



MASABA
PRODUCT CATALOG



OUR MISSION:
Design & Build Rugged Equipment for the World.

OUR STORY

Harold Higman Sr. founded Higman Sand & Gravel in 1939. Since equipment was hard to come by and times were tough, he had to be innovative in his approach, and consequently designed much of his own equipment. Harold Higman Jr. incorporated what he learned from his father and began building equipment tough enough to withstand the everyday abuse of quarries and mining environments.

Harold's son Jerad moved back in 1999 with a vision to create something special in the industry. With a degree in mechanical engineering and having grown up working side-by-side with his father and grandfather, he learned what it takes to build the most rugged equipment in the industry.

In 2000, Jerad built a new 20,000 sq. ft. facility to grow the business. As the MASABA brand expanded and the company continued to grow, a new 100,00 sq. ft. state of the manufacturing facility was built in Vermillion, South Dakota.

As MASABA's Magnum line and engineering department grew, a 60,000 sq. ft. addition was added to the building in 2008. An additional 51,000 sq. ft. was added in 2012, housing one of the largest sandblast and paint booths in the tri-state area, along with new machining centers and fabrication equipment.

Having everything under one roof, the now 211,000 sq. ft. facility allows MASABA to control everything from start to finish and build quality into every project.

As international business grew, MASABA Canada was formed and a new 30,000 sq ft manufacturing plant was built in Ontario, Canada.

MASABA has built a world class team to design and build rugged equipment for the world. We know what it takes to build equipment that not only works, but lasts!



OUR CORE VALUES:

- » Customer Driven
- » Accountable
- » Team Focused
- » Civic Minded
- » High Character

MASABA



1939	1999	2005	2008	2012
Harold Higman Sr. founded Higman Sand & Gravel	Jerad Higman becomes CEO of MASABA	Brand new 100,000 sq. ft. facility built in Vermillion, SD	Additional 60,000 sq. ft. added to the facility	51,000 sq. ft. added for new blast and paint booth.

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MAGNUM

TELESCOPING CONVEYOR



Magnum Telescoping Radial Stacker

THE MOST RUGGED TELESCOPING CONVEYOR IN THE WORLD

Masaba's Magnum Telescoping Conveyor is the safest, most rugged telescoping conveyor on the market. Our patented design provides constant engagement and smoother operation of the stinger, improving long term durability with minimal annual maintenance required.

Ranging from 100 feet to 195 feet, we have a Magnum to suit your needs. Custom solutions are our strong suit. If one of our standard Magnums does not suit your need, we will custom engineer one for you.

WORLD-CLASS AUTOMATION

Masaba's Programmable Logic Control (PLC) with large color touchscreen HMI provides easy interaction and high visibility. The PLC, in conjunction with variable speed wheel drives creates the highest quality desegregated piles. Three encoders work with the PLC to accurately locate X, Y, and Z locations of the head pulley. Four customizable programs enable users to choose their stockpile preference.



MASABA'S PATENTED TRACK DRIVES

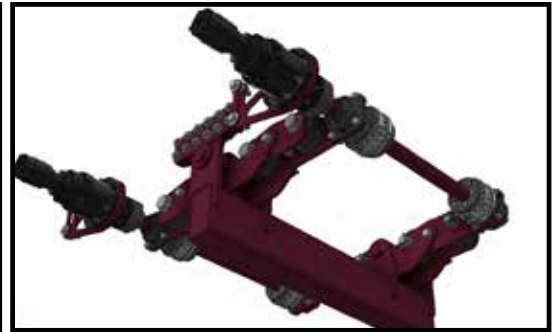
MAGNUM
TELESCOPING CONVEYOR

- Masaba's patented designs provide constant engagement and smoother operation of the stinger, improving long term durability with minimal annual maintenance required.
- No cable maintenance issues associated with winch systems - eliminates danger of cable breakage and uncontrolled rollback.
- Masaba's load roller supports assure equal load distribution on all support rollers, minimizing fatigue stress on critical components.



GEN2 SINGLE DRIVE

Single Gearbox with Mechanical Brake
QD Bushed Pin Hubs w/ Hardened Pins
Keyed & Press Fit Gearbox Connection
Four Maintenance Free Support Rollers



GEN2 DUAL DRIVE

Dual Gearbox with Mechanical Brake
QD Bushed Pin Hubs w/ Hardened Pins
Keyed & Press Fit Gearbox Connection
Eight Maintenance Free Support Rollers

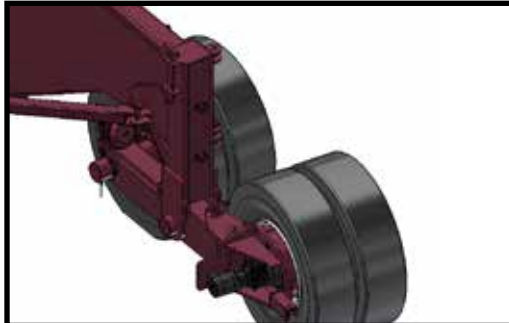
MAGNUM
TELESCOPING CONVEYOR

AXLE/DRIVE UNDERCARRIAGE OPTIONS

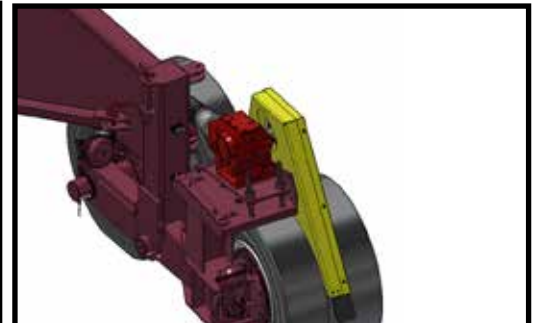
Masaba offers multiple axle drive system configurations to suit your needs in the field.



Folding Axle



Swing Axle with Hydra Shift



Swing Axle with Chain & Sprocket Drive

- Masaba's Folding Axle (FA)** allows for easy transition between operation and travel positions. Both axles can be hydraulically raised or lowered independently or at the same time, simplifying the leveling process. FA axles are available in both 2 and 4-wheel drive models.
- The Hydra Shift** option simplifies the setup process and reduces maintenance time by removing the chain and sprockets. Hydra Shift allows the operator to engage and disengage the drive simply by flipping a lever on the hub.
- The Swing Axle (SA)** system provides the widest and most stable radial footprint in the industry. A Variable Speed wheel drive allows for even distribution of material in-pile for fully desegregated stockpiles. An optional 4-wheel drive system ensures positive traction in the field.





Low Profile (LP) vs. High Profile (HP)

MAGNUM STANDARD CONFIGURATIONS - LOW PROFILE W/FOLDING AXLE							
Conveyor Length	100'	110'	130'	140'	150'		
Belt Width (Inches)	36	36	36	36	30	36	42
Capacity (TPH)	800	800	1000	1000	500	1000	1500
Operational Dimensions							
Max Discharge Height	33' 6"	40' 6"	41' 8"	43'	46' 3"	46' 3"	46' 3"
Pile Volume in Tons (@100 PCF)							
90°	12,900	18,400	28,800	37,200	46,600	46,600	46,600
180°	23,100	32,900	51,600	66,500	83,400	83,400	83,400
270°	33,400	47,500	74,400	95,900	120,100	120,100	120,100

LPFA = Low Profile Fold Axle LPSA = Low Profile Swing Axle HPSA = High Profile Swing Axle

Tracked Tugger option available upon request. Pit portable configurations available.

MAGNUM STANDARD CONFIGURATIONS - HIGH PROFILE W/SWING AXLE												
Conveyor Length	130'			150'				170'			190'	
Belt Width (Inches)	36	42	48	30	36	42	48	36	42	48	36	42
Capacity (TPH)	1000	1500	2000	800	1000	1500	2000	1000	1500	2000	1000	1500
Operational Dimensions												
Max Extended Discharge Height	47' 8"	47' 6"	49'	52' 4"	52' 4"	51' 4"	51' 6"	60' 7"	57' 9"	58' 3"	63' 11"	66' 5"
Pile Volume in Tons (@100 PCF)												
90°	36,600	36,600	36,700	52,100	52,100	52,100	53,100	73,100	73,100	71,800	104,000	104,000
180°	65,100	65,100	65,100	92,700	92,600	92,600	94,500	129,800	129,800	127,300	184,800	184,800
270°	93,500	93,500	93,600	133,200	133,200	133,200	135,900	186,400	186,400	182,700	265,500	265,500

Custom Magnums Available. Contact us for details.



36x100 Swing Axle



42x190 Folding Axle



36x190 Swing Axle



42x170 Swing Axle

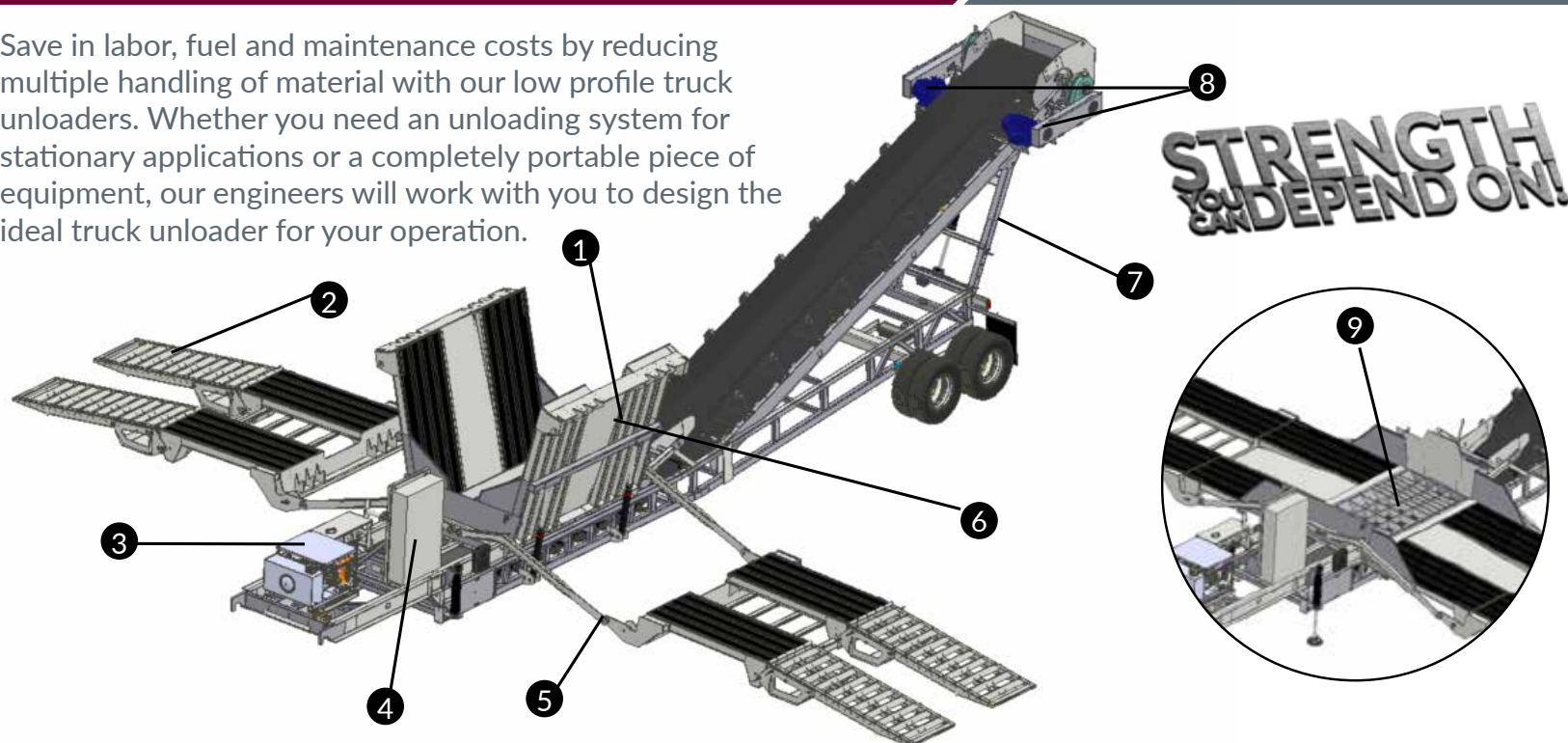


36x150 Swing Axle



Low Profile Truck Unloaders

Save in labor, fuel and maintenance costs by reducing multiple handling of material with our low profile truck unloaders. Whether you need an unloading system for stationary applications or a completely portable piece of equipment, our engineers will work with you to design the ideal truck unloader for your operation.



- | | | |
|--------------------------------------|------------------------------------|--|
| 1. Self cleaning hydraulic ramps | 4. NEMA 4 control panel | 7. Hydraulically adjustable discharge height |
| 2. Extended ramp option | 5. Optional self-deploying ramps | 8. Class II dual drives |
| 3. Electric auxiliary hydraulic pump | 6. Heavy duty steel ramps to grade | 9. Removable drive-over grate |



Optional Self-Deploying Ramps

Hydraulic system saves you time and steps in deploying the ramps.



Discharge Hood

with AR liners to feed 36" belt width or greater.



Wireless Remote Control

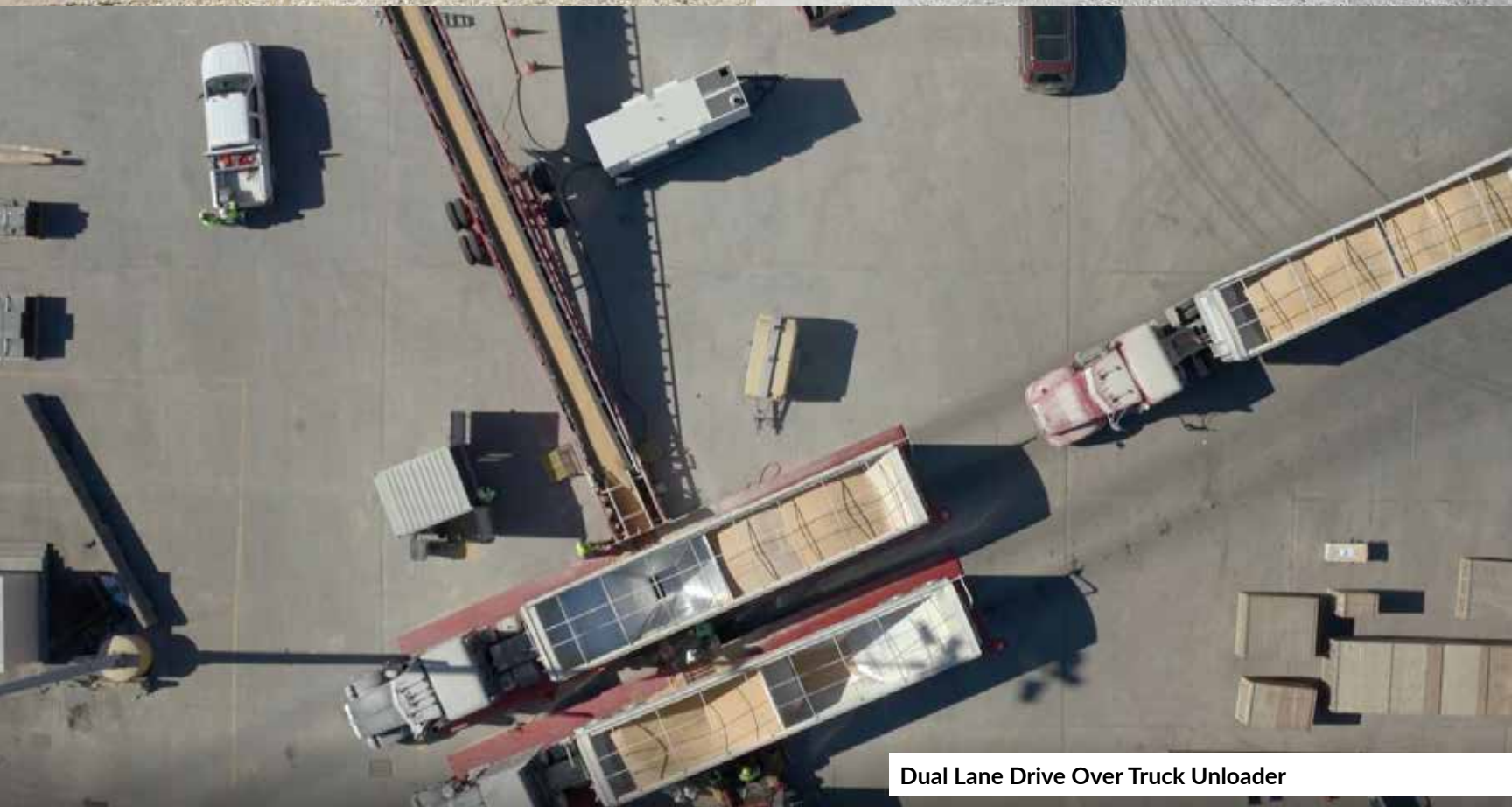
Easily cycle your ramps from the comfort of your cab.



Stationary Truck Unloader



72" Truck Unloader



Dual Lane Drive Over Truck Unloader



Side Dump Truck Unloader



Custom Portable Truck Unloader w/ Cover



Ports & Terminals

PAIRED FOR MAXIMUM PERFORMANCE

Pair Masaba's Truck Unloader with our rugged Magnum Telescoping Conveyor for customizable automation to maximize your output and performance. Our custom configurations offer the mobility needed for ship loading systems, providing significant cost savings and flexibility over a permanent, fixed system. Masaba has YOUR solution!





Ports & Terminals



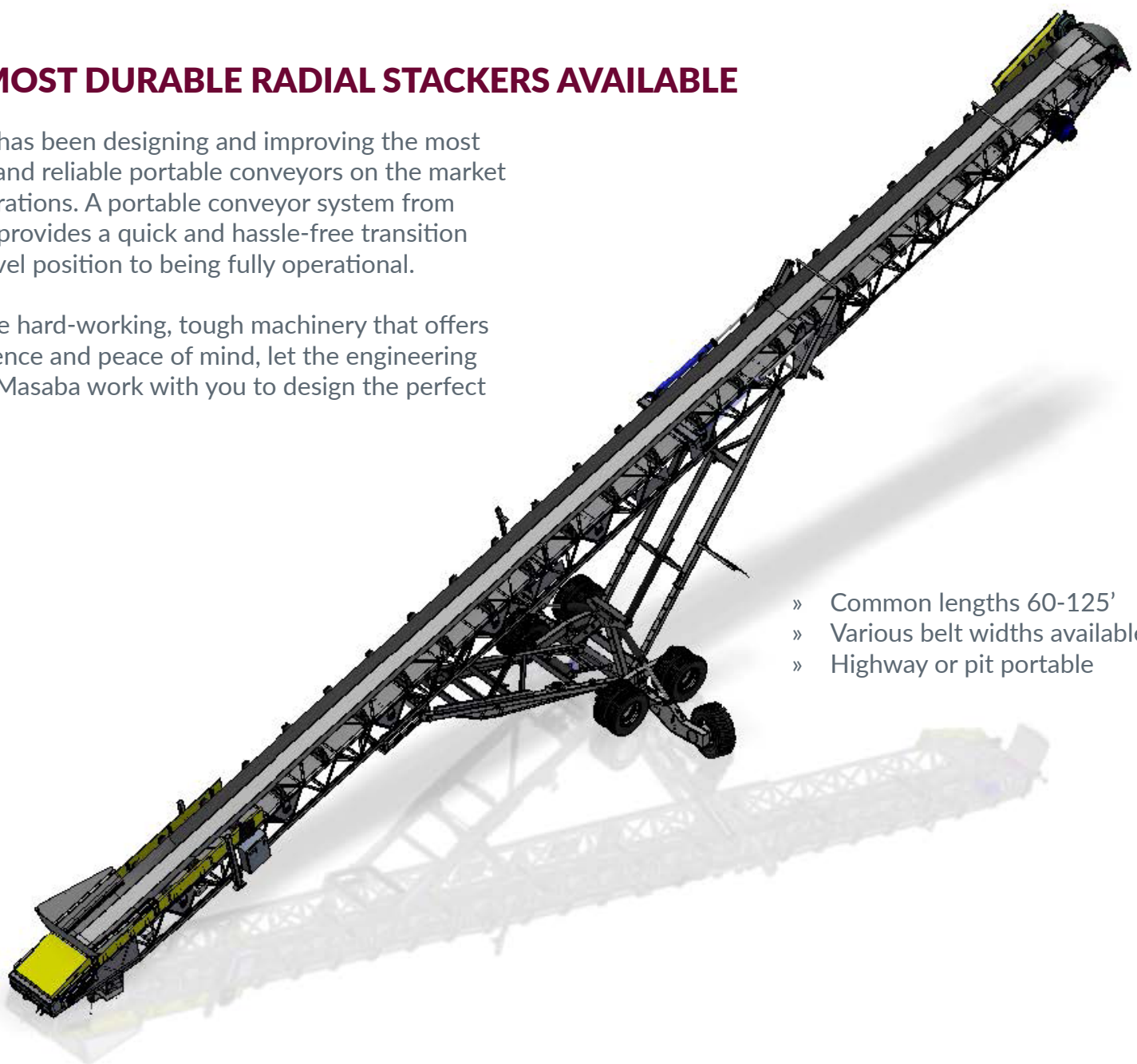


Portable Radial Stacking Conveyors

THE MOST DURABLE RADIAL STACKERS AVAILABLE

Masaba has been designing and improving the most durable and reliable portable conveyors on the market for generations. A portable conveyor system from Masaba provides a quick and hassle-free transition from travel position to being fully operational.

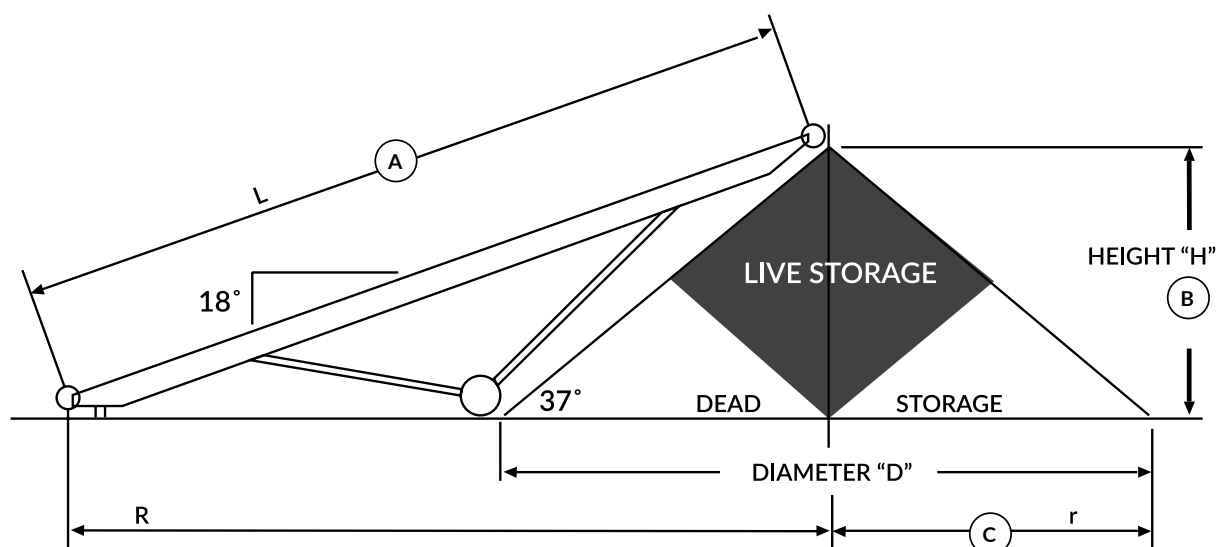
If you like hard-working, tough machinery that offers convenience and peace of mind, let the engineering team at Masaba work with you to design the perfect solution.



- » Common lengths 60-125'
- » Various belt widths available
- » Highway or pit portable



Pile Volume of Radial Stacker Base Model Configurations



STOCKPILE VOLUME (TONS BASED ON 100#/CU. FT. OF MATERIAL, CONVEYOR INCLINE 18°, STOCKPILE ANGLE OF REPOSE 37°)				
(A) Conveyor Length	60'	80'	100'	125'
(B) Maximum Pile Height	20' 4"	27.5'	32.5'	39.5'
(C) Stockpile Radius	27'	36.5'	43'	52.5'
Conical Pile Volume (Tons)	783	1,918	3,145	5,714
90°	3,339	8,020	13,819	25,066
180°	5,895	14,122	24,493	44,414
270°	8,451	20,224	35,167	63,764
Each Degree of Arc Rate	28.4	67.8	118.6	215

Formula for Pile Volume:

(Degree of Arc Rate * Degree of Arc) + Original Conical Pile Tonnage = Total Pile Volume

Example of 60' Conveyor with 105° arc:

$(28.4 \times 105) + 783 = 3,765$ Tons

Live storage at center of pile is theoretically 25% of total volume.

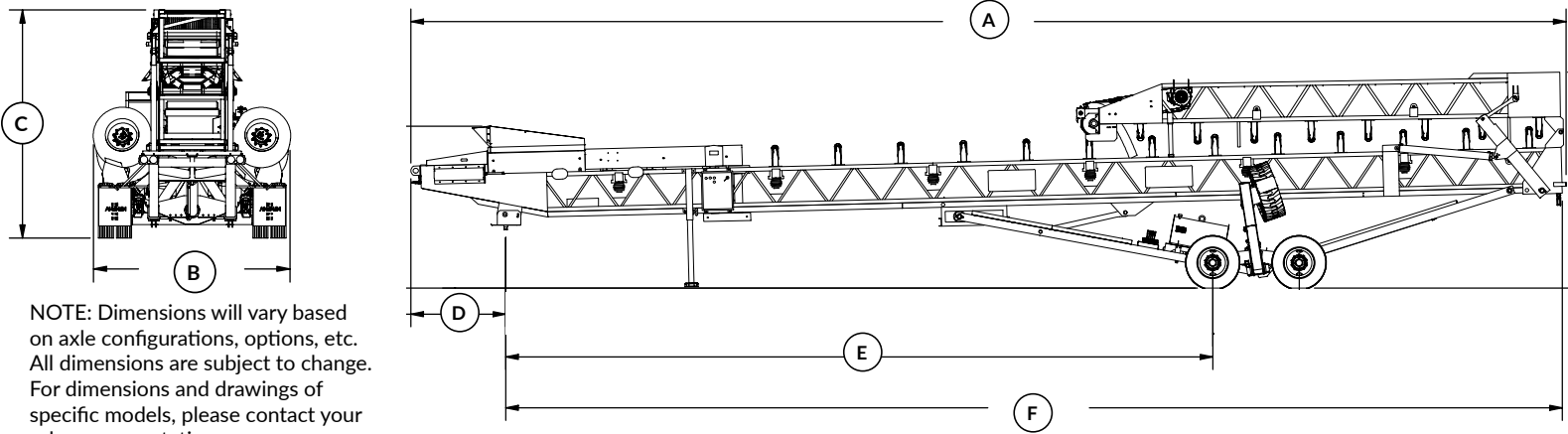
CAPACITY

TPH Based on 100 PCF 400 FPM

» 30" Belt = 500 TPH

» 36" Belt = 750 TPH

Travel Dimensions of Portable Radial Stacking Conveyors



TRAVEL DIMENSIONS (BASED ON 36" BELT WIDTH)						
Conveyor Length	60'	80' no fold	80' head fold	100' head fold	100' FA head fold	125' FA axle dual fold
(A) Total Length	63' 2.5"	84' 8.5"	68'	80' 2"	73' 6.5"	70' 10.5"
(B) Width	11' 10"	11' 11"	11' 11.5"	11' 11.5"	11' 11"	11' 11.5"
(C) Height	12'	13' 8.5"	14' 1"	14' 1"	13' 9"	13' 11"
(D) Kingpin to End of Tow Eye	3' 9.5"	5' 7.5"	4' 10.5"	5' 10"	6'	3' 5.5"
(E) Kingpin to Axle	29' 8.5"	39' 3"	42' 7.5"	49' 8.5"	45'	30' 9.5"
(F) Kingpin to Conveyor End	59' 4.5"	79' 1.5"	63' 7.5"	74' 5.54"	67' 3"	67' 5.5"
Axle Weight (lbs.)	8,000	17,430	16,700	20,000	25,000	38,400
Kingpin Weight (lbs.)	1,000	1,070	4,690	4,700	6,500	7,300

Additional conveyor lengths available upon request.



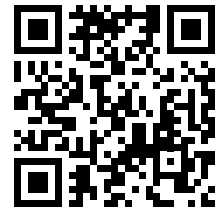


Roll-Off & Stackable Conveyors

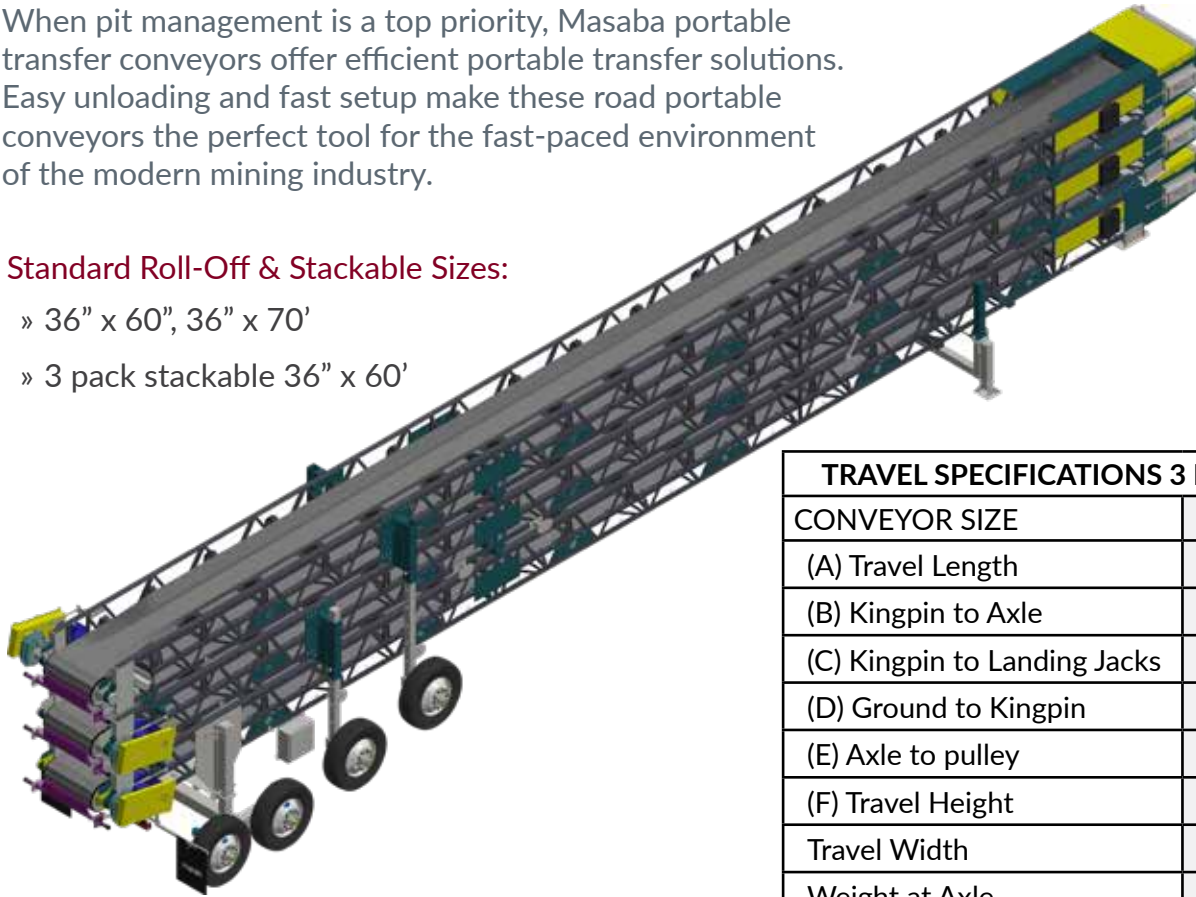
When pit management is a top priority, Masaba portable transfer conveyors offer efficient portable transfer solutions. Easy unloading and fast setup make these road portable conveyors the perfect tool for the fast-paced environment of the modern mining industry.

Standard Roll-Off & Stackable Sizes:

- » 36" x 60", 36" x 70'
- » 3 pack stackable 36" x 60'



Scan the QR code to watch a video on the ease of unloading a Masaba 3-pack.



TRAVEL SPECIFICATIONS 3 PACK ROLL-OFF TRANSFERS		
CONVEYOR SIZE	36" x 60'	36" x 70'
(A) Travel Length	63' 1.5"	73' 6"
(B) Kingpin to Axle	40' 2.5"	60' 1"
(C) Kingpin to Landing Jacks	8' 5.5"	7' 5"
(D) Ground to Kingpin	4' 2"	4' 2"
(E) Axle to pulley	19' 4"	8' 5.5"
(F) Travel Height	13' 6"	13' 2"
Travel Width	11' 11"	10' 11"
Weight at Axle	28,600 lbs	23,900 lbs
Weight at Kingpin	11,300 lbs	16,200 lbs





Custom Conveyors

Designed for long distances or permanent operations, Masaba Custom Conveyors are built with various options for your needs. We offer channel type and truss type conveyors.

Custom engineered for any distance or application, our stationary conveyors will fit your needs. Our stationary conveyor options can be perfect for limited footprint areas, like inside structures or hard-to-reach stockpiles.





Bins, Hoppers & Feeders



Masaba's Portable Bin Plants are equipped with triple-axle chassis & are completely portable. Each 9' x 14' hopper is easily detachable to eliminate unnecessary transportation costs and allow for maximum mobility. Optional 4th bin available. 30" conveyor belt width available in 60', 70' & 85'.

Masaba Feeders are designed with self-cleaning grizzly bars to keep material flowing and eliminate build-up. Complete your crushing and screening operation by maximizing output with Masaba bins, hoppers and feeders.





Crushing Plants

Masaba portable crushing plants are fabricated with pit portable and road portable chassis, giving you the strength and versatility you need for your application.

We can standardize your portable crushing plant with industry leading components and we can build a fully customizable plant and mount any crusher.

Some of our crushing plants include:

- » Jaw Plants » HSI Plants
- » Cone Plants » VSI Plants





Screen Plants



For convenient and reliable material sorting, you can't beat a Masaba Portable Screen Plant. For precision screening, mobility and efficiency combined with Masaba's proven strong chassis, our engineers work with you to determine the best solution for the rugged needs of your operation. Our portable screen plants are built on a heavy duty wide flange beam chassis to endure the toughest materials.

Standard Screen Sizes:

- » 6x20 » 8x20
- » 7x20 » Single and Dual Screen Plants Available



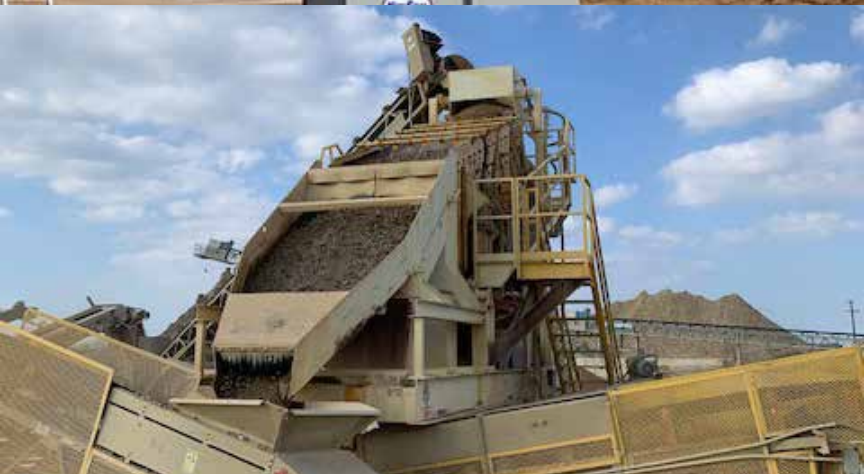


Wash Plants & Sand Screws

Process your aggregate material wherever the opportunity exists with a Masaba portable or stationary Wash Plant. Your Masaba Washing and Screening Plant will combine the efficiency and productivity of custom sand screws and washing components with the proven toughness and durability of Masaba chassis and conveyors.

» **Standard Sizes:**

- » 5x16 over single 36" screw
- » 6x20 over twin 36" screw
- » 6x20 over twin 44" screw





Custom Plants



OUR SOLUTIONS

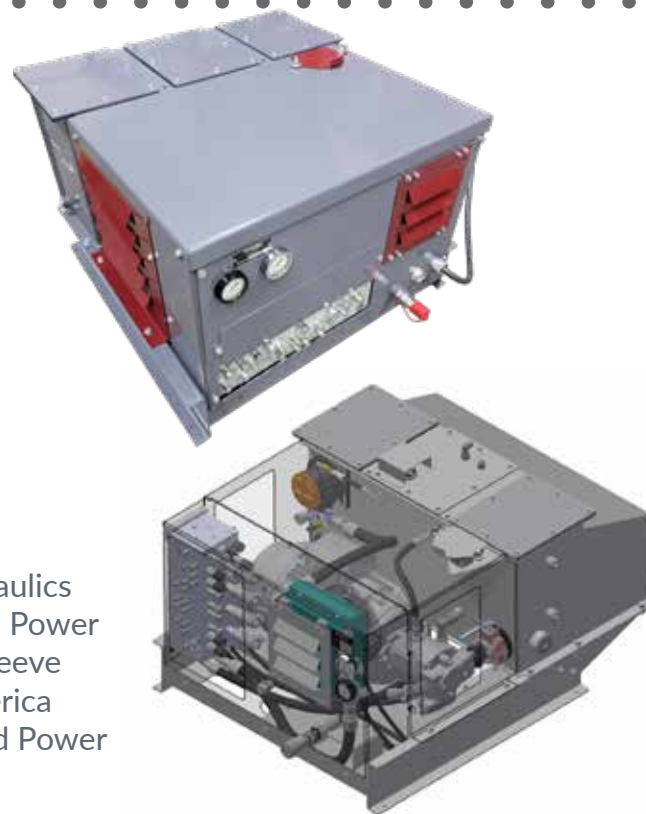
Masaba's engineers analyze, calculate, design and build custom hydraulic systems to fit your specific needs. With more than 25 years of experience and in-house capabilities, we have the expertise necessary to be your full-service provider of hydraulic systems. We provide engineered design, fabrication, assembly and testing, technical support and troubleshooting to solve your problems quickly.

COMPONENTS

Masaba Hydraulics partners with the most reliable companies in the industry to provide you with the best components in the market.

A sampling of our trusted vendors:

- | | | |
|-------------------------|--------------------------|-----------------------|
| » Air-Way Manufacturing | » Galtech | » Prince Hydraulics |
| » ASA Hydraulik | » Hartmann Controls, Inc | » Source Fluid Power |
| » Brennan Industries | » Hydro Control | » Suburban Sleeve |
| » Continental ContiTech | » MP Filtri | » Valvole America |
| » Custom Hoists | » Parker Hannifin Gear | » Walvoil Fluid Power |
| » DMIC | Pumps and Motors | |



TESTING CAPABILITIES

- » 30 HP VFD controlled 3.00 in³/rev, 4500 PSI load sense piston pump
- » 30 HP VFD controlled for auxiliary testing of assembled systems
- » 5000 PSI, 32 GPM, proportionally controlled five station load testing manifold
- » Contamination monitoring of particulates and water
- » HMI control for manual and automated testing and display pressures flows:
 - » 12 Volt DC controls: (12) proportional - 6 Off/On outputs
 - » 24 Volt DC controls: (22) proportional - 18 Off/On outputs
 - » 115 Volt AC Controls: (9) Off/On outputs
- » Manifolds to test and set many industry standard cartridge valves

Complete Engineered System Design of Hydraulic Circuits

- » Fixed delivery open loop
- » Variable volume pressure compensated open loop
- » Load sense pressure compensated open loop
- » Horsepower limiting circuits
- » Variable volume closed loop

Fabrication & Assembly of Hydraulic Systems

- » Prime mover options:
 - » Diesel Engine
 - » Gas Engine
- » Hydraulic Integrated Circuits (HICs)
- » Industrial and Mobile Valve Assemblies
- » Electric Motor - AC/DC Operation
- » Hose Assembly, Labeling and Kitting





Parts, Service and Support

A PROMISE OF SERVICE

Top notch customer support is something we strive to achieve every day with our partners in all aspects of our business relationships.

At Masaba, we stand behind our new equipment with a five-year structural and two-year component warranty. We are committed to providing our customers with the best products and product support available in the market today.

ON-SITE SUPPORT

Our experienced field service team and dealer representatives provide on-site support for your operation. As a committed service provider, we understand how to provide you with better process performance, improved productivity, maximum plant availability, reliable equipment performance, effective preventive maintenance and improved safety.

PARTS

We know your business demands more than just a quality product. That's why you can count on Masaba. Backed by large inventories of parts maintained in our warehouse and at various dealer locations, we work hard to ensure minimal downtime when you need to replace a part. Contact the Masaba parts department for wears, spares and replacement parts for your Masaba equipment.

- | | |
|---|------------------------------|
| » Bearings | » Idlers |
| » Belt Scrapers | » Kolman Screen Parts |
| » Bushings | » MASABA "Brute" Jacks |
| » Conveyor Belts | » Power Drives |
| » Electrical Components | » Pulleys |
| » Guards (Manufactured by Masaba to Specifications) | » Self-Contained Power Units |
| » Gear Boxes | » V-Belts |
| » Hydraulic Cylinders | |



5 Year Complete Structural
2 Year Complete Equipment
WARRANTY

CONTACT US

Masaba Corporate Headquarters
1617 317th Street | PO Box 345
Vermillion, SD 57069

SALES

1-877-627-2220
1-605-624-9555
info@masabainc.com

PARTS

1-605-658-8948
parts@masabainc.com

SERVICE & SUPPORT

1-605-670-9496
CustomerCare@masabainc.com

MASABA

1617 317TH STREET
PO BOX 345
VERMILLION, SD 57069



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Masaba Corporate Headquarters

1617 317th Street | PO Box 345
Vermillion, SD 57069
Toll Free: 877-627-2220
Direct: 605-624-9555
Fax: 605-624-9555



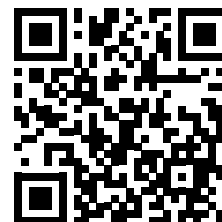
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Masaba Canada

827501 Grey Rd. 40
Blue Mountains, Ontario N0H 1J0
Phone: 519-599-3100
Fax: 519-599-0999