

## TASK 2. CUT-OFF RULES

### Case study 2.1 Steel widgets

Table 2.1 contains simplified unit process inventory data for the production of all materials necessary to manufacture steel widgets, which is our fictitious product example. Review the definitions of cut-off criteria we discussed in the lectures. Assume that we will apply the following *cut-off rules* to a carbon footprint analysis of steel widgets:

- Inputs contributing **less than 1%** of manufacturing stage mass inputs will be excluded
- Inputs contributing **less than 1%** of manufacturing stage energy inputs will be excluded
- Inputs contributing **less than 1%** of manufacturing stage carbon dioxide equivalents will be excluded

**Table 2.1.** Unit process inventory for producing 1 kg of widgets.

Material input	Input mass (kg)	Energy to manufacture input (MJ)	CO <sub>2</sub> eq. emissions of input manufacture (kg CO <sub>2</sub> eq.)	Acceptable to exclude? Enter "Yes" or "No"
Steel bar	400	3600	160	
Cutting fluid	2	136	7.2	
Paint	0.6	40.8	2.16	
Cardboard packaging	20	500	30	
Steel fasteners	0.5	17.5	1.38	
Plastic casing	2.5	200	6.25	