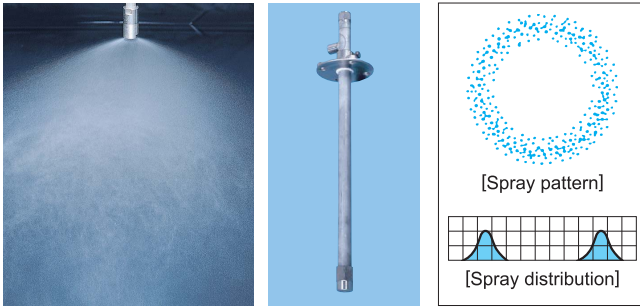
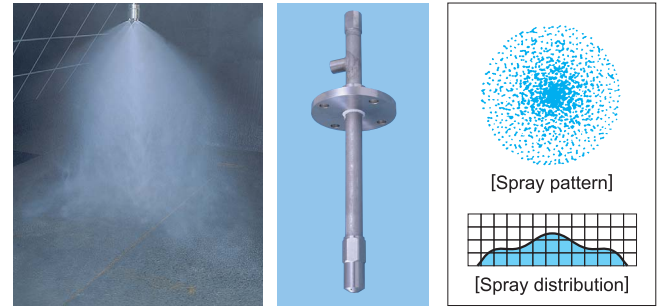


## Single-head SPB-R series



## 4-orifice SPB series



Full Cone

### [Features]

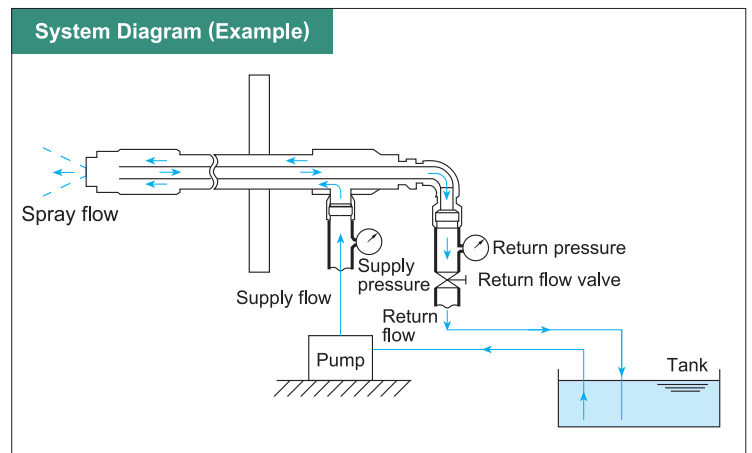
- Variable capacity hollow cone spray nozzle generating fine atomization with uniform spray distribution (single-head).
- Spray capacity can be controlled by only adjusting return pressure while supply pressure is kept constant. Spray capacity is maximized by fully closing the return valve and minimized by fully opening the return valve. The turn-down ratio of spray capacity is 1:10.
- Part of the supplied liquid flows back when the return valve is opened, causing supply flow to increase. The increase of supply flow is within 40% of the maximum spray capacity.
- The variation in spray droplet sizes is minimized despite the modulation of spray flow, SPILLBACK is suitable for evaporative cooling in cooling towers where the inlet gas temperature varies.
- Multiple-head SPILLBACK is suitable for applications which require larger spray capacity and minimal increase in spray droplet size.

### [Standard Pressure]

Supply pressure 2 MPa (Return flow valve: totally closed)

### [Applications]

Cooling: Incinerators, cement factories, glass factories, blast furnaces, iron works  
 Moisture control: Blast furnaces



The following are also available to suit various installations.

L-type (45°) SPILLBACK Nozzles



Flange-mounted Protection Pipe



Pressure-resistant Flexible Hose

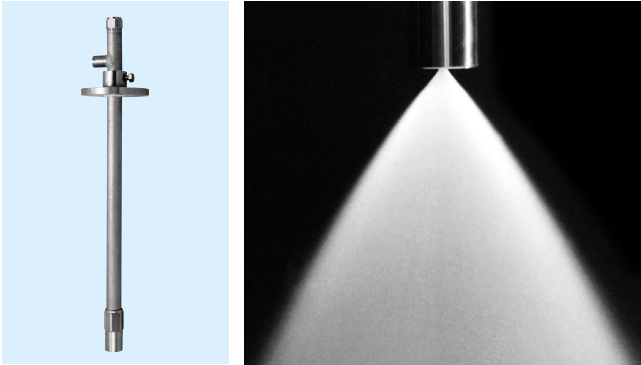


Please contact us for further information.

# SPB series SPILLBACK Nozzle - with Variable Flow

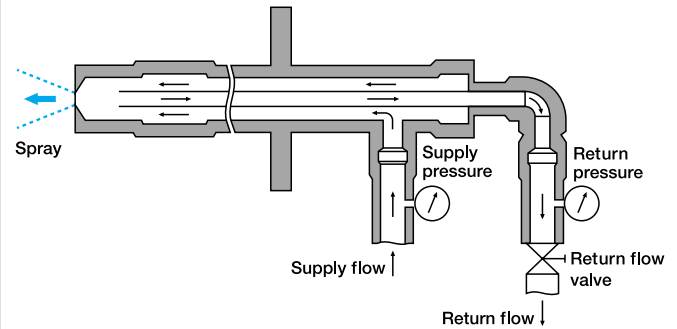
## Raw material / pig iron making process

- Gas cooling in flue gas desulfurization
- Gas cooling in blast furnace (dry dust catcher)
- Moisture conditioning of supply air to blast furnace (water spraying to hot blast stove)

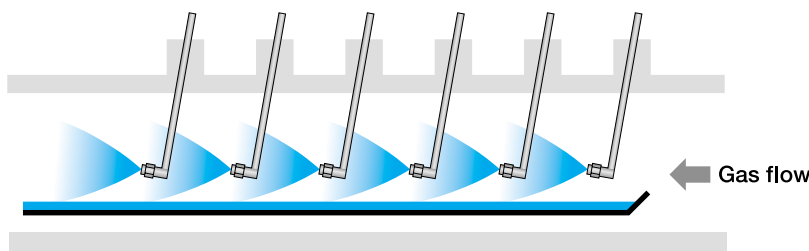


## FEATURES

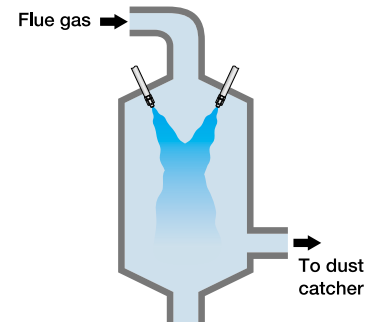
Spray capacity can be controlled by opening/closing the return flow valve while supply pressure is kept constant. Part of the supplied liquid flows back when the return valve is opened, causing supply flow to increase. Featuring minimal variation in spray droplet size with a large turndown ratio of spray capacity (1:10), SPB nozzles are ideal for gas cooling where the inlet gas temperature and gas flow rate varies.



## SPB nozzles used in air inlets of blast furnace



## SPB used in flue gas cooling tower

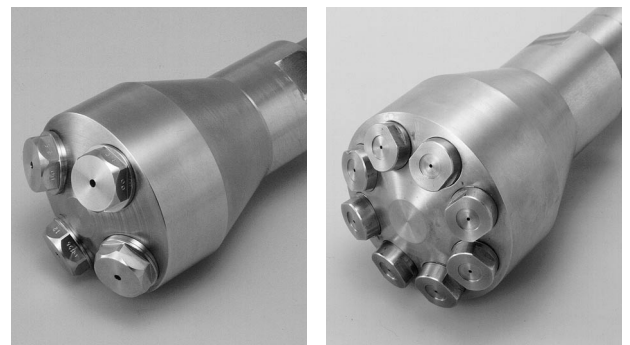


## SPB nozzle selection chart

Series	SPB				4SPB	SPB
	Single-head (standard)		Small size/diameter		4-head, small dia.	4-orifice
Type	60°	85°	60°	85°	100°	115°
Spray angle	60°	85°	60°	85°	100°	115°
Supply pressure (MPa)	2.0	2.0	2.0	2.0	2.0	2.0
Maximum spray capacity (L/min)						
3	6003R		6003S			
4	6004R		6004S		6001S	
5	6005R	8505R	6005S	8505S		
6	6006R		6006S		60015S	
7	6007R		6007S			
8	6008R		6008S		6002S	4-11508
10	6010R	8510R	6010S	8510S	6002SS	4-11510
12	6012R		6012S		6003S	4-11512
14	6014R		6014S			
15		8515R		8515S		
16	6016R		6016S		6004S	4-11516
18	6018R					
20	6020R	8520R		8520S	6005S	
25		8525R				
30		8530R				

## Affiliated SPILLBACK Nozzles for finer atomization

### Affiliated SPB 4-orifice and multiple-head Products series SPILLBACK Nozzles



Nozzles mounted with multiple single-orifice nozzle tips for excellent atomizing performance at the same spray flow.



#### 4-orifice SPILLBACK Nozzle

IKEUCHI original return nozzles spray droplets diameter is 12% smaller than that of standard type with the same outer diameter.

## How to order

Please contact our local sales for details.

Conversion of unit  
 [Pressure] 0.1MPa ≒ 14.50psi [Flow rate] 1ℓ (liter) ≒ 0.264 US gal.  
 10psi ≒ 0.069MPa 1US gal. ≒ 3.79ℓ (liter)