



DEPARTMENT OF LABOR AND ECONOMIC OPPORTUNITY
GENERAL INDUSTRY STANDARD

Filed with the Secretary of State on August 31, 1970 (as amended May 17, 1983) **(as amended May 29, 2013)**

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306.

Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.11119 and R 408.11121 of the Michigan Administrative Code are rescinded as follows:

PART 11, POLISHING, BUFFING, AND ABRADING

Table of Contents:

R 408.11101 Scope.....	1	R 408.11116 Arbor ends.....	3
R 408.11103 Definitions; A, B.....	1	R 408.11118 Flanges.....	3
R 408.11104 Definitions; C to F.....	2	R 408.11123 Illumination.....	3
R 408.11105 Definitions; O to W.....	2	R 408.11131 Operations.....	3
R 408.11111 Operator personal protection.....	2	R 408.11135 Storage of abrasives.....	3
R 408.11115 Guards.....	2	R 408.11137 Fire and explosion precautions.....	3

R 408.11101 Scope.

Rule 1101. This part sets forth rules in places of employment for safety in the use of buffing and polishing wheels and coated abrasives, including specifications for flanges, guards, fixtures, application of compounds, automatic buffing, polishing, storage, direction of operation, and speed.

R 408.11103 Definitions; A, B.

Rule 1103. (1) "Abrading" means the process of removing materials by use of abrasives or wire wheels.
(2) "Acorn nut" means a hexagon nut with a rounded enclosed end; see figure 1.

Figure 1



(3) "Buffing wheel" means a wheel which, when used in conjunction with a compound and a centrifugal motion, will impart a luster to metal, plastics, or other materials. Buffing wheels are of 2 types, as follows:

- (a) Type 1--"full disc buff" means a full circular disc of woven material plied and laminated, and generally sewn together.
- (b) Type 2--"bias buff" means a radius of woven

material drawn into a clinch ring, which then creates a circular wheel of laminated plies, radiating from the clinch ring.

R 408.11104 Definitions; C to F.

Rule 1104. (1) "Clinch ring" means a series of hog rings pressed into a circular form integrally meshed through the buffing material.

(2) "Coated abrasive" means abrasive grains bonded to paper, fibre, or cloth, usually fabricated in various forms, such as a disc, endless belt, and sheet.

(3) "Compound" means the abrasive in a bond mixture applied to the buffing wheel or part in a cake or liquid form.

(4) "Flange or end" means disc or plates between which a buff with a metal or fibre center is mounted.

(5) "Fixture" means the support used to hold or guide a part being buffed or polished.

R 408.11105 Definitions; O to W.

Rule 1105. (1) "Off side" means a place above or below the center line of a wheel, depending on rotation of the wheel, where a part or compound will be thrust away from the operator.

(2) "Open spindle lathe--hand jack" means a machine on which buffing or polishing wheels are mounted and run.

(3) "Polishing wheel" means a full circular disc of a material, generally a product of the loom, compressed felt or sheepskin, that is plied and laminated. Abrasive grain is glued or cemented to the periphery and when cured is used to remove fine scratches and imperfections.

(4) "Safety guard" means an enclosure for protection from emission or accidental contact.

(5) "Wire brush wheel" means a full circular disc of wires held in place by a hub or ring.

R 408.11111 Operator personal protection.

Rule 1111. An operator shall:

(a) Be provided with and use eye protection, as prescribed in Part 33. Personal Protective Equipment, being R 408.13301 et seq. of the Michigan Administrative Code, such as goggles or a face shield when polishing, buffing, or abrading.

(b) Be provided with, at no expense, and use a belly pad or apron when hand buffing.

(c) Not wear loose clothing.

R 408.11115 Guards.

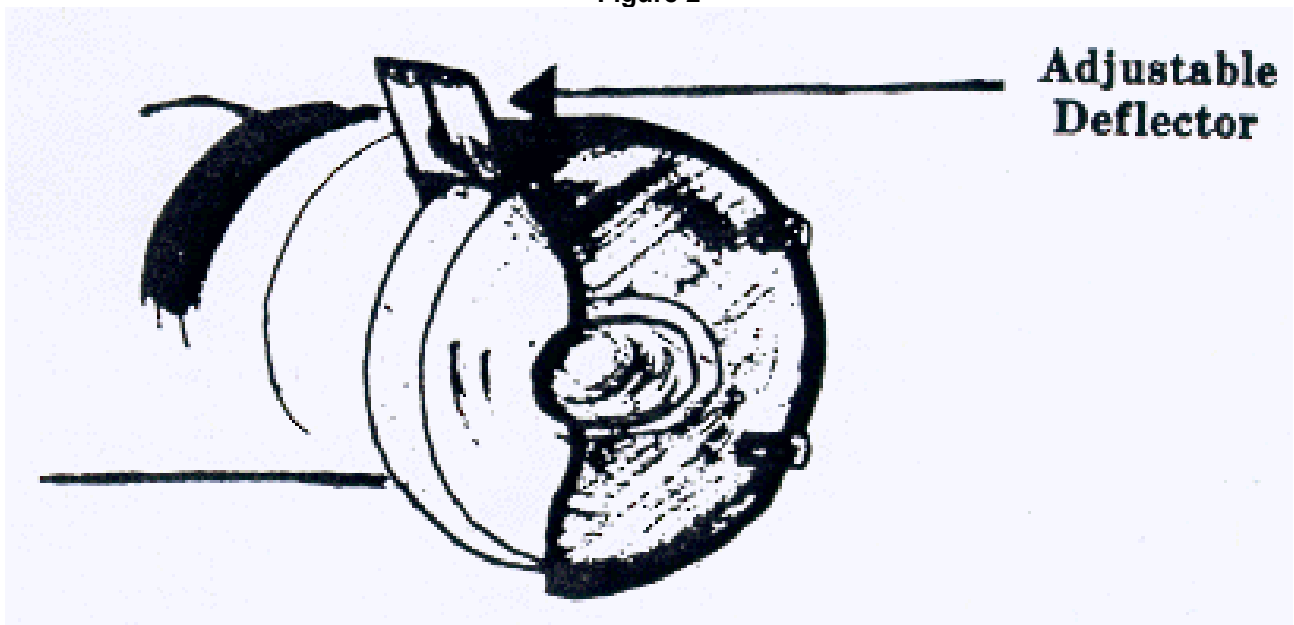
Rule 1115. (1) A polishing, buffing, or wire brush wheel on a hand jack, automatic machine, or coated abrasive machine shall have guards made of a minimum of 16 gauge metal or equivalent and of a size and design to cover at least half of the sides of the working wheel, and extend at least 1 inch beyond the spindles. See figure 2.

(2) An adjustable deflector of at least 16 gauge metal or equal material shall be installed and maintained within 1/4 inch of the face of the wheel on all open spindle lathes. See figure 2.

(3) The face opening shall not be any greater in area than actually required for performance of the operation.

(4) In-running nip points of drive and idler rolls, such as found in belt sanding, shall be guarded with an enclosure which will include the rolls.

Figure 2



R 408.11116 Arbor ends.

Rule 1116. (1) An arbor end which is not equipped with an acorn nut or equivalent shall be guarded.

(2) A nut shall be fully installed on the spindle, and the nut shall be self-locking with the arbor rotation.

R 408.11118 Flanges.

Rule 1118. (1) A flange shall be used with a metal or fibre center bias buff, except where the flange is an integral part of the buff.

(2) A flange shall:

(a) Be 3/16 inch thick for buff face up to 6 inches wide and 3/8 inch thick for a wider buff face.

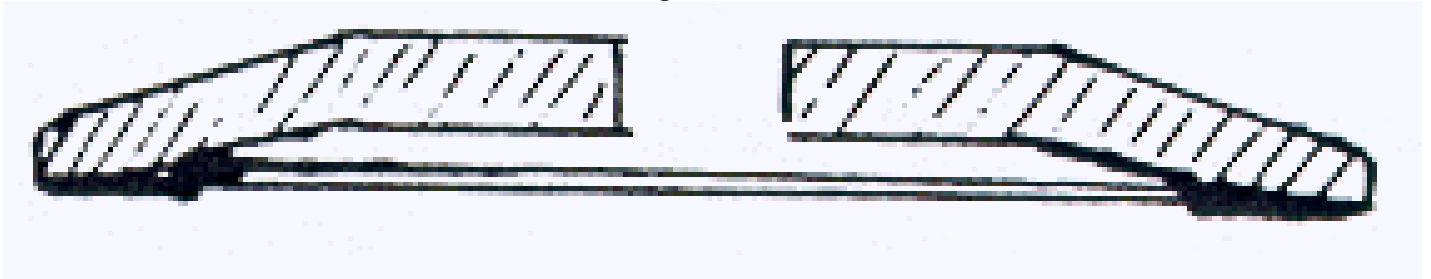
(b) Be of a diameter to bear firmly on the clinch ring.

(c) Be of the same diameter and design of both sides.

(d) Be made of steel or material of equal strength.

(3) A flange should be tapered or bell shape instead of flat. See figure 3.

Figure 3



R 408.11119 Rescinded.

R 408.11121 Rescinded.

R 408.11123 Illumination.

Rule 1123. (1) Automatic polishing and buffing machinery and equipment shall be located with respect to sources of natural light so that light of 25 footcandles intensity will fall on the loading and unloading area. When natural light is insufficient to meet this requirement, artificial light shall be provided.

(2) Hand polishing and buffing machinery and equipment shall be located with respect to sources of natural light so that light of 30 footcandles intensity will fall on the work. When natural light is insufficient to meet this requirement, artificial light shall be provided.

R 408.11131 Operations.

Rule 1131. (1) Buffing or polishing shall be performed on the off side.

(2) Buffing compound, when applied to a revolving wheel, shall be applied to the off side.

(3) The wheel speed shall not exceed the manufacturer's recommended revolutions per minute.

(4) Coated abrasives shall be run according to the direction (->) indicated by the manufacturer.

R 408.11135 Storage of abrasives.

Rule 1135. Coated abrasives shall be stored under conditions of temperature and humidity to prevent breakage or warpage.

R 408.11137 Fire and explosion precautions.

Rule 1137. Precautions shall be taken to protect against fire and explosion hazards involving aluminum, magnesium, titanium, lint, wax, and solvent when polishing, buffing, or abrading.



Michigan Occupational Safety and Health Administration
PO Box 30643
Lansing, Michigan 48909-8143
For technical questions of this standard – Ph: 517-284-7750 (GISHD) or 517-284-7720 (CETD)
To order copies of this standard – Ph: 517-284-7740

The Department of Labor and Economic Opportunity will not discriminate against any individual or group because of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.