# 46 400/117 ED





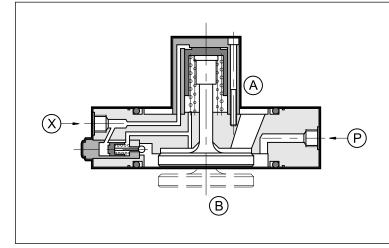
# CFP FILLING VALVES SERIES 10

## SANDWICH MOUNTING

p max 350 bar

**Q** max (see table of performances)

### OPERATING PRINCIPLE



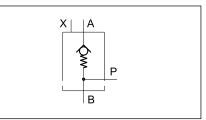
- The CFP valves are pilot operated check valves, expressly designed for hydraulic presses, to allow easy filling and empting of the press cylinder during the fast down and raise strokes.
- They are "sandwich" mounted, to be installed directly between the suction flange (connected to the tank) and the cylinder (see paragraph 6).
- A version with a pre-opening device is available, connected to the X pilot port, that allows circuit decompression before the cylinder raising phase begins.

#### PERFORMANCES

VALVE CODE			CFP-S032	CFP-S040	CFP-S050	CFP-S063	CFP-S080	CFP-S100	CFP-S125	
Nominal size			DN-32	DN-40	DN-50	DN-63	DN-80	DN-100	DN-125	
Maximum flow (with $\Delta p = 0.3$ bar and viscosity 36 cSt)		l/min	160	250	400	600	1000	1600	2500	
Maximum pressure	Ports P and B	bar	350							
	Port X	bar	100							
	Port A	bar	16							
Cracking and pilot pressure		see paragraph 4								
Mass kg		1,2	1,7	2,5	3,5	5,2	12	20		

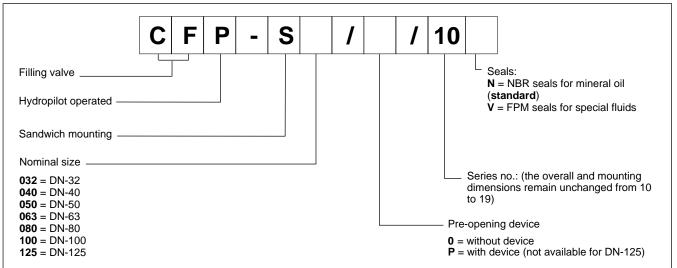
Ambient temperature range	°C	-20 / +60			
Fluid temperature range	°C	-20 / +80			
Fluid viscosity range	cSt	10 ÷ 400			
Recommended viscosity	cSt	25			
Fluid contamination degree	according to ISO 4406:1999 class 20/18/15				

#### HYDRAULIC SYMBOL



The CFP valves are available in 7 different sizes with maximum flow up to 2500 l/min.

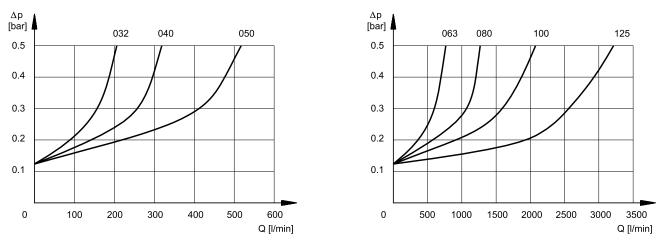
#### **1 - IDENTIFICATION CODE**



#### 2 - CHARACTERISTIC CURVES

(values measured with viscosity of 36 cSt at 50°C)

 $\Delta p$  - Q characteristic with flow A  $\rightarrow$  B.



#### 3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

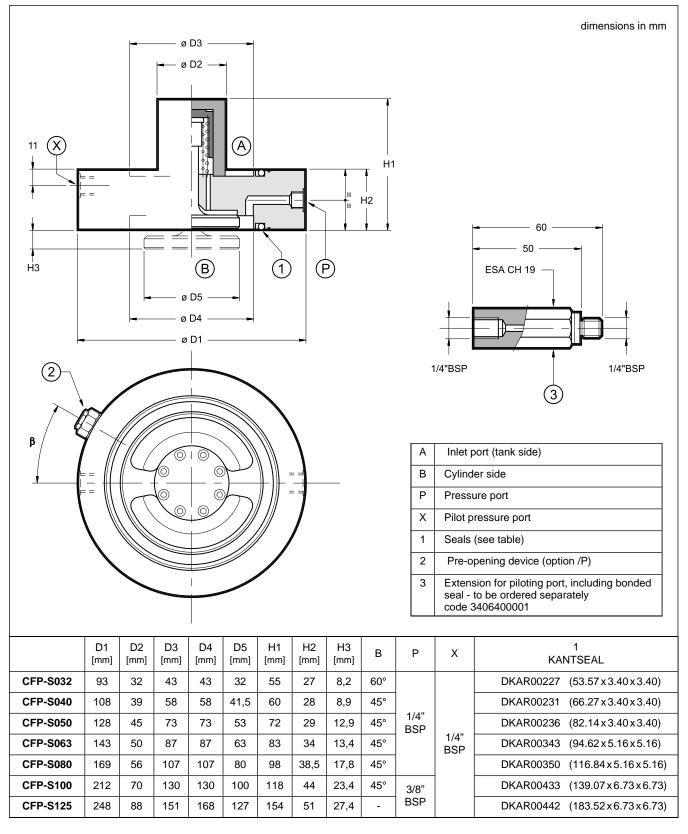
#### **4 - OPENING AND PILOTING PRESSURES**

Valve code	Cracking pressure A - B [bar]	Minimum pilot pressure [bar]	Pilot pressure ratio p (B) / p (X)	Pre-opening pressure (option /P) [bar]	Pilot volume for opening valve [cm <sup>3</sup> ]	
CFP-S032			3,6		1,22	
CFP-S040	0,12		3,9		2,36 4,91	
CFP-S050			4,2	$p(Y) = 0.19 \times p(P) + 7$		
CFP-S063		8,0	4,2	$p(X) = 0,18 \times p(B) +7$	8,13	
CFP-S080	0.12		4,5		12,72	
CFP-S100	0,13		4,3		28,63	
CFP-S125			4,3	-	67,86	

#### **5 - INSTALLATION**

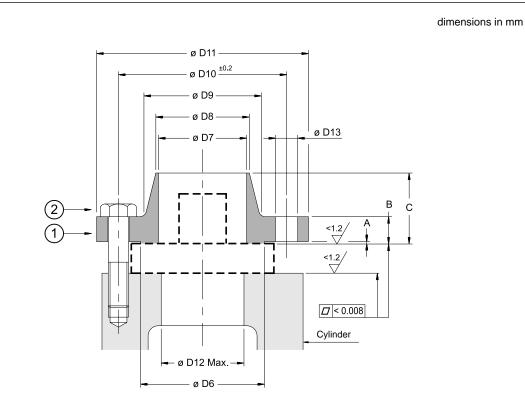
The valves up to size 63 can be mounted in any position. For the larger sizes (ND 80, ND 100 and ND 125) is required the vertical mounting.

#### 6 - OVERALL DIMENSIONS



# CFP SERIES 10

### 7 - CONNECTION FLANGE - INSTALLATION AND DIMENSIONS



#### Recommended building material: C22

	(1) Suggested dimensions for connection flange (see NOTE 2)									Max pressure	(2)				
	D6 [mm]	D7 [mm]	D8 [mm] NOTE 1	D9 [mm]	D10 [mm]	D11 [mm]	D12 [mm]	D13 [mm]	A [mm]	B [mm]	C [mm]	on port B [bar]	Fastening bolts (type A10.9)	Q.ty	Tightening torque [Nm]
CFP-S032	88	42	48,3	88	110	150	46	18	3	22	45		M16	4	285
CFP-S040	102	53	60,3	102	125	165	58	18	3	29	62		M16	4	285
CFP-S050	122	69	76,1	122	145	185	71	18	3	34	68		M16	8	285
CFP-S063	138	82	88,9	138	160	200	86	18	3	43	72	350	M16	8	285
CFP-S080	162	107	114,3	162	190	235	108	22	3	51	78		M20	8	560
CFP-S100	188	131	139,7	188	240	295	132	29	3	62	105		M27	8	1400
CFP-S125	218	160	168,3	218	280	345	170	32	3	79	115		M30	8	1900

NOTE 1: Calculated diameters for PN 16 - DIN 2448 steel pipes

**NOTE 2**: For application with standard connection flange type UNI2284 - UNI2285 - UNI2286, special bushings to fit on fastening bolts must be provided in order to ensure a correct valve mounting.

For information about the installation with UNI connector flange, please consult our technical department.



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