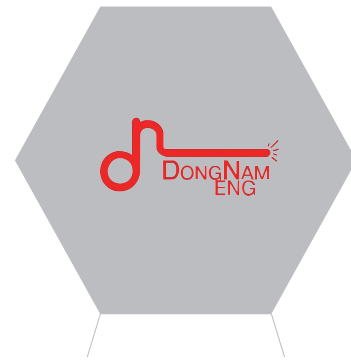
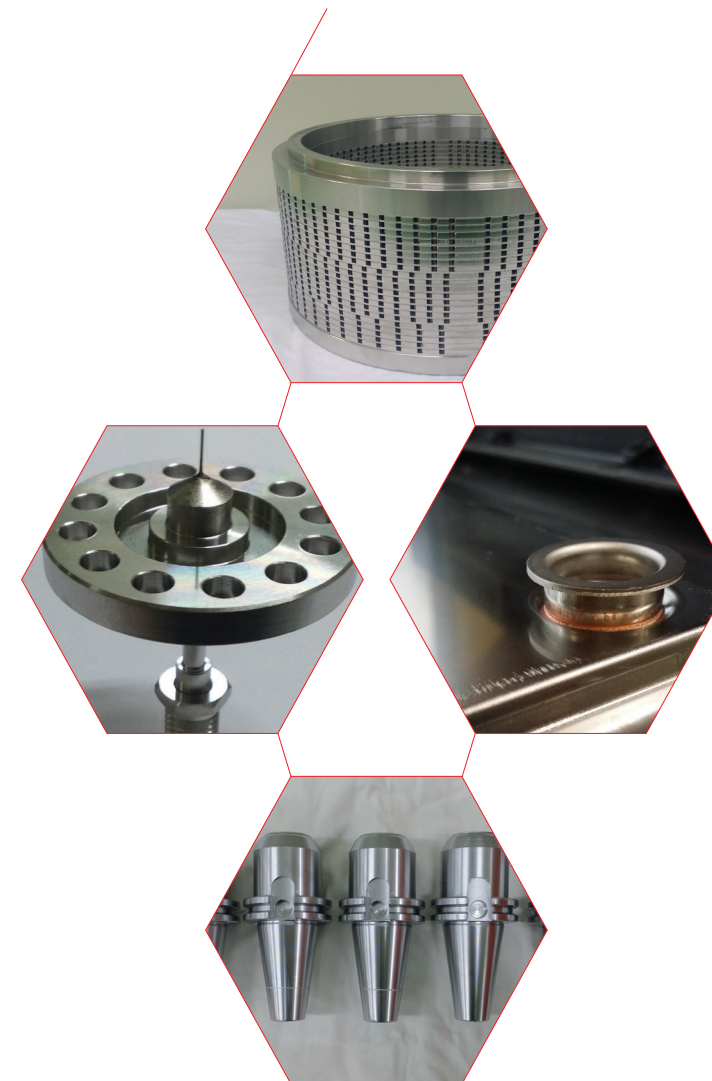


THE GLOBAL TECHNOLOGY LEADER

DONGNAM ENG



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VISION



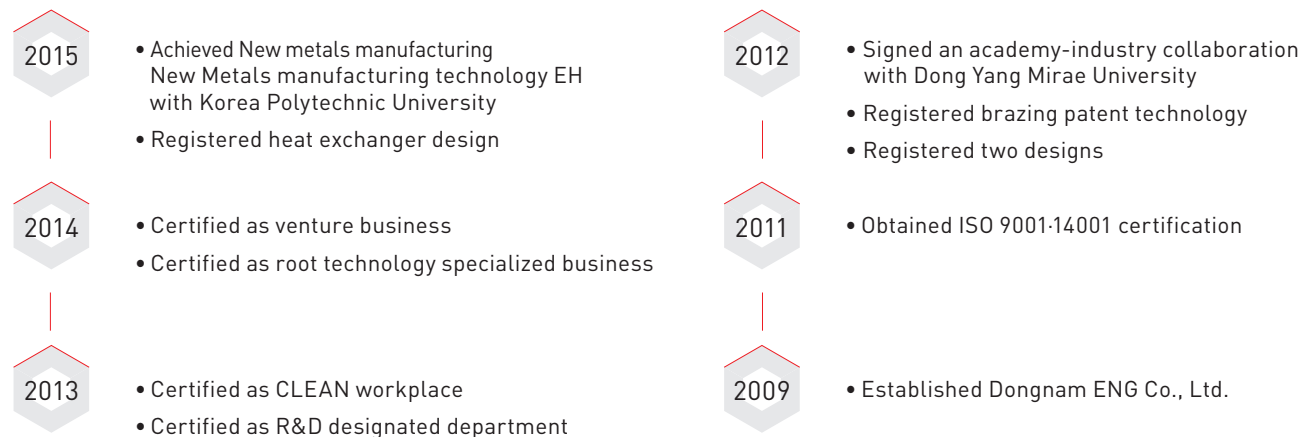
COMPANY OVERVIEW

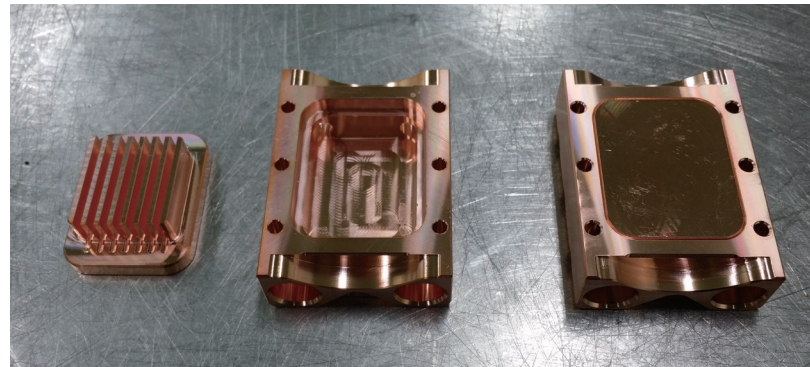
Dongnam ENG produces high quality products for vacuum brazing, die and mold manufacturing and press product manufacturing to meet the demand of customers in various industrial fields.

Dongnam ENG has the management principle to put the highest priority on customer satisfaction. Customers have the priority on all occasions. We listen to customers' demand to provide innovative solution and makes our best efforts to reduce cost and enhance quality from the perspective of customers.

Based on our root technology, we will continue to invest in technology and pursue R&D to become an exemplary company in the brazing industry and a global company in the world market. Thank you.

HISTORY





- 1. Turbo Impeller
-
- 2. Cooler Condenser
-
- 3. Disk stack light penetration inspection
-
- 4. Ultrasonic weld inspection

1	2
	4
3	



PRODUCTS

BRAZING

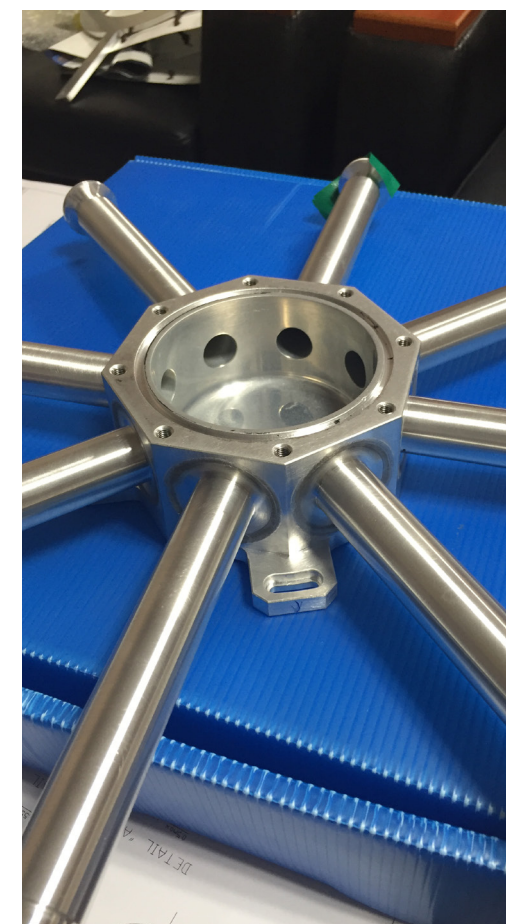
Brazing is a metal-joining process by applying heat to a base metal and a filler metal below the melting point of the base material so that it is not damaged.

- Metal and non-metal (ceramic, alumina, zirconia, etc.) can be joined by brazing
- Various combination of metals of the same kind or the different kind can be joined by brazing (ex : Copper+metal, sintered carbide+SUS, aluminum+SUS)
- Products of different size and thickness can be joined by brazing
- Separate processing can be skipped as the joined area is seamless after brazing
- Since brazing is the metal metallurgical processing, it is possible to braze to have various characteristics such as ductility, shock resistance, vibration resistance, airtightness, thermal conductivity and corrosion resistance.
- When brazing steel with the non-steel material, the tensile strength of the joined part can be stronger than the base material. In case of stainless steel, it is possible to make the joined part by brazing have the tensile strength of 130,000 PSI.

large product brazing

1	
2	
3	4

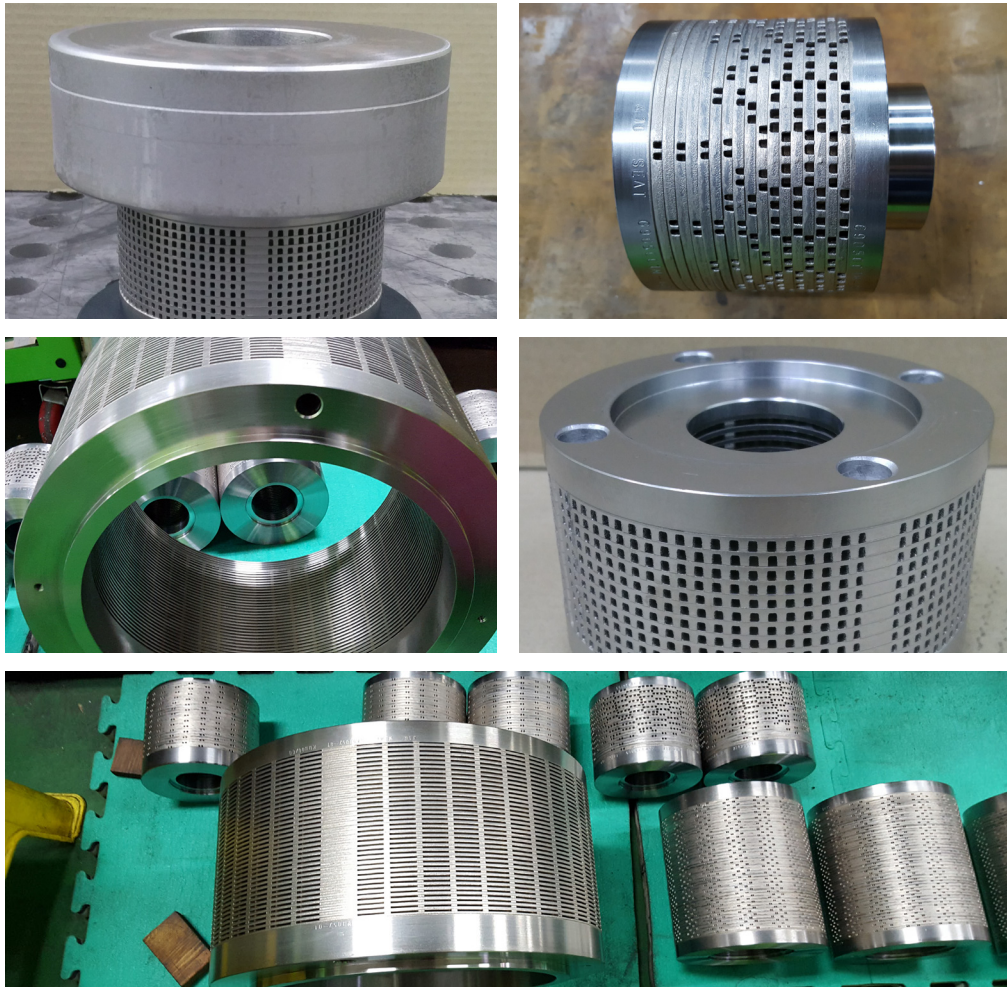
- 1 Pipe brazing for large-sized plant
- 2 Pipe brazing for large-sized plant
- 3 Pipe brazing for large-sized plant
- 4 Brazing for large-sized molds



DISK STACK brazing

As a business specialized in manufacturing of precision part through vacuum brazing, Dongnam ENG has the patent technology for lead ash brazing of the disk stack. Dongnam ENG is Korea's the one and only company that can produce large-sized products over Ø1,400 x 1,200mm.

Major materials : INCONEL / SUS410 / SUS316 / DUPLES 31803 (Individual disk thickness: More than 1.5~3 tons) core parts of water pressure regulating valves at nuclear power plant or other plants, control valve

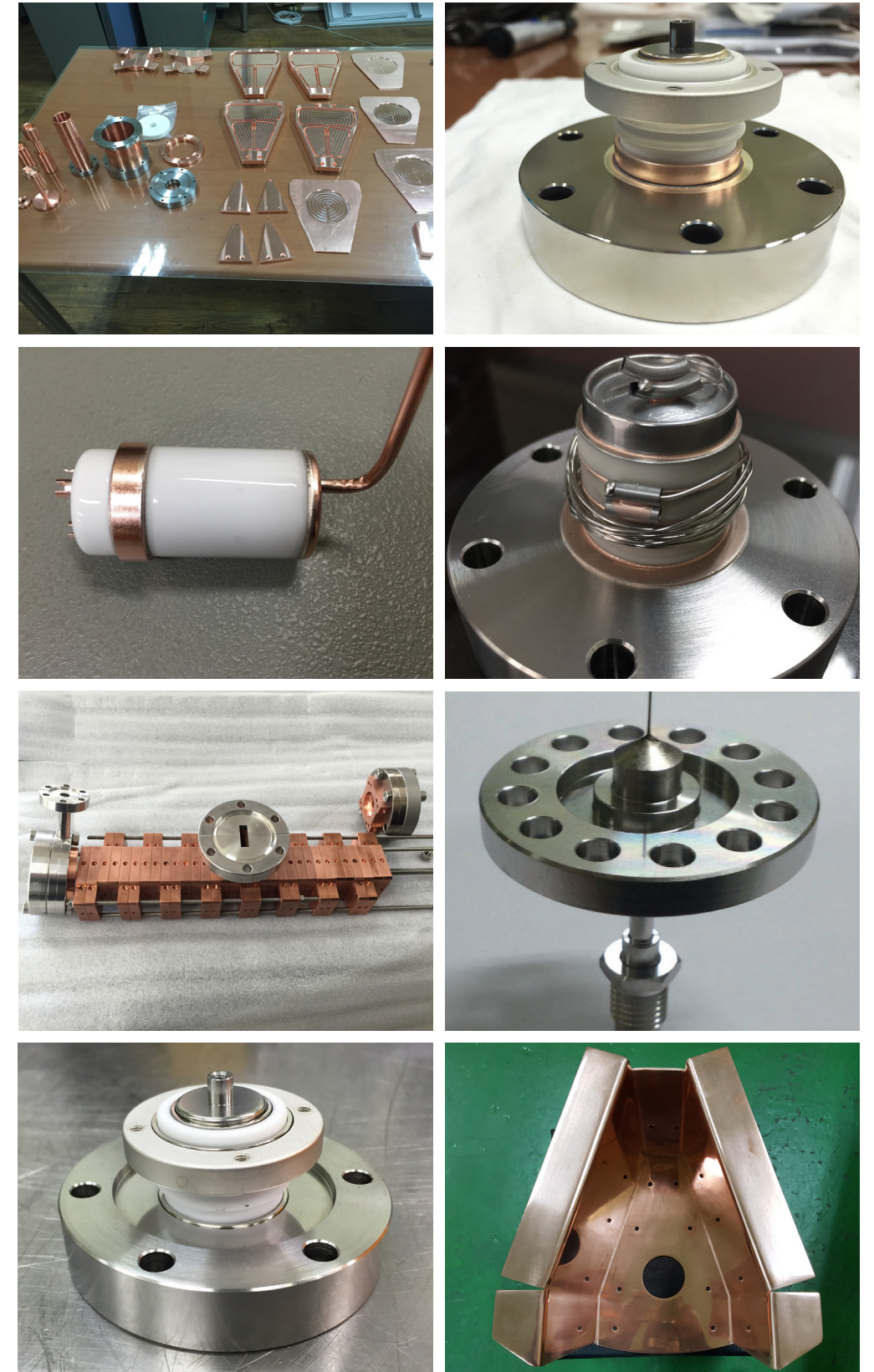


Control box model with DISK STACK assembled



Dissimilar joining and copper brazing products

- Metal and non-metal (ceramic, alumina, zirconia, etc.) can be joined by brazing
- Various combination of metals of the same kind or the different kind can be joined by brazing (ex : Copper+metal, sintered carbide+SUS)
- Products of different size and thickness can be joined by brazing

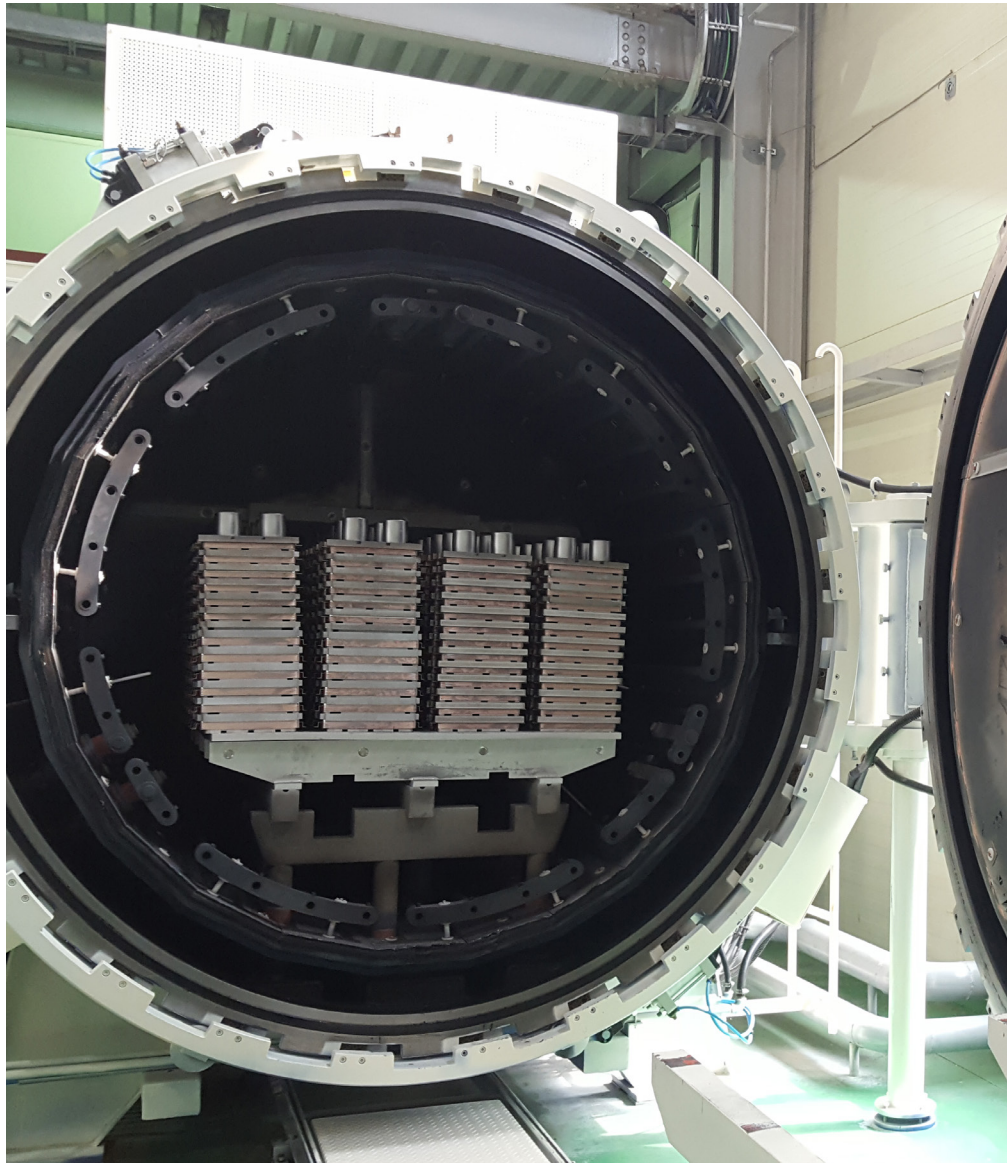


Heat exchanger brazing

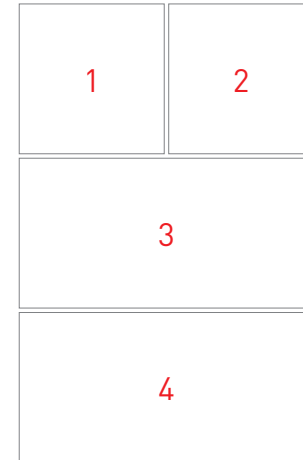
Plate type heat exchanger brazing is a process to join pressed metal plates in the thickness ranging from 0.6 to 1.2 mm (STAINLESS STEEL, AL-BRASS, COPPER-TITANIUM, etc.) by precise brazing technology. A large-sized furnace is used designated for this process. This process can mass-produce products of the best quality.



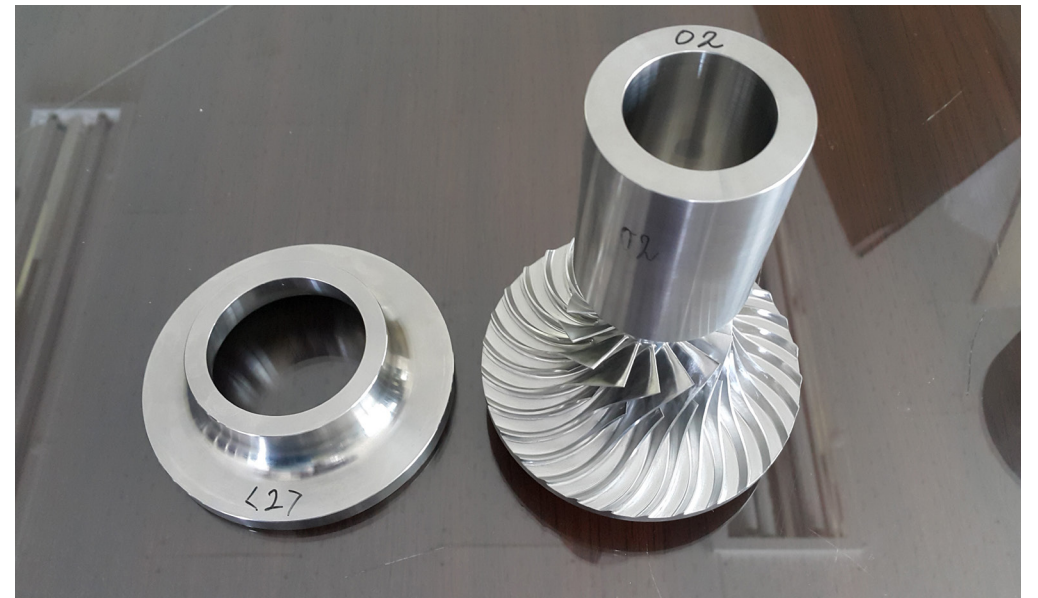
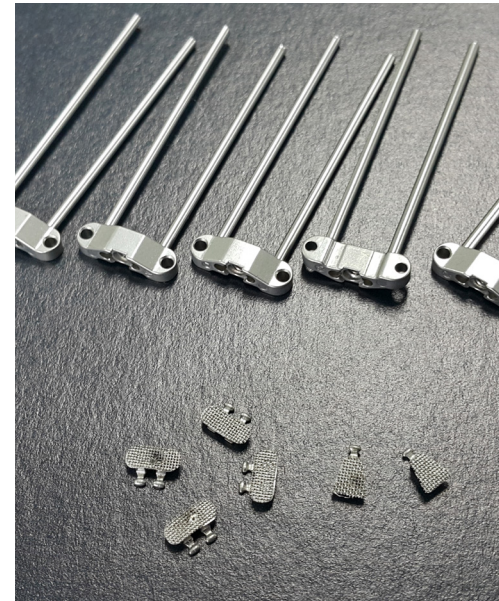
- 1 Inside the vacuum furnace
- 2 Heat exchanger
- 3 Heat exchanger



Small product brazing



- 1 Part material for braces : 316SS and others
- 2 BOLT material : SUS+sintered carbide
- 3 Ceramic part material : Ceramic+copper+SUS
- 4 High-speed impeller material : SUS420SS



FACILITY EQUIPMENT

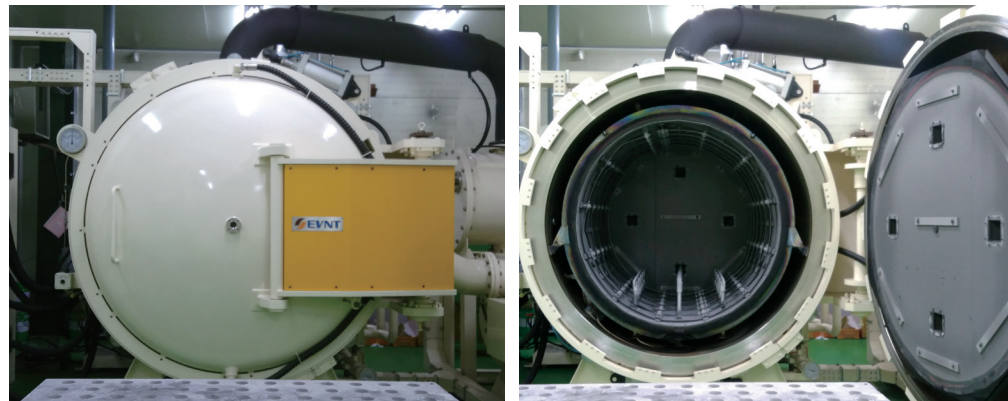
BRAZING facility

Dongnam ENG has the best facility to produce the best quality products, ranging from a mega-sized furnace to produce the large-sized products over 1,600Ø to a small furnace. Brazing room and cooling room are separated, helping to have excellent brazing effect for large-sized products, small products or special products by providing rapid heating and rapid cooling. As it allows to adjust the heating or cooling speed depending on the characteristic or the form of steel grade, it does not cause any deformation. It also restrains evaporation of the metal surface components, the material's own characteristic can be maintained. In case of brazing, the atmosphere inside the vacuum furnace is kept consistently, enhancing the brazing effect without interference of heat.

1	1
2	2
3	3

1. VACUUM BRAZING FURNACE - 1

- Max Temperature : 1350°C
- Max Vacuum Rate : 5×10^{-3}
- Working Zone : W800 x H800 x D1,200
- Weight Capacity : 800kg



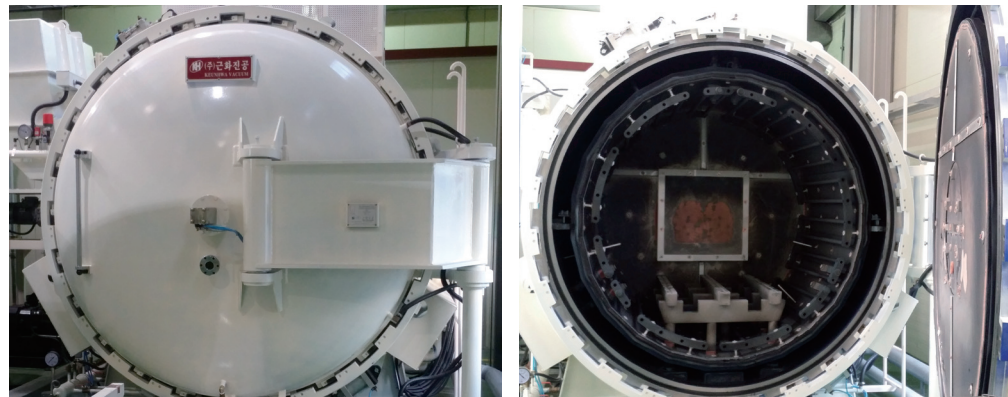
2. VACUUM BRAZING FURNACE - 2

- Max Temperature : 1300°C
- Max Vacuum Rate : 5×10^{-6}



3. VACUUM BRAZING FURNACE - 3

- Max Temperature : 1300°C
- Max Vacuum Rate : 5×10^{-5}
- Working Zone : W1,000 x H1,100 x D1,400
- Weight Capacity : 1,500kg



Press Operation Division

Components and parts for heavy electric machines and automobiles.

- Production of die and mould for automation of mobile phone parts, control valve parts, VI parts, circuit breaker parts, and other manufacturing parts



Precision Die & Mould Operation Division

1	2	3
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- 1 Foaming die and mould
- 2 PROGRESSIVE die and mould
- 3 PRO die and mould



NO	Facility name	Specification	Qty	Manufacturing date	Manufacturer
1	Vacuum furnace for brazing		3		
2	Oil-hydraulic press for brazing	250ton	1	2011. 08.	KOHTAKI
3	Drying furnace for brazing	500kg	1	2010. 09.	JISICO
4	Coating machine for brazing	1200 X 1200	1	2011. 02.	Dongsung
5	CS PRESS	200ton	1	2005. 08.	Samho Machine
6		110ton	1	2008. 11.	Changshin Press
7		80ton	4	2007. 10.	Hwail Press
8		60ton	1	2007. 02.	Woori Press
9		50ton	2	1999. 06.	Changshin Press
10	Milling	No.2	1	2005. 07.	Hwacheon Machine
11	Lathe	380	1	2010. 05.	WASINO
12	Grinder	180	1	2006. 04.	Woojin Machine
13		180	1	2004. 02.	Jinyoung Machine
14	Lifter	0.7ton	1	2008. 05.	Samho Lift
15		1ton	1	2009. 10.	Gana Lift
16	Electronic forklift	1.5ton	1	2013. 06.	Helikorea
17	RIVETING M/C	DR-105V	2	2002. 09.	Dongjin Machine