

We purify polluted water to save beautiful environment



Polluted Water Cleaner

# MSC Hyper



**MSC Method**  
**Mobile Package system**



**SO-EN CO., LTD**

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# MSC Hyper

Sludge treatment technology by MSC improves large amount of soil economically in very short time due to its large flocculation ability, dewatering process and separation function. It's advanced method treats SS, COD, N, P in the treated water. MSC does not affect the eco system and it largely contributes in building a good place for fish and aquatic organisms. Thus conserving the ecosystem.

Polluted water treatment system "MSC Hyper" is a mobile type treatment system which includes high flocculation ability of MSC. And because of its in-vehicle size, it's able to go to the site directly and continuously conduct treatment easily. It removes SS and improves transparency as well as change the COD level to clear the water standards for drainage.



MSC Hyper MH2000



MSC Hyper MH200P



Double bag type solid-liquid separator



Automatic rotating type separator

## USE

MSC's high flocculation ability has made it possible to treat and process fine suspended solids and hazardous substances that were not able to be processed in the conventional coagulation-sedimentation process technology. It has been proved that there is no secondary pollution and any effect on the separated soil and water toward the ecosystem. MSC has demonstrated work for wastewater treatment from various industries. By installing MSC with the existing treatment facilities, the processing function can be improved.

### Construction site wastewater

- Shield construction wastewater
- Excavation wastewater
- Concrete wastewater
- Road cutter wastewater
- Bentonite

### Industry wastewater

- Food industry wastewater
- Car industry wastewater
- Stone industry wastewater
- Concrete industry wastewater
- Roofing tile industry wastewater

### Lake/Marsh/River mud · water

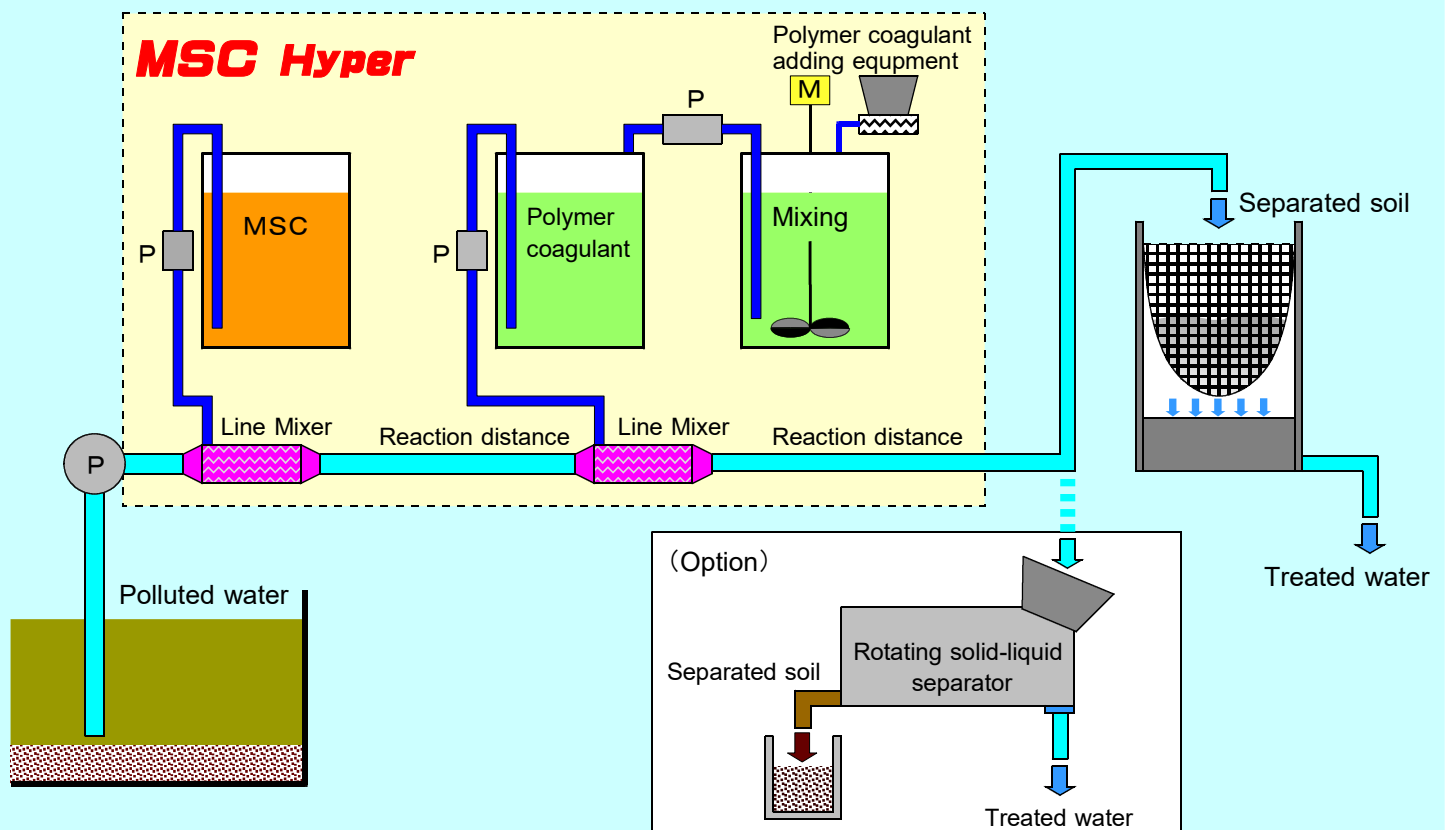
- Organic bottom sediment
- Industrial waste sludge
- Livestock excretion sludge
- Wastewater treatment
- Sewer treatment

**MSC offers improvement of various water environment to protect beautiful environment.**

# Characteristics

MSC doesn't need large mixing, dewatering system due to its flocculation ability, hydrophobizing function. It's easy to install and works continuously.

- It is high function and flexible to treat small to large amount.
- There is no secondary pollution (bad odor • water contamination • flow of mud)
- The separated soil can be recycled.
- It is economical, low treatment cost.
- Mobile and able to conduct vehicle-installation.



## MSC Method Principle

- ① By adding MSC to polluted water, absorbed water film is destroyed due to hydrophobing. Also, capillary water between soil particles is separated and becomes free water. The free water is settled down.
- ② In adding Polymer coagulant, the diameter of flock gets bigger, and it settles down very fast.
- ③ Flocculated soil particles are not mixed with water again. As a result, supernatant water can directly drain.
- ④ Flocculated soil has large hydraulic conductivity by hydrophobing of soil particles. Thus, it enables to conduct efficient dehydration in bottom sludge. Moreover, because soil particles are absorbed each other without capillary water, the bonding structure is strong and has large consolidation strength. As a result, the soils can be recycled.



Raw sludge water



Adding MSC



Adding Polymer coagulant



Treated water



# Specification

Model	Capability	Line size	Lifting height	Electric requirements	Weight
MH-200P	2 m <sup>3</sup> /h	2 5 φ	5 m	2. 0 kw	3 6 0 kg
MH-500P	5 m <sup>3</sup> /h	4 0 φ	7 m	3. 6 kw	4 0 0 kg
MH-1000	1 0 m <sup>3</sup> /h	6 5 φ	1 0 m	5. 5 kw	5 0 0 kg
MH-2000	2 0 m <sup>3</sup> /h	7 5 φ	1 0 m	6. 75kw	6 0 0 kg
Common	<ul style="list-style-type: none"> <li>●MSC : Supplying a certain amount to the Line Mixer (the amount can be adjusted manually)</li> <li>●Polymer coagulant : Supplying a certain amount to the Line Mixer (the amount can be adjusted manually)</li> <li>●Solid-liquid separator : Double bag type dehydrator (Static pressuer)</li> <li>●Treated soil : Transportable in the inner bag</li> </ul>				
Option	<ul style="list-style-type: none"> <li>●Agent dissolution tank : M S C, Plymer coagulant</li> <li>●PH adjustment : Alkali dissolution tank and perfusion pump</li> <li>●Rotating separator : 5 0 0 φ, 2 kw、 3 5 0 kg</li> <li>●Dehydrator</li> </ul>				

※ Weight indicates empty MSC Hyper weight.

※ Power generator is required if there is no electricity supply.

※ Please consult us for smaller or larger amount treatment systems other than specified.

※ Please consult us if heavy metals, harmful matters etc are included in the treatment target.

## For Installation

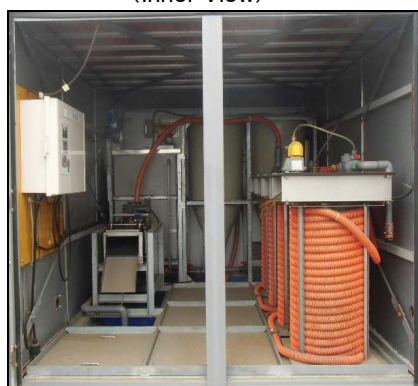
- **Information** : Please give us the condition of the target area to provide optimum additive amount of MSC according to water quality, sludge condition, and concentration.
- **Confirmation test** : We will conduct a coagulation-sedimentation site verification test by MSC and the polymer flocculant.
- **Method proposal** : We offer the best method considering the economic efficiency, processing method for separating soil, conditions of the disposal site and etc.

### (MSC Hyper Stowage Type)

(Outer View)



(Inner View)



※MSC Hyper equipment and solid-liquid separator are included in the stowage

### Water purification by MSC

Water index	Removal rate
SS	80~99%
COD	50~80%
TN, TP	50~80%
Heavy Metals	50~90%

※The effect depends on water quality and condition

◇Please note that the specification, size, and visual aspects can be changed for improvement without notices.

■ Manufacture and Seller

**SO-EN CO.,LTD**

**so-en**  
think earth

1665-1 Shinbo-machi Takaski Gunma JAPAN  
TEL+81-27-352-4857 FAX+81-27-352-4875  
URL <https://so-en.net/index-e.html/>  
e-mail: [soen.net@gmail.com](mailto:soen.net@gmail.com)