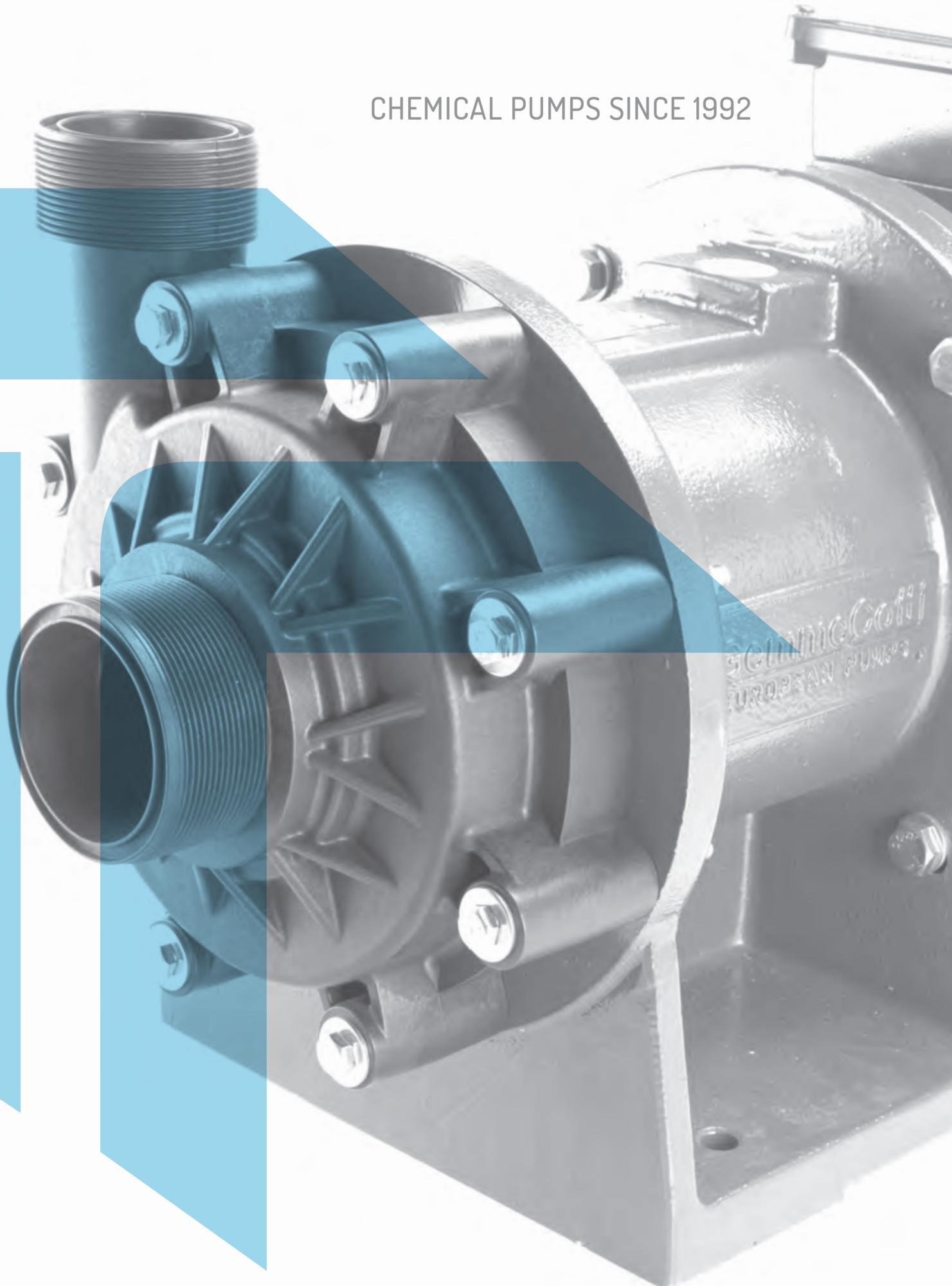


CHEMICAL PUMPS SINCE 1992



# MAG-DRIVE CENTRIFUGAL PUMPS

## SEAL-LESS MAG DRIVE CENTRIFUGAL PUMPS

In seal-less magnetic drive centrifugal pumps, the external magnet is directly connected to the motor shaft and it transmits the torque to the internal magnet.

The magnetic field created produces a rotation without physical contact between the parts so the impeller spins and moves the fluid. The rear casing is placed between the two magnet joints and it hermetically closes the hydraulic part from the motor.

GemmeCotti can supply three different models of mag drive centrifugal pumps:

### HTM PP/PVDF

- Thermoplastic pumps made in PP or PVDF.
- Capacity up to 45 m<sup>3</sup>/h.
- Head up to 33 mlc.
- Injection molded parts.

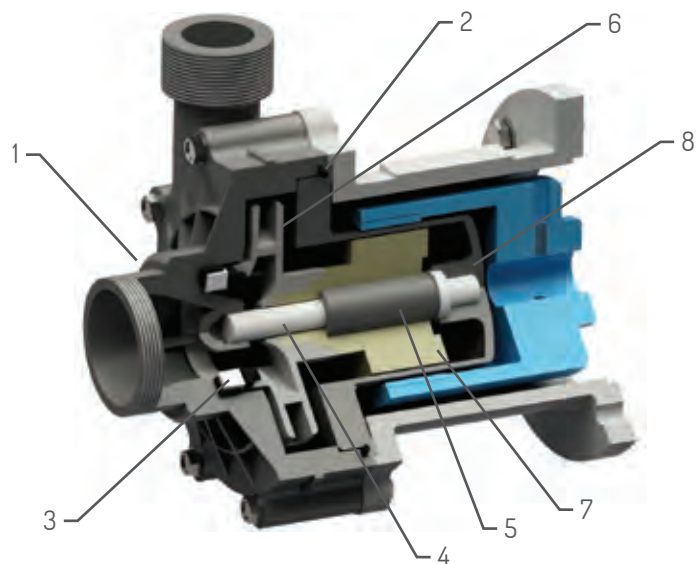
### HCM

- Thermoplastic pumps made in PP or PVDF.
- Capacity up to 130 m<sup>3</sup>/h.

- Head up to 48 mlc.
- Pump head machined from a block.

### HTM SS 316

- Metallic pumps made in stainless steel AISI316.
- Capacity up to 32 m<sup>3</sup>/h.
- Head up to: 24 mlc.



## MATERIALS IN CONTACT WITH THE LIQUID

PART NUMBER - DESCRIPTION	CENTRIFUGAL PUMPS		
	HTM PP/PVDF	HCM	HTM SS 316
1 - PUMP HEAD	PP OR PVDF	PP OR PVDF	AISI 316
2 - O-RING	EPDM OR VITON	EPDM OR VITON	EPDM OR VITON
3 - CASING THRUST BUSH	CERAMIC Al <sub>2</sub> O <sub>3</sub> + EPDM OR VITON	CERAMIC Al <sub>2</sub> O <sub>3</sub> + EPDM OR VITON	PTFEC
4 - SHAFT	CERAMIC Al <sub>2</sub> O <sub>3</sub> 99,7%	CERAMIC Al <sub>2</sub> O <sub>3</sub> 99,7%	HASTELLOY-C 276
5 - BEARINGS	PTFEC	PTFEC	PTFEC
6 - IMPELLER	PP OR PVDF	PP OR PVDF	AISI 316
7 - INTERNAL MAGNET	PP OR PVDF + NdFeB	PP OR PVDF + NdFeB	AISI 316 + SmCo
8 - REAR CASING	PP OR PVDF	PP OR PVDF	AISI 316

## THERMOPLASTIC MAG-DRIVE CENTRIFUGAL PUMPS



### STANDARD:

- Gas threaded In and Out connections.
- Direct starting motor.

### OPTIONAL:

- Flanges available.
- Dry-running protection.
- Baseplate.
- Silicon carbide sleeve bearing.
- HTM pumps are available also for NEMA motors and with NPT connections.

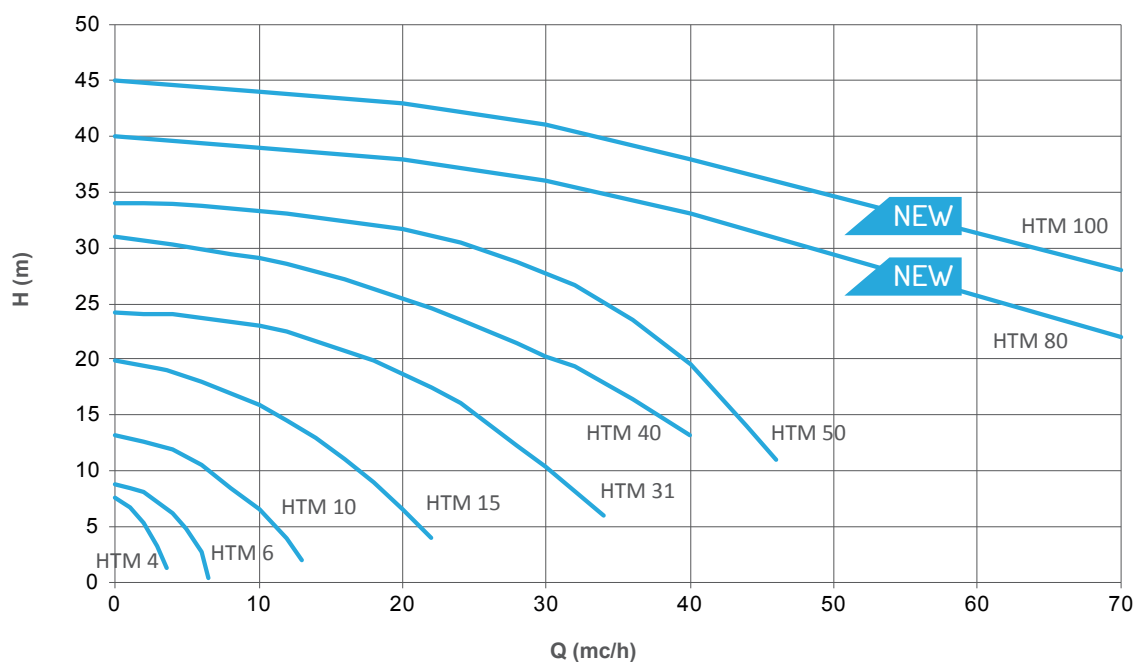
### MAIN FEATURES

Mag drive centrifugal pumps series HTM PP/PVDF are made of thermoplastic materials (Polypropylene and PVDF) and are suitable for high corrosive liquids. Thanks to the innovative mag drive system, pumps model HTM PP/PVDF reduce the risks of leakage and emissions and the maintenance costs.

The transmission of the motion occurs through magnetic joints without any mechanical seal and this design guarantees the maximum safety and efficiency. The pumped liquid has to be clean and without solids in suspension.

- Materials available: PP / PVDF.
- Materials in contact with the liquid; casing and impeller: PP/PVDF; o-ring: EPDM (standard for PP pumps); VITON (standard for PVDF pumps); static shaft: Al203 99,7 %; Bushing PTFEC.
- Max flow: 45 m<sup>3</sup>/h; Max head 33 mlc.
- Temperature: PP: max 70°C – PVDF: max 90°C.
- Max viscosity: 200 cSt.
- Pressure rating: NP 6 at 20°C.
- High torque magnetic coupling NdFeB standard.
- Suitable for high corrosive liquids.

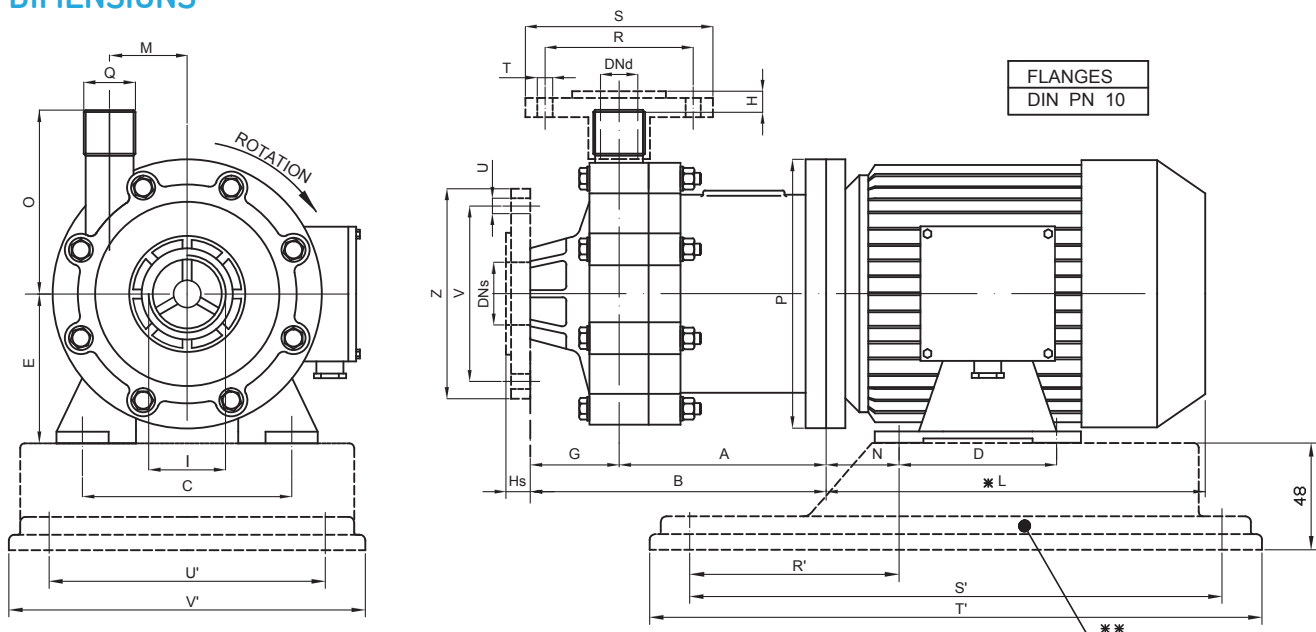
### PERFORMANCE CURVES 50HZ - 2900 RPM



### HTM PP/PVDF TECHNICAL DATA

PUMP SIZE	MATERIAL	Q MAX		H MAX		SUCTION CONNECTION	DISCHARGE CONNECTION	PUMP WEIGHT (KG)		SUITABLE MOTOR POWER (KW) 2900 rpm / FLANGE AND FRAME
		50HZ (M3/H)	60HZ (USGPM)	50HZ (MLC)	60HZ (FT)			PP	PVDF	
HTM 4	PP- PVDF	3,5	16	7	33	1" FEMALE	1/2" MALE	0.9	1	0,12 / 56 B - B3/B5
HTM 6	PP- PVDF	6,5	30	8,5	42	1" FEMALE	3/4" MALE	1.6	1.8	0,25 / 63 B - B3/B5
HTM 10	PP- PVDF	13	68	14	58	1 1/2" FEMALE	1" MALE	2.6	2.9	0,55 / 71 2B - B3/B5 • 1,1 / 80 B - B3/B5
HTM 15	PP- PVDF	23	125	20	90	2" MALE	1 1/2" MALE	5.8	6.6	1,1 / 80 B - B3/B5 • 1,5 / 90 S - B3/B5
HTM 31	PP- PVDF	35	185	24	115	2 1/2" MALE	2" MALE	8.0	8.9	2,2 / 90 L - B3/B5 • 3 / 100 L - B3/B5 • 4 / 112 M - B3/B5
HTM 40	PP- PVDF	42	215	31	150	3" MALE	2 1/2" MALE	19.7	21.3	3 / 100 L - B3/B5 • 4 / 112 M - B3/B5
HTM 50	PP- PVDF	43	220	33	160	3" MALE	2 1/2" MALE	32.2	35	5,5 / 132 S2A - B5 • 7,5 / 132 S2B - B5

### HTM 4-6-10 PP/PVDF DIMENSIONS

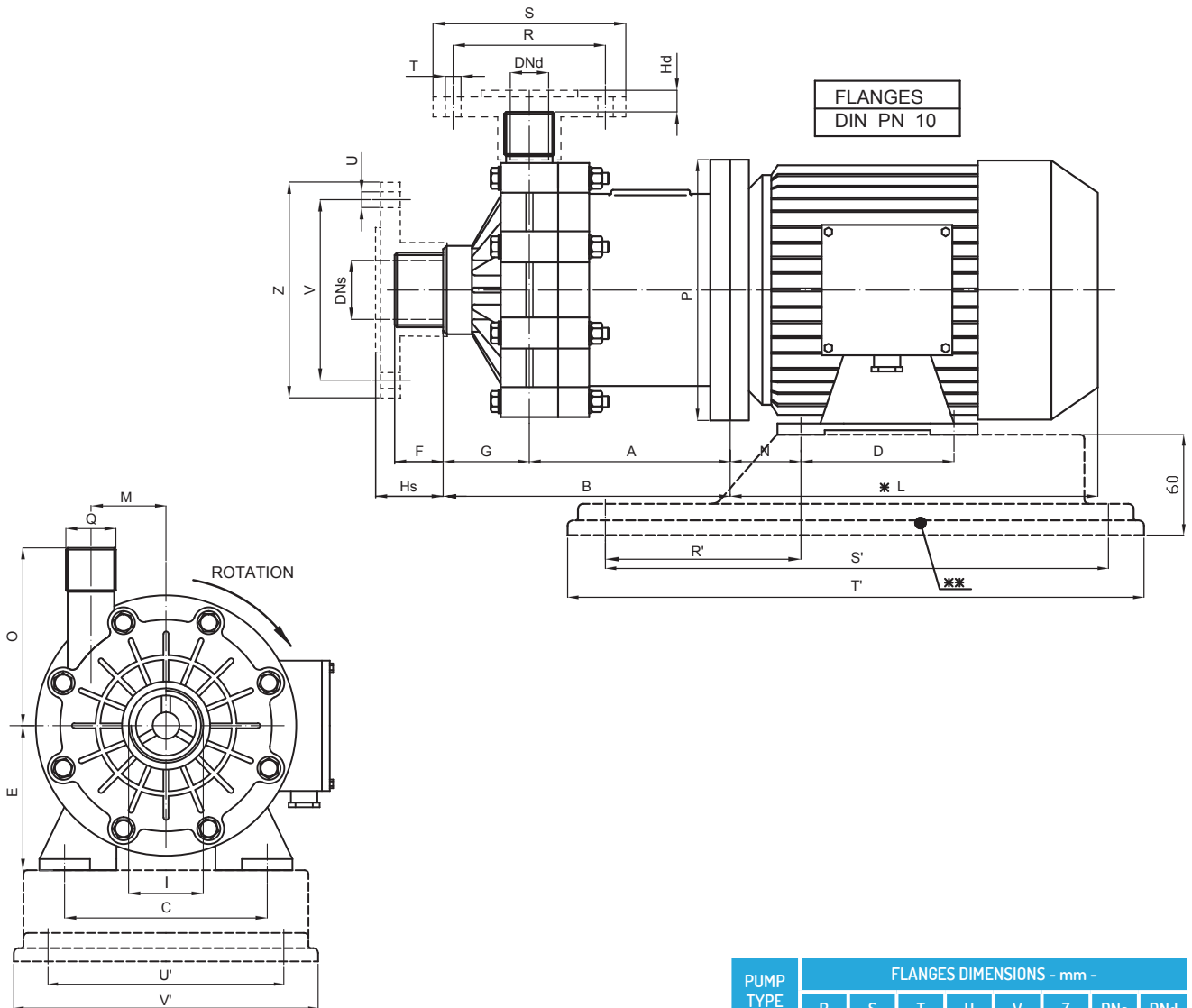


PUMP TYPE	FLANGES DIMENSIONS - mm -							
	R	S	T	U	V	Z	DNs	DNd
HTM 4	-	-	-	-	-	-	-	-
HTM 6	75	105	14	14	85	115	25	20
HTM 10	85	115	14	18	110	150	40	25

PUMP TYPE	MOTOR FLANGE B3 - B5	KW	DIMENSIONS - mm -													BASEPLATE DIMENSIONS - mm -						
			A	B	C	D	E	Hs	G	H	I	L*	M	N	O	P	Q	R'	S'	T'	U'	V'
HTM 4	56 B	0.12	76	115	90	71	56	-	39	-	1" FEMALE	176	34	36	80	120	1/2" MALE	94	244	280	130	160
HTM 6	63 B	0.25	84	143	100	80	63	18	59	6	1" FEMALE	191	45	40	98	140	3/4" MALE	102	244	280	130	160
HTM 10	71 2B	0.55	110	180	112	90	71	20	70	9	1 1/2" FEMALE	215	45	45	100	160	1" MALE	112	244	280	130	160
HTM 10	80B	1.1	122	190	125	100	71	20	70	9	1 1/2" FEMALE	232	45	50	100	200	1" MALE	-	-	-	-	-

\* Different according to the manufacturer. \*\* OPTIONAL UPON REQUEST: Baseplate - Flanges.  
 NOTE: DIRECTION OF ROTATION IS COUNTER CLOCKWISE AS SEEN WHEN FACING THE MOTOR.  
 PUMPS AVAILABLE THREADED OR FLANGED.

## HTM 15-31-40 PP/PVDF DIMENSIONS



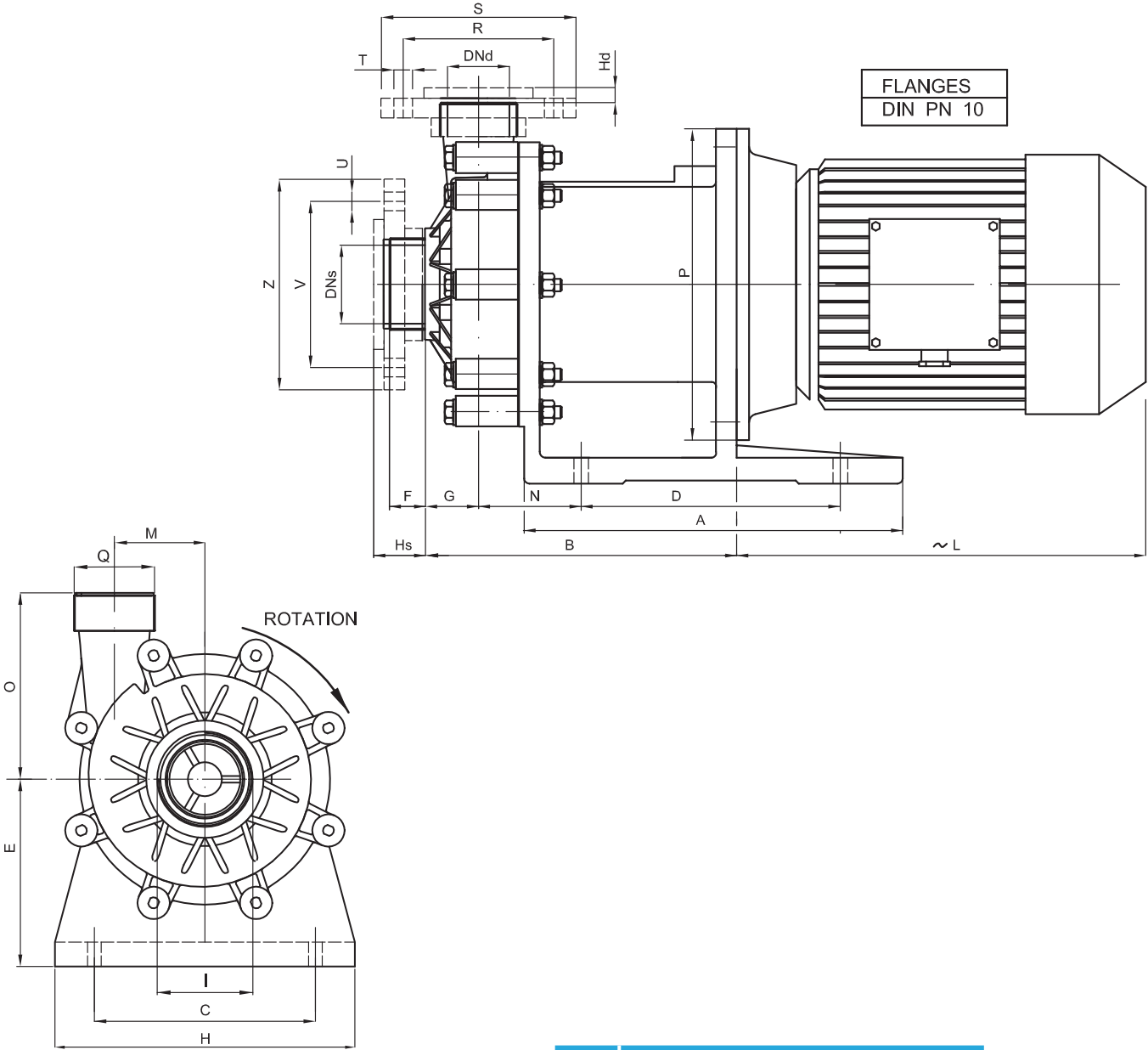
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PUMP TYPE	FLANGES DIMENSIONS - mm -							
	R	S	T	U	V	Z	DN <sub>s</sub>	DN <sub>d</sub>
HTM 15	110	153	18	18	125	168	50	40
HTM 31	125	168	18	18	145	188	65	50
HTM 40	145	188	18	18	160	203	80	65

PUMP TYPE	MOTOR FLANGE B3 - B5	KW	DIMENSIONS - mm -														BASEPLATE DIMENSIONS - mm -						
			A	B	C	D	E	F	G	H <sub>s</sub>	H <sub>d</sub>	I	L*	M	N	O	P	Q	R'	S'	T'	U'	V'
HTM 15	80 B	1,1	150	230	125	100	80	28	52	42	13	2" MALE	232	66	50	135	200	1-1/2" MALE	120	302	350	157	205
HTM 15	90 S	1,5	160	240	140	100	90	28	52	42	13	2" MALE	256	66	56	135	200	1-1/2" MALE	132	302	350	157	205
HTM 31	90 L	2,2	184	245	140	125	90	30	61	44	13	2 1/2" MALE	280	66	56	140	200	2" MALE	132	302	350	157	205
HTM 31	100 L	3	203	264	160	140	100	30	61	44	13	2 1/2" MALE	315	66	63	140	250	2" MALE	140	352	400	202	250
HTM 31	112 M	4	203	264	190	140	112	30	61	44	13	2 1/2" MALE	325	66	70	140	250	2" MALE	140	352	400	202	250
HTM 40	100 L	3	228	280	160	140	100	40	52	50	10	3" MALE	315	82,5	63	170	250	2 1/2" MALE	140	352	400	202	250
HTM 40	112 M	4	228	280	190	140	112	40	52	50	10	3" MALE	325	82,5	70	170	250	2 1/2" MALE	156	352	400	202	250

\* Different according to the manufacturer. \*\* OPTIONAL UPON REQUEST: Baseplate - Flanges.  
NOTE: DIRECTION OF ROTATION IS COUNTER CLOCKWISE AS SEEN WHEN FACING THE MOTOR.  
PUMPS AVAILABLE THREADED OR FLANGED.

# HTM 50 PP/PVDF DIMENSIONS



PUMP TYPE	FLANGES DIMENSIONS - mm -							
	R	S	T	U	V	Z	DNs	DNd
HTM 50	145	188	18	18	160	203	80	65

PUMP TYPE	MOTOR FLANGE B3 - B5	KW	DIMENSIONS - mm -																
			A	B	C	D	E	F	G	H	Hs	Hd	I	-L	M	N	O	P	Q
HTM 50	132 S2A	5.5	365	300	216	250	192	40	52	274	50	10	3" MALE	383	82.5	98	170	300	2" 1/2 MALE
HTM 50	132 S2B	7.5	365	300	216	250	192	40	52	274	50	10	3" MALE	421	82.5	98	170	300	2" 1/2 MALE

OPTIONAL UPON REQUEST: Flanges.  
NOTE: DIRECTION OF ROTATION IS COUNTER CLOCKWISE AS SEEN WHEN FACING THE MOTOR.  
PUMPS AVAILABLE THREADED OR FLANGED.



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