

Easy Sizer 2.1.1 Help

This Easy Sizer module can be used to calculate the size of a tank.

If the volume and diameter are known, the module calculates the useful length and the code of a tank made using the components of an ISO 15552 cylinder.

This module is also recommended when sizing a tank designed to guarantee that the pressure in a pneumatic cylinder remains within a set range when the piston rod extends and retracts, e.g. in the case of cylinders used as equalizers.

Case (a): Determining the length and code of a tank, given a certain volume and diameter.

Input	V, D
Output	L, code

Case (b): Calculating the size of a tank that allows the pressure in a cylinder to remain within a set range.

input	p_i , p_f , \varnothing , c, D
output	V, L, code

initial	description	Meaning
p_i	Initial pressure	p_i is the maximum pressure in the cylinder when the cylinder chamber pressure is at the minimum setting.
p_f	final pressure	p_f is the minimum acceptable pressure in the cylinder, when the chamber is at maximum expansion.
\varnothing	cylinder bore	\varnothing is the cylinder bore, the pressure of which is to be monitored.
c	cylinder stroke	c is the cylinder stroke, the pressure of which is to be monitored.
D	tank diameter	D is the diameter of the tank to be sized.
L	tank length	L is the useful length of the tank, which approximately corresponds to the chamber length.
V	tank volume	V is the internal volume of the tank

code

The code of a tank made with a STD-series lining and ISO15552 cylinder rear heads.