

HC4H miniBOOSTER



HC4H versions: 7 different intensification factors

P_{IN} : 20 – 207 bar (inlet pressure)

P_H : 3,000 bar maximum (outlet pressure)

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

P_{OUTLET} : $P_H = (P_{IN} - P_{RETURN}) \times i$ (intensification)

Mounting: Inline tube

Accessories: Pilot- operated dump valve incorporated

A model = no dump valve

B model = with dump valve

G model = direct proportionally controlled

Material certificate 3.1 on request

Description

The HC4H is a very compact high- pressure unit capable of delivering pressure up to 3,000 bar weighing only 4.0 kg. It is ideal for use in portable applications like on power packs.

The HC4H 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. With the choice of different high- pressure adapters, a variety of threads can be obtained from the M22x1.5 thread in the HP port. Higher pressure is available on request.

Flow rates

Intensification factor i	Max. outlet flow l/ min	Max. inlet flow l/ min
5.1	3.5	35.0
6.3	2.5	35.0
7.7	2.3	35.0
9.8	2.0	35.0
12.7	1.5	35.0
16.0	1.3	35.0
17.3	1.2	35.0

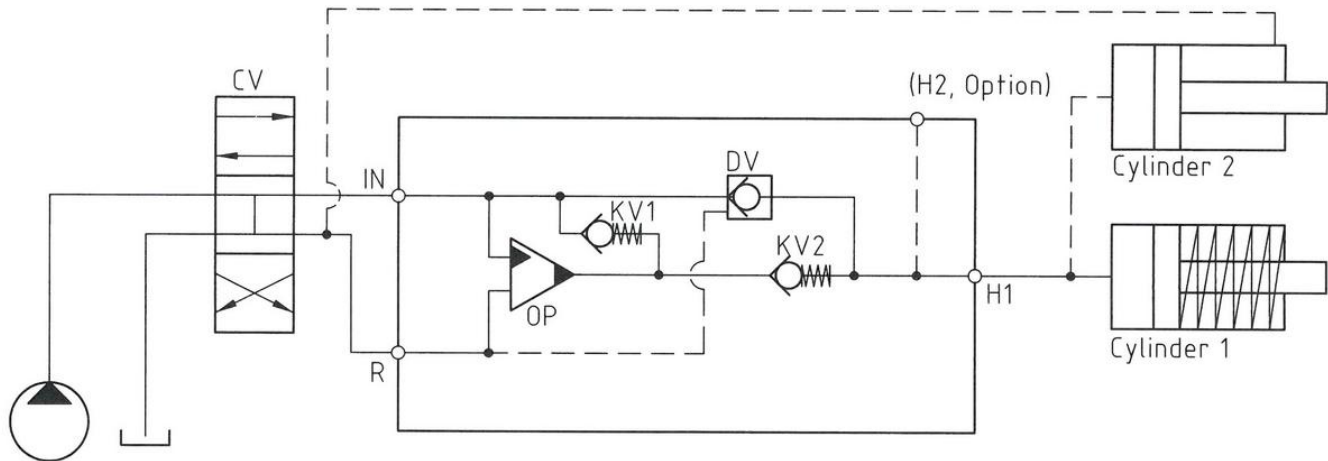
Functions

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 the high- pressure side H is reached. If a pressure drop on the high- pressure side exists due to consumption or leakage, the OP valve will automatically operate to maintain the end pressure.

Function diagram

 Function diagram 4-106-00



Dimensions

 Dimension drawing 4-121-04

Connection types

Connection	IN / R
1	3/8" BSPP

Max. tightening torque BSPP

	IN / R
	3/8" BSPP
with steel washer	6.0 da/ Nm
with aluminium washer	4.0 da/ Nm
with cutting edge	6.0 da/ Nm

Max. tightening torque UNF

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

High- pressure adapters

Ordering code	Male connection 1	Connection 2	Max. pressure
7-432	M22 x 1.5	9/16-18 UNF	3,000 bar
7-433	M22 x 1.5	1/4" BSPP	3,000 bar
7-434	M22 x 1.5	Plug	3,000 bar
7-435	M22 x 1.5	1/4" BSPP	800 bar
7-439	M22 x 1.5	9/16-18 UNF	1,380 bar
7-445	M22 x 1.5	1/4" BSPP male	3,000 bar
7-446	M22 x 1.5	M22 x 1.5	3,000 bar
7-447	M22 x 1.5	7/16-20 UNF	1,380 bar

High- pressure adapter ordering codes and specifications can be seen from the table in the PDF- file below:



High- pressure adapters: 7-900-06

Fluids and materials

Please see: General specifications

Ordering an HC4H

Ordering example of an HC4H with $i = 12.7$, H1 M22 x 1.5 and H2 9/16-18 UNF,

DV incorporated and BSPP connections: HC4H - 12.7 - B - 12

Please note!

High- pressure adapter ordering code – see table

Model	Intensification, i	Dump valve	Connections
HC4H	your selection... see flow rate table	your selection... A = (no) / A model B = (yes) / B model G = (proportional) / G model	see table below

Ordering code	IN, R	H1	H2
HC4H- ___- ___-12	3/8" BSPP	M22 x 1.5	9/16-18 UNF
HC4H- ___- ___-11	3/8" BSPP	M22 x 1.5	–