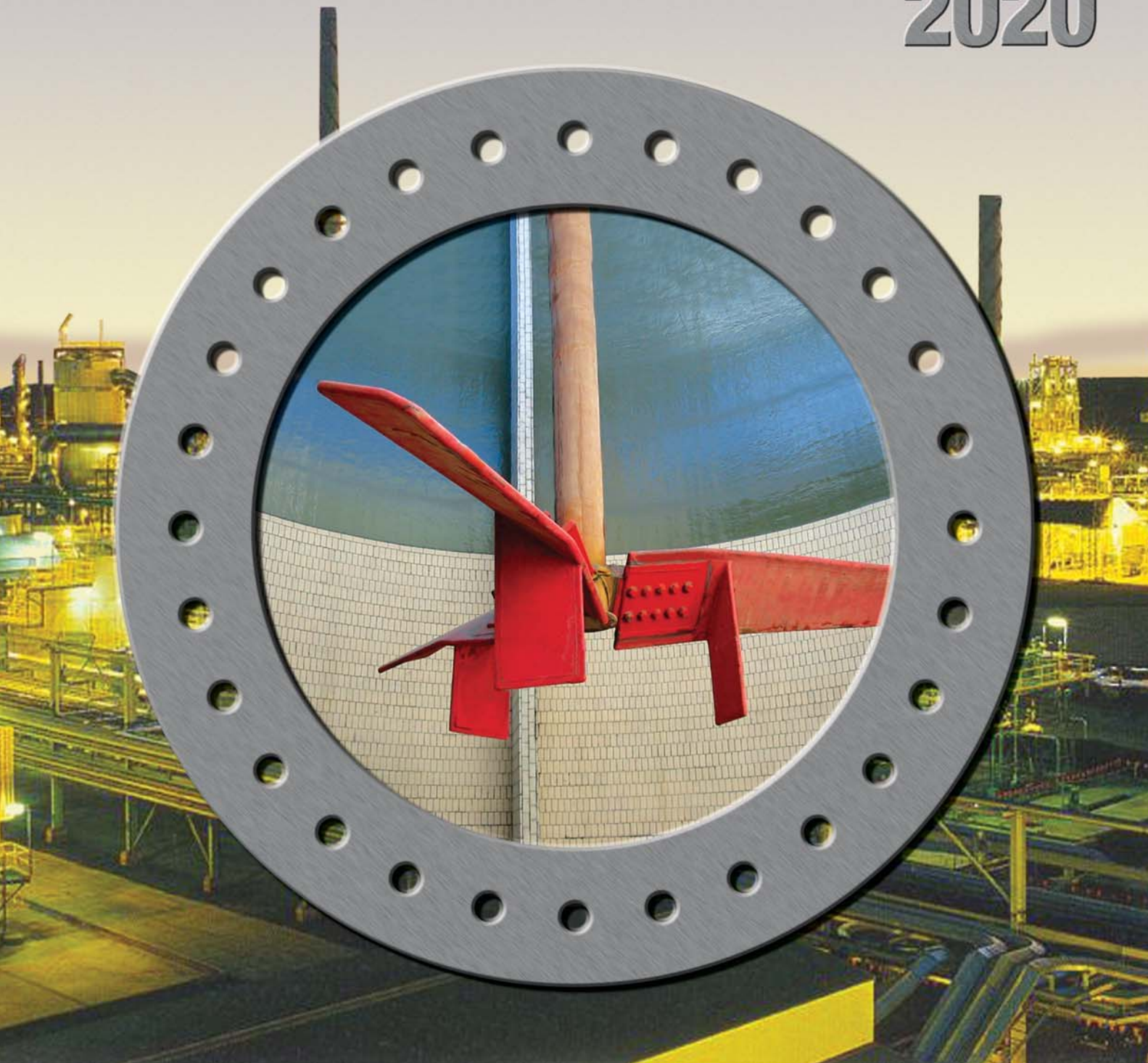


# MIXTEC

## FLUID MIXING TECHNOLOGY

### 2020



PERFECT VISION INTO GOOD MIXING PRACTICE



## 75 Years of experience and know how



**132kW Series 4015 Mixer Drive**

### Profile

Mixtec International has seven manufacturing plants strategically placed around the world to give you, our customer, the service and fluid mixing technology that you require, when you require it.

Each plant has its own research and development as well as design, engineering and commissioning personnel who are trained to solve your mixing problems with the latest fluid mixing technology.

For 75 years, the Mixtec group has been engaged in mixing technology. Since 1930 as Kestner Industries, UK Mixtec has been committed to quality, reliability and service



**Mixtec Agitator shaft coupling and support collar**



**4000m<sup>3</sup>  
17.0m Dia Gold  
Leach tanks**

Whether your requirements are simple blending of solids suspension to the more exacting standards of multiple complex reactions, Mixtec has the capability and experience to suit your needs.

Mixtec's proven track record of thousands of installations around the world bears witness to our success and our commitment to good mixing practice.



**Dual 6.0m Dia HA715 Impellers**

## Good Mixing practice starts with product research and development



This enables Mixtec to produce custom made equipment and cost effective solutions to your mixing problems.

Our laboratory can guide you in the correct selection of impeller systems as well as in-tank items such as Sparge ring design and baffle arrangements.



**Complex fluid flow and gas dispersion test rig.**

Research into optimum tank characteristics-baffling-inlet-outlet configuration and optimisation of gas sparge.

Over a period of many years Mixtec has developed new impeller systems and improved on existing agitator duties in all major industries.



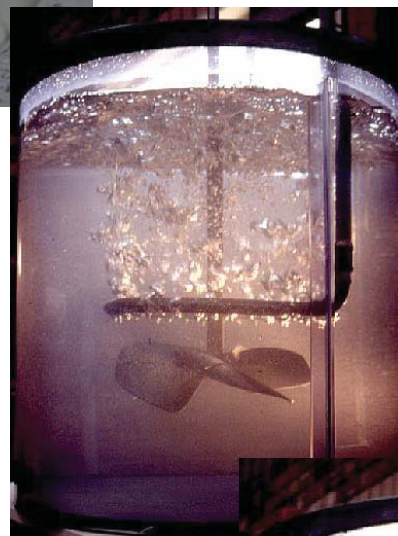
**Gold Leach test work**



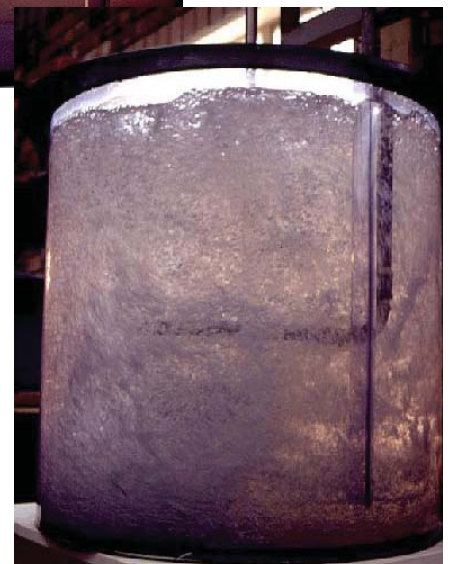
**Solid suspension test work on Copper leaching application.**

Mixtec is in constant contact with operators and all important research institutes around the world in order to offer the very best solution to your agitation problems

Using established scale up procedures accurate and predictable process results are obtained.



**New gas dispersion impellers and sparge rings under test**

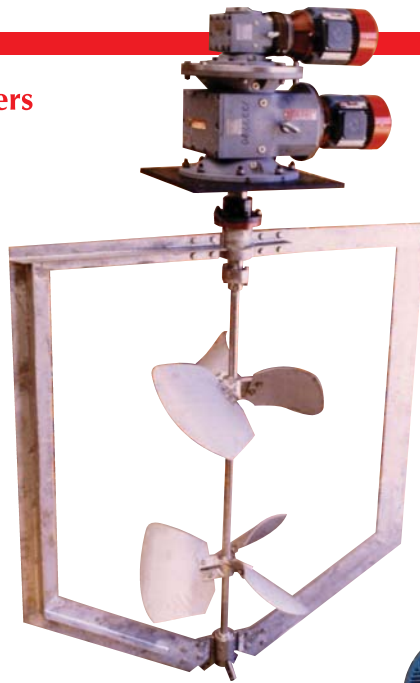




## Custom designed mixers



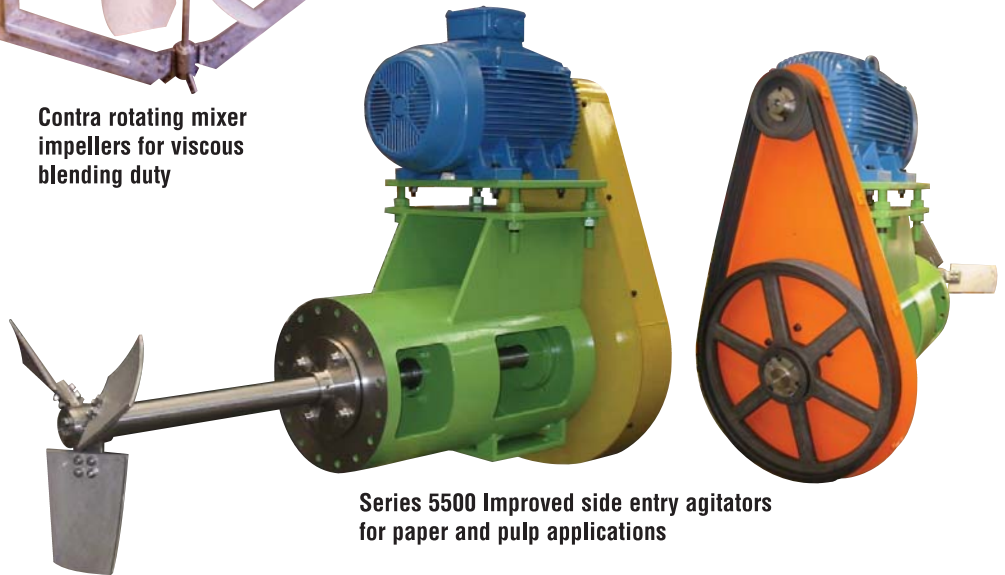
**Magnetic drive for  
Bio processing**



**Contra rotating mixer  
impellers for viscous  
blending duty**

All mixing applications are different and each has its own unique solution.

At Mixtec we understand this and our engineers strive to improve every aspect of mixer selection.



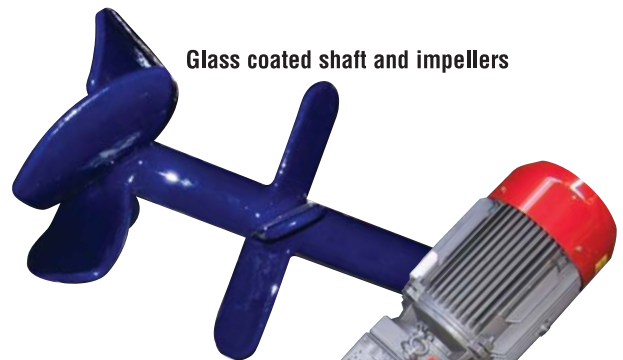
**Series 5500 Improved side entry agitators  
for paper and pulp applications**

### **Mixtec's main activities include:**

- The research and development of mixing technology
- Processed design and construction of fluid mixers
- Comprehensive mechanical design of fluid mixing components
- Design and development of alternative agitation systems
- Design and development of fluid pumping devices.



**Special bottom entry agitator for crystalliser duty**



**Glass coated shaft and impellers**



**Polycarbonate  
shaft and  
impeller**

**Dairy, food and  
beverage side entry  
mixers for liquid  
blending and solid  
suspension**

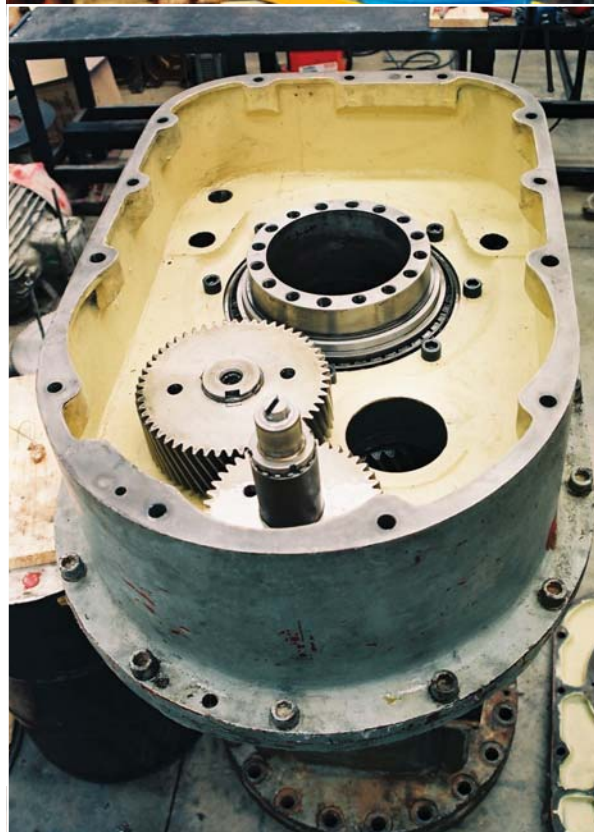


**600mm Dia static mixers**



## Good Mixing practice - selecting the right drive for the job

Mixtec Series 2000 drives



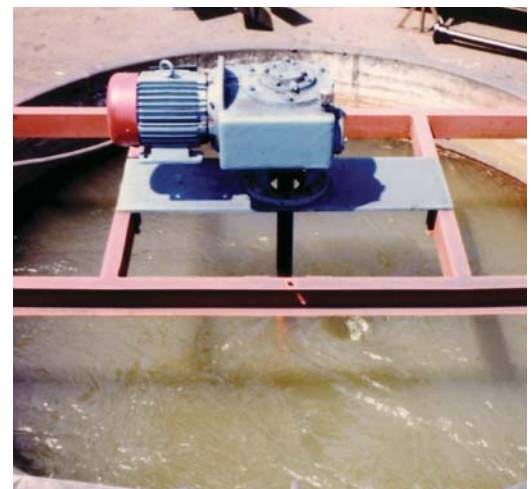
### Features include:

- Oversized bearings to take start-up shock
- Dry well construction - no oil leaks
- Large output shafts, robust construction
- Hardened and ground gears to AGMA 2000 standards for maximum strength and wear and reliability

Series 5000 side entry agitator for petro-chemical application



Robust drive casings on the Series 4000 after stress relieving and NDT testing



Mixtec Series 3000 right angle drive under test



## Mining and Refining Agitators for all duties



**Cobalt, Tin, Aluminium, Lead, Mineral Sands and others**



**Gold, Platinum, Uranium, Silver, Copper, Nickel, Zinc**



In 1980 thirty 75kW draft tube agitators were supplied to Rand Mines Milling and Mining for the processing of Gold Dumps around Johannesburg, South Africa.

Using the new CIP Adsorption technology these units have now treated over 50 million tonnes of rock resulting in the recovery of over 40,000kg of Gold.



Mixtec has extensive knowledge of solvent extraction pump secondary and auxillary mixer duties



**75kW Precipitation Reactor**

Process duties require an efficient and reliable solution. Mixtec has the track record, technology and equipment



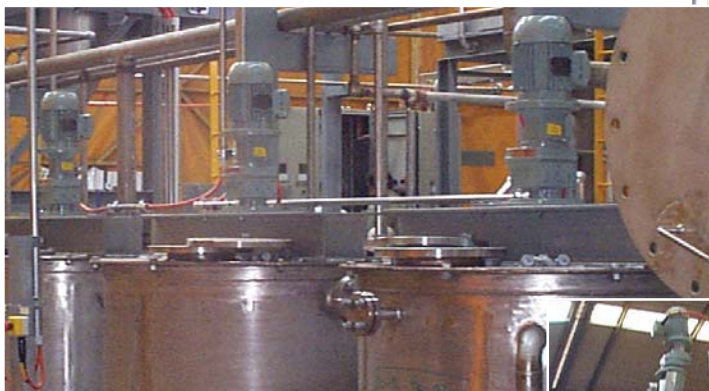
## Chemical and Industrial mixing applications



Chemical processing has some of the most varied and difficult agitation problems.



Series 4000 agitators on a Resin plant installation. UK



Series 1000 units on paint blending duty



Chemical plant. Malaysia



Special solvent extraction column with 28 stage counter current agitation



Series 2000 agitator on a crystalliser duty



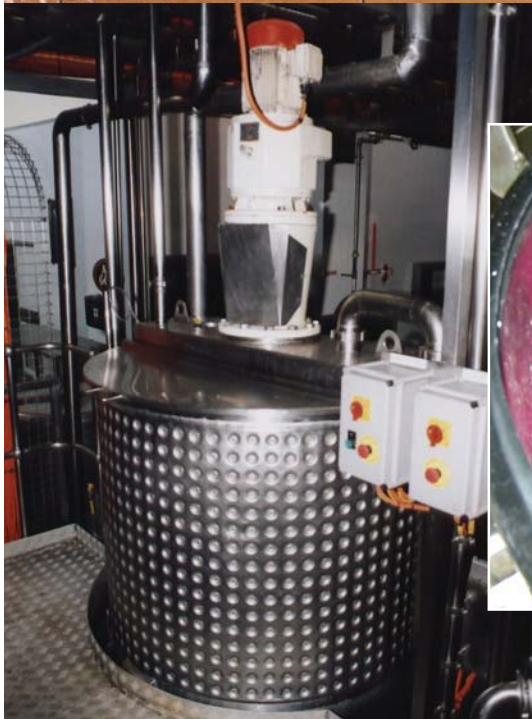
Large HA 735 impeller in a high pressure, high temperature autoclave



## Dairy Food, Beverage and Pharmaceutical industry



One of 104 Series 5000 side entry agitators supplied to a large winery, New Zealand



Series 2000 on a soup cooker.



High quality finish to latest hygiene standards

Food blending application



### Also available:

- In-line static mixers
- Jet and eduction mixing
- High viscosity blending
- Sugar pan circulators
- High Speed dispersion





## Water Treatment and Environmental



Series 1000 on flocculator duty - USA



1992 major installation of anoxic and anaerobic agitators. For over 30 years Mixtec has supplied thousands of agitators to the Water Treatment industry



Side mounted Series 1000 - Australia



### Anoxic Mixer

Clean water is precious and water care is rapidly becoming one of the worlds major problems.

Mixtec has been at the forefront of many water treatment processes due to its continual research and development.





## Engineering and Fabrication



Large agitator couplings being manufactured to tolerances of less than 0.01mm for accuracy and control.

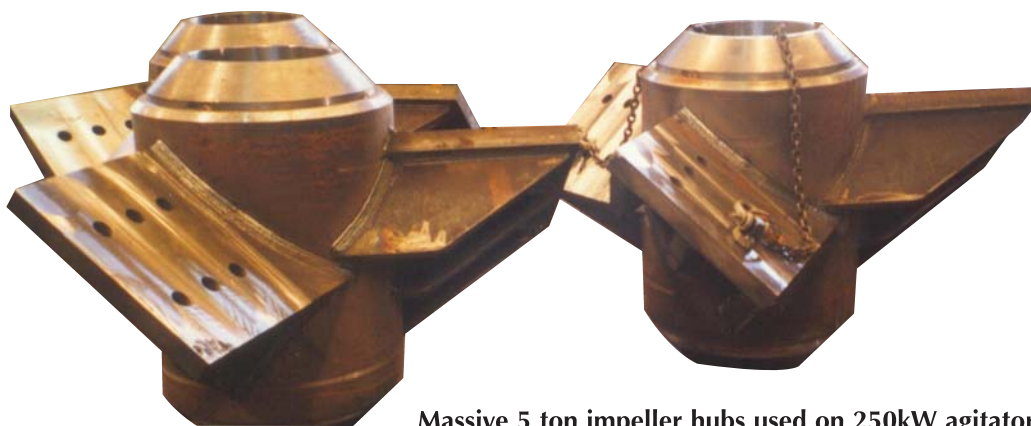


All agitators are manufactured using the latest international standards for mixer design, to produce a rugged well constructed agitator backed by a solid mechanical and process guarantee.



**Series 5500 side entry**

Complete assembly of all components before despatch



**Massive 5 ton impeller hubs used on 250kW agitators**



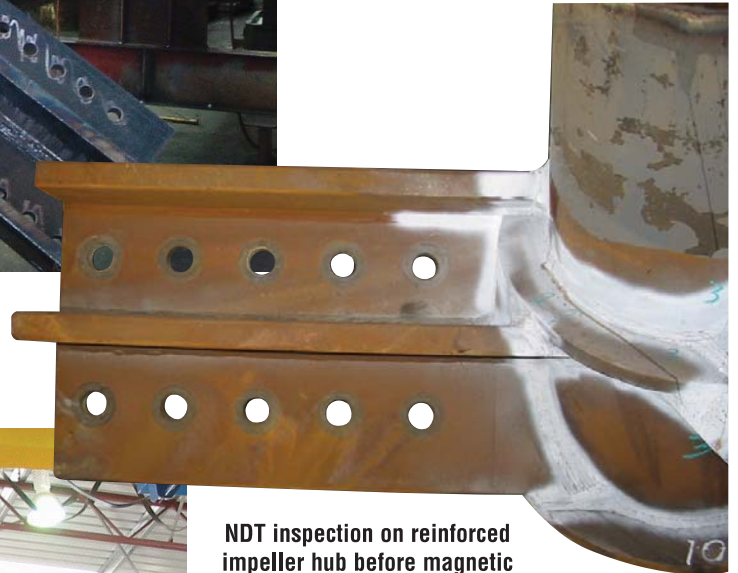


**500mm nominal bore schedule 80 pipe shaft in production.  
Shaft length exceeds 20 metres**

Mixtec has a wealth of experience which covers all aspects of agitator construction.

Our computer designs not only check process parameters but also calculate bending and torsional loads.

This information is used to design material sizes and fabrication techniques.



**NDT inspection on reinforced  
impeller hub before magnetic  
particle testing and final coating**



All factors influencing the mechanical design are analysed and backed up by years of successful experience in the field.

Materials of construction include Carbon and Stainless steels, Hastelloy, Incolloy, Tantalum and Titanium plus several varieties of coatings such as rubber, stellite, Halar, glass and poly-carbonates.





Around the world with Mixtec - We are committed to you



Chemical plant - Brazil



Gold plant - South Africa



Zinc storage - Namibia



Back fill - Indonesia



Beverage storage - Australia



Mineral Leach tank - USA



Water treatment - China



Paint plant - New Zealand



Paper and pulp side entry mixers - UK

