

Assembly activity:

Cost per Direct Labour Hours =

Assembly cost pool =

Direct Labour Hours*

100 000 = 1.25 per direct labour hour
80 000

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50 000 X units * 1 labour hour = 50 000

20 000 y units * 1 labour hour = 20 000

5 000 z units * 2 labour hours = 10 000

Total direct labour hours = 80 000

Machining activity:

Cost per machine hour =

$$= \frac{\text{machine operating cost pool}^*}{\text{machine hours}^{**}} =$$

$$= \frac{280000}{50000} = 5,60 \text{ per machine hour}$$

*

Machine setters wages and related	=	30 000
Machine department wages and related	=	50 000
Machine power, maintenance and depreciation	=	<u>200 000</u>
Total machining cost pool	=	280 000

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50000 x units * 0.5 machine hour	=	25000
20000 y units * 1 machine hour	=	20000
5000 z units * 1 machine hour	=	<u>5000</u>
Total machine hours	=	50000

Set up activity:

Cost per set-up =

$\frac{\text{machine setting cost pool}^*}{\text{number of set-ups}^{**}} =$

$\frac{30000}{500} = 60 \text{ per set up}$

*

Machine setters wages and related = 30000

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2 manufactured parts of x unit* 10 production orders per year	=	20
2 manufactured parts of y unit* 10 production orders per year	=	20
10 manufactured parts of z unit* 46 production orders per year	=	460
Total set-ups	=	500

Material receiving and handling activity:

Cost per receipt =

Receiving and handling cost pool =
Number of receipts*

100000 = 158,23 per receipt
632

*

4 bought in components of x unit* 10 production orders per year = 40

4 bought in components of y unit* 10 production orders per year = 40

12 bought in components of z unit* 46 production orders per year = 552

Total receipts = 632

Despatch activity:

Cost per despatch =

$$\frac{\text{despatch cost pool}}{\text{no of despatches}^*}$$

$$\frac{50000}{76} = \text{₹}657,89 \text{ per despatch}$$

*

Unit x despatches	= 10
Unit y despatches	= 20
Unit z despatches	= 46
Total despatches	= 76

Production planning activity:

Cost per production order =

$$\frac{\text{production planning cost pool}}{\text{number of production orders}^*} =$$

$$\frac{50000}{66} = 757,58 \text{ per production order}$$

*

10 production orders of unit x per year `` = 10

10 production orders of unit y per year = 10

46 production orders per year of unit z per year = 46

Total production order = 66

Value added activity:

% of value added =

administration and general cost pool =
other overhead costs and direct labour*

$$\frac{100000}{980000} = 10.2\%$$

*

Other oh (100+50+30+200+100+50+50)	= 580000
Direct labour (80000 DLH * DL wage rate £5)	= 400000
Total	= 980000

Product x

Set-up (cost driver: set-ups)

$(£60 \text{ per set-up} * 20 \text{ set-ups per year}) / 50.000 \text{ units per year} =$
 $= £0.02 \text{ per unit}$

Material handling (cost driver: receipts)

$(£158.23 \text{ per receipt} * 40 \text{ receipts per year}) / 50.000 \text{ units per year}$
 $= 0.13 \text{ per unit}$

Despatch: $(657.89 * 10) / 50000 = 0.13 \text{ per unit}$

Production planning: $(757.58 * 10) / 50000 = 0.15 \text{ per unit}$

Value added: $(5 + 1.25 + 2.50 + 0.02 + 0.13 + 0.13 + 0.15) * 10.2\% = 0.94$
per unit