



## COOLANT PUMPS

“PHULSONS” range of immiscible pumps has been designed especially for filtering systems in the machine tool industry. The low-pressure pumps are available in different flow variants and come with a choice of bottom suction or suction from the top of the volute.

The compact coolant pumps efficiently transport liquid containing chips, fibers and abrasive particles on to the filtering unit. Semi – open impellers allow the passing of chips up to 10 mm, making the pumps ideal for removing liquid from any machining process- from boring and milling to grinding.

## HIGH QUALITY MATERIALS

Carefully chosen materials ensure trouble free operation and long life the top of the pump is made of cast iron, while the impeller is available in composite bronze/aluminum/engineering plastic etc are used in pumps with flow up to 1000 l/min. in the bigger pumps with higher flow the impellers are made of bronze to ensure perfect resistance to e.g metal chips. As the pumped liquid will always contain oil there no risk of corrosion

## EASY INSTALLATION

Carefully chosen materials ensure trouble free operation and long life the top of the pump is made of cast iron, while the impeller is available in composite bronze./aluminum/engineering plastic etc are used in pumps with flow up to 1000 l/min. in the bigger pumps with higher flow the impellers are made of bronze to ensure perfect resistance to e.g metal chips. As the pumped liquid will always contain oil there no risk of corrosion

## FULL LINE SUPPLIER

In addition to the range for filtering systems, we offers a wide range of pumps for the cooling and cleaning of tools inside the machine. this allows our customers the benefit of convenient and time –saving one stop shopping.

## FEATURES

Available in very wide range.

High flexibility of design.

Availability in any type of material like cast iron,SS-316,SS-304,bronze,Alloy – 20 Etc..

Balanced shaft & rotor with excellent grade stamping and wire so highly efficient motor .

Totally noiseless operation.

Available in any length and for any liquid.

TC/Carbon seal for high pressure

Stainless steel bowls and impellers for long life also available with PP construction

Large stock, earliest delivery



# TOUGH ENGISOL PVT LTD

A/78 Bileshwar industrial Estate, Odhav-kathwada Road, Ahmedabad-382415

## HIGH QUALITY MATERIALS

Turning  
Boring  
Drilling  
Milling  
Cutting  
Sawing

Grinding  
Filtration  
Circulation  
Printing  
Conveyor  
Cooling

Granite  
Fountains  
Washing  
Heat treatment  
Oil Transfer

## TYPE OF COOLANT PUMPS

Standard Coolant pumps.  
Coolant pumps with DC motor  
Coolant pumps with flame proof motor.  
Coolant pumps with "C E" and " UL" Mark Motor  
Custom built coolant pumps for different lengths  
Very high discharged pump  
Very high head pump / High pressure pump.  
Pumps in special material like stainless steel, bronze, PP, alloy – 20 etc.  
Multistage Coolant pumps.  
Coolant pump without stem.  
Coolant pump for oil (gear type)  
Coolant pump for oil (gear type).  
Submersible coolant pumps



## COOLANT PUMPS RANGE

Max discharge up to 1000 LPM.  
Max pressure up to 21 bar.  
Max length up to 1500 mm.  
Max HP up to 20 HP .  
Max outlet size up to 4".  
Max temp up to .  
Max Size of chips up to 15 mm.  
Material or construction – CI / SS / Alloy 20 / PP /bronze etc





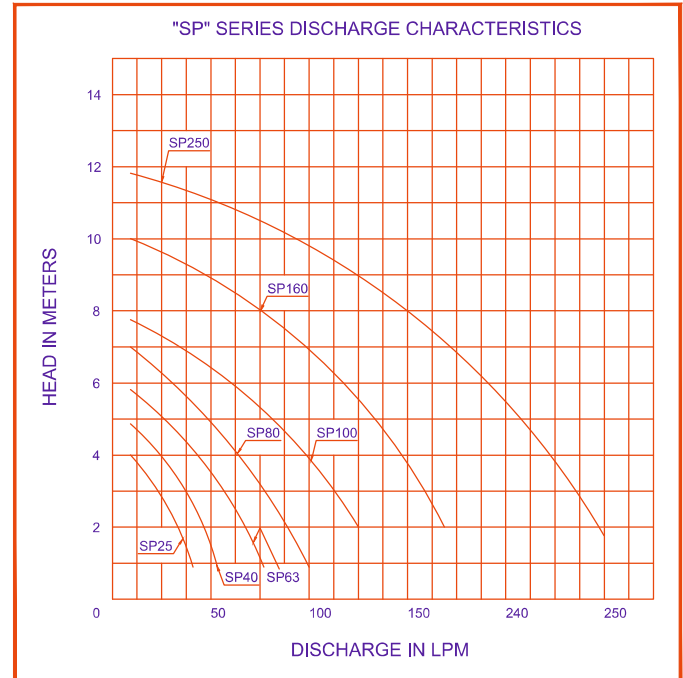
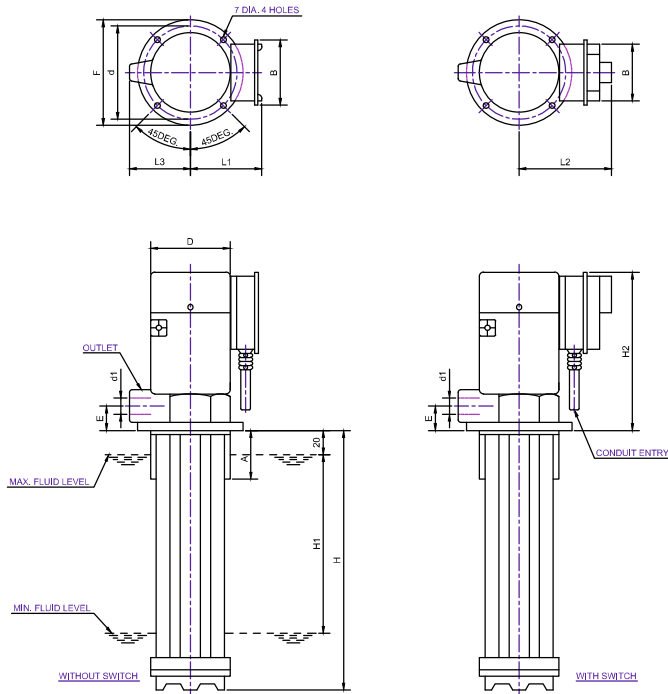
## SINGLE STAGE COOLANT PUMP (SP SERIES)

PERFORMANCE CHART OF SP SERIES										
MODEL	OUTLET SIZE	BOTTOM CASING	FLANGE SIZE OD/ID/HOLL PCD	KW/HP	RPM	Head in meters VS LPM				
						2	4	6	8	10
SP 25/120 SP 25/170 SP 25/220	20mm 20mm 20mm	100 100 100	130x100x115	0.08/0.1	2730	25	10	0	0	0
SP 40/120 SP 40/170 SP 40/220	20mm 20mm 20mm	100 100 100	130x100x115	0.12 /0.15	2730	40	25	0	0	0
SP 63/120 SP 63/170 SP 63/220	20mm 20mm 20mm	100 100 100	130x100x115	0.18/0.25	2750	63	40	0	0	0
SP 80/220 SP 80/270	25mm 25mm	125 125	180x140x160	0.18/0.25	2750	80	60	30	0	0
SP 100/170 SP 100/220 SP 100/270 SP 100/350	25mm 25mm 25mm 25mm	138 138 138 138	180x140x160	0.25/0.34	2800	100	80	65	0	0
SP 160/170 SP 160/220 SP 160/270 SP 160/350	25mm 25mm 25mm 25mm	138 138 138 138	180x140x160	0.37/0.5	2800	160	140	120	75	15
SP 250/220 SP 250/270 SP 250/350 SP 250/440	33mm 33mm 33mm 33mm	138 138 138 138	180x140x160	0.75/1.0	2800	250	245	200	130	80



# TOUGH ENGISOL PVT LTD

A/78 Bileshwar industrial Estate, Odhav-kathwada Road, Ahmedabad-382415



## SPECIFICATION AND MOUNTING DETAILS

THE PUMPS ARE PROVIDED WITH ROUND FLANGE AND DIMENSION AS GIVEN BELOW

MODEL	TYPE	IMMERSION DEPTH H	H1	H2 MAX.	A±01	B MAX.	D MAX.	d±0.2	d1 BSP	E±2	F	L1 MAX.	L2	L3±2	FLOW AT 2 mtr. hd ±15%	MAX. Hd ±10%	Kw MAX.	Wt. In Kg.
SP 25	25/120	120	30	190	100	80	98	115	R 3/4"	30	130	130	155	70	25	4	0.8	5.00
	25/170	170	80															5.50
	25/220	220	130															6.00
SP 40	40/120	120	30	190	100	80	98	115	R 3/4"	30	130	130	155	70	40	5	0.12	5.00
	40/170	170	80															5.50
	40/220	220	130															6.00
SP 63	63/120	120	30	200	100	80	120	115	R 3/4"	30	130	130	155	70	63	6	0.18	8.00
	63/170	170	80															9.50
	63/220	220	130															11.00
SP 80	80/220	220	130	200	140	80	120	160	R 1"	32	180	150	155	100	80	7	0.18	12.00
	80/270	270	180															13.00
	80/600	600	510															20.00
SP 100	100/170	170	80	245	140	80	135	160	R 1"	32	180	150	175	100	100	8	0.25	17.00
	100/220	220	130															18.00
	100/270	270	180															19.00
SP 160	160/170	170	80	255	140	80	140	160	R 1"	32	180	150	175	100	160	10	0.37	19.00
	160/220	220	130															20.00
	160/270	270	180															21.00
	160/350	350	260															22.00
SP 250	250/220	220	130	300	140	80	160	160	R 1/4"	32	180	150	175	100	250	15	0.55	20.00
	250/270	270	180															22.00
	250/350	350	260															24.00
	250/440	440	350															26.00

- All types of coolant pumps are fitted with two pole squirrel cage induction motor RPM 2800±3% variation. (Motors with "CE" or "UL" mark available)
- Maximum fluid level from bottom of the flange for all sizes of coolant pumps 20mm.
- Coolant pumps operating on other voltages and frequencies can also be supplied on specific order.
- Discharge variation with in ±15%
- Terminal box position rotatable by 90 degree or 180 degree around vertical axis of pumps.
- Conduit entry position of terminal box rotatable 90 degree or 180 degree around its horizontal axis.
- Filter at suction end available for all type of pumps as extra accessory.
- We offer import substitute coolant pumps.
- Custom built high pressure and high discharge pumps available request.



# TOUGH ENGISOL PVT LTD

A/78 Bileshwar industrial Estate, Odhav-kathwada Road, Ahmedabad-382415

## CONVENTIONAL HIGH FLOW COOLANT PUMPS

### CONSTRUCTION

Stem C.I.  
Impeller C.I.  
Impeller Cover C.I.  
Shaft EN8

### OPTIONS

Stem Gunmetal/S.S  
Impeller Gunmetal/S.S  
Impeller Cover Gunmetal

### APPLICATION

Types of Fluids - Water - Cooling Emulsion - Cooling/Cutting Oils  
Kinematical Viscosity- 90mm<sup>2</sup>/s  
Pumping Temperature - 0-80°C

### SPECIAL VERSIONS

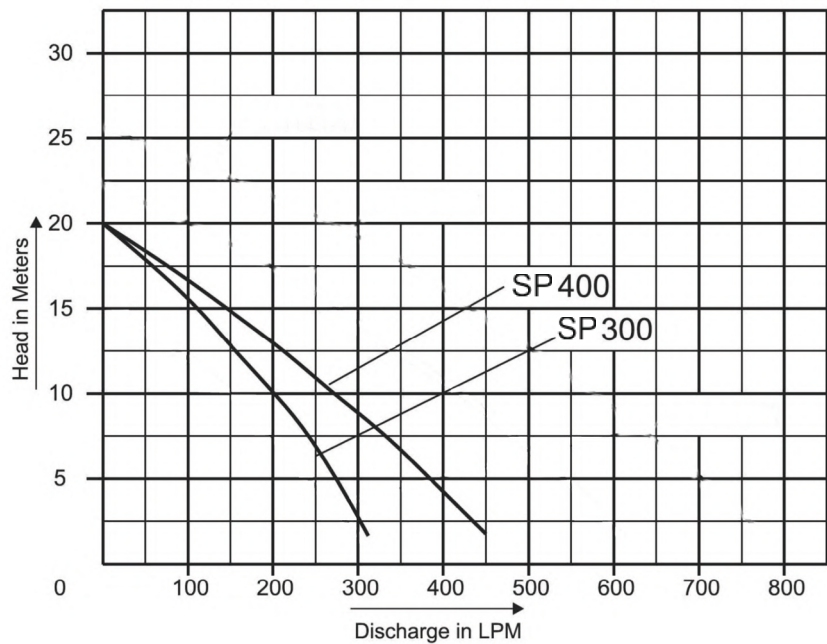
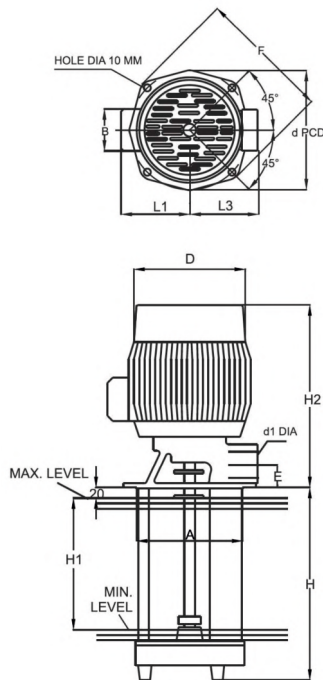
Available Extra

\* Immersion depth in step of 200mm

\* For high viscous liquids \* To handle Hot Liquids upto 100 C

### USED ON

All lathes, Milling, CNC, retrofittings, EDM wire.  
Grinding, Cutting Machines, Printing machines Etc



### DIMENSIONAL DETAILS

TYPE	Immersion Depth H	H1 Max	H2 Max	A+0 -1	B Max	D Max	d -0.2	d1 BSP	E -0.2	F	L1 Max	L3	Kw	Wt in Kg
SP 300	300	220	310	200	82	156	225	G1½ "	42	250	130	126	1.1	30
SP 400	300	220	330	200	82	175	225	G1½ "	42	250	150	126	1.5	34



# TOUGH ENGISOL PVT LTD

A/78 Bileshwar industrial Estate, Odhav-kathwada Road, Ahmedabad-382415

## “MCP” SERIES MULTI STAGE HIGH HEAD COOLANT PUMPS

- ▣ Available in very wide range.
- ▣ High of design.
- ▣ Availability in any type of material like cast iron, SS-316, SS-304, bronze, Alloy – 20 Etc..
- ▣ Balanced shaft & rotor with excellent grade stamping and wire so highly efficient motor .
- ▣ Totally noiseless operation.
- ▣ Available in any length and for any liquid.
- ▣ TC/Carbon seal for high pressure
- ▣ Stainless steel bowls and impellers for long life also available with PP construction
- ▣ Large stock, earliest delivery

## HIGH QUALITY MATERIALS

Turning  
Boring  
Drilling  
Milling  
Cutting  
Sawing

Grinding  
Filtration  
Circulation  
Printing  
Conveyor  
Cooling

Granite  
Fountains  
Washing  
Heat treatment  
Oil Transfer





# TOUGH ENGISOL PVT LTD

A/78 Bileshwar industrial Estate, Odhav-kathwada Road, Ahmedabad-382415

## “MCP” SERIES MULTI STAGE HIGH HEAD COOLANT PUMPS

PERFORMANCE DATA MCP- 2 SERIES COOLANT PUMPS												
PUMP MODEL	MOTOR POWER			FLOW IN LPM	16	18	25	32	38	45	50	55
	KW/HP	PUMP LENGTH	Moter LENGTH									
MCP 2-20	0.37 / 0.5	142	225	METER IN HEAD	18	17	16	15	13	12	10	8
MCP 2-30	0.37 / 0.5	160	255		27	26	24	22	20	18	15	12
MCP 2-40	0.55 / 1	178	255		26	35	33	30	26	24	20	16
MCP 2-50	0.55 / 1	196	255		45	43	40	37	33	30	24	20
MCP 2-60	0.75 / 1	214	255		53	52	50	45	40	36	30	24
MCP 2-70	0.75 / 1	232	255		63	61	57	52	47	41	35	28
MCP 2-90	1.1/ 1.5	268	255		80	78	73	67	67	54	45	37
MCP 2-110	1.1 / 1.5	304	255		98	95	89	82	73	64	54	44
MCP 2-130	1.5 / 2	340	260		164	114	106	98	89	78	65	52
MCP 2 -150	1.5 / 2	376	260		134	130	123	112	100	90	73	60
MCP 2-180	2.2 / 3	430	285		161	157	148	136	121	108	91	76
MCP 2-220	2.2 / 3	502	285		198	192	180	165	148	130	110	90
MCP 2-260	3.0 / 4	570	325		232	228	214	198	179	158	130	110
MCP 2-360	5.60 / 7.5	860	420		319	315	299	278	254	224	209	198

PERFORMANCE DATA MCP- 4 SERIES COOLANT PUMPS												
PUMP MODEL	MOTOR POWER			FLOW IN LPM	25	33	50	66	83	100	116	133
	KW/HP	PUMP LENGTH	MOTER LENGTH									
MCP 4-20	0.37/- 0.5	160	225	METER IN HEAD	19	18	17	15	13	10	8	6
MCP 4-30	0.55 / 1	187	255		28	27	26	24	20	18	13	10
MCP 4-40	0.75 / 1	214	255		38	36	34	32	27	24	19	13
MCP 4-50	1.1 / 1.5	241	255		47	45	43	40	34	31	23	17
MCP 4-60	1.1 / 1.5	268	255		56	54	52	48	41	27	28	20
MCP 4-70	1.5 / 2	295	260		66	63	61	56	48	43	33	24
MCP 4-80	1.5/ 2	322	260		74	72	70	64	55	50	38	27
MCP 4-100	2.2 / 3	376	285		96	90	87	81	71	62	48	34
MCP 4-120	2.2 / 3	430	285		114	108	104	95	85	75	58	41
MCP 4-140	3 / 4	484	325		136	126	122	112	101	89	68	48
MCP 4-160	3 / 4	538	325		152	144	140	129	115	101	78	55
MCP 4-190	4 / 5.5	619	335		183	171	168	153	137	122	93	67
MCP 4-220	4 / 5.5	700	335		211	200	192	178	160	138	108	79
MCP 4-280	5.60 / 7.5	970	420		250	243	234	221	208	189	138	86