HIGH FLOW HIGH PRESSURE PUMP SYSTEM

type BMS

When you have to test objects on different locations within your workshop or in the field, the mobile pump system BMS gives you the possibility to test adequately on different sites.

Through its wheels, forklift pocket or lifting pads the BMS can be easily moved to the desired test location.

Furthermore, this system is ideally suited to adapt to your specific requirements for testing large volumes at high pressure.

The BMS is often equipped with two air driven pumps. Hence, if you want to speed up your operation process by testing objects more quickly a high flow low pressure air driven pump can be added to the high flow high pressure pump that is standard part of the BMS.

KEY FEATURES

Mobile pressure system

Robust design

Suitable for pressurizing with oil, water or an emulsion of both

Modular design with numerous options

KEY SPECIFICATIONS

Max. flow up to 50 L/min

Max. pressure 3650 bar/52,200 psi

Stainless steel construction

All parts are made out of non-corrosive materials

ORDERING CODE

See ordering system in document

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SYSTEM DESCRIPTION

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 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 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 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 is 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.

TECHNICAL SPECIFICATIONS

GENERAL

Dimensions	1100x550x850 mm (lxwxh, lid closed) 1100x550x1375 mm (lxwxh, 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

Resato HIGH PRESSURE TECHNOLOGY

HIGH FLOW HIGH PRESSURE PUMP SYSTEM

type BMS

TYPE ORDERING SYSTEM

System 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

Resato HIGH PRESSURE TECHNOLOGY

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OPTION ORDERING SYSTEM

RPS TYPE:	Pressure type	Recorder	Gauge scale	Components	Atex
BMS-W-20-2	**/BR**	**/R0**	**/D**	**/I**	**/EX**

Order example: **BMS-W-20-2/BR/0/D/I/EX**

OPTION TABLE

Pressure type	Recorder	Gauge scale	Components	Atex
	rev/hr(s)			
BR = bar **PR** = psi	**0** = 1/4-1hr **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**

ACCESSORIES

HIGH PRESSURE OUTLET CONNECTIONS

Pump	Ratio	HP outlet connection	Explanation of outlet connection types
High flow low pressure pump High pressure low flow 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** = 3/4"- 16 UNF female connection **FU3** = 11/9"- 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	
	115	E, F, FU2, FU3	
	180	E, F, FU2, FU3	
	255	E, F, FU2, FU3	
	400	F, FU2, FU3	
	520	F, FU2, FU3	

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