



BAUER *CUBESYSTEM*





***Just because
it's green***

■ As the ones who have shaped the cutter technology in special foundation engineering, we think it is time to redefine industry boundaries once again by introducing our new BAUER Cube System. With this fully electric trench cutter system, that has all components strictly designed to fit into a containerised housing, we are opening up new opportunities for special foundation engineering. The compact dimensions mean this system can be used above ground as well as below the surface.

**The BAUER
Cube System –
an innovation
that breaks
boundaries**



**Just because
it's quiet**

■ The BAUER Cube System generates less dust and makes it easier to contain noise, benefiting everyone working on site and also living nearby. Being electric driven, and designed in a cubical format, handling on site is optimized and less construction vehicles are required.



**Just because
it's compact**

■ It's busy, it's crowded, it's narrow - we understand the challenges of confined construction spaces. Whether your project is for urban re-densification, or other situations like working in restricted headroom, they all can lead to a headache when looking for the right equipment. Putting all our experience to work, we designed the BAUER Cube System especially for these applications.



“*Revolutionary in a new format - the BAUER Cube System*”

GREAT THINGS CAN BE CREATED UNDERGROUND,
WHILE LIFE ON THE SURFACE GOES ABOUT ITS
USUAL BUSINESS. OR IN OTHER WORDS: THE FUTURE
IS HERE.

Our motivation to develop the BAUER Cube System was, and still is, to provide a sustainable technology which allows building where you haven't been able to build before. A system that is quiet and compact by design in order to ease transport and on-site handling, but also makes use of existing infrastructures if needed.

Unique points of the BAUER Cube System

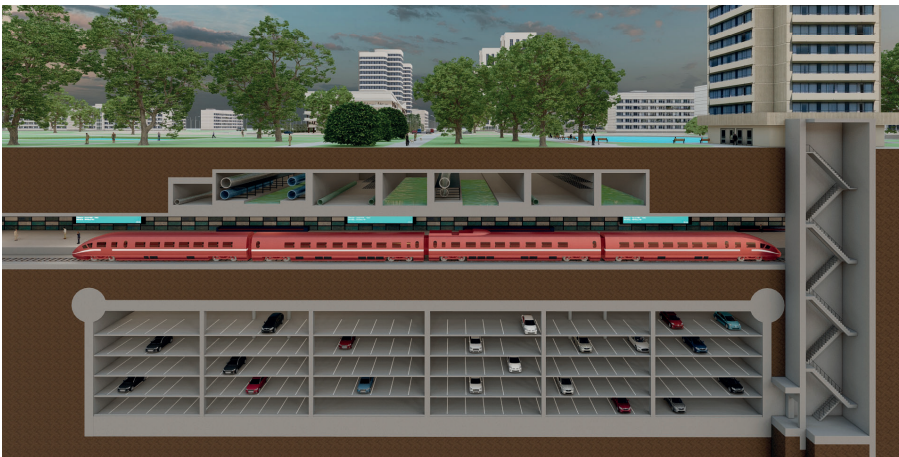
- Minimal footprint
- Suitable above and underground
- Simple construction site set-up
- Compatible with low headroom
- Minimal emissions
- Low impact on traffic and surroundings
- Versatile in application

The new options provided by the BAUER Cube System, especially when applied underground, are impressive. One application for the new technology is to create underground spaces below populated urban areas or existing infrastructure. Equally, the system can be utilized above ground taking advantage of its compact dimensions when, for example, working under bridges, in traffic tunnels or on narrow roads.

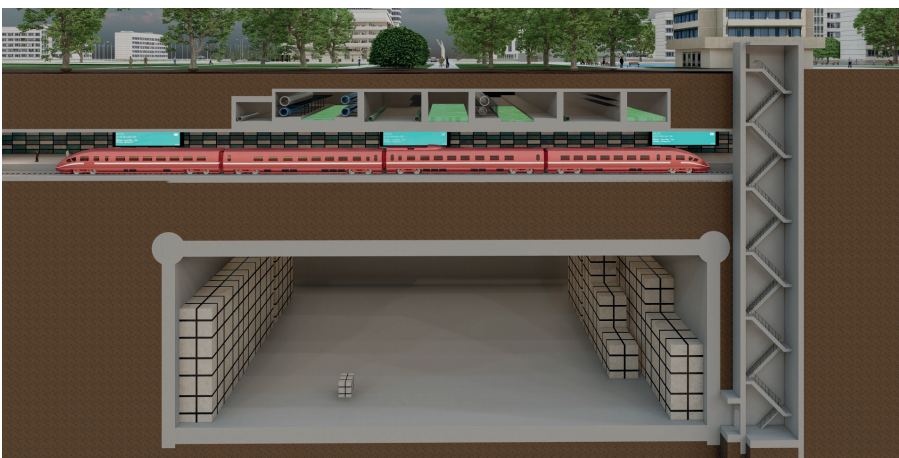
BAUER Cube System -

*Whether you want
to create space*

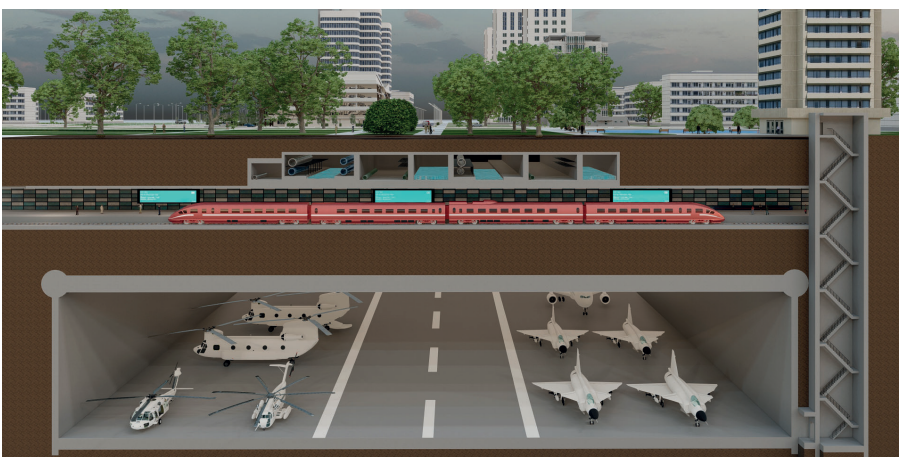
for...



■ ■ ■
underground parking areas
below existing parks, buildings,
or infrastructure.



■ ■ ■
individual space underground,
freeing up above ground areas which
can be renatured. Space below the
surface which could be used for
railway stations, underground shopping,
logistic stocks, server rooms,
battery storages and so on.



■ ■ ■
huge areas for storage or
parking lots for aircrafts or heli-
copters for example. Access
shafts allow easy entry and exit.

versatile in applications

or you want to construct diaphragm walls...



■ ■ ■
under bridges, rock overhangs, power cables, in buildings or at other sites with limited working height.



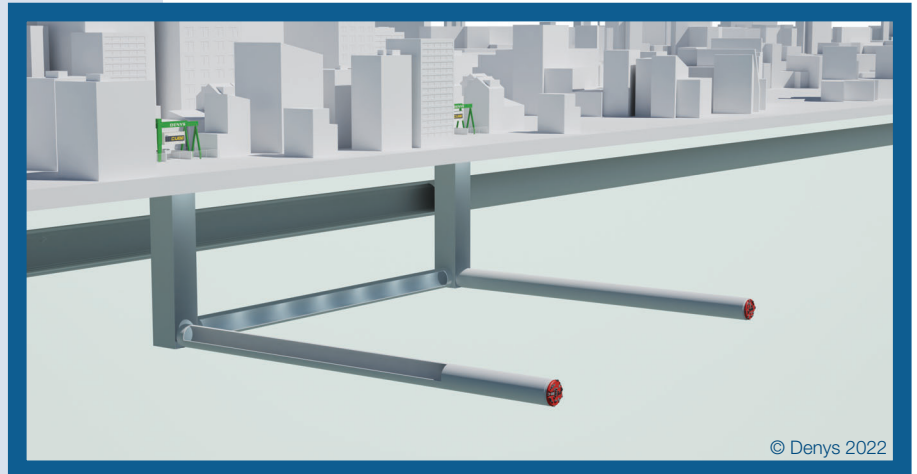
■ ■ ■
at sites with limited space or requirements to cause as little impact on traffic as possible. The modular design of the slurry handling equipment allows individual arrangements to comply with the specific needs.



■ ■ ■
to enhance or restore existing dykes, which might have limited load bearing capacity or narrow dam crests.

STEP 1

Start with two tunnels of almost independent length and bring two Cube Systems into the tunnels via the shafts.



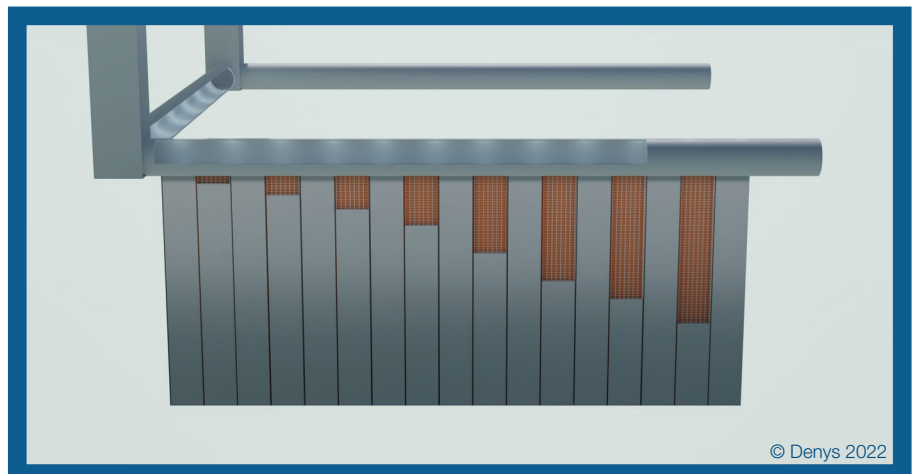
STEP 2

Cutting > reinforcement > filling with concrete – traditional diaphragm wall construction method.

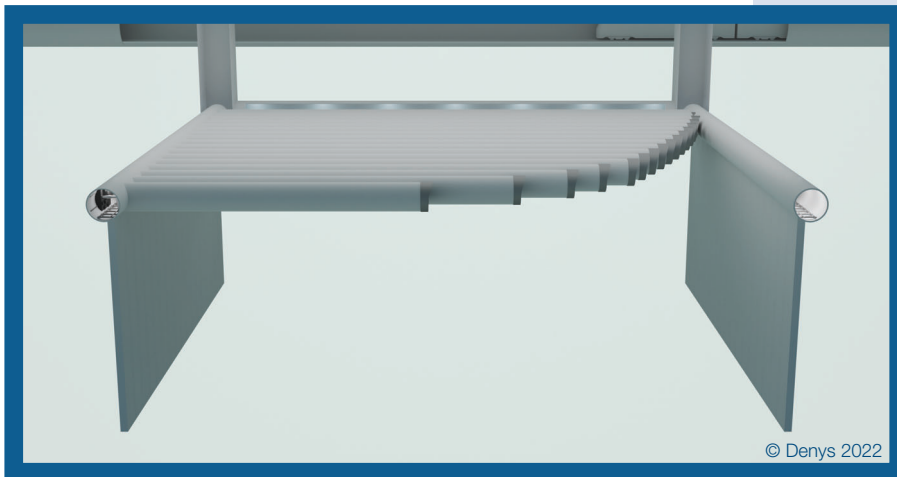


STEP 3

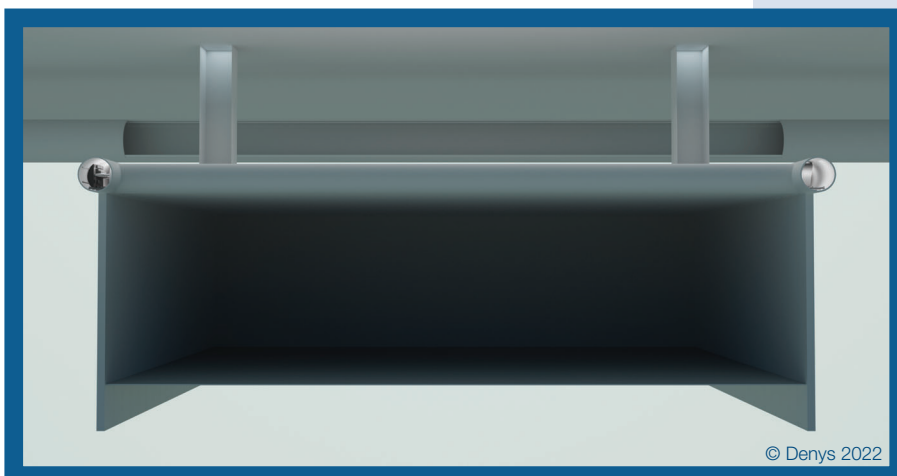
Overlap panels to have a sealed and very stable wall.



How the BAUER Cube System is applied



STEP 4
Construct the ceiling.



STEP 5
Excavate to create the space
and build the concrete floor.



Flexion 1121206 DN10 3/8" WP 330 BAR EXCEEDS EN853 25N (M2)

Flexion 1121206 DN

3/8" WP 330 BAR EXCEEDS EN853 1 (M2)

Flexion

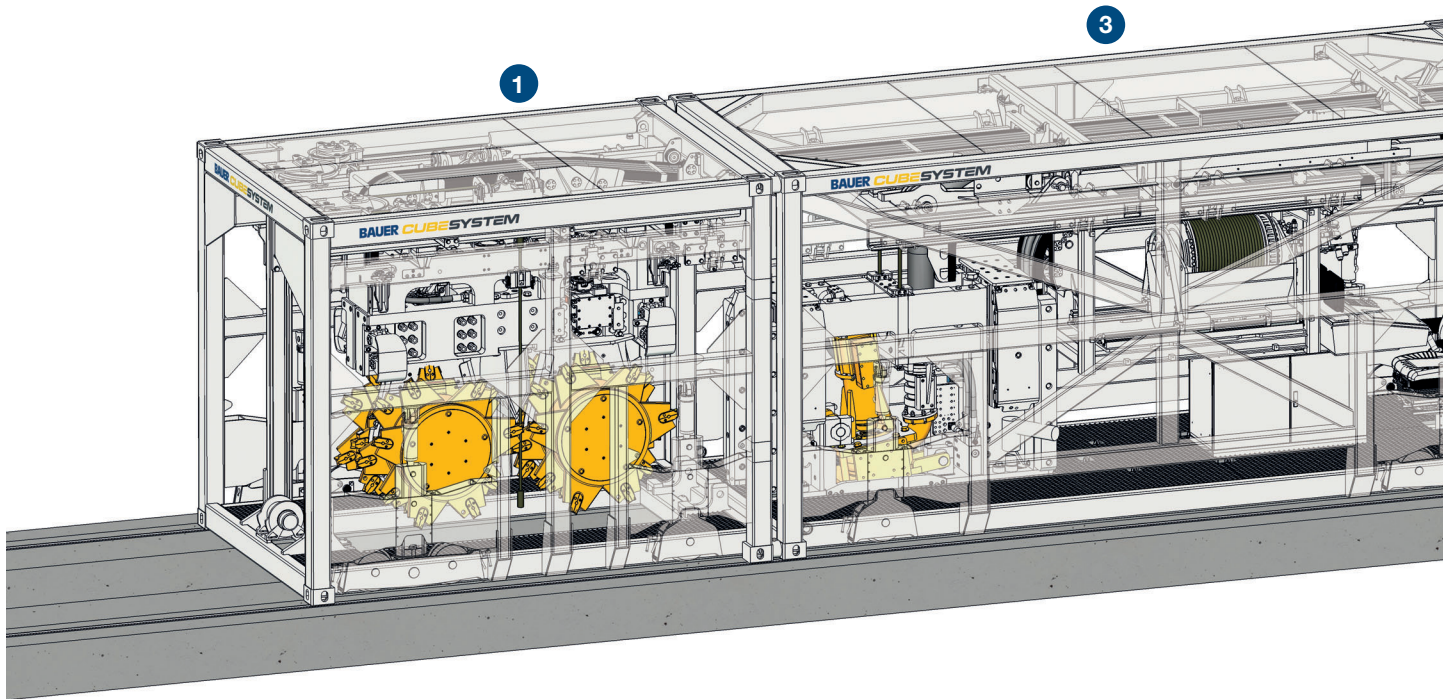
Partnership between Denys and Bauer

DENYS



■ A combined experience resulting from more than 60 years of experience in tunneling and foundations works, 37 years of experience in trench cutting and more than 350 units in operation worldwide.





Technical Data

Have a look at the technical specifications of our BAUER Cube System, which consists of six containers in total.

Cutter Cube

Complete trench cutter system consisting of three 20 ft containers:

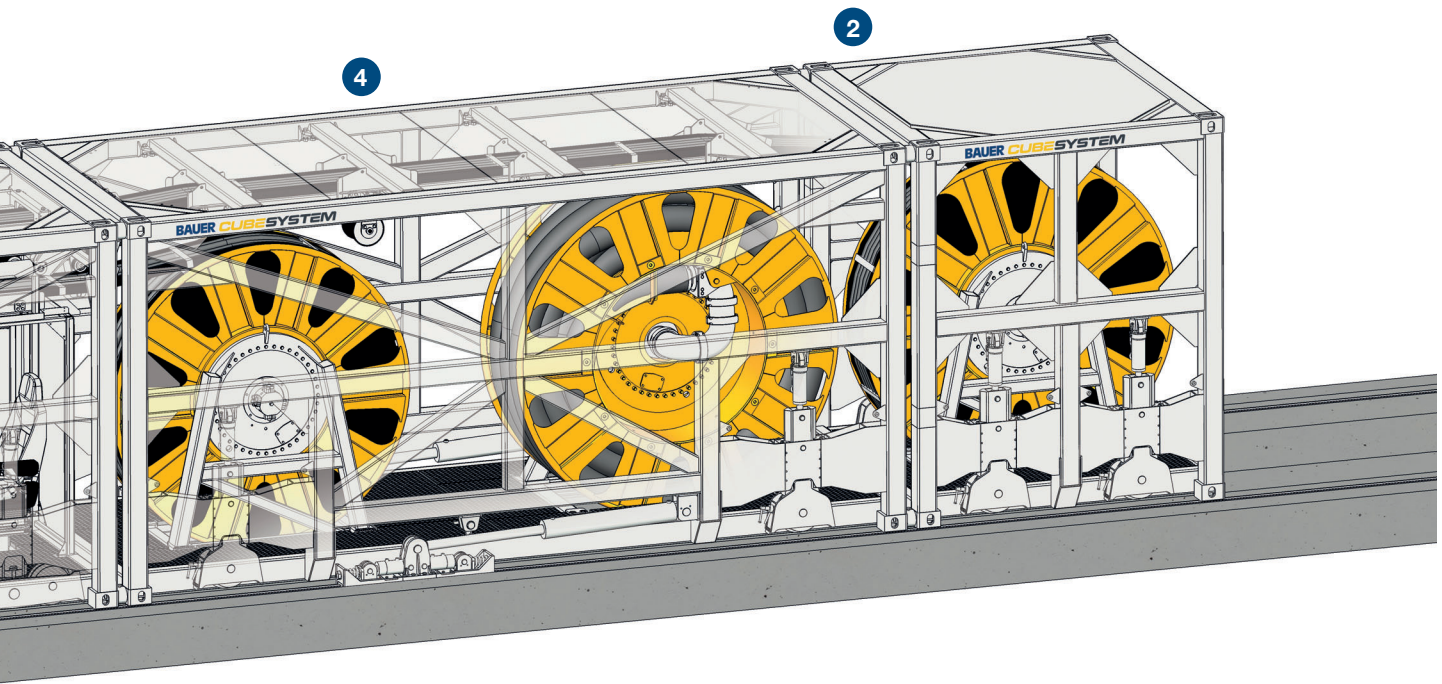
- Milling Cube (separated for setup)
 - Cutting unit with cutter wheels and gearboxes **1** + **2**
 - Hydraulic hose drum for cutting unit
- Pump Cube
 - Pumping unit
 - Cutter main winch **3**
 - Operators seat with B-Tronic screens
- HDS Cube
 - Mud hose drum **4**
 - Hydraulic hose drum for pumping unit

Other

- Retracting winch for installation of hydraulic hose bundle and mud hose
- CE certification
- Self moving on rails with cylinders

Optional

- CSC certification containers
- Modification kit for reducing pre-excavation depth from 2.5 m to 1.5 m
- Reinforcement and Concreting Cube for installation of reinforcement and concreting (as per data sheet)



Technical Specification

Weights and Dimensions

Transport dimensions, L x W x H	6060 x 2440 x 2900 mm
Milling Cube weight	22 t
Pumping Cube weight	19 t
HDS Cube weight	12 t
Dimensions of complete plant, L x W x H	18330 x 2440 x 2900 mm
Weight of complete plant	56 t

Power Requirements

Power input	approx. 1000 kVA
Supply voltage	690 V
Frequency	50 Hz

Trench Cutter

Height	3600 mm
Panel length	2400 mm
Panel width	640–1000 mm
Max. trench cutter weight	13.1–14.8 t
Max. cutting depth	40 m
Max. hook load	20 t
Max. winch speed	9 m/min

Mud pump

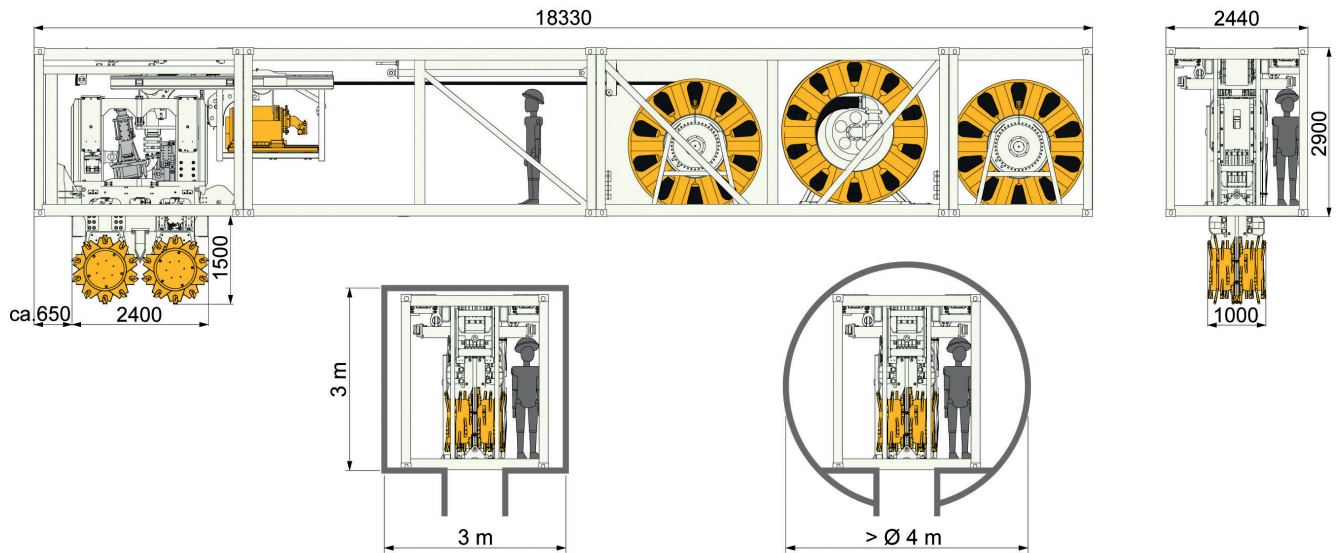
Mud hose diameter	127 mm/5 in
Delivery rate	200–300 m ³ /h

Cutter Gear Box 2x BCF 5

Max. torque	2 x 46 kNm
Speed of rotation	0–30 rpm

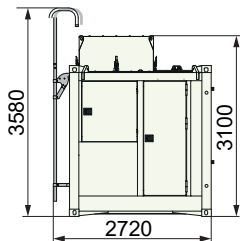
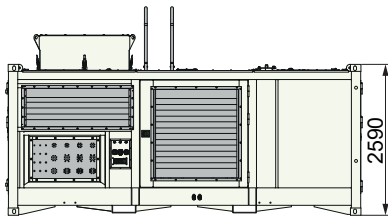
Other

Max. inclination of working platform	3°
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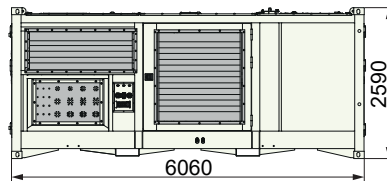
Power Cube - HE 1400 C

In Operation



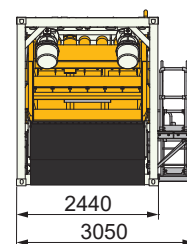
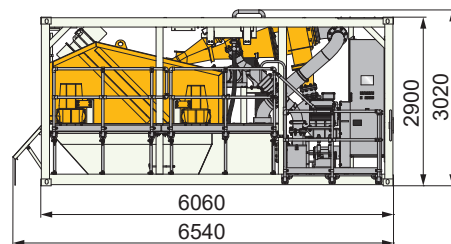
For Transportation

Power output	550 kW at 1500 rpm
Weight	16.5 t
Sound power level	105 (102+3) dB(A)
Hydraulic flow rate	3 x 345 l/min + 1 x 325 l/min + 2 x 125 l/min
CE	certified



Separator Cube - BE 300 C

Max. capacity	300 m ³ /h
Cut point d50	30 µm
Weight	12.0 t
CSC	optional
CE	certified



Concreting Cube

Container for installation of reinforcement and concreting with tremie method:

- Mechanism for holding and lowering reinforcement cages
- Rack with tremie pipes

Technical Specification

Weights and Dimensions

Dimensions L x W x H	6060 x 2440 x 2900 mm
Weight	8.9 t

Power Requirements

Power input	25,6 kVA
Supply voltage	400 V
Frequency	50 Hz

General

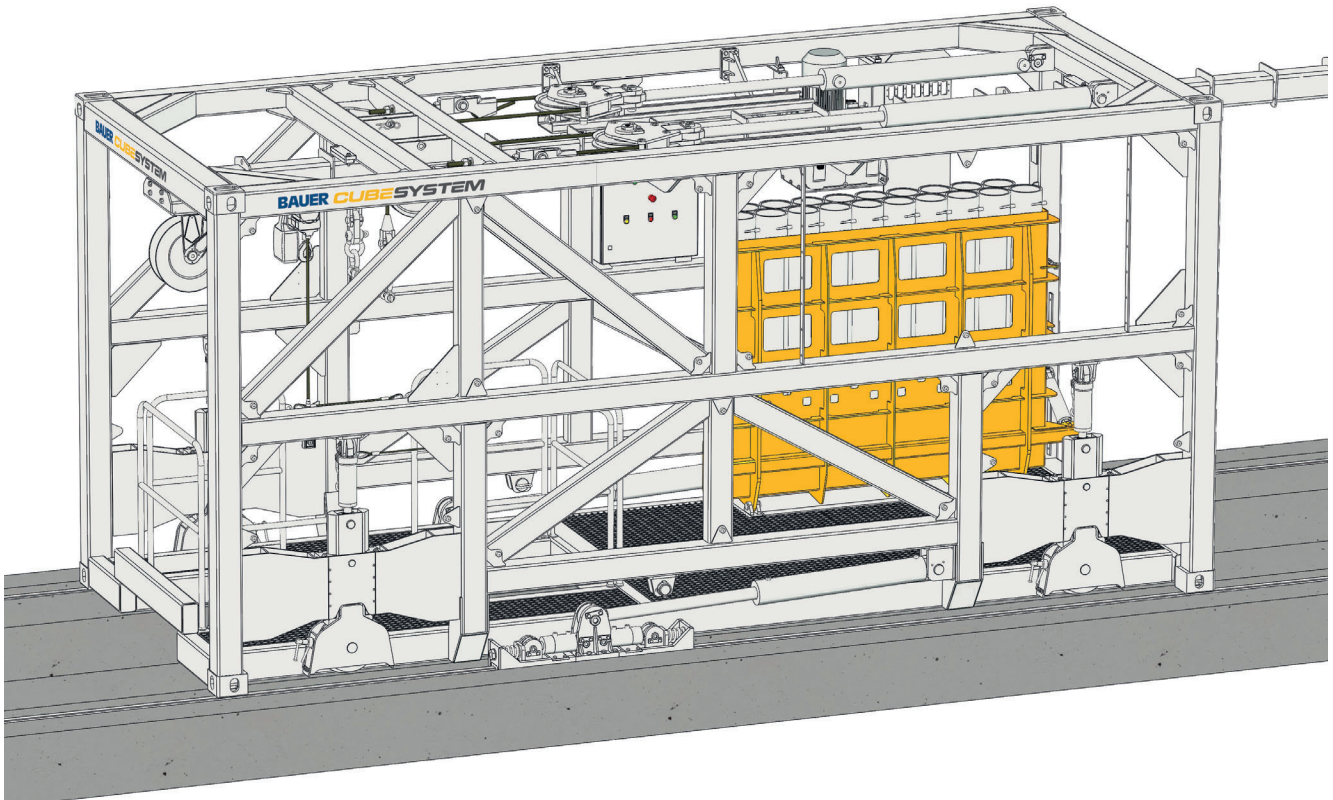
Max. height of reinforcement cage	1860 mm
Capacity of tremie pipe rack	19 St/pcs
Length of tremie pipes	1500 mm
Max. lifting capacity of main winch	15 t
Max. lifting capacity of auxiliary winch	1 t

Other

- CE certification
- Self moving on rails with cylinders

Optional

- CSC certification containers





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