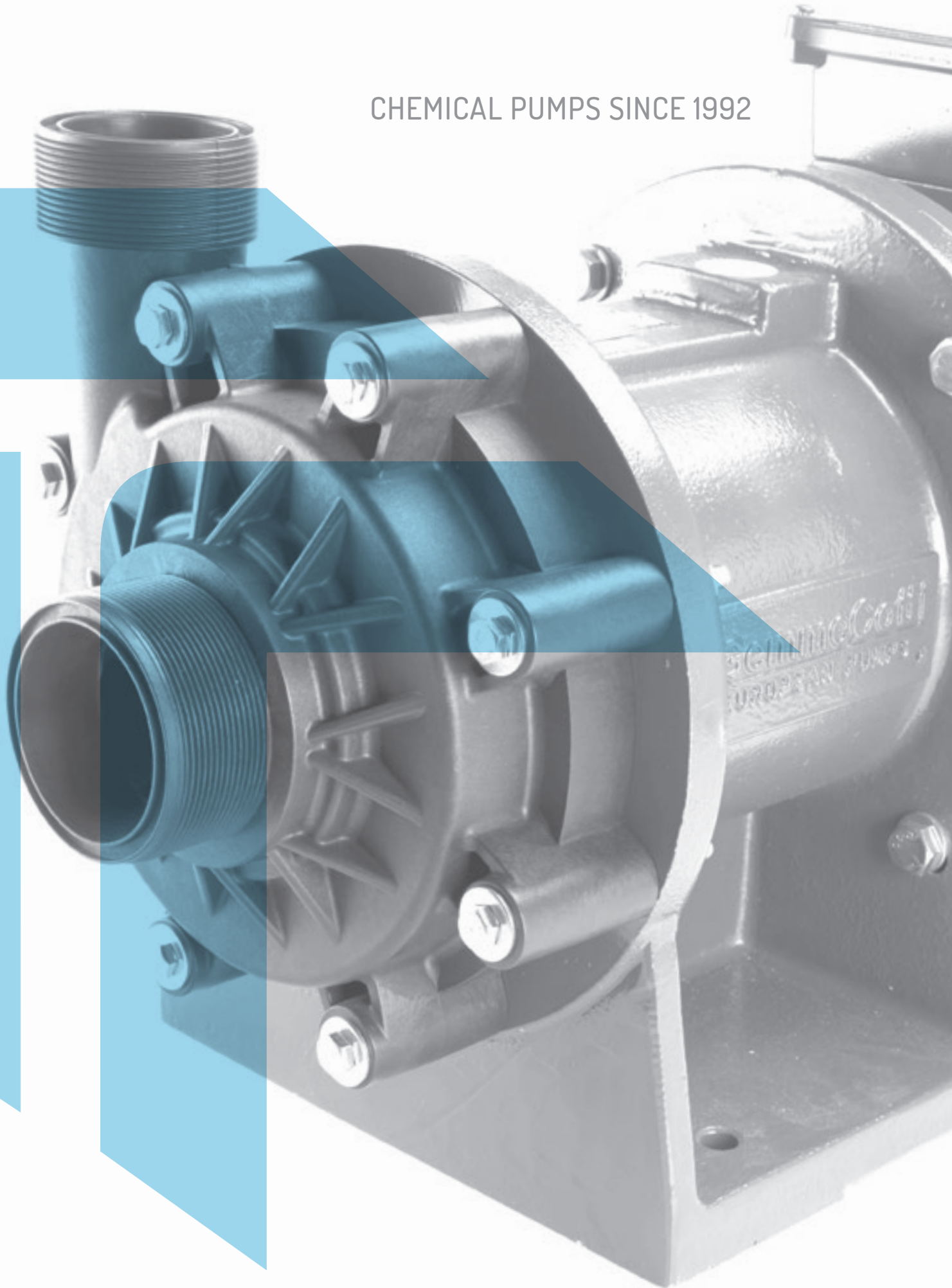


CHEMICAL PUMPS SINCE 1992



# 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.

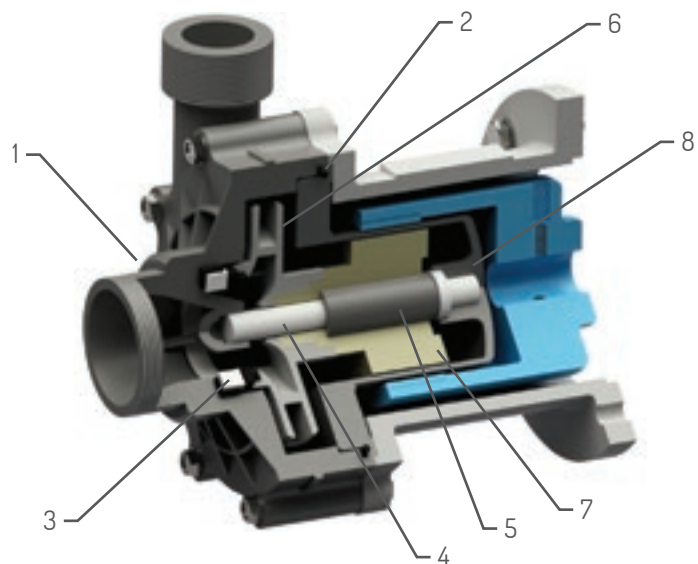
### HCM

- 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

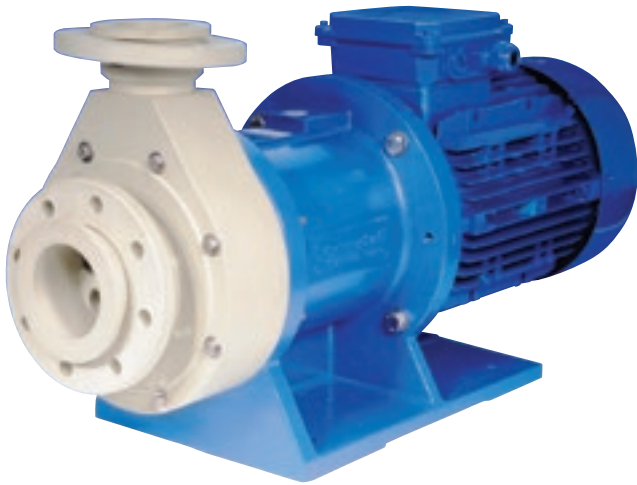
- Metallic pumps made in stainless steel AISI316.
- Capacity up to 32 m<sup>3</sup>/h.
- Head up to: 24 mlc.



## 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



### OPTIONAL:

- Dry-running protection.

### TYPICAL APPLICATIONS:

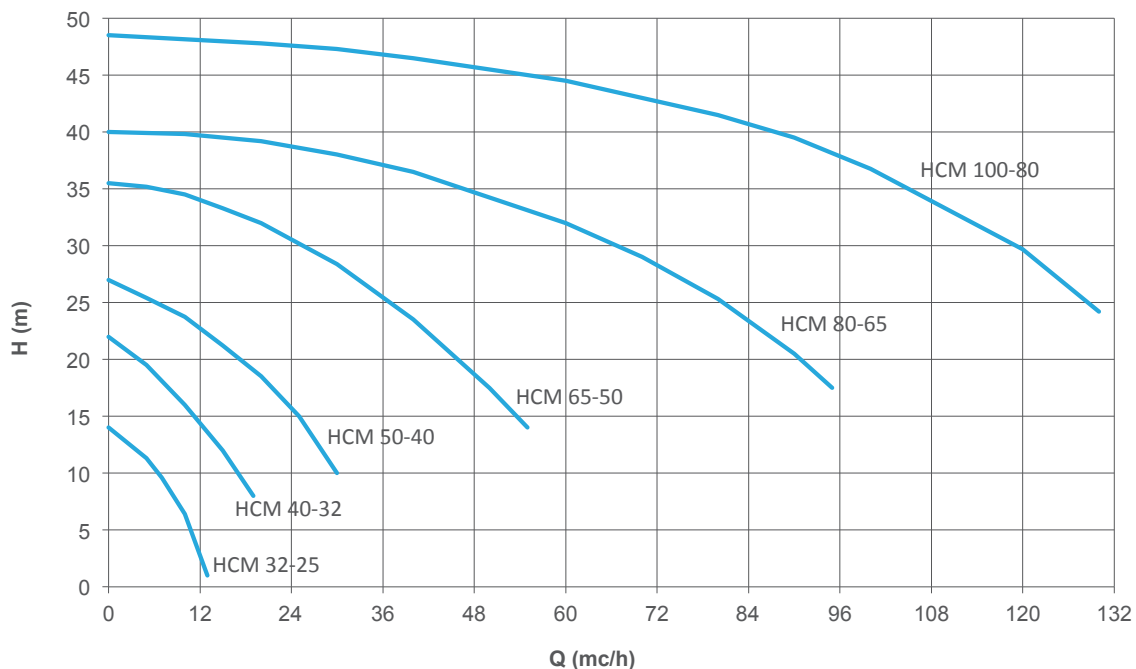
- High corrosive liquids.
- Toxic, noxious and carcinogenic liquids.

### MAIN FEATURES

Mag drive centrifugal pumps series HCM are made of thermoplastic materials (Polypropylene or PVDF) and, thanks to their strong and resistant structure, they are suitable for high corrosive fluids and heavy duty applications. The pump casing is machined from a solid block for a great resistance in terms of pressure and temperature and the transmission of the motion occurs through magnetic joints without any mechanical seal. This magnetic drive system guarantees the maximum safety and efficiency reducing risks of leakage and emissions.

- Materials available: PP / PVDF.
- Materials in contact with the liquid: pump head and impeller PP or PVDF; o-ring EPDM (standard for PP pumps) VITON (standard for PVDF pumps); shaft Al2O3 99,7%; bushing PTFEC.
- Max capacity: 130 m<sup>3</sup>/h.
- Max head: 48m.
- Max temperature: PP: 70°C -PVDF: 90°C.
- Flanged or threaded connections according to the pump size.
- Strong structure, maximum resistance to corrosive liquids.

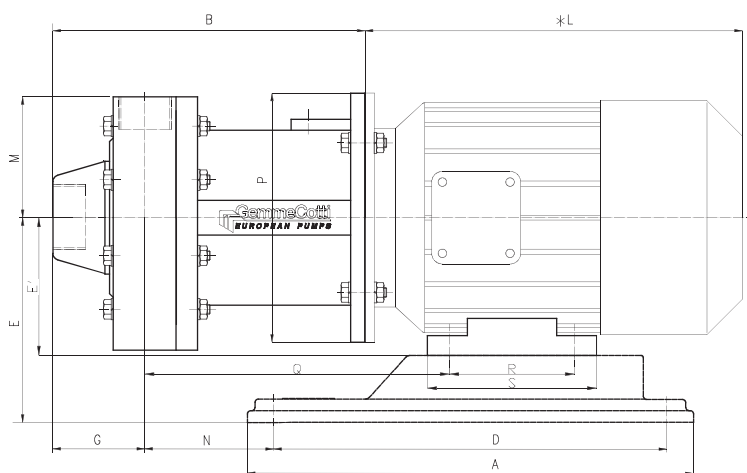
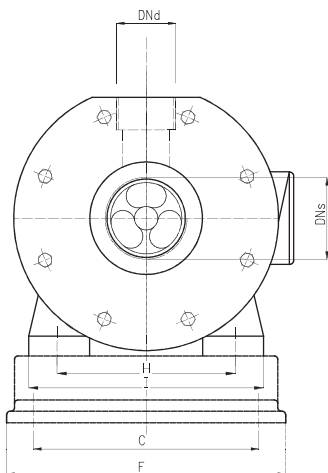
### PERFORMANCE CURVES 50HZ - 2900 RPM



### HCM 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	
HCM 32-25	PP- PVDF	13	68	14	58	32	25	3	3.5	0,55 / 71 - B3/B5
HCM 40- 32	PP- PVDF	23	125	20	90	40	32	7	8	1,1 / 80 - B3/B5
	PP- PVDF									1,5 / 90 - B3/B5
HCM 50 - 40	PP- PVDF	35	185	24	115	50	40	10	11	2,2 / 90 - B3/B5
	PP- PVDF									3 / 100 - B3/B5
HCM 65- 50	PP- PVDF	43	220	33	165	65	50	37	41	4 / 112 - B3/B5
	PP- PVDF									5,5 / 132 - B5
	PP- PVDF									7,5 / 132 - B5
	PP- PVDF									9 / 132 - B5
HCM 80 - 65	PP- PVDF	92	480	38	180	80	65	55	60	7,5 / 132 S2 - B5
	PP- PVDF									11 / 160 M2A - B5
	PP- PVDF									15 / 160 M2B - B5
	PP- PVDF									18,5 / 160 L2 - B5
HCM 100 - 80	PP- PVDF	135	650	48	197	100	80	60	66	11 / 160 M2A - B5
	PP- PVDF									15 / 160 M2B - B5
	PP- PVDF									18,5 / 160 L2 - B5
	PP- PVDF									22 / 180 M2 - B5

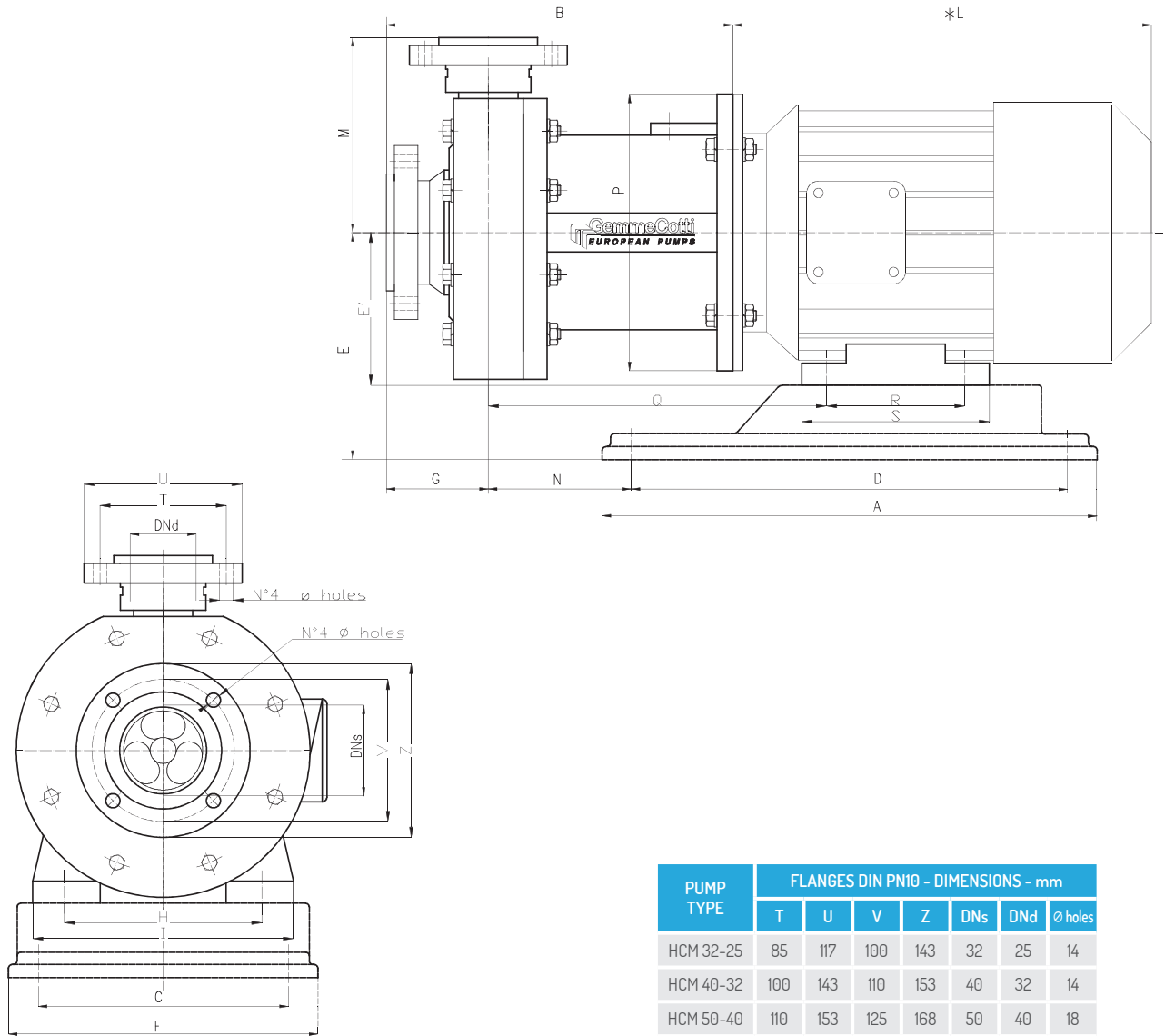
### HCM 32-25 / 40-32 / 50-40 PP/PVDF DIMENSIONS



PUMP TYPE	MOTOR FLANGE B3 - B5	Kw	DIMENSIONS - mm -																	CONNECTIONS - in	
			A	B	C	D	E	E'	F	G	H	I	L*	M	N	P	Q	R	S	DN <sub>s</sub>	DN <sub>d</sub>
HCM 32-25	71	0.55	280	180	130	244	119	71	160	65	112	140	260	101	45	158.5	157	90	110	1 1/2" FEMALE	1" FEMALE
HCM 40-32	80	1.1	350	236	146	302	140	80	205	70	125	160	280	142	80	200	200	100	130	1 1/2" FEMALE	1 1/4" FEMALE
	90	1.5		246			150	90			140	170					216	100	153		
HCM 50-40	90	2.2	350	268	146	302	150	90	205	84	140	180	280	105	108	200	240	125	160	2" FEMALE	1 1/2" FEMALE
	100	3					400	202			352	160					100	250	160		

\* Different according to the manufacturer.  
 OPTIONAL UPON REQUEST: Baseplate - Flanges.

## HCM 32-25 / 40-32 / 50-40 / 65-50L PP/PVDF WITH FLANGES DIMENSIONS



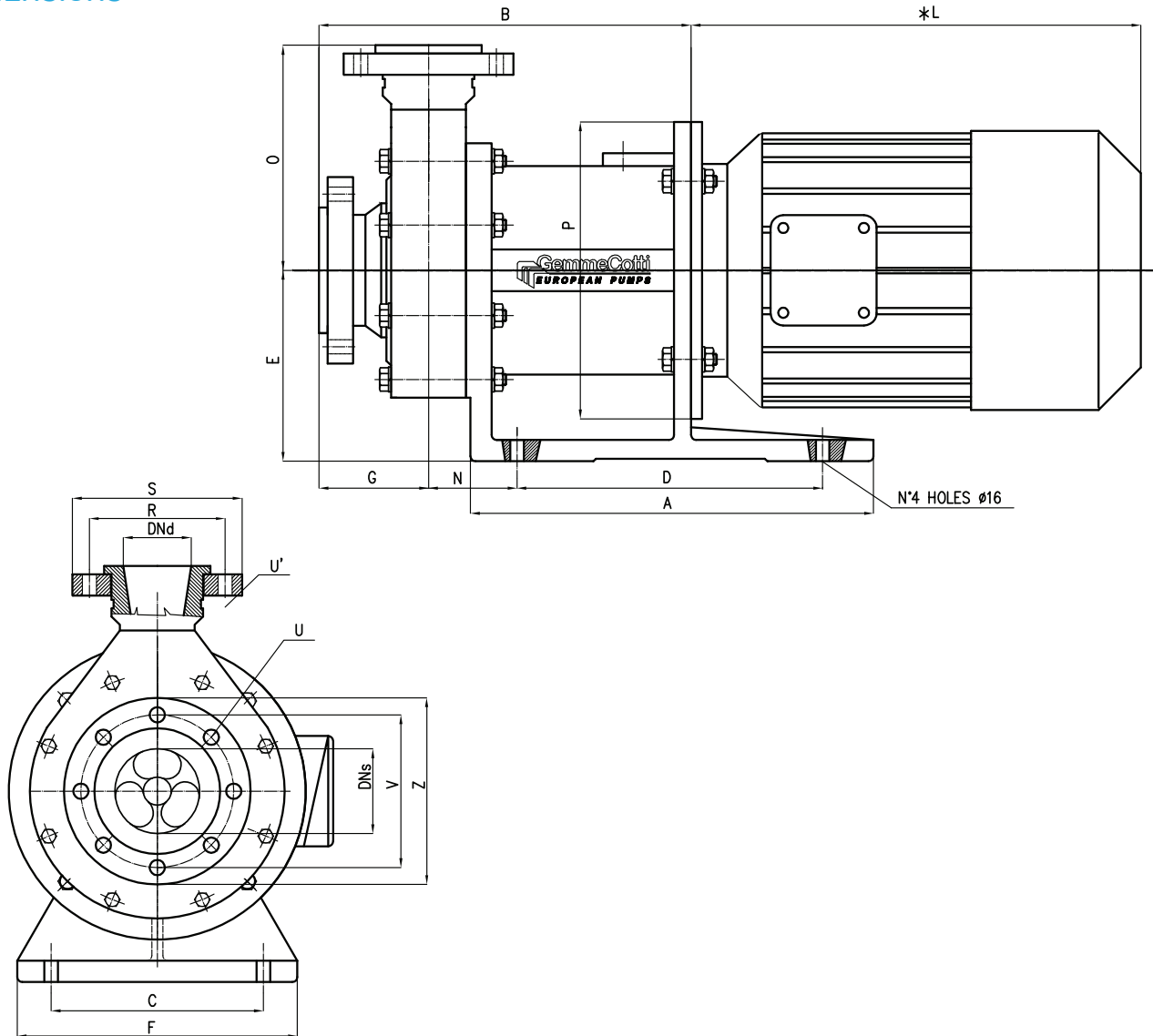
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PUMP TYPE	FLANGES DIN PN10 - DIMENSIONS - mm						
	T	U	V	Z	DN <sub>f</sub>	DN <sub>d</sub>	∅ holes
HCM 32-25	85	117	100	143	32	25	14
HCM 40-32	100	143	110	153	40	32	14
HCM 50-40	110	153	125	168	50	40	18
HCM 65-50-L	125	168	145	188	65	50	18

PUMP TYPE	MOTOR FLANGE B3 - B5	KW	DIMENSIONS - mm -																
			A	B	C	D	E	E'	F	G	H	I	L*	M	N	P	Q	R	S
HCM 32-25	71	0.55	280	187	130	244	119	71	160	75	112	140	260	115	45	158.5	157	90	110
HCM 40-32	80	1.1	350	236	146	302	140	80	205	85	125	160	280	142	80	200	200	100	130
	90	1.5		246			150	90			140	180					84	216	100
HCM 50-40	90	2.2	350	268	146	302	150	90	205	84	140	180	280	149	108	200	240	125	160
	100	3					400	202			352	160					100	250	160
HCM 65-50-L	112	4	400	331	202	352	172	112	250	103	190	230	324	171	142	250	298	140	195

\* Different according to the manufacturer.

## HCM 65-50H / 80-65 / 100-80 PP/PVDF DIMENSIONS



PUMP TYPE	MOTOR FLANGE BS	KW	DIMENSIONS - mm -											FLANGE DIN PN 10 - DIMENSIONS - mm -							
			A	B	C	D	E	F	G	L*	N	O	P	R	S	U	U'	V	Z	DNs	DNd
HCM 65-50-H	132	5.5	365	351	216	250	192	274	103	383	98	171	300	125	168	n°4 Ø18 holes	n°4 Ø18 holes	145	188	65	50
	132	7.5								421											
	132	9								421											
HCM 80-65	132S2	7.5	475	430	250	360	225	330	130	421	105	234	300	145	188	n°8 Ø18 holes	n°4 Ø18 holes	160	200	80	65
	160M2A	11								510											
	160M2B 160L2	15 18.5								554											
HCM 100-80	160M2A	11	475	436	250	360	225	330	126	510	105	263	350	160	200	n°8 Ø18 holes	n°8 Ø18 holes	180	220	100	80
	160M2B	15								554											
	160L2	18.5								595											
	180M2	22																			

\* Different according to the manufacturer.



**GEMMECOTTI SRL**

Via A. Volta 85/A  
20816 Ceriano Laghetto MB  
ITALY  
EUROPEAN UNION

Ph: +39 02.96460406  
Fax: +39 02.96469114

info@gemmecotti.com  
[www.gemmecotti.com](http://www.gemmecotti.com)

