



In the world of co-existence of technology and human, we will create the value to make the world where the people are happy.



The global top in next generation display industry, Republic of Korea  
We will take off further jointly with the inkjet technology of Gosan Tech.

Gosan Tech Co., Ltd

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# COMPANY

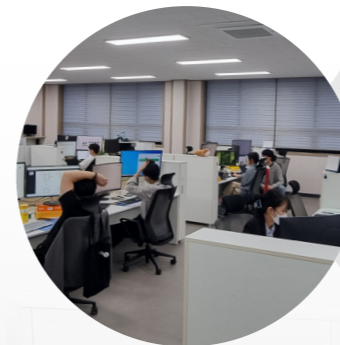
Company Profile

## Brief History

- **2022 ~**  
 May. Registered for the first vendor of Samsung Display
- **2021 ~**  
 Oct. Appointed for 100 startups by Ministry of SMEs and Startups  
 Mar. Registered for the first vendor of Samsung Electronics
- **2020 ~**  
 Nov. Awarded the prize from the Ministry of Trade, Industry and Energy (IP superb management contest)  
 Jul. Attracted the Series-B investment
- **2019 ~**  
 Nov. Awarded the prize from Korea Invention Patent Exhibition 2019  
 May. Attracted the Series-A investment
- **2018 ~**  
 May. Appointed for TIPS (Ministry of SMEs and Startups)
- **2017 ~**  
 Dec. Awarded the prize for the superb venture firm of Chungnam
- **2016 ~**  
 Dec. Established the company annexed research center
- **2015 ~**  
 Dec. Established the corporate, Gosan Tech

## An enterprise of inkjet technology closer a step to the future, Gosan Tech

Gosan Tech is a company developing the next generation inkjet printing technology in the field of the display and the next generation photovoltaic multi-layered thin film stacking type structure forming. We have been developing the units in variety with higher control precision and jetting accuracy than the conventional inkjet printing system.



# TECHNOLOGY

Technology Competence

## Inkjet Technology

### Next generation display Core of the quantum OLED TV process Inkjet Technology

Innovation of Display,  
Gosan Tech will take a lead for it.



#### Advantage of inkjet technology

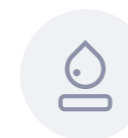
The inkjet technology is available for saving the material cost innovatively by reducing the processing steps in the mass production.

#### Development possibility of inkjet technology

The inkjet technology has been highly spotlighted as a key for the success of display industry while the cost reduction is highly demanded due to the highly improving display industry. The uniform jetting technology is essential to adopt the inkjet technology to the display.



#### Advantages of inkjet technology of Gosan Tech



##### 01 Uniform jetting function

Realized the best technology in the world for the position, amount and speed of the ink.



##### 02 Pressure deviation improvement

The micro-processor and in-house developed firmware were mounted out of the traditional analogue type. The pressure deviation was improved by 70% or higher ( $\pm 15\text{pa} \rightarrow \pm 4\text{pa}$ ) owing to adopting the digital type.



##### 03 Adopted the particle ink

Available for adopting the particle ink owing to the precipitation preventive function of the ink.

# TECHNOLOGY

Technology Competence

## Core Technology

Gosan Tech studies endlessly for the future competitiveness on the next generation display and photovoltaic.

Gosan Tech continues its creative development by means of the endless studies in the clean environment.



### Precise pressure control

The pressure controller of Gosan Tech blocks the excessive or clogging phenomenon of the ink inside the nozzle, and plays the instrumental role in improving the position accuracy and drop uniformity.

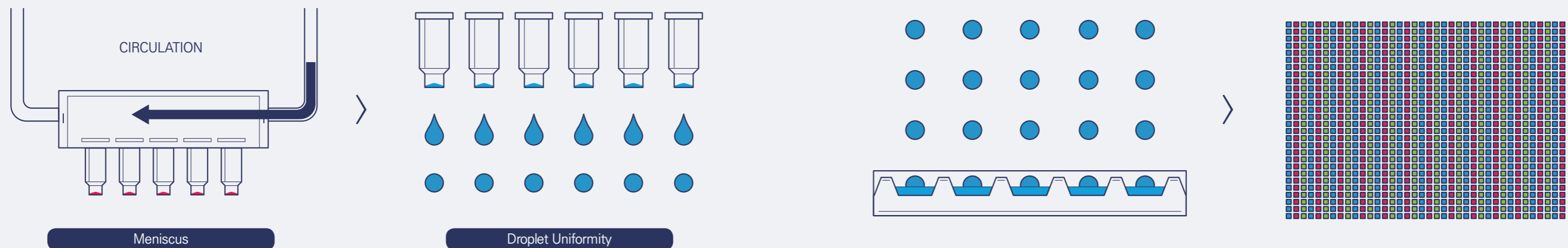
### Ink circulation agitator

The ink circulation agitator makes the ink with less dispersion stability possible for the precise jetting regardless of characteristics of the ink by controlling the fluidity of the ink, improving the disadvantage of the inkjet printing depending generally on the ink.

It realizes for the ink with less dispersion stability to circulate and supply while keeping the meniscus (Balancing state) on the nozzle cross section.

### High Resolution Negative pressure control technology

The negative pressure control technology controls the meniscus and circulate the ink having nano particles with low dispersion stability simultaneously.



# PRODUCT

Product

## Inkjet Module



### Inkjet Pressure Controller

It is a micro pressure unit controlling the meniscus and purge pressure in high precision at the inkjet printing.

- Available for adjusting control range of positive and negative pressure
- High negative pressure control precision

#### SPECIFICATION

D x W x H	85 x 180 x 212(mm)
Weight	2(kg)
Pressure Range	Purge : 0~200kPa
	Meniscus : -50 ~ 0 kPa
Control Accuracy	Meniscus : SV ± 15Pa
	Purge : SV ± 0.2kPa
IO(Input/Output)	DI : 16ch   DO : 16ch
	AI : 2ch   AO : 2ch
Additional functions	IO control
	Interlock Sequence
	Temperature Control
	Flow(Pump) Control

※ Available for order making in the demanded pressure control range



### Head Module

It is a product maximized in its mass production convenience by clustering the head modules which are the core in inkjet system configuration. It serves the multiple functions of the circulation, supply and jetting of the ink.

- Miniaturization of head re-cycling system
- Easy attaching/detaching
- High re-mounting precision
- Available for mounting the heads in variety
- Available for using the UV, oil and water based ink
- Customizing

#### SPECIFICATION

D x W x H	203 x 123 x 450(mm)
Weight	5.5(kg), @dry
Drop Volume	6~80pl
Drop Per Inch	360~1200
Ink Type	UV, Solvent, Oil, AQ and etc.
Option	Optional for attaching the circulating agitation/degassing/filter and etc.

※ Size changeable



### Ink Delivery System

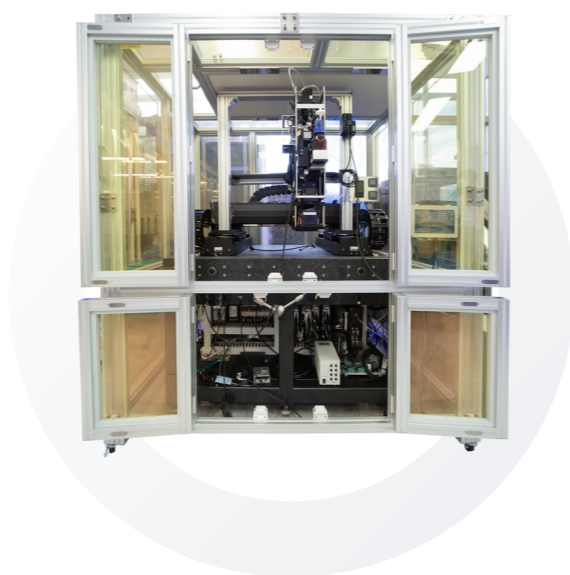
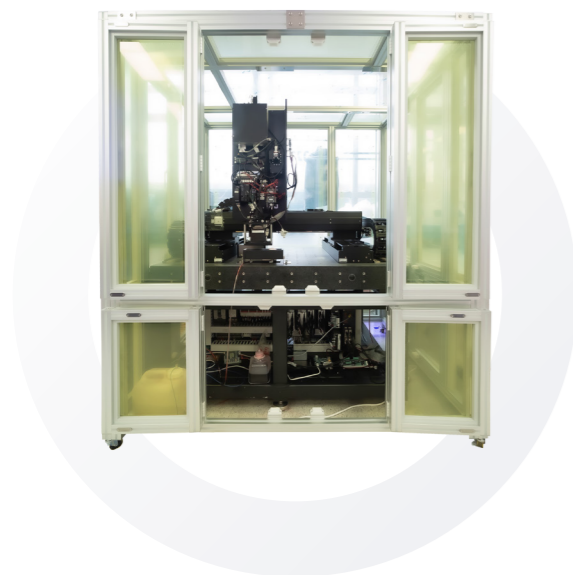
- Circulating agitation function mounted
- Possessed the circulating models in variety
- Customizing such as the material, shape and size

# PRODUCT

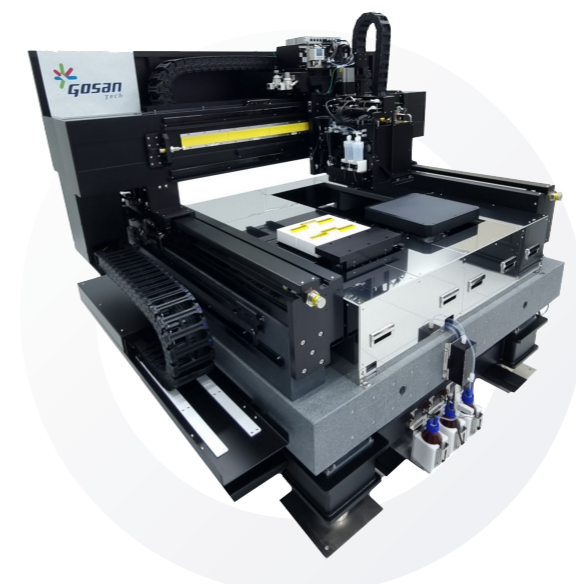
Product

## Inkjet Printing System

### System for evaluating the mass production



### Equipment for Research & Development



### Available options

- 01 | Panel size adjustable
- 02 | Shaft control and control precision
- 03 | Maintenance module
- 04 | Drop Watcher

## Service

### Inkjet printing test facilities

- 01 | In-house R&D test equipment
- 02 | Drop watcher
- 03 | Measuring the drop uniformity by using the precision balance
- 04 | Measuring the controlling pressure

### Tests available

- 01 | Ink jetting test (Spit test)
- 02 | Dropping droplet observation (Drop Watcher)
- 03 | Pattern printing (By using the in-house R&D unit)