

The HC8 miniBOOSTER



Description

The HC8 was developed for applications where intensified pressure up to 2,000 bar are required. Operating like the HC2, the HC8 is a unique, self contained device which boosts inlet pressure by up to a 20:1 ratio without the use of external power. In addition, the HC8 maintains high pressure by automatically compensating for consumption of oil on the high pressure side. High pressure is directly proportional to inlet pressure. The HC8 is compact in size. The HC8 works at inlet pressure from 20 to 200 bar. On standard versions maximum outlet pressure is 2,000 bar. Higher pressure is available on special request.

Inlet pressure

Inlet pressure 20-200 bar

Outlet pressure

2.000 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

4 intensifications

Mounting

Inline tube

Accessories

Pilot operated dump valve incorporated

Pressure gauge/transducer connection available

Flow rates

Intensification factor i	Max. outlet flow l/min	Max. inlet flow l/min
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
with steel washer	4.0 da/Nm
with aluminium washer	3.0 da/Nm
with cutting edge	4.0 da/Nm

Max. tightening torque UNF

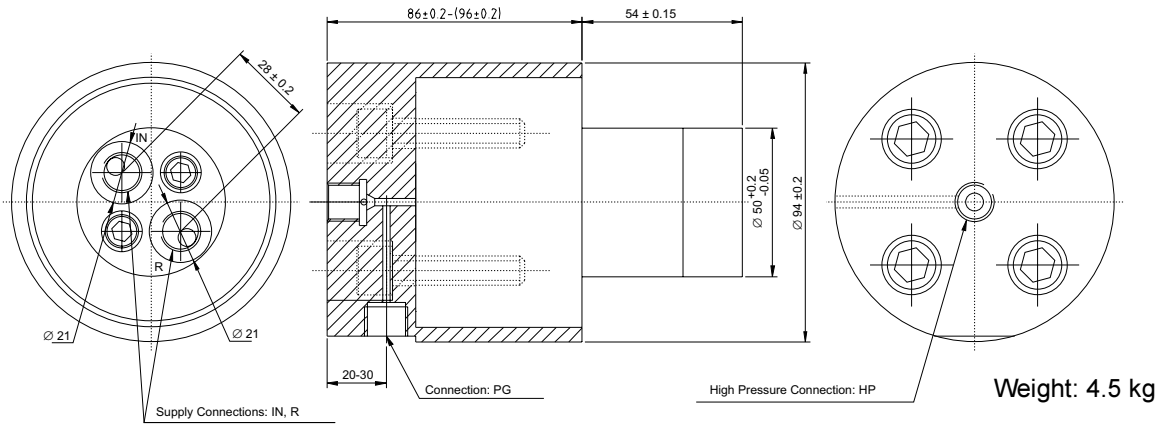
	IN/R 7/16-18" UNF
with o-ring	2.0 da/Nm

High pressure plate

Ordering Code	HP-Connection	PG-Connection
8-281	1/2" BSP	None
8-282	3/4" BSP	None
8-283	M16 x 1.5	None
8-284	1/4" BSP	None
8-285	1/4" BSP	9/16-18 UNF
8-286	3/4" BSP	9/16-18 UNF
8-287	1/4" BSP	9/16-18 UNF
8-288	9/16" BSP	9/16-18 UNF
8-289	1/4" BSP	M14 x 1.5
8-290	1/4" BSP	M16 x 1.5
8-291	1/4" BSP	M15 x 1.0
8-292	M16 x 1.5	M16 x 1.5

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Dimensions

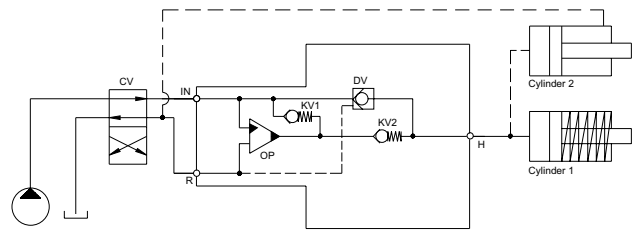


Functions

Dimensions

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 HC8

Model	Intensification, i	Dump Valve	Connections
HC8	see flow rate table	B = (yes)	1
			2

Ordering example of a HC8 with $i = 13.0$,
DV incorporated and BSP connections:
HC8 - 13.0 - B - 1

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

You need also a high pressure plate - see page 20
Other high pressure connections on request.