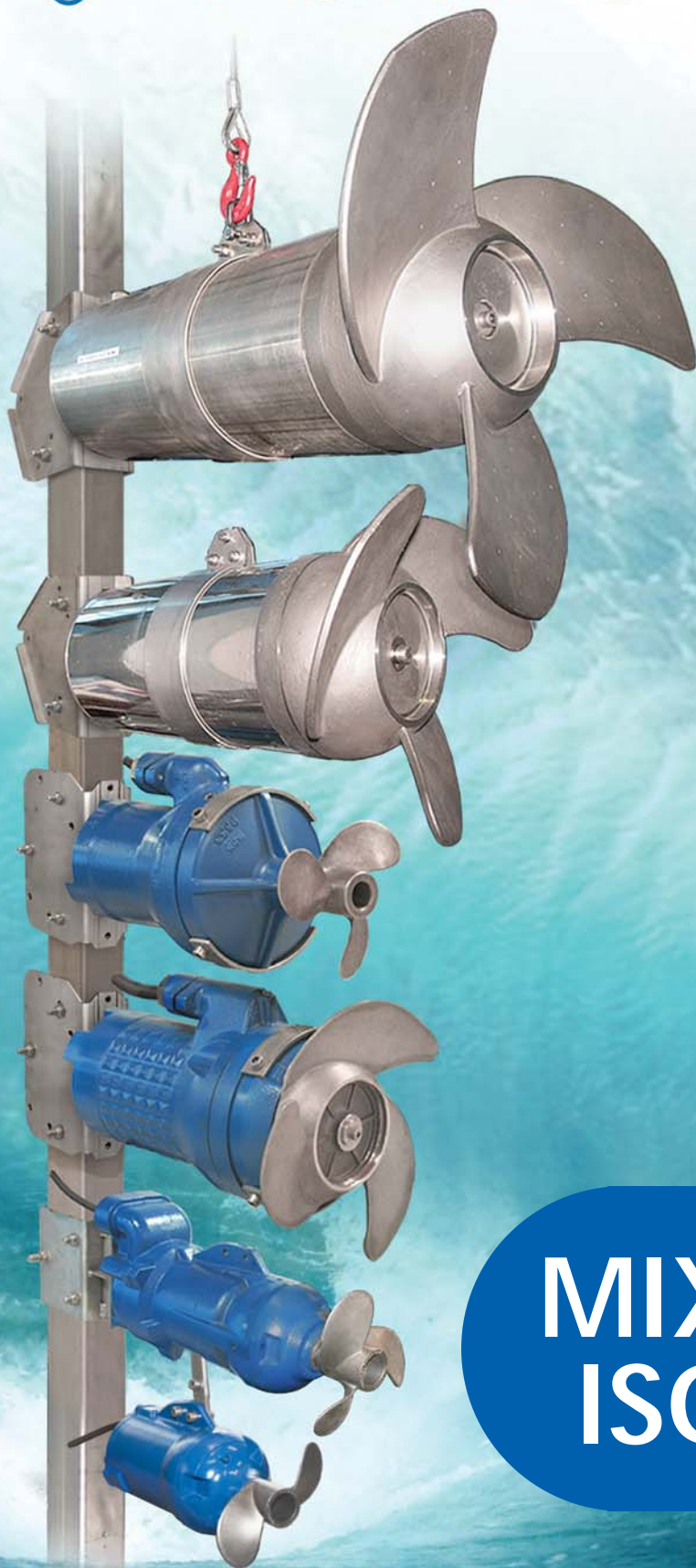


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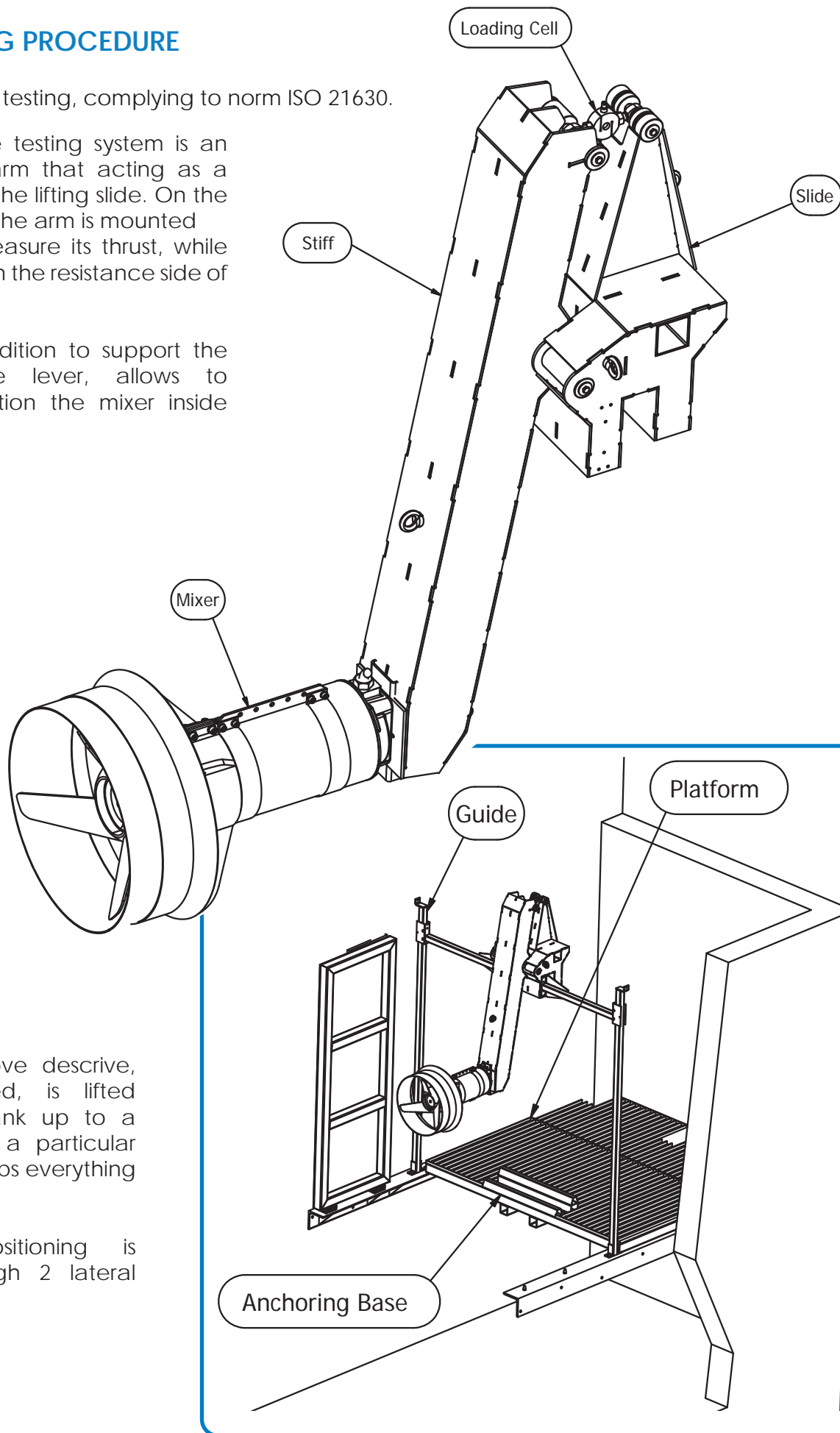
**MIXER TEST
ISO 21630**

MIXER TESTING PROCEDURE

system for mixers testing, complying to norm ISO 21630.

The core of the testing system is an extremely stiff arm that acting as a lever hinged to the lifting slide. On the pressure side of the arm is mounted the mixer to measure its thrust, while the load cell is on the resistance side of the lever.

The slide, in addition to support the journal of the lever, allows to accurately position the mixer inside the tank.

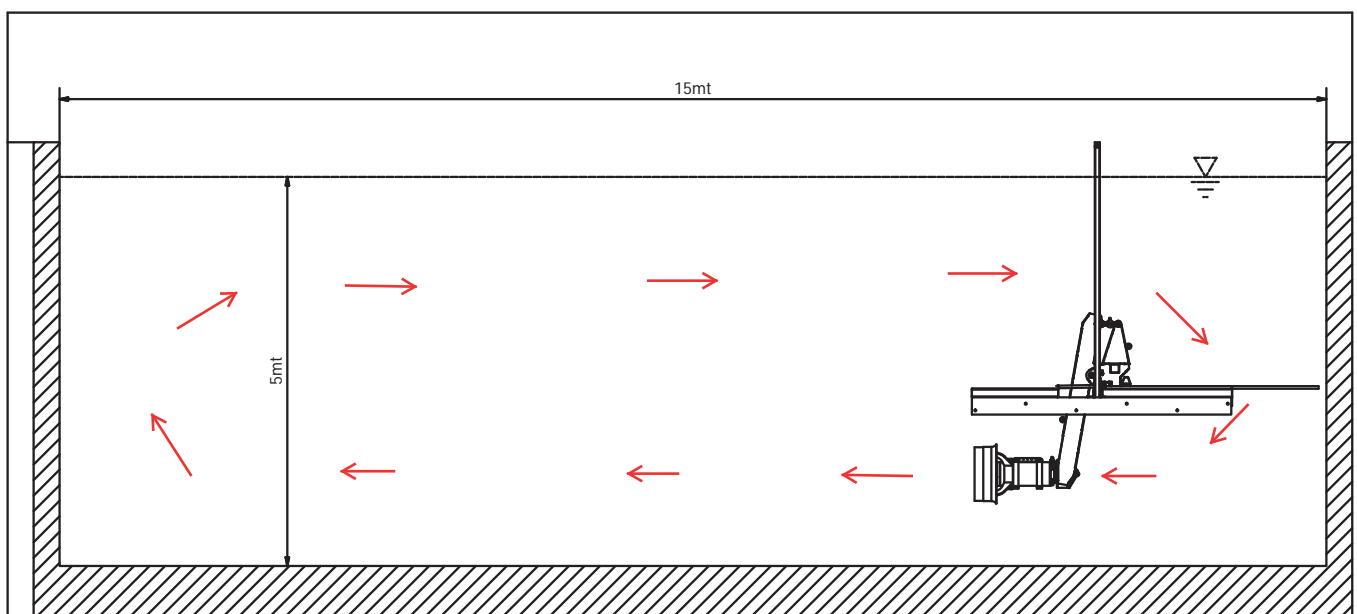
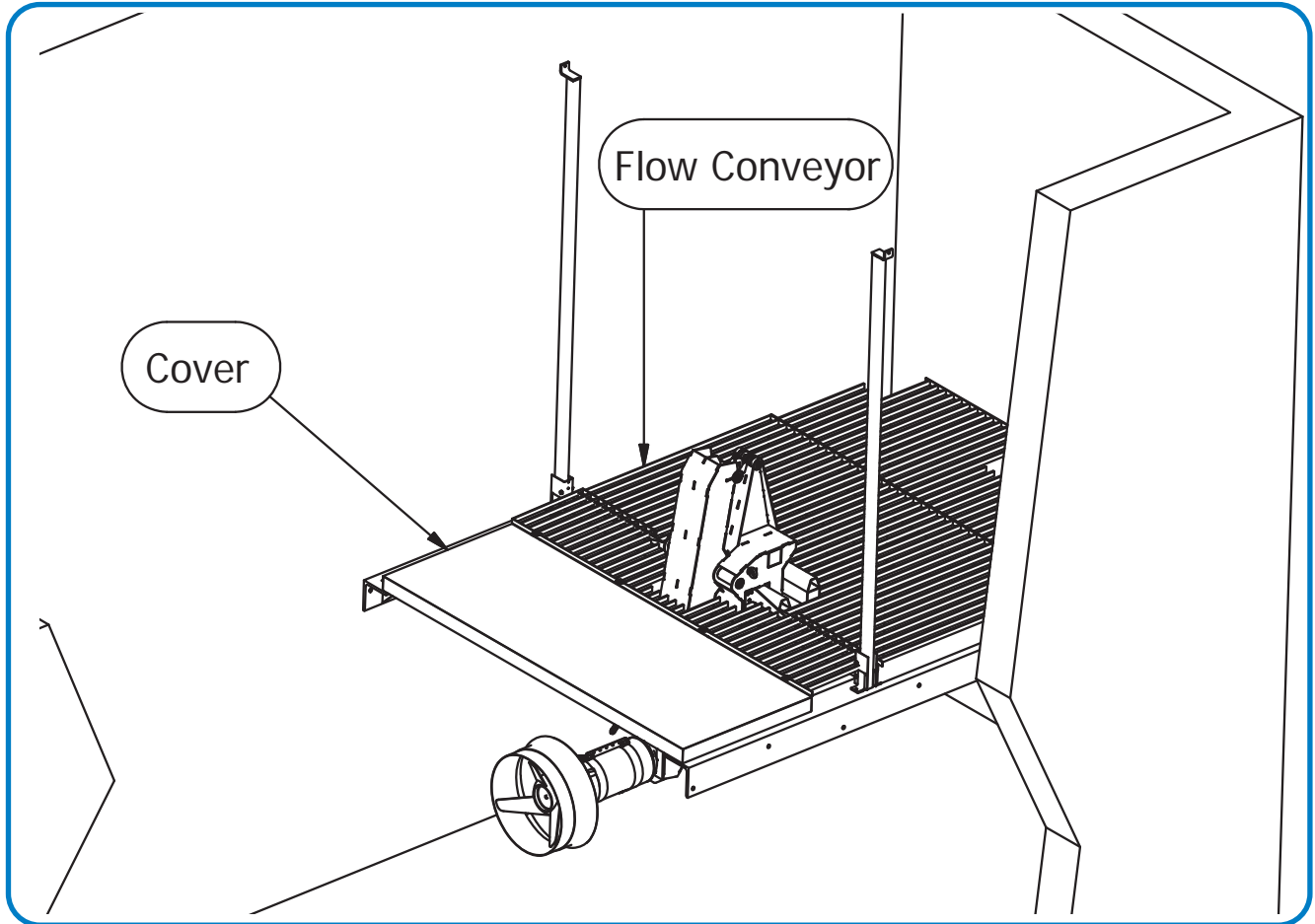


The system above describe, once assembled, is lifted down in the tank up to a platform where a particular hook system keeps everything positioned.

The right positioning is obtained through 2 lateral guides.

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The platform acts as a support and as a barrier flow conveyor which together with the cover over the mixer breaks the swirls in the tank, allowing to maintain a constant and uniform flow within the same.

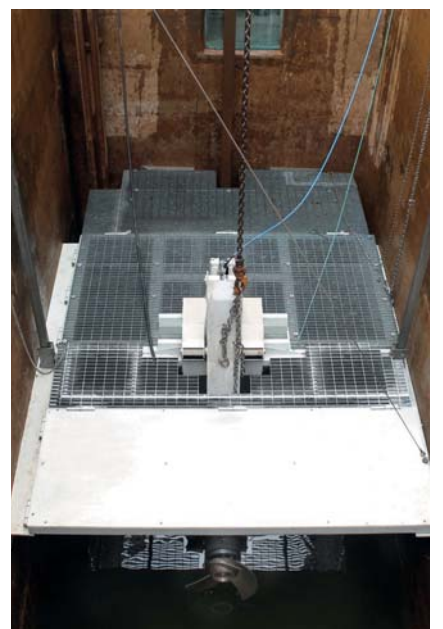
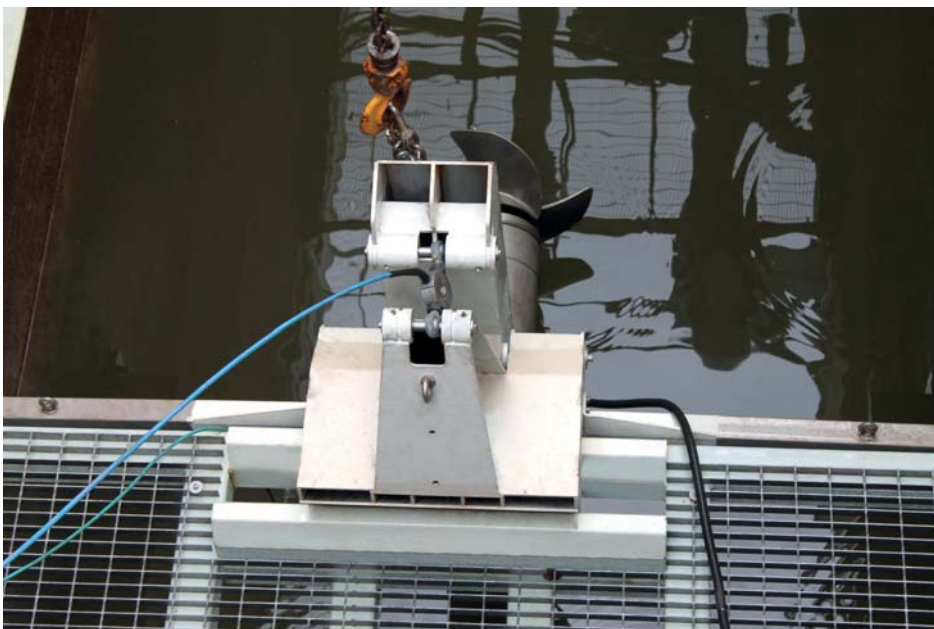


During the test all the critical values (electrical, thrust, temperature, rpm, etc.) of the mixer are monitored and recorded in real time through state-of-the-art sensors and softwares.

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Mod: STRUP10
Data – Date: 25/09/2015
Rev. – Rev. 2

Performance test of mixers

Standard: ISO 21630

Scope: test the performances of the machine, pointed out its thrust (N) and power (kW).

Procedure: the test is done in clear water. You point out the reaction thrust, the absorbed power from mains and the rotation speed.

Operative instruction following PM50 rev.0

Specification of “clean cold water” according to Table 3

Characteristics	Unità	Min.	Max.
Temperature	°C	0	40
Kinematic viscosity	m ² /s	-	1,75 x 10 ⁻⁶
Density	kg/m ³	995	1050
Non-absorbent free solid content	kg/m ³	-	2,5
Dissolved solid content	kg/m ³	-	50

The instrumentation required to perform the test are the following:

- Mains analyzer DUCATI SMART 96 PIÙ s/n 21/08-0286 expire 06/11/2016
- Load cell LAUMAS CTL s/n 200809855 expire 13/11/2017

The parameters recorded directly during the test are:

- Thrust
- Absorbed electrical current
- Absorbed electrical power
- Cosfi check

Tolerances according to Table 6

Quantity	Symbol	Negative %	Positive %
Thrust Nominal < 300 N	tF	12	-
Thrust Nominal ≥ 300 N	tF	8	-
Power Rated < 5000W	tP	-	10
Power Rated ≥ 5000W	tP	-	5
Thrust-to-Power Ratio	tR	=tF	-

MICHELE MERELLI
TECHNICAL MANAGER

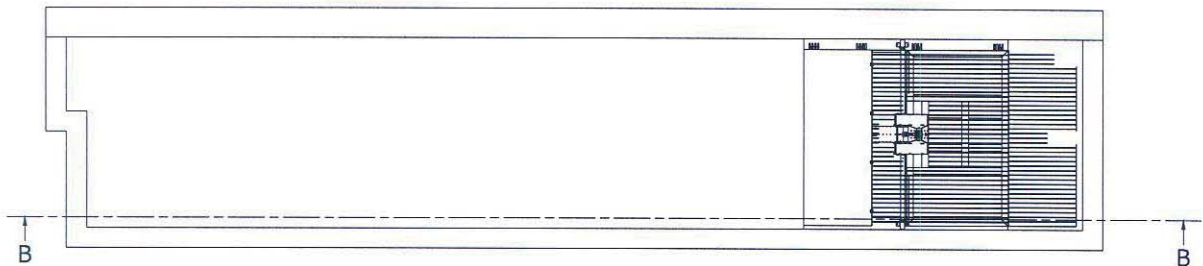


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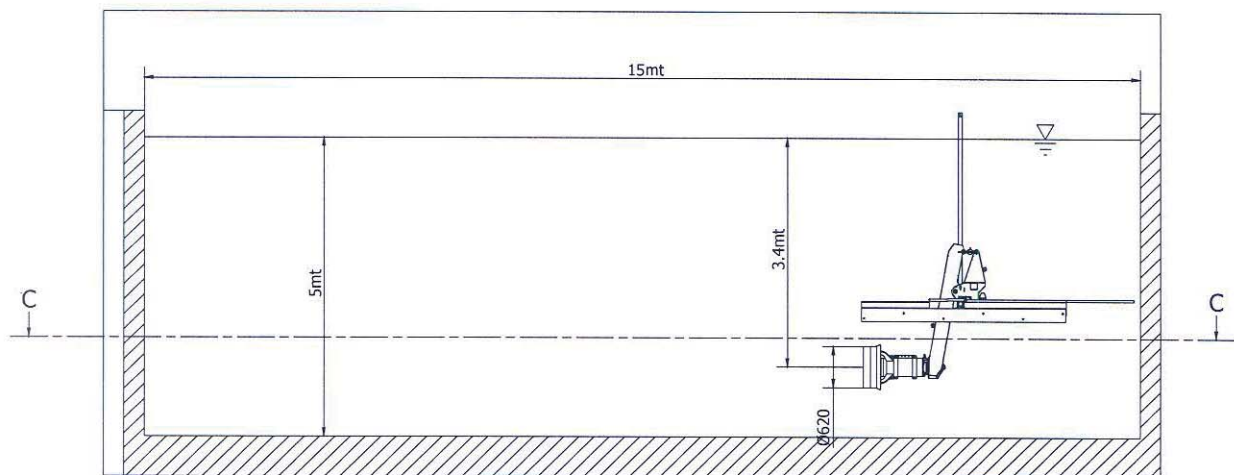


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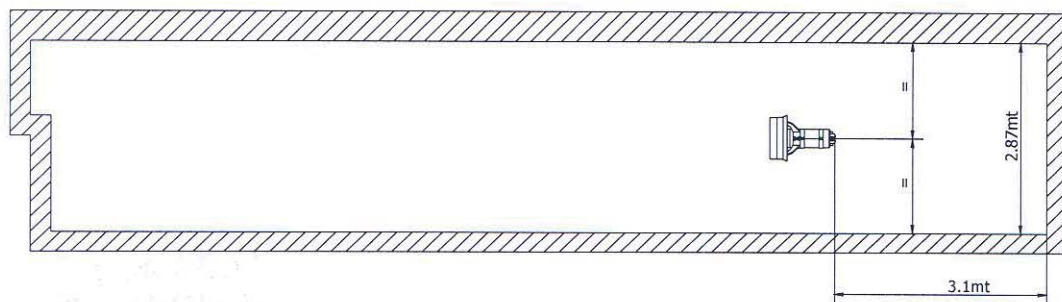
Vasca prove miscelatori sommergibili *Submersible mixer test equipment*



B-B (1 : 50)



C-C (1 : 50)



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