

Counterbalance, 4 port vented, poppet type external drain,  
counterclockwise adjustment  
Sun cavity interchange, T-24A

VBSY-25U-RS

04.59.35 - X - 50 - Z

**RE 18320-36**

Edition: 07.2023

Replaces: 01.2021



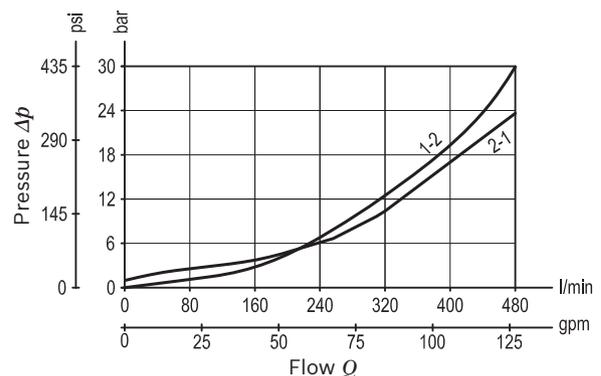
**Technical data**

Max. operating pressure	420 bar (6090 psi)
Max. flow	480 l/min (127 gpm)
Max. internal leakage <sup>1)</sup>	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	475 - 500 Nm (352 - 370 ft-lbs)
Weight	1.7 kg (3.7 lbs)
MTTFD	150 years see RE 18350-51
Cavity	SUN T-24A
Adjustment	according to ISO 4413 with sealed adjustment screw to prevent oil leakage during adjustment
Salt spray test	500h according to DIN EN ISO 9227:2017-07
Seal kit <sup>2)</sup>	Code: RG25U4020110100 material no: R930049586
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm <sup>2</sup> /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

Pressure setting: at least 1.3 times the load induced pressure and maximum 1.5 times catalogue max nominal setting.

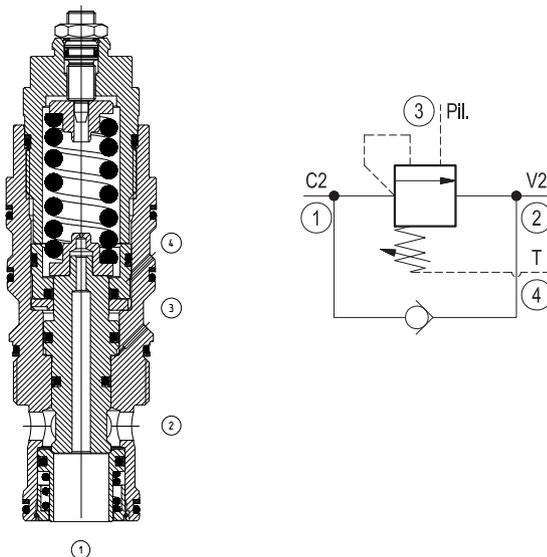
- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

**Characteristic curve**



**Description**

When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting (turn counterclockwise to increase setting - turn clockwise to decrease setting), the direct-acting, relief function is activated and flow is relieved from 1 to 2. With pilot pressure at 3, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 1 to 2. The spring chamber is vented to 4, allowing operation of all functions independent of back-pressure at 2. Any back-pressure at 4 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.



**Ordering code**

<b>04.59.35</b>	<b>X</b>	<b>50</b>	<b>Z</b>	<b>*</b>	<b>*</b>
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Pilot ratio

**25** 5:1

**50** SUN cavity interchange, T-24A

Series M to Z unchanged performances and dimensions

**00** Standard (Buna)  
**VO** Viton (FKM)

	SPRINGS		
	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) cracking
<b>20</b>	70-280 (1015-4060)	80 (1160)	200 (2900)
<b>42</b>	200-420 (2900-6000)	118 (1711)	350 (5000)

Note: Special settings available with optional tamperproof cap. Contact factory authorized representative for ordering code.

**Preferred types**

Type	Material number
04593525502000M	R930080001
04593525504200M	R930080639

Type	Material number

**Dimensions**

Technical drawing of the counterbalance valve with the following dimensions and labels:

- Hex. 5 (0.2)
- Hex. 16 15 Nm  
Hex (0.63) (11) fl-lb
- Hex. 36 (1.42)
- Hex 48 (1.89)
- Ø52.37 (2.06)
- M48x2-6s
- Ø41.27 (1.62)
- 117.6 (4.63) max.
- 187.6 (7.39) max.
- 48 (1.89)
- 26 (1.02)
- 83.1 (3.27)

Turn adjustment clockwise to decrease setting and release load

OPTION  
Protection cap orange  
Mat. no. R900168151

Tamper proof cap black  
Mat. no. R930092782

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