

# SHRED SERIES

## Industrial Shredders

### Overview

JWC Environmental's SHRED series are high-efficiency, dual-shafted waste shredders. These shredders are perfect for wet and dry applications. They come in various sizes to fit any application whether large or small. They can be used to reduce the size of waste, grind down solids to improve process performance and destroy expired and obsolete materials.

#### 1-SHRED and 1-SHRED-2

The 1-SHRED family of compact shredders are tough on solids. They fit into areas with limited space requirements while providing the necessary power to cut down tough food waste, small bones, or even occasional silverware. The 1-SHRED is an ideal, low-cost solution that perfectly fits into food and animal processing plants, hotels, casinos, restaurants, ships and a variety of other applications.

#### 3-SHRED and 3-SHRED-2

The 3-SHRED family of shredders reduce the size of troublesome solids. The design easily shreds tough solids that typically cause problems, including drill cuttings, fish/seafood waste, food waste and much more. The 3-SHRED-2 with its 10 hp motor and severe-duty seals applies double the torque for extremely tough applications.

#### 4-SHRED-2 and 7-SHRED-2

The 4-SHRED-2 and 7-SHRED-2 are designed for tougher and higher-volume solids reduction applications. Strong shafts and severe-duty seals allow for high-impact solids loading, shredding these 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 or contraband products, just to name a few.

### Features & Benefits

#### Dual-shafted Shredder

- Low-speed, high-torque shredders handle rocks, wood, clothing, plastics, bone and other materials.
- Capable of shredding a wider variety of solids than single-shafted machines and macerators.
- Require less maintenance than other technologies.

#### Compact and Efficient Design

- Adapts to many applications with little or no modification.
- Custom stainless steel hoppers and stands allow easy installation in processing facilities.

#### Hardened Steel Cutters

- Exclusive process produces cutters with a Rockwell hardness of HRC 45-52.
- Available in various thicknesses and tooth combinations to optimize particle output.
- Can reduce solids down to ½" or smaller particle size\*.
- Custom cutters including stainless steel are available.

#### Automated Monitoring and Controls

- Load-sensing and reversal mechanism reduces interrupts and optimizes the shredder's performance.



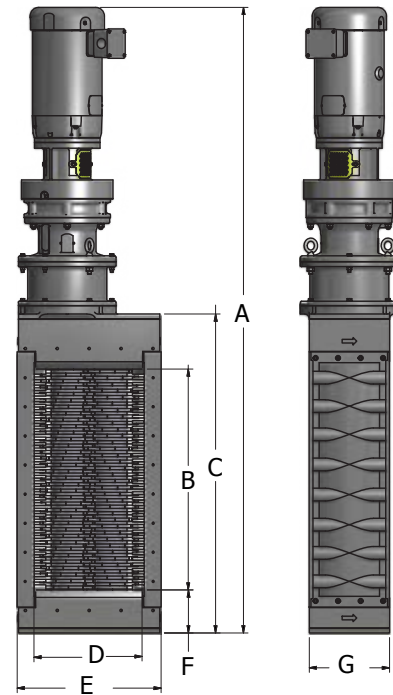
[www.jwce.com](http://www.jwce.com)

\*Particle size dependent on feedstock.

# SHRED Models

## Applications include:

- Food processing plants for food waste, including produce, animal and fish processing.
- On ships to meet MARPOL food waste disposal requirements.
- At facilities such as hotels, resorts, and restaurants to reduce size of post-consumer food waste.
- Pre-conditioning of feedstock for waste-to-energy plants or biogas digesters.
- Product destruction of non-conforming consumer products.



SHRED Model	Throughput ft <sup>3</sup> /hr (m <sup>3</sup> /hr)****	Full Load Torque lb-ft (N-m)****	Standard Dimensions inches (mm)							Approximate Net Weight lbs (kg)*****
			A	B	C	D	E	F	G	
1-SHRED-H-0800 <sup>1</sup>	43* (1.2)	254 (344)	44-1/4 (1124) <sup>1</sup>	7-1/4 (184)	18-3/4 (476)	8-3/4 (222)	12 (305)	4-1/2 (114)	8-1/4 (210)	314 (143)
1-SHRED-2-H-0800 <sup>2</sup>	43* (1.2)	423 (574)	44-1/4 (1124) <sup>2</sup>	7-1/4 (184)	18-3/4 (476)	8-3/4 (222)	12 (305)	4-1/2 (114)	8-1/4 (210)	334 (151)
3-SHRED-H-0800 <sup>2</sup>	43* (1.2)	423 (574)	48-5/8 (1235) <sup>2</sup>	8 (203)	19-1/2 (495)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	350 (159)
3-SHRED-H-1200 <sup>2</sup>	70* (1.9)	423 (574)	53 (1346) <sup>2</sup>	12 (305)	23-5/8 (600)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	390 (177)
3-SHRED-H-1800 <sup>2</sup>	105* (3.0)	423 (574)	59 (1499) <sup>2</sup>	18 (457)	29-1/2 (746)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	445 (202)
3-SHRED-H-2400 <sup>2</sup>	140* (3.9)	423 (574)	65-1/8 (1654) <sup>2</sup>	24 (609)	35-1/4 (895)	8-3/4 (222)	12 (305)	6-3/8 (162)	7 (178)	500 (227)
3-SHRED-2-H-1800 <sup>5</sup>	105* (3.0)	846 (1147)	68-7/8 (1749) <sup>5</sup>	18 (457)	30-5/8 (778)	8-1/2 (216)	12 (305)	6-1/4 (159)	7 (178)	665 (302)
3-SHRED-2-H-2400 <sup>5</sup>	140* (3.9)	846 (1147)	74-1/2 (1892) <sup>5</sup>	24 (609)	36-1/4 (921)	8-1/2 (216)	12 (305)	6-1/4 (159)	7 (178)	720 (327)
4-SHRED-2-H-1800 <sup>3</sup>	190** (5.4)	1882 (2551)	69-3/4 (1772) <sup>3</sup>	18 (457)	30-1/4 (768)	14-5/8 (371)	19-3/4 (502)	4-1/2 (114)	11 (279)	1966 (892)
4-SHRED-2-H-2400 <sup>3</sup>	271** (7.7)	1882 (2551)	76-3/4 (1949) <sup>3</sup>	24 (610)	37-1/4 (946)	14-5/8 (371)	19-3/4 (502)	4-1/2 (114)	11 (279)	2150 (976)
4-SHRED-2-H-3200 <sup>3</sup>	361** (10.2)	1882 (2551)	83-3/8 (2118) <sup>3</sup>	32 (813)	43-7/8 (1114)	14-5/8 (371)	19-3/4 (502)	4-1/2 (114)	11 (279)	2353 (1068)
7-SHRED-2-H-3000 <sup>4</sup>	891*** (25.0)	7615 (10325)	112-1/8 (2848) <sup>4</sup>	30 (762)	48-1/2 (1232)	21 (533)	27-3/8 (695)	9 (229)	11-7/8 (302)	5648 (2563)
7-SHRED-2-H-4000 <sup>4</sup>	1226*** (34.0)	7615 (10325)	122-5/8 (3115) <sup>4</sup>	40 (1016)	59 (1499)	21 (533)	27-3/8 (695)	9 (229)	11-7/8 (302)	6308 (2862)
7-SHRED-2-H-5000 <sup>4</sup>	1504*** (42.0)	7615 (10325)	131-7/16 (3339) <sup>4</sup>	50 (1270)	67-13/16 (1722)	21 (533)	27-3/8 (695)	9 (229)	11-7/8 (302)	6798 (3084)

Notes: \* Gear Ratio 29:1, \*\* Gear Ratio 43:1, \*\*\* Gear Ratio 87:1, \*\*\*\* Actual throughput depends on the type of material to be shredded, \*\*\*\*\* Weight includes grinder & motor only.

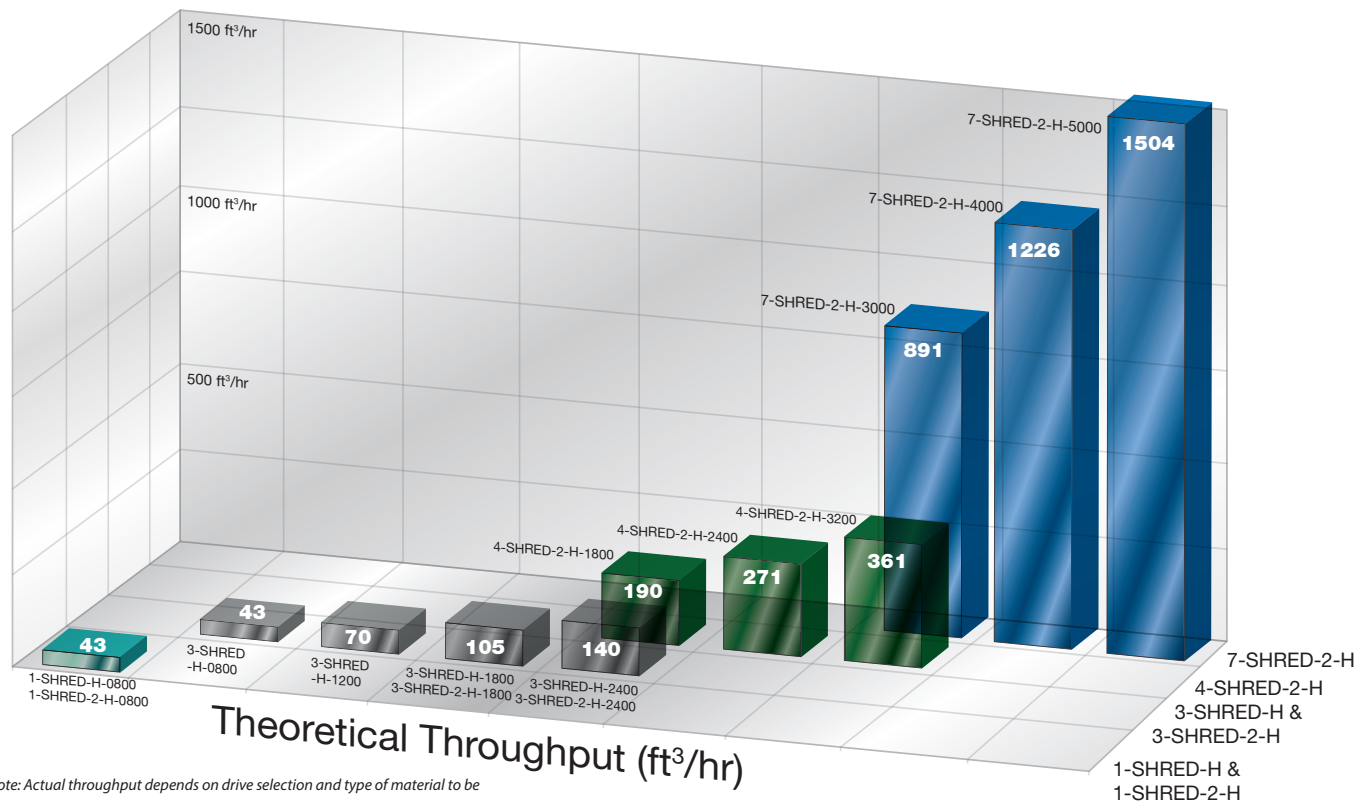
• Consult factory for final analysis of application.

1. Drive dimensions are a maximum based on a unit with a TEFC 3 hp (2.2 kW) drive. | 2. Drive dimensions are a maximum based on a unit with a TEFC 5 hp (3.7 kW) drive.

3. Drive dimensions are a maximum based on a unit with a Severe TEFC 15 hp (11 kW) drive. | 4. Drive dimensions are a maximum based on a unit with a Severe-duty TEFC 30 hp (22 kW) drive.

5. Drive dimensions are a maximum based on a unit with a TEFC 10 hp (7.5 kW) drive.





4-SHRED-H With Custom Hopper and Discharge Chute



Shredding Food Waste



Customized Hopper Variations



- Solid Waste Reduction
- Waste-to-energy



- Biogas Digester
- Waste-to-energy
- Seed Destruction



- Fish Waste Grinding
- Solid Waste Volume Reduction



- Product Destruction
- Zero Waste / Recycling

# Motor Options

## Motors

- TEFC: Totally enclosed fan-cooled electric.
  - 1-SHRED: 3 hp (2.2 kW) drive.
  - 1-SHRED-2: 5 hp (3.7 kW) drive.
  - 3-SHRED: 5 hp (3.7 kW) drive.
  - 3-SHRED-2: 10 hp (7.5 kW) drive.
- Severe-duty TEFC: Severe-duty totally enclosed fan-cooled electric.
  - 4-SHRED-1 drive: 15-40 hp (11-30 kW).
  - 7-SHRED-1 drive: 30-100 hp (22-75 kW).
- XPFC: Explosion-proof fan-cooled electric.

## Hydraulic Power Packs

- Available for 3-SHRED 15 hp (11 kW).



Optional Hydraulic Motors With or Without a Hydraulic Power Pack

Standard Electric Motors

## Cutters

- 3, 7, 11, 13, 17 and 23-tooth options.
- Special cutter designs for unique needs.
- Optional: stainless steel cutters.
- Through-hardened alloy steel and stainless steel.



7-tooth



11-tooth



13-tooth



17-tooth



23-tooth

## Scrapers

- Integrated steel scrapers increase throughput and help cutters clean out faster. Standard for all SHRED models.
- Improves performance of hopper-fed applications.

## Custom Hoppers & Stands

- Custom made to fit application.
- Available in carbon steel, AISI 304 stainless steel or AISI 316 stainless steel.



Custom Hoppers



Custom Stands

## Seal Types

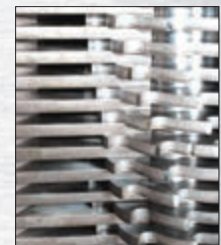
- Industrial mechanical seal cartridges (1- & 3-SHRED).
- Severe-duty mechanical seal cartridges (1-, 3-, 4- & 7-SHRED-2).

## PLC Machine Controllers

- Load-sensing control system automatically reverses to clear jams.
- 1-SHRED, 1-SHRED-2, 3-SHRED, 3-SHRED-2 & 4 SHRED-2 Standard: NEMA-4X FRP enclosure with 3-position switch, status indicators, disconnect and short circuit protection.
- 7-SHRED-2 Standard: NEMA 7 stainless steel enclosure with Operator Interface Terminal (OIT), allows remote troubleshooting, hopper spray wash control, disconnect & short circuit protection.
- UL registered.



Model PC2220DS Standard Enclosure



Standard Scrapers



A Sulzer Brand

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