

Preface

Automated Guided Vehicle Systems (AGVS) were invented in the 1950s, and have since developed into a tested means for organizing modern intralogistics. Although the automotive industry was initially the leader in adopting them, almost all industries have come to use AGVS to optimize material flows. This manual documents the variety of uses and the technological standards that are available without claiming to be authoritative. In addition, it documents the new developments – which will hopefully continue – in both technology and applications. The future has long since begun with the advent of the fourth era of AGVS.

Another key point is the integrated planning of such systems, which is thoroughly described along with all necessary planning stages. Here the reader will not only find a guideline through the planning process, but also valuable advice.

For 28 years, the VDI Automated Guided Vehicle Systems panel has been accompanying the industry. It currently unites some 40 member companies – this strong network has given rise to the European AGVS community, the AGVS Forum, which is actively involved in publicity work (seminars, presentations, and initial consulting). At this point, I would like to offer thanks to all members of the AGVS Forum, without whose contributions this manual would not have been possible. In addition, I would like to thank the Mechanical Engineering Editor's office of Springer Vieweg publishers for their friendly and understanding assistance.

This handbook is directed at specialists and practitioners in intralogistics who are concerned with optimizing material flows. They are found in almost all branches of industry, in certain service companies or in research and development at universities and technical colleges. From our experience as planners and consultants, we are aware that there is a practical and theoretical need for a comprehensive presentation of this topic. We have tried to take an objective approach with a moderate degree of specialization using clear and concise language. This second edition was

entirely revised, slightly restructured, and takes into account recent developments in technology and the markets. We hope that this revised handbook will contribute to more automated guided transport systems being used and their future performance enhanced.

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