

Systems Manual Description
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SYSTEMS MANUAL DESCRIPTION

The Systems Manual is a unique, comprehensive resource ideally suited for system designers, building owners, developers, architects, contractors and individuals responsible for the overall operation of today's facilities. With it, one can easily retrieve material that is helpful in understanding the myriad of heating, ventilating and air conditioning (HVAC) system and equipment alternatives. It can be used as a technical reference tool or for assistance in preparing professional presentations.

The fully illustrated manual consists of marketing brochures discussing the importance of comfort, occupant well being and operating costs in an easily understandable format. These brochures are specifically tailored to six market segments: offices, schools, health care, stores, manufacturing and the lodging industry. Behind each of these pieces are individual sheets dedicated to the many airside system choices such as: single-zone constant volume systems, constant volume fan-coil and unit ventilator systems, an array of variable air volume (VAV) systems, heat pump systems and change-over bypass VAV systems.

Individual sheets are included to provide precise and easily understandable descriptions of system strategies that address issues such as energy, operation/performance management, aging systems, indoor air quality and quiet comfort. These sheets describe fundamental strategies such as coil-to-coil exhaust air heat recovery, heat-pipe dehumidification, unoccupied ventilation, low temperature air, thermal storage, electrical demand limiting, timed-override, plate and frame free cooling and decoupled chiller arrangement just to name a few. Over 100 system strategy pieces are readily available to help the user understand and communicate more effectively.

To support the system choices is a complete portfolio of typical equipment offerings provided by leading HVAC manufacturers. The information is presented in a one page, quick reference feature and benefit format. The equipment offerings cover all aspects of the HVAC industry: refrigeration, unitary, air handlers, terminal devices, controls and building automation and refrigerant handling.

Once the individual components have been selected, fully illustrated system schematics assist in tying the components together as a functional system. Each schematic represents a generic application of many commonly applied systems. Whether it is a packaged rooftop variable air volume system or a

water-cooled combined energy source chilled water system with two-fan dual-duct variable air volume air handlers, the systems schematic has material to help.

Often it is difficult to communicate and understand the importance of computer-aided systems engineering software. To help with this dilemma, the Systems Manual has a section complete with pieces describing the many uses and rewards of industry recognized design and analysis software. Computer software is instrumental in answering one of the most difficult questions associated with the design and retrofit of a facility, "Which system is right for this application?"

The descriptive information covers key points such as: criteria for choosing the right system, life cycle costing, energy and operating costs, predictive acoustical performance, optimizing air and water distribution systems and equipment selections. This section also includes three complimentary software programs as an introduction to some of the industry's most widely used and recognized system design and analysis tools. Among these programs is a fully functional application that enables general comparison of HVAC system types based on estimates of their installed, operating and maintenance costs.

In summary, the Systems Manual is a valuable, unbiased resource library for individuals involved in the planning, design, retrofit, installation and operation of environmental systems. It is easily applied in preparing professional presentations, as a training and reference tool and as an ongoing operations resource.

To purchase a manual, call The Trane Company's Literature Distribution Center at 608-787-3115 and request the Systems Manual (literature number MP-MNL-4). The cost of each manual is \$120.00 in US funds. Visa, Master Card and American Express credit cards are readily accepted.