Code:

9RD	NN	CC

9RD	Flow Divider Typology
NN	Number of elements
CC	Displacement Code

Example: Flow divider with two elements (same displacement):
RV-2D / 11 x 2

9RD	02	47

Example: Flow Divider with 4 elements with different displacement (max 7):
RV-2D / 9+14+14+22

9RD	04	45	49	49	55

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		
Cm^3/rev	Code		MIN	RECOMMENDED	MAX
4	41	210	4,8	7,6	10
6	43	210	7,2	10,8	15
9	45	210	10,8	15,1	22,5
11	47	210	13,2	19,4	27,5
14	49	200	16,8	25,9	35
17	51	200	20,4	30,2	42,5
19	53	190	22,8	34,6	47,5
22	55	180	26,4	41	55
26	57	160	31,2	45,4	65
30	59	160	36	54	75
34	61	140	40,8	61,6	85
40	63	130	48	71,3	100
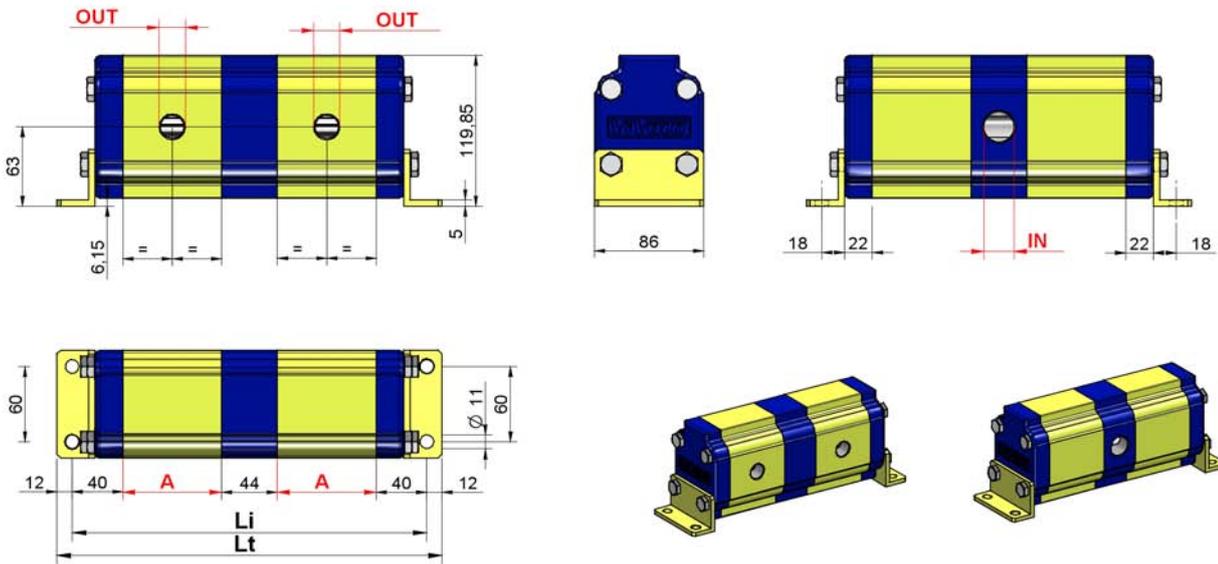
REFERENCES: RD201

Table: 2

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

Cm^3/rev	A	IN	OUT	Number of elements															
				2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	47	3/4 BSP	1/2 BSP	218	309	400	491	582	673	764	855	946	1037	1128	1219	1310	1401	1492
6	50	3/4 BSP	1/2 BSP	224	318	412	506	600	694	788	882	976	1070	1164	1258	1352	1446	1540
9	54	3/4 BSP	1/2 BSP	232	330	428	526	624	722	820	918	1016	1114	1212	1310	1408	1506	1604
11	58	3/4 BSP	1/2 BSP	240	342	444	546	648	750	852	954	1056	1158	1260	1362	1464	1566	1668
14	64	3/4 BSP	1/2 BSP	252	360	468	576	684	792	900	1008	1116	1224	1332	1440	1548	1656	1764
17	68	3/4 BSP	1/2 BSP	260	372	484	596	708	820	932	1044	1156	1268	1380	1492	1604	1716	1828
19	72	3/4 BSP	1/2 BSP	268	384	500	616	732	848	964	1080	1196	1312	1428	1544	1660	1776	1892
22	78	3/4 BSP	1/2 BSP	280	402	524	646	768	890	1012	1134	1256	1378	1500	1622	1744	1866	1988
26	82	1 BSP	3/4 BSP	288	414	540	666	792	918	1044	1170	1296	1422	1548	1674	1800	1926	2052
30	90	1 BSP	3/4 BSP	304	438	572	706	840	974	1108	1242	1376	1510	1644	1778	1912	2046	2180
34	97	1 BSP	3/4 BSP	318	459	600	741	882	1023	1164	1305	1446	1587	1728	1869	2010	2151	2292
40	106	1 BSP	3/4 BSP	336	486	636	786	936	1086	1236	1386	1536	1686	1836	1986	2136	2286	2436

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

INTERNAL DRAIN
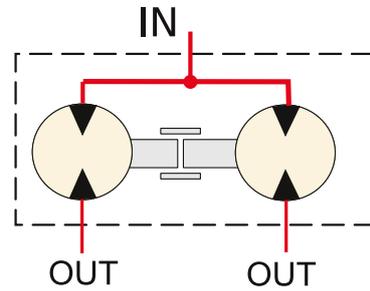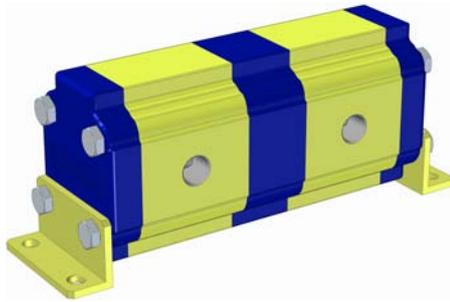
In **table 1** the functioning range of single flow divider elements is indicated.

The higher is the feeding capacity (q), the higher is the precision of 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**".

It's important remember to verify the capacities even in phase of flow reunion.

The pressures 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:

$$Li = [(n-1) \times 44] + 80 + (A1 + A2 + A3 + \ldots)$$

80 = 40 + 40

n = Number of elements of flow divider

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

$$Lt = Li + 24$$

24 = 12 + 12

EXAMPLE: To obtain the measures **Li** and **Lt** of a flow divider with three elements (n=3), **RV-2D 19 + 11 +9**

Distance between fixing hole centres

$$Li = [(3-1) \times 44] + 80 + 72 + 58 + 54 = 352 \text{ mm}$$

Total Lenght

$$Lt = 352 + 24 = 376 \text{ mm}$$

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 use at least one **3/4" BSP** inlet every **80 l/min** capacity and at least one **1" BSP** inlet every **120 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