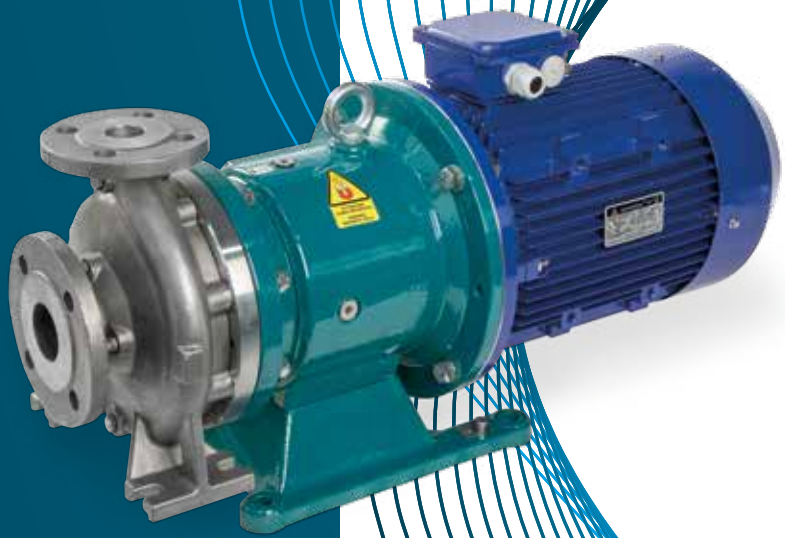
CDR® Pompe

WE **PUMP** YOUR **CHEMICALS**

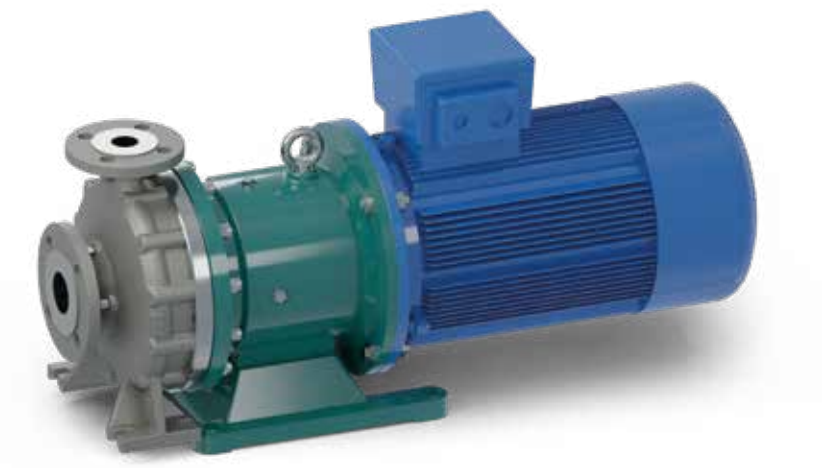


XTS SERIES

MAGNETIC DRIVE
CENTRIFUGAL PUMP
WITH OPEN IMPELLER
IN STAINLESS STEEL

XTS-B

Close coupled with B5 motors



Range of applications

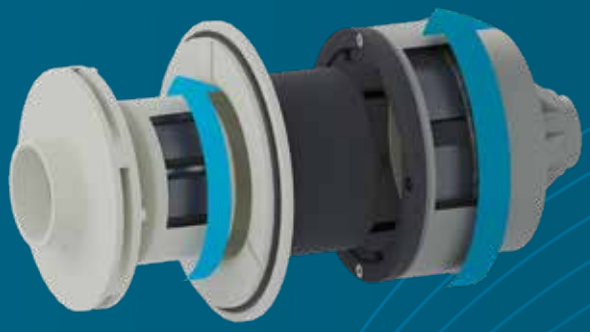
_ Fine Chemical Services
_ Basic Chemical Services
_ Pharmaceutical industries (API)
_ Transfer of reactor process solutions

in compliance with: 2006/42/CE

ATEX 100
Directive: 2014/34/EU

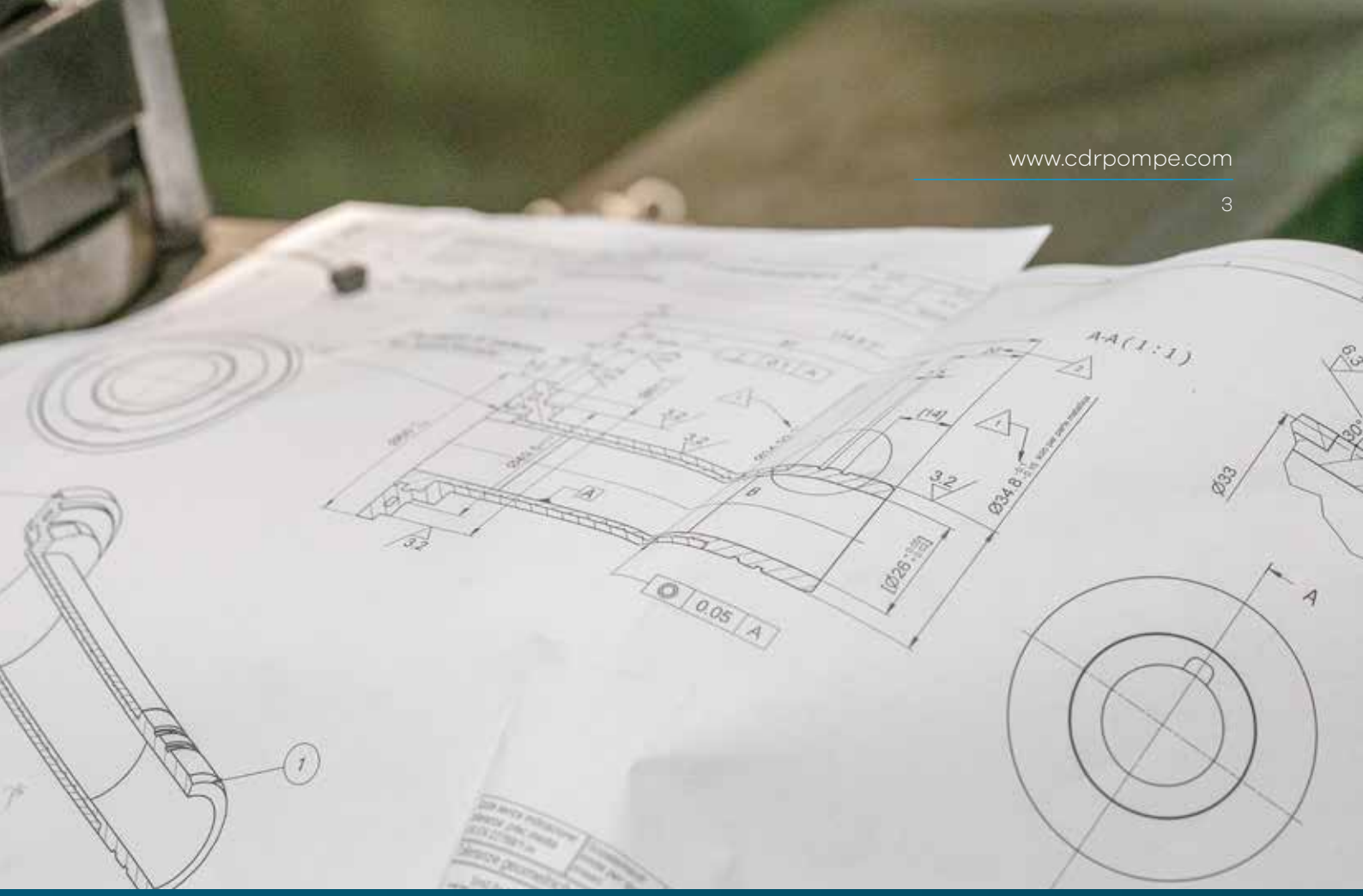
Mag drive concept

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.



'X' series a solution for solids in suspension

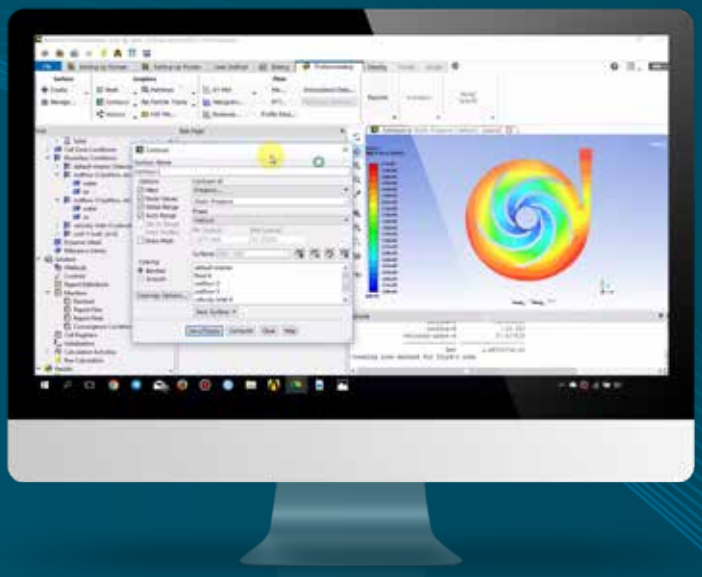
Zero emissions due to the magnetic drive design.
Reduced maintenance costs: no double mechanical seals and external flushing system which, in case of failure, can contaminate the process liquid with the external fluid.



R&D with Fluidodinamic Simulation

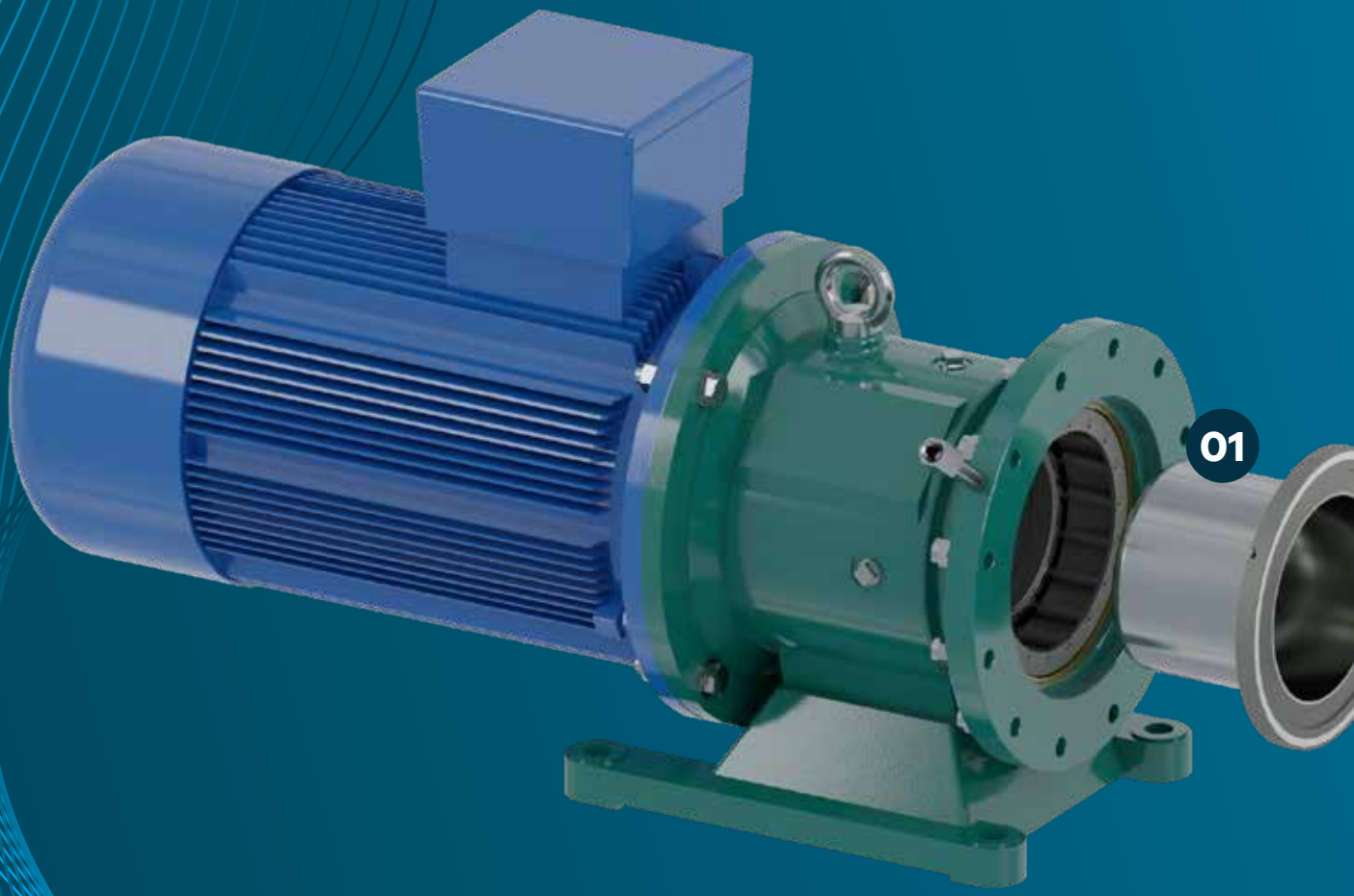
Designed with an innovative simulation software, that permits to obtain high hydraulic performances and efficiency levels near to the physical possible values.

Simulated with Ansys



*All Ansys, Inc. brand, product, logos are registered trademarks or trademarks of Ansys, Inc.

XTS Serie Main features and 3d view



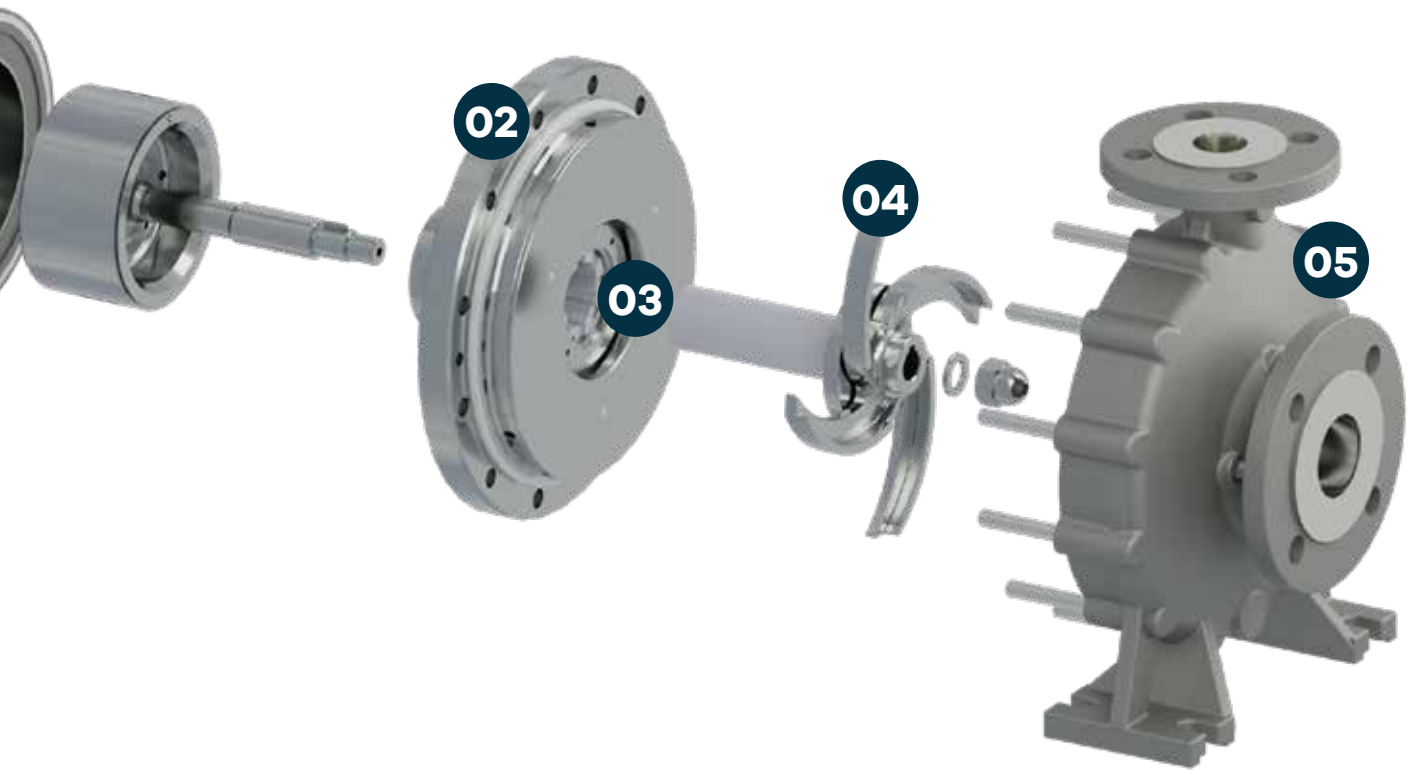
01. Isolation shell
Made from Hastelloy-C, with a minimum thickness of 1 mm; this minimises parasitic currents (eddy current effect). On request, we can manufacture it using zirconium oxide, suitable for low-boiling products (absence of eddy currents).

02. Bushes support
Our two-piece design ensures more cost-effective and quicker maintenance.

03. Bushes
Made of diamond coated silicon carbide (RSSiC), they have generous passage channels to ensure optimal circulation of liquid and solid particles. The diamond coating protects the bushes in case of poor lubrication or accidental dry running.

04. Impeller
The star configuration guarantees the centrifugation of suspended solids and allows the reduction of the axial thrusts that stress the bushes.

05. Casing
The casing is made from AISI 316 with lost wax casting process, providing excellent corrosion resistance. The threaded drainage is a standard feature.



Internal circulation of liquid and solid particles

In the fully lined or stainless steel CDR pumps of the "X" series, the circulation of the fluid loaded with solid particles is guaranteed by the large flow channels inside the pump. In this way the bushes and the isolation shell are correctly cooled.
The axial flushing hole of the impeller shaft also ensures a continuous exchange of liquid between the isolation shell and the volute.

ROTATING SHAFT
integrated inside the impeller, it boasts a total absence of welding or joints. No risk of infiltration in the case of incorrect direction of rotation.

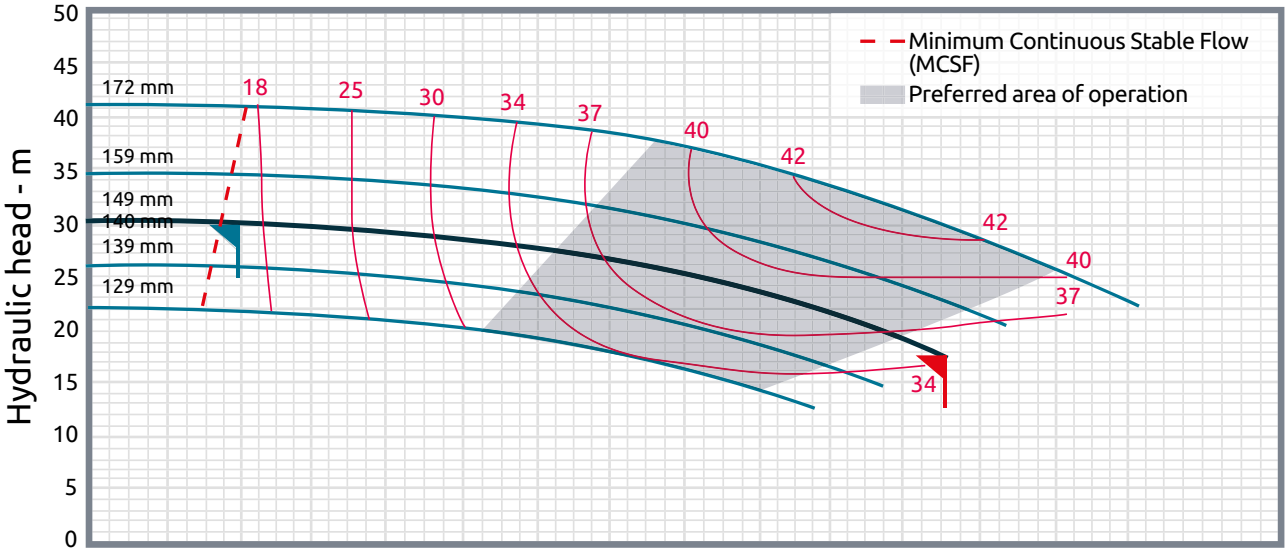
WATCH THE VIDEO OF THE "X" SERIES PUMPS FOR THE TREATMENT OF LIQUIDS WITH SUSPENDED SOLIDS.

Diamond coated SIC bushes

X Series pumps are provided with diamond coated SIC bushes kit as a standard, to prevent poor lubrication conditions, that may happen whenever solid particles concentration increases abnormally. The carbon surface coating guarantees a reduction in the friction coefficient of approximately 80% (0.04 urs of RSSiC instead of 04 - 0.7 urs of SiC).

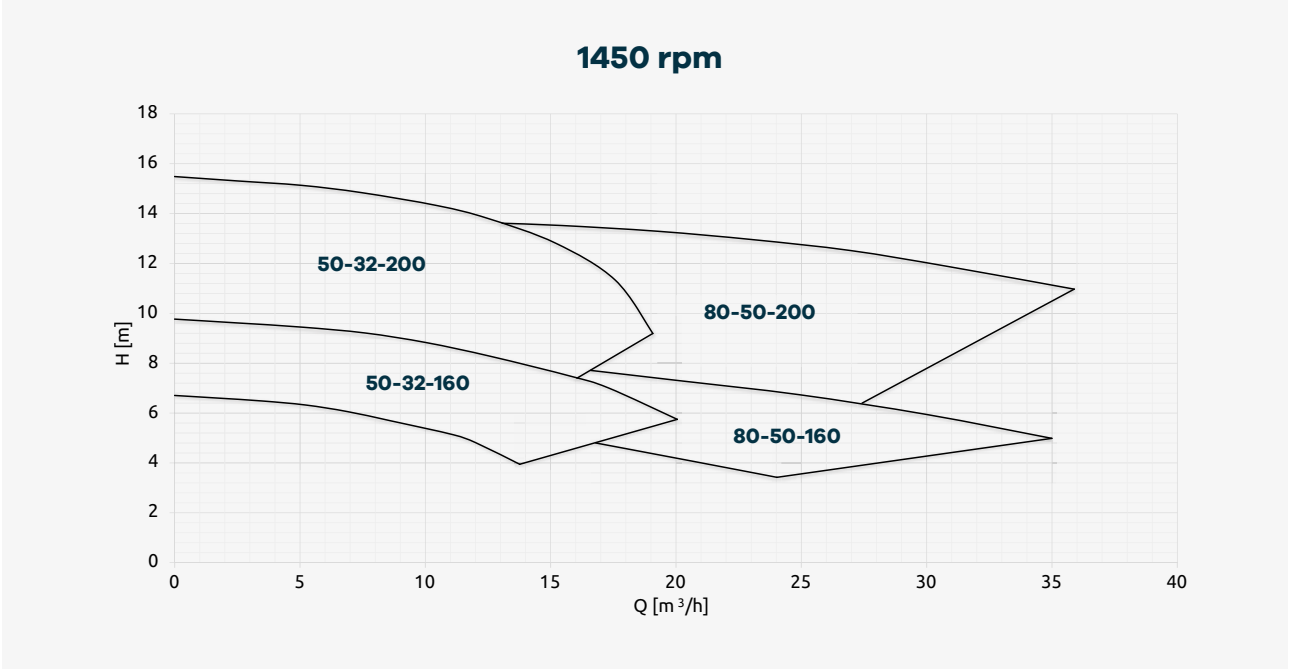
Other critical working conditions in which RSSiC increases the reliability of the pump as well as durability over time:

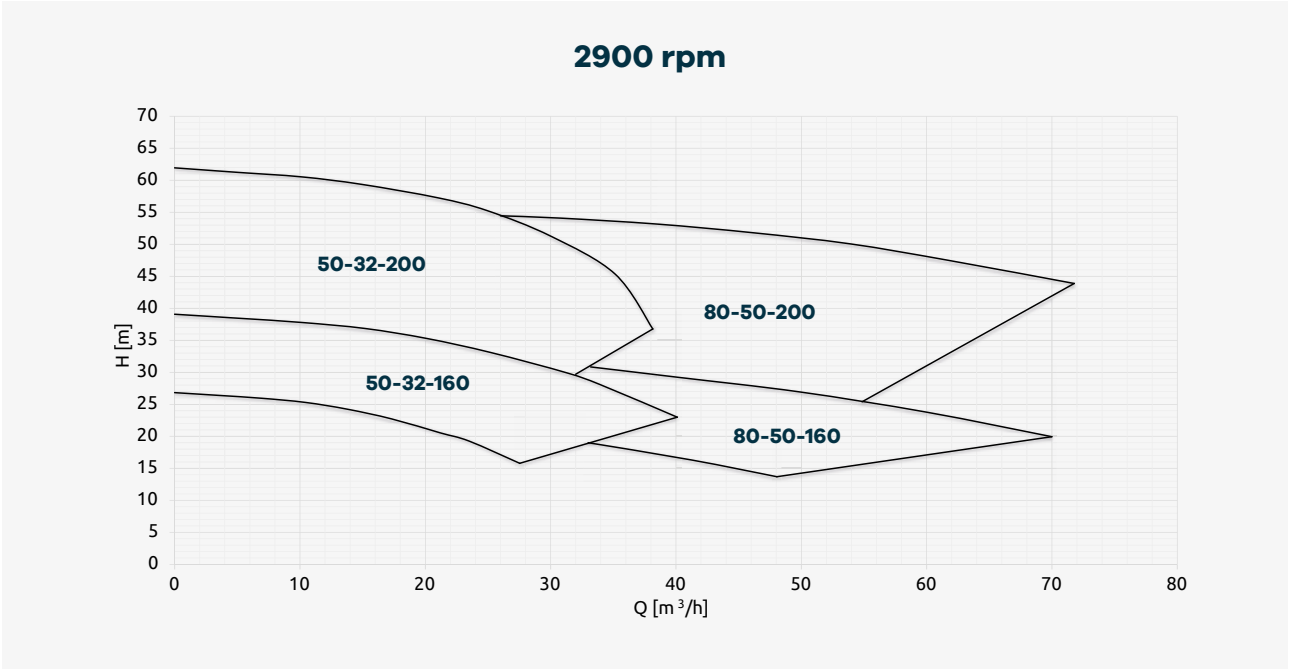
- Pumping of low-boiling liquids
- Work at low flow rates. In these conditions the heat generated by the magnetic coupling is not completely dissipated by the process fluid
- Work at high flow rates (above the BEP). In these conditions, both the risk of cavitation and the risk, of heat dissipation in the rear area of the isolation shell may arise, due to the low pressure of the delivery fluid.



Performance Curves

50 Hz

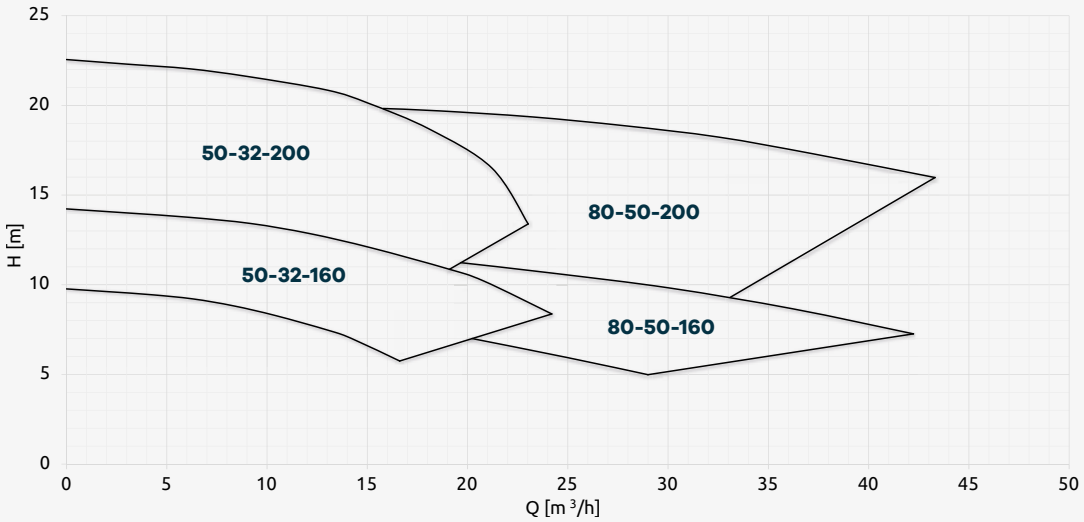




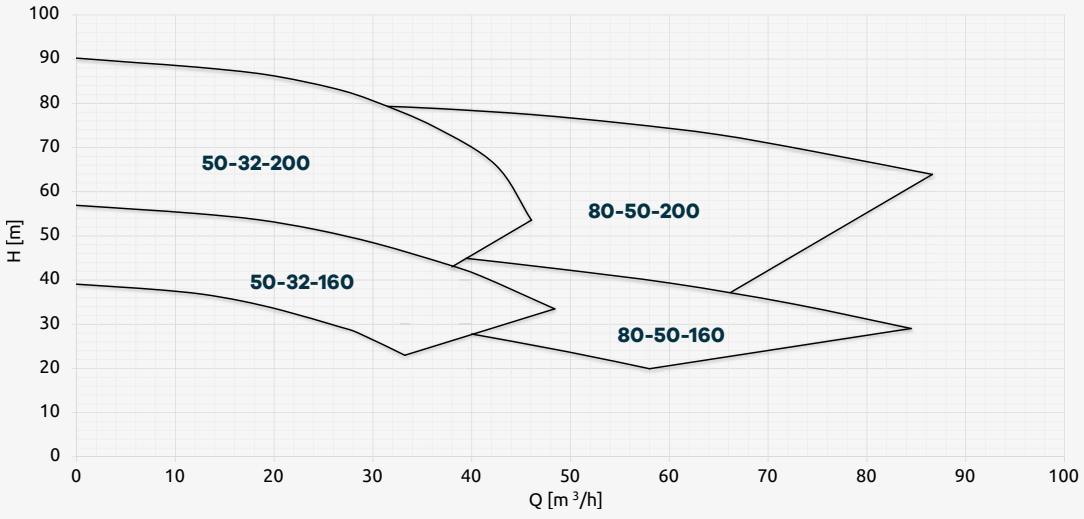
Not binding data refers to water at room temperature.
For specific performance curve contact CDR Pompe S.R.L.

60 Hz

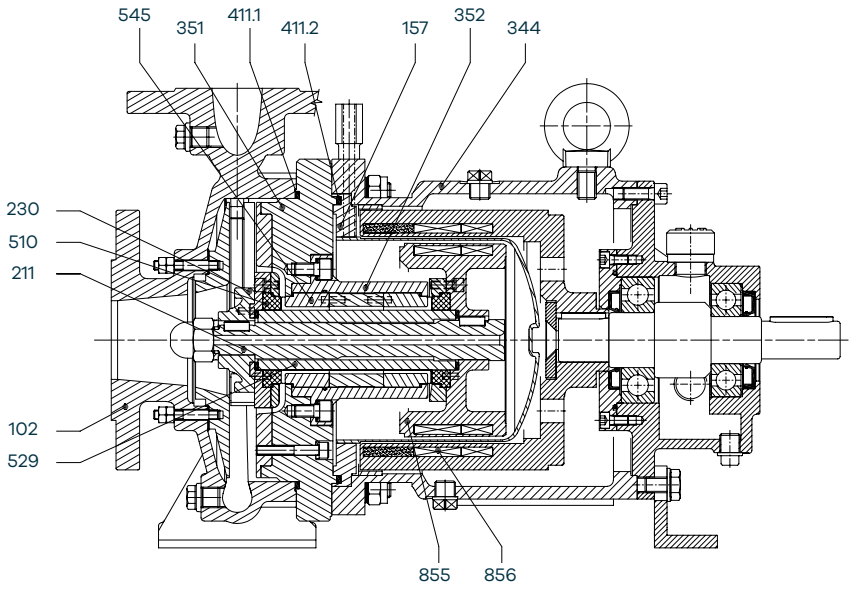
1750 rpm



3500 rpm



XTS
Section drawings



Technical specifications

Performance at 2900 rpm

Q max = 70 m³/h
H max = 61 mcl

Motors

0.75 kW (motor size 80)
18,5 kW (motor size 160)

Allowable temperatures

XTS-B: -40°C > +180°C
XTS: -40°C > +300°C

Allowable pressures

Up to 16 bars

Sizes

50-32-160 : DN50/DN32
50-32-200 : DN50/DN32
80-50-160 : DN80/DN50
80-50-200 : DN80/DN50

Flanging

UNI 1092-1 / ISO 7005-1 PN 16, type B
slotted ASME / ANSI class 150

Standard

EN 15783; EN 22858; ISO 2858

Viscosity

Consult CDR pumps

Allowable solids

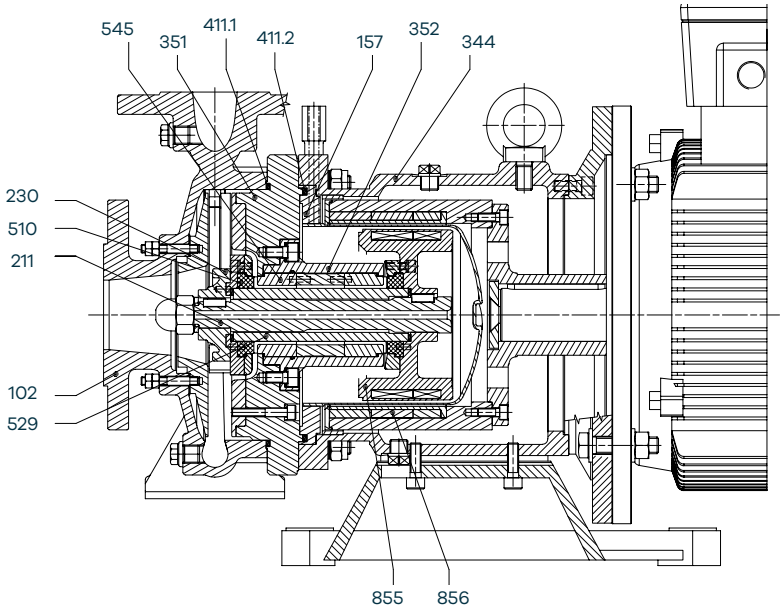
Consult CDR pumps

Internal components

DIN	Components	Materials
102	Casing	AISI 316 (1.4408-CF8M)
157	Isolation shell	Hastelloy C + AISI 316L
211	Pump shaft	AISI 316 (1.4401)
240	Impeller	AISI 316 (1.4401-CF8M)
344	Lantern	EN-GJS-400-15
351	Bushing support flange	AISI 316 (1.4401)
352	Bushing support cartridge	AISI 316 (1.4401)
411.x	O-Ring	PTFE \ Grafoil
510	Thrust bearings	Run Safe Sintered SSIC
529	Rotating bush	Run Safe Sintered SSIC
545	Static bush	Run Safe Sintered SSIC
855	Internal magnetic core	AISI 316L (1.4404) / SmCo
856	External magnetic core	EN-GJS-400-15/Ryton/NdFeB

XTS-B

Section drawings



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Allowable pressures

Up to 16 bars

Sizes

50-32-160 : DN50/DN32
50-32-200 : DN50/DN32
80-50-160 : DN80/DN50
80-50-200 : DN80/DN50

Flanging

UNI 1092-1 / ISO 7005-1 PN 16, type B
slotted ASME / ANSI class 150

Standard

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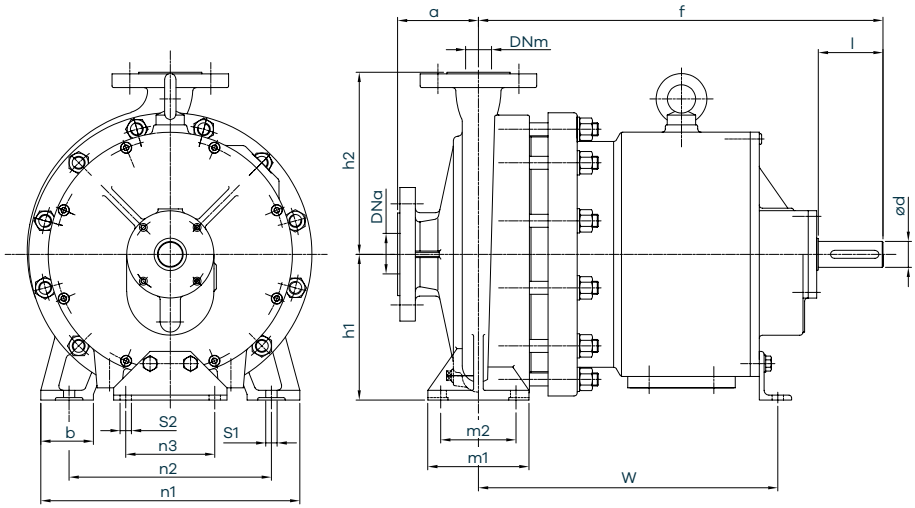
XTS
Overall dimensions

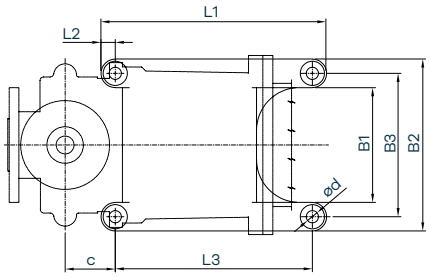


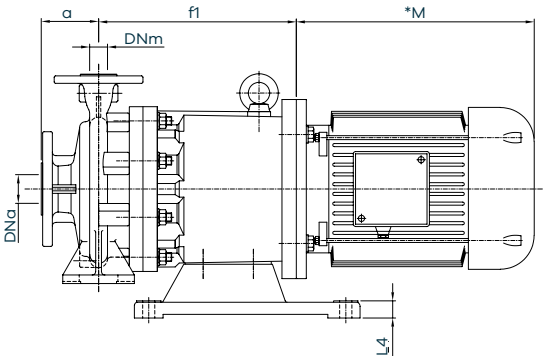
Pump dimensions

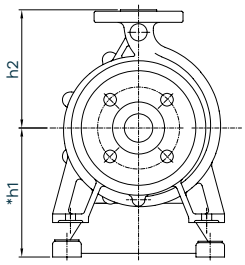
Model	XTS 50-32-160	XTS 50-32-200	XTS 80-50-160	XTS 80-50-200
DNa	**50**	**50**	**80**	**80**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
DNm	**32**	**32**	**50**	**50**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
a (mm)	80	80	100	100
b (mm)	50	50	50	50
ød (mm)	24	24	24	24
***f (mm)**	385	385	385	385
h1 (mm)	132	160	160	160
h2 (mm)	160	180	180	200
l (mm)	50	50	50	50
m1 (mm)	100	100	100	100
m2 (mm)	70	70	70	70
n1 (mm)	240	240	265	265
n2 (mm)	190	190	212	212
n3 (mm)	110	110	110	110
S1 (mm)	14	14	14	14
S2 (mm)	14	14	14	14
w (mm)	285	285	285	285
Pump weight (without motor)	55	90	60	90

*f length 385 becomes 400 with contactless oil seal

XTS-B
Overall dimensions







Pump dimensions

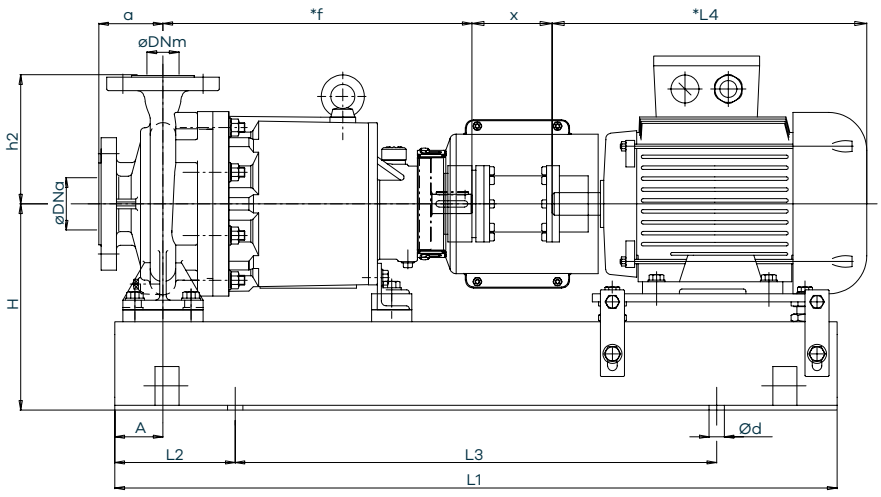
Model	XTS-B 50-32-160	XTS-B 50-32-200	XTS-B 80-50-160	XTS-B 80-50-200
DNa	**50**	**50**	**80**	**80**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
DNm	**32**	**32**	**50**	**50**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
a (mm)	80	80	100	100
B1 (mm)	140	140	140	140
B2 (mm)	240	240	240	240
B3 (mm)	200	200	200	200
c (mm)	70	70	70	70
***h1 (mm)**	180	180	180	180
h2 (mm)	160	180	180	200
L2 (mm)	20	20	20	20
Pump weight (without motor)	55	90	60	90

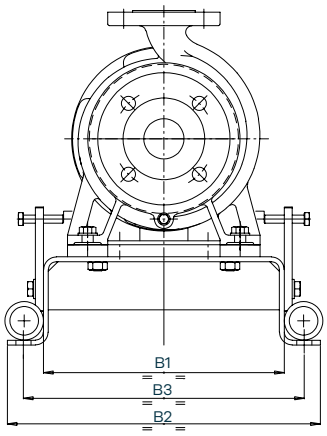
Base dimensions

Motor dimensions	Motor shape	Ød (mm)	L1 (mm)	L3 (mm)	L4 (mm)	f1 (mm)
80-90	**B14**	17	315	275	24	266
100-112	**B5**	17	315	275	24	276
132	**B5**	17	315	275	24	287
160	**B5**	17	600	560	12	330

*The M dimension depends on the motor installed
*h1: if h1 = 180, with motor size 160 it becomes h1 = 190

XTS
Overall dimensions





Pump dimensions

Model	XTS 50-32-160	XTS 50-32-200	XTS 80-50-160	XTS 80-50-200
DNa	**50**	**50**	**80**	**80**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
DNm	**32**	**32**	**50**	**50**
	UNI EN 1092-1 PN 16RF slotted ANSI 150			
a (mm)	80	80	100	100
A (mm)	60	60	60	60
***f (mm)**	385	385	385	385
h2 (mm)	160	180	180	200
x (mm)	100	100	100	100
H - motor dimensions **80 (mm)**	257	285	285	285
90 (mm)	257	285	285	285
100 (mm)	257	285	285	285
112 (mm)	257	285	285	285
132 (mm)	272	300	300	300
160 (mm)	272	300	300	300
Pump weight (without motor)	55	90	60	90

Base dimensions

Motor dimensions	B1 (mm)	B2 (mm)	B3 (mm)	ød (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Base weight (without motor)
80-90-100-112	300	390	350	M16	900	150	600	45
132	340	450	400	M20	1000	170	660	58
160	380	490	440	M20	1120	190	740	90

*The L4 dimension depends on the motor installed
*f length 385 becomes 400 with contactless oil seal

WE PUMP YOUR CHEMICALS

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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.