

Forest-In Office

Amada Green Action

The Amada Group
Environmental/social report

2011



◆ Our Management Philosophy

1. Grow with our customers

Our company has been sharing this philosophy as a starting point for all of our business activities since its formation. We believe that the creation and provision of new values based on customers' perspectives will strengthen the relationship of mutual trust between our customers and the Amada Group, and become a source of mutual development.

2. Contribute to the international community through our business

Our company recognizes that contributing to "manufacturing" conducted by our customers throughout the world leads to the development not only of local communities, but also the international community as a whole, and we conduct our business activities with the aim of providing the highest quality of solutions in each market around the world by optimally distributing our group's management resources.

3. Develop human resources who pursue creative and challenging activities

Rather than being content with the present situation, we are constantly in search of new and better ideas to put into action in order to improve and enhance our business activities. This is the Amada Group's basic philosophy of human resources development, and we believe that Amada's unique corporate culture will be further developed by continuing to practice this philosophy.

4. Conduct sound corporate activities based on high ethics and fairness

We promote transparency and we comply with regulations in the Amada Group's management and in all aspects of its business activities, and strive to further enhance its corporate value while conducting sound activities.

5. Take good care of people and the earth's environment

By treating the Amada Group's stakeholders (such as shareholders, customers, business partners, employees and local residents) and the global environment with respect, we strive to continue to be a good company for both people and the earth.

◆ Amada Group environmental policy

◇ Amada Group's environmental principles

Amada Group thinks that preservation of the earth, a small planet in macrocosmos, for the next generation is the biggest theme for human being. Based on this idea, Amada Group positions environmental preservation as one of the important management issues, and is committed to contribute to a prosperous future of the people around the world through ecological manufacturing, to pass down this beautiful earth to our descendant.

◇ Amada Group's environmental policies

1. Provision of products and services for preservation of environment

Evaluate environmental load throughout the product life cycle, provide energy-saving and resource-saving products and services which eliminate hazardous substances, and contribute to environmental preservation and economy.

2. Reduction of environmental load in business activities

In every process of business activities, thoroughly pursue reduction of environmental load by promoting energy efficiency improvement, energy saving, resource saving and recycling. Also, aggressively promote green procurement and try to eliminate the use of hazardous substances.

3. Biodiversity activities

Grasp effects of business activities on natural environment and contribute to building a biodiversity nurturing society in concert with stakeholders.

4. Compliance with environment-related laws

Comply with environment-related laws and other agreements concluded with interested parties.

5. Continuous improvement of environment management system

Build environment management system and make continuous improvement of it. Grasp effects of business activities, products and services on environment. Set environmental goals and targets and reduce environmental load as well as prevent contamination.

6. Enhancement of education about environment

Provide education aimed at environment preservation to improve sense of responsibility as a member of company and also boost awareness of environment preservation.

Established in April, 2010
Mitsuo Okamoto
President of Amada Co., Ltd.

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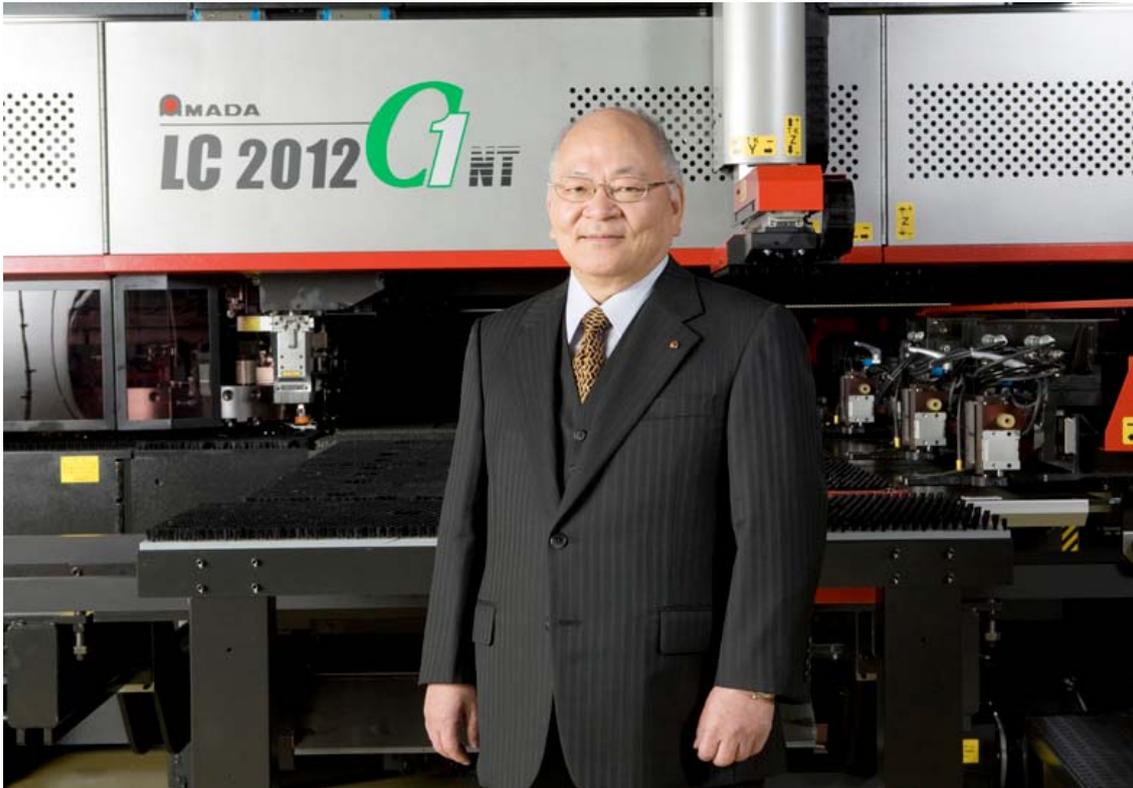
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Greetings by the President



I would like to express my deepest condolences to all those who suffered damages from the Great East Japan Earthquake, and my prayers for early recovery.

The Great East Japan Earthquake that struck on March 11 inflicted irreparable damages to the Pacific coasts of the Tohoku region. The Fukushima No.1 nuclear power plant suffered damages from both the earthquake and tsunami, causing a nuclear crisis with high levels of nuclear radiation leaks. As a result, we are facing power shortages, causing serious public concerns particularly during the summer when the air conditioning demands are the highest.

Amada has implemented power saving measures in addressing this urgent issue, including the securing of our own electricity by NAS battery and private power generation, downsizing of private shows, and work days/ work hour shifts.

In April 2010, the Amada Group developed the “Amada Group Environmental Declaration”- our

policy on environmental initiatives. We reaffirmed our commitment to become a business enterprise that connects with our customers, society, and the world through eco-conscious manufacturing.

The Amada Group's products are industrial goods, and when looking at the products' life cycle, most of the CO₂ is emitted during customer use. As a machine manufacturer, we think it is most important to develop machines with good environmental performance; and in order to do so, we are renovating Amada into sustainable facility/ factory, and we will support customers' green manufacturing by offering our low impact products manufactured in our facilities. We will also contribute to making our customers' manufacturing environment more environmentally sustainable by offering knowhow accumulated within our group. This environmental declaration was established to show Amada's commitment to making social contributions through this ecological process.

Our “eco” products released in FY2010 were all machines with great environmental performance with energy-saving and resource-saving features. In particular, FOL-AJ, the fiber laser machine, is a revolutionary machine with our own fiber laser oscillator, with which we have made a rapid progress in processing range expansion and energy efficiency. We believe it will successfully reduce CO₂ emission of our customers’ factories by a large margin.

The primary purpose of Amada’s Environmental Declaration is to exhibit our group’s approach to environmental initiatives to the outside world, but another is to clarify the targets, and to improve the environmental awareness of our employees. We will train our employees so that each one of them will change their awareness and behavioral patterns, and with “ecological manufacturing” as our keyword, we will work together to promote environmental activities for the sustainable growth of our society and business.

As for our biodiversity program, we have started a natural environment research for plants and animals at the Fujinomiya Works. Approximately 700 species of plants have been confirmed inside the premises, including those specified as endangered species by Shizuoka Prefecture. We have started thinning the forest according to schedule in order to realize a biodiversity-rich forest ecosystem. At the Isehara Works, “Four Seasons Path” was created along the headquarters building with a variety of flower trees that attract wild birds and insects, and pleases the eye at every season. It is a place for the employees to come to relax, and to feel close to nature. We are creating forests in urban areas to realize our dream of being an office of the forest.

And lastly, we hope to fulfill our social responsibilities by helping to build a bright and prosperous future for people around the world by creating and proposing “new manufacturing”, and by responding to the voices of various stakeholders including our customers.

October, 2011
Amada Co., Ltd.



About Amada

Amada is a comprehensive manufacturer of metalworking machinery, a “total solution” company that contributes to the manufacturing of global customers.

This is Amada

The Amada Group consists of approximately 80 subsidiaries and affiliated companies, and its main business is manufacturing, sales, lease, repair, maintenance, inspection, and test of metalworking machines and equipments.

It handles metalworking machines mainly for the four business fields of sheet metal machines, cutting / structural steel machines, press, and machine tool business. It also provides total solution business including software for controlling the machines, peripheral equipments, tools, and maintenance.

Amada contributes to the development of manufacturing by continuously exploring what our customers need from their perspectives, as a comprehensive manufacturer of metalworking machines.

Let us introduce our business facilities.



Isehara Works and Mt. Oyama, with Mt. Fuji in back

◆Isehara Works

Located in Isehara city, approximately at the center of Kanagawa Prefecture, we can view the grand Tanzawa-Oyama mountains, which is well known for the “Oyama-moude” (a visit to the shrine), from anywhere in our premises. The Isehara Works houses the Amada headquarters and the Amada Solution Center.

The Amada Solution center is a place for providing “improvement suggestions” to our customers for solving their manufacturing issues. It has the functions of an “Exhibition Hall” where people can get acquainted with our products, and the “verification processing” where we discover the customers’ issues and suggest their solutions. Our manufacturing suggestions can be tried out here with our equipments as well.



Amada Solution Center

◆Fujinomiya Works

Fujinomiya works (Fujinomiya city, Shizuoka Prefecture) is located at the southwestern foot of Mt. Fuji in 188 acres of land, and it bears both development and production of Amada. It is our base for innovation.

The Third Factory of Fujinomiya is the world’s largest laser factory that manufactures our latest laser machines, and it has the manufacturing capacity of 140 units per month. Their concurrent design system with the development center has made the Front loading development* and manufacturing system possible.

The development center has 200 full time development staff, working on design/ development of various themes. We have four “innovation rooms” where the customers and our development staff utilize as a creative space for the development of leading-edge machines, equipped with our latest design system and video equipments.

High-quality modularization has been made possible with the 3D CAD module design, we can now verify manufacturing from the design stage.



Fujinomiya Works and Mt. Fuji

◆Ono Plant

Ono Plant is located in Ono City, Hyogo Prefecture, at the center of Higashi-harima region, and this area is known for its metal industry from the old days as the manufacturer of blades.

Founded as “Takumi Gijutu Research Institute” in 1962, it merged with Amada in 1964 and was renamed Ono Plant. Since then, it served the functions of development and manufacturing of band saw blades as the backbone factory of the Amada Group’s consumable business.

It has affiliated factories in Austria and China, and the three factories in Japan, Europe and China work together to incorporate the needs of global customers and the latest technologies.

Also, by utilizing our unique technology, the “QCD” + “Innovation” is upgraded daily, maintaining the number 1 spot in the global market share of band saw blades.



Ono Plant

* Front loading development: an effective development method where relevant divisions gather from the planning stage to study the products from multiple angles concurrently, and reduce the problems during the latter half of development.

◆ Amada Machine Tools

Amada Machine Tools was established in October 2009 through the merger of Amada Cutting that handled cutting machines (Amada's first product) and structural steel machines; and Amada Wasino, a machine tool company (lathes and grinding machines), both with long years of history.

Its cutting segment offers total cutting solutions that bring out the best cutting performance of machines and blades, including the "structural steel cutting system" geared for the steel-frame industry where the materials are becoming larger, requiring more speed, and has increasing demands for automation. Its machine tool segment offers systems that generate precision and value-added products with automation. Their creative product developments are known for its profile grinding machines and combination lathe.



Amada Machine Tools / Komaki Works

◆ Amada Tool Precision (former Amada Tool Technica)

Amada Tool Precision is located inside the Amada Isehara Works, which manufactures and sells consumables - tools and tooling peripheral equipment - of Amada's sheet metal machines (punching and bending machines).

There are three separate manufacturing plants - one is the seamless and automated "876 plant" that covers the processes from raw material to rough process, heat treatment, to grinding process. Second is the "Resizing plant" that accommodates short-delivery orders, and third is the "special tooling plant" that manufactures Make To Order special tools.



Amada Tool Precision / 876 Plant

◆ Amada Engineering

Amada Engineering became a part of the Amada Group in November 2006. Its headquarters are located inside the Amada Isehara Works, and its manufacturing facility is located in Matsukawa-cho, Fukushima City, a place rich in nature surrounded by the Adatarra Mountains.

Since its establishment, they have developed automation systems, and grown as a pioneer of sheet metal system equipment manufacturer with many achievements and experiences.

Various manufacturing technologies and knowhow have been accumulated over the years, and they play an important role as a member of the Amada Group, a well-trusted engineering partner of the global sheet metal factories, by providing total solutions for customers' issues.



Amada Engineering / Fukushima Plant

◆ Nicotec

Nicotec manufactures and sells cutting tools, cutting machines, and cutting lubricants. Their headquarters is located inside the Isehara Works, and their manufacturing facilities are located in Hyogo and Saitama Prefecture.

Their Miki Plant in Hyogo is located inside the "Miki industrial park" surrounded by nature, in Miki City known as the "Hardware town". The factory was built in 1972 as the manufacturing division of Nicotec, and started the development and manufacturing of band saw blades, hole saws, and coils. Currently, they are in charge of manufacturing band saw blades as the Amada Group's consumables factory, along with the Ono Plant. They have obtained the ISO14001 (environment) certifications in 1998 and ISO9001 (quality) in 2002; they were among the first to engage in eco-conscious manufacturing.

Their Urawa Plant in Saitama Prefecture is located in the southwestern region of Saitama City. This area is rich in nature with Arakawa river close by, and "primula", the prefectural flower, is native to this region. The Urawa Plant consists of the Oil Center, Service Center, and the Tokyo Sales Office; and the Oil Center works as the manufacturing/ logistics base that handles the Amada Group's cutting oil and hydraulic fluids single handed. The Service Center serves as the "after-service" base for all services throughout Japan, and they operate to provide speedy service to customers.



Nicotec / Miki Plant



Nicotec / Urawa Plant

◆ Domestic facilities



Amada (Sheet metal/ press)

<Eastern Japan>

Sapporo Sales Office
Tohoku Sales Office
Fukushima Sales Office
Tochigi Sales Office
Mito Sales Office
Gunma Branch
Niigata Sales Office
Saitama Branch
Hachioji Sales Office
Matsumoto Sales Office
Yokohama Branch
Atsugi Sales Office
Shizuoka Sales Office
Toyoda Sales Office
Chubu Branch
Kanazawa Sales Office

<Western Japan>

Shiga Sales Office
Kyoto Sales Office
Osaka Branch
Kobe Sales Office
Okayama Sales Office
Hiroshima Sales Office
Yamaguchi Sales Office
Takamatsu Sales Office
Kyushu Branch

AMT (Cutting distributors)

Hokkaido
Sendai
Utsunomiya
Mito
Niigata
Kawagoe
Musashino
Koshin-etsu
Chiba
Yokohama
Shizuoka
Komaki
Ishikawa
Keiji
Minami Kansai
Kobe
Toban
San-in
Fukuyama
Takamatsu
Kitakyushu
Fukuoka

Morioka
Koriyama
Oyama
Takasaki
Kawaguchi
Saitama
Yamanashi
Nagano
Keihin
Ken-oh
Tokai
Mie

AMT (Machine Tools Sales Office)

Sendai Sales Office
Omiya Sales Office
Suwa Sales Office
Tokyo Sales Office
Hamamatsu Sales Office
Komaki Sales Office
Toyama Sales Office
Osaka Sales Office
Okayama Sales Office
Fukuoka Sales Office

◆ Overseas Facilities

<<Europe/ Africa>>

England

AMADA UNITED KINGDOM LTD.

Germany

AMADA GmbH
AMADA MACHINE TOOLS EUROPE GmbH

France

AMADA S.A.
AMADA EUROPE S.A.
AMADA EUROPE SOFTWARE CENTER, S.A.S
AMADA OUTILLAGE S.A.

Italy

AMADA ITALIA S.r.l.
AMADA ENGINEERING EUROPE S.p.A

Spain

AMADA MAQUINARIA IBERICA

Sweden

AMADA SWEDEN AB

Austria

AMADA AUSTRIA GmbH

Russia

AMADA OOO

Turkey

AMADA MAKINA TEKNOLOJI SANYI VE TICARET LTD. STI.

JOHANNESBURG

AMADA UNITED KINGDOM LIMITED Johannesburg Branch

<<China/ Eastern Asia>>

Hong Kong

AMADA HONG KONG CO., LTD.

China

BEIJING AMADA MACHINE & TOOLING CO., LTD.
AMADA LIANYUNGANG MACHINERY CO., LTD.
AMADA LIANYUNGANG MACHINE TOOL CO., LTD.
AMADA LIANYUNGANG MACHINE TECH CO., LTD.
AMADA INTERNATIONAL INDUSTRY & TRADING (SHANGHAI) CO., LTD.
AMADA INTERNATIONAL TRADING (SHENZHEN) CO., LTD.
AMADA SHANGHAI MACHINE TECH CO., LTD.

Taiwan

AMADA TAIWAN INC.

Korea

AMADA KOREA CO., LTD.

<<North America>>

U.S.A

AMADA NORTH AMERICA,INC
AMADA AMERICA,INC
AMADA MACHINE TOOLS AMERICA,INC
AMADA TOOL AMERICA,INC

Canada

AMADA CANADA LTD.

Mexico

AMADA de MEXICO, S. de R.L. de C.V.

<<ASEAN, others>>

Thailand

AMADA (THAILAND) CO., LTD.
AMADA MACHINE TOOLS (THAILAND) CO., LTD.

Singapore

AMADA SINGAPORE (1989) PTE LTD.

Malaysia

AMADA (MALAYSIA) SDN. BHD.

Vietnam

AMADA VIETNAM CO., LTD.

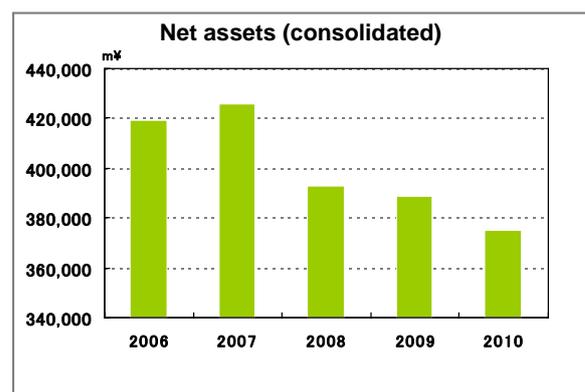
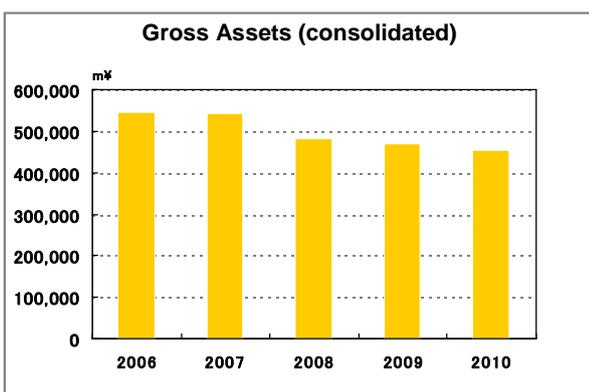
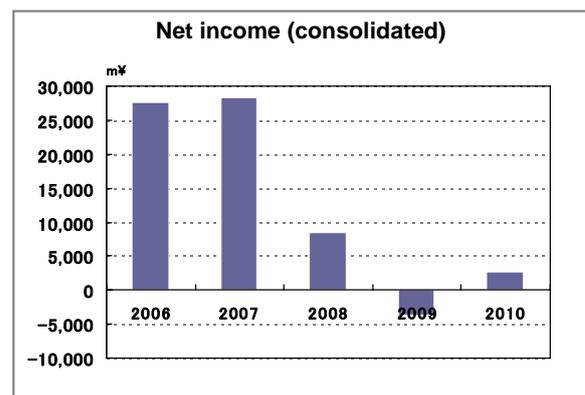
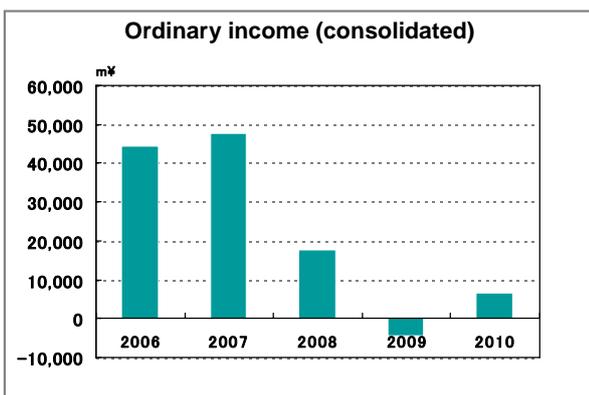
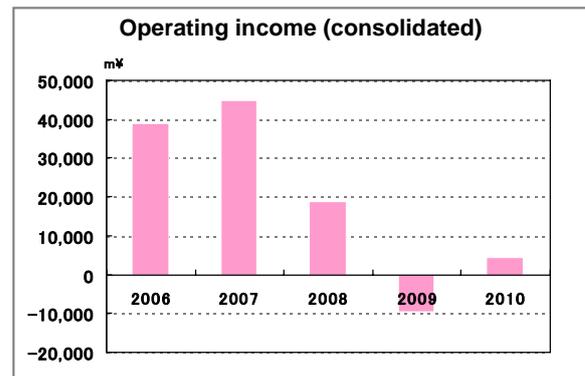
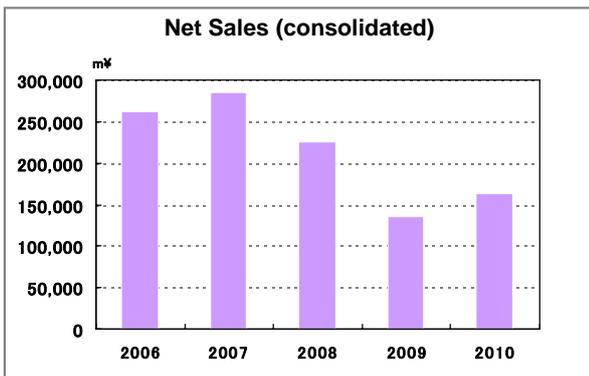
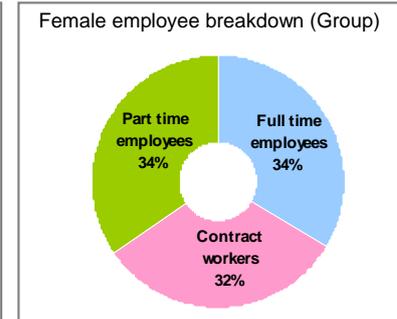
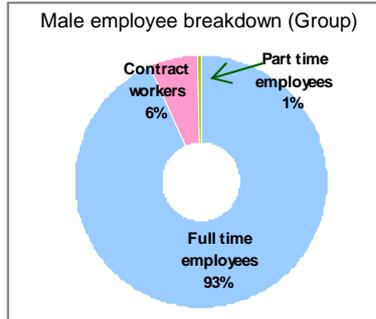
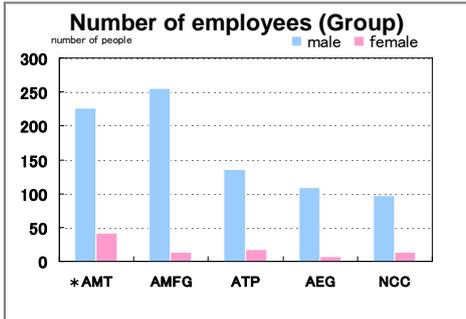
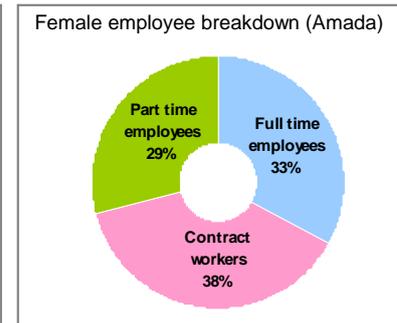
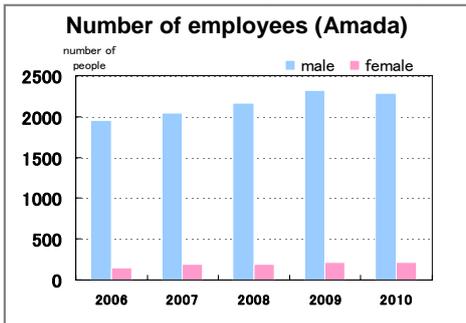
India

AMADA SOFT (INDIA) PVT. LTD.
AMADA (INDIA) PVT. LTD.

Australia

AMADA OCEANIA PTY LTD.

◆ Outline of Amada (as of 2011/3)



* Acronyms for Group companies: AMT (Amada Machine Tools), AMFG (Amada Machine Tools MFG), ATP (Amada Tool Precision), AEG (Amada Engineering), NCC (Nicotec)
 Number of Amada Group employees includes the 5 group companies of Amada, AMT (including former AMFG), AEG, ATP, and NCC. IR data is from Amada Group report.

Amada products

Here is our product lineup – the Amada Group provides machines, software, peripheral equipment, and consumables for all metalworking processes including sheet metal processing, and cutting/ press/ machining.

Punching machine
EM-2510NT



Laser machine
LC-3015NT + LST-3015F1



Bending machine
HDS-8025NT



Bending robot system
ASTRO II -100NTCELL



Punching&laser combination machine
LC-2012C1NT



Peripheral equipments
LC-3015F1NT + ASF-3015F1



Tooling
Punching tools / Bending tools



◆Punching machines

Machines that punch various holes (round, square, and others) and cut sheet metal

Punching machines can punch out almost any shapes from sheet metal by using various punching tools. It can also create partial 3D shapes with forming tools, or drill/ thread holes.

◆Laser machine/ combination machine

Machines that open holes and cut sheet metal with laser beams

Laser machine has the capacity of cutting complex lines since it cuts the material with laser beams. The LC-F1NT series have the 3 axis linear drive, with the new technology that was developed with Front loading development.

A combination machine is a machine with the functions of both punching and laser machines in one to promote process integration.

◆Peripheral equipments

The peripheral equipment such as the feeding units and unloading units are mounted to punching, laser, and combination machines to constitute an advanced automated sheet metal fabrication system.

◆Bending machine/ automated bending system

Also called the press brakes, the machine bends sheet metal with two tools on top and bottom

The sheet metal piece in a flat layout cut out with punching or laser machines are then bent with bending machines to create a 3D shape.

For bending processes with large lot size, an automated bending system is also available where robots lead the machines in bending.

◆Tooling

Punching tools are used for punching machines, and bending tools are used for bending machines. These tooling are also offered by Amada.

Software products
AP100 / SheetWorks



Welding machine
YAG laser welding robot



Stamping press machine
SDE-2025



Band saw machine
PCSAW-430



Lathe
S-10



Grinding machine
TECHSTER-126



◆ Software

CAD/ CAM software for sheet metal parts and sheet metal machines

In order to process the sheet metal parts the way you like, we must give a series of commands to the machine. The automated programming system and other software make this possible

◆ Welding machines

One of the methods for bonding the sheet metal parts bent with bending machines is welding. Amada offers YAG laser welding machines, spot welding machines, and stud bolt welding machines.

◆ Stamping press machine

Machines used for forming thin sheet metals with tooling

Stamping is a process where various 3D shapes are created from thin sheet metal. Typically, tooling are attached to the stamping machine, and hold the sheet metal material in between to apply pressure to create 3D shapes.

◆ Band saw machines

Machines that cut round bars and structural steels with band saw blades and circular saw blades

In addition to the sheet metal machines, Amada also offers band saw machines used for cutting round bars and structural steels such as H structural steel.

◆ Lathe

A lathe is a machine tool that cuts a rotating workpiece

A lathe is a machine tool that cuts metal with fixed turning tool by rotating the material. Amada also has combination lathe machine that can make holes or screw holes into a workpiece after lathe turning.

◆ Grinding machine

A machine that processes the workpiece by grinding with rotating grindstones

A grinding machine processes a workpiece with grindstones that are rotating at high speed. It is used for processing very hard materials that other machines can't process, or in finish machining that requires high precision.

Band saw machines, lathes, and grinding machines are manufactured and sold by the Amada Group's Amada Machine Tools.

Feature article: FOL-3015 AJ

The concept of the machine is “machine with the world’s best performance” – it is a next generation laser machine that has realized “processing range expansion”, “reduced machining costs”, and “improved system reliability”.

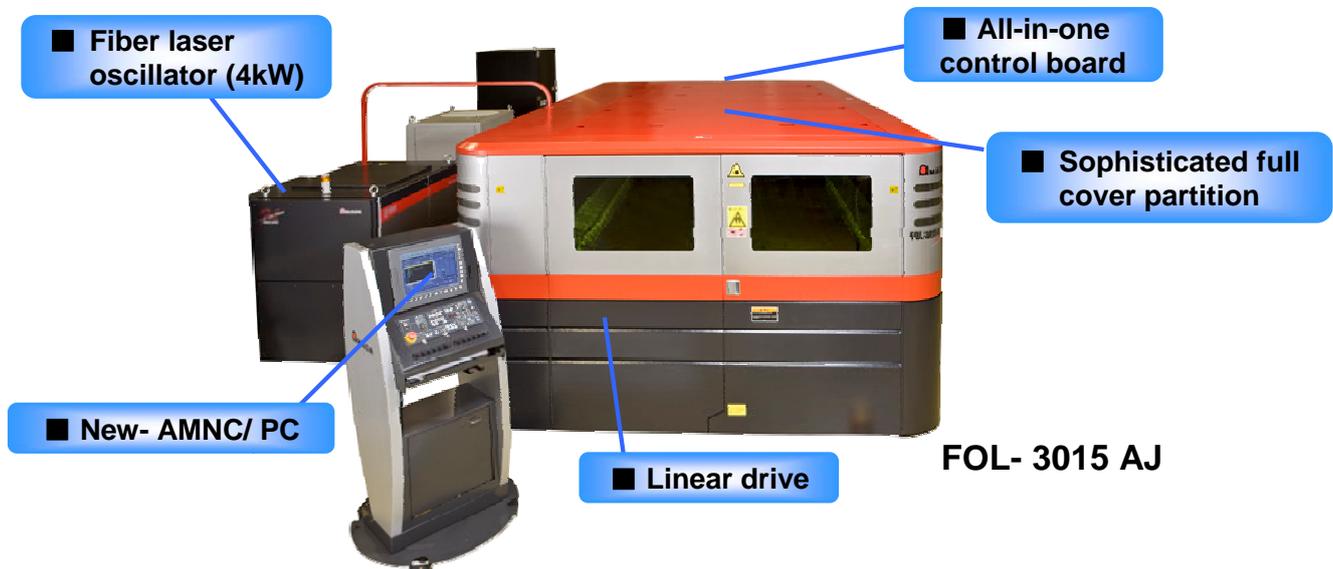
By maximizing the advantages of fiber laser and original processing knowhow, the FOL-3015AJ has realized:

- High quality and high speed laser reflective material machining (such as copper, brass, and titanium)
- Low cost / high quality processing of general material (such as iron, SUS) (more than double the oscillator efficiency, ½ peak electricity, 1/25

-standby power, and laser gas free – compared to the CO₂ laser FOL series)

-Speedy and high quality maintenance for own brand oscillator

FOL-3015AJ is Amada’s strategic product that accommodates to variable lot-size (V-lot) production – it is a total solution system of oscillator, machine, and software all in one.



FOL- 3015 AJ

◆ New technologies

◆ All-in-one control board

Space-saving design

The traditional FOL series required space for a separate L1475mm x H1880mm x W625mm control unit, but is now built into the machine with compact design to save space and transportation costs.

◆ Fiber laser oscillator (4kW)

Higher quality, more flexibility

By merging with various application technologies, the machine is now capable of machining laser reflective material such as copper, brass, and titanium; expanding the processing range. The thick-sheet processing used to be a weakness for fiber laser, but now the surface roughness is comparable to CO₂ laser with mild steel plates.

Also, since the oscillator is developed in-house, we can easily add new features, retro-fit fiber modules, and design free layout of major components.

◆ Sophisticated full cover partition

High efficiency dust collector for maintaining a clean environment

Dust collection device is affixed to the upper partition as well, collecting dust from both top and bottom. Air inside the partition is kept clean, preventing trouble from fumes depositing on devices such as the linear drive, while preventing dust from flying out while the operator is working with the door open.

◆ Linear drive

Well balance between performance and energy efficiency

The machine has succeeded the world’s fastest linear drive of FOL, while the power supply spec is modified to 200V from the 400V (400V used to be required for optimum acceleration), and can now use the general power source.

◆ New- AMNC/ PC

The newest CNC and a full lineup of software that maximizes the in-house oscillator

How can we control a well-responsive oscillator smoothly? Driven by our unique optical application technologies & knowhow, laser processing knowhow, and software that accommodates new material processing technology we have accumulated, we are maximizing the capabilities of house-developed oscillator, such as the automatic setting of the optimal condition.

◆Time line of laser machine development

1980~	Genesis	<ul style="list-style-type: none"> LC-644, a sheet metal processing laser machine was exhibited at a show in Chicago in Sep. 1980. 	
1981~	1st Generation	<ul style="list-style-type: none"> Metalworking with laser machines receives recognition, mainly used for prototyping 	
1986~	2nd Generation	<ul style="list-style-type: none"> Laser job shops open one after another In-house oscillator "OLC series" developed and released 	 
1989~	3rd Generation	<ul style="list-style-type: none"> Combination machine released Oscillator power competition started, targeting the medium thick sheet market 	
1993~	4th Generation	<ul style="list-style-type: none"> Laser machine becomes a general trend LC-α, LCV-β series released 	 
2001~	5th Generation	<ul style="list-style-type: none"> Competition for high-speed/ high productivity Flying optics such as FO, FOL, and F1 become the mainstream 	 
2011~	6th Generation	<ul style="list-style-type: none"> Reduced cutting costs, reduced environmental load, processing range expansion FOL-AJ, the fiber laser machine released 	 

◆Receives MM Award

FOL-3015AJ received a special award in the fiber laser category of the "MM Award" on Oct. 26, 2010 at the EuroBLECH2010 International trade fair, selected by "MaschinenMarkt", the most prestigious industrial paper in Germany.



Guests leaning forward to watch the FOL-3015AJ demonstration



President Okamoto accepting the MM Award

From the developer...

Contributing through an "optical blade" the global customers can profit from.

**Laser Oscillator Development Dept.
Mr. Hiroshi Sako, GM**



Amada's fiber laser development started when we purchased a commercial fiber laser oscillator on an open market in 2005 to assess it.

Since then, we have developed our own oscillator through a joint development with JDSU of U.S. Although Amada has over 30 years of history with the CO₂ laser technology, we ran into many obstacles with fiber laser. It is a technology with high potential, we have successfully developed the technology in relatively short period.

Environmental Management

Amada Group Environmental Declaration

The Amada Group will strive to promote environmental activities to ensure sustainable development of our business and society. Amada will help to build a bright and prosperous future for people around the world by providing environmentally-friendly, and energy-saving products.

"Linkage through Eco-conscious Manufacturing"

Amada Group aspires to become a business enterprise to link with customers, society and the world through eco-conscious manufacturing.

• Producing eco-friendly machine at eco-friendly business establishment

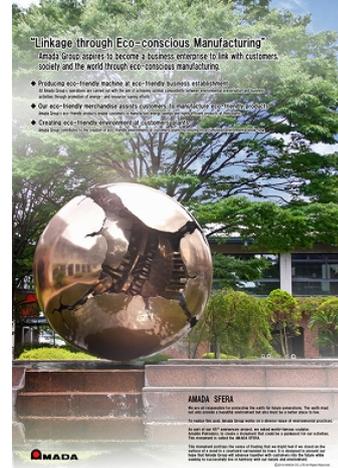
All Amada Group's operations are carried out with the aim of achieving optimal compatibility between environmental preservation and business activities through promotion of energy- and resource-saving efforts.

• Our eco-friendly merchandise assists customers to manufacture eco-friendly products

Amada Group's eco-friendly products enable customers to manufacture energy savings and highly efficient products at their plants.

• Creating eco-friendly environment at customers' plants

Amada Group contributes to the creation of eco-friendly environments at customers' plants by utilizing its accumulated environmental know-how.



	Themes of activities	Med-term goal (FY2013)	FY2010 target
Prevent global warming	【Product development】 Reduce CO ₂ emission ^{*1} throughout the products life cycle to contribute to prevention of global warming.	Release products with reduced CO ₂ emission on an average of 25%.	Reduce CO ₂ emission through the release of "eco" products
	【Business activities】 Promote energy saving and resource saving in business processes to reduce CO ₂ emission.	Prevent global warming by promoting energy saving "Compared against the benchmark year *2: -18.7%"	Reduce 10.9% from the previous year (domestic Amada Group) (+22.2% against the benchmark year)
Effective utilization of resources	Promote effective use of limited resources and contribute to creating a recycling society.	(1) Achieve "clean factory" (MFCA (Material Flow Cost Accounting ^{*3}) is adopted to make waste visible and to promote effective use of resources)	Started Material Flow Cost Accounting in major facilities, conducted simulation
		(2) Achieve/ maintain Zero-emission factory (6 main facilities) - Less than 1% a year of landfilled solid waste (against total waste)	- Continue zero-emission at ATP, Fujinomiya, and Komaki - Exit control * (building recycling routes, waste sorting)
Regulated Chemicals control	Strengthen activities related to control of regulated chemicals	(1) Product development with green procurement (Total abolition of RoHS directive *4 chemicals)	Fully abolish RoHS directive chemicals
		(2) Reduce the use of regulated chemicals "Appropriately control chemical substances, and reduce its use within the manufacturing process" (PRTR *5, VOC *6)	Strengthen environmental risk management - Strengthen measurement/ monitoring of hazardous materials storage/ control - Strengthen compliance including compliance assessment - Reduce PRTR regulated chemicals - Promote VOC reduction activities
Biodiversity	Preserve and regenerate biodiversity to pass down this country, rich in natural blessings, in a good form to future generations.	Growing the "Amada Forest" beneficial for conserving the biodiversity	- Draft a plan for developing "Amada Forest" - Biodiversity guideline (draft)
Environmental management	Respond faithfully to voices of stakeholders including customers to fulfill social responsibility as a company.	(1) Strengthen Amada Group's environmental administration, and promote CSR activities	Promote Group-wide activities through the Environmental Declaration and the establishment of environmental "eco" promotion committee
		(2) ISO14001 group integration (7 sites)	ISO14001 integration (Isehara, Fujinomiya, Ono)
		(3) Issue environmental/ social report	Issue the environmental report "Forest-In Office 2010"
		(4) Implement environmental communication	- Implement risk communication - Organize "eco" factory tour - Participate in regional clean-campaigns

*1 : CO₂ emission data are calculated based on the calculation manual of "Global warming countermeasures law"

*2 : Benchmark year: FY2007

*3 : Material Flow Cost Accounting: a new method of environmental management accounting that focus on waste generated during production process. It is one of great environmental accounting methods that realizes both "reduction of waste" and "productivity improvement" at the same time.

◆ Long-term environmental plan

Amada Group developed a long-term environmental plan (AMADA GREEN ACTION) up to FY 2020 to further promote the environmental preservation activities.

We will work to develop environment-conscious products, save energy and resources by improving business activity efficiency and reduce wastes.

Three goals of "AMADA GREEN ACTION"

■ Products

By 2020, we will reduce CO₂ emission of all products by 25% in average.

■ Manufacturing

By 2020, we will reduce CO₂ emission from our establishments and factories by 25% in basic unit.

■ Biodiversity

We will focus our efforts in conserving and regenerating biodiversity to pass down this country, rich in natural blessings, in a good form to future generations.

◆ FY2010 results

Amada Group Environmental Declaration was declared in FY2010, and we have addressed the 5 themes of "prevention of global warming", "effective use of resources", "chemical substance control", "biodiversity", and "environmental management". Our results for FY2010 are shown below.

	FY2010 results	Goals for FY2011
Prevention of global warming	Sheet metal machines (laser, punching, bending): reduced 7.8% with the release of LC-F1NT, AE-NT, and HD-NT, against the 4.5% target	Reduce CO ₂ emission by releasing ecological products (Total: -9.5%, sheet metal machines: -15.8%, machine tools: -3.5%, cutting: -2.7%)
	Reduced CO ₂ emission of domestic Amada Group facilities by 25.8% against the year before (+1.7% against the benchmark year)	Reduce CO ₂ emission at major domestic bases by 1.4% against the year before (+0.3% against the benchmark year)
Effective utilization of resources	Conducted simulation for Material Flow Cost Accounting (ATP, Fujinomiya, AMT)	- Horizontal development of Material Flow Cost Accounting - Reduce material loss at major facilities
	- Maintained zero-emission (total 4%, ATP 0%, Fujinomiya 0.2%, Komaki 0%) - Exit control (reduced packaging material, used returnable boxes) (Isehara, Fujinomiya, AMT, AEG)	- Maintain zero emission at ATP, Fujinomiya, and Komaki - Incoming control (build recycling routes, waste sorting, reduce packaging materials for delivery)
Regulated Chemicals control	- lead-free substrates (6 models) - Product assessment (22 new models) - Released revised PRTR version and GHS version of MSDS	Activities for abolishing the use of substances regulated by RoHS directive.
	- Controlled and monitored the hazardous materials - Measured VOC emission levels (Fujinomiya) - Implemented tests for introducing toluene-free paint (Fujinomiya)	Strengthen environmental risk management. - Strengthen measurement and monitoring of hazardous materials storage/ control. - Strengthen compliance including compliance evaluation - Reduce substances regulated by the PRTR law - Promote VOC reduction activities
Biodiversity	- Drafted Amada Group's "biodiversity guideline" - Drafted a plan for "Amada's Forest (Isehara)" - Implemented "Basic research on natural environment" (Fujinomiya) - Developed the "Four Seasons Path" (Isehara)	- Establish development plan of Amada's Forest, conduct research - Draft Amada Group's "biodiversity action agenda"
Environmental management	- Declared the Amada Group Environmental Declaration - Established and started activities for the Environmental Ecology Promotion Committee	Promote group-wide activities by the Environmental Ecology Promotion Committee.
	ISO 14001 group certification (Isehara, Fujinomiya, Ono)	ISO 14001 group certification (prepare for Toki Works)
	Issued the environmental report "Forest-In Office 2010" (June)	Issue the environmental/ social report "Forest-In Office 2011"
	- Organized "eco" factory tours - Participated in local clean-campaigns	- Promote risk communication - Organize "eco" factory tours - Participate in local clean campaigns

*4 RoHS : Stands for "Restriction of Hazardous Substances". A directive that specifies hazardous substances contained in electrical equipment and electronics and prohibits their use.

*5 PRTR : Stands for "Pollutant Release and Transfer Register", in which emission and travel of environmental pollutants are registered. A system for compiling and announcing the emission volume and travel distance of hazardous chemicals.

*6 VOC : Stands for Volatile Organic Compounds, which is a generic name for volatile organic compounds. Regarded as a cause for chemical sensitivity syndrome and sick-building syndrome.

Life cycle management

The foundation of Amada's environmental management is to create and provide eco-conscious products that reduce the environmental load throughout the product life cycle.

Our initiatives that serve as the driving force of our environmental management is our environmental activities based on the product life cycle. Various activities are implemented to reduce the environment load of the entire product life cycle ("from cradle to grave"); from product planning, development, procurement, manufacturing, sales, delivery, use, and disposal.

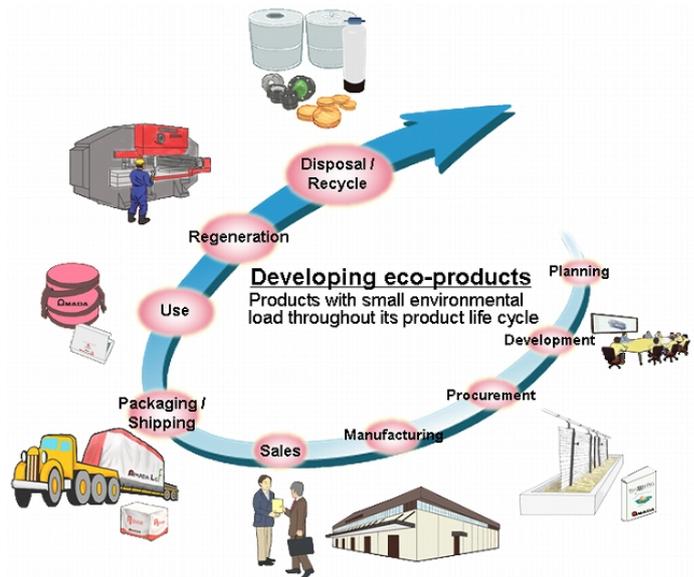
Developed We have a system for eco-products planned and developed through environmentally conformed design

Manufactured manufactured in a zero-waste clean factory, using green-procured materials

Shipped shipped by eco-logistics

Used used by customers as energy-saving machine

Disposed and recycled at the time of disposal



At Amada, we deploy life cycle management to create a life of eco-products like the above.

Product life cycle	Our engagements	Listed page
Planning & development/ Procurement	Environmental assessment of products	14
	Amada eco products	14
	Amada eco information mark	15
	Green procurement	21
Manufacturing/ Sales	Zero-emission factory	18
	Eco engagements at public exhibitions	18
Packaging/ Shipping	Improving the material handling efficiency of lathe / mold delivery	19
	Reduced packaging material / Improved packaging	20
Use (service)	Quality assurance	28
	Service parts supply	28
Regeneration & Disposal / recycle	Disposal certification system for used products	15
	CO ₂ emission during disposal phase	15
	Amada-designated parts for recovery	21

Prevention of global warming (product development)

Amada will contribute to the prevention of global warming by reducing the CO₂ emission throughout the product's life cycle. There are two categories in the "product's environmental assessment" – one is the "environmental assessment" for preventing products with large environmental load from being released to market, and the other is the "eco product assessment" for appealing the product's environmental performance to the customers.

Product's environmental assessment

Amada products are industrial goods. The energy-saving performance during product-use will directly impact the energy-saving/ CO₂ emission of customers' factory. This is why we believe the energy-saving performance during product-use is the most important factor in the product's environmental performance.

When developing a new product, Design Reviews are implemented from the planning phase as a part of Front- Loading Development, and the target for environmental performance is set as the "product environmental assessment". The "product environmental assessment" includes 25 assessment items from 8 categories such as energy consumed during product-use (CO₂ emission) and the non-use of regulated chemicals.

The "product environmental assessment" is conducted at the DR of each development step. The product can move to the next development step once it meets a certain level as an "environment-conscious product".

Amada has been applying this assessment for all newly developed machines since Sept. 1998.

Amada Eco Products

Higher standard for eco-product conformance is determined for products that passed the "product environmental assessment". The products that satisfied these standards are certified as Amada eco-product, and they are delivered to customers with "eco-product marks" on the machine.

The certification system was established and implemented since Oct. 2001. some of our eco products are shown on the right.

◆AE-NT series

The AE-NT series is a punching machine developed as a successor model of the existing "eco" products, AC series, that has the capabilities for high-speed stable processing and high quality processing. It has reduced power consumption significantly by 70% during standby, and 50% during operation compared to the traditional hydraulic models, with the advantages of built-in AC servo single drive mechanism that only activates when necessary, and the adoption of regenerative method that returns the energy to power when the motor is slowing down. Also with the compact design, it can be transported in a general container anywhere in the world, resulting in less energy, less transportation costs, and shorter transportation time.



◆The HD-NT series

Similar to the high-end HDS series, the HD series is a down-stroking bending machine that adopted the hybrid drive system combining the highly efficient piston pump and AC servo motor. This system limits the energy loss during standby and pressure retention to minimum, and we have reduced the energy consumption to 50% of the existing model. The HD-NT series also saves energy and resources with the highly efficient two-way rotating pump with half the heat value, using only half the hydraulic fluids.



◆The LC-F1NT series

The LC-F1NT series is an energy-saving laser machine. By adopting "energy-saving mode" during standby, and by limiting oscillator output during standby and changing the range of temperature control for the chiller that supplies cold water to the oscillator, we were able to reduce energy consumption by approximately 65% compared to the existing models,

Furthermore, with the adoption of linear motor drive, it requires less lubricant oil, reducing the amount of lubricants by 27% of the existing models.



ECO PRODUCTS mark



Trademark
4631897

This mark, based on green for environmental protection, uses the two letters "E" and "P" of Eco Products to visually represent the seed leaves.



<Resource-Saving Machine> This mark indicates a machine is a "resource-saving machine" that uses less oil than conventional models.



<Low-Noise Machine> This mark indicates a "low-noise machine" that produces less noise than conventional models.



<Energy-Saving Machine> This mark indicates an "energy-saving machine" that uses less energy than conventional models.

* Design Review: In order to develop products that satisfies our customers, all the relevant business divisions assess the design plan created by the design team from various perspectives, exchange views, and request improvements when necessary.

Eco Information Mark

Amada has started the Eco Information Mark system from Aug 2007. We understand the importance of providing information, and this is a way for us to provide information on environmental matters pertaining to Amada products more broadly and specifically. The information is provided with the mark, and we can easily communicate the details of our environmental efforts.



Trademark # 5107472
5188839

環境への対応は、明日に続くモノづくりのために。

LC-C1NT は、本体の RoHS 指令(*) 対象の有害化学物質について配慮しています。お客さまの厳しい環境対応の要求に応えます。さらに、低消費電力と高速化による加工時間の短縮により、使用電力の削減による CO₂ 排出削減に貢献します。

(*) 特定有害物質の使用制限についての、欧州連合(EU)による指令

● お客さまの製品に接触する部材には、RoHS 指令対象物質を使用しておりません
○ お客さまが日帯行方保守点検時(2)、廃棄する部品には、RoHS 指令対象物質を使用しておりません

(2) 取扱説明書の記載の保守部品等



LC-C1NT Solution Notebook

AMT's Low- environmental load product **TECHSTER**

TECHSTER, the high-precision medium size flat surface grinding machine, was unveiled as a new low-environmental load product at JIMTOF 2010. The machine was developed with the concepts of :

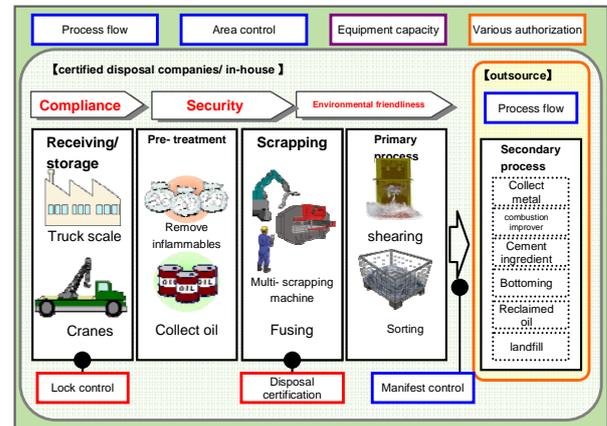
1. Eco-conscious
2. Power
3. Speed
4. Multi-functional
5. Safety
6. Compact



Hydraulic device was eliminated by using NC servo instead of left and right table drive commonly used in this class. It has realized new high-speed, sophisticated forming with 3 axis NC control of up & down and front & back of wheel spindle, and table left & right. It resulted in 70% reduction of accumulated power consumption, and reduced waste oil disposal.

Disposal certification system for used products

From the principle of Extended Producer Responsibility, we believe that we are responsible for seeing our products through to their proper disposal when they finish their product life. This is why we have established the "Disposal certification system for used products", and certify the waste processors who dispose the used products based on our standards. Currently, 6 facilities from two partner companies have been certified throughout Japan to provide proper disposal. The recycling plants at our certified facilities ensure compliance of all regulations such as "Waste Disposal Act" and "Recovery and Disposal of Freon Act". Furthermore, in addition to ensuring security, we also provide "disposal certification" to verify functional disposal of used parts. We will continue to increase the number of certified waste processors.



Process flow of used products disposal
The processors are certified based on our standards for area control, capacity, and various permits.

CO₂ emission during disposal phase

As a part of LCA (Life cycle assessment), a research was conducted on the amount of CO₂ emission and the environmental load during the disposal phase of used products. The CO₂ emission for the disposal of 1 laser machine weighing 7 tons, for example, was 163kg-CO₂. This equals to the disposal of approximately 5 personal computers. Our findings also show that the environmental load at disposal phase is low with a high recycling ratio of 99%.



CO₂ emission is investigated for each phase of disposal.

* RoHS directive: a European derived initiative in which the elimination of certain hazardous substances in electrical and electronic equipment is the key objective.

Prevention of global warming (business activities)

We drive energy / resource saving into our business processes to reduce CO₂ emission. Although we introduce CO₂ reduction issues here since it stands out more, we believe low-key efforts within individual business processes are crucial for achieving significant results.

Isehara Works receives an award for installing heat pump thermal storage

The Isehara Works received an award for installing heat pump thermal storage at the “13th thermal storage forum”. This is an award given to companies who have disseminated the thermal storage system as well as storage batteries and high-efficiency heat pumps, and contributed to energy and environmental preservation. It was awarded by the “Heat pump/ Thermal Storage Center Foundation”, and Amada was recognized for its contributions in the three categories of “nurture”, “expand”, and “apply”.

The foundation cited the reason for the award as “Amada has continuously adopted the sustainable ice thermal storage system, under the theme of “protecting the earth for the next generation”; and “eco ice*”, “high efficiency heat pump chiller”, and “high efficiency turbo freezing machine” installed during the renovation of the headquarters building and Building 10 (where the Amada Solution Plaza is located) were the subject of the award. These systems successfully reduced CO₂ emission by 62% for the headquarters building and 70% for the Amada Solution Plaza.



Isehara Works: “eco ice” in the headquarters building



Award ceremony for “heat pump thermal storage application”



NAS battery

An NAS battery is a large power storage system that can store power, and supply energy as a battery when necessary; and it is being used at the Fujinomiya Works as eco-conscious equipment. It uses sodium (Na) at the negative electrode, and sulfur (S) at the positive electrode, and this is where the name comes from.

The Fujinomiya Works stores nighttime power to NAS battery, and uses it during the day. This leads to reduced daytime power use during the peak hours. The NAS battery can also be used as an emergency power supply during power outages.



Fujinomiya Works: NAS battery

Solar Energy Generation

Amada Italy Technical Center, Amada’s overseas subsidiary, is located in Piacenza, Italy, and solar panels are mounted over the Technical Center building rooftop. They have 800 panels, and the nominal maximum output is 138kW. Clean power generated from this equipment is being used to run the machines inside the Technical Center.



Amada Italy’s solar panels

* “eco ice”: an air conditioning system that stores ice and hot water in the heat storage tank using the inexpensive nighttime energy to use for air conditioning during daytime

Air conditioning systems that use geothermal heat

The Solution Center building of our overseas subsidiary Amada GmbH (Germany) is air conditioned with geothermal energy.

The geothermal heat stays around 10 degrees Celsius throughout the year, and the mechanism for using this heat for air conditioning is the "ground source heat pump". We have learned that the underground heat exchanger in Haan is installed as deep as 130m.

In the past, natural gas and electricity were used for air conditioning at Amada GmbH (Germany), but now only less than half is from traditional energy sources. They have also succeeded in improving the air conditioning efficiency by installing the geothermal air conditioning duct on the floor.



Amada GmbH (Germany)

LED lights in the employee parking

We have a new employee parking lot at Isehara Works after the logistics storage was torn down when transferring the operation to Fujinomiya Works.

This new parking lot uses the LED lights that save energy very effectively. The old parking lot used mercury-vapor lamps, requiring two 100W light bulbs to get 200W brightness. Now, one LED light bulb in the new parking lot has 250W equivalent brightness, and it only uses 90W electricity, so we are very hopeful for reduced energy consumption.

Bio Processing Unit

A bio processing unit was installed for purifying the waste water from Isehara Works to the sewer.

In the past, adsorbents were used to eliminate the oil included in the waste water from the FORUM 246 (training and lodging facility) kitchen and staff cafeteria. The adsorbents with oil were disposed as flammable garbage, and it amounted to 9 tons per year.

With this new bio processing unit, the bio bacteria microbe called "Kataoka-kin" biodegrade the oil, so the waste is reduced to zero. We see significant environmental improvements in eliminating the foul smell and improved water quality. We were also able to reduce maintenance costs.



Pouring in the "Kataoka-kin"



The activated bio tank



Grey ducks that come to the pond inside the Isehara Works. You can see the ducks taking breaks.

Effective use of resources

Amada will contribute to recycling-oriented society by promoting effective use of resources. We are making various efforts in energy-saving and resource-saving by applying the ideas of employees in the front lines.

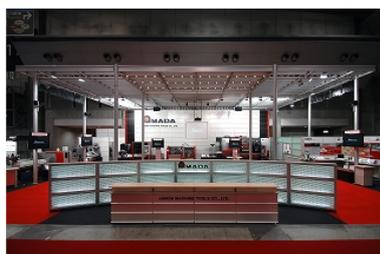
Eco initiatives at public exhibits

Amada participates in various public exhibits in both Japan and overseas to introduce our products and offer manufacturing suggestions to customers. Unlike at Amada Solution Centers, the public exhibits required much decoration materials to assemble the booth. The displays were gorgeous, but it generated two truckloads of waste at the end of each show.

Although the poles (pillar signs with Amada logo) and company logo plates have always been re-used, the wood materials used for the pillar and walls (mostly veneer boards) were discarded after one-time use. So since FY2009, we have started using system-parts with the boards and frames supplied as a set for repeated use.

In FY2010, we have participated in INTERMOLD2010 (Japan Metal Stamping Technology Exhibition 2010) held at INTEX OSAKA in April, and in JIMTOF2010 at Tokyo Big Sight in October. The recycling ratio was 92.6% for INTERMOLD2010 and 99.94% for JIMTOF2010.

We will continue to address the environmental issues regarding show displays along with the development of "eco" products.



INTERMOLD 2010



INTERMOLD/ Assembling the booth

Zero-emission Factory- Isehara and Fujinomiya Works

Zero-emission is "a philosophy that aims for a society without waste, by recycling the waste discharged from a certain industry" (advocated by the United Nations University in 1994), and each company applies it by their own standards. Amada's zero-emission standards are "we will keep the waste that eventually ends in landfill under 1% of the total, and this must continue for over one year period".

One of our specific activities is the "exit control" which is "producing no waste", we do this by finding recycling options for waste. Another is the "entrance control" which is "keeping waste out", and we are promoting the use of returnable packaging and packaging material reduction.

As a result, the Fujinomiya Works has accomplished the zero-emission standards in May 2008 and Isehara Works in March 2009, and we have since maintained this status.



Clean Factory (Fujinomiya)

Clean Factory is an environmentally-friendly factory that reduces the environmental load generated by production, which includes zero-emission (reduction of waste) activities as well as energy-saving efforts and reduction of CO₂ emission to prevent global warming, and reduction of VOC (Volatile Organic Compounds) used in factories. The Third Factory at Fujinomiya Works is the world's largest assembling plant of laser machines, and it meets the standards of a Clean Factory.

This factory fully uses the Yatai booth production method, where each Yatai booth is a mini factory. All parts necessary for assembly are provided in a kit, and with all the necessary tools within the operators' reach, they can continue working without interruption.

Furthermore, dust can cause trouble during laser machine assembly, so the production line has come up with creative ideas to change "air cleaning" to vacuum, and changed the rotor of air compressor to ceramics to use water instead of oil.

* Yatai booth production method: a production method that realized clean and digital manufacturing through the use of IT production control system. The parts are supplied to the booth JIT. One booth is approximately 80 square meters, and each booth is equipped with gas, air, water, and power, which are centrally controlled. The dusts are also controlled to maintain clean environment.

The environmental activities at Amada Machine Tools

The Toki Works that has been completed in Gifu Prefecture is scheduled to start operation in October 2011. AMT has been promoting “zero-emission” activities in FY2010 for realizing “a captivating factory/ clean factory”.

As a part of this activity, AMT has requested cooperation from their business partners in reducing the packaging materials from May 2010. Here is a report on their efforts on keeping the waste out.

◆Improving the material handling efficiency of J-1 lathe main guard cart

This is J-1, AMT lathe.

In the past, this J-1 cover was delivered from their supplier on wooden pallets with plastic packaging to prevent scratches during transport, and they have been discarding a lot of materials. Since 2010, they are using special crates for its delivery.



The crates are now available for repeated use, and use less packaging materials since they no longer need wooden pallets or plastics.

◆Improving the material handling efficiency of mold delivery

Some of the mold used at AMT is as large as the beds of machine foundation, or tables for sliding the workpiece right and left. In the past, the suppliers used wooden pallets for delivery, and these pallets were discarded after one time use.

To stop the use of these wooden pallets, special crates were developed for repeated use, and major suppliers have been using these carts for delivery since FY2010.

AMT has been implementing measures to keep waste out in preparing for the Toki Works ramp-up. They will continue with the activities to realize “zero-emission factory”, including measures to “not produce waste”.



Before, wooden pallets were used for delivery



Abolished the use of wooden pallets, now uses special crates



The old packaging with wooden pallets and plastics



Wooden pallets and plastics are no longer necessary by improving the material handling efficiency

The environmental activities at Amada Engineering

At the Fukushima Plant of Amada Engineering who manufactures peripheral equipment necessary for building automation system lines, “zero-waste” activities are being implemented (to keep waste out, and to not produce waste at customers’), and the delivery package designs are re-designed by analyzing the transportation efficiency. Here is a report on their challenges.

◆Reducing the packaging material

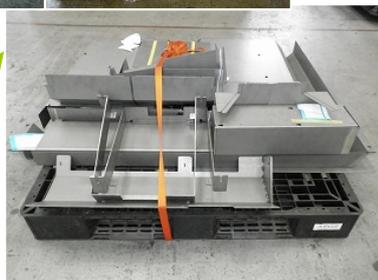
Sheet metal cover and small parts for shearing machine are some of the items Amada Engineering’s Fukushima Plant outsource to their supplier. Most of the sheet metal covers were delivered on wooden pallets, wrapped in stretch films in the past. Their problems were that they had to discard the worn out wooden pallets and stretch films, and that sorting of the incoming parts took time because they were wrapped in stretch films and they couldn’t see underneath the films. They also had an incident where the wooden pallet was damaged, and the product fell and broke during delivery.

To improve this situation, they changed to plastic pallets that were less susceptible to weather and deterioration, and decided to fix the part with a belt instead of with stretch films. As a result, the disposal of wooden pallets is reduced by approximately 12 tons, and opening the package takes less time.

As for the small shearing machine parts, they were delivered inside cardboard boxes wrapped in newspapers. They were taken out of the boxes and re-packed in baskets when storing them in the factory, so they had 1) waste disposal problem, and 2) extra man-hour problem. They came up with a solution to use folding buckets, and use reusable cushioning materials instead of newspapers to protect the parts. The boxes no longer need to be changed after delivery, resulting in reduced man-hours as well.



The old packaging



The new packaging

◆Improving the ASF-3015F1 package

Since extra care is taken not to get scratches on parts when delivering them to customers, a large amount of packaging materials were used, resulting in large volumes of waste.

In FY2009, improvements on the MP-C1 cover jig and AS-C1 transportation efficiency of the LC-C1NT series were made, and successfully reduced the packaging materials. In FY2010, improvements on the packaging material and transportation efficiency of the peripheral equipment (ASF-3015F1) for the LC-F1NT series were made.

In the past, the packaging procedure was not established, and the parts were wrapped in plastic films one by one, fixed with PP bands, and delivered. Since each part was wrapped, the issues were the extra time required for wrapping each part, the unpacking time at the customers’ factory, and waste produced at customers’. The solution for these issues was establishing the package style by using returnable jigs. By packing multiple parts with this jig, it resulted in less packing time, less unpacking time at customers’, and less waste. It also resulted in less truck loading time, and less number of trucks.



The old packaging



The new packaging

Chemical substances control

Amada is reinforcing our initiatives for controlling the regulated chemical substances. We are committed to providing safe machines made of safe materials.

Green Procurement

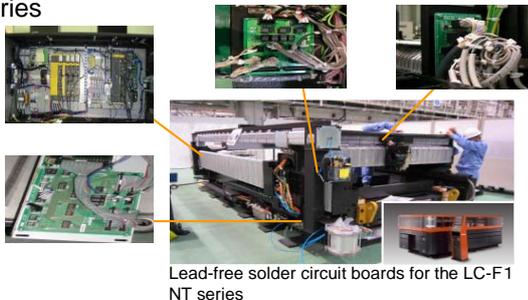
Amada position "green procurement", procuring materials with small environmental load, as one of our important environmental preservation activities for providing low-stress products to our customers. We request our suppliers for chemical substance analysis and information on materials being used in parts based on the "Amada Group Green Procurement Guideline" we established in April 2004.

Our products, including the sheet metal machines, are not applicable for the RoHS directive enforced in July 2006, but we promote the non-use of RoHS regulated substances due to the fact that they may come in contact with our customers' products that are made with our machines.

Here, we would like to introduce some of our suppliers' activities for reducing the use of regulated substances.

◆Lead-free solder circuit boards

Lead-free solder circuit boards were developed as the electric circuit board in the control section of Amada machines. They are used in our LC-F1NT series



◆Chromate Treatments

Amada is currently changing from the hexavalent chromium with large environmental load to trivalent chromium with less environmental load for the surface treatment of Amada designed mechanical parts.



◆Oils

All oil substances including the operating oil, lubricants, and cutting oil, are categorized based on danger/ hazardous level according to GHS*, and the results are listed on MSDS (Material Safety Date Sheet).

Amada-designated parts for recovery

Among our products, there are some that contain chemicals that are now designated as regulated chemical substances because there were no substitute materials technically available at the time they were manufactured. Normally customers do not come in contact with parts like this, but it wouldn't be good for the environment if they were disposed of with the others. This is why we collect the parts that are replaced after its life cycle and dispose them appropriately as a responsible manufacturer, according to the "Amada-designated parts for recovery" system we have established in 2003.

For instance, the light focus lens (coated with selenium compound) used in laser machines applies to this case, and after collection, we will determine whether they can be reused, and if not, they will be disposed of properly.

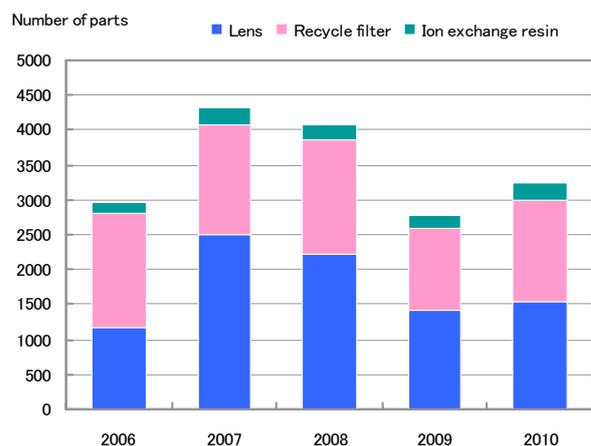


Trademark # 4778275



Light focus lens for laser machines (includes selenium compound)

Number of recovered Amada-designated parts



* RoHS directive: a European derived initiative in which the elimination of certain hazardous substances in electrical and electronic equipment is the key objective.
* GHS: abbreviation for "Globally Harmonized System of Classification and Labeling of Chemicals"

Biodiversity

Amada will help preserve / regenerate biodiversity to pass down the land rich in nature to our next generation.

Participated in “Japan Business and Biodiversity Partnership for private sectors”

The Amada Group participated in “Japan Business and Biodiversity Partnership for private sectors” which is a main body of “Japan B&B initiative” that was officially established after the “COP10” held in Nagoya in October 2010, as one of our environmental activities. This conference is led by the Keidanren (Japan Federation of Economic Organizations), with the purpose of information/ experience sharing among the participants.

The humans have engaged in various activities by benefiting from diverse creatures. However, in recent years, this mechanism is losing balance through excessive acts of development against nature, and many species are found extinct or in danger of extinction. The Amada Group believes it is our responsibility to preserve the diversified ecosystem that we benefit from, and pass it on to our next generation by promoting environmental and biodiversity preservation activities.

地球のいのち、つないでいこう



アマダは生物多様性民間参画パートナーシップに参加しています

Biodiversity communication pledge

“Let’s preserve the earth’s living species for the future generations”

Amada is a member of the Japan Business and Biodiversity Partnership for private sectors.

Rest house surrounded by nature (Asagiri Square)

As one of Amada’s 45th anniversary events, Amada has constructed a multi-purpose facility “Asagiri Square” in Asagiri highlands, Yamanashi Prefecture. It is used as a VIP reception lounge, customers’ training center, and as a fringe benefit lodging facilities for the employees. It is a log house that uses abundant lumber, to let the guests who usually spend their days inside concrete buildings experience the softness of wood.

It is one of the world’s largest log houses with 3,000 lumbers, and it is a high-profile building from architectonics perspectives.



Fujinomiya / the woods haven

Approximately 700 species of plants have been confirmed within the premises of Fujinomiya Works. When we re-organized the forest next to the Second Factory, we found trees such as *quercus serrate* and *storax*, and also the air plant “*cypripedium japonicum*” designated as category II (VU) of endangered species in Shizuoka Prefecture.

We have tables and chairs in the woods surrounded by nature for employees to come and relax.



The woods haven after redevelopment

Isehara / Four Seasons Path

The bamboo grove along the headquarters building was redeveloped as “Four Seasons Path” for the employees to come and relax.

Trees that wild birds and butterflies love are planted with good balance along the 50m path, and please the eyes of everyone throughout the four seasons; with early spring flowers such as *Japanese plums* and *Japanese camellia*, spring flowers such as *cherry blossoms*, *chrysantha*, and *rhododendron*, early summer and summer flowers such as *lagerstroemia indica* and *hydrangea*, and autumn leaves such as maple, *Disanthus cercidifolius*, and burning bushes.

We have also put birdhouses throughout the Isehara Works including this path, and we watch to see what kind of birds come.

This path is a place for our employees to relax, and to feel closer to nature.



Four Seasons Path

Isehara Works ecosystem map

Our daily business activities are making direct and indirect impacts on the diversity of ecosystem on our planet, and we think it is safe to say that most of them are negative. If we could make “Amada’s Forest” inside Isehara Works fertile with a diversity of plants and animals, or participate in social action programs for conserving the ecosystem, we could make the impacts positive.

We would like to limit the negative impacts to a minimum, and make as large positive impacts as possible by conserving the biodiversity.

This year, we have done a research on the types of birds we see at the Isehara Works. We were surprised to find many more than expected.



Azure-winged Magpie



Bulbul



Grey ducks



Starling



Dusky thrush



Japanese tit



Isehara Works



Japanese Pygmy Woodpecker



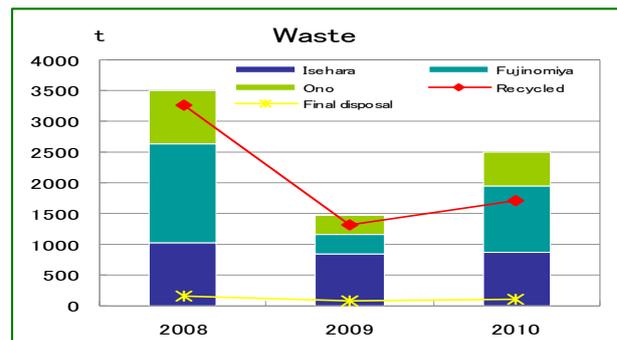
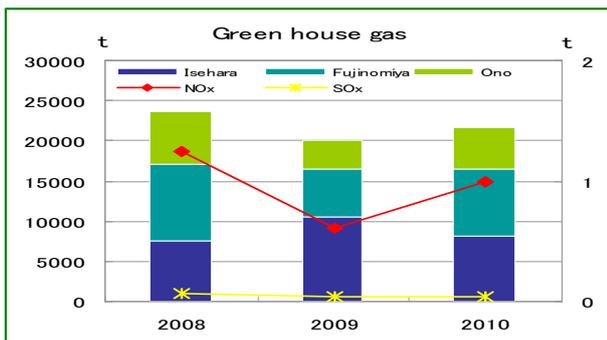
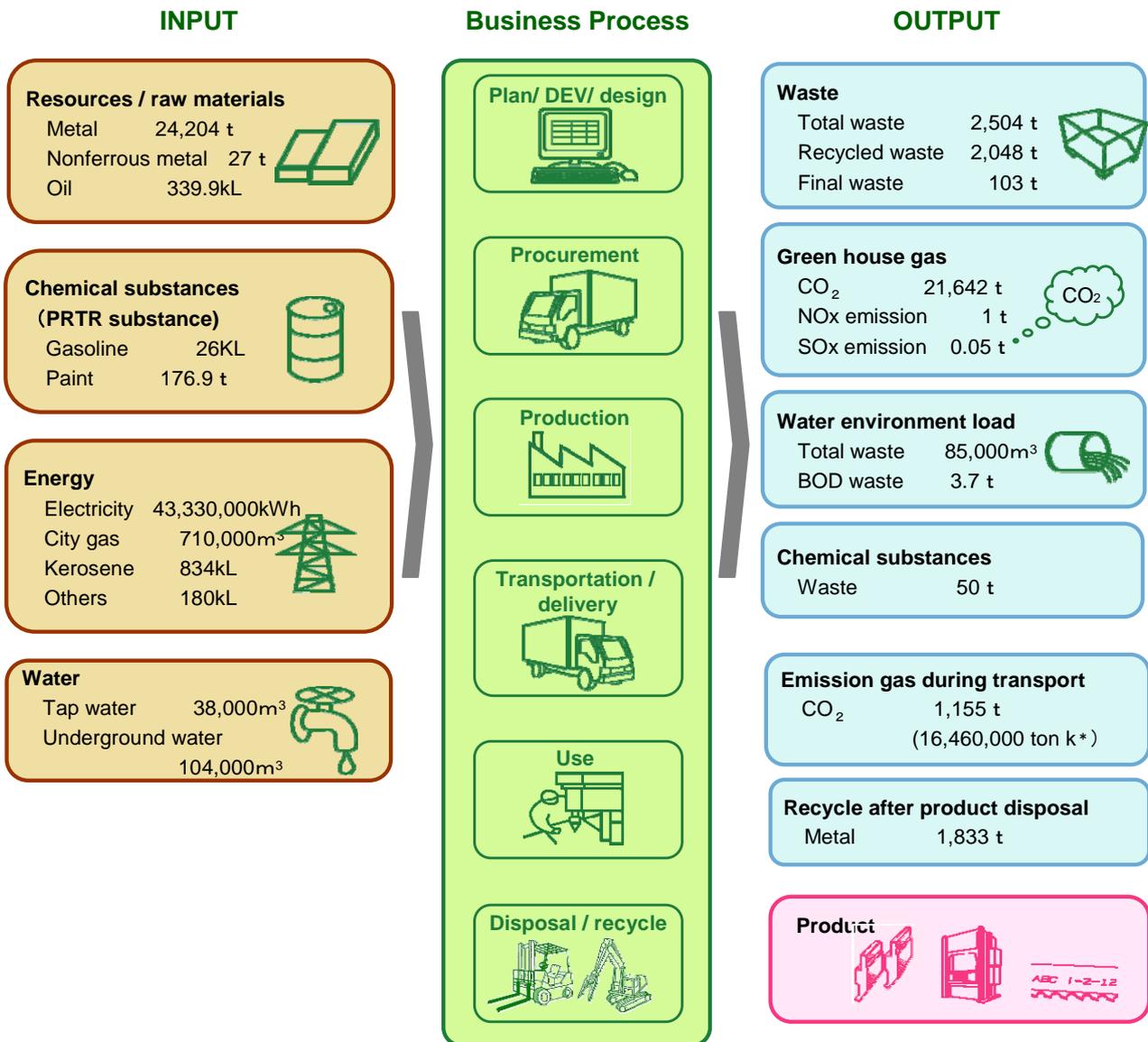
Pied wagtail



Turtledove

Material balance

The environmental impact of a product throughout its life cycle is understood/ analyzed quantitatively, and the results are applied to our environmentally- friendly business activities.



*Calculated with METI's revised CO₂ calculation method ton/kilo Alternative method B

Environmental accounting

Amada has adopted environmental accounting to use in reasonable decision making by understanding the costs and their benefits related to environmental preservation activities.

The adoption of Environmental accounting

Amada has adopted the environmental accounting since FY2005 for the purpose of understanding the costs and the economic impact associated with environmental preservation measures, and to provide information useful for decision making of the stakeholders.

In addition to the Isehara Works, the Ono Plant was added since FY2008, and Fujinomiya Works since FY2009.

To summarize the cost and economic impact (profit of actual results) associated with the environmental preservation measures, an "environmental accounting" item was added to the monthly accounting system for automatic calculation.

As for the environmental performance, we are not calculating in association with the environmental preservation costs.

◆Environmental preservation cost

The major costs within the FY2010 environmental preservation costs was the R&D costs for Amada eco products. We calculate all the development costs for the models that are already certified as eco products, as well as the models that are now applying for its certification. The main costs are the test materials and fees for creating jigs, and this does not include the costs for test research and man-hour involved in its development.

◆Economic impact associated with environmental preservation measures

The main economic impact for FY2010 was the business income generated from waste recycling and others. The breakdown of income are metal (iron, aluminum, and stainless-steel).

Unit: 1000 yen

Environmental accounting items		FY2006	FY2007	FY2008	FY2009	FY2010
Environmental preservation cost	Cost	463,118	821,452	323,689	456,854	882,927
	Investment	195,084	543,002	470,233	0	5,325
	Total	658,202	1,364,453	793,922	456,854	888,252
Economic impact accompanying environmental preservation measures		12,484	31,039	24,317	17,299	31,516

The Amada Group's new environmental symbol mark!

Although the Amada Group has established the environmental declaration in APR 2010, it is important for each and every employee to reflect them on their activities without being satisfied with the declaration. So we have invited the employees in designing the symbol mark of our environmental actions, which will be placed at the top of the several environmental marks we already have.

The mark we have chosen from the 211 applicants is a design that uses FORUM246, the symbol of the Amada Group, as the motif. It expresses the entire group's participation in environmental activities.

The two leaves on top are the leaves of keyaki trees which you see many of at the Isehara Works. The leaves portray our customers and Amada, and the leaves overlapping each other signify the customers and the Amada Group supporting each other, and showing upward growth curve. This mark will be used in pamphlets, websites, and on our name cards.



Trademark # 5423938

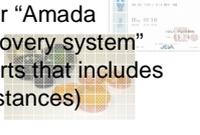
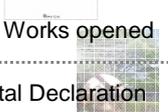
Our history of environmental activities

Amada has always deployed advanced environmental activities as a leading manufacturer of metalworking machines.

Amada and the environment

Amada has addressed the environment from very early days in the machine industry, and it's been 13 years since the Isehara Works (where

the headquarter is) acquired the ISO14001. We will introduce our history since company establishment, and our 13 years of environmental activities.

1948	JUN	Amada Seisakusho (limited company) founded		2001	OCT	Amada Eco Products certification system started	
1955	JAN	First contour machine born		2002	SEP	Fujinomiya Works ISO14001 certified	
1961	AUG	Isehara Factory built in current Isehara City, Kanagawa Prefecture		2003	SEP	Press announcement for "Amada designated parts for recovery system" (recovering the used-parts that includes regulated chemical substances)	
1964	JAN	Company name changed to Amada Co., Ltd.					
1969	APR	Headquarters relocated from Nakano, Tokyo to Isehara, Kanagawa			DEC	Press announcement for reducing 10000 tons of CO ₂ in 10 yrs (CO ₂ reduction of Amada facilities/ products)	
	AUG	Joined the first section of Tokyo and Osaka market		2004	MAR	Wind power plant installed (for generating power for foot light)	
1978	MAY	Amada Machine Tool Plaza built as 30 th anniversary event		2005	FEB	Kyoto Protocol went into effect	
1979	APR	Headquarter building built		2006	APR	Press announcement for RoHS directive accommodation (EU's regulation on restricting the use of Hazardous Substances)	
1987	SEP	Fujinomiya Plant (current Fujinomiya Works) established in Fujinomiya, Shizuoka			JUL	RoHS directive applied	
1991	JUL	Clean Campaign activities started		2007	MAR	Development center and Laser factory completed in Fujinomiya Works	
1992	APR	New Amada Machine Tool Plaza opened as 45 th anniversary event FORUM246 (training center) opened Software Center Building built			JUL	Amada Eco Information Mark established (product's environmental information for the stakeholders)	
1994	FEB	AMADA SFERA, symbol of Amada's environmental activities created			SEP	Japan Forming Machinery Association (JFMA) Eco Machine Project participation	
1996	SEP	ISO 14001 certification started		2008	DEC	Ono Plant ISO14001 certified	
1998	SEP	Product assessment manual established (assessment of product's environmental impact)		2009	JUN	Environmental report "Forest-In-Office" First issue posted on the website	
	DEC	Isehara Works ISO14001 certified		2010	APR	Amada Group Environmental Declaration	
					SEP	ISO14001 group certification for Isehara Works, Fujinomiya Works, and Ono Plant	

(green letters: global movement on the environment)

With our customers

In a bid to grow with our customers, the Amada Group makes social contributions by providing solutions for customers' manufacturing issues.

Junior Management College

JMC (Junior Management College) is a popular seminar with 30 years of history as a business management seminar for acquiring a broad view and practical management knowhow as an executive. With a motto of "study with actual cases, and learn through experience", the basics of our training lies in "thinking" with the individually obtained knowledge and acquiring practical knowhow through experience; instead of one-way learning.

The classmates are all business successors, and they spend 22 days in the Amada Group's Oiso dormitory in Oiso, Kanagawa. Eating and sleeping together allows them to bond, and they grow as an executive by talking to each other about self-awareness or concerns as a business successor. The training program includes management tasks, financial analysis, and labor management, as well as company presentations, Zen meditation, table manners, and much more.



Providing support for the sheet metal industrial associations

The sheet metal industrial associations are locally assembled organizations established for the prosperity of its member companies and the development of the sheet metal industry, and there are currently 24 associations throughout Japan.

Each association organizes activities such as board meetings, general meetings, beginning of the year meetings, management seminars, skill seminars, training sessions in Japan and overseas, skill proficiency tests, youth associations and more throughout the year.

Amada supports the associations by helping with their office work, and training sessions and skill proficiency tests which are the pillar activities of the associations.



The Precision Sheet Metal Technology Fair

Amada and Amada School that promotes "total solutions" have been organizing the Precision Sheet Metal Technology Fair since 1989, with the purpose of contributing to the development of metal-fabrication industry, and also to train and enhance the technology and skills.

A total of 207 products were submitted to the 23rd Precision Sheet Metal Technology Fair held from Nov. 2010 – Jan. 2011.

What was different about this year's fair was that for one, the ratio of overseas entries has increased; we had entries from India and Vietnam for the first time. Second is that the gold award was awarded to a product made with titanium – a metal very difficult to process, in the "Welding fabrication" category.

One of Amada School's missions is to "nurture skilled workers". We believe manufacturing will lead to nurturing skilled workers, and we would like to contribute to human resource development through this Fair.

The winners of the 23rd Precision Sheet Metal Technology Fair Awards

«Sheet Metal Working Parts»
Health, Labor and Welfare Minister Prize



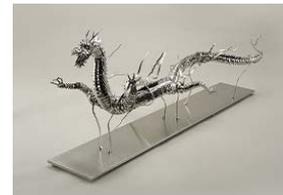
«Welding Fabrication»
Japan Vocational Ability Development Association Chairman's Award



«Assembling Technology»
Nikkan Kogyo Shimbun Award



«Formative Arts Fabrication»



«Student Participation»



Quality Assurance

The Amada Group is committed to assuring 100% Running Guarantee to Amada customers based on the "Amada Group Quality Assurance Policy".

◆ The Amada Group Quality Assurance Policy

- ① The quality of solutions and services the Amada Group provides globally will satisfy the customer expectations, and are reliable and attractive.
- ② The Amada Group will obey all laws and rules, and strive to continuously improve quality through PDCA.
- ③ The Amada Group will share information, review and check machines according to basics, and take proactive measures in preventing accidents.

◆ Amada's initiatives on Quality Assurance

The framework of the Amada Group's QA policy lies in the specifications/ standards/ criteria which incorporate ISO9001 international standards' approach. We will continuously improve and enhance quality through PDCA cycles, and pursue customer satisfaction while nurturing the "4 cultures".



◆ Global Quality Assurance

The Amada Group has established the "Global QA Committee" to resolve important quality cases for both Japan and overseas, and respond to global customers through problem solving and data control by respective subcommittee meetings of its functional departments.

Service Parts Supply

As a responsible manufacturer, the Amada Group has established and operates under a system of promptly supplying service parts as long as the customers' machines are running.

◆ Parts Center

The Parts Center started its operation in Oct. 2009 as the core facility of our service segment including the "before-service*". We are connected online with all our domestic customers, and our computer system, linked with our corporate system, is equipped to process all past maintenance data and a vast amount of daily service data. The service parts we have on supply are 930,000 pcs/ 60,000 items. With maximum storage capacity of 1,300,000 pcs/ 80,000 items, it is the largest parts center in the machine industry. It is a 24/7 facility that supplies to global customers; its target is to improve the rate of quick delivery to 98%, with emergency delivery within one day for Japan, and two days for our overseas customers.



Bucket with IC chip inside, and picking cart with monitor



Monitor features (history control)



Full view of the Parts Center

◆ IT Service Vehicles

Since the start of Parts Center operation, we have introduced IT service vehicles with IT devices such as mobile computers and printers, and Amada's special package tools on board. In the past, we could only provide service at service offices, but now the service engineers are capable of viewing the digital documents such as web parts lists and machine charts, checking the parts inventory and delivery schedule, creating quotations, and placing orders, all from inside the vehicles. We are committed to improving the work efficiency of the 300 service engineers, enhancing the part supply capacity, and shortening the time required for solving customers' issues.



Equipped with mobile computers and printers

* Before Service: creating machine charts for individual customer machines with service history, and changing the parts before the machine stops running, instead of after the machine stops from failures.

With our local community

The Amada Group participates in various community-contribution activities to foster effective communication with the local communities.

Participating in the “Ecocap Movement”

In an effort to endorse the “Ecocap Movement” (Used Bottle Caps Funding Polio Vaccines for World’s Children), Amada started collecting PET bottle caps in Isehara, Fujinomiya, and Ono facilities from FY2009. We have funded vaccines for 231 people so far.

Ono Cherry blossom viewing event

An agricultural water channel runs north and south through the premises of the Ono Plant, and 40 cherry trees are planted alongside the channel. Every year during the cherry blossom season many local residents come to enjoy the flowers.

The “cherry blossom viewing event” was organized as an opportunity to familiarize the local residents with Amada, the Ono Plant, and our environmental activities – as one of the Environmental Management System (EMS)’s communications with the outside.

The event (regional gathering) was held on 4/4/2010, and since this was the second year, we welcomed more guests than our first year (700 guests in FY2010, 500 in FY2009).

Many families enjoyed the flowers by eating lunches under the trees, and listening to music played by the wind-instrument band and harmonica groups.

Also on a different day, people from the nearby senior-care home came to see the flowers in bloom. They were mesmerized by the flowers, and were delighted with the souvenirs of Amada caps and group photos.

We hope to continue with the event, let the local residents become familiar with the Ono Plant, and appeal to them that we are serious in our environmental efforts.



Under the cherry trees



With the guests from the senior care home

Kanagawa Eco Campaign

Amada became a sponsor for Kanagawa Newspaper’s 120th anniversary event – “Kana-eco campaign”. The garden plant “*sunpatiens*” is known for its outstanding ability to absorb CO₂, and the purpose of this event was to provide these flowers to elementary schools in Kanagawa, and teach the children environmental issues such as CO₂ reduction and prevention of global warming by growing and observing the flowers.

In this campaign, Amada became a sponsor of flowers for a nearby elementary school. The *sunpatiens* plants and 20 planter boxes with our company name were delivered to the school from Kanagawa Newspaper at the end of April. Also in June, we displayed the *sunpatiens* at the FORUM246 entrance, and introduced them as Amada’s environmental/ social contribution activity to the visitors who came to the Amada Solution Center.



Students watering the sunpatiens

Tanaka Taiami study group / Yugawara Suikeisou- garden

Members of the “Tanaka Taiami study group” came to visit Amada’s reception facility- Yugawara Suikeisou. Taiami Tanaka (1898-1978) is a renowned garden designer from Niigata Prefecture, known for his poetry of incorporating rockwork of the Muromachi Period. He was a gardener at Kinkakuji and Ginkakuji who took part in restoration of national-treasure level gardens in Kyoto. He was also the one who designed Amada’s Suikeisou garden, and the study group asked Amada for a tour of the garden.

As they studied the Suikeisou garden from the handwritten letters from Tanaka to his friends, they found out that he first planned to make it a dry garden style, but he changed his design to honor the owner’s wishes and actually used water, and the garden turned out not-Taiami-like style mixed together.

We feel the need to leave the Taiami garden to future generations without ruining its values.



The study group members touring the garden

On-site environmental seminars

An on-site seminar on “environmental management” was held at a nearby university at Isehara Works, as a part of continuous environmental/ social contribution activities since FY2008. We have been offering one-day lectures for graduate students until previous year, but we gave two-day lectures for undergraduates this year. The lectures on corporate management and environmental activities provided stimulation for students who will start job-hunting soon. We also invited the students to come see the company in action, and showed them the machines at work at the Solution Center. They seemed to understand our operations more by actually seeing our machines and facilities after listening to the lecture.



Students showing interest in LC-F1NT



Students looking at the SFERA

Elementary school field trips

The Isehara Works accepts field trips from elementary schools every year, and this was our 8th year. We invited 62 Third graders from a nearby school to tour our facility. The children watched the machines in amazement – including the laser machines that cut sheet metal with sparks and two-armed robots bending sheet metal.



Students surprised by the laser beam



The popular double-armed robot

Fujinomiya Environmental Fair

On June 6th during the World Environment Month, “The Environmental Fair in Fujinomiya” was held at Fujinomiya City Cultural Hall. Amada exhibited our environmental initiatives, introduced our products, and shown an introductory video of our company. The customers were particularly interested in “park & ride” commuting and the “Amada Forest” designed with biodiversity in mind. This Environmental Fair serves as a great opportunity to appeal our Fujinomiya Works to local residents.



Fujinomiya Environmental Fair

TOPICS

A visit by His Imperial Highness the Crown Prince

His Imperial Highness the Crown Prince visited the Amada Solution Center on Jan 21, 2010, and watched our latest metalworking machinery in action and the machining training.

The Crown Prince watched the manufacturing of a rail-car part with a combination machine, took the processing sample in hand, and chatted enthusiastically with President Okamoto. He also asked questions to Amada customer who was there for metalworking consultation; and to the instructor at Amada School some in-depth questions on processing issues and the machine operations.



The Amada Group Clean-Campaigns

The Amada Group actively participates in local clean-campaigns other than the facility surroundings. Here are some of the clean-campaigns our group companies are taking part in.

◆Fujinomiya/ Tanuki Lake Walk

The “11th Walking & Cleaning tour of Tanuki Lake” organized by the labor union of Fujinomiya Works was held in June, and 130 employees and families participated in the event. The store-owners around the lake called out to us saying “Thank you Amada for coming every year”, and we are starting to feel the fruits of our continuous activities. The amounts of waste we pick up are declining every year, but we would like to continue with our community-based activities.



Employees and families who participated in the campaign

◆Ono Clean-Campaign

The Ono Plant held two clean-campaigns. The first was the “No litter & environmental month clean-campaign” organized by the Ono City in June. All employees (approximately 160) participated in the event, sweeping up litter from the roadside gutter and inside guardrails. The second campaign was held in November. We collected less litter, but there were some nonflammable garbage such as umbrellas. The Ono Plant will continue with clean-campaigns around the facility.



Ono Plant/ Clean-campaign

◆Riverside clean-campaign

Amada supports the activities of “Isehara liaison council of environmental preservation” where the city and the companies work together to promote environmental preservation.

Amada proactively participates in the “Riverside Clean-Campaign” held every year in June, and clean the riverside of Shibutagawa that flows through Isehara City.

◆Amada Machine Tools (Komaki) / Mt. Komaki Cleaning & Walking Tour

AMT has participated in the clean campaign of local “clean council” to keep Mt. Komaki, the symbol of Komaki City, a haven for the citizens in April. This was the second participation as AMT. The participants cleaned the path by walking in the Spring Mountains.



Mr. Komaki Cleaning & Walking Tour

◆Amada Engineering (Fukushima) / Grass-cutting volunteer

Amada Engineering participated in the “grass-cutting volunteer event” for the Mizuhara River’s “Hydrangea Road” the local Matsukawa chamber of commerce is maintaining as one of regional vitalization activities, in June and September. It rained in June, but we were able to finish cutting the weeds.



Cutting the grass along the river

With our employees

Amada values each one of our employee, their families, and everyone around our company, trying to become a better company through our activities.

Facility Tour for families

Family tours are being held annually at each Amada facility to let the family members feel closer to Amada and have a better understanding of the company.

◆Isehara Works

47 families participated in the tour held in November. This was the 3rd year, and an “office-tour” was also organized for the first time for those interested. The families looked around the workplace, and it allowed the children to imagine how their mothers and fathers are working every day.

We received many satisfying comments from the participants such as “I now understand what kind of company my father works for”.



Isehara: the employees showing the families around

◆Fujinomiya Works

The family tour at Fujinomiya was held in December with the theme of “Working Mom and Dad Are Cool!” The family members watched the machines and cranes in operation, and we heard many words of amazement from the family members such as “I knew what kind of work they did, but it was much bigger than I thought”, and “it’s amazing my dad can operate a big crane like

this!” Since the tour was scheduled around the Christmas season, hands-on workshops were organized to make Christmas wreath and art objects with acorns and pine cones. It was a fun tour with smiling faces of young children.



Fujinomiya: showing the manufacturing line

◆Ono Plant

The tour was held in April at Ono Plant, and 47 family members participated from a broad range of age groups, from grade school children to those over 80 years old.

After introducing Amada and the Ono Plant with Amada’s promotional videos and slides, the members toured the facility in four groups. At the cutting demonstration, the guests were surprised to learn that the machine can cut 200mm thick steel lumber under 1 minute, and many asked questions like “why can you cut metal with metal?”, “can you also cut wood?” After the plant tour, the guests relaxed and talked in the cafeteria, then took group photos in front of the office building. We all had a great time.

In the questionnaire, we received many heartwarming comments such as “I’m glad I got to see my dad’s job”, and “it made me realize I should thank him more for working hard”.



Ono: employee/ family group photo

Family tour

I now know why they come back! !

“Oh, this robot is so cute!!” The kids were fascinated by the hand-made robot- a double armed robot with eyes fixed with plastic tape. We first grabbed their attention with “cute”, but they were captivated once the processing began.

Why can you bend this thick sheet so easily with the bending machine? Where does the light come from in laser machines? Everything they saw were so new to them that the children seemed very satisfied with the world of new dimension. They now have a better understanding of Amada and all the products made with our machines, and they were talking “do you think this vending machine is made with Amada machines?” in the car during our ride home. I am happy that my family understands more about our company. Also, I now understand why the families come back every year – company

**Sheet metal Machinery Development HQ.
Technical Administration Div. Technical
Administration Dept. Development Planning Gr.
Mr. Hirokazu Noguchi
(Participated in the Isehara Tour)**

presentation, Solution Center tour, office tour, and lunch – very well planned (I was surprised at the deluxe children’s lunch).

I would like to thank the sales and marketing staff for showing them machine operation at the Solution Center, the HR and General Affairs staff for organizing and supporting this event. I hope Amada will continue with this event in the future.



“Eco” proficiency test

Since the “Amada Environmental Declaration”, the Fujinomiya Works has been pushing the employees to take the “Eco proficiency test” as a part of HR development activities. We have set the target test-passers at 10% of all employees (80 people), and 60 people have passed the test so far, joining the group of “eco- people”.

Some comments from the test-passers are:

- I am coming up with more environmentally sustainable ideas such as CO₂ reduction ideas for “kaizen proposals”

- I can now understand the meaning of difficult environmental terms I hear on TV news and commercials.

We will continue to encourage the employees to take the exam, so more Amada Group employees will become a member of the “eco-people”.



Worm Farm

We have a “Worm Farm” inside the Isehara Works. We call it that because the fallen leaves collected make the leaf mold, worms gather, and these worms make the leaf mold composts.

As we did last year, the larvae of beetles that grew in this worm farm were distributed to our employees who wanted them who have children in grade school. We also distributed this quality composts to our employees who could use them for kitchen gardens.



Larvae of beetles given to employees Beetles



Composts (in bags) distributed to employees

“eco” proficiency test

Studied by copying the textbook to my notebook many times

**Amada Fujinomiya Works
Production Control Ms. Nao Kirishita**

I have been carrying around my own chopsticks (to not use disposable chopsticks) for about two years now, and I have been interested in environmental preservation.



I decided to take the exam to gain better understanding and to help me make better choices in my daily life by studying for the “eco proficiency test”. I didn’t know where to start because the test covers everything from the origin of the earth to recent environmental issues, so I bought a notebook, and copied the textbook word by word. I made it a rule to study a certain number of pages every day, and wrote the points down in my notebook. I read the notebook over whenever I had some free time or before going to bed. I encountered some difficult terms, but there were also many familiar terms we learned at school or issues we find around us, and I was able to pass the test in short period.

If you are slightly interested, I recommend you to take the test. You’ll learn the terms you hear on news and commercials, and studying is fun.

Composting Fallen Leaves

There are 164 Keyaki (zelkova) trees in Isehara Works, and its leaves in the fall amount to 10 tons. These 10 tons of leaves are brought to a farm in Samukawa-cho to compost for 3 years. This compost is very high in quality, and they’re used for growing cyclamen (Chinese lantern plant), and periwinkle.

The cyclamen grown with the keyaki compost are sold at bargain prices every December inside the FORUM246 (the training facility) at Isehara Works, for the local residents and employees.



Cyclamen for sale

Occupational Safety and Health program

At the Amada Group, we have five committees within the Occupational Safety and Health program to realize a safe, secure, and comfortable work environment; 1) Health committee (identifying and taking actions toward hazardous tasks with noise, vibration, dust, organic solvents), 2) Safety committee (implementing risk assessment when installing machines), 3) Disaster prevention committee (establishing fire-prevention, disaster prevention, evacuation system with our own fire-fighting team), 4) Traffic committee (preventing accidents during commute), and 5) 5S committee (patrolling the workplace to identify problems and to find good examples).

Of these committees, the Safety Committee has started the "Sales Office safety activities" in May 2010 with the purpose of preventing occupational injuries of the sales office staffs while providing service. After training the service leaders and vice-director of sales offices, the safety meetings are now held at least once a month at all sales offices. We exchange information on potential incidents and near-accidents at this meeting, and raise our awareness on safety. We also provide KYT training (zero-accident training) to promote safety of service engineers.

Fire extinguishers competition

The 19th Fire extinguishers competition organized by Fujinomiya City's Fire Safety Association was held at the end of September. Amada Fujinomiya Works participated with two men's teams and one women's team. The women's team won the first place for the second time in the "women's fire hydrant category" exhibiting the skills they have been practicing. The men's teams weren't able to win any prize. The level of competition is getting higher each year, and it's getting more difficult to win a prize.

Amada Fujinomiya Works have been participating in this event since its' first year. We are working hard to train employees so that they can actually extinguish fire, and promoting to raise the awareness of fire and disaster-prevention.



"women's fire hydrant category"

Women's team winning photo

Medical interviews and group medical checkups

The Amada Group provides medical interviews with company doctors for all employees working excessive overtime. It is to ensure employee well-being, by setting more strict standards at 80 hours / month compared to statutory overtime of 100 hours/month.

We also support employee health by organizing mental health seminars by our company doctors.

Health promotion event

The Amada Group organizes an event called "600,000 steps walk" (2 months) twice a year to promote employee health. We urge the employees to participate by presenting health related goods and sports-promotion goods to those who achieved the 600,000 steps. The top three winners for FY2010 each walked more than 1.3 million steps; and the top winner walked 1,563,900 steps.

We also periodically organize "Stop Smoking Seminars" since FY 2007 to promote non-smoking. These health promotion events were introduced in newspapers.

Compliance

The Amada Group organizes group video training on compliance and harassment once a year for all the group employees.

The FY2010 training showed very high attendance ratio with 2,610 employees, 97% of all employees.

In order to better enforce compliance, we have established a contact office for reporting and consultation. This contact desk is for handling consultations and reports on private and organizational law violation, misconducts, or harassment. The consultation offices are established both inside and outside the company, and the office for reporting is established only outside the company to facilitate reporting.

Security

The Amada Group promotes the integrity of our information system by establishing standards on "personal information management", "confidential information management", "network use", "information systems use", and more.

Extra care is taken at the entrance and exit of our facilities. We limit the area the employees can enter depending on their employment status or job description.

We have had no security problems with our stakeholders including our customers, employees, business partners, or stockholders in the past, and we are committed to improving our security level.

HR Development

Amada adopts a steady pay raise system for the young and mid-level employees.

We also have an assessment system for those newly appointed in management positions such as group leaders and managers, where randomly picked bosses, junior staffs, and colleagues assess them from 360 degrees. This allows us to make fair and appropriate appointments.

Diversified employment system

At Amada, we have a reemployment system for senior employees based on their personnel rating during the two years before retirement (at 60). The reemployed employees will work to pass on the experience and knowhow accumulated during their employment to their junior associates, and to become a role model for the younger generation.

We also have a "permanent staff appointment system" for appointing nonpermanent employees to a permanent status.

As for the permanent employees, there are a variety of work styles available such as "local-jobs only" and "limited jobs only" positions.

Disabled Persons' Employment

Amada proactively employs disabled people. The ratio of disabled person's employment for Amada, Ltd. alone has been increasing steadily for the past five years, at 1.98% in FY2010 compared to 1.57% in FY2006. We will continue to promote the disabled persons' employment.

Nurturing the next generation

As our initiatives for supporting the nurturing of next generation, we have various "special leaves" such as "maternity leave" and "parents' day leave". With the "maternity leave", in addition to the traditional number of days allowed, the employees can now add max. 40 expired annual paid leaves, allowing the employees to take more than statutory leaves. For "parents' day leaves", employees with children under 15 (during compulsory education) can take 2 days off from work per year (4 days for those with multiple children) for participating in school events. These special leaves provide the employees a better parenting environment.

We also provide monthly allowance for permanent employees (except those in executive position) with children under 18. In addition, the employees receive celebratory allowance from the "Employees Association" when their children enroll in elementary school, Jr. high school, and high school; showing Amada's commitment on nurturing the next generation.

Other leaves

In addition to child-related leaves, Amada has many leaves for improving the employees' work-life balance. The "refresh leave" is granted to employees with 10, 20, or 30 years of continued service, according to their years of service. The "family-care leave" can be taken up to 93 days, and the employees can now extend the leave by adding max. 40 expired paid leaves. We also have short-hour work system for those necessary for family-caring or parenting, making the work environment as employee-friendly as possible.

Parents' Day Leave

I don't want my children to feel sad

**Amada Machine Tools (Isehara)
Product Unification Dept.
Mr. Koji Kanno**

When I was young, my father never once made it to my school events, and I always felt sad. Since I didn't want my children to feel the same way, I used the "special leave for school events". I was able to see the different sides of my children, and the teachers told me about how they are doing at school/ kindergarten. I was excited to spend a meaningful day with my family, and to see that my children were trying to do what they usually ask us to do by themselves. I am grateful for this system that gives us the opportunity to participate in parenting and education, and I hope Amada will continue with this system.



Maternity Leave

Feeling joy in balancing work and family

**Amada Machine Tools (Komaki)
GA&H Dept. HR Gr.
Ms. Tomoko Takahashi**

I am very grateful that I was able to use the "maternity leave and childcare leave" for more than one year. I was able to watch my child grow through maternity leave, while I myself grew as a parent. Although I still have some uncertainties in balancing work and family, I would like to do my best by channeling the uncertainties into joy.

I was planning on returning to work at the end of April, but I applied for an extension of maternity leave since I could not find an opening at a child-care. I hope for a child-care facility inside the company, and a better working environment for mothers returning to work.



■Editing Policy

This booklet is comprised of the environmental activities of Amada and the Amada Group companies in Japan, and is edited based on the “Environmental Reporting Guideline 2007” by the Ministry of Environment.

This report is targeted toward various stakeholders, and it is edited so that the readers can understand Amada’s environmental activities and social contributions with just this booklet alone.

■Reference

“Environmental Reporting Guideline 2007” by the Ministry of Environment

■ISO 14001 certification

Amada	Isehara Works	Dec 1998
	Fujinomiya Works	Sep 2002
	Ono Plant	Dec 2008

■Issues

Date of issue	Sep 2011
Next issue	Jun 2012
Previous issue	Jun 2010

■About the name “Forest-In Office”

“Forest-in” is a term made by Amada. It does not mean an office inside a forest, but Amada would like to become the forest itself – it’s used as “an office of the forest” that promotes activities that protects the natural environment.

■ Area of coverage

Dates: Apr 2010 – Mar 2011

Organizations:

Amada
Isehara Works
Ishida 200, Isehara City, Kanagawa
Fujinomiya Works
Kitayama 7020, Fujinomiya City, Shizuoka
Ono Plant
56 Hata-cho, Ono City, Hyogo

Amada Machine Tools
Headquarters
Ishida 200, Isehara City, Kanagawa
Komaki Works
Shimoobari nakashima 2-158, Komaki City, Aichi

Amada Tool Precision
Ishida 200, Isehara City, Kanagawa

Amada Engineering
Headquarters
Ishida 200, Isehara City, Kanagawa
Fukushima Plant
Minami Shimohara 81-3, Matsukawa-cho, Fukushima City, Fukushima

Nicotec
Headquarters
Ishida 200, Isehara City, Kanagawa
Miki Plant
tomoe 45, Bessho-cho, Miki City, Hyogo
Urawa Plant
Tajima 9-20-1, Sakura-ku, Saitama City, Saitama



Isehara Works / Japanese garden: shrike capturing insects



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