

## DATA SHEET | FIREMIKS® 450-3-PP-F-ALU-FM

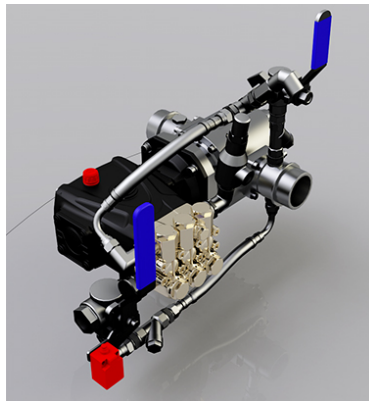
PISTON PUMP TYPE FOR FIXED INSTALLATIONS

Approval: FM Class 5130



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).

FM approved when used together with FM approved concentrates and discharge devices.



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

### TECHNICAL DATA

<b>PRODUCT NO:</b>	FIREMIKS 450-3-PP-F-ALU-FM	
<b>Nominal dosing rate:</b>	3 % (approved range 3,0-3,9 %)	
<b>Max water flow rate:</b>	450 lpm (105 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 (=630 lpm) for 3 minutes at start-up without any damage. During overflow/overspeed, the correct dosing might not be achieved.</i>		
<b>Min water flow rate:</b>	112 lpm (30 US gpm), 155 lpm (41 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 cps – 1800 cps at 60 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	
<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> G 2" male iso 228-1	<u>Optional:</u> ANSI/AWWA C 606-04 Cut groove DN 50 (60,3)
<i>Other connections available by using adaptors.</i>		

Document: Data Sheet FIREMIKS 450-3-PP-F-ALU-FM

Approved by: Walle

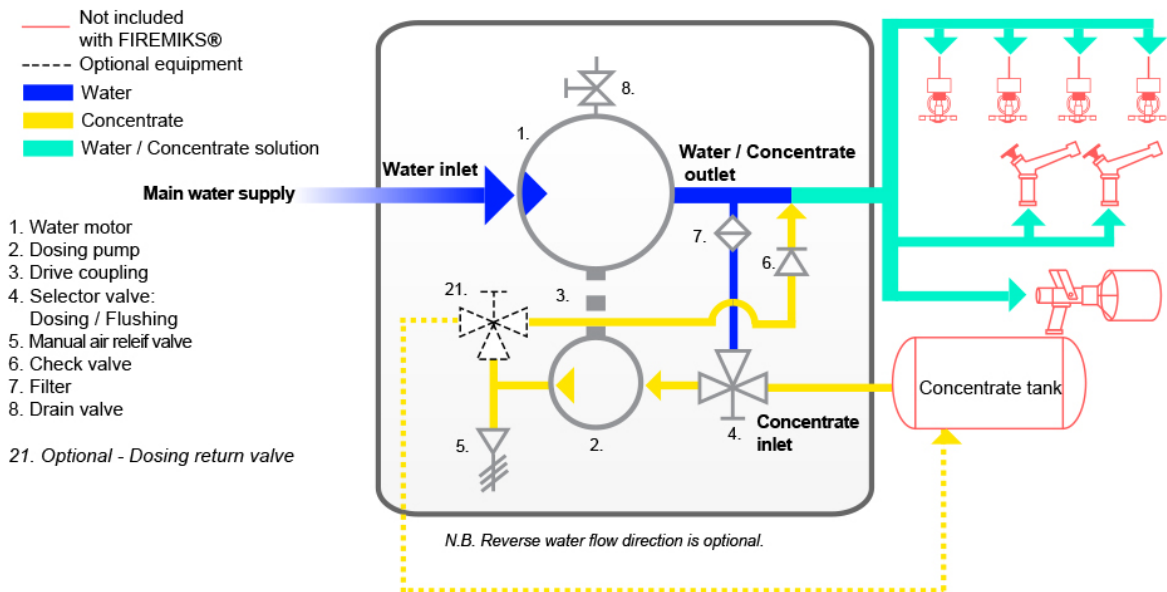
Version: 01

Date: 2018-01-09

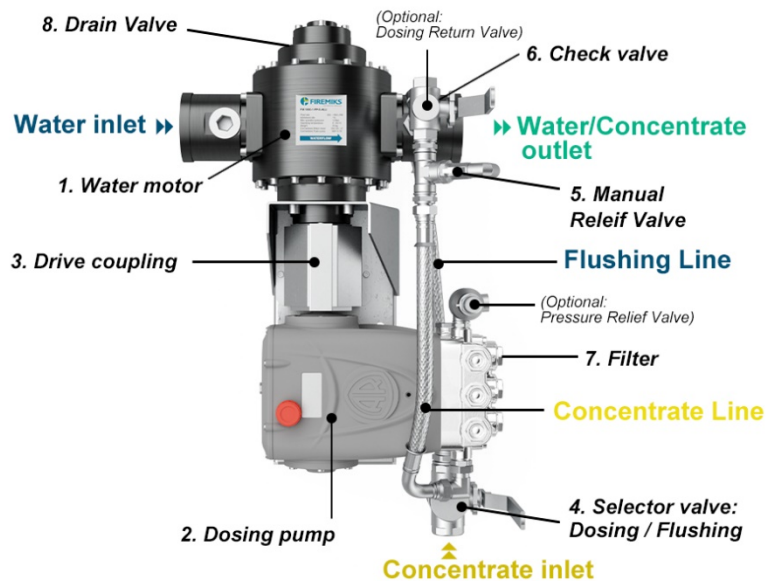
<b>MATERIALS</b>	
<b>Water motor:</b>	Alu AA 6082/7075, Hard-anodized and PTFE-coated, AISI 316 (fasteners), PET (vanes), NBR (O-rings).
<b>Dosing pump:</b>	Aluminium, brass, ceramics, NBR, AISI 316 (fasteners)
<b>Fittings:</b>	High grade stainless steel
<b>Valves and hoses:</b>	High grade stainless steel + PTFE
<b>DIMENSIONS AND DOSING PUMP CONNECTION</b>	
<b>Connection pump:</b>	G 3/4" female iso 228-1
<b>Overall dim. L x W x H mm:</b>	511 x 306 x 412
<b>WEIGHT</b>	
<b>Weight:</b>	22 kg *
<i>*Average value, depending on optional equipments</i>	
<b>PRESSURE LOSS TABLE (@8bar system pressure)</b>	
<b>112 lpm</b>	0,8 bar
<b>260 lpm</b>	1,2 bar
<b>450 lpm</b>	2,0 bar
<b>OPTIONAL</b>	
<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

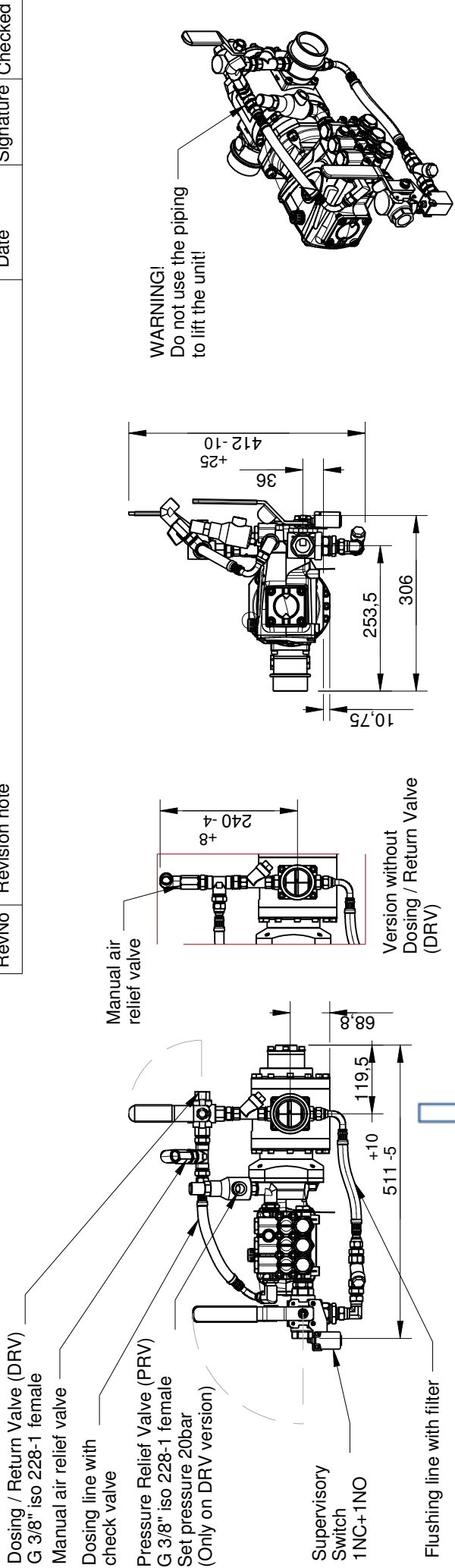


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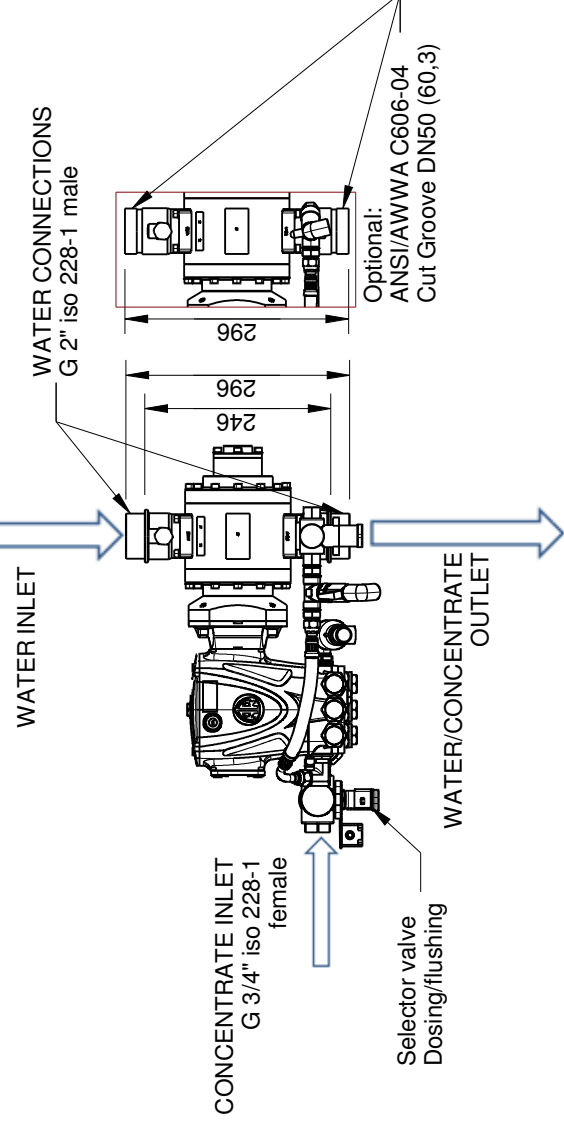
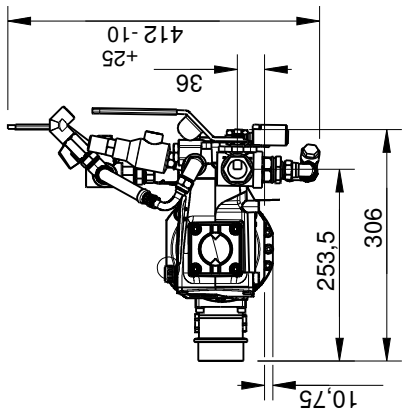
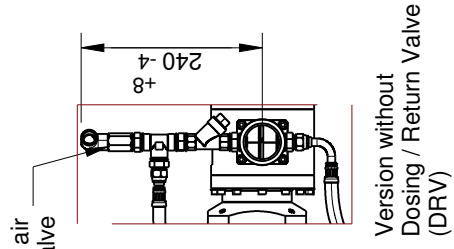
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We reserve the right to make changes in the specifications without prior notice. Production is made according to European Directive 2006/42/EC  and conforms to applicable parts of NFPA 11 and NFPA 1901. 



**WARNING!**  
Do not use the piping to lift the unit!



RevNo	Revision note	Date	Signature	Checked
1				
2				
3				
4				
5				
6				

Drawn by WALLE	Checked by MKA	Approved by - date MKA	File name	Date 2017-12-28	Scale 1:10
<b>Firemiks AB</b> P.O.Box 8155 SE-104 20 STOCKHOLM, Sweden info@firemiks.com +46-8-551 196 10			<b>DD - 2301</b> <b>FIREMIKS 450-3-PP-F-FM</b> Copyright of Firemiks AB All rights reserved		

FM Approved when used together with FM Approved foam concentrates and discharge devices

Dimensions tolerance ± 1mm unless otherwise noted

NOTE! Reverse water flow direction is optional

We reserve the right to make changes without prior notice