

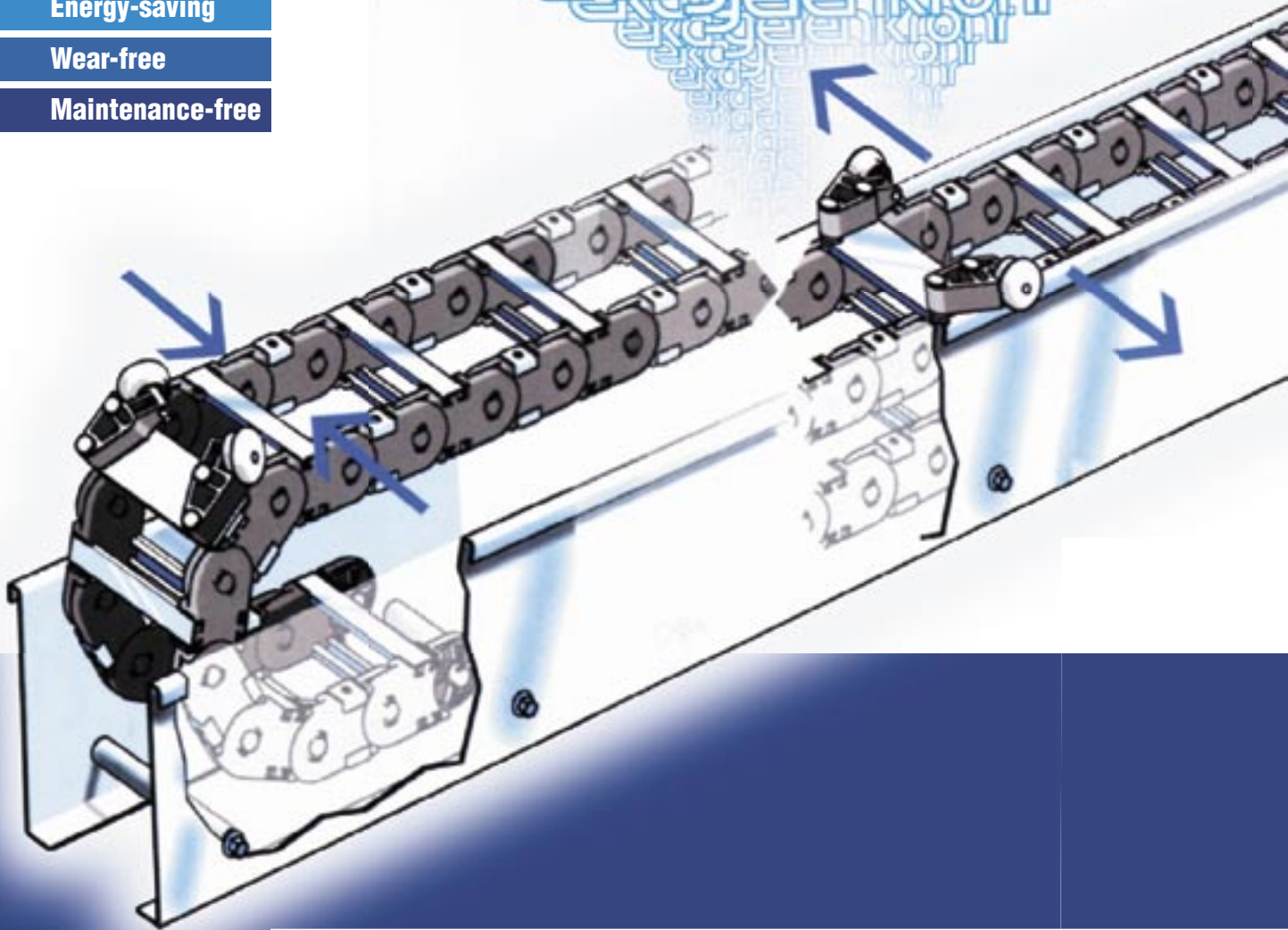
# ekdgelenkrohr

## SYSTEM MARATHON:

Energy-saving

Wear-free

Maintenance-free



## Chain without any sliding motion

- Travel up to 2,000 m
- Extreme travel speed up to 5 m/sec
- Reduction of driving power up to 90 %



Crane facilities

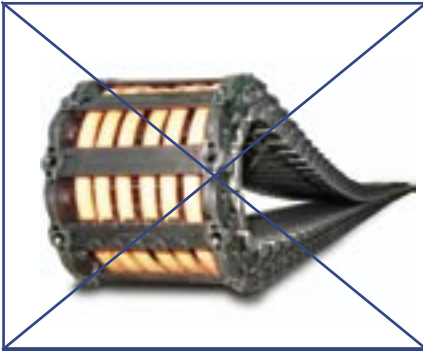


Mechanical engineering

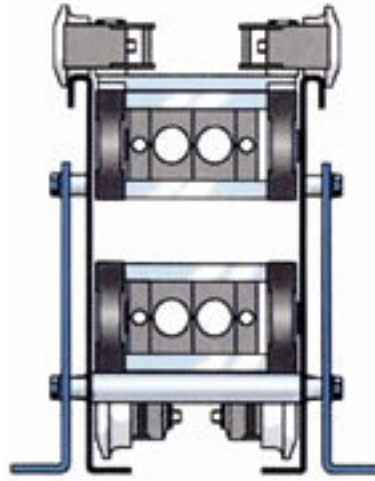


Shipbuilding and offshore

# SYSTEM MARATHON



Conventional chain with high friction when sliding



Only rolling friction at all time with SYSTEM MARATHON



Rollers bending inside chain

## 90 % reduction on driving force and wear SYSTEM MARATHON

SYSTEM MARATHON is guiding the chain with rollers throughout the complete travel. This design prevents the chain from any sliding motion of the chainbands. The only force that has to overcome is that of the reduced rolling friction (see area I and II). Ahead of the radius the rollers are lifted up from the trough. By using the chain polygonal effect the rollers are pulled inside the chain when entering the trough (area IV).

When returning the rollersets are pushing back out and sit down on the trough carrying the chain by rolling on it.

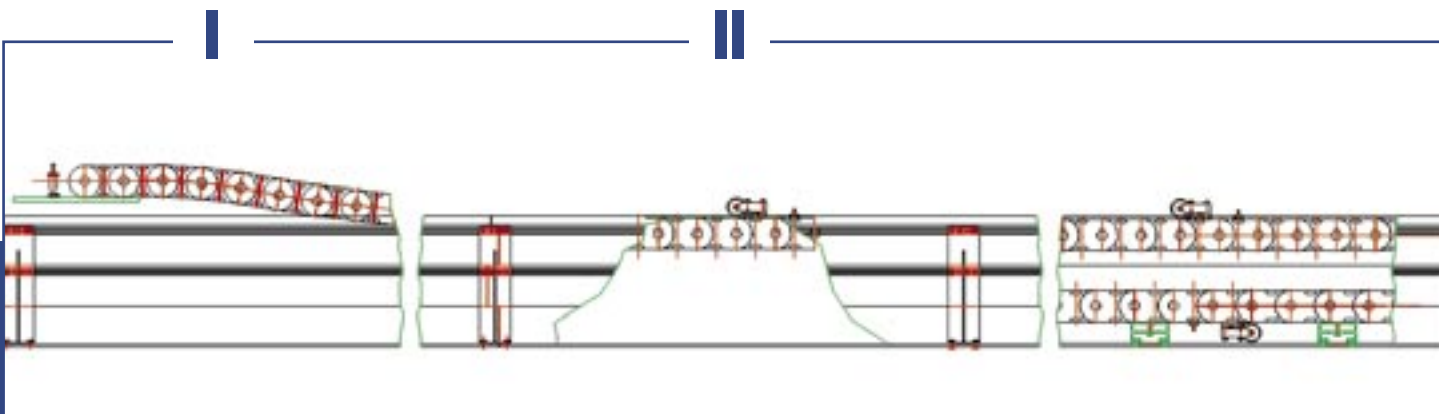
### Advantages:

- extremely long travels up to 2,000 m
- travel speed up to 5 m/sec
- reduction of driving force up to 90 %
- maintenance-free
- no wear through friction

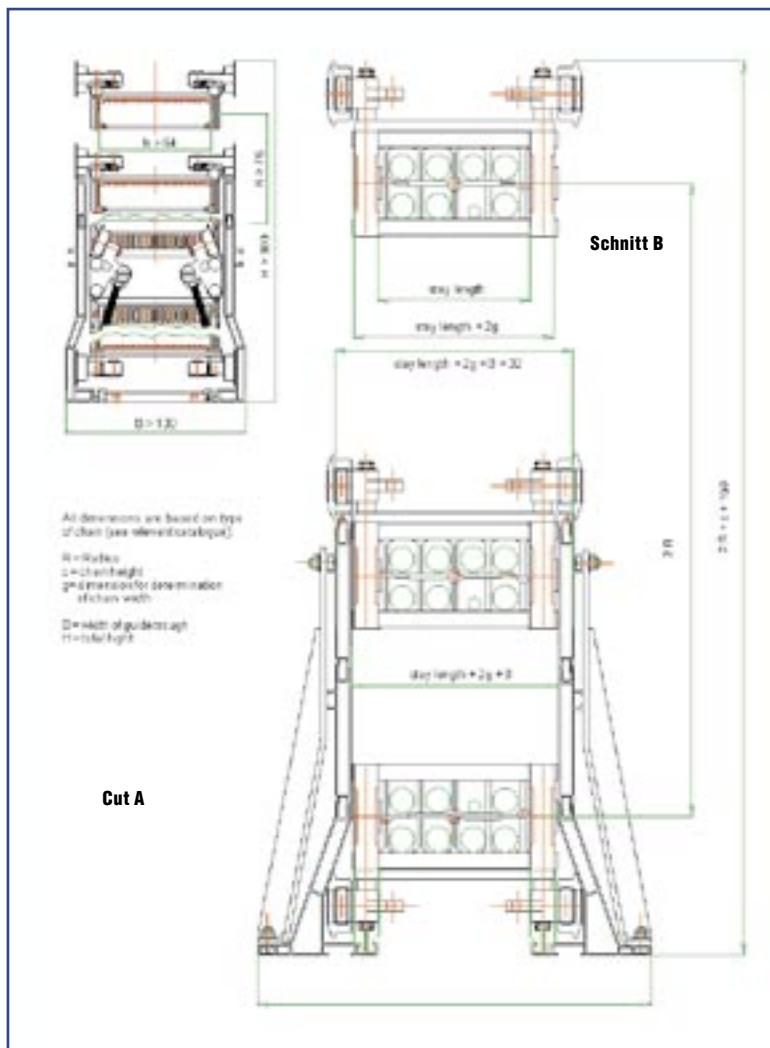
The ideal way of mounting will be to install the moving end as close as possible above the trough. Using the complete travel an adapted overlength of the system is required.

Inside the trough the chain is placed on the „chain support bridges“. These are also offering the necessary space for the rollers to rest between the chainband and the bottom of the trough.

The distance of these supports is depending on the type and weight of the chain.



Rollers sitting on the trough's smooth sides



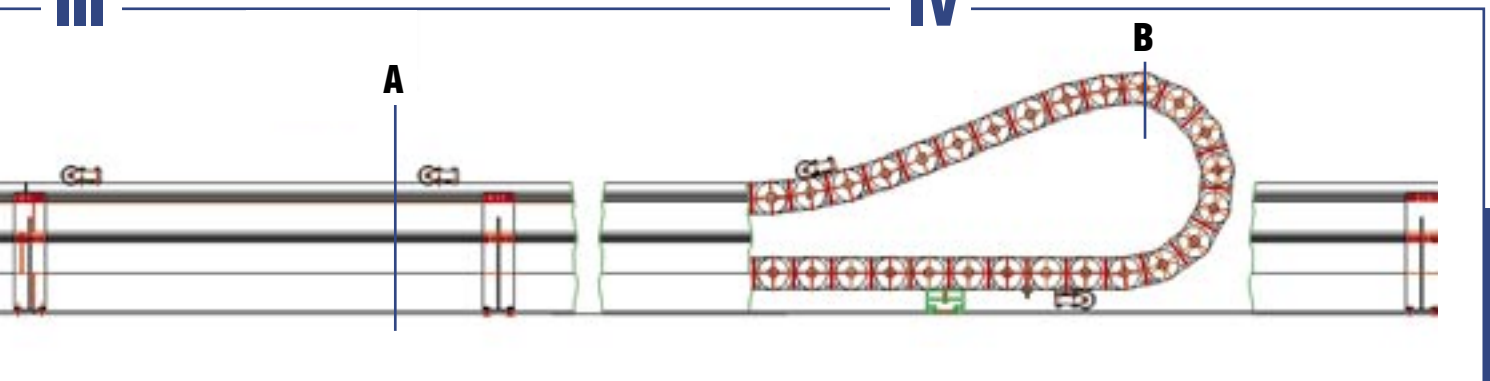
**SYSTEM MARATHON** is designed for SLE, PLE and PKK 220, 320 and 520 (design details may be taken from the relevant catalogues). Number and distance of the roller sets are depending on the chain size and weight of cables. Up to a total weight of 10 kg/m a distance of 2 m is alright. For larger total weight the distance has to be reduced.

For all those applications with lower load we have developed **SYSTEM MINI-MARATHON**. Small and light chains (such as 120 series and Kolibri) fitted with this **MINI-MARATHON** become an ideal solution for those applications where other existing systems show problems. Also here distance and number of roller sets are depending upon additional weight of cables.

Please send all inquiries about layout for **SYSTEM MARATHON** to our technicians by using the questionnaire on the back page.

III

IV



Please fax this questionnaire MARATHON to: +49 (0) 2 11 - 24 10 88

Please specify the following data for providing the best solution:

Place:	inside	<input type="text"/>	
	outside	<input type="text"/>	
Media:	water	<input type="text"/>	Ambient temperature: <input type="text"/> °C
	acids	<input type="text"/>	Others: <input type="text"/>
	oil	<input type="text"/>	

Travel in m:	<input type="text"/>	
<i>Min. chainlength = 1/2 travel + 4 x radius (fixed point at mid travel)</i>		
Speed:	<input type="text"/> m/s	Acceleration: <input type="text"/> m/s <sup>2</sup>
Number of cycles:	<input type="text"/>	<i>/ h / min / s (please underline correct unit)</i>

Limitations for chain size:		
inside chain width (mm):	<input type="text"/> mm	Required radius: <input type="text"/> mm
inside chain high (mm):	<input type="text"/> mm	<i>(Please consider min. radius of cables and hoses)</i>
max. space (mm):	<input type="text"/> mm	
weight, number and diameters of lines::	<input type="text"/>	

**Sender:**

company: _____	date: _____
_____	
person in charge: _____	department: _____
phone: _____	fax: _____
e-mail: _____	



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