The HC2 miniBOOSTER

Description

The HC2 is a compact unit weighing only 1.0 kg. It is ideal for use in a variety of applications where building and maintaining high pressure is required. The HC2 raises supplied pressure to a higher outlet pressure and automatically compensates for consumption of oil to maintain the high pressure. Adjustment of the outlet pressure is carried out by varying the supplied pressure.

Inlet pressure

Inlet pressure 20-200 bar

Outlet pressure

800 bar maximum

Return pressure to tank

P_{Return} as low as possible

Intensification ratios

Outlet pressure $P_H = (P_{IN} - P_{Return}) \times i$ (Intensification)

Number of intensifications

11 different intensifications

Mounting

Inline tube

Accessories

Pilot operated dump valve available

Flow rates

Intensification factor i	Max. outlet flow l/min	Max. inlet flow l/min
1.2	1.2	8.0
1.5	1.0	8.0
2.0	0.8	8.0
2.8	0.6	8.0
3.2	2.5	15.0
4.0	2.0	14.0
5.0	1.6	14.0
6.6	1.3	13.0
9.0	0.9	13.0
13.0	0.6	12.0
20.0	0.3	12.0

Max. tightening torque BSP

	IN/R 1/4" BSP	H 1/4" BSP
with steel washer	4.0 da/Nm	4.0 da/Nm
with aluminium washer	3.0 da/Nm	–
with cutting edge	4.0 da/Nm	4.0 da/Nm

Max. tightening torque UNF

	IN/R 7/16-18" UNF	H 9/16-18" UNF
with o-ring	2.0 da/Nm	3.5 da/Nm

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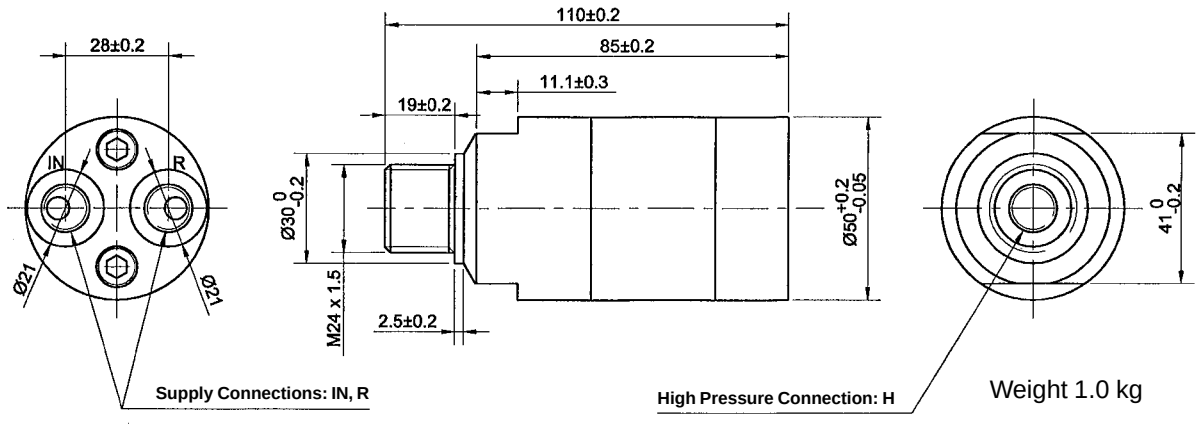
Dimensions

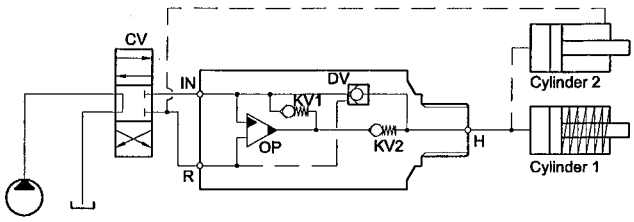


Dimensions

Functions

The basic operation is illustrated in the function diagram. Oil is fed through the directional valve CV to the IN port, flowing freely through the check valves KV1, KV2 and DV to the high pressure side H. In this condition maximum flow through the booster is achieved giving a fast forward function.

When pump pressure is reached on the high pressure side H, valves KV1, KV2 and DV will close. The end pressure will be achieved by the oscillating pump unit OP. The unit will automatically stall when end pressure on high pressure side H is reached. If there is a pressure drop on the high pressure side due to consumption or leakage, the OP valve will automatically operate to maintain the end pressure.



Function Diagram

Ordering a HC2:

Model		Intensification, i		Dump Valve		Connections
HC2	—		—		—	
		see flow rate table		A = (no)		1
				B = (yes)		2

Ordering example of a HC2 with i = 4.0, DV incorporated and BSP connections:
HC2 - 4.0 - B - 1

Connection	IN,R	H
1	1/4" BSP	1/4" BSP
2	7/16-20 UNF	9/16-18 UNF