

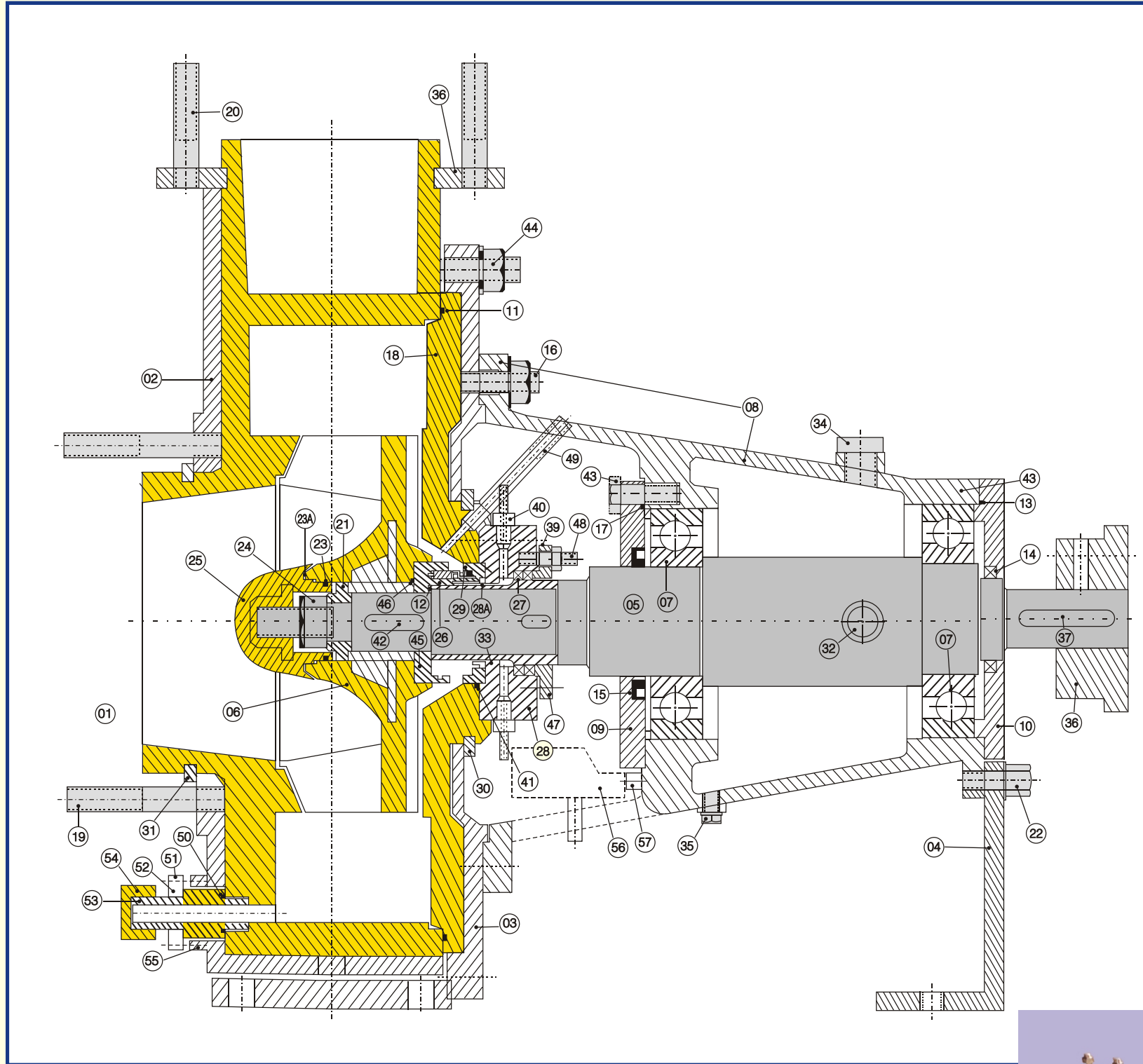
'SUPERSLICK' UHMWPE HORIZONTAL CENTRIFUGAL PUMPS BACK PULL-OUT TO DIN 24256

Pump Construction

- Pumps are made to suit DIN 24256 dimensions for standardisation. Back pullout feature, through the use of spacer coupling, allows withdrawal of rotating pump assembly for maintenance without removing pipe lines or the electric motor.
- All wetted parts (volute casing, back cover, impeller) are moulded to shape in solid sturdy construction in UHMWPE - the toughest thermoplastic exhibiting superior properties such as:
 - * Widest chemical resistance (weak and strong acids & their mixtures, hydroxides, salt solutions, electrolytic baths, chlorides at various temperatures).
 - * High temperature resistance (90°C continuous, 95°C short duration, toughest at sub-zero temperature)
 - * Highest abrasion resistance of all polymer materials - better than SS or some alloy metals.
 - * Exceptional impact strength - pump parts don't crack.
 - * Low frictional resistance improve hydraulic efficiency.
- Special "keyed" impeller (semi-open type) with positive locking and cap sealing arrangement protects pump against damage due to wrong rotation. Pumps with threaded impellers also offered. Metal bush located in impellers core moulded in-situ does not get dissociated from the plastic body by the thrust and torional loads of its motion.
- Plastic casing is encaged in CI annular body that takes the piping loads.
- Pressure castings of pump parts ensures inter- changeability and standardisation. There are no threaded or welded joints in the wetted parts.
- Shaft sealing is done with specially designed mechanical seals of reputed make developed for specific uses for clear and polluted fluids.
- Shaft sleeves in compatible metals (Hast-C, Alloy-20, SS316, Titanium) and Ceramic.

36	OIL LEVER PLUG	STD	1
35	DELIVERY FLANGE STUDS	S.S.	4
34	'O' RING OUT B D BRG COVER	NEOPRENE	1
33	DELIVERY FLANGE	STEEL	1
32	KEY COUPLING	STEEL	1
31	COUPLING PUMP SIDE	LOVE JOY	1
30	OIL DRAIN PLUG	STD	1
29	OIL PLUG INLET	STD	1
28	SHAFT SLEEVE	S.S.316	1
27	MECHANICAL SEAL SRRUT	TC/TC	1
26	RETAINING RING SUCTION	STEEL	1
25	RETAINING RING DISCHARGE	STEEL	1
24	'O' RING INB D PRG COVER	NEOPRENE	1
23	'O' RING FOR IMPELLER	VITON	1
22	SUCTION FLANGE STUDS	S.S.	4
21	BEARING COVER BOLTS	STEEL	8
20	CASING COVER	PE-UHMW	1
19	LEG BOLT	STEEL	1
18	GLAND PLATE	S.S. 316	1
17	COOLING WATER NOZZLES	S.S.	2
16	GLAND STUDS	S.S. 4	2
15	OIL SEAL INB D	RUBBER	1
14	OIL SEAL OUTB D	RUBBER	1
13	CONNECTING PIECE STUDS	S.S.	4
12	A. CASING STUDS	S.S.	6
11	'O' JOINT RING	VITON	1
10	BRG COVER OUTB D	M.S.	1
09	BRG COVER INB D	M.S.	1
08	BEARING HOUSING	C.I.	1
07	BEARINGS	STD	2
06	THREADED IMPELLER	PE-UHMW	1
05	SHAFT	EN-8	1
04	SUPPORT FOOT	M.S.	1
03	CONNECTING PIECE	C.I./M.S.	1
02	ANGULAR CASING	C.I.	1
01	VOLUTE CASING	PE-UHMW	1
S.N.	PART NAME	MATERIAL	QTY.

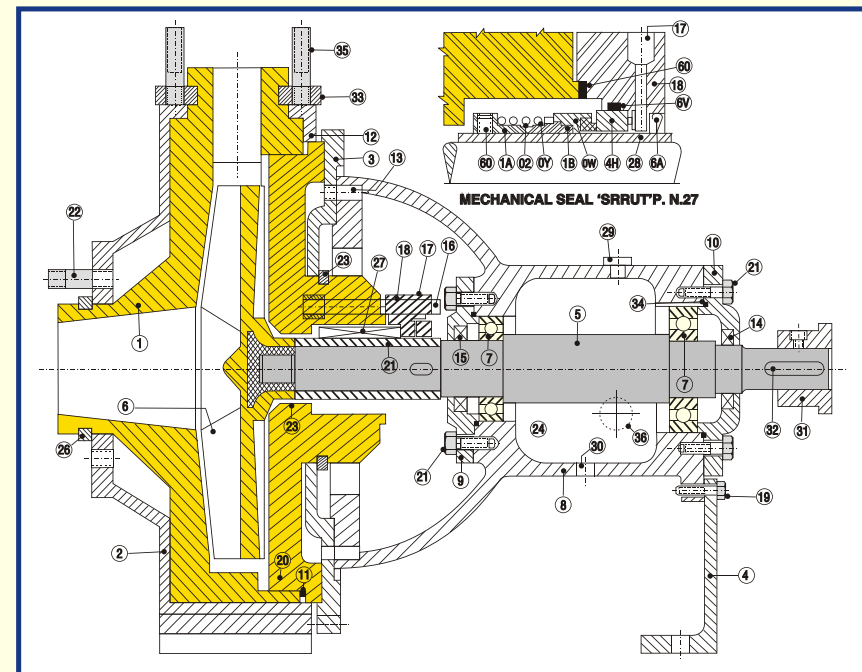
P.N.	DESCRIPTION	QTY	MATERIAL
0W	SEAL RING	1	SS+T.C.
0Y	FOLLOWER RING	1	SS 316
1A	SPRING SLEEVE	1	SS 316
1B	'U' PACK	2	PTFE
4H	ST. SEAT - DA	1	TC
6Q	GURB SCREW	3	SS 316
6V	'O' RING	1	PTFE
18	GLAND PLATE	1	SS 316
28	SHAFT SLEEVE	1	SS 316



28A	SEAL HOUSING INSERT	HAST-C	1
28	GLAND PLATE	SS316	1
27	GLAND PACKING	TIWA	2
26	ROTARY SEAL RING	SiC	1
25	IMPELLER CAP	PE-UHMW	1
24	SHAFT NUT	STEEL	1
23A	CAP GASKET-OUTER	PTFE	1
23	CAP 'O' RING - INNER	VITON	1
22	SUPPORT LEG BOLT	STEEL	1
21	PRESS RING	S.S.	1
20	DEL FLANGE STUDS	S.S.	8
19	SUC FLANGE SIUDS	S.S.	8
18	CASING COVER	PE-UHMW	1
17	B.C. 'O' RING INB D	NECPRENE	1
16	CLAMP STUDS	S.S.	4
15	OIL SEAL INB D	RUBBER	1
14	OIL SEAL OUTB D	RUBBER	1
13	B.C. 'O' RING OUTB D	NEOPRENE	1
12	SLEEVE 'O' RING	VITON	1
11	'O' JOINT RING	VITON	1
10	BRG COVER OUTB D	M.S.	1
09	BRG COVER INB D	M.S.	1
08	BEARING HOUSING	C.I.	1
07	BEARINGS	STD	2
06	IMPELLER	PE-UHMW	1
05	SHAFT	SS316	1
04	SUPPORT FOOT	M.S.	1
03	CONNECTING PIECE	M.S.	1
02	ANGULAR CASING	C.I.	1
01	VOLUTE CASING	PE-UHMW	1
S.N.	PART NAME	MATERIAL	QTY.

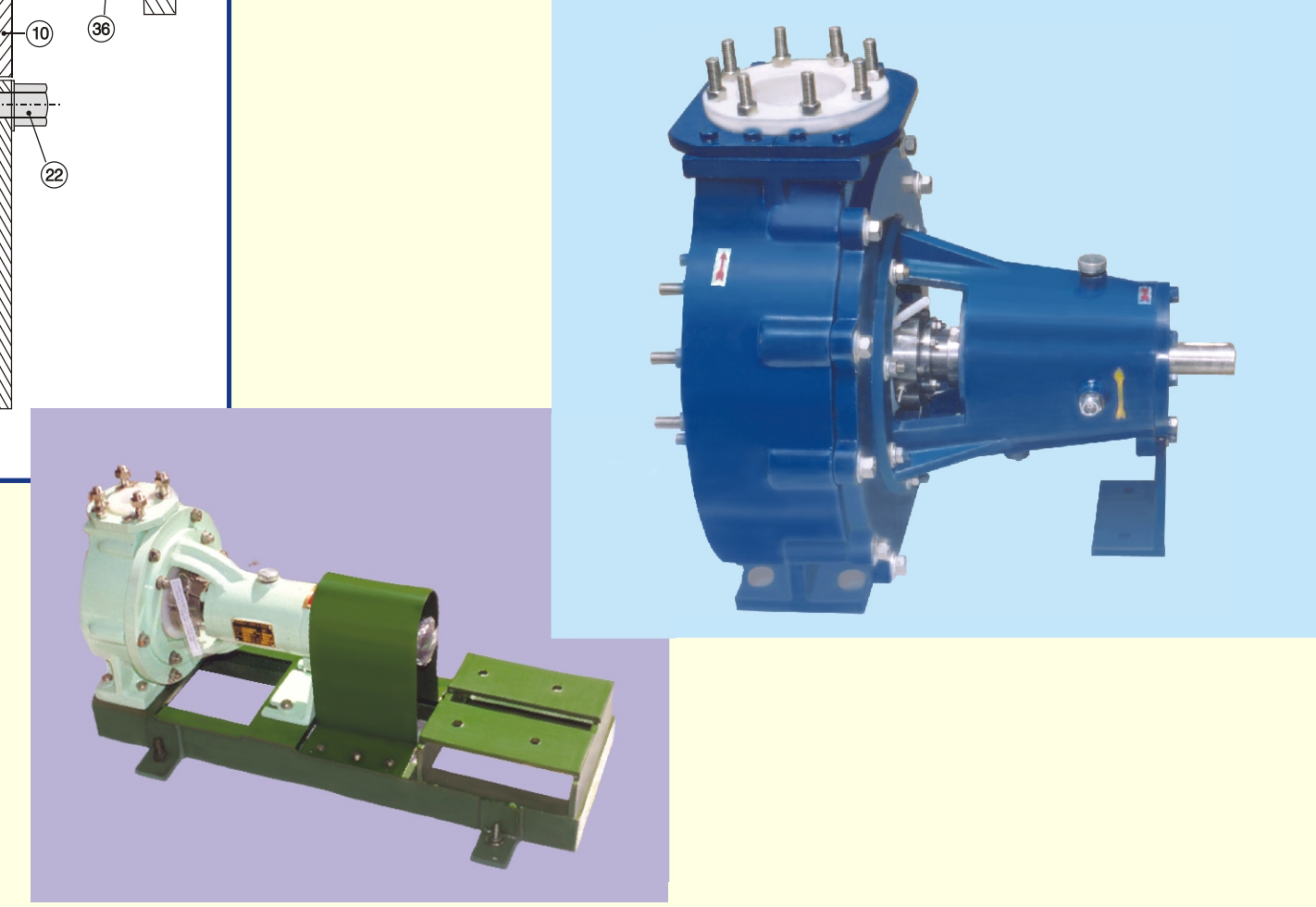
58			
57	D. TRAY BOLTS	S.S.	2
56	DRIP TRAY	PVC	1
55	D. N. CLAMP BOLTS	STEEL	2
54	D. NOZZLE GASKET	PTFE/VITON	1
53	D. NOZZLE PLUG	PE-UHMW	1
52	DRAIN NOZZLE	PE-UHMW	1
51	NOZZLE CLAMP RING	M.S.	1
50	DRAIN NOZZLE 'O' RING	VITON	1
49	SEAL RINSE NOZZLE	PE-UHMW	1
48	GL. FOLLOWER BOLTS	S.S.316	4
47	GLAND FOLLOWER	S.S.316	1
46	COLLAR 'O' RING	VITON	1
45	DRIVE COLLAR	HAST-C	1
44	HOLDING STUDS	S.S. 316	8-10
43	BRG. COVER BOLTS	STEEL	8
42	IMPELLER KEY	STEEL	1
41	GL. PLATE 'O' RING	VITON	1
40	FL. WATER NOZZLES	S.S.	2
39	GLAND PLATE BOLTS	S.S.	4
38	DEL FLANGE SPLIT	M.S.	1
37	COUPLING KEY	STEEL	1
36	COUPLING PUMP SIDE	C.I.	1
35	OIL DRAIN PLUG	STEEL	1
34	BREATHER PLUG	STEEL	1
33	SHAFT SLEEVE	HAST-C	1
32	OIL LEVEL PLUG	STEEL	1
31	RETAINING RING SUC	M.S.	1
30	RETAINING RING DEL	M.S.	1
29	MECH SEAL 'SCS'	HAST-C-SiC	1
S.N.	PART NAME	MATERIAL	QTY.

**FLOW RATE UPTO 600 M³/H,
DIFFERENTIAL HEAD UPTO 80M**



'SUPERSLICK' UHMWPE pumps are preferred over other plastic materials (PP, PVDF, FRP) and metallic alloys (SS, Alloy-20, Hastalloy, Titanium) for their suitability to widest range of corrosive chemicals, particularly when polluted with abrasive solids, even mixed or unknown liquids, plant effluents and waste streams. Being non-toxic, inert and odourless, PE-UHMW pumps are suitable for handling pure water and other fluids used by pharmaceutical manufacturers, printed circuit board fabricators and other processes where product contamination has to be avoided. Typical applications for these pumps are found in following industries.

- * Chemical & pharmaceutical plants
- * Steel pickling lines & pickling acid regeneration systems
- * Electroplating, Phosphating & Anodizing processes
- * Spraying systems for metal polishing
- * Circulating pumps for scrubbing towers for toxic gas removal
- * Cleaning Flue Gas laden with solids
- * Chlorine Electrolysis transfer
- * Waste water treatment plants



Typical Case Histories

Acids: 33% HCl, HF recovery/ transfer / unloading; 12% HCl+AlCl₃+ Alluminium Hydroxide; 65-75% H₂SO₄ at 70°C; 98% H₂SO₄ at 40°C; Spent Acid at 80°C; Mixture of 48% H₂SO₄, 40% HF at 80°C; Mixture of HCl + H₂SO₄ + CH₃COOH at 85°C; Mixed Acid containing 45% H₂SO₄ + 15% HNO₃ + 3% Oxalic Acid; 25% Chromic Acid; Dilute HF + Glass powder Slurry in Glass Etching Process; FeCl₃ in Etching Process; Fluoboric Acid; H₃PO₄.

Dyes: Phthalocyanine Green / Crude Green (10-12% HCl+ Alluminium Chloride + Dyes slurry at 95°C); Dye Intermediates slurry with Bromine + Hbr; VAT Dyes (DIL. H₂SO₄ + dye slurry at 80°C) for press feeding.

Scrubbing: HCl gas using NaOH at 60°-70°C (Sodium Hypochlorite); NaOH + HCl + Methylene Chloride; washing/scrubbing SO₂ gas (10% H₂SO₄ + silica / copper dust at 80°C in Zinc/Copper Smelter). Fluorine gas (15-18% H₂SiF₆ + 5-10% silica solids at 60-70°C in SSP Plants); Chlorine/Bromine (HCl/HBr); 33% Sodium Dichromate + 20-30% H₂SO₄ at 80°C in Basic Chrome Sulphate manufacture; HCl gas with 5-7% glass powder in Optical Fiber plant; HgCl₂ + Hg₂Cl₂ + HCl + H₂SO₄ + Fines In Chlorination/ Condensate Plant.

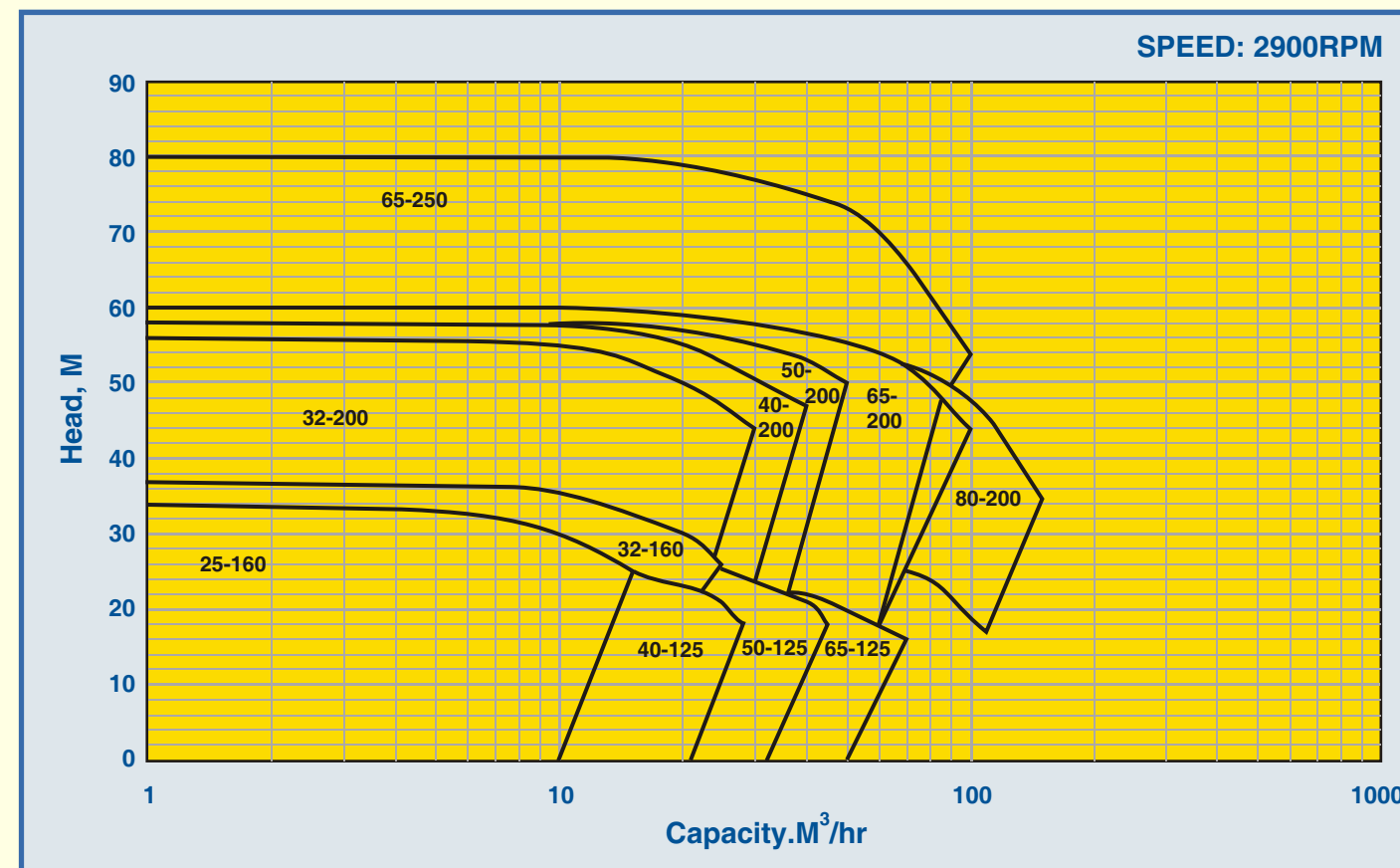
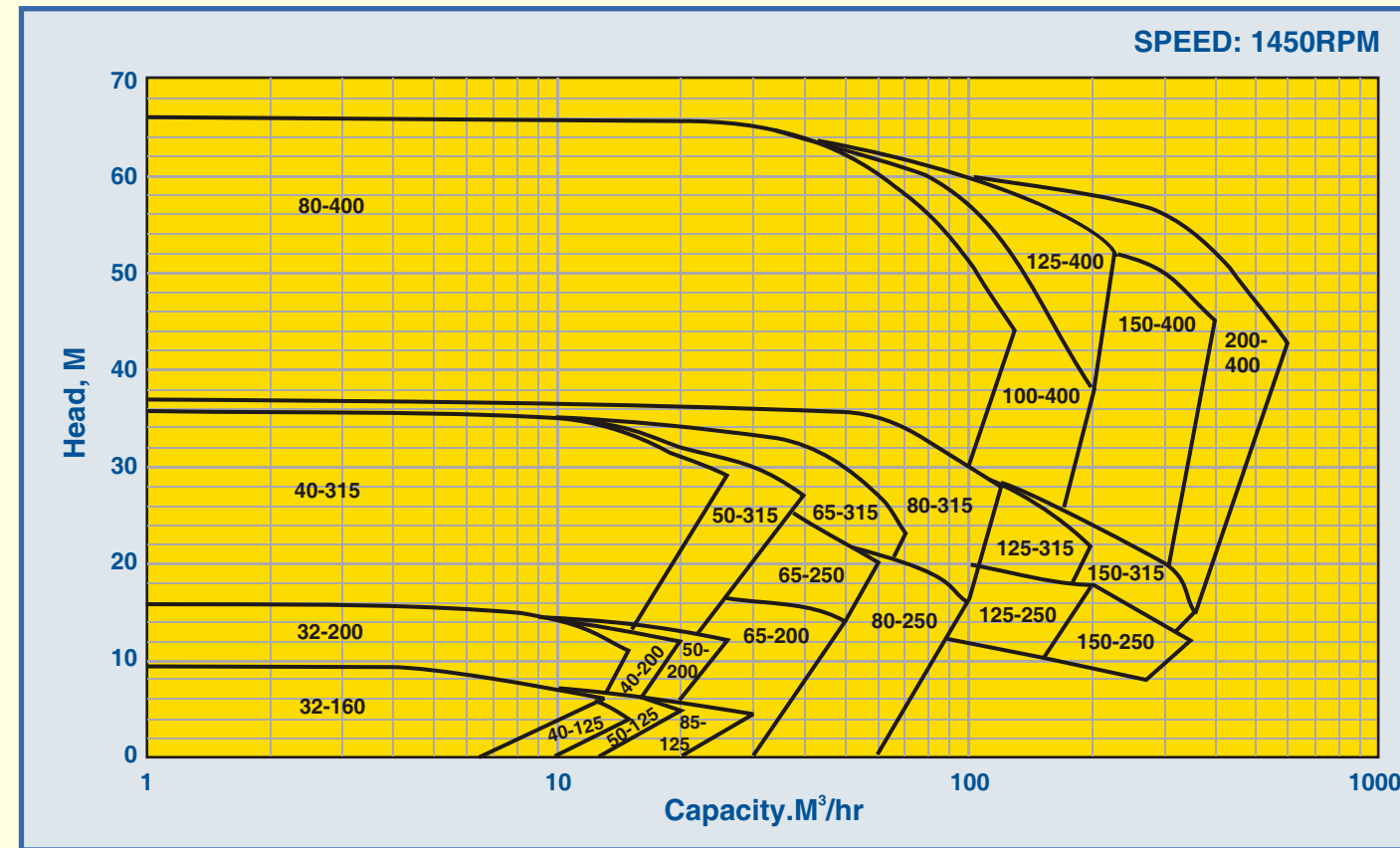
Slurries: Slurry of BaCO₃ + NaCl + BaSO₄ + 26% solids at 85°C; 13% H₂O₂ + 23% CaCl₂ + 9% HCl at 50-65°C; Dichlorobenzene Sulphate slurry + 30% H₂SO₄ with 30% solids; Pulp 3% with sand; 20% Lime Slurry at 70-80°C; 20% Al₂O₃ Slurry in metal polishing process; 60-70%wt Fe₂O₃ Slurry in Semi- Conductor industry; 60-70% w/w SiO₂ slurry feed to Filter-press in semi-conductor industry.

Others: Chlorine Back Water; 10% Na₂CO₃ soln; Saturated Brine; Ferric Alum; 45% Caustic soln; Aqueous Ammonia; Raw/Mixed effluents of varying pH from sump with priming tank systeme.

UHMWPE vs PTFE, PVDF, PP, FRP, GRP

- * Compatible with nearly all chemicals that can be handled by PTFE/PVDF up to 95°C.
- * More durable than PVDF and several times longer lasting than PP, PTFE and other plastic materials when pumping corrosive fluids with abrasive fine solids.

CHARACTERISTIC CURVES



SUPERSLICK LININGS + SPARES

D-9, Nand Jyot Industrial Estate, Saki Naka, Mumbai - 400 072, INDIA.
 Phone: (91-22) 28511278 • Fax: (91-22) 28515459
 Email: suprslik@vsnl.com • Website: www.superslickpumps.com

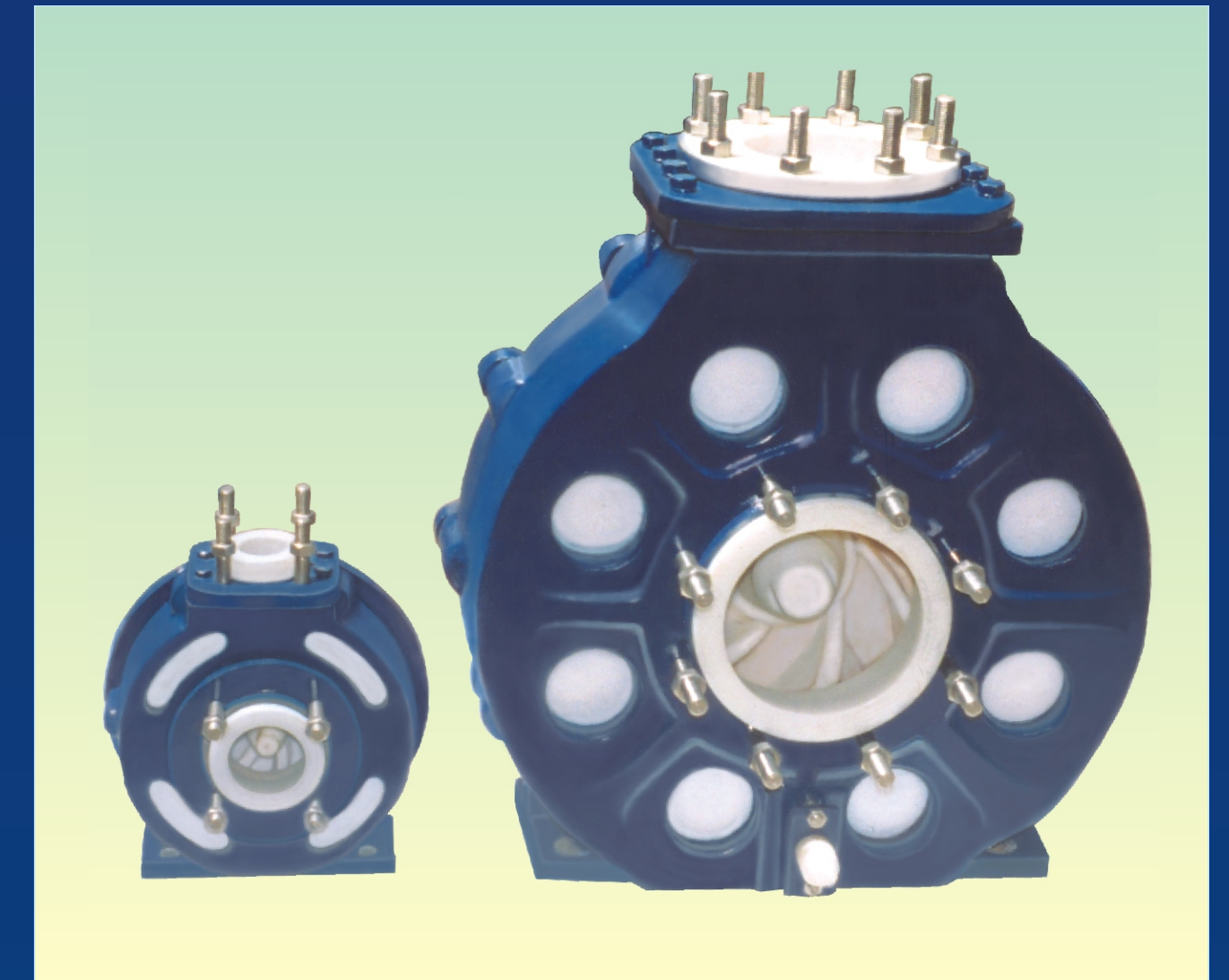
Our other range of UHMWPE Polymer Pumps:

Vertical Glandless Mono and with Double Bearing Housing:
 Range upto 400M³/H, 80.

Vertical with Mechanical Seals for reliable pumping of highly corrosive, volatile liquid/slurries

SUPERSLICK

**UHMWPE PLASTIC CENTRIFUGAL PUMPS
 FOR CHEMICALLY AGGRESSIVE & ABRASIVE FLUIDS**



HORIZONTAL BACK PULL-OUT TO DIN 24256

HEAVY DUTY DESIGN

PROVEN HISTORY IN TOUGH APPLICATIONS

RELIABLE, DURABLE PERFORMANCE FROM SUB-ZERO TO 90° C