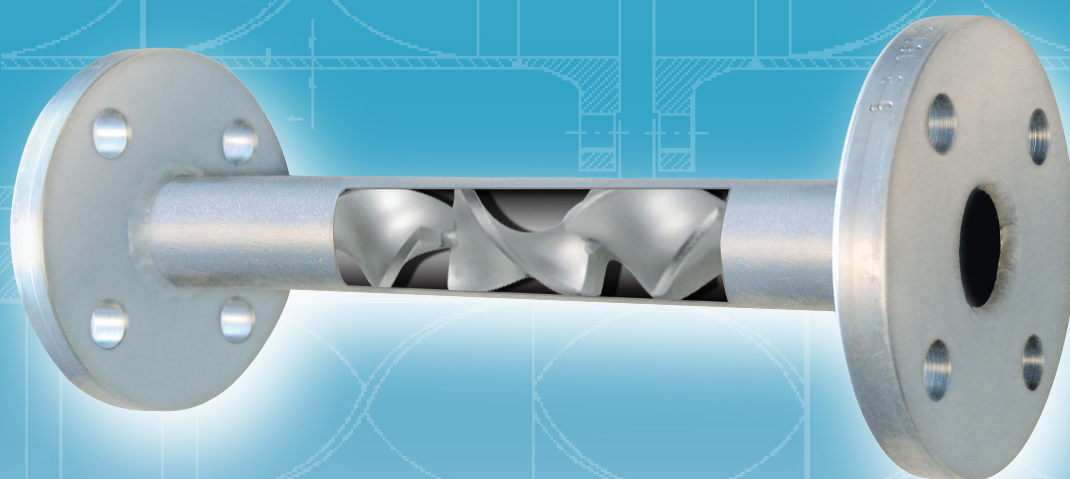


# Static Mixers

Stock Range



## Static mixers – Stock Range

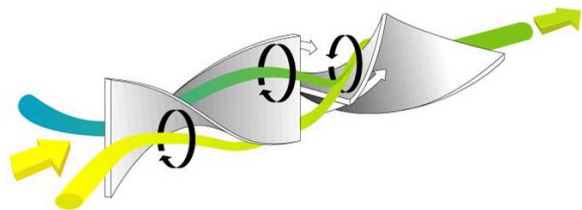
### Introduction

Euromixers-Primix design and manufacture static mixers and heat exchangers the most popular sizes of static mixers are available from stock to meet urgent requirements.

Static mixers are a cost effective solution for a wide range of mixing applications, most commonly, the fluids are liquid – however static mixers can also be used to mix gas streams, disperse gas into liquid or disperse immiscible liquids.

Flow through the static mixer is diverted into two separate streams, spiral-shaped static mixer elements create a rotation of the fluid, by which the fluid flows from the outside to the inside of the tube then reverse.

After one rotation through a single static mixer element a second diversion takes place and simultaneously a reverse of the previous rotation.

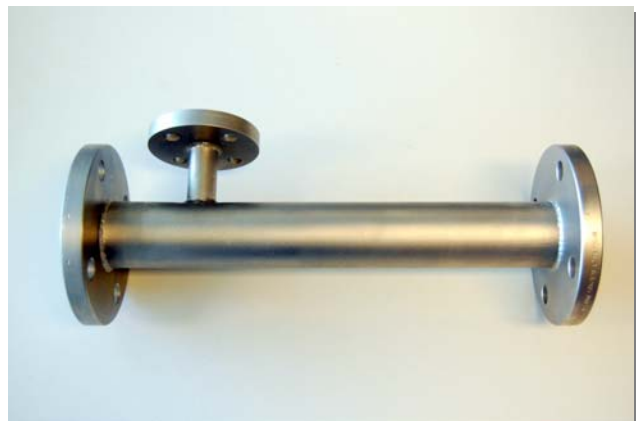
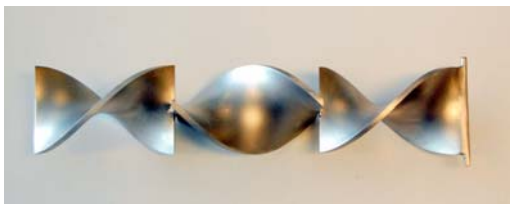


### Stock - static mixer programme

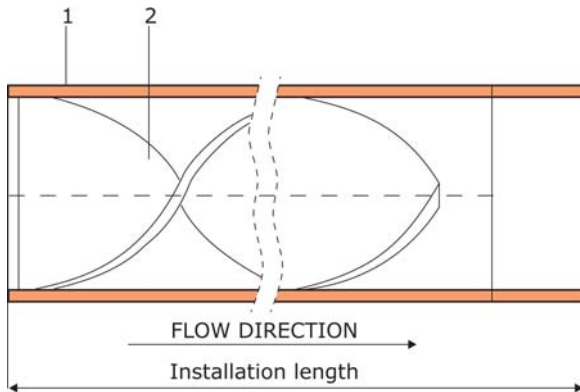
The most popular static mixers can be built from stock components for **rapid dispatch**, products and technical specifications which fall within the scope of this programme can be found in following pages.

**Materials of construction** – AISI 316L or PVC. Other materials available on request.

For water like products please refer to the static mixer selection chart at the back of this brochure or if you need any help please contact our application engineers



### WELDING END MIXER



SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
DN15	55	80	105	130	155
DN20	69	104	139	174	209
DN25	89	134	179	224	269
DN32	115	175	230	290	345
DN40	133	203	268	333	398
DN50	180	260	345	430	515
DN65	210	310	410	510	610
DN80	260	380	510	630	760
DN100	336	496	666	826	996

ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	Housing sch 40 s		EN 10204 1.1B	1
2	Spiral shaped element		EN 10204 2.2	
3				

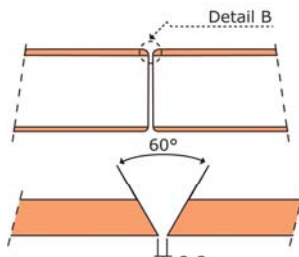
### WELDING DETAIL

#### Detail B

1 - Pipe + Flange connections

2 - Pipe + T-piece connections

3 - Flange + T-piece connections

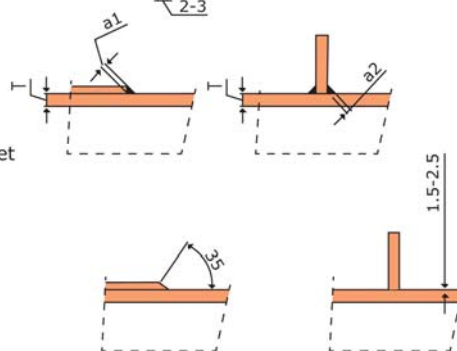


#### Detail C

1 - Console to pipe connections

2 - Console to bracket connections

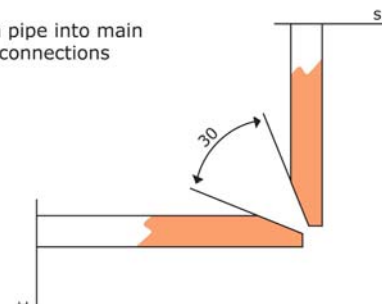
3 - Elements in pipe connections



TUBE DIMENSIONS			
DIN	ASTM	Dimensions	I/dia
DN15	1/2"	21,34 x 2,77	15,8
DN20	3/4"	26,67 x 2,87	20,9
DN25	1"	33,4 x 3,38	26,6
DN32	1 1/4"	42,16 x 3,56	35,0
DN40	1 1/2"	48,26 x 3,68	40,9
DN50	2"	60,33 x 3,91	52,5
DN65	2 1/2"	73,03 x 5,16	62,7
DN80	3"	88,90 x 5,49	77,9
DN100	4"	114,30 x 6,02	102,3

#### Detail D

1 - Injection pipe into main housing connections



#### Notes

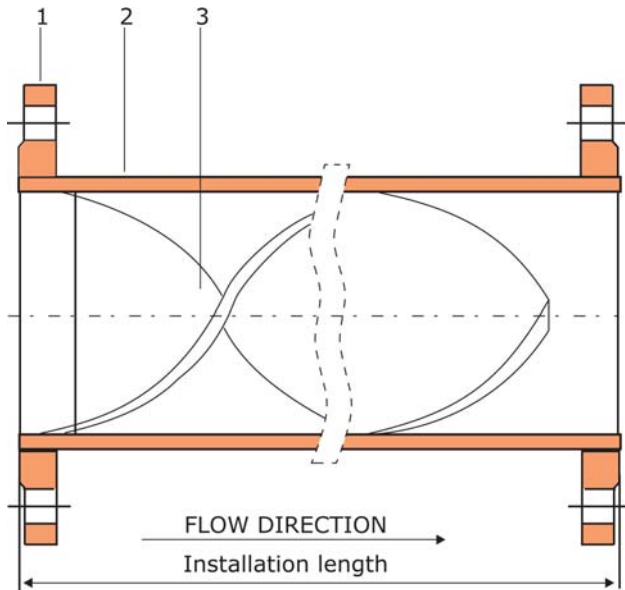
Tolerances in accordance with ASTM A312

Welds are inspected with Dye Penetrant

Dimensions are subject to change without notice



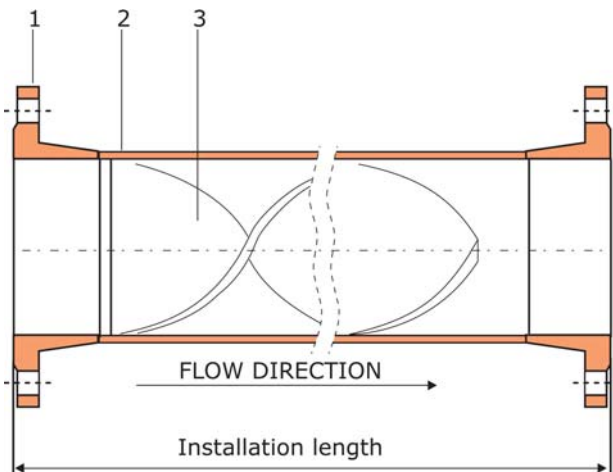
### DIN 2576 FLANGE MIXER



SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
DN15	61	86	111	136	161
DN20	75	110	145	180	215
DN25	97	142	187	232	277
DN32	123	183	238	298	353
DN40	141	211	276	341	406
DN50	220	320	420	520	620
DN65	220	320	420	520	620
DN80	270	390	520	640	770
DN100	348	508	678	838	1008

ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	Slip on flange	AISI 316L/1.4404	EN 10204 3.1B	2
2	Housing sch 40 s		EN 10204 3.1B	1
3	Spiral shaped element		EN 10204 2.2	

### DIN 2633 FLANGE MIXER

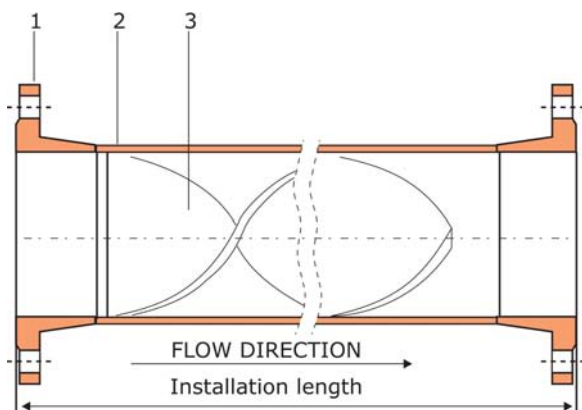


SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
DN15	125	150	175	200	225
DN20	145	180	215	250	285
DN25	165	210	255	300	345
DN32	195	255	310	370	425
DN40	215	285	350	415	480
DN50	270	350	435	520	605
DN65	300	400	500	600	700
DN80	360	480	610	730	860
DN100	440	600	770	930	1100

ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	WN/RF Flange		EN 10204 3.1B	2
2	Housing sch 40 s		EN 10204 3.1B	1
3	Spiral shaped element		EN 10204 2.2	



### ASTM 16.5 FLANGE MIXER



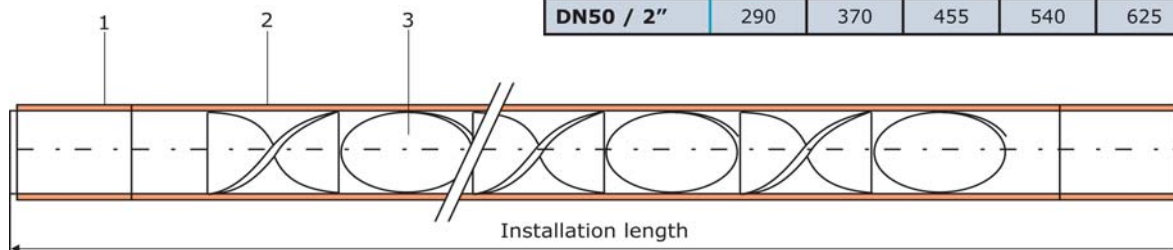
SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
1/2"	150	175	200	200	250
3/4"	174	209	244	279	314
1"	200	245	290	335	380
1 1/4"	229	289	344	404	459
1 1/2"	257	327	392	457	522
2"	307	387	472	557	642
2 1/2"	350	450	550	650	750
3"	400	520	650	770	900
4"	488	648	818	978	1148

ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	WN/RF Flange	AISI 316L/1.4404	EN 10204 3.1B	2
2	Housing sch 40 s		EN 10204 3.1B	1
3	Spiral shaped element		EN 10204 2.2	

### BSP (M) MIXER

Static mixer housing with BSP male ends

SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
DN15 / 1/2"	125	150	175	200	225
DN20 / 3/4"	149	184	219	254	289
DN25 / 1"	169	214	259	304	349
DN32 / 1 1/4"	215	275	330	390	445
DN32 / 1 1/2"	233	303	368	433	498
DN50 / 2"	290	370	455	540	625



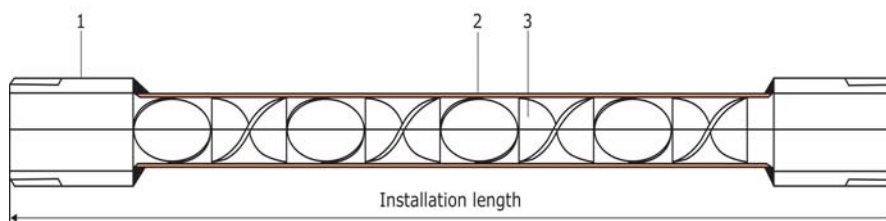
ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	Nipple BSP Male	AISI 316L/1.4404	EN 10204 3.1B	2
2	Housing sch 40 s		EN 10204 3.1B	1
3	Spiral shaped element		EN 10204 2.2	



### BSP (F) MIXER

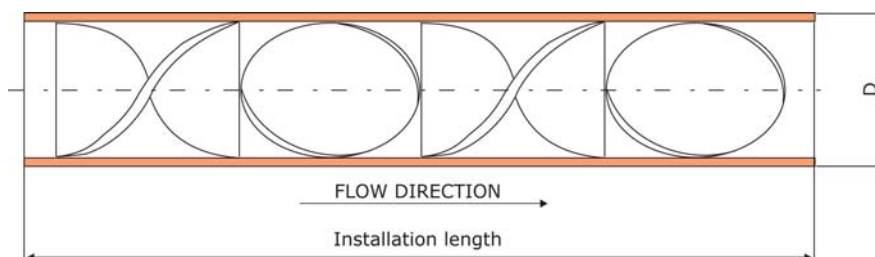
Static mixer housing with BSP female ends

SIZE	INSTALLATION LENGTH				
	NUMBER OF ELEMENTS				
	2	3	4	5	6
DN15 / 1/2"	123	148	173	198	223
DN20 / 3/4"	141	176	211	246	281
DN25 / 1"	175	220	265	310	355
DN32 / 1 1/4"	211	271	326	386	441
DN32 / 1 1/2"	229	299	364	429	494
DN50 / 2"	292	372	457	542	627



ITEM	DESCRIPTION	MATERIAL	CERTIFICATE	QUANTITY
1	Nipple BSP Female		EN 10204 3.1B	2
2	Housing sch 40 s		EN 10204 3.1B	1
3	Spiral shaped element		EN 10204 2.2	

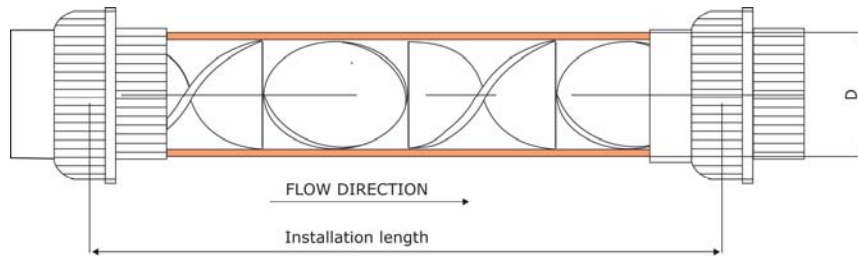
### PVC WELDING END MIXER



DN	DIMENSION		INSTALLATION LENGTH				
	DIAMETER (mm)	WALL THICKNESS (mm)	NUMBER OF ELEMENTS				
			2	3	4	5	6
10	16	1,2	60	81	103	124	146
15	20	1,5	70	98	125	151	178
20	25	1,9	84	118	152	185	219
25	32	2,4	103	147	190	233	276
32	40	3,0	125	179	234	287	341
40	50	3,7	152	220	289	356	424
50	63	4,7	182	267	353	444	530
65	75	5,6	214	316	418	525	627

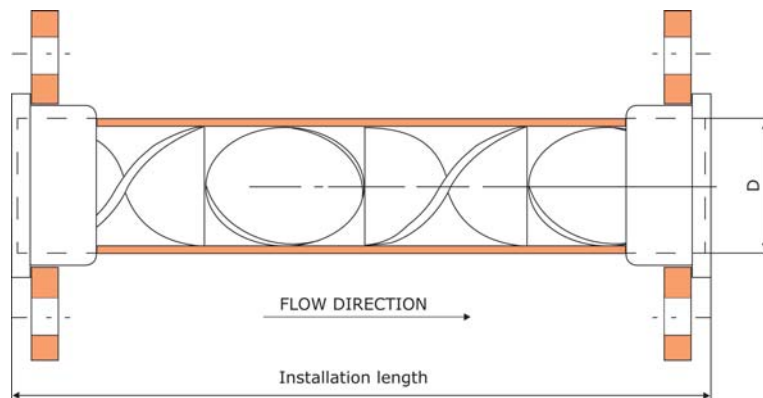


PVC UNION JOINT MIXER



DIMENSION			INSTALLATION LENGTH				
DN	DIAMETER	WALL THICKNESS	NUMBER OF ELEMENTS				
	(mm)	(mm)	2	3	4	5	6
10	16	1,2	73	94	116	137	159
15	20	1,5	83	111	138	164	191
20	25	1,9	97	131	165	198	232
25	32	2,4	116	160	203	248	291
32	40	3,0	140	194	249	304	358
40	50	3,7	169	237	306	369	437
50	63	4,7	203	288	374	463	549
65	75	5,6	235	337	439	546	648

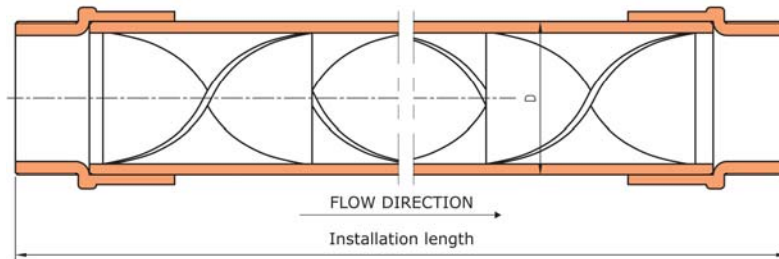
PVC FLANGE MIXER



DIMENSION			INSTALLATION LENGTH				
DN	DIAMETER	WALL THICKNESS	NUMBER OF ELEMENTS				
	(mm)	(mm)	2	3	4	5	6
10	16	1,2	66	87	109	130	152
15	20	1,5	76	104	131	157	184
20	25	1,9	90	124	158	191	225
25	32	2,4	109	153	196	239	282
32	40	3,0	131	185	240	293	347
40	50	3,7	158	226	295	362	430
50	63	4,7	188	273	359	450	536
65	75	5,6	220	322	424	531	633

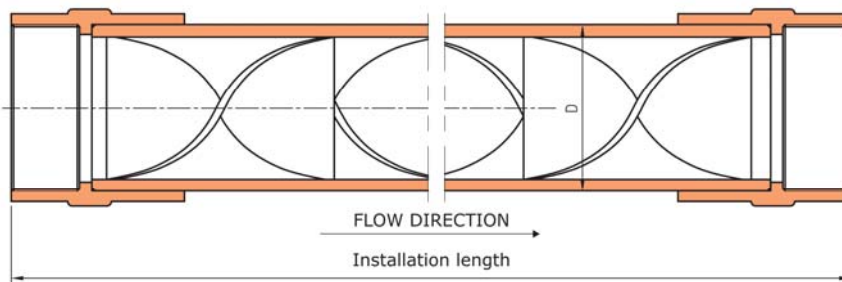


PVC BSP (M)



DIMENSION			INSTALLATION LENGTH				
SIZE	DIAMETER	WALL THICKNESS	NUMBER OF ELEMENTS				
	(mm)	(mm)	2	3	4	5	6
DN10 / 3/8"	16	1,2	100	121	143	164	186
DN15 / 1/2"	20	1,5	118	146	173	199	226
DN20 / 3/4"	25	1,9	134	168	202	235	269
DN25 / 1"	32	2,4	159	203	246	289	332
DN32 / 1 1/4"	40	3,0	187	241	296	349	403
DN40 / 1 1/2"	50	3,7	216	284	353	420	488
DN50 / 2"	63	4,7	258	343	429	520	606
DN65 / 2 1/2"	75	5,6	298	400	502	609	711
DN80 / 3"	90	6,7	347	469	592	719	842
DN100 / 4"	110	8,2	415	565	720	869	1019

PVC BSP (F)

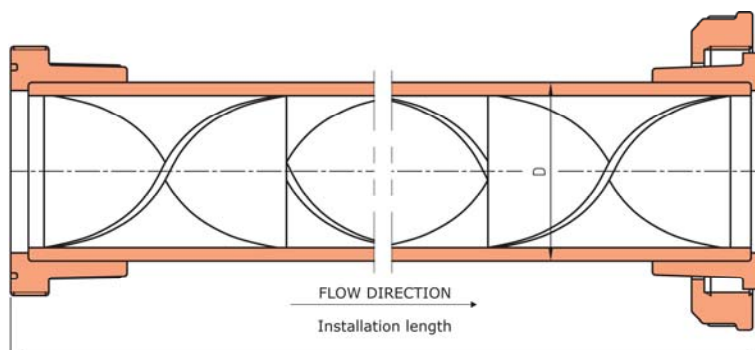


DIMENSION			INSTALLATION LENGTH				
SIZE	DIAMETER	WALL THICKNESS	NUMBER OF ELEMENTS				
	(mm)	(mm)	2	3	4	5	6
DN10 / 3/8"	16	1,2	91	112	134	155	177
DN15 / 1/2"	20	1,5	106	134	161	187	214
DN20 / 3/4"	25	1,9	124	158	192	225	259
DN25 / 1"	32	2,4	148	192	235	278	321
DN32 / 1 1/4"	40	3,0	176	230	285	338	392
DN40 / 1 1/2"	50	3,7	211	279	348	415	483
DN50 / 2"	63	4,7	251	336	422	513	599





PVC - 3D



PVC –3D mixer housings are supplied with a Joint face with o-ring groove on one end and PN10 (+GF+) and a Union end & bush on the opposite end.



DIMENSION			INSTALLATION LENGTH				
DN	DIAMETER	WALL THICKNESS	NUMBER OF ELEMENTS				
	(mm)	(mm)	2	3	4	5	6
10	16	1,2	73	94	116	137	159
15	20	1,5	83	111	138	164	191
20	25	1,9	97	131	165	198	232
25	32	2,4	116	160	203	246	289
32	40	3,0	140	194	249	302	356
40	50	3,7	169	237	306	373	441
50	63	4,7	203	288	374	465	551
65	75	5,6	235	337	439	546	648
80	90	6,7	278	400	523	650	773
100	110	8,2	325	475	630	779	929



## STATIC MIXER - SELECTION CHART

The following table provides a guide for selecting a static mixer operating with water like fluids.

The static mixer can be selected based on

- Flow and allowable pressure drop at the smallest static mixer size - **Option 1**
- Existing pipe sizes & allowable pressure drop at maximum flow - **Option 2.**

### OPTION 1

- 1 – Select the total maximum flow
- 2 – Find the maximum allowable pressure drop at the smallest static mixer size
- 3 – Select the minimum number of mixer elements

### OPTION 2

- 1 – Select the mixer pipe size
- 2 – Find the maximum allowable pressure drop at maximum flow
- 3 – Select the number of mixer elements.

**Table 1 :**  
**Pressure drop at theoretical 96% homogenous mixing with water like fluids**

# elements	DN10 (3/8" Sch40) PMS type					DN15 (1/2" Sch40) PMS type					DN20 (3/4" Sch40) PMS type					DN25 (1" Sch40) PMS type					DN32 (1 1/4" Sch40) PMS																
	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5													
flow [m <sup>3</sup> /hr]	pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]																
0,1				0,01	0,01																																
0,5			0,1	0,1	0,1			0,03	0,04	0,05				0,01	0,01	0,02				0,01	0,01																
1,0		0,2	0,3	0,4	0,5			0,1	0,2	0,2				0,0	0,05	0,07				0,02	0,02	0,02								0,01	0,01						
1,5		0,5	0,7	0,9	1,1			0,2	0,3	0,3	0,4				0,07	0,1	0,1	0,1				0,04	0,04	0,05								0,01	0,02				
→ 2,0		0,9	1,2	1,6	2,0			0,4	0,5	0,6	0,7				0,1	0,2	0,2	0,2				0,05	0,06	0,08	0,09								0,02	0,03			
3,0		1,8	2,6	3,5	4,4			0,7	1,0	1,2	1,5				0,3	0,3	0,4	0,5				0,1	0,1	0,2	0,2								0,03	0,05	0,06		
4,0		3,1	4,6	6,2	7,7			1,3	1,7	2,2	2,7				0,4	0,6	0,8	0,9				0,2	0,2	0,3	0,3								0,06	0,08	0,1		
5,0		4,8	7,2	9,6			1,9	2,6	3,3	4,2				0,7	0,9	1,2	1,5				0,3	0,3	0,4	0,5								0,09	0,1	0,2			
7,5	6,6	10,7						4,1	5,6	7,4	9,3				1,4	2,0	2,6	3,2				0,6	0,7	0,9	1,1								0,2	0,3	0,3		
10	11,2							4,6	6,9	9,8				2,4	3,4	4,6	5,7				0,9	1,3	1,6	1,9								0,3	0,4	0,6			
15								9,7							3,3	5,1	7,7				2,0	2,6	3,5	4,3								0,7	0,9	1,2			
20															5,6	9,1				2,2	3,3	4,6	6,1	7,6								1,2	1,6	2,1			
30																					4,7	7,0												1,7	2,5	3,5	4,6
40																					8,0												2,8	4,2	6,1	8,2	
50																																4,2	6,4	9,6			



**Table 1 :**  
**Pressure drop at theoretical 96% homogenous mixing with water like fluids**

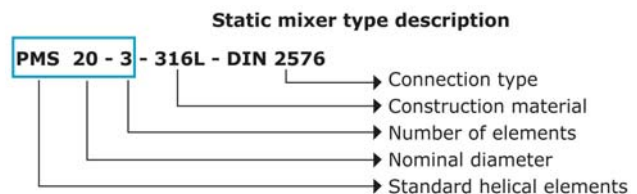
# elements	DN40 (1½" Sch40) PMS type					DN50 (2" Sch40) PMS type					DN40 (2½" Sch40) PMS type					DN80 (3" Sch40) PMS type					DN100 (4" Sch40) PMS type							
	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6			
flow [m³/hr]	pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]					pressure drop [Bar]							
0,1																												
0,5																												
1,0																												
1,5			0,01	0,01	0,01																							
2,0			0,01	0,02	0,02				0,01	0,01																		
3,0	0,02	0,03	0,03	0,04		0,01	0,01	0,01	0,01			0,01	0,01	0,01														
4,0	0,03	0,04	0,05	0,06		0,01	0,02	0,02	0,02			0,01	0,01	0,01					0,01									
5,0	0,05	0,07	0,08	0,10		0,02	0,02	0,03	0,04			0,01	0,02	0,02			0,01	0,01	0,01									
7,5	0,1	0,1	0,2	0,2		0,04	0,05	0,07	0,08			0,02	0,03	0,03	0,04			0,01	0,01	0,02				0,01	0,01			
10	0,2	0,2	0,3	0,4	0,05	0,1	0,1	0,1	0,1			0,03	0,05	0,06	0,07			0,02	0,02	0,03	0,03			0,01	0,01	0,01	0,01	
15	0,4	0,5	0,6	0,8	0,1	0,1	0,2	0,2	0,3			0,1	0,1	0,1	0,1			0,03	0,04	0,05	0,06			0,01	0,02	0,02	0,02	
20	0,6	0,9	1,1	1,3	0,2	0,2	0,3	0,4	0,5			0,1	0,2	0,2	0,2			0,01	0,01	0,01	0,01			0,02	0,03	0,03	0,04	
30	0,9	1,4	1,8	2,3	2,9	0,3	0,5	0,7	0,9	1,0			0,3	0,4	0,4	0,5			0,01	0,02	0,02	0,02			0,04	0,05	0,07	0,08
40	1,5	2,3	3,1	4,1	5,1	0,6	0,9	1,2	1,5	1,8	0,3	0,4	0,6	0,7	0,9				0,02	0,03	0,03	0,04			0,07	0,09	0,11	0,14
50	2,3	3,5	4,8	6,4	8,0	0,9	1,3	1,8	2,2	2,7	0,4	0,7	0,9	1,1	1,3	0,2	0,3	0,4	0,05	0,06	0,07	0,10	0,14	0,17	0,21			

**Range of the most popular mixers**  

**Example.**

Select a static mixer size DN20 for 2m3 / hour at minimum pressure drop

- 1 – Select the table DN20
- 2 – Select 2m3 / hour
- 3 – Find the number of mixer elements at the lowest pressure drop
- 4 – Three (3) mixer elements at 0.1 bar creates a theoretical homogenous mixture
- 5 – Selected static mixer **PMS20-3**



Please contact our application engineers we will be pleased to help.

**Euromixers Limited**

P.O. Box 94  
 Marple  
 Stockport  
 Cheshire  
 SK6-6WZ  
 United Kingdom

Tel : + 44 (0) 161 449 8559  
 Fax : + 44 (0) 161 426 0456  
 Email : [sales@euromixers.co.uk](mailto:sales@euromixers.co.uk)  
 Web : [www.euromixers-primix.com](http://www.euromixers-primix.com)

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