

ATPT-2370: ABRASIVES BLASTING TECHNIQUES

Cuyahoga Community College

Viewing: ATPT-2370 : Abrasives Blasting Techniques

Board of Trustees:

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Academic Term:

Spring 2019

Subject Code

ATPT - Appld Indus Tech - Painting

Course Number:

2370

Title:

Abrasives Blasting Techniques

Catalog Description:

Instruction in abrasive blasting operations and procedures including types of machines and their components, materials and their characteristics, selection of machine and materials to fit job, water blasting operations, and surface preparation with abrasive blasting.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

ATPT-2320 Safe Work Practices or concurrent enrollment; or departmental approval.

Outcomes

Course Outcome(s):

N/A

Objective(s):

1. 1. Identify various abrasive blasting machines and their components, and abrasive blasting materials and their characteristics.
2. 2. Select appropriate abrasive blasting materials for a particular job.
3. 3. Prepare surfaces with water blasting.
4. 4. Perform basic abrasive blasting operations.
5. 5. Maintain equipment and materials and follow correct safety procedures.

Methods of Evaluation:

1. Quizzes
2. Exams
3. Classroom participation
4. Demonstration of project assignments

Course Content Outline:

1. Introduction to abrasive blasting
2. Abrasive blasting equipment
 - a. Types of abrasive blasting machines
 - b. Air compressors

- c. Hoses and nozzles
- d. Other types of abrasive blasting machines
- 3. Surface preparation
 - a. Basic abrasive blasting operation
 - b. Maintaining equipment and materials
 - c. Personal safety during abrasive blasting
 - d. Protection of the public and safety in the work area
- 4. Selection of abrasive blasting materials
 - a. Characteristics of abrasive materials
 - b. Description of abrasive materials and their use
- 5. Abrasive blasting standards and specifications
 - a. Pictorial standards for steel surface condition
 - b. Standard grades for cleaning steel surfaces
 - c. Development of anchor pattern in steel with abrasive blasting
- 6. Surface preparation with water blasting
 - a. Water blasting
 - b. Pumps for water blasting
 - c. Basic water blasting operations
 - d. Safety procedures during water blasting operations
 - e. Steam cleaning
- 7. Abrasive blasting for exposed aggregate finishes
 - a. Exposed aggregate finish
 - b. Operator's role in finishing exposed aggregate surfaces

Resources

National Painting, Decorating and Drywall Apprenticeship and Manpower Training Fund. *Abrasive and Water Blasting Instructor's Guide*. Washington, DC: National Painting, Decorating and Drywall Apprenticeship and Manpower Training Fund, 1976.

Painting and Decorating Contractors of America. *Painting and Decorating Craftsman's Manual and Textbook*. Fairfax: Painting and Decorating Contractors of America, 1995.

Weaver, Paul E. "Industrial Maintenance Painting"

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