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TRUSS SYSTEM NT

RANDEK™ 

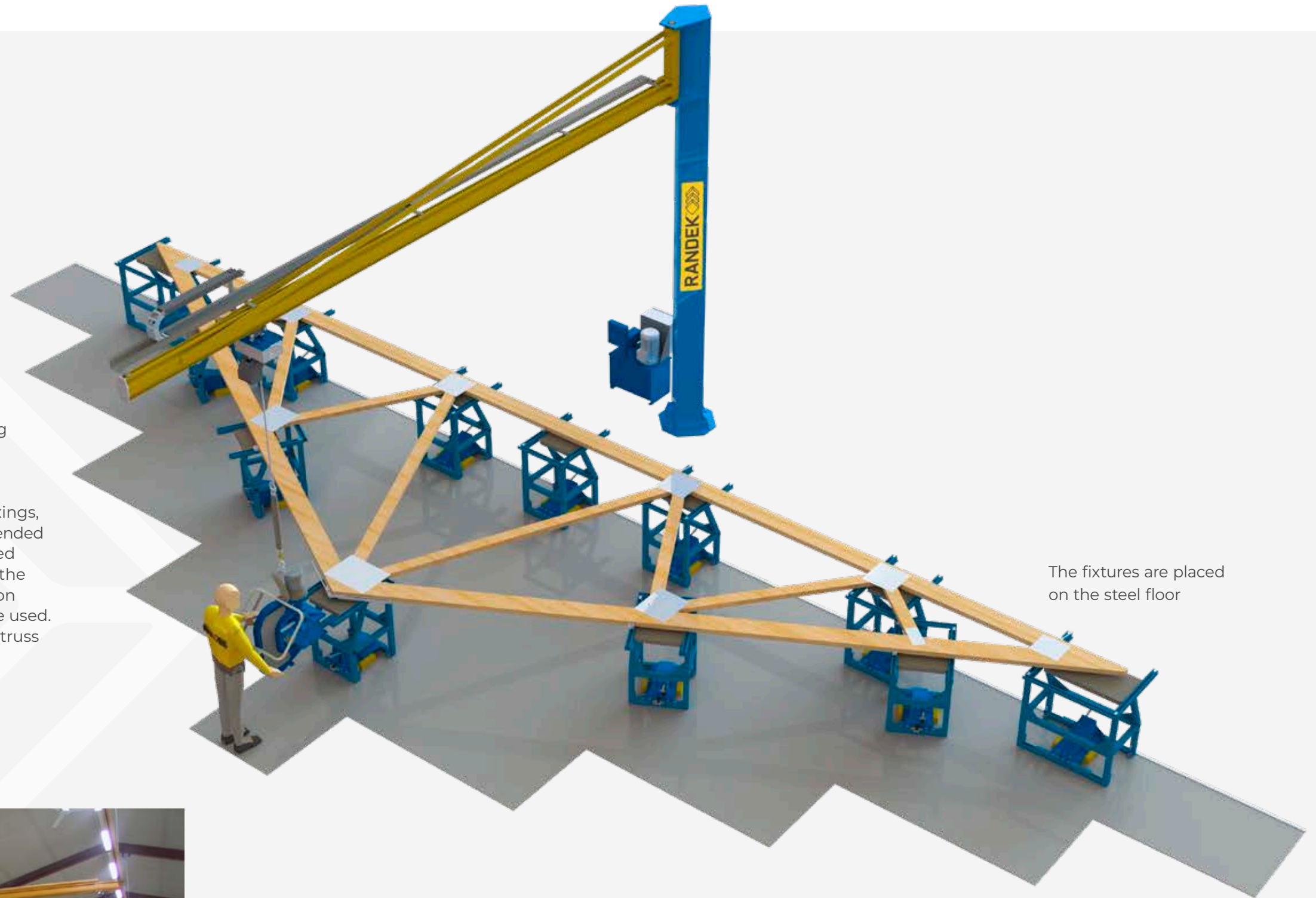
BUILDING THE FUTURE

TRUSS SYSTEM NT

INDUSTRIAL ROOF TRUSS MANUFACTURING

Randek Truss System NT produces roof trusses using C-press heads, movable magnetic fixtures on a steel floor and one of our many crane systems.

The truss frame is placed on permanent magnetic fixings, positioned at each of the truss joints. The C-press, suspended from one of the crane systems can either be motorised or moved by hand from fixture to fixture pressing all the joints. Optimal press and crane choice is dependant on the conditions of the factory and which nail plates are used. With accessories such as supports and fasteners, the truss is shaped into the correct form before pressing.



The fixtures are placed on the steel floor



Press head 35 tonne

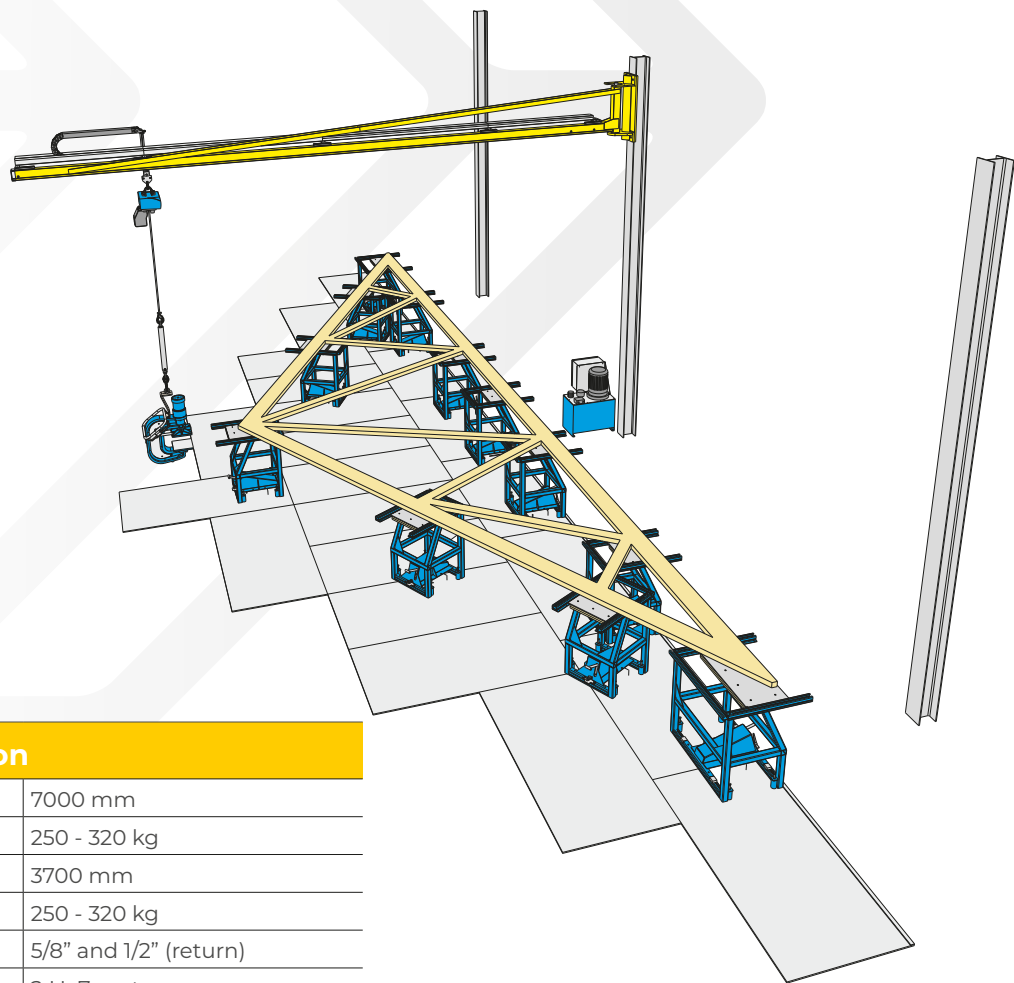
Press line in light overhead crane

- Press heads from 23 - 50 tonne
- Wall mounted crane, Column mounted crane, Overhead crane, Light overhead crane or Counter balanced crane
- Flexible system allows production of all types of trusses

PRESS LINE WITH WALL MOUNTED CRANE



Randek press line with wall mounted crane is a simple and yet functional solution for production of all types of trusses. The crane is clamped or bolted on existing wall columns at the desired height. The crane is 7 metres and can take loads of up to 320 kg. It is equipped with cable chains where the wires and the hydraulic hoses run in a controlled manner. The working height of the press is adjusted with an electric chain hoist. A gas spring compensates the press stroke during the press cycle. The chain hoist makes it easy to lift the press over the truss to enable you to press from the inside of the truss.



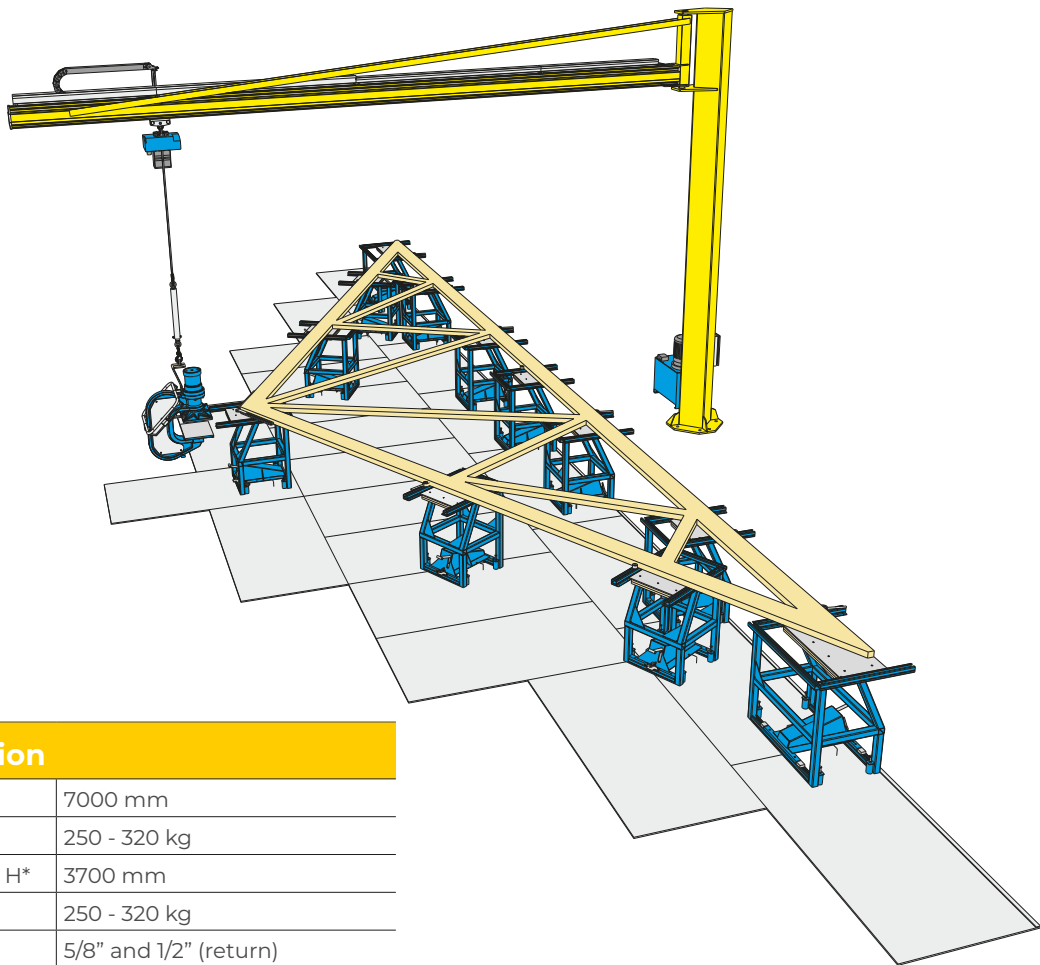
Technical Description	
Crane length	7000 mm
Crane - Max Load	250 - 320 kg
Crane - Min assembly height H*	3700 mm
Electrical Chain Hoist	250 - 320 kg
Hydraulic Hose - Coupling	5/8" and 1/2" (return)
Hydraulic Hose - Length*	2·H+7 meter
Consumption - Electrical	3x400 VAC +N+PE 20A 50 Hz

* H = Distance between floor and cranes lower edge

PRESS LINE WITH COLUMN MOUNTED CRANE



The column mounted crane is a good option when the existing wall columns are too weak or when you don't want to position the station along an existing wall. The column is cast and bolted into the concrete floor and can be ordered in whichever height is required. The crane is 7 metres and can take loads up to 320 kg. It is equipped with cable chains where the wires and the hydraulic hoses run in a controlled manner. The working height of the press is adjusted with an electric chain hoist. A gas spring compensates the press stroke during the press cycle. The chain hoist makes it easy to lift the press over the truss to enable you to press from the inside of the truss.



Technical Description	
Crane length	7000 mm
Crane - Max Load	250 - 320 kg
Crane - My assembly height H*	3700 mm
Electrical Chain Hoist	250 - 320 kg
Hydraulic Hose - Coupling	5/8" and 1/2" (return)
Hydraulic Hose - Length*	2·H+7 meter
Consumption - Electrical	3x400 VAC +N+PE 20A 50 Hz

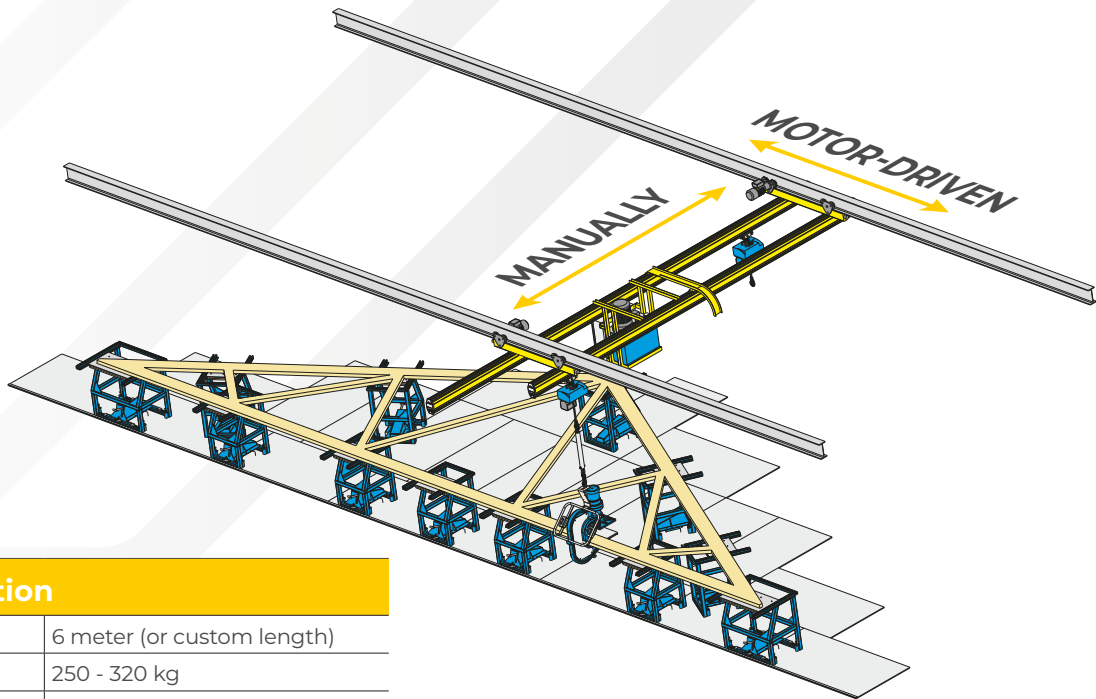
* H = Distance between floor and cranes lower edge

PRESS LINE WITH OVERHEAD CRANE



The **motorized overhead crane** is a good option for the heavier press heads (27 and 35 tonnes) since you do not have to drag the crane along the truss. The crane is operated with controls on the press head and high or low speed frequency controlled motors ensuring smooth acceleration and deceleration. The overhead crane is mounted on existing traverse path and is designed according to the individual need. The hydraulic aggregate is mounted between the two beams, hence it will travel along the whole work area. This could involve one or more press stations. The working height of the press is adjusted with an electric chain hoist.

A gas spring compensates the press stroke during the press cycle. The chain hoist makes it easy to lift the press over the truss to enable you to press from the inside of the truss.



Technical Description	
Crane length	6 meter (or custom length)
Crane - Max Load	250 - 320 kg
Crane - Min assembly height H*	3700 mm
Electrical Chain Hoist	250 - 320 kg
Hydraulic Hose - Coupling	5/8" and 1/2" (return)
Hydraulic Hose - Length*	H+B/2+2,5 meter
Consumption - Electrical	3x400 VAC +N+PE 20A 50 Hz

* H = Distance between floor and cranes lower edge
B = Width of crane (6 meter).

PRESS LINE WITH LIGHT OVERHEAD CRANE



The **light overhead crane** is a good option for the lighter press heads (23 - 27 tonne) as it lacks motor driven functionality. The light overhead crane has a very low weight, thus making it very easy to move around. The low build height of the system makes the crane ideal for production buildings with low ceiling height. The lengthwise beams are fixed in the existing trusses of the building.

The working height of the press is adjusted with an electric chain hoist. A gas spring compensates the press stroke during the press cycle. The chain hoist makes it easy to lift the press over the truss to enable you to press from the inside of the truss.



Technical Description	
Crane length	6 meter (or custom length)
Crane - Max Load	250 kg
Crane - Min assembly height H*	3700 mm
Electrical Chain Hoist	250 kg
Hydraulic Hose - Coupling	3/4" and 5/8" (return)
Consumption - Electrical	3x400 VAC +N+PE 20A 50 Hz

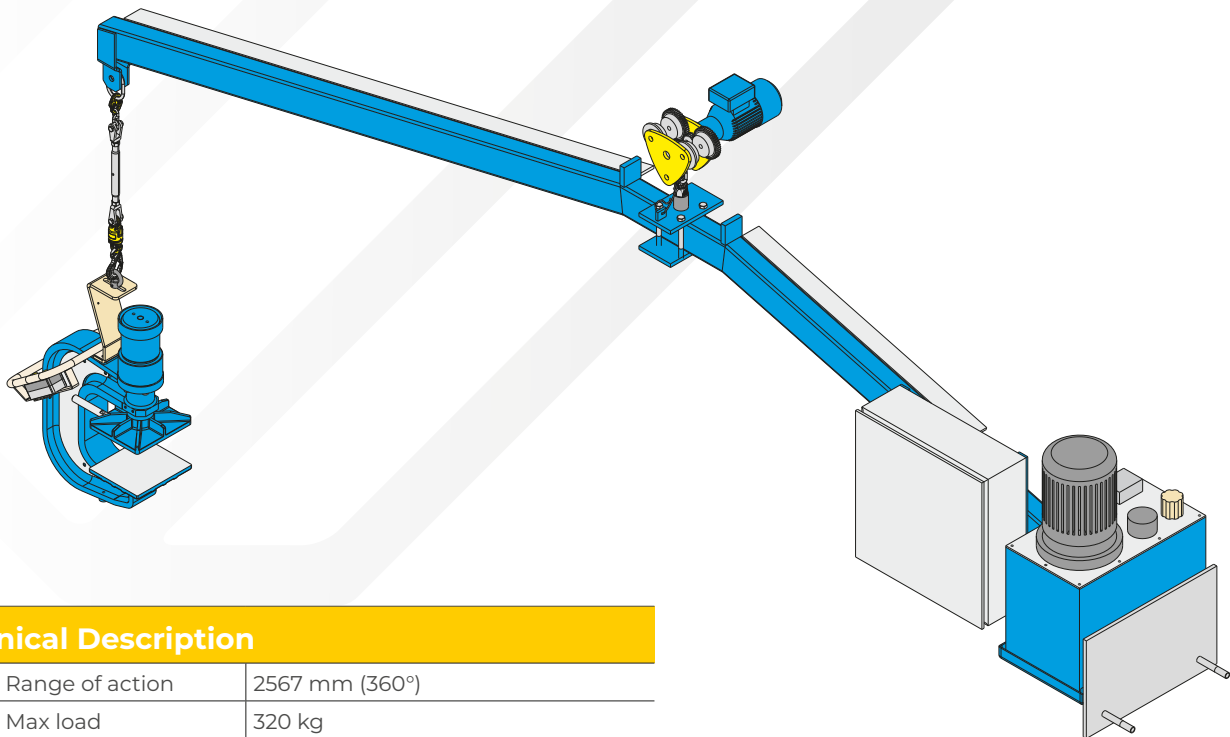
* H = Distance between floor and cranes lower edge

PRESS LINE WITH COUNTER BALANCED CRANE



Just like the overhead crane, the counter balanced crane is a motor driven crane and holds press heads from 23 to 35 tonnes. The crane is operated with controls on the press head which powers a frequency controlled motor in high or low speed. ensuring smooth acceleration and deceleration.

The counter balanced crane is mounted on a existing traverse path directly above the production area. The hydraulic aggregate is mounted on reverse of the crane, acting as balance. Since the crane is mounted above the traverse path, the operating area spans the length of the traverse meaning it can cover one or mulitple press stations. Height adjustment is made with the help of the chain and a turnbuckle.

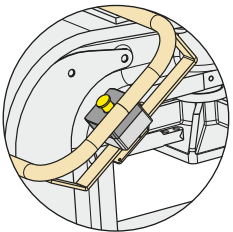
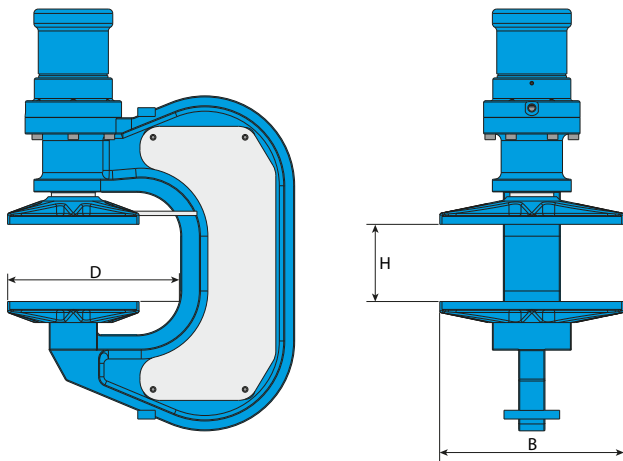


Technical Description	
Crane - Range of action	2567 mm (360°)
Crane - Max load	320 kg
Hydraulic hose - Couplings	5/8" and 1/2" (return hose)
Hydraulic hose - Length*	23 tonne = H+B/2+2,5 meter 27 and 35 tonne = H+B/2+2,5 meter
Consumption - Electrical	3x400 VAC +N+PE 20A 50 Hz
* H = Distance between floor and cranes lower edge	

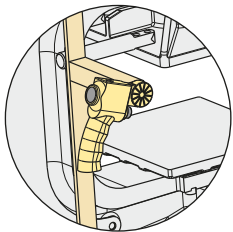
PRESS HEAD

A press that is used for manufacturing roof trusses is repeatedly exposed to enormous forces. For this reason, our hydraulic presses are extremely robust, while the C shaped design makes them easy and flexible to use. The maximum press power is between 23 and 50 tonnes depending on the model. The presses are particularly suited for splicing timber.

The press is activated with a two-handed control to prevent risk of injury.



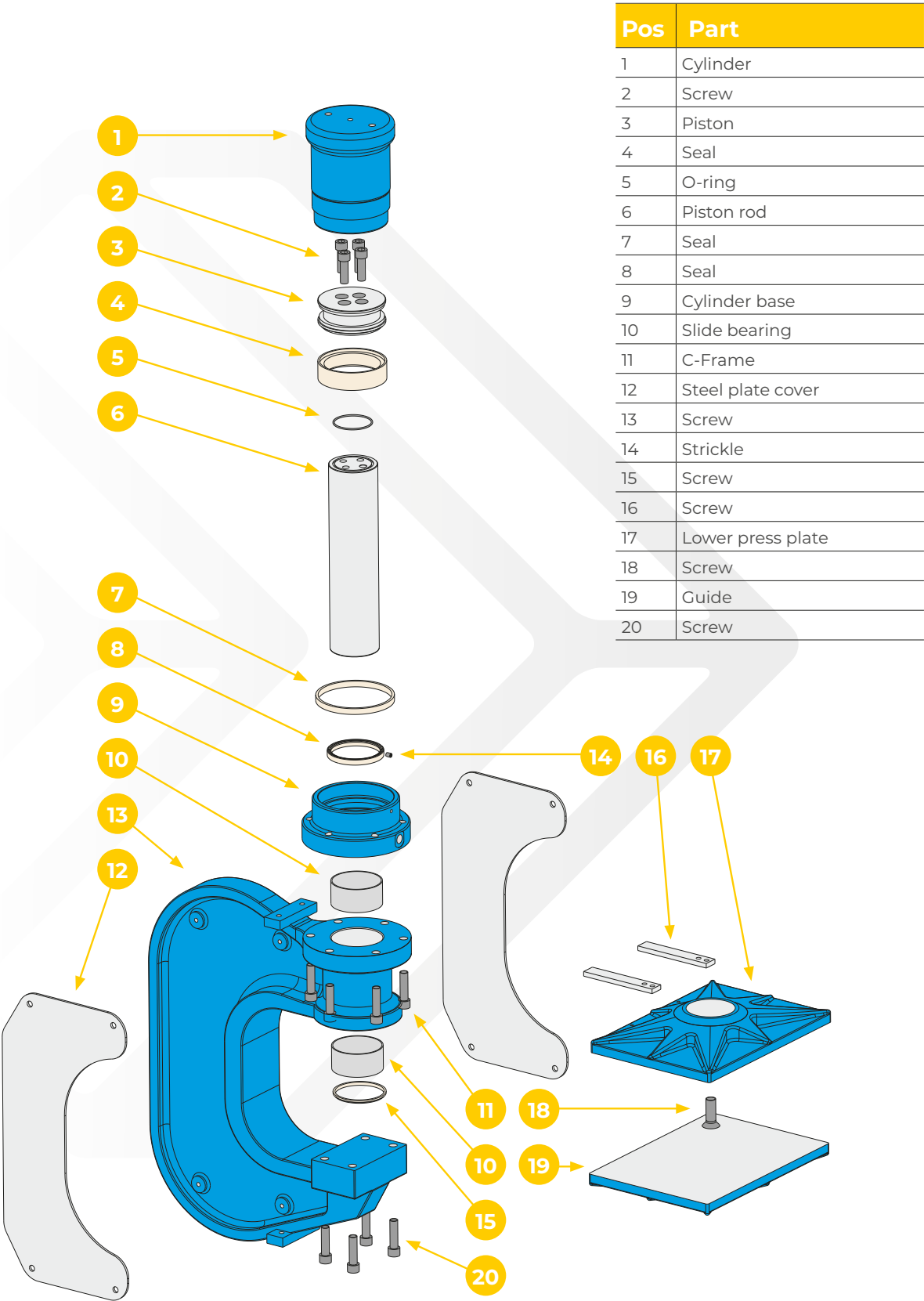
Push button
activation



Pistol grip
activation

Technical Description					
Press head	23 t	27 t	30 t	35 t	50 t
Max hydraulic pressure (bar)	242	175	195	227	196
Operation depth D (mm)	315	355	350	390	445
Operation height H (mm)	169	175	153	177	170
Nail plate width B (mm)	260	400	400	420	460
Weight (kg)	126	190	200	240	450

PRESS HEAD - SPARE PARTS

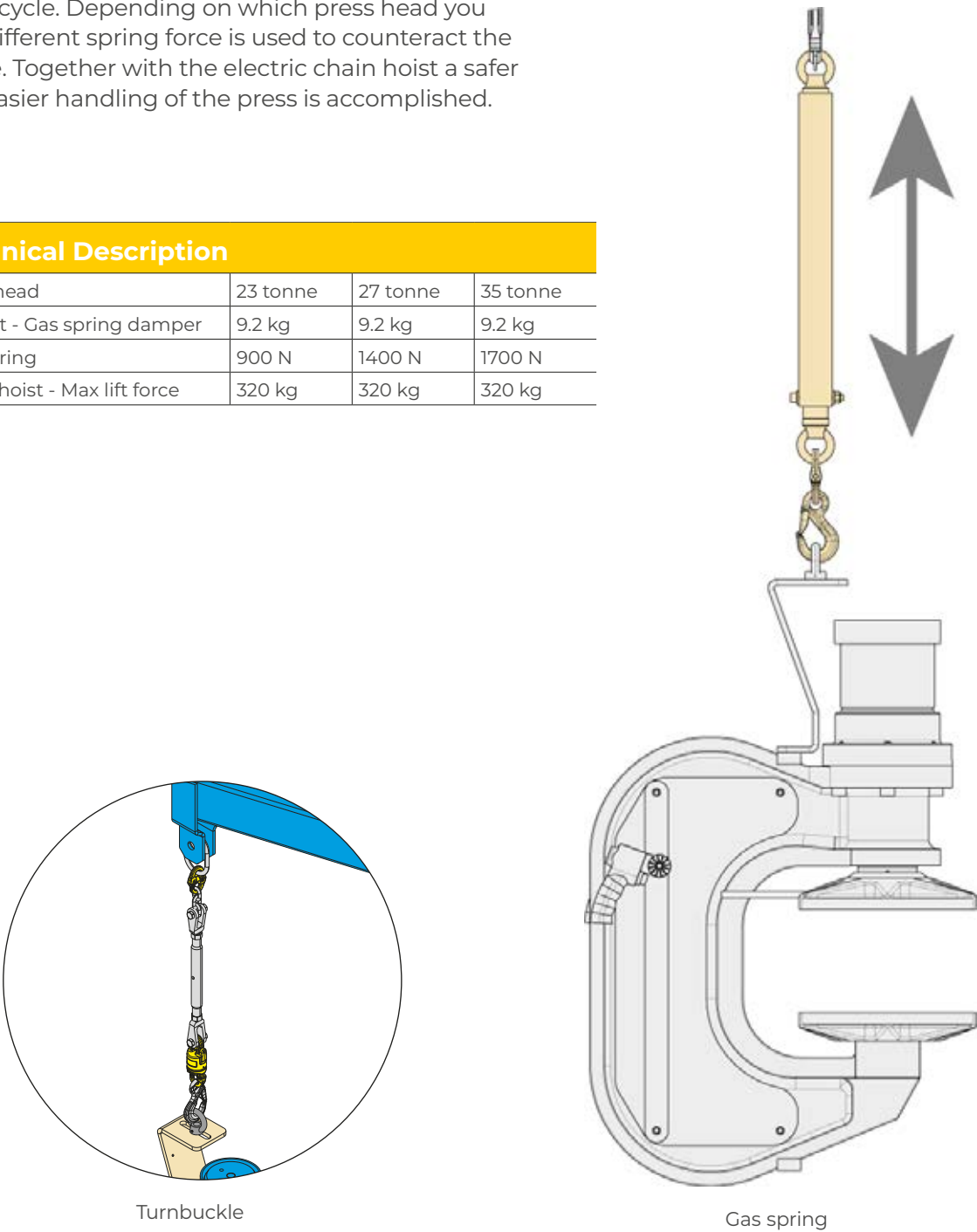


Pos	Part
1	Cylinder
2	Screw
3	Piston
4	Seal
5	O-ring
6	Piston rod
7	Seal
8	Seal
9	Cylinder base
10	Slide bearing
11	C-Frame
12	Steel plate cover
13	Screw
14	Strickle
15	Screw
16	Screw
17	Lower press plate
18	Screw
19	Guide
20	Screw

PRESS SUSPENSION

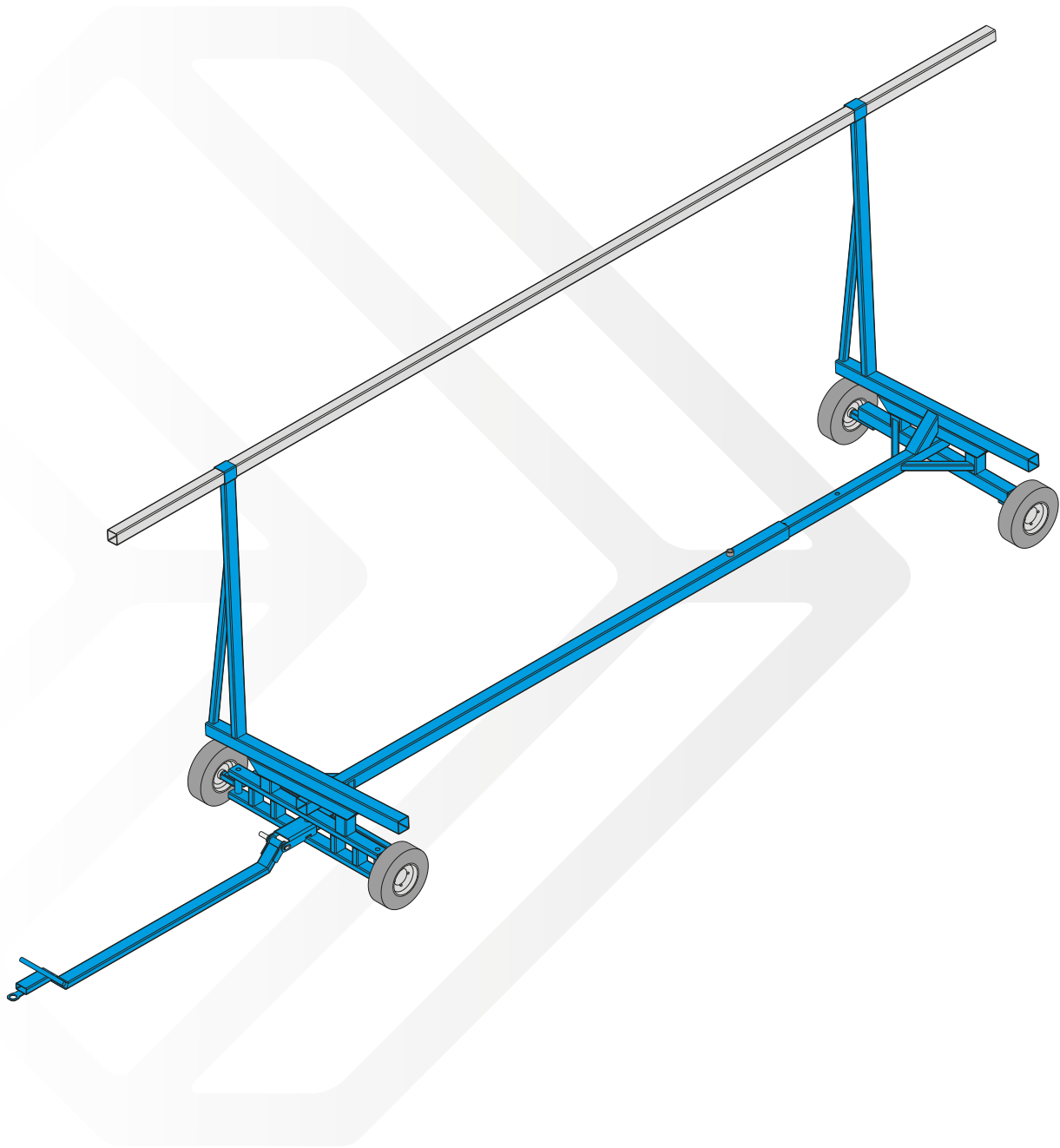
The gas spring is an upgrade from previous suspensions with spring balancers to compensate the press stroke. The much more robust gas spring improves sustainability and the function of the press cycle. Depending on which press head you use, different spring force is used to counteract the stroke. Together with the electric chain hoist a safer and easier handling of the press is accomplished.

Technical Description			
Press head	23 tonne	27 tonne	35 tonne
Weight - Gas spring damper	9.2 kg	9.2 kg	9.2 kg
Gas spring	900 N	1400 N	1700 N
Chain hoist - Max lift force	320 kg	320 kg	320 kg



TRUSS TROLLEY

Randek truss trolley is a simple but flexible wagon with sturdy wheels and a fork lift coupling. The trusses are loaded onto the trolley on tilted beams against a support. The distance between the beams can be adjusted from 5-8 meters to accommodate different truss sizes. Maximum stack width is 1500mm.



Technical description		
Press	Min	Max
Stack length*	4980 mm	7980 mm
Stack Width	1500 mm	

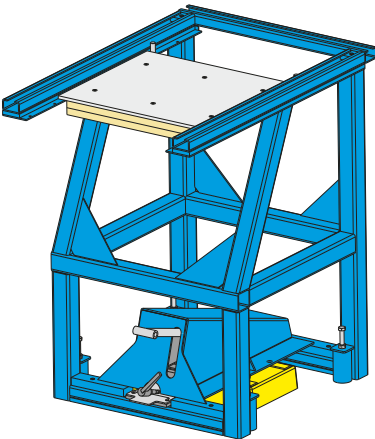
* Distance between beams

FIXTURES

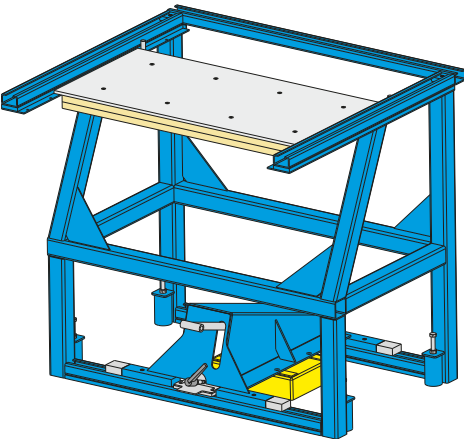
Randek fixtures are equipped with permanent magnets and are locked against a 10 mm thick steel floor. The fixtures come in different models and sizes and while unlocked, are very easy to move around the steel floor. The magnet is lifted from the floor with a hydraulic jack and is easily released with a foot pedal. The NTD-fixture is available in two sizes, 550 mm and 900 mm. A normal setup of a press station consists of ten 550 mm fixtures and two 900 mm fixtures. The wider fixture is a good alternative at the foot of the truss where the angles get shallow and long. On top of the fixtures, you can place supports, quick grip fasteners, excentric fasteners and other tools to align and mould the timber to the correct shape before you press the truss.

Model	Width	Height
NTD	550 mm	832 mm
NTD	900 mm	832 mm
NTP	615 mm	890 mm
Round Support		
Truss-Top Support		
Long Support		
Quick Grip Fastener		
Excentric Fastener		

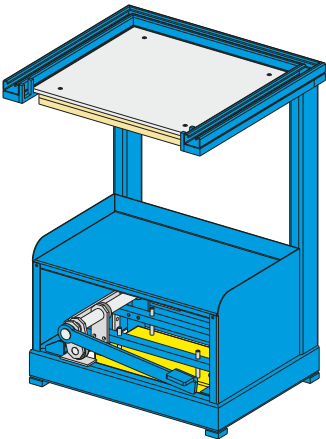
The fixtures are placed on a 10 mm thick welded leveled steel floor.



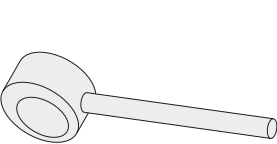
NTD550



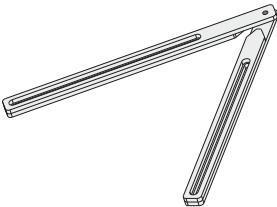
NTD900



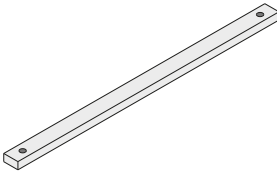
NTP615



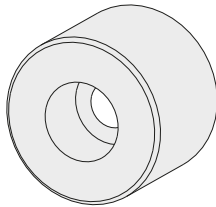
Excentric Fastener



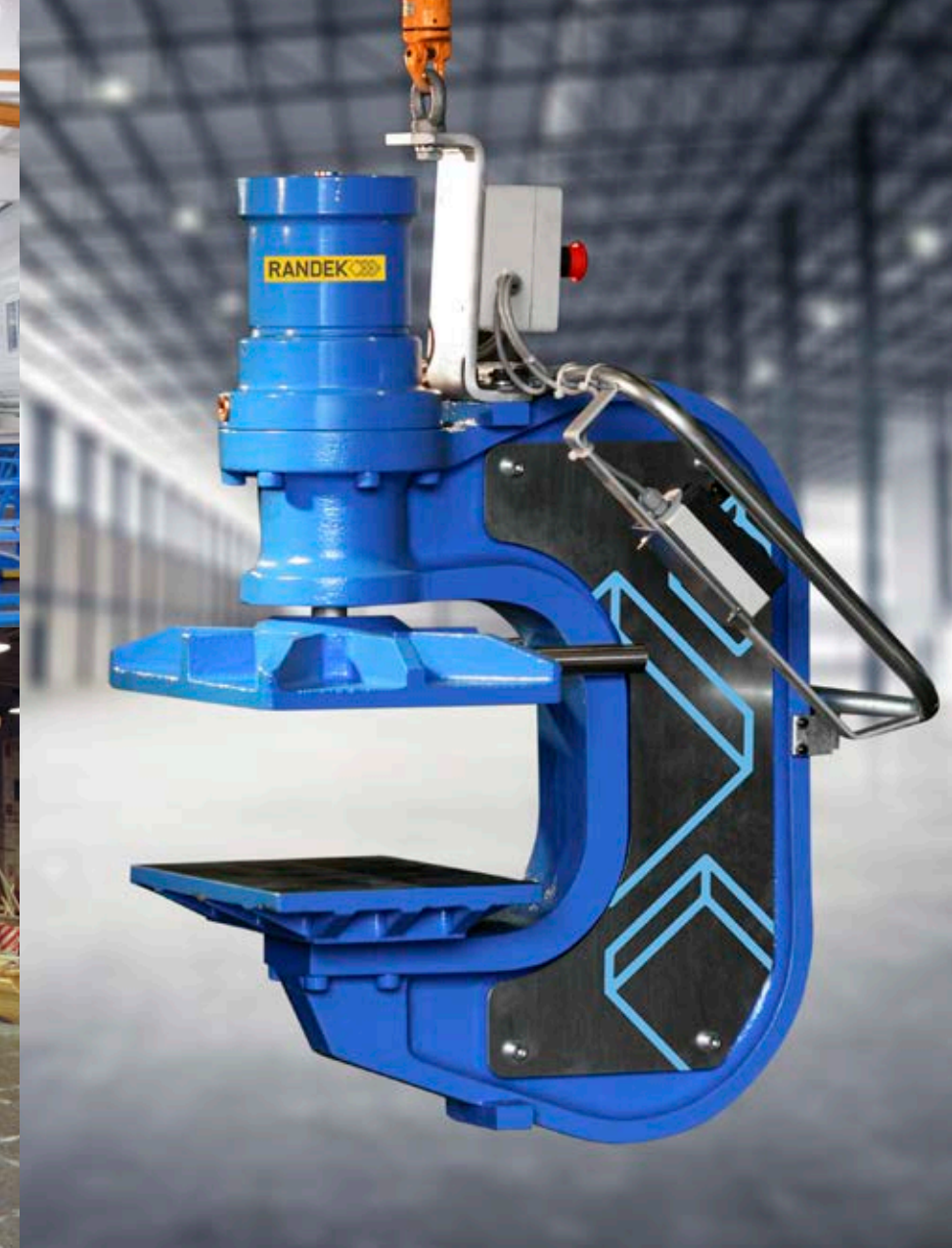
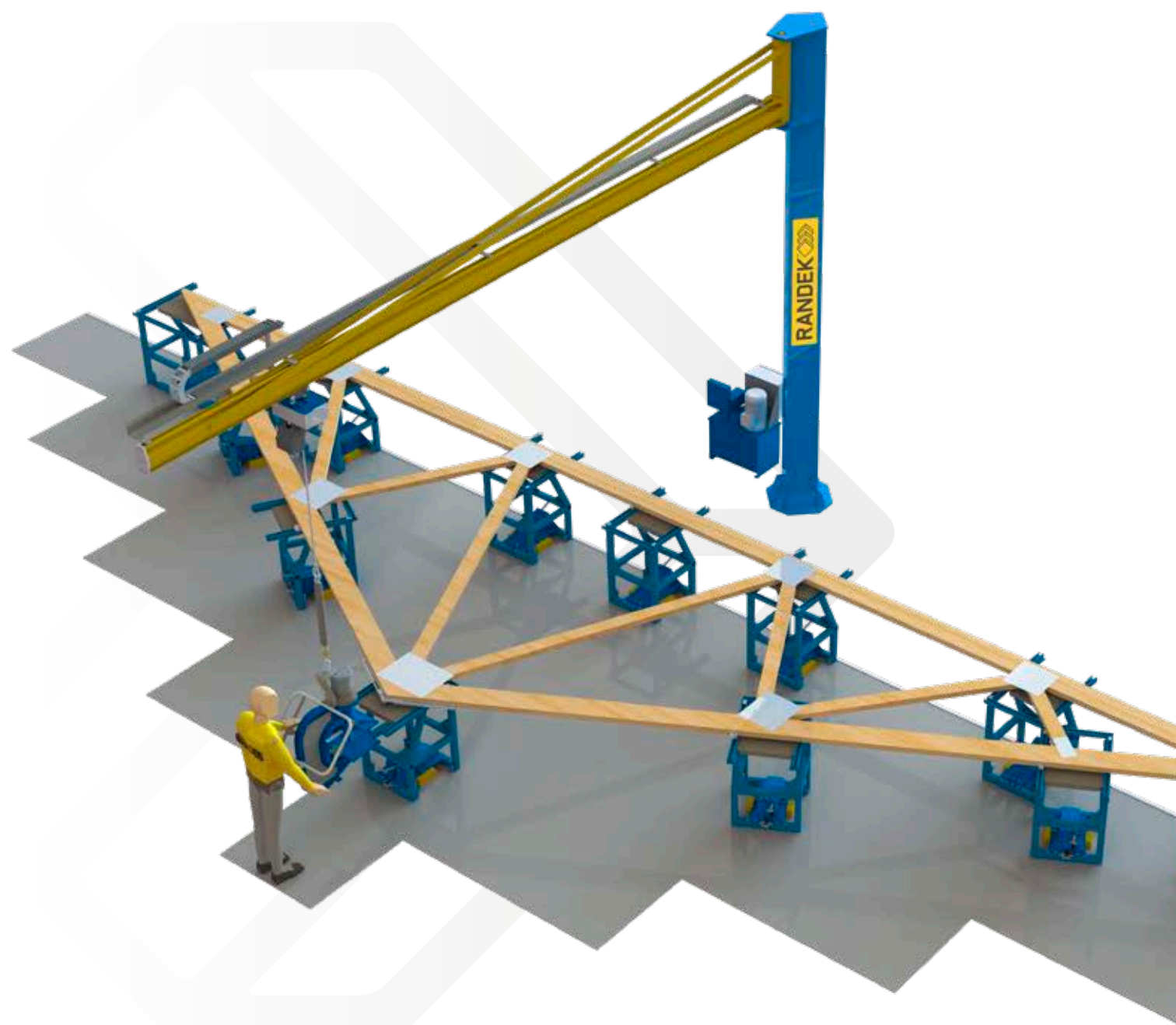
Truss-Top Support



Long Support



Round Support



SWEDISH QUALITY LASTS

Randek are pioneers in creating innovative automation solutions for customers within the prefabricated house manufacturing industry since the 1940s. Today, Randek is one of the world's leading suppliers of high-performance machines, robotic solutions and complete systems with production lines holding several world records in production capacity.

PRODUCTS/SYSTEM



CUT SAWS

Sturdy reliable cut saws delivered to house and roof truss manufacturers all over the world. From manual to fully automated



WALL, FLOOR AND ROOF PRODUCTION LINES

A comprehensive product range with tailor-made systems for prefab manufacturing of walls, floors and ceilings. From manual to fully automated.



ROBOTIC SYSTEM

Randek Robotics develop advanced systems in robotic automation. Delivering efficiency to customers in Europe, China, North and South America since the 1990s.



ROOF TRUSS SYSTEM

Equipment for traditional and effective manufacturing of roof trusses and a revolutionising automated roof truss production system.



BUTTERFLY TABLES

Innovative patented wall-turning tables. From moderate manual wall-turning tables to advanced with a range of options.

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GLOBAL SUPPORT



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