

## USING NATSPEC SELECTIONS SCHEDULES

### SCHEDULES

Schedules summarise information about a related group of items in a tabular form. In NATSPEC, they are used to document a selection of products or systems by their distinguishing characteristics or properties. Schedules' compact form makes them very convenient for presenting and retrieving information. They can also be more readily generated and read by software applications than standard text.

#### Schedule location and size

The same principles apply to schedules as to specification information generally – that is, each schedule should be located in only one place – either in the specification or on the drawings. Duplication in multiple locations requires more coordination effort and increases the risk of inconsistencies and errors.

For ease of reference, schedules should be located as close as possible to related information. Practical considerations such as editing, updating, printing, distribution, handling and ease of reference tend to favour smaller page sizes, which suggests locating schedules within the specification. Multi-category schedules, such as room finishes schedules, summarising information from several worksections, are better located at the end of the specification. If there are a large number of schedules, it may make sense to compile them in a separate, dedicated volume. If the required information cannot be included in a schedule that fits on A4 or A3 pages, and remain legible, then drawing-size sheets will be required.

The location of schedules should be discussed early in the project by all team members and implemented consistently.

### NATSPEC SCHEDULES

NATSPEC schedules follow a standard format and are generally located in the SELECTIONS section at the end of most worksections. Consistent location and formatting will facilitate ease of use.

#### Features of NATSPEC schedules

All NATSPEC schedules share the following features:

- **Single category:** SELECTIONS schedules are generally used for scheduling a single type of product or system included in the worksection. NATSPEC does not include multi-category schedules such as finishes schedules which summarise the wall, floor and ceiling finishes of each room in a building.
- **Vertical format:** To better fit the A4-portrait pages of NATSPEC specifications, a vertical format is used rather than the horizontal format often used for architectural and engineering documentation.
- **No split or merged cells:** This makes them easier to edit. Single-row or single-column sets of data for each item also makes it easier to enter them into software applications.
- **Measurement units:** The unit of measurement or notation associated with the item's property/parameter is included directly after it in parentheses, e.g. (mm), (kg), (L/s).

#### Editing NATSPEC schedules

Consider the following points when editing NATSPEC schedules:

- Duplicate and customise schedules by adding and deleting rows and columns, as required. Schedules can be used to document either generic or proprietary products. If a proprietary product or system embodying the required properties or performance has been selected, it is generally not necessary to re-state the properties in the schedule. Only the distinguishing properties or options, e.g. model, size, capacity, finish, colour, necessary for unambiguous identification of the product (for ordering, etc.) need to be included.
- If product selection is by the contractor, delete any redundant properties.
- Identify items that appear in both the specification and on the drawings with a common code or tag to assist coordination and cross-referencing.

#### Schedule components

Schedules have four main parts:

- **Heading:** Describes the type of items being scheduled.
- **Identifiers:** Unique numbers or codes identifying each instance of the items being scheduled, e.g. D1, D2. Sometimes called the Mark.
- **Item or property descriptions:** Names or brief descriptions of the items or properties.
- **Values:** Values or distinguishing characteristics for each item.

#### Schedule types

There are two main types of schedules commonly found in construction documentation:

- **Instance:** Schedules of individual instances of one type of item. Each instance has different values for the (shared) properties or parameters included in the schedule. For example, each door in a door schedule may have different heights, widths, thicknesses, fire-ratings, finishes.
- **Type:** Schedules of different types of items in one group. Each type scheduled shares the same set of values for the properties or parameters associated with it. For example, all partitions of Type 1 will have the same thickness, construction, fire-rating, acoustic performance, etc. Sometimes, instead of including identifiers for the types of item being scheduled, e.g. Wall Tile Type 2, they may be identified by location or application, e.g. Level 1 Washrooms, Tea Room splashbacks.

#### Schedule or list?

If there is only a single instance of a type of item, a series of prompts or a simple list may be more appropriate than a schedule.

#### References

*NATSPEC TECHnote GEN 012 Door hardware scheduling* outlines a two-stage approach to specifying door hardware using schedules as a briefing and data exchange tool.

*NATSPEC BIM Scheduling guidelines*

Go to [www.natspec.com.au](http://www.natspec.com.au) and click on the BIM Logo. Download from Documents > NATSPEC BIM papers

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- Many NATSPEC schedules include the generic designations A, B, C. Edit them to align with the designations or codes chosen for the project.
- As a final check, make sure there is an entry for every item documented.

### Example of NATSPEC schedule editing

This abridged version of the VAV terminal schedule (vertical format) found in NATSPEC shows how a schedule can be edited and re-formatted. (Blue text indicates values entered by the specifier.)

#### VAV terminal schedule

	VAV-10	VAV-14	VAV-05
System	AHU-1	AHU-1	AHU-1
Terminal type	Pressure independent	Pressure independent	Pressure independent
Air quantity: Maximum (L/s)	1,000	1,400	500
Air quantity: Minimum (L/s)	300	420	150
Air quantity: Fan assist (L/s)	0	0	0
Heating coil: Capacity (kW)	14.7	20.0	8.0
Heating coil: Water entering temperature (°C)	80	80	80
Heating coil: Water leaving temperature (°C)	80	80	80
Heating coil: Water pressure drop: Maximum (kPa)	60	60	60

This vertical format fits the typical A4 portrait orientation of specifications. If there are more columns than fit on one page, duplicate the page as many times as needed to include all of them. Alternatively, relocate the schedule to a larger page or sheet and/or change the schedule's orientation from vertical to horizontal and merge common headings, as shown in the example below. Merging or splitting cells is generally best left to last.

#### VAV terminal schedule

VAV No.	System	Terminal type	Air quantity: Maximum (L/s)	Air quantity: Minimum (L/s)	Air quantity: Fan assist (L/s)	Heating coil: Capacity (kW)	Heating coil: Water entering temperature (°C)	Heating coil: Water leaving temperature (°C)	Heating coil: Water pressure drop: Maximum (kPa)
VAV-10	AHU-1	PI*	1,000	300	0	14.7	80	80	60
VAV-14	AHU-1	PI*	1,400	420	0	20.0	80	80	60
VAV-05	AHU-1	PI*	500	150	0	8.0	80	80	60

\* PI = Pressure Independent