



WORKSHOP

GLASS CUTTING AND GRINDING

SUMMARY

Part One – Cutting: The first step in processing float glass is the cutting step. The choice of the right cutting parameters is decisive and influences the quality and the lifetime of the processed glass. The workshop will provide the participants with all information necessary to understand the cutting process and to create a perfect cutting result. Beneath other things Mr. Pokoern will report the effect of cutting wheel, cutting wheel angle, cutting wheel finish, cutting pressure and speed. Additionally, Mr. Emonds will report details regarding the influence of the cutting fluid on the cutting process.

Part Two – Grinding: Part Two will start with a general overview of the grinding process using diamond tools, it will enlighten different test methods for quantifying the edge quality and it will present practice test data regarding e.g. the influence of different coolants on the edge finish of ground as well as drilled glass. In a more practical approach the proper handling of synthetic coolants will be on focus. Amongst others parameters like cleaning efficiency, corrosion protection, pH-value, and water recycling be discussed.

KEY POINTS

- Theory and practice of glass cutting Nanofabrication
- Theory and practice of glass processing using diamond tools
- Cutting wheel
- Cutting fluid
- Coolant chemistry
- Edge strength via vertical bend test
- Effect of surface finish and different coolants

TIMETABLE 25TH OF JUNE

9:00 Welcome to workshop, introduction of the participants
9:15 Part one: Cutting
12:00 Lunch break
12:45 Cutting fluids
13:45 Part two: Grinding
16:30 Discussion and conclusion
17:00 End of the workshop

Duration: 8 hours



GLASS PERFORMANCE DAYS 2019
JUNE 26-28, TAMPERE FINLAND



ORGANISERS



PETER POKOERN, BOHLE AG

Director Product Management Industrial Glass Processing at Bohle, joined the company in 1985. For many years, he was engaged in application engineering in all aspects of processing glass, e.g. optimal manual glass cutting, thick glass cutting and UV bonding. In 2001 he became the Marketing and Product Manager especially for automatic glass cutting and ever since concentrates on this aspect of processing glass. The thorough knowledge of glass physics and the many years of experience in close cooperation with customer's requirements have made Peter Pokoern a real expert when it comes to choosing the right wheel holder, the correct wheel angle and cutting force to obtain optimal results.



MICHAEL EMONDS, BASF/CHEMETALL

Dr. Michael Emonds studied chemistry at RWTH – Aachen. He made his PhD in (bio)polymer chemistry and taught students at the university before he changed into industry. Since 1993, he is active in glass industry and works for BASF / Chemetall Frankfurt as R/D scientist. He is also responsible for applications engineering consulting in the areas of cutting fluids, coolants, detergents and interleavants/corrosion inhibitors and carries out seminars and training.