



UTN SERIES

LINED
MAGNETIC DRIVE
CENTRIFUGAL PUMPS



UTN-BL

Close coupled
with B5 motors

Campi di applicazione

- _ Basic Chemical Services
- _ Fine chemical batch services
- _ Agrochemicals and fertilizers



in compliance with:
2006/42/CE



ATEX 100
Directive: 2014/34/EU



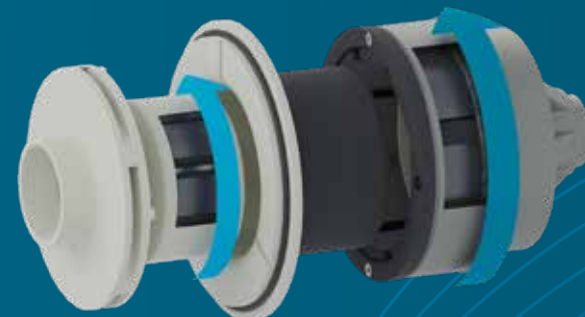
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Bare shaft «back
pull out» version



Mag drive concept

The synchronous drive configuration is based on an outer magnet ring assembly built to magnetically couple with an inner magnet ring assembly. These two magnet rings are locked together by the flux of attracting magnet poles flowing through the containment isolation shell.



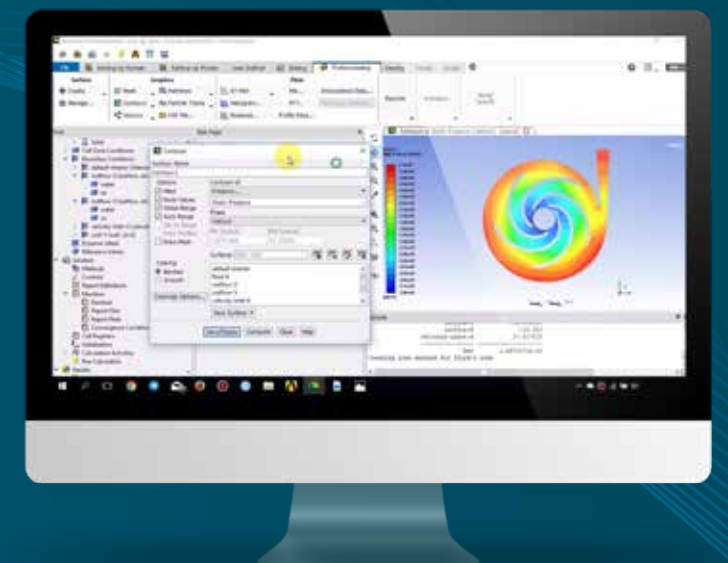
Design

Simplicity, lightness and economy are the 3 strong points of this pump in cases of occasional handling of chemical products.

R&D with Fluidodynamic Simulation

Designed with an innovative simulation software, that permits to obtain high hydraulic performances and efficiency levels near to the physical possible values.

Simulated with **Ansys**



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UTN Series Main features and 3d view



01. Isolation shell

Made of transfer-moulded PFA with carbon fibre reinforcement.
Alternative made of PVDF or PP. Guarantees complete insulation from the external environment, avoiding any contamination.

02. Pump shaft and bushes

For light-duty services, PTFE+Carbon rotating bushings are available. For more critical services are used rotating bushings and axial thrust bushing in pure sintered silicon carbide (SiC)

03. Impeller

It is manufactured by using a robust metal insert lined with PFA/PVDF/PP.
The minimum thickness of 4 mm guarantees excellent resistance to corrosion and permeation.

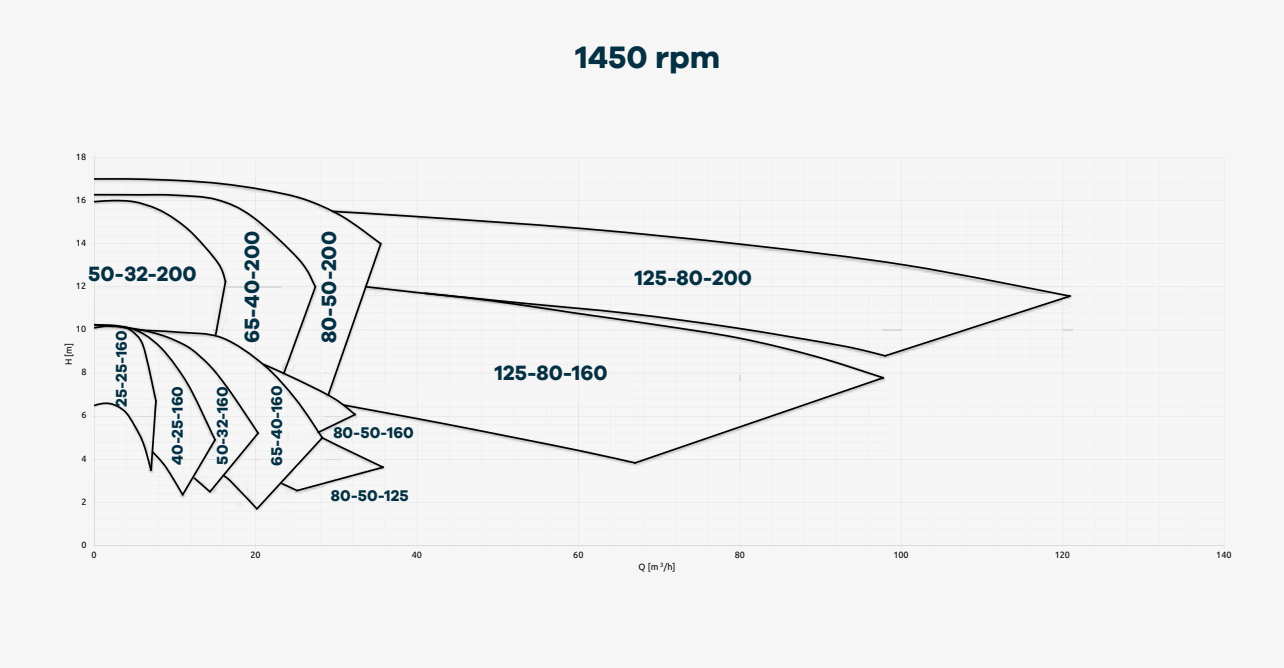
04. Casing

Made of spheroidal cast iron, it is painted externally and coated internally using the lining technology.
Technology developed since year 2000, it guarantees excellent mechanical resistance both for loads due to connection to the piping as well as under high vacuum conditions.

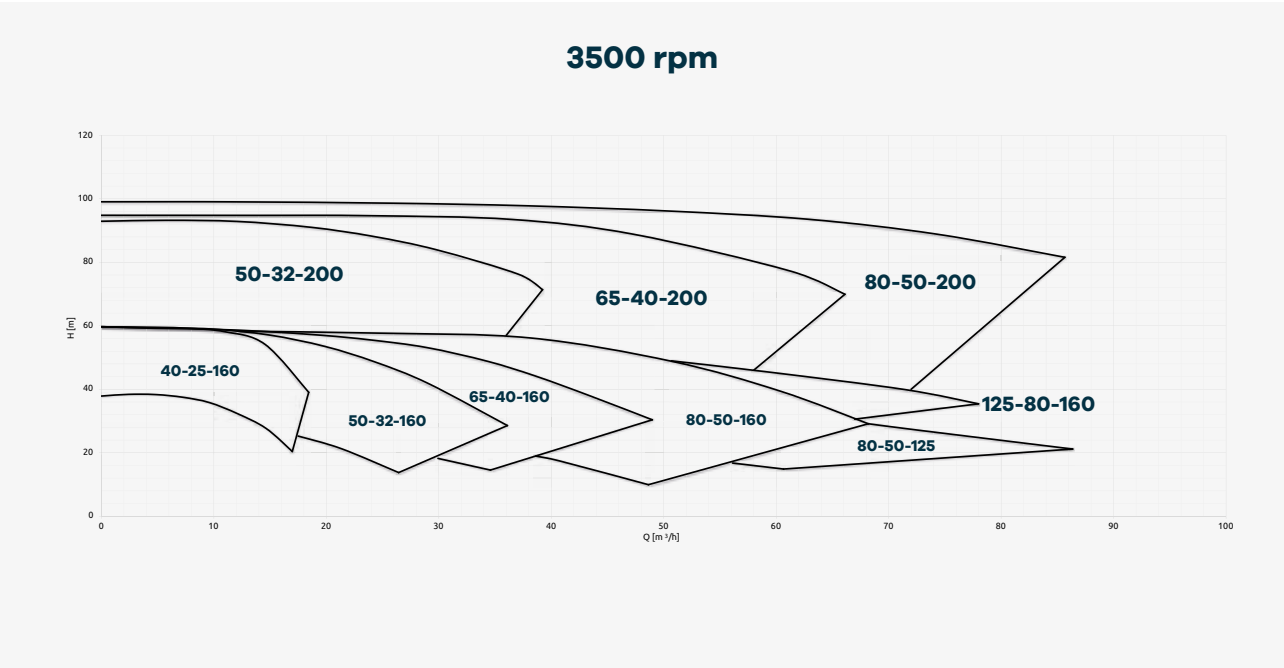
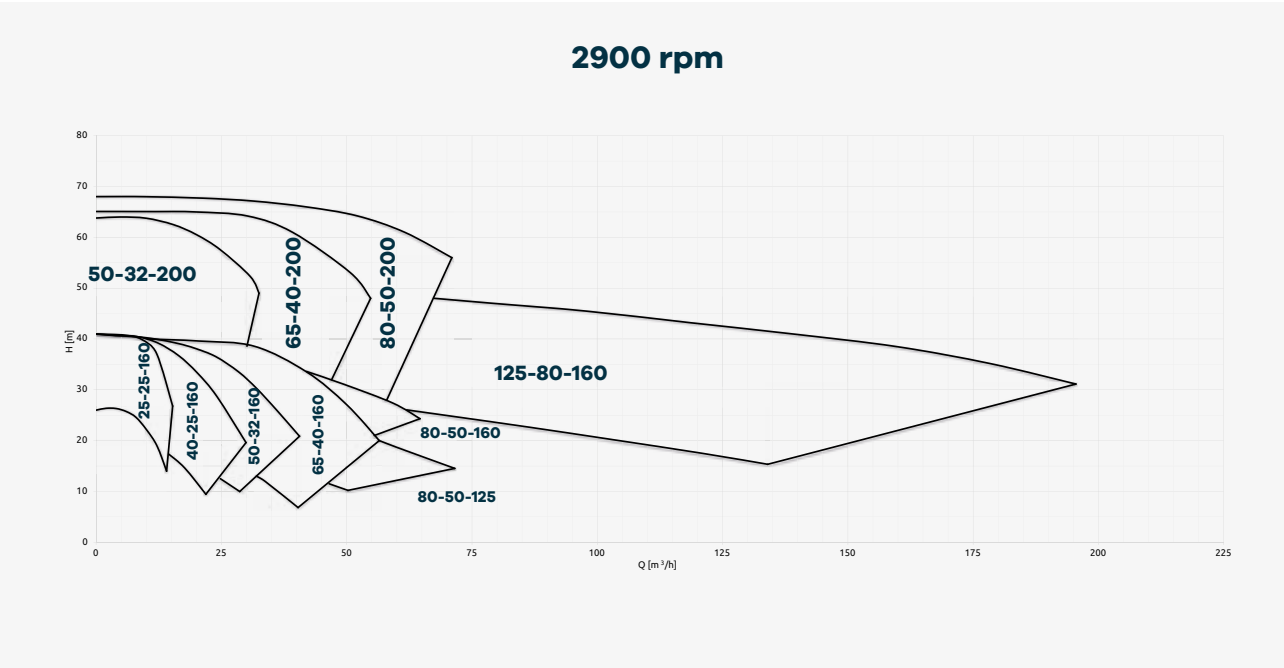
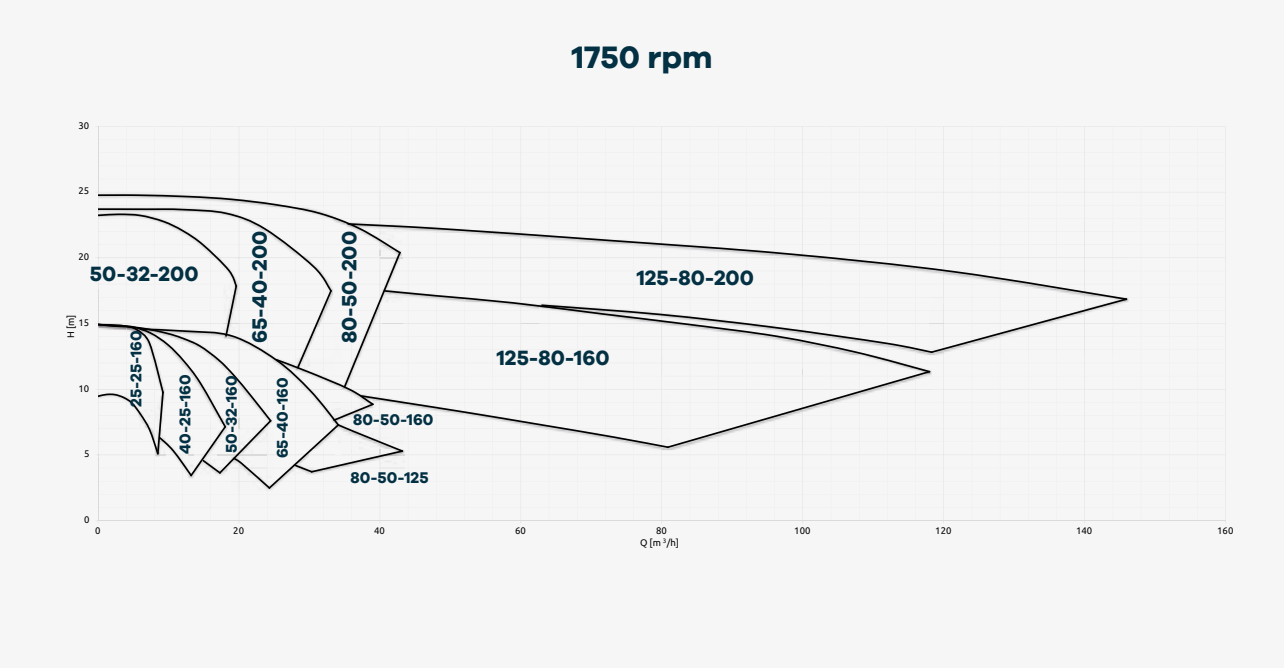


Performance Curves

50 Hz



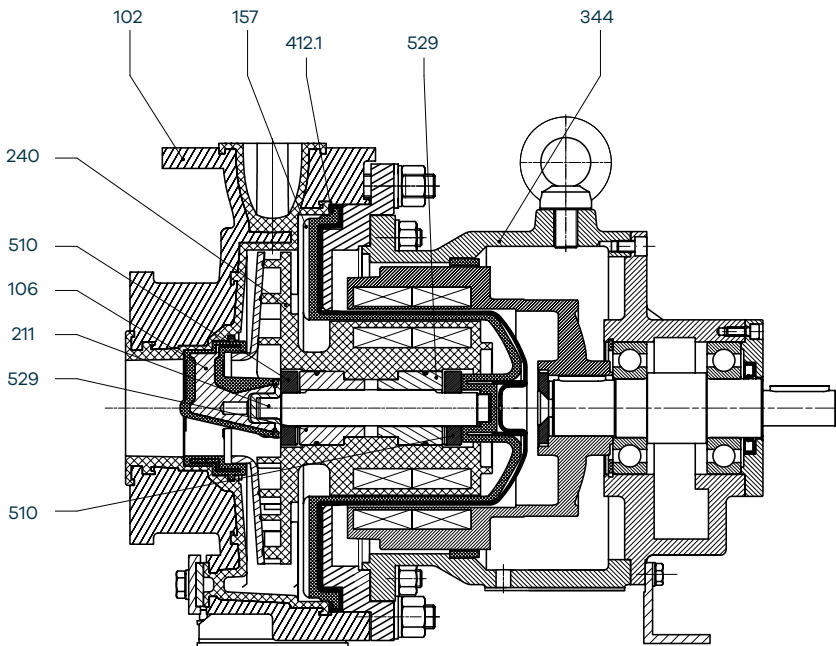
60 Hz



Not binding data refers to water at room temperature.
For specific performance curve contact CDR Pompe S.R.L.

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Section drawings



Technical specifications

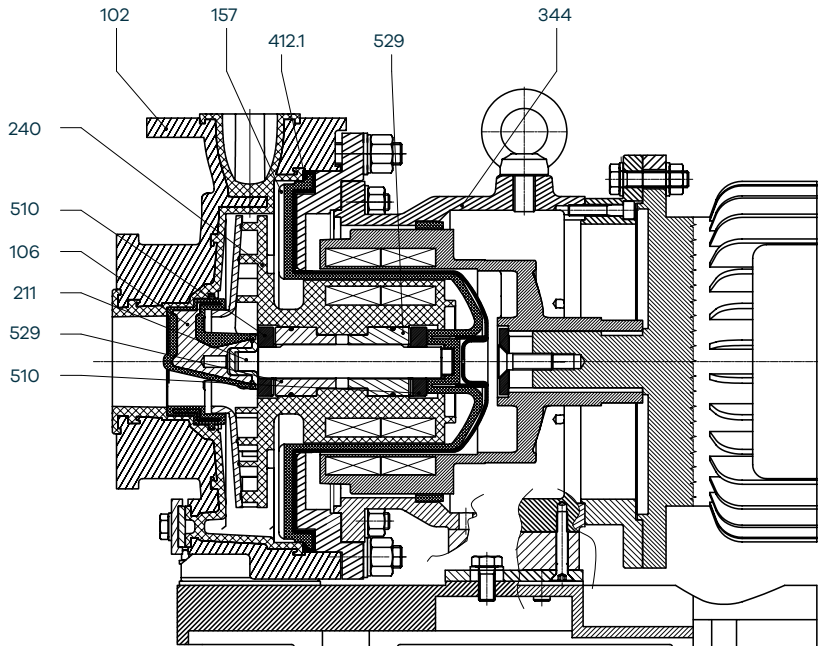
Design
EN 22858; ISO 2858
Performance at 2900 rpm
Q max = 150 m³/h H max = 60 mcl
Motors
0.75 kW (motor size 80) 37 kW (motor size 200)
Allowable temperatures
PP : -10 °C > +70 °C PVDF : -30 °C > +100 °C PFA : -50 °C > +160 °C
Allowable pressures
PP: from 16 bar (20 °C) to 12 bar (70 °C) PVDF: from 16 bar (20 °C) to 8 bar (100 °C) PFA: from 16 bar (20 °C) to 8 bar (120 °C)
Flanges
UNI 1092-2 / ISO 7005-2 PN 16RF, type B slotted ASME / ANSI 150
Viscosity
min: 0,5 cSt max: 150 cSt
Allowable solids
Max concentration: 3% by weight Max size: 0,15 mm

Internal components

DIN	Components	Materials
102	Casing	PP lined \ PVDF lined \ PFA lined
106	Suction Body	PP-GF \ PVDF-CF \ PFA lined
157	Isolation shell	PP-GF \ PVDF-CF \ PFA+CF
211	Pump shaft	SiC \ Al2O3 \ RunSafe SiC
240	Impeller	PP lined \ PVDF lined \ PFA lined
344	Lantern	GS400
412.1	O-Ring (Casing)	EPDM \ FPM \ FPM-FEP
510	Thrust bearings	SiC \ Al2O3 \ RunSafe SiC
529	Rotating Bushes	SiC \ PTFE-Al2O3 \ PTFE-Carbon \ Graphite \ RunSafe SiC

UTN-BL

Section drawings



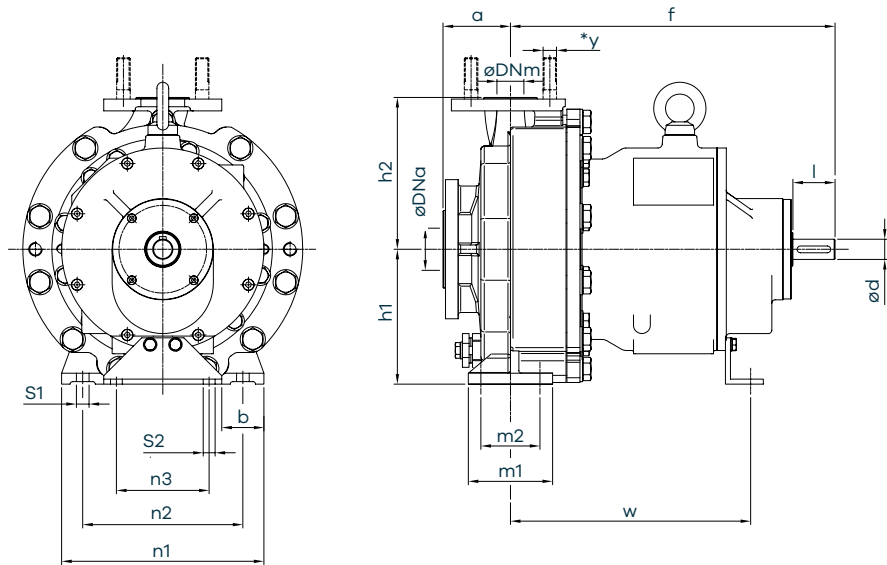
Technical specifications

Design
EN 22858; ISO 2858
Performance at 2900 rpm
Q max = 150 m³/h H max = 60 mcl
Motors
11 kW (motor size 80) 18.5 kW (motor size 160)
Allowable temperatures
PP : -10 °C > +70 °C PVDF : -30 °C > +100 °C PFA : -50 °C > +160 °C
Allowable pressures
PP: from 16 bar (20 °C) to 12 bar (70 °C) PVDF: from 16 bar (20 °C) to 8 bar (100 °C) PFA: from 16 bar (20 °C) to 8 bar (120 °C)
Flanges
UNI 1092-2 / ISO 7005-2 PN 16RF, type B slotted ASME / ANSI 150
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min: 0,5 cSt max: 150 cSt
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Max concentration: 3% by weight Max size: 0,15 mm

Internal components

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UTN-L
Overall dimensions

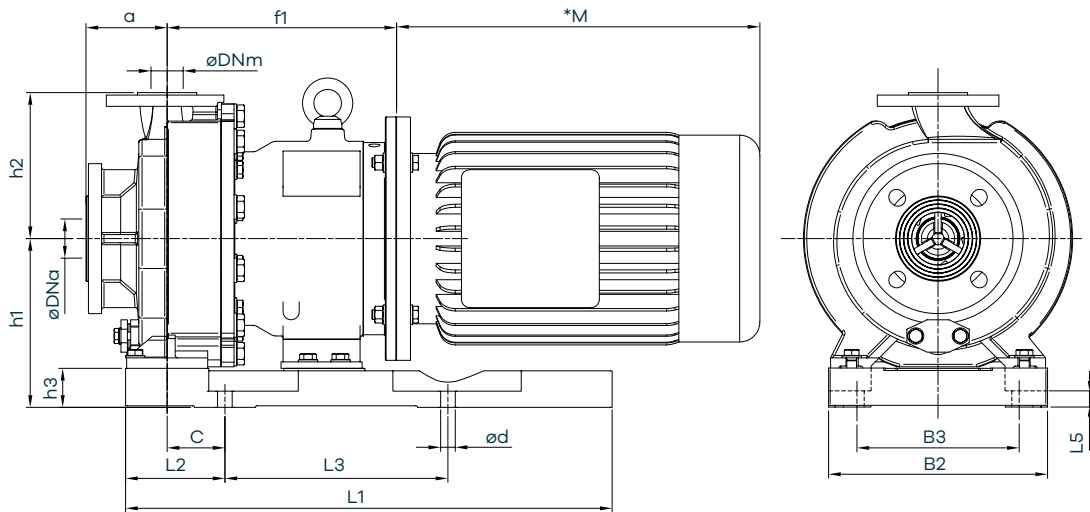


Pump dimensions

Model	40-25-160	50-32-160	65-40-160	80-50-125	80-50-160	50-32-200	65-40-200	80-50-200	125-80-160	125-80-200
DNa Ø	40	50	65	80	80	50	65	80	125	125
DNm Ø	25	32	40	50	50	32	40	50	80	80
a (mm)	80	80	80	100	100	80	100	100	125	125
b (mm)	50	50	50	50	50	50	50	50	65	65
ød (mm)	24	24	24	24	24	24	24	24	32	32
f (mm)	385	385	385	385	385	385	385	385	500	500
h1 (mm)	132	132	132	132	160	160	160	160	180	180
h2 (mm)	160	160	160	160	180	180	180	200	225	250
l (mm)	50	50	50	50	50	50	50	50	80	80
m1 (mm)	100	100	100	100	100	100	100	100	125	125
m2 (mm)	70	70	70	70	70	70	70	70	95	95
n1 (mm)	240	240	240	240	265	240	265	265	320	345
n2 (mm)	190	190	190	190	212	190	212	212	250	280
n3 (mm)	110	110	110	110	110	110	110	110	110	110
S1 (mm)	14	14	14	14	14	14	14	14	14	14
S2 (mm)	14	14	14	14	14	14	14	14	14	14
w	285	285	285	285	285	285	285	285	370	370
Pump weight (without motor)	57	58	60	62	65	77	80	85	110	125

*y = DNm 80 equipped with 4 studs M16x60 for ANSI 150

UTN-BL
Overall dimensions

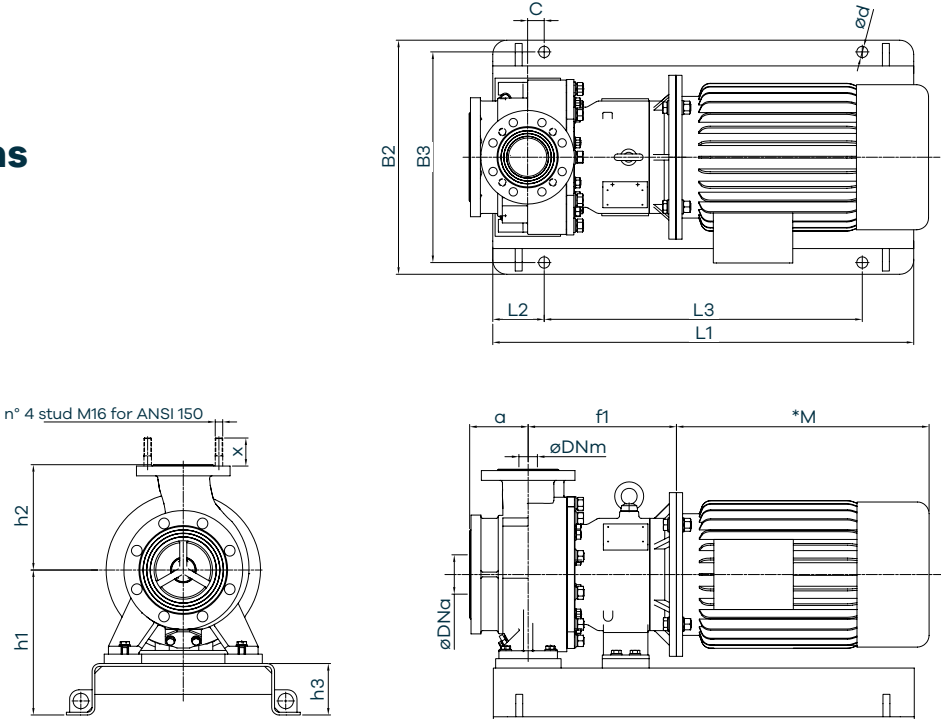


Pump dimensions

Model	25-25-160	40-25-160	50-32-160	65-40-160	80-50-125	80-50-160	50-32-200	65-40-200	80-50-200
DNa Ø	25	40	50	65	80	80	50	65	80
DNm Ø	25	25	32	40	50	50	32	40	50
a (mm)	80	80	80	80	100	100	80	100	100
B2 (mm)	270	270	270	270	270	270	270	270	270
B3 (mm)	200	200	200	200	200	200	200	200	200
C (mm)	70	70	70	70	70	70	70	70	70
ød (mm)	18	18	18	18	18	18	18	18	18
h2 (mm)	160	160	160	160	160	180	180	180	200
h3 (mm)	48	48	48	48	48	48	48	48	48
L1 (mm)	550	550	550	550	550	550	550	550	550
L2 (mm)	122,5	122,5	122,5	122,5	122,5	122,5	122,5	122,5	122,5
L3 (mm)	275	275	275	275	275	275	275	275	275
L5 (mm)	20	20	20	20	20	20	20	20	20
90 (mm)	257	257	257	257	257	257	257	257	257
100 (mm)	257	257	257	257	257	257	257	257	257
112 (mm)	257	257	257	257	257	257	257	257	257
132 (mm)	287	287	287	287	287	287	287	287	287
160 (mm)	302	302	302	302	302	302	302	302	302
90 (mm)	180	180	180	180	180	208	208	208	208
100 (mm)	180	180	180	180	180	208	208	208	208
112 (mm)	180	180	180	180	180	208	208	208	208
132 (mm)	180	180	180	180	180	208	208	208	208
160 (mm)	208	208	208	208	208	208	208	208	208
Motor shape	B5	B5	B5	B5	B5	B5	B5	B5	B5
Pump weight (without motor)	40	40	45	75	50	55	75	80	85

*M dimension is according to installed motor manufacturer

UTN-BL
Overall dimensions

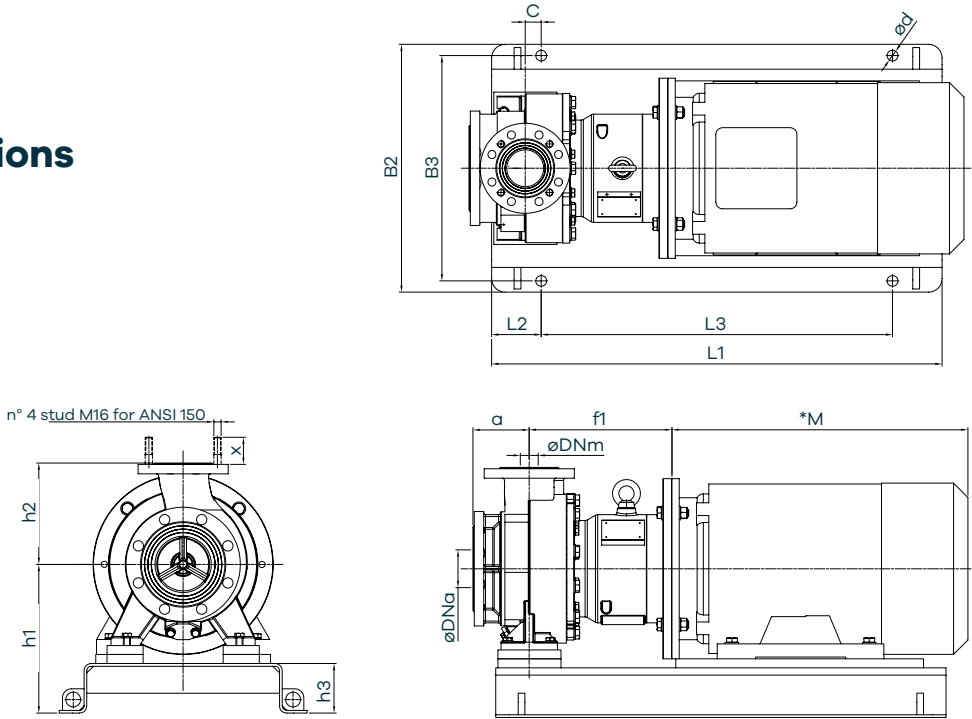


Pump dimensions

Model	125-80-160	125-80-200
DNa Ø	125	125
	UNI EN 1092-1 PN 16RF drilled ANSI 150	
DNm Ø	80	80
	UNI EN 1092-1 PN 16RF drilled ANSI 150	
a (mm)	125	125
B2 (mm)	500	500
B3 (mm)	450	450
C (mm)	35,5	35,5
ød (mm)	24	24
h2 (mm)	225	250
h3 (mm)	110	110
L1 (mm)	900	900
L2 (mm)	110	110
L3 (mm)	680	680
h1 (mm)	310	310
x (mm)	60	60
Σ	90 (mm)	257
	100 (mm)	257
	112 (mm)	257
	132 (mm)	287
	160 (mm)	302
Motor shape	B5	B5
Pump weight (without motor)	135	150

*M dimension is according to installed motor manufacturer

UTN-BL
Overall dimensions



Pump dimensions

Model	125-80-160	125-80-200
DNa Ø	125	125
	UNI EN 1092-1 PN 16RF drilled ANSI 150	
DNm Ø	80	80
	UNI EN 1092-1 PN 16RF drilled ANSI 150	
a (mm)	125	125
B2 (mm)	550	550
B3 (mm)	500	500
C (mm)	35,5	35,5
ød (mm)	24	24
h2 (mm)	225	250
h3 (mm)	110	110
L1 (mm)	1000	1000
L2 (mm)	110	110
L3 (mm)	780	780
x (mm)	60	60
Σ	180 (mm)	310
	200 (mm)	330
	180 (mm)	317
Σ	200 (mm)	317
Motor shape	B35	B35
Pump weight (without motor)	150	165

*M dimension is according to installed motor manufacturer

Note

**CDR Pompe**

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Technical characteristics:

The data and technical characteristics shown in the General Catalogue are not binding. CDR Pompe SRL reserves the right to implement changes without notice. Therefore the data, the size, performance and any other information reported are indicative and not binding. For any technical details you can request the product update form.