



NS *Nihonseiki Co., LTD.*

Company Profile

The industry's top class technology gives us good chances to manufacture die-casting die for automotive powertrain.

Company Profile

Nihonseiki Co., LTD.

Representative / CEO Masatoshi Mark Tsujimura
 Managing Director Masato Matsubara
 Director Hidenori Yoshikawa
 Address / 2799 Nakashidami Moriyama-ku Nagoya-City
 Aichi-Ken 463-0002 Japan
 Business / · Design, manufacture of die-casting die
 · Production of die casting parts
 · Maintenance of diecasting die
 · Production of aircraft parts

Capital / 40 million yen
 Establishment / 1974 (Founding / 1920)
 Our banks / The Aichi bank, Ltd.
 Ogaki Kyoritsu Bank
 Seto shinkin Bank
 Mizuho Bank, Ltd. MEIEKI Branch
 Mizuho Bank, Ltd. NewYork Branch
 Sales / 1.8 billion yen / year (2018)
 Member organizations / Japan Die casting Association
 Japan Die & Mold Industry Association
 Meihoku Labour Standards Association
 The Manten Project ("Procurement of Parts
 Related to Aerospace Support" Consortium)



(ISO9001 : 2015)

Business

Design, manufacture
of die-casting die



Production of
die casting parts



Maintenance of
diecasting die



Consultants of
diecasting die



DYNAMO Vietnam Co.,LTD Mold Division

Address / Lot C3.2, Road D1, Dong An 2 industry park,
 Thu Dau Mot City, Binh Duong, Viet Nam
 TEL.+84-650-351-5286 FAX.+84-650-351-5286

Representative / TRUONG TAN PHAT
 Mold department officer / Masato Matsubara

ADVANTAGE

Consistent production system

We design and are produce a die-casting die.
First the product is designed by the latest CAD system. The product is processed using CAM system and NC equipment based on the design. And the product is delivered after check of three-dimensional testing equipment and an inspector.
We can respond to all customer's needs from a trial-product to mass-product goods.



CAD / CAM system

The level of Quality for our products is higher than before.
So we use a CAD/CAM system to make a perfect product.
Our product is managed strictly by a system from a design to production.
We keep challenging.



Challenge to a design

We try to give the form to customer's needs.
The latest CAD/CAM system is introduced to respond to the various and complicated needs.
And system engineers are being educated. Therefore a better product can be drafted.



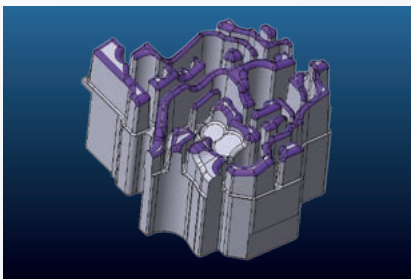
Challenge to a processing range

We introduce a large machine aggressively.
That's to respond to the customer's various needs.
A professional engineer takes charge of the each machines to maintain the product quality. We do the effort into which the use of the machine is expanded.



3D Interface

All Diecasters and die-builders use different CAD system. But we would like to propose STEP and Parasolid, to transfer data. Because the data does not always translate accurately. DYNAMO prefers to use STEP and Parasolid. (Please contact us. We can handle CATIA and UG, Pro-E, Solidworks & Iges)



Direct Milling

We prefer to use direct hard milling.
Minimum end mill size is $\phi 0.5\text{mm}$ and the machine is 20000 rpm/s. Where possible the insert is machined without EDM, removing the need for polishing the recast layer and re-tempering the part, increasing the shot life of the insert.



QUALITY ASSURANCE SYSTEM

In order to maintain our top quality, we are making an attempt to always manufacture complete and infallible products through consistent quality control and inspection process.

We can realize mold precision to the micron by using an ultra-high precision 3D measuring machine which boasts the world-top class precision, and a non-contact type 3D measuring machine which can comply with complicated profiles.

Contact-copying 3D Measuring Machine



Non-contact 3D Measuring Machine



Equipment

| Machine | Manufacturer | Model | Size / Capacity |
|--------------------------------------|----------------|---------------------------|-------------------|
| Contact-copying 3D Measuring Machine | Mitutoyo | CRYSTA-Apex | 900 × 1600 × 800 |
| | Mitutoyo | BN-1050 | 1000 × 1500 × 800 |
| | Tokyo Seimitsu | SVA 1500A | 900 × 1600 × 800 |
| Non-contact 3D Measuring Machine | FARO | FARO QUANTUM S SCANARM HD | |

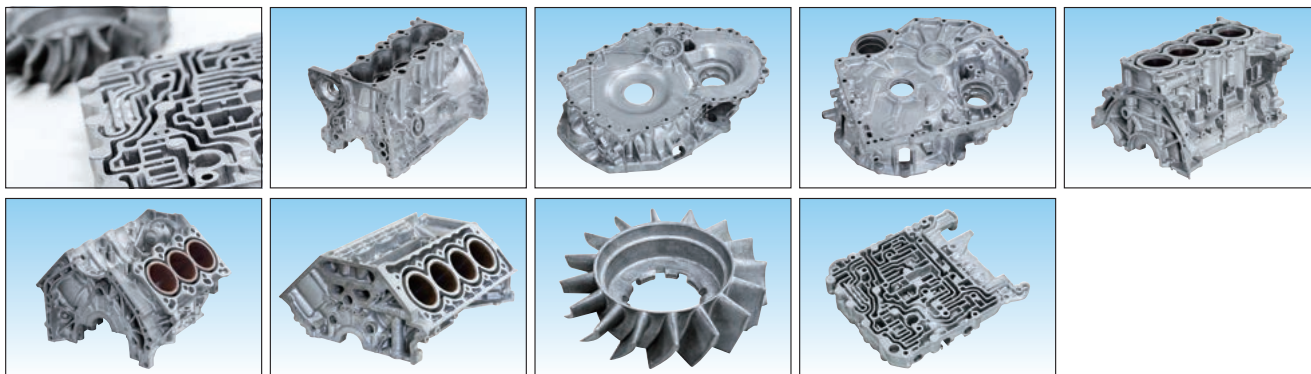
DESIGN, MANUFACTURE OF DIE-CASTING DIE

We design and manufacture die-casting molds and trimming dies.

Die casting parts

ISO9001 : 2015 certification

I'm introducing the part of our product. Our product can find the precision of the micro unit. Our product is managed strictly by a system from a design to production. It's high-quality and highly precise. The precision die casting NIHON SEIKI makes, domestic and abroad, it's estimated highly.



Large-sized equipment

We have augmented various machine tools to support our industry-leading technical power, particularly large-sized equipment to satisfy the needs for manufacturing ever increasing large-sized, more precise molds.



| | |
|-----------------|----------------------|
| Machine | Die spotting machine |
| Manufacturer | Asai |
| Model | DSP3500Me |
| Size / Capacity | 300t |



| | |
|-----------------|---------------------------|
| Machine | Horizontal boring machine |
| Manufacturer | Toshiba |
| Model | BTH-130.R24 |
| Size / Capacity | 3000 × 2300 × 1600 |



| | |
|-----------------|---------------------------|
| Machine | Vertical machining center |
| Manufacturer | Makino |
| Model | V99 × 3 unit |
| Size / Capacity | 1500 × 1000 × 800 |

DESIGN, MANUFACTURE OF DIE-CASTING DIE

Equipment

| Machine | Manufacturer | Model | Size / Capacity |
|------------------------------------|---------------|---------------------------------|--------------------|
| Vertical machining centre | Makino | GF-8 | 1250 × 800 × 700 |
| | Makino | GF-8 | 1250 × 800 × 700 |
| | Makino | V33 | 600 × 400 × 350 |
| | Makino | V56 | 900 × 550 × 450 |
| | Makino | V56 | 900 × 550 × 450 |
| | Makino | V99 | 1500 × 1000 × 800 |
| | Makino | V99 | 1500 × 1000 × 800 |
| | Makino | V99 | 1500 × 1000 × 800 |
| | DMG MORI | NV7000 | 1250 × 700 × 650 |
| | OKK | VM76R | 1540 × 760 × 660 |
| | MITSUBISHI | M-V70E | 1250 × 700 × 650 |
| Horizontal machining centre | Makino | a81nx | 630 × 630 × 1020 |
| | Makino | A99e | 1250 × 1100 × 1250 |
| | Makino | MC1513 | 1500 × 1300 × 1000 |
| | OKK | HM800S | 1050 × 900 × 880 |
| | OKK | HM800S | 1050 × 900 × 880 |
| 5-face machining | OKUMA | MCR-B II | 5000 × 3000 × 1300 |
| Horizontal boring machine | Kuraki | KBT-15BDX | 3000 × 2300 × 1600 |
| | Toshiba | BTH-130.R24 | 3000 × 2300 × 1500 |
| Surface grinding machine | Okamoto | PSG-1268 | 1300 × 630 × 950 |
| NC milling machine | Makino | DEN-105 | 1050 × 500 × 560 |
| | Makino | FDX-128 | 1250 × 800 × 700 |
| | Makino | DEN7-105 | 1050 × 700 × 560 |
| Tool prix setter | BIG DAISHOUWA | STP-MAGIS | |
| Shot blasting | Sinto | MY40-E | |
| Die spotting machine | Asai | DSP3500Me | 300t |
| | Amino | DRM (For small) | 100t |
| Crane | Nippon hoist | | 5t |
| | Nippon hoist | | 2.8t |
| | Nippon hoist | | 2.8t 10t 15t |
| | Kamiuchi | | 1t |
| | Seiden koki | | 2.8t 7.5t 30t |
| | Seiden koki | | 2.8t 5t 20t |
| | Seiden koki | | 30t |
| Electric discharge machine | Makino | EDNC106-MGF | 1000 × 600 × 450 |
| | Makino | EDNC106-MGF | 1000 × 600 × 450 |
| | Makino | EDNC65S | 650 × 450 × 350 |
| | Makino | EDNC156-MGF | 1500 × 600 × 450 |
| Graphite process machine | Makino | SNC86A Compatible with SUPER GI | 800 × 600 × 400 |
| | Makino | V56 : GRAPHITE | 900 × 550 × 450 |
| Universal band saw | Nippon koki | L-300 | |
| Saiana electric discharge machine | JEM | 50FF | 450 × 350 × 350 |
| Radial drilling machine | OKUMA | DRAJ-555 | |
| Small-sized bench drilling machine | OKUMA | DMB | X)650 Z)375 D)φ32 |
| High-speed guillotine | SAKAE SEIKI | My CUT-200 | |
| | Dynamo | MAX BOY P · C · F | |
| Off-line setup system | IMAO | | |
| Electric furnace | NFK | | 75kW 1050°C |

MAINTENANCE OF DIECASTING DIE

As part of our effort to shorten the maintenance work period, we at Nihonseiki have introduced a non-contact 3D measuring machine. For small-scale maintenance, we can measure the data in a non-contact way without disassembling the molds/dies entrusted to us from our customers. Since our skilled worker can repair manually based on the measured data, we can finish maintenance work in a shorter period than ever before. At the time of delivery, we provide assurance to the maintenance completed molds/dies in a non-contact way, so that they are ready for immediate casting work upon delivery. We also have many processing machines as well, so that we can accept large-scale maintenance including molds and dies manufactured by our competitors.



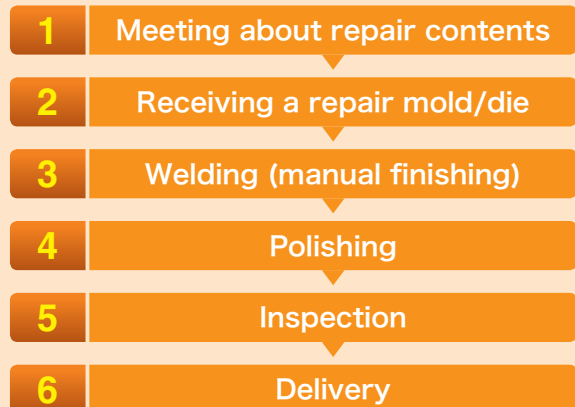
Welding



Non-contact 3D measurement

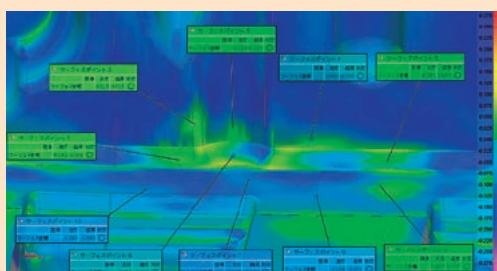
An example of our maintenance work

Small-scale maintenance (without machining)



We measure the data in a non-contact way without disassembling the mold/die. Since no disassembling/reassembling work is required, this way of maintenance can shorten the delivery time.

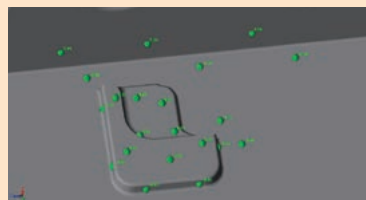
- Compliance with unexpected orders for maintenance
- Quality assurance in a non-contact way of measurement



Large-scale maintenance (with machining)



- Integrated operation in series from disassembling to welding, machining, polishing, reassembling and inspection
- No need of labor by our customers in disassembling, etc. during the maintenance work
- Delivery of mold/die in the reassembled state for immediate casting work upon delivery
- Quality assurance with non-contact or contact-copying 3D measuring machine



PRODUCTION OF DIE CASTING PARTS

We are equipped with a number of up-to-date high-precision machining centers of 3-axis, 4-axis and 5-axis types. We have put all our cutting know-how accumulated over long times into CAM, and continue to pursue direct carving processing. For our high-precision and long-life mold parts, we have been highly evaluated by our customers at home and abroad.



Equipment

| Machine | Manufacturer | Model | Size / Capacity |
|------------------------------------|----------------------|---------------------------------|-------------------|
| 5-axis machining centre | DMG | DMU 40 monoBLOCK | φ300 × 400 |
| | DMG | DMU 60 monoBLOCK | φ500 × 500 |
| | DMG | DMU 60 monoBLOCK | φ500 × 500 |
| Vertical machining centre | DMG MORI | DuraVetical 5060 MS | 500 × 450 × 400 |
| | DMG MORI | NVD5000 α 1 | 500 × 450 × 400 |
| | OKK | VB53 | 1050 × 530 × 511 |
| | OKK | VB53 | 1050 × 530 × 511 |
| | OKK | VB53 | 1050 × 530 × 511 |
| | OKK | VB53 | 1050 × 530 × 511 |
| | OKK | VB53 | 1050 × 530 × 511 |
| Horizontal machining centre | Makino | V33 | 600 × 400 × 350 |
| Horizontal machining centre | OKK | HMC400 | 560 × 560 × 690 |
| NC milling machine | Makino | DEN7-105 | 1050 × 700 × 560 |
| Shot blasting | ASCAN | B-2T | |
| Crane | Nippon hoist | | 2.8t |
| | Elephant chain block | | 0.5t |
| Electric discharge machine | Makino | EDNC106-MGF | 1000 × 600 × 450 |
| | Makino | EDNC106-MGF | 1000 × 600 × 450 |
| | Makino | EDNC65S | 650 × 450 × 350 |
| | Makino | EDNC156-MGF | 1500 × 600 × 450 |
| Graphite process machine | Makino | SNC86A Compatible with SUPER GI | 800 × 600 × 400 |
| | Makino | V56 : GRAPHITE | 900 × 550 × 450 |
| Universal band saw | Nippon koki | L-300 | |
| Saiana electric discharge machine | JEM | 50FF | 450 × 350 × 350 |
| Radial drilling machine | OKUMA | DRAJ-555 | |
| Small-sized bench drilling machine | OKUMA | DMB | X)650 Z)375 D)φ32 |
| High-speed guillotine | SAKAE SEIKI | My CUT-200 | |
| | Dynamo | MAX BOY P · C · F | |
| Off-line setup system | IMAO | | |
| Electric furnace | NFK | | 75kW 1050°C |

DIECAST CAVITY PARTS



Feature

The insert and core die is one of our main item. Especially, Water Jacket (WJ) for Engine block die-casting die is our special product. We produce over 100 pieces WJ a year (sales result in 2013-2014)

Our quality is a result of our 100 year history. We have produced 250 complete Engine block die-casting dies so far. We have the newest technology and equipment including 3 axis, 4 axis, and 5 axis CNC machines. We use hard milling and the result is making less use of EDM. It will increase shot count life for your die-casting die. Our experience and new technology will help expand your future.

PRODUCTION OF DIE CASTING PARTS

TRANSMISSION

TM

DIECAST CAVITY PARTS



Feature

Auto transmission die-casting dies and transmission case die-casting dies are also the most representative items in our products, and we have produced over 1000 pieces for each item so far.

As well as Engine block, transmission case is very important part.

We specialize in producing spline cores for FF and FR.

We have produced 50 pieces of spline a year (sales result in 2013-2014).

We always use the 5 axis machine, reducing the need for EDM and to keep items a good quality. Our specialized spline cores will win in a highly competitively market.

INSERT

IN

DIECAST CAVITY PARTS



Feature

We have a long history of producing inserts for diecasting dies.

Recently, Aluminum die-casters are being tasked to reduce the weight of their castings with material saving inserts which are thin and have a long water hole.

We can produce an insert with a hole which is $\phi 3\text{mm} \times L = 500\text{mm}$, without difficulty.

We have all kind of TAP. (NPT, BSP M, UNF)

We have over 45 lathe and 25 machining centers at our three plants for these items.

DISTRIBUTOR & RING

DR

DIECAST CAVITY PARTS



Feature

We produce many distributors and rings

The size is Max ϕ 300mm. Last year the quantity is over 100 sets.

Recently, it is popular to use high level coolant for biscuit.

As you know, it will shorten the cycle of Aluminum die cast.

We have a lot of experience and machines.

We will continue to produce good quality, good price and quick delivery.

CONSULTANTS OF DIECASTING DIE

We provide support for everything related to technology, equipment, etc. for molds and dies.

Overseas support

We are responsive to various needs of the overseas bases of our customers.

We accelerate the globalization of our production system, and promote the prevalence of Nihonseiki's high-quality molds and dies through our local technical guidance in Vietnam.



Equipment support (Sales, coordination, technical support)

We can secure coordination according to the needs of our customers in a wide sphere ranging from MC to EDM, DSP, 3D measuring machine and CAM.

Also, we can provide complete technical support.

Thus, we contribute to our customers in starting up a new business, etc.

Various machine tools

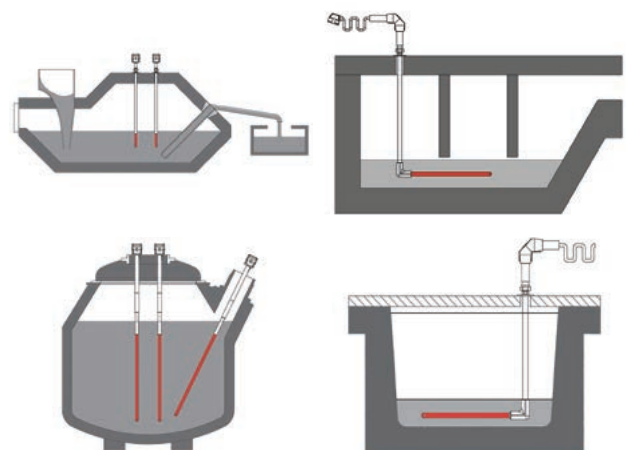
We manufacture and sell machine tools tailored to the needs of our customers.



Face polishing machine

Lethiguel immersion heaters

As an authorized distribution agent of Lethiguel, we deal in Lethiguel heaters for casting.



■ HISTORY

- 1920 Started business in Kobe City as a mold manufacturer for rubber products
- 1941 Set up Nagoya Branch Factory in Kita Ward of Nagoya City, and started operation as a specialized die-cast factory
- 1946 Moved Head Office to Nagoya Factory, and started operation
- 1953 Reorganized into a joint venture company, "Tsumimura Iron Works," capitalized at 800,000 yen
- 1974 Established Nihonseiki Co., Ltd., capitalized at 20,000,000 yen
- 1980 Set up another factory to process final assembly and install large-sized machines for ever-increasing large-sized mold manufacturing
Increased the capital to 40,000,000 yen
- 1983 Introduced a CAD/CAM system, and started CAD/CAM-based direct numerical control (DNC) operation, constituting the first introduction of high-tech equipment
- 1990 Launched into carbide and ceramic part processing as a new business
- 1991 Updated and upgraded the CAD/CAM/CAE system and enhanced the computer system, constituting the second introduction of high-tech equipment
- 1994 Introduced a high-speed processing machine to improve the precision and efficiency
- 2001 Updated the CAD/CAM/CAE system and enhanced the high-speed network system, constituting the third introduction of high-tech equipment
- 2005 Acquired the ISO 9001:2001 Certificate
- 2009 Acquired the ISO certificate update to the ISO 9001:2008 Certificate
- 2011 Introduced 2 units of 5-axis processing machines to improve the precision and efficiency
- 2012 Introduced one more unit of 5-axis processing machine to further the precise and efficient processing
Introduced a tool presetter to improve the production efficiency and the quality stabilization
Substantially augmented CAD/CAM equipment
- 2014 Substantially augmented the machining center equipment to expand the parts business
- 2017 Introduced a large-sized machining center, a horizontal boring machine and a die spotting press
Strengthened the quality assurance system (large-sized 3D measuring machine, non-contact type 3D measuring machine)
- 2018 Acquired the ISO certificate update to the ISO 9001:2015 Certificate

■ CLIENTS (in alphabetical order)

- Aichi Machine Industry Co., Ltd.
- Aisin Seiki Co., Ltd.
- Asahi Aluminum Co., Ltd.
- Daihatsu Motor Co., Ltd.
- General Motors Company
- GM Daewoo Auto and Technology
- Hiroshima Aluminum Industry Co., Ltd.
- Honda Motor Co., Ltd.
- Hyundai Motor Company
- Isuzu Engine Manufacturing Hokkaido Co., Ltd.
- Isuzu Motors Limited
- JATCO Ltd.
- Kyushu Yanagawa Seiki Co., Ltd.
- Mazda Motor Corporation
- Mino Industry Co., Ltd.
- Mino Industry Tochigi Co., Ltd.
- METS Inc.
- Mitsui Kinzoku Die-Casting Technology Co., Ltd.
- Nissan Motor Co., Ltd.
- Renault SA
- Ryobi Limited
- Subaru Corporation
- Suzuki Auto Parts Toyama Mfg Co., Ltd.
- Suzuki Motor Corporation
- Tokai Seiki Co., Ltd.
- Toyoda Gosei Co., Ltd.
- Toyodensan Co., Ltd.
- Toyota Industries Corporation
- Toyota Motor Corporation
- Toyota Motor Kyushu, Inc.
- Yanagawa Seiki Co., Ltd.

Others

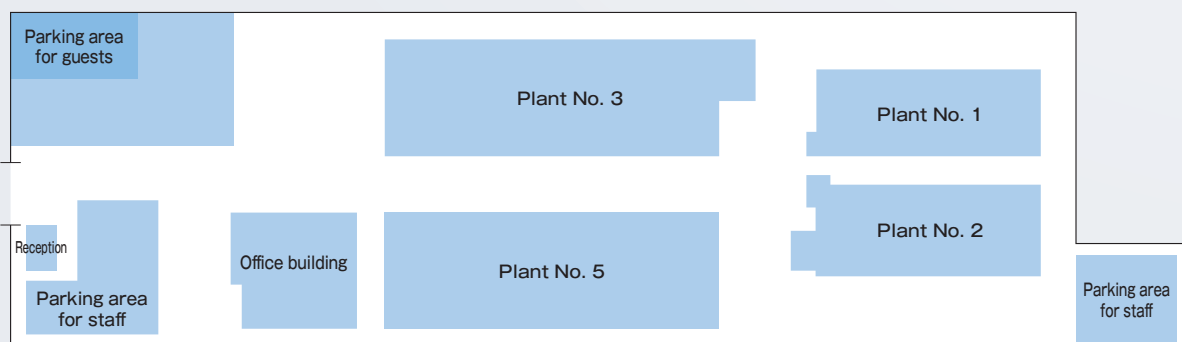


■ Head Office Factory



■ DYNAMO Vietnam Mold Division

■ Site Plan





www.nihon-seiki.jp