

# CENTURY



**CENTURY**  
*Deep Chest*  
*All Roll Drive*  
*Flatwork Ironers*  
**3200/4200/5200**



# Century America's Most Popular Deep Chest Ironer

## Why the Century is a Step Ahead

As the heart of any flatwork finishing system, a deep chest ironer must be efficient, dependable, serviceable and safe. Chicago has used its 100 years of experience in designing and building fine laundry equipment to develop unique solutions that achieve these goals. Available with one, two, three or four roll modular steam or thermal fluid heated ironing sections, Century uses a computer designed Hyper-Flow heat dispersion path to promote high-speed transfer of heat to linen, as well as accelerated condensate (or fluid) removal for maximum thermal efficiency. Chicago uses advanced electronic controls with up to one-third fewer mechanical parts to perform essential tasks. This results in maximum productivity from a system that is easy to understand, operate, and maintain.

**Century ironing systems offer the finest of Chicago's drying, ironing and electronic control technology in an innovative and expandable deep chest format.**

A choice of three roll diameters - 32" (800mm), 42" (1050mm) or 52" (1300mm), is available to suit the production and floor space requirements of any high production application. Exclusive CHI micro-processor displays temperature, operational, and drive functions to assure consistent performance and ease of operation. Chidrive electronic direct drive works without belts, pulleys, or chains to ensure pinpoint control of the progressive speeds of each ironing roll without transmission loss for improved linen finish, highest electrical efficiency, and maintenance-free operation.



# 3200

### Century 32" (800mm)

The traditional standard in deep chest ironers is often used for replacement of ironers with similar size and production specifications.



# 4200

### Century 42" (1050mm)

Chicago's exclusive new size fits the production and floor space needs of users midway between the 3200 and 5200 models - offering 31% added ironing surface compared to the 3200 model.



# 5200

### Century 52" (1300mm)

Most powerful ironer in the U.S. - a two-roll unit offers more than 8% extra ironing surface under pressure than a three roll 32" (800mm) or a two roll 48" (1200mm) unit with 1/3 fewer moving parts for lower maintenance.

# One Control Does It All



All ironing functions are directed by the **Chicago High Intelligence** ironing control—the first system of its kind. CHI is the microprocessor that manages all components in a Chicago finishing network—including feeding, ironing, and folding equipment so operators and maintenance staff only need to learn one system to control the entire finishing area. Clearly worded message displays and simple controls allow faster training and ensure better utilization of CHI's powerful automation and efficiency features. During daily start-up and shutdown, CHI message screen prompts laundry staff through the correct sequence of procedures by timing out each step, including opening and closing valves, raising and lowering rolls, waxing, activating exhaust fans, and using the external disconnect switch.

## CHI Helps Throughout the Day

During installation, CHI speeds are set up to match each type of item the laundry normally processes. From then on, operators merely select the item type being finished. CHI displays the item name and automatically adjusts ironer speed (as well as Chicago feeder and folder speeds with the auto-adjust option) for

efficient moisture removal, proper speed differential between components, and optimum fold quality. Operators do not have to memorize which speed matches each item and they do not need to remember to manually change the speeds of each piece of equipment when different items are processed. If daily needs change, CHI speeds can be easily revised through the CHI panel. Of course, manual speed control by simple pushbutton is also possible at all times. Because CHI monitors all Chicago finishing components, if there is an interruption anywhere in the system, CHI audibly alerts operators and pinpoints the area on the message screen so prompt action can be taken.



## Longest List of Standard Features in the Industry

Century offers the industry's longest list of quality, efficiency, and convenience features as standard equipment, not as costly options. These include sensors to monitor heating system performance, such as condensate and exhaust removal components. Displays include speed, amperage draw, incoming steam pressure, ironing pressure, and

temperature data from each chest, gap piece, chest steam trap, and the exhaust discharge for each roll. At the touch of a button, laundry staff can determine what is happening anywhere "inside" the ironer's heating, moisture removal, exhaust, or drive systems to assure peak performance and quickly isolate the location of any problem before it interrupts production. For example, temperature displays allow staff to quickly check for proper steam trap function without opening an end panel. (Consult factory for details on sensors and displays for thermal fluid models.)

# Standard Features

## Quality of Construction

Premium brand electrical, mechanical, and pneumatic components built to U.S. specifications assure long-term reliability and prompt parts availability

Formed and welded steel end frames with laser cut openings for precise alignment of components

ASME inspected steel chests on steam and thermal fluid heated models are certified for operation up to 208 PSI (14 bar)

Stationary heated chests and connections provide excellent roll-to-chest ironing contact stability. For safety and reduced maintenance, no flexible or pressurized hoses are used

Welded steam and condensate piping with built-in compensators provides for expansion and maintenance-free operation

Rolls are a full 120" (3050 mm) long for multi-lane or king sheet processing

Rolls can be raised and pneumatically locked in extra-wide open position for easier maintenance and access to chest surfaces

Premium spring steel padding of optimum tensile strength for high gloss linen finish and long padding life

Two turns of premium imported polyester (for steam models) or Nomex® (for thermal fluid models) padding for optimum moisture removal

## Maximum Drying and Ironing Capacity

Hyper-Flow steam (thermal fluid) dispersion maximizes heat transfer and moisture removal

Independently heated gap pieces provide additional ironing contact, smooth linen transfer, and increased evaporation capacity

Correct ironing pressure is pneumatically applied and balanced across the entire length of the ironing surface for maximum production and high quality linen finish without uneven pressure areas

Thermodynamic steam traps are used to eliminate condensate backflow for maximum efficiency and reduced maintenance

Individually adjustable exhaust blowers for each roll assure balanced moisture removal

Heated chests are encased in steel heat shield with 5" (127 mm) of insulation. Inside of end frames is also insulated with steel and foil backed insulation

Double walled and insulated aluminum exhaust piping

## Chidrive Electronic "All Roll Drive" System

Assures consistent pinpoint speed accuracy from roll to roll without the need for mechanical adjustment of pulleys, belts or chain

Heavy duty drive delivers smooth variable speed changes and extra torque at low speeds

Easy-to-read diagnostic display indicates amperage draw, as well as overall drive system status

Pendant jog control simplifies padding maintenance

## Convenience

CHI message screen keeps laundry staff informed of operating conditions at all times

Multi-point temperature monitoring with digital readout verifies proper heating performance

Steam and air pressure sensors prevent operation if pressure does not meet minimum levels

Automatic tensioner for ironing guide tapes

Ironing tape guides are also laterally adjustable up to 4" (102 mm) to avoid uneven padding wear

## Safety

Complete protection with safety finger guards, 24 volt control circuits, stop buttons, and bilingual/pictorial safety labels

Rolls are stopped, lifted and locked in raised position when electrical power is interrupted or safety finger guard is pushed

Interlocked end panels for convenient service access

ASME certified and stamped chests for high pressure operation

## Factory Support

Chicago's customer service department offers full telephone and service support with overnight parts availability

On-site service by Chicago's worldwide network of authorized distributors and service staff

# Technical Specifications

# 3200



			1 Roll		2 Roll		3 Roll		4 Roll	
	US	metric	US	metric	US	metric	US	metric	US	metric
Speed	ft/min	m/min	20-100	6-30	30-150	90-45.0	30-150	90-45.0	30-150	90-45.0
Drive Motor Chi Drive	HP	kW	7.5	5.6	15.0	11.2	22.5	16.8	30.0	22.4
Total Motor	HP	kW	10.0	7.5	18.5	13.8	27.0	20.1	35.5	26.5
Steam Input Maximum	BHP	kW/h	10.0	97.9	20.0	195.8	30.0	293.7	40.0	391.5
Minimum Pressure Steam Models	PSI	kPa	100	689	100	689	100	689	100	689
Steam Supply Connection	inch	DN	2	50	2	50	2	50	2	50
Condensate Return Connection	inch	DN	2	50	2	50	2	50	2	50
Compressed Air Usage	CFM	m³/h	5	8	10	17	15	25	20	34
Exhaust Volume	CFM	m³/h	560	951	1120	1903	1680	2854	2240	3806
Maximum BTU Thermal Fluid Models	BHP	kW/h	15	147	30	294	45	440	60	587
Minimum Circulation Volume Thermal Models	USGM	m³/h	90	20	113	26	225	51	300	68
Maximum Circulation Volume Thermal Models	USGM	m³/h	120	27	150	34	300	68	400	91
Minimum Pressure Thermal Fluid Models	PSI	kPa	208	1434	208	1434	208	1434	208	1434
Minimum Pressure Thermal Fluid Models	PSI	kPa	8.0	55.2	16.0	110.3	24.0	165.5	32.0	220.6
Thermal Fluid Supply Connection	inch	DN	2.0	50.0	2.5	65.0	3.0	80.0	4.0	100.0
Thermal Fluid Return Connection	inch	DN	2.0	50.0	2.5	65.0	3.0	80.0	4.0	100.0
Linear Ironing Contact Under Pressure	inch	mm	45.7	1186	91.5	2372	137.2	3557	182.9	4743
Linear Ironing Contact of all Heated Surfaces	inch	mm	48.5	1231	117.4	2981	186.3	4731	255.2	6481
<b>A</b> Useable Roll Length	inch	mm	120	3050	120	3050	120	3050	120	3050
<b>B</b> Total Width	inch	mm	168	4267	168	4267	168	4267	168	4267
<b>C</b> Input to Discharge Depth	inch	mm	73	1854	118	2997	163	4140	208	5283
<b>D</b> Total Depth	inch	mm	93	2362	138	3505	183	4648	228	5791
<b>E</b> Total Height	inch	mm	74	1880	74	1880	74	1880	74	1880
Domestic Weight	lb	kg	7700	3493	15000	6804	21300	9662	27800	12610
Export Boxed Weight	lb	kg	8500	3856	17000	7711	23300	10569	30000	13608

## Standard Exhaust Canopy

Retains heat in the ironing area to improve operator comfort and keep ironing surfaces and padding clean. Sturdy lift-off canopy has insulated top and metal framework with acrylic side windows to allow full view of padding and rolls at all times. Each canopy section can be lifted away for direct access to rolls.

## Custom Models Available

Century ironers are also available in extra wide models with up to 160" (4000mm) of useable ironing surface for use in special applications such as ironing oversized banquet cloths or two lanes of sheets or larger table linen simultaneously. Consult factory for details and specifications.

## Convenience Accessories

Consult factory for information concerning handrail, ladder, hinged canopy, or other accessories.

# The Options List is Short

## Interconnected Stop Circuit

Operators at front or rear of the finishing system can push a stop button on the spreader/feeder, ironer, or folder to stop the finishing line.

## Auto Speed Control

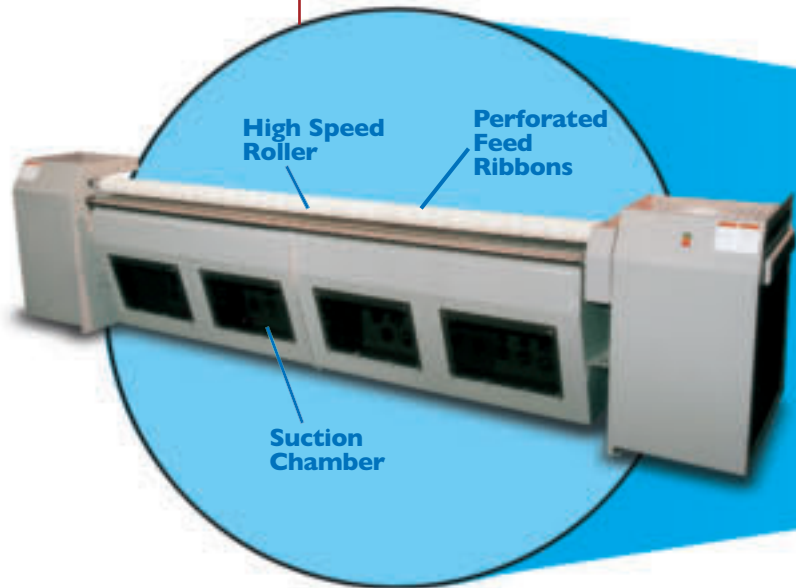
Centralized one-touch speed control of spreader/feeder, ironer, and folder offers highest accuracy at all speeds for improved finish, extended component life, and a reduction in wrinkling and downtime caused by operators failing to maintain the correct speed differential between feeder, ironer, and folder.

## Single Point Electrical Connection

Allows spreader/feeder and folder to plug into electrical and air supply receptacles built into the ironer and connected internally to a Chicago spreader/feeder and automatic folder. Reduces installation costs and allows for a neater installation because external field wiring, piping, and connections are eliminated.

## Easi-Feed Suction Feeding Aid

Improves the finished quality of large and small linen items for those desiring the highest possible quality finish without the inconsistencies caused by operators trying to manually feed and stretch high quality table and bed linen while feeding. Suction under the feed conveyor holds down linen's leading edge while a high speed drive roller works with powerful fans and an enclosed suction box to hold back and treat linen's trailing edge for maximum stretch and wrinkle removal as linen enters the ironer. This also helps production because it allows operators to release the fed item sooner so they can more quickly move on to handle the next piece. Easi-Feed replaces the standard Century "nose" section and adds only 17" (420mm) to the overall depth of the ironer.



	US	metric	1 Roll		2 Roll		3 Roll		4 Roll	
			US	metric	US	metric	US	metric	US	metric
Speed	ft/min	m/min	20-100	6-30	30-150	90-45.0	30-150	90-45.0	30-150	90-45.0
Drive Motor Chi Drive	HP	kW	7.5	5.6	15.0	11.2	22.5	16.8	30.0	22.4
Total Motor	HP	kW	10.0	7.5	18.5	13.8	27.0	20.1	35.5	26.5
Steam Input Maximum	BHP	kW/h	12.0	117.5	24.0	234.9	36.0	352.4	48.0	469.9
Minimum Pressure Steam Models	PSI	kPa	100	689	100	689	100	689	100	689
Steam Supply Connection	inch	DN	2	50	2	50	2	50	3	80
Condensate Return Connection	inch	DN	2	50	2	50	2	50	3	80
Compressed Air Usage	CFM	m <sup>3</sup> /h	6	10	12	20	18	31	24	41
Exhaust Volume	CFM	m <sup>3</sup> /h	560	951	1120	1903	1680	2854	2240	3806
Maximum BTU Thermal Fluid Models	BHP	kW/h	18	176	36	352	54	529	72	705
Minimum Circulation Volume Thermal Models	USGM	m <sup>3</sup> /h	113	26	225	51	300	68	300	68
Maximum Circulation Volume Thermal Models	USGM	m <sup>3</sup> /h	150	34	300	68	400	91	400	91
Maximum Pressure Thermal Fluid Models	PSI	kPa	208	1434	208	1434	208	1434	208	1434
Minimum Pressure Thermal Fluid Models	PSI	kPa	10.0	68.9	20.0	137.9	30.0	206.8	40.0	275.8
Thermal Fluid Supply Connection	inch	DN	2.5	65.0	3.0	80.0	3.0	80.0	4.0	100.0
Thermal Fluid Return Connection	inch	DN	2.5	65.0	3.0	80.0	3.0	80.0	4.0	100.0
Linear Ironing Contact Under Pressure	inch	mm	60.3	1557	120.7	3113	181.0	4670	241.3	6227
Linear Ironing Contact of all Heated Surfaces	inch	mm	63.9	1624	148.3	3767	232.6	5909	317.0	8052
<b>A</b> Useable Roll Length	inch	mm	120	3050	120	3050	120	3050	120	3050
<b>B</b> Total Width	inch	mm	168	4267	168	4267	168	4267	168	4267
<b>C</b> Input to Discharge Depth	inch	mm	83	2108	138	3505	193	4902	248	6299
<b>D</b> Total Depth	inch	mm	103	2616	158	4013	213	5410	268	6807
<b>E</b> Total Height	inch	mm	74	1880	74	1880	74	1880	74	1880
Domestic Weight	lb	kg	11900	5398	20800	9435	30100	13653	40900	18552
Export Boxed Weight	lb	kg	12500	5670	21600	9798	31000	14061	42500	19278

# 4200



# Chi Drive – The Drive of the Future is Here

In a multi-roll ironing system, each succeeding roll must run slightly faster than the previous roll so linen is properly stretched to remove wrinkles and move smoothly between rolls and across heated surfaces under pressure. Loss of speed balance can interfere with proper linen movement, cause excessive guide tape breakage, and produce creases in finished linen. Up to now, mechanical chains, belts and pulleys, or overpadding and underpadding rolls have been the methods used to provide this critical speed differential. With any of these methods, roll-to-roll slippage develops as belts and padding wear,

chemical/wax buildup, and mechanical changes occur. It is then necessary to stop production to mechanically adjust and test the drive components to restore proper linen stretch, a high quality finish, and smooth roll-to-roll linen transfer.

Chicago's extensive experience with electronics and AC frequency inverters has led to the most important advance in ironer drive concepts in a generation. Chidrive is the modular electronic direct drive system in which each ironing roll is independently driven by its own AC inverter, gearbox and high

efficiency motor. In order to maintain a 100% stable speed differential, Chidrive electronically calibrates the speed differential between each roll to match the user's needs. It uses continuous data feedback from the motor to the inverter to help compensate for padding wear and other mechanical changes as the ironer is used. This eliminates the mechanical adjustments and guesswork previously necessary to keep a drive system in peak operating condition. With Chidrive, any desired changes are made through the CHI panel with its alpha-numeric message screen guiding



# 5200



			1 Roll		2 Roll		3 Roll		4 Roll	
	US	metric	US	metric	US	metric	US	metric	US	metric
Speed	ft/min	m/min	20-100	6-30	30-150	9.0-45.0	30-150	9.0-45.0	30-150	9.0-45.0
Drive Motor Chi Drive	HP	kW	10.0	7.5	20.0	14.9	30.0	22.4	40.0	29.8
Total Motor	HP	kW	12.5	9.3	23.5	17.5	34.5	25.7	45.5	33.9
Steam Input Maximum	BHP	kW/h	15.0	146.8	30.0	293.7	45.0	440.5	60.0	587.3
Minimum Pressure Steam Models	PSI	kPa	100	689	100	689	100	689	100	689
Steam Supply Connection	inch	DN	2	50	2	50	3	80	3	80
Condensate Return Connection	inch	DN	2	50	2	50	3	80	3	80
Compressed Air Usage	CFM	m <sup>3</sup> /h	7	12	14	24	21	36	28	48
Exhaust Volume	CFM	m <sup>3</sup> /h	560	951	1120	1903	1680	2854	2240	3806
Maximum BTU Thermal Fluid Models	BHP	kW/h	23	220	45	440	68	661	90	881
Minimum Circulation Volume Thermal Models	USGM	m <sup>3</sup> /h	113	26	225	51	300	68	375	85
Maximum Circulation Volume Thermal Models	USGM	m <sup>3</sup> /h	150	34	300	68	400	91	500	114
Maximum Pressure Thermal Fluid Models	PSI	kPa	208	1434	208	1434	208	1434	208	1434
Minimum Pressure Thermal Fluid Models	PSI	kPa	12.0	82.7	24.0	165.5	36.0	248.2	48.0	330.9
Thermal Fluid Supply Connection	inch	DN	2.5	65.0	3.0	85.0	4.0	100.0	4.0	100.0
Thermal Fluid Return Connection	inch	DN	2.5	65.0	3.0	85.0	4.0	100.0	4.0	100.0
Linear Ironing Contact Under Pressure	inch	mm	74.9	1928	149.9	3855	224.8	5783	299.7	7710
Linear Ironing Contact of all Heated Surfaces	inch	mm	79.4	2017	179.2	4552	279.0	7087	378.8	9623
<b>A</b> Useable Roll Length	inch	mm	120	3050	120	3050	120	3050	120	3050
<b>B</b> Total Width	inch	mm	168	4267	168	4267	168	4267	168	4267
<b>C</b> Input to Discharge Depth	inch	mm	92	2336	157	3987	222	5638	287	7289
<b>D</b> Total Depth	inch	mm	112	2844	177	4495	242	6146	307	7797
<b>E</b> Total Height	inch	mm	74	1880	74	1880	74	1880	74	1880
Domestic Weight	lb	kg	15500	7031	27000	12247	39100	17735	51000	23133
Export Boxed Weight	lb	kg	16100	7303	28200	12791	41000	18597	53000	24040

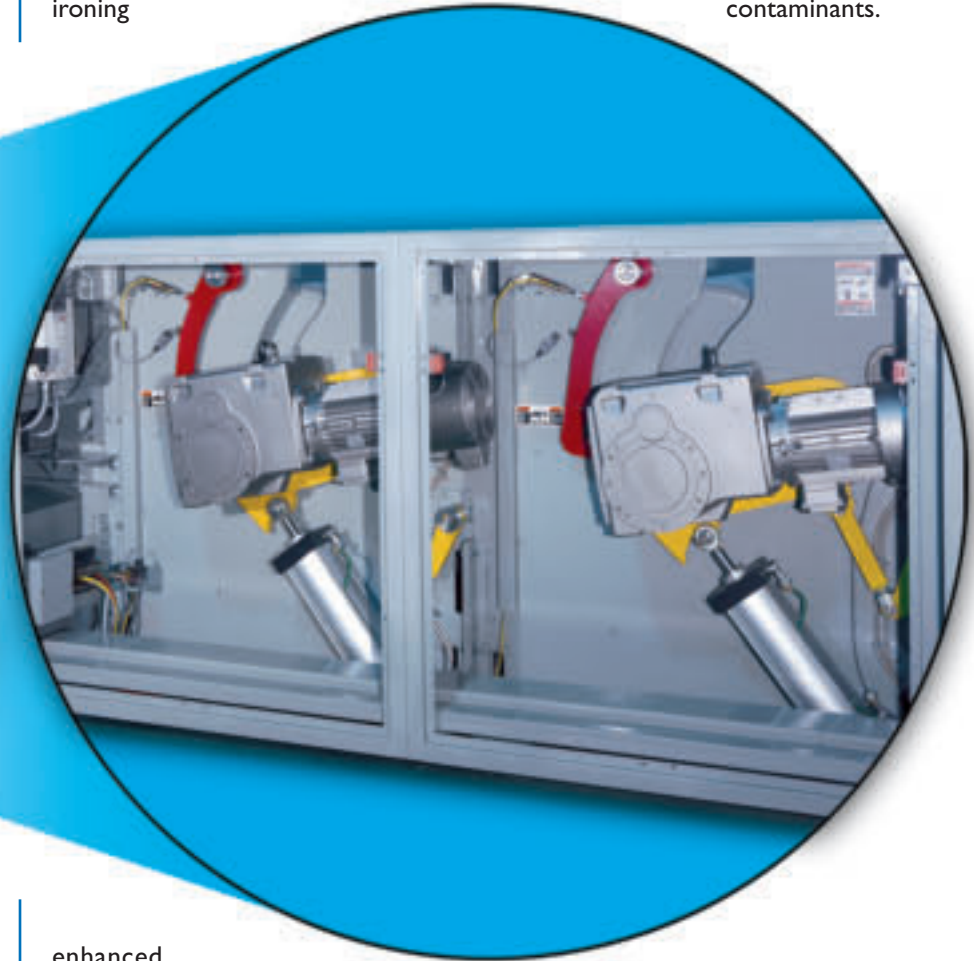
laundry staff through each step. Proper speed differential is maintained at all times for better ironed finish and reduced guide tape breakage to minimize the cost and downtime of ironing tape replacement.

## Increased Power and Efficiency

Because power is applied directly to each roll without transmission loss from drive belts and pulleys between gearboxes and motor, Chidrive allows a substantial

reduction in power consumption. Chidrive's AC frequency inverter drive also routinely operates at a lower percentage of its capacity, so there is more power in reserve to handle peak loads. Chidrive's packaged gearbox/motor units for each roll section offer higher torque, better transmission efficiency, extended service life, and are quieter than the gearboxes with belts, pulleys, and motors that are traditionally used on ironers. This enables Chidrive to effortlessly power through difficult ironing

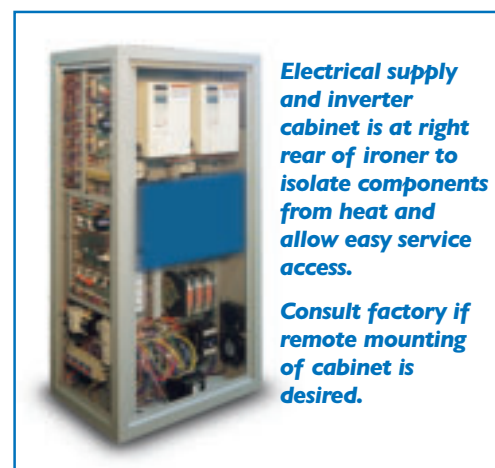
conditions caused by lack of waxing, chemical buildup or improper pressure with less stress on drive components. Chidrive also transmits torque to each roll in a more balanced manner with greater surface contact and less friction on individual gearbox surfaces. Each high efficiency drive motor has the highest insulation class rating and is constantly fan cooled and enclosed to assure long service life and isolation from lint and other contaminants.



## Easier Installation and Maintenance

Installation is simple because there are no belts or chains to be field connected and adjusted. Chidrive is modular so rolls may be added to the system at any time in the future, without requiring costly options such as special gearboxes and motors at the time of initial machine purchase or major structural changes when a roll is added in the future. Safety is

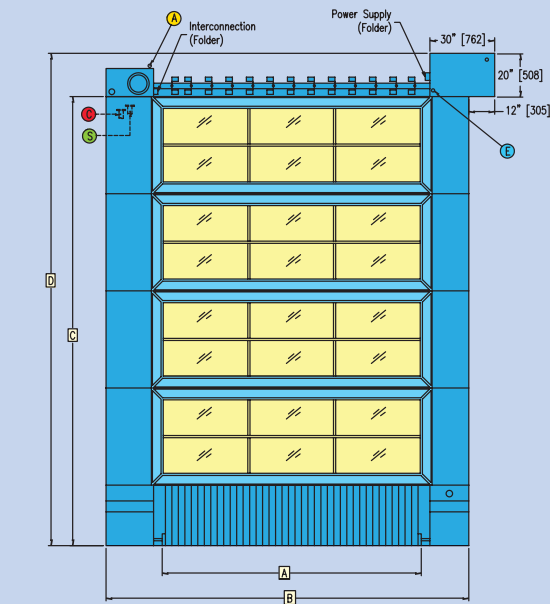
enhanced because there are no exposed high speed belts, pulleys, gears, or bearings inside end frames where maintenance staff needs to work. Dual pressure adjustments are included to maintain even ironing pressure across the full width of the ironer from left to right end. Long term performance, reduced maintenance requirements, reliability, and substantial electrical savings make Chidrive the ultimate multi-roll ironer drive system.



*Electrical supply and inverter cabinet is at right rear of ironer to isolate components from heat and allow easy service access.*

*Consult factory if remote mounting of cabinet is desired.*

# Dimensions and Utilities



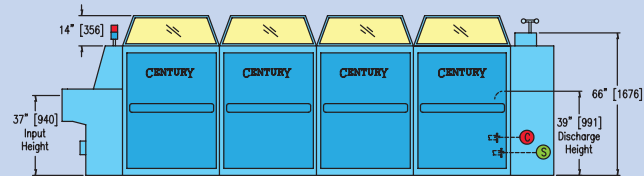
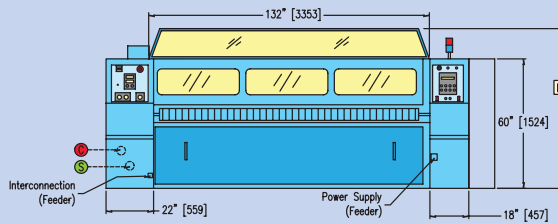
## Wider Models Available

In addition to the standard (3050mm) width models, 136" (3455mm) useable width and other wider models are also available for ironing extra wide items or multiple lane processing. Consult factory for specifications and floor plans.

1. Specifications subject to change without notice. Consult factory for certified construction floorplan
2. Consult factory for additional specifications on thermal fluid heated models.
3. Millimeter dimensions are in [ ].
4. All dimensions are +\ - 1/2"

For dimensions [A]-[E] see specifications chart for each model inside the brochure.

- A Air Connection      S Steam Supply Connection
- E Electrical Connection      C Condensate Return Connection



## A Complete Range of Feeding, Ironing, Folding and Linen Handling Options

Chicago uses only the finest quality thermal, pneumatic, electrical, and drive components to build Century – an ironer that lives up to the Chicago name. Chicago also offers a wide range of linen separating, feeding and automatic folding equipment to compliment the Century in a complete microprocessor-controlled finishing system. To reduce labor and improve the quality of finished linen, separating and feeding may be automated with a Pik-Quik linen separator and the Edge—the world's first cornerless spreader/feeder. Century may be used with one of twenty-five different Skyline automatic folding and stacking systems.

For over 100 years, Chicago has specified, manufactured, and supported finishing equipment in thousands of installations in commercial, hospitality, health care, and institutional laundries all over the world. An experienced Chicago professional will be pleased to make an objective equipment recommendation based on your production, floor space, utility, and budget needs.

**Contact your local Chicago distributor or our factory sales assistance office for details.**



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