

SHRED SERIES Industrial Shredders



n T.

www.jwce.com



Monster Industrial shredders are designed for difficult grinding jobs. They are used to reduce the size of waste, shred solids to improve process performance and destroy materials. JWC Environmental's SHRED series are high-efficiency, dual-shafted shredders. These shredders are perfect for wet and dry applications. They come in various sizes to fit any application whether large or small. Multiple cutter options are available for each SHRED model to optimize the shredding process as well as yield the desired finished particle size. They can be used to reduce the size of waste, grind down solids to improve process performance and destroy expired, obsolete and non-compliant materials.

1-SHRED and 1-SHRED-2

The 1-SHRED family of compact shredders is tough on solids. They fit into areas with limited space while providing the necessary power to cut through tough food waste, small bones, or even occasional silverware. The 1-SHRED with a 3 hp (2.2 kW) motor is an ideal, low-cost solution that fits perfectly into farms and agribusinesses, food and animal processing plants, hotels, casinos, restaurants, ships and various other smaller volume applications. The 1-SHRED-2 has a 5 hp (3.7 kW) motor for 39% more cutting force when additional power is needed.

3-SHRED and 3-SHRED-2

The 3-SHRED family easily conditions tough solids that typically cause problems for other rotating and rendering equipment. Some application examples include drill cuttings, fish/seafood waste, food waste and much more. The 3-SHRED-2, with its 10 hp (7.5 kW) motor and severe-duty seals, applies twice the cutting force of our standard 3-SHRED for tougher applications.

4-SHRED -2

The 4-SHRED-2 is designed for harsher and higher-volume solids reduction applications. Strong shafts and severe-duty seals allow for high-impact solids loading, shredding items down to size. These shredders have been proven in numerous applications including shredding for recycling, preconditioning of organics for waste-to-energy operations and destruction of off-specification and contraband products.

7-SHRED -2

The 7-SHRED-2 is JWC's largest and most powerful grinder with the strongest shafts and severe duty seals for operating in the most demanding environments. This solution can be customized for maximum torque to grind hard solids or maximum throughput to grind softer materials. With multiple motor and reducer options, the grinder can provide the appropriate torque or throughput needed for the application.

Before and After









Metal cans

Oranges



Features & Benefits

Dual-shafted shredder

- Low-speed, high-torque shredders handle rocks, wood, bone and other tough materials
- Shreds a wider variety of solids compared to single-shafted machines and macerators
- Mechanical seal cartridges designed for an industrial shock load and wet or dry operation1
- Requires less maintenance than other technologies

Compact and efficient design

- Adapts to many applications with little or no modification
- Custom hoppers and stands allow easy installation in processing facilities
- Integrated steel scrapers increase throughput and help cutters clean out faster
- Right-angle drive configurations available to minimize shredder footprint

Hardened steel cutters

- Exclusive cutters manufactured from forged alloy steel or stainless steel
- Available in various thicknesses and tooth combinations to optimize particle output
- Can reduce solids to 1/2" (12 mm) or smaller particle size2

Automated monitoring and controls

- · Load-sensing and reversal mechanism reduce interrupts and optimizes the shredder's performance
- Rotary disconnect with lock-out, emergency stop (e-stop) on panel and remote e-stop electrical
- connection for customer mounting

Torque overload fail-safe protection3

- Mechanical torque-limiting device decouples shaft from motor when torque exceeds specified limit to protect shaft from potential breakage
- Available as optional quick and easy resettable detent coupling3

Fits any application

- Wide range of shredder sizes to handle any application
- Multiple motor and reducer options to optimize performance
- Many cutter options to yield desired particle size

Complimentary grind test services

- Conducted at JWC's onsite state-of-the-art Grind Test Facility
- Check particle size and determine volume reduction capability
- Receive a detailed written report and video to ensure desired outcome
- 1. 1-SHRED and 3-SHRED utilize industrial mechanical seals. 3-SHRED-2, 4-SHRED-2 and 7-SHRED utilize severe-duty mechanical seals.
- 2. Particle size is dependent on feedstock and cutter configuration.
- 3. Only available on 3-SHRED-2, 4-SHRED-2 and 7-SHRED-2.





Custom stand and hopper







JWC Grind Test Facility





Sports balls





Plant root balls



Monster Industrial | 800.331.2277 | jwce.com | jwce@jwce.com

SHRED Models

Materials of Construction

Cutters, Spacers and Scrapers: Hardened alloy steel standard

Shafts: Hardened alloy steel

Grinder Body: Cast ductile iron standard

Mechanical Seals: Tungsten carbide faces

Hoppers and Stands: Stainless steel or alloy steel

Shown with optional enclosed stand

SHRED Model	Cutter Diameter - inches (mm)	Shaft Hex Size - inches (mm)	Seal Type	Motor Options 1 - hp (kW)	Reducer Options ^{1, 2}	Torque Overload Protection	
1-SHRED	4-3/4" (120 mm)	2″ (50 mm)	Industrial mechanical seal cartridge	3 hp (2.2 kW)	29:1	Not available	
1-SHRED-2	4-3/4" (120 mm)	2″ (50 mm)	Severe-duty mechanical seal cartridge	5 hp (4 kW)	29:1	Not available	
3-SHRED	4-3/4" (120 mm)	2″ (50 mm)	Industrial mechanical seal cartridge	5 hp (4 kW)	29:1	Not available	
3-SHRED-2	4-3/4" (120 mm)	2″ (50 mm)	Severe-duty mechanical seal cartridge	10 hp (7.5 kW)	29:1	Detent coupling optional	
4-SHRED-2	7-1/2″ (191 mm)	2-1/2" (64 mm)	Severe-duty mechanical seal cartridge	15 hp (11 kW)	43:1		
				25 hp (18.5 kW)	29:1	Detent coupling optional	
				40 hp (30 kW)	17:1		
7-SHRED-2	10" (254 mm)	4″ (102 mm)	Severe-duty mechanical seal cartridge	30 hp (22 kW)	87:1	Detent coupling optional	
				60 hp (45 kW)	59:1		
				75 hp (55 kW)	43:1		
				100 hp (75 kW)	29:1		

1. List of common motor and reducer combinations. Please consult factory for other combinations. 2. Reducer ratios are for 60 Hz power. Please consult factory for reducer ratios for 50 Hz power.



Note: Actual throughput depends on drive selection and type of material to be shredded. Consult factory for final analysis of application.





SHRED Model	Theoretical Throughput - ft3/hr	Full Load Torque - lb-ft			Standard - i (l Dimensions nches mm)				Approximate Net Weight - Ibs
	(m3/hr) 1	(N-m)	А	В	с	D	E	F	G	(kg) 7
1-SHRED-H-0800 2	38 (1.1)	254 (344)	44-1/8 (1120)	7-1/4 (185)	18-3/4 (476)	8-3/4 (222)	12 (305)	4-1/2 (114)	8-1/4 (210)	398 (181)
1-SHRED-2-H-0800 3	39 (1.1)	423 (574)	44-5/8 (1133)	7-1/4 (185)	18-3/4 (476)	8-3/4 (222)	12 (305)	4-1/2 (114)	8-1/4 (210)	418 (190)
3-SHRED-H-0800 3	40 (1.1)	423 (574)	48-5/8 (1235)	8 (203)	20-1/2 (521)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	445 (202)
3-SHRED-H-1200 3	66 (1.9)	423 (574)	53 (1346)	12 (305)	24-7/8 (632)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	464 (210)
3-SHRED-H-1800 3	98 (2.8)	423 (574)	59 (1499)	18 (457)	30-7/8 (784)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	525 (238)
3-SHRED-H-2400 3	131 (3.7)	423 (574)	65-1/8 (1654)	24 (609)	36-5/8 (932)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	581 (264)
3-SHRED-2-H-0800 4	43 (1.2)	846 (1147)	57-9/16 (1462)	6-3/4 (171)	20-1/4 (514)	8-11/16 (221)	12 (305)	6-3/4 (171)	7 (178)	588 (267)
3-SHRED-2-H-1200 4	70 (2.0)	846 (1147)	59-15/16 (1522)	10-7/8 (276)	22-5/8 (575)	8-11/16 (221)	12 (305)	6-3/4 (171)	7 (178)	607 (275)
3-SHRED-2-H-1800 4	108 (3.1)	846 (1147)	65-15/16 (1674)	16-7/8 (429)	28-5/8 (727)	8-11/16 (221)	12 (305)	6-3/4 (171)	7 (178)	668 (303)
3-SHRED-2-H-2400 4	141 (4.0)	846 (1147)	71-9/16 (1817)	21-1/8 (537)	34-1/4 (870)	8-11/16 (221)	12 (305)	6-3/4 (171)	7 (178)	724 (328)
4-SHRED-2-H-1800 5	197 (5.6)	1882 (2551)	79-1/32 (2007)	15-9/16 (396)	30-7/8 (784)	14-15/16 (379)	19-3/8 (492)	7-9/16 (193)	11 (279)	1600 (726)
4-SHRED-2-H-2400 5	284 (8.0)	1882 (2551)	86-5/32 (2188)	22-11/16 (576)	38 (965)	14-15/16 (379)	19-3/8 (492)	7-9/16 (193)	11 (279)	1784 (809)
4-SHRED-2-H-3200 5	393 (11.1)	1882 (2551)	93-19/32 (2377)	30-3/16 (767)	45-7/16 (1154)	14-15/16 (379)	19-3/8 (492)	7-9/16 (193)	11 (279)	1987 (901)
7-SHRED-2-H-3000.6	282 (8.0)	7615 (10,325)	112-1/8 (2848)	28-5/8 (727)	48-1/2 (1232)	21 (533)	27-3/8 (695)	9 (229)	11-7/8 (302)	4345 (1971)
7 5HILE Z-H-50000	387 (11.0)	7615 (10,325)	122-11/16 (3117)	39-3/16 (995)	59-1/16 (1500)	21 (533)	27-3/8 (695)	9 (229)	11-7/8 (302)	4787 (2171)
7-SHRED-2-H-4000 6	475 (13.5)	7615 (10,325)	131-1/2 (3340)	48 (1210)	67-7/8 (1723)	21 (533)	27-3/8 (605)	0 (220)	11-7/8 (302)	5231 (2373)
7-SHRED-2-H-5000 6	- ()	- (-, /	131-1/2 (33+0)	40 (1219)	57 770 (1723)	21 (333)	27-3/0 (093)	9 (229)	11-770 (302)	/

1. Theoretical throughput with 7-tooth cutter. Actual throughput depends on the type of material to be shredded. Consult factory for final analysis of application. 2. Drive dimensions (max) and performance are based on a unit with a TEFC 3 hp (2.2 kW), 29:1 gear reduction ratio drive assembly. 3. Drive dimensions (max) and performance are based on a unit with a TEFC 5 hp (3.7 kW), 29:1 gear reduction ratio drive assembly. 4. Drive dimensions (max) and performance are based on a unit with a TEFC 10 hp (7.5 kW), 29:1 gear reduction ratio drive assembly. 5. Drive dimensions (max) and performance are based on a unit with a Severe-duty TEFC 15 hp (11.2 kW), 43:1 gear reduction ratio drive assembly. 6. Drive dimensions (max) and performance are based on a unit with a Severe-duty TEFC 30 hp (22.3 kWa, 87:1 gear reduction ratio drive assembly. 7. Weight includes grinder and motor assembly only.







4-SHRED









Environmental

Monster Industrial | 800.331.2277 | jwce.com | jwce@jwce.com

A Sulzer Brand

SHRED Models

Cutters

- Through-hardened alloy steel standard
- Stainless steel available on select cutters
- Integrated steel scrapers to improve performance
- Split cutter stack configuration available on units 18" (457 mm) and longer. Two different cutter styles in a single stack produce two different particle sizes with single unit.



Split cutter stack

Description 1

	Description 1	Characteristics
5	3-tooth	Self-metering; very coarse shred
Q	7-tooth	Aggressive, general-purpose cutter; coarse shred
	11-tooth	General-purpose cutter; yields medium particle size

13-toothThin cutter for fine particle size17-toothEven feed; relatively fine shred23-toothVery thin cutter for smallest
particle size

Characteristics

1. Cutter thickness varies depending on model. Not all cutter configurations are available on all models.

Hoppers & Stands

- Custom-made to fit application
- Optional integrated safety features
 - Open hoppers with safety pull cord
 - Enclosed hoppers with labyrinth design
 - Polycarbonate viewing windows in hopper
 - Discharge chutes
 - Stands with optional controller mount
 - Available in carbon steel, AISI 304 stainless steel or AISI 316 stainless steel



Custom hopper and stand with mounted controller



Custom hopper and stand with mounted controller



4-SHRED-H with custom hopper and discharge chute



Custom hopper with viewing window and safety pull cord

Drives

- Electric motor options • IEFC: Totally enclosed fan-cooled electric
 - 1-SHRED and 1-SHRED-
 - 2 3-SHRED and 3-
 - Severe-duty totally enclosed fan-cooled electric
 - 4-SHRED-
 - 2
 - XPF 总据局 Son-proof fan-cooled electric 1-SHRED and 1-SHRED-2 3-SHRED and 3-
 - SHRED-2 4-SHRED-2 7-SHRED-2
 - Washdown

3-SHRED and 3-SHRED-2 4-SHRED-2 at select power

Optional right-angle motor configurations
 available with select motors

Hydraulic power pack options

• Available for 3-SHRED 15 hp (11 kW)



Standard electric motor



Optional hydraulic motor with or without a hydraulic power pack



PLC Machine Controllers

- Load-sensing control system automatically reverses to clear jams
- NEMA-4X FRP enclosure with 3-position switch, status indicators, jog/reverse button, e-stop on enclosure face, remote e-stop electrical connection for customer mounting, disconnect and short circuit protection standard with 1-SHRED, 1-SHRED-2, 3-SHRED, 3-SHRED-2, and 4-SHRED-2
- Stainless steel enclosure with operator interface terminal (OIT) for remote troubleshooting, e-stop, disconnect and short circuit protection standard with 7-SHRED-2
- Custom controller options and housings available
- UL registered



Model PC2220DS standard enclosure

SHRED Applications Include:

Oil and Gas



• Drilling mud recycling

Tank bottom cleaning



Food and

Particle size reduction

- Waste volume reduction
- Food grinding
- Spoiled food destruction

Agriculture

Office Buildings / Hospitality



Organic waste size reduction for zero
waste programs

Contraband destruction
 Waste destruction

Chemical / Fine Chemical



Product reclamation

Wastewater processing

Renewable Energy



- Biodiesel processing
- Precondition feedstock for waste-to
- energy
- Grease receiving processing Sludge processing



- Biogas digester
- Waste-to-energy
- Seed destruction
- Agriculture waste-volume reduction
- Precondition hemp to optimize extraction process

Marine / Maritime



- Fish waste grinding
- Solid waste volume reduction
- MARPOL onboard food waste disposal

Manufacturing



- Destruction of nonconforming
 products
- Zero waste / recycling



Monster Industrial | 800.331.2277 | jwce.com | jwce@jwce.com







Since its founding in 1973, JWC Environmental has become a world leader in solids reduction and removal systems. For municipal wastewater collections, headworks and bio-solids operations we offer our legendary Muffin Monster grinders and Monster Separation Screening systems to solve unique processing situations.

JWC Environmental also supports commercial and industrial applications with our Monster Industrial, and IPEC products. We are ready to take on challenging size reduction problems in industrial processes as well as help customers run efficient and compliant industrial wastewater treatment operations.

JWC Environmental is headquartered in Santa Ana, California, and has a global network of representatives, distributors and regional service centers to provide customer support. For more information, visit us at www.jwce.com.



For Inquiries, Contact:



5636 Kansas Houston, TX 77007 713-868-3255 sales@hahnequipment.com



Headquar ters 2850 Red Hill Ave., Suite 125 Santa Ana, CA 92705 USA toll free: 800.331.2277 phone: 949.833.3888 fax: 949.833.8858 email: jwce@jwce.com

www.jwce.com

C2022 URC Environmental, URCEP State Ana, California facility in argistrated by ULL 05/0001/2015 \$110001131 QUITS, INC Environmental logo, Auger Monteter logo, Auger Monteter logo, Auger Monteter Backdorean Monteta BacKorean Mon