

**MECHANICAL PUMP FLUIDS**

**DIFFUSION PUMP FLUIDS**

**VACUUM GREASES**

**VACUUM SEALANT**

**FOMBLIN®**

**SANTOVAC 5®**



**MECHANICAL PUMP  
REPLACEMENT FILTERS**

## VACUUM SUPPLIES

### HYDROCARBON MECHANICAL PUMP FLUID





- Mechanical Pump Replacement Filters page 8.
- Mechanical & Diffusion Pump Refurbishing page 98.
- To reduce backstreaming see Traps page 25.

FLUID	ISA EQUIVALENT	APPLICATION	PACKAGED	PRICE
Inland 19 Alcatel 100 HE-175 Edwards 16 Kinney Super X TKO-19 CVC 70/19 CMP 19 Stokes V-Lube J	<b>ISA-19</b>	General Purpose for small to med. belt-driven or rotary vane mechanical pumps.	1 Gallon 5 Gallon 55 Gallon	Call Call Call
Invoil 20 Convoil 20 Edwards 20 HE-200 Alcatel 200, 270 Diffoil 20 Kinney OCR 350 CMP 20	<b>ISA-20</b>	High quality, double distilled fluid recommended for direct driven and rotary vane pumps. It also can be used in diffusion pumps eliminating cross-CVP-20 C contamination problems.	1 Gallon 5 Gallon 55 Gallon	Call Call Call
			 Reclaim for \$20 per gallon	
Inland 21 CMP-21 Alcatel 101 Stokes V-Lube B TKO-19+ Edwards Supergrade A	<b>ISA-21</b>	Based on ISA-19, but has additional additives making it one of the toughest and most durable fluids available. Okay where certain corrosive products are formed.	1 Gallon 5 Gallon 55 Gallon	Call Call Call
Alcatel 300 Inland TW HE-400 Edwards TW TKO-W/7 CVC TW-7 CMP W1,W2	<b>ISA-TW</b>	The most corrosive-resistant distilled fluid available. For pumps attached to moderate corrosive and reactive gas semiconductor processes.	1 Gallon 5 Gallon 55 Gallon	Call Call Call
			 Reclaim for \$25 per gallon	
Stokes V-Lube G Stokes V-Lube H & B Beech-Russ Oil M-77 (MVAK) PV-600 (Alcatel) Balzers P3 TKO 77 (Kurt Lesker) Inland 77 Advaco Heavy Dury Edwards 16	<b>ISA/F</b>	Is a hydrocarbon vacuum pump fluid for non-corrosive applications. It's high viscosity combined with its lubricating and sealing characteristics make it a good choice for piston pumps.	5 Gallon 55 Gallon	Call Call
	<b>ISA/FF2</b>	ISA-FF/1 is a solvent-free hydrocarbon flushing fluid specifically developed to be used in conjunction with amber colored mechanical vacuum fluids as a measure in preventative maintenance. Flushing with ISA-FF/1 will allow for the easy removal of contaminants and particulates from hard to reach areas inside pump and aid in reaching maximum pump performance.	5 Gallon 55 Gallon	Call Call

## VACUUM SUPPLIES

### SILICONE DIFFUSION PUMP FLUID



PART #	DESCRIPTION	SIZE	PRICE
<b>ISA 704</b>	Silicone Diffusion Pump Fluid	500cc	Call
	has a low vapor pressure 10-6 to 10-8 torr which performs excellent in various vacuum applications. Its thermal stability and quick pumpdown capabilities make 704 the most commonly used Silicone product.	1 Gallon	Call
		5 Gallon	Call
			 Reclaim for \$125 per gallon
<b>ISA 705</b>	Is a Silicone Diffusion Pump Fluid designed for ultra high vacuum applications. Due to its untrapped vapor pressure (10-9 to 10 -10) when trapped it can attain pressure of 10-11.	500cc	Call
		1 Gallon	Call
		5 Gallon	Call
			 Reclaim for \$125 per gallon

### SANTOVAC®5 DIFFUSION PUMP FLUID



Vapor Pressure (Torr) @ 25°C	4x10-10
Boiling Point @ 0.5 Torr	.275°C
Pour Point	.50C
Flash Point	.288oC
Fire Point	.349oC
Specific Gravity (gm/cc)	.1.198
<b>Viscosity (cSt/SUS)</b>	
@ 38oC/100°F	.363/1860
@ 99oC/210°F	.13.1/72
@ 260°C	.1.2

Santovac®5 is a Polyphenyl Ether Synthetic Diffusion Pump Fluid. Do to this fluid's extremely low vapor pressure and low backstreaming characteristics makes it ideal for Thin Film, Space simulation chambers and Optical coating.

Used Santovac®5 can be reclaimed Call for quote.


SIZE	PART #	UNIT PRICE
500cc	SANT-5	Call

 Reclaim for \$125 per gallon



Fomblin is a Per-Fluorinated Polyether (PFPE) chemically inert and thermally stable. Fomblin withstands high temperatures and high Oxygen conditions.

### FOMBLIN® Y-H VAC INERT DIFFUSION PUMP FLUID

SPECIFICATION	18/8	25/9	SIZE/VOLUME	PRICE
Vapor Pressure @ 200°C:	2x10-8 torr	2x10-9 torr	1Kg	Call
Viscosity @ 200°C (cst):	190	285	2Kg	Call
Pour Point:	-420°C	-350°C	8Kg	Call
Flash Point	None	None		
Fire Point	None	None		
Density	1.89 g/cc	.90 g/cc		
 Fomblin can be reclaimed based on inbound volume		<b>Price 1 Gallon</b>	<b>\$ 385</b>	

SANTOVAC registered trademark  
FOMBLIN is a registered trademark  
Dow Corning is a registered trademark

**VACUUM SUPPLIES**



**FOMBLIN® MECHANICAL  
 INERT VACUUM PUMP FLUIDS**

Fomblin is a Per-Fluorinated Polyether (PFPE) chemically inert and thermally stable. Fomblin withstands high temperatures and high Oxygen conditions.

Recommended for direct & belt driven rotary vane pumps used in extreme operating conditions.

SPECIFICATION	Y06/6	Y14/6	Y16/6	Y25/6	SIZE/VOLUME	PRICE
Vapor Pressure @ 200 C:	3x10-6torr	2x10-7torr	2x10-6 torr	4x10-8 torr	1Kg	Call
Viscosity @ 200 C (cst):	64	148	168	276	2Kg	Call
Viscosity @1000C (cst):	4	7.5	8.6	10	8Kg	Call
Pour Point:	-500 C	-450 C	-450 C	-350 C	50Kg	Call
Flash Point	None	None	None	None		
Fire Point	None	None	None	None		
Boiling Point	>2500 C	>2500 C	>2500 C	>2500 C		

Fomblin can be reclaimed Price based on inbound volume \$ 385 per gallon

**SEALANTS**



**HIGH VACUUM LEAK SEALANT**

Vacseal is a silicone resin used primarily for sealing Leaks in high and ultra high vacuum system.

DESCRIPTION	UNIT PRICE
Vacseal 3oz bottle with brush applicator	Call
Vacseal 16oz Aerosol can	Call

## LUBRICANTS

### DOW CORNING HIGH VACUUM GREASE



Vacuum Lubricant that maintains its consistency from -40°C to +204°C Chemical resistant noncarbonaceous and low vapor pressure.

PART NUMBER	UNIT PRICE
DOW-5-3	Call

### APIEZON GREASES

	VAPOR PRESSURE @200 C	MELTING POINT @O C	SPECIFIC GRAVITY @200 C	25G	50G	100G
Apiezon-H	2x10-9 Torr	None	1.35	Call	N/A	N/A
Apiezon-L	8x10-11 Torr	47	0.896	Call	Call	N/A
Apiezon-M	2x10-9 Torr	44	0.894	Call	N/A	Call
Apiezon-N	8x10-10 Torr	43	0.911	Call	N/A	N/A
Apiezon-100	8x10-11 Torr	47	1.042	Call	Call	N/A
Apiezon-101	5x10-6 Torr	None	0.981	N/A	Call	N/A

### FOMBLIN INERT VACUUM GREASES

	PENETRATION (WORKED, 25OC)MM/10	TEMPERATURE RANGE OC	DENSITY (25OC)G/ML	OIL SEPERATION (30HRS 204OC) WT %	100G
RT-15	295	-30/+ 150	1.92	N/A	Call
UT-18	295	-30/+ 150	1.92	N/A	Call
OT-20	295	-70/+ 100	1.92	N/A	Call
Y Vac 3	250	-20/+ 200	1.92	8	Call

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## FILTERS—MECHANICAL PUMPS

### REPLACEMENT FILTER ELEMENTS



	OEM/PART #	FILTERDYNE PART #	ISA PART #	PRICE
<b>Hilco</b>	AT-511-03	FE-511-345	511-AA	Call
	PL-511-03	FE-511-384	511-PP-1	Call
	PL-511-05	FE-511-442	511-PP-5	Call
	PL-511-10	FE-511-443	511-PP-10	Call
	AT-310-00	FE-310-369	310-AA	Call
	PL-310-03	FE-310-402	310-PP	Call
	PL-310-53	FE-310-403	310-PP-S	Call
<b>Edwards</b>	N/A	FE-607-619	607-AA	Call
	14A-22304-091	FE-607-617	607-PP-S	Call
	14A-223004-068	FE-607-617	607-DM	Call
<b>Alcatel</b>	68533	FE-310-404	310-FE	Call
	68880	FE-310-369	310-AA	Call
	68881	FE-310-405	310-AC	Call
	N/A	FE-310-402	310-PP-1	Call
	N/A	FE-310-403	310-PP-S	Call
<b>Stokes</b>	085-33-395	FE-814-359	814-FE	Call
	085-39-890	FE-814-350	814-AA	Call
	085-39-965	FE-409-386	418-AA	Call
	085-39-432	FE-814-389	814-PP-3	Call
	085-39-794	FE-409-379	409-PP-3	Call
	N/A	FE-814-415	814-00-10	Call
<b>Leybold</b>	898504	FE-606-365	606-AA	Call
	898505	FE-606-366	606-FE	Call
	898507	FE-606-367	606-PP-10	Call
	N/A	FE-606-471	606-PP-5	Call
	N/A	FE-606-371	606-PP-1	Call
	898506	FE-606-325	606-PH	Call
	N/A	FE-606-372	606-AC	Call
	N/A	FE-606-368	606-DM	Call
	N/A	FE-718-339	718-AC	Call
	99-171-159	FE-718-342	718-FE	Call
	898523	FE-718-338	718-AA	Call
	N/A	N/A	718-PP-5	Call
	N/A	N/A	718-PP-10	Call
	N/A	N/A	618-AA	Call
	N/A	FE-618-306	618-PP-5	Call
	99-171-158	FE-618-307	618-PP-10	Call
	N/A	FE-618-304	618-PP-1	Call
	898525	N/A	618-PH	Call
	18996BCS 1.0-PP	N/A	18996 1.0-PP	Call
	18996BCS 1.0-AA	N/A	18996 1.0-AA	Call
	18996BCS 1.0-DM	N/A	18996 1.0-DM	Call
	N/A	N/A	18996 1.3-PP	Call
N/A	N/A	18996 1.3-AA	Call	
N/A	N/A	18996 1.3-DM	Call	
18999BCS 1.6-PP	N/A	18999 1.6-PP	Call	
18999BCS 1.6-AA	N/A	18999 1.6-AA	Call	
18999BCS 1.6-DM	N/A	18999 1.6-DM	Call	

**Filter Media**

AA=Actuated alumina  
FE= Fullers earth  
PP= Pleated paper  
AC= Hydrophiler  
DM= Dual media