

**Sulzer Chemtech** 

# Statomix™

The Line of High Quality Motionless Mixers







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# ME & MS Series

#### **Bell Mouth Mixers**

Statomix<sup>™</sup> ME & MS Series plastic disposable mixers, when used with meter-mix and dispense equipment, provide a low cost solution for 2-component mixing. The mixer element is moulded in polyacetal to allow for a high pressure differential associated with meter-mix equipment.





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Statomix<sup>™</sup> ME & MS Series mixers are provided with stepped ends which can be cut off to increase the outlet diameter.

**Note:** The only functional difference between ME series and MS series mixers is the inner diameter of the bell mouth housing: ME = 15.9 mm and MS = 16.7 mm (see illustration below)

#### **Technical Data**

Material Housing	Polypropylene (PP)
Material Elements	Polyacetal (POM)
Max. allowable pressure	According to table below



**Bell Mouth Mixers** 

Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Outlet Dia. d (mm)	Max. Operating Pressure at 40 °C (bar)	Length L (mm)	No. of Elements	Part Number
5	8	1.5	33	149 188	24 32	ME or MS 05-24 ME or MS 05-32
6.4	9.8 9.8 10.5 10.5	1.8 1.8 2.4 4.5	30	186 235 334 378	24 32 48 56	ME or MS 06-24 ME or MS 06-32 ME or MS 06-48 MS 06-56
8	11.8	2.4	27	223 289	24 32	ME or MS 08-24 ME or MS 08-32
10	14	3	22	214 276 355	18 24 32	MS 10-18 ME or MS 10-24 ME or MS 10-32
13	17	4	17	293 378	24 32	ME or MS 13-24 ME or MS 13-32
Bell Mouth Combo Mixers						
10/8	14/12	2.4	22	409	12 + 32	ME or MS 1012-0832
13/10	17/14	7.2	17	499	12 + 32	ME or MS 1312-1032



### Shrouds



High quality safety shrouds are available for use with Statomix<sup>™</sup> type ME & MS mixers. High pressures, which are associated with dispensing equipment, require the use of shrouds.

#### Important:

For health and safety reasons, Statomix<sup>™</sup> shrouds must be used at all times.

### **Technical Data**

Material	Housing: Aluminium alloy; Fitting: Aluminium alloy
Finish	Anodized
<sup>1</sup> Standard Fitting	7/8" - 9 UNC Thread
<sup>2</sup> Optional Fitting	7/8" - 14 UNC Thread
Nut across Flats	27.0 mm (1 1/16")
Tolerances	Length +/- 1 mm



#### Shrouds for ME & MS Mixers

For Mixer Type	Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Length L (mm)	Part Number 1	Part Number <sup>2</sup>
ME or MS 05-24 ME or MS 05-32	8.2	11.5	146.0 185.0	SH 05-24-09 SH 05-32-09	SH 05-24-14 SH 05-32-14
ME or MS 06-24 ME or MS 06-32	10.2	14.0	179.5 228.5	SH 06-24-09 SH 06-32-09	SH 06-24-14 SH 06-32-14
ME or MS 06-48 ME or MS 06-56	10.7	15.0	329.0 383.5	SH 06-48-09 SH 06-56-09	SH 06-48-14 SH 06-56-14
ME or MS 08-24 ME or MS 08-32	12.2	16.0	215.0 279.0	SH 08-24-09 SH 08-32-09	SH 08-24-14 SH 08-32-14
ME or MS 10-24 ME or MS 10-32	14.2	19.0	265.5 341.5	SH 10-24-09 SH 10-32-09	SH 10-24-14 SH 10-32-14
ME or MS 13-24 ME or MS 13-32	17.2	23.0	280.5 365.5	SH 13-24-09 SH 13-32-09	SH 13-24-14 SH 13-32-13
Shrouds for Combo Mixers					
ME or MS 1012-0832	14.2/12.2	19/16	401.0	SH 10-44-09	SH 10-44-14
ME or MS 1312-1032	17.2/14.2	23/19	503.0	SH 13-44-09	SH 13-44-14



### **Stainless Steel Mixers**



Statomix<sup>™</sup> SM Series stainless steel tube mixers are suited for mixing two-component reactive resin systems. These durable stainless steel mixers consist of alternating left and right hand helical elements, which are nickel brazed within the entire length of the tubular mixer housing.

The mixer has to be cleaned immediately after use and it is recommended to briefly flush it with the main component only and then with a mixture of solvent/air. If partial or complete hardening of the components occurs, it can be burned out at 500° to 600° C.

#### **Technical Data**

Material	Housing: Stainless steel 1.4571; Elements: Stainless steel 1.4404 or 1.4435
Number of Elements	24 or 30
Retention of Elements	Brazed with nickel base alloy over entire length of element assembly
End Connectors	Plain ends
Design Pressure	Max. allowable operating pressure (see table below) according to DIN 2413, scope of application 1, permanent elongation limit 1% at 20° C, safety factor 1.7
Tolerances	O.D. and wall: According to DIN 2391, page 1; Length +/- 1 mm



### **Stainless Steel Mixers with Fixed Elements**

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Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Max. Operating Pressure (bar)	Length L (mm)	No. of Elements	Part Number
3	6	700	124 154	24 30	SM 03-06-24 SM 03-06-30
4	6	467	148 184	24 30	SM 04-06-24 SM 04-06-30
5	8	525	185 230	24 30	SM 05-08-24 SM 05-08-30
6	8	350	221 275	24 30	SM 06-08-24 SM 06-08-30
8	10	280	294 366	24 30	SM 08-10-24 SM 08-10-30
10	14	400	368 458	24 30	SM 10-14-24 SM 10-14-30
11	14	300	416 518	24 30	SM 11-14-24 SM 11-14-30
12	16	350	440 548	24 30	SM 12-16-24 SM 12-16-30
15	20	350	550 685	24 30	SM 15-20-24 SM 15-20-30
20	25	280	730 910	24 30	SM 20-25-24 SM 20-25-30
25	30	233	922 1150	24 30	SM 25-30-24 SM 25-30-30

# AE Series

#### **Stainless Mixers with Removable Elements**



#### **Technical Data**

Statomix<sup>™</sup> AE Series stainless steel tube mixers are fitted with removable elements and are designed for use with 2-component reactive silicone elastomers, silicone foams and resin systems with fillers where cleaning is not possible by burning out the mixer content.

A retaining ring, positioned at the outlet end of the housing, supports the elements by means of the downstream part of the compression fitting.

This type of mixer should be cleaned immediately after use and it is recommended to flush it with the main component only and then with a mixture of solvent/air. Should further cleaning still be necessary, the elements may be removed and soaked in solvent.

Material	Housing: Stainless steel 1.4571; Elements: Stainless steel 1.4404 or 1.4435
Number of Elements	12 or 18
Retention of Elements	Retention ring on downstream end of housing
End Connectors	ERMETO fitting
Design Pressure	Max. allowable operating pressure (see table below) according to DIN 2413, scope of application 1, permanent elongation limit 1% at 20° C, safety factor 1.7
Tolerances	O.D. and wall: According to DIN 2391, page 1; Length +/- 1 mm



#### **Stainless Steel Mixers with Removable Elements**

Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Retaining Ring Inner Dia. C (mm)	Max. Operating Pressure (bar)	Length L (mm)	No. of Elements	Part Number	Thread T
8	12	6	467	154 226	12 18	AE 08-12-12 AE 08-12-18	M 20 x 1.5
10	14	8	400	192 282	12 18	AE 10-14-12 AE 10-14-18	M 22 x 1.5
12	16	10	350	230 338	12 18	AE 12-16-12 AE 12-16-18	M 24 x 1.5
15	20	12	350	290 425	12 18	AE 15-20-12 AE 15-20-18	M 30 x 2
20	25	16	280	385 556	12 18	AE 20-25-12 AE 20-25-18	M 36 x 2
25	30	20	233	486 714	12 18	AE 25-30-12 AE 25-30-18	M 42 x 2

# KS Series

### **Steel / Fibreglass Mixers**



Statomix<sup>™</sup> KS Series steel/fibreglass mixers were developed as a low-cost alternative for mixing 2-component reactive resins. The mixing elements are made of a high-grade, solvent resistant plastic. A transverse rod supports the elements at the outlet end of the zinc-plated steel housing. Steel/fibreglass mixers are not suitable for the mixing of extremely high viscosity materials at temperatures above 80 °C.

#### **Technical Data**

Material	Housing: Zinc-plated carbon steel St 35 (stainl. steel available on request) Elements: Fibreglass reinforced engineering plastic (PET)
Number of Elements	24 or 36
Retention of Elements	Nickel brazed retention pin across the last element at downstream end of housing
End Connectors	Plain ends
Max. Operating Temperature	2° 08
Design Pressure	Max. allowable operating pressure (see table below) according to DIN 2413, scope of application 1, permanent elongation limit 1% at 20° C, safety factor 1.7
Tolerances	O.D. and wall: According to DIN 2391, page 1; Length +/- 1 mm



#### **Steel / Fibreglass Mixers**

Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Max. Operating Pressure (bar)	Length L (mm)	No. of Elements	Part Number
8	10	226	203 300	24 36	KS 08-10-24 KS 08-10-36
11	14	242	277 411	24 36	KS 11-14-24 KS 11-14-36
13	16	212	327 486	24 36	KS 13-16-24 KS 13-16-36
16	20	226	402 596	24 36	KS 16-20-24 KS 16-20-36
20	25	226	501 744	24 36	KS 20-25-24 KS 20-25-36

# FM Series

### **Flexible Plastic Mixers**



The Statomix<sup>™</sup> FM Series mixers were developed for 2-component coatings and other very low viscosity materials. The mixer housing is flexible and made from high-strength Polyamide with low moisture absorption and is suited for a flexible installation.

The Statomix<sup>™</sup> FM Series mixers are not suited for high pressure or for mixing of high viscosity materials.

The mixer should be cleaned immediately after use with a mixture of solvent/air.

#### **Technical Data**

Material	Housing: Polyamid (PA 12 free from plasticizer) Elements: Polypropylene (PP)
Number of Elements	24 or 36
Retention of Elements	By means of a crimp on both ends of housing
End Connectors	Plain ends
Max. Operating Temperature	According to the table below. For higher pressures and temperatures above 40° C it is necessary to use a protective covering
Tolerances	Length +/- 1 mm



#### Flexible Plastic Mixers

Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Notch Recess C (mm)	Max. Operating Pressure at 40 °C (bar)	Length L (mm)	No. of Elements	Part Nummer
6.4	9	13	14	188 263	24 36	FM 06-09-24 FM 06-09-36
8.0	10	20	9	240 334	24 36	FM 08-10-24 FM 08-10-36

# MR Series

### **Rotary Mixers**



#### **Technical Data**

Statomix<sup>™</sup> MR Series plastic disposable rotary mixers are suited for mixing low viscosity 2-component reactive resin systems.

The first mixing element is provided with a hole for attachment to the dispensing head driveshaft.

MR Series mixers are provided with stepped ends which can be cut to increase the outlet diameter.

Material	Housing: Polypropylene (PP) Elements: Green Polyacetal (POM)
Number of Elements	12
Mixer Connection	MS style bell mouth (dia. 16.7 mm) for retaining nut or STATOMIX safety shroud with 7/8"- 9 UNC Thread
Max. allowable Pressure	According to table below. For higher pressures and temperatures above 40° C, a shroud must be used.



Rotary Mixers						
Inner Dia. I.D. (mm)	Outer Dia. O.D. (mm)	Outlet Dia. d (mm)	Max. Operating Pressure at 40 °C (bar)	Length L (mm)	No. of Elements	Part Nummer
6.4	10.0	1.8	30	111.5	12	MR 06-12
8.0	12.0	2.4	27	130.0	12	MR 08-12
10.0	14.0	3.0	22	155.0	12	MR 10-12
13.0	17.0	4.0	17	197.0	12	MR 13-12

## Rotary Mixers

# Luer Lock Adapters

### Luer Lock Adapters



Technical Data

Low-cost Luer Lock Adapters are designed for a wide range of Statomix<sup>™</sup> motionless mixers.

These adapters screw to the tip of the mixer and facilitate the attachment of dispensing needles for precise application of fine beads or dots and to reach within small spaces.

Three colour-coded sizes of Luer Lock Needle Adapters are designed to cover the range from I.D. 5 to I.D. 10 mixers and fit all standard Luer Lock type needles.



Luer	Lock	Adapter	

Mixer Inner Dia. I.D. (mm)	Colour	Part Nummer
5	withe	LA 05-00
6 + 8	grey	LA 06-08
10	black	LA 10-00

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Sulzer Chemtech Ltd, a member of the Sulzer Corporation, with headquarters in Winterthur, Switzerland, is active in the field of process engineering and employs some 2500 persons worldwide.

Sulzer Chemtech is represented in all important industrial countries and sets standards in the field of mass transfer and static mixing with its advanced and economical solutions. The activity program comprises:

- Process components such as trays, structured and random packings, internals for separation columns and reaction technology
- Engineering services for separation and reaction technology such as optimizing energy consumption, plant optimization studies, preengineering for governmental approval, basic engineering
- Separation and purification of organic chemicals by means of crystallization and membranes
- Mixing and reaction technology with static mixers
- Mixing and Cartridges Technology
- Tower field services