MANTECH FIRE
MAN UP WITH MANTECH

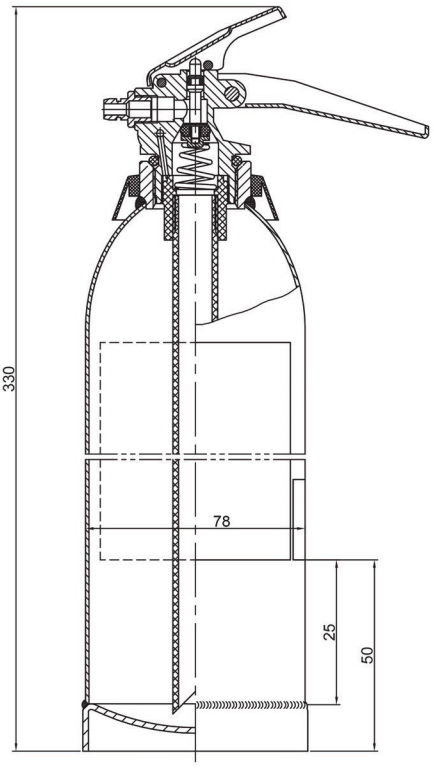
PRODUCT CATALOGUE

"PROTECTING YOUR ASSETS, PUTTING SAFETY FIRST"

CONTENTS

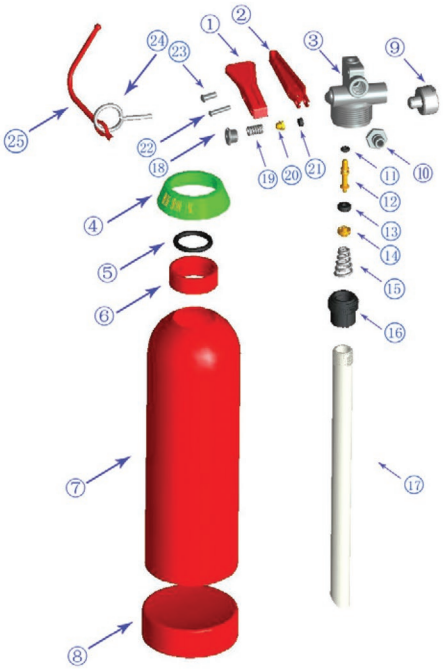
DRY CHEMICAL POWDER TYPE FIRE EXTINGUISHERS

Product Code	Component
A006.1	1.0Kg Dry Chemical Powder Type Fire Extinguisher
Description	Specifications
Charge	1.0Kg
Fire Extinguisher Complete Full Weight	1.98Kg
Fire Extinguisher Complete Empty Weight	0.98Kg
Cylinder Empty Weight	0.66Kg
Cylinder Length (mm)	270 ± 2
Out-cylinder diameter (mm)	78
Volume (L)	1.03
Min. Wall Thickness of Cylinder mm)	0.9
Material	ST13
Discharge Time	>6 sec.
Range of Discharge	3m
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	5A 21B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	10.5 x 9.5 x 34
SABS Specification	SANS 1910
SABS Permit No.	9068 / 14364



Cross-section

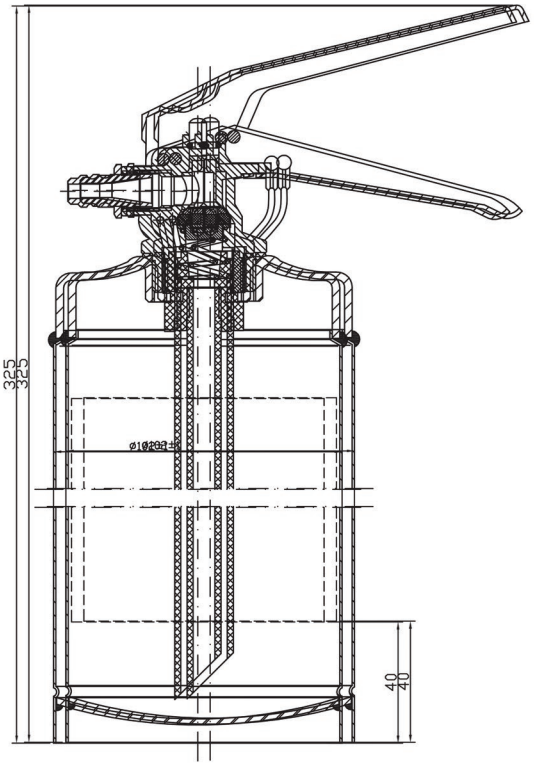
1. Carry handle
2. Operating handle
3. Valve housing
4. Trim ring
5. O ring
6. Neck ring
7. Cylinder body
8. Bottom
9. Pressure gauge
10. Nozzle
11. O ring
12. Plunger spindle
13. Plunger seal
14. Nut
15. Spring
16. Siphon seat
17. Siphon tube
18. Safety relief retaine
19. Release spring
20. Release seat
21. Release gland
22. Rivet
23. Rivet
24. Safety pin
25. Safety pin strap



Expanded View

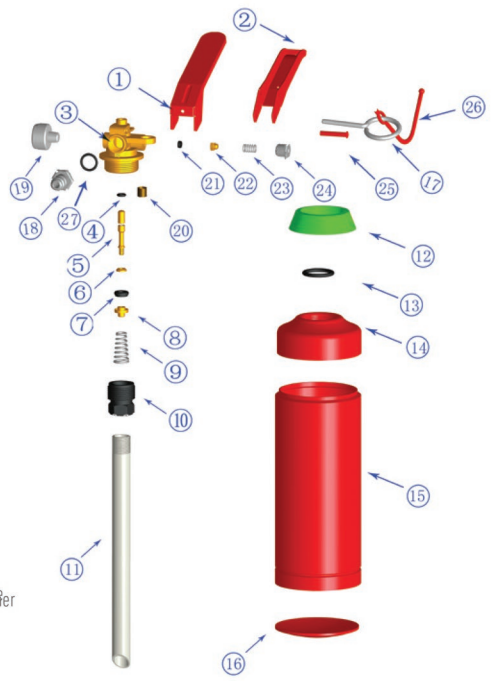
Product Code	Component
A007.2	1.5Kg Dry Chemical Powder Type Fire Extinguisher

Description	Specifications
Charge	1.5Kg
Fire Extinguisher Complete Full Weight	2.9Kg
Fire Extinguisher Complete Empty Weight	1.4Kg
Cylinder Empty Weight	1.2Kg
Cylinder Length (mm)	237±2
Out-cylinder diameter (mm)	102±1
Volume (L)	1.6
Min. Wall Thickness of Cylinder mm)	1.04
Material	ST12
Discharge Time	8 sec.
Range of Discharge	3m
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	≥3500kPa
Safety Device	2100 - 2800kPa
Size / Type of Pressure Gauge Fitted	1/8" NPT / Bourdon Tube
Fire Rating	5A 21B
Working Temperature	-30°C - +60°C
Packing Size (cm)	13.5 x 11.5 x 34.5
SABS Specification	SANS 1910
SABS Permit No.	2008/14364



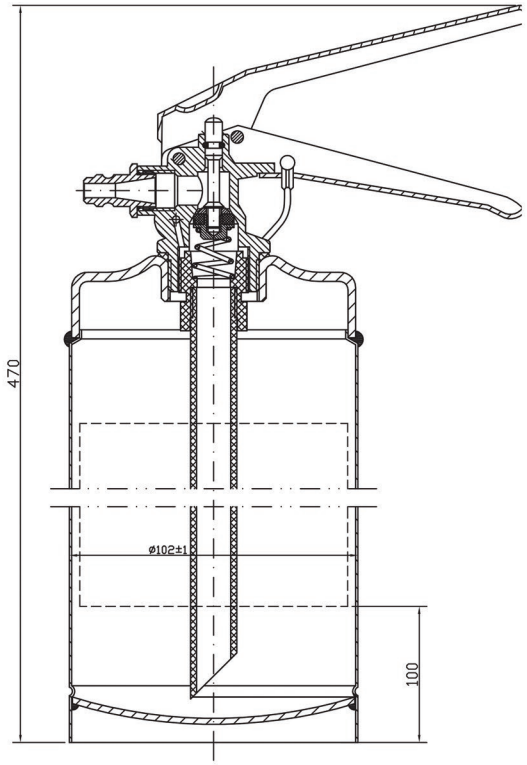
Cross-section

1. Carry handle
2. Operating handle
3. Valve housing
4. O ring
5. Plunger spindle
6. Plunger O ring
7. Plunger seal
8. Nut
9. Spring
10. Siphon seat
11. Siphon tube
12. Trim ring
13. O ring
14. Upper
15. Cylinder body
16. Bottom
17. Safety pin
18. Nozzle
19. Pressure gauge
20. Filter
21. Release gland
22. Release seat
23. Release spring
24. Safety relief retainer
25. Rivet
26. Safety pin strap
27. O ring



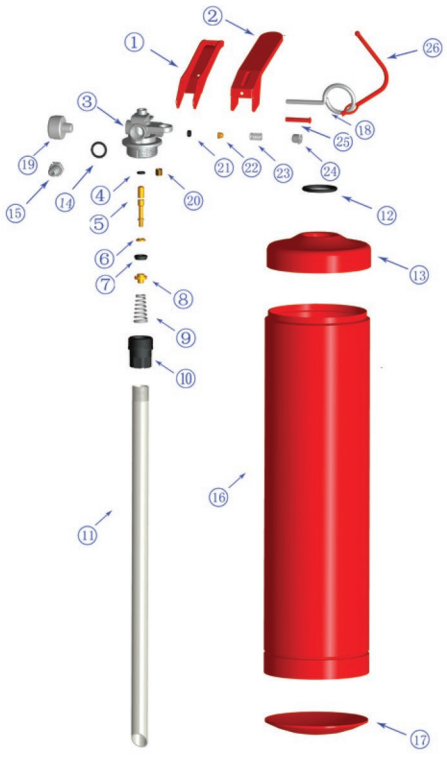
Expanded View

Product Code	Component
A009.3	2.5Kg Dry Chemical Powder Type Fire Extinguisher
Description	Specifications
Charge	2.5Kg
Fire Extinguisher Complete Full Weight	4.3Kg
Fire Extinguisher Complete Empty Weight	1.8Kg
Cylinder Empty Weight	1.6Kg
Cylinder Length (mm)	382±2
Out-cylinder diameter (mm)	102±1
Volume (L)	2.8
Min. Wall Thickness of Cylinder mm)	>1.04
Material	ST12
Discharge Time	10 sec.
Range of Discharge	4m
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	8A 34B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	13.5 x 12.5 x 48.5
SABS Specification	SANS 1910
SABS Permit No.	9068/14364



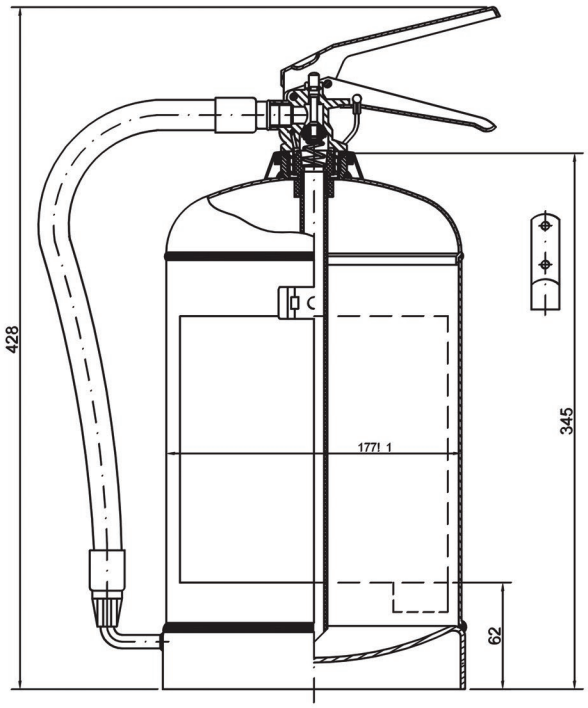
Cross-section

1. Carry handle
2. Operating handle
3. Valve housing
4. O ring
5. Plunger spindle
6. Plunger O ring
7. Plunger seal
8. Nut
9. Spring
10. Siphon seat
11. Siphon tube
12. O ring
13. Upper
14. O ring
15. Nozzle
16. Cylinder body
17. Bottom
18. Safety pin
19. Pressure gauge
20. Filter
21. Release gland
22. Release seat
23. Release spring
24. Safety relief retainer
25. Rivet
26. Safety pin strap

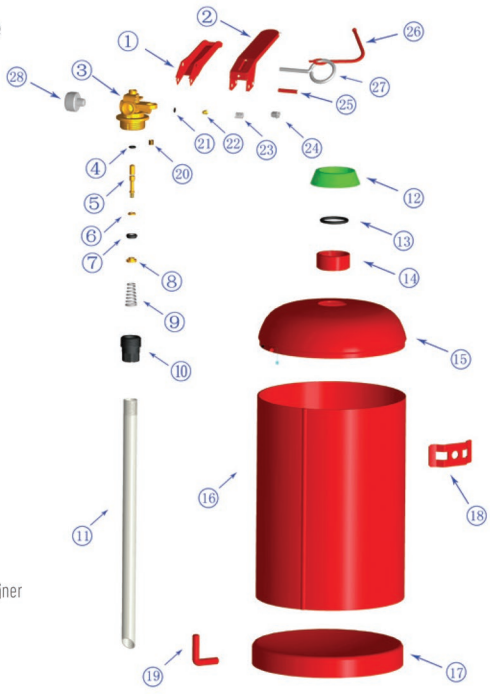


Expanded View

Product Code	Component
A0010.2	4.5Kg Dry Chemical Powder Type Fire Extinguisher
Description	Specifications
Charge	4.5Kg
Fire Extinguisher Complete Full Weight	7.8Kg
Fire Extinguisher Complete Empty Weight	3.3Kg
Cylinder Empty Weight	2.9Kg
Cylinder Length (mm)	345±2
Out-cylinder diameter (mm)	177±1
Volume (L)	6.28
Min. Wall Thickness of Cylinder mm)	1.5
Material	ST12
Discharge Time	10 sec.
Range of Discharge	4m
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	13A 89B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	19 x 19 x 45
SABS Specification	SANS 1910
SABS Permit No.	9068/14364

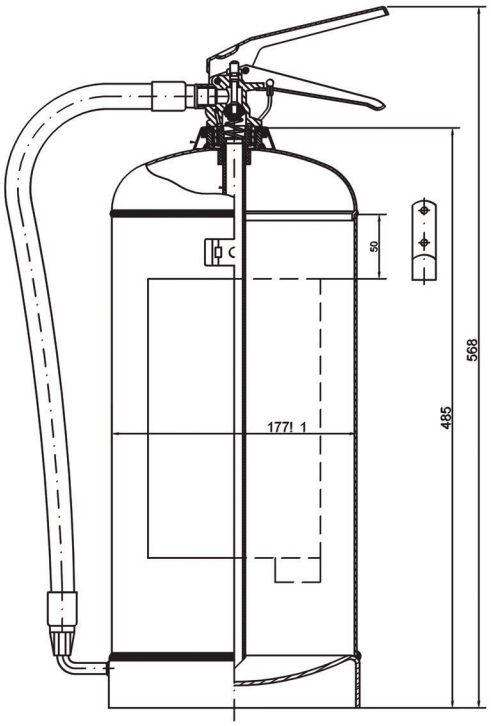


1. Carry handle
2. Operating handle
3. Valve housing
4. O ring
5. Plunger spindle
6. Plunger O ring
7. Plunger seal
8. Nut
9. Spring
10. Siphon seat
11. Siphon tube
12. Trim ring
13. O ring
14. Neck ring
15. Upper
16. Cylinder body
17. Bottom
18. Bracket
19. Hook
20. Filter
21. Release gland
22. Release seat
23. Release spring
24. Safety relief retainer
25. Rivet
26. Safety pin strap
27. Safety pin
28. Pressure gauge



Cross-section | Expanded View

Product Code	Component
A011	9.0Kg Dry Chemical Powder Type Fire Extinguisher
Description	Specifications
Charge	9.0Kg
Fire Extinguisher Complete Full Weight	13.3Kg
Fire Extinguisher Complete Empty Weight	4.3Kg
Cylinder Empty Weight	3.9Kg
Cylinder Length (mm)	485±2
Out-cylinder diameter (mm)	177±1
Volume (L)	9.8
Min. Wall Thickness of Cylinder mm)	1.5
Material	ST12
Discharge Time	>12 sec.
Range of Discharge	8m
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	27A 144B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	19 x 19 x 59
SABS Specification	SANS 1910
SABS Permit No.	9068/14364

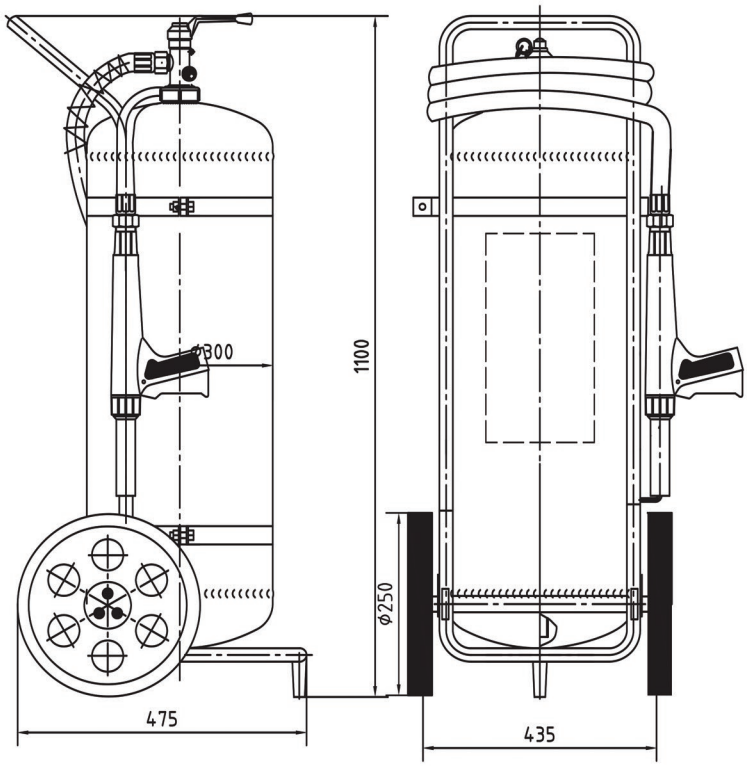


1. Carry handle
2. Operating handle
3. Valve housing
4. O ring
5. Plunger spindle
6. Plunger O ring
7. Plunger seal
8. Nut
9. Spring
10. Siphon seat
11. Siphon tube
12. Trim ring
13. O ring
14. Neck ring
15. Upper
16. Cylinder body
17. Bottom
18. Bracket
19. Hook
20. Filter
21. Release gland
22. Release seat
23. Release spring
24. Safety relief retainer
25. Rivet
26. Safety pin strap
27. Safety pin
28. Pressure gauge

Cross-section | Expanded View

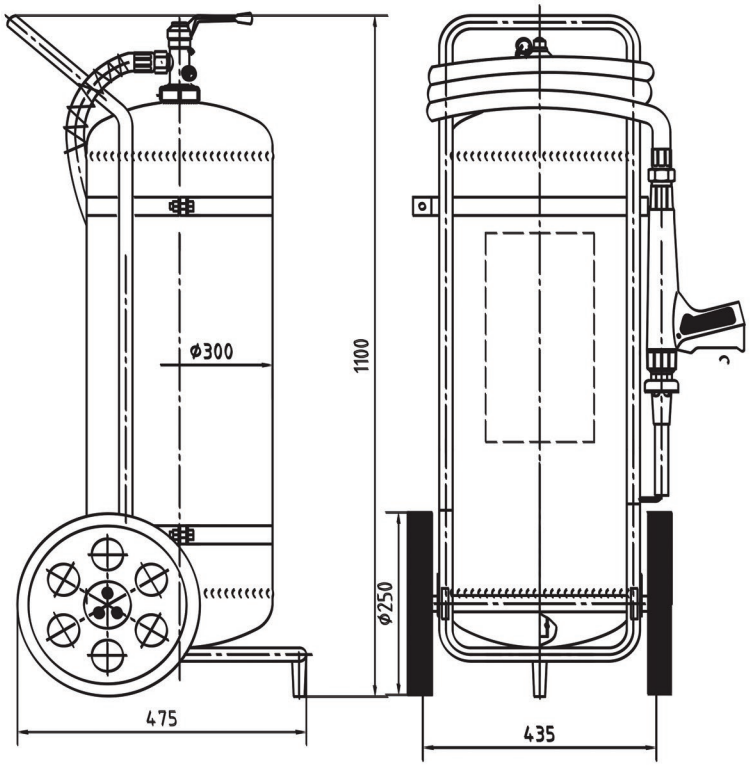
DRY CHEMICAL POWDER AND FOAM MOBILE FIRE EXTINGUISHERS

Product Code	Component
A012	50Kg Dry Chemical Powder Type, Mobile Trolley Fire Extinguisher
Description	Specifications
Charge	50Kg
Fire Extinguisher Complete Full Weight	72Kg
Fire Extinguisher Complete Empty Weight	22Kg
Cylinder Empty Weight	19.9Kg
Cylinder Length (mm)	918±2
Out-cylinder diameter (mm)	300
Volume (L)	59.5
Min. Wall Thickness of Cylinder mm)	3
Material	HP245
Discharge Time	>25 sec.
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2300 ~ 2800kPa
Size / Type of Pressure Gauge Fitted	M10"1 / Diaphragm
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	37 x 36 x 114.5



Cross-section

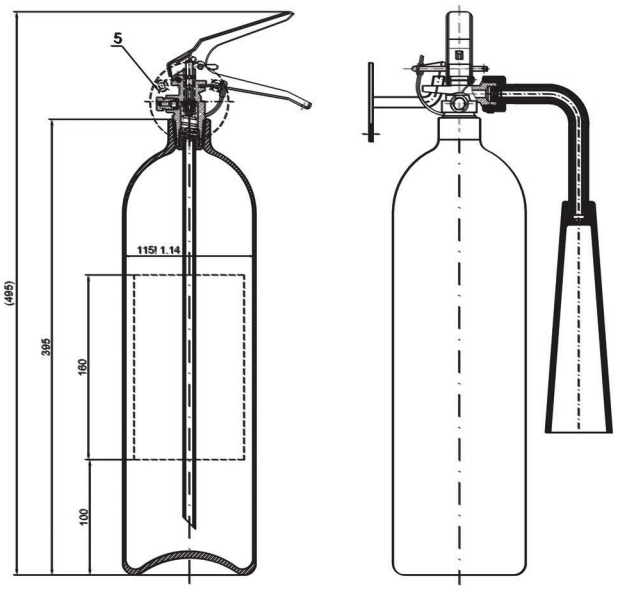
Product Code	Component
A012.1	50Litre 3% AFFF Type, Mobile Trolley Fire Extinguisher
Description	Specifications
Charge	50L
Fire Extinguisher Complete Full Weight	72Kg
Fire Extinguisher Complete Empty Weight	22Kg
Cylinder Empty Weight	20.6Kg
Cylinder Length (mm)	918±2
Out-cylinder diameter (mm)	300
Volume (L)	59.5
Min. Wall Thickness of Cylinder mm)	3
Material	HP245
Discharge Time	>25 sec.
Corrosion Protection	LJ766 Powder inner coating
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2300 ~ 2800kPa
Size / Type of Pressure Gauge Fitted	M10"1 / Bourdon Tube
Working Temperature	0°C ~ +60°C
Packing Size (cm)	37 x 36 x 114.5



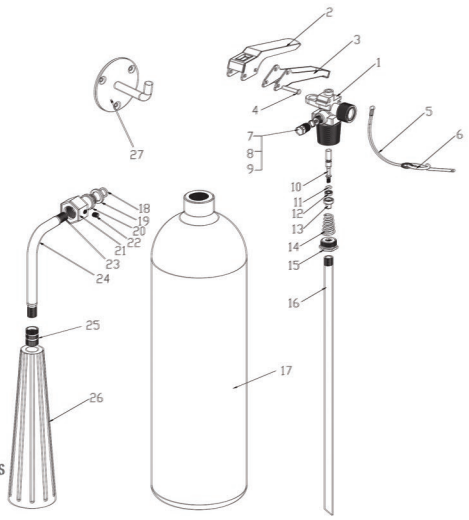
Cross-section

CARBON DIOXIDE TYPE FIRE EXTINGUISHERS

Product Code	Component
H001	2.0Kg Carbon Dioxide Type Fire Extinguisher – Steel Alloy Type
Description	Specifications
Charge	2.0Kg
Fire Extinguisher Complete Full Weight	6.30Kg
Fire Extinguisher Complete Empty Weight	4.30Kg
Cylinder Empty Weight	4.0Kg
Cylinder Length (mm)	395 + 10
Out-cylinder diameter (mm)	115 ± 1.14
Volume (L)	3
Min. Wall Thickness of Cylinder mm)	2.12
Material	34CrMo4
Discharge Time	>8sec.
Range of Discharge	1.0m
Corrosion Protection	L
Filling Ratio	0.66
Working Pressure	4500kPa
Hydrostatic Test Pressure	25000kPa
Bursting Pressure of Cylinder	>400bar
Safety Device	210±15bar
Fire Rating	8B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	16.5 x 12 x 51.5
SABS Specification	SANS 1567
SABS Permit No.	9068/14365



29. Valve Body
30. Top Handle
31. Bottom Handle
32. Rivet
33. Rubber Chain
34. Pin
35. Safety Bolt
36. Safety Disc
37. Flat Washer
38. Stem
39. Stem O-ring
40. Washer
41. Stem Cap
42. Spring
43. Siphon Seat
44. Dip Tube
45. Cylinder Assembly
46. O-ring
47. Washer
48. Connector
49. Collar Nut
50. Hexagon Socket Screws
51. Elbow
52. Sleeve
53. Copper Part
54. Horn
55. Bracket

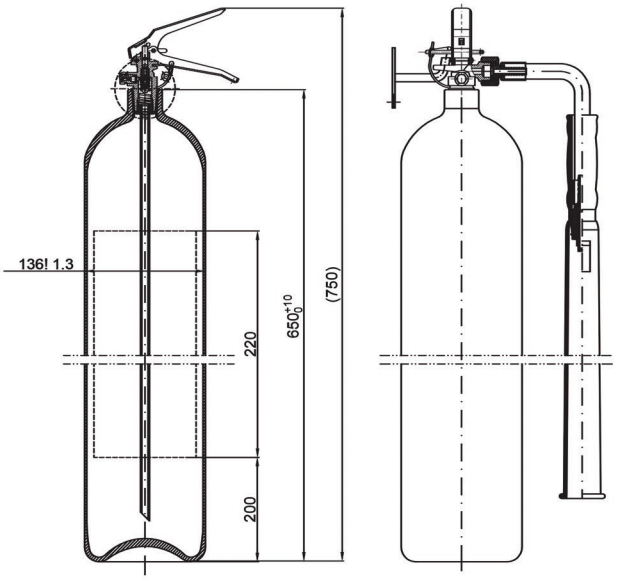


Cross-section

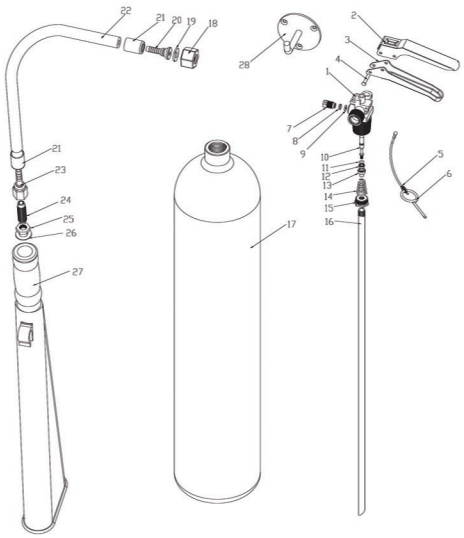
Expanded View

MANTECH FIRE
MAN UP WITH MANTECH

Product Code	Component
H002	5.0Kg Carbon Dioxide Type Fire Extinguisher – Steel Alloy Type
Description	Specifications
Charge	5.0Kg
Fire Extinguisher Complete Full Weight	13.90Kg
Fire Extinguisher Complete Empty Weight	8.90Kg
Cylinder Empty Weight	7.60Kg
Cylinder Length (mm)	650 + 10
Out-cylinder diameter (mm)	136 ± 1.3
Volume (L)	7.5
Min. Wall Thickness of Cylinder mm)	2.5
Material	34CrMo4
Discharge Time	>13sec.
Range of Discharge	2.0m
Corrosion Protection	L
Filling Ratio	0.66
Working Pressure	4500kPa
Hydrostatic Test Pressure	25000kPa
Bursting Pressure of Cylinder	>400bar
Safety Device	210±15bar
Fire Rating	34B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	17.5 x 14.5 x 77
SABS Specification	SANS 1567
SABS Permit No.	9068/14365



56. Valve Body
57. Top Handle
58. Bottom Handle
59. Rivet
60. Rubber Chain
61. Pin
62. Safety Bolt
63. Safety Disc
64. Flat Washer
65. Stem
66. Stem O-ring
67. Washer
68. Stem Cap
69. Spring
70. Siphon Seat
71. Dip Tube
72. Cylinder Assembly
73. Collar Nut
74. Washer
75. Connector 2
76. Sleeve
77. Hoses
78. Connector 1
79. Hollow Stud
80. Nut
81. Gasket
82. Horn
83. Bracket



Cross-section | Expanded View

WET CHEMICAL, FOAM, WATER AND STAINLESS STEEL FIRE EXTINGUISHERS

Product Code	Component
A018	6 Litre (Class F) Wet Chemical Type Fire Extinguisher
Description	Specifications
Charge	6L
Fire Extinguisher Complete Full Weight	11.4Kg
Fire Extinguisher Complete Empty Weight	5.4Kg
Cylinder Empty Weight	3.1Kg
Cylinder Length (mm)	430±2
Out-cylinder diameter (mm)	162
Volume (L)	7.5
Min. Wall Thickness of Cylinder mm)	1.24
Material	ST13
Discharge Time	>9 sec.
Range of Discharge	3m
Corrosion Protection	LJ766 powder inner coating
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	13A 75F
Working Temperature	0°C ~ +60°C
Packing Size (cm)	17.5 x 17 x 55

Product Code	Component
G007	2.0 Litre 3% AFFF Type, Mild Steel Fire Extinguisher
Description	Specifications
Charge	3L
Fire Extinguisher Complete Full Weight	3.9Kg
Fire Extinguisher Complete Empty Weight	1.9Kg
Cylinder Empty Weight	1.1Kg
Cylinder Length (mm)	317±2
Out-cylinder diameter (mm)	110
Volume (L)	2.5
Min. Wall Thickness of Cylinder mm)	1.24
Material	ST13
Discharge Time	>6 sec.
Range of Discharge	2m
Corrosion Protection	LJ766 powder inner coating
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Working Temperature	0°C ~ +60°C
Packing Size (cm)	13.5 x 12.5 x 42

Product Code	Component
G006	9 Litre 3% AFFF Type, Mild Steel Fire Extinguisher
Description	Specifications
Charge	9L
Fire Extinguisher Complete Full Weight	13.8Kg
Fire Extinguisher Complete Empty Weight	4.8Kg
Cylinder Empty Weight	4.65Kg
Cylinder Length (mm)	519±2
Out-cylinder diameter (mm)	184
Volume (L)	12
Min. Wall Thickness of Cylinder mm)	>1.32
Material	ST13
Discharge Time	>12 sec.
Range of Discharge	3-8m
Corrosion Protection	LJ766 powder inner coating
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	13A 183B
Working Temperature	0°C ~ +60°C
Packing Size (cm)	19.5 x 20 x 64

Product Code	Component
G009	9 Litre Water Type, Mild Steel Fire Extinguisher
Description	Specifications
Charge	9L
Fire Extinguisher Complete Full Weight	13.8Kg
Fire Extinguisher Complete Empty Weight	4.8Kg
Cylinder Empty Weight	4.65Kg
Cylinder Length (mm)	519±2
Out-cylinder diameter (mm)	184
Volume (L)	12
Min. Wall Thickness of Cylinder mm)	>1.32
Material	ST13
Discharge Time	>12 sec.
Range of Discharge	3-8m
Corrosion Protection	LJ766 powder inner coating
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	13A
Working Temperature	0°C ~ +60°C
Packing Size (cm)	19.5 x 20 x 64

Product Code	Component
G002	9 Litre 3% Type, Stainless Steel Fire Extinguisher
Description	Specifications
Charge	9L
Fire Extinguisher Complete Full Weight	12.3Kg
Fire Extinguisher Complete Empty Weight	3.3Kg
Cylinder Empty Weight	2.65Kg
Cylinder Length (mm)	560
Out-cylinder diameter (mm)	162
Volume (L)	10.5
Min. Wall Thickness of Cylinder mm)	1.2
Material	SUS304
Discharge Time	>12 sec.
Range of Discharge	3-8m
Corrosion Protection	Stainless Steel (SUS404)
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	13A 183B
Working Temperature	0°C ~ +60°C
Packing Size (cm)	18.5 x 18.5 x 66.5

Product Code	Component
A016	9Kg Dry Chemical Powder Type, Stainless Steel Fire Extinguisher
Description	Specifications
Charge	9Kg
Fire Extinguisher Complete Full Weight	12.3Kg
Fire Extinguisher Complete Empty Weight	3.3Kg
Cylinder Empty Weight	2.65Kg
Cylinder Length (mm)	560
Out-cylinder diameter (mm)	162
Volume (L)	10.5
Min. Wall Thickness of Cylinder mm)	1.2
Material	SUS304
Discharge Time	>12 sec.
Range of Discharge	8m
Corrosion Protection	Stainless Steel (SUS404)
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	⅛" NPT / Bourdon Tube
Fire Rating	27A 144B
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	18.5 x 18.5 x 66.5

DRY CHEMICAL POWDER TYPE AUTOMATIC FIRE EXTINGUISHERS

Product Code	Component
A025	9Kg Dry Chemical Powder Type, Automatic Fire Extinguisher (Ceiling Unit)
Description	Specifications
Charge	9Kg
Fire Extinguisher Complete Full Weight	13Kg
Fire Extinguisher Complete Empty Weight	4Kg
Cylinder Empty Weight	3.9Kg
Cylinder Length (mm)	485±2
Out-cylinder diameter (mm)	177±1
Volume (L)	9.8
Min. Wall Thickness of Cylinder mm)	1.5
Material	ST12
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	Automatic valve with 68°C thermal rating bulb ⅛" x 27NPT / Bourdon Tube
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	19 x 19 x 59

Product Code	Component
A021	4.5Kg Dry Chemical Powder Type, Automatic Fire Extinguisher (Ceiling Unit)
Description	Specifications
Charge	4.5Kg
Fire Extinguisher Complete Full Weight	7.5Kg
Fire Extinguisher Complete Empty Weight	3Kg
Cylinder Empty Weight	2.9Kg
Cylinder Length (mm)	345±2
Out-cylinder diameter (mm)	177±1
Volume (L)	6.28
Min. Wall Thickness of Cylinder mm)	1.5
Material	ST12
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	Automatic valve with 68°C thermal rating bulb ⅛" x 27NPT / Bourdon Tube
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	19 x 19 x 45

Product Code	Component
A024	1.0Kg Dry Chemical Powder Type, Automatic Fire Extinguisher (Ceiling Unit)
Description	Specifications
Charge	1.0Kg
Fire Extinguisher Complete Full Weight	1.84Kg
Fire Extinguisher Complete Empty Weight	0.84Kg
Cylinder Empty Weight	0.66Kg
Cylinder Length (mm)	270±2
Out-cylinder diameter (mm)	78
Volume (L)	1.03
Min. Wall Thickness of Cylinder mm)	0.9
Material	ST13
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	Automatic valve with 68°C thermal rating bulb ⅛" x 27NPT / Bourdon Tube
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	10.5 x 9.5 x 34

CLEAN AGENT TYPE AUTOMATIC FIRE EXTINGUISHERS

Product Code	Component
A023	1.0Kg Clean Agent HFC236fa Type, Automatic Fire Extinguisher (Ceiling Unit)
Description	Specifications
Charge	1.0Kg
Fire Extinguisher Complete Full Weight	1.84Kg
Fire Extinguisher Complete Empty Weight	0.84Kg
Cylinder Empty Weight	0.66Kg
Cylinder Length (mm)	270±2
Out-cylinder diameter (mm)	78
Volume (L)	1.03
Min. Wall Thickness of Cylinder mm)	0.9
Material	ST13
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	Automatic valve with 68°C thermal rating bulb ⅛" x 27NPT / Bourdon Tube
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	10.5 x 9.5 x 34

Product Code	Component
A020	4.5Kg Clean Agent HFC227ea Type, Automatic Fire Extinguisher (Ceiling Unit)
Description	Specifications
Charge	4.5Kg
Fire Extinguisher Complete Full Weight	7.5Kg
Fire Extinguisher Complete Empty Weight	3Kg
Cylinder Empty Weight	2.9Kg
Cylinder Length (mm)	345±2
Out-cylinder diameter (mm)	177±1
Volume (L)	6.28
Min. Wall Thickness of Cylinder mm)	1.5
Material	ST12
Corrosion Protection	L
Working Pressure	1400kPa
Hydrostatic Test Pressure	2100kPa
Bursting Pressure of Cylinder	>5500kPa
Safety Device	2100 ~ 2600kPa
Size / Type of Pressure Gauge Fitted	Automatic valve with 68°C thermal rating bulb ⅛" x 27NPT / Bourdon Tube
Working Temperature	-30°C ~ +60°C
Packing Size (cm)	19 x 19 x 45

STORED PRESSURE TYPE FIRE EXTINGUISHER SPARES AND ACCESSORIES

Product Code	**N001**	Component	9kg / 4.5kg SPT Valve Assembly Complete	
Inlet Thread	Outlet Thread	Dip Thread	Gauge Connection Thread	Check Valve
M30 x 1.5	G¼"	M16 x 1.5	⅛" x 27NPT	21-26bar
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		O-Rings	Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nitrile rubber from 80 to 90 SH	Nylon	Soft PVC

Product Code	**N001.1**	Component	1.5kg / 2.5kg SPT Valve Assembly Complete	
Inlet Thread	Outlet Thread	Dip Thread	Gauge Connection Thread	Check Valve
M30 x 1.5	G¼"	M16 x 1.5	⅛" x 27NPT	21-26bar
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		O-Rings	Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nitrile rubber from 80 to 90 SH	Nylon	Soft PVC

Product Code	**N002**	Component	1.0kg SPT Valve Assembly Complete	
Inlet Thread	Outlet Thread	Dip Thread	Gauge Connection Thread	Check Valve
M30 x 1.5	G⅛"	M16 x 1.5	⅛" x 27NPT	21-26bar
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		O-Rings	Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nitrile rubber from 80 to 90 SH	Nylon	Soft PVC

Product Code	**N005**	Component	50kg SPT Valve Assembly Complete	
Inlet Thread	Outlet Thread	Dip Thread	Gauge Connection Thread	Check Valve
G2"	G¾"	G¾"	M10 x 1	23-28bar
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		O-Rings	Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nitrile rubber from 80 to 90 SH	Nylon	Soft PVC

Product Code	**N001.2** **N001.3**	Component	Automatic Valve With 68°C Thermal Rating Bulb 68°C Automatic Glass Thermal Bulb	
Inlet Thread		Dip Thread	Gauge Connection Thread	Check Valve
M30 x 1.5		G¾"	⅛" x 27NPT	22-27bar
Materials:				
Valve Body		Washer	Grub Screw	Cup
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Rolled brass CuZn37	Turned brass CuZn40Pb2	Turned brass CuZn40Pb2
Bulb Holder		O-Rings	Bulb	Bulb Cap
Turned brass CuZn40Pb2		Nitrile rubber from 80 to 90 SH	Glass	Turned brass CuZn40Pb2

Product Code	Component	Description	
N003	SPT Large Top Handle Only	Top lever handle for 4.5kg / 9.0kg valve assembly	
N004	SPT Large Handle Bottom Only	Bottom handle for 4.5kg / 9.0kg valve assembly	
N029.1	Retaining Pin For Large Handle Set	Retaining pin for securing top & bottom large handle set	
N029.2	Retaining Pin For Small Hand Set	Retaining pin for securing top & bottom small handle set	
N028	Galvanised Bolt For Handle Set	M4 x 30 galvanised bolt for securing top & bottom handle set	
N029	Nylon Lock Nut For Handle Set	M4 nylon lock nut	
N005.1	Handle For 50Kg Trolley Unit Valve	Red lever handle for 50kg trolley unit valve	

Product Code	Component	Description	
N020	Large Plunger For SPT Valve	Large brass plunger for 1.5kg to 9kg valve assembly	
N021	Small Plunger For SPT Valve	Small Brass plunder for 1kg valve assembly	

Product Code	Component	Description	
N008	Large Safety Pin	4mm locking safety pin nickel plated	
N009	Small Safety Pin	3mm locking safety pin nickel plated	
N009.5	Red Plastic Safety Pin Retainer	Soft Plastic safety pin retainer	

Product Code	Component	Description	
N006	Pressure Gauge ⅛" NPT Tapered Thread	⅛" x 27 NPT diaphragm tapered thread gauge	 
N006.1	Pressure Gauge "O"-Ring Type	M10 x 1 x 12.5 "O"-Ring diaphragm type gauge	 
N034	Pressure Gauge For Trolley Unit	M10 x 1 x 12.5 "O"-Ring diaphragm type gauge	

Product Code	Component	Description	
N007	"O"-Ring 30 x 3	30 x 3 Nitrile rubber "O"-Ring	
N007.1	"O"-Ring 24 x 4	24 x 4 Nitrile rubber "O"-Ring	
N007.3	"O"-Ring 27 x 3	27 x 3 Nitrile rubber "O"-Ring	

Product Code	Component	Description	
N032	9.0Kg Hose Assembly	9kg PVC hose assembly SANS 1086 / EN694 approval	
N016	4.5Kg Hose Assembly	4.5kg PVC hose assembly SANS 1086 / EN694 approval	
N016.1	12mm PVC Hose x 100m length	12mm nominal internal diameter PVC hose with SANS 1086 / EN694 approval	
N033	Plastic Strap for Discharge hose	Black plastic cable strap with clip for securing 12mm hose assembly	

Product Code	Component	Description	
N026	Foam Nozzle	Plastic foam aerated nozzle	
N026.1	9L Hose Assembly & Foam Aerated Plastic Nozzle	PVC hose assembly with plastic foam aerated nozzle for 9L foam extinguisher	
N026.2	9L Hose Assembly & Brass Foam Nozzle	PVC hose assembly with brass foam nozzle for 9L foam extinguisher	

Product Code	Component	Description	
N011	Plastic Nozzle	Plastic discharge nozzle for hose assembly	
N010	Crimp Ferrule	Aluminium crimp ferrule for 12mm discharge hose	
N014	G¼ Steel Hose Tail Piece	Steel insert for securing 12mm hose to valve assembly	
N012	1.0Kg Steel Alloy Nozzle	G⅛" steel alloy nozzle for 1.0kg extinguisher	
N013	1.5Kg / 2.5kg Steel Alloy Nozzle	G¼" steel alloy nozzle for 1.5kg / 2.5kg extinguisher	

Product Code	Component	Description	
N018	Hose Assembly with Pistol Grip Nozzle For 50Kg DCP Trolley Unit	5.2m length black PVC hose assembly complete with pistol grip nozzle for 50kg dry powder type trolley unit	
N018.1	Hose Assembly with Foam Pistol Grip Nozzle For 50L Foam Trolley Unit	5.2m length black PVC hose assembly complete with pistol grip foam nozzle for 50L foam type trolley unit	
N038	Discharge Hose Assembly For 50kg Trolley Unit	5.2m length black PVC hose assembly for both foam / DCP type trolley unit	
N035	DCP Pistol Grip Nozzle	Plastic pistol grip nozzle for dry chemical powder type trolley unit	
N036	Foam Pistol Grip Nozzle	Plastic pistol grip nozzle for foam type trolley unit	

Product Code	Component	Description	
N038.1	Heavy Duty Wheel	295mm plastic heavy duty trolley unit wheel	
N038.2	Steel Trolley Unit Frame Complete With Wheels	Steel trolley unit frame for 50kg unit complete with 2 x 295mm plastic heavy duty wheels	

Product Code	Component	Description	
N027	Plastic Base For 9L Stainless Extinguisher	160mm plastic pedestal base for 9L stainless steel extinguisher	
N019.1	Plastic Base For 9kg / 4.5kg Extinguisher	180mm plastic pedestal base for 4.5kg / 9.0kg extinguisher	
N019.2	Plastic Base 185mm For Foam / Water Extinguisher	185mm plastic pedestal base for 9L mild steel extinguisher	

CARBON DIOXIDE TYPE FIRE EXTINGUISHER SPARES AND ACCESSORIES

CO_2 FIRE EXTINGUISHER VALVES

Product Code	**0003**	Component	½" CO_2 Valve Assembly	
Inlet Thread	Outlet Thread	Dip Thread	Safety Device	
½" – 14NPT	W21.8 x 14	M10 x 1	210 ± 15bar	
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever			Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated			Nylon	Soft PVC

Product Code	**0002**	Component	¾" CO_2 Valve Assembly Front outlet	
Inlet Thread	Outlet Thread	Dip Thread	Safety Device	
¾" – 14NPT	W21.8 x 14	M10 x 1	210 ± 15bar	
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever			Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated			Nylon	Soft PVC

Product Code	**0002.1**	Component	¾" CO_2 Valve Assembly Side outlet	
Inlet Thread	Outlet Thread	Dip Thread	Safety Device	
¾" – 14NPT	W21.8 x 14	M10 x 1	210 ± 15bar	
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever			Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated			Nylon	Soft PVC

Product Code	**0001**	Component	1" CO_2 Valve Assembly	
Inlet Thread	Outlet Thread	Dip Thread	Safety Device	
1" – 11.5NPT	W21.8 x 14	M10 x 1	210 ± 15bar	
Materials:				
Valve Body		Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated		Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever			Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated			Nylon	Soft PVC

Product Code	**0004**	Component	M25 x 2 mm CO_2 Valve Assembly for Aluminium extinguisher ("O"-Ring type)
Inlet Thread	Outlet Thread	Dip Thread	Safety Device
M25 x 2	W21.8 x 14	M10 x 1	190 ± 15bar

Materials:

Valve Body	Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated	Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever	O-Rings	Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated	Nitrile rubber from 80 to 90 SH	Nylon	Soft PVC

Product Code	**0001.4**	Component	¾" CO_2 Screw Down Valve
Inlet Thread	Outlet Thread	Dip Thread	Safety Device
¾" – 14NPT	W21.8 x 14	M10 x 1	210 ± 15bar

Materials:

Valve Body	Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated	Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nylon	Soft PVC

Product Code	**0001.5**	Component	1" CO_2 Screw Down Valve
Inlet Thread	Outlet Thread	Dip Thread	Safety Device
1" -11.5NPT	W21.8 x 14	M10 x 1	210 ± 15bar

Materials:

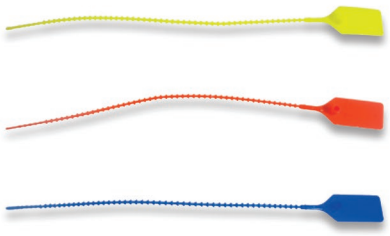
Valve Body	Spindle	Spring	Safety Pin
Hot pressed brass CuZn40Pb2 Sandblasted / nickel - plated	Turned brass CuZn40Pb2	Stainless Steel	Brass / stainless steel
Handle / Lever		Dip Tube Adaptor	Retainer For Safety
Steel sheet Fe P13 cold formed epoxy coated		Nylon	Soft PVC

CO_2 HOSE AND HORN ASSEMBLIES

Product Code	Component	Description	
0005	2.0Kg CO_2 Fixed Horn	Plastic CO_2 conical fixed discharged horn	
0006	2.0Kg CO_2 Swing Horn	Plastic CO_2 swing discharge horn	
0010	5.0Kg Hose & Horn	Plastic CO_2 discharge horn with 8mm high pressure flexible PVC hose. -30°C/+60°C, WP 150kgf/cm² BP450kgf/cm² with W21.8 x 14 fitting	
0010.1	5.0Kg Hose & Horn with ¼" Fitting	Plastic CO_2 discharge horn with 8mm high pressure flexible PVC hose. -30°C/+60°C, WP 150kgf/cm² BP450kgf/cm² with ¼" NPT fitting	

EXTINGUISHER SEALS

Product Code	Component	Description
S001.1	Yellow Pull-tight Seal	• Consists of high density polypropylene for greater durability in extreme weather • These seals are medium strength pull-tight designed to be used on securing cabinets, extinguishers, or any other equipment. Requiring a reliable, tamper-resistant locking mechanism with a reasonable degree of strength • Length 140mm
S001.2	Red Pull-tight Seal	
S001.3	Blue Pull-tight Seal	



Product Code	Component	Description
S002	Pad-lock Seal	• Featuring a plastic body with stainless steel hasp, it's simple design ensures ease of use but at no cost to its strength • The plastic/metal padlock seal can be applied without a tool • Pad-lock seals are consecutively numbered

Product Code	Component	Description
S009	Lead Seals	• The seal is a round lead seal product which is used in conjunction with any length of pre-cut wire type, and can be crimped with an ordinary pliers • Generally used to deter tampering or vandalism • Material: 99.9% pure lead • Dimension: 8mm x 4mm

INSPECTION LABELS

Product Code	Component	Description
S006	Monthly Inspection Label – Small (sample to be sent)	• An adhesive monthly inspection label for period inspection • White vinyl background with red print, UV protected • Dimensions: 75mm x 85mm
S007	Monthly Inspection Label – Large (sample to be sent)	• An adhesive monthly inspection label for period inspection • White vinyl background with red print, UV protected • Dimensions: 90mm x 120mm

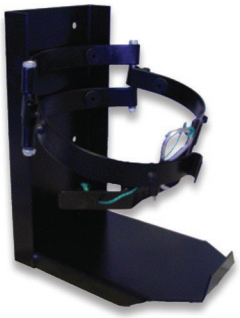
VEHICLE METAL BRACKETS

Product Code	**T003.1**
Component	1.0kg Metal Vehicle Bracket
Description	• Light duty transport bracket for extinguisher • 1.6mm mild steel with electroplated coating • Locking pin with R-clip • 4 x mounting holes for securing bracket • Weight: 0.2Kg

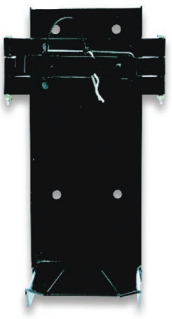
Product Code	**T006.2**
Component	1.5kg Metal Vehicle Bracket
Description	• Light duty transport bracket for extinguisher • 1.6mm mild steel with electroplated coating • Locking pin with R-clip • 4 x mounting holes for securing bracket • Weight: 0.23Kg

Product Code	**T011.2**
Component	2.5kg Metal Vehicle Bracket
Description	• Light duty transport bracket for extinguisher • 1.6mm mild steel with electroplated coating • Locking pin with R-clip • 4 x mounting holes for securing bracket • Weight: 0.29Kg

Product Code	**T015.1**
Component	4.5kg Black Metal Bracket
Description	• Heavy duty transport bracket for extinguisher • 2mm mild steel with black powder coating • Locking pin with R-clip • 4 x mounting holes for securing bracket • Weight: 1.3Kg



Product Code	**T015**
Component	9.0kg Black Metal Bracket
Description	• Heavy duty transport bracket for extinguisher • 2mm mild steel with black powder coating • Locking pin with R-clip • 4 x mounting holes for securing bracket • Weight: 2.4Kg



HEAVY DUTY BRACKETS

Product Code	**T012.1**
Component	2.5kg Heavy Duty Bracket With Rubber Bonnet Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: EPDM rubber bonnet catch • 2 x mounting holes for securing bracket • Weight: 2.0Kg

Product Code	**T012.2**
Component	2.5kg Heavy Duty Bracket With Steel Spring Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: Steel spring catch • 2 x mounting holes for securing bracket • Weight: 2.0Kg

Product Code	**T017.1**
Component	4.5kg Heavy Duty Bracket With Rubber Bonnet Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: EPDM rubber bonnet catch • 2 x mounting holes for securing bracket • Weight: 2.95Kg

Product Code	**T017.2**
Component	4.5kg Heavy Duty Bracket With Steel Spring Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: Steel spring catch • 2 x mounting holes for securing bracket • Weight: 2.95Kg

	T016
Component	9.0kg Heavy Duty Bracket With Rubber Bonnet Catch, Countersink Bolt Type
Product Code Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Bracket can accommodate 2 size extinguishers (diameter 175mm-190.5mm) by changing the setting at the securing split pin on bracket • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: EPDM rubber bonnet catch • 2 x mounting holes for securing bracket • Weight: 3.8Kg

Product Code	**T016.1**
Component	9.0kg Heavy Duty Bracket With Steel Spring Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Bracket can accommodate 2 size extinguishers (diameter 175mm-190.5mm) by changing the setting at the securing split pin on bracket • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: Steel spring catch • 2 x mounting holes for securing bracket • Weight: 3.8Kg

Product Code	**T016.4**
Component	9.0kg Heavy Duty Bracket, Double Strap With Rubber Bonnet Catch, Countersink Bolt Type
Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Bracket can accommodate 2 size extinguishers (diameter 175mm-190.5mm) by changing the setting at the securing split pin on bracket • Double securing steel arms for extra protection in securing extinguisher • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: 2 x EPDM rubber bonnet catches • 2 x mounting holes for securing bracket • Weight: 4.5Kg

	T016.5
Component	9.0kg Heavy Duty Bracket, Double Strap With Steel Spring Catch, Countersink Bolt Type
Product Code Description	• Red Heavy duty transport bracket for extinguisher • 3mm mild steel with phosphate coating and red powder coating • 2 x countersink bolt mounting holes for securing bracket and prevention of the abrasion of mounting bolt against cylinder • Bracket can accommodate 2 size extinguishers (diameter 175mm-190.5mm) by changing the setting at the securing split pin on bracket • Double securing steel arms for extra protection in securing extinguisher • Protective neoprene strips placed on bracket to protect abrasion against extinguisher body • Locking mechanism: 2 x Steel spring catches • 2 x mounting holes for securing bracket • Weight: 4.5Kg

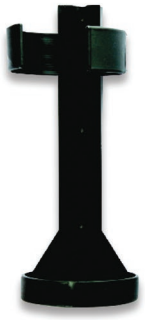
Product Code	**T022**
Component	Steel Spring Catch for Heavy Duty Bracket
Description	• Steel spring catch powder coated black complete with steel bush & split pin as locking mechanism for securing extinguisher in bracket

Product Code	**S004.1**
Component	Rubber Bonnet Catch for Heavy Duty Bracket
Description	• EPDM rubber bonnet catch as locking mechanism for securing extinguisher in bracket

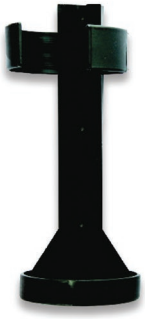
Product Code	**S005**
Component	Split Pin for Heavy Duty Bracket
Description	• Steel galvanised split pin for securing rubber bonnet / steel spring catch to bracket

PLASTIC BRACKETS

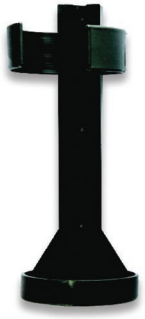
Product Code	**T002**
Component	1.0kg Plastic Vehicle Bracket
Description	• Heavy duty plastic transport bracket for securing 1kg extinguisher • Allows for quick and easy mounting and removal of extinguisher • 3 x mounting holes for securing bracket



Product Code	**T008**
Component	1.5kg Plastic Vehicle Bracket
Description	• Heavy duty plastic transport bracket for securing 1.5kg extinguisher • Allows for quick and easy mounting and removal of extinguisher • 3 x mounting holes for securing bracket



Product Code	**T010**
Component	2.5kg Plastic Vehicle Bracket
Description	• Heavy duty plastic transport bracket for securing 2.5kg extinguisher • Allows for quick and easy mounting and removal of extinguisher • 3 x mounting holes for securing bracket



WALL BRACKETS

Product Code	**T019**
Component	5kg CO_2 Red Hanging Bracket
Description	• 2mm red mild steel 5kg CO_2 extinguisher hanging bracket red powder coated • Allows for quick and easy hanging and removal of extinguisher off extinguisher valve • 3 x mounting holes for hanging bracket

Product Code	**T024**
Component	2kg CO_2 Red Hanging Bracket
Description	• 2mm red mild steel 2kg CO_2 extinguisher hanging bracket red powder coated • Allows for quick and easy hanging and removal of extinguisher off extinguisher valve • 3 x mounting holes for hanging bracket

Product Code	**T018**
Component	70mm Uni-hanging Bracket
Description	• 1.0mm mild steel bracket with electroplated coating • Allows for quick and easy hanging and removal of extinguisher off extinguisher valve • 3 x mounting holes for hanging bracket

Product Code	**T023**
Component	J- Hanging Bracket
Description	• 1.6mm mild steel bracket with electroplated coating • Allows for quick and easy hanging and removal of stored pressure type extinguisher from mounting bracket on cylinder • 2 x mounting holes for hanging bracket

Product Code	**T020**
Component	Z- Hanging Bracket
Description	• 1.0mm mild steel bracket with electroplated coating • Allows for quick and easy hanging and removal of extinguisher off extinguisher valve • 2 x mounting holes for hanging bracket

UV-RESISTANT PLASTIC CABINETS

Product Code	**Q024**
Component	9kg Plastic Extinguisher cabinet
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 690mm x 415mm x 230mm (L x W x H)

Product Code	**Q024.1**
Component	Double 9kg Plastic Extinguisher cabinet
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 600mm x 460mm x 300mm (L x W x H)

Product Code	**Q025**
Component	5kg Plastic Extinguisher cabinet
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 790mm x 420mm x 230mm (L x W x H)

Product Code	**Q025.1**
Component	6.8kg Plastic Extinguisher cabinet
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 790mm x 420mm x 300mm (L x W x H)

Product Code	**Q026**
Component	Plastic Hose Cabinet for 2 x 30m Fire Hoses
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 710mm x 560mm x 320mm (L x W x H)

Product Code	**Q027**
Component	Plastic Hose Cabinet for 3 x 30m Fire Hoses
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • 890mm x 890mm x 300mm (L x W x H)

Product Code	**Q035**
Component	Plastic Hose Cabinet for 2 x 30m Fire Hoses on Steel Stand
Description	• Fire cabinet is made from LLDPE for strength and durability • For opening cabinet, door slides ,with no hinges • Inspection can be done easily through the Polycarbonate viewing panel • Lockable with break glass with spare key • Plastic cabinet 710mm x 560mm x 320mm (L x W x H) • Mild steel frame fabricated from 75mm x 75mm square tubing, signal red 710mm x 560mm x 1000mm (L x W x H)

Product Code	**Q001**
Component	9kg Extingui-mate Cabinet
Description	• Fire cabinet has an UV stabilised, ultra high impact clear acrylic front, white UV stabilised ABS back and corrosion resistant polypropylene hinges. Neoprene weather seal • Transparency enables instant inspection, and promotes equipment awareness • Height includes lip: 827mm. Height excludes lip: 730mm • Width includes lip: 423mm. Width excludes lip: 327mm • Total depth: 242mm

STEEL CABINETS

Product Code	**Q006**
Component	4.5kg Steel Single Extinguisher Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with Cam-lock fitted with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 560mm x 300mm x 280mm (H x W x D) • Weight: 6.2Kg

Product Code	**Q007**
Component	9.0kg Steel Single Extinguisher Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with Cam-lock fitted with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 750mm x 300mm x 280mm (H x W x D) • Weight: 7.5Kg

Product Code	**Q008**
Component	9.0kg Double Steel Single Extinguisher Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with Cam-lock fitted with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 750mm x 500mm x 280mm (H x W x D) • Weight: 10.5Kg

Product Code	**Q009**
Component	5kg Steel Single Extinguisher Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with Cam-lock fitted with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 900mm x 500mm x 280mm (H x W x D) • Weight: 8.8Kg

Product Code	**Q015**
Component	Open Back Steel Hose Reel Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet lockable with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 800mm x 800mm x 300mm (H x W x D) • Weight: 13Kg

Product Code	**Q016**
Component	Close Back Steel Hose Reel Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 800mm x 800mm x 300mm (H x W x D) • Weight: 17Kg

Product Code	**Q011**
Component	Wall Mounted Steel Hose Cabinet
Description	• Mild steel cabinet 5 stage phosphate treated, red powder coated • Cabinet weather proof, lockable with break glass & spare key • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 530mm x 900mm x 550mm (H x W x D) • Weight: 19Kg

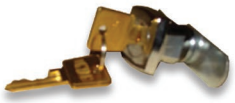
Product Code	**Q012**
Component	Stand
Description	• Mild steel stand 5 stage phosphate treated, red powder coated • Steel thickness: ± 3mm thick mild steel • Dimensions: 890mm x 890mm x 530mm (H x W x D) • Weight: 10.4Kg

Product Code	**Q010**
Component	Wall Mounted Steel Hose Cabinet and Stand
Description	• Mild steel cabinet with stand 5 stage phosphate treated, red powder coated • Steel thickness: ± 3mm thick mild steel for stand • Steel thickness: ± 0.8mm thick mild steel for cabinet • Dimensions for stand: 890mm x 890mm x 530mm (H x W x D) • Dimensions for cabinet: 530mm x 900mm x 550mm (H x W x D) • Weight: 29.4Kg

Product Code	**Q013** **Q019**
Component	Steel Key Box Glass for Key Box
Description	• Mild steel key box 5 stage phosphate treated, red powder coated • Breakable glass secured with steel case with grub screw • Break glass key box supplied with screen printed glass • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 125mm x 85mm x 34mm (H x W x D) • Weight: 0.25Kg

Product Code	**Q014**
	Q014.1
Component	Steel Valve Box
	Glass for Valve Box
Description	• Mild steel hose reel valve box 5 stage phosphate treated, red powder coated • Breakable glass secured with steel case with grub screw • Protect your hose reel valve from tampering • Break glass valve box supplied with screen printed glass • Steel thickness: ± 0.8mm thick mild steel • Dimensions: 230mm x 200mm x 190mm (H x W x D) • Weight: 1.5Kg

Product Code	**Q023**
	Q022
Component	Cam-Lock & Key
	Spare Key
Description	• Cabinet lock for securing cabinet door • Cylindrical lock with an opening for the key at one end and a rotating locking arm or plate, the cam, at the other.



Product Code	**Q017**
Component	Break Glass Hammer with Lanyard
Description	• Galvanised hammer secured with stainless steel lanyard for safe breaking of cabinet glass

COVERS

Product Code	**Q002**
Component	9.0kg DCP Extinguisher PVC Cover
Description	• Low-cost fire extinguisher protection • Manufactured in a durable plastic-based textile • Screen printed "Fire Extinguisher" decal • Eye catching red and black design • Incorporates vision panel for simple inspection • Velcro straps for simple fitting

Product Code	**Q002.1**
Component	4.5kg DCP Extinguisher PVC Cover
Description	• Low-cost fire extinguisher protection • Manufactured in a durable plastic-based textile • Screen printed " Fire Extinguisher" decal • Eye catching red and black design • Incorporates vision panel for simple inspection • Velcro straps for simple fitting

Product Code	**N037**
Component	50Kg DCP / Foam Mobile Trolley Unit PVC Cover
Description	• Manufactured from a heavy duty plastic-based textile in fire red • Screen printed " Fire Extinguisher" decal • Eye catching red and black design • Incorporates vision panel for simple inspection • Velcro straps for simple fitting

Product Code	**Q003**
Component	Hose Reel PVC Cover
Description	• Low-cost fire hose reel protection • Manufactured in a durable plastic-based textile • Screen printed " Fire Hose Reel" decal • Velcro straps for simple fitting • Diameter 580mm x Depth 250mm max.

HOSE REEL FRAME

Product code: K001.1
Fixed Type Fire Hose Reel Frame

Product code: K001.2
Fixed Type Green Hose Reel Frame

Code	Component	Description	Qty
K022	Front & Back Plate	570mm diameter, 1mm mild steel disc forged, phosphated & finished in a epoxy powder coating	2
K025	Hub Spacers	160mm wide cadmium plated curved spacer	3
	Bolts & Nuts & Washers for Spacers	M8 x 12 plated hex bolt & nut with M8 Bright nickel plated washer	12
K021	Back Plate Bush	White nylon bush / grommet with 25mm ID	1
	Bolts & Nuts for Nylon Bush	M4 x 10 plated cheese head screw & hex nut	3
K013	Waterway	Brass swivel joint with cadmium plated goose neck	1
K0011.1	Back Frame – Bottom Mounting Holes	Mild steel back frame with bottom mounting holes, 360mm spacing between holes	
K0011.1	Back Frame – Top Mounting Holes	Mild steel back frame with top mounting holes, 230mm spacing between holes	1
K0011.1	Back Frame – Stand Pipe	25mm threaded mild steel pipe phosphated & finished in a epoxy powder coating	
K015	Draw Shackle	Mild steel nickel plated shackle with PVC run out guide	1
K018.2	Instruction Label	Printed Pyroguard instruction label	1

Weight of Hose Reel Frame	7.45kg
Total Dimensions of Hose Reel in Carton Box	660mm x 580mm x 250mm (W x D x H)
SABS Permit No.	MRK 9068 / 14366
SABS Specification No.	SANS 543

Warranty Conditions That Apply: All new fire hose reels supplied carry a twelve month warranty against defective workmanship and hose from the date of delivery. Providing such equipment is installed correctly and used for the intended design purpose. The warranty excludes unauthorised use, incorrect installation, or corrosion due to electrical and chemical influences.

HOSE REELS COMPLETE

Product code: K004.1	**Product code: K003**
Fixed Type Fire Hose Reel Complete with Red PVC Hose & Aluminium Nozzle	Fixed Type Green Hose Reel Complete with Black PVC Hose & Aluminium Nozzle
Product code: K004.2	**Product code: K004**
Fixed Type Fire Hose Reel Complete with Red PVC Hose & Plastic Nozzle	Fixed Type Green Hose Reel Complete with Black PVC Hose & Plastic Nozzle

Component	Description
Std Hose Length & Diameter	30metres PVC x 20mm Diameter
Hose Specification	SANS 1086 & EN694
Nominal Inside Diameter of Hose	19mm
Working Pressure for Hose Reel in kPa	1200 kPa
Test Pressure for Hose Reel in kPa	1800 kPa
Minimum Burst Pressure for Hose Reel in kPa	3000 kPa
Discharge Rate (std 300kPa)	30Lt/min @300kPa
Effective Throw Range for Jet Discharge @ 0.2 MPa	10m for jet spray
Effective Throw Range for Sheet Spray Discharge @ 0.2 MPa	6m for sheet spray
Effective Throw Range for Conical Spray Discharge @ 0.2 MPa	3m for conical spray
Nozzle Type	19mm Red Plastic, light alloy & black nylon nozzle with spray, jet & shut-off function
Valve	Chromium plated stock cock with 25mm BSP inlet & outlet
Total Mass with Hose	18.2kg
Total Dimensions of Hose Reel in Carton Box	660mm x 580mm x 250mm (W x D x H)
SABS Specification No.	SANS 543
SABS Permit No.	MRK 9068 / 14366

Warranty Conditions That Apply: All new fire hose reels supplied carry a twelve month warranty against defective workmanship and hose from the date of delivery. Providing such equipment is installed correctly and used for the intended design purpose. The warranty excludes unauthorised use, incorrect installation, or corrosion due to electrical and chemical influences.

HOSE REEL SPARES

Product Code	**K005**
Component	Red PVC Hose Reel Hose
Diameter	19mm
Length	30 metres
Specification	SANS 1086 and EN694

Product Code	**K006**
Component	Black PVC Hose Reel Hose
Diameter	19mm
Length	30 metres
Specification	SANS 1086 and EN694

Product Code	**K007**
Component	CP-Valve (stop cock)
Description	Chromium plated stop cock with 25mm BSP inlet & outlet

Product Code	**K008**
Component	CP-Valve Hand Wheel
Description	Chromium plated hand wheel with open inscribed

Product Code	**K010**
Component	Light Alloy Nozzle
Description	Inlet 19mm and outlet 13mm light alloy nozzle with spray, jet and shut-off function. Outlet 13mm diameter

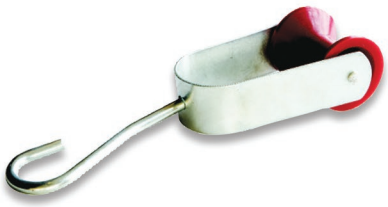
Product Code	**K011**
Component	Black Nylon Nozzle
Description	Inlet 19mm and outlet 13mm black nylon nozzle with spray, jet and shut-off function.

Product Code	**K012**
Component	Red Plastic Nozzle
Description	Inlet 19mm and outlet 13mm black nylon nozzle with spray, jet and shut-off function

Product Code	**K013**
Component	Brass Waterway
Description	Brass swivel joint with cadmium plated goose neck. Inlet is 5/8" BSP male threaded

Product Code	**K014**
Component	"O"-Ring for Brass Waterway
Description	19mm x 3.55mm EPDM hose reel waterway o-ring

Product Code	**K015**
Component	Draw Shackle
Description	Mild steel nickel plated shackle with PVC run out guide



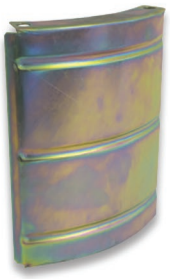
Product Code	**K017**
Component	Jubilee Clamp
Description	G12 plated mild steel hose clamp

Product Code	**K021**
Component	Nylon Bush
Description	White nylon bush / grommet with 25mm ID for back plate

Product Code	**K011.1**
Component	Back Frame with Stand Pipe
Description	25mm threaded mild steel pipe phosphated & finished in a red epoxy powder coating. Bottom mounting holes, 360mm spacing between holes and top mounting holes, 230mm spacing between holes.

Product Code	**K022**
Component	Front & Back Plate Disc
Description	A 570mm diameter, 1mm mild steel disc forged, phosphated & finished in a red epoxy powder coating

Product Code	**K025**
Component	Hub Spacer
Description	160mm wide cadmium plated curved spacer



FIRE HYDRANTS VALVES

Product Code	Component	Description	
P001	Woodlands Tamperproof Type Hydrant Valve (80mm Cast Iron)	• 80mm x 65mm cast iron right angle tamperproof hydrant with single lug instantaneous outlet and 80mm male BSP inlet • Working pressure: 16bar • Weight: 6.30Kg	
P007	Woodlands Tamperproof Key	• T-key for a 16mm spindle square, manufactured in light alloy	

Product Code	Component	Description	
P002	Woodlands Hand wheel Type Hydrant Valve (80mm Cast Iron)	• 80mm x 65mm cast iron right angle hand wheel hydrant with single lug instantaneous outlet and 80mm male BSP inlet • Working pressure: 16bar • Weight: 6.25Kg	
P012.1	Hand Wheel	• Hand wheel for a 16mm spindle square, manufactured in light alloy / cast iron	

Product Code	Component	Description	
P006.1	Right Angle Hand wheel Type Hydrant Valve (80mm Brass)	• 80mm x 65mm brass right angle hand wheel hydrant with single lug instantaneous outlet and 80mm male BSP inlet • Working pressure: 16bar • Weight: 4.40Kg	
P012.1	Hand Wheel	• Hand wheel for a 14mm spindle square, manufactured in light alloy / cast iron	

Product Code	Component	Description	
P010	Clack Washer	• Rubber sealing washer for hydrant valve spindle. Washer is plastic injection moulded, manufactured from thermoplastic rubber	
P011	Instantaneous Washer	• John Morris rubber lip washer is designed to fit a 65mm (21/2') female instantaneous coupling. Washer is plastic injection moulded, manufactured from thermoplastic rubber	
P012.2	4-Way Cross Key	• Cross-key comprising of 12mm, 16mm, 19mm, 21mm. Manufactured in light alloy	
P039	Brass Booster Connector	• 65mm brass booster connector complete with cap & chain	

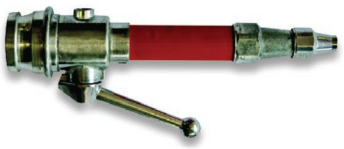
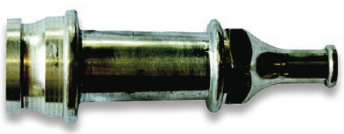
COUPLINGS

Product Code	Component	Description
P023.1	40mm x 40mm Instantaneous Coupling Set	• Light alloy quick connection coupling with a male and female part (John Morris) • Nominal size: 40mm • Hose tail size: 40mm • Weight: 0.45Kg
P023	40mm x 65mm Instantaneous Coupling Set	• Light alloy quick connection coupling with a male and female part (John Morris) • Nominal size: 65mm • Hose tail size: 40mm • Weight: 0.95Kg
P024	50mm x 65mm Instantaneous Coupling Set	• Light alloy quick connection coupling with a male and female part (John Morris) • Nominal size: 65mm • Hose tail size: 50mm • Weight: 0.95Kg
P025	65mm x 65mm Instantaneous Coupling Set	• Light alloy quick connection coupling with a male and female part (John Morris) • Nominal size: 65mm • Hose tail size: 65mm • Weight: 1.0Kg

ADAPTORS

Product Code	Component	Description
P019	65mm Female Instantaneous to Female 50mm BSP	• Light alloy female (John Morris) adaptor • Nominal size: 65mm • Threaded part: female 50mm BSP • Weight: 0.70 Kg
P021	65mm Female Instantaneous to Male 50mm BSP	• Light alloy female (John Morris) adaptor • Nominal size: 65mm • Threaded part: male 50mm BSP • Weight: 0.60Kg
P022	65mm Male Instantaneous to Male 50mm BSP	• Light alloy male (John Morris) adaptor • Nominal size: 65mm • Threaded part: male 50mm BSP • Weight: 0.30 Kg
P020	65mm Male Instantaneous to female 50mm BSP	• Light alloy male (John Morris) adaptor • Nominal size: 65mm • Threaded part: female 50mm BSP • Weight: 0.20Kg

FIRE HOSE NOZZLES AND BRANCH PIPES

Product Code	Component	Description	
P016.1	Branch Pipe – Mini Jet Spray Nozzle With 19mm Tail Insert	• Plastic nozzle/ light alloy • Hose tail diameter size: 19mm • Diameter of outlet:4.0mm • Weight: 0.35Kg	
P016.4	Branch Pipe – Mini Jet Spray Nozzle With 25mm Tail Insert	• Plastic / light alloy nozzle • Hose tail diameter size: 25mm • Diameter of outlet: 4.0mm • Weight: 0.35Kg	
P015	Branch Pipe – Jet Spray Nozzle with 16mm Shut-off Valve	• Light Alloy nozzle • Diameter of outlet: 16mm • Coupling fitting: 65mm John Morris • Function: Jet, spray with shut-off • Jet Flow Rate @ 3.6bar: Jet ≥ 249L/minute x Discharge Range: >20m • Spray Flow Rate @ 3.6bar: Jet ≥ 252L/minute x Discharge Range: >11m • Weight: 2.05Kg	
P016	Branch Pipe – Jet Spray Nozzle with 9mm Shut-off Valve	• Light Alloy nozzle • Diameter of outlet: 9mm • Coupling fitting: 65mm John Morris • Function: Jet, spray with shut-off • Jet Flow Rate @ 6.9bar: Jet ≥ 130L/minute x Discharge Range: >21m • Spray Flow Rate @ 6.9bar: Jet ≥ 132L/minute x Discharge Range: >14m • Weight: 1.15Kg	
P016.2	Branch Pipe – Jet Spray Nozzle with 9mm Multi-Function Curtain Spray	• Light Alloy nozzle • Diameter of outlet: 9mm • Coupling fitting: 65mm John Morris • Function: Jet, spray, curtain spray with shut-off • Jet Flow Rate @ 6.9bar: Jet ≥ 130L/minute x Discharge Range: >21m • Spray Flow Rate @ 6.9bar: Jet ≥ 132L/minute x Discharge Range: >14m • Weight: 2.05Kg	
P016.3	Branch Pipe – Jet Spray Nozzle with 16mm Multi-Function Curtain Spray	• Light Alloy nozzle • Diameter of outlet: 16mm • Coupling fitting: 65mm John Morris • Function: Jet, spray, curtain spray with shut-off • Jet Flow Rate @ 3.6bar: Jet >/249L/minute x Discharge Range: >20m • Spray Flow Rate @ 3.6bar: Jet >/252L/minute x Discharge Range: >11m • Weight: 1.55Kg	
P014	Branch Pipe – Straight Through Nozzle	• Light Alloy nozzle • Diameter of outlet: 16mm / 13mm • Coupling fitting: 65mm John Morris • Function: Jet • Weight: 0.75Kg	

LAY FLAT HOSES

Product Code	Component	Diameter Hose	Hose Length	Material Outside	Material Inside	Working Pressure	Burst Pressure	Packing Weight	Package Size (mm) L x W x H
P029	White Canvas Hose Complete with Couplings – Single PVC Lined 13bar	40mm	30meter	White synthetic fibre polyester single jacket	PVC	13bar	39bar	5.15Kg	440 x 370 x 90
P030	White Canvas Hose Complete with Couplings – Single PVC Lined 13bar	65mm	30meter	White synthetic fibre polyester single jacket	PVC	13bar	39bar	9.30Kg	460 x 360 x 120

Features

- Non-percolating, light weight, all synthetic hose
- Is designed for fire-fighting application or water discharge
- Operating temperature range: -20°C to 60°C based on water
- Constructed from close woven polyester filament yarns with synthetic PVC inner lining
- Complete with light alloy couplings

Product Code	Component	Diameter Hose	Hose Length	Material Outside	Material Inside	Working Pressure	Burst Pressure	Packing Weight	Package Size (mm) L x W x H
P028.1	Pyrocheck Red Double Lined Hose Complete with Couplings –13bar	40mm	30meter	PVC	PVC	13bar	39bar	7.75Kg	550 x 350 x 90
P027.1	Pyrocheck Red Double Lined Hose Complete with Couplings –13bar	65mm	30meter	PVC	PVC	13bar	39bar	12.10Kg	500 x 420 x 130

Features

- Red in colour, non-percolating, light weight, all synthetic, durable fire hose
- Is designed for fire-fighting application
- Operating temperature range: -20°C to 60°C based on water
- Constructed from close woven polyester filament yarns with synthetic PVC inner and outer lining for extra abrasion resistance
- The PVC coating gives protection and increase the resistance to chemicals and oil and increases the life of the hose
- Complete with light alloy couplings

Product Code	Component	Diameter Hose	Hose Length	Material Outside	Material Inside	Working Pressure	Burst Pressure	Packing Weight	Package Size (mm) L x W x H
P040.1	Pyrocheck Blue Double Lined Hose Complete with Couplings –16bar	40mm	30meter	PVC	PVC	16bar	48bar	9.10Kg	620 x 520 x 100
P028.3	Pyrocheck Blue Double Lined Hose Complete with Couplings –16bar	65mm	30meter	PVC	PVC	16bar	48bar	14.05Kg	550 x 470 x 130

Features

- Blue in colour, non-percolating, light weight, all synthetic, durable fire hose
- Is designed for fire-fighting application and industrial wash down
- Operating temperature range: -20°C to 60°C based on water
- Constructed from close woven polyester filament yarns with synthetic PVC inner and outer lining for extra abrasion resistance
- The PVC coating gives protection and increase the resistance to chemicals and oil and increases the life of the hose
- Complete with light alloy couplings

FIRE BLANKETS

- Fire blankets are made of fire resistant materials. They are particularly useful for smothering fat pan fires or for wrapping round a person whose clothing is on fire.
- They will be marked to show whether they should be thrown away after use or used again after cleaning in accordance with the manufacturer's instructions.
- A Fire blanket or damp cloth should be used on a fat pan fire.
- Fire blankets should be kept in the kitchen.
- Do not place your blanket too close to your cooker, you may not reach it in the event of a fire.

Fire Blanket – Details

- Low cost, lightweight (620gm/m^2), and flexible but highly efficient for fire fighting agent, which can extinguish a fire in its early stage by smothering.
- They are able to withstand extremely high temperatures.
- The range of fire blankets is manufactured from fibre glass which is coated on both sides with a specially developed high fire temperature resistant coating.
- The fabric has excellent fire blocking properties and will withstand a blowtorch flame @ 1100°C for over 15 minutes in static conditions.

Product Code	**U007**
Component	Fire Blanket 0.9m x 0.9m
Material	Fibre glass
Pack Dimensions	160mm x 300mm x 30mm (H x W x D)
Package Weight	0.40Kg

Product Code	**U006**
Component	Fire Blanket 1m x 1m
Material	Fibre glass
Pack Dimensions	160mm x 295mm x 30mm (H x W x D)
Package Weight	0.45Kg

Product Code	**U005**
Component	Fire Blanket 1.2m x 1.2m
Material	Fibre glass
Pack Dimensions	150mm x 290mm x 50mm (H x W x D)
Package Weight	0.65Kg

Product Code	**U004**
Component	Fire Blanket 1.2m x 1.8m
Material	Fibre glass
Pack Dimensions	210mm x 290mm x 40mm (H x W x D)
Package Weight	1.05Kg

Product Code	**U003**
Component	Fire Blanket 1.8m x 1.8m
Material	Fibre glass
Pack Dimensions	240mm x 380mm x 40mm (H x W x D)
Package Weight	1.45Kg

ALARM STATION

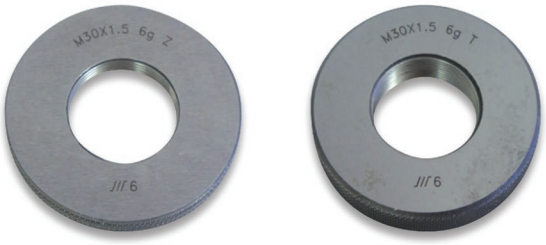
Product Code	**L001**
Component	Pyrosound Alarm Station Complete
Description	The Pyrosound alarm is a audible signalling device with a sound output of 127dB. The canister is pressurized with non flammable Freon gas (134a) with a nett weight of 250g, including a plastic horn for removable attachment. Canister and horn are fitted in steel yellow box, 140mm x 260mm x 115mm (W x D x H) fitted with removable perspex lid.
Material Safety Data Sheet	MSDS certificate available on request
Directions for Use	To fasten the plastic horn to canister, place horn on top of canister and mate the threaded ends. Engage threads gently to avoid cross threading. Screw horn clockwise onto canister until hand tight. Do not over tighten. For activation the canister must be held in an upright position and button pressed firmly.
Caution	Content under pressure, do not puncture or incinerate. Do not store in temperatures exceeding 49°C. Do not tilt or invert canister during use. The signalling device creates a loud noise. Do not emit sound next persons ears.

Product Code	**L001.1**
Component	Steel Yellow Alarm Box With Lid
Description	Steel yellow box, 140mm x 260mm x 115mm (W x D x H) fitted with removable perspex lid.

Product Code	**L003.1**
Component	Pyrosound Horn & Canister
Description	The Pyrosound horn & canister is a audible signalling device with a sound output of 127dB. The canister is pressurized with non flammable Freon gas (134a) with a nett weight of 250g, including a plastic horn for removable attachment
Material Safety Data Sheet	MSDS certificate available on request
Directions for Use	To fasten the plastic horn to canister, place horn on top of canister and mate the threaded ends. Engage threads gently to avoid cross threading. Screw horn clockwise onto canister until hand tight. Do not over tighten. For activation the canister must be held in an upright position and button pressed firmly.
Caution	Content under pressure, do not puncture or incinerate. Do not store in temperatures exceeding 49°C. Do not tilt or invert canister during use. The signalling device creates a loud noise. Do not emit sound next persons ears.

RING GAUGES

Product Code	**U024**
Component	Ring Gauge Set (Go / No Go)
Description	2 x Ring Gauges are used in checking the correctness of the thread on stored pressure type valve assemblies of a thread inlet of M30*1.5mm. Checking the thread depth and pitch diameter. (The thread's major diameter, minor diameter and pitch diameter in metric threads).
Directions for Use	1. Ring gauge (T) "thick ring" is a go gauge for checking the male parallel thread M30 x 1.5mm 6g. If the valve thread can pass through it easily, the valve thread is at least within the upper tolerance of pitch diameter. 2. Ring gauge (Z) "thin ring" is a no gauge for checking the male parallel thread M30 x 1.5mm 6g. If the valve thread can only rotate inside the gauge no more than TWO CIRCLES, the valve thread is at least within the lower tolerance of pitch diameter. • A good valve thread should pass through the go gauge ring and can not pass through the no-go gauge ring. Jointly using the above go & no-gauges can determine whether the valve thread is acceptable. • Any deviations found during inspecting of thread, the valve must be condemned. The valve must be taken out of service and be noted in inspection register.



Specifications For Ring Gauge Set

Thread Tolerance Zone	Thread Gauges			Major Diameter ≥	Medium Diameter				Minor Diameter		
	Mark	Name	Code		Size	Upper deviation	Lower deviation	Wear deviation	Size	Upper deviation	Lower deviation
6g	6g	Go side	T	29.979	28.977	+0.018	0	+0.030	28.335	+0.018	0
		No-go side	Z		28.826			+0.024	28.517	+0.036	

GENERAL ACCESSORIES

Product Code	**U025**
Component	Fire Beater
Description	• Solid hardwood handle 1200mm length • Lightweight industrial grade rubber beater for knock down. Beater dimensions 350mm x 715mm

Product Code	**U012**
Component	19 Litre Knap Sack – frost fire bag
Description	• For fighting low intensity fires or for mopping up after fires have been extinguished • Pump action spraying function • 19 Litres carrying capacity wet agent

Product Code	**U008**
Component	Wooden Back Board
Description	• Soft backboard for wall mounting extinguishers • Bevelled edge for attractive appearance • Height: 460mm x Width: 70mm x Depth: 25mm

Product Code	**Q034**
Component	Plastic Fire Bucket With Lid
Description	• Plastic bucket with a removable lid • Suitable for many applications, including garage forecourt protection, clearing up spillages • Fire bucket can hold both sand or water • 10Litre bucket capacity.

Product Code	**Q031**
Component	Steel Fire Bucket – Side Handle
Description	• Mild steel bucket, red powder coated • Suitable for many applications, including garage forecourt protection, clearing up spillages • Fire bucket can hold both sand or water • 12Litre bucket carrying capacity.

Product Code	**Q032**
Component	Steel Fire Bucket – Bottom Handle
Description	• Mild steel bucket, red powder coated • Suitable for many applications, including garage forecourt protection, clearing up spillages • Fire bucket can hold both sand or water • 12Litre bucket carrying capacity.

DRY CHEMICAL POWDER

Product Code	Component	M.A.P . Content	Class	Fire Rating	Colour	Temperature Stability
V004	40% ABC Dry Chemical Powder	40%	ABC Dry chemical powder are mono ammonium phosphate based powders that are for multi-purpose use on Class A, B and C fires	2A/2B	White	-10°C to +50°C

40% MAP Complies With Following;	Requirements of Specification For SANS 1522
General	Shall be a free flowing powder free of lumps and foreign matter
Bulk Density, Kg/L	0,88 ± 0.07
Particle Size Distribution: Powder retained, % (m/m)on 40µm sieve 63µm sieve 125µm sieve	 45.0 ± 8.0 26.0 ± 8.0 8.0 ± 5.0
Water Repellency	No evidence of absorption of water droplets within a minimum of 60 minutes
Resistance to High and Low Temperatures; -10°C 35°C	The powder shall not compact and shall fall to the stoppered end of the test tube within 5s.
Resistance to Caking and Lumping	Shall not cake or form lumps which can be retained on the 500µm sieve
Chemical Composition; Mono ammonium Phosphate content, % (m/m)	42.0 ± 2
Ammonium Sulphate Content, %	46.0 ± 2.0
Moisture Content, % (m/m)	< 0.25
Electrical Insulation Value, kV	≥ 5.0
Mono Ammonium Function:	Mono ammonium phosphate (MAP) is the active ingredient in ABC dry chemical fire extinguishing powder. Therefore the higher the MAP content, the more effective the dry chemical powder is within a fire. MAP reacts in the fire with the free radicals binding them, thus stopping the chain reaction. MAP also melts onto solids within a fire, thus coating them and preventing them from re-igniting.
Uses;	Class A Fires; It insulates Class A fires by melting at approximately 350-400° F. Class B Fires; The powder breaks down the chain reaction of Class B fires by coating the surface to which it is applied. Class C Fires; It is safe and effective for Class C fires since it is a non-conductor of electricity.
Warning;	The mixing and contamination of different types of powders may result in caking and the production of gas, which will increase pressure in the container to unsafe levels. Such increases in pressures have been known to cause containers to rupture, and to cause bodily injury and damage. Materials to avoid: Reactive with oxidizing agents. Conditions to avoid: Humidity

DRY CHEMICAL POWDER

Product Code	Component	M.A.P . Content	Class	Fire Rating	Colour	Temperature Stability
V002	90% ABC Dry Chemical Powder	90%	ABC Dry chemical powder are mono ammonium phosphate based powders that are for multi-purpose use on Class A, B and C fires	3A/5B	Blue	-10°C to +50°C

90% MAP Complies With Following;	Requirements of Specification For SANS 1522
General	Shall be a free flowing powder free of lumps and foreign matter
Bulk Density, Kg/L	0,83 - 1,03
Particle Size Distribution: Powder retained, % (m/m)on 40µm sieve 63µm sieve 125µm sieve	 45.0 ± 8.0 26.0 ± 8.0 8.0 ± 5.0
Water Repellency	No evidence of absorption of water droplets within a minimum of 60 minutes
Resistance to High and Low Temperatures; -10°C 35°C	The powder shall not compact and shall fall to the stoppered end of the test tube within 5s.
Resistance to Caking and Lumping	Shall not cake or form lumps which can be retained on the 500µm sieve
Chemical Composition; Mono ammonium Phosphate content, % (m/m)	90.0 ± 3.0
Ammonium Sulphate Content, %	-
Moisture Content, % (m/m)	< 0.25
Electrical Insulation Value, kV	≥ 5.0
Mono Ammonium Function:	Mono ammonium phosphate (MAP) is the active ingredient in ABC dry chemical fire extinguishing powder. Therefore the higher the MAP content, the more effective the dry chemical powder is within a fire. MAP reacts in the fire with the free radicals binding them, thus stopping the chain reaction. MAP also melts onto solids within a fire, thus coating them and preventing them from re-igniting.
Uses;	Class A Fires; It insulates Class- A fires by melting at approximately 350-400° F. Class B Fires; The powder breaks down the chain reaction of Class- B fires by coating the surface to which it is applied. Class C Fires; It is safe and effective for Class- C fires since it is a non-conductor of electricity.
Warning;	The mixing and contamination of different types of powders may result in caking and the production of gas, which will increase pressure in the container to unsafe levels. Such increases in pressures have been known to cause containers to rupture, and to cause bodily injury and damage. Materials to avoid: Reactive with oxidizing agents. Conditions to avoid: Humidity

DRY CHEMICAL FIRE EXTINGUISHERS

1. MANUFACTURERS DETAILS	
Manufacturers name	Delei Fire
Address	108 Yangxi Rd., Huzhou ,Zhejiang, China.
Telephone No.	++86-572-2612688 / 2031878
E Mail	gwd@deleifire.com
Website	www.deleifire.com

2. COMPOSITION OF RAW MATERIAL	
Cylinder	Mild Steel
Discharge Valve	Mild Steel, Brass
Siphon Tube	Polyethylene
Discharge Hose	Reinforced PVC.
Extinguishing Medium	Mono Ammonium Phosphate, Ammonium Sulphate, Fumed Silica, Talc, Calcium Carbonate, Sodium/Potasium Bicarbonate
Discharge Medium	Nitrogen, Carbon Dioxide

3. HAZARD IDENTIFICATION	
Physical	Cylinder under Pressure 1400 Kpa.
Chemical Medium	Free flowing fine powder, partly insoluble in water. Not reactive in water. Not considered hazardous

4. TOXICOLOGY & ECOLOGICAL INFORMATION	
Respiratory	Toxic acidic PH. 4.5/5
Eyes	Irritation
Oral	Toxic
Dermal	Irritation, the powder is considered a nuisance dust and is not listed as a carcinogen
Ecology	Non Toxic Chemical Fertilizer (Phosphor, Nitrogen, Sulfur and Calcium)

5. EMERGENCY AND FIRST AID	
Eye Contact	Slightly acidic, Flush with water if Irritation persists seek Medical Assistance
Skin Contact	Wash with soap and water, if allergic seek Medical Assistance
Inhalation	Remove person from dust concentration to fresh air. Seek immediate Medical Assistance
Ingestion	If ingested Drink copious amounts of water and seek Medical Assistance

6. FIRE HAZARD	
Cylinder Under Pressure	Fire extinguishers are fitted with Safety Valves, however the Cylinder may explode under severe conditions
Medium	Content is non flammable
Discharge Hose	PVC hose is flammable

7. ACCIDENTAL DISCHARGE	
Inside Confined Area	Remove all personnel to fresh air
Outside	Stay upwind of the powder cloud

8. STORAGE & TRANSPORT	
Indoor Storage Required	In a cool dry place
Road & Rail Transport	Not regulated, Suggest in a secure pack to avoid rolling around
Inland Waterways	Not regulated
Air & Sea	Regulated, Trem labels required, contact Hazchem Wise 011 922 1600
Vehicle Fire Protection	Must be carried in a suitable Vehicle Bracket

9. USER PROTECTION	
Respiratory	Dust mask
Ventilation	Recommended in confined space
Eyes	Goggles or full face shield
Hands	Leather Gloves

10. STABILITY AND REACTIVITY	
Metal Cylinder	Avoid strong acid contact
Dry Chemical Powder	ABC. Powder. Stable. Avoid contact with strong Alkali BC. Powder. Stable. Avoid contact with Acids and Cyanide
Temperature Stability	Minus 10 Celsius to Plus 50 Celsius

11. DISPOSAL CONSIDERATION	
Complete or damaged Extinguishers	Contact your local SANS 1475 Compliant Fire Service Company
Dry Chemical Powder	Not considered Hazardous waste, contact local Fire Department

12. REGULATORY INFORMATION	
Dry Powder Fire Extinguishers	Are Classified and regulated by SABS Directives, and must comply to SANS 1910 Certification
Labels	All Labels and Marking on Dry Chemical Powder Fire Extinguishers are regulated by SABS Directives and must comply to SANS 1910 Certification

13. ADDITIONAL INFORMATION	
Use of Fire Extinguishers	Pictograms are attached for the use of the extinguisher
Recommendations	It is recommended that personnel are trained in the use Fire Extinguishers
Owner	Where public access or personnel are involved it becomes the Responsibility of the Owner to make sure such equipment complies with SANS 1910 and the local Fire department requirements. Fire Extinguishers are required to be serviced Annually by a Registered Technician employed by a SANS 1475 Compliant Company.

MANTECH FIRE
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CARBON DIOXIDE FIRE EXTINGUISHERS

1. MANUFACTURERS DETAILS

Manufacturer 's Name	DELEI FIRE FIGHTING EQUIPMENT MANUFACTORY
Address	Southwest New Development Zone Huzhou Zhejiang China
Telephone No.	+86-572-2612688
Product name	Carbon Dioxide Extinguisher
Chemical Family	Gas (Non Metallic Oxide)

2. COMPOSITION OF INGREDIENTS

Extinguisher	Cylinder made from Carbon Steel / Steel Alloy / Aluminium Discharge Valve with a safety bursting disc Siphon Tube High pressure hose and horn SABS approved labelling
Inside Ingredients	CO2 (carbon Dioxide) Gas

3. HAZARDS IDENTIFICATION

Hazards Identification	Liquefied Gas In high concentrations may cause asphyxiation

4. EMERGENCY AND FIRST AID PROCEDURES

Eye/ skin contact	Immediately flush eyes out with plenty of water for at least 15 minutes while holding lids open. If redness, itching or a burning sensation develops, get medical attention. Treat for frostbite if necessary.
Inhalation	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not beware of asphyxiation. Low concentrations of 02 cause increased respiration and headache. Remove victim from contaminated area wearing a self contained breathing apparatus Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Ingestion	Not an expected route of entry

5. FIRE FIGHTING MEASURES

Specific Hazards	Exposure to fire may cause containers to rupture / explode Non flammable
Hazardous combustion products	None
Suitable extinguishing media	All known extinguishers can be used
Specific methods	If possible, stop flow of product, move away from containers and cool with water from a protected position
Special protective equipment for fire fighters	In confined spaces use self contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Personal	Evacuate area Wear self contained breathing apparatus when entering area unless atmosphere is proved to be safe Ensure adequate air ventilation
Environmental precautions	Try to stop release Prevent from entering sewers, basements, and work pits or any place where accumulation can be dangerous
Clean up methods	Ventilate area

7. STORAGE

Handling and storage	Do not allow back feed into the container. Use only properly specific equipment which is suitable for this product, it's supply pressure and temperature. Contact gas supplier if in doubt Keep container below 50°C in a well ventilated place.

8. SPECIAL PROTECTION INFORMATION

Exposure limit value	5000ppm Ensure adequate ventilation

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Molecular Weight	44
Melting point	-56.6°C
Boiling Point	-78.5(s)°C
Critical Temperature	30°C
Relative density gas	1.52 (air=1)
Relative density liquid	0.82 (water=1l)
Vapour pressure	57.3bar
Solubility in water	200mg/l
Appearance	Colourless gas
Odour	No odour warning properties
Other data	Gas / vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10. STABILITY AND REACTIVITY

Stability and reactivity	Stable

11. TOXICOLOGY INFORMATION

General	In high concentrations cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting which may lead to unconsciousness

12. ECOLOGICAL INFORMATION

General	When discharging in large quantities may contribute to the greenhouse effect
Global warming factor	1

13. DISPOSAL CONSIDERATIONS

	Do not discharge into any place where its accumulation could be dangerous. To atmosphere in a well ventilated place Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required
Complete or damaged extinguishers	Contact your local SANS1475 compliant fire service company.

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14. TRANSPORTATION INFORMATION

Proper shipping Name	Carbon Dioxide
UN Nr	1013
Class / Div	2.2
ADR/RID classification code	2.2°A
ADR/RID Hazard Nr.	20
Labelling ADR	Label 2: non flammable non toxic gas
Other transport information	A void transport on vehicles where the load space is not separated from the driver's compartment. Ensure that the driver is aware of the potential hazard s of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured and - Cylinder valve is closed and not leaking - Valve outlet cap nut or plug (where provided) is correctly fitted - Valve protection device (where provided) is correctly fitted - There is adequate ventilation - Compliance with applicable regulations

15. REGULATORY INFORMATION

Carbon Dioxide Fire Extinguishers	Are classified and regulated by SABS Directives, and must comply to SANS1567 Certification.
Labels	All labels and markings on Carbon Dioxide Fire Extinguishers re classified and regulated by SABS Directives, and must comply to SANS1567 Certification.

16. ADDITIONAL INFORMATION

	Contact with liquid may cause cold burns/frost bite The hazard of asphyxiation is often overlooked and must be stressed during operator training
Use of Fire Extinguishers	Pictograms are attached for the use of the extinguisher.
Recommendations	It is recommended that Personnel are trained in the use of fire extinguishers.
Owner	Where public access or personnel are involved it becomes the responsibility of the owner to make sure such equipment complies with SANS1567 and the local fire department requirements. Fire extinguishers are required to be serviced annually by a registered technician employed by a SANS1475 compliant company.

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FOAM FIRE EXTINGUISHERS

1. MANUFACTURERS DETAILS	
Manufacturer 's Name	DELEI FIRE FIGHTING EQUIPMENT MANUFACTORY
Address	Southwest New Development Zone Huzhou Zhejiang China
Telephone No.	+86-572-2612688
Product name	Foam Extinguisher

2. COMPOSITION	
Extinguisher	Standard Stored Pressure extinguisher with corrosion resistant lining Discharge Valve with gauge and safety relief valve Siphon Tube Discharge hose SABS approved labelling
Content	Fire Seal 3%Fire Fighting Foam Concentrate Synonyms : Aqueous Film Forming Foam (AFFF)
Other Ingredients	Nitrogen Gas

3. HAZARDS IDENTIFICATION	
Hazards Identification	Water Synthetic Detergents Proprietary Mixture, No single CAS Number applicable Propanol Fluoroalkyl Surfactant Confidential

4. EMERGENCY AND FIRST AID PROCEDURES	
Eye contact	Flush with water for 15min, hold eyelids open while flushing
	Seek medical attention
Skin contact	Remove all contaminated clothing. Wash effected area with plenty of soap for at least 20min
Inhalation	Remove from contaminated area seek medical treatment
Ingestion	Seek medical treatment

5. FIRE FIGHTING MEASURES	
	This product does not itself present a fire hazard
	This product is an extinguishing medium
Flash point	None
Flammable Limits	N/A
Extinguishing Media	N/A
Special fire fighting procedure	None - This is an extinguishing agent
Unusual Fire and Explosion hazards	Though foam cylinders are equipped with pressure relief devices; they should be removed from high temperatures or fire to avoid risk of rupture
Protection of fire fighters	Be sure to use an approved / certified respirator, positive pressure self contained breathing apparatus and full turn out gear

6. ACCIDENTAL RELEASE MEASURES	
Personal precautions	Splash goggles, overall, dust respirator, boots and gloves
Handling and Storage	Store cylinders in a clean, dry area away from heat above 60°C. Protect cylinders against violent movement or force. In event of spill / leak evacuate the area, ventilate to outside atmosphere.
Waste Disposal Methods	Dispose of in compliance with local, provincial and government regulations

7. STORAGE	
Storage	In a dry, cool place

8. SPECIAL PROTECTION INFORMATION	
Protective gloves	PVC, leather or rubber gloves recommended
Eye Protection	Full face shield

9. STABILITY AND REACTIVITY	
Stability	Stable

10. TOXICOLOGY INFORMATION	
Skin irritation	Slightly hazardous
Eye irritation	Slightly hazardous
Acute Toxicity	Acute oral toxicity
Chronic Toxicity	Repeated or prolonged exposure is not known to aggravate medical condition
	H.E.F is a non corrosive virtually non toxic substance.

11. ECOLOGICAL INFORMATION	
	No known data

12. DISPOSAL CONSIDERATIONS	
Method of disposal	Contact your local SANS1475 compliant fire service company
Hazardous Waste	This product is not known as a hazardous waste

13. TRANSPORTATION INFORMATION	
Land - railway and road	not regulated
Inland waterways	not regulated
Sea	Trem cards required, Available from HAZCHEM WISE 011 922 1600
Air	Trem cards required, Available from HAZCHEM WISE 011 922 1600

14. REGULATORY INFORMATION	
Risk Phrases	This product is not classified according to the EU regulations
Product Use	Classifications and labelling have been performed according to SABS directives

15. ADDITIONAL INFORMATION	
Use of Fire Extinguishers	Pictograms are attached for the use of the extinguisher.
Recommendations	It is recommended that Personnel are trained in the use of fire extinguishers.
Owner	Where public access or personnel are involved it becomes the responsibility of the owner to make sure such equipment complies with SANS1567 and the local fire department requirements. Fire extinguishers are required to be serviced annually by a registered technician employed by a SANS1475 compliant company.

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WATER FIRE EXTINGUISHERS

1. MANUFACTURERS DETAILS	
Manufacturer 's Name	DELEI FIRE FIGHTING EQUIPMENT MANUFACTORY
Address	Southwest New Development Zone Huzhou Zhejiang China
Telephone No.	+86-572-2612688
Product name	Water Extinguisher

2. COMPOSITION	
Extinguisher	Cylinder made from mild steel, stainless steel Discharge Valve with gauge and safety relief valve Siphon Tube Discharge hose SABS approved labelling
Inside Ingredients	Water
Other Ingredients	Nitrogen Gas

3. HAZARDS IDENTIFICATION	
	Physical and chemical hazards not applicable
	Inside Ingredients
Solubility in water	Product is water
Reactivity in water	Nil
Appearance	Liquid

4. EMERGENCY AND FIRST AID PROCEDURES	
First Aid Measures	

5. FIRE FIGHTING MEASURES	
Flash point	None
Flammable Limits	N/A
Extinguishing Media	N/A
Special fire fighting procedure	None - This is an extinguishing agent
Unusual Fire and Explosion hazards	Though water extinguishers are equipped with pressure relief devices; they should be removed from high temperatures or fire to avoid risk of rupture

6. ACCIDENTAL RELEASE MEASURES	
Handling and Storage	Store cylinders in a clean, dry area away from heat above 60°C. Protect cylinders against violent movement or force.
Waste Disposal Methods	Dispose of in compliance with local, provincial and government regulations

7. STORAGE	
Storage	In a dry, cool place

8. SPECIAL PROTECTION INFORMATION	
Eye Protection	Full face shield
Working Pressure	1400kPa
Burst Pressure	5500kPa
Working Temp	-15 / +60°C

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9. STABILITY AND REACTIVITY

Stability	Stable
Materials to avoid	Electricity

10. TOXICOLOGY INFORMATION

	Non Toxic

11. ECOLOGICAL INFORMATION

	No known data

12. DISPOSAL CONSIDERATIONS

Method of disposal	Contact your local SANS1475 compliant fire service company
Hazardous Waste	This product is not known as a hazardous waste

13. TRANSPORTATION INFORMATION

Land - railway and road	not regulated
Inland waterways	not regulated
Sea	Trem cards required, Available from HAZCHEM WISE 011 922 1600
Air	Trem cards required, Available from HAZCHEM WISE 011 922 1600

14. REGULATORY INFORMATION

Water Fire Extinguishers	Are classified and regulated by SABS Directives, and must comply to SANS1910 Certification.
Labels	All labels and markings on Water Fire Extinguishers are classified and regulated by SABS Directives, and must comply to SANS1910 Certification.

15. ADDITIONAL INFORMATION

Use of Fire Extinguishers	Pictograms are attached for the use of the extinguisher.
Recommendations	It is recommended that Personnel are trained in the use of fire extinguishers.
Owner	Where public access or personnel are involved it becomes the responsibility of the owner to make sure such equipment complies with SANS1567 and the local fire department requirements. Fire extinguishers are required to be serviced annually by a registered technician employed by a SANS1475 compliant company.

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ABC 90% MAP DRY CHEMICAL POWDER

1. Product Name:

ABC Dry Chemical Powder

2. Use:

Dry Chemical Fire Fighting Agent

3. Identification of the companies:

Suzhou Wuyue Synthetic Fire Sci-Tech Co. Ltd
Mudu Town, Suzhou City, Jiangsu Province, China
Tel: 0086-0512-663-60365 / 662-62314
Fax: 0086-0512-662-62360
Email: public@wyhc.szbnet.com

4. Composition and Ingredient Information:

Chemical Name	CAS No.	Content (%)
Mono Ammonium Phosphate	7722-76-1	>90.0
Mica	12001-26-2	< 5.0
Methyl H Polysiloxane	63148-57-2	< 1.0

5. Identification of the hazards for people and environment

This product is not hazardous if used for the reason it has been developed
Can slightly irritate the eyes.
Can irritate the respiratory tract. To consider as dust.

6. First Aid Measures

Eyes There might be a slight irritation which fades soon.
Irrigate with water or eye wash solution.
Skin Wash off with water and soap. No serious effect.
Inhalation If inhaled - remove to fresh air. No serious effect.
Ingestion Wash mouth with water and give plenty of water to drink. Induce vomiting.

7. Fire Fighting Measure

It is an extinguishing agent. No special measures required.

8. Accidental release measures

People precautions: If the powder leakage is consequent, use a dust mask and gloves.
Precautions of the environment: Do not evacuate through sewers.
Cleaning Methods: Sweep up or use a vacuum cleaner.

9. Handling and Storage:

Handling precautions: Dry, cool, absence of vibration. Avoid production of dust.
When the powder passes through plastic pipes electrostatic charge can occur.
Storage precautions: No danger.

10. Exposure controls and personal protection:

Installation and precautions to advise: In case of regular use, it is recommended to install a dust aspirator system.
Supervision check: N/A
Type of people protection: The usual precautionary measures should be adhered to in handling chemicals.
Gloves and goggles may be used.

11. Physical and chemical properties:

Form: Powder
Odour None
Dye White / Blue
Melting Point > 100° C
Flame Point N/A
Solubility in water > 90% after several hours

12. Stability and reactivity:

Conditions to avoid: Humidity
Substance to avoid: Strong caustic material
Hazardous decomposition products: Ammonia (> 100° C)
In case of use of the material on fire, the odour of NH3 is difficult to notice

13. Toxological Information:

Eye contact: Minor irritant. Possibility of transient irritation.
No chronic effect known.
No classification.

14. Ecological Information:

Not hazardous.
Contains no heavy metal salts.
ABC dry chemical powder contains mono-ammonium phosphate which is a soil fertiliser.

15. Disposal Consideration:

Recovery: By brushing and aspiration.
Neutralisation: Not necessary.
Disposal: Normally as fertiliser through an approved specialised company according to local and current authority. European disposal No. 160 509.
To avoid: See point 10
The European, National, Federal, Regional or Community rules are to be followed.

16. Transport information:

No prescriptions.
International transport information: N/A

17. Complementary General Information:

ABC dry chemical powder is a fire extinguishing agent.
There is no other purpose allowed. The manufacturer cannot be considered as responsible in case of wrong utilisation or irrelevant use.
This data is based on our present knowledge. However, it shall not constitute a guarantee for any specific product featured and shall not establish a legally valid contractual relationship.

ABC 40% MAP DRY CHEMICAL POWDER

1. Product Name:

ABC Dry Chemical Powder

2. Use:

Dry Chemical Fire Fighting Agent

3. Identification of the companies:

Suzhou Wuyue Synthetic Fire Sci-Tech Co. Ltd
Mudu Town, Suzhou City, Jiangsu Province, China
Tel: 0086-0512-663-60365 / 662-62314
Fax: 0086-0512-662-62360
Email: public@wyhc.szbnet.com

4. Composition and Ingredient Information:

Chemical Name	CAS No.	Content (%)
Mono Ammonium Phosphate	7722-76-1	42.0 ± 2.0
Ammonium Sulphate	7783.20-2	46.0 ± 2.0
Mica	12001-26-2	< 5.0
Methyl H Polysiloxane	63148-57-2	< 1.0

5. Identification of the hazards for people and environment

This product is not hazardous if used for the reason it has been developed
Can slightly irritate the eyes.
Can irritate the respiratory tract. To consider as dust.

6. First Aid Measures

Eyes There might be a slight irritation which fades soon.
Irrigate with water or eye wash solution.
Skin Wash off with water and soap. No serious effect.
Inhalation If inhaled - remove to fresh air. No serious effect.
Ingestion Wash mouth with water and give plenty of water to drink.
Induce vomiting.

7. Fire Fighting Measure

It is an extinguishing agent. No special measures required.

8. Accidental release measures

People precautions: If the powder leakage is consequent, use a dust mask and gloves.
Precautions of the environment: Do not evacuate through sewers.
Cleaning Methods: Sweep up or use a vacuum cleaner.

9. Handling and Storage:

Handling precautions: Dry, cool, absence of vibration. Avoid production of dust.
When the powder passes through plastic pipes electrostatic charge can occur.
Storage precautions: No danger.

10. Exposure controls and personal protection:

Installation and precautions to advise: In case of regular use, it is recommended to install a dust aspirator system.
Supervision check: N/A
Type of people protection: The usual precautionary measures should be adhered to in handling chemicals.
Gloves and goggles may be used.

11. Physical and chemical properties:

Form: Powder
Odour None
Dye White
Melting Point > 100° C
Flame Point N/A
Solubility in water > 90% after several hours

12. Stability and reactivity:

Conditions to avoid: Humidity
Substance to avoid: Strong caustic material
Hazardous decomposition products: Ammonia (> 100° C)
In case of use of the material on fire, the odour of NH3 is difficult to notice

13. Toxological Information:

Eye contact: Minor irritant. Possibility of transient irritation.
No chronic effect known.
No classification.

14. Ecological Information:

Not hazardous.
Contains no heavy metal salts.
ABC dry chemical powder contains mono-ammonium phosphate which is a soil fertiliser.

15. Disposal Consideration:

Recovery: By brushing and aspiration.
Neutralisation: Not necessary.
Disposal: Normally as fertiliser through an approved specialised company according to local and current authority. European disposal No. 160 509.
To avoid: See point 10
The European, National, Federal, Regional or Community rules are to be followed.

16. Transport information:

No prescriptions.
International transport information: N/A

17. Complementary General Information:

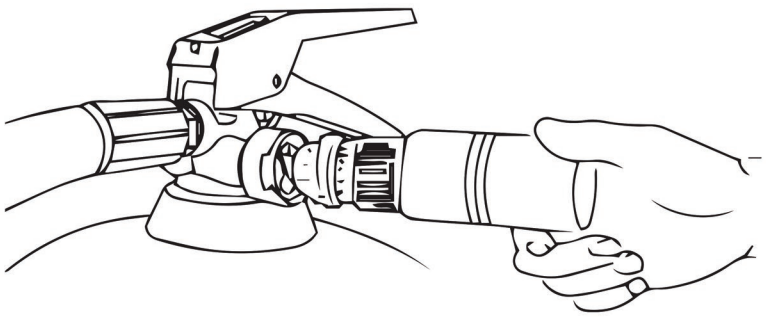
ABC dry chemical powder is a fire extinguishing agent.
There is no other purpose allowed. The manufacturer cannot be considered as responsible in case of wrong utilisation or irrelevant use.
This data is based on our present knowledge. However, it shall not constitute a guarantee for any specific product featured and shall not establish a legally valid contractual relationship.

INSPECTION & MAINTENANCE FOR PYROGUARD PORTABLE REFILLABLE FIRE EXTINGUISHERS – SANS 1910

1. Safety warning
   - 1.1. Before servicing ensure fire extinguisher is completely de-pressurized.
   - 1.2. Never have any part of your body over the extinguisher while removing the valve body.
   - 1.3. Use a protective cage when pressurizing the fire extinguisher, having a protective shield between you and the pressure gauge while charging an extinguisher.
   - 1.4. Only pressurise stored pressure extinguishers with dry nitrogen from a cylinder with a regulator set at no more than 1400kPa. Never pressurise without a regulator.
   - 1.5. Inspect and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the extinguisher indicator for this purpose as this only gives an estimate of the inherent pressure within the extinguisher.
   - 1.6. Do not recharge an extinguisher with a mixture of different types or brands of dry chemical powder, this may result in a chemical reaction capable of developing a dangerous pressure build-up and formation of moisture resulting in caking of the dry chemical powder.
   - 1.7. Never convert an extinguisher by recharging with any type of agent other than that for which it was designed.

2. Inspection and Maintenance
   - **2.1. Occupational Health and Safety Act 85 of 1993; Vessels Under Pressure Regulations, section 11; Hand-held fire extinguishers**
     - 2.1.1. It is a legal requirement of the Occupation Health and Safety Act 85 of 1993; that all extinguishers shall be maintained in accordance with the manufacturer's specifications and SANS 1475.

   - **2.2. Periodic Inspection Procedures**
     - 2.2.1. Inspection is a quick inspection to ascertain the readiness of the fire extinguisher
     - 2.2.2. Fire extinguisher is located in designated place
     - 2.2.3. No obstructions to access or visibility to fire extinguisher
     - 2.2.4. Safety seal not broken
     - 2.2.5. Determine extinguisher weight as per full weight requirements as depicted on instruction label
     - 2.2.6. Inspect discharge hose ensuring free from any obstruction and defects
     - 2.2.7. Inspect extinguisher for corrosion, physical damage, paint and instruction label condition
     - 2.2.8. Pressure indicator reading is in the required area
       - 2.2.8.1. Verification of pressure indicators – SANS 1910: 2009 5.11 A pressure indicator shall have an acceptable means of allowing its effective operation to be verified without the loss of any pressure from the extinguisher
       - 2.2.8.2. Use a gauge tester pump to test the integrity of the extinguishers pressure indicator
       - 2.2.8.3. On pressure indicator check indicator pointer is in green operable area
       - 2.2.8.4. Support extinguisher and mate the gauge tester pump to pressure indicator with the pump rubber aperture against indicator locating round the orifice in plastic lens window
       - 2.2.8.5. Maintain a seal against the indicator lens window and pressurise the indicator with a pumping action
       - 2.2.8.6. The indicator pointer should be seen to deflect anti-clockwise and return at each stroke. This verifies pressure indicator is operating freely and reading is in operable area



MANTECH FIRE
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INSTALLATION INSTRUCTIONS FOR PYROGUARD PORTABLE REFILLABLE FIRE EXTINGUISHERS – SANS 1910

1. Locating and mounting of extinguisher
   1.1. SANS 10105-1: 6.2
   As the operation of extinguishers is affected by temperature, to prevent the possibility of failure, extinguishers shall not be exposed to temperatures higher than 55°C or lower than - 20°C, unless otherwise specified or allowed by the manufacturer.

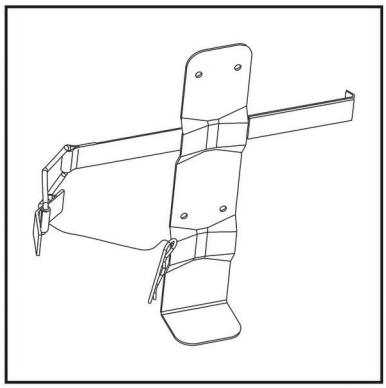
   1.2. SANS 10105-1: 6.3
   Although extinguishers have a fairly high corrosion resistance, they shall not be positioned where they may be exposed to the elements, to unduly corrosive atmospheres or to splashing by corrosive liquids, except in specific pre-determined cases.

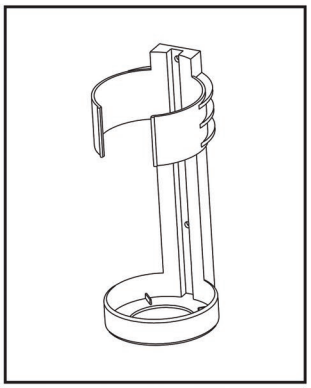
   1.3. Mounting location on wall or vehicle
   - 1.3.1. The extinguisher must be visible
   - 1.3.2. The extinguisher must be easily reached
   - 1.3.3. The extinguisher should not be placed where a vehicle fire is likely to make it unreachable
   - 1.3.4. Mounting extinguisher on vehicle, select a location that is relative safe from failing rocks in the mining industry or where minor collisions are not likely to cause damage
   - 1.3.5. Mounting extinguisher on wall, select a solid surface using strong screws or fasteners (not included)
   - 1.3.6. Avoid locations where grease or oil could build up on the extinguisher and bracket
   - 1.3.7. On a vehicle select a mounting surface which is strong enough to maintain the weight of the extinguisher and bracket
   - 1.3.8. Avoid locations too near the engine, manifold or any other heat source which may expose extinguisher to excessive temperatures which is detrimental to its operation

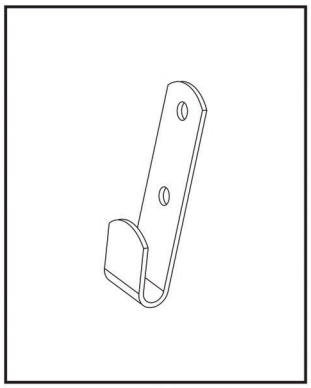
2. Bracket Installation.
   2.1. Portable sizes from 1kg to 2.5kg dry chemical powder extinguishers with plastic or metal vehicle bracket
   Plastic or metal vehicle brackets are provided with two mounting holes in the back frame of bracket. Acceptable mounting positions for plastic brackets are (Vertical) upright only. For metal brackets are (vertical)upright, to lying down (horizontal) or any degree between. Drill the four fixing holes at the desired location, place the vehicle bracket over the holes insert the four fixing bolts into the holes and tighten. Secure extinguisher into vehicle bracket.

   2.2. Portable sizes from 1.5kg to 9kg dry chemical powder extinguishers with, J bracket or Z bracket. Uni brackets are available on request.
   J-brackets or Z-brackets are provided with 2 mounting holes in the steel mounting bracket. Acceptable mounting positions are >1.5m above the floor. Using the mounting bracket furnished with the extinguisher. Drill the two fixing holes at the desired location, place the steel mounting bracket over the holes insert the two fixing bolts into the holes and tighten. Hang extinguisher onto mounting bracket.

   2.3. Various types of brackets supplied with extinguishers


Metal vehicle bracket


Plastic vehicle bracket


J-wall mounting bracket

INSTALLATION INSTRUCTIONS FOR PYROGUARD FIRE HOSE REELS - SANS 543

1. Safety warning

Fire hose reels must not to be used on electrical fires.

2. Locating and mounting of fire hose reel

2.1. SANS 10105-2: 4.1.2
Fire hose reels and above-ground hydrants shall be conspicuously located where they will be readily accessible and immediately available in the event of fire. They shall preferably be located along normal paths of travel, including near exits from areas, but in such a way that they shall not cause obstruction. Their positions shall be identified by means of signs complying with the provisions of SANS 1186-1.

2.2. SANS 10400-T: 4.34.3
Any hose reel so installed shall be positioned to ensure that the end of the hose will reach any point in the area to be protected.

2.3. SANS 10400-W: 4.6.1a
A service pipe supplying water to hose reel installation shall be not less than 25mm.

3. Installation of fire hose reel

3.1. Water supply line to the hose reel must be 25mm placed vertically to one meter above floor / ground level with a male threaded end.

3.2. Screw a stop cock/ CP-valve on to the hose reel stand pipe with the hand wheel parallel to lower fixing bracket facing to the front away from wall or mounting structure. Into lower end of the stop cock screw a galvanized barrel nipple and threaded union, split the union and screw the lower half onto the water supply line.

3.3. Place the hose reel stand pipe on to the supply line, mate the union and tighten the compression gland nut. Use a spirit level to make sure the stand pipe is vertical, mark the four mounting holes, split the union and remove the back frame.

3.4. Drill the four fixing holes, place the hose reel stand pipe onto the supply line and mate the union, insert the four fixing bolts into the holes and tighten. In future to remove the hose reel undo the union gland nut and loosen the fixing bolts two turns then lift off the hose reel.

4. Commissioning of fire hose reel

4.1. Unroll hose, isolate the nozzle and open the CP-valve. Check for leaks and where necessary tighten.

4.2. Close CP-valve and open nozzle and re-roll hose draining the excess water from hose.

4.3. Close the nozzle and secure in position and seal.

4.4. Seal CP-valve with sealing wire.

4.5. Fire hose reels must be maintained in accordance with the requirements of SANS 1475-2.

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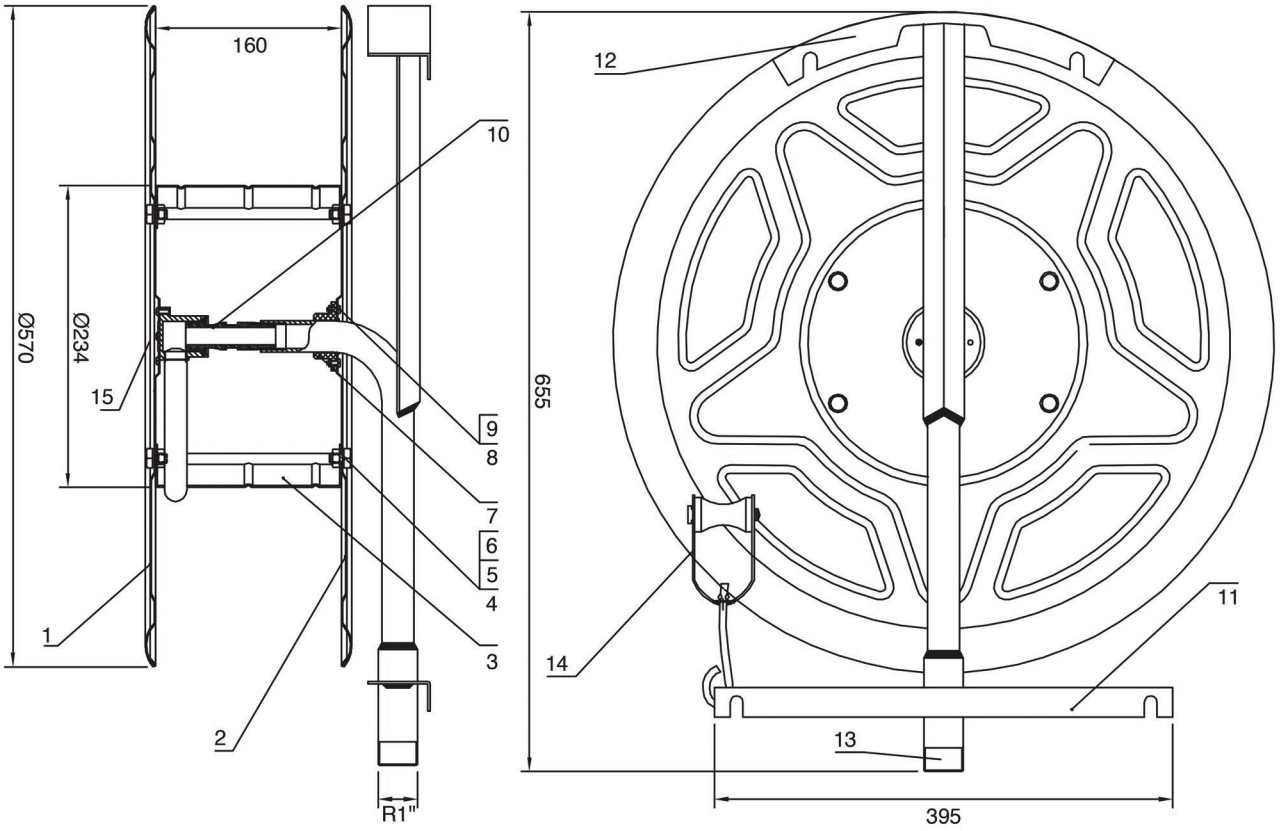
5. Specifications for Fire Hose Reel Complete

Item No.	Component	Description	Total Qty.
1	Front Plate	570mm diameter, 1mm mild steel disc forged, phosphated and finished in a red epoxy powder coating	1
2	Back Plate	570mm diameter, 1mm mild steel disc forged, phosphated and finished in a red epoxy powder coating	1
3	Hub Spacers	160mm wide cadmium plated curved spacer	3
4, 5, 6	Bolts and Nuts and Washers	M8 * 12 plated hex bolt and nut with M8 Bright nickel plated washer	12
7	Back Plate Bush	White nylon bush / grommet with 25mm ID	1
8, 9	Bolts and Nuts	M4 * 10 plated cheese head screw & hex nut	3
10	Waterway Assembly	Brass swivel joint with cadmium plated goose neck	1
11	Back Frame – Bottom	Mild steel back frame with bottom mounting holes, 360mm spacing between holes. Steel frame phoshated and finished in a red epoxy powder coating	
12	Back frame – Top	Mild steel back frame with top mounting holes, 230mm spacing between holes. Steel frame phosphated and finished in a red epoxy powder coating.	1
13	Back Frame – Stand Pipe	25mm threaded mild steel pipe phosphated and finished in a red epoxy powder coating.	
14	Draw Shackle	Mild steel nickel plated shackle with PVC run out guide	1
15	Instruction Label	Printed instruction label	1
16	PVC hose – (not on diagram)	Red 20mm diameter * 30meter length SANS 1086 approved PVC hose	1
17	Nozzle – (not on diagram)	19mm red plastic nozzle with spray, jet and shut-off function	1
18	CP Valve – (not on diagram)	Chromium plated stop cock with 25mm BSP inlet and outlet	1
19	CP hand wheel – (not on diagram)	Chromium plated hand wheel with M4 * 10 lock screw	1
20	Clamp – (not on diagram)	G12 plated mild steel hose clamp (for securing hose to waterway)	1
21	Ferrule – (not on diagram)	Cadmium plated 25mm ID ferrule (for securing hose to plastic nozzle)	1



Technical Bulletin

Number 49

ANSUL INCORPORATED

MARINETTE, WI 54143-2542

ANSUL®

MIXING OF DIFFERENT TYPES OF DRY CHEMICAL AGENTS

Agent Types

Different types of dry chemical agents have been developed to achieve optimum effectiveness against different types of fires. While other types of dry chemical agents have been developed and are used by other manufacturers in their equipment, Ansul extinguishers employ only the agents designated Foray, Plus-Fifty, or Purple-K. These agents are categorized according to two "base groups," as follows:

Base Group I	Agent Type	Fire Classification
Monoammonium Phosphate	Foray	A:B:C
Base Group II	Agent Type	Fire Classification
Sodium Bicarbonate	Plus-Fifty	B:C
Potassium Bicarbonate	Purple-K	B:C

Agent Mixtures

Ansul extinguishers have been developed to provide optimum fire fighting efficiency by means of carefully matched hardware and extinguishing agents, and should be recharged only with the dry chemical agent specified on the extinguisher label. A mixture of dry chemical agents should never be used to recharge an extinguisher. While mixtures of agent types within the same base group may be harmless, unpredictable extinguishing effectiveness may result. On the other hand, mixing of agents from different base groups (for example, Foray with Plus-Fifty) has been demonstrated to not only produce ineffective extinguisher performance, but may also be dangerous.

Mixture Problems

When Base Group I and Base Group II dry chemicals are mixed together in a tightly sealed extinguisher, a chemical reaction may occur, causing a pressure rise. The degree and rate of reaction between the two differing agents will vary dependent upon quantities involved, degree of homogeneous mixing, the moisture content of the agents, and the temperature at which the extinguisher is stored. Once the reaction starts, it will be self-propagating and will continue until the reactive substance in the lesser amount of dry chemical agent is consumed. The reaction will produce ammonia and carbon dioxide gases. Other substances including moisture are also produced, resulting in the caking of the material.

Test Data

The adverse effects of mixing dry chemical agents from different base groups has been confirmed by tests performed by Ansul's Research and Development Department. In these tests, varying mixtures of dry chemicals from the two different base groups were used to charge 10 lb. stored pressure extinguishers which were maintained at ordinary room temperature for varying time periods. After only a 24 hour storage period, the original 195 psi (1345 kPa) charged pressure of the extinguishers had risen to as high as 350 psi (2413 kPa). After a 6-day storage period, pressures had risen to as high as 400 psi (2758 kPa). When extinguishers were discharged, agent discharge as low as 45 percent was experienced.

Recommendations

Based on our experience and our evaluation of test results, we recommend that persons who recharge extinguishers follow these guidelines:

- Never recharge an extinguisher with a mixture of different types or brands of dry chemical agents.
- Never "convert" an extinguisher by recharging with any type of agent other than that for which it was designed.
- For optimum effectiveness, recharge extinguishers only with the agent specified on the extinguisher label.
- Exercise care in storing recharge agents to lessen the likelihood of moisture contamination, or that any kind of mixing or misuse can occur. It is best to store recharge agents in separate groups, by agent type.

Technical Bulletin
Number 495
ANSUL INCORPORATED
MARINETTE, WI 54143-2542

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CAKING VERSUS PACKING OF DRY CHEMICAL AGENTS

Terms Defined

The terms "caking" and "packing" are frequently misused. Because of this, there is a great deal of confusion that exists regarding these phenomena.

The purpose of this bulletin is to place in proper perspective the two conditions, and to describe the impact that each has upon the operability of a dry chemical type fire extinguisher. Essential to our discussion is a definition of the two terms.

CAKING – Caking is a phenomenon that occurs when moisture chemically reacts with a dry chemical fire extinguishing agent. The products of this reaction result in materials that are capable of being hydrated by moisture and, therefore, agglomerate; that is, individual particles stick together to form a large agglomerate, or what is more commonly referred to as lumps. This particular phenomenon, in general, is not dependent on the particle size of the extinguishing agent.

PACKING – Packing is a phenomenon that occurs whenever you have a solid material composed of particles of different sizes which are stored in an upright or vertical container and subjected to any type of vibration. The worst vibration is in the vertical mode as opposed to the horizontal mode. This phenomenon does not involve any chemical reactions, and is distinctly dependent upon the particle size distribution of the extinguishing agent.

Having defined these two terms, it is necessary to consider each one a little more in detail. These two phenomena refer to completely different interactions of the dry chemical with its particular environment. In the case of caking, we are referring to a chemical reaction which occurs between moisture and the dry chemical itself, resulting in the formation of agglomerates or aggregates. These consist of smaller particles of dry chemical which are reactive with the moisture and stick together, building up a large number of particles of the dry chemical into a lump. With packing, we are referring to the interaction of the dry chemical extinguishing agent with a mechanical motion, usually vertical, when the dry chemical is stored in a vertical or upright container, as is the case most often in an extinguisher. In this case, a segregation of the particle sizes may occur. The degree of segregation depends upon the difference in particle sizes that are present in the chemical. The larger the difference in particle size in the chemical, the more severe will be the packing. Therefore, packing is something that is dependent upon particle size distribution, but is not dependent upon the presence or absence of moisture or elevated temperature.

Extinguisher Function

Having defined and discussed these two terms, we are able to explain what these two phenomena mean in terms of the use of a dry chemical fire extinguishing agent in a typical extinguisher, of which there are two basic types. With the cartridge type, the dry chemical is stored in a pressure vessel in an upright or vertical cylinder configuration which is unpressurized. The expellant gas, usually carbon dioxide or nitrogen, is stored in a separate pressure vessel. When the extinguisher is actuated, the gas flows through an appropriate gas distribution system into the pressure vessel containing the dry chemical. The dry chemical is fluidized and flows through an outlet into the hose.

With the stored pressure type of extinguisher, the dry chemical is placed in an upright or vertical cylinder, which is pressurized after the dry chemical has been filled, with the mixture being maintained in a pressurized state until the device is to be used. Upon actuation the valve, which is located at the top of the pick-up tube, is opened and the dry chemical flows through the pick-up tube, up through the valve, and out to the nozzle.

Common Misconceptions

These are some common misconceptions with regard to these two types of extinguishers. It is always assumed that the dry chemical contained in the cartridge unit will pack when subjected to vertical motion, and this is true. This is because the dry chemical contains particles of different sizes and the smaller particles, as was previously pointed out, will migrate to the bottom of the cylinder and the larger particles will migrate to the top. However, the gas distribution system and the amount of gas necessary to overcome packing of a dry chemical having a particular size distribution are taken into consideration during the design of the extinguisher. Accordingly, it is extremely unlikely that the dry chemical in a properly designed cartridge unit can become so packed that the gas distribution system cannot overcome the packing resulting in an incomplete discharge of the dry chemical. This is providing, of course, that the dry chemical used is not contaminated by moisture.

Another misconception is that, with stored pressure units, because the dry chemical is pressurized with gas it cannot become packed. This is not true. Packing is a phenomenon, as we have pointed out, that occurs whenever you have a solid having different particle sizes in a vertical or upright cylinder that is subjected to vertical motion. In the case of a stored pressure unit, if one could section this while the unit was pressurized, one would see the following: at the top of the unit a very dilute gas solid mixture in which gas is the predominant species. In the middle of the unit, a less dilute gas solid mixture in which the solid is the more predominant species. At the bottom, a very dense gas solid mixture is present in which the solid is the predominant species. This solid could then, upon vertical motion, undergo segregation of the particle sizes resulting in the packing of the unit. So, it is entirely possible to have packing occur in a stored pressure extinguisher.

Causes of Caking

The situation with regard to caking is different. As discussed above, caking is a chemical reaction between moisture and the dry chemical. In the case of the cartridge unit, the seals in the unit must be moisture tight. In the case of a stored pressure unit, the major concern is the dryness of the gas in which the unit is pressurized. In most cases, the units are pressurized with the air or nitrogen and, unless the air or nitrogen is of a dry grade, problems can result due to a reaction between the moisture contained in the pressurizing gas and the dry chemical present in the extinguisher. The degree to which this reaction occurs and, therefore, the extent to which the gas contains moisture, will determine the severity of the problems that may arise during the operation of the unit. With both types of extinguishers, of course, it is essential that the dry chemical itself not be contaminated with moisture.

Summary

- Caking and packing are two totally different and completely independent conditions.
- Caking can occur only when moisture is present.
- Caking will not occur if quality hardware and agent are used, and proper recharge and maintenance procedures are followed, preventing moisture contact with agent.
- Packing can occur in both cartridge-operated and stored pressure type extinguishers, both portable and systems, when they are subjected to vibration.
- High quality extinguishers, of both cartridge-operated and stored pressure types, are designed to overcome packed dry chemical conditions.
- The best assurance against extinguisher failure due to either condition is to use quality equipment and to follow the manufacturer's recharge and maintenance instructions closely.

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