

MSX Core 100

Modular base technology solution block that can be co-located to recover High-Purity Lithium, Cobalt, Nickel, and Copper.

ABOUT THE CORE 100

The foundational block of the MSX technology solutions, the MSX Core 100, is the base demonstration unit that can be co-located to your facility producing black mass, production scrap, and/or metal waste and scrap.

With significantly lower footprint, water, and energy requirements than other market participants, the MSX Core 100 can be fabricated, installed, and operated within a short timeline. Lithium, Cobalt, Nickel, and Copper can be recovered at significantly high rates in a desirable compound state.

KEY COMPONENTS

The proprietary MSX process consists of a pre-treatment (PREX), MSX treatment (MSX), and a post-treatment (POSTX). With an option to be fully automated, the system can handle 100 tons per year of the raw material with a cycle time of 20 hours from raw material to product.

Depending on the client's preferred end product state, the unit can be tailored appropriately for fabrication and delivery. Lithium, Cobalt, Nickel, and Copper can be recovered at >85%, >92%, >95%, and >98% of desirable purities.



KEY CHARACTERISTICS

Processing capacity:

100 tons per year

Average cycle time:

20 hours

Utilities:

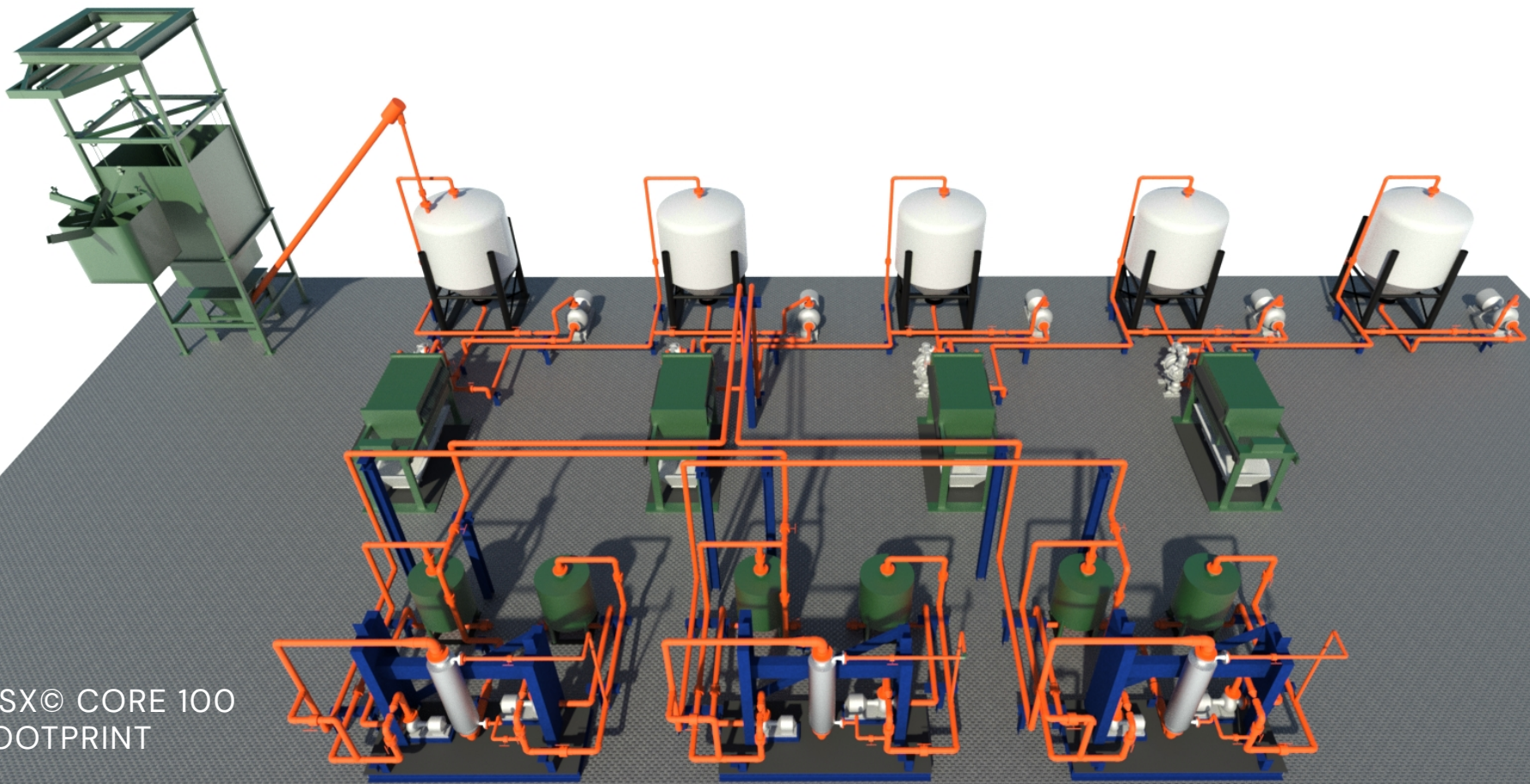
Fit for Purpose

Footprint:

4000 sq ft

Yields:

>92%



MSX® CORE 100
FOOTPRINT

INPUTS

The MSX Core 100 can handle a wide variety of inputs of various raw materials including black mass, metal waste, and production scrap that contain critical minerals and metals for extraction. Best-in-class personal protective equipment will be recommended depending on the quality of the raw material.



Black mass



Metal waste



Production scrap

OUTPUTS

Suited to be tailored to the specific needs of the client, the range of outputs from the MSX Core 100 block could be: Lithium chloride/hydroxide/carbonate, Cobalt hydroxide/sulfate heptahydrate, Nickel hydroxide, Copper sulfate/hydroxide, Nickel sulfate hexahydrate, and Graphite.



>85% recovery rate of High-Purity Lithium



>92% recovery rate of High-Purity Cobalt



>95% recovery rate of High-Purity Nickel



>98% recovery rate of High-Purity Copper