

# Assembly activity:

Cost per Direct Labour Hours =

$$\frac{\text{Assembly cost pool}}{\text{Direct Labour Hours}^*} =$$

$$\frac{100\ 000}{80\ 000} = 1.25 \text{ per direct labour hour}$$

\*\*

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	=	<u>10 000</u>
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 per machine hour

\*

Machine setters wages and related = 30 000

Machine department wages and related = 50 000

Machine power, maintenance and depreciation = 200 000

Total machining cost pool = 280 000

\*\*

50000 x units \* 0.5 machine hour = 25000

20000 y units \* 1 machine hour = 20000

5000 z units \* 1 machine hour = 5000

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

\*\*

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 =

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

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

\*

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

# Production planning activity:

Cost per production order =

production planning cost pool =  
number of production orders\*

50000 = 757,58 per production order

66

\*

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