

Tsuneichi Ichimaru, Founder of Ichimaru-Giken



The design office used by the founder is still preserved as the "Founder's Room".

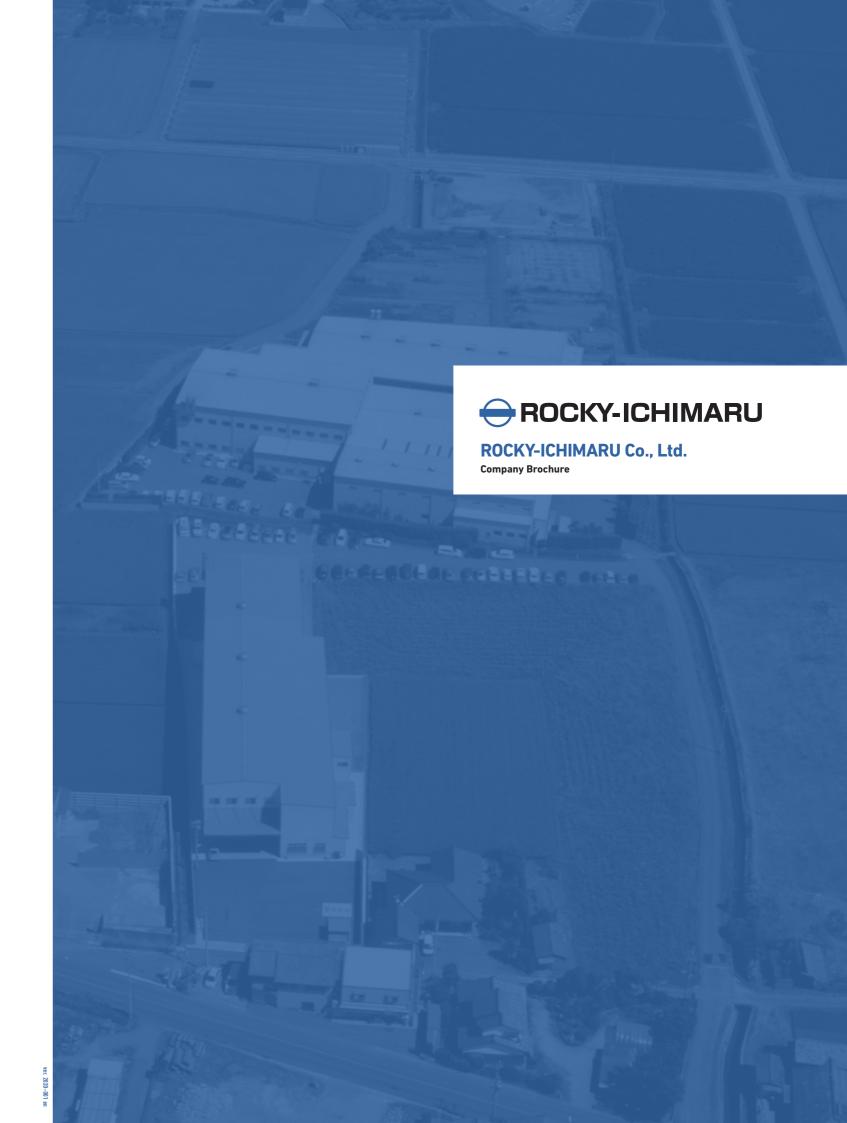


Company Profile

Company Name	ROCKY-ICHIMARU Co., Ltd. [former Ichimaru-Giken Co., Ltd.]
President & CEO	Hironobu Ichimaru
Company Address	601, Oaza Tsunemochi, Chikugo City, Fukuoka 833-0016, Japan TEL +81-942-53-7510 FAX +81-942-52-8799
Establishment	November 1st, 1978
Capital	JPY 18,000,000
Main Business Activities	Designing and manufacturing of Industrial machinery and equipment
	Valves and piping packages for tire curing press, ROCKY Valve & ROCKY Panel Unit Main equipment for tire curing press & tire building machine
URL	*70MPa oil hydraulic equipment *www.rocky-ichimaru.co.jp/en/



Tire curing machine valve no.1 (photograph from December 1978)







Supplying niche-leading products to the world

Since the time this company was founded up to the present day, we have designed and manufactured a range of products such as tire curing machine valves, tire manufacturing equipment and high-pressure oil hydraulic machinery. One of these, the "Rocky Valve", a tire curing machine valve produced since our foundation, is the world market share leader with 90% of the Japanese market and 30% of the international market. It is renowned worldwide as the leading product in its niche globally.

After taking control of the high-pressure oil hydraulics machinery department of our general distributor RIX Corporation in 1999, we began designing and manufacturing high-pressure oil hydraulic machinery operating at oil pressures of 70MPa. The products we manufacture are highly trusted by customers in Japan and overseas, as unique products with advanced design know-how and technical value.

New innovations come from understanding the detail

The most important thing to us when developing a product is the spirit of basic technology and development. We are dedicated not only to technical excellence and making products which meet the needs of our customers, but also to design and development which understands their true purpose.

Realizing these aims requires a thorough understanding of the practicalities on the ground. Rather than performing tasks by simply relying on specifications, we endeavor to capture the details by visiting the actual site of operations, asking for customer opinions, and seeing, hearing, smelling and sensing the temperature in person.

We are dedicated to ensuring that we provide high customer value by using the above information to generate flexible ideas focused on our knowledge and experiences as a manufacturing organization and the functions required of the machine.

The organizational concept of "The value in the invisible."

In 2018 we unveiled our new organizational concept of "The value in the invisible." .

The products and services we provide can be thought of as visible value. We strive to create additional value on top of this by focusing on details and activities which can't be observed from the outside. Examples might be light chamfering or edges on processed components for safety reasons, designs which account for ease of maintenance, scorch-preventive coatings on bolts, welcoming visitors, or company-wide consistency training. While these are just a few examples, the idea of taking full account of the invisible from all perspectives of our business activities is not just about quality improvement, but a means of improving the image of our products and our company, while supplying products and services which provide a visible outcome which exceeds the customer's expectations. By equally regarding visible and invisible value and demonstrating synergies, we strive to nurture a positive cycle which responds to customer expectations with results.

Aiming to be an "interesting organization" with products that live up to the Made in Japan ethos

In the future, we will continue to develop and supply products and services with high added value to the tire manufacturers of the world as well as a range of other industries, thereby we will increasingly be recognized across the world as an "organization of interest" generating added value, and contribute to the development of society through manufacturing.

To achieve this, we consider it important to transform the sites of our key employee activities from being sites across Japan to sites across the world, to engage with other organizations, gather information resources and provide technical services, while practicing reliable manufacturing and sharing organizational and product information.

As a Japanese manufacturing organization advancing into the world, we will operate as an "organization of interest with a dream" which lives up to the Made in Japan ethos, by providing products which typify the Japanese attention to detail and shine with artisan spirit.

History

	•
1978	Ichimaru-Giken Co., Ltd. was established in Kurume city, Fukuoka.
1979	Company moved to Chikugo city, Fukuoka.
1993	Completed and move to No.1 factory in Chikugo city.
1995	Completed No.2 factory.
1997	Expanded No.2 factory.
1999	No.3 factory completed.
To	Took on Oil-Hydraulic department of RIX Corporation, and began
	manufacture of high- pressure oil hydraulic equipment.
2003	Completed No.4 factory.
2006	Completed No.5 factory.
2009	Founder, Tsuneichi Ichimaru retired from office and Kenji Matsuura took office as President & CEO.
2012	Kenji Matsuura retired from office and Tsutomu Hirao took office as President & CEO.
2016	Quality Control Section was established.
2017	Tsutomu Hirao retired from office, and Hironobu Ichimaru took
	office as President & CEO.
	Management philosophy was defined.
2018	Culture Book was created.
	40th Anniversary Ceremony was held.
	Completed No.6 factory.
2019	Acquisition of ISO 9001 and ISO 14001 Certification.
	Company name changed to "ROCKY-ICHIMARU Co., Ltd.".



Valves for tire curing press: Rocky Valve

This valve is used primarily in the internal line, external line and water hydraulic line of tire curing presses, and has given many years of field proven performance in Japan and overseas. It is capable of sealing for long periods at the high temperature and high pressure fluids required for tire curing and enables easy maintenance, including parts replacement. It is also capable of adapting to a range of specialized specifications to suit the requirements and usage for customer needs.



End connection: thread (Rc, NPT), flange (JIS, DIN, ANSI)

A thread and flange connection valve to meet a range of standards.

- · 2/3-way piston valve (TPC series)
- · 4-way piston valve (FP series)
- · Steam regulating valve (SR series)
- · Control valve (DC series)
- · Knuckle joint (LI series)
- · Y-type check valve (YL series)
- · Ejector (HE series)
- · Relief check valve (LCV series)



DC series





FP series

TPC series

End connection: panel (for manifold)

A manifold panel connection valve to our proprietary standard.

- · 2/3-way piston valve (PPM/PMM/PPW series)
- · 4-way piston valve (PFW series)
- · Steam regulating valve (PSR series)
- · Control valve (PDC series)
- · Lift check valve (PVL series)
- · Relief check valve (PRW, PAW series)
- · Needle valve (PNV series)







PPW series

PSR series

PPM series (NC)

End connection: other

Specialized valve series built to customer specification.

- · 2-way piston valve (MP/MT series)
- \cdot 2-way piston valve (RPC/OPC series)
- · 2/3-way piston valve (GP/GT series)
- · 2/3-way piston valve (PMS series)
- · Y-type check valve (PYL series)
- · Ejector (PHE series)
- · 2/3-way piston valve (PTPC series)



MP series (NO)



MT series (NC)



PMS series (NC)

ROCKY-ICHIMARU Panel Unit (RPU)

A compact manifold piping system using panel connector valves to our proprietary standard. Fully compatible with internal line, external line, water hydraulic and air systems, this unit is designed and manufactured on a one-off basis to suit the customer's system and usage site. The RPU can also be designed and manufactured as a thermal enclosure to maintain the temperature of the RPU and save energy.

RPU Examples



For internal line

For platen and

container jacket steam line



For internal line (with thermal enclosure)



For water hydraulic driven SMO cylinders



For BAG cylinders and water hydraulic cylinders



For air driven SMO cylinders

Rubber Machinery equipment

We design and manufacture a range of machinery used in equipment used in the tire manufacturing process.

We design and manufacture components and products used in today's equipment, including for many older devices operational for many years, we conduct interviews to discover current issues and customer requirements, we make improvements and design and manufacture machinery with new added value, and we undertake development of proprietary products and joint development with customers.

Devices for BOM and AFV press

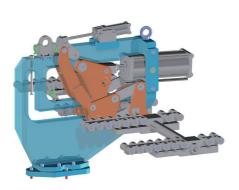
BAG cylinder (dome-type, platen-type), Bag well, Vertical loader chuck, Loader system, Unloader, Hydraulic cylinder, Ram cylinder, Stripping ram, Chuck ejector, Platen, BOM container height adjustment mechanism, REC (Water hydraulic center mechanism with LVDT), Heat shield, etc.



BAG cylinder (BOM dome-type)



REC (Water hydraulic center mechanism with LVDT)







Vertical loader chuck

TB-BOM unloader

Devices for oil hydraulic tire curing machines

Oil hydraulic driven center mechanism, Loader chuck and Loader system, Squeeze cylinder

* Center mechanism, Loader, Unloader, PCI and Squeeze cylinder are also provided as OEM/ODM to major press manufacturers.

Proprietary development devices

Automation, labor saving and safety measures for tire curing machines, and some development devices for quality improvements.



Compact SP center mechanism

An oil hydraulic or water driven compact SP center mechanism. The oil hydraulic driven model can be manufactured for OR tire use. The PC/TB sizes include a servo driven type.



Gas Circulation Unit (GCU)

Circulating gas and steam within the bladder during curing reduces the upper and lower temperature difference within the bladder and reduces the variation in curing.



Bladder clamp devices

The lower bladder clamp ring can be fixed to the BAG head of the center mechanism using a specialized double cam mechanism through the action of a single air cylinder.



Steam joint

When exchanging molds, the steam system for the container jacket is attached and detached remotely rather than using a manual coupler.



Mold clamp device

The upper container can be fixed to the top plate instead of a bolt using a specialized double cam mechanism through the action of a single air cylinder.



Shaping Unit (SU)

A core unit for G tire to be inserted in bladder in its off line stage. Both beads of the G tire are caught and shaped, allowing high precision insertion.

Devices for tire building machines

We manufacture various drums used in tire building machines using blueprints supplied by the customer, both as new and refurbished one-off units based on customer requirements.

- · Shaping drums
- · Band drums
- · Belt drums
- \cdot Other specialized drums

Other devices

We also design and manufacture devices used in processes other than tire curing and tire shaping machines based on customer requirements.

Examples:

- · Mold preheating devices
- · Oil injectors
- · Mill rubber test press
- · G tire carry lifter
- · Auto joint valve

High-pressure oil hydraulic devices

We design and manufacture a range of applied devices for use in high-pressure oil hydraulics including pumps, cylinders, valves and accessories compatible with high-pressure oil hydraulics at 70MPa. As well as the products listed in our catalog, we are able to offer combinations of devices to suit the customer's usage case. We further offer design and manufacture of units utilizing oil hydraulic pumps and cylinders and all devices incorporating electrical control, including supplied as OEM/ODM.



Examples of applicable devices

- Calking devices for oil hydraulic hose and piping (supplied OEM/ODM)
- · Punchers (supplied OEM/ODM)
- · Notchers (for steelworks)
- · High-pressure hydraulic boosters
- \cdot 800 ton and 1,000 ton presses
- · Golf ball curing machines
- · Engine-type oil hydraulic pumps
- · Bolt tensioners, etc.



1,000 ton press for insulation sheet manufacture



Engine drive high-pressure oil hydraulic pump

Other

We also design and manufacture a range of devices not aimed for other industry.

Examples:

- · High-pressure valves (highest usage pressure: 10MPa, 15MPa)
- · Angle sheet-type large 2-way valves (primarily for steelworks)
- · High-pressure gas accredited valves
- · Canada TSSA standard compatible valves (CRN certification number)
- $\cdot \ \text{Air cylinders for tundish use} \\$



High-pressure valve (DN15~50)

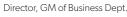


Angle sheet-type large 2way valve (DN50~200)

 $\overline{0}$

Developing something is essentially about solving problems

Tetsuji Muraishi





Concentration and attention to detail enhance the quality of work

The job of the Operations Division can be divided into administrative and purchasing tasks. Administrative tasks primarily involve things like sending quotes and updates on delivery dates and progress to customers, and managing internal order data. We also visit customers to provide technical support as a sales agent and identify issues and collect information. Purchasing tasks include handling component procurement, managing manufacture delivery dates and managing budgets. The job involves working both inside and outside the company.

The ability to communicate and the ability to manage are essential to our work. This is due to the importance of cooperation inside and outside the company for administrative tasks and the need to handle budgets and deadlines for purchasing tasks. Depending on the day, we might process several hundred transactions so it's a question of not losing focus and being able to concentrate on the details. In the end, concentration and attention to detail are key to providing a high quality service.

Knowledge built up over many years is a huge strength

Since our founding in 1978 we have built up a vast range of experience. This experience and knowledge helps us to make improvements, prompting high evaluations and trust from our customers.

For example, we have a high level of design staff efficiency which means we are able to produce high quality designs. This not only allows us to deliver manufactured goods which meet specifications, but also enables us to make suggestions for im-

provements to devices and thereby benefit the customer's business itself

It also means that when we procure components, we are able to accurately judge the highest quality component available by going immediately to the right company. By accumulating knowledge and knowhow on components in our roles, we are able to respond with both quality and speed.

We consider the invisible to offer things only we can provide

When solving problems presented by customers, we delve into questions such as why something has happened and pursue the cause to bring the issue into the light. Solving such problems is our forte.

The task of exposing issues is key to providing the value in the invisible we talk about in our philosophy. Take, for example, a customer having problems with an oil leak on a machine. A normal approach would be to solve the problem by repairing the site of the leak. Our approach, on the other hand, would be to ask why the oil leak occurred in the first place, expose the core problem, and offer a solution that addresses its root. By carefully considering the invisible, we increase customer satisfaction. This is how we pursue value.

Creating the product which is truly wanted



We are involved in all stages of product manufacture

All of the products we make are used in the production facilities of our customers'factories and manufacturing plants. The technical division is involved at every stage of that product manufacturing process.

When we create a new product we start by asking about the needs of the customer, and use those to draw up conceptual and detailed designs. We then convey our design intentions to other staff members for component manufacture and assembly. Once assembly is complete we carry out checks, adjustments and testing to ensure it is functioning as per the design. We

also provide support for installation at the time of delivery. It is essential in this task to build trusted relationships between the technical division and groups inside and outside the company. We are dedicated to ensuring our designs clearly and openly meet customer needs through close communication.

Close communication and viewing the actual site of use are central

Careful communication means accurately taking on the customer's ideas and accurately conveying our own ideas. The main focus is on drawing out the real meaning of the customer's words. Neglecting this bidirectional process would make creating the product which was truly wanted impossible, even with the highest quality design.

We ascribe similar importance to viewing the site of use. We visit the customer's factory to capture the situation in which the product will be used, as many problems can arise which cannot be identified based on the specification alone. It's essential to take in the situation on the ground and applying that knowledge to the design.

We want to enhance our "coordination power" - a product of technology and reading customer needs

In the future as our technology grows further I want to ensure that we continue to create products of high quality and that we lock in the idea of reading the potential needs of customers and the wider market. These two strengths are indispensable in this modern era of globalization. The idea of enhancing a combination of these strengths, what you might call "coordination power", is a cornerstone of further improving our customer offer.

In the past several years it has become increasingly common to consult with the customer from the product concept stage. I think this is a positive development because discussions at an early stage lead to a better understanding of the customer. I look forward to using greater customer involvement and the exposure of invisible issues and true root issues to continue to provide products fit for the customer and our times.

Building customer trust through consistent reliability



Creating products with the customer's objectives in mind

The manufacturing division gives form to products based on designs from the technical division. How far can we raise quality while holding to the deadline? How can we best deliver a product to meet the customer's needs? These are the most important issues for work in the manufacturing division.

The goals the customer wants to achieve can be varied. They cover diverse areas such as safety issues, raising productivity, achieving greater precision or resolving problems. I think it's becoming ever more important to adopt the approach of creating the product the customer really wants while considering recent trends such as the increased awareness of energy saving measures.

From our founding up to the present day, we have always produced our own products. This means we have experience accumulated over many years and a record of continued delivery of reliable quality. I believe this background enables us to continue producing products which match the objectives and needs of the customer, even as times change.

Steady accomplishments create a win-win relationship

A wide range of processes take place between the receipt of an order to delivery, and that means a large number things to accomplish. Foremost amongst these are those for which the customer will be grateful. Creating a good product is one thing, but it's also a pleasure when a customer is pleased with a suggestion, or when we are able to respond to a request which ensures a difficult deadline is met.

These may seem like obvious and necessary steps. But I firmly believe that consistently performing on such tasks is of vital importance. The steady accumulation of accomplishments generates a win-win relationship between our company and the customer, enabling both parties to achieve their ultimate goals.

The pursuit of deadlines and quality generates trust

While we achieve constant growth by building trust in small increments, but this trust can be lost in an instant if an issue arises. For example, if by some circumstance the customer is dealt with insincerely and a product which does not at all meet their needs is delivered, this would tear down trust which took years to build up in an instant. That is why we are highly motivated in our daily work to ensure something like that could never happen. The aspects of work in the manufacturing division which correlate most closely with trust are meeting deadlines and quality, and I am determined to keep those promises to our customers.

We accomplish what we can at every opportunity and thereby build up trust. This is something which I believe is shared across the company as a whole, and through its repeated application we take our next big step forward.

 $\overline{12}$

