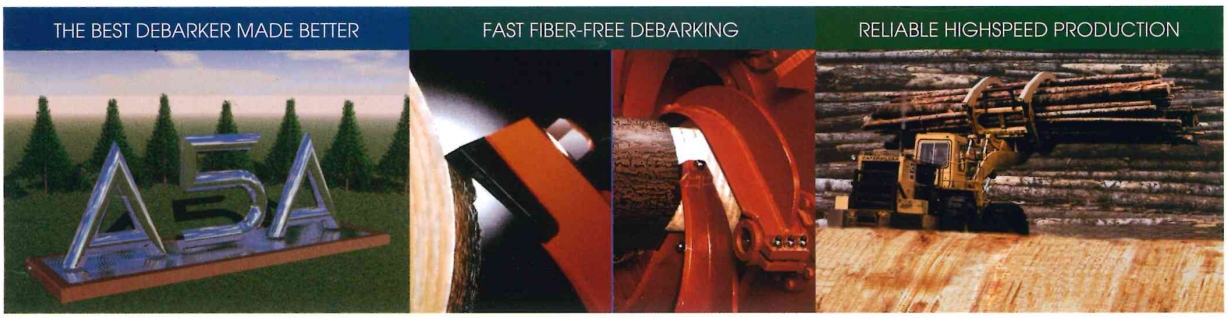
A5A INFEED VIEW



THE **A5 A**DVANCED

The Nicholson **A5A** is the next generation of tough, simple and fully automatic highspeed debarkers. The **A5A** incorporates all the hundreds of engineering developments made over the life of the highly successful A5 series, and adds important new features like extensive feedroll access barriers, standard log restraint tunnels and more.

PROVEN WORLDWIDE

A5A technology has been proven year after year in hundreds of multi-shift mill installations around the globe. No other highspeed debarker can offer this level of worldwide testing and development.

Do you need verifiable performance figures for your specific application before deciding on a debarker? We can offer you hundreds of real case histories, not just promises.

THE RING IS THE THING

Of the many ways to debark logs, including drums, rosserheads and flails, only the Nicholson **A5A** ring debarker gives you clean debarking, high production and advanced fiber saving technology.

Using a rotating ring with up to six knife arms, the **A5A** smoothly separates the bark from the log at the cambium layer without removing valuable fiber.

SMALLER MEANS FASTER

Log supplies today are often small diameter material. You must now process more logs to reach your total wood volume needs.

For example, it takes twenty-five 6-inch diameter logs to equal the gross wood volume of a single 30-inch diameter log. Those twenty-five 6-inch logs also have five times more bark area than the single 30-inch log.

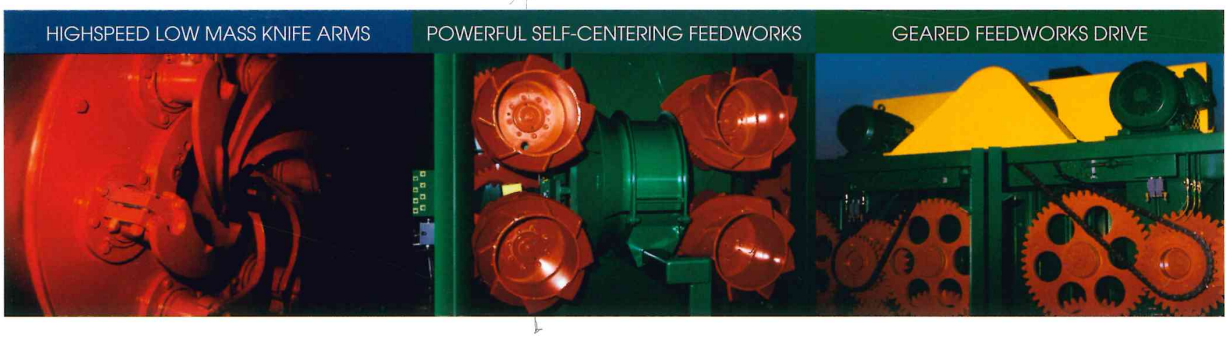
HIGH SPEED & PROFIT

Highspeed debarking is the key to success with smaller logs. The **A5A** cleanly debarks at single ring feed speeds up to 425 ft/min (130 m/min) or dual ring feed speeds up to 480 ft/min (146 m/min).

SPEED OPTIMIZED

Nicholson has been the first to develop true highspeed debarking technology. Our new fast reacting, low mass Bellows Air Seal Ring is just one example. The Bellows ring was designed specifically for superior de-

SIDE VIEW OF A5A DEBARKER



barking at high speed. We also use optimized feedroll diameters and automatic roll pressure control to save even more fiber.

TERRIFIC VERSATILITY

The **A5A** is extremely versatile. Its rugged and compact single unit design is perfect for tight installations, retrofits and portable applications.

The **A5A** is fully automatic and will debark logs of almost any species or configuration. The **A5A** is available in five ring sizes from 12 to 35 inches (305 to 889 mm) that completely cover the world of highspeed debarking. Many options are available including ring oil recirculation, special gear doors for tight installations, cold weather packages and multiple ring changing systems.

TOUGH AND SIMPLE

The **A5A** uses simple, rugged and thoroughly proven mechanical technology. Special design features make service quick and easy, even using very basic hand tools.

POSITIVE FEEDWORKS

Simple fixed infeed conveyors with v-type rolls are used to feed the **A5A**. Complicated auxiliary feedworks are not required.

Specially designed self-feeding and self-opening powered feedrolls that are linked in pairs automatically acquire and center the incoming log. Log gripping force is provided by powerful air cylinders.

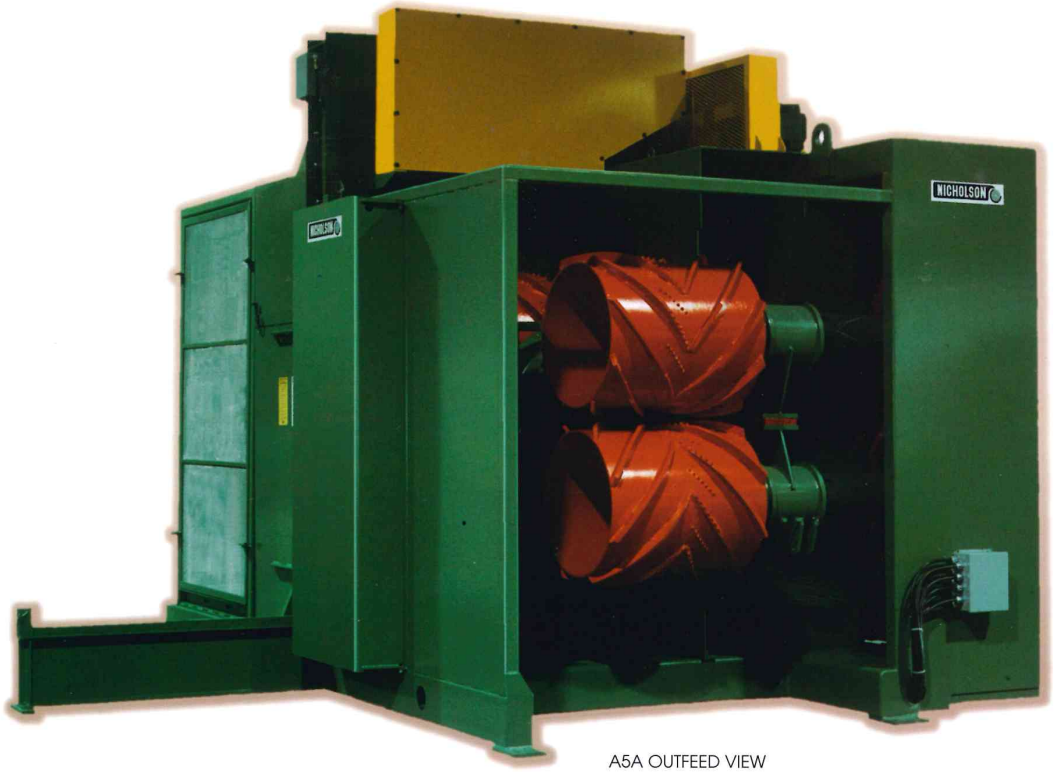
Automatic roll pressure timing is used to provide both easy log entry and firm log capture. Two basic types of roll pressure timing are used depending on the application: Open Roll Control and Dual Pressure Roll Control.

RELIABLE GEAR DRIVE

The **A5A**'s smooth and quiet feedworks are driven by precision machined steel spur gears for maximum reliability.

The feedworks can be powered by a wide array of AC or DC electric motors. Power from the motors is transmitted to the gear train through a standard gear reducer and heavy roller chain.

Continuous automatic gear lubrication is provided by a separate pump and drum so low cost oil can be used instead of the more expen-



A5A OUTFEED VIEW

sive lubricants required for the ring.

RING MODULES

The ring and drive are an independent module. The module slides out of the debarker to provide fast and safe ring maintenance. You can quickly remove and replace it with modules carrying different ring types and sizes.

CHOOSE YOUR RING

One ring design can not provide optimum debarking in all of the applications that exist in the industry. That's why we offer three totally different ring types for the **A5A**.

AIR SEAL RING

The Nicholson Air Seal Ring lets the operator open and close the knife arms, or alter arm pressure during debarking. This inherently cool running design is extremely reliable in high speed operation.

Use of reversible wearing surfaces, cartridge type design and long wearing cast iron rings reduce both the cost and time needed to rebuild the air seal. The Nicholson Air Seal can be rebuilt on site in as little as 2 hours by mill staff. A complete step-by-step video of the procedure is also available.

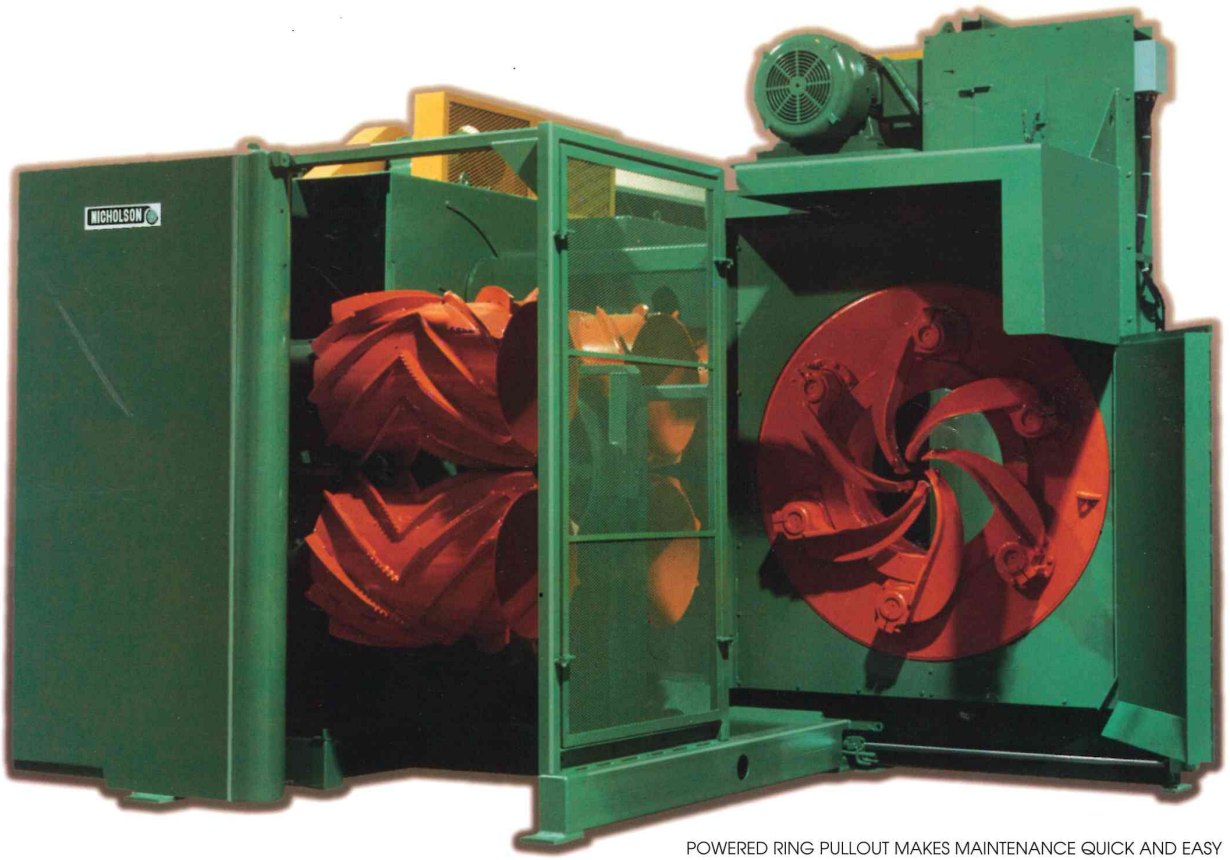
BELLOWS AIR SEAL RING

The new, fast reacting, low mass Nicholson Bellows Air Seal Ring is designed specifically for superior small log debarking at high speed. The ring's special low mass actuator elements and knife arms follow the surface contours of the log more accurately. The result: more bark is removed, and more valuable wood fiber is saved during high speed debarking. This ring is excellent for very small diameter logs and highspeed applications using scanners that can be tricked by frayed fiber.

AIR CELL RING

The Nicholson Air Cell Ring is a simple fixed pressure design that excels in applications where fully automatic operation without an operator is important. Portable installations that require minimum air consumption are also great applications for this ring.

Pressure for all arms is manually adjusted at a single standard air fit-



POWERED RING PULLOUT MAKES MAINTENANCE QUICK AND EASY

ting. The Air Cell Ring is very economical and easy to maintain.

KNIFE ARMS

Self opening Nicholson knife arms are fabricated from tough and resilient alloy steel, making them much lighter and stronger than cast arms. All arms can be welded or straightened on site and have replaceable knife holders and tips.

KNIFE TIPS

The knife tips themselves are highly developed and incorporate many unique details that provide long service in tough production environments. Extra wide carbides are used to reduce carbide loss through erosion. A machined boss on the tip keeps it accurately and firmly seated in the tip holder.

Nicholson even offers an economical and convenient tip exchange program to simplify tip replacement.

TANDEM DEBARKER

One of the most versatile **A5A** configurations is the tandem ring design. The tandem uses two rings in-line that can be used singularly or together.

The tandem provides the very highest feed rates with excellent bark removal, or the very cleanest debarking at higher than normal feed speeds. The choice is yours.

A TRADITION OF PERFORMANCE, QUALITY AND SERVICE

Nicholson Industries has led the steady march of progress in debarker technology since 1948. The goal today is the same as in 1948: Be the First with the Best.

To achieve this high standard, we have invested in new manufacturing plants, integrated computer design and manufacturing, robotic welding, in-house heat treating, special gear hobbing machinery and more.

A very large percentage of our new sales are to customers that already own Nicholson equipment.

In some cases, reliance on Nicholson equipment goes back several generations.

Superior performance, quality and support keep them coming back.

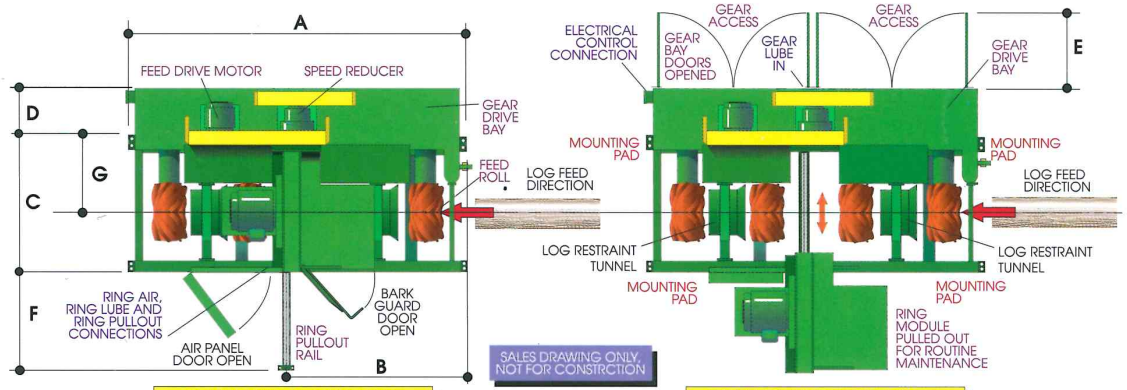
To us, <u>that</u> is real success.

T.W. NICHOLSON

GENERAL SIZE, PERFORMANCE, POWER AND WEIGHT SPECIFICATIONS FOR THE **A5A** HIGHSPEED DEBARKER

Debarker size, in. (mm)	**12.0 (305)**	**17.0 (432)**	**22.0 (559)**	**27.0 (686)**	**35.0 (889)**
Minimum log diameter, in. (mm)	2.0 (51)	3.0 (76)	3.0 (76)	3.5 (89)	4.0 (102)
Minimum log length, ft.-in. (m)	5-3 (1.60)	6-2 (1.88)	7-0 (2.13)	7-4 (2.23)	8-4 (2.54)
Maximum rated feed speed, fpm (m/min) (1) (3)	425 (130)	380 (116)	340 (104)	290 (88)	240 (73)
Normal ring dirve motor size hp (kw),@ rpm (3)	60 (45) @1800	100 (75) @1200	100 (75) @1200	100 (75) @1200	125 (93) @1200
Minimum feed drive motor size hp (kw) @ rpm (3)	30 (22) @1800	40 (30) @1800	40 (30) @1800	50 (37) @1800	50 (37) @1800
Debarker weight lbs (kg) (3)	24500 (11113)	35600 (16148)	40200 (18234)	46800 (21228)	70900 (32160)
Dual ring module weight lbs (kg) (2) (3)	6400 (2903)	8400 (3810)	10500 (4763)	12600 (5715)	14700 (6668)

(1) Values are for logs up to 60% of maximum bore diameter. (2) Includes second ring, carrier, 3 cylinders and carrier base. (3) Values are based on 6 arm configuration.



GENERAL DIMENSIONS OF THE **A5A** SINGLE RING DEBARKER, in (mm) (See special brochure for tandem)

SIZE	A	B	C	D	E	F	G	H	J	K
12	135 (3429)	71.69 (1821)	56.75 (1442)	24.25 (616)	35.42 (900)	44.25 (1124)	31.75 (807)	71.50 (1816)	40.00 (1016)	39.32 (999)
17	160.0 (4064)	86.63 (2200)	68.0 (1727)	24.0 (610)	32.0 (813)	44.75 (1137)	39.0 (991)	81.50 (2070)	46.0 (1168)	30.5 (775)
22	185.0 (4649)	99.63 (2531)	73.0 (1854)	26.0 (660)	40.0 (1016)	52.25 (1327)	40.0 (1016)	90.75 (2305)	50.0 (1270)	26.25 (667)
27	193.0 (4902)	104.0 (2642)	80.0 (2032)	26.0 (660)	40.0 (1016)	58.00 (1473)	43.0 (1092)	103.0 (2616)	56.0 (1422)	33.0 (838)
35	222.0 (5339)	121.5 (3086)	96.0 (2438)	30.5 (775)	47.0 (1194)	73.50 (1867)	50.5 (1283)	121.5 (3086)	63.0 (1602)	35.5 (902)

The manufacturer reserves the right to make changes or add improvements at any time without incurring any obligation to make changes on machines manufactured previously. Actual product may vary from photographs or illustrations and description.

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DEBARKERS CHIPPERS LOG LOADERS SCREENS SAW SYSTEMS PORTABLE EQUIPMENT LOG FEEDERS CUSTOM ENGINEERING

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