

**RIGHT** The evolution of the Price Handbook from a component of the 7th edition catalog to standalone textbook



# Price Engineer's Handbook

► Price Prepares to Launch the Engineer's Handbook in Early 2011

PRICE HAS LONG BEEN INNOVATIVE IN THE presentation of technical content and product information, from the first digital catalog in 1997 to the launch of Price Training Modules in 2003 and the technically-rich 6th edition Air Distribution Catalog in 2007. Every three to four years the Price team has the opportunity to refresh the content in our catalog, which evolves into a project that runs for ~18 months from inception to print. And with every new edition, we incorporate engineer feedback to make it better than the last.

It was clear from industry feedback, as well as the logistics required to present the sheer volume of technical content planned for the new 7th edition Catalog, that there was a more efficient way to provide it to the engineering community. This gave rise to the concept of the Price Engineer's Handbook. The idea was to collect all of the technical content from our catalogs and insert it into one standalone volume to accompany the 7th edition set. The book was to be a compilation of the design guides and examples that were in the 6th edition catalog, re-written to be a cohesive document and stripped of commercial content. It was intended to be a comprehensive source of information for any user wanting to understand the principles of air distribution systems. It was soon clear that simply combining the

available technical documentation from our catalogs and application guides would not result in the complete reference text as envisioned by our team. Additional content and structure would be required to create the flow and organization typical of a world-class reference guide. This fall, the realization of this project is the 1st edition of the Price Engineer's Handbook.

The past year and a half has seen the Handbook change form and concept several times. What was originally a collection of design guides, quickly changed into a more comprehensive manual. Along with the design guides from the 6th edition catalog, it was decided to include a discussion on the theory of HVAC, including Psychometrics and Thermal Comfort. This evolution lead to a textbook for engineers, architects, contractors, students, and anyone else interested in HVAC systems.

The chapters presenting fundamentals (Chapters 1-7) are intended to compliment the literature already in the market, elaborating and simplifying where appropriate for widespread understanding. This section provides the technical foundation for the book, allowing it to draw links between applications and fundamentals, the literature, industry rules of thumb and the design procedures used today.

The range of content in the Handbook cannot be contained in less than 22 chapters and 1267 pages.

**The 1st edition of the Price Handbook includes:**

## **FUNDAMENTALS**

**Chapter 1: Air Distribution Systems**

**Chapter 2: Fluid Mechanics**

**Chapter 3: Heat Transfer**

**Chapter 4: Indoor Environmental Quality**

**Chapter 5: Psychometrics**

**Chapter 6: Control Theory**

**Chapter 7: Basics of Acoustics**

## **APPLICATIONS**

**Chapter 8: Duct Design**

**Chapter 9: Mixing Ventilation**

**Chapter 10: Noise Control**

**Chapter 11: Controls**

**Chapter 12: Terminal Units**

**Chapter 13: Fan Coils and Blower Coils**

**Chapter 14: VAV Diffusers**

**Chapter 15: Displacement Ventilation**

**Chapter 16: Applications of Displacement Ventilation**

**Chapter 17: Underfloor Air Distribution**

**Chapter 18: Radiant Heating and Cooling**

**Chapter 19: Chilled Beams**

**Chapter 20: Hydronic Systems**

**Chapter 21: Healthcare**

**Chapter 22: Healthcare Applications**

With functionality in mind, this handbook has been designed as a reference text with the liberal use of examples and graphics to help illustrate and explain concepts and systems. Each chapter builds on fundamental concepts and presents in detail the applications of the relevant technologies. Where appropriate, highlights of advancements in research through summaries of recent technical papers are included in order to present new ideas that may have yet to be incorporated into the industry's reference manuals.

The Price Handbook has been written to make it accessible to anyone with an interest in HVAC. It is intended to be used on a daily basis with ample whitespace provided on each page to allow the user to make notes or insertions, essentially making the book their own.

More than 30 Price engineers and designers have contributed to the project over the past 18 months. A warm thanks goes out to them and their families for the effort required to pull the Handbook together. It has taken countless hours, both at work and home, to compile information, develop the text and examples, create the imagery, edit the content, and format each chapter.

No reference guide of this type could be introduced without a significant effort to ensure that the material is useable and correct. As such, a thorough review of this volume was completed by a notable and generous group of industry leaders, without whom, this handbook would not be possible. The Price team understands the depth of commitment that is necessary to review such a document in detail and provide candid and constructive feedback. We would like to extend our sincere gratitude to the review team and their respective organizations for their valuable contributions.

The Handbook is currently going through final checks before submission to the printer in early November, and will be available to all in early 2011. Please contact your local Price representative or visit [handbook.price-hvac.com](http://handbook.price-hvac.com) to request a copy.

This is the first edition and feedback is greatly appreciated as we start to look forward to next version, expected in late 2012.

The market plan for the Engineer's Handbook is intended to position Price as the foremost leader in air distribution. By circulating the Handbook to the Dean's offices of every major Engineering school, as well as the offices of every Design Engineer, we hope to crystallize the Price brand in the hearts and minds of the profession and the industry.

Launch events are still being finalized, but our intention is to blanket the industry with this world class information resource. Specific tactics include:

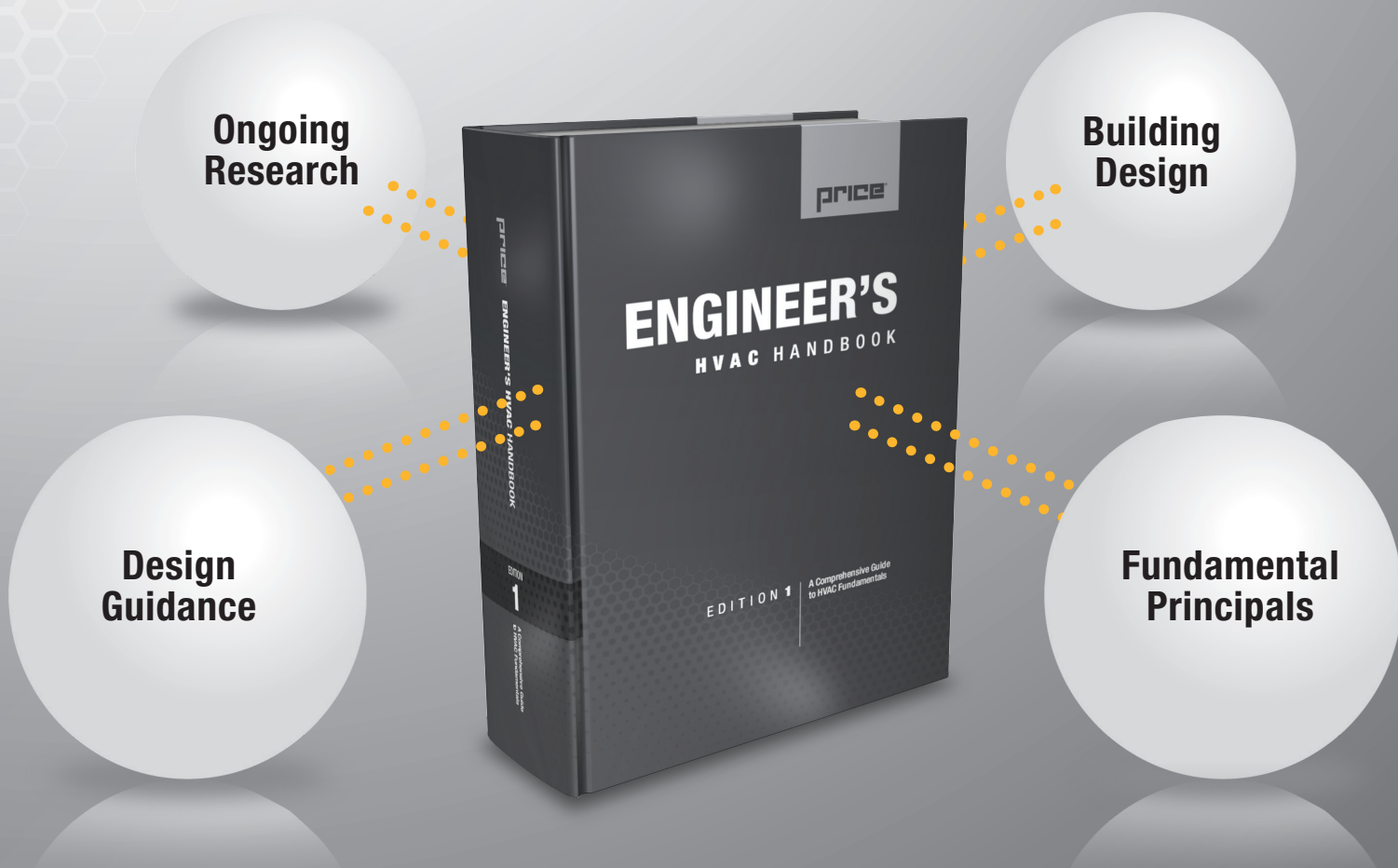
### **Rep Office Distribution Strategies:**

Leveraging our existing Rep network to have copies available for Engineers and Engineering faculties is a key component to our launch plan. From personalizing individual copies to deepening existing Engineer relationships and leveraging faculty relationships our Reps have with local Engineering Schools, our Rep offices will be an integral part of the initial launch.

### **AIO Registrant Strategy:**

As we climb to the goal of 20,000 engaged Engineers, the Engineer's Handbook will play an important part of the acquisition plan. As further incentive to download the AIO Engineering Edition to their

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**ABOVE** The Handbook is intended to provide links between fundamentals, design practice and research to provide guidance to the user



**BACK ROW** Gerry Price, Julian Rimmer, Brad Cole, Cindy Bolduc, Brad Tully, Eleanor McEwan, Duane McLennan, Mike Kouprianov, Reg Brown, Colin Tait, Jerry Sipes, Cam Regier, Alf Dyck, Darron Rempel, Curt Lavallee, Patrick Oliver, Michael Hnatowich, Mike Nicholson

**FRONT ROW** Rob Brown, Nolan Hosking, Rita Chtamm, Kelli Goldstone, Bob Green, Dane Gowryluk, Randy Dutka, Beau Maryniuk, Sam Frenette, Ryan Corder

**MISSING** Brynne Jonasson

desktop, Engineers will receive a complimentary copy of the Handbook during a limited time period.

#### **PTP Distribution Strategy:**

Price will distribute copies to Engineers participating in Price Training Programs throughout the year as a further benefit to visiting one of our three training facilities.

#### **Digital Marketing Strategies:**

We are planning a comprehensive digital launch of the handbook through our Price blog, Engineer eUpdate (e-newsletter to Price's master Engineer list), Webinars, YouTube and Twitter mediums by using video and print to explain the history, layout structure, and primary benefits of this informative resource.

#### **ASHRAE 2011 Engineer's Handbook Launch Party:**

Discussions are also underway on holding a formal launch event at the 2011 ASHRAE Conference in Las Vegas.

The creation of the Price Engineer's Handbook has been one of the largest and most rewarding projects we've had the pleasure to participate in. We hope that every user finds something of interest and can take something away from it. The journey from inception to print has been an enjoyable and thoroughly educational one for the entire Price team and we hope that the end product brings value to the HVAC community.

THE ENGINEER'S HANDBOOK TEAM