



**Iseki**  
ISEKI POLY-TECH, INC.

# UNCLEMOLE SUPER

Patented

## *A Tunnelling System for Various Type Ground*

UNCLEMOLE SUPER  
CUTTING THROUGH ROCK



The Unclemole Super is capable of cutting through rock formations as well as sandy and gravelly soils with boulders



Some of the features offered by the Unclemole Super:

1. The cutter head is provided with roller bits capable of cutting through various kinds of rock
2. The cutter head is capable of taking in cobbles of up to 30% of the shield nominal diameter.  
The cobbles are crushed by the cone crusher which is located in the rear part of the cutter head.
3. In unstable ground conditions such as gravel and sandy soils, the stability of the work face can be maintained by maintaining the earth pressure of the excavated materials within the cone crusher.
4. The eccentric movement of the cone rotor prevents any blockages within the cone crusher.
5. A new guidance system (R.S.G) is employed for easier operation and high accuracy.
6. The diameter vary 250mm to 3500mm fit to pipe diameter for your project.



UNCLEMOLE SUPER AFTER COMPLETING A DRIVE THROUGH HARD ROCK

## SPECIFICATIONS OF UNCLEMOLE SUPER

Model		TCS300	TCS450	TCS500	TCS600	TCS800	TCS1000	TCS1200
<b>1. Dimensions</b>								
Nominal	I.D. (mm)	300	450	500	600	800	1000	1200
Outside diameter	(mm)	432	604	660	790	980	1220	1450
Length	(mm)	2474	2960	2960	3020	3165	3535	4390
weight	(tonf)	1.18	2.3	2.65	3.8	6.1	9.8	15.1
<b>2. Cutter head</b>								
Drive motor		3.7kW × 1No.	11kW × 1No.	11kW × 1No.	18.5kW × 1No.	30kW × 1No.	45kW × 1No.	30kW × 2No.
Torque	(50Hz : kN-m)	3.0	7.0	8.5	14.0	27	40.7	81.8
	(60Hz : kN-m)	2.5	6.0	7.1	11.8	22.6	34.0	67.7
Revolution speed	(50Hz : rpm)	11.3	14.1	11.8	11.9	10.2	10.2	6.0
	(60Hz : rpm)	13.6	16.9	14.1	14.2	12.2	12.2	7.3
Earth pressure	(kN/m <sup>2</sup> )	500	500	500	500	500	500	500
Crushed fragment size	(mm)	max. 20	max. 25	max. 25	max. 30	max. 40	max. 40	max. 40
<b>3. Steering jacks</b>								
Number		2	2	2	2	2	2	4
Thrust force	(Extend : kN)	83 × 2	160 × 2	180 × 2	720 × 2	510 × 2	720 × 2	640 × 4
	(Up or Down)	2.0°	2.0°	2.0°	1.7°	1.7°	1.7°	2.2°
	(Right or Left)	1.2°	1.2°	1.2°	1.2°	1.2°	1.2°	2.2°
<b>4. Hydraulic unit</b>								
Pressure (Mpa)		14	21	14	14	14	14	30
Drive motor		0.75 kW × 1No.	0.4kW × 1No.	0.4kW × 1No.	0.75 kW × 1No.	0.75kW × 1No.	2.2kW × 1No.	3.7 kW × 1No.
<b>5. Transportation</b>								
Slurry line (mm[inch])		50[2"]	80[3"]	80[3"]	80[3"]	80[3"]	100[4"]	100[4"]
<b>6. Power source</b>								
(50Hz/60Hz)		400V/440V	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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