



ISEKI
ISEKI POLY-TECH, INC.

EPB

REMOTO-CONTROLLED EARTH PRESSURE BALANCED SLIME SHIELD MACHINE

Patented

Iseki's EPB Slime Shield Machine!



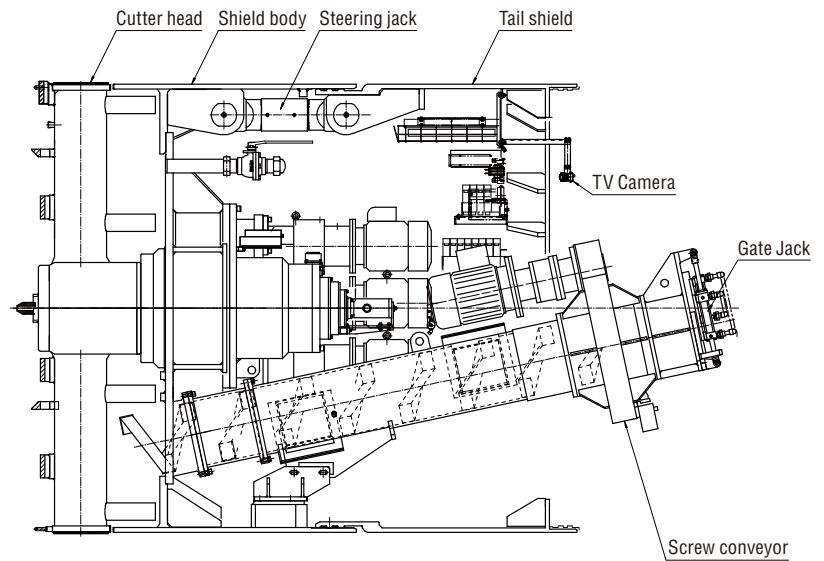
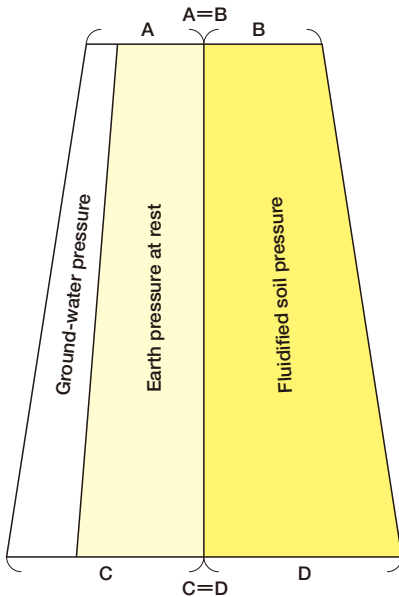
The EPB slime shield machine changes the excavated soil into fluidified soil within the cutter chamber by injecting slime.

The fluidified material fills the cutter chamber and the screw conveyor, by counterbalancing the tunnel face earth pressure and ground-water pressure and is transferred from the screw discharge to mucking system.



Can we still call “micro” tunneling machine ?

Earth Pressure Balanced Slime Shield Machine



Features :

1. This shield is applicable to various soil conditions, i.e. silt, clay, sand, and sand and gravel with cobbles.
2. The fluidified soil sustains earth pressure at the cutting face.
3. Ground water is cut off by the impermeable layer formed by the fluidified soil within the cutter chamber and the screw conveyor.
4. Muck is discharged via the belt conveyor, muck car or muck pump.
5. The diameter vary 1200mm to 3500mm fit to pipe diameter for your project.



Excavated material is mixed with additive material and become plastic consistency.

SPECIFICATIONS OF EPB SLIME SHIELD MACHINE

Model	EPB1200	EPB1500	EPB2000	EPB2200	EPB2500	EPB3500	
1. Dimensions							
Normal diameter I.D.(mm)	1200	1500	2000	2200	2500	3500	
Outside diameter (mm)	1450	1800	2370	2680	2970	4070	
Overall length (mm)	4500	4850	5200	6500	4710	3750	
2. Cutter head							
Drive motor	11kW×4P×2No.	15kW×4P×2No.	15kW×4P×2No.	22kW×4P×2No.	15kW×4P×6No.	22kW×4P×10No.	
Revolution speed	(50Hz: rpm)	3.0	2.8	2.2	1.7	1.46	1.11
	(60Hz: rpm)	3.6	3.3	2.6	2.0	1.75	1.32
Torque	(50Hz: kN-m)	49.0	97.0	220.5	533.8	590	1771
	(60Hz: kN-m)	39.2	77.6	176.4	444.9	491	1446
3. Screw conveyor							
Drive motor (inverter control)	15kW×4P	22kW×4P	30kW×4P	30kW×4P	18.5kW×4P	75kW×4P	
Revolution speed (rpm)	Max.10(Variable)	Max.10.4(Variable)	Max.13(Variable)	Max.9.1(Variable)	Max.8.6(Variable)	Max.15.15(Variable)	
Torque (At 50Hz: kN-m)	8.8	12.7	14.7	21.6	20.8	36.4	
Capacity (m ³ /h)	100	19.8	31	22	23	68	
Dimensions of screw	O.D.(mm)	340	420	460	460	420	520
	Pitch (mm)	315	400	440	450	400	500
4. Steering jacks							
Number	4	4	4	4	4	4	
Thrust force (kN)	411.6	705.6	1050	1440	1500	3000	
Steering angle		2.0°	2.0°	2.0°	1.5°	1.5°	2.0°
	(Up or Down)	2.0°	2.0°	2.0°	1.5°	1.5°	2.0°
5. Hydraulic unit							
Drive motor (Right or Left)	2.2kW×4P	2.2kW×4P	5.5kW×4P	5.5kW×4P	2.2kW×4P×2No.	5.5kW×4P	
6. Power source (50Hz/60Hz)							
	400V/440V	400V/440V	400V/440V	400V/440V	400V/440V	400V/440V	

Notes : The above specifications are subject to change without notice.



Design and manufactured by

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