

Semi-Fluidizing Batch Roaster for Roasting of Coffee

J. FISCHER¹, R. PERREN²

¹G.W. Barth AG, Daimlerstrasse 6, P.O. Box 1245, D-71688 Freiberg/Neckar, Germany,
Tel. +49 7141 705 200, Fax +49 7141 705 100, e-mail: juergen.fischer@gw-barth.de

²Keme Food Engineering AG, P.O. Box, CH-5001 Aarau, Switzerland
Tel. +41 62 824 24 88, Fax +41 62 824 82 12, e-mail: rainer.rerren@kemefood.ch

INTRODUCTION

Roasting of coffee beans represents a standard technology. It's only recently that roasting technology of coffee was put in the focus of research groups. Schenker (2000) identified technological key factors for optimal quality coffee roasting:

- Process duration 6-15 min at moderate temperatures for optimal flavor generation
- Reduction of energy supply at the end of the roasting process in order to maintain a high concentration of flavor compounds in the bean
- Optimal Air-To-Bean Ratio (ABR) for optimal roasting atmosphere
- High speed cooling in order to immediately stop the roasting process

Derived from further research work a uniform treatment at low mechanical energy input and increasing supplementation of hot gases with fresh air towards the end of the process is of importance as well.