

EP Series Close Coupled Flexible Impeller Pump Data Sheets



Description

The EP Series is characterized by its close coupled design and integral on / off / reversing switch on the terminal box of its motor which is available in both single and three phase variants.

They are one of the most used types of Self Priming Flexible Impeller Pumps and extensively used for transferring, filling & emptying applications in a plethora of industries as they can also be fitted carrying handles (U & L Shaped) or trolleys (Zinc Coated Iron & SS 304), which makes them a particularly versatile utility pump.

Pump Heads are AISI 316 as standard for the MINI & MIDEX units & AISI 304 for the rest with 316 as an option.

Connections are available in a variety of different sizes and types and can also be configured in different orientations at order stage or in the field.













Mechanical Seals are Ceramic / Graphite / NBR as standard with alternatives also available, e.g. Tungsten Carbide / Tungsten Carbide / Viton & SiC / SiC / EPDM.

Manual & Spring-Loaded By-Passes are also available on request, along with alternative connection types & sizes.

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Specifications

Max Flow	730 l/min								
Max Head	32 m								
Solids Passage	3, 5, 10, 15 & 25 mm								
Voltages	12 & 24V DC 110, 230 & 400V (MF & TF)								
No of Speed Settings	1 or 2								
Speeds, rpm	470, 600, 900, 1400								
Pump Heads	AISI 304 AISI 316								
Impellers	Natural Rubber (NR) Nitrile (NBR) Neoprene (CR) EPDM Silicone (VQM)								
Shaft Sealing	Bi-Directional Single Mechanical Seal Ceramic / Graphite / NBR (Std.) SiC/SiC/EPDM Tungsten Carbide / Tungsten Carbide / Viton etc...								
Connections	BSP M BSP F Garolla DIN 11851 Macon Tri-Clamp SMS BSM / RJT Friederich (See Table for sizing options)								
Options & Accessories	Manual / Spring-Loaded By-Passes Alternative Port Sizing Counter Connections (Hose Fittings & Adaptors) Carrying Handles & Frames Trolleys & Mobile Packages Control Panels & Variable Speed Drives								
Motor Connection & Switch Options	<table border="1"> <tr> <td rowspan="2">I</td> <td></td> <td>MF  2 m + SCHUKO</td> </tr> <tr> <td>IP55</td> <td>TF  4 m</td> </tr> <tr> <td>M</td> <td></td> <td>Morsettiera Terminal board connection IP55</td> </tr> </table>	I		MF  2 m + SCHUKO	IP55	TF  4 m	M		Morsettiera Terminal board connection IP55
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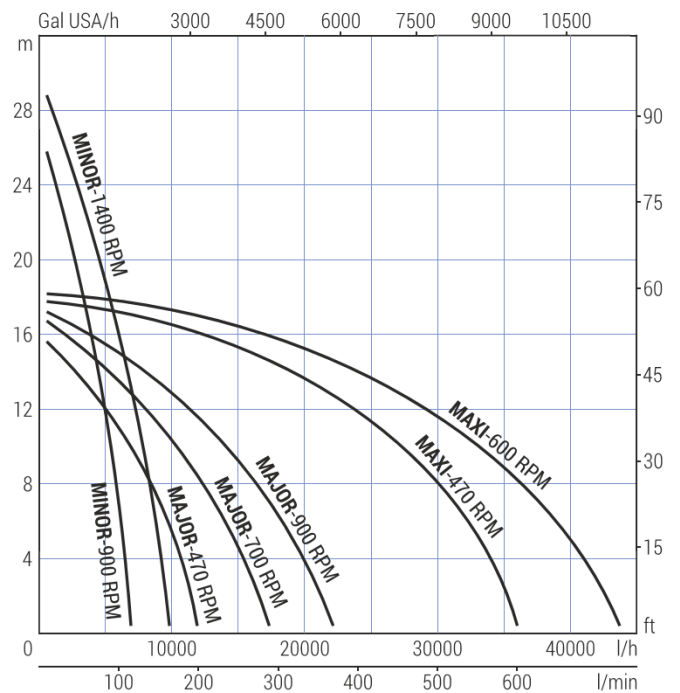
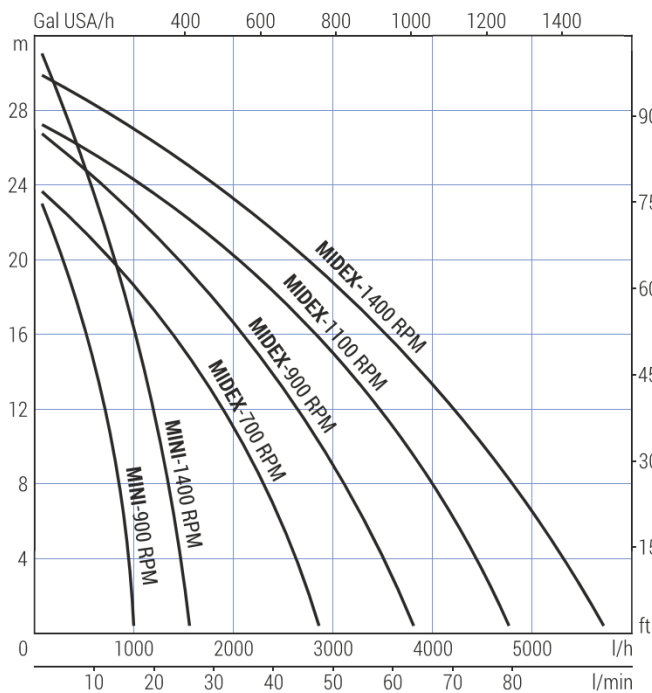
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Performance Information

Pump Type	Motor Info				H = Head (meters)										Q = Capacity (liters/hour)
	Voltage (*)	kW	Speed Settings	Speed, rpm	0	4	8	12	16	18	24	27	30	32	
EP MINI 3/4"	MF - TF	0,37	1	900	1000	900	840	720	540	450	0				
	MF - TF	0,56	1	1400	1620	1440	1320	1140	1020	900	600	400	180	0	
	CC 12V	0.3/30A	1	1400	1620	1440	1320	1140	1020	900	600	400	180	0	
	CC 24V	0.3/16A	1	1400	1620	1440	1320	1140	1020	900	600	400	180	0	
EP MIDEX 1"1/4	MF - TF	0,56	1	900	3840	3480	3180	2760	2160	1800	720	0			
	MF - TF	0,75	1	1400	5760	5160	4800	4320	3600	3180	1920	1200	0		
	TF	0.56 0.37	2	1400 700	5760 2880	5160 2600	4800 2300	4320 1900	3600 1400	3180 1100	1920 0	1200 0	0		
	CC 12V	0.5/55A	1	1100	4800	4400	3980	3450	2800	2400	1100	0			
	CC 24V	0.5/28A	1	1100	4800	4400	3980	3450	2800	2400	1100	0			
EP MINOR 40	MF - TF	1,5	1	900	6900	6200	5760	5040	4200	3660	1800	0			
	TF	1,5	1	1400	10000	9000	8000	6900	5500	4900	2600	1700	0		
	TF	2,1	2	1400	10000	9000	8000	6900	5500	4900	2600	1700	0		
		1,2		900	6900	6200	5760	5040	4200	3660	1800	0			
EP MAJOR 60	TF	1,25	1	470	12000	10500	8700	5100	0						
	TF	1,5	1	700	18000	15000	12000	8400	2500	0					
	TF	1,87	1	900	22500	19560	15000	11220	3000	0					
EP MAXI 80	TF	3,3	1	470	36000	34200	30000	24000	12000	0					
	TF	3,5	1	600	43800	41400	36000	30000	16000	0					

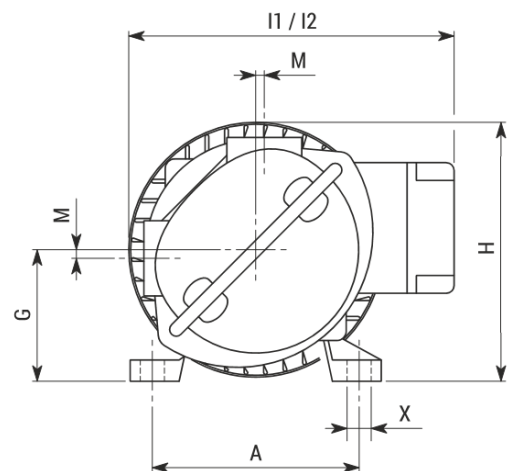
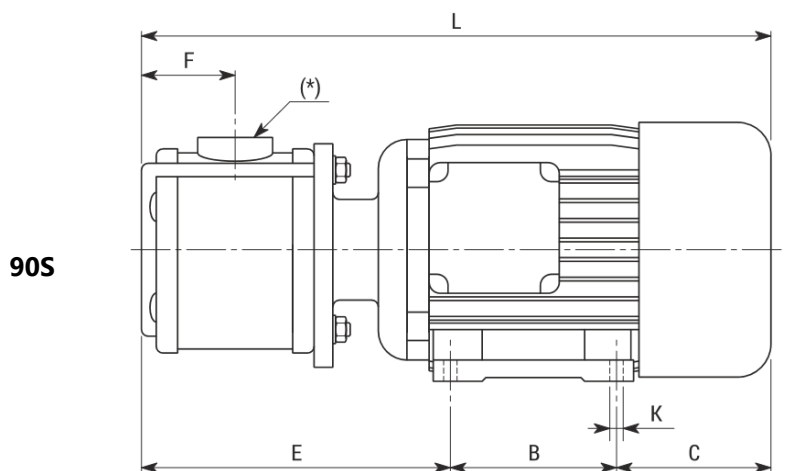
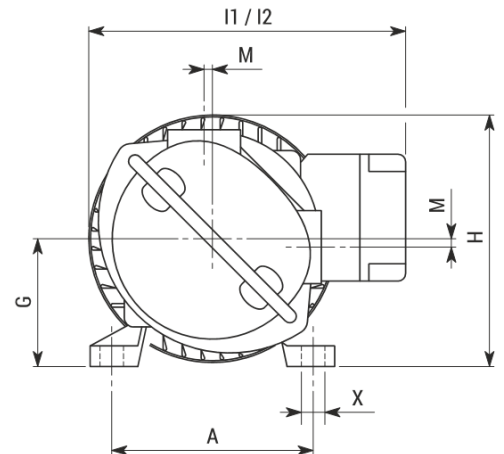
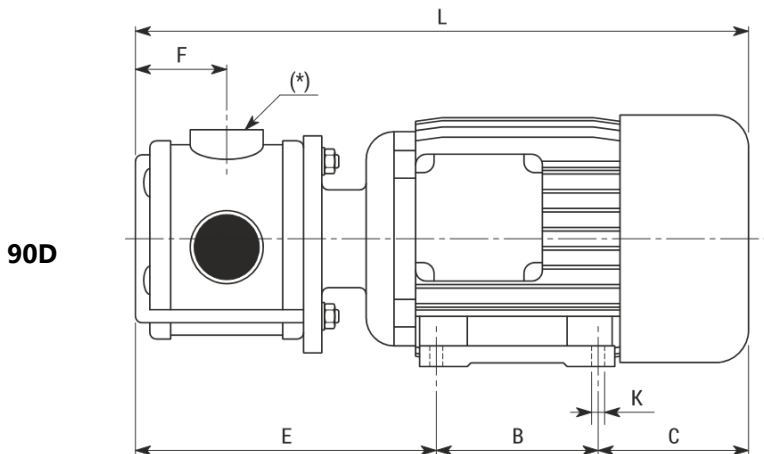
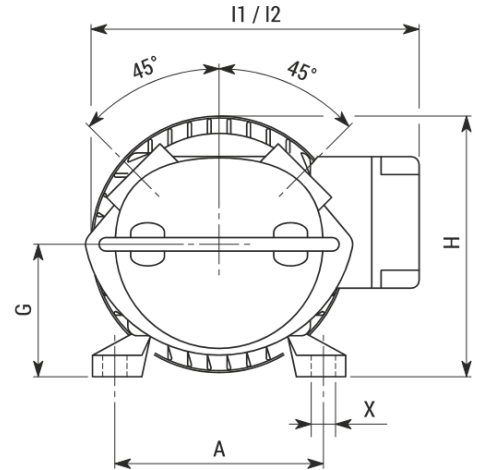
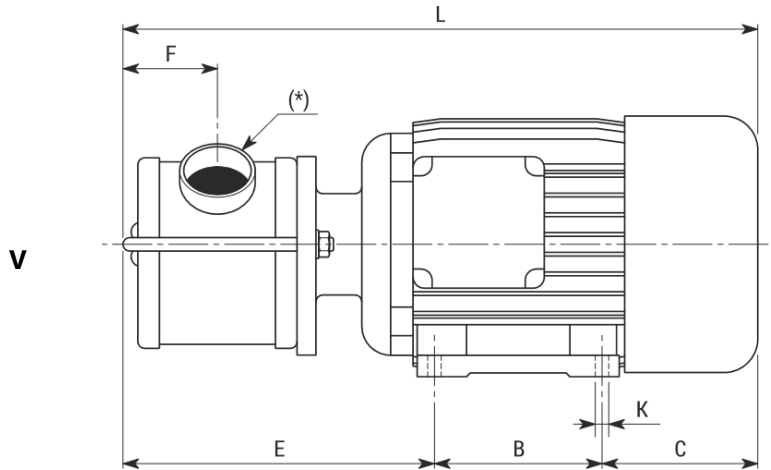
* MF = Single Phase / TF = Three Phase / CC = Direct Current (DC)



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Dimensions

Port Position



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Pump Type	Frame Size	Weight	Speed Settings	Dimensions, mm											
				A	B	E	F	G	H	I1 (**)	I2 (**)	L	M	K	X
EP MINI 3/4"	M71	~10 kg	1	112	90	106	26	71	140	192	210	276	0	7	12
EP MIDEX 1"1/4"	M80	15 kg	1	125	100	148	38	80	159	200	227	338	7	8	16
	M80	15 kg	2	125	100	148	38	80	159	-	227	338	7	8	16
EP MINOR 40	M90	20 kg	1	140	125	198	60	90	180	210	240	420	4,5	10	16
	M100	27 kg	2	160	140	210	60	100	198	-	260	455	4,5	12	21
EP MAJOR 60	M100	31 kg	1	160	140	253	70	100	198	245	263	490	6,5	12	21
	M112	38 kg	1	190	140	259	70	112	225	275	-	514	6,5	12	22
EP MAXI 80	M132	68 kg	1	216	178	312	90	132	261	320	-	630	13	12	22

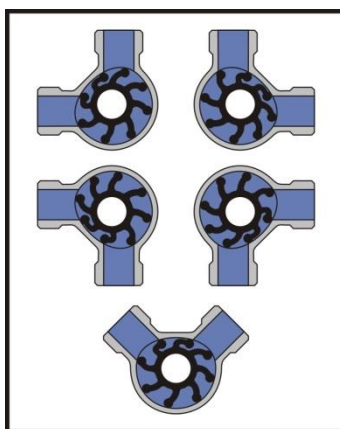
(*) Connection Type & Size to be selected as well as Counter Connections

I1 (**) Motor with Terminal Box Connection

I2 (**) Motor with On / Off / Reversing Switch

Connection Orientations

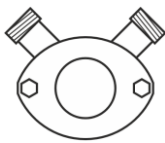
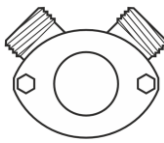

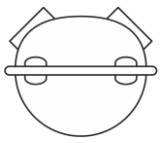
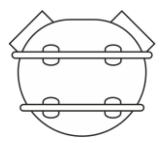


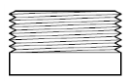

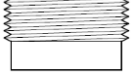
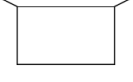
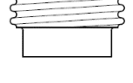
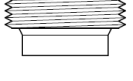
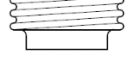
At order stage pumps can be delivered in either the "V" / "90S" or "90D" Configuration, however, depending on the model, the pump head can also be rotated into 5 positions to suit various pipework and installation requirements:



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Connection Sizes & Types

Connection Type		Pump Type & Connection Size				
		MINI	MIDEX	MINOR	MAJOR	MAXI
						
Garolla		N/A	DN 40	DN 40 DN 50	DN 50 DN 60 DN 70	DN 70 DN 80 DN 100
DIN 11851		DN 20 DN 25	DN 32 DN 40	DN 40 DN 50	DN 50 DN 60 DN 65	DN 65 DN 80 DN 100
BSP-M		3/4"	1 1/4"	1 1/4" 1 1/2"	2"	2 1/2" 3"
BSP-F		N/A	1"	1" 1 1/4"	1 1/2" 2"	2 1/2" 3"
Macon		N/A	DN 40	DN 40 DN 50	DN 40 DN 50	DN 70
Tri-Clamp		1"	1 1/2"	1 1/2"	2"	3"
SMS		DN 25	DN 38	DN 38	DN 51	DN 76
RJT (BSM)		1"	1 1/2"	1 1/2"	2" 2 1/2"	3"
Friederich		N/A	DN 40	DN 40	DN 40 DN 60	DN 60

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On / Off & Reversing Switches

All Single & Three Phase Models up to & including the EP Major 60 are available with an On / Off / Reversing Selector Switch on the Terminal Box of the motor to enable easy On / Off & Flow Direction Control of the pump at the point of use. Most models have 1 Speed Setting, however there are a few select models which have 2 Speed Settings. The functionality of these is explained below:

1 Speed Setting



"0" is the Off Position
"1" & "2" Represent the Flow Direction

2 Speed Setting



"0" is the Off Position
"1" Represents the Lowest Speed Setting in either Flow Direction
"2" Represents the Highest Speed Setting in either Flow Direction

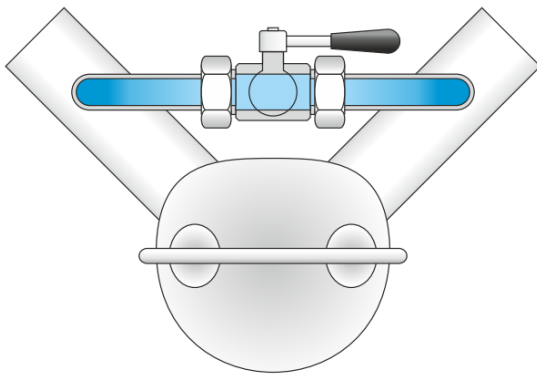
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Manual & Spring Loaded By-Passes

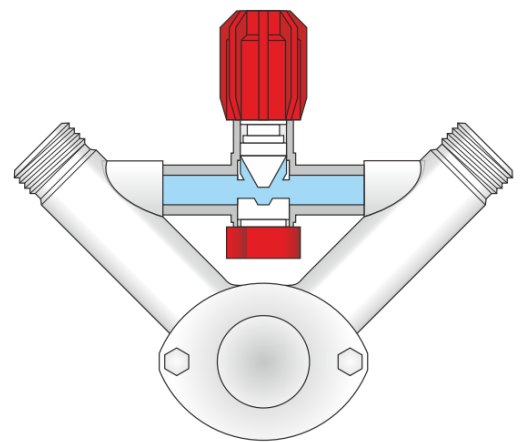
Manual and Spring-Loaded By-Passes are available as an optional adder on all pump heads and are ideal when the pump is being used with a discharge nozzle or there is the potential for Dead Head Operation or for manual flow control. The bypass valve connects the inlet and outlet pipes of the pump to enable product recirculation. When necessary, it is possible to open the valve to decrease the capacity and the head of the pump according to requirements.

PLEASE NOTE: In order to retain the self-priming capability of the pump at the start of operation, the by-pass valve must be completely closed.



Manual By-Passes

MINI, MAJOR, MAX Pump Types



Spring-Loaded By-Passes

MIDEX & MINOR Pump Types

