ADM
Magnetic Drive Pump

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Magnetic Drive Pumps

AlphaDynamic
PUMPS

We Make The Difference

Line Introduction

ADM Magnetic Drive Pumps represent the most reliable solution for handling hazardous, toxic or expensive chemicals. Manufactured from high-grade thermoplastic materials, such as Polypropylene (GFR PP) and Polyvinylidene Fluoride (CFR PVDF), these pumps are engineered to eliminate the risks associated with mechanical seals.

The core innovation lies in the sealless design. Through the use of a synchronous magnetic coupling, the motor's torque is transmitted to the impeller via a containment shell. This creates a completely hermetic seal, ensuring zero leakage of aggressive fluids. This technology is ideal for 'clean' chemical processes, such as the transfer of ultra-pure acids, solvents and corrosive liquids, where even a minor leak could prove catastrophic.

Designed for maximum chemical compatibility and high hydraulic efficiency, these pumps operate with minimal friction and noise. They constitute a safe, low-maintenance and eco-friendly investment for the pharmaceitical, semiconductor and fine chemical industries.

Main Advantages

- **100% Leak-Free Operation:** The hermetic, sealless design eliminates mechanical seals, ensuring zero leakage of hazardous, toxic or expensive chemicals.
- **Maximum Environmental Safety:** Since there are no seals to fail, these pumps protect the environment and personnel from exposure aggressive fluids.
- **Ultimate Corrosion Resistance:** Manufactured from high-grade plastics **(PP/PVDF)**, they are immune to rust and chemical oxidation, outperforming metallic pumps in acid handling.
- **Low Maintenance Costs:** The absence of a mechanical seal - the most common point of failure in pumps - significantly reduces downtime and repair expenses.
- **Reduced Friction & Noise:** The magnetic coupling ensures smooth torque transmission, leading to quieter operation and high energy efficiency.
- **Compact & Durable Design:** Reinforced plastic bodies **(GFR/CFR)** provide high mechanical strength.
- **Ideal Solution** for Clean Liquid Transfer.
- **Heavy-Duty Performance:** Magnetic drive pumps are specifically designed for continuous use in demanding industrial environments.
- **Superior Torque Transmission:** Equipped with high-grade NdFeB (Neodymium-Iron-Boron) magnets as standard, these pumps offer exceptional magnetic power.

Technical Data

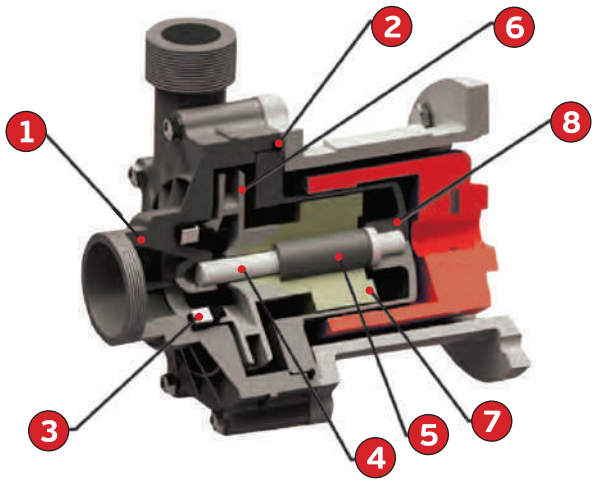
- Max Head: 48 mlc
- Max Flow: 130 m^3/h
- Max Temperature: PP 60°C – CFR PVDF 90°C
- Max Viscosity: 200 cSt
- Three-phase Motors from 0,16 HP to 30 HP - 50 / 60 Hz
- Single phase Motors from 0,16 HP kW to 3 HP - 50 / 60 Hz
- Upon request the pump can be supplied with flanges PN10, ANSI 150, JIS

Design of Magnetic Drive Centrifugal Pumps

ADM Magnetic drive Centrifugal pumps have a particular seal-less design that is suitable to pump corrosive and dangerous liquids thanks to the high chemical resistance and absence of leakage and emissions.

The structure is really simple so that the pump requires low maintenance cost with consequent economy in terms of repairing and spare part costs during the pump life.

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 move the fluid. The rear casing is placed between the two magnet joints and it hermetically closes the hydraulic part from the motor.



POS	Description	Material
1	Pump Head	PP or PVDF
2	O-Ring	EPDM or VITON
3	Casing Thrust Bush	Ceramic Al_2O_3 + EPDM or VITON
4	Shaft	Ceramic Al_2O_3 99.7%
5	Bearings	PTFEC
6	Impeller	PP or PVDF
7	Internal Magnet	PP or PVDF + NdFeb
8	Rear Casing	PP or PVDF

Application sectors

Chemical Industry, Galvanic & Electronic Industry, Water Treatment Industry, Automotive

AUTOMOTIVE

CHEMICAL INDUSTRY

WATER AND SLUDGE TREATMENT

GALVANIC AND ELECTRONIC INDUSTRY

Pump Models

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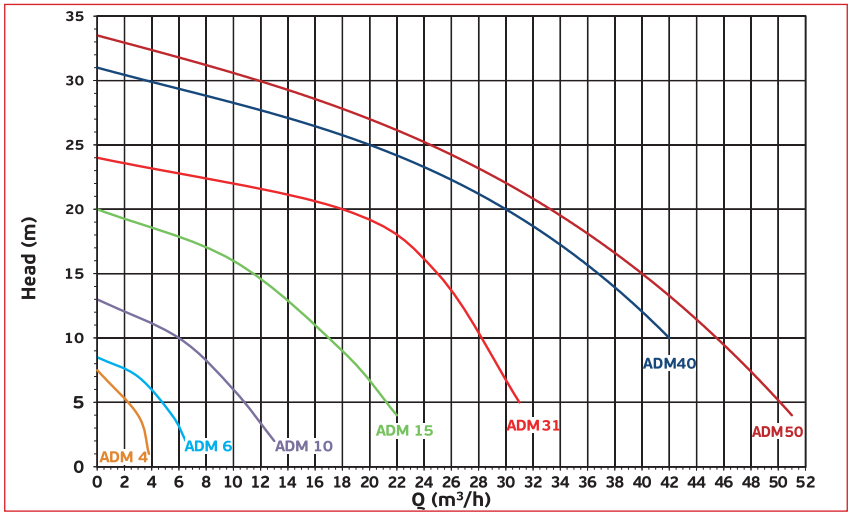
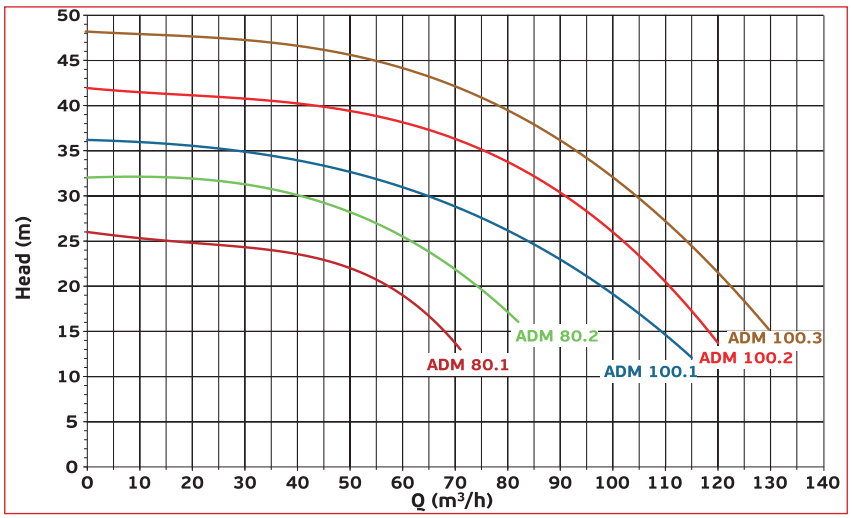
Models	Motor			Suction Connection	Discharge Connection	Weight Kg			
	HP	Rpm	Size			PP Pump	PVDF Pump	PP with Motor	PVDF with Motor
ADM 4	0.16	2900	56	1'' BSP F	1/2'' BSP M	1	1.1	4.3	4.4
ADM 6	0.35	2900	63	1'' BSP F	3/4'' BSP M	1.6	1.8	6	6.2
ADM 10	0.75	2900	71	1 1/2'' BSP F	1'' BSP M	2.6	2.9	11.4	11.7
ADM 10	1.5	2900	80	1 1/2'' BSP F	1'' BSP M	2.7	3	13.6	13.9
ADM 15	2	2900	90	2'' BSP F	1 1/2'' BSP M	5.8	6.6	18.8	19.6
ADM 15	3	2900	90	2'' BSP F	1 1/2'' BSP M	5.8	6.6	21.8	22.6
ADM 31	3	2900	90	2 1/2'' BSP F	2'' BSP M	8	8.9	21	21.9
ADM 31	4	2900	100	2 1/2'' BSP F	2'' BSP M	8	8.9	30	30.9
ADM 31	5.5	2900	112	2 1/2'' BSP F	2'' BSP M	8	8.9	38	38.9
ADM 40	4	2900	100	3'' BSP F	2 1/2'' BSP M	19	21	42	44
ADM 40	5.5	2900	112	3'' BSP F	2 1/2'' BSP M	19	21	50	52
ADM 50	7.5	2900	132	3'' BSP F	2 1/2'' BSP M	32	35	72	75
ADM 50	10	2900	132	3'' BSP F	2 1/2'' BSP M	32	35	82	85
ADM 80.1	15	2900	160	DN 80 PN 10	DN 65 PN 10	42	44	122	124
ADM 80.2	20	2900	160	DN 80 PN 10	DN 65 PN 10	42	44	133	135
ADM 100.1	20	2900	160	DN 100 PN 10	DN 80 PN 10	42	44	133	135
ADM 100.2	25	2900	160	DN 100 PN 10	DN 80 PN 10	42	44	163	165
ADM 100.3	30	2900	180	DN 100 PN 10	DN 80 PN 10	42	44	190	192

Performances





Dimensions

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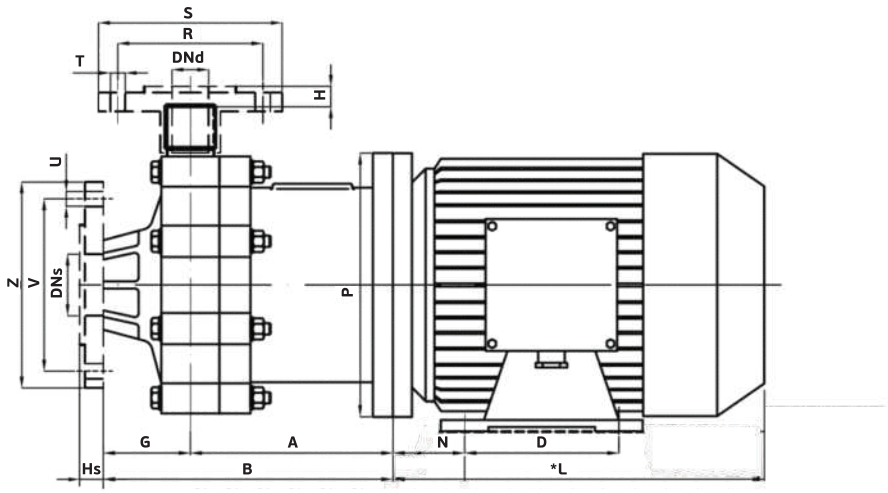
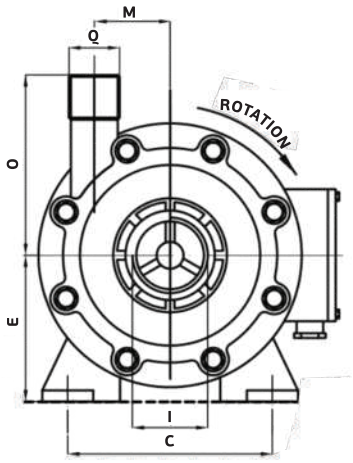
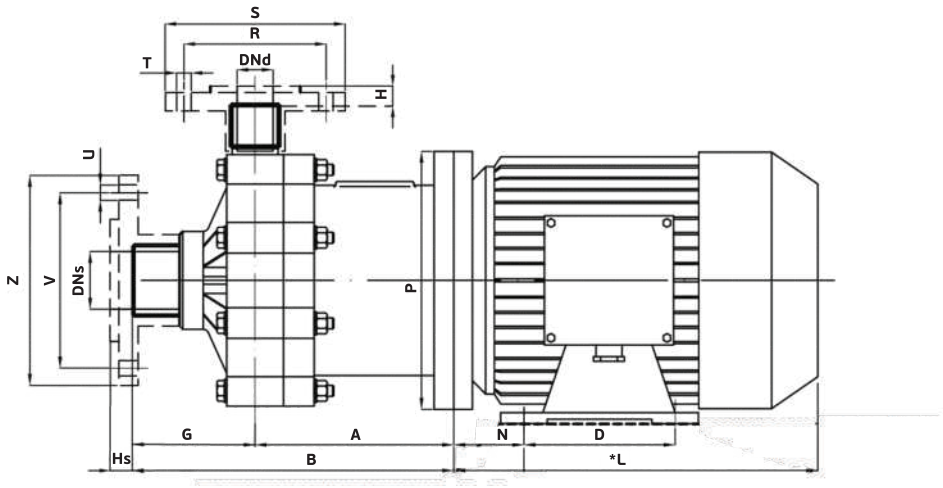
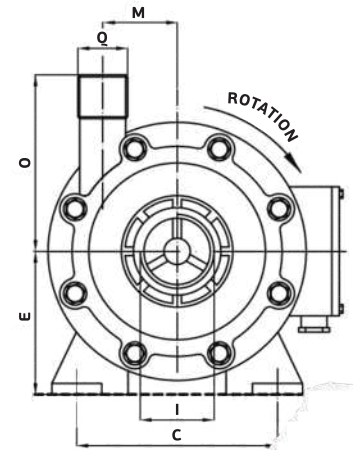




Models	MOTOR FLANGE B3 - B5	HP	Dimensions (mm)																					
			A	B	C	D	E	G	Hs	H	I	*L	M	N	O	P	Q	R	S	T	U	V	Z	DNs	DNd
ADM 4	56 B	0.16	76	115	90	71	56	39	-	-	1'' BSP F	176	34	36	80	120	1/2'' BSP M	-	-	-	-	-	-	-	-
ADM 6	63 B	0.35	85	143	100	80	63	59	22	6	1'' BSP F	191	45	40	98	140	3/4'' BSP M	75	105	14	14	85	115	25	20
ADM 10	71 2B	0.75	112	180	112	90	71	70	34	5	1 1/2'' BSP F	215	45	45	100	160	1'' BSP M	85	115	14	18	110	150	40	25
ADM 10	80 B	1.5	122	190	125	100	80	70	34	5	1 1/2'' BSP F	232	45	50	100	200	1'' BSP M	85	115	14	18	110	150	40	25

* Different according to the manufacturer





Models	MOTOR FLANGE B3 - B5	HP	Dimensions (mm)																					
			A	B	C	D	E	G	Hs	H	I	*L	M	N	O	P	Q	R	S	T	U	V	Z	DNs	DNd
ADM 15	80 B	1.5	151	231	125	100	80	80	14	13	2'' BSP M	232	66	50	135	200	1 1/2'' BSP M	110	153	18	18	125	168	50	40
ADM 15	90 S	2	161	241	140	100	90	80	14	13	2'' BSP M	256	66	56	135	200	1 1/2'' BSP M	110	153	18	18	125	168	50	40
ADM 15	90 L	3	161	241	140	125	90	80	14	13	2'' BSP M	280	66	56	135	200	1 1/2'' BSP M	110	153	18	18	125	168	50	40
ADM 31	90 L	3	183	274	140	125	90	91	14	13	2 1/2'' BSP M	280	66	56	140	200	2'' BSP M	125	168	18	18	145	188	65	50
ADM 31	100 L	4	203	294	160	140	100	91	14	13	2 1/2'' BSP M	315	66	63	140	250	2'' BSP M	125	168	18	18	145	188	65	50
ADM 31	112 M	5.5	203	294	190	140	112	91	14	13	2 1/2'' BSP M	325	66	70	140	250	2'' BSP M	125	168	18	18	145	188	65	50
ADM 40	100 L	4	228	320	160	140	100	92	10	10	3'' BSP M	315	82.5	63	170	250	2 1/2'' BSP M	145	188	18	18	160	203	80	65
ADM 40	112 M	5.5	228	320	190	140	112	92	10	10	3'' BSP M	325	82.5	70	170	250	2 1/2'' BSP M	145	188	18	18	160	203	80	65

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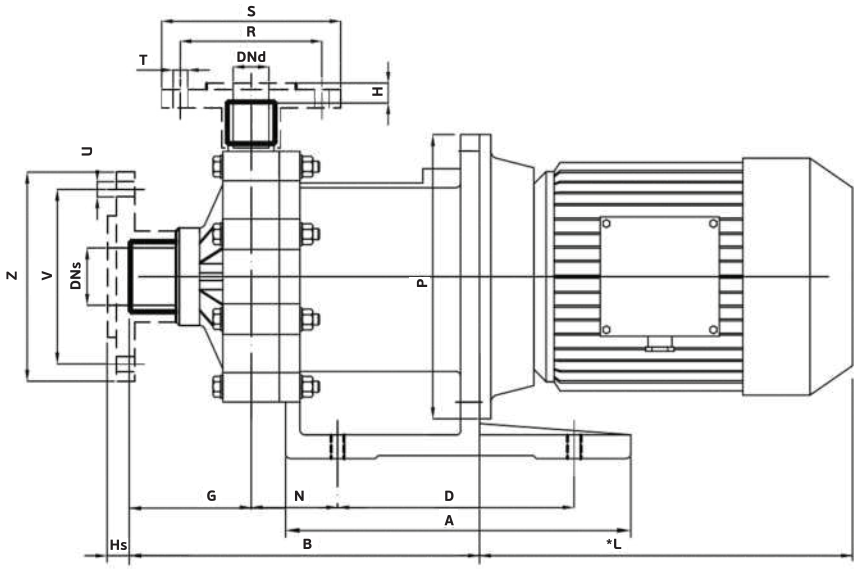

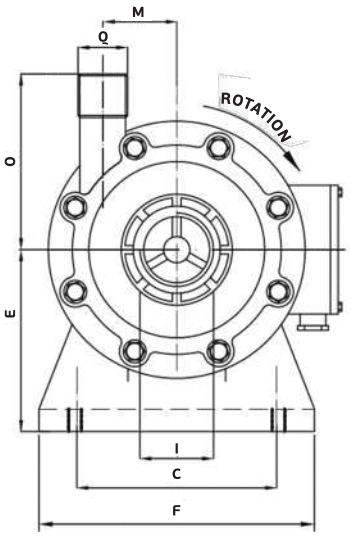

Models	MOTOR FLANGE B5	HP	Dimensions (mm)																						
			A	B	C	D	E	F	G	H	Hs	I	*L	M	N	O	P	Q	R	S	T	U	V	Z	DNs	DNd
ADM 50	132 S2A	7.5	365	339	216	250	192	274	92	10	10	3" BSP M	383	82.5	98	170	300	2 1/2" BSP M	145	188	18	18	160	203	80	65
ADM 50	132 S2B	10	365	339	216	250	192	274	92	10	10	3" BSP M	421	82.5	98	170	300	2 1/2" BSP M	145	188	18	18	160	203	80	65

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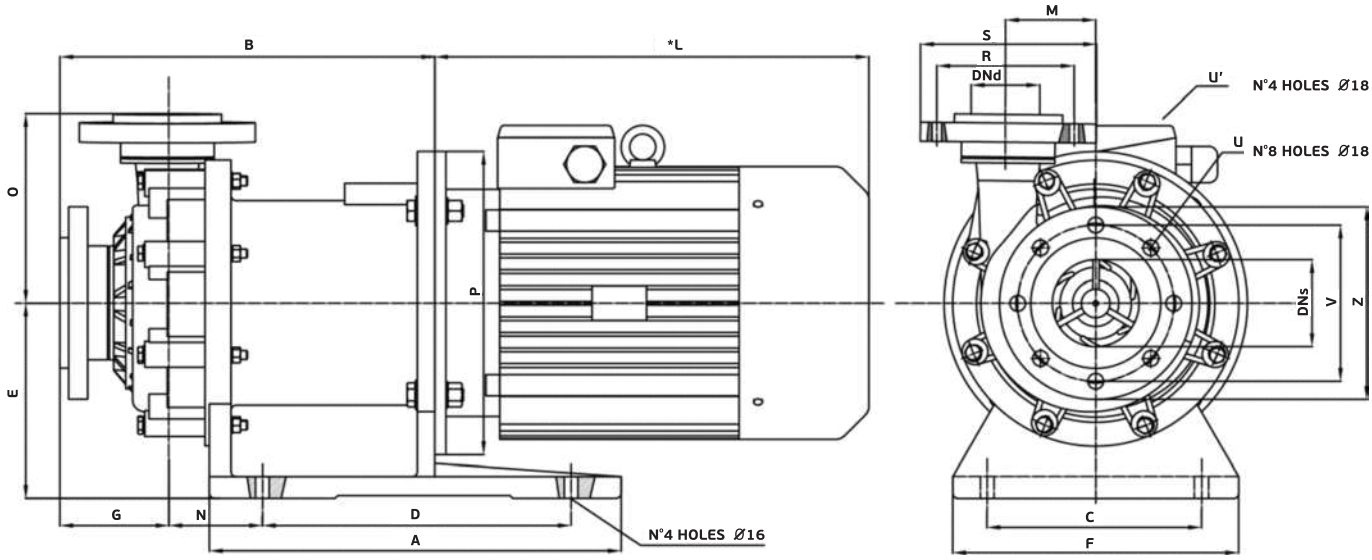

Models	MOTOR FLANGE B5	HP	Dimensions (mm)																
			A	B	C	D	E	F	G	*L	M	N	O	P	R	S	V	Z	DNs	DNd
HTM 80.1	160 M2A	15	475	433	250	360	225	330	126	510	103	104	215	350	145	188	160	200	80	65
HTM 80.2	160 M2B	20	475	433	250	360	225	330	126	510	103	104	215	350	145	188	160	200	80	65
HTM 100.1	160 M2B	20	475	435	250	360	225	330	124	510	103	104	217	350	145	188	160	200	80	65
HTM 100.2	160 L2	18.5	475	435	250	360	225	330	124	554	103	104	217	350	160	200	180	220	100	80
HTM 100.3	180 M2	22	475	435	250	360	225	330	124	595	103	104	217	350	160	200	180	220	100	80

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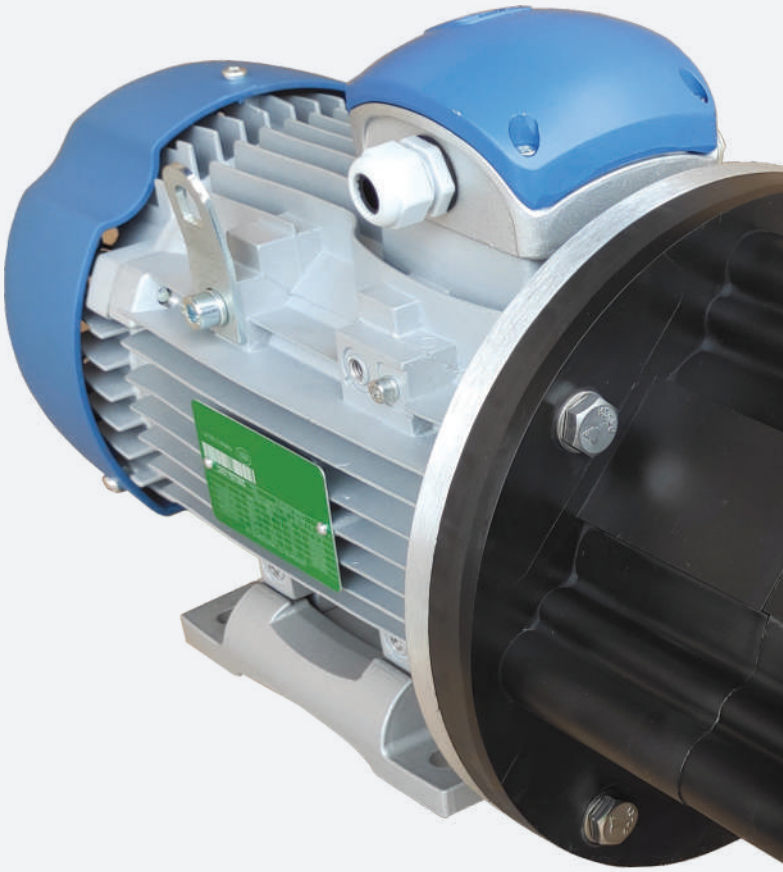

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