

Skills and Training Matrix

How-to guide: what the workbook does, how to use it and what every number means.

mfgcalcs.com



Skills and Training Matrix

Record who is trained on what, at which level and until when, and see skill coverage, shift gaps and certificate renewals at a glance.

For: Production supervisors, team leaders, training coordinators, quality and EHS managers.

Version 1.0.0 · updated 15 October 2026

Quick start

1. On Setup, set the as-of date and the qualified level, then replace the example shifts, people and skills (with the qualified people each skill needs, the minimum per shift and the renewal interval).
2. On Training Records, add one row per person per skill: the level (0 to 4), the date it was assessed and who assessed it.
3. Read the Check column, then the Renewal status: Due soon and Overdue name the records to renew.
4. Open the Dashboard: coverage by skill, shift gaps in red, the skills matrix and who is qualified on what.

What is in the workbook

Start Here	Read this first: what the workbook does and how to use it.
Setup	As-of date, qualified level, and the shifts, people and skills the matrix is built from.
Training Records	One row per person per skill: level, when it was assessed and by whom. Expiry and status follow.
Dashboard	Skill coverage against what each skill needs, shift gaps, renewals and the skills matrix itself.
Method	How every number is calculated, with assumptions, limits and sources.
Verify	Self-check: the workbook's formulas recomputed on fixed inputs against an independent reference.

What each number means

Quantity	How it is calculated	Units
Level	Typed per record on a 0-4 scale defined on Setup: 0 not trained, 1 in training, 2 with support, 3 qualified, 4 expert (can train).	level
Shift, renewal interval	Looked up from the People and Skills lists on Setup (INDEX/MATCH); blank when the name is not on the list, and Check says so.	-, months

Quantity	How it is calculated	Units
Expires	Assessed on + renewal months (EDATE, same day of the month). Blank when the renewal interval is 0.	date
Days left	Expires - as-of date. Negative when lapsed.	days
Renewal status	Overdue when expiry is before the as-of date; Due soon when it is within the due-soon window; otherwise OK (also when the skill never expires).	-
Qualified	Yes when level >= the qualified level on Setup and the renewal status is not Overdue.	Yes/No
Qualified, in training (per skill)	COUNTIFS of records for the skill with Qualified = Yes; and with level from 1 up to one below the qualified level.	people
Coverage (per skill)	Qualified people / people the skill needs (Setup). Same ratio as the Target-Skill Certification Coverage calculator.	%
Short	MAX(0, needed - qualified).	people
Shifts below minimum	Number of shifts whose qualified people for the skill are fewer than its minimum per shift: SUMPRODUCT over the shift list of COUNTIFS(skill, shift, Qualified = Yes) < minimum.	shifts
Status (per skill)	Below target when coverage < the coverage target; Check when coverage is met but a shift is below its minimum; otherwise On target.	-
Skill coverage (KPI)	SUM over skills of MIN(qualified, needed) / SUM of needed. Capped per skill, so a surplus in one skill cannot hide a gap in another.	%
Skills short, shift gaps, renewals overdue	Count of skills with status Below target; sum of shifts below minimum; count of records Overdue (Due soon is shown per skill).	count
Skills matrix	Level of the record for each person and skill (blank = no record), shaded green from the qualified level and amber for levels 1 and up below it; Qualified skills = records with Qualified = Yes for the person.	level, count

Assumptions, limitations, sources and the self-check (the Verify sheet, which recomputes the workbook's formulas on fixed test inputs) are in the workbook. The last page shows the Dashboard with the example data for Northgate Precision, a fictional business.

Free from MFG Calcs - keep this credit when you share it.

Engineering estimates for planning and improvement work. Verify the results against your own process, data and standards before you rely on them.

Skills and Training Matrix

Skill coverage against what each skill needs, shift gaps, renewals and the skills matrix itself.

mfgcalcs.com

Northgate Precision (example): 15 people, 10 skills, 90 training records. Status as of 30 Sep 2026; qualified = level 3 or higher and not lapsed.

SKILL COVERAGE	SKILLS SHORT OF PEOPLE	SHIFT GAPS	RENEWALS OVERDUE
96%	2	1	2
Target 100%	Target 0	Target 0	Target 0
Near target	Above target	Above target	Above target

