Non - Auto Leveller

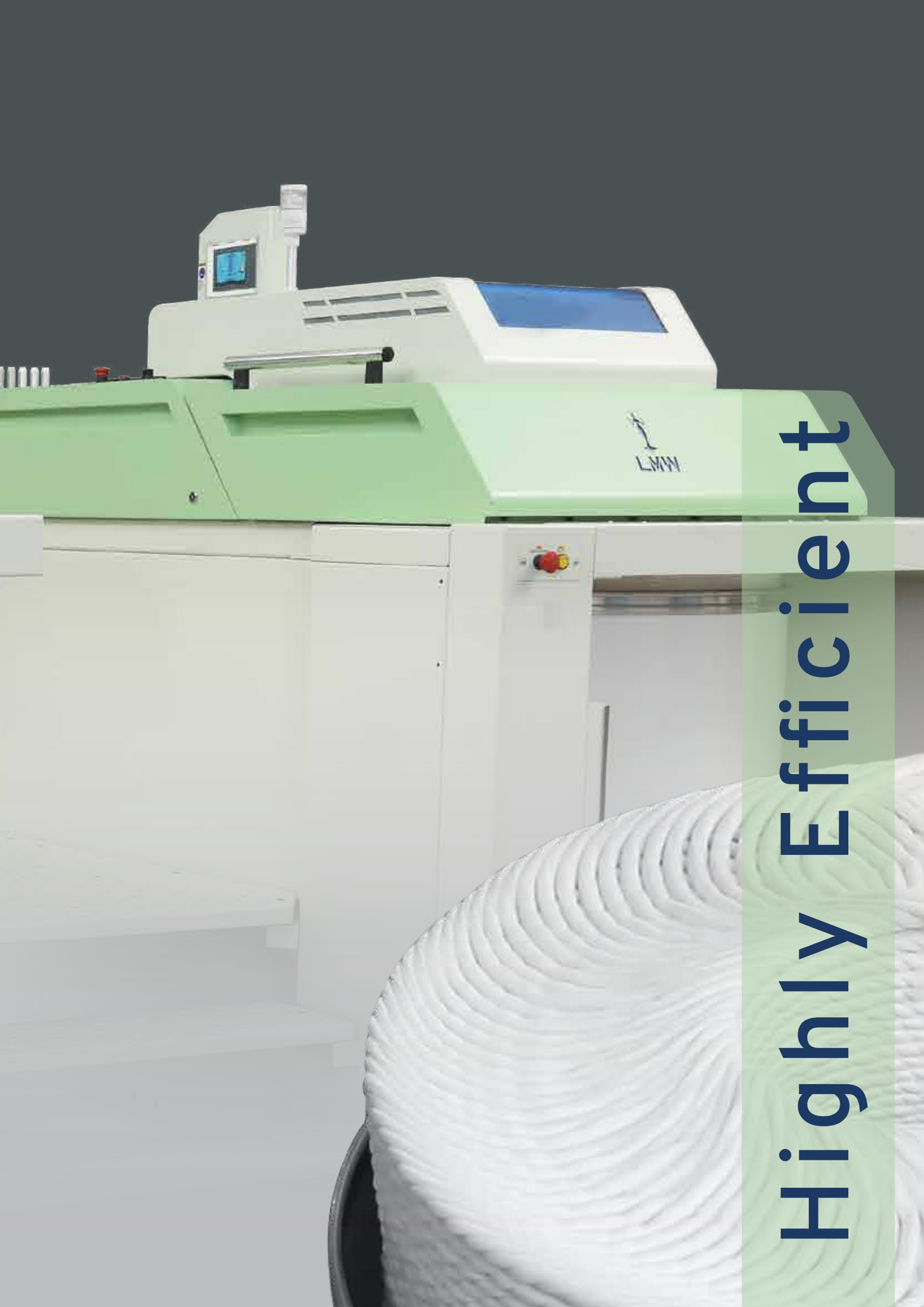
DRAWFRAME

LDB3 SERIES

HIGHEST EFFICIENCY WITH INDIVIDUAL DRIVE SYSTEMS

LDB3

LDB3 with independent drives and automatic can changer results in increased process efficiency without compromising on sliver quality.



Highly Efficient

Flexible

Two different types of materials can be processed simultaneously at different speeds.

LDB3

Specific
Features

Efficient

- State of the art drive system with independent drives
- Programmable oscillating stripper for cleaning top rollers
- Auto cleaned filter screen
- Automatic can changer

LDB3

Enhanced Productivity & Economical

- Maximum possible delivery speed of 1100 mpm
- Minimum distance between two heads
- Top roller end bushes with life time lubricant
- Servo drive for draft adjustment (Variant) - Gears eliminated

Ease of Operation

- Automatic sliver cutting
- Use of touchscreen for delivery speed change
- Unique condenser ensures higher running speeds
- Accurate controls and stop motions

Top Notch Quality

- Shorter travelling of sliver material from drafting to calendering
- Delivery independency leads to quality consistency

Highest efficiency with maximum flexibility

Auto Cleaned Top rollers TR Strip

Cleanliness of the top rollers in drafting is ensured with programmable oscillating top stripper. Trash or sticky honeydew deposits on the surface of the top rollers are prevented through well placed stripper lips and are drawn into the suction through lifting of strips at regular intervals of time. It ensures cleaned top rollers at any instant and thus supports in achieving improved sliver quality and also increases productivity of the machine.

In the event of any lapping on the top rollers, efficient stop motion mechanism stops the machine at the preliminary stage of lapping which reduces the downtime and prevents top roll getting damaged due to hard lapping and increases the life of cots.

Auto Cleaned Filter Screen

For maintaining the optimum suction pressure throughout the running of the machine, the filter screen provided in front of the suction motor is cleaned using wiper during every can change automatically.

Inverter for Fan Motor

While processing sliver material with more trash content, higher suction pressure is required. This can be achieved by the inverter controlled fan motor available in LDB3. This feature is inbuilt in LDB3 S machine and provided as optional in mechanical drafting machine.

Higher Efficiency through Large Cans

Least time is consumed with the automatic linear can changing mechanism provided in LDB3. Accomodation of delivery can size (max 40" diameter) leads to increase in overall efficiency. This makes the process user-friendly as the operator intervention is completely eliminated.

High Flexibility for Operating Different Materials Simultaneously

Available variants

Simple construction & stable design

LDB3 variants offered

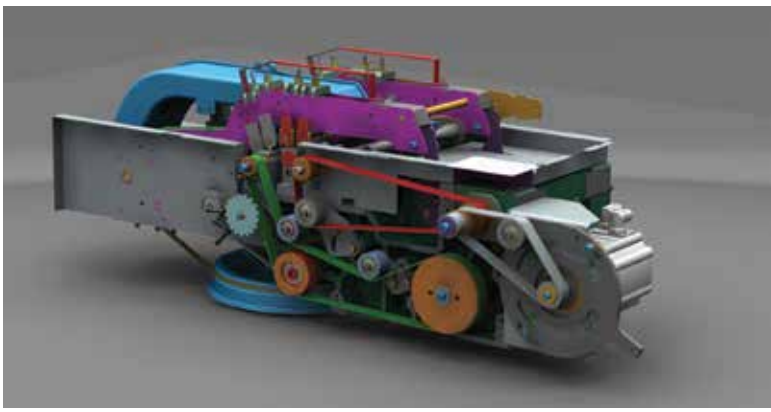
- LDB3 S - Electronic drafting drive machine &
- LDB3 - Mechanical drafting drive machine

LDB3 S is smarter with following unique features like:

S Draft

The efficient servo motor drive deployed in this variant makes the operation simpler & user friendly.

The machine does not require change gears for changing the total draft. User can change the draft by simply keying-in the required value in the display. This eliminates the machine downtime associated with such changeovers. Overall utilization of the machine improves significantly.



Closed loop digital control system on delivery sliver (Hank Levelling)

The electronic drafting machine is incorporated with levelling system, which results in consistent sliver quality and premium yarn. This also acts as an additional control point.

Quality Monitoring System

The linear density of the delivered sliver will be monitored continuously. This eventually stops the machine when the linear density deviates beyond a pre-set target range enabling the user to take appropriate corrective action.

QMS monitored parameters include:

– Monitoring of thick place

– Spectrogram analysis

e -Sliver Cutting

The servo drive changes the draft to an extent that the cutting of sliver happens smoothly during can changeover.

Highest delivery speed of 1100 mpm (mechanical) possible in LDB3. 38% increase in productivity over earlier version of Non - Auto Leveller Drawframe.

Ease of operation

Sensors & Control Systems

Sensors are provided at all essential points to ensure that the machine is stopped immediately if a sliver breaks out or runs out.

Inverter control for Main motor, Coiler, Can drive and Suction motor

Compared to earlier versions, Presently the delivery speed change is possible only through inverter controlled main motor drive. Similar inverter controls are provided for coiler and can drive. Coiler driven by inverter controlled main motor results in smooth coiling from the beginning to doffing of cans. Perfect synchronisation is ensured during power failure, normal stop, doffing and restart of machine and this drive solution for coiler has significantly enhanced the sliver appearance.

LTL – Top Roller with Life Time Lubricant

Uniformly loaded top rollers helps in trouble free performance during running with lower temperature of top roller cots. Equipped with life time lubricated end bush bearings, downtime for lubrication could be saved significantly and avoiding failure of components due to deviation from the schedule.

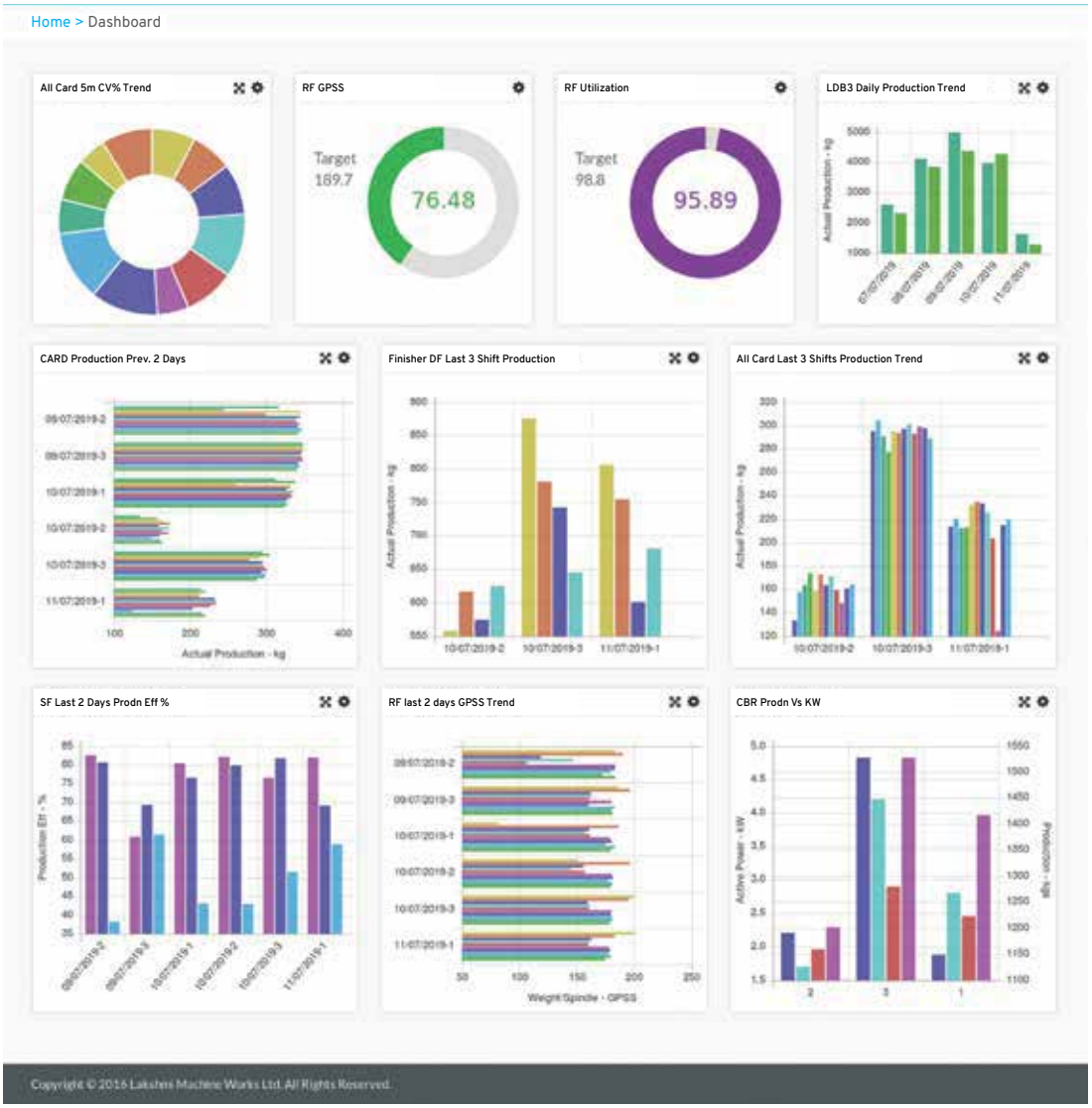
Automatic sliver cutting

Mechanical or Electronic depending on the machine variant enables quicker changeover during delivery can change.

Operational parameters of LDB3 are much faster and simple.

Spin Connect

Digital Automation our Passion



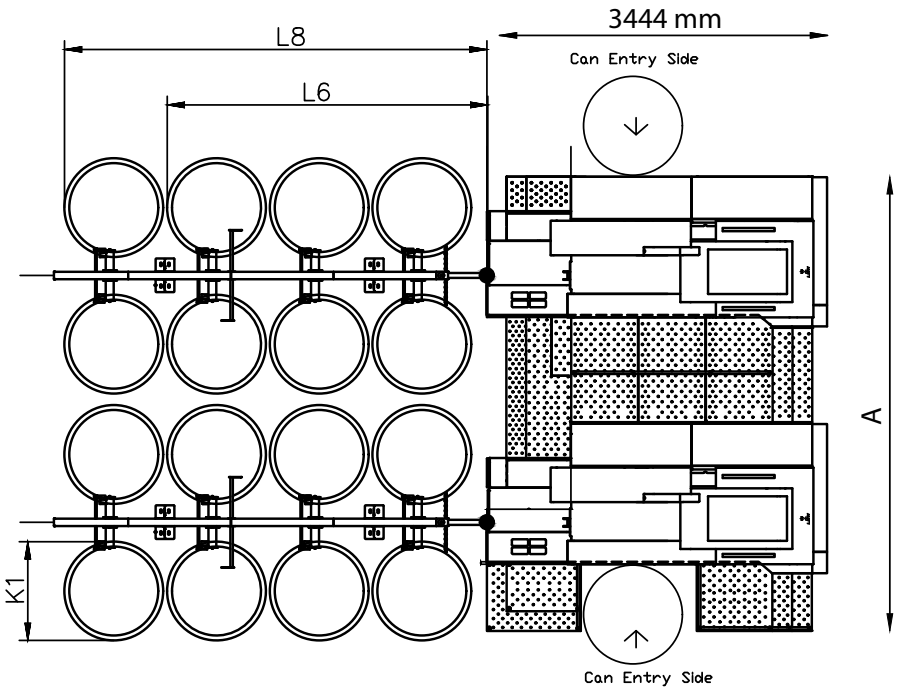
Integration of Drawframe through SPIN CONNECT

Non - Auto Leveller drawframe LDB3 can be integrated with Spinconnect, a web based monitoring and control application. The HMI details are transferred through Wi-Fi / LAN connection and all the parameters can be viewed in a central computer.

- Editing of process parameters from a central location for better process control and lot changes across machines.
- Remote viewing of machine PLC status from any location for troubleshooting and for software upgradation.
- User defined reports and charts for analysing the LDB3 performance can be generated for further improvement.
- Predefined daily, weekly, monthly reports can be sent through mail to respective users.

Machine layout

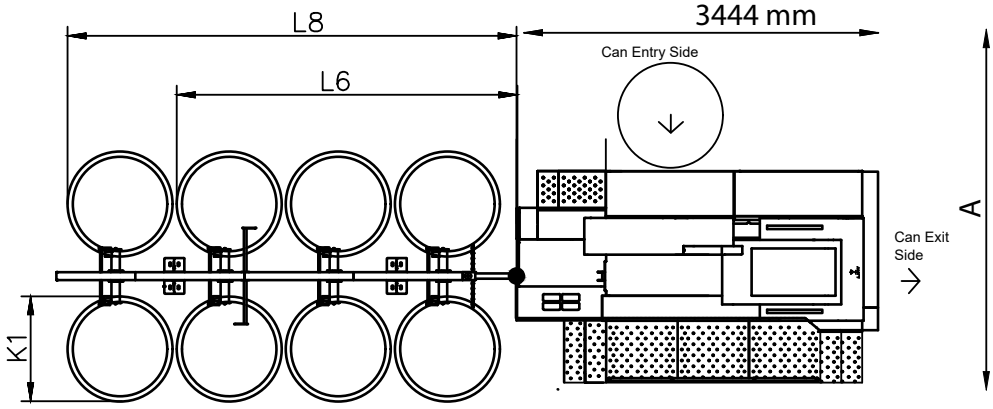
Double Delivery / Delivery can dia. 1000mm



Power Creel

Kl (mm)	A	L6 (mm)	L8 (mm)
600	4600	2403	3045
1000	4600	3316	4354
1200	5223	3838	5708

Single Delivery / Delivery can dia. 1000mm



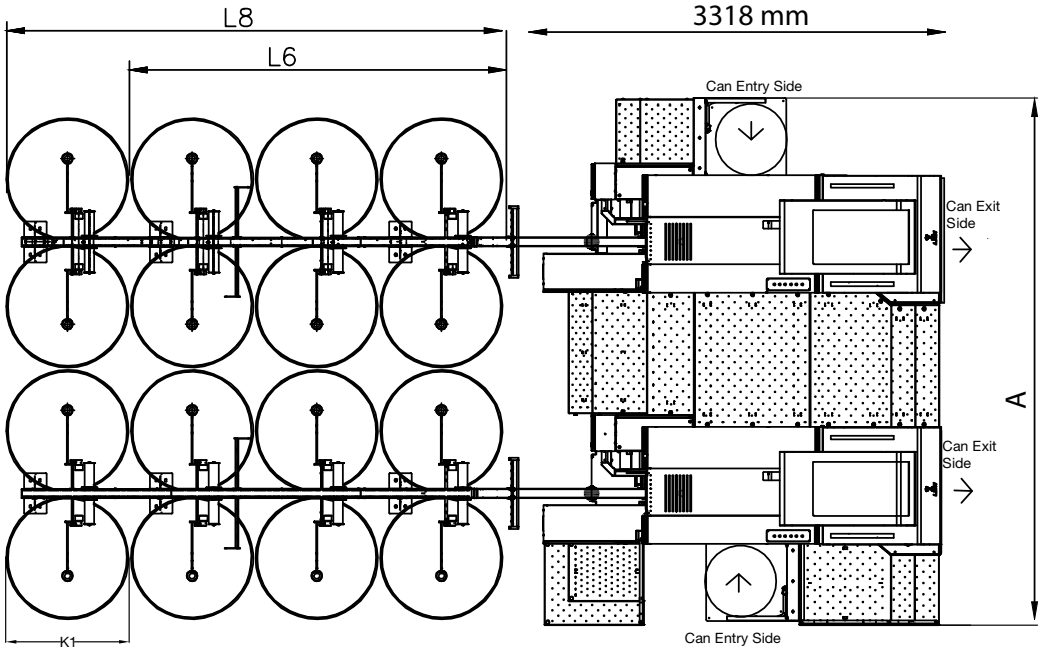
Power Creel *

Kl (mm)	A	L6 (mm)	L8 (mm)
600	2015	2350	3060
1000	2015	3260	4300
1200	2573	3838	5708

*All above dimensions pertaining to Feed Can entry from Right Hand Side of machine.

Machine layout

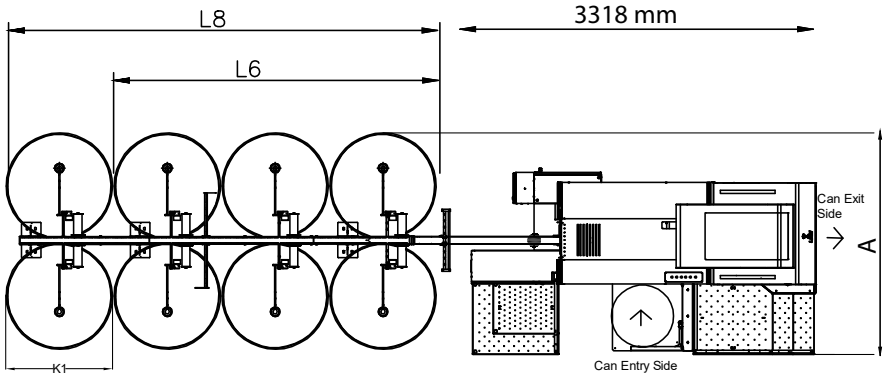
Double Delivery / Delivery can dia. 600mm



Power Creel

Kl (mm)	A	L6 (mm)	L8 (mm)
600	4070	2403	3045
1000	4400	3316	4354

Single Delivery / Delivery can dia. 600mm



Power Creel*

Kl (mm)	A	L6 (mm)	L8 (mm)
600	1800	2403	3045
1000	2130	3316	4354

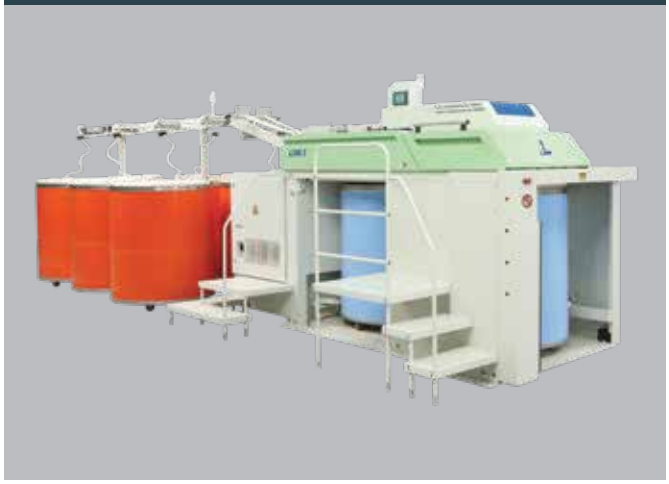
* All above dimensions pertaining to Feed Can entry from Left Hand Side of machine.

Our Product Range

Our range of draw frame machines used for sliver preperation provides many advantages to the end user viz. reducing count variations, fewer short-term mass variations in the yarn, improving yarn strength, improving the overall efficency of roving frame and ring frame, Later on this also helps for better weaving preparation and in weaving and knitting.

Auto Leveller Drawframe LDF3 S Single Head

Non - Auto Leveller Drawframe LDB3 Single Head



Non - Auto Leveller Drawframe LDB3 Double Head

LDB3 S (Electronic Drafting Drive machine)					
Option	Front roller + Calender roller	Middle roller+ all Back rollers upto creel	Coiler & Can drive	Fan drive	Total installed power
1	3 kW Induction motor + Inverter	3.38 kW Servo motor	1.5 kW Induction motor + Inverter	1.5 kW Induction motor + Inverter	9.38 kW

LDB3 (Mechanical Drafting Drive machine)					
Option	Front roller + Calender roller	Middle roller+ all Back rollers upto creel	Coiler & Can drive	Fan drive	Total installed power
1	4 kW Induction motor + Inverter		1.5 kW Induction motor + Inverter (Optional)	1.5 kW Induction motor + Inverter (Optional)	7 kW
2	5 kW Induction motor + Inverter			1.5 kW Induction motor + Inverter (Optional)	6.5 kW

LDB3

Technical Data			
Material	:	Cotton, Man-made fibers and blends	
Fiber length, mm	:	25 to 80	
Number of deliveries	:	One or Two	
Delivery speed, m / min	:	Upto 1100 (mechanical)	
Number of doublings	:	4 to 8 fold	
Feed hank, Ne	:	0.04 to 0.24	
Delivery hank, Ne	:	0.07 to 0.24	
Draft	:	3.58 to 11.56	
Can Size at Delivery, mm	:	Can Dia	Can Height
		1000	1100, 1220, 1370
		600	1200, 1220
		Note : Can Height inclusive of Castors	
Compressed Air requirement	:	0.3 Nm^3 / hr at 6 bar	
Exhaust Air	:	EAC or EAD	
Machine mountability	:	Mountable on floor or recessed into floor	
Feed Table, mm (Upto Can Dia x Can Height)	:	1000 x 1220	
		600 x 1220	
		1200 x 1220	
		1200 x 1300	

Features	Variant	
	LDB3 S	LDB3
Auto-piecing	✓	✗
Automatic can changer	✓	✓
Automatic clearing of filter	✓	✓
Connection to Spinconnect	✓	✓
Faster release of top roller load during machine stoppages	✓	✓
Closed loop digital control system on delivery sliver (hank levelling)	✓	✗
Inverter controlled drive for coiler and can plate	✓	Optional
Inverter controlled drive for delivery speed	✓	✓
Inverter controlled drive for suction fan	✓	Optional
Lifetime lubricated top roller bearings	✓	✓
Programmable oscillating strippers for cleaning top rollers and stationery strippers for bottom rollers	✓	✓
Quality Monitoring System - Spectrogram & Monitoring of thick place	✓	✗
S Draft (Servo motor for changing draft)	✓	✗
Sliver cutting	✓ Electronic	✓ Mechanical
Special finish for coiler plate	✓	✓
Spring loaded 4-over-3 drafting system	✓	✓
USB interface	✓	✓

LDB3

LMW®

Leadership through Excellence

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