DESCRIPTION

The device is VC3006/D (used just on Italian dual jack systems) is a one way restrictor valve which limits the fluid flow in case of pipe burst or overspeed, preventing the car reaching a $V_{\text{max}}$ speed bigger than the set one, equal to $V_d + 0.3$ [m/s] (rules EN 81-20 par.6.3.9). The valve is calculated as the cylinder (rule EN 81-20 par. 5.6.4.4).

SPEED CHECKING PROCEDURE

To verify the $V_{\text{max}}$ falling speed, just use the following formula according to EN 81-20 par.6.3.9 rules

$$V_{\text{max}} = V_d \cdot \sqrt{\frac{P_s}{P_s - P_d}} \text{ [m/s]}$$

where:

$P_s$ is the maximum static pressure [bar]

$P_d$ is the pressure measured during the down-travel with the car at nominal load [bar]

$V_{\text{max}}$ is the speed in case of pipe burst [m/s]

$V_d$ is the down-travel speed with the car at nominal load [m/s]