

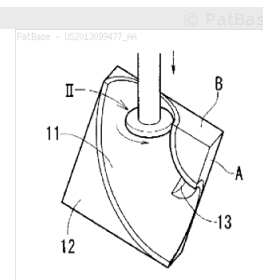
1) Family number: 50439325 (US2013099477A)

ELBOW FORMED BY CUTTING AND METHOD FOR MANUFACTURING SAME

Abstract: Source: US2013099477A A hole is formed in an elbow through the steps of: forming a starting hole in a material, the starting hole having an undercut remaining on a hole surface; finishing an inner diameter of the starting hole (11-3) on one end side by revolving a side cutter (II) including an arc-shaped cutting edge and having an outer diameter smaller than a finishing hole diameter while rotating the side cutter (II) in such a posture that the side cutter (II) is inclined in a predetermined direction relative to the material (12), the revolving being carried out so that the side cutter moves along a hole surface to be finished; and finishing the inner diameter of the starting hole (11-3) on another end side by revolving the side cutter (II) while rotating the side cutter (II).

Probable Assignee: DAIDO DIE AND MOLD STEEL SOLUTIONS CO LTD

Earliest Publication Date: 20120105



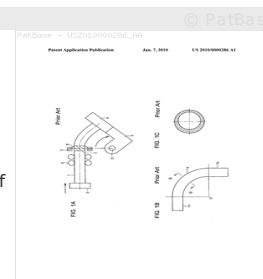
2) Family number: 42348660 (US2010000286A)

WELDED COMPONENT COMPRISING SEAMLESS BENT PIPE AND SEAMLESS STRAIGHT PIPE SECTIONS AND METHODS OF MANUFACTURING THEREOF

Abstract: Source: US2010000286A Provided are a seamless bent pipe constituted by a bent section and straight pipe sections on both ends of the bent section, with the inside diameter at each pipe end portion being larger than the inside diameter of the bent section, and a welded component comprising a seamless bent pipe and a seamless straight pipe at one or each end of the seamless bent pipe, with the end of the seamless straight pipe to be welded to one or each end of the seamless bent pipe having the same inside diameter as the inside diameter of the seamless bent pipe, as well as methods of manufacturing them. As a result, elements suited for use in pipelines can be obtained, without unnecessarily increasing the wall thickness of the seamless bent pipe and without internal machining of the pipe end portions of the seamless bent pipe after the manufacturing thereof.

Probable Assignee: NIPPON STEEL CORP

Earliest Publication Date: 20081016



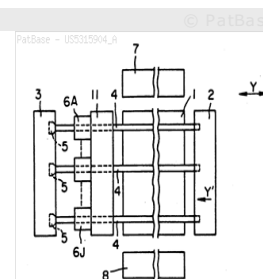
3) Family number: 10224242 (US5315904A)

APPARATUS FOR CUTTING INNER CIRCUMFERENTIAL SURFACE OF THICK WALLED SMALL DIAMETER PIPE

Abstract: Source: US5315904A A device for cutting the inner circumferential surface of a thick-walled small diameter pipe comprising a setting means for inserting a core bar having a cutting blade on one end thereof into a pipe to be processed, a rotating means for rotating said pipe to be processed set by the setting means about the axis thereof relative to said core bar, a feed means for cutting the inner surface of said pipe to be processed with said cutting blade while pulling the core bar which is securedly held at the other end thereof relative to said pipe to be processed, and a control means for controlling each of said means, providing a smooth high quality inner surface having excellent proof pressure against internal pressure.

Probable Assignee: USUI CO LTD

Earliest Publication Date: 19930605



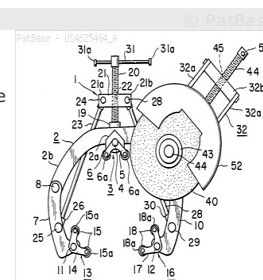
4) Family number: 29470817 (US4625464A)

PIPE PROCESSING DEVICE

Abstract: Source: US4625464A A pipe processing device for use in cutting and/or chamfering a pipe to be welded where an attaching body is securely held on the outer peripheral surface of the pipe by means of three abutting members mounted in the angularly spaced relation with the position of the abutting member being adjustable by a screw bar and also smoothly moved along the outer peripheral surface of the pipe, which is then cut by means of a cutting wheel vertically for the axial line and if necessary the end of the pipe can be chamfered by means of a chamfering cutter mounted on the device.

Probable Assignee: KUBO TETSUSHI

Earliest Publication Date: 19860220



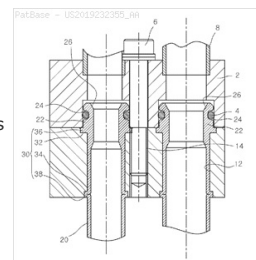
5) Family number: 66370244 (US2019232355A)

JOINT FLANGE USING THICKNESS-INCREASED AND CUTTING-PROCESSED PIPE AND METHOD FOR MANUFACTURING SAME

Abstract: Source: US2019232355A A method of manufacturing a joint flange using a thickness-increased, machined pipe is provided. The method includes a pipe cutting operation in which a pipe is cut to a predetermined length, a flange forming operation in which a flange having a mounting hole for installing the pipe is formed by die casting, a bump-forming operation in which a thickness-increased part, which is formed by increasing a thickness of one end of the pipe, is bumped to form a first bead locked to the flange, a machining operation in which a circumference of the thickness-increased part is machined to form a sealing groove having an O-ring installed, and a fixing operation in which the pipe is inserted in the mounting hole of the flange and the other end of the pipe is pressed to form a second bead so that the pipe is pressed to a lower end of the flange.

Probable Assignee: HA JIN SANG

Earliest Publication Date: 20170714



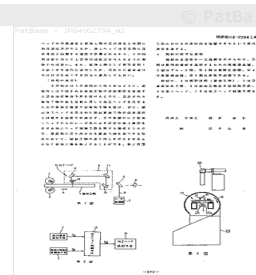
6) Family number: 9891397 (JP64002794A)

LASER BEAM MACHINE

Abstract: Source: JP64002794A PURPOSE:To reduce the working time by machining a work while moving a machining head at the speed synchronizing with the delivery speed of the work basically by a machining head control means to perform the machining without stopping the delivery of the work. CONSTITUTION:In a state that a pipe manufacturing material 1 is delivered continuously, the machining head 14 is fitted to the cutting starting position of the pipe manufacturing material 1. At the same time with that, the machining head 14 is moved at the speed synchronizing with the delivery speed of the pipe manufacturing material 1 and while it is moved, the cutting operation of the pipe manufacturing material 1 is performed by a laser beam 8 from the machining head 14. As a result, since the deliver of the pipe manufacturing material is not stopped every time the cutting operation is performed, the working time at the cutting stage can be reduced by that amount.

Probable Assignee: TOSHIBA CORP

Earliest Publication Date: 19890106



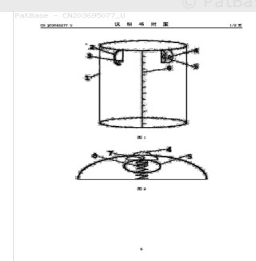
7) Family number: 56353695 (CN203695077U)

MANUFACTURING PIPE FOR TEST TUBE COTTON PLUG

Abstract: Source: CN203695077U The utility model discloses a manufacturing pipe for a test tube cotton plug, and aims to provide a processing tool for quickly manufacturing a standard test tube cotton plug. The manufacturing pipe comprises four parts, namely a circular tube provided with scales, a semi-elliptical cutter frame, a cutter blade and a cord fastener of a half-elliptical leaf spring fastener, wherein the semi-elliptical cutter frame and the cord fastener of the half-elliptical leaf spring fastener are both positioned at the top opening of the same end of the circular tube, and are vertical to the circular tube opening; the cutter blade is positioned at an inwards recessed position, away from the circular tube opening end, of the semi-elliptical cutter frame. The manufacturing pipe is simple in structure, low in price, and convenient to use, and can improve the working efficiency and consistency for manufacturing the cotton plug.

Probable Assignee: UNIV ANHUI SCIENCE AND TECH

Earliest Publication Date: 20140507



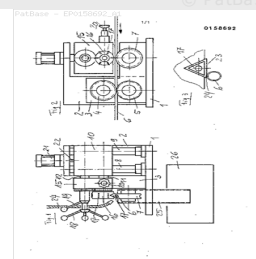
8) Family number: 2153984 (EP0158692A1)

METHOD AND DEVICE FOR MACHINING THE LONGITUDINAL WELD SEAM OF A MOVING PIPE

Abstract: On the continuous pipe (6) guided in guide and supporting rollers (7), the part of the weld seam projecting above the profile of the pipe (6) is removed by a cutting tool (17). By a slide (10) guided in a column guide (8, 9) and by a tool slide (15) horizontally guided in the slide (10) with a column guide (11, 12) the cutting tool can be adjusted in such a way that, after one section of the cutting edge is worn down, an adjacent, intact section of the cutting edge of the cutting tool is brought into use during operation without interrupting manufacture of the pipe (6). This guarantees a long, uninterrupted pipe-manufacturing period.

Probable Assignee: OERLIKON BUEHRLE SCHWEISSTECH

Earliest Publication Date: 19851023



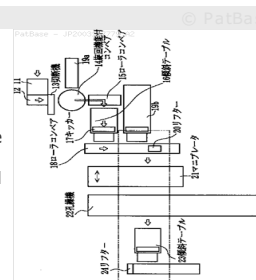
9) Family number: 28588140 (JP2003117779A)

MACHINING EQUIPMENT LINE FOR STEEL PIPE MANUFACTURING BILLET

Abstract: Source: JP2003117779A PROBLEM TO BE SOLVED: To provide a machining equipment line for a steel pipe manufacturing billet capable of improving production efficiency, reducing the number of workers, and stabilizing quality.SOLUTION: A cutting machine 13 cutting a material by a predetermined length, a boring machine 22 boring a hole with a predetermined diameter in the axial center of the material cut by the cutting machine 13, and an end face machining machine 27 performing machining of an end face, a round, and a taper in the top side end part of the material bored in the axial center by the boring machine 22 are arranged sequentially. Between the cutting machine 13 and the boring machine 22 and between the boring machine 22 and the end face machining machine 27, conveying and transferring devices conveying and transferring the machined material to the following equipment are arranged. A controller is arranged for carrying out production schedule management, setting of a machining/conveying condition, and instruction to each equipment. In this way, unbalance between the respective equipment is reduced, and the production efficiency is improved and the number of workers can be lowered. By systematization of production schedule management, setting of a machining/ conveying condition, and instruction to each equipment, quality can be stabilized.

Probable Assignee: SUMITOMO METAL IND

Earliest Publication Date: 20030423



10) Family number: 3331545 (US4899712A)

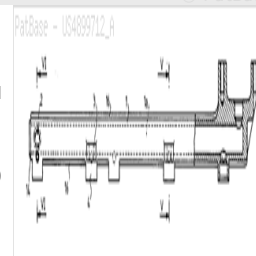
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FUEL INJECTION RAIL MANUFACTURING MEANS AND PROCESS

Abstract: Source: US4899712A The invention concerns a method of manufacturing a single-block fuel injection rail. The rail according to the inventive process comprises at least one rectilinear hollow tube, to which are joined at least one fuel intake tip, at least one injection intake and rail fastening means. The method comprises striking, in the hot state, a metal billet placed in a die, imparting thereto a longitudinal solid primary shape having transverse branching, whose axes are perpendicular to the longitudinal axes of the primary form, and cooling and machining the primary form so as to give the rail its final shape. The rail is formed from an aluminum alloy and the billet is struck at a temperature between about 430 DEG and 460 DEG C. The process may be used in the manufacture of fuel injection rails for the automobile industry.

Probable Assignee: G DE BRUYN OZOIR

Earliest Publication Date: 19841228



11) Family number: 55260905 (CN103406939A)

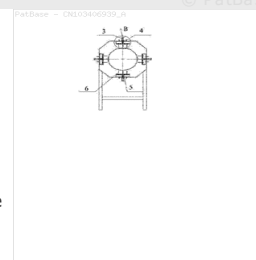
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PVC LEAKAGE PIPE MANUFACTURING DEVICE

Abstract: Source: CN103406939A The invention discloses a PVC leakage pipe manufacturing device which is used for manufacturing PVC leakage pipes. The PVC leakage pipe manufacturing device is arranged on a support and comprises driving mechanisms, motors, milling cutters and gears. Each motor drives one or more gears, the milling cutters are fixed below the gears, and the driving mechanisms drive the motors, the gears and the milling cutters to move vertically through guide pillars. In the production process, the PVC leakage pipe manufacturing device is placed between a water tank of an extruder and a dragger, a gas circuit and an electric circuit are started, the extruder extrudes pipes, the motors on the device rotate to drive the milling cutters to rotate, and the driving mechanisms move vertically to push the milling cutters to drill holes in the pipes. The production and manufacturing method can reduce machining procedures, improve production efficiency, reduce manual work, reduce labor intensity, improve automation degrees and improve appearance quality of products.

Probable Assignee: GUANGDONG LIANSU TECH IND CO

Earliest Publication Date: 20131127



12) Family number: 73909196 (CN109590687A)

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CIRCULAR BEAD MACHINING METHOD

Abstract: Source: CN109590687A The invention relates to the technical field of accessory component processing, and particularly discloses a circular bead machining method. The circular bead machining method comprises the following steps that firstly, pipe manufacturing is conducted, and sheet raw materials are manufactured into a circular pipe; secondly, cutting is conducted, and the circular pipe obtained in the first step is cut into equal-length cylinders; thirdly, pressing forming is conducted, the cylinders obtained in the second step are subjected to pressing forming in a pressing forming machine, and semi-finished circular beads with the two ends opened are formed; and fourthly, forming is conducted, the semi-finished circular beads obtained in the third step are subjected to later treatment, and circular beads are obtained. According to the method, the extremely good ductility of the metal materials is utilized, and the cutting and pressing forming steps during circular bead machining are changed; the manner that cutting is conducted and then pressing forming is conducted is adopted, the circular pipe is sufficiently utilized, and material and manual work waste is avoided; and meanwhile, the length of the cylinders in the same batch is the same, complete cutting can be achieved through one-time tool setting during cutting, and the problem that according to an existing circular bead production method, during cutting, due to repeated tool setting, circular bead and waste cutting is conducted at intervals, and consequently the cutting precision is not high are solved.

Probable Assignee: MOKINGRAN GOLD JEWELRY GROUP CO LTD

Earliest Publication Date: 20190409

13) Family number: 76761480 (CN110524260A)

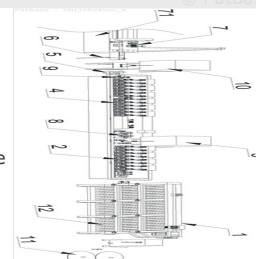
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SPECIAL-SHAPED HOUSEHOLD PIPE MANUFACTURING EQUIPMENT

Abstract: Source: CN110524260A The invention discloses special-shaped household pipe manufacturing equipment. According to the technical scheme, the special-shaped household pipe manufacturing equipment is characterized by comprising a feeding mechanism, a forming mechanism, a welding mechanism, a shaping mechanism, a blow-drying mechanism, a fine line spraying mechanism and a flying saw cutting mechanism which are sequentially arranged. According to the equipment, a steel belt sequentially passes through the feeding mechanism, the forming mechanism, the welding mechanism, the shaping mechanism, the blow-drying mechanism, the fine line spraying mechanism and the flying saw cutting mechanism to be machined to obtain the special-shaped household pipe, the painted steel belt is adopted for machining, the traditional machining procedure is changed, and the machining efficiency is improved; after the steel belt is continuously fed from the feeding mechanism, the needed special-shaped household pipe can be obtained from the flying saw cutting mechanism through all the procedures, all the procedures are automatically completed in the process from feeding of the steel belt to forming of the special-shaped household pipe and cutting of the special-shaped household pipe into the special-shaped household pipe with the needed length, the automation degree is high, and the machining efficiency is high.

Probable Assignee: HANGZHOU YUEYANG UMBRELLA IND CO LTD

Earliest Publication Date: 20191203

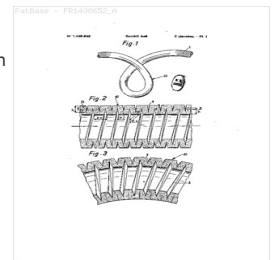


14) Family number: 21087080 (FR1498652A)

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TUYAU SOUPLE EN MATIERE PLASTIQUE ET SON PROCEDE DE FABRICATION HOSE PLASTIC AND MANUFACTURING METHOD (MACHINE TRANSLATION)

Abstract: Source: FR1498652A [Source: Claim 1] **ATTENTION** debut du champ CLMS peut contenir fin de DESC **, amovible sur une plaque 34, reliee par une tige 35 a l'ecrou 27 de la contrepoinete 22. La longueur L de la tringle 33 conditionne directement celle du tuyau souple 10 pouvant etre obtenu en une seule passe. L'outillage est complete par un guide 36 fixe sur le tablier du tour qui est muni d'une bague amovible 37 adaptee au diametre du tuyau IOa a usiner. Conformement a la realisation preferee du procede, l'execution du tuyau souple est effectuee de la maniere suivante La tringle 33 portant l'outil 31 de hauteur h convenable est fixee sur la plaque de liaison 34. De meme l'outil de coupe exterieur 29 est place sur la tourelle 23 de maniere qu'il forme avec la perpendiculaire a l'axe du tuyau IOa l'angle a correspondant au pas 2p. Le tuyau rigide et lisse IOa est glisse dans la partie centrale du mandrin 21 et amene entre les molettes 25 qui sont reglees pour assurer a la fois la rotation, et la translation du tuyau IOa. Les deux outils de coupe 29 et 31 qui restent fixes pendant l'operation d'usinage sont ensuite amenes a leur position de travail. L'outil 29 est amene au contact de la partie superieure du tuyau IOa par deplacement vertical de la tourelle 23 puis il est enfonce dans ce tuyau a une profondeur egale a la penetration h recherchee. L'outil 29 est place a faible distance de l'outil 31 immediatement en arriere duquel est disposee la bague de guidage 37. Le tour est mis en route. Le tuyau IOa entraine par les trois molettes 25 solidaires du mandrin 21 se met a tourner. Sous l'effet de l'outil de coupe 29 il se deplace de la gauche vers la droite. Chacun des outils imprime sa fente helicoidale 1, 2 respectivement dans le tuyau qui entre rapidement dans le guide 36. Le tour est arrete lorsque le tuyau a parcouru suivant F la longueur L. Le tuyau rainure IOa obtenu est alors sectionne a la hauteur des outils de coupe 29, 31. L'outil de coupe interieur 31 qui se trouve loge a l'interieur du tuyau est retire en demontant la tringle 33 de la plaque 34. Le tuyau souple est termine; il porte les deux fentes helicoidales de pas 2fie, decalees d'un demipas l'une par rapport a l'autre. Il va de soi que l'invention n'est pas limitee a la realisation particuliere qui vient d'etre decrite et qu'on peut y apporter des variantes d'execution. En particulier, dans une version legerement differente, une tete speciale peut etre montee sur le mandrin, les molettes etant alors a la fois motrices et assurant a la fois la rotation et la traction axiale du tuyau. En ce cas, l'outil exterieur peut etre aussi reduit a l'etat d'une simple pointe tranchante. RESUME 10 Tuyau souple en matiere plastique caracterise en ce qu'il porte sur chacune de ses surfaces, interieure et exterieure, une fente helicoidale de meme pas, la fente interieure etant decalee d'un demi-pas par rapport a la fente exterieure. 20 Tuyau souple conforme au paragraphe 10 caracterise en ce que la penetration des deux fentes a l'interieur de la paroi est identique. 30 Tuyau souple conforme au paragraphe 10 caracterise en ce que la penetration h des fentes depasse la ligne mediane de l'epaisseur E de la paroi et que l'epaisseur residuelle est inferieure ou egale au demi-pas p, ce qui correspond aux conditions suivantes: $h > E/2$ pBE-h 40 Tuyau souple conforme au paragraphe 10 caracterise en ce qu'il est constitue par du polytetra. fluorethylene ou par du polyethylene. 5 Procede de fabrication du tuyau souple conforme au paragraphe 10 caracterise en ce qu'on imprime au tuyau un mouvement de rotation et qu'on provoque son deplacement longitudinal relativement a deux outils de coupe qui sont fixes, le premier agissant a l'interieur du tuyau et le second a l'exterieur de telle maniere qu'ils tracent chacun une fente helicoidale de meme pas, ces deux fentes etant decalees d'un demi-pas l'une par rapport a l'autre. 60 Procede de fabrication du tuyau souple conforme au paragraphe 50 caracterise en ce que l'outil de coupe exterieur est constitue par une lame disposee obliquement par rapport a l'axe du tuyau, l'inclinaison etant en rapport avec le pas des fentes helicoidales. 7" Procede de fabrication du tuyau souple conforme au paragraphe 50 caracterise en ce que l'on exerce sur le tuyau en rotation une traction axiale lorsque les outils sont des pointes. [Source: Claim 1] ** WARNING ** start of CLMS field may contain end of DESC **. Removable on a plate 34, reliee by a rod 35 to the nut 27 of the tailstock 22. The length of the rod 33 that directly affects the hose 10 can be obtained in one pass. The tooling is completed by a guide 36 fixed on the deck of the tower has a removable ring 37 adapted to the diameter of the pipe was machined IOa. Preferee accordance with the implementation of the process, the execution of the hose is effected in the following manner the rod 33 carrying the proper tool height h 31 is fixed on the connecting plate 34. Similarly outside cutting tool 29 is positioned on the turret 23 of way that it forms with the perpendicular to the axis of the pipe IOa angle corresponding to the pitch 2p. The rigid and smooth pipe IOa is slipping in the central part of the mandrel 21 and brings between the knobs 25 which shall be settled to ensure both a rotation and translation of the pipe IOa. Both 29 and 31 cutting tools that remain stationary during the machining operation are then brought into their working position. The 29 tool brings in contact with the upper part of the pipe IOa by vertical displacement of the turret 23 and is then driven into the pipe has a depth equal to the penetration pm sought. The tool 29 is up a short distance from the tool 31 immediately in back of which is arranged the guide ring 37. The tour is started. The pipe IOa leads by three rollers 25 secured to the spindle 21 starts to rotate. Under the effect of the cutting tool 29, it moves from left to right. Each tool prints its helical slot 1, 2 respectively in the pipe that moves quickly into the guide 36. The tower is stopped when the pipe has traveled along the length F L. The resulting pipe IOa groove is then sectioned at the height of the tools 29 section 31. interior 31 cutting tool which is housed on the inside of the pipe is removed by removing the rod 33 of the plate 34. the hose is finished; it carries the two helical slots not 2fie, demipas shifted one relative to another. It goes without saying that the invention is not limited to the particular achievement that has just been described and that can make execution variants. In particular, in a slightly different version of a special head can be montee on the mandrel, the wheels then being has both motor and ensuring at the same time the rotation and axial tension of the pipe. In this case, the external tool can also be reduced to the state of a single sharp point. SUMMARY 10 Hose plastic material characterizes in that it carries on each of its surfaces, interior and exterior, a helical slot not even the inner slot OFFSET being half a pitch relative to the outer slot. 20 Hose according to paragraph 10 characterized in that said penetration of the two slots on the inside of the wall is the same. 30 Hose according to paragraph 10 characterized in that said penetration pm slots exceeds the median line of the thickness E of the wall thickness and the residual is less than or equal to half the pitch p, corresponding to the following conditions: $h > E/2$ pBE-h 40 Hose according to paragraph 10 characterizes in that it constitutes the POLYTETRA. Fluorinated or polyethylene. 5 Process for manufacturing the hose complies with subsection 10 characterizes in that prints the tube rotational motion and that causes the longitudinal displacement relative has two cutting tools which are fixed, the first case was inside the pipe and the second on the outside in such a way that they trace a helical slot of each even not, these two slots being OFFSET a half pitch relative to the other. 60 hose manufacturing Method according to paragraph 50 characterized in that said outside cutting tool is a blade obliquely arranged relative to the pipe axis, tilt being related to the pitch of helical slots. 7 "flexible pipe manufacturing Method according to paragraph 50 characterized in that said one exerts on the rotating pipe axial traction when the tools are the tips.



Probable Assignee: ASTI SOC

Earliest Publication Date: 19671020

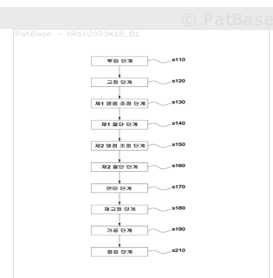
15) Family number: 77854265 (KR102073418B)

METHOD FOR MANUFACTURING PIPE

Abstract: Source: KR102073418B Is provided with a "b" as the above, as a method for processing a pipe fixing and 1 located in front of the first fixing portion through the third fixing part fixing step for fixing the pipe, pipe fixing step of determining the first zero point adjustment in an upward direction of the pipe through the pipe cutting a first cutting step of cutting the first cutting unit to cut through the first, second pipe in the second cutting step cutting and cutting portion formed with a plurality of engraved in rear inner circumferential surface of the pipe rotating vortex portion to form a concave in the processing step. According to the present invention, in the front and rear of the pipe with a small force by the movement in the vertical direction, it is possible to easily prevent the pipe to be produced, and can improve the quality of the pipe because the multiple fixed and multiple zero point adjustment of the pipe in the pipe cutting and machining process, it can be minimized in accordance with the defective occurrence.

Probable Assignee: RIGHTS BUMP

Earliest Publication Date: 20200302



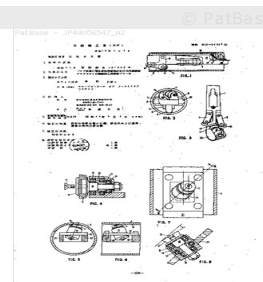
16) Family number: 1073326 (JP48056547A)

BROACH FOR MACHINING OF INTERNAL WELD UPSET IN THE ELECTRIC RESISTANCE WELD PROCESS OF PIPE MANUFACTURE

Abstract: Source: JP48056547A 1, the name of the invention claim 1 [Source: pipe manufacturing method definitive internal contact electrical resistance of the contact i# stands Fi! 2-contact rotation JP for machining broach upset #! Wherein the pipe F move by contact with the up-1[1 excisional the fourth rolling so as to be without collecting the pipe @ to a predetermined angle with respect to take-up, the facts of the rod rotatably cutting circle dam comprises a pipe manufacturing the electrical resistance of the #! Contact welding method of cutting contact definitive internal broach upset rotation. 3,

Probable Assignee: TUBEMAKERS AUSTRALIA

Earliest Publication Date: 19730808



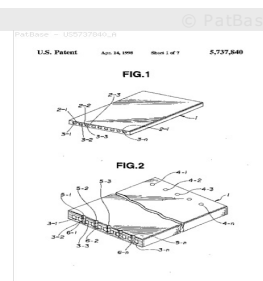
17) Family number: 10734074 (US5737840A)

METHOD OF MANUFACTURING TUNNEL-PLATE TYPE HEAT PIPES

Abstract: Source: US5737840A A tunnel-plate type heat pipe is manufactured out of a tube having capillary parallel tunnels defined by partitions through shaping both ends of the tube, forming recesses in the partitions in the vicinity of each end of the tube, closing both ends of the tube to form a capillary tunnel container, cleaning the capillary tunnel container, and charging the capillary tunnel container with a predetermined amount of working fluid.

Probable Assignee: MIZUTANI ELECTRIC IND CO LTD

Earliest Publication Date: 19970115



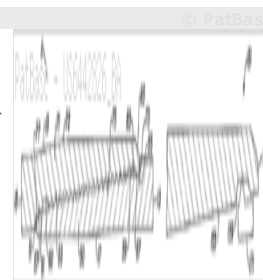
18) Family number: 23692995 (US6442826B)

METHOD FOR MANUFACTURING A FLUSH/SEMI-FLUSH THREADED CONNECTION

Abstract: Source: US6442826B A method for manufacturing pipe joints for connecting two pipe sections in a well bore allows the pipe joint to have increased resistance to compressive and torsional forces. Each pipe joint has a box member for matingly engaging a pin member, the pin member being threadingly connected to the box member to create the pipe joint. Threads are created for the pin member on a tapered exterior surface of a pipe, the threads being axially disposed between a pin end terminal surface and an external shoulder. A tapered surface having a recess is created for the box member on an interior of a pipe, the tapered surface being axially located between a box end terminal surface of the pipe and an internal shoulder, the recess being axially located just behind the box end terminal surface of the pipe. Threads are cut into the tapered surface of the box member, the threads beginning behind the recess and traveling axially away from the box end terminal surface. Since the threading pass for the box member begins behind the recess, threads are not cut through the box end terminal surface giving, this surface an increased contact area. When the pin member and the box member are threadingly connected, the box end terminal surface engages the external shoulder of the pin member. The increased area of the box end terminal surface gives the pipe joint increased compressive and torsional resistance.

Probable Assignee: HUNTING ENERGY SERVICES INC

Earliest Publication Date: 20020903



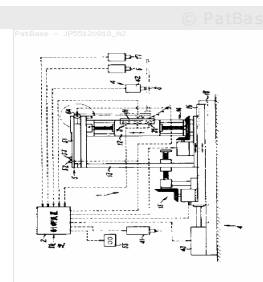
19) Family number: 6811192 (JP55120918A)

AUTOMATIC EDGE SHAVING DEVICE

Abstract: Source: JP55120918A PURPOSE: To promote productivity by automatically machining the both end edges of a band steel material let pass on a pipe manufacturing line at high speed. CONSTITUTION: An automatic-edge shaving device is composed of a material plate width setter 1, a controller 2, a cutting tool breaking detector 3, a welding point detector 4, a cutting tool breaking confirming device 5 and a material travelling detector 6. When plate width is detected by a stenter 17, it is memorized by device 2, and a machining position in the width direction by a cutting tool 11 is fixed. When cutting tool is broken, the breaking is detected by device 3 and machining zones are changed over. The machining width of cutting tool is automatically adjusted in response to the plate width of a material, the edges of the band steel material are smoothly shaved, and productivity is improved.

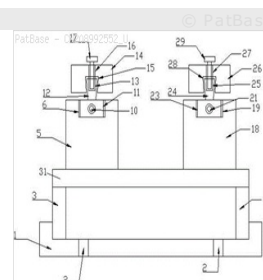
Probable Assignee: SUMITOMO METAL IND

Earliest Publication Date: 19800917



20) Family number: 74764453 (CN208992552U)

POSITIONING CLAMP FOR EGR WATER PIPE MANUFACTURING



Abstract: Source: CN208992552U The utility model belongs to the technical field of precision casting application. The positioning clamp for EGR water pipe manufacturing comprises a base, positioning bottom plate, wherein the two sets of positioning bottom plate positioning holes are symmetrically formed in the positioning bottom plate, the first strip-shaped side plate and the second strip-shaped side plate are symmetrically arranged at the two ends of the positioning bottom plate, the auxiliary supporting plate is arranged at one end of the first strip-shaped side plate, the auxiliary supporting plate is arranged at one end of the second strip-shaped side plate, and the fixing assembly and the auxiliary fixing assembly are arranged on the auxiliary supporting plate. The positioning clamp for EGR water pipe manufacturing has the advantages that the positioning clamp is used for EGR water pipe manufacturing; the EGR water pipe fixing device is reasonable in design structure, an EGR water pipe to be manufactured can be rapidly, accurately and stably fixed according to the quenching or cutting requirement, the double-station machining fixing requirement can also be met, the installing and positioning requirement during efficient treatment such as quenching or cutting of the EGR water pipe is met, and practicability is high.

Probable Assignee: TAIZHOU JINYING PREC CAST CO LTD

Earliest Publication Date: 20190618

21) Family number: 48967540 (CN102069191A)

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METHOD FOR MANUFACTURING REFRACTORY METAL PIPE

Abstract: Source: CN102069191A The invention provides a method for manufacturing a refractory metal pipe and relates to a method for manufacturing near-net molding of molybdenum pipes, tungsten pipes and molybdenum and tungsten alloy pipes. The method comprises the following steps of: (1) molding refractory metal powder by compression, sintering and machining to obtain a pipe billet; (2) compactly filling the pipe cavity of the manufactured pipe billet by using aluminum oxide powder; (3) swagging the pipe billet filled with the aluminum oxide powder; (4) thermally treating; and (5) machining to obtain the refractory metal pipe. By the method, the manufactured pipe has high density, refined and uniform crystalline grains and fewer defects in comparison with a sintered pipe; moreover, the pipe performance is improved, the cuttings discharge is low, and the manufacturing efficiency is high; the diameter of the tungsten pipe and the molybdenum pipe can be adjusted flexibly; and the refractory metal pipe has outstanding cost advantage. The method is simple in production, low in investment, short in process flow, low in metal consumption, high in comprehensive yield rate and fast in response, and can be used for conveniently and quickly manufacturing the molybdenum pipes, the tungsten pipes and the molybdenum and tungsten alloy pipes of different specifications in mass production.

Probable Assignee: JINDUICHENG MOLYBDENUM CO LTD

Earliest Publication Date: 20110525

22) Family number: 51820721 (CN102649224A)

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MACHINING TECHNOLOGY OF INNER LINER OF OIL PIPE

Abstract: Source: CN102649224A The invention discloses a machining technology of an inner liner of an oil pipe. The machining technology comprises the following steps: a. necking and pipe penetrating: an inner liner pipe and an outer pipe are provided, the outer diameter of the inner liner pipe is larger than the inner diameter of the outer pipe, the outer periphery of the inner liner pipe is compressed, so as to reduce the outer diameter of the inner liner pipe, and the inner liner pipe, the outer diameter of which is reduced, penetrates through the outer pipe; b. inner liner pipe cutting: after the inner liner pipe penetrates through the outer pipe, two ends of the inner liner pipe are cut, so as to ensure that the two ends of the inner liner pipe bulged out two ends of the outer pipe; c. inner liner pipe heating: the outer pipe in which the inner liner pipe is arranged is laid in a hot water tank to be heated, and the inner liner pipe is expanded with heat and then is in surface interference fit with the inner part of the outer pipe; and d. edge turning: the outer pipe in which the inner liner pipe is arranged is taken out from the hot water tank, the two ends of the inner liner pipe are turned, the two ends of the inner liner pipe respectively form ring grooves after being turned, and the ring grooves are buckled at end parts of the outer pipe. The machining technology has the advantages that the machining steps are simple, the oil pipe manufactured through the machining technology has great mechanical property and survivability and a long use period.

Probable Assignee: PETROCHINA CO LTD

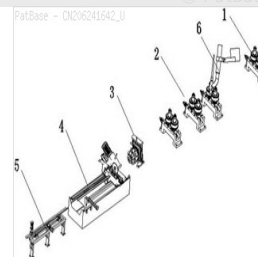
Earliest Publication Date: 20120829

23) Family number: 65023278 (CN206241642U)

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STAINLESS STEEL PRESSURE PIPE AUTOMATIC PRODUCTION EQUIPMENT

Abstract: Source: CN206241642U The utility model discloses a stainless steel pressure pipe automatic production equipment, include stainless -steel pipe device in proper order, press earlier and afterwards weld the device, pipe diameter standard device, the adjustable guide pulley of a plurality of group that is equipped with in the middle of each device before pipeline cutting device and section bar tubular brace frame and the cutting, adjustable guide pulley group is equipped with spacing adjusting device, spacing adjusting device includes lead screw and two lead screw sliders, the screw thread divide into two sections and spiral opposite direction in the lead screw, two lead screw sliders respectively with the lead screw in two sections threaded connection, earlier press the welder who afterwards welds the device to be located after the overlap seam guide pulley, pipe diameter standard device includes frame and guide block, pipeline cutting device includes two sets of trajectories and installs the cutting machine on trajectories, the position that the support frame among open fixed bolster and the pipeline cutting device was erect in the section bar tubular brace corresponds to be connected. This structure design of equipment is reasonable, easy operation, and convenient to use has not only reduced the labour, has improved processing quality moreover, is fit for generally using widely.



Probable Assignee: JIANGXI JINYING NEW MAT TECH CO LTD

Earliest Publication Date: 20170222

24) Family number: 74622 (US3550253A)

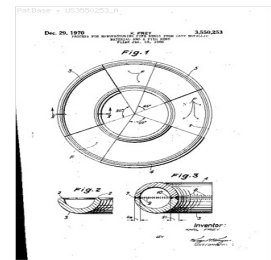
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PROCESS FOR MANUFACTURING PIPE BENDS FROM CAST METALLIC MATERIAL AND A PIPE BEND

Abstract: Source: US3550253A ABSTRACT OF THE DISCLOSURE
A semi-toroidal dish of casting material is cast and, after non-destructive testing, sectors of unflawed material are cut out. Sectors of equal angle are then placed on each other and welded together to form a pipe bend. The plane of bisection of the dish is at a right angle to the rotational axis of the torus.

Probable Assignee: SULZER AG

Earliest Publication Date: 19680719



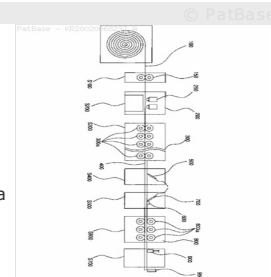
25) Family number: 28958083 (KR20020068237A)

A METHOD FOR MANUFACTURING OF PIPE

Abstract: Source: KR20020068237A PURPOSE: A method for manufacturing a pipe is provided which is capable of perforating various shaped holes, prevents distortion of the surroundings of the holes, and more safely manufactures a hollow pipe by additionally installing an automatic hole perforation apparatus at a pipe manufacturing process line. CONSTITUTION: The method for manufacturing a pipe comprises the steps of transferring a strip member coiled in a roll type using a pair of upper and lower transfer rollers which are rotationally and vertically installed (S100); perforating a plural holes on the strip member being transferred by the transferring step using a perforating apparatus equipped with a plural exchangeable perforating members in such a way that the holes are spaced apart from each other in a certain distance (S200); rolling forming the strip member into a hollow pipe one end of which is cut using a roll forming machine equipped with a plural upper and lower forming rolls which are rotationally and vertically installed in pairs, and each of which have different cross sectional shapes (S300); welding the cut part of the pipe that is being transferred after it is formed into a hollow pipe by the forming step using a welding machine (S400); grinding the pipe by supplying a cutting oil toward a surface machining tool through an injection nozzle so as to machine the surface of the pipe while the hollow pipe on which beads are formed by the welding step is being transferred (S500); smoothing the pipe using a straight line leveller equipped with a plural upper and lower rollers which are rotationally and vertically installed in pairs so as to smooth out the pipe while the hollow pipe on which deformed parts are formed by the grinding step is being transferred (S600); and cutting the hollow pipe as transferring to a cutting member the hollow pipe measured by a length measuring device measuring the welding part ground pipe to a certain length (S700).

Probable Assignee: SONG CHANG YOULL

Earliest Publication Date: 20020827



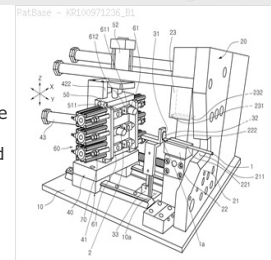
26) Family number: 46796868 (KR100971236B)

APPARATUS FOR MANUFACTURING PIPE

Abstract: Source: KR100971236B PURPOSE: A pipe manufacturing apparatus is provided to cut down on equipment costs because various machining tools are installed in the apparatus. CONSTITUTION: A pipe manufacturing apparatus comprises a table(10), a jig unit(20), a mobile unit(40), a vertical moving part(50), and a horizontal moving part(60). The vertical moving part comprises a holder body installed in the mobile unit. The horizontal moving part comprises a plurality of holders(61) which are arranged on both sides of the holder body in the height direction. Tools(2) are mounted on the respective holders, and one of the holders accords with a pipe(1) to machine the pipe.

Probable Assignee: HAN SEO SYSTEM CO LTD

Earliest Publication Date: 20100720



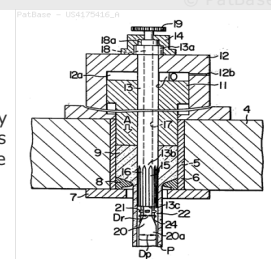
27) Family number: 1633297 (US4175416A)

APPARATUS FOR MANUFACTURING HEAT TRANSFER TUBES

Abstract: Source: US4175416A An apparatus for manufacturing heat transfer tubes for use in evaporators and coolers for freezers, air conditioning units, refrigerators, and the like, with close machining tolerances. It forms cavities, with small openings communicating them with the outside, on the inside of a tube, through three steps of forming a multiplicity of alternate grooves and ribs in parallel on the inner surface of the tube, forming cuts in the concentrically directed crests of the ribs, and then forcing the crests sidewise so that the crest of each rib is bent down onto an intermediate part of the adjacent rib to form a cavity in between.

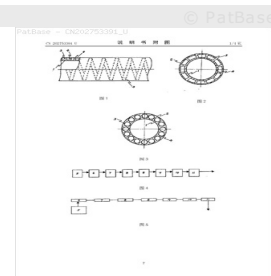
Probable Assignee: HITACHI LTD

Earliest Publication Date: 19780727



28) Family number: 53136855 (CN202753391U)

DOUBLE FLAT WALL SPIRAL HOLLOW STRUCTURE WALL PIPE MANUFACTURING DEVICE



Abstract: Source: CN202753391U The utility model provides a double flat wall spiral hollow structure wall pipe manufacturing device which comprises an extruder and a machine head connected with the extruder. The machine head is sequentially connected with a vacuum radial water tank, a spray cooling tank, a multiple caterpillar tractor, a dicing saw and a turnover pipe rack along the machining direction of a production line. The machine head is arranged in a hollow structure which forms a flow pass, and comprises a machine head body, a mold head and a machine neck connected with the extruder. The interior of the machine head body is provided with a sprue spreader, and the head of the sprue spreader is arranged towards the extruder. A core rod is arranged on an outlet of the mold head. Hollow core shafts with the same quantity of spiral holes are arranged between the core rod and the sprue spreader, and the machine head body is further provided with a drive mechanism which drives the core rod to rotate. The double flat wall spiral hollow structure wall pipe manufacturing device has the advantages that structural wall pipes produced by means of using of the production line not only is good in comprehensive mechanical properties of impact resistance, ring stiffness, axial flexibility and the like, but also has superior processing property, and can be widely popularized and used in a large area.

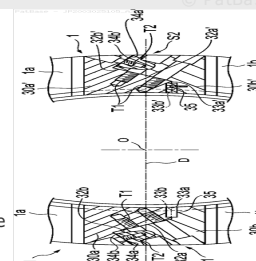
Probable Assignee: NINGBO KONRUN MACH TECH CO LTD

Earliest Publication Date: 20130227

29) Family number: 28057016 (JP2003025105A)

FLUID PIPE MANUFACTURING DEVICE

Abstract: Source: JP2003025105A PROBLEM TO BE SOLVED: To provide a fluid pipe manufacturing device capable of centripetally moving divided body frames toward each other only by joining them and dispersing a load when machining a workpiece, resulting in the improvement of machining accuracy by a cutting tool. SOLUTION: Since each of the right and left joint sections S1 and S2 of frame single bodies 1a and 1b comprises three faces orthogonal to a face perpendicular to the axis line which is the shaft line of a body frame 1 and passes through the center O, and the reference inclined faces 32a and 32a' of the upper frame single body 1a are guided on the reference inclined faces 32b and 32b' of the lower frame single body 1b and slide and move downward for making both of external side joint surfaces 34a and 34b join closely each other, both of the frame single bodies 1a and 1b can move toward each other, and with the frame single bodies 1a and 1b joined to each other, the fluctuating load received by the body frame 1 can be dispersed more equally.



Probable Assignee: COSMO KOKI CO LTD

Earliest Publication Date: 20030129

30) Family number: 32791548 (TW502104B)

METHOD OF INSTALLING A COPPER GRID FOR CAPILLARITY MACHINING IN HEAT PIPE MANUFACTURINGCAPABLE OF EFFECTIVELY REDUCING THE...

Abstract: Source: TW502104B A method of installing a copper grid for capillarity machining in heat pipe manufacturing selects a heat pipe with inner diameter greater than that of a heat pipe product to be manufactured, followed by cutting a metal grid into a width of p times as the inner diameter of the above heat pipe, and then curlings such metal grid into cylindrical shape with an inner diameter smaller than that of above heat pipe but larger than that of the heat pipe product to be manufactured, inserting such a metal grid cylinder into the heat tube and flattening one of it end portion, finally simultaneously pulling and extending the heat pipe and the metal grid cylinder until the inner diameter of a heat pipe product is reached while keeps the metal grid cylinder closely attached to the inner wall of the heat pipe product and having the completed housing of the heat pipe capable of effectively reduce the heat resistance during the use thereof.

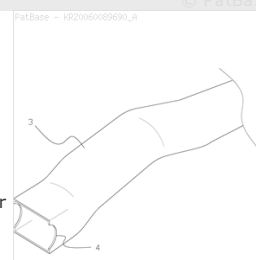
Probable Assignee: IND TECH RES INST

Earliest Publication Date: 20020911

31) Family number: 33612524 (KR20060089690A)

THE SURFACE MANUFACTURING DEVICE AXLE BEAM PIPE

Abstract: Source: KR100743046B Processing of this invention when the axle beam pipe cutting devices, the left axle beam pipe manufacturing process: If only the ends on each side of the machining processing of the left axle beam from the inside to the outside of the pipe with a single machining can be operated by both sides followed, as well as significantly reduce the process, do not need an expensive dedicated cutting device can reduce manufacturing unit cost dramatically. this invention is composed of four parts of the bar, installed on the guide rail base (1) to (14) and is configured to reverse, with both sides formed a notch with both sides of this (11) is also composed of so that it can be expanded or collapsed, the former side notch punch (12) is formed, and then side cylinder (13) formed the cams to slider (10), tops (2) is formed, above the top of the cam slider (10) at the rear of a vertical descent along a slope formed by cam slider (10) horizontal idea formed no. 1 point cam stroke plate (20) and The top of the cam slider (10) above, formed to meet the Home Department v-type inverse trig forms tops (2) the bar is formed, v-type followed by a vertical descending into the Home Department cam slider (10) on both sides, expand horizontally to the stroke of the second formed cam plate (30), tops (2) part of the notch punch (12) of the corresponding forms of the upper and the upper punch Guide (41) was formed, and the base (1) on the upper part of the lower part of the notch in the punch (12) and the corresponding forms of the lower punch Guide (42) each formed punch Guide (40), Axle beam pipe (3) on each side of each single process being formed (4) processing of axle beams from the inside to the outside of the pipe (3) with a single press to quickly and accurately so that you can have the approximate configuration stripping. Having seen invention is the same with the above configuration, , axle beam with both ends of the pipe Interior combined with a cam slides up a notch to no. 1 cam stroke punch plate after the advance quickly to the River, 2nd cam stroke with both sides of the plate to the River Cam and slide into the notch in the punch to make axle beam followed by a pipe from the inside of the outer keep processing significantly reduces the number of the left side of the machining process for short periods of time when processing can process my left has worked. in addition, to ensure that the process in the form of the press required ancillary devices is simplified significantly to reduce the price per device processing, and which are manufactured according to the axle beam pipes manufacturing unit can save effect. Keywords trailing arm, axle beam pipe, punch, notch, cam the cam slider stroke



Probable Assignee: CHASYS CO LTD

Earliest Publication Date: 20060809

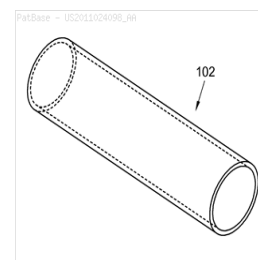
32) Family number: 48236194 (US2011024098A)

SINTERED HEAT PIPE, MANUFACTURING METHOD THEREOF AND MANUFACTURING METHOD FOR GROOVE TUBE THEREOF

Abstract: Source: US2011024098A A sintered heat pipe, a manufacturing method thereof and a manufacturing method for a groove tube thereof are provided. The sintered heat pipe includes a groove tube, a sintered powder layer and a working fluid. The groove tube has a plurality of grooves and a first end and a second end opposite to the first end. Each groove extends along an axial direction of the groove tube. The first end and the second end are closed. The sintered powder layer is formed on an inside wall of the groove tube, and the groove tube is filled with the working fluid. The size of each powder in the sintered powder layer is greater than a width of each of the grooves.

Probable Assignee: YEH CHIANG TECHNOLOGY CORP

Earliest Publication Date: 20110201



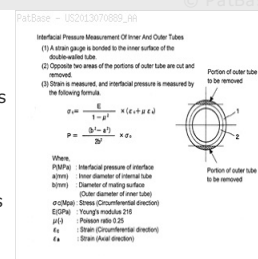
33) Family number: 50074523 (US2013070889A)

DOUBLE-WALLED TUBE WITH INTERFACE GAP AND PRODUCTION METHOD THEREOF

Abstract: Source: US2013070889A After an inner wall tube, made of steel or alloy containing not less than 2 percent of Cr, whose outer surface thereof is machined and/or ground to a thickness of 0.1 mm or more including the scale layer, is inserted into an outer wall tube, made of ferritic steel containing not less than 2 percent of Cr, in which an oxide scale layer containing Cr and having a thickness of 10 to 30 micro m is formed in the inner surface thereof, cold working at an outside diameter reduction rate of 5 to 30 percent is performed. Similarly cold worked after an inner wall tube having an oxide scale layer on the outer surface thereof, is inserted into an outer wall tube whose inner surface is machined and ground. A double-walled tube made has a uniform gap and an excellent thermal conductivity, and is suitable as materials for SG tubes of future FBR.

Probable Assignee: NIPPON STEEL CORP

Earliest Publication Date: 20111208



34) Family number: 60617734 (CN104987619A)

PVC-U ENVIRONMENT-FRIENDLY WATER SUPPLY PIPE AND MACHINING PROCESS THEREOF

Abstract: Source: CN104987619A The invention relates to a PVC-U environment-friendly water supply pipe and a machining process thereof. The PVC-U environment-friendly water supply pipe is composed of, by weight, 100 kg of PVC resin, 5 kg of light calcium carbonate, 3 kg of CPE, 3 kg of TiO₂, 0.2 kg of polyethylene wax and 4kg of calcium zinc stabilizer. The machining method comprises the steps of raw material mixing, hot mixing, cold mixing, extruding, pipe setting, cooling, pipe traction, cutting and stacking. The PVC-U environment-friendly water supply pipe manufactured through the machining process is good in low-temperature toughness, rigidity, ring rigidity and creep-resistant ability, in the long-term using process, the situation that due to gravity, the pipe deforms is avoided, the service life of the pipe is prolonged, and the pipe can be popularized easily and widely.

Probable Assignee: JIANGSU SHENGTONG ENVIRONMENT ENGINEERING CO LTD

Earliest Publication Date: 20151021

35) Family number: 75185470 (CN110038913A)

METAL PIPE MACHINING TECHNOLOGY USED FOR AUTOMOBILE HOLLOW STABLE ROD

Abstract: Source: CN110038913A The invention discloses a metal pipe machining technology used for an automobile hollow stable rod. The technology includes the steps of welding pipe manufacturing, annealing heat treatment, pinching, acid pickling oil spraying, finish pulling, head and tail cutting, normalizing heat treatment, straightening, flaw detection and cutting. By means of the above metal pipe machining technology used for the automobile hollow stable rod, due to the fact that a plate with the thickness easily controlled is adopted for manufacturing a steel pipe, the wall thickness of the steel pipe is easy to control and is uniform; and compared with a perforation manner, in a welding manner, the production period of a steel pipe is short, efficiency is high, and energy consumption is greatly reduced.

Probable Assignee: ZHANGJIAGANG FREE TRADE ZONE YAXIN PREC PIPE CO LTD

Earliest Publication Date: 20190723

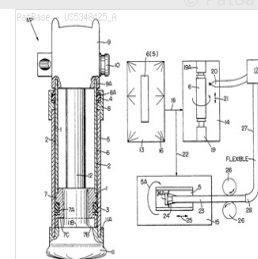
36) Family number: 8435415 (US5348425A)

PISTON CYLINDER DEVICE WITH A PROTECTIVE COATING AND METHOD OF PRODUCING SUCH A COATING

Abstract: Source: US5348425A A method is described for protecting piston cylinder devices against corrosion by a pressure resistant thermoset or cured material coating. At least the outer and inner cylindrical surfaces, for example, of a mine prop, that cooperate with a sealing device, are coated with a three-dimensionally cross-linked, cured or thermoset material having a sufficient thickness on the one hand for providing the intended protection against corrosion and on the other hand to avoid excessive radially directed elastic deformations of the coating. An additive is included in the coating to improve the dry lubricating characteristics, and thus the cooperation between the coating and the sealing devices. The three-dimensionally interlinked thermoset material fills all surface irregularities so that gas and water pockets, for example, in a mine prop, are avoided.

Probable Assignee: HEILGER ROBERT WILHELM

Earliest Publication Date: 19931123



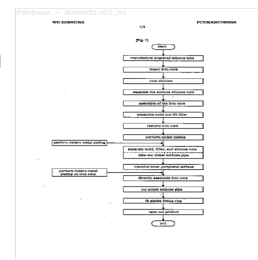
37) Family number: 41775080 (WO08051062A1)

NICKEL EMBOSS ROLLER AND MANUFACTURING METHOD THEREOF

Abstract: The method for manufacturing a nickel emboss roller comprises the steps of: preparing a silicone tube 1 engraved with patterns to be used; inserting an iron core 2 into the silicone tube 1 and then coating silicone 3 on the silicone tube and curing the coated silicone tube while rotating the iron core 2; separating the emboss silicone tube 3 and inserting an iron core 4 into the inside thereof; assembling the iron core 4 into a mold 5 and filling a filler 6 between an inner wall of the mold 5 and an inner peripheral surface of the silicone tube 3; performing a nickel plating 7 on an inner peripheral surface of the silicone tube 3 after removing the iron core 4; and separating the mold 5, the filler 6, and the silicone tube 3 to thereby obtain an engraved cylindrical nickel emboss pipe 10.

Probable Assignee: HYUN JEONG SOON

Earliest Publication Date: 20080502



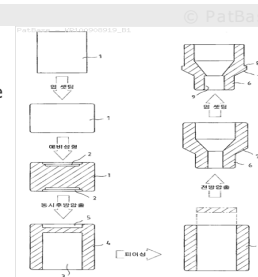
38) Family number: 41972979 (KR100908919B)

AUTOMOBILE MOUNTING PIPE MANUFACTURE METHOD

Abstract: Source: KR100908919B A method of manufacturing a mounting pipe for automobile is provided to simplify the manufacturing process, and reduce the manufacturing cost and accomplish quality uniformity of the mounting pipe accordingly by manufacturing a mounting pipe through a simple process capable of forming the mounting pipe using a former only and completing the manufacture of the mounting pipe without additional machining of inner diameter of the mounting pipe. A method of manufacturing a mounting pipe for automobile comprises: an upsetting process of reducing length of a cut workpiece(1) and expand diameter of the workpiece; a preforming process of forming a preliminary groove(2) to a shallow depth on front and rear faces of the workpiece; a simultaneous backward extruding process of extruding the workpiece to form a pipe part(4) by forming a groove(3) on one side face of the workpiece and form a groove(5) having a depth shallower than that of the groove(3) on the other side face of the workpiece at the same time; a piercing process of for forming a complete pipe form by piercing a part of the workpiece between the groove of the outside face and the groove of the other side face; a forward extruding process of contracting outer diameter and inner diameter of one side of the workpiece to form a contraction part(6) and an inclined part(7); and an upsetting process of completing manufacturing of a mounting pipe for automobile by simultaneously forming a step height(8) and forming a diameter expanding part(9) in the contraction part by upsetting.

Probable Assignee: SINDO HIGH TECH CO LTD

Earliest Publication Date: 20080404



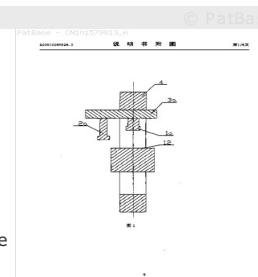
39) Family number: 44076392 (CN101579813A)

MANUFACTURING METHOD AND EQUIPMENT OF FERROUS METAL PIPE BLANKS

Abstract: Source: CN101579813A A manufacturing process and equipment of ferrous metal pipe blanks belong to the technical field of ferrous metal processing and manufacturing equipments. The invention is characterized in that blanking molds are designed into embeddable structures, and the molds are concentrically assembled and then locked on main working planes, so that the movement directions of the molds, the molding directions of the pipe blanks and the geometric centers of the molds are identical in the process of blanking; the switching of an upsetting station, a punching station and a remnant material cutting and pressing station is finished by a multistation platform. The method is an innovation of the modes of movement of the blanking molds commonly used at home and abroad at present and uses the movement of the multistation platform in the non-main working direction to replace the movement of the molds in the non-main working direction, so that the blanking molds can only move in the main working direction. By adopting the process and equipment, the problems of decentration, low material utilization and the like in the current process of ferrous metal pipe blank manufacturing are effectively solved and high-quality pipe blanks can be provided for such pipe-manufacturing processes as extruding, pipe rolling, machining and the like.

Probable Assignee: UNIV TSINGHUA

Earliest Publication Date: 20091118



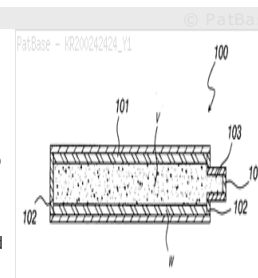
40) Family number: 47133489 (KR200242424Y)

HEAT PIPE (MACHINE TRANSLATION)

Abstract: Source: KR200242424Y The present design, telecommunications products, semiconductor component material, such as a computer over the temperature of the heat exchanger and industry gimbal function to an heat pipe manufacturing method used for relates to a heat pipe and the heat pipe manufacturing method, and more particularly, to cutting the listing for the copper pipe and the step 1 and step 2 is taking copper pipe, and a third step washed by ultrasonic waves and a fourth step of forming and the seed portion and the shaft portion and a fifth step of machining a pipe portion inside and the sixth step to vacuum such that and a seventh step of working fluid and the working fluid is injected after compression to be sealed tip to remove the dirt, and finishing step 8 and is fixedly coupled to the tube, and a ninth step of electric lead pressure molding step 10 is made of a test, the salt produced by the production method of the heat pipe, the working fluid is condensed and the return portion evaporation heat transfer force capillary force and faster cycle was sealed inside the heat pipe and inserted into the installation, the one side is blocked and the other side of the pipe inserted into the seed unit (and crimping portion closing a rod-shaped rod having a multi-stage heat pipe inserted into the body and the main body of the heat pipe coupled to the tubular body closing on tube Closing line and the finishing on the inside of the molded by molding, heat pipe body of lead and to prevent defects during production of the heat pipe, it is possible to prevent the occurrence of poor thermal conductivity is excellent and to prevent damage to the external impact at the time of installation can only give the appearance of aesthetics remains as it has the effect to improve the competitiveness. Heat pipe,

Probable Assignee: A TO KOREA INC

Earliest Publication Date: 20011015



41) Family number: 48666680 (KR19960003885A)

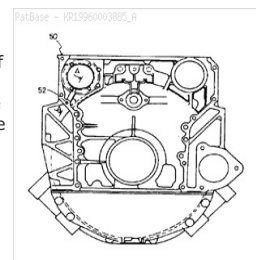
STEEL PIPE MANUFACTURING METHOD USING A FLY WHEEL HOUSING THE OIL HOLE (MACHINE

TRANSLATION)

Abstract: Source: KR19960003885A The present invention is a steel pipe production method using a fly wheel oil hole of the housing. The present invention is oil hole for machining, cutting the steel pipe having a predetermined length, the cut steel pipe and sealing the both ends of the angle of inclination of the oil hole such that the finished steel pipe, such as the bending die mold inserts the oil hole after injection mold surfaces to be machined, die work on both ends of the steel pipe steel pipe by cutting oil hole is made integral with the flywheel housing it is characterized in that a.

Probable Assignee: DAEWOO HEAVY IND CO

Earliest Publication Date: 19960223



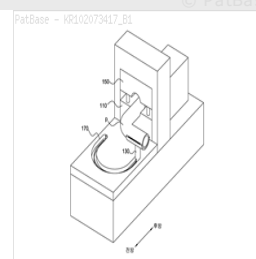
42) Family number: 77489485 (KR102073417B)

APPARATUS FOR MANUFACTURING PIPE

Abstract: Source: KR102073417B In the present invention is provided with a circumferential to the "b" character as a device for processing the pipe in the lower direction of the pipe in the vertical direction fixed to one end of the pipe and the first fixing part is located in the rear of the pipe, to prevent movement of the rearward of the pipe and a second fixing portion located on the upper side direction of the tubing and movement in the vertical direction includes a cutting unit for cutting the pipe. The present invention according to the second fixing portion rearward of a small force through the pipe can be prevented to facilitate the movement of the pipe is produced, and can improve the quality of the pipe because the pipe cutting and machining process multiple fixed in accordance with the movement of the pipe in a defective It can be minimized generation.

Probable Assignee: RIGHTS BUMP

Earliest Publication Date: 20200204



43) Family number: 10896821 (SU1834777A)

METHOD OF CASING PIPE MANUFACTURING

Abstract: Source: SU1834777A Using ; metallurgists ng petroleum industry. Essence izobreteni.-z:, fi machining of pipe ends on the outer surface in areas under the thread is cut flat inverted cone with a diameter larger base equal to the maximum diameter of the pipe thread, before thermal straightening pipes crimped ends radially and heated to a temperature changes. Prior thick-walled tube blanks bore couplings for distributing them in the radial direction at a temperature equal to the temperature 0,2-0,65 material naplaoleni coupling voltage of 30-45 kg / mm, cooled with water or oil. Is preferred deformation of the pipe ends and pipe couplings for blanks at 450 degrees C. 2 z.p.f formula. On th

Probable Assignee: VSESOYUZNYJ NII RAZRABOTKI I E

Earliest Publication Date: 19930815

44) Family number: 11376877 (WO9534387A1)

METHOD OF PRODUCING A SEAMLESS HOT-FINISHED TUBE

Abstract: The invention concerns a method for the production of a seamless hot-finished tube from steel with reduced deformability, in particular roller-bearing steel, the method calling for a pretreated and degassed as well as deoxidized liquid steel of the required chemical composition to be continuously cast with any cross-section and, after separation of the billet, for the casting to be divided into suitable lengths and shaped. The invention calls for the cut lengths to be heated to the shaping temperature without any preshaping, i.e. as cast, and without any heat treatment (diffusion annealing), and fed to a tube-production plant.

Probable Assignee: MANNESMANN AG

Earliest Publication Date: 19951221

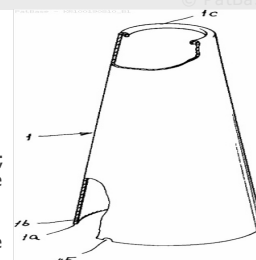
45) Family number: 14445515 (KR100190810B)

APPARATUS FOR TAPERED PAPER BOBBIN

Abstract: Source: KR100190810B This invention relates to a device the sloping pipe machining Rotary type, being ejected from the slope pipe the dryer com Bay was transferred to the rotation disc insert Insert (1), the air has six balls and insert to insert a step; second is installed on the front push insert ball insert has been taken over in step above the drain tube is squeezed, squeezed to insert the ball in front of the third phase; is installed above the rotating rods fixed abrasive phrase has been taken over Kwan at the stage of the squeezed the medial edge of the grinding Lee Ming phase; the fourth is installed on the front of the ball squeezed shovel sewing and cutting, and U-shaped Groove is installed at the rear of the mold with the above has been taken over Kwan in step climbing the upper medial bending and when U now home for machining step; the aforementioned process steps deported from core 5 insert the ball Make sure to confirm with the naked eye from the location step; 6 Insert the push is installed on the side of the meat home and then check the above steps have been taken over from the outside of the disc to rotate the pipe that exhausts emission phase; And the slow rotation of the air above a fixed in ox driver disc with the sum of the external side of the shaped gears rotate the disc above the schedule by the Chi each turn by means of a point-driven Rotary type sloping pipe processing device, 1 by providing a worker will automatically complete processing in pipe manufacturing to process. [IMAGE]

Probable Assignee: JUNG SOO HOON

Earliest Publication Date: 19970722



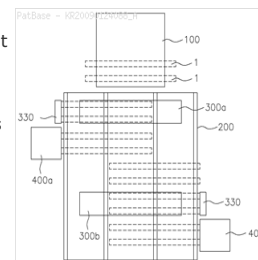
46) Family number: 44073751 (KR20090124088A)

APPARATUS FOR REMOVING BURR ON EDGES OF PIPE

Abstract: Source: KR20090124088A PURPOSE: A machining apparatus for both ends of a pipe is provided to accurately chamfer pipes having various sizes by accurately contacting a jig and a cutting tool to the end of a pipe with left and right chamfering units. CONSTITUTION: A machining apparatus for both ends of a pipe is composed of a supply unit(100), a moving unit(200), left and right arranging units(300a,300b), and left and right chamfering units(400a,400b). The supply unit horizontally arranges pipes completed through a pipe manufacturing device by pairs. The moving unit horizontally moves a pair of pipes arranged in the supply unit. The left and right arranging units arrange the end position of the pipes moved through the moving unit. The left and right chamfering units are installed at both sides of the moving unit and chamfers the ends of pipes arranged through the left and right arranging units. The left and right arranging units comprise plural driving motors, a moving roller, and a support plate(330). The moving roller is connected the driving motor and the moved pipe is set vertically. The ends of the pipes moved through the moving roller are contacted to the support plate. The ends of the pipes are arranged in the position contacted to the support plate by the left and right arranging units.

Probable Assignee: TAEWOONG CO LTD

Earliest Publication Date: 20091203



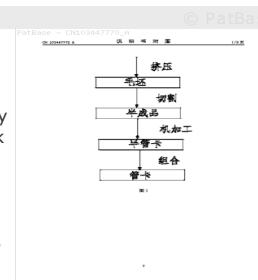
47) Family number: 55453006 (CN103447770A)

METHOD FOR MANUFACTURING PIPE CLAMP, PIPE CLAMP AND PIPELINE

Abstract: Source: CN103447770A The invention discloses a method for manufacturing a pipe clamp. The pipe clamp comprises semi-pipe clamp pairs for connecting a pipeline. The method comprises the following steps: forming a blank by extruding continuously, wherein the blank is a semicircular cylinder provided with flanges on both sides; cutting the blank to form a plurality of semi-finished products which are equally divided along the longitudinal direction of the blank; machining the semi-finished products to form a plurality of semi-pipe clamp pairs, wherein two semi-pipe clamps in each semi-pipe clamp pair are of the same shape and size; and combining the semi-pipe clamps into the pipe clamp. Moreover, the invention further discloses a pipe clamp and a pipeline comprising the pipe clamp. The pipe clamp is manufactured according to the pipe clamp manufacturing method disclosed by the invention by extruding and machining, so that a pipe clamp of a simple outline shape can be manufactured; and defects of the produced pipe clamp can be reduced through an extruding process, so that the performance of the produced pipe clamp is improved.

Probable Assignee: ZOOMLION HEAVY IND SCI AND TECH

Earliest Publication Date: 20131218



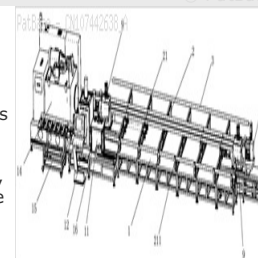
48) Family number: 67766747 (CN107442638A)

FULL-AUTOMATIC PIPE PUNCHING PRODUCTION LINE AND MACHINING PROCESS THEREOF

Abstract: Source: CN107442638A The invention discloses a full-automatic pipe punching production line. The full-automatic pipe punching production line can be connected with a pipe manufacturing line in a seamless joint manner. Firstly, a high-pressure pneumatic gun is used for being matched with a pulley block and directly clears away welding ribs in a welding pipe on equipment, the welding ribs are blown out of the pipe fitting and clamped out through the pulley block, and the situation that the welding ribs disturb the following pipe cutting process in resistance is prevented. Then, the high-pressure pneumatic gun can further carry out two end chamfering on the pipe fitting so as to set the length size, milling mechanisms located at the two ends of the pipe fitting carry out milling and chamfering on the margins of the pipe fitting, and therefore the precise length size can be set, and it is guaranteed that the lengths of the pipe fitting from the transportation working procedure to the pipe cutting working procedure are equal. In addition, the pipe fitting to be machined is fed in a full-automatic manner and transported to a punching station to be clamped and punched, the waste material of the previous pipe fitting can be cleared away without shutdown, time is saved, and the working efficiency is improved. In addition, in the punching working procedure, punching is adopted to replace a saw web, and the working efficiency during volume production is remarkably improved.

Probable Assignee: NINGBO TRIZ AUTOMATIC EQUIPMENT CO LTD

Earliest Publication Date: 20171208



49) Family number: 10453485 (RU2024630C)

METHOD FOR MAKING SCREW JOINT

Abstract: Source: RU2024630C

FIELD: pipe manufacture. **SUBSTANCE:** following volumetric heat treatment and thread cutting the couplings are delivered to installation for surface machining by strips. Loop-type inductor-sprayer is applied to threaded portion, then heating and cooling are turned successively on and off. After the first strip the coupling is turned through an angle set by the width of hardened and nonhardened strips and the process is repeated, thus forming a series of strips on lock threads, said strips being arranged parallel to one another and uniformly around the circumference. Threaded end of pipe is delivered into inductor-sprayer so that basic plane of thread passes exactly through the middle of inductor-sprayer. Rotation of pipe, heating and cooling of its threaded end are carried out in succession. Low-temperature tempering is performed either on entire pipe or on its threaded end alone. **EFFECT:** higher efficiency. 1 tbl

Table 1	Сечение резьбы, мм	Сечение резьбы, мм	Сечение резьбы, мм	Сечение резьбы, мм	Сечение резьбы, мм
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	10	10	10	10	10
5	10	10	10	10	10
6	10	10	10	10	10
7	10	10	10	10	10
8	10	10	10	10	10
9	10	10	10	10	10
10	10	10	10	10	10
11	10	10	10	10	10
12	10	10	10	10	10
13	10	10	10	10	10
14	10	10	10	10	10
15	10	10	10	10	10
16	10	10	10	10	10
17	10	10	10	10	10

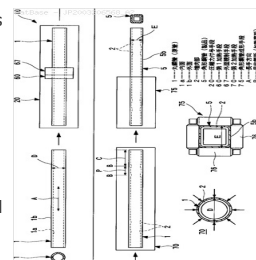
Probable Assignee: UK ROSSIJSKO AZERB OBSHCHESTVO

Earliest Publication Date: 19941215

50) Family number: 28908614 (JP2003206568A)

SQUARE STEEL PIPE, MANUFACTURING METHOD FOR SQUARE STEEL PIPE AND MANUFACTURING EQUIPMENT FOR SQUARE STEEL PIPES

Abstract: Source: JP2003206568A PROBLEM TO BE SOLVED: To provide a square steel pipe in which a projecting part is not present at the outer surface of a beam material connecting part increased in thickness. SOLUTION: An intended portion B of a round steel pipe is heated, compressive force in the longitudinal direction A of the round steel pipe is applied to the heated portion B, a partial material of the heated portion B is increased in thickness on the inner surface side 1a, the whole of the round steel pipe 1 where a thickness increased part 2 is formed in an intended portion A is heated, and hot forming is performed so that the outer surface 5b is flat extending over the total length to form the square steel pipe 5. Thus, the square steel pipe can be formed not to have any projected part at the outer surface of the thickness increased beam material connecting part. In welding a beam material to the flat outer surface, the end face of the beam material can dispense with special machining because it may be as cut, and since no gap is produced between the outer surface and the end face, good welding can be performed efficiently so as to improve the welding accuracy and strength. The corner part formed by the outer surface and the top face of the beam material can be formed at right angles and a floor slab placed on the beam material can be made close to the outer surface of the square steel pipe at the same level with the top face of the beam material.



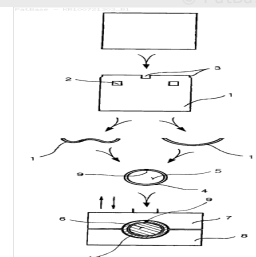
Probable Assignee: NAKAJIMA STEEL PIPE CO LTD

Earliest Publication Date: 20030725

51) Family number: 34956254 (KR100721303B)

CAR SEAT HEADREST FALL GUIDE FIXING PIPE MANUFACTURE METHOD

Abstract: Source: KR100721303B This invention is a car seat on top of the back of the head and neck protection and comfort in order to make the height of head restraints installed to enable adjustment, headrests, associated with Paul and Paul on the frame of the back installation guide, which is used to manufacture the body pipe fixed Paul Guide, easy-to-use and affordable cost more than manufactured with high-quality car seat headrests with Paul guide fixed pipe body manufacturing method of metal and ashes about this, by cutting out Paul guide fixed the boiler body, the appropriate diameter and length as you have to be prepared, and that condition in the left, right and top, I fixed the Guide Hall, Paul After Paul's Guide to mold back and forth directions and rotation-preventing hole at the same time, through trimming process forms, W-shaped or U-shaped tube with plastic processing through banding as formed by the body, and none of the tangent of the boiler body above for Argon welding and corrosion resistant seal for fixed pipe work with Paul guide body finished, more like the guide this inventive car seat headrests fixed pipe fabrication of sheet Paul ash, using Paul's Guide to fixed Hall and Paul guide location and rotation-preventing hole and trimming them to process forms as simple as bending and plastic machining, forming a tube through a sieve, through simple welding Paul guide fixed the boiler body because the manufacturing process to simplify the production cost can be reduced to Again, because it can provide fine Paul guide car seat can contribute to improve the quality of informative is the invention of the Keywords sheet, Paul guide fixed location and rotation-resistant Hall, Paul guide Hall, headrests.



Probable Assignee: JANG JOON SOO

Earliest Publication Date: 20070523

52) Family number: 56353342 (CN103769434A)

METHOD FOR MANUFACTURING BIMETAL COMPOSITE PIPE

Abstract: Source: CN103769434A The invention relates to a method for manufacturing a bimetal composite pipe, and relates to metal product processing. The method includes pretreatment and a composite process of an inner pipe and an outer pipe, and the pretreatment includes pickling. The method is characterized by including the steps: after pretreatment, compositing the inner pipe with the outer pipe together by high frequency welding, carrying out finish rolling of the whole composite pipe, and finally cutting, tempering and straightening. The composite pipe manufactured by the method is high in machining precision and small in composite gap, and allows the composite strength and quality to be improved.

Probable Assignee: WUXI LUOSHE TOWN FANGYISHENG CONSTRUCTION MACHINERY PARTS FACTORY

Earliest Publication Date: 20140507

53) Family number: 58762788 (CN104438428A)

MANUFACTURING METHOD OF SMALL-SPECIFICATION TA16 TITANIUM ALLOY THICK-WALL PIPE

Abstract: Source: CN104438428A The invention discloses a manufacturing method of a small-specification TA16 titanium alloy thick-wall pipe. The manufacturing method comprises the following steps: 1, cogging and rolling a TA16 titanium alloy pipe blank by two rolls to obtain a semi-finished pipe; 2, straightening the semi-finished pipe, then cutting the head and the tail of the straightened semi-finished pipe off, and removing defects on the inner surface and the outer surface; 3, rolling the semi-finished pipe; 4, carrying out non-mandrel drawing on the semi-finished pipe; and 5, rolling the semi-finished pipe to obtain the small-specification titanium alloy thick-wall pipe of which the outer diameter is 3.0-10.0mm and the ratio of the wall thickness to the outer diameter is 0.1-0.25. According to the manufacturing method disclosed by the invention, a mode of combining cogging and rolling by the two rolls, multi-roll rolling, non-mandrel drawing and multi-roll rolling is adopted and the non-mandrel drawing process is added, so that the wall thickness of the pipe is appropriately increased and the technological performances of flaring, flattening and the like of the pipe are improved while the diameter is greatly reduced; in addition, the intermediate machining procedures are greatly reduced. The finished-product rate, the cold forming process performance and the size precision of the titanium alloy pipe manufactured by the manufacturing method disclosed by the invention are greatly improved.

Probable Assignee: NW INST NON FERROUS METAL RES

Earliest Publication Date: 20150325

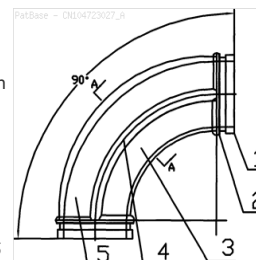
54) Family number: 59570041 (CN104723027A)

METHOD FOR FORGING, WELDING AND MANUFACTURING ABRASION-RESISTANT METAL BENT PIPES

Abstract: Source: CN104723027A The invention discloses a method for forging, welding and manufacturing metal bent pipes. The method includes cutting discharged materials to obtain metal blanks, then heating the metal blanks until the temperatures of the metal blanks reach forging temperatures; flattening the blanks, then carrying out hot-forging on the corresponding flattened blanks by the aid of inner half pipe molds to form inner half pipes and carrying out hot-forging on the corresponding flattened blanks by the aid of outer half pipe molds to form outer half pipes; carrying out lathe turning on the inner half pipes and the outer half pipes to obtain arcs R; tightly combining the inner half pipes with the outer half pipes by the aid of fixtures; welding the inner half pipes and the outer half pipes to obtain bent pipes; milling two ends of each bent pipe to guarantee angles of the bent pipe; manufacturing abrasion-resistant sleeves at ports of the bent pipes; milling and boring the two ends of each bent pipe to guarantee angles of the bent pipes; positioning and welding flanges at the two ends of each bent pipe by the aid of tools; integrally quenching the bent pipes; carrying out shot blasting processing on the surfaces of the bent pipes; positioning, milling and machining the flanges at the two ends of each bent pipe by the aid of tools until all the flanges meet requirements indicated by graphs; maintaining pressures of 17MPa for 5 minutes and testing and inspecting the bent pipes; ultimately painting the surfaces of the bent pipes; warehousing and packing the bent pipes.

Probable Assignee: ZHOU CHAOHUI

Earliest Publication Date: 20150624



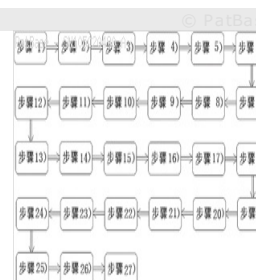
55) Family number: 60696573 (CN105020490A)

MANUFACTURING TECHNOLOGY APPLICABLE TO ALUMINUM PLASTIC PIPES

Abstract: Source: CN105020490A The invention relates to the technical field of pipe manufacturing and machining, and in particular to a manufacturing technology for pipes. The manufacturing technology applicable to aluminum plastic pipes comprises the following production steps of feeding, inner pipe extrusion, vacuum sizing, cooling, inner adhesive extrusion, laser diameter measurement, cooling, drying, traction, aluminum strip paying-off, aluminum strip storage, aluminum strip tension control, trimming, preforming, aluminum pipe shaping, aluminum pipe welding, flaw detection, aluminum pipe traction, high frequency heating, outer adhesive extrusion, outer pipe extrusion, cooling, laser diameter measurement, jet printing, cutting or taking-up, detection and packaging. An inner adhesive and an outer adhesive are selected from maleic anhydride grafting polyethylene or maleic anhydride grafting polypropylene according to different inner and outer pipes. By the adoption of the technical scheme, the aluminum plastic pipes prepared through the cooperation of technological control and adhesive selection is high in strength, can solve problems caused by the cold and hot temperature difference generated in long-term use, is easy to manufacture, and has high social and economic value and popularization significance.

Probable Assignee: SHANGHAI LANLING PIPELINE TECHNOLOGY CO LTD

Earliest Publication Date: 20151104



56) Family number: 67194126 (CN107245670A)

DIESEL ENGINE VALVE GUIDE PIPE MATERIAL

Abstract: Source: CN107245670A The invention discloses a diesel engine valve guide pipe material. The diesel engine valve guide pipe material is composed of, by mass percent, 0.5 to 1.2 percent of graphite, 1.0 percent to 4.0 percent of copper, 0.2 percent to 3.0 percent of molybdenum disulfide, 0.2 percent to 3.0 percent of calcium fluoride, 0.2 percent to 1.0 percent of manganese sulfide, 1 percent to 10 percent of aluminum bronze and the balance FeMo powder. According to the diesel engine valve guide pipe material, a valve guide pipe manufactured through the powder metallurgy process meets the national V emission standard diesel engine station needs, the properties of high temperature resistance, wear resistance, self lubricating, easy cutting machining and the like are achieved, and the material can meet the diesel engine use at the working temperature below 500 DEG C.

Probable Assignee: DONGFENG POWDER METALLURGICAL CO DONGFENG PARTS AND COMPONENTS GROUP CO LTD

Earliest Publication Date: 20171013

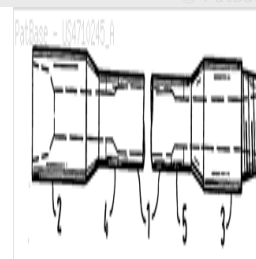
57) Family number: 2637454 (US4710245A)

METHOD OF MAKING TUBULAR UNITS FOR THE OIL AND GAS INDUSTRY

Abstract: Source: US4710245A A method of making tubing and pipes for conduction in the oil and gas industry or for use as drillpipes, wherein such tubing is connected at both ends with connector sleeves by means of welding, the welding seam being deburred thereafter. The steel used for the tubing, pipes or drill pipes as well as for the connector sleeves has the following composition, all percentages by weight, between 0.2 and 0.6 percent carbon, between 0.5 and 1.8 percent manganese, between 0.5 and 3.5 percent combined chromium and molybdenum, not more than 0.2 percent phosphorus and not more than 0.005 percent sulphur. The combined unit of tubing and two welded on connectors is heated to a temperature which is at least 50 but not more than 200 degrees Centigrade above AC3; quenched from this temperature down to a temperature of at least 200 degrees Centigrade below AR1, tempered at a temperature below AC1, and cooled in non-moving air, to obtain the following properties: yield strength between 515 to 760 N/square mm, tensile strength at least 660 N/square mm, elongation at least 15.5 percent, hardness not more than 26 HRC, impact notch ductility at room temperature in accordance with ISOV of at least 60 Joules, long duration strength tested for more than 720 hours in accordance with NACE-TM-01-77 in a hydrogen sulphide saturated test solution at a load of not less than 80 percent of said minimum yield strength.

Probable Assignee: MANNESMANN AG

Earliest Publication Date: 19860510



58) Family number: 29259380 (US6189199B)

METHOD OF MANUFACTURING A HOSE COUPLING FROM AN INTERMEDIATE BLANK MATERIAL

Abstract: Source: US6189199B A method of manufacturing a hose coupling from an intermediate blank material, the hose coupling having an inner tube or tubular nipple portion, an outer tube or tubular sleeve portion and a head portion, all formed by plastic deformation from an intermediate blank material. The head portion is provided with a bore at an end opposite the end where the nipple portion and the sleeve portion are joined. In addition, the head portion is internally provided with a female thread and a conical seal portion.

Probable Assignee: HITACHI CABLE LTD

