

# The Strength Behind the Nozzle:

## WHY GREAT SHOTCRETE CREWS BUILD GREAT PROJECTS

By Derek Pay, Education and Safety Committee Chair



Walk onto almost any exceptional-looking shotcrete project and ask who gets the credit: Chances are the answer will be the person holding the nozzle. While the shotcreter certainly carries tremendous responsibility, anyone who has spent years in this industry knows the truth — outstanding shotcrete is never the product of one person. It's the result of an entire

crew working together as one unit.

A successful shotcrete project is built long before material ever leaves the nozzle. It begins with preparation, communication, trust, and a team of professionals who understand that every position on the jobsite is equally important.

### EVERY POSITION MATTERS

Every crew member has a role that directly affects quality, safety, and production. The pump operator maintains a consistent material flow and quickly recognizes changes in the system before they become costly problems. The shotcreter must constantly adjust for reinforcement congestion, shooting distance, air flow, rebound, encapsulation, and finish quality. The laborers remove rebound, prepare surfaces, keep hoses organized, monitor safety, and ensure the work area stays clean and efficient. Finishers shape and cut the surface while maintaining tolerances and architectural requirements.

Each position depends on the others. If one person falls behind, the entire operation slows down. If one person becomes careless, quality suffers. If communication breaks down, safety is often the first casualty. No one succeeds alone.

### TRUST CANNOT BE BUILT OVERNIGHT

One characteristic separates average crews from exceptional ones: Trust. The best crews know each other's tendencies. They anticipate problems before they occur, often communicating with only a glance or a simple hand signal because they've spent hundreds of hours working together. That level of trust cannot be purchased — it is earned through shared challenges, difficult jobs, long days, and a commitment to helping one another improve.

When crew members remain together over time, production increases, mistakes decrease, and quality

becomes consistent. New employees learn faster because experienced crew members take ownership in teaching the next generation. Great crews don't simply work together; they invest in one another.

### COMMUNICATION IS THE MOST VALUABLE TOOL ON THE JOB

Every successful shotcrete project depends on communication. Before shooting begins, everyone should understand the sequence of work, material requirements,

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safety concerns, finishing expectations, and individual responsibilities. During shooting, communication becomes even more critical: The shotcreter may need adjustments to water or air flow. The pump operator may recognize material changes. Finishers may identify areas requiring additional attention before final cut. Laborers often notice safety hazards developing around hose movement or rebound accumulation.

The strongest crews create an environment where every member feels responsible for the success of the project — not just their individual task.

### PRIDE IS CONTAGIOUS

When every member takes pride in the finished product, shortcuts disappear. Crew members begin correcting problems before supervisors ever notice them. Equipment receives better maintenance. Cleanup improves. Safety standards rise naturally. Clients notice the difference, and that culture becomes contagious. New employees quickly understand what is expected, because excellence becomes the standard rather than the exception.

### BUILDING FUTURE LEADERS

Every experienced shotcrete crew has a responsibility to develop those who will eventually replace them. Future shotcreters are standing beside us every day. Passing knowledge from one generation to the next is an investment in the future of our industry.

### SAFETY IS A TEAM RESPONSIBILITY

Shotcrete projects involve high-pressure equipment, heavy hoses, elevated work, confined spaces, and constantly changing jobsite conditions. Safety cannot rest on one person's shoulders. The safest crews are those who genuinely care about one another and watch out for each other every day.

### THE BEST TEAMS LEAVE THEIR EGO AT THE GATE

Successful crews understand that no position is beneath anyone. There are days when a shotcreter grabs a shovel, a foreman helps clean rebound, or a pump operator assists with cleanup. When egos disappear, teamwork flourishes.

### THE LEGACY WE LEAVE

After more than two decades in shotcrete, I've learned that people rarely remember how many cubic yards of concrete were placed on a project. They remember the crews they worked alongside, the mentors who taught them, and the teammates who stayed calm under pressure. Our industry is built on concrete, steel, and craftsmanship, but its greatest strength has always been its people.

When an owner, contractor, and crew commit to working together with trust, communication, professionalism, and mutual respect, the result is more than quality shotcrete: It is a team capable of accomplishing extraordinary things. Because at the end of the day, the best shotcrete isn't placed by one person. It's built by an entire crew.