

DESPIX Ltd: SOLUTION

(a)

Assembly activity: cost driver = direct labour hours

$$\begin{aligned}\text{Cost for direct labour hour} &= 150000 / (100000 \cdot 0.25 + 50000 \cdot 0.30 + 10000 \cdot 0.75) \\ &= \text{£}3158\end{aligned}$$

Machining activity: cost driver = machine hours

$$\begin{aligned}\text{Cost per machine hour} &= (205000 + 245000) / (100000 \cdot 0.25 + 50000 \cdot 0.2 + 10000 \cdot 1.2) \\ &= \text{£}9574\end{aligned}$$

Setting activity: cost driver = No of set-ups

$$\begin{aligned}\text{Cost per set up} &= (35000 + 24000) / (10 \cdot 2 + 15 \cdot 2 + 50 \cdot 10) \\ &= \text{£}107.27\end{aligned}$$

(Assumption: each manufactured part is set up once for each product order)

Material handling activity: cost driver = No of receipts

$$\begin{aligned}\text{Cost per receipt} &= (65000 + 24000) / (10 \cdot 4 + 15 \cdot 4 + 50 \cdot 12) \\ &= \text{£}127.14\end{aligned}$$

(Assumption: the quantity of each bought in part required for each production order is received, stored and issued as a batch)

Despatch activity: cost driver = No of despatches

$$\begin{aligned}\text{Cost per despatch} &= (38000 + 24000) / (10 + 15 \cdot 2 + 50) \\ &= \text{£}688.89\end{aligned}$$

Production planning activity: cost driver = No of production orders

$$\begin{aligned}\text{Cost per order} &= 38000 / (10 + 15 + 50) \\ &= \text{£}506.67\end{aligned}$$

Value added activity: cost driver = other overhead

$$\begin{aligned}\text{Value added \%} &= 180000 / 848000 \\ &= 21.23\%\end{aligned}$$

	Aye	Bee	See
Assembly activity	$3.158 \cdot 0.25 = 0.7895$	0.9475	2.3685
Machining activity	$9.574 \cdot 0.25 = 2.3935$	1.9148	11.4888
Setting activity	$(107.27 \cdot 10 \cdot 2) / 100000 = 0.0215$	$(107.27 \cdot 15 \cdot 2) / 50000 = 0.0644$	$(107.27 \cdot 50 \cdot 10) / 10000 = 5.3635$
Material handling activity	$(127.14 \cdot 10 \cdot 4) / 100000 = 0.0509$	$(127.14 \cdot 15 \cdot 4) / 50000 = 0.1526$	$(127.14 \cdot 50 \cdot 12) / 10000 = 7.6284$
Despatch activity	$(688.89 \cdot 10) / 100000 = 0.0689$	$(688.89 \cdot 15 \cdot 2) / 50000 = 0.4133$	$(688.89 \cdot 50) / 10000 = 3.4445$
Production planning activity	$(506.67 \cdot 10) / 100000 = 0.0507$	$(506.67 \cdot 15) / 50000 = 0.1520$	$(506.67 \cdot 50) / 10000 = 2.5334$
Sub total	3.3750	3.6445	32.8271

Value added activity	0.7165	0.7737	6.9692
	4.0915	4.4182	39.7963