



PRODUCT CATALOG





Founded in 1974, in the heart of Vancouver, British Columbia, Canada, TM Engineering is now a leader in analytical laboratory as well as alluvial mining equipment for grinding, splitting, and rock crushing. TM Engineering product lines include equipment such as crushers, pulverizers, sample splitters, drying ovens, riffle splitters, dry blowers, and dry concentrators.

Growing from a small shop to now a large production facility, the core principal of TM Engineering will always be to exceed expectations of every customer through service, flexibility, outstanding products, and reliability. TM Engineering believes in quality, through constant improvement of our product line, maximizing the lifespan and value of each machine that leaves our facility. A proven philosophy that has been reflected in 44 years of business, through customer repeatability, and exponential global growth.

Quality is of highest importance while maintaining flexibility with client's needs. This has been embedded in TM Engineering's core principals since the day the company was founded. Almost everything, right down to the bolts and nuts are produced in house. This keeps all quality control in check to the highest standards.

TM Engineering's machinery can be found in more than 150 countries worldwide, with no limits to where TM's products can go. Near or far, TM Engineering commits to provide their clients with the needed support for their products, whether old or new, you can count on positive support from TM's staff. As TM Engineering increases our product offerings, our manufacturing process constantly improves with state-of-the-art equipment and high-grade materials, with focus and dedication to maintaining high quality craftsmanship in every product.

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The background of the image consists of several concentric, semi-transparent blue circles of varying shades, creating a ripple effect. The circles are centered on the right side of the frame and expand towards the left.

CRUSHERS

TERMINATOR

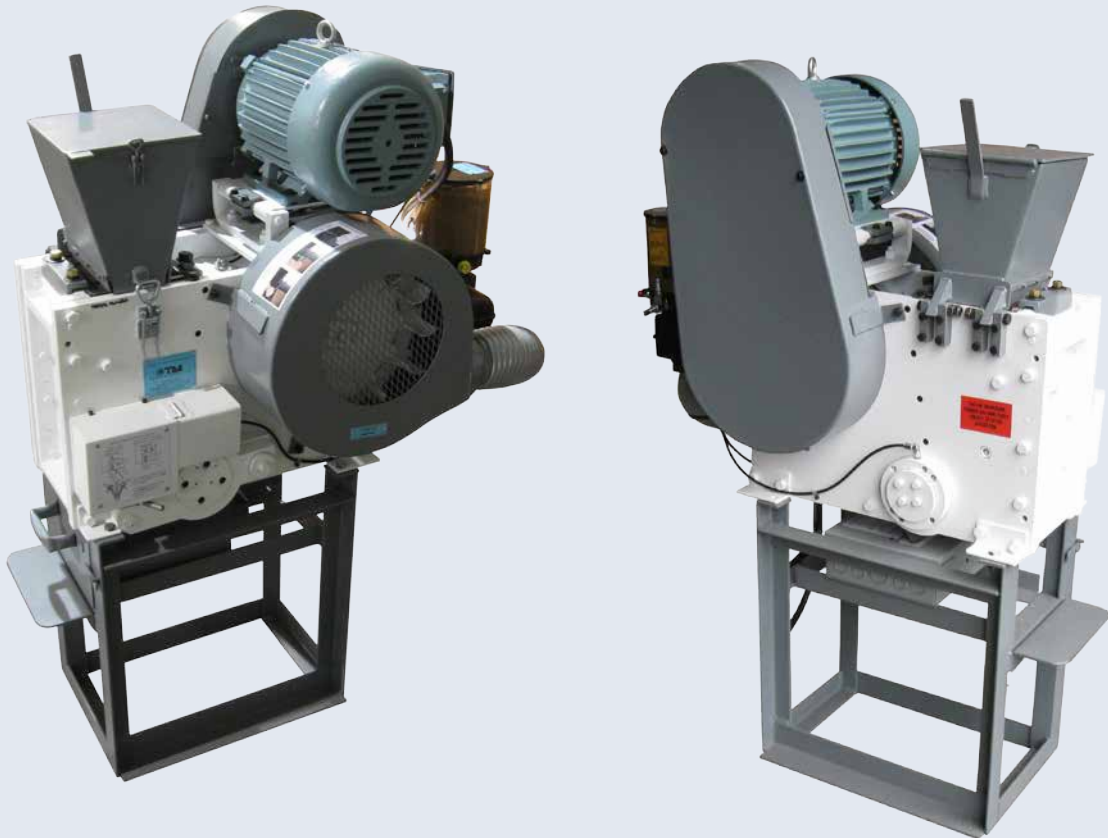
The Terminator Jaw Crusher is unmatched for its crushing speed, consistent material reduction, reliability, and price. With actual material fineness of 95% minus 2mm after a single 110 feed pass, the terminator is designed to last and incorporates unique features setting it apart from its competitors.

STANDARD FEATURES OF THE TERMINATOR INCLUDE:

- Automatic greasing to ensure all grease points are positively and repeatedly lubricated to guarantee performance under the heaviest operation.
- Crushing jaws available is smooth or serrated and are reversible and interchangeable. Jaws are easily removed via simple clamping mechanism.
- Single point jaw adjustment allows easy adjustment to ensure required feed output size is achieved.
- Ducted fan cooling to ensure the unique eccentric bearing is cooled for operations in the warmest of climates.
- Narrow profile makes it ideal for tight operating spaces, such as mobile container laboratories

OPTIONAL ACCESSORIES:

- Machine mounted Stop/Start/E-Stop Controller
- Environmental enclosure (which includes the stand with drawer)
- Dust collecting hopper
- Safety hopper (short or tall)

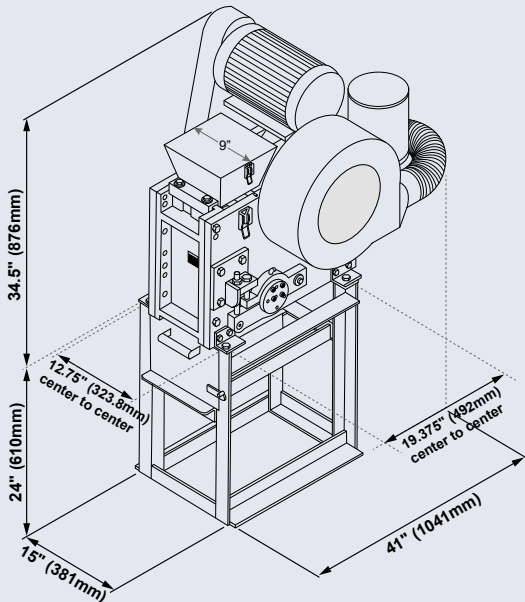


Terminator Jaw Crusher Technical Specifications

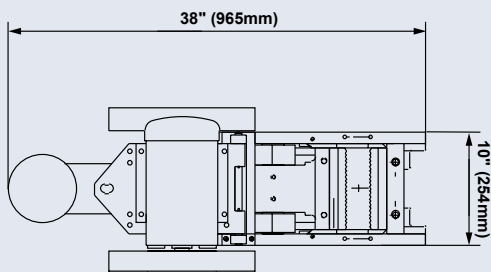
WEIGHT :	1236lb (561Kg)
POWER :	3 PHASE / 60Hz 5HP or 7.5HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600

DIMENSIONS :

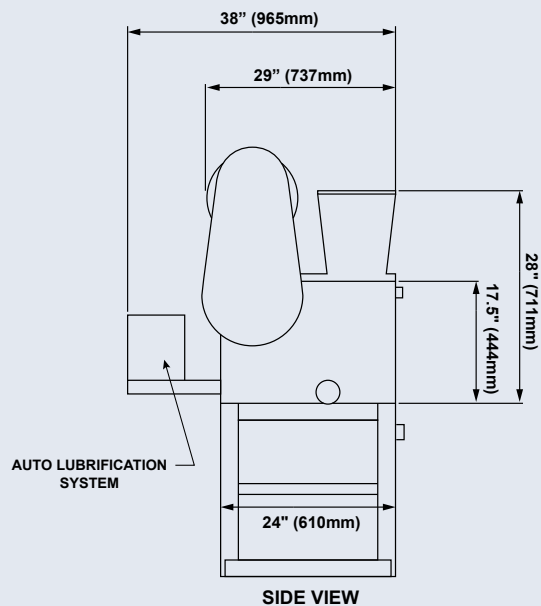
NOTE:
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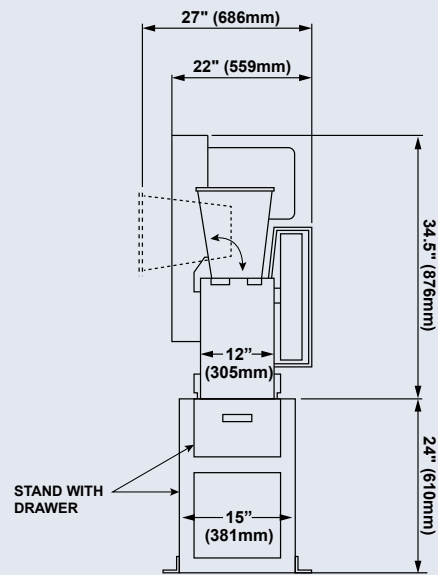
ISOMETRIC VIEW



TOP VIEW



SIDE VIEW



FRONT VIEW

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

TERMINATOR OVER ROTARY SAMPLE SPLITTER

COMBINES CRUSHING AND SPLITTING INTO A SINGLE OPERATION

A unit that combines crushing and splitting into one operation. Handling is reduced and more samples can be produced. No concern for human error or improperly applied procedures is needed. Receiving container sizes, quantities, and reject bins/drawers are customized to suit your application.

The feed conveyor and the drawer carousel rotating speed can both be fine tuned through the supplied variable speed controls. This permits the user to make the infinite adjustments required to obtain the desired (mass) sample.

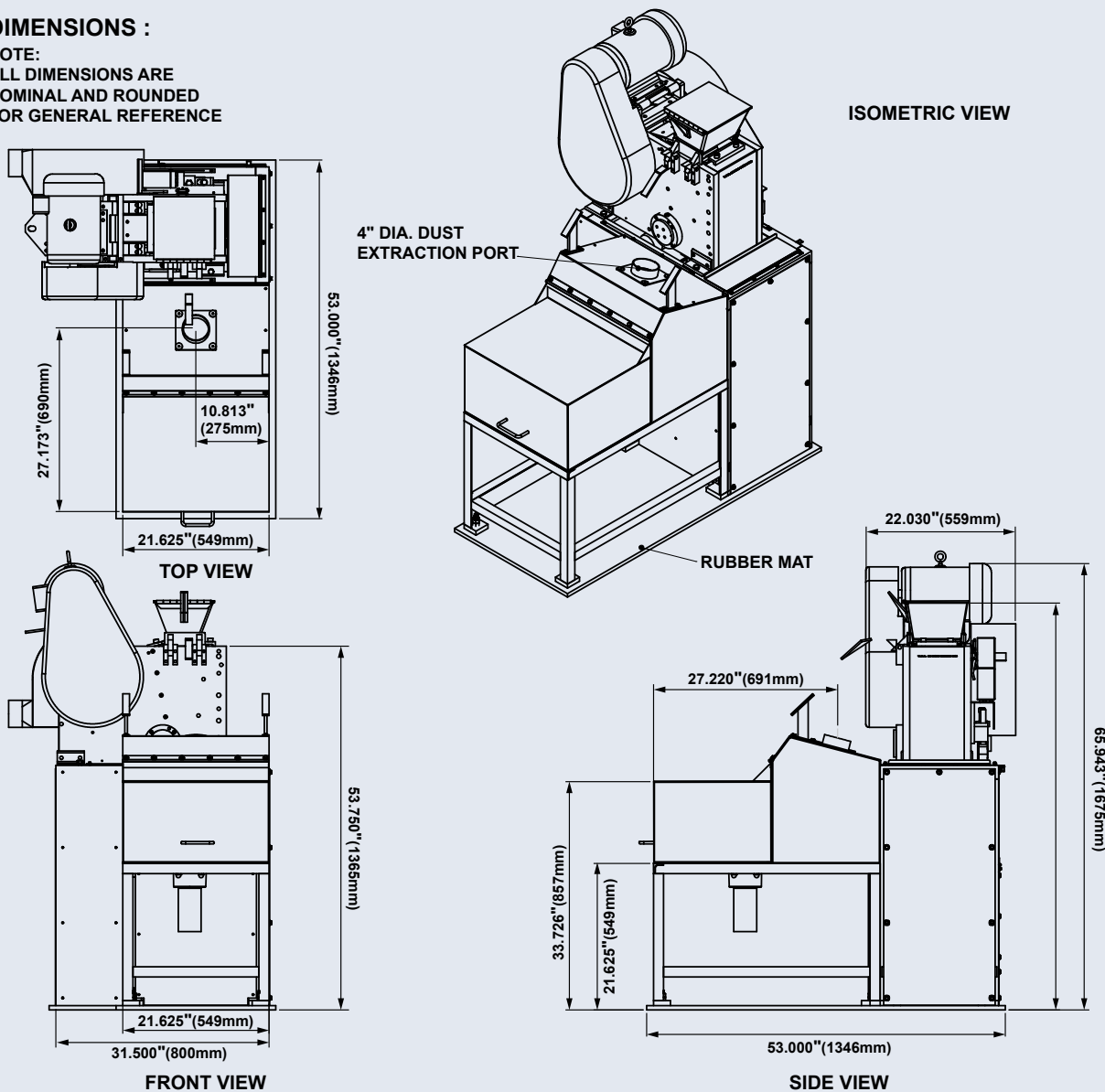


Terminator over Rotary Splitter Technical Specifications

WEIGHT :	1854lb (841Kg)
POWER :	<p>3 PHASE / 60Hz 5HP or 7.5HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING</p> <p>VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600</p>
OPTIONS :	ENCLOSURE, VIBRATOR ON HOPPER

DIMENSIONS :

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DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

TERMINATOR OVER SPLITTER WITH BUILT IN SCALPER

- The latest product from TM Engineering combines three of our popular machines in to one unit.
- Machine can be provided with platform for easier access to hopper (pictured)
- Collection container splits customized to meet customer requests
- Like our standard Jaw crusher over Rotary splitter, material is crushed, dispensed onto a conveyor
- belt, and deposited into a rotating carousel. With the addition of a scalper, material can now be
- scalped, crushed, and simultaneously fed onto the conveyor belt by a user activated gate
- mechanism beneath the scalper.



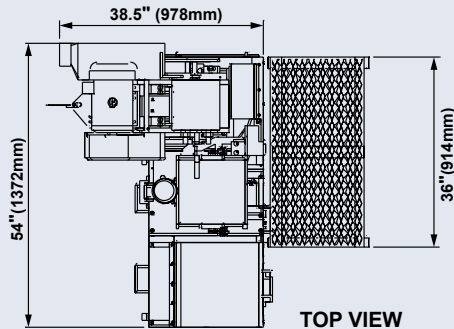
Terminator over Rotary Splitter with Scalper

WEIGHT :	2100lb (950Kg)
POWER :	3 PHASE / 60Hz 5HP or 7.5HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600

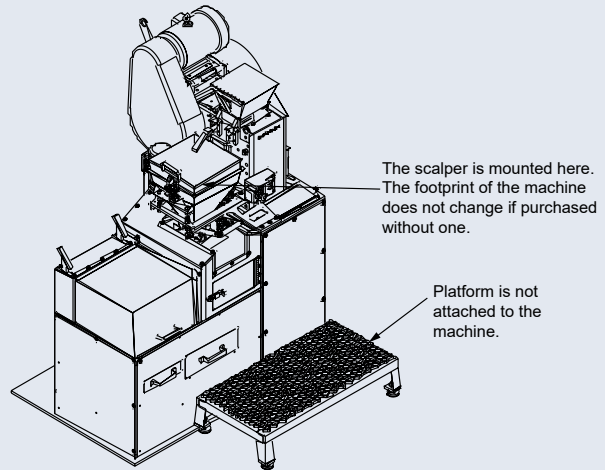
DIMENSIONS :

NOTE:
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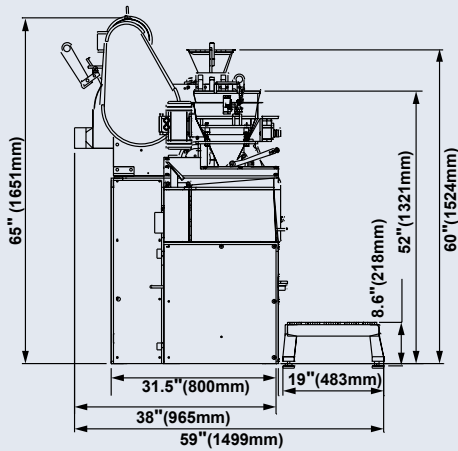
TERMINATOR OVER ROTARY SPLITTER W/ SCALPER



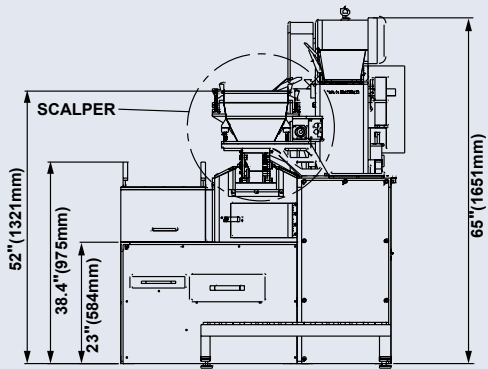
TOP VIEW



ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

BRONTO CRUSHER

The Bronto is the largest in our line of Jaw Crushers. Based on our world-renowned Terminator Jaw Crusher, the Bronto has been designed to handle the toughest crushing conditions. With an input gap opening of approximately 7-1/2" x 7-1/2" (190.5mm x 190.5mm), this machine will crush larger rocks and/or any other dry material faster than any other Jaw Crusher in the market of its size.



The BRONTO Jaw Crusher has the following specifications:

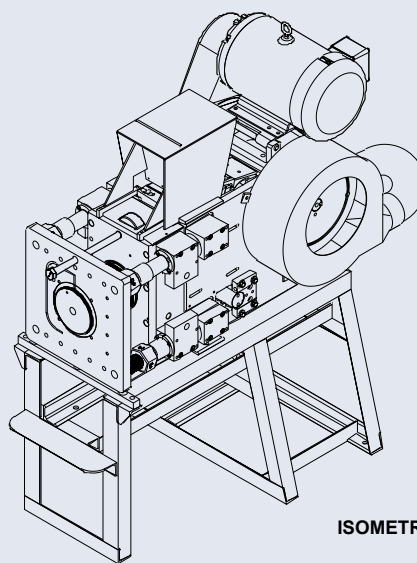
- Auto lubrication system with fully sealed bearings. The grease is contained within the bearing housings and removed from a container, so samples are not contaminated.
- Jaw opening from 0" to 3" at the bottom (0 to 76.2 mm). The jaw opening is adjusted by a simple and easy to operate screw. The clever design allows for a larger than normal opening and still maintains the robustness required for a crusher in demanding applications.
- Can be customized for the polysilicon industry. Unique methods have been used to produce components that are necessary to prevent contamination of polysilicon. Design features include tungsten, as well as UHMW and polyurethane lining material in areas that are critical to contamination
- 7.5HP or 10 HP motor for powerful crushing (with your specified voltage). Explosion proof motor available for special applications.
- Variable speed control for motor with wired remote control for explosion proofing available for special applications
- This unit is available with full environmental enclosure as in the picture beside and/or with other variations such as combining the machine with a Rotary Sample Splitter underneath, lifting devices, etc. Design options available per customer requirements.

Bronto Jaw Crusher Technical Specifications

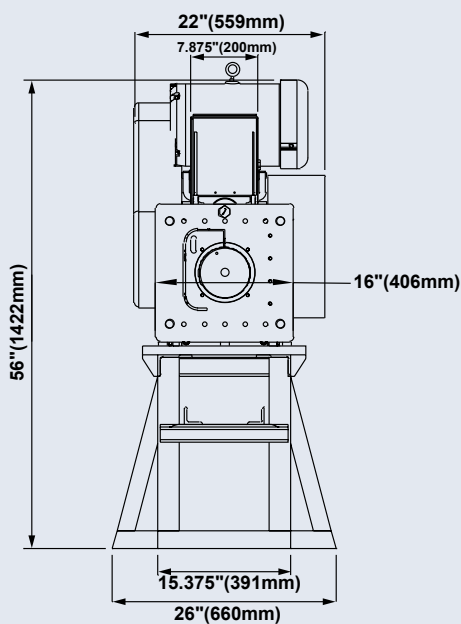
WEIGHT :	1684lb (764Kg)
POWER :	3 PHASE / 60Hz 7.5HP or 10HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600 EXPLOSION PROOF AVAILABLE FOR SPECIAL APPLICATIONS

DIMENSIONS :

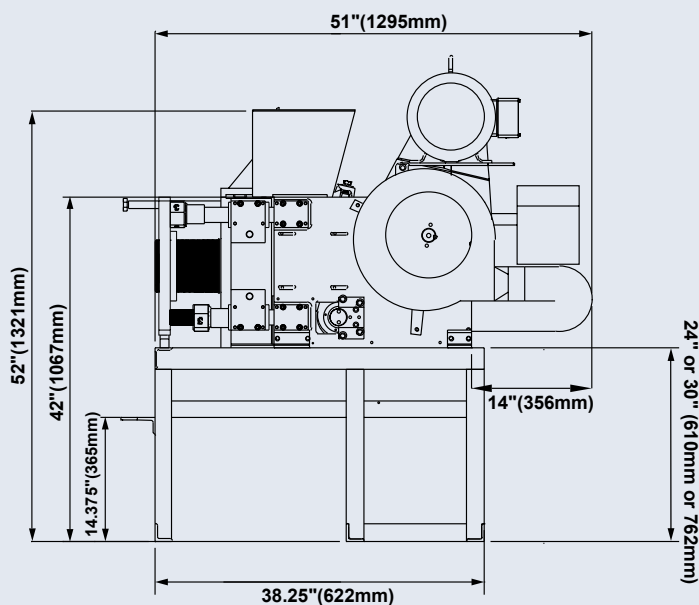
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ISOMETRIC VIEW



FRONT VIEW



SIDE VIEW

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

RHINO JAW CRUSHER

The Rhino Jaw Crusher is the predecessor to the Terminator Jaw Crusher. It is now used mainly in applications with periodic operation, research facilities, or educational institutions.

The input size of 5" x 7" (127mm X 178mm) and output material to -10mesh is the same as with the Terminator.

This cost effective and reliable Jaw Crusher has been used by major mining companies worldwide for over 30 years. With many of our original machines still in operation today, the rhino has proven that it won't be matched in terms of reliability and performance.

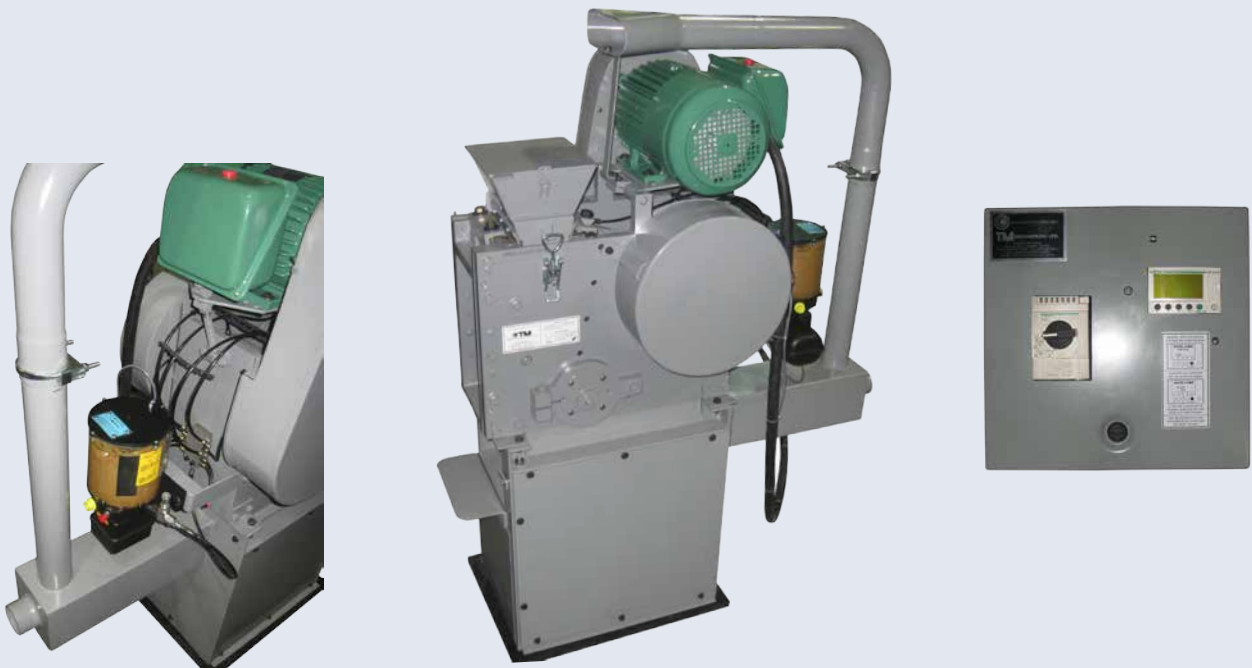
The Rhino can also be made with a gas motor for easy operation at remote sites

The Rhino Jaw Crusher is available in three different models:

JC#1: Manual Lubrication - user must lubricate ten different grease points manually every eight hours or as needed. Grease Gun and cartridge included.

JC#ML: Single Point Lubrication - user must lubricate one grease point manually every eight hours or as needed, which distributes lubricant (grease) to the ten grease points. Grease Gun and cartridge included.

JC#1AL: Automatic Lubrication - user needs to fill grease container which automatically distributes lubricant to all grease points. User only needs to check that grease level is sufficient. Supplied with a full grease container. Recommended: Purchasing 20Litre of lubricant(grease) as per required specifications.



Rhino Jaw Crusher Technical Specifications

WEIGHT :	1000lb (455Kg) 1200lb (545Kg) EQUIPPED WITH ALL OPTIONS
POWER :	3 PHASE / 60Hz 3HP or 5HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600

MODELS AVAILABLE :

MODEL #1	MANUAL LUBRICATION
MODEL #1ML	SINGLE POINT LUBRICATION
MODEL #1AL	AUTOMATIC LUBRICATION

DIMENSIONS :
NOTE: ALL DIMENSIONS ARE NOMINAL AND ROUNDED FOR GENERAL REFERENCE

The technical drawings include the following views and dimensions:

- Standard Side View:** Overall width 38" (965mm), jaw opening width 29" (737mm), jaw opening height 14" (356mm), total height 27" (686mm), and distance from base to jaw opening 17.5" (444mm). A note indicates "AUTOLUBE ONLY" for the lubrication system.
- Standard Front View:** Overall width 26" (660mm), jaw opening width 21" (533mm), jaw opening height 31" (787mm), and total height 55" (1397mm). The base height is 24" (610mm).
- Optional Enclosure Side View:** Overall width 51" (1295mm), jaw opening width 29" (737mm), jaw opening height 18" (457mm), and total height 27" (686mm). The base height is 24" (607mm). A note indicates "AUTOLUBE ONLY" for the lubrication system. The enclosure is labeled "ENVIRONMENTAL ENCLOSURE".
- Optional Enclosure Front View:** Overall width 26" (660mm), jaw opening width 21" (533mm), jaw opening height 12" (305mm), and total height 60" (1524mm). The base height is 24" (607mm). The enclosure is labeled "ENVIRONMENTAL ENCLOSURE". A note indicates "WITH ENVIRONMENTAL ENCLOSURE (OPTIONAL)".

DRYING OVENS
BOWLS AND GRINDING HEADS
OTHER MACHINERY
SPARE PARTS
ACCESSORIES

Optional Equipment (Rhino Jaw Crusher)

CRUSHERS

PULVERIZERS

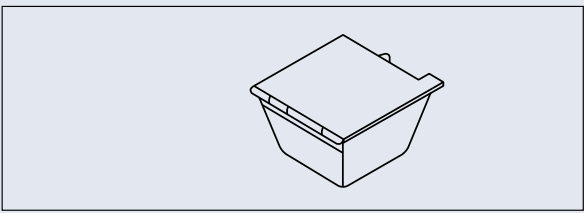
SPLITTERS AND DIVIDERS

ROD AND BALL-MILLS

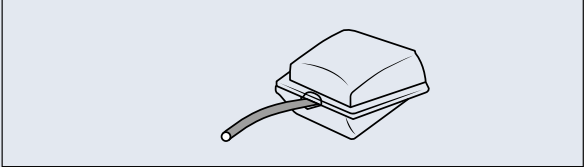
SCALPERS

AUTOMATION

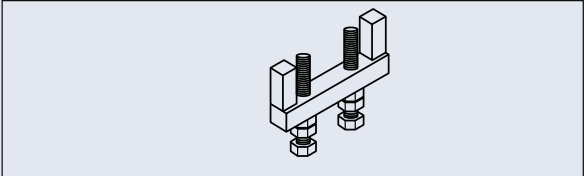
Feeding Hopper
6-1/2”(165mm) or 10-1/2”(266.7mm) High



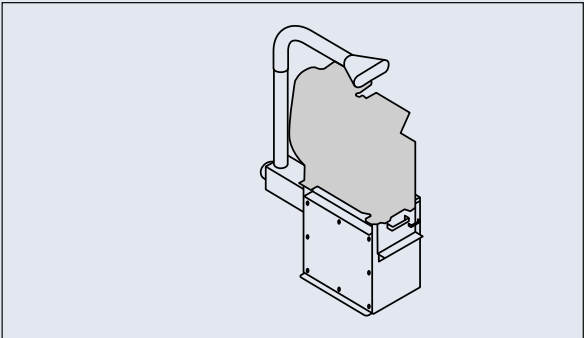
Electrical pre-wiring with overload connection



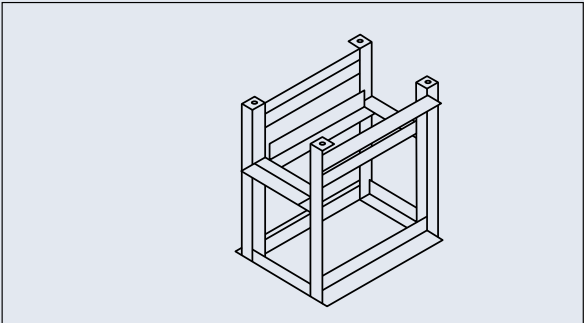
Extractor
(Tool to facilitate maintenance)



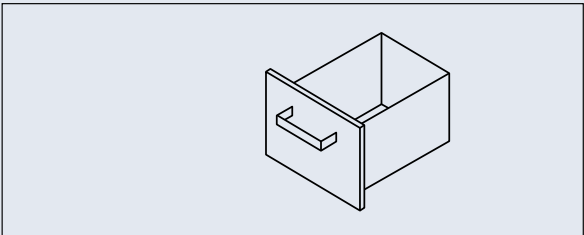
Environmental Enclosure



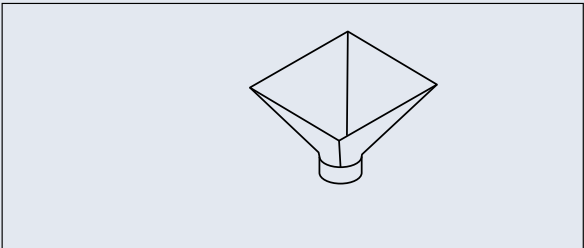
Stand



Drawer



Dust Collecting Hopper



ROLLS CRUSHER

The TM Rolls Crusher gives superior performance and longevity vs other machines of its kind in the market due to a vast number of incorporated features. The rollers are made from tool steel (standard). Manganese steel, case hardened mild steel, or other steel available upon request.

Rollers are detachable from the shafts eliminating costs associated in replacing the entire shaft/roller unit. With a spare set on hand, rollers can be replaced on site in a very short time, while the used rollers can be resurfaced as needed.

The TM Rolls Crusher is designed in such a way that bearing removal is unnecessary when replacing the rollers. The feeding hopper is designed to force media uniformly onto the roller's surface so that there is equal wear along the surface providing better performance and longevity.

Total dust elimination is another important feature. A dust trap has been incorporated into the feed opening to allow for a dust free operation to the user. Other Provisions have been provided for dust extraction if auxiliary dust collection unit needs to be connected.

Heavy duty bearings, high efficiency belting and powerful motors together with other innovative features make this Rolls Crusher stand above the competition.



DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

Rolls Crusher Technical Specifications

CRUSHERS

PULVERIZERS

SPLITTERS AND DIVIDERS

ROD AND BALL-MILLS

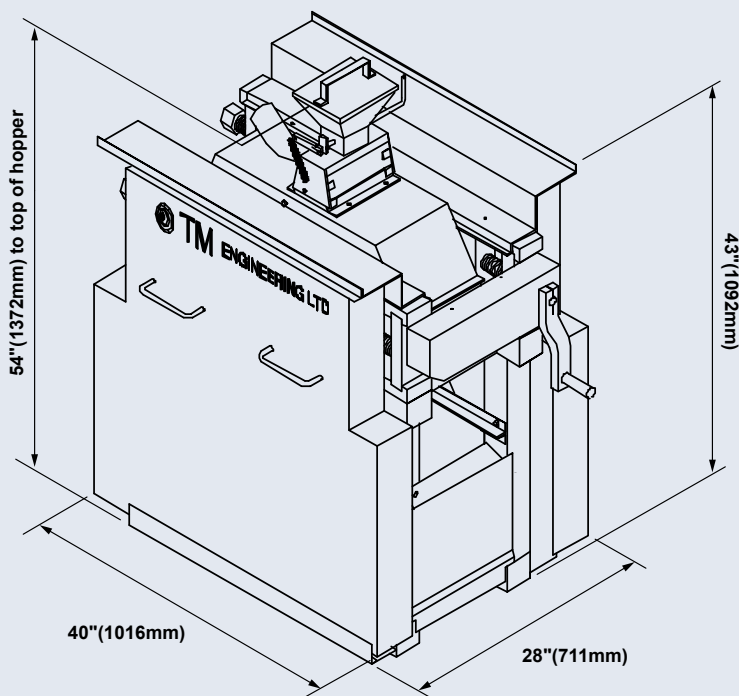
SCALPERS

AUTOMATION

WEIGHT :	1700lb - 2500lb (773Kg - 1136Kg)
POWER :	<p>TWO MOTORS 3 PHASE / 60 Hz 7.5HP MOTOR HP WILL VARY UPON ROLLER SIZE 7.5HP, 10HP, 15HP, 20HP AVAILABLE UPON REQUEST SINGLE PHASE / AND/OR 50 Hz MOTORS AVAILABLE. PLEASE SPECIFY WHEN ORDERING</p> <p>VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600</p>
CONFIGURATIONS :	6 X 6 to 14 X 12 (SEE ATTACHED CHART)
ADDITIONAL INFO:	FULL FEED BOX TAKES APPROX. SEVEN MINUTES TO CRUSH SAMPLES

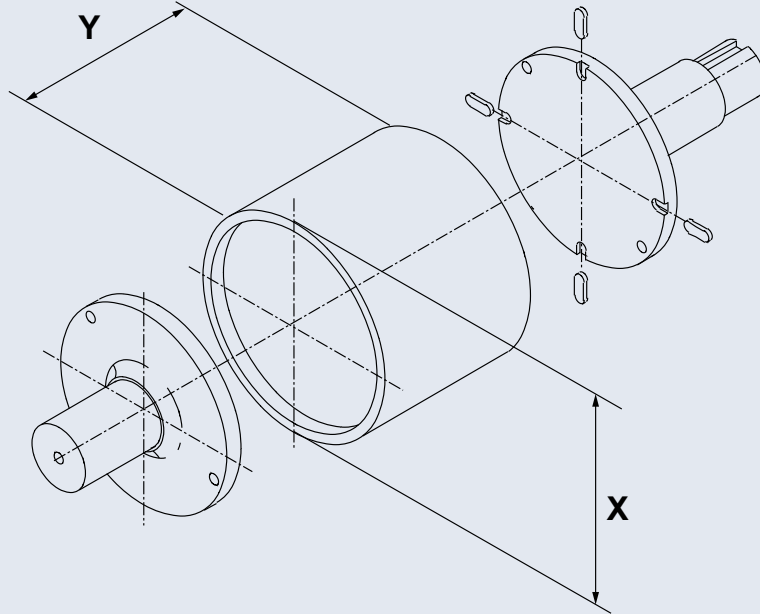
DIMENSIONS :

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Rolls Crusher Roller Sizes

NIP ANGLES AND FEED SIZE DETERMINE THE ROLL DIAMETER



PERFORMANCE STATISTICS IN CHART ABOVE ARE ONLY INDICATIVE. MACHINE CAPABILITY CAN VARY CONSIDERABLY DEPENDING ON ROCK HARDNESS AND PARTICLE SIZE DISTRIBUTIONS.

SIZES AVAILABLE :

MODEL	X (DIAMETER)	Y (FACE WIDTH)	CRUSHING CAPACITY
6 X 6	Ø6" (Ø152mm)	6" (152mm)	2000Lbs/hr (907kg/hr)
8 X 8	Ø8" (Ø203mm)	8" (203mm)	2400Lbs/hr (1089kg/hr)
10 X 8	Ø10" (Ø254mm)	8" (203mm)	3000Lbs/hr (1361kg/hr)
10 X 10	Ø10" (Ø254mm)	10" (254mm)	3600Lbs/hr (1633kg/hr)
10 X 12	Ø10" (Ø254mm)	12" (305mm)	7000Lbs/hr (3175kg/hr)
12 X 10	Ø12" (Ø305mm)	10" (254mm)	7000Lbs/hr (3175kg/hr)
12 X 12	Ø12" (Ø305mm)	12" (305mm)	7000Lbs/hr (3175kg/hr)
14 X 8	Ø14" (Ø356mm)	8" (203mm)	9000Lbs/hr (4082kg/hr)
14 X 10	Ø14" (Ø356mm)	10" (254mm)	10000Lbs/hr (4536kg/hr)
14 X 12	Ø14" (Ø356mm)	12" (305mm)	12000Lbs/hr (5443kg/hr)
20 X 6	Ø20" (Ø508mm)	6" (152mm)	N/A

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

CONE CRUSHER

One of our many reliable machines. The feed opening diameter is 8" (203mm), with a grinding area from 8" (203mm) to 11.5" (292mm). It is built with a rugged fabricated/ cast steel construction with capabilities of crushing 3/4" (19mm) feed to -10mesh.

Available in different steel types such as CC#2(chrome/molybdenum) for maximum durability and wear resistance, or CCMS for applications where contamination is a factor.

Precise adjustment for desired fineness can be done quickly and efficiently for smooth operation. Custom cones are available in different materials to suit specific applications.

Optional accessories include: Electrical pre-wiring, funnel, stand with one or two drawers, and pressure cleaning equipment.



Model CC #1	Cone and Mantel Alloy-1, Fully Hardened to Rockwell 60
Model CC #2	Cone and Mantel Alloy-2, Fully Hardened to Rockwell 60
Model CCMS	Cone and Mantel Mild Steel, Case Hardened 1/8" to Rockwell 60

The background of the image consists of several concentric, overlapping circles in various shades of blue, creating a sense of depth and movement. The circles are centered on the right side of the frame and expand towards the left.

PULVERIZERS

TM/STLX PULVERIZER

COMPACT EASY TO USE PULVERIZER WITH A PULVERIZING CAPACITY UP TO 500ML

The TM/STLX machine can take from 20mL to 500mL grinding barrels. Most customers use the 250mL grinding barrel. The 500mL grinding barrel requires an adaptor, as well as the 50mL grinding barrel (either for using as standalone on pulverizer, or three simultaneously).

The TM/STLX Pulverizer has a manual self-adjusting clamp to maintain sealing pressure to prevent sample loss during grinding.

The lift door is made of lightweight aluminum and the heavy-duty long-lasting motor has been proven by years of service.

The panel with electronic timer can be mounted on either side (not on the machine).

Accessories available include a triple head adapter plate, which allows you to grind 3 separate samples of 10-50grams simultaneously



TM STLX Technical Specifications

WEIGHT :	531lb (241Kg)
POWER :	<p>3 PHASE / 60 HZ / 1HP MOTORS ARE STANDARD SINGLE PHASE / AND/OR 50 Hz MOTORS AVAILABLE. PLEASE SPECIFY WHEN ORDERING</p> <p>VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600</p>
CONFIGURATIONS :	STANDARD SINGLE GRINDING BARREL (UP To 500g)

DIMENSIONS :
NOTE:
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The side view shows a height of 59" (1499mm) and a width of 24.5" (622mm). The front view shows a height of 41" (1041mm) and a width of 24.5" (622mm). A power cord with three circular outlets is shown connected to the front panel.

Optional Accessories

ADAPTER FOR GRINDING 500mL SAMPLES

150mL

250mL

TRIPLE HEAD ADAPTER PLATE ALLOWS YOU TO GRIND 3 SEPARATE SAMPLES (10-50GRAMS) SIMULTANEOUSLY. GRINDING BARRELS SOLD SEPARATELY.

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

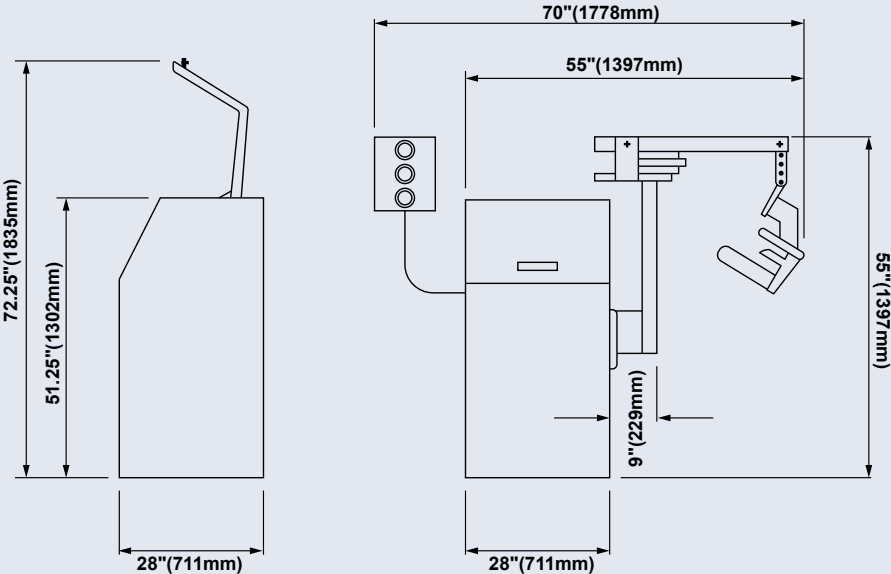
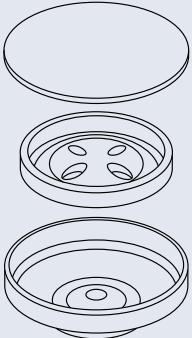
TM/ MAX 2

PULVERIZING CAPACITY AT A COMPLETE RANGE

- The TM/MAX2 will accept all grinding barrels from 20mL to 2Kg and has a pneumatic clamping system and a lightweight aluminum lift door.
- The motor is made to perform in extreme conditions and the sound dampening enclosure has a new modular frame.
- The 1Kg and 2Kg grinding barrels designed for the TM/ MAX 2 have proven to grind faster, more efficiently and more uniformly.
- Designed with an ergonomically shaped frame to aid operator posture when inspecting the grinding barrel
- Available with an optional air hoist which eliminates operator fatigue from lifting the grinding barrels by hand.
- Equipped with leveling feet for easy height adjustment.
- The panel with electronic timer can be mounted on either side.
- Patented grinding barrels are available in 1Kg and 2Kg sizes.



TM/MAX2 Technical Specifications

WEIGHT :	875lb (398Kg)
POWER :	3 PHASE / 60 HZ / 5HP MOTOR SINGLE PHASE / AND/OR 50 Hz MOTORS AVAILABLE. PLEASE SPECIFY WHEN ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600
CONFIGURATIONS :	STANDARD SINGLE GRINDING BARREL (UP TO 2KG) AIR HOIST (OPTIONAL) RECOMMENDED FOR 1Kg AND 2Kg SAMPLES
DIMENSIONS : NOTE: ALL DIMENSIONS ARE NOMINAL AND ROUNDED FOR GENERAL REFERENCE	IMPORTANT NOTE: THIS MACHINE HAS A PNEUMATIC CLAMPING SYSTEM WHICH NEEDS COMPRESSED AIR TO OPERATE  <p>The technical drawings show the machine from two perspectives. The front view on the left indicates a total height of 72.25" (1835mm), a height to the top of the main body of 51.25" (1302mm), and a width of 28" (711mm). The side view on the right shows a total width of 70" (1778mm), a depth of 55" (1397mm), a height of 55" (1397mm) to the top of the grinding mechanism, and a width of 28" (711mm) at the base. A 9" (229mm) dimension is also shown for a specific component.</p>
AVAILABLE GRINDING BARRELS: (SOLD SEPARATELY)	 <p>PATENTED 1KG AND 2KG GRINDING BARRELS HAVE BEEN DESIGNED FOR OPTIMAL PERFORMANCE. AFTER EXTENSIVE TESTING, THEY HAVE PROVEN TO BE UNMATCHED IN BOTH EFFICIENCY AND DURABILITY</p>

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

4KG PULVERIZER

PULVERIZING CAPACITY IN MULTIPLES. FROM 50ML - 4KG

The 4Kg Pulverizer comes in three different models, the 4Kg Pulverizer with Multiple Head accessories, without Multiple Head accessories, and 4X1000. The one with Multiple Head accessories can take single grinding barrels as well as multiple grinding barrels. The one without Multiple Head accessories can take any single size grinding barrel from 50mL up to 4Kg. The 4X1000 can be made to take 4x1000mL, 4x500mL, 4x250mL, 4x150mL, 4x100mL grinding barrels.

An air hoist is recommended for lifting 1Kg grinding barrels or larger, but we have customers who use air hoists for the 250 or 500mL grinding barrels as well.

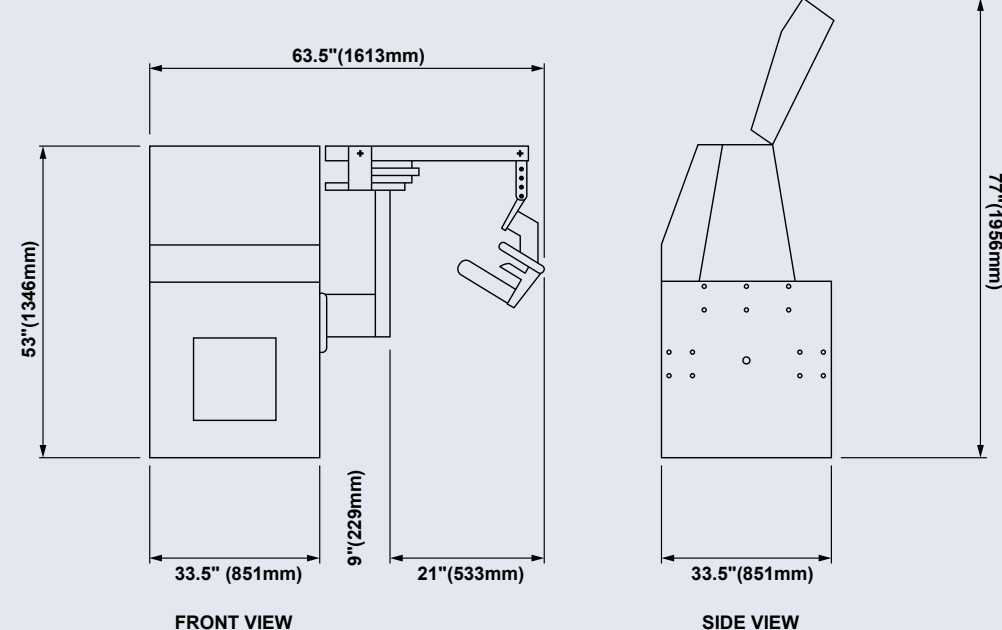
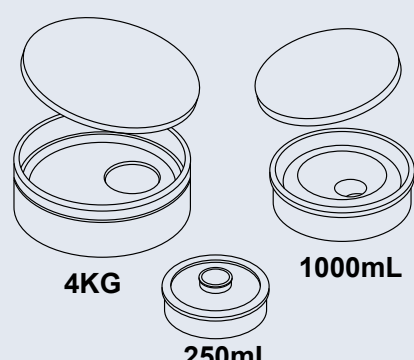
This machine has lightweight aluminum lift doors on both sides for unrestricted access to grinding barrels and automatic air clamp and electronic timer for adjustable grinding cycles.

You can operate this machine with 1 x 4Kg grinding barrel, 4 x 250mL grinding barrels or 2 x 1Kg grinding barrels and an air hoist for removing or inserting 4Kg barrel is optional and can be mounted on either side.

The rugged stainless-steel cabinet has sound dampening enclosure.



4KG Pulverizer Technical Specifications

WEIGHT :	950lb - 1402lb (432Kg - 636Kg)
POWER :	3 PHASE / 60Hz, 5 or 7.5HP MOTOR SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600
CONFIGURATIONS :	STANDARD SINGLE GRINDING BARREL (50mL TO 4Kg) (NOT RECOMMENDED FOR REGULAR GRINDING OF 2Kg SAMPLES AND SMALLER)
DIMENSIONS : NOTE: ALL DIMENSIONS ARE NOMINAL AND ROUNDED FOR GENERAL REFERENCE	IMPORTANT NOTE: THIS MACHINE HAS A PNEUMATIC CLAMPING SYSTEM WHICH NEEDS COMPRESSED AIR TO OPERATE  <p>The technical drawings show the following dimensions:</p> <ul style="list-style-type: none"> FRONT VIEW: Total width is 63.5" (1613mm). The main body width is 33.5" (851mm). The height of the main body is 53" (1346mm). The distance from the front edge to the center of the grinding barrel is 9" (229mm). The distance from the center of the grinding barrel to the right edge is 21" (533mm). SIDE VIEW: The height of the main body is 77" (1956mm). The width of the main body is 33.5" (851mm).
AVAILABLE GRINDING BARRELS: (SOLD SEPARATELY)	 <p>4KG 1000mL 250mL</p>

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

TM/G1500

AUTOMATIC CLAMPING SYSTEM MAKES THE TM/G1500 SIMPLE TO USE

The TM/G1500 Pulverizer is slightly larger than the TM/STLX. It is equipped with a lightweight aluminum door for easy handling and has automatic clamping option with grinding barrel sizes ranging from 50ml to 500ml. The TM/G1500 can be supplied with or without an air hoist.

Like the TM/STLX, the control panel with electronic timer can be mounted on either side, but not on the machine itself to avoid vibration of electronic components.

- When originally designed it was also used and can still be potentially used with 1000mL and 1500mL grinding barrels, however for these sizes, our TM/MAX2 Pulverizer is suggested as it will be much quicker and efficient
- The heavy-duty long-lasting motor has been proven by years of service
- The panel with electronic timer can be mounted on either side. Optional extras include an air hoist for inserting and removing grinding barrels which eliminates operator fatigue and is mountable on either side



TMG/1500 Pulverizer Technical Specifications

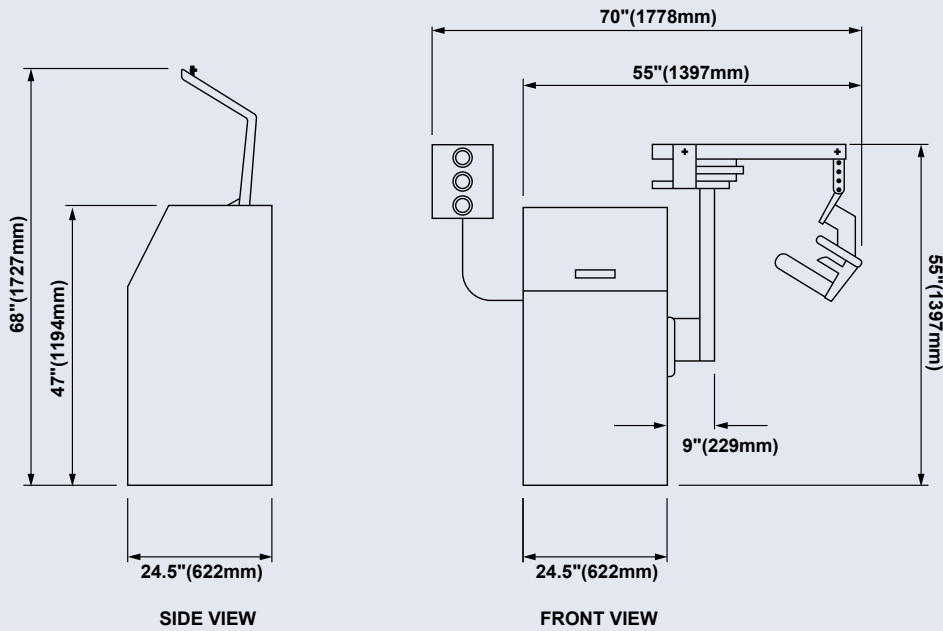
WEIGHT :	529lb (240Kg)
POWER :	<p>3 PHASE / 60 Hz / 1HP MOTOR SINGLE PHASE / AND/OR 50 Hz MOTORS AVAILABLE. PLEASE SPECIFY WHEN ORDERING</p> <p>VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600</p>
CONFIGURATIONS :	STANDARD SINGLE GRINDING BARREL RECOMMENDED FOR UP TO 500mL FOR 1Kg TO 2Kg SAMPLES PLEASE REFER TO TM/MAX 2 PULVERIZER

DIMENSIONS :

NOTE:
 ALL DIMENSIONS ARE
 NOMINAL AND ROUNDED
 FOR GENERAL REFERENCE

IMPORTANT NOTE:

THIS MACHINE HAS A PNEUMATIC CLAMPING SYSTEM WHICH NEEDS COMPRESSED AIR TO OPERATE



DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

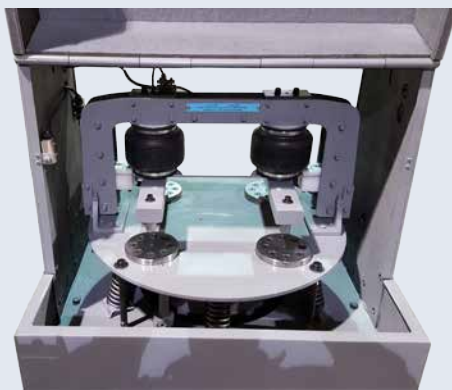
ACCESSORIES

MULTIPLE HEAD PULVERIZER

This machine is designed to either take a single grinding barrel or alternatively four grinding barrels contemporarily at the same time as indicated in the chart below.

It has double door access to grinding barrels for faster removal from both sides of the machine. Adding an air hoist eliminates fatigue from lifting larger barrels by hand and installing two allows multiple operators to load and unload more efficiently. It comes with a pneumatic clamping system and has been designed to perform in multiple sample pulverizing down to analytical fineness in minutes.

- It comes equipped with a heavy-duty motor for long lasting efficiency and sound dampening within a rugged stainless-steel frame. The rugged stainless-steel cabinet has sound dampening
- Grinding barrels are sold separately



Model #	Grinding Barrels	Capacity
4x100	4 x 100mL	400g
4x250	4 x 250mL	1Kg
4x500	4 x 500mL	2Kg
4x1000	4x 1000mL	4Kg

Multiple Head Pulverizer Technical Specifications

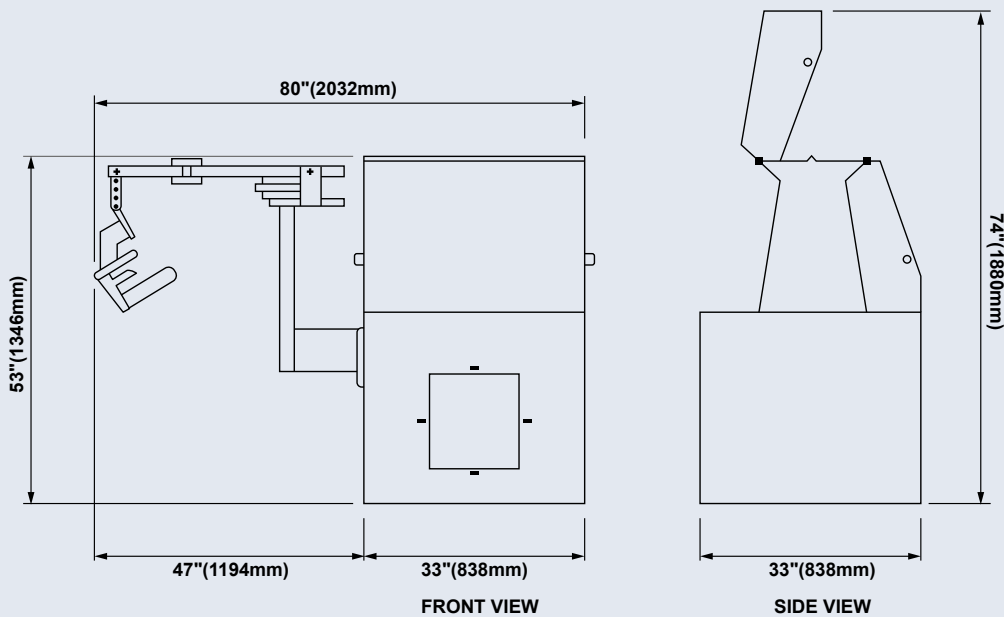
WEIGHT :	950lb (432Kg)
POWER :	3 PHASE / 60 HZ / 5 or 7.5HP MOTORS ARE STANDARD SINGLE PHASE / AND/OR 50 Hz MOTORS AVAILABLE. PLEASE SPECIFY WHEN ORDERING

MODELS AVAILABLE :

MODEL#	GRINDING BARRELS	CAPACITY
4 x 100	4 x 100mL	400g
4 x 250	4 x 250mL	1Kg
4 x 500	4 x 500mL	2Kg
4 x 1000	4 x 1000mL	4Kg

DIMENSIONS :

NOTE:
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NOMINAL AND ROUNDED
FOR GENERAL REFERENCE



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

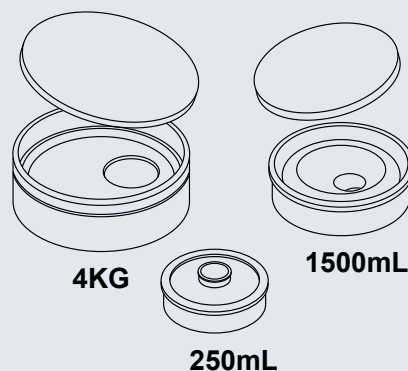
ACCESSORIES

Multiple Head Pulverizer Technical Specifications

CRUSHERS

PULVERIZERS

**AVAILABLE GRINDING BARRELS:
(SOLD SEPARATELY)**



SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

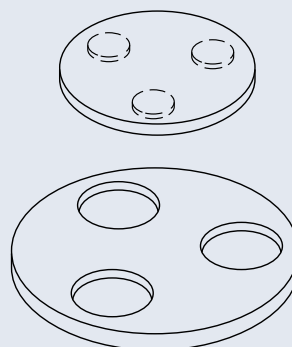
AUTOMATION

Optional Accessories

TRAY FOR 3 X 50mL

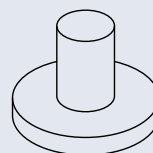
- CAN BE USED IN THE POSITION OF A SINGLE GRINDING BARREL

- GRIND UP TO 12 SAMPLES AT A TIME WITH 4 TRAYS ON A MULTIPLE HEAD PULVERIZER



DUMMY SPACERS

- IF AN ODD NUMBER OF GRINDING BARRELS ARE TO BE USED ON A MULTIPLE HEAD PULVERIZER, THESE STEEL "DUMMY" PIPES CAN BE CLAMPED INTO THE UNUSED POSITIONS TO KEEP THE MACHINE BALANCED.



The background of the image consists of several concentric, overlapping circles in various shades of blue, creating a sense of depth and movement. The circles are centered on the right side of the frame and expand towards the left.

SPLITTERS AND DIVIDERS

BENCH TYPE ROTARY SAMPLE SPLITTER

- An economical rotary splitter for splitting small samples (1 Liter - 24 Liters)
- The units come with a mass flow hopper, vibratory feeder, and containers in various sizes to suit the customer application.
- Optional accessories for the unit include a vibrator on the hopper (for material that has high humidity, so it does not stick/cake to the inner walls of the hopper), dust enclosure, cart on casters with shelves.
- The unit comes standard with a full dust enclosure (As shown) with a 3" (76.2mm) diameter dust extraction port on top.



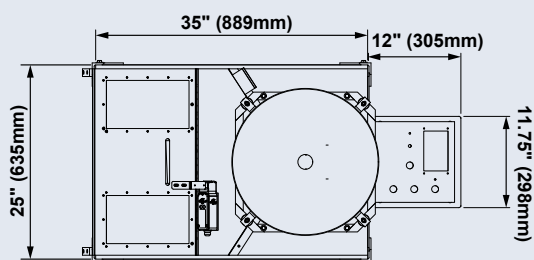
Bench Type Rotary Splitter Technical Specifications

WEIGHT :	231lb - 452lb (105Kg - 205Kg)
POWER :	110 or 220V / SINGLE PHASE / 50Hz or 60Hz
CONFIGURATIONS :	HOPPER CAPACITY AND NUMBER OF RECEIVING CONTAINERS AS WELL AS SIZE TO BE DETERMINED BY CUSTOMER AT TIME OF ORDERING

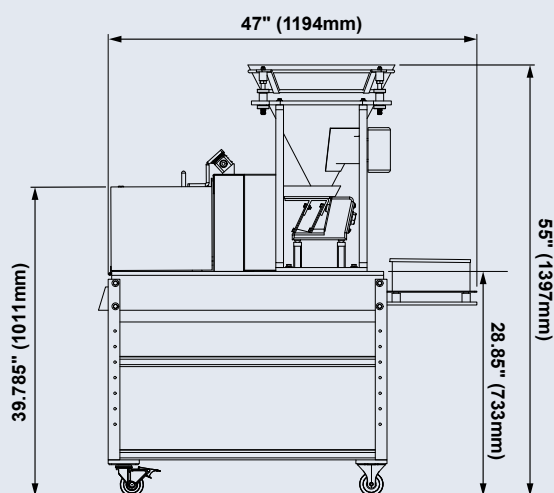
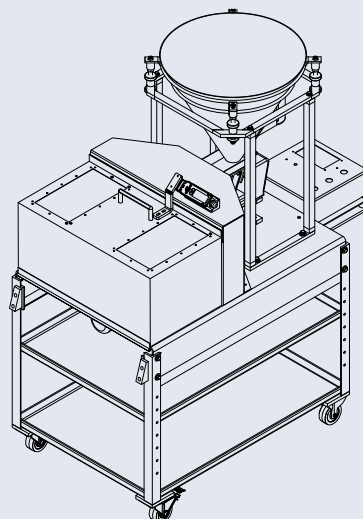
DIMENSIONS :

NOTE:
ALL DIMENSIONS ARE
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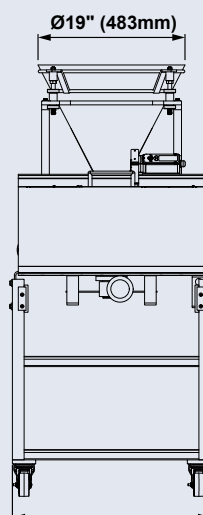
25 LITER MODEL SHOWN
DIMENSIONS WILL VARY
BASED ON ORDERED MODEL
AND SIZE.



TOP VIEW



SIDE VIEW



FRONT VIEW

DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

ROTARY ARM SAMPLE SPLITTER

- Hopper and drawer sizes made to suit specific applications
- 3 receiving drawers
- Reject bin at the bottom
- Optional Vibrator feeder with adjustable speed control
- A dust-free machine with variable speed control for very precise and easily obtainable divisions
- Available with full dust enclosure and dust extraction outlet
- Retrieved samples will be within 3% of one another
- Accepts media up to 3/4" (19mm) in size

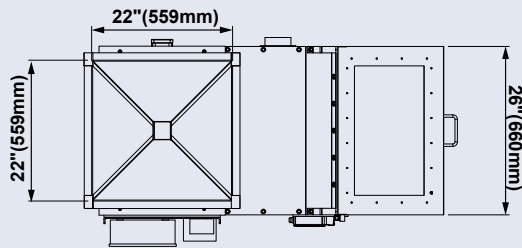


Rotary Splitter Standard 35/50L Technical Specifications

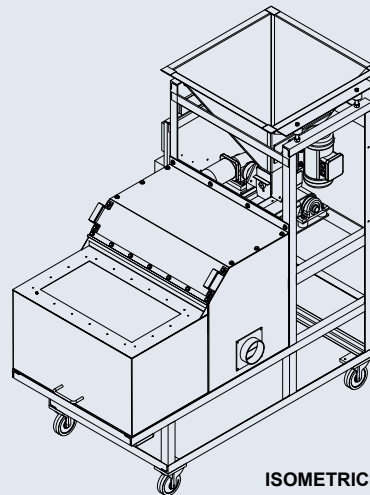
WEIGHT :	500lb (228Kg)
POWER :	SINGLE PHASE 60Hz 110v SINGLE PHASE 50Hz 220V
CONFIGURATIONS :	WITH OR WITHOUT CASTERS, WITH OR WITHOUT VIBRATOR ON HOPPER WITH OR WITHOUT ENCLOSURE. HOPPER CONICAL FOR 35L

DIMENSIONS :

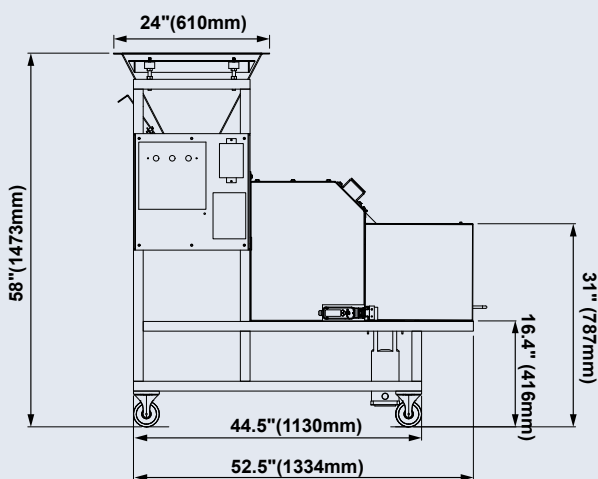
NOTE:
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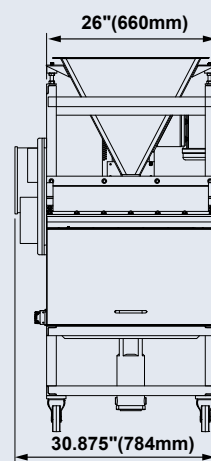
TOP VIEW



ISOMETRIC VIEW



SIDE VIEW



FRONT VIEW

TM 35/50 LITRE ROTARY SAMPE SPLITTER

DRYING OVENS

BOWLS AND
GRINDING HEADS

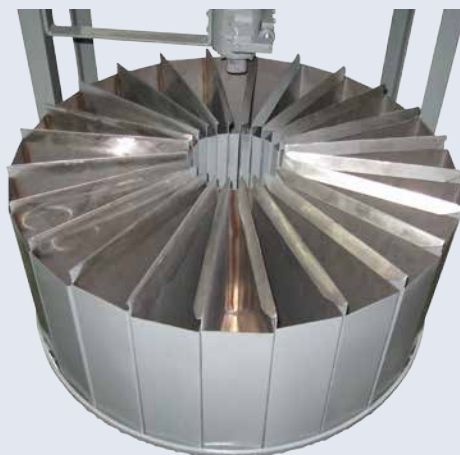
OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

SLURRY SAMPLE DIVIDER

- Sludge / Liquid Divider
- Rotary table with variable speed adjustable between 0-100rpm.
- The receiving dividers (containers) are available in different sizes to suit all requirements.
- Reject liquid will gather below the rotary table.
- All parts in contact with the sludge/liquid are made with stainless steel.
- Shakers for pre-mixing sedimentary liquids are available for every application.



SAMPLE SPLITTER

The Sample Splitter is available for any size of riffle splitter and is made of a sturdy steel frame structure completely enclosed by heavy sheet metal. An opening on the top allows to insert the riffle splitter which has 2 drawers right underneath to gather the sample and the reject media. The drawers themselves are rounded in the front part for easy flow of media. The table comes supplied with a pipe to connect to your dust extraction system and a hinged rear door for easy cleaning.



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

RIFFLE SPLITTER

CRUSHERS

The riffle splitter includes a riffle, stand and pan in galvanized steel or stainless steel. A dust outlet in the corner of the splitter is to be connected to your dust extraction system which will keep the environment clean

PULVERIZERS

The unit includes two drawers and slagging tables and customized tables are available. The units are available in various combinations of 228mm or 304mm widths and 457mm or 304mm lengths with riffle spacing ranging from 9.5mm to 25.4mm.

SPLITTERS AND DIVIDERS



ROD AND BALL-MILLS



SCALPERS

AUTOMATION

Jones Riffle Splitter Technical Specifications

WEIGHT : Varies upon selected model and size			
MODEL	X	Y	Z
9" x 18" x 3/8"	9" (228.6mm)	18" (457.2mm)	3/8" (9.525mm)
9" x 18" x 1/2"	9" (228.6mm)	18" (457.2mm)	1/2" (12.7mm)
9" x 18" x 5/8"	9" (228.6mm)	18" (457.2mm)	5/8" (15.875mm)
9" x 18" x 3/4"	9" (228.6mm)	18" (457.2mm)	3/4" (19.05mm)
9" x 18" x 1"	9" (228.6mm)	18" (457.2mm)	1" (25.4mm)
9" x 12" x 3/8"	9" (228.6mm)	12" (304.8mm)	3/8" (9.525mm)
9" x 12" x 1/2"	9" (228.6mm)	12" (304.8mm)	1/2" (12.7mm)
9" x 12" x 5/8"	9" (228.6mm)	12" (304.8mm)	5/8" (15.875mm)
9" x 12" x 3/4"	9" (228.6mm)	12" (304.8mm)	3/4" (19.05mm)
9" x 12" x 1"	9" (228.6mm)	12" (304.8mm)	1" (25.4mm)
12" x 12" x 3/4"	12" (228.6mm)	12" (304.8mm)	3/4" (19.05mm)

DIMENSIONS :
 NOTE:
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DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

MAGNETIC SEPARATOR

Lightweight bench top Magnetic Separator for bench top testing work in laboratories, exploration camps and placer gold operations.

- Extremely light weight aluminum construction (approx. 20 pounds)
- Outside dimensions: 22" H x 14" W x 12" D (559mm x 356mm x 305mm)
- 2 sample receiving containers.
- 2Kg mass flow feed hopper
- Adjustable magnetic position lever
- Supplied with brush for drum cleaning
- 3 gauges for coarseness setting
- Magnetic force of 400 - 800 gauss

This free standing concurrent single drum dry magnetic separator comes complete with a two-kilogram mass flow feed hopper and two sample containers. The six-inch diameter magnetic drum contains Neodymium rare earth magnets which have high intensity 400 - 800 gauss field strength. The magnetic drum discharge has a dust shield/product position splitter over the sample containers to minimize product losses. Suitable for samples with particle sizes of 10 to 200 US mesh (2000 to 75 microns). The unit is available with a hand crank or 40RPM DC drive.



ROTARY SAMPLE DIVIDER

The system consists of a conical feeding hopper that lets the media flow by gravity onto a reverse rotating cone located precisely in the center of the opening. This cone spreads the media 360 degrees uniformly into a sample drawer and into a container for your reject.

- Will divide up to 5Kg of sample into a portion for your sample and a portion that is reject.
- An adjustable lifting mechanism allows for a very simple way to control media flow.
- The sample drawer is adjustable to the size of sample you require.
- The divider is controlled by a variable speed motor. The standard power supply is 110-220V/ single phase/50-60Hz. Other power supplies are also available.



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES



ROD AND BALL MILLS

RODMILL

FULLY ENCLOSED SOUND DAMPENING MILL WITH INTERCHANGEABLE CYLINDERS

Our Rod/Ball Mill is supplied with 1HP motor and the option for a variable speed controller from 1 to 100RPM. However, different speeds can be achieved upon customer's request and needs. The machine comes fully enclosed with sound dampening material for quietness and comfort. The structure is of steel fabrication with sheet metal enclosure around the main frame and door. The yoke where the actual rod/ball cylinder is mounted is engineered to be balanced in its horizontal operational position. Consequently, minimal effort is needed to swing it from horizontal to vertical position (loading/unloading) and vice versa. Another outstanding feature is the possibility to use different cylinders for research or pilot plants tests to mimic other situations that might arise in the future. Specifically, we offer different size of cylinders from 5" (127mm) inside diameter by 12" (305mm) long to 9" (229mm) diameter by 18" (457mm) long and bigger. All cylinders are fully interchangeable and can be mounted/removed in a matter of minutes. The cover is of a unique design that automatically seals the cylinder and is quickly mounted/removed. Another feature of this Rod/Ballmill is that it comes mounted on heavy duty castors (wheels) for easiness of placement and storing.

- This mill is available with either a tilt up or sliding lid, both types are fully enclosed for noise suppression. Castors allow for easy mobility and it has a rugged steel frame construction.



DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

Rod or Ball Mill Technical Specifications

CRUSHERS

PULVERIZERS

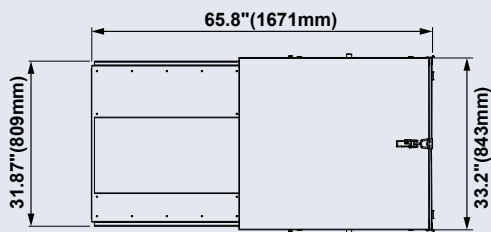
SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

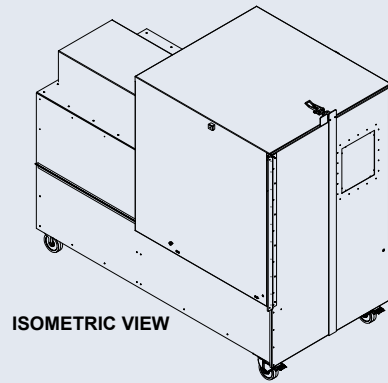
AUTOMATION

WEIGHT :	1000lb (455Kg)
POWER :	3 PHASE / 60 Hz / 2HP (FOR LARGER UNITS) 3 PHASE / 220v / 60Hz / 1HP 3 PHASE / 110V / 60Hz 1HP 3 PHASE / 220V / 50Hz / 1HP
SIZE RANGE :	CARBON CHROMIUM STEEL HARDENED TO ROCKWELL 62 FOR MAXIMUM DURABILITY. MOST SIZES ARE AVAILABLE UPON REQUEST.
BALLS:	CARBON CHROMIUM STEEL HARDENED TO ROCKWELL 62 FOR MAXIMUM DURABILITY. MOST SIZES ARE AVAILABLE UPON REQUEST.

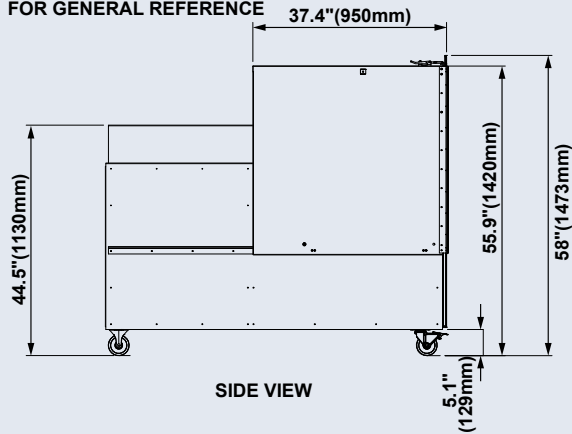


DIMENSIONS : TOP VIEW

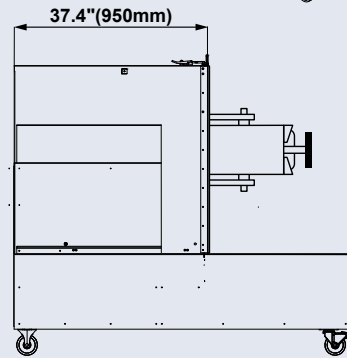
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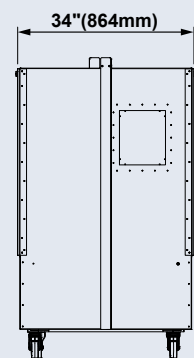
ISOMETRIC VIEW



SIDE VIEW



SIDE VIEW OPEN



FRONT VIEW

13 X 22 ROD/BALL MILL EXTERIOR DIMENSIONS

SIZES AVAILABLE :

MODEL	DIMENSIONS	RODS SIZES
6 X 12	Ø6" X 12" (Ø152mm x 305mm)	(10rods) Ø0.75" X 11" (Ø19mm x 279mm)
8 X 14	Ø8" X 14" (Ø203mm x 356mm)	(20 rods) Ø1" X 13" (Ø25.4mm x 330mm)
9 X 18	Ø9" X 18" (Ø229mm x 457mm)	(40 rods) Ø1" X 16" (Ø25.4mm x 406mm)
12 X 18	Ø12" X 18" (Ø305mm x 457mm)	(40 rods) Ø1" X 16" (Ø25.4mm x 432mm)
13 X 22	Ø13" X 22" (Ø330mm x 559mm)	(45 rods) Ø1.25" X 22" (Ø31.75mm x 559mm)

MINIATURE BALLMILL

- Variable speed motor from 50 to 500 RPM
- Grinding chamber dimensions 60mm diameter x 130mm long or similar sizes to suit your applications
- Grinding capacity 300ml
- Includes stainless steel balls
- Variable speed motor from 50 to 500 RPM
- Features are customizable to suit your needs
- The encumbrance space required is 16" L x 16" W x 16" H. (406mm x 406mm x 406mm) It weighs 68 lbs. (31Kg)



DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

The background of the image consists of several concentric, overlapping circles in various shades of blue, creating a sense of depth and movement. The circles are centered on the right side of the frame and expand towards the left.

SCALPER

STANDING SCALPER

When crushing fine materials that cake easily, a big packing load is placed on the jaw crusher. This can be alleviated by scalping.

This scalping device, can be provided with a screen suited to your needs. It will remove the sample portion already smaller than the final size. This speeds up the crushing process, improves efficiency and decreases wear on the crusher.

Our new model (Shown) can be used as a free standing unit, or paired with one of our Terminator or Rhino Jaw crushers. If required it can be supplied with a fines dust enclosure.



DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

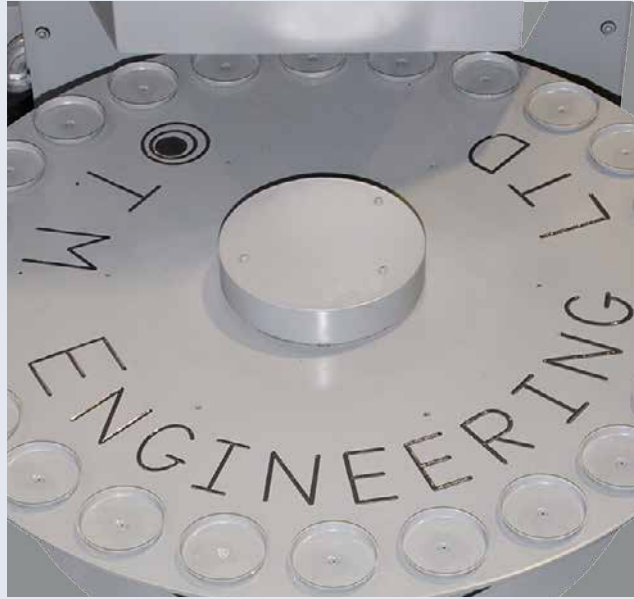
The background of the image consists of several concentric, overlapping circles in various shades of blue, creating a sense of depth and movement. The circles are centered on the right side of the frame and expand towards the left.

AUTOMATION

XT1000 AUTOMATIC PULVERIZER

Counted on for its efficiency and reliability by major mining companies worldwide, the XT1000 Auto pulverizer is the state of the art in automated grinding technology. The XT1000 Autopulverizer lets you take your operation to the next level by reducing labor costs, running more samples (Continuous grinding) and reducing time. Years of customer feedback, vigorous testing, and engineering refinements have been implemented to ensure these machines will continue to exceed user expectations for years to come. Some of the many features include:

- Intuitive PLC control featuring an LCD touch screen display terminal.
- Real time feedback of machine.
- Available with "Cup style" or "Bag style" Receiving Carousel.
- Cleaning cycles can be set to ensure there is no cross contamination between



DRYING OVENS

BOWLS AND GRINDING HEADS

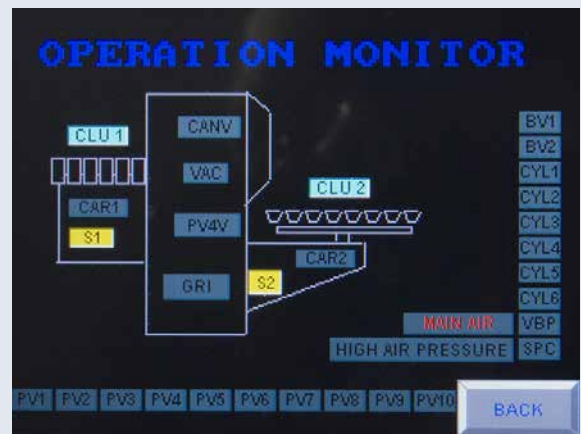
OTHER MACHINERY

SPARE PARTS

ACCESSORIES

Our XT1000 Automatic Pulverizer is a state of the art, fully automated sample processing centre, for use where awareness for time efficiency and cost consciousness is present irrespective of the quantity of samples needed to produce every day. This machine has been used for over 2 decades by leading mining companies in North and South America. This unit features include:

- 12 - 24 feeding/receiving stations (with available 'bag-style' or cup stations)
- grinding capacity of 20 to 500mL sizes (250mL being our most popular)
- grinding cycle time of 70 seconds and up per sample
- recovery from input to received amount is guaranteed to be more than 95% of the original sample
- automatic cleaning system between samples
- a PLC controller with modular electrical and pneumatic components allows for unlimited flexibility for all the devices that operate the machine
- fail-safe sensors have been incorporated to ensure machine shut down in the event of a system failure
- message display indicating the cause of failure will appear on screen should the machine shut down due to malfunctioning
- Options such as cleaning runs between samples, time metering, special voltage, etc. will be priced as they are requested.

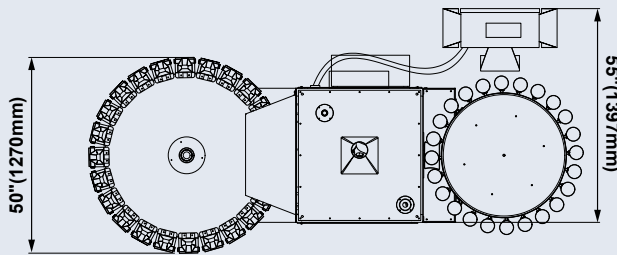


XT1000 Automatic Pulverizer Technical Specifications

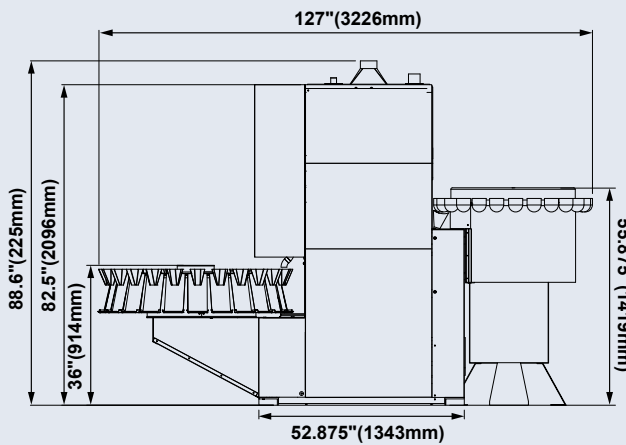
WEIGHT :	2905lb (1318Kg)
POWER :	<p>3 PHASE / 60Hz 1HP (250mL GRINDING BARREL), 1.5HP (500mL GRINDING BARREL) SINGLE PHASE / AND/OR 50Hz MOTORS AVAILABLE PLEASE SPECIFY AT TIME OF ORDERING</p> <p>VOLTAGE OPTIONS: 208, 220, 230, 240, 380, 415, 440, 460, 480, 575, 600</p>
CONFIGURATIONS :	BAG OR CUP RECEIVING CAROUSEL. GRINDING CAPACITY OF 20mL TO 1Kg TO PROVIDE A QUOTE, PLEASE SPECIFY SIZE OF SAMPLES NEEDED

DIMENSIONS :

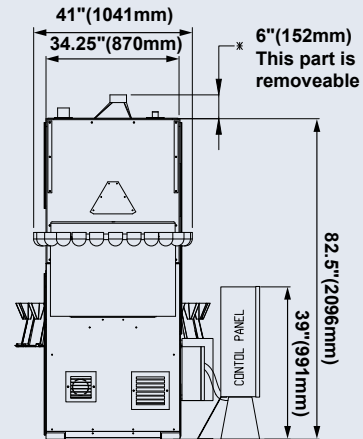
NOTE:
 ALL DIMENSIONS ARE
 NOMINAL AND ROUNDED
 FOR GENERAL REFERENCE



TOP VIEW



SIDE VIEW



BACK VIEW

DRYING OVENS

BOWLS AND
 GRINDING HEADS

OTHER
 MACHINERY

SPARE PARTS

ACCESSORIES

The background of the image consists of several concentric, overlapping circles in various shades of blue, creating a sense of depth and movement. The circles are centered on the right side of the frame and expand towards the left.

DRYING OVENS

DRYING OVENS

Customers that have bought our Electric Drying Ovens once typically always come back for more! Our ovens have two temperature controllers up to 250° Celsius with thermocouples: one for drying the samples at the desired temperature and the other one to protect and prevent oven from overheating should the main one or any other component malfunction. They are made of a welded steel construction with 4" (102mm) insulation on top and 3" on walls. Inner walls and inner panel doors are made of stainless steel for maximum efficiency, protection, and durability. A roof fan is supplied and engineered to create uniform ventilation in the entire oven with adjustable vent for moisture exhaustion. Rod type heating elements proven for long durability and performance as standard fixtures. They can be supplied with drive-in carts or removable shelves. All of our ovens are typically customized to suit each customer's needs. Pans can be supplied as well.

SIZE	Available from: 2' x 2' x 2' (610mm x 610mm x 610mm) up to 8' x 6' x 7' (2438mm x 1829mm x 2134mm) (inside dimensions L x W x H).
	Bigger ovens will be produced upon customer's specifications.
POWER	3 Phase/60 cycle air ventilation motors standard.
	1 Phase and/or 50 cycle motors available.
	Available with trays or drive-in carts, etc...
	Please specify at time of ordering



The background of the image consists of several concentric circles in various shades of blue, creating a tunnel-like or ripple effect. The circles are centered on the right side of the frame and expand towards the left.

BOWLS AND GRINDING HEADS

DESCRIPTIONS OF MATERIAL COMPOSITIONS

We like to inform you with the composition of the different steels and other materials used in the manufacturing of jaws to help you choose the most suitable ones for your operations.

Alloy 1:

It is the most used for general purpose pulverizing (assaying), where the alloying elements of chromium and molybdenum do not affect the analysis. This material is very hard and tough and it is recognized to be the best for applications where abrasion and impact is the norm.

Alloy 2:

This steel is recommended in applications where molybdenum interferes in the analysis of the material that will be ground as it is the case in some geochemical work. It has the same hardness as alloy 1, 58-62 Rockwell but, because it does not have molybdenum it is somewhat less wear and abrasion resistant; approximately 10-25% upon the media to be ground.

Carbon steel:

This steel is fully hardened having a .65 - .75 carbon and a .60 - .90 manganese content. Since this steel is produced from ingots originating from mined ore and not from recycled steel, which notoriously has more contaminating elements, it is a highly recommended steel to minimize cross contamination.

COMPOSITION OF JAWS

Alloy 2

Chrome Steel

0.85 %	Manganese
1.5 %	Carbon
1.5 %	Silicon
12.0 %	Chromium
Remainder Iron	

Alloy 1

Chrome/Molybdenum Steel

0.85 %	Manganese
1.2 %	Molybdenum
1.5 %	Carbon
1.5 %	Silicon
12.0 %	Chromium
Remainder Iron	

Carbon Steel Composition

Au	< 0.15
Ag	< 0.4
Bi	< 11
C	0.3%
Cd	< 14
Co	< 240
Cu	< 300
Cr	< 320
Mg	< 500
Mn	< 9000
Mo	< 180
Ni	< 310
Pb	< 7
V	< 80
W	< 3
Zn	< 320

Unless otherwise specified, the amount indicated is in ppm (parts per million).

Manganese Steel	0.10	%	Nickel	Max.
	0.80	%	Silicon	
	1.20	%	Carbon	
	12.5	%	Manganese	
	Remainder Iron			

Manganese steel Grade ASTM 8128 is called a work hardening steel, meaning that it hardens as it gets impacted. The maximum hardness that it achieves is approximately 54-55 Rockwell C, and contrary to the other ones it will wear a relatively rough surface.

Tungsten Carbide	12.0	%	Cobalt
	88.0	%	Tungsten

1KG GRINDING BARREL

Our 1Kg Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Grinding Disc
- Lid

Available Compositions:

- Alloy 1
- Alloy 2
- Carbon Steel (1070)
- Cerami



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

2KG GRINDING BARREL

Our 2Kg Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Grinding Disc
- Lid

Available Compositions:

- Alloy 1
- Alloy 2



3X50ML TRAY

Increase your grinding efficiency with our tray that enables three 50mL Grinding Barrels to be used simultaneously on a single head pulverizer.



DRYING OVENS

BOWLS AND
GRINDING HEADS

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MACHINERY

SPARE PARTS

ACCESSORIES

4KG GRINDING BARREL

Our 4Kg Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Grinding Disc
- Lid

Available Compositions:

- Alloy 1
- Alloy 2



20ML GRINDING BARREL

Our 20mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- Ring
- Lid

Available Compositions:

- Alloy 1
- Alloy 2



DRYING OVENS

BOWLS AND
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SPARE PARTS

ACCESSORIES

50ML GRINDING BARREL

Our 50mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Grinding Puck
- Lid

Available Compositions:

- Alloy 1
- Alloy 2
- Tungsten Carbide
- Ceramic



100ML GRINDING BARREL

Our 100mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- Small Ring
- Lid

Available Compositions:

- Alloy 1
- Alloy 2
- Alloy 01
- Carbon Steel (1070)



DRYING OVENS

BOWLS AND
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ACCESSORIES

150ML GRINDING BARREL

Our 150mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- Ring

Available Compositions:

- Alloy 1
- Alloy 2
- Alloy 01
- Carbon Steel (1070)
- Tungsten Carbide
- Ceramic



250ML GRINDING BARREL

Our 250mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- Small Ring
- Large Ring
- Lid

Available Compositions:

- Alloy 1
- Alloy 2
- Alloy 01
- Carbon Steel (1070)
- Tungsten Carbide
- Ceramic



DRYING OVENS

BOWLS AND
GRINDING HEADS

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MACHINERY

SPARE PARTS

ACCESSORIES

250ML AUTOPULVERIZER GRINDING BARREL

GRINDING BARREL FOR 250ML XT1000 AUTOPULVERISER.

This grinding barrel has been designed for use specifically with our 250mL Autopulveriser.

- Components:
- Grinding bowl
- Large Ring
- Small Ring
- Puck
- Lid (Comes with either 2 holes or 3 holes depending on the model year of your machine)

Available compositions:

- Alloy 1
- Alloy 2-Alloy 01
- Carbon Steel (1070)



500ML GRINDING BARREL

Our 500mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- Disc
- Lid

Available Compositions:

- Alloy 1
- Alloy 2
- Carbon Steel (1070)



DRYING OVENS

BOWLS AND
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SPARE PARTS

ACCESSORIES

500ML AUTOPULVERIZER GRINDING BARREL

GRINDING BARREL FOR 500ML XT1000 AUTOPULVERISER.

This grinding barrel has been designed for use specifically with our 500mL Autopulveriser.

Components:

- Grinding bowl
- Grinding Disk
- Puck
- Lid (Comes with either 2 holes or 3 holes depending on the model year of your machine)

Available compositions:

- Alloy 1
- Alloy 2



1000ML GRINDING BARREL

Our 1000mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Puck
- 1000mL disc

***Our 1Kg disc is also compatible with this bowl**

Available Compositions:

- Alloy 1
- Alloy 2



DRYING OVENS

BOWLS AND
GRINDING HEADS

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MACHINERY

SPARE PARTS

ACCESSORIES

1500ML GRINDING BARREL

Our 1500mL Grinding Barrel Consists of the following Components:

- Grinding Bowl
- Grinding Disc
- Lid

Available Compositions:

- Alloy 1
- Alloy 2



ADAPTERS AND LOCATING DISKS

We have a wide range of adapters and locating disks that enable the use of various size grinding bowls on your pulveriser.



DRYING OVENS

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MACHINERY

SPARE PARTS

ACCESSORIES

PS1400 GRINDING BARREL

CRUSHERS

PULVERIZERS

SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

AUTOMATION



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OTHER MACHINERY

PRESSURE FILTER

- Indispensable to de-watering slurries and processing concentrates
- Cylinder and end plates made of stainless steel.
- Comes complete with pressure gauge and neoprene sealing rings
- Standard chamber size is 8" (203mm) diameter x 16" (406mm) long with any other sizes quoted upon request.
- Heavy-duty frame made of wheelabrated/primed steel and painted.
- Available with wheels for storage when not in use.



HIGH EFFICIENCY SHAKER/VIBRATOR FOR WS TYLER SCREENS

This extremely effective and efficient screener outperforms any existing vibrating/ shaker screen.

Other features:

- Can be used with as many as 20 Tyler screens
- Available in 220 Volt, single phase, 50 or 60 Hertz
- Pneumatic clamping at 70PSIG to avoid warping covers, sieves or pans and for quick unit change outs
- One unit can keep two men occupied
- Complete with timer to set sieving cycles
- Balanced vibration for quiet non-wandering operations
- Can be adapted for lab bench mounting
- Shaker frame set up for single or double metallics assay screening.-Alloy 1
- Alloy 2



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

SCREENERS SINGLE AND MULTIPLE LEVELS

CRUSHERS

PULVERIZERS

SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

AUTOMATION

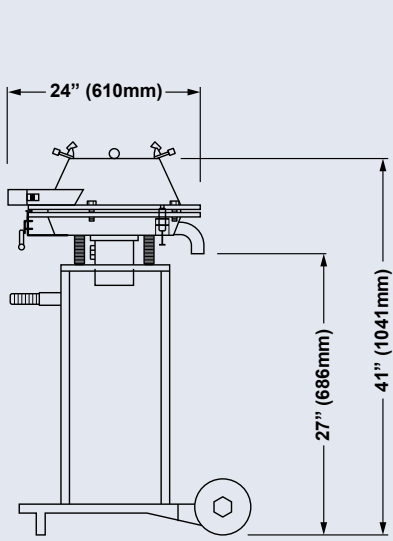


Screener 450/600 Technical Specifications

WEIGHT :	156lb (71Kg) - 450 MODEL 251 (114Kg) - 600 MODEL
POWER :	SINGLE OR THREE PHASE 50 Hz OR 60 Hz MOTORS ARE STANDARD 110V OR 220V OTHER VOLTAGES AVAILABLE UPON REQUEST PLEASE SPECIFY WHEN ORDERING
SIZE RANGE :	Ø24" (609.6mm) OR Ø36" (914.4mm)
AVAILABLE SCREENS:	-20 TO -325MESH
EXTRAS :	EXTRA SCREENS FOR STACKING WITH SELF UNCLOGGING DEVICES

DIMENSIONS :

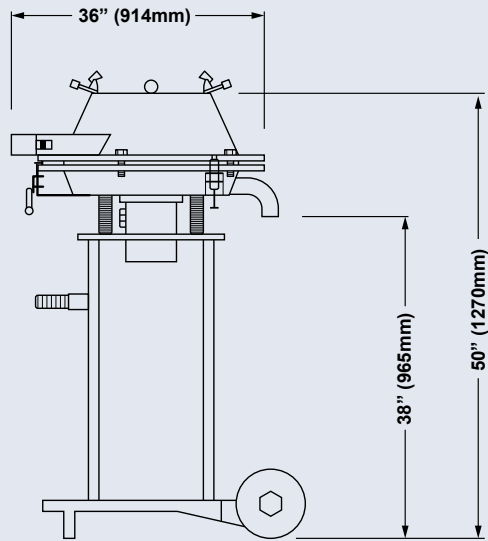
NOTE:
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SCREENER 450

24" (609.6mm) DIAMETER

SIDE VIEW



SCREENER 600

36" (914.4mm) DIAMETER

SIDE VIEW

DRYING OVENS

BOWLS AND
GRINDING HEADS

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MACHINERY

SPARE PARTS

ACCESSORIES

SOFT MATERIAL GRINDERS

CRUSHERS

PULVERIZERS

SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

AUTOMATION

Our standard unit is ideal for reducing medium to soft materials such as grass, pellets, compressed fibers, straw, peat, husks, feedstuffs, spices, hops, wood, tobacco, paper, soft ore etc. It comes with 3 adjustable knives which can be re-sharpened when needed. The easy to remove screens are available in various sizes to satisfy any mesh requirements. It is a heavy-duty constructed unit that is designed to be basically maintenance-free. The sample container is simple to remove and replace and a manual on/off switch and overload protection included.

We also have a Miniature Soft Material Grinder which is ideal for grinding soil, clay, earth material, soft coal, etc. It is supplied with a dual stage feeding hopper designed to eliminate dust from escaping. Its grinding chamber is 5" (127mm) diameter x 3" (76mm) deep. It has a grinding capacity of between 20 and 200 grams. It has a manual on/off switch.



HOMOGENIZER

This piece of equipment is for round containers or bottles and is the simplest and most economical way to homogenize any material. The rollers operate at 100 revolutions per minute and are set at 6" (150 mm) center to center. The standard size is 8 rollers by 36" (914mm) long. It is a very reliable, quiet, inexpensive, and easy to use unit. It can easily be supplied in different dimensions, speeds, rollers etc. We have even customized it to be dual level for some customers.

- The simplest and most economical way to homogenize any material.
- Very reliable, very quiet and inexpensive.
- Available with 1, 2, or 3 levels
- Can be made with an adjustable or permanent tilt of up to 15 degrees



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

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SPARE PARTS

DESCRIPTIONS OF MATERIAL COMPOSITIONS

We like to inform you with the composition of the different steels and other materials used in the manufacturing of jaws to help you choose the most suitable ones for your operations.

Alloy 1:

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Alloy 2:

This steel is recommended in applications where molybdenum interferes in the analysis of the material that will be ground as it is the case in some geochemical work. It has the same hardness as alloy 1, 58-62 Rockwell but, because it does not have molybdenum it is somewhat less wear and abrasion resistant; approximately 10-25% upon the media to be ground.

Carbon steel:

This steel is fully hardened having a .65 - .75 carbon and a .60 - .90 manganese content. Since this steel is produced from ingots originating from mined ore and not from recycled steel, which notoriously has more contaminating elements, it is a highly recommended steel to minimize cross contamination.

COMPOSITION OF JAWS

Alloy 2

Chrome Steel

0.85 %	Manganese
1.5 %	Carbon
1.5 %	Silicon
12.0 %	Chromium
Remainder Iron	

Alloy 1

Chrome/Molybdenum Steel

0.85 %	Manganese
1.2 %	Molybdenum
1.5 %	Carbon
1.5 %	Silicon
12.0 %	Chromium
Remainder Iron	

DRYING OVENS

BOWLS AND GRINDING HEADS

OTHER MACHINERY

SPARE PARTS

ACCESSORIES

Carbon Steel Composition

Au	< 0.15
Ag	< 0.4
Bi	< 11
C	0.3%
Cd	< 14
Co	< 240
Cu	< 300
Cr	< 320
Mg	< 500
Mn	< 9000
Mo	< 180
Ni	< 310
Pb	< 7
V	< 80
W	< 3
Zn	< 320

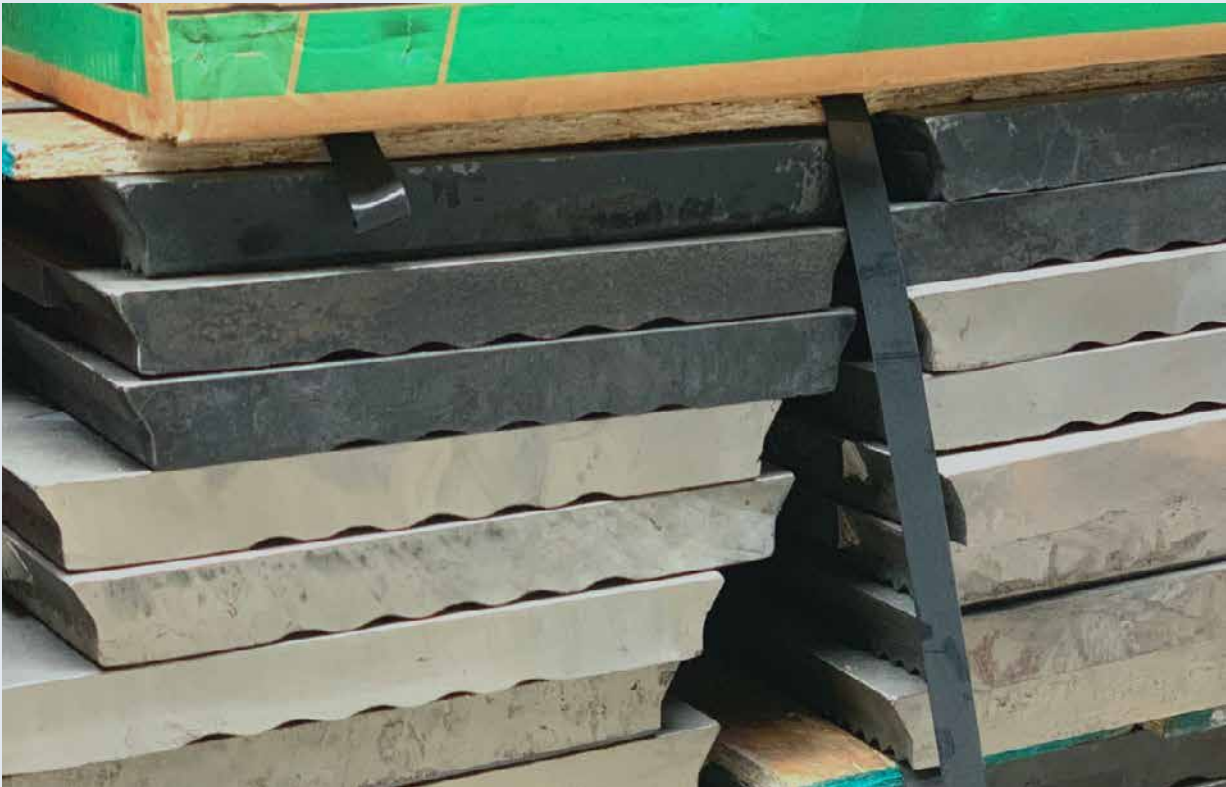
Unless otherwise specified, the amount indicated is in ppm (parts per million).

Manganese Steel	0.10	%	Nickel	Max.
	0.80	%	Silicon	
	1.20	%	Carbon	
	12.5	%	Manganese	
	Remainder Iron			

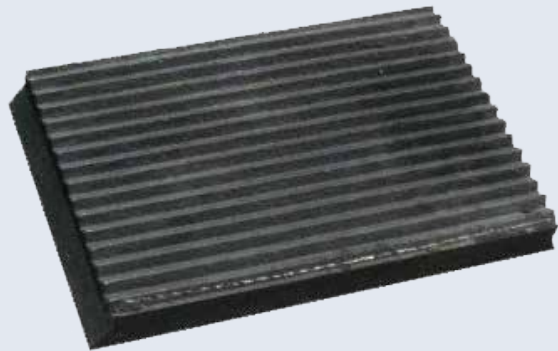
Manganese steel Grade ASTM 8128 is called a work hardening steel, meaning that it hardens as it gets impacted. The maximum hardness that it achieves is approximately 54-55 Rockwell C, and contrary to the other ones it will wear a relatively rough surface.

Tungsten Carbide	12.0	%	Cobalt
	88.0	%	Tungsten

JAWS



SMOOTH



SERRATED

DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

ECCENTRIC SHAFTS

CRUSHERS

PULVERIZERS

SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

AUTOMATION



AIR BAGS

It's recommended to keep critical components on hand to reduce downtime when machines are undergoing maintenance or repairs.

We supply air bags for all of our pulverizer and air hoist models. Refer to your manual or contact the factory about ordering the correct model for your machine.



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

PINCH VALVES

CRUSHERS

TM ENGINEERING PINCH VALVE

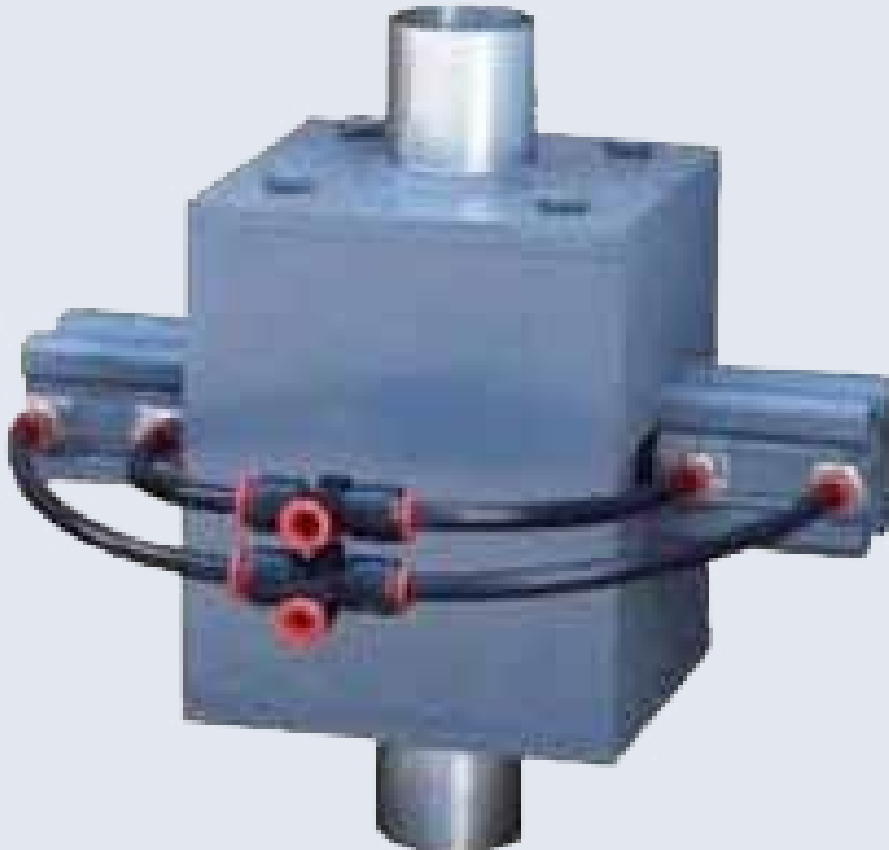
The best valve for flow control of liquids, powders, and solid, abrasives etc... proven through millions of operations without failure.

This model is the most efficient way to maximize life/durability of rubber sleeve.

PULVERIZERS

Suitable for applications in chemical, pulp & paper, mining, wastewater - sewer, food & pharmaceutical, cement, sand, silica, oil & gas, manure handling, tanneries, refineries, pneumatic conveying... and more.

Available with mechanical actuator. The sizes currently available are $\varnothing 1''$ (25.4mm) and $\varnothing 1.5''$ (38.1mm) sizes. For special sizing, please contact factory.



SPLITTERS AND DIVIDERS

ROD AND BALL-MILLS

SCALPERS

AUTOMATION

The background of the page features a series of concentric, overlapping circles in various shades of blue, creating a dynamic, tunnel-like effect that draws the eye towards the center. The circles are centered on the right side of the page, with the largest circle being the darkest blue and the smallest being the lightest blue.

ACCESSORIES

SCOOPS AND MIXING TRAYS

We supply scoops in various shapes and sizes to suit your application

CRUSHERS

PULVERIZERS

SPLITTERS AND
DIVIDERS

ROD AND BALL-
MILLS

SCALPERS

AUTOMATION



STAINLESS STEEL CUPEL TRAYS

Cupel trays are used to keep cupels in proper order before and after the cupellation process. Our cupels trays can be made to suit your needs.



DRYING OVENS

BOWLS AND
GRINDING HEADS

OTHER
MACHINERY

SPARE PARTS

ACCESSORIES

TERMINATOR TOOL KIT

Two tool kits are available for carrying out maintenance on your Terminator Jaw Crusher:

- **KIT 1:** Tools for removing offset hubs, including custom bolts and sockets.
- **KIT 2:** Includes all of kit #1 plus 9 other tools to ease machine repairs when required (See picture)





T.M. Engineering Ltd.

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V5A 4T2, Burnaby, BC
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e : info@tm-engineering.com

w : www.tm-engineering.com

