



HIGH-PRESSURE HIGH-FLOW PUMP UNITS TYPE BMS

Max. flow up to 50 L/min Max. pressure 52,200 psi / 3650 bar All stainless steel Robust design Modular design with numerous options



DESCRIPTION

Whenever high flow and high pressure are required, the Resato BMS pump unit will provide it.

Resato's air-driven high-pressure BMS units are specially designed to pressurize for example valves, hoses, piping systems, completions, safety valves and wellhead equipment. Quick testing or testing of large objects is possible with an optional high-flow / low-pressure air-driven pump. This extra pump can be a single- or a double acting pump.

Water, oil or an emulsion of both can be used as a high pressure medium. The BMS-unit can also be used for chemical injection, because the unit has been made suitable for a wide range of (chemical) fluids. Please consult Resato for more information.

The **BMS-W** can be connected to a water supply system. The **BMS-D** operates from a detachable stainless steel reservoir of 40 liters.

A wide range of options is available for the BMS testing unit: a lid to cover the instruments, an engraved panel, an isolating valve, wheels, pad eyes, forklift pockets and stainless steel chart recorder. The chart (Ø 223 mm) can be used as a test certificate.

OPERATION

Output pressure control is achieved by regulating the air-supply pressure with the air regulator provided. When the desired pressure is reached, the Resato air-driven pump will automatically stop; thus, no energy is required to maintain the pressure. If an optional second pump is installed, it can be operated with its own pressure regulator and start/stop valve. The output pressure is indicated by the gauge and recorder (option). Pressure is released through a bleed valve.









TECHNICAL SPECIFICATION

Pump

Unlike most other air-driven pumps, there are no mechanical pilot valves and long internal pilot channels which have a negative influence on the reliability and cycling speed of the pump. The air drive section of the pump only has the air piston and cycling spool as moving parts. Freezing of the pump is prevented by using an air cycling valve provided with light weight spool for high airflow at low air velocity.

The high-pressure seal can be replaced within minutes, without dismantling the air drive section. Check valve seats can also be replaced within minutes and costly downtime is reduced to a minimum.

The pump may be driven by either compressed air or nitrogen at a maximum pressure of 7 bar (100 psi). For output pressures and flow capacities, see the type table. When even higher output capacities are required, the unit can be equipped with Resato pumps of type P200. For more specific information about Resato pumps, see our pumps brochure.

Materials

All critical components e.g. bleed valve, tubing, gauges, fittings and wetted pump parts are in stainless steel or bronze. The frame of the unit is also in stainless steel.

Test gauge

Class 1.0% F.S., housing Ø 100 mm (4 inch), fully stainless steel, filled with glycerine and fitted with laminated safety glass. For ranges, see type table.

Air pressure gauge

Range 0-10 bar/0-140 psi, class 1.6% F.S., housing ϕ 63 mm (2.5 inch) fully stainless steel, filled with glycerine and fitted with laminated safety glass.

Recorder (option)

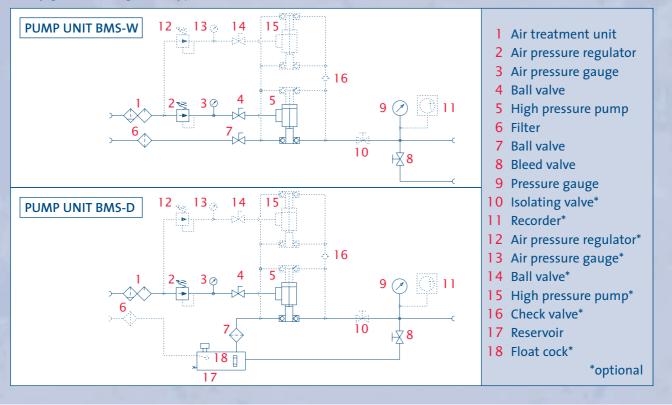
Mechanical, clockwork-driven. Class 1.0% F.S. Fully stainless steel, chart diameter ø 223 mm. Range in accordance with test gauge installed. For chart revolutions, see type table.

PC data acquisition and recording system

The documentation of test results is very important. Therefore Resato offers a PC data acquisition and recording system (type CR). This system generates a test certificate with a graph immediately after completion of a test.

FAST OUTSTANDING SERVICE

Our company's forte is our fast and efficient service. Fast, because we manufacture most of the parts for the equipment we build. Consequently, we always have these parts in stock. All our service technicians are thoroughly trained in-house. So our clients can count both on prompt delivery of any spare part and on the shortest possible downtime if a defect in their equipment should occur.

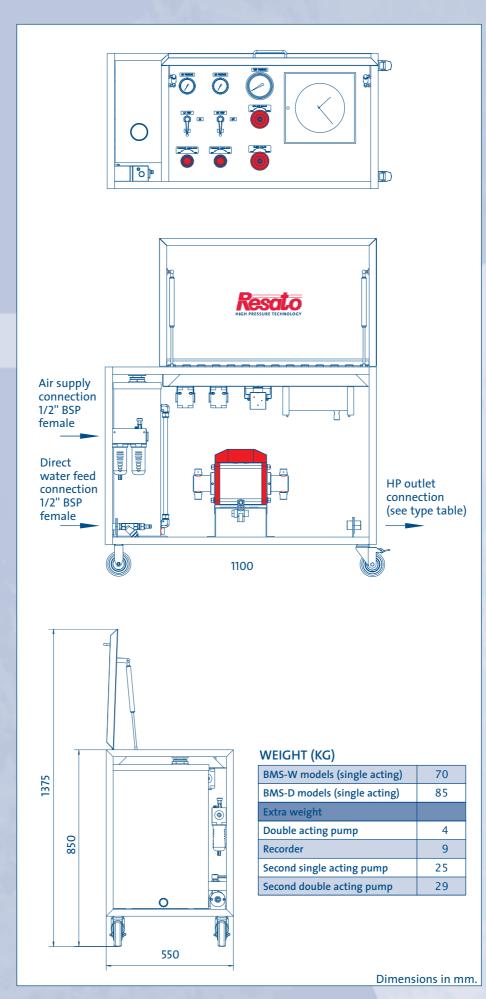




HP outlet Other options connection	A,B,C,FI= Isolate valveA,B,C,FF= Float cock in reservoirA,B,C,F(BMS-D only)A,E,FM4 Wheels insteadA,E,FM4 HegsE,FLL id to protect theE,FLLifting padsE,FHLifting padsE,FPFO = Forklift pocketsB1/2" BSP-femaleB1/2" BSP-femaleC1/2" BSP-Male hose connectionFMFM30x2M.P. Female connection	 → →
Recorder H (option) co rev/hrs	R0 = $1/4-1$ hrs A,B,C,F R1 = 1 hrs A,B,C,F R4 = 4 hrs A,B,C,F R8 = 8 hrs A,B,C,F R24 = 24 hrs E,F E,F E,F B = 1/2 E = 1/2 E = 1/2 E = 1/2 E = 1/2 E = 1/2 E = 1/2 E = 1/2	R0 /
gauge ranges ar psi	0-1,000 0-3,000 0-5,000 0-8,000 0-15,000 0-15,000 0-20,000 0-30,000 0-45,000 0-55,000	
gauge bar	0-160 0.250 0.250 0.0-250 0.0-400 0.0-400 0.0-600 0.0-1600 0.0 0.0-1600 0.0 0.0-2000 0.0 0.0-2000 0.0 0.0-3000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.0-4000 0.0 0.00-4000 0.00-4000 0.0 0.00-4000 0.0 0.00-40000 0.00-40000 0.00-40000 0.00-40000 0.00-400000000	~ → •
Max. outlet pressure bar/psi	140 / 1980 190 / 2750 280 / 4000 440 / 6300 790 / 11,300 1230 / 17,600 1785 / 25,500 2790 / 39,900 3645 / 52,150	lieved
High flow low high pressure pump (option) low flow pump pump ratio 1 2 ratio 1 2 ratio 1 2 2	13.225.09.518.06.412.26.412.24.28.02.44.51.52.91.12.11.12.10.71.30.71.30.71.30.50.91.12.12.50.92.50.92.50.92.50.92.50.92.50.92.50.92.50.91.50.52.50.92.50.92.50.92.50.92.50.92.50.92.50.9	-2 -255 -1 - -2 -255 -1 - An even higher capacity can be achieved by using the P200 pump series.
High p low flo Pump ratio	20 30 40 65 115 115 180 255 255 255 255 255 255 255	+ -255 er capac P200 pu
w low 2 pump (optior Flow L/min 1 2	 3.2 3.2 5.1 18.0 5.4 12.2 5.4 12.2 8.0 2.4 4.5 2.9 1.1 2.1 1.1 2.1 1.1 2.1 1.1 2.1 1.1 2.1 3.5 0.9 3.5 3.5<td>en high ing the I</td>	en high ing the I
High flow low pressure pum pump Flow L ratio 1	13.2 25 9.5 18 9.5 18 6.4 12 6.4 12 7.4 4 1.5 2 1.1 2 1.1 2 1.1 2 1.1 2 0.7 1 0.7 1 1.1 2 1.1 2 1.1 2 1.1 2 1.1 2 0.7 1 0.5 0 0.5 0 2:= Double acting 2:= Double	An ev
High fl pressur pump ratio	20 30 30 40 5255 520	-2 ←
UNIT TYPE	BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D BMS-W/BMS-D	¢ ₩S-W

TYPE TABLE







EXAMPLES OF RESATO HIGH-PRESSURE COMPONENTS

Fittings
General-purpose valves
Check valves
Swivels
Hoses
Piping
Pressure transducers
Rupture-disc safety devices
Quick connectors

EXAMPLES OF RESATO HIGH-PRESSURE EQUIPMENT AND SYSTEMS

Air-driven pumps and gas boosters		
Hydraulically-driven pumps and gas boosters		
Pulse-test systems		
Autofrettage systems		
Test equipment for hoses (safety) valves, fittings, etc.		
Portable pressure-test equipment		
Autoclaves Custom-made test equipment		
Computer-controlled high-pressure test equipment		

COMPANY PROFILE

Founded in 1985, Resato International B.V. is wholly specialized in the design and manufacture of highpressure components and systems for pressures up to 14,000 bar (200,000 psi).

At our modern manufacturing plant in Roden, The Netherlands, we have our own engineering and R&D departments as well as sophisticated production facilities. These enable us to furnish precisely the right component or system a client may need.



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Please note that general data and specifications given in this brochure are subject to change without notice. Feel free to contact our sales department if you need more definite information.

HIGH-PRESSURE PUMPS AND GAS BOOSTERS

