

**DESPIX Ltd: SOLUTION**

(a)

**Assembly activity:** cost driver = direct labour hours

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

**Machining activity:** cost driver = machine hours

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

**Setting activity:** cost driver = No of set-ups

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

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

**Material handling activity:** cost driver = No of receipts

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

(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

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

**Production planning activity:** cost driver = No of production orders

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

**Value added activity:** cost driver = other overhead

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

	Aye	Bee	See
<b>Assembly activity</b>	$3.158 \cdot 0.25 = 0.7895$	0.9475	2.3685
<b>Machining activity</b>	$9.574 \cdot 0.25 = 2.3935$	1.9148	11.4888
<b>Setting activity</b>	$(107.27 \cdot 10 \cdot 2) / 100000 = 0.0215$	$(107.27 \cdot 15 \cdot 2) / 50000 = 0.0644$	$(107.27 \cdot 50 \cdot 10) / 10000 = 5.3635$
<b>Material handling activity</b>	$(127.14 \cdot 10 \cdot 4) / 100000 = 0.0509$	$(127.14 \cdot 15 \cdot 4) / 50000 = 0.1526$	$(127.14 \cdot 50 \cdot 12) / 10000 = 7.6284$
<b>Despatch activity</b>	$(688.89 \cdot 10) / 100000 = 0.0689$	$(688.89 \cdot 15 \cdot 2) / 50000 = 0.4133$	$(688.89 \cdot 50) / 10000 = 3.4445$
<b>Production planning activity</b>	$(506.67 \cdot 10) / 100000 = 0.0507$	$(506.67 \cdot 15) / 50000 = 0.1520$	$(506.67 \cdot 50) / 10000 = 2.5334$
Sub total	3.3750	3.6445	32.8271
Value	0.7165	0.7737	6.9692

<b>added activity</b>			
	4.0915	4.4182	39.7963