

QUERVEL RAUZY MECHANICAL LUBRICATOR

Safety lubrication

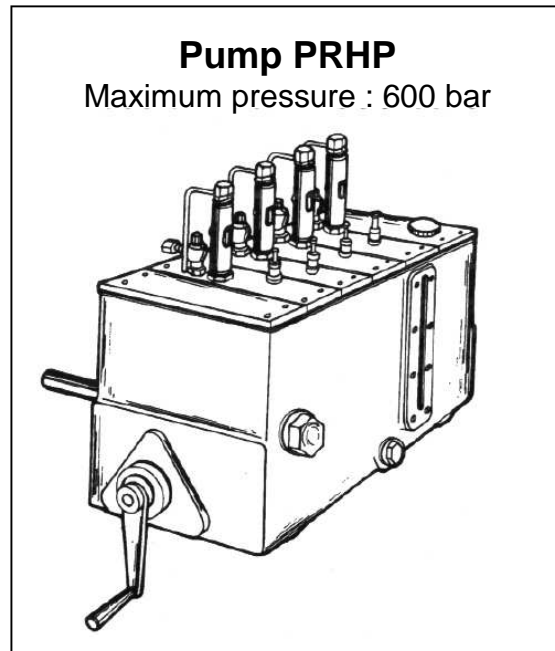
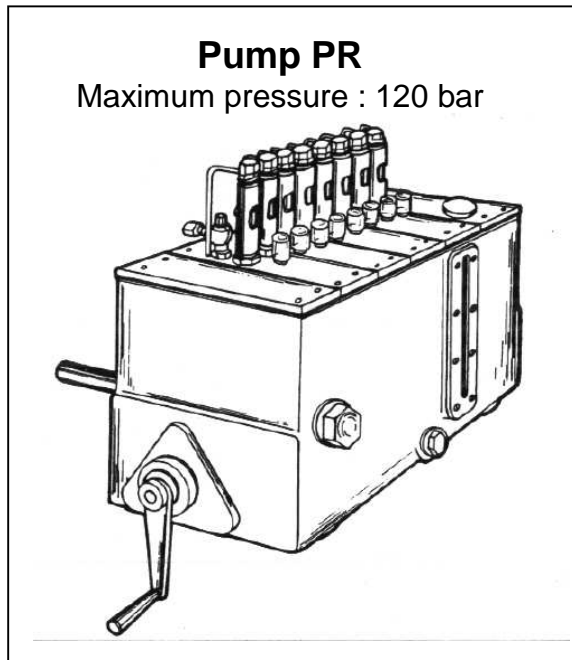
**Pump type :
PR et PRHP**

Pressurized oil lubrication
Sight glass at pump suction

Modular system
Each pump flow set independently

Oil consumption control

Précise flow setting



QUERVEL RAUZY S.a.r.l

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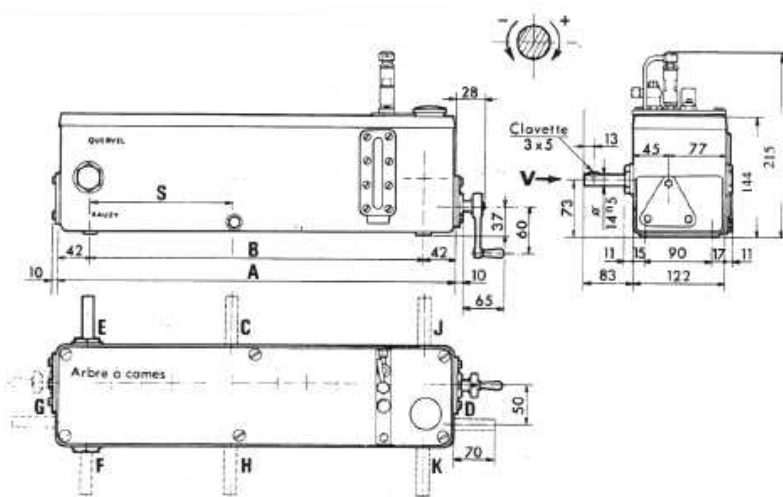
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The QUERVEL RAUZY mechanical lubricator is used in "pump to point" system for mechanical machinery, is a modular system composed of one or more lubricator boxes, PR and/or PRHP pumps, a cam shaft driving system common to all pumps and accessories as level control regulator, level switch, electric or steam heater. Generally, at each lubricating pump is corresponding a different lubricating point. The QUERVEL RAUZY pumps can be used with mineral or synthetic oil, the pump low flow is adjustable.

QUERVEL RAUZY PR LUBRICATOR BOX MAIN CHARACTERISTICS

Maxi number of pumps	PR	4	8	12	15	19	23	30
	PRHP	2	4	6	8	10	12	16
Casing Reference		P	Q	R	U	V	W	X
A (mm)		184	264	344	444	524	604	784
B (mm)		100	180	260	360	440	520	700
Volume (liters)		2	3	4	5	6	7	10
Lubricator box weight (kg)		10	14	18	24	30	34	48
S (mm)		Simple reduct	68	108	148	188	228	448
		Double reduct	56	98	148	188	228	448



PR pump width : 20 mm
PRHP pump width : 40 mm

<p>ROTATION WAY</p> <p>The rotation way of the QUERVEL RAUZY lubricators is both ways except if there is a clutching hand wheel. In this case the rotation way has to be given, CW or CCW facing the lubricator shaft.</p>
<p>Driver shaft and hand wheel</p>
<p>8 possible driver shaft positions (C-D-E-F-G-H-J-K)</p>
<p>6 possible positions for the clutching hand wheel (E-F-J-K-D'-G')</p>

Lubricator cam shaft speed

The necessary oil flow at each lubricating point is given by the mechanical machinery manufacturer. The cam shaft speed is dependent on the required oil flows. The cam shaft speed is generally between 2 to 12 RPM. According to the driver shaft speed, a gear box will be used or will not be used.

ROTARY DRIVER

By the mechanical machinery auxiliary shaft.
By electric motor.

SPEED REDUCTION GEAR INSIDE THE LUBRICATOR

The speed reduction gear takes place of 1 or 2 pumps.

Simple reduction : 1/1, 1/3, 1/10, 1/20, 1/40 (C-D-E-F-G-H-J-K)

Multiple reduction (maximum 3) : combination of simple reductions, maximum 1/600 (C-E-F-G-H-J-K)

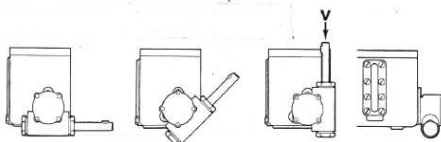
SPEED REDUCTION GEAR OUTSIDE THE LUBRICATOR

1) By orientable gear box

With this orientable gear box the cam shaft can be driven from any angle - installation on G and D.
Possible reduction : 1/10, 1/20, 1/40.

2) By separate gear box

QUERVEL oil bath gear box



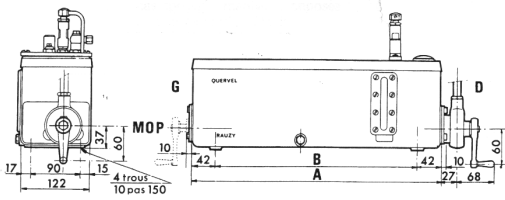
3) Standard gear box



RATCHET DRIVER

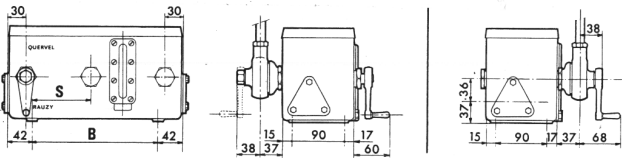
1) DIRECT DRIVING OF THE CAM SHAFT

Position G or D with clutching hand wheel mounted on the ratchet or on the opposite side



2) DRIVING THROUGH A GEAR BOX

Positions E-C-J-F-H-K with clutching hand wheel mounted on the opposite side

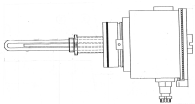


Maximum number of reciprocating motions per minute : 500

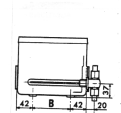
Degree of rotation min / maxi : 80 / 8°

ACCESSORIES

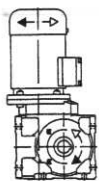
Electric Heater



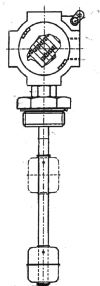
Steam Heater



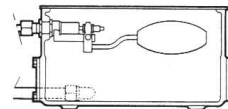
Moto-gear reducer



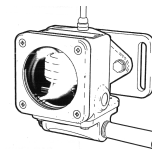
Level switch



Oil level regulator inside the lubricator box



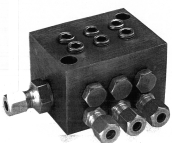
Oil level regulator outside the lubricator box



Flow switch

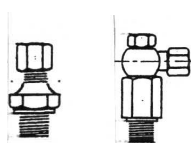
QUERVEL RAUZY other products

Progressive piston dividers



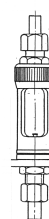
from 2 to 22 outlets

Special non return valve

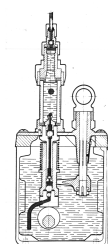


Pressure up to 200 bar and vacuum

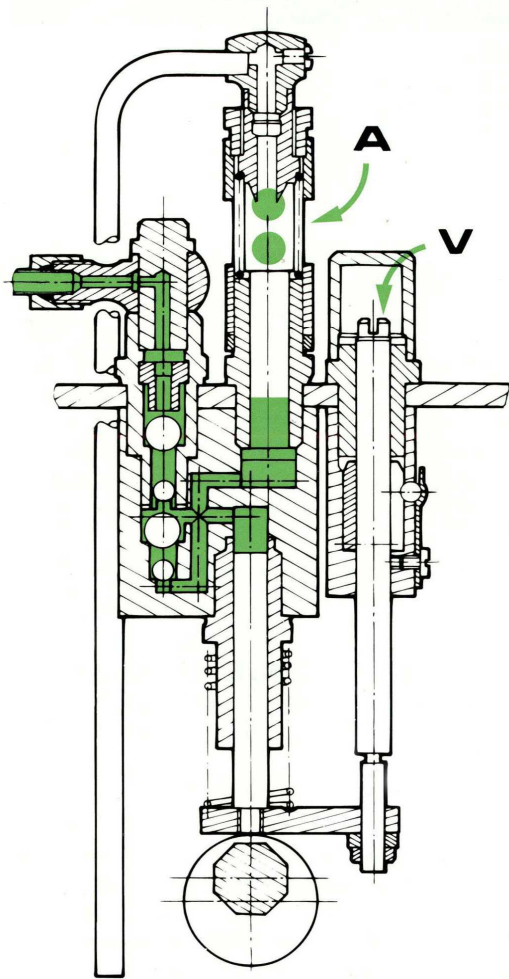
Flow glass



Lubricator Type P



PUMP PR



DESCRIPTION

The QUERVEL-RAUZY mechanical lubricator PR - PRHP type is composed of a lubricator box, a series of single cylinder pump and a cam shaft (one cam per pump). The cam shaft is driven by :

A ratchet system

A rotative system with or without speed reducer.

OPERATION

The pump piston is moved by a cam, the transmission per cam gives a low torque value and a long life time for the parts.

The piston stroke is corresponding to a cam rotation.

In the lower part of the piston, a spring maintains the sliding plate in contact with the cam. On the piston way down a vacuum is created between the piston and the suction check valve. The suction check valve opens, the oil is admitted into the cylinder and the discharge valve is closed. This vacuum is also created in the suction sight glass allowing the oil suction from the lubricator box up to the equalisation of the pressures. On the piston way up the oil contained in the cylinder is pushed by the piston through the discharge valve up to the lubricated point. The oil flow is observed through the sight glass (drops per minute). The change of the pump stroke setting creates the variation of flow

SETTING

The setting is done with the screw (V) on the pump.

Full flow : Screw (V) totally unscrewed (CCW way)

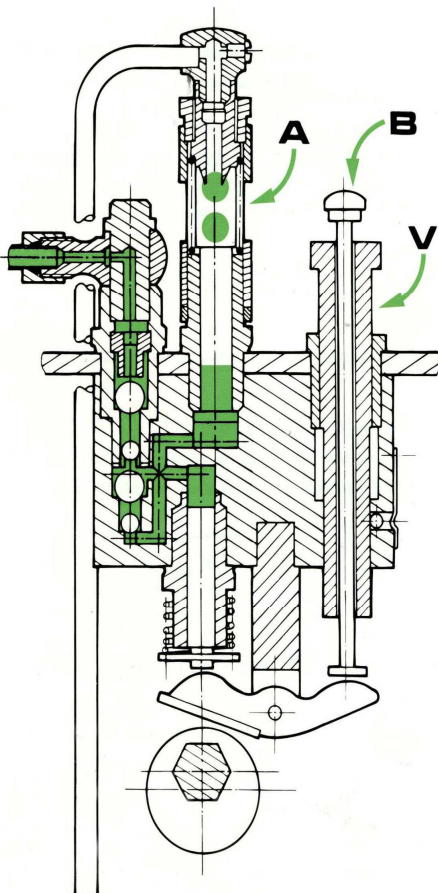
PR pump : maximum flow 0,38 cm³ per cam shaft rotation

PRHP pump : maximum flow 0,28 cm³ per cam shaft rotation

Zero flow : Screw (V) screwed of 10 turns from full flow (CW)

Between maxi and mini flow there are 40 setting positions (1/4 of rotation)

PUMP PRHP



QUERVEL-RAUZY MECHANICAL LUBRICATOR BENEFITS

- 1 - The lubricator is built following client specific request with standard elements.
- 2- The use of standard elements facilitate maintenance cost reduction.
- 3- All moving parts are permanently lubricated by the oil contained in the lubricator box
- 4 - Precise flow setting of each lubricated point.
- 5 - Dual visual control : Flow by visualisation of the oil drops
Piston stroke by screw (V) position.
- 6 - Working at High Pressure (PR: 120 bar, PRHP: 600 bar).
- 7 - Pumps can be dismantled or installed during normal running of the lubricator.
- 8 - Sensitivity, robustness, silence of the ratchet system and train of gears.
- 9 - Choice of driving shaft position.
- 10 - Driving system by machinery to be lubricated auxiliary shaft, electric or pneumatic motor, ratchet driver.
- 11 - Possibility of adding accessories, control and safety devices :
 - Level controller
 - Level switch
 - Oil heater

CHARACTERISTICS

Pump outlet connection : 6 mm OD tubing fitting (standard)
or 1/4" OD

Pump material : zinc plated carbon steel

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