

INTELLIGENT AUTOMATION

EFFICIENT WASHING

PROFESSIONAL FINISHING



SEA-LION

Overall solution for global industrial and commercial washing.

Sea-lion Industrial Park

Washing technology and equipment leader.





Sea-lion is China's technological leader in heavy-duty industrial and commercial laundry machinery possessing a wealth of experience in manufacturing from years of research and development. With disciplines of automation, washing, finishing and environmental technologies, Sea-lion offers a complete systems approach to high output laundries. Machines are built to world class quality standards and certified to global standards using first rate components. Since 1969, Sea-lion has grown into one of the most respected brands.

The Sea-lion factory campus in Leyu Town, Jiangsu is an impressive, vertically integrated engineering and production facility of over 1.2 million sq.ft. outfitted with the latest manufacturing technologies including solid modeling for all equipment, CNC flame and laser cutters, robotic welders, automated electrostatic painting systems, and a state-of-the-art assembly workshop.







Together, we create a clean world!

At Sea-lion, we provide solutions for processing laundry. We can help you determine strategies, measure operation capacity, rationally configure equipment, optimize workplace operation efficiency, provide information management solutions, simplify operation management, and support the digital evolution of the Internet of Things (IoT) and Industrial Internet of Things (IIoT) to further improve business performance.

HOSPITALITY LAUNDRY SOLUTIONS

Improve the cleanliness and service life of linen, reduce sewage discharge, save energy costs, and improve hotel customer experience. Our complete solution will help you optimize production and factory operations, and produce more results with less resources.

MEDICAL LAUNDRY SOLUTIONS

Your specialty is in the field of medical services, and our specialty is washing, disinfection, antibacterial and energy management. Learn how our two sides work together to help hospitals and healthcare washing facilities achieve safety and sustainability goals.

Intelligent Automation

Improve the movement of laundry without human intervention.

- ❖ Cart Dumpers
- ❖ Multi-station Soiled Sorting Systems
- ❖ Overhead Monorail Systems
- ❖ Shuttles
- ❖ Elevator Transports
- ❖ Conveyors

Efficient Washing

Environmentally friendly and efficient washing systems and equipment.

- ❖ Tunnel Washers
- ❖ Industrial & Commercial Washers
- ❖ Barrier Washers
- ❖ Tumble Dryers / Lint Collectors
- ❖ Mattress Cleaner Machine
- ❖ Waste Water Systems

Professional Finishing

Systems and equipment for the final touch for customer presentation.

- ❖ Spreader/Feeders
- ❖ Serpentine Ironers
- ❖ Chest Ironers
- ❖ Flatwork Folder
- ❖ Towel Folder
- ❖ Blanket Folder



SEA-LION

Intelligent Automation

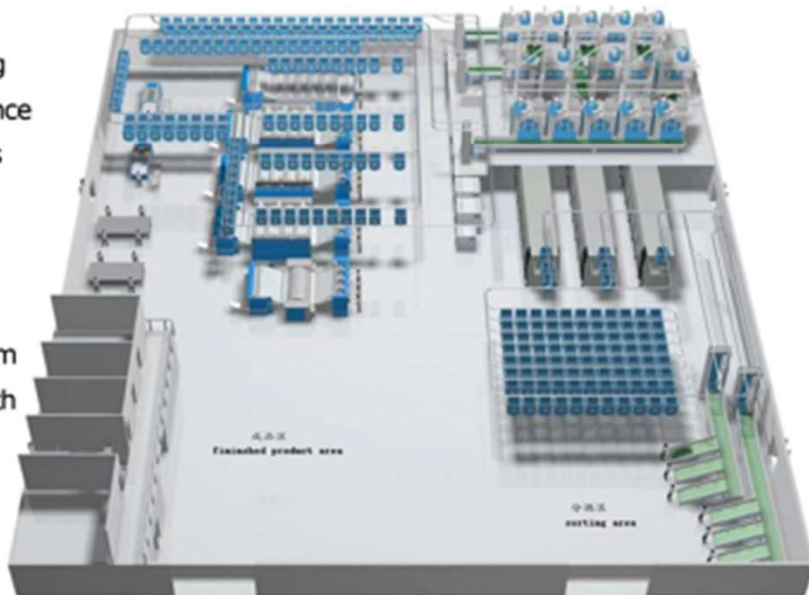
High volume laundry operations are based on Intelligent Automation and the Internet of Things (IoT). To this notion Sea-lion has developed a portfolio of devices designed for the movement of laundry between machines without human interaction. AI based on software architecture in the SCADA control system makes the best use of the available machinery while CAD designed system layouts make the most efficient use of space.

Multi-station Soiled Sorting Systems

Soiled sorting includes cart dumpers, weight sensing loading faveolate bins or conveyors into transport garment bags. Once loaded, the SCADA network control is able to monitor goods throughout the laundering process.

Overhead Monorail Systems

Overhead monorails with transport garment bags are custom designed to take advantage of available space and store both soiled and clean linens during the laundering process. Built with industrial grade rail and hardware. Intelligent routing controlled and monitored by a sophisticated SCADA control network to keep accurate track of linen locations.



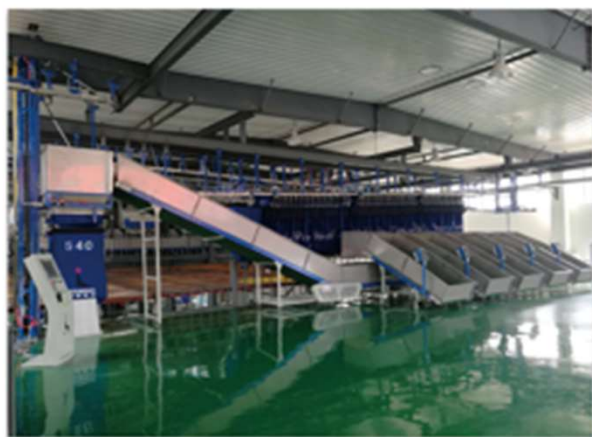
Custom CAD System Layout

Elevator Transports

Where space is at a premium, Sea-lion elevators connect washer and dryer lines by means of elevators. AI based software determines exit points from tunnel washer either to extraction press or centrifugal extractor then transportation to appropriate dryer machine.

Shuttle & Conveyors

Shuttle and conveyor devices eliminate human interaction with the progress of laundry through the operation constantly moving goods from washing, drying and finishing stations.



Tunnel Washer System

Sea-lion SDX tunnel washer consists of the perfect, field proven combination of single drum and double drum technology. Double drum modules are fitted with chemical ports and water and drain valves to create the right wash liquor ratio and allow instant color changes (no need for empty modules). Excellent mechanical action is provided by strong lifting ribs and bottom transfer design minimizes blockages. Loading is by weight sensing conveyor or overhead sling monorail. Extraction is available in either multi-stage hydraulic press or centrifugal extractor. SCADA control platform provides for full wash system programming and complete system monitoring.

Key Tunnel Features:

- ❖ Water flow meters precisely control water supply for each compartment, and conductivity rate is monitored continuously
- ❖ Bus-manifolds are adopted for pneumatic system
- ❖ Rinse steps can be done in individual or combination to improve washing quality
- ❖ Very low risk of blockage as bottom transfer design is adopted
- ❖ Two tanks with lint filter system for water recovery and reuse
- ❖ Instant color changing function whereby colored linen can be washed without delay or empty module
- ❖ Over-flow device is installed on the outer drum to control foam and lint
- ❖ Managed by color touch screen controller with multi-lingual display. Entire system process is monitored, including:
 - 100 washing programs; additive amount of washing detergents and chemicals;
 - temperature monitoring; water flow; water change during washing; washing time/cycle time;
 - transference of customers codes from press to dryers

Available in 60kg and 80kg batches; from 7 to 16 compartments:

SDX60-7, SDX60-8, SDX60-10, SDX60-11, SDX60-13, SDX60-14, SDX60-16

SDX80-12, SDX80-16





System Components:

❖ Extraction: Press or Centrifuge

Removes water from the laundry with high pressure or G-Force. Simple, robust and reliable.

- ✓ Hydraulic drive with maximum pressure of press membrane of 45 bar
- ✓ 100 press programs; process is graphically displayed on SCADA control panel
- ✓ Exclusive second rinse process with unique twist press action makes rinsing more complete
- ✓ Press pressure is stepless and adjustable
- ✓ Robust structure of upper and lower pillars made from forged and hardened steel
- ✓ Centrifuge Extractor features multiple speeds and based on proven XGQ washer design
- ✓ Discharge is controlled by fuzzy logic and IR sensor for safety

❖ Shuttle

Shuttle works to transfer goods from press to dryers for conditioning or drying.

- ✓ Shuttle discharge position can be customized to site requirements
- ✓ Safe and reliable with sensors measuring active length of conveying belt
- ✓ Special PVC belt prevents off-tracking and limits distortion
- ✓ Adopts Industrial Ethernet for reliable and precise shuttle transfer points

❖ Pass Through Dryer

Processes goods after washing and extraction for conditioning or drying.

- ✓ Optimized unloading air duct is efficient and smooth
- ✓ Back pressure is constantly monitored with indicators for lint removal
- ✓ Constant monitoring of inlet and outlet temperatures
- ✓ Effective utilization of heat thanks to fully insulated enclosure



Laundry Dragon

**A smart and powerful
tunnel washer system.**

Available in 120kg & 160kg loading capacities
with Gas or Steam heating.



Industrial Washer-Extractors

Sea-lion XGQ-CF washer-extractors are rugged, reliable workhorses engineered to last. With a low total cost of ownership they produce superior wash results. The no nonsense, smart automation design saves time in loading and unloading process, while its open structure aids in access for maintenance and repairs. Automatic door and hydraulic tilting assist loading and unloading functions.

Key Features:

- ❖ Small and compact footprint that incorporates a slight 2 degree backwards washing angle. This tilt back along with integrated lifting ribs optimize mechanical wash action.
- ❖ Inverter with single motor drive is energy efficient, has fewer parts, and provides smooth power at all speeds.
- ❖ Robust hydraulic tilting mechanism provides for a large degree tilting angle coupled with large diameter door opening facilitates loading and unloading of goods.
- ❖ Multi-language color touchscreen control features full programmability of all machine functions including interfacing up to 13 signals to external chemical systems, and displays relevant machine operating data, including a full array of maintenance and productivity reports.
- ❖ 100kg XGQ-CF models available with exclusive Water Droplet drum design. The art of Convex/Concave for the perfect Clean.

XGQ-CF Industrial Model Specifications

Description	unit of measure	XGQ-100CF	XGQ-100CFD	XGQ-100CFM	XGQ-100CFH
Capacity (dry load)	kg / lb	100 / 225	100 / 225	100 / 225	100 / 225
Inner drum x length	mm	1240 x 840	1240 x 840	1240 x 840	1560 x 1100
Outer drum x length	mm	1325 x 918	1325 x 918	1325 x 918	1645 x 1225
Washing / balance speed	rpm	40/55	40/55	40/55	30/36
Motor extracting speed	rpm	350	350	350	350
High extracting speed 1-8	rpm	250/250/250/250/250	250/250/250/250/250	250/250/250/250/250	250/250/250/250/250
High extracting speed 9-16	rpm	320	320	320	320
Motor power	kw	7.5	7.5	7.5	30
Unloading tilt angle	degree	n/a	18	18	18
Loading tilt angle	degree	n/a	18	18	18
Steam pipe diameter	DN	25	25	25	40
Cold & hot water pipe diameter	DN	40	40	40	50
Drainage diameter	mm	115/2 (Drain) PC	115/2 (Drain) PC	115/2 (Drain) PC	114/2 (Drain) PC
Compressed air inlet diameter	mm	8	8	8	18
Steam pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Water pressure	MPa	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4
Compressed air pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.7
Cycle Water consumption	kg	1500	1500	1500	2400
Cycle Electric consumption	kWh	1.8	1.8	1.8	2.6
Cycle Steam consumption	kg	50	50	50	85
Air compressor capacity	m³/min	0.1	0.1	0.1	0.13
Dimension (WxDxH)	mm	2060/1890/2170	2345/1820/2145	2345/1820/2195	2480/2490/2590
Weight	kg	3140	3600	3750	6800



XGQ-100CFQ



Commercial Washer-Extractors

Sea-lion XGQ-F stationary soft mount washer-extractors combine economy and performance into a reliable, field proven machine design. Features like extra large door openings into baskets with smooth, dimpled perforations highlight the design quality and build craftsmanship put into these machines.

Key Features:

- ❖ Fitted with a full spring and shock suspension system that effectively isolates vibration transmission to the floor allowing for installation where the foundation need only support the static weight of a fully loaded machine. The tubular steel frame is a solid structure housing all electrical and control components, as well as the suspension system safely enclosing all moving parts.
- ❖ Machine is finished with high grade, corrosion resistant stainless steel.
- ❖ Multi-language full color touch screen control features full programmability of all machine functions including interfacing up to 13 signals to external chemical systems, and displays relevant machine operating data, including a full array of maintenance and productivity reports.
- ❖ The drive system is an efficient direct v-belt setup fitted with an inverter with single motor providing smooth power at all speeds.
- ❖ XGQ-F models available with exclusive Water Droplet drum design. The art of Convex/Concave for the perfect Clean.



XGQ-50F

XGQ-F Stationary Model Specifications

Description	unit of measure	XGQ-25F	XGQ-50F	XGQ-80F	XGQ-100F	XGQ-150F	XGQ-180F
Rated capacity (dry load)	kg / lb	25 / 55	50 / 110	80 / 175	100 / 225	150 / 335	180 / 395
Inner drum: width x depth	mm	850 x 560	990 x 705	1150 x 845	1240 x 882	1350 x 966	1460 x 1012
Outer drum: width x depth	mm	864 x 618	1054 x 758	1218 x 922	1324 x 953	1434 x 1044	1544 x 1104
Washing/Balance speed	rpm	43/75	40/60	30/50	30/50	30/50	27/55
Medium/High Extract speed	rpm	430/930	375/750	360/700	350/680	310/640	300/630
High Extract G-Force	G	297	313	335	320	309	323
Motor power (HP)	kW	3	4	6.5	7.5	15	22
Electric heater power	kW	22.5	45	45	45	—	—
Steam connection	DN	20	20	25	25	40	40
Hot & Cold Water inlet	DN	2 x 25	2 x 25	2 x 40	2 x 40	2 x 50	2 x 50
Water consumption/load	kg	600	827	1200	1475	1900	2000
Steam consumption/load	kg	4	20	40	40	80	70
Electric consumption (HP) Electric	kW-h	5	7	10.2	10.5	—	—
Electric consumption (HP) Steam	kW-h	9.8	3	3.8	3.8	2	2.2
Water pressure	MPa	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4
Steam pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Compressed air pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Overall Dimensions (LxWxH)	mm	1155/1180/1345	1550/1555/1755	1845/1800/1930	1982/1758/2020	2245/1850/2075	2310/1915/2130
Weight	kg	1055	1494	2570	2812	4012	4470

XGQ-FQ Tilting Model Specifications

Description	unit of measure	XGQ-100FQ	XGQ-160FQ	XGQ-180FQ	XGQ-200FQ
Rated capacity (dry load)	kg / lb	100 / 225	160 / 350	180 / 395	200 / 440
Inner drum: width x depth	mm	1240 x 882	1460 x 1012	1460 x 1012	1600 x 1188
Outer drum: width x depth	mm	1324 x 953	1544 x 1104	1544 x 1104	1720 x 1237
Washing/Balance speed	rpm	30/50	27/55	27/55	25/52
Medium/High Extract speed	rpm	350	300	300	290
High Extract G-Force	G	680	630	630	620
Motor power (HP)	kW	7.5	22	22	30
Tilting angle of unloading	degree	18	15	15	15
Steam connection	DN	25	40	40	40
Hot & Cold Water inlet	DN	2 x 40	2 x 50	2 x 50	2 x 50
Water consumption/load	kg	1475	2000	2000	2400
Steam consumption/load	kg	60	70	2.2	2.6
Water pressure	MPa	0.2-0.4	0.2-0.4	0.2-0.4	0.2-0.4
Steam pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Compressed air pressure	MPa	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6
Overall Dimensions (LxWxH)	mm	2020/1690/2050	2370/1945/2220	2448/2004/2264	2623/2234/2282
Weight	kg	3540	5420	6000	7400



Barrier Washer-Extractors



Sea-lion BW barrier type washer-extractors provide the necessary separation between soiled and clean sides of the laundry with a fully enclosed frame and protective seal. Linen to be washed is loaded on the soiled side and unloaded on the clean side once the wash is complete eliminating any chance for cross contamination.

Key Features:

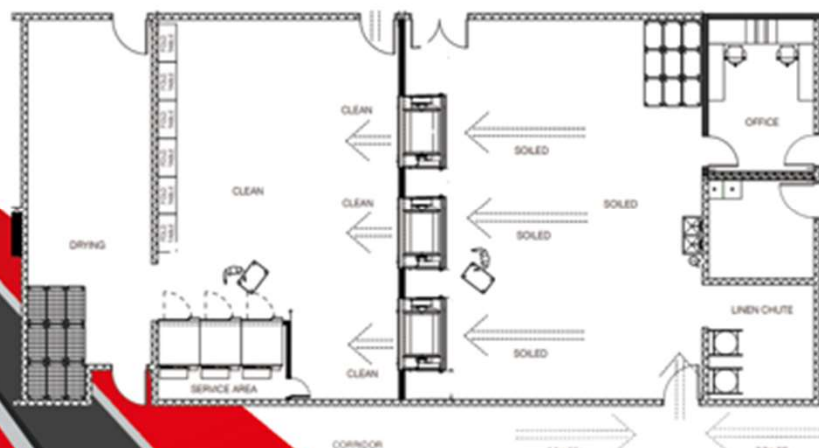
- ❖ Compact air bag suspension system isolates machine vibration transmission to the floor for smooth, quiet operation.
- ❖ The drive system is an efficient direct v-belt setup fitted with an inverter with single motor providing smooth, reliable power at all speeds.
- ❖ Multi-lingual touch screen controller provides for many programming options.
- ❖ Cylinder positioning is controlled by a proximity switch and magnets to automatically align inner door position for loading and unloading operations. A time saving feature that avoids unnecessary jogging.
- ❖ Weight sensing device monitors load volume for proper loading volume.

BW Model Specifications

Description	Unit of measure	BW-600A	BW-1000A
Inner drum: width x depth	mm	870 x 1380	990 x 1300
Outer drum: width x depth	mm	940 x 1230	1060 x 1440
Washing/Balancing speed	rpm	40/70	40/105
Medium Extracting speed	rpm	350	350
High Extracting speed	rpm	720	680
High Extract G Force	G	33.3	33.6
Motor power	kW	7.5	11
Hot & Cold Water connection	mm	32	40
Drain outlet	mm	114	114
Compressed Air inlet diameter	mm	8	8
Steam pressure	MPa	0.4-0.6	0.4-0.6
Water pressure	MPa	0.2-0.4	0.2-0.4
Compressed Air pressure	MPa	0.55-0.6	0.55-0.6
Water consumption/cycle	m ³	3.2	3.98
Electric consumption/cycle	kW	5.5	5.5
Steam consumption/cycle	kW	38	85
Overall Dimensions (L/W/H)	mm	2092/1960/2000	2312/1980/2205
Weight	kg	2880	3480

Available in open pocket and split pocket drum configurations.

**Prevent cross-contamination
in the laundry with proper design layout
and barrier washers from Sea-lion.**



BW-1000A

Water Droplet Drum Design



Sea-lion's patented Water Droplet drum design improves cleaning power while creating a super smooth washing surface to protect goods from damage during the wash cycle.

Key Features:

- ❖ Concave-Convex texture design improves mechanical wash action by providing rubbing force in two directions for superior cleaning power.
- ❖ The unique design of the Water Droplet's concave shape creates a super smooth washing surface reducing snagging and fabric damage.
- ❖ Water Droplet design improves drum strength for durability thanks to the added bends in the material.

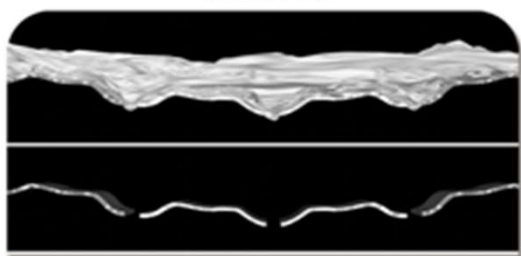
When a washer spins in extract, water along with linen is forced out of the perforated holes due to the high G-Force. After high speed extraction, linens cannot easily fall off the outer walls because small parts are forced through the holes. This requires the load to be manually pulled away from outer cylinder walls, not only potentially damaging linen but it also time consuming.

Water Droplet pattern creates more mechanical action for better cleaning by increasing the friction between washer drum and the linens. In addition, the bulge of the water droplet's smooth transition protects linen by preventing it from escaping out of perforated holes during extraction. This results in protecting linens from snagging in the perforations while reducing labor required to unload.

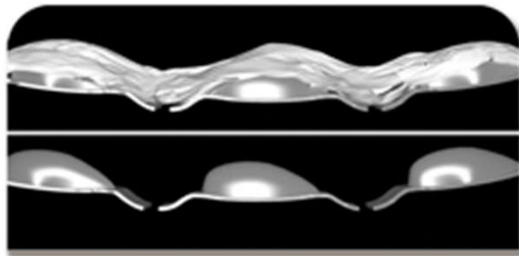
**The art of Concave-Convex,
for the perfect clean.**



Typical Drum Perforation Pattern
(closeup view)



Water Droplet Perforation Pattern
(closeup view)



Available on select models.



Tumble Dryers

Sea-lion GZ stand-alone tumble dryers are available with gas burner, steam or electric heating elements. Designed to have the perfect balance of CFM air flow and heat transfer for optimal drying. Fitted with an ultra smooth and durable 304 grade mirror Stainless Steel drum with dimpled perforated basket to eliminate snags and protect goods. Outer panels are made of corrosion resistant stainless steel finish.

Key Features:

- ❖ The microprocessor control is simple to use and features programmable time and temperature settings.
 - ❖ A reversing motor system gently tumbles the goods in both directions to prevent tangling.
 - ❖ Access to the lower lint screen panel is simple making quick work for filter maintenance.
 - ❖ Loading door features a tempered glass window which allows for a visual check of the goods during the cycle.
- The door opening is oversized to allow for easy loading and unloading.
- ❖ Protective 304 grade Stainless Steel cabinet (stand-alone models only).

Stand-alone Specifications (steam/electric)

Description	unit of measure	GZ200Z-25	GZ200Z-50	GZ2-100	GZ2-100Q
Rated capacity (dry load)	kg/lb	25/55	50/110	100/225	100/225
Inner drum x length	mm	930 x 819	1160 x 995	1400 x 1236	1400 x 1236
Main Motor power	kW	0.75	1.5	3	3
Fan	kW	0.75	1.5	2 x 1.5	2 x 1.5
Drum speed	rpm	32	32	30	30
Steam pressure	Mpa	0.5-0.6	0.5-0.6	0.5-0.6	0.5-0.6
Steam pipe	DN	25	25	25	40
Steam Return pipe	DN	25	25	25	25
Steam consumption/cycle	kg	25-30	50-60	100-120	100-120
Electric consumption/cycle Electric	kWh	35	29	-	-
Electric consumption/cycle Steam	kWh	0.52	1.8	3.2	3.2
Heater power	kW	- / (23.4)	- / (43.2)	- / (80)	-
Dimension of air exhaust	mm	200 x 240	280 x 370	330 x 400	330 x 400
Dimension (L/W/H)	mm	1415/1040/1780	1620/1382/2230	1880/1605/2430	2200/1660/2625
Weight	kg	452 (100)	640 (140)	1340 (300)	1548

Stand-alone Specifications (LNG/LP gas)

Description	unit of measure	GRZ-25	GRZ-50	GRZ-100
Rated capacity (dry load)	kg	25/55	50/110	100/225
Inner drum x length	mm	930 x 819	1160 x 995	1400 x 1236
Main Motor power	kW	0.75	1.5	3
Fan	kW	0.75	1.5	2 x 1.5
Gas pressure	Mpa	0.005-0.02	0.005-0.02	0.005-0.02
Gas pipe	DN	15	15	15
Dimension of air exhaust	mm	200x240	280x370	330x400
Gas consumption	kg/h	3	4.5	10
Air flow	M ³ /min	30	50	100
Dimension (L/W/H)	mm	1406/1040/1700	1579/1382/2070	1880/1605/2500
Weight	kg	510	800	1750



GRZ-50



GRZ-100



Lint Collectors

Sea-lion CRM lint collectors have been developed with the latest air purifying technology. Offering safe removal of lint from entering ductwork. It offers both manual and automatic operation.

In Manual control – during operation, operator can do cleaning based on lint condition; by pressing the start button, lint stuck on the filter will be blown off by compressed air and collected. Cleaning time is optional upon the button control (press start button to do cleaning, press stop button to stop running).

Spray function (optional) - during operation, when air from dryers enters into lint collector, it is easy for lint to ignite because of the high temperature of the air flow; therefore, when temperature sensor detects temperature over the set limit, the sprayer will automatically start spraying and bring the temperature down, to prevent a fire from happening.



CRM-1500

Key Features:

- ❖ Can effectively filter 95% of lint material out of the air flow to greatly improve air quality.
- ❖ Two side view windows for daily check and cleaning.
- ❖ Strong blowing device removes built up lint from filter and deposits into collection bag.
- ❖ Utilizes a high temperature resistant and fine mesh filter to create a good filtering effect and long service life.
- ❖ Housing is equipped with a protective footing for safety.
- ❖ Indoor/Outdoor use.

General Specifications

Description	unit of measure	CRM-1100	CRM-1500
Pressure of compressed air	MPa	0.6 - 0.8	0.6 - 0.8
Diameter of compressed air connection	mm	35	35
Power	W/HP	220/3/ND	220/3/ND
Filter Area	m ²	8.4	6.3
Number of 120kg dryers connected		4-5	6-7
Dimensions (L/W/H)	mm	1293/1422/2315	1576/1706/2615
Weight	kg	220	300

**Can be mounted inline with venting ductwork to save space.
Improves capture and buildup of lint for safety.**



Spreader/Feeders

Sea-lion ZBQ spreader feeders make quick work of preparing linens to be properly positioned for the ironer or folder. Models are available in three and four stations with manual mode for small or bulky items. Strong vacuum airflow provide suction to hold the flatwork securely against the belts to provide a crisp leading edge for optimal finishing. An intelligent overhead rail system option is available to further speed the process.

Key Features:

- ❖ Innovative clamp design is robust and need only latch onto corners to transfer to upper arms for positioning on feed belts.
- ❖ For accuracy, a multi positioning servo motor assures a repeatable process while strong vacuum airflow for suction holds flatwork securely against feed belts maintaining desired position for ironer.
- ❖ Power brushes assist in the flattening and alignment of linens being fed onto the conveyor.
- ❖ Each loading station is fitted with a productivity counter to display items processed.
- ❖ Multi-lingual full color touch screen control features 20 programs and is networked to ironer and folder.



ZBQ-3300III



Versatile Feeding

For small items, the feeding station on ZBQ-3500 raises up to expose belts for manual insertion. On ZBQ-3300, the receiving table can stretch out and draw back automatically for easy operation.

Spreader/feeder machines make for high efficiency throughput and lower labor costs thanks to multi-stations with easy feeding clamp operation.



ZBQ3500-IV-H



Intelligent Rail option with spreader/feeder

Intelligent Rail option facilitates production bottlenecks by preparing and holding linens in queue to be processed.

General Specifications

Description	Unit of measure	ZBQ3300-II	ZBQ3500-IV-II
Max air consumption	L/min	130	110
Rated power	kW	5.09	18.35
Max width	mm	3300	3500
Speed	m/min	0-40	0-50
Overall Dimension (L/W/H)	mm	4385/2635/2310	5290/2920/2480
Weight	kg	2260	5400



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Serpentine Ironers

Sea-lion YZS & CYZ serpentine flatwork ironers save space in the ironing process. Available in roll and chest type models, the space saving design allows for more linen surface ironing contact in a smaller footprint as compared to similar sized machines. Driven by a combination of belts and chains, the drive system is robust and delivers accurate consistent speeds. Spindle tape drive is used instead of canvas for smooth transfers. Unique serpentine linen flow results in professional finish quality.

Key Features:

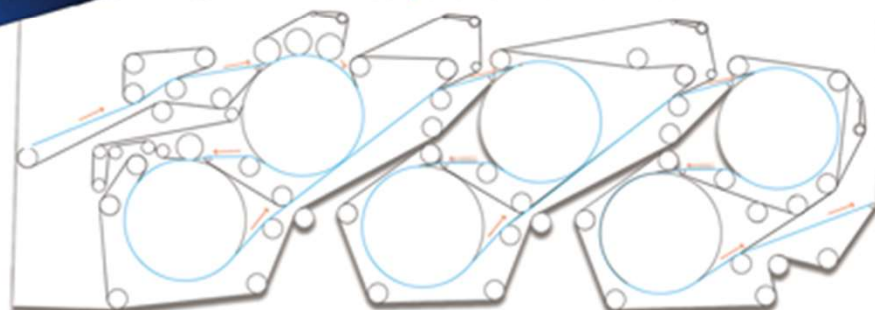
- ❖ Robust drive system, driven by a combination of belts and chains, delivers accurate consistent speeds. Throughput speeds are fully programmable for optimal processing of a variety of linens.
- ❖ Programmable control with 20 programs can be networked to a spreader feeder or folder device.
- ❖ For smooth transfers between rolls, spindle tape is used instead of canvas.
- ❖ Steam pressure is supplied through the rolls so that the ironing surface area is evenly heated and most effective. Steam inlets are sealed with rotary joints to avoid leakage and ensure a long service life.



YZS Specifications

Description	Unit of Measure	YZSVI-3400 (705)	YZSVI-3400 (705)
Ironing range (width thickness)	mm	3400 x 3	3400 x 3
Ironing roll	mm	950 x 3420	705 x 3420
Number of rolls		4	6
Steam pressure	MPa	0.6-0.8	0.6-0.8
Ironing speed	m/min	0-50	0-50
Motor power	kW	5.5	5.5
Steam pipe diameter	DN	40	50
Drain pipe diameter	DN	40	40
Steam consumption	kg/h	530	590
Overall Dimensions (L/W/H)	mm	5040/4750/2287	4960/4840/1960
Weight	kg	15100	17100

Serpentine Linen Flow Path





Chest Ironers

Sea-lion YZC chest ironers feature high speed performance thanks to the precise structure of the double chest, stainless steel springs and temperature resistant felt ensures the rolls keep adequate elasticity and spring cushion for maximum surface contact with the chest. Excellent for processing sheets, linens, quilt covers, duvets and other large items.

Key Features:

- ❖ The arced chest surfaces have large angles to maximize heating area and surface contact.
- ❖ Driven by an inverter with single motor, energy consumption is reduced. Through the programmable control, inverter speed settings can be adjusted between 30 and 50 m/min to accommodate different temperature settings, types of linen, and moisture content.
- ❖ Thanks to the unique design of a heat recycling system and fully insulated chest, steam in the chest is fully utilized. Fans are installed on each roll to exhaust moisture keeping the chests dry for high speed ironing.
- ❖ A safety plate is installed across the front of the machine to keep hands from entering inadvertently and there are multiple emergency stop buttons at each corner of the machine.
- ❖ A pressure controlling system for steam and compressed air is installed to ensure the machine is running within normal parameters. Rolls can be lift up and locked onto the machine in case a sudden loss of power.
- ❖ Available in 800 and 1300 mm rolls and 3300, 3400 and 3500 mm widths.
- ❖ CYZ models offer space saving single roll, dual chest plate serpentine flow design.

YZC Specifications

Description	Unit of Measure	Y3300I2C-800	Y3300I2C-1300	Y3500I2C-800	Y3500I2C-1300	Y3500I2C-1300	Y3500I2C-1300	Y3500I2C-1300
Maximum ironing width	mm	3300	3300	3500	3500	3300	3400	3400
Roll diameter	mm	800	1268	774	1274	1260	1240	1240
Number of chests		2	2	2	2	3	2	3
Ironing speed	m/min	5 - 30	8 - 40	6 - 30	8 - 40	10 - 50	10 - 40	10 - 50
Steam pressure	Mpa	0.6-1.0	0.6-1.2	0.6-1.0	0.6-1.2	0.6-1.0	0.6-1.0	0.6-1.0
Compressed air pressure	Mpa	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.6-0.7	0.6-0.7	0.6-0.7
Main drive electric motor	kW	11	18.5	11	18.5	17	22	17
Exhaust fan	kW	1.5 x 2	2.2 x 2	1.5 x 2	2.2 x 2	2.2 x 3	2.2 x 2	2.2 x 3
Exhaust pipe diameter	mm	2 x 150	2 x 150	2 x 150	2 x 150	200	2 x 250	250
Compressed air pipe diameter	mm	8	8	8	8	12	12	12
Steam pipe diameter	DN	40	50	40	50	50	65	65
Condenser pipe	DN	25	25	25	25	30	50	50
Physical Dimension (L/W/H)	mm	3151/1750/1458	3991/1710/1650	3151/1450/1458	3991/1710/1650	4480/2150/1980	4780/2150/1980	4440/2150
Machine weight	kg	8074	12500	9320	12920	14200	13000	15000

CYZ Specifications

Description	Unit of Measure	CYZ3400I2C-800	CYZ3400I2C-1300
Maximum ironing width	mm	3400	3400
Roll diameter	mm	800	1300
Number of chests		2	2
Ironing speed	m/min	5 - 30	5 - 45
Steam pressure	Mpa	0.6-1.0	0.6-1.2
Main drive electric motor	kW	11	18.5
Exhaust fan	kW	2.2	2.2
Exhaust pipe diameter	mm	143	150
Steam pipe diameter	DN	50	50
Condenser pipe	DN	40	40
Physical Dimension (L/W/H)	mm	5230/1914/1965	5428/2376/2275
Machine weight	kg	7300	11540



YZ3500I2C-1300



CYZ3400I2C-1300



SEA-LION

Flatwork Folder

Sea-lion's ZD3400-V-DF combination flatwork folder/stacker provides the final touch to the flatwork process. Fully automatic and networked with the spreader feeder or ironer it delivers a fine end product. Available in a four lane configuration, its folding programs can be selected to finish two to five folds according to different types of linens. Cross and lateral folds are both programmable. All critical parts and components are top brands to ensure perfect finishing performance and reliable operation.

Key Features:

- ❖ Optical sensors are equipped to ensure accurate detection of linen dimensions. Folds are completed by a combination of pneumatic and mechanical blades for best performance with minimal air consumption.
- ❖ Seven inverters are used to independently control speeds. Five are dedicated for folding and two for stacking.
- ❖ In addition to the anti-static bar design, the unique airflow system separates linen from the belts properly before folding.
- ❖ A positive-reverse control is adopted for folding 4th and 5th folds which ignores the size and thickness of the linens, as each fold is measured by optical sensors to ensure the folding line is done accurately in the middle of the linen.



ZD3400-V-DF

Networked with Sea-lion finishing machines, the intelligent control system includes a diagnostic troubleshooting guide.



Intelligent Towel Folder



ZDMJ1920-1200

Sea-lion ZDMJ1920-1200 Intelligent towel folder features an intelligent control system with large, multi-lingual touch screen display.

Key Features:

- ❖ Optical photo sensors automatically detect the size of the towel and adjust the width accordingly. The lateral fold is done with a folding plate. The encoder installed on the shaft measures the length of the towel, then selects the appropriate folding method. The first cross fold is done via a positive-reverse run and air blow.
- ❖ Autostretch device is installed for discharge which can stretch or retract so as to transfer the stacked towels to the next conveyor belt for collection.

Capable of producing up to 1,200 folded pieces per hour with a choice of 2, 3, 4 or 5 folds.

Blanket Folder

Sea-lion ZDHK-1500 automatic blanket folder is an entry level folding machine. Fitted with wide belts and optical sensors, it automatically detects the size of the blanket and adjusts folding accordingly. Simple and reliable, it makes quick work of blankets and similar garments to ensure high quality initial folding and execution of the subsequent cross folds.

Maximum folding 2100mm x 1500mm with a working capacity of 35m/min.



ZDHK-1500





Mattress Cleaning Machine

Sea-lion introduces the first intelligent and efficient mattress cleaning and drying machine. Its launch breaks the barriers of traditional washing machines for medical mattress washing, and sets a new standard to medical washing. SCXH series intelligent and efficient mattress cleaning and drying line performs mattress cleaning, sterilization and drying line automatically. The process improves cross-contamination problems in the fields of medical care mattress washing, and greatly improves the quality of life, health safety protection, and living environment.

Key Features:

- ❖ Equipped with large-screen LCD touch screen and intelligent control system, with simple operation, intuitive and visual data, and parameterized editing function.
- ❖ With full-coverage brush cleaning ability, realizes double sterilization and disinfection functions, thoroughly removes dirt, and at the same time protects health and safety.
- ❖ The use of multiple sets of pressing can effectively improve the dehydration rate of the mattress after cleaning, reduce the energy consumption of drying, and greatly improve the drying efficiency.
- ❖ Using the residual heat of drying, the mattress can be heated and cleaned and pre-drying treatment can be added to the mattress, which can effectively improve the cleaning rate and drying efficiency again, and reduce energy consumption.
- ❖ Stainless steel conveyor chain is used to ensure stable operation, which is conducive to extracting and cleaning of the mattress and penetration drying.





Membrane Biology Reactor (MBR)

Sea-lion Membrane Biology Reactor (MBR) utilizes both membrane separating technology and biology technology instead of traditional cyclic activated sludge and routine filtration unit which completely separates HRT (Hydraulic Retention Time) from SRT (Sludge Retention Time). The high efficiency of separating solid from liquid makes water clean by which there is virtually no suspended solid or mud and holds back biologic infectants, such as large intestine bacilli. After treatment, the water is capable to be directly reused.

HIGH LEVEL MBR TREATMENT FEATURES

- ❖ An advanced technology, the system features a combination of membrane separating and biological processes that is so effective and efficient it allows the water to be directly reused after treatment.
- ❖ Membrane retains animalcule in the reactor, making running stable and reliable as a result of completely separating HRT and SRT.
- ❖ Separates nitrobacteria, enhanced nitrification as well as denitrogen and dephosphorization.
- ❖ Long time SRT enhance decomposing efficiency of organic matter and realize long cycle mud drainage.
- ❖ Fully automatic control by PLC controller.



Processing capacities from 20 m³/day up to 500 m³/day.

Dissolved Air Flotation (DAF)



BETTER FOR THE ENVIRONMENT

Sea-lion Dissolved Air Flotation (DAF) is a water treatment process that clarifies wastewater by the removal of suspended matter. The removal is achieved by dissolving air in the wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank basin. The released air forms minuscule bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it is then removed by filter media. The system is capable of removing significant suspended matter allowing for a massive reduction of pollutants from entering the sewage system while making the resulting water available for re-entry into the laundry.

A BETTER DAF PROCESS

The unique Sea-lion compression and release method allows more dissolved air bubbles to adhere to suspended matter within the water, resulting in faster, more efficient treatment. Sea-lion DAF's reduces all COD, BOD, SS and Turbidity in treated water.

Eliminate waste water surcharges and enhance sustainability initiatives.





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