Florida Job Growth Grant Fund
Workforce Training Grant Proposal

Proposal Instructions: The Florida Job Growth Grant Fund Proposal (this document) must be completed and signed by an authorized representative of the entity applying for the grant. Please read the proposal carefully as some questions may require a separate narrative to be completed.

Entity Information

Name of Entity: Collier County Public Schools

Federal Employer Identification Number (if applicable): 288.075, F.S.

Contact Information:
Primary Contact Name: John Antonacci
Title: Director, Student & Staff Projections, Allocations & Reporting
Mailing Address: 5775 Osecola Trail
Naples, FL 34109
Phone Number: 239.377.0310
Email: AntonaJo@collierschools.com

Workforce Training Grant Eligibility

Pursuant to 288.101, F.S., The Florida Job Growth Grant Fund was created to promote economic opportunity by improving public infrastructure and enhancing workforce training. This includes workforce training grants to support programs offered at state colleges and state technical centers.

Eligible entities must submit proposals that:

- Support programs and associated equipment at state colleges and state technical centers.
- Provide participants with transferable and sustainable workforce skills applicable to more than a single employer.
- Are offered to the public.
- Are based on criteria established by the state colleges and state technical centers.
- Prohibit the exclusion of applicants who are unemployed or underemployed.
1. Program Requirements:

Each proposal must include the following information describing how the program satisfies the eligibility requirements listed on page 1.

A. Provide the title and a detailed description of the proposed workforce training.
   Southwest Florida Manufacturing Excellence Center [expansion of machining program at Immokalee Technical College (iTech); see attached description].

B. Describe how this proposal supports programs at state colleges or state technical centers.
   iTech will expand its machining program to accommodate the growing needs of the manufacturers (see attached narrative).

C. Describe how this proposal provides participants transferable, sustainable workforce skills applicable to more than a single employer.
   The skills taught in the 1500 hour program and apprenticeships provide a solid foundation for the manufacturing sector; the continuing and industry specific education enhances skills of existing employees (see attached narrative).

D. Does this proposal support a program(s) that is offered to the public?
   ✔ Yes    ☐ No

E. Describe how this proposal is based on criteria established by the state colleges and state technical centers.
   This expands an existing program at a state technical center; creates an apprenticeship program; expands continuing education opportunities based on guidelines established by the appropriate state/governing entities (see attached).

F. Does this proposal support a program(s) that will not exclude unemployed or underemployed individuals?
   ✔ Yes    ☐ No
G. Describe how this proposal will promote economic opportunity by enhancing workforce training. Please include the number of jobs anticipated to be created from the proposed training. Further, please include the economic impact on the community, region, or state and the associated metrics used to measure the success of the proposed training.

Local manufacturers project the creation of 1,400 new jobs over the next 5 years. Estimated enrollment across 4 programs is 150 in first year, with the opportunity to double in future years. Recently, a local manufacturer announced an out-of-state expansion of 1,000 jobs. SWFL was not considered due to the lack of a skilled workforce. This proposal addresses the talent deficit (see attached).

2. Additional Information:

A. Is this an expansion of an existing training program? ☑ Yes ☐ No

If yes, please provide an explanation for how the funds from this grant will be used to enhance the existing program.

See attached.

B. Does the proposal align with Florida’s Targeted Industries? (View Florida’s Targeted Industries here.)

☑ Yes ☐ No

If yes, please indicate the targeted industries with which the proposal aligns.

If no, with which industries does the proposal align?

Advanced Manufacturing

C. Does the proposal align with an occupation(s) on the Statewide Demand Occupations List and/or the Regional Demand Occupations List? (View Florida’s Demand Occupation Lists here.)

☑ Yes ☐ No

If yes, please indicate the occupation(s) with which the proposal aligns.

If no, with which occupation does the proposal align?

Machinists, First-line Supervisors of Production and Operating Workers
D. Indicate how the training will be delivered (e.g., classroom-based, computer-based, other).

   If in-person, identify the location(s) (e.g., city, campus, etc.) where the training will be available.

   If computer-based, identify the targeted location(s) (e.g. city, county, statewide) where the training will be available.

   In-person training offered at satellite campus in Collier County within a 50 mile radius of the iTech campus (see attached).

E. Indicate the number of anticipated enrolled students and completers.

   Anticipated students in year one is 150; completion time would vary based on program enrollment (ex. apprenticeships v. 1500 hour machinist program).

F. Indicate the length of program (e.g., quarters, semesters, weeks, etc.), including anticipated beginning and ending dates.

   Begin Date: January 2019   End Date: Ongoing

G. Describe the plan to support the sustainability of the proposal.

   See attached.

H. Identify any certifications, degrees, etc. that will result from the completion of the program. Please include the Classification of Instructional Programs (CIP) code if applicable.

   NIMS (National Institute for Metalworking Skills) - Machining Level 1
   Mastercam - Mill Design and Toolpaths CIP: 48.0510; continuing education certificates
I. Does this project have a local match amount?

☑ Yes ☐ No

If yes, please describe the entity providing the match and the amount.
Several manufacturers have expressed willingness to donate equipment, curriculum and other materials. See attached for additional funding avenues.

J. Provide any additional information or attachments to be considered for the proposal.
Please see attached.

3. Program Budget

**Estimated Costs and Sources of Funding:** Include all applicable workforce training costs and other funding sources available to support the proposal.

A. Workforce Training Project Costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td>$ 482,100</td>
</tr>
<tr>
<td>Personnel</td>
<td>$ 375,000</td>
</tr>
<tr>
<td>Facilities</td>
<td>$ 1,000,000</td>
</tr>
<tr>
<td>Tuition</td>
<td>$ 96,000</td>
</tr>
<tr>
<td>Training Materials</td>
<td>$ 16,800</td>
</tr>
<tr>
<td>Other</td>
<td>$ 1,050,000</td>
</tr>
<tr>
<td><strong>Total Project Costs</strong></td>
<td><strong>$ 3,019,900</strong></td>
</tr>
</tbody>
</table>

B. Other Workforce Training Project Funding Sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/County</td>
<td>$</td>
</tr>
<tr>
<td>Private Sources</td>
<td>$</td>
</tr>
<tr>
<td>Other (grants, etc.)</td>
<td>$</td>
</tr>
<tr>
<td><strong>Total Other Funding</strong></td>
<td>$</td>
</tr>
</tbody>
</table>

**Total Amount Requested** $ 3,019,000

**Note:** The total amount requested must equal the difference between the workforce training project costs in 3.A. and the other workforce training project funding sources in 3.B.
C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding, how equipment purchases will be associated with the training program, if applicable, and any other pertinent budget-related information.

See attached.

4. Approvals and Authority

A. If entity is awarded grant funds based on this proposal, what approvals must be obtained before it can execute a grant agreement with the Florida Department of Economic Opportunity (e.g., approval of a board, commission or council)?

Collier County School Board

B. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the entity and the Florida Department of Economic Opportunity:

i. Provide the schedule of upcoming meetings for the group for a period of at least six months.

5.8.18; 6.12.18; 7.31.18; 8.14.18; 9.11.18; 10.9.18; 11.13.18; 12.10.18

ii. State whether that group can hold special meetings, and if so, upon how many days’ notice.

Yes, two days notice.

C. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the entity. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc.
I, the undersigned, do hereby certify that I have express authority to sign this proposal on behalf of the above-described entity.

Collier County Public Schools

Name of Entity: ________________________________

Name and Title of Authorized Representative: Dr. Kamela Patton, Superintendent

Representative Signature: ________________________________

Signature Date: 5-9-18

Reviewed: J Fishlene
Southwest Florida Manufacturing Excellence Center: Supplemental Material

1. Program Requirements

A. The Greater Naples Chamber of Commerce, in partnership with Immokalee Technical College (iTech), is requesting approximately $3 million to develop the Southwest Florida Manufacturing Excellence Center, a centrally located training center that would provide a variety of training options to new hires, existing employees and fresh talent interested in pursuing a career in advanced manufacturing.

As proposed, the center would house a second, 1,500-credit hour machining program; as well as offer a four-year manufacturing apprenticeship program, targeted short-term training and targeted continuing education programs. Curriculum for the programs would be developed in coordination with primary employers and industry experts. Participants in each of the four programs offered at the Southwest Florida Manufacturing Excellence Center would receive the transferable, sustainable workforce skills necessary to excel in the industry.

Students who enroll in the accelerated 1,500-credit hour program will follow the same curriculum as students at iTech, and receive industry certifications once they complete the program. They will also have the opportunity to intern at local businesses, and develop professional relationships that can lead to future job opportunities. The proposal opens the traditional machinist training program to an additional 24 students in the first year, with the possibility for future growth.

A four-year manufacturing apprenticeship program will be created by executing a Memorandum of Understanding (MOU) with a local manufacturing association. The program would be hosted at the Southwest Florida Manufacturing Excellence Center and iTech, and would provide participants with a combination of classroom and on-the-job training. We anticipate the creation of the manufacturing association, which would include several primary employers – including Arthrex, Pelican Wire, Azimuth, Structure Medical, Progress Rail, and Cable USA – that have expressed interest in the program.

While the traditional machining and apprentice programs would target students looking to learn a broad spectrum of skills to make them career-ready, other training opportunities offered at the Southwest Florida Manufacturing Excellence Center would provide students with the transferable skills needed to excel in specific areas.

Targeted short-term training on Industry-specific jobs – such as sterile packaging and clean room operations – would be offered on nights and weekends. The curriculum would be designed specifically by educational and industry experts to enhance employability. Students who complete each program would receive a certificate of completion.

Similar to the targeted short-term training, the Southwest Florida Manufacturing Excellence Center would act as a place where current employees could go for continuing education, to enhance their skill set and achieve greater economic opportunity. These programs would be designed with current employers needs in
Southwest Florida Manufacturing Excellence Center: Supplemental Material

mind, and would be targeted to the growing demands of our manufacturing industry.

B. Economic modeling data shows machining is one of the most in-demand jobs within the manufacturing industry. Yet there are few options for someone looking to train to become a machinist in Southwest Florida. iTech is the only school in Collier graduating students with the certification needed to enter the workforce; and in 2016, it graduated just 14 students. The current program can only accommodate 24 students at a time, and iTech officials said the program serves a population that lives within a 50-mile radius of the school, with students traveling from Clewiston, Port Charlotte, North Fort Myers, and Marco Island to enroll in the post-secondary program.

The Florida Job Growth Grant Fund would allow iTech to expand on the success of its machining program at the Southwest Florida Manufacturing Excellence Center, located at a centrally located satellite campus.

C. The continued growth of Southwest Florida’s manufacturing industry has demonstrated that there is a significant need to expand existing and develop additional workforce training opportunities, as well as create a third training facility, focused on manufacturing and other skilled trades.

The effort is backed by several primary employers throughout the region, including Arthrex, Pelican Wire, Azimuth, Structure Medical, Progress Rail, and Cable USA. It is also supported by Collier County Public Schools, Florida SouthWestern State College-Collier Campus, CareerSource of Southwest Florida and the Southwest Florida Economic Development Alliance.

Together with our partners, we believe talent development is a tremendous asset to the local and regional economies, offering economic growth and providing a positive impact to our region. The Florida Job Growth Grant would allow Collier County to enhance its existing and future workforce through targeted training developed by employers, economic developers and regional educational experts.

E. The machining program at iTech prepares students for a career as a Precision Machinist whose primary responsibilities are to operate machine tools such as: mills, lathes, grinders, and CNC equipment, according to blueprint specifications, while demonstrating strong academic and employability skills.

Precision Machining begins in the classroom with a focus on equipment and safety regulations, and it introduces the employability and applied academic skills that are incorporated throughout all courses in the program. After students master the classroom introduction and safety test, they move to the machine shop for hands on training, including projects to prepare them for future employment.

The Precision Machining Program is a 1,500-hour program that consists of four courses. Some basic skills and knowledge from the first course, Machinist Helper, must be completed first. From there, students will take course segments
Southwest Florida Manufacturing Excellence Center: Supplemental Material

from the Machinist Helper and Machine Operator courses, so as to maximize usage of shop equipment and shop floor space. Then, students move to training in CAD, CNC operation and CNC programming, as well as more complex machining skills and setup work.

iTech also has an apprenticeship program in place; it will be expanded to provide additional opportunities for students and businesses.

G. The Bureau of Labor Statistics reports Florida has added approximately 59,000 manufacturing jobs in Florida since 2010. Approximately 1,600 of those jobs were created in the Naples-Immokalee-Marco Island metropolitan area.

It is projected that growth pattern will continue for the foreseeable future. Collier County manufacturers expect to grow their companies by at least 1,400 new employees in the next five years. However, primary employers have indicated that a well-trained, skilled workforce is necessary for that growth to continue in Collier County.

Recently, a local manufacturer announced an out-of-state expansion of 1,000 jobs. SWFL was not considered due to the lack of a skilled workforce. This proposal addresses the talent deficit.

Future job projections indicate Collier County will need 43,000 new jobs by 2030; that number jumps to 107,204 in Lee County. As Southwest Florida’s population continues to grow, it is important to think about what those jobs will be. Projections show that, in Collier County, the Top 3 occupations with the highest annual openings between 2016 and 2024 are retail salespeople, waiters and waitresses, and landscapers and groundskeepers. These are traditionally low-wage jobs, and employees within these sectors have a challenging time finding housing and healthcare.

Developing the Southwest Florida Manufacturing Excellence Center will allow Collier County to grow it’s high-wage, high-value workforce, retain and attract new companies, and provide economic opportunity to some of the area’s best and brightest. It will also help develop a culture of manufacturing, diversify the economy and allow Collier County to play a significant role in the industry’s regional and statewide growth.

2. Additional Information

D. Understanding that iTech cannot expand its physical footprint and the school will need a larger location to accommodate projected growth in enrollment under this four-prong approach, the Florida Job Growth Grant Fund will be used to help establish a temporary satellite campus.

To address the region’s needs in the short term, a satellite campus will be established within 50 miles of iTech. The ideal location for the temporary location would be a 10,000- to 20,000-square-foot facility with space for two
Southwest Florida Manufacturing Excellence Center: Supplemental Material

classrooms, labs, storage, and ADA compliant restrooms.

Stakeholders have also indicated that the technical center's location is key. A centrally located facility will make it easier for current employees looking to further their training to attend classes after work, while also making it more accessible to workers in the region. Developing the technical center in a centralized location would allow it to serve eastern Collier, Lee, Glades and Hendry counties.

We believe a MOU could be executed as we work toward the goal of building a centrally located facility to meet the community's growing workforce training and workforce development needs. Possible locations for a temporary space for the Southwest Florida Manufacturing Excellence Center including repurposing a vacant big box store located near Interstate 75; repurposing a vacant restaurant in the SR 951 corridor; and a vacant warehouse in the Airport-Pulling Road Industrial Park.

The best way to maximize potential and use would be to build a 40,000- to 50,000-square-foot facility, which would include classroom space, specialized training rooms to accommodate a wide variety of technical curriculum, lab space, administrative space, and cafeteria space. This part of a long-range vision for a third technical training center in Collier County that would focus primarily on the skilled trades.

Florida SouthWestern State College-Collier Campus has been a valued partner throughout this process, and enthusiastically supports the long-range plan for developing a third workforce training center in Collier County.

One option being considered is to build the permanent facility, which would house the Southwest Florida Manufacturing Excellence Center, on available land located on the FSW Collier Campus, which is located six miles from Lorenzo Walker Technical High School and Lorenzo Walker Technical College campus; 40 miles from iTech; and within a 20-minute drive down Interstate 75 of the businesses that will see the most benefit from having additional training center in the region.

The state college's strong partnership with Collier County Public Schools, which operates technical vocational education in Collier County, can be expanded by taking advantage of a joint-use facility, which takes advantage of FSW's existing infrastructure, parking, classroom and meeting space, and food service.

By leveraging this asset and through a variety of public-private partnerships, we believe the Southwest Florida Manufacturing Excellence Center will be viable and sustainable beyond the life of the Florida Job Growth Grant Fund Workforce Training Grant.

G. There are a number of ways to address the sustainability of the program. Both the targeted short-term training and the continuing education programs would be
fee-based, and we expect them to be cost neutral. Local employers invest upwards of $75,000 each in training new and existing employees, so this could generate revenue.

Collier County government officials are currently in the process of discussing a funding mechanism for a permanent facility, and have expressed support for the long-range plan. There has been significant philanthropic interest in ways to grow Southwest Florida’s talent pool and diversify the economy. The partnership with FSW provides a great model for a sustainable program as the institution recognizes the need for an investment in technical training.

I. We have received numerous letters of support from local and regional entities, including manufacturers who have indicated that they would donate equipment, curriculum and other materials. We have also been approached by the philanthropic organizations and donors interested in funding workforce training initiatives. The partnership with FSW would be a considerable local investment as well.

The eventual construction of a larger facility to accommodate additional training classes related to other industries has attracted the interest of the Collier Building Industry Association; its foundation has offered funding for an outreach campaign to promote the programs to students and adult learners.

3. Program Budget

C. The Greater Naples Chamber of Commerce is requesting a $3,019,900 Florida Job Growth Grant Fund Workforce Training grant to develop the Southwest Florida Manufacturing Excellence Center, a centrally located training center that would provide a variety of training options to new hires, existing employees and fresh talent interested in pursuing a career in advanced manufacturing.

The $3,019,900 grant would cover the costs of equipment, personnel, facilities, and marketing efforts over five years. It also sets aside money to create a program that would cover the cost of tuition and training materials for 24 students in the accelerated, 1,500-credit-hour machining program during the five-year period.

A breakdown of costs follows:

- **Equipment**: iTech officials have indicated that it would cost $482,100 to replicate its machining classrooms at a satellite campus. Those funds would be used to purchase several pieces of training equipment (including four Bridgeport knee mills; four Engine lathes; one Haas CNC mini mill; and one Haas CNC lathe), computers, printers, desks, software, and supplies. The purchase of equipment is critical both the creation of a satellite campus, and to the hands-on approach to technical, vocational education. The equipment would need to be purchased prior to the
program's start. A detailed description of all of the equipment covered by the $482,100 is attached.

- **Personnel:** Understanding that the expansion of a program comes with increased personnel costs, we are requesting $75,000 a year for five years (a total of $375,000) to pay the salary of one full-time equivalent instructor. The salary range is meant to attract high-quality, industry experts who are not only able to teach those interested in broad-based learning, but also have the skillset needed for specialized training the satellite school plans to offer. At the end of the five-year period, iTech officials indicated they will be able to sustain the cost of the FTE position.

- **Facilities:** Since iTech is unable to expand its physical footprint, a satellite campus can be established within 50 miles of iTech. We believe a lease agreement can be executed as we work toward a permanent location for the Southwest Florida Manufacturing Excellence Center. We are requesting $200,000 a year for five years (a total of $1 million) to cover the cost of leasing a 10,000- to 20,000-square-foot facility that can house the Southwest Florida Manufacturing Excellence Center. Possible locations include repurposing a vacant big box store located near Interstate 75; repurposing a vacant restaurant in the SR 951 corridor; and a vacant warehouse in the Airport-Pulling Road industrial park.

- **Tuition:** The cost of tuition for the 1,500-credit-hour machining program is about $4,000, which could be cost-prohibitive to some students. In an attempt to encourage enrollment in the accelerated, 1,500-credit hour machining program, we propose the creation of a need-based scholarship program, which would provide scholarships to 24 students over the course of 5 years. The total cost associated with this program is $96,000.

- **Training materials:** The cost of training materials for the 1,500-credit hour machining program is $700, which could be cost-prohibitive to some students. In order to encourage participation, we propose the creation of a need-based program that would cover the cost of training materials for 24 students over five years. The total cost associated with this program is $16,800.

- **Other:** The request includes $1 million to convert an existing space into a useful location for the Southwest Florida Manufacturing Excellence Center. Industry experts indicate build-out could include reinforcing the floors to ensure they can withstand the weight of the equipment, installing a receiving door in the lab space so machinery can be moved, installing proper ventilation and utilities, and raising the ceilings.

The request also includes $50,000 for a public information campaign to market the expanded program. We have repeatedly heard that there is not a culture of manufacturing in Southwest Florida, and there needs to be a public information campaign to educate students, parents and teachers about the benefits of a career in this industry. We would work with all stakeholders - including, but not limited to, Collier County Public Schools,
Southwest Florida Manufacturing Excellence Center: Supplemental Material

the Community Foundation of Collier County, CareerSource of Southwest Florida, and all of the area's manufacturers – to develop a public information campaign to encourage participation in the program.

The Greater Naples Chamber of Commerce, which is Collier County's designated economic development organization, will enter into a MOU with the Collier County School Board, which oversees technical vocational training in Collier County, and a newly-formed manufacturing association upon being awarded the grant to begin the establishment of the Southwest Florida Manufacturing Excellence Center.

iTech officials have indicated that their accreditation allows them to create a satellite campus within a 50-mile radius of the main Immokalee campus. However, out of an abundance of caution and in order to show the support for the endeavor, we plan to seek a School Board resolution supporting the creation of the Southwest Florida Manufacturing Excellence Center upon receipt of grant approval. The first meeting upon which such resolution could be heard is Jan. 9, 2018.

We would seek similar resolutions of support from the Board of County Commissioners. The first meeting the Collier BCC could consider a resolution supporting the center would be on Jan. 9, 2018.
<table>
<thead>
<tr>
<th>Equipment</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) Bridgeport knee mills- Precision mill used to machine parts. Used in making parts perpendicular or on angles and drilling holes for tapping, counter boring, reaming and other specialized requirements. Tooling to operate machines. 2 tables and 2 tool boxes containing: Edge finder, tape measure, deburring tools, parallels, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale.</td>
<td>$110,000</td>
</tr>
<tr>
<td>(4) Engine lathes (Kingston)- Used to turn diameters, angles and thread parts on the outside and inside of parts. Tooling to operate machines. 2 tables and 2 tool boxes containing: Tape measure, deburring tools, knurling tools, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale. Quick change tooling.</td>
<td>$4,400</td>
</tr>
<tr>
<td>(4) Engine lathes (Kingston)- Used to turn diameters, angles and thread parts on the outside and inside of parts. Tooling to operate machines. 2 tables and 2 tool boxes containing: Tape measure, deburring tools, knurling tools, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale. Quick change tooling.</td>
<td>$80,000</td>
</tr>
<tr>
<td>(1) Surface grinder- Used to precision grind flat parts that were milled to within .0002 tolerance. Tooling to operate machines. 1 Workbench containing: C-clamps, Magnetic V-blocks and parallels, 1-2-3 blocks, 2&quot; angle plates and Precision machinist vise.</td>
<td>$6,700</td>
</tr>
<tr>
<td>(1) Haas CNC mini mill- Learning to program and set-up CNC machinery before using more complex machines. Similar to milling but it is computer controlled. Tooling to operate machines. 1 tables and 1 tool boxes containing: Edge finder, tape measure, deburring tools, parallels, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale.</td>
<td>$30,000</td>
</tr>
<tr>
<td>(1) Haas CNC Lathe- Learning to program and set-up CNC machinery before using more complex machines. Similar to turning on the lathe but it is computer controlled. Tooling to operate machines. 2 tables and 2 tool boxes containing: Tape measure, deburring tools, knurling tools, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale. Quick change tooling.</td>
<td>$1,250</td>
</tr>
<tr>
<td>(1) Haas CNC Lathe- Learning to program and set-up CNC machinery before using more complex machines. Similar to turning on the lathe but it is computer controlled. Tooling to operate machines. 2 tables and 2 tool boxes containing: Tape measure, deburring tools, knurling tools, center drills, allen wrenches, crescent wrenches, pliers, screw drivers, micrometers calipers and scale. Quick change tooling.</td>
<td>$52,000</td>
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<tr>
<td>(1) Horizontal band saw- Needed to cut steel bar stock to the length required for manufacturing the part.</td>
<td>$2,200</td>
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<tr>
<td>(1) Vertical band saw- Needed to cut steel bar stock to the length required for manufacturing the part and doing special cuts or trimming of parts.</td>
<td>$48,000</td>
</tr>
<tr>
<td>(1) Vertical band saw- Needed to cut steel bar stock to the length required for manufacturing the part and doing special cuts or trimming of parts.</td>
<td>$3,350</td>
</tr>
</tbody>
</table>

Quality Control Area. This area is a high precision part size verification area. Usually consisting of higher caliber of equiptment to check sizes of completed parts. Quality control involves testing of units and determining if they are within the specifications for the final product. The purpose of the testing is to determine any needs for corrective actions in the manufacturing process. Good quality control helps companies meet consumer demands for better products.
Tooling needed in this area: Angle blocks, surface comparator, radius gages, machinist square, angle gage, calipers, various sizes and types of micrometers, gage height block, planer gage, sine plate, gage pins, angle plates, granite surface plate, indicators, optical comparator, telescope gage V-blocks and other types of measuring devices.

CMM (Computerized Measuring Machine) $30,000

(2) Bench grinders $600

Variable speed drill press $2,500

(25) Computers $20,000

(2) Printers $100

Desks $12,000

Software $10,000

Supplies- Endmills, Drills, Reamers, carbide inserts, special cutters and various tooling. $15,000

TOTAL ESTIMATED COST: $482,100

Cost estimates provided by Immokalee Technical College