The term “turnkey contractor” is defined in the powder coating industry as one supplier who is responsible for providing all the equipment, installation, engineering, start-up assistance, training, etc., for a project with little or no involvement of the purchaser until the system is accepted.

There are different components from different sources (contractors) in a powder coating system. System houses are responsible for selling, engineering, and usually installing the pretreatment systems (washer and dry-off oven), cure systems (convection, infrared [IR], or both), part conveyance (typically overhead conveyor and supports), and environmental rooms. They may purchase some of these components from other suppliers (i.e., conveyors and environmental rooms); however, they are responsible for their design and installation. Powder application and recovery vendors are responsible for selling, engineering, and providing installation supervision for the devices that apply the powder coating onto the part along with containing the overspray powder coating. Sometimes the installation of the entire system is handled by another contractor, or contractors, who provide skilled tradespeople (electricians, mechanics, plumbers, welders, riggers, sheet metal workers, etc.) to assemble, wire, plumb, weld, etc., the equipment components into a working system. Therefore, the typical powder coating installation may require as few as two, to as many as four, contractors to deliver and install a complete powder coating system. Larger and more complicated powder coating systems can have many more contractors who are responsible for control systems, robots, masking, building construction, etc.

The pros of using a turnkey contractor include the fact that one responsible authority will provide all the project management and become the single interface to the purchaser. This allows the purchaser to be free from dealing with the individual contractors necessary to provide the powder coating system. In turn, this responsible party will charge a fee for this service and will collect all funds for all the contractors in their employ to complete the system. This fee can be up to 30 percent of the cost of the equipment components for which this contractor does not supply directly.

One of the cons to using a turnkey contractor is the cost of the management fee, which sometimes can be so costly that the purchaser may be able to afford to hire an independent consultant or a permanent finishing engineer to do the job. Also, the single contact feature of turnkey contracting at times can be misleading since the purchaser has some other responsibilities that necessitate them to have hands-on participation with the project to handle building modifications, powder and chemical selection, utility provisions, permitting, insurance and code inspections, etc. Furthermore, if the turnkey contractor does not pay his sub-
contractors for their equipment or services, these subcontractors may come to you directly for the unpaid invoices and may lien your property until a satisfactory settlement is made.

**Turnkey Contractor Candidates**

There are several possible candidates that can become turnkey contractors for a powder coating system, including system houses, powder application vendors, system integrators and engineering firms.

**System House.** This contractor is the natural choice for turnkey responsibility in most powder coating systems, because they have direct involvement with the design and manufacture of most of the system components. Therefore, the project management fee is often lower. Additionally, they normally have their own installation crews that can install other system components (i.e. the powder application and recovery equipment) along with their own system hardware. Since they supply most of the equipment, they also have the highest financial stake in the system (often 60 percent) and the most at risk if the system installation goes badly.

**Powder Application Vendors.** Unless the installation is a retrofit of an existing finishing facility where most of the other equipment components (i.e., washer, ovens, and conveyor) are already in place, then this person is the most unlikely candidate for turnkey contractor. Quite frankly, it would be difficult to entice this contractor to take on the turnkey responsibility for the entire system, given their risk of financial loss if the system installation goes badly.

**System Integrator.** This is an organization that doesn’t actually build any equipment but usually sells complete systems and may provide installation services. In this case, they have even more exposure than the application equipment supplier, since they must purchase and resell the entire system. Therefore, the turnkey fees will be the highest when this person takes on the turnkey responsibility for the entire system, given their risk of financial loss if the system installation goes badly.

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lations, where the other vendors are not interested in becoming the turnkey contractor.

**Engineering Firm.** These firms are often used in large automotive and appliance installations, where the powder system is part of a new facility. Often, these firms are responsible for the project management of the entire facility, including the building construction. However, they are not normally involved with most mainstream powder coating installations.

**Choosing a Turnkey Contractor**

The rule of thumb used in determining the best choice for a turnkey contractor is to select the vendor who has the most knowledge, manufactures the largest portion of the system, and has the largest financial stake in seeing the project completed properly and on time. Given the above choices, the most obvious selection of turnkey contractor is the system house (unless you are an automotive assembly plant or appliance manufacturer requiring the support of an engineering firm). The reasons are mostly economic since the system house manufactures 60 percent of the equipment they will only assess the 30 percent turnkey fee on the remaining 30 percent. Their higher financial stake implies their desire to ensure the project’s overall success.

I recommend that you investigate each turnkey contractor thoroughly using the following guidelines:

- Check their customer references on past project performance.
- Visit their manufacturing facility.
- Investigate their financial stability and history.
- Talk to the subcontractors that they will be supervising and determine their comfort level with the proposed turnkey contract.
- Solicit the help of a knowledgeable, unbiased, unaffiliated, credentialed consulting company to evaluate the investigation results and offer alternate choices.

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