

## CONSUMABLES FOR HIGHER PRODUCTIVITY OF YOUR PROCESS



**SERMAS  
EXPERTISE:  
CONSUMABLES**

- I. Sermas process expertise
- II. Saw-blades
- III. Cutting lubricants
- IV. **SERMALUBE®** lubrication system
- V. Trials & technical support
- VI. Other consumables
- VII. Contact information



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

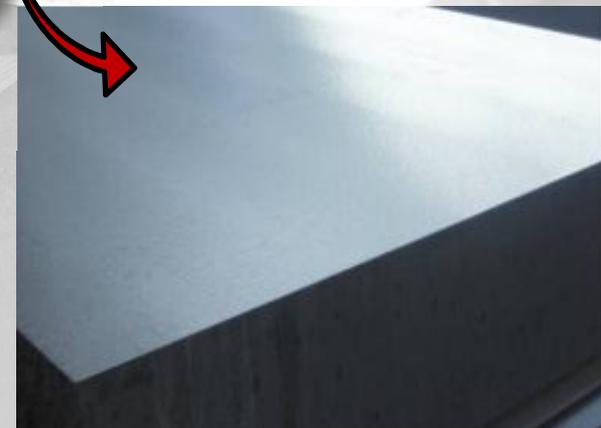
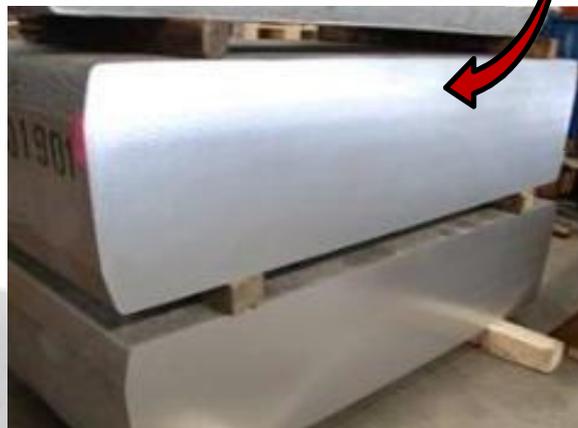


To achieve the world's highest productivity levels of the processes that we design, SERMAS has developed its own consumables offering:

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

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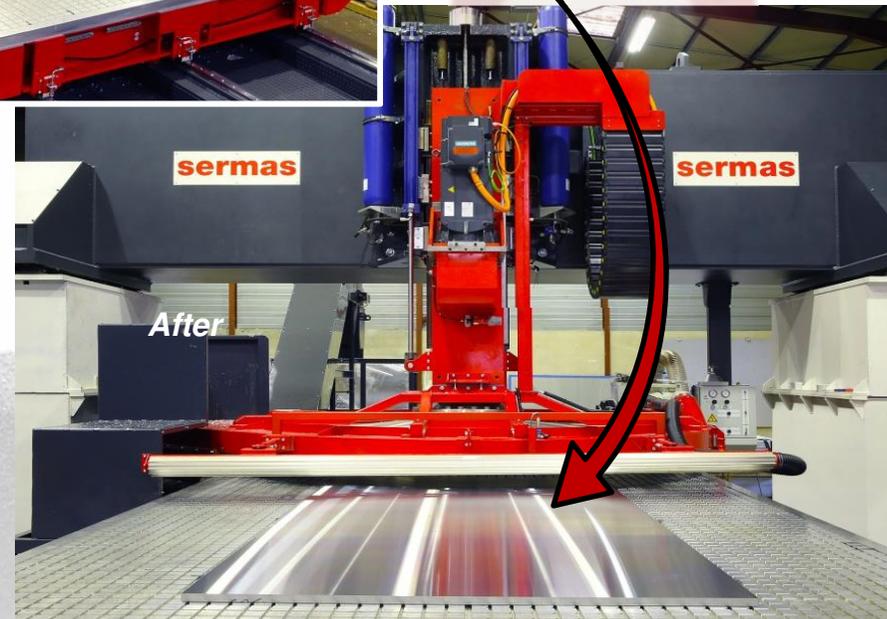
For each sawing or milling application, we have the adapted and optimized consumables



*After*

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For each sawing or milling application, we have the adapted and optimized consumables



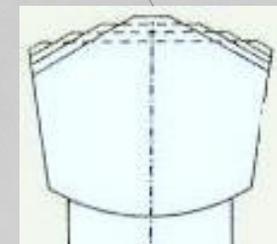
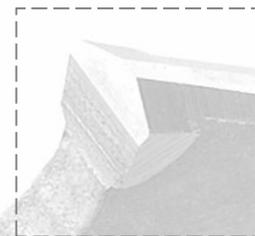
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We propose a large range of band and circular saw-blades dedicated to industrial cutting for all types of machines and for all materials & sections.

We provide you with the most adapted blade for your application (tooth pitch and geometry, quality, tooth setting) in order to match with your performance & production's requirements (surface finish, longevity, productivity, etc.)



*Diamond blade*



*Trapezoidal teeth*

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**II.1. Band saw-blades**

a) Range of products

- Diamond**
- Carbide**
- Bi-metal**
- Carbon**

b) Manufacture & Design

Quality of carbide and HSS are the highest Importance to achieve the best performances.

Our blades are manufactured with **top-quality raw materials** and engineered design (tooth geometry) in order to offer optimal behavior of the blade while cutting.

Back of the band (blade's body) is specially treated to reach the **maximum flexibility and resistance to mechanical fatigue.**

We also focus our study on the tooth sequence to prevent from vibrations, deflection or blade pinching. It also provides an **optimal surface finish**

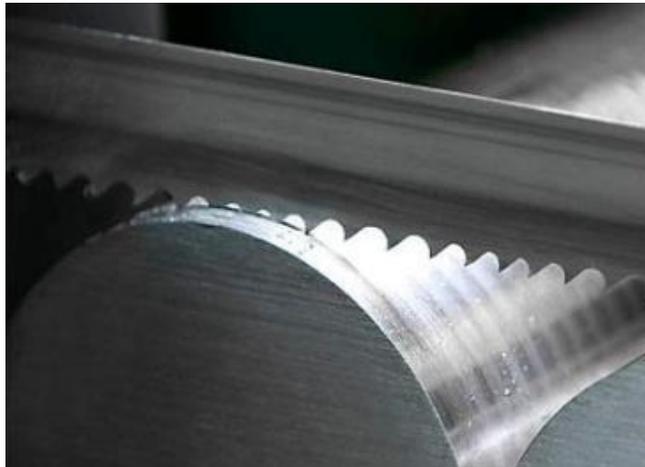


*Bi-metal blade with teeth setting*

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c) Cut surface & performance

- ❑ **Product section up to 3,2m** (slicing application)
- ❑ **Long lifetime up to 3000 sq. meter per blade**
- ❑ **Cutting rate up to 150dm<sup>2</sup>/min in Aluminium**
- ❑ **Smooth surface finish**



*Billet cutting*



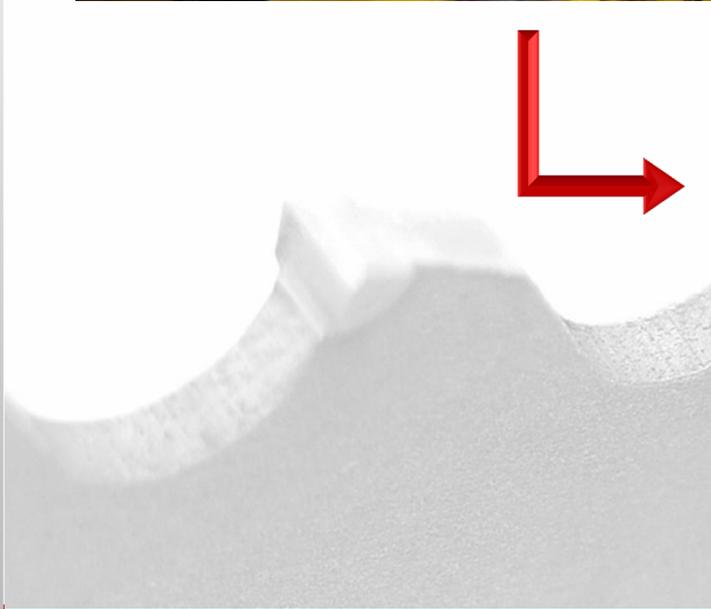
*Slab sawing (head + foot cut)*

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d) Applications & blades (some examples)



*Slab sawing (head + foot cut)*



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d) Applications & blades (some examples)



**SUPERSET®**

**RECTI-SET®**



*Slicing*



**SUPERSET®**

**SIMPLESET®**



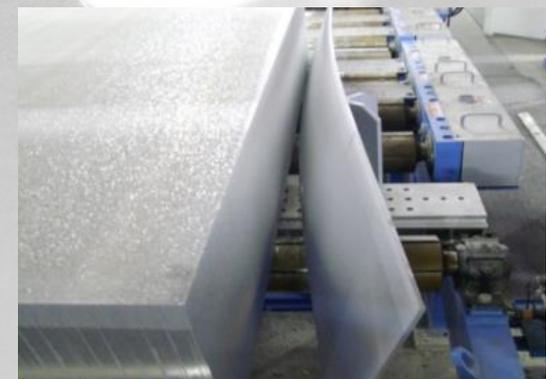
*Billet sawing*



**SERMAS ALU®**



*Edges cutting*

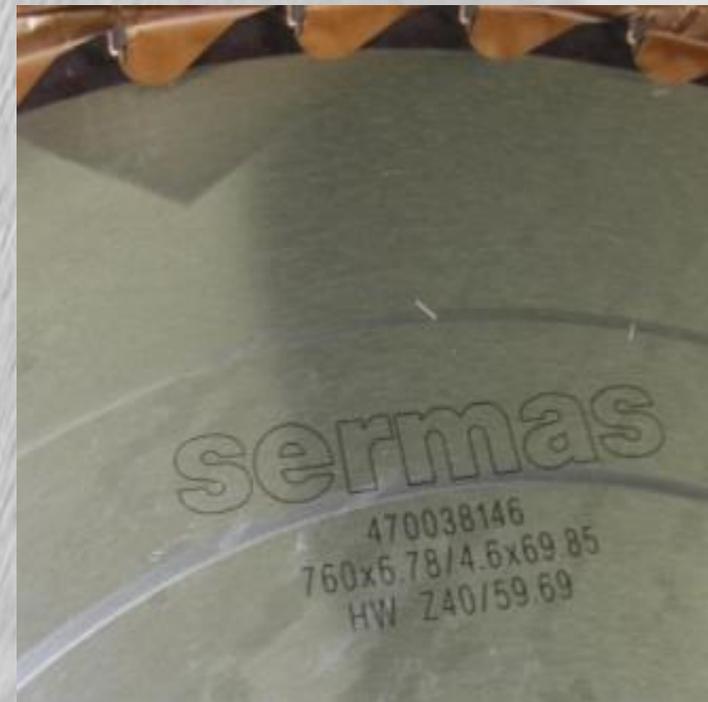


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**II.2. Circular saw-blades**

a) Range of products

- ❑ **HSS saw (high-speed steel)**
- ❑ **TCT precision blades (tungsten carbide tipped)**
- ❑ **Diamond concretions**
- ❑ **Special execution on request**



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b) Performance

- ❑ **Products up to 700mm-thick (customized execution).**
- ❑ **Smooth surface finish**
- ❑ **High cutting rate (3-4 seconds for Ø150mm-billet)**



*TCT saw-blades of diameters 950mm and 860mm  
for plate cutting on Sermas plate saws*



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c) Applications (some examples)

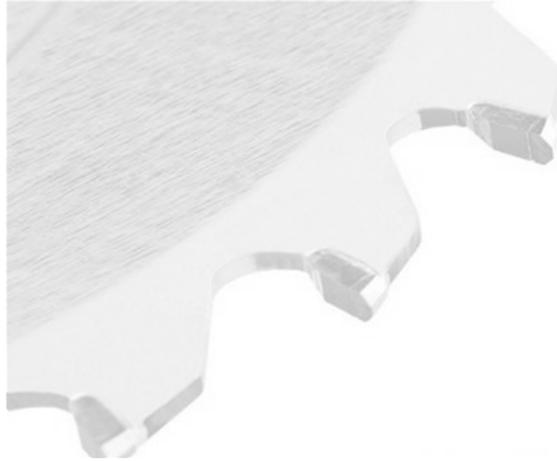
- ❑ Billet cutting →
- ❑ Plate cutting (1/2)



2 disk-blades  
on bridge

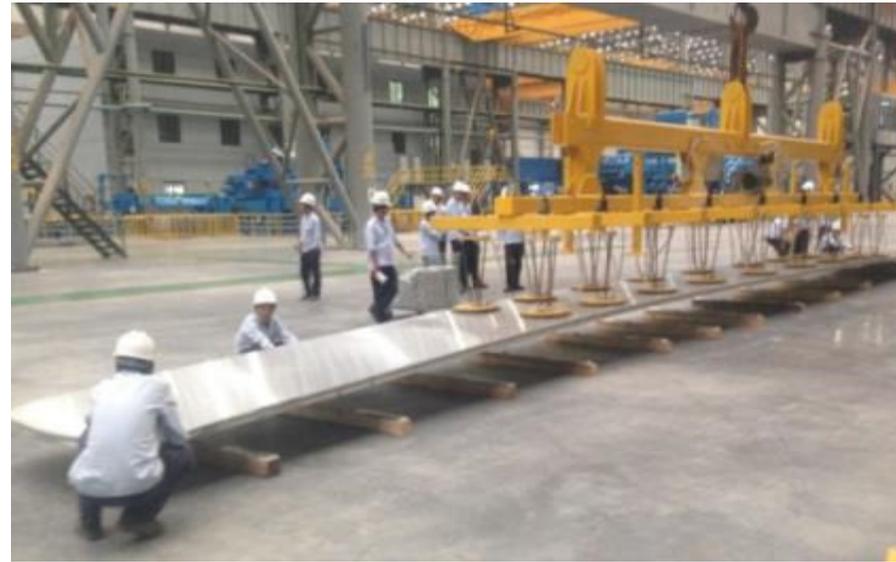
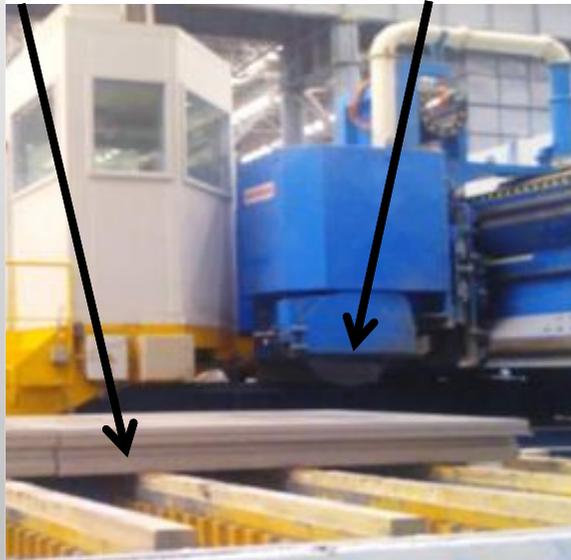
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□ Plate cutting (2/2)



Stake of plates

Disk-blade



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**II.3. 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



*Cardboard containers, individual boxes and/or 4C packing IMP15 for sea-freight according to your requirements...*

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SERMAS has developed a range of high-efficiency lubricants for sawing and for milling.

We focus our R&D on micro-spraying to keep our main objectives:

- ❑ **Minimum consumption**
- ❑ **Cleanness of the cut surface**
- ❑ **Healthy aspect for operators & environment**
- ❑ **High-performance solution**



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a) Range of products **sermacUT®**:

- ❑ **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®20-EX** *new ! For circular sawing (in testing)*
- ❑ **sermacUT®22** *new ! For circular sawing (in testing)*
- ❑ **sermacUT®41** *for brazing and , sawing*
- ❑ **sermas PRESSLUBE FR-B15** *for chip compacting press*

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#### IV.1. Lubrication box & principle

**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 volume of oil (from 2.5 to 26 cm<sup>3</sup>/min)
- ❑ Includes spraying nozzles bracket adapted to considered sawing configuration
- ❑ Designed for centralized filling or full automatic(\*) filling solutions
- ❑ SERMAS also offers on-site commissioning to ensure the best results with **sermaLUBE®** system.



(\*)by interfacing with PLC of the machine

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**IV.2. Lubrication head & nozzles**

Sermas nozzles offer optimized spraying cone closed to blade's teeth.

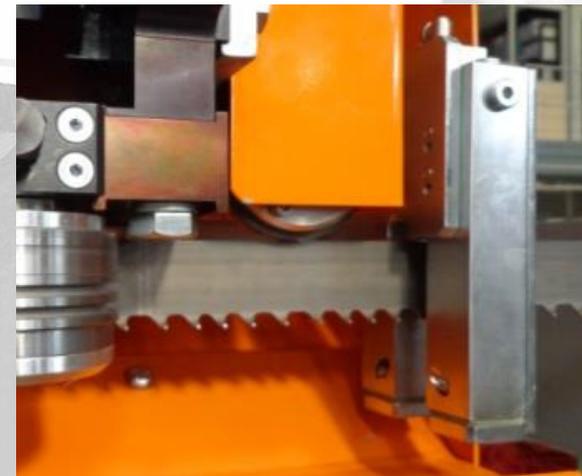
a) Short bracket and support for band-saw and circular-saw

- ❑ Front spraying inside the teeth gullet
- ❑ Adapted for band & disk saws
- ❑ Easier blade change handling
- ❑ Less impact risk while blade break



b) Long bracket and support for slicing saws

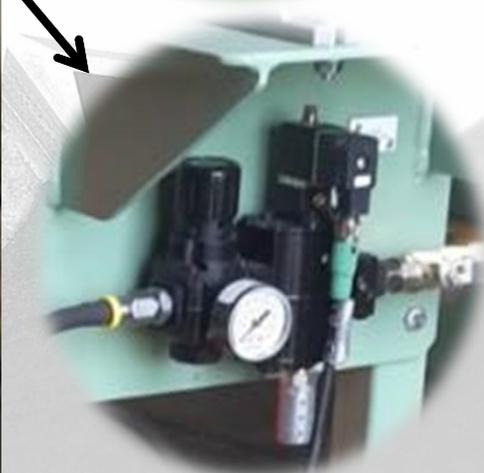
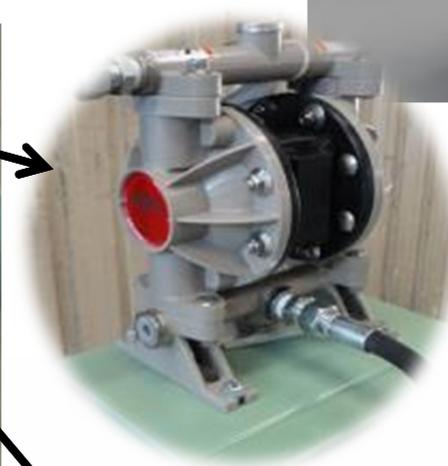
- ❑ Rear spraying inside the teeth gullet
- ❑ Adapted for teeth direction outside saw frame
- ❑ Adapted for slicing saws



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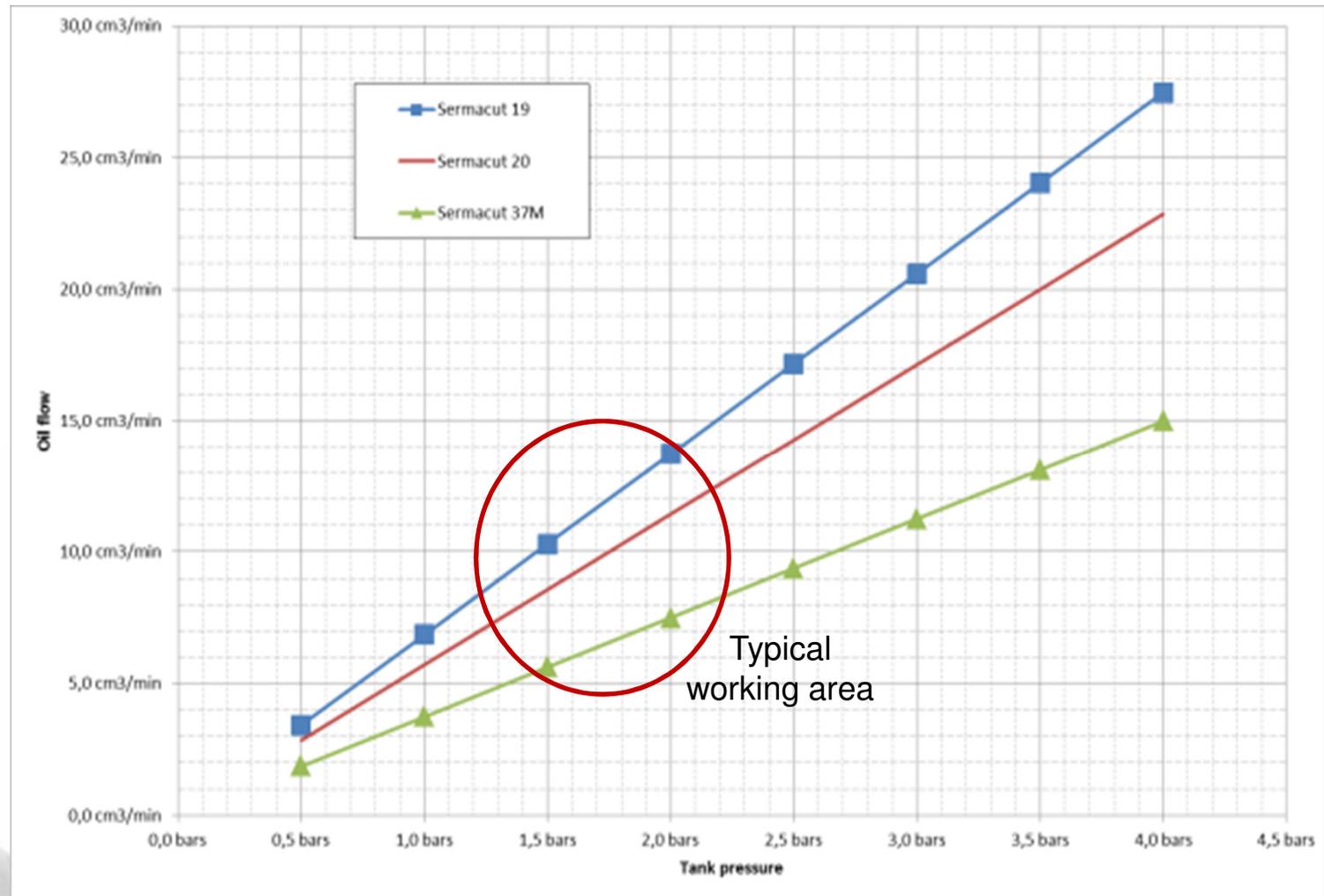
**IV.3. Optional devices**

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



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**IV. 4. Consumption data**



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**A dedicated technician to lead your customized on-site testing campaign and guarantee you the best performance of your process with our Sermas® consumables:**

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 supervise trials.

On-site trials include:

- ❑ 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)



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**Main complementary consumables of our range**

- Tips for milling (roughing & finishing tips)



- Paint & ink for marking systems (any brand)



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- Greases for optimized lubrication & maintenance
  - **serma**GREASE® SG81 & SG82
  - **sermas** ROLLER-GREASE
- Strap-band for strapping station (any brand)



**Customized service**

Should you have in your process a consumable for which you want optimized conditions (prices, lead-time, quality & service), please send us technical specifications so we can send you our offer and make you benefit from Sermas service quality.

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

**Damien VENTURA**

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**&**

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for all your consumables requests:*

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