

**STARCLEAN**

Sustainability by Innovation



# HEROES OF SPILLAGE CONTROL

A NEW  
MEMBER OF  
THE TEAM



**SUSTAINABILITY THROUGH INNOVATION**



# SCHULTE STRATHAUS

## SOLUTIONS - CLEAN AND GREEN



### "SOLUTIONS - CLEAN AND GREEN" WHAT DOES THIS ACTUALLY MEAN?

It is important to ensure the efficient and considerate use of limited resources. With our products and processes, we safeguard the increasingly important factor of sustainability. In the area of bulk material handling equipment, for example, we ensure optimized conveyor belt cleaning and material flow control.

## CONSERVING RAW MATERIALS



### WE STAND FOR:

- ◆ Optimum material flow planning for raw materials
- ◆ Modular set-up of machine and system components
- ◆ High operational safety
- ◆ Intelligent material flow planning
- ◆ Efficient use of materials

**THIS IS MADE POSSIBLE BY**  
HEROES OF SPILLAGE CONTROL



**STARCLEAN®**  
SMART CONVEYING SOLUTIONS

OUR quality, OUR know-how  
YOUR efficiency

Digital innovations for all  
aspects of the conveyor belt

Spillage Control  
Intelligent & efficient  
material flow planning

Unique modular system  
for every application

Innovative solutions  
guarantee operational safety

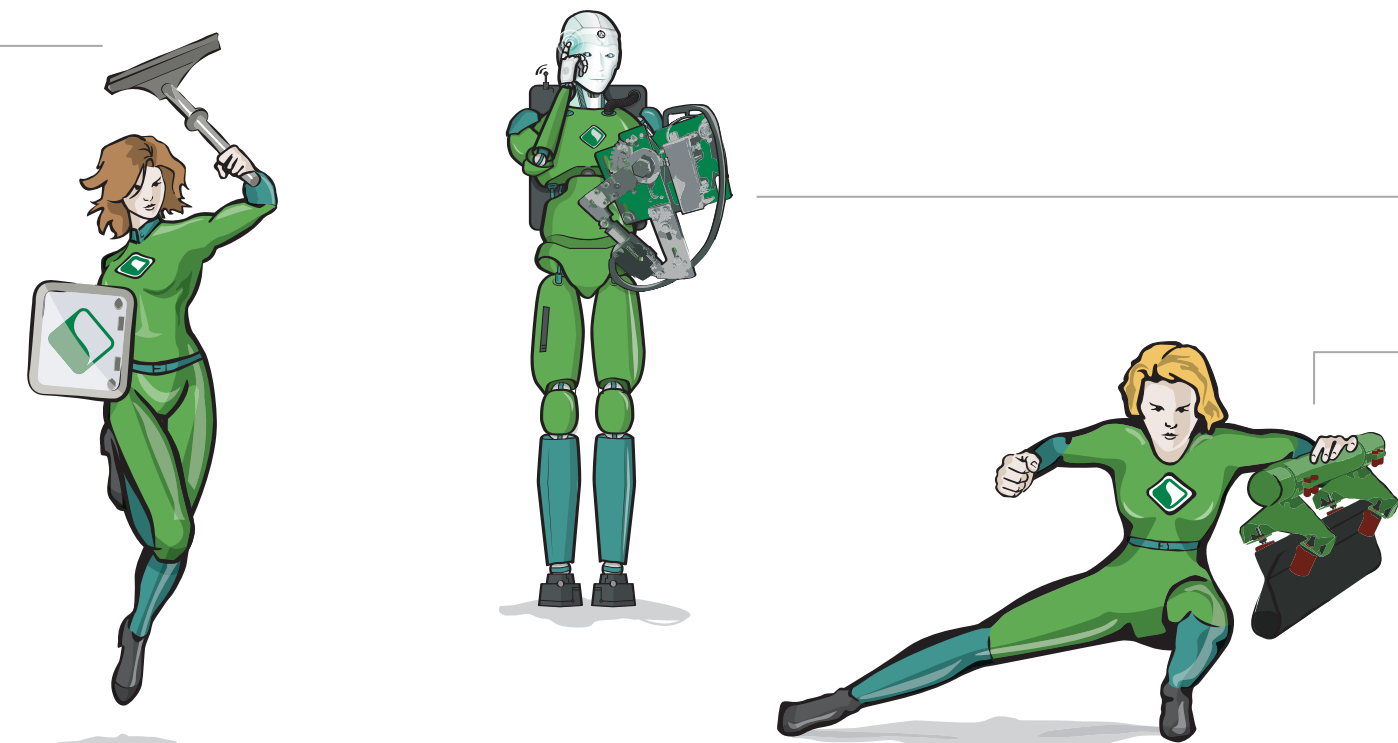
Absolute reliability  
Service hotline with on-site service

MEMBER OF SCHULTE STRATHAUS ♦ FAMILY-OWNED COMPANY SINCE 1952 ♦ MADE IN GERMANY



# CONTENTS

## STARCLEAN® PRODUCTS



P.08 CONVEYOR BELT CLEANER

NEW P.20 MODULAR PLOW SCRAPER

NEW P.22 STARCLEAN SMART SCRAPER

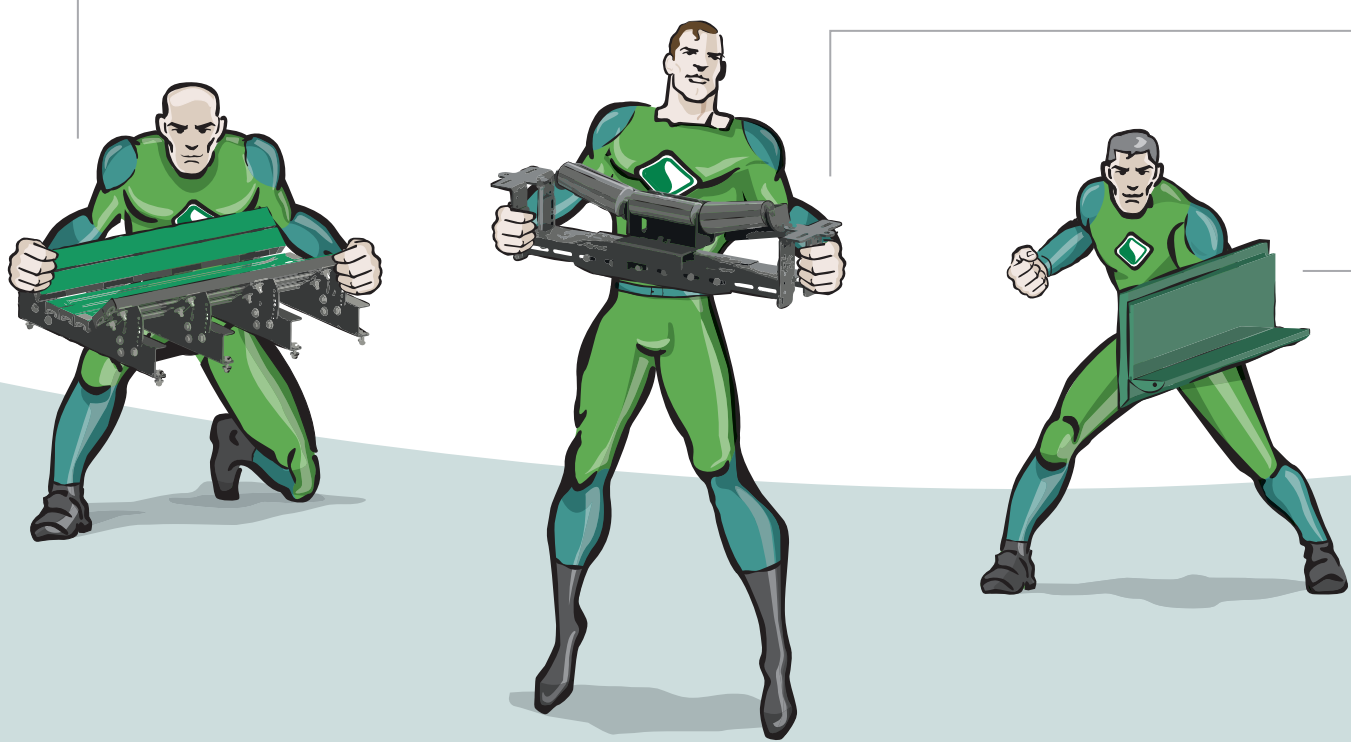
P.26 CLOSED BELT CONVEYOR (SAFEBELT®)

P.30 IMPACT BARS (FRIFLO)

P.32 BELT TRACKERS (CENTRAX)

P.34 TRANSFER POINT SEALS (SEAL / SPILL-EX / SEAL-TEK)

P.36 INSPECTION DOOR (ID)





# STARCLEAN®

## CONVEYOR BELT CLEANER

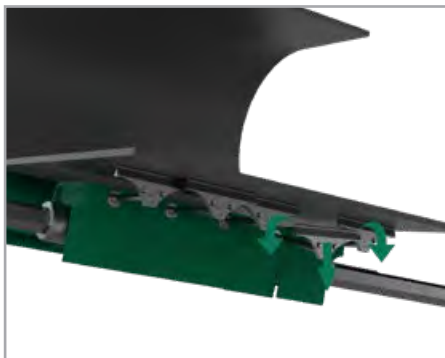
### ADVANTAGES AT A GLANCE

- ◆ Perfect, belt-saving cleaning
- ◆ Extremely long lifespan thanks to low wear
- ◆ Tool-less scraper blade replacement
- ◆ Quick and easy mounting and maintenance
- ◆ Optimum adjustment to the conveyor belt thanks to TWIST-SWING®
- ◆ Unique, modular system
- ◆ Top-quality materials: high-performance polyurethane or polyurethane base with special tungsten carbide blades

PRIMARY SCRAPER



SECONDARY SCRAPER



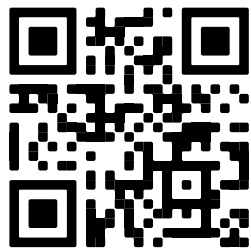
### TWIST-SWING®

- ◆ Optimum adjustment of each scraper blade to the belt surface
- ◆ Ability to evade obstacles
- ◆ Flawless cleaning results



EFFICIENCY  
+ SAFETY

PROFITABILITY!



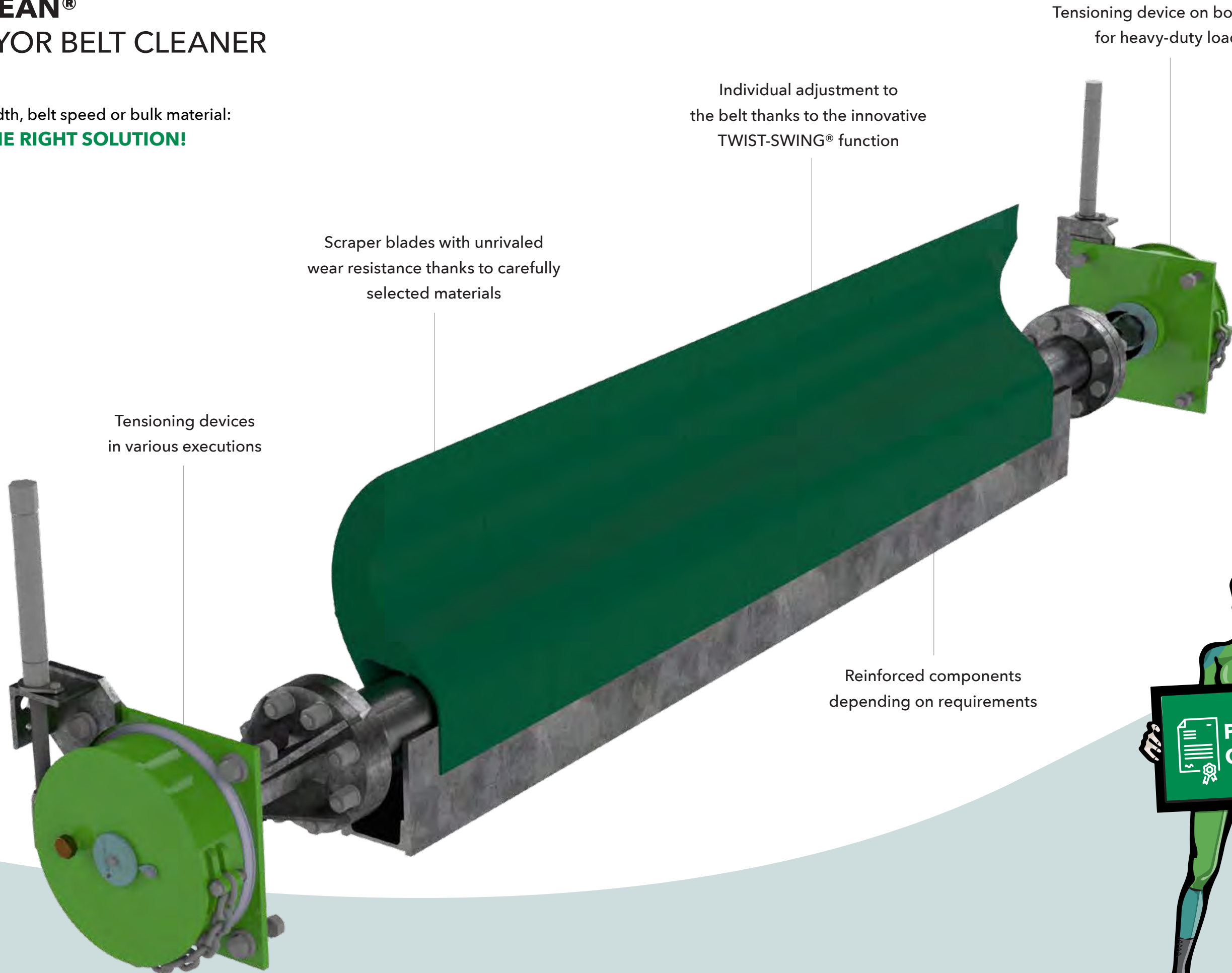
PRODUCT  
VIDEO





# STARCLEAN® CONVEYOR BELT CLEANER

For any belt width, belt speed or bulk material:  
**WE HAVE THE RIGHT SOLUTION!**



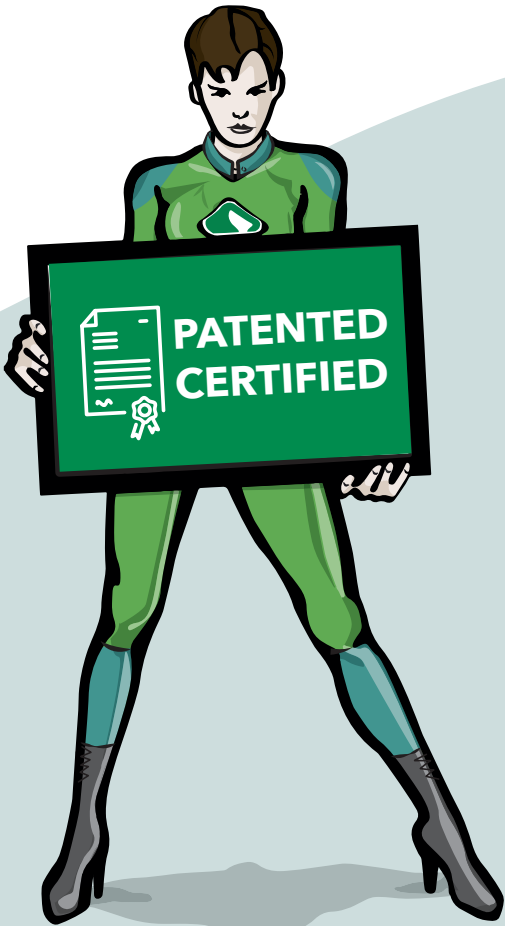
Scraper blades with unrivaled wear resistance thanks to carefully selected materials

Tensioning devices in various executions

Individual adjustment to the belt thanks to the innovative TWIST-SWING® function

Tensioning device on both sides for heavy-duty loads

Reinforced components depending on requirements





# STARCLEAN® THE MODULAR SYSTEM

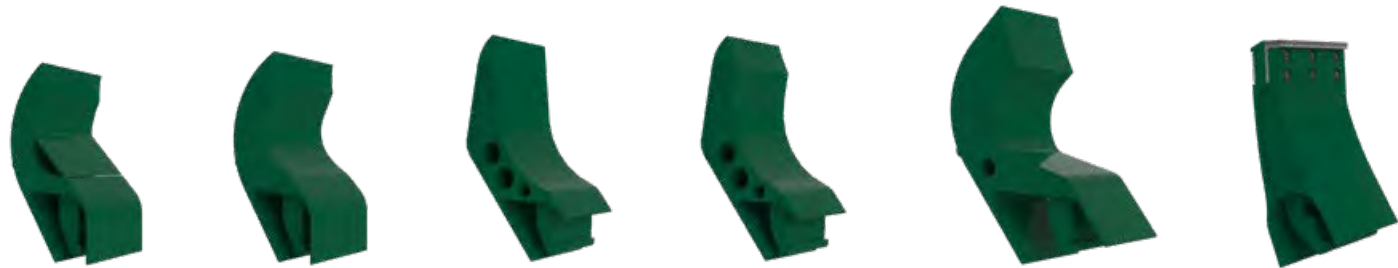
AVAILABLE IN: STANDARD QUALITY - ATEX QUALITY - SUITABLE FOR FOOD  
 - HEAT-RESISTANT - HYDROLYSIS STABILIZED

## PRIMARY SCRAPER BLADES FOR USE AT THE PULLEY



Type 18n   Type 81n   Type 82n   Type 281n   Type 282n   Type 283n   Type 85n   Type 86n   Type 285n   Type 285n (lang)   Type 286n

## PRIMARY SCRAPER BLADES FOR HEAVY-DUTY BELT CONVEYORS



Type 481n   Type 481n-HD   Type 581n   Type 681n   Type 781n   Type 385n

## SECONDARY SCRAPER BLADES FOR USE BELOW THE BELT



Type 50n   Type 53h   Type 53n   Type 53Sn   Type 54n   Type 54Sn   Type 55h   Type 56n



Type 256n   Type 66n   Type 266n   Type 08hm-110   Type 08hm-210   Type 09hm-110   Type 09hm-210

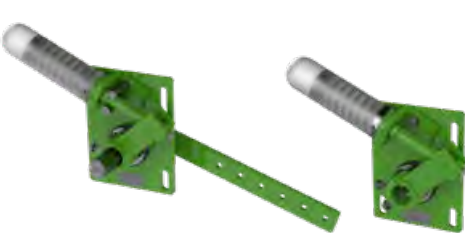
## TENSIONING DEVICES

Raster-tensioning devices



Type 510   Type 520

Lever-type tensioning devices



Type 430   Type 620

Spindle-type tensioning devices



Type 960   Type 970

Torsion-tensioning devices



Type 720   Type 720-HD

Electric tensioning devices



Type 83E   Type 83E-300

## BLADE BASES



Type SKN

Type SKR

Type SK01

Type SK05

Type SKV

Type SK627

Type SK03

Type SK628

Type SKX

Type SK629



# PRIMARY SCRAPERS

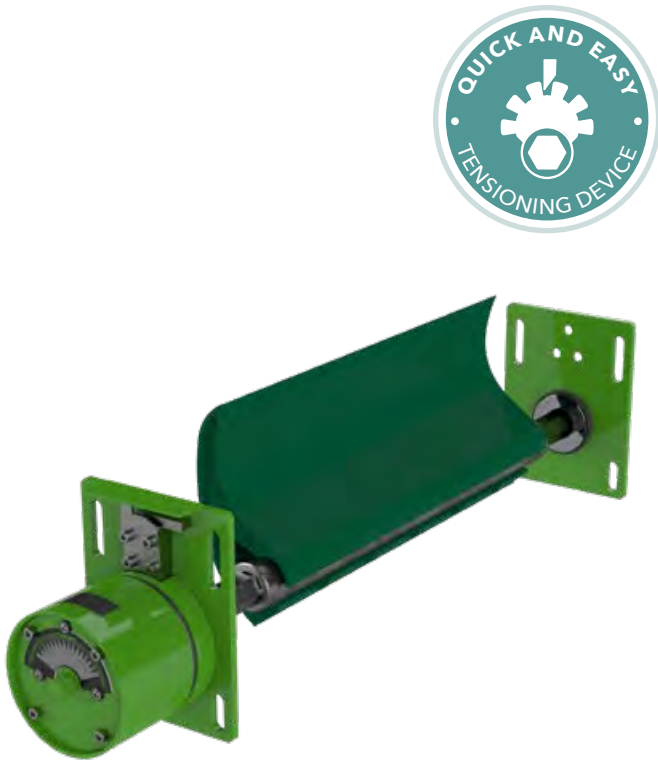
## SERIES 700 WITH TORSION-TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

- Available types:  
85, 285, 86 and 286
- ◆ Suitable for reversible operation

### WITH POLYURETHANE SCRAPER BLADES

- Available types:  
18, 81, 82, 281, 282 and 283
- ◆ Suitable for reversible operation  
and mechanical belt joints



## SERIES 800 WITH RASTER-TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

- Available types: 85, 285, 86 and 286
- ◆ Suitable for reversible operation
  - ◆ Overlapping cleaning with types 85 and 285



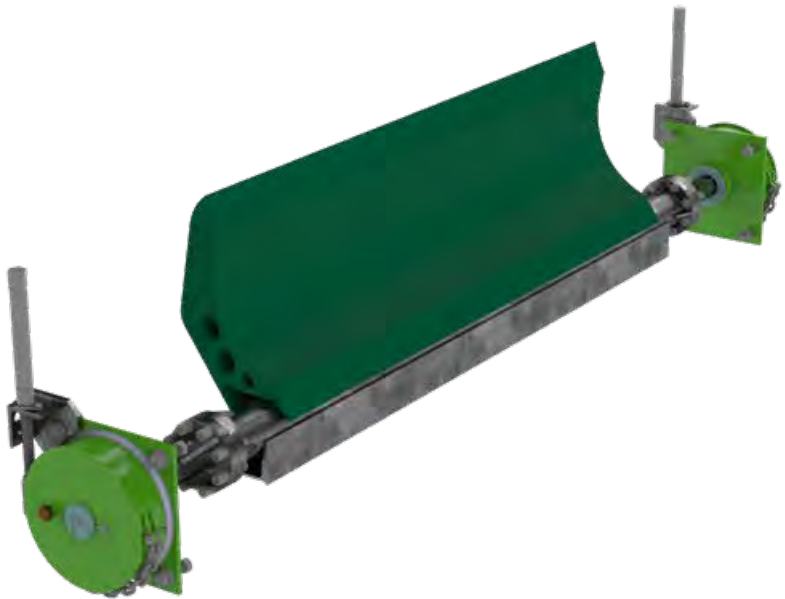
## SERIES 700 FOR HEAVY-DUTY BELT CONVEYORS WITH TORSION-TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

- Available types: 385
- ◆ Suitable for reversible operation

### WITH POLYURETHANE SCRAPER BLADES

- Available types:  
481, 481-HD, 581, 681 and 781
- ◆ Suitable for reversible operation  
and mechanical belt joints



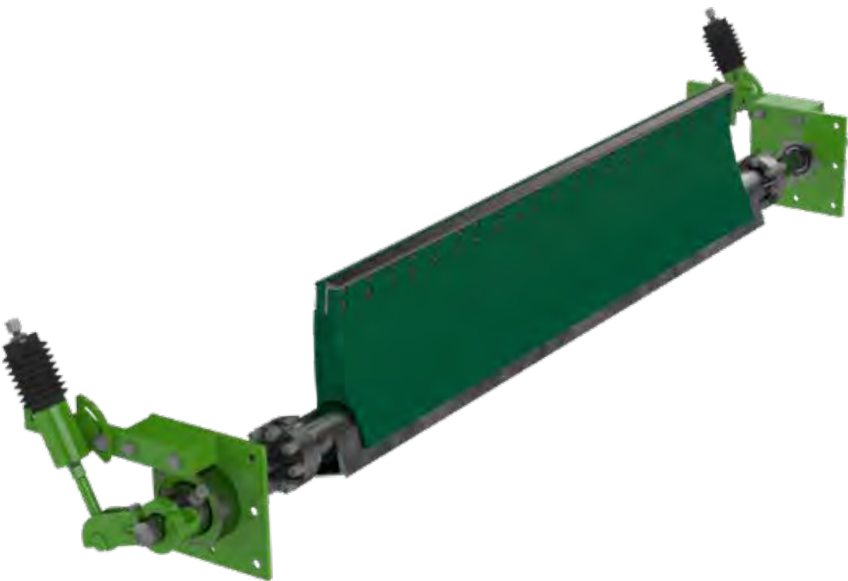
## SERIES 600 FOR HEAVY-DUTY BELT CONVEYORS WITH LEVER-TYPE TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

- Available types: 385
- ◆ Fable for reversible operation

### WITH POLYURETHANE SCRAPER BLADES

- Available types:  
481, 481-HD, 581, 681 and 781
- ◆ Suitable for reversible operation  
and mechanical belt joints



# SECONDARY SCRAPERS

## SERIES 800 WITH RASTER-TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

Available types: 08, 09, 50, 53, 54, 56 and 256

- ◆ Overlapping cleaning with types 50, 53, 56 and 256
- ◆ Suitable for reversible operations type 09
- ◆ Suitable for mechanical belt joints type 50 and 54

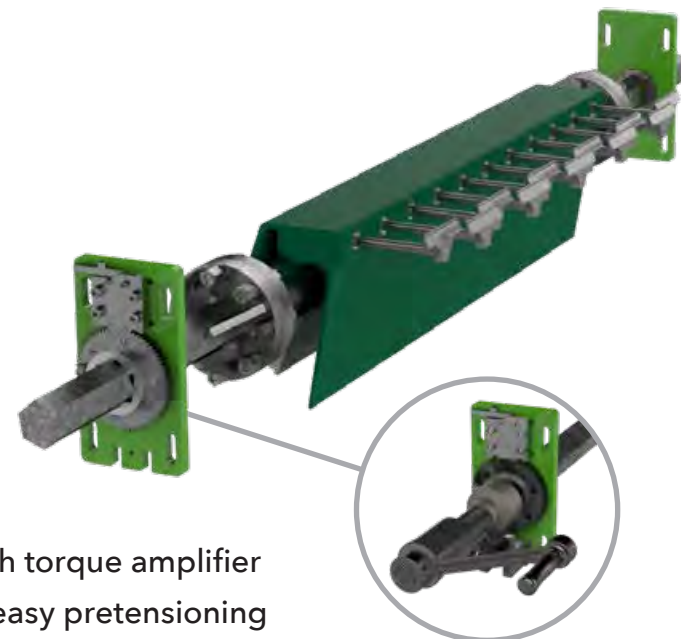


## SERIES 800 FOR HEAVY-DUTY BELT CONVEYORS WITH RASTER-TENSIONING DEVICE

### WITH TUNGSTEN CARBIDE SCRAPER BLADES

Available types: 66 and 266

- ◆ Overlapping cleaning



With torque amplifier  
for easy pretensioning



## SERIES 500 WITH SEGMENTED PRESSURE ROLLER SYSTEM

### WITH TUNGSTEN CARBIDE BLADE

Available types: 08 and 09

- ◆ Suitable for reversible operations
- ◆ For particularly abrasive, sticky materials
- ◆ With single-piece or two-piece tensioning device
- ◆ Belt-saving operation due to deflecting segmented rollers
- ◆ Optimum pressure of the belt against the carbide blade
- ◆ Version for heavy-duty belt conveyors also available

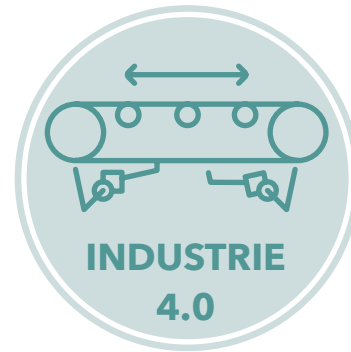




# SCRAPER

## NEXT-GENERATION SCRAPERS

### SERIES 830-E WITH AUTOMATIC TENSIONING DEVICE



- ◆ Suitable for reversible operation
- ◆ Interval-based or load-based cleaning possible
- ◆ Electric linear drive unit (retrofitting possible)

#### WITH POLYURETHANE SCRAPER BLADES

Available types: 18, 81, 82, 281, 282 and 283

- ◆ For primary scrapers



#### WITH TUNGSTEN CARBIDE SCRAPER BLADES

Available types: 50, 53, 54, 56, 256, 08 and 09

- ◆ For secondary scrapers



### SERIES 860-RS WITH RASTER-TENSIONING DEVICE

- ◆ Easy and quick maintenance outside of the transfer chute
- ◆ Convenient removal of each scraper blade from the side
- ◆ Reliable and safe scraper blade replacement without reaching into the system

#### WITH TUNGSTEN CARBIDE SCRAPER BLADES

Available types: 85, 285, 86 and 286

- ◆ For primary scrapers

#### WITH POLYURETHANE SCRAPER BLADES

Available types: 18, 81, 82, 281, 282 and 283

- ◆ For primary scrapers



#### WITH TUNGSTEN CARBIDE SCRAPER BLADES

Available types: 50, 53, 54, 56 and 256

- ◆ For secondary scrapers



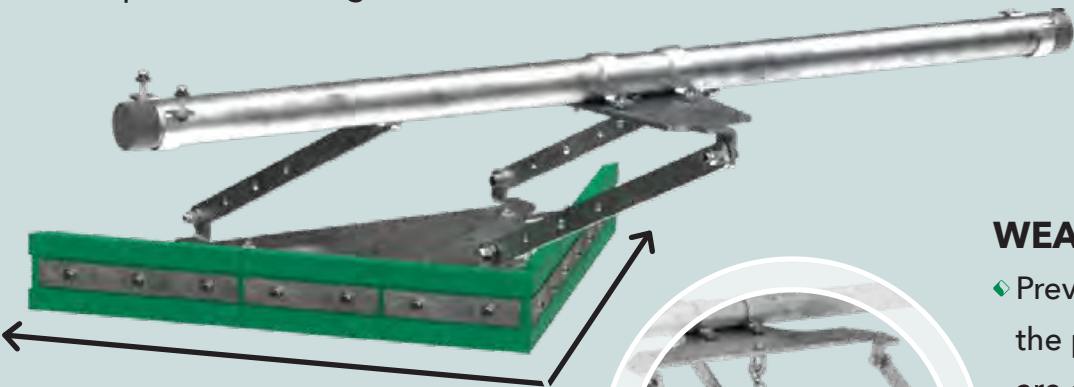
# INNER BELT SCRAPERS

**SERIES 200**  
FOR INNER BELT CLEANING

NEW

## MODULAR PLOW SCRAPER

- ◆ Individual polyurethane blades
- ◆ Adjustable to every belt width thanks to the modular system
- ◆ Long lifespans
- ◆ Simplified mounting of the elements



## WEAR LIMITER

- ◆ Prevents further lowering of the plow when the segments are completely worn out



## WITH POLYURETHANE BLADE

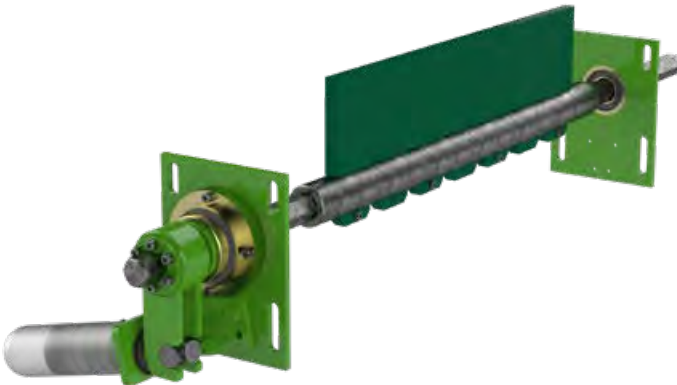
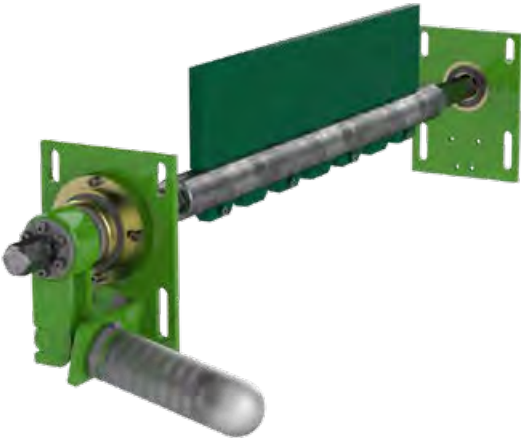
- Available types: 240 and 273
- ◆ Available as diagonal and plow scraper
  - ◆ Prevents dirt and damage between pulley and belt

# SPECIAL SOLUTIONS

**SERIES 400**  
FOR CHEVRON CONVEYORS

## WITH POLYURETHANE BLADE

- Available types: 04 and 07
- ◆ Slotted or continuous
  - ◆ For use on the return side of the belt



**BRUSH CLEANER**  
WITH BEATING DRUM

## WITH FIXED BRUSH

- ◆ Poly bristles
- ◆ For use on the return side of the belt
- ◆ Alternatively with polyurethane blade







**STARCLEAN®**  
SMART  
SCRAPER

NEW

### THE NEW DIGITAL STARCLEAN®S³

Our unique smart scraper with an electric drive, combined with our smart cloud dashboard, enables predictive maintenance of wear elements through preventive damage detection on the conveyor belt. This digital innovation gives the scraper the ability to self-regulate wear and tear while also ensuring a constant pretensioning force - completely automatically.

Designed according to the principle of **"detect - react - protect"**, our innovation enables continuous contact-based inspection of the conveyor belt, thus enabling predictive maintenance.

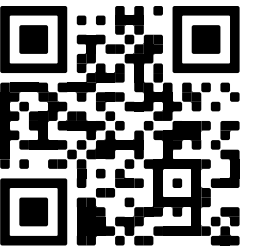
### ADVANTAGES AT A GLANCE

- ◆ Continuous inspection
- ◆ Damage limitation
- ◆ Efficient use of resources
- ◆ Improved operating reliability
- ◆ Prevention of costly, unscheduled conveyor belt downtimes
- ◆ Transparency

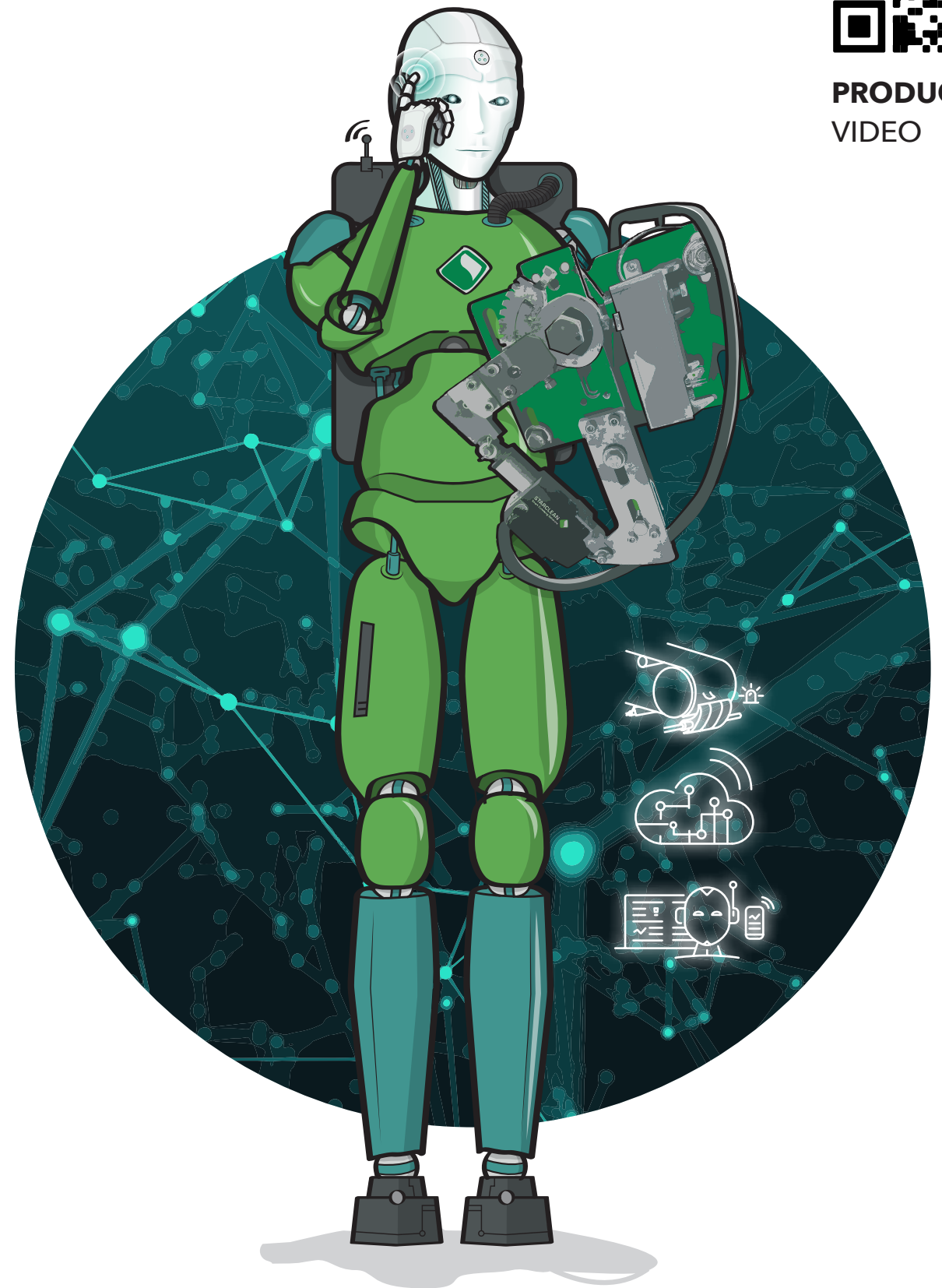
### THE MODULES

- ◆ Scraper
- ◆ Motorization set
- ◆ Scraper Intelligence Module (SIM)
- ◆ Measuring roller with sensor system
- ◆ Belt damage detection
- ◆ LTE Edge Controller/Cloud

## BELT DAMAGE DETECTION



PRODUCT  
VIDEO



# THE MODULES



**Scrapper Intelligence Module (SIM)**



**Motorization set with S³ sensor system**  
Drive on one side and on both sides



**Scraper**  
Primary or secondary



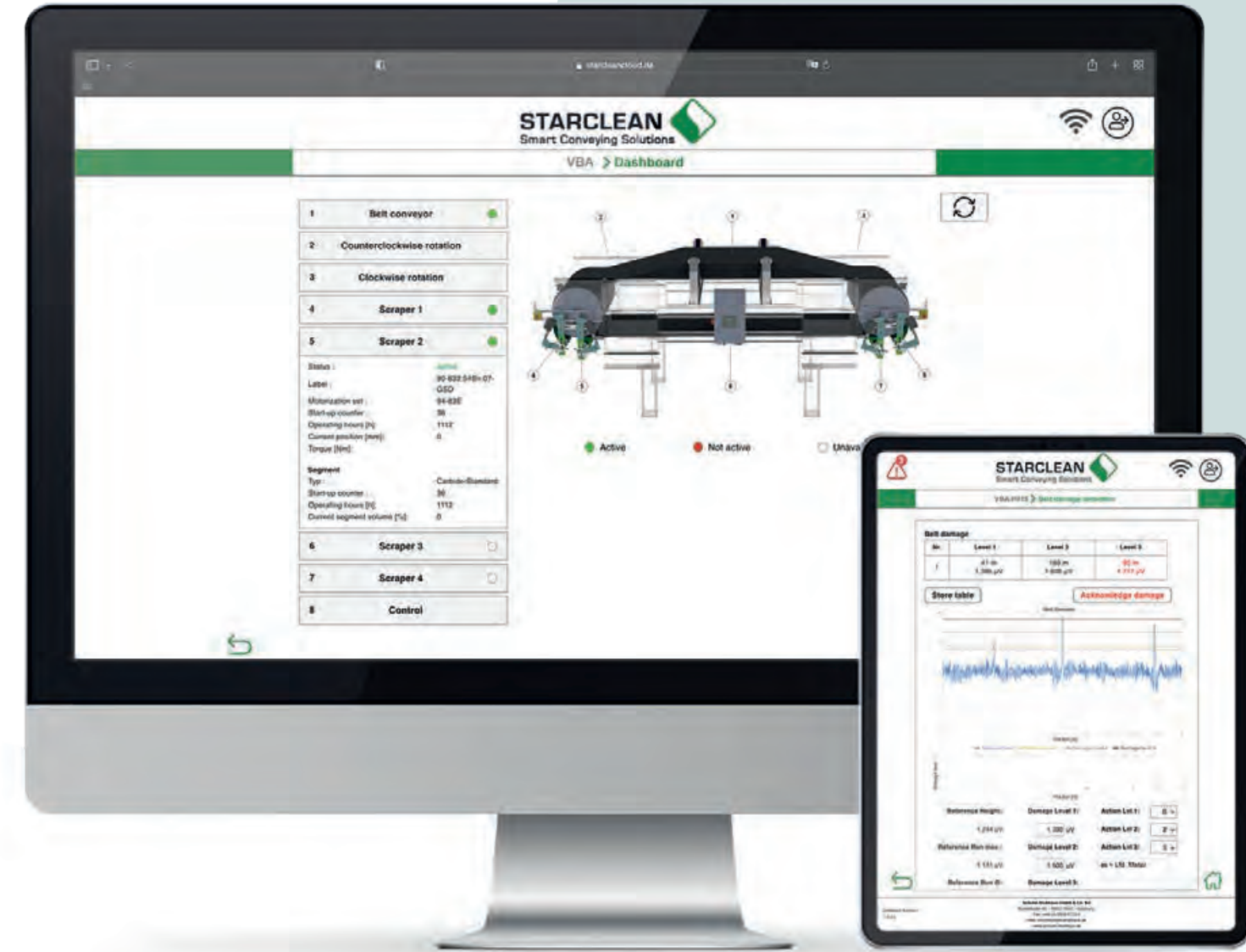
**Measuring roller with sensor system**

## TECHNICAL APPLICATIONS

- ◆ Automatic or manual engagement and disengagement of conveyor belt cleaner
- ◆ Automatic readjustment of the pretension
- ◆ Wear indicator and warning for polyurethane scrapers
- ◆ Constant belt damage detection by the secondary scraper
- ◆ Operating hours display for belt conveyor, scraper, and wear parts
- ◆ Switch-on, engagement and disengagement counter
- ◆ Indicator of conveying speed and running direction
- ◆ Control for up to four scrapers
- ◆ RFID access with rights allocation to protect against unauthorized access
- ◆ Information about the belt conveyor, the scrapers, and the control system
- ◆ Error messages and faults



# STARCLEAN® S³ DASHBOARD/CLOUD



## WHAT THE CLOUD CAN DO

- ◆ Monitor the conveyor belt
- ◆ Classify the damage
- ◆ Define the internal damage level
- ◆ Initiate action if belt is damaged  
(disengagement, send information, alarm, you determine the function)
- ◆ Detect the position of belt damage
- ◆ Record belt characteristics
- ◆ Smart, cloud-based dashboard



# SAFEBELT®

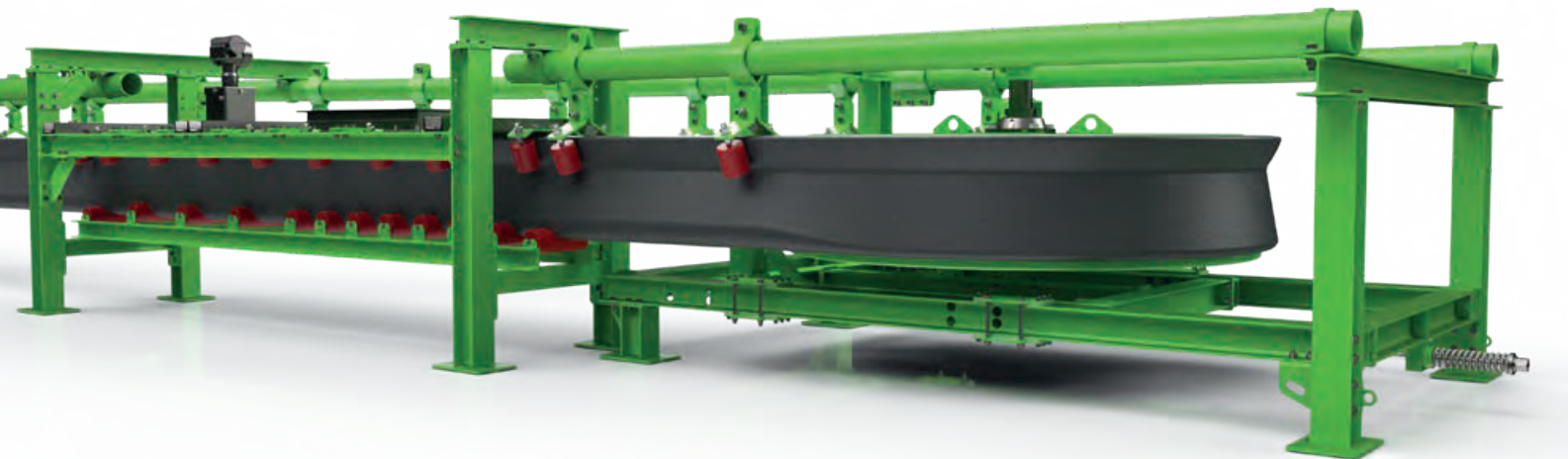
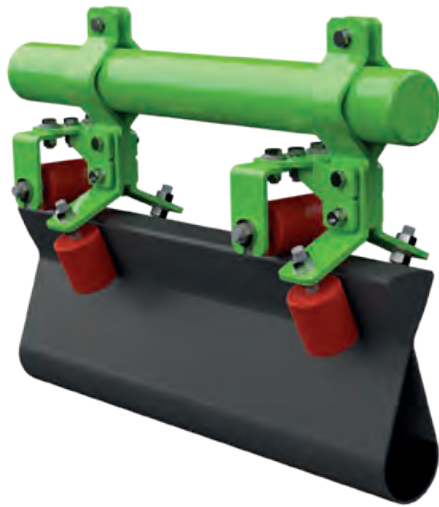
## CLOSED BELT CONVEYOR

### ADVANTAGES AT A GLANCE

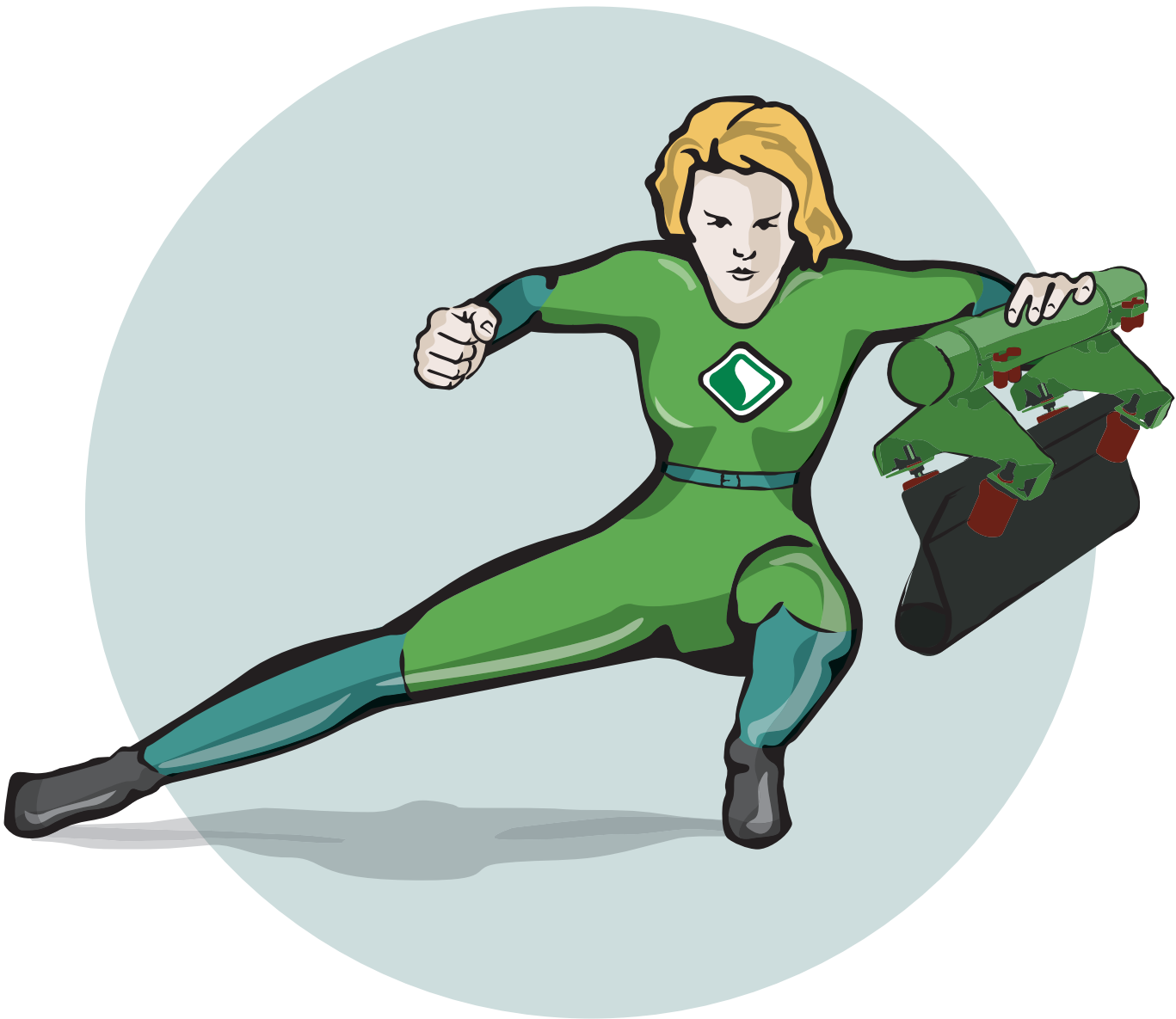
- ◆ Weatherproof and dust-free transport of bulk material
- ◆ Easy circumvention of obstacles
- ◆ Avoidance of several transfer points
- ◆ Small footprint thanks to tight curve radii
- ◆ Simplified installation planning
- ◆ Simple (subsequent) relocation of the complete system

### AVAILABLE IN

- ◆ 800 mm belt width
- ◆ 1400 mm belt width



PRODUCT  
VIDEO



# SAFEBELT®

## CLOSED BELT CONVEYOR

### DATA AND FACTS

- ◆ Maximum filling level: 60%
- ◆ Maximum material weight: 40 kg/m
- ◆ Maximum belt speed: 3 m/s
- ◆ Horizontal radii: > 8m
- ◆ Gradients: < 30°
- ◆ Heat-resistant up to 80°C
- ◆ Durability: friction, ozone, UV (optional: oil and grease)

### SUITABLE FOR A WIDE VARIETY OF BULK MATERIALS ACROSS MANY DIFFERENT INDUSTRIES:

**Construction industry:** gypsum, lime, clay, sand, stone, cement

**Energy industry:** ash, turf, wood shavings, coal, recycling

**Cellulose industry:** wood shavings, waste paper, kaolin

**Metal industry:** foundry sand, ore, coal, slag

**Mining/quarrying:** ore, grinding balls, minerals, sand

**Food industry:** raw materials, fishmeal/food, cereals

**Processing industry:** chemicals, finished products, minerals, granulates, fertilizers

... AND LOTS MORE!

## SEE WHAT MAKES SAFEBELT® SO SPECIAL:

### IT CUTS COSTS

Eliminates expensive enclosures and cleaning work

### ECO-FRIENDLY

Little or no ingress or emissions of dust or liquids

### LOW-ODOR

Odors are largely contained in the conveyor belt

### SPACE-SAVING

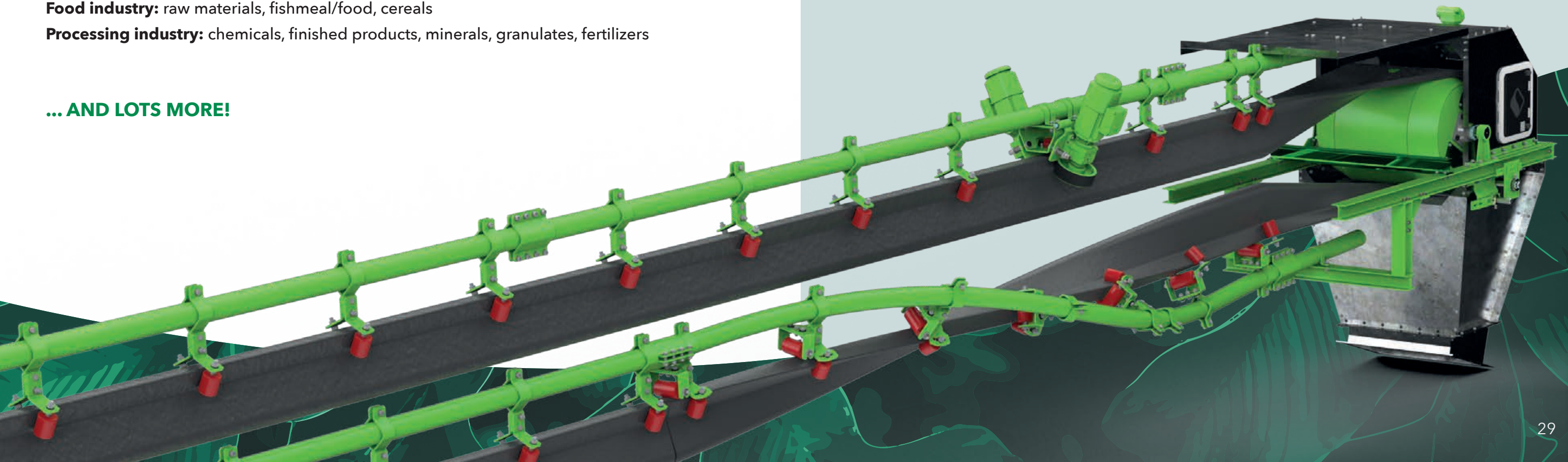
Can overcome steep uphill and downhill gradients as well as tight horizontal and vertical curve radii

### LOW-MAINTENANCE

No deposits of material residues thanks to enclosed return flow

### FLEXIBLE BELT GUIDANCE

Can also be used for additional conveyed material thanks to enclosed return flow





# STARCLEAN® IMPACT BARS



PRODUCT  
VIDEO

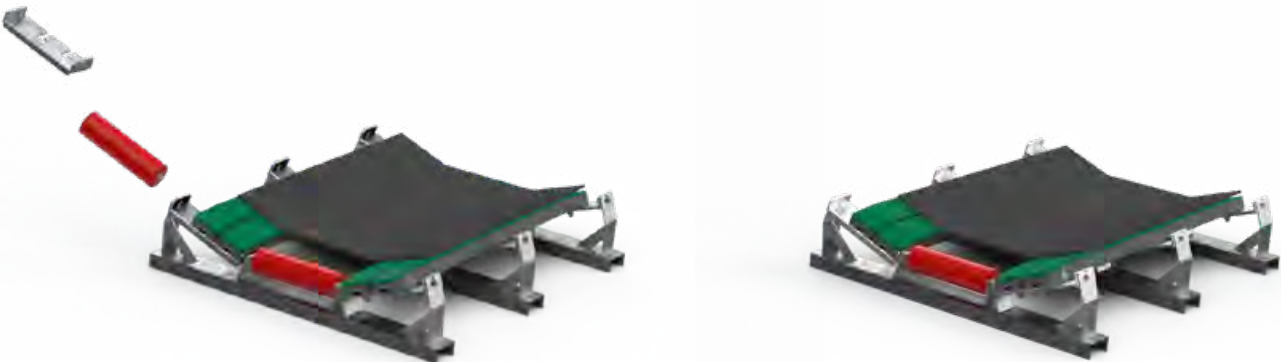
## ADVANTAGES AT A GLANCE

- ◆ Optimum protection of the conveyor belt
- ◆ Easy and quick to install
- ◆ Eco-friendly sealing
- ◆ Minimum friction forces
- ◆ Supports the belt instead of idler rollers
- ◆ Heat-resistant up to 75°C
- ◆ Also available in ATEX quality
- ◆ Absorbs the impact force of the bulk material

Also available with removable blades

## REPLACEMENT OF SIDE ROLLERS

STARCLEAN® Mounting Adapter and Impact Bars  
for sealing support

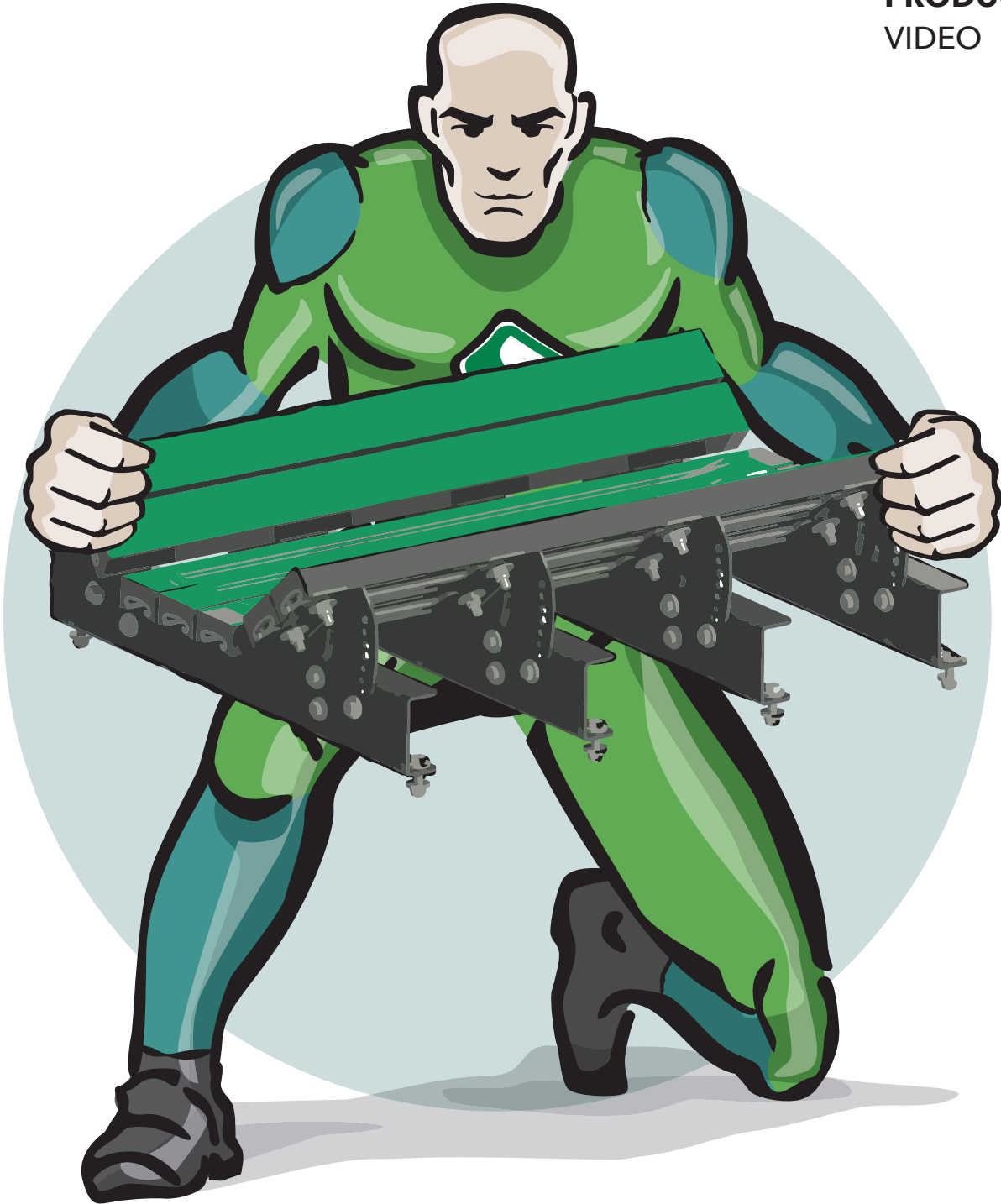
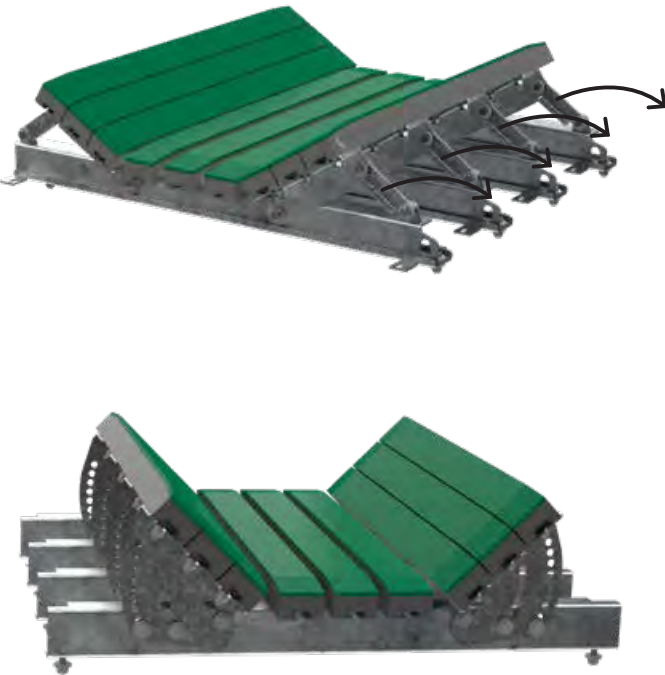


## INDIVIDUAL IMPACT BARS



Height: 55 mm

Height: 75 mm



# STARCLEAN® CENTRAX BELT TRACKING SYSTEM

## ADVANTAGES AT A GLANCE

- ◆ Low space requirement
- ◆ Universal installation options
- ◆ Reliable alignment of the conveyor belt
- ◆ Rollers coated with diamond-pattern special rubber or with optional extremely wear-resistant polyurethane
- ◆ Optional: tracking rollers also available in ATEX quality
- ◆ Robust and flexible design



### TYPE SO AND SKO

- ◆ Used on the returning belt (return part of belt)
- ◆ Suitable for reversible operations
- ◆ Beam fixed to the framework of the conveyor
- ◆ Heavy-duty turning bearings
- ◆ One cylindrical central roller and two conical side rollers



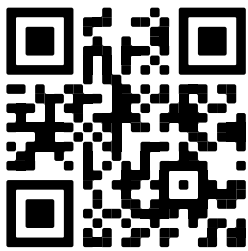
### TYPE S AND SK

- ◆ Use on a troughed belt (carrying part of belt)
- ◆ Suitable for reversible operations
- ◆ Beam fixed to the framework of the conveyor
- ◆ Continuously variable angle adjustment of the side rollers for optimum adaption to the conveyor belt
- ◆ Heavy-duty turning bearings
- ◆ Simple fine adjustment ensures perfect alignment of the conveyor belt
- ◆ One cylindrical central roller and two conical side rollers



### TYPE SR AND SRG

- ◆ Used on the returning belt (return part of belt)
- ◆ Heavy-duty turning bearings



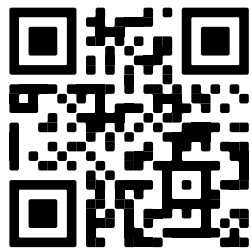
PRODUCT  
VIDEO





# STARCLEAN® SEAL / SPILL-EX / SEALTEK

## TRANSFER POINT SEALS



PRODUCT  
VIDEO

### ADVANTAGES AT A GLANCE

- ◆ Optimum reduction of dust emissions and contamination
- ◆ Efficient material guidance
- ◆ Wear-resistant dust seal
- ◆ Simple installation
- ◆ Optimum belt protection
- ◆ Optimized lifespans
- ◆ 3 Steel qualities  
(HB400 wear-resistant steel, S235 standard steel and stainless steel)



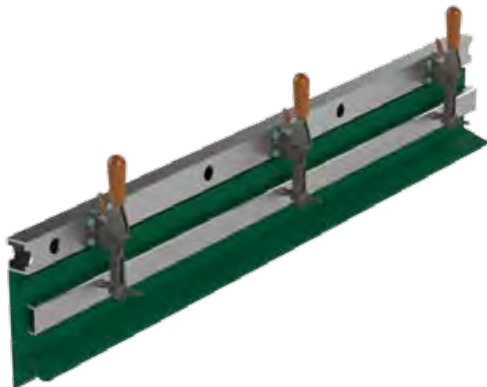
#### SPILL-EX

- ◆ For the reverse side of the transfer point
- ◆ Four different versions available
- ◆ Also available as a side seal



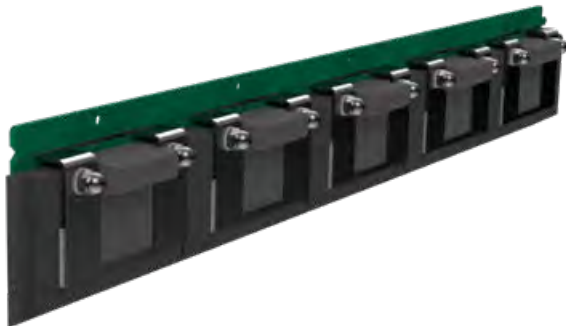
#### SEAL-TEK R

- ◆ Modular design suitable for any rear wall
- ◆ Individual segments for individual Adjustment to the trough
- ◆ Mounting plate made of highly wear-resistant steel



#### SEAL

- ◆ Dust seal adjusts to the belt troughing
- ◆ Combination of special material available in different hardness degrees
- ◆ Optional: 2 attachment variants: bolted or with quick-release lever



#### SEAL-TEK S

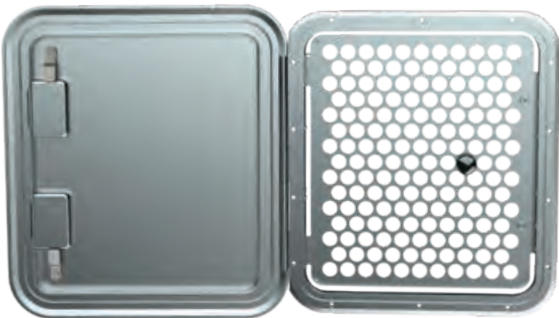
- ◆ 1-meter-long mounting plate
- ◆ 5 overlapping sealing blocks
- ◆ Chamfered and non-chamfered



# STARCLEAN® ID INSPECTION DOOR

## ADVANTAGES AT A GLANCE

- ◆ Dust-proof
- ◆ Simplified maintenance and inspection of the conveyor belt cleaner
- ◆ Robust, impact-resistant material
- ◆ Secured against unauthorized access
- ◆ Suitable for every transfer point
- ◆ Easy and quick to install
- ◆ Protection against reaching into the chute
- ◆ Permits inspection even during operation
- ◆ Captive screws and cable to secure the grid



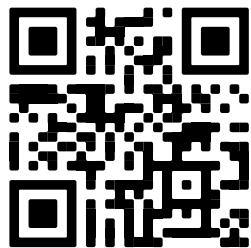
Size S:  
380 x 280 mm



Size M:  
405 x 375 mm



Size L:  
520 x 465 mm



PRODUCT  
VIDEO





# STARCLEAN®

## SERVICE AND ADVICE



### CUSTOMER SERVICE

YOUR SATISFACTION IS OUR CORE BUSINESS

Providing services goes without saying for us.  
From advisory all the way to installation or maintenance  
services, our expert service professionals are always at your  
side to help find the perfect solution for your belt conveyor.

**WE ARE ONLY SATISFIED WHEN YOU ARE TOO.**

# STARCLEAN®

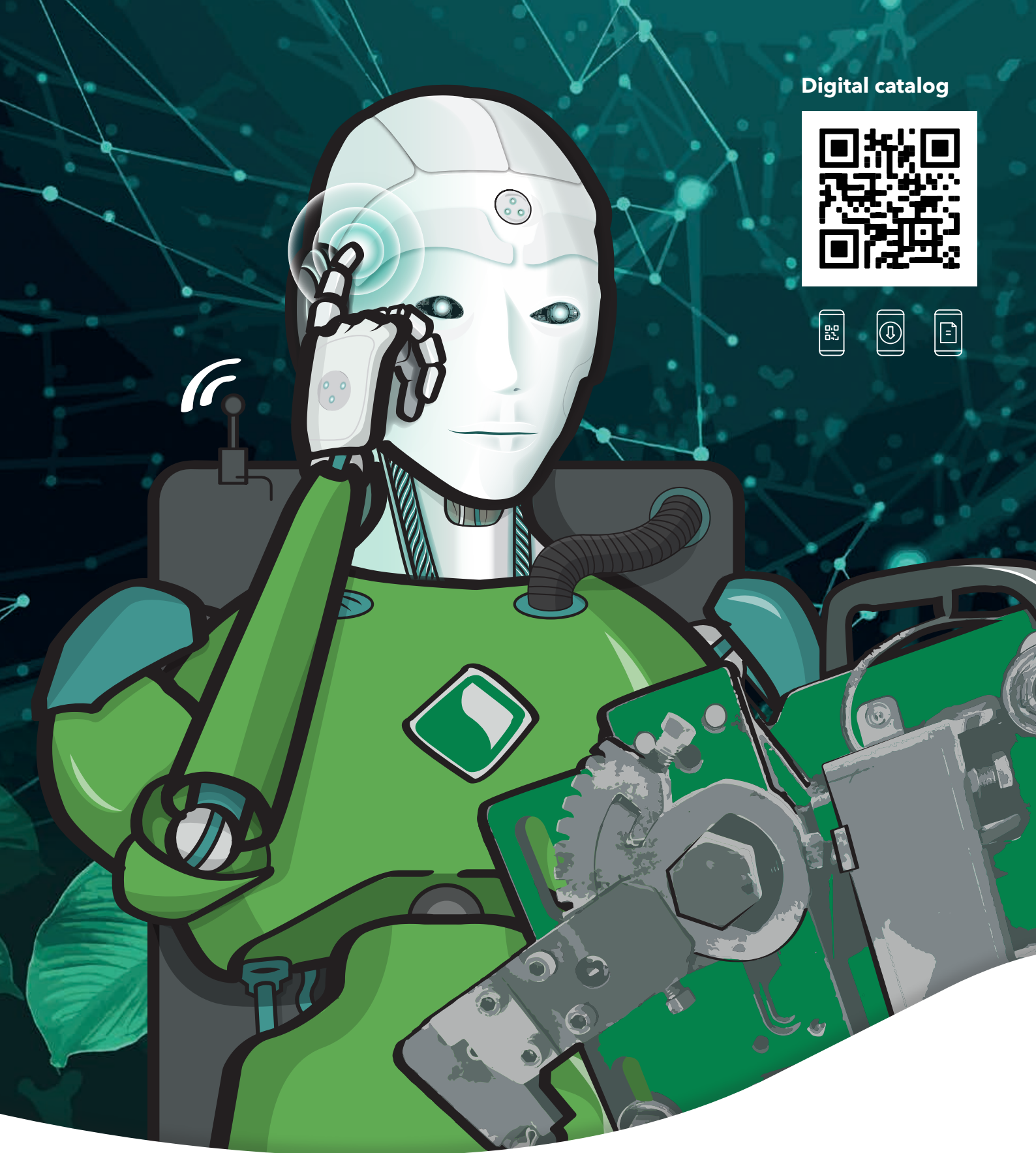
## „SPILLAGE CONTROL“



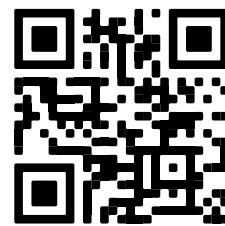
### ADVANTAGES AT A GLANCE

- ◆ Optimization of the entire plant system
- ◆ Increase of plant profitability
- ◆ Prevention of dust emissions that are harmful  
to the environment and to health
- ◆ Loss-free material transport
- ◆ Dramatically extends the lifespan of the conveyor belt

[www.starclean-solutions.com](http://www.starclean-solutions.com)



Digital catalog



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