



Newell Recycling Equipment LLC.

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The world's foremost expert in metal and automobile recycling equipment provides the lowest operating cost per ton since 1960

From the design stage to implementation, we have all your metal scrap recycling plant needs covered.

We are Newell Recycling Equipment



Scott Newell

Chairman of NRE

Vice Chairman of CRNE

Co-Founder and Partner of Newell-Cobb

Scott is considered one of the world renowned leading shredder experts in the industry. He has supplied over 100 speeches in the last 50 years which has contributed to the education and world's best practice for operation of shredders.

2015 Life Time Achievement Award from ISRI

2022 Top Professionals Award from Marquis Who's Who

2023 Life Time Achievement Award from Marquis Who's Who



Scotty Newell III

President of NRE

Advisory board member at CRNE

Co-Founder and Partner of Newell-Cobb

Scotty has been involved in all aspects of the manufacturing and operation of shredder equipment more than 40 years. (He started at 16 in the scrap yard part time) Scotty's main passion is travelling and he has seen over 500 shredder operations around the world. He has also been involved in over 60 shredder installations domestic and abroad.

Bottom Line---Scotty Knows

Scotty Newell III is presently serving as the Chairman of the BIR Shredder Board

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◆ Slag Processing

FROM OUR FAMILY TO YOURS

For more information please visit us at www.newellequip.com

We are constantly improving our products and therefore we reserve the right to change the design and technical specifications without prior notice.

History

1939 Newell Salvage Company San Antonio Texas
Started car dismantling and recycling, 1961 Newell had 5 car recycling plants at that time in Texas and Arizona.

1960 The first Newell Shredder was built and patented by Alton Newell.

1961 Scott Newell helped to build the 2nd Newell Shredder and operated it until he operated 10 shredding plants to make profits daily.

1966 Newell Manufacturing Company
From 1967 until 1984 Newell licensed Lindemann to build Lindemann-Newell shredder in Europe for 17 years.

1979 Newell Industries with steel foundry

1984 Eumet GmbH in Frankfurt Germany
Partner with Helmut Trapp and Cees Kroesemeijer

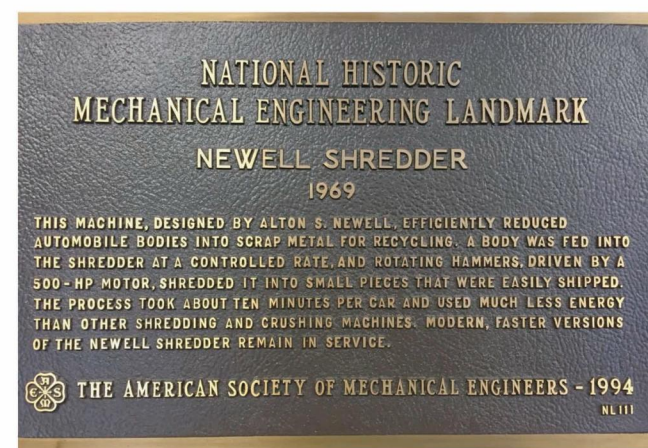
1994 Newell Shredders UK & Newell Magnets in UK
Partner with Derek Squires, Newell Magnets UK was sold to Master Magnet.

2000 The Shredder Company El Paso Texas and foundry
Partner with H. Inabata, Japanese Chairman of Inabata Chemicals 110 years old family business.

2015 Newell Recycling Equipment LLC was formed by Scott Newell and Scott Newell III.

2017 China Recycling Newell Equipment (Jiangsu) Company
Joint Venture with China Recycling development Corporation Ltd.

1994 The American Society of Mechanical Engineers designated the newell shredder as a landmark in the history of american engineering.



A word from our chairman

When my father Alton Newell founded our family business more than 84 years ago, he printed a business card that carried his motto: “ we will treat you right ”. That has been a guiding philosophy of our companies from the beginning until now.

I am proud that my father invented the modern shredding machine and I am proud that almost every shredder being built in the world today has adopted most, if not all, of the design features that were first used in Newell Shredders.

It has been my personal responsibility to operate one, or up to 10 shredding plants, to make profits from those operations, on a daily basis since 1960. The president of NRE, Scott Newell III, has been operating shredding plants for more than 40 years. During recent years, shredder plants owned and operated by Newell family members have produced more than 1,000,000 tons per year of shredded scrap.

Operating shredding plants for profit have provided us with the desire and motivation to maximize the efficiency of daily operations in order to get the most return for the investment in money and especially in time spent operating the equipment.

This operation of shredders provided the motivation that lead us to be pioneers in the separation of the products of the shredding system. In 1974, we began to use heavy media to separate non ferrous metals from the product stream. In 1984, we were among the first in the industry to use eddy current separations and also sensor sorting to increase the value of the nonferrous metals recovered. The air separation systems that evolved through the constant search for better and more efficient separations continue to lead the industry. No one and no other group have even close to the operating experience, the manufacturing experience nor the experience of teaching others how to operate efficiently as we do.

All of the lessons learned while operating those machines are included in the designs of current shredder plants which are being designed, built and installed for our many customers around the world from here at Newell Recycling Equipment. When you buy equipment from NRE, you get the benefit of all of the evolutionary improvements that have been made through the years. Our design philosophy follows one guiding rule: we will follow the design that yields the lowest cost per ton throughout the life of the equipment. That means that sometimes the original price is higher or lower than alternative designs, but we believe that it will, for sure, offer the best value to the new investment.

With all of this in mind, we sincerely hope that this Brochure will be useful to you. Thank you for your interest.

Chairman

Scott Newell

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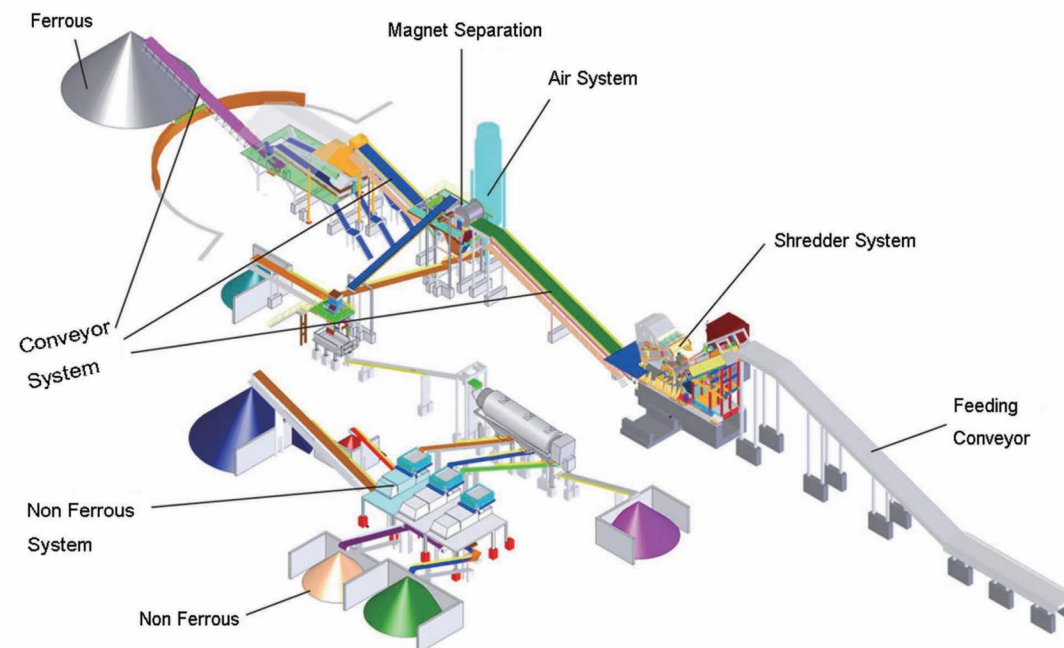


Shredding Systems and Spare Parts



The design decisions are always made to provide equipment that will shred scrap metal for the lowest cost per ton throughout the life of the plant.

You can be assured that NRE will design the best and most efficient plant for you.



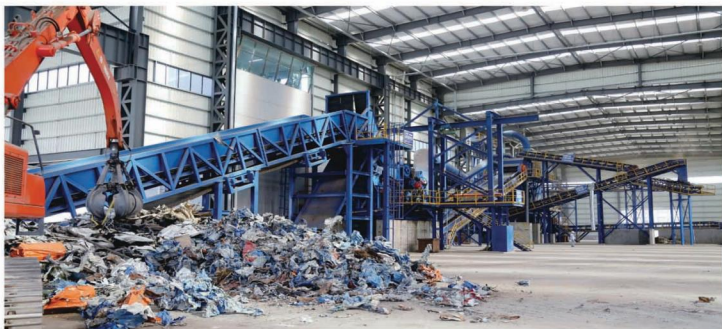
Transportable Shredding System

Transportable Shredding System powered with a 1500HP (1104 KW) Diesel Engine, is suitable for processing up to 40 tons per hour of scrap materials including:

- Whole Cars, light iron scrap, including appliances, and materials normally classified as #2 heavy melting materials, foundry grades of scrap, and some grades normally classified as #1 heavy-melting materials.
- Structural shapes of steel with under ½ inch (12.5mm) section thickness.
- This means that a standard I beam of 8 inches or less can be shredded.
- Re-bar of one inch (25mm) diameter.
- Wire products, including pieces of cable up to ½ inch (12.5mm) can be shredded when fed into the shredder in small portions (less than 20 feet in length)



The Newell shredding system from 400 HP to 11000 HP, the service life of the equipment is at least more than 20 years, the capacity is up to 600 tons per hour with the lowest operating cost.



The Newell Shredder



Smart and Xtra Strong

The equipment is sophisticated, which means that this is the product of a long evolution of shredders that have been built by the Newell since 1960.

This ongoing improvement design was developed to provide reliable operation and ease of maintenance at the lowest possible processing cost per ton of scrap produced.

With our Smart Shredding System, you can efficiently operate your shredder, while maximizing your machine's output, maintaining safety and production standards.

Almost every important design feature in Modern Shredding Plants was first used in machines built by Newell:

- Top and bottom Design Shredder
- Double Feed Rollers
- Air Separation
- Smart Water Systems
- Super heavy Duty Shredder
- Mega Shredder
- Smart Shredding System

| | | SHREDDER SIZE | | | | | | | | | | |
|----|---------|---------------|-------|----------|--------|----------|--------|--------|--------|---------|---------|---------|
| HP | 4848TBD | 4868TBD | 6068 | 6090 SXS | 60 SXS | 8090 SXS | 80 SXS | 84 SXS | 98 SXS | 100 SXS | 120 SXS | 124 SXS |
| | 400 | 600 | 1,000 | 1,000 | 1,000 | 1,000 | 1,500 | 2,000 | 3,000 | 3,000 | 4,000 | 6,000 |
| | | 1,000 | 1,500 | 1,500 | 1,500 | 1,500 | 2,000 | 3,000 | 4,000 | 4,000 | 5,000 | 7,000 |
| | | | | 2,000 | 2,000 | 2,000 | 3,000 | 4,000 | 5,000 | 5,000 | 6,000 | 8,000 |
| | | | | | 3,000 | 3,000 | 4,000 | 5,000 | 6,000 | 6,000 | 7,000 | 9,000 |
| | | | | | | | | | | | | 10,000 |
| | | | | | | | | | | | | 11,000 |



Feed Ramp Safety Cover is robust, ergonomic and most of all, efficient against flying pieces coming from the shredder. This helps reduce or eliminate the possibility of injury or death, enhanced Safety at your shredding plant.



Double feed roller design can effectively prevent the blocking of materials and greatly improve the working efficiency.

with larger upper roller for crushing and feeding the lower roller which feeds the shredder with variable speed controlled by computer



Castings that allow scrap to slide into the shredder without stoppages.



More than 60 years of experience translated into design.

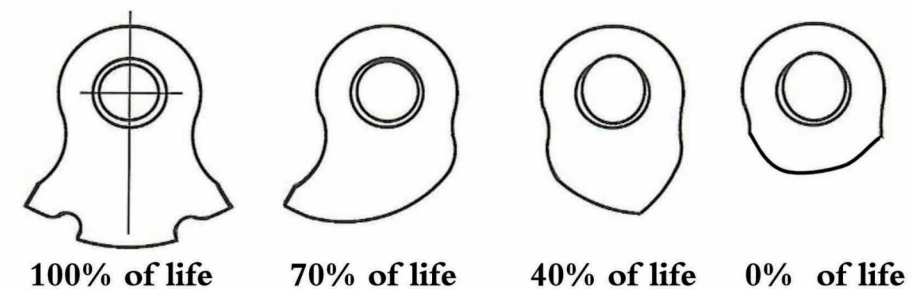
Special chemistry and treatment materials are used for long life components.

- Shaft
- Discs
- Drawbars

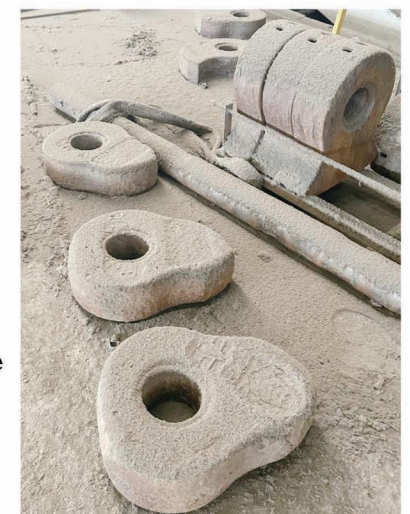
Improved footprint design to rotor shaft.

Disc assemblies are press-fit to rotor shaft.

Maximum hammer life performance



How to get the most tons with the hammers in your shredder ?



Shredder Downstream

NRE always attempts to create stronger and smarter shredding processes, not only in the shredder but also in what we call the down stream separation systems.

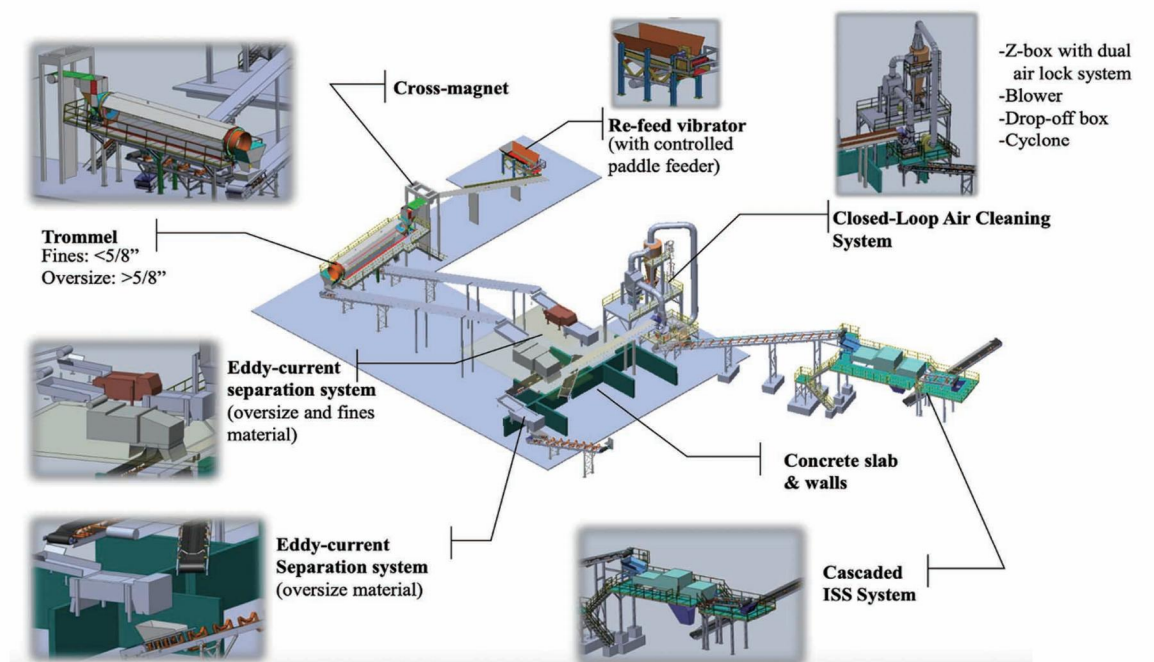
In order to produce cleaner shredded material, many new plants have installed split down stream separation systems, this down stream features a double line of very large drum magnetic separators, dual picking conveyors and very extensive non ferrous metal recovery and separation equipment.



Non Ferrous Separation System



Adopting the world's largest magnetic separation equipment manufacturers - America Eriez, which has more than 70 years of experience in the design and production of non-ferrous separation equipment, with the world class product performance. In addition, top quality after-sales service can be provided.



Non Ferrous Separation System



The eddy current separator

can separate the non-ferrous materials efficiently after magnetic separation, and work well on the separation for a variety of non ferrous metal. Meanwhile, it is suitable for various materials with convenient installation, simple operation, low maintenance cost and excellent market performance.

Air Table Separation

with patented design, separate the mixed fine materials after the eddy current separation in accordance with the gravity separation principle, to save the manual separation cost for customers and make the material value increased nearly double.



ASK US HOW TO IMPROVE YOUR SEPARATIONS!

Our separation systems are designed to provide the most efficient separation. Our designs include the following, and more:

- Automotive Shredder Residue (ASR)
- High Frequency Eddy Current Magnets
- Screeners
- Trommels
- Stainless Steel Separators
- Splitter Boxes and Surge Hoppers
- Electro Magnetic Alternating Pole Drum Magnets
- Magnet Stands and Conveyors
- Permanent & Electro Magnetic Pulley Magnets

Environmental protection system equipped with wet and dry dedusting system to reduce the environmental pollution.

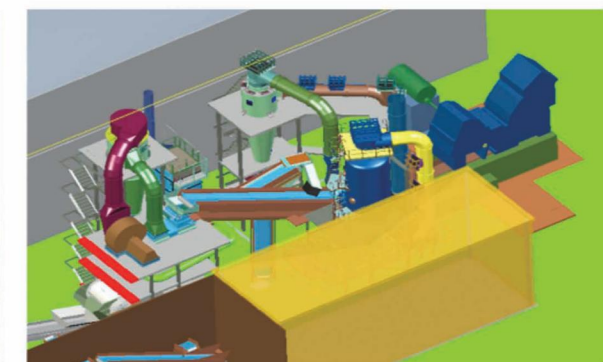
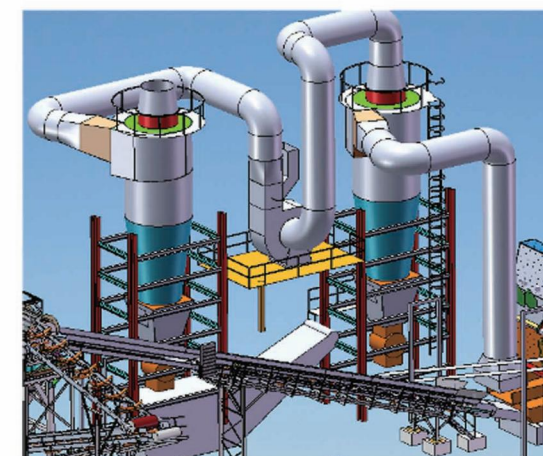


Smart Water System

To minimize dust and free hydrocarbons that can cause explosions, water mixed with high pressure air is injected into the shredder. The atomized water vapor attracts the dust and hydrocarbon particles and prevents them from becoming airborne.

By monitoring the main drive motor power consumption, the amount of water/air mixture injected into the shredder is regulated by PLC. In general, the amount of water injected is proportional to the amount of material in the shredder, which minimizes the possibility of any runoff water.

The shredder operator has the ability to turn the system on or off from the main control panel.



Air system from shredder with cyclone and venturi scrubber

Environmental Protection System

Equipped with wet and dry dedusting system to reduce enviromental pollution



Large dedusting system

According to the customers' requirement we provide the different dedusting systems. This large dedusting system shows in the picture is airbag dedusting system, which has significant effect in the dust control with strong ability and low maintenance cost.



Efficient air separation system

The air separation system with closed design can achieve the purpose of dust removal and ensure purity of shredding material.



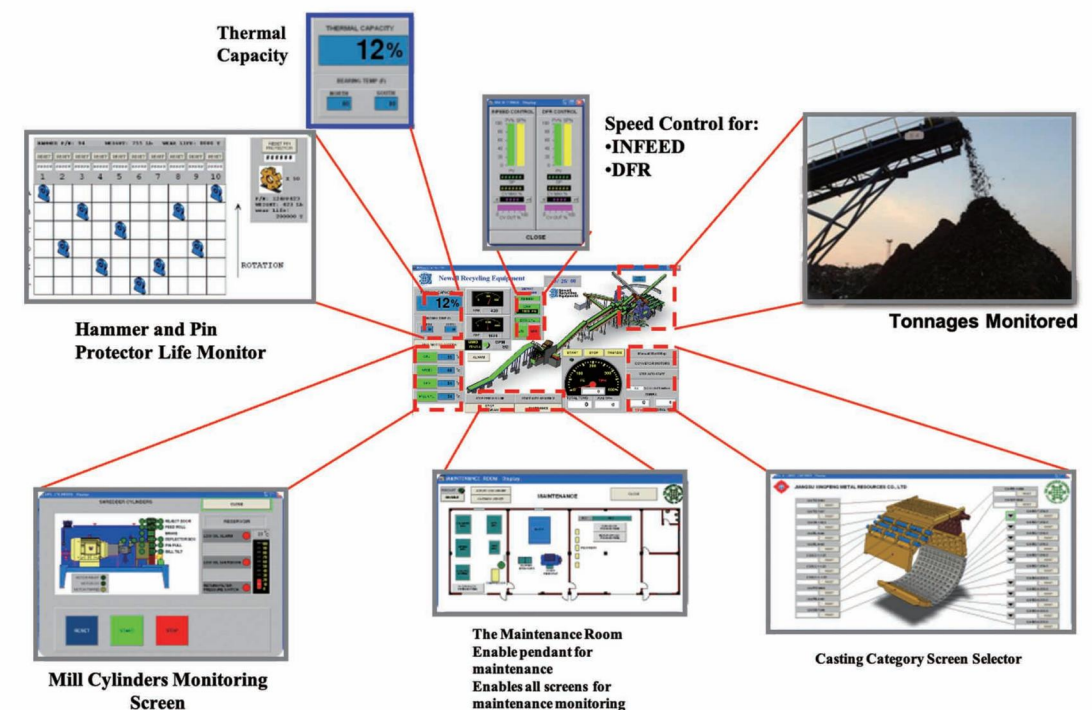
Smart shredding system



Newell was the first to use computer controls and created the Smart Shredding System (SSS) which operates the shredder at a high level of efficiency and also provides management data to assist the management to adopt a policy of constant improvement. The SSS management data collection by Newell is based on the information required to operate the shredder plants more profitably.

The Newell SSS monitors the casting and parts consumption cost, predicts needed replacements and repair, and helps avoid large parts inventory and reduces shredder down time.

Smart Shredding System (SSS)



Additionally, SSS can provide production reports, monitor the operation cost every day, and supply the management report to the manager on time. No matter where you are, you can easily get your shredder operation report in every seconds through our special designed APP. It provides a very powerful tool for you to get more economic benefits from shredder operation and management.

Spare Parts, Castings

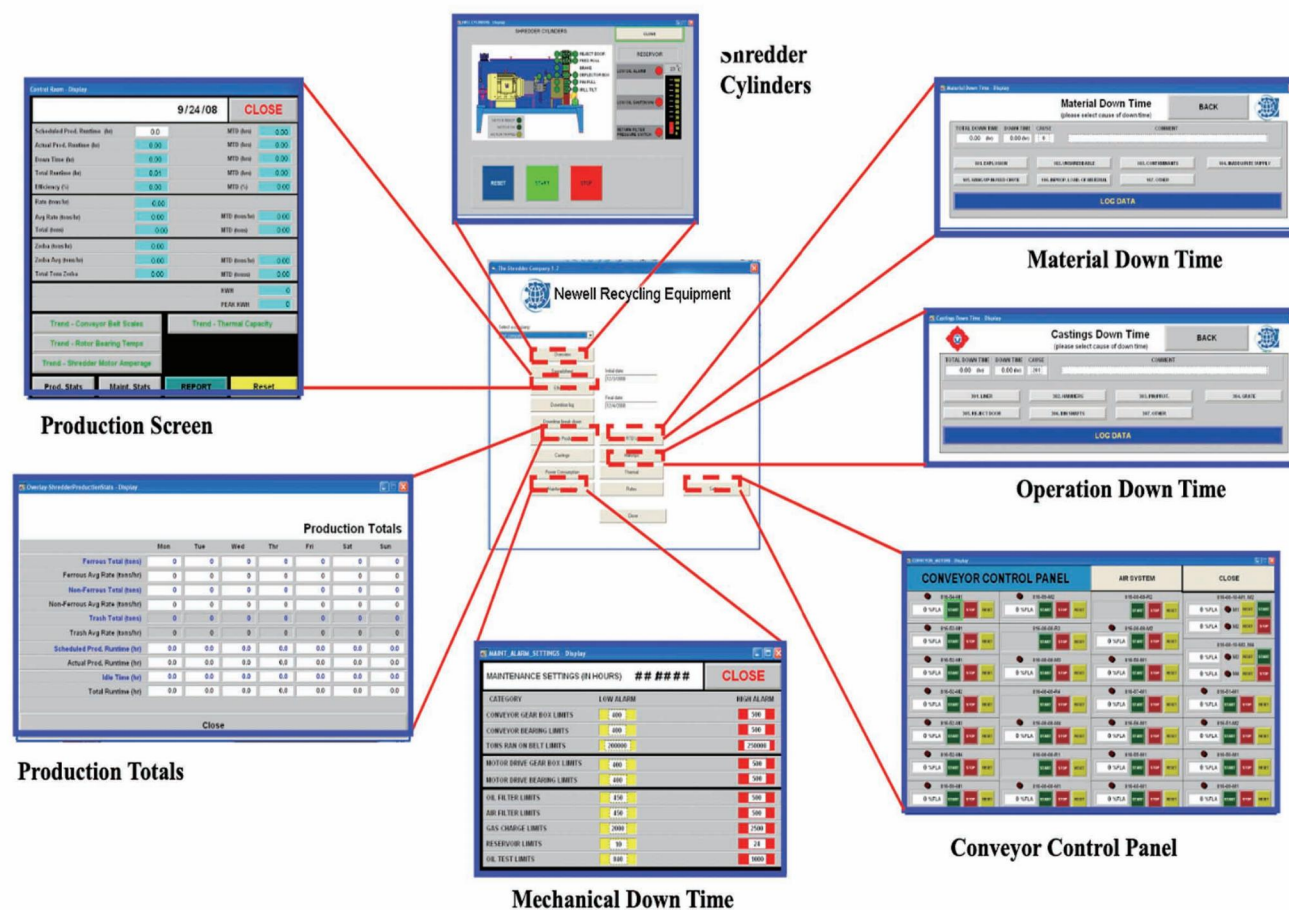
Combining Intelligent Design and Robust Construction

NRE offers design assistance from concept to production. The casting is traced at the customer location and modeled to specification.

Casting design features allow for equal wear and become weight efficient.

More than 60 years of casting design evolution.

SSS Production Reports

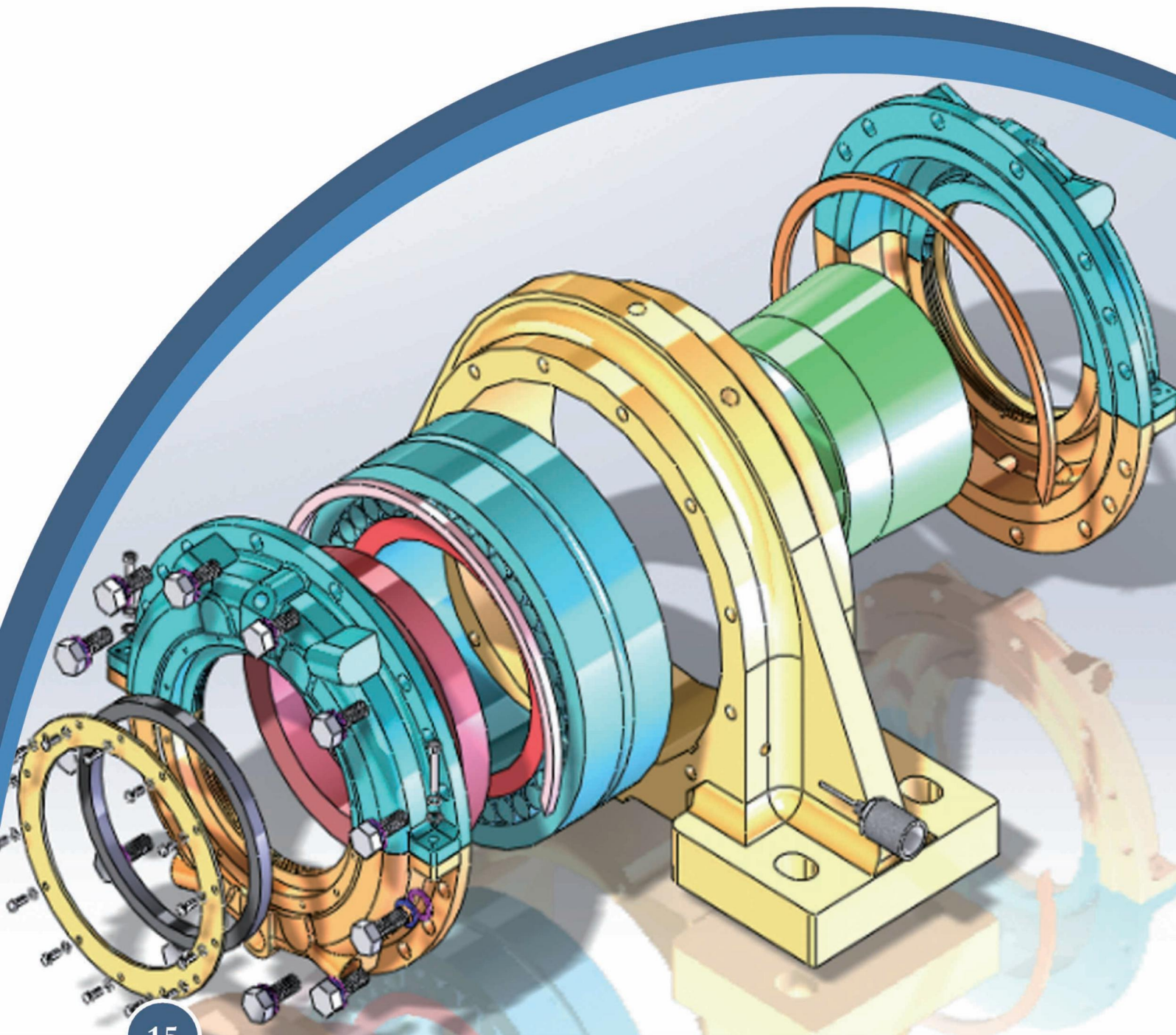


Spare Parts, Castings

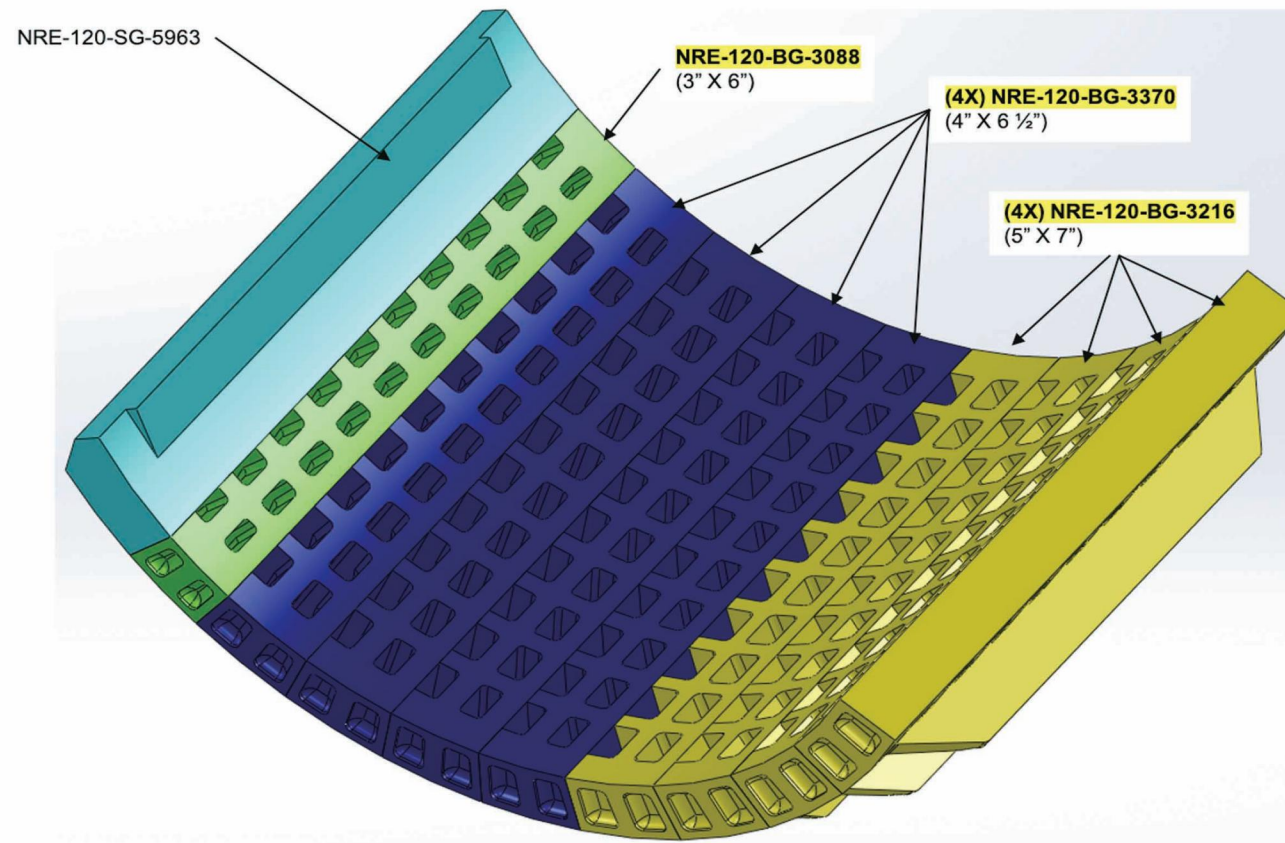
Newell has after sale service and spare parts supply center.

24/7 after-sales service

Inventory for common castings and spare parts like rotors to reduce downtime and ensure production.



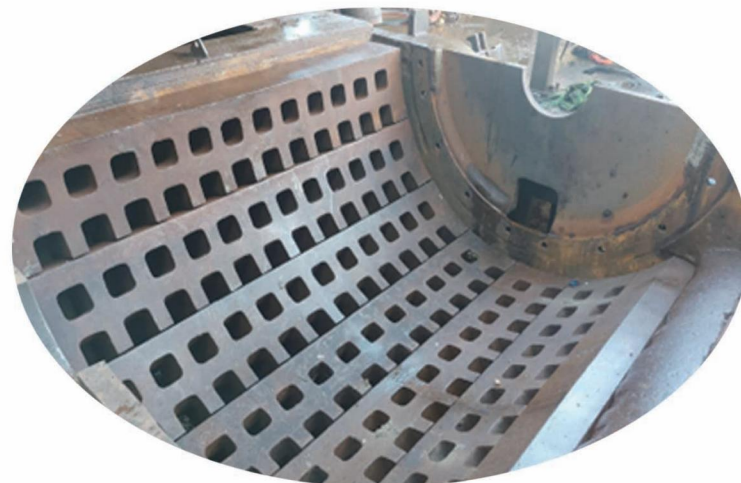
Slotted Bottom Grates



These Newell slotted hole grates provide for higher tons per hour, while increasing density and reducing incidence of pokers. This also provides for a better nonferrous metal separation and recovery.

The economic benefit of these results is significant with more tons processed per hour.

The Newell designed slotted grate holes are smaller than typical grate bar holes and more efficient for shredding, while at the same time providing more total open space in the bottom basket of grates. An added bonus is that this set of grates weighs less than standard grates so the initial investment is lower.



With our new design grates will reduce incidence of pokers like above which can damage the downstream system and cause down time.



This advanced design was developed by Newell for our customers, and we would like to offer you this opportunity to purchase and install these grates in your machine and for you to see the results.

Our customers who have been using this new design have re-ordered the grates since their original purchase and are reporting their efficiency and worthwhile investment.

Density Change Device (DCD)

There are several ways to produce high density (meaning 1.4 to 2.0 depending on the goal).

- ◆ Using grates with smaller holes
- ◆ Using density change device
- ◆ Using density screening system
- The DCD operates in 3 different positions
 - Maintenance
 - Open
 - Close
- The DCD can be done to operate with a hydraulic locking system or manual
- The DCD has a mechanical stop that protects from overextending.



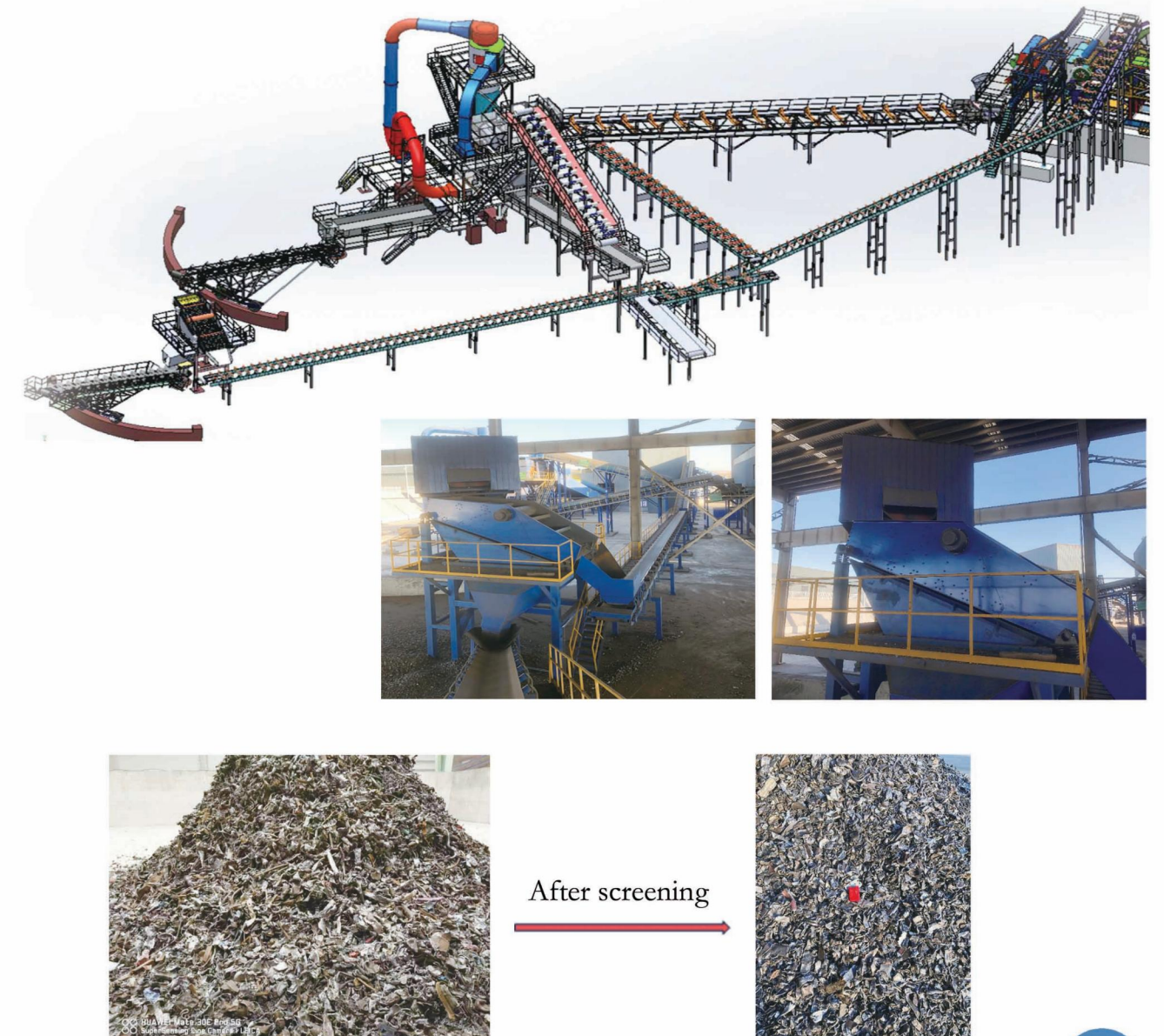
High Density Screening System

According to different kinds of density requirements from our customers. We have upgraded our density screening system which we have used in the 1960s to make 1.3 to 2.0 cooling scrap.

We can use this system to filter out the right density final products without changing the grates to a smaller hole's design.

More important is that the high density screening system will produce higher density at same or increased tons per hour.

This system can save energy and lower casting consumption, reduce operation cost and total investment.



Pre-Shredder : NRE 50 TPH, 100 TPH, 150 TPH Units

Offering the most durable and powerful Pre-Shredders in the world !

Our Pre-Shredders features:

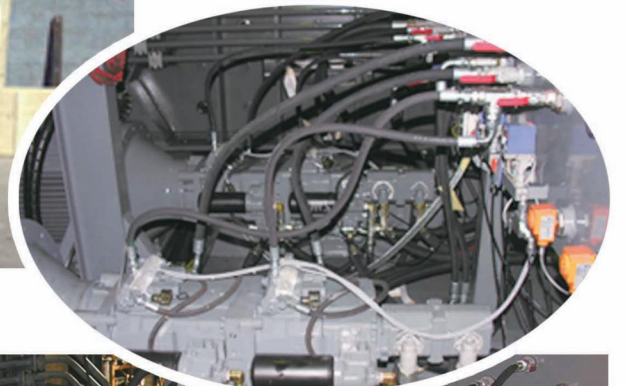
Hagglunds Radial Motors for highest durability.

Two Rotors with robust bearings.

Feeding Chamber with movable flap, automatic or manually operated.

Closed Loop Hydraulic System, allowing the Pre-Shredder to adjust to the torque ratio.

Output for 30 to 100 bales per hour, helping to increase your output.



Inclined Shears

It can realize the continuous feeding, which is much suitable for the cutting of long material

The shearing can be done while feeding, and the production efficiency is high.

Equipped with the side pressure device and the type of sheared material are uniform.

Modular design, easy to install and transport.

High intelligence which can achieve the remote control.



| INCLINED SHEAR | | | | |
|----------------|---|--|------------------|------------------|
| No. | Item / Type | IS 700 | IS 1600 | IS 2200 |
| 1 | Shearing box size L*W*H | 6250*2000*2600 mm | 7400*2650*2250 | 8000*3000*2500 |
| 2 | Working pressure | 25 MPA | 28,5 MPA | 28,5 MPA |
| 3 | Max. shearing force | 700 T | 1600 T | 2200 T |
| 4 | Material press Length / Max. material press opening | 800mm / 535mm | 1400mm / 760mm | 1500mm / 760mm |
| 5 | Length of sheared material (adjustable) | 400mm - 900mm | | |
| 6 | Operating mode | PLC control / Remote Operation / Automatic operation | | |
| 7 | Shearing frequency | 2 times / minute | 2 times / minute | 2 times / minute |
| 8 | Shearing capacity - Square bar | 150*150mm | 280*280mm | 310*310mm |
| 9 | Shearing capacity - Round bar | Ø150mm | Ø310mm | Ø350mm |

Heavy Duty Gantry Shears

- ◆ Mobile
- ◆ Semi-mobile
- ◆ Fixed

Can be used to deal with the bales and heavy steel scraps directly.



| HEAVY DUTY GANTRY SHEARS | | | | |
|--------------------------|------------|----------------------|---|-------------------------------|
| Model | Power (kw) | Shearing Force (ton) | Ranges of material to be processed | Dimension of shearing box (m) |
| KS972/173 | 180-220 | 900-1000 | Medium-sized steel scraps and automobiles housing | 7.2 |
| TG118/138 | 220-330 | 1100-1300 | Heavy steel scraps, bales and automobiles housing | 8.3 |
| TS138/158 | 360-440 | 1300-2000 | heavy steel scraps, bales and automobiles housing | 8.3 |

Container Shears



| CONTAINER SHEARS | | | | | |
|------------------|----------------------|-----------------------------|--------------|-------------------|------------|
| Type | Press box width (mm) | Shearing length (customize) | Capacity T/H | Cutting force (T) | Power (KW) |
| C315 | 1,000 | 300 | 3-6 | 315 | 22x2 |
| C400 | 1,400 | 400 | 5-8 | 400 | 37x2 |
| C500 | 1,400 | 400 | 7-10 | 500 | 45x2 |
| C630 | 1400/1600 | 400 | 8-15 | 630 | 55x2 |
| C800 | 1,600 | 400 | 12-20 | 800 | 55x3 |
| C1000 | 2,000 | 500 | 15-35 | 1,000 | 55x4 |
| C1250 | 2,000 | 500 | 25-40 | 1,250 | 55x5 |

Balers

Three dimension high speed baler



| HIGH SPEED BALER | | | | | | | | |
|------------------|---------------------------|-----------------------|----------------------|------------|-------------------|----------------|----------------|--|
| Type | Feeding chamber size (mm) | Compressed house (mm) | Bales Dimension (mm) | Power (kw) | Bales weight (KG) | Capacity (T/H) | Density (T/m3) | Operation time of each compression (s) |
| B1630 | 1600*1000 | 2300*1000*800 | 600*300*300 | 37*2 | 90-120 | 7-10 | ≥2.3 | 45 |
| B1626B | 1600*1000 | 2300*1000*800 | 600*260*260 | 37*2 | 70-100 | 6-8 | ≥2.3 | 45 |
| B1840 | 1800*1200 | 2500*1200*800 | 600*400*400 | 45*2 | 130-180 | 10-14 | ≥2.3 | 45 |
| B1830B | 1800*1200 | 2500*1200*800 | 6000*300*300 | 45*2 | 100-130 | 8-10 | ≥2.3 | 45 |
| B2040 | 2000*1250 | 3000*1250*1000 | 800*400*400 | 37*3 | 200-250 | 14-17 | ≥2.3 | 51 |
| B2036B | 2000*1250 | 3000*1250*1000 | 800*360*360 | 37*3 | 150-180 | 10-12 | ≥2.3 | 51 |
| B2550 | 2000*1250 | 3000*1250*1000 | 1000*500*500 | 45*3 | 250-350 | 17-24 | ≥2.3 | 51 |

The Special Purpose Aluminum System



Slag

We know how to recover the value for you

The slag tends to have about 10% to 15% Fe content.

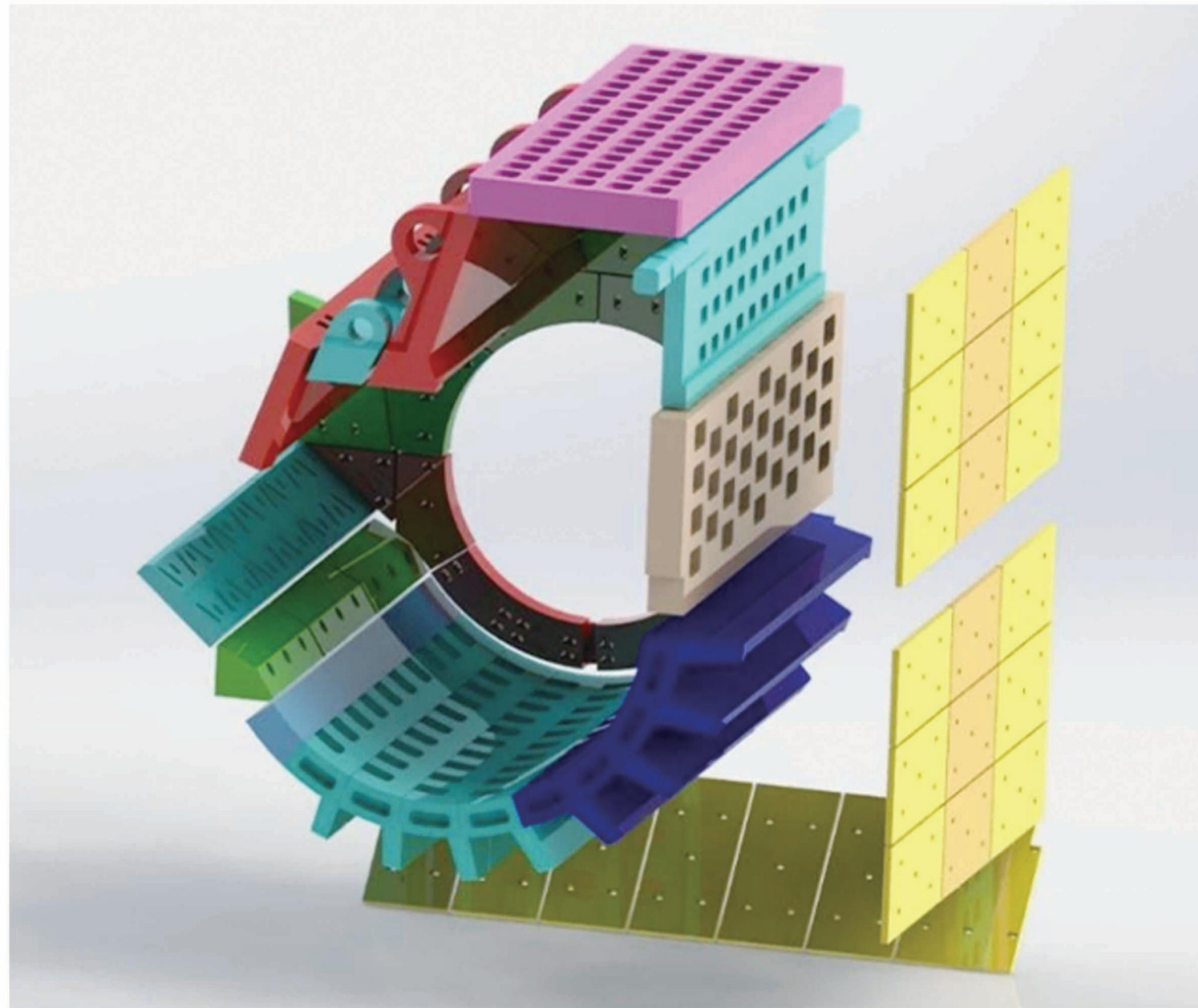
We have operated EAF furnaces at our foundry for more than 40 years and we have been designing, building operating and selling shredding systems for more than 60 years.

We have a lot of experience dealing with slags.



NEWELL RECYCLING EQUIPMENT OFFERS THE FOLLOWING SERVICES

1. Investment & running cost reduced SPARE PARTS : Liner Bolts, Pin, Shafts, Hammers, Rotors, Grates, Feed Rollers, Midsection, Deflector etc.
2. Consultant & evaluate your plant efficiency.
3. Upgrade & improve your existing shredding systems to reduce down time or premature wear of equipment.
4. Help your business expansion with Technical Assistance & Engineering Services.
5. Design and quote new equipment.



Let us show you how Newell provides the smartest and most powerful shredding systems in the world

when you turn our shredder system on, it will be ready to process at the full load capacity of the equipment design immediately. Our Smart Shredder System (SSS) computer control applies the lessons learned more than 60 years of running these machines and we believe that the Newell Shredder with computer controls is the most efficient equipment available.

This will ultimately give you the fastest return on investment and lowest cost per ton for the life of the value of this investment.

