

## アルミニウム圧延・押出製品製造職種(仕上げ作業)

Job category : Aluminium Rolling , Extrusion Product Manufacturing (Operation : Finishing Work)

<p>作業の定義</p> <p>Criteria of Operation</p>	<p>圧延加工、押出加工、引抜加工で得られたアルミニウムおよびアルミニウム合金の材料を用い、顧客の要求仕様に仕上げる作業であり、製品の歪を除き、製品寸法に切断し、製品を検査する作業をいう。</p> <p>また、技能実習事業場は以下の安全衛生活動が行われている。</p> <ol style="list-style-type: none"> <li>1. 安全衛生法令に基づき、従業員の安全と健康の確保を目指した作業管理・健康管理の諸活動の展開。</li> <li>2. 事業場の安全衛生の方針・目標・計画・組織が明確になっていて、全従業員が参加する活動。</li> </ol> <p>This operation refers to the work of finishing products from aluminium or aluminium alloy materials obtained by extrusion, rolling or drawing processing to meet customer's requirements by reducing bending of products, cutting to size as required and inspecting products.</p> <p>And the following safety and health activities need to be conducted at workplaces for technical intern training.</p> <ol style="list-style-type: none"> <li>1. Development of various activities of work and health management aiming to secure safe and health of employees based on safety and health acts and regulations.</li> <li>2. Activities whose Policy, Goal, Plan and Organization for safety and health safety at work place are clarify, and which all employees join.</li> </ol>	
<p>必須業務(移行対象職種・作業で必ず行う業務)</p> <p>Compulsory works (Works to be essential on the operations in the job categories to be shifted)</p>	<p>第1号技能実習 Technical Intern Training (i)</p> <p>(1)仕上げ作業 Finishing work</p> <p>①製品寸法切断作業 Cutting to size as required</p> <ol style="list-style-type: none"> <li>1. 材料のセット～切断～取出し、端面処理 Material setup ~ cutting ~ extraction, edge-processing</li> </ol> <p>②生産実績収集作業 Collecting of production results 寸法測定結果、不良実績、設備稼働実績の記録 Recording size measurement results, information about defective products and performance of equipments</p> <p>③製品反り曲り取り矯正作業 Reducing bending and warping of product</p> <ol style="list-style-type: none"> <li>1. 材料のセット～矯正～取出し (矯正機運転) Material setup ~ correcting ~ extraction (Operation of correeting machines)</li> </ol> <p>④製品検査作業 Product inspection</p> <ol style="list-style-type: none"> <li>1. 製品寸法切断作業及び、仕上げ検査で使用する測定器の取扱技術習得 Acquisition of skills for operations of mesuring instruments used for cutting and finish-turn inspection</li> <li>2. 引張試験 tensile test 引張試験機の基本的な操作方法の習得 Acquisition of basical operations method of tesile tester</li> </ol>	<p>第2号技能実習 Technical Intern Training (ii)</p> <p>(1)仕上げ作業 Finishing work</p> <p>①製品寸法切断作業 Cutting to size as required</p> <ol style="list-style-type: none"> <li>1. 材料のセット～切断～取出し、端面処理 Material setup ~ cutting ~ extraction, edge-processing</li> <li>2. 設備運転管理(稼働前・運転中の点検) Operation management of equipment (Inspection before and during operation)</li> </ol> <p>②生産実績収集作業 Collecting of production results 寸法測定結果、不良実績、設備稼働実績の記録 Recording size measurement results, information about defective products and performance of equipments</p> <p>③製品反り曲り取り矯正作業 Reducing bending and warping of product</p> <ol style="list-style-type: none"> <li>1. 製品の反り曲りの測定値と規格値との比較 Comparison between measured value and standard value about warping and bendind of product</li> <li>2. 矯正機の条件設定と矯正機運転 Condition setting and operation of correcting machine</li> <li>3. 設備運転管理(稼働前・運転中の点検) Operation management of equipment (Inspection before and during operation)</li> </ol> <p>④製品検査作業 Product inspection</p> <ol style="list-style-type: none"> <li>1. 外観検査 Appearance inspection 製品表面欠陥の合否判定 Pass/fail judgment for defects on surfaces of products</li> <li>2. 寸法検査 Size inspection 1)仕上げ検査に入る製品(圧延材、押出材、引抜材の何れか)の各部寸法の測定と合否判定、記録保管 Measument of sizes of products and pass/fail judgment on them (Any of extrusion, drawn or rolled materials) before finish-turn inspection</li> <li>3. 引張試験 tensile test 1) JISで規定された形状の試験片製作 Fabrication of test pieces specified by JIS 2)引張試験機による試験実施 Testing with tensile tester 3)試験結果の合否判定、記録保管 Pass/fail judgment for test results, recording and keeping of test results</li> </ol>
	<p>(2)安全衛生業務 Safety and health work</p> <p>①雇入れ時の安全衛生教育 Safety and health education at the time of new employment</p> <p>②作業開始前、作業中の安全装置等の点検作業 Inspection work of safety equipment etc. before and during work.</p> <p>③作業場の整理整頓清掃 Cleanup and arrangement at work space</p> <p>④安全保護具の点検・着用 Inspecting and wearing safety protective equipment</p> <p>⑤安全装置、保護具使用による作業 Work using safety device and protective equipment</p> <p>⑥異常時の報告 Reporting in case of emergency</p> <p>⑦非常常作業開始前のKY(危険予知)の完全実施 Full implementation of risk prediction prior to non-routine work</p> <p>⑧資格要件の確認 Qualification check</p>	<p>(2)安全衛生業務 Safety and health work</p> <p>①安全衛生教育(定期・都度) Safety and health education (a regular basis, an as-needed basis)</p> <p>②作業開始前、作業中の安全装置等の点検作業 Inspection work of safety equipment etc. before and during work.</p> <p>③作業場の整理整頓清掃 Cleanup and arrangement at work space</p> <p>④安全保護具の点検・着用 Inspecting and wearing safety protective equipment</p> <p>⑤安全装置、保護具使用による作業 Work using safety device and protective equipment</p> <p>⑥異常時の報告 Reporting in case of emergency</p> <p>⑦非常常作業開始前のKY(危険予知)の完全実施 Full implementation of risk prediction prior to non-routine work</p> <p>⑧資格要件の確認 Qualification check</p>

<p>関連業務、周辺業務(上記必須業務に関連する技能等の修得に係る業務等で該当するものを選択すること。)</p> <p>Related works, Peripheral works (Select what is applicable in works related to acquisition of skills etc. concerning above essential tasks.)</p>	<p>(1)関連業務  ①圧延材調質熱処理作業  ②押出材ストレッチ矯正  ③押出材穴あけ作業  ④押出材曲げ作業  ⑤押出材研磨作業  ⑥押出材整形作業  ⑦熱処理作業  ⑧硬さ試験片製作・硬さ試験  ⑨組織試験片製作・組織試験  ⑩試験成績書の作成  ⑪梱包作業  ⑫設備保守・点検作業  ⑬仕上げ前作業(圧延、連続鋳造、連続圧延、押出、引抜の各本体設備のオペレーションを除く付帯作業)</p> <p>(2)周辺業務  ①材料運搬  ②残材処理  ③治具保守作業  ④屑箱替え作業  ⑤PC入力、材料表示  ⑥治具片付け  ⑦床・装置等の清掃</p> <p>(3)安全衛生業務(関連業務、周辺業務を行う場合は必ず実施する業務)</p>	<p>Related works</p> <ol style="list-style-type: none"> <li>Heat treatment of refining of rolled material</li> <li>Stretching and correcting for extrusion material</li> <li>Drilling for extrusion material</li> <li>Bending for extrusion material</li> <li>Polishing for extrusion material</li> <li>Shaping for extrusion material</li> <li>Heat treatment</li> <li>Production of hardness test piece and hardness testing</li> <li>Production of tissue test piece and tissue testing</li> <li>Preparation of test report</li> <li>Packaging</li> <li>Maintenance and inspection of equipment</li> <li>Work before finishing(Incidental work except for operation of each main equipment of rolling, continuous minting, continuous rolling, extrusion, drawing)</li> </ol> <p>Peripheral works</p> <ol style="list-style-type: none"> <li>Transportation of materials</li> <li>Processing of residual materials</li> <li>Maintenance of jigs</li> <li>Exchange of waste boxes</li> <li>Input work, display of materials</li> <li>Cleanup of jigs</li> <li>Cleanup of floors and equipments</li> </ol> <p>Safety and health work(operation to be carried out whenever related works and peripheral works are carried out)</p> <p>上記と同じ。 Same as above</p>
<p>使用する素材、材料等(該当するものを選択すること。)</p> <p>Materials to be used (Select the appropriate one)</p>	<p>圧延された板材・線材、押出された型材・棒材・線材・管材、引抜された棒材・線材・管材</p> <p>Rolled plates/wires, extruded shapes/rods/wires/pipes, drawn rods/wires/pipes</p>	
<p>使用する機械、器具等(該当するものを選択すること。)</p> <p>Machines, equipment, tools etc. to be used (Select the appropriate one)</p>	<p>仕上げ作業で使用:No.1~No.17  圧延・連続鋳造圧延エリアで使用:No.18~21  押出エリアで使用:No.22~29  前工程~仕上げ作業共通して使用:No.30~34</p> <ol style="list-style-type: none"> <li>切断機 (シャー、スリッター、帯鋸、丸鋸など)</li> <li>矯正機 (テンションレベラー、ローラーレベラーなど)</li> <li>ロール矯正機(押出材用)</li> <li>矯正機(引抜材用)</li> <li>熱処理炉(圧延材用)</li> <li>穴あけ機</li> <li>研磨機</li> <li>洗浄機</li> <li>端面処理機</li> <li>曲げ加工機</li> <li>熱処理炉(引抜材用)</li> <li>各種測定器(ノギス、マイクロメーターなど)</li> <li>旋盤(引張試験片製作用)</li> <li>フライス盤(引張試験片製作用)</li> <li>各種検査機器(機械試験機、成分分析器)</li> <li>表面観察機器(顕微鏡、カメラ)</li> <li>表面観察用試薬</li> <li>面削機</li> <li>均質化熱処理炉(スラブ用)</li> <li>加熱炉(スラブ用)</li> <li>焼鈍炉(冷間圧延中間焼鈍用)</li> <li>溶体化熱処理炉</li> <li>ビレット切断機</li> <li>押出ダイス加熱装置</li> <li>加熱装置(押出ビレット用)</li> <li>ストレッチ矯正機</li> <li>切断機(押出材用)</li> <li>熱処理炉(押出材用)</li> <li>押出ダイス洗浄装置</li> <li>クレーン(特別教育、技能講習等が必要)</li> <li>玉掛け用具</li> <li>フォークリフト (特別教育、技能講習等が必要)</li> <li>保護具 (眼鏡、ヘルメット、安全靴、脚絆、手甲など)</li> <li>各種手工具及び手仕上げ用器工具類</li> </ol>	<p>No1~No17 : Use for finishing  No.18~No.21 : Use for Rolling, continuous minting-rolling  No.22~No29: Use for Extrusion  No.30~No34: Use from pre-process to finishing</p> <ol style="list-style-type: none"> <li>Cutting machine (shear, slitter, band saw, circular saw etc.)</li> <li>Straightening machine (tension leveler, roller leveler etc.)</li> <li>Roll straightening machine (for extrusion material)</li> <li>Straightening machine (for drawn material)</li> <li>Heat treatment furnace (for rolled material)</li> <li>Drilling machine</li> <li>Polishing machine</li> <li>Washing machine</li> <li>Edge processing machine</li> <li>Bending machine</li> <li>Heat treatment furnace (for extrusion material)</li> <li>Various measuring instruments (vernier caliper, micrometer Etc.)</li> <li>Lathe (for tensile test pieces)</li> <li>Milling cutter (for tensile test pieces)</li> <li>Various inspection equipments (mechanical testing machine, component analyzer)</li> <li>Surface observation equipment (microscope, camera)</li> <li>Reagent for surface observation</li> <li>Surfacing lathe</li> <li>Homogenization heat treatment (for slab)</li> <li>Heating furnace (for slab)</li> <li>Annealing furnace (for cold rolling process-annealing)</li> <li>Solution heat treatment furnace</li> <li>Billet cutter</li> <li>Extrusion dice heater</li> <li>Heater (for extrusion billet)</li> <li>Stretch correcting machine</li> <li>Cutter (for extrusion material)</li> <li>Heat treatment furnace (for extrusion material)</li> <li>Extrusion dice washing machine</li> <li>Crane (special education and skills training required)</li> <li>Slinging tools</li> <li>Forklift (special education and skills training required)</li> <li>Protective equipment (glasses, helmet, safety shoes, hand armer Etc.)</li> <li>Various hand tools and tools for hand finishing</li> </ol>

<p>製品等の例(該当するものを選択すること。) Examples of products etc. (Select the appropriate one.)</p>	<p>顧客の要求に合わせて梱包した、コイル状板・線・管製品、切り板状板製品、直状形・管・棒製品 Coiled plate/wire/pipe products, cut plate-like plate products, straight-shaped/pipe/bar products packed based on custom requests</p>	
<p>移行対象職種・作業とはならない業務例 Example of works which is not eligible for the job categories / operations to be shifted</p>	<p>1. 鋼材製造作業 Steel manufacturing work 2. 非鉄金属鋳物鋳造作業 Non-ferrous metal casting casting work 3. 鍛造作業 Forging work 4. ダイカスト作業 Die-cast work 5. 普通旋盤作業 General lathe work 6. フライス盤作業 Milling machine work 7. 金属プレス作業 Metal stamping work 8. 陽極酸化処理作業 Anodizing work</p>	<p>9. 機械検査作業 Machine inspection work 10. 機械保全作業 Machine maintenance work 11. 溶接作業 Welding work 12. 金属塗装作業 Metal painting work 13. 工業包装作業 Industrial packaging work 14. プラスチック成形作業 Plastic molding work 15. 電子・電気機器組立作業 Electronic and electrical equipment assembly work 16. 上記の関連業務及び周辺業務のみの場合 In case of above related or peripheral work only</p>