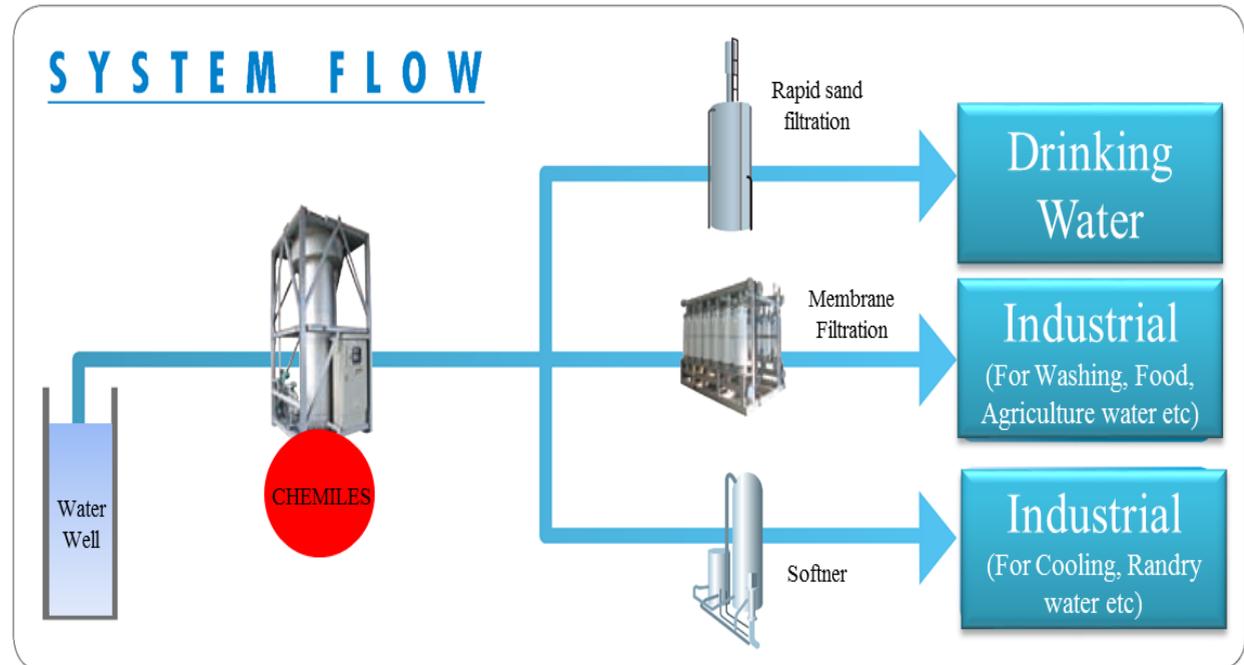
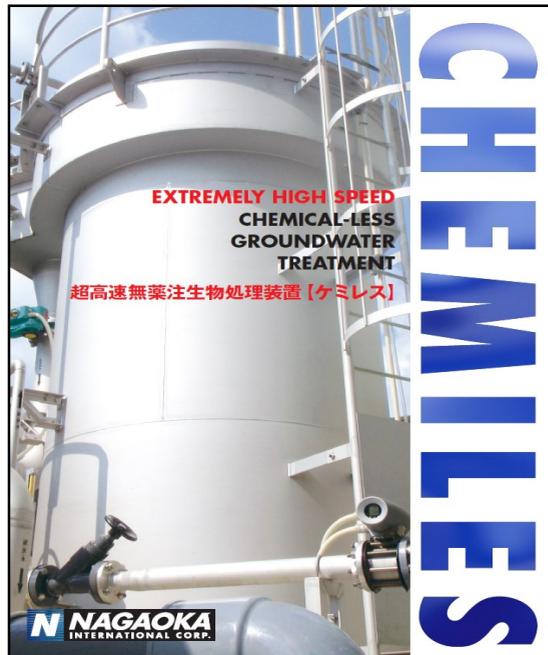




Chemical-less Groundwater Treatment System "CHEMILES"



CHEMILES remove iron, manganese, ammonium nitrogen and arsenic without any chemicals.



Features

[No chemicals]

Chemiles is easy maintenance and low running cost because no chemicals are used.

[High speed]

Liner velocity is 500m/D because of adapting contact oxidation and biological treatment. So Chemiles need minimum footprint.

[Highly concentration]

Chemiles were adapted in high concentration raw water site (ex. Fe:max40mg/L, Mn:max4mg/L, NH4:max4mg/L)

Overview (Technical principles, actions, etc.)

Chemiles is the biological treatment system for groundwater using no chemicals. CHEMILES can remove iron, manganese, ammonium nitrogen and arsenic without any oxidant and coagulant. The nozzles on the top of chemiles supply oxygen in the air to raw water and dissolved oxygen in the raw water became almost saturated. By using these oxygen, Iron is removed by contact oxidation and manganese and ammonium nitrogen are removed by biological treatment. And our original WP back wash system stabilizes chemiles operation in the high speed operation.



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Team E-Kansai

Performance / specifications of technology / product

Type	Capacity※ ¹	Diameter※ ²	Height※ ²	Operation Weight
NCL-0925	10m ³ /h (220m ³ /D)	900 mm	2,500 mm	4,600 kg
NCL-1535	25m ³ /h (550m ³ /D)	1,500 mm	3,000 mm	14,000 kg
NCL-2035	50m ³ /h (1,100m ³ /D)	2,000 mm	3,500 mm	23,600 kg
NCL-2545	80m ³ /h (1,760m ³ /D)	2,500 mm	4,500 mm	50,000 kg
NCL-2845	100m ³ /h (2,200m ³ /D)	2,800 mm	4,500 mm	63,000 kg
NCL-3145	120m ³ /h (2,640m ³ /D)	3,100 mm	4,500 mm	75,000 kg

※¹ Operation time is 22 hours per day. (without washing time)

※² Spec is subject to changes in raw water quality.

Usage examples / result

	Usage	Capacity	Raw water quality		
			Fe (mg/L)	Mn (mg/L)	NH ₄ ⁺ -N (mg/L)
A	Drinking	50,000 m ³ /D	8.3	1.5	0.35
B	Drinking	13,200 m ³ /D	11.10	1.10	0.40
C	Drinking	4,500 m ³ /D	8.17	3.26	0.46
D	Drinking	4,500 m ³ /D	5.70	0.86	0.10
E	Industrial	25 m ³ /h	31.00	1.36	0.60
F	Industrial	52.5 m ³ /h	1.00	0.30	5.10

※ Chemiles satisfies Japanese drinking water regulation in all sites.

