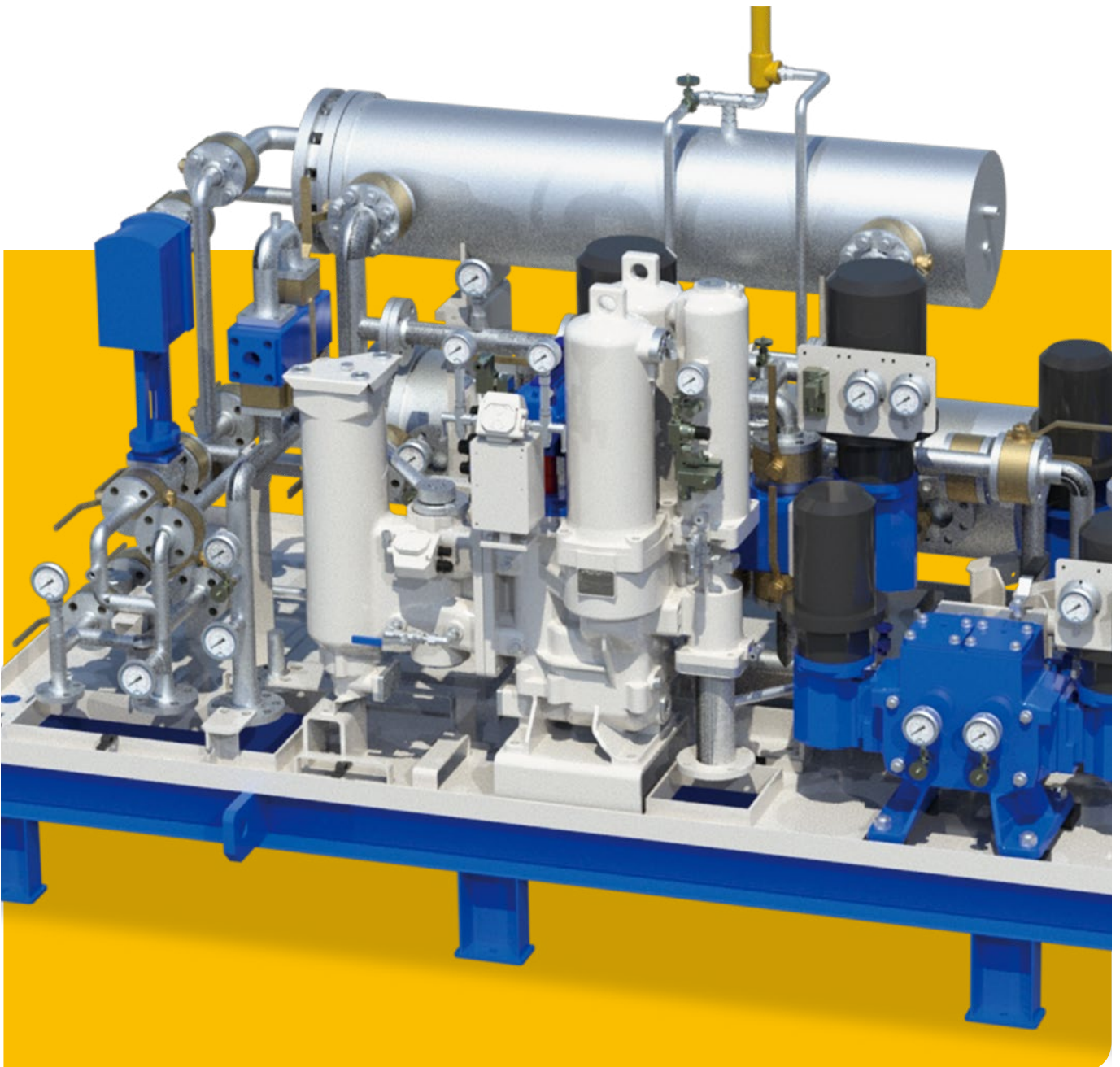


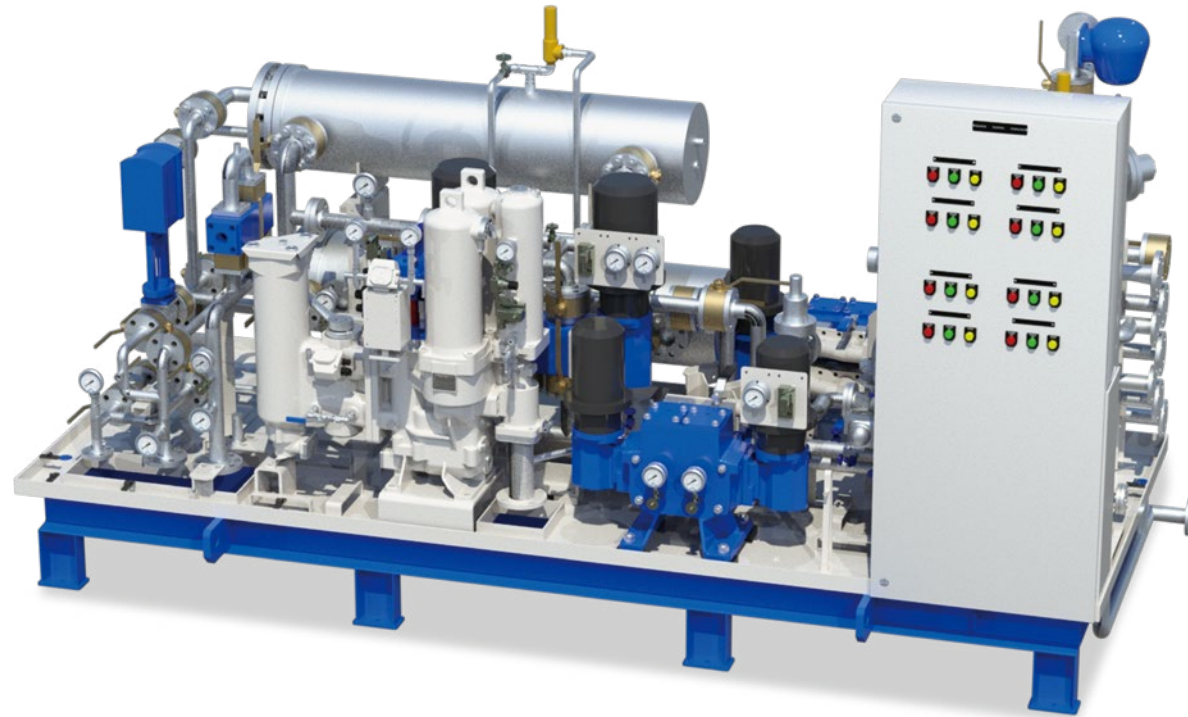
# Fuel Oil Supply Booster & Purifier Module

Create Customer Value  
through Innovative System Engineering





# Fuel Oil Supply Booster & Purifier Module



MnSi Fuel Oil Supply Booster Unit and Purifier Unit can enhance the efficiency and performance of the main engine by keeping fuel temperature, pressure and viscosity in best conditions, which contribute to the excellent productivity for ship and plant operation.

## Benefits

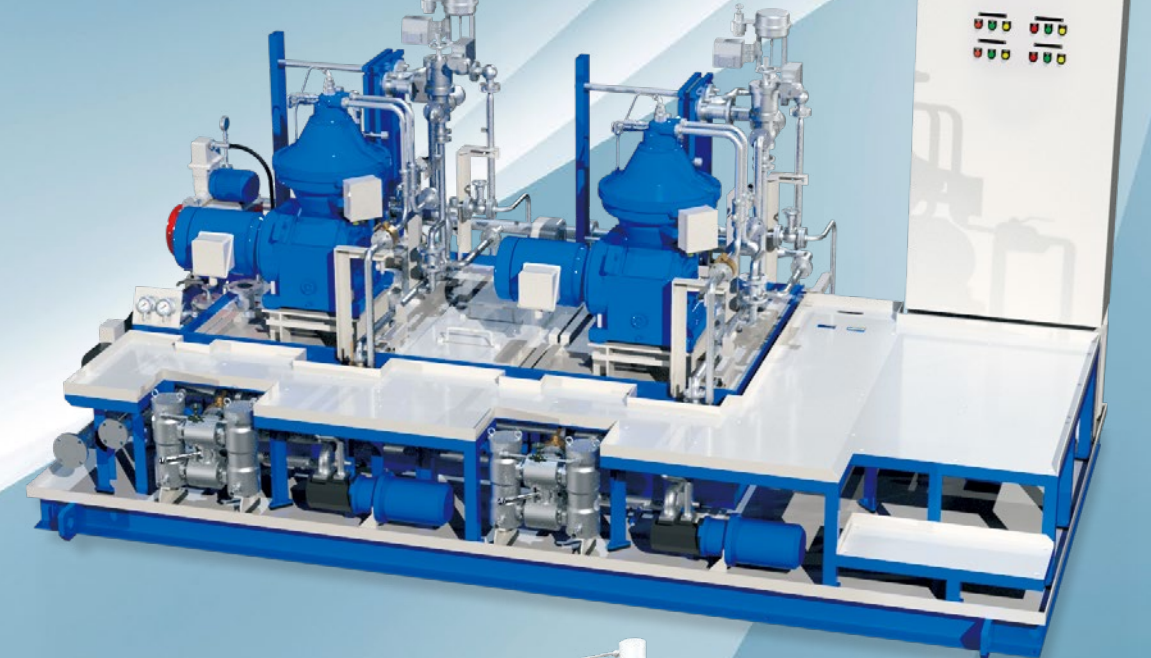
- Availability of engine room space by compact size
- Simple and easy installation by compact structure and all nozzle connections in bottom plate
- Easy operation and maintenance by optimal layout

## Quality

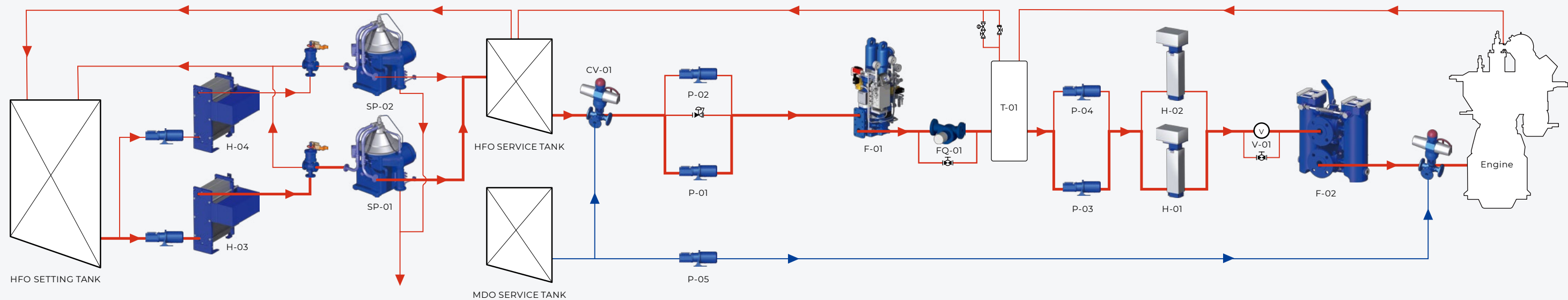
- High reliability and safety by quality key components and 3D design
- Complete functional test and commissioning at shop as well as Onboard

## Application

- Diesel engine fuel oil operation for Power and Marine application



Schematic Diagram



Main Components and Options

Item	Components	Options
CV-01	3-Way HFO / MDO Change - over valve	Local Manually
		Remote (Air / Electric)
		Automatic (Temp & Time)
P-01/02	Supply Pump	
FQ-01	Flow Meter	Volume
		Mass
T-01	Mixing Vessel	
P-03/04	Circulating Pump	
H-01/02	Pre Heater for Engines	Steam
H-03/04	Pre Heater for Purifiers	Electric
		Thermal Oil
V-01	Viscosity Control System	Local Controller
		Remote Loosely
F-01	Automatic Filter	10 / 25 / 34 / 50 μm
		By-Pass Manual Filter
		Indicator Filter
F-02	Mannual Duplex Filter	10 / 25 / 34 / 50 μm
P-05	MDO Pump	Electric Motor
		Air Motor
SP-01/02	Purifier	Selfjector

Main Specification & Application

Model	HSBM-6000, HSBM-11000, HSBM-18000, HSBM-26000 (max. 26,000 kW engine(s) output)
	Customized design & engineering according to the building specification
Fuel Oil	MGO (min. 1.5 cSt), MDO (min. 2 cSt), HFO (max. 380 / 700 / 1,200 cSt)
	DO, HFO, Crude Oil
	Viscosity control range : 0 ~ 50 cSt
Process	Fuel supply and circulating booster process separated or combined
Application	Uni-fuel system combined main engine and aux. Engines
	Separate fuel system for mani engine and aux. Engines
Auto Filter	Hot side of circulating process or cold side of supply process
Mode	HFO / MDO Manual or automatic change-over
	HFO / MDO Smooth change-over, time & temp controlled



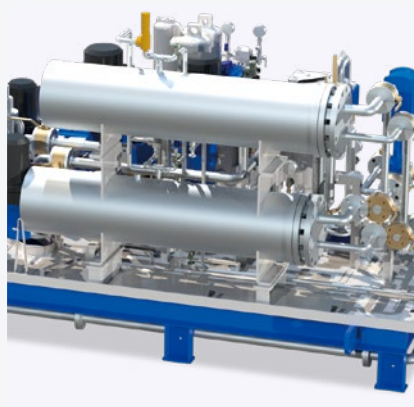
# Key Components



SP-01 / 02  
Purifier



P-01 / 02, P-03 / 04  
Supply Pumps, Circ. Pumps



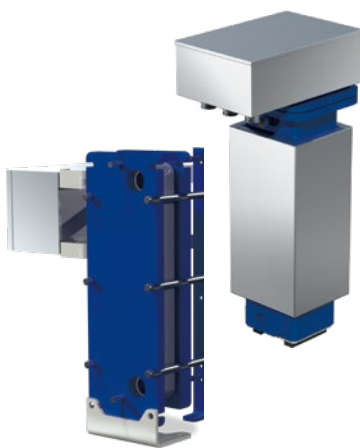
H-01 / 02 / 03 / 04  
Thermal Oil / Steam Heaters



CV-01  
3 Way Change - Over Valve



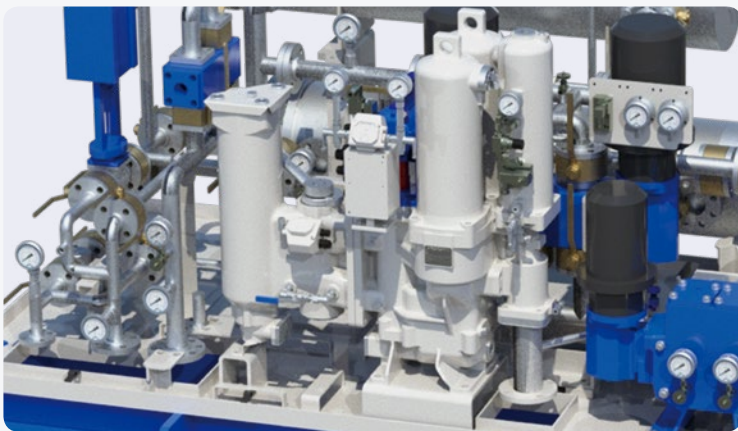
F-01  
Indicator Filters



H-01 / 02 / 03 / 04  
Electric Heaters



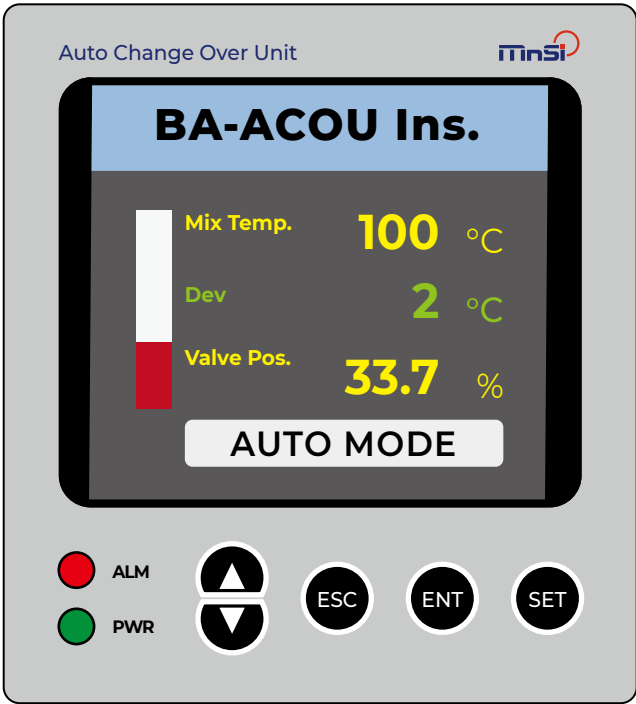
V-01  
Viscosity Sensor & Controller



F-01  
Automatic Filter

# Control Systems

## Auto Change Over Unit (BA-ACOU)

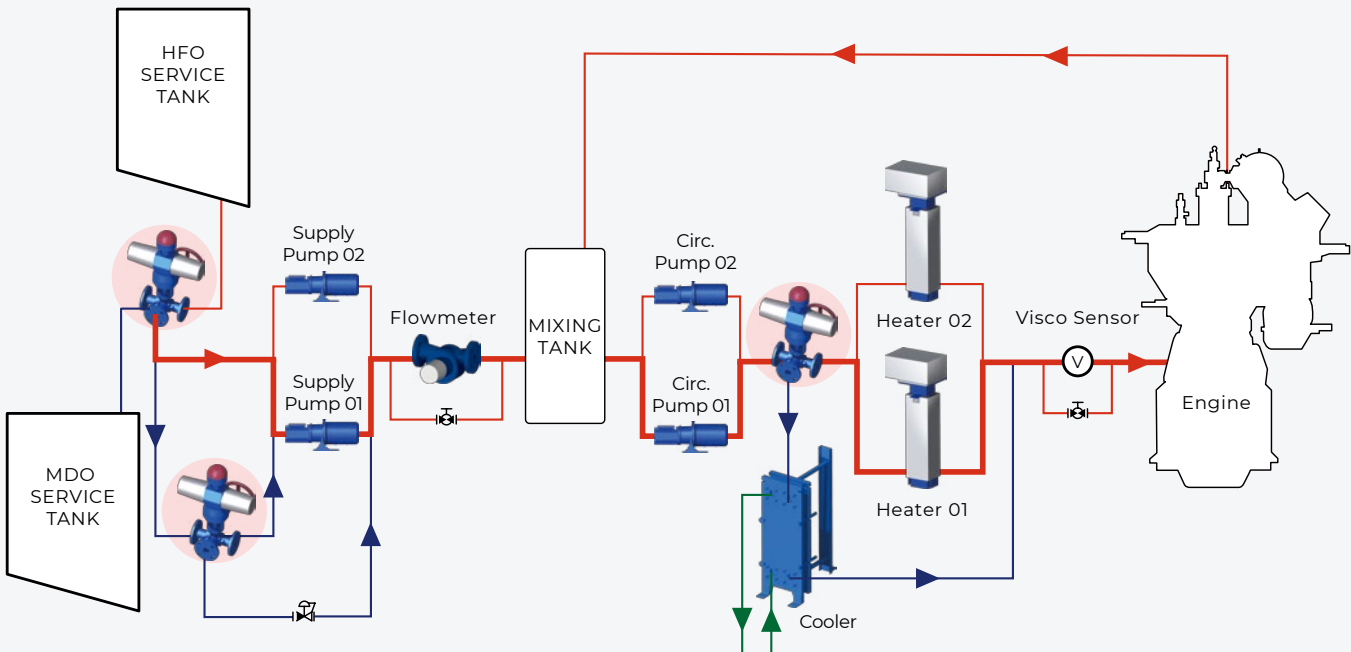


Auto Change Over Unit is limited use of HFO due to environmental regulation in the littoral sea and uses a valve system to control the conversion of HFO to MDO/MGO according to user setting.

### Specification

Item	Description
Display	3.2" TFT-LCD with Touch
Analog Input	3ch (Temp, RTD, TC)
Analog Output	2ch (Valve control)
Digital Input	2ch, Open Collector Type
Digital Output	4ch, Dry Contact
Dimension	96 x 96 x 120 (mm)
Power	100 ~ 240 VAC 50 / 60Hz

## Control System Diagram





Scan QR Code  
with a Smartphone

[www.mnsi.co.kr](http://www.mnsi.co.kr)



**MnSi Co., Ltd.**

138, Jayumuyeok 5-gil, Masanhoewon-gu,  
Changwon-si, Gyeongsangnam-do, Republic of Korea

**T** +82-55-237-0606

**F** +82-55-237-3030

**E** [sales@mnsi.co.kr](mailto:sales@mnsi.co.kr)

**W** [www.mnsi.co.kr](http://www.mnsi.co.kr)

Copyright © 2019.03.15 MnSi Co., Ltd.  
Designed by Hrum