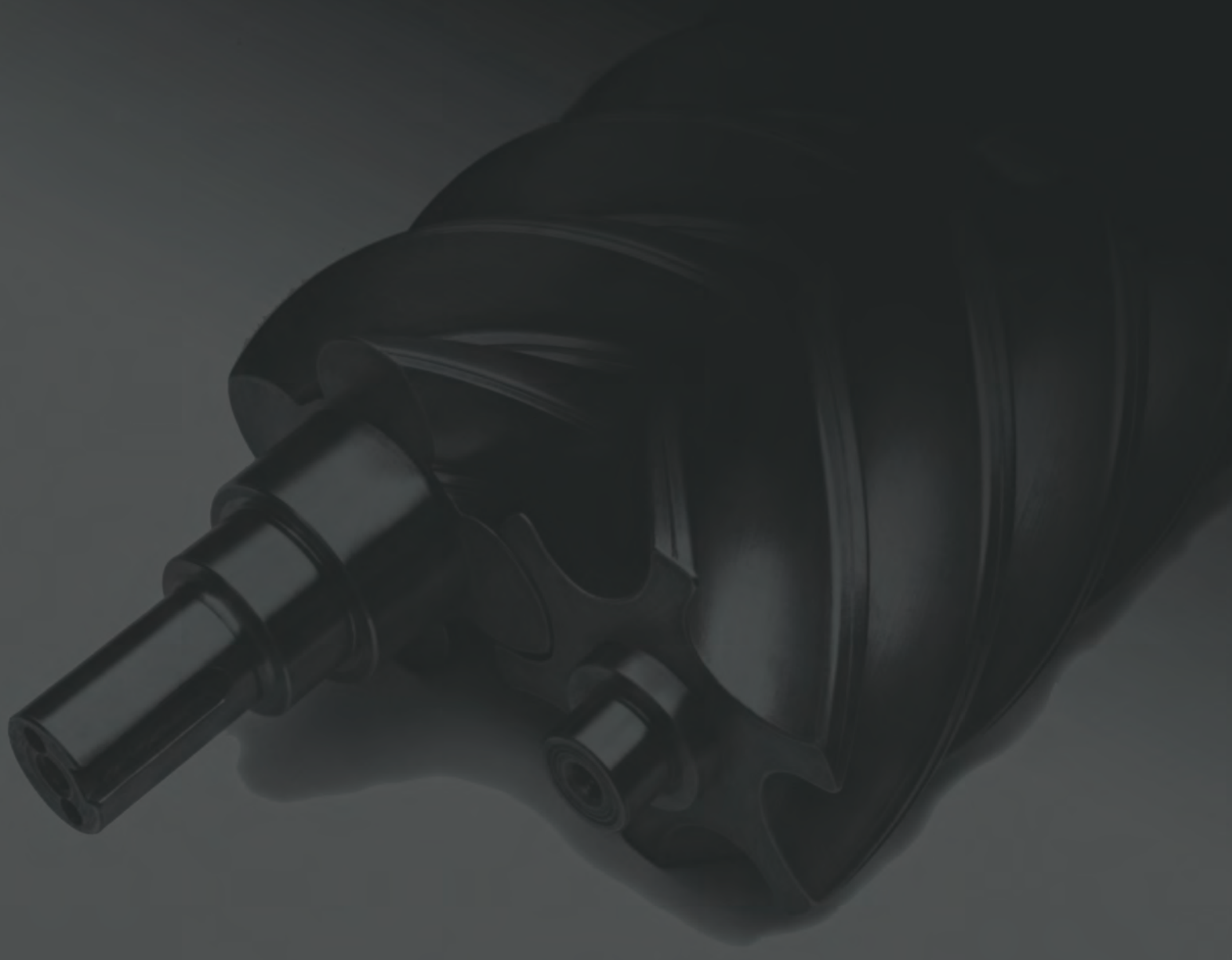
SYN-FLO

SYNTHETIC FLUIDS



35 YEARS

AMERICA'S CHOICE FOR PROTECTING AIR COMPRESSORS!

INTRODUCTION: Syn-Flo Oil Company has been formulating synthetic rotary screw compressor oils for **35 YEARS**. We were the first company to introduce PAO (polyalphaolefin) synthetic oil to the ***air compressor industry***. We call it **SYN-FLO 80XP**. This product has a remarkable history of success in protecting rotary screw compressors. It has ***operated in all makes and models of screw compressors*** for well over a "billion hours" ***without one*** oil related "machine failure". ***Remarkable!***

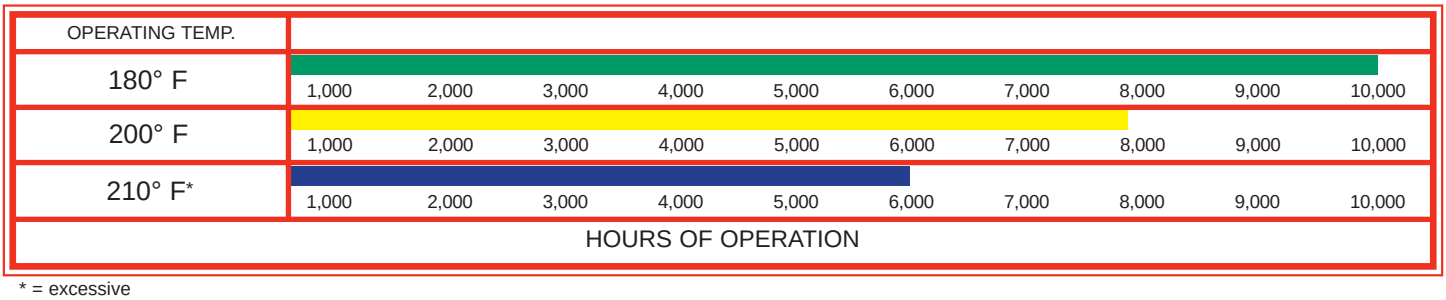
DESIGNED TO LAST: ***SYN-FLO 80XP*** means fewer *oil changes* and *waste-oil* disposals. You can expect 6,000 to 10,000 hours of continuous compressor operation depending on operating temperatures. The chart below illustrates a ***time/temperature*** relationship that we recommend you follow when using ***SYN-FLO 80XP***.

HEAT: is the ***screw compressor's #1 enemy***. It will accelerate the oxidation rate of oil, reducing the "life of the oil". Heat will weaken "seal and o-ring" materials, making them more susceptible to pre-mature deterioration. Heat can change the "internal resistance" in a compressor, by metals expansion, causing disturbances to "designed efficiencies". Heat will assist water (moisture) in becoming more aggressive, which could cause unwanted problems of rust and corrosion. The ***bottom line***, heat should be monitored on a ***scheduled basis***. Significant changes should be noted. ***SYN-FLO 80XP's*** "high heat value" enables it to act like a "coolant" and carry-off heat quickly!

OXIDATION AND CORROSION TESTS were conducted on ***SYN-FLO 80XP***. The oil is heated to 347°F for 72 hours. Changes in ***viscosity*** (oil thickness) are measured. The Military allows an "approval" for jet aircraft engines if the viscosity change is less than 15%. In this test, ***SYN-FLO 80XP's*** change in viscosity was less than ***5%.*** An excellent result for this required "specification". In this test, metal corrosion is also determined. ***SYN-FLO 80XP passed with room to spare!*** No signs of rust were reported. This is all accomplished by a state-of-the-art additive system which ***no competitor has been able to match.***

OIL ANALYSIS is the best way to initiate proper oil change intervals for your compressor. Oil analysis is a tool to assist you in your preventive maintenance program...***Syn-Flo's Oil Analysis*** checks the oil just like a doctor would check your blood. It tells you how you are doing. If there are some ***disturbances*** in your compressor system, it suggests ***corrective action***. It takes the guesswork out and lets you know when you should ***change the oil*** in your compressor.

Hours of operation vs operating temperature



* = excessive

SYN-FLO SYNTHETIC COMPRESSOR OILS presented in this brochure are specifically formulated to meet the requirements for ***all makes*** and ***models*** of ***rotary screw compressors*** sold in the USA.

WEAR is virtually ***non-existent*** when using ***Syn-Flo***. Our wear protection package is ***exceptional*** and affords the customer the luxury of ***peace of mind***.

OIL AND WATER separate completely providing optimum filtration efficiency. Problems with oil emulsions (water-oil mixtures) are eliminated making ***condensation drains*** easy to manage.

FILM STRENGTH is sufficiently high at operating temperatures giving assurance that ***sealing capabilities*** are accomplished. This is essential in maintaining design efficiency and is primarily due to ***Syn-Flo's*** high ***viscosity index***.

CARBON, LACQUER AND VARNISH are almost non-existent when using ***Syn-Flo products***. Keeping compressors ***cleaner*** and ***cooler*** is one of many rewards you will receive when using ***Syn-Flo compressor oils***. ***Syn-Flo*** is designed to afford the customer greater ***thermal stability*** even under ***high-heat conditions.***

COMPRESSOR EFFICIENCY is determined by the ***"compressor manufacturer"***. In most cases it assumes optimum operating conditions. ***Syn-Flo oils*** are foremost in protecting that ***"optimum state"*** of operation. Keeping ***internal resistances low*** and the compressor tightly ***sealed***, assist in assuring ***"top efficiency performance".***

OIL CONSUMPTION is held to a minimum because of ***Syn-Flo's low vapor pressure***. Vapors ***will not "boil-off"*** and readily go downstream to cause ***"end-use"*** tool problems. This very important characteristic helps ***"properly filtered air"*** remain almost ***"oil free"***.

SYN-FLO OILS CHANGE-OVER PROCEDURE

FOLLOW 6 SIMPLE RULES FOR BEST RESULTS

1. Drain old oil while hot.
2. Put a half charge of oil in machine. For example, if the machine holds 10 gallons, put in five gallons.
3. Run machine up to operating temperature. (This should take about 10-15 minutes)
4. Drain machine of lubricant and fill the machine with full charge of oil.
5. If converting multiple machines at same location, same flush oil can be used.
6. After the machine runs for a while (appx. 10 hours), it is recommended that a base-line oil sample be pulled from machine for testing.

TYPICAL PROPERTIES OF ROTARY SCREW COMPRESSOR OILS

SYN-FLO PRODUCT	60 GC	70 GC	80 FG	80 XP	90	ULTIMA 7.
Viscosity, Cs (SUS)						
210° F.	7.2 (48.8)	8.4 (53.7)	7.0 (49.1)	7.0 (49.1)	11.3 (63.4)	7.1 (49.2)
100° F.	34.9 (164)	46.4 (216)	38.2 (178.6)	38.6 (180.4)	116(540)	41 (195)
Viscosity Index	175	169	142	140	100	135
Pour Point, deg. F	-30	-30	-45	-50	-50	-20
Flash Point, deg. F	520	515	480	500	480	490
ISO-VG	32	46	46	46	100	46
Total Acid No., %MgOH	0.1	0.1	0.08	0.1	.19	0.1
Weight, lbs./gal.	8.2	8.3	6.9	7.1	8.06	7.2
Color	Lt. Tan	Lt. Tan	Lt. Tan	Lt. Tan	Lt. Tan	Lt. Tan
PERFORMANCE						
Expected Hours* of Operation:	8000	8000	2000	8000	8000	8000
Thermal Stability	●	●	●	●	●	●
Wear Protection	●	●	●	●	●	●
Rust Test	●	●	●	●	●	●
Oxidation Inhibitors	●	●	●	●	●	●
Oil/Water Separation	●	●	●	●	●	●

* = @ 190° F 100 PSI

EXCELLENT= ● GOOD= ●

60 GC is a Poly-Glycol compounded base stock, fully formulated to meet the requirements of a rotary screw compressor.

70 GC is a Poly-Glycol compounded base stock, fully formulated to meet the requirements of a rotary screw compressor.

80 FG is a Polyalphaolefin (PAO) base stock which meets FDA H-1 “Food Grade” requirements while operating in a rotary screw compressor.

80 XP is a Polyalphaolefin (PAO) compounded base stock, fully formulated to meet the requirements of a rotary screw compressor.

90 is an outstanding Diester based synthetic lubricant used primarily in reciprocating compressors. It offers the customer excellent wear protection, and leaves very little, if any, carbon deposits.

7.1 is a semi-synthetic oil formulated to meet the requirements of a rotary screw compressor.

Distributed by:

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