

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



AVAILABLE IN ATEX VERSION

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.

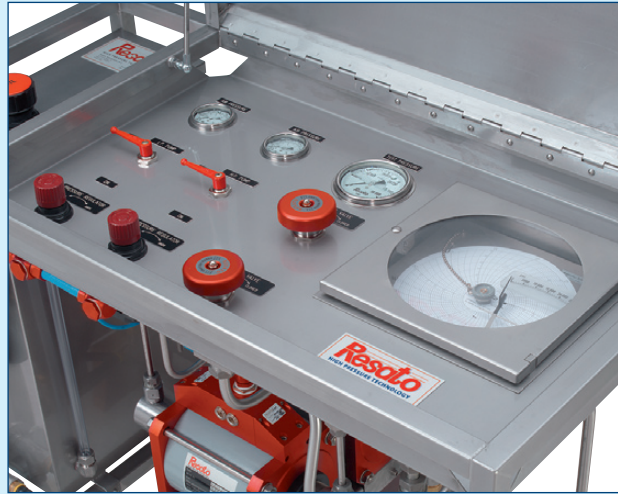
The **BMS-W** can be connected to a water supply system.

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 (\varnothing 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 \varnothing 100 mm (4 inch), fully stainless steel, filled with glycerin 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 \varnothing 63 mm (2.5 inch) fully stainless steel, filled with glycerin and fitted with laminated safety glass.

RECORDER (OPTION)

Mechanical, clockwork-driven. Class 1.0% F.S. Fully stainless steel, chart diameter \varnothing 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.

OTHER OPTIONS

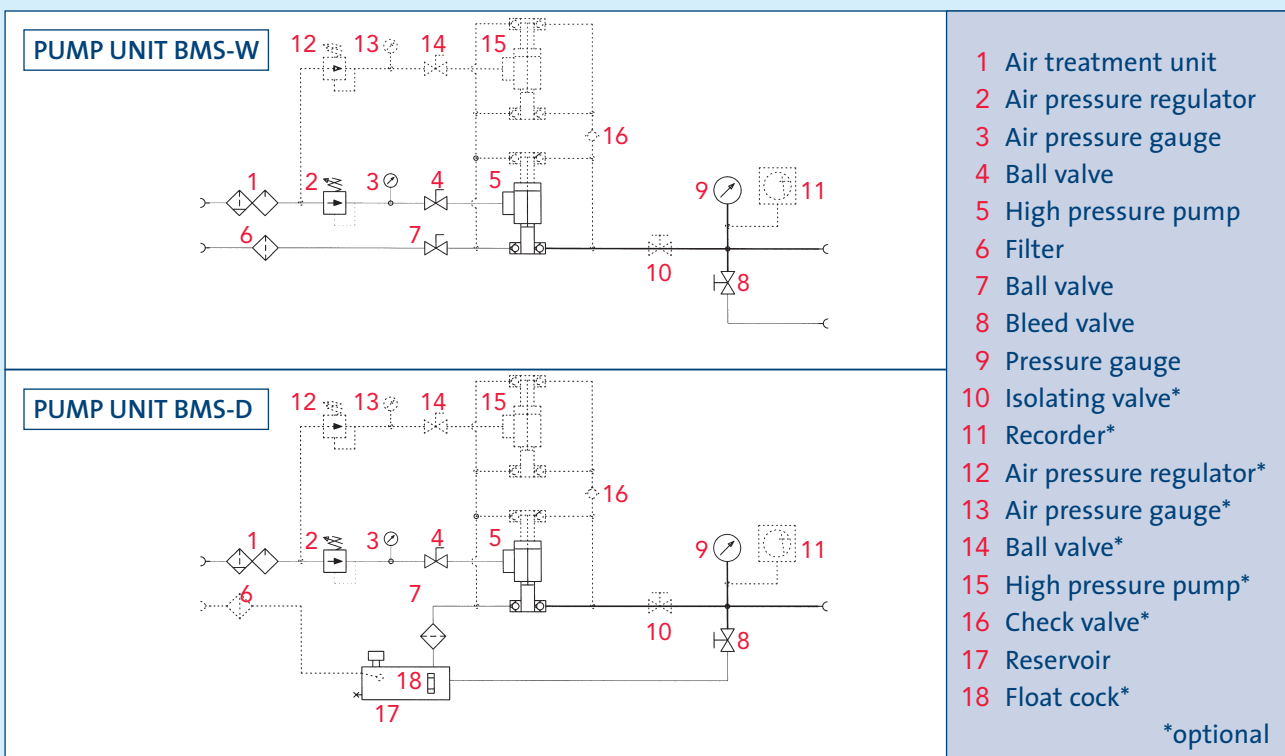
see type table

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.

CERTIFICATES

The Resato portable powerpack is supplied with a test certificate for the complete unit, a calibration report for the test gauge and optional recorder, and an operating and maintenance manual.



TYPE TABLE

UNIT TYPE	High flow low pressure pump (option)		High pressure low flow pump		Max. outlet pressure bar/psi	gauge ranges		Recorder (option) rev/hrs	HP outlet connection	Other options
	pump ratio	Flow L/min		Pump ratio		Flow L/min				
		1	2		1	2	1	2		
BMS-W/BMS-D	20	13.2	25.0	20	13.2	25.0	0-160	0-2,500	R0 = 1/4-1 hrs R1 = 1 hrs R4 = 4 hrs R8 = 8 hrs R24 = 24 hrs	I = Isolate valve F = Float cock in reservoir (BMS-D only) M = 4 Wheels instead of 4 legs L = Lid to protect the instruments H = Lifting pads FO = Forklift pockets CP = Closed panels EX = ATEX version
BMS-W/BMS-D	30	9.5	18.0	30	200	2850	0-250	0-4,000		A, B, C, E, F
BMS-W/BMS-D	40	6.4	12.2	40	285	4100	0-400	0-5,000		A, B, C, E, F
BMS-W/BMS-D	65	4.2	8.0	65	450	6400	0-600	0-8,000		A, B, C, E, F
BMS-W/BMS-D	115	2.4	4.5	115	800	11,400	0-1000	0-15,000		E, F
BMS-W/BMS-D	180	1.5	2.9	180	1245	17,800	0-1600	0-20,000		E, F
BMS-W/BMS-D	255	1.1	2.1	255	1790	25,600	0-2000	0-30,000		E, F
BMS-W/BMS-D	400	0.7	1.3	400	2800	40,000	0-3000	0-45,000		F
BMS-W/BMS-D	520	0.5	0.9	520	3655	52,200	0-4000	0-55,000		F
BMS-W = Direct waterfeed		1 = Single acting		1 = Single acting	B=bar					A = 1/2" NPT female B = 1/2" BSP-female
BMS-D = Reservoir 40 ltr		2 = Double acting		2 = Double acting	P=psi					C = 1/2" BSP-Male hose connection E = 1/4" BSP-Male hose connection F = M30x2 H.P. Female connection



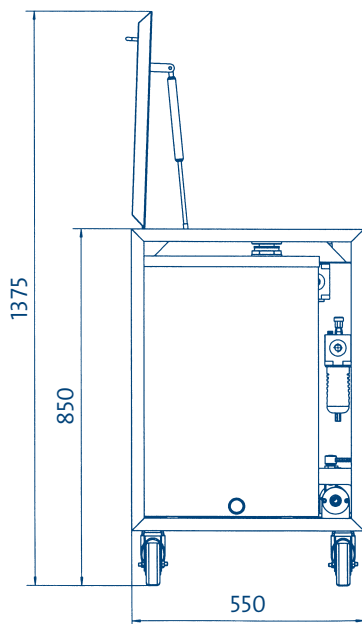
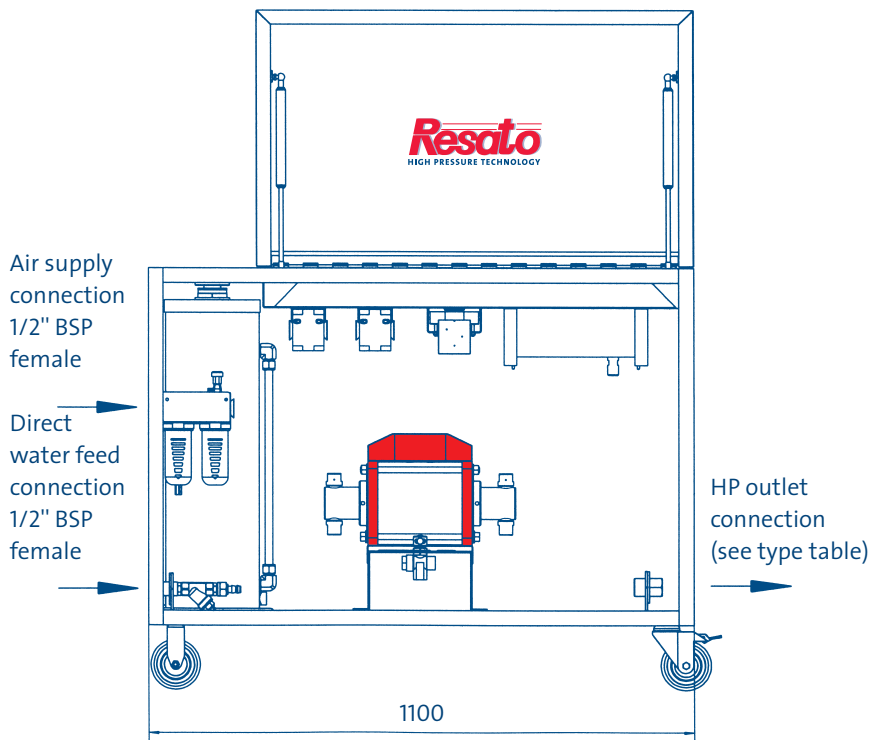
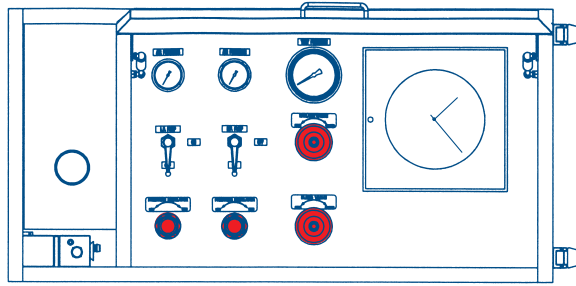
Ordering Example: BMS-W - 20 - 2 / 255 - 1 / D / R0 / E / I / L

An even higher capacity can be achieved by using the P200 pump series. See our pump brochure for more details

ATEX

As an option, Resato air driven pumps can be delivered in a version that comply with ATEX 94/9/EC. The user of the unit is responsible for classifying the area of use, while

identifying the equipment category is the responsibility of the manufacturer. The Resato units are ATEX approved for Group II, category 2 zones G & D.



WEIGHT (KG)

BMS-W models (single acting)	70
BMS-D models (single acting)	85
Extra weight	
Double acting pump	+ 4
Recorder	+ 9
Second single acting pump	+ 25
Second double acting pump	+ 29

Dimensions in mm.

EXAMPLES OF RESATO HIGH-PRESSURE COMPONENTS UP TO 14,000 BAR

Air-driven pumps and gas boosters
Hydraulically-driven pumps and gas boosters
Fittings
General-purpose valves
Check valves
Swivels
Hoses
Tubing
Pressure transducers
Rupture-disc safety devices
Quick connectors

EXAMPLES OF RESATO HIGH-PRESSURE EQUIPMENT AND SYSTEMS

Portable pressure-test systems
Test equipment for hoses (safety) valves, fittings etc.
Computer-controlled high-pressure test equipment
Autofrettage systems
Autoclaves
Custom-made test equipment
Water-jet cutting systems
High-pressure food preservation systems
PC data acquisition and recording systems



COMPANY PROFILE RESATO

Founded in 1985, Resato International B.V. is wholly specialized in the design and manufacture of high-pressure components and systems for pressures of 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.