

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B21 MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL

#### B21D WORKING OR PROCESSING OF SHEET METAL OR METAL TUBES, RODS OR PROFILES WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL (working or processing of wire B21F)

##### Note(s)

1. This subclass covers cutting or perforating of sheet metal or other stock material.
2. This subclass does not cover the working of metal foils in a manner analogous to the working of paper, which is covered by classes B26, B31.

##### Subclass index

##### TREATMENT CHARACTERISED BY FUNCTION

Straightening.....	1/00, 3/00, 25/00
Bending.....	11/00
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of rods.....	7/00, 13/00
of tubes.....	9/00, 15/00
Twisting.....	11/00
Corrugating or grooving or bending into waves.....	13/00, 15/00, 17/00
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SPECIAL TREATMENT FOR THE MANUFACTURE OF SPECIFIED ARTICLES.....	47/00-53/00

##### Straightening; Restoring form; Bending; Corrugating; Flanging

- 1/00** Straightening, restoring form or removing local distortions of sheet metal or specific articles made therefrom (B21D 3/00 takes precedence); Stretching sheet metal combined with rolling [1, 2, 2006.01]
- 1/02 • by rollers (B21D 1/06 takes precedence) [1, 2006.01]
- 1/05 • Stretching combined with rolling [1, 2, 2006.01]
- 1/06 • Removing local distortions [1, 2006.01]
- 1/08 • • of hollow bodies made from sheet metal (of substantially open bodies B21D 1/10) [1, 2006.01]
- 1/10 • • of specific articles made from sheet metal, e.g. mudguards [1, 2006.01]
- 1/12 • Straightening vehicle body parts or bodies (B21D 1/14 takes precedence) [1, 2006.01]
- 1/14 • Straightening frame structures [1, 2006.01]
- 3/00** Straightening or restoring form of metal rods, metal tubes, metal profiles, or specific articles made therefrom, whether or not in combination with sheet metal parts [1, 2006.01]
- 3/02 • by rollers [1, 2006.01]

- 3/04 • • arranged on axes skew to the path of the work [1, 2006.01]
- 3/05 • • arranged on axes rectangular to the path of the work [2, 2006.01]
- 3/06 • • arranged inclined to a revolving flier rolling frame [1, 2006.01]
- 3/08 • • which move in an orbit without rotating round the work [1, 2006.01]
- 3/10 • between rams and anvils or abutments [1, 2006.01]
- 3/12 • by stretching with or without twisting [1, 2006.01]
- 3/14 • Recontouring [1, 2006.01]
- 3/16 • of specific articles made from metal rods, tubes, or profiles, e.g. crankshafts, by specially-adapted methods or means [1, 2006.01]
- 5/00** Bending sheet metal along straight lines, e.g. to form simple curves (B21D 11/06-B21D 11/18 take precedence) [1, 2006.01]
- 5/01 • between rams and anvils or abutments [1, 2006.01]
- 5/02 • on press brakes without making use of clamping means [1, 2006.01]
- 5/04 • on brakes making use of clamping means on one side of the work [1, 2006.01]

## B21D

- 5/06 • by drawing procedure making use of dies or forming-rollers, e.g. making profiles [1, 2006.01]
- 5/08 • • making use of forming-rollers (B21D 5/12 takes precedence) [1, 2006.01]
- 5/10 • • for making tubes [1, 2006.01]
- 5/12 • • • making use of forming-rollers [1, 2006.01]
- 5/14 • by passing between rollers (B21D 5/06 takes precedence) [1, 2006.01]
- 5/16 • Folding; Pleating [1, 2006.01]
  
- 7/00 Bending rods, profiles, or tubes** (B21D 11/02-B21D 11/18 take precedence; using mandrels or the like B21D 9/00) [1, 2006.01]
- 7/02 • over a stationary forming member; by use of a swinging forming member or abutment [1, 2, 2006.01]
- 7/022 • • over a stationary forming member only [2, 2006.01]
- 7/024 • • by a swinging forming member [1, 2006.01]
- 7/025 • • • and pulling or pushing the ends of the work [1, 2006.01]
- 7/028 • • • and altering the profile at the same time, e.g. forming bumpers [1, 2006.01]
- 7/03 • • Apparatus with means to keep the profile in shape [1, 2006.01]
- 7/04 • over a movably-arranged forming member (B21D 7/02 takes precedence) [1, 2006.01]
- 7/06 • in press brakes or between rams and anvils or abutments; Pliers with forming dies [1, 2006.01]
- 7/08 • by passing between rollers or through a curved die [1, 2006.01]
- 7/10 • by abutting members and flexible bending means, e.g. with chains, ropes [1, 2006.01]
- 7/12 • with programme control [1, 2006.01]
- 7/14 • combined with measuring of bends or lengths [1, 2006.01]
- 7/16 • Auxiliary equipment, e.g. for heating or cooling of bends [1, 2006.01]
  
- 9/00 Bending tubes using mandrels or the like** (B21D 11/02-B21D 11/18 take precedence) [1, 2006.01]
- 9/01 • the mandrel being flexible and engaging the entire tube length [1, 2006.01]
- 9/03 • • and built-up from loose elements, e.g. series of balls [1, 2006.01]
- 9/04 • the mandrel being rigid [2, 2006.01]
- 9/05 • co-operating with forming members [1, 2006.01]
- 9/07 • • with one or more swinging forming members engaging tube ends only [1, 2006.01]
- 9/08 • in press brakes or between rams and anvils or abutments; Pliers with forming dies [1, 2006.01]
- 9/10 • by passing between rollers [1, 2006.01]
- 9/12 • by pushing over a curved mandrel; by pushing through a curved die [1, 2006.01]
- 9/14 • Wrinkle-bending, i.e. bending by corrugating [1, 2006.01]
- 9/15 • using filling material of indefinite shape, e.g. sand, plastic material [2, 2006.01]
- 9/16 • Auxiliary equipment, e.g. machines for filling tubes with sand [1, 2006.01]
- 9/18 • • for heating or cooling of bends [1, 2006.01]
  
- 11/00 Bending not restricted to forms of material mentioned in only one of groups B21D 5/00, B21D 7/00, B21D 9/00; Bending not provided for in groups B21D 5/00-B21D 9/00; Twisting** [1, 2, 2006.01]
- 11/02 • Bending by stretching or pulling over a die [1, 2006.01]
- 11/06 • Bending into helical or spiral form; Forming a succession of return bends, e.g. serpentine form [1, 2006.01]
- 11/07 • • Making serpentine-shaped articles by bending essentially in one plane [1, 2006.01]
- 11/08 • Bending by altering the thickness of part of the cross-section of the work (B21D 11/06 takes precedence) [1, 2006.01]
- 11/10 • Bending specially adapted to produce specific articles, e.g. leaf springs [1, 2006.01]
- 11/12 • • the articles being reinforcements for concrete [1, 2006.01]
- 11/14 • Twisting [1, 2006.01]
- 11/15 • • Reinforcing rods for concrete [1, 2006.01]
- 11/16 • • Crankshafts [1, 2006.01]
- 11/18 • Joggling [1, 2006.01]
- 11/20 • Bending sheet metal, not otherwise provided for [1, 2006.01]
- 11/22 • Auxiliary equipment, e.g. positioning devices [1, 2006.01]
  
- 13/00 Corrugating sheet metal, rods or profiles; Bending sheet metal, rods or profiles into wave form** [1, 2006.01]
- 13/02 • by pressing [1, 2006.01]
- 13/04 • by rolling [1, 2006.01]
- 13/06 • by drawing [1, 2006.01]
- 13/08 • by combined methods [1, 2006.01]
- 13/10 • into a peculiar profiling shape [1, 2006.01]
  
- 15/00 Corrugating tubes** [1, 2, 2006.01]
- 15/02 • longitudinally [1, 2006.01]
- 15/03 • • by applying fluid pressure [1, 2006.01]
- 15/04 • transversely, e.g. helically [1, 2006.01]
- 15/06 • • annularly [1, 2006.01]
- 15/10 • • by applying fluid pressure [1, 2006.01]
- 15/12 • Bending tubes into wave form [1, 2006.01]
  
- 17/00 Forming single grooves in sheet metal or tubular or hollow articles** [1, 2006.01]
- 17/02 • by pressing [1, 2006.01]
- 17/04 • by rolling [1, 2006.01]
  
- 19/00 Flanging or other edge treatment, e.g. of tubes** [1, 2006.01]
- 19/02 • by continuously-acting tools moving along the edge [1, 2006.01]
- 19/04 • • shaped as rollers [1, 2006.01]
- 19/06 • • • working inwardly [1, 2006.01]
- 19/08 • by single or successive action of pressing tools, e.g. vice jaws [1, 2006.01]
- 19/10 • • working inwardly [1, 2006.01]
- 19/12 • Edge-curling [1, 2006.01]
- 19/14 • • Reinforcing edges, e.g. by armouring [1, 2006.01]
- 19/16 • Reverse flanging of tube ends [1, 2006.01]
  
- 21/00 Combined processes according to methods covered by groups B21D 1/00-B21D 19/00** [1, 2006.01]

**Stamping; Spinning; Deep-drawing; Working sheet metal of limited length by stretching; Punching**

- 22/00 Shaping without cutting, by stamping, spinning, or deep-drawing** (otherwise than using rigid devices or tools or yieldable or resilient pads B21D 26/00) [1, 2006.01]
- 22/02 • Stamping using rigid devices or tools [1, 2006.01]
- 22/04 • • for dimpling (combined with perforating B21D 28/24) [1, 2006.01]
- 22/06 • • having relatively-movable die parts [1, 2006.01]
- 22/08 • • with die parts on rotating carriers [1, 2006.01]
- 22/10 • Stamping using yieldable or resilient pads [1, 2006.01]
- 22/12 • • using enclosed flexible chambers [1, 2006.01]
- 22/14 • Spinning [1, 2006.01]
- 22/16 • • over shaping mandrels or formers [1, 2006.01]
- 22/18 • • using tools guided to produce the required profile [1, 2006.01]
- 22/20 • Deep-drawing (special deep-drawing arrangements in, or in connection with, presses B21D 24/00) [1, 2006.01]
- 22/21 • • without fixing the border of the blank [2, 2006.01]
- 22/22 • • with devices for holding the edge of the blanks (B21D 22/24-B21D 22/30 take precedence) [1, 2006.01]
- 22/24 • • involving two drawing operations having effects in opposite directions with respect to the blank [1, 2006.01]
- 22/26 • • for making peculiarly, e.g. irregularly, shaped articles [1, 2006.01]
- 22/28 • • of cylindrical articles using consecutive dies [1, 2006.01]
- 22/30 • • to finish articles formed by deep-drawing [1, 2006.01]
- 24/00 Special deep-drawing arrangements in, or in connection with, presses** [1, 2006.01]
- 24/02 • Die-cushions [1, 2006.01]
- 24/04 • Blank holders; Mounting means therefor [1, 2006.01]
- 24/06 • • Mechanically spring-loaded blank holders [1, 2006.01]
- 24/08 • • Pneumatically or hydraulically loaded blank holders [1, 2006.01]
- 24/10 • Devices controlling or operating blank holders independently, or in conjunction with dies [1, 2006.01]
- 24/12 • • mechanically [1, 2006.01]
- 24/14 • • pneumatically or hydraulically [1, 2006.01]
- 24/16 • Additional equipment in association with the tools, e.g. for shearing, for trimming [1, 2006.01]
- 25/00 Working sheet metal of limited length by stretching, e.g. for straightening** [2, 2006.01]
- 25/02 • by pulling over a die [2, 2006.01]
- 25/04 • Clamping arrangements [2, 2006.01]
- 26/00 Shaping without cutting otherwise than by using rigid devices or tools or yieldable or resilient pads, e.g. shaping by applying fluid pressure or magnetic forces** [1, 2006.01]
- 26/02 • by applying fluid pressure [1, 2, 2006.01, 2011.01]
- 26/021 • • Deforming sheet bodies [2011.01]
- 26/023 • • • including an additional treatment performed by fluid pressure, e.g. perforating [2011.01]
- 26/025 • • • Means for controlling the clamping or opening of the moulds [2011.01]
- 26/027 • • • Means for controlling fluid parameters, e.g. pressure or temperature [2011.01]
- 26/029 • • • Closing or sealing means [2011.01]
- 26/031 • • • Mould construction (B21D 26/025-B21D 26/029 take precedence) [2011.01]
- 26/033 • • Deforming tubular bodies (corrugating tubes by applying fluid pressure B21D 15/03, B21D 15/10) [2011.01]
- 26/035 • • • including an additional treatment performed by fluid pressure, e.g. perforating [2011.01]
- 26/037 • • • Forming branched tubes [2011.01]
- 26/039 • • • Means for controlling the clamping or opening of the moulds [2011.01]
- 26/041 • • • Means for controlling fluid parameters, e.g. pressure or temperature [2011.01]
- 26/043 • • • Means for controlling the axial pusher [2011.01]
- 26/045 • • • Closing or sealing means [2011.01]
- 26/047 • • • Mould construction (B21D 26/037-B21D 26/045 take precedence) [2011.01]
- 26/049 • • • Deforming bodies having a closed end [2011.01]
- 26/051 • • • Deforming double-walled bodies [2011.01]
- 26/053 • • characterised by the material of the blanks [2011.01]
- 26/055 • • • Blanks having super-plastic properties [2011.01]
- 26/057 • • • Tailored blanks [2011.01]
- 26/059 • • • Layered blanks [2011.01]
- 26/06 • • by shock waves [1, 2006.01]
- 26/08 • • • generated by explosives, e.g. chemical explosives [1, 2006.01]
- 26/10 • • • generated by evaporation, e.g. of wire, of liquids [1, 2006.01]
- 26/12 • • • initiated by spark discharge [1, 2, 2006.01]
- 26/14 • applying magnetic forces [1, 2006.01]
- 28/00 Shaping by press-cutting; Perforating** [1, 2006.01]
- 28/02 • Punching blanks or articles with or without obtaining scrap; Notching [1, 2006.01]
- 28/04 • • Centering the work; Positioning the tools [1, 2006.01]
- 28/06 • • Making more than one part out of the same blank; Scrapless working [1, 2006.01]
- 28/08 • • • Zig-zag sequence working [1, 2006.01]
- 28/10 • • Incompletely punching in such a manner that the parts are still coherent with the work [1, 2006.01]
- 28/12 • • Punching using rotatable carriers [1, 2006.01]
- 28/14 • • Dies (ejecting or stripping-off devices arranged in punching tools B21D 45/00) [1, 2006.01]
- 28/16 • • Shoulder or burr prevention [1, 2006.01]
- 28/18 • • Yieldable, e.g. rubber, punching pads [1, 2006.01]
- 28/20 • • Applications of drives [1, 2006.01]
- 28/22 • • Notching the peripheries of circular blanks, e.g. laminations for dynamo-electric machines [1, 2006.01]
- 28/24 • Perforating, i.e. punching holes [1, 2006.01]
- 28/26 • • in sheets or flat parts [1, 2006.01]
- 28/28 • • in tubes or other hollow bodies [1, 2006.01]
- 28/30 • • in annular parts, e.g. rims [1, 2006.01]
- 28/32 • • in other articles of special shape [1, 2006.01]
- 28/34 • • Perforating tools; Die holders [1, 2006.01]
- 28/36 • • using rotatable work or tool holders [1, 2006.01]

## B21D

- 31/00 Other methods for working sheet metal, metal tubes, metal profiles** (deforming one surface of tubes helically by rolling B21H 3/00; upsetting B21J 5/08; embossing decorations or marks B44B 5/00) [1, 2006.01]
- 31/02 • Stabbing or piercing, e.g. for making sieves [1, 2006.01]
- 31/04 • Expanding other than provided for in groups B21D 1/00-B21D 28/00, e.g. for making expanded metal (B21D 47/00 takes precedence) [1, 2, 2006.01]
- 31/06 • Deforming sheet metal, tubes or profiles by sequential impacts, e.g. hammering, beating, peen forming [1, 2006.01]
- 33/00 Special measures in connection with working metal foils, e.g. gold foils** (cutting or perforating of metal foil analogous to paper B26) [1, 2006.01]
- 35/00 Combined processes according to methods covered by groups B21D 1/00-B21D 31/00** (B21D 21/00 takes precedence) [1, 2006.01]
- 37/00 Tools as parts of machines covered by this subclass** (forms or constructions of tools uniquely adapted for particular operations, see in the relevant groups for the operations) [1, 2006.01]
- 37/01 • Selection of materials [2, 2006.01]
- 37/02 • Die constructions enabling assembly of the die parts in different ways (B21D 37/06 takes precedence) [1, 2006.01]
- 37/04 • Movable or exchangeable mountings for tools [1, 2006.01]
- 37/06 • • Pivotaly-arranged tools, e.g. disengageable (die sets with dies pivoted to one another B21D 37/12) [1, 2006.01]
- 37/08 • Dies with different parts for several steps in a process [1, 2006.01]
- 37/10 • Die sets; Pillar guides [1, 2006.01]
- 37/12 • • Particular guiding equipment; Special arrangements for interconnection or cooperation of dies [1, 2006.01]
- 37/14 • Particular arrangements for handling and holding in place complete dies [1, 2006.01]
- 37/16 • Heating or cooling [1, 2006.01]
- 37/18 • Lubricating [1, 2006.01]
- 37/20 • Making tools by operations not covered a single other subclass [1, 2006.01]
- 39/00 Application of procedures in order to connect objects or parts, e.g. coating with sheet metal otherwise than by plating** (riveting B21J; uniting components by forging or pressing to form integral members B21K 25/00); **Tube expanders** [1, 2006.01]
- 39/02 • of sheet metal by folding, e.g. connecting edges of a sheet to form a cylinder [1, 2006.01]
- 39/03 • of sheet metal otherwise than by folding [2, 2006.01]
- 39/04 • of tubes with tubes; of tubes with rods [1, 2006.01]
- 39/06 • of tubes in openings, e.g. rolling-in [1, 2006.01]
- 39/08 • Tube expanders [1, 2006.01]
- 39/10 • • with rollers for expanding only [1, 2006.01]
- 39/12 • • with rollers for expanding and flanging [1, 2006.01]
- 39/14 • • with balls [1, 2006.01]
- 39/16 • • with torque limiting devices [1, 2006.01]
- 39/18 • • Rollers of special shape [1, 2006.01]
- 39/20 • • with mandrels, e.g. expandable [2, 2006.01]

- 41/00 Application of procedures in order to alter the diameter of tube ends** (B21D 39/00 takes precedence) [1, 2006.01]
- 41/02 • Enlarging [1, 2006.01]
- 41/04 • Reducing; Closing [1, 2006.01]
- 43/00 Feeding, positioning or storing devices combined with, or arranged in, or specially adapted for use in connection with, apparatus for working or processing sheet metal, metal tubes or metal profiles; Associations therewith of cutting devices** (cutting devices associated with the tool, see the relevant group for the tool) [1, 2006.01]
- 43/02 • Advancing work in relation to the stroke of the die or tool [1, 2006.01]
- 43/04 • • by means in mechanical engagement with the work [1, 2006.01]
- 43/05 • • • specially adapted for multi-stage presses [1, 2006.01]
- 43/06 • • • by positive or negative engaging parts co-operating with corresponding parts of the sheet or the like to be processed, e.g. carrier bolts or grooved section in the carriers [1, 2006.01]
- 43/08 • • • by rollers [1, 2006.01]
- 43/09 • • • • by one or more pairs of rollers for feeding sheet or strip material [2, 2006.01]
- 43/10 • • • by grippers [1, 2006.01]
- 43/11 • • • • for feeding sheet or strip material [2, 2006.01]
- 43/12 • • • by chains or belts [1, 2006.01]
- 43/13 • • • by linearly moving tables [2, 2006.01]
- 43/14 • • • by turning devices, e.g. turn-tables [1, 2006.01]
- 43/16 • • by gravity, e.g. chutes [1, 2006.01]
- 43/18 • • by means in pneumatic or magnetic engagement with the work [1, 2006.01]
- 43/20 • Storage arrangements; Piling or unpling [1, 2006.01]
- 43/22 • • Devices for piling sheets [1, 2006.01]
- 43/24 • • Devices for removing sheets from a stack [1, 2006.01]
- 43/26 • Stops [1, 2006.01]
- 43/28 • Associations of cutting devices therewith [1, 2006.01]
- 45/00 Ejecting or stripping-off devices arranged in machines or tools dealt with in this subclass** [1, 2006.01]
- 45/02 • Ejecting devices [2, 2006.01]
- 45/04 • • interrelated with motion of tool [2, 2006.01]
- 45/06 • Stripping-off devices [2, 2006.01]
- 45/08 • • interrelated with motion of tool [2, 2006.01]
- 45/10 • Combined ejecting and stripping-off devices [2, 2006.01]

### Processing sheet metal or metal tubes, or processing metal profiles according to any of groups B21D 1/00-B21D 45/00, in the manufacture of finished or semi-finished articles

- 47/00 Making rigid structural elements or units, e.g. honeycomb structures** [1, 2006.01]
- 47/01 • beams or pillars [2, 2006.01]
- 47/02 • • by expanding [1, 2, 2006.01]
- 47/04 • composite sheet metal profiles [1, 2006.01]
- 49/00 Sheathing or stiffening objects** [1, 2006.01]
- 51/00 Making hollow objects** (from thick-walled or non-uniform tubes B21K 21/00) [1, 2006.01]

51/02	<ul style="list-style-type: none"> <li>characterised by the structure of the objects [1, 2006.01]</li> </ul> <p><b>Note(s) [2009.01]</b></p> <p>Making hollow objects characterised both by their structure and by their use is classified only in group B21D 51/16.</p>	53/14	<ul style="list-style-type: none"> <li>belts, e.g. machine-gun belts [1, 2006.01]</li> </ul>
		53/16	<ul style="list-style-type: none"> <li>rings, e.g. barrel hoops [1, 2006.01]</li> </ul>
		53/18	<ul style="list-style-type: none"> <li>• of hollow or C-shaped cross-section, e.g. for curtains, for eyelets [1, 2006.01]</li> </ul>
		53/20	<ul style="list-style-type: none"> <li>• washers, e.g. for sealing [1, 2006.01]</li> </ul>
		53/22	<ul style="list-style-type: none"> <li>• • with means for preventing rotation [1, 2006.01]</li> </ul>
51/04	<ul style="list-style-type: none"> <li>• built-up objects, e.g. objects with rigidly-attached bottom or cover [1, 2006.01]</li> </ul>	53/24	<ul style="list-style-type: none"> <li>• nuts or like thread-engaging members [1, 2006.01]</li> </ul>
51/06	<ul style="list-style-type: none"> <li>• folded objects [1, 2006.01]</li> </ul>	53/26	<ul style="list-style-type: none"> <li>• wheels or the like [1, 2006.01]</li> </ul>
51/08	<ul style="list-style-type: none"> <li>• ball-shaped objects [1, 2006.01]</li> </ul>	53/28	<ul style="list-style-type: none"> <li>• gear wheels [1, 2006.01]</li> </ul>
51/10	<ul style="list-style-type: none"> <li>• conically or cylindrically shaped objects [1, 2006.01]</li> </ul>	53/30	<ul style="list-style-type: none"> <li>• wheel rims [1, 2006.01]</li> </ul>
51/12	<ul style="list-style-type: none"> <li>• objects with corrugated walls [1, 2006.01]</li> </ul>	53/32	<ul style="list-style-type: none"> <li>• wheel covers [1, 2006.01]</li> </ul>
51/14	<ul style="list-style-type: none"> <li>• Flattening hollow objects for transport or storage; Subsequent re-forming [1, 2006.01]</li> </ul>	53/34	<ul style="list-style-type: none"> <li>• brake drums [1, 2006.01]</li> </ul>
51/16	<ul style="list-style-type: none"> <li>• characterised by the use of the objects (making heat exchangers B21D 53/02) [1, 2006.01]</li> </ul>	53/36	<ul style="list-style-type: none"> <li>• clips, clamps, or like fastening or attaching devices, e.g. for electric installation [1, 2006.01]</li> </ul>
51/18	<ul style="list-style-type: none"> <li>• vessels, e.g. tubs, vats, tanks, sinks, or the like [1, 2006.01]</li> </ul>	53/38	<ul style="list-style-type: none"> <li>• locksmith's goods, e.g. handles [1, 2006.01]</li> </ul>
51/20	<ul style="list-style-type: none"> <li>• • barrels [1, 2006.01]</li> </ul>	53/40	<ul style="list-style-type: none"> <li>• hinges, e.g. door hinge plates [1, 2006.01]</li> </ul>
51/22	<ul style="list-style-type: none"> <li>• • pots, e.g. for cooking [1, 2006.01]</li> </ul>	53/42	<ul style="list-style-type: none"> <li>• keys [1, 2006.01]</li> </ul>
51/24	<ul style="list-style-type: none"> <li>• high-pressure containers, e.g. boilers, bottles [1, 2006.01]</li> </ul>	53/44	<ul style="list-style-type: none"> <li>• fancy goods, e.g. jewellery products [1, 2006.01]</li> </ul>
51/26	<ul style="list-style-type: none"> <li>• cans or tins; Closing cans or tins in a permanent manner (making outlet arrangements B21D 51/38) [1, 2, 2006.01]</li> </ul>	53/46	<ul style="list-style-type: none"> <li>• haberdashery, e.g. buckles, combs; pronged fasteners, e.g. staples [1, 2006.01]</li> </ul>
51/28	<ul style="list-style-type: none"> <li>• • Folding the longitudinal seam [1, 2006.01]</li> </ul>	53/48	<ul style="list-style-type: none"> <li>• buttons, e.g. press-buttons, snap fasteners [1, 2006.01]</li> </ul>
51/30	<ul style="list-style-type: none"> <li>• • Folding the circumferential seam [1, 2006.01]</li> </ul>	53/50	<ul style="list-style-type: none"> <li>• metal slide-fastener parts [1, 2006.01]</li> </ul>
51/32	<ul style="list-style-type: none"> <li>• • • by rolling [1, 2006.01]</li> </ul>	53/52	<ul style="list-style-type: none"> <li>• • fastener elements; Attaching such elements so far as this procedure is combined with the process for making the elements [1, 2006.01]</li> </ul>
51/34	<ul style="list-style-type: none"> <li>• • • by pressing [1, 2006.01]</li> </ul>	53/54	<ul style="list-style-type: none"> <li>• • slides [1, 2006.01]</li> </ul>
51/36	<ul style="list-style-type: none"> <li>• collapsible or like thin-walled tubes, e.g. for toothpaste [1, 2006.01]</li> </ul>	53/56	<ul style="list-style-type: none"> <li>• • stops [1, 2006.01]</li> </ul>
51/38	<ul style="list-style-type: none"> <li>• Making inlet or outlet arrangements of cans, tins, baths, bottles or other vessels; Making can ends; Making closures [1, 2006.01]</li> </ul>	53/58	<ul style="list-style-type: none"> <li>• end-pieces for laces or ropes [1, 2006.01]</li> </ul>
51/40	<ul style="list-style-type: none"> <li>• • Making outlet openings, e.g. bung holes [1, 2006.01]</li> </ul>	53/60	<ul style="list-style-type: none"> <li>• cutlery wares; garden tools or the like [1, 2006.01]</li> </ul>
51/42	<ul style="list-style-type: none"> <li>• • Making or attaching spouts [1, 2006.01]</li> </ul>	53/62	<ul style="list-style-type: none"> <li>• spoons; table forks [1, 2006.01]</li> </ul>
51/44	<ul style="list-style-type: none"> <li>• • Making closures, e.g. caps (folded of thin metal foils in the way of making paper caps B31D 5/00; making closures in conjunction with applying them B67B) [1, 2006.01]</li> </ul>	53/64	<ul style="list-style-type: none"> <li>• knives; scissors; cutting blades (B21D 53/72 takes precedence; handle portions B21D 53/70) [1, 2006.01]</li> </ul>
51/46	<ul style="list-style-type: none"> <li>• • Placing sealings or sealing material [1, 2006.01]</li> </ul>	53/66	<ul style="list-style-type: none"> <li>• spades; shovels (handle portions B21D 53/70) [1, 2006.01]</li> </ul>
51/48	<ul style="list-style-type: none"> <li>• • Making crown caps [1, 2006.01]</li> </ul>	53/68	<ul style="list-style-type: none"> <li>• rakes, garden forks, or the like (handle portions B21D 53/70) [1, 2006.01]</li> </ul>
51/50	<ul style="list-style-type: none"> <li>• • Making screw caps [1, 2006.01]</li> </ul>	53/70	<ul style="list-style-type: none"> <li>• handle portions (B21D 53/72 takes precedence) [1, 2006.01]</li> </ul>
51/52	<ul style="list-style-type: none"> <li>• boxes, cigarette cases, or the like [1, 2006.01]</li> </ul>	53/72	<ul style="list-style-type: none"> <li>• sickles; scythes [1, 2006.01]</li> </ul>
51/54	<ul style="list-style-type: none"> <li>• cartridge cases, e.g. for ammunition, for letter carriers in pneumatic-tube plants [1, 2006.01]</li> </ul>	53/74	<ul style="list-style-type: none"> <li>• frames for openings, e.g. for windows, doors, handbags [1, 2006.01]</li> </ul>
53/00	<b>Making other particular articles</b> (making chains or chain parts B21L) [1, 2006.01]	53/76	<ul style="list-style-type: none"> <li>• writing or drawing instruments, e.g. writing pens, erasing pens [1, 2006.01]</li> </ul>
53/02	<ul style="list-style-type: none"> <li>• heat exchangers, e.g. radiators, condensers (making finned or ribbed tubes by fixing strip material or the like to tubes B21C 37/22) [1, 2, 2006.01]</li> </ul>	53/78	<ul style="list-style-type: none"> <li>• propeller blades; turbine blades [1, 2006.01]</li> </ul>
53/04	<ul style="list-style-type: none"> <li>• of sheet metal [1, 2006.01]</li> </ul>	53/80	<ul style="list-style-type: none"> <li>• dustproof covers; safety covers [1, 2006.01]</li> </ul>
53/06	<ul style="list-style-type: none"> <li>• of metal tubes [1, 2006.01]</li> </ul>	53/82	<ul style="list-style-type: none"> <li>• perforated music sheets; pattern sheets, e.g. for control purposes, stencils [1, 2006.01]</li> </ul>
53/08	<ul style="list-style-type: none"> <li>• of both metal tubes and sheet metal [1, 2006.01]</li> </ul>	53/84	<ul style="list-style-type: none"> <li>• other parts for engines, e.g. connecting-rods [1, 2006.01]</li> </ul>
53/10	<ul style="list-style-type: none"> <li>• parts of bearings; sleeves; valve seats or the like [1, 2006.01]</li> </ul>	53/86	<ul style="list-style-type: none"> <li>• other parts for bicycles or motorcycles [1, 2006.01]</li> </ul>
53/12	<ul style="list-style-type: none"> <li>• cages for bearings [1, 2006.01]</li> </ul>	53/88	<ul style="list-style-type: none"> <li>• other parts for vehicles, e.g. cowlings, mudguards [1, 2006.01]</li> </ul>
		53/90	<ul style="list-style-type: none"> <li>• axle-housings [1, 2006.01]</li> </ul>
		53/92	<ul style="list-style-type: none"> <li>• other parts for aircraft [1, 2006.01]</li> </ul>
		55/00	<b>Safety devices protecting the machine or the operator, specially adapted for apparatus or machines dealt with in this subclass</b> [1, 2006.01]