Craft: Sheet Metal

Module Number: 04101-08

Module Title: Introduction to the Sheet Metal Trade

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

_____

INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
6	1. Identify types of metal from a collection of materials to instructor standards.	
7	2. Identify common sheet metal fittings.	
9	3. Use a standard sheet metal gauge to measure various metal thicknesses to given standards.	

Craft: Sheet Metal

Module Number: 04102-08

Module Title: Tools of the Trade

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

_____

INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
1, 2, 3	1. Identify a given hand tool, state its application, and describe its safe use and maintenance.	
4	2. Demonstrate the use of a given hand tool, according to standards as given by the instructor.	
1, 2, 3	3. Identify a given power tool, state its application, and describe its safe use and maintenance.	

continued

Craft: Sheet Metal Level One

Module Number: 04102-08

Module Title: Tools of the Trade

Contren® Learning Series

Objective	TASK	RATING
4	4. Demonstrate the use of a power tool, according to standards as given by the instructor.	
1, 2, 3	5. Identify a given shop machine, state its application, and describe its safe use and maintenance.	
4	6. Demonstrate the use of a shop machine, according to standards as given by the instructor.	
1	7. Select the most suitable tool or machine for a given application.	
4	8. Demonstrate the use of the selected tool, according to standards as given by the instructor.	

Craft: Sheet Metal

Module Number: 04103-08

Module Title: Introduction to Sheet Metal Layout and Processes

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
2, 3	1. Transfer a sheet metal pattern to a piece of sheet metal to given standards.	
4	2. Use hand snips to make the following cuts to given standards on 24-gauge or lighter sheet metal: straight cuts, outside curved cuts, and internal cuts.	
4	3. Perform a double cut on light pipe to given standards.	

continued

Craft: Sheet Metal

Module Number: 04103-08

Module Title: Introduction to Sheet Metal Layout and Processes

Contren® Learning Series

Objective	TASK	RATING
4	4. Use shears to square a piece of light-gauge sheet metal for ductwork to within 1/16 inch.	
5	5. Use stakes to form a cone for a weather cap to given standards.	
5	6. Use stakes to form a 90-degree bend to given standards.	
5, 6	7. Use a slip-roll forming machine to make two sections of round pipe with grooved seams to given standards.	
5, 6	8. Use a box and pan brake to make right-angle bends to given standards on light-gauge stock.	
5, 6	9. Use a bar folder to make a hem bend to given standards.	
5, 6	10. Use a hand brake to make a Pittsburgh seam to given standards.	
5, 6	11. Make a crimped edge on round pipe to given standards.	
5, 6	12. Join two sections of round pipe by crimping and beading to given standards.	

Craft: Sheet Metal

Module Number: 04104-08

Module Title: Trade Math One

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
6	1. Use the OWL Method to calculate a specified offset.	

Craft: Sheet Metal

Module Number: 04105-08

Module Title: Fabrication One – Parallel Line Development

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
2	1. Under the supervision of the instructor, the trainee should be able to lay out and fabricate seven fittings from among the following:	
	• Grooved lock seam	
	• Flexible connection	
	• Pittsburgh seam	
	• Mitered fitting	

continued

Craft: Sheet Metal Level One

Module Number: 04105-08

Module Title: Fabrication One – Parallel Line Development

Contren® Learning Series

Objective	TASK	RATING
2	1. Under the supervision of the instructor, the trainee should be able to lay out and fabricate seven fittings from among the following:	
	• 90-degree elbow	
	• 90-degree change elbow	
	• 45-degree change elbow	
	• Rectangular Y-branch	
	• 90-degree double Y-branch	
	• 90-degree clinch tee	
	• Three-piece round offset	
	• Transition with three straight sides	
	• Transition with two straight sides	
	• Double offset	
	• Ogee offset	
	• Rectangular roof flange	
	• Smokestack	
	• Gored elbow	
	• Ogee gutter	
	• Belt guard	
	• 90-degree tee	
	• 45-degree tee	
	• Type-A ventilator	

Craft: Sheet Metal

Module Number: 04106-08

Module Title: Installation of Ductwork

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
1, 2	1. Identify a given fastener and state its application.	
1, 2	2. Determine the various specifications of given fasteners.	
3, 4	3. Classify hangers by types and applications.	
3, 4	4. Demonstrate the proper method of installing selected duct hangers, supports, and reinforcements.	
5, 6	5. Connect and seal rectangular and round duct.	

Craft: Sheet Metal

Module Number: 04107-08

Module Title: Installation of Air Distribution Accessories

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
1	1. Explain the purpose of selected air distribution accessories.	
2	2. Simulate and/or demonstrate the installation of selected air distribution accessories.	
2	3. Install an opposed-blade balancing damper in a section of lined duct.	
2	4. Install a takeoff in the same section of duct.	

Craft: Sheet Metal

Module Number: 04108-08

Module Title: Insulation

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
4	1. Measure and cut a specified length of fibrous duct wrap from a larger piece, including at least one facing tab, using the appropriate tools.	
3	2. Properly install appropriate insulation around a provided pipe.	
4	3. Properly install a vapor barrier around a provided pipe.	
3	4. Properly seal the seams, joints, or facing tabs on the insulation with tape or adhesive, as the instructor chooses.	
3	5. Install metal nosing.	

Craft: Sheet Metal

Module Number: 04109-08

Module Title: Architectural Sheet Metal

Contren® Learning Series

TRAINEE NAME: _____

TRAINEE SOCIAL SECURITY NUMBER: _____

CLASS: _____

TRAINING PROGRAM SPONSOR: _____

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INSTRUCTOR: _____

Rating Levels: (1) Passed: performed task (2) Failed: did not perform task
Also, list the date the testing for each task was completed.

Recognition: When testing for the NCCER Standardized Craft Training Program, be sure to record Performance testing results on Craft Training Report Form 200, and submit the results to the Training Program Sponsor.

Objective	TASK	RATING
4	1. Lay out and develop the pattern for a 60-degree two-piece conductor elbow.	
4	2. Fabricate the fitting listed above.	
4	3. Form and solder a lap seam and a butt seam.	

continued

Craft: Sheet Metal

Module Number: 04109-08

Module Title: Architectural Sheet Metal

Contren® Learning Series

Objective	TASK	RATING
1, 3, 4	4. Lay out and fabricate the following:	
	• Rectangular outlet tube	
	• Rectangular gutter (two styles)	
2, 5	5. Fabricate flashing for a shingle roof.	
5	6. Lay out and fabricate the following:	
	• Chimney flashing	
	• Typical metal coping profile	