

Introduction

Integra Co.,Ltd was found by the group of engineers who had experience in process engineering in order to response to the manufacturers who need the modernized technology production line resulting high productivity and reliable good product output. The good engineering behind the plant will guarantee the production running at the most efficiency.

We are the engineering company which is engaged in designing, engineering, supply, installation and start - up of liquid processing plant in variety sections such as dairy, drinks, pharmacy, cosmetics etc. We are responsible for integration of process equipment into a plant context by addressing three essentials : *Sanitary and Utilities Piping, Cleaning In Place and Process Control (Automation)*. We combine all engineering knowledge together: *Processing, Mechanical, Electrical, Process Control and Automation* to ensure that the plant works with the good reliable and the best quality product achieved. And we do not have limit of supply, depend on customers' desires.

Our Customers

Our products and services are adapted for clients in various industrial sections, such as

- Dairy products
- Pharmaceutical
- Brewery and liquor
- Soft drink
- Fruit juice
- Cosmetic
- Food
- etc.



Design and Engineering Work

Our engineers team will be responsible for the design and engineering work in the following areas :

- Conceptual / Basic / Detailed Engineering
- Flow diagram & CIP route
- Mechanical & piping
- Electrical & Instrumentation
- Automation control system & software
- Process & utility engineering
- Procurement
- Project execute : installation, supervision, commissioning, documentation, training
- Process validation (DQ, FAT, SAT, IQ, OQ, PQ)



Products and Services

Integra offers customers the products and services, which are divided to five categories.

Fabrication and installation work

Integra does work according to customers' or other designers' drawings and specifications or our own design to meet customers' requirement.

- **Piping work** : sanitary tubes for product lines / utility pipes for water, air, steam, etc. / flow plates/ cluster valves.
- **Electrical work** : motor control cabinet / instrumentation / power cabling / control cabling / control panel.
- **Automation work** : PLC programming / SCADA system / HMI / Process visualization / Recipe control /

Production Process System

- **Storage matrix** : mixproof cluster valves / flow plates / swing pipes + valves
- **Mixing station** : tank system / circulation system / continuous
- **CIP / SIP system** : a) centralized b) decentralized c) combined centralized / decentralized
- **Pasteurization process**
- **Aseptic process**
- **Standardization system**
- **Extraction**
- **Fermentation**
- **Complete systems for production** : milk / yoghurt / juice / soft drink / alcoholic drink / medicine / cosmetic / souce etc.

Training

We train staffs in all aspects of the production process and provide the necessary documentation in order for the client's business to operate smoothly and yield maximum benefits.

System unit (Skid type)

Integra does fabrication in workshop and deliver ready-to-use system to customers.

- **CIP unit** : single use / recovery
- **Pasteurizer** : plate / tubular / flash / Cold(Hot) Fill
- **UHT** : plate / tubular
- **Mixing unit**
- **Deaerator** : vacuum / gas disperse
- **In-line blender** : liquid - liquid / liquid -gas
- **Reception unit**
- **Sugar dissolver** : batch / continuous
- **Carbonator**
- **etc.**

Upgrading and retrofit

To improve the existing system, consequently production efficiency is enhanced.

- **Control upgrading** : change from manual to automation / control loop apply
- **Redesign process and CIP flow** : easier / more safety / flexible minimize operation mistake / accurate production / prevent contamination
- **Relocation**

After sale and service

To guarantee the plant will run smoothly without interruption time, our spare parts and trained staffs are ready for service.

- **Spare parts** : pipe and fittings / valves / pumps / seals / instruments / controllers / etc.
- **Service** : change wear parts / remedy malfunction equipment / parameter adjustment / system tuning