

# Types of industrial inkjet printing machines

## Detail Pengenalan :

An industrial inkjet printing machine squirts ink onto a substrate without actually making contact with it. Because the ink is jetted instead of contacting the surface directly, editing content is easy and the machine is controlled by a computer. Changeable codes can also be added to the print, which makes it a great choice for industrial printing. A common feature of industrial inkjet printing machines is the ease with which they can add changeable codes.



Industrial inkjet printing systems are classified into two types - continuous inkjet (CIJ) and drop on demand (DOD). CIJ printers eject drops continuously from a printhead and direct them to a collector. Drop on demand printers dispense drops only when they are needed. These printers have numerous advantages over other inkjet printing technologies, such as conventional offset or UV printing.

TIJ printers are simpler to maintain and repair than CIJ industrial inkjet printing machines. TIJ printers have fewer moving parts, while CIJ systems have several. CIJ printers typically require monthly service contracts and require specialized maintenance. The installation and maintenance of a CIJ printer will require a highly trained technician. However, CIJ printers offer greater flexibility and productivity.

CIJ has two basic technologies. Multi-level CIJ deflects printed drops into a variety of positions, while single-level CIJ prints un-deflected drops. Both methods provide high print speed and can accommodate large distances between the printhead and substrate. The ink used in continuous CIJ printers is also volatile, so it is not easily clogged by the substrate, which means that it dries quickly.

Industrial inkjet printing machines are more flexible and can produce higher resolution codes and marks. These printers are also modular and require no umbilical, while CIJs require monthly maintenance contracts. Printers have a wide variety of inks that can be used for various applications, and they can print on both porous and non-porous surfaces. A printer can also produce high-quality printing for large-format applications, including logos and corporate branding.

Printers are very affordable and are highly versatile in applications. The iSunJet PARALLAX printer ejects irregular droplets onto the printing target. Due to its solenoid control, this printer produces precise ink. This printer uses a water-based ink system for porous surfaces, and a solvent-based ink system for non-porous surfaces. Message programming is easy with the help of software. Orion Graphical Package allows users to connect their CoPilot, Jetline, or Squid Manufacturing printers, and create industrial inkjet mark files.

Industrial inkjet printing machines are divided into drop-on-demand and continuous-inkjet. CIJ technology ejects drops continuously from the print head, whereas DOD inkjet printers eject drops only when they are needed. Because industrial inkjet printers are more flexible, they are quieter than CIJ systems and can print finer details than their consumer counterparts.

#### MSV-200

The MSV-200 is a mid-range industrial inkjet printing machine that offers a variety of features. It is a spray nozzle system that utilizes a piezoelectric print head, which is less expensive to produce than other types of print heads. A droplet of ink is emitted from the nozzle at a rate of one to eight droplets per dot.

Piezoelectric inkjets use thermoplastic inks, which can be confused with thermal bubble-jet technology. However, the former is not solid at room temperature and requires an ink temperature of about 125°C to make it less viscous. This new technology was first introduced by Howtek in the early 1950s and is now available from several manufacturers. MSV-200 industrial inkjet printing machines are highly versatile. This machine can print a wide range of materials, including signage, textiles, and optical media. It can also print 3-D objects and conductive circuitry. MSV-200 industrial inkjet printing machines are built around a granite gantry system. The print heads step across the gantry at speeds up to 500 mm/s. You can choose from the Sapphire, Polaris, and Starfire print heads from Fujifilm Dimatix.

#### MSV-300

MSV-300 industrial inkjet printing machine combines high-speed print quality with a compact footprint. It comes with an automated print head maintenance station and complete control over printing parameters. It also features fume extraction and appropriate filtration. Developed with the help of experts in the field, MSV-300 is the perfect industrial inkjet printing machine for a variety of applications. Listed below are some of its key features.

**High-capacity paper storage:** This inkjet printer has a high capacity paper store. It can hold around 1,500 sheets. The large paper tray allows for batch loading of three full reams or half a ream. It can print on

variety of materials, including glossy, matte, and ground wood. The MSV-300 industrial inkjet printing machine also boasts impressive speed and reliability.

**Advanced inkjet printheads:** The MSV-300 industrial inkjet printing machine is equipped with eight inkjet printheads for high resolution color and contrast. The printheads are highly flexible, featuring wide-inlet compatibility, high-speed printing, and compact footprint. The inkjet printer can print on various media and irregular surfaces, including metal, glass, and plastic. A high-quality print will help your company gain a competitive edge in the market.

#### MSV-400

MSV-400 industrial inkjet printing machine uses a high-speed inkjet printhead for materials deposition and imaging. The system's advanced features include an MEMS piezo inkjet printhead with drop volumes from 1 to 10 pL. The machine is capable of printing on a variety of materials, including plastic, metal, ceramics, dielectrics, and resists. Its design makes it ideal for complex geometries and fluids.

Unlike conventional inkjet printing machines, MSV-400 industrial inkjet printing machine can print on large and large substrates. This machine also has high-speed capabilities and enables users to print on a variety of surfaces, including non-flat and fragile materials. Its high-speed printing capacity and flexibility make it a perfect choice for a variety of industrial applications, including product coding. However, it is important to know that MSV-400 industrial inkjet printing machines are not for the average user.

The MSV-400 is the best choice for industrial inkjet printing. Its large printhead size and powerful performance allow it to handle even the largest projects. It is also easy to use, and even beginners can operate it. A print area of up to 3m<sup>2</sup> can be covered by a single machine. The MSV-400 can handle a wide range of printing jobs, ranging from labels to posters.

#### MSV-300i

The MSV-300i is a versatile machine for production in the industry, combining high-speed, color inkjet printing and flexible machining cell technology. Its modular design features a loading unit and a printing unit. The industrial inkjet printing machine uses CMYK inks for excellent print quality and robustness. It is designed to work with thin and rigid plastics, and its stainless steel construction and granite gantry system are both durable and long-lasting.

The MSV-300i industrial inkjet printers offer high-volume paper storage, up to 1,830 sheets. This feature allows you to batch load three full reams or half a ream. The machine's full touch-screen makes it easy to navigate through the user interface. For ease of use, the machine features a UV-curing function, which cures ink within two to five minutes. Designed for mass production, the MSV-300i features auto-correction of the height of each material. Auto-correction helps prevent ink from drying in the wrong place, while ensuring the best printing results.

The MSV-300i offers maximum print resolution and is compatible with a wide variety of materials, including film labels and matte and glossy coated paper. Its LCD screen makes it easy to use. The pigment-based

used in the printer ensures sharp, high-resolution images. Its durable labels are water and smudge-resistant, making it ideal for outdoor use. This machine also has an automatic power-on feature, which turns on the machine automatically when a print command is sent.

#### MSV-200i

Fujifilm's MSV-200i industrial inkjet printer is a versatile deposition tool. Its working area is 500mm x 500mm and is built around a granite gantry. The print head steps across the substrate, which moves at a high speed of 500mm/s. The MSV-200i uses Q-Class print heads from Fujifilm's DImatix series, including Sapphire and Starfire.

These printers have high-capacity paper stores that hold up to 1,830 sheets. They can also be configured to print multiple lines, including barcodes, QR codes, and graphics. These printers also support two-sided printing, which allows you to print multiple sheets on one sheet. The MSV-200i is a cost-effective option for short to medium-sized businesses. It can produce 20 million pages, or more, and can be configured to print on multiple media, such as ground wood.

These printers use piezoelectric inkjet technology to print with thermoplastic inks. These inks are sometimes confused with thermal bubble-jet technology, but they are different. Bubble jet inks are solid at room temperature, while thermoplastic inks require a temperature of 125 degC to break their viscosity.