

**NORTON** is the world's leading manufacturer of pulpstones.

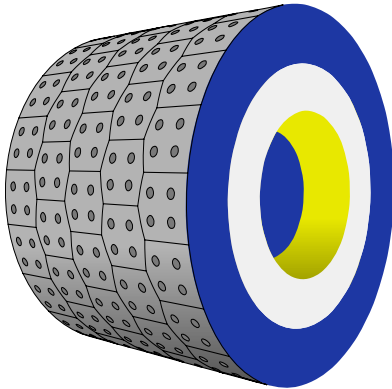
**NORTON** is the only manufacturer that offers a broad range of pulpstone designs and features with customized abrasive segments providing every SGW and PGW operation with the optimum pulpstone for their specific applications.

**NORTON** is the only manufacturer that provides worldwide value added technical support and fast, efficient customer service.

**NORTON** with its ISO certification builds pulpstones with a focus on quality.



**PULPSTONE**



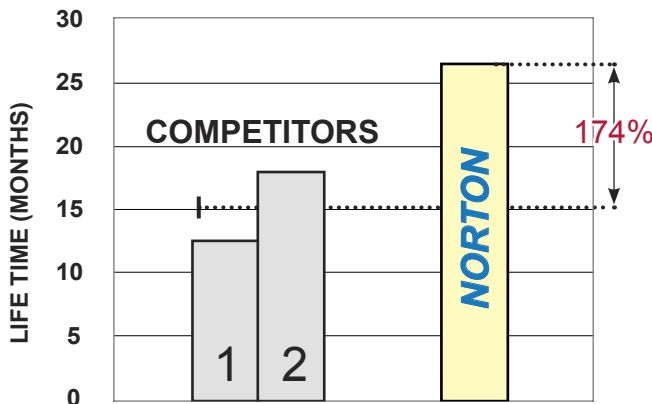
Over 75% of the pulpstones running in groundwood mills around the world are **NORTON**.

An independent survey of 12 major PGW mills compared the performance in-grinder of 56 pulpstones in operation during a 42 month period. The impartial results clearly showed that **NORTON** pulpstones exceeded the performance of all competitor stones in:

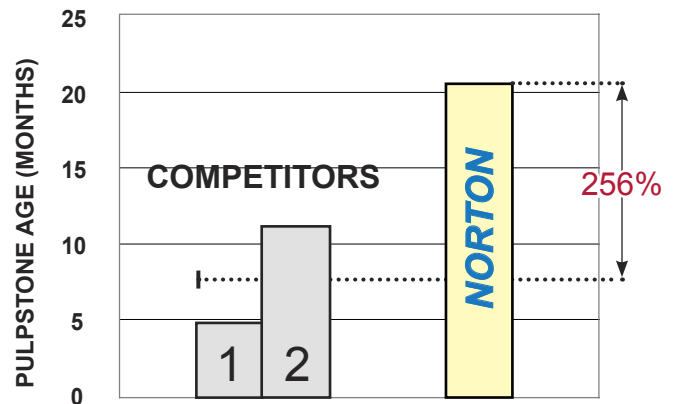
1. LIFE-IN-GRINDER by 174% of the average of all competitor stones.
2. Nineteen **NORTON** pulpstones, vs. only 2 competitor stones, were completely worn out to discard with no intervening cause for removal such as, e.g. segment failure or machine problems.

Reason for Pulpstone Removals	Competitor 1	Competitor 2	<b>NORTON</b>
Segments were Worn out (normal wear)	0	2	<b>19</b>
Total number of pulpstones	18	19	<b>56</b>

Average Life Time of the Pulpstone removed from PGW Grinders



Average Age of the 86 Operational Pulpstones in PWG Mills as of June 2003



Our close relationship with partner mills and our continuing effort to offer the best products has led to many innovations such as:

1. Improved end coating specially formulated for grinder applications.
2. New concrete formulation that better withstands the punishment of white water in the grinders.
3. Steel pulpstone cradles facilitate export and eliminate concern for insect infestation in wood packaging.

**NORTON** provides four designs:

- Type TR** The basic threaded-stud segment attachment system, suitable for low-load, atmospheric grinders.
- Type WRBS-2** Engineered by a leading university, this modified WRB incorporates improved stud design and manufacturing process enhancements. Its conventional, uninterrupted surface, makes it ideal for operation in modern, large, high-load pressurized or atmospheric grinders.
- Type BT** The highest strength bolt-through attachment system, designed specifically for the most demanding PGW and atmospheric operations. Open holes on the surface improve efficiency for proven highest output at the lowest SEC.
- Type WJ** Under development specifically for operations using high-pressure water jet conditioning systems. The unique abrasive composition is derived from the latest in abrasive grain technology.

**NORTON** offers such options as:

*WRBS-2* design with 2 or 4 *Blind Holes* in each segment (BH-2 or BH-4).

*WRBS-2* or TR design with *Open Joints* (OJ).

*Power Grooves*.

A complete line of sharpening burrs, including the patented **ExcaliBURR**, as well as accessories is also offered.

The following grit size combinations are available:

Alundum Abrasive	Grit Size Combination	Average Grit Size	Alundum Abrasive	Grit Size Combination	Average Grit Size
A242	½ each 20–24	22	A544	⅓–46; ⅔–60	53
A241	Single grit 24	24	A467	½–46; ¼ each 60–80	58
A302	½ each 24–30	27	A603	⅓ each 46–60–70	58.7
A301	Single grit 30	30	A601	Single grit 60	60
A303	⅓ each 24–30–36	30	A605	½ each 60–70	65
A362	½ each 30–36	33	A602	½–60; ¼ each 70–80	67
A361	Single grit 36	36	A703	⅓ each 60–70–80	70
A363	⅓ each 30–36–46	37.3	A701	Single grit 70	70
A452	½ each 36–46	41	A702	½ each 70–80	75
A461	Single grit 46	46	A801	Single grit 80	80
A463	⅓ each 36–46–60	47.3	A802	½ each 80–90	85
A543	⅔–46; ⅓–60	51	A902	½ each 90–100	95
A542	½ each 46–60	53			

Please visit our web site <http://www.nortonpulpstone.com> to contact us and for complete details about our products and services. Your Pulpstone agent will be pleased to assist you with your selection of designs and options. We also offers a wide range of training and services that compliment out pulpstone installations.

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