

Power of the People

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State of the art is defined as the highest level of development of a device, technique, or scientific field, achieved at a particular time. So it makes sense that one important criterion for OEMs would be an EMS who has state-of-the-art facilities in which to build state-of-the-art products.

Five key areas of development make all the difference when it comes to achieving state-of-the-art status: people, equipment, building, culture, and systems. All are important. However, these are not enough to manufacture state-of-the-art products. The power lies in the people.

Secret Sauce

People are the secret sauce. And when the secret sauce is missing, success is not possible. Significant pain and failures result even when all areas except the people are state-of-the-art.

Imagine having state-of-the-art equipment and not having the right people to run it. On a surface mount line, the equipment is important to consistency and efficient throughput, and pain points develop when an operator makes repeated mistakes that result in misprints, assembly of wrong components or poor soldering due to inaccurate oven profiles.

Similarly, the perfect building is not enough. A building comes

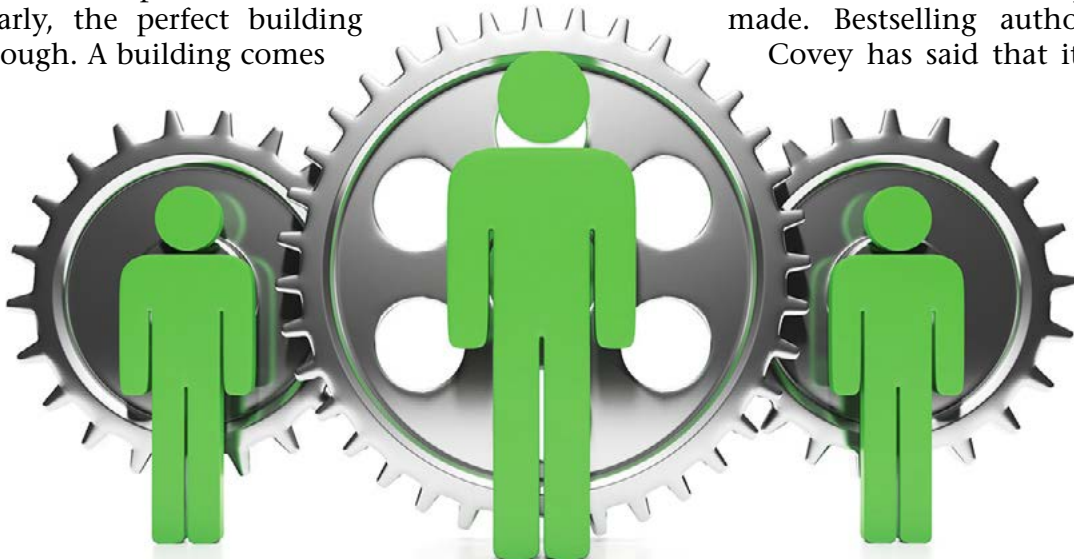
alive only when the right people are inside, in the right positions, getting results.

Culture refers to the cumulative deposit of knowledge, experience, beliefs, values, and attitudes by a group of people. A manufacturing plant with a dynamic, positive, problem-solving culture and the wrong people is a plant that is not going to thrive. Employees who approach the day with an attitude of independence and a lack of teamwork negatively affect the number and quality of units shipped that day.

Logical and effective systems in a plant impact costs and service and enhance long-term relationships. People are what bind these systems together. Ineffective people who ignore processes, systems and procedures compromise quality, resulting in rework carts everywhere.

We can all think of an example in the service realm of companies who have created the perfect environment with regard to equipment, buildings, culture and systems, but the wrong customer service experience. When a greeting, conversation, or interaction with an employee is negative, or even neutral, the degree of cleanliness of the floor or the efficiency of the cash register does not matter. Impressions are made

when connections between people are made. Bestselling author Stephen Covey has said that it takes five



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deposits into an emotional or relationship bank account to offset one withdrawal.

In the product manufacturing world this looks different and yet the principle is the same. Success, for an EMS company, begins and ends with people—its team of employees. Interactions with customers matter and exemplify Covey's theory about relationship bank accounts.

The Power of 5:1

Delivering good news to customers on a regular basis will be critical to maintaining a strong relationship bank account. It may be tempting to communicate only when there is a problem, but this can be dangerous because the withdrawals will outweigh the deposits.

When people have an attitude that no news is good news, the relationship will suffer long term. Simply delivering quality product on time is not enough. Effective people are those who understand the significance of daily decisions on company results.

Communication and relationships between employees matter to an even greater degree. The complexity and sheer volume of transactions and decisions made in a typical day of manufacturing necessitate people communicating effectively. People are critical to properly optimizing all of the other areas required for state-of-the-art status, which is why it all begins with hiring practices.

Hiring

When hiring, an EMS company should look for the right person who can handle the defined job responsibilities and be a good fit with the rest of the team, with the same core values as corporate. A few general requirements make a person qualified to work in any industry: honesty, strong work ethic, and desire to contribute. For our industry in particular, a job description should identify key education and skills that are required for success. Education may vary, however, candidates who demonstrate initiative, persistence, and commitment in their edu-

cational pursuits are more likely to fit into our industry's continually changing environment. Skills may range from general technical or mechanical skills to more highly skilled operators and engineers. For the basic skills, demonstration comes with work experience, schooling, or even skills used in hobbies. For the more highly skilled positions, demonstrated work experience and education must be required.

A hiring team may want to look for more soft skills such as talent and attitude rather than skills and knowledge (TASK). Talent and attitude cannot be taught. Skills and knowledge applicable to the company and specific industry can be taught via formal and informal training.

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Training

When hiring is done right, most people come to any new position with the required skills and abilities. However, company-specific processes and systems must often be learned. Therefore, training on company procedures, processes and systems should be covered in the first 90 to 180 days.

All new employee training should begin with an orientation in which the company history, vision, mission, values, safety and general procedures are described. This will acquaint new hires with their role in furthering the company's success and familiarize them with the overall processes and systems of the organization.

For production employees in a manufacturing plant, a specific production orientation is effective and may take the shape of a weeklong program in which employees will be taught the basics about working on the production floor. Procedures and activities such as scanning time to jobs, electrostatic discharge controls, component handling, and importance of process controls, quality and equipment maintenance are among the various topics that are important to cover.

A great way to ensure that skills training requirements are communicated, scheduled, executed and evaluated is to have a training policy

and plan. Software programs can help you to manage these details and provide reporting, or a company can manage this by simply using a spreadsheet tool like Excel.

The best processes use software to manage the training program so there are no tracking or training gaps. Requirements should be entered by job title initially to provide consistency across the company and match job description requirements. Requirements may also be added based on individual or departmental needs or in response to quality issues identified where training could improve the situation in the future.

New employees should be given a training plan that outlines expectations and provides a map of what courses are required, including a deadline for completion.

Recordkeeping of completed and outstanding training may be used by supervisors to assess skill sets of the individual and the department. Supervisors appreciate recordkeeping and reporting because they can see exactly what is needed and who is qualified to complete an activity. For example, if a supervisor needs a solderer, he can review the training records and choose a solderer from all employees even if that person's primary job responsibilities are in another area. They can also build strength in an area by using the reporting to create cross-training plans. This leads the supervisor to seek opportunities for the employee to grow.

Growing

Attending training is not enough. Employees must grow in their knowledge and skills for the training to be effective. To ensure success, classes must be consistent between departments, provide a variety of assessments and include an instructor review at the end.

On-the-job performance assessment is the next step. For example, an employee taking a project management course should be asked to lead a project and then assessed. Results of the assessment should be acted on so that the employee grows.

Leading

Strong trainers and supervisors should lead their teams to achieve their individual goals and objectives. In a comprehensive training pro-

gram, some general areas of classes to consider are leadership, technical skills, employee development, technology instruction, and certifications.

Some suggested classes to offer include:

- Leadership Toolbox
- Company Values in Action
- Lean Manufacturing
- Drawing Reading
- Internal Audits
- Management Action Programs
- AOI Operator Training
- Aegis Operation
- Certified Test Operator
- Certified SMT Operator Training

Some leadership will come via informal methods. Problem-solving conversations and character development conversations provide leadership opportunities for supervisors. Communication and relationship development within departments and across departments should also be established through meetings or shadowing.

Employees should be encouraged to shadow other departments, especially the department in the process flow directly before them and directly after them. Understanding the source of inputs to their operations and the impact of their outputs on the next operation is helpful for the employee to make more relationship deposits than withdrawals.

The hiring, training, growing, and leading of employees is required for achieving state-of-the-art people—a requirement for achieving strategic objectives. The power of people to achieve state-of-the-art status cannot be understated, and yet it is only one area for an EMS to consider. Stay tuned for more on creating a state-of-the-art manufacturing organization. **SMT**



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