

84.20 - Calendering or other rolling machines, other than for metals or glass, and cylinders therefor.

8420.10 - Calendering or other rolling machines

- Parts :

8420.91 -- Cylinders

8420.99 -- Other

With the **exception** of metal-rolling or metal-working machines of **heading 84.55, 84.62 or 84.63** and of glass-working machines of **heading 84.75**, this heading covers **calendering or other rolling machines**, whether specialised to a particular industry or not.

These machines consist essentially of two or more parallel cylinders or rollers revolving with their surfaces in more or less close contact so as to perform the following operations, either by pressure of the cylinders alone or by pressure combined with friction, heat or moisture :

- (1) The rolling into sheet form of material (including bakery, confectionery, biscuit, etc., doughs, chocolate, rubber, etc.) fed to the rollers in a plastic condition.
- (2) The production of certain effects on the surface of sheet materials (**other than** metal or glass) passed between the rollers, e.g., smoothing (including ironing), lustring, glazing, polishing, embossing or graining.
- (3) The application of dressings or surface coatings.
- (4) The bonding of fabrics.

Machines of this kind are employed in various industries (e.g., the paper, textile, leather, linoleum, plastics or rubber manufacturing industries).

In certain industries particular names are given to calendering machines (e.g., ironing machines in laundries, finishing mangles for the textile industry, or supercalenders for the paper industry), but they are classified in this heading whether called calendering machines or not.

Calendering machines frequently constitute subsidiary units of other machines (e.g., paper-making machines). When the calendering machines are presented together with these other machines, classification is governed by Notes 3 and 4 to Section XVI.

On the other hand, calendering machines which merely incorporate auxiliary appliances, such as impregnating baths or rollers, winding or cutting devices, remain in this heading.

The heading also covers smoothing or ironing machines of the calender type, whether or not for domestic use.

PARTS

Subject to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the machines of this heading are also classified here. These include **cylinders** clearly identifiable as for use with calendering or rolling machines of this heading. These cylinders may be made of metal, wood or other suitable material (e.g., compressed paper). They may be of various lengths and diameters, may be solid or hollow and, depending on the particular purpose for which they are required, their surface may be polished, corrugated, grained, or may bear engraved patterns. They may also be covered with other materials (e.g., leather, textile fabric or rubber). Metal cylinders are usually so designed that they can be heated internally by means of steam, gas, etc. Sets of cylinders for a particular calendering machine may comprise cylinders of different composition.

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This heading **does not include** machines which, though somewhat similar to calendering or rolling machines, do not fulfil the purposes described above, for example :

- (a) Cylinder drying machines for textiles, paper, etc. (**heading 84.19 or 84.51**).
- (b) Wine or cider presses, etc. (**heading 84.35**).
- (c) Roller crushing or grinding machines (**heading 84.36, 84.74 or 84.79**).
- (d) Cylinder machines for flour milling (**heading 84.37**).
- (e) Laundry wringing machines (**heading 84.51**).
- (f) Rolling mills (**heading 84.55**).
- (g) Sheet-metal flattening machines (**heading 84.62**) and sheet-metal embossing machines (**heading 84.63**).
- (h) Machines for making plate or other flat glass by rolling, and calenders for working glass (**heading 84.75**).