

**QUICK WIN =**

✓ **QUICK RESULTS ( $> 15\%^*$ )**

✓ **LITTLE INVESTMENT ( $< 10K\text{€}$ )**

*(\*) 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

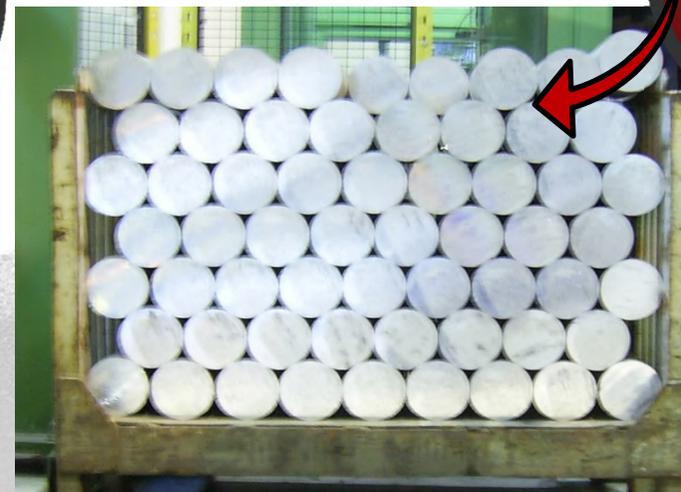
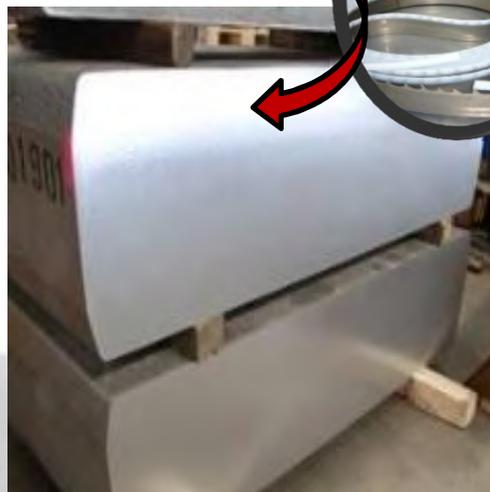
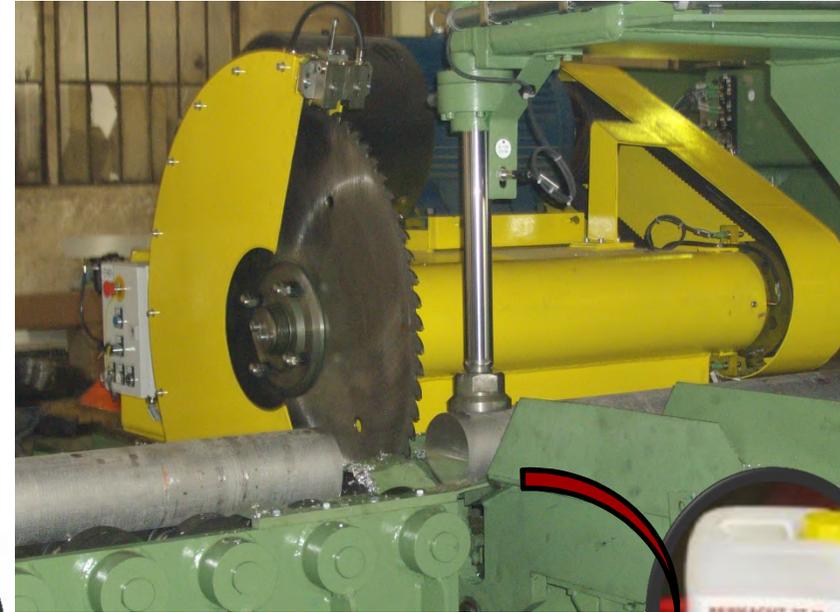
Expert in aluminium & non-ferrous industries,  
SERMAS has become a world's reference in sawing technologies



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)**

For each dedicated sawing application, we have the most suitable consumables

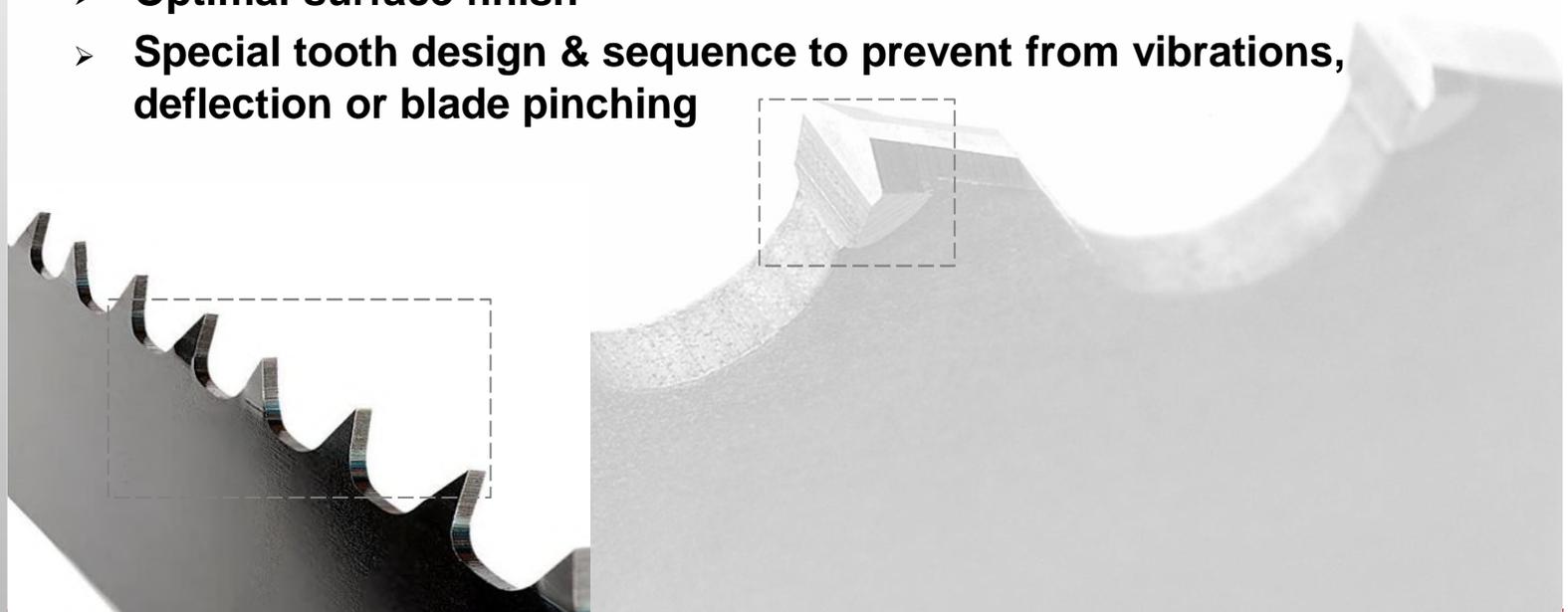


We provide you with the most adapted blade for your application among our range of products:

- ❑ **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**

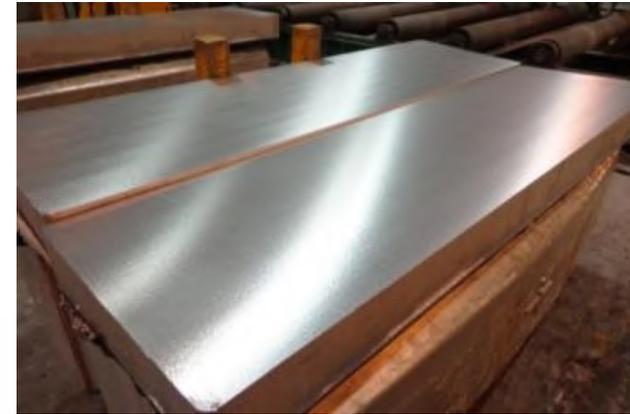


## II. SAW-BLADES: Performance & applications

- ❑ Long lifetime up to **2500 sq.meter per blade**
- ❑ Smooth surface finish **Ra < 20µm (slab), Ra < 10 µm (slicing)**
- ❑ Cut rate up to **150dm<sup>2</sup>/min (Al T-bars) ; 60 dm<sup>2</sup>/min (Al Slab) ; 40dm<sup>2</sup>/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®



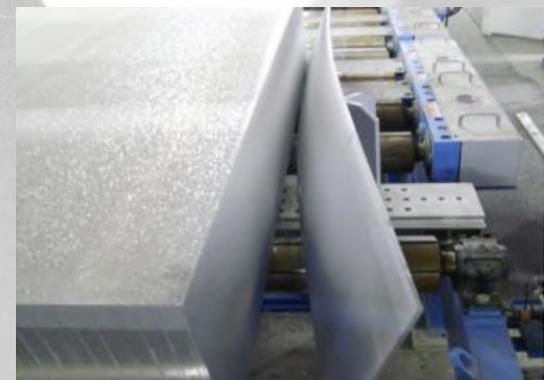
*Billet sawing*



SERMAS ALU®



*Edges cutting*



- ❑ TCT precision blades (tungsten carbide tipped)
- ❑ Diamond concretions
- ❑ Special execution on request
  
- Products up to **700mm-thick**
- Smooth surface finish: **Ra < 20µm**
- High cutting-rate **4 sec. for Ø150mm-billet**



SERMAS develops high-efficiency lubricants for sawing & milling.

- ❑ **sermaCUT<sup>®</sup>20** *for band sawing*
- ❑ **sermaCUT<sup>®</sup>19** *for low temperature band-sawing*
- ❑ **sermaCUT<sup>®</sup>37-M** *for milling & all sawing operations*
- ❑ **sermaCUT<sup>®</sup>5.5** *for sawing with sticking prevention*
- ❑ **sermaCUT<sup>®</sup>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**



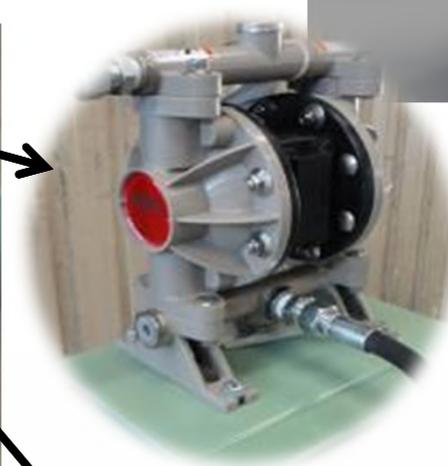
**sermaLUBE®** has been developed by **SERMAS®** for optimum lubrication, high-speed cutting applications (sheet, plate, ingot, billets) and surfacing aluminum plates

- 5L-pressurized-oil tank supplying a minimum and constant  
=> Typical consumption: 10cm<sup>3</sup> 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

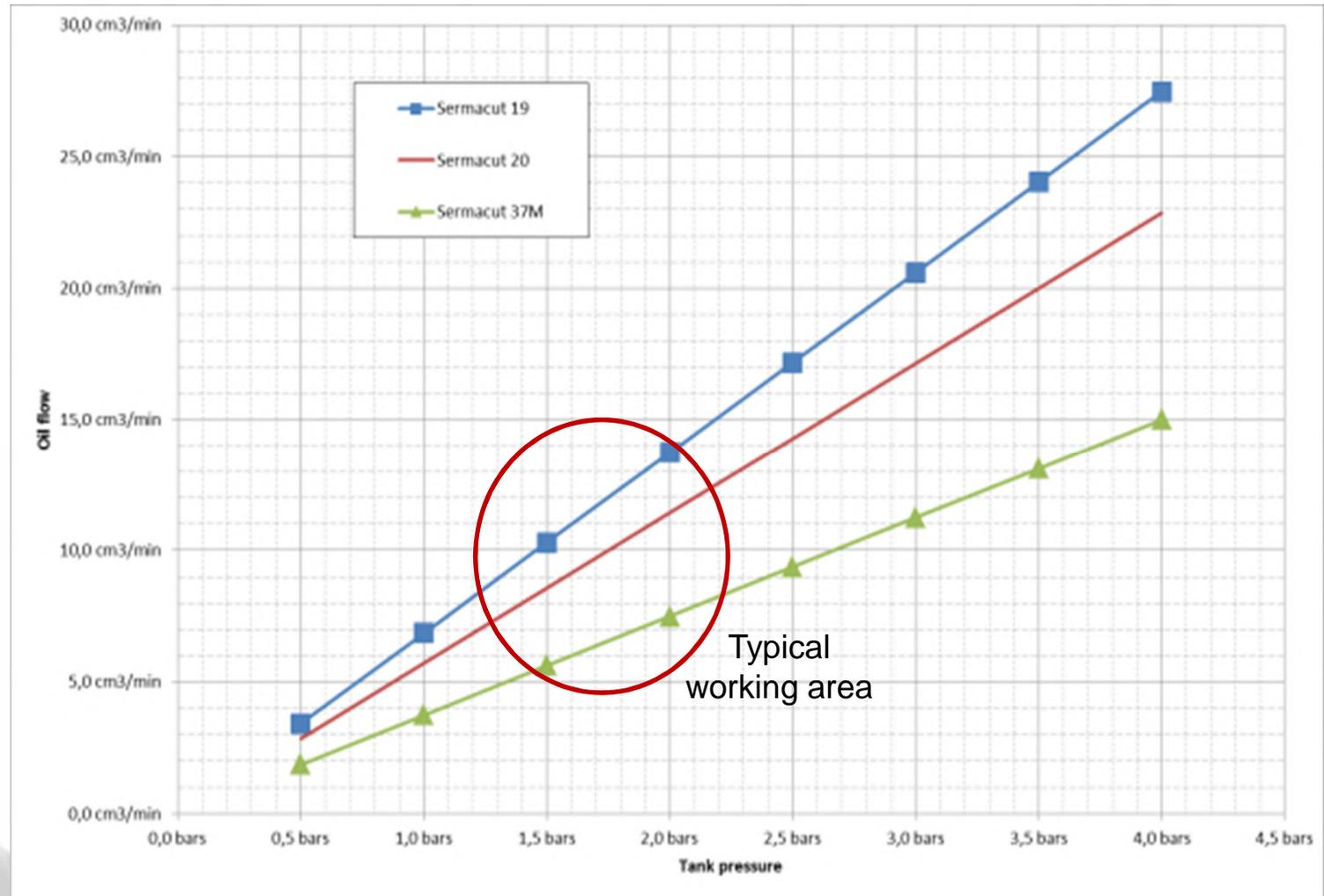


**IV.3. Optional devices**

- a) Centralized fill-in system (see illustrations below)
- b) Full-controlled automatic fill-in (PLC-controlled)
- c) Heating system for low temperature operation



**Typical consumption data**



- 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**



**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 15cm<sup>3</sup> 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)**

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 (12cm<sup>3</sup>/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 m<sup>2</sup>: 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*

**QUICK WIN**  
with **SERMAS**  
**CONSUMABLES**

*A specialist at your service  
for any technical assistance or inquiry :*

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**&**

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