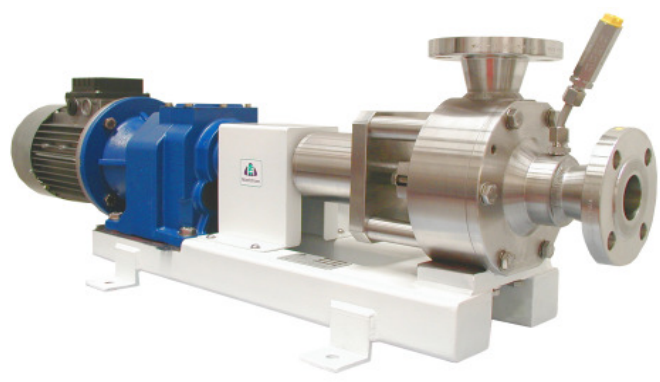


DCL Inline Viscous Blending Mixers

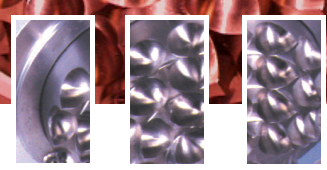
The Distromix DCL inline mixer from Maelstrom blends high viscosity fluid streams with low or high viscosity additives and powdered solids. Based on the patented Fluid Division Mixing technology with its inter-cavity transfer principle, the DCL provides a highly effective but gentle low shear blending action.



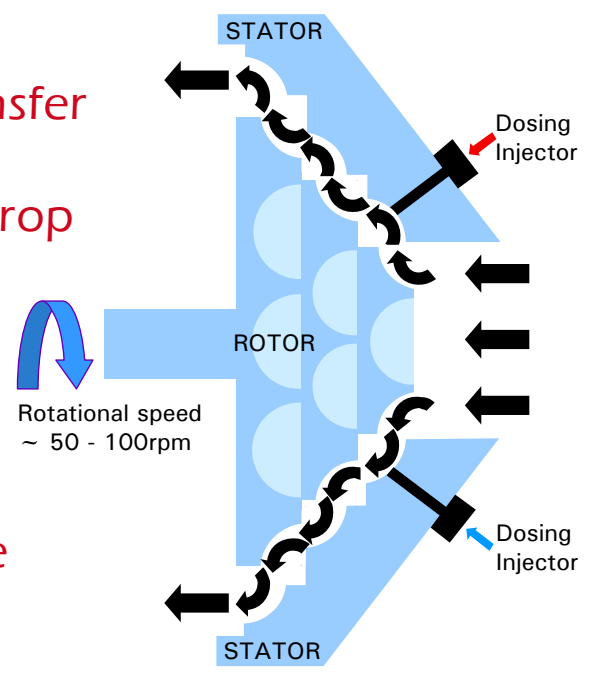
The DCL blending action is particularly important for shear-sensitive materials as the low shear rates, low pressure drops and near-zero temperature rise protect such materials from damage. In situations where pin mixers and kneaders introduce too much shear, and the fluid viscosity is too high for static mixers to function properly, the Distromix DCL can provide the ideal blending solution.

“gentle, ultra-low shear blending of sensitive materials”

Low shear inline mixer



- Inter-cavity transfer
- Low pressure drop
- Low speed
- Simple dosing
- Easily cleanable
- Hygienic

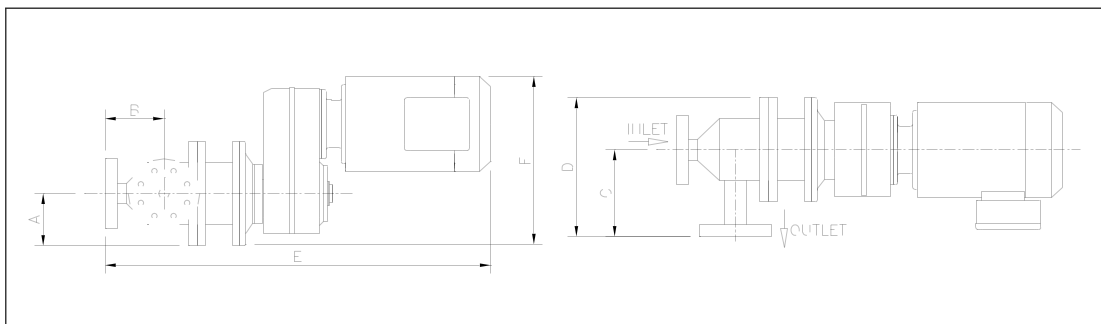


Example applications:

- Blending colours and other additives and reactants into polymer meltstreams
- Improving post-extrusion thermal homogeneity in rubber materials
- Blending chocolate with flavourings
- Incorporating liquids into food pastes
- Blending pressure-sensitive adhesive compounds



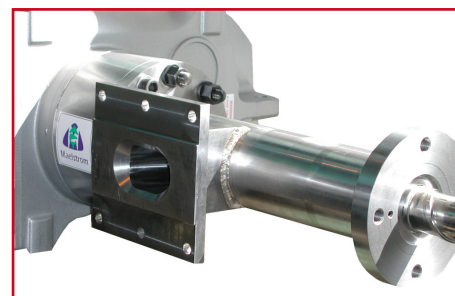
**low-shear
inline mixer**



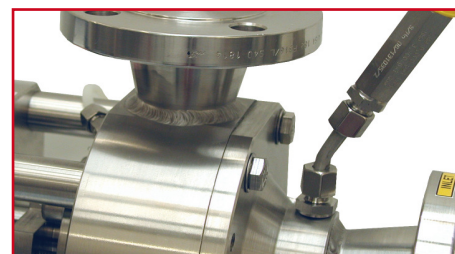
		DCL50	DCL100	DCL150	DCL200
Typical Dimensions	mm				
A		80	150	225	275
B		124	165	248	302
C		133	250	375	458
D		212	400	600	732
E		572	1079	1619	1975
F		258	488	731	892
Port sizes - nominal (bore diameter)	mm (inch)	20 (3/4)	30 (1.1/4)	45 (1.3/4)	60 (2.1/2)
Maximum flowrate at medium viscosity (e.g. food paste)	tonne/hr	2.4	9	21	36
	GPM	10	40	90	160
Maximum flowrate at high viscosity (e.g. rubber)	tonne/hr	0.24	0.9	2.1	3.6
	GPM	1	4	9	16
Viscosity range (approx.)	Pa.s (cP)	50 (50,000) - 1x10 ⁶ (1x10 ⁹)			
Typical motor power - medium viscosity fluids - e.g. food paste	kW	0.5	1.5	3	5.5
	hp	0.75	2	4	7.5
Typical motor power - high viscosity fluids - e.g. rubber	kW	3	15	30	45
	hp	4	20	40	60
Rotor speed (typical max.)	rpm	200	100	80	50
Approvals / Certification (standard)		CE marking (Europe), UL/ASME components (US) + others			

Options

Mixing head configuration	Standard: 4/4 (4 cavity rows on stator, 4 on rotor) Options: 3/4 and 2/3 heads available
Construction materials	<u>Wetted parts</u> - 300 series stainless or nitrated steels are standard (other materials such as titanium, HASTELLOY® and ceramics are available on request) <u>Mounting</u> - stainless steel or painted structural steel base
Seals	- Gland packing or reverse pumping grooves (high viscosity) - Double mechanical seals (medium viscosity)
Ports	- ANSI 150, 300 - Triclamp, RJT, IDF, 3A hygienic - Custom - to retrofit to existing equipment (e.g. an extruder)
Dosing injectors	A range of dosing injectors and metering pumps are available for direct dosing of multiple input streams into the mixing head
Clean-in-place / Hygiene	Integrated CIP injection ports around seal area
Motors & Drives (note that standard mixers are supplied with motor only)	- Geared electric motors to any IP rating - EExd and explosion proof geared motors - Hydraulic drives - Painted or stainless steel finishes - AC inverters or DC control systems



Custom dosing pump for food paste



Low viscosity dosing injection point

The physical and performance specifications in this leaflet are not intended for accurate sizing and selection of machines. Please contact Maelstrom APT or its agents directly for a selection appropriate to any particular mixing application. HASTELLOY® is a registered trademark of Haynes International Inc.



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