



MUNSCH

Plastic Pumps for Aggressive Media

Non-Metallic Chemical Pumps

with magnetic drive

Standardized pump ECM

Close-coupled pump ECM-B

in PFA

Dimensions to EN 22858 / ISO 2858

Pump capacities up to 70 m³/h

Differential heads up to 70 m



► Applications

The type ECM and ECM-B hermetically sealed magnetically coupled pumps are the solution of choice for pumping fluids posing an environmental or health hazard such as acids, alkalis, solvents or chemically polluted fluids in the presence or absence of solids.

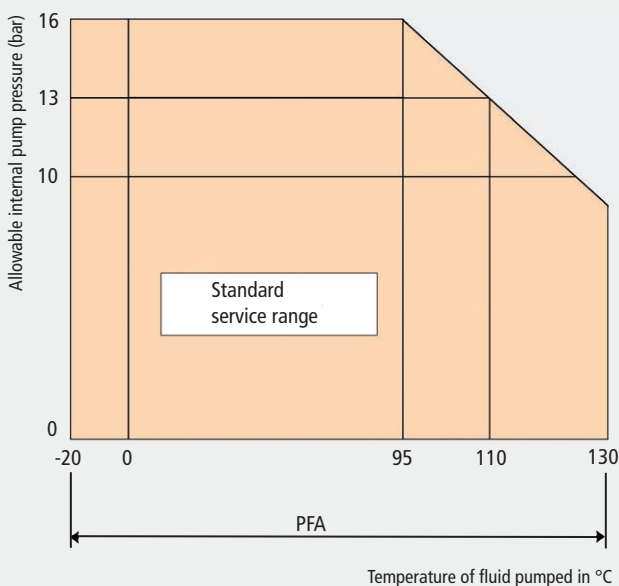
► Type of construction

Horizontal centrifugal pump with volute casing; designed to EN 22858/ ISO 2858/ ISO 5199 dimensional standards and requirements; complemented by size 40-25-125 and 40-25-160 pumps.

► Materials

Part designation	Standard material range
	PFA
Volute casing	PFA
Inner magnet assembly	PFA / Steel
Outer magnet assembly	PFA
Intermediate lantern	Spheroidal cast iron
Casing armour	Spheroidal cast iron
Spacer can	PFA/PEEK
Plain bearing	SSIC
Drive shaft	Steel
Plain bearing holder	GGG

► Maximum allowable service pressures and temperatures



► Operating data²⁾

	50 Hz	60 Hz
Pump capacity [Q]	60 m ³ /h	70 m ³ /h
Total differential head [H]	60 m	70 m
Motor rating [P] up to	7,5 kW	7,5 kW

2) Performance data for standardized pumps, extended performance ranges on request

► Flange connection

Standertdesign to DIN 2533, PN16,
alternatively: - as per ANSI B16.5, Class 150,
- as per JIS B2210, Class 10K

► Drive

Three-phase a.c. motor, frame types B3 and B3/B5 as per IEC, BS or NEMA, type of protection, flameproof enclosure and motor rating to customer specifications.

► Painting (system)

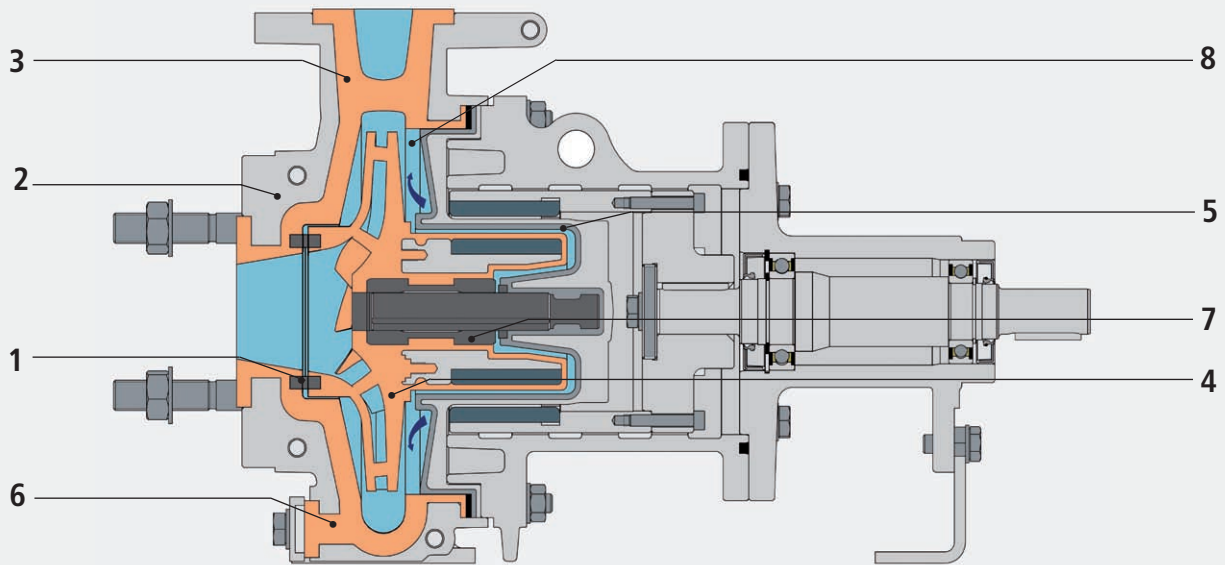
- Base coat: epoxy resin
Dry film thickness 60 - 80 µm
- Top coat: polyurethane
Dry film thickness 60 - 80 µm
Total dry film thickness: 130-150 µm
Special coatings available on request.

► Explosion protection as per EU Directive 94/9/EC (option)

Additional engineering measures can be provided to allow the use of the pumps in explosion hazard zones. The pump meets the requirements of EU Directive 94/9/EC.

► Accessories/Options

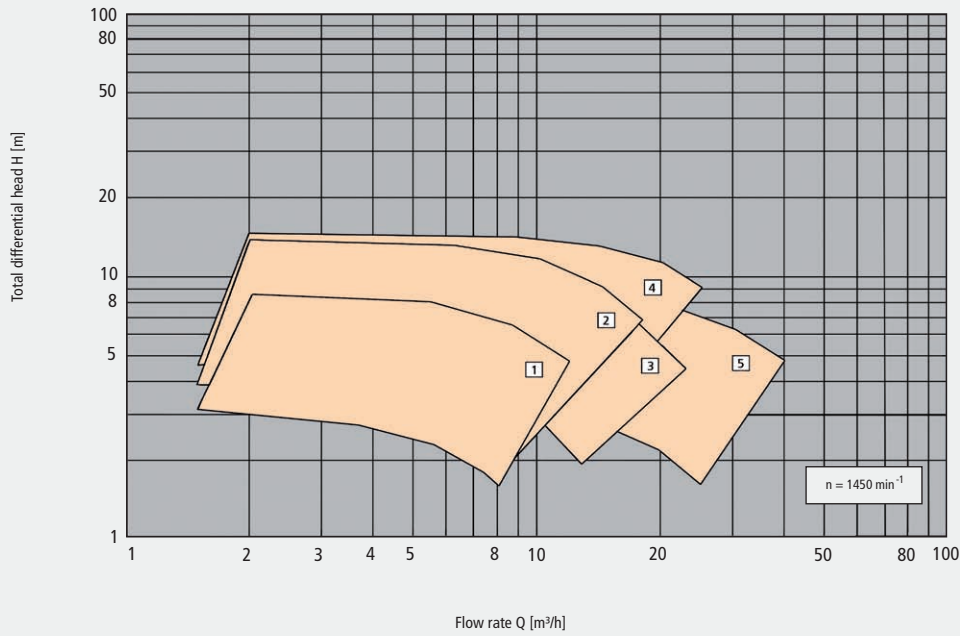
- Base plate
- Levelling bolts as an alternative to pump concrete pads
- Coupling with/without spacer sleeve
- Sturdy coupling guard
- Casing drain
- Priming pot
- Motor overload switch



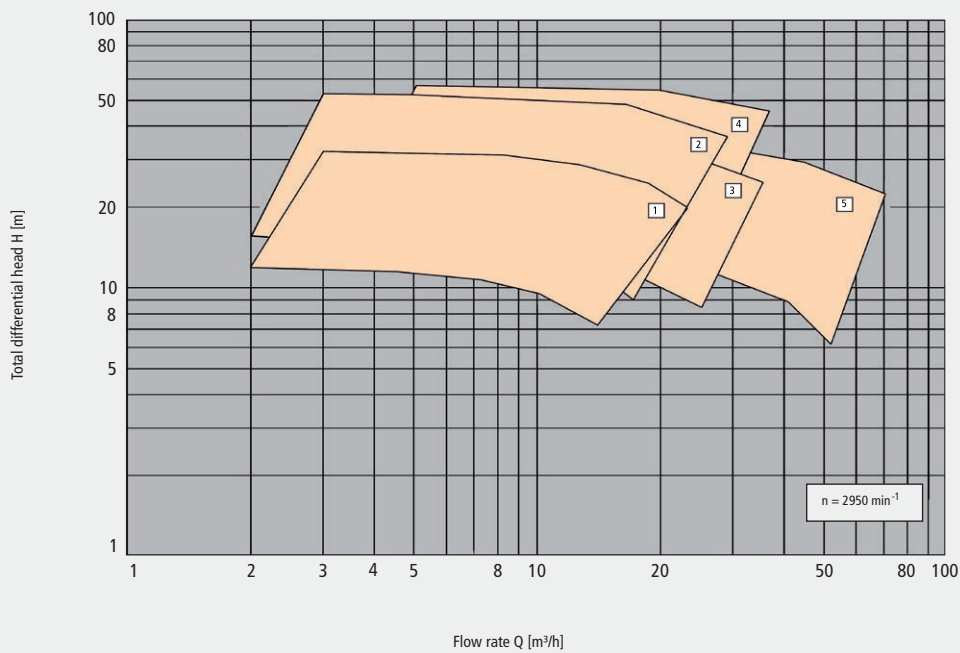
► Design features

- 1 Axial bearing installed in impeller suction eye area for minimized clearance gap losses and maximum efficiency, reduced number of main components, ease of assembly and disassembly.
- 2 Robust casing liner reliably accommodates all allowable system pressures and piping loads.
- 3 Thick-walled volute casing of sealless and non-welded design ensures reliable containment and retains its shape even under vacuum conditions; superior mechanical wear resistance for maximum operating reliability in chemically aggressive and abrasive service environments.
- 4 Impeller: available in closed design.
- 5 Spacer can is designed as a metal-free double-wall unit consisting of an outer shell and a separate spacer can liner:
 - no eddy currents and hence, no heat transfer to the fluid pumped
 - no energy losses and hence, no efficiency losses
 - vacuum-resistant double-wall design
 - spacer can protected from mechanical contact with the outer magnet assembly
- 6 Casing drain: drain bore for low point drainage of volute casing available as an option.
- 7 Plain bearings of silicon carbide (SSIC) provide maximum resistance to corrosion and wear; forced coolant and lubricant flow ensures reliable protection against overheating.
- 8 Solids deflector keeps the greater part of the solids clear from the axial clearance of the plain bearing.

► Performance range charts [50 Hz]



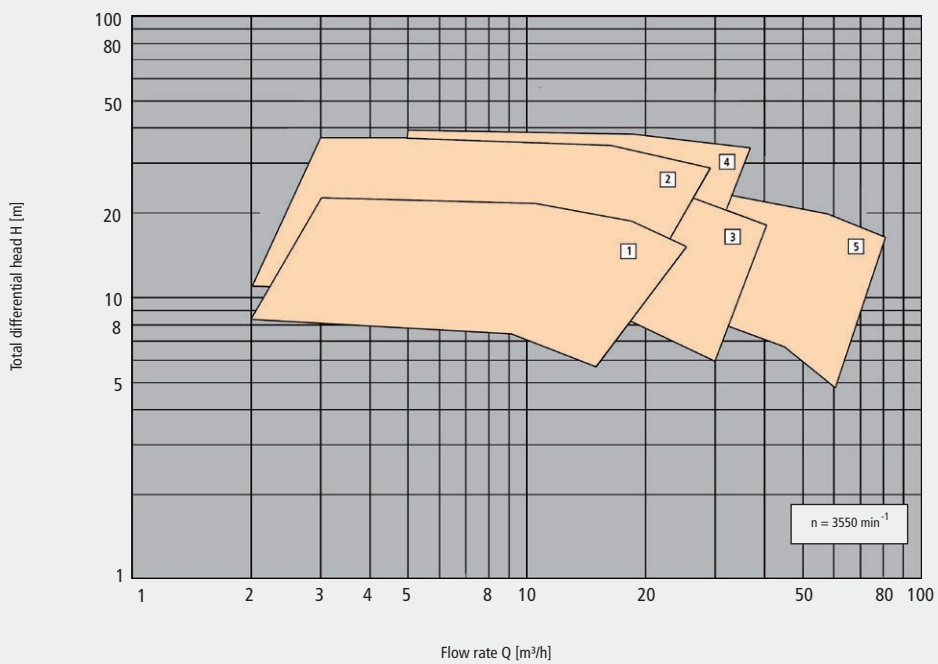
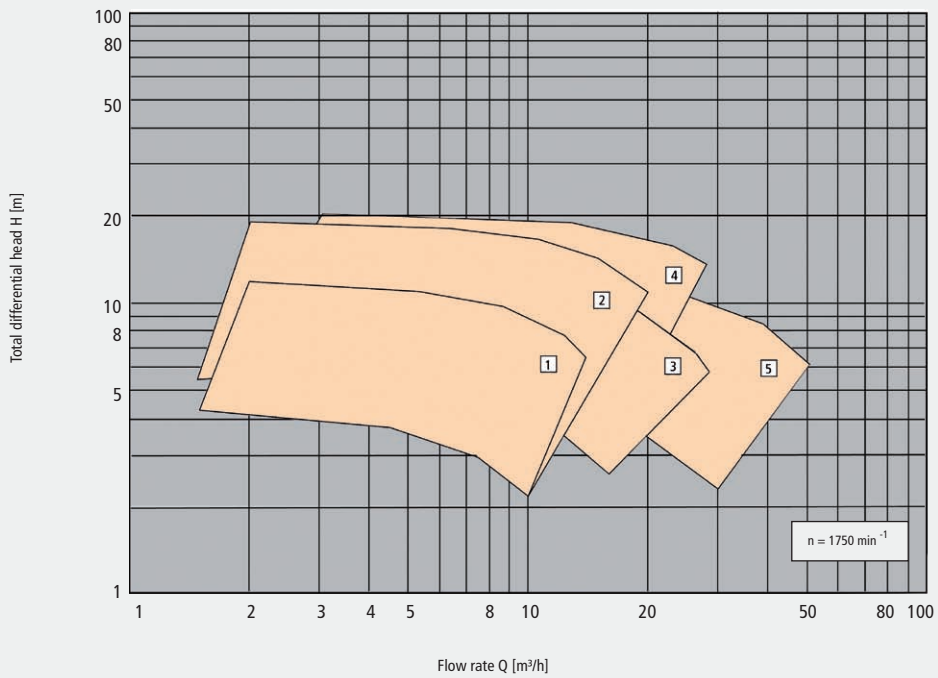
- 1 40-25-125
- 2 40-25-160
- 3 50-32-125
- 4 50-32-160
- 5 65-50-125



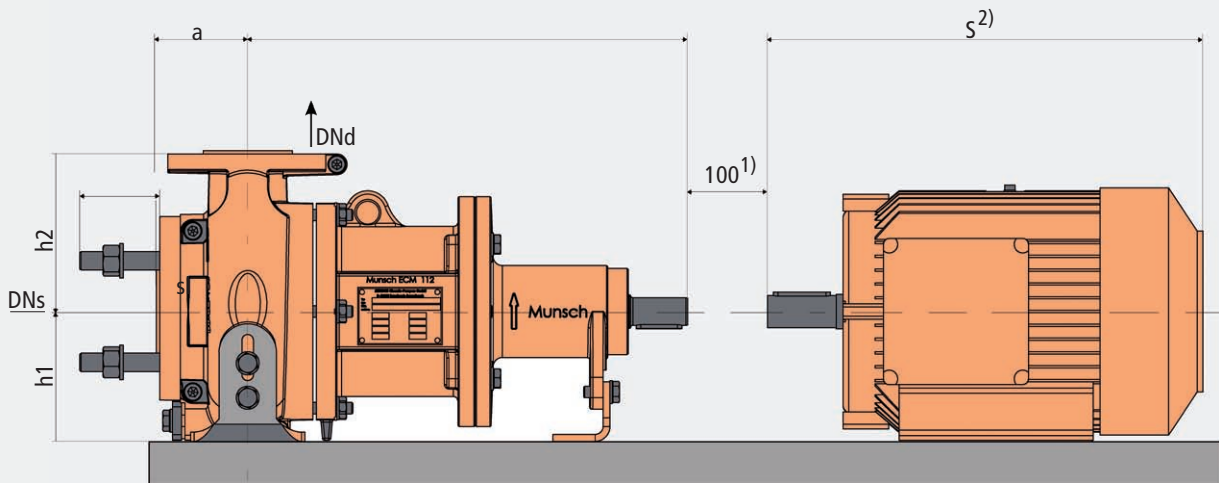
- 1 40-25-125
- 2 40-25-160
- 3 50-32-125
- 4 50-32-160
- 5 65-50-125



► Performance range charts [60 Hz]



► Dimensions of ECM standardized pump



Pump size	Pump dimensions						
	DN _s	DN _d	a	f	h ₁	h ₂	sl
40-25-125	40	25	80	385	112	140	70
40-25-160	40	25	80	385	132	160	70
50-32-125	50	32	80	385	112	140	70
50-32-160	50	32	80	385	132	160	70
65-50-125	65	50	80	385	112	140	70

Motor dimensions ¹⁾						
1450 min ⁻¹				2900 min ⁻¹		
Motor size	IP55 [kW]	EExell [kW]	s	IP55 [kW]	EExell [kW]	s
90 S	1,1	1	275	1,5	1,3	275
90 L	1,5	1,35	297	2,2	1,85	297
100 LB	2,2	2,0	383	3	2,5	383
100 LD	3	2,5	383	-	-	-
112 MB	4	3,6	389	4	3,3	389
132 SB	-	-	-	5,5	-	458
132 SD	-	-	-	7,5	4,6	458
132 SX	-	-	-	-	5,5	458

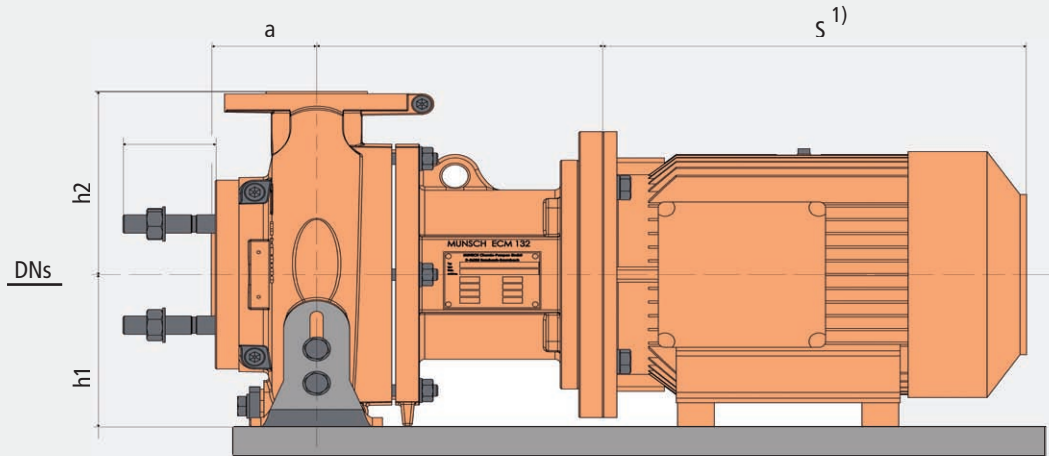
Flange as per DIN 2533, PN 16
Suction-side studs as per DIN 938

Dimensions in [mm]

1) Length of spacer piece for spacer coupling, i.e. allows pump removal without disconnection of motor.

2) Motor length S relates to LOHER motors.

► Dimensions of ECM-B close-coupled pump



Pump size	Pump dimensions					
	DNs	DNd	a	h1	h2	sl
40-25-125	40	25	80	112	140	70
40-25-160	40	25	80	132	160	70
50-32-125	50	32	80	112	140	70
50-32-160	50	32	80	132	160	70
65-50-125	65	50	80	112	140	70

Motor dimensions ¹⁾							
1450 min ⁻¹				2900 min ⁻¹			
Motor size	IP55 [kW]	EExell [kW]	S	IP55 [kW]	EExell [kW]	S	
90 S	1,1	1	275	1,5	1,3	275	
90 L	1,5	1,35	297	2,2	1,85	297	
100 LB	2,2	2,0	383	3	2,5	383	
100 LD	3	2,5	383	-	-	-	
112 MB	4	3,6	389	4	3,3	389	
132 SB	-	-	-	5,5	-	458	
132 SD	-	-	-	7,5	4,6	458	
132 SX	-	-	-	-	5,5	458	

Pump dimension g	
Motor size	g
90	119
100	218
112	218
132	229

Flange as per DIN 2533, PN 16
Suction-side studs as per DIN 938

Dimensions in [mm]

1) Motor length S relates to LOHER motors.



MUNSCH
Kunststoffpumpen für aggressive Medien



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around the globe!

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