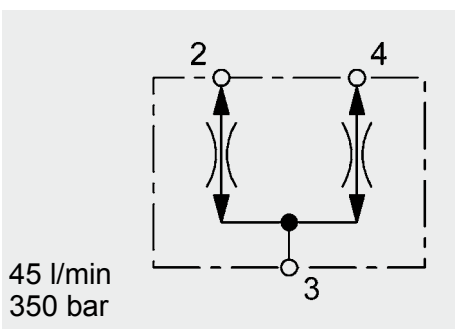
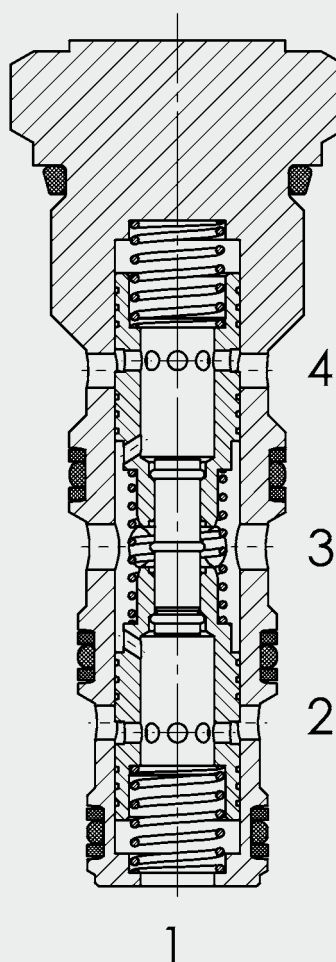


## Flow Divider / Combiner SAE-10 Cartridge – 350 bar ST10-01



45 l/min  
350 bar

### FUNCTION



**Note:**  
Port 1 is not used

The ST10 flow divider is a spring-loaded pressure compensated spool type valve. It divides a flow in two and keeps both flows constant. The division is made according to the specified ratio - from port 3 to ports 2 and 4.  
As a flow combiner it combines two partial flows together – from ports 2 and 4 to port 3.  
Port 1 is not used.

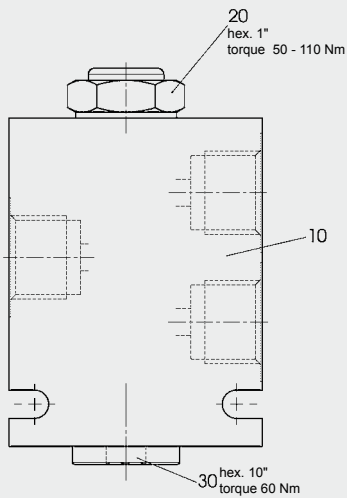
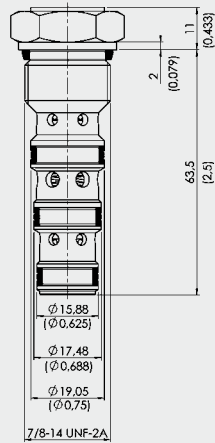
### FEATURES

- External surfaces corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Excellent dividing and combining accuracy
- Wide flow range down to 25% of nominal flow rating
- Low pressure drop throughout flow range
- Can be used for differential locks in drive applications
- Synchronizing flow in both operating modes
- Compact design

### SPECIFICATIONS

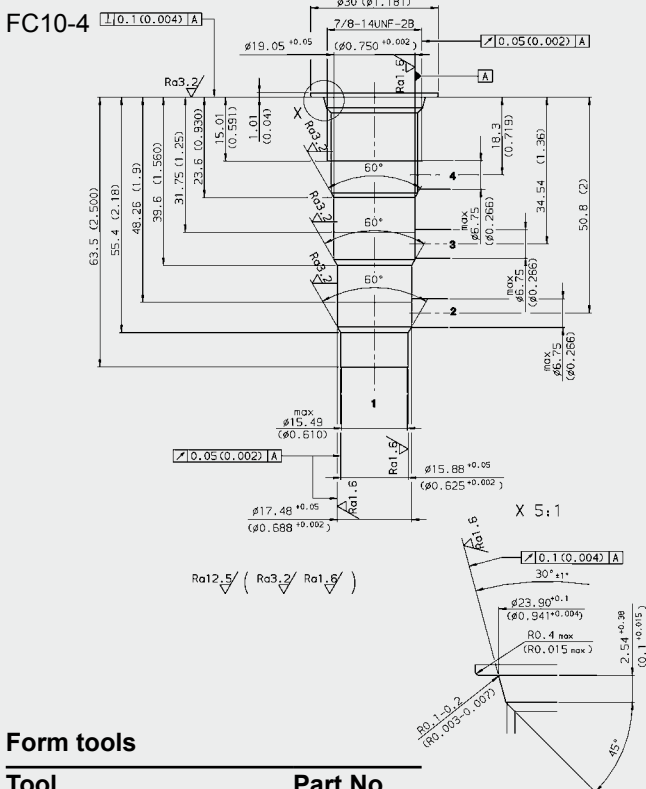
Operating pressure:	max. 350 bar	
Nominal flow:	max. 45 l/min	
Inlet flow:	7.6 l/min	Code 11
	15.2 l/min	Code 22
	22.8 l/min	Code 33
	30.4 l/min	Code 44
	37.8 l/min	Code 55
	45.6 l/min	Code 66
Accuracy:	See performance graphs	
Media operating temperature range:	min. -30 °C to max. +100 °C	
Ambient temperature range:	min. -30 °C to max. +100 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s	
Filtration:	Class 21/19/16 to ISO 4406 or cleaner	
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
Materials:	Valve body:	steel
	Spool:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings:	PTFE
Cavity:	FC10-4 (port 1 not used)	
Weight:	0.122 kg	

## DIMENSIONS



millimeter (inch)  
subject to technical modifications

## CAVITY



### Form tools

Tool	Part No.
Countersink FC10-4	176174
Reamer FC10-4	176175

millimeter (inch)  
subject to technical modifications

## MODEL CODE

**ST10-01 - C - N - 33**

**Basic model** \_\_\_\_\_  
Flow divider / Combiner, UNF

**Body and ports\*** \_\_\_\_\_  
C = cartridge only  
SB4 = G1/2 ports, steel body  
AB4 = G1/2 ports, aluminium body

**Seals** \_\_\_\_\_  
N = NBR (standard)  
V = FKM

**Flow rate code & flow range** \_\_\_\_\_

Code	Ratio Port 2 [%]	Ratio Port 4 [%]	Max. inlet flow [l/min]	Balance flow rate	
				Combining [l/min] 2-4 at 100 bar	Dividing [l/min] 2-4 at 100 bar
11	50	50	7.6	0.7	0.7
22	50	50	15.2	1.3	1.1
33	50	50	22.8	2.3	2.1
44	50	50	30.4	2.6	2.8
55	50	50	37.8	3	3.4
66	50	50	45.6	5.2	3.1

### Standard models

Model code	Part No.
ST10-01-C-N-11	562884
ST10-01-C-N-22	562885
ST10-01-C-N-33	562886
ST10-01-C-N-44	562887
ST10-01-C-N-55	562888
ST10-01-C-N-66	562889

### \*Standard in-line bodies

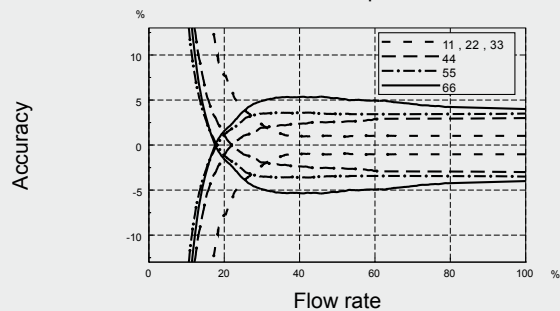
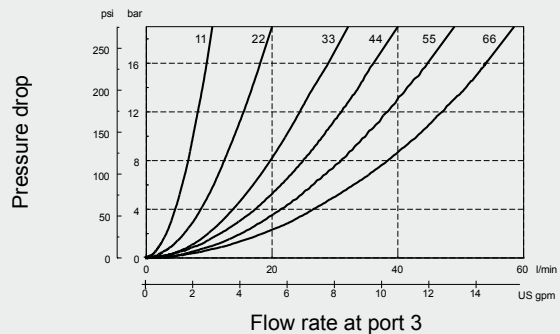
Code	Part No.	Material	Ports	Pressure
FH104-SB4	3037784	Steel, zinc-plated	G1/2	420 bar
FH104-AB4	3038097	Aluminium, anodized	G1/2	210 bar

### Seal kits

Code	Material	Part No.
FH104-N SEAL KIT	NBR	3051912
FH104-V SEAL KIT	FKM	3071275

## PERFORMANCE

Measured at  $v = 34 \text{ mm}^2/\text{s}$   $T_{\text{Oil}} = 46 \text{ }^\circ\text{C}$



### NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.  
Subject to technical modifications.

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