



TYRANNOSAURUS® series

# SCREENS

SCREENING SOLUTIONS  
FOR SOLID WASTE  
& BIOMASS





Over 250 plant deliveries  
around the world

We are creating Renewable Future Together.

1

### Renewable

BMH DESIGNS AND BUILDS solutions for recycling, material recovery, renewable energy and recreation of raw materials.

2

### Future

WE WANT TO BE an integral part of building greener and cleaner future globally.

3

### Together

WE WORK TOGETHER with our customers and enable them to succeed in their businesses and environmental targets. This we do together within BMH as a team.

We create solutions for waste to be reborn as raw materials and renewable energy.

We have decades of experience in waste processing and biomass handling.



BMH TECHNOLOGY

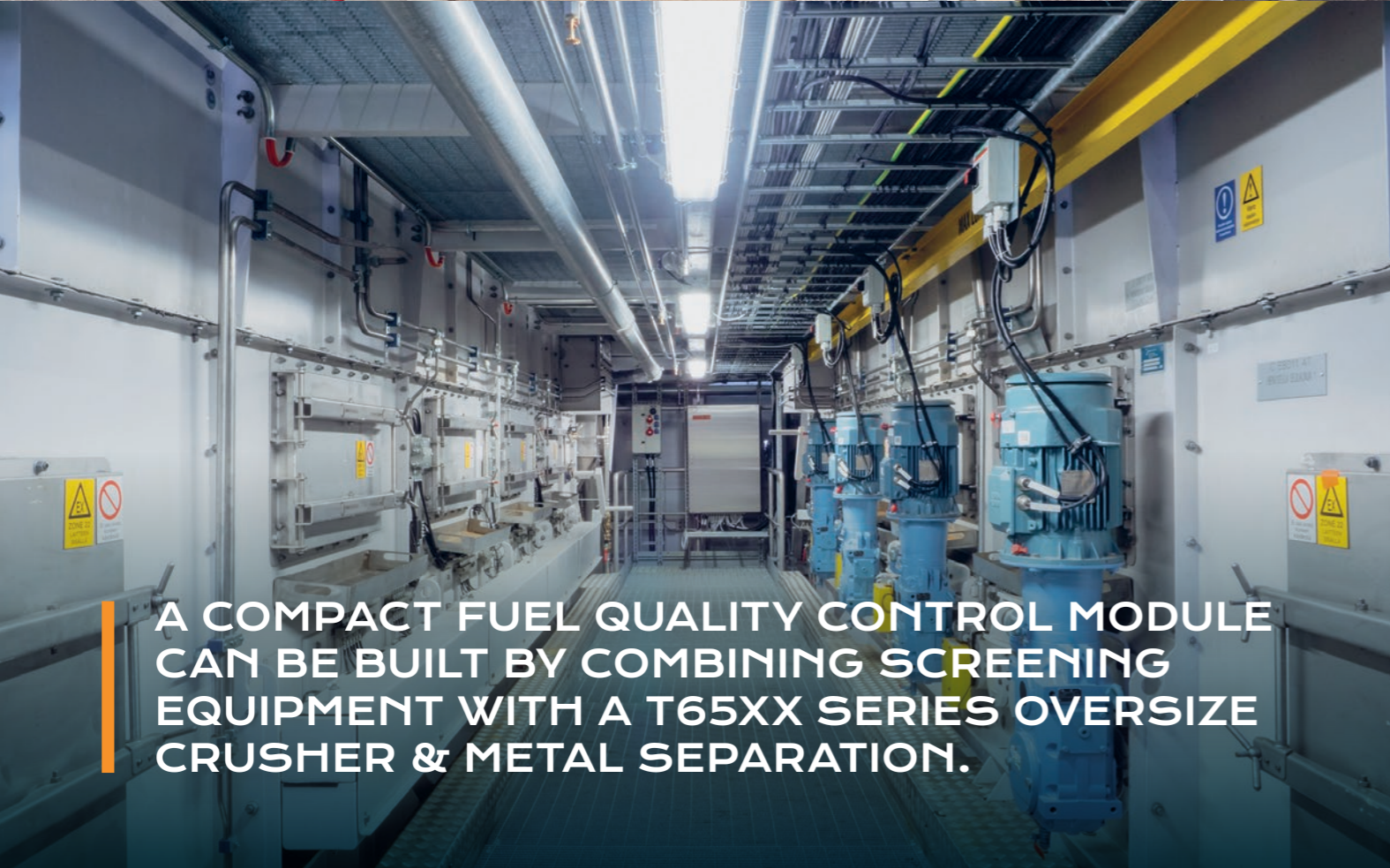
[bmh.fi](http://bmh.fi)

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References



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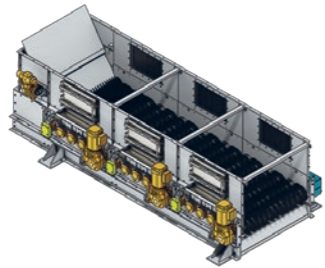
A COMPACT FUEL QUALITY CONTROL MODULE CAN BE BUILT BY COMBINING SCREENING EQUIPMENT WITH A T65XX SERIES OVERSIZE CRUSHER & METAL SEPARATION.



# TYRANNOSAURUS® Screens for MSW, ICW, biomass & recycled wood

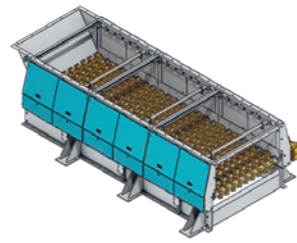
## Disc Screen Serie / KSK

for solid biomass screening



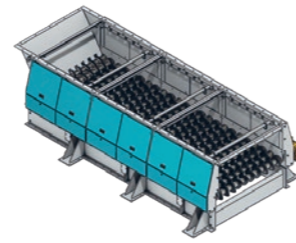
## Disc Screen Serie / SSM

for demolition wood & recycled industrial wood



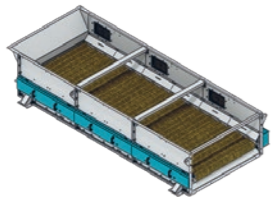
## Disc Screen Serie / KSM

for shredded MSW & ICW



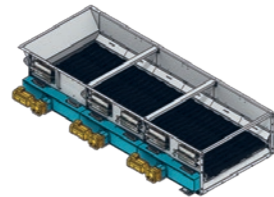
## Fines Screen Serie / SSF

for fines removal from solid biomass, recycled wood & ICW



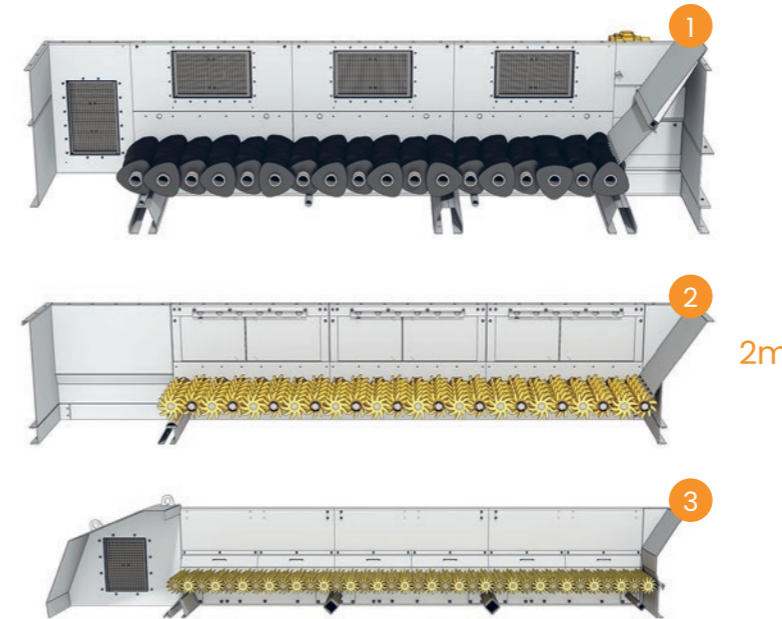
## Fines Screen Serie / KSF

for fines removal in challenging MSW applications



We have delivered more than 500 successfully operating screens since 1970.

We are creating Renewable Future Together.



- 1 TYRANNOSAURUS® Disc Screen Serie **KSK**
- 2 TYRANNOSAURUS® Disc Screen Series **SSM** & **KSM**
- 3 TYRANNOSAURUS® Fines Screen Series **SSF** & **KSF**

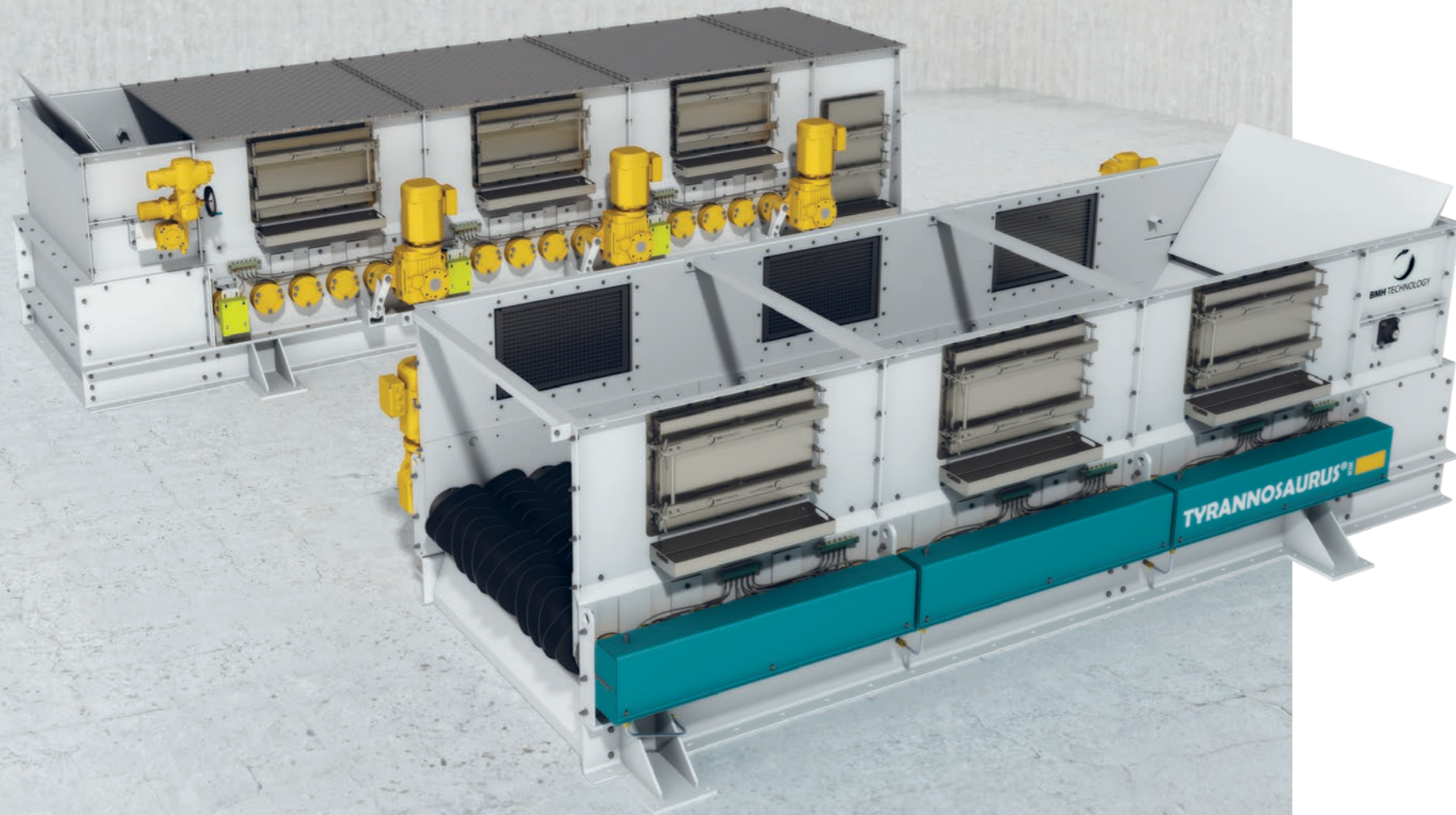
Adjustable rotation speed by frequency converter available for all BMH screen models.



**TYRANNOSAURUS®** screens represent the most advanced technology and strongest design in the market for particle size control of various solid materials. Used together with BMH's intelligent shredding system they form the perfect basis for any recycling or refining application.

A precise-cut fraction can be produced by combining several screen units with different configurations.

**bmh.fi**



**TYRANNOSAURUS® KSK Disc Screens provide a reliable and cost-effective way to separate oversized material from the solid biofuel flow and secure the correct particle size.**

### KSK series

## Superior screening quality for tailored needs

**THE KSK SCREENS ARE** ideal for screening various kinds of solid biofuels. They can handle equally well Mediterranean agro biomass, chipped wood, such as Iberian eucalyptus or tropical broad-leaved trees, and for-

est residues from Nordic coniferous forests. Crushed stumps, hogged whole trees, chipped fruit bushes and shredded eucalyptus bark are screened with experience.



🔗 The discs are manufactured from high-durability steels.

# 1

The KSK screens provide extreme capacity per screening area.

# 2

They come in a compact, simple and dust-proof design, and are easily accessible for maintenance.

# 3

Modular design enables flexible tailoring for different applications.

# 4

Intelligent disc design accelerates material movement and maximizes the screening performance.

🔗 With these disc screens it's possible to separate effectively 45-100mm particles in standard modules.

SCREENING PRECISION SINCE THE 1970'S.

## Flexible & durable

**THE TYRANNOSAURUS® KSK** screens have a **proven technical design** combined with flexible modular architecture. Their innovative and purpose-built performance ensures that all customer capacity demands can be answered.

**Various particle size requirements** can be met by selecting the optimal design from a selection of screens. The screen selection is based on the best of more than 500 customer-tailored screen units delivered around the world.

The rotation of the discs provides **self-cleaning action**, which maintains the screen openings unclogged especially with difficult stringy materials, such as hogged bark and shredded refuse. The discs are manufactured from high-durability steels that give them an

**impressive lifetime** – some have lasted even decades with our customers.

**THE INTELLIGENT DISC DESIGN** combined with adjustable shafts' rotation speed enable optimizing the **separation performance** in the customer's process. Compared to vibrating screens or gyratory screens, the KSK screens run very smoothly

and cause no vibration.

The KSK screens' **robust and dustproof construction** can optionally be equipped with explosion ventilation and flame arresters, which enables safe screening of materials that can form an explosive mixture of dust and air inside the device.

↓ Accessing the screen for maintenance is effortless.



**EXCEPTIONAL DURABILITY  
FOR DECADES OF 24/7  
INDUSTRIAL USE.**



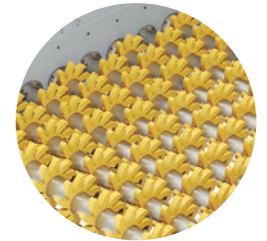
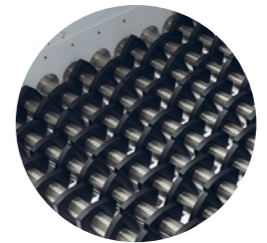
**TYRANNOSAURUS® SSM and KSM Disc Screens share the common flexible frame architecture but are equipped with unique screening features for handling multiform fuels and bulk material.**

**SSM & KSM series**

## Versatile screens for multiform bulk materials

**THE SSM SCREENS ARE** ideal for screening demolition wood, forest residues and recycled industrial wood. This screen, equipped with elastic urethane stars, brings more adjustability, precision, and availability to screening.

The KSM screens are ideal for screening shredded refuse such as MSW, ICW and MRF (Materials Recovery Facility) rejects. This screen, equipped with wear-resistant polymer compound discs, produces no sparks, and has an outstanding self-cleaning ability.



• The discs and stars are manufactured from wear-resistant polymer compounds or elastic urethane.

### 1

The SSM & KSM screens provide extreme capacity per screening area.

### 2

They come in a compact, simple and dust-proof design, and are easily accessible for maintenance.

### 3

Modular design enables flexible tailoring for different applications.

### 4

Various available disc types enable achieving the best performance with several materials.

• With these disc screens it's possible to separate effectively 30-100mm particles.

SCREENING PRECISION SINCE THE 1970'S.

## Advanced screening

**THE TYRANNOSAURUS®** SSM & KSM screens represent **advanced screening technology** combined with flexible modular architecture. Their innovative and purpose-built performance ensures that **challenging materials** can be screened with precision and **outstanding capacity**.

**Various particle size requirements** for different materials can be met by selecting the optimal design from a selection of screens. The screen selection is based on the best of more than 500 customer-tailored screen units delivered around the world.

By selecting the optimal disc type and adjusting the shafts' rotation speed it's possible to optimize the **separation performance** in the customer's process. Should the circumstances change, modular design makes the retrofitting of new shaft types simple and easy.

Despite the **long lifetime**

**expectancy** of the discs, the replacement interval of the discs depends significantly on the infeed material quality. Consequently, we have paid special attention to **easy maintenance**. Through the huge maintenance openings, it's effortless to access the screening deck and shaft joints.

**THE TRIANGULAR POLYMER** discs used with the KSM screens enable screening **challenging and sticky waste materials**. The elastic star-shaped discs in the SSM screens are perfect for handling materials that include impurities, such as bricks,

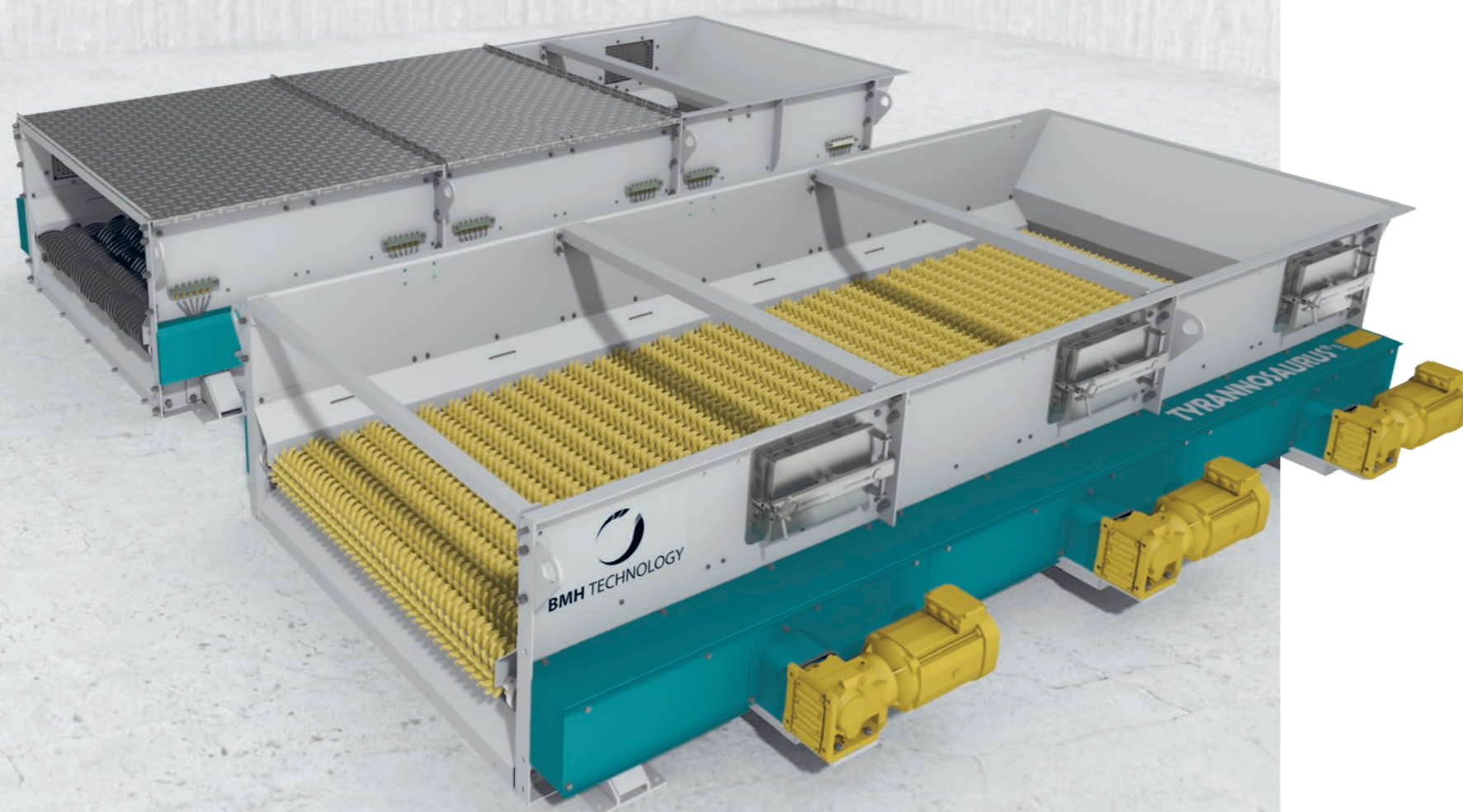
stones, and metal. This may be the case especially when screening crushed waste wood or forest residues.

The rotation of the discs provides **self-cleaning action**, which maintains the screen openings unclogged. Compared to vibrating screens or gyratory screens, the SSM and KSM screens run very smoothly and cause no vibration. They also have an excellent size-capacity ratio and require significantly less maintenance compared to drum screens.

↓ It's effortless to take out the shafts for maintenance or replacement.



A WIDE RANGE OF APPLICATIONS WITH MULTIFORM BULK MATERIALS.



**TYRANNOSAURUS® SSF and KSF Fines Screens excel at handling multiform small particles that could be critical in many processes if not removed.**

**SSF & KSF series**

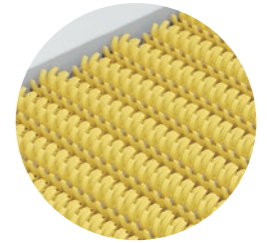
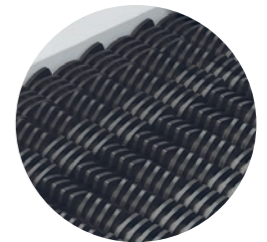
## Multipurpose screens for small particle separation

**THE SSF AND KSF SCREENS** share the common flexible frame architecture but are equipped with unique screening features.

The SSF screens are ideal for separating the fine fraction, such as sand and saw dust from shredded waste or crushed biomass and recycled wood. These screens, equipped with elastic stars, bring more adjustability, precision, and

availability to screening.

The KSF screens are ideal for fines separation from shredded refuse such as MSW, ICW and MRF (Materials Recovery Facility) rejects. These screens, equipped with wear-resistant polymer compound discs, produce no sparks, and have an outstanding self-cleaning ability even with high-moisture wastes.



ⓘ The discs and stars are manufactured from wear-resistant polymer compounds or elastic urethane.

### 1

The SSF & KSF screens provide extreme capacity per screening area.

ⓘ With these fines screens it's possible to effectively separate 5-25 mm particles.

### 2

They come in a compact, simple and dust-proof design, and are easily accessible for maintenance.

### 3

Modular design enables flexible tailoring for different applications.

### 4

Various available disc types enable achieving the best performance and durability with several materials.

SCREENING PRECISION SINCE THE 1970'S.

## Modular & self-cleaning

**THE TYRANNOSAURUS®** SSF & KSF screens represent **advanced screening technology** combined with flexible modular architecture. Their innovative and purpose-built performance ensures that **challenging materials** can be screened with precision and **outstanding capacity**.

Extremely precise **separation accuracy** can be achieved for different materials by selecting the optimal design from a selection of screens. The screen selection is based on the best of more than 500 customer-tailored screen units delivered around the world.

The **separation performance** can be optimized by selecting the optimal disc type and interface opening and adjusting the shafts' rotation speed to fit the material. Should the circumstances change, modular design makes the retrofitting of new shaft types simple and easy.

The **lifetime expectancy** for the discs can be

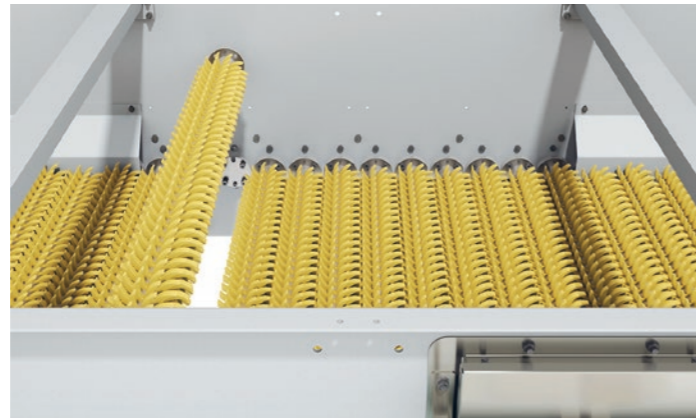
even several operating seasons. However, the replacement interval of the discs depends significantly on the infeed material quality. Consequently, we have paid special attention to **easy maintenance**.

The triangular wear-resistant polymer compound discs used with the KSF screens enable screening **challenging and sticky waste materials**. The elastic star-shaped discs in the SSF screens are perfect for handling materials that include impurities, such as bricks, stones, and metals. This may be the case

especially when screening crushed waste wood or forest residues. The elastic star-shaped discs in the SSF screens work outstandingly well when **extreme precision** is needed.

The rotation of the discs provides **self-cleaning action**, which maintains the screen openings unclogged. Compared to vibrating screens or gyratory screens, the SSF and KSF screens run very smoothly and cause no vibration.

⬇ The shafts are easy to take out for maintenance or replacement.

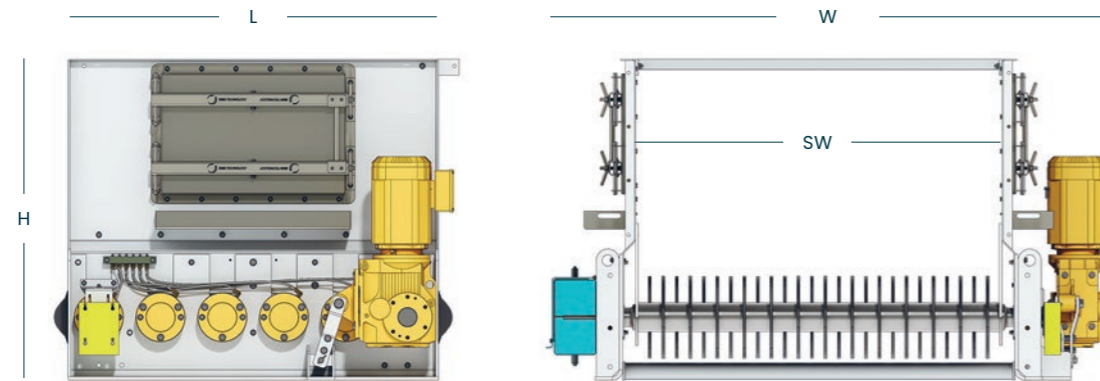


**AGGRESSIVE AGITATION OF MATERIAL INCREASES THE FINES REMOVAL.**

## KSK serie / Technical details

SCREENING WIDTH (SW) [mm]	1200	1600	2000
NUMBER OF SHAFTS	12 / 18	12 / 18 / 24	18 / 24 / 30
SCREENING CAPACITY [m <sup>3</sup> /h] <sup>(1)</sup>	250 / 450	300 / 600 / 900	800 / 1150 / 1500
CUT SIZE [mm]	45-100	45-100	45-100
LENGTH (L) [mm] <sup>(2)</sup>	3240 / 4860	3240 / 4860 / 6480	4860 / 6480 / 8100
WIDTH (W) [mm]	2050	2450	2850
HEIGHT (H) [mm]	1400	1400	1400
WEIGHT [t] <sup>(3)</sup>	4.5 / 6.6	5.1 / 7.4 / 9.8	8.3 / 11 / 13.6
DRIVE POWER [kW]	15 / 22.5	15 / 22.5 / 30	22.5 / 30 / 37.5

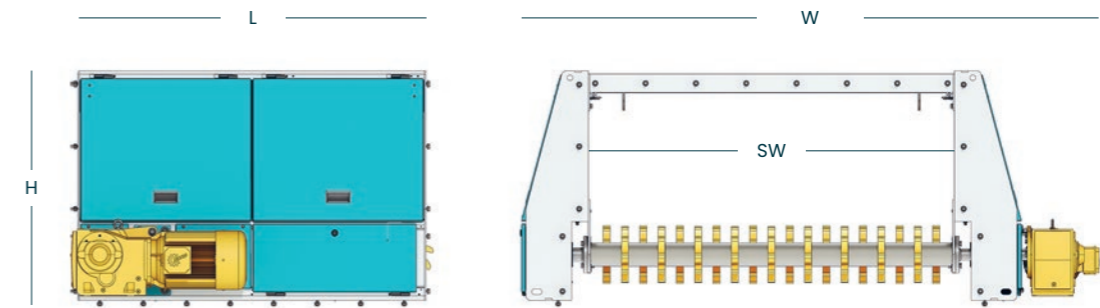
(1) THE CAPACITY IS PRESENTED FOR SCREENING WOOD CHIPS AND HOG FUEL ACCORDING TO EN 17225-1 MAIN SIZE P63. THE REALIZING CAPACITY IS STRONGLY DEPENDENT ON APPLICATION AND PROCESS MATERIAL PROPERTIES.  
 (2) WITH FEED OR DISCHARGE MODULES. (3) WITHOUT FEED OR DISCHARGE MODULES. TRUE WEIGHT DEPENDS ON SCREEN DECK CONFIGURATION AND ACCESSORY LEVEL.



## SSM & KSM series / Technical details

SCREENING WIDTH (SW) [mm]	1200	1600	2000
NUMBER OF SHAFTS	16 / 24	16 / 24 / 32	24 / 32 / 40
SCREENING CAPACITY [m <sup>3</sup> /h] <sup>(1)</sup>	200 / 400	300 / 550 / 800	700 / 1000 / 1300
CUT SIZE [mm]	30-100	30-100	30-100
LENGTH (L) [mm] <sup>(2)</sup>	3040 / 4560	3040 / 4560 / 6080	4560 / 6080 / 7600
WIDTH (W) [mm]	2150	2550	2950
HEIGHT (H) [mm]	1200	1200	1200
WEIGHT [t] <sup>(3)</sup>	2.4 / 3.6	2.6 / 3.9 / 5.2	4.2 / 5.6 / 7.0
DRIVE POWER [kW]	11 / 16.5	11 / 16.5 / 22	22.5 / 30 / 37.5

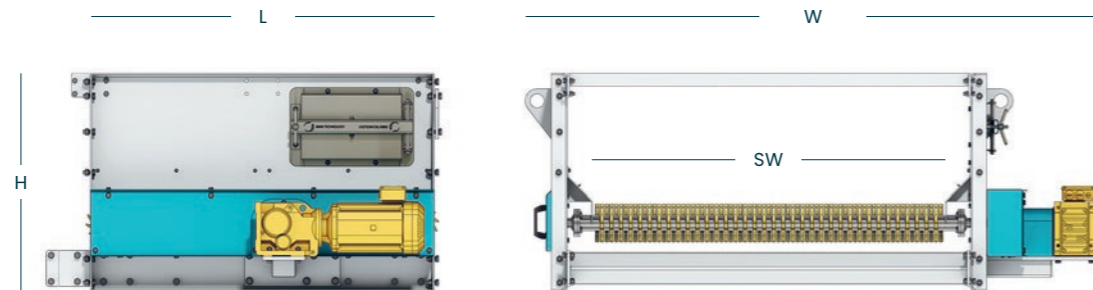
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## SSF & KSF series / Technical details

SCREENING WIDTH (SW) [mm]	1500
NUMBER OF SHAFTS	12 / 24 / 36 / 48
SCREENING CAPACITY [m <sup>3</sup> /h] <sup>(1)</sup>	15 / 30 / 45 / 60
CUT SIZE [mm]	5-20
LENGTH (L) [mm] <sup>(2)</sup>	1440 / 2880 / 4320 / 5760
WIDTH (W) [mm]	2400
HEIGHT (H) [mm]	1000
WEIGHT [t] <sup>(3)</sup>	0.9 / 1.8 / 2.7 / 3.6
DRIVE POWER [kW]	5.5 / 11 / 16.5 / 22

(1) THE CAPACITY IS PRESENTED FOR SCREENING WOOD CHIPS AND HOG FUEL ACCORDING TO EN 17225-1 MAIN SIZE P63. THE REALIZING CAPACITY IS STRONGLY DEPENDENT ON APPLICATION AND PROCESS MATERIAL PROPERTIES.  
 (2) WITH FEED OR DISCHARGE MODULES. (3) WITHOUT FEED OR DISCHARGE MODULES. TRUE WEIGHT DEPENDS ON SCREEN DECK CONFIGURATION AND ACCESSORY LEVEL.



We provide  
 custom  
 configurations  
 for all BMH  
 screen models.



**BMH TECHNOLOGY**

Finnish cleantech company rooting back to 1929.

## We create solutions for waste to be reborn as raw materials and renewable energy.

**We offer material handling solutions** for our customers who work towards carbon neutrality and a greener future. With our plant solutions, equipment and life cycle services they can reuse material previously seen merely as waste. We help our customers turn municipal, industrial, commercial and wood-based waste into raw materials and renewable energy. This answers to the needs of industrial, chemical and energy production as well as construction and infrastructure.



COMPLETE SOLUTIONS



STRONG REFERENCES



EXECUTION CAPABILITY



LOCAL SERVICE

Renewable  
future  
together.

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