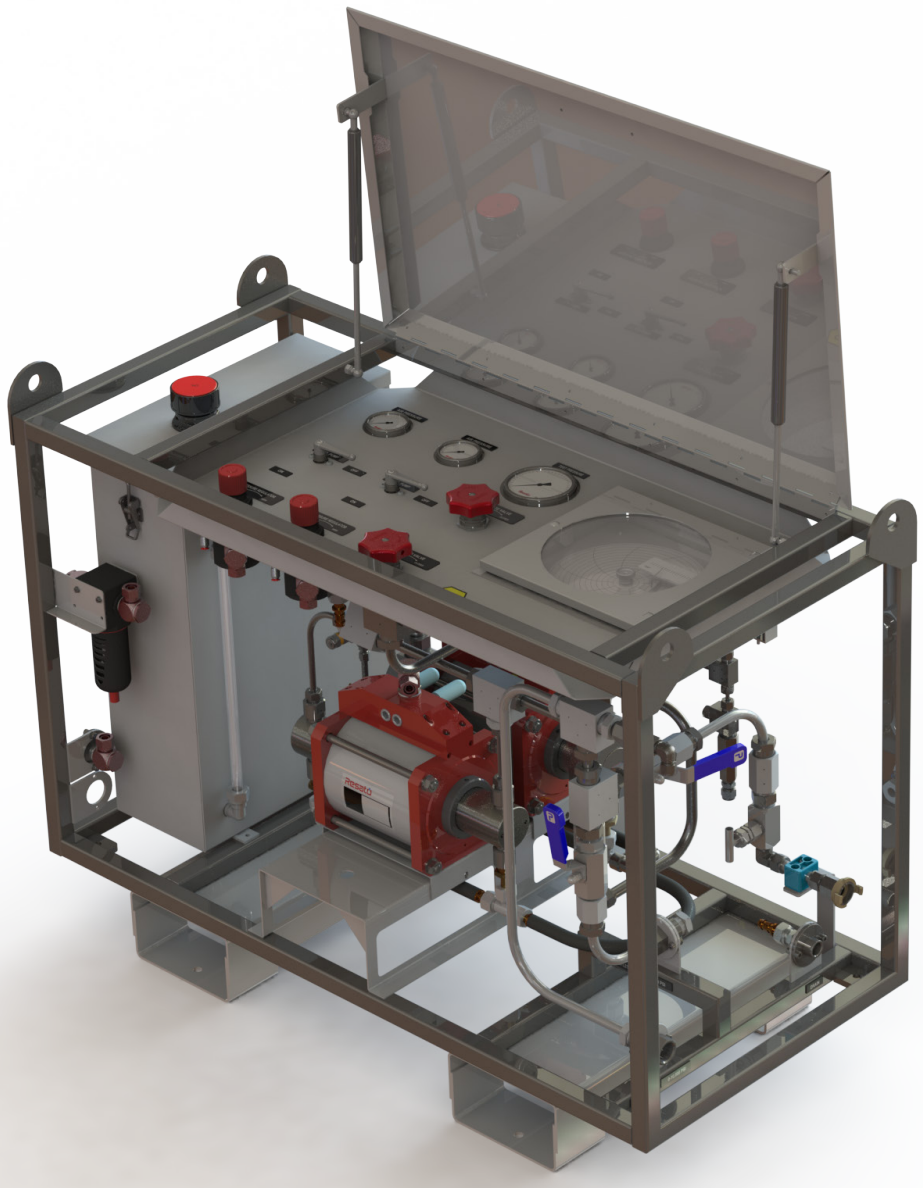
Resato

EQUIPMENT SOLUTIONS FOR HIGH PRESSURE APPLICATIONS

HIGH FLOW HIGH PRESSURE PUMP

TYPE BMS



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YOUR HIGH PRESSURE EXPERT.

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HIGH FLOW HIGH PRESSURE PUMP

type BMS

Resato's mobile BMS unit is a self-contained versatile multiple pump system that allows high pressure testing in different locations through your workshop or in the field.

Using wheels, forklift pockets or lifting pads the BMS can be easily moved to the desired test location.

Due to its variable pump configuration, the BMS is suitable for a wide variety of test pressure and object volumes. It allows to efficiently test at low pressure / high volume and high pressure.

The multiple pump configuration results in a lower total cost of ownership as wear and tear is reduced as compared to a single pump unit.

The BMS is available with direct water feed or with an integrated reservoir. It can be fitted with a chart recorder or connected to the Resato pressure recording software via a USB transducer.

KEY FEATURES

- Mobile pressure system
- Various pump combinations for maximum versatility
- Suitable for pressurizing with oil, water or other fluids
- Atex version available
- Panel mounted operating features

KEY SPECIFICATIONS

- Max. flow up to 50 L/min
- Max. pressure 3650 bar/52,200 psi
- Stainless steel frame and wetted parts
- All parts are made out of non-corrosive materials

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ORDERING CODE

See ordering system in document

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UNIT DESCRIPTION

PUMP

The unique design of the Resato high pressure air-driven pump makes the pump operate silently. High volume dis¬placement, reliability and easy mainte¬nance are other advantages of the mod¬ern pump design. The air drive section of the pump only has an air piston and cycling spool as moving parts. Freezing of the pump is prevented by using an air cycling valve provided with a lightweight spool for high air flow at low air velocity.

The high pressure seal can be replaced within minutes, without dismantling the air drive section. Check valve seals 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 system can be equipped with Resato pumps of type P200.

MATERIALS

All critical components e.g. bleed valve, tubing, gauges, fittings and wetted pump parts are made from stainless steel or bronze. The frame of the system along with the reservoir frame and optional pressure recorder are also made from stainless steel.

TEST GAUGE

The test gauge has class 1.0% F.S., and a housing of ø 100 mm (4 inch), and is made fully out of stainless steel. The gauge is filled with glycerine and fitted with laminated safety glass. For ranges, see type table.

AIR PRESSURE GAUGE

The air pressure gauge has a range of 0-10 bar/0-140 psi, class 1.6% F.S., and a housing of ø 63 mm (2.5 inch). The air pressure gauge is made out of fully stainless steel, filled with glycerin and fitted with laminated safety glass.

CERTIFICATES

The BMS is supplied with a test certificate for the complete system, a calibration report for the test gauge and optional recorder, and an operating and maintenance manual.

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OPTIONS

RECORDER

The mechanical recorder is clockwork-driven, has class 1.0% F.S. and a chart diameter of ø 223 mm, and is fully made out of stainless steel. Its range is in accordance with the installed test gauge. The chart can be used as a test certificate. For chart revolutions, see type table.

PC DATA ACQUISITION AND RECORDING SYSTEM

The documentation of test results is very important. Therefore Resato offers a plug and play PC data acquisition and recording system (type RCR-USB). This system converts Resato USB pressure transmitter signals into real-time pressure measurement. Additionally a test certificate with a graph is generated immediately after completion of a test.

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 system is responsible for classifying the area of use, while identifying the equip- ment category is the responsibility of the manufacturer. The Resato systems are ATEX approved for Group II, category 2 zones G & D.

MORE OPTIONS

See the type table for more options.

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TYPE ORDERING SYSTEM

Unit type	Reservoir	Ratio	Flow
BMS	**D**	**20**	*(**1** Single acting pump)*
			2 Double acting pump

Order example: **BMS-D-20-2**
(Order example in case of a low and high flow pump: **BMS-D-20-2/255-1**)

TYPE TABLE

Reservoir	High flow low pressure pump (option)			Low flow high pressure pump			Max. outlet pressure bar/psi	Gauge ranges	
	Ratio	Flow L/min		Ratio	Flow L/min				
		1	**2**		**1**	**2**		bar	psi
D = 40 l Reservoir **W** = No reservoir	**20**	13.2	25.0	**20**	13.2	25.0	140/2100	0-160	0-2,500
	30	9.5	18.0	**30**	9.5	18.0	200/2850	0-250	0-4,000
	40	6.4	12.2	**40**	6.4	12.2	285/4100	0-400	0-5,000
	65	4.2	8.0	**65**	4.2	8.0	450/6400	0-600	0-8,000
	115	2.4	4.5	**115**	2.4	4.5	800/11,400	0-1000	0-15,000
	180	1.5	2.9	**180**	1.5	2.9	1245/17,800	0-1600	0-20,000
	255	1.1	2.1	**255**	1.1	2.1	1790/25,600	0-2000	0-30,000
	400	0.7	1.3	**400**	0.7	1.3	2800/40,000	0-3000	0-45,000
	520	0.5	0.9	**520**	0.5	0.9	3655/52,200	0-4000	0-55,000

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OPTION ORDERING SYSTEM

BMS TYPE:	Pressure type	Recorder	Gauge	Components	Atex
BMS-W-20-2	BR bar	0 ¼-1 hrs	D Double scale	I Isolate valve	EX Atex
	PR psi	1 1 hr		F Float cock in reservoir	
		4 4 hrs		M 4 wheels instead of 4 legs	
		8 8 hrs		L Lid to protect instruments	
		24 24 hrs		H Lifting pads	
				F0 Forklift pockets	
				CP Closed panels	

Order example: **BMS-W-20-2/R0/D/I/EX**

OPTION TABLE

Pressure type	Recorder	Gauge scale	Components	Atex
	rev/hr(s)			
BR = bar **PR** = psi	**0** = 1/4-1 hr **1** = 1 hr **4** = 4 hrs **8** = 8 hrs **24** = 24 hrs	**D** = double scale (standard)	**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**

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ACCESSORIES

HIGH PRESSURE OUTLET CONNECTIONS

Pump	Ratio	HP outlet connection	Explanation of outlet connection types
High flow low pressure pump	20	A, B, C, E, F, FU2, FU3	**A** = 1/2" NPT female **B** = 1/2" BSP female **C** = 1/2" BSP male hose connection **E** = 1/4" BSP male hose connection **F** = M30x2 H.P. female connection **FU2** = ¾"- 16 UNF female connection **FU3** = 1 ⅛"- 12 UNF female connection
	30	A, B, C, E, F, FU2, FU3	
	40	A, B, C, E, F, FU2, FU3	
	65	A, B, C, E, F, FU2, FU3	
High pressure low flow pump	115	E, F, FU2, FU3	
	180	E, F, FU2, FU3	
	255	E, F, FU2, FU3	
	400	F, FU2, FU3	
	520	F, FU2, FU3	

TECHNICAL SPECIFICATIONS

GENERAL

Dimensions 1100 x 550 x 850 mm (l x w x h, lid closed)
1100 x 550 x 1375 mm (l x w x h, lid open)

Maximum operating pressure 3.650 bar/52,200 psi

Maximum flow 50 L/min

WEIGHT

BMS-W models (single acting) 70 kg

BMS-D models (single acting) 85 kg

Extra weight

Double acting pump	+4 kg
Recorder	+9 kg
2nd single acting pump	+25 kg
2nd double acting pump	+29 kg

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