

# JENSEN Centrifuges Z 1200<sup>Plus</sup>, Z 1300<sup>Plus</sup>, Z 1400

High performance centrifugal extractors for batch sizes of up to 100 kg/220 lbs

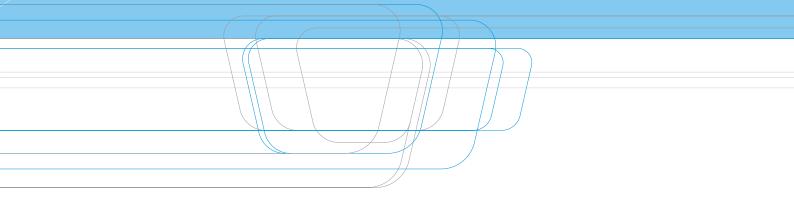




Z 1200 Plus in unloading position

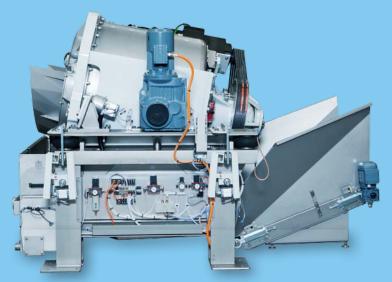


Z 1400



# JENSEN Centrifuges Z 1200<sup>Plus</sup>, Z 1300<sup>Plus</sup>, Z 1400

High performance centrifugal extractors for batch sizes of up to 100 kg/220 lbs



Z 1200 Plus in loading and extraction position



The drum is supported on its optimum gravity point.

### About centrifugal extraction

An increasing number of laundries are processing garments in a tunnel washing system. This puts a demand towards a low moisture retention and equal distribution of the moisture in order to feed the garments directly into a tunnel finisher. The textiles should be treated gently and the centrifugal extractor should keep up with the capacity of the tunnel washer even at short cycle times.

The major advantage of centrifugal extractors compared to presses is a higher extraction performance for many synthetic fibres, e.g. for workwear or floor mats.

## New extraction concept

Against this background, JENSEN has developed a new generation of centrifugal extractors with even more possible applications than before. JENSEN centrifugal extractors provide the capacity for highquality processing of all textiles, which can be washed in a continuous batch washer. The extraction of cotton sheets and towels is no longer a necessary compromise but can be carried out with outstanding results in moisture retention even at very short cycle times.

Classical textiles for extraction can still be processed in a more advanced way. Specially adapted programs for cotton and blended garments provide an equal moisture retention even at very short cycle times.

# New JENSEN Centrifuge Z 1300<sup>Plus</sup> is the perfect fit

Now the gap between two batch sizes is closed: The JENSEN Centrifuge Z 1300<sup>Plus</sup> is the perfect fit. JENSEN is listening to customers and their demands and found the missing link between two centrifugal batch sizes: The new JENSEN Centrifuge Z 1300<sup>Plus</sup>. Like the two well-proven JENSEN Centrifuge sizes, also the Z 1300<sup>Plus</sup> offers highest extraction performance combined with an even smoother and more balanced operation.

# Highlights of the design Gravity centre design

A main target of the development was to minimize unbalances in order to allow very high G-forces and acceleration at short cycle times. To achieve this, a complete new support construction was designed consisting of a frame as well as several tiers of beams. The drum is ideally located for a smooth and balanced operation.

#### New cushioning system

Pneumatic cushions remove the pedestal from the drum. This leads to a perfect uncoupling of the drum from the base frame and negligible dynamic forces exerted on the foundations. During the operation in the lower speed range, four removable friction absorbers fix the drum unit and cushion possible vibrations. Beyond this range, the



Locking cylinder for drum fixation during the loading and extraction process



New cushioning system with friction absorbers

dampers are opened so that a complete decoupling between the drum unit and the base frame can be ensured. Due to this patented system, a new allocation of the linen is reduced in order to meet the pre-defined cycle times and to achieve the very low moisture retention values. During the loading and extraction process, the drum is fixed by two automatic locking cylinders so that torques caused by unbalances onto the laterally positioned oscillating motors are avoided.

This increases the reliability and the lifetime of these oscillating motors. To control unbalanced loads, analogue and digital sensors are used. They support a constant distribution of the load via a continuous measurement of the allowed reference values out of a control table.

#### High G-force drum

Thanks to JENSEN's wide experience in the manufacturing of several centrifugals for more than 25 years, a proven and reliable drum design was chosen. The new inner drum has been designed by means of the most modern development methods to ensure maximum safety at high G-forces of over 800 G and has been equipped with a large perforated surface for a quick drainage of the water. The large volume in combination with a large loading door allows fast loading and unloading, even of large pieces.

### Drive motor

A frequency controlled asynchronous motor drives the drum. Infinitely variable control of the rotational speed and different speed levels for extraction are programmable. At the end of the cycle the motor keeps on working as a generator and is used as a brake. A regenerative unit feeds the generated current back into the local grid and provides short brake periods as well as very low energy consumption.

#### **Pivot drive**

The complete drum unit pivots back by an easy to maintain direct drive to unload the linen. The linen batch is unloaded fast and reliably through the wide drum opening onto a following transport conveyor.





#### Unbalance characteristics

The centrifugal extractor is designed to run absolutely smoothly and guarantees a high production level with reduced material stressing and minimal vibrations.

As a result, loud noises or deep frequent vibrations are eliminated. Due to the unique design of the centrifugal extractor, a de-coupling of the rotating drum from the base frame can be achieved.

Analogue and digital out-of-balance sensors constantly measures the vibrations and compare them to speed-related set values.

#### Assembly and maintenance

The compact design allows a space saving installation even if there are difficult conditions on site. Despite its compactness, the centrifugal extractor is easily accessible which eases cleaning and maintenance work. The centrifugal extractor will be delivered with easy to clean protection cover panels. An optional all-around cage with acoustic insulation reduces the noise emissions.

The fully automated greasing makes the manual greasing of the main bearings obsolete. From an ergonomic point of view, the tank, water recovery system, and all other parts can be easily cleaned thanks to its compact design.

One other very important design criteria was the reduction of movable parts for maximum maintainability.

#### Control

JENSEN has set up a PLC control with plug-in hardware which is easy to maintain and which provides visualisation, programming and monitoring of the operation modi to the service personnel. The operation terminal includes a colour touch screen with text indicator and pictographic visualisation of the control elements. During the process, cycle time, acceleration and out of balance values are shown in real-time. Detailed fault reports are generated. It is possible to program loading and distribution times individually, acceleration gradients, maximum rotation speed, extraction time, unloading time, and reversing cycles.

Visualization at industry PC (examples)

#### Installation

JENSEN is pleased to assist you in planning your laundry by providing excellent advice, layouts and technical data. Authorised JENSEN distributors or JENSEN engineers should carry out the installation to ensure that it is performed correctly.

#### Service

In addition, JENSEN provides an extraordinary after-sales service through a worldwide network of highly qualified Sales and Service Centres and distributors, all with their own maintenance and spare parts services.

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