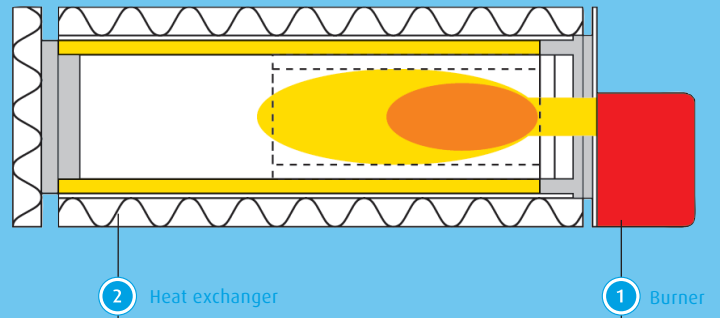


Jenroll EXPG

Optimum evaporation capacity through the flexible chest designed for thermal fluid oil



Integrated gas-fired burner and heat exchanger

Jenroll EXPG

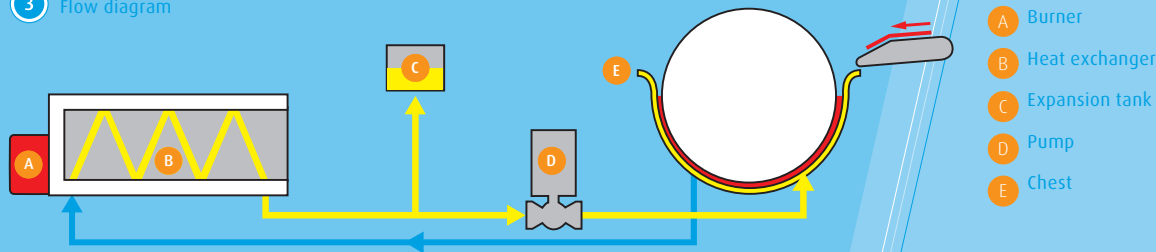
Stand-alone operation through integrated gas-fired burner and heat exchanger

Jenroll EXPG – A winning concept

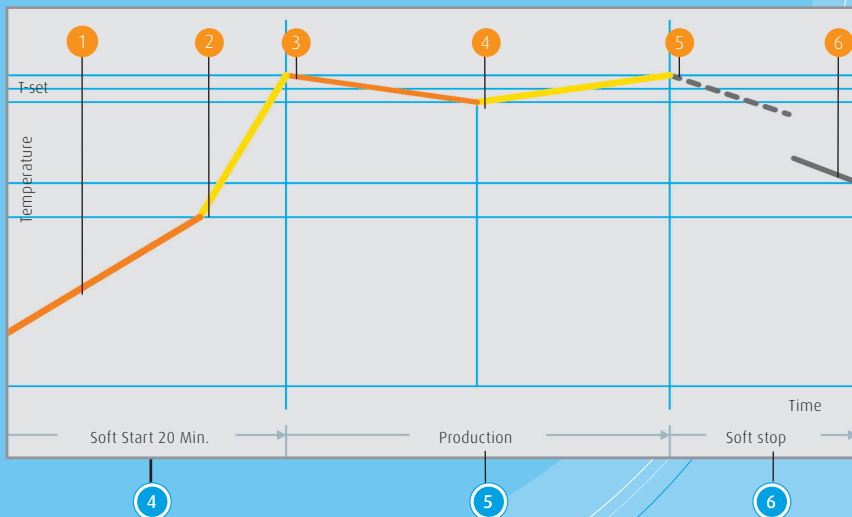
The Jenroll EXPG brings a new dimension to the word “flexibility”. By using a flexible chest designed for the use of oil as the heating medium and an integrated gas-fired burner and heat exchanger, the Jenroll EXPG minimizes the installation and set-up time, enabling a laundry to lift off steam capacity for other purposes, and to run or expand its flatwork operation without heavy external piping and boiler room. The Jenroll EXPG is simply to be set in place and hooked up to a gas supply.

In addition, the self-contained oil-gas heating concept has proven to be the most energy efficient concept, as the energy efficiency of the Jenroll EXPG can be up to 50% higher than that of a traditional steam installation incorporating a central steam boiler. The Jenroll EXPG is a winning concept, ensuring optimum production and flexibility, and minimum energy consumption.

3 Flow diagram



Heating cycle



1 2 Direct heating

The energy for evaporation of water in the linen is generated by the integrated gas-fired burner and heat exchanger. The burner is supplied with fresh air through an external air supply, ensuring optimum combustion and longer life time of the burner.

3 Optimum flow

The heat energy is transferred to the ironer chest by a thermal fluid oil which is circulated by a pump. As hot oil expands, an expansion tank is connected to the heat exchanger and the chest to absorb the heated oil.

4 Soft start

The Jenroll EXPG is designed to ensure soft start on heating when the oil is cold. Soft start on heating using a low flame prevents hot spots and superheating of the oil until the viscosity of the oil decreases and the flow rate increases.

5 Temperature control

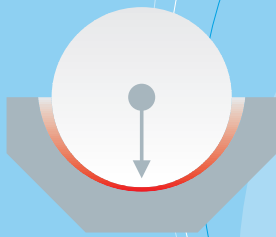
The Jenroll EXPG maintains the set point temperature by using an intelligent burner, thus modulating between different flame sizes depending on the required speed and evaporation capacity. The temperature is set in each category, and the chest temperature can be quickly changed when the production is switched from e.g. cotton to visa.

6 Soft stop

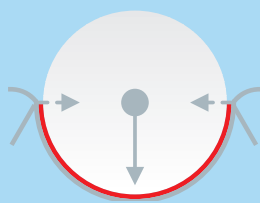
The Jenroll EXPG is supplied with a soft stop feature which allows the oil pump to run for a period after production stop, thus preventing superheating of the oil. All together, the soft start and soft stop features increase the life span of the ironer and reduce oil change requirements.

7 High temperature possible

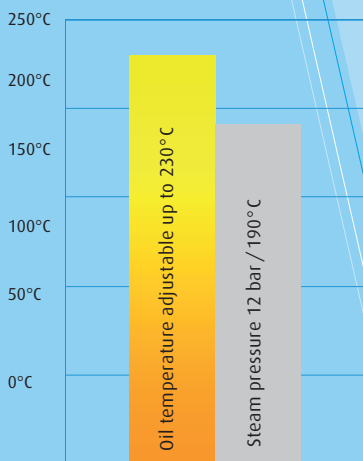
By using oil as the heating medium a chest temperature of up to 230°C is possible, which is 40°C higher than that of steam, when operating at a pressure of 12 bar. Furthermore, as standard, the chest temperature of the Jenroll EXPG is adjustable in each category, thus covering all current and future textile characteristics.



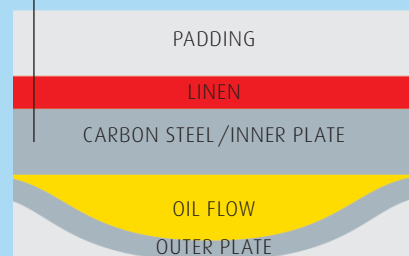
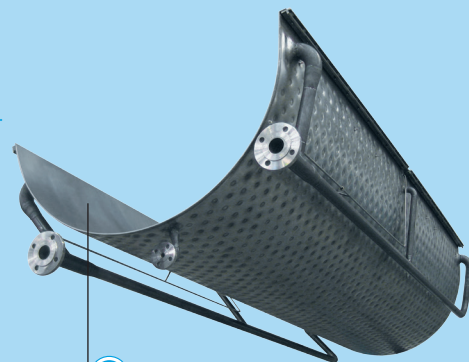
A traditional fixed chest loses contact when the padding wears out and the roll diameter is reduced.



9 The vertical pressure of the roll on the flexible chest makes the sides of the chest press to the roll and results in a uniform pressure over the entire width of the chest.



7 Oil vs steam



8 The flexible chest has optimum heat transfer

Optimum heat transfer

Transfer of heat via the oil medium allows for high efficiency – up to 40 % higher than that of steam. The key to an optimum transfer of heat from the oil into the chest is a high oil velocity and a turbulent flow combined with a flexible chest made of carbon steel material. Carbon steel has a thermal conduction which is four times higher than that of e.g. stainless steel, maintaining a higher temperature of the surface and thus a more efficient heat transfer to the linen.

Low friction

Carbon steel gives not only optimum thermal conduction, but also a low friction with wet linen, resulting in a nice finish. The low friction also reduces the wear of padding, ironing tapes and linen, as well as energy consumption.

8 Flexible chest

The flexible chest consists of two layers of sheet metal welded together in a matrix pattern by a laser. This sandwich plate is rolled to the roll diameter and blasted with high pressure, thus forming small channels between the weldings. The flexibility of this sandwich construction allows the adaption to the actual roll diameter, and due to the relatively low weight of the flexible chest it can be heated in a fraction of the time and with a fraction of the energy required to heat a traditional chest. Thus, the temperature of the chest can be quickly changed when the production is switched from e.g. cotton to visa.

9 Optimum contact angle

A traditional fixed chest loses contact when the padding wears out and the roll diameter is reduced, whereas the flexible chest adapts to the actual roll diameter, thus maintaining a maximum contact angle. As a result of this stable contact angle a higher evaporation capacity can be achieved over time than that of a fixed chest.

JENSEN – the finishing line philosophy

JENSEN develops and delivers equipment according to the “Finishing Line Philosophy” that claims that a finishing line should form one single system, as explained in the six steps below:



A Easy to install

Each Jenroll is equipped with an integrated finishing line control, ensuring that both feeder and folder can be easily connected. The Jenroll serves as a distribution centre for all energy supplies to the other equipment in the finishing lines.

B Easy to operate

It is possible to control the entire finishing line from the control panel of the feeder. By changing the operating program of the feeder, the speed of the finishing line and the folding program are automatically changed.

C Easy to control

Both the main and the analog control panels can monitor the performance of the ironer. The control panels will give the following information and warnings:

- Burner status
- Speed indication

- The current (ampere) used by the drive motor (indication starts flashing when waxing is needed)
- Temperature of exhaust and flue gas
- Oil level, oil pressure, and oil temperature
- Ironing pressure
- Warning light of cold chest
- Warning light of low air pressure
- Pump indication

D Easy to maintain

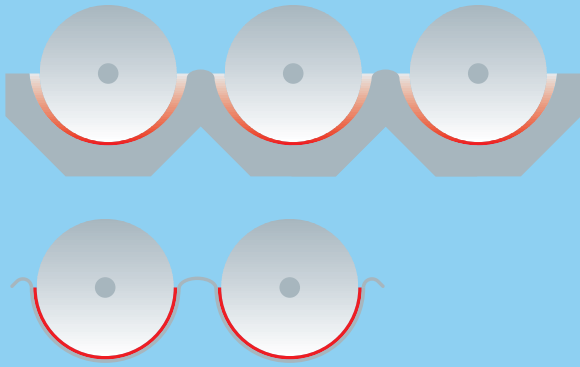
By using maintenance-free technologies such as e.g. V-belts, frequency inverter, etc., the only maintenance left is keeping the ironer clean and changing the oil of the gear boxes.

E High availability

The Jenroll EXPG is based on design criteria as described in DIN 4754 for Thermal Fluid Oil installations. JENSEN has insisted on the highest standards of design and components for the Jenroll EXPG. Main components, such as the chest, rolls, motors and cylinders, are built by reputable suppliers in accordance with JENSEN's specifications and Quality Assurance.

F Operator's safety

When one of the guards or emergency buttons in the finishing line is activated, all rolls are immediately raised and stopped. All machines in a finishing line are connected in the same emergency stop circuit, which means that in case of an emergency stop, the entire finishing line will stop.



10 Jenroll EXPG – a space-saving solution

10 Space saving solution

The Jenroll EXPG is a space saving solution as the performance of a Jenroll EXPG 2 × 1200 incorporating a flexible chest over time may equal that of a 3 × 1200 ironer incorporating a fixed chest.

Models

Roll diameter 800, 1200 and 2000* mm.

Number of rolls per machine: 1–3

Working widths: From 3000 to 4200 mm.

* EXPG 1 × 2000 – please require individual brochure.

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.

Call us...

JENSEN provides a complete range of heavy-duty equipment for the laundry industry, delivered and installed according to your specifications. Please do not hesitate to contact us for further advice and information, or visit www.jensen-group.com

Local contact

www.jensen-group.com

Explore our equipment on **YouTube**
www.youtube.com/jensengroupcom