

Laboratory/Pilot Plant

# 'Z' Blade Mixers



## New

Range of Laboratory, Pilot Plant and Small Scale Production Mixers — from 0.25 litre to 75 litres working capacity.

Pictured Right: Heavy Duty 'Z' blades



## Application guide

Viscous Pastes and Doughs including:

- Biscuit doughs
- Chewing gum
- Food products
- Confectionery products
- Sugar pastes
- Chemicals
- Pharmaceuticals
- Soaps and detergents
- Adhesives
- Crayons and pencil lead
- Fibreglass resin dough
- Moulding compound
- Inks and pigmented products
- Mastics
- Sealants
- Ceramics
- Explosives
- Grinding wheel pastes
- Metal powder pastes
- Brake linings
- Refractories
- Rubber solutions
- Silicone rubber
- Welding rod pastes

### Introduction of a novel development in 'Z' Blade Mixer design

Winkworth has improved its well-known range of 'Z' Blade Mixers to ensure enhanced performance and radical improvements in maintenance, cleanliness and ease of installation.

NEW: 'Fast Clean' laboratory models with removable pan and blade assemblies and disposable seals for the MZ025 to the MZ4.

NEW: More hygienic and lighter duty models with direct drives and smaller 'footprint' for the food, pharmaceutical and similar industries.

NEW: Range of heavy duty models, with 'Cleanline' frame, improved glands, quieter drive unit and smaller 'footprint'.

\* See separate leaflet for production sizes up to 1600 litres and mixers with extruder discharge.

website: [www.mixer.co.uk](http://www.mixer.co.uk)

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# Winkworth Laboratory 'Fast Clean' Models

(MZ025 to MZ4)



**Model MZ2 'Fast Clean' Laboratory Mixer**  
Showing the trough partly tilted



**Easy to clean:** The trough, blades and drive endplate can all be removed in less than one minute

**At Last** – a heavy duty laboratory 'Z' blade mixer that can be dismantled for cleaning in less than one minute. Control panels with data logging can be provided to machines for research laboratories.

## Winkworth Heavy Duty Models (MZ10 to MZ75)



**Model MZ35** with high temperature oil jacket (300°C), heavy duty 4kW flameproof drive, mechanical seals and vacuum lid



Fully adjustable packing glands showing ample space for adjustment. The split and removable housing (fitted on models MZ35 and MZ75) allows faster cleaning and maintenance of the seals.



**Model MZ75** with stainless steel replaceable liners in trough and replaceable wear strips on the 'Z' blades. Jacketed for high pressure fluid circulation and with hinged, domed lid

The heavy duty range of pilot plant and small production mixers have been redesigned to incorporate a 'Cleanline' frame and a direct, shaft mounted, geared motor drive to give a more compact, easily installed, quiet running machine. Adjustable packing glands are fitted as standard.

# Winkworth Hygienic, Lighter Duty Models

(MZB35 and MZB75)



Designated MZB35 and MZB75, special economically priced, hygienic versions of the MZ35 and MZ75 are available for lighter duty applications.

Constructed of mild steel or stainless steel, the MZB35 and MZB75 have twin, shaft mounted, geared motors driving the blades and an electro-mechanical tilt unit.

**Model MZB75** Economy model with stainless steel fabrications, twin geared motor drive, control panel, jacketed trough and electric screw jack tilt

## Standard Features

The standard range of Winkworth 'Z' Blade Mixers incorporates many features which makes this range of mixer eminently suitable for laboratory use and small-scale production.

- All parts in contact with the mix are manufactured in stainless steel for models up to MZ20. The MZ35 and MZ75 are available with mild steel or stainless steel contact parts.
- Trough and blades can be easily dismantled on models up to MZ4 to allow easy cleaning.
- The Winkworth 'Z' blades are made from solid stainless or high tensile steel. The two blades revolve towards each other at different speeds giving a very efficient high shear mixing action.
- Hinged lid, with clamp, provides access for loading, discharging and cleaning and is equipped with a safety device to prevent access while the blade is rotating.
- Shaft seals consist of close fitting synthetic polymer sleeves on models up to MZ4 and fully adjustable packing glands on the larger models. Extra large access space is allocated to the glands for adjustment, cleaning or replacement.
- Discharge is achieved by tilting the trough by hand lever on models up to MZ4 and by hydraulic ram (complete with self-motorised hydraulic power pack) on all larger models.
- Clean-line construction supporting frames.
- Robust drive unit.

MODEL	APPROX. TROUGH SIZE (mm)			TOTAL CONTENT (Litres)	APPROX. WORKING CAPACITY (Litres)	DRIVING MOTOR (kW)	
	LONG	WIDE	DEEP			STANDARD	HEAVY DUTY
MZ025	80	100	89	0.5	0.25	0.25	n/a
MZ05	160	100	89	1.0	0.5	0.5	n/a
MZ2	130	192	148	2.75	2.0	0.75	n/a
MZ4	260	192	148	5.6	4.0	1.1	n/a
MZ10	280	280	240	20.5	10	1.5	2.2
MZ20	360	360	310	35	20	2.2	3.0
MZ35	410	408	356	52	35	2.2	4.0
MZ75	540	540	510	133	75	4.0	11.0

LARGER MODELS UP TO 1600 LITRES ARE AVAILABLE - PLEASE REFER TO PRODUCTION MODEL LEAFLET

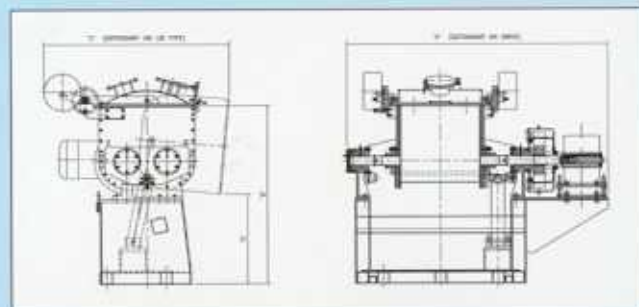
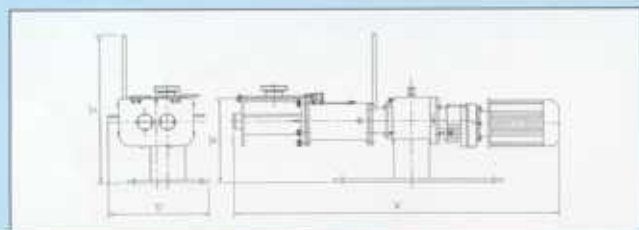


# Winkworth Laboratory and Pilot Plant 'Z' Blade Mixers

## Optional Features

- *Light duty models* of the MZ35 and MZ75 are available where economy and simplicity are required.
- *Special steels, liners and replaceable blade tips* are available for more abrasive mixes.
- *Heated troughs* for steam, oil, water or electric heating are available.
- *Blades* of the Dispersion, Naben or Double Naben type are an option. Special blades can be produced to order.
- *Blade gland seals* of the stuffing box type, air purge, and split 'sanitary' type can be supplied. Mechanical seals are available when specified.
- *Inlets* can be supplied to suit specific customer applications.
- *Bottom Outlets* are available in place of tilting discharge and include flush fitting bomb door, special slide, diaphragm, ball and butterfly (either pneumatic or hand operated).
- *Drives* can be offered with variable speed, flameproof electrics or special voltages.
- *Control panels* are an optional extra and can be designed to incorporate any additional instrumentation that is required such as temperature indicators, load cell indication and controls for other machines in the system.
- *Heavy duty models* are available on the larger models for more arduous applications.
- *All stainless steel models* are supplied with all fabrications continuously made from stainless steel and glass beaded externally for food and pharmaceutical purposes (or polished).
- *Vacuum models* are available for drying and de-airing applications.
- *Other special features* can be specified when required.

## Approximate dimensions of the standard range



MODEL	A mm	B mm	C mm	D mm
MZ025	900	214	400	225
MZ05	1068	214	400	225
MZ2	1225	365	640	431
MZ4	1393	365	640	431

MODEL	A mm	B mm	C mm	D mm
MZ10	1220	610	710	420
MZ20	1350	800	800	500
MZ35	1605	990	980	565
MZ75	1735	1200	1250	605

CE All new Winkworth mixers destined for EEA Countries are designed and manufactured to comply with the relevant EC directives and HASWA (1974) and are issued either with an EC Declaration of "Incorporation" or an EC Declaration of "Conformity" with CE marking.



**FOR FURTHER INFORMATION ON**  
**ALL Winkworth Mixers CALL +44 (0) 118 988 3551**  
**OR visit our website at [www.mixer.co.uk](http://www.mixer.co.uk)**  
**AND e-mail at [info@mixer.co.uk](mailto:info@mixer.co.uk)**

We reserve the right to alter or modify specifications as circumstances or improvements may require.