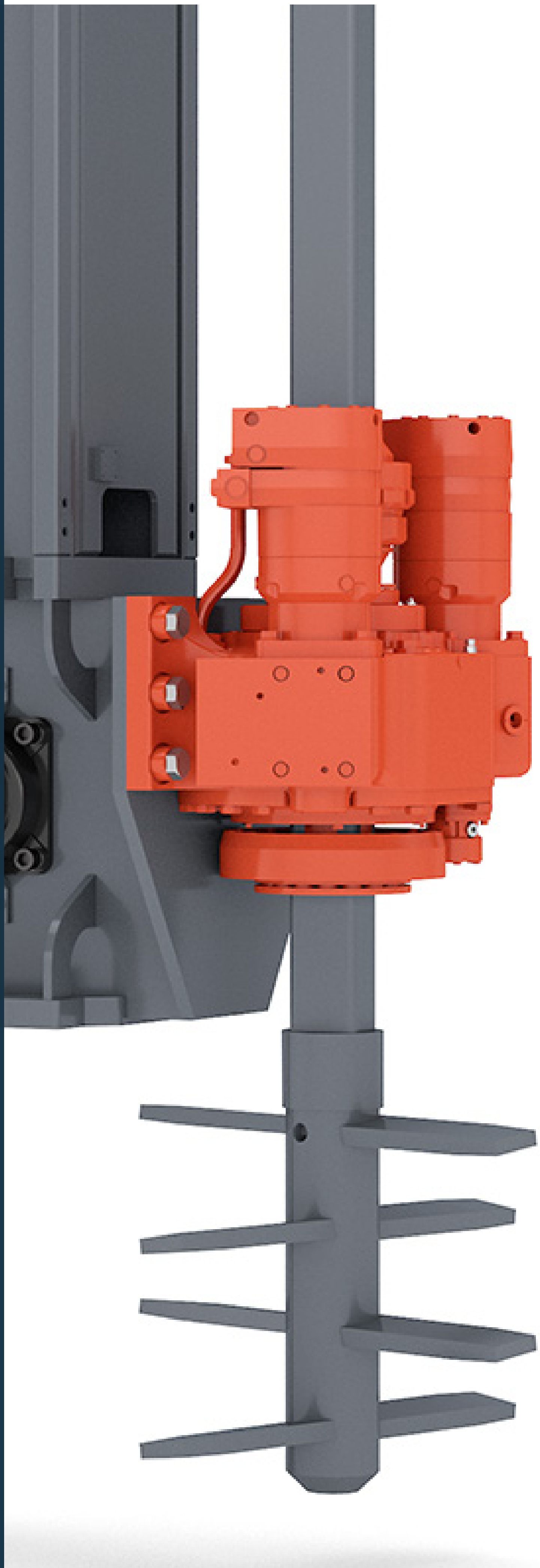
MOVAX

TECHNICAL SPECIFICATION

COLUMN STABILISATION LEADERS



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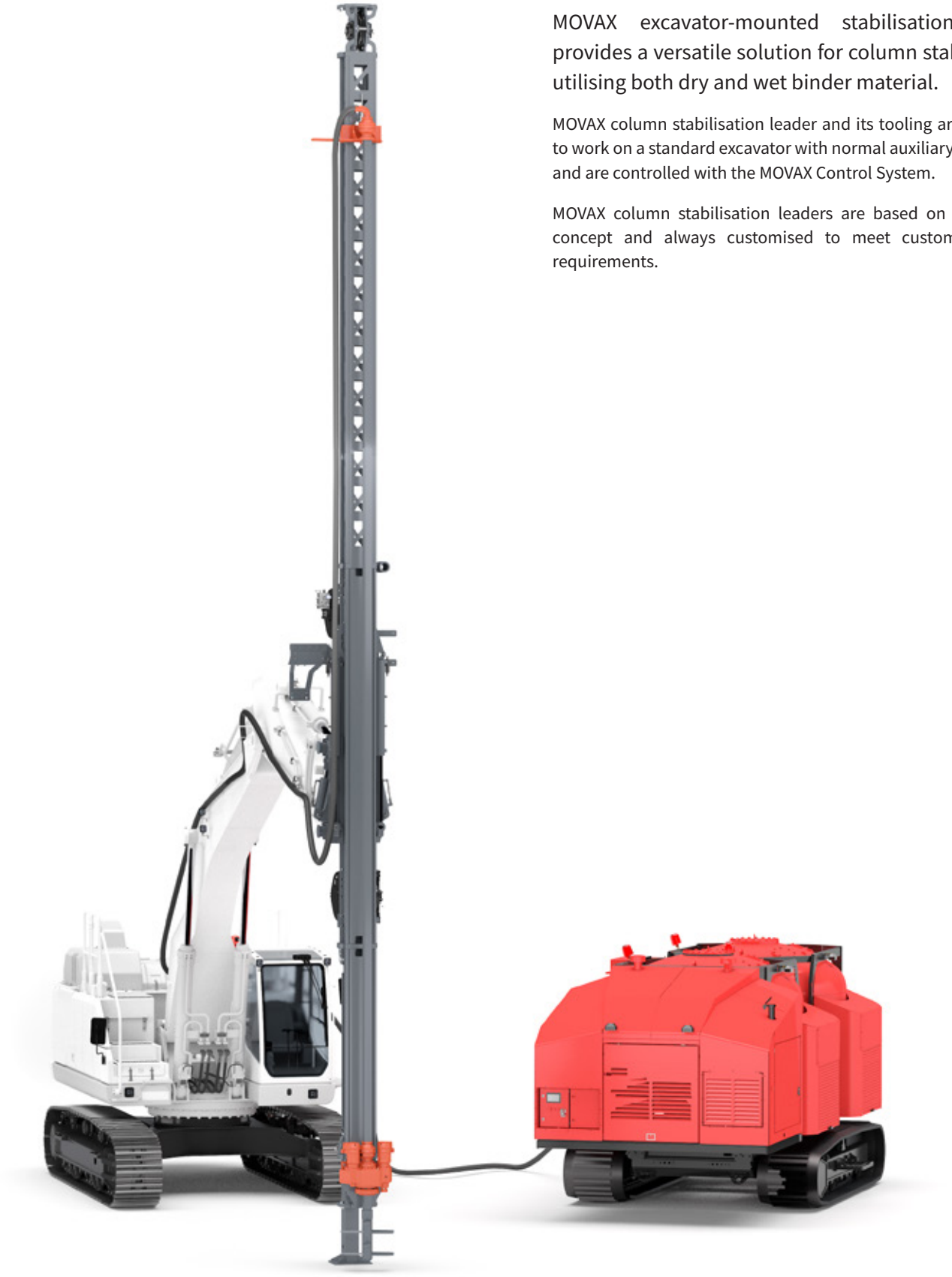


MOVAX excavator-mounted stabilisation leader provides a versatile solution for column stabilisation utilising both dry and wet binder material.

MOVAX column stabilisation leader and its tooling are designed to work on a standard excavator with normal auxiliary hydraulics and are controlled with the MOVAX Control System.

MOVAX column stabilisation leaders are based on a modular concept and always customised to meet customer-specific requirements.

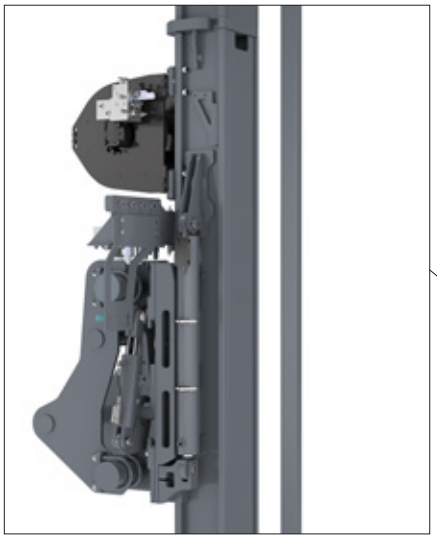
COLUMN STABILISATION LEADER

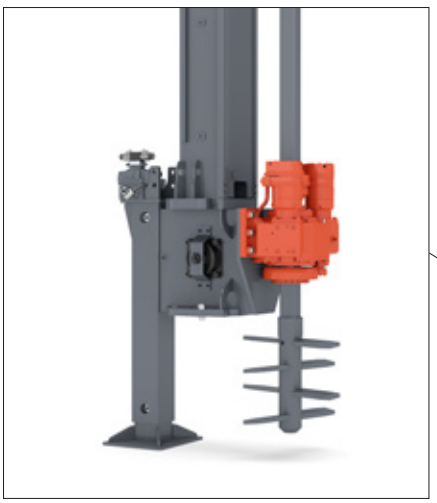
MSL-300

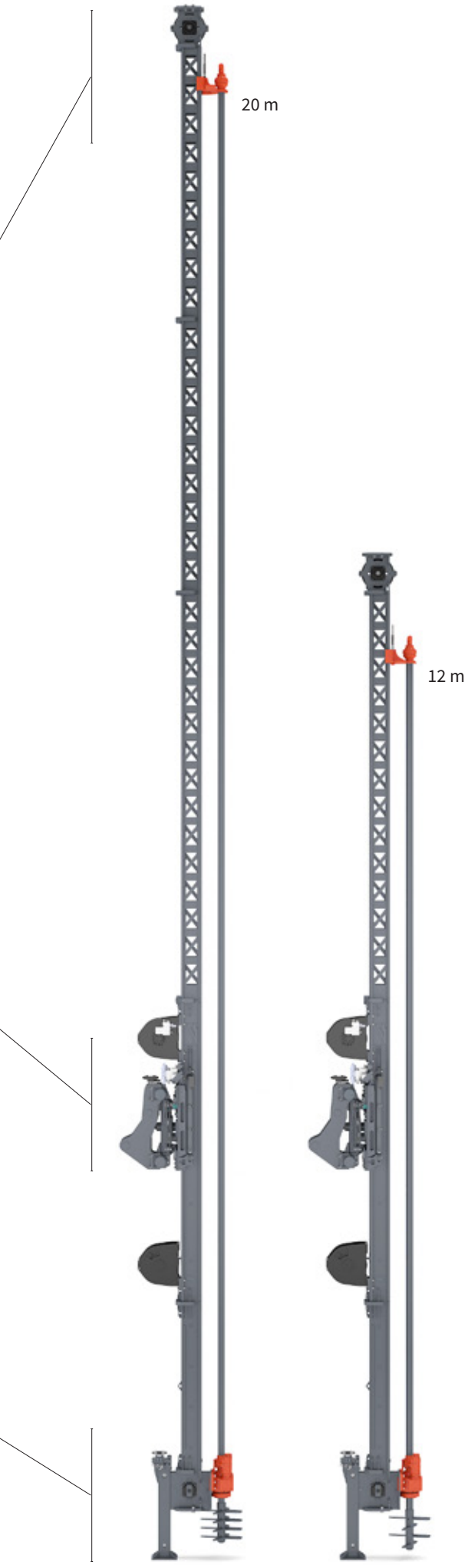
FEATURES

- Excavator mounted stabilisation leader
- The leader and its tooling are designed to work on a standard excavator with normal auxiliary hydraulics; all required hydraulics is integrated into the leader itself
- Maximum depth 20 m; due to the modular design the leader can be shortened to 12 or 16 meter effective depth
- Column diameters between Ø500–800 mm due to interchangeable mixer tip
- Mixer tip vertical movement is achieved with two hydraulic winches
- Binder feed at the top of the mixing rod to which a rotating joint for the binder hose is integrated.
- Roller mechanism on the rotary drive to apply torque and simultaneously allow feedthrough of the mixing tube
- Integrated rotary drive and telescopic bottom foot at the end of the leader
- Additional support for binder feed hoses and electric cables along the leader

NOTE! depending on carrier 22-25 m depth possible







TECHNICAL DATA

Column stabilisation leader

Model		MSL-300
Column depth	**m**	20
Column diameter	**mm**	500-800
Weight (w/o adapter)	**kg**	6500
Height	**m**	23
Tilt angle	**o**	+/- 8
Winches		
· number	**pcs**	2
· pull down/extraction force	**kN**	57/57
· speed	**m/min**	0–30

NOTE! depending on carrier 22-25 m depth possible

Rotary drive		
Torque	**kNm**	20
Rotational speed	**rpm**	180–200
Features/instrumentation		
· rotation speed		
· rotation torque		
· column depth/ascent rate		
· driving angle		

Mixer/mixer tip		
Mixer tip levels	**pcs**	4
Diameter	**mm**	500-800, nominal
Binder feed	**kg/s**	3,0
Compressed air, pressure	**bar**	10
Compressed air, flow rate	**m³/min**	6,5
Ascent rate	**mm/r**	20
Rotational velocity	**rpm**	180–200
Injection pipe		
length	**m**	21,3
inner diameter	**mm**	34
Support pipe		
length	**m**	21,3
size / wall thickness	**mm**	100 x 100 mm square/8 mm

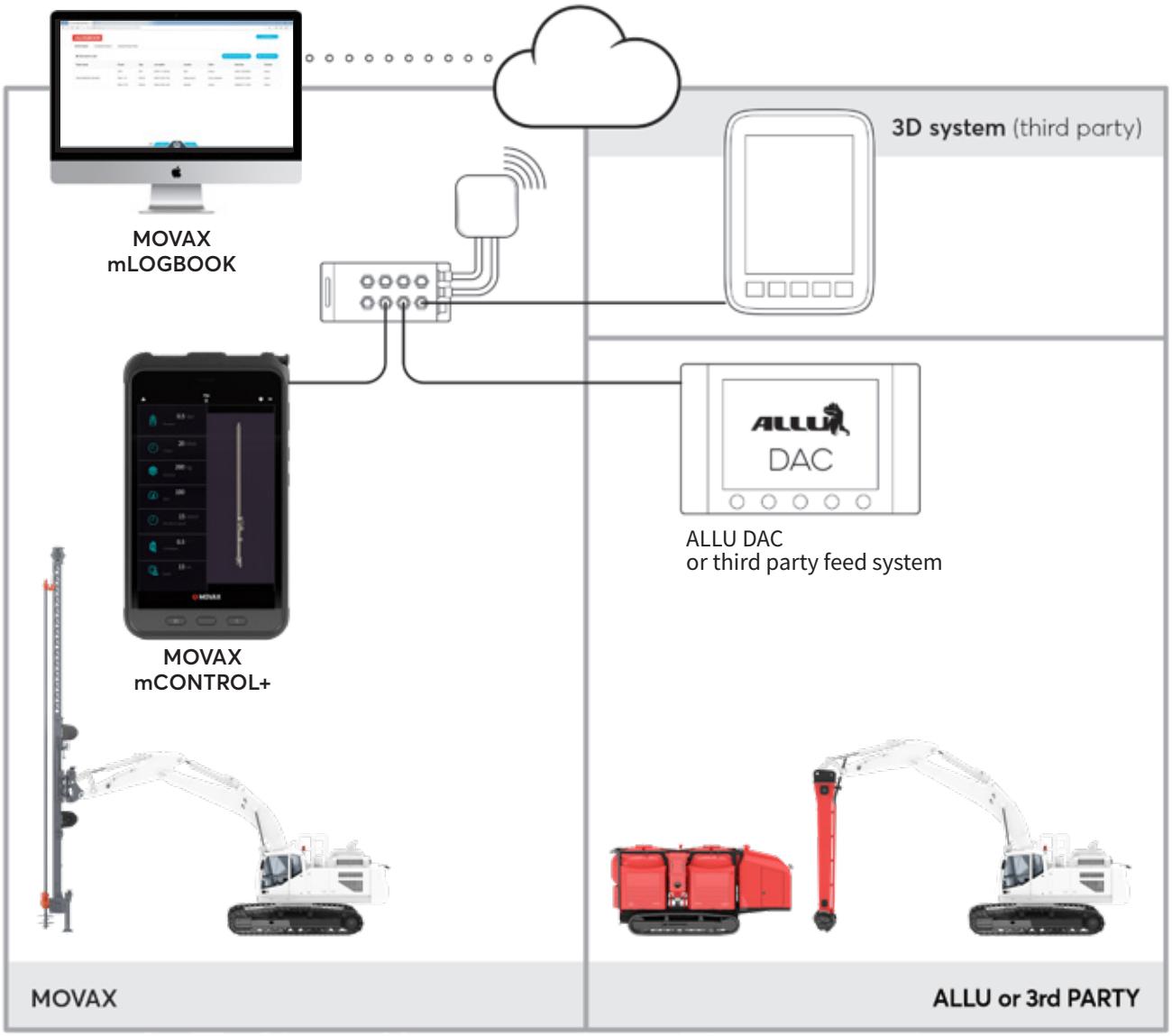
COLUMN STABILISATION LEADER

CONTROL & INFORMATION MANAGEMENT

The Column stabilisation process is controlled and the work is monitored using the MOVAX mControl+ PRO control system. The mControl+ PRO is designed to comminicate with external, third party systems such as ALLU's DAC control system and different 3D systems (the connectivity will be developed on a case-by-case basis).

The control, monitoring and reporting system consists of the following systems which communicate with each other over the CAN-bus:

- MOVAX mCONTROL+ control system
- MOVAX mLogbook reporting system
- ALLU DAC control system or third party feed system
- Third party 3D system connectivity



PLANNING

The stabilisation drawings and plans are accessed through the 3rd party 3D system. From the display the operator can see the planned location of the mass stabilisation fields or the stabilisation columns.

MONITORING

The work flow is monitored utilizing MOVAX mCONTROL+ and the 3rd Party 3D-system. The location and positioning data is monitored utilizing the 3rd Party 3D system display. The mCONTROL+ -display is utilized to monitor all other stabilisation parameters such as;

- column stabilisation; for example binder quantity per column, ascent rate and rotational speed
- mass stabilisation; for example binder quantity, feed and mixing times

The operator can view the result of the stabilisation work on the displays of the MOVAX mCONTROL+ and the 3rd Party 3D-system. The realised positioning data is shown in the 3rd Party 3D system whereas all other reported parameters can be found in the MOVAX mCONTROL+-system.

REPORTING

The mass and column stabilisation work is reported utilizing the 3rd Party 3D-system as well as MOVAX mLogbook reporting system.

The MOVAX mCONTROL+ system sends the data to a cloud-based server (mCLOUD) where all the information is stored. The user can access the information and ready made reports through a password protected web-based interface.

In addition to ready made reports the MOVAX mLogbook-reporting system also includes efficient tools for printing (pdf-format) and to transfer the data to for instance Microsoft Excel.

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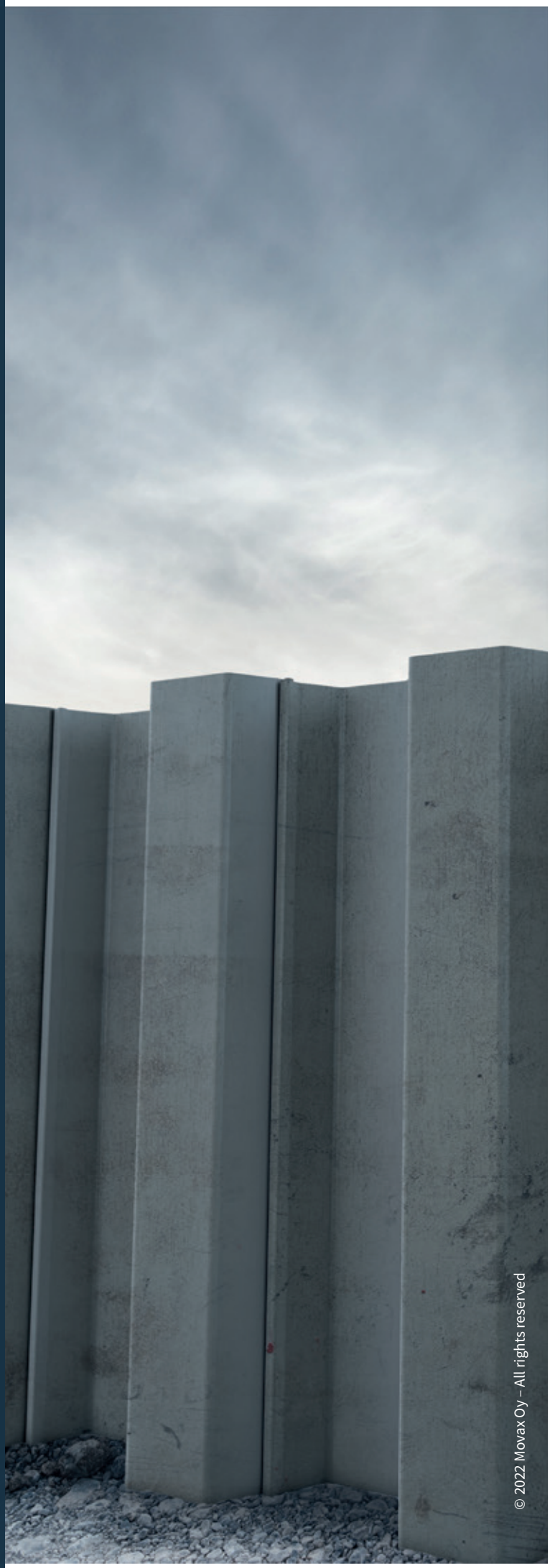
HIGHER PRODUCTIVITY - SIGNIFICANT SAVINGS

fast. efficient. versatile. accurate. safe. reliable.



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