

Jaw Crushers

ST Series



ST Series

The ST Series is engineered for medium to large aggregate and mining producers with stationary plants. The rugged design delivers the reliability you can expect from Cedarapids. They feature an optional hydraulic actuated wedge system that allows closed side-setting adjustments to be made quickly and easily.

ST Series jaws are typically found in large quarrying or mining application where they often encounter the most arduous applications with the hardest rock.

Highlights

- High production
- · Aggressive crushing action
- High strength one piece fully welded and stress relieved mainframe
- Hydraulic assist shim adjustment CSS or optional opposing wedge fully hydraulic CSS adjustment
- Complete range of jaw profiles to suit all applications

Simple maintenance

Pitman jaw liners are retained by a mechanical wedge and through bolt. Stationary liners are retained by a liner nut and through bolt. Both retention systems can have parts replaced in the case of damage without any rebuilding.

Long life and low maintenance shaft assembly

Robust forged pitman shaft with no threads or sharp radii that cause stress concentrations. Spherical bearings ensure constant shaft alignment. Grease purged labyrinth seals to prevent dust and water ingression.



Smooth and efficient crushing

High inertia and well balanced flywheels.

Even distribution of crushing forces

Machined liner support surfaces ensure even support of liners. Machined surfaces protected from damage by backing plates.

Simple installation

Base mounted frame allows for a simple straight beam support structure.

Reliable CSS adjustment

Traditional hydraulic assist shim adjusted CSS is standard with a fully hydraulic opposing wedge design optional for single button push adjustment of CSS.

Fully fabricated frame

Heavy duty welded frame with reinforcing ribs and post weld stress relief.

Cedarapids® Static

Main Frame

The main frame is a heavy-duty design, fully field-tested under arduous conditions.

The frame is a fully welded, stress relieved, then machined on any mounting surface to ensure alignment of critical components. The entire main frame is fabricated from low carbon steel to ensure maximum fatigue resistance.

Closed Side Setting Adjustment

The traditional hydraulic assist shim adjusted CSS is standard with a fully hydraulic opposing wedge design optional for single button push adjustment of CSS.

Hydraulic wedge CSS adjustment includes a hydraulic tension rod system, HPU power pack, and push button box for easy adjustment.

Main shaft

The forged large diameter pitman shaft is made from a tempered alloy steel to suit heavy-duty applications. The shaft has high fatigue resistance because of its quality surface finish and the absence of screw threads and sharp radii that can cause stress concentrations.

Bearings

Heavy-duty self-aligning double row roller bearings are used for both the pitman and main frame.

Dust seals

Grease purged labyrinth dust seals.

Pitman

The pitman is a robust, one-piece alloy steel casting for high strength and durability.

Liners

Reversible high quality cast manganese liners provide a long service life

The back faces of the liners are machined for firm support.

Replaceable backing plates protect the jaw die seating areas from potential damage

Upper portion of the pitman is protected by a replaceable liner.

A comprehensive range of liners -face profiles are matched with the right manganese alloys to maximize crushing performance, liners life and reduce operating costs.

Liner retention

Pitman liners are retained by a mechanical wedge and through bolt. Stationary liners are retained by a liner nut and through bolt. Both retention systems can have parts replaced in the case of damage without any rebuilding.

Toggle

The toggle rolls across the flat pressure face of the toggle seat. There is no rubbing or scuffing and friction is kept to a minimum. This toggle system has the following advantages:

- No lubrication is required
- The system can handle high crushing pressures
- Increased life of the toggle and seats

Machine robustness and rigidity

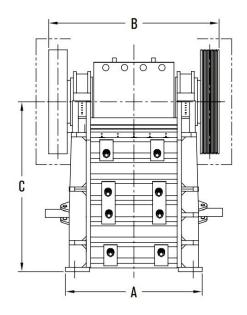
Cedarapids® ST Series jaw crushers have been designed using our long experience in manufacturing machines to handle exceptionally heavy and continuous loads in mining and quarrying. Heavy-duty self aligning doublerow roller bearings in both the pitman and main frame, a heavy-duty alloy forged shaft, cast pitman and a heavy-duty, welded main frame all work together to meet these demands.

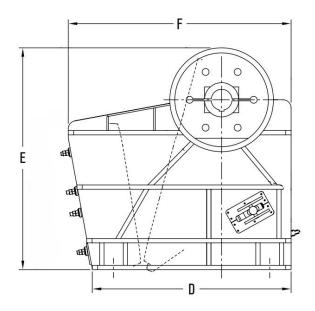
Crusher Options

- Hydraulic wedge adjustment system
- Toggle plate size
- Location of V-belt drive flywheel; right hand standard (as viewed from feeder)
- Jaw liner: Quarry (standard), chomper, or radius ripple
- Voltage

Cedarapids® Static

ST Series Install Drawing





Dimensions

Model	А	В	С	D	E	F
ST47	81"	114 ½"	92"	118 ½"	125 ½"	133"
	2055mm	2910mm	2335mm	3005mm	3185mm	3370mm
ST48	81"	113 ½"	110"	118 ½"	143 ½"	135 ½"
	2055mm	2810mm	2795mm	3010mm	3645mm	3440mm
ST60	101"	125 ½"	130 ½"	146 ½"	163"	164"
	2560mm	3190mm	3310mm	163mm	4140mm	4170mm

Footnote: Dimensions shown are approximate only and are subject to change. Use only certified installation drawings for construction purposes.

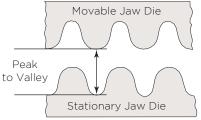
Specifications

Model	Weight	Power	Speed RPM	Feed Opening	Flywheel Diameter	Fixed liner Length	Pitman liner Length
ST47	88,800lbs 40,300kg	200hp 150Kw	225	36" x 48" (915mmx1220mm)	67" 1700mm	81" 2050mm	81" 2050mm
ST48	104,900lbs 47,600kg	250hp 185Kw	225	42" x 48" (1065mmx1220mm)	67" 1700mm	96 ½" 2450mm	96" 2440mm
ST60	186,800lbs 84,740kg	350hp 250Kw	200	50"x60" (1275mmx1500mm)	76 ½" 1940mm	107" 2708mm	106" 2698mm

Close Side Setting Limits

Model	Minimum	Maximum
ST47	4" 100mm	9 ½" 245mm
ST48	4" 100mm	9 ½" 245mm
ST60	4 ¼" 110mm	10 ½" 270mm

^{*}Measure at rest (open) position.



Measure from peak of movable to valley of stay.

ST Series

Capacity

The ST Series of single toggle jaw crushers is designed with a tight crushing chamber nip angle and an aggressive crushing stroke to maximize productivity.

The accompanying table gives typical outputs for our range of machines, based on dry, free flowing material with a crushing work index of 16 and a bulk density of 100 lbs/cu ft (1600 kg/cu m).

The table requires careful interpretation for particular materials and applications as machine capacity can be greatly affected by material properties and method of feeding.

	Approximate Capacities*									
Model	CSS (in)	4	4 ½	5	5 ½	6	7	8	10	
ST47	STPH	209 - 231	253 - 287	292 - 325	342 - 375	375 - 408	452 -496	534 - 590		
5147	MTPH	190 - 210	230 - 260	265 - 295	310 - 340	340 - 370	410 - 450	484 - 535		
ST48	STPH	-	-	314 - 347	369 - 408	408 - 452	490 - 540	590 - 650	727 - 804	
	MTPH	-	-	285 - 315	335 - 370	370 - 410	445 - 449	535 - 590	660 - 729	
ST60	STPH	-	-	-	475 - 525	512 - 568	612 - 678	689 - 760	854 - 948	
	MTPH	-	-	-	431 - 476	464 - 515	625 - 689	625 - 689	775 - 860	

^{*}Approximate throughput in Short tons per hour and Metric Tonnes per hour (1 short ton [Stph] = 2000 lb; 1 metric tonne [Mtph] = 2204 lb) Closed side setting is measured peak to valley of corrugations.

Product Gradation

The curves shown give an indication of the likely product and are based on material of medium hardness with a crushing work index of 16. Factors that markedly affect results are:

- Structure of material
- Compressive strength or crushing work index of material
- · Grading of crusher feed
- Degree of pre-scalping
- · Choke versus irregular or low rate of feed

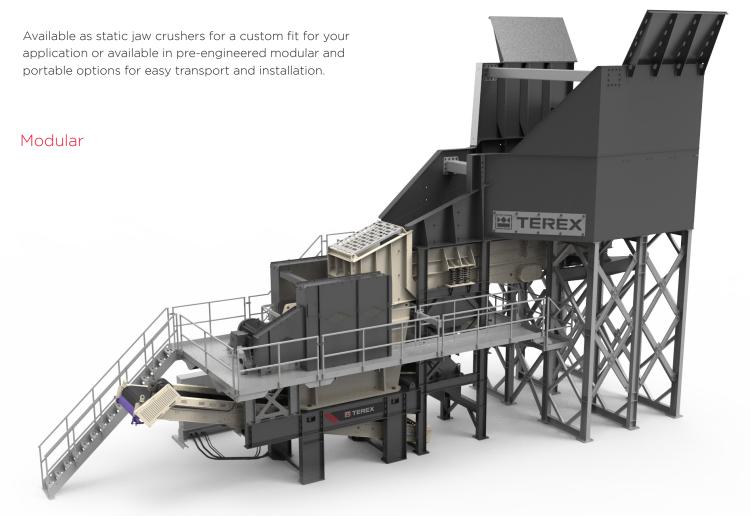
We are pleased to examine specific applications and advise on the likely results from our machines.

Footnote: These product curves are to be used as a guide only. Crusher product is dependent on feed material properties. Please consult Terex MPS for advice on product gradations for specific feed materials.





Versatility for Your Application



Model	Main Components	Capacity (MTPH)	Shipping Configuration
MJ47	ST47 (36"x48") jaw crusher, 51" x 24' feeder	210-670 tph (190-610 mtph)	(6) 40' shipping containers plus (2) flat racks

terex.com/cedarapids Cedarapids.Marketing@Terex.com

Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment.

Failure to follow the appropriate Operator's Manual when using our equipment or failure to act responsibly may result in serious injury or death.

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