

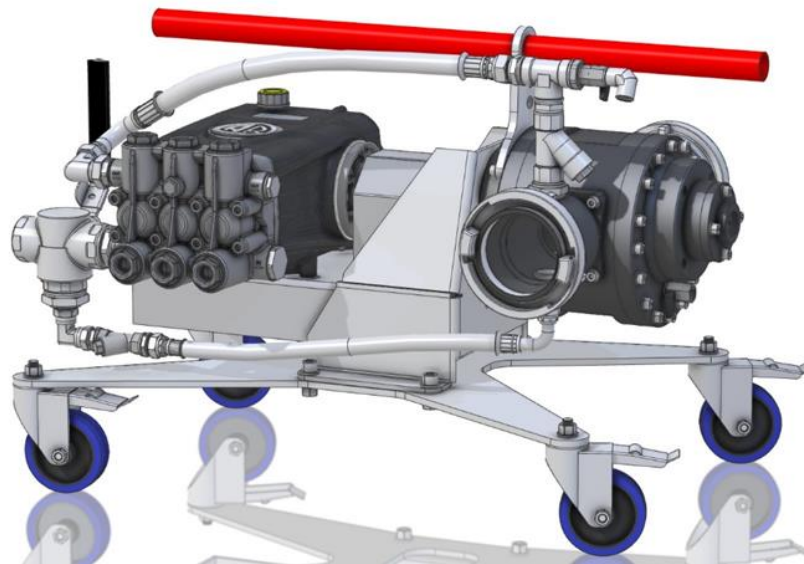
DATA SHEET | FIREMIKS® 1800-3-PP-M – Handle version

MOBILE PROPORTIONING SYSTEM FOR 3% DOSING

Robust, mobile and easy 3% proportioning system for firefighting with working pressure up to 16 bar and flow up to 1800 lpm. Extinguishing water drives the volumetric water motor, which in its turn drives the positive displacement concentrates piston pump, that doses the correct amount of concentrate in the extinguishing water. No additional energy is needed, and the dosing is automatic - no requirement for calibration or pressure balancing. Dosing is also immediate which allows quickly opening and closing the nozzles (pulsing).

FIREMIKS is equipped with an Automatic air relief to speed up priming of foam pump (alternatively Manual air relief valve). Flushing of dosing pump is done automatically when the concentrate inlet is closed with Selector valve Dosing/Flushing (no 4 on Flow chart).

Complete with bottom bracket equipped with lockable wheels and a separate Suction pipe an a separate Y-filter to protect from foreign particles entering the water motor.



TECHNICAL DATA

Max water flow rate @rpm:	1800 lpm (475 US gpm) @11255 rpm
Min water flow rate @ 8 bar 1-20 cP*:	260 lpm (69 US gpm)
Min water flow rate @ 4 bar 1-20 cP*:	230 lpm (60 US gpm)
Viscosity range:**	1-1800/3600 cP (Brookfield #4 60/30rpm)
Dosing rate***:	3%
Max inlet operating pressure:	16 bar (232 psi)
Factory tested pressure:	24 bar (350 psi)
Suction height****:	0 - 1 meters (0 – 3,5 ft), gravity feed preferred.
Operation temperature:	1°C to 55 °C (34°F to 131°F)
Storage temperature, dry condition:	-30°C to 55°C (-22° to 131°F)
Connections water motor G (ISO 228-1) male:	G 4" DN 100 (incl O-ring)
Connection pump:	G 1 ¼" – DN 32 - Delivered with suction pipe and quick coupling

* Notes on minimum flow:

- Minimum flow rate is the flow where dosing reaches 3%.
- Minimum flow changes depending on system pressure and viscosity properties of the concentrate and design of the suction line. See Instruction Manual.
- Below min flow, there is still dosing if the unit is rotating.
- Once min flow is reached in a typical application, usually dosing is no longer pressure sensitive at higher flows.

**Consult with Firemiks AB for higher viscosities.

*** Dosing tolerance 3% to 3,9%

****Note: Suction height varies depending on properties of concentrate, water flow rate and suction pipe parameters.

MATERIALS

FIREMIKS Aluminium – For fresh water/salt water occasional use		FIREMIKS Bronze – For saltwater/offshore	
Water motor:	Alu AA 6082/7075, (housing / rotor) Hard-anodized and PTFE-coated, Stainless steel AISI 316 (fasteners), PET (vanes), NBR (O-rings).	Water motor:	Ni-SALI-Bronze JM7 (C95500) (housing / rotor), Stainless Steel AISI 316 (fasteners), PET (vanes), NBR (O-rings)
Dosing pump:	Wetted: Brass (head), ceramics, NBR (seals), stainless steel. Other: aluminium (body), hardened steel with corrosion protection (crankshaft), AISI 316 Fasteners	Dosing pump:	Wetted: Brass (head), ceramics, NBR (seals), stainless steel. Other: aluminium (body), hardened steel with corrosion protection (crankshaft), AISI 316 Fasteners
Flexible hoses:	High grade Stainless Steel + PTFE	Flexible hoses:	High grade Stainless Steel + PTFE
Fittings:	Stainless steel AISI 316L	Fittings:	Stainless Steel AISI 316L
Ball valves:	Nickel-plated brass, brass, PTFE, SS	Ball valves:	Stainless Steel AISI 316, PTFE
Frame	Stainless Steel	Frame	Stainless Steel

APPROXIMATE DIMENSIONS AND WEIGHT

Overall dim. L x W x H mm:	900 x 540 x 560
Weight Aluminium:	88 kg
Weight Bronze:	130 kg

Actual dimensions and weight depending on optional equipment.

PRESSURE LOSS TABLE (@ 8 bar system)

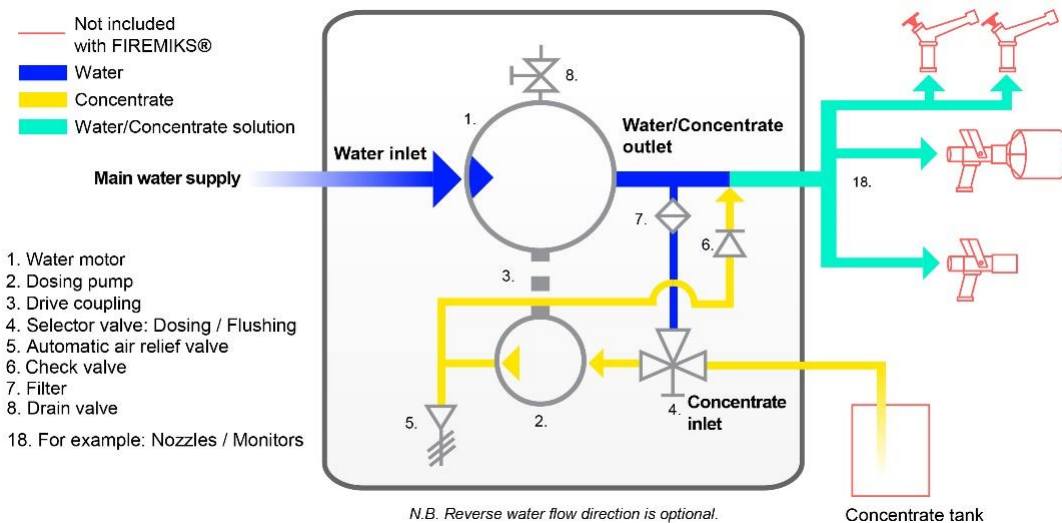
Water flow rate	Pressure loss
230 lpm	0,8 bar
600 lpm	0,9 bar
900 lpm	1,15 bar
1200 lpm	1,6 bar
1500 lpm	2,0 bar
1800 lpm	2,6 bar

Pressure loss will vary slightly (up to ± 0,3 bar) depending on system pressure and concentrate used.

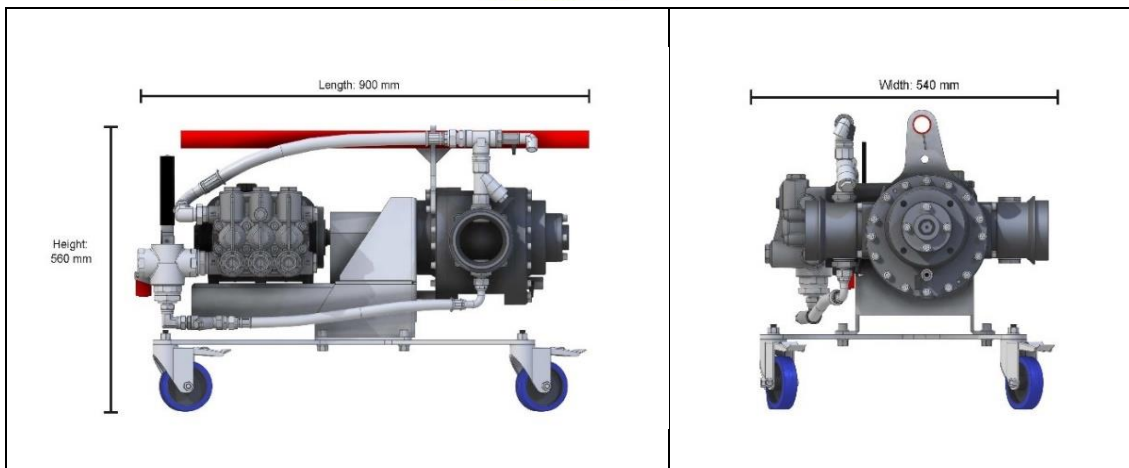
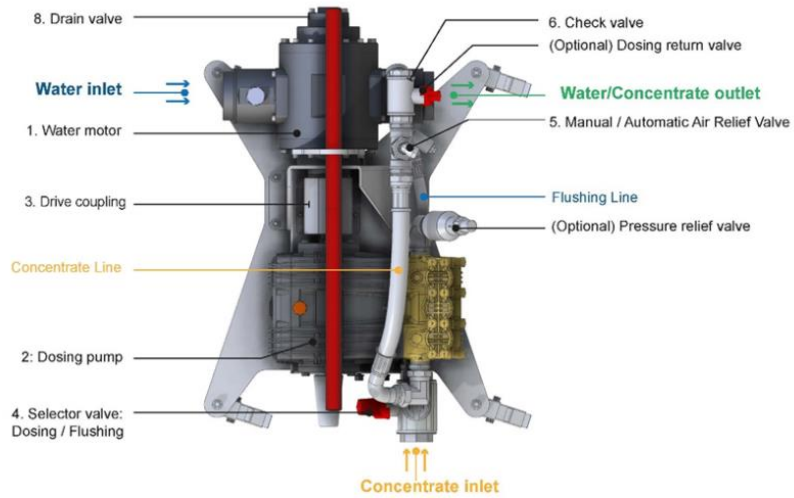
FIREMIKS PRODUCT NO

Material water motor	Product No
Aluminium:	1800-3-PP-M-ALU Handle
Bronze:	1800-3-PP-M-BRZ Handle

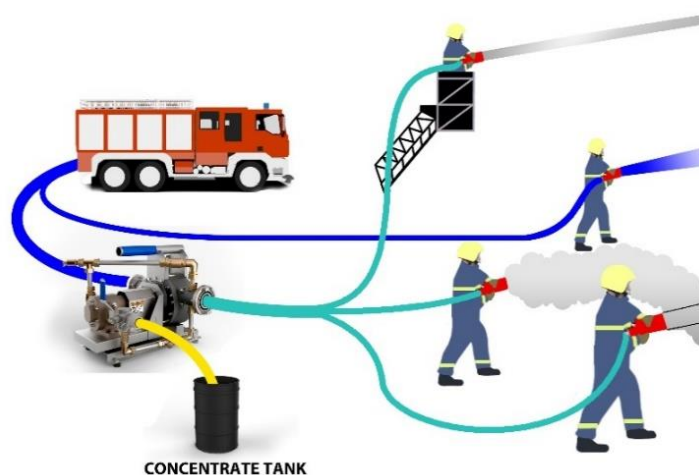
PRINCIPLE FLOW CHART



MAIN PARTS OVERVIEW / OVERALL DIMENSIONS



ONE FIREMIKS – SEVERAL NOZZLES



FIREMIKS enables central mixing of concentrates to several nozzles placed at different lengths and heights from FIREMIKS, handled independently from each other. *Dosing is immediate which allows quickly opening and closing the nozzles (pulsing).*

RECOMMENDED SPARE PARTS FOR 2 – 5 YEARS

1.10 Set of vane plates (4 pcs)	3.10 Automatic Air relief valve
1.20 Set of Mechanical Seals (2 pcs)	(3.11 Manual Air relief valve)
1.30 Set of Ball Bearings (2 pcs)	3.20 Check valve
1.40 Set of O-rings (8 pcs)	3.30 Complete Drive gear + Wedges
1.45 Set of Gable inserts (2 pcs)	3.40 Filter flushing line
2.10 Water seals and plunger kit	
2.20 In/Out valve kit	

Always mention the serial number of the units concerned when ordering spare parts.

APPROXIMATE GROSS WEIGHT AND DIMENSIONS OF GOODS

The unit is delivered on a closed EUR pallet, with Instruction manual in printed form and Wrench to rotate the unit by hand for maintenance.

Overall dim of packaging. L x W x H cm:	120 x 80 x 75
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Weight of packaged goods:	Aluminium	138 kg
	Bronze and Stainless steel	180 kg

Note! Weight and dimensions specified here serves only as a guideline, and may vary depending on if you choose different optional equipment. Correct weight and dimension of the goods are given before delivery.




FIREMIKS® is a registered trademark owned by Firemiks AB in Sweden.

Firemiks AB is SS-EN ISO-9001:2015 certified by Bureau Veritas, cert.no SE006796-1.

Scope of supply: Development, production and sales of water motor driven dosing systems for firefighting.

CE FIREMIKS® is CE-marked and production is made according to European Directive 2006/42/EC.

Conforms to applicable parts of NFPA 11 and NFPA 1901. 

We reserve the right to make changes in the specifications without prior notice.