



Homogenizer 250 saves you time and money

Maximized uptime and cost savings on spare parts are among the benefits of smart control and condition monitoring for homogenization. The Tetra Pak Homogenizer® 250 is the first of a new generation of homogenizers.

The new Tetra Pak Homogenizer 250 is a mid-range unit with a maximum capacity of 13,700 litres per hour at 160 bar and 200 rpm. It features a new drive design with a new larger piston size and a longer stroke enabling the unit to manage a high throughput at relatively low rpm. As an example, 10,000 litres per hour of white milk for pasteurization can be processed at a pressure of 160 bar at a speed of 145 rpm in the new homogenizer. However, a popular competitive homogenizer aimed at the same market segment and working under the same conditions required 160 rpm, which was close to its maximum speed. The lower rpm results in less wear and tear on parts and less need for maintenance. In this example, it is estimated that the interval between services can be extended to 32% longer than for the competing unit. This

reduces downtime for maintenance so uptime is maximized.

Turnable parts cut costs for spares

In the same calculation, the cost of spare parts was 32% lower than for the competing homogenizer. Part of the reason is that the 250 model works at a lower rpm which reduces the rate of wear as mentioned above. But a big part of the savings is due to the use of turnable parts.

Our homogenizers have unique turnable wear parts. So when the valves and seats are beginning to show signs of wear, they can be taken out and turned around to use the other side, which is still in pristine condition. In this way, the working life of these critical parts is doubled.

Diagram showing constant NIZO output

There is another way to extend the working life without changing a part. In the Tetra Pak Homogenizer 250, two-stage homogenization is used. When the first homogenizing head is becoming worn out, it can be taken out and switched around with the second homogenizing head which has been less exposed to wear. In this way, both homogenizing heads go on working for a longer period before they need replacement.

The diagram shows how a consistently high NIZO output can be maintained by performing these three steps in sequence without actually replacing any parts. Of course, the parts and the homogenizing heads will need replacing eventually, but this can be put off as long as possible.

With the help of sensors built into the design, critical parts of the pro-

cess are constantly monitored by the homogenizer. Vibration and pressure trend analyses are used to pinpoint the optimal time to perform maintenance such as turning or replacing wear parts. So the operator knows exactly when to perform maintenance – not too soon, not too late.

Faster service saves downtime

The removable modular design incorporated into the Tetra Pak Homogenizer 250 model is an innovation on the homogenizer market. Both the hydraulic

unit and the cooling unit can be removed easily by disconnecting a few pipes. This makes it more convenient and faster for service personnel to maintain these units or gain access behind them. Time is money, particularly in a highly automated plant operating at high capacity. With removable modules, downtime can be kept to a minimum.

Condition monitoring, turnable parts and removable modules keep the cost of spare parts and maintenance to a minimum. In addition, the efficiency of the new homogenizer reduces operational costs for energy and water. ■



Meet Tetrapak at stand M9640

TETRA PAK® HOMOGENIZER 250

SAVE TIME WITH MODULAR DESIGN

Carrying out maintenance on a homogenizer, whether preventive or corrective, can lead to expensive downtime. You have to stop the machine – and keep it stopped – while maintenance is performed and the machine is reassembled.

But the modular design of the Tetra Pak Homogenizer 250 means you can quickly replace a module such as the cooling unit or hydraulic unit, and resume production. Any maintenance or investigation can be conducted away from the machine. This approach is more convenient for service-people, and significantly reduces downtime. If you have the entire module as a spare part, modular design can save at least one hour on maintenance time.

