RUNNER SHOES S.A. (B)[1]

Profitability under Production Constraints

Runner Shoes SA is facing a production constrain in the assembly department. This department operates in two shifts of 8 hours each for 250 days/year, which gives a total capacity of 220,000 hours of production.

The management wants to define a strategy for the short-term while does not find a definitive solution for this problem.

As a consequence the management wonder what product should be given priority in production priority.

RUNNER SHOES

	SPORTS LINE	TOP LINE	TOTAL
Number of pairs of shoes sold	150 000	60 000	
			in EUR
Sales	3 000 000 €	1 800 000 €	4 800 000 €
Variable costs	750 000 €	900 000 €	1 650 000 €
Contribution margin	2 250 000 €	900 000 €	3 150 000 €
Fixed costs	1 500 000 €	500 000 €	2 000 000 €
Operating profit	750 000 €	400 000 €	1 150 000 €
Contribution margin per unit	15,00 €	15,00 €	
Contribution margin ratio (%)	75,00%	50,00%	
Assembly time per pair (minutes)	1,20	1,00	
Contribution margin per assembly hour	12,50 €	15,00 €	

In addition:

The management believes that it is necessary to stay competitive in the long term in both products lines. As a consequence the management thinks it is necessary to produce at least 100,000 pairs of the *sports line* and 40,000 of the *top line*.

The maximum volume absorbed by the market would be 200,000 pairs of the sports line and 80,000 pairs of the top line.

Based on this information how many pairs of each model should be produced in the coming year?

[1] Prepared by João C. Neves, HEC Paris, 2004