

# TSK-PN Nozzle

## Instruction Manual

### ● Be sure to read before use.

- ◆ Thank you very much for purchasing the TSK-PN nozzle.
- ◆ Please verify that the model and part number on the nameplate match the product you ordered.



The contents of this manual are subject to change without notice.  
Additionally, the illustrations and specifications contained in this manual do not guarantee actual performance.  
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### Precautions for Use

1. When using the TSK-PN nozzle, fully understand the performance of the blower, hot air generator, etc., and carefully consider each component's performance when selecting and using them.
2. Never supply any fluid other than air or steam to the TSK-PN nozzle.
3. The TSK-PN nozzle is a precision product. Impact may cause damage or deformation, so, please handle with care. Also, take sufficient precautions to prevent dropping during transport or installation.
4. When discharging hot air, take sufficient consideration of the surrounding environment and take measure to prevent burns and protect the environment.
5. The TSK-PN nozzle has a heat resistance of approximately 200° C. Supplying air at temperatures higher than this may cause deformation or air leaks due to heat, which could lead to serious accidents.
6. The pressure rating of the TSK-PN nozzle is 49 kPa. Supplying air at a higher pressure may cause rupture or air leakage, potentially leading to serious accidents.
7. The maximum operating air velocity is determined by the TSK-PN nozzle model, slit width, and slit length. Using it at wind speeds exceeding this limit may cause lateral deviation.
8. The TSK-PN nozzle uses an O-ring. Prolonged use at high temperatures may cause accelerated deterioration, the O-ring may deteriorate rapidly, potentially causing air leaks. Therefore, periodically check for air leaks regularly.

# 1. Installation

## ① Secure the TSK-PN nozzle using the mounting bracket.

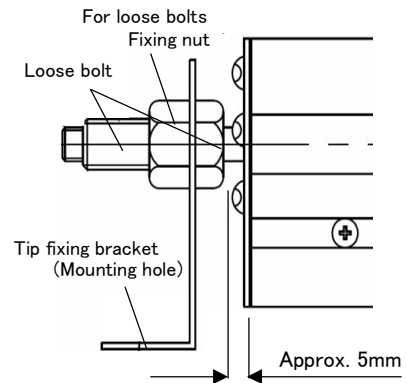
At this time, ensure a gap of at least 5 mm between the loose bolt and the TSK-PN nozzle body.

Secure it using the mounting holes on the tip fixing bracket. (TSK-PN to accommodate thermal expansion and contraction of the nozzle).

※ If air is supplied to the TSK-PN nozzle without ensuring a gap of approximately 5 mm or more, may cause damage to the slit section of the TSK-PN nozzle due to thermal expansion.

※ At shipment, the loose bolt and loose bolt fixing nut are not attached to the tip fixing bracket.

It is secured by tightening. Tighten as necessary.



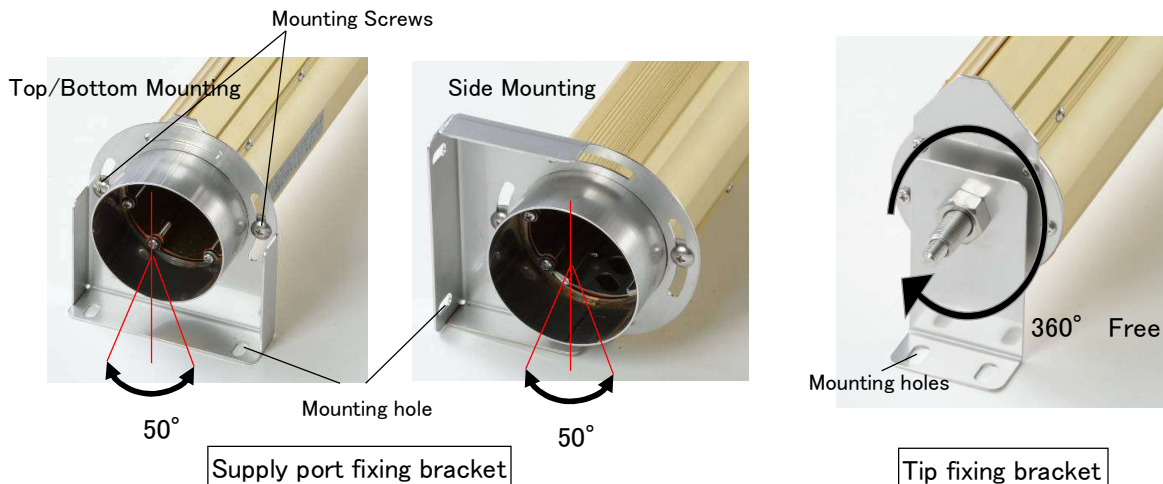
## ② Adjust the slit discharge angle as.

Remove the mounting screws attached to the main unit supply port and attach the included supply port fixing bracket to the supply port.

The supply port fixing bracket can be mounted on the side, top, or bottom, and the slit discharge angle can be adjusted within a 50° range.

After adjusting to the desired slit discharge angle, securely attach the supply port mounting bracket with mounting screws and fix it in place using the mounting holes.

Additionally, the tip mounting bracket is 360° free, so secure it at any desired position using the mounting holes.



# 2. Piping

## ① Connect a flexible hose matching the diameter to the air supply port.

When supplying high-pressure air, be extremely careful when tightening connections as the connecting hose may become dislodged.

Model	50PN (Discontinued)	65PN	75PN
Standard Air Supply Port ※Outer diameter (mm)	Φ 50	Φ 65	Φ 75

Securely fasten with bands, etc.



## 3. Operation

① Supply air, hot air, or steam pressure  $\leq 49$  kPa and temperature  $\leq 200^\circ$  C.

② The maximum operating wind speed is determined by the TSK-PN nozzle model and slit width. This maximum operating wind.

If used at wind speeds exceeding the specified range, accuracy (variation between left and right wind speeds) may not be maintained within  $\pm 5\%$ .

Please note.

Model	50PN (Discontinued)		65PN		75PN	
Slit width	Slit Length	Max operation air speed	Slit Length	Max operation air speed	Slit Length	Max operation air speed
1.0 mm	100-1000 mm	120 m/s	300-1500 mm	100 m/s	500-1500 mm	120 m/s
1.5 mm	100-1000 mm	90 m/s	300-1500 mm	75 m/s	500-1500 mm	90 m/s
2.0 mm	100-1000 mm	60 m/s	300-1500 mm	50 m/s	500-1500 mm	60 m/s

※ The slit width of the TSK-PN nozzle is fixed (the slit width cannot be changed).

## 4. Disassembly and Cleaning

● The TSK-PN nozzle can be disassembled internally for cleaning and maintenance.

① O-rings due to air leakage or deterioration

• Remove the six end-face screws on each end face of the air supply port and tip section, detach each end face, and replace the O-ring.

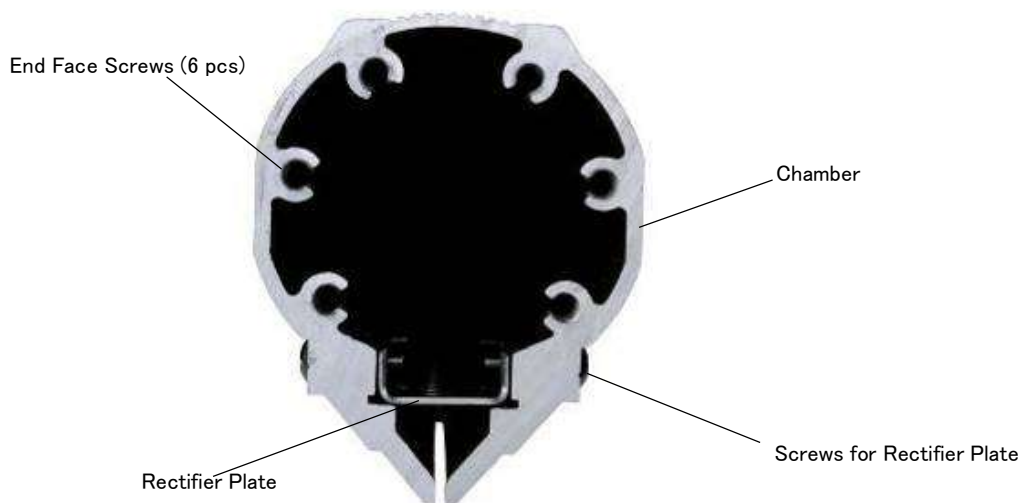
(Please contact us to purchase O-rings. When doing so, provide the model and part number of your TSK-PN nozzle.)

② Dirt inside the TSK-PN nozzle or accumulated foreign matter inside the nozzle.

Remove the six end-face screws at the air supply port and tip end faces, then detach each end face.

Remove all screws for the flow straightener plate on the chamber side and pull the flow straightener plate toward you.

Clean the chamber interior and flow straightener plate with a soft brush or similar tool. If heavily soiled, wash with water.



With all end faces removed

③ After replacement and cleaning, reassemble in reverse order. At this time, please ensure the O-rings for each end face and for the rectifier plate screw.



Manufacturer  
Distributor



**Kansai Electric Heat Co., Ltd.**

Head Office 5-4-18 Takaida Nishi, Higashi-Osaka City, Osaka Zip code:577-8566  
TEL (06) 6785-6001 FAX (06) 6785-6002

Tokyo Branch 2-4-4 Minamikamata, Ota-ku, Tokyo Zip code:144-0035  
TEL (03) 5710-2001 FAX (03) 5710-2005

Website [www.kansaidennetsu.co.jp](http://www.kansaidennetsu.co.jp)