

Fire Safety Storage Cabinet

Basic, Type 30, 60, 90

Proven refractory performance to safeguard flammable hazardous materials from fire



Flammable Storage Cabinet
EN 14470-1 : 2004



SC3-90F-0806D1D-C

Standard : Bottom Sump 1ea

SC3-90F-0812D2D-C

Standard : Bottom Sump 2ea

SC3-90F-1906D1-C

Standard : Shelves 3ea & Bottom Sump 1ea
Option : Fume Extraction Module & Filters

SC3-90F-1912D2-C

Standard : Shelves 3ea & Bottom Sump 1ea
Option : Fume Extraction Module & Filters

Diverse Certifications Obtained



Awarded the Safe Korean Technology Prize by the Ministry of the Interior and Safety.

- > Obtained CE (EN 14470-1) certification.
- > Acquired Certificate of Excellent Product from the Public Procurement Service in Korea.
- > Acquired performance certification from the Ministry of SMEs and Startup in Korea.
- > Awarded the 2018 Safe Korean Technology Prize by the Ministry of the Interior and Safety.

*EN14470-1 verifies that the equipment meets the European safety standards for dangerous goods containers such as fire resistance, internal ventilation, shelf stability, and automatic door closure.

Fire resistance performance 90-minutes type

Type	Model
Stand	SC3-90F-1912D2-C
	SC3-90F-1906D1-C
Under	SC3-90F-0812D2D-C
	SC3-90F-0806D1D-C

Fire resistance performance 60-minutes type

Type	Model
Under	SC2-60F-0806D1-CL
	SC2-60F-0806D1-CR
	SC2-60F-0706D1-C

Fire resistance performance 30-minutes type

Type	Model
Stand	SC3-30F-1912D2-C
	SC3-30F-1906D1-C
Under	SC3-30F-0812D2D-C
	SC3-30F-0806D1D-C



Safe Storage From Fire

- > **High fire resistance**
Fire resistance performance is in accordance with the strictest European standard, with the internal temperature kept below 180K for up to 90 minutes in the event of fire.
- > **Fire response sealing system**
When the temperature reaches 50°C, the door automatically closes. When the ambient temperature reaches 70±10°C, the exhaust holes and ventilation openings are automatically closed, totally blocking the flow of heat from the outside in the event of fire.
- > **The right model for the application can be selected**
Possible to suppress fire at the natural ignition point of the dangerous goods being handled.
Model selected considering the prediction time, etc.
- > **Chemical resistant interior material**
Excellent chemical resistance even for long-term use with the interior material coated with polyphenol resin.
- > **Under bench type height-adjustable (SC3 Under-type Model)**
750 mm/820 mm height can be selected considering the work height when hood is installed at the bottom.

Solid and Secure Shelf Structure

- > **Solid shelf structure**
It is a solid structure allowing for up to 80kg to be held per shelf and it can be fixed firmly to the left and right inside walls.
- > **Safe shelf design**
With 30mm-deep shelf shape for safe storage, it is designed to be safe even if the stored contents are leaked.
- > **Right shelf selection**
The built-in shelf is excellent in chemical resistance due to epoxy powder coating. Also, stainless steel shelves and PP trays can be selected. (option)

Patented system with safe exhaust structure

System with optimally designed exhaust structure that effectively removes flammable vapor at normal times while preventing external flames from flowing directly into the interior.



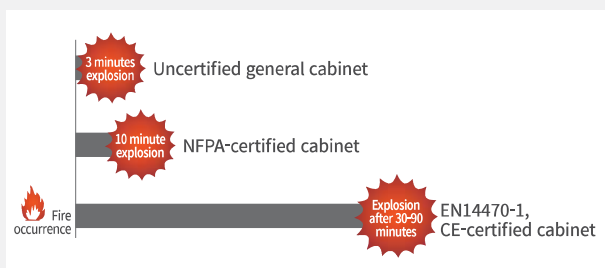
(Patent Registration No. 10-1605164)

Award Excellent Patent Award (in Korea)

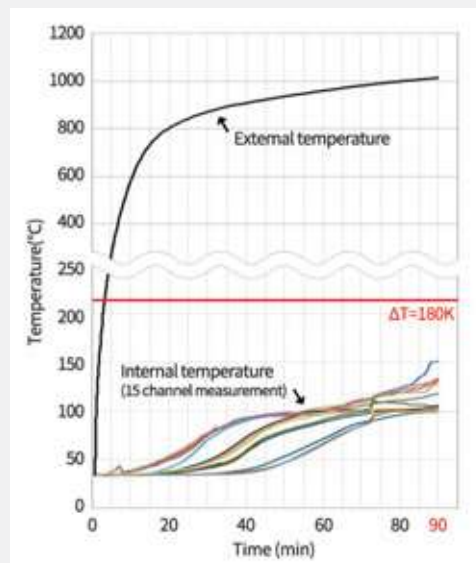
Proven Fireproof Performance!

Items proven by testing

- > 30 minutes / 60 minutes / 90 minutes fire resistance performance test
- > For fire test according to standards of EN 1363-1, the time required for AT to be kept below 180°C is expressed as fire resistance. (EN 14470-1)



Comparison of fire resistance performance based on certification



SC3-90F-1912D2-C fire test results

➤ **Convenient reagent In/Out**

Equipped with door closure to stop the door at the desired position for easy insertion and removal of flammable reagents.



➤ **Automatically sealed ventilation**

When the ambient temperature reaches $70 \pm 10^\circ\text{C}$ in case of surrounding fire, the exhaust opening, and ventilation opening are designed to be automatically closed to completely prevent the inflow of external heat.



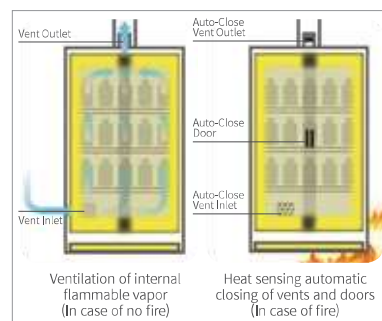
➤ **Anti-static charge through ground**

The ground to prevent static spark accidents caused by inside the cabinet where flammable vapors may be generated. For proper installation, each shelf should be connected with busbar inside of cabinet. Also the conduction bolt (located on upper part behind the cabinet) should be connected with distribution panelboard.



➤ **Safe ventilation of flammable vapor**

It is possible to discharge gas easily through the vent inlet and vent outlet to prevent accidents due to accumulation of flammable vapor, and to protect the health of the experimenter.



➤ **Configurable with lab safety workbench**

It is composed of a fume hood and a testing bench bottom, making it excellent for storing hazardous materials and waste liquids.





Effluent reservoir

Safe handling in the event of stored material leakage and prevention of leakage out of the cabinets.



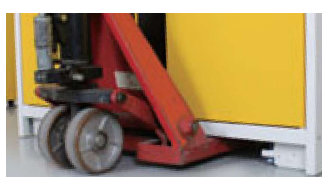
Key lock device

Key lock is provided as standard to block unauthorized access.



Safe stored materials handling

Ergonomic structure with easy access to shelves for user's safety and convenience.



Convenient moving and installation

Forklift fork space for convenient movement. Leveling feet for stable installation.



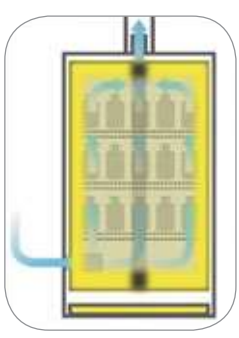

Extraction module (option)

Filters flammable gas inside the cabinet with a carbon filter without connecting a separate duct.



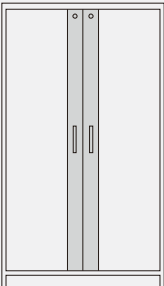

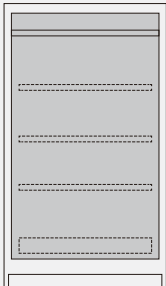
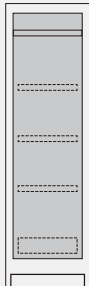
Select a suitable shelf

Providing the 3ea of shelf (up to 80kg storage) for stand type cabinet, and can be exchanged to drawer. (option)

	EN 14470-1	NFPA 30
Fire resistance performance	O	O
	Fire test according to EN 1363-1, 15 min.- 90 min. (15 min. / 30 min. / 60 min. / 90 min.)	NFPA 251 standard fire resistance test, 10 minute level
Flammable vapor ventilation	O	X
	Flammable vapor ventilation is recommended. Check sound pressure formation inside the cabinet during ventilation.	Ventilation is not recommended. (Recommended to use level of container recommended in NFPA 30)
	 <p>Keeps flammable vapors below the LEL concentration and removes smell(odors) through ventilation.</p>	 <p>It seals the ventilation holes, and an smell(odors) occurs inside the storage cabinet. The risk of ignition is increased as the concentration of flammable vapor increases.</p>
Fire detection, automatic door and ventilation closure	O	X
	Automatic door and ventilation closure during fire test.	In the case of a fire test, test with the ventilation hole blocked. Fire safety not considered when connecting to external ventilation facilities.

Comparison of EN 14470-1 and NFPA 30 International Standards

Specification (Type 90)

Model	SC3-90F-1912D2-C	SC3-90F-1906D1-C
Internal volume (L / cu ft)	763 / 26.9	357 / 12.6
Interior dimensions (W x D x H, mm / inch)	968 x 484 x 1629 / 38.1 x 19.1 x 64.1	453 x 484 x 1629 / 17.8 x 19.1 x 64.1
Exterior dimensions (W x D x H, mm / inch)	1116 x 625 x 1952 / 43.9 x 24.6 x 76.9	601 x 625 x 1952 / 23.7 x 24.6 x 76.9
Quantity of shelf (standard / max.)	3 / 5	3 / 5
Max. load per shelf (kg / lbs)	80 / 176.3	80 / 176.3
Bottom collecting sump set ²⁾ (Volume : L / cu ft, Height : mm / inch)	41 / 1.4, 82 / 3.2	19 / 0.7, 84 / 3.2
Weight (kg / lbs)	420 / 925.9	220 / 485.0
CE certification	O	O
Cat. No.	AAAF390170	AAAF390140
Product appearance		
Product interior		

- 1) Providing Epoxy powder coated shelf (standard), change to Stainless Steel shelf (option) or Drawer type. (option) Additional shelf is possible.
 2) Providing Epoxy powder coated bottom collecting sump set (standard), change to Stainless Steel material. (option)

Accessories (Type 90)

Accessory	Description (W x D x H, mm / inch)	SC3-90F-1912D2-C	SC3-90F-1906D1-C
Shelf	Epoxy powder coated steel	AAAF35014 (965 x 444 x 30 / 38.0 x 17.5 x 1.2)	AAAF35013 (451 x 444 x 30 / 17.8 x 17.5 x 1.2)
	Stainless steel	AAAF35004 (965 x 444 x 30 / 38.0 x 17.5 x 1.2)	AAAF35003 (451 x 444 x 30 / 17.8 x 17.5 x 1.2)
Drawer	Epoxy powder coated steel	AAAF35313 (798 x 452 x 100 / 31.4 x 17.8 x 3.9)	AAAF35312 (350 x 452 x 100 / 13.8 x 17.8 x 3.9)
	Stainless steel	AAAF35303 (798 x 452 x 100 / 31.4 x 17.8 x 3.9)	AAAF35302 (350 x 452 x 100 / 13.8 x 17.8 x 3.9)
Fume extraction module (EM-33)	348 x 498 x 343 / 13.7 x 19.6 x 13.5 (230V, 60Hz)	AAAF1536	AAAF1536

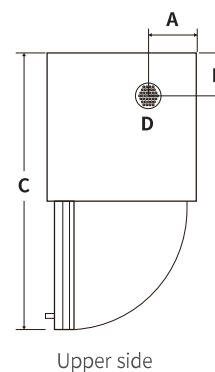
※ Please refer to page 199 for details on EM-33 compatible filter.

Dimension

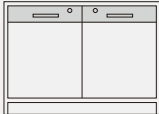

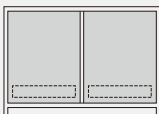

(Unit: mm / inch)

Model	A	B	C ¹⁾	D (Diameter)
SC3-90F-1912D2-C	170 / 6.7	160 / 6.3	1135 / 44.7	76 / 3
SC3-90F-1906D1-C	170 / 6.7	160 / 6.3	1135 / 44.7	76 / 3

1) C is the maximum depth when the door is opened.



Specification (Type 90)

Model	SC3-90F-0812D2D-C	SC3-90F-0806D1D-C
Internal volume (L / cu ft)	244 / 8.6	110 / 3.9
Interior dimensions (W x D x H, mm / inch)	496 x 396 x 622 * 2ea / 19.5 x 15.6 x 24.5 * 2ea	448 x 396 x 622 / 17.6 x 15.6 x 24.5
Exterior dimensions (W x D x H, mm / inch)	1200 x 560 x 730 (or 820) / 47.2 x 22.0 x 28.7 (or 32.3)	600 x 560 x 730 (or 820) / 23.6 x 22.0 x 28.7 (or 32.3)
Quantity of shelf	-	-
Max. load (kg / lbs)	40 * 2ea / 88.2 * 2ea	40 / 88.2
Bottom collecting sump set ¹⁾ (Volume : L / cu ft, Height : mm / inch)	24 / 0.8 x 2ea, 16 / 0.6	23 / 0.8, 16 / 0.6
Weight (kg / lbs)	220 / 485.0	134 / 295.4
CE certification	O	O
Cat. No.	AAAF390130	AAAF390120
Product appearance		
Product interior		

1) Providing Epoxy powder coated bottom collecting sump set (standard), change to Stainless Steel material. (option)
 ※ Possible to set the exclusive guide for Safety Waste Disposal System. (option)

Accessories (Type 90)

Accessory	Description (W x D x H, mm / inch)	SC3-90F-0812D2D-C	SC3-90F-0806D1D-C
Plinth (side)	480 x 340 x 350 / 18.9 x 13.4 x 13.8	AAAF15364	AAAF15364
Fume extraction module (EM-33)	348 x 498 x 343 / 13.7 x 19.6 x 13.5	AAAF1536	AAAF1536

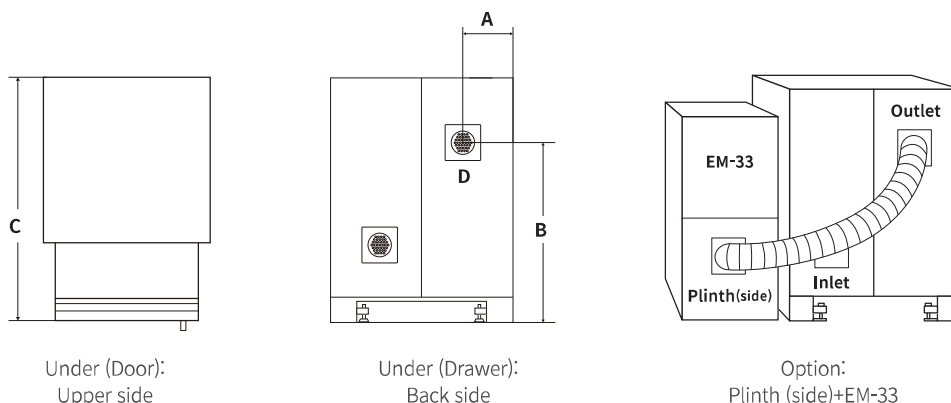
※ Please refer to page 199 for details on EM-33 compatible filter.

Dimension

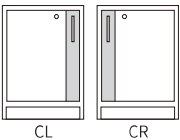

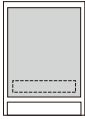

(Unit: mm / inch)

Model	A	B	C ¹⁾	D (Diameter)
Under (Door): Upper side	185 / 7.3	255 / 10.0	840 / 33.1	60 / 2.4
Under (Drawer): Back side	165 / 6.5	255 / 10.0	840 / 33.1	60 / 2.4

1) C is the maximum depth when the Drawer is opened.



Specification (Type 60)

Model	SC2-60F-0806D1-CL / SC2-60F-0806D1-CR	SC2-60F-0706D1-C
Internal volume (L / cu ft)	89 / 3.1	76 / 2.7
Interior dimensions (W x D x H, mm / inch)	505 x 419 x 422 / 19.9 x 16.5 x 16.6	505 x 419 x 362 / 19.9 x 16.5 x 14.3
Exterior dimensions (W x D x H, mm / inch)	600 x 610 x 820 / 23.6 x 24.0 x 32.3	600 x 610 x 720 / 23.6 x 24.0 x 28.3
Max. load (kg / lbs)	80 / 176.4	80 / 176.4
Bottom collecting sump set ¹⁾ (Volume : L / cu ft, Height : mm / inch)	7 / 0.2, 16 / 0.6	7 / 0.2, 16 / 0.6
Weight (kg / lbs)	106 / 233.7	100 / 220.5
Cat. No.	AAAF360310 / AAAF360311	AAAF360110
Product appearance		
Product interior		

1) Providing Epoxy powder coated bottom collecting sump set (standard), change to Stainless Steel material. (option)

Accessories (Type 60)

Accessory	Description (W x D x H, mm / inch)	SC2-60F-0806D1-CL / SC2-60F-0806D1-CR	SC2-60F-0706D1-C
Plinth (side)	480 x 340 x 350 / 18.9 x 13.4 x 13.8	AAAF15364	AAAF15364
Fume extraction module (EM-33) (230V, 60Hz)	348 x 498 x 343 / 13.7 x 19.6 x 13.5	AAAF1536	AAAF1536

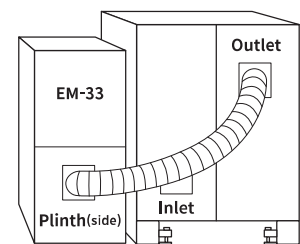
※ Please refer to page 199 for details on EM-33 compatible filter.

Dimension

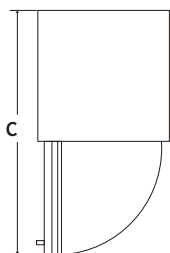
(Unit: mm / inch)

Model	A	B	C ¹⁾	D (Diameter)	
Under (Door)	SC2-60F-0806D1-CR/CL	125 / 4.9	530 / 20.9	1070 / 42.1	102 / 4.0
	SC2-60F-0706D1-C	125 / 4.9	480 / 18.9	1070 / 42.1	102 / 4.0
Under (Drawer)	SC3-30F-0812D2D-C	160 / 6.3	235 / 9.3	840 / 33.1	60 / 2.4
	SC3-30F-0806D1D-C	160 / 6.3	235 / 9.3	840 / 33.1	60 / 2.4
Tall	SC3-30F-1912D2-C	180 / 7.1	170 / 6.7	1095 / 43.1	76 / 3.0
	SC3-30F-1906D2-C	180 / 7.1	170 / 6.7	1120 / 44.1	76 / 3.0

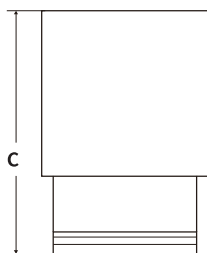
1) C is the maximum depth when the door is opened.



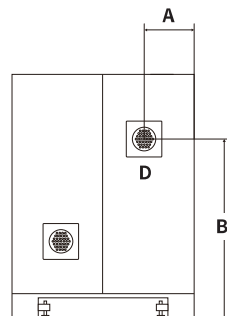
Option:
Plinth (side)+EM-33



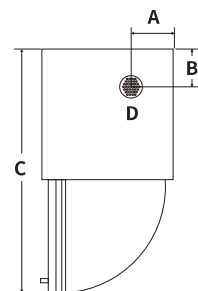
Under (Door): Upper side



Under (Drawer): Upper side

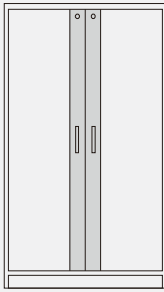

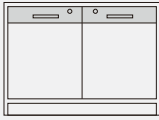

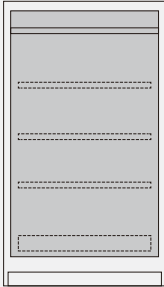

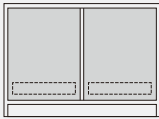



Under: Back side



Tall: Upper side

Specification (Type 30)

Model	SC3-30F-1912D2-C	SC3-30F-1906D1-C	SC3-30F-0812D2D-C	SC3-30F-0806D1D-C
Internal volume (L / cu ft)	802 / 28.3	375 / 13.2	252 / 8.9	116 / 4.1
Interior dimensions (W x D x H, mm / inch)	968 x 507 x 1635 / 38.1 x 20.0 x 64.4	453 x 507 x 1635 / 17.8 x 20.0 x 64.4	506 x 415 x 602 * 2ea / 19.9 x 16.3 x 23.7 * 2ea	468 x 415 x 602 / 18.4 x 16.3 x 23.7
Exterior dimensions (W x D x H, mm / inch)	1101 x 630 x 1951 / 43.3 x 24.8 x 76.8	586 x 630 x 1951 / 23.1 x 24.8 x 76.8	1200 x 560 x 820 / 47.2 x 22.0 x 32.3	600 x 560 x 820 / 23.6 x 22.0 x 32.3
Quantity of shelf (standard / max.)	3/5	3/5	-	-
Max. load per shelf (kg / lbs)	80 / 176.4	80 / 176.4	40*2ea ¹⁾ / 88.2*2ea	40 ¹⁾ / 88.2
Bottom collecting sump set ²⁾ (Volume : L / cu ft, Height : mm / inch)	41 / 1.4, 84 / 3.3	19 / 0.7, 84 / 3.2	24 / 0.8 x 2ea, 16 / 0.6	24 / 0.8, 16 / 0.6
Weight (kg / lbs)	330 / 727.5	220 / 485.0	200 / 440.9	120 / 264.6
Cat. No.	AAAF330470	AAAF330440	AAAF330430	AAAF330420
Product appearance				
Product interior				

1) Drawer type is the maximum load for the drawer.

2) Providing epoxy powder coated bottom collecting sump set (standard), change to stainless steel material. (option)

Accessories (Type 30)

Accessory	Description (W x D x H, mm / inch)	SC3-30F-1912D2-C	SC3-30F-1906D1-C	SC3-30F-0812D2D-C	SC3-30F-0806D1D-C
Shelf	Epoxy powder coated steel	AAAF35014 (965 x 444 x 30 / 38.0 x 17.5 x 1.2)	AAAF35013 (451 x 444 x 30 / 17.8 x 17.5 x 1.2)	-	-
	Stainless steel	AAAF35004 (965 x 444 x 30 / 38.0 x 17.5 x 1.2)	AAAF35003 (451 x 444 x 30 / 17.8 x 17.5 x 1.2)	-	-
Drawer	Epoxy powder coated steel	AAAF35313 (798 x 452 x 100 / 31.4 x 17.8 x 3.9)	AAAF35312 (350 x 452 x 100 / 13.8 x 17.8 x 3.9)	-	-
	Stainless steel	AAAF35303 (798 x 452 x 100 / 31.4 x 17.8 x 3.9)	AAAF35302 (350 x 452 x 100 / 13.8 x 17.8 x 3.9)	-	-
Plinth (Side)	480 x 340 x 350 / 18.9 x 13.4 x 13.8	-	-	AAAF15364	AAAF15364
Fume extraction module (EM-33) (230V, 60Hz)	348 x 498 x 343 / 13.7 x 19.6 x 13.5	AAAF1536	AAAF1536	AAAF1536	AAAF1536

※ Please refer to page 199 for details on EM-33 compatible filter.