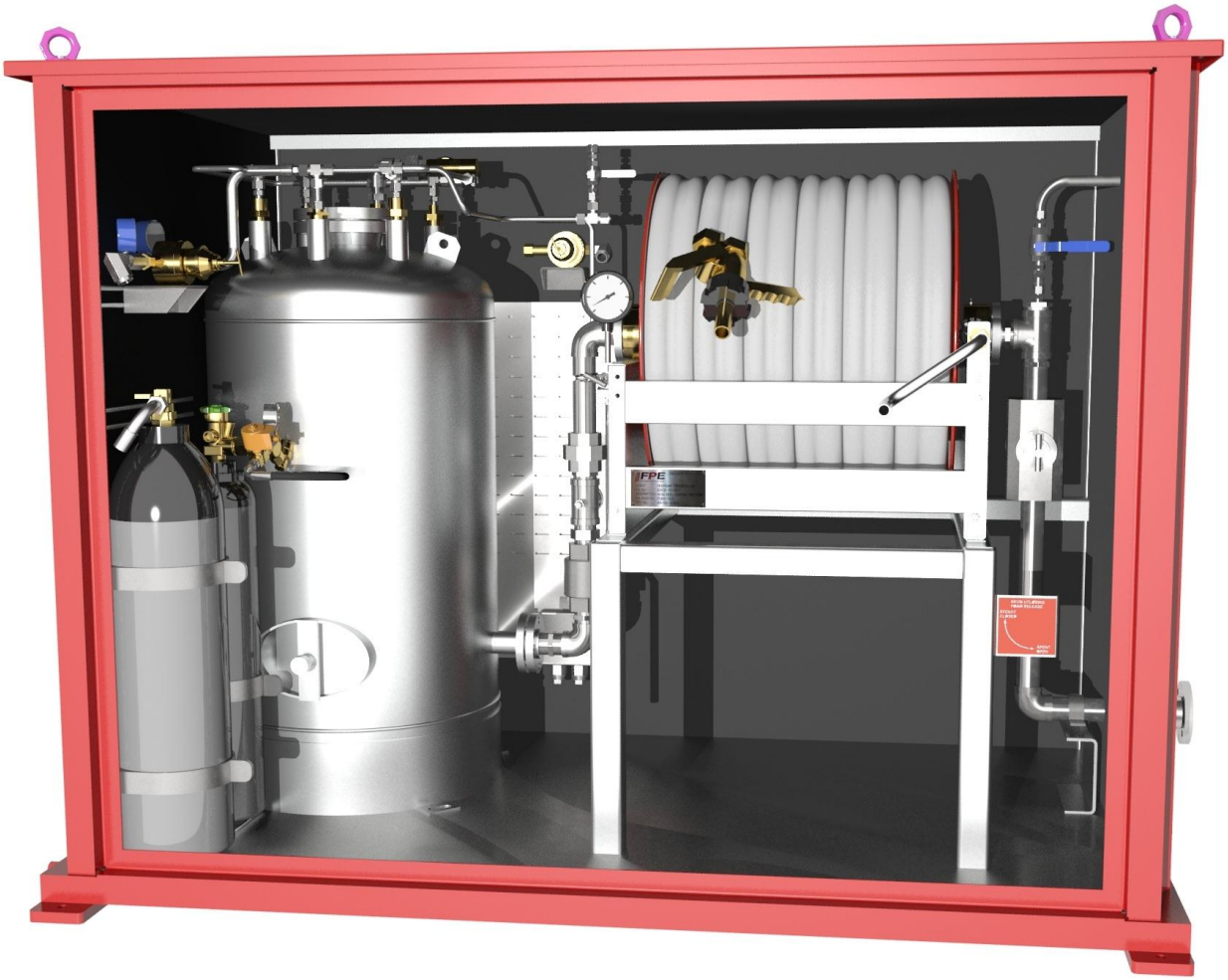
Dual Agent Unit ^{w}/ External Foam Supply DAHR 03



DAHR-03 – DUAL AGENT UNIT WITH FOAM SUPPLY FROM PRESSURIZED CENTRAL FOAM SYSTEM

Standard material

Cabinet:	SST AISI 316, painted externally
Dry chemical tank:	SST AISI 316
Firewater Piping:	Titanium gr. 2
Firewater Valves:	Titanium gr. 2
Foam piping & valves:	SST AISI 316
Dry chemical piping& valves:	SST AISI 316
Hose reel :	SST AISI 316
Nozzle:	Bronze
Hose:	Codan 5300 (1”) and 5400 (1¼”)

FPE AS
PO Box 142
N-4065 Stavanger
Norway

Office Address :
Kanalarmen 12,
N-4033 Stavanger
E-mail: post@fpe.no

Telephone : 51 95 92 92
Faximile :51 95 92 91
Enterprise No: 981 990 374
QA Certificate no: 2001-OSL-AQ-7140

Dual Agent Unit ^{w}/ External Foam Supply DAHR 03

Hand Crank: SST AISI 316
Foam Proportioner *: Titanium
Foam pipe and valves: SST AISI 316
* Foam induction 1% or 3% per project requirements

Installation:

Mount: Bolted to deck

Operation:

Activate dry chemical unit by opening N2 release valve which is pressurizing dry chemical tank.
Open water valve and foam valve. When dry chemical tank is pressurized (after approx. 10 seconds) open dry chemical valve. Pull out hose to required length, and operate the dry chemical handle and water/foam handle on nozzle carefully as required. The dry chemical gives a quick knock down of the fire, and the water/AFFF foam mix provides a sealing surface to prevent re-ignition.

Be aware of the nozzle reaction forces!

Options:

Water Piping & Valves: Aluminium Bronze / Cunifer 90/10
Super Duplex Stainless Steel

Pressure Indicators: Project Preference

Cabinet: Insulation
Heater (Zone 1 Certified)

Max working pressure powder tank: 18 barg
Working pressure hose reel water part: 20 Bar

Test pressure powder tank: 33 barg
Test Pressure Hose reel: 30 barg

Table 1: DAHR 01 Dimension and Weight

Description	Type	Hose size & length	Cabinet Length (mm)	Cabinet Height (mm)	Cabinet Depth (mm)	Dry Weight (kg) *
DA Unit w/External AFFF supply	DAHR-03	1" x 30 m (powder) 1 ¼" x 30 m (premix)	2000	1500	1200	750

* Weight includes charged N2 cylinders, but not powder, AFFF or seawater.

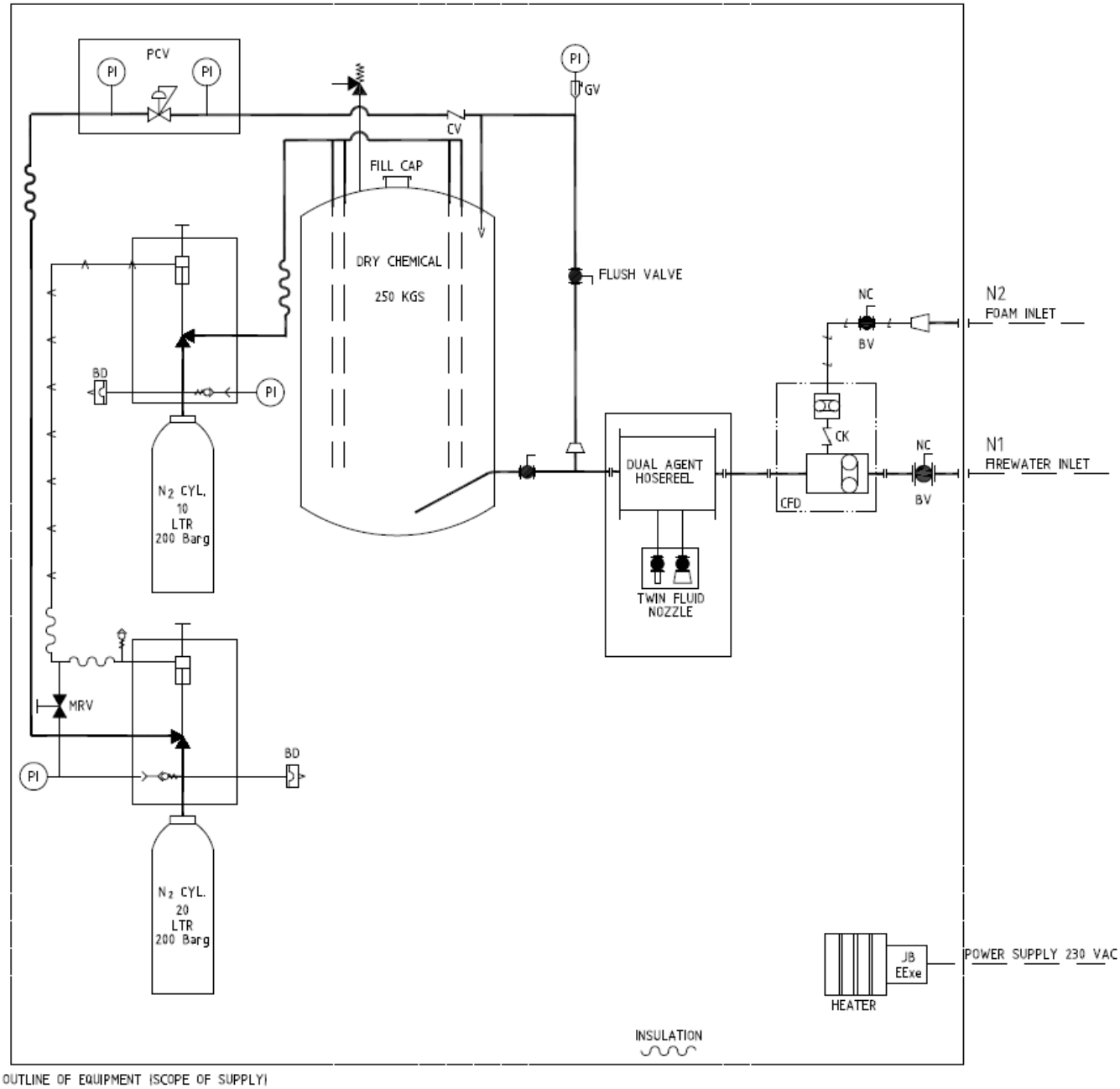
FPE AS
PO Box 142
N-4065 Stavanger
Norway

Office Address :
Kanalarmen 12,
N-4033 Stavanger
E-mail: post@fpe.no

Telephone : 51 95 92 92
Faximile :51 95 92 91
Enterprise No: 981 990 374
QA Certificate no: 2001-OSL-AQ-7140

Dual Agent Unit ^{w}/ External Foam Supply DAHR 03

System Logic Drawing



OUTLINE OF EQUIPMENT (SCOPE OF SUPPLY)

FPE AS
PO Box 142
N-4065 Stavanger
Norway

Office Address :
Kanalarmen 12,
N-4033 Stavanger
E-mail: post@fpe.no

Telephone : 51 95 92 92
Faximile :51 95 92 91
Enterprise No: 981 990 374
QA Certificate no: 2001-OSL-AQ-7140

Dual Agent Unit ^{w}/ External Foam Supply DAHR 03

Dual Agent Units are manually operated units, discharging dry chemical powder and water/foam, intending to be used by trained firefighting personnel.

These Units are extremely efficient units for protection of areas with a risk of hydrocarbons or alcohol fires, such as helicopter decks and process areas.

The Dual Agent hose reels are supplied with two individual hoses, where one hose is flowing dry chemical and the other is flowing water/foam.

The hoses are connected to a common nozzle, giving individual control of the two agents.

Dual Agent Units are rapidly activated, and they are simple to use.

The dry chemical powder gives a rapid knockdown of large scale fires, while water/foam gives cooling of hot surfaces and sealing of liquid pool fires.

The Dual Agent Units must be installed in the vicinity of the area they are to protect.

Technical Description

FPE has developed a range of Dual Agent Units, installed in heated and insulated stainless steel cabinets.

The standard FPE Dual Agent Unit consists of the following main components:

- Cabinet
- Hose reel
- Dual agent nozzle
- Dry chemical system, with N2 expellant
- Foam system
- Firewater inlet piping

The dual agent unit provides two different fire extinguishing agents:

The hose reel is equipped with two hoses, where one flows a mixture of water and foam, and the other flows dry chemical powder. The hose reel is equipped with a dual agent nozzle that has individual open/shut valves for the two agents, and with a twist-action selection of jet or fog on the water/foam side.

DAHR 03 Foam System

The selection of type of foam, and the mixing ratio of foam/water, is based on the standard on the platform.

Dual Agent Unit ^{w}/ External Foam Supply DAHR 03

This Unit is made to connect to the platform firewater ring main system via a standard flange connection. The unit has a 32 mm (1 ¼ inch) hose for supply of foam/water as the standard.

Foam is provided from the platform foam ring main system. The correct mixing of foam is achieved through a built-in foam mixer.

Dry Chemical System

The dry chemical system consists of a storage tank for powder and an N2 expellant gas cylinder. A manual release valve is installed on the N2 cylinder valve. The tank is charged with 250 kg of powder. When the manual release valve is operated, N2 will pressurize the dry chemical system quickly, giving an initial shock of the dry chemical and functioning as an expellant during discharge.
The tank is equipped with a pressure safety valve, a fill cap and a pressure indicator.
The dry chemical inlet to the hose reel is equipped with an isolation ball valve, designed for use with dry powder.
The dry chemical system on all models is identical, and is designed to provide a flow of 2,5 kg powder per second, effective for approx. 100 seconds.
The dry chemical hose on the hose reel is 25 mm (1 inch).

Flow Capacity

The flow for water/foam is given in the table below:

Flow capacity (at varying inlet pressures l/min).

Model	DAHR03
Inlet pressure, (Barg)	Flow
6	247
8	286
10	320
Flows are given in Liter per Minute (Lpm)	

FPE AS
PO Box 142
N-4065 Stavanger
Norway

Office Address :
Kanalarmen 12,
N-4033 Stavanger
E-mail: post@fpe.no

Telephone : 51 95 92 92
Faximile :51 95 92 91
Enterprise No: 981 990 374
QA Certificate no: 2001-OSL-AQ-7140