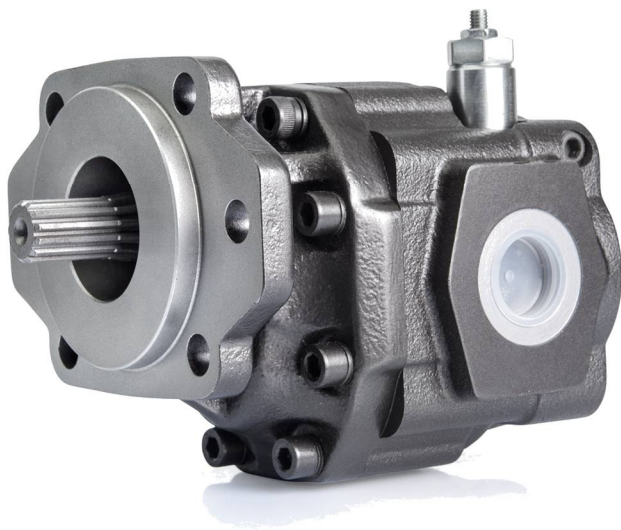
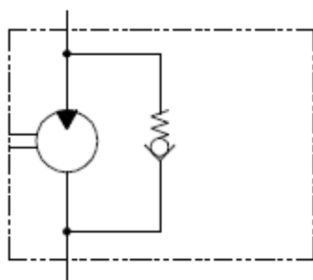




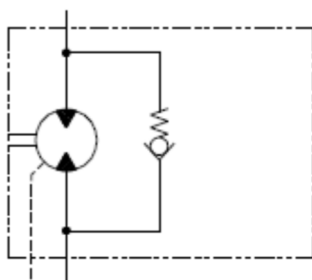
CUSTOMIZED & FAN DRIVE

VALVOLE ANTICAVITAZIONE CHECK VALVE



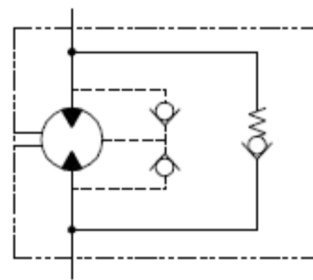
CV

UNIDIRECTIONAL PUMP AND
MOTOR WITH CHECK VALVE



CVE

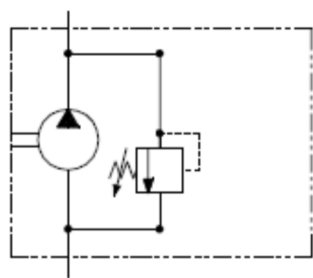
BIDIRECTIONAL PUMP AND
MOTOR WITH CHECK VALVE,
EXTERNL DRAIN



CVI

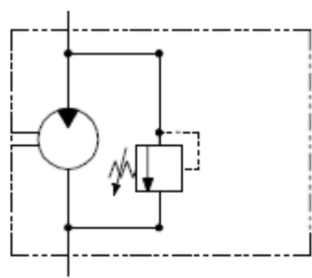
BIDIRECTIONAL PUMP AND
MOTOR WITH CHECK VALVE,
INTERNAL DRAIN

VALVOLE DI MASSIMA PRESSIONE PRESSURE RELIEF VALVE



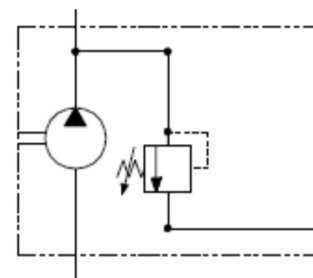
VRI

UNIDIRECTIONAL PUMP
WITH PRESSURE RELIEF
VALVE, INTERNAL DRAIN



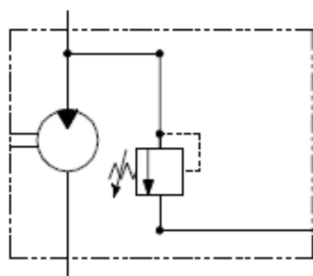
VRI

UNIDIRECTIONAL MOTOR
WITH PRESSURE RELIEF
VALVE, INTERNAL DRAIN



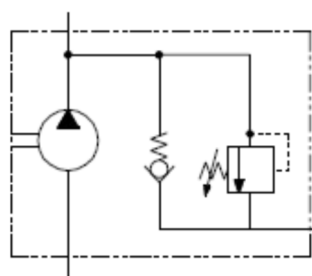
VRE

UNIDIRECTIONAL PUMP
WITH PRESSURE RELIEF
VALVE, EXTERNAL DRAIN



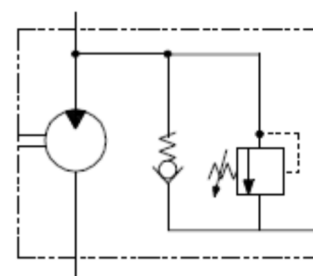
VRE

UNIDIRECTIONAL MOTOR
WITH PRESSURE RELIEF
VALVE, EXTERNAL DRAIN



CRE

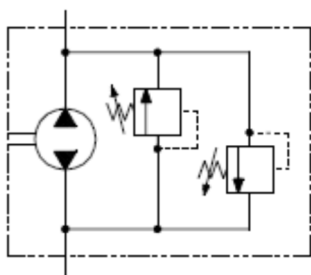
UNIDIR. PUMP WITH
PRESSURE RELIEF + CHECK
VALVE, EXTERNAL DRAIN



CRE

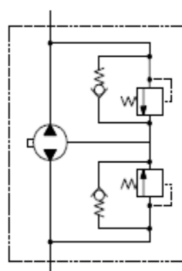
UNIDIR. MOTOR WITH
PRESSURE RELIEF + CHECK
VALVE, EXTERNAL DRAIN

VALVOLE DI MASSIMA PRESSIONE PRESSURE RELIEF VALVE



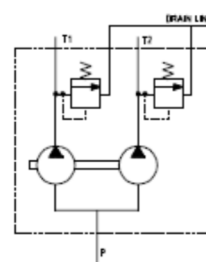
CRO

BIDIRECTIONAL PUMP AND
MOTOR WITH CROSS OVER
RELIEF VALVE



CRB

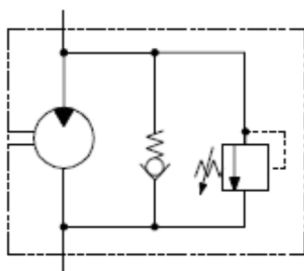
BIDIRECTIONAL PUMP/
MOTOR WITH PRESSURE
RELIEF + CHECK VALVE



RVE

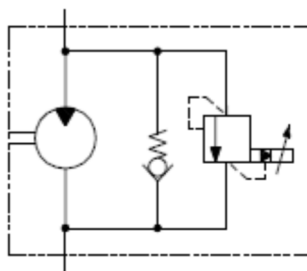
TANDEM PUMP/MOTORS
WITH PRESSURE RELIEF
VALVE, EXTERNAL DRAIN

SISTEMI FAN DRIVE FAN DRIVE SYSTEMS



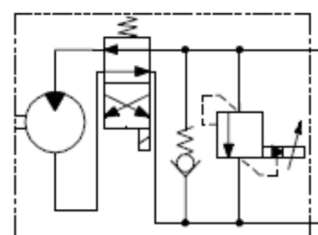
CRI

UNIDIRECTIONAL MOTOR
WITH PRESSURE RELIEF
VALVE + SPIN DOWN



PRI

UNIDIR. MOTOR WITH
PROPORTIONAL PRESSURE
RELIEF VALVE + SPIN DOWN

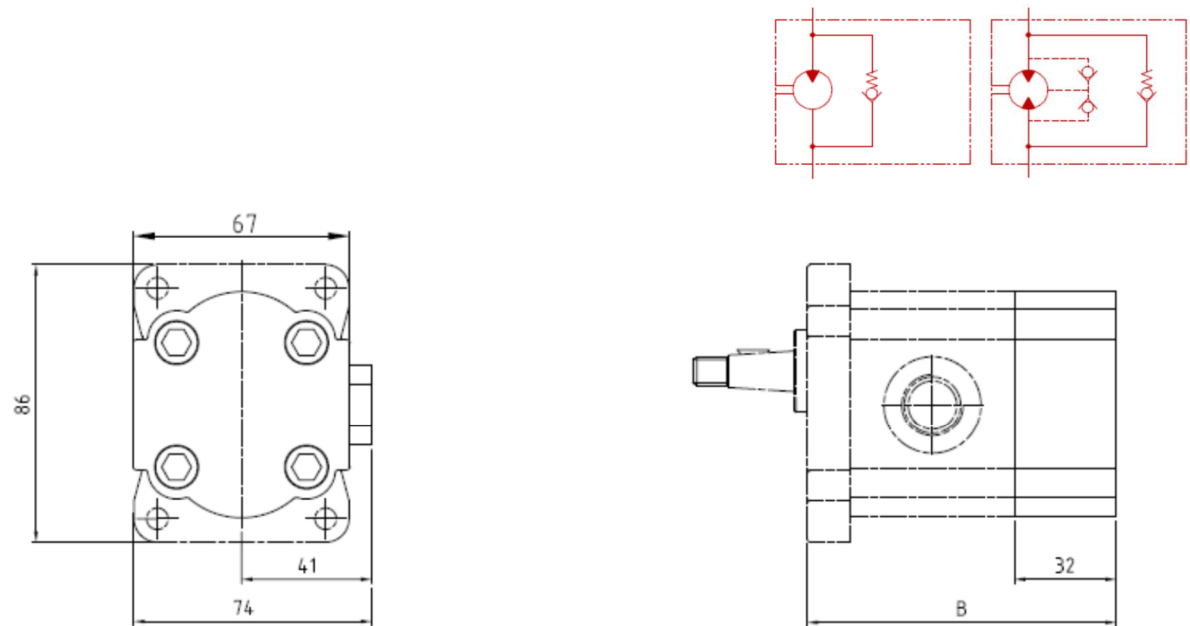


FDR

BIDIRECTIONAL MOTOR
WITH PROPORTIONAL
PRESSURE RELIEF, SPIN
DOWN AND REVERSE FLOW.

POMPE E MOTORI GR.1 CON VALVOLA ANTICAVITAZIONE
GR.1 PUMPS AND MOTORS WITH CHECK VALVE

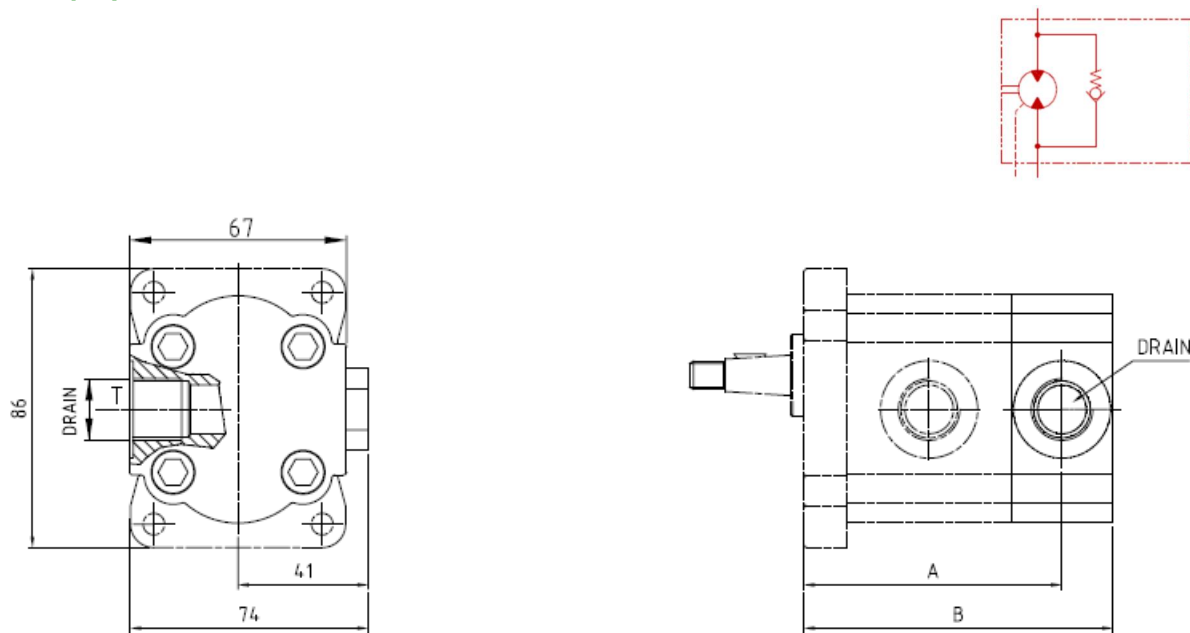
DRENAGGIO INTERNO (CV-CVI)
INTERNAL DRAIN (CV-CVI)



TYPE	8	11	16	21	26	32	37	42	48	55	62	78	88	105
A	72	73	75	77	79	81	83	85	87	90	93	99	103	116
B	87	88	90	92	94	96	98	100	102	105	108	114	118	131

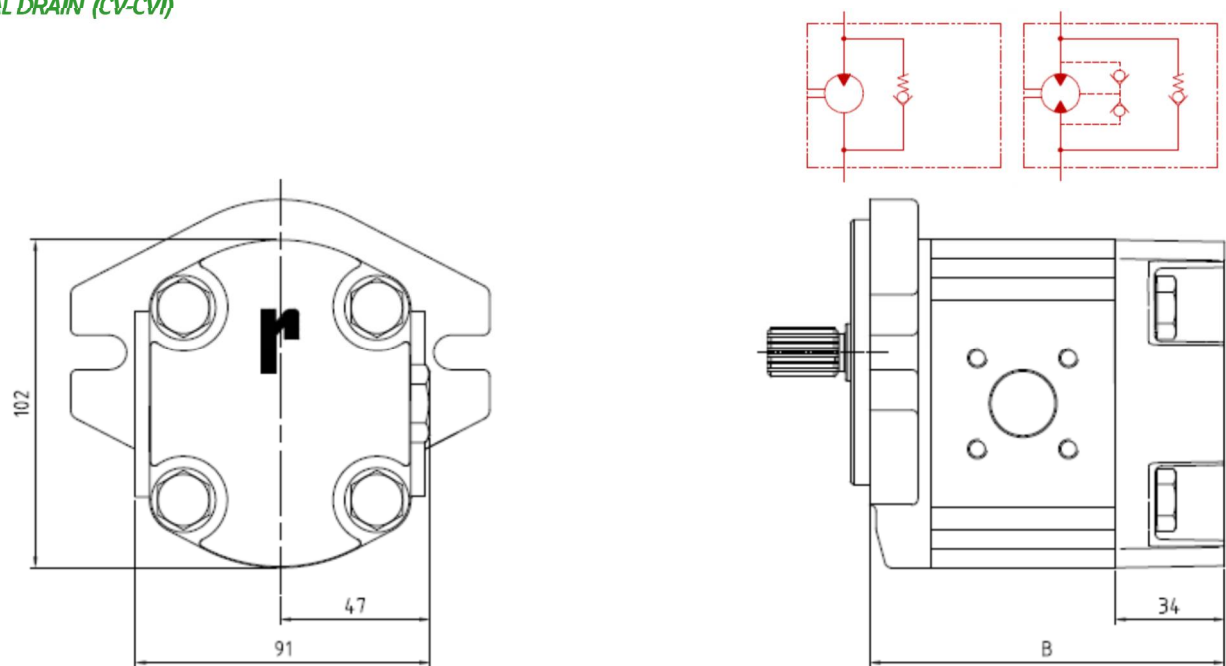
For more details about combination of ports, flange and shaft see our Z1 catalogue or contact our technical office.

DRENAGGIO ESTERNO (CVE)
EXTERNAL DRAIN (CVE)



POMPE E MOTORI GR.2 CON VALVOLA ANTICAVITAZIONE
 GR.2 PUMPS AND MOTORS WITH CHECK VALVE

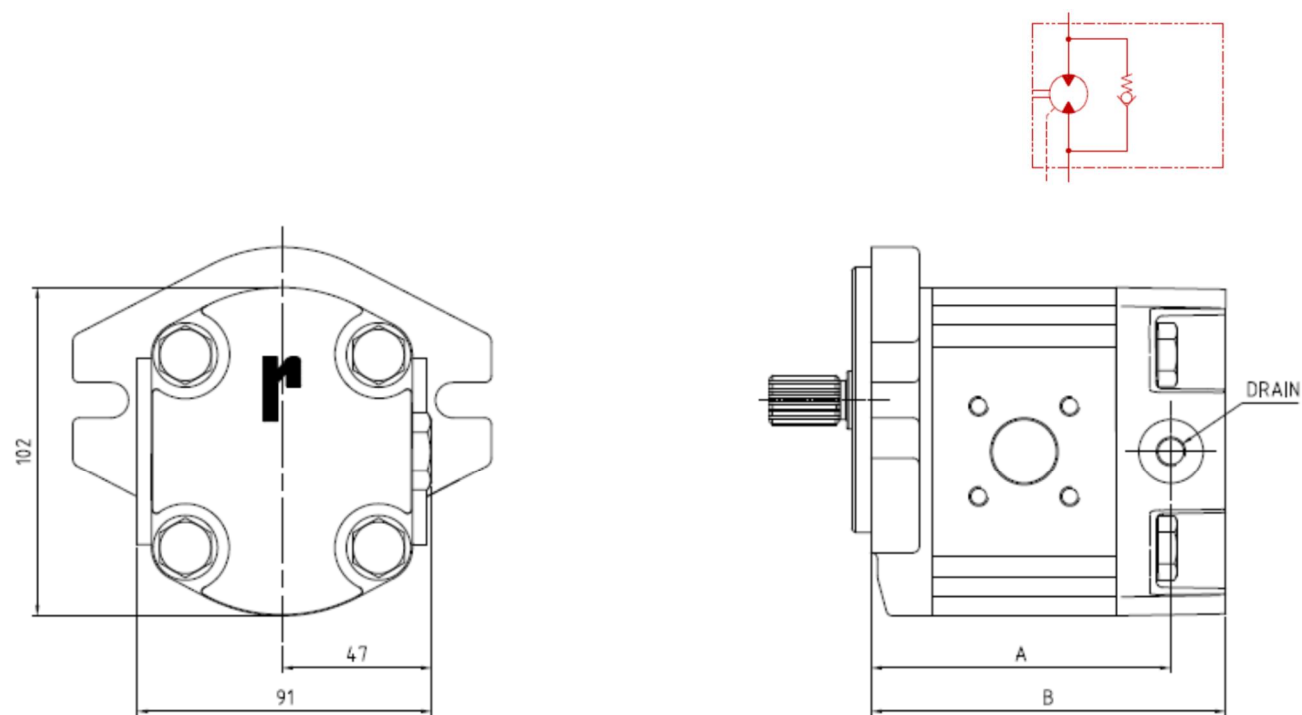
DRENAGGIO INTERNO (CV-CVI)
 INTERNAL DRAIN (CV-CVI)



TYPE	04	06	08	11	14	17	20	25	31
A	86	89	92	105	110	114	119	128	137
B	66.5	69.5	72.5	85.5	90.5	94.5	99.5	108.5	117.5

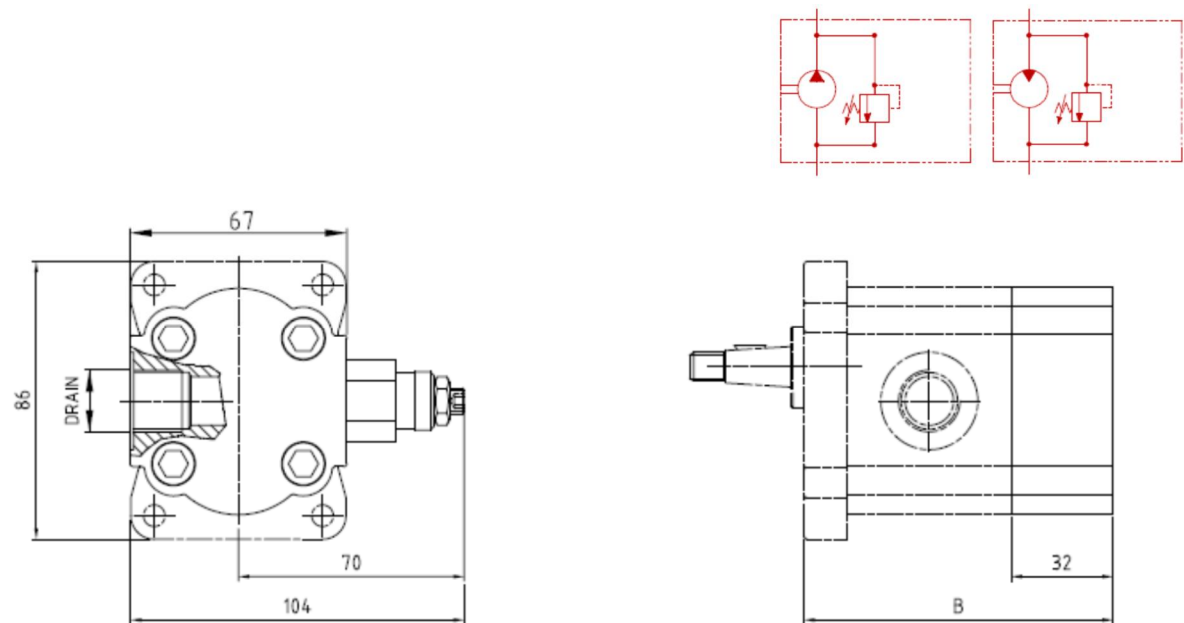
For more details about combination of ports, flange and shaft see our Z2 catalogue or contact our technical office.

DRENAGGIO ESTERNO (CVE)
 EXTERNAL DRAIN (CVE)



POMPE E MOTORI GR.1 CON VALVOLA DI MASSIMA PRESSIONE
GR.1 PUMPS AND MOTORS WITH PRESSURE RELIEF VALVE

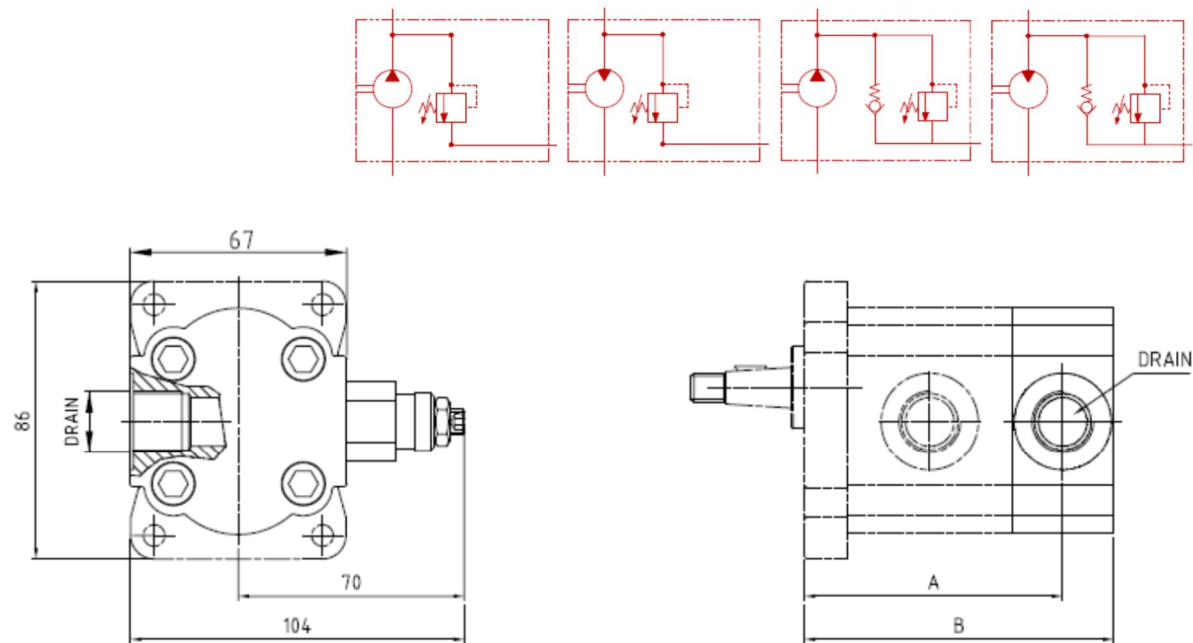
DRENAGGIO INTERNO (VRI)
INTERNAL DRAIN (VRI)



TYPE	8	11	16	21	26	32	37	42	48	55	62	78	88	105
A	72	73	75	77	79	81	83	85	87	90	93	99	103	116
B	87	88	90	92	94	96	98	100	102	105	108	114	118	131

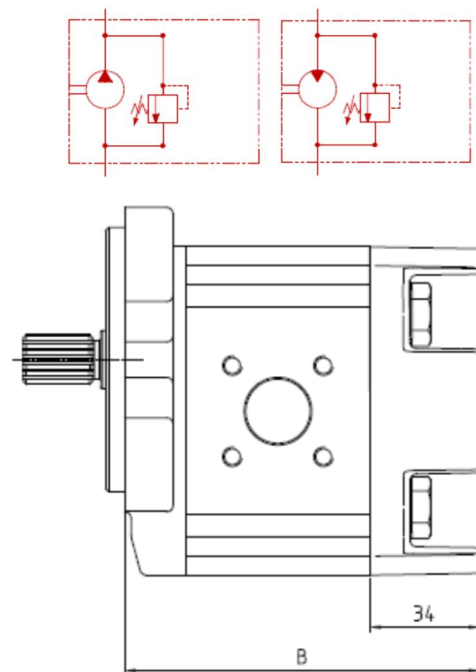
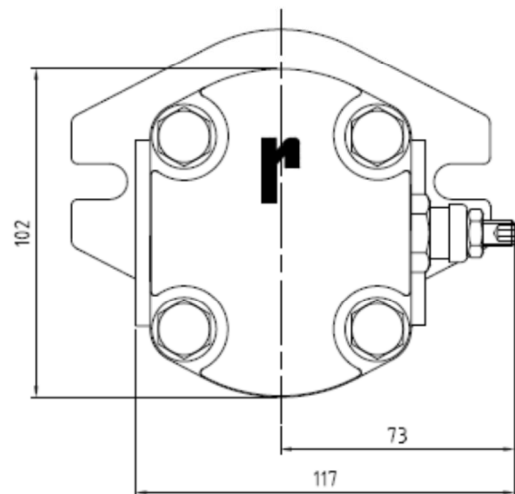
For more details about combination of ports, flange and shaft see our Z1 catalogue or contact our technical office.

DRENAGGIO ESTERNO (VRE-CRE)
EXTERNAL DRAIN (VRE-CRE)



POMPE E MOTORI GR.2 CON VALVOLA ANTICAVITAZIONE
GR.2 PUMPS AND MOTORS WITH CHECK VALVE

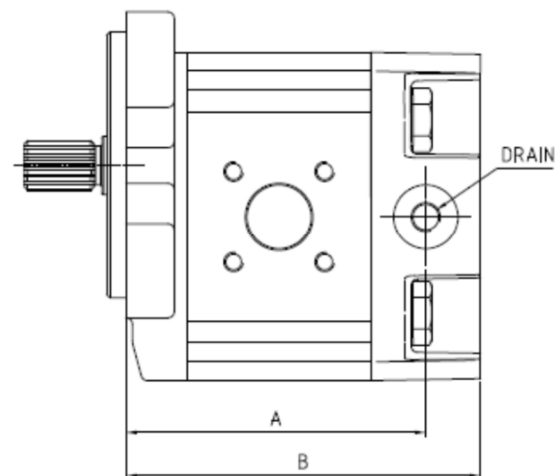
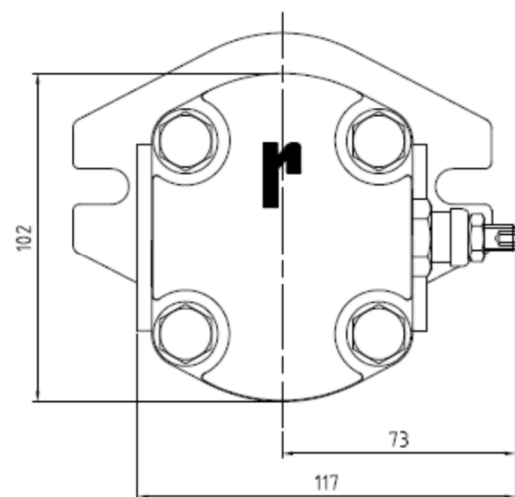
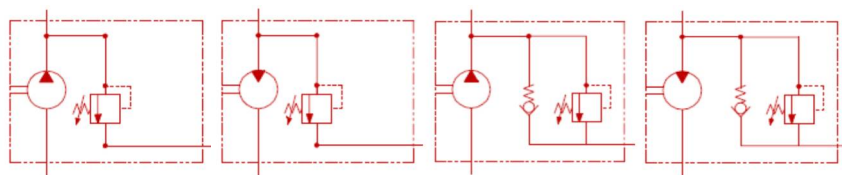
DRENAGGIO INTERNO
INTERNAL DRAIN



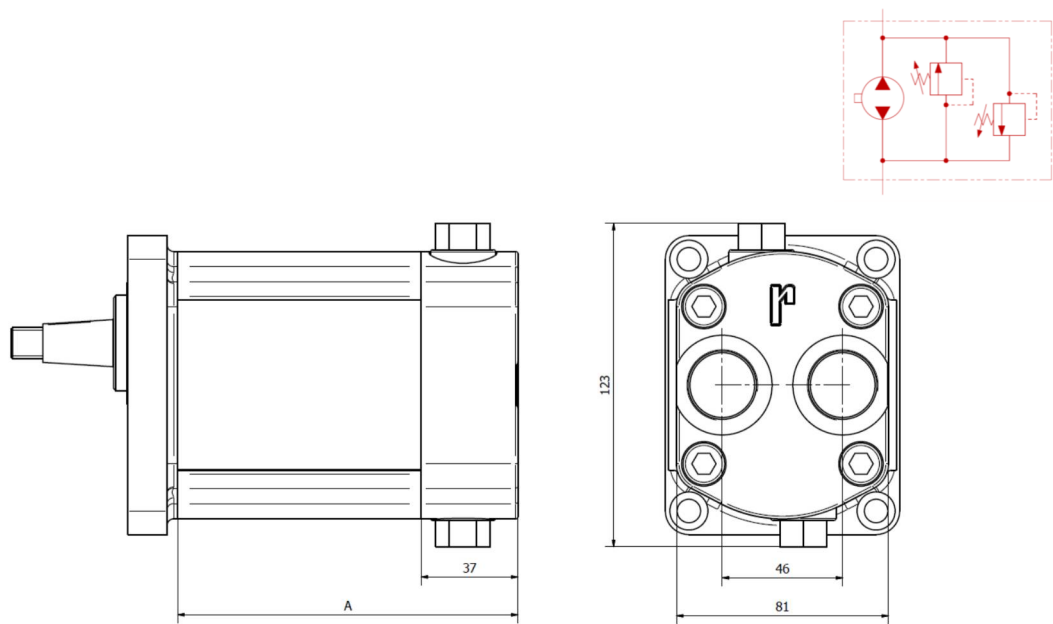
TYPE	04	06	08	11	14	17	20	25	31
A	86	89	92	105	110	114	119	128	137
B	66.5	69.5	72.5	85.5	90.5	94.5	99.5	108.5	117.5

For more details about combination of ports, flange and shaft see our Z2 catalogue or contact our technical office.

DRENAGGIO ESTERNO
EXTERNAL DRAIN



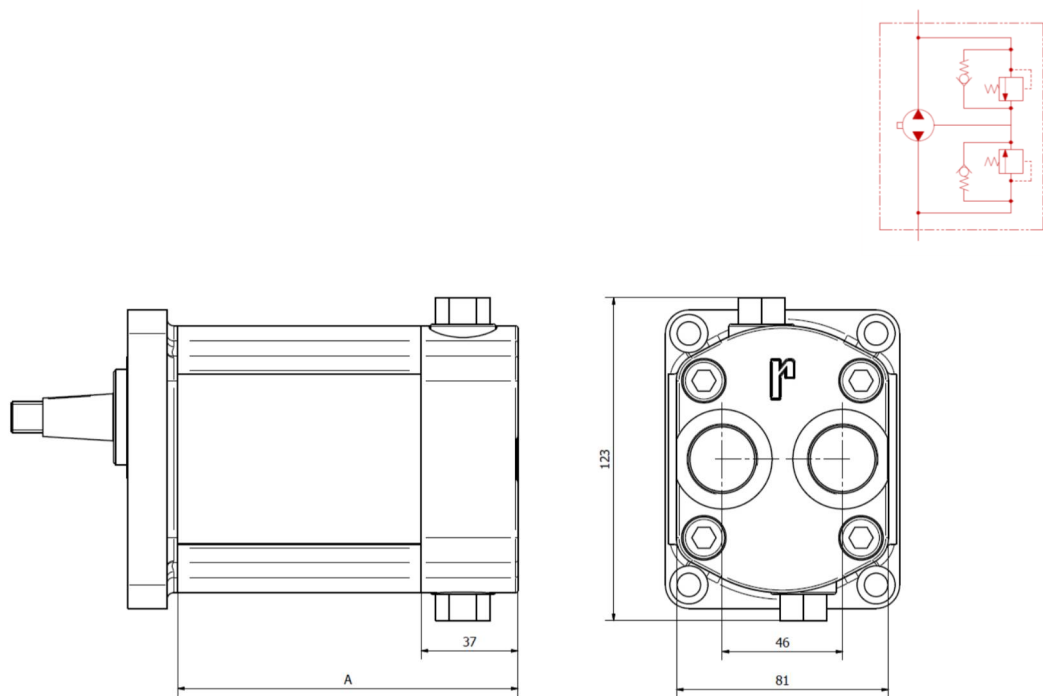
POMPE E MOTORI GR.2 CON VALVOLA ANTIURTO (CRO)
GR.2 PUMPS AND MOTORS WITH CROSS OVER RELIEF VALVES (CRO)



TYPE	04	06	08	11	14	17	20	25	31
A	66.5	69.5	72.5	85.5	90.5	94.5	99.5	108.5	117.5

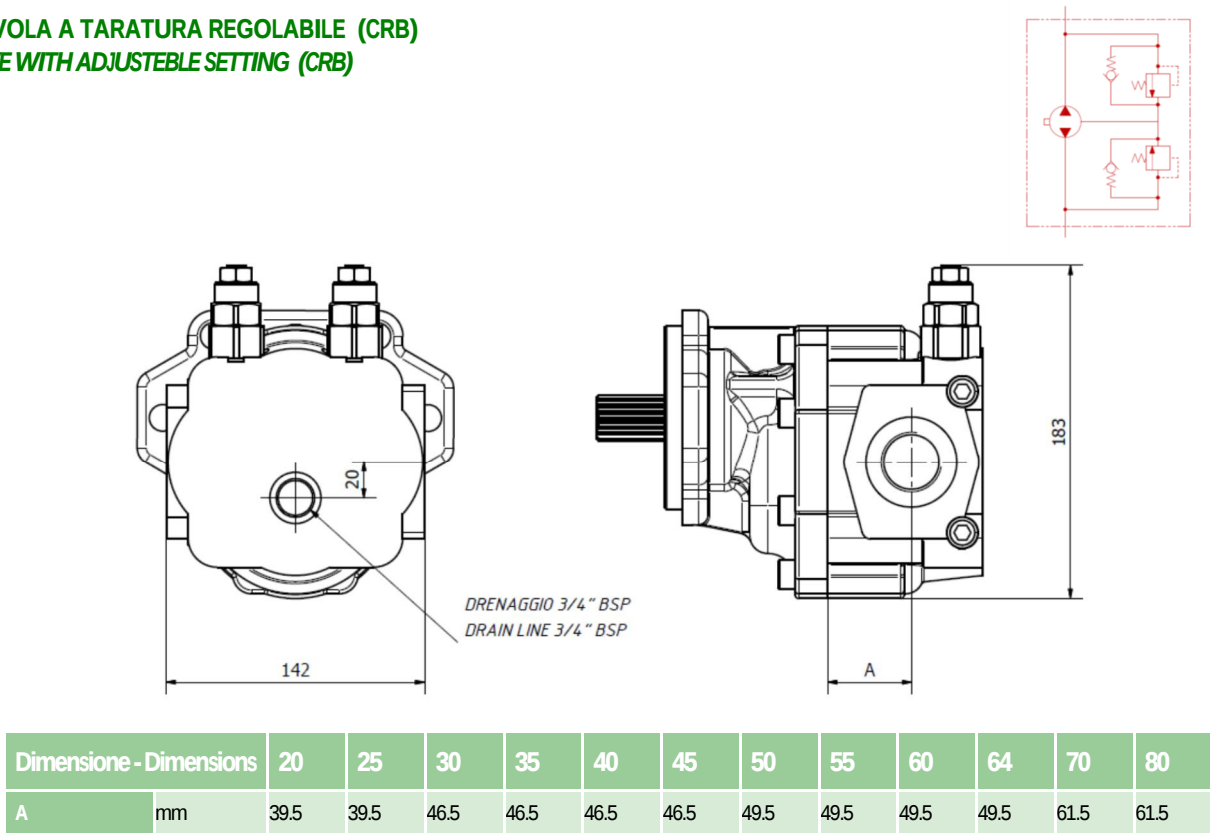
For more details about combination of ports, flange and shaft see our Z2 catalogue or contact our technical office.

VALVOLA A TARATURA FISSA (CRB)
VALVE WITH FIXED CALIBRATION (CRB)



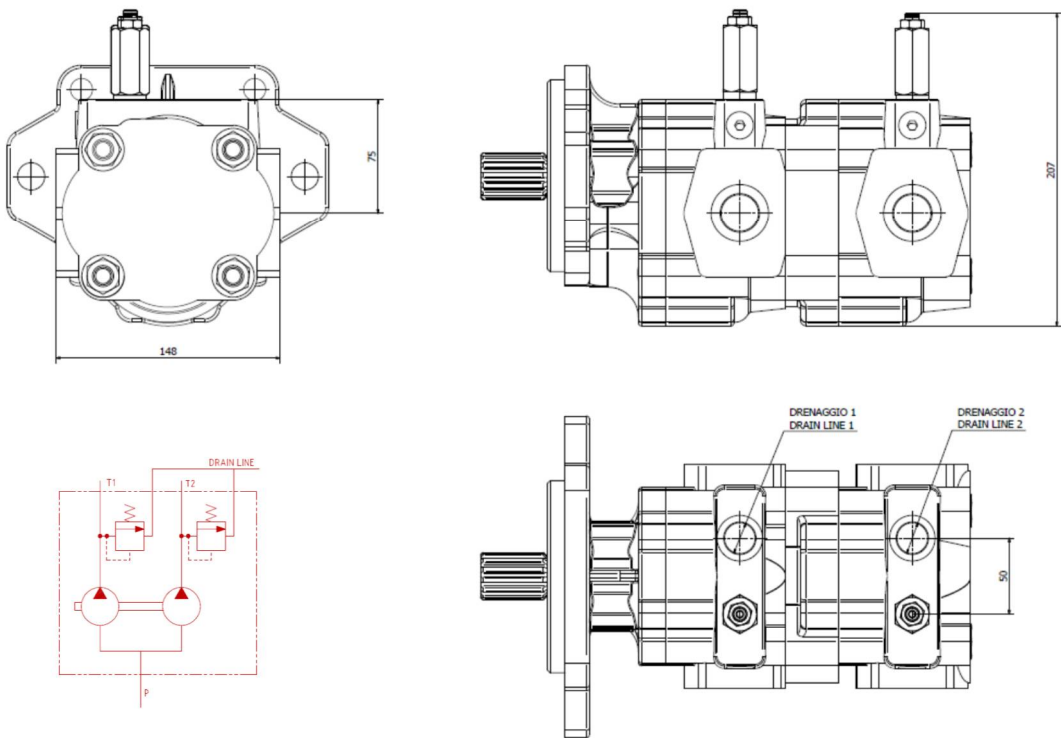
POMPE E MOTORI GR.3 IN GHISA CON VALVOLA DI MASSIMA PRESSIONE
GR.3 CAST IRON PUMPS AND MOTORS WITH RELIEF VALVES

VALVOLA A TARATURA REGOLABILE (CRB)
VALVE WITH ADJUSTABLE SETTING (CRB)



For more details about combination of ports, flange and shaft see our W3 catalogue or contact our technical office.

MOTORE GR.3 A DUE STADI CON INGRESSO COMUNE
GR.3 TWO STAGE MOTOR WITH COMMON INLET



Fan Drive SYSTEM

Introduction

Ronzio Oleodinamica offers to our customers the possibility to use our motors for fan drive applications.

Nowadays, in fan drive, the fan is linked to the engine by a belt drive or mounted to the crankshaft. This means that the fan will run at the speed of the engine not according to the required cooling power with more cost of fuel, noise and emissions.

Ronzio's fan drive solutions give the possibility to control the fan speed independently from the engine speed and supply the cooling power exactly as required.

This hydraulic system is safe and flexible. It can be located remote from the engine. If equipped with an integrated control system, the fan speed is automatically adjusted to maximum cooling power if a failure occurs to electric system. This will prevent the engine from overheating and will avoid costly engine damage.

Best advantage

- Maximum control the fan speed range.
- Integrated control with reduced dimensions.
- Flexibility and long working life.
- Reversible fan direction for cleaning the cooling unit.
- Important noise reduction.

Available systems

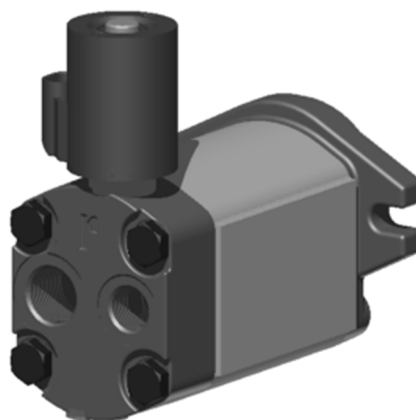
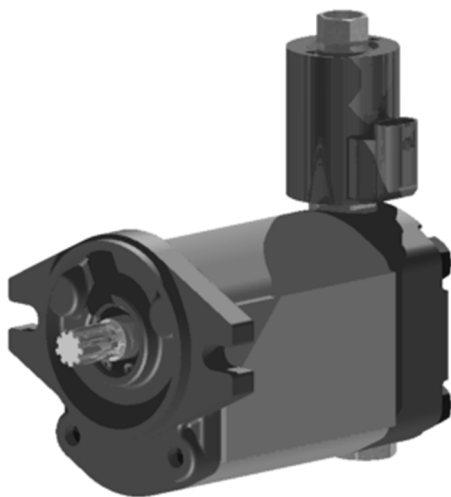
- Fixed ratio: the fan speed depends proportionally on engine speed, it is used on simple system where a fixed fan speed is required.
- Two speed system: this kind of system is used where the constructor needs two speeds with big size fans.
- With adjustable fan speed: used in a complex system which needs accurate and independent fan speed regulation. It offers the possibility of reversing the fan direction to clean the cooling unit.

Options

Ronzio's fan drive system is available with:

- European, Bosch and SAE flanges.
- Integrated bearing support.
- All the displacements in our catalogue.
- All ports type in our catalogue, rear and side.
- With electronic control unit and temperature sensor.

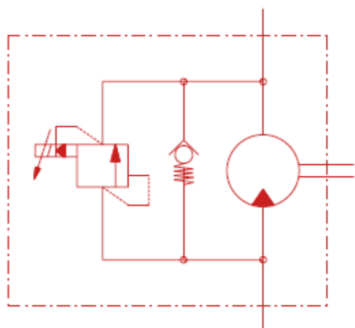
Adjustable Speed System



Solution with anti-cavitation valve and proportional relief valve, studied for applications with large dimension units needing high fan speed with, where a complete control of temperature is needed.

Anti-cavitation valve protects the motor against accidental stops and pressure peaks. The proportional relief valve gives the right speed to the fan.

An integrated safe system allows the maximum speed to the fan when electric failures happen.



Proportional valve data:

Maximum Operating Pressure: 241 bar (3500 psi)

Maximum Control Current: 1.10 amps for 12 VDC coil; 0.55 amps for 24 VDC coil

Relief Pressure Range from Zero to Maximum Control Current:

A: 6.9–207 bar (100–3000 psi)

C: 6.9–117 bar (100–1700 psi)

B: 6.9–159 bar (100–2300 psi)

Rated Flow: 94.6 lpm (25 gpm), $\Delta P=13.1$ bar (190 psi),

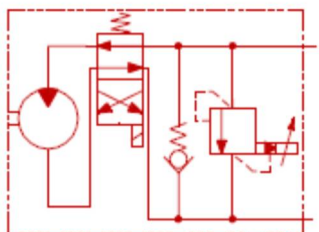
Maximum Pilot Flow: 0.76 lpm (0.2 gpm)

Hysteresis: Less than 3%

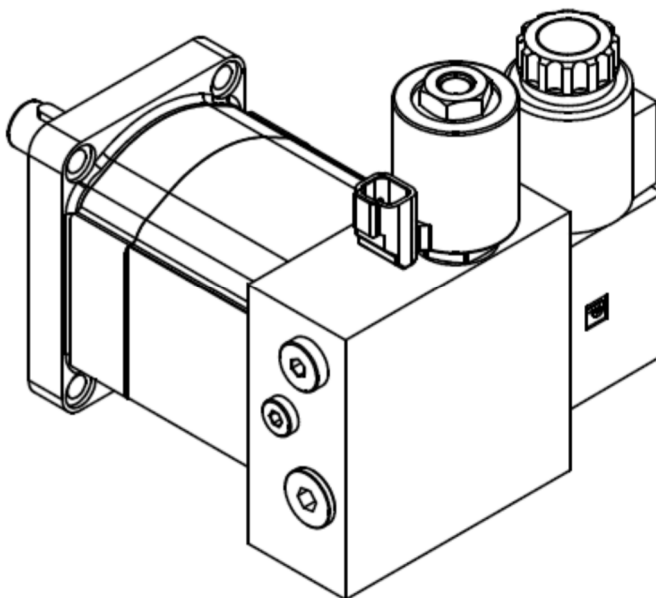
Temperature: -40 to 100°C (-40 to 212°F) with standard Buna N seals

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt

VARIABLE SPEED WITH REVERSE FLOW CONTROL



FDR



Our most complete solution for Fan Drive application with anti-cavitation valve and proportional relief valve, studied for applications where a complete control of temperature is needed.

Reverse flow is used to clean the heat exchanger to warranty the maximum cooling efficiency.

Anti-cavitation valve protects the motor against accidental stops and spin down. The proportional relief valve gives the right speed to the fan only when needed.

To protect the engine an integrated safe system allows the maximum speed to the fan in case of electric failures.

Proportional valve data:

Maximum Operating Pressure: 241 bar (3500 psi)

Maximum Control Current: 1.10 amps for 12 VDC coil; 0.55 amps for 24 VDC coil

Relief Pressure Range from Zero to Maximum Control Current:

A: 6.9–207 bar (100–3000 psi)

C: 6.9–117 bar (100–1700 psi)

B: 6.9–159 bar (100–2300 psi)

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Hysteresis: Less than 3%

Temperature: -40 to 100°C (-40 to 212°F) with standard Buna N seals

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt



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