

CERJET® Spray Nozzles

**Instruction Manual**

Products
----------

JJRP-PVDF
-----------

June 23, 2010

H. Ikeuchi & Co., Ltd.

## 1. Preface

This instruction manual describes the correct usage and maintenance of the CERJET® Spray Nozzle.

Before use, be sure to read this manual thoroughly and follow the instructions to allow the best use of this product.

After reading, keep this manual in a safe, handy place.

For purposes of product improvement, part dimensions or design are subject to change without notice.

Please note that in such cases, the contents of this manual may differ from the product.

## 2. Precautions & Notes

The nozzle is made of PVDF (polyvinylidene fluoride).  
It is fragile and must be handled carefully.

### (1) PVDF

- ① PVDF is not resistant to chemicals such as the following:  
fuming sulfuric acid, acetone, ethyl acetate, DMF (dimethylformamide), ketones, esters, cyclic ethers and amides.
- ② Temperature of liquid to be sprayed and/or ambient temperature must be below 80°C.
- ③ Never use JJRP-PVDF under the conditions where environment temperature is below 0°C because the plastic body may be cracked due to freezing of water inside the nozzle.

### (2) Precautions for nozzle installation

- ① Flush the inside of pipes for removal of foreign particles before installing the nozzle.
- ② Apply sealant on the thread of the nozzle.
- ③ Screw in the nozzle by hand at first (making sure it's screwed in properly), then tighten it with a spanner or torque wrench (Recommended tightening torque: 3-3.5N·m).
- ④ Avoid installing the nozzle at the immediate downstream of a bent pipe or elbow.  
Turbulence may affect the nozzle performance.

### (3) Caution on Operation

- ① After spraying chemicals, clean out the nozzle by spraying clean water.
- ② If the liquid contains particles, use strainers to prevent the nozzles from clogging.

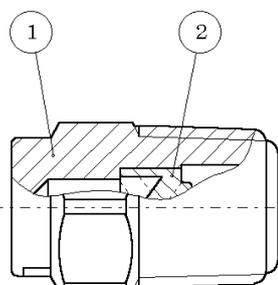
### (4) How to maintain nozzles

- ① Do not damage or scratch the nozzles and never use hard brushes or rigid sharp tools to clean the nozzle orifices.
- ② The nozzle may yield to mechanical shock or force and must be handled gently.
- ③ Recommended liquid pressure is 0.1-0.7MPa.
- ④ Please store the nozzle in a clean storage room which is free from dust.
- ⑤ Be careful not to allow the whirler to come out when spraying air or water from the orifice side to clean the nozzle.

CERJET®

## 3. Component parts

## (1) Assembly



## (2) Components and Materials

No.	Component	Material	Remarks
1	Body	PVDF	
2	Whirler	PVDF	

Appearance and dimensions may slightly differ with nozzle codes.

## 4. Troubleshooting

No.	Trouble	Probable cause	Solution
1	No spray is being created.	Liquid pressure is too low. Nozzle orifice or strainer is clogged.	Raise liquid pressure. Clean them and blow off with compressed air. (Ultrasonic cleaning, Air blowing, etc.) Replace the nozzle.
2	Spray pattern is irregular.	Liquid pressure is too low. Nozzle orifice or strainer is clogged.	Raise liquid pressure. Clean them and blow off with compressed air. (Ultrasonic cleaning, Air blowing, etc.) Replace the nozzle.
3	Spray is straight line stream (no full cone spray).	There is no whirler.	Replace the nozzle.
4	Liquid leaking.	Deterioration of sealant. Nozzle or a part is not firmly screwed in.	Replace sealant. Screw in nozzle and parts firmly.