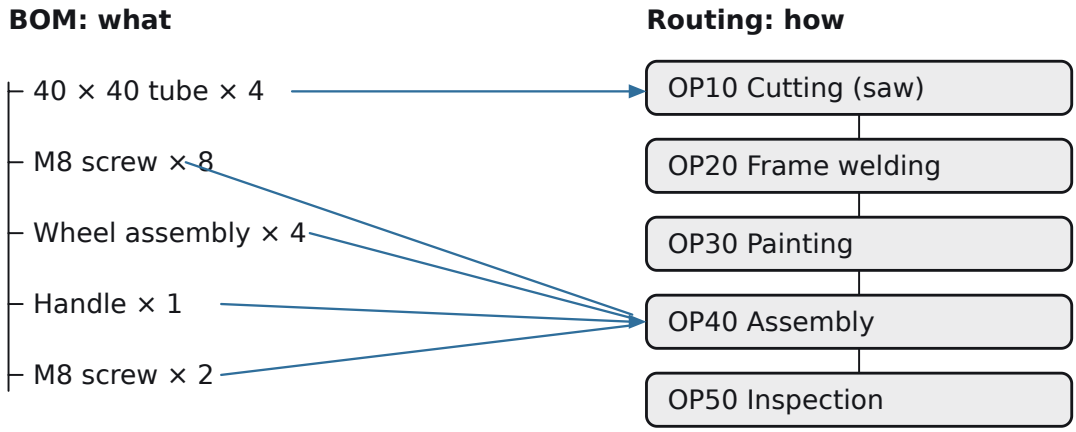
PRINTABLE REFERENCE CHART

BOM vs routing: a complete example

BAOUCH.FR
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1. What and how: BOM and routing

	Bill of materials (BOM)	Routing
Question	What is it made of?	How is it made?
One line is	a component and its quantity	an operation, its work centre and its times
Units	pieces, kg, m, litres	minutes or hours, per batch and per piece
Who writes it	engineering (eBOM), then manufacturing engineering (mBOM)	manufacturing engineering
Used for	purchasing, stock, requirements planning, material cost	capacity, lead times, shop floor tracking, labour and machine cost

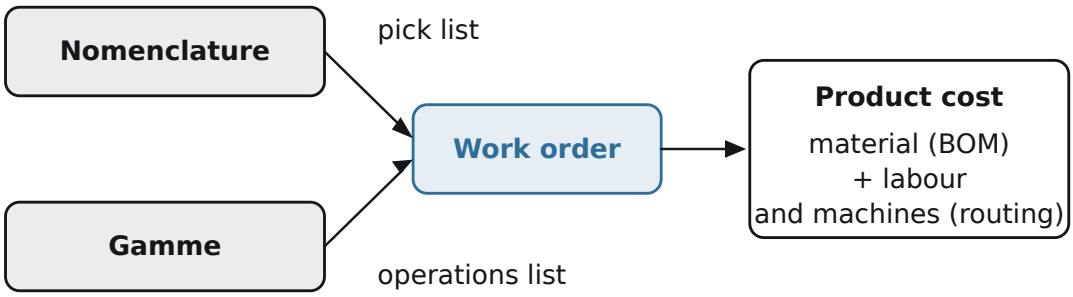


2. The worked example: the cart's routing

We take the cart from the BOM series. Here is a possible routing, with example times and hourly rates, to be replaced by your shop's:

Operation	Work centre	Setup (min)	Run (min/pc)	Hourly rate	Components consumed
OP10	Saw	15	4	45	4 tubes 40 × 40
OP20	Welding	20	25	60	—
OP30	Paint	30	10	55	paint
OP40	Assembly	10	18	45	4 wheel assemblies, 1 handle, 8 + 2 M8 screws
OP50	Inspection	0	5	50	—

For a work order of 10 carts: time = setup + 10 × run, i.e. 55, 270, 130, 190 and 50 min, 695 min (11.6 h) in total; cost = time × rate, i.e. 614.6 for the order and 61.5 per cart, in the hourly rate's currency. That is what batch size is all about.



Reference values taken from the article https://www.baouch.fr/en/blog/nomenclature-gamme-fabrication-bom-routing/, which explains the assumptions, formulas and edge cases. For critical use, check the current standard or the manufacturer's documentation. Free to print and share with credit to the source.