QUICK WIN WITH SERMAS CONSUMABLES

QUICK WIN =
✓ QUICK RESULTS (> 15%*)
✓ LITTLE INVESTMENT (< 10k€)

(*) Minimum experienced benefit based on practical cases
I. Process expertise

II. Saw-blades (band & disk)

III. Cutting lubricants Sermacut®

IV. SERMALUBE® lubrication system

V. Associated service

VI. Trials & technical support

VII. Practical cases: benefits & costs reductions

VIII. Contact information
Expert in aluminium & non-ferrous industries, SERMAS has become a world’s reference in sawing technologies

To achieve the world’s highest productivity levels of the processes that we design, SERMAS has developed its own consumables offering:

- High performance & profitability of the machine
- Long lifetime for the cutting tools
- Low power consumption
- Optimized chips suction & post-treatment (compacting, resmelting)
I. PROCESS EXPERTISE

For each dedicated sawing application, we have the most suitable consumables.
We provide you with the most adapted blade for your application among our range of products:

- Carbide
- Bi-metal
- Diamond

We focus on tooth geometry & setting to achieve highest demanding production’s requirements. Our blades offer:

- Top-quality raw materials
- Maximum flexibility and resistance to mechanical fatigue
- Optimal surface finish
- Special tooth design & sequence to prevent from vibrations, deflection or blade pinching
II. SAW-BLADES: Performance & applications

- Long lifetime up to 2500 sq.meter per blade
- Smooth surface finish $Ra < 20\mu m$ (slab), $Ra < 10 \mu m$ (slicing)
- Cut rate up to 150$dm^2/min$ (Al T-bars); 60 $dm^2/min$ (Al Slab); 40$dm^2/min$ (slicing)
- Performance up to 2,7m/min with our band-saw for billets (Ø300 – Al 6xxx)

Billet cutting

Slab sawing (head + foot cut)
II. SAW-BLADES: Performance & applications

- **SUPERSET® RECTI-SET®**
  - Slicing

- **SUPERSET® SIMPLESET®**
  - Billet sawing

- **SERMAS ALU®**
  - Edges cutting
II. SAW-BLADES (disk)

- TCT precision blades (tungsten carbide tipped)
- Diamond concretions
- Special execution on request

- Products up to 700mm-thick
- Smooth surface finish: $Ra < 20\mu m$
- High cutting-rate 4 sec. for $\varnothing 150$mm-billet
SERMAS develops high-efficiency lubricants for sawing & milling.

- **sermaCUT®20** for band sawing
- **sermaCUT®19** for low temperature band-sawing
- **sermaCUT®37-M** for milling & all sawing operations
- **sermaCUT®5.5** for sawing with sticking prevention
- **sermaCUT®41** for brazing and sawing
- **sermas PRESSLUBE FR-B15** for chip compacting press

We focus our R&D on micro-spraying to achieve following objectives:

- **Minimum consumption**
- **Extension of cutting tool’s lifetime**
- **High-productivity & performance level**
- **Cleanness of the cut surface**
- **Healthy aspect for operators & environment**
- **High-performance solution**
sermaLUBE® has been developed by SERMAS® for optimum lubrication, high-speed cutting applications (sheet, plate, ingot, billets) and surfacing aluminum plates

- 5L-pressurized-oil tank supplying a minimum and constant
  => Typical consumption: 10cm³ per minute (10 cl)

- Designed for centralized filling or full automatic (interfaced with PLC) filling solutions

- Includes spraying nozzles adapted to considered sawing configuration: optimized spraying-cone closed to blade's teeth

- SERMAS also offers on-site commissioning to ensure the best results with sermaLUBE® system
IV.3. Optional devices

a) Centralized fill-in system (see illustrations below)

b) Full-controlled automatic fill-in (PLC-controlled)

c) Heating system for low temperature operation
IV. SERMA LUBE® SYSTEM

Typical consumption data

Typical working area
V. ASSOCIATED SERVICE

- Quick quoting service (48h for all standard products)
- A technician dedicated to on-site trials & tests
- Back office dedicated to order processing & after-sales
- Dedicated stock at Sermas for regular orders
- Annual agreement with clocked shipments
- Packages adapted to freight solution and export
- Customized program for preventive maintenance
- Customized program for process optimization = QUICK WIN approach
VI. TRIALS & TECHNICAL SUPPORT

Dedicated technicians for on-site trials to rise machine profitability

When you order us a set of consumables to be tested on your machine(s), we can propose you on-site service by a specialist to make the tests

- Prior audit of your process & equipment
- Mechanical adjustments (blade-guide rollers, lubrication, etc.)
- Optimum cutting parameters setting for your application
- Technical advices for maximum production availability
- Customized training for your staff (maintenance/production)

Our experience shows that in 100% of the cases, productivity of processes we have improved has increased or been optimized by minimum 15% as follows:

- Lubricant consumption reduction: 20% (from 8 to 15cm3 per minute)
- Lifetime for the blades: 10% to 300% (up to 3000sq.m for band, or 10000 cuts for disks)
- Performance (productivity) increase: 10% to 50% (based on in-feed speed)
- Maintenance costs reduction: up to 20% (based on time spent on the machine)
VII. PRACTICAL CASES

Some few (among lots of others) practical cases to illustrate the QUICK WIN deal

Hydro in Norway

- **total investment** < 10 k€ for consumables + on-site assistance
- **direct annual savings** > 60 k€!
1 blade every 3 days maximum to cut aluminium slabs on a old Guinot saw
After 1-week technical assessment and assistance, we reach now 1 blade per week
We have also reduced by 2 the lubricant consumption (12cm3/min)
And also increase by 20% production rate due to higher performance of the blade+lubricant and combined with technical recommendations of our expert (cutting parameters, adjustments, maintenance of the saw)

USA (confidential)
3 billets Ø300 per minute with Ra 10µm ; such performance had never been achieved before Sermas blades + lubricant

DEVILLE in France

- **total investment** < 8k€ for blades + technical assistance
- **direct annual savings**: > 10 k€ (excluding additional savings due to reduced maintenance costs)
We have installed Sermalube system and reduced consumption by 30% and optimized lubrication application

SGL Carbon in France

- **total investment** < 7k€ for blades + technical assistance
- **direct annual savings**: > 100 k€! (excluding additional savings due to reduced maintenance costs: blade changing time, handling, logistics...)
1 diamond blade per day to cut very hard carbon. After 3-days trials with special-designed blades, now we reach 1 blade per week!

CONSTELLIUM in Switzerland => Lubricant cost reduction 50% - blade cost reduction per m²: 50%

- **total investment** < 5 k€ for on-site trials
- **direct annual savings** > 20k€
Annual consumables budget before on-site tests: 40k€ ; new annual budget with Sermas consumables: 20k€ for same production output
A specialist at your service for any technical assistance or inquiry:

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&

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