VERSION DESCRIPTION

RV-D FLOW DIVIDER

This is the flow divider standard version, it simply divide the incoming flow without allowing the phase correction

RV-S FLOW DIVIDER with single phase correction valve

This version has just one phase correction valve for all the elements, it can obviously divide the flow and allow the phase correction, but only in the direction of flow division.

RV-V FLOW DIVIDER with phase correction and anticavitation valves

In this version the flow divider has one phase correction and anticavitation valve for each element, this allow a flow correction in both direction (flow division and flow unification). In addition it can adjust the relief pressure to a different value for each element.

RV-G FLOW DIVIDER + MOTOR

The RV-G typology is the motorized version of the RV-D divider.
It has a motor conneted to the flow divider elements. This solution is important when the incoming and/or outgoing pressure is below the minimum pressure required to start. Giving flow to the motor, help the flow divider rotation start. Typical use: plants with single effects hydraulic jack.

RV-H FLOW DIVIDER with single phase correction valve + MOTOR

This is the motorized version of the RV-S divider.
The motor has the same funcion that is described for the RV-G divider.

RV-N FLOW DIVIDER with phase correction and anticavitation valve + MOTOR

This is the motorized version of the RV-V divider.
The motor has the same funcion that is described for the RV-G divider.

The flow division error is lower than ± 1.5% with a pressure difference between one element and another until 30 Bars. For bigger differences we can approximate an error increase of 1 % for each 10 additional bars.

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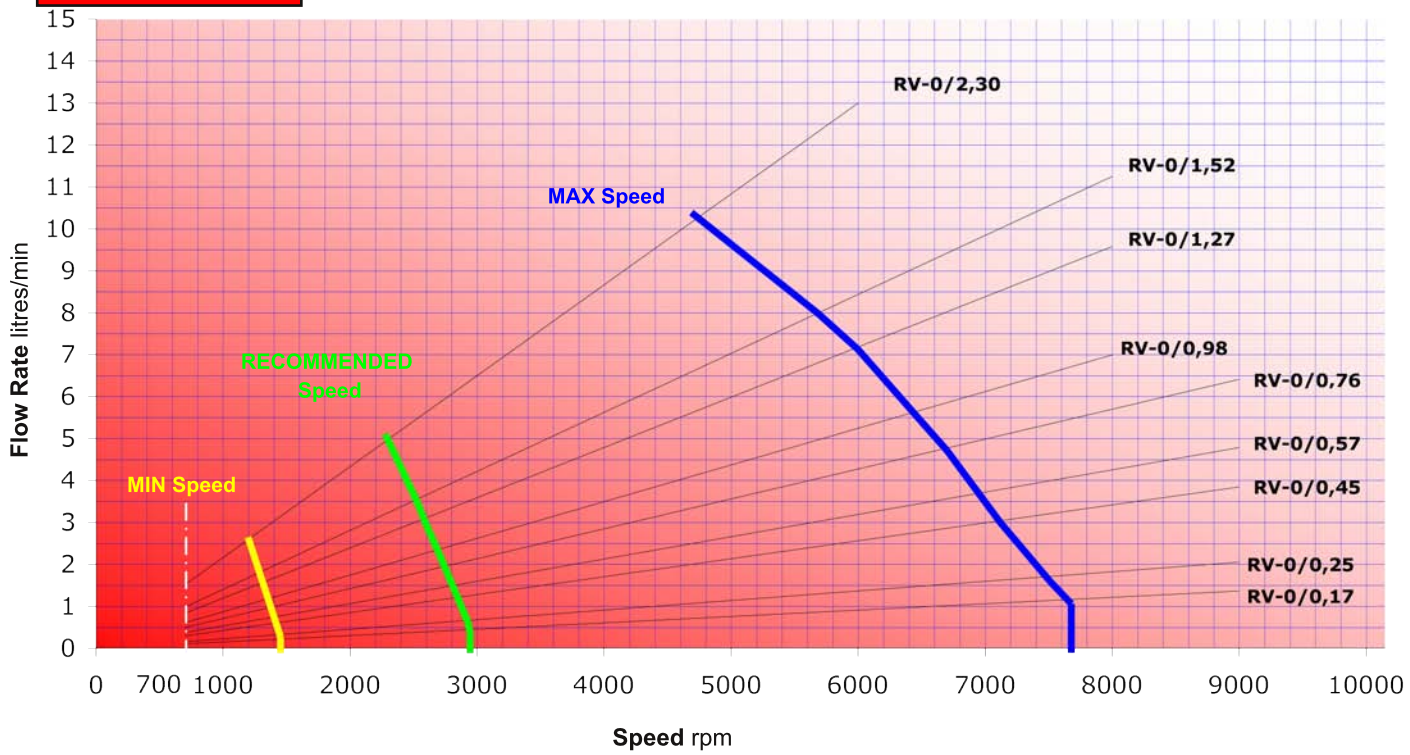
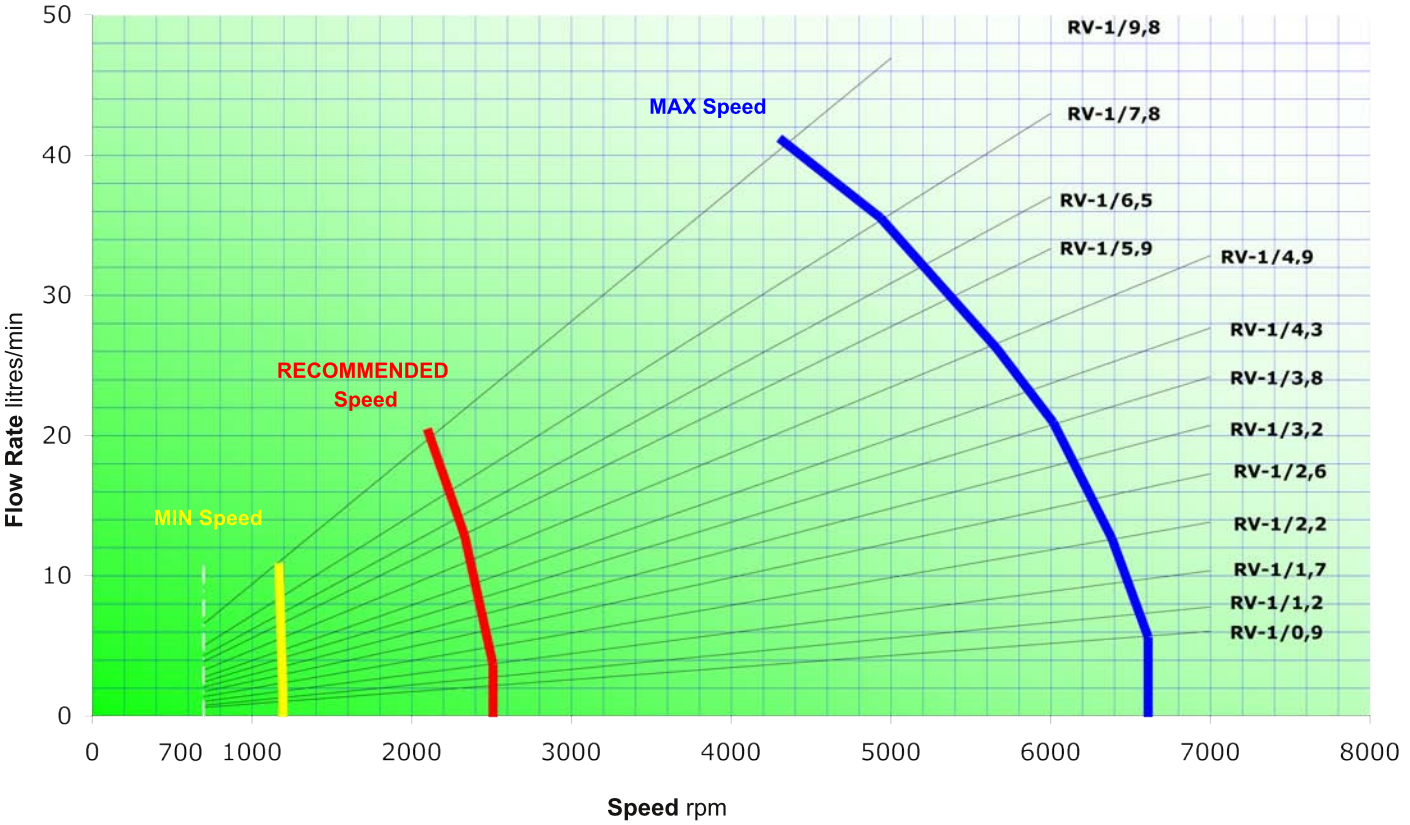
RV-0



RV-1



NOTE: the flow divider can work even below the minimum speed, but it's efficiency will be lower
the flow divider can work even over the maximum speed, but it will increase the noise and loss of load

FLOW DIVIDER "RV" Series Swallow Line

RV-0S

Flow divider with **single phase correction valve** common to all the elements

Code:

9RS	NN	M	CC

9RD	Flow Divider Typology
NN	Number of elements
M	Code of setting range of the valves
CC	Displacement Code

TABLE "M"	
D	20 ÷ 140 bar
E	70÷ 315 bar

Example: Flow divider with two elements (same displacement)
RV-0D / 0,57 x 2 with valve 20 ÷ 140 bar

9RS	02	D	05

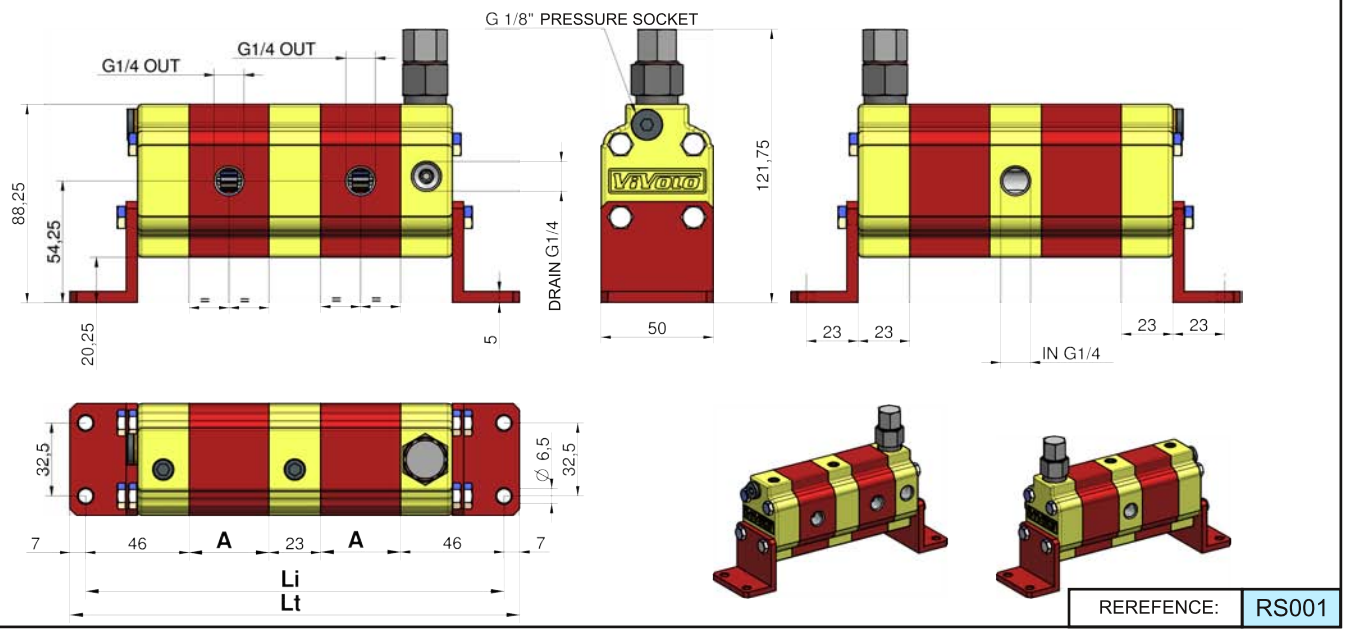
Example: Flow Divider with 4 elements (with different displacement - max 7):
RV-0S / 0,57+0,76+0,98+1,52 with valve 70 ÷ 315 bar

9RS	04	E	05	06	07	11

NOTE: to define codes for flow dividers with more than 7 different displacement, please contact our sales department.

Table: 1

Displacem.	CC	Max Pressure bar	One element flow rate l/min		
Cm³/rev	Code		MIN	RECOMMENDED	MAX
0,17	01	210	0,2	0,4	1,2
0,25	02	210	0,3	0,7	1,8
0,45	04	210	0,6	1,2	3
0.57	05	210	0,8	1,5	3,8
0,76	06	210	1	2	4,8
0,98	07	210	1,2	2,3	5,6
1,27	09	210	1,5	3	7,2
1,52	11	210	1,9	3,5	8
2,30	13	210	2,6	5	10,3



REREFENCE: RS001

Table: 2

Li = Distance between fixing hole centres (single displacement flow divider)

Cm³/rev	A	Number of elements														
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
0,17	**29,3**	174,8	227,7	280,6	333,5	386,4	439,3	492,5	545,1	598	650,9	703,8	756,7	809,6	862,5	915,4
0,25	**29,9**	178	232,5	287	341,5	396	450,5	505	559,5	614	668,5	723	777,5	832	886,5	941
0,45	**31,5**	180	235,5	291	346,5	402	457,5	513	568,5	624	679,5	735	790,5	846	901,5	957
0,76	**34**	183	240	297	354	411	468	525	582	639	696	753	810	867	924	981
0,98	**35,5**	186	244,5	303	361,5	420	478,5	537	595,5	654	712,5	771	829,5	888	946,5	1005
1,27	**38**	191	252	313	374	435	496	557	618	679	740	801	862	923	984	1045
1,52	**40**	195	258	321	384	447	510	573	636	699	762	825	888	951	1014	1077
2,30	**46**	207	276	345	414	483	552	621	690	759	828	897	966	1035	1104	1173

Table: 3 in this table the number of inlets in function of the number of elements are indicated.

Number of elements	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
"IN" Number of inlets	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8

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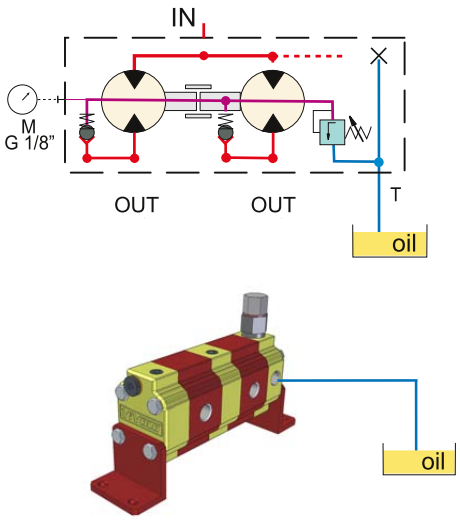
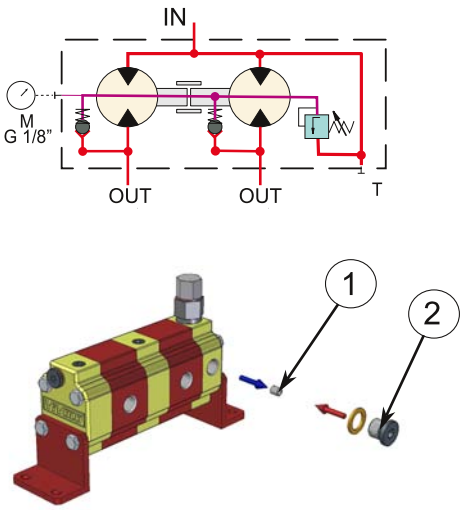
Flow divider with **single phase correction valve** common to all the elements

EXTERNAL DRAIN *STANDARD SETUP*	INTERNAL DRAIN
Connect the drain port (T) to the tank	To predispose the divider to the internal drain, execute following operations: 1. remove the M6 dowel inside the drain port 2. with a 1/4 G plug, plug the drain port (T)
	

In **table 1** the functining range of single flow divider elements is indicated.
The higher is the feeding capacity (q), the higher is the precision of the flow division, but in opposition there are losses of loading and higher noise. Therefore we suggest to feed the elements with capacities equal or a few superior to the ones indicated in the column **"RECOMMENDED"**.
Remember to verify the capacities even in phase of flow reunion.
The pressure indicated are to be considered as maximum of functioning, the flow divider is able to bear peaks of pressure 20 % superior.

How to calculate the "Li" and "Lt" measures of flow dividers:

From **table 2** it is possible to obtain the "Li" measure for flow dividers up to 16 elements with equal displacements; for flow dividers with different elements or with more than 16 elements the "Li" and "Lt" measure have to be calculated by the following formula:

Li = [(n-1) x 23] + 92+ (A1 + A2 + A3 +…….)

92 = 46 + 46

n = Number of elements of flow divider

A1... An = heights of elements of flow divider

Lt = Li + 14

14 = 7+ 7

EXAMPLE: To obtain the measures **Li** and **Lt** of a flow divider with three elements (n=3), **RV-0S 0,98 + 0,76 +1,27**

Distance between fixing hole centres — **Li** = [(3-1) x 23] + 92 + 35,5 + 34 + 38 =245,5 mm

Total Lenght — **Lt** = 245,5 + 14 = 259,5

In **table 3** the number of inlets in fuction of the number of elements are indicated.
For flow dividers with many inlets, as they are all communicating it is even possible to use only one of them, by plugging the other ones. We suggest to make full us at least of **1** inlet every **15** l/min capacity.

To obtain errors of division **inferior to 3%** there must be no difference of pressure between the elements superior to **30 bar**. To obtain high precisions the respect of the following parametres is also important:

- Enviroment temperature: -10°c ÷ +60°c — Oil temperature: +30°c ÷ +60°c
- Hydraulic oil based on hlp, hv (din 51524) minerals — Oil Viscosity 20 ÷ 40 cSt
- Oil filtering 10 ÷ 25 µ