REMU

Screening Technology & Amphibious Excavators

- Topsoil
- Padding Pipeline & Cable Excavation
- Composting
- Industrial Applications
- Recycling
- Screening Peat
- Mine Clearance
- Stabilization

Screening Buckets

English

www.remu.fi

Topsoil

Preparing topsoil for landscaping, nurseries, sport fields and yards is probably the most common application for screening buckets. With screening, bucket material can be classified as clean, high quality topsoil without stone fragments, sticks etc. The screening bucket can also be used for mixing sand, clay and compost to achieve the desired mixture required for each usage.

Screening blade

x001

Screening crushing blade

x304

When more aggressive grinding or crushing is needed, we recommend the blade design above.

Grain size of screened material depends on blade spacing. When preparing topsoil the spacing is usually 20 or 34 mm (3/4”or $1^{1}/_{4}$”).

If the material needs to be transported, it can be screened directly to the truck.

Padding Pipeline and Cable Excavation

The cost savings achieved when material from an excavation is screened on-site and used in the padding process of cable excavation makes this the fastest growing application for the screening bucket. Screening on-site, you save on both material costs and transportation. On-site bucket screening increases the time that machinery is used for profitable work by eliminating down time associated with waiting for the next sand truck.

When working with a screening bucket, you can screen the material from the excavation

- Use it for padding
- Dump the oversized material on top of the padding
- And even finalize the landscaping by using the topsoil from the job site

Screening blade

x001

This blade doesn’t crush stones etc. And the final product is homogenous.

Normally required particle size for padding is 0–16 mm (–$^{5}/_{8}$”). With REMU screening bucket even the 0–8 mm (–$^{5}/_{16}$”) grain size can be produced.

Composting

Green waste, bio waste, animal mortalities, manure and sewage sludge. Screening bucket is used for grinding the waste before composting and aerating the compost to accelerate the process. Furthermore, the screening bucket can be used for screening mature compost and mixing in other needed ingredients so that the final product is homogenous.

Screening blade

x001

This blade design is recommended for screening.

Screening crushing blades

x304

x311

These blade models are used to grind wood sticks, bones, etc. X304 is also suitable for ripping of food casings.

In General blade spacing is more than 35 mm ($1^{3/8}$"), since material is mostly wet and sticky.

Cleaning scrapers keep the rotators clean and ensure the best performance also in wet conditions.

Industrial Applications

Grinding and classifying material is one of the most common applications. With a screening bucket and the right blade design, it is easy to process different chemicals or fertilizers that have lumps or frozen clods. By grinding and screening the homogenous mixture can be achieved while moving the material with a wheel loader.

Blade spacing depends on the quality of material and expected end product.

Screening blade

x001

This blade design is recommended for screening.

Screening crushing blade

x304

When more aggressive grinding or crushing is needed, this blade design is recommended.

Spiral rotors combined with crushing blades can effectively grind lumpy material. Spiral shaped configuration reduces needed power.

Recycling

In most cases, the first step is to separate fines from recyclable material. For example, sand can be cleared out of wood stumps before chipping and using in heating plants.
Sometimes recyclable materials have to be crushed or classified before those can be used again or processed further. With a screener-crusher bucket materials such (glass, gypsum board, tiles etc. can be crushed.

Screening blade

x001

Screening crushing blade

x304

Screening Peat

As peat is very light material even the biggest screening buckets can be used for separating stones, stumps etc. The biggest REMU screening bucket has got volume of 5,5 m³ (7,2 yd³) (SAE).

Screening blade

x001

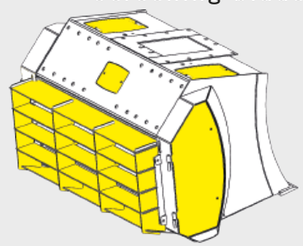
Screening crushing blade

x311

Mine Clearance

Special screening buckets can be used for clearing anti-personnel mines. In the areas where floodwater carries soil to rice fields, or desert where sand moves along with the wind, mines can be buried deep, out of the reach of mine clearance devices.

Screening blade



x001

When bucket is manufactured for mine clearance purposes, standard bucket is reinforced and equipped with explosion director element.

Stabilization

Every now and then the wet soil at the construction site causes delays. To keep the construction work going, the structure of unstable, moist and clayish soil can be transformed by treating it with lime. Chemical reaction between lime and combined water effectively dries the soil.

The screening bucket is the perfect tool for mixing lime into the soil. Screening also reduces the size of clay fractions and speeds up the drying.

Screening blade

x001

Screening crushing blades

x304

x302

Screening – Screening Crushers

The screening bucket is made to genuinely classify and separate materials. In most applications it is more effective and economic to screen materials first. The screener crusher is a bucket that can be used for grinding and light crushing.

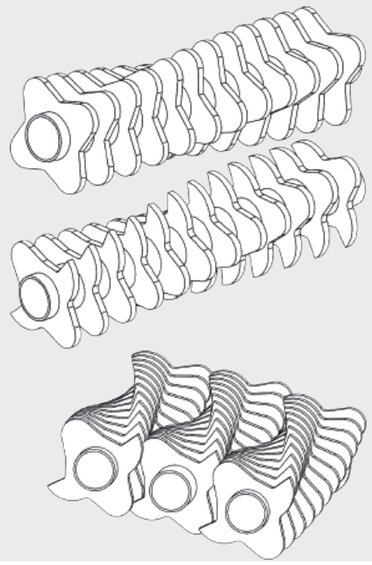
With proper blade choice and spacing it easily grinds

- Grass lumps
- Roots
- Wood sticks
- Glass
- Tiles
- Asphalt (with certain limitations)

The screener crusher is not suitable for crushing concrete or hard stones.

Spiral Rotators

With spiral rotators REMU provides a new generation of screening pattern for challenging conditions. With this registered and protected design, screening and crushing can be done even more efficiently.



Heavy Duty – HD

HD structure gives you an advantage when a bucket is used in rough conditions and when heavy wearing can be expected. When you choose to have a heavy-duty version of the REMU bucket you will have the reinforced frame structure as pictured below.

Main cutting edge

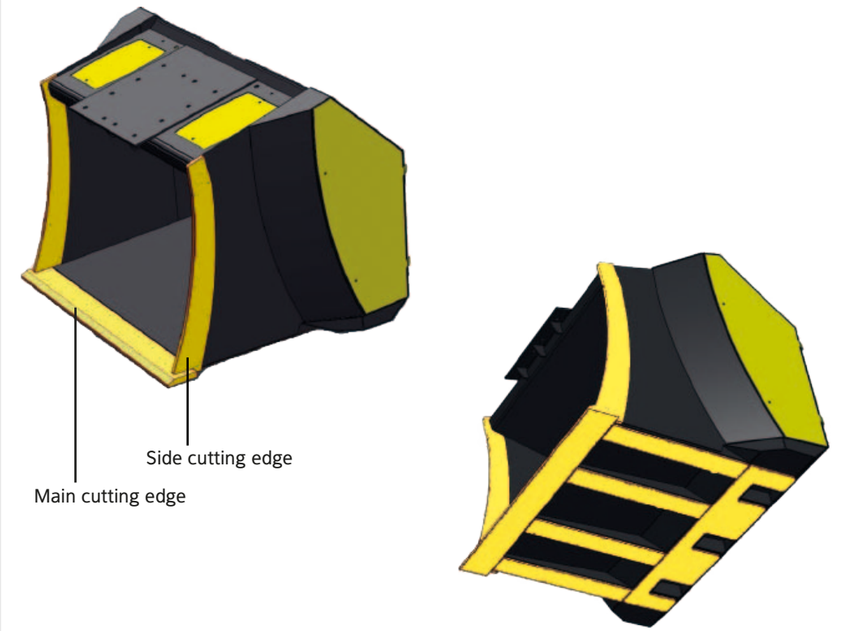
- EE Series: 40 mm wear plate, HB500
- EP Series: 25 mm wear plate, HB500

Side cutting edge

- EE Series: 25 mm wear plate, HB500
- EP Series: 16 mm wear plate, HB500

Extra reinforcement and protective plates added to the bottom of the bucket

- EE Series: 10 mm wear plate, HB500
- EP Series: 8 mm wear plate, HB500



Technical Data

	Model	Carrier Size[1] Excavator	Carrier Size[1] Loader	Hydraulic Flow[2] Min–Max	Bucket volume ISO/SAE	Bucket volume Screening area	Measures Height	Measures Width	Measures Depth	Weight Basic	Weight HD
Metric units		Tons		l/min	m³	m²		cm		Kg	Kg
	EL 2085	3	1	25-35	0,15/0,18	0,2	64	109	63	240	N/A
	EP 3150	14	7	55-95	1,0/1,1	1,1	119	190	123	1140	1250
	EP 4150	18	9	80-110	1,3/1,4	1,4	139	190	123	1420	1490
	EE 3160	25	12	155-235	2,1/2,4	1,4	158	200	169	2300	2460
	EE 4160	30	14	155-235	2,7/3,0	1,8	180	200	169	2670	2830
	EE 3220	35	14	155-235	3,0/3,3	1,9	158	260	169	2830	3020
	EE 4220	40	18	155-235	3,7/4,2	2,5	180	260	169	N/A	3500
	EE 4290	60	21	155-235	4,8/5,5	3,3	180	330	175	N/A	4500
	EX 80	12	N/A	80-100	0,7/0,9	0,7	137	101	128	1300	N/A
	EX 140	16	N/A	155-235	0,9/1,1	0,8	137	126	128	1600	N/A
	EX 180	21	N/A	155-235	1,3/1,5	1,4	165	151	145	2360	N/A
Imperial units		1000 lbs.		gal/min	yd³	ft²		inch.		lb.	lb.
	EL 2085	7	2	6-9	0,20/0,24	2,2	25	43	25	530	N/A
		7	2								
	EP 3150	31	15	14-25	1,3/1,5	12	47	75	48	2510	2760
	EP 4150	40	20	21-26	1,6/1,9	15	55	75	48	3130	3290
	EE 3160	55	26	41-62	2,7/3,1	15	62	79	67	5070	5420
	EE 4160	66	31	41-62	3,5/3,9	19	71	79	67	5890	6240
	EE 3220	77	31	41-62	3,9/4,3	20	62	102	67	6240	6660
	EE 4220	88	40	41-62	4,8/5,5	27	71	102	67	N/A	7720
	EE 4290	132	46	41-62	6,3/7,2	36	71	130	69	N/A	9920
	EX 80	26	N/A	21-26	0,9/1,2	8	54	40	50	2870	N/A
	EX 140	35	N/A	41-62	1,2/1,4	10	54	50	50	3530	N/A
	EX 180	46	N/A	41-62	1,7/2,0	15	65	59	57	5200	N/A

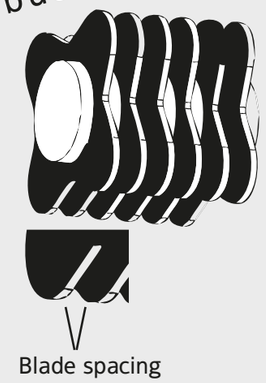
*1. Carrier minimum weight recommendations listed here are meant only for reference. For more accurate calculations concerning the lifting capacity and tipping load of the carrier, please contact the authorized dealer of the machine. Operating the bucket in carrier which is beyond the optimal weight range is possible as long as the operator is properly trained in matters concerning mechanical structure of the buckets frame. All recommend values are calculated during operations using 1,7 tn/m³ weight of material.

*2. Needed hydraulic flow and pressure may vary with different materials and selected configuration of hydraulic motors in bucket. For more detailed information on speed of rotors contact authorized REMU dealer.

Weight of the bucket and all other values in this table have been calculated for average operation of a screening bucket.

To meet every customers special needs, consulting an authorized REMU dealer is highly recommended before any purchase.

MORE VOLUME
Less Unnecessary Steel
More production with each bucket load



Blade spacing

Boltable mounting for every machine type.

Even more volume with extra sides.

The buckets can be mounted either as a front shovel or digging configuration.

Double shaft structure keeps bearing safe from dirt and impacts and does not need extra plates to cover, it cleans itself every time when greasing.

REMU

Technical Data

Particle size of screened or crushed material are matter of many circumstances like weather conditions, moisture, skills of operator, blade design, setting of counter blades, content of material etc. Approximate particle size is about 8 mm smaller than used blade spacing.

Series EL	EP	EE/EX	Blade Spacing mm	Blade Spacing inch.	Particle Size mm	Particle Size inch.
x	x		15	5/8	0-8	0 - 5/16
x	x	x	20	3/4	0-13	0 - 1/2
	x	x	24	1	0-17	0 - 3/4
	x	x	30	1 1/8	0-23	0 - 1
	x	x	34	1 3/8	0-27	0 - 1
	x	x	40	1 5/8	0-33	0 - 1 1/4
	x	x	50	2	0-43	0 - 1 3/4
	x	x	64	2 4/8	0-57	0 - 2 1/4
		x[1]	74	3	0-67	0 - 2 3/4
	x	x	95	3 6/8	0-88	0 - 3 2/4
		x	125	5	0-118	0 - 4 3/4
		x	155	6	0-148	0 - 5 3/4

[1] Only for blade model 4311.

REMU has a policy of continuing improvement, and reserves the right to change specifications without prior notice.

Blade designs are registered community designs 001878158-0001–0011.

Spiral rotors are registered community designs 001956780-0001–001956780-0004.

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