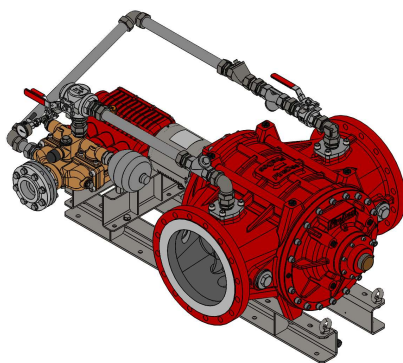


■ DATA SHEET PROPORTIONER FD20000 GEN III FOR STATIONARY EXTINGUISHING SYSTEMS



■ 1. TECHNICAL DATA

Type	FD20000/1-S	FD20000/3-S
Proportioning rate	1 %	3 %
Approvals	FM Approval PR452158	
Flow directions of water motor	Horizontal: "left → right" or "right → left"	
	Vertical: "top → bottom" or "bottom → top"	
Min. water flow rate ¹⁾	750 l/min	850 l/min
Water flow rate ²⁾ 	1330 l/min – 20000 l/min	1330 l/min – 20000 l/min
Operating temperature ³⁾	5 °C – 50 °C (standard version)	
	5 °C – 80 °C (High-Temp version) ^{x)}	
Storage temperature	-20 °C – 80 °C	
Operating pressure	5 – 16 bar	
Weight ⁴⁾		
Freshwater version	540 kg	780 kg
Seawater version ^{x)}	1105 kg	1350 kg
ATEX classification ^{x)} for +5 °C ≤ T _a ≤ +60 °C	 II 2G Ex h IIC T4 Gb  II 2D Ex h IIC T130 °C Gb	

1) The nominal proportioning rate is achieved when reaching the specified minimum figure. Indication for proportioning of fluid Newtonian foam agents at operating pressure of 5 bar. For more detailed information, refer to page 2, item 3. "Minimum water flow rate".

2) For information regarding FM Approved data, please refer to www.approvalguide.com.

3) Operating temp. is the max. ambient and medium (foam and extinguishing water) temperature. Max. foam agent temp. is generally limited to 50 °C.

4) Weight indications are based upon the standard version in dry condition. Special versions will differ.

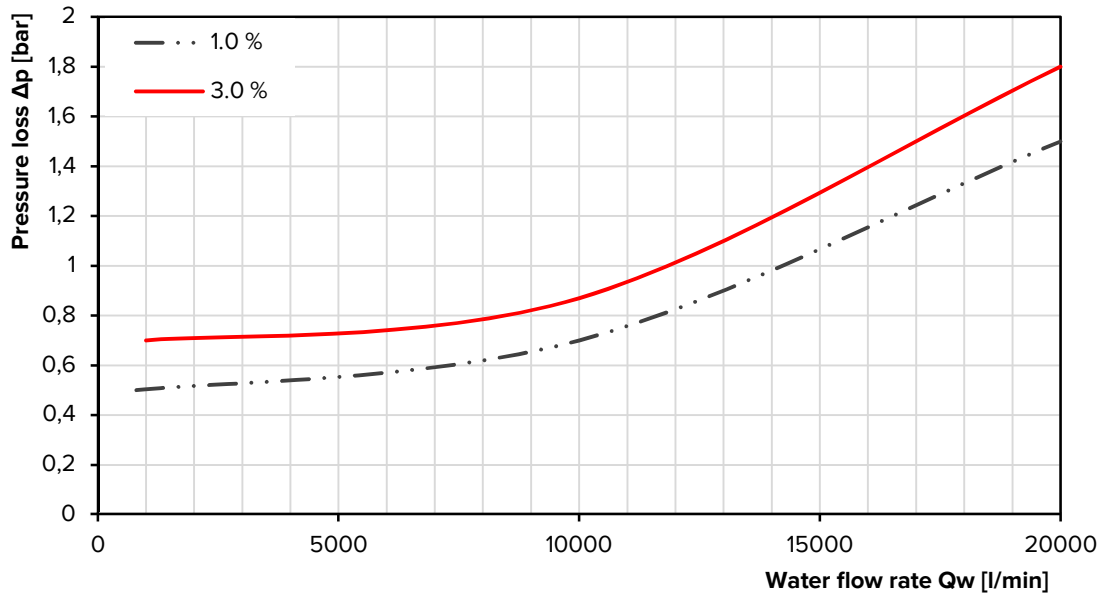
X) Optional equipment.



www.firedos.com

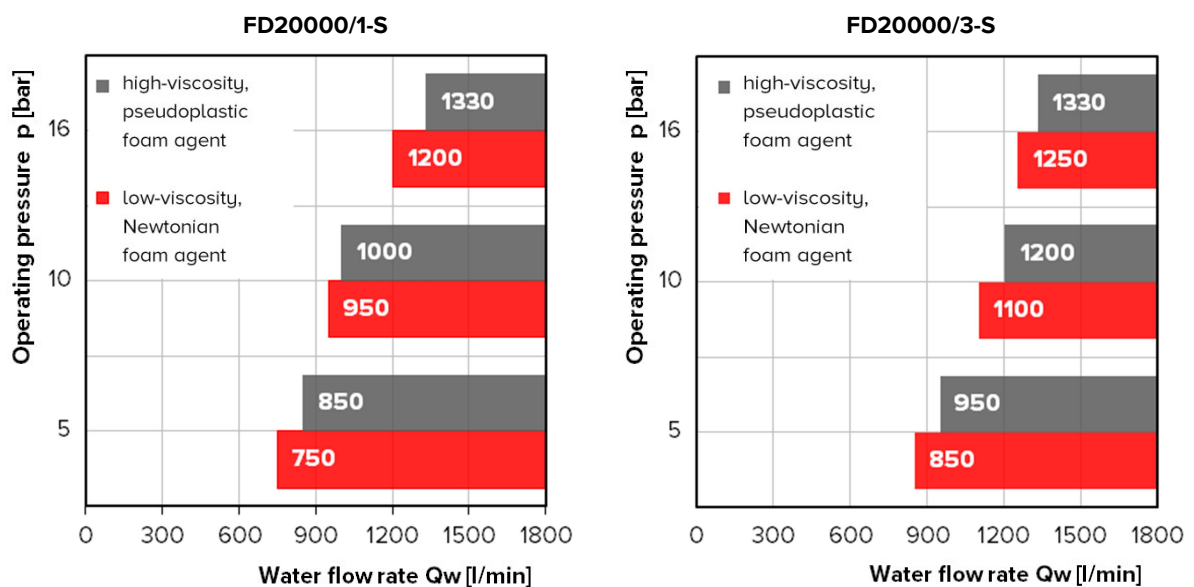
2. PRESSURE LOSS

Indication valid for operating pressure of 10 bar. For more information on different system conditions, please contact us.



3. MINIMUM WATER FLOW RATE

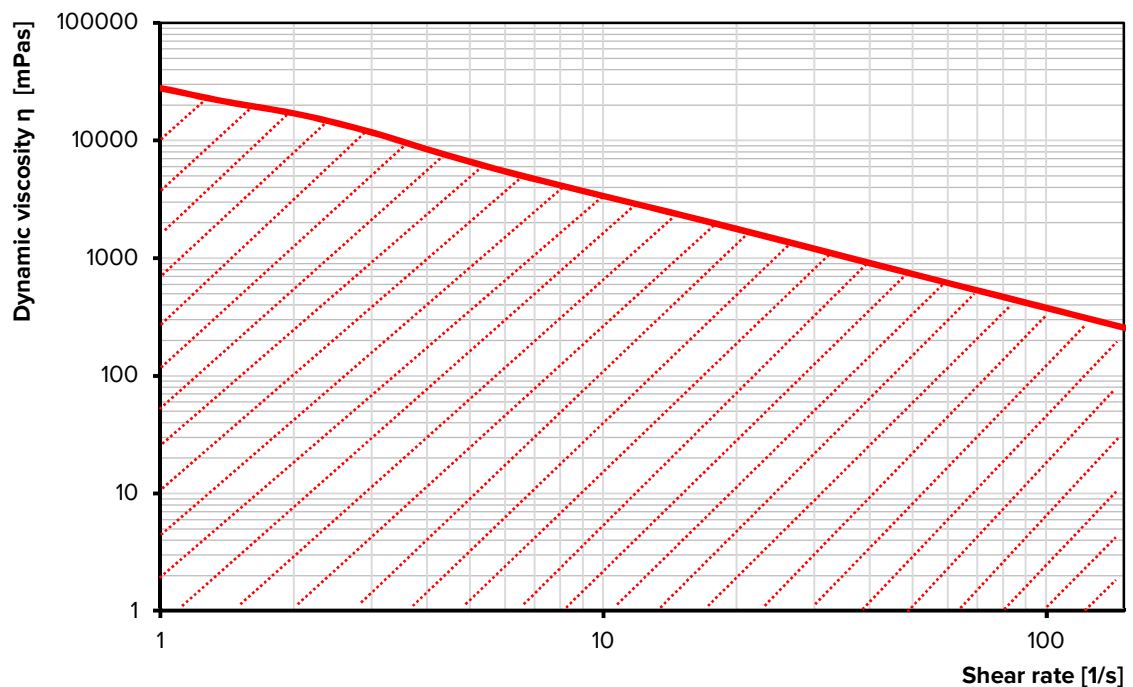
The following diagrams show the effect of the operating pressure and foam agent viscosity on the minimum water flow rate.



Comment: The values specified for the minimum extinguishing water flow rate increase by approx. 40% in the high-temperature version. The specified figures apply to the foam agent viscosity range stated in paragraph 4 only.

4. FOAM AGENT VISCOSITY

FireDos proportioners are suitable for all foam agents available on the market. For reference regarding units with an FM Approval, please find the corresponding/associated range of dynamic viscosity below (www.approvalguide.com). Contact us if the dynamic viscosity of your foam agent is higher than the values in the diagram. **Do not hesitate to request our support for the correct dimensioning of your suction line.**

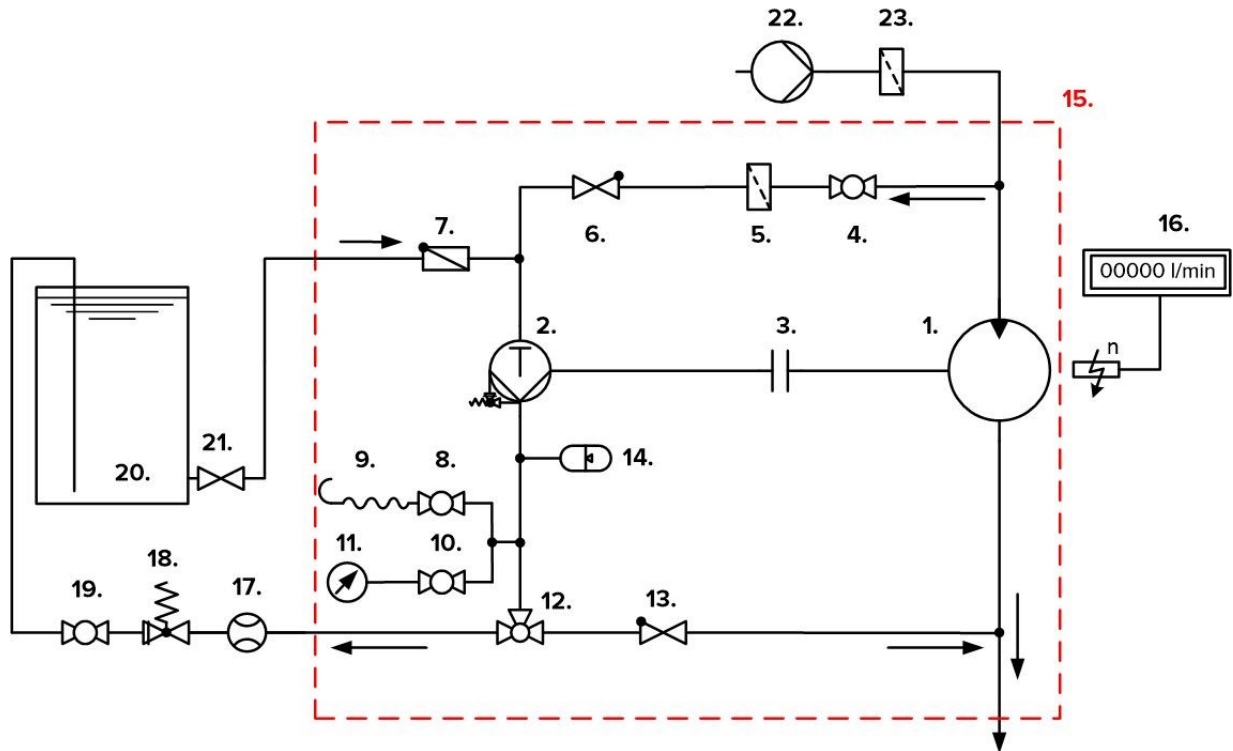


5. MATERIALS

	Freshwater version	Seawater version
Water motor ⁴⁾	Cast Aluminium G-AlSi7Mg HC-coated, AlMgSi1 HC-PTFE-coated, stainless steel 316 / 316Ti, POM, PVDF, NBR, FKM	Cast Bronze G-CuSn10, stainless steel 316 / 316Ti, Aluminium-Bronze CuAl10Fe5Ni5-C-GC, POM, PVDF, NBR, FKM
Proportioning pump ⁴⁾	Stainless steel 316 / SS316Ti, POM, FKM, Aluminium oxide ceramic Al ₂ O ₃ , Aluminium-Bronze CuAl10Ni5Fe5-C-GC	
Pipework ⁴⁾	Stainless steel 316 / CF8M / SS316Ti, PTFE,	
Support frame	Stainless steel 304 / 316	

⁴⁾ media-exposed materials

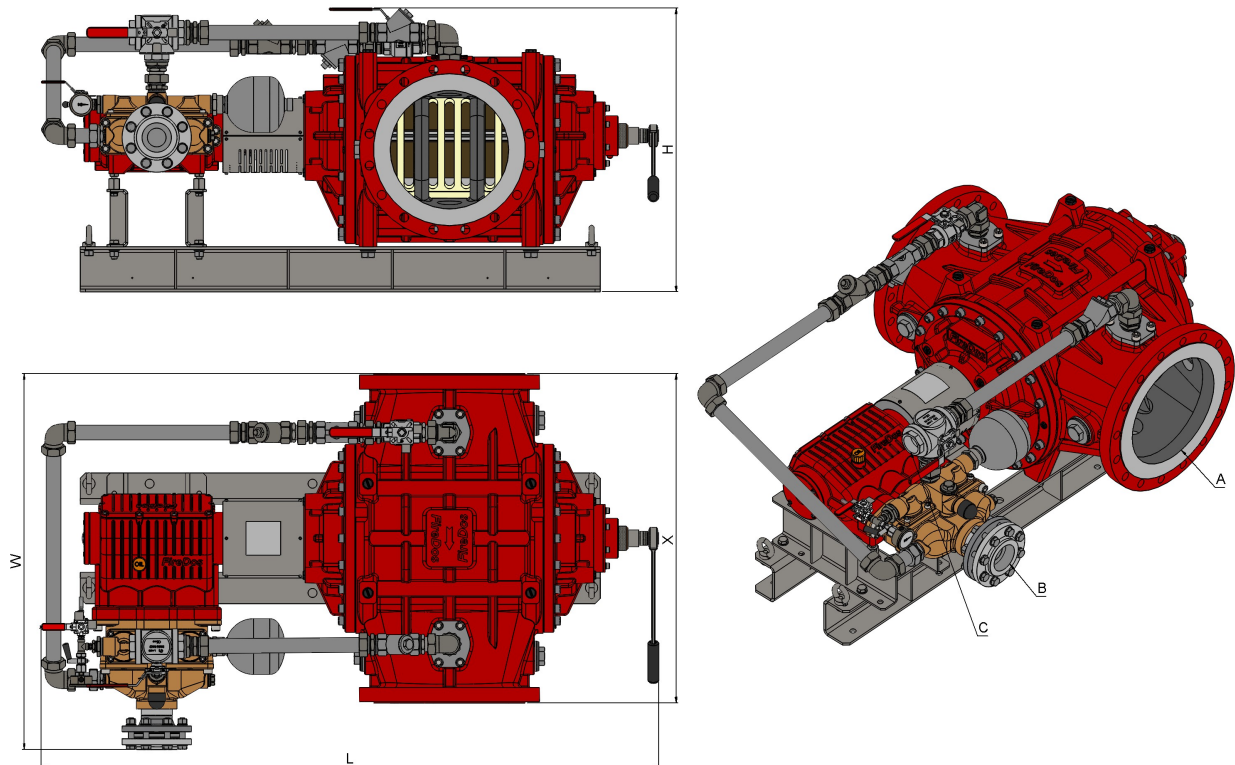
■ 6. FLOW DIAGRAM



- | | |
|--|---|
| 1. Water motor | 13. Check valve in the proportioning line |
| 2. Proportioning pump | 14. Pulsation damper |
| 3. Coupling | 15. Standard scope of supply of FireDos proportioner |
| 4. 2-way ball valve "Flushing/Priming" | 16. Revolution counter with flow rate display ^{x)} |
| 5. Filter in the flushing line | 17. Flow meter for return line ^{x)} |
| 6. Check valve in the flushing line | 18. Pressure retention valve for return line ^{x)} |
| 7. Non-return flap in the suction line | 19. 2-way ball valve in return line ^{x)} |
| 8. Air bleed valve | 20. Foam agent supply |
| 9. Air bleed hose | 21. Shut-off valve in the suction line |
| 10. Shut-off valve pressure gauge | 22. Extinguishing water supply |
| 11. Pressure gauge | 23. Water filter |
| 12. 3-way ball valve "Returning/Proportioning" | |

X) Optional equipment

7. EXAMPLE FIGURE / DIMENSIONS



Type	FD20000/1-S	FD20000/3-S
Proportioning rate	1 %	3 %
Connection water motor A	Optionally: flange DIN EN 1092-1, DN350 PN16 flange ASME B16.5, 14" Class 150	
Installation length water motor X ⁵⁾	950 mm	
Connection suction line B	3" FT BSP	flange DIN EN 1092-1, DN125
Connection return line C	2" FT BSP	3" FT BSP
Length L ⁵⁾	1785 mm	1990 mm
Width W ⁵⁾	1090 mm	1350 mm
Height H ⁵⁾	820 mm	975 mm

All figures are approximate only and depend on the particular version/equipment options.

5) Further accessories to the proportioner may require more installation space

Please allow sufficient accessibility of the proportioner for maintenance work. For assistance to ensure sufficient accessibility, please refer to our planning manual for proportioners.

8. MANUFACTURER

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We reserve the right to make modifications at any time.