

# COIL STORAGE SYSTEMS

original/  
**KLP**®



*Your partner in safe coil storage*

Lankhorst | *Mouldings bv*



## World wide specialist in safe coil storage

It all started in 1981 when a local steel mill wanted to improve safety in their coil warehouse by replacing old and venerable wooden chocks. Back then Lankhorst was already a plastics producer and, after some engineering, the worlds' first coil storage chock made from recycled plastics was produced. It proved to be an excellent product: an enormous load bearing capacity was combined with ductile, yet unbreakable characteristics.

Today, 30 years of experience later, Lankhorst Mouldings coil storage systems can be found all around the globe. All major steel producers, steel processors and steel stockholders use these storage systems with great success. Lankhorst Mouldings' customers benefit from our wide product range that always offers the same important features: improved safety, optimal

flexibility, extreme long lifetime and highly experienced on-site product support and advice.

### Wide product range

Over the past decades we have developed a vast range of coil storage and transport systems. All these systems have been engineered in close cooperation with our customers – they are the experts in steel, we are the experts in plastics. Production takes place in our own production facility, which is based in the city of Sneek in the Netherlands.

Whether you want to store hot rolled, cold rolled, galvanized, painted or tin-plate (slit) coils, whether you want to store them single level or up to two or three levels – there is always a Lankhorst Mouldings coil storage system that will fit your situation.



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### **Improved safety**

Or perhaps we should better describe this as optimal safety. Because at Lankhorst Mouldings safety is most important and second to none. In this respect we find it very important that our engineers are fully involved in the whole process: designing (new) coil storage systems in our own Research and Development Centre, recycling the right type of plastics in our own recycling plant, producing coil storage chocks in our own production facility and on-site advice by our highly experienced sales engineers. Needless to say that most of our products have been evaluated and approved by TÜV Germany, as well Lankhorst Mouldings are certified according to ISO 9001, ISO 14001 and OHSAS 18001 regulations.

### **Less damage**

Our material is ductile. When subjected to loading, KLP® material flexes slightly but will return to its original shape immediately afterwards. KLP® material considerably reduces damage to your precious coils.

### **Optimal flexibility**

At Lankhorst Mouldings we do not simply copy a wooden chock. We develop new innovative coil storage systems. We know that your coil dimensions are not always the same, therefore our chocks are not fixed to their position – they can easily be adjusted for the coil dimensions that you have today. Flexibility for diameter, width and weight.

### **Extreme long lifetime**

As mentioned before, at Lankhorst we recycle plastics ourselves, and we have done so for the past 30 years. This allows a constant quality level at all times, very important when it comes to safety. Anyone can make a black plastic chock, but who has the experience to make one that never breaks and lasts a lifetime?

### **On-site product advice and support**

Safe coil storage is always tailor-made. Although there are many similarities in coil warehouses, all of our customers have specific storage characteristics with special requests. That's why our sales engineers are always ready to visit you on-site. And there is another advantage of being in the steel business for so long: Lankhorst has a vast network of representatives all over the world – in all major steel countries on all continents. No matter where you are located, there is always a Lankhorst representative near you for instant advice or support.



***[www.lankhorst-mouldings.com](http://www.lankhorst-mouldings.com)***  
***Tel. +31 (0)515-487690***



*Your partner in safe coil storage*

#### Royal Lankhorst Euronete Group

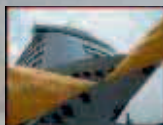
Lankhorst Mouldings BV is a subsidiary of the Royal Lankhorst Euronete Group. Its origins date back as far as the year 1803 on the exact same spot where our offices and factories can be found today.

At the bicentennial festivities of Lankhorst in 2003 Her Majesty the Queen of the Netherlands granted the Group the honour to use the word "Royal" in the company's name.

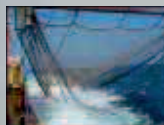
The Royal Lankhorst Euronete group expanded from a regional family owned company into a worldwide operating company with leading positions in markets for a.o. ropes, industrial yarns, fish netting, reinforced composites and recycled plastics. We exchange knowledge and ideas and create synergies for joint developments.



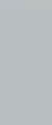
Maritime Rope  
& Offshore  
Division



Fishing  
Division



Engineered  
Products  
Division



Yachting  
Division



Yarn  
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Pure  
Division



Recycling Products



Mouldings



Ekon



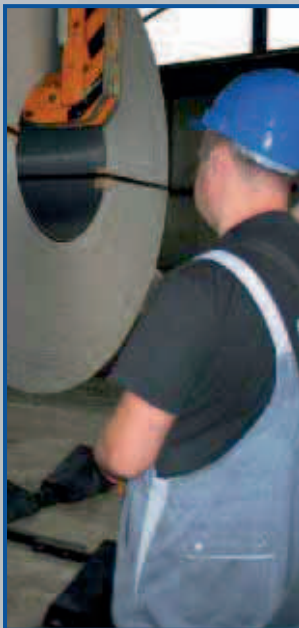
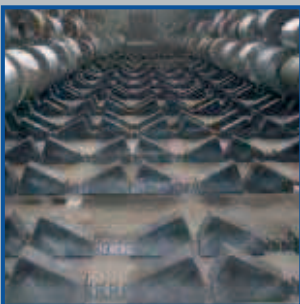
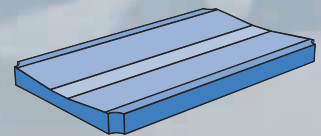
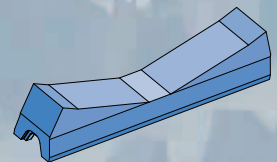
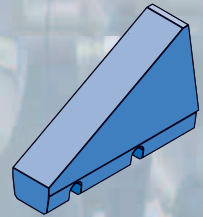
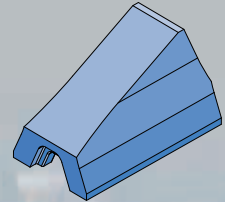


■ KLP® RollStop System

■ KLP® Rollblocks

■ KLP® RollCradle System

■ KLP® Storageblocks



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## KLP® ROLLSTOP SYSTEM

In Holland we say “what good is comes fast”. This is certainly the case for our KLP® RollStop System. Developed back in 2005, today already our most popular coil storage system chosen by all major steel companies world wide.

It is a turn-key storage system offering maximum flexibility and maximum safety. Coils may be stored up to three levels. The system consists of four simple components: rail, connector, spacer and KLP® RollStop – this allows a very simple installation on-site.

The interlocking system consists of a reinforced rail with notches on which the KLP® RollStops can be positioned. The distance between the KLP® RollStops may vary depending on coil diameter. One size fits all! An extensive installation manual will guide you through the installation of the system on-site.

### Why use KLP® RollStops System in your warehouse?

- One stop shop – one supplier for the complete system (turn-key)
- No steel profiles needed
- No special installation equipment needed
- Fast and easy installation – two men can do the job
- Easy three level stacking
- Flexible for coil diameter and width
- Improved safety for personnel (TÜV-approved)
- Less damage to your precious coils
- Splinter proof
- Long lifetime
- Enormous load bearing capacity
- No oil absorption



## ROLLSTOP SYSTEM

# solution for safe and flexible coil storage

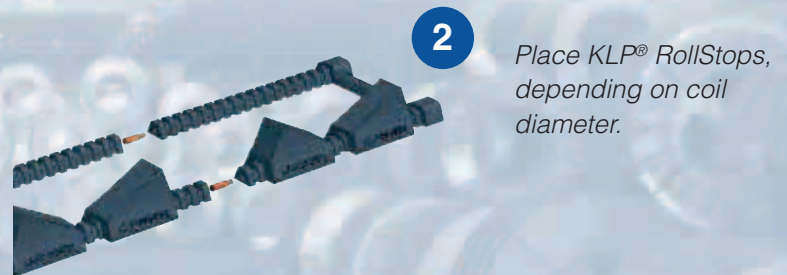
We can supply two basic models of our KLP® RollStops, depending on the weight of your coils. Each model can be supplied for various coil storage situations:

Type	Application	Diameter coils (mm)	Maximum load (tons) using 4 RollStops
RS100	Standard	700-2500	100
RS100 WR	Outside storage	700-2500	100
RS100 HR	Heat Resistant up to 110°C	700-2500	100
RS40	Standard	564-2500	40
RS40 WR	Outside storage	564-2500	40
RS40 HR	Heat Resistant up to 110°C	564-2500	40

HR or 'Heat Resistant' RollStops may be used for coils with temperatures up to 110°C. Our standard KLP® RollStops can withstand temperatures up to 60°C. WR or 'Weather Resistant' RollStops have a special coating preventing them from corrosion.

Our KLP® RollStop System is fully patented.

**KLP® RollStop System:**  
the world standard since 2005







*For flexible*

## KLP® ROLLBLOCKS

Since 1986, Lankhorst Mouldings have been marketing KLP® Rollblocks. From that moment, the Rollblock coil storage system has become a standard for many steel companies.

Our KLP® Rollblock System offers coil storage that is both safe and flexible. Rollblocks have to be placed into standard UNP-channels. The blocks have no fixed position; they can be moved depending on the diameter of the coil - ideal if you have a variety of small and large coils.

KLP® Rollblocks allow storage of coils with diameters ranging from 500 to 2500 mm. The 28° chock angle offers maximum support and allows coil stacking up to three levels.

### Why use KLP® Rollblocks in your warehouse?

- Improved safety for personnel (TÜV approved)
- Easy three level stacking
- Less damage to your precious coils
- Splinter proof
- Long lifetime
- Enormous load bearing capacity
- Flexible and efficient
- No oil absorption

KLP® Rollblocks were developed in close co-operation with the European steel industry. Rollblocks comply with all industrial requirements.

**One system for all your coils!**

# ROLLBLOCKS



# storage of your coils

KLP® Rollblocks are used world-wide: Australia, Mexico, Canada, United States, Brazil, China, India, Indonesia, South Africa and in almost all European countries.

KLP® Rollblocks are produced from plastics. Years of experience ensure the best choice of materials; the product becomes virtually indestructable and resilient. When subjected to loading KLP® Rollblocks flex slightly, but will return to their original shape immediately afterwards. KLP® Rollblocks considerably reduce damage to coils.

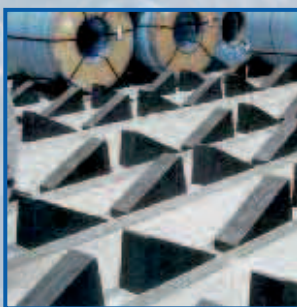
Our standard Rollblock (type 55/16-2) is a true 'heavy duty' block: each Rollblock can bear about 25 tons. One coil is supported by four Rollblocks. Apart from this Rollblock we offer several other dimensions: for every coil warehouse Lankhorst Mouldings can offer the right storage system. Our sales people will be happy to assist you in finding the optimal solution.

Type	Application	UNP channel	Diameter coils (mm)	Maximum load (tons) using 4 Rollblocks
RB 55/16-2	Standard	180	875 - 2500	100
RB 55/16-2 HR	Heat Resistant (up to 110°C)	180	875 - 2500	100
RB 55/12 M2	Standard	140	500 - 2500	30
RB 55/12 M2 HR	Heat Resistant (up to 110°C)	140	500 - 2500	30
RB 55/16-2 'ZN'	Standard	180	500 - 2500	60
RB 55/16-2 'ZN' HR	Heat Resistant (up to 110°C)	180	500 - 2500	60

KLP® Rollblocks are available in two qualities: our black 'standard' range, which can be used for coils with a temperature up to 60°C and a range allowing storage of coils with a temperature up to 110°C.

The English/American equivalent of the European UNP-180 channel is the C7 channel.

Other sizes upon request.



Standard (left) and Heat Resistant (right) KLP® Rollblock





*For easy storage*

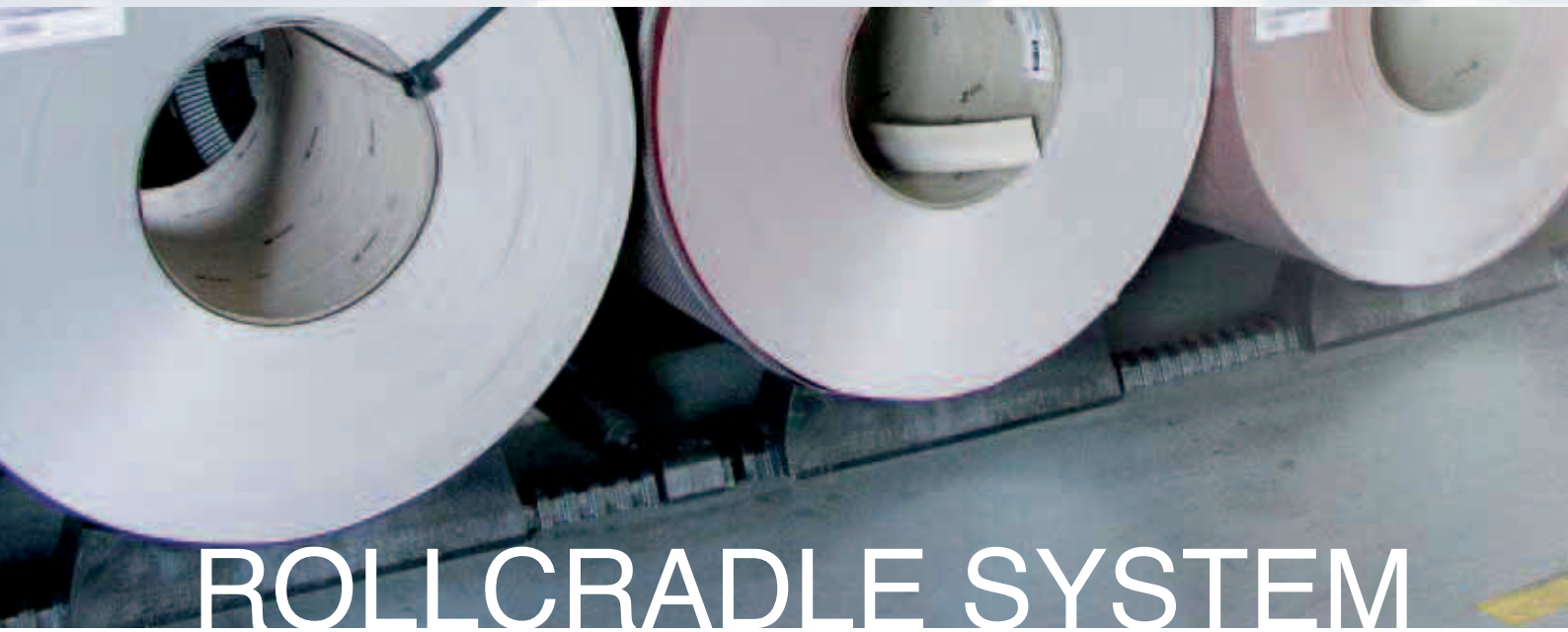
## KLP® ROLLCRADLE SYSTEM

Lankhorst Mouldings are specialists in developing and producing storage systems for coils. All products were developed in close co-operation with the international steel industry.

Our KLP® RollCradle System consists of a reinforced plastic rail with notches and blocks (KLP® RollCradles) which can be placed at different distances from each other, depending on the coil diameter.

### **Why use KLP® RollCradle System in your warehouse?**

- One stop shop – one supplier for the complete system (turn-key)
- No steel profiles needed
- No special installation equipment needed
- Fast installation
- Improved safety for personnel (TÜV approved)
- Easy two level stacking
- Less damage to your precious coils
- Splinter proof
- Long lifetime
- Enormous load bearing capacity
- Flexible and efficient
- No oil absorption



# ROLLCRADLE SYSTEM



# of your coils

## Turn - key system

KLP® RollCradle system is an improved version of the traditional KLP® RollCradles. It will be supplied as a turn-key coil storage system. The system offers good value for those warehouses that do not have a large variety in coil dimensions and that store coils up to 2 levels.

Lankhorst Mouldings have over 25 years of experience in safe coil storage. Our selection of raw materials guarantees an extreme long lifetime. When subject to loading, the KLP® RollCradles flex slightly, yet will return to their original shape immediately afterwards. This will avoid damage to your precious coils.

KLP® RollCradles are also available for use inside (steel) UNP-channels. Please contact us for more details.



Type	Application	Maximum Diameter	Maximum load (tons) using 2 RollCradles
RC 40	Standard	1900	40
RC 80	Standard	2100	80

Our KLP® RollCradle System is also available in 'Weather Resistant' quality.



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*For safe storage of*

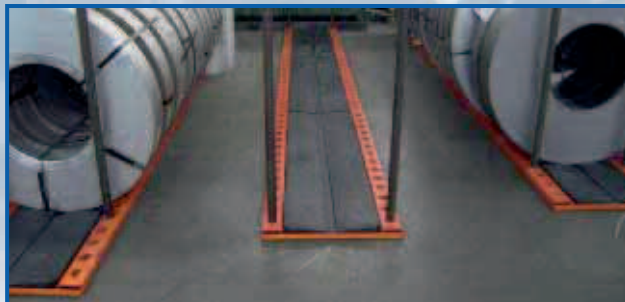
## KLP® STORAGEBLOCKS

Not all coils are stored in multiple levels. Sensitive material may not be stacked due to the risk of damage. Sometimes regular coils are stored temporarily awaiting further processing and slit coils are usually too narrow for stacking.

For these applications Lankhorst Mouldings have developed a wide range of KLP® Storageblocks and KLP® Oiltrays. These are V-shaped floor pads that can easily be installed in any warehouse. Sometimes they are fixed to the floor, but this is not always necessary.

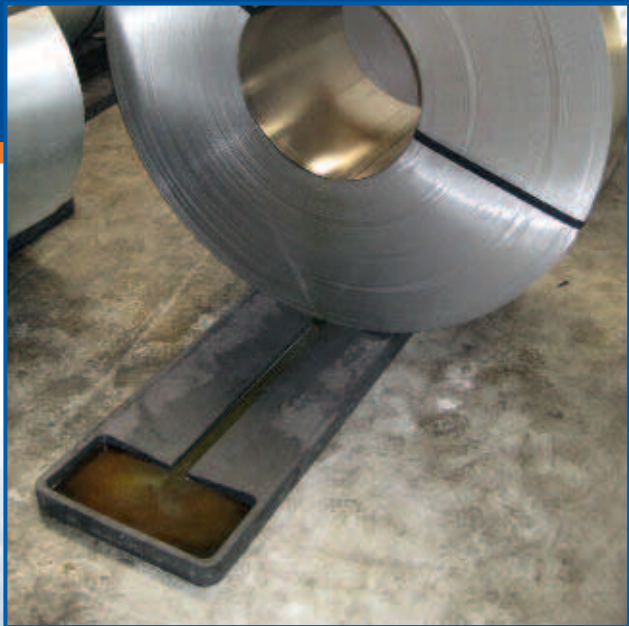
We offer our KLP® Storageblocks in a variety of dimensions (see table). Chock angles up to 15° allow optimal support for (slit)coils. KLP® Oiltrays usually have a groove in the centre of the product. This allows the drainage of oil which may drip from the coil.

For storage of narrow strip we recommend the use of a steel frame around our KLP® Storageblocks or KLP® Oiltrays. More information upon request.





# *your (slit)coils*



Product	Type (cm)	Length (mm)	Width (mm)	Height (mm)	Chock angle (°)	Diameter range (mm)	Maximum load (tons)
Storageblock	100 x 60 x 7	1000	600	70	7	500 - 2500	50
Storageblock	100 x 80 x 14	1000	800	145	15	500 - 2400	60
Storageblock HR	100 x 80 x 14	1000	800	145	15	500 - 2400	60
Oiltray	165 x 45 x 5	1655	455	55	5	500 - 2500	50
Oiltray	150 x 80 x 14,5	1500	800	145	12	500 - 2400	50
Oiltray*	150 x 45 x 5	1500	455	55	6	500 - 2500	50
Oiltray HR*	150 x 45 x 5	1500	455	55	6	500 - 2500	50

\* available in three models.  
HR = Heat Resistant up to 110°C.





## RESEARCH & DEVELOPMENT QUALITY CONTROL PRODUCT SUPPORT

Development and manufacturing of safe coil storage systems is an on-going process that needs strong Research & Development and Quality Control departments. Our engineers use 3D CAD systems and finite element analyses for new developments. During and after manufacturing our quality engineers regularly perform high pressure tests to ensure that all of our products comply with the highest standards.

### **KLP® Coilstacker software**

Most of our storage systems allow two or three level stacking of coils. Safety certificates, issued by German health and safety authority TÜV, ensure safety in the warehouse while using our systems. However, our customers often ask

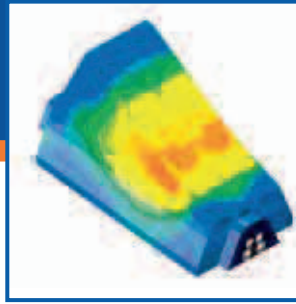
us how their coils, usually with a variety in diameters, should be stored on our blocks. As such a question cannot always be answered easily we have developed our KLP® Coilstacker software.

KLP® Coilstacker allows a simple yet effective simulation of your Lankhorst coil storage system and your coils. You define the coils (diameter + weight) and the program will show you whether the stacking is safe or not. It will also tell you how many coils may be stored per row, giving you easy insight into your total warehouse capacity.

KLP® Coilstacker software is available **free of charge** for all of our customers!







### Instant advice on safe coil storage

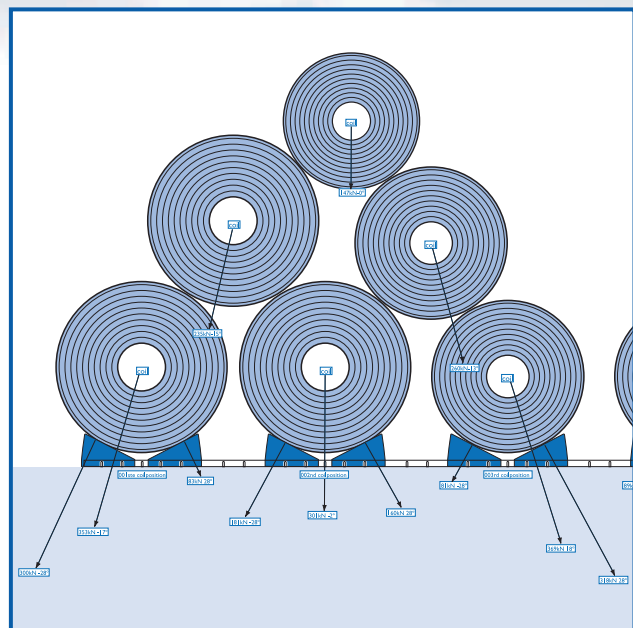
In this brochure you will find a variety of coil storage solutions, each with its own characteristics. To choose the best solution for your coil warehouse the following details may be very important:

- Master coils or slit coils
- Single level coil storage or stacking up to two or three levels
- Average coil diameter
- Average coil weight
- Coil temperature
- Covered warehouse or outside storage

To further assist you choosing the best solution for your situation you can find a questionnaire on our website - if you fill out this form online and send it to us we will get back to you instantly with our free advice. Our engineers' helpdesk is always available for instructions and special storage configurations.

[www.lankhorst-mouldings.com](http://www.lankhorst-mouldings.com)

ISO 9001  
ISO 14001  
OHSAS 18001  
BUREAU VERITAS  
Certification



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**KLP**®



## LANKHORST MOULDINGS ALL OVER THE WORLD

Our coil storage systems can be found all over the globe. It is our goal to offer our customers the best possible service, world wide. Therefore we have a team of highly qualified (sales) engineers in our office in Sneek, the Netherlands.

Besides the home office we have local representatives and stockholders in many countries like Austria, Spain, UK, Scandinavia, Italy, Turkey, Greece, Poland, USA, Canada, Mexico, Brazil, Egypt, South Africa, India, Russia, China, Japan, Korea, Malaysia and Australia.



## COIL STORAGE SYSTEMS