

WIMA

Wilsdruffer Maschinen und Anlagenbau GmbH

WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH

HDS-Serie

HDS- hydraulic density separator

wima.
The Complete System

separating heavy from light material by the use of water

Functional principle of density separation

density of water is about 1 g/cm^3

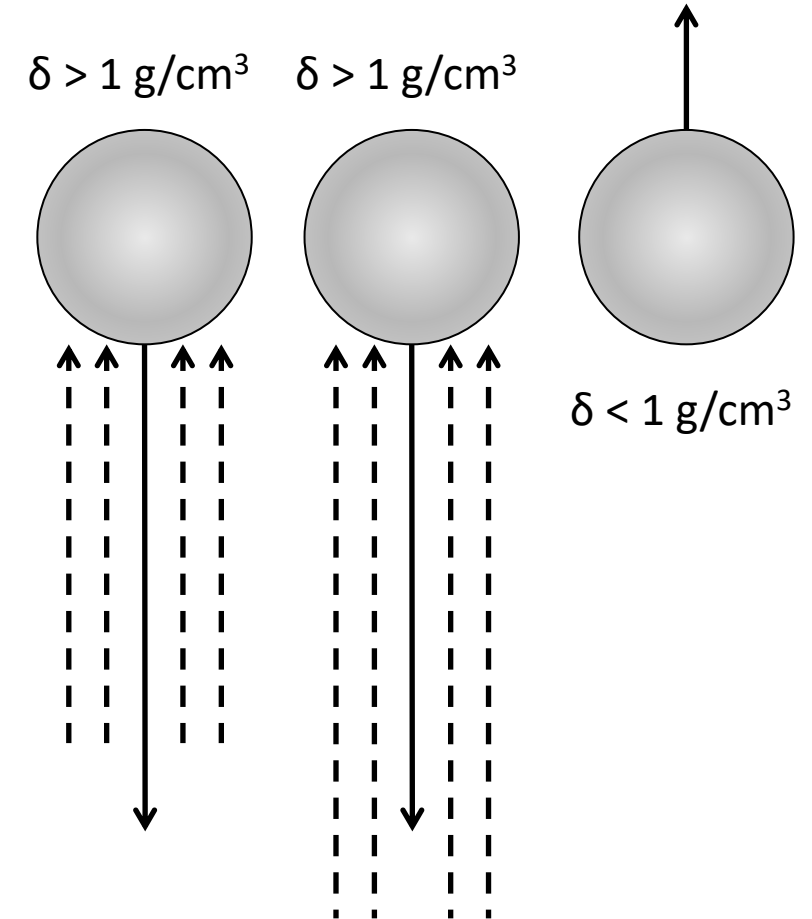
$\delta > 1 \text{ g/cm}^3$ Material settle down

$\delta < 1 \text{ g/cm}^3$ Material float

To get a better separation we create an upflow,
means for particles with $\delta > 1 \text{ g/cm}^3$:

if the settling velocity of the material is larger than the upflow velocity
the material settles

if the settling velocity of the material is lower than the upflow velocity
the material floats



HDS-S_(small), -SV_(small vibration) und -M_(medium)

wima.
The Complete System



HDS-S



Shaftless auger heavys discharge



HDS-SV



HDS-M

HDS-S



HDS-S

	HDS-S
Machine parts	
Material feed	Baffle plate
Heavy material discharge	Shaftless screw conveyor
Light material discharge	Dewatering belt
Up flow unit	adjustable propeller
Water treatment heavys	
Water treatment Lights	
technical details	
weight	3.100 kg
power consumption	13 kW
Water Volume	1,5 m³
Material throughput	
mixed construction waste	15 t/h
Compost oversize	15 m³/h
Construction demolition waste	15 t/h
destoning biomass	15 m³/h

* Material throughput varies and depends on the input material

HDS-S

HDS-S how it works

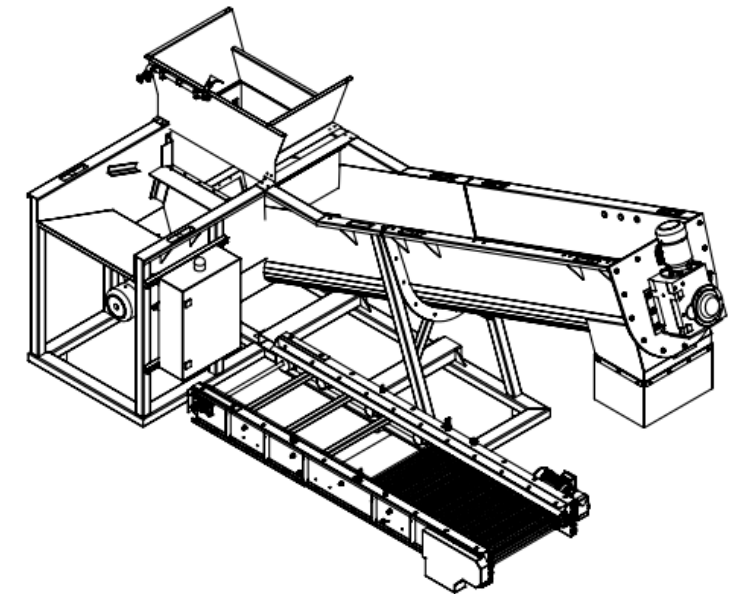
wima.
The Complete System



HDS-S side view



HDS-S Separation chamber



HDS-S transport position

HDS-S

Application construction waste

wima.
The Complete System



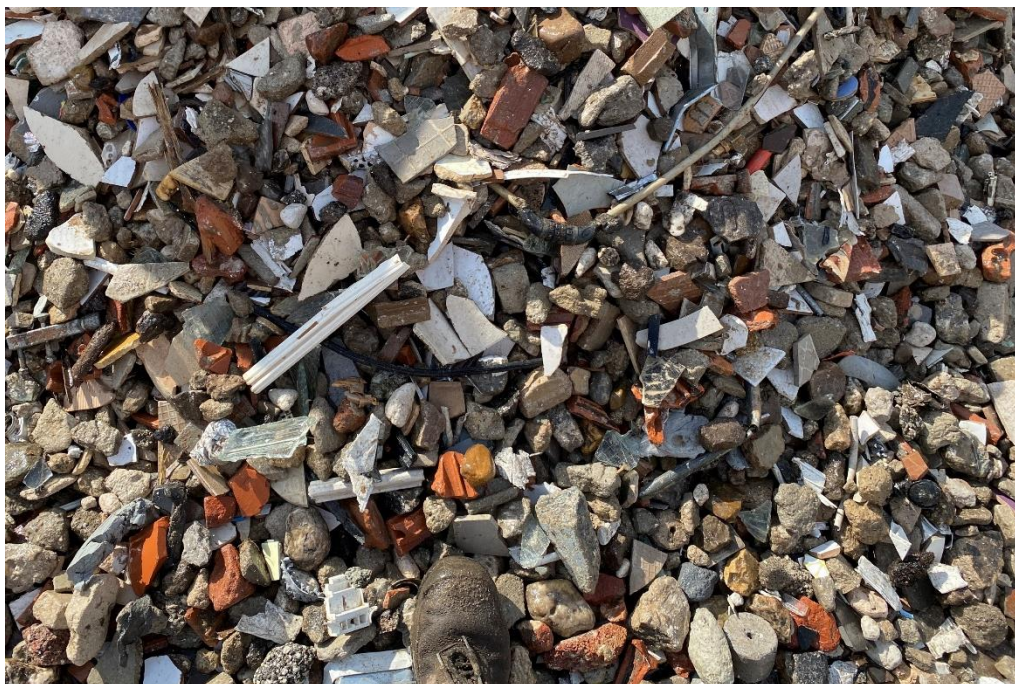
HDS-S

Application compost oversize



HDS-S

Application mixed construction waste



HDS-M (medium)



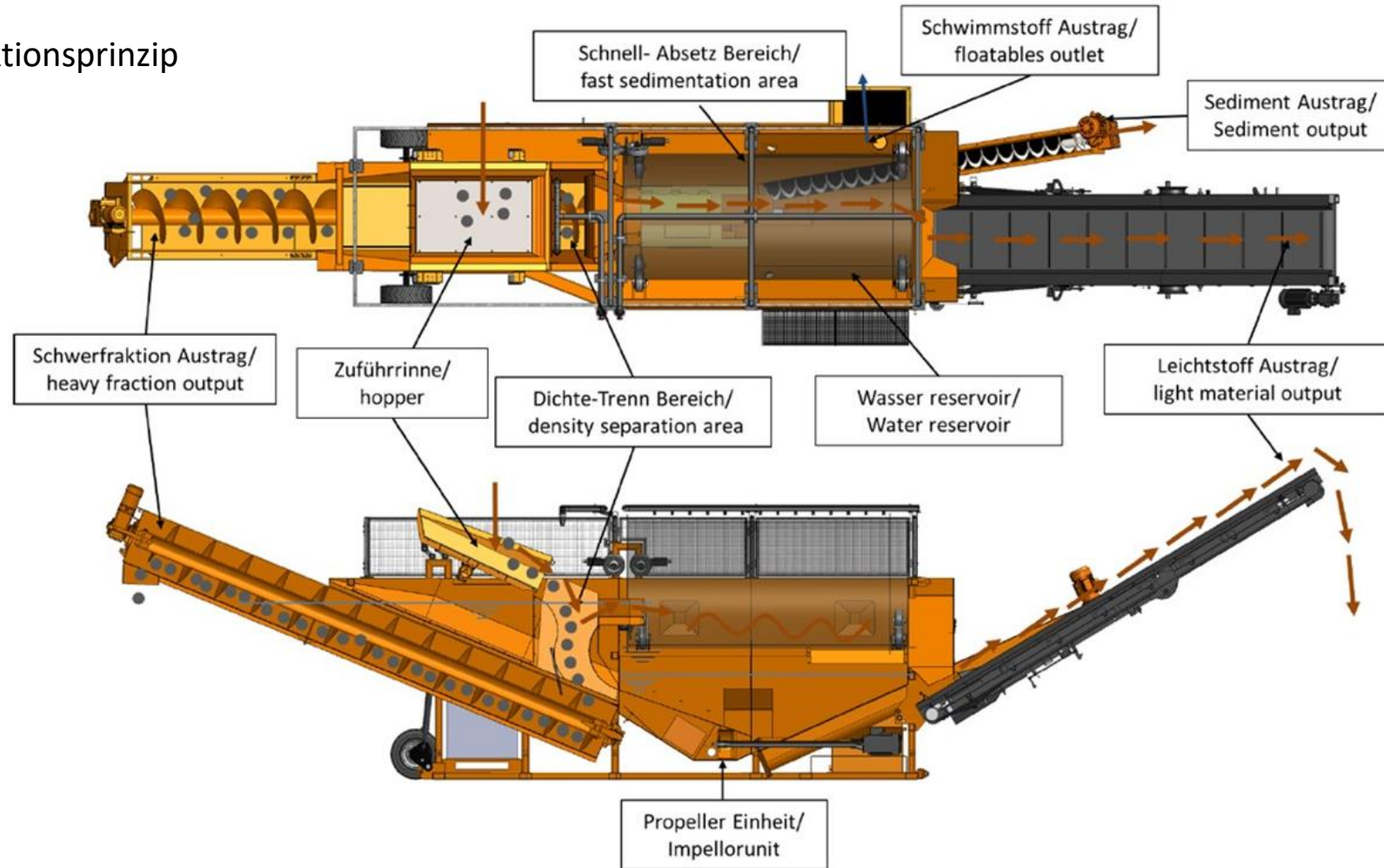
HDS-M

HDS-M	
Machine parts	
Material feed	Feeding chute with water spray
Heavy material discharge	Shaftless screw conveyor
Light material discharge	Dewatering drum
Up flow unit	adjustable propeller
Water treatment heavys	sediment shaftless screw conveyor
Water treatment Lights	Lights discharge on dewatering screen
technical details	
weight	8.540 kg
power consumption	34 kW
Water Volume	5 m ³
Material throughput	
mixed construction waste	30 t/h
Compost oversize	45 m ³ /h
Construction demolition waste	20 t/h
destoning biomass	60 m ³ /h

* Material throughput varies and depends on the input material

HDS-M

HDS-M Funktionsprinzip



HDS-M

Application Biomass

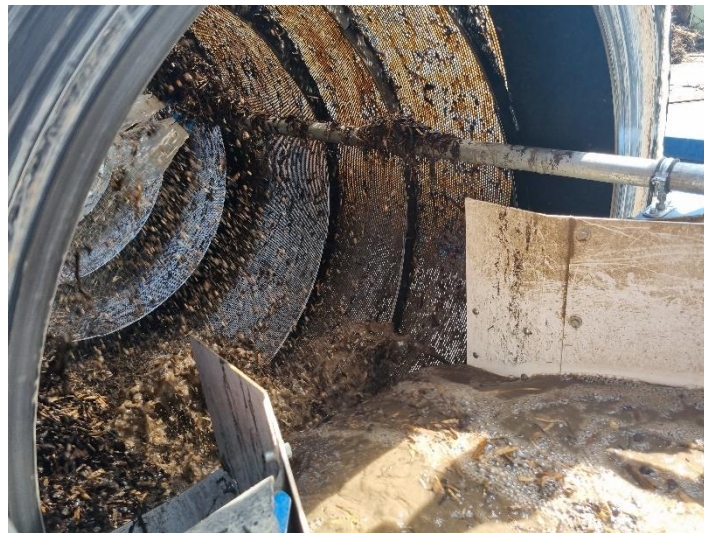
wima.
The Complete System



HDS-M Sediment discharge



HDS-M Feed chute



HDS-M separating area – lights overflow into the trommel



HDS-M Trommel

HDS-M

Application Biomass

wima.
The Complete System



HDS-M lights discharge



HDS-M heavys discharge

HDS-M

Application mixed construction waste

wima.
The Complete System



HDS-M

Application road sweepings



Input material



washed heavys



washed lights

HDS-SV (small vibration)



HDS-SV

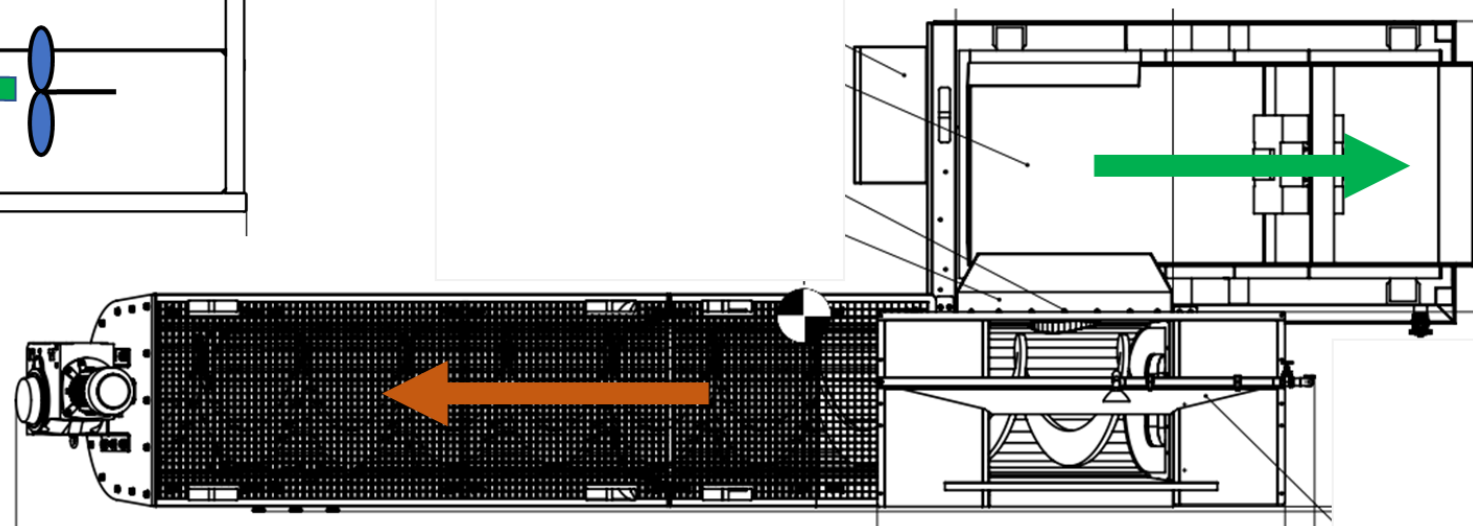
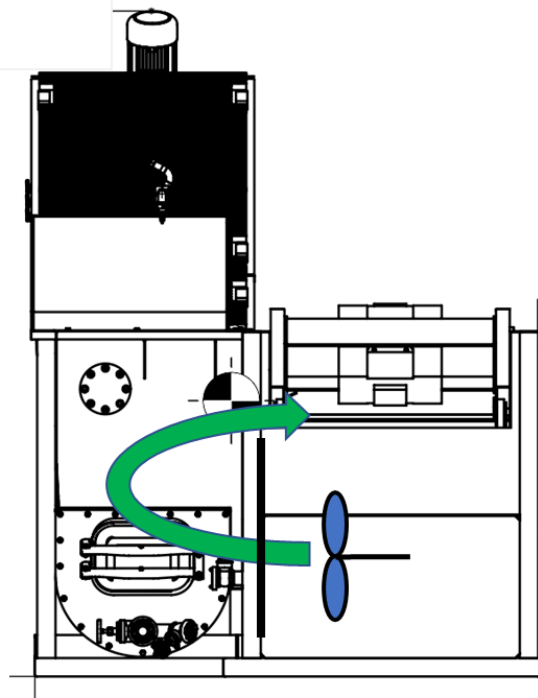
HDS-SV	
Machine parts	
Material feed	Baffle plate
Heavy material discharge	Shaftless screw conveyor
Light material discharge	Dewatering Screen (linear motion screen)
Up flow unit	adjustable propeller
Water treatment heavys	
Water treatment Lights	
technical details	
weight	3.400 kg
power consumption	13,3 kW
Water Volume	2 m ³
Material throughput	
mixed construction waste	15 t/h
Compost oversize	10 m ³ /h
Construction demolition waste	15 t/h
destoning biomass	5 m ³ /h

* Material throughput varies and depends on the input material

HDS-SV

HDS-SV how it works

wima.
The Complete System



HDS-SV

Application Plastic recycling

wima.
The Complete System



HDS-SV

Application road sweepings

wima.
The Complete System



Washed Heavys 2/8



Washed lights 2/8



HDS-WV (washing vibration)



HDS-WV

HDS-WV	
Machine parts	
Material feed	Feeding chute with water spray
Heavy material discharge	screw conveyor (with shaft)
Light material discharge	Dewatering Screen (linear motion screen)
Up flow unit	adjustable propeller
Water treatment heavys	
Water treatment Lights	
technical details	
weight	6.580 kg
power consumption	31,3 kW
Water Volume	4 m ³
Material throughput	
mixed construction waste	50 t/h
Compost oversize	/
Construction demolition waste	30-50 t/h
destoning biomass	/

* Material throughput varies and depends on the input material

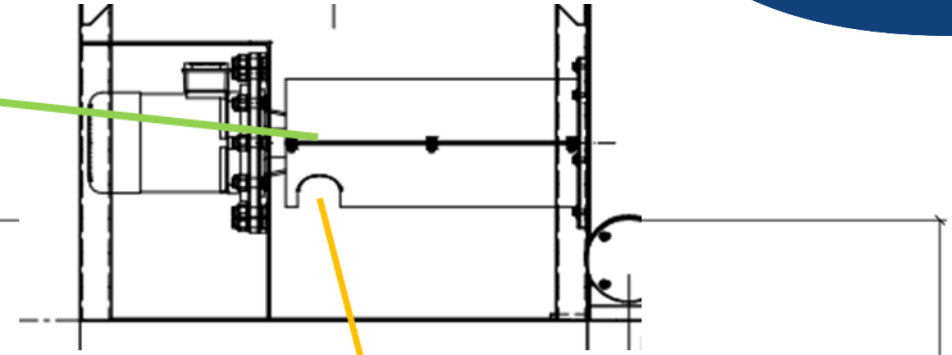
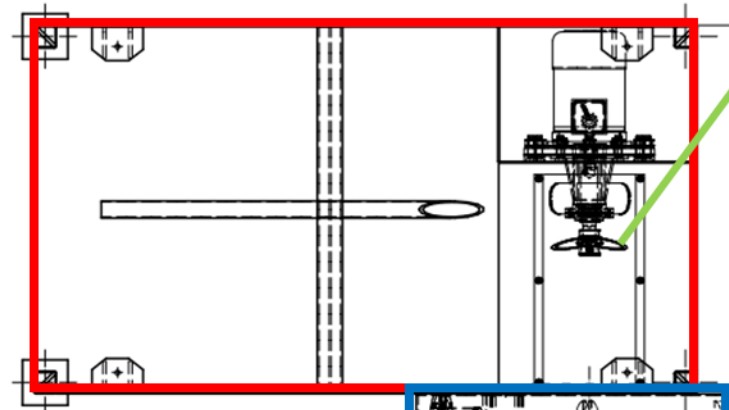
HDS-WV

wima.
The Complete System

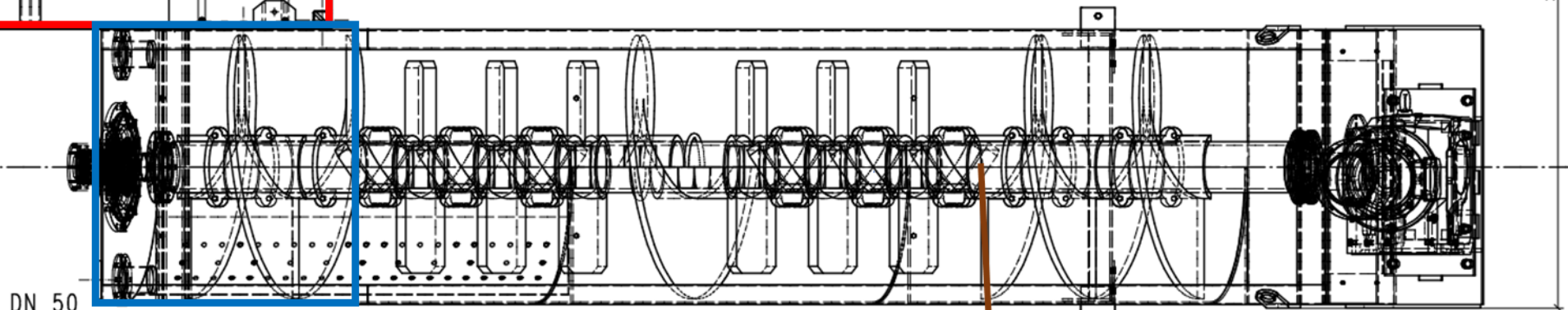
HDS-WV How it works

Jetpipe for propeller

Dewatering Area



Intake opening for propellers



DN 50

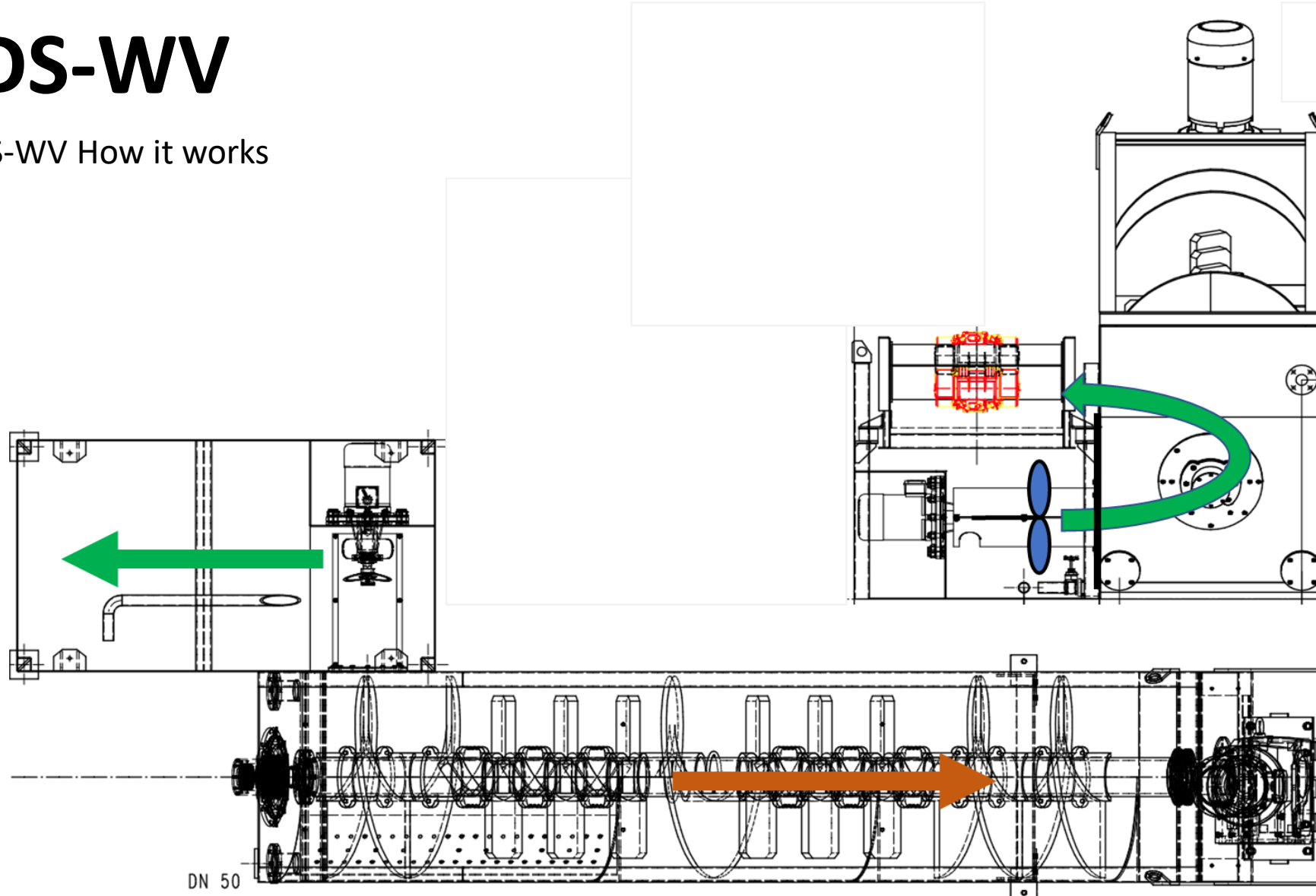
Separating Area

Wash- and Transportauger

HDS-WV

HDS-WV How it works

wima.
The Complete System



HDS-WV

Application construction waste



Output:
Impurities (left)
product (below)



Summary HDS:-S, -SV, -WV, -M

Additional process steps required:

screening (separation of oversize and undersize particles)

constant material feed

optional:

	HDS-S	HDS-SV	HDS-WV	HDS-M
Machine parts				
Material feed	Baffle plate	Baffle plate	Feeding chute with water spray	Feeding chute with water spray
Heavy material discharge	Shaftless screw conveyor	Shaftless screw conveyor	screw conveyor (with shaft)	Shaftless screw conveyor
Light material discharge	Dewatering belt	Dewatering Screen (linear motion screen)	Dewatering Screen (linear motion screen)	Dewatering drum
Up flow unit	adjustable propeller	adjustable propeller	adjustable propeller	adjustable propeller
Water treatment heavys				sediment shaftless screw conveyor
Water treatment Lights				Lights discharge on dewatering screen
Water Volume	1,5 m ³	2 m ³	4 m ³	5 m ³
Particle Size				
min.	10 mm (> 3/8 inch)	2 mm (No.10 / 10 mesh)	2 mm (No.10 / 10 mesh)	10 mm (> 3/8 inch)
max (1-D)	350 mm (14 inch)	light 150 mm / heavy 350 mm	65 mm (2 ½ inch)	350 mm (14 inch)
max (3-D)	150 mm (6 inch)	light 80 mm / heavy 150 mm	65 mm (2 ½ inch)	150 mm (6 inch)
Material throughput				
mixed construction waste	15 t/h	15 t/h	50 t/h	30 t/h
Compost oversize	15 m ³ /h	10 m ³ /h	/	45 m ³ /h
Construction demolition waste	15 t/h	15 t/h	30 - 50 t/h	20 t/h
destoning biomass	15 m ³ /h	5 m ³ /h	/	60 m ³ /h

* Material throughput varies and depends on the input material

find us on:

wima.
The Complete System



WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH

@wimamaschinen • 82 Abonnenten

Anwendungsbeispiele für Primärrohstoff Aufbereitung, Recycling und Wasseraufbereitungstechnologie der WIMA Wilsdruffer ...

Abonnieren



Neueste Videos von WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH



HDS-WV WIMA Bauschutt / Demolition waste

2427 Aufrufe • vor 1 Jahr

WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH

Störstoffentfernung aus Bauschutt 10 - 45 mm mit dem HDS-WV Removal of impurities from demolition waste with the HDS-WV.



HDS-S WIMA Aluminium Dosen / aluminum cans

534 Aufrufe • vor 1 Jahr

WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH

Aufbereitung von Aluminium Dosen mit dem HDS-S, Störstoffentfernung Processing of aluminium cans with the HDS-S, removal of...

+8 Mehr



WIMA Wilsdruffer Maschinen und Anlagenbau GmbH HDS S C&D

1264 Aufrufe • vor 3 Jahren

WIMA Wilsdruffer Maschinen- und Anlagenbau GmbH

HDS-S Leichtstoffabscheidung aus einem Baumischabfall 20 - 80 mm construction waste 20 - 80 mm.



wima.

The Complete System

WIMA
Wilsdruffer
Maschinen- und
Anlagenbau
GmbH

522 Follower:innen

+ Erstellen

Mitgliederansicht

Feed