

#### **Index of Companies and Tools**

- APi Distribution: New Website and e-Commerce Portal
- Armacell: Product Selector Tool and Knowledge Center
- Avery Dennison: Tape Selection Guide
- Bowen & Associates, LLC: Thermal Camera Certification
- Buckaroos: Tool Catalog
- CertainTeed: How-To Video Series and Online Building and Technical Insulation Architect/Engineer Binders
- Distribution International: Resource Center
- Dyplast Products, LLC: Online Resources
- FastEST, Inc.: Estimating and Takeoff Software
- FLIR: Thermal Cameras
- General Insulation Company, Inc.: Resources and Training
- H.B. Fuller Construction Products Inc.: Selection Guide and Reference Chart
- HiCube Coating: Roll Calculator and Online Resources

- Johns Manville: The Source
- K-FLEX USA: IsoCalc Software and Website Resources
- Knauf Insulation, Inc.: Website Resources
- Lamtec Corp.: Energy Code Navigator
- MasterFormat 2018 Edition
- Mechanical Insulation's Key Estimator Software
- MFM Building Products: Guide to FlexClad
- Oak Ridge National Laboratory: Envelope Air Tightness Calculator
- Owens Corning: Website Resources
- Owens Corning FOAMGLAS: Product Installation Guides
- PaySimple AppConnect Payment Software
- ROCKWOOL Technical Insulation: Rockassist
- Safway Services: Scaffold Lifting Rig Guide
- Sensera Systems: Sensera MC78
  Construction Camera

#### APi Distribution: New Website and e-Commerce Portal

APi Distribution is a supplier of insulation, high-performance coatings, and safety and specialty building products for the commercial, industrial, residential, and oil and gas industries. They launched a new website in February 2018 and users are able to buy products online. Customers can create an account to gain access to order history, quick-lists, pay on account, and so much more. Visit www.apidistribution.com.



#### Armacell: Product Selector Tool and Knowledge Center

Armacell has a product selector tool that allows individuals to search for insulation products by applications and requirements; component foam products by market, application, requirement, or industry specification type; and engineered systems for oil and gas, and onshore and offshore applications.

Armacell also has a Knowledge Center with available document downloads, including, data sheets, price lists, white papers, and brochures; videos on different topics, including installation instructions; safety data sheets; FAQs; the ArmWin Calculation Tools, which can determine correct material thickness to prevent condensation or heat loss; BIM files for Autodesk® Revit® 2012 Architecture building design software; a glossary of industry and technical terms; and educational webinars. The Knowledge Center also has Installation Manuals that give tips and instructions for installing their products; technical bulletins that offer more information on the use and application of their products; submittal sheets with product data and specifications; and specifications for different types of applications, including a Master Duct Lining Specification, Master Specifications for Duct Insulation, Master Specifications Equipment Insulation, Master Specifications Piping Insulation, Refrigeration Insulation Specification for Supermarkets, and Plumbing Pipe Insulation Specification. Visit www.armacell.us.



#### Avery Dennison: Selecting the Right Tape

When you are looking for a Pressure-Sensitive Adhesive (PSA) tape for insulation, many factors come into play. Specific material characteristics, environmental factors, application conditions, cost concerns, and

the required bonding performance must all be considered. Avery Dennison provides a comprehensive online guide, Selecting the Right Tape, to help ensure proper application selection.

Tape Selection Guide: By matching application requirements against available tape technologies, you can put together the best tape. This specific tape selection guide will enable you to review the conditions under which a tape must perform and help you to choose the right tape for your application. The tape selection guide is available at <a href="https://tinyurl.com/y7rrzdda">https://tinyurl.com/y7rrzdda</a>.

#### Bowen & Associates, LLC: Thermal Camera Certification

Thermography—the use of thermal cameras to image and evaluate equipment energy efficiency and insulation integrity—can be a cost-efficient tool. Using the camera can easily show you where the system may be losing heat. Bowen & Associates, LLC, (dba: Bowen Infrared) offers certification training courses that meet and exceed ASNT SNT-TC-1A/CP-105 to provide training certifications and a comprehensive thermography education. Bowen Infrared offers Level I Certification Training , which is an introduction to thermal imaging and measurement systems for electrical/mechanical predictive/preventive maintenance, utility inspection, and OGI and NDT testing, which spans all applications. They also offer Level II Certification, which is an advanced diagnosis training for thermal imaging and measurement systems across all applications; and Level III Certification, which spans the equipment selection process, certifications management, and includes instruction for undertaking the ASNT Level 3 method exam. They also offer non-certification technology training for infrared camera applications for electrical, mechanical, OGI, R&D, and NDT. They will customize courses to fit any application. Bowen Infrared will also set up inspection programs. Visit <a href="https://www.boweninfrared.com">www.boweninfrared.com</a>.

# THE **NEW** 2018 **BUCKAROOS**TOOL CATALOG IS HERE!





### **NEW PRODUCTS!**

New steel Buckaroos Tool Center wall display.
G26 Red and Black Tackers, and #2619 1/2" Staples.





Hardened Replacement Door



Digaroo®



Pipe Calipers



**Plastic Glue Dispensers** 



pers Depth Gauge



#### **Buckaroos: 2018 Tool Catalog**

Buckaroos recently released their 2018 Tool Catalog. The new catalog features 25 new products, including 6 of Buckaroos' product innovations. It also includes a new steel Buckaroos Tool Center wall display. Contact sales@buckaroos.com to request a free copy. Visit www.buckaroos.com.







#### CertainTeed Insulation: How-To Video Series

From step-by-step beginner advice to advanced tips, CertainTeed's "Right Way" Series teaches how to get the best results from every insulation project. The video series in available at <a href="https://tinyurl.com/y98qkfqb">https://tinyurl.com/y98qkfqb</a>. Looking for just the basics? Check out the 3-minute Drill, where in just under 3 minutes a video, you can learn about the 3 types of insulation: batts, blown-in, and mold prevention. Available at <a href="https://tinyurl.com/y78djvt8">https://tinyurl.com/y78djvt8</a>.

## CertainTeed Insulation: Online Building and Technical Insulation Architect/Engineer Binders

CertainTeed's Online Building and Technical Insulation Architect/ Engineer Binders bring all of the documents and resources needed into one convenient digital destination. Easily find data and spec sheets, warranties, installation guides, case studies, etc. with the click of a button! The binder for technical insulation resources is available at <a href="https://tinyurl.com/yc2368aa">https://tinyurl.com/yc2368aa</a>. The binder for building insulation resources is available at <a href="https://tinyurl.com/ycgagxbz">https://tinyurl.com/ycgagxbz</a>.



#### Distribution International: Resource Center

Distribution International's online resource center houses a massive collection of product data sheets, an SDS search system, and technical literature and installation guides. They also list tax credits by state and have links to industry training classes and calculators. Visit www.distributioninternational.com.

#### **Dyplast Products, LLC: Online Resources**

Dyplast lists a number of resources on their website. They have articles; information on how you can obtain LEEDs credits; a glossary of terms; a

link of industry links to helpful resources; technical bulletins; Qwik Guides, which are single-page summaries on insulation materials; data sheets for their products; and installation guides for different applications, including a chilled water install guide, a refrigeration install guide, a cryogenic/LNG install guide, and a guide for higher-temperature applications. Visit www.dyplast.com.



#### FastEST, Inc.: Estimating and Takeoff Software

FastEST, Inc. has estimating and takeoff software available on their website. They have FastPIPE®, plumbing and mechanical estimating software for commercial and industrial contractors; FastDUCT®, a commercial HVAC estimate software that simplifies bidding sheet metal and industrial ductwork jobs; and FastWRAP™, a mechanical insulation estimating software for commercial contractors. They are available at https://fastest-inc.com.



#### FLIR: Thermal Cameras

FLIR has a number of thermography cameras that can help you measure temperatures and find problems before they cause serious damage. To see their available products, please visit <a href="https://tinyurl.com/ybvxac8b">https://tinyurl.com/ybvxac8b</a>.



#### General Insulation Company, Inc.: Resources and Training

General Insulation Company, Inc., offers spray foam training classes and links to specifications, related OSHA and safety information, and industry organizations. Visit www.generalinsulation.com.



38





#### H.B. Fuller Construction Products Inc.: Selection Guide and Reference Chart

Choosing the right products for your insulation system design, installation, and operation can be a daunting task with significant ramifications on the final performance of your systems. Considerations such as operating and ambient temperatures, insulation types, exposure conditions, application methods, VOC requirements, and other specification needs should all be taken into account when selecting accessory products for your system. H.B. Fuller Construction Products Inc.'s Selection Guide & Reference Chart specific to the Foster® and Childers® brands helps engineers and contractors select the appropriate products by clearly identifying recommended applications, insulation substrates, and key product performance criteria so you can be confident you are using the right product type for your system. Visit www.fosterproducts.com/io for one-click access to both guides today. When faced with a more complex situation or for individual custom support, our technical support line can also help you with all your questions related to mechanical insulation systems. Call 1-800-832-9002 to speak with a live person about all your insulation questions.

#### HiCube Coating: Roll Calculator and Online Resources

Under the resources tab on their website, HiCube Coating has several tools. There is tab titled, "Tape Terminology" that has a listing of various technical terms associating with tape and its accessories; a tab on "Standards" with relevant standards and testing on tapes; a "Roll Calculator;" a "Tape Thickness" tool; and a "Conversions" tool that can help convert measurements for thickness, area, length/width, temperature, price, and force. Visit www.hicubecoating.com.



#### Johns Manville: The Source

Johns Manville's new online resource platform, The Source, is designed to be robust and comprehensive, and includes the following resources:

#### Webinars

Johns Manville offers monthly webinars for the HVAC, Mechanical, and Industrial industries. These webinars are intended to disseminate educational or scientific information to the market, and they are great opportunities for industry professionals, like contractors or engineers, to earn continuing education credits.

To ensure that the webinar offers rich content, Johns Manville typically partners with a third-party to ensure the information is well-rounded and not solely focused on insulation. The co-hosts vary depending on the presentation, and can include contractors, engineers, and even industry organizations (like NAIMA or ASTM).

Johns Manville was one of the first manufacturers to begin writing a blog, and it's been a go-to resource for many professionals in the insulation industry. The blog capitalizes on the expertise of Johns Manville's in-house scientists and engineers at the Johns Manville Technical Center (JMTC) to produce rich and relevant content. The technical team utilizes Johns Manville's accredited laboratories to regularly study and analyze many of the insulations that are available to the industry today. The findings are then released in the blog to help keep you up to speed on the latest findings and innovations in the insulation industry.

John's Manville recognizes that their expertise can be limited to insulation, however, thus in addition to publishing their own content, they also curate content from other industry resources. This helps to ensure that the information provided is well-rounded and thorough.

#### Johns Manville Academy

Johns Manville also offers free online training through Johns Manville Academy. This is an interactive training platform that covers the basics from insulation 101 to fabricating and installing their products. For anyone who has just been introduced to the industry, it's a great way to dig into the need-to-know details.

#### Onsite training

Johns Manville offers free onsite training that includes presentations, product demonstrations, and, often, lunch. Presentations can cover everything from an introduction to Johns Manville's product portfolios to a detailed explanation of corrosion under insulation and how to use insulation to help prevent it. Additionally, Johns Manville can send an expert to your site to do a hands-on demonstration of how to fabricate and install Johns Manville products.

#### **Product Information Workshops (PIW)**

These are free, 2-day courses that are a great opportunity for people just beginning their career in the insulation industry. Not only does the course take a detailed look at Johns Manville's insulation portfolio, but it also includes hands-on fabrication demonstrations, presentations on system design, and a tour of their manufacturing facilities.

#### **Technical Services Representatives**

Johns Manville's Technical Service Representatives are seasoned engineers who have in-depth knowledge of building code requirements and prohibitions, installation methods, and product performance.

#### Johns Manville Industrial Masters Course

The Johns Manville Industrial Masters Course is designed for engineers and experienced contractors in the industrial industry who are looking to take a deep dive into industrial system applications. This 2-day course is highly unique in that it brings 8 to 10 manufacturers in the industrial industry together to present on the details of their markets. Past presenters have included a variety of specializations from jacketing to ceramic fibers to heat tracing. Visit www.jm.com/en/mechanical/the-source/.







#### K-FLEX USA: IsoCalc Software

The IsoCalc program is designed to perform various rudimentary thermal calculations using fundamental engineering heat flow formulas

and input data that is application specific. The program will determine the following information applicable to pipe and sheet insulation for piping, duct, and large vessel applications. Features of the IsoCalc Software include:

- Thickness to prevent condensation
- Heat loss/gain
- Surface and outlet temperatures
- Cost to operate system/energy savings
- Time to freeze

Typical input data that may be required for the above calculations include: fluid temperature, ambient temperature, pipe size, relative humidity, length of pipe, and flow rate. Thermal K-values for the insulation products offered have been pre-selected. (Note: information must be entered in all input fields for the program to operate.)

If a given condition data point is not known, (e.g., relative humidity), the program can be run using different conditions and the options presented to the end user for final insulation thickness selection. Several factors must be considered when determining operating conditions. For condensation control, "design" operating conditions should be selected. In other cases, efficiency (optimum payback) may be considered.

The icon selections will allow you to quickly navigate through the various operations of the program. This software can be used on the MS Windows operating system. You can download IsoCalc at https://tinyurl.com/ ybwhjndx.

#### K-FLEX USA: Website Resources

K-FLEX USA also has a Resources tab on their website that has installation videos for their products, webinar videos on using elastomeric insulation for supermarket applications and mechanical systems, and a list of frequently asked questions. They also have a Product Selector Guide under the "Literature" tab on their site at https://tinyurl.com/cpwq3ae.



#### **Knauf Insulation, Inc.: Website Resources**

Knauf Insulation offers many resources on their website, including a customized 3E Plus® calculator for Knauf products, tax credit information, Basics of Insulation, specifications, and case studies.

Visit www.knaufinsulation.us/en/resources.



#### Lamtec Corp.: Energy Code Navigator

Lamtec Corporation has developed a variety of tools for the metal building industry designed to help architects, engineers, insulation suppliers, and erectors comply with ever changing energy codes and standards.

When uncertain about the insulation levels required for a specific

project, Lamtec Code Navigator is a good place to start. It is easy to use, just enter the ZIP code for the location of the project. The Code Navigator will return the climate zone and allow the user to select the applicable code from a drop-down list. If the specific code is unknown, a link is provided that will take the user to the DOE website, showing the current codes.

Upon selecting the applicable code, the Navigator will provide:

- Prescriptive assemblies for the roofs and walls;
- Prescriptive U-Factor;
- Compliance options for assemblies that meet or exceed the U-Factor requirements;
- Prescriptive and optional installation details; and
- Prescriptive and optional notes.



In addition to the Code Navigator there are several other useful tools available at: www.lamtec.com/architectural-support/.

The website also includes:

- Filled cavity installation instructions for metal building roof insulation systems providing U-Factors down to 0.029;
- Installation instructions for single- and double-layer fiber glass-based filled cavity metal building wall insulation systems providing U-Factors down to 0.036;
- · Roof and wall assembly thermal test reports and/or thermal modeling documentation; and
- Technical Bulletins including topics such as:
  - Vapor retarder permeance,
  - Vapor retarder location in a wall,
  - Air permeance data,
  - Painting instructions,
  - Vapor Retarder FAQs, and
  - Dew point tables.

#### **MasterFormat 2018 Edition**

MasterFormat\*, a publication of CSI and CSC, is a master list of numbers and titles classified by work results. It is primarily used to organize project manuals and detailed cost information, and to relate drawing notations to specifications. The new MasterFormat 2018 edition now available for purchase in the CSI store at https:// tinyurl.com/y7laoxnu.

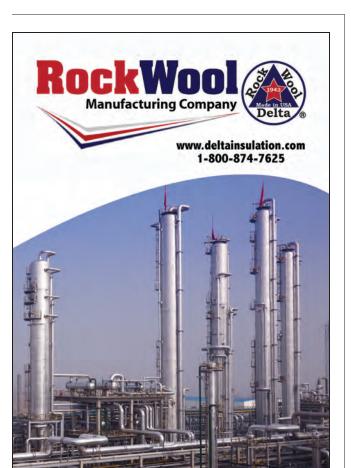
Construction projects use many different kinds of delivery methods, products, and installation methods,

but one thing is common to all—the need for effective teamwork by the many parties involved to ensure the correct and timely completion of work. The successful completion of projects requires effective communication amongst the people involved, and that in turn requires easy access to essential project information. Efficient information retrieval is only possible when a standard filing system is used by everyone. MasterFormat provides such a standard filing and retrieval scheme that can be used throughout the construction industry.

MasterFormat is the master list of titles and numbers used to organize specifications and other project information for most commercial building design and construction projects in North America. It lists titles and section numbers for organizing data about construction requirements, products, and activities. By standardizing such information, MasterFormat facilitates communication among architects, specifiers, contractors and suppliers, which helps them meet building owners' requirements, timelines, and budgets.

#### Mechanical Insulation's Key Estimator Software

Designed specifically for industrial and commercial mechanical insulation contractors, Mechanical Insulation's Key Estimator<sup>™</sup> (MIKE) can cut estimating time in half and avoid costly extension errors. Estimate using built-in productivity factors, or customize your own tables. Calculate base bids and alternates easily and quickly. Develop cost and bid price by section or by total job. Create an accurate bill of materials for each project. Ready to use with minimal training, you're up and bidding. Available at https://tinyurl.com/y7twp5a7.





## MFM Building Product: Guide to FlexClad MFM has a product

overview guide that has an installation photo gallery, materials list, and installation instructions for its products. The website also has detail drawings, specification guides, installation instructions, videos, and technical literature. Visit www.mfmbp.com/.

#### Oak Ridge National Laboratory: Envelope Air Tightness Calculator

A new tool developed at Oak Ridge National Laboratory (ORNL) addresses one of the most overlooked energy issues facing commercial buildings: building envelope air tightness. The laboratory's new web-based energy savings calculator now offers Facility Managers and other building professionals the ability to see firsthand how envelope improvements might be able to reduce costs in their particular facilities.

The calculator, which was developed in conjunction with the Air Barrier Association of America and the National Institute of Standards and Technology, looks particularly at the practice of introducing air barrier systems into buildings, as air leaks can significantly harm energy efficiency.

"Air leaks are responsible for over 4% of all energy used in the U.S.," said ORNL's Som Shrestha. "This energy savings calculator can demonstrate the benefit of constructing airtight buildings."

The calculator allows users to determine how an air barrier system might improve a building's energy efficiency by putting in a facility's general location (based on 52 U.S. cities), building type, floor area, leakage rates, and energy costs. It then predicts how much natural gas and electricity the user will be able to reduce and the avoided costs of each.

The U.S. Department of Energy's Windows and Building Envelope Research and Development Roadmap for Emerging Technologies notes, "Computational tools are critically important for the design of commercial buildings with energy-efficient envelope materials. As new technologies are developed, models and simulation tools must be updated to account for increased performance."

The calculator was created to fill a void that prevents widespread adoption of air barrier systems into buildings. Because the tool can be used by architects, designers and owners, it can accurately estimate the energy performance of a given air barrier system at any stage for a building. Visit *airleakage-calc.ornl.gov*.

#### **Owens Corning: Website Resources**

Owens Corning has a number of continuing education options, including training courses, BIM objects, and a complete family of guide specifications for certain products and applications. The specifications are presented in the standardized CSI MasterFormat® 3-part style, which facilitates communication among architects, specifiers, contractors and suppliers, helping meet building codes, owners requirements, timelines and budgets. They also have design assistance, case studies, a glossary of terms, FAQs, and sustainability literature. Available at <a href="https://tinyurl.com/ydfrctmt">https://tinyurl.com/ydfrctmt</a>.

### Owens Corning FOAMGLAS: Product Installation Guides

Owens Corning FOAMGLAS has 3 brochures available that can help in choosing and installing their insulation products. There is a brochure on Foamglas Insulation—Insulation Systems for Industrial Applications, a brochure on energy surveys, and a brochure on energy analysic calculations. These publications and others are available at <a href="https://industry.foamglas.com/en-gb/resources/brochures">https://industry.foamglas.com/en-gb/resources/brochures</a>.







#### PaySimple: AppConnect Payment Software

PaySimple, a Service Commerce platform for businesses, recently announced the integration of its embedded payment processing technology, PaySimple AppConnect<sup>™</sup>, with improveit 360, a leading CRM and business management software purpose-built for residential remodelers, contractors, and home improvement professionals. PaySimple AppConnect seamlessly integrates with improveit 360 to simplify payment acceptance for projects.

PaySimple AppConnect<sup>™</sup> enables improveit 360 customers to accept payments directly from their improveit 360 desktop or mobile application, making it simpler than ever to collect payments on-time for major projects in the field, in the office or on the go.

The integration makes it easier for professionals to run their businesses, allowing them to securely accept large sums, down payments, multi-step payments or recurring payments without disrupting core services. By combining the power of improveit 360's all-in-one business management platform and mobile app, with PaySimple's secure payment acceptance capabilities, building professionals can focus on projects, not toggling between software systems.

PaySimple AppConnect integrates with service business platforms to facilitate down payments, recurring payments, web forms, payment plans, credit card & ACH processing, virtual point-of-sale, "card on file" PCI Compliant Vault, and cash flow reporting. To learn more, visit <a href="https://tinyurl.com/y9jl7d3b">https://tinyurl.com/y9jl7d3b</a>.





#### **ROCKWOOL Technical Insulation: Rockassist**

In the industrial, marine, and offshore industries, operational excellence is critical to your business. ROCKWOOL Technical Insulation offers expert tools and support, including the easy-to-use, online tool, Rockassist<sup>™</sup>—a free, state-of-the-art calculation tool for thermal calculations of technical installations. No matter how complex your needs, Rockassist helps you design the most optimal technical insulation solution.

Aligned with industry codes/standards, Rockassist was developed to help optimize the insulation for your installation to achieve improved process control, a higher degree of operational efficiency, increased levels of personal and site protection, as well as reduced energy consumption and decreased carbon emissions.

Rockassist allows you to choose from 7 different thermal calculation possibilities. The Quick Check mode is recommended for fast, initial advice on the insulation materials needed, with medium and temperature the only required parameters to fill in. Experienced planners and installers can carry out more advanced or specific calculations based on individual parameters.

No installation required, simply visit www.rockassist.com and register for free.

- Extensive calculation options
- Wide range of products
- Plausibility checks

- Certified VDI 2055 calculation
- EN ISO 12241 calculation
- Free ROCKASSIST training

Outcomes are presented in detail, clearly illustrated with graphs that show the correlation between all relevant parameters such as insulation thickness, surface temperature, heat loss, and more. All results can be summarized and forwarded directly in a PDF report for further evaluation. Visit <a href="https://www.rockwool.com">www.rockwool.com</a>.

#### Safway Services: Scaffold Lifting Rig Guide



When job site access constraints preclude the use of cranes, telescoping boom lifts, or fork lifts, the newly updated Systems<sup>™</sup> Scaffold Lifting
Rig & Underhung Trolleys Guide from Safway Group shows how scaffold
may be configured to lift a center load of up to 3,750 pounds and an off-center load of up to 1,875 pounds.

Configuration involves adding a Safway System Bearer/Runner, Truss Bearer, or Safway-provided I-beam to standard Systems Scaffold. For lifting and horizontal movement, Systems Scaffold can be configured with header beams and an underhung trolley I-beam between them. Depending on the length, size, and configuration of the beams, a trolley I-beam can support loads of 1,250 to 10,000 pounds. Trolley I-beams are available in lengths from 5 to 10 feet. The guide, publication ORN 208, is available as a downloadable PDF at www. Safway.com/literature.

Darrell Domokos, Director of National Equipment Sales, noted that Safway Systems Scaffold has passed all seismic qualification tests of Class 1E equipment and is in full compliance with the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE) Std 344. A video of portions of the actual seismic testing, is available, as is a full report.

#### Sensera Systems: Sensera MC78 Construction Camera

A complete job site monitoring and security solution. The is the effortless way to record and monitor any project. Set it and forget it. Capture clear HD images up to 8MP. Get a time-lapse video recorded at the rate you want, and played back at the rate you want. Access your job site 24/7/365 from anywhere. Use the recordings and time-lapse to track progress, site visitors, equipment, safety, and highlight project milestones in your marketing.

These cameras work with PlanGrid. Users can upload jobsite photos directly to their PlanGrid project documents and share with team members for real-time visualization of the jobsite. Send any camera image to your PlanGrid account with a simple click. PlanGrid users can now document important construction projects and track progress with high resolution images and content from their Sensera cameras and SiteCloud media. Visit https://tinyurl.com/ybv5kehh.



July 2018

46