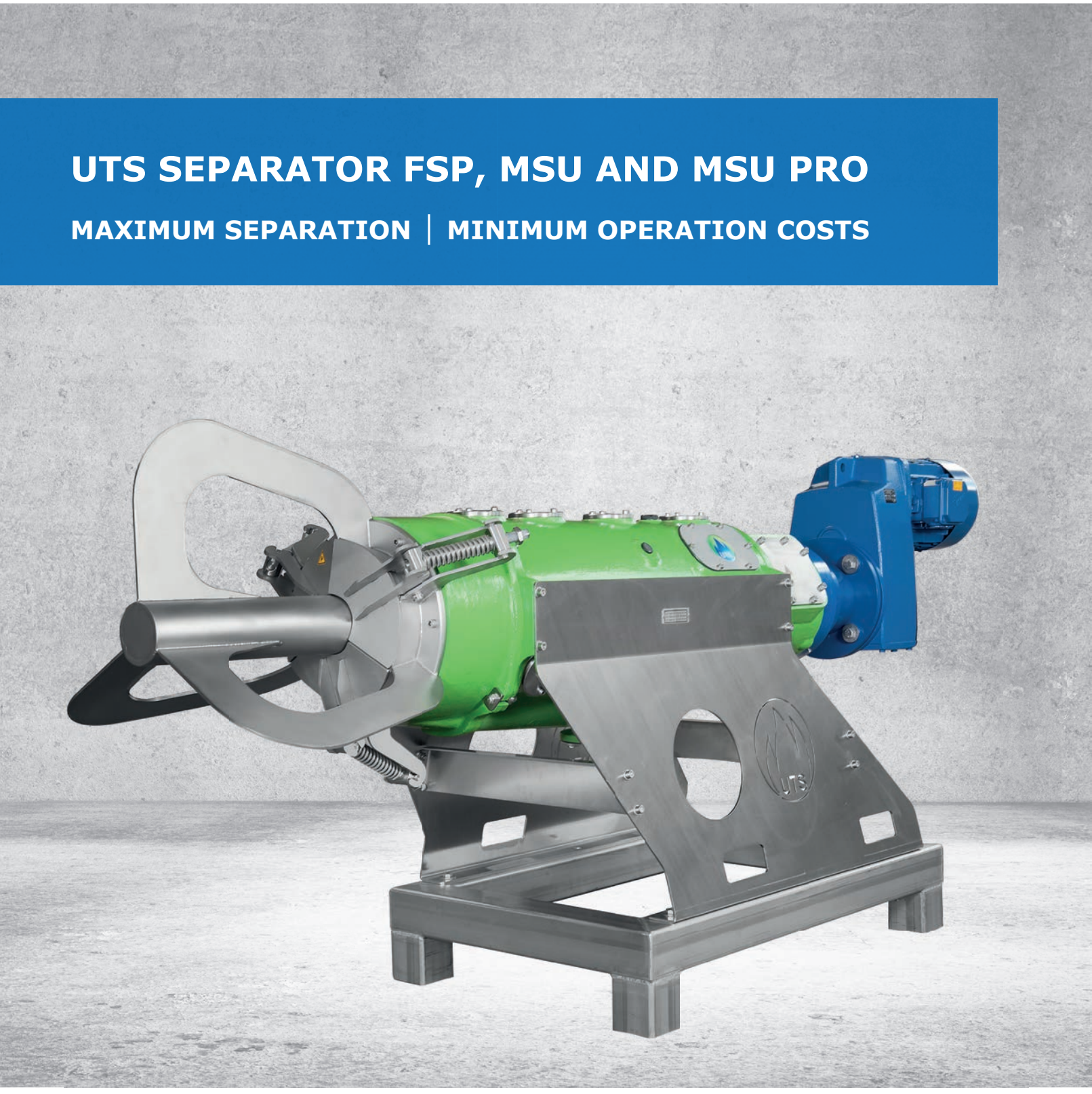
Anaergia
Technologies

UTS SEPARATOR FSP, MSU AND MSU PRO

MAXIMUM SEPARATION | MINIMUM OPERATION COSTS



FSP B

BENEFITS AT A GLANCE

UNCOMPROMISING QUALITY

For more than 15 years, we have been developing and manufacturing filter screw press (FSP) separators that provide consistently high separation and throughput performance with a very long service life. Additionally, with high quality standards and innovative detailed solutions, there is a very low maintenance requirement for the unit.

The hinged, quick-release press housing offers easy access to the screen and screw, while the inspection openings in the inlet and screen housing make cleaning and maintenance work quick and easy.

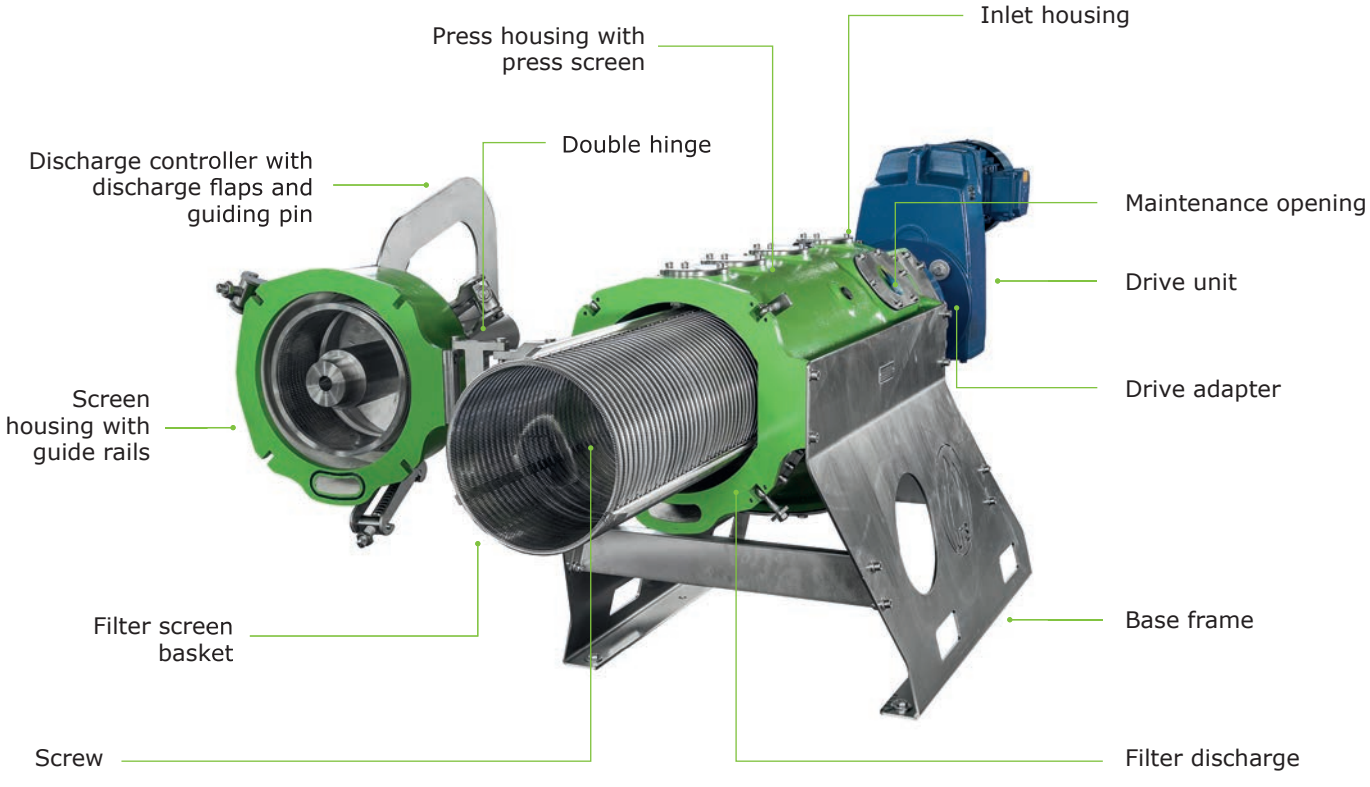
The auger used in our separators has tungsten carbide cladding. This makes it extremely hard, precise and wear-resistant.

The fibre cutting function upstream from the screen area ensures that long fibrous materials are unable to cause clogging.

With our wide range of models, we can go over your individual requirements and offer you a solution that best suits your application, whether for agriculture or industry.

ROBUST:
Durable cast iron (FSP B) or stainless steel (FSP A) housing

EFFICIENT:
High separation and throughput performance with low energy consumption and wear



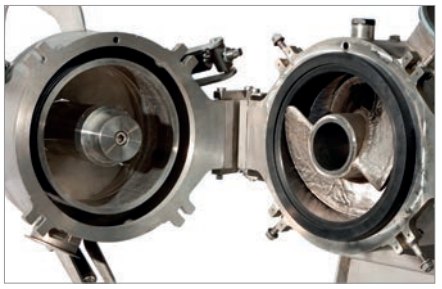
PROTECTED:
Drive adapter protects the gear unit

INTELLIGENT:
Quick access options for maintenance work

FLEXIBLE:
Wide range of models enables versatile use

A UNIQUE TECHNOLOGY

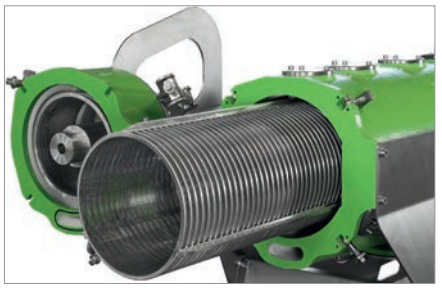
FSP SEPARATORS



SEPARATION OF FILTER AND PRESS AREA

Maximize the capacity, minimize the wear.

- Radially moving filter screen head is separated from the high-pressure-resistant press screen basket by a fixed wear ring made of a specially selected plastic
- Screw flights end at the wear ring
- No pressure is exerted on the filter screen basket by the press. As a result, the entire screen surface area is available for dewatering



FOLDING PRESS HOUSING WITH QUICK-RELEASE

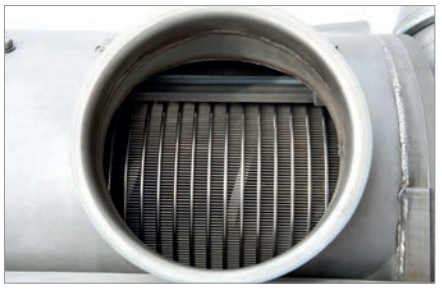
Quick access to screen and screw without excessive physical effort.

- Screw press housing with press screen basket, and discharge controller with spring flap mechanism can be opened with the quick-release mechanism and folded back with sturdy hinges
- Screw and screen can be easily removed without prior removal of the plug of solid material

SCREW PRESS WITH TUNGSTEN CARBIDE CLADDING

Stability, maximum precision, and extremely high wear resistance.

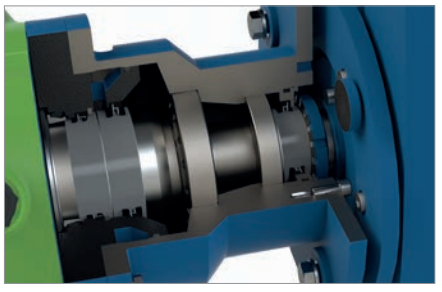
- Dual-threaded screw press with vane thickness of 10mm over the entire spiral length
- Highly wear-resistant, precisely-ground tungsten carbide cladding over the entire screen region



INSPECTION OPENINGS IN THE INLET AND SCREEN HOUSING

Quick access to the screen surface and screw connection with disassembly of the supply line.

- Inspection openings in the inlet and screen housing enable quick access for cleaning, maintenance and monitoring purposes



DRIVE ADAPTER WITH SLIDE RING SEAL AND SEALED CHAMBER

No gear damage due to penetration of water or application of axial forces.

- Connection of the screw facilitated by the drive adapter with high-quality bearing, slide ring seal, and sealed chamber

FIBRE CUTTING FUNCTION BEFORE ENTRY INTO THE SCREEN REGION

No clogging due to long fibrous material.

- Wear plates with slotted shearing holes (FSP A) or cutting bars (FSP B) in the inlet housing
- Replaceable screen guide ring with cutting function immediately upstream of the screen inlet

INSTALLATION EXAMPLE: SEPARATORS FSP A AND B

Our separators are designed to be extremely robust and are thus consistently manufactured for difficult applications. In the process, the highest possible throughput is achieved for the separation of manure, digestate, mash, and other substances.
Maintenance and service tasks can be carried out quickly and easily on-site without disassembly of the press head and pipelines – reducing overall downtimes to a minimum.

An important element of our service is providing an individual design for every project through the use of a mass, nutrient, and cost balance.
This provides you with exactly the right solution that optimally suits your application with respect to performance requirements and costing. Upon request, we can take care of the complete separator installation for you, including the platform, control unit, pipeline installation, pumps, fittings and sensors.

EVERYTHING IS POSSIBLE

SEPARATOR APPLICATIONS

FSP A SEPARATOR

We have developed our FSP A stainless steel separator series based on the very high requirements of industry and high-performance agriculture. Typical areas of application include:

- Paper, pulp and wood-processing industry (e.g. MDF): Dewatering of pulp, rejected fine material and fibrous sludges, as well as fibre extraction from wastewater and process water.
- Food industry: Fruit and vegetable processing, dewatering of distiller´s wash and mash, wastewater and waste treatment
- Meat processing industry: Slaughter waste, stomach and intestinal content, wastewater
- Recycling of plastics: Separation of waste, cleaning of wastewater and circulation water

FSP B SEPARATOR

The FSP B series is an attractive, affordable alternative to the FSP A particularly for agricultural applications. The two series are identical in terms of design and function. However, FSP B components like the inlet, screen, and press housing are intrinsic components made of affordable cast iron. Typical areas of application include:

- Separation of cattle, pig and poultry liquid manure
- Separation of digestate from biogas plants to reduce the storage volume (10-30 %)
- Meat processing industry: Slaughter waste, stomach and intestinal content, wastewater

BEDDING SEPARATORS

The bedding series consists of especially powerful separators to produce bedding material for dairy farming. With the separation of screen and press areas, this model has the ideal design for the generation of high compression pressure. With reduction of the screw speed and the use of high-torque drives, reinforced screens, and a modified back-pressure device, high total solids (TS) percentages of 30–40 % are achieved.

- Cost-effective in-house production of dry bedding material from cattle manure
- No costly purchasing of box bedding material, such as straw or sawdust
- Increased lying comfort and better udder health
- Cleaner animals with good water-binding capability of the "mattress"
- Easier distribution of the separated manure (liquid phase) and increased capacity in the manure storage

MODEL RANGE (Values dependent on the input)

FSP Model	Digestate / Cattle Manure		Liquid Pig Manure	
	Throughput	Total Solids (%)	Throughput	Total Solids (%)
FSP A & B-52/10	10-25 m^3/h	22-25 %	18-30 m^3/h	25-35 %
FSP A & B-52/15	10-25 m^3/h	22-28 %	18-30 m^3/h	25-40 %
FSP A & B-78/10	15-35 m^3/h	22-25 %	25-45 m^3/h	25-35 %
FSP A & B-78/15	15-35 m^3/h	22-28 %	25-45 m^3/h	25-40 %
FSP A-104/15	25-45 m^3/h	22-28 %	35-60 m^3/h	25-40 %
FSP A & B-52/15 Bedding	5-10 m^3/h	30-35 %		
FSP A & B-78/15 Bedding	8-15 m^3/h	33-40 %		

MOBILE SEPARATION SERVICE WITH THE MSU

UNCOMPLICATED PLUG & PLAY SOLUTION

The MSU (Mobile Separation Unit) is a compact plug & play solution for flexible separation of slurry and digestate.

This unit is ideal for you if you want to separate slurry and digestate at different locations on your farm. It can also be worthwhile for small and medium-sized neighboring farms to operate a mobile separator together and thus save costs. Of course, the MSU can also be rented out - the optional flow meter helps you with billing.

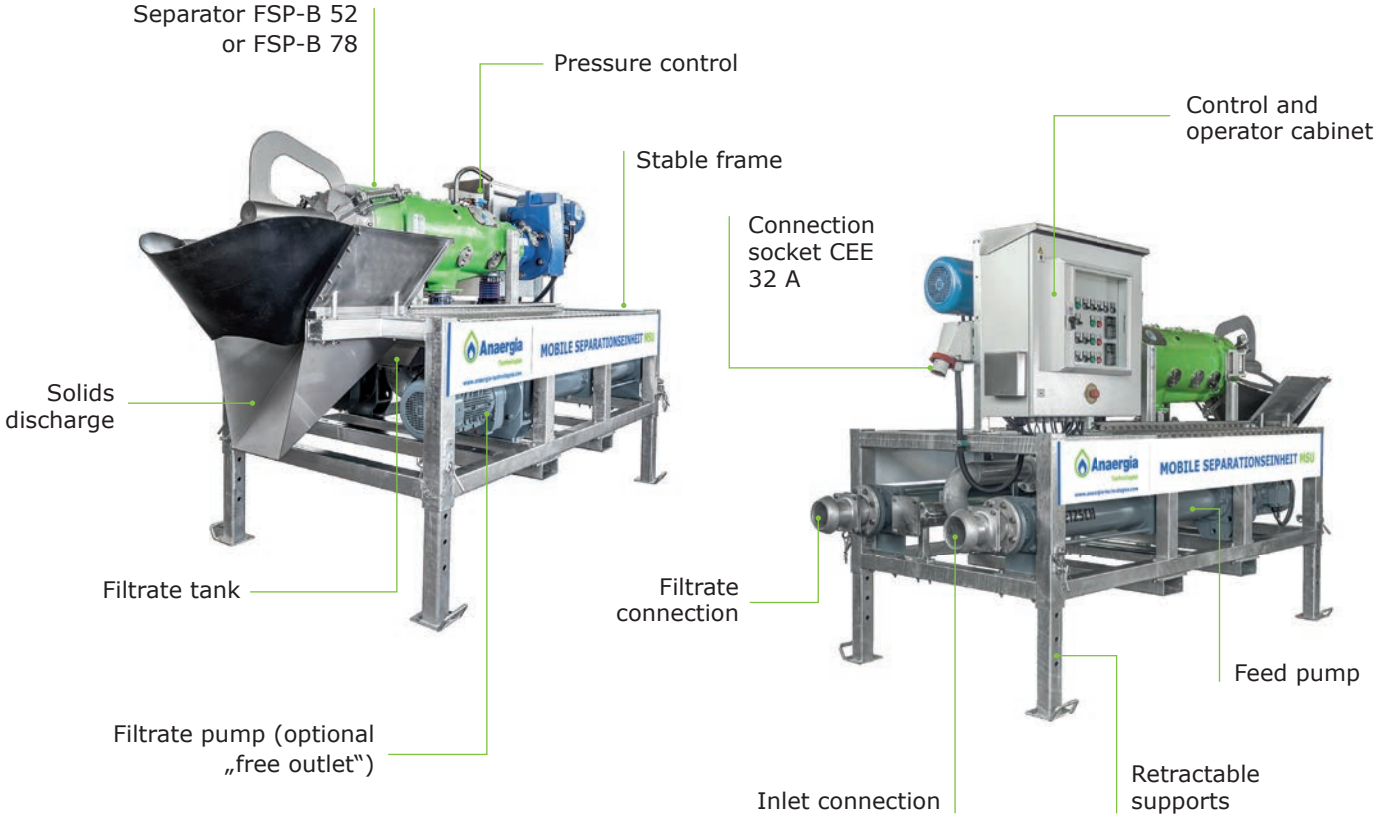
Plug & Play means: simply connect and operate with a flow rate of up to 45 m^3/h. This is made possible by a constantly regulated inlet pressure that ensures optimized material feed. The compact arrangement of the entire unit allows easy transport, e.g. by trailer.

Depending on the design, the MSU can be used in various ways: in classic separation mode, in bedding mode (production of bedding material) or in combined mode, which allows switching between the two variants.

Options such as filtrate tank and filtrate pump, combined connections for feed and filtrate lines (DIN flange, Perrot coupling, square flange) as well as height-adjustable feet allow individual adaptation to the conditions on site.

MOBILE:
Easy transport

EFFICIENT:
High separation and delivery performance with low energy consumption and wear



ROBUST:
Galvanized steel frame, stable pipe construction, solid components

INTELLIGENT:
Integrated control for uncomplicated operation

FLEXIBLE:
Uncomplicated adaptation to different operating locations

MSU PRO - MOBILE SEPARATION „ADVANCED“

DRIVE UP, CONNECT AND GO

The MSU Pro is an extension of the MSU. The additional conveyor belt with a length of 6 m can be swiveled up to 180°. With a drop height of 4 m, the MSU Pro is even more flexible in use than the MSU.

A level sensor on the receiving hopper of the conveyor belt provides additional operational safety. It shuts down the system in the event of a plug breakthrough/liquid leakage at the separator.

COMPONENTS	MSU	MSU PRO
Self-supporting base frame with mounting for forklift tines	Galvanized	Stainless steel
Pipelines	Galvanized	Stainless steel
Separator	All separators from the program	FSP B-78/15 line also as bedding
Dosing pump	Progressive cavity pump 10 - 28 m³/h	Progressive cavity pump 15 - 37 m³/h
Filtrate pump	Progressive cavity pump or RPM3000	Progressive cavity pump 15 - 37 m³/h
Prepared for mounting on trailer	no	yes
Feet for height adjustment available	yes	no
Free outlet filtrate pipe	optional	yes
Conveyor belt, swivelling, length 6 m, Conveyor belt swivelling >180°, Transfer height 4 m when mounted on a trailer (platform height approx. 0.7 m)	no	yes
Additional leak protection	no	yes
Cutting filter for contaminant removal	no	optional
Flowmeter	optional	optional
Remote access module	no	optional
Visualisation on the control cabinet	no	yes
Power connection 32 A	yes	yes

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OUR ANAERGIA TECHNOLOGIES

We offer solutions for the following applications:

- Pump Technology
- Mixing Technology
- Separation
- Extrusion Technology
- Screening & Sorting
- Size Reduction
- Organic Polishing
- Conveyor Technology

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