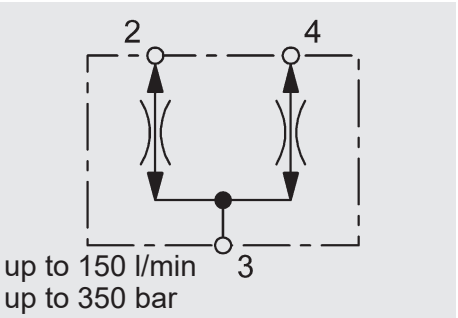
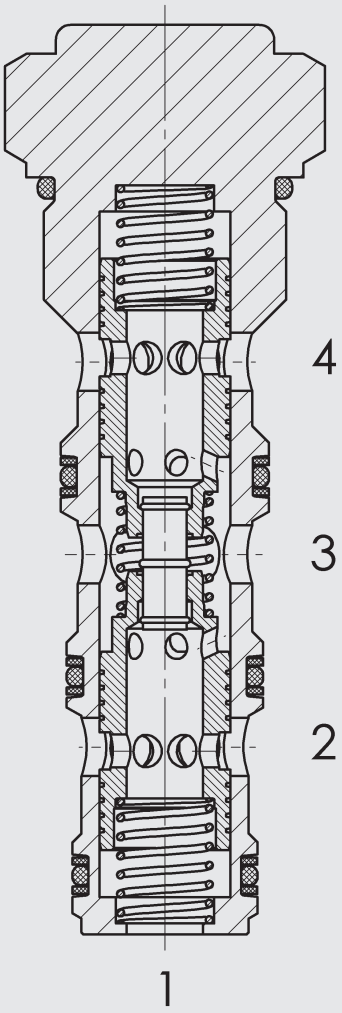
HYDAC INTERNATIONAL



up to 150 l/min
up to 350 bar

Flow Divider / Combiner
Spool type
UNF Cartridge – 350 bar
ST16-01

FUNCTION



Note:
Port 1 is not used

The flow divider is a pressure-compensated spool type valve that divides a flow in two. 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

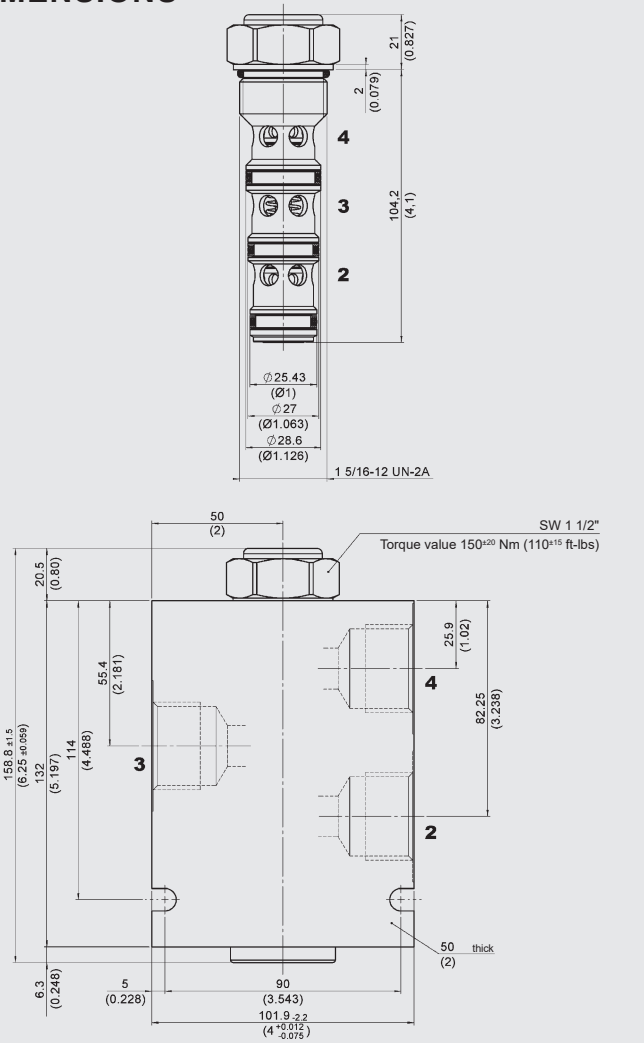
- Main use in drive applications as differential lock or for synchronisation of two cylinders
- Synchronizing flow in both operating modes
- Support range from 25% of nominal flow rating
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar	
Nominal flow:	max. 150 l/min	
Inlet flow max.: (port 3)	max. 90 l/min max. 115 l/min max. 150 l/min	Code 1212 Code 1515 Code 2020
Control accuracy:	up to 10% of inlet flow per partial flow	
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, 2 and 3	
Viscosity range:	min. 7.4 mm²/s to max. 420 mm²/s	
Filtration:	Class 17/15/12 to ISO 4406 or cleaner	
$MTTF_d$:	150 - 1200 years, according to DIN EN ISO 13849-1	
Materials:	Valve body:	steel
	Spool:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +100 °C)
	Back-up rings:	PTFE
Cavity:	FC16-4 (port 1 is not used)	
Weight:	0.45 kg	

*see "Conditions and instructions for valves" in brochure 53.000

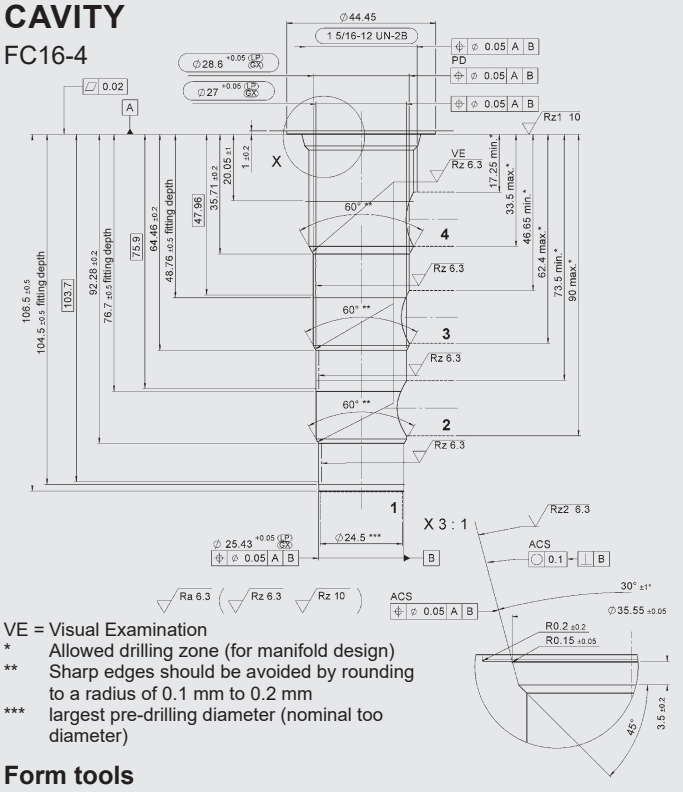
DIMENSIONS



millimeter (inch)
subject to technical modifications

CAVITY

FC16-4



VE = Visual Examination
* Allowed drilling zone (for manifold design)
** Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm
*** largest pre-drilling diameter (nominal too diameter)

Form tools

Tool	Part No.
Countersink	176377
Reamer	176378

millimeter (inch)
subject to technical modifications

MODEL CODE

ST16-01 – C – N – 1212

Basic model
Flow divider / Combiner, UNF

Body and Ports*
C = cartridge only
SB8 = G1 ports, steel body
AB8 = G1 ports, aluminium body
Versions with line bodies on request

Seals
N = NBR (standard)
V = FKM

Flow rate code & flow range

Code	Ratio Port 2 [%]	Ratio Port 4 [%]	Max. flow [l/min]	Balance flow rate [l/min]
1212	50	50	90	6.7
1515	50	50	115	8.3
2020	50	50	150	9.8

Standard models

Model code	Part No.
ST16-01-C-N-1212	3012922
ST16-01-C-N-1515	3115421
ST16-01-C-N-2020	3012973

*Standard in-line bodies

Code	Part No.	Materials:	Ports	Pressure
FH164-SB8	3032902	Steel, zinc-plated	G1"	350 bar
FH164-AB8	3037213	Aluminium, anodized	G1"	210 bar

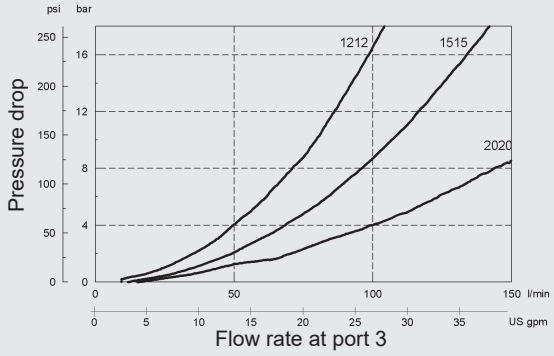
Seal kits

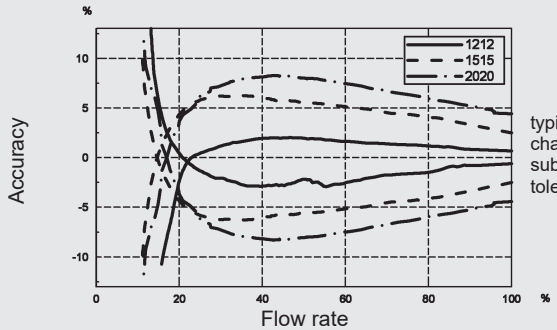
Code	Material	Part No.
FS UNF 16/N SEAL KIT	NBR	3651395
FS UNF 16/V SEAL KIT	FKM	3651396

Port 1 is not required and should be closed with threaded plug

TYPICAL PERFORMANCE

Measured at ν = 34 mm²/s, T_{oil} = 46 °C





typical characteristic subject to tolerances

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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