Record Nr. UNINA9910797098303321 Building openings construction manual: windows, vents exterior doors **Titolo** // Jan Cremers, editor Pubbl/distr/stampa Munchen, [Germany]:,: Edition Detail,, 2016 ©2016 **ISBN** 3-95553-299-2 Descrizione fisica 1 online resource (290 pages): illustrations, photographs Collana **DETAIL Construction Manuals** Disciplina 720.2224409033 Soggetti Architecture - Details Windows - Design and construction Doors - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Frontmatter -- Contents -- Part A. Introduction -- Openings in Nota di contenuto buildings / Cremers, Jan -- The historic development of the window from its origins through to the early modern era / Klos, Hermann --Designing facade openings / Cremers, Jan -- Windows and doors in art and culture / Sohn, Elke -- Solution principles for adjustable openings / Bonfig, Peter -- Part B. Fundamentals I -- Requirements and protective functions - building physics fundamentals / Cremers, Jan / Sieberath, Ulrich -- Materials, components, types of construction / Cremers, Jan -- Building connection and structural context / Cremers, Jan / Sieberath, Ulrich -- Working with historic windows in existing buildings and architectural monuments / Klos, Hermann -- Part C.

Fundamentals II -- Passive solar energy use / Cremers, Jan / Binder, Markus -- Active solar energy use / Stark, Thomas -- Technical building components in and around windows / Binder, Markus -- Lifecycle assessments for windows and exterior doors / Hartwig, Joost --Part D. Built examples in detail -- Student accommodation / McLaughlin, Níall -- Terrace houses / Bucher-Beholz, Ingo -- Hotel in the Altes Hospiz / Miller, Quintus / Maranta, Paola / Aarburg, Jean-Luc von -- Detached house / Unterlandstättner, Thomas -- School --Renovation of the Bauhaus Dessau / Brenne, Winfried -- Home and workshop / Augustin, Georg / Frank, Ute -- Exhibition pavilion /

Ohren, Trygve / Fasting, Eivind Kristoffer / Foss, Ragnhild Pedersen / Hjort, Tomas Aasved -- Shop renovation / Nickel, Frank / Wachter, Jochen -- House and jeweller's studio / Roeder, Kaestle Ocker --District police department / Schneider, Enno -- Training centre / Hanstad, Trondheim Yashar / Gjertsen, Andreas G. -- Extension to the Landesdenkmalamt (State office for monument preservation) / Reutter, Odilo -- Islamic cemetery / Bader, Bernardo -- Detached house / Pérez, Pereda / Iglesias, Carlos Pereda / Silanes, Óscar Pérez -- Illwerke Centre, Montafon / Kaufmann, Hermann -- Residence / Fujimoto, Sou -- Office building / Eberle, Baumschlager -- Renovation of the former workers' canteen at the Pulverfabrik Rottweil / Liebmann, Bernd --Renovation of the Botanical Garden hothouses / Hubacher, Matthias / Peier, Erhart / Haerle, Christoph / Hubacher, Sabina -- Extension and improvements to the energy efficiency of the ift Rosenheim building / Guggenbichler / Wagenstaller -- High-rise building -- House / Olgiati, Valerio -- Office building conversion and extension / Goetschmann. Francis -- Boathouse -- House / Maeda, Keisuke -- Pavilion --Renovation and conversion of a high-rise government authority building / Bergfeld, Björn / Petersen, Rolf -- Student residences --Office building -- Part E. Appendix -- Authors -- Acknowledgements -- Ordinances, guidelines and standards -- Literature -- Image credits -- Index

## Sommario/riassunto

Building openings provide light, ventilation and climate control for rooms. At the same time, they are essential functional and design elements of facades, enabling communication between indoor and outdoor spaces as transparent or translucent structural components. Similar to the entire building envelope, windows and exterior doors must meet exacting standards for materials, construction types and installation conditions, as well as for fire, noise and thermal insulation, energy efficiency, airtightness and building security. The Building Openings Construction Manual opens with historic developments, provides solid facts on standards and safety features. It covers materials, components, construction types and specifics of structural connections, including solutions on how to deal with existing older windows and issues of ventilation, the use of solar energy and ecological sustainability. Detailed case studies offer a wealth of constructive ideas for the reader's own work. Integrative linking of indoor and outdoor spaces