

The HC8 miniBOOSTER



HC8 versions: 5 different intensification factors

P_{IN}: 20 – 200 bar (inlet pressure)

P_H: 2,000 bar maximum (outlet pressure)

P_{RETURN}: As low as possible (Return pressure to tank)

Intensification ratios: $P_H = (P_{IN} - P_{RETURN}) \cdot i$ (Intensification)

Mounting: Inline tube

Accessories: Pilot operated dump valve incorporated
Pressure gauge/ transducer connection available

A model = no dump valve

B model = with dump valve

G model = direct proportionally controlled

Description

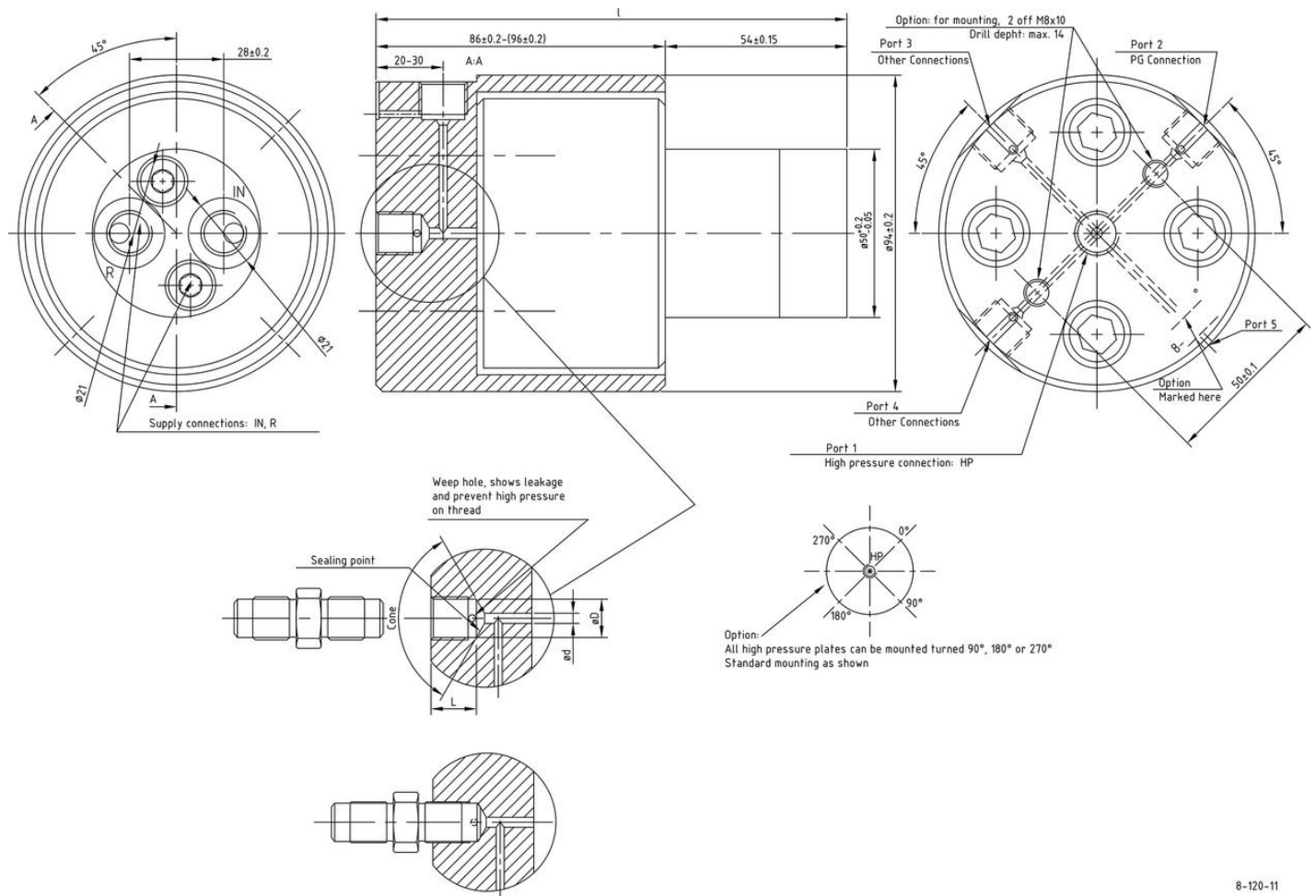
The HC8 is developed for applications where intensified pressure up to 2,000 bar are required. Operating like the HC2, the HC8 is a unique, self contained device which boosts inlet pressure by up to a 20:1 ratio without the use of external power.

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. Higher pressure is available on special request.

Flow Rates

Intensification factor i	Max. outlet flow l/ min	Max. inlet flow l/ min
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

Dimensions



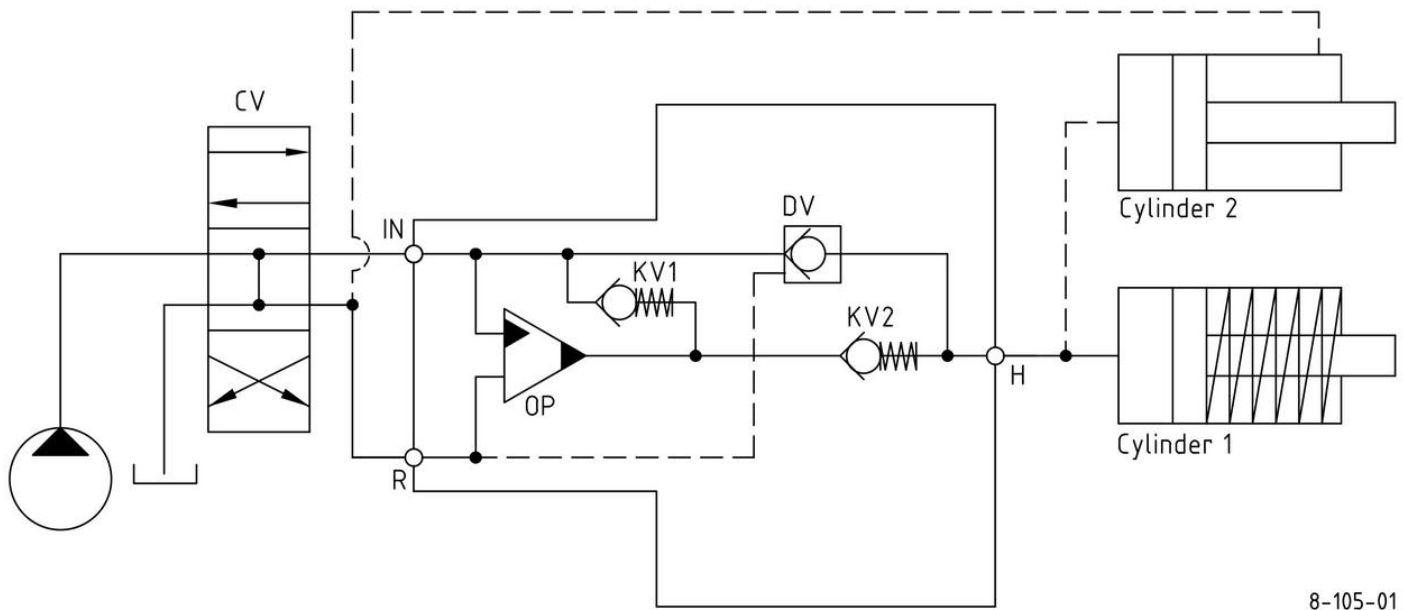
8-120-11

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



Connection types

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

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	Port 1: HP- Connection		Port 2: PG- Connections		Port 3: Other Connections		Port 4: Other Connections	
HP plate	Thread	Cone	Thread	Cone	Thread	Cone	Thread	Cone
8-281	1/2" BSP	120°	None	–	None	–	None	–
8-282	3/4" BSP	0°	None	–	None	–	None	–
8-283	M16 x 1.5	60°	None	–	None	–	None	–
8-284	1/4" BSP	120°	None	–	None	–	None	–
8-285	1/4" BSP	120°	9/16-18 UNF	60°	None	–	None	–
8-286	3/4" BSP	0°	9/16-18 UNF	60°	None	–	None	–
8-287	1/4" BSP	120°	9/16-18 UNF	60°	9/16-18 UNF	60°	None	–
8-288	9/16-18 UNF	60°	9/16-18 UNF	60°	None	–	None	–
8-289	1/4" BSP	120°	M14 x 1.5	60°	None	–	None	–
8-290	1/4" BSP	120°	M16 x 1.5	60°	None	–	None	–
8-291	1/4" BSP	120°	M15 x 1.0	0°	None	–	None	–
8-292	M16 x 1.5	60°	M16 x 1.5	60°	None	–	None	–
8-293	1/2" BSP	60°	None	–	None	–	None	–
8-294	M16 x 1.5	60°	9/16-18 UNF	60°	M16 x 1.5	60°	None	–
8-295	M16 x 1.5	60°	None	–	9/16-18 UNF	60°	None	–
8-296	M20 x 1.5	60°	None	–	None	–	None	–
8-297	1/4" BSP	120°	9/16-18 UNF	60°	M14 x 1.5	60°	None	–
8-298	1/4" BSP	120°	9/16-18 UNF	60°	M16 x 1.5	60°	None	–
8-299	3/4-16 UNF	60°	None	–	None	–	None	–
8-300	M22 x 1.5	60°	None	–	None	–	None	–
8-320	M22 x 1.5	60°	M22 x 1.5	60°	None	–	None	–
8-321	1/4" BSP	120°	1/4" BSP	120°	None	–	None	–
8-322	M22 x 1.5	60°	9/16-18 UNF	60°	M22 x 1.5	60°	None	–
8-323	1/4" BSP	120°	9/16-18 UNF	60°	1/2"-20 UNF	60°	None	–
8-324	M22 x 1.5	60°	9/16-18 UNF	60°	None	–	None	–
8-325	1/4" BSP	120°	None	–	9/16-18 UNF	60°	9/16-18 UNF	60°
8-326	9/16-18 UNF	60°	9/16-18 UNF	60°	9/16-18 UNF	60°	9/16-18 UNF	60°
8-327	M22 x 1.5	0°	None	–	None	–	None	–
8-328	M22 x 1.5	60°	1/2" BSP	120°	None	–	None	–
8-329	M22 x 1.5	0°	None	–	None	–	None	–
8-330	1/4" BSP	120°	None	–	None	–	None	–

8-900-12

Fluids and materials

Please see General Specifications

Ordering a HC8

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

Please note!

High pressure plate ordering code - see table

Other high pressure connections on request.

Model	Intensification, i	Dump Valve	Connections
HC8	your selection...	your selection...	your selection...
	see flow rate table	A = (no) / A model	1
		B = (yes) / B model	2
		G = (proportional) / G model	