

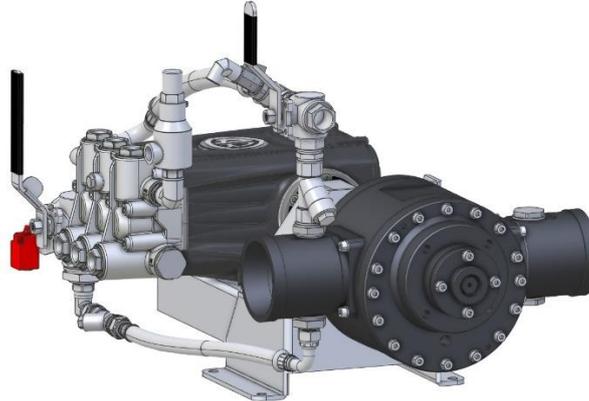
## DATA SHEET | FIREMIKS<sup>®</sup> 1800-3-PP-F

### PISTON PUMP TYPE FOR FIXED INSTALLATIONS

Approval: FM Class 5130, no 3060416



3% dosing system for firefighting - for fixed installations connected to a concentrate tank with gravity feed to dosing pump. Consists mainly of two volumetric parts; a Water motor and a Piston pump. Equipped with a Manual air relief valve. Flushing of dosing pump is done automatically when the concentrate inlet is closed with 3-way ball valve, (no 4 on Flow chart). Water motor available in three different materials, aluminium, nickel-aluminium bronze and stainless steel 316L. Pump head available optionally with stainless steel 316L head.



Note: For illustration only. Refer to Dimensional Drawing for accurate representation of each model.

## TECHNICAL DATA

### PRODUCT NO

Water motor material	Pump head material	PRODUCT NO
Aluminium Nickel-aluminium bronze Stainless steel	Standard (Brass)	FIREMIKS 1800-3-PP-F-ALU-FM FIREMIKS 1800-3-PP-F-BRZ-FM FIREMIKS 1800-3-PP-F-SS-FM
Aluminium Nickel-aluminium bronze Stainless steel	Optional Stainless steel	FIREMIKS 1800-3-PP-F-ALU-SS-FM FIREMIKS 1800-3-PP-F-BRZ-SS-FM FIREMIKS 1800-3-PP-F-SS-SS-FM
<b>Nominal dosing rate:</b>		3 % (approved range 3,0-3,9 %)
<b>Max water flow rate:</b>		1800 lpm (475 US gpm)
<i>Note! Maximum water flow rate is the approved maximum continuous flow rate entering the FIREMIKS. The unit has been tested for 40% overflow (=2520 lpm) for 3 minutes at start-up without damage. During overflow/overspeed, the correct dosing might not be achieved.</i>		
<b>Min water flow rate:</b>		240 lpm (64 US gpm), 260 lpm (69 US gpm)
<i>Minimum water flow rate varies depending on system pressure and viscosity properties of the concentrate. Minimum flow rate is here defined as the lowest flow rate where the dosing is correct, above 3,0%, at 4 bar inlet pressure. The first number is valid for the lowest approved viscosity, the second for the highest, see below. At flows below minimum flow, some dosing will still happen as long as the unit turns. Once min flow is reached, correct dosing at higher flows is no longer sensitive to fluctuations in pressure or viscosity for a given system.</i>		
<b>Approved viscosity range:</b>		1 centipoise – 1800 centipoise at 60 rpm or 3600 centipoise at 30 rpm, with Brookfield viscometer spindle #4
<b>Max inlet operating pressure:</b>		16 bar (232 psi)
<b>Factory tested pressure:</b>		24 bar (348 psi)
<b>Suction height:</b>		0 meters (0 ft) Gravity feed

Document: Data Sheet FIREMIKS 1800-3-PP-F-FM

Approved by: Walle

Version: 04

Date: 2019-11-20

<i>The pump has suction capability, but it is not recommended to be relied upon for safe operation. Suction requires priming of the pump and will lower dosing performance.</i>		
<b>Operation temperature:</b>	1°C to 55 °C (34°F to 131°F)	
<b>Storage temperature, dry condition:</b>	-30°C to 55°C (-22° to 131°F)	
<b>Connections water motor:</b>	<u>Standard:</u> ANSI/AWWA C 606-04 Cut groove DN 100 (114,3)	<u>Optional:</u> G 4" male iso 228-1
<i>Other connections available by using adaptors.</i>		

## MATERIALS

Water motor housing and rotor material	Specification
Aluminium	Aluminium EN AW 6082-T6 (housing) / 7075-T6 (Rotor), hard-anodized and PTFE-coated
Nickel-aluminium bronze	Nickel-Aluminium Bronze JM7 (C95500)
Stainless steel	Stainless Steel AISI 316L
<b>Water motor components</b>	AISI 316 (fasteners), PET (vanes), NBR (O-rings).
<b>Dosing pump head material</b>	Standard head: Brass Optional stainless-steel head: AISI 316L
<b>Dosing pump components</b>	Aluminium, ceramics, NBR, AISI 316 (fasteners)
<b>Fittings:</b>	High grade stainless steel
<b>Valves and hoses:</b>	High grade stainless steel + PTFE

## DIMENSIONS AND DOSING PUMP CONNECTION

<b>Connection pump:</b>	G 1 ¼" female iso 228-1:
<b>Overall dim. L x W x H mm:</b>	846 x 531 x 544

## WEIGHT

<b>Weight *:</b>	
FIREMIKS 1800-3-PP-F-ALU-FM	81 kg
FIREMIKS 1800-3-PP-F-BRZ-FM	129 kg
FIREMIKS 1800-3-PP-F-SS-FM	127 kg
FIREMIKS 1800-3-PP-F-ALU-SS-FM	88 kg
FIREMIKS 1800-3-PP-F-BRZ-SS-FM	136 kg
FIREMIKS 1800-3-PP-F-SS-SS-FM	134 kg

*\*Average value, depending on optional equipment*

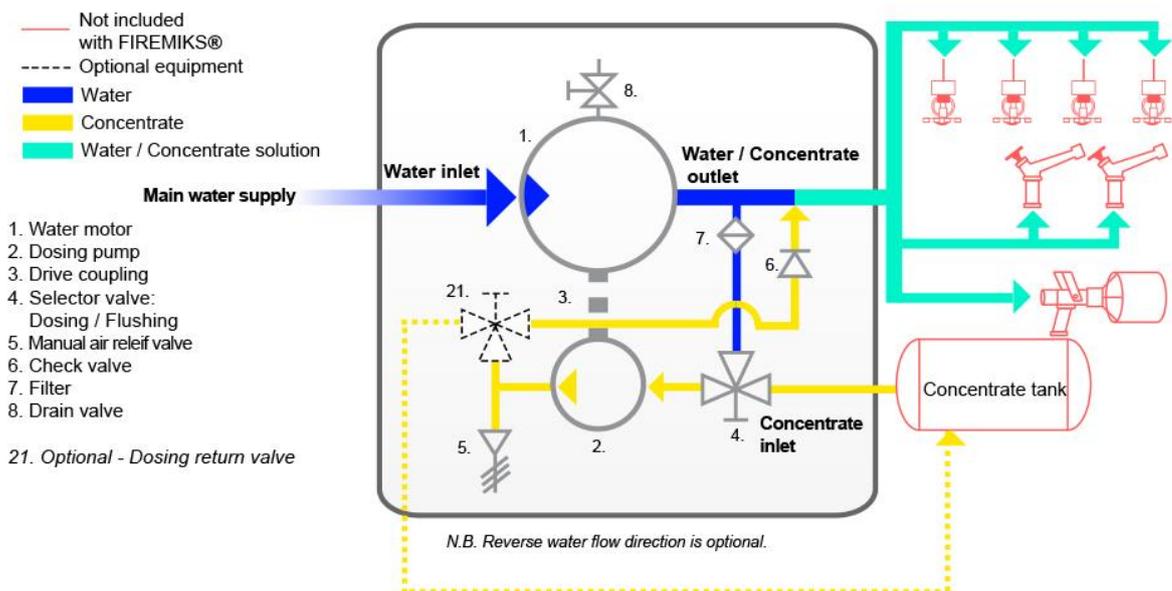
## PRESSURE LOSS TABLE (@8bar system pressure)

<b>240 lpm</b>	0,8 bar
<b>1020 lpm</b>	1,4 bar
<b>1.800 lpm</b>	2,6 bar

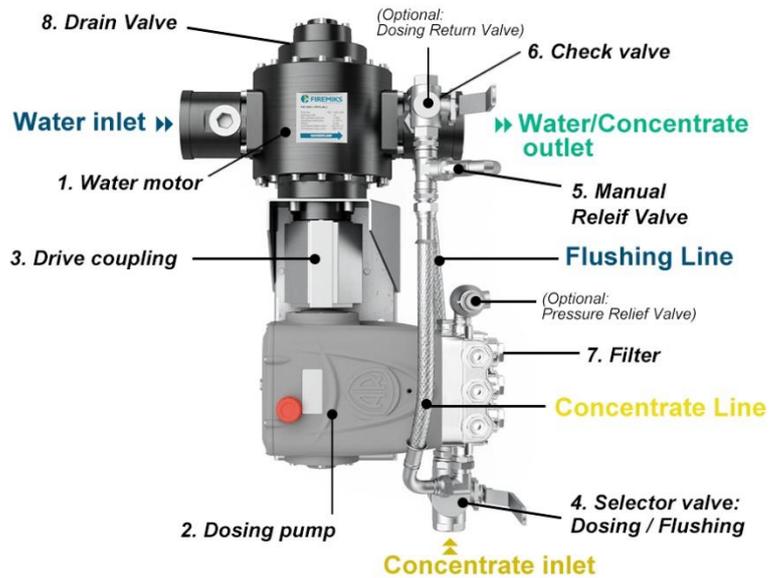
OPTIONAL	
<b>Dosing return valve with pressure relief valve</b>	Valve for returning the concentrate to the tank for easy and quick checking of admixture rate, without consuming concentrate and generating water/foam solution. Pressure relief valve included and set to open at 20 bar.
<b>Reversed Flow direction (right to left)</b>	Standard flow direction is from left to right seen from pump side
<b>Adapters for water motor connections</b>	Flanges of different kinds (ANSI, DIN), Storz couplings, etc
<b>Y-strainer main water flow</b>	If the firefighting water contains foreign particles a strainer in the main water line before the FIREMIKS is a necessity

While the above numbers are correct to our best knowledge, for best practice we strongly recommend contacting us with your dosing case, stating the required flows and pressures, the data sheet of the concentrates to be used and any other useful information, so we can provide you with our most suitable dosing solution.

## FLOW CHART



## OVERVIEW



Note: For illustration only. Refer to Dimensional Drawing for accurate representation of each model.

FIREMIKS<sup>®</sup> is a registered trademark owned by Firemiks AB in Sweden.

For information on our FM-approval, go to [www.approvalguide.com](http://www.approvalguide.com)

We reserve the right to make changes in the specifications without prior notice. Production is made according to European Directive 2006/42/EC  and conforms to applicable parts of NFPA 11 and NFPA 1901. 

