

Press Release

August 25th, 2011
Press Release 9/11
1/3

New high-efficient grinding machine for silicon ingots

Arnold upgrades product portfolio by high-end-machine

For extremely high product quality and productivity for treatment of silicon bricks the Arnold Group presents a high-end combination of a surface and chamfering machine, type 72/865. This machine will be presented for the first time in September 2011 at the PVSEC, one of the most important industrial fairs in the photovoltaic field.

The worldwide accepted manufacturer of high-efficient processing machines, located in Weilburg/Germany, now disposes of a balanced production range in the grinding field with this high-end grinding machine which can serve the most different requests of customers. The innovative improvements and further developments of this high-end grinding machine, 72/865, are also integrated in the surface grinding machine 72/860 and chamfering machine 72/852. Furthermore they influence the combination machine, now available under 72/855.

Whilst the new high-end grinding machine 72/865 fulfills the highest requirements in brick production, the combi-grinding machine 72/855 was designed for small- and middle-sized brick production capacities. Furthermore it completes the approved individual machines for surface and chamfer treatment. By the product improvements both individual machines were enormously appreciated and are now extremely suitable for high productivity due to the essentially shorter cycle times.

The new high-efficient grinding machine with four parallelly mounted grinding aggregates is suitable for grinding of lateral surfaces and for chamfering of squared silicon workpieces in the formats of 125 x 125 millimeters and 156 x 156 millimeters with an automatic format change. The extremely sturdy machine construction guarantees an excellent machine angularity and an extremely high absorption. The machine processing parts are casted with mineral composite. A new development, the cooling water guidance with a pressure of up to 25 bar, guarantees a balanced process cooling and hence reduces the water consumption by nearly one third.

Current production and process data are stored, visualized and analyzed

Press Release

August 25th, 2011
Press Release 9/11
2/3

with the Arnold remote process analysis tool Arpat and are the basis for the continuous optimization of production and process parameters.

This high-end grinding machine, immediately available, paves the way with the achieved values, to obtain the “Zero Error” strategies demanded by the manufacturer. A process capability of >1,67 Cpk at a tolerance of +/-0,05 millimeters can be achieved on a permanent basis.

With their extended grinding programme Arnold supports Photovoltaic manufacturers to realize individual production concepts and simultaneously Arnold complies with the industrial demands to reduce production costs significantly. The software tool Arpat, developed by Arnold, is a data base and controllable via Web-Browser and is an available option for all Arnold machines. Prices and delivery times for the whole product programme “Grinding Machines” for silicon bricks are available on request.

Image caption:

High-end grinding machine type 72/865 for highest demands

Image source:

Arnold Gruppe, Weilburg, Germany

Company Profile:

Herbert Arnold GmbH & Co. KG, founded 1950 in Weilburg/Germany, is one of the world-wide leading manufacturers of burners, tools and machines as well as ready-to-use systems for customers in the area of photovoltaic, glass and quartz glass processing, fibre-optic and the automotive production.

The core competence in the area of photovoltaics is the mechanic cutting and grinding/polishing of poly-, mono and multi-crystalline silicon-ingots and blocks. Traditional values and experiences are the base of thermal and mechanical glass production which, next to a wide range of burners and tools are nowadays also incorporated into the solar thermal glass tube production.

The Arnold Gruppe consists of the following companies: Herbert Arnold GmbH & Co. KG, Helmich Automationstechnik (1998); B&C (2005) und Heathway Ltd. (2004). The foundation stone was laid by Herbert Arnold. The realisation of innovative production technologies for glass and later for quartz glass processing, turned the one-man company within a short time into an enterprise with an international reputation. The Arnold Gruppe nowadays employs 208 employees and exports to all the key markets of the world.

Press Release

August 25th, 2011
Press Release 9/11
3/3



Company Contact:

Arnold Gruppe
Herbert Arnold GmbH & Co. KG
Wolfgang Schürgers
CSO
Weilstraße 6
35781 Weilburg
Germany
Phone +49 (0)6471 9394126
Fax +49 (0)6471 2065
wolfgang.schuergers@arnold-gruppe.de
www.arnold-gruppe.de

Press Contact:

Benson GmbH
Agentur für angewandte
Kommunikation
Gisela Benson
Brucker Straße 4
82266 Inning am Ammersee
Germany
Phone +49 (0)8143 44 44 73
Fax +49 (0)8143 44 47 61
info@agentur-benson.de
www.agentur-benson.de

Links and prints to the agency, please.