

Code:

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

Example: Flow divider with two elements (same displacement):
XV-3D / 38 x 2

9D	02	78
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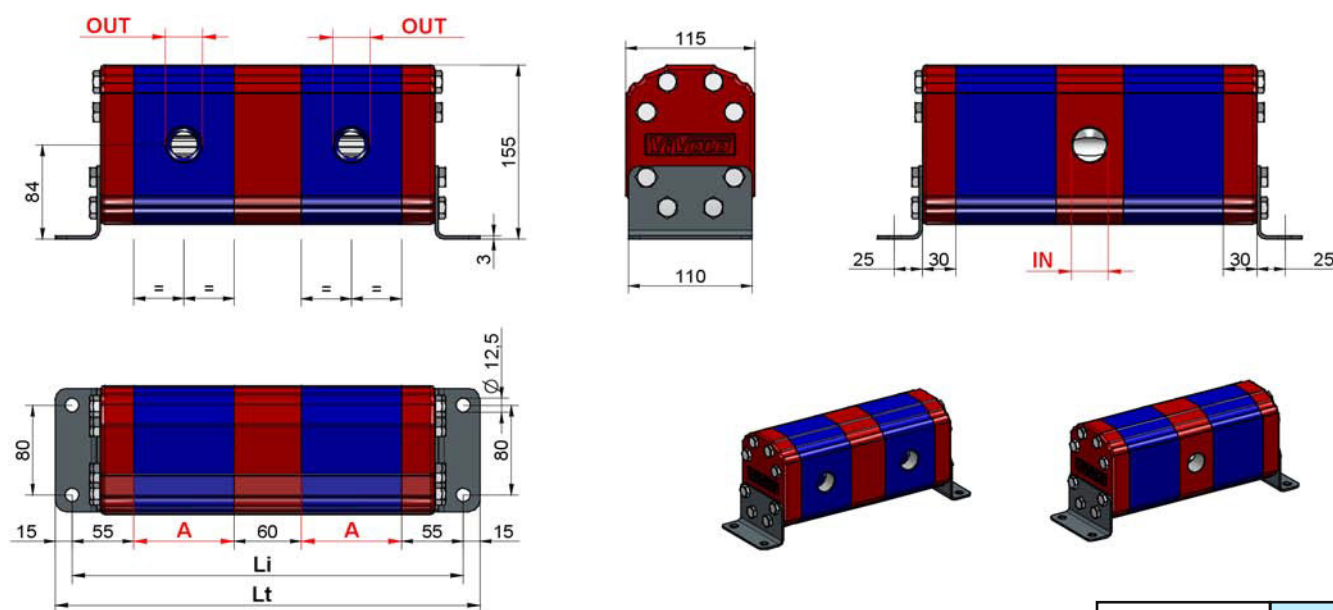
Example: Flow Divider with 4 elements with different displacement (max 7):
XV-3D / 21+51+51+70

9D	04	70	81	81	86
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NOTE: to define codes for flow dividers with more than 7 different displacement, please contact our sales department.

Table: 1

Displacement Cm ³ /rev	CC Code	Max Pressure bar	One element flow rate l/min		
			MIN	RECOMMENDED	MAX
15	66	300	18	27	37,5
18	68	300	21,5	32,5	45
21	70	280	25	38	52,5
27	72	250	32,5	48	67,5
32	74	250	38	57	80
38	78	250	41	60	91
43	79	250	43	64,5	99
47	80	230	47	70,5	108
51	81	230	51	76,5	117
54	82	230	54	81	124
61	83	230	56	82	126
64	85	210	57	83	128
70	86	200	63	91	140
74	87	180	66,5	96	148
90	89	150	81	117	180


Table: 2

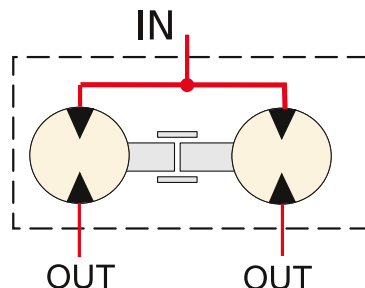
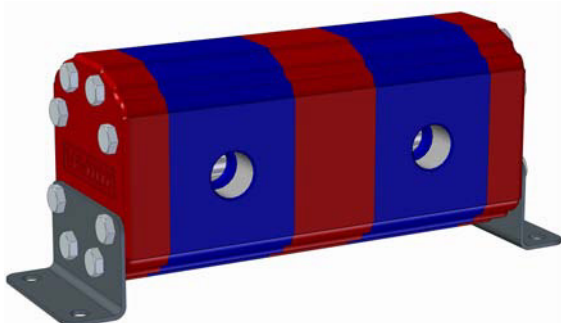
Li = Distance between fixing hole centres (single displacement flow divider)

Cm ³ /rev	A	IN	OUT	Number of elements														
				2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
15	66	1" BSP	1/2 BSP	302	428	554	680	806	932	1058	1184	1310	1436	1562	1688	1814	1940	2066
18	68	1" BSP	1/2 BSP	306	434	562	690	818	946	1074	1202	1330	1458	1586	1714	1842	1970	2098
21	71	1" BSP	1/2 BSP	312	443	574	705	836	967	1098	1229	1360	1491	1622	1753	1884	2015	2146
27	75	1" BSP	3/4 BSP	320	455	590	725	860	995	1130	1265	1400	1535	1670	1805	1940	2075	2210
32	80	1" BSP	3/4 BSP	330	470	610	750	890	1030	1170	1310	1450	1590	1730	1870	2010	2150	2290
38	85	1" BSP	3/4 BSP	340	485	630	775	920	1065	1210	1355	1500	1645	1790	1935	2080	2225	2370
43	89	1" BSP	1" BSP	348	497	646	795	944	1093	1242	1391	1540	1689	1838	1987	2136	2285	2434
47	92	1-1/4 BSP	1" BSP	354	506	658	810	962	1114	1266	1418	1570	1722	1874	2026	2178	2330	2482
51	95	1-1/4 BSP	1" BSP	360	515	670	825	980	1135	1290	1445	1600	1755	1910	2065	2220	2375	2530
54	98	1-1/4 BSP	1" BSP	366	524	682	840	998	1156	1314	1472	1630	1788	1946	2104	2262	2420	2578
61	103	1-1/4 BSP	1" BSP	376	539	702	865	1028	1191	1354	1517	1680	1843	2006	2169	2332	2495	2658
64	106	1-1/4 BSP	1" BSP	382	548	714	880	1046	1212	1378	1544	1710	1876	2042	2208	2374	2540	2706
70	111	1-1/4 BSP	1" BSP	392	563	734	905	1076	1247	1418	1589	1760	1931	2102	2273	2444	2615	2786
74	114	1-1/4 BSP	1" BSP	398	572	746	920	1094	1268	1442	1616	1790	1964	2138	2312	2486	2660	2834
90	124	1-1/4 BSP	1-1/4 BSP	418	602	786	970	1154	1338	1522	1706	1890	2074	2258	2442	2626	2810	2994

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	2	2	3	3	4	4	5	5	6	6	7	7	8	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:

$$Li = [(n-1) \times 60] + 110 + (A1 + A2 + A3 + \dots)$$

$$110 = 55 + 55$$

n = Number of elements of flow divider

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

$$Lt = Li + 30$$

$$30 = 15 + 15$$

EXAMPLE: To obtain the measures **Li** and **Lt** of a flow divider with three elements ($n=3$), **XV-3D 27 + 38 + 54**

Distance between fixing hole centres

$$Li = [(3-1) \times 60] + 110 + 75 + 85 + 98 = 488 \text{ mm}$$

Total Length

$$Lt = 488 + 30 = 518 \text{ mm}$$

In **table 3** the number of inlets in function 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 **1" BSP** inlet every **200 l/min** capacity and at least one **1-1/4" BSP** inlet every **360 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:

- Environment temperature: $-10^{\circ}\text{C} \div +60^{\circ}\text{C}$ Oil temperature: $+30^{\circ}\text{C} \div +60^{\circ}\text{C}$
- Hydraulic oil based on hlp, hv (din 51524) minerals Oil Viscosity $20 \div 40 \text{ cSt}$
- Oil filtering $10 \div 25 \mu$