

**CPC****COOPERATIVE PATENT CLASSIFICATION****B28C**

**PREPARING CLAY ; PRODUCING MIXTURES CONTAINING CLAY OR CEMENTITIOUS MATERIAL, e.g. PLASTER** ( [preparing material for foundry moulds B22C 5/00](#) )

**NOTE**

In this subclass, the following terms or expressions are used with the meanings indicated:

"cement" or "mixtures of cement with other substance" includes plaster;

"clay" includes like ceramic compositions.

**Guidance heading:****B28C 1/00**

**Apparatus or methods for obtaining or processing clay** ( [filtration in general B01D](#) ; [separation of solids from solids B03](#) , [B07](#) ; [chemical part C04B](#) ; by mining or quarrying [E21C 41/16](#) , [E21C 41/26](#) , [E21C 47/10](#) )

## B28C 1/003

. { [Plant; Methods](#) }

## B28C 1/006

.. { [Methods](#) }

## B28C 1/02

. for producing or processing clay suspensions, { [e.g. slip](#) } ( [producing or processing suspensions in general B01](#) )

## B28C 1/04

.. Producing suspensions, e.g. by blunging { [or mixing; with means for removing stones](#) }

## B28C 1/06

.. Processing suspensions { [i.e. after mixing](#) }

## B28C 1/08

... Separating suspensions, e.g. for obtaining clay, for removing stones; { [Cleaning clay slurries](#) }

## B28C 1/082

.... { [Dewatering \( B28C 1/088 takes precedence \)](#) ; [Using sieves](#) }

## B28C 1/084

.... { [De-aerating](#) }

## B28C 1/086

.... { [Washing](#) }

## B28C 1/088

.... { [by centrifugal force](#) }

## B28C 1/10

. for processing clay-containing substances in non-fluid condition ( [clay slurries B28C 1/02](#) ) ; { [Plants](#) }

## B28C 1/12

.. Storing and conditioning in storage ; Specially adapted storage spaces or devices for their filling or emptying; { [Tower structures for the storage of clay](#) } ( [feeding clay to shaping apparatus B28B 13/00](#) )

## B28C 1/14

.. specially adapted for homogenising, comminuting or conditioning clay in non-fluid condition or for separating undesired admixtures therefrom ( [processes involving conversion to a slurry B28C 1/02](#) ; [conditioning in storage B28C 1/12](#) ; [comminuting in general B02C](#) ; [chemical features in eliminating iron or lime C04B](#) )

## B28C 1/16

... for homogenising, e.g. by mixing, kneading; { [forcing through slots](#) }

## B28C 1/18

... for comminuting { [clay lumps](#) }

B28C 1/182	....	{ by forcing the clay through screens or slots, e.g. using screw or rolls }
B28C 1/185	.....	{ on cylindrical or conical surfaces, e.g. on rotating drums }
B28C 1/187	....	{ using co-operating rotating elements, e.g. cutters }
B28C 1/20	...	for separating undesired admixed bodies, { e.g. stones }
B28C 1/203	....	{ by forcing the clay through screens or slots, e.g. having exchangeable screens or slots }
B28C 1/206	.....	{ on cylindrical or conical surfaces, e.g. on rotating drums }
B28C 1/22	...	combined with means for conditioning by heating, humidifying, or vacuum treatment, { by cooling, by sub-atmospheric pressure treatment }
B28C 1/222	....	{ by moistening, e.g. by steam }
B28C 1/225	....	{ by degassing, de-aerating }
B28C 1/227	....	{ by heating, drying }

**Guidance heading:** **Mixing clay or cement with other material** ( general arrangement or layout of plant [B28C 9/00](#) ; mixers in general [B01F](#) ; concrete paving mixers combined with distributing devices [E01C 19/00](#) ; machines for preparing mixtures of road-metal with bitumen [E01C 19/10](#) )

#### **NOTE**

In groups [B28C 3/00](#) to [B28C 7/00](#) , the following term is used with the meaning indicated:

- "mixing" includes preliminary mixing, e.g. of some of the ingredients final mixing, and agitating the mixture to prevent segregation thereof

<b>B28C 3/00</b>	<b>Apparatus or methods for mixing clay with other substances ( producing clay suspensions <a href="#">B28C 1/02</a> )</b>
<b>B28C 5/00</b>	<b>Apparatus or methods for producing mixtures of cement with other substances, e.g. slurries, mortars, porous or fibrous compositions ( controlling the mixing apparatus and supplying the ingredients <a href="#">B28C 7/00</a> { separating cement from waste concrete <a href="#">B03B 9/063</a> } )</b>
B28C 5/003	. { Methods for mixing ( <a href="#">B28C 5/386</a> , <a href="#">B28C 5/402</a> take precedence ) }
B28C 5/006	.. { involving mechanical aspects }
B28C 5/02	. without using driven mechanical means effecting the mixing ( <a href="#">B28C 5/48</a> takes precedence )
B28C 5/023	.. { using a flexible mat or bag }
B28C 5/026	.. { Mixing guns or nozzles; Injector mixers ( applying plaster by gas pressure <a href="#">E04F 21/12</a> ; both conveying and distributing concrete <a href="#">E04G 21/04</a> ; conveying concrete <a href="#">B65G 53/32</a> ; accelerating or decelerating material flow in troughs or tubes <a href="#">B65G 53/58</a> ) }
B28C 5/04	.. Gravitational mixing ; Mixing by intermingling streams of ingredients ( { <a href="#">B28C 5/026</a> takes precedence } ; ingredients projected by fluid pressure <a href="#">B28C 5/06</a> )
B28C 5/06	.. the mixing being effected by the action of a fluid ( in combination with driven mechanical means, producing cellular concrete <a href="#">B28C 5/38</a> )

- B28C 5/08 . using driven mechanical means affecting the mixing ( [B28C 5/40](#) , [B28C 5/42](#) , [B28C 5/48](#) take precedence; in combination with the action of a fluid [B28C 5/38](#) )
- B28C 5/0806 .. { Details; Accessories }
- B28C 5/0812 ... { Drum mixer cover, e.g. lid }
- B28C 5/0818 ... { Charging or discharging gates or chutes; Sealing means }
- B28C 5/0825 ... { Drum insulating means }
- B28C 5/0831 ... { Drives or drive systems, e.g. toothed racks, winches ( [B28C 7/0876](#) takes precedence ) }
- B28C 5/0837 .... { Drives for mixers of the tilted-drum type ( [B28C 5/085](#) takes precedence ) }
- B28C 5/0843 .... { Drives for drums rotating about a horizontal axis and supported by rotating rollers ( [B28C 5/085](#) takes precedence ) }
- B28C 5/085 .... { Hydraulic drives }
- B28C 5/0856 ... { Supporting frames or structures, e.g. supporting wheels }
- B28C 5/0862 .. { Adaptations of mixing containers therefor, e.g. use of material, coatings }
- B28C 5/0868 .. { Mixing apparatus in which a mixing container is hoisted along an inclined or vertical track during mixing to discharge at a higher level }
- B28C 5/0875 .. { Mixing in separate stages involving different containers for each stage }
- B28C 5/0881 .. { having a stator-rotor system with intermeshing teeth or cages }
- B28C 5/0887 .. { provided with sieves or filters }
- B28C 5/0893 .. { Mobile mixing devices, e.g. hanging }
- B28C 5/10 .. Mixing in containers not actuated to effect the mixing
- B28C 5/12 ... with stirrers sweeping through the materials { ,e.g. with incorporated feeding or discharging means or with oscillating stirrers }
- B28C 5/1207 .... { with means for elevating the stirrer, e.g. out of the containers }
- B28C 5/1215 .... { Independent stirrer-drive units, e.g. portable or mounted on a wheelbarrow }
- B28C 5/1223 .... { discontinuously operating mixing devices, e.g. with consecutive containers }
- B28C 5/123 ..... { with pressure or suction means for discharging }
- B28C 5/1238 .... { for materials flowing continuously through the mixing device and with incorporated feeding or discharging devices ( feeding or discharging devices per se [B28C 5/0818](#) ) }
- B28C 5/1246 ..... { with feeding devices ( [B28C 5/1276](#) , [B28C 5/1292](#) take precedence ) }
- B28C 5/1253 ..... { with discharging devices ( [B28C 5/1276](#) , [B28C 5/1292](#) take precedence ) }
- B28C 5/1261 ..... { Applying pressure for discharging ( applying pressure during mixing [B28C 5/462](#) ) }
- B28C 5/1269 ..... { for making cellular concrete ( in general [B28C 5/381](#) ) }
- B28C 5/1276 ..... { with consecutive separate containers with rotating stirring and feeding or discharging means }
- B28C 5/1284 ..... { having a feeding hopper and consecutive vertical or inclined mixing container fed at its upper part }
- B28C 5/1292 ..... { with rotating stirring and feeding or discharging means fixed on the same axis, e.g. in an inclined container fed at its lower part }
- B28C 5/14 .... the stirrers having motion about a horizontal or substantially horizontal axis { ( with feeding or discharging means [B28C 5/12](#) ) }

B28C 5/141	.....	{ with container tiltable or elevatable for emptying }
B28C 5/142	.....	{ the stirrer shaft carrying screw-blades }
B28C 5/143	.....	{ for materials flowing continuously through the mixing device }
B28C 5/145	.....	{ with several mixing chambers arranged one after the other }
B28C 5/146	.....	{ with several stirrers with parallel shafts in one container ( <a href="#">B28C 5/145</a> takes precedence ) }
B28C 5/147	.....	{ the material being moved perpendicularly to the axis of the shafts }
B28C 5/148	.....	{ the stirrer shaft carrying a plurality of radially extending mixing bars }
B28C 5/16	....	the stirrers having motion about a vertical or steeply inclined axis { ( <a href="#">with feeding or discharging means B28C 5/12</a> ) }
B28C 5/161	.....	{ in containers tiltable for emptying in containers with inclined axes }
B28C 5/163	.....	{ in annularly-shaped containers }
B28C 5/165	.....	{ with stirrers having planetary motion }
B28C 5/166	.....	{ Pan-type mixers }
B28C 5/168	.....	{ with stirrers having planetary motion }
B28C 5/18	..	Mixing in containers to which motion is imparted to effect the mixing
B28C 5/1806	...	{ rotating about an inclined axis ( <a href="#">about a steeply inclined axis B28C 5/26</a> ) }
B28C 5/1812	....	{ with rotating mixing tools }
B28C 5/1818	....	{ Mobile or portable devices, e.g. on a wheelbarrow ( <a href="#">B28C 5/1887</a> takes precedence ) }
B28C 5/1825	...	{ Mixers of the tilted-drum type, e.g. mixers pivotable about an axis perpendicular to the axis of rotation for emptying }
B28C 5/1831	....	{ to be mounted on a tractor }
B28C 5/1837	....	{ provided with feeding means, e.g. hoisting skips ( <a href="#">B28C 5/1831</a> , <a href="#">B28C 5/185</a> , <a href="#">B28C 5/1856</a> take precedence ) }
B28C 5/1843	....	{ having several drums }
B28C 5/185	....	{ having driven stirrers, e.g. driven from underneath }
B28C 5/1856	....	{ Details or parts, e.g. drums ( <a href="#">drives B28C 5/0831</a> ) }
B28C 5/1862	.....	{ Construction of drum, e.g. provided with mixing blades }
B28C 5/1868	.....	{ with mixing elements held stationary }
B28C 5/1875	.....	{ Tilting means; Locks or brakes therefor }
B28C 5/1881	....	{ the mixing drums being tilted otherwise than about a fixed axis perpendicular to the axis of rotation of the drum, e.g. by means of a set of links ( <a href="#">B28C 5/08B1</a> , <a href="#">B28C 5/08B3</a> , <a href="#">B28C 5/08B5</a> , <a href="#">B28C 5/08B10</a> take precedence ) }
B28C 5/1887	....	{ Mobile or portable devices, e.g. for use by do-it-yourself enthusiasts }
B28C 5/1893	...	{ the mixing drum being rotated by pulling it over the ground; the mixing drum or the stirrer being driven by movement of the wheel of a vehicle }
B28C 5/20	...	rotating about a horizontal or substantially horizontal axis during mixing, e.g. without independent stirrers
B28C 5/2009	....	{ with multi-compartment drums }
B28C 5/2018	....	{ Transportable containers, e.g. on a wheelbarrow, to be fixed totally or partly in a mixer, e.g. for rotation therewith }
B28C 5/2027	....	{ using spiral-shaped mixing drums }
B28C 5/2036	....	{ with the material travelling through the mixer, the discharge being opposite the feed inlet ( <a href="#">B28C 5/2072</a> , <a href="#">B28C 5/22</a> , <a href="#">B28C 5/24</a> take precedence ) }

B28C 5/2045	....	{ Parts or components ( drives <a href="#">B28C 5/0831</a> ) }
B28C 5/2054	.....	{ Drums, e.g. provided with non-rotary mixing blades ( <a href="#">B28C 5/2009</a> takes precedence ) }
B28C 5/2063	.....	{ Drums consisting of axially displaceable halves; Drums having discharging opening on their cylindrical part, e.g. the drum rotating in opposite direction for mixing or for discharging; Drums having a cylindrical part not being a surface of revolution }
B28C 5/2072	.....	{ Feeding or discharging mechanisms }
B28C 5/2081	.....	{ Chutes pivotable about an axis parallel to the plane of the inlet or outlet opening }
B28C 5/209	.....	{ Chutes rotatable about an axis parallel to the drum axis }
B28C 5/22	....	with stirrers held stationary, { e.g. the material forming a ring zone by centrifugal force }
B28C 5/24	....	with driven stirrers
B28C 5/26	...	rotating about a vertical or steeply inclined axis during the mixing, { e.g. comprising a flat bottomplate rotating about a vertical axis, co-operating with blades or stirrers }
B28C 5/28	....	without independent stirrers
B28C 5/30	....	with stirrers held stationary
B28C 5/32	....	with driven stirrers
B28C 5/325	.....	{ with several stirrer shafts }
B28C 5/34	..	Mixing on or by conveyers { e.g. by belts or chains provided with mixing elements }
B28C 5/36	...	Endless-belt mixers { i.e. for mixing while transporting the material on an endless belt, e.g. with stationary mixing elements }
B28C 5/365	....	{ Mixing with driven mixing elements while transporting the mixture on an endless belt }
B28C 5/38	.	wherein the mixing is effected both by the action of a fluid and by directly-acting driven mechanical means, e.g. stirring means; { Producing cellular concrete }
B28C 5/381	..	{ Producing cellular concrete ( <a href="#">B28C 5/1269</a> takes precedence; producing foam <a href="#">B01F 3/04446</a> , <a href="#">B01F 3/04992</a> ) }
B28C 5/383	...	{ comprising stirrers to effect the mixing }
B28C 5/385	....	{ Stirrers specially adapted therefor }
B28C 5/386	...	{ Plants; Systems; Methods }
B28C 5/388	....	{ Methods }
B28C 5/40	.	Mixing specially adapted for preparing mixtures containing fibres
B28C 5/402	..	{ Methods }
B28C 5/404	..	{ Pre-treatment of fibres }
B28C 5/406	...	{ and mixing with binding material }
B28C 5/408	..	{ by spraying fibres and binding material }
B28C 5/42	.	Apparatus specially adapted for being mounted on vehicles with provision for mixing during transport ( { <a href="#">B28C 5/1893</a> takes precedence; mounted on a wheelbarrow <a href="#">B28C 5/1215</a> , <a href="#">B28C 5/1818</a> , <a href="#">B28C 5/2018</a> ; } vehicle aspect <a href="#">B60P 3/16</a> )
B28C 5/4203	..	{ Details; Accessories }
B28C 5/4206	...	{ Control apparatus; Drive systems, e.g. coupled to the vehicle drive-system }

- B28C 5/421 . . . . { Drives ( in general [B28C 5/0831](#) ) }
- B28C 5/4213 . . . . . { Hydraulic drives ( [B28C 5/4217](#) takes precedence ) }
- B28C 5/4217 . . . . . { Drives in combination with drum mountings; Drives directly coupled to the axis of rotating drums }
- B28C 5/422 . . . . { Controlling or measuring devices ( [B28C 5/4227](#) takes precedence ) }
- B28C 5/4224 . . . . . { Roll-over prevention }
- B28C 5/4227 . . . . { Transmission control mechanisms }
- B28C 5/4231 . . . { Proportioning or supplying water ( in general [B28C 7/12](#) ) }
- B28C 5/4234 . . . { Charge or discharge systems therefor }
- B28C 5/4237 . . . . { Charging, e.g. hoppers }
- B28C 5/4241 . . . . . { having self-charging means, e.g. skips, scoops or buckets, picking up the material from the ground }
- B28C 5/4244 . . . . { Discharging; Concrete conveyer means, chutes or spouts therefor ( in general [B28C 7/168](#) ) }
- B28C 5/4248 . . . . . { using chutes ( combined with transporting belts [B28C 5/4255](#) , combined with pumps or screws [B28C 5/4258](#) ) }
- B28C 5/4251 . . . . . { telescopic or foldable chutes }
- B28C 5/4255 . . . . . { using transporting belts, e.g. mounted on a foldable frame }
- B28C 5/4258 . . . . . { using pumps or transporting screws }
- B28C 5/4262 . . . { Closures; Sealing mechanisms ( [B28C 5/4237](#) takes precedence ) }
- B28C 5/4265 . . . { Mounting means for drums; Support frames }
- B28C 5/4268 . . . { Drums, e.g. provided with non-rotary mixing blades ( drums for concrete mixers with horizontal axis [B28C 5/2054](#) ) }
- B28C 5/4272 . . { with rotating drum rotating about a horizontal or inclined axis, e.g. comprising tilting or raising means for the drum ( [B28C 5/4279](#) takes precedence ) }
- B28C 5/4275 . . . { with a drum rotating about a horizontal axis, e.g. perpendicular to the longitudinal axis of the vehicle }
- B28C 5/4279 . . { with rotating drum and independently-rotating mixing tools }
- B28C 5/4282 . . { with moving mixing tools in a stationary container }
- B28C 5/4286 . . . { with mixing screw-blades }
- B28C 5/4289 . . . { with stirrers rotating about a vertical axis }
- B28C 5/4293 . . . { with reciprocating or oscillating stirrers ( in general [B28C 5/12D](#) ) }
- B28C 5/4296 . . { mounted on a tractor or on a tractor wheel ( for tilted-drum type mixers [B28C 5/1831](#) ; charging thereof [B28C 5/4237](#) ) }
  
- B28C 5/44 . Apparatus specially adapted for drive by muscle power
  
- B28C 5/46 . Arrangements for applying super- or sub-atmospheric pressure during mixing ; Arrangements for cooling or heating during mixing, { e.g. by introducing vapour }
- B28C 5/462 . . { Mixing at sub- or super-atmospheric pressure ( [B28C 5/1261](#) takes precedence ) }
- B28C 5/464 . . . { at sub-atmospheric pressure }
- B28C 5/466 . . { Heating, e.g. using steam }
- B28C 5/468 . . { Cooling, e.g. using ice }
  
- B28C 5/48 . wherein the mixing is effected by vibrations ( mixers with vibrating mechanisms in general [B01F 11/00](#) )



- B28C 5/485      ..      { with reciprocating or oscillating stirrers; Stirrers therefor ( [B28C 5/4293](#) takes precedence ) }
  
- B28C 7/00**      **Controlling the operation of apparatus for producing mixtures of clay or cement with other substances ; Supplying or proportioning the ingredients for mixing clay or cement with other substances ; Discharging the mixture { ( [B28C 5/42](#) takes precedence; feeding material in general [B65G](#) ; proportioning in general [G01F](#) , [G01G](#) ; controlling in general [G05](#) ) }**
  
- B28C 7/0007      .      { Pretreatment of the ingredients, e.g. by heating, sorting, grading, drying, disintegrating; Preventing generation of dust }
- B28C 7/0015      ..      { Tagging of the ingredients, e.g. by using ingredient identification means like RFID or labels }
- B28C 7/0023      ..      { by heating or cooling ( during mixing [B28C 5/46](#) ) }
- B28C 7/003      ...      { Heating, e.g. using steam }
- B28C 7/0038      ...      { Cooling, e.g. using ice }
  
- B28C 7/0046      .      { Storage or weighing apparatus for supplying ingredients ( [B28C 7/04](#) takes precedence ) }
- B28C 7/0053      ..      { Storage containers, e.g. hoppers, silos, bins ( [B28C 7/0084](#) takes precedences ) }
- B28C 7/0061      ...      { Storage container plant }
- B28C 7/0069      ...      { having compartments }
- B28C 7/0076      ...      { Parts or details thereof, e.g. opening, closing or unloading means }
- B28C 7/0084      ..      { Storage containers or silos mounted on, or specially adapted for transport by, vehicles; Means for erecting containers or silos }
- B28C 7/0092      ..      { Stationary storage means having elements to divide the ground in sectors }
  
- B28C 7/02      .      Controlling the operation of the mixing
- B28C 7/022      ..      { by measuring the consistency or composition of the mixture, e.g. with supply of a missing component }
- B28C 7/024      ...      { by measuring properties of the mixture, e.g. moisture, electrical resistivity, density }
- B28C 7/026      ...      { by measuring data of the driving system, e.g. rotational speed, torque, consumed power }
- B28C 7/028      ..      { by counting the number of revolutions performed, or by measuring the mixing time }
  
- B28C 7/04      .      Supplying or proportioning the ingredients { ( [B28C 7/022](#) takes precedence; forming a predetermined ratio of the components to be mixed, in general [B01F 15/04](#) ) }
- B28C 7/0404      ..      { Proportioning }
- B28C 7/0409      ...      { taking regard of the moisture content of the solid ingredients; Moisture indicators }
- B28C 7/0413      ...      { two or more flows in predetermined ratio }
- B28C 7/0418      ...      { control systems therefor }
- B28C 7/0422      ..      { Weighing predetermined amounts of ingredients, e.g. for consecutive delivery }
- B28C 7/0427      ...      { using a charging-skip, to be hoisted or tilted, provided with weight-indicating means }
- B28C 7/0431      ...      { using a weighing belt or the like }

B28C 7/0436	...	{ Weighing means specially adapted for use in batching plants }
B28C 7/044	...	{ Weighing mechanisms specially adapted therefor; Weighing containers ( other containers <a href="#">B28C 7/0046</a> ) }
B28C 7/0445	...	{ using a weighing receptacle, the feeding thereof being automatically suspended after a predetermined weight has been obtained ( <a href="#">B28C 7/045</a> takes precedence ) }
B28C 7/045	...	{ using a weighing receptacle movable between several positions, e.g. moving vertically, horizontally or rotating about an axis ( <a href="#">B28C 7/0427</a> takes precedence ) }
B28C 7/0454	..	{ Volumetric measuring devices, e.g. for consecutively delivering predetermined volumes of ingredients }
B28C 7/0459	...	{ the ingredients being first supplied into measuring chambers, e.g. containers or skips }
B28C 7/0463	....	{ Measuring chambers or containers therefor ( other containers <a href="#">B28C 7/0046</a> ) }
B28C 7/0468	....	{ the measuring chambers being provided on a rotating drum }
B28C 7/0472	...	{ for continuous feeding, e.g. by controlling the velocity of a transporting belt or the thickness of the ingredients on the belt or by regulating the outlet of a hopper ( <a href="#">B28C 7/0477</a> takes precedence ) }
B28C 7/0477	...	{ by using conveyer screws }
B28C 7/0481	..	{ Plant for proportioning, supplying or batching ( <a href="#">B28C 7/0436</a> , <a href="#">B28C 7/0811</a> take precedence; plant in general <a href="#">B28C 9/00</a> ) }
B28C 7/0486	...	{ the plant being mobile }
B28C 7/049	....	{ and broken-down for transport }
B28C 7/0495	.....	{ with a frame carrying the supplying, proportioning or batching elements, movable between a horizontal transport position and an inclined working position }
B28C 7/06	..	Supplying the solid ingredients, e.g. by means of endless conveyers or jiggling conveyers
B28C 7/061	...	{ from stationary storage means having elements for dividing the ground sectorially ( <a href="#">B28C 7/0811</a> takes precedence ) }
B28C 7/062	...	{ with a pneumatic or hydraulic conveyer }
B28C 7/064	...	{ Supply from sacks; Sack openers }
B28C 7/065	...	{ with a pivotable charging-bin ( <a href="#">B28C 7/068</a> takes precedence ) }
B28C 7/067	...	{ by means of stationary hoppers, chambers or bins from which the material is fed gravitationally, e.g. having agitating means therein ( hoppers or bins per se <a href="#">B28C 7/0053</a> ) }
B28C 7/068	...	{ having means to elevate or hoist a charging-bin or container }
B28C 7/08	...	by means of scrapers or skips
B28C 7/0805	....	{ by means of a barrow or the like }
B28C 7/0811	....	{ from stationary storage means having elements for dividing the ground sectorially }
B28C 7/0817	....	{ on an endless chain }
B28C 7/0823	....	{ using manually-operated cable-pulled drag shovels ( <a href="#">B28C 7/0841</a> takes precedence ) }
B28C 7/0829	.....	{ using reciprocating cable-suspended drag shovels }



- B28C 7/0835 . . . . { using skips to be hoisted along guides or to be tilted, to charge working-site concrete mixers ( proportioning by means of a skip [B28C 7/0427](#) , [B28C 7/0459](#) ) }
- B28C 7/0841 . . . . . { having mechanisms to fill the skip in its lowest position, e.g. by drag shovels, from a hopper }
- B28C 7/0847 . . . . . { the skips being hoisted along vertical or inclined guides }
- B28C 7/0852 . . . . . { and being tilted in their upmost position for discharging them at their upper side }
- B28C 7/0858 . . . . . { the skips being tilted ( [B28C 7/0852](#) takes precedence ) }
- B28C 7/0864 . . . . . { about a fixed axis }
- B28C 7/087 . . . . . { Parts; Accessories, e.g. safety devices }
- B28C 7/0876 . . . . . { Drives therefor, e.g. winches, hydraulic drives }
- B28C 7/0882 . . . . . { Skips }
- B28C 7/0888 . . . . . { Vibration devices, e.g. for facilitating the emptying of the skips }
- B28C 7/0894 . . . . { Parts, e.g. winches }
- B28C 7/10 . . . by means of rotary members { ,e.g. inclinable screws }
- B28C 7/12 . . Supplying or proportioning liquid ingredients
- B28C 7/122 . . . { by means of a measuring chamber, e.g. container }
- B28C 7/124 . . . . { for use with a skip }
- B28C 7/126 . . . { Supply means, e.g. nozzles }
- B28C 7/128 . . . . { Nozzles; Valves; Valve-actuating means }
- B28C 7/14 . Supply means incorporated in, or mounted on, mixers
- B28C 7/16 . Discharge means, { e.g. with intermediate storage of fresh concrete }
- B28C 7/161 . . { with storage reservoirs for temporarily storing the fresh concrete; Charging or discharging devices therefor }
- B28C 7/162 . . { by means of conveyers, other than those comprising skips or containers, e.g. endless belts, screws, air under pressure }
- B28C 7/163 . . . { using a pump }
- B28C 7/165 . . . . { using a fluid, e.g. gas ( [B28C 5/06](#) , [B28C 5/1261](#) take precedence ) }
- B28C 7/166 . . . . . { comprising a lock rotor with pockets for feeding determined quantities of material from a hopper into the driving fluid }
- B28C 7/167 . . . { by means of a screw conveyer }
- B28C 7/168 . . . { Discharging chutes for concrete mixers }
- B28C 9/00** **General arrangement or layout of plant** { ( [B28C 7/0061](#) , [B28C 7/0481](#) take precedence ) }
- B28C 9/002 . { Mixing systems, i.e. flow charts or diagrams; Making slurries; Involving methodical aspects; Involving pretreatment of ingredients; Involving packaging }
- B28C 9/004 . . { Making slurries, e.g. with discharging means for injecting in a well or projecting against a wall }
- B28C 9/006 . { comprising a multicompartment silo with the mixing device, e.g. a mixing screw, fitted directly at the underside of the silo, e.g. with proportioning means at the exit of the silo }

- B28C 9/008 . { Plant adapted for mixing materials lying on the ground, e.g. in sectors ( [B28C 9/0436](#) takes precedence ) }
- B28C 9/02 . for producing mixtures of clay or cement with other materials
- B28C 9/04 . the plant being mobile, { e.g. mounted on a carriage or a set of carriages } ( [B28C 5/42](#) , { [B28C 9/004](#) , [B28C 9/006](#) } take precedence )
- B28C 9/0409 . . { and broken-down for transport ( [B28C 9/0445](#) takes precedence ) }
- B28C 9/0418 . . . { with a storage silo movable between a horizontal transport position and a vertical working position }
- B28C 9/0427 . . . { with a frame carrying the supplying and mixing elements movable between a horizontal transport position and an inclined working position }
- B28C 9/0436 . . { Plant adapted for mixing material lying in sectors on the ground }
- B28C 9/0445 . . . { and broken-down for transport }
- B28C 9/0454 . . { Self-contained units, i.e. mobile plants having storage containers for the ingredients ( [B28C 9/0472](#) , [B28C 9/0481](#) take precedence ) }
- B28C 9/0463 . . . { with a mixing discharge trough with a free end, e.g. provided with a mixing screw or pivotable about a vertical or horizontal axis }
- B28C 9/0472 . . { provided with two or more carriages for storing the ingredients or for the mixing device, e.g. transportable on rails }
- B28C 9/0481 . . { with means for loading the material from ground level to the mixing device, e.g. with an endless conveyer or a charging skip ( [B28C 9/0436](#) takes precedence ) }
- B28C 9/049 . . . { with at least a storage compartment for one of the ingredients }