MARKETS, USERS & PRODUCTS		
High - Low Viscosities	**Semi-solids**	**Solids in Suspension**

INDUSTRIES
✔ Baking
✔ Brewing
✔ Confectionery
✔ Cosmetic
✔ Chemical
✔ Dairy
✔ Distilling
✔ Food
✔ General Industry
✔ Petrochemical
✔ Pharmaceutical
✔ Soft Drinks

PROCESSING
✔ Blenders
✔ Centrifuges
✔ Coaters
✔ Coolers
✔ Evaporators
✔ Fermenters
✔ Filling
✔ Filtration
✔ Heat Exchangers
✔ Mixers
✔ Pasturisers
✔ Recirculation
✔ Separators
✔ Spray Dryers
✔ Transfer

NOTE: The above are examples of areas in which Rotor Lobe Pumps serve industry. Additional uses are continually being discovered.

Franklin Electric

PRODUCT CHARACTERISTICS

Media	Approximate Viscosity cSt	Approximate Viscosity °C	Compatible Elastomer To 80°C	Compatible Elastomer Above 80°C (CIP etc)	NOTES: DO NOT USE VITON WHEN CIP SOLUTION CONTAINS CAUSTIC SODA N – Nitrile E – Ethylene Propylene V – Viton (Fluorocarbon)	Specific Gravity
Acetaldehyde CH_3 CHO	3	21	E		Boils 20oC EP Fair On	.78
Acetone CH3$COCH_3$	3	21	E	E		.80
Acid Acetic CH_3 COOH	3	21	E	E	Melts 17°C	1.05
Acid Acetic Anhydride $(CH_3CO)_2O$	3	21	E	E		1.09
Acid Arsenic H_3ASO_4	8	21	E	E		2.00
Acid Benzensulphonic $C_6H_5SO_3H$			V	V	Check Solution/Temp	
Acid Benzoic C_6H_5COOH			-	V	Melts 121°C	1.27
Acid Boric $H_2B_4O_7$	5	21	N	E		1.43
Acid Butyric $C_4H_8O_2$	3	21	E	E		.96
Acid Carbolic (Phenol) C_6H_5OH			V	V	Melts 43°C	1.07
Acid Carbonic H_3CO_3	3	21	E	E		1.06
Acid Citric $C_6H_8O_7$	7	21	N	E		1.54
Acid Cresylic $CH_3C_6H_4OH$			V	V		
Acid Fatty			V	V		
Acid Gallic $C_6H_2(OH)_3CO_2H$			V	V		1.69
Acid Hydrocyanic (Prussic) HCN	8	21	E	E		.70
Acid Lactic $CH_3CHOHCOOH$			V	V	Melts 18°C	1.20
Acid Malic $CH_2CH(OH)(COOH)_2$			-	V	Melts 128°C (Apple Acid)	1.60
Acid Nitric HNO_3			V	V	Check Solution/Temp	1.50
Acid Phosphoric HPO_3			V	-	Check Solution/Temp	1.88
Acid Picric $C6H_2(NO_2)_3OH$			-	V	Melts 122°C	1.76
Acid Sulphuric H_2SO4			V	-	Verify Solution/Temp	1.84
Acid Sulphurous H_2SO3	8	21	V	V		1.03
Acid Tannic $C_{14}H1009$			N	E		
Acid Tartaric $(CHOH)_2(COOH)_2$			N	V		1.76
Alcohols			E	E		.82
Ammonium Carbonate $(NH4)_2CO3$			E	E	Water Solution	
Ammonium Chloride NH_4CL			N	E	Check Solution/Temp	1.54
Ammonium Hydroxide NH_4OH	3	21	E	E		.99
Ammonium Nitrate NH_4NO_3			N	E		1.73
Ammonium Phosphate Mono			N	E	Water Solution	1.80
Ammonium Phosphate Mono			N	E		1.80
Ammonium Phosphate DI	8	21	N	E		1.62
Ammonium Sulphate CaSO4			N	E		1.77
Amyl Acetate CH_3COOC_5H11	3	21	E	E		.88
Amyl Chloride $CH_3(CH_2)_3CH_2CL$			V	V		.88
Anhydrous Ammonia Liquid NH_3	3	21	E	E		.70
Aniline $C_6H_5NH_2$	5	21	E	E	EP Fair Only	1.02

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PRODUCT CHARACTERISTICS

Media	Approximate Viscosity cSt	Approximate Viscosity °C	Compatible Elastomer To 80°C	Compatible Elastomer Above 80°C (CIP etc)	NOTES: DO NOT USE VITON WHEN CIP SOLUTION CONTAINS CAUSTIC SODA N – Nitrile E – Ethylene Propylene V – Viton (Fluorocarbon)	Specific Gravity
Barium Hydroxide $Ba(OH)_2$			N	E		4.25
Beer			N	E		
Beer Wort			N	E		
Beet Juice			N	E	Can be Abrasive	1.53
Beet Sugar Liquors			N	V		
Benzaldehyde C_6H_5CHO	5	21	E	E	(Oil of Almond)	1.05
Borax (Sodium Borate) $Na_2B_40_7$			E	E	Water Solution	2.37
Brine (Sea Water)			N	E		
Brine (Sodium Chloride Solution)			N	E		
Butter (Animal Fats)			N	E		
Buttermilk			N	E		
Butyle Acetate $CH_3COOC_4H_9$	3	21	E	E	EP Fair Only	.88
Calcium Hydroxide $Ca(OH)_2$	5250	21	N	E	Water Suspension. Abrasive.	2.34
Calcium Bisulphite Ca $(HSO_3)_2$	8	21	N	V		1.06
Calcium Chloride	8	21	N	E	Check Solution/Temp	2.15
Carbon Disulphide CS_2	3	21	V	V		1.26
Carbon Tetrachloride $CC1_4$	3	21	V	V		1.59
Caustic Soda (Sodium Hydroxide) NaOH			E	E	Water Solution	2.13
Chicken Fat	12	85	N	E	138 cSt @ 18°C	.90
Chlorobe Nzene C_6H_5C1	3	21	V	V		1.10
Chloroform $CHC1_3$	3	21	V	V		1.49
Chocolate	21.000	21	N	E	Thixotropic	
Chrome Alum KcR $(SO_4)_2$			N	E	Water Solution	1.81
Cider	5	21	E	E		
Coca Cola			N	E		
Cocoa Butter	40	43	N	E		.90
Copper Nitrate	8	21	N	-	Water Solution	2.17
Copper Sulphate	8	21	N	E	Water Solution	2.28
Corn Starch Slurry			N	E		
Cumene $C_6H_5CH(CH_3)_2$			V	V		
Cyclohexane C_6H_{11}	8	21	N	V		.78
Detergents			N	E	Water Solution	
Diacetone $CH_3COCH_2C(CH_3)_2OH$	3	21	E	E		.94
Dibutyl Phihalate $C6H_4(COOC_4H9)_2$	20	21	E	E	EP Fair Only	1.05
Diethylene Glycol	30	21	N	E	E	
Dioxane $CH_2CH_2(OCH_2)_2$			E	E	Melts 12°C, Boils 101°C	1.04
Diphenyl $C_6H_5C_6H_5$			V	V	Melts 71°C	1.00
Egg Yolk			N	-		
Ethyl Acetate $CH_3COOC_2H_5$	3	21	E	E	EP Fair Only	.89

Franklin Electric

PRODUCT CHARACTERISTICS

Media	Approximate Viscosity cSt	°C	Compatible Elastomer To 80°C	Above 80°C (CIP etc)	NOTES: DO NOT USE VITON WHEN CIP SOLUTION CONTAINS CAUSTIC SODA N – Nitrile E – Ethylene Propylene V – Viton (Fluorocarbon)	Specific Gravity
Ethyl Benzene $C_6H_5C_2H_5$	3	21	E	E		.87
Ethylene Glycol CH_2OHCH_2OH	21	21	N	E		1.12
Formaldehyde HCHO	3	21	E	E	Can be abrasive	.82
Furfural C4H3OCHD	8	21	E	E	EP Fair Only	1.16
Gelatine			N	E		
Glucose (Corn Syrup)	10,500	21	N	E		1.46
Glycerine $C_3H_5(OH)_3$	1,200	21	N	E	14 cSt @ 100°C	1.26
Grain Mash			E	E		
Grape Concentrate	1,850	60	N	E	Abrasive	1.36
Heptane $CH_3(CH_2)_5CH_3$	3	21	N	V		.70
Honey (100% Clove)	7,500	20	N	E		1.40
Hydrazine			E	E		1.00
Hydrogen Peroxide H_2O_2	3	21		V	V	1.46
ISO Propyl Acetate $H_3COOCH(CH_3)_2$	3	21	E	E	EP Fair Only	.87
ISO Propyl Ether $(CH_3)_4CHOCH$	3	21	N	-	Boils 67°C	.72
Ketchup			N	E		
Lard	63	38	N	E		.95
Lead Acetate Pb $(C_2H_3O_2)_2$			E	E	Water Solution	2.50
Lead Acetate Pb $(NO_3)_2$			N	E	Water Solution	4.53
Magnesium Chloride $MgC1_2$			N	E	Water Solution	
Magnesium Hydroxide $Mg(OH)_2$			E	E	Water Suspension Abrasive	2.36
Magnesium Sulphate $Mg(SO)_4$	8	21	N	E	Water Solution	
Malt Beverage			N	E		
Mayonnaise			N	E		
Methyl Acetate $CH_3CO_2CH_3$			E	-	Boils 54°C	.92
Methyl Chloride CH_3C1			E	V		.92
Milk	8	21	N	E		1.03
Molasses 'A'	280/4800	38	N	V		1.40/1.4
Molasses 'B'	1350/12600	38	N	V		1.43/1.4
Molasses 'C'	3500/53000	38	N	V		1.46/1.4
Mondethanolamine $HOCH_2CH_2NH_2$			E	E	Melts 11°C. EP Fair Only	1.02
Mustard			N	E		
Naphina			V	V		
Nickel Acetate $(N1(C_2H_3O_2)_2$			E	E	Water Solution	1.74
Nickel Chloride N1 C12			N	E	Check Solution/Temp	3.55
Nickel Sulphate N1 SO4			N	E		
Nitrobenzene	3	21	V	V		1.20
Oil Animal & Fish General			N	V		

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PRODUCT CHARACTERISTICS

	Approximate Viscosity		Compatible Elastomer		NOTES: DO NOT USE VITON WHEN CIP SOLUTION CONTAINS CAUSTIC SODA	Specific Gravity
Media	**cSt**	**°C**	**To 80°C**	**Above 80°C (CIP etc)**	**N – Nitrile E – Ethylene Propylene V – Viton (Fluorocarbon)**	
Oil Asphalt Based			V	V		
Oil Brake Fluid			E	E		
Oil Castor	1050	21	N	V	18 cSt @ 100°C	.96
Oil Chinawood	315	21	N	V		.94
Oil Cod Liver	33	38	N	V		.93
Oil Corn	110	21	N	V	9 cSt @ 100°C	.92
Oil Cotton Seed	82	21	N	V	7 cSt @ 100°C	.92
Oil Cutting (Soluble)			N	V		.95
Oil Diesel			N	V		.82/.95
Oil Domestic Fuel			N	V		
Oil Gasoline			N	V		.68/.74
Oil Hydraulic (Petroleum Based)			N	V		
Oil Linseed	30	38	N	V		.93/.94
Oil Lubricating SAE10	35-48	38	N	V		.88/.94
Oil Lubricating SAE20	48/115	38	N	V		.88/.94
Oil Lubricating SAE40	170-240	38	N	V		.88/.94
Oil Lubricating SAE60	380-530	38	N	V		.88/.94
Oil Lubricating SAE80	21,000 Max	(-18)	N	V		.88/.94
Oil Lubricating SAE140	200-500	54	N	V		.88/.94
Oil Lubricating SAE250	Over 500	54	N	V		.88/.94
Oil Mineral General			N	V		
Oil Olive	43	38	N	V	86 cSt @ 21°C, 8 cSt @ 100°C	.91/.92
Oil Palm	46	38	N	V	95 cSt @ 21°C, 9 cSt @ 100°C	.92
Oil Paraffin (Kerosene)	3	21	N	V		.81
Oil Peanut	190	38	N	V		.92
Oil Rape Seed	52	38	E	E	Melts 22°C	.92
Oil Rosin oil	320	38	N	V		.98
Oil Sesame	40	38	N	V		.92
Oil Silicone			N	E		
Oil Soya Bean	75	21	N	V	35 cSt @ 38°C	.93
Oil Sperm	23	38	N	V		.88
Oil Turpentine	8	21	N	V		.87
Oil Vegetable General			N	V		
Paint Thinners			V	V		
Peanut Butter	1400	56	N	E	Abrasive 2800 CP @ 35°C	1.03
Phenol			V	V	Melts 43°C	1.07
Pickle Solutions			V	V	Viton Fair Only	
Potassium Carbonate K_2CO_3			N	-	Water Solution	2.43
Potassium Chloride K C1			N	E	Water Solution	1.99

Franklin Electric

PRODUCT CHARACTERISTICS

Media	Approximate Viscosity cSt	Approximate Viscosity °C	Compatible Elastomer To 80°C	Compatible Elastomer Above 80°C (CIP etc)	NOTES: DO NOT USE VITON WHEN CIP SOLUTION CONTAINS CAUSTIC SODA N – Nitrile E – Ethylene Propylene V – Viton (Fluorocarbon)	Specific Gravity
Potassium Cyanide KCN			N	E	Water Solution	1.52
Potassium Hydroxide KOH			E	E	Check Solution/Temp	2.04
Potassium Permanganate $KmnO_4$			N	-	Water Solution	2.70
Potassium Phosphate K_3PO_4			N	-	Water Solution	
Potassium Sulphate K_2SO_4			N	E	Water Solution	2.61
Pyridine N(CH4)CH			E	E	EP Fair Only	.9
Silver Nitrate (10%) $AgNO_3$			E	E		4
Soap Solutions			N	E	Check Viscosity	
Soda Ash Na_2CO_3			N	E	Water Solution	
Sodium Bicarbonate $NaHCO_3$		21	N	E	(Baking Soda) Water Sol.	2.20
Sodium Bisulphate $NaHSO_4$			N	E	Water Solution	2.44
Sodium Borate (Borax) $Na_2B_4O_7$			E	E	Water Solution	2.37
Sodium Nitrate $NaNO_3$			E	E	Water Solution	2.27
Sodium Peroxide			E	E	Water Solution	2.81
Sodium Phosphates	8	21	N	E	Water Solution	1.62/2.07
Sodium Sulphate Na_2SO_4			N	E	Melts 33°C	1.46
Strawberry Preserves	510	56	N	E	Abrasive	1.09
Styrene Monomer			V	V	Check Viscosity	.90
Sugar Solutions 60 Brix	51	21	N	V		1.29
Sugar Solutions 64 Brix	97	21	N	V		1.31
Sugar Solutions 68 Brix	220	21	N	V		1.34
Sugar Solutions 72 Brix	560	21	N	V		1.36
Sugar Solutions 76 Brix	2150	21	N	V		1.39
Tetrachloroethylene $C1_2C:CC1_2$	3	21	V	V		1.63
Tomato Paste (32%)	9800	63	N	E		1.07
Toothpaste			E	E	Abrasive	
Triethanolamine $(HOCH_2CH_2)_3N$			E	E	Melts 21°C. EP Fair Only	1.13
Urea CO $(NH_2)_2$			V	V	Water Solution	1.33
Varnish			V	V	Check Viscosity	
Vinegar			E	E		
Water Glass (Sodium Silicate) Na_2SiO_3			N	E	Check Viscosity. Abrasive.	
Whiskey	3	21	N	E		.93
Wine	3	21	N	E		.96
Xylene $C6H_4(CH_3)_2$	3		V	V		.86
Yeast (Liquid Form)			V	V		
Yoghurt			N	E		
Zinc Acetate $Zn(C_2H_3O_2)_2$			E	E	Water Solution	1.74
Zinc Sulphate $ZnSO_4$			N	E	Water Solution	1.96