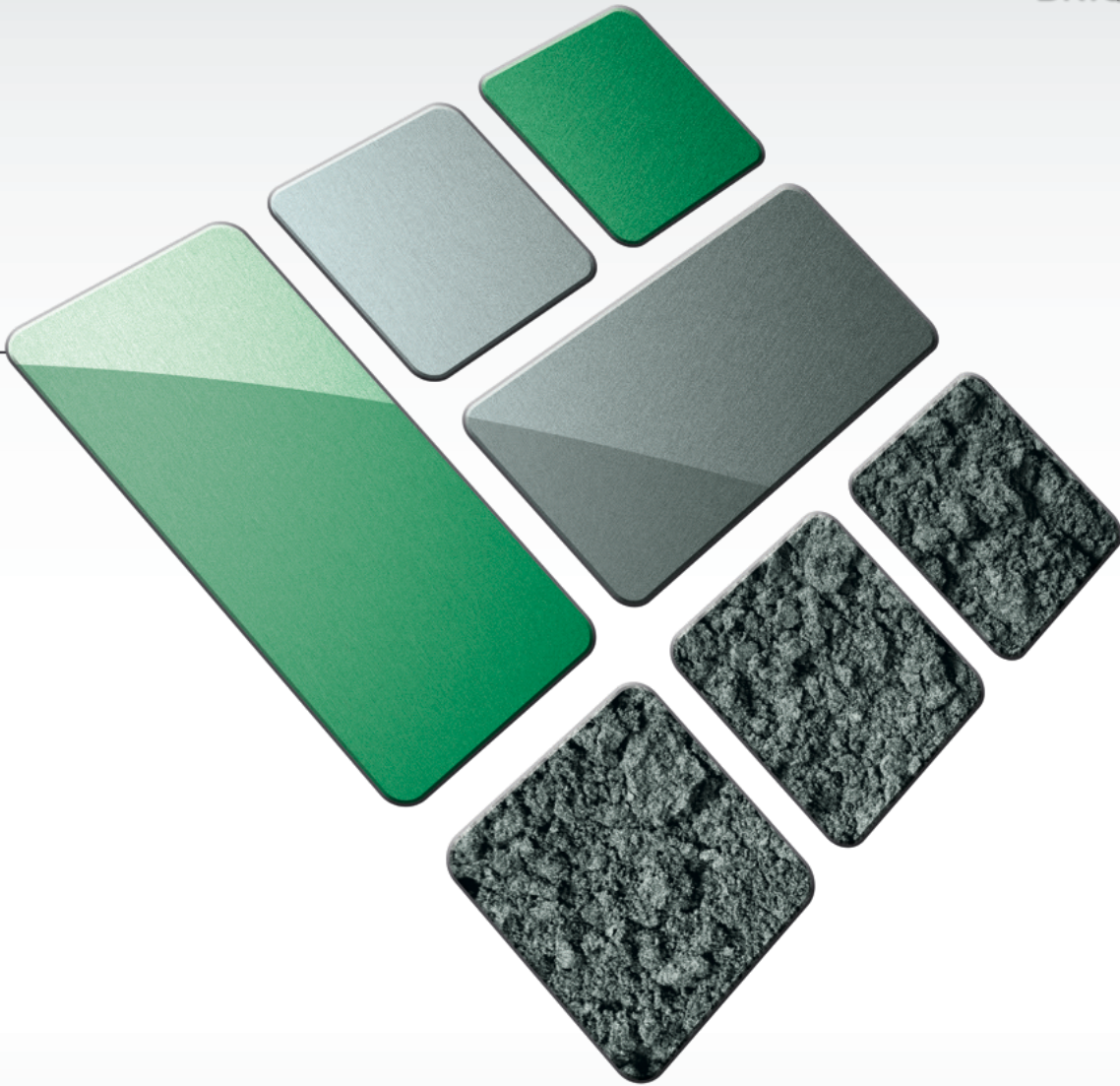




GRINDING SLUDGE





RUF BRIQUETTING SOLUTIONS

EFFICIENCY IN GRINDING

Material

Grinding sludge is created by the grinding of metal components. It is a mix-ture of metal and corundum abrasion in combination with the cutting fluids being used.

The briquetting solution by RUF makes it possible to dispose of or recycle grinding sludge cost-effectively.

By briquetting, the waste is reduced significantly and the briquettes possess a defined residual moisture. Thus, the disposal costs are reduced and depending upon the alloy, there is even the opportunity to sell the briquettes with a profit.

In most cases, the expensive oil recovered can be reused. The briquetting system can already payoff for itself within less than 12 months by processing about 10 to 30 tons of the expensive oil contained in the cutting fluid per year.

Shape

With grinding sludge, rectangular briquettes in the format of 2.4x1.6 in. and round briquettes with a diameter of 2.4 to 4.7 in. are possible. The briquette length is variable within predefined limits.

Advantages

- ▶ Recovery of expensive cutting fluids
- ▶ Reducing the volume and weight of the material disposed of; thus, reducing the disposal costs
- ▶ Defined residual moisture of briquettes
- ▶ Potential profit of selling briquettes
- ▶ No classification of briquetted grinding chips as "hazardous waste" Optimized storage without dripping containers and development of bacteria
- ▶ No water and soil contamination caused by overflowing of cutting fluids

Machines

Depending on the requirements, our briquetting systems for grinding sludge are equipped with hydraulic motors ranging from 5 hp to 30 hp, and reach a specific pressure of up to 54,000 psi.

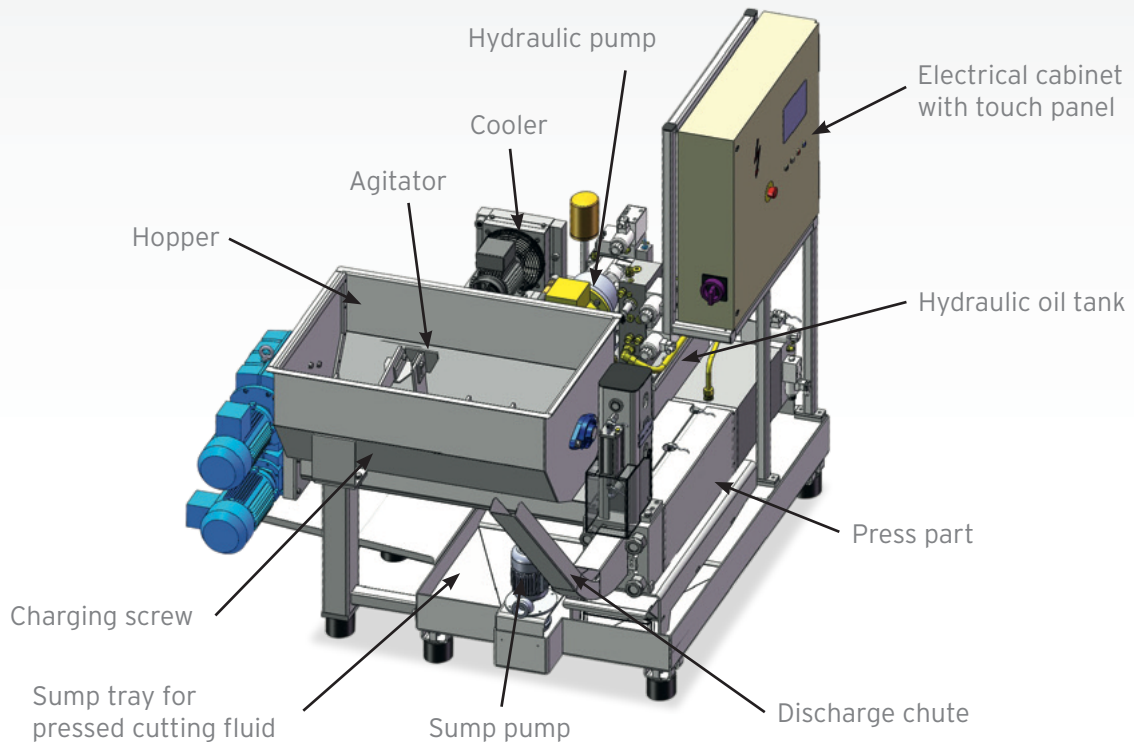
It is important that the grinding sludge is slowly compressed, allowing the escaping cutting fluid to flow off, before the maximum pressure is reached in the compression chamber.

The composition of grinding sludge varies differently. We therefore recommend to all of our customers to have their special material tested free of charge in our technical center. In this way, we can adapt each briquetting system individually to customer requirements.

The throughput of the RUF briquetting systems - especially for grinding sludge- range from 90 to 800 lbs per hour.



PROCESS AND FEATURES



Grinding Sludge		
Mechanical	Hydraulic	Electrical
Compact footprint	Hydraulic power unit	Electrical cabinet
Hopper with agitator and charging screw	Hydraulic oil tank with oil cooler (RAP without cooler)	PLC control with touch panel
Pre-charger with volume control	Recirculation filter	Level sensor in hopper
Press part	Ventilation filter	Electrical cabinet heater
Main pressing ram	Low oil level and high temperature detection	Electrical cabinet cooler
Sump tray for pressed cutting fluid	Hydraulic oil	Signal light
Discharge chute	Hydraulic oil tank heater	
Briquette conveyor	Water cooler	
Multiple screw conveyor	Volume controlled pump	
Hydraulic lifting and tipping unit		
Sump pump		
Grinding sludge design		
Sump tray flushing system		
Level sensor cleaning device		
Special wear resistant design parts		

Legend: ● = Standard ○ = Option

MACHINE TYPES

BRIQUETTE SHAPES

GRINDING SLUDGE	RAP	RUF 4	RUF 7,5 - 22
Max. throughput rate (lbs/hr)	90	175	330-800
Power (hp)	5	5	10-30
Spec. pressure, max. (psi)	54,000	32,700	28,400-42,600
Briquette shape (in)	 2.4 x 1.6	 Ø 2.4	 Ø 3  Ø 4  Ø 4.7
Briquette length (in)	1.6	2.4	4
Machine Size (in) length x width x height	51 x 39 x 63	51 x 59 x 75	118 x 79 x 79
Weight (lbs)	2000	2600	6600-7400

Subject to technical modifications.

The throughput capacity depends upon the machine design as well as the type and form of the material used.

Info

Grinding sludge is classified as being "hazardous waste" in Europe. They comply with the waste key numbers:

▶ 120118* Metal sludge (grinding, honing and lapping sludge) containing oil

▶ 120114* Machining sludges containing dangerous substances

By being briquetted - in coordination with the locally responsible authorities - they can be turned into "non-hazardous waste".

In its briquetted shape the material comes under:

▶ 1912 Waste from mechanical treatment of waste (e.g. sorting, shredding, compressing, pelleting) not specified anywhere else.

Explained more plainly, they are now considered as:

▶ 191202 ferrous metal



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