### **Company Profile**



Moonlight ITSUKUSHIMA SHRINE at Miyajima, Hiroshima Prefecture, 85 years ago.

### (Aim)Bridging to Recycling-oriented Society

Environment · Energy Saving · Recycling · Preventive Maintenance and Refurbishment of Factory

A Trading Company specializing in Industrial Equipment & Materials

SANWA CORPORATION CO., LTD

### **Outline of our Company**

1. Company Name

SANWA CORPORATION

2. Establishment

30 JAN, 1958

3. Company Business

1 Sales of Chemical Products

2. Sales of Machine Equipment

3. Ordinary Construction Business

4. Export and Import Business

4. Capital

JPY27,000,000.

5. End of the fiscal period

End of March

6. Main Bank

The Hiroshima Bank, Ltd. (Otemachi Branch) MUFJ Bank, Ltd. (Hiroshima Central Branch)

The Shoko Chukin Bank, Ltd.

7. Registration of Construction

Approval of Hiroshima Prefectural Governor. (No.27-35678)

Painting business, Plastering work, Water Proofing work,

Interior finishing work, Roofing business,

**Mechanical Equipment Installation** 

8 Other Qualification

Registration of Sales for Poisonous & Deleterious substances

(Registration No. 1434)

Registration of Export & Import code (Code No. 73797)

Registration of Export & Import Company for Drug materials

etc. (Hiroshima 52-19)

Comprehensive qualifications by the Japanese government

(160511000107)

Identification number and password for receiving support from

Electronic information processing system (A00063827)

Incorporated Administrative Agency Japan Mint, Grade Decision

Notice (No.31-480)

#### 9. Company's History

Aug. 1953	Established Sanwa Shoukai at 100, Kokutaiji, Hiroshima city
May. 1957	Newly set up the office at 1-4-10, Sendamachi, Naka-ku, Hiroshima
	City for business expansion
Jan. 1958	Reorganized as Sanwa Corporation and took over all the business
	operation
Apr. 1960	Set up Field work Dept.
Jun. 1962	Opened Shiga Branch (Closed Feb. 2011)
Mar. 1970	Opened Yoshijima Office and Warehouse

Newly built Head office at 1-4-10 Sendamachi, Naka-ku, Hiroshima
city
Opened Osaka office
Opened Kyushu Branch
Approved as Constructor (engaging in Paint work)
Opened Sanin Sales office (Closed Dec.2010)
Opened Tokyo office (Closed Dec. 2006)
Newly built Sanin Sales office
Newly built Head office at Yoshijima and integrated Yoshijima office
into Head office
Obtained the approval of Construction Minister as General
constructor
Approval of Construction Minister as General constructor by
Hiroshima Prefectural Governor
Work Dept. closed

### 10. Numbers of Qualified

### Company Members

Hazardous material engineer (Class A)	
Hazardous material engineer (Class B) 5 people	
Handlers of Poisonous and Deleterious Substances 2 people	
Qualified person for heat management 1 person	
Working environment measurement expert Class II 1 person	
Hydraulic System Adjustment 2nd grade1 persons	
Building operation and management engineer 2nd Grade Finish ·1 person	
Foreman / Safety and Health Supervisor 2 people	

### Preventive Maintenance & Refurbishment of a Factory

- 1) Promotion of Preventive Maintenance
  - In order to ensure the performance and safety of equipment, we promote automation and labor saving, implement daily inspection management of equipment inside and outside the factory, review the quality of painting, waterproofing, and heat insulation materials, and prevent deterioration of usage environment and performance degradation of equipment caused by rust, leakage, condensation, etc.
- 2) Promotion of Efficiency and Energy-Saving
  - 1 Replacement of old hydraulic units with DAIKIN energy-saving equipment at machine factories
  - 2) Standardization of cab cooler and duct piping work for large cranes
  - 3 Construction of heat shielding and heat insulating coating on the roof, sheet waterproofing work on the floor
  - Expanding sales of patch seals: new transportation systems, bridge joints, and peripheral seals for heating tanks
  - (5) Construction of anti-condensation paint for plant piping system
- 3) Improvement of Safety Environment
  - 1 Automatic lubrication of large-scale steel structure equipment in high places ---cargo handling equipment
  - 2 Prevention of scattering of harmful substances——dust collectors, water treatment equipment, VOC countermeasure equipment
  - 3 Prevention of penetration leakage of harmful substances --- FRP waterproof coating and improvement of soil investigation
  - 4 Comprehensive Sanitation Management: HACCP---Antibacterial/Antifungal Painting Work
- 4) Expanding sales of Sanwa Brand Products
- (1) Sanwa Thinner: Outsource manufacturing to multiple external factories (OEM production)
- 2 Sanwa AVCD: Auto Valve with Control Device
- 3 Sanwa Masso Rosin: Commercialized at a factory in Vietnam / Sole Agent Contract
- 5) Extend machine life and reduce equipment cost by maintenance repair of hydraulic and pneumatic equipment (including overseas products)
  - 1 Hydraulic Cylinder Motor Pumps
  - 2 Lavor-saving in post-process by preparing pneumatic equipment in pre-process

# List of products handled

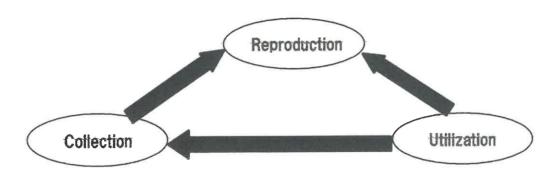
Product name	Breakdown
General products	
1) Paints	UV paint for corrosion protection and wooden floor (CMP), Factory floor paint (ABC Trading, MIZUTANI PAINT), Exterior wall paint (SK KAKEN, NIHON TOKUSHU TORYO)
2 Silicone	Shin-Etsu Chemical products for paint base material, heat-resistant insulating oil and high vacuum sealing
3 Hydraulic equipment	Cylinders made by TAIYO, PARKER, JUFAN(Taiwan) and CYSKO(Korea), Distribution valves for lubrication parts (DLP), Single-point lubrication devices (Taiwan)
4 Valves	SUS ball valves made by SiCO (Korea) have been delivered to water distribution systems in high-rise buildings for over 10 years without any accidents.
Our own products	
① SANWA AVCD	A pre-prepared product that adds a control function to an actuator- equipped butterfly valve, reducing new installation and maintenance work in factories.
② SANWA thinner	Manufactures cleaning thinners for specific applications with adjusted ingredients under its own brand.
3 SANWA Masso Rosin	Switched materials to MASSONIANA RESIN at VINHCONSHIP (Vietnam) from that of Chinese rosin which is shortages and Vietnam one is a cheaper and a performance is comparable to Chinese one.
4 VOC	Organic solvent countermeasure equipment
Contracted processing proc	ducts
1 Large CAN manufacturing products	At 大重集团 and 金州重型(China), we manufacture hundreds of tons of structures, as well as, large SUS structures and tanks, by managing the process, adhering to schedules and ensuring quality.
2 Pressure vessel	At DAEHEUNG(Korea), we manufacture SUS heat exchangers and containers.
3 Large piping work	Installing thermal insulation on the round piping for the cab cooler of a large crane.
Waterproofing work	We apply Shin-Etsu Chemical silicone sheets and other materials to the joints of concrete blocks in tank berms, agricultural irrigation channels, and fireproofing tanks to stop water from entering.
⑤ HIP processing	We have a track record of joining large wear-resistant parts by powder sintering + diffusion bonding for plastic processing machines by using heat-sensitive hydrostatic pressure (HIP) of KUROKI KOGYOSHO, for over 30 years.
6 Hydraulic maintenance	Preventive maintenance of cylinders, pumps and motors. We check the effectiveness of packing and, if necessary, hard chrome plate and repolish the main internal parts to restore them.

7 Precision distillation	Performs precision distillation using the Oldershaw method.
8 Explosive bonding work	We manufacture composite materials such as Cu/SS, SUS/SS and Ti/SS using explosive force. We have a track record of delivering 850T Cu/SS clad to the TOKYO Linear Motor Car-Oedo Line.
	Revised) 8.28.2023

# Recycling of Solvent and Plastic

#### Private Declaration ISO14001.

Our company will tackle the Environmental problems based on ISO 14001 Standard System



Aim : Bridging to Recycling-oriented Society

#### **Environmental Policy**

- 1 Establish and utilize the environmental management system
- 2. Observe the law and agreement etc. to prevent the environmental pollution
- 3. Set the environmental object and target and review them periodically and implement the environmental improvement activity continuously.
- 4. Develop the environmental products, and procure the environmental materials and facilities.
- 5. Tackle the reduction of the wastes, recycling promotion, Resource-saving and Energy-Saving.
- 6. Notify the environmental policy to employees and customers and disclose it to the society.

## Sales Record of Cylinders made in Taiwan

SANWA CO.

Process	Equipment name /	Quantity	Model/f Pressure (MF	resista		Inner Diameter Rod diameter (mm)	Stroke/To	-
Hot Rolling	F1-3 WR Chock Clamp	15	Hydraulic	21	31.5	Ф63 Ф35.5	170	644
	Intermediate Roll IMR Hook BOT	7	Hydraulic	21	31.5	φ50 φ28	100	878
	F7 WR For Clamping	4	Hydraulic	14	21	φ 63 φ 35.5	140	654
	FSB Descaling Pinch roll swing	2	AIR	0.7	1.4	Ф 280 Ф 63	310	81
	Intermediate Roll IMR Hook TOP	8	Hydraulic	21	31.5	φ50 φ28	100	776
	FSB Pinch roll For lifting	22	AIR	1	1.5	Φ 250 Φ 63	180	81
	Rolling CS Chute change	2	Hydraulic	21	31.5	φ160 φ90	700	1431
	2SF Charge ram	2	Hydraulic	21	31.5	φ 150 φ 80	300	1013
	2 Hot rolling Turntable lock	4	Hydraulic	21	31.5	φ 100 φ 56	181	854
	Hot rolling Spindle support	4	Hydraulic	21	31.5	φ140 Φ110	435x50	1985
	2 Hot rolling F1-6 Stripper retract	2	AIR	0.7	1.4	φ280 φ63	310	74
	Hot rolling finishing For keeper plate	1	Hydraulic	21	31.5	φ63 φ35.5	50	524
	Hot rolling F1-6 BUR For Clamp	2	Hydraulic	21	31.5	φ80 φ45	90	583
Steelmaking	Exhaust gas cooling recovery For skirt lifting	4	Hydraulic	14	21	φ100 φ56	110	480
	Degassing equipment Sub-material discharge gate	1	AIR	1	1.5	φ125 φ40	304.5	545
	Degassing equipment Sub-material discharge gate	1	AIR	1	1.5	φ125 φ40	307.5	545
	Hearth For rotating chute	1	AIR	1	1.5	φ200 φ50	500	78

Others	For heating equipment Fuel extrusion cylinder	2	Hydraulic	14	21	φ200 φ100	600	1315
	For volume reduction equipment Pressurization machine	1	Hydraulic	21	31	φ140 φ100	1340	1678

### **AUTO VALVE WITH CONTROL FUNCTION**

#### SANWA CORPORATION

GOAL: Improve efficiency of Maintenance Work by Advance arrangement & Unitization Reduce procurement work, Measures not to reduce skilled workers at site

PRODUCT NAME: Automatic Butterfly VALVE WITH CONTROL Function (Wafer Type)

SPEC.: JIS16K-50A, 65A, 80A, JIS 10K-100A, 150A, 450A

Features: 1 VALVES & CYLINDERs are made in Korea or Taiwan with proven records for steelmaking.

- 2 Control systems such as Solenoid valves with bypass function are made in Japan.
- 3 Auto Valves and control products are quality guaranteed by each manufacturer.
- 4 Delivery is made after checking that there are no leaks in the connections after the entire assembly.



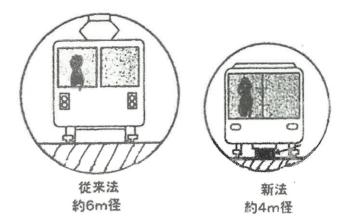
150A Butterfly Valve (before shipping)

### **Examples of Explosive Clad Material applications**

#### 1. Cu/SS, AL/SS Clad

In conventional subways, trains draw electricity from pantographs on the roof, but on the O-edo Line, Cu Clad or Al Clad is placed between the tracks to draw electricity from the floor of the train.

This method significantly reduces the crosssectional are of the tunnel to less than half, and the cost of subway construction can be significantly reduced.



The black part between the tracks is Cu/SS Clad

#### 2. AI/Ti/Ni/SUS Clad

Ships used to transport LNG are equipped with Al tanks, which are welded to the structural carbon steel of the hull, because direct welding is not possible to secure the tanks, the Al tanks are connected to the hull with a four-layer composite material of Al/Ti/Ni/SUS.

#### 3. SUS/SS Clad

To reduce the material costs of large SUS tanks, there are large composite pressure vessels in which only the inside of the tank, which requires heat and corrosion resistance, is made of SUS, and the outside is made of inexpensive carbon steel.



LNG Ship (MHI Technical Report )



Large pressure vessel



SUS/SS Clad (3+82)x2500 x12000mm

### **SANWA MASSO ROSIN**

① Characteristic: Usually in Vietnam GUM rosin is made by Cambodian pine resin which is cheap price and low performance.

To improve performance of GUM ROSIN, we changed raw material To Taiwan red pine resin, which is mainly used in China Gum Rosin.

2 Function:

Adhesive, Interface Activation, --- Dispersion & Emulsification Emulsifier for Rubber Polymerization, Hydrophobic

3 Use :

Papermaking Chemicals, --- Sizing Agent, Coating Agent, Paper Strength Agent, Printing Ink, Adhesive, Synthetic Rubber, Paint

4 Manufacturing Plant : Founded in VINH CITY at 1994. Employees is 250.

Annual Output is 2,000-3,000Ton per one year.

(5) Sole Agent Contract: Photo, 1: Raw material is Taiwan red pine resin

6 Products Appearance: Photo.2.: Yellowish brown transparent body

#### 独占販売製約書

SOLE-AGENT CONTRACT

MAKER: VINHCONSHIP GROUP, VIETNAM BAYER: SANWA CORPORATION, JAPAN

SCOPE : All Grade of GUM ROSIN, made by Massoniana
 in the world.

Usually VIETNAM GUM ROSIN is made by Merkusii

2. PRODUCTS NAME : (1) SANWA MASSO ROSIN

2

3. VALID PERIOD:

From 20 MAY 2020 to 19 MAY 2021.

If there was no objection to each other, continues automatically

20 MAY, 2020

MAKER

NAME: VINHCONSHIP GROUP
ADDRESS: 249,1E DUAN ROAD, VINH CITY
ON NGHE AN PRO. SR VIET NAM

PRESIDENT

Tổng giản đóc Nguyễn Đuỷ Ky

BAYER

NAME: SANWA CORPORATION ADDRESS: 3-2 KOONAN 5-CHOME

NAKA-KU. HIROSHIMA. PRESIDENT : TORU KAWAUCHI

Toru Kawanchi



(Photo. 2) SANWA Masso Rosin

← (Photo, 1) Masso Rosin to the world



# **Materials Properties**

-,	1	tem	Standard Value	Method
1	Appearance		Transparent Solid	Standard grass color piece rosin
2	Color		Pale yellow	Standard grass color piece rosin
2	Softening	100%MASSO	Min69°C	Ring and ball method
3	Point	WW-Gr	Min76℃	Nitigi and pair illetitou
A	Apid Volus	100%MASSO	Min161	Volumetric method
4	Acid Value	WW-GR	Min166	Volumente menioa
5	Alcohol inso	hol insoluble Max 0.03%		Gravimetric method
J	Substance (%)		WIGA 0.0070	Midamiotrio motriod
6	Unsaponifiable matter (%)		Max 5%	Gravimetric method
7	Ash (%)		Max 0.02%	Gravimetric method

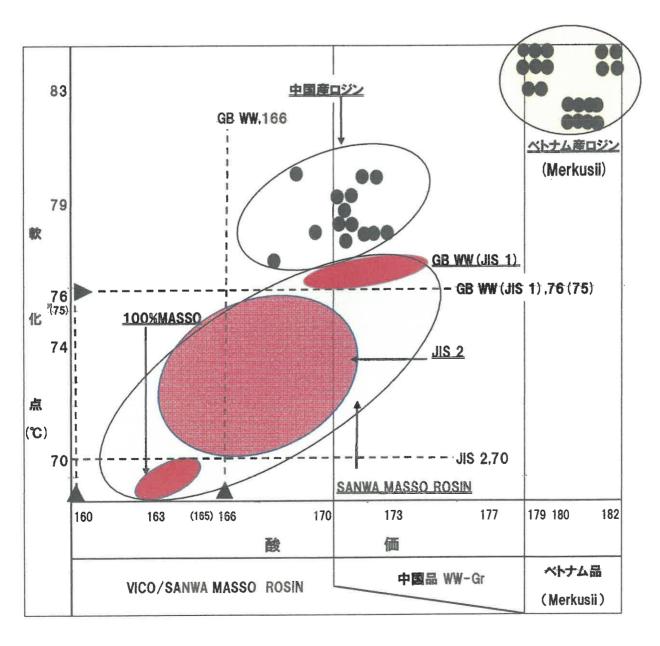


Fig. Acid Value and Softening Point

### SANWA THINNER (From 2010)

	Product Name	Main Components	Uses • Features	OEM		
	SANWA CLEAN N	Ethanol + Methanol + Normal propyl alcohol	Under the jurisdiction of METI, MHLW Non-applicable product for PRTR, Ordinance on Prevention of Organic Solvent Poisoning, and of Hazards Due to Specified Chemical Substances Not-including Class 1 and 2 Low irritation and high cleaning power Exhaust blower filter	D Co.		
For Cleaning Steel	SANWA CLEAN A-2	MCH + Diacetone alcohol + Others	Under the jurisdiction of METI, MHLW Non-applicable product for PRTR, Ordinance on Prevention of Organic Solvent Poisoning, and of Hazards Due to Specified Chemical Substances Not-including Class 1 and 2 Low-odor product For removing antirust oil and machine oil Iron and Steel machinery, Compressor Assembly			
	SANWA CLEAN A	Dimethyl carbonate + MCH + Others	Under the jurisdiction of METI, MHLW Non-applicable product for PRTR, Ordinance on Prevention of Organic Solvent Poisoning, and of Hazards Due to Specified Chemical Substances Not-including Class1 and 2 For Cleaning piping jig in painting factories.	D Co.		

#### **Special Notes**

- (1) As non-applicable product, MCH and Normal propyl alcohol are used.
- (2) SANWA Clean A-2 does not fall under the Ordinance on Prevention of Organic Solvent Poisoning in the Industrial Safety and Health Law.
  - There is no control concentration (ppm) set for exposure prevention and protective measures. In the workplace, work related to working environment measurement is reduced.
- (3) As the product does not fall PRTR Law under the jurisdiction of METI, there is no obligation to ascertain the amount when it is discharged or transferred, and to report it to the government.

#### Other Products: For cleaning rubber and glass parts, For General Dilution

For	SANWA THINNNER MK-A SANWA THINNNER	MCH + IPA + Others MEK + PGM +	For cleaning rubber parts	D Co.
Cleaning	M-PG	Others		<b>J</b> 0.
	SANWA Lacquer Thinner T	Toluene + Xylene + PMA-P + Others	For cleaning glass parts	T Co.
	SANWA THINNER # 10 For lacquer	Toluene + Methanol + Others		
For General	SANWA THINNER For epoxy	Toluene + Xylene + Others	General Paint Factories	D
Dilution -	SANWA THINNER For chlorinated rubber	Xylene + Solvess + Others	deliciai i allit i actorico	Co.
	SANWA THINNER For urethane	Toluene + Xylene + Others		

#### Notes:

- 1 )Upon request, we can adjust the ingredients to create a standard product just for your company.
- 2) If the order is less than 20 cans, we will charge the actual cost.

# Comparison table of cleaning solvent properties

	Solvent name	Halog	enated hydrod	carbons	Water Alcohol		Hydrocarb	ons
		Fluorocarbons (CFC-113) CCI2F-CCIF2	1,1,1- Trichloroethane	Dichloromethane (MDC) -CH2CI2-	Isopropanol (IPA) (CH3)CHOH	NS Clean 200	NMP 1-Methyl 2- Pyrrolidone	TAIYOSOL M
	Specific gravity	1.567	1.333	1.326	0.786	0.745	1.027	0.799
	Molecular weight	187.38	133.41	84.9	60.1	_	99.14	produ
	Boiling point (°C)	47.6	74.1	39.8	82.4	191~207	204	215~260
Ba s c	Melting point(°C)	-35	-32.6	-95.1	-89.5	-22.5	-23	Below 0°C (solid at room temperature)
P h y	Viscosity (20°C) (cp)	0.701	0.774	0.441	2.39	1.66	1.65	3.3
8	Surface tension (20°C) (dyne/cm)	18	25.56	28.2	_	24.9	41	24.6
a l	Specific heat (20°C) (cal/g°C)	0.213	0.255	0.28	0.61	0.52	0.04	cum
Pr o p	Latent hear of vaporization (boiling point) (cal/g)	35.07	53.8	78.7	163	-	105	
e r t	Evaporation pressure (20°C) (mmHg)	272	100	349	32.4	-	0.3	
S	Solubility in water (g/100g-water)	0.017	0.44	1.4	œ	شت	0	Slightly soluble
	KB value	31	120	136	-	_	Over 200	Atten
	SP value		8.5	wish	_	7.8	***	_
	Flash point (°C)	None	None	None	12~21	70	95	86
	Ignition point (°C)	_	40040	662	620	_	346	-
	Combustion concentration range (%)	1600	_	13~22	2.0~12	0.7~5.5	0.9~3.9	_
	Allowable concentration (ppm)	500	200	100	400	_	~	1000
S	Fire Service Act (MIC)	N/A	N/A	N/A	Class 4 Alcohols	Class 4 Petroleum No.3	Class 4 Petroleum No.3	Class 4 Petroleum No.3
f e	Designated quantity	-	****	_	400L	2,000L	4,000L	2,000L
t y	Ordinance for the prevention of organic solvent poisoning (MHLW)	N/A	Class 2 Organic	Class 2 Organic solvent	Class 2 Organic solvent	N/A	N/A	N/A
	PRTR Law (METI)	Class 1 Designated chemical substances	Class 1 Designated chemical substances	Class 1 Designated chemical substances	N/A	N/A	-	N/A

(Date: H27.07.06)

### Comparison chart of Volatile Organic Compounds countermeasure equipment

R07.1.30

			R07.1.30
	Proposed method	Improved method	Conventional method
	Rotary type	Activated Carbon	Activated Carbon
	Heat storage combustion method	Fluidized bed type	Fixed bed type
	(Company KON) 600N mi/min	(Company KURE) 900N m/min	
	-Uses ceramic honeycomb	·High-strength spherical	•Gas passages are unevenly
	*Produces carbon dioxide and	activated carbon that is	distributed, limited the surface
	water through adsorption,	difficult to crush is used while	area of the activated carbon
	separation(180°C) and oxidative	stirring, increasing the amount	that can be effectively used to
	decomposition(750°C).	of activated carbon used for	adsorb VOCs.
	-Requires preheating with LPD	VOC adsorption.	•The activated carbon is weak
	for about 100 minutes.	Recovered solvent	and when stirred it breaks
Features	Energy-saving by effectively	10kg/Hr	down, causing poor
	utilizing the exidation heat of	-Nitrogen circulation type 0.7	breathability.
	exhaust gas during operation.	m³/Hr	-A large-scale investment is
	Operating temperature :	•Treatment for recovered	required for water treatment
	800−950°C	solvent becomes a new issue	facilities, and if the solvent is
		in industrial waste treatment.	to be recovered, this poses
			new industrial waste treatment
			issues.
Initial cost	Unit: 85 million yen	Unit: 100 million yen	Unit: 70 million yen
Main equipment	No water treatment facilities	No water treatment facilities	(Water treatment facilities:
cost	required	required	100 million yen)
	12.5 million yen (5 years)	6 million yen (5 years)	17 million yen (5 years) twice
		Activated carbon:	a year
D	Fireproofing material / Cylinder	3,900 yen /kg	51 million yen (5 years)
Running cost		(Recycled product:	Six times a year
Consumables		2,800 yen)	(28 cartridges for 6 million yen
			twice a year)
			Activated carbon: 300 yen /kg
Total cost over	97.5 million yen (81)	106 million yen (88)	87 million /121 million yen
5 years			(100)
		9L x 6W x 6.5mH	
Equipment	16L x 6W x 6.7mH	0 = 1 0 1	
Equipment dimensions	16L x 6W x 6.7mH 24ton	25ton	

(Date: 1.30, 2025)

The end

### **VOC Control Device**

R05-7-04

Type	Character
Rotary Accumulate	1. Honeycomb Ceramics—big surface porous area, heat resistance and chemical
<b>Burning Type</b>	stability will be used effectively for Adsorption VOC and Accumulate energy character.
	2. Adsorption of Volatile Organic Compounds (VOC) gas at room Temp~Vaporization at 180°C.
	~Burning Separate to CO2 & H2O, at 800-950℃ and Accumulate.
* Draw.	3. At the start up of operation, you have to use Gas Burner about 100minutes,
	and almost of operation term you can stop burner, because of Burning Energy
	can reuse for Vaporization by Accumulate character.
Active Carbon	1. High strength granular Active Carbon can use in fluidized condition.
(Fluidized Bed)	This means almost surface area of carbon can use effectively.
	2. Solvent will recovered 10kg/Hr .in the case of 900N m³/min.
	3. How to handle Recovered Solvent is another new problem.
	4. Granular Active Carbon is made by KUREHA's Patent.
	1. VOC gas will pass easy route in Carbon grain mass. This means a little surface of
Active Carbon	Active Carbon grain is effective and almost is ineffective.
(Fixed Bed)	2. Usual Active Carbon will be smashed easily, so that can't use in Fluidized
	Condition.
	3. It needs big type of a Drainage Disposal Equipment, very expansive.

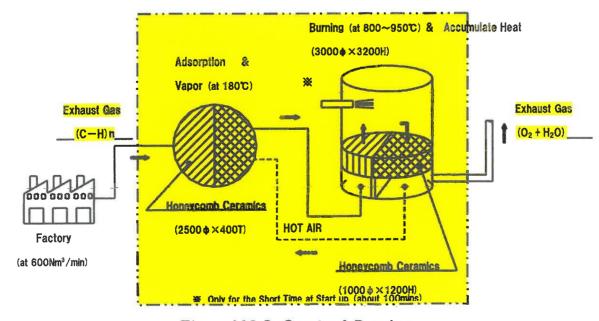


Fig. VOC Control Device

### Main Customers

CHUGOKU MARINE PAINTS, LTD.

OHTAKE-MEISHIN CHEMICAL, Co., Ltd.

KOBE PAINTS, LTD.

**MHI Commercial Aviation Systems** 

NIDEC MACHINE TOOL CORPORATION

Mitsubishi Heavy Industries, Ltd. (Shimonoseki)

Primetals Technologies Japan, LTD.

MHI Compressor, LTD.

MHI Machinery Technology corporation

MHI Machinery Systems, Ltd.

MHI Plant corporation

Sumitomo Heavy Industries Material Handling Systems Co., Ltd UBE FILM, LTD.

The Japan Steel Works, Ltd.

Nikko Techno Corporation

Nippon Paper Industries Co., Ltd.

**UBE MACHINERY CORPORATION. LTD.** 

Teral Inc.

IHI Transport Machinery Co., Ltd.

Nippon Steel Corporation

Kobe Steel, Ltd.

OJI ENGINEERING CO., LTD.

JFE Shoii Corporation

POSCO Steel Co. (Korea)

JSW Steel Ltd. (India)

Toyo Kohan Co., Ltd.

Mazda Motor Corporation (Technical Research Institute)

Satake Corporation

Kobelco Construction Machinery Co., Ltd.

ShinMaywa Industries, Ltd.

Chugoku Kogyo Co., Ltd.

Hokoku Kogyo Co., Ltd.

ITOCHU ENEX Co., Ltd.

Aoi Chemical Inc.

SANKO Co., Ltd.

Itoh Oil Chemicals Co., Ltd.

SHINKAWA Sensor Technology, Inc.

The Honio Chemical Corporation

Hiroshima City

Miyako Kagaku Co., Ltd.

Toda Kogyo CORP.

Tosoh Corporation.

The Chugoku Electric Manufacturing Company, Incorporated

Molten Corporation

Resonac Corporation

Yasuhara Chemical Co., Ltd.

The Sailor Pen Co., Ltd.

**Tokuvama Corporation** 

Nishikawa Rubber Co., Ltd.

SPINGLE COMPANY

Sanwa Shutter Corporation

Seven Rivers Co., Ltd.

Daiki Axis CO., LTD.

Nippon Paint Co., Ltd.

CHUGOKU KOGYO CO., LTD.

WOOD ONE Co., Ltd.

J-POWER Generation Service Co., Ltd.

Japan Marine United Corporation

MAZDA Ace Co., Ltd.

KANEKA CORPORATION

TOHO CO., LTD.

Tsukuba Chemical Co., LTD

Archem Inc.

JGSDF Camp Yonago

Wakunaga Pharmaceutical Co., Ltd.

Kumagai Gumi Co., Ltd.

TODA CORPORATION

KASHIWABARA CORPORATION

Hiroshima Rapid Transit Co., Ltd.

**Token Corporation** 

Nagasaki Inc.

P.S. Mitsubishi Construction Co., Ltd.

HIROSHIMA GAS Co., Ltd.

HIROSHIMA GAS PROPANE Co., Ltd.

**Okumura Corporation** 

PENTA-OCEAN Dredging Co., Ltd.

PENTA-OCEAN Construction Co., Ltd.

MEISEI INDUSTRIAL CO., LTD.

### Main Supplier

Mitsubishi Corporation

Mitsubishi Shoji Chemical Corporation

Chugoku Marine Paints, Ltd. Mitsubishi Chemical Corporation

**ENEOS Corporation** 

Mitsubishi Gas Chemical Company, Inc.

Japan Pail Corporation Idemitsu Kosan Co., Ltd.

Shin-Etsu Chemical Co., Ltd.

**GUNZE LIMITED** Mitsui & Co., Ltd.

Mitsui Chemicals, Inc. Asahi Rokazai Co., Ltd.

Toda Kogyo Corp. **ADEKA Corporation DIC Corporation** 

Harima Chemicals, Inc.

ITOH OIL CHEMICALS Co., Ltd.

Dainichiseika Color & Chemicals Mfg. Co., Ltd. NARA Co., Ltd. (Korea)

Osaka Organic Chemical Industry Ltd.

Asahi Fiber Glass Co., Ltd. Honio Chemical Corporation.

JFE Container Co., Ltd. Nitto Funka Kogyo K.K. **Tokuvama Corporation** 

Nitinen Co., Ltd.

**Tosoh Corporation** 

**AQUAS CORPORATION** 

Japan Polyethylene Corporation Japan chemical research Co., Ltd.

CEMEDINE CO., LTD.

DAISHIN CHEMICAL CO., LTD.

Godo Co., Ltd.

Taiyo Solvent Co., Ltd. Nihon Matai Co., Ltd.

Sumitomo Corporation Europe Limited Milan Office

Honshu Seikan Co., Ltd.

Japan Alcohol Trading Co., Ltd.

Taiyo, Ltd.

Daikin Hydraulic Engineering Co., Ltd.

Daikin Lubrication Products & Engineering Co., Ltd.

Daikin Applied Systems Co., Ltd.

Taivo Engineering Co., Ltd.

Henkel Japan Ltd., Tokyo

Kuroki Kogyosho

HILTEC Ltd.

**Kubota Corporation** Nissei Corporation Taivo Koki Co., Ltd.

TLV Co., Ltd.

MARUMA TECHNICA CO., LTD.

Dalian Machine Tool (China)

Dalian JINZHOU Heavy Mach. (China)

Dalian Explosive Working Research Institute (China)

Dalian Heavy Machinery Plant. (China)

CYSCO Co., Ltd. (Korea)

WOOSUNG VALVE Co., Ltd.(Korea) DAEHEUNG COOLER Co., Ltd. (Korea) SUNG- IL VALVE Ind. Co. Ltd. (Korea)

**JUFAN INDUSTRIAL (TAIWAN)** 

VICOSHIP(VIETNAM)

YUXING PIGMENT(YIXING) CO., LTD

Euro System International Ltd.

Wuzhou Sun Shine Forestry&Chemicals Co., Ltd. Of Guangxi Qingdao Double-Peach Specialty Chemicals (Group) Co., Itd

Dalian CMEI Co. (China) ABC Trading Co., Ltd.

Kyushu Toryo Kogyo Co., Ltd. Nihon Tokushu Toryo Co., Ltd.

Kikusui Chemical Industries Co., Ltd.

Mizutani Paint Co., Ltd. Sanstar Engineering Inc.

Konishi Co., Ltd. SK Kaken Co., Ltd.

Ohtsuka Brush Mfg. Co., Ltd.

ARCHITECTURAL YAMADE Corporation

# Supply List for STEEL PLANT

For JSW STEEL (VJNR & Dolvi Plant)
Nippon STEEL (Kure & Kashima)

SANWA CO.

Element	Maker Name	Parts Name	Delivered Quantity
Fluid Control & Pipi	ing Parts		
1 SANWA Auto Valve with	SANWA CO	Auto Valve JIS10K 150A	
Control Device	SICO (Korea) KONAN	(Attached photo)	1 Pce
2.Distribution Valve		Distribution Valve	1.012 Pcs
Z,DISTRIBUTION VAIVE		Distribution Valve Cap	4.000 Pcs
		Chain Automatic Lubrication	3 Pcs
3.AUTO Chain Lubrication	DAIKIN	Air Driven pump	1 Pce
		Rotational Fifting	8 Pcs
4. Rotational Fitting		Chain Automatic Lub Push Gun	3Pcs
		Grease Nipple	50Pcs
5. One Point Lubrication		PISTON PUMP	1 Pce
6. AIR VALVE	SANWA, Taiwan	One Point Lubrication Heat resistance 150°C type	280 Pc
O. PHIL TRACE		Solenoid Valve	79 Pc:
2 Bullouth, Volum		Air Filter	37 Pc:
7. Butterfly Valve		Regulator	4 Pcs
	KONAN ELECTRIC	lubricator	10 Pc:
		Silencer	42 Pc:
		Flow Control Valve Solenoid Valve for Seal Kit	20 Pc:
	OKM	JIS 10.16K 100A 150A 450A	21Pc
	VENN	Air Vent Valve	15 Pcs
Machine Parts			
1. Hydraulic Cylinder	HARIMA MACHINERY.	Hydraulic Cylinder	120 Pc
g, sayou diameter year	JUFUN MACHINERY,	Seal kit	38 Set
2.Position Clamper	SANYO KOGYO CO.	BREAKE PAD KIT	251 Set
S. Common Classification		Hydraulic Position Clamper	36 Pcs
3.Couplling			
2,00cpiiii g	Hillyard	Control Panel for DC AREA	2 Pcs
4 PUMP	YOKOHAMA RUBBER	Sealing coupling	50 Pcs
4.FOMF	NARA	Gear Coupling	1 Pce
5.Brake	HONDA KIKO CO. KUBOTA	Pump Parts BOOSTER PUMP SLEEVE	133 Pcs 2 Pcs
J.Drake	FAWICK	Air Brake Panel	2 PCS
6.Bearing	KOYO	Bearing	16 Pcs
Measuring & Instru			3.5.1.
ricusui niy & Hisif ui	TOMOE VALVE CO.	POSITIONER	1 Pce
1 DOCETIONED	KAWAKI	FLOW SWITCH	7 Pcs
1.POSITIONER		FLOW SIGHT	10 Pcs
eriou doir	TOKYO RYUKI KOGYO	Liquid Detector	Z Pcs
2.FLOW SIGHT	SANWA CO, Chaina	INDICATOR XK3101	15 Pcs
3.INDICATOR	KYOWA	Transducer	2 Pcs
	NAGANO KEIKI	Transmitter	16 CPs
4.Transducer	FUJI ELECTRIC	CIRCUIT	60 Pcs
		AC CONTACTOR	2 Pcs
5 ELECTRIC PARTS	YAMARI INDUSTRIES	LIMIT SWITCH	4 Pcs

# Import/Export Record (From 1993)

Category	Customer Name	Details
Category		Construction Machinery Parts FC200 200kg/Pre Total 40Ton, 200Prs
Cast iron products	三菱農機 MHI/Hiroshima Toyo Advanced Technologies	Machinery Parts FC250, 300 Total 43Ton, 800Pcs
大連機床	SHINKO IND.	Pump Parts FC200 Total 27Ton, 600Pcs
	Mil/Millara	Paper Machinery Parts FC200 Finished Products 1Ton
Cast steel products 大連重工	MH1/Mihara	Steel-making Machinery Parts SC450 Total 633Ton, 300Pcs
	MHI/Takasago	Turbine High-pressure casings SCPH2, 11 1~7Ton/Pce Total 45Ton, 14SET
	MHI/Nagasaki	Industrial Machinery Parts SC410 Total 45Ton, 30Pcs
	TERAL INC.	Pump Casings Finishing Products SCS13 Total 8Ton, 242Pcs
	Shin Nippon Machinery	Bearing Covers Finishing Products SCPH2 Total 4Ton, 104Pcs
Forged products	MHI/Shimonoseki - Mihara JSW	Shafts, etc. SCM435, SCM440, S43C Total 4Ton Shaft finishing products S45C 1Ton
Explosive materials	Mil/Wihara	Conductive materials for Linear Motors Cu/SS CLAD Total 860Ton, 2800Pcs
	MHI/Nagasaki - Shimonoseki	Mooring hardware for LNG ships and Aluminum ships 5-layer clad welded joints AL/AL/Ti/Ni/SUS Total 3Ton
大連造船 爆着研究所	DAIDO METAL	For Diesel Parts Sliding Materials AL/SS CLAD Total 3.5Ton, Cu/SS CLAD 1 Ton
Accombiled and	MHI/Hiroshima	Tire machinery parts Total 20Ton 69 units
Assembled and canned	MHI/Hiroshima	Tank for oil cooler Thin plate cans SS400 Total 7Ton, 134SET Hanging fittings Cans SS400 Total 22Ton
products	MHI/Hiroshima	SUS double-type oil filter(API Compliant) 1SET
大連重工	Large cans and structures	-Pulley iron core SS400, S25C, S35C Total 30Ton Bags, hanging frames, tilting trays, etc. SS400 40Ton Conveyor rack SS400 Total 120Ton
金州重型	MH1/Shimonoseki	Marine auxiliary equipment Total 80Ton 20SET
Pressure	Chugoku Kogyo JS <b>V</b>	LPG tank Total 21Ton, 21SET SUS POT, HEAT EXCHANGER, SNUBBER etc. Total 19.4ton
vessels 金州重型 DAEHEUNG	Hazardous Containers	IBC tank SUS304 2SET 1Ton
	MHI/Mihara – Takasago	Condensers, Heat exchangers, etc. SS400 Total 63Ton 4SET
	MHI/Hiroshima	RUN DOWN TANK for ethylene plant oil supply equipment SUS304 Design included Total 3SET 6TON
	Korean Products	Check valve SUS 4, 990PCS 10, 750kg Ball valve SUS 2, 880PCS 29, 660kg
Equipment and	Nippon Steel/Kure	Oil/Pneumatic cylinder φ250×812st etc. Total 79 units 7.9ton
parts	Nippon Paper	Hydraulic cylinder φ200×600st etc. 6 units 380kg
	Kobe Steel/Chofu	Solenoid-valve 6 units 30kg
SICO	India/JSW Iron works	Valve/Pump machinery parts About 19,000kg
JUFAN Konan	Korea/POSCO Iron works	Backup rolls, Reducers, DAIKIN Hydraulic equipment, TOMOE Valves, etc. 10Ton
SANYO DLP	Korea/SEWON	Hydraulic valves (High pressure stop valves, etc.) 25 units Total 210kg
	SHIMHS - Nippon Steel	One-point lube 260 units
	MAZDA – UBE Machinery and more	Oil contamination checker
Chemical products 日成・VICO	Italy China Korea Taiwan Japan Vietnam	Iron oxide pigment 1,071Ton. Ethyl silicate 8ton. Rosin from China 228Ton. Algae prevention material 13.7ton. Vitamins 6 kg. Synthetic auxiliary agent 576ton. Cardanol 800kg. Rosin from Vietnam 144ton TOTAL 1,018.5Ton

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Machine

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Dept.

kikai@sanwacorp.com

**Transportation** 

About 30 minutes from Hiroshima station by bus (bound for Yoshijima Eigyousho) and 5 minutes walk after getting off at Minamiyoshijima.

About 20 minutes from Hiroshima Station by Taxi Get off at in front of Yoshijima Okunai Pool or the building of "SEINO UNYU"