

WORLD BEST FIRE FIGHTING SYSTEM & HEAT EXCHANGER

# PNP PRODUCT & SERVICE

PEOPLE & PEOPLE







# MAJOR CUSTOMERS



<p><b>ASAHI</b></p>	<p><b>HITACHI</b> Inspire the Next</p> <p><b>HITACHI</b> LTD.</p>	<p><b>HITACHI</b> Inspire the Next</p> <p><b>HITACHI SETSBU</b> ENGINEERING CO., LTD.</p>	<p> <b>한화L&amp;C</b></p> <p><b>HANWHA</b> L&amp;C</p>
<p>REACTOR</p>	<p>WATER COOLER , AIR TO AIR COOLER</p>	<p>WATER COOLER, AIR TO AIR COOLER</p>	<p>AIR COOLER, STEAM HEATER, OIL COOLER</p>
<p> <b>현대미포조선</b></p> <p><b>HYUNDAI MIPO</b> DOCKYARD CO., LTD.</p>	<p><b>HYOSUNG</b></p> <p><b>HYOSUNG</b> CO., LTD.</p>	<p> <b>DOOSAN</b></p> <p><b>DOOSAN</b> HEAVY</p>	<p> <b>DOOSAN</b></p> <p><b>DOOSAN</b> MECHATECH</p>
<p>GAS HEATER</p>	<p>WATER COOLER, COOLING UNIT, RADIATOR</p>	<p>HEAT EXCHANGER, GAS HEATER, ENVIRONMENTAL EQUIPMENT</p>	<p>HEAT EXCHANGER, GAS HEATER, ENVIRONMENTAL EQUIPMENT</p>
<p> <b>삼성테크윈</b></p> <p><b>SAMSUNG</b> TECHWIN</p>	<p><b>posco</b></p> <p><b>POSCO</b> (POHANG, KWANGYANG)</p>	<p><b>posco</b></p> <p><b>POSCO</b> E&amp;C</p>	<p><b>POONGSAN</b></p> <p><b>POONGSAN</b> INDUSTRIAL CORP.</p>
<p>GAS HEATER, HEAT EXCHANGER</p>	<p>HEAT EXCHANGER, ECONOMIZER, RECUPERATOR, PLANT ...</p>	<p>HEAT EXCHANGER, ECONOMIZER, RECUPERATOR, PLANT ...</p>	<p>DRYER, HEAT EXCHANGER, OIL COOLER BUNDLE, UNIT HEATER...</p>
<p> <b>SAMSUNG</b> ELECTRO-MECHANICS</p> <p><b>SAMSUNG ELECTRO-</b> <b>MECHANICS</b></p>	<p> <b>stx조선해양</b></p> <p><b>STX SHIPBUILDING</b> CO., LTD.</p>	<p><b>TAIHEI Machinery Works</b> Ltd.</p>	<p><b>ZPSS, QPSS</b> (POSCO, CHINA)</p>
<p>AIR COOLER, HEAT EXCHANGER</p>	<p>GAS HEATER</p>	<p>L-TYPE HEATER, E- TYPE HEATER, FORMING FIN HEATER</p>	<p>OIL COOLANT SYSTEM</p>

○ **SPRINKLER FLEIXIBLE HOSE**  
ORIGIN: KOREA

# PNP FLEXIBLE HOSE

BRAND : PNP F-100

## Sprinkler Flexible Hose

### Flexible Hose

#### FLEXIBLE HOSE

- INSULATED TYPE : D-SEREIS
- UNBRAID TYPE : C-SERIES
- BRAID TYPE : B-SERIES
- APARTMENT TYPE : A-SERIES
- CONNECTION TUBE TYPE(500L ~3700L)



#### TECHNICAL DATA

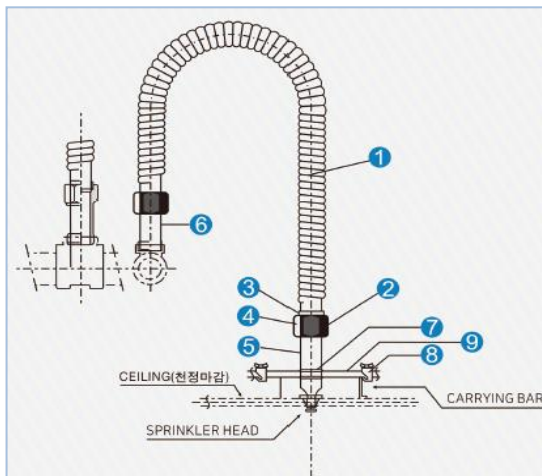
- WORKING PRESSURE : 1.4 MPa
- MAX. BENDING RADIUS : R75
- K-FACTOR : 15A K=50, 20A K=80
- BURSTING PRESSURE : 5.6MPa

#### USING AREA

- STEEL PIPE WORKS
- SPRINKLER FLEXIBLE HOSE

NO.	SPJ-700	SPJ-1000	SPJ-1200	SPJ-1500	SPJ-1800	SPJ-2000	SPJ-2500	SPJ-3000
L	700	1000	1200	1500	1800	2000	2500	3000

#### DESCRIPTION



NO.	PART NAME	MATERIAL	Q'TY	SPEC
1	FLEXIBLE TUBE	STS304 316L	1	03.T
2	NUT	SS41	2	ZN PLATE
3	ISOLATION RING	NYLO66	2	
4	O-RING	NBR	2	
5	REDUCER	SPP BRASS	1	ZN PLATE
6	NIPPLE	SPP BRASS	1	ZN PLATE
7	BRACKET-L	SS41	1	ZN PLATE
8	BRACKET-S	SS41	2	ZN PLATE
9	SQUARE BAR	SS41	1	ZN PLATE

# PNP FLEXIBLE HOSE

BRAND : PNP F-100

## Sprinkler Reducer / Nipple / Bracket

### Sprinkler Reducer

#### STANDARD REDUCER

- NEW TYPE
- UPSIDE TYPE(15A, 25A)
- ELBOW TYPE

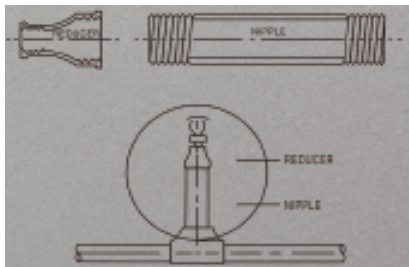


#### LENGTH DATA

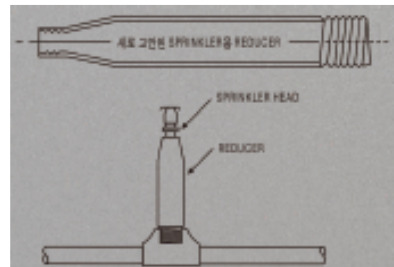
REDUCER	STANDARD LENGTH				
	65L	150L	120L	300L	500L
25A*15A	65L	150L	120L	300L	500L
25A*20A	65L	150L	120L	300L	500L

#### NEW REDUCER CONFIGURATION

##### NEW METHOD : ONE BODY TYPE



##### PREVIOUS METHOD



#### SIMPLE INSTALLATION



#### SUPERPRECISION STRUCTION



# PNP FLEXIBLE HOSE

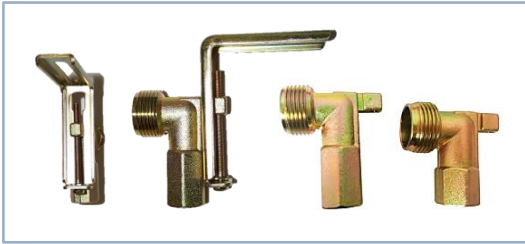
BRAND : PNP F-100

## ☛ Sprinkler Reducer / Nipple / Bracket

### Bracket

#### APARTMENT-USINGE REDUCER

- APARTMENT TYPE
- APARTMENT REDUCER
- ELBOW REDUCER



#### NIPPLE

- STANDARD TYPE
- WELDING TYPE
- CONNECTION TYPE



#### STANDARD TYPE

- STANDARD - S
- STANDARD - L
- STANDARD - O

#### SPECIAL TYPE

- T-BAR TYPE-S
- T-BAR TYPE
- POWER BAR-A
- POWER BAR-B





# PNP FLEXIBLE HOSE

BRAND : PNP F-100

## Mechanical Test result by KFI

DESCRIPTION	TEST CONDITION & RESULT
Pressure Test	No any deformation, damage and leakage at 1.5 Times (2kgf/cm <sup>2</sup> ) of max. working pressure for 5 min.
Size	Length : + 5% , Inner dia. : -0%, +2%
Anti-corrosion Test	No corrosion after 5 cycles by KSD 9502 test
Permanent Deformation Test	For 1 min. at 1.5 Times (2kgf/cm <sup>2</sup> ) of max. working pressure and then remove the pressure . After 5 min. length elongation is under 8.4mm/m, Not over 31mm /m in max.
Vibration Test	For 6 hr. pressured at 0.1 MPa(1kgf/cm <sup>2</sup> ), by 5mm of forward width , 25 vibration times per sec. of , no leakage & looseness of nut .
Bend Test at 90°	- No leakage after 15 times bend test pressured at 0.02 MPa(0.2kgf/cm <sup>2</sup> ) - No leakage after 5 times of Max. bend radius pressured at 0.01 MPa (0.1kgf/cm <sup>2</sup> )
Water hammer Test	No leakage & Damage for 5 min. pressured at 1.5 times of Max. pressure under conditions of 5 set straight of 4000 times water- hammer (0.35MPa ~3.5MPa)
Bursting Test	No burst at 4 times pressure (5.6 MPa) of Max. working pressure(1.4MPa).
Crushing Test	-The change rate of diameter less than 5% when Load 100kg to Flexible hose (removed nipple and nut) for 30 sec. at 50mm from the end part
Max. bend radius	R75
K-factor	15A : K=50 20A :K=80

### KFI APPROVALS UNDER JTK FACTORY

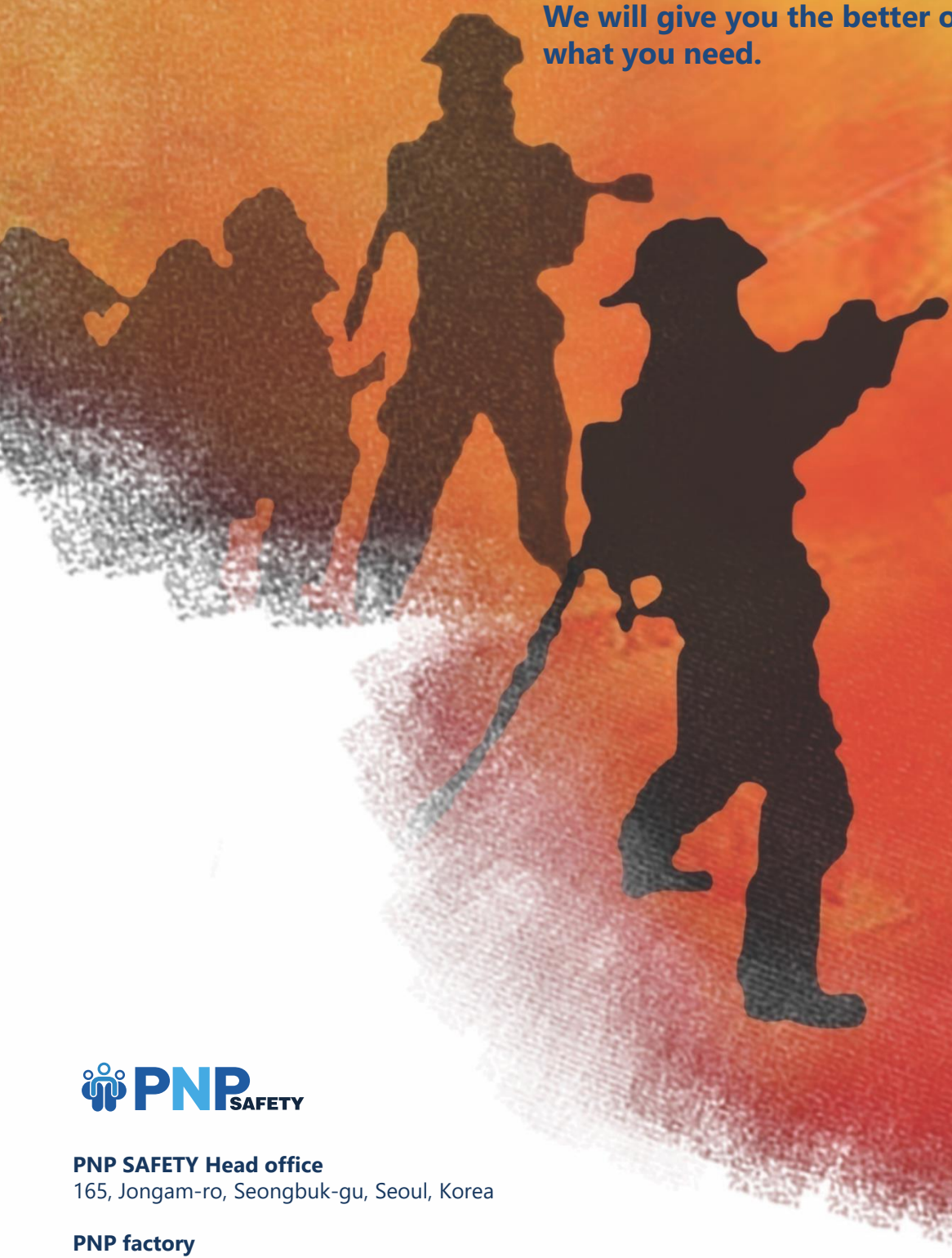
- UNBRAID HOSE W. STRAIGHT REDUCER
- UNBRAID HOSE W. ELBOW REDUCER
- BRAID HOSE W. STRAIGHT REDUCER



# PNP'S PROMISE

We will do our best everyday to be a step ahead and believe that it leads us more competitive ourselves as leading manufacturer and exporter.

**We will give you the better one than what you need.**



**PNP SAFETY Head office**  
165, Jongam-ro, Seongbuk-gu, Seoul, Korea

**PNP factory**  
#229-2, Mae-ri, Sangdong-myeon,  
Gimhae city, Gyeongnam, Korea

**Tel +82-2-402-1911**  
**SALES DEPT. E-mail [eyefulu@nate.com](mailto:eyefulu@nate.com)**