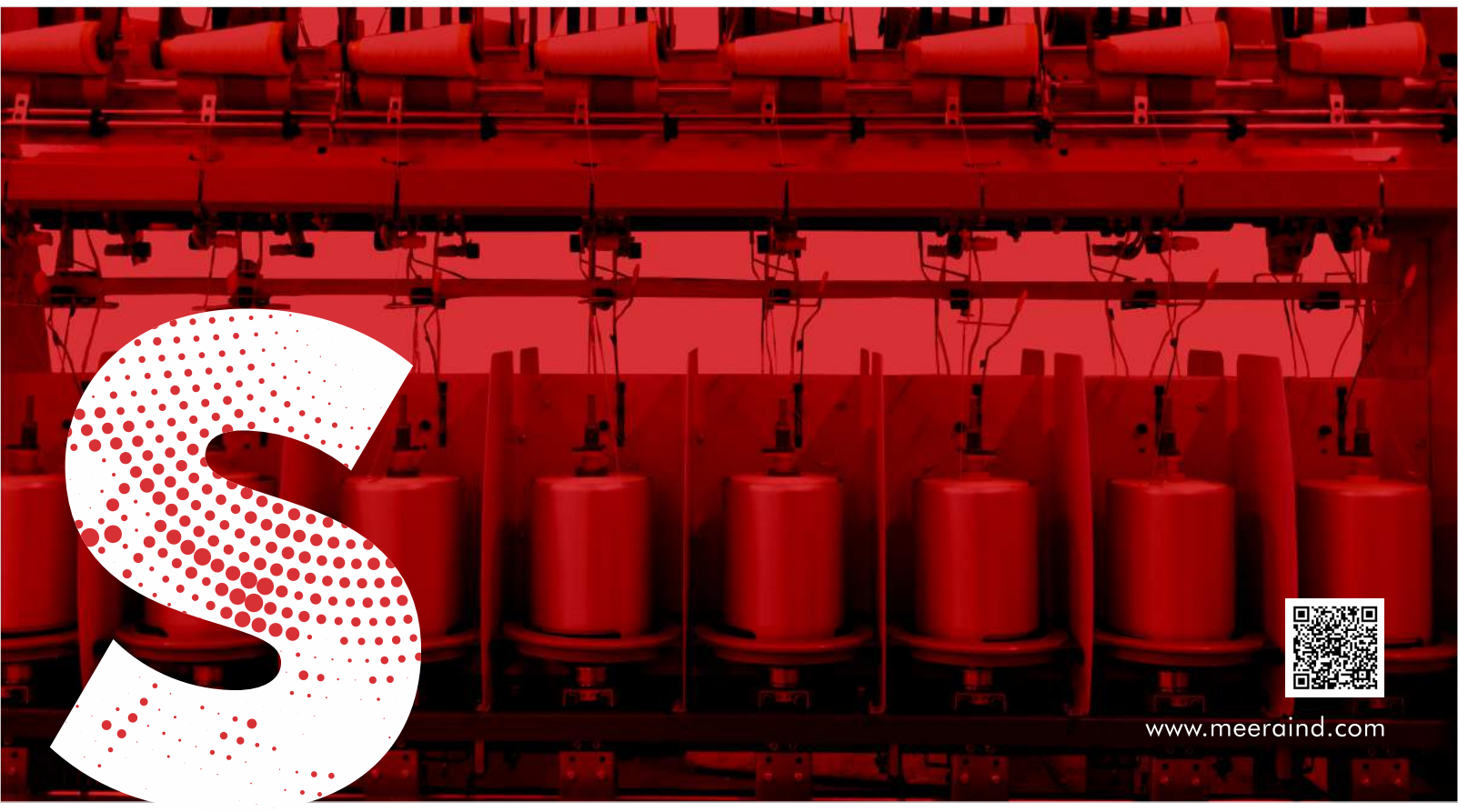


MST Series
Two For One Twister

MEERA
FUTURISTIC TWISTING

SPUN TWISTER

Two For One Twister For Staple / Spun Yarn



www.meeraind.com

Why Meera Staple Fiber Twister ?

Meera has been the leading manufacturer of Spun / Staple Twister machines for many years. We are the pioneers of double deck spun twisting machines designed specially for productivity and operating enhancement. Our twister has been used by manufacturers of woven and knitted fabrics in India and abroad for premium quality Products. There are several advantages that makes Meera Spun / Staple Yarn Twister at par with International Standards.

MST Series Advantages

- Suitable for Cotton, Wool, Viscose, Acrylic, Blended Yarns like PV, PC etc.
- Spindle Speed upto 14000 rpm.
- Tangential Belt System.
- Fully Inverter Controlled Drive.
- Oil-free, low maintenance construction.
- Tested Sections with Modular packing reduce setup times.
- High Quality and high economy yarns for Woven, Knitted and Sewing Thread.
- Lowest Energy Consumption.



Innovative Spindle Design

Spindles are the most important part of any twisting Machine. The main objective of the innovative spindle design is to optimize yarn quality, productivity and energy consumption.

- Lowest Spindle Height is adopted to greatly reduce the balloon size and right selection of bearing, good engineering design help low energy consumption
- Spindle and Reserve Disk with High Grade wear Resistance surface finish for smoother yarn path
- Spindle Vibration optimized with the help of advance pot mounting system
- Variety of Spindle options to choose for various count and package size.
- Large feed packages can be used due to optimised spindle pot design
- Optimized spindle spacing gives way for Low space requirement
- Low Power consumption is possible due to application-specific spindle sizes.

MST Series sets a new standards for high quality Cross-Wound staple twisted yarn with operating flexibility, low energy consumption, ease of maintenance, low space and lowest cost of production

Premium Quality

- Flexible package building
- Package lift off feature
- Cradle load relief system
- High twist quality due to high quality yarn guide elements
- Servo traversing mechanism with Traverse variation. New take-up geometry
- Low friction losses due to optimized drive and storage technology
- Low (Twist per inch) CV% is achieved by bigger whorl diameter to reduce belt load on the spindle bearings and twist evenness

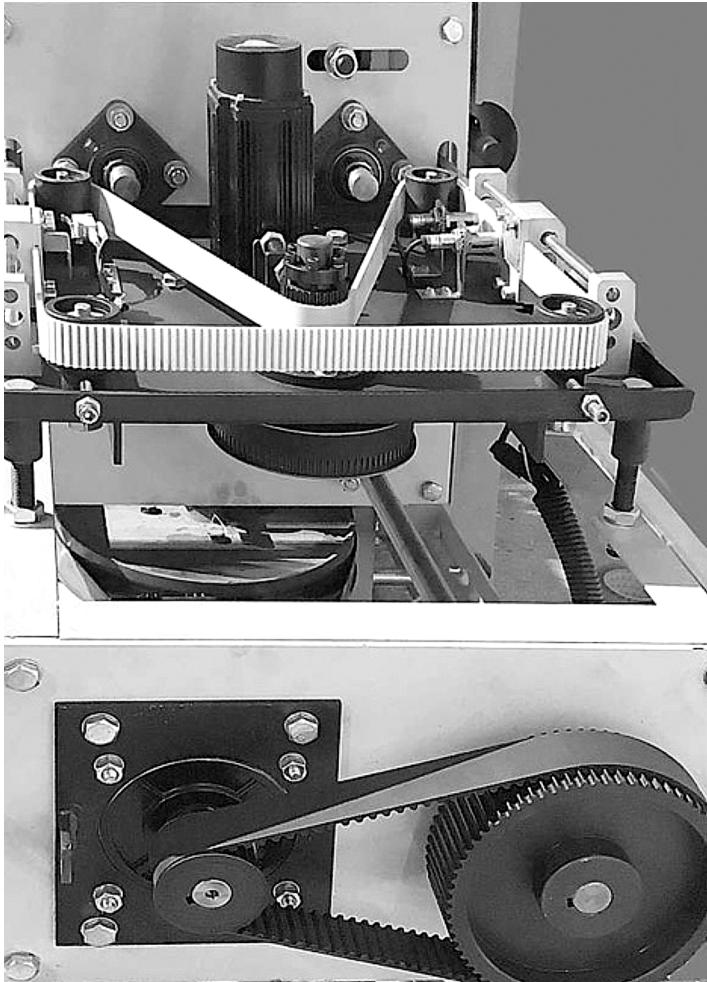
Ergonomics

Control Panel with TPM, RPM etc
Over head Package creels
Automatic yarn stop feeler lock
Air Threading

Low Energy Consumption

Servo Driven Technology
Energy saving family of spindles
Balloon Limiter

Drive Concepts



For the different market need MEERA Spun Twister offers two Types of Advance DRIVING Systems.

MST series takes care of the futuristic and advance market needs in terms of high speed, flexibility and better control.

Where as ST Series optimized for simple yet robust Driving Systems

MEERA Spun Twister offers two MST / ST Series optimised drive system for the different needs of the market. MST SERIES has a electronic drive section with servo gear box with below feature.

- Delivery Speed upto 120 m/ min
- Continuously adjustable spindle speed and twist amount
- Spindle speed, Twist per Meter, Take-Up package shapes, Traverse length, Traverse Crossing Angles all can be adjusted through Servo Driven Control Panel. It is useful to customers who may need to change their machine setting frequently.
- Electronically controlled anti-patterning device
- Advanced friction reduction concepts during machine start up and Stop for perfect levels of twist in the yarn.
- Oil-free, low-maintenance constructions

ST Series with Mechanical Gear Box for simple driving and synchronized stoppage of machine during power failure

- Mechanical changing of TPM, Crossing Angle, Package Buildup, Twist direction
- Delivery Speed upto 70 m/min
- 6" fixed mechanical traverse guide cam drive
- Change of RPM via Inverter
- Traversing Lubrication - Oil
- Mechanical controlled anti-patterning device
- Low-maintenance constructions



TAKE-UP PACKAGES

The MST Series take-up is designed for a uniform and homogeneous package building while optimising quality of the twisted yarn. It Uses high quality materials for overfeed discs, transfer tail rod, traversing guide, friction roller for a high quality yarns.

The cradle design is adjustable for tapered and cylindrical tubes for cross-wound delivery packages of size 6", 7, 8" up to a diameter of 300 mm in formats of 3°30', 4°20' and 5°57'. The die-cast cradle helps in attaining higher take-up speeds.

WAXING DEVICE

Thanks to magnetic compensation waxing device grants a constant wax distribution over the yarn.



HANDLING YARN BREAKAGE

There is a dropper system which constantly monitor the yarn balloon tension. In case the yarn balloon tension drops due to yarn breakage or once the feed package has been unwound. It automatically triggers the spindle stop action and auto lift up of the cradle to prevent further yarn take-up .



BALL YARN BRAKE TENSIONER & DEFLECTION TENSIONER

The new, self-cleaning ball yarn brake tensioner offers a single ceramic ball, adjustable by simply turning of the yarn inlet tube, covers a large braking range and replaces the time-consuming replacement of tension capsules. The tensioner come with interchangeable spring pistons for different counts and materials. Tension can be adjusted with 8 different positions. Deflection tensioner comes as an additional tensioner. Addition deflection tensioner comes handy for added tension management with uniform tension in each position

TOUCH PANEL

Touch Panel for Easy to adjust parameters

1. Spindle Speed
2. Twist levels, twist direction and crossing angles
3. Machine automatic stop when yarn length &/or running times have been reached (Optional)
4. Parameters for take-up package shape and package density
5. Yarn material details

The production parameters entered can be stored in an Article library and called up whenever required. Advance Reporting available like, delivery speed, operating hours, Spindle wise breakage report, production, operator efficiency etc. The computer is equipped with a USB Connection.





BUNCHING FOR TRANSFER TAIL (OPTIONAL)

Bunching device facilitates the winding of transfer tail. The grooves on the bunching device act as an automatic length counting for transfer tail. This adds to uniform length of transfer tail. This short length of yarn may be used later to join packages together.

CREELS AND CONVEYOR BELT (OPTIONAL)

In order to improve the ergonomics, the package conveyor belt has been designed so that Final Twisted packages can be removed laterally at exit point. This measure allows for a further reduction in operating time when handling large volumes of yarn.

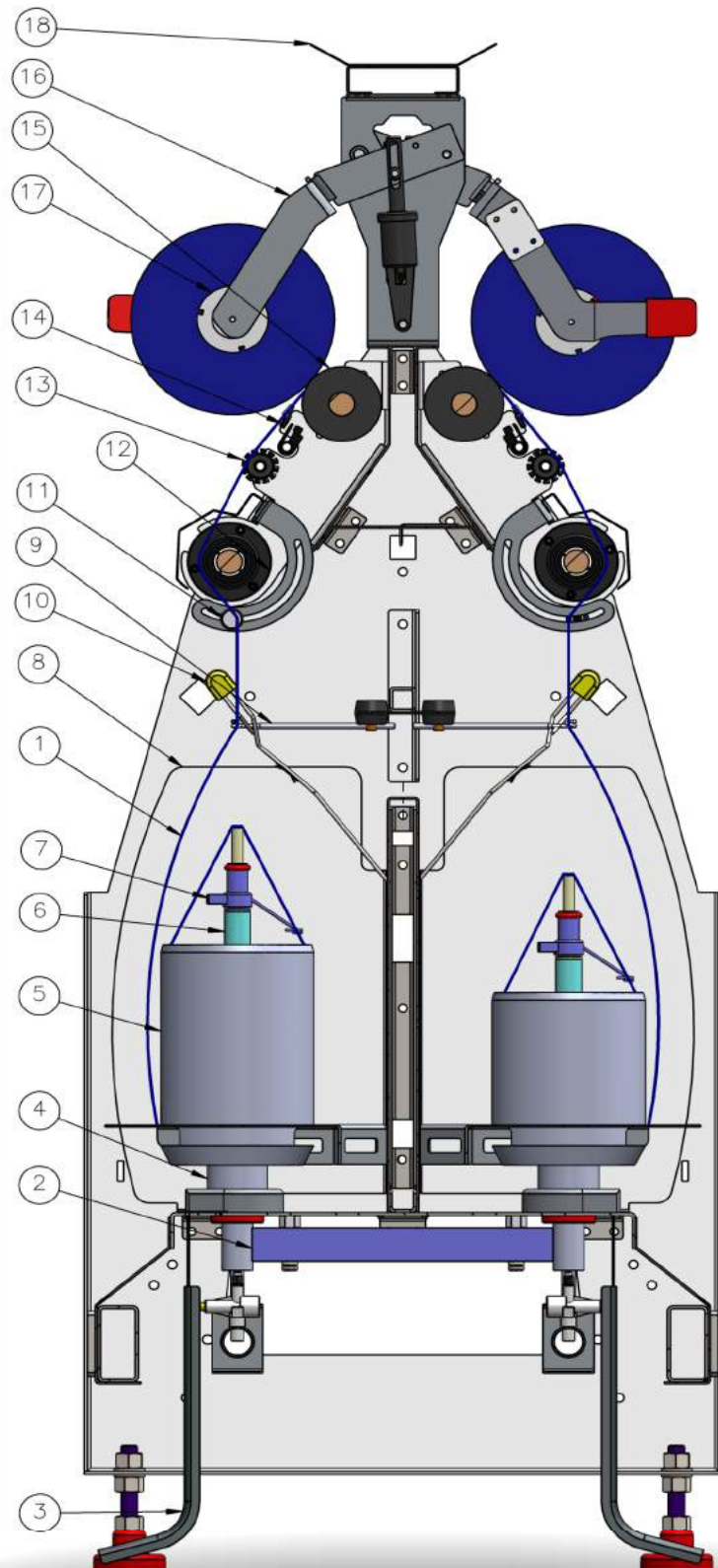
Creels for packages and empty tubes. Creel and storage facilities for Finished packages and empty tubes to reduce handling time.

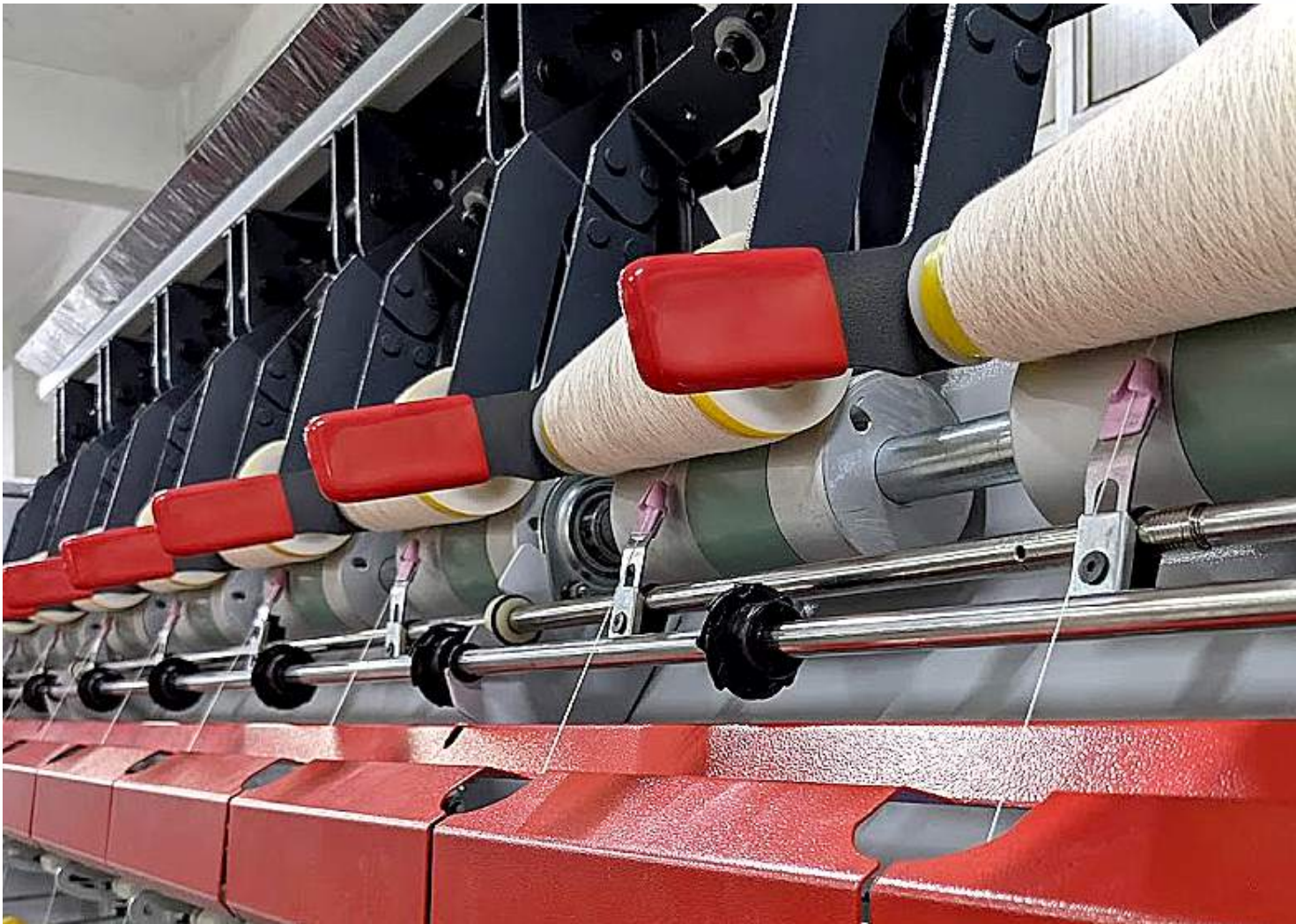


SPUN TWISTER

MST-145

- 1 Yarn Path
- 2 Spindle Drive Belt & Belt Guide Roller
- 3 Foot Pedal for Spindle Brake & Air Threading
- 4 Spindle Rotary Assy
- 5 Spindle Pot
- 6 Tensioner
- 7 Flyer
- 8 Separator
- 9 Yarn Balloon Guid
- 10 Yarn Stop Drive
- 11 Yarn Guide Roller
- 12 Overfeed Roller
- 13 Transfer Tail
- 14 Traverse Guide
- 15 Drum
- 16 Cradle
- 17 Cradle
- 18 Package & Tube Tray





CRADLE

Heavy Design Cradle produces take-up packages up to a maximum diameter of 300 mm. Packages produced are well built with nice shape and feel.

CRADLE LOAD RELIEF SYSTEM (OPTIONAL)

This feature is mainly used to produce soft-edge packages suitable for dyeing.

PACKAGE LIFT - OFF FEATURE

Following a time delay, the pneumatic package lift-off device takes the completed package off the drive drum, avoiding any unnecessary rubbing of the package surface.

Technical Data.

Spindle Type	MST-120	MST-145	MST-165	MST-190
Twist Range (TPI)	110 - 2763 TPM 2.79 - 70.09 TPI"	110 - 2763 TPM 2.79 - 70.09 TPI"	110 - 2763 TPM 2.79 - 70.09 TPI"	77 - 1925 TPM 1.95 - 48.83 TPI
Spindle Speed : Effective :	Up to 14000 rpm Up to 28000 rpm	Up to 13500 rpm Up to 27000 rpm	Up to 12500 rpm Up to 25000 rpm	Up to 11000 rpm Up to 22000 rpm
Count range (max.): Partial ranges depending on spindle configuration with balloon limiter: without balloon limiter:	Nm 17/2 - 100/2 Nm 50/2 - 100/2	Nm 20/2 - 200/2 Nm 17/2 - 200/2	Nm 10/2 - 110/2 Nm 12/2 - 170/2	Nm 5/2 - 100/2 Nm 16/2 - 100/2
Cylindrical Feed Package Tapered Feed Package	Dia, up to 115 mm	Dia, up to 135 mm Dia, up to 140 mm	Dia, up to 155 mm Dia, up to 170 mm	Dia, up to 180 mm Dia, up to 185 mm
Tapered cross-wound delivery Package	up to 5°57' Ø up to 300 mm	up to 5°57' Ø up to 300 mm	up to 5°57' Ø up to 300 mm	up to 5°57' Ø up to 300 mm

* The overview shows an overall working range, depending on the machine specification there may be restrictions.

Machine Dimension

Machine Width	630 mm
Machine Height	Drive unit 1,540 mm / machine section 1,601 mm / end unit 1400 mm
Spindle spacing / (spl./ section)	MST-120 210 mm (20) / MST-145 230 mm (18) / MST-165 260 mm (16) / MST-190 300 mm (14)
Spindle Type series MST	120 / 145 / 165 / 190

Number Of Sections	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
MST - 120 (210 mm)	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
MST - 145 (230 mm)	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360
MST - 165 (260 mm)	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
MST - 190 (300 mm)	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
Total Length* L (mm)	15570	17700	19830	21960	24090	26220	28350	30480	32610	34740	36870	39000	41130	43260	45390

Notes

