

SMARTFLOW

BY LAFARGE

LAFARGE DIGITAL CONCRETE SMARTSERVICES

ENABLING THE FUTURE OF CONSTRUCTION



GLOBAL LEADER IN INNOVATIVE AND
SUSTAINABLE BUILDING SOLUTIONS



OPTIMAL PUMP AND CONCRETE FOR LONG DISTANCE PUMPING

SMARTFlow by Lafarge offers you digital modelling of concrete flow during pumping, for optimal selection of your concrete pump and mix-design; to enable trouble-free pumping in projects requiring long distance horizontal and vertical pumping.

THE CHALLENGE: DETERMINING CONCRETE PUMPABILITY

Concrete pumpability is often overlooked during the design and planning stages of a project and can lead to costly defects and on site delays. Underdesigned pumps can lead to blockages or too slow pumping rates, and alternatively oversized pumps are inefficient and expensive to operate. Yet, choosing the right concrete pump and mix design can be challenging as considerations need to be made for concrete properties, performance and flowability. In order to enable the right pumping equipment selection and configuration, costly and time consuming real-size pumping mock ups are often required.

THE DIGITAL SOLUTION: SMARTFLOW BY LAFARGE

With SMARTFlow Lafarge offers a digital solution for reliable of concrete pumping, supported by unparalleled expertise in concrete technology.

Thanks to Lafarge's custom-developed tribometer and simulation software, SMARTFlow by Lafarge allows our concrete experts to characterize the flowability of concrete and compare it to an up-to-date database of concrete pumps in order to determine the optimal match. With the insights from SMARTFlow by Lafarge, the best pumping equipment is selected and you can be reassured that you have the right concrete mix and pumping equipment even on the most challenging projects, requiring concrete conveyance over long distances.



BENEFITS



IMPROVE EFFICIENCY

Optimized pump selection for highest pumping efficiency



REDUCE COSTS

Less wear and tear of pumps and pipeline and real-size pumping trials no longer necessary



REDUCE DELAYS

Less potential of delays and cost overruns due to pumping challenges



MINIMIZE RISKS

Assurance of pumpability of new concrete mix designs

TARGET APPLICATIONS



High and mid-rise buildings with long vertical pumping distances



Rail and tunneling with long horizontal pumping distances



Projects with applications of new products and materials



Any project requiring complex pumping configurations

HOW IT WORKS

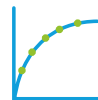
SMARTFlow by Lafarge involves the following steps:

1



Assess the concrete tribology with Lafarge's custom-developed tribometer and software

2



Simulation of concrete flowability with various mix designs, pumps and pumping configurations

3

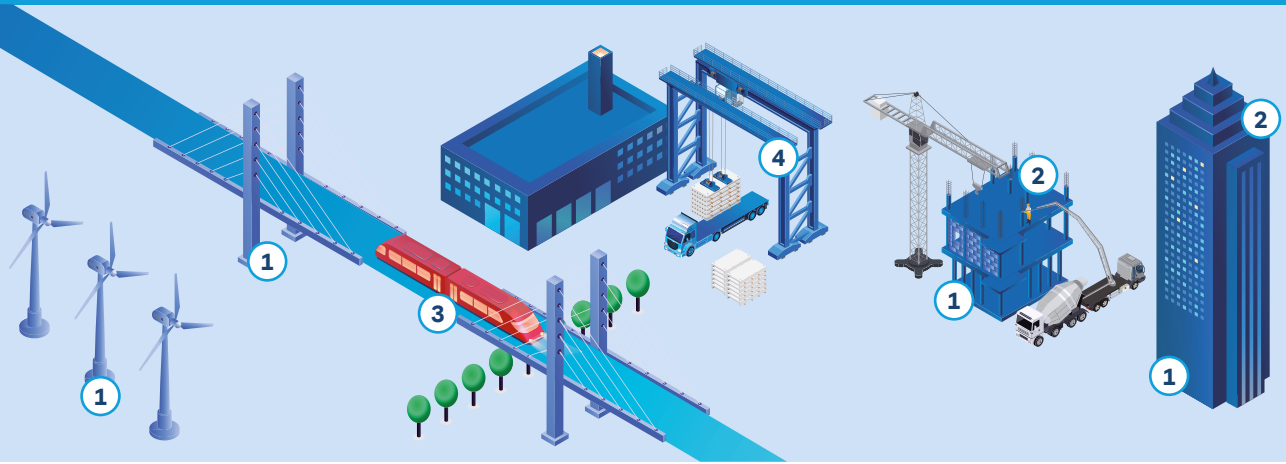


Actionable recommendation of the best concrete and pump for your project

LAFARGE DIGITAL CONCRETE SMARTSERVICES FOR YOUR CONSTRUCTION PROJECTS

With the digital concrete services, Lafarge supports you from concept to completion of your construction endeavors. Our solutions improve the construction process from the design of your concrete applications, to the off-site manufacturing of any concrete components, to the usage of concrete on the construction site. Our services benefits from Lafarge's expert knowledge from the most extensive network of concrete operations in the world, as well as the largest concrete research laboratory in the industry. We will help you complete your projects on time, cost-effectively, sustainably and to a high standard of quality.

LET US SUPPORT YOUR CONSTRUCTION PROJECT DIGITALLY!



	SMARTCast by Lafarge	SMARTFlow by Lafarge	SMARTTherm by Lafarge
1 Foundations	<p>Monitor temperatures in real time, to be alert to heat of hydration issues</p>		<p>Simulate temperature for mass pours, ensure compliance with temperature specs</p>
2 High rise columns, slabs and structural walls	<p>Monitor strength development in real time, accelerate construction</p>	<p>Choose the right pumping equipment and concrete mix design for the job</p>	
3 Large spans	<p>Monitor your casts in real time, to ensure quality, durability, accelerate construction and control your post-tensioning</p>	<p>Choose the right pumping equipment and concrete mix for pumping over long, horizontal distances</p>	
4 Pre-cast concrete manufacturing	<p>Accelerate your production process with real-time information</p>		<p>Simulate temperature for mass pours, ensure compliance with temperature specs</p>

SMARTTherm 130123

LET'S TALK ABOUT YOUR IDEAS

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