



®

**WAMGROUP**



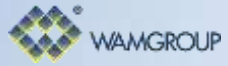
Since in 1969, Vainer Marchesini, founder and current Chairman and C.E.O. of the Group, manufactured his first Screw Conveyor the name WAM® has come to stand for innovation in Bulk Material Handling Technology and Equipment Supply.







*TODAY*



**FOODS**



**ASPHALT**



**ANIMAL FEED**



**PLASTICS**



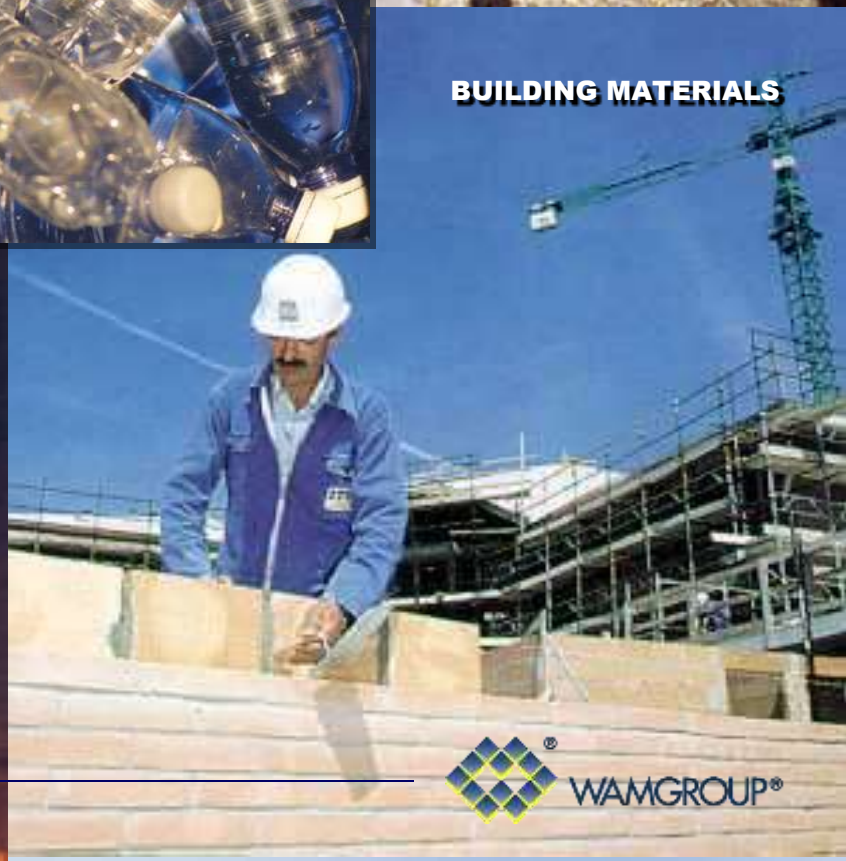
**IRON METALLURGY - FOUNDRY**



**CHEMICALS**



**BUILDING MATERIALS**



**MINING**



**PHARMACEUTICALS**



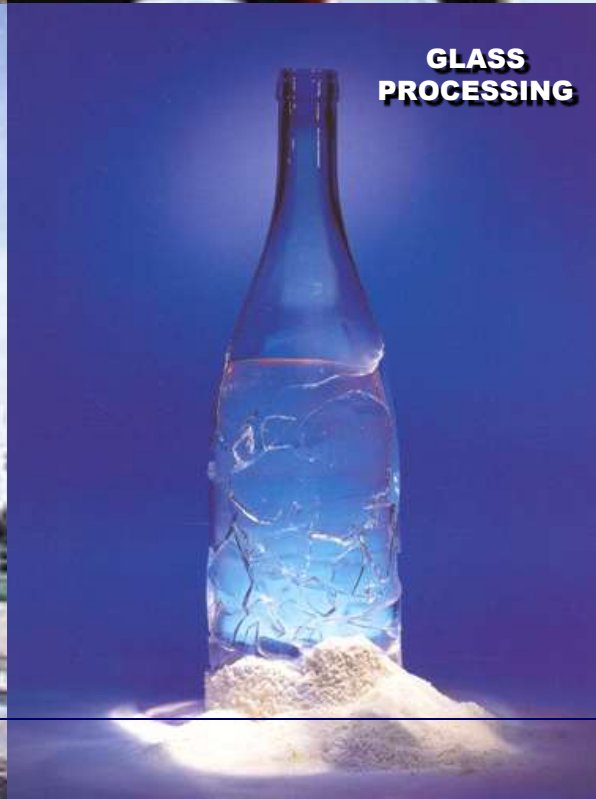
**CERAMICS**



**WASTE WATER  
TREATMENT**



**GLASS  
PROCESSING**



**FLOUR MILLING**



# FACTS & FIGURES SUMMARY

20 MANUFACTURING & ASSEMBLY PLANTS WORLD WIDE

WAMGROUP® CURRENTLY PRESENT IN 85 COUNTRIES

- ▶ 50 SUBSIDIARIES AROUND THE WORLD

8 AMONGST FOREIGN SUBSIDIARIES INCLUDE PRODUCTION  
(ASSEMBLY LINES FOR MAJOR PRODUCTS)

- ▶ DEALERSHIP AGREEMENTS IN THOSE  
COUNTRIES WITHOUT A WAMGROUP®  
SUBSIDIARY

5 SENIOR DEALERS





WAMGROUP®

# Product Range



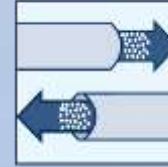
***Bulk Solids Conveying***



***Level & Pressure  
Monitoring Silo Safety***



***Air Filtration***



***Pneumatic Conveying***



***Bulk Solids Flow Interception***



***Vibration Technology  
Aiding of Material  
Flow***



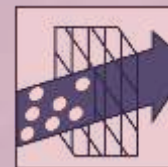
***Bulk Solids Discharging***



***Mixing - Conditioning  
Agglomerating -  
Granulating***



***Bulk Solids Feeding & Metering***



***Waste Water & Sludge  
Treatment***

# Brands



**Bulk Solids Handling  
Equipment**



**Industrial Vibrators &  
Flow Aids**



**Mixing Technology**



**Silo Technology**



**Bulk Solids Handling  
Equipment**



**Bulk Solids Discharging  
Equipment**



**Mechanical Conveying  
Waste Water Treatment  
Hydroenergy Equipment**



**Helicoid Flighting  
Augers**



**Engineering Polymer  
Components**



**Waste Water Treatment  
Equipment**



**Solutions for Waste Water  
Treatment Plants**



**Solutions in Vibration  
Technology**

# Waste Water Treatment PLANT



**Waste Water** = water that has been used, as for washing, flushing, or in manufacturing processes, and so contains waste products.

Waste water also referred to as sewage.

# Waste Water





SPECO®

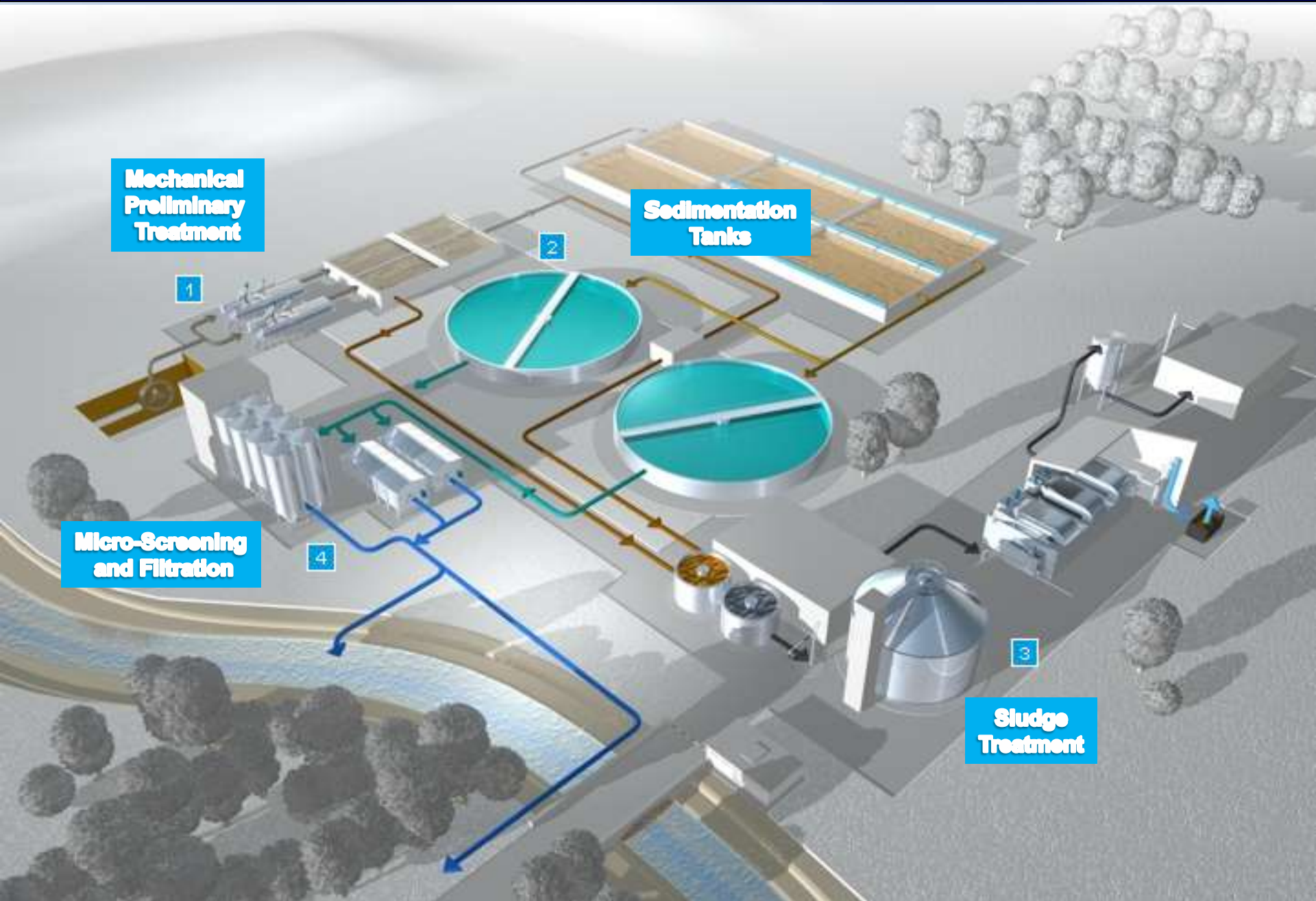
SAVI

## EQUIPMENT FOR:

- **SOLID/LIQUID Separation**
- **GRIT Removal**
- **GREASE Removal**
- **SLUDGE**

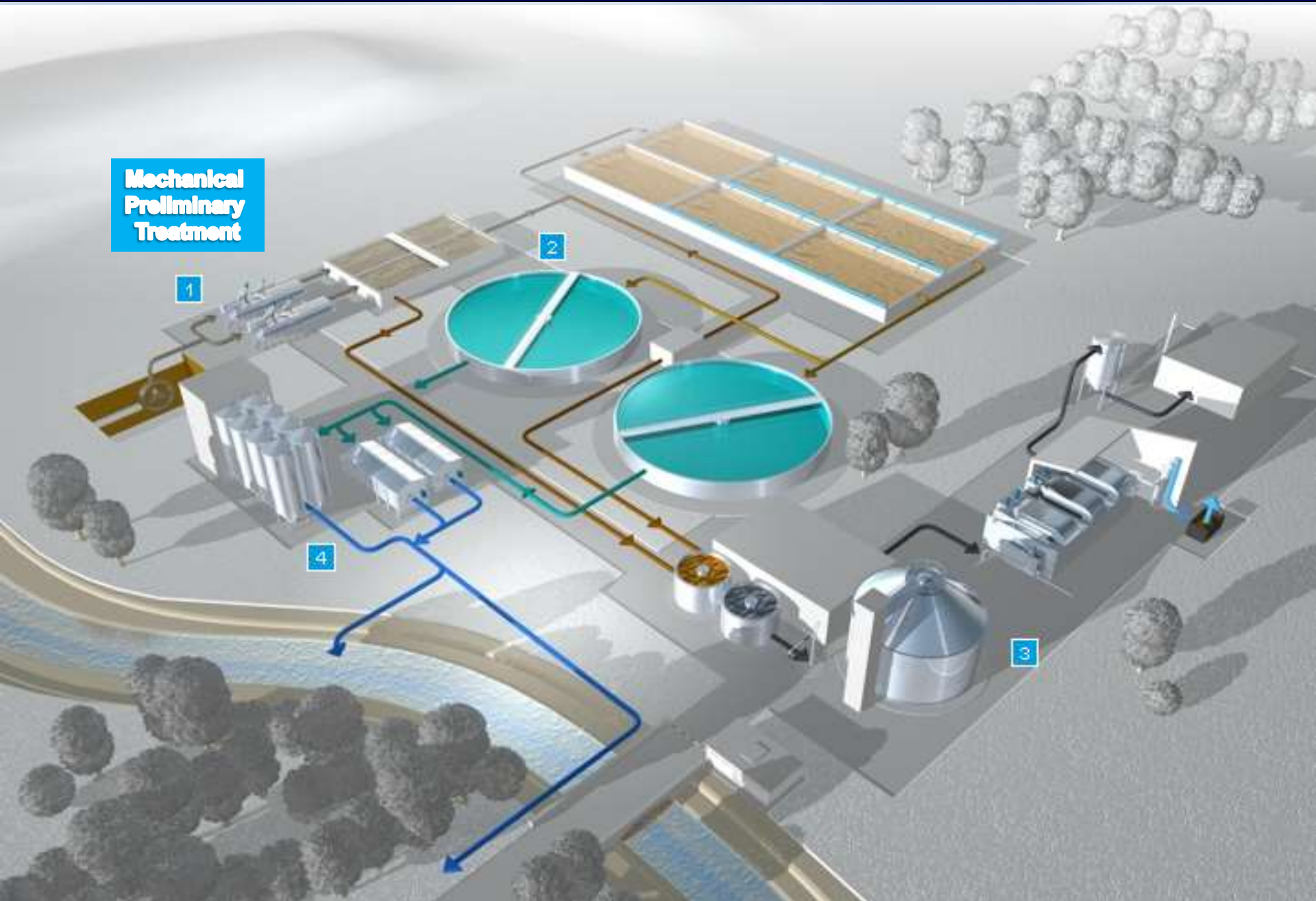


# Waste Water Treatment PLANT



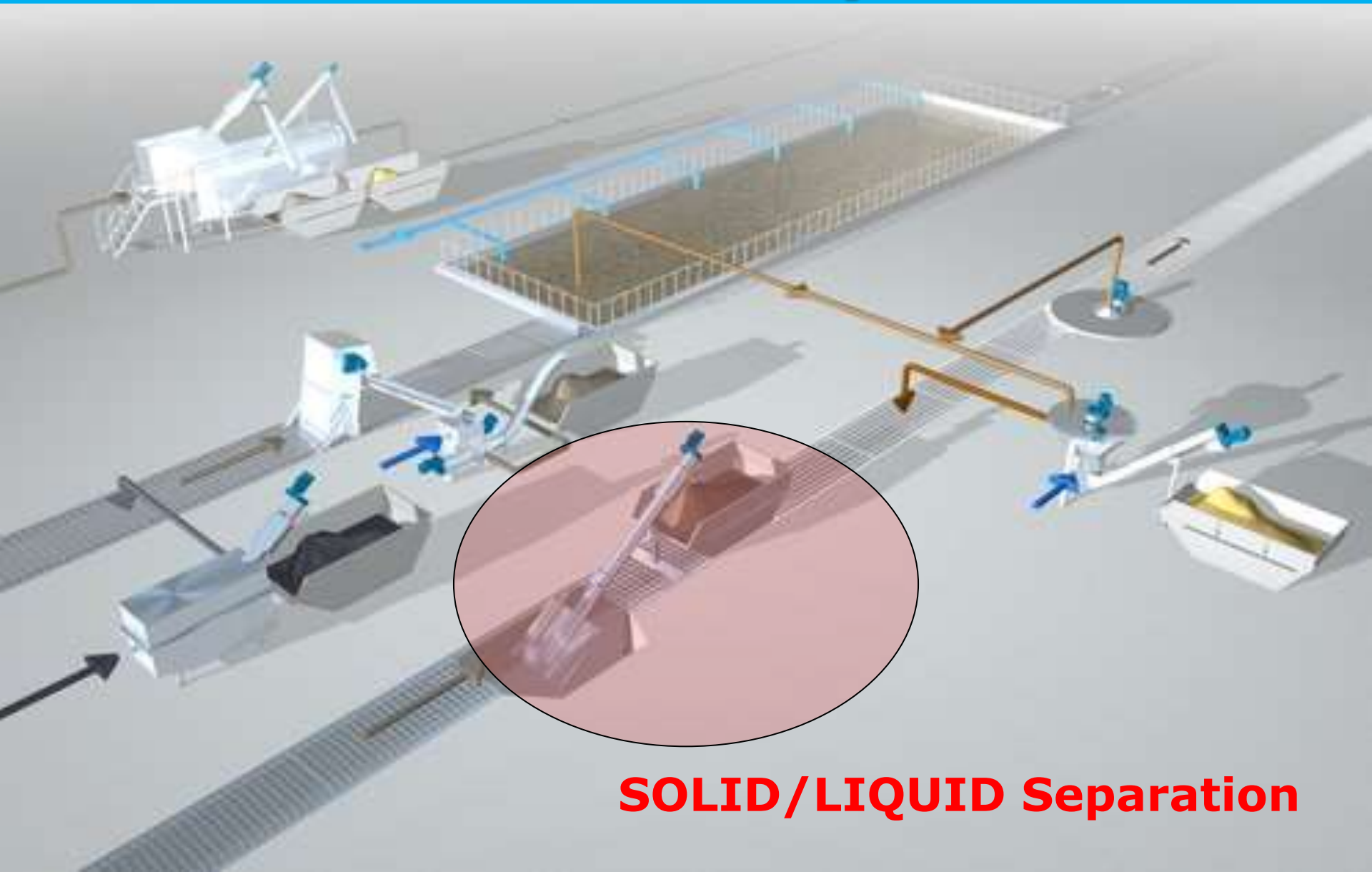
# Waste Water Treatment PLANT

## Mechanical Preliminary Treatment





# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment



SPECO®

## Screw Screens

WASTEMASTER®  
GCP/GCE



$Q = 30 \sim 300 \text{ l/s}$  ( $63 \sim 635 \text{ cfm}$ )

- Fine screening in channel application
- Automatic removal of the suspended solids from waste water
- Different flow rates and size of screenings to be removed

# WASTEMASTER® GCP/GCE



## WASTEMASTER® GCP/GCE



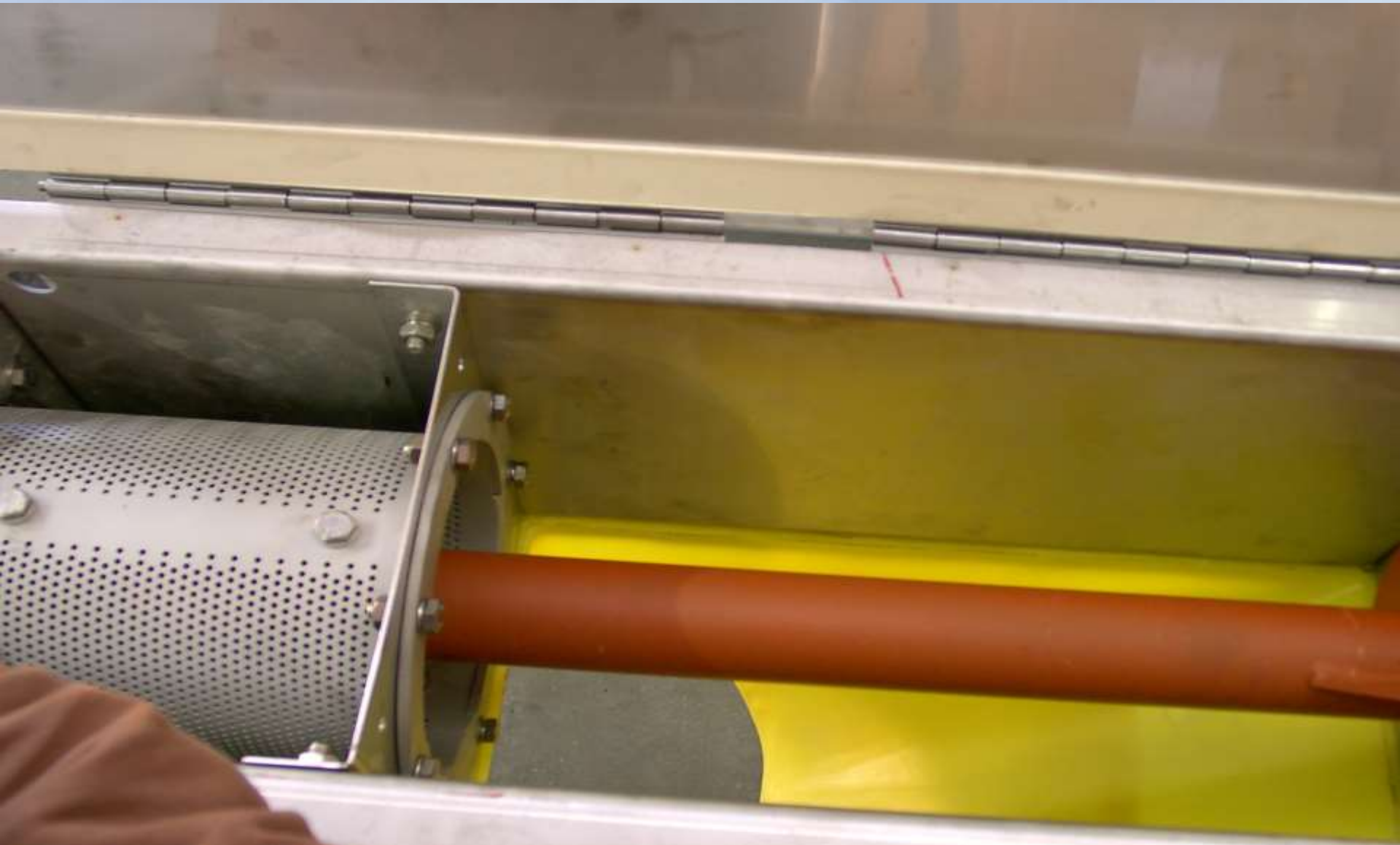
## WASTEMASTER® GCP/GCE



## WASTEMASTER® GCP/GCE



# WASTEMASTER® GCP/GCE





## WASTEMASTER® GCP/GCE



TECHNICAL DATA  
TECHNISCHE DATEN  
CARACTÉRISTIQUES TECHNIQUES  
DATI TECNICI

15.07.2011

SPECOR - T.6.12

**GCEB1**

Standard machine					
Size	L	H	B	W	Y=H
3000	4240	2284	2812	683	1683
4000	5400	2871	3620	1180	2489
4800	5900	3107	4000	1496	2796
5000	5900	3464	4790	1740	3043
5600	6500	3721	5100	2020	3300
6000	6800	4018	5590	2210	3510
6600	7300	4277	6070	2463	3673
7000	7800	4564	6570	2680	3900
7600	8200	4800	6760	3110	3870
8000	8800	5107	7100	3484	4284
8600	9300	5424	7600	3750	4600
9000	9800	5711	8018	4030	4930

Level of water  
Maximum level  
Flow: flow  
Level of water

W1 - Minimum level of water - Minimum Abflusshöhe  
Minimum niveau de l'eau - Minimum livello di acqua

W2 - Max. level of water - Max. Abflusshöhe  
Maximum niveau de l'eau - MAX. livello di acqua

W3 - Alarm level - Alarmhöhe  
Niveau d'alarme - Livello di allarme

W4 - OVERFLOW (ÜBERLAUF)  
DRENCHMENT (TRACCIAMENTO)

Model - Modél - Modèle - Modello GCP - GCE	LEVEL - HÄHSTAND - NIVELLO - LIVELLO			
	W1	W2	W3	W4
GCEB1	100	541	600	1000

## ... in Technical Catalogue:

- Overall dimensions
- Extracting performance
- Feeding performance
- Motor information
- Gear reducer information

### MAXIMUM RATES WITH JOHNSON SCREEN - MAX. FÖRDERMENGEN MIT JOHNSON-SIEBEN DEBIT MAXIMUM AVEC CRIBLE JOHNSON - PORTATE MASSIME CON VAGLIO JOHNSON

SCREENS WITH JOHNSON PROFILE - SIEBE MIT JOHNSON-PROFIL  
CRIBLE AVEC PROFIL JOHNSON - VAGLI CON PROFILI JOHNSON

Model - Modél Modèle - Modello GCP - GCE	JOHNSON SCREENS - JOHNSON-SIEBE CRIBLE JOHNSON - VAGLI JOHNSON		
	A= 0.5 mm (SPECIAL)	B= 1 mm	C= 2 mm
301	28	37	48
401	53	69	91
501	93	120	156
601	135	176	229
701	178	231	301

Rate "Q" (l/sec.) - Fördermengen "Q" (l/sec.) - Debit "Q" (litres/sec.) - Portate "Q" (litri/sec.)

### MAXIMUM RATES WITH DRILLED PLATE SCREEN - MAX. FÖRDERMENGEN MIT LOCHBLECHSIEBEN DEBIT MAXIMUM AVEC CRIBLE PERCE - PORTATE MASSIME CON VAGLIO FORATO

DRILLED PLATE SCREENS - LOCHBLECHSIEBE  
CRIBLE PERCES - VAGLIO FORATO

Model - Modél Modèle - Modello GCP - GCE	DRILLED PLATE SCREENS - LOCHBLECHSIEBE CRIBLE PERCES - VAGLIO FORATO		
	D= 3 mm	E= 5 mm	F= 6 mm
301	40	50	45
401	75	85	80
501	130	145	137
601	190	225	205
701	250	300	280

Rate "Q" (l/sec.) - Fördermengen "Q" (l/sec.) - Debit "Q" (litres/sec.) - Portate "Q" (litri/sec.)

SCREEN

Model - Modél - Modèle - Modello GCP - GCE	dm <sup>3</sup> /sec
301	0.18
401	0.18
501	0.18
601	0.27
701	0.27

## Main information for **correct sizing**:

### Type and quantity of material to handle:

e.g: suspended solids and removal of solids, inlet flow rate

### Screen basket mesh:

e.g.: round perforation, wedge wire

### Compaction required?

e.g.: optional built in compactors

### Flow rate, channel width, channel depth:

e.g.: define size of GCP/GCE (300, 400, 500, 600, 700mm)

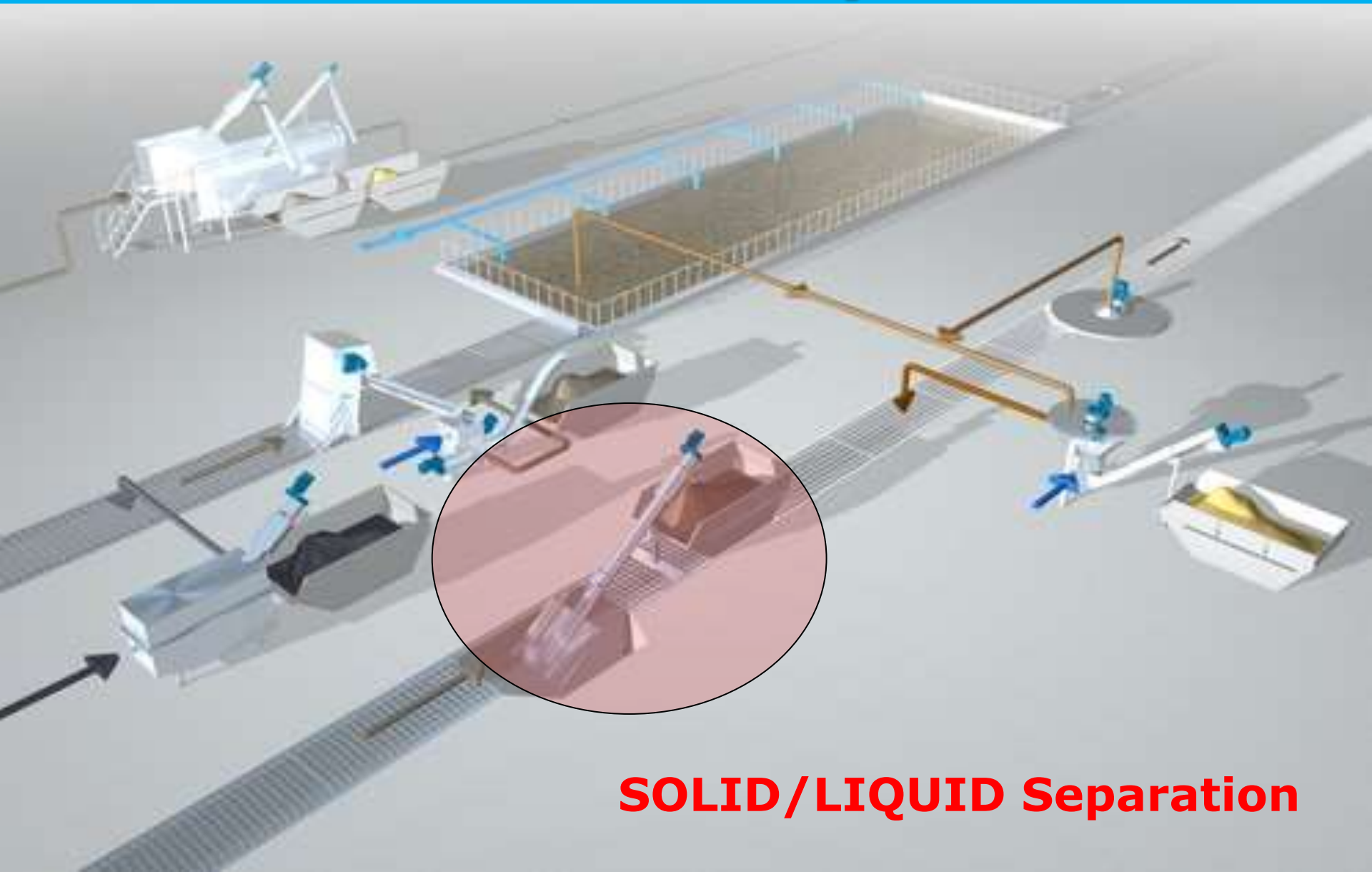
### Place of installaton:

e.g.: existing channel or dedicated tank

### Combination of materials

e.g.: 304/304 SS, 304 SS/mild steel, 316/316 SS, etc.

# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment



## Drum Fine Screens SPIRAMATIC

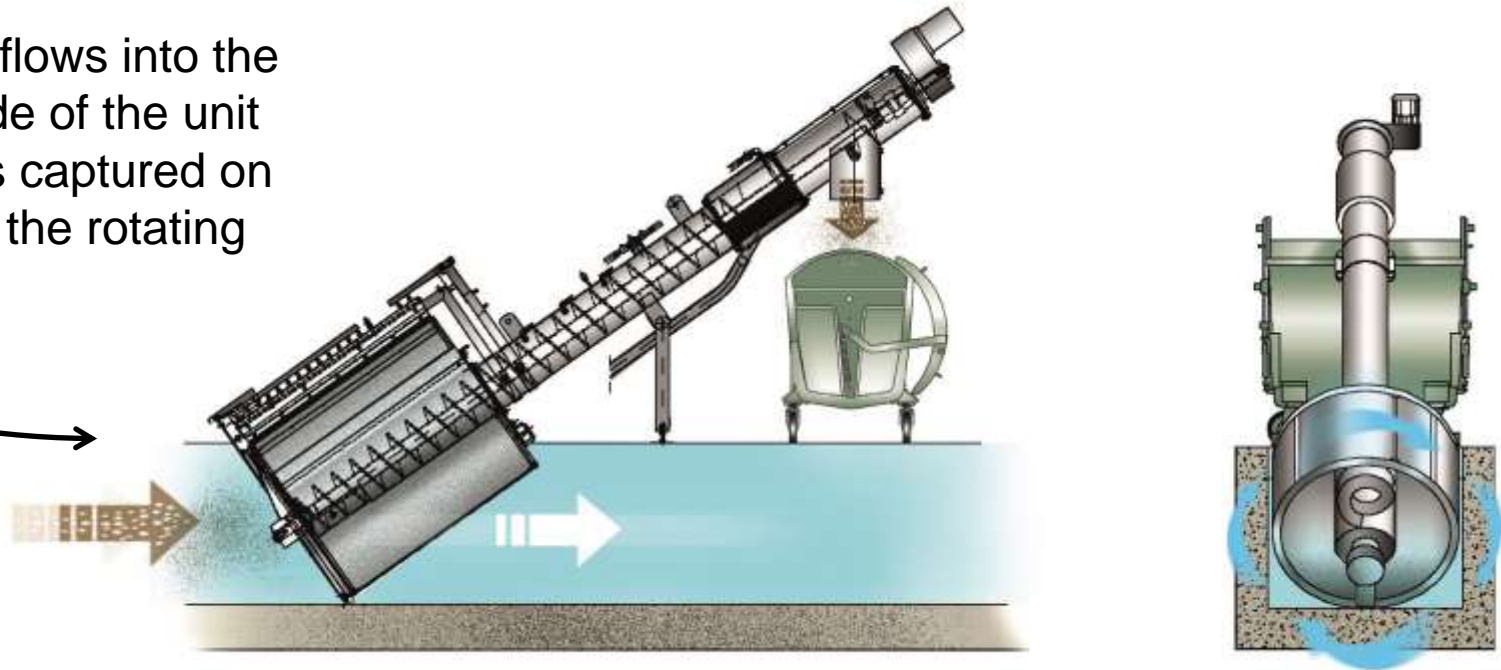


$Q = 30 \sim 1550 \text{ l/s}$

- **Finest screening in channel application**
- **High capacity flow**
- **Different flow rates and size of screenings to be removed**

## How does it work?

Wastewater flows into the upstream side of the unit and debris is captured on the inside of the rotating drum



As the drum rotates, a spray bar cleans the debris from the inside of the drum, depositing it into the auger trough. A nylon brush removes any additional material from the outside of the drum





Perforated plate from 1 to 6 mm



Wedge Wire from 5 to 10 mm



Mesh from .5 to 1 mm





Screen drum cleaning brush

Screen drum spray bars



## Basket Support Rollers



# Waste Water Treatment



# Waste Water Treatment



# Waste Water Treatment



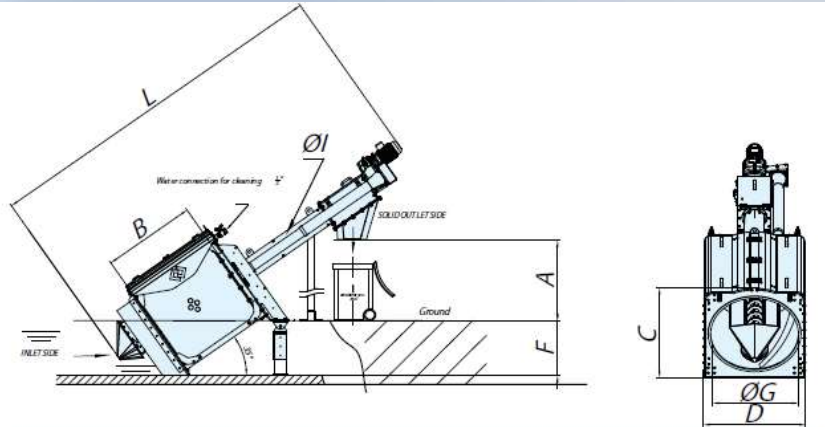


## **Main market needs:**

- Automatic removal of suspended solids from waste water
- Robust and durable
- High flow rate and size of screenings to be removed
- Low maintenance

## **Main points:**

- 40% volume reduction with built-in compactor (option)
- Heavy-duty shaftless screw conveyor
- Self-supporting turntable/wheel for drum and screw
- Specialised machine for both civil and industrial application



Size	A	B	C	D	F	ØG	ØI	L
800	1,500	800	1,000	900	600	800	219	5,000
1000	1,500	1,000	1,200	1,100	800	1,000	219	5,300
1200	1,500	1,200	1,400	1,300	1,000	1,200	323	5,600
1400	1,500	1,400	1,600	1,500	1,200	1,400	323	6,000
1600	1,500	1,600	1,800	1,700	1,300	1,600	323	6,200
1800	1,500	1,800	2,000	1,900	1,500	1,800	406	6,500
2000	1,500	2,000	2,200	2,100	1,700	2,000	406	7,000

Dimensions in mm

... in Tech-Info and drawings:

- Overall dimensions
- Extracting performance
- Feeding performance
- Motor information
- Gear reducer information

Size	Max flow rate* [l/s]	Installed power [kW]	Solid extraction [m <sup>3</sup> /h]
800	35 - 210	1.5	1
1000	60 - 230	1.5	1
1200	80 - 305	2.2	7
1400	120 - 530	2.2	7
1600	155 - 920	2.2	7
1800	240 - 1140	3.0	15
2000	300 - 1550	3.0	15

\*Depending on the screen mesh

## Main information for **correct sizing**:

### Type and quantity of material to handle:

e.g.: suspended solids and removal of solids, inlet flow rate

### Screen basket mesh:

e.g.: round perforation, wedge wire, bars

### Compaction required?

e.g.: optional built-in compactor

### Flow rate, channel width, channel depth:

e.g.: define size of FTR (800, 1000, 1200, 1400, 1600, 1800, 2000mm)

### Place of installation:

e.g.: existing channel or dedicated tank

### Combination of materials:

e.g.: 304/304 SS, 304 SS/mild steel, 316/316 SS, etc.



## Mechanical Preliminary Treatment



## Screw Screens WASTEMASTER® GCPC/GCEC



$Q = 30 \sim 300 \text{ l/s (63} \sim \text{635 cfm)}$

- **Fine screening in TANK application**
- **Automatic removal of the suspended solids from waste water**
- **Different flow rates and size of screenings to be removed**

## WASTEMASTER® GCPC/GCEC



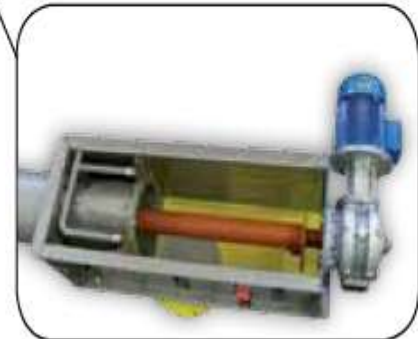
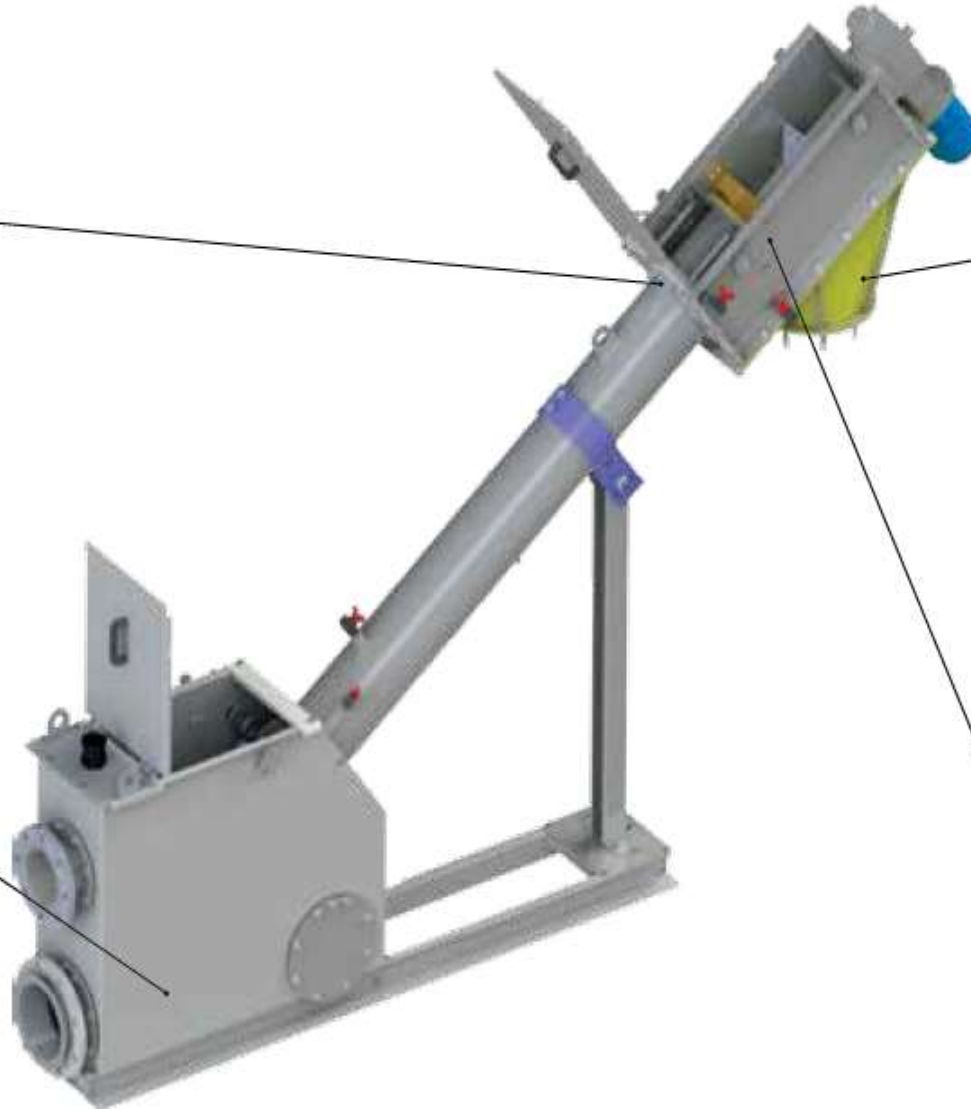
Insulated Discharge Module



GCEC and GCPC  
Outlet Sections



Inlet Screen Basket  
with Splash Guard



GCPC Outlet Top View

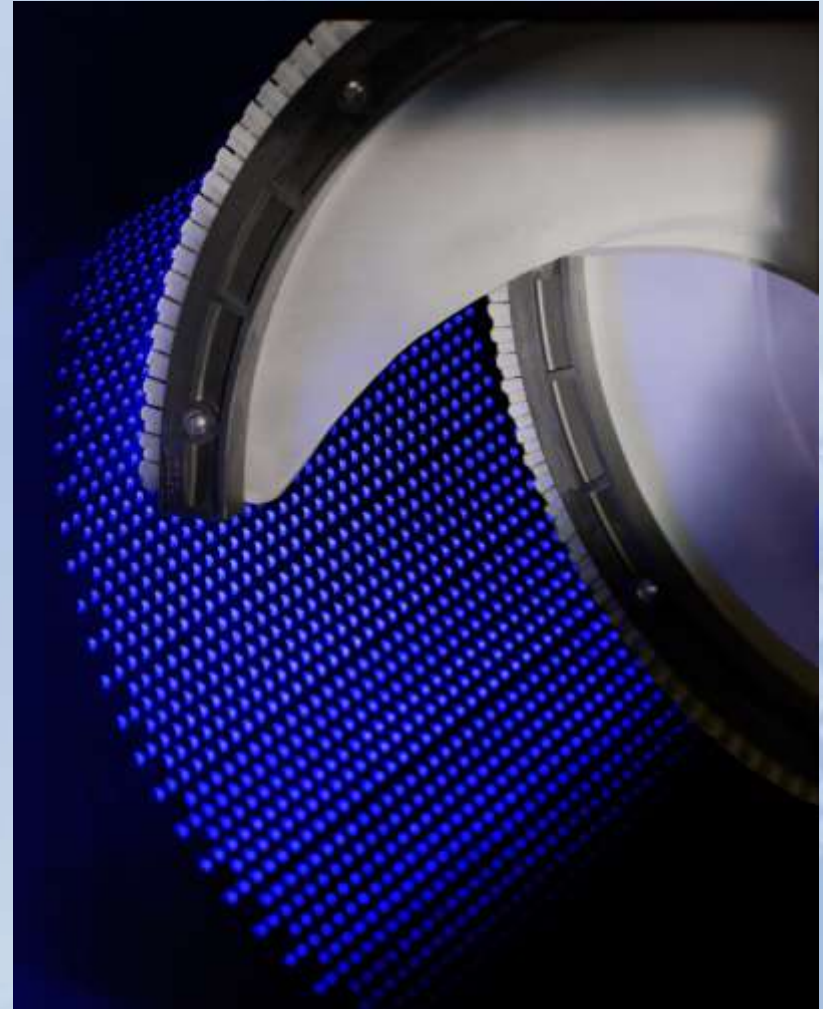
# WASTEMASTER® GCPC/GCEC



**In-Piping Screw Screen**



## WASTEMASTER® GCPC/GCEC





# Waste Water Treatment



# Waste Water Treatment







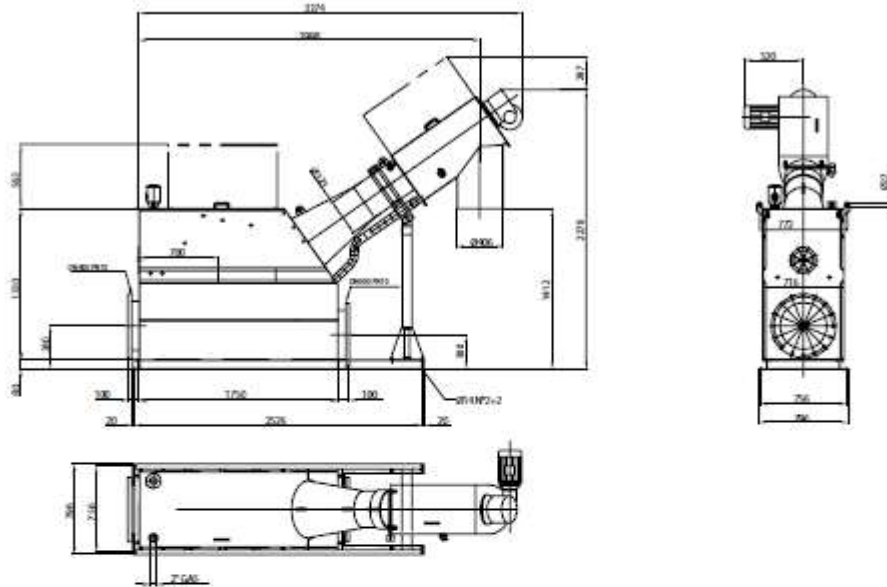
## **Main market needs:**

- Automatic removal of suspended solids from waste water feeding pipe
- Robust and durable
- Different flow rates and size of screenings to be removed
- Low maintenance

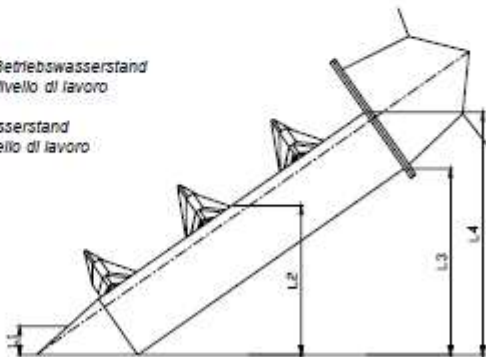
## **Main points:**

- Completely bolted assembly; tank supplied with different side outlets
- 40% volume reduction with built-in compactor
- Heavy-duty shaftless screw conveyor
- Heavy resistant brush segments and bearing support for cleaning and protection of screen basket
- Specialised machine for both civil and industrial application

GCP/C 600



- L1 = Minimum level of work / Minimaler Betriebswasserstand  
Minimum niveau de travail / Minimo livello di lavoro
- L2 = Max. level of work / Max. Betriebswasserstand  
Maximum niveau de travail / MAX livello di lavoro
- L3 = Alarm level / Wasserstand-Alarm  
Niveau d'alerte / Livello di allarme
- L4 = Overflow / Übertauf  
Débordement / Troppopieno



Model / Modell / Modèle / Modello	Level / Wasserstand / Niveau / Livello			
	L1	L2	L3	L4
GCP/C 600	100	520	680	996

## ... in Technical Manual and drawings:

- Overall dimensions (drawings)
- Extracting performance
- Feeding performance
- Motor information
- Gear reducer information

Model - Modell Modèle - Modello GCP/C	JOHNSON SCREENS - JOHNSON-SIEBE CRIBLE JOHNSON - VAGLI JOHNSON		
	A= 0.6 mm (SPECIAL)	C= 1 mm	D= 2 mm
300	28	37	48
400	53	69	90
600	93	120	156
800	135	176	229
700	178	230	301

Rate "Q" (l/sec.) / Fördermenge "Q" (l/sec.) / Débit "Q" (litres/sec.) / Portata "Q" (ltri/sec.)

Model - Modell Modèle - Modello GCP/C	DRILLED PLATE SCREENS - LOCHBLECHSIEBE CRIBLE PERCÉS - VAGLIO FORATO		
	E= 3 mm	G= 6 mm	H= 7 mm
300	40	60	55
400	75	85	93
600	130	146	160
800	190	226	245
700	250	300	330

Rate "Q" (l/sec.) / Fördermenge "Q" (l/sec.) / Débit "Q" (litres/sec.) / Portata "Q" (ltri/sec.)

INDIPENDENTEMENTE DALLA PORTATA "Q", DI LEGGIAMO LA POTENZIALITÀ DI TRASPORTO DEI SOLIDI È LA SEGUENTE

Model - Modell Modèle - Modello Modèle - Modello Modèle - Modello Modèle - Modello	g/min
300	0.15
400	0.10
600	0.15
800	0.20
700	0.32



## Main information for **correct sizing**:

### Type of material to handle:

e.g.: suspended solids and removal of solids, inlet flow rate

### Compaction required?

e.g.: optional built-in compactor

### Flow rate, outlet side:

e.g.: define size of GCPC (300, 400, 500, 600, 700mm) on the flow rate

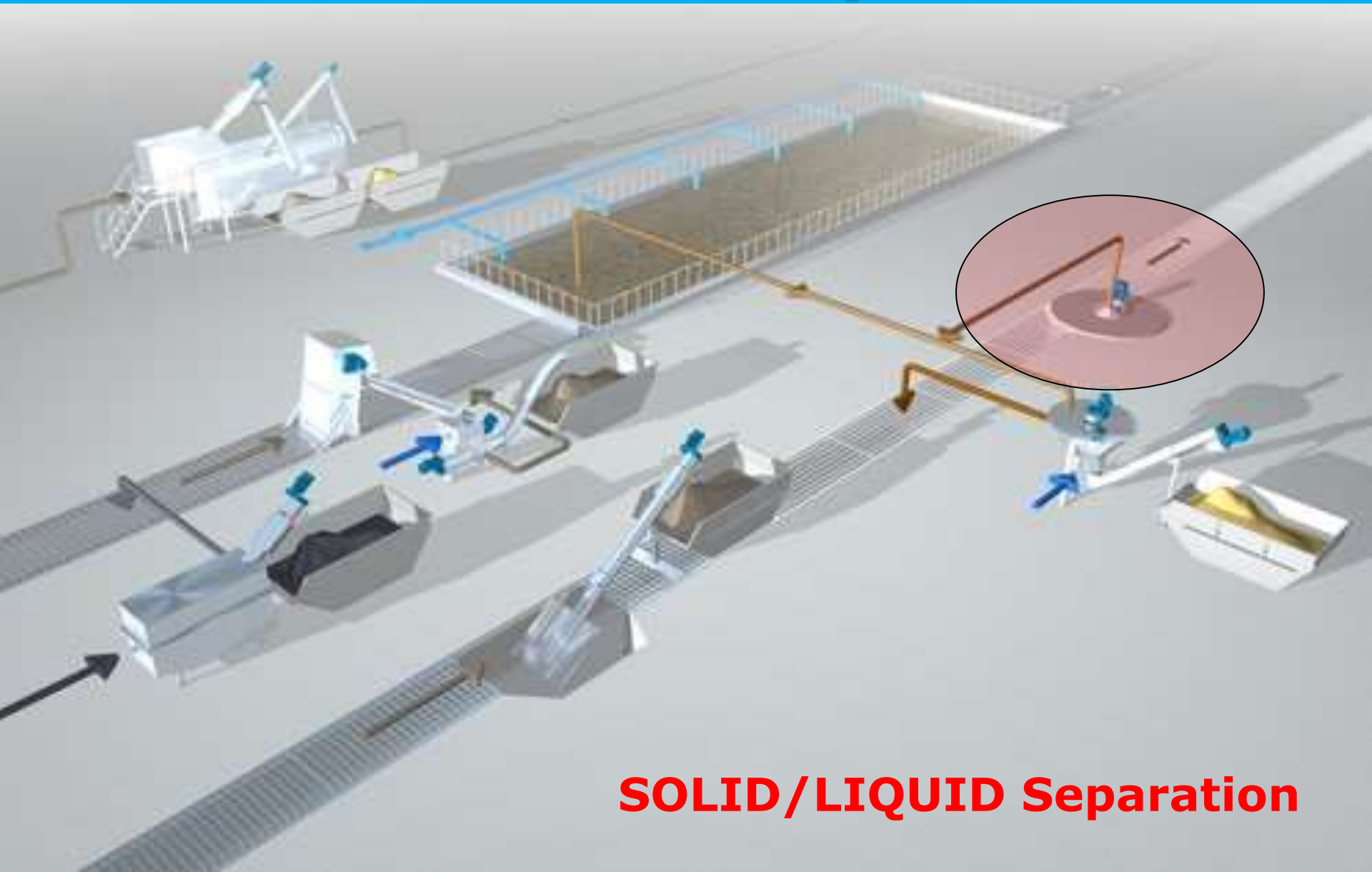
### Place of installation:

e.g.: indoors or outdoors

### Combination of materials

e.g.: 304/304 SS, 304 SS/mild steel, 316/316 SS, etc.

# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment



## Vertical Screw Screens

### GCV



$Q = 36 \sim 70 \text{ l/s (76} \sim 148 \text{ cfm)}$

- **Space-saving in PIT application**
- **High efficiency solid removal**
- **Use as protection for pumps**

## WASTEMASTER® GCV



Insulated discharge module



Highly efficient outlet spout in plastic material



Inlet spout and split screen basket



Washing tube

# Waste Water Treatment



# Waste Water Treatment



## **Main market needs:**

- Automatic removal of suspended solids from a pipe inside deep pit
- Robust and durable
- Different flow rates and size of screenings to be removed
- Low maintenance

## **Selling points:**

- 40% volume reduction with built-in compactor
- Wide range of accessories
- Heavy-duty shaftless screw conveyor
- Heavy resistant brush segments and bearing support for cleaning and protection of the screen basket
- Specialised machine for both civil and industrial applications



**SPECO**™

- TECHNICAL DATA  
- TECHNISCHE DATEN  
- CARACTÉRISTIQUES TECHNIQUES  
- DATI TECNICI

GCV

05.11

SPE.044 - T.4L 04

## GCV 500

\* Consultare STD di Ditta. Per il dettaglio vedere un altro tipo di collegamento considerato l'unico necessario.  
\* STD L'azienda DOTT. D'ITALIA per il dettaglio vedere un altro tipo di collegamento. È solo l'unico necessario.

VISTA DA A  
VISTA PULV. A  
SCALE 2:1

VISTA DA B  
VISTA PULV. B  
SCALE 2:1

INTERFACCIA DISPOSITIVO  
ORIZZONTALE  
INTERFACE HORIZONTAL  
BARICENT

INTERFACCIA A TERRA  
INTERFACE TO GROUND

FLANGIA UN BISE  
AN TO UN BISE  
UN BISE ANTO  
UN BISE FLANGIA  
SCALE 2:1

Standard	Unità	Unità
Standard	Unità	Unità

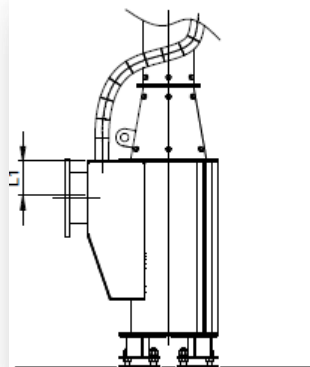
Model - Modell Modèle - Modello	Water Max. Level - Wasserstand Max. Niveau eau Max. - Livello Max acqua
GCV 500	L1
GCV 500	150

Standard			
Lc	L	L1	H
2000	3900	3375	1500
2500	4100	3875	1500
3000	4300	4375	1500
3500	5400	4875	2000
4000	5600	5375	2500
4500	6400	5875	3000
5000	6900	6375	3500
5500	7400	6875	4000
6000	7900	7375	4500
6500	8400	7875	5000
7000	8900	8375	5500
7500	9400	8875	6000

Lc = Functional length, variable with pitch 500mm depending on plant layout.  
Funktionelle Länge, variabel mit Telling 500 mm je nach dem Layout der Anlage.  
Longueur fonctionnelle, variable avec un pas de 500mm en fonction de l'implantation de l'équipement.  
Lunghezza funzionale, variabile con passo 500mm in funzione del layout dell'impianto.

## ... in Technical Manual and drawings:

- Overall dimensions (drawings)
- Extracting performance
- Feeding performance
- Motor information
- Gear reducer information



Model - Modell Modèle - Modello	Flow - Fördermenge - Débit - Portata [l/s] 3mm	Flow - Fördermenge - Débit - Portata [l/s] 6mm
GCV 300	36	47
GCV 500	70	90

Note: These values are related to clean water.  
Anm.: Diese Werte beziehen sich auf Reinwasser.  
Remarque: Ces valeurs se réfèrent à de l'eau propre.  
Nota: questi valori si riferiscono ad acqua pulita.

## Main information for **correct sizing**:

### Type of material to handle:

e.g.: suspended solids and removal of solids, inlet flow rate

### Flow rate and pit depth:

e.g.: define size and length of GCV (200, 300, 500mm)

### Outlet side:

e.g.: define position of discharge point

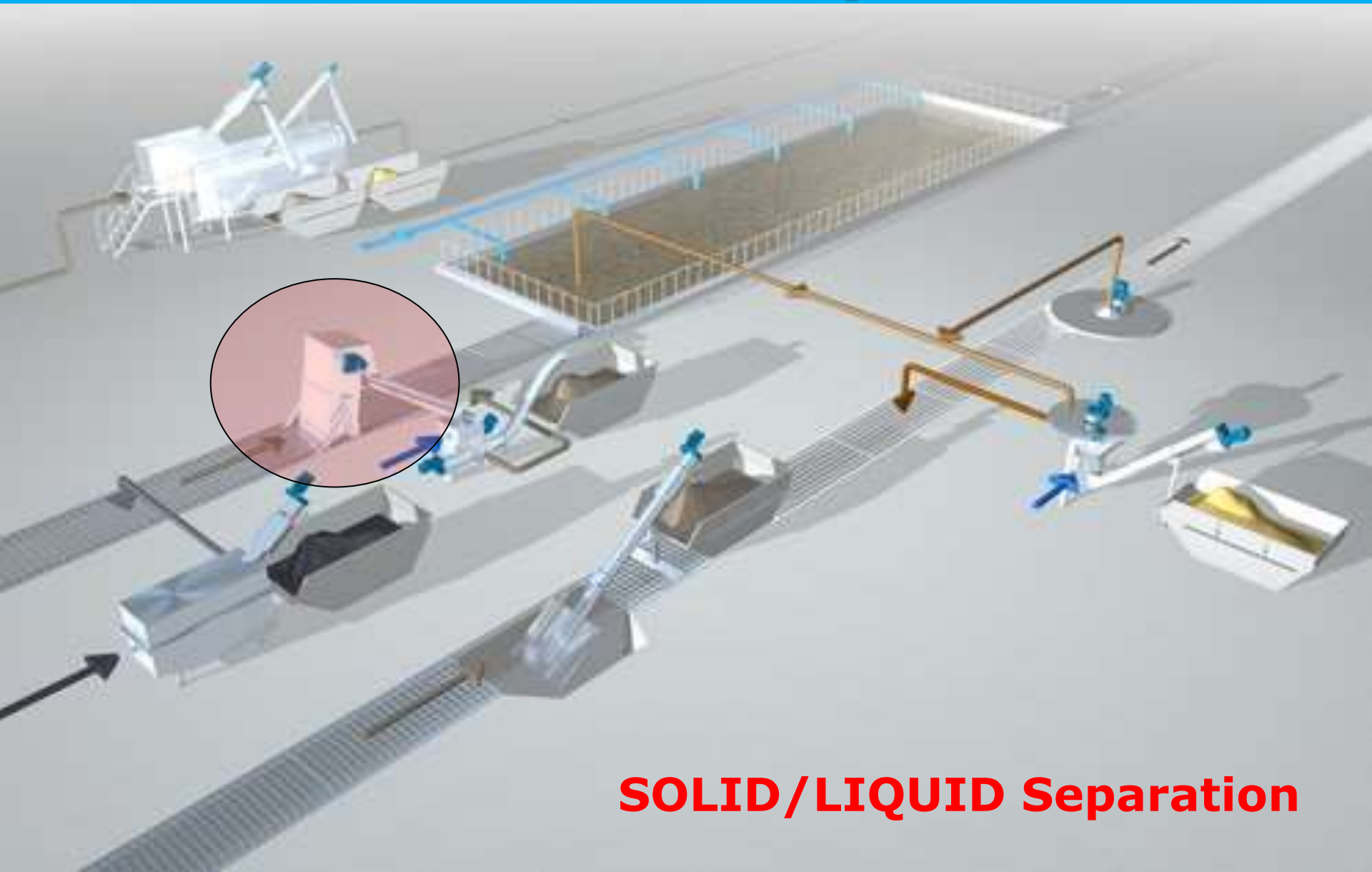
### Combination of materials:

e.g.: 304/304 SS, 304 SS/mild steel, 316/316 SS, etc.

# Waste Water Treatment (8100 - 8200)



# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment



**SAVI**

## Multi-Rake Screen

# **GVB-GVF-GVS**



- 
- **Removal of solids in High channel depth**
  - **Available for channels up to 2 m wide**
  - **800 units installed worldwide**

## How does it work?

Wastewater flows into the upstream side of the unit and debris is captured on the bars



The material is removed from the rakes by the wiper and discharged into a dumpster, conveyor or compactor

The chain-driven rakes clean the bars and transport the material to the discharge point

# Waste Water Treatment





## The three Multi-Rake models:

- GVB multirake Coarse Bar Screen -  $>12\text{mm}$  - 38 mm **spacing**
- GVF multirake Fine Bar Screen - 6mm-10mm **spacing**
- GVS multirake perforated screen - 3mm-6mm **perforations**



# Waste Water Treatment



## Drive sprockets and wiper



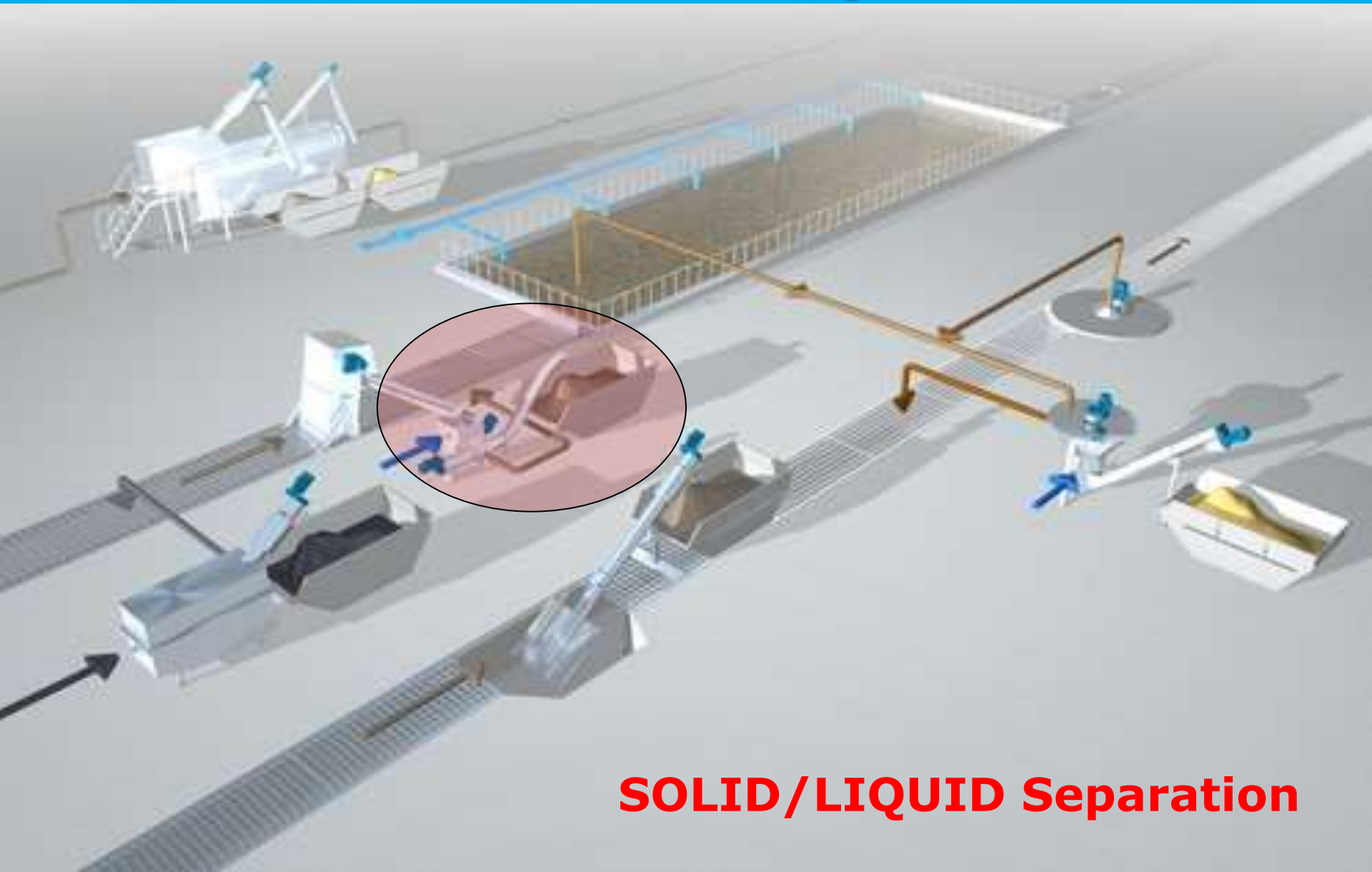
Drive chain



# Waste Water Treatment



# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment





## Screw Compactors

**CLE**



- **High Efficient de-watering**
- **Commonly known as “Duck Neck” compactor**

## WASTECOM™ CLE

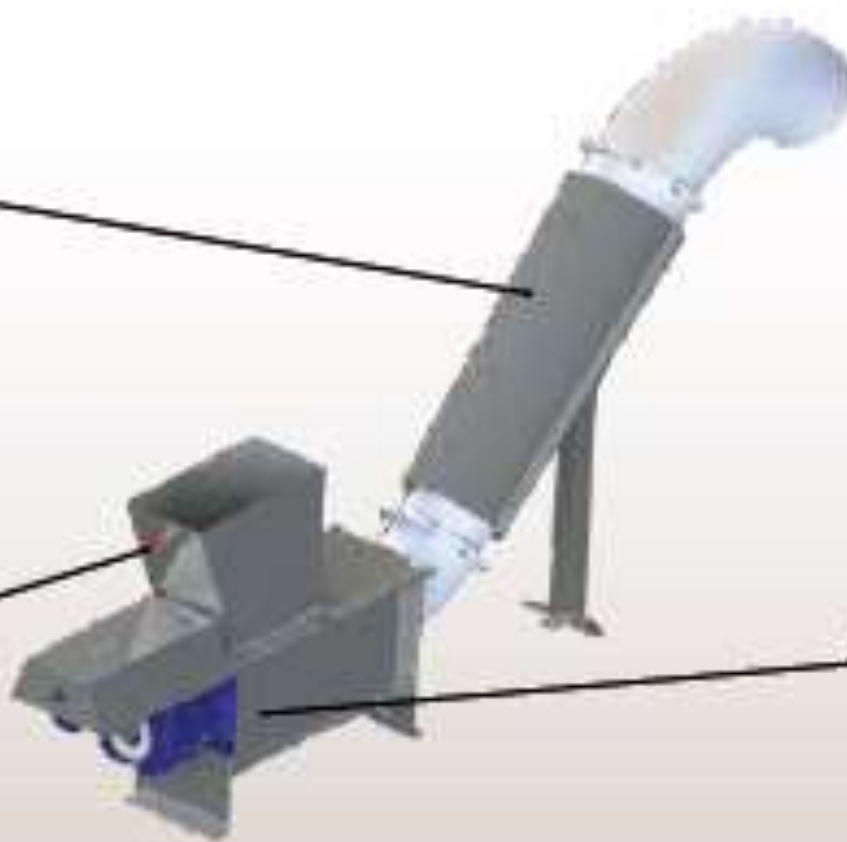
Commonly known as "Duck Neck" compactor



Emergency  
Fluidisation Nozzles



Washing



Engineered  
Screw Conveyor



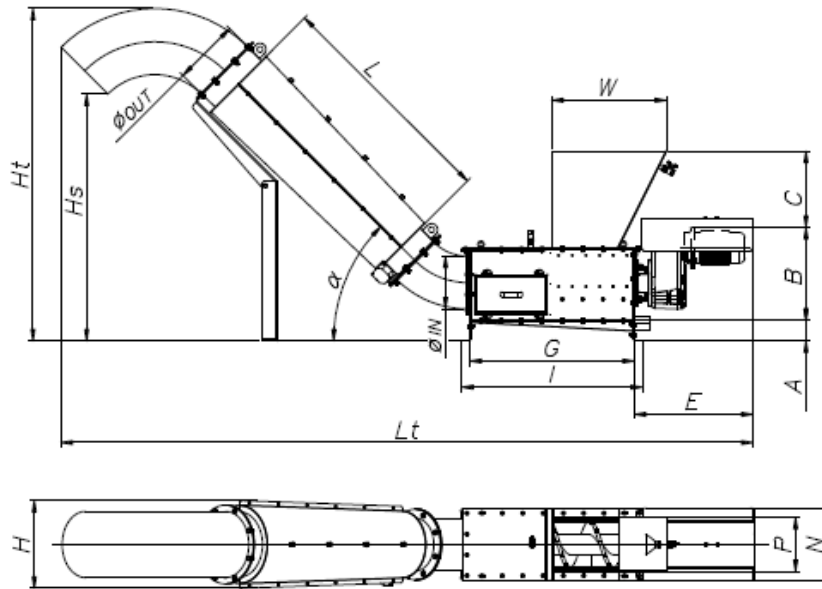
SMT™  
Drainage Module

## **Main market needs:**

- Reduction of screenings volume: > 50%
- Reduction of transportation/disposal costs
- Draining liquids to reduce odours

## **Main point:**

- For Waste Water Treatment plants > 150,000 p.e. in general
- Screw compactor
- SINT™ drainage module: zero clearance between trough and screw
- Jagged screw: high removal rate with difficult materials
- Specialised machine for civil applications
- Easy maintenance



## ... in Tech-Info and drawings:

- Overall dimensions
- Compacting performance
- Feeding performance
- Drive information

Type	A	B	C	E	Ht	Hs	I	L	Lt	N	P	W	Ø IN	ØOUT
CLE 200	180	571	600	550	2,080	1,600	1,000-1,500	1,880	4,100-4,600	350	177	700-1,200	219	323
CLE 300	180	571	600	650	2,050	1,510	1,000-1,500	1,500	4,100-4,600	450	277	700-1,200	323	406
CLE 400	180	571	600	650	2,300	1,750	1,250-1,750	1,850	4,500-5,250	550	377	950-1,200	406	508

For reference only: for detailed drawings please contact the manufacturer

Dimensions in mm

MODEL	Flow rate (m³/h)	Installation power kW	Hopper capacity (l)
CLE 200	1.5 - 2.0	1.5	70 ÷ 140
CLE 300	2.5 - 3.0	2.2	100 ÷ 200
CLE 400	4.0 - 4.5	3.0	200 ÷ 330

## Main information for **correct sizing**:

### Type of material to handle:

e.g.: screenings of other solids

### Organic matter removal is required?

e.g.: if we should apply or not our machine

### Quantity

e.g.: define screw size (200, 300, 400mm)

### How is the machine fed?

e.g.: define hopper size or length of drainage module

### Place of installation:

e.g.: with or without hopper, possible requirement for a conveyor

### Combination of materials

e.g.: 304/304 SS, 304 SS/mild steel, etc.

## Screw Compactors with **TRANSPORTATION**

### CPS



$Q_{max.} = 12 \text{ m}^3/\text{h} (4.7 \text{ cfm})$

- **Efficient de-watering**
- **Self-adjusting outlet plug diaphragm**
- **Modular design facilitates access and parts replacement**



## WASTECOM™ CPS





- Solution for Compaction of solids after Vertical Bar Screen





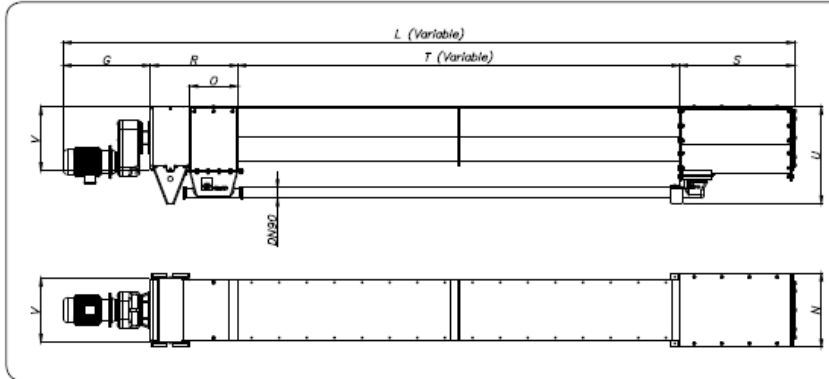
## **Main market needs:**

- Reduction of volume of screenings
- Reduction of transportation/disposal costs
- Draining liquids to reduce odours

## **Main points:**

- Shaftless screw conveyor
- SINT™ drainage module
- SINT™ diaphragm with variable resistance
- Specialised machine for civil and industrial application
- Easy maintenance

SHIPPING DATA - KOLLIDATEN- COLISAGE - INGOMBRO



Type	R	T		L		S	G	U	V	N	O	kW	
		Min	Max	Min	Max								
CPS 200	490	1000	8000	2660	7660	530	640	610	320	485	230	5° - 25°	1.5
CPS 300	610	2000	8000	4090	12090	780	700	750	440	585	330	5° - 25°	2.2
CPS 400	790	2000	10000	4675	12675	1035	750	870	575	705	430	5° - 25°	4

dimensions in mm

Standard machine - Serienmäßige Maschine - Machine de série - Macchina di serie

Type	T
CPS 200	2000
CPS 300	3000
CPS 400	4000

dimensions in mm

... in technical manual:

- Overall dimensions
- Compacting performance
- Feeding performance
- Electric motor details
- Gear reducer details

PERFORMANCE - LEISTUNG - PERFORMANCES - PRESTAZIONI

Type	Throughput Rate - Durchsatzmenge - Débit - Portata	
	[ l/s ]	[ m3/h ]
CPS 200	0.55	2
CPS 300	1.39	5
CPS 400	2.22	8

## Main information for **correct sizing**:

### Material to handle:

e.g.: screenings, etc. define choice of bars or liner and type of screen mesh

### Quantity:

e.g.: define screw size (200, 300, 400mm)

### Length of installation:

e.g.: define total length of the machine

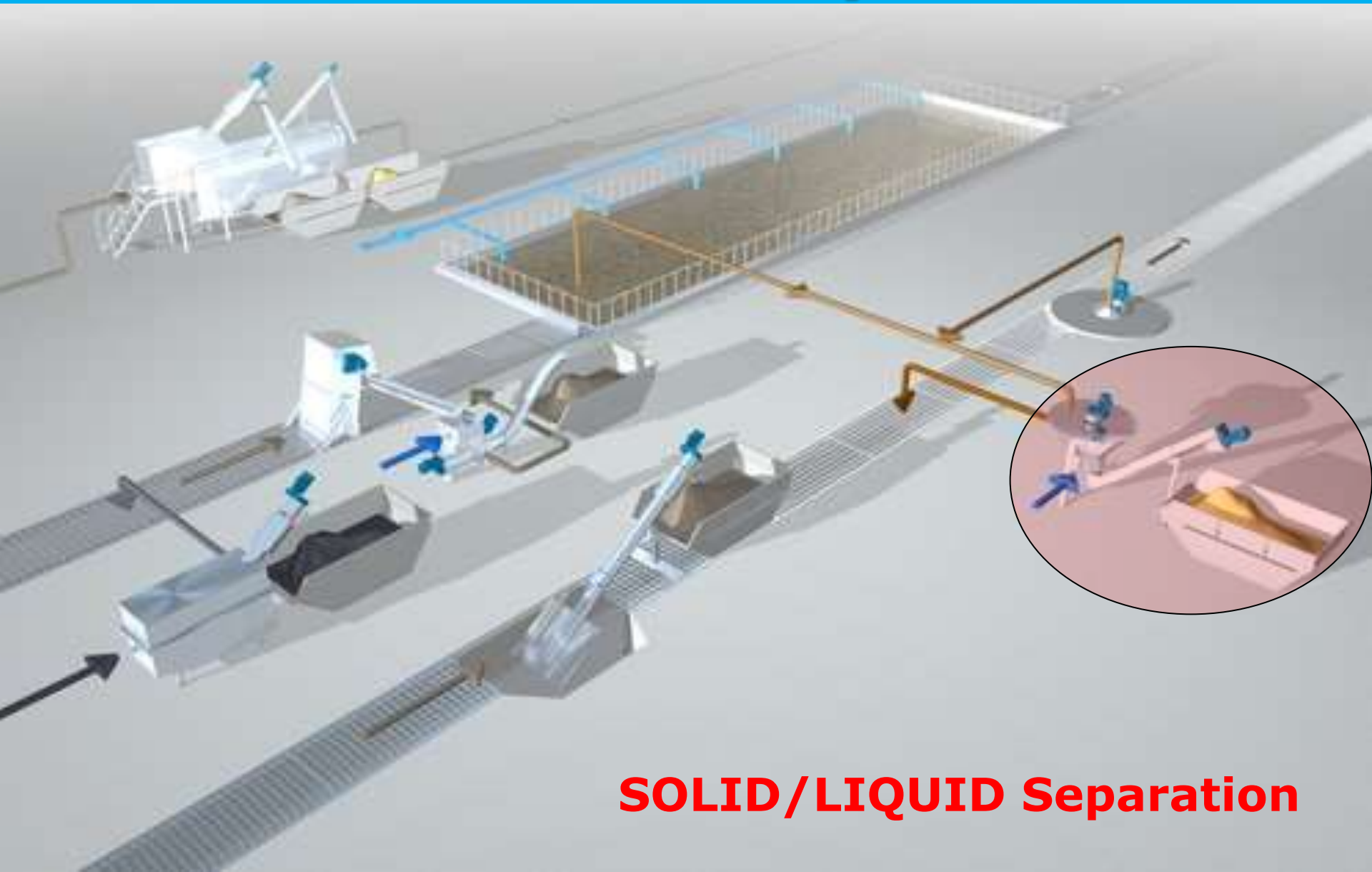
### Combination of materials:

e.g.: 304/304 SS, 304 SS/mild steel, etc.

### Angle and place of installation:

e.g.: avoid risk of incorrect installation and claim

# Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

## Mechanical Preliminary Treatment



## Grit Separators

# GRITSEP<sup>®</sup> DS



$Q_{max.} = 36 \text{ l/s (76 cfm)}$

- **A CLASSIC !!!!**
- **Gravity Grit Classifier**
- **Shaftless Grit Classifier**



## GRITSEP™ DS



Settling tank



Water Injection



Safety Valve



Sand Washing

## **Main market needs:**

- 90% grit removal
- High dryness of materials extracted
- Easy interface with standard grit chambers

## **Main point:**

- In general for all Waste Water Treatment plants
- Heavy-duty shaftless screw conveyor
- SS bars or plastic/metal liner for zero clearance between trough and screw
- Low RPM for high removal rate
- Specialised machine for civil applications
- Easy maintenance





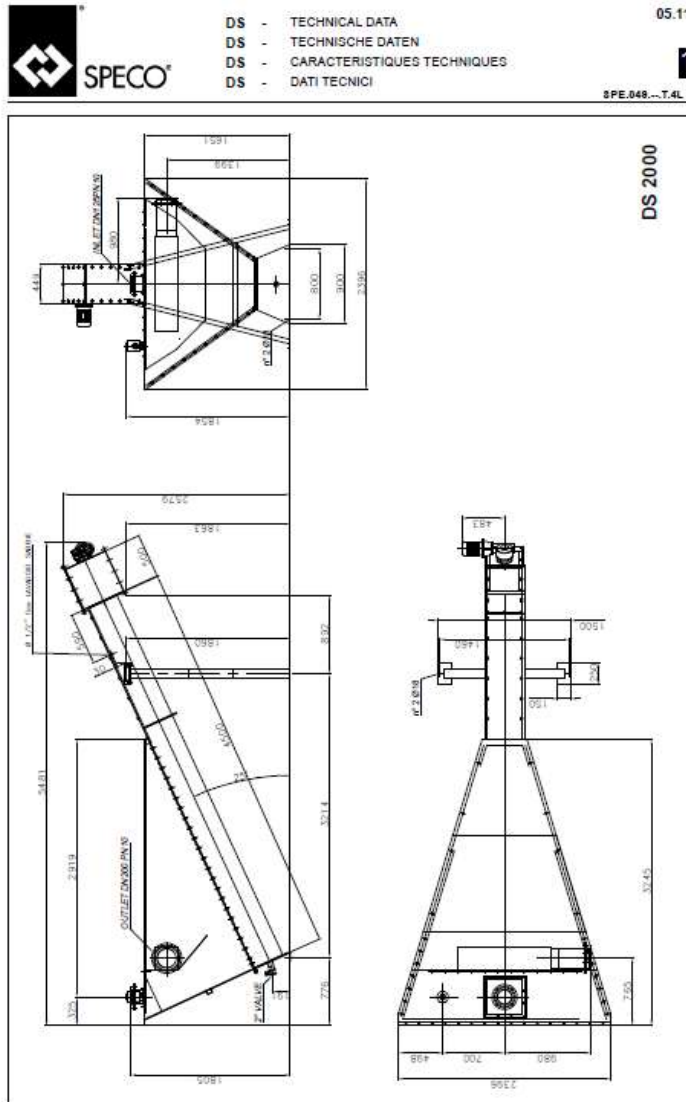
# Waste Water Treatment





## ... in Technical Manual:

- Overall dimensions
- Extraction performance
- Feeding performance
- Motor information
- Gear reducer information



DS Model Modell DS Modèle DS Modello DS	Flow Rate Fördermenge Débit Portata (l/sec)	Potential quantity of sand Potentielle Sandmenge Potentialité transport de sable Potenzialità trasporto sabbie	
		(m <sup>3</sup> /h)	(dm <sup>3</sup> /sec)
DS400	5.00	0.22	0.06
DS1000	8.33	0.29	0.08
DS2000	22.2	0.29	0.08
DS3400	27.8	0.29	0.08
DS4000	36.0	1.30	0.36

## Main information for a **correct sizing**:

### Type of material to handle:

e.g.: grit

### Organic matter removal required?

e.g.: should apply our machine or not?

### Flow rate and amount of grit to remove:

e.g.: define the size of the DS (400, 1000, 2000, 3400, 4000)

### Place of installaton:

e.g.: to a grit chamber

### Combination of materials

e.g.: 304/304 SS, 304 SS/mild steel, etc.

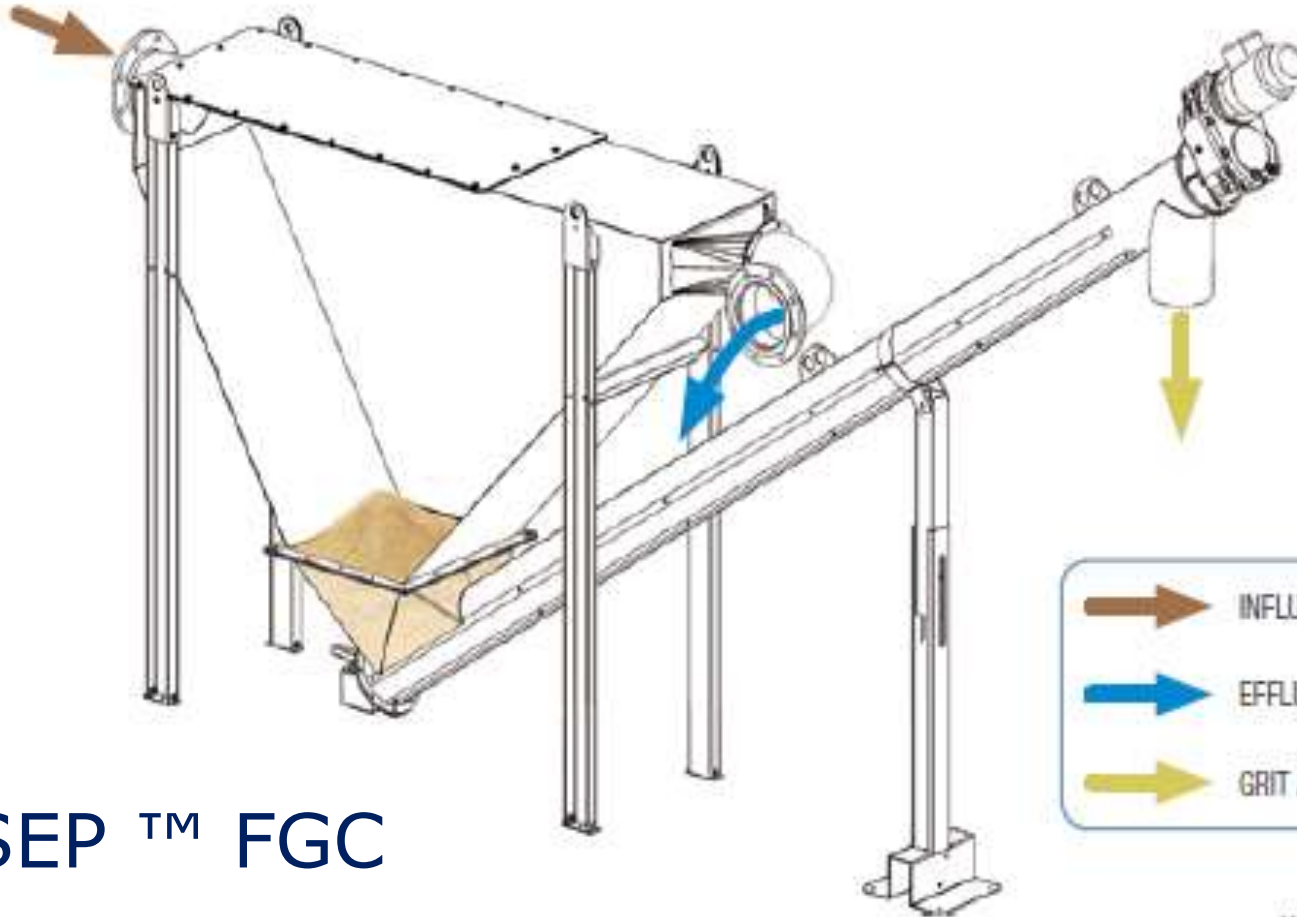


## Continuous Grit Separators

### **GRITSEP™ FGC**



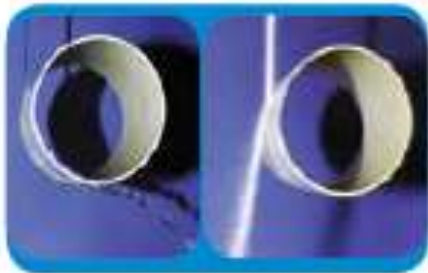
- **Fluid Dynamic grit classifier**
- **Special fluid dynamic separation surface**
- **Shaftless screw**



- INFLUENT (WASTE WATER INLET)
- EFFLUENT (WASTE WATER OUTLET)
- GRIT / SAND

## GRITSEP™ FGC

Fluid dynamics



Extracting screw



SINT™ module



Bolted wear bars  
(external view of trough)



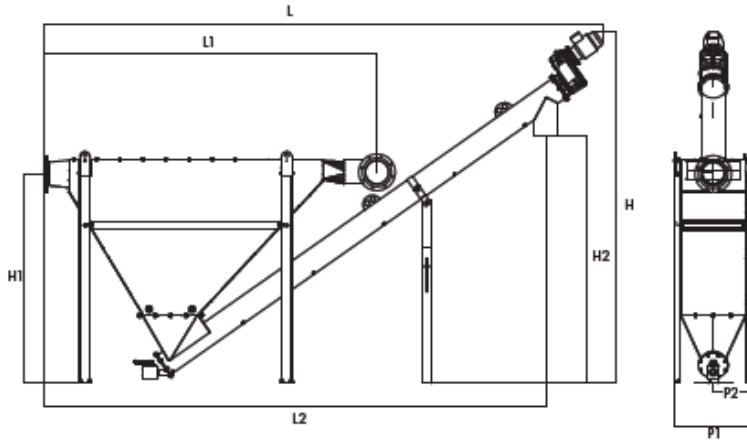
## **Main market needs:**

- 90% grit removal
- High dryness of extracted materials
- Easy interface with standard grit chambers

## **Main points:**

- Higher sedimentation rate and removal: 95%
- System self-adjusting to different flow rates
- Heavy-duty shaftless screw conveyor
- SS bars or fixed pipe for high extraction efficiency
- Specialised machine for civil applications
- Easy maintenance

## Overall Dimensions ▼



Type	L	L1	L2	H	H1	H2	P1	P2
FGC 005	4,300	2,245	3,600	2,500	1,450	1,650	431	220
FGC 008	4,300	2,286	3,600	2,500	1,450	1,650	631	320
FGC 015	5,400	3,125	4,700	3,000	1,950	2,150	716	365
FGC 025	5,400	3,200	4,700	3,000	2,000	2,150	816	415
FGC 036	5,400	3,275	4,700	3,000	2,000	2,150	1,016	330

Dimensions in mm

## ... in Tech-Info and drawings:

- Overall dimensions
- Extracting performance
- Feeding performance
- Motor information
- Gear reducer information

Maximum Flow Rate		Average Sand Extraction
[m <sup>3</sup> /h]	[dm <sup>3</sup> /s]	[dm <sup>3</sup> /s]
018	5	0.18
030	8	
054	15	
090	25	
130	36	

Main information for a **correct sizing**:

**Type of material to handle:**

e.g.: grit

**Organic matter removal required?**

e.g.: should we apply our machine or not?

**Flow rate and amount of grit to remove:**

e.g.: define FGC size (005, 008, 015, 025, 036)

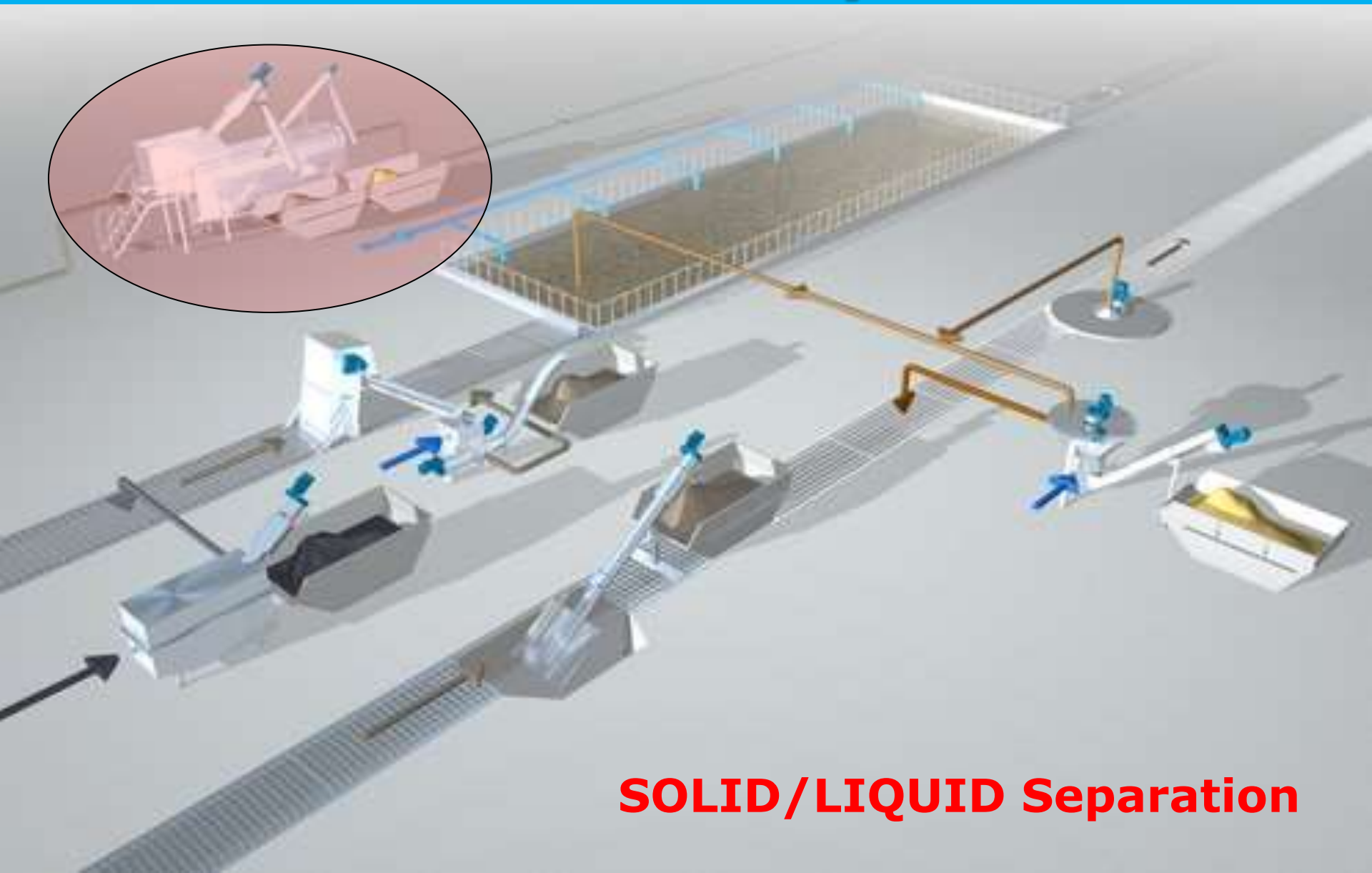
**Place of installation:**

e.g.: grit chamber

**Combination of materials:**

e.g.: 304/304 SS, 304 SS/mild steel, etc.

## Mechanical Preliminary Treatment



**SOLID/LIQUID Separation**

# Mechanical Preliminary Treatment



SPECO®

## Combined Mechanical Effluent Pre-Treatment Plants

**WASTEMASTER® TSF V01**



$Q = 30 \sim 300 \text{ l/s (63} \sim \text{635 cfm)}$

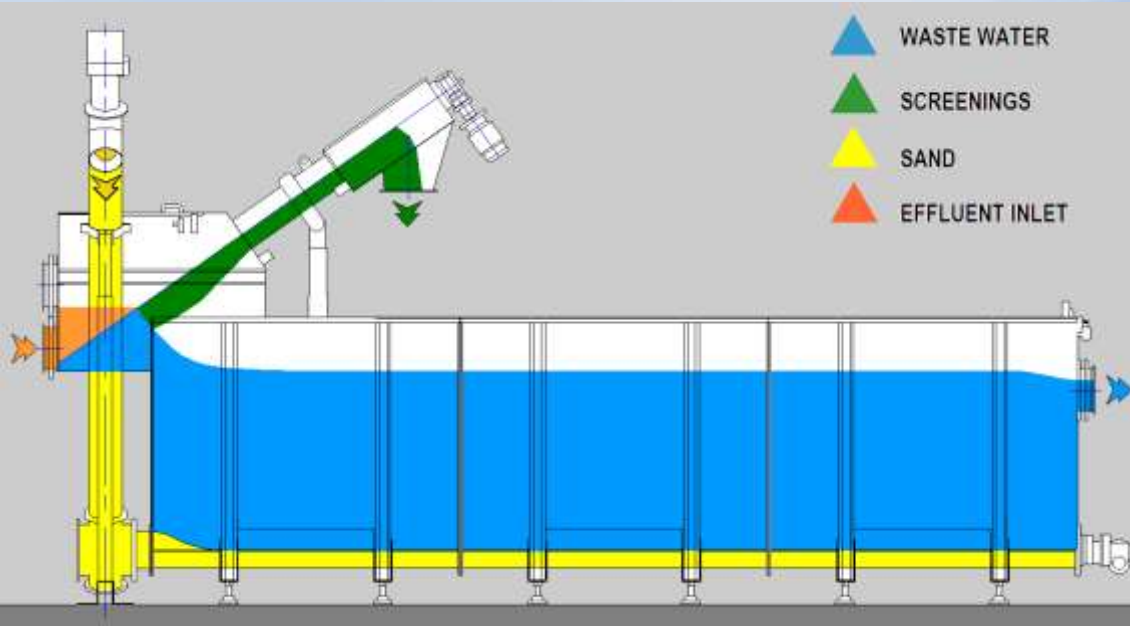
- **Highly efficient solids-liquid separation**
- **High flow rates and separation capacity**
- **Excellent price-performance ratio**



## **WASTEMASTER® TSF V01**

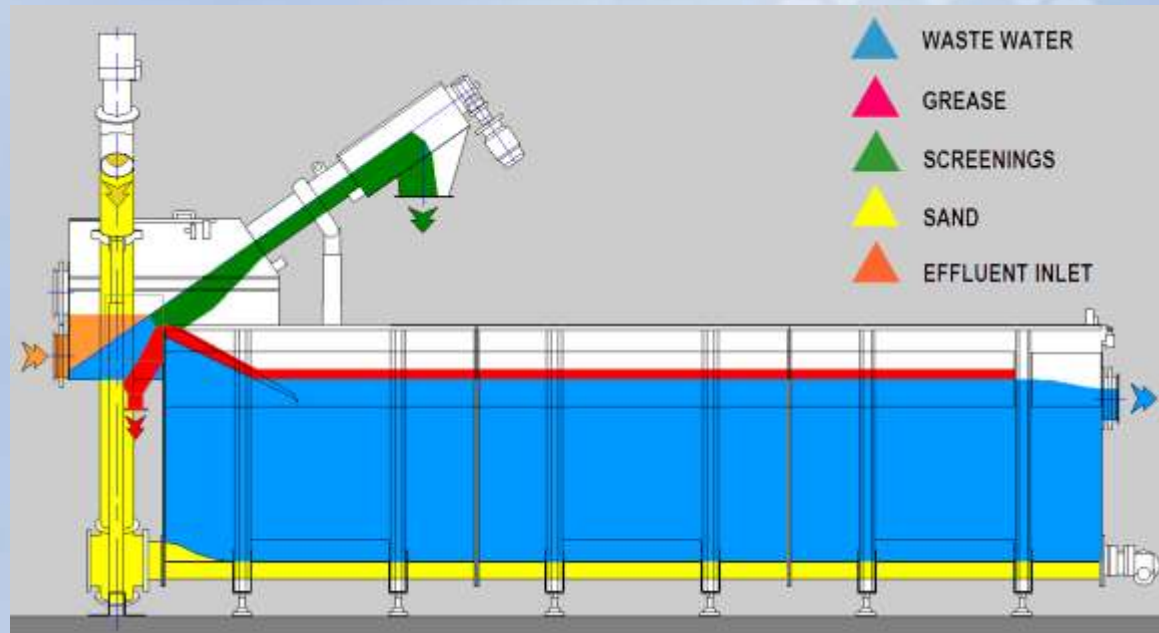


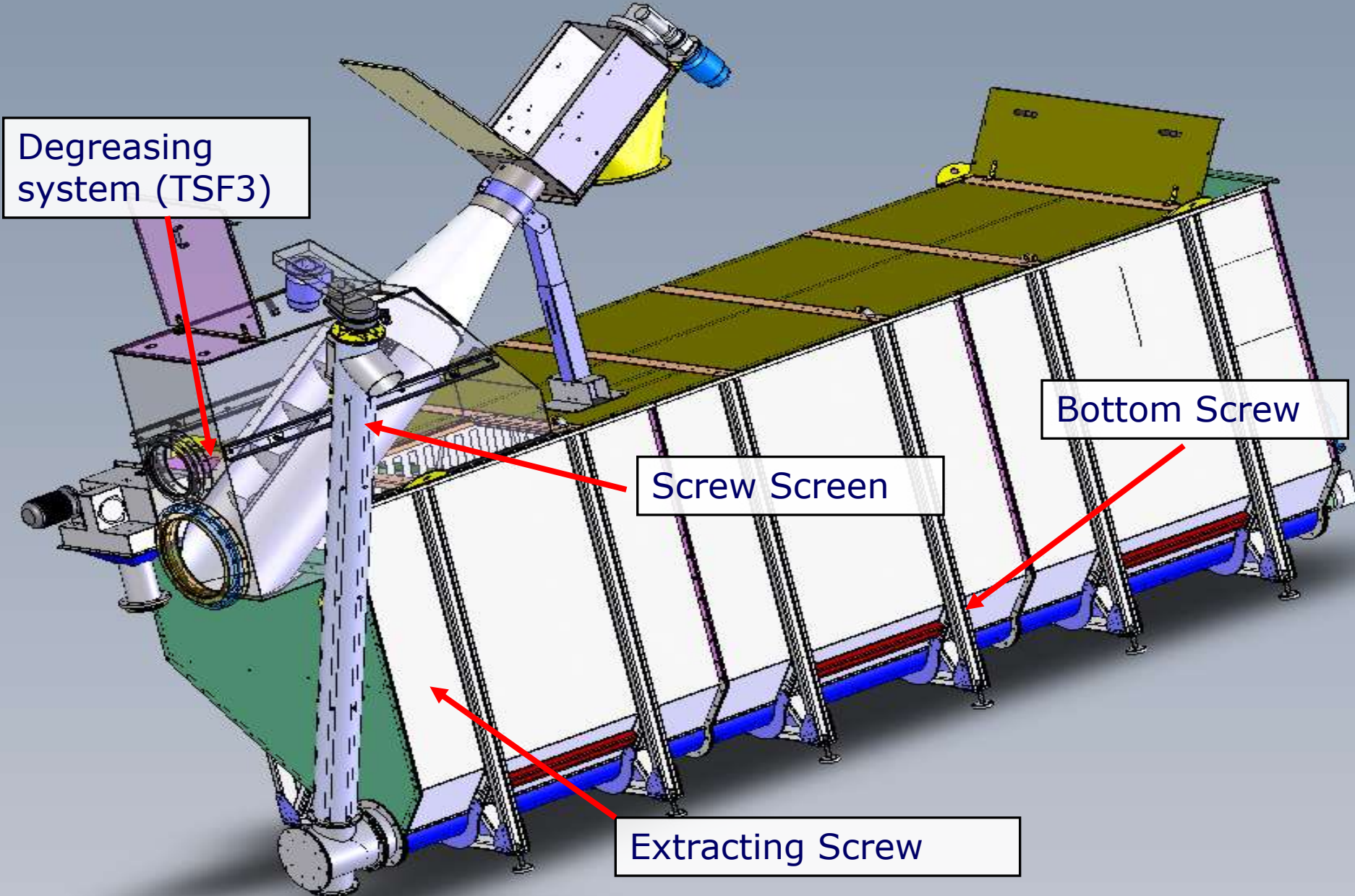


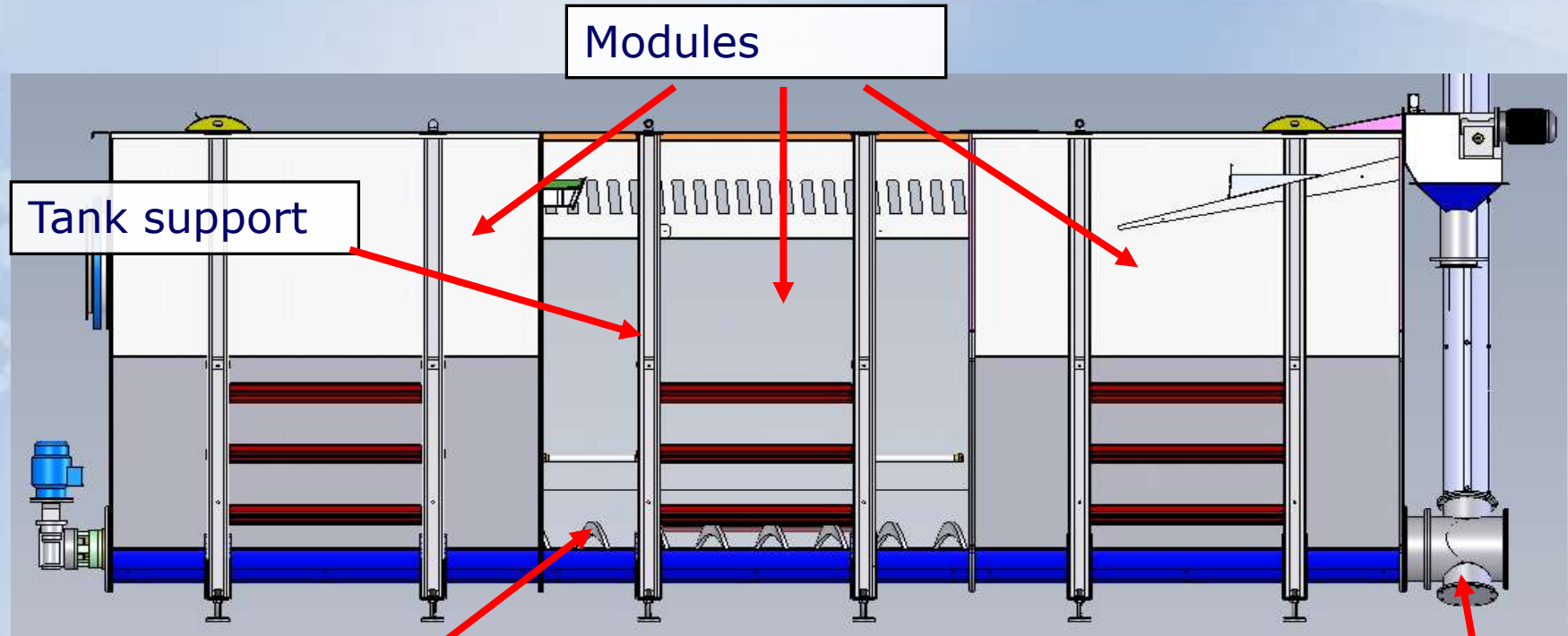


TSF 2 ( without grease removal system)

TSF 3 ( with grease removal system)







Modules

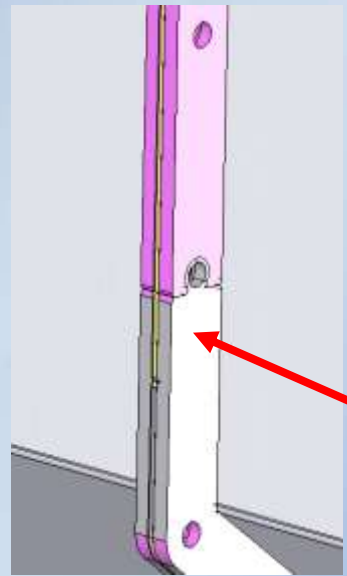
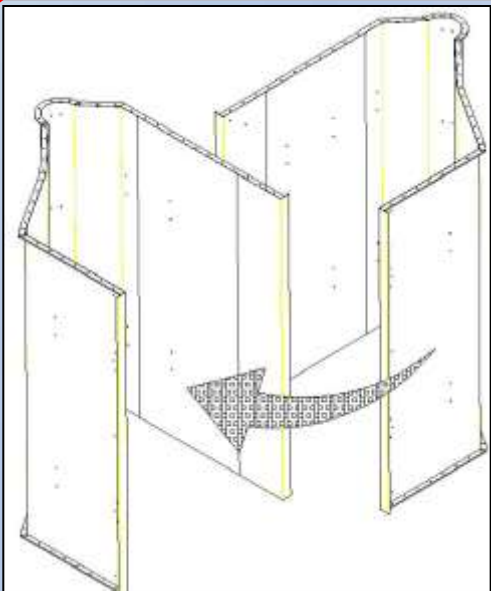
Tank support

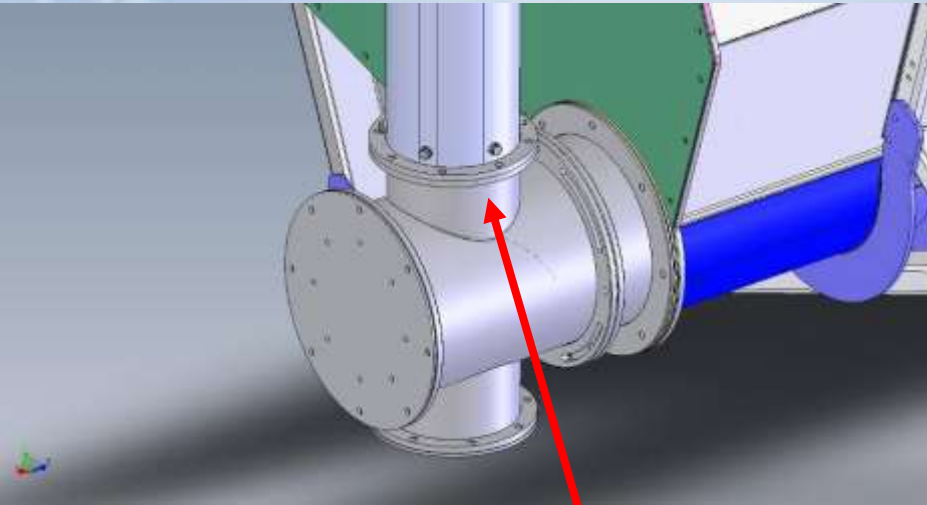
Bottom Screw

Modules ready for transport

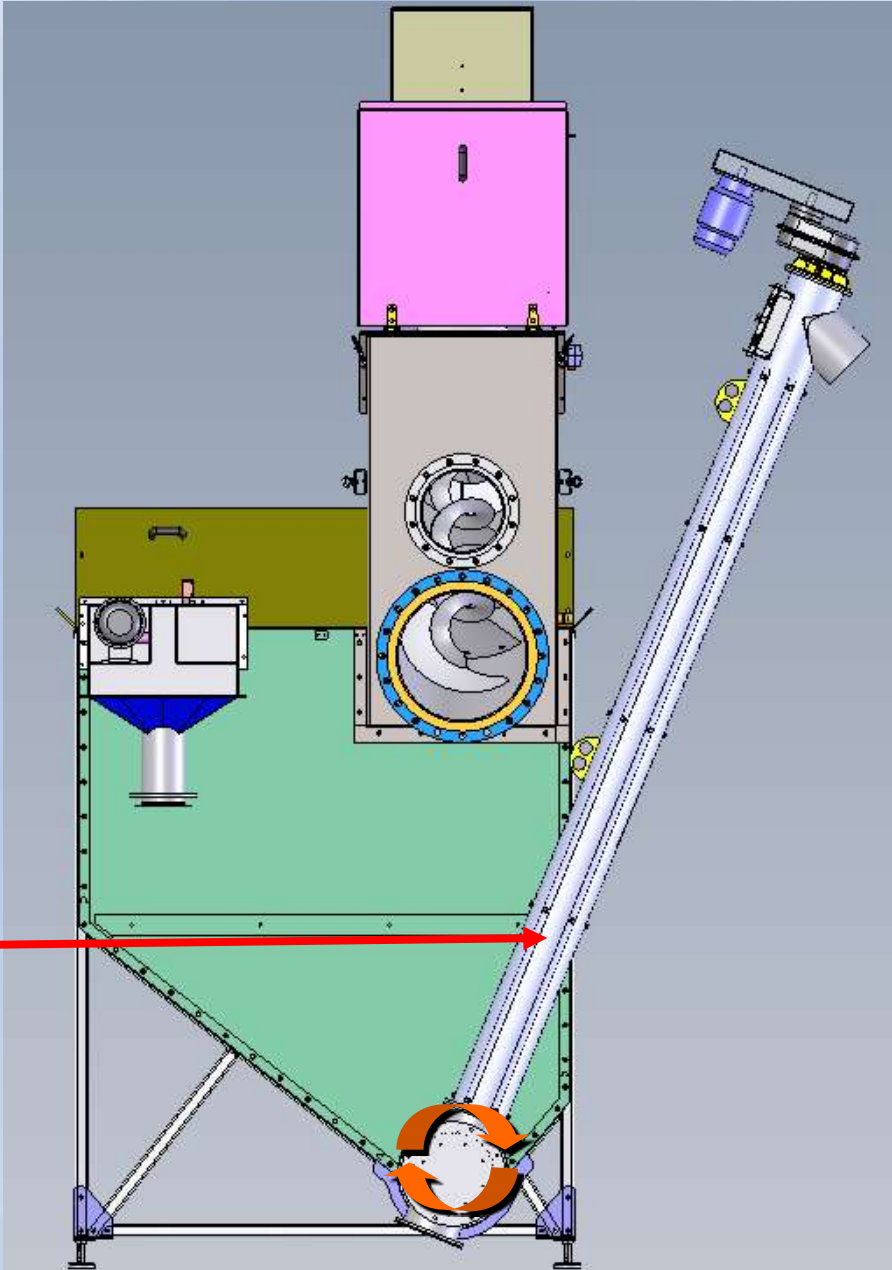
Extracting Screw

Flanges + gasket





Extracting  
Screw

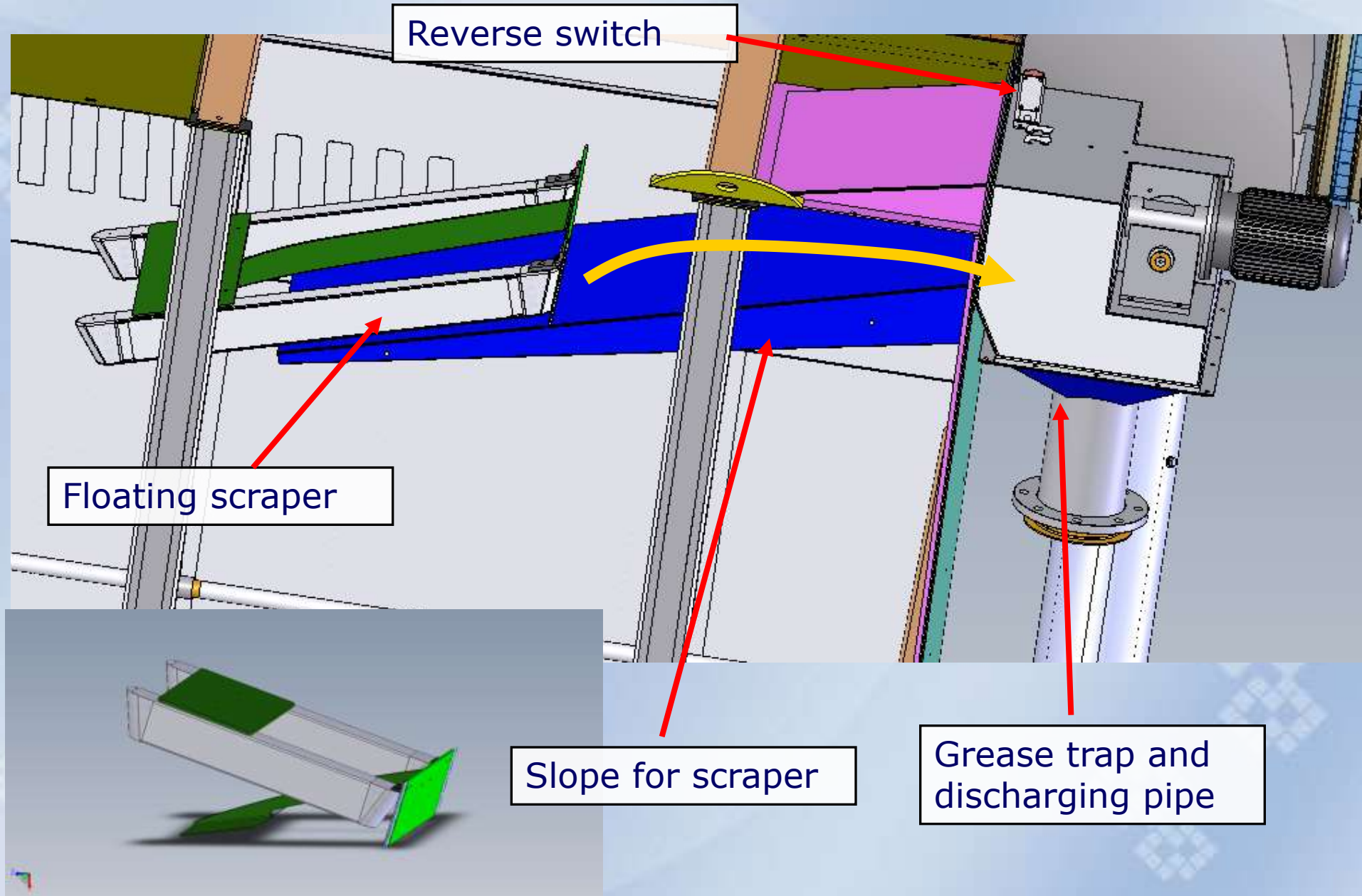


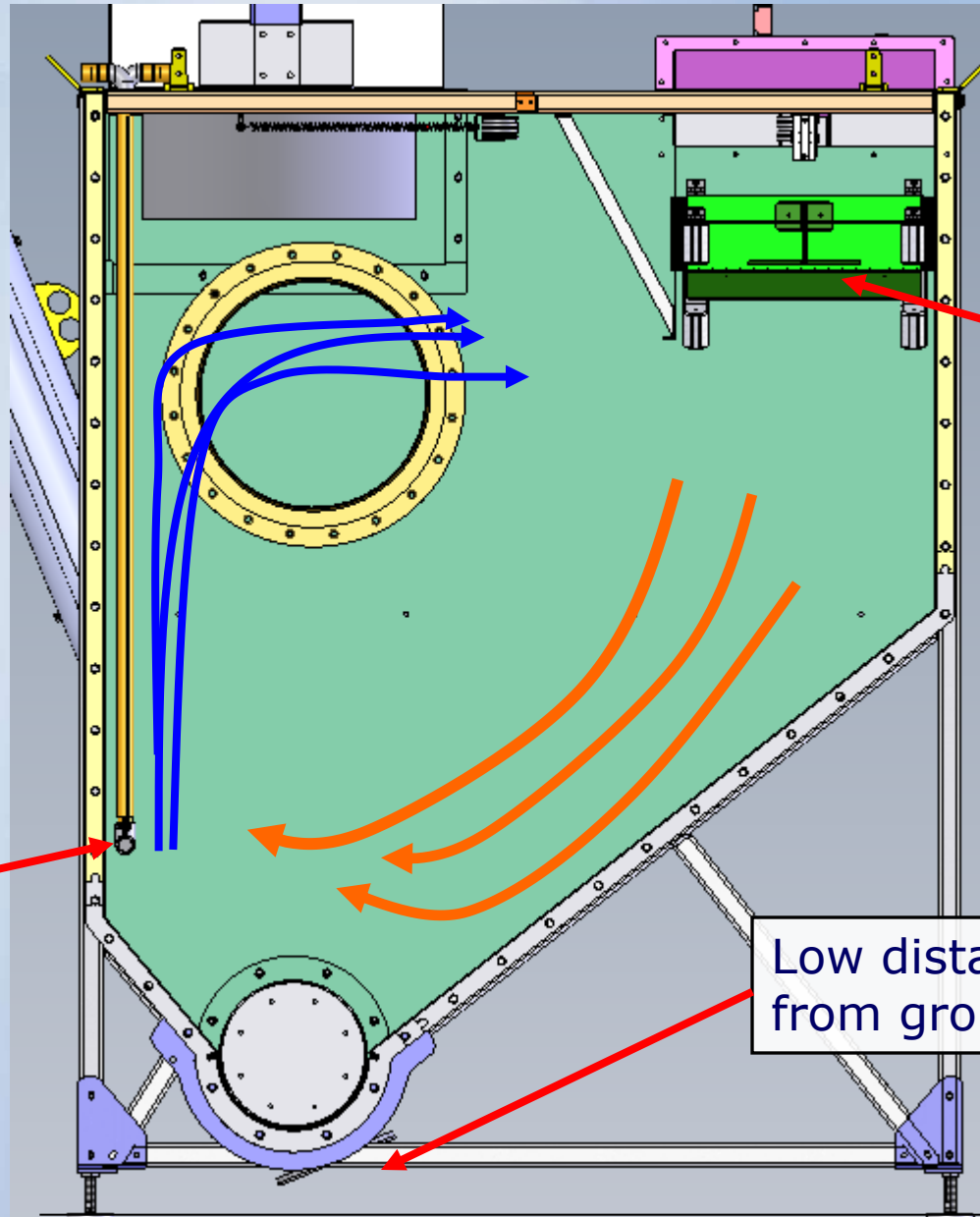
Reverse switch

Floating scraper

Slope for scraper

Grease trap and discharging pipe





Floating scraper

Air injection

Low distance from ground



## TSF 2-3 RANGE

<i>TSF 2/3</i>			<i>*FLOW RATE</i>	
<i>SIZE</i>	<i>Module</i>	<i>Tank Length</i>	<i>Min l/s</i>	<i>Max l/s</i>
S 1 0	1	2 m	5	13
S 2 0	2	4 m	12	30
M 1 0	2	4 m	25	39
M 2 0	3	6 m	35	60
M 3 0	4	8 m	60	85
L 1 0	4	8 m	80	115
L 2 0	5	10 m	110	145
L 3 0	6	12 m	140	175
L 4 0	7	14 m	170	205

\* 95% of sand sedimentation with a grain size of 0,2 mm and a Specific Gravity of 2,60-2,65 w/v

## **Main market needs:**

- Modular design
- Possible on site assembly
- Best footprint-net volume ratio
- Durable heavy duty shaftless screws
- Self-adjusting scraper device
- Bolted wear bars
- Durable polymer brushes

## **Selling points:**

- Machine designed for high density waste water
- Different configurations for both small and large tankers
- Heavy-duty shaftless screw conveyor with high resistance brushes and bearing support for cleaning and protecting the screen basket

## ... in Technical Manual and drawing:

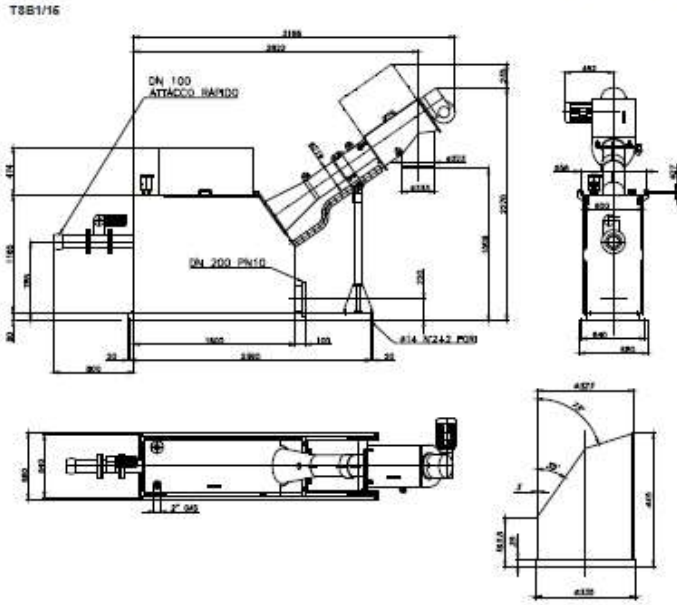
- Overall dimensions (drawings)
- Extracting performance
- Feeding performance
- Motor information
- gear reducer information

TSB1 - TECHNICAL DATA  
 TSB1 - TECHNISCHE DATEN  
 TSB1 - CARACTÉRISTIQUES TECHNIQUES  
 TSB1 - DATI TECNICI

01.10

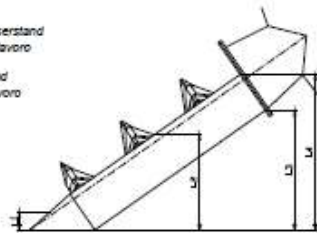
1

SPE.112 - T.4L.03.01



Model / Modell / Modèle / Modello	Level / Wasserstand / Niveau / Livello			
	L1	L2	L3	L4
TSB1/15	100	420	570	808

- L1 = Minimum level of work / Minimaler Betriebswasserstand  
Minimum niveau de travail / Minimo livello di lavoro
- L2 = Max. level of work / Max. Betriebswasserstand  
Maximum niveau de travail / MAX livello di lavoro
- L3 = Alarm level / Wasserstand-Alarm  
Niveau d'alerte / Livello di allarme
- L4 = OVERFLOW / ÜBERLAUF  
DÉBORDEMENT / TROPPOPIENO



TSB1 Model Modell TSB1 Modèle TSB1 Modello TSB1	DRILLED PLATE SCREENS LOCHBLECHSIEBE CRIBLE PERCES VAGLIO FORATO	L1 (m)
	Ø5	
TSB1 / 15	15	0.38
TSB1 / 30	30	0.52

TSB1 Model Modell TSB1 Modèle TSB1 Modello TSB1	dm <sup>3</sup> /sec
TSB1 / 15	0.18
TSB1 / 30	0.33

## Main information for **correct sizing**:

### Type of material to handle:

e.g.: septic pit waste water

### Quality of material?

e.g.: screen mesh, difficult environmental conditions

### Flow rate, outlet side:

e.g.: define size of TSB 1 (15 or 30)

### Place of installation:

e.g.: existing channel or dedicated tank

### Combination of materials

e.g.: 304/304 SS, 304 SS/mild steel, 316/316 SS, etc.







# Waste Water Treatment





**THANK YOU**

