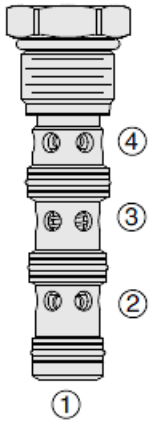




## Overview



### Description

The FD52-45 is a screw-in cartridge, spool type flow divider/combiner valve.

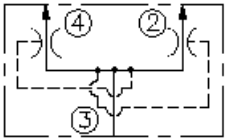
### Operation

The cartridge valve pressure compensated proportional division of inlet flow or combining of two return flows regardless of system operating pressure conditions. The valve provides synchronizing flow in dividing and combining modes.

### Features

- Hardened parts for long life.
- Quiet, modulated response.
- Wide operating flow range.
- Synchronizing in dividing and combining modes.
- Floating cage "high installation torque.
- Industry-common cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	345 bar (5000 psi) 420 bar (6090 psi)	- <b>Note:</b> 10% duty cycle
Pressure drop	20.5 bar (300 psi)	- <b>Note:</b> At maximum inlet flow

### Flow Ratings

Inlet flow rating	15 to 60 lpm (4.0 to 16.0 gpm) 23 to 90 lpm (6.0 to 24.0 gpm) 30 to 106 lpm (8.0 to 28.0 gpm)	- <b>Note:</b> Model code 44 - <b>Note:</b> Model code 66 - <b>Note:</b> Model code 88
Synchronizing flow	Approximately 10% of maximum inlet flow	
Flow accuracy	10 % 15 %	- <b>Note:</b> Of inlet flow for -44 and -66 models - <b>Note:</b> Of inlet flow for -88 models

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (model number - gfd52-45)
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## Operating Parameters

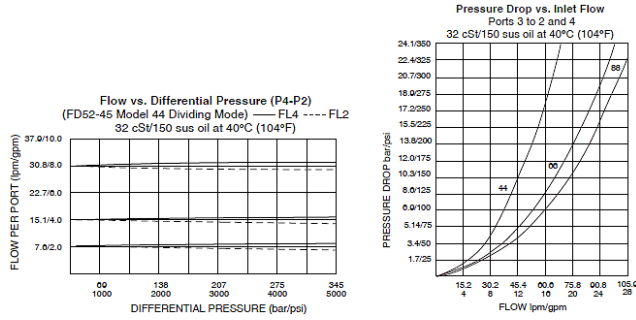
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

## Properties

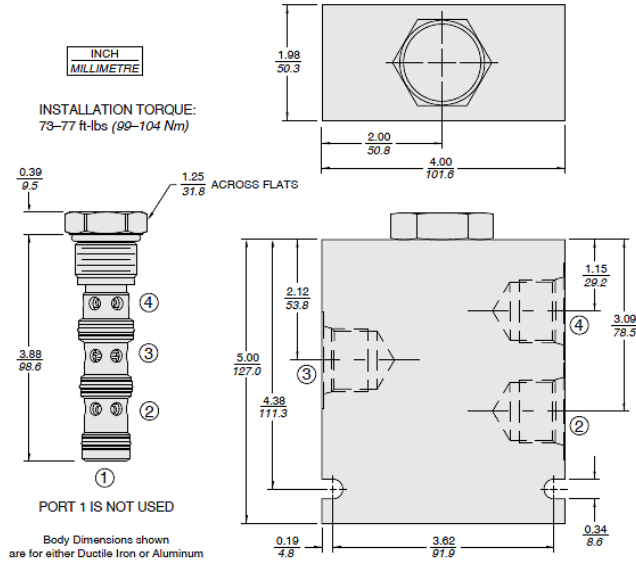
Unit weight	0.24 kg (0.53 lb)
Internal wetted surface area	238 cm <sup>2</sup> (43.8 in <sup>2</sup> )



Performance



Dimensions



Installation Specifications

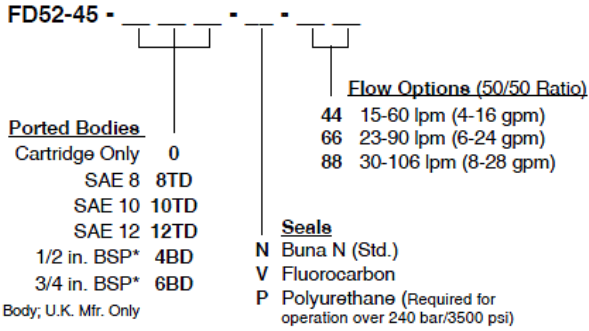
Cavity	VC12-4
Cartridge installation torque	HVC12-4 for applications with pressure excursions up to 420 bar (6090 psi) 99 to 104 N-m (73 to 77 ft-lb) 156 to 169 N-m (115 to 125 ft-lb) - <b>Note:</b> For applications with pressure excursions up to applications with pressure excursions up to 6090 psi [420 bar]
Orientation restriction	None

Accessories

Seal kit	SK12-4X-MMM (x=seal option) - <b>Note:</b> X=seal option
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**Order Code**



**Model Options**

**FD52-45-H-J-N**

**H Line Body**

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
12TD	Ductile Iron SAE 12

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane

**N Flow Dividing/Combining**

CODE	DESCRIPTION
22	Not listed in outline
33	Not listed in outline
44	50/50 Rated at 15.0-60.0 lpm (6.0-24.0 gpm)
55	Not listed in outline
66	50/50 Rated at 23.0-90.0 lpm (6.0-24.0 gpm)
88	50/50 Rated at 30.0-106.0 lpm (8.0-28.0 gpm)