

GIRBAU

GIRBAU
INDUSTRIAL™

PSN-80
FLATWORK IRONERS

Natural gas chest ironing system for high-volume laundries

FLATWORK IRONERS
EXPERIENCE AND INNOVATION DELIVER SUPERIOR RESULTS

PSN-80



Engineered for high-volume laundries, the PSN-80 Chest Ironer, in natural gas, is the culmination of more than 35 years of market experience and enhancements. Available in finishing widths of 130 and 138 inches, and optional one- two- or three-roll configuration, the PSN-80 ironer is an enviable 90 percent efficient thanks to four internal oil circuits which double the heating surface of the boiler! The ironer is simple to operate and maintain; designed to meet the needs of any laundry application or linen type; engineered to improve productivity using less labor and energy; and provides consistent ironing results that exceed the highest quality standards. (The PSN-80 Heated-Chest Ironer is also available in steam or hot oil heating sources)

RIGID-CHEST DESIGN PROVIDES UNMATCHED FINISHING RESULTS

The gas-heated PSN-80 works by using gas to heat viscous oil. The heated oil moves through an intelligently designed coil system and into large passages between two, thick welded plates of steel, which serve to heat the chest of the ironer evenly, consistently and completely. This even heat distribution translates to an even and consistent linen finish through the entire contact surface area of the polished chest surface.

ENGINEERED FOR FLEXIBILITY & EFFICIENCY

The PSN-80 offers up to three-roll operation to meet specific production needs. With the addition of each roll, production capacity increases allowing fabric to move across the machine's heated bed at greater speeds—drying and ironing linens faster. Compatible with most feeding, folding and stacking equipment, the PSN-80 can significantly improve finishing productivity and decrease energy and labor costs.

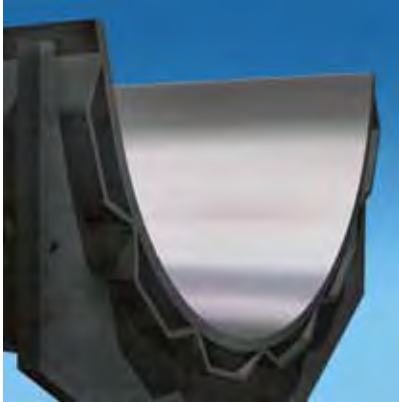
FEATURES FOR EASY OPERATION AND MAINTENANCE

Rich in unique features that offer easy use and maintenance, the PSN-80 is designed to reduced operating costs. An exclusive AutoSpeed® System makes one-pass finishing without dryer conditioning possible—significantly reducing labor costs. And, thanks to thoughtful engineering, maintenance associated with changing thermal oil on the PSN-80 is reduced—further decreasing operating expenses.



RIGID-CHEST DESIGN PROVIDES UNMATCHED FINISHING RESULTS

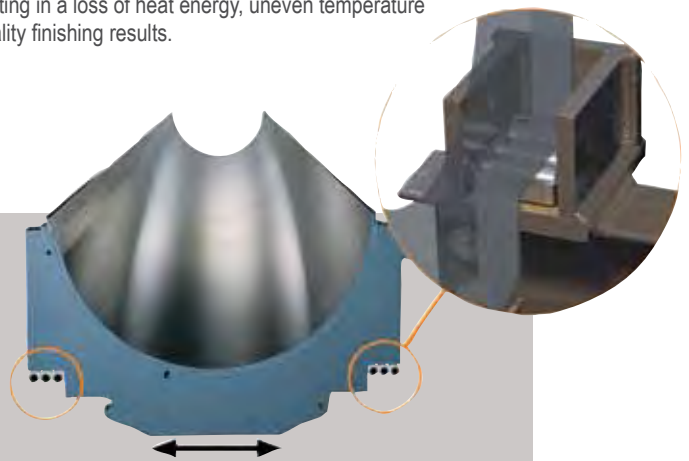
There are three ironer chest types on the market—rigid, flexible and semi-rigid chests. The PSN-80 is engineered with a rigid chest to ensure unmatched finishing results coupled with the same quality drying. The rigid chest features a perfectly polished surface and large fluid-flow area, which work together to heat and iron linens at a uniform temperature and pressure. The PSN-80 delivers a superior finish because it produces greater heat energy transfer and consistent pressure than flexible and semi-rigid chest ironers.



EFFICIENT OIL CIRCULATION FOR SUPERIOR HEAT DISTRIBUTION

The design of Girbau Industrial's PSN-80 Ironer includes a generous area for the flow of heated oil – the substance that heats linens as they move through the ironer. Very thick plates are polished and welded together with fluid passage openings of 150x80 mm. The large size of the passages ensure constant and even circulation of heated oil, which correlates to an even finish and helps to eliminate oil clogs and blockages.

Conversely, flexible chest ironers feature small fluid passage sections of just 3mm. Because the fluid passage sections are so small, oil tends to move more slowly and clump – resulting in a loss of heat energy, uneven temperature distribution and poor-quality finishing results.



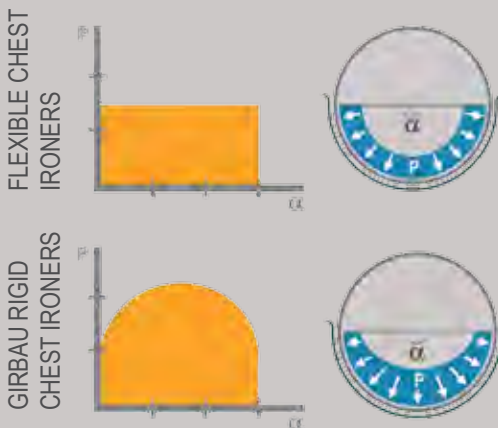
A polished steel plate and self-centering roller system ensures perfect passage of linens between chest and union bridges.

WHY THE RIGID CHEST IS BETTER

- Utilizes large fluid passage sections to ensure uniform heat transfer and eliminate oil clogs and blockages.
- Provides greater oil flow velocity thereby increasing the life of the thermal oil, decreasing associated oil maintenance expenses and allowing for larger heater. The result is increased production and decreased operational costs.
- Uses thick (14mm) contact plates that resist deformity due to pressure and temperature. Flexible and semi-rigid chests utilize thinner plates that can warp, resulting in inconsistent finishing.
- Features solid steel ironing plates that provide greater surface area for heat transfer. The plates of flexible chests are perforated, sacrificing ironing surface area and quality.
- Utilizes an S-coil circuit that contributes to the reduction and possible elimination of oil cracking.

IRONING EFFICIENCY

The manufacturers of ironers with flexible chests argue that they enable a more even pressure, which translates as better ironing efficiency. The figures below show that this statement is not true.



The flexible chest enables a greater angle of consistent pressure but is limited to work with a lower constant pressure.

Girbau's rigid chest provides an equivalent ironing efficiency (yellow area of the graph) thanks to the sum of pressures, but the ironing quality is superior due to the area of greater pressure. The rigid chest achieves equal drying capacity but greater ironing quality, thanks to this design performance advantage.



CYLINDER DESIGN

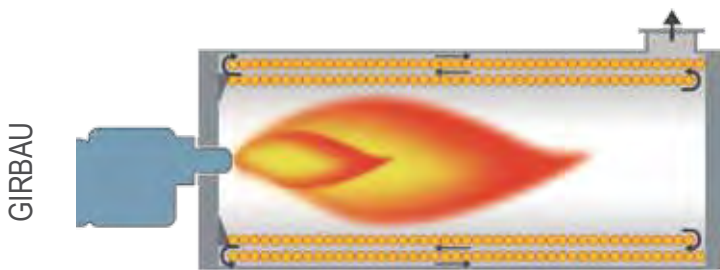
Stainless steel cylinders are perforated throughout for maximum suction and moisture exhaust. Covered in a Nomex felt padding, the cylinders perfectly finish linens of any thickness or type thanks to a heavy-duty spring system that ensures consistent pressure against the heated surface. At each cylinder shaft, an extractor fan pulls evaporated moisture away from fabric. Linens, as a result, can be fed directly from the washer to the ironer—maximizing production and finish quality.

ENGINEERED FOR FLEXIBILITY AND EFFICIENCY

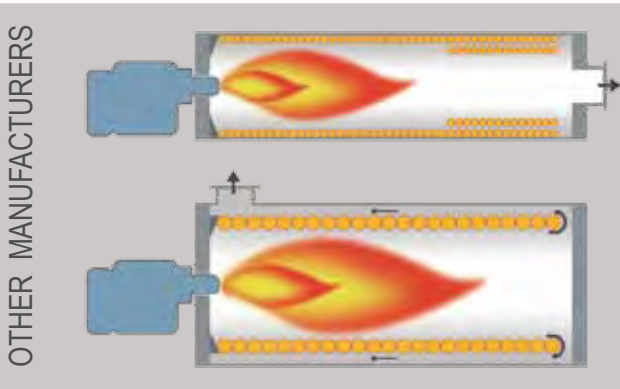
LARGE REAR-MOUNTED GAS BOILER ELIMINATES OIL CRACKING AND BOOSTS EFFICIENCY

The gas boiler is rear-mounted on the PSN-80 so that the boiler flame never comes into contact with the coil, which prevents oil cracking/sludge. The design also allows for a larger boiler and flame – creating greater heat output using less energy than models with boilers located underneath the ironer. Together, this produces a superior finish in less time, using less energy.

In many ironers, gas boilers are located underneath the ironer, which limits the diameter of the boiler. This is because the Gas Appliances Directive 90/396/EEC prevents the burner flame from touching the coil. If the flame were to touch the coil, oil cracking can occur. Oil cracking is the molecular decomposition of oil caused by excessive temperatures. Also known as oil sludge, cracking reduces the thermal properties of the oil and causes thick clogging, which contributes to uneven heat distribution. Oil cracking is also caused by low oil circulation speeds, which can be a problem in flexible chest ironers because the small oil passages limit fluid flow velocity.



The PSN-80 natural gas boiler is located at the rear of the ironer. It is larger in diameter for more power and eliminates the flame from contacting the coil. With two fume outlets and four oil circuits, the PSN-80 is an enviable 90 percent efficient.



Some ironers feature boilers underneath the ironer. This limits the diameter of the combustion chamber because the space under the ironer is smaller. As a result, the boiler output and flame must be reduced to ensure the flame doesn't come in contact with the coil. These models typically only offer approximately 70 percent efficiency.

Some other ironers, like Girbau Industrial's PSN-80, feature boilers at the rear of the unit. But, because they only feature two fume outlets and a single oil circuit, performance suffers. These ironers only offer approximately 70 percent efficiency, as well.



When designing the PSN-80, Girbau took into account the specifications of the feeders and folders for a complete laundry processing system.



FEATURES FOR EASY OPERATION AND MAINTENANCE

EASY TO USE PROGRAMMABLE CONTROL

Girbau Industrial ironers offer easy-to-operate controls that provide efficient performance and flexibility. The Microprocessor Control allows programmability to perfectly adapt the ironer to meet specific needs. The control features AutoSpeed®, an exclusive capability that automatically adapts cylinder speed according to linen type and moisture content. The control also offers a manual mode operation, an operation mode with programmed speeds, an operation mode for ribbon replacement and a graphic display of cylinder speed and chest temperature.

AUTOSPEED® —A SUPERIOR FINISH STRAIGHT FROM THE WASHER

PSN-80 Ironers offer one-pass finishing without dryer conditioning thanks to the exclusive AutoSpeed® System. As linens pass through the ironer, this patented feature automatically adjusts ironing speed and temperature according to fabric type and moisture content. This feature eliminates temperature fluctuations, assuring consistent, quality finishing and even drying. Spring-padded vacuum cylinders and a polished steel ironing bed provide uniform pressure while maintaining consistent moisture exhaust. An extractor fan at each cylinder shaft effectively pulls evaporated moisture away from fabric, improving production and ironing quality. The results are dramatic!

STANDARD MANUAL MODE

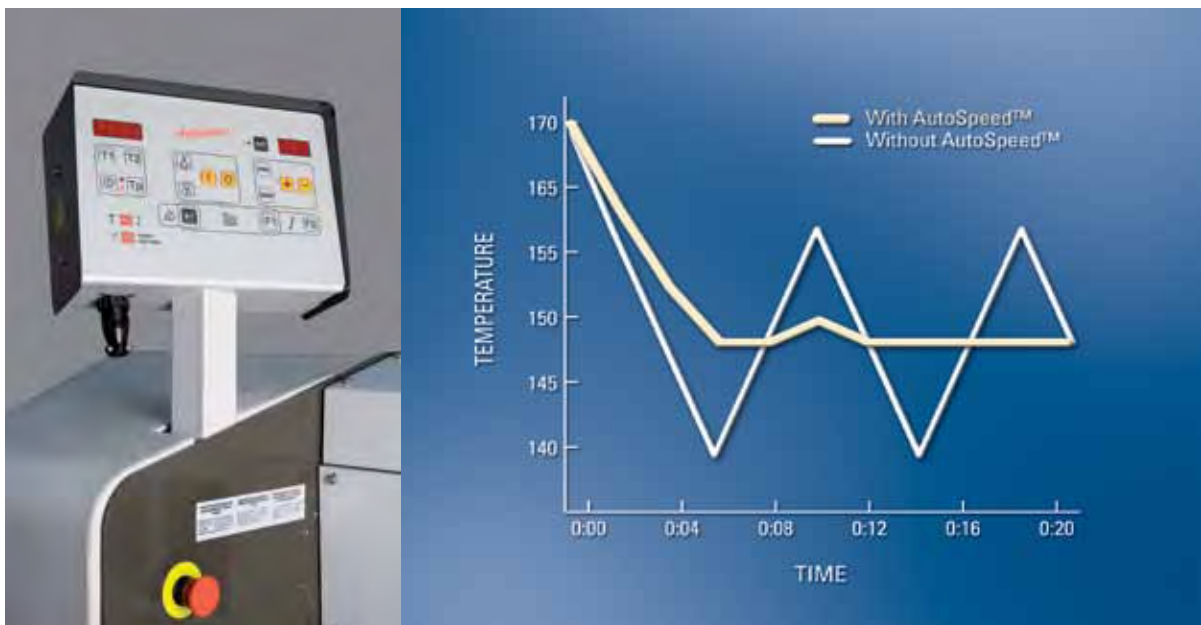
When manual ironing is desired, AutoSpeed® can be disengaged, allowing for user selection of control variables. Manual-mode operation enables the user to select the suitable ironing speed and temperature for specific linen requirements.

TEMPERATURE AND SPEED CONTROL

The microprocessor can be programmed with standard temperature and speed settings that engage every time the machine is activated. This feature is useful to users who continuously work with the same fabric type and moisture retention. The selected temperatures are kept in memory until updated.

QUICK-CHECK SERVICE

The Quick-Check Service package, standard on the PSN-80 Control, saves laundries time and money. The feature helps users diagnose maintenance and service needs from the microprocessor control. Electrical components, temperature actuators, mechanical functions and safety checks can be performed from the control.





QUIET, COOL, CLEAN OPERATION

Providing a clean, cool and quiet working environment is important. PSN-80 Ironers help reduce unwanted laundry room noise and heat because exhaust motors, fans, and vents are located away from operators, to the rear of the units. And, during the ironing process, residual lint is pulled through a manifold and filtered through a heavy-duty screen. This process prevents lint from re-depositing on linens or escaping into the laundry room where it can clog vent ducts and pollute the air.

SAFE OPERATION

Designed to be operator friendly and safe to use, the PSN-80 Ironer features critical safety features to prevent accidents. A fixed tray for item feeding ensures operators are safe distance from the machine. Fixed safety guards and safety handrails also prevent mishaps. Also standard on the ironer, are:

Emergency Stop As a safety precaution, the ironer is equipped with an emergency stop button. When activated, it immediately halts cylinder rotation.

Cool-Down Cycle When the ironer is prompted to shut down, the control thermostat automatically runs a cool-down cycle if a temperature of more than 158 degrees is detected. The cool-down rotates the cylinder until linens cool and a safe temperature is reached—preventing overheating and subsequent damage to the ironing surface.

Electrical Circuit Safeguard The PSN-80 is equipped with numerous electrical circuit safeguards to protect both the machine and the user against external faults or bad operating practices.

Independent Switch Disconnect Via a single switch, all machine components can be quickly disconnected from the outside electrical supply — simplifying service and maintenance.

Hand Guard The control works in conjunction with a pressure-sensitive hand guard located at the ironer feeding area. When the control detects pressure on the guard, it automatically halts ironer operation—preventing potential accidents.



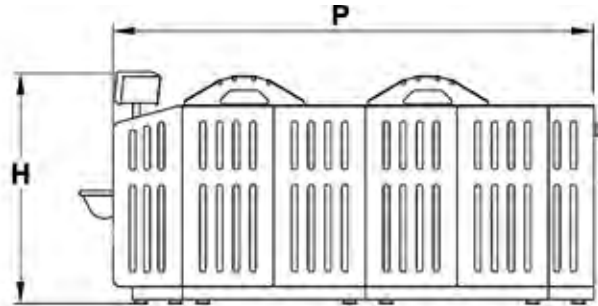
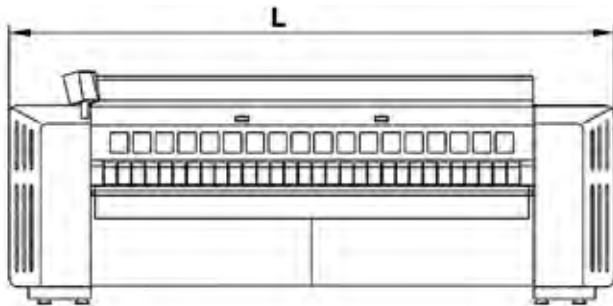
PROVEN RELIABLE & DURABLE

Girbau Industrial PSN-80 Ironers are built for longevity, as is evident in Girbau Industrial's industry-best 3/5 year limited factory warranty. The ironer's frame is constructed of high-quality carbon steel. An easy-to-clean and durable epoxy finish further protects the ironer from outside moisture and resulting corrosion.



MODEL		PSN -80 130/1-Roll	PSN-80 138/1-Roll	PSN-80 130/2-Roll	PSN-80 138/2-Roll	PSN-80 130/3-Roll	PSN-80 138/3-Roll
Cylinder Diameter	inch (mm)	31.5 (800)					
Cylinder Length	inch (mm)	129.9 (3300)	137.8 (3500)	129.9 (3300)	137.8 (3500)	129.9 (3300)	137.8 (3500)
Heating surface	sq. ft. (m ²)	43.9 (4.08)	46.6 (4.33)	87.8 (8.16)	93.2 (8.66)	131.8 (12.24)	139.8 (12.99)
Speed	ft/min (m/min)	13-82 (4-25)				13-131 (4-40)	
Heating power	kW (B.T.U.h)	170 (580176)		250 (853200)		500 (1706071)	
Motor power 50 Hz	kW (H.P.)	16.9 (22.6)		18 (24.1)		34.7 (46.5)	
Length (L)	inch (mm)	185 (4700)	193 (4900)	185 (4700)	193 (4900)	187 (4740)	196 (4940)
Depth (P)	inch (mm)	96.5 (2450)		148.5 (3768)		202.3 (5135)	
Height (H)	inch (mm)	65 (1650)					
Net weight	lbs (kg)	12309 (5595)	12571 (5714)	21133 (9606)	22246 (10112)	32818 (14886)	344423 (15623)

* Product specifications are subject to change without notice. For the most current and complete product specifications please visit www.girbauindustrial.com.



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