

# HYGIENIC CUPLA

Easy Wash Type

HACCP  
supporting product



GOOD DESIGN  
AWARD 2016

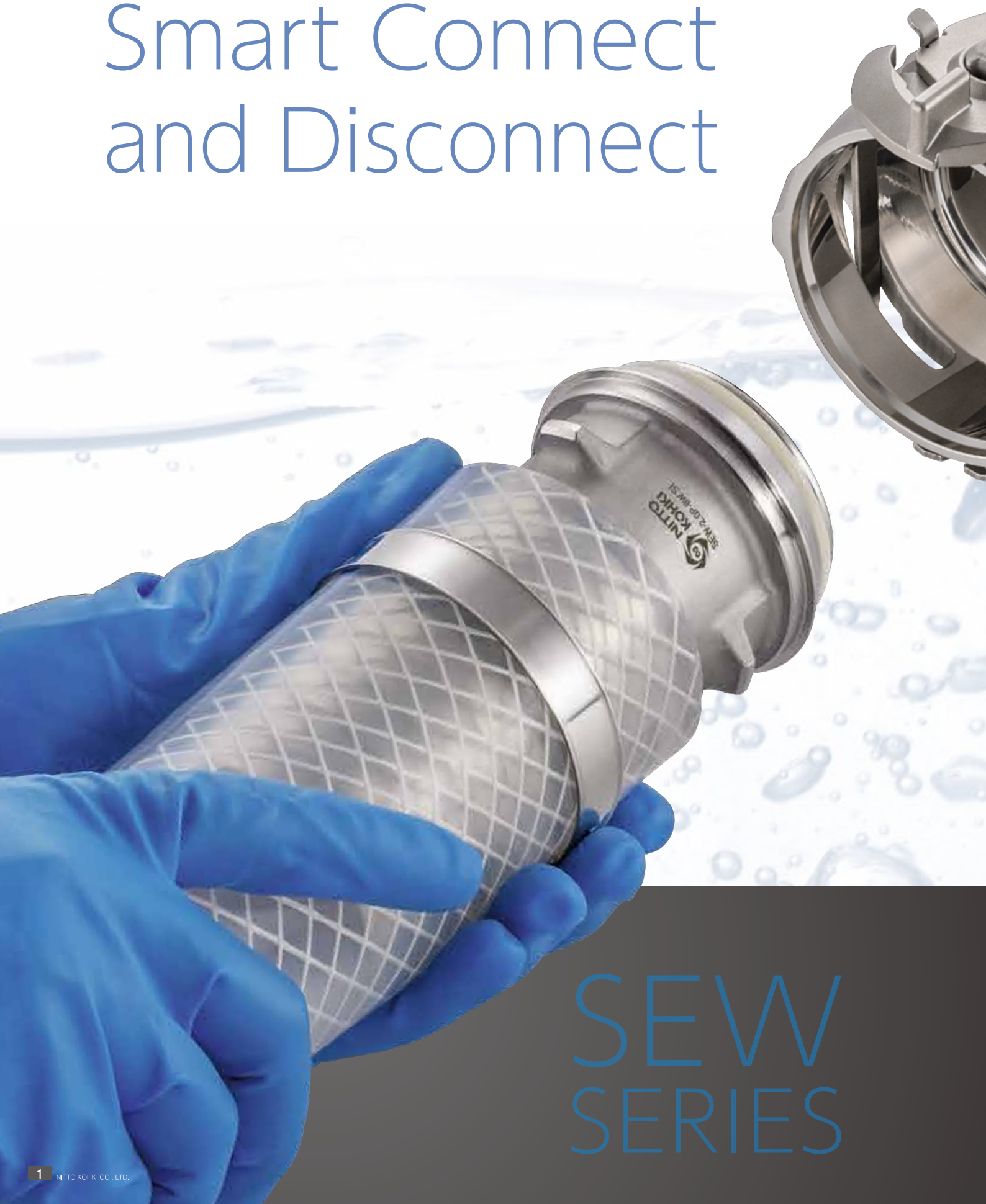
**BEST  
100**



# CUPLA

SEW SERIES

# Smart Connect and Disconnect



SEW  
SERIES





Easy disassembly and cleanability help in hygienic management of HACCP.

**HACCP: Hazard Analysis and Critical Control Point**

HACCP is the management system in which food safety is addressed to the process from production, procurement and handling of raw materials to distribution and consumption of finished products through the analysis and control of biological, chemical and physical hazards.

## Disassembling



## Cleaning



## Quick

Just connect the plug to the socket and twist the "Safety Lock" for connection. Connection by one person is possible.



## Cleaning

No tools are required. All parts can be disassembled quickly. Small number of parts makes cleaning easy.



## Corrosion resistant

Stainless steel (JIS SUS316L equivalent) for the liquid contact parts, buffing (#400) to prevent propagation of various bacteria (electro-plating available on request). Less deterioration due to excellent corrosion-proof material.



## Versatile

There are two types of end configurations. Ferrule shape (ISO 2852 standard) and welding shape (JIS G 3447 standard).



# Effortless operation unique to Cuplas

## Clean manufacturing environment and efficient production



## Safety standards

The seal material conforms to article No. 3-D-3-(1) Rubber utensils (except nursing utensils) or Containers / Packages. It has passed both material and elution tests specified in the Food sanitation Act and the standards for Food and Food additives (Notice No.370 of 1959 issued by the Ministry of Health and Welfare of Japan). Also conforms to standard No. 21 CFR 177.2600 of the US Food and Drug Administration (FDA).



## Construction

No tools are required. Since the O-ring is attached beforehand, it will not drop off during connection like conventional fittings.



## Safety - Safety Lock function -

By rotating the cam handle, the "Safety Lock" is activated, and the O-ring sticks tightly to prevent fluid leakage. Reliable design with no protruding of O-ring into piping.



## Accessories - Dust Cap -

Dust cap for both plug and socket (made of polyethylene). Prevents contamination of foreign matter into piping during separation.



"Hygienic CUPLA" was born to solve the various troubles of ferrule joints at food manufacturing factories, [It takes time to disassemble and clean] [It takes time and effort to assemble piping] [Clamps work loose and leak] [Packing can easily dislodge and become contaminated] [Overtightening the clamp cuts the packing]. Nitto Kohki's "Quick Connect Couplings", which is active in a wide variety of industries, will further expand its field of activity.

## Workability

Effortless operability and safety



### Easy connection

You can connect by just inserting the plug to the socket and twisting the "Safety Lock". Efficient piping is realized with ease and without any special skill.



### Safety Lock function

As a safety measure, the "Safety Lock" feature ensures that there can be no unintentional disconnection of the Cupla. By turning the cam handle, you can maintain the connected state of the socket and plug.



### Speedy disconnection

Disconnection of plug and socket can be done with ease. Can be disconnected by unlocking the "Safety Lock" and turning the cam handle. No special skills required.

## Easy to wash

Easy disassembly and easy cleaning



### Maintenance

No tools are required to disassemble/assemble Hygienic CUPLA. Small number of parts that are easy to handle, aiding efficient maintenance.



### Easy washing of the whole unit

After disassembly, small number of components requires minimum effort when cleaning. No small parts to lose.



### Stringent safety standards are met

The seal material conforms to article No. 3-D-3-(1) Rubber utensils (except nursing utensils) or Containers/Packages. It has passed both material and elution tests specified in the Food sanitation Act and the standards for Food and Food additives (Notice No.370 of 1959 issued by the Ministry of Health and Welfare of Japan). Also conforms to standard No. 21 CFR 177.2600 of the US Food and Drug Administration (FDA). The Dust Cap conforms to No. 3-D-2-(1) and 3-D-2-(2)-4 Apparatus and Containers/Packages. It has passed both material and elution tests specified in the standards for Food and Food additives. (Notice No.201 of revised March 31, 2006 by the Ministry of Health and Welfare of Japan).

## Specifications

Body material	Stainless steel [ SCS16 (JIS SUS316L equivalent) ] *1		
Surface finish of the liquid-contact part	Buff finish #400		
Size of end configurations	Welding type *2		Ferrule type *3
	1.5 S / 2.0 S		
Max. working pressure *4	1.0 MPa, 10 kgf/cm <sup>2</sup> , 10 bar, 145 PSI		
Proof pressure *5	1.5 MPa, 15 kgf/cm <sup>2</sup> , 15 bar, 218 PSI		
Seal material Working temperature range	Seal material *6	Mark	Working temperature range *7
	Silicone rubber	SI	0°C to +110°C
	Fluoro rubber	FKM	0°C to +180°C
	Ethylene propylene rubber	EPDM	0°C to +150°C
O-ring size	1.5 S: P38, 2.0 S: P50 (Dimensions, tolerance: refer to JIS B 2401, Hardness: A70±5)		
Suitability for vacuum *8 (Vacuum pressure: 53 kPa A)	Socket only	Plug only	When connected
	—	—	Operational

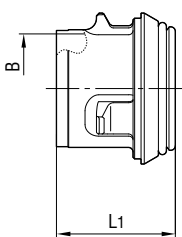
**Note 1:** All metal parts are equivalent to SUS304 except those exposed to liquid contact. / **Note 2:** The dimensions of the weld zone conform to JIS G 3447 stainless steel sanitary pipe. / **Note 3:** Please use ferrule couplings conforming to IDF / ISO 2852. / **Note 4:** The normal allowable fluid pressure under continuous use. May cause leakage or damage if repeatedly used exceeding this pressure. / **Note 5:** The maximum pressure, up to which the performance of the cupla will not be affected - even if the max working pressure is temporarily exceeded. / **Note 6:** The seal material conforms to article No.3-D-3-(1) Rubber utensils (except nursing utensils) or Containers / Packages. It has passed both material and elution tests specified in the Food sanitation Act and the standards for Food and Food additives (Notice No.370 of 1959 issued by the Ministry of Health and Welfare of Japan). Conforms to standard No.21CFR 177.2600 of the US Food and Drug Administration (FDA). / **Note 7:** Working temperature range that the Cupla can be used differs depending on the operating conditions. / **Note 8:** Vacuum performance may vary depending upon working environment and usage conditions.

## Models and Dimensions

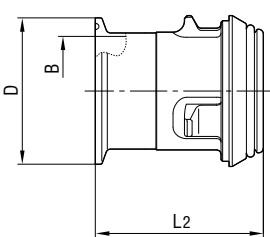
Plug

SEW-1.5P Type / SEW-2.0P Type

Welding type



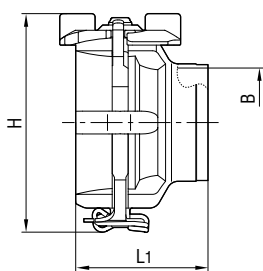
Ferrule type



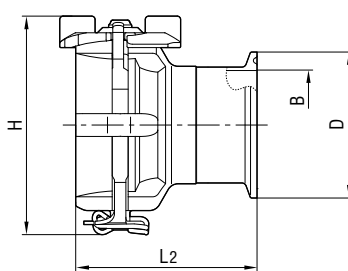
Socket

SEW-1.5S Type / SEW-2.0S Type

Welding type



Ferrule type



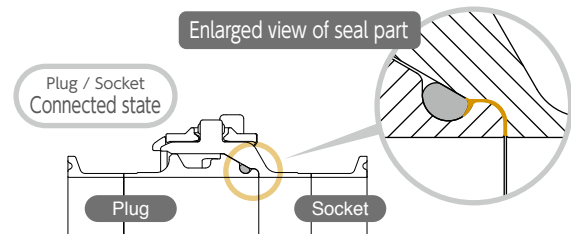
Model	Application	Mass (g)	Dimensions (mm)			
			L1	L2	øD	øB
SEW-1.5P-BW *1	Welding type	179	52	—	—	35.7
SEW-1.5P-FR *1	Ferrule type	224	—	(73.5)	50.5	35.7
SEW-2.0P-BW *1	Welding type	231	52	—	—	47.8
SEW-2.0P-FR *1	Ferrule type	301	—	(73.5)	64	47.8

Model	Application	Mass (g)	Dimensions (mm)				
			L1	L2	øD	H	øB
SEW-1.5S-BW	Welding type	364	58	—	—	(84)	35.7
SEW-1.5S-FR	Ferrule type	407	—	(79.5)	50.5	(84)	35.7
SEW-2.0S-BW	Welding type	455	58	—	—	(94)	47.8
SEW-2.0S-FR	Ferrule type	526	—	(79.5)	64	(94)	47.8

**Note 1:** A type without seal material is also available. In such case, the model name ends with "-NP". (ex: SEW-2.0P-BW -NP )

## Seal part (cross section)

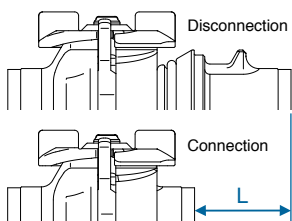
Because of the structure of this product, dead space is generated when using.



## When installing the Cupla on the pipe

Connection and disconnection of socket and plug is enabled by sliding either the socket or plug to the central axis of pipe. When connecting the couplers to the pipe, ensure that there is at least minimum moving distance (L) in the axial direction.

Amount of sliding (L)  
More than 40 mm



## ⚠ Precautions to be taken when using Cuplas

- Any residual fluid remaining in the passage will spill out on disconnection. Drain any residual fluid before disconnection to avoid burns or injury to the skin when dangerous fluid such as chemical agent or high temperature fluid is used. There is a dead space in the Cupla. Be careful that this may lead to the spread of bacteria.
- The Cupla can be easily disassembled for cleaning. The Cupla should be evaluated before use to determine the suitability with regard to sanitation and safety. Especially when using O-rings of other brands than Nitto Kohki, be sure to evaluate the O-ring at your end.
- Do not use the Cupla continuously under any pressure exceeding the rated working pressure. This may cause leakage or damage.
- Use only within range of its rated temperature. May cause damage or deterioration to the sealing and leak if used otherwise. Also, do not use continuously at the lowest or highest working temperature.
- The durability of the Cupla differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
- Connection and disconnection of socket and plug is enabled by sliding either the socket or plug to the central axis of pipe. When connecting the couplers to the pipe, ensure that there is at least minimum moving distance in the axial direction.
- The outer diameter and thickness of the pipe to be welded to the Cupla must conform to JIS G 3447.
- Malfunction caused by welding (directly or otherwise) is not included in the warranty.
- When powder is applied to the Cupla, static electricity may be generated. Please take countermeasure against this if required.
- When the Cupla remains connected for long periods of time, it may become difficult to disassemble. In this case, do not forcefully turn the socket and plug to disconnect as this may damage the seal material and cause leakage.
- The O-ring and Lock plate ASSY are consumable items.
- See the following list as a replacement guide for the Lock plate ASSY.

### Replacement guide

Replacement parts	Connection and disconnection times
Lock plate ASSY	1000 times

- When the Lock plate ASSY is deformed, replace it with a new one regardless of connection/disconnection times.
- The durability of the O-ring differs depending on the operating environment and conditions (pressure and temperature etc.).
- Be sure to read the "Instruction Sheet" that comes with the product before use.





## Quick Connect Couplings

The logo for CUPLA is registered trademark or a trademark of Nitto Kohki Co., Ltd. in Japan, the United States and/or certain other countries.



# NITTO KOHKI CO., LTD.

## Head Office

9-4, Nakaikagami 2-chome, Ohta-ku, Tokyo 146-8555, Japan

Tel : +81-3-3755-1111 Fax : +81-3-3753-8791 E-mail : overseas@nitto-kohki.co.jp

**Web** [www.nitto-kohki.co.jp/e](http://www.nitto-kohki.co.jp/e)

## Overseas Affiliates / Offices

### NITTO KOHKI U.S.A., INC.

46 Chancellor Drive, Roselle, Illinois 60172, U.S.A.

For Cuplas

Tel : +1-630-924-5959 Fax : +1-630-924-1174

For Machine Tools

Tel : +1-630-924-9393 Fax : +1-630-924-0303

[www.nittokohki.com](http://www.nittokohki.com)

### NITTO KOHKI EUROPE GMBH

Gottlieb-Daimler-Str. 10, 71144 Steinenbronn, Germany

Tel : +49-7157-989555-0 Fax : +49-7157-989555-40

[www.nitto-kohki.eu/](http://www.nitto-kohki.eu/)

### NITTO KOHKI EUROPE GMBH UK Branch

Unit A5, Langham Park Industrial Estate, Maple Road,

Castle Donington, Derbyshire DE74 2UT, United Kingdom

Tel : +44-1332-653800 Fax : +44-1332-987273

[www.nitto-kohki.eu/](http://www.nitto-kohki.eu/)

### NITTO KOHKI AUSTRALIA PTY LTD

77 Brandl Street, Eight Mile Plains, Queensland 4113, Australia

Tel : +61-7-3340-4600 Fax : +61-73340-4640

[www.nitto-australia.com.au](http://www.nitto-australia.com.au)

### NITTO KOHKI (SHANGHAI) CO., LTD.

Room1506, Suite C, Orient International Plaza,

No.85 Loushanguan Road, Shanghai 200336, China

Tel : +86-21-6415-3935 Fax : +86-21-6472-6957

[www.nitto-kohki.cn](http://www.nitto-kohki.cn)

### NITTO KOHKI (SHANGHAI) CO., LTD. Shenzhen Branch

2005C Shenzhen ICC Tower, Fuhuananlu 168,

Futian District, Shenzhen, Guangdong 518048, China

Tel : +86-755-8375-2185 Fax : +86-755-8375-2187

[www.nitto-kohki.cn](http://www.nitto-kohki.cn)

### NITTO KOHKI CO., LTD. Singapore Branch

10 Ubi Crescent #01-62, Ubi Techpark Lobby D, Singapore 408564

Tel : +65-6227-5360 Fax : +65-6227-0192

[www.nitto-kohki.co.jp/e/nksb/index.html](http://www.nitto-kohki.co.jp/e/nksb/index.html)

### NITTO KOHKI CO., LTD. Bangkok Representative Office

M&A Business Center, Q-House Convent Bldg.,

38 Convent Rd., Silom, Bangrak, Bangkok 10500, Thailand

Tel : +66-2632-0307 Fax : +66-2632-0308

[www.nittobkk.com](http://www.nittobkk.com)

### NITTO KOHKI CO., LTD. India Liaison Office

3rd Floor, Building No.9-A DLF Cyber City, Phase-III,

Gurgaon, Haryana 122002, India

Tel : +91-124-454-5031 Fax : +65-6227-0192

### NITTO KOHKI CO., LTD. Mexico Representative Office

OF1109 Torre Corporativo 1 Piso 11 Central Park Armando Birlain Shaffler

#2001 Col Centro Sur, Queretaro, Qro, C.P. 76090, Mexico

Tel : +52-442-290-1234



ISO 9001  
JQA-2025  
Couplings Division  
ISO 14001  
JQA-EM4057  
NITTO KOHKI CO., LTD.

## DISTRIBUTED BY



This catalog is printed using environmentally friendly paper and vegetable oil inks.