BAUER CUBESYSTEM

As the ones who have shaped the cutter technology in special foundation engineering, we are always ready to redefine industry boundaries. With our electric or diesel powered trench cutter system, that has all components strictly designed to fit into a containerised housing, we are creating opportunities for special foundation engineering. The compact dimensions mean this system can be used above ground as well as below the surface. 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 400 units in operation worldwide.

The BAUER Cube System – a cutter technology that breaks boundaries

The BAUER Cube System offers maximum flexibility with the choice between a diesel powered or an electrified power pack. This allows the cutter system to be perfectly adapted to the specific requirements of each jobsite. At the same time, the appropriate drive option makes it easier to comply with applicable regulations.

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.

BAUER Cube System –

Whether you want to build underground ...

Unique points of the BAUER Cube System

- Minimal footprint
- Suitable above and underground
- Simple construction site set-up
- Compatible with low headroom
- Minimal emissions (with usage of HE 1400)
- Low impact on traffic and surroundings
- Versatile in application

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. The 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. For example, parking areas, logistic stocks, storages, and so on.

versatile in applications

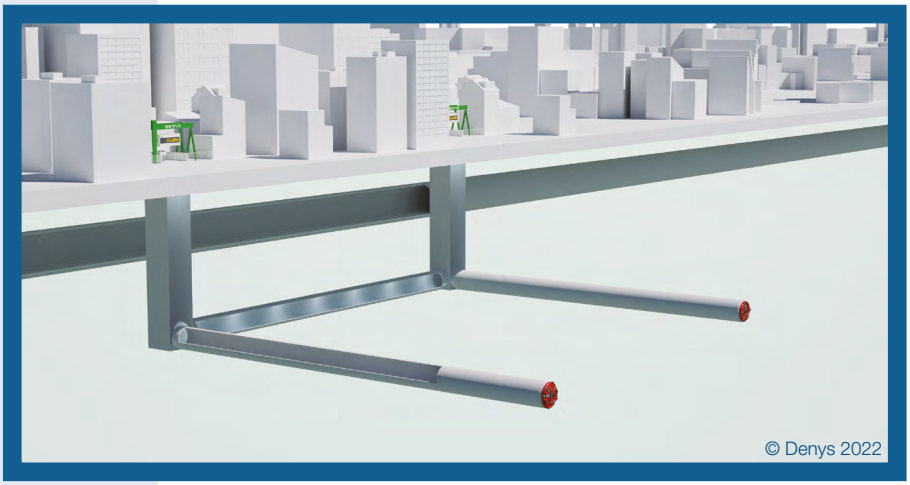
... or where space is scarce

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

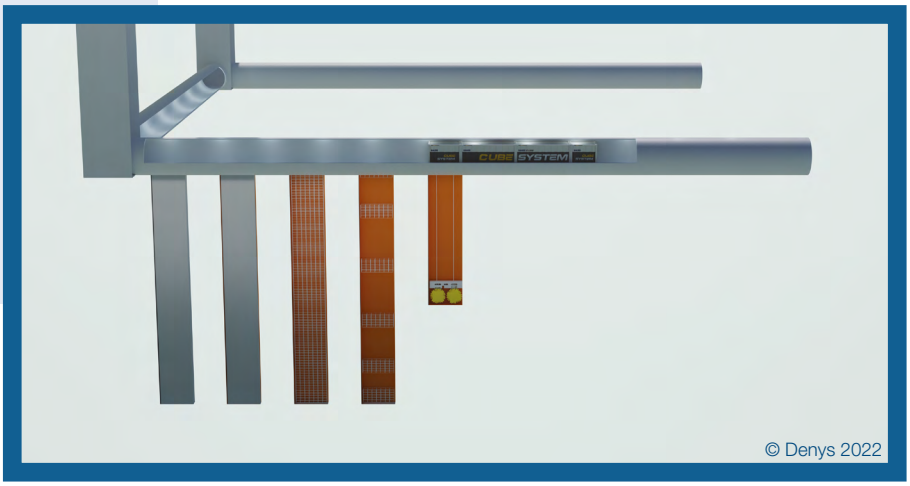
At sites with limited space or requirements to cause as little impact on traffic as possible. The modular design of the slurry handling equipment allows individual arrangements to comply with the specific needs.

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

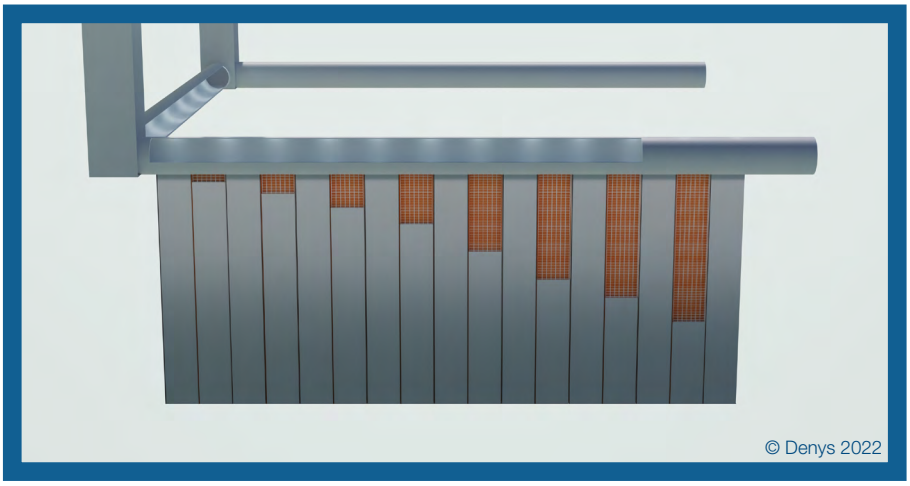
STEP 1
Start with two tunnels of almost independent length and bring two Cube Systems into the tunnels via the shafts.



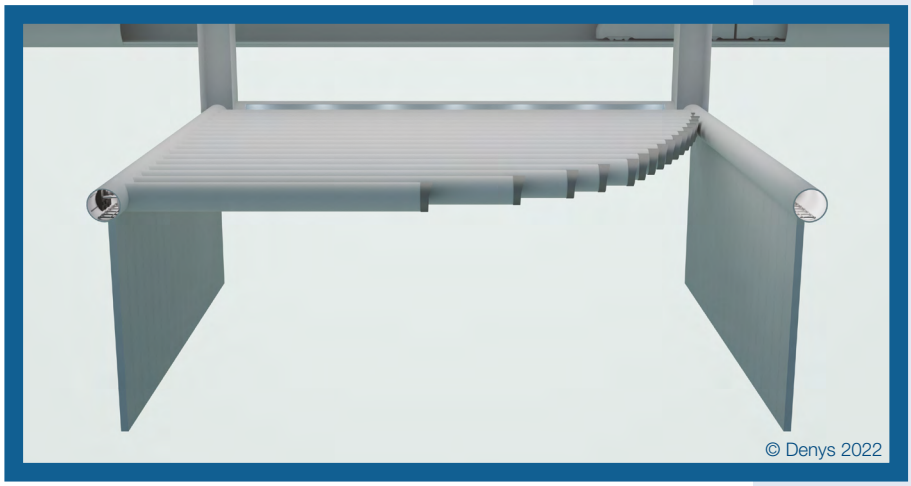
STEP 2
Cutting > reinforcement > filling with concrete – traditional diaphragm wall construction method.



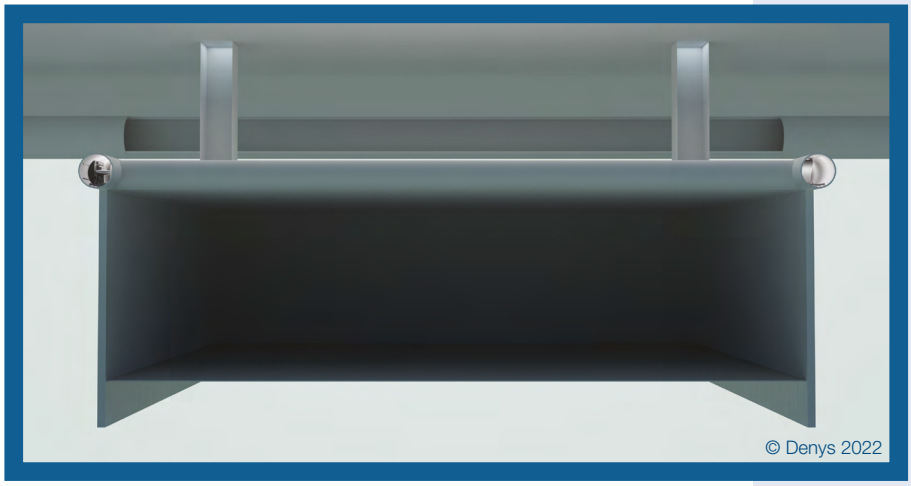
STEP 3
Overlap panels to have a sealed and very stable wall.



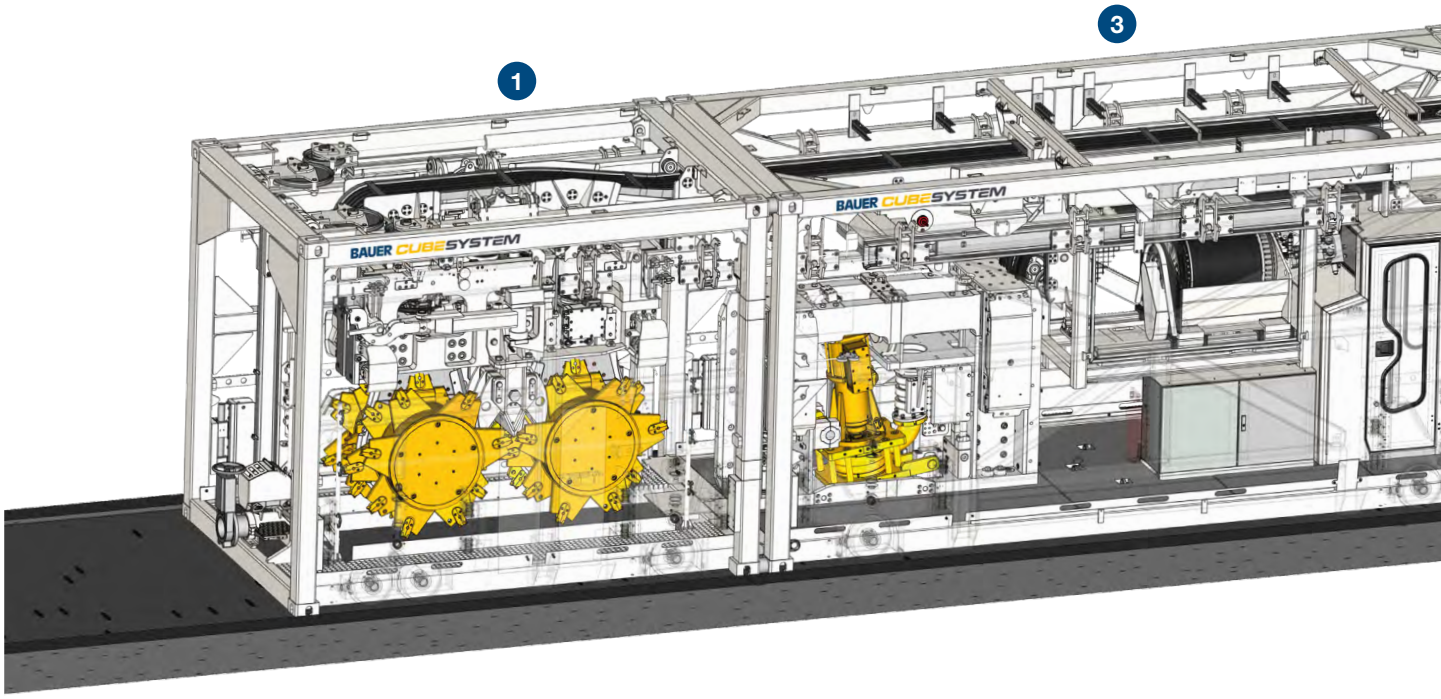
How the BAUER Cube System is applied



STEP 4
Construct the ceiling.



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



Technical Data

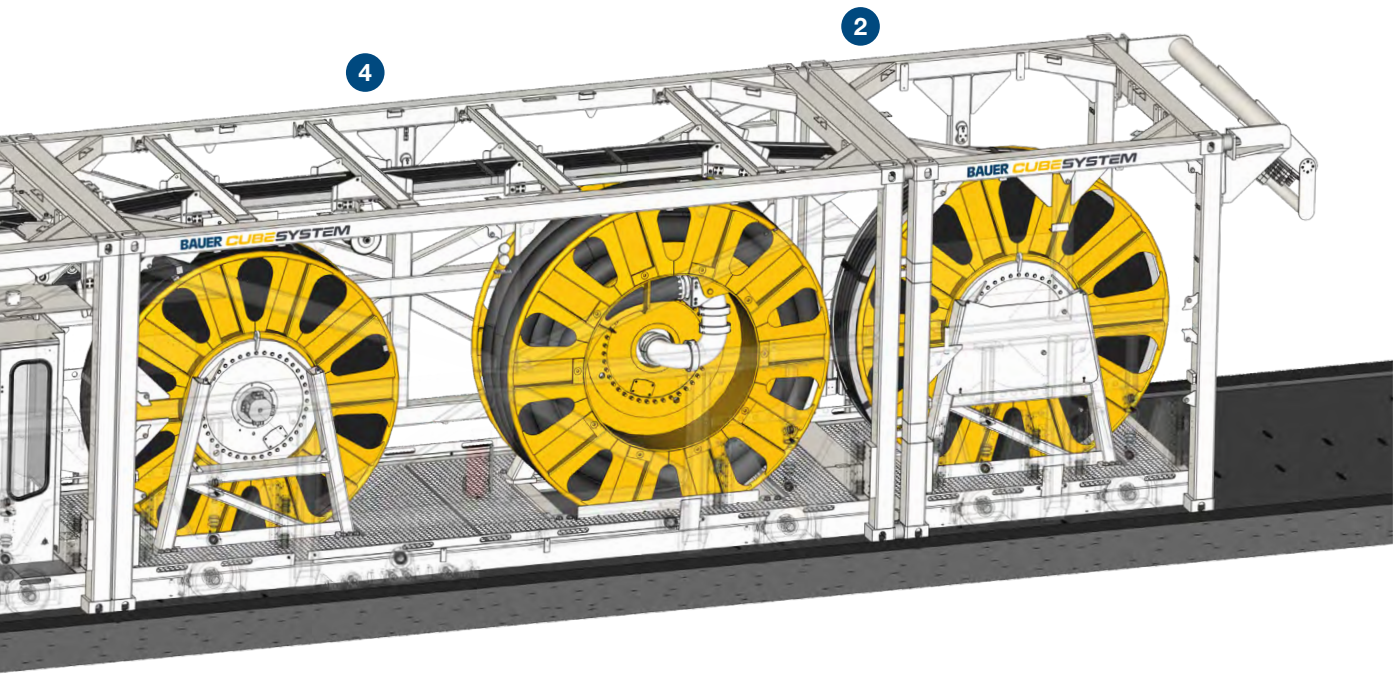
Cutter Cube

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

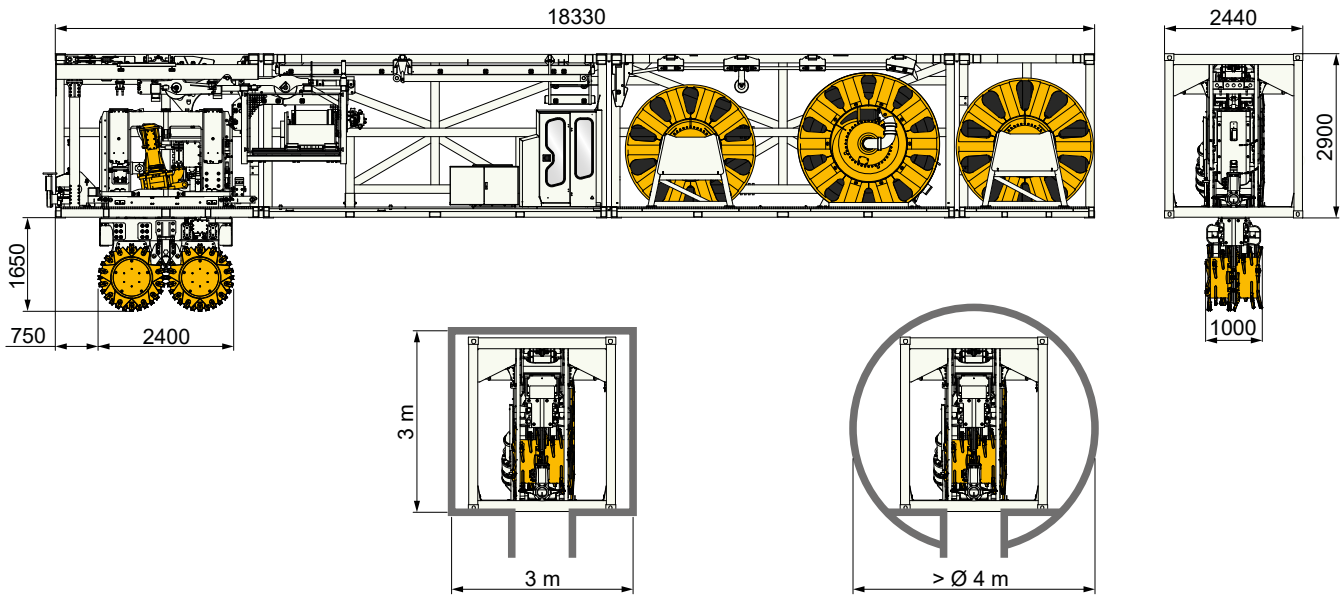
Other

- Retracting winch for installation of hydraulic hose bundle and mud hose
- CE certification
- Self moving on rails with cylinders
- Pre-excavation depth of 2.5 m



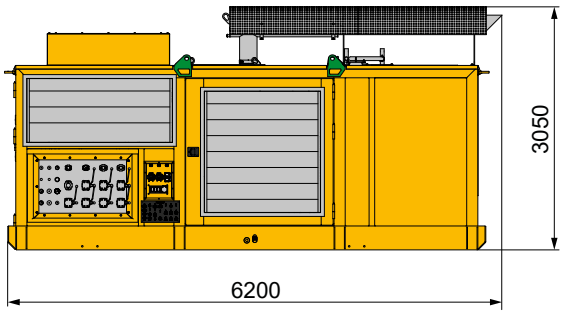
Technical Specification

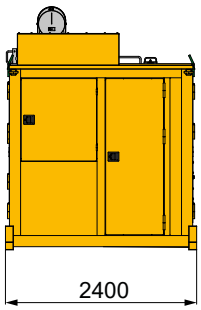
Weights and Dimensions	
Transport dimensions, L x W x H	6060 x 2440 x 2900 mm
Milling Cube weight	23 t
Pumping Cube weight	19 t
HDS Cube weight	14 t
Dimensions of complete plant, L x W x H	18330 x 2440 x 2900 mm
Weight of complete plant	56 t
Trench Cutter	
Height	3600 mm
Panel length	2400 mm
Panel width	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°



Power Pack HD / HE 1400

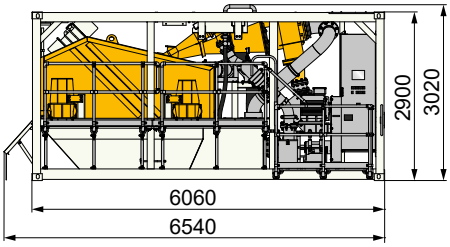
Engine	HD 1400 Diesel engine		HE 1400 Electric engine
Engine Type	CAT C18		three-phase asynchronous motor
Engine conforms to	- UN/ECE R96[1)] - China Nonroad Stage III	- EU Stage V - EPA/CARB Tier 4 final	-
Rated output ISO 3046-1	570 kW @ 1,850 rpm	563 kW @ 1,850 rpm	500 kW @ 1,490 rpm
Diesel tank capacity	1,100 l		-
Electrical equipment	-		soft starter (IT gird required)
Supply voltage	-		690 V
Connection type	-		clamped
Frequency	-		50 Hz
Power Input	-		approx. 1000 kVA
Hydraulic system			
Flow rate			
- open circuit	3 x 425 l/min + (1 x 325 l/m)		3 x 390 l/min + (1 x 295 l/min)
- closed circuit	2 x 125 l/min + 1 x 100 l/min		1 x 370 l/min + 1 x 115 l/min + 1 x 90 l/min
Max. working pressure	300 (350) bar		
Hydraulic oil tank capacity	1,300 l		
Dimensions frame without ladder, exhaust and Silent Pack			
Length	6,031 mm		
Width	2,400 mm		
Height (approx.)	2,542 mm		
Weight			
Overall weight (approx.)	13,200 kg		13,500 kg
Other			
Operating temperature	-20 °C to +40 °C		

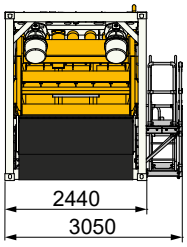


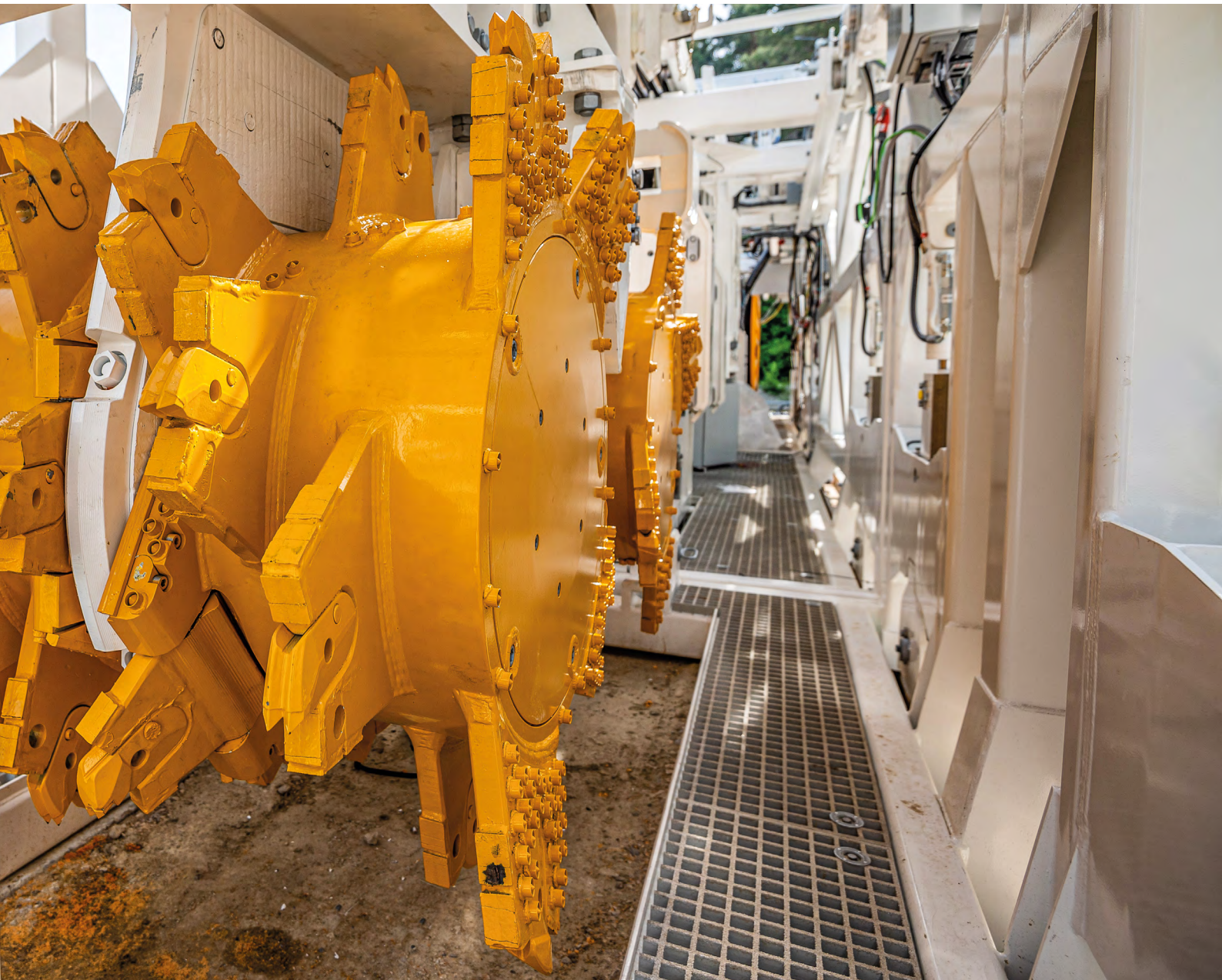


Separator Cube - BE 300 C

Max. capacity	300 m³/h
Cut point d50	30 µm
Weight	12.0 t
CE	certified







BAUER Maschinen GmbH
BAUER-Strasse 1
86529 Schrobenhausen
Germany
Tel. +49 8252 97-0
Cubesystem@bauer.de
www.bauer.de

905.925.2 02/2026