On-Screen Takeoff and Quick Bid for Firestopping

Firestopping is a highly technical and integral discipline of the construction industry. For companies in this trade, the success of a project is often determined even before a company is awarded the work. It all starts with a high-quality bid built on the accuracy and timeliness of a company's takeoff and estimation process.

Firestopping is not a "best efforts" trade. If firestopping installation varies from the architectural and engineering designs and UL specifications, or is not in conformance with the appropriate certification listings, the applicable fire ratings may be less than expected and could result in a failed inspection or worse, catastrophic damage from fire and litigation. As a construction trade, firestopping is one of great detail where every aspect of a job is crucial and unique—different substrates, which type of block-out blanks to use with multiple penetrations, type of sleeves to use in a particular penetration, insulation in curtain walls, and so on.

When it comes to the implementation of a firestop system, the devil is in the details.

With firestopping, accuracy is required in the takeoff interpretation of structural and engineering drawings and designs to assure that all required preventative solutions are addressed up front. This is to avoid unnecessary problems down the road, such as rework, failed inspections and project penalties.

Successful construction businesses understand the fundamental importance of the takeoff and estimating processes. These tasks are the cornerstone of every construction bid and have always been a challenge. In today's highly competitive marketplace where "the low bid gets the job," a firestop company can lose money before the first firestop pillow is installed without accurate and timely takeoffs and estimates.

Manual processes are costly

Before automation technologies, the tools used for takeoff and estimating consisted of the rolling linear scale, colored pencils, highlighters, ledger pads, and calculators. As the use of personal computers grew, estimators replaced their calculators and accounting books with electronic spreadsheets with customized formulas. Some estimators, however, still use the old-school tools to perform takeoffs manually and to generate educated cost guesstimates that slowly make their way into original estimates.

These manual processes are both time- and labor-intensive and prone to inaccuracies, even by seasoned experts. Knowledgeable firestop estimators carefully comb through numerous printed architectural and engineering plans spread across a table to tabulate penetration and block-out blank counts; to determine thickness and volume; and to identify substrate and joint types. There are quantities of insulation and intumescent caulking per gap size, to count, as well as special requirements for various materials. It takes significant time and skill to determine the real values due to unique conditions and odd shapes where it is challenging to measure correct values.

Further complicating the process, firestop projects are mostly estimated and bid "blind." That is, a bid is based on "design intent" versus "actual design and implementation" by the mechanical, electrical, plumbing (MEP) contractors. The actual design and implementation can only be determined during the firestop contractor's pre-inspection before firestopping begins and MEP contractor designs are shared. "Blind bidding" can create change orders when MEP implementation drastically deviates from the intended design.

With manual processes and spreadsheets, the estimator must sift through marked-up architectural, engineering and MEP plans and prior estimates, change or develop an alternate and incorporate it into the overall project budget and bid. Even small changes create a time burden and add to the cost of bidding on projects.

Many businesses invest considerable time and money in their takeoff and estimating processes in the hope of winning work. While manual takeoff and estimating methods are still used today, there is a better and more accurate way for firestop companies to double their estimating productivity effectively. Companies submit more bids in less time with greater confidence when they use On-Screen Takeoff® and Quick Bid®. Moreover, more and better bids mean winning more lucrative work.

On Center organizes its takeoff and estimating software to mirror tried-and-true manual processes. Alternates and change orders are digitally organized in tabs, which allow you to easily see the scope-of-work changes and the estimated design changes that affect the current bid.

> Contractors submit more bid proposals in less time with greater confidence when they use On-Screen Takeoff® and Quick Bid®. Accurate bids win profitable projects.

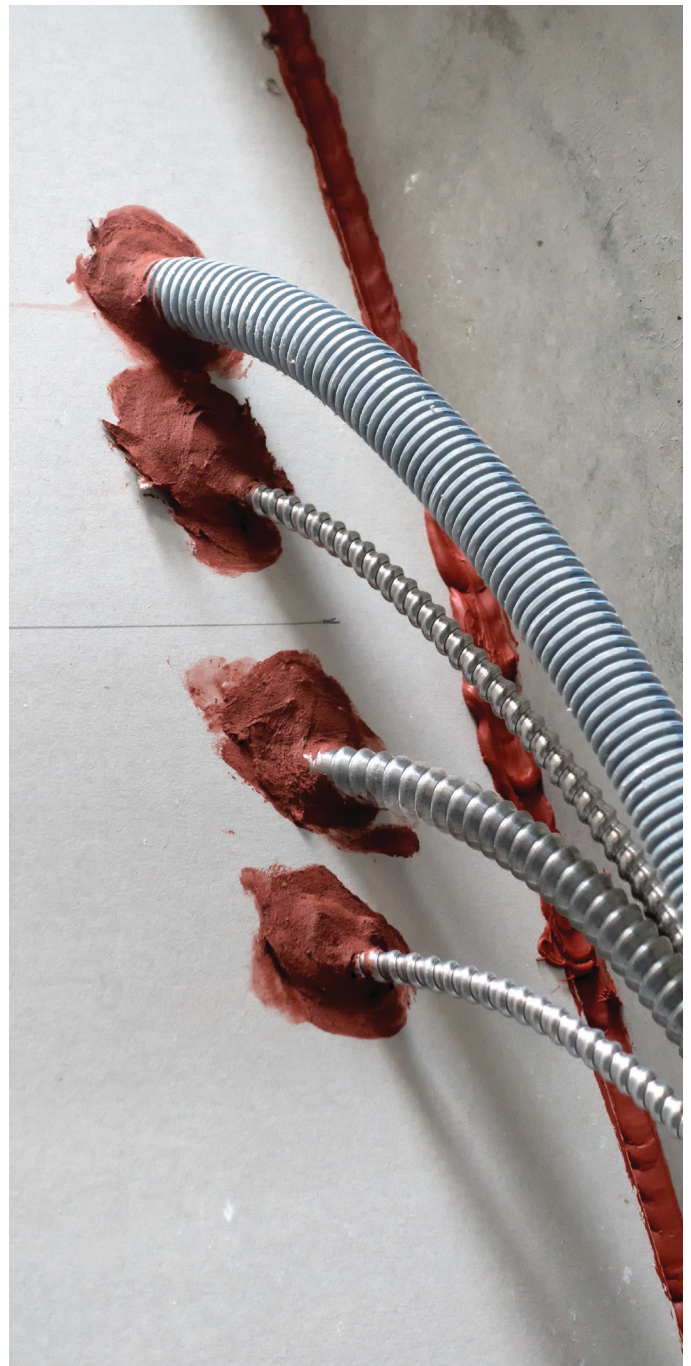# On-Screen Takeoff and Quick Bid improve productivity

On-Screen Takeoff allows a firestop estimator to measure areas, lengths, and volumes; count quantities; and select system components from digital plans viewed on a computer. As counts and measurements are taken with the click and drag of a mouse, the on-screen® plan is highlighted to show what has been processed. The estimator applies conditions such as substrate penetration, pipe insulation, and wall and floor joints. Rather than tabulating the takeoffs on a legal pad or spreadsheet, the estimator lets the application track and tally all the material needs.

Today's On-Screen Takeoff and Quick Bid solutions have a high degree of integration so that takeoff data flows right into cost estimates. Competing software products have different sets of capabilities and tools can vary widely.

Software like On-Screen Takeoff and Quick Bid is used to apply the current material, labor, and other costs to the takeoff data to estimate project costs for bid day. Bid specs change. An important element of creating an accurate estimate is breaking a project down into smaller pieces and being able to roll them up into an overall bid.

From start to finish, an experienced firestop estimator who is proficient with these automated tools develops a more precise, detailed bid in much less time compared to the manual method.

The best value is found in On Center Software's full-featured takeoff and estimating solutions that simplify and accelerate the bid development process.

Reduce redundancy and rework from manual methods

On-Screen Takeoff and Quick Bid quickly pay for themselves in several ways. First, by increasing the number of bids that end up winning more work. Second, by eliminating the need to print, handle, and store large paper-based plans and other documents. Third, by easing the estimator's analysis after re-inspection to review the initial designs and bids compared to the actual models. Most importantly, these applications assist in the accurate translation of specified firestop system design requirements into a precise bid.

Digital plans and designs imported directly into On-Screen Takeoff allow an estimator to take off all aspects of the project, including penetrations through walls and floors, and optional sleeves with penetrations. Because the estimator specifies and views specific conditions directly on the computer screen, it is easy to work up accurate penetration counts and types, volumes, and diameters to develop accurate estimates that meet the firestop protection requirements.

Quick Bid allows firestop companies to maintain and manage a library of standard assemblies of firestop designs. These assemblies are combinations of materials, quantities, costs, and labor that together form a unit of firestop production. Assemblies can be instantly recalled and reused on similar projects to save time. Built-in cost databases that are unique to firestopping are another time-saver designed to reduce errors and develop a more accurate bid. Quick Bid allows an estimator to import complete and current cost lists from multiple sources including vendors and subcontractors.

ON CENTER SOFTWARE CONTRACTOR SUITE CUSTOMER RESEARCH

Increase your profits by 20%

Percentage of profits increase with the use of On Center Software's Contractor Suite

- Greater than 50%: **2%**
- 40-50%: **4%**
- 30-40%: **13%**
- 20-30%: **20%**
- 10-20%: **31%**
- Up to 10%: **29%**
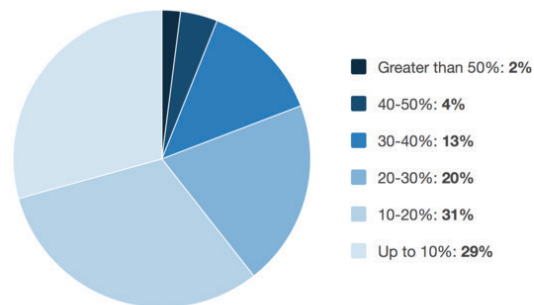
Source: TechValidate survey of 45 users of On Center Software Contractor Suite

✔ Validated   Published: Aug. 23, 2017   TVID: 3FA-0D0-09B

Better ways to manage costs

Quick Bid generates reports to manage material inventories and purchases and to plan man-hours and costs for a variety of labor categories and tasks. Labor is broken down into subcategories for site labor, and installation labor, with separate values for specialized tasks, which can include handling, spraying, caulking, and insulating. Also, material requirements are reported by what is needed, and when, facilitating just-in-time purchasing and delivery to the job site.

A better way to conduct business

Firestop companies that have adopted On-Screen Takeoff and Quick Bid cannot imagine doing manual estimates any longer.

These programs help businesses:

- **Save Time and Money:** Reduce the cost of shipping and printing plans. Spend far less time doing takeoffs and estimating costs for each bid. Submit more bids to win more projects.
- **Reduce Costly Mistakes:** Eliminate manual entry errors and see on the screen that everything is accounted for. This decreases the likelihood of misinterpreting firestop designs and the related inspection problems such as rework and penalties.
- **Improve Collaboration:** Get everyone in the shop on the same page for how to bid and work a job.
- **Differentiate from Competition:** Submit bids, respond to change requests, and offer alternates quickly and with confidence.

Conclusion

A firestop company's success begins with expertise, attention to detail, and teamwork. It starts with the ability to takeoff, estimate, and bid projects in a timely and accurate manner. Taking too long to generate a bid can lead to rushed numbers. Bidding too high because of inaccurate input costs will cause companies to lose jobs. Conversely, if a company bids too low due to incorrect data, it may win the bid, but lose money on its work. The objective is to get it right the first time, every time. On-Screen Takeoff and Quick Bid can make the difference between winning bids and building a backlog of jobs, and scrambling to make another bid.