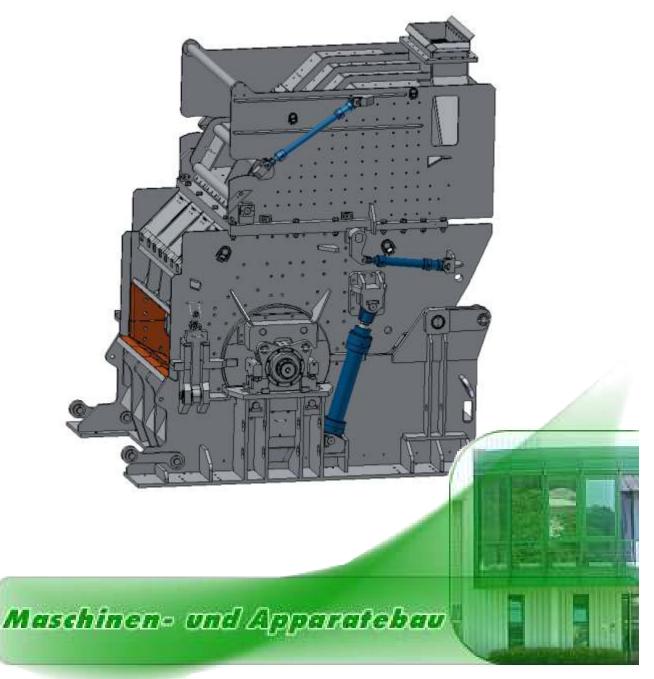


# COMES Environmental Engineering

### **Recycling in favour of the Environment**



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### **COMES Environmental Engineering Recycling in favour of the Environment**

Comes Maschinen- und Apparatebau (Machine and Apparatus Construction) Gmbh is an accredited and specialist firm in the welding of fine grain construction steels and offers an extensive product range which includes recycling machines of the best quality. All recycling machines are manufactured in accordance with the current safety regulations and quality assurance measures. Comes' recycling machines are identified by their high level of durability and applied load reserve. Recycling machines by Comes are easy to handle, totally stable and wear-resistant. Recycling machines from COMES a product, which will convince you.





#### **COMES Environment Engineering designs and manufactures recycling** machines and equipment based on the individual requirements of the customer.

Our engineers have a solution for every situation. Custom-tailored and enhanced on a constant basis, our robust products have proven their value in the field.

The knowledge of the employees, together with the high standard of machinery, and the complimenting Business Park, is the company's base for innovation.

From shredders to media separation plants and de-dusting equipments to complex constructions, COMES offers, even to future clients, an individual tailormade machine in accordance with today's standards.



#### **An Overview of the Products**

- Schredders 400 6000hp
- Media separation plants
- Conveyor Belts
- Sieve Drums
- Rotary feeders
- Repairs, Upgrades and Rebuilding
- Spares and Replacement of wear and tear parts



With 'know how', experience, quality and reliability, Comes has grown in the last decades and will continue to meet the customers' stringent and high demands.



#### **Conveyor Belt for a 1200 tons Scrap Shearing Machine**

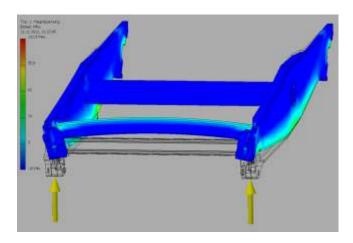




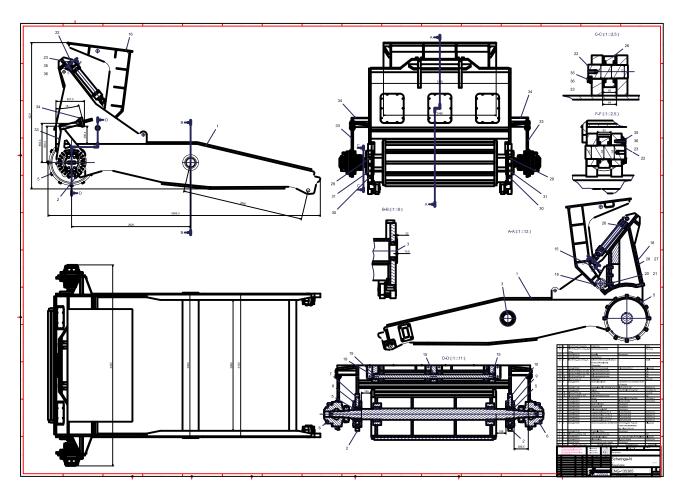
#### Design

The Recycling machines are fundamentally designed in accordance with the valid standards.

The quality of construction, assembly, documentation and final approval is guaranteed by In-house and external welding engineers and authorized experts.



#### Swing Arm for an Inlet Chute





#### **Manufacturers Qualifications**

DIN 18800 Teil 7 Abs. 6.2 DIN 15018 "Krane" DIN EN 13155 "Lose Lastaufnahmemittel" DIN EN 3834 Teil 2 Recognised manufacturer certified in compliance with Pressure Equipment Directive 97/23/EC, in conjunction with AD 2000-HP 0 Pressure Equipment Directive 97/23/EC in colaboration with GTÜ Specialists fo § 19 I WHG

#### **Procedure Test for:**

S 690 QL Steel plate S 890 QL Steel plate S 960 QL steel plate StE 770 Pipe S 355 J2+N Steel Plate S 355 J2H rigid frame slab DIN 18808

#### Welders with welder qualifications in accordance with DIN EN - 287 -1 and machine operator qualifications in accordance with DIN EN 1418 for:

Welding process135Welding process135Welding process111Welding process141Welding process121

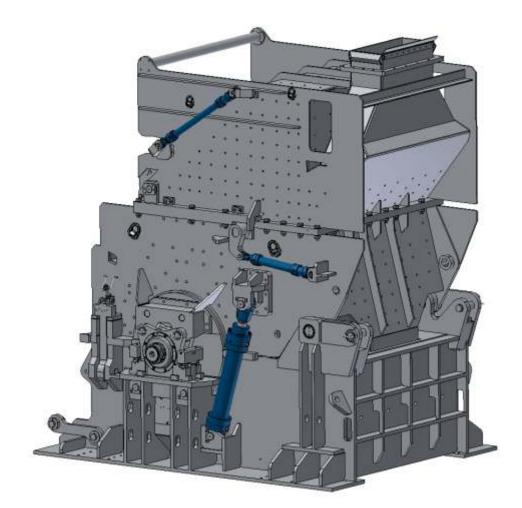
fine grain structural steel normal and high grade construction steel normal and high grade construction steel high grade steel

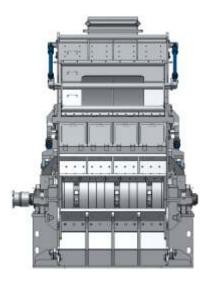
#### **External Testing Companies**

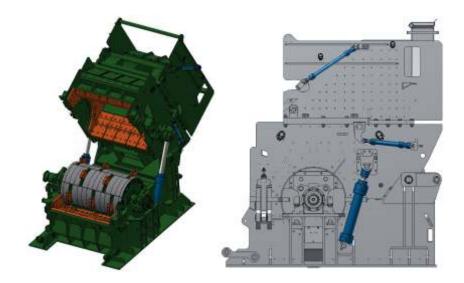
SGS TÜV GmbH TÜV Rheinland Holding Aktiengesellschaft GTÜ Gesellschaft für Technische Überwachung mbH GSI Gesellschaft für Schweißtechnik International mbH SLV Schweißtechnische Lehr- und Vesuchsanstalt Saarbrücken



#### Shredder with double output



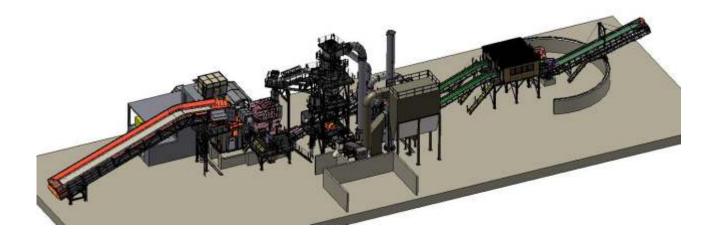




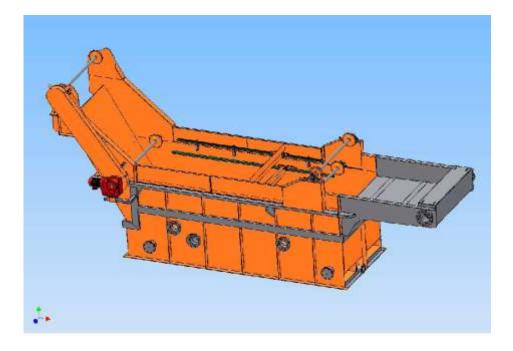


### Shredder device as complete plant Driving power up to 6000 PS (5917 hp) based on costumer requirements

• Shredder Devices with double output



#### **Mud Excavator for Wet De-Dusting (Venturi - Scrubber)**





#### Media Separation Plant – Working Drum









#### **Conveyor Belt for a Scrap Shearing Machine**







Self weight 45 tons



#### **Repairs and Rebuilding of Rotors**

- Newell
- Metso
- Hammermills
- Metpro
- Henschel
- Parfer

LynxHoffmann



#### Rotor 175 x 260 after rebuilding



Assembly of Rotors with new protective Caps

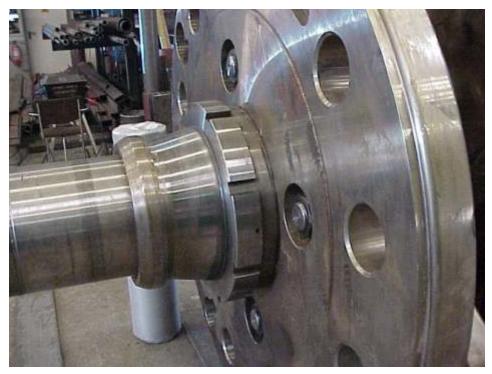




Repair of rotors and bearing housings



#### Manufacturing, repairs and changes of rotors



Rotor for assembling with protective caps Free surfaces protected by hard welding





## Manufacturing, repairs and changes of steel plate conveyor





#### Manufacturing of conveyor links and chain links



#### Manufacturing of a steel plate conveyor (net weight 80 tons) with pin chain



#### Housing of a screen drum



### Manufacturing of rotary feeders with one or two service doors





#### Manufacturing of screen drums with 3 to 9 screen sections 1 screen section = 1340mm

The screen plates are screwed on and interchangeable. Design and manufacturig based on customer demand.





#### **Separation drum**

screen drum with 6 screen sections



#### Maintenance of common wear parts



We deliver protective caps for each type of rotor.

We deliver parts with hard welding based on customer demand. Our own warehouse ensures short response times.

As a result of our in house design department and our long standing experience our manufacturing is based on customers demand.



#### A few examples of repairs and upgrades:

Repairs in the lower section of a Newell-shredder



**Before the repair** 



**During the repair** 



**During the repair** 



#### After the repair



#### Maintenance of scrap shears and scrap presses



Shear bed





Slitter carriage after upgrade



Tamper after repair

#### Frame after repair

Based on our qualified personnel we ensure a perfectly workmanship in all types of machines.



## Our personnel will be trained in safty and technology at regular intervals.



The necessary equipment for repairs will be available in maintenance containers.



#### Production Plant 1: Seiferstraße 16 • Trier - Ehrang - piece weight 50/80 Tons Production Plant 2: Montanstraße 12 • Trier - Hafen - piece weight up to 200 Tons









Responsible for Pictures and Contend:

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