

ROLL SHOP MACHINERIES AND EQUIPMENTS

COTS
GRINDING
MACHINES



COTS
MOUNTING
DEVICES



TOP ROLLER
TESTING
DEVICES



AGV
AUTOMATIC
GUIDED
VEHICLE

asteks®
KAUÇUK VE PLASTİK SAN. TİC. A.Ş.

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SINCE 1970

Asteks has been servicing to textile sector since 1970. The company has carried up to date its experience and the quality without leaving the core principles set at its establishment. The production takes place in Istanbul at its modern factory having 6.000 m² close area in 11.000 m² open land. Through the implementation of restructuring strategy introduced in 1997 the company has gained the corporate identity. Asteks, who has reliability in both domestic and international markets applies modern management approaches, follows and introduces new technologies.

The company has around 75% market share in Turkey and also exports to almost 30 countries among where there are machine manufacturers on a global scale.

The roll shop facilities have very important task in maintaining the

persistency of the quality in the mill. The machineries, those are to de-mount&mount and grind the cots on ring spinning, roving, drawing and combing frames, should technically be competent.

ASTEKS, by the experience gained along the years, is in the position to design and manufacture the machineries and automations used in its own cots & aprons production line shaping, sizing, finishing in to top quality level. The company utilize this valuable experience, combining with the latest technology, in manufacturing roll shop machineries like cots grinding machine, UV cots surface treatment machine, mounting&de-mounting devices and all others.



COTS GRINDING MACHINES



203-SF
SMART FEEDING SYSTEM



202-AFT
WITH AUTOMATIC FEEDING –
TWIN DIRECTIONS



201-AF
WITH AUTOMATIC
FEEDING



201-MTL
MANUAL – TEXTURIZING-
DIAMETER MEASUREMENT BY
LASER



201-M
MANUAL - MULTI
FUNCTIONAL

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COTS GRINDING MACHINES

203-SF

SMART FEEDING SYSTEM

This is the cots grinding machine with it's fully automated and high performance features developed for the large amount of spinning capacity factories. Labour free operation with it's smart system.



TECHNICAL FEATURES

- Cots' diameter measuring system by laser.
- Top roller rotating motor with servo control.
- Linear sliding cradle traverse system by servo control.
- Grinding stone motor with inverter control.
- Control panel with HMI 8 inch touchmatic screen.
- Automation system controlled by PLC.
- Grinding stone with enchased structure for rubber cots grinding
- Suction unit, top roller holding and stone grinding apparatus.

ADVANTAGES

The Smart Feeding System with Double Cassettes; it offers the comfort in loading big no.of top rollers in to the specially designed feeding unit just by pooring off instead of the manual,time consuming work of aligning them in to the cassette.It makes the operation very easy for the users and provides grate saving in time and labour.

Cots' Diameter Measuring System by Laser; by measuring the outer diameter of the cots to be processed it maintains to perform the grinding at the range of the outer diameter determined. The cots with the diameter smaller or bigger than the dimension determined are separated automatically. Since the separation is done before the grinding part of the machine the efficiency of the machine is not affected.

Automatic Grinding System; It offers significantly high efficient performance with it's double cassette

feeding system by fully automated grinding process from beginning to the end, allowing the operator to do the other jobs, meantime.

Touch Screen Control Panel; It provides to manage the whole process by allowing very easy setting input for the grinding amount on the cots' surface, traverse speed, the rotation speed of cots holding bar, polishing period and the others in accordance with the maintenance team decision on the setting parameters. Additionally, it offers the option in language setting.

Automatic Stone Grinding System; The grinding on the stone can be done automatically, fast and without any hassle only by the instruction given over the touch screen panel with no additional mechanical work, very easily.

Automation System Controlled by PLC; enables tailor-made settings for all elements.



The Smart Feeding System with Double Cassettes



Touch Screen Control Panel



Automatic Stone Grinding System

MACHINE

Height	2.000 mm
Lenght	1.500 mm
Width	1.500 mm
Weight	900 kg

FEEDING UNIT

Height	1135 mm
Lenght	975 mm x 2 sets
Width	915 mm x 2 sets
Weight	450 kg x 2 sets

WORKING PARAMETERS

GRINDING CAPACITY	19x32x29 mm	GRINDING SENSITIVITY	0.02
	1.200 adet/saat	SURFACE ROUGHNESS	Ra<1.2

PROCESSING RANGE

MIN. GRINDING DIAMETER	26 mm	MAX. GRINDING DIAMETER	40 mm	MAX. GRINDING LENGTH	150 mm
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COTS GRINDING MACHINES

202-AFT

WITH AUTOMATIC FEEDING – TWIN DIRECTIONS

This is the cots grinding machine with it's fully automated and multi functional structure developed for the large amount of spinning capacity factories. By twin direction feature, long cots for draw frames and combers can be processed on the other side of the machine.

VIEW ON FRONT

Automatic Grinding Section



Height	1.400 mm
Length	850 mm
Width	1.370 mm
Weight	720 kg

WORKING PARAMETERS

GRINDING CAPACITY	19x32x29 mm	GRINDING SENSITIVITY SURFACE ROUGHNESS	0.02 Ra<1.2	MIN. GRINDING DIAMETER	24 mm	MAX. GRINDING DIAMETER	51 mm	MAKSİMUM TAŞLANACAK İŞ UZUNLUĞU	400 mm
	1.200 adet/saat								

PROCESSING RANGE

TECHNICAL FEATURES

- Top roller rotating motor with servo control.
- Linear sliding cradle traverse system by servo control.
- Grinding stone motor with inverter control.
- 2 sets of control panel with HMI 8 inch touchmatic screen.
- Automation system controlled by PLC.
- Grinding stone with enchased structure for rubber cots grinding.
- Suction unit, top roller holding and stone grinding apparatus.

ADVANTAGES

The Feeding System with Double Cassette; by doubled size loading capacity, it makes the operation very easy for the users.

Automatic Grinding System; It offers significantly efficient performance with it's double cassette feeding sytem by the fully automated grinding progress from beginning to the end, allowing the operator to do the other jobs, meantime.

Touch Screen Control Panel; It provides to manage the whole proses by allowing very easy setting input for the grinding amount

on the cots' surface, traverse speed, the rotation speed of cots holding bar, polishing period and the others in accordance with the maintenance team's decision on the setting value. Additionally, it offers the option in language setting.

Automation System Controlled by PLC; enables tailor-made settings for all elements.



HMI Control Panel



Double Cassette Automatic Feeding System



Long Drafting Cots (for DRAW FRAME and COMBERS) Grinding System

VIEW AT BACK



VIEW AT SIDE

COTS GRINDING MACHINES

201-AF COTS GRINDING MACHINES

Offering grinding on all type of cots (spinning, roving ,draw frame , comber) in a spinning factory on the same machine. One of the most preferred machine. User friendly design.



Long cots for Drawing and Combing Frames can be processed on the same machine without de-mounting automatic grinding units.



Height	1.760 mm	WORKING PARAMETERS		PROCESSING RANGE			
Lenght	850 mm						
Width	1.370 mm						
Weight	740 kg						
		GRINDING CAPACITY	19x32x29 mm 600 top rollers/hour	GRINDING SENSITIVITY	0.02	MIN. GRINDING DIAMETER	24 mm
				SURFACE ROUGHNESS	Ra<1,2	MAX. GRINDING DIAMETER	51 mm
						MAX. GRINDING LENGTH	400 mm

TECHNICAL FEATURES

- Cots holder’s motor controlled by inverter.
- Linear sliding cradle traverse system by inverter control.
- Grinding stone motor.
- Control panel with HMI 8 inch touchmatic screen
- Automation system controlled by PLC.
- Grinding stone with enchased structure for rubber cots grinding
- Suction unit, top roller holding and stone grinding apparatus

ADVANTAGES

The Feeding System with Cassette; high loading capacity by cassette, it makes the operation very easy for the users.

Multi Size Combined Grinding System; offers flexibility in processing long cots for Drawing and Combing Frames on the same machine without de-mounting automatic grinding units.

Automatic Grinding System; It offers significantly efficient performance with it’s cassette feeding sytem by the fully automated grinding progress from beginning to the end, allowing the operator to do the other jobs, meantime.

Touch Screen Control Panel; It provides to manage the whole process by allowing very easy setting input for the grinding amount on the cots’ surface,

traverse speed, the rotation speed of cots holding bar, polishing period and the others in accordance with the maintenance team decision on the setting value. Additionally, it offers the option in language setting.

Cots Holder Controlled By Inverter, processing table controlled by inverter provides flexibility in setting cot holder’s rotation speed and traverse period to maintain the cot surface roughness [Ra] value targetted in accordance with the yarn count produced and the cot’s hardness.

Automation System Controlled by PLC; enables tailor-made settings for all elements.

This is the grinding machine designed to process the cots on texturising machines and long staple fibers spinning frames.Diameter measuring system by laser contributes to increase the efficiency in the process.

201-MTL COTS GRINDING MACHINES

MANUAL – TEXTURIZING-DIAMETER MEASUREMENT BY LASER



Height	1.400 mm	WORKING PARAMETERS		PROCESSING RANGE			
Lenght	850 mm						
Width	1.370 mm						
Weight	720 kg						
		GRINDING CAPACITY	45x65x34 mm 250 top rollers/hour	GRINDING SENSITIVITY	0.02	MIN. GRINDING DIAMETER	24 mm
				SURFACE ROUGHNESS	Ra<1,2	MAX. GRINDING DIAMETER	100 mm
						MAX. GRINDING LENGTH	450 mm

TECHNICAL FEATURES

- Cots’ diameter measuring system by laser.
- Cots holder’s motor controlled by inverter.
- Linear sliding cradle by inverter control.
- Grinding stone motor.
- Cots’ Diameter Check Motor Controlled By Servo.
- Control panel with HMI 7 inch touchmatic screen.
- Automation system controlled by PLC.
- Grinding stone with enchased structure for rubber cots grinding.
- Suction unit, top roller holding and stone grinding apparatus.

ADVANTAGES

Cots’ Diameter Measuring System by Laser; measures the cots’ diameter, eliminating the operatör checking the diameters before the process and thus maintaining higher efficiency by saving the labour.

Automatic Grinding System: Following the operatör sets the cot on the holding unit , the machine completes the grinding in compliance with the settings input over the touch screen automatically by just pushing the start button.

Touch Screen Control Panel; It provides to manage the whole process by allowing very easy setting input for the grinding amount on the cots’ surface, traverse speed, the rotation speed of cots holding bar, polishing period and the others in accordance with the maintenance team’s decision on the setting value.Additionally, it offers

the option in language setting.

Cots Holder Controlled By Inverter; processing table controlled by inverter provides flexibility in setting cot holder’s rotation speed and traverse period to maintain the cot surface roughness [Ra] value targetted in accordance with the yarn count produced and the cot’s hardness.

Automation System Controlled by PLC; enables tailor-made settings for all elements.

Stop-Start System; The grinding stone stops while the cot is placed by the operator. The stone starts to rotate only by the push on to the start buton. It maintains the work safety and energy saving.

Low Energy Consumption; offers economical process by lower energy cost.

COTS GRINDING MACHINES

201-M

MANUAL MULTI FUNCTIONAL

Offers high flexibility and wide multi functionality by the ability to process all kind of cots including Ring&Roving&Draw Frames, Combers, Texturizing, Open-End, Finisher, Drafting Rollers in both short and long staple fibre spinning.



Height	1.400 mm	WORKING PARAMETERS				PROCESSING RANGE						
Lenght	850 mm											
Width	1.370 mm	GRINDING CAPACITY	19x32x29 mm 200 top rollers/hour	19x51x32 mm 200 top rollers/hour	GRINDING SENSITIVITY	0,02	MIN. GRINDING DIAMETER	24 mm	MAX. GRINDING DIAMETER	100 mm	MAX. GRINDING LENGTH	450 mm
Weight	720 kg		SURFACE ROUGHNESS	Ra<1,2								

TECHNICAL FEATURES

- Cots holder's motor with inverter control.
- Grinding stone motor.
- Control panel with HMI 7 inch touchmatic screen.
- Automation system controlled by PLC.
- Grinding stone with enched structure for rubber cots grinding
- Suction unit, top roller holding and stone grinding apparatus

ADVANTAGES

The Ability to Process All Kind of Cots; Ring & Roving & Draw Frames, Combers, Texturizing, Open-End, Finisher, Drafting Rollers in both short and long staple fibre spinning.

Touch Screen Control Panel; It provides to manage the whole process by allowing very easy setting input for the grinding amount on the cots' surface, traverse speed, the rotation speed of cots holding bar, polishing period and the others in accordance with the maintenance team's decision on the setting value. Additionally, it offers the option in language setting.

Linear Sliding Cradle Traverse System by

Inverter Control; avoids the defect with conical grinding at the change of holder settings.

Cots Holder Controlled By Inverter;
perfect cot's surface maintained by processing
table under inverter control.

Automation System Controlled by PLC; offers ability in tailor-made setting.

By the Ability in Setting of the Period When the Stone Polishing on the Rubber Cots; perfect cot's surface roughness level.

By Digital Control on Setting in Grinding Amount; high dimensional precision .

Low Energy Consumption; 2,9kW

By the effective of UV irradiation the minor burs on the cots surface incurred at grinding process are cleared off. The change in fibre characteristic and climatisation and some other factors, that can not under control easily, especially in the factories processing PES fibres and blends can be effective in lapping on cots. UV treatment machine supports to maintain better performance with the cots on super high speed Vortex machines after grinding process.

UV-302

COTS SURFACE
TREATMENT
by UV

AUXILIARIES AT ROLL SHOP



Higher efficiency in the process by higher capacity feeding shelf



User friendly by its touchmatic control panel



Height	1.350 mm
Lenght	700 mm
Width	1.000 mm
Weight	150 kg



TECHNICAL FEATURES

- Higher efficiency in the process by higher capacity feeding shelf what can accomodates 45 pcs top rollers
- Automation in opening and closing of feeding shelf.
- The regulation on cots rotation speed by servo motor control during UV application.
- Flexibility by the option for 1000 or 2000 Watt UV power application as per the operator's decision
- Very easy maintenance and change of the lamp by the erconomical design of the machine.
- By the start-stop function of UV application , the UV lamps are turned-off when the feeding shelf is to be opened. Having the feature with the lamps are turned-on only when the feeding shelf is to be closed, sets extra care on health safety, energy saving and extended life time of the UV lamps.
- Effective irradiation by specially designed reflectors and 2000 Watt UV lamp.

ADVANTAGES

- Following the grinding on the cots used in synthetic fibres and blends spinning;

Decrease in the
tendency of lapping.

Higher efficiency
in start-up after
grinding by more
efficient piecing and
thus saving in labour.

Contribution in yarn quality and production cost.

■ Superior running performance and better efficiency on super high delivery speed Air Jet Spinning systems after cots grinding process

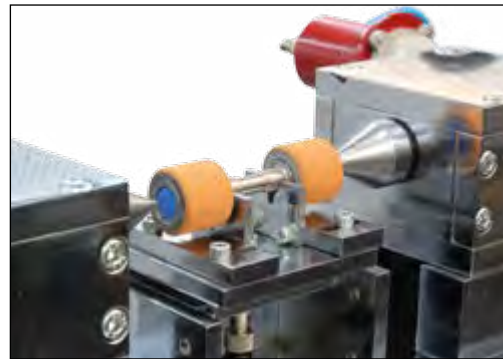
AUXILIARIES AT ROLL SHOP

TOP ROLLER
LUBRICATING
DEVICE
(AUTOMATIC)

WITH AUTOMATIC
DOSING

TECHNICAL FEATURES

- Lubricates the top rollers of ring spinning frames and roving frames.
- Under control the right amount of the lubricant that should be applied by automatic dosing system.
- High efficiency by the lubrication at the same time on both sides of the top rollers.
- User friendly operation; the operator only needs to feed the top roller on to the device, then, automatically, lubrication on both side takes place, at the same time.



Height	1.200 mm
Lenght	800 mm
Width	630 mm
Weight	110 kg

MANUAL COTS MOUNTING DEVICES

MANUAL COTS
MOUNTING DEVICES

Cots for Ring Spinning,
Roving Frames, Open-End
Spinning Machines

It is used for mounting the bear top rollers in to the cots for ring spinning, roving frames and Open-End spinning machines. It is a rather economical solution.The cots centering bar enables a precise application under control. The adaptors suitable to the top rollers in the factory are supplied together.



Height	650 mm
Lenght	370 mm
Width	280 mm
Weight	40 kg

COTS MOUNTING DEVICES

PNEUMATIC COTS
MOUNTING DEVICE

Cots for Ring Spinning,
Roving Frames, Open-
End Spinning Machines

By Pneumatic Mounting Devices, the top rollers for ring spinning and roving frames are processed. The cots centering bar and push restriction element maintain under control and reliable operation. It is supplied together with adaptors for mounting&de-mounting.



Height	910 mm
Lenght	300 mm
Width	450 mm
Weight	38 kg

COTS MOUNTING DEVICES

HYDRAULIC COTS MOUNTING DEVICE

Mounting & De-Mounting for the cots for Draw Frames and Combers

It is used for de-mounting and mounting the top rollers in to cots for Draw Frames, Lap Formers and Combers.

TECHNICAL FEATURES

- By hydraulic system, the mounting operation is executed in a stable momentum, keeping the progress under control.
- The adaptors suitable to the top rollers in the factory are supplied together.



Width	360 mm
Weight	215 kg



It is used for de-mounting and mounting the top rollers in to cots for Texturizing , Long Stable and Fancy Yarn Spinning Systems.

HYDRAULIC COTS MOUNTING DEVICE

Cots for Long Stable Spinning and Texturizing Systems

COTS MOUNTING DEVICES

TECHNICAL FEATURES

- By hydraulic system, the mounting operation is executed in a stable momentum, keeping the progress under control.
- The adaptors suitable to the top rollers in the factory are supplied together.
- The cots centering bar enables a precise application undercontrol.



Height	1.800 mm
Lenght	600 mm
Width	600 mm
Weight	120 kg



TOP ROLLER TESTING DEVICES

TOP ROLLER CONCENTRICITY MEASURING DEVICE

- Measures the concentricity on the rubber cots right and left on the top roller for ring spinning and roving frames.
- High accuracy and easy testing



Height	265 mm
Lenght	477 mm
Width	245 mm
Weight	40 kg

TOP ROLLER TESTING DEVICES

TOP ROLLERS CONICITY MEASURING DEVICE

- Identifies the risk of the conicity on the cots for drawing frames and combing frames following the grinding process.
- Precise and easy testing provided by the linear sliding cradle system



Height	360 mm
Lenght	600 mm
Width	80 mm
Weight	20 kg

- Measures the surface roughness (Ra) on the cots following the grinding process.Confirmes the quality level offered by the grinding process.
- Ra testing device is supplied with the stand for the cots for ring spinning, roving and draw frames.



COTS SURFACE ROUGHNESS (Ra) TESTING DEVICE

TOP ROLLER TESTING DEVICES

Height	280 mm
Lenght	120 mm
Width	160 mm
Weight	5 kg

RUBBER COT HARDNESS TESTER (SHORE METER)

TOP ROLLER TESTING DEVICES



It is used to measure shore hardness level on rubber cots. In compliance with DIN regulations that tests at +/- 3 Sh tolerance at Shore A scale defined.

TOP ROLLER TESTING DEVICES

COTS DIAMETER MEASURING DEVICE (CALIPER)

It is used to define the cots' dimension. By it's digital structure a high accuracy measurement is applied.

TRANSPORTATION VEHICLES

TOP ROLLERS CARRIAGE

Provides the top rollers to be collected from the ring spinning frames and/or roving frames and to be transported forward and back between roll shop and the machines.



Top rollers carriage inside view.



- Provides the top rollers to be collected from the ring spinning frames and/or roving frames and to be transported forward and back between roll shop and the machines.
- Easy usage provided by the ergonomic design.
- Following the grinding process, maintains delicacy in the transportation without any harm on the surface of the cots that newly treated.
- Provides right keeping conditions for the cots treated at roll shop by preventing direct light affection.

Height	1.050 mm
Lenght	1.450 mm
Width	650 mm
Weight	120 kg

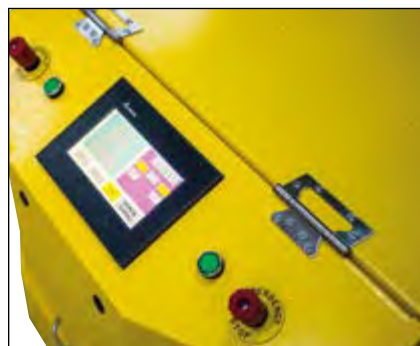
AGV AUTOMATIC GUIDED VEHICLE



TRANSPORTATION VEHICLES

101-AGV AUTOMATIC GUIDED VEHICLE

AGV (Automatic Guided Vehicle) are the vehicles carrying goods and/or trolley with its man free , automatic steering system.



Height	610 mm
Lenght	760 mm
Width	1.210 mm
Weight	317 kg

TECNICAL FEATURES OF 101-AGV

- Ability to handle 2 tons load
- Programmable to stop and start at the station determined.
- Enable to turn over 360 degree even in a limited narrow area.
- Runs on the route set with magnetic tapes.
- Auidable alarm system with lighening flash.
- Stops when there is an obstacle on front and re-starts when the obstacle is moved away
- Technology applied with AC motor and Inverter.

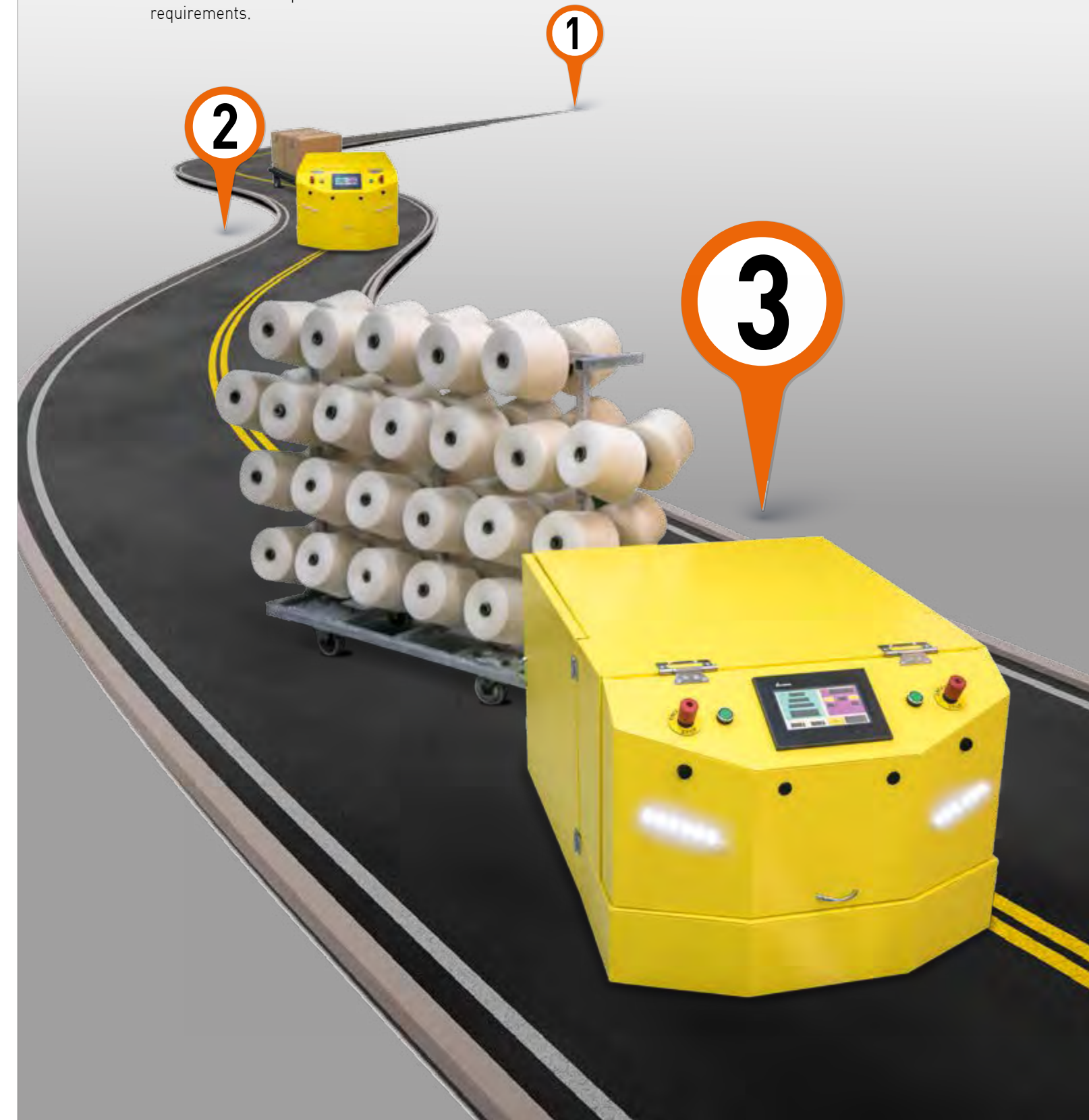
ADVANTGES OFFERED BY 101-AGV

- Technology applied with AC motor and inverter.
- Cost reduction.**
- Planning on product logistic and enhaced tracking.
- Increase in production efficiency.**

101-AGV AUTOMATIC GUIDED VEHICLE

TRANSPORTATION VEHICLES

- Flexibility with running single or group of vehicles together being synchronised each others.
- AGV are indoor advanced transportation systems what can offers solutions with load carriage in different variety and in different application fields.
- AGV offers increase in profitability provided by the increase in efficiency and decrease in cost in production.
- Tailor-made designing and sketching according to the physical conditions of the mill and it's operational requirements.



Comfort in Spinning by; Innovative Products

OPS/GESA
APRON FOR COMPACT
SPINNING SYSTEMS

CTA APRON
REINFORCED
BY CARBON

RC-851
COMFORT IN SPINNING
PES AND BLENDS



"You can use them with confidence..."



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**asteks®'S QUALITY
AND RELIABILITY...**



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