



NHP SIZER SERIES.©

About | SSE

Our “mineral sizer” was one of the first to be developed in the late 1970’s and tested by British Coal, manufactured by Crockett Engineering. The first recorded true sighting of the sizer was at the Coal Mining Exhibition at the NEC Birmingham England prior to the sizer being officially tested under load at the Mining Research and Development center, at the national coal board Bretby England. (MRDE-NCB). The sizer concept had been designed to solve a blockage problem at Transfer points in underground deep mining coal pits in England. Crockett engineering designed a set of toothed rotors positioned to run vertical against the run of coal being fed from an armored face conveyor (AFC) onto a stage loader. (BSL) only the bottom portion of the sizer rotors were being utilized limiting throughput capacity. It was then decided following testing the sizer should be placed horizontal, not vertical. The re positioning of the sizer made it lower profile than anything on the market allowing the run of mine material (ROM) coal to be crushed utilizing the full length of the large toothed rotors.

The sizer could now crush the oversize coal, the large capacity throughputs passed through the machine and the sizer resolving the transfer blockage problems. **“The Mineral Sizer was Born”**. Many variations from this original concept were developed. Individually Crockett-Pickard -Potts furthered developed a range of seizers from this original concept using their own individual ideas for machine construction, gearbox drives and toothed rotor design. Pickard’s design of seizers is still in production today with a pedigree of over 30 years. To introduce the extensive range of seizers to the market and gain market share in an ever increasing global market Pickard’s licensed the design and knowhow to various companies around the world, Abon Australia, Krupp Fordertechnik Germany, Osborne Aztec South Africa, Pennsylvania Crushers USA .The Pickard Sizer concept holds the record for the largest sizer ever made and supplied by Abon Australia now FL Smidth. Last year 2013 Pickard’s embarked on the development of a new generation sizer, lighter yet stronger and more energy efficient with longer service life and reduced cost of ownership.

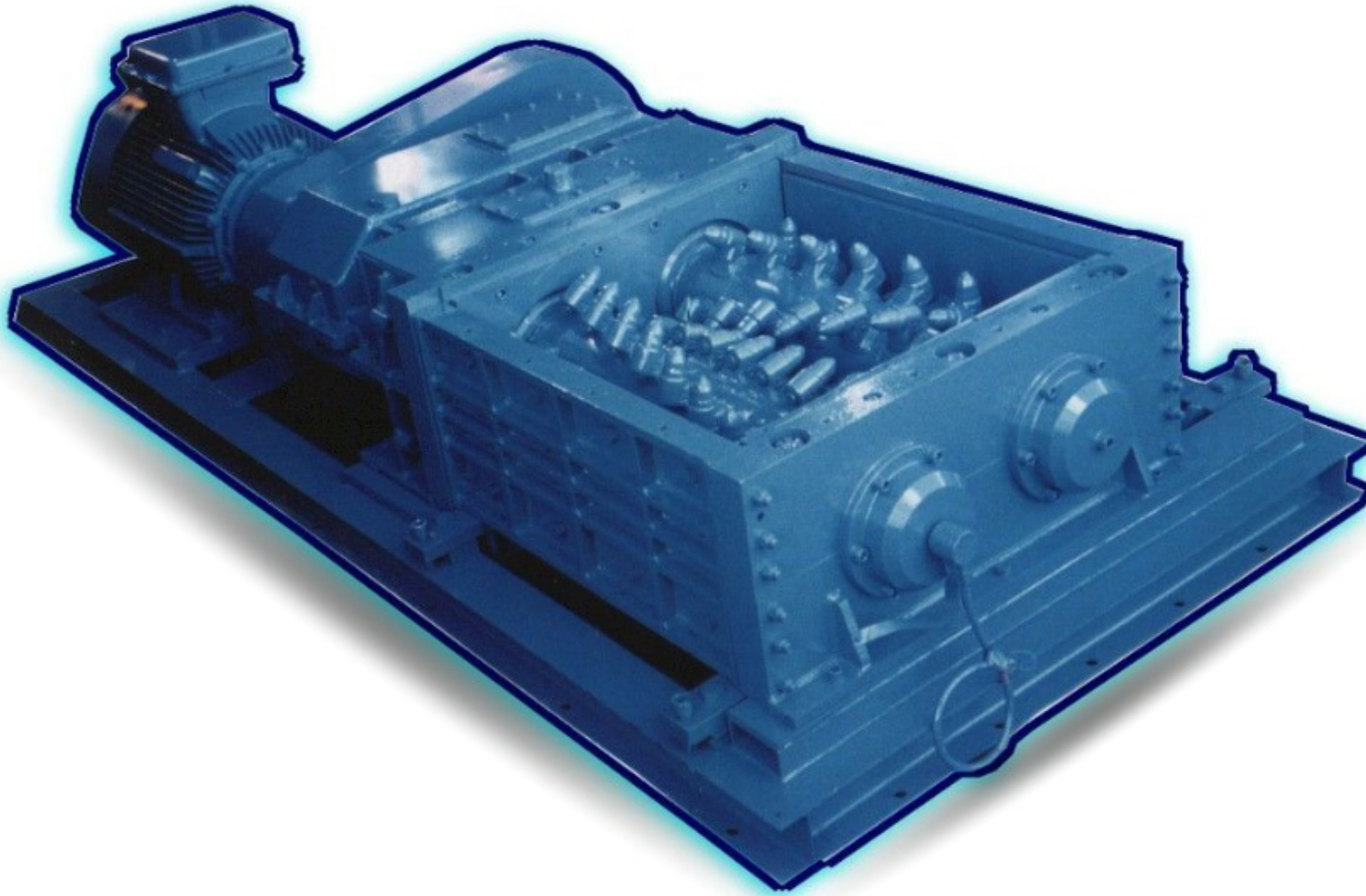


The late Alan Pickard At Hillhead show 70's

SSE | HEAVY DUTY SIZERS RANGE WITH UNIQUE GEAR DRIVE FEATURES - ROTOR - TEETH CONFIGURATIONS FOR ALMOST ANY APPLICATION.



SSE | HEAVY DUTY SIZER WITH HELIX PICK ARRANGEMENT.



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9/1/2018

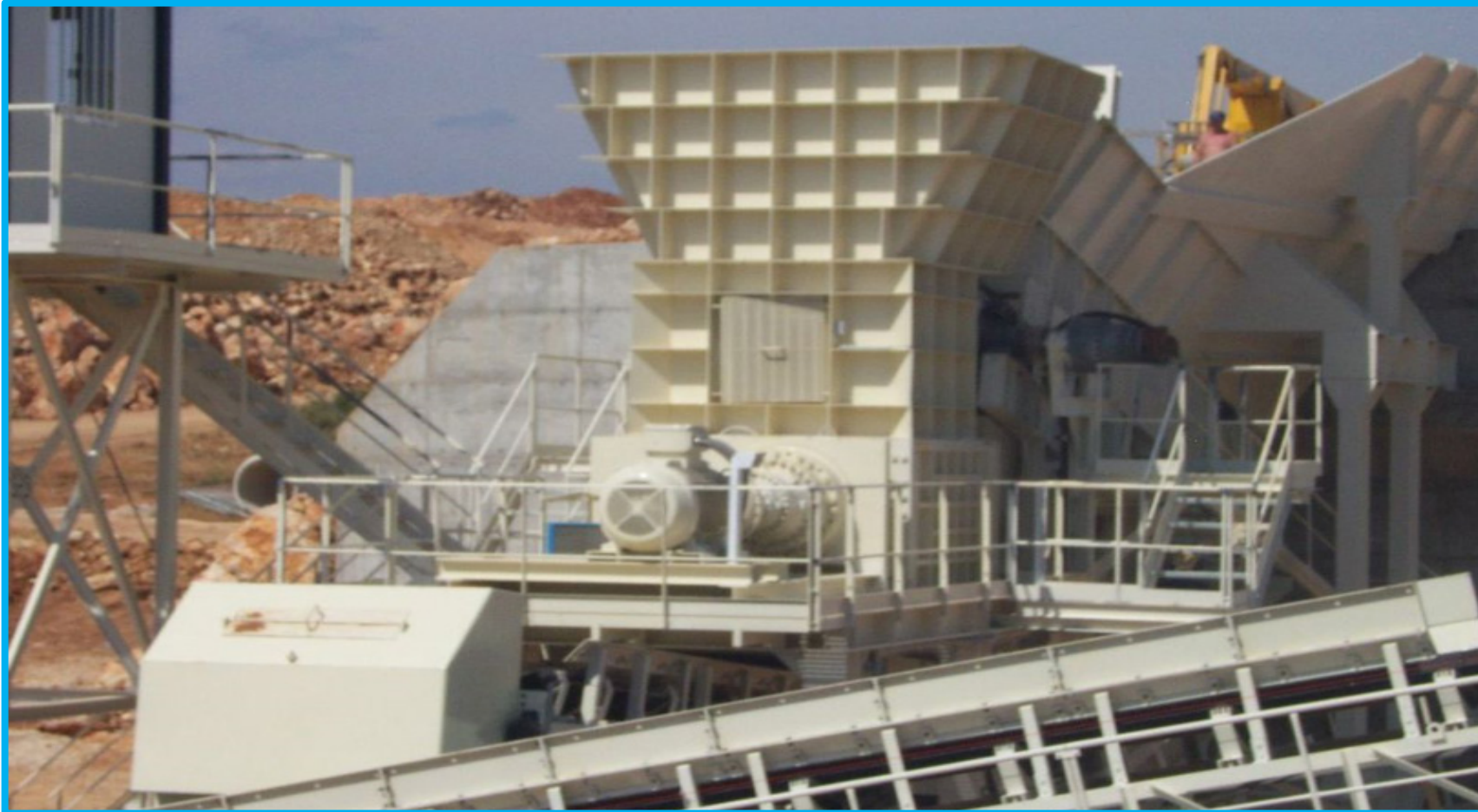


HEAVY DUTY SIZER WITH PICK ARRANGEMENT AND HARDOX HARDFACING





HEAVY DUTY SIZER IN STATIONARY IRON ORE APPLICATION.



1M ROTOR CENTERS 2M LONG TWIN SIZER

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SSC | HEAVY DUTY SIZER IN STATIONARY APPLICATION.







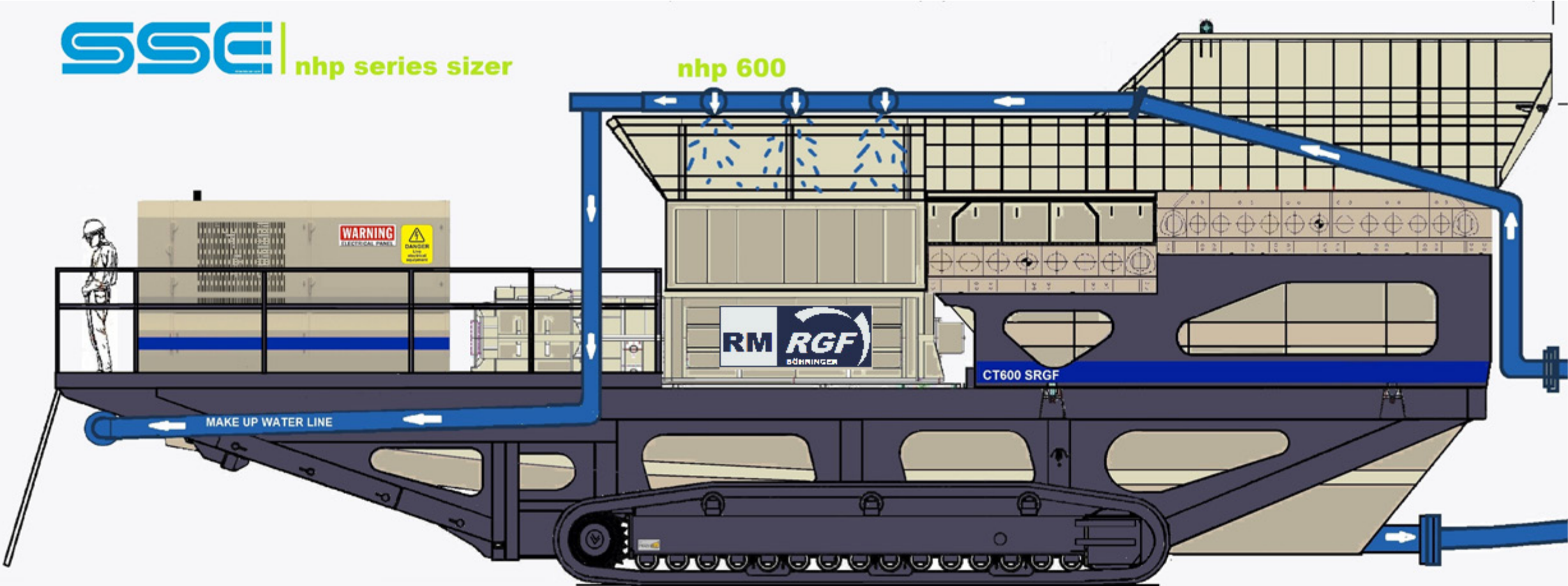
SSE | HEAVY DUTY TRACK SIZERS OPTION.



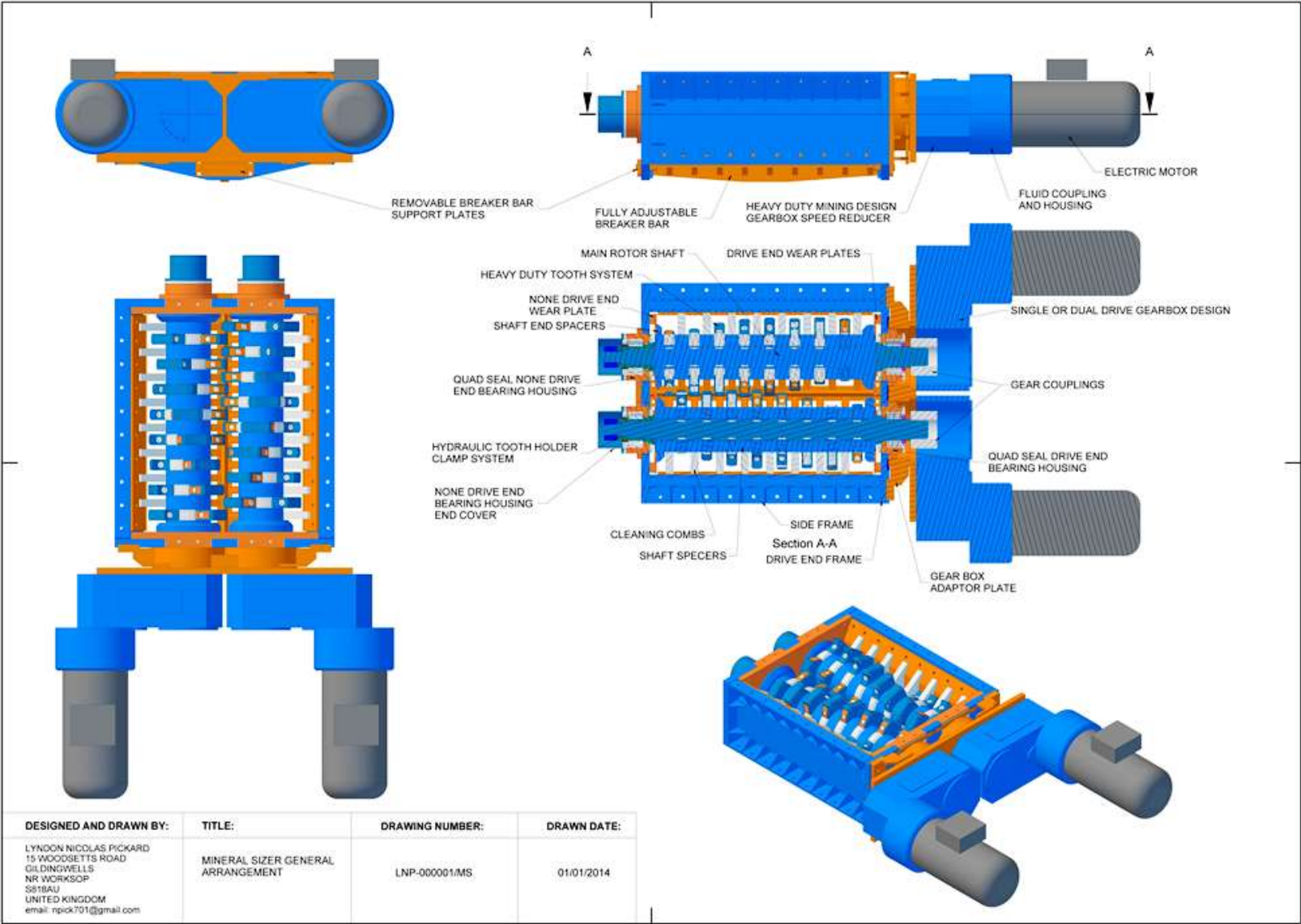
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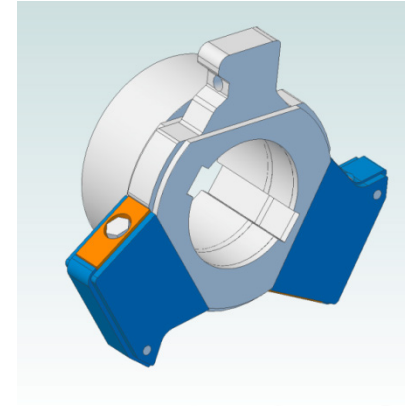
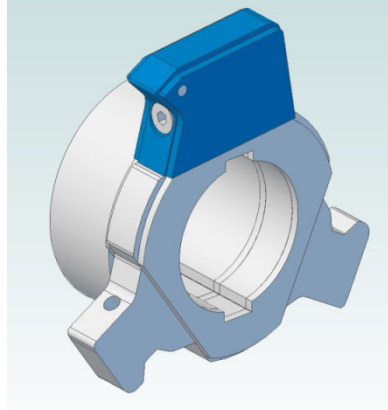
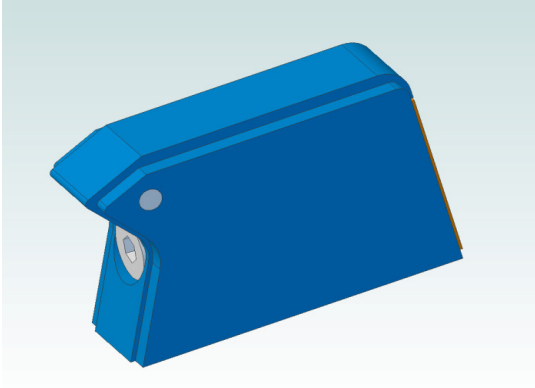


SSC | **HEAVY DUTY SIZER
ARRANGEMENT.**

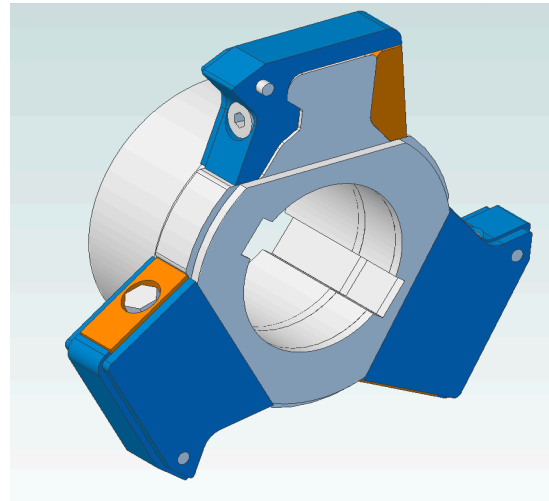
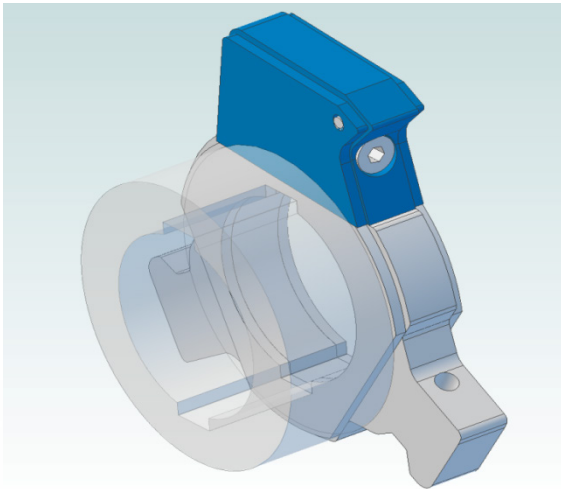




HEAVY DUTY SIZER TOOTH AND CAP ARRANGEMENT.

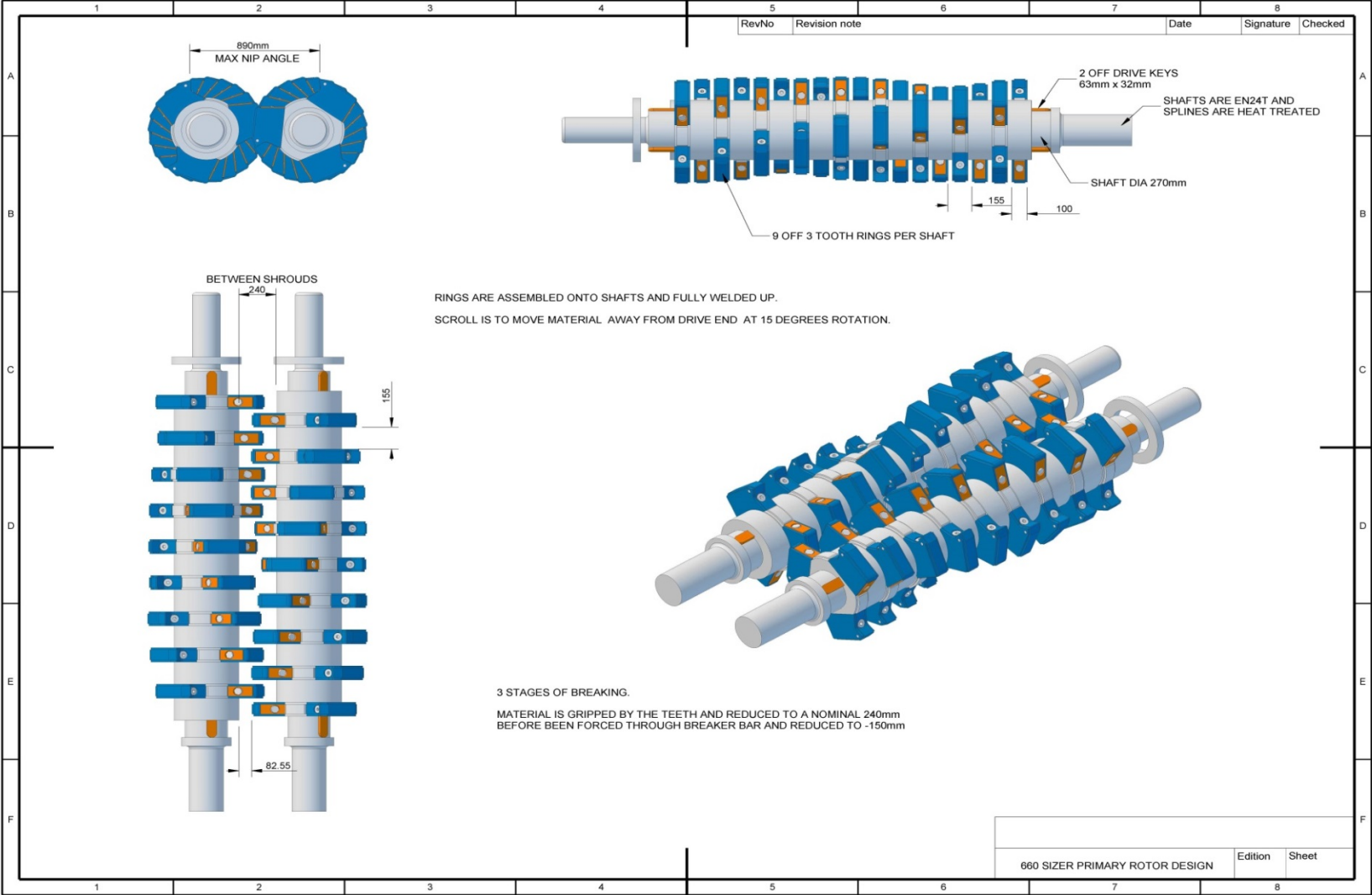


660 PRIMARY SIZER 150mm TOOTHED CAP TWO OPTIONS.CAST MANGANESE OR HARDOX





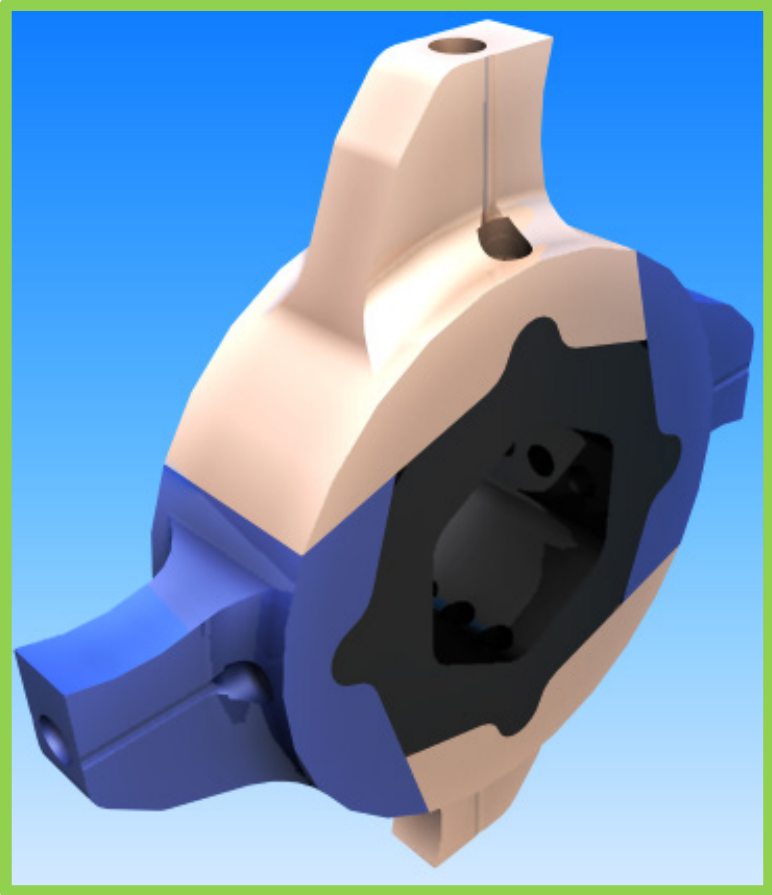
HEAVY DUTY SIZER TOOTH AND SHAFT ARRANGEMENT ONE EXAMPLE



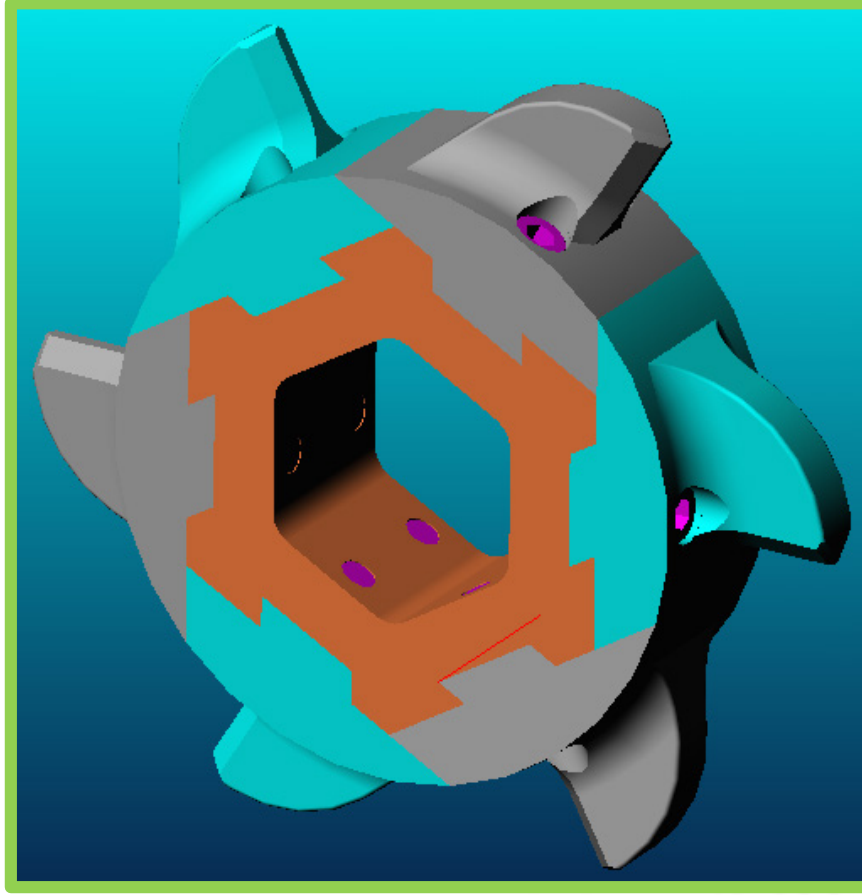




CAP ASSEMBLY FOUR TOOTH



SIX TOOTH

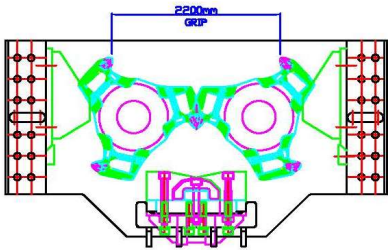


MANY TOOTH CONFIGURATIONS AVAILABLE

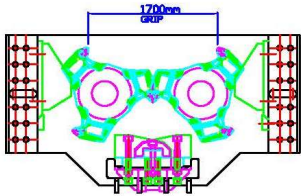
PRIMARY 3 TOOTH SIZERS
GRIP DIMENSIONS

MINERAL SIZERS DIVISION

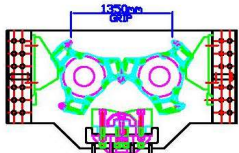
PRIMARY 4 TOOTH SIZERS
GRIP DIMENSIONS



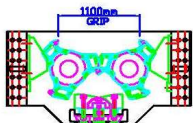
1660 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 350mm
UPTO 15000 TONNES PER HOUR
AVERAGE WEIGHT 195 TONNES



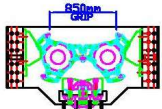
1275 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 350mm
UPTO 6000 TONNES PER HOUR
AVERAGE WEIGHT 98 TONNES



1000 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 300mm
UPTO 3000 TONNES PER HOUR
AVERAGE WEIGHT 45 TONNES



800 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 250mm
UPTO 2000 TONNES PER HOUR
AVERAGE WEIGHT 33 TONNES



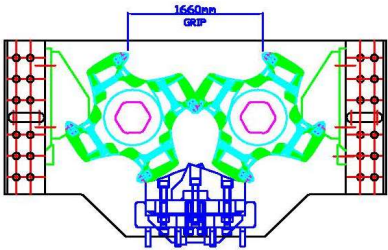
660 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 250mm
UPTO 2000 TONNES PER HOUR
AVERAGE WEIGHT 25 TONNES



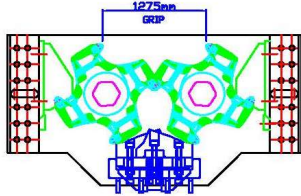
600 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 200mm
UPTO 2000 TONNES PER HOUR
AVERAGE WEIGHT 16 TONNES



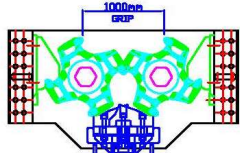
505 ctrs 3 TOOTH MINERAL SIZER
OUTFEED SIZE 180mm
UPTO 1500 TONNES PER HOUR
AVERAGE WEIGHT 12 TONNES



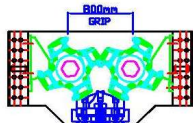
1660 ctrs 4 TOOTH MINERAL SIZER
OUTFEED SIZE 350mm
UPTO 15000 TONNES PER HOUR
AVERAGE WEIGHT 195 TONNES



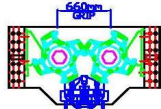
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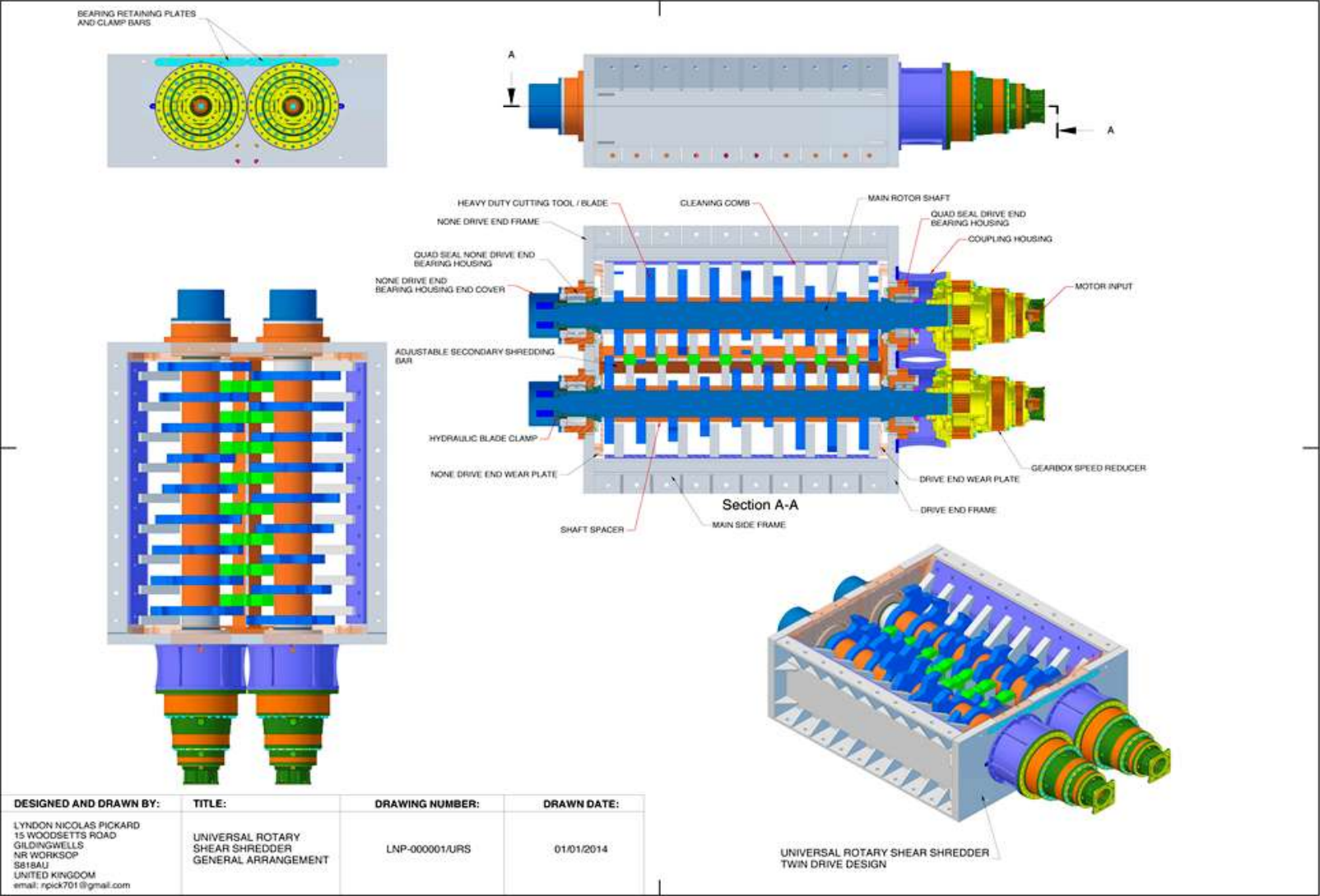
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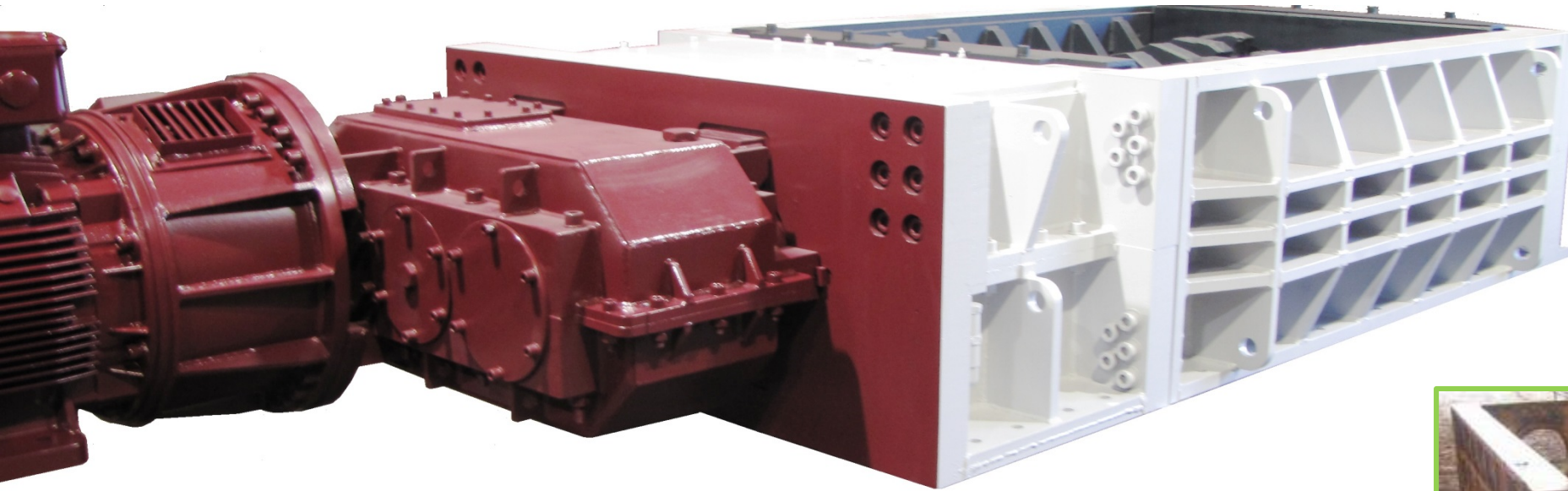


HEAVY DUTY UNIVERSAL ROTARY SHEAR FOR RECYCLING APPLICATIONS.





HEAVY DUTY UNIVERSAL ROTARY SHEAR FOR RECYCLING APPLICATIONS.



EASE OF SERVICE

The **SSE** sizer has many unique features:

- Heavy duty main frame.
- Unique Pickard design gear box (not integral to mainframe)
- Many tooth configurations.
- Holds the record for the largest sizer made.

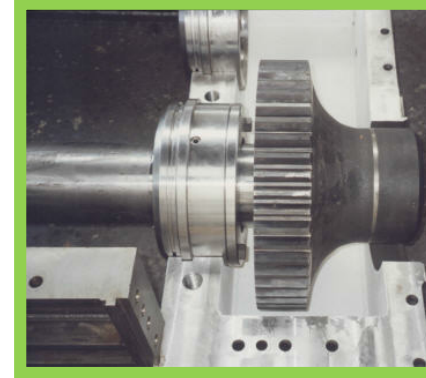
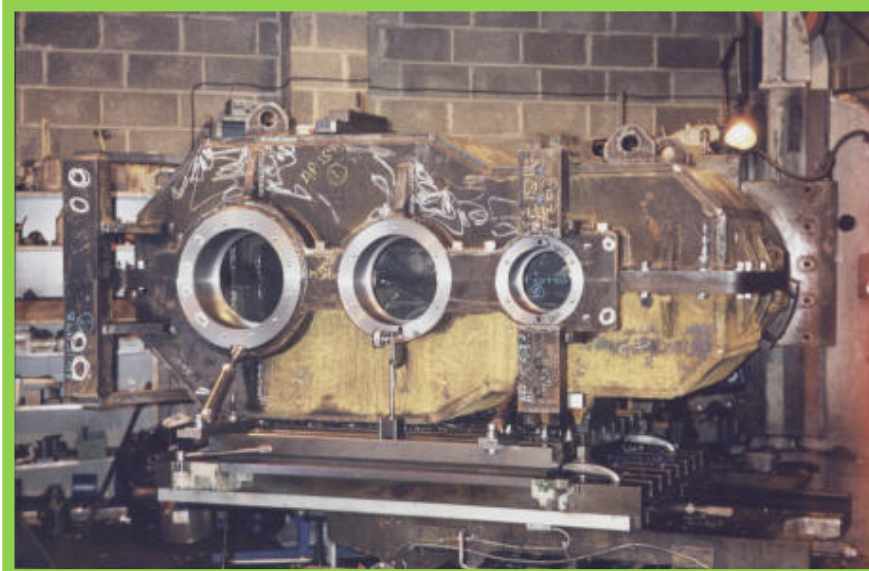




NHP DESIGN GEARBOX MOST ADVANCED IN THE FIELD PROVEN OVER TIME



EASE OF SERVICE





FEATURES

Performance features of a Roll Sizer.

- Low shaft rotor speed.
- Low wear on working parts
- Low noise levels
- Low generation of fines
- Creates a minimum of dust.
- Crushing forces are kept within the sizer housing.
- Simple maintenance schedules.
- Modular construction of machine, easy to assemble and disassemble.
- Teeth and wear parts can be replaced in situ, reduced down time.
- Compact design with low feed heights.

Roll Sizer Construction.

The Roll Sizer is made up of several key components.

1. Prime Mover (can be Electric Motor, Diesel Engine, Hydraulic Drive)
2. Fluid Coupling and Housing (Electric Motor, Diesel Engine)
3. Heavy Duty Design Gearbox (continuously rated)
4. Main Shaft Support Frame
5. Main Shafts and Support Bearings
6. Toothed Segments
7. Wear Plates/Cleaning Combs.

The Roll Sizer support housing is fully fabricated, stress relieved and machined to close tolerance . The housings are doweled and fastened together with high tensile fasteners. The main shafts are machined from EN24 solid steel bar. Support bearings are of the highest quality and housed within their own fully sealed capsules. The Roll Sizer tooth segments are cast from high wear steel or profiled from a selection of impact and wear grade steel plate. The Heavy Duty reduction gearbox is the heart of the Sizer. Designed and manufactured to withstand the continuous requirements of a roll sizer under load at high torque. Gears are produced from the highest grade of gear steel.



The Mineral Sizer twin rotating shaft concept was developed in the late 1970's. It was discovered by using relatively slow speed turning shafts with large protruding teeth rotating together that large volumes of material could pass.

The high torque and shearing force would crush the oversize material and reduce it to the required specified size producing minimal fines, dust, with low noise and power consumption.

This new concept revolutionized the underground coal mining sector, reducing blockages at transfer points.

The popularity of this relatively new concept has developed areas that require the use of this particular processing system.

The Sizer can easily cope with very soft sticky material as well as dry and hard rock types. All kinds of applications have been presented to the sizer due to its ability to achieve throughputs up to and exceeding 10,000 tones per hour. With material feed size over 2 meters cubed.

The Roll Sizer has been developed and installed in Primary, Secondary and Tertiary application with an out-put size of 35mm has been achieved.

N. America Canada S. America.

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