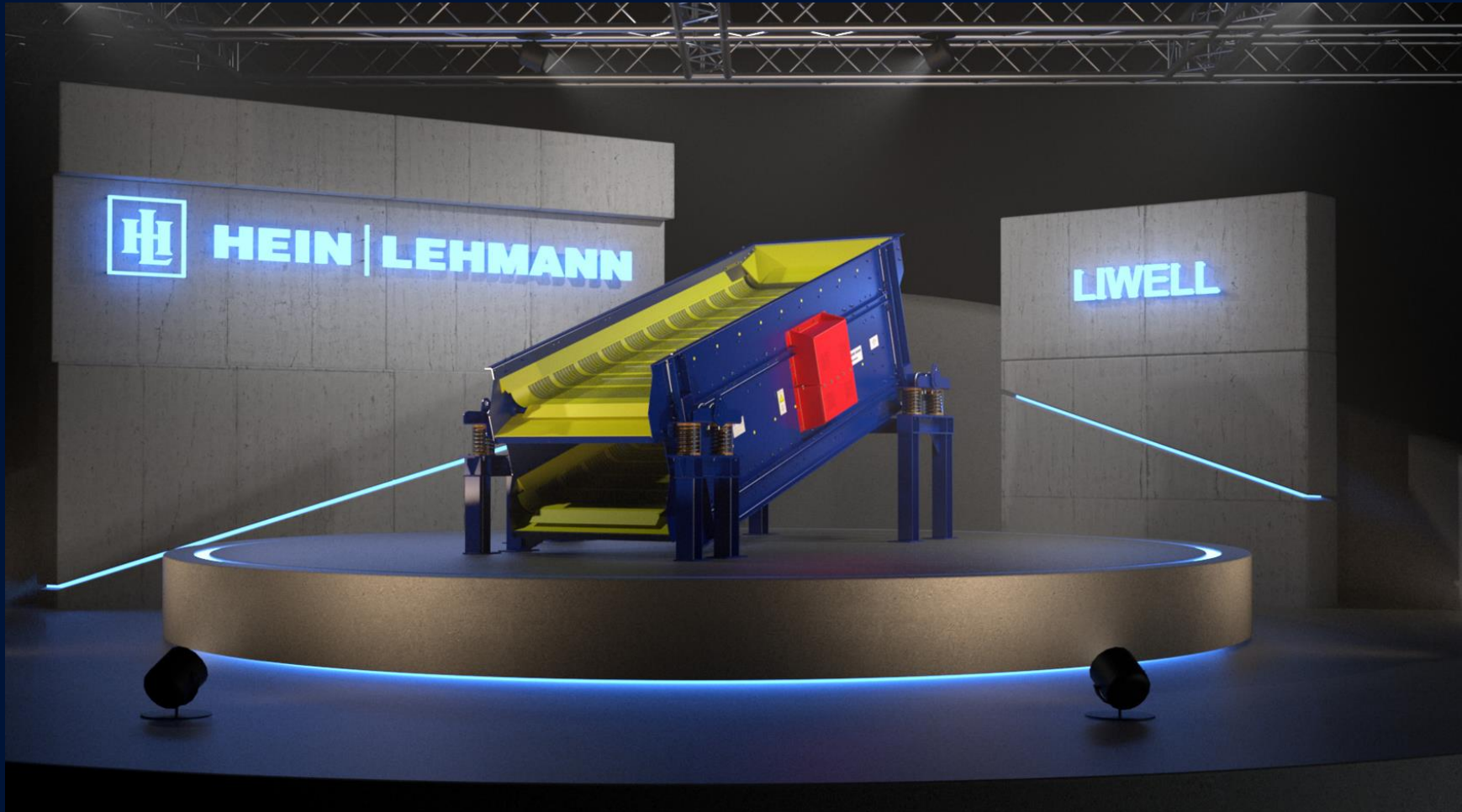


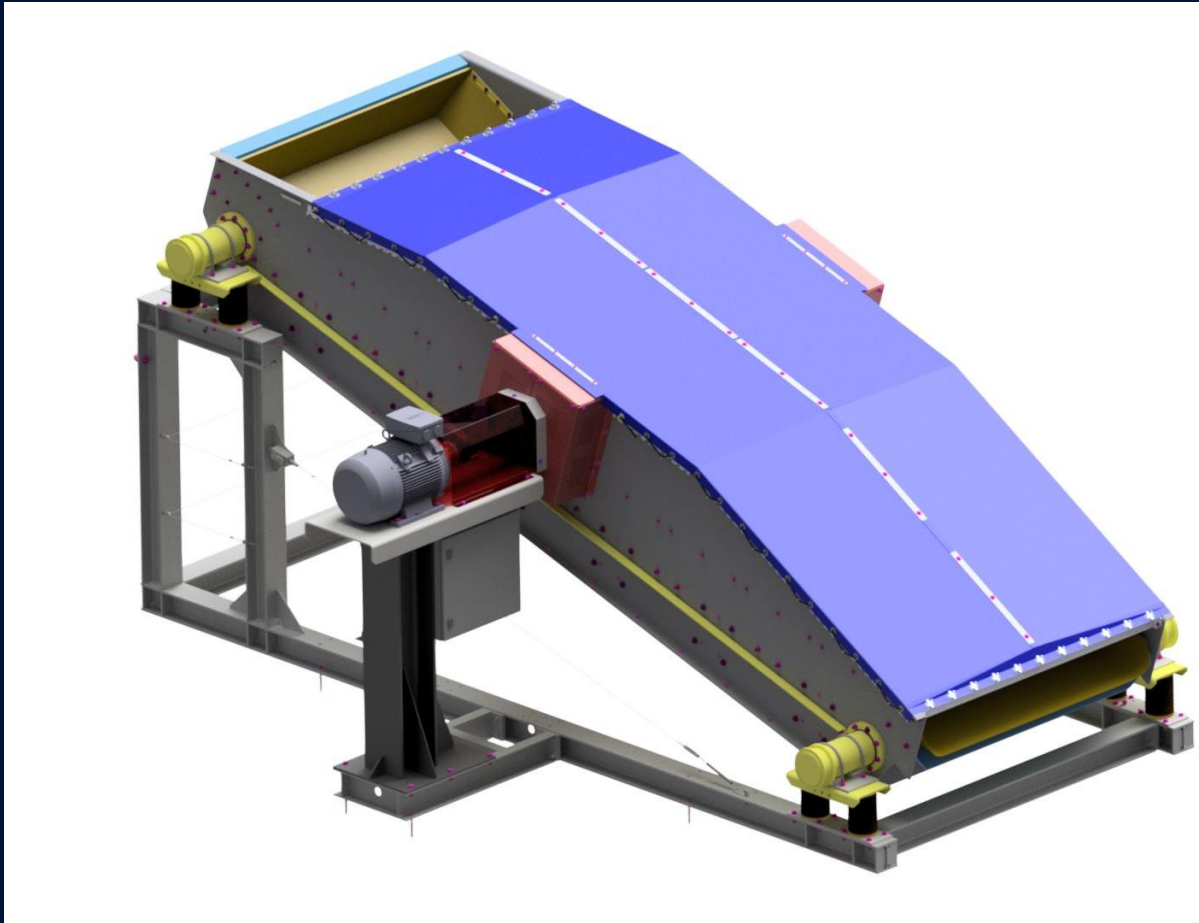
# Proud to present



# The „LIWELL<sup>®</sup> S“

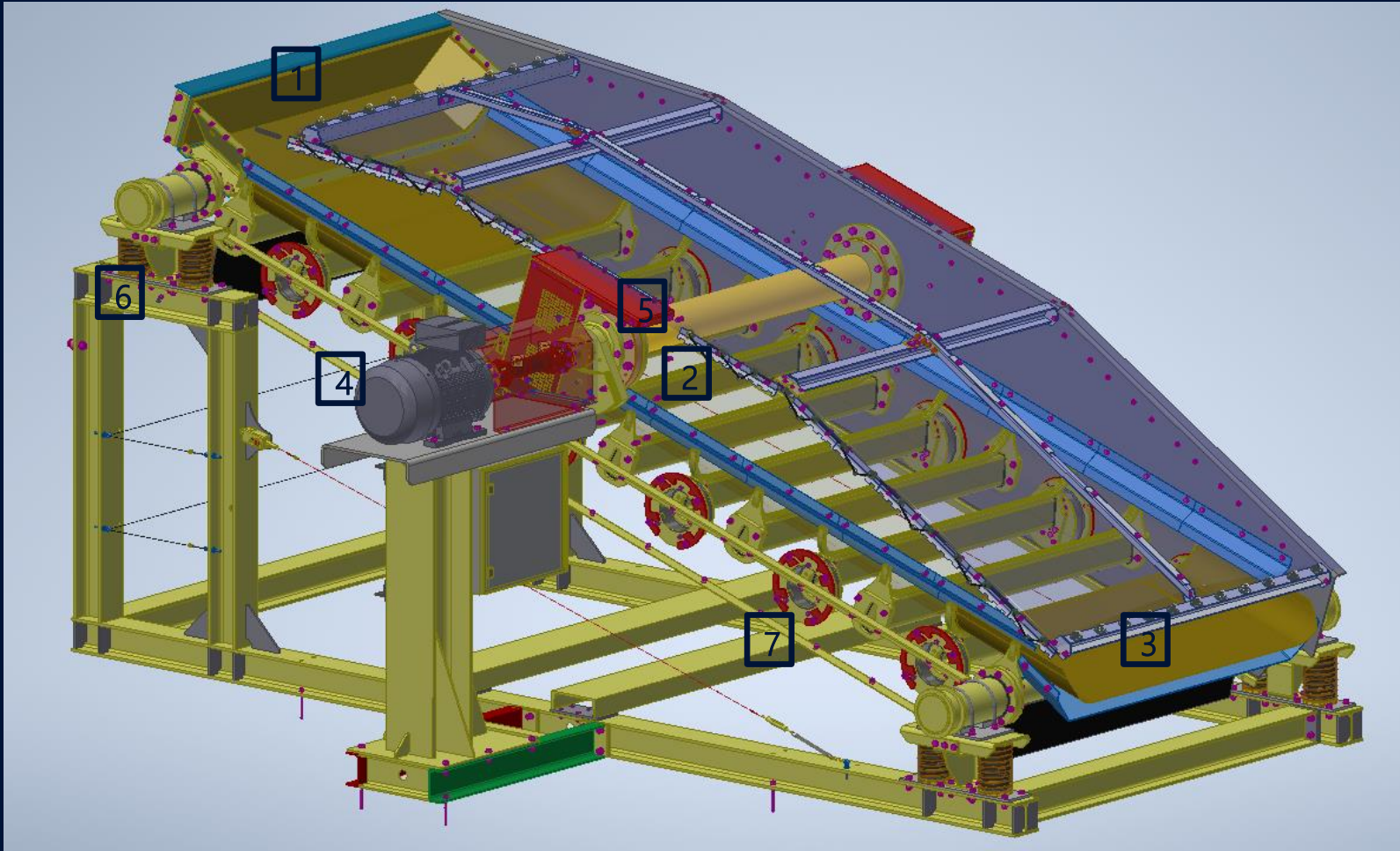


# LIWELL<sup>®</sup> S: the powerful and economic allrounder



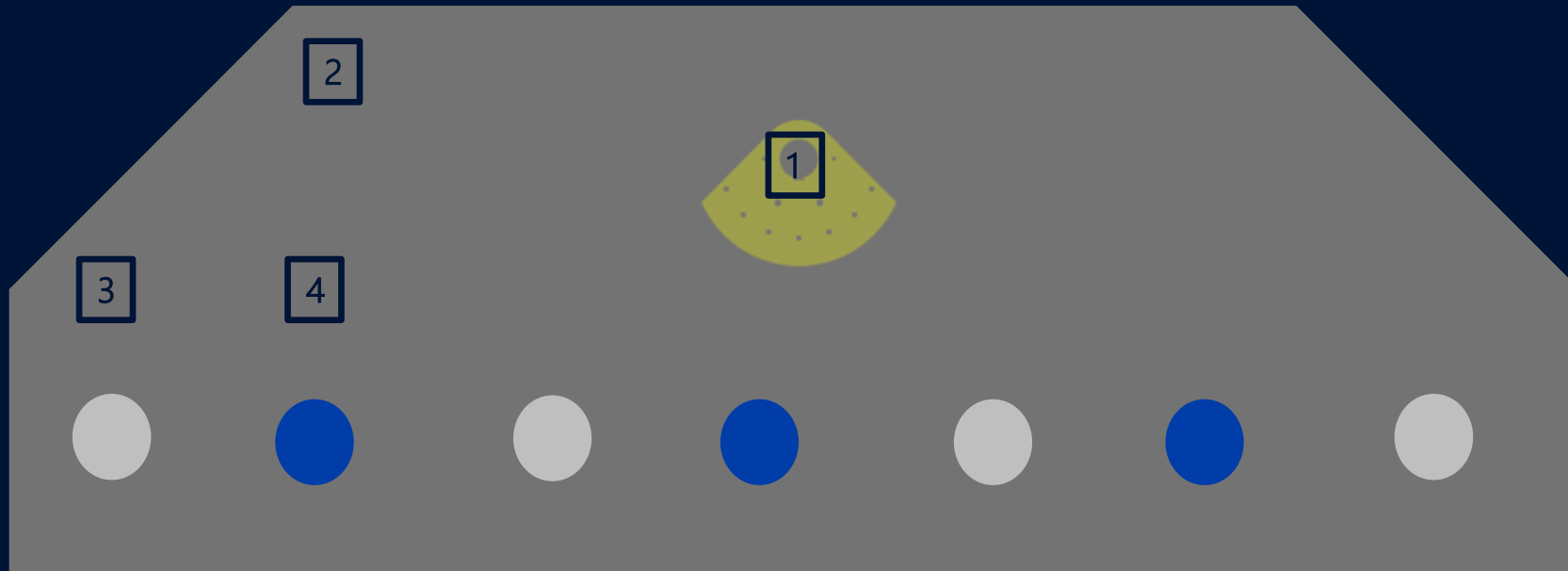
- impressive feed capacities
- High availability
- Significant accelerations
- Resonance driven cross beams
- Various designs
- Low maintenance
- Compact design with minimized scope of wear parts

# LIWELL® S overview



- 1 Feed section
- 2 screen area
- 3 discharge
- 4 direct drive
- 5 unbalanced weights
- 6 isolation springs
- 7 cross beams system II with rubber bearings

# Resonance principle LIWELL<sup>®</sup> S



- 1 unbalanced weights
- 2 screen case
- 3 cross beam I
- 4 vibrating cross beam II

# Advantages

- 2 mass vibrating principle: less power required in comparison to move the cross beams and the screen mats in comparison to KT & LF types -> smaller motor -> reduced energy consumption
- Example: comparison of LIWELL screens with similar screen sizes
  - LIWELL S 2,1-6,4 / 16 EDS (22 kW; 7100kg; K-factor ca. 3 - 4)
  - KT 2,0-6,0 / 24 EDS (30 kW, 8400kg; K-factor ca. 2)
  - LF 2,0-6,30 / 20 DD big (45 kW; 9100 kg; K-factor ca. 2)
- The comparison shows a reduced machine weight and a higher K-factor in comparison to LIWELL KT
- Direct drive: reduction of operation cost achieved by a reduction of drive components (furthermore a reduction of wear parts such as V-belts, pulleys, joint shafts, bearings etc)

# Advantages

- Fixation of screen mats: enables a flat connection (no caking of clamping bars and cap nuts)
- Simplified removal and mounting of screen mats
- Premium versions of wear protection devices: longer life times and easier exchange
- Variation of acceleration and movement: adjustable by modification of screen mats, rubber elements as well as by weight adjustments of cross beams and unbalanced weights
- Reduced inclination of machine in comparison to LF types
- Customisable concepts as a budget and premium design (e.g. dust protected or with protection deck)



# Dimensions

Liwell S 1.2 – 4,0/10 ED (S) / DD

Liwell S 1.5 – 4,0/10 ED (S) / DD

Liwell S 1.5 – 4,8/12 ED (S) / DD

Liwell S 1.5 – 5,6/14 ED (S) / DD

Liwell S 1.8 – 4,8/12 ED (S) / DD

Liwell S 1.8 – 5,6/14 ED (S) / DD

Liwell S 1.8 – 6,4/16 ED (S) / DD

Liwell S 2.1 – 5,6/14 ED (S) / DD

Liwell S 2.1 – 6,4/16 ED (S) / DD

Liwell S 2.1 – 7,2/18 ED (S) / DD

Liwell S 2.4 – 6,4/16 ED (S) / DD

Liwell S 2.4 – 7,2/16 ED (S) / DD

Liwell S 2.4 – 8,0/20 ED (S) / DD

Liwell S 2.4 – 8,8/22 ED (S) / DD

+ additional sizes in future!



## Basic

- Feed and discharge area
- Isolation springs
- Side protection
- Screen mat fixation
- Cross beam protection
- Dust protection
- Greasing

steel

coil springs

steel

clamping profile

without

without

manually

## Premium

magnetic PU wear protection

air suspension

magnetic PU wear protection

clamping profile

magnetic PU wear protection

cover, sealings etc.

automatic



# Technical data: LIWELL<sup>®</sup> S 1,8-4,8/12 ED

- Machine width : 1,8 m
- Machine length: 4,8 m
- Machine weight: 3,5 t (including cover)
- Cross beam pitch: 400 mm
- Number of mats: 12 pieces
- Motor power: 7.5 kW
- Speed: 750 1/min
- Stroke of screen box: 8-10 mm
- Stroke of system II cross beams: 20-25 mm

# existing/supplied machines

- LIWELL S 2.1 – 6.4/16 ED: # 3214
- LIWELL S 2.1 – 6.4/16 DD: # 3342
- LIWELL S 1.6 – 4.0/10 DD: # 3343
- LIWELL S 1.8 – 4.8/12 ED: # 3444

# Advantages

## Direct drive:

No V-belts, no pulleys, no bearings, no tensioning devices, no taper lock bushes etc

## Mat fixation with profiles:

Mat fixation without clamping bars, without cap nuts, without clamping wedges

## Improved amplitudes:

Higher accelerations achieved with increased strokes



## Variable amplitudes:

Individual movement of each cross beam II – adjustable cross beam strokes in each section and/or screen deck

## Inside fixation of cross beams:

No side wall openings – the side walls are dust sealed!

## Harmonized and similar designs for:

DD / EDS and circular motion screens

# Sizes

m <sup>2</sup>	1200	1500	1800	2100	2400	3000
4000	4,8	6,0				
4800		7,2	8,6			
5600		8,4	10,1	11,8		
6400			11,5	13,4	15,4	
7200	+			15,1	17,3	
8000					19,2	24,0
8800					21,1	26,4
9600						28,8

...during the first phase and in designs as a

- Single deck machine "ED"
- Double deck machine "DD"
- Protection deck machine "EDS"
- Circular motion machines single and/or double deck with similar dimensions

# Comparison of motor sizes

## LIWELL S-ED versus LF-ED

1.8 – 4.8/12 ED: 7.5 kW

1.5 – 5.04/16 ED: 15.0 kW

2.1 – 6.4/16 ED: 9.2 kW

2.0 – 6.30/20 ED: 22.0 kW

2.4 – 8.0/20 ED: 11.0 kW

2.0 – 8.82/28 ED: 37.0 kW

## LIWELL S-DD versus LF-DD

1.8 – 4.8/12 DD: 11.0 kW

1.5 – 5.04/16 DD: 37.0 kW

2.1 – 6.4/16 DD: 18.5 kW

2.0 – 6.30/20 DD: 45.0 kW

2.4 – 8.0/20 DD: 30.0 kW

2.0 – 8.82/28 DD: 55.0 kW

## LIWELL S-EDS versus KT-EDS

1.8 – 4.8/12 EDS: 11.0 kW

1.5 – 5.0/20 EDS: 18.5 kW

2.1 – 6.4/16 EDS: 22.0 kW

2.0 – 6.0/24 EDS: 30.0 kW

2.4 – 8.0/20 EDS: 30.0 kW

2.2 – 8.0/32 EDS: 45.0 kW

# Options

## Air suspension

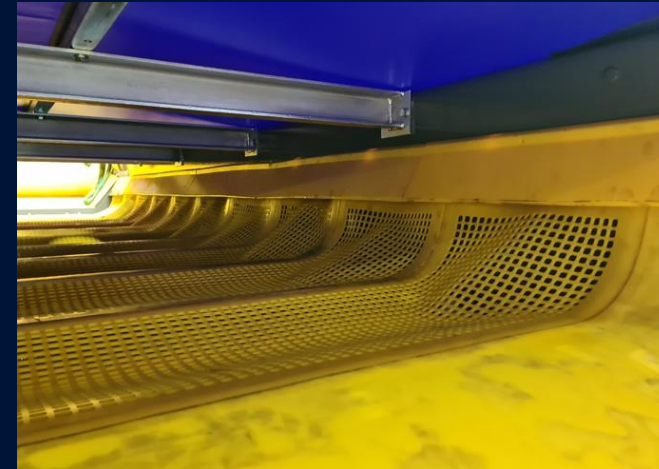
- To reduce dynamic forces
- To reduce consequential vibrations of support or building structures



# Options

## Side wall PU-wear protection WS 2.10

- To reduce wear
- To avoid or reduce caking effects
- To improve the machine availability

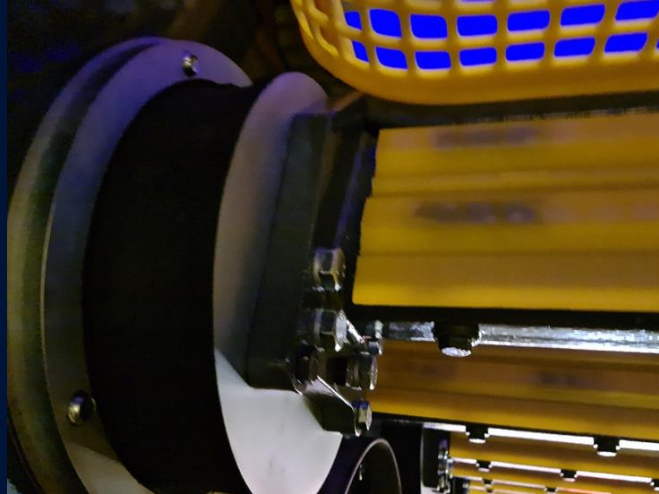




# Options

## Cross beam PU protection WS 2.10

- To avoid/reduce any wear of cross beams
- To avoid caking problems



# Options

## PU-shaft protection WS 2.10

- To reduce wear
- To avoid caking in case of DD- and EDS-machines



### PU-wear protection WS 2.10 „charge area“

- To reduce wear
- To avoid caking



## PU-wear protection WS 2.10 „discharge area“

- To reduce wear
- To avoid caking

