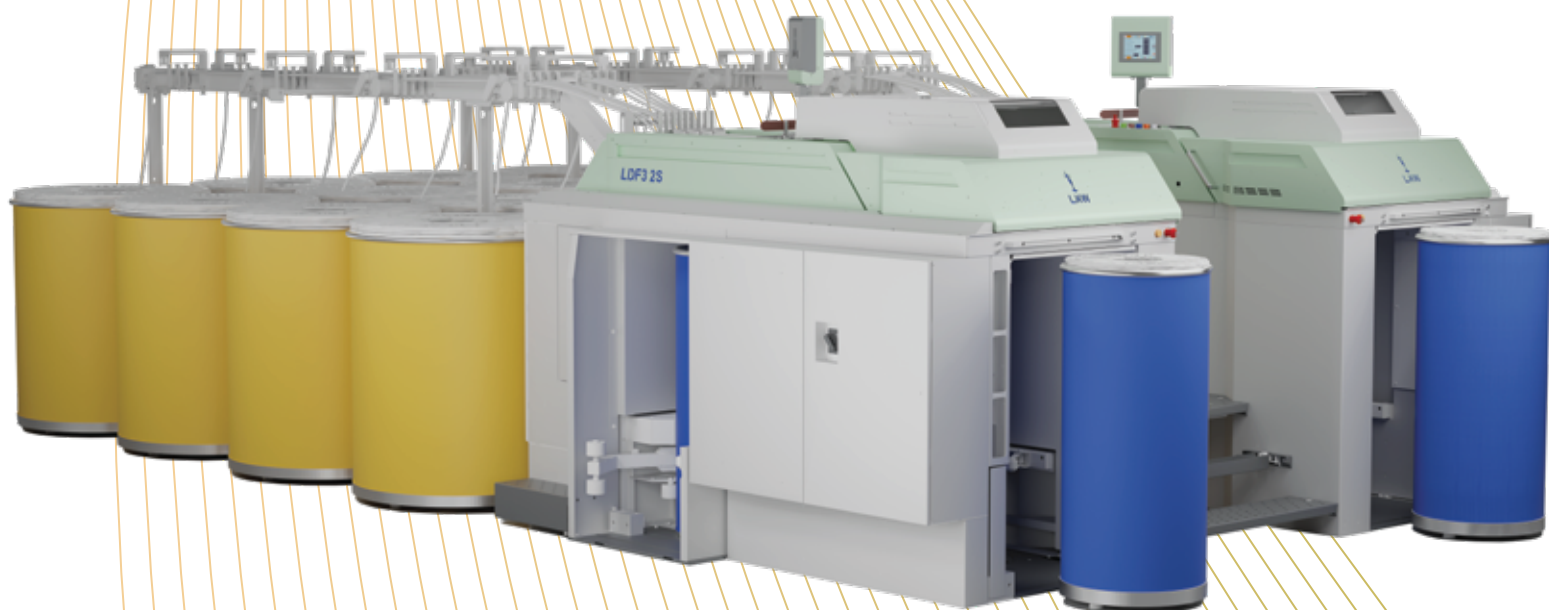


4S SUSTAINABLE
SMART SOLUTIONS FOR
SPINNING
SUCCESS



DRAW FRAME LDF3 SERIES



Versatile



LDF3 S

The new generation autoleveller Draw frame LDF3 S is a high-speed smart machine with a delivery speed of up to 1100m/min designed for superior sliver quality and high productivity.



**Highly
Efficient**

Specific Features

Duo Digital Auto Levelling

- Separate dedicated systems for auto levelling and quality monitoring

Efficient

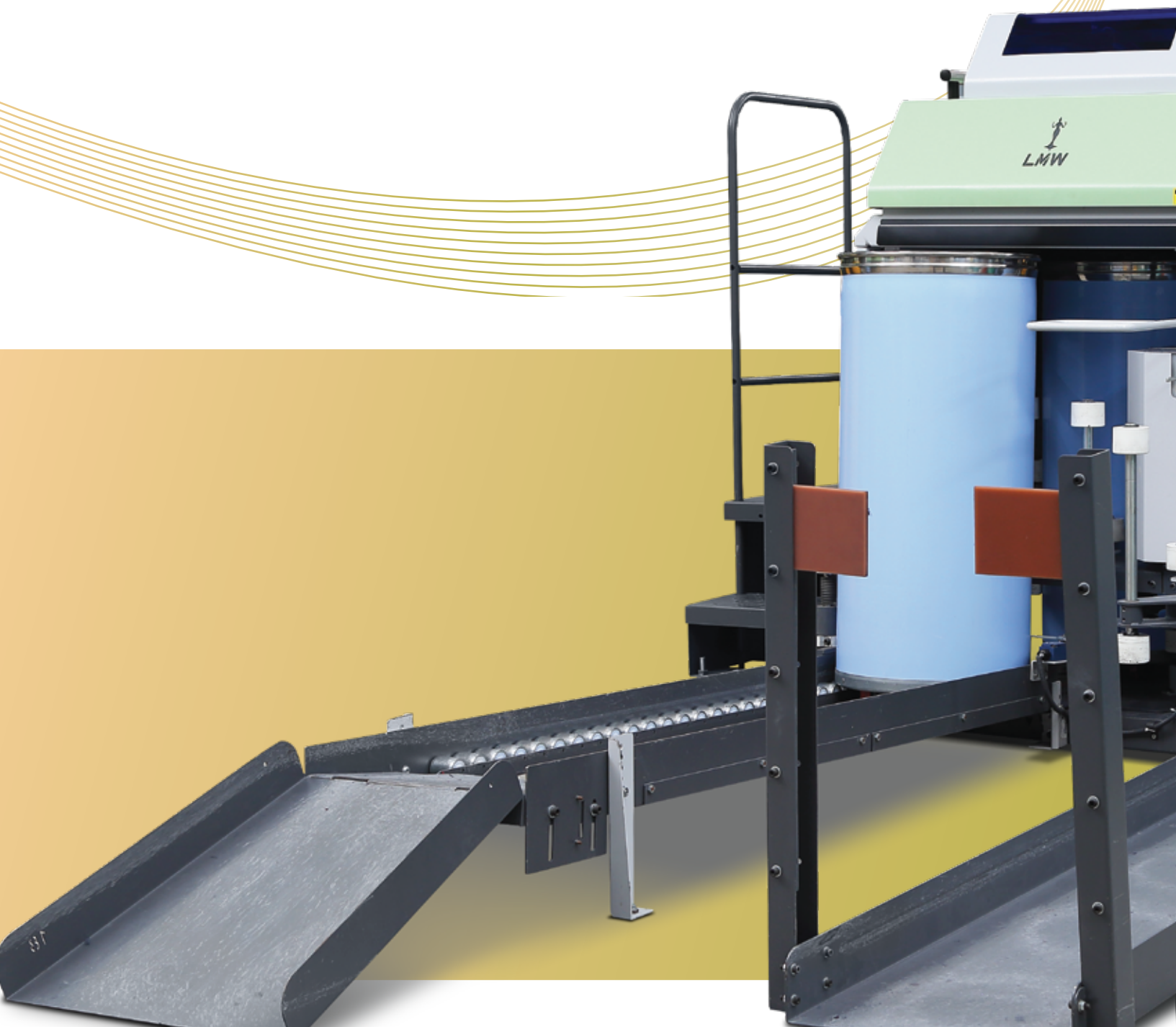
- TR Strip – Oscillating stripper for cleaning top rollers
- SP - Smart Auto piecing system

Direct Motor Drive

- S draft - servo motor controlled levelling concept
- Inverter controlled main motor
- Seamless transmission and reduced downtime

Kinetic Back up Technology

- Machine is brought to controlled sequence stop mode
- Smooth restart after power is resumed



Economical

- Top roller with specially designed needle bearing system
- Special coiler for polyester and its blends

Best-in-class Drafting System

- Optimized web path and specially designed delivery trumpet
- Symmetric and adjustable special sliver guide
- Improved fiber-to-fiber cohesiveness for higher speed

Top Notch Quality

- SQ SET - Auto suggestion of levelling action point
- QMS - Quality Monitoring System
- LDF3 S, the smart drawframe delivers benchmark quality and helps user to monitor various quality parameters

Smooth Operation

- e-Sliver cutting
- Kinetic back up technology to handle power fluctuation & failures
- Separate motor for coiler



Specific Features

Drafting

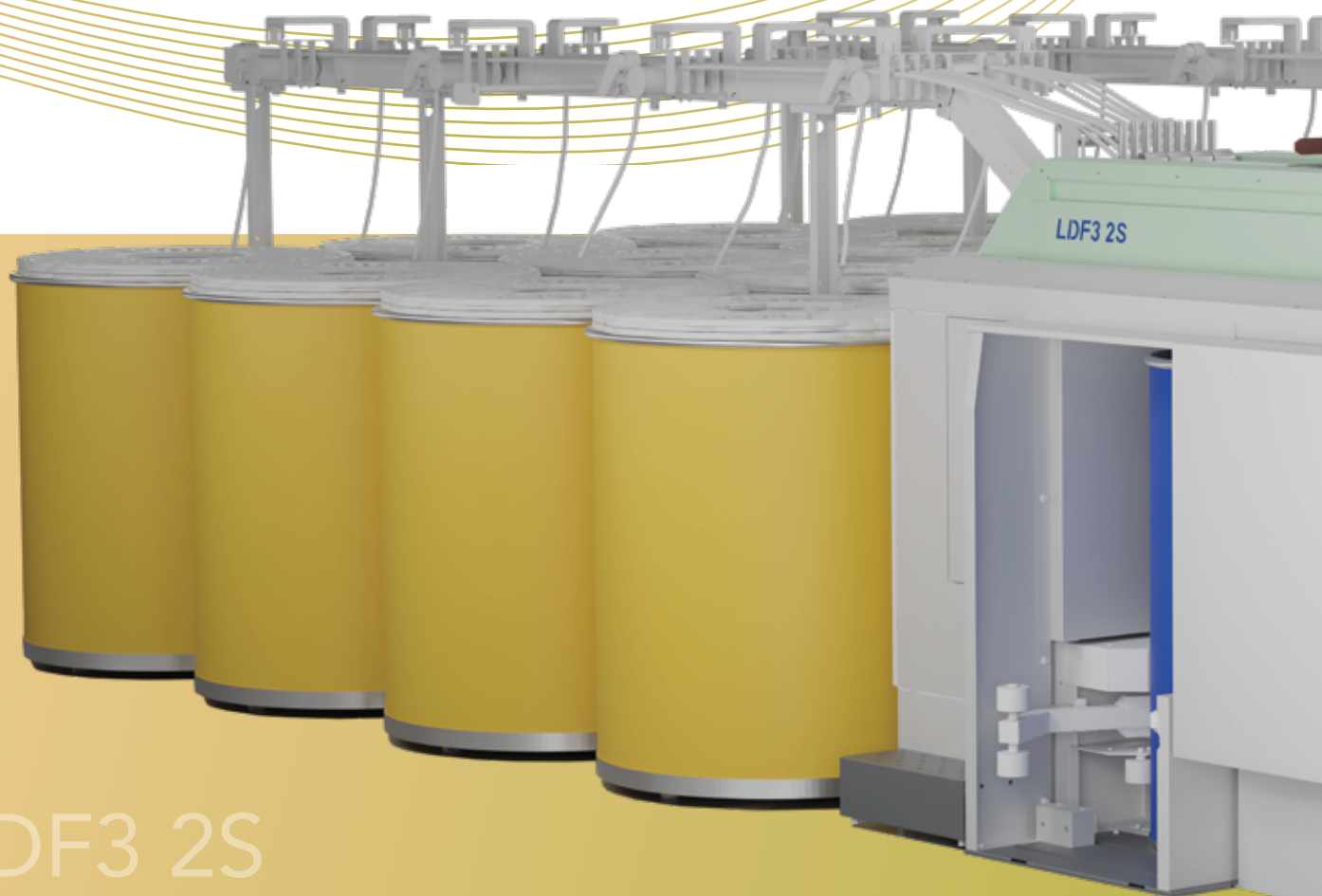
- 4 Over 3 Spring loaded drafting system with pressure bar
- Centralized Roller setting with single tool (Saving of up to 20 minutes per setting change)
- Servo driven drafting for easy draft adjustment

Auto levelling / Mechatronic system

- State-of-the-art Auto levelling with Duo Digital concept
- Display controlled Machine speed, Total draft, Coiler speed, Suction motor speed and Can speed
- Lower power consumption

Drive System

- Twin Delivery Auto Leveller machine with independent drive arrangement
- Delivery speed of up to 1100 mpm (mechanical)
- Possible to process 2 different materials
- Independent and adjustable suction arrangement
- Independently driven motors for Coiler and Can drive
- Independent Suction motor with Inverter control provision



LDF3 2S

Lesser Footprint

- Optimum machine width of 3.2m (600 mm feed can) and 3.8m (1000mm feed can)
- Option of 2 Row creel (specific requirements)

Ease of maintenance

- Reduced maintenance personnel workload and less down time
- Centralized greasing prevents possible lubrication missing and machine down time

Coiler & Can changer

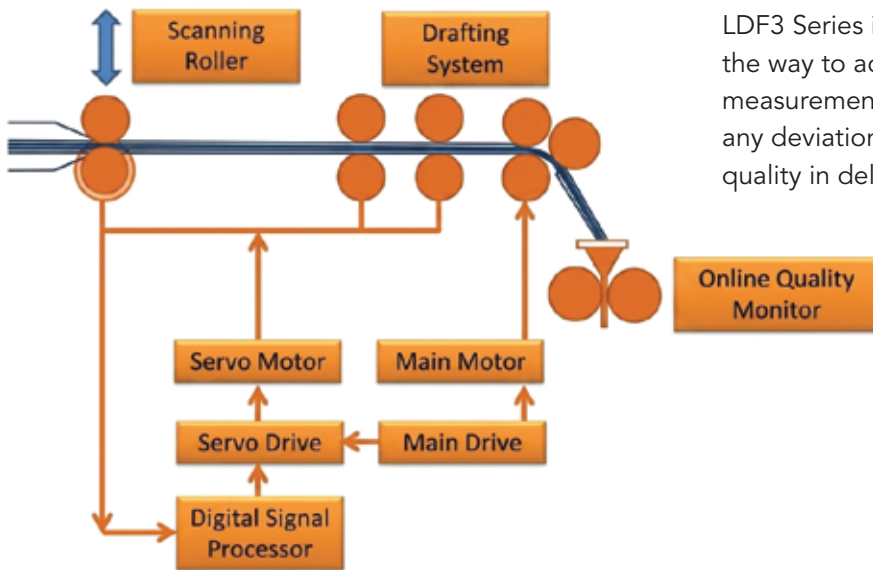
- Coiler with Special finish bottom for best Coiling for Polyester rich process
- Linear Can Changer with 2 Reserve cans - Delivery Can size of 16" to 20" dia. and 36" to 48" can height



Best Sliver Quality

Duo Digital Levelling Principle

LDF3 Series is equipped with Duo Digital concept paves the way to achieve benchmark sliver quality. Accuracy in measurement of input sliver and transmitting to drives when any deviation is measured helps in achieving perfect sliver quality in delivery.



Scanning

Perfect scanning serves as gateway for perfect levelling. The proven tongue and groove technique with optimum diameter of scanning roller ensures accurate measurement.

Levelling

Servo drive concept adapted for the drive systems pitches the right quality in output sliver. Elimination of gear box to transmit the drive simplifies and enhances the levelling operation. This new drive concept for levelling eliminates the uncertainty and nullifies even minute chances of error.

Reliable and slippage free timing belt drive for consistent quality and lesser maintenance

High Performance Drafting System

The sliver path in the drafting zone has been designed with user friendly option. Easy and symmetric adjustable sliver guides will help in quicker adjustment based on number of doublings, material, hank etc. The guides are specially designed so that the sliver are fed to the drafting zone smoothly towards the centre of the drafting rollers. The proper feeding will ensure uniform load and draft to the sliver resulting in consistent sliver quality.

The web path is optimized and with specially designed delivery trumpet arrangement the web is inserted to the coiler without disturbance. The optimum positioning of technological elements in the sliver path ensures consistent quality, improved fiber-to-fiber cohesiveness at higher speeds.



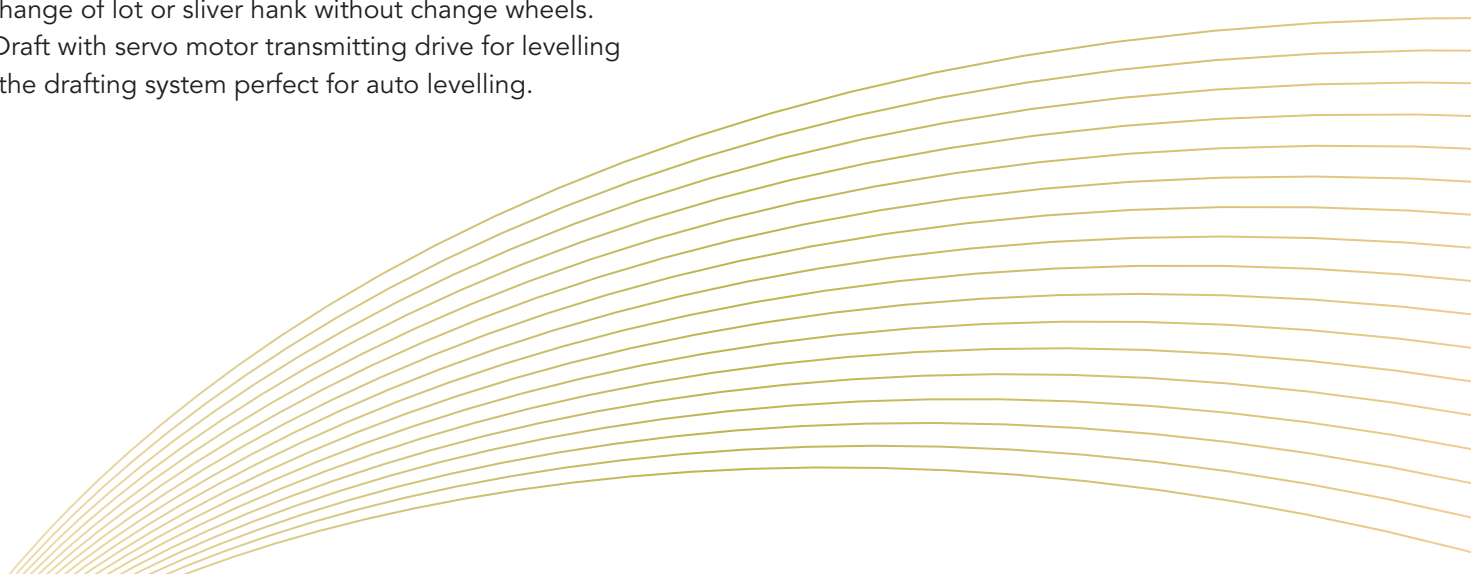
Best-in-class drafting system for superior productivity

S-Draft

Unique 4 over 3 drafting system provides the flexibility to process wide range of materials with maximum delivery rate. Guiding the well drafted sliver towards the delivery zone ensures quality sustainability in output.

The change of main draft on touch of the screen ensures quick change of lot or sliver hank without change wheels. The S-Draft with servo motor transmitting drive for levelling makes the drafting system perfect for auto levelling.

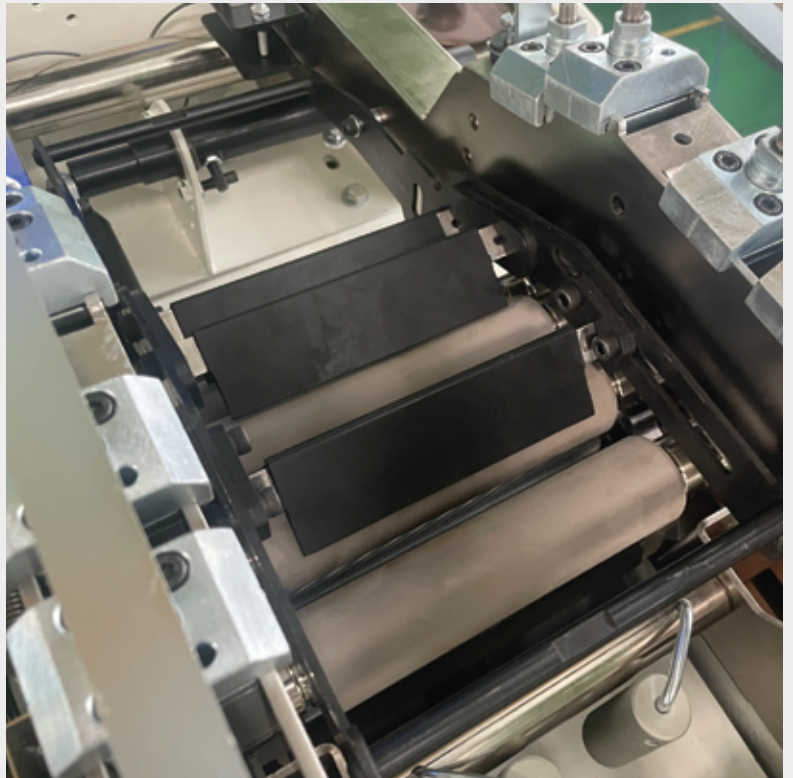
Consistent Sliver Quality



TR Strip - Programmable Oscillating Stripper for Cleaning Top Rollers

Cleanliness of the top rollers in drafting is ensured with 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 roller getting damaged due to hard lapping and increases the life of cots.



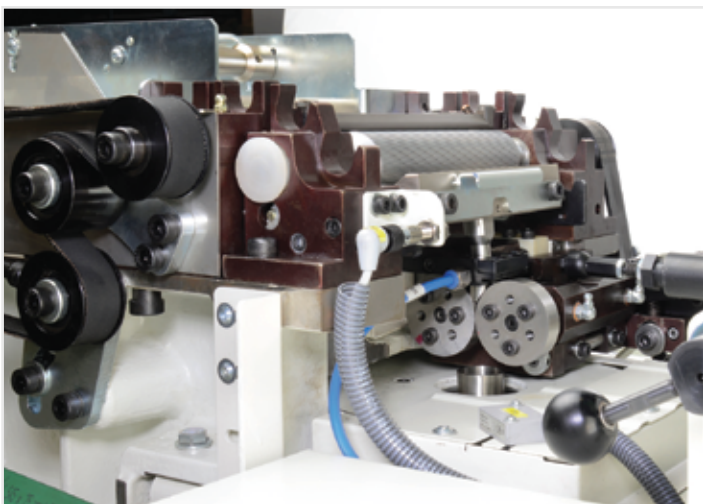
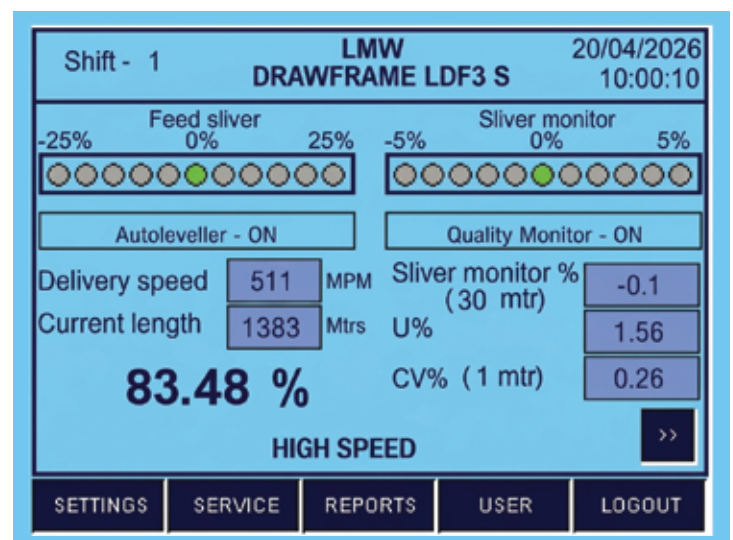
Top Roller with needle bearing arrangement

Uniformly loaded top roller helps in trouble free performance during running with lower temperature of top roller cots. Equipped with needle bearing compartment, the life of the top roller is improved substantially.



SQ SET - SMART QUALITY SET for Right Quality

During lot change, setting the levelling action point is the most critical activity for perfect autolevelling function. This is done automatically by SQ SET function thus saving the time during the process. In the function of SQ SET, immediately after the lot change, the system starts with the standard value of levelling point and keeps trying with the different neighboring values and parallelly checking the U% and CV% of delivered slivers. Out of many values of levelling point, the one which gives the best U% and CV% is shown as recommendation to the technician which, in turn, can be taken as levelling point for continuous operation.



SP – SMART Auto Piecing System

The machine is equipped with pneumatic aided auto-piecing technology, which eliminates manual piecing of material after breakage and saves considerable amount of time. It also ensures uniform quality of sliver as there is a high probability of creating a faulty place in sliver by improper manual piecing.

Best suitable machine to process different materials

QMS – Quality Monitoring System

Quality Monitoring System with improved user friendliness enables constant monitoring of sliver quality and provides technological support to operator. It aids in correcting and taking all possible measures to produce desired quality yarns.

Quality Monitoring System enables control over the quality and addresses any deviation in the process instantly. If the deviations are beyond the set quality limits, then the QMS function will stop the machine and aids the operator for easy diagnosis of the fault.

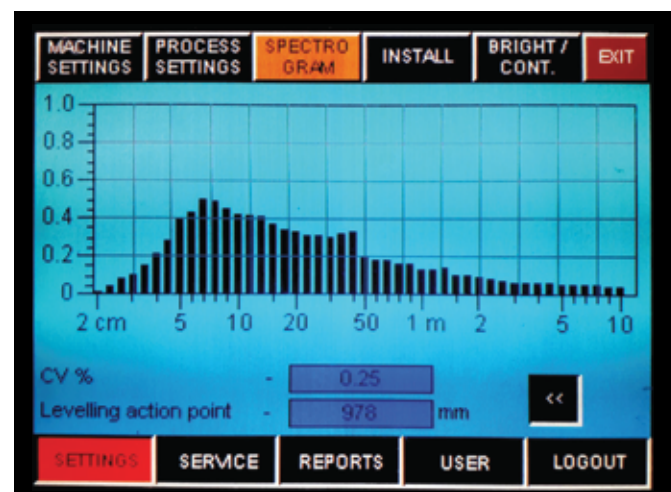
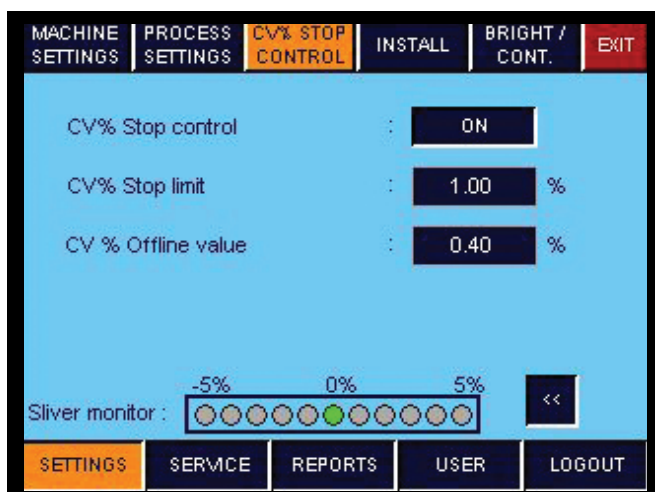
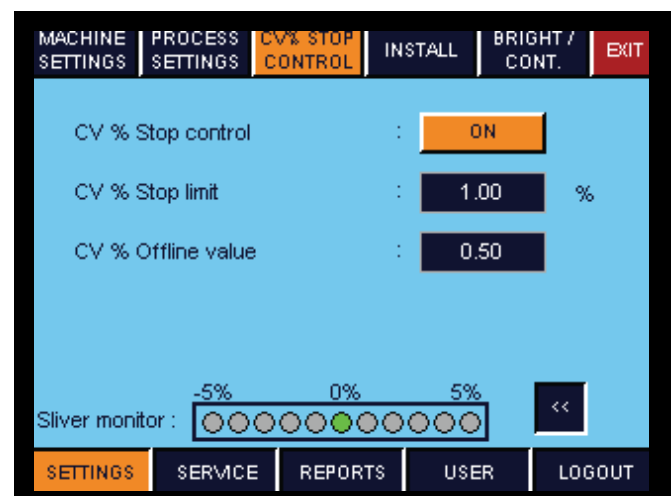
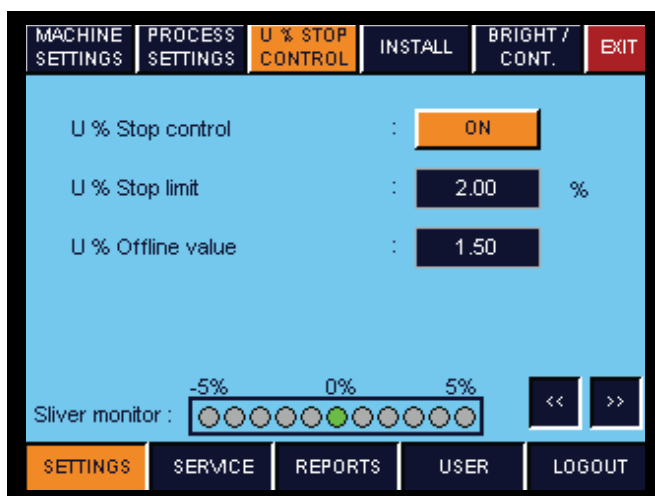
QMS Monitored Parameters include

- Sliver count & A%
- Sliver evenness CV% and length variation values for 5cm, 10cm, 25cm, 50cm, 1m, 3m and 5m
- Spectrogram analysis
- Monitoring of thick place > 2cm

Monitoring of thick place and its control enables the overall technological control on the processes by exercising service activities on pre - draw frame process like card & comber and also helps to achieve high productivity on the post drawframe processes like roving, yarn production and winding.

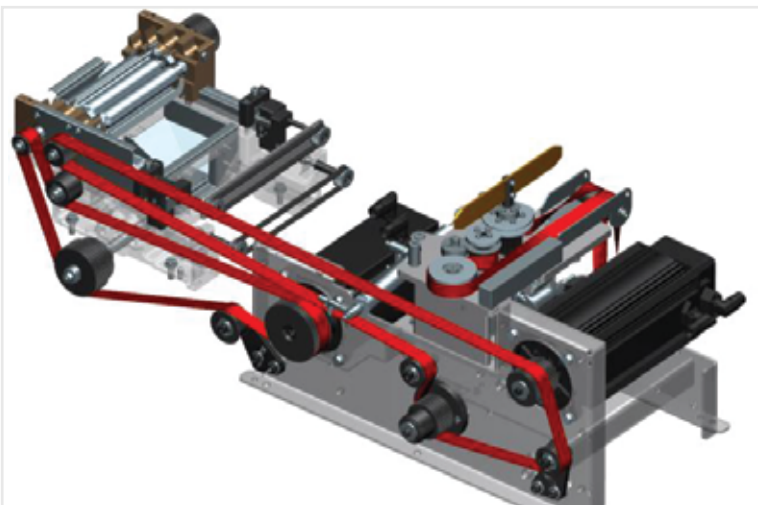
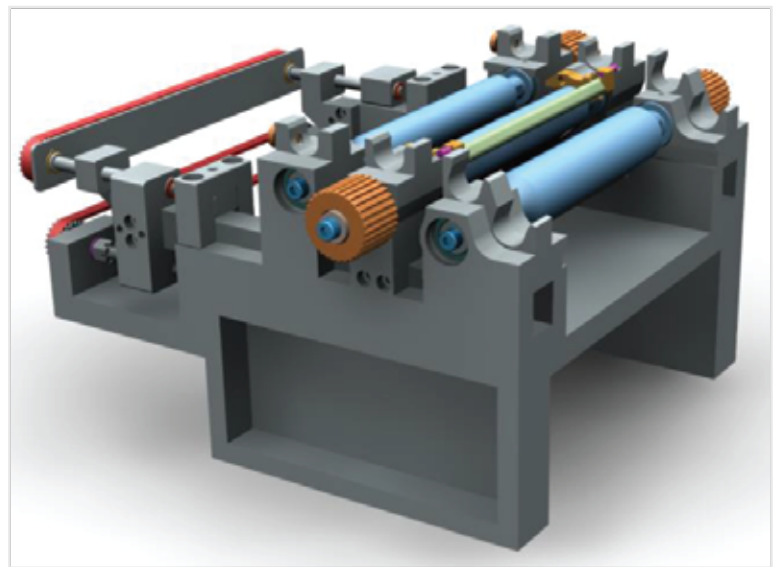
When this monitoring is integrated with Spinconnect module, data could be assessed from any location for swift action.

Constant Monitoring of Sliver Quality



Centralized Roller Setting (LDF3 2S)

Centralized Roller setting with single tool for easy setting



DS Drafting drive with shortest scanning distance (LDF3 2S)

The machine is dual servo driven for precise operation and the drive system is mechanically well synchronized with timing belt arrangement thus ensuring higher speeds of upto 1100m / min. The state-of-the-art machine is equipped with independent drive arrangement that helps in running two different materials with higher efficiency to meet the unique end user requirements

Consistent Sliver Quality

Auto Cleaned Filter Screen (LDF3 S)

The filter system is cleaned regularly during each can change which ensures uniform suction during every doff. Also suction pressure is continuously monitored through differential pressure switch for indication to operator.

Enlarged Filter Screen (LDF3 2S)

Increase in filter area by 100% without wiper

Inverter for Fan Motor (Optional)

Additionally an inverter is provided with fan motor to facilitate the suction frequency adjustment upon requirement in LDF3 2S and as optional in LDF3 S.

Separate Motor for Coiler / Can

Drawframe LDF3 S is available with separate motor for coiler/can. This motor helps for optimizing the coiling appearance by altering the coiler speed as required. Autolevelling process is said to be complete only with perfect coiling. Perfect synchronisation is ensured during power failure, normal stop, doffing and restart of machine and this drive has significantly enhanced sliver appearance.

Drawframe LDF3 S is featured with Special Finished Coiler especially for man made fibers. (Polyester and its blends)

In LDF3 2S an additional Separate can drive motor is provided to control over the can speed.



Quality Ensured With
Perfect Coiling

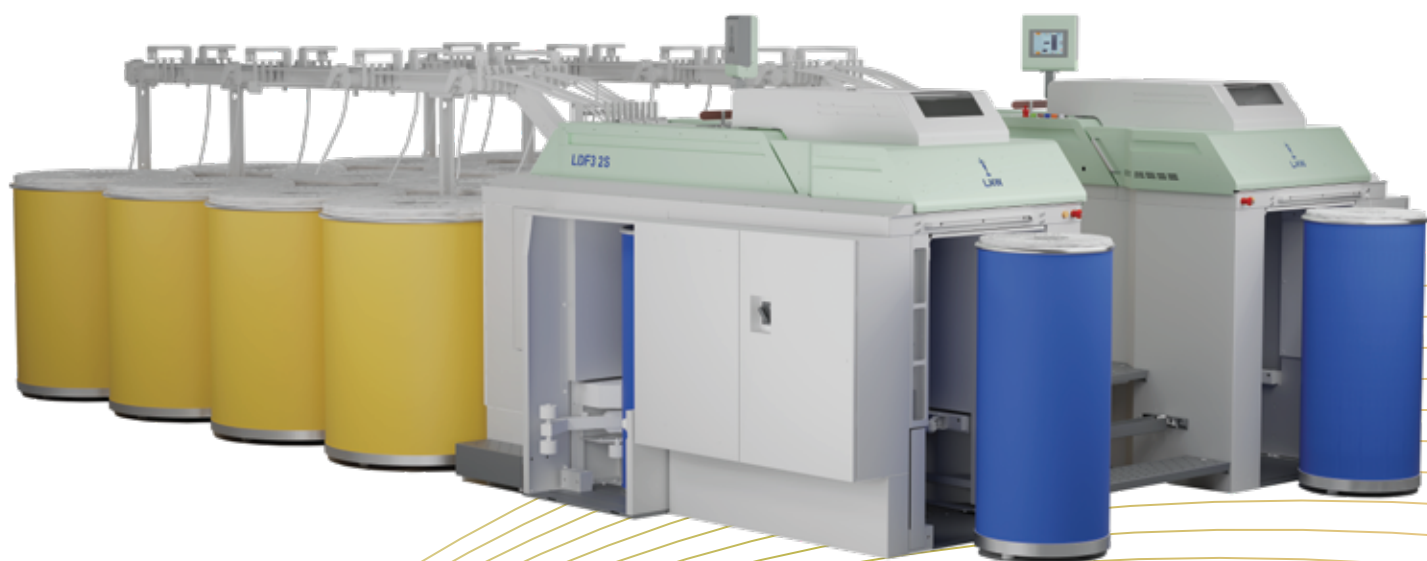


e-Sliver cutting

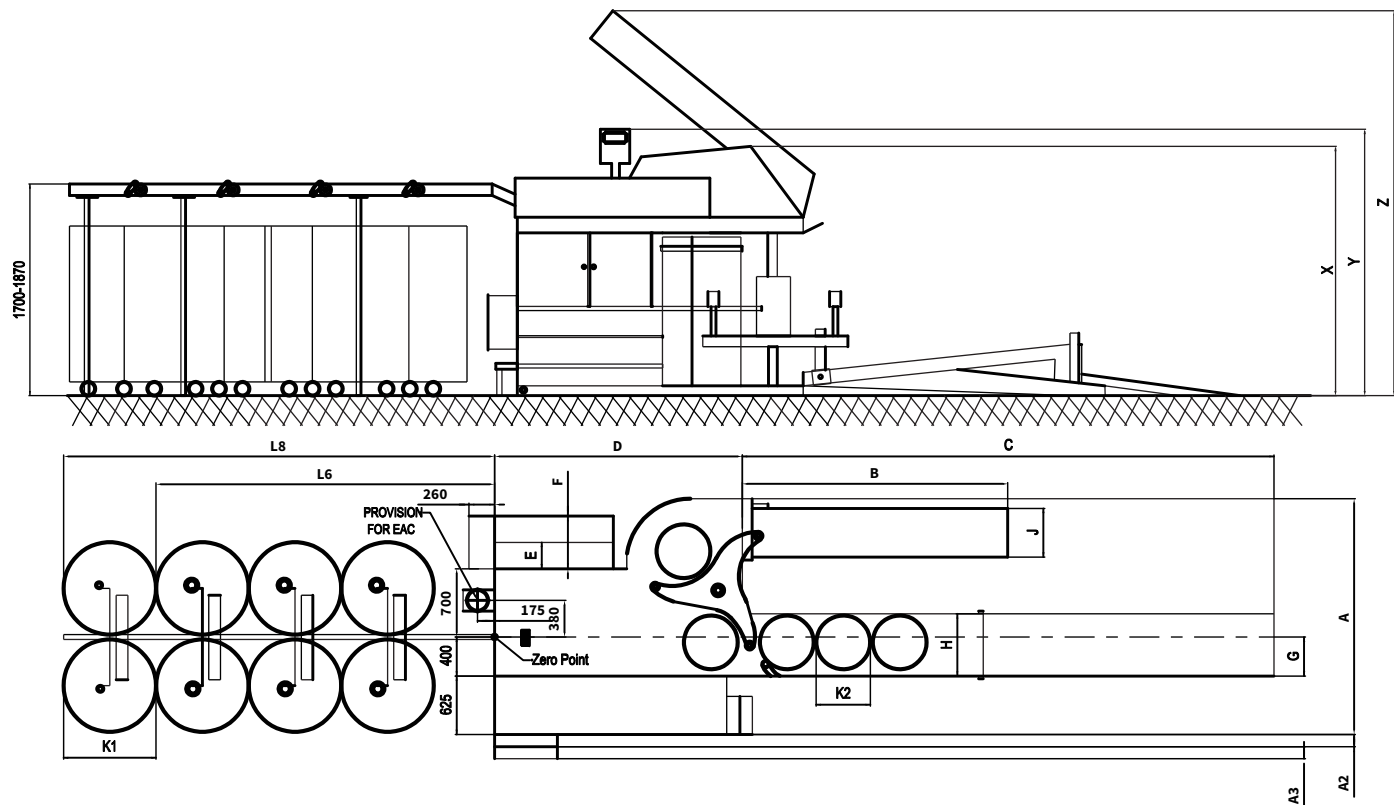
During can change, the sliver delivered has to be discontinued and has to be restarted in the subsequent can. This happens in the continuous run of the machine without interruption. This has been ensured by disengaging the sliver by applying necessary draft during the can changing sequence and normalizing again during standard running.

Space savings

To accommodate machine with confined space conditions in the mill, machine can be supplied with compact type different platform arrangements with respect to the condition of neighbouring drawframes.



Machine with 300/350/400/450/500/600 mm Can diameter



Coiler with can changer

K2 (mm)	Number of empty cans	A(mm)	B(mm)	C(mm)	D(mm)	G(mm)	H(mm)	J(mm)
350 (14")	5	2004	1350	1924	2250	400	400	400
400 (16")	5	2410	2354	3290	2250	400	450	450
450 (18")	4		2354	3290	2250	400	500	500
500 (20")	4	2350	2354	3290	2250	400	530	550
600 (24")	3	2500	2354	3290	2250	400	630	630

Power creel (Driven)

K1(mm)	L6(mm)	L8(mm)
600	2550	3280
1000	3630	4670

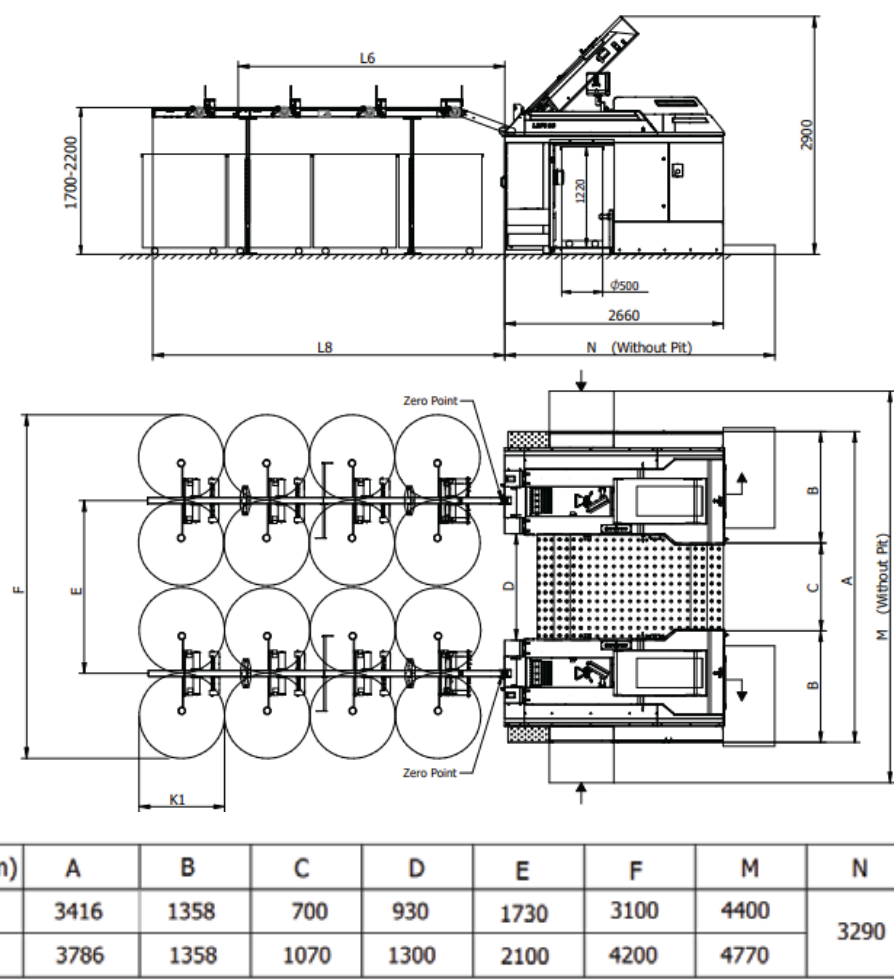
X,E,F,A2 & A3 as a function of a can height H2

H2(mm)	X(mm)	Y(mm)	Z(mm)	E(mm)	F(mm)	A2(mm)	A3(mm)
900	1641	1812	2958	-	-	-	-
1000	1691	1862	3008	350	-	200	-
1050	1741	1912	3058	350	550	200	200
1100	1791	1962	3108	350	550	200	200
1150	1841	2012	3158	350	550	200	200
1200	1891	2062	3208	350	550	200	200

LDF3 S

Flexible Option of Delivery Can
Dia and Height Based on Requirement

LDF3 2S Layout



Spinconnect 2.0

Digital Automation our Passion

Auto Leveller Draw Frame LDF3 Series can be integrated with Spinconnect 2.0, a web based monitoring and control application. The HMI details are transferred through Wi-Fi / LAN connection and all the parameters can be viewed and controlled from a centralized 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 trouble shooting and for software upgradation.

User defined reports and charts for analysing the Draw Frame performance can be generated for further improvement.

Predefined shift-wise, daily, weekly, monthly reports can be sent through mail to respective users.

Technical Data

LDF3 S		LDF3 2S
Material	: Cotton, Man-Made Fibers and Blends	Cotton, Man-Made Fibers and Blends
No. of Delivery	: 1 (Single)	2 (Twin)
Fiber Length	: 25 to 80 mm	25 to 80 mm
Delivery Speed	: Up to 1100 m/min (Mechanical)	Up to 1100 m/min (Mechanical)
Number of Doublings	: 4 / 5 / 6 / 8	4 / 5 / 6 / 8
Feed Hank Draft	: 0.04 to 0.24 Ne	0.04 to 0.24 Ne
Delivery Hank	: 0.07 to 0.24 Ne	0.07 to 0.24 Ne
Draft Range	: 3.58 to 11.36	3.58 to 11.36
Delivery Can Dia (mm)	: 300, 350, 400, 450, 500 & 600	400, 450, 500 & 600
Delivery Can Height (mm)	: 900, 1000, 1050, 1100, 1150, 1200	900, 1000, 1050, 1100, 1150, 1200
Feed Table (dia × ht) (mm)	: Up to 600 × 1200 / Up to 1000 × 1200	Up to 600 × 1200 / Up to 1000 × 1200
Automatic Can Changer	: Standard supply	Standard supply
Sliver Cutting Device	: Electronic (Standard supply)	Electronic (Standard supply)
Compressed Air Requirement	: 0.2 Nm ³ /hr at 6 bar	0.2 × 2 Nm ³ /hr at 6 bar
Style of Discharge of Dust Air	: EAD – Into Department / EAC – Duct below floor	EAD – Into Department / EAC – Duct below floor

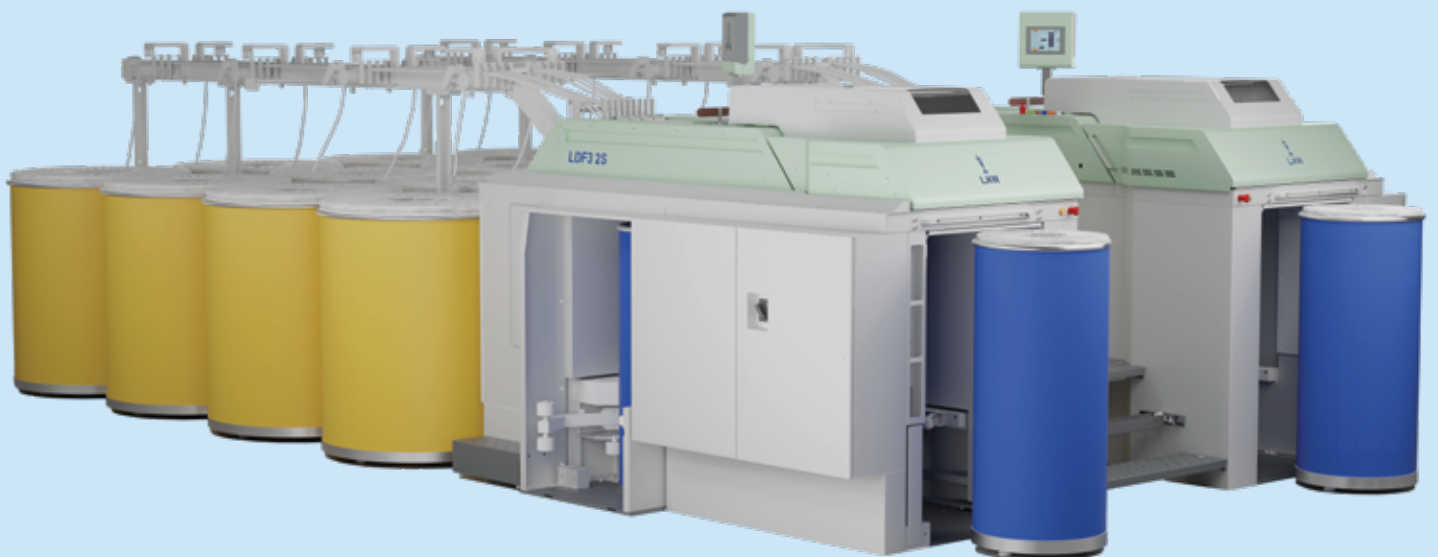
Installed Power

Main Drive	: 5 kW	3.99 × 2 kW
Fan Motor	: 1.5 kW	1.50 × 2 kW
Autolevelling Servo Motor	: 3.77 kW	1.69 × 2 kW
Can Changer Motor	: 0.25 kW	0.25 × 2 kW
Coiler Drive Motor	: 1.5 kW	1.10 × 2 kW
Total Installed Power	: 12.02 kW	8.53 × 2 kW

LDF3 SERIES

Experience The Best

LDF3 2S



FLEXIBLE



Perianaickenpalayam, Coimbatore - 641 020 INDIA.
 Phone : +91 422 7192255
 Email : info@lmwtmd.com
www.lmwtmd.com



Issue No 2, April 2026