



Republic Machine INC.

TM

Improving Our Environment

George Sotsky, Founder
Louisville, Kentucky, USA



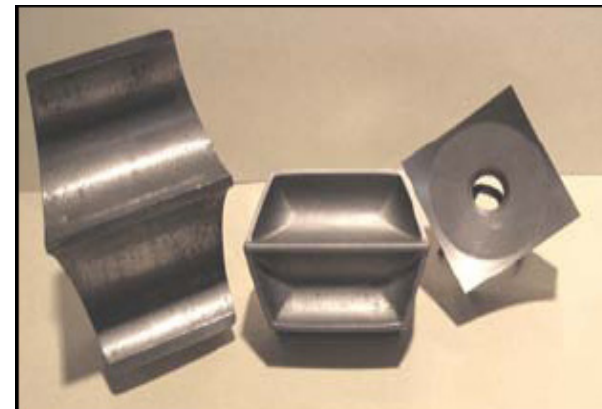
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History / Background of Size Reduction

- **Dual Shafts Shredder**
 - Tendency to wrap when cutting fiber
 - Have their place (metal, etc...)
- **Single Shaft Shredder** (Low-speed High-torque)
 - Developed for wood processing
 - Expanded into size reduction industry
 - Fantastic for brittle & solid products
 - Standard cutting system (hawkbill) problematic with film and fibers (i.e. wrapping)

Republic Solution

- Zoidal cutting system
(patent pending)
 - Developed by Republic Machine in response to wrapping issues
 - Improved rotor end seal system
 - Works well with film and carpet



Zoidal XL – Zoidal – Hawksbill

Development with C.A.R.E.

- First machine performed well in tests
 - Some heat issues
 - Premature cutter wear
 - Led to development of new machine
- Second machine
 - More aggressive cutting system
 - Water cooled rotor & anvil
 - More maintenance friendly design
 - Split-A-Part design (patent pending)

Split-A-Part Machine



Republic Machine answer for the second carpet test machine

Less than 5 minutes to open or close the machine



Split-A-Part Features / Benefits

- Easier maintenance to maintain cutting efficiency
 - Moveable anvil & keyed counter knives
- More aggressive cutting system for productivity
 - Zoidal XL cutting system
- Water cooling for tight cutter gaps
- Provide access to crucial service and maintenance items



Less than 90 minutes
total cleanout time

Republic Machine Further Innovation

- Direct drive system
- Over-Torque limiting clutch
- Beltless drive system





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