



STRATO ULTRA

A NEW FORCE IN SURFACE GRINDING AND CREEP FEED GRINDING

- + Reduced cycle times
- + Increased profile retention
- + Cooler grinding
- + Increased wheel life



A TYROLIT Company



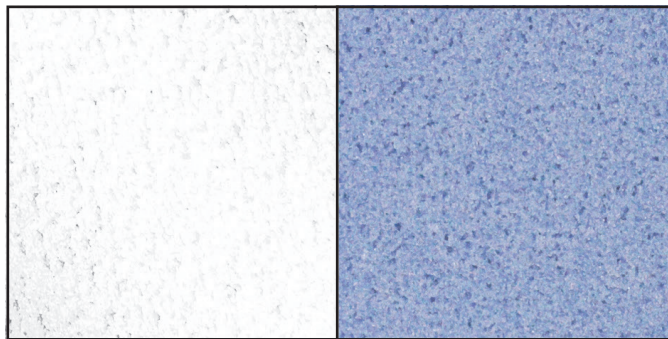
A Company within the SWAROVSKI Group

STRATO ULTRA

A NEW FORCE IN SURFACE AND CREEP FEED GRINDING

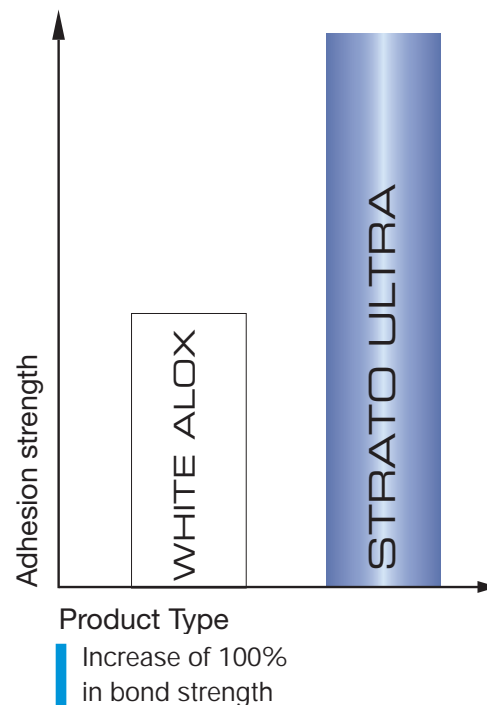
TYROLIT excels through innovation

TYROLIT is the market and technology leader of high-porosity grinding wheels for creep feed grinding. With the STRATO ULTRA product line, TYROLIT has launched the next generation of surface and creep feed grinding wheels, setting new standards of quality and performance.



WHITE ALOX

STRATO ULTRA



STRATO ULTRA does the job of more expensive wheels

In the turbine industry, STRATO ULTRA can be used instead of grinding wheels with expensive ceramic aluminium oxide grains without sacrificing performance. Ceramic aluminium oxide grains react very aggressively to the dresser rolls and consequently generates increased diamond wear.

STRATO ULTRA saves money two ways:

- + through lower grinding costs
- + through longer service of the dresser roll

Advantages of STRATO ULTRA

- + Reduced grinding times
- + Increased profile retention
- + Cooler grinding
- + Increased wheel life

Large pores allow cool grinding

During creep feed grinding, large contact surfaces and high feed rates generate large amounts of grinding energy (heat). The high-porosity STRATO ULTRA bond system allows better absorption of the grinding coolant into the wheel. The result: dramatically improved part quality thanks to increased profile retention and cooler grinding.

Available sizes

External diameter	10" - 24"
Wheel width	.375" - 10"

STRATO ULTRA

PRE-FORMED REDUCES DRESSING COSTS



STRATO ULTRA with edge profile

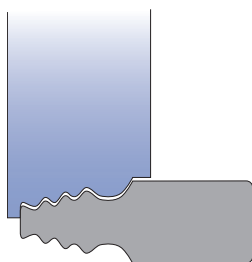


STRATO ULTRA
with customized pre-form

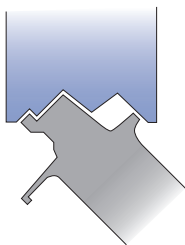
TYROLIT can offer its customers pre-formed grinding wheels. Depending on the profile depth, simple edge profiles and customized pre-forming can significantly reduce set-up times and associated dressing roll wear.

TYPICAL COMPONENT APPLICATIONS

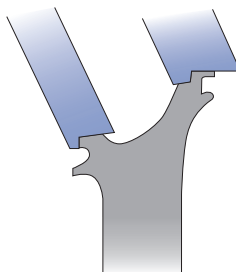
STRATO ULTRA can be used universally and can be specified for all common applications and machine types.



Turbine rotor vane
Fir-tree profile



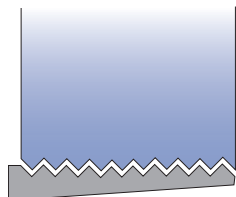
Turbine stator vane
Round profile



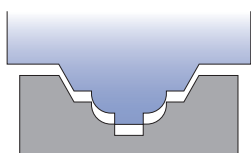
Turbine rotor vane
External profile



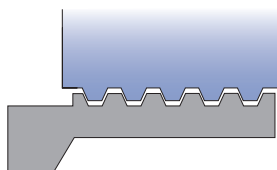
Turbine rotor vane
Z profile



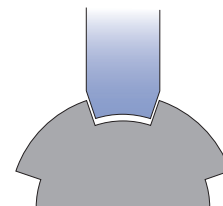
Saw blade
Tooth profile



Guide rail
Running surface



Thread profile
Transmission



Hub profile
Groove

STRATO ULTRA

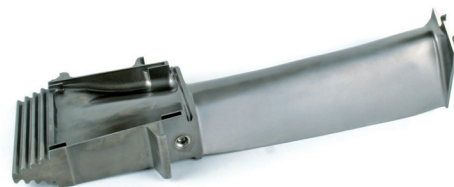
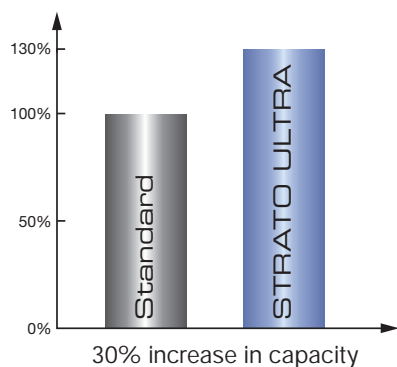
EXAMPLES OF APPLICATIONS



NGV, aircraft turbine

Material	Nickel-base alloy
Machine	ELB
Dressing	CD (Continuous Dressing)
Operating speed	3000 - 9850 SFPM
Feed	40 - 158 in/min
Coolant	Emulsion
Wheel dimensions	18 x 3.150 x 8
STRATO ULTRA	SU33A802HH11VB01
Results	<ul style="list-style-type: none"> 30% increase in capacity 25% more components per grinding wheel Annual saving on process costs: \$200,000 4x longer service life of roller dresser
Action plan	<ul style="list-style-type: none"> Optimize grinding and dressing process with TYROLIT Use STRATO ULTRA

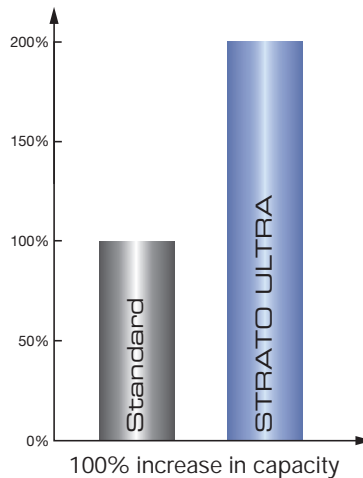
Result



Fir-tree profile, stationary turbine

Material	Nickel-base alloy
Machine	Blohm
Dressing	CD (Continuous Dressing)
Operating speed	2350 - 6890 SFPM
Feed	7 - 78 in/min
Coolant	Emulsion
Wheel dimensions	20 x 3.750 x 8
STRATO ULTRA	SU33A542GG12VB01
Results	<ul style="list-style-type: none"> 100% increase in production capacity 20% more parts per grinding wheel Grinding time reduced by 60% Passes reduced from 12 to 10 Annual saving on process costs: \$100,000
Action plan	<ul style="list-style-type: none"> Optimize grinding and dressing process with TYROLIT Use STRATO ULTRA

Result



STRATO ULTRA AND TYROLIT DIAMOND ROLLER DRESSERS

EXPERTISE IN TECHNOLOGY AND QUALITY

A complete grinding system from a single source

The function of a roller dresser is to achieve a geometric profile and the desired wheel form. The combined system of the TYROLIT diamond roller dressers with the corresponding grinding wheel reduces thermal stress on the workpiece which enables you to achieve optimum grinding results.

Broad field of application

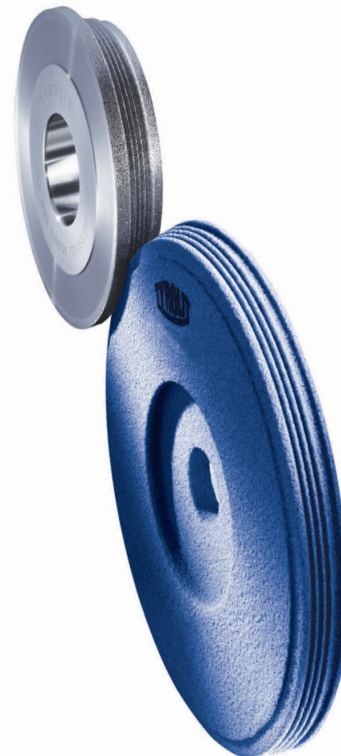
TYROLIT diamond roller dressers are used mainly in the turbine, automobile and tool manufacturing industries.

TYROLIT diamond roller dressers are ideal for the following grinding processes:

- + CD (Continuous Dressing)
- + HSCD (High Speed Continuous Dressing)
- + IPD (In Process Dressing or Cycle Dressing)
- + High-speed pendulum grinding

Advantages using diamond roller dressers:

- + High profile accuracy
- + Reduced dressing costs
- + Long service life



The TYROLIT factory in Neuenrade, Germany, was expanded in 2008 to include a production facility for diamond roller dressers. The high level of training and long-standing experience of our Team guarantees expert advice matching our grinding system to your process

Utilizing the latest manufacturing, processing and measuring techniques, we are able to guarantee TYROLIT diamond roller dressers of the the highest quality and precision.

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