

GLASS BATCH PREPARATION

TEKA

mixing technology,
proven worldwide for
over 50 years



Mixers are an essential part of glass production and being able to supply these mixers that not only feature simplicity, ruggedness and exceptional service life, but also provide additional mixer possibilities is what TEKA – the company in this article – does each and every day.

Established in 1961, TEKA Maschinenbau GmbH is one of the leading manufacturers of high-performance mixers for the glass manufacturing industry. TEKA has over hundreds of glass batch mixers successfully in operation worldwide with the most reputable glass manufacturing companies.

CONTINUOUS IMPROVEMENT AND DEVELOPMENT

TEKA's aim is to tackle market challenges by continuously improving its products – each and every day, all around the world. The company defines itself as a one-stop shop for everything ranging from consulting and mixer design to commissioning by highly trained installers. This work is then followed up by TEKA's after-sales service and inventory policies that keep plants running without breakdowns or interruptions.

PAN MIXERS – THZ

The internationally famous TEKA pan mixer THZ is a TEKA 'classic' and the mixer of choice for many customers for the most diverse applications and highest demands for the production of quality glass.

Thousands of TEKA turbine pan-type mixers, many with optional equipment, have been shipped to building materials customers around the world since 1961. The THZ combines the advantages of simplicity, mixing efficiency, ruggedness and exceptional service life. That translates into excellent value. Continuous enhancement has made the THZ a fully mature machine, ideally suited for a wide range of glass mixing tasks.

The THZ comes in different sizes with filling capacities ranging from 250 to 6,000 liters; all sizes can be outfitted with different wear-resistant liners, accessory items, skip hoist systems and high-pressure cleaning systems.

- Suitable for a wide range of glass mixing applications
- Outstanding homogeneity performance
- Exceptional reliability
- Perfect for retrofitting thanks to compact size
- Intelligent component layout simplifies maintenance

MAIN FEATURES AND USES

TEKA turbine pan-type mixers THZ are for batching operations and are available in sizes from 250 to 7500 liter filling capacities.

The mixing pan floor and the outer walls are protected by exchangeable wear liners. The spring-loaded mixing arms are mounted in the rotor head and are adjustable to compensate for wear. This, plus the various angles-of-attack of the paddles enhance the mix-effect, reduce wear and protect the drive from shock.

Central lubrication for the mixing arm bushings is avail-

able. Depending on the application, mixing paddles, wall scrapers, and mixing arm wear guards made of various abrasion-resistant materials are available.

These include cast-iron W4, with complete tungsten-carbide surface, polyurethane elastomere (PU), nickel-free special casting, etc.

The centrally located planetary gearbox is driven by a 3-phase TEFC motor which is flange mounted directly to the gearbox, in the case of pan-type mixers THZ 375 to THZ 1125 turbine.

THZ 1125 G to THZ 7500

Mixer sizes THZ 1125 G to THZ 7500 are driven by a foot-mounted motor which is connected to the gear box by a universal joint cardan shaft. A hydraulic turbo coupling or frequency converter for soft starts under load are also available.

Flanged to the gearbox and driven by it is a hydraulic gear pump which constantly cycles the oil. Gearbox and discharge gate(s) use the same oil for less maintenance. This oil also supplies the pressure to operate the discharge gate(s).

The discharge gate assembly, used to remove the batch from the mixer, is a complete heavy-duty component bolted to the mixer pan floor. The semi-circular gate is hydraulically operated by means of a rotating piston cylinder.

It is electrically controlled, and can be opened to any degree desired. The discharge gate is protected by a specially designed dust-free discharge protection.

Locating the pivot-

point of the gate slightly inside the pan circumference allows for a large opening and thereby, a fast discharge.

In case of emergency, a manual hand pump for the discharge door is standard.

As an option, the discharge gate can be opened independent of the mixer main drive, via a separate hydraulic power-unit.

THZ 250 to THZ 1125

Mixers THZ 250 to THZ 1125 may be equipped with up to four gates, whereas three gates is the maximum for THZ 1125 G to THZ 7500. Sampling gates are also available.

A protective cover encloses the mixer on top. A built-in seal makes it near dustproof. Large, hinged segments with variable positioning are possible, raised and lowered by a manual- or motorized cable winch.

With no components located above the pan cover, there are no obstructions to impede the arrangement of cleaning segments, inspection doors, material inlets, etc. into the mixing pan.

TEKA turbine pan-type glass batch mixers offer additional mixing possibilities such as steam-injection through rotating lances, or through stationary nozzles, and mixer doubling as weigh-bin when mounted on load cells. ■



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