

ECLA EUROPEAN CLASSIFICATION

A22C **PROCESSING MEAT, POULTRY, OR FISH** (preserving [A23B](#); obtaining protein compositions for foodstuffs [A23J1/00](#); fish, meat or poultry preparations [A23L](#); disintegrating, e.g. chopping meat, [B02C18/00](#); preparation of proteins [C07K1/00](#) [[C9409](#)])

Guide heading: Processing meat

A22C5/00 **Apparatus for mixing meat, sausage-meat, or meat products** (mixing in general [B01F](#))

A22C7/00 **Apparatus for pounding, forming, or pressing meat, sausage-meat, or meat products** [N: (meat patty moulding devices for domestic use [A47J43/20](#); ham boilers [A47J27/20](#))]

[A22C7/00B](#) . [N: specially adapted for making multi-layered meat products]

[A22C7/00C](#) . [N: specially adapted for making meat-balls]

[A22C7/00D](#) . [N: Pressing means]

[A22C7/00D2](#) . . [N: Meat-moulds]

[A22C7/00D2B](#) . . . [N: Demoulding means]

[A22C7/00D2C](#) . . . [N: Containers in which meat is pressed and moulded] [[N1204](#)]

[A22C7/00D2C2](#) [N: Stackable containers] [[N1204](#)]

[A22C7/00D2C3](#) [N: Containers for moulding and pressing ham] [[N1204](#)]

[A22C7/00D2D](#) . . . [N: Pressing and moulding by means of a drum] [[N1204](#)]

[A22C7/00D2F](#) . . . [N: Devices for making meat patties] [[N1204](#)]

[A22C7/00D2F2](#) [N: comprising a reciprocating plate] [[N1204](#)]

[A22C7/00G](#) . [N: with worms or other rotary mounted members ([A22C7/00B](#) takes precedence)]

A22C9/00 **Apparatus for tenderising meat, e.g. ham** [N: (tenderising chemically [A23L1/31](#), [A23L1/318](#))]

[A22C9/00B](#) . [N: by injection]

[A22C9/00C](#) . [N: by electric treatment]

[A22C9/00D](#) . [N: by massaging] [[C1205](#)]

[A22C9/00D2](#) . . [N: Tumblers and rotating drums for massaging meat in their interior] [[N1204](#)]

[A22C9/00E](#) . [N: by beating]

[A22C9/00F](#) . [N: by piercing]

- A22C11/00** **Sausage making** [N: (chemical aspects [A23L1/31](#)); Apparatus for handling or conveying sausage products during manufacture]
- A22C11/00B . [N: Machines for making skinless sausages, e.g. Frankfurters, Wieners]
- A22C11/00B2 . . [N: Removing casings from sausages during manufacture]
- A22C11/00B4 . . [N: Apparatus for binding or tying sausages or meat, e.g. salami, rollades; Filling sausage products into sleeve netting]
- A22C11/00C . [N: Separating linked sausages] [N9409]
- A22C11/00D . [N: Conveying sausages in horizontal position (conveying hanging sausages A22C15/00A)] [N1204]
- A22C11/02 . Sausage filling or stuffing machines [N: (enclosing material in preformed tubular webs [B65B9/10](#))] [M1104]
- A22C11/02A . . [N: Stuffing horn assembly]
- A22C11/02A2 . . . [N: with multiple interchangeable stuffing horns, e.g. magazine arrangements] [N1204]
- A22C11/02B . . [N: Supplying casings to the stuffing device]
- A22C11/02B2 . . . [N: from a storage device]
- A22C11/02C . . [N: Controlling devices]
- A22C11/02C2 . . . [N: Sizing means]
- A22C11/02C3 . . . [N: Braking means]
- A22C11/02C4 . . . [N: for casing depletion]
- A22C11/02D . . [N: for sausages having at least one flat end]
- A22C11/02E . . [N: with coating or lubricating means]
- A22C11/04 . . with mechanically-operated piston moving to-and-fro
- A22C11/06 . . with piston operated by liquid or gaseous means
- A22C11/08 . . with pressing-worm or other rotary-mounted pressing-members
- A22C11/10 . Apparatus for twisting [N: or linking] sausages [N: (subdividing filled flexible tubes to form packages, involving displacement of contents [B65B9/12](#), by applying pressure and heat successively [B65B51/26](#))] [M1104]
- A22C11/10B . . [N: by means of shear or blade elements] [N1204]
- A22C11/10B2 . . . [N: The sheer or blade elements being displaceable parallel to the sausage string in order to create a narrow point free of meat] [N1204]
- A22C11/10C . . [N: A string passing between two rotary members comprising dividing elements cooperating with each other] [N1204]
- A22C11/10D . . [N: with dividing elements located on the surface of a single rotary member] [N1204]
- A22C11/12 . Apparatus for tying sausage skins; [N: Clipping sausage skins (applying clips or binding material to package folds or closures, e.g. to twisted bag necks [B65B51/04](#), [B65B51/08](#))] [M1104]
- A22C11/12A . . [N: by forming knots] [N9409]
- A22C11/12B . . [N: by clipping; Removal of clips] [N9409]
- A22C11/12C . . [N: Forming a suspension loop] [N9409]

- A22C13/00** **Sausage casings** [N: (made of animal intestines [A22C17/14](#))] [C9606]
- A22C13/00B . [N: Apparatus for making sausage casings, e.g. simultaneously with stuffing artificial casings (enclosing material webs being formed into tubes in situ around filling nozzles [B65B9/20](#))] [M1104]
- A22C13/00B2 . . [N: Apparatus for making artificial collagen casings (chemical aspects [A22C13/00D2](#))]
- A22C13/00C . [N: End closures therefor]
- A22C13/00D . [N: Chemical composition of synthetic sausage casings]
- A22C13/00D2 . . [N: based on proteins, e.g. collagen]
- A22C13/00F . [N: Chemical treatment of natural gut]
- A22C13/02 . Shirring of sausage casings [N: (storing preformed tubular webs on filling nozzles [B65B9/15](#))] [M1104]
- A22C13/02B . . [N: Holders or packs of shirred casings]
- A22C15/00** **Apparatus for hanging-up meat or sausages** [N: (filling and conveying sausage products during manufacture [A22C11/00](#); transport through slaughterhouses [A22B7/00B](#); poultry shackles [A22C21/00B](#); conveying poultry [A22C21/00G](#))] [C0306]
- A22C15/00A . [N: Specially adapted for hanging or conveying several sausages or strips of meat][N0306]
- A22C15/00A1 . . [N: Loops, hooks, cords for suspending single sausages; apparatus for making or conveying loops for sausages][N0306]
- A22C15/00B . [N: Hooks or the like specially adapted for meat or hams or part of carcasses (spreaders for cattle [A22B5/06](#))] [N0306]
- A22C15/00B1 . . [N: Hangers with more hooks penetrating the piece of meat][N0306]
- A22C15/00B2 . . [N: Apparatus for inserting a cord into a piece of meat][N0306]
- A22C15/00C . [N: Racks for storing or smoking suspended meat or sausages (racks for pressing meat [A22C7/00D](#))] [N0306]
- A22C15/00D . [N: Cages specially adapted for suspending hams, meat or sausages][N0306]
- A22C17/00** **Other devices for processing meat or bones**
- A22C17/00B . [N: Cutting or shaping meat] [C0808]
- A22C17/00B2 . . [N: Boards or blocks for cutting or chopping meat] [N0808]
- A22C17/00B4 . . [N: Producing portions of meat with predetermined characteristics, e.g. weight or particular dimensions] [N0808]
- A22C17/00B6 . . [N: Mincing and grinding meat (mincing machines [B02C18/30](#))] [N0808]
- A22C17/00B8 . . [N: Cutting slices out of a piece of meat (slicing machines [B26D1/143](#))] [N0808]
- A22C17/00C . [N: Devices for deboning meat (deboning poultry [A22C21/00J](#); deboning operations on carcasses [A22B5/00B3](#))] [C1003]

- A22C17/00C1 . . [N: specially adapted for meat containing ribs]
- A22C17/00D . [N: by injection]
- A22C17/00F . [N: Putting meat on skewers]
- A22C17/00F2 . . [N: for "döner kebab", "shawarma", "gyros" or the like] [N1201]
- A22C17/00G . [N: using visual recognition, X-rays, ultrasounds, or other contactless means to determine quality or size of portioned meat] [N0808]
- A22C17/00G2 . . [N: for measuring quality, e.g. to determine further processing] [N0808]
- A22C17/00G4 . . [N: Calculating cutting patterns based on visual recognition] [N0808]
- A22C17/00H . [N: Handling, transporting or packaging pieces of meat] [N0808]
- A22C17/02 . Apparatus for holding meat or bones while cutting [N: (holding fish [A22C25/06](#); holding meat for carving [A47J43/18](#))]
- A22C17/04 . Bone cleaning devices
- A22C17/06 . Bone-shears; Bone-crushers
- A22C17/08 . Cleaning, e.g. washing, meat or sausages [N: (treating offal [C11B](#))]
- A22C17/10 . Marking meat or sausages [N: (marking animals [A01K11/00](#); labelling [B65C](#))]
- A22C17/12 . Apparatus for cutting-off rind [N: (skinning instruments [A22B5/16](#))]
- A22C17/14 . Working-up animal intestines; [N: Treatment thereof for the manufacture of natural sausage casings (making artificial casings [A22C13/00B](#); chemical treatment of natural casings [A22C13/00F](#))]; Apparatus for cutting intestines; Machines for pulling intestines to pieces
- A22C17/16 . Cleaning of intestines; Machines for removing fat or slime from intestines [N: (cleaning the stomach of slaughtered animals [A22B5/18](#))]

- A22C18/00** **Plants, factories, or the like for processing meat** (for processing poultry only [A22C21/00](#); for processing fish only [A22C25/00](#))

- A22C21/00** **Processing poultry**
- A22C21/00B . [N: Poultry shackles]
- A22C21/00C . [N: Killing poultry entering the processing machine (slaughtering pliers, slaughtering shears [A22B3/08](#))]
- A22C21/00D . [N: Dividing poultry]
- A22C21/00D2 . . [N: Filleting poultry, i.e. extracting, cutting or shaping poultry fillets] [N0710]
- A22C21/00E . [N: Trussing poultry]
- A22C21/00F . [N: Support devices]

- A22C21/00G . [N: Transferring or conveying devices for poultry] [C0710]
- A22C21/00H . [N: Cleaning or disinfecting poultry] [N0710]
- A22C21/00J . [N: Deboning poultry or parts of poultry] [N0710]
- A22C21/00J2 . . [N: Deboning poultry legs and drumsticks] [N1204]
- A22C21/00J4 . . [N: Deboning poultry wings] [N1204]
- A22C21/00K . [N: Skinning poultry or parts of poultry] [N0710]
- A22C21/02 . Plucking mechanisms for poultry
- A22C21/02A . . [N: with fingers]
- A22C21/02B . . [N: Hand tools for plucking poultry]
- A22C21/02C . . [N: with rollers]
- A22C21/02D . . [N: with discs]
- A22C21/04 . Scalding, singeing, waxing, or dewaxing poultry
- A22C21/06 . Eviscerating devices for poultry
- A22C21/06B . . [N: Hand tools for eviscerating poultry]
- A22C21/06C . . [N: Extracting or removing the tendons from the legs of poultry]

Guide heading: **Processing fish, including shellfish**

- A22C25/00** **Processing fish;** [N: Curing of fish; Stunning of fish by electric current; Investigating fish by optical means (slaughtering fish [A22B3/08](#))]
- A22C25/00C . [N: Processing cephalopods] [N1204]
- A22C25/00D . [N: Hand tools for processing fish] [N1204]
- A22C25/02 . Washing or descaling fish
- A22C25/02B . . [N: Devices for washing or descaling fish by hand]
- A22C25/04 . Sorting fish; Separating ice from fish packed in ice [N: (investigating fish [G01N33/12](#))]
- A22C25/06 . Work-tables; Fish-holding and auxiliary devices in connection with work-tables
- A22C25/08 . Holding, guiding, or conveying fish before, during or after its preparation ([A22C25/06 takes precedence](#)); [N: Devices for sizing fish; Automatically adapting conveyers or processing machines to the measured size (transport in general [B65G](#))]
- A22C25/10 . Devices for threading fish on strings or the like
- A22C25/12 . Arranging fish, e.g. according to the position of head and tail [N: (orientating articles during conveying [B65G47/24](#))]
- A22C25/14 . Beheading, eviscerating, or cleaning fish [N: (combined with removing fish-bone, skinning and filleting [A22C25/00B](#); hand tools [A22C25/00B2](#))]

- A22C25/14B . . [N: Beheading fish] [N1204]
- A22C25/14C . . [N: Eviscerating fish] [N1204]
- A22C25/14C2 . . . [N: Eviscerating by means of vacuum or suction devices] [N1204]

- A22C25/16 . Removing fish-bones; Filleting fish [N: (combined with beheading, eviscerating [A22C25/00B](#); hand tools [A22C25/00B2](#))]
- A22C25/16B . . [N: Removing the fins] [C9912]
- A22C25/16C . . [N: Removing loose pin bones, e.g. from fish fillets] [N1204]

- A22C25/17 . Skinning fish

- A22C25/18 . Cutting fish into portions
- A22C25/18B . . [N: Hand tools for cutting fish]

- A22C25/20 . Shredding; Cutting into cubes; Flaking

- A22C25/22 . Fish-rolling apparatus

- A22C29/00** **Processing shellfish [N: or bivalves], e.g. oysters, lobsters; [N: Devices therefor, e.g. claw locks, claw crushers, grading devices; Processing lines]**

- A22C29/00B . [N: Grading or classifying shellfish or bivalves] [N1201]

- A22C29/02 . Processing shrimps, lobsters or the like; [N: Methods or machines for the shelling of shellfish]
- A22C29/02C . . [N: Cleaning operations on shellfish, e.g. evisceration, brushing] [N1201]
- A22C29/02C2 . . . [N: Deveining shellfish] [N1201]
- A22C29/02D . . [N: Conveying, feeding or aligning shellfish] [N1201]
- A22C29/02F . . [N: Opening, shelling or peeling shellfish] [N1201]
- A22C29/02F2 . . . [N: Mechanically opening and shelling crabs, lobsters or other hard-shelled crustaceans] [N1201]
- A22C29/02F4 . . . [N: Mechanically peeling and shelling shrimps, prawns or other soft-shelled crustaceans] [N1201]
- A22C29/02F6 . . . [N: Hand tools for shelling shellfish] [N1201]
- A22C29/02G . . [N: Beheading shellfish] [N1201]

- A22C29/04 . Processing bivalves, e.g. oysters (oyster knives with openers [A47G21/06](#))
- A22C29/04B . . [N: Cleaning operations on bivalves, e.g. evisceration, brushing, separation of meat and shell material] [N1201]
- A22C29/04C . . [N: Opening or shucking bivalves] [N1201]