



## **MSSC Overview**

The Manufacturing Skill Standards Council (MSSC) is an industry-led training, assessment and certification system focused on the *core* skills and knowledge needed by the nation's production workers. The MSSC System, based upon federally-endorsed national standards, offers both entry-level and incumbent workers the opportunity to demonstrate that they have mastered the skills increasingly needed in the high-growth, technical jobs of the 21st century.

The MSSC System awards the *Certified Production Technician (CPT)* credential to individuals who pass each of four Production modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production; and Maintenance Awareness. Applicable to all sectors of manufacturing, the MSSC goal is to credential 40% of the production workforce over the next 10 years—a strategy providing manufacturers with a sufficient pool of skilled production workers well into the future.

MSSC offers industry a new set of tools to ensure that both entering and incumbent workers are flexible, easily trainable, and highly motivated *knowledge workers* in high-performance work organizations. A list of key activities against which MSSC trains and assesses workers is attached.

Just as "ASE" (Automotive Service Excellence) certification is the standard for quality in the automotive repair sector, the MSSC *Certified Production Technician (CPT) credential* will set the quality standard in our nation's factories as its use increases. MSSC benefits to manufacturers include:

1. A pipeline of skilled workers by embedding MSSC certification training into the schools
2. Decreased recruitment costs by providing job candidates with industry-recognized credentials
3. Elimination of remedial training costs by providing well prepared workers
4. A diagnostic tool to benchmark incumbent workers against a high-performance national standard
5. Increased ROI for training by targeting it against the gaps identified by the MSSC diagnostic tool
6. An aid to attracting, motivating and retaining qualified employees.

The federal National Skill Standards Board formally recognized MSSC as the "Voluntary Partnership" for manufacturing in 1998 and officially endorsed the MSSC's industry-led, nationally validated standards in 2001. The development of those standards involved 4000 front-line workers, 700 companies, and 350 subject matter experts and a public-private investment of over \$9 million.

Since that time, the MSSC has developed, validated, piloted and deployed all the tools of a comprehensive system: updated standards, on-line and instructor-led courses, computer-based simulation training, textbooks, instructor certification training, assessment center certification, a national registry, assessments, credentials, and diagnostic tools for employers. Companies may use these tools themselves or work through their local community colleges and/or high schools.

Some testimonials to the MSSC by companies and policy leaders are attached.

For details, see [www.msscusa.org](http://www.msscusa.org) or contact Neil Reddy, General Manager at [reddyn@msscusa.org](mailto:reddyn@msscusa.org) or at 703-739-9000.

Attached: Work Skills Covered by MSSC Training & Assessments; Sample Testimonials

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## WORK SKILLS COVERED BY MSSC TRAINING AND ASSESSMENTS

### SAFETY

1. Work in a Safe and Productive Manufacturing Workplace
2. Perform safety and environmental inspections
3. Perform emergency drills and participate in emergency teams
4. Identify unsafe conditions and take corrective action
5. Provide safety orientation for all employees
6. Train personnel to use equipment safely
7. Suggest processes and procedures that support safety of work environment
8. Fulfill safety and health requirements for maintenance, installation, and repair
9. Monitor safe equipment and operator performance
10. Utilize effective, safety-enhancing workplace practices

### MANUFACTURING PROCESSES & PRODUCTION

1. Identify customer needs
2. Determine resources available for the production process
3. Set up equipment for the production process
4. Set team production goals
5. Make job assignments
6. Coordinate work flow with team members and other work groups
7. Communicate production and material requirements and product specifications
8. Perform and monitor the process to make the product
9. Document product and process compliance with customer requirements
10. Prepare final product for shipping or distribution

### MSSC QUALITY PRACTICES & MEASUREMENT

1. Participate in periodic internal quality audit activities
2. Check calibration of gages and other data collection equipment
3. Suggest continuous improvements
4. Inspect materials and product/process at all stages to ensure they meet specifications
5. Document the results of quality tests
6. Communicate quality problems.
7. Take corrective actions to restore or maintain quality
8. Record process outcomes and trends
9. Identify fundamentals of blueprint reading
10. Use common measurement systems and precision measurement tools

### MAINTENANCE AWARENESS

1. Perform preventive maintenance and routine repair
2. Monitor indicators to ensure correct operations
3. Perform all housekeeping to maintain production schedule
4. Recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with:
  - Electrical systems
  - Pneumatic systems
  - Hydraulic systems
  - Machine automation systems
  - Lubrication processes
  - Bearings and couplings
  - Belts and chain drives



## **MSSC – Sample Testimonials**

“MSSC is a nationwide, industry-based skill standards, assessment and certification system for all sectors of manufacturing.” **U.S. Secretary of Labor Elaine Chao**

“Workforce preparedness is one of the top three priorities of the President’s Manufacturing Council... MSSC represents a *tipping point* from the old image of manufacturing work towards the new future of knowledge workers.” **Fred Keller, CEO, Cascade Engineering, and Chair, Workforce Subcommittee, President Bush’s Manufacturing Council**

“We believe this new MSSC certification program for production workers will help address the growing skills gap by making it clear to workers what skills they need to work in manufacturing, and at the same time enable manufacturers to identify applicants who have the requisite skills.” **Governor John Engler, CEO, National Association of Manufacturers**

“We see the benefits to our own company in attracting and retaining knowledge workers with the foundational skills needed to adapt to change and be easily trained in the specific technical and process requirements of our company... *we plan to use MSSC credentials as one of the tools that we employ for recruitment.*” **Gary Veurink, Corporate Vice President, The Dow Chemical Company**

“My training experts at Harley have high regard for the MSSC. We have already put more than 150 of our workers through MSSC assessments and are using those results to guide our training priorities. We offer tuition reimbursement for MSSC courses and *take MSSC certification into account in hiring decisions.*”

**James McCaslin, President and COO, Harley-Davidson Motor Company**

“At Sandia’s Advanced Manufacturing Center with 150 employees, we successfully used MSSC standards as the basis for defining the foundational skills of all six departments.” **Gil Herrera, Director, Manufacturing, Science & Technology, Sandia National Laboratories**

“MSSC standards provided the research foundation for the ‘Core Competencies’ in our ‘Building Blocks for Advanced Manufacturing.’ Grant applicants under the High Growth Jobs Training Initiative need to connect with these ‘Building Blocks’ to qualify for our training funds in this area.” **Emily DeRocco, Assistant Secretary of Labor, Employment and Training, U.S. Department of Labor**

*“If a potential employee said they were enrolled in the MSSC program, I would hire them on the spot.* If they had passed the MSSC certification tests, I would look at bringing them in above our normal starting wage.” **Ron Brown, Production Mgr., Dickson’s Inc.**

“Our challenge is to make certain that our workforce is prepared, ready and committed to life-long learning. The MSSC can play a key role in achieving that goal.” **David Hollister, Director, Department of Labor and Economic Growth, State of Michigan**

“Multi-industry and multi-functional, the MSSC’s *badge of certification* of rigorous foundational skills is creating *the industrial athlete* of the future.” **Mark Baker, Senior Vice President, Global Operations, Steelcase, Inc.**

“The depth of understanding displayed by MSSC Production Technician certified workers is changing our workforce from a ‘*show me what I need to do*’ approach of manufacturing to actively applying problem solving and continuous improvement methods within broader, system-level mindset of product, process and organization. If only we could get the whole workforce (hourly and salary) to have this common understanding, we’d be unstoppable.” **Jim Maley, Training/Industrial Engineering Manager, Visteon Connersville Plant**

“The work of the MSSC is a first step in building a national strategy to revitalize manufacturing in America.” **Bob Baugh, Exec. Dir. AFL-CIO Industrial Union Council**

“I view technology and a highly skilled workforce to implement that technology as the keys to the future competitiveness of U.S. manufacturing.” **Al Frink, former Assistant Secretary for Manufacturing and Services, U.S. Department of Commerce**

“The use of MSSC assessments is one way to support employees especially since they can be used as both pre- and post-test measures...The MSSC system can be useful for employees in smaller companies where they often don’t have the tools to move up the ladder.” **James McGregor, President, Morgal Machine and Tool**

“MSSC is indeed a very valuable tool. If I were an employer in the manufacturing arena, I would mandate the test. It not only measures what you know, but is also a great tool for training those deficient in certain areas of manufacturing.” **Paul D. Moe, Director, MN Jobs Skills Partnership Program, MN Department of Employment & Economic Development.**

***“When we are weighing candidates for employment at Pratt & Whitney, obviously the one who is credentialed as an MSSC Certified Production Technician will have an advantage.”***

**Leonard Salazar, Training Director, Pratt & Whitney, Burbank CA**

“The flexibility offered by the MSSC-Certified Production Technician is precisely what our company needs. We are diversifying our product mix and need to have a workforce able to adapt quickly to new production requirements.”

**Mark Tyler, President, OEM Corporation**

“MSSC is an excellent way to provide well rounded and much needed skills improvement. In the future, ***we will give hiring preference to MSSC certified workers.*** We strongly encourage workers to access the broad range of knowledge this program has to offer.” **Comptroller, National Technologies of Oak Creek**

“We are giving serious consideration in our recruitment policy review to offering an interview to any job applicant with an MSSC certification.” **Joe Loughrey, CEO, Cummins Engine**