

MIXTEC

FOR MIXING TECHNOLOGY

the ultimate in
MIXING
TECHNOLOGY



ECONOMICS OF SIDE ENTRY MIXERS

When considering whether to install a top or side entry mixer on a large blending tank, such as petroleum, lubrication oils, fuel and vegetable oils, the process engineer should carefully select the equipment required to perform the duty. For example, a top entry mixer requires a long shaft and large heavy impeller combined with a suitable heavy duty gearbox to carry the forces generated when mixing. It also requires a mounting structure to carry this additional mass on the tank top. In-tank structures, like anti-sloshing baffles, are normally required. Maintenance and access platforms have to be constructed as well. All these factors add together to make the top entry mixer expensive to install. The side entry mixer, however, operates close to the bottom of the tank with a shorter, lighter shaft. The impeller is smaller and being positioned near to the bottom of the tank, it thereby generates the maximum flow where it is required. Being close to the bottom of the tank also means easy access for installation and maintenance. By positioning the mixer on a suitable manhole, mounting costs can be kept to a minimum and by correctly selecting the mixer, no additional in-tank baffles or anti-sloshing structures are required. Mixtec have had years of experience in both top and side entry mixer designs and we advise you on your best method in large tanks.

HYDROBLADE IMPELLERS

Hydroblade impellers are the very latest generation of hydrofoil impellers which maximise flow rates and lower power consumption. They outperform existing marine-type props by 25 to 50% depending on the application. Mixtec's hydroblade technology is consistently proven. Mixtec's technology ensures customers get the maximum benefits in operational efficiency and plant productivity. Both impeller and shafting are available in various steel material to suit your application.

SERIES 5000

SHUT-OFF DEVICE

The seal shut-off device allows for seal to be isolated from the tank and removed for repair or replacement. This feature reduces downtime and increases productivity.

GEAR DRIVE

Mixtec use the world renowned, branded speed reducer as our standard drive which produces high efficiency performance. Replacement parts are readily available locally. All Mixtec gear drive is selected based on minimum service factor of 2.0 which is exceeding the ASMA standard requirement.

SEALING

Single / Double mechanical seal or packed gland are available. Mixtec side entry mixers are equipped with the mechanical seal supplied by the world's leading seal manufacturer. Pre-set cartridge seal design facilitates easy installation and maintenance.

MOTORS

Motors are rated from 1/2 HP - 150 HP units. IP 55 IEC 4 pole motors are fitted, which are hose proof from any direction as standard. Other motor enclosures are also available to suit the required duty.



SERIES 5500

The simple compact design of the Mixtec Series 5500 side entry mixer combines light mass with structural rigidity. This compact design reduces the bending moment on the tank thus eliminating the need for any further support structures, however, should additional support be required in support of the mixer, this can be provided by the use of leg supports. The light quality housing also ensures maximum shaft concentricity which improves seal life.

1. High quality bearing which are positioned close to the seal housing to ensure the minimum shaft deflection.
2. A large output shaft provides additional rigidity thereby, again, reducing deflection.
3. The one-piece housing reduces machining concentricity to a minimum, again providing minimum run-out for the shaft and ensuring maximum seal life.
4. The shut-off device also acts as a finger which maintains liquid flow around the seal taking away heat and preventing the build-up of solids.

QUALITY ASSURANCE

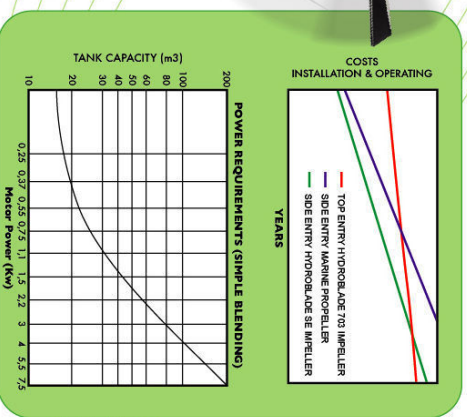
It is pointless designing the best possible mixer if it is not backed by the best possible manufacturing techniques. The Mixtec Series 5000, like all Mixtec equipment, is manufactured to the highest industrial standards.

EXPERIENCE

One of the most important considerations when buying a side entry mixer is knowing that it will do the job - and carry on doing it for a long time - others talk about it - we guarantee it. The experience of our application engineers ensures the correct design to do the duty you have specified. The design features and methods of construction will ensure it keeps on doing it. Each unit comes with a double guarantee. We guarantee that it will do the job and we guarantee it will keep on doing it.

RESEARCH & DEVELOPMENT

Mixtec have a constant research and development programme which assures you have the best possible combination of technology and price. Value for money is the basis of this programme, and our aim is to continue to find better and more cost effective methods of making and manufacture.



DUTIES

PALM OIL STORAGE

Mixtec have installed thousands of side entry mixers for the storage tank of vegetable oil, fatty acid and bio-diesel. For tank capacity from below 100 m³ up to 10000 m³, Mixtec Series 5000 mixer blends the tank liquid to maintained homogeneity. Rate of heat transfer and temperature control of the process is improved by uniform flow and turbulence generated from the side entry mixer.

PETROLEUM OIL STORAGE TANK

Side entry mixers are required to control or prevent the accumulation of bottom sludge and water pocket of crude oil tank. It is also commonly used for blending of oil refinery products such as fuel oil, gas oil, kerosene, asphalts, etc. Multiple side entry mixers are installed for big capacity tank to improve the blending of petroleum products.



PULP & PAPER

Special attention is required to ensure that the stock is correctly mixed. To ensure maximum process efficiency, our application engineers, aided by computer programming are practiced in the complicated calculations required to suit paper and pulp duties.

MILK STORAGE

Mixtec side entry mixer, used in both horizontal and vertical tanks, of capacities from 2000 litres to 200 cubic metres, provide low shear high flow rate mixing to ensure that the required duty is performed without damaged to the milk.

WINE

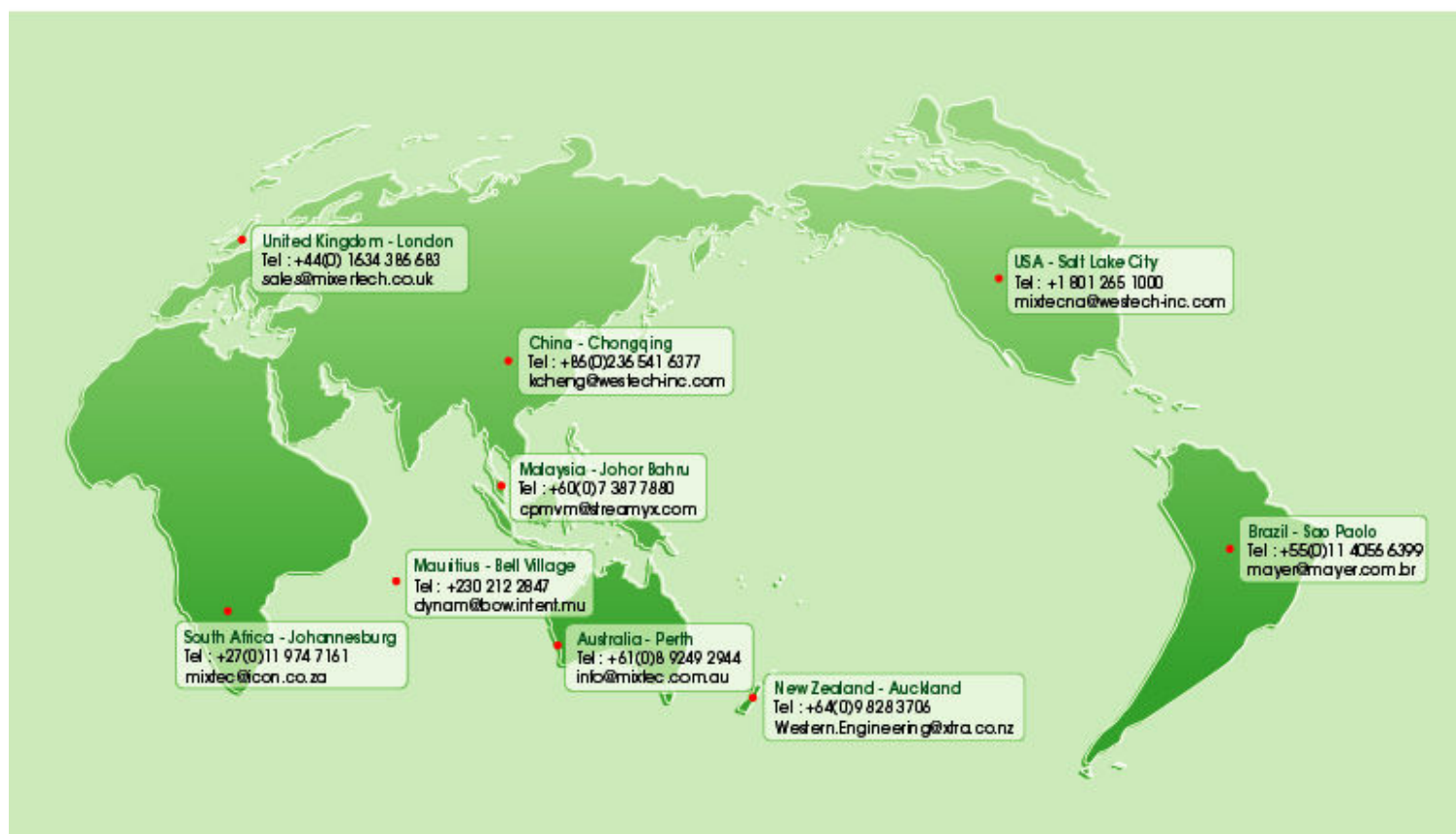
Mixtec side entry mixer is manufactured to the most hygienic standards and the Mixtec range caters for tank capacities from 2 - 1000 m³.

SUGAR

Applications for Mixtec 5000 series not only include conventional sugar syrup and sugar dissolution but have also been applied in suspension of fruit particles, achieved using the HA703 high flow low shear impeller, where low tip speeds are required, and special precautions need to be taken to ensure that air is not introduced into the system.

OTHER BLENDING APPLICATIONS

Our experience includes the blending, using side entry mixer, of vegetable oils for the manufacture of margarine, soap, edible oils, shortenings, (including the blending of coconut oil, cotton seeds, corn oil and soya bean), as well as pharmaceutical, brewing, distilling and cosmetic applications for tank capacities up to 400m³.



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