

De Work-Factor Raad wil een platform bieden aan Work-Factor gebruikers, arbeidsanalisten, cost engineers en industrial engineers om problemen, oplossingen, ideeën en tips te bespreken. Daartoe zullen we regelmatig een WS Tip sturen aan "WF-leden" en geïnteresseerden. Mocht dit bericht niet op het juiste adres aankomen stuur het dan door naar geïnteresseerden en laat ons dat weten, svp.

Het onderwerp van vorige WS Tips staat op de WF Website onder: WF en Management/Praktisch - Algemeen/WS Tips.

## A practical example of the Theory Of Constraints

### THE P&Q PROBLEM, Part 2

#### SOLUTION QUESTION 1:

Selling 100 products P and 50 products Q give a profit of:

Product	P		Q
Selling price	\$ 90		\$ 100
Cost raw materials	<u>\$ 45</u>		<u>\$ 40</u>
Added value	\$ 45		\$ 60
Number of products	100		50
Value	<u>\$ 4500</u>	+	<u>\$ 3000</u>
	Total	\$ 7500	
	Op. exp.	<u>- \$ 6000</u>	
	<b>Profit</b>	<b>\$ 1500</b>	

#### Question 2:

How much machine capacity in minutes is needed?

**Stop here and calculate the capacities, then continue to find out.**

**SOLUTION QUESTION 2:**

**Utilisation per capacity group (per week in min)**

Cap. group	Theor. avail. (min)	Capacity needed (min)	Percentage utilisation
A	2400	2000	83%
B	2400	3000	<u>125%</u>
C	2400	1750	73%
D	<u>2400</u>	<u>1250</u>	<u>52%</u>
Total	<u>9600</u>	<u>8000</u>	<u>83%</u>

**So, we have a “bottleneck”: machine B !**

Therefore, we cannot make all products P and/or all products Q, we have to make a production schedule.

**Question: On what basis or arguments do we decide to choose between P and Q?**

- Make as much as possible of “P” and than some Q  
OR
- make as much as possible of “Q” and than some P

**Answer:**

Start with the most “**PROFITABLE**” product.

**Stop here and calculate the most profitable one, then continue to find out.**

**Which product is the most profitable one?**

**1. Let us ask the Manager:**

**Decision must be based on added value or margin per product:**

Product	P		Q
Selling price	\$ 90		\$ 100
Cost raw materials	<u>\$ 45</u>		<u>\$ 40</u>
Added value / Margin	\$ 45		\$ 60

So, product **Q**.

We want to be sure and ask another business man.

**See the next WS Tip**

Voor reacties naar

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