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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Stellar Stairs Co. of Poway designs and builds factory-made premium wooden stairs for homes. The manufactured stair components (spindles, risers, hangers, hand rails) permit installation of stairs of varying lengths and widths. All are of white oak wood. Its budgeted manufacturing overhead costs for the year 2009 are as follows.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | |  | | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | |  | | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | **Overhead Cost Pools** | **Amount** | | --- | --- | | Purchasing | $ 57,000 | | Handling materials | 82,000 | | Production (cutting, milling, finishing) | 210,000 | | Setting up machines | 85,000 | | Inspecting | 90,000 | | Inventory control (raw materials and finished goods) | 126,000 | | Utilities | 180,000 | | Total budget overhead costs | $830,000 | | | |  | | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif |   For the last 4 years, Stellar Stairs Co. has been charging overhead to products on the basis of machine hours. For the year 2009, 100,000 machine hours are budgeted.  Heather Fujar, owner-manager of Stellar Stairs Co., recently directed her accountant, Lindsay Baker, to implement the activity-based costing system that she has repeatedly proposed. At Heather Fujar's request, Lindsay and the production foreman identify the following cost drivers and their usage for the previously budgeted overhead cost pools.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | |  | | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | |  | | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | **Activity Cost Pools** | **Cost Drivers** | **Expected Use of Cost Drivers** | | --- | --- | --- | | Purchasing | Number of orders | 600 | | Handling materials | Number of moves | 8,000 | | Production (cutting, milling, finishing) | Direct labor hours | 100,000 | | Setting up machines | Number of setups | 1,250 | | Inspecting | Number of inspections | 6,000 | | Inventory control (raw materials and finished goods) | Number of components | 168,000 | | Utilities | Square feet occupied | 90,000 | | | |  | | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif |   Jason Dion, sales manager, has received an order for 280 stairs from Community Builders, Inc., a large housing development contractor. At Jason's request, Lindsay prepares cost estimates for producing components for 280 stairs so Jason can submit a contract price per stair to Community Builders. She accumulates the following data for the production of 280 stairways.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | |  | | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | |  | | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | Direct materials | $103,600 | | Direct labor | $112,000 | | Machine hours | 14,500 | | Direct labor hours | 5,000 | | Number of purchase orders | 60 | | Number of material moves | 800 | | Number of machine setups | 100 | | Number of inspections | 450 | | Number of components | 16,000 | | Number of square feet occupied | 8,000 | | | |  | | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif |   **Hint:**  *Assign overhead costs using traditional costing and ABC; compare results.* |
| http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif |

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| **Instructions**   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | |  |  | | --- | --- | | **(a)** | Compute the predetermined overhead rate using traditional costing with machine hours as the basis. | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | |  |  | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | | **(c)** | What is the manufacturing cost per stairway under the proposed activity-based costing? (Prepare all of the necessary schedules.)   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif |  |  | | --- | | http://edugen.wiley.com/edugen/courses/crs1865/common/art/pixel.gif | | |  | | --- | |  | | | | | |