

CASING OSCILLATOR

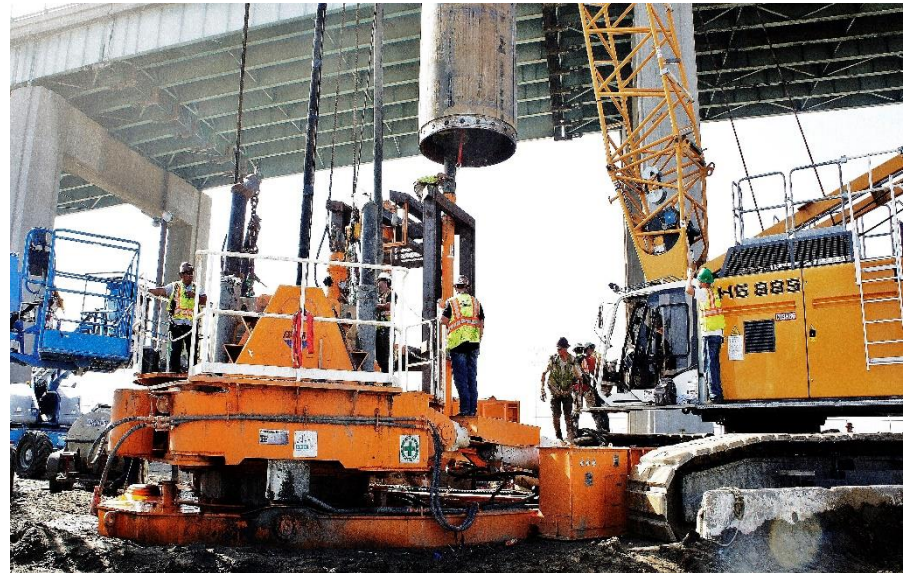


TRUST cannot be replaced

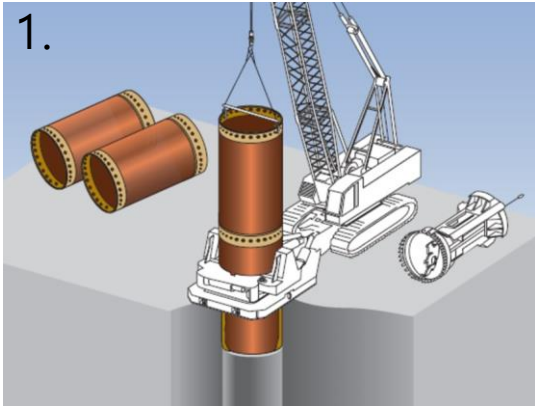


When unstable soil conditions are present, drilled shafts may require temporary or permanent casing to depth to prevent the hole's collapse. This method is called the “All Casing Method” (Benoto Method, Shaft Drilling).

A casing oscillator is highly recommended for this application. With its superior oscillating torque and lifting force, the machine shows the best performance for installing and extracting the casing.

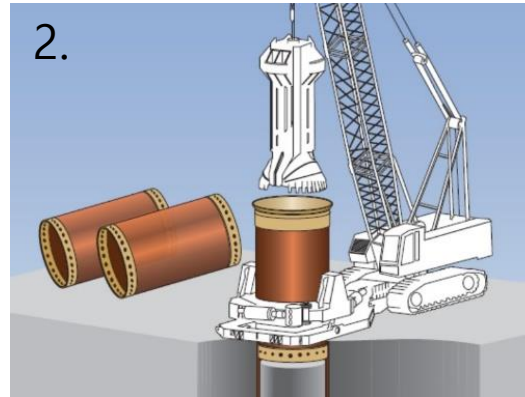


Process of Casing Oscillator

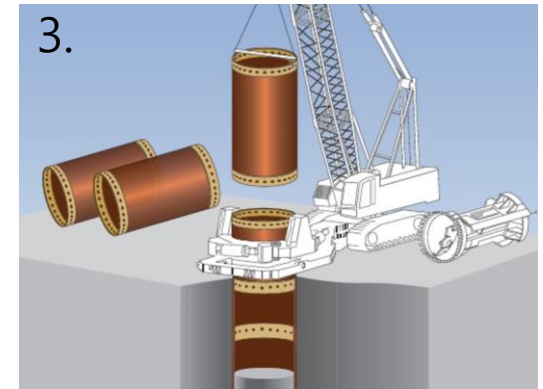


Install Starter Casing which is equipped with shoe bit into the Casing Oscillator

Start to drive the casing with oscillating movement.



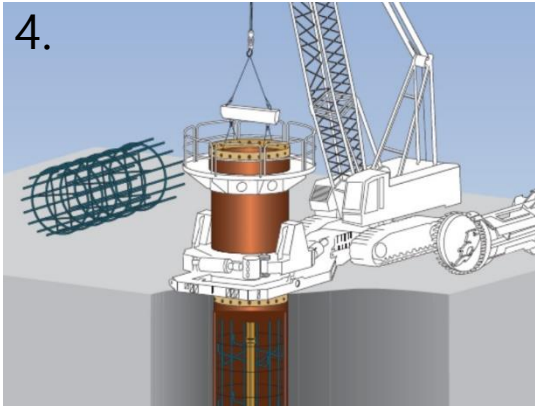
Excavate soil inside of the casing using grab while the casing oscillator is driving the casing into the ground.



Add New Casing Sections continuously until it is driven and reached to the depth.

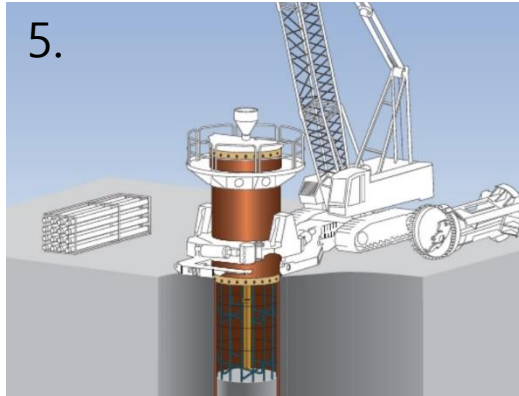


4.



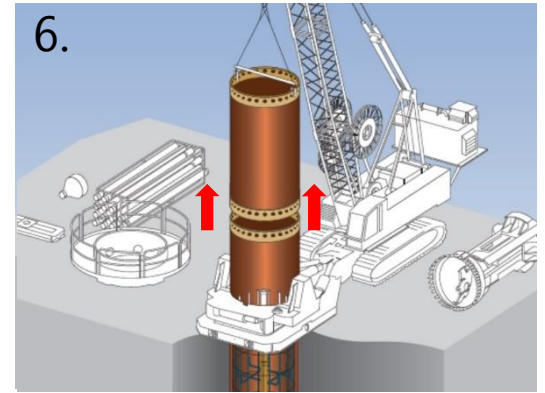
Install Reinforcement Cage and suspend at proper elevation.

5.



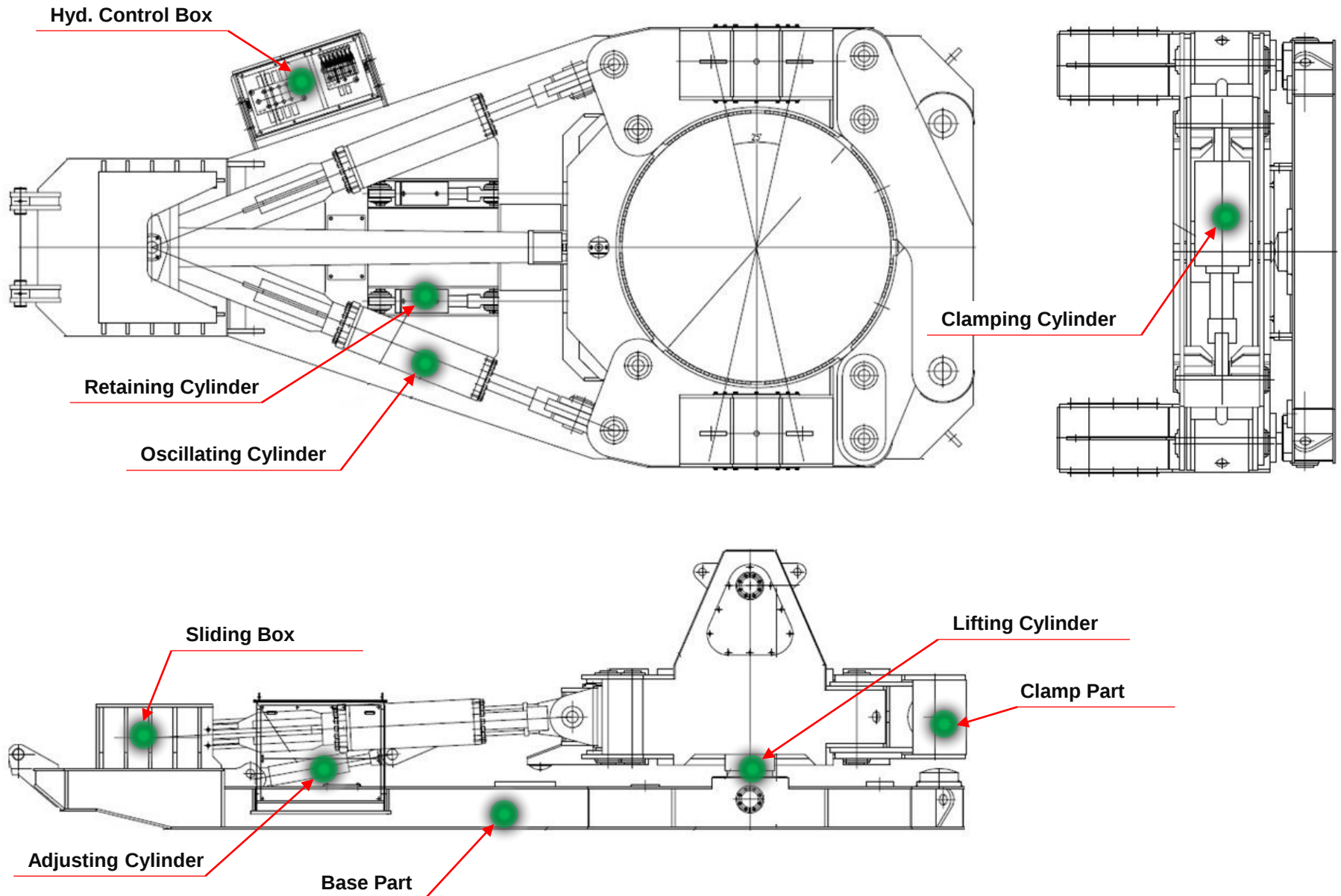
Pour Concrete using sectional tremie pipe.

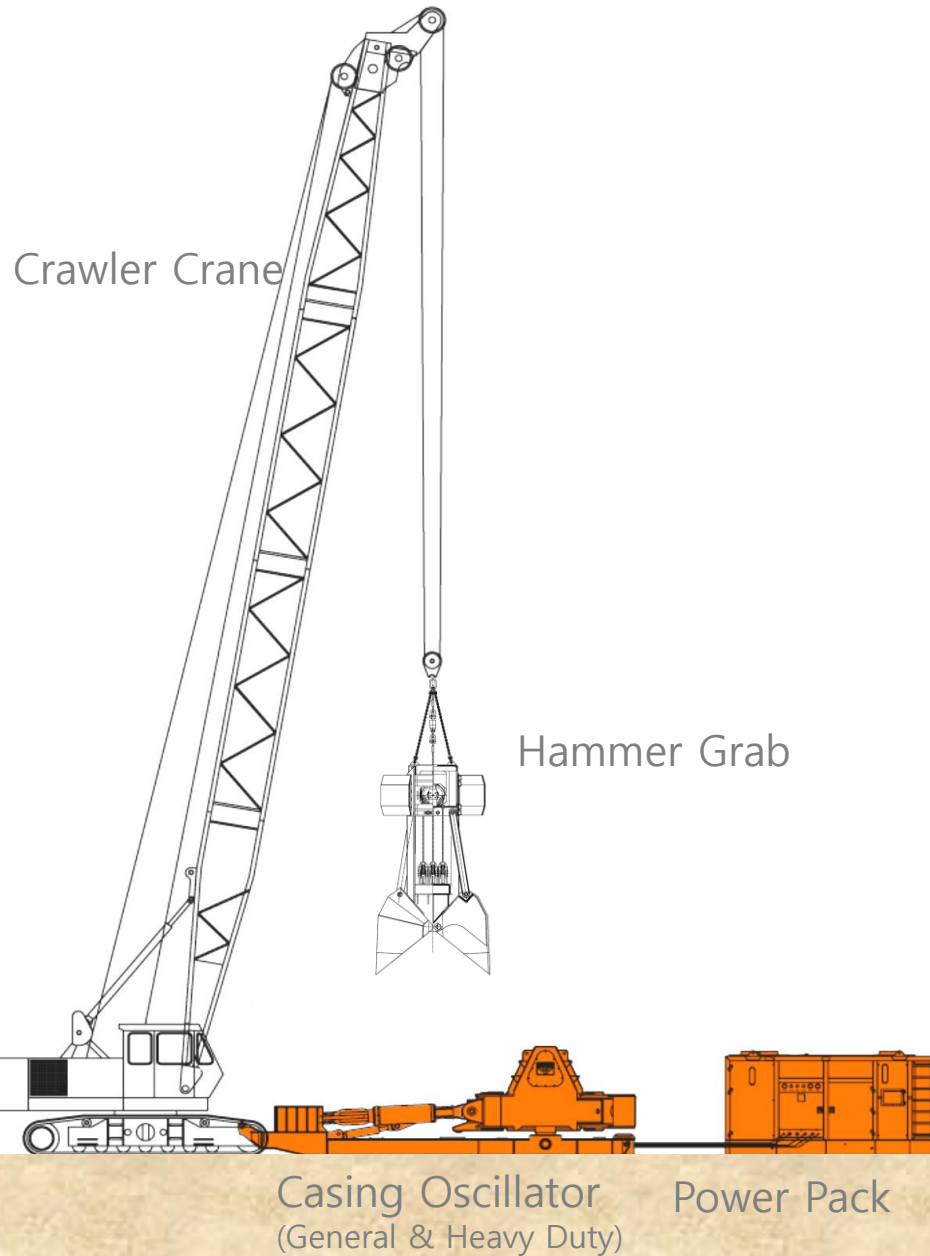
6.



Remove the casing and tremie pipe sections simultaneously as concrete is poured.







Working Condition.

- Casing Diameter : 2m~5m
- Depth : 40m~100m

Combination of Casing Oscillator

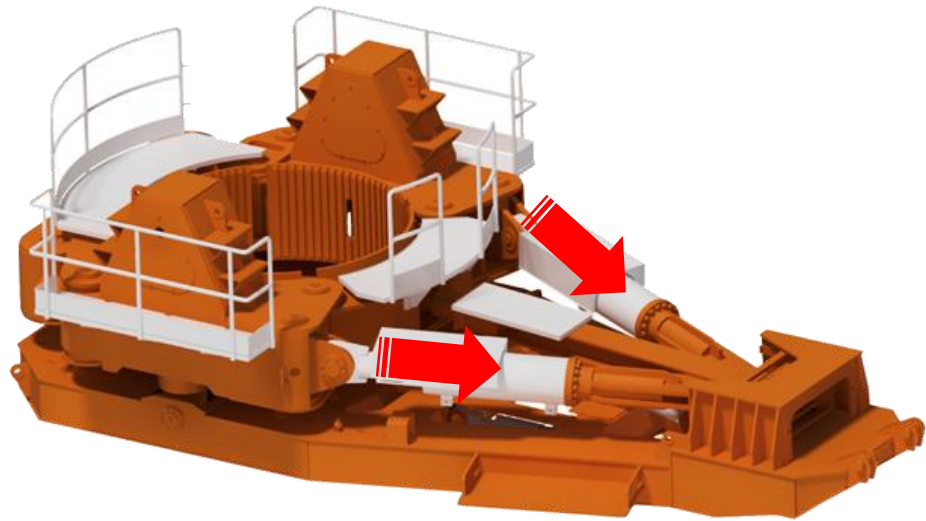
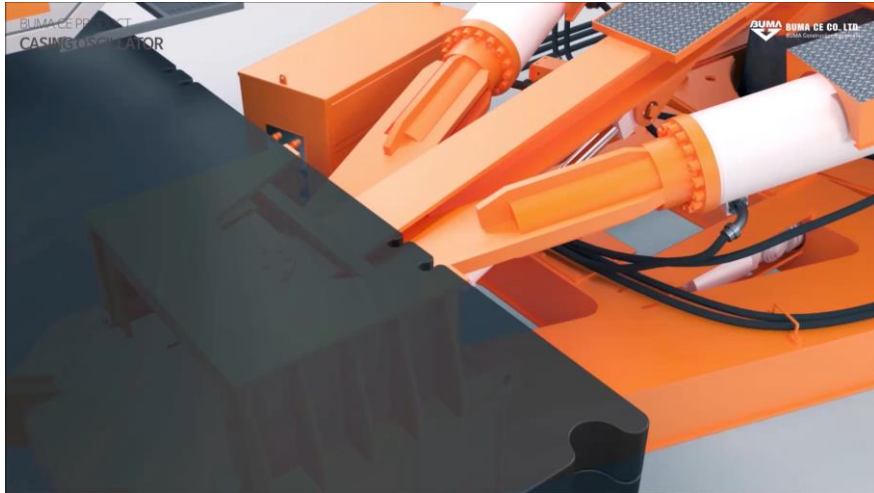
Rotary Drilling Rigs



Working Condition.

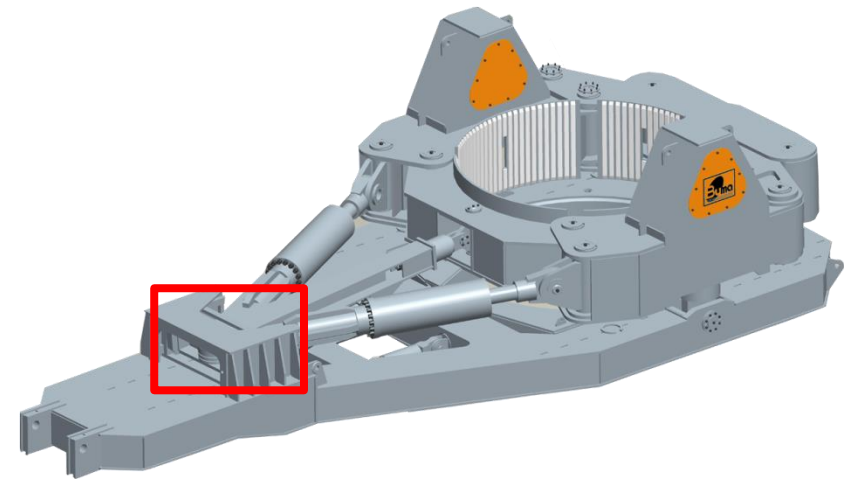
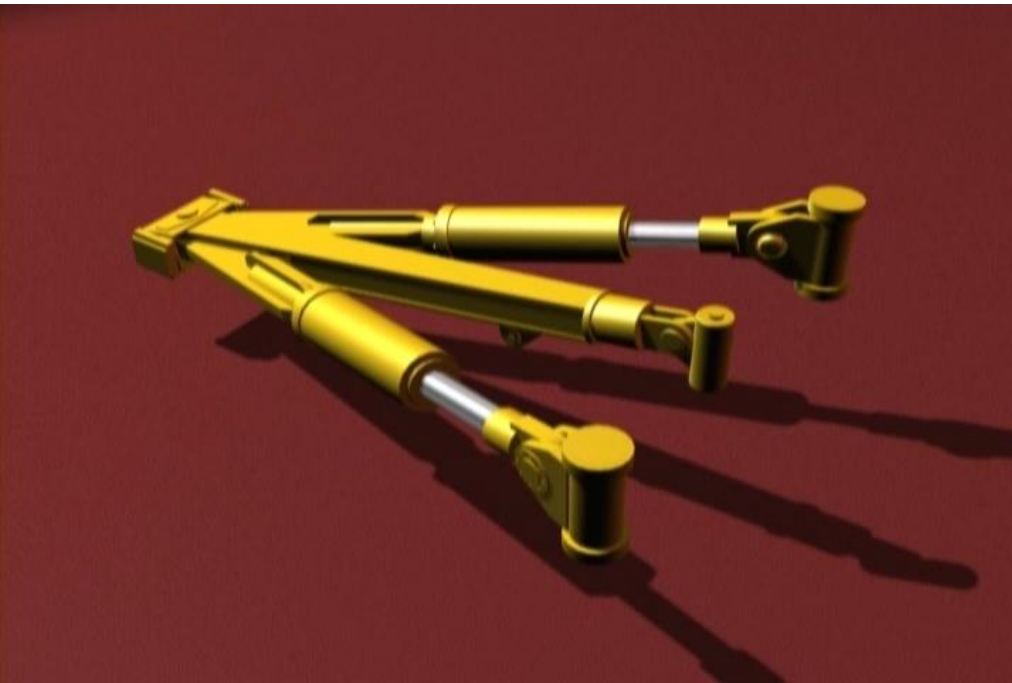
- Casing Diameter : 1m~2.5m
- Depth : 15m~40m

Casing Oscillator(Tiny)

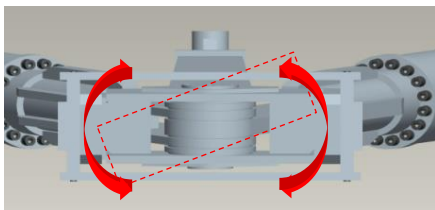


BUMA Specialized Center Rod

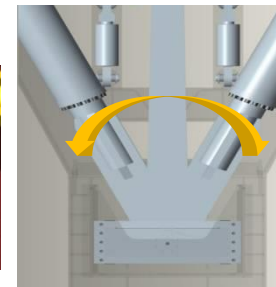
- All the forces are concentrated at the center rod.
- As a result, in severe conditions, pins were sometime broken, plates were damaged....and in the worst circumstances, the center rod was broken.
- To prevent these issues, BUMA designed and patented (No. 0341456) a spherical movement device as a pivot point.



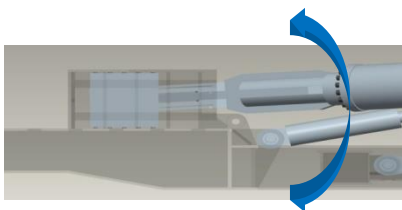
Flexible Sliding Box



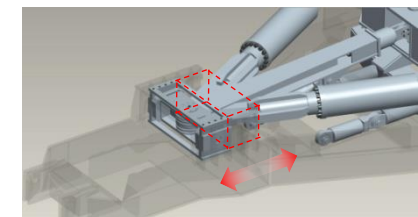
Side Tiltable



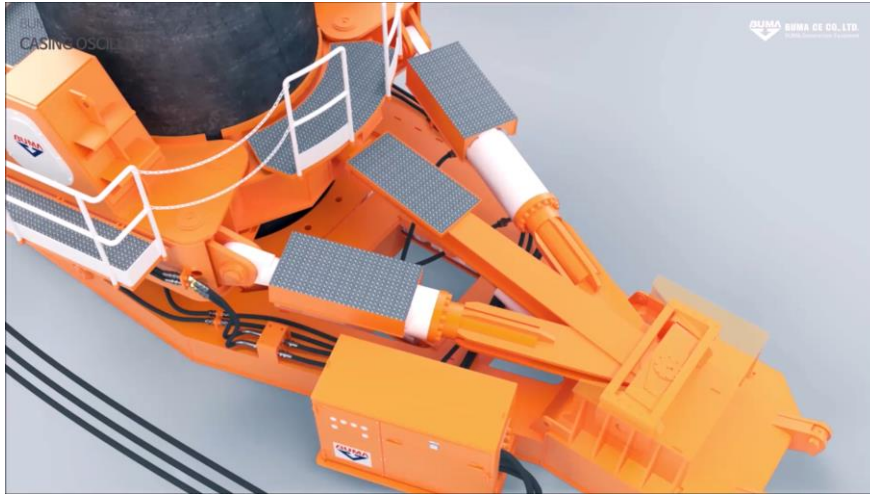
Axle Movable Left & Right



Axle Movable Up & Down



Axle Movable Front & Back



<BUMA>

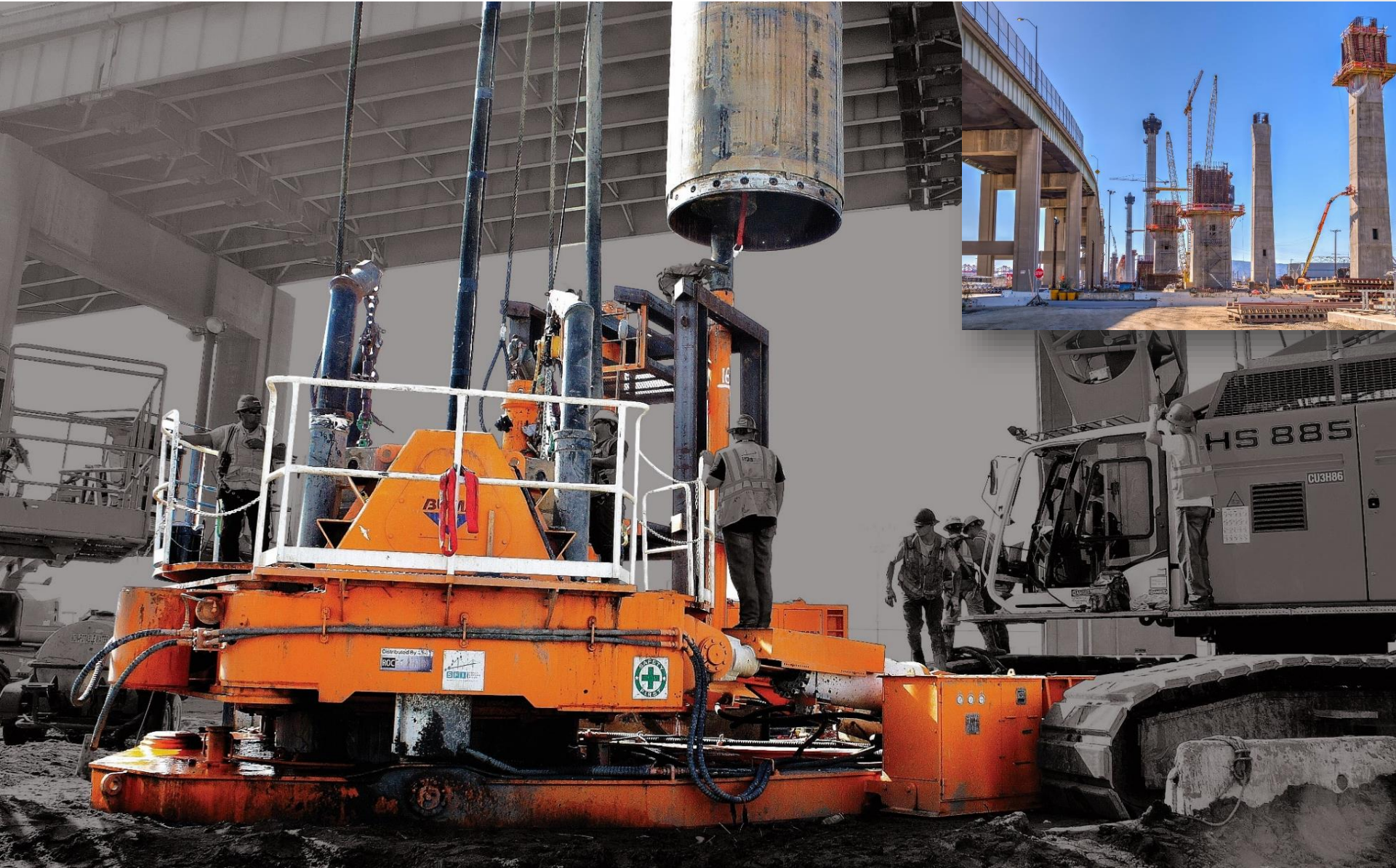
Lifting Cylinder Design

- BUMA's lifting cylinder rods are installed with rod on top and barrel on the bottom.
- This small difference protects the rods from dirt and concrete and allows for user friendly maintenance.

Hawaii Monorail Project (USA)



Gerald Desmond Bridge



TV Program Gold Mining (Canada)



