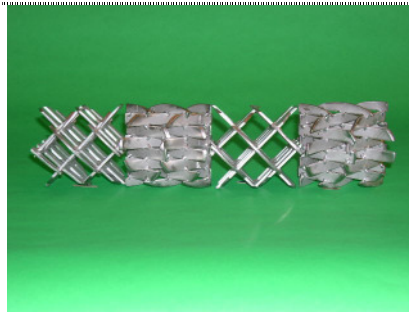


Static GXM Mixing Elements for Mixing/Dispersing of Viscous Fluids



GXM mixing element (GXM-ME)



Rod of GXM mixing elements

Characteristics of the GX Mixers

GX is the designation of Stamixco AG for static mixers consisting of crossing bars with the following properties:

- Originally invented by Bayer AG (BKM mixer)
- Structure successfully used over decades for mixing and/or dispersing of viscous fluids.
- Does mix and/or disperse efficiently liquids of equal and/or very different viscosity to the degree of homogeneity as required by the specific application.

The design of the GXM (= GX static mixing element made of metal) is made to customer needs by the mixing duty considering flow rates, viscosities, pressure drop, homogeneity required, etc.

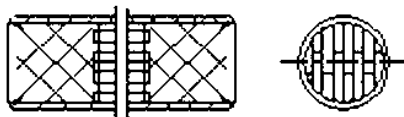
Usually the GXM mixing elements are welded to one or two rods which is/are inserted into a pipe and fixed. It assures a correct orientation of neighbouring elements and simplifies the mixer assembling / disassembling.

More information regarding the required number of GXM mixing elements under laminar flow conditions can be found on the Technical datasheet " **E_TB-017_GX-FAM_10.2010** " entitled " **Static Mixing Elements Family for Mixing/Dispersing of Viscous Fluids** "

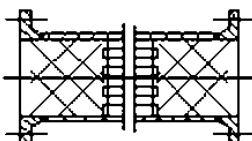
- GXM mixing elements are supplied in standard diameters according to table 1 or in tailor made special diameters as loose parts allowing installation into an existing tube or bore.
- Static mixers GXM are available in basic configurations as shown below.
- Special designed housings according to your specification are available on request.

Installation of the Mixing Element into Mixer Housings

Non removable

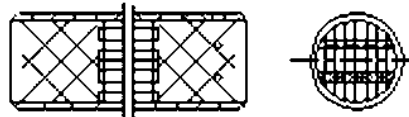


Bars of ME on inlet and outlet side welded to the pipe wall

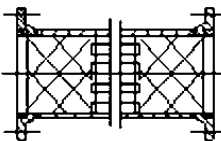


Bars of ME on inlet and outlet side welded to the pipe wall

removable



On outlet side two round pins as support are welded into the pipe



ME welded to two(2) rods, Each rod welded to a ring, Rings countersunk into a Recess of the flanges

Pipe with welding ends

Pipe with flanges

Standard Dimensions of the GX Mixing Elements DN 10 to DN 300 mm

Nominal Pipe Size		Standard-Pipe Dimension			Data of Mixing Elements					
DN / NPS		O.D.	s _w	D _i	D _{ME}	L _{ME}	ε	Δp _{max. zul.} [bar]		Item No.
mm	in	mm	mm	mm	mm	mm	[-]	100 °C	300 °C	
8	1/8	10.0	1.0	8.0	7.85	7.85	0.67	>2000	>1900	GXM-008
10	1/4	14.0	2.0	10.0	10.0	10.1	0.69	>600	>500	GXM-010
12	3/8	17.2	2.3	12.6	12.4	12.4	0.71	280	220	GXM-012
15	1/2	21.3	2.6	16.1	15.6	15.6	0.77	150	115	GXM-015
20	3/4	26.9	3.2	20.5	20.0	20.0	0.81	95	75	GXM-020
22					22.0	22.0	0.76	800	700	GXMS-022
25	1	33.7	3.2	27.3	26.4	26.4	0.77	80	60	GXM-025
27					27.0	27.0	0.77	800	700	GXMS-027
32	1 1/4	42.4	3.2	36.0	35.5	35.5	0.89	21	17	GXM-032
33					33.0	33.0	0.76	800	700	GXMS-033
40	1 1/2	48.3	3.7	40.9	40.2	40.6	0.88	32	25	GXM-040
50	2	60.3	3.9	52.5	52.0	52.5	0.88	34	27	GXM-050
65	2 1/2	76.1	3.6	68.9	68.2	69	0.91	19	15	GXM-065
80	3	88.9	5.5	77.9	77.1	78	0.90	24	18	GXM-078
80	3	88.9	4.05	80.8	80.0	80	0.91	22	17	GXM-080
100	4	114.3	6.0	102.3	101.3	102	0.91	20	15	GXM-100
125	5	141.3	6.6	128.2	126.9	128	0.90	22	17	GXM-125
150	6	168.3	7.1	154.1	153.0	154	0.90	24	19	GXM-150
200	8	219.1	8.2	202.7	200.7	203	0.91	20	15	GXM-200
250	10	273.1	9.3	254.5	252.0	255	0.90	23	18	GXM-250
300	12	323.8	9.6	304.6	301.6	299	0.89	25	20	GXM-300

Table 1 Dimensions of loose mixing element in standard material AISI 316L/Ti /DIN 1.4542
(= 1.4435 / 1.4404 / 1.4571) * for cast of loose elements in standard material AISI 316L

ε : Void fraction

Δp_{max. allowable}: for stainless steel DIN 1.4571 = 316 Ti. The values given in the table are for ME under pressure load conditions; increase of tensile load conditions the max. allowable values are 50% only

Execution: DN 8 – DN 33 and DN 50: cast design;
DN 40 and DN 65 – DN 300 welded design – DN 8&10: stainless steel 17-4 PH = 1.4542 = A630

Standard Mixer Length

Nom. Size		Pipe Dimension			Length of Mixer with:					
DN / NPS		O.D.	s _w	D _i	3 ME	6 ME	9 ME	12 ME	15 ME	18 ME
mm	in	mm	mm	mm	mm	mm	mm	mm	mm	mm
8	1/8	10.0	1.0	10.0	40	60	90	120	140	170
10	1/4	14.0	2.0	10.0	45	75	105	135	165	195
12	3/8	17.2	2.3	12.6	50	90	120	155	205	250
15	1/2	21.3	2.6	16.1	60	110	160	205	255	305
20	3/4	26.9	3.2	20.5	70	130	190	250	310	370
22										
25	1	33.7	3.2	27.3	95	175	255	335	415	500
27										
32	1 1/4	42.4	3.2	36.0	125	230	335	445	550	655
33										
40	1 1/2	48.3	3.7	40.9	140	260	380	505	625	745
50	2	60.3	3.9	52.5	175	330	485	640	800	955
65	2 1/2	76.1	3.6	68.9	220	430	640	850	1065	1275
80	3	88.9	5.5	77.9	250	490	725	960	1200	1440
80	3	88.9	4.05	80.8	260	500	740	980	1220	1460
100	4	114.3	6.0	102.3	330	635	950	1260	1570	1880
125	5	141.3	6.6	128.2	400	790	1175	1570	1960	2350
150	6	168.3	7.1	154.1	490	960	1425	1890	2360	2825
200	8	219.1	8.2	202.7	625	1240	1860	2475	3090	3710
250	10	273.1	9.3	254.5	785	1555	2340	3120	3880	4655
300	12	323.8	9.6	304.6	920	1840	2750	3660	4570	5480

Table 2

- For more technical information please contact us.
- Requests for an offer, please send together with your detailed job description on our general **Specification Sheet „E_GEN_SpecSheet_10.2004-5“** to one of the below addresses.

Europe, Asia-Pacific, Africa
StaMixCo AG
Kronastrasse 10
CH-8404 Winterthur, Switzerland
Tel: +41 52 338 17 11
Fax: +41 52 338 17 33
E-mail: info@stamixco.com

North and South America
StaMixCo LLC
235 – 84th Street
Brooklyn, NY 11209, USA
Tel: +1 (718) 748 4600
Fax: +1 (718) 833 8827
E-mail: stamixco@msn.com

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