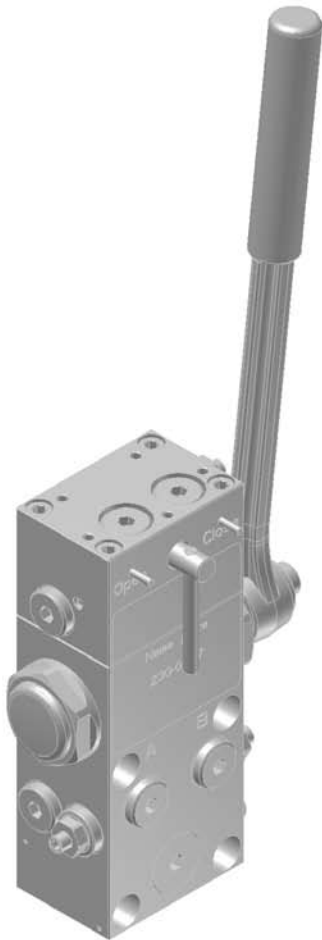


**Product Data Sheet**

SD 6700-2E04

August 2008

# Damcos® Hand Pump – General



**Damcos®**

  
**EMERSON™**  
Process Management

# Damcos® Hand Pump - General

## General description

The Damcos hand pump can be used together with all standard actuators such as BRC, BRCF, KC and KF. Overall there exists a hand pump for single line actuators and for double line actuators. Depending on actuator size, control type and valve location these two hand pump types can be applied in

different variants for emergency operation and standalone operation without other remote facilities. Further information can be found in the data sheet for the direct mounted hand pump and the bulkhead mounted hand pump.

## Hand pump program:

### Hand pump:

HP: Hand pump

### Actuator type:

S: For single line actuator

D: For double line actuator

### Application:

-: Direct mounted

B: Bulkhead mounted

### Bulkhead type:

B-VPI: Bulkhead mounted with VPI-V

### Tank size:

- : No tank

50: 50 ml closed tank

1: 1 L open tank

4: 4 L open tank

## Examples:

### Submerged valves - HP-S-B-VPI-V-4

- Hand pump
- For single line actuator
- Bulkhead mounted with VPI-V
- 4 L open tank

### Shipside valves - HP-D-1

- Hand pump
- For double line actuator
- Direct mounted
- 1 L open tank

## Main data

Other additional:	Quick connection
Mounting:	Prepared for actuator and bulkhead block interface
A and B connection:	1/4" BSPP
Maximum operation pressure:	135 bar
Test pressure:	210 bar
Maximum hand pump pressure:	135 bar
Weight without oil:	0 L tank: 5.3 kg, 50 ml tank: 6 kg 1 L tank: 9 kg and 4 L tank: 15 kg
Oil displacement per double stroke:	6 cm <sup>3</sup>
Oil viscosity range:	From 15 to 200 cSt
Temperature range:	From -25 °C to 80 °C
Recommended oil filtration:	ISO Solid Contaminant Code 18/15 or NAS 160/10

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## Material

Housing / Cover:	Brass
Spindle / Piston:	Aluminum bronze
Valves:	Brass
Screws / Sign plate / Rivet:	Stainless steel
Sealings:	NBR (Acrylonitrile butadiene)

## General installation requirement

General installation requirements:

- To gain maximum hand pump performance it is of significant importance that the pipes between hand pump and actuator are well de-aired.
- Distance between hand pump and actuator must not exceed 50 m.

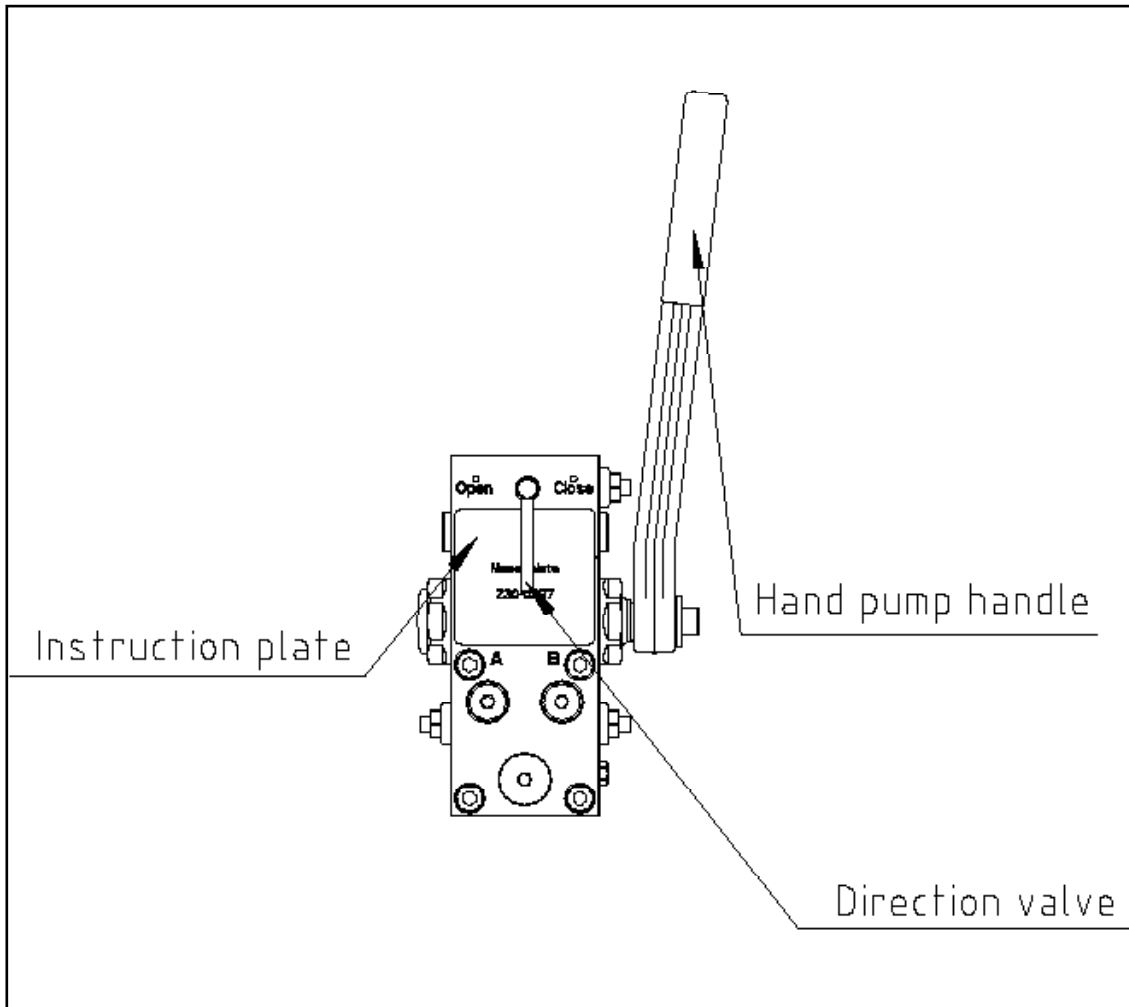
Specific rules related to hand pump applications can be found in the direct mounted and bulkhead mounted handpump datasheet.

In case of solenoid valve is needed for remote indirect indication:

- 4/3 ways SC solenoid throttle valve for double line actuators.
- 4/2 ways SR (FC / FO) solenoid valve on/off for single line actuators.

## Damcos® Hand Pump - General

### Emergency operation for double line actuator



### Emergency operation for double line actuator

Description of the hand pump emergency operation can be found on the instruction plate mounted on the hand pump. The emergency description for the double line actuators is as follows:

#### Emergency opening:

- Turn directional valve to "OPEN".
- Operate hand pump.

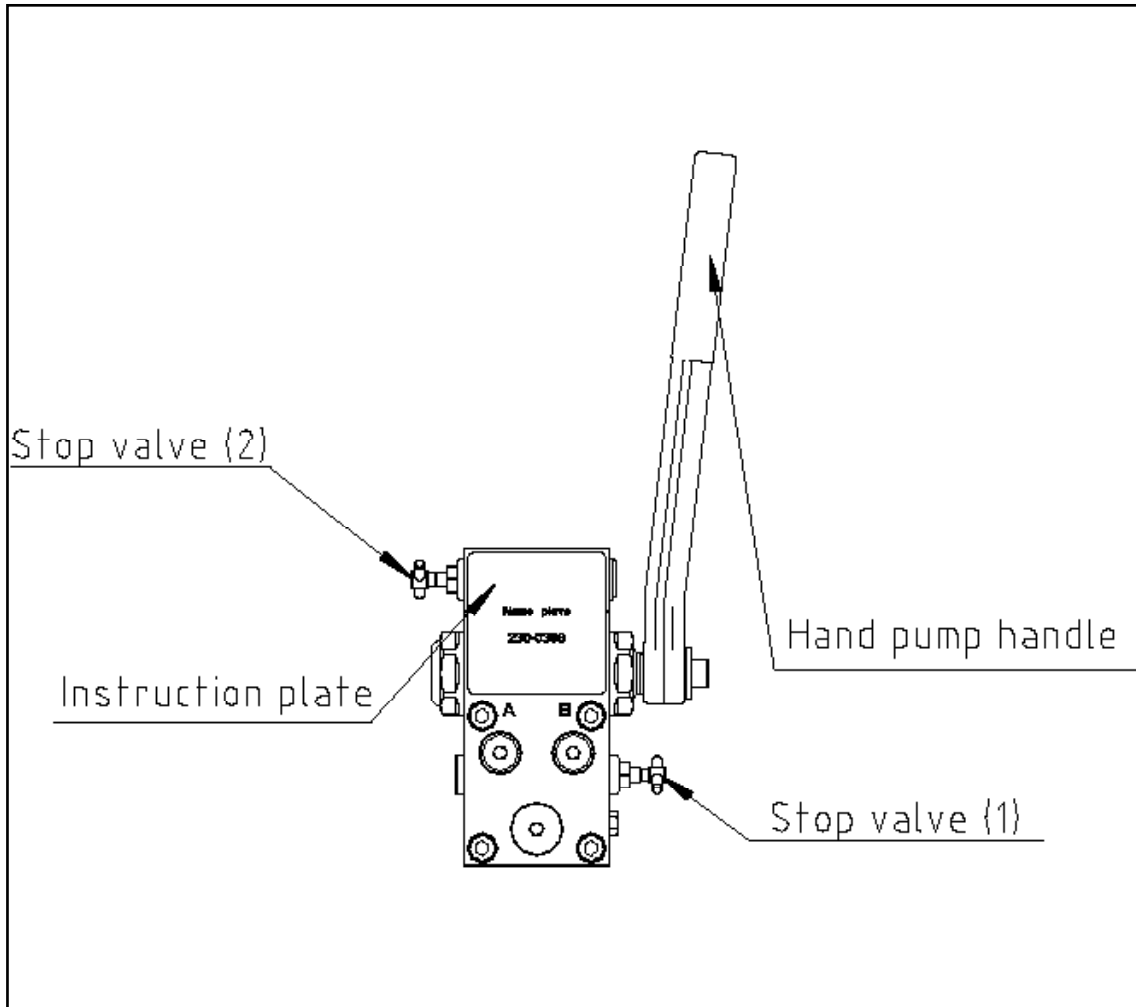
The valve will now stay in position until operated with hand pump again or by remote control.

#### Emergency closing:

- Turn directional valve to "CLOSE".
- Operate hand pump.

The valve will now stay in position until operated with hand pump again or by remote control.

## **Emergency operation for single line actuator**



## **Emergency operation for single actuator**

Description of the hand pump emergency operation can be found on the instruction plate mounted on the hand pump. The emergency description for the single actuators is as follows:

### **Emergency opening:**

- Close stop valve (1).
- Operate hand pump to open actuator.

### **Notice:**

Remote operation will not reset opening; if emergency opened the actuator has to be emergency closed again.

### **Emergency closing:**

- Open stop valve (2).
- When actuator is closed,
  - Close stop valve (2)
  - Open stop valve (1)

# Damcos® Handpump - General

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