29 C.F.R. § 1910.211

Definitions.

(a) As used in §§ 1910.213 and 1910.214 unless the context clearly requires otherwise, the following woodworking machinery terms shall have the meaning prescribed in this paragraph.

(1) *Point of operations* means that point at which cutting, shaping, boring, or forming is accomplished upon the stock.

(2) *Push stick* means a narrow strip of wood or other soft material with a notch cut into one end and which is used to push short pieces of material through saws.

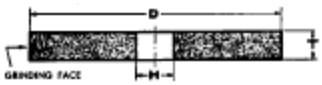
(3) *Block* means a short block of wood, provided with a handle similar to that of a plane and a shoulder at the rear end, which is used for pushing short stock over revolving cutters.

(b) As used in § 1910.215 unless the context clearly requires otherwise, the following abrasive wheel machinery terms shall have the meanings prescribed in this paragraph.

(1) *Type 1 straight wheels* means wheels having diameter, thickness, and hole size dimensions, and they should be used only on the periphery. Type 1 wheels shall be mounted between flanges.

Limitation: Hole dimension (H) should not be greater than two-thirds of wheel diameter dimension (D) for precision, cylindrical, centerless, or surface grinding applications. Maximum hole size for all other applications should not exceed one-half wheel diameter.

Figure No. 0-1—Type 1 Straight Wheels



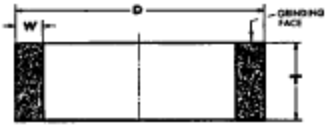
Type 1—Straight Wheel

Peripheral grinding wheel having a diameter, thickness and hole.

(2) *Type 2 cylinder wheels* means wheels having diameter, wheel thickness, and rim thickness dimensions. Grinding is performed on the rim face only, dimension W. Cylinder wheels may be plain, plate mounted, inserted nut, or of the projecting stud type.

Limitation: Rim height, T dimension, is generally equal to or greater than rim thickness, W dimension.

Figure No. 0-2—Type 2 Cylinder Wheels



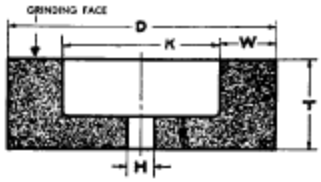
Type 2—Cylinder Wheel

Side grinding wheel having a diameter, thickness and wall—wheel is mounted on the diameter.

(3) *Type 6 straight cup wheels* means wheels having diameter, thickness, hole size, rim thickness, and back thickness dimensions. Grinding is always performed on rim face, W dimension.

Limitation: Minimum back thickness, E dimension, should not be less than one-fourth T dimension. In addition, when unthreaded hole wheels are specified, the inside flat, K dimension, must be large enough to accommodate a suitable flange.

Figure No. 0-3—Type 6 Straight Cup Wheels



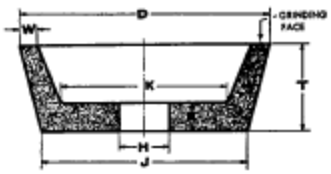
Type 6—Straight-cup Wheel

Side grinding wheel having a diameter, thickness and hole with one side straight or flat and the opposite side recessed. This type, however, differs from Type 5 in that the grinding is performed on the wall of the abrasive created by the difference between the diameter of the recess and the outside diameter of the wheel. Therefore, the wall dimension "W" takes precedence over the diameter of the recess as an essential intermediate dimension to describe this shape type.

(4) *Type 11 flaring cup wheels* mean wheels having double diameter dimensions D and J, and in addition have thickness, hole size, rim and back thickness dimensions. Grinding is always performed on rim face, W dimension. Type 11 wheels are subject to all limitations of use and mounting listed for type 6 straight sided cup wheels definition.

Limitation: Minimum back thickness, E dimension, should not be less than one-fourth T dimension. In addition when unthreaded hole wheels are specified the inside flat, K dimension, shall be large enough to accommodate a suitable flange.

Figure No. 0-4—Type 11 Flaring Cup Wheels



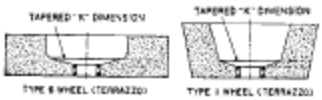
Type 11—Flaring-cup Wheel

Side grinding wheel having a wall flared or tapered outward from the back. Wall thickness at the back is normally greater than at the grinding face (W).

(5) *Modified types 6 and 11 wheels (terrazzo)* mean some type 6 and 11 cup wheels used in the terrazzo trade having tapered K dimensions to match a special tapered flange furnished by the machine builder.

Limitation: These wheels shall be mounted only with a special tapered flange.

Figure No. 0-5



Typical examples of modified types 6 and 11 wheels (terrazzo) showing tapered K dimensions.

(6) *Types 27 and 28 depressed center wheels* mean wheels having diameter, thickness, and hole size dimensions. Both types are reinforced, organic bonded wheels having offset hubs which permit side and peripheral grinding operations without interference with the mounting. Type 27 wheels are manufactured with flat grinding rims permitting notching and cutting operations. Type 28 wheels have saucer shaped grinding rims.

(i) Limitations: Special supporting, back adapter and inside flange nuts are required for the proper mounting of these types of wheels subject to limitations of § 1910.215(c)(4) (i) and (ii).

(ii) Mounts which are affixed to the wheel by the manufacturer may not require an inside nut and shall not be reused.

(7) *Type 27A depressed center, cutting-off wheels* mean wheels having diameter, thickness, and hole size dimensions. They are reinforced, organic bonded, offset hub type wheels, usually 16 inches diameter and larger, specially designed for use on cutting-off machines where mounting nut or outer flange interference cannot be tolerated.

Limitations: See § 1910.215(c)(1).

(8) *Surface feet per minute* (s.f.p.m.) means the distance in feet any one abrasive grain on the peripheral surface of a grinding wheel travels in 1 minute.

Surface Feet Per Minute = 3.1416 × diameter in inches × r.p.m. ÷ 12 or .262 × diameter in inches × r.p.m.

Examples:

(a) 24-inch diameter wheel, 1,000 revolutions per minute. Surface Feet per minute .262 × 24 × 1,000 = 6,288 s.f.p.m.

(b) 12-inch diameter wheel, 1,000 revolutions per minute. Surface Feet per minute .262 × 12 × 1,000 = 3,144 s.f.p.m.