KOMAX SYSTEMS·INC

MIXING BY DESIGN

TUBE MIXERS

Mixing Solutions for Low Flow Rate Liquids & Gases

Part Number	O.D. (inches)	I.D. (inches)	Length (inches)	No. of Elements
1000-132	1.000	0.870	27	32
1000-124	1.000	0.870	21	24
1000-032	1.000	0.870	26	32
1000-024	1.000	0.870	20	24
500-042	0.500	0.460	18	42
500-032	0.500	0.460	14	32
500-027	0.500	0.460	12	27
500-024	0.500	0.460	10-3/4	24
500-021	0.500	0.460	9-1/2	21
375-032	0.375	0.319	10	32
375-027	0.375	0.319	8-1/2	27
375-021	0.375	0.319	6-1/2	21
250-021	0.250	0.194	4	21

KOMAX tube mixers convert a multiple component input stream into a uniform output. They are designed for use with standard tube fittings and can be used for a wide range of mixing, blending, and thermal homogenization activities. Originally designed for reactive resin field, they are used in mixing particulate solids, liquids and gases. No moving parts are involved, and the unique element design assures efficient mixing and good flushing characteristics. Housing material for all tube mixers is type 316 stainless steel.

Part Numbering XXXX - AEE

Diameter (XXXX)

Removable (1) Nonremovable (0)

No. of Elements (EE)

15301 Graham St., Huntington Beach, Ca 92649
Toll Free: 800.826.0760 Fax: 310 830.9826 Email: info@komax.com
Visit our Web Site at **www.komax.com** for specifications and CAD drawings

SIZING A STATIC MIXER

To Quickly Size Your Tube Static Mixer Use the Following Method:

Assuming your application is utilizing a turbulent flow, calculate the velocity in ft/sec and use the chart on the right to determine your required mixing elements.

$V=.408Q/D^2$
Q = Flow Rate US GPM
D = pipe inside diameter

Velocity Range	Mixing Elements
0 – 2 fps	6 elements
2 – 4 fps	5 elements
4 – 5 fps	4 elements
5 – 8 fps	3 elements
9 – 11 fps	2 elements

For determining pressure drop use the following three simple steps:

1. Calculate the Reynolds number Re from Re = 3157QS/m D, and velocity from $V = .408Q/D^2$ feet/sec. where Q = flow rate in US gpm, S = specific gravity, m = viscosity in cp, and D = pipe inside diameter in inches.

2. Enter the first graph at the calculated velocity, and move up to the calculated Reynolds number region. Now, move horizontally to the left and read the required number of elements. Round to the nearest up per number.

3. Enter the next graph at the velocity value and move up to the line corresponding to the number elements. Move horizontally left to read the basic pressure drop. Correct for specific gravity and viscosity.