



# CHANGE & INNOVATION

## IENTECO MACHINING

Clean Air / Clean Workplace  
Clean Coolant / Profitable Recovery



**IENTECO.,LTD.**





아이엔테크(주)  
IENTECO., LTD





# IENTECO

**A company that realizes  
eco-friendly management and  
the 4<sup>th</sup> industrial revolution**

IENTECO.,LTD designs, manufactures and constructs the system needed for the waste recycling and eco-friendly field such as machine tool peripheral equipment, centralized chip processing equipment and coolant system facilities based on its excellent manpower and R&D activities, providing the best sedrvices for customer satisfaction in various fields such as automobile, machine tool, aviation industry and electronics.

## Major Item

Machine Tool Unit Chip Converyor·Centralized Coolant & Filtering System  
Centralized Chip System·Environment Technology·Facilities·Technical Assistance Service



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# IENTECO.,LTD towards the world and the future!



## CUSTOMERS











Good solution for your workplaces and the environment

IENTECO.,LTD.



## A leader in technological differentiation, innovation and challenge!

In line with low-carbon and green growth era, IENTECO wants to share our extensive technologies and know-how accumulated over decades in the field of eco-friendly facilities (chip conveyor, centralized coolant system, waste recycling system, etc.) with our customers.

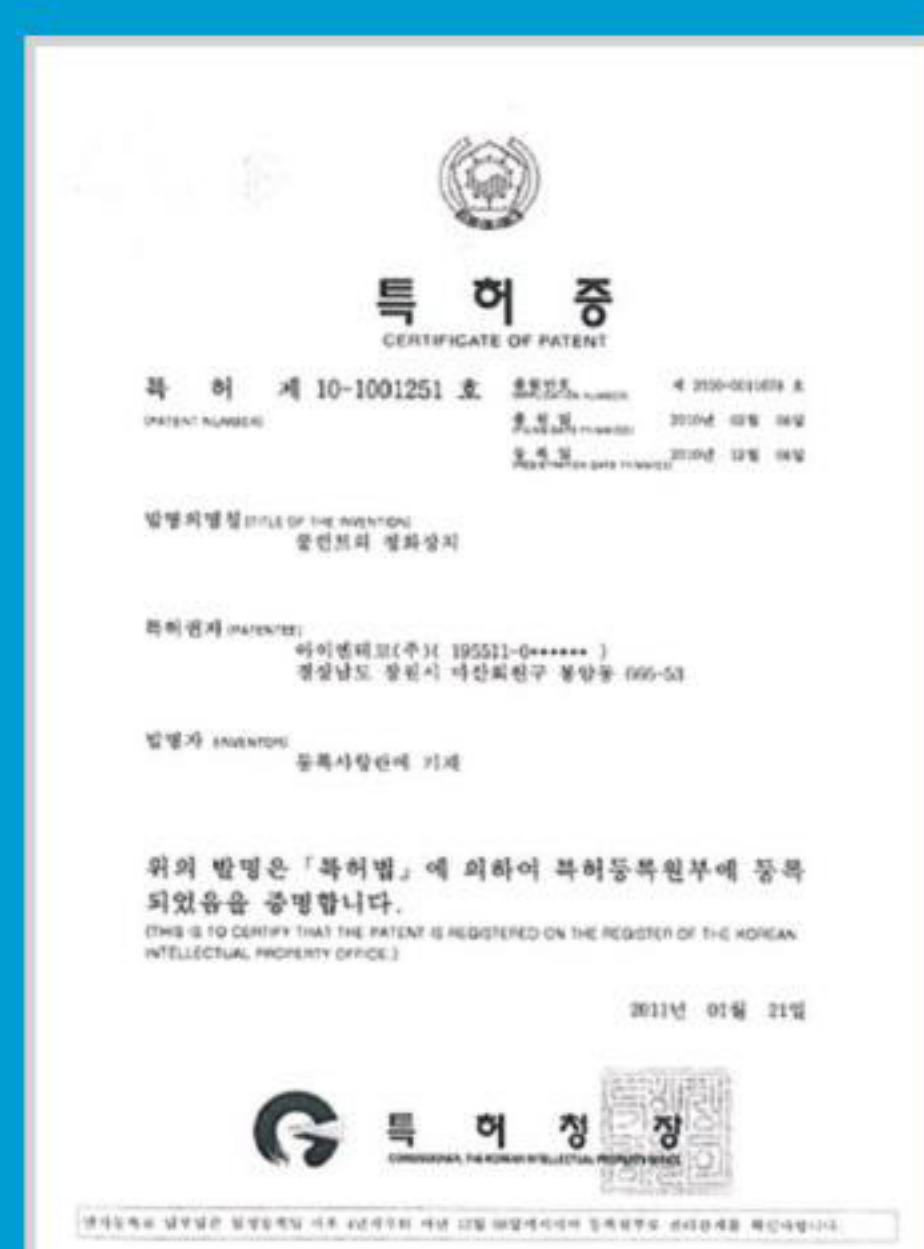
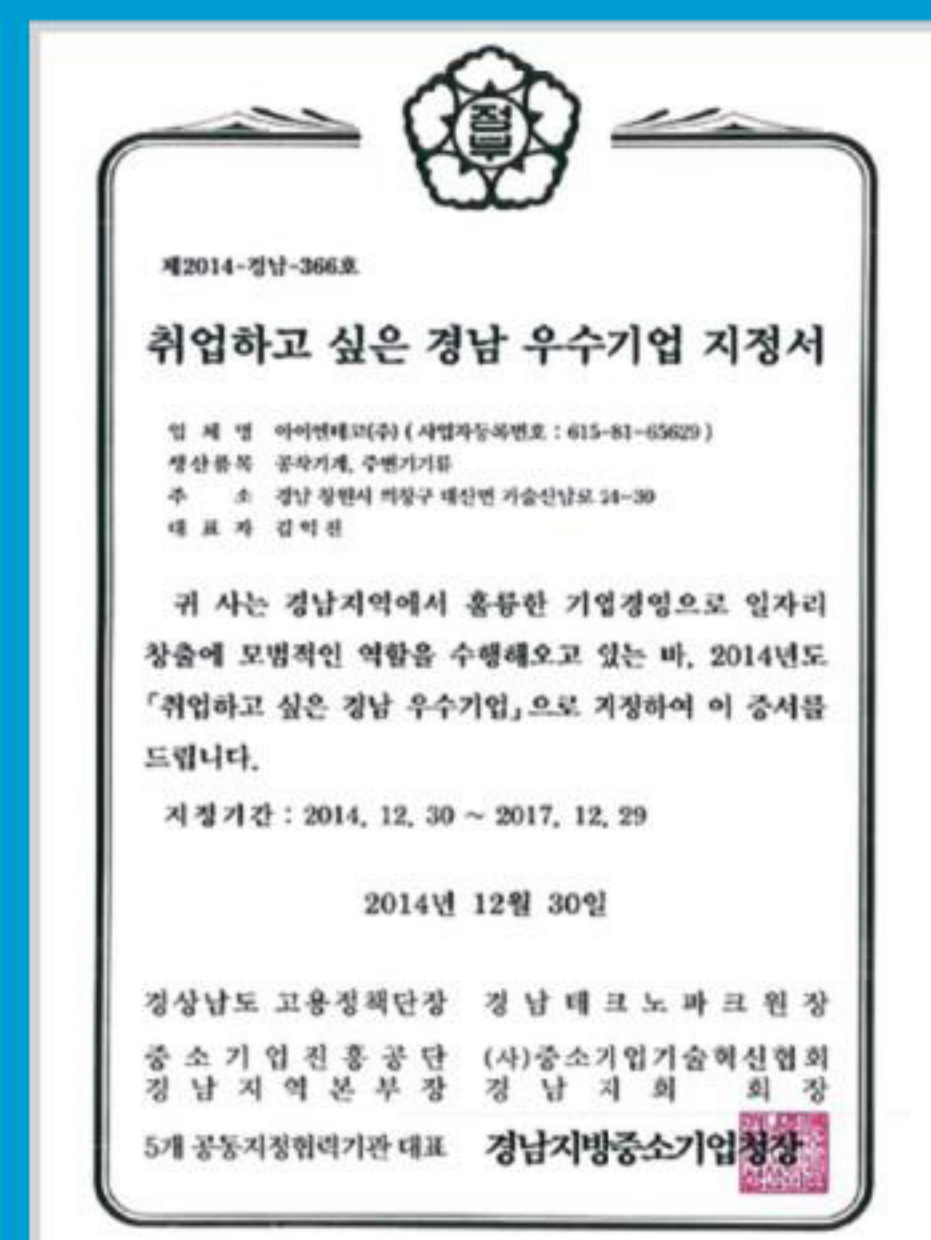
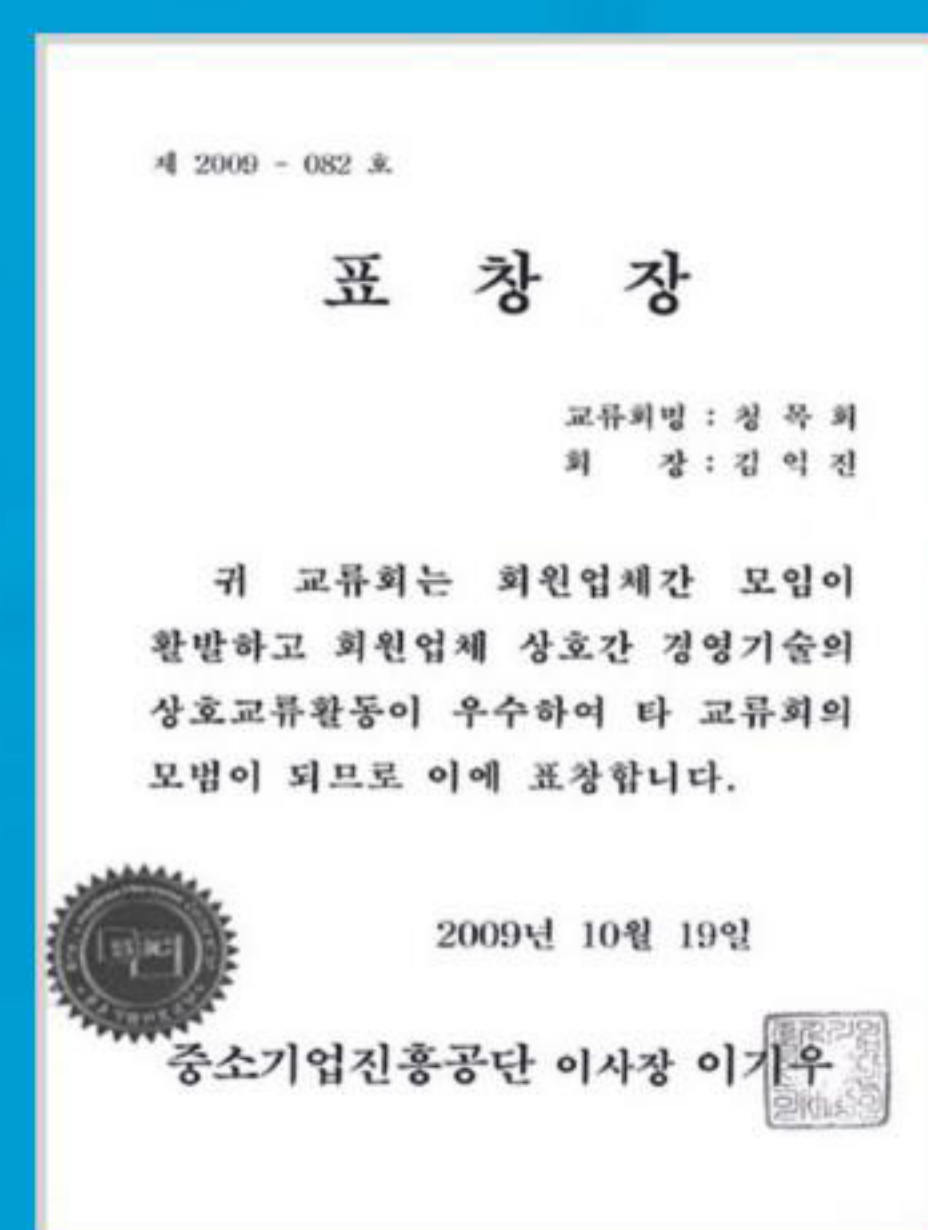
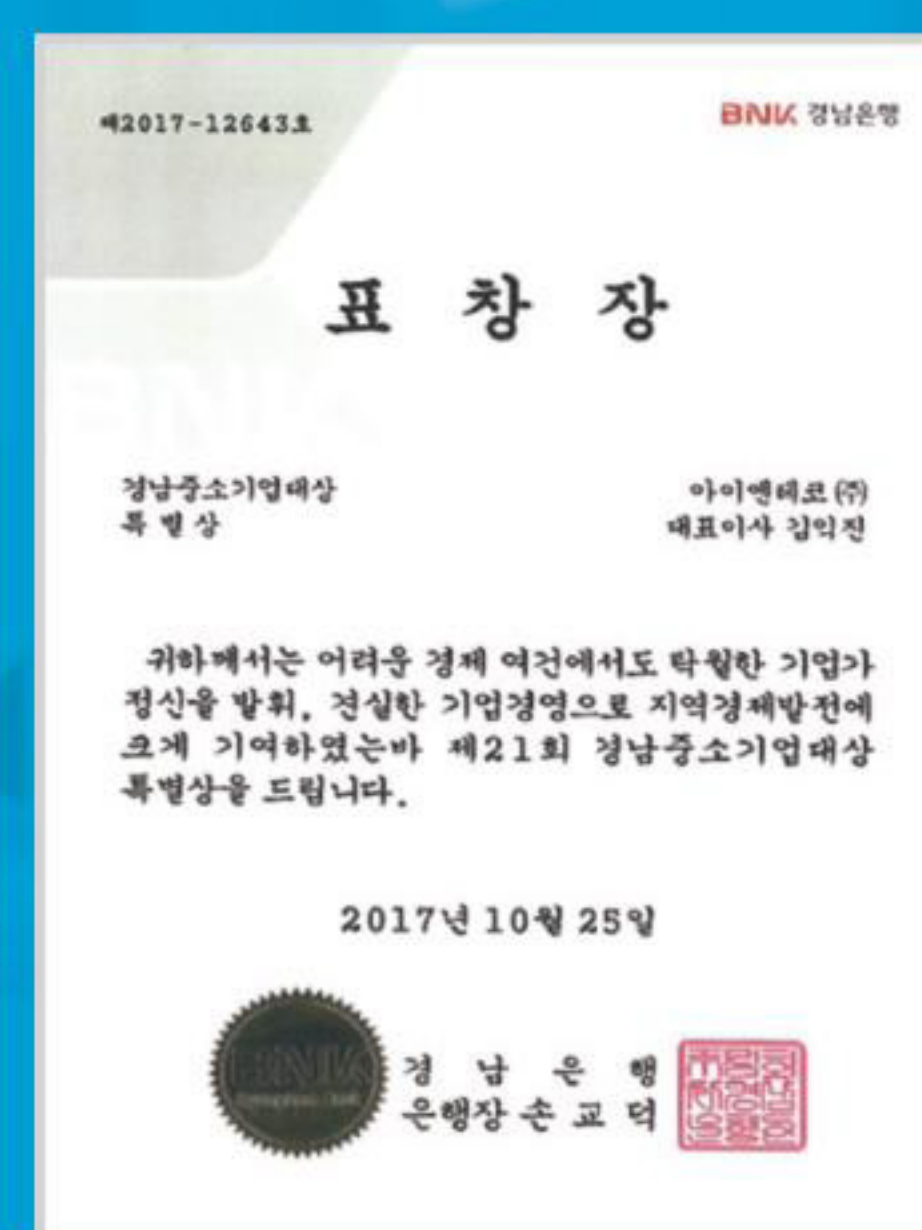
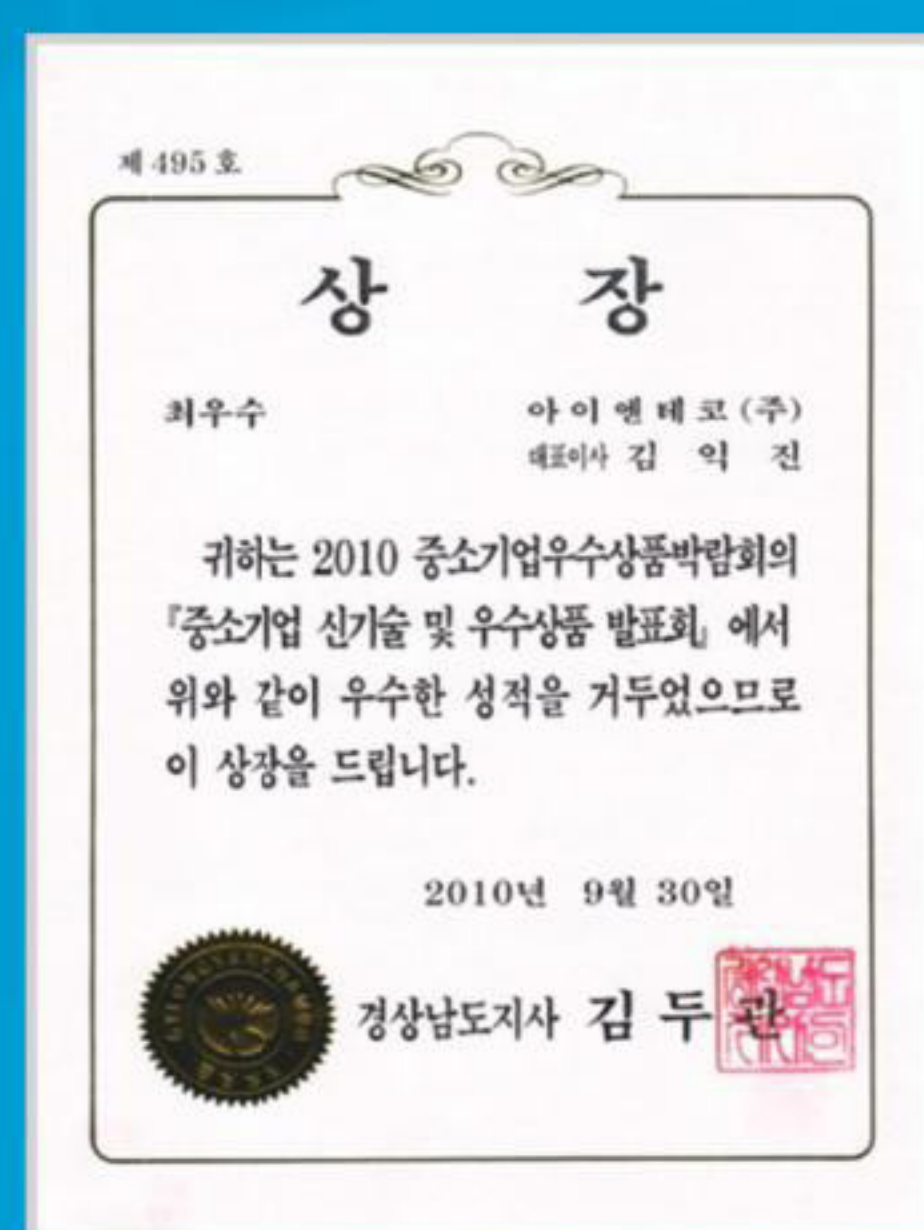
As a leading company in the 21st century, IENTECO introduces advanced technology, discovers the best ideas, makes its best to grow into a global leader based on ingenious technology, thereby making a steady progress.

CEO Kim, Ik-jin



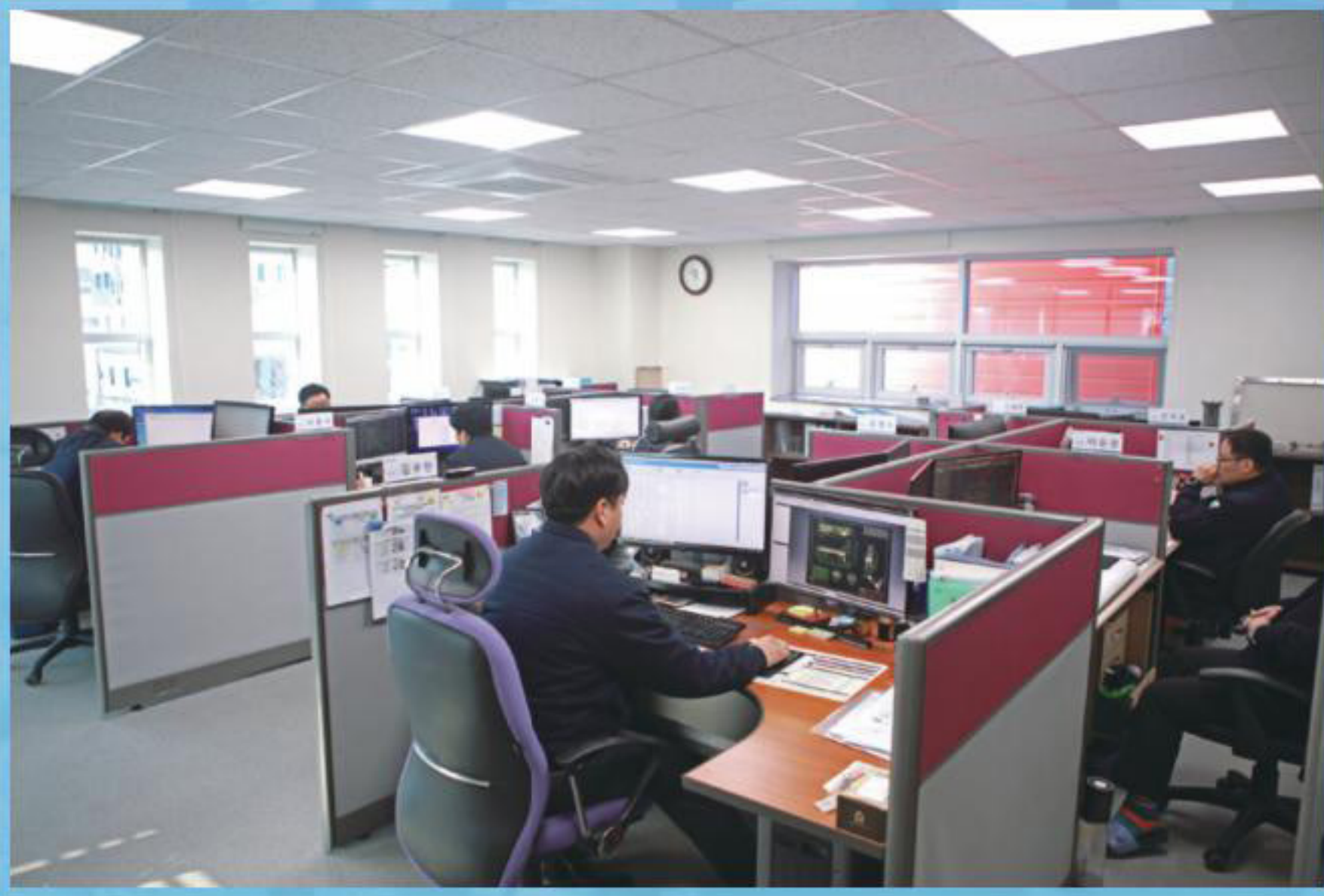
# A company that grows together with customers based on R&D and Quality Management

## Certification & Patent





## COMPANY HISTORY



- |             |           |   |
|-------------|-----------|---|
| <b>2008</b> | <b>06</b> | Founded ENTECO  |
|             | <b>10</b> | Incorporated into IENTECO   |
| <b>2009</b> | <b>09</b> | Acquired ISO 9001 quality certification                                       |
| <b>2010</b> | <b>05</b> | Registered as a Venture Business<br>(Technology evaluation guarantee company) |
|             | <b>07</b> | Selected as Clean Workplace   |
|             | <b>09</b> | Registered company affiliated R&D Center                                      |
|             | <b>09</b> | Received the grand prize in the sector of new technology                      |
|             | <b>12</b> | Designated as a promising small and medium export enterprise                  |
| <b>2011</b> | <b>04</b> | Relocated to newly built and extended plant in Daesan-myeon, Changwon         |
|             | <b>08</b> | Acquired certificate of specialized company of parts and materials            |
|             | <b>11</b> | Awarded the citation of Ministry of Small and Medium Business Administration  |
|             | <b>12</b> | Awarded Million Dollar Export Tower   |
| <b>2012</b> | <b>07</b> | Signed technical partnership agreement with EVA, France for PUMP BACK         |
|             | <b>11</b> | Designated as INNO-BIZ  |
| <b>2015</b> | <b>12</b> | Selected as Small Giant Enterprise  |
| <b>2017</b> | <b>10</b> | Received Gyeongnam Small and Medium Business Grand Prize                      |
|             | <b>12</b> | Achieved 12 million US dollars export   |
| <b>2018</b> | <b>06</b> | Relocated to newly built and extended plant in Jinrye-myeon, Gimhae-si        |
|             | <b>09</b> | Acquired ISO 9001/14001 quality and environment certification                 |
| <b>2019</b> | <b>03</b> | Recipient of Gyeongnam Small & Medium Business Award                          |
|             | <b>04</b> | Selected as Global IP Star Company  |



# ECO-FRIENDLY CYCLING FILTERING SYSTEM

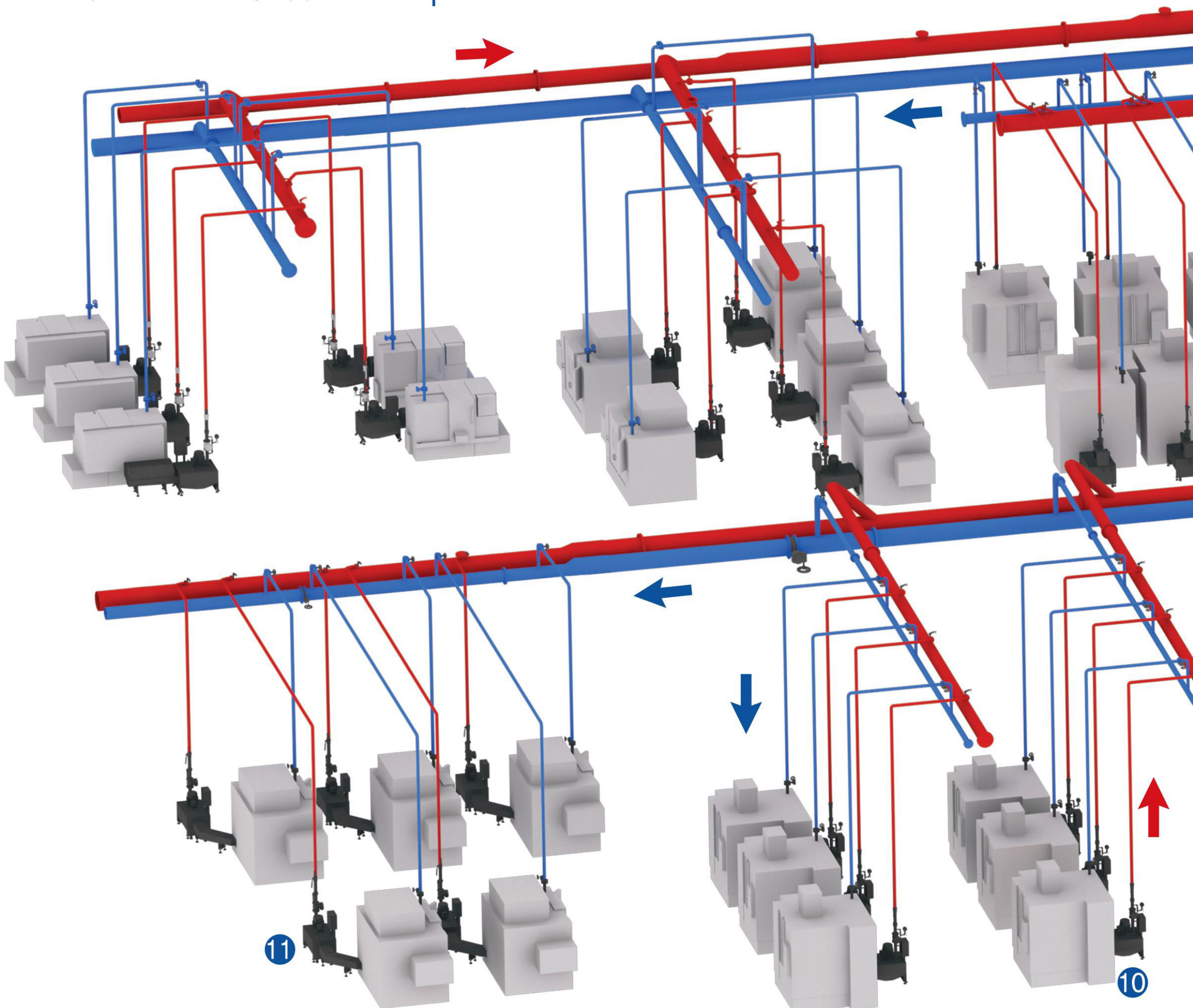
Chips and cutting oil discharged from the machine are transferred from PBS (Pump Back System) to the centralized chip processing system through the ceiling pipe, and then the chip is discharged. And the filtered cutting oil is re-supplied to each machine

## Ceiling Pipe System

- Improvement of plant environment
- Construction period reduction and cost savings
- Easy to relocate and change equipment lines

## Vertical submerged pump

- Centralized cutting oil and & chip processing capability
- Submerged/unsubmerged stable pumping





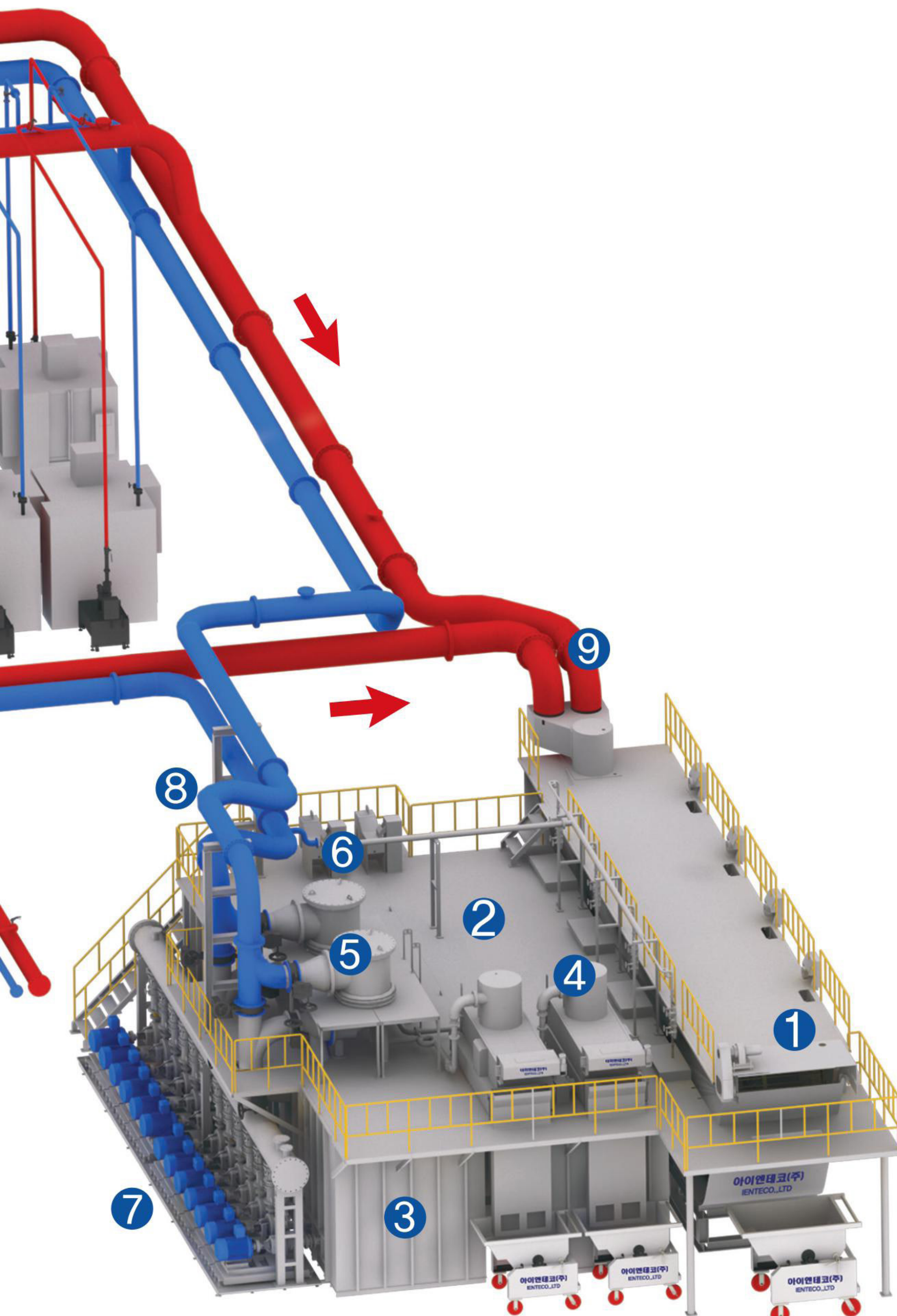
# CENTRALIZED COOLANT SYSTEM

- ① DIRTY TANK(ROTARY DRUM FILTER)
- ② PRIMARY CLEAN TANK
- ③ SECONDARY CLEAN TANK
- ④ PAPER FILTER
- ⑤ SECURITY FILTER

- ⑥ OIL SKIMMER
- ⑦ SYSTEM PUMP
- ⑧ MAIN PIPING(INLET)
- ⑨ MAIN PIPING(OUTLET)
- ⑩ CHUTE & PUMP BACK
- ⑪ PUMP BACK & SUPPLY UNIT

↑ Clean Inlet

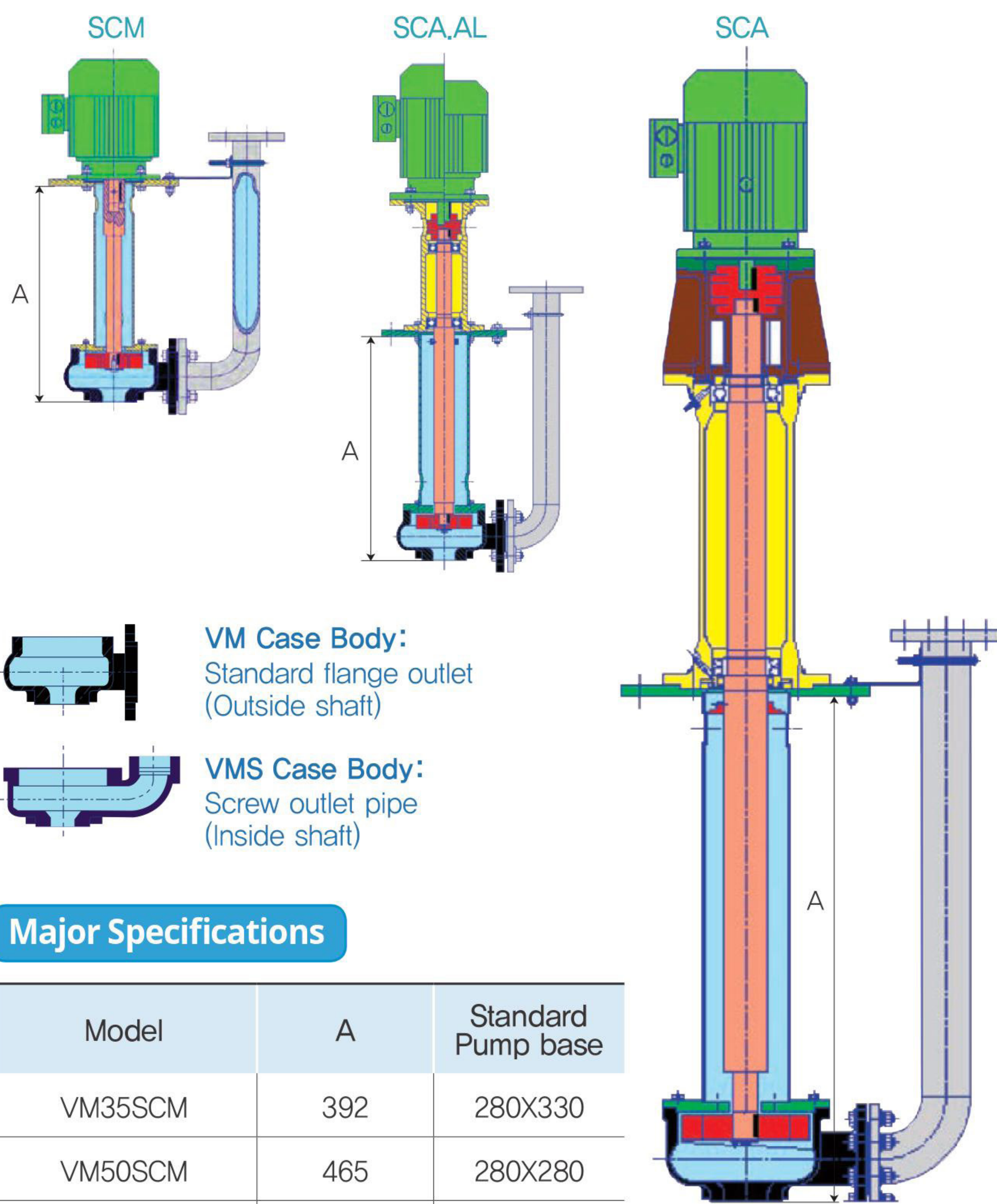
↑ Dirty Outlet





# PUMP BACK SYSTEM

- With technical partnership with EVA, France that manufactures Vortex Pump, IENTECO takes the initiative in introducing the advanced technology.
- Both Chip and Coolant in the tank can be treated at the same time Durability, easy maintenance and repair
- Multiple materials can be transported and noise is very low during operation



## Major Specifications

Model	A	Standard Pump base
VM35SCM	392	280X330
VM50SCM	465	280X280
VMS65SCM	465	400X500
VM-VMS80SCM	628	450X450
VM-VMS100SCM	638	450X600
VM35SCA.AL	442-607	280X330
VM50SCA.AL	465-630	280X280
VMS65SCA.AL	465-630	340X430
VM-VMS80SCA	1200	450X450
VM200SCA	1518	800X1500



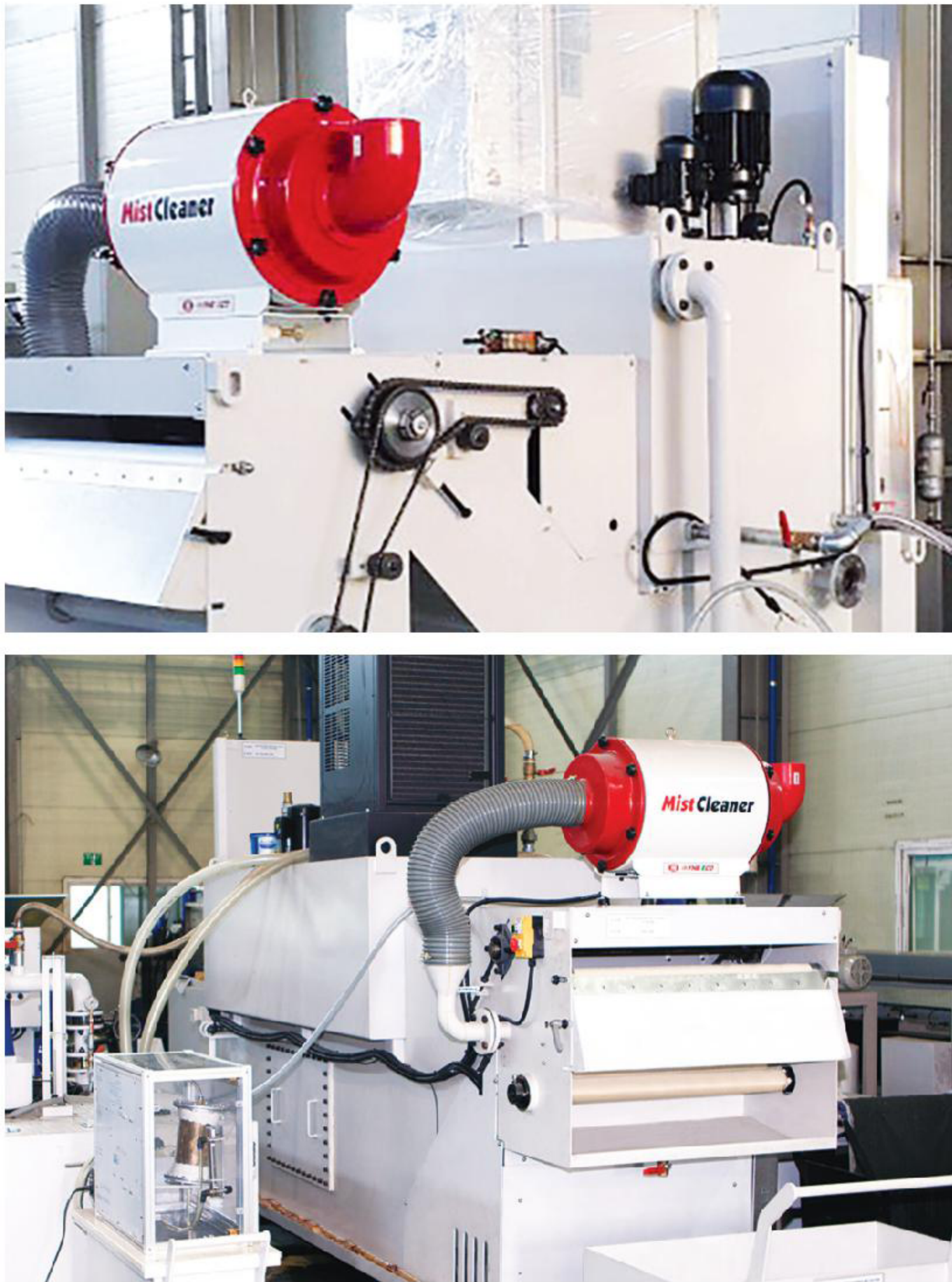
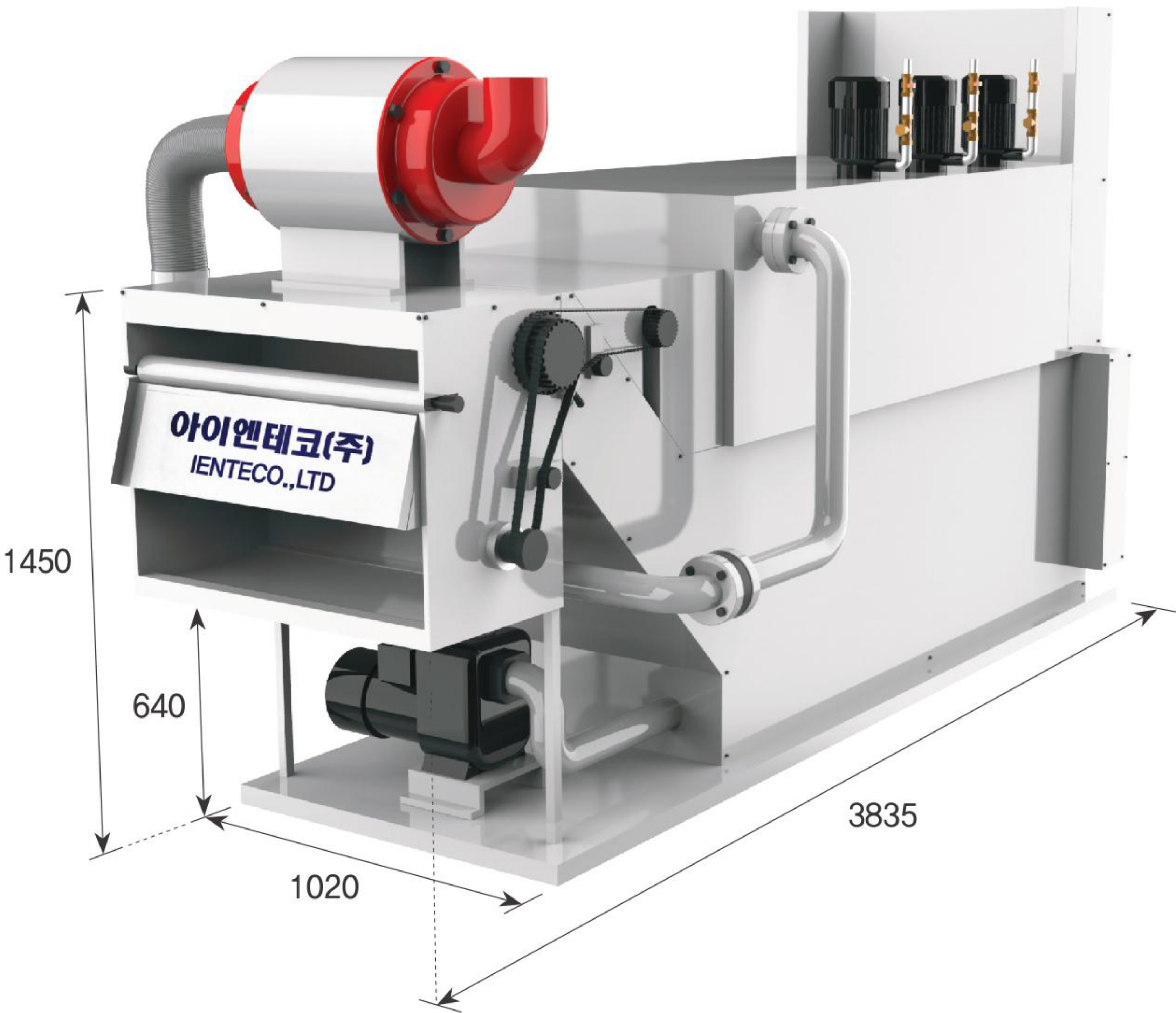


# VACUUM PAPER FILTER SYSTEM

- Vacuum type. Precise secondary and tertiary filtration and large capacity processing
- Suitable for grinding and precision machining lines
- 70% reduction of paper filter consumption
- Overflow prevention by level sensor and easy paper replacement

## Major Specifications

Model	Flow rate( $\ell$ /min)	Filtration Accuracy( $\mu\text{m}$ )	Tank CAPA'
IVPF-080	80	30, 50, 70	280
IVPF-120	120		320
IVPF-180	180		480
IVPF-240	240		560
IVPF-300	300		660





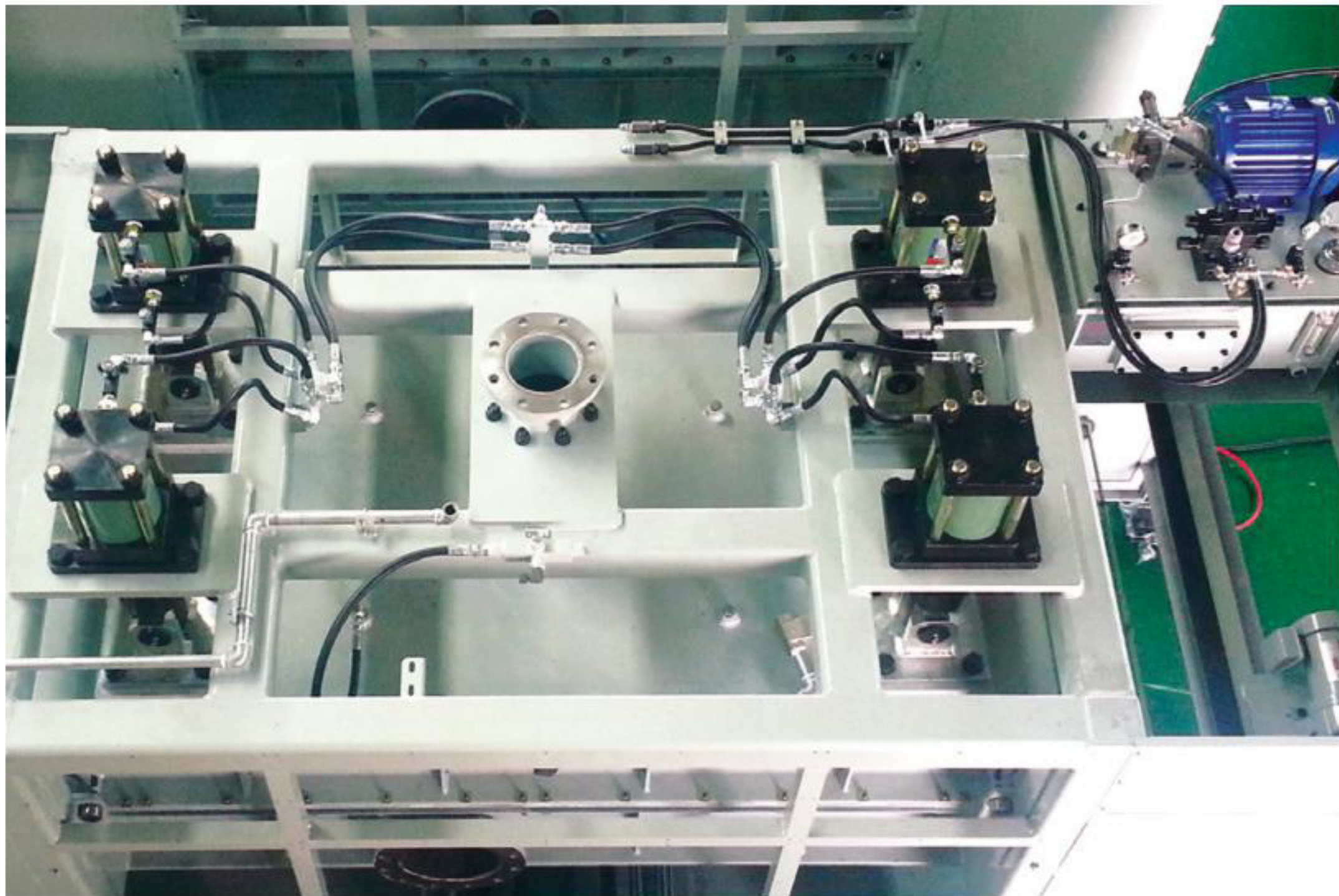
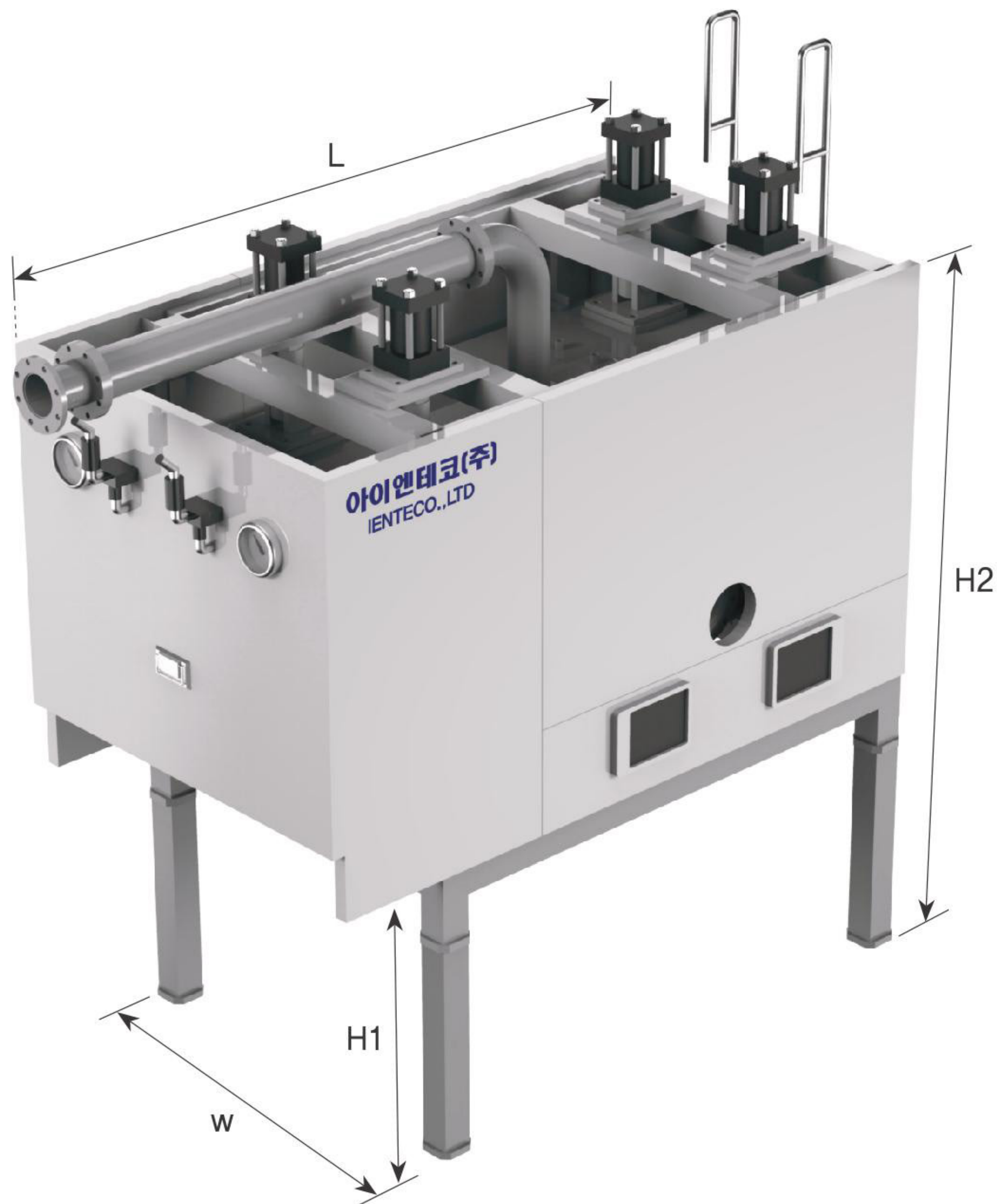


# DC FILTER SYSTEM

- Suitable for large capacity concentrated filtration such as concentrated grinding line
- Filter Net is cleaned by rotation method so that it is economical.
- Based on accumulated experiences and technologies over decades, IENTECO is able to customize Coolant Filter of various sizes according to customers' usage and specifications

## Major Specifications

Model	L (mm)	W (mm)	H1 (mm)	H2 (mm)	Flow rate (ℓ /min)	Filtration Accuracy ( $\mu$ m)
IDF-480	3250	1530	1260	2195	4800	30 ~ 50
IDF-640	3950	1660	1360	2525	6400	
IDF-800	4650	1800	1460	2855	8000	
IDF-1100	5200	2000	1560	3025	11000	





# PRECOAT FILTER SYSTEM

- Formation of coating Layer with supplement agent on the filter wall
- Prevention of filter contamination and clogging due to impurities
- Excellent filtration performance and semi-permanent life
- Best economic feasibility ensured by small installation space and fully automatic operation

## Major Specifications

Model	Filtration Area(m <sup>2</sup> )	Capacity(ℓ /min)
IPF-12	1.2	50
IPF-100	10	100
IPF-500	50	1000
IPF-850	85	2000
IPF-1250	120	3000



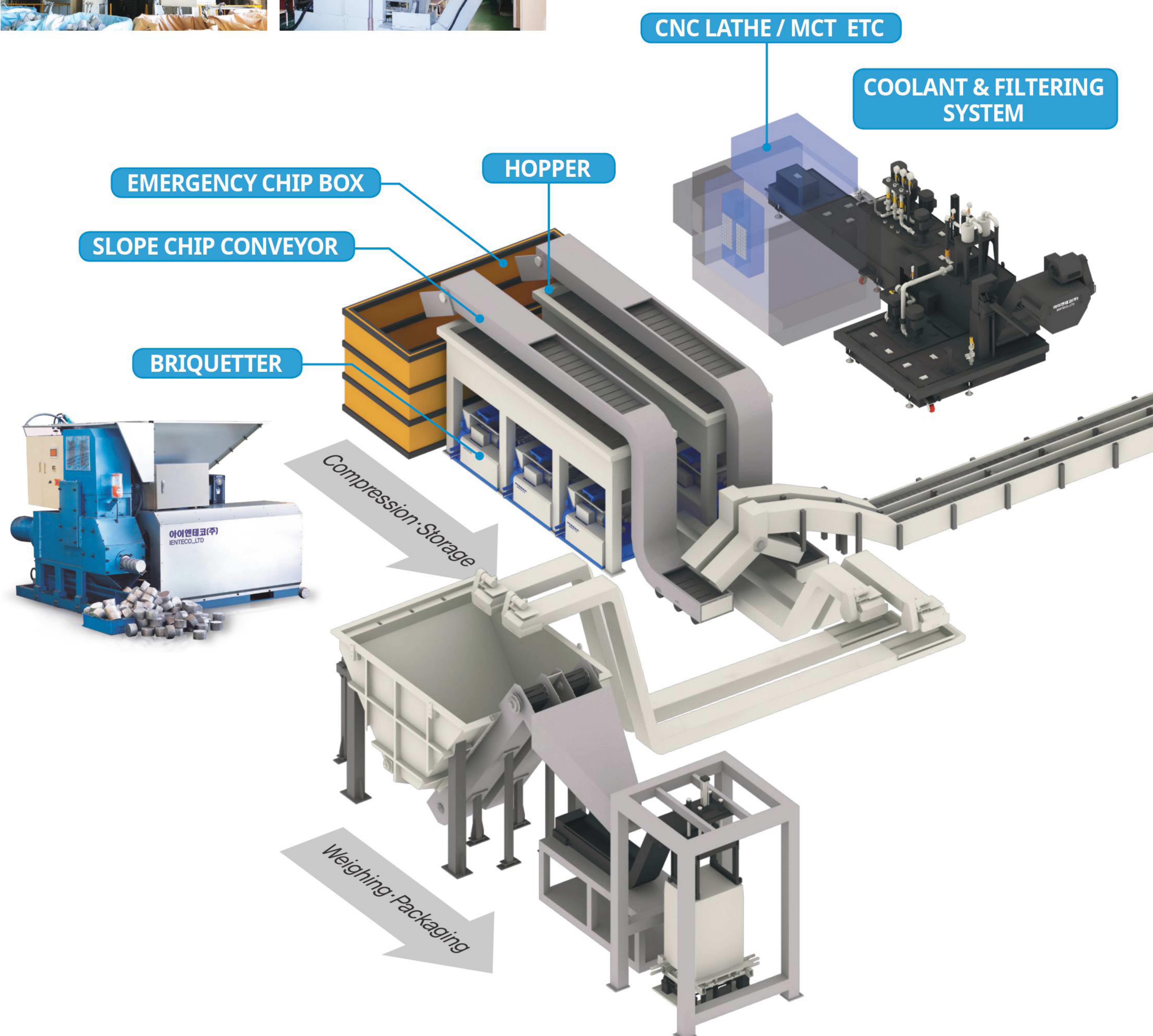


# ECO-FRIENDLY · HIGH EFFICIENCY · RECYCLING CHIP PROCESSING SYSTEM

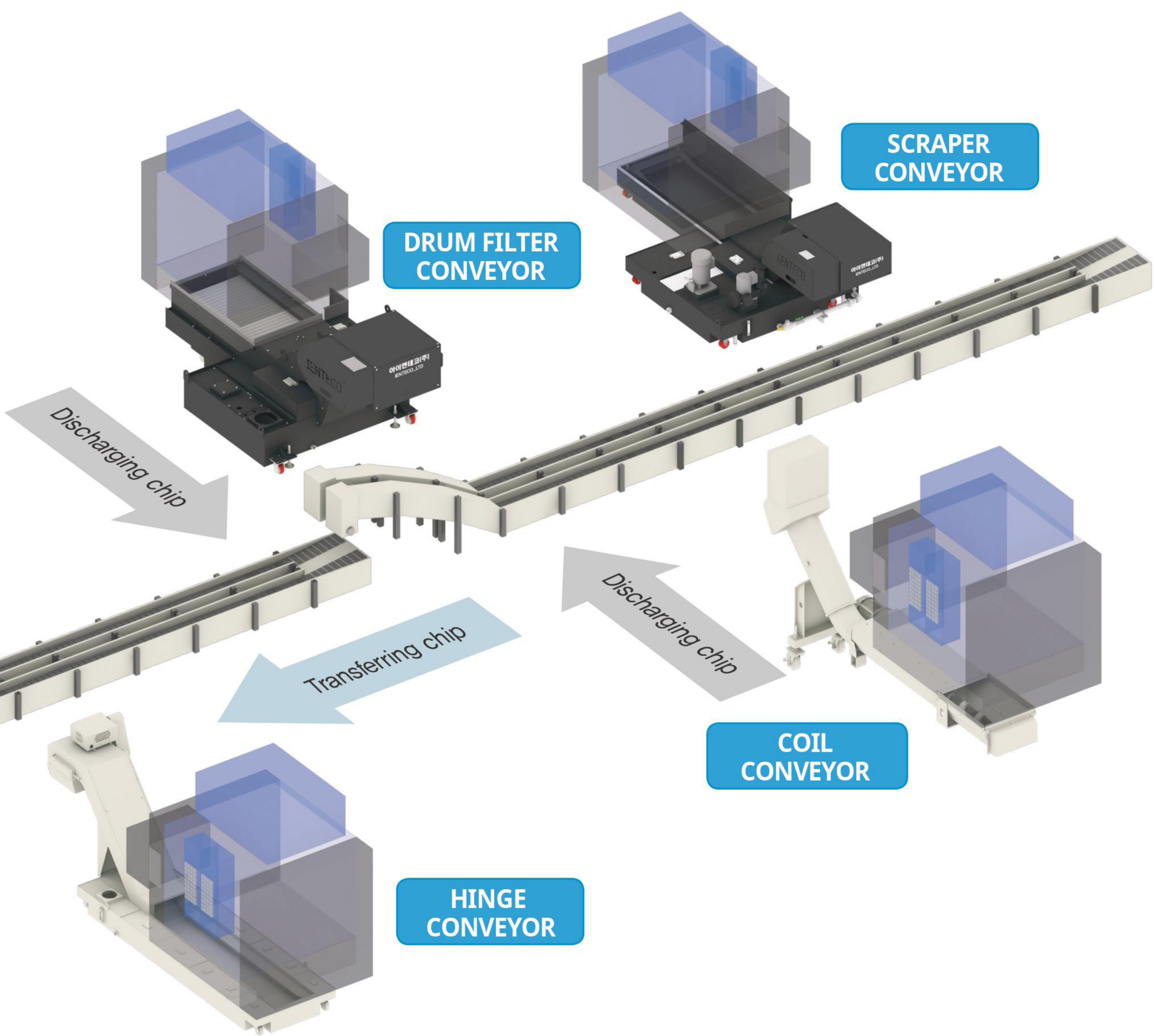
This is used for  
**Unmanned Chip Recycling System**



- Unmanned automation system that can deliver, compress, store, weigh and package the processed chip discharged from each M/C.









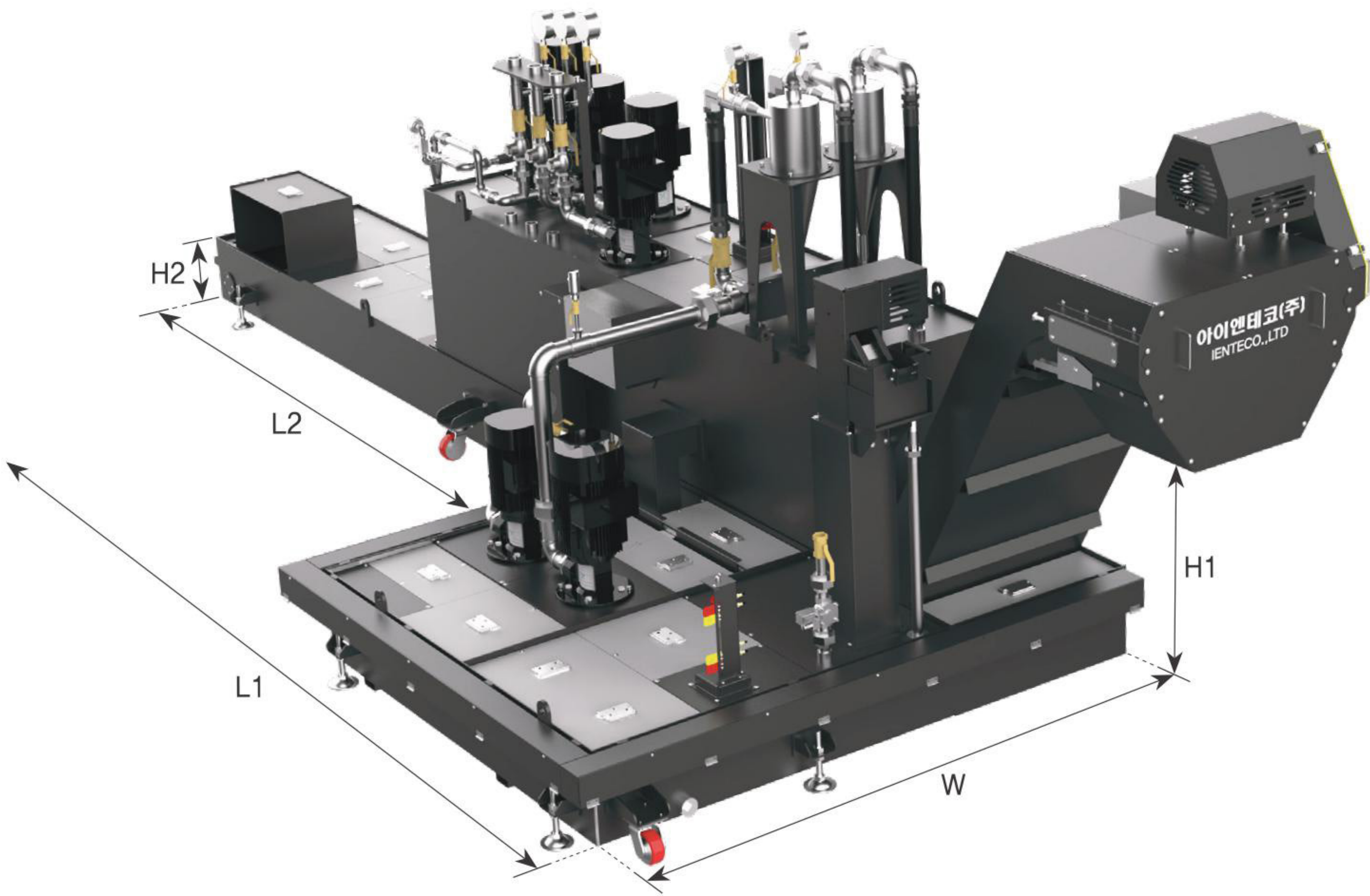


# COOLANT & FILTERING SYSTEM

- Effective to increase filtration degree by applying secondary filtering system (cyclone Filter, etc.), such as CNC LATHE and MCT
- Drum & Magnet type is selectable, excellent filtering efficiency and economic feasibility
- Based on experience and technology accumulated over decades, IENTECO is able to customize various kinds of Coolant Filter according to customers' usage and specifications.

## Major Specifications

Model	Chain size	W (mm)	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	Tilt Angle(° )	Speed (m/min)
ICF-060	RF2060	300 ~ 600	800 ~ ~	200 ~ ~	1800 ~ ~	1000 ~ ~	30 ~ 80	0.5 ~ 3.0
ICF-080	RF2080							
ICF-120	RF2120							



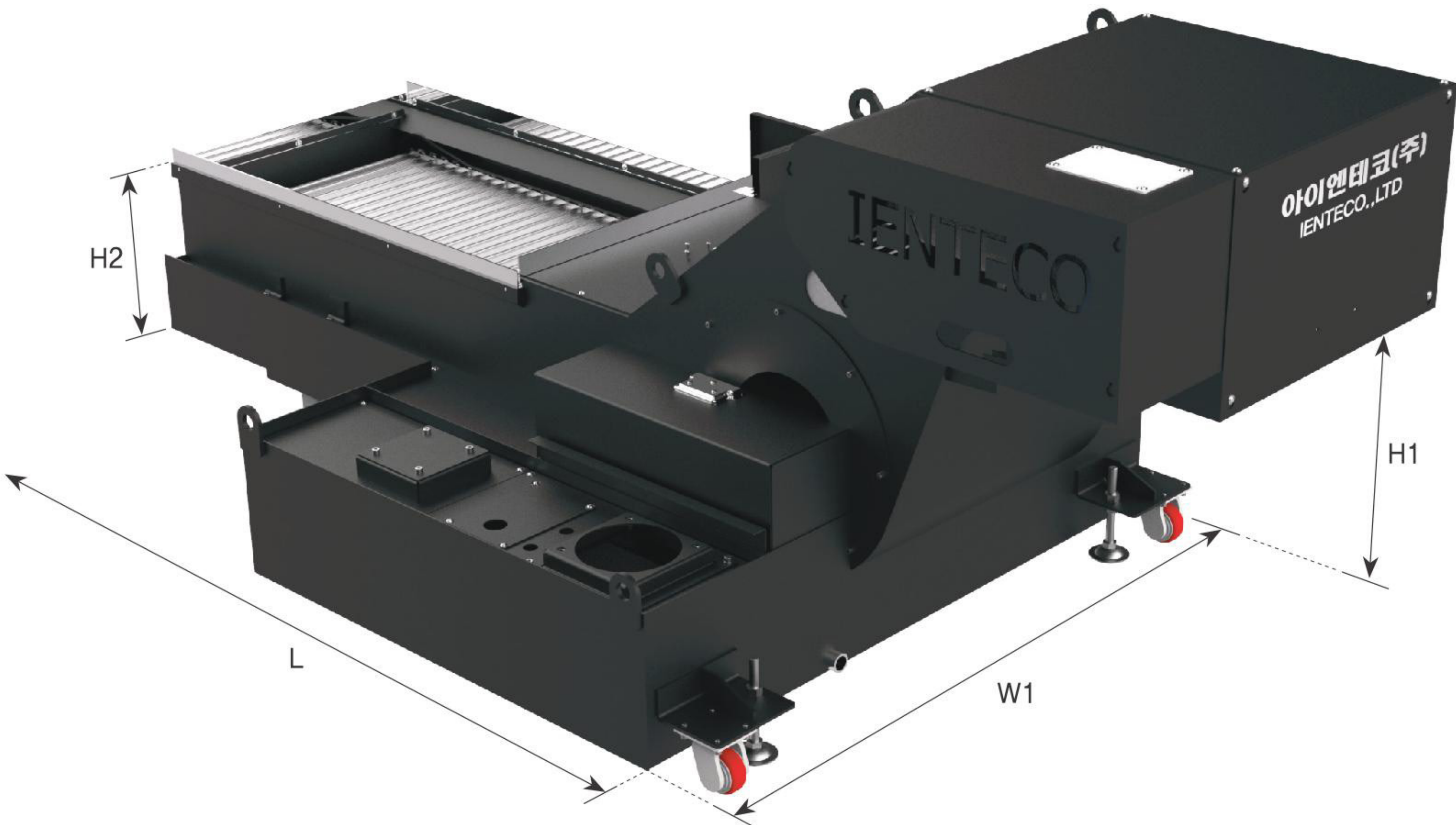


# DRUM FILTER CONVEYOR

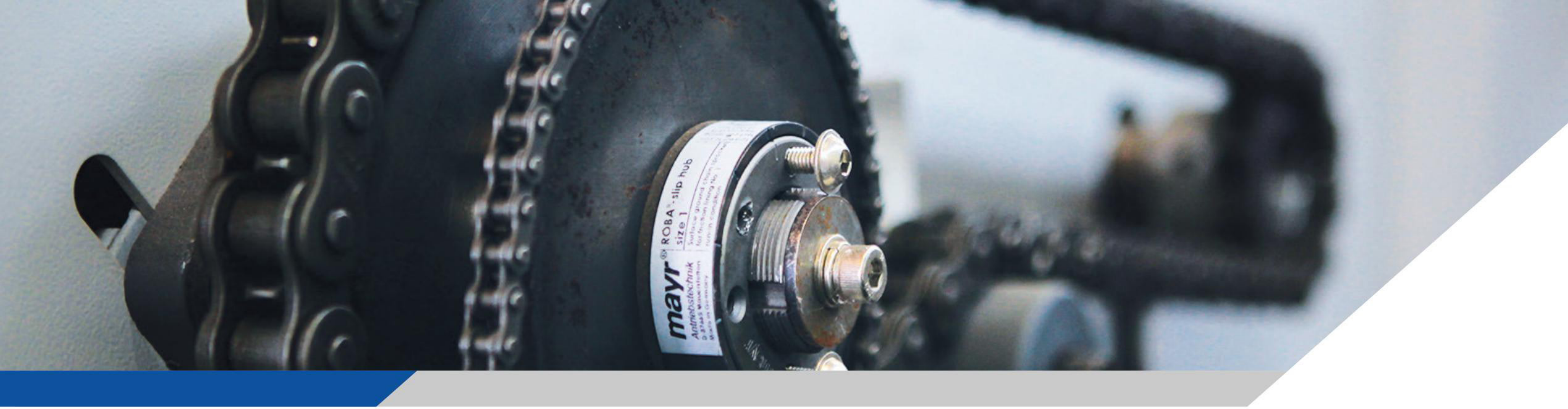
- Effective to increase filtration degree by applying it to the secondary filtering(Drum) system (cyclone Filter, etc.), such as CNC LATHE and MCT
- Filtering Net can be used through automatic backwashing, high efficiency and economic feasibility
- Based on experience and technology accumulated over decades, IENTECO is able to customize various kinds of Drum Filter according to customers' usage and specifications

## Major Specifications

Model	W1 (mm)	H1 (mm)	H2 (mm)	L (mm)	Filtration Accuracy(μm)	D/F Flow rate (ℓ /min)
IDF-500	500	500 ~	250 ~	1800 ~	30 ~ 100	110 → 80~100
IDF-600	600					260 → 300~400
IDF-700	700					310 → 400~600
IDF-800	800					





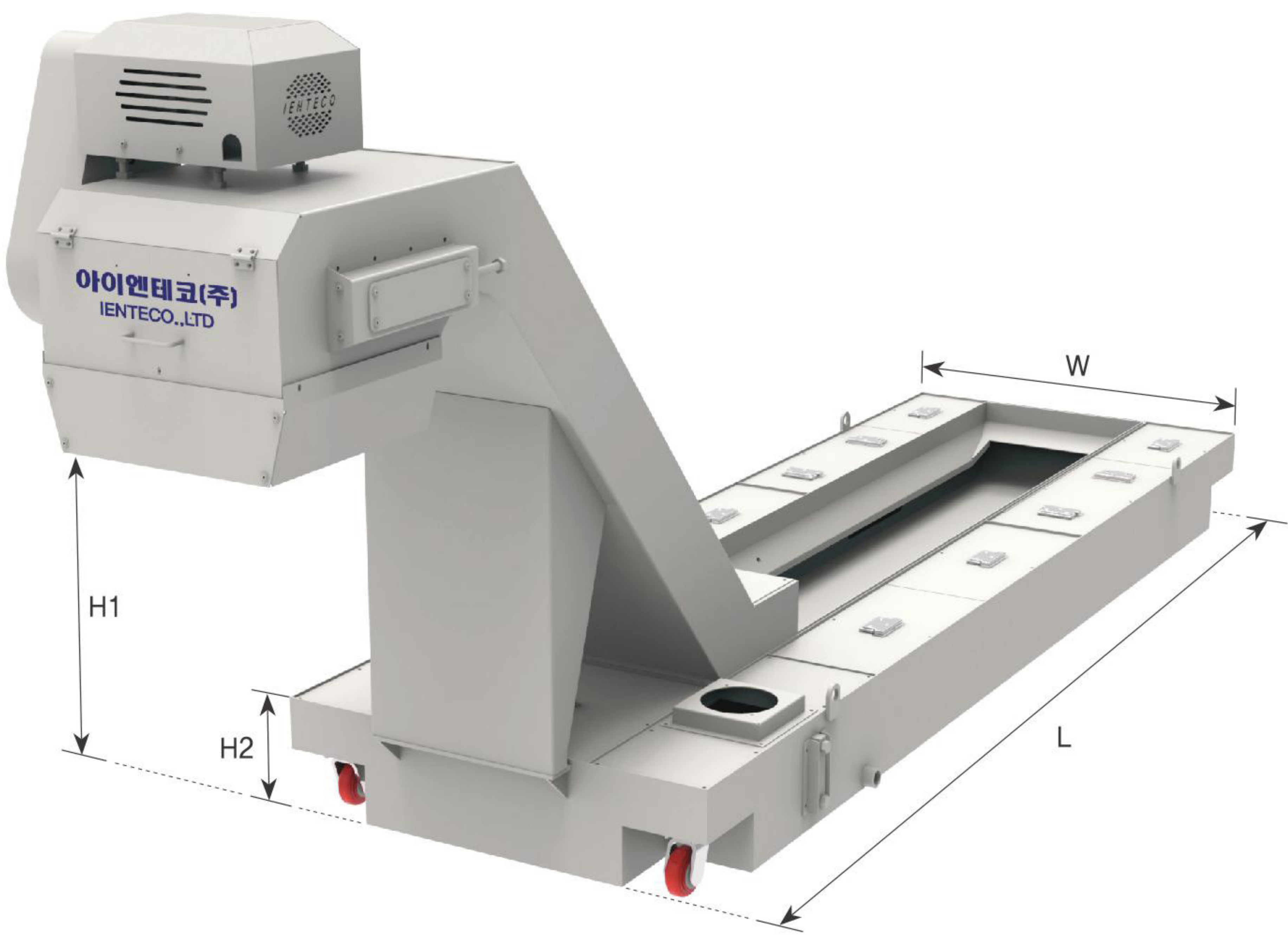


# HINGE CONVEYOR

- Excellent for processing the discharged long and curl chip when cutting the workpiece machined by CNC LATHE and MCT, etc. It is also possible to process the small scrap from Press M/C.
- Excellent durability thanks to the application of Hinge Chain(transfers chip to the upper chain)
- Conveyor protection with torque limiter for overload prevention
- The highest quality with minimal cost through standardized production

## Major Specifications

Model	Chain size	W (mm)	H1 (mm)	H2 (mm)	L (mm)	Tilt Angle(° )	Speed (m/min)
IHC-060	RF2060	300 ~ 600	500 ~	200 ~	1800 ~	30 ~ 60	2.0 ~ 6.0
IHC-080	RF2080						
IHC-120	RF2120						



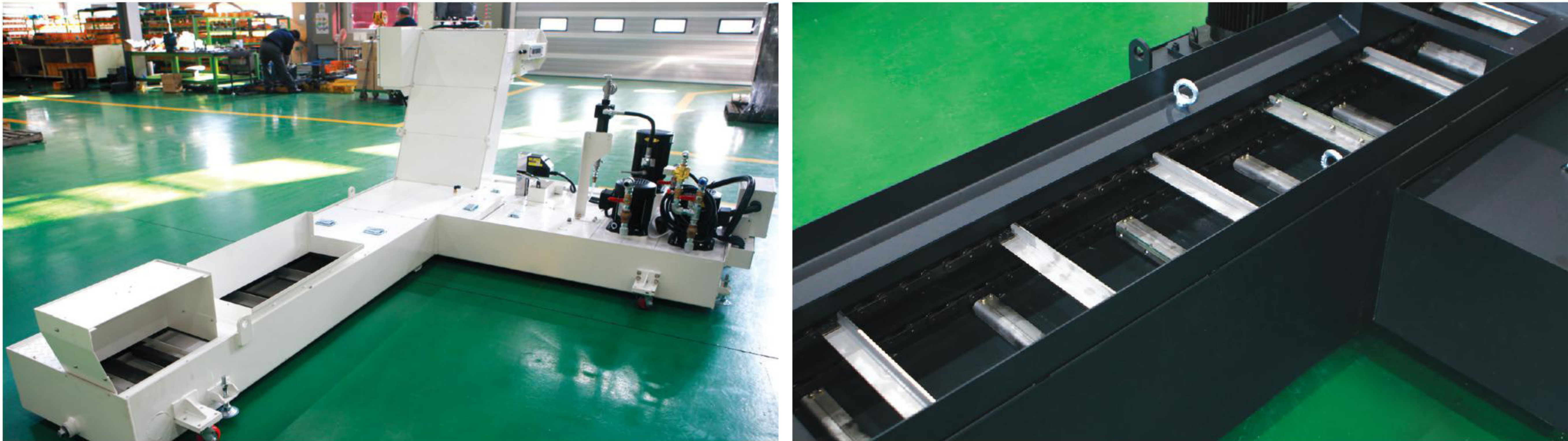
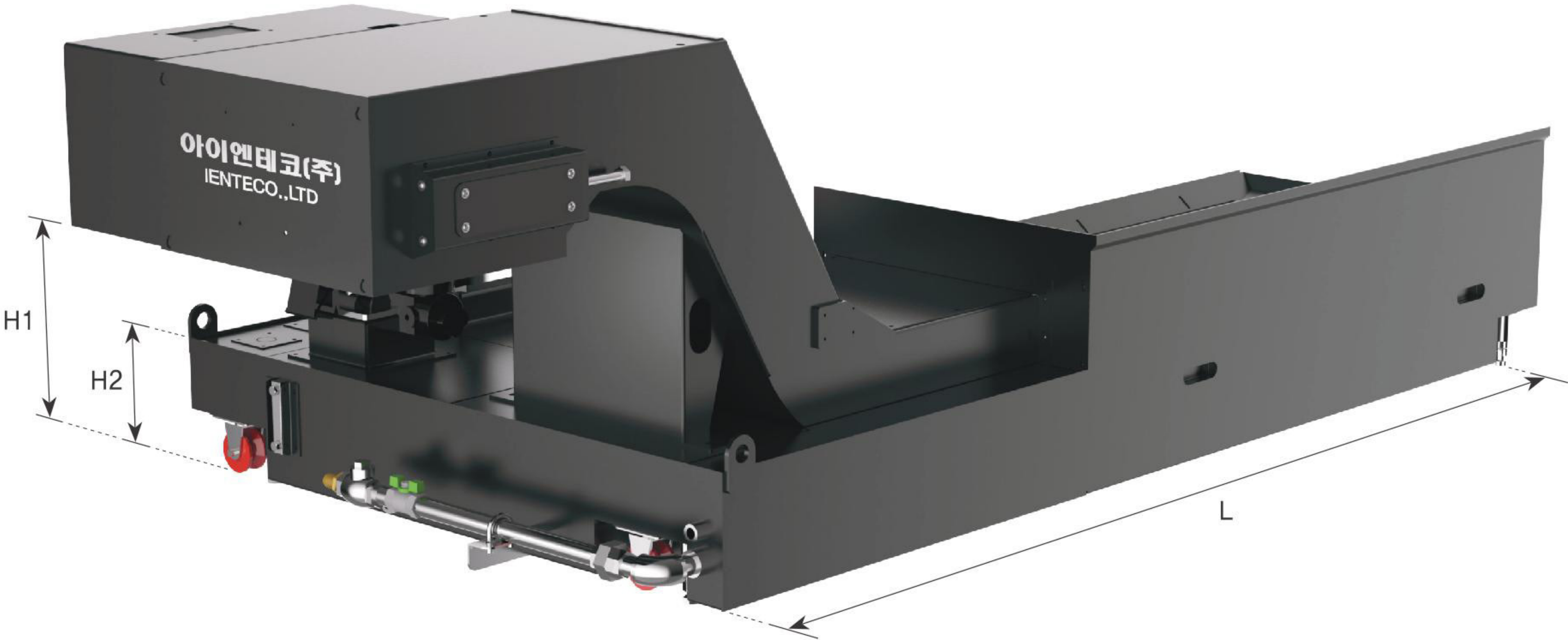


# SCRAPER CONVEYOR

- Suitable for processing of short chip (steel, casting, non-ferrous metal) discharged when machining workpiece such as CNC LATHE, MCT, and tooth cutter
- Excellent durability thanks to the application of Scraper Chain (transfers chip from the bottom to the top)
- The highest quality with minimal cost through standardized production

## Major Specifications

Model	Chain size	W (mm)	H1 (mm)	H2 (mm)	L (mm)	Tilt Angle(° )	Speed (m/min)
ISC-060	RF2060	300 ~ 600	500 ~	200 ~	1800 ~	30 ~ 80	0.5 ~ 3.0
ISC-080	RF2080						
ISC-120	RF2120						





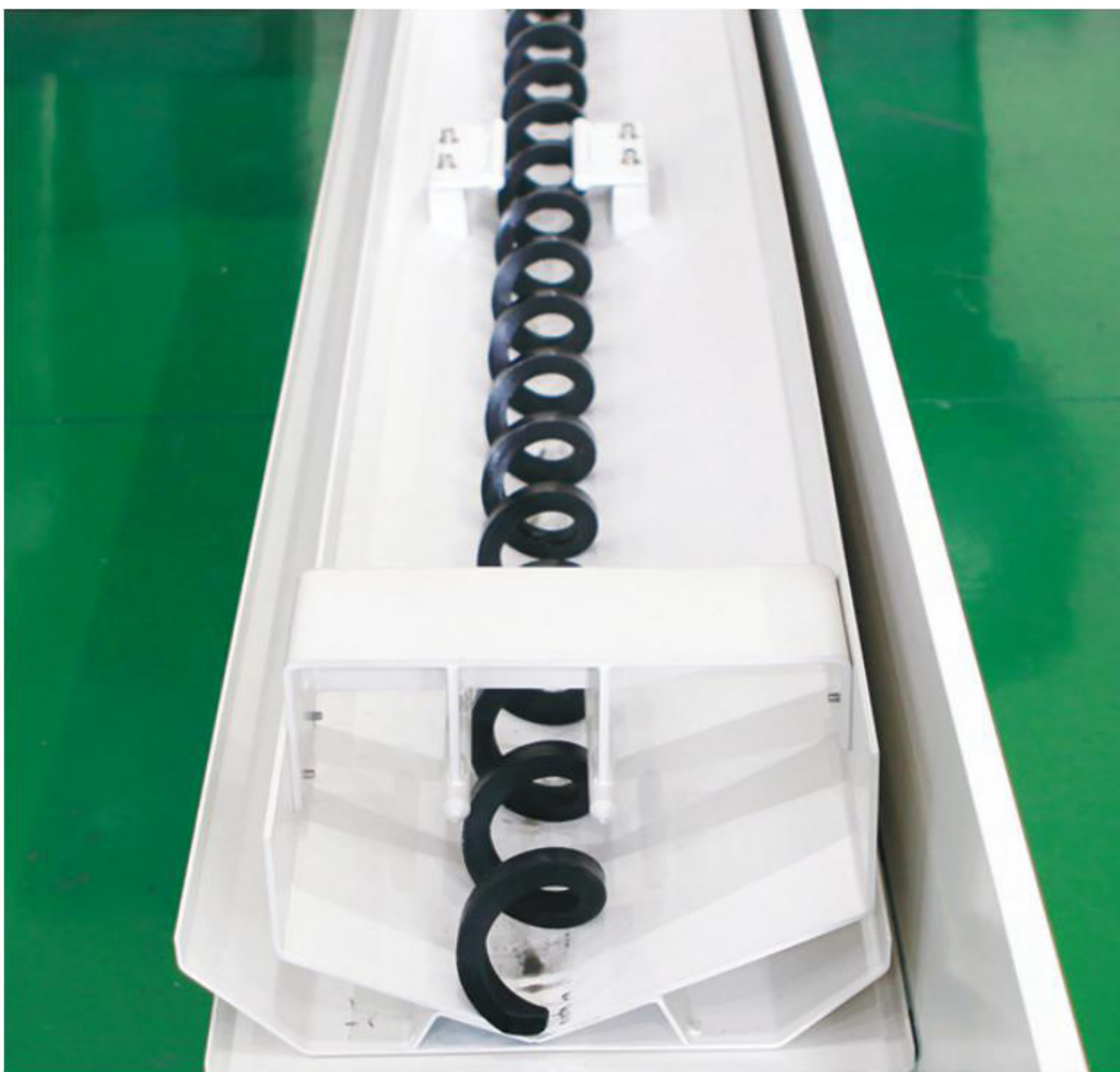


# COIL CONVEYOR

- Suitable for processing long & short chip discharged when cutting machined workpiece such as CNC Lathe, MCT, etc.
- Chip volume reduction and excellent coolant recovery rate during slope discharge
- Easy installation even in a small space
- The highest quality with minimal cost through standardized production

## Major Specifications

Model	Coll Size	W (mm)	H (mm)	L (mm)	Speed (m/min)
ICC-086	86	200 ~	300 ~	500 ~	7.0 ~ 9.5
ICC-100	100				



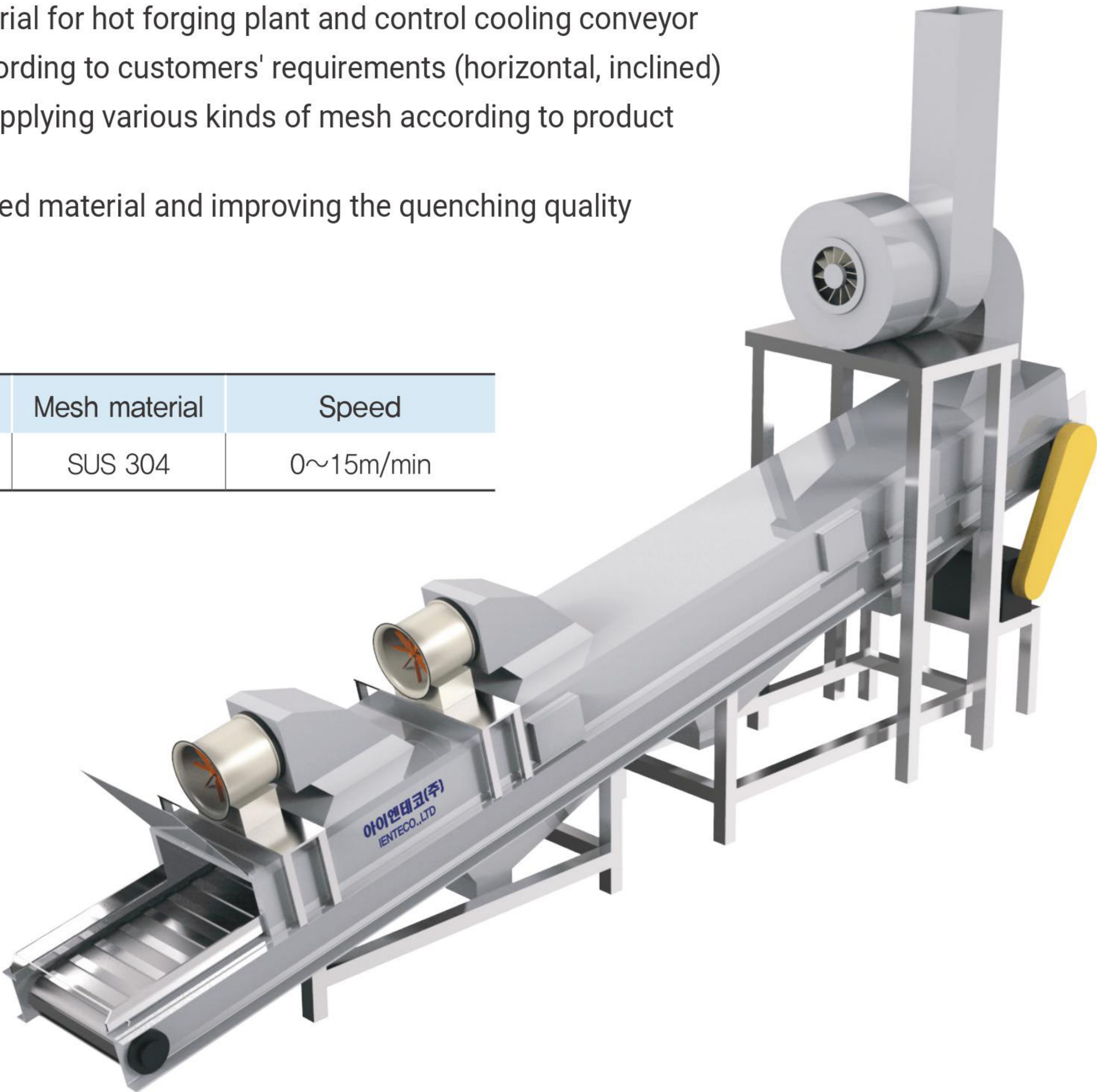


# CONTROL · COOLING SYSTEM

- Suitable for conveying material for hot forging plant and control cooling conveyor
- It can be manufactured according to customers' requirements (horizontal, inclined)
- It can be manufactured by applying various kinds of mesh according to product specifications
- Suitable for cooling the forged material and improving the quenching quality

## Major Specifications

Mode	Mesh width	Mesh material	Speed
IMBC	300~800	SUS 304	0~15m/min





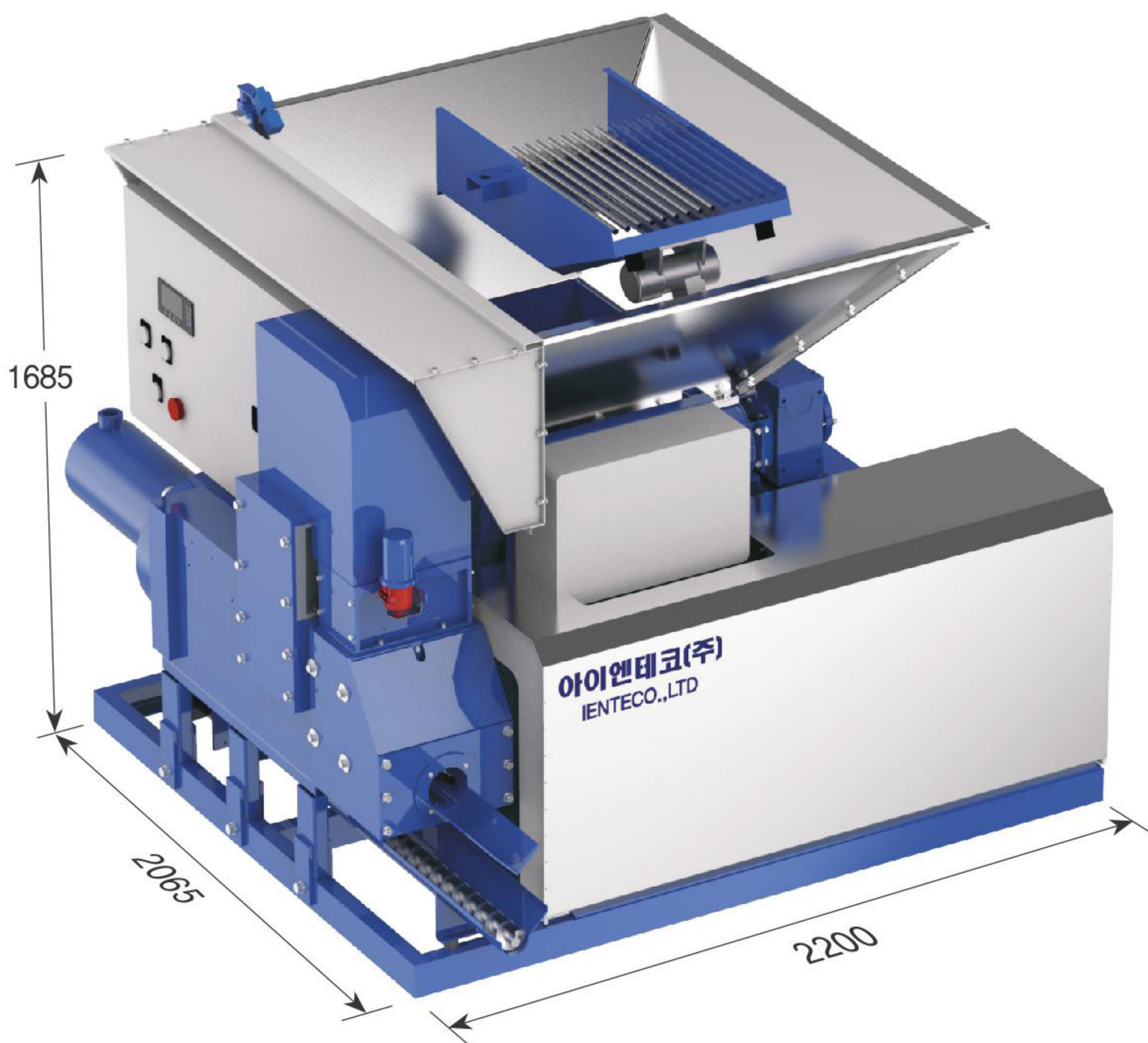


# CHIP BRIQUETTER

- Pleasant plant environment and processing cost savings through the compression of chip
- High added value by increasing the efficiency when recycling the discharged chip after compressing and solidifying
- Environment improvement and cost reduction by separating and recycling cutting oil joined to chip by compression

## Major Specifications

Model	Capa	Ele' Spec	Work Piece Metal
IBT-300	300kg/Hr	<ul style="list-style-type: none"> <li>· Exclusive use: 440 x 3 x 60 Hr</li> <li>· Capacity: 55Kw</li> </ul>	AL-CHIP





# By using MES System, IENTECO inspects products systematically and manufactures best products

## 1 Process Status (Monitoring)

금일증지현황		2019-01-04 오후 6:56:29 현재	
제 조 번 호	IN180507-613	IN180507-613	
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발생시간/작업자	1 시간 56 분 윤대영	1 시간 56 분 이종진	
중 지 사 유	식사(배식, 저녁)	식사(배식, 저녁)	
제 조 번 호	IN180507-613	IN180507-613	
품목번호/품목명	LG07-F00008 / 집중식 COOLANT SYSTEM 2차	LG07-F00008 / 집중식 COOLANT SYSTEM 2차	
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중 지 사 유	식사(배식, 저녁)	식사(배식, 저녁)	

## 2 Product warehousing and shipment (applying bar code)



## 3 Initial development quality test fair



## 4 Film thickness test



## 5 Dimensional inspection



## 6 Commissioning and inspection





**IENTECO** provides solutions for chip  
handling and processing,  
coolant filtration and oil/water separation.

**IENTECO.,LTD.** [www.ienteco.com](http://www.ienteco.com)

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