Welding Systems for Reinforcement Mesh
System MG303, MG316 and MG320
Economical production systems for reinforcement mesh

The Schlatter welding systems MG303, MG316 and MG320 are designed for high economic viability. The systems are characterized by high productivity, low operating costs and ease of operation. A large selection of extra modules means they can be adapted to different requirements, while allowing a modular setup of the automation level.
Everything from a single source

The systems of the MG300 series enable the production of reinforcement mesh in different geometries at competitive prices. Thanks to the modular extension options, the systems can be used in both developing and established markets.

The modular principle allows customers to start with a cost-effective, simple yet extendible system. The wide range of extra modules and options guarantees extension up to an automatic production system with minimum need for personnel.

The choice of various cross wire feeds allows for the implementation of system concepts with extremely short retooling rates and high working speeds.

It is not uncommon for an MG300 project to result in a complete factory, planned, installed and finally handed over to the customer by Schlatter as a turn-key system.

Depending on your investment options and the required degree of automation, Schlatter offers a complete solution from a single source – from a simple system through to a fully-automated plant.
Extendibility with modular principle

The right concept for individual requirements: The modular structure of the Schlatter welding systems allows you to start with minimum investment costs. This allows to convert or extend your plant in line with your requirements.

System MG303
This system concept is ideally suitable for the economic production of lightweight and heavy standard mesh in medium and large batches. The line wires are drawn off by spools, coils or reels. The cross wires are straightened, cut to length and fed to the welding system from a large magazine. This allows the system to be quickly retooled to another mesh type. The system concept is therefore very flexible, a factor that is especially advantageous when supplying new markets.

System MG316
An extendible system with high production capacity for a definite standard mesh program with lightweight and heavy mesh. Cost-effective system concept for starting out in mesh production with line and cross wire feed from spools, coils or reels. A cross wire feed with the option of rapidly changing between two coils or reels.

With the new development of single welding groups and the most modern drive technology meshes can be manufactured economically in various combinations.

System MG320
High performance system for large series. The concept is particularly suitable for the manufacturing of very short, lightweight and heavy mesh at high speed and with high productivity. Dual-series system with two cross wire feeds and two welding machines. Two cross wires are welded on simultaneously. Line and cross wires from spools, coils or reels.

Control
The welding current control SWEP developed by Schlatter guarantees uniform and reliable welding quality. The processes for the entire system is controlled by the process control system PLS Win. This control system is operated via a Windows interface and provides interfaces for computer-assisted work preparation.

MG316d
Line wire feed from spools, coils or reels; straightening units; line wire pull-off and compensating mechanism; roller advance feed; cross wire feed with grippers from above and below from spools, coils or reels; welding machine; line wire shear; mesh stacking unit; fully-automatic winding unit with roll storage system
Choice of potential system configurations

MG303
Line wire feed from spools, coils or reels; straightening units, line wire pull-off and compensating mechanism; welding machine with roller advance feed; cross wire disc feed; line wire shear; mesh turning and stacking unit

MG303
Line wire feed from spools, coils or reels; straightening units, line wire pull-off and compensating mechanism; roller advance feed; cross wire disc feed; welding machine; line wire shear; mesh turning and stacking unit

MG316d
Line wire feed from spools, coils or reels; straightening units; line wire pull-off and compensating mechanism; roller advance feed; cross wire feed with grippers from above and below from spools, coils or reels; welding machine; line wire shear; mesh stacking unit

MG316e
Line wire feed from spools, coils or reels; straightening units; line wire pull-off and compensating mechanism; roller advance feed; cross wire feed with disc insertion from spools, coils or reels; welding machine; line wire shear; mesh turning and stacking unit

MG316e
Line wire feed from spools, coils or reels; straightening units; line wire pull-off and compensating mechanism; roller advance feed; cross wire feed with disc insertion from spools, coils or reels; welding machine; fully-automatic winding unit with roll storage system
**Product features**

MG303, MG316 and MG320 are flexible mesh welding systems for the economic production of lightweight and heavy mesh in large series batches.

### Extendible level of automation

The MG303 system can be extended by integrating the Syrocut system in the cross wire feed, which is a straightening and cutting machine. In addition, all systems of the MG300 series can be extended with a labelling machine, a binding unit and a mesh package stacker.

<table>
<thead>
<tr>
<th></th>
<th>MG303</th>
<th>MG316s</th>
<th>MG316d/e</th>
<th>MG320</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mesh width/ Spacing of outermost line wires</strong></td>
<td>2500 / 2400 mm</td>
<td>2500 / 2400 mm</td>
<td>2500 / 2400 mm</td>
<td>2500 / 2400 mm</td>
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<tr>
<td></td>
<td>2900 / 2800 mm</td>
<td>2900 / 2800 mm</td>
<td>2900 / 2800 mm</td>
<td>2900 / 2800 mm</td>
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<tr>
<td></td>
<td>3300 / 3200 mm</td>
<td>3300 / 3200 mm</td>
<td>3300 / 3200 mm</td>
<td>3300 / 3200 mm</td>
</tr>
<tr>
<td><strong>Mesh lengths</strong></td>
<td>3,0 – 8,0 m</td>
<td>3,0 – 8,0 m</td>
<td>3,0 – 8,0 m</td>
<td>3,0 – 8,0 m</td>
</tr>
<tr>
<td><strong>Line wire division</strong></td>
<td>mind. 50 mm infinite beyond</td>
<td>mind. 50 mm infinite beyond</td>
<td>mind. 50 mm infinite beyond</td>
<td>mind. 50 mm infinite beyond</td>
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<tr>
<td><strong>Cross wire division, infinite beyond</strong></td>
<td>mind. 50 mm</td>
<td>mind. 50 mm</td>
<td>mind. 50 mm</td>
<td>mind. 100 mm</td>
</tr>
<tr>
<td><strong>Line wire diameter</strong></td>
<td>3,4 – 12,7 mm</td>
<td>3,4 – 8,0 mm</td>
<td>3,4 – 12,7 mm</td>
<td>3,4 – 12,7 mm</td>
</tr>
<tr>
<td><strong>Cross wire diameter</strong></td>
<td>3,4 – 12,7 mm</td>
<td>3,4 – 8,0 mm</td>
<td>3,4 – 12,7 mm</td>
<td>3,4 – 12,7 mm</td>
</tr>
<tr>
<td><strong>Spool net weight</strong></td>
<td>max. 5,0 t</td>
<td>max. 5,0 t</td>
<td>max. 5,0 t</td>
<td>max. 5,0 t</td>
</tr>
<tr>
<td><strong>Number of cross wires/Min. in direction of production</strong></td>
<td>up to 200</td>
<td>up to 130</td>
<td>up to 200</td>
<td>up to 360 Dual welding machine</td>
</tr>
<tr>
<td><strong>Number of cross wires/Min. against direction of production</strong></td>
<td>up to 130</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further dimensions on request

The technical data are noncommittal and do not assure you of any properties.
Wire material

- Cold-rolled, smooth or ribbed wire
- Hot-rolled wire with cooling and tempering process directly after rolling (Tempcore), ribbed
- Hot-rolled wire, micro-alloyed, ribbed
- Hot-rolled and subsequently stretched wire, ribbed
Designed with changing needs in mind

Schlatter offers a wide range of extra modules, which can usually also be integrated in existing systems later on. The following options represent a selection of our range for the MG300 systems. We would be pleased to advise you in person should you require customized extensions.

Line wire straightening and advance feed systems

**Line wire pull-off**
Horizontal and vertical pull-off for spools or coils

**Line wire monitoring**
The device monitors the line wires and switches the system off in the event of a wire break or at the line wire end

**Pull-off and straightening of the line wires**
Straightening elements centrally adjustable on two plains before the line wire pull-off and compensating mechanism
Line wire pull-off and compensating mechanism
Each line wire is monitored individually

Line wire roller advance feed
The roller advance feed serves to feed the line wires in order to create the cross wire divisions; the cross wire spacing is freely programmable

Welding machines

Welding portal for MG303 and MG316e
With pneumatic, soft-contact high-performance presses and cube electrodes

Welding portal for MG316d
The predetermined 50 mm interval between the single welding groups precludes any line wire spacing adjustments
Cross wire feeds

Cross wire feed with gripper
The gripper positions the cross wire above and below the line wire into the welding line

Cross wire feed with disc
Wire feed in direction of production; with disc insertion for high cycle speed

Magazine for cross wire feed with magnetic drum
For separating off cross wires from large wire bundles

Cross wire feed
With automatic cross wire changing system and loop storage system, a welding machine, line wire shear and roller advance feed

Automatic cross wire changing system
Minimum downtime when changing the spools (20–30 seconds), no time lost due to butt welding of the wire ends when changing spools

Fully automatic high-performance winding unit
Winds the welded mesh in the set length onto the roll and cuts it automatically

Turning and stacking / Preparation and further transport of the mesh

Automatic mesh turning and stacking unit
Roller or linear pull-in via grippers

Automatic binding unit
Comprising a left and right unit; automatically binds the mesh stack

Automatic mesh stacker
Stacks bound mesh packages
Investment certainty through long-term support

Our goal is to increase our customers’ productivity and to extend their systems’ service life. This is why our customer service will continue to provide support even after your Schlatter systems have taken up operation. We will be happy to arrange a personal consultation meeting and work out a custom-tailored service package for you.

Service agreements

Schlatter systems are developed and manufactured according to the highest quality and availability standards. To ensure your investments retain their value in the long run, we set up individual service agreements with our customers, in which the desired customer services such as inspection, maintenance work, training, production support, remote diagnostics as well as repair and spare parts recommendations are defined.

Helpdesk | RemoteSupport | 24Support

A multilingual helpdesk team is available at Schlatter to answer general technical questions and provide troubleshooting help for faults or malfunctions in your production system. The helpdesk team gives technical advice and clarifies whether a problem can be solved over the phone, via remote service, the Internet or on site.

Field service

Our field service team consists of experienced service technicians and offers rapid on-site help throughout the world. They put your systems into operation, correct faults, carry out repair and maintenance work and support you during overhaul or relocation processes.

Repair service

The Schlatter Group has its own workshops where we repair and overhaul control units and mechanical components. In case of production downtimes, we can also provide our customers with replacement equipment.

Spare parts service

Schlatter spare parts are manufactured with the utmost care. They fit smoothly into the overall system when fitted as a replacement and ensure that the plant's operation and production continue at their usual quality level.

Upgrades

Modernizing existing systems is often a cheaper way to increase productivity than buying new systems. Our proximity to the market and to our customers coupled with continuous innovation allows us to offer you attractive packages for converting and upgrading your production units.

Training

Our training packages offer both standardized and individual courses and enable your employees to keep up with the latest technological developments needed to operate and maintain the Schlatter systems. Courses can be held in our training rooms, in our test laboratories or at your production site.

You can contact our customer service

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A reliable partner in plant construction

The Schlatter Group is a world leader in plant manufacturing for resistance welding systems for specialized solution in the field as well as weaving and finishing machines for paper machine clothing, wire and mesh. With our long-standing expertise in industrial engineering, our spirit of innovation and our reliable customer service we offer our customers high-performance and high-quality manufacturing systems.

Experience in plant design

The combined competence in the fields of welding, weaving and industrial engineering makes the publicly listed Swiss Schlatter Group a secure title in plant engineering.

Segment resistance welding

We develop and build resistance welding systems for the production of industrial and reinforcing mesh as well as rail welding.

Weaving segment

We build weaving and finishing machines for paper machine clothing, as well as wire fabric and mesh under our Jäger brand.

Contact

Professional contacts for sales, technical support, customer service and administration are available worldwide in the group’s companies and at select representatives/agents of the Schlatter Group. You can find the relevant contact data on our internet site www.schlattergroup.com.