

# Rollerbeds



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# PEMA Rollerbeds

Rollerbeds provide assistance in the handling of containers, tubes, pipes and other revolving work-pieces during welding, painting, blasting and assembly. By means of a rollerbed set, work-pieces can always be placed in the most advantageous working position. Use of PEMA rollerbeds also reduces set-up and handling times to minimum.

## Extensive Range

PEMA offers a wide range of rollerbed models to handle varying weights, diameters and shapes of rotating work-pieces. The range includes automatically and manually adjusted rollerbed types as well as special models designed for demanding product geometries and weights.

## Reliable Products

Durability, operational reliability and safety are all typical characteristics of PEMA rollerbeds. Designed and built for demanding machine shop operating environment, they fulfil the latest European EN safety-at-work regulations.

Loading capacities of PEMA rollerbeds range from 12 to 1 600 tons. Every operator can find a perfect solution from the comprehensive PEMA rollerbed selection.



*PEMA rollerbeds with PEMA column & booms complement even the most demanding hard automation solutions.*



## Accessories

PEMA rollerbeds can be equipped with a selection of accessories depending on the requirements of customer's production flows, used materials and the geometry of manufactured products.

All rollerbed models can be equipped with rail cars for enhancing the efficiency of production material flows. On rail cars, loaded rollerbeds are easily and rapidly transported between work stations without need for work-piece lifting. Rail cars also enable effortless handling of work-pieces of varying lengths within the work stations. The cars come in two unit types: powered with motorised motion (2D), or idler (I).

For preventing axial creeping of work-piece during rotation, the idler unit can be equipped with anti-creep solution.

Other accessories include foot pedal for start/stop of rotation and speed control, external control interface for integration with e.g. PEMA column & boom, and wireless remote control unit.

### Rollerbed Facts:

- Quality improvement - less finishing and repairing
- Accurate, safe and ergonomic
- Essential for all automated welding of cylindrical work-pieces by column & booms
- PEMA rollerbeds fulfil the requirements of the European EN-safety norm
- All PEMA rollerbeds come with CE-markings

### Accessories

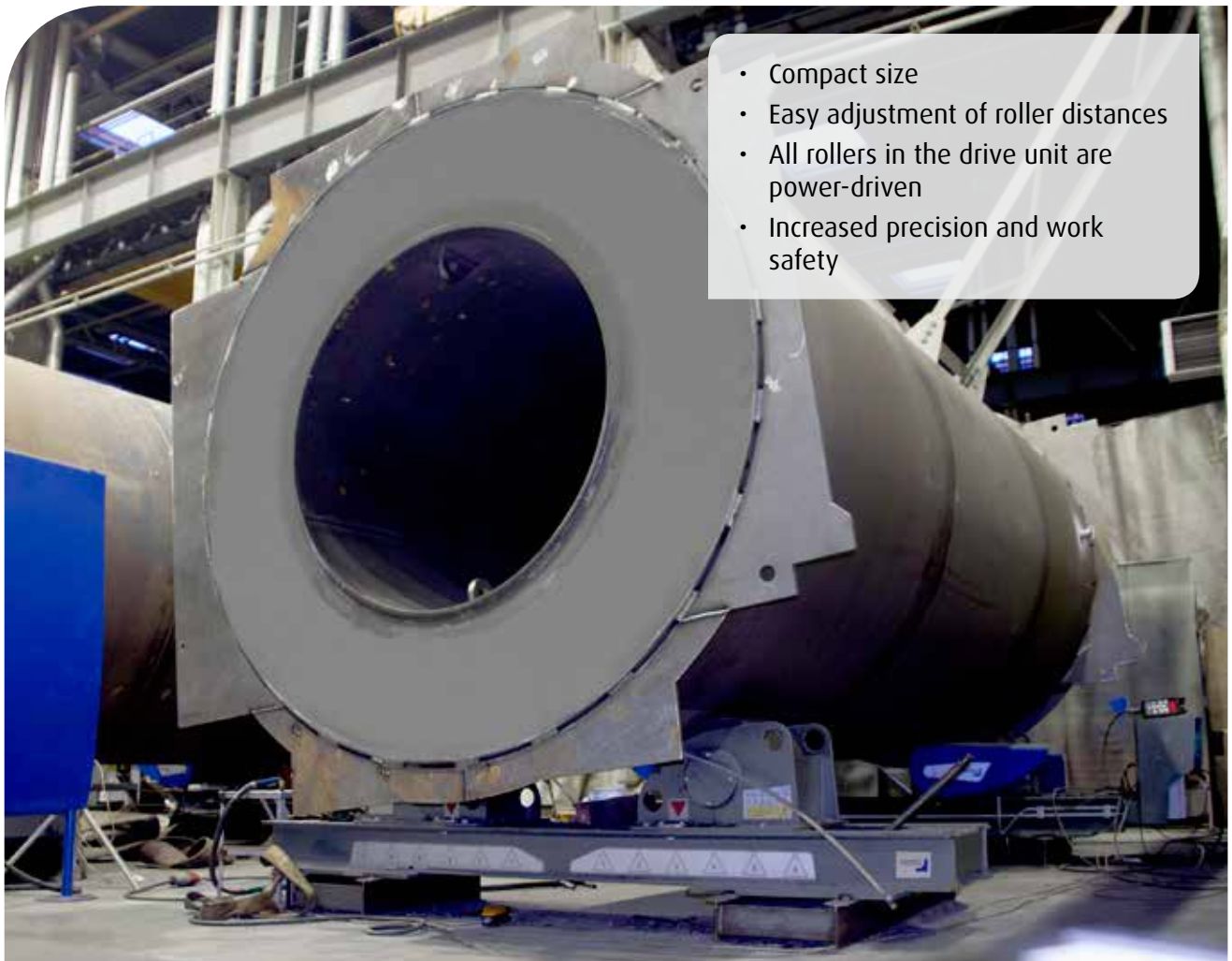
- Foot pedal for start/stop of rotation
- Foot pedal for speed control
- Rail car units, drive and/or idler
- Automatic anti-creep equipment
- Fit-up equipment
- External control interface for rotation integration
- Wireless remote control unit
- Special models for ATEX environment



PEMA rollerbeds can be equipped with rail cars to enhance the efficiency of production material flows.

## N Series

PEMA N series of conventional rollerbeds make up a basic range of solutions for handling a wide variety of cylindrical work-pieces. They occupy little space and feature a handy manual diameter adjustment. Loading capacities range between 12 and 1 600 tons.



- Compact size
- Easy adjustment of roller distances
- All rollers in the drive unit are power-driven
- Increased precision and work safety

*Heavy work-piece and a set of PEMA N50 rollerbeds*



*PEMA N12 rollerbed set, drive and idler units*



*Welding carried out by means of a column & boom and a set of heavy PEMA N rollerbeds*

## Basic Solution for Handling Cylindrical Work-pieces

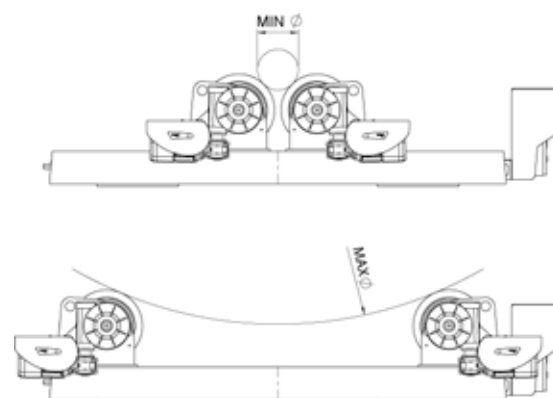
PEMA N series of conventional rollerbeds make up a range of basic solutions for handling cylindrical work-pieces such as pressure vessels and tanks in automated welding. They occupy little space thanks to their compact size. In the N series, roller distances are manually adjusted to accommodate varying work-piece diameters. The adjustments are stepless in the smaller models but the heavier rollerbeds come with stepped adjustments in order to ascertain appropriate settings of the rollers.

The N series loading capacity ranges from 12 tons up to even 1 600 tons. Heavier rollerbeds often form a part of complete PEMA hard automation welding solutions.

All PEMA rollerbed frames and parts are carefully machined. The structures are dimensioned using high safety factors. Smaller rollerbeds have polyurethane rollers and the heavier beds come with high quality steel rollers.

Powerful and accurate rotation is essential in high quality welding. In PEMA rollerbeds, this is ensured by high quality, inverter controlled AC drives and gears.

Every PEMA rollerbed model is delivered with a standard remote control unit.



PEMA N150 2D  
drive unit

		N12	N25	N50	N75	N150
Max load (ton/section)	drive unit	6	12,5	25	37,5	75
	idler unit	6	12,5	25	37,5	75
Rolling capacity (ton)		18	37,5	75	112,5	225
Max rotation force (kN)		8,5	18	40	50	110
Rotation speed range (mm/min)		100 - 2 000	100 - 2 000	100 - 2 000	100 - 2 000	100 - 2 000
Diameter range min-max (mm)	50% load	250 - 5 000	250 - 5 000	550 - 5 000	600 - 5 500	600 - 7 500
Diameter range min-max (mm)	100% load	250 - 5 000	400 - 5 000	800 - 5 000	1 100 - 5 500	1 100 - 7 500
Roller material		PU	PU	PU	PU	PU
Length (mm)	drive unit	3 350	3 350	3 560	3 820	4 670
	idler unit	2 840	2 840	3 030	3 410	4 200
Width (mm)	drive unit	680	680	1 130	1 120	1 430
	idler unit	400	400	700	700	880

Please contact us for **PEMA N300, N500, N700** and up to **1600 tons** technical information.

Download complete  
product data sheets from  
[www.pemamek.com](http://www.pemamek.com)



## A Series

PEMA A series of self-aligning rollerbeds are ideal for handling unbalanced, thin-walled and/or heavy work-pieces. The A series rollerbeds provide even weight distribution, constant rotation speeds and adaptability to a wide range of work-piece diameters without need for separate adjustment. Loading capacities range between 12 and 800 tons.



*Internal welding carried out with a set of PEMA A rollerbeds equipped with special Fit-up function and a PEMA column & boom*



*PEMA A rollerbeds ascertain even weight distribution on the work-piece.*



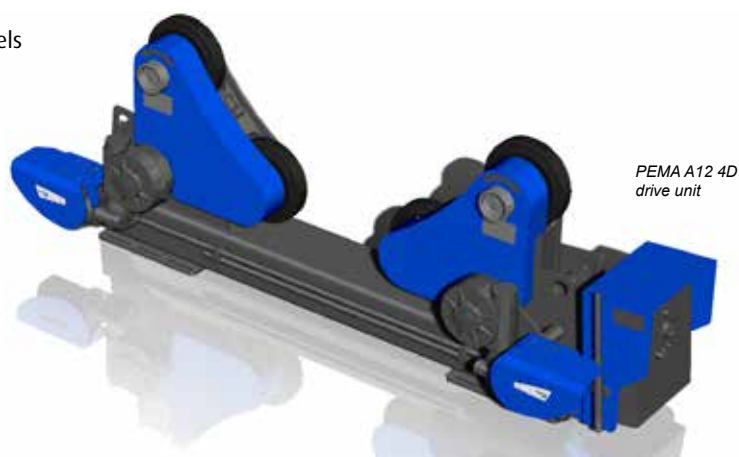
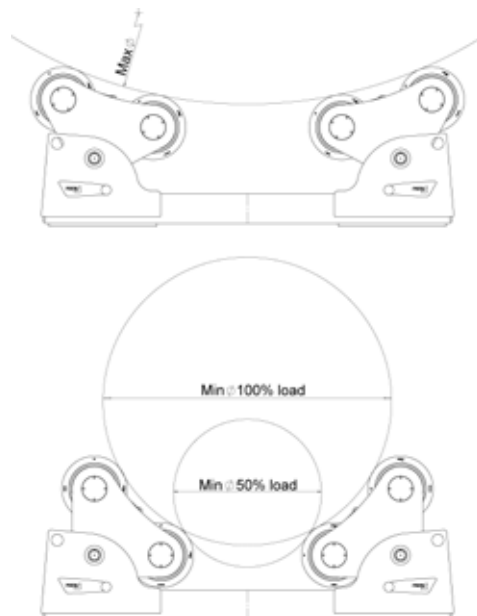
*PEMA products combine modern design and reliable technology for effective welding work.*

## Ideal for Difficult and Demanding Work-pieces

PEMA A self-aligning rollerbeds are ideal for difficult and demanding work-pieces. The A roller bogies automatically adjust to align with the diameter of the work-piece in question. Compared with other rollerbeds, PEMA A series provides superior weight distribution. This is a significant advantage in the handling of thin-walled work-pieces.

Either two or all four axles of the drive unit are power-driven. Four-wheel drive provides excellent grip and accurate rotation characteristics even for very unbalanced work-pieces. The A series rollerbeds with two-wheel drives suit well for wind energy tower and other conical work-piece handling.

PEMA rollerbeds are designed in close co-operation with the best welding production professionals. PEMA's extensive experience in designing and manufacturing welding automation solutions has been a key factor in the development of PEMA rollerbeds. Every PEMA product utilises high quality components from internationally recognised brands. All structures and components are series-produced and tested. Designed to the same high quality standards as PEMA positioners and column & booms, PEMA rollerbeds fulfil the requirements of the European EN safety norm. All PEMA rollerbeds come with CE-markings. Special ATEX models are available for use in areas with potentially explosive atmospheres, like shot-blasting and painting shops.



		A12	A25	A40	A80	A150	A300
Max load (tons/unit)	drive unit	6	12,5	20	40	75	150
	idler unit	6	12,5	20	40	75	150
Rolling capacity (tons)		18	37,5	60	120	225	450
Max rotation force (kN)		8,5	18	30	50	110	180
Rotation speed range (mm/min)		100 - 2 000	100 - 2 000	60 - 1 250	60 - 1 250	100 - 2 000	100 - 2 000
Diameter range min-max (mm)	50% load	700 - 5 000	700 - 5 000	1 000 - 6 000	1 000 - 6 000	1 000 - 7 000	2 000 - 8 000
	100% load	1 500 - 5 000	1 500 - 5 000	2 000 - 6 000	2 000 - 6 000	2 900 - 7 000	4 300 - 8 000
Roller material		PU	PU	PU	PU	PU	PU
Length (mm)	drive unit	2 830	2 870	3 220	3 230	3 770	4 500
	idler unit	2 280	2 280	2 790	2 800	3 460	4 100
Width (mm)	drive unit	710	780	1 120	1 210	1 410	1 780
	idler unit	400	400	700	700	750	1 100

Please contact us for **PEMA A400, A800** technical information.



## Make More with PEMA Production and Welding Automation

Pemamek Oy Ltd is a world-leading specialist in designing and manufacturing welding automation systems and equipment for various industry sectors.

PEMA products utilize modern robotized and automatic welding technology, and are uncompromisingly designed to increase customer value, competitiveness and production productivity. With over 45 years of activity, Pemamek has delivered welding automation systems to over 50 countries, more than 60% of which are outside of Europe.

PEMA systems and comprehensive customer support services are specifically engineered for the following industries:

- Heavy fabrication
- Mobile machinery
- Steel Structure manufacturing
- Shipbuilding
- Industrial boilers
- Wind energy
- Oil&Gas and Process

The time to start welding automation is now!

# Make More.



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