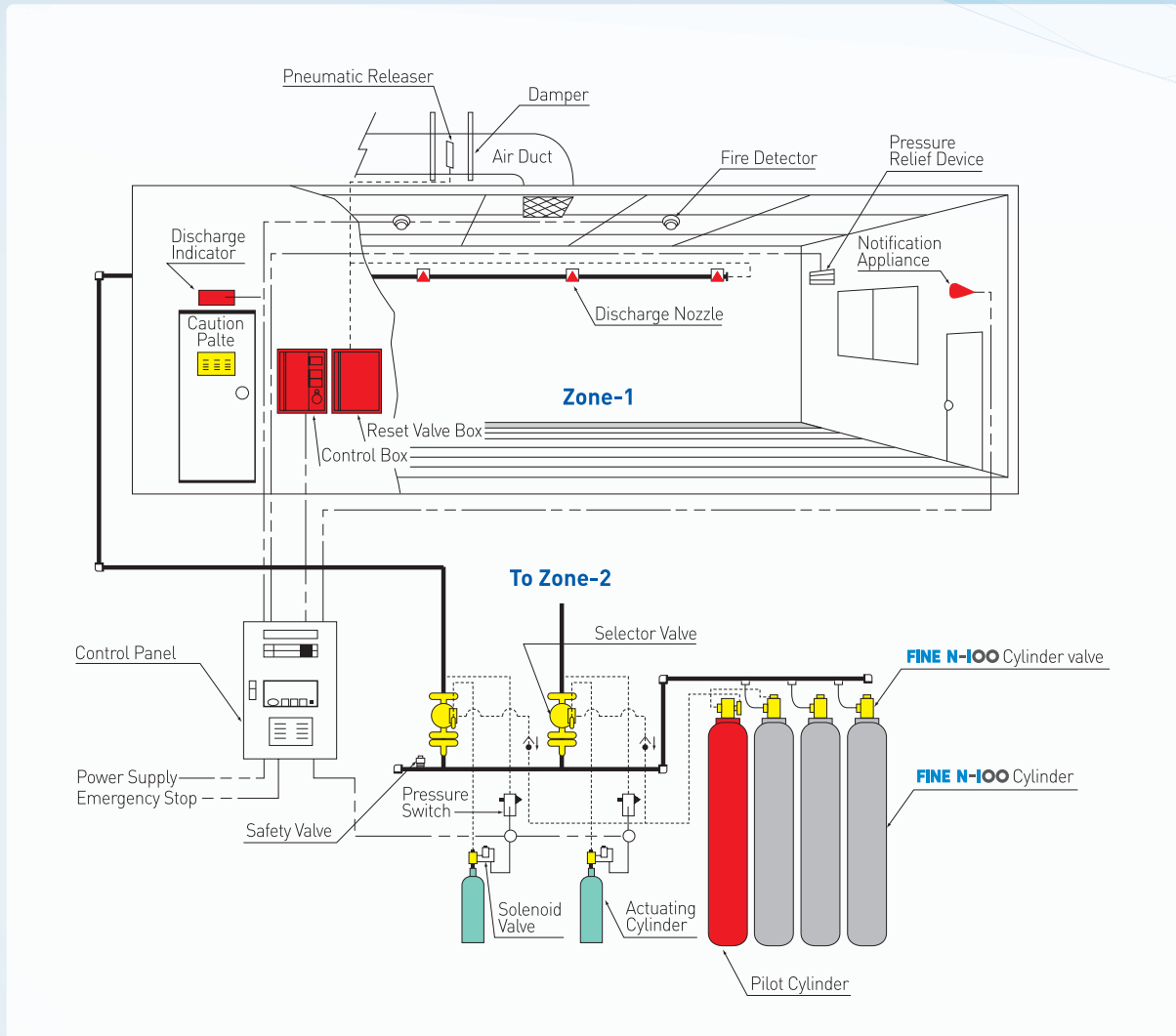


*The Pride of Korean  
Gas Fire Fighting facilities.*

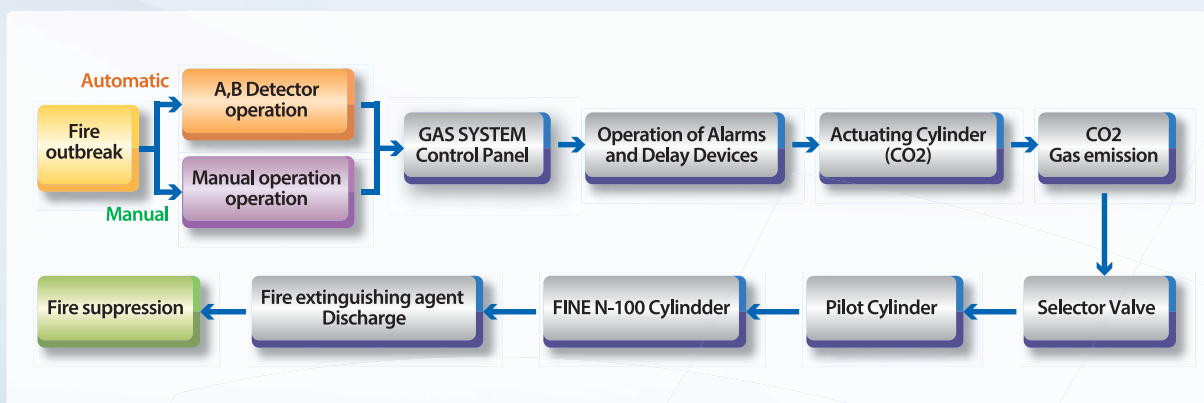
## **Material authorizarion document**



## ◆ FINE N-100 System Configuration



## ◆ Operation Flow Chart





## IG-100(FINE N-100) SYSTEM

- IG-100 Cylinder
  - Cylinder Valve
    - Flared Tee
    - Rubber Tube
    - Flexible Hose
    - Pilot Cylinder
  - Pilot Cylinder Valve
    - Needle Valve
  - 3-way control valve

## IG-100 Cylinder



A container for storing compressed gas by pressurizing 22.3 Mpa at 21°C Agent quantity is 17.4m<sup>3</sup>.

Manufacturer	DongSung FINETEC Co.,LTD		
Model No.	FTC-84		
Standard	1,720mm		
Charging Pressure	22.3MPa		
Working Pressure	24.0MPa	Test Pressure	40.0MPa
Agent Quantity	17.4m <sup>3</sup>	Agent Weight	20.3kg
Material	34Cr-Mo Steel(KGS AC212 2010)/34Cr-Mo Steel(KS B ISO 9809-1)		

## Cylinder Valve



It is a valve used to control the timing and quantity of gas flow into an engine. It functions with 9 Mpa regulating pressure at 21°C.

Manufacturer	DongSung FINETEC Co.,LTD		
Model	FI-9210		
Test Pressure	49.5MPa		
Working Pressure	29.7Mpa		
Discharging Pressure	9.0MPa		
Material	Brass(KS D 510 C3771)		

## Pilot Cylinder



A Cylinder storing 10.0MPa nitrogen gas. It is activate IG-100 cylinder valve by releasing CO<sub>2</sub> gas from Actuating Device.

Manufacturer	DongSung FINETEC Co.,LTD		
Model No.	FTC-87		
Standard	1,720mm(H) x 279mm(O.D) /1,780mm(H) x 273mm(O.D)		
Charging Pressure	10.0MPa		
Working Pressure	15.0MPa	Test Pressure	25.0MPa
Agent Quantity	8.7m <sup>3</sup>	Agent Weight	10.2kg
Material	Mn-Steel(KS B 6210)		

## Pilot Cylinder Valve



A valve used to release nitrogen gas from Pilot Cylinder by activating Needle valve.

Manufacturer	DongSung FINETEC Co.,LTD		
Model No.	FTV-15		
Valve Type	F-Type valve		
Working pressure	10.0MPa		
Material	Brass(KS D 5101 C3771)		

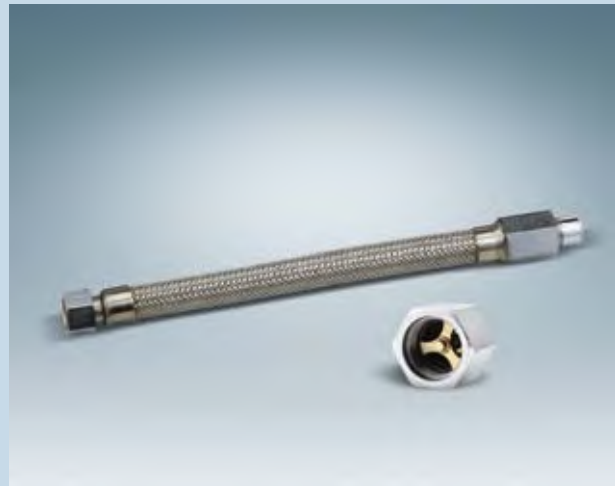
## Needle Valve



It activates cylinder valve by breaking Burst Disc.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTN-15
Diameter	6A
Working pressure	1.8MPa
Material	Brass(KS D 5101 C3771)

## Flexible Hose



It is located between Cylinder valve and Manifold pipe and comes with check valve which keeps nitrogen gas from flowing backward.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTF-15
Size	15A
Length	450mm
Working pressure	10.0MPa
Test pressure	15.0MPa
Material	Stainless Steel(KS D 3706 STS 304)

## 3-way control valve



It uses to release quantity of fire extinguishing agent cylinder to cover Enclosure and controls nitrogen gas flow.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FIC-9210
Diameter	6A
Working Pressure	10.0MPa
Test Pressure	15.0MPa
Material	Brass(KS D 5101 C3771)

## Rubber Tube



A tube made of rubber. It can substitute copper tube.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTRT-6
Size	6A
Material	Brass(KS D 5101 C3771) & Rubber





# HFC-227ea(FM-200) SYSTEM

- Storage Cylinder
  - Cylinder Valve
- Pressure Gauge
  - Needle Valve
  - Flexible Hose

## Storage Cylinder



A Mn-Steel container for storing liquefied gas at 15.0 Mpa working pressure. It should be certified by KGS.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTC-40	FTC-68
Water capacity	40.2ℓ	68ℓ
Out Diameter	232mm	267mm
Length	1,175mm	1,500mm
Test Pressure	25.0MPa	25.0MPa
Working Pressure	15.0MPa	15.0MPa
Color	Gray	Gray
Net weight(Cylinder)	About 45kg	About 75kg
Material	Mn-Steel(KS B 6210)	Mn-Steel(KS B 6210)

## Storage Cylinder



A Mn-Steel container for storing liquefied gas at 15.0 Mpa working pressure. It should be certified by KGS.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTC-82	FTC-125
Water capacity	82.5ℓ	125ℓ
Out Diameter	273mm	356mm
Length	1,710mm	1,540mm
Test Pressure	25.0MPa	25.0MPa
Working Pressure	15.0MPa	15.0MPa
Color	Gray	Gray
Net weight(Cylinder)	About 87kg	About 118.5kg
Material	Mn-Steel(KS B 6210)	Mn-Steel(KS B 6210)

## Cylinder Valve



A valve used to release fire extinguishing agent.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTV-40
Size	40A
Test Pressure	11.8MPa
Working Pressure	7.1MPa
Safer disc burst Pressure	7.8~9.4MPa
Material	Brass(KS D 5101 C3771)

## Needle Valve



It activates cylinder valve by breaking Burst Disc.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTN-40
Diameter	6A
Working pressure	1.8MPa
Material	Brass(KS D 5101 C3771)

## Flexible Hose



A hose to connect between cylinder and manifold to deliver gas agent from cylinder, coming with check valve.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTF-40
Diameter	40A
Length	430mm~470mm
Test Pressure	9.7MPa
Material	Stainless Steel(KS D 3706 STS 304)





## CO<sub>2</sub> SYSTEM

- Cylinder
- Cylinder Valve
- Flexible Hose
- Needle Valve

## Cylinder



A cylinder for storing CO<sub>2</sub> gas at 15.0 Mpa working pressure.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTC-68	FTC-87
Water capacity	68ℓ	87ℓ
Diameter	267mm	280mm
Length	1,500mm	1,720mm
Test Pressure	25.0MPa	25.0MPa
Working Pressure	15.0MPa	15.0MPa
Color	Blue	Blue
Weight(Cylinder)	About 75kg	About 97kg
Material	Mn-Steel(KS B 6210)	Mn-Steel(KS B 6210)

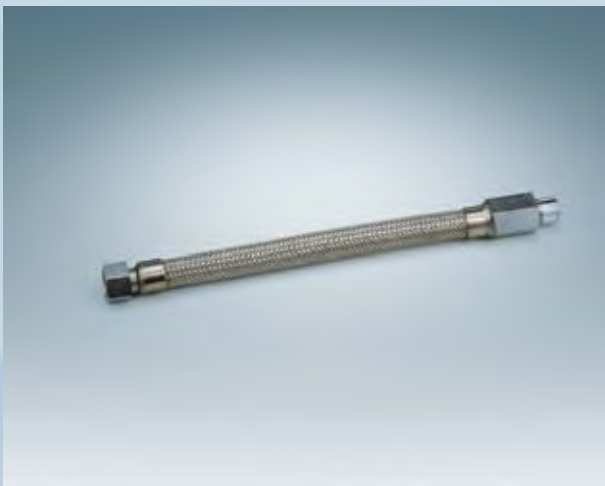
## Cylinder Valve



A valve used to release fire extinguishing agent.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTV-15
Size	20mm
Test Pressure	24.5MPa
Working Pressure	14.7MPa
Safer disc burst pressure	17.7~24.5Pa
Material	Brass(KS D 5101 C3771)

## Flexible Hose



A valve used to release nitrogen gas from Pilot Cylinder by activating Needle valve.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTF-450
Diameter	15A
Length	450mm
Test pressure	15.0MPa
Material	Stainless Steel(KS D 3706 STS 304)

## Needle Valve



It activates cylinder valve by breaking Burst Disc.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTN-15
Diameter	6A
Working pressure	1.8MPa
Material	Brass(KS D 5101 C3771)



## Others

- Selection Valve
- Discharge Nozzle
  - Safety valve
  - Check Valve
  - Relief Valve
- Actuating Device
  - Solenoid Valve
- Modular Control Panel

## • Selection Valve



A valve discharges gas agent selectively to where it is needed if you need to make single manifold with more than two Enclosure.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	KV-25~150 / YDFIS-25~150	
Working Pressure	11.0MPa	
Test Pressure	16.5Mpa	
Leak Test	13.2MPa	
Method of Operation	Pneumatic Type / Laver Type	
Material	Stainless Steel Casting(KS D 4103 SSC13A)	

## • Discharge Nozzle



A Nozzle to discharge gas agent to Enclosure effectively, making agent quantity and timing on time.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTN-15~50 FTNS-15~50 FTHS-15~50(for IG-100 system exclusively)	
Size	15A~50A	
Material	Aluminium(KS D 6763 A6061) / Brass(KS D 5101 C3604)	

## • Safety valve



A valve which automatically releases gas agent when the pressure exceeds preset limits. It prevents manifold broke down.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTSV-15	FTSV-20
Size	15A	20A
Working pressure	6~8MPa	9 Mpa
Material	Brass (KS D 5101 C3604)	Brass (KS D 5101 C3604)

## • Check Valve



A check valve which keeps CO2 from flowing backward.

Manufacturer	DongSung FINETEC Co.,LTD	
Model No.	FTCV-6	
Diameter	6A	
Leak Test	6.5MPa	
Hydraulic Test	9.8MPa	
Material	Brass(KS D 5101 C3604)	



## Relief Valve



A valve used to control gas agent discharge mistakenly when CO<sub>2</sub> cylinder leaks.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	FTRF-6
Diameter	6A
Working Pressure	0.1~0.3MPa
Material	Brass(KS D 5101 C3604)

## Actuating Device



Actuating device to release high pressured gas from CO<sub>2</sub> cylinder by using solenoid valve. The discharged gas opens selection valve and cylinder valve.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	NK-AD-01 / DS-AD65
Standard	0.65kg/1L, DC-24V
Dimension	320mm(W) x 125mm(D) x 410mm(H)
Material	SSC 13A
accessories and parts	Actuating cylinder, Pressure switch, Solenoid valve

## Solenoid Valve



It is an electromechanically operated valve. It activates CO<sub>2</sub> cylinder valve in actuating device.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	DY-6A-01 / DY-10A-01
Dimension	135mm(W) x 25mm(D) x 103mm(H)
Operating Voltage	DC-24V
Rated Current	1.5A

## Modular Control Panel



It controls a manual operation box, smoke & heat detectors, Siren, Solenoid valve and so on.

Manufacturer	DongSung FINETEC Co.,LTD
Model No.	DSCP-01 / DSCP-3E
Dimension	250mm(W) x 85mm(D) x 360mm(H)
Circuit Specification	Single
Rated Current	AC220V/60Hz





# **HCFC-123 (FINE-123) Clean Agent Fire Extinguisher**



## Specifications



model name	FINE-123 (2.5kg)	FINE-123 (3.0kg)	FINE-123 (3.5kg)
Type / model number	수소-17-12-1	수소-17-16-1	수소-17-15-1
storage amount	2.5kg	3.0kg	3.5kg
Digestive performance	A1, B1, C	A1, B2, C	A1, B2, C
Gross weight (Approximately)	4.5kg	5.5kg	6.0kg
Discharge time (Approximately)	11sec	11sec	11sec
Discharge distance	3 ~ 4 m		
Operating temperature	-20 ~ 40°C		
Clean agent name	Dichlorotrifluoroethane (HCFC-123)		
Ingredient	Dichlorotrifluoroethane(HCFC-123) + Propellant Gas (Nitrogen accumulation)		
Molecular Weight	150.7		
Boiling point	27.7°C		
Freezing point	-107°C		
Storage pressure	9kg/cm <sup>2</sup>		
Clean agent pressure(25°C)	0.91cm <sup>2</sup>		
Container material	STS304[Korea Gas Safety Corporation Inspection]		
Valve material	Brass[Korea Gas Safety Corporation Inspection]		
ODP	0.02		
GWP	77		