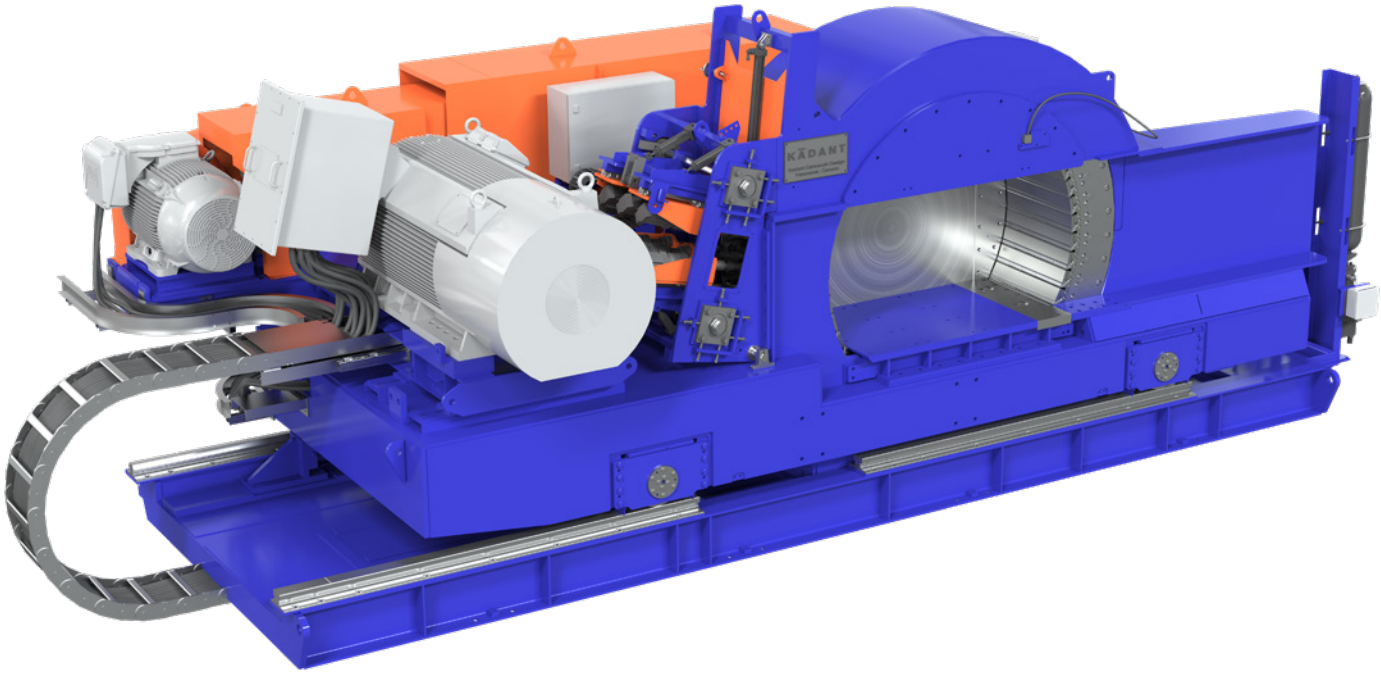
SmartRING Strander

Delivering Consistent Strand Quality with Long-Term Reliability



Featuring Industry-Leading Technology

- ✓ Simplified Procedures
- ✓ Automated Controls
- ✓ Long-Lasting Components
- ✓ Low Maintenance
- ✓ Built-In Safety
- ✓ Low Operating Costs
- ✓ High Fibre Recovery
- ✓ Consistent Strand Quality

PLUS:

- ✓ Fully Compatible with Argus Smart-Connected Technologies

ARGUS *Get more insight. Make better decisions.*
Powered by illumen.X

INDUSTRY LEADERS IN STRAND TECHNOLOGY

KĀDANT | Carmanah

SmartRING Strander

Designed by Experts, Trusted by Mills

The ***SmartRING Strander*** – our flagship stranding machine – is the result of decades of engineering, manufacturing, and lab-testing expertise, delivering proven performance and reliability in mill environments. We evaluate your production goals, raw log characteristics, and mill constraints to recommend the optimal strander size, configuration, and setup to meet your operational and quality targets.

Plus – take advantage of the fully-compatible ***Argus Condition Monitoring and Analysis*** technology to make more informed decisions about how to optimize the productivity and efficiency of your ***SmartRING Strander*** in real-time.

HOW IT WORKS

The ***SmartRING Strander*** cuts tree length or batch-fed logs into strands for OSB production. Logs are clamped in place while the carriage-mounted strander extends into the cutting chamber. Knives are mounted within the inner periphery of the ring, where they strand the log load that is held within the chamber.

Combining long-lasting replaceable wear components, automated precision controls, and simplified operating and maintenance procedures, the ***SmartRING Strander*** is engineered to yield the most consistent strand quality at the lowest cost of ownership.

The SmartRING Strander *is best paired with Kadant Carmanah's automated batch feeder and log clamping system for cut-to-length logs.*

ENGINEERED AND MANUFACTURED FOR LONG-LASTING, CONSISTENT OPERATION.

Long-Lasting, Easy-to-Replace Wear Components

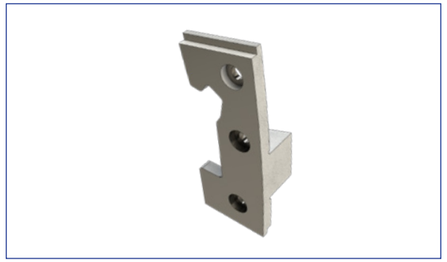
The ***SmartRING Strander*** was designed with simplified maintenance procedures, with tasks that are safe, quick, and easy for general labour to complete. The ***SmartRING's*** main replaceable wear components – the clamp, carrier, and wear plates and/or the disposable knife system holder – all have a long life expectancy.

This eliminates the need to grind, replace, or calibrate components between scheduled service intervals, and ensures your strander is producing consistent and quality strands without interrupting your operation.

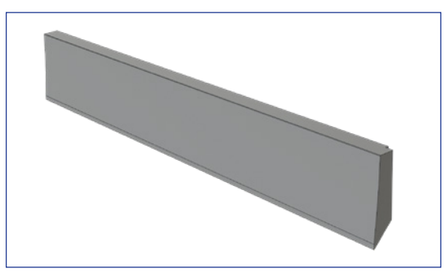
BENEFITS

- The ***SmartRING's*** replaceable wear components are engineered to minimize disruption to your maintenance scheduling.
- No special tools, shims, or grinding machines required.
- Reduces maintenance costs associated with downtime and labour.
- Ensures a more consistent strand quality.

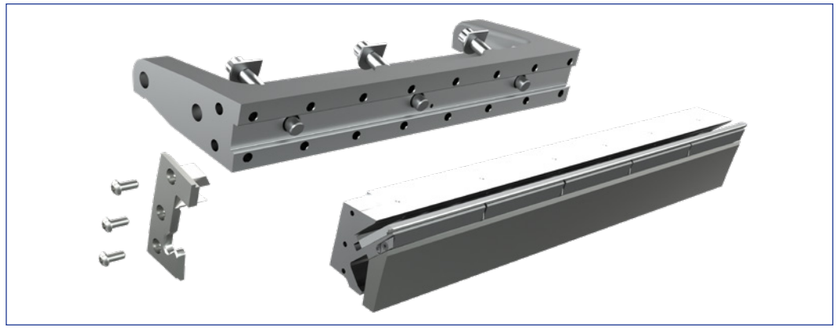
Replaceable knife carrier.



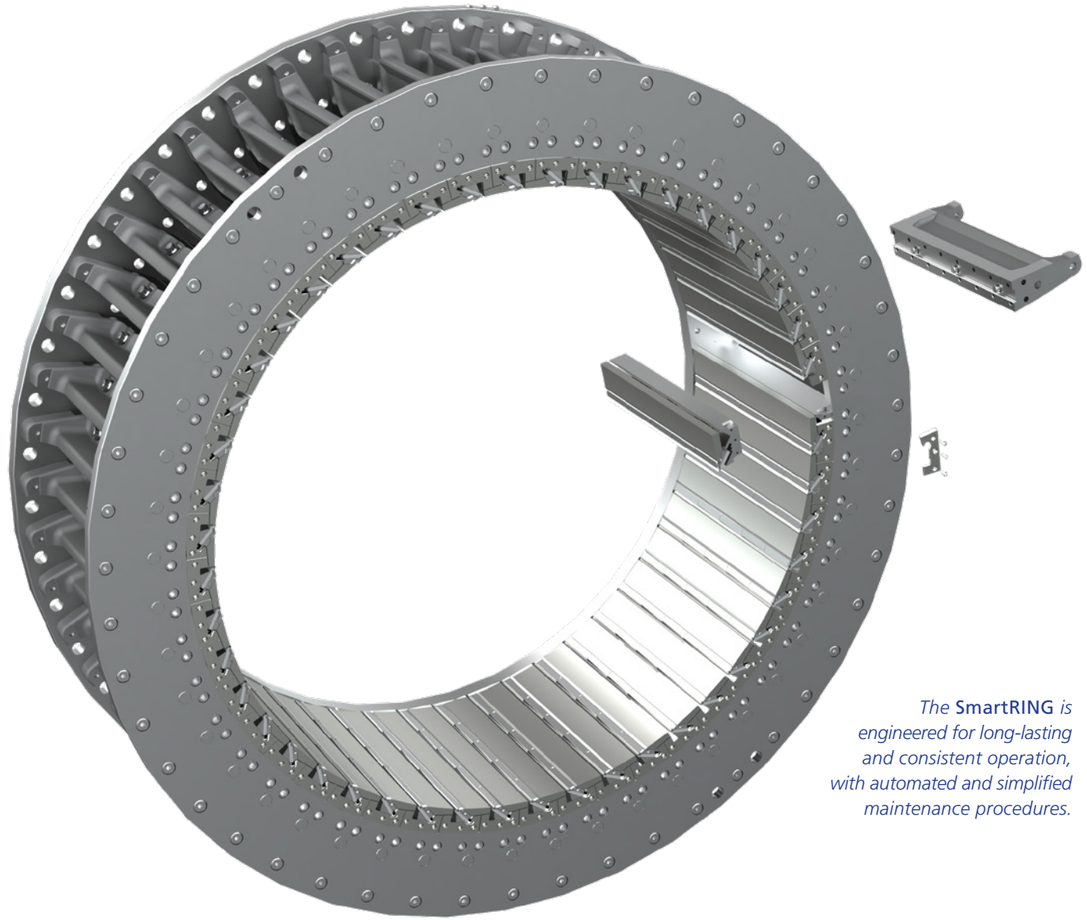
Replaceable wear shoe/plate.



Replaceable knife clamp.



Replace-and-run parts significantly reduce long-term operating costs.



The **SmartRING** *is engineered for long-lasting and consistent operation, with automated and simplified maintenance procedures.*

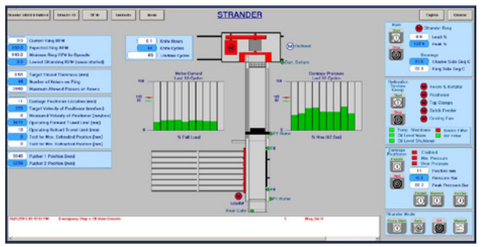
AUTOMATED AND SIMPLIFIED CONTROLS FOR PRECISE, CONSISTENT PROCEDURES.

Automated, Real-Time Adjustments

The most important contributor to the ***SmartRING's*** reputation in ensuring a consistent strand quality is within its innovative closed-loop feedback controls and variable carriage velocity.

The ***SmartRING*** is able to detect when the ring speed changes (which can be caused by a batch of dry wood or high-density logs), and will automatically make precise adjustments to the carriage velocity in real-time. By automatically controlling the carriage velocity in real-time, the thickness of the strands maintain a consistent quality.

This is where the ***SmartRING*** earns its name from: ***S**trand **M**anagement **A**ccomplished in **R**eal-**T**ime*.

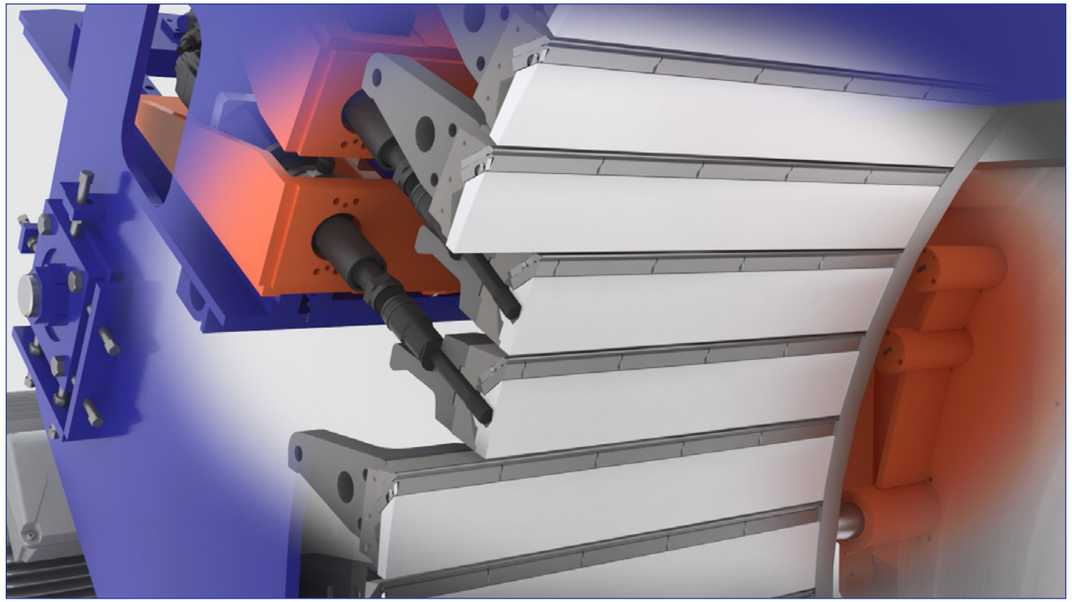


The closed-loop feedback controls will automatically detect and correct any deviation in ring speed.

BENEFITS

- The ***SmartRING*** closed-loop feedback controls will immediately detect and correct the carriage velocity whenever there is a deviation in ring speed.
- Ensures the thickness of your strands will never deviate beyond your desired output.
- Ensures consistent strand quality.

Simplified, easy-to-use controls help to reduce maintenance downtime procedures.



The automated nutrunner system ensures positive clamping for safe operation and consistent strand quality.

Semi-Automated and Precise Knife Change Procedures

Contributing to the safety, efficiency, and consistent output of the ***SmartRING Strander***, the semi-automated and precise nutrunner system reduces the likelihood of improperly installed knives. This nutrunner system measures both torque and bolt angle, ensuring the knives are properly clamped.

BENEFITS

- The knife change procedure on a ***SmartRING*** typically takes 25 to 30 minutes to complete.
- The ***SmartRING's*** automated nutrunner system provides immediate feedback to the operator and will not operate until all bolts have achieved the required torque and angle.
- Ensures a more consistent strand quality.

SUPPORTS DISPOSABLE KNIVES FOR ACCURATE, CONSISTENT PROJECTION.

Supports an Innovative Disposable Knife System (DKS)

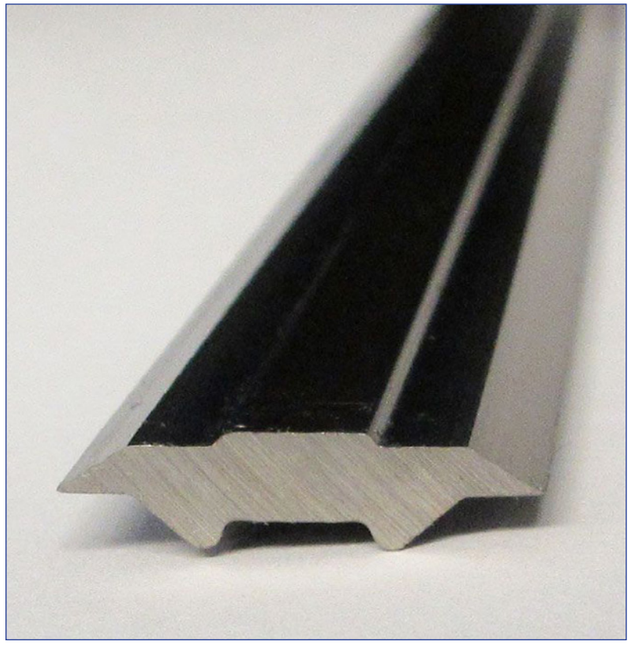
Proven to increase strander utilization by as much as 2%, the Kadant Carmanah DKS (Disposable Knife System) includes the knife and counter knife, all in one single component. These lightweight, reversible strander knives eliminate the costs associated with the time, labour, space, and risk of injury that are common with grinding conventional plate knives.

Included with every disposable knife system is a quick-change adaptor plate (QCAP), which quickly sets the knife projection on the carrier. We have the ability to control the QCAP size and counter knife angles, improving the fibre recovery to accommodate varying seasons, temperatures, moisture levels, and species.

BENEFITS

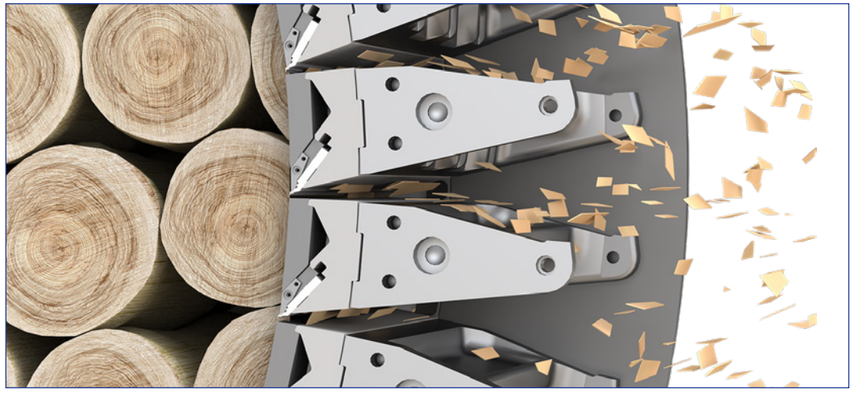
- The ***SmartRING Strander*** can accommodate both conventional plate and disposable/reversible knife systems, including ISK (DKS with Integrated Scoring Knives).
- Kadant Carmanah's DKS is lightweight, compact, and easy to remove and install.
- The DKS provides the opportunity to stock multiple counter-edge angles for all seasons and wood conditions.
- With over 20 years of commercial use in OSB mills, the DKS has proven to increase a strander utilization by as much as 2%.
- Allows mills to have more control in the consistency and quality of their strand output.

The counter knife projection is incorporated into every DKS (Disposable Knife System), and can be adjusted to accommodate varying wood conditions.



Kadant Carmanah's disposable knife system (DKS) is lightweight, compact, and easy to remove and install.

Kadant Carmanah's disposable knife system (DKS) is proven to increase strander utilization by as much as 2%.



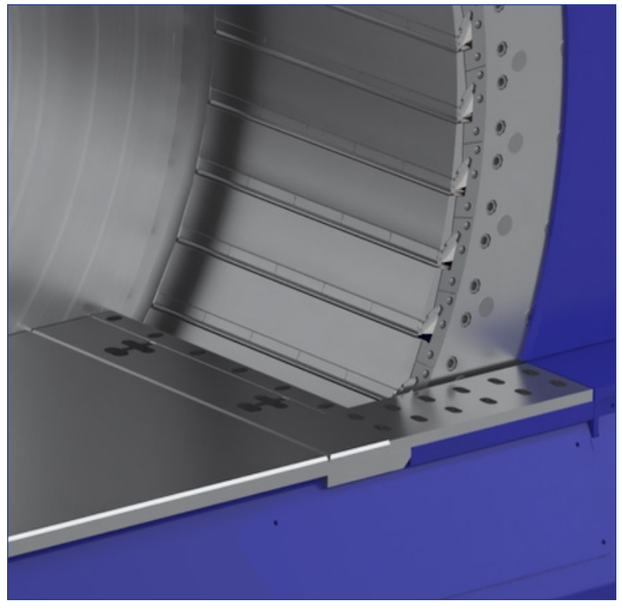
SERVICED AND SUPPORTED BY THE OSB INDUSTRY'S MOST EXPERIENCED STRANDING PROFESSIONALS.

The Safest Strander in the OSB Industry

No ***SmartRING*** has ever been replaced due to catastrophic failure. This is because of the ring design, the simplicity and accuracy of the knife clamping procedure, and the automated, responsive, real-time adjustment of the carriage velocity.

These attributes that make the ***SmartRING Strander*** safe are the same reasons why we're able to achieve such consistent strand quality: the strength in the engineering, with the simplicity and automation of the procedures.

The ***SmartRING Strander*** also includes a bend-away anvil that is equipped with pressure sensors, which will bring the strander to an emergency stop if stray metal is detected.



Close-up of the bend-away anvil, equipped with pressure sensors.

BENEFITS

- No need to allocate any investment or storage space to stock any spare rings.
- The simplicity and automation of common maintenance procedures ensures a safe, predictable, and consistent operation.
- No Kadant Carmanah ***SmartRING*** has ever been replaced due to catastrophic failure.

Kadant Carmanah has the most committed and experienced service and support team in the OSB industry.

Backed by the OSB Industry's Leading Customer Service and Support Teams

At Kadant Carmanah, our people are completely focused on the OSB market. We listen to our customers and are responsive to their individual needs, always looking for ways we can help them improve the efficiency, consistency, and quality of their strand output. You will not find another strander manufacturer to partner with who can match our commitment and experience within the global OSB market.

BENEFITS

- An experienced team of engineering, service, and support professionals who are 100% committed to the global OSB market.
- Kadant Carmanah stranders are trusted worldwide by over 75% of the global OSB market.

SmartRING Strander

AVAILABLE IN MULTIPLE SIZES TO MEET CAPACITY TARGETS

Featuring Industry-Leading Technology

- ✓ Simplified Procedures
- ✓ Automated Controls
- ✓ Long-Lasting Components
- ✓ Low Maintenance
- ✓ Built-In Safety
- ✓ Low Operating Costs
- ✓ High Fibre Recovery
- ✓ Consistent Strand Quality

PLUS:

✓ Fully Compatible with Argus Smart-Connected Technologies

ARGUS *Get more insight. Make better decisions.*
Powered by illumen.X

The Kadant Carmanah SmartRING Strander *is engineered to yield consistent, quality strands.*

Cycle Times in Seconds for 0.65mm Thick Strand

Model No.	Load & Clamp	Cutting	Return	TOTAL
28/75	3.8	8.7	4.0	**16.5**
28/81	4.1	10.2	4.0	**18.3**
32/88	4.6	11.0	4.3	**19.9**
32/98	4.9	10.7	4.8	**20.4**

Machine Specifications

	Model No.	No. of Cutting Knives	Capacity*	Ring Speed	Ring & Arbor Rotating Inertia (wk^2)	Motor Size**	Weight
METRIC	28/75	48 knives	25,000 kg/hr OD	400 rpm	10,900 kg-m^2	930 kW to 1100 kW	56,800 kg
IMPERIAL			55,000 lbs/hr OD		260,000 lb-ft^2	1250 hp to 1500 hp	125,000 lbs
METRIC	28/81	44 knives	27,300 kg/hr OD	370 rpm	13,200 kg-m^2	900 kW to 1350 kW	54,000 kg
IMPERIAL			60,000 lbs/hr OD		313,200 lb-ft^2	1200 hp to 1800 hp	119,000 lbs
METRIC	32/88	48 knives	34,000 kg/hr OD	334 rpm	17,500 kg-m^2	1100 kW to 1350 kW	60,000 kg
IMPERIAL			75,000 lbs/hr OD		415,300 lb-ft^2	1500 hp to 1800 hp	132,300 lbs
METRIC	32/98	62 knives	42,000 kg/hr OD	307 rpm	27,600 kg-m^2	1,500 kW to 1,860 kW	70,000 kg
IMPERIAL			92,400 lbs/hr OD		658,300 lb-ft^2	2,000 hp to 2,500 hp	154,000 lbs

** Capacity based on Aspen with SG of 0.420 and a strand thickness of 0.65mm.*

*** Motor size depends on species of wood; consult Kadant Carmanah for more information.*

Dimensions are for reference only and subject to change

www.kadantcarmanah.com

Kadant Carmanah is a global supplier of high-value, critical components and engineered systems used in process industries worldwide

KADANT CARMANAH DESIGN
Unit #8 - 15050 - 54A Aveune
Surrey, BC, Canada V3S 5X7

KĀDANT | Carmanah

Tel: +1 604-299-3431 Email: info.carmanah@kadant.com

SmartRING Strander-1000 (US) 03/2026

©2026 Kadant Carmanah Design