

## Description

The type M600 03-021 2 way multi-port is a compact valve with many features which make it ideal for pharmaceutical and bio-processing applications.

## Sanitary Diaphragm Valve

Revised 06/03/02

### Standard Features

- Most compact central cavity available with minimal dead leg
- Machined from solid 316L material.
- Standard weld ends are machined from solid bar reducing excessive welds and additional tube ends, yet long enough for orbital weld heads
- May be positioned in a vertical or horizontal line
- Sizes 1/4" - 4"
- Actuators are aligned with piping plane to save space

### Available Options

#### Special connections

Hose barb, tube extensions, Swagelok<sup>®</sup>, Cajon VCR<sup>®</sup>, Ingold<sup>®</sup>, and others available upon request.

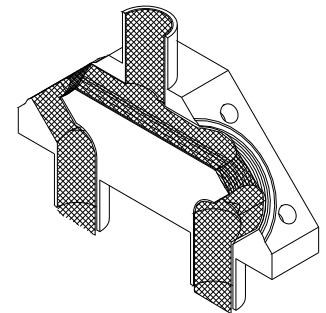
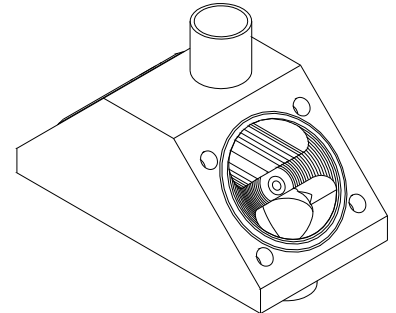
#### Materials

AL-6XN<sup>®</sup>, Hastelloy<sup>®</sup>, Titanium<sup>®</sup>, and others available upon request.

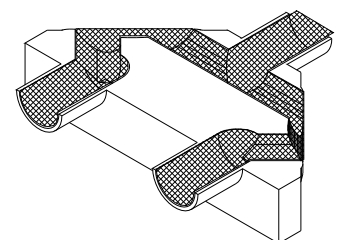
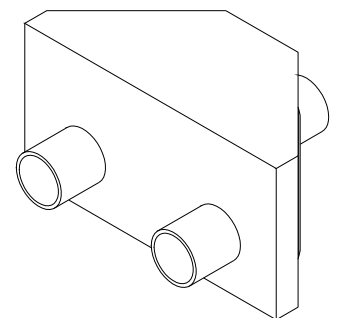
### Typical Applications

- Pharmaceutical manufacturing
- Bioprocessing
- Cosmetic
- Brewery Service
- Food and Beverage
- Semiconductor
- High Purity Chemicals

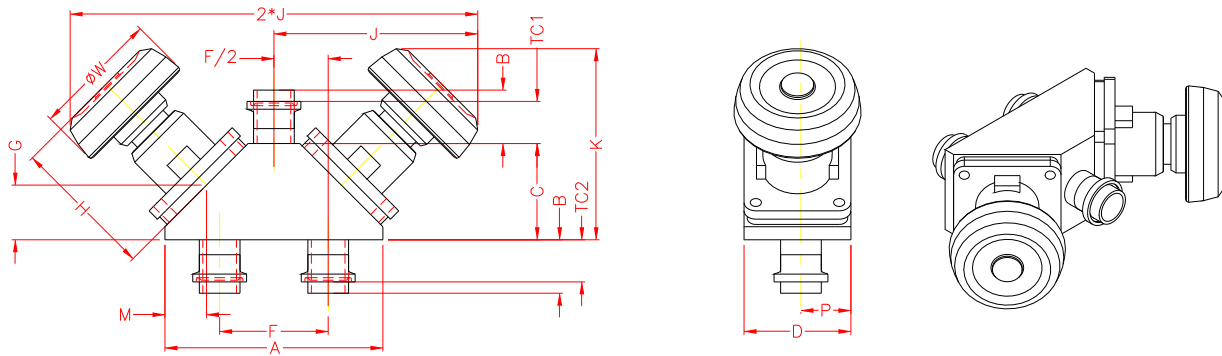
### Vertical Installations



### Horizontal Installations



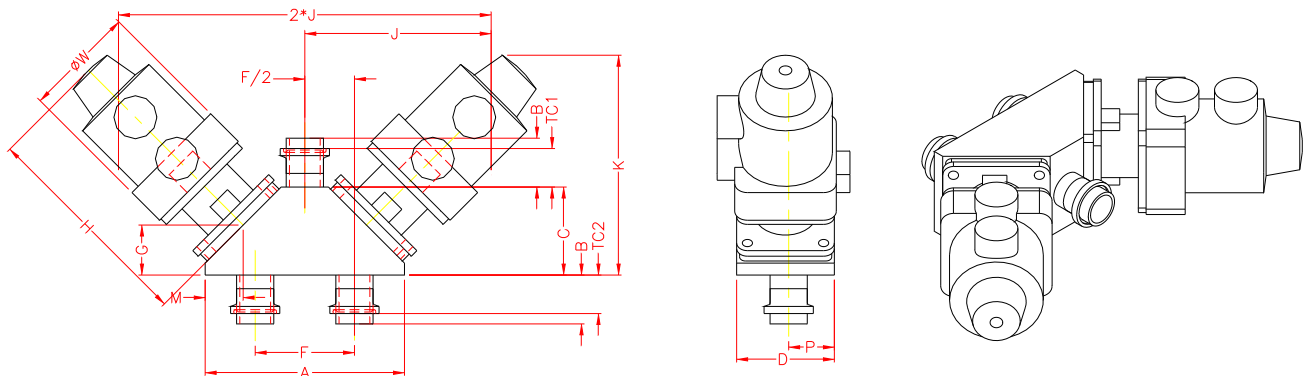
# GEMÜ® Multi-Port Diaphragm Valves



## Type 612 M600 3-2.1

Size 1/4"-3/4" (DN008-020) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
1/4"	8	in mm	0.065 1.651	0.25 6.4	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.67 17.0	2.63 66.7	3.76 95.4	7.51 190.8	3.52 89.4	2.34 59.5
3/8"	10	in mm	0.065 1.651	0.38 9.5	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.73 18.6	2.63 66.7	3.76 95.4	7.51 190.8	3.52 89.4	2.34 59.5
1/2"	15	in mm	0.065 1.651	0.50 12.7	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.80 20.2	2.63 66.7	3.76 95.4	7.51 190.8	3.52 89.4	2.34 59.5
3/4"	20	in mm	0.065 1.651	0.75 19.1	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.92 23.4	2.63 66.7	3.76 95.4	7.51 190.8	3.52 89.4	2.34 59.5

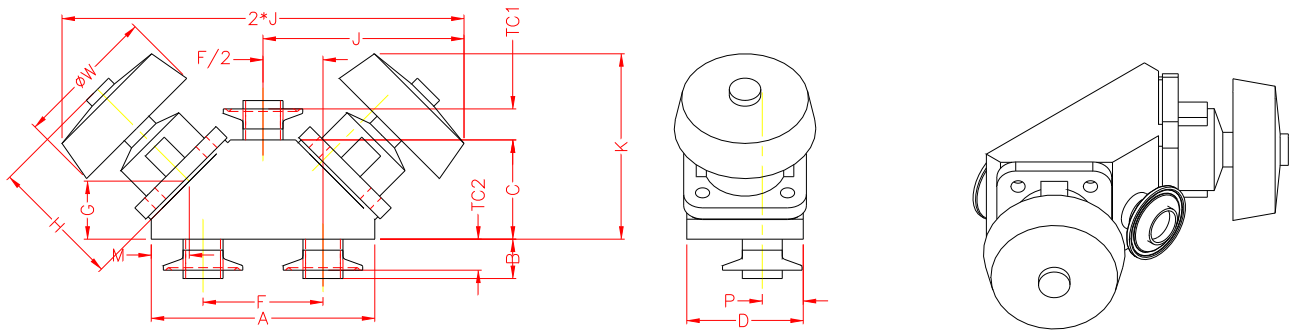


## Type 625 M600 3-2.1

Size 1/4"-3/4" (DN008-020) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
1/4"	8	in mm	0.065 1.651	0.25 6.4	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.67 17.0	4.41 112.0	4.67 118.5	9.33 237.0	4.43 112.5	2.24 57.0
3/8"	10	in mm	0.065 1.651	0.38 9.5	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.73 18.6	4.41 112.0	4.67 118.5	9.33 237.0	4.43 112.5	2.24 57.0
1/2"	15	in mm	0.065 1.651	0.50 12.7	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.80 20.2	4.41 112.0	4.67 118.5	9.33 237.0	4.43 112.5	2.24 57.0
3/4"	20	in mm	0.065 1.651	0.75 19.1	4.02 102.0	1.75 44.5	0.78 19.7	0.78 19.7	1.77 45.0	1.97 50.0	2.00 50.8	1.00 25.4	1.01 25.6	0.77 19.5	0.92 23.4	4.41 112.0	4.67 118.5	9.33 237.0	4.43 112.5	2.24 57.0

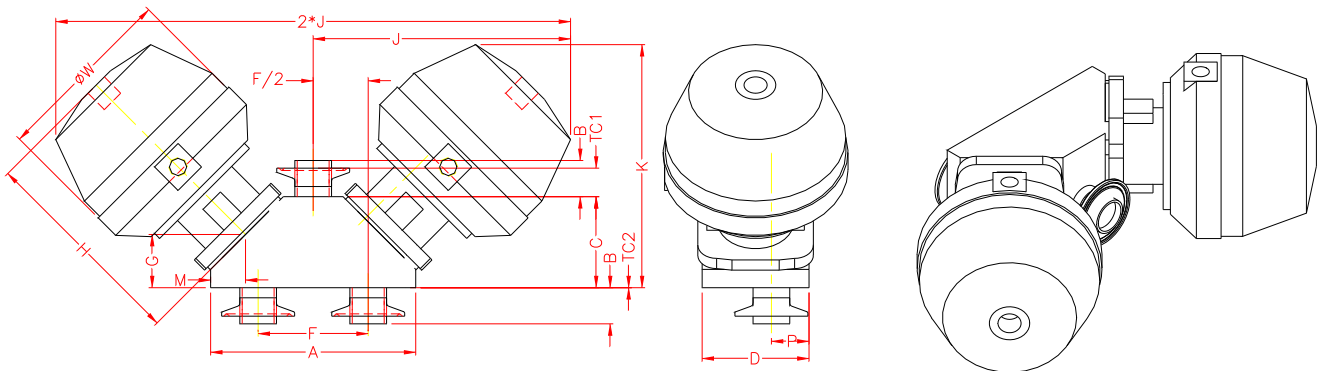
# GEMÜ® Multi-Port Diaphragm Valves



## Type 673 M600 3-2.1

### Size 3/4"-2" (DN020-050) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
3/4"	20	in	0.065	0.75	4.96	1.75	0.78	0.78	2.48	2.91	2.38	1.19	1.45	1.45	0.90	3.25	4.72	9.45	4.63	3.54
		mm	1.651	19.1	126.0	44.5	19.7	19.7	63.0	74.0	60.3	30.2	36.8	36.8	22.9	82.5	120.0	240.0	117.7	90.0
1"	25	in	0.065	1.00	4.96	1.75	0.78	0.78	2.48	2.91	3.00	1.50	1.45	0.95	1.03	3.25	5.03	10.06	4.63	3.54
		mm	1.651	25.4	126.0	44.5	19.7	19.7	63.0	74.0	76.2	38.1	36.8	24.1	26.0	82.5	127.7	255.4	117.7	90.0
1 1/2"	40	in	0.065	1.50	7.32	1.75	0.78	0.78	2.95	4.02	4.81	2.41	1.67	1.31	1.51	3.76	6.19	12.37	5.50	4.49
		mm	1.651	38.1	186.0	44.5	19.7	19.7	75.0	102.0	122.2	61.1	42.5	33.2	38.3	95.5	157.1	314.2	139.8	114.0
2	50	in	0.065	2.00	8.66	1.75	1.40	0.78	3.54	4.88	6.00	3.00	2.01	1.53	1.90	4.23	7.30	14.60	6.51	5.51
		mm	1.651	50.8	220.0	44.5	35.6	19.7	90.0	124.0	152.4	76.2	51.1	38.8	48.2	107.5	185.4	370.8	165.3	140.0

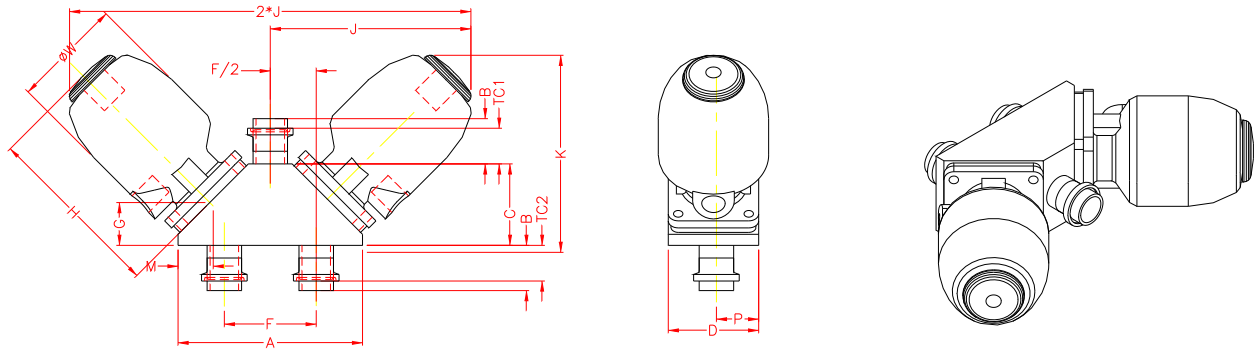


## Type 687 M600 3-2.1

### Size 3/4"-100" (DN020-100) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
3/4"	20	in	0.065	0.75	4.96	1.75	0.78	0.78	2.48	2.91	2.38	1.19	1.45	1.45	0.90	5.76	6.70	13.41	6.62	5.04
		mm	1.651	19.1	126.0	44.5	19.7	19.7	63.0	74.0	60.3	30.2	36.8	36.8	22.9	146.2	170.3	340.6	168.2	128.0
1"	25	in	0.065	1.00	4.96	1.75	0.78	0.78	2.48	2.91	3.00	1.50	1.45	0.95	1.03	5.76	7.01	14.02	6.62	5.04
		mm	1.651	25.4	126.0	44.5	19.7	19.7	63.0	74.0	76.2	38.1	36.8	24.1	26.0	146.2	178.1	356.2	168.2	128.0
1 1/2"	40	in	0.065	1.50	7.32	1.75	0.78	0.78	2.95	4.02	4.81	2.41	1.67	1.31	1.51	7.26	8.71	17.42	8.03	6.22
		mm	1.651	38.1	186.0	44.5	19.7	19.7	75.0	102.0	122.2	61.1	42.5	33.2	38.3	184.5	221.2	442.4	203.9	158.0
2	50	in	0.065	2.00	8.66	1.75	1.40	0.78	3.54	4.88	6.00	3.00	2.01	1.53	1.90	8.76	10.69	21.39	9.90	8.39
		mm	1.651	50.8	220.0	44.5	35.6	19.7	90.0	124.0	152.4	76.2	51.1	38.8	48.2	222.5	271.6	543.2	251.5	213.0
3	80	in	0.065	2.50	12.54	1.75	1.40	0.78	5.24	7.48	9.12	4.56	3.04	2.21	3.05	12.24	14.95	29.91	13.93	10.16
		mm	1.651	63.5	318.6	44.5	35.6	19.7	133.1	190.0	231.7	115.9	77.1	56.1	77.6	311.0	379.8	759.6	353.7	258.0
4	100	in	0.083	4.00	17.24	1.75	1.40	0.78	7.53	9.13	11.56	5.78	4.38	3.15	3.58	12.01	16.17	32.35	15.08	10.16
		mm	2.110	101.6	437.9	44.5	35.6	19.7	191.2	232.0	293.7	146.8	111.3	79.9	90.9	305.0	410.8	821.6	383.1	258.0

# GEMÜ® Multi-Port Diaphragm Valves



## Type 650 A1-1T M600 3-2.1

Size 1/4"-3/4" (DN008-020) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
1/4"	8	in	0.065	0.25	4.02	1.75	0.78	0.78	1.77	1.97	2.00	1.00	1.01	0.77	0.67	3.90	4.37	8.74	4.13	2.40
		mm	1.651	6.4	102.0	44.5	19.7	19.7	45.0	50.0	50.8	25.4	25.6	19.5	17.0	99.0	111.0	222.0	105.0	61.0
3/8"	10	in	0.065	0.38	4.02	1.75	0.78	0.78	1.77	1.97	2.00	1.00	1.01	0.77	0.73	3.90	4.37	8.74	4.13	2.40
		mm	1.651	9.5	102.0	44.5	19.7	19.7	45.0	50.0	50.8	25.4	25.6	19.5	18.6	99.0	111.0	222.0	105.0	61.0
1/2"	15	in	0.065	0.50	4.02	1.75	0.78	0.78	1.77	1.97	2.00	1.00	1.01	0.77	0.80	3.90	4.37	8.74	4.13	2.40
		mm	1.651	12.7	102.0	44.5	19.7	19.7	45.0	50.0	50.8	25.4	25.6	19.5	20.2	99.0	111.0	222.0	105.0	61.0
3/4"	20	in	0.065	0.75	4.02	1.75	0.78	0.78	1.77	1.97	2.00	1.00	1.01	0.77	0.92	3.90	4.37	8.74	4.13	2.40
		mm	1.651	19.1	102.0	44.5	19.7	19.7	45.0	50.0	50.8	25.4	25.6	19.5	23.4	99.0	111.0	222.0	105.0	61.0

## Type 650 A1-2-4T M600 3-2.1

Size 3/4"-2" (DN020-050) 2-Way: 1-inlet, 2-outlets

Size	DN	Units	Wallthk	OD	A	B	TC1	TC2	C	D	F	F/2	G	M	P	H	J	J*2	K	ØW
3/4"	20	in	0.065	0.75	4.96	1.75	0.78	0.78	2.48	2.91	2.38	1.19	1.45	1.45	0.90	5.00	5.72	11.44	5.64	3.54
		mm	1.651	19.1	126.0	44.5	19.7	19.7	63.0	74.0	60.3	30.2	36.8	36.8	22.9	127.1	145.3	290.6	143.3	90.0
1"	25	in	0.065	1.00	4.96	1.75	0.78	0.78	2.48	2.91	3.00	1.50	1.45	0.95	1.03	5.00	6.03	12.06	5.64	3.54
		mm	1.651	25.4	126.0	44.5	19.7	19.7	63.0	74.0	76.2	38.1	36.8	24.1	26.0	127.1	153.1	306.2	143.3	90.0
1 1/2"	40	in	0.065	1.50	7.32	1.75	0.78	0.78	2.95	4.02	4.81	2.41	1.67	1.31	1.51	6.38	7.76	15.51	7.09	4.49
		mm	1.651	38.1	186.0	44.5	19.7	19.7	75.0	102.0	122.2	61.1	42.5	33.2	38.3	162.0	197.0	394.0	180.0	114.0
2"	50	in	0.065	2.00	8.66	1.75	1.40	0.78	3.54	4.88	6.00	3.00	2.01	1.53	1.90	7.97	9.53	19.06	8.78	5.67
		mm	1.651	50.8	220.0	44.5	35.6	19.7	90.0	124.0	152.4	76.2	51.1	38.8	48.2	202.5	242.0	484.0	223.0	144.0



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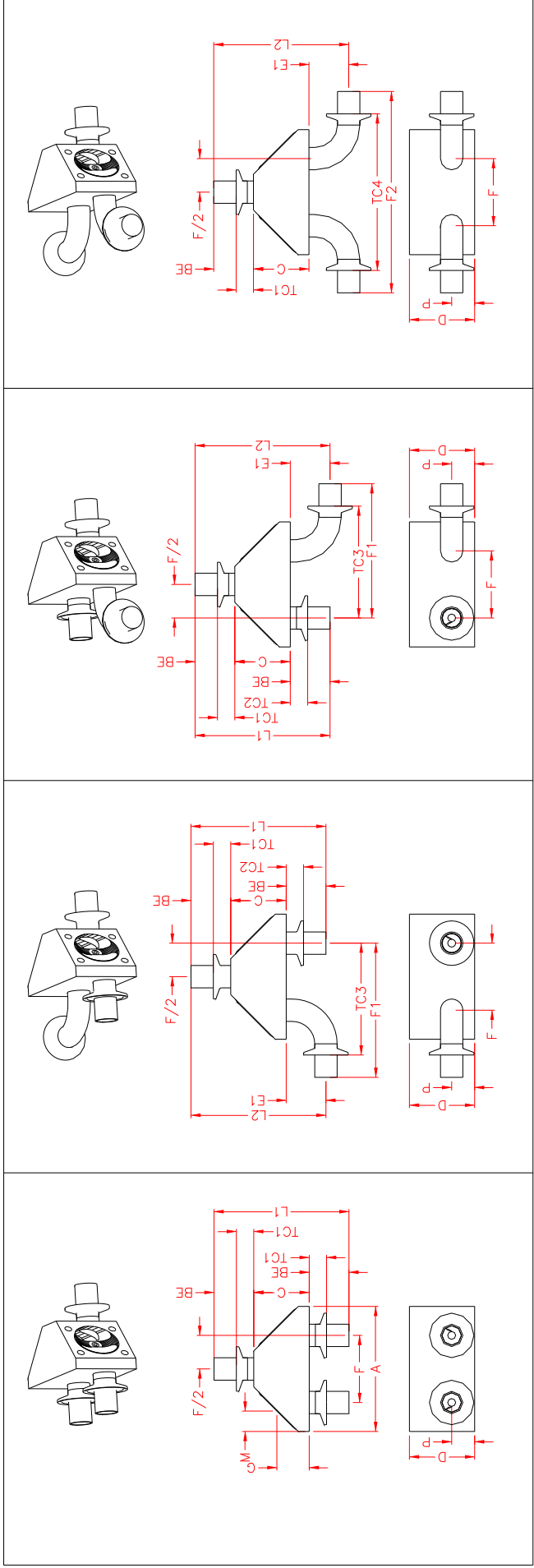
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# GEMÜ® Multi-Port Diaphragm Valves



## Type M600 3-2.1 Optional Connections Size 1/4"-2" (DN008-050) 2-Way: 1-inlet, 2-outlets

Type	Size	DN	Units	Wallthk	OD	A	BE	TC1	TC2	TC3	TC4	C	D	F	F/2	G	M	P	L1	L2	F1	F2
612, 625, 650	1/4"	8	in	0.065	0.25	4.02	1.75	0.78	0.78	3.62	5.24	1.77	1.97	2.00	1.00	1.01	0.77	0.67	5.27	4.55	4.63	7.25
			mm	1.651	6.4	102.0	44.5	19.7	19.7	91.9	133.1	45.0	50.0	50.8	50.8	25.4	25.6	19.5	17.0	133.9	115.5	117.5
	3/8"	10	in	0.065	0.38	4.02	1.75	0.78	0.78	3.62	5.24	1.77	1.97	2.00	1.00	1.01	0.77	0.73	5.27	4.55	4.63	7.25
			mm	1.651	9.5	102.0	44.5	19.7	19.7	91.9	133.1	45.0	50.0	50.8	50.8	25.4	25.6	19.5	18.6	133.9	115.5	117.5
612, 625, 650	1/2"	15	in	0.065	0.50	4.02	1.75	0.78	0.78	3.62	5.24	1.77	1.97	2.00	1.00	1.01	0.77	0.80	5.27	4.55	5.00	8.00
			mm	1.651	12.7	102.0	44.5	19.7	19.7	91.9	133.1	45.0	50.0	50.8	50.8	25.4	25.6	19.5	20.2	133.9	115.5	127.0
	3/4"	20	in	0.065	0.75	4.02	1.75	0.78	0.78	3.62	5.24	1.77	1.97	2.00	1.00	1.01	0.77	0.92	5.27	4.92	5.00	8.00
			mm	1.651	19.1	102.0	44.5	19.7	19.7	91.9	133.1	45.0	50.0	50.0	50.8	25.4	25.6	19.5	23.4	133.9	125.0	127.0
673, 687, 650	3/4"	20	in	0.065	0.75	4.96	1.75	0.78	0.78	4.00	5.62	2.48	2.91	2.38	1.19	1.45	1.45	1.45	5.98	5.63	5.38	8.38
			mm	1.651	19.1	126.0	44.5	19.7	19.7	101.5	142.6	63.0	74.0	60.3	60.3	30.2	36.8	36.8	22.9	151.9	143.0	136.5
	1"	25	in	0.065	1.00	4.96	1.75	0.78	0.78	5.00	7.00	2.48	2.91	3.00	1.50	1.45	1.45	1.03	5.98	6.01	6.00	9.00
			mm	1.651	25.4	126.0	44.5	19.7	19.7	127.0	177.8	63.0	74.0	76.2	76.2	38.1	36.8	24.1	26.0	151.9	152.6	152.4
11/2"	40	in	0.065	1.50	7.32	1.75	0.78	0.78	7.56	10.31	2.95	4.02	4.81	2.41	1.67	1.67	1.31	1.51	6.45	7.23	8.56	12.31
		mm	1.651	38.1	186.0	44.5	19.7	19.7	192.1	261.9	75.0	102.0	122.2	122.2	61.1	42.5	33.2	38.3	163.9	183.6	217.5	312.74
2	50	in	0.065	2.00	8.66	1.75	1.40	1.40	0.78	9.50	13.00	3.54	4.88	6.00	3.00	2.01	1.53	1.90	7.04	8.57	10.75	15.50
		mm	1.651	50.8	220.0	44.5	35.6	35.6	19.7	241.3	330.2	90.0	124.0	152.4	76.2	51.1	38.8	48.2	178.9	217.7	273.1	393.7