

No matter what your
Hose Wrapping/Unwrapping
needs are, the

LEADER
has a solution.



DIGITAL
PRECISION



www.penguin.in

About us

Penguin is an acknowledged leader in hydraulic hose production machineries. With over 25 years of deft industry expertise, Penguin products provide top-of-the-line hose wrap/unwrap solutions for both Indian and global companies, endearing itself to its customers as a dependable manufacturer of industrially advanced hose wrap-unwrap systems.

Penguin machines are designed to international standards & specifications and are built to guarantee high standards of performance, safety and reliability. Penguin after-sales service ensures that machine downtime is minimal and quick turnarounds are achieved in troubleshooting situations at customer locations.

Commencing its operations in 1991, Penguin Engineers have since developed competence & infrastructure that positions the company at the forefront of the hose wrapping/unwrapping business, with its state-of-the-art facility located at Coimbatore, Tamilnadu, India.

Penguin technicians, engineers and management members have been trained in leading training forums at Italy, Japan & India, which places the competence of the company at par with global standards.



Vision

To build, sustain and enhance global reputation as a dependable wrapping solutions provider by delivering value to our customers through technology and service at par with global standards.

Mission

To deliver products of superior quality with state-of-the-art technology, through innovative design solutions, quality service and in-time delivery.

HOSE WRAP / UNWRAP SYSTEM



Penguin Wrap Master 1000C Hose Wrapping and Unwrapping System wraps the hose spirally with nylon tapes at a speed of 1000 rpm.

The ergonomic machine designed with PLC controls, Servo motors with Electronic servo drive synchronization and a reliable, efficient positive non-slip conveyor drives, makes the Digital precision "Wrapmaster 1000C" a World Class, State-of-the-Art machine in the International market.

Hoses manufactured on Rigid mandrels and Flexible mandrels as well as cables that are flexible can be wrapped using suitable supports.



For Flexible Mandrel
Model: Wrapmaster 1000C
(with wrapping head on left side)



For Flexible Mandrel
Model: Wrapmaster 1000C
(with wrapping head on right side)



Brand tape system included



High speed wrapping head



Operator interface



Safety interlocked automatic door

- High speed wrapping / unwrapping of flexible hose upto 1000 rpm
- Controlled wrap tension upto 15 kg
- Concentric tape wrapping
- Precision wrap with accurate pitch
- Delicate handling of hoses
- User-friendly operator interface with 9" colour touch screen
- Ergonomic machine design
- Accurate placement of brand tape
- Adjustable tape tension
- One tape core in operation and three in storage
- Reliable machine for continuous automatic operation
- Release solution collecting arrangement with stainless steel doors
- Electrical and pneumatic brakes for rapid stop
- Pneumatic door operating system
- Hose guide tubes for wrapping different sizes of hoses
- Automatic hydraulic head movement (optional)



For Rigid Mandrel
Model: Wrapmaster 600RC

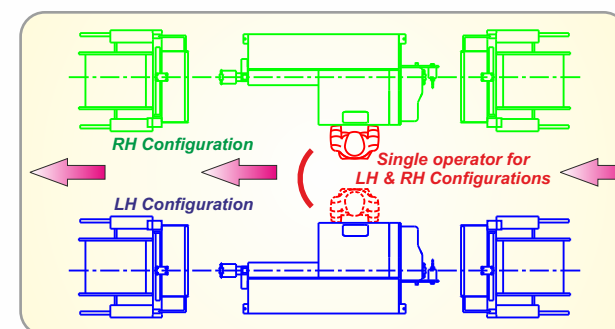


For Rigid Mandrel
Model: Wrapmaster 600RC

TAPE WET & WINDER



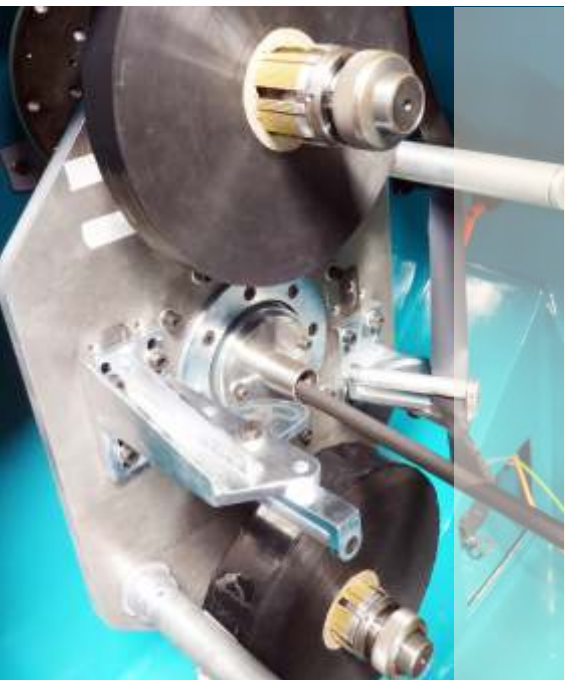
- Hose outer Ø: 10mm to 135mm
- Tape width: 50 to 120mm
- Tape package Ø: 1500mm
- Tape outer Ø: 750mm



UHMWPE / FILM WRAPPER



- UHMWPE Film wrapped onto rigid mandrel hoses
- Provision to mount rubber
- Center height of the machine can be adjusted
- Laser triangulation method to measure diameter
- Automatic tension adjustment
- Wrap angle and pitched are displayed
- Touch screen and HMI display



HOSE / BUILDING MACHINE

The Penguin Hose Building machine is designed to apply layers of silicon/ Fabric reinforced silicon to build silicon hoses / hand made hoses..

This machine is built for wrapping hoses of 10mm to 100mm diameter. The mandrel is held between two pneumatic chucks and tensioned to keep it taut and then the layers of film / rubber are applied on the mandrel.



WIRE & YARN BRAIDERS



Wire Braider
- Horizontal, Double deck

- Vertical / horizontal machine with single / double deck construction
- Vibration free operation
- Carrier transfer controlled by positive horn gears
- Recirculating lubricating system to ensure longevity of deck assembly
- Ergonomically designed doors and openings, so that the bobbins can be easily replaced
- Electronic gearing for pitch control
- Independent deck control
- Latest technology - No top plate
- Suitable for braiding with wire tension upto 8kgs / carrier
- 750 x 250mm wide capstan take-off with additional pull-up rollers for slip-free operation at high tensions
- Horn gear speed upto 200 rpm
- Large bobbin capacity: 80mm dia. x 200mm traverse

Carriers



Yarn Braider
- Vertical, Single deck



Wire Braider
- Vertical, Single deck

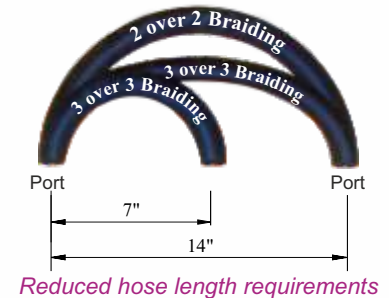


Yarn Braider
- Vertical, Double deck

HIGH SPEED BRAIDER



Best suited for "Suraksha"
LPG hoses



- Versatile machine to perform 3 over 3 braiding as well as 2 over 2 braiding
- Single wire cut sensor
- Wire tension upto 5 kgs
- Automatic continuous oil lubrication
- User friendly convenient door openings, so that the bobbins can be easily replaced
- Sound proof acoustic enclosure
- Electronic pitch controls - No change gears
- Wire as well as textile braiding

- 66 Dia. x 170mm traverse - Wire bobbin
- 66 Dia. x 150mm traverse - Yarn bobbin
- 3kg wire capacity
- 1kg to 5 kg wire tension in carriers

Most sought after machine for producing hoses of
SAE 100 R6 (With textile carriers)
Suraksha LPG Hoses
Electrical Cables

Electronic pitch control - No change gears



Wire carriers

Yarn carriers

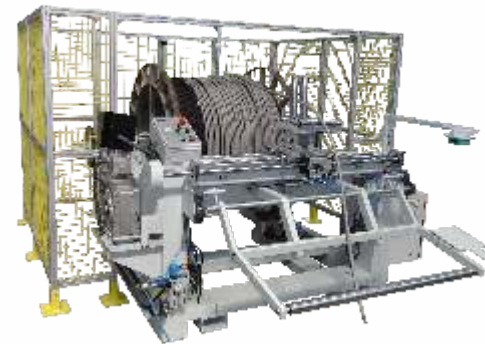
3 Over 3 Braiding

2 Over 2 Braiding

Take-Up For Extruders / Braiders



- Versatile machine suitable for various sizes of drums
- Motor driven clamping
- Drum lifting by using steel cord belt driven by electrical motor
- Speed control by servo drive and servo motor for precision control of hose laying
- Linear guide sliding system
- Caliper disc brake for let-off system
- Automated PLC controlled winder
- Operator touch panel interface to enter critical operational parameters
- Optional safety enclosures / light curtains
- Servo driven traverse / uching drive
- Choice of speed - 2 to 100 meters /min.



Take-Up for Braiding Machines (Servo Drive)

- Servo driven drum drive
- Servo driven ball screw traverse system for accurate laying of hose
- Torque control mode / speed control mode
- Pneumatic lifting of drums
- Pneumatic clamping of drums



Let-Off For Braiding Machines

- Pneumatic caliper brake for controlled let-off
- Pneumatic lifting of drums
- Pneumatic clamping of drums



Take-Up / Let-Off For Braiding Machines (DC Drive)

- Manual pintle clamping
- PMDC motor driven
- No dancer arm
- Works in torque controlled mode
- Pneumatic lifting of drums
- Economical model



Batch process

HOSE KNITTING MACHINE

- Sturdily built tubular frame structure with enclosures
- Shaft mounted encoders and forced cooling fan for motors
- PLC & HMI touch screen for Electronic synchronisation of head & caterpillar motors for uniform pitch control
- Photo sensor stop motion for yarn cut
- Line speed, Shift production indications and on-the-go pitch change through HMI
- Easy provision to move head assembly to adjust Center-line during change of diameter of hose
- Roof mounting light tower indication



CATERPILLAR

- Sturdily built rigid structure with enclosures
- 75 mm width timing belt with 6 mm thick linatex coating
- Bottom jaw adjustable by screw-rod for central line alignment
- Top jaw adjustable through steering wheel
- Sturdy worm-reduction gearbox
- Two numbers of 90° gear boxes for jaw drive
- Tyre coupling for splined drive shaft
- Hose guide assembly at both the ends of caterpillar

Number of feeders	1 to 4
Bobbin dimensions (Diameter x Length)	205 x 170 mm
Minimum diameter reinforcement (OD)	14 mm
Knitting module power	3.0 HP; AC VFD Drive
Caterpillar power	2.0 HP; AC VFD Drive
Interchangeable heads	Optional
Type of stitch	Plain stitch
Type of needle	Groz-Beckert make straight needle
Line speed	2 to 3 Meters / minute



Continuous Line Process - High Speed Online with extruder

- Suitable for low-medium pressure knitted hose
- Minimum distortion from the manufacturing process
- Precision cams for efficient knitting
- Large yarn capacity - Big bobbins
- Variable speed drive
- Precision pulling caterpillar
- HMI - Multi function
- Complete interchangeable Knitting head
- Front door opening protected with safety switch
- Automatic PLC Control system



CATERPILLAR

- Contact length - 680mm, width 90 mm
- Linatex coated timing belt - 2Nos.
- Control system with communication to the knitting machine drive
- Speed adjustment by potentiometer with digital display
- Encoder for measuring real product speed

Number of Yarn / Feeder	8
Hose diameter	10 - 110 mm
Bobbin dimensions (Ø x L)	180 x 175 mm
Knitting module power	5 HP
Caterpillar power	2 HP
Interchangeable heads	Optional
Head speed	300 rpm
Type of needle	Crank type
Line speed	upto 20 m/ min.
Knitted reinforcement	Circular knitting type, plain stitch
Yarn type	Dipped or un-dipped (Aramid, Polyester, Rayon)
Yarn package type	Cross-wound on cylindrical standard bobbins type
Rubber types	EPDM, NBR, NBR/PVC, CR, EACM, CSM, CPE .
Knitted hose types	Radiator hoses, fuel hoses and other hoses

HOSE / KNITTING CUM SPIRALER

Continuous Online Horizontal - Spiraling Machine operates between two extruders. It covers with a layer of spiraling / knitted fabric on plastic, silicon and rubber tubes. The machine can hold 2 sets of 24 bobbins for spiraling and 8 bobbins for knitting.

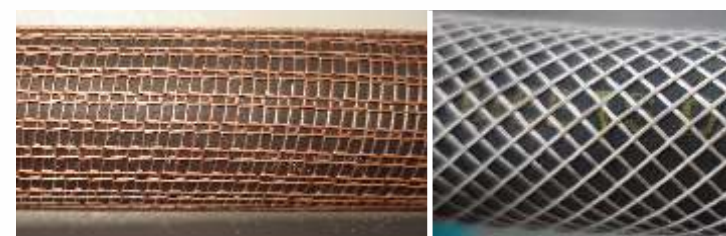


Features

- Suitable for low - medium pressure hoses
- Yarn tension controlled by positive feeder
- Spiraling / Knitting heads can be exchanged with ease
- Air brake to stop the machine if power and air supply fails
- Rotating heads are mounted on ball and spherical bearings resulting in maintenance free running
- Spiraling / Knitting operations are controlled by PLC and pitch can be varied by PLC
- Precision cams for efficient knitting
- Precision pulling caterpillar
- Hose pitch, machine running speed, production speed, hours of operation can be shown in display screen

SPECIFICATIONS

Number of spiraler head	24 + 24
Number of knitting head	8
Interchangeable knitting head	Optional
Spiral and Knit Diameter	10mm - 60mm
Spiral head power	5.5 kW
Knitting head power	5.5 kW
Caterpillar power	1.5 kW
Input Voltage	440V, 3 Phase
Spiraler speed	300 rpm
Knitting speed	300 rpm



Knitting / Spiraler Head



Spiraler Head

WIRE WINDER



- Traversing beak roller type with compensator
- Digital setting of traverse reversal
- On-the-fly traverse adjustment
- Twelve let-off station with mechanical brakes
- Traverse parameter set on interface touch panel
- Digital length measurement
- Step speed to slow down and to stop
- Multiple program storage for many bobbins
- Fine quality winding
- Modular construction
- Constant wire speed upto 400 m / min.
- Servo motor; 6 Nm, 3000 RPM
- Servo Planetary gear box 5:1 ratio
- Good catenary results

Specifications

Type	: Traversing beak roller type	DRIVE	
Bobbin size	: upto 260 mm length and 175 mm diameter	Spindle	: 5.5 kW
Spindle speed	: 1500 rpm max.	Traverse	: Geared servo motor; 6 Nm; 3000 rpm
Pitch	: Infinitely variable upto 5 mm max. bandwidth	Dimensions (L x B x H)	: 2420 x 2040 x 2000 mm



Twelve let-off station with mechanical brakes



Human Machine Interface

CATERPILLAR HAUL-OFF



Caterpillar: V-Belt

- Adjustable lower belt height to accommodate different hose diameter
- Positive drive belt with pressure distribution rollers
- Caterpillar with long contact length and multiple spreader rollers to pull the hose by applying uniform pressure



Caterpillar: Timing Belt

- For applications like hose extrusion, hose printing line, braiding line etc.,
- Provision for adjusting center height according to the requirements (standard center height: 950mm)
- Maximum opening of belt: 100 / 150 mm
- Wide timing pulleys for trouble free operation
- Pneumatic gripping with adjustable gripping pressure
- Digital DC / AC drive
- Adjustable inlet and outlet roller guides

HOSE CUTTER

- Cutting machine for hydraulic and Non hydraulic hoses.
- Hoses from coils are automatically measured and cut.
- Hoses from coils are automatically measured and cut.
- Machine is controlled by PLC provided with HMI which allows to setup different haul off speed.
- Machine can cut hoses of diameter (OD) upto 30mm.
- An adjustable hose unwinder with belt friction brake for accommodate hose reels which pays off the hose into the machine.
- Hose is haul off from unwinder to the machine is done by 4 drive rollers.
- Hose cutting take place by pneumatic bending.



Power	: 4.5 HP
Voltage	: 400V
Phase	: 3 phase
Blade diameter	: 250 mm
Speed of blade motor	: 2800rpm
Dimension (LxBxH)	: 1700x1450x650 mm
Weight	: 330Kg
Control	: PLC

COIL WRAPPER

Penguin Coil Wrapper wraps the coil shaped products through the eye of the product in a spiral manner. The wrapping material is applied over the product using a pair of stretch rollers supported on a vertical ring which has a provision of passing the coil through eye horizontally.



Salient Features

- Enables torus shaped products to be wrapped through eye
- Same machine for a wide range of coils to be wrapped
- Suitable to use with stretch film roll and jute / paper roll
- Adjustable film overlap & cycle time

Applications:

- Coil of hoses / wires / cables, rings, wheels & rolls.



Specifications

CAPACITY: Inner diameter : Min. 350mm to Max. 400mm Outer diameter : Min. 450mm to Max. 750mm Height : Min. 150mm to Max. 350mm Weight : Min. 50kg to Max. 200kg	MACHINE: * Conveyor height : 1030 mm Max. ring speed : 50 rpm Max. speed of taper roller : 21 rpm Max. speed of conveyor roller : 75 rpm Linear speed of conveyor : 21 m / min. Power requirement : 440V, 3 Phase, 50 Hz Installed power : 6.0 kW / 8.0 HP	WOVEN FABRIC DETAIL: Material : HDPE woven fabric in roll form Woven fabric width : 80mm or 100mm Core diameter : 76 mm Max. woven fabric O.D : 600 mm <hr/> BOPP TAPE TO BE PASTED ON THE CIRCUMFERENCE No. of revolutions : 1 to 3
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* We also offer custom built machines to suit your product requirements

MINI ROLL WRAPPER

Penguin Mini Roll Wrapper is specifically designed for packing Flexible packing FFS Film rolls (or) Retread Rubber manufactured in roll forms. Pre-stretched film is stretched across the face of the roll axially and wrapped. The longitudinal applied wraps are moved along the periphery with uniform overlap as the reel rotates continuously resulting in cocoon type packing. All kind of FFS film rolls can be packed in this machine.

Salient Features

- Easy to operate table-top model
- Perfect moisture & dust proof packing
- Powered pre-stretch upto 300% stretch

Applications:

- Retread rubber rolls, tyres, FFS foil rolls, flexible packages, coils and spools.



STRETCH WRAPPING MACHINE



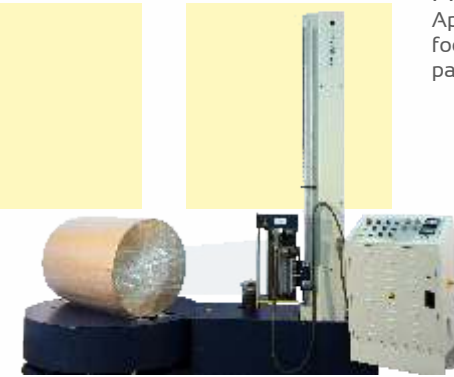
**POWERED
PRE-STRETCH
UNIT**



BOX WRAPPER
Productivity: 30-75 packs/hour
Applications: Apparels, garments, food products, computers, etc., packed in carton boxes



PALLET STRETCH WRAPPER
Productivity: 15-25 pallets/hour
Applications: Palletizing yarns, boxes, bags, tins,...



REEL WRAPPER
Productivity: 15-30 reels/hour
Applications: Rolls of paper, film, PP fabric, denim fabric, foils,...



COIL WRAPPER
Productivity: 20-25 coils/hour
Applications: Roll of hoses / wires / cables, rings, wheels, coils,...



FABRIC ROLL WRAPPER
Productivity: 20-40 rolls/hour
Applications: Fabric rolls, denim rolls, carpets, PP rolls, film,...



MINI ROLL WRAPPER
Productivity: 30-75 rolls/hour
Applications: Retread rubber rolls, tyres, flexible packaging rolls, coils, spools,...



RING WRAPPER
Productivity: 50-200 meters/hour
Applications: For door panels, profiles, pipes,...



FLOW WRAPPING MACHINE
Productivity: 33 ppm
Applications: Products as bread, sweets, trays. Single product or multipack, food or non-food products

TEAM PENGUIN CELEBRATES SILVER JUBILEE



**SILVER
JUBILEE**
YEAR 2015 - 2016

2015 has been the year of the Penguin. Penguin Engineers had completed 25 years in 2015 punctuated by a track record of successful installations that dot the globe in over 40 countries. It Kicked-off its Silver Jubilee Celebrations on the 27th of July 2015 in Coimbatore, with the participation of Mr. Leigh Morrison, CEO, Ryco Hydraulics Pty. Ltd. as the chief guest for the occasion and Mr. Lothar E. Ignatzi, M.D., Mayer Braidtech GmbH as its enduring business associate and steadfast customer.

The occasion was further enriched by the presence of Dr. Fiorenzo Donetti, Managing Director of MacDue Srl, Italy & Director - ITALINDIA PACKPLUS PRIVATE LIMITED, Coimbatore - a joint venture company of Penguin - India and Mac Due - Italy to manufacture shrink wrapping machines in India.

Mr. A.V. Kate Director, Unirub Techno India Pvt. Ltd, Pune also honoured the company by his presence on the occasion.



NEW FACTORY INAUGURATION – A BUILD-UP TO A SUCCESSFUL 25 YEAR JOURNEY

Penguin Engineers inaugurated its new factory featuring best-in-class manufacturing infrastructure, state-of-the-art technology on the 16th of March 2006. This facility was inaugurated by Mr. Lothar E. Ignatzi, M.D., Mayer Braidtech GmbH with whom Penguin enjoys a mutually rewarding relationship that continues until today. Since then Penguin has gained in strength and is today a Silver Jubilee Company delivering products of a quality that the world trusts.



ACCOLADES



PAC MACHINE AWARD 2002



EEPC STAR PERFORMER AWARD 2005-2006



EEPC STAR PERFORMER AWARD 2006-2007



EEPC STAR PERFORMER AWARD 2010-2011



EEPC TOP EXPORTER AWARD 2010-2011



ITAMMA EXPORT EXCELLENCE AWARD 2011-2012



TECHNOLOGY & TRAINING – THE CORE OF ITS DELIVERY AS A SILVER JUBILEE COMPANY

If Penguin's state-of-the-art technology and infrastructure facilitated best in class product manufacturing competence, its people have had the advantage of world class training that propels the outcome of its enterprise products that assure performance safety and reliability.

'Penguin Engineers' have been trained in some of the best institutions across the world. Some of these institutions include:



Centro Universitario di Organizzazione Aziendale - Italy



Indian Institute of Management Ahmedabad



The Association for Overseas Technical Scholarship - Japan



Karl Kubel Institute for Development Education



Asian Productivity Organisation - Japan



PSG College of Technology



MAC Due Srl., Bologna - Italy



Coimbatore Productivity Council



Administrative Staff College of India Hyderabad



National Productivity Award 1997 - 1998



EEPC Export Award 2003 - 2004



FITEI Export Award 2004 - 2005



EEPC Export Award 2005 - 2006



FITEI Export Award 2006 - 2007



IIIE - Dr. S.R. Gollapudi Award 2006 - 2007



EEPC Export Award 2006-2007



EEPC Export Award 2010-2011



An initiative by Penguin to bring world class technology to India for the manufacture of SHRINK WRAPPING MACHINES.

Penguin's Make in India program intensified much ahead of its time when it tied up with MacDue, Bologna, Italy in a joint-venture deal that saw the formation of ITALINDIA PACKPLUS PRIVATE LIMITED in its home turf; Coimbatore. With MacDue bringing to the table International standards design and Penguin providing the manufacturing assets, this formidable association was promoted to manufacture Shrink Wrapping machines for world markets. The first step to this venture took shape with the inauguration of the ITALINDIA factory in Coimbatore by Dr. Fiorenzo Donetti on the 27th of January 2010 with nothing stopping its progress and continued success till date.



ItalIndia Packplus Factory



Inaugural Function



Machine Shop

LORANDI SILOS INDIA PVT. LTD.

Materials Conveying, Automation & Storage Silos yet another venture of Penguin that is set to steal the thunder.

Not a company to rest on laurels, Penguin further intensified its machine manufacturing competence to the material handling and storage domain with the strategic alliance of LORANDI SILOS, Italy thereby starting a new page in its product delivery capabilities to newer customers across the world. The company manufactures automated conveyors and storage silos for any free flowing solids and plastic which enhances efficiency of the loading-mixing-processing storage process of manufacturing industry.



LIST OF CUSTOMERS



The Penguin logo and all other trademarks are the property of their respective owners

PENGUIN WORLDWIDE

Penguin Installations dot the globe spanning over 40 countries in Asia, Europe, Africa, South America, United States of America, South East Asia etc. A total of over 1500 installations are serving client needs to their satisfaction, supported by the extensive aftersales service network of the company that ensures minimum down time when the machines require service and upgrades.

The list of countries include:



Manufactured by



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