

Optimization of extrusion presses Reduce non-productive times – increase productivity



Extrusion presses have to be able to withstand severe mechanical stress, while achieving the highest possible productivity and product quality levels at the same time. With the hydraulic and electrical extrusion press optimization offered by SMS group you can utilize the full potential of your machinery.

The benefits for you

With the hydraulic and electrical extrusion press optimization ...

- pressure peaks are eliminated.
- output volume is increased.
- non-productive times are reduced.
- wear is reduced.
- plant downtimes are minimized.

Building on experience

3 steps to greater competitiveness

With the hydraulic and electrical extrusion press optimization offered by SMS group you can minimize non-productive times and pressure peaks. And at the same reduce wear and plant downtimes. The result is greater output volumes and high productivity levels which last.

High demands – all day, every day

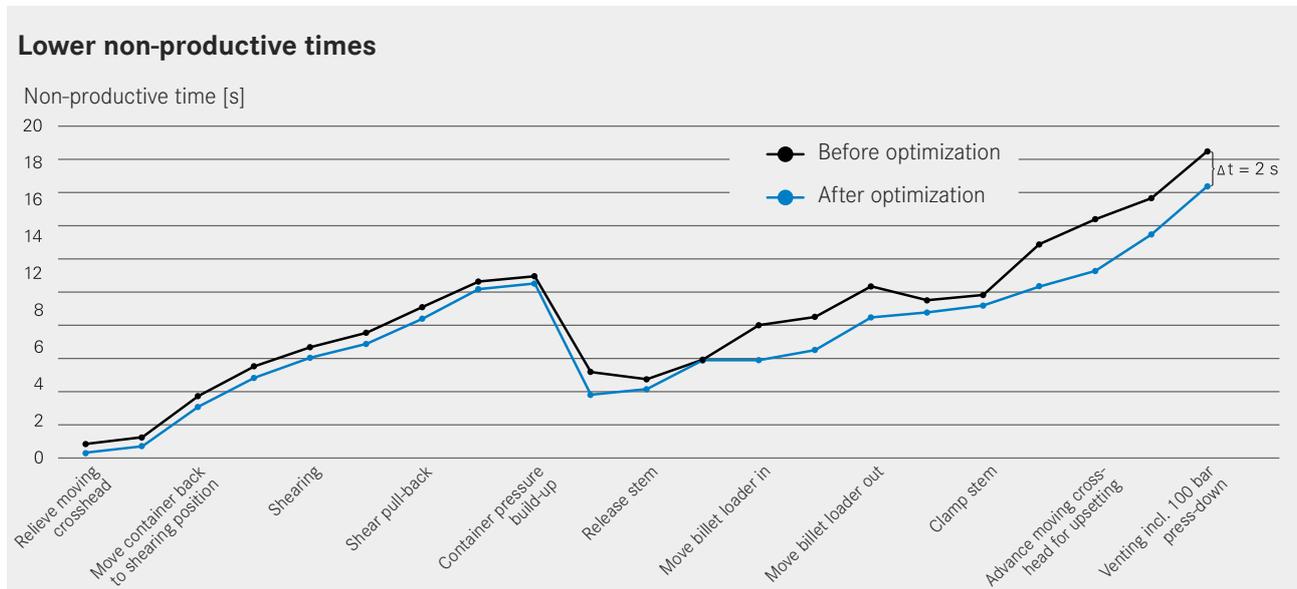
The demands made on today’s extrusion press plants are high. Plant owners expect the best production results, while at the same time the machinery is subject to severe mechanical stress. Frequent loads result in premature wear and alter the operating conditions. Prolonged non-productive times or even pressure peaks may result. These pressure peaks cause damage to seals, valves and pipelines, which, in the worst case scenario, lead to production losses.

Reliable solutions

With SMS group’s extrusion press optimization measures, negative changes in the plant are identified, assessed and rectified early on. The advantage of this is an increased service life for wearing parts, fewer downtimes and improved extruded section quality. Only with proper settings and coordinated operational sequences is smooth, trouble-free production possible (e.g. no trapped air in the extruded section).

On-site expert know-how

To optimize your extrusion press, our experienced SMS group engineers come directly to you. Our experts are there to meet your individual requirements – production is only minimally impaired while the work is being carried out.



Higher productivity

It pays to carry out the extrusion press optimization – because lower non-productive times mean higher productivity. You can see this from the before-and-after comparison (sample calculation including tool changing time, unscheduled stop, die testing time etc.).

Press: 25-MN aluminium extrusion press

Operation: 3-shift operation, 8 hours per shift, 5-day week

Billet weight: 105.64 kg

	Non-productive time	Billet charge weight
Before optimization	18,5 secs	1.291.000 kg/month
After optimization	16,5 secs	1.310.000 kg/month
Increase in productivity		19.000 kg/month

Step 1: Hydraulic and electrical actual state analysis

- Examination of the condition of the hydraulic and electrical control system
- Recording of the actual non-productive times
- Inspection of the pressure relief valves
- Examination of the HP pumps for leaks
- Assessment of the condition of the installed hydraulic cylinder
- Examination for pressure peaks in HP drive and control line
- Recording of run-up and braking ramps
- Examination of the electronic pressure and displacement sensors

Step 2: Optimization of the drive and control components

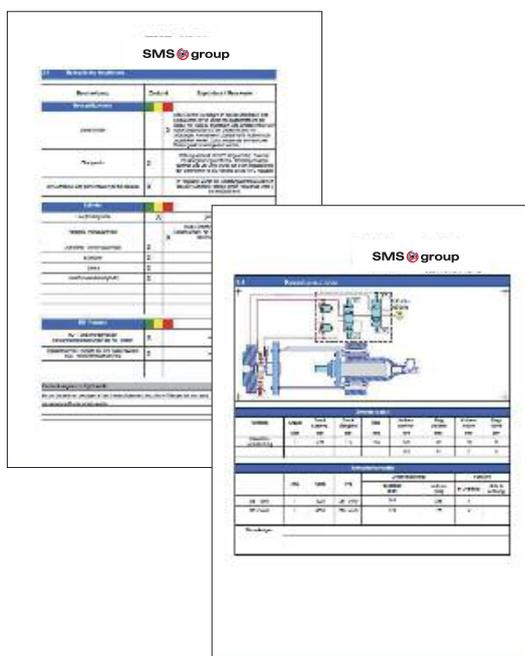
- Adjustment of the pressure relief valves
- Setting of the adjustment and braking ramps
- Calibration of the electronic pressure sensors
- Optimization of the motion sequences
- Adjustment of the speed of the stem, container, billet loader etc.
- Optimization of the pressure build-up times, such as upsetting, pressing on etc.
- Optimization of the load-relieving operations
- Optimization of the non-productive times through the fine-tuning of all the above-mentioned measures



Step 3: Compilation of a detailed service report

Following optimization our SMS group experts compile a detailed report. It contains the analysis of the actual parameters as well as all measures carried out or recommended for maintaining productivity. A detailed comparison of the current and previous non-productive times as well as valve diagrams highlight the success and benefit of the measures carried out.

Get in touch and you too can enjoy the benefits of our extrusion press optimization package! We look forward to hearing from you and will gladly send you a quote, free of charge and without obligation.



Good to know

Operation remains ongoing. The actual state analysis of the plant parameters takes place during operation. The machine only needs to be shut down for a brief period while the measuring instruments are being connected.

Staff members learn from the process. SMS group actively incorporates your staff into the optimization process. Employees gain more knowledge – and a better understanding of the machine.

Annual cycle. We recommend the extrusion press is optimized once a year. This safeguards continuously high productivity levels and thereby improves your competitiveness.

SMS group GmbH

Technical Service

Ohlerkirchweg 66

41069 Mönchengladbach, Germany

Phone: +49 2161 350-1771

Fax: +49 2161 350-1980

service@sms-group.com

www.sms-group.com

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