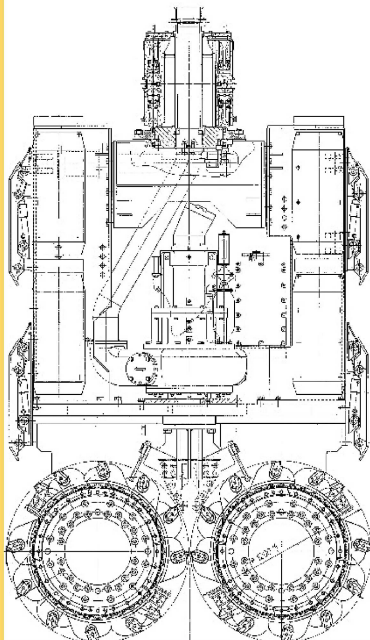


INNOVATION AND CHALLENGE

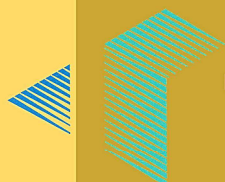


DEEP DIAPHRAGM WALL TRENCH CUTTER “CMX-SE”

- Newly designed ultimate deep diaphragm wall trench cutter
- Wide range of wall thickness for 800 – 2400 mm
- High cutter torque can excavate a variety of ground formations from clay to soft rock
- Applicable to operate at restricted head room with min. 5100 mm
- Equipped with built-in heavy duty submersible sand pump for effective cutting disposal
- Simple structure design of trench cutter can save the cost for repair and maintenance



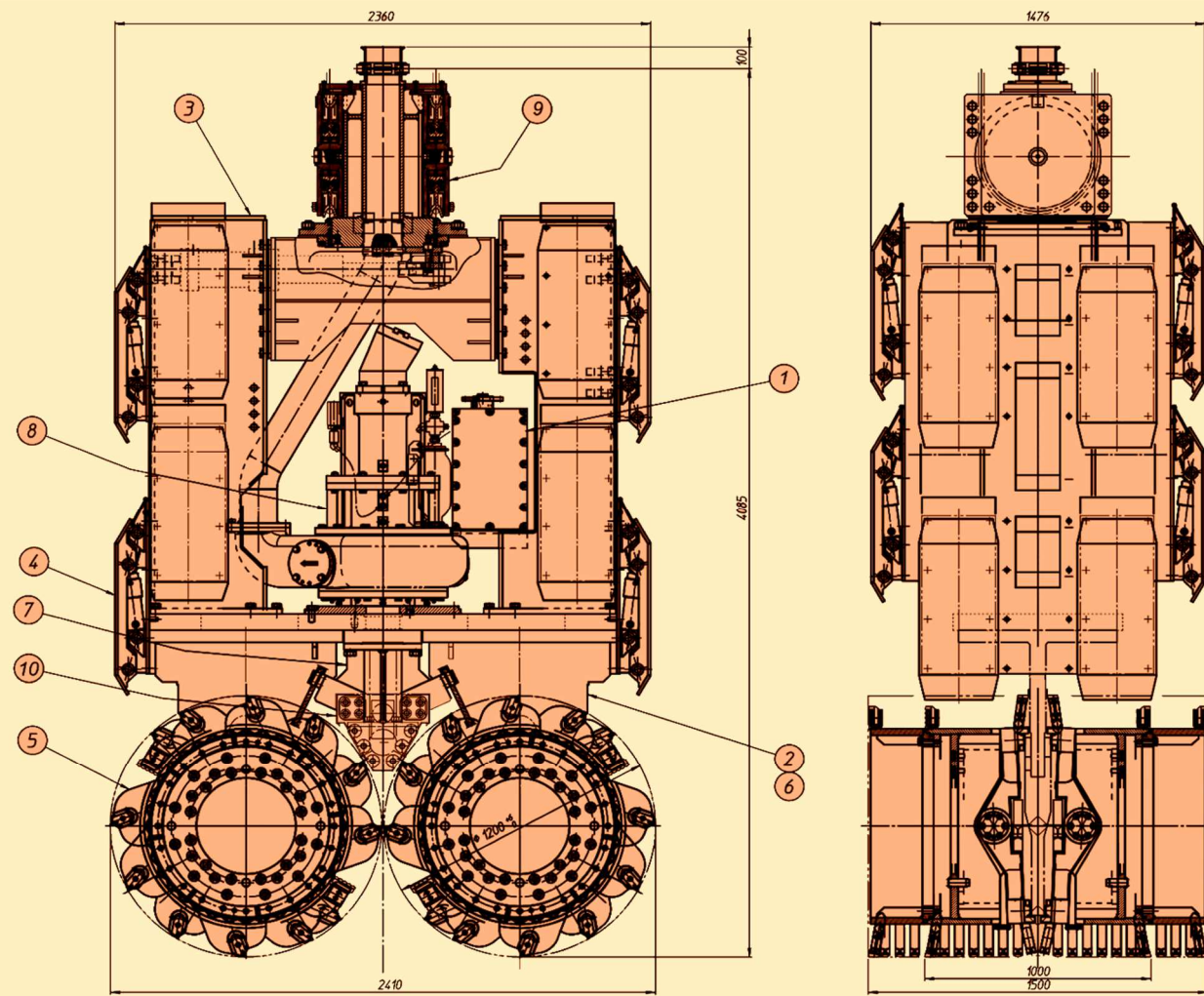
Remarks: Base machine shown in the picture is specially designed for the operation at low head room.



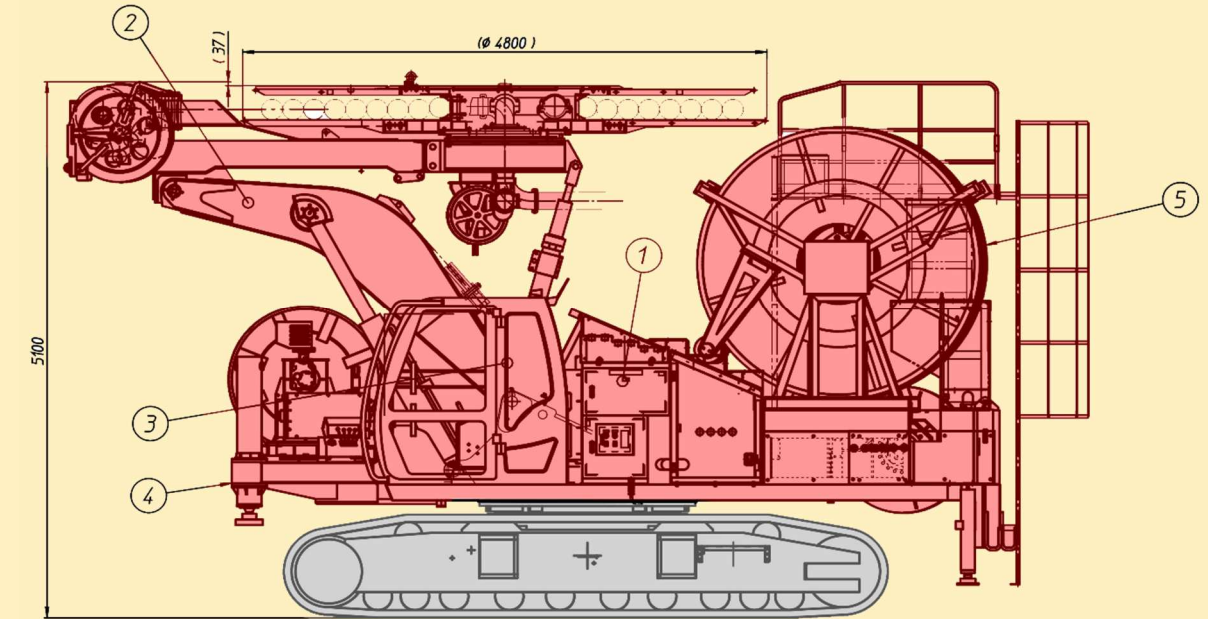
TOA-TONE BORING CO., LTD.

URL: <http://www.toa-tone.jp>

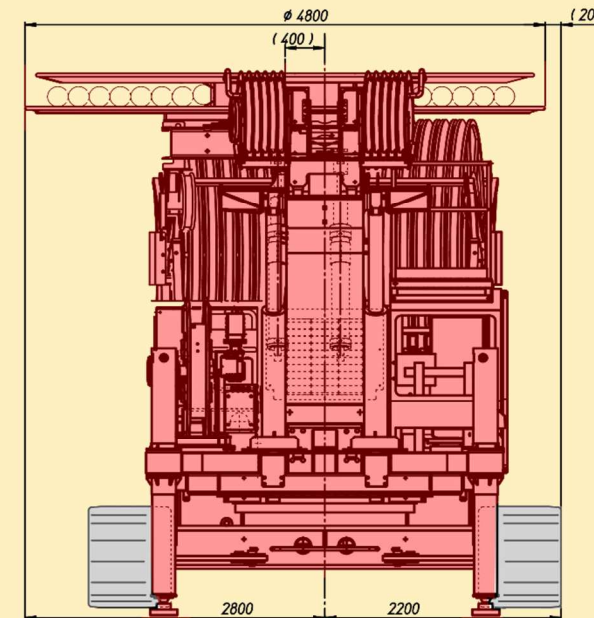
CMX-SE Trench Cutter Dimensions



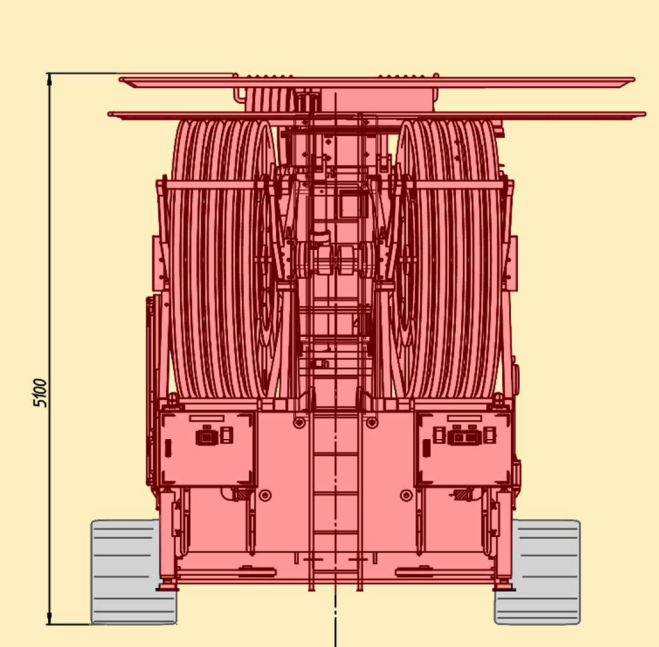
Side View of CMX-SE Trench Cutter Base Machine



Front View of Base Machine



Rear View of Base Machine



CMX-SE Trench Cutter Names of Parts

- ① Valve Box Assembly
- ② Drive Shaft Assembly
- ③ Frame Assembly
- ④ Guide Assembly
- ⑤ Cutter Assembly
- ⑥ Plate Assembly, Cam
- ⑦ Plate Assembly, Center Joint
- ⑧ Sand Pump Assembly
- ⑨ Swivel Assembly, Running Block
- ⑩ Shoe Assembly

CMX-SE Trench Cutter Technical Specifications

Range of Wall Thickness	800 – 2,400 mm	
Wall Length	2,400 mm (Optional: 3,200mm)	
Excavating Capacity	Max. 100 m	
Cutter RPM	0 – 23 min ⁻¹ at 350 L/min.	
Max. Torque	78.4 kN-m at 32.8 MPa	
Hydraulic Motor for Cutter	0 – 260 kW	
Adjustable Guide	Hydraulic cylinder type	
Reverse Diameter	150 mm	
Height	4,185 mm	
Submersible sand pump	Discharge volume	7.5 m ³ /min. at 40 m TDH 4.0 m ³ /min. at 75 m TDH
	Drive type	Hydraulic motor driven
	Hydraulic motor	0 – 132 kW
	Max. passage size	75 mm
Weight of Trench Cutter	Approx. 18 tons at 1500 mm wall thickness	

Names of Parts of Base Machine

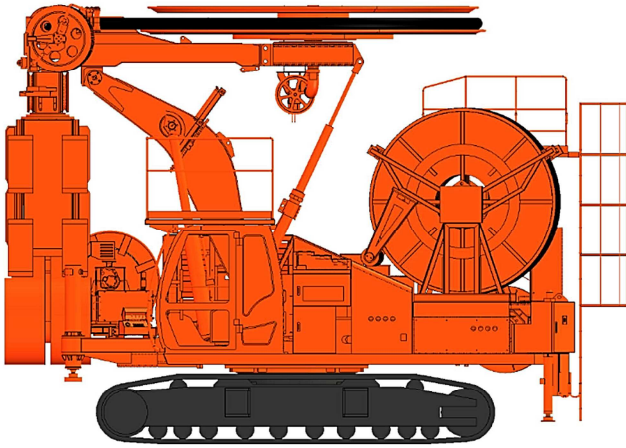
- ① Electric and Hydraulic System Assembly
- ② Frame Assembly
- ③ Operation Console Assembly
- ④ Base Assembly
- ⑤ Reel Assembly

Technical Specification of Base Machine

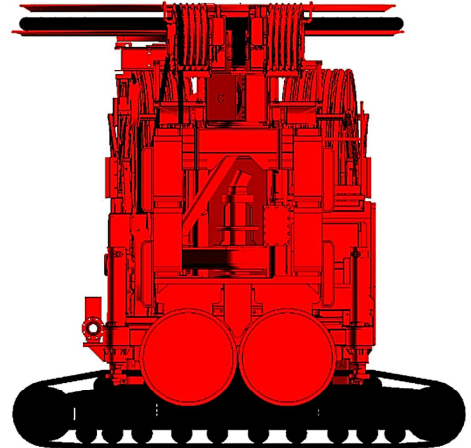
Type	Crawler with electric motors	
Capacity	Standard: 70 m Option: 100 m using steel pipe connection	
Hoist	Line pull	117.6 kN x 4
	Line speed	0 – 15 m/min. at 4 line
	Wire rope size	26 mm (non-rotating type)
	Spooling capacity	500 m (for 100 m depth)
Hydraulic unit	480 kW driven by electric motor	
Cable Reel & Cabtyre Cable for Adjustable Guide & Deflection Indicator	Servo motor with reduction gear, spooling capacity 100 m (Cable length 120 m)	
Hose Reel Capacity	6" x 80 m	

With a Variety of Trencher Positioning

90° angle position against base machine



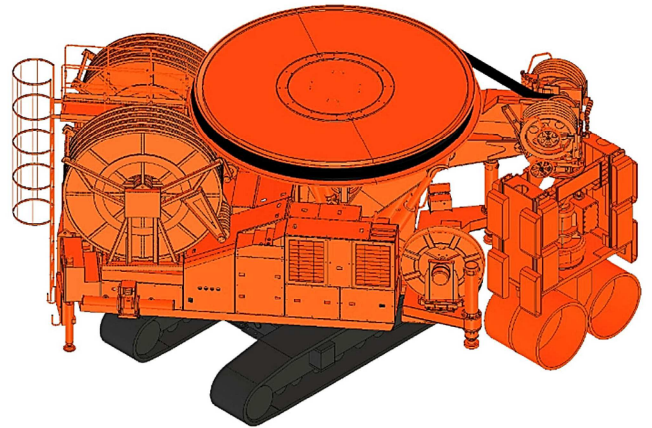
Parallel position with base machine



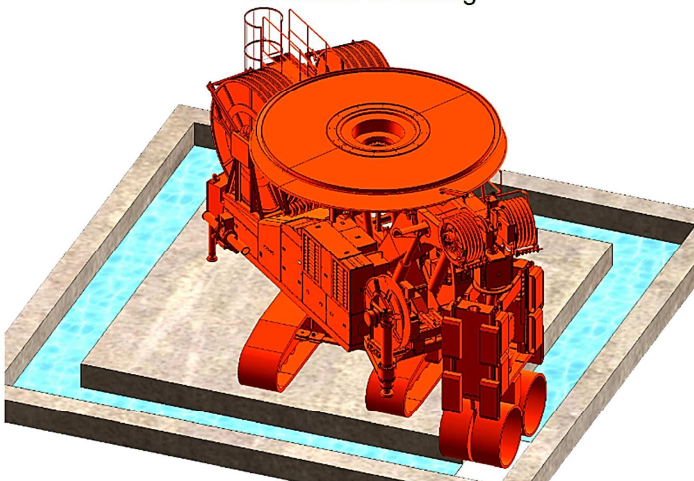
Straddle position with base machine



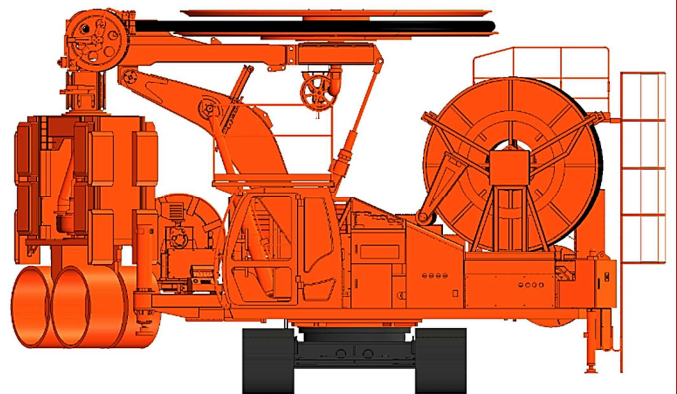
Diagonally parallel position
For corner trenching



Diagonally parallel position
for corner trenching



Diagonal trenching position



TOA-TONE BORING CO., LTD.

Head Office: 3-7 Roppongi 7-chome, Minato-ku, Tokyo 106-0032, Japan

Phone: 81-3-5775-3921 Fax: 81-3-5775-3967

Factory: 1900-1 Mikkaichiba, Enzan, Koshu City 404-0047, Yamanashi Pref. Japan

Phone: 81-553-20-2600 Fax: 81-553-20-2660

URL: <http://www.toa-tone.jp>

