



clever
AIR HANDLING

AIR HANDLING

MT Series Air Handling Unit



temperzone
climate innovations

Clever,
New Zealand's
Highest Quality
Air Handling Unit

Nominal Airflow
750 l/s - 15,000 l/s



Air Handling Units, Without Compromise

MT Air Handling units offer the same high quality as the Clever MC Series with the added benefit of standardisation.

Temperzone air handling units have been leading the New Zealand market with the highest quality, most customisable air handlers available. The MT standardised air handling unit range offers the same high quality features you’ve come to expect while giving you the certainty to aid quick and easy HVAC system design, and the flexibility to rely on shorter lead times and optimum savings.

Temperzone Expertise

With over 65 years of expertise in the design of leading climate innovations, trust Temperzone to offer the most efficient and reliable solutions for local conditions. Be assured that any of the models selected will meet Temperzone’s long established reputation for quality. Temperzone has several decades of experience as the market leader in manufacturing hydronic air conditioning systems in the Australasian region.

A Flexible Solution For Multiple Spaces



Supermarkets



Shopping Centres



Industrial Facilities



Laboratories



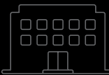
Museums and
Community Halls



Schools and Universities



Restaurants, Pubs
and Clubs



Office Buildings
and Data Centres



Food Processing or
Manufacturing Plants



Features



Full Aluminium Design

For added corrosion protection and lighter weights, anodised aluminium framework and base channel



Air Filtration Options

G4 rated panel filters, F7 filter bags and F9 cartridge filters



High Efficiency EC Plug Fans

EC plug fans that precisely adjust airflow to change in static pressure



Dampers

High quality aluminium fresh air and return air manual / motorised opposed blade dampers



Heating & Cooling Coils

Available coil combinations are 0, 2, 4, 6 or 8 row cooling and 0, 1 or 2 row heating



Tropical Profiles

Tropical profile and thermal break panels as standard for exceptional thermal performance



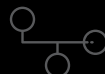
Double Skin + Thermal Break

Marine-grade aluminium 50mm panels with high density foam infill for exceptional thermal performance



Epoxy Coated Coils

Temperzone standard for added coil protection



Ebox Wiring Integration

Wiring can be easily done via the Ebox with integrated terminal blocks



Durable Compact Design

Robust and high quality commercial construction with compact foot-print



Easy Service Access

Internal components easily accessible through service doors



Moulded ABS Drain Tray

Corrosion resistant drain tray. Moulded ABS tray with 2-way slope to a single point



Standardised Pre-Engineered Design

MT Air Handling units offer pre-engineered standardised options that allow you to configure your unit to suit your requirements.

Fan Coil Section Configurations

- Standard Options**
- Standard or opposite hand (all piping, access doors, drainage, gauges and electrical)

Horizontal or vertical supply air

Chilled Water and/or Hot Water Coils

- Eleven Combination Available**
- 0, 1 and 2 row hot water

0, 2, 4, 6 & 8 row chilled water



Plenum Section Configurations

- Standard Options**
- Horizontal or vertical return air plenum

Return air / outside air mixing dampers

Accessories

- Standard Options**
- Optional filter pressure drop, Magnahelic gauge

Internal lighting

Filters are sold separately (G4, F7 and F9)



Simple and Compact Without Compromise

While simplicity of design enables quick and easy installation, in-built functionalities mean that after-sales operation and servicing is also a time-efficient process.

- 1

High efficiency EC plug fans that precisely adjust airflow to change in static pressure
- 2

Epoxy coated coils. 2, 4, 6 & 8 row cooling coils 1 & 2 row heating coils
- 3

G4 rated panel filters, F7 filter bags and F9 cartridge filters within stainless steel frames
- 4

Complete aluminium design, panel skin, frame and base channel for added corrosion protection and lighter weights
- 5

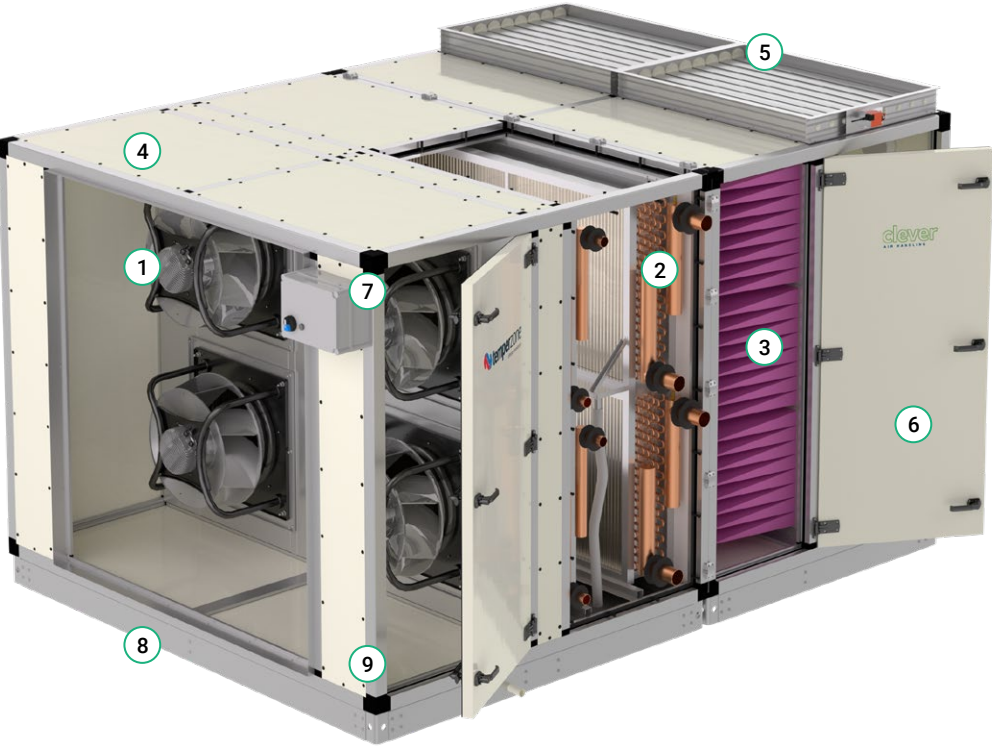
High quality aluminium fresh air and return air manual or motorised opposed blade dampers with rubber seals
- 6

Internal components easily accessible through service doors with external and internal door handles
- 7

Ebox location with wiring integration for easy access and setup
- 8

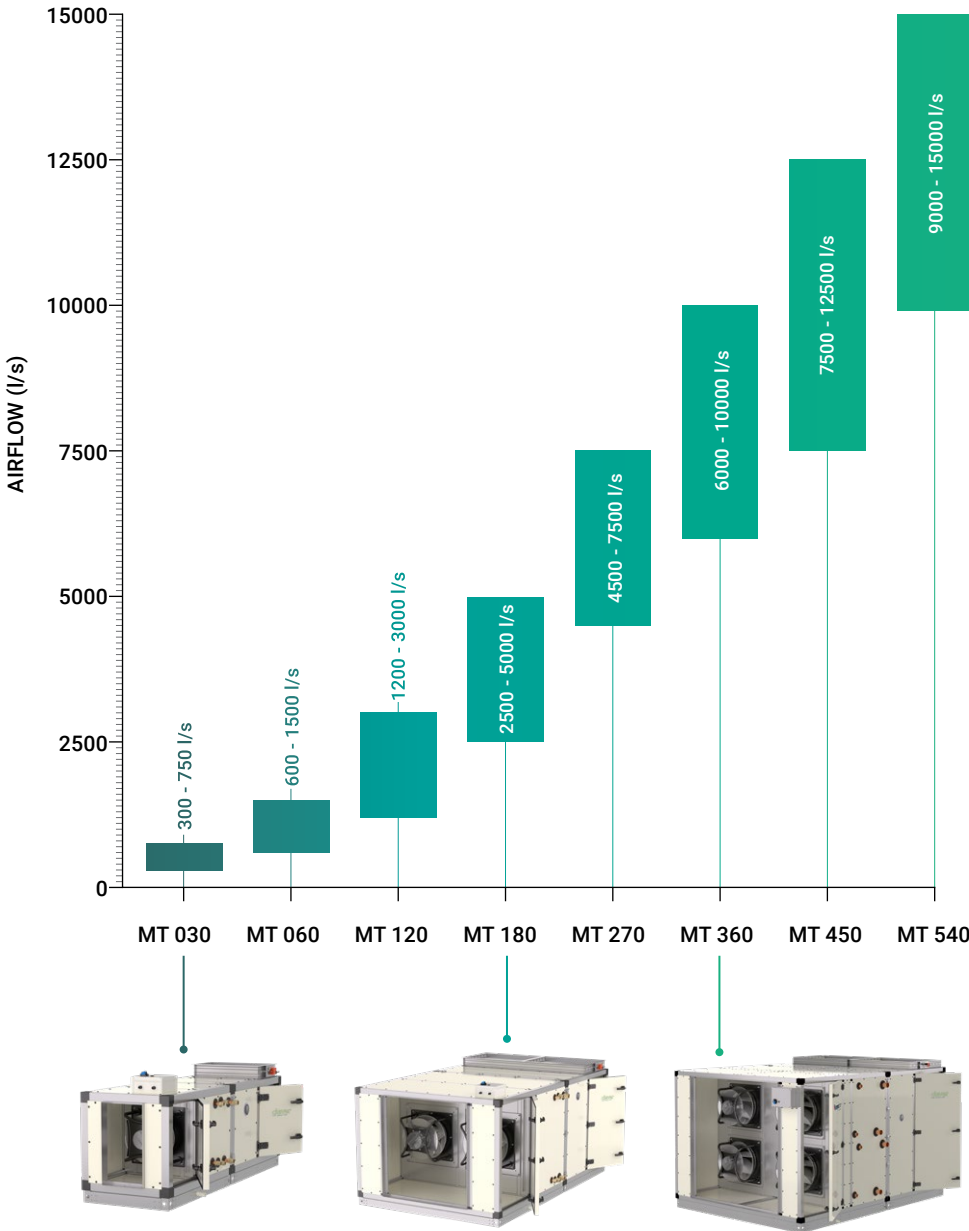
100mm or 140mm anodised aluminium base channels with profile-cut corner bracket
- 9

Thermal break 65mm profile and 50mm panels with nylon corner nodes



8 Models Covering a Wide Range of Airflows

Air Flow Range
Minimum to
Nominal Maximum



Superior Design

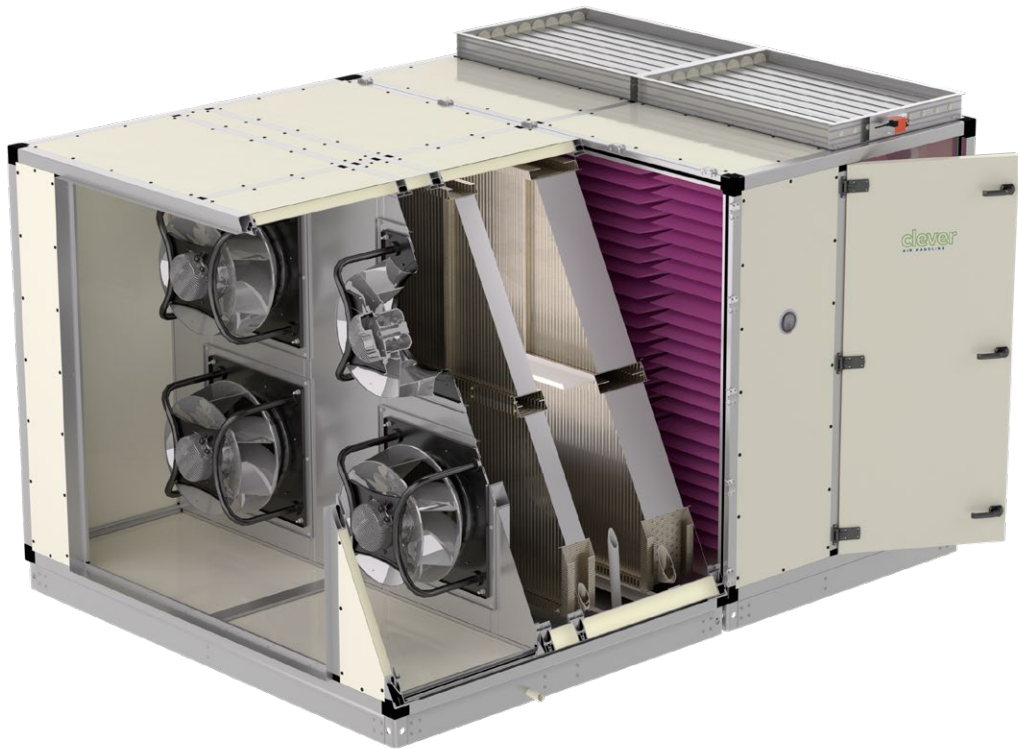
MT Air Handling units are of superior design, being lightweight, corrosion resistant and have exceptional performing thermal barrier properties.

Tropical Profile, Thermal Break

T2 / TB2 Tropical 65 x 50	Features
Thermal break 65mm profile & 50mm panels	Exceptional thermal performance available
Nylon corner node	Tropical system to prevent condensation in high humidity locations or with very low supply air temperature
Anodised profiles and base channel	

Double Skin Panels

Standard
External marine grade 5005 aluminium linings
PVC 50mm separator
Injected polyurethane foam insulation, >45kg/m³
Panel thermal conductivity <0.022 W(m-K)



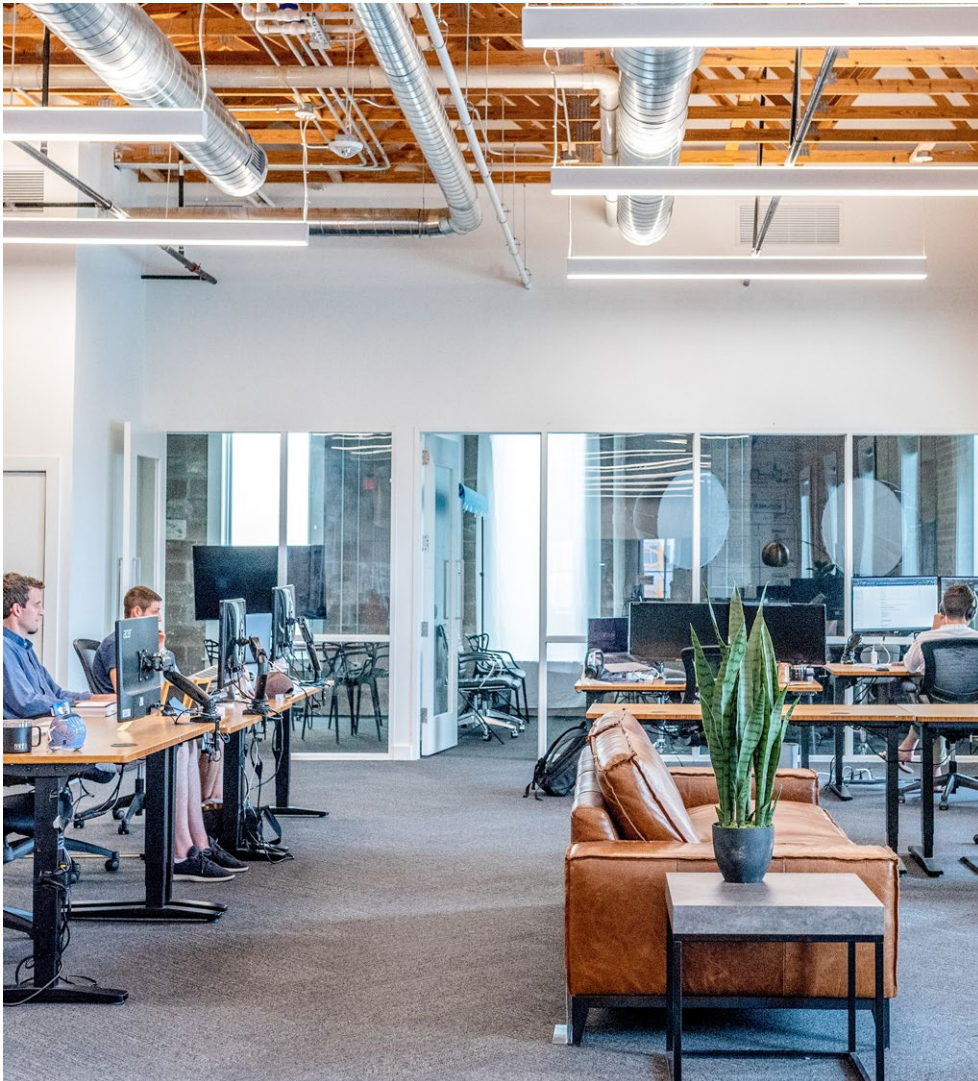
Panel Linings

Standard
Outer and inner marine grade aluminium pre-painted panels
Protected with easy removable plastic film
Standard colour is "Titania"

Base Channel

100mm Channel	140mm Channel
Anodised aluminium	Anodised aluminium
100 x 36mm channel	140 x 37mm channel
3.0mm profile-cut aluminium corner bracket	6.0mm profile-cut aluminium corner bracket
Anodised finish	Anodised finished

A Flexible Solution For Multiple Spaces



Superior Performance

MT Air Handling units utilise energy-efficient, reliable componentry to ensure the delivery of superior performance.

Coils

Coil Options	Features
Multiple coil combinations available using 0, 2, 4, 6 and 8 rows for chilled water cooling and 0, 1 and 2 rows for heating or LTHW applications options	1/2" tube water coils on models MT030 - MT270. 5/8" tube water coils on models MT360 - MT540.
	Aluminium fins & framework
	Fins are epoxy coated aluminium
	Copper tubes and headers
	Brass BSP connection nipples

EC Motors

Impeller
Backward curve centrifugal impeller EC Motor
Operated via 0 - 10 VDC signal
Potentiometer or BMS or Digital Controller
On / Off relay facility
Alarm fault relay
Fault LED indicator
All fans wired to external terminal block



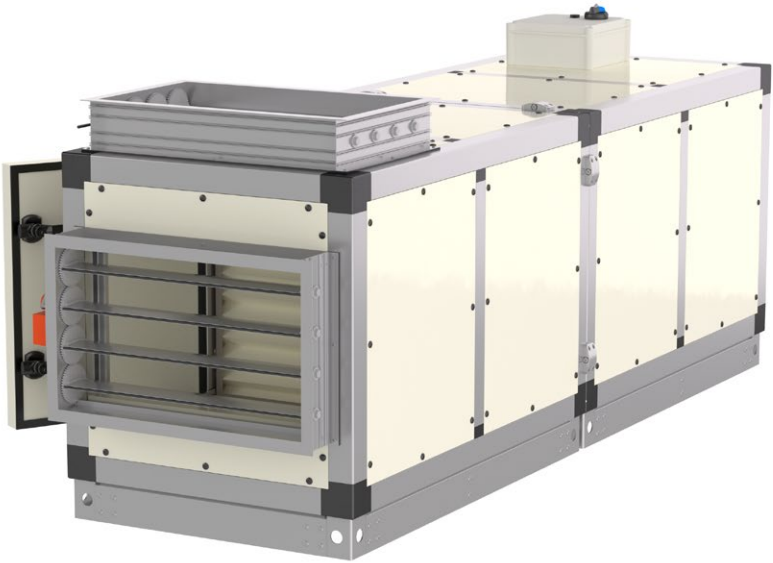
Wiring and Fan Controllers

EBox Wiring Integration as a Standard	Controller Modules
Single power / controls connection point	CPG-AV Controller - Pressure and volume
Main fan isolation switch	
Power supply's MCB's	
EMC compliance - passed to CISPR 14-1 (Residential)	
230V light switch MCB	
Internal controls wiring terminations	



Dampers

EL100 Opposed Blade Dampers	
Manual quadrant	Rubber blade seals
Motorised with shaft for actuator	Made from extruded aluminium



Air Filtration

Standard MT Air Handling units offer high specification filtration for clean hygienic, indoor air.

CLASS	ISO ePM1	ISO ePM2.5	ISO ePM10	ISO Coarse
G4	-	-	-	>90%
F7	50 - 65%	65 - 80%	>85%	-
F9	>90%	>95%	>95%	-

Filter Media

Features	F7 Bag Filter
ISO 16890 standard certified media	600mm 6 pocket
	25mm header
	5.7 m² synthetic media
G4 Panel Filter	F9 Compact Final Filter
46mm aluminium panel	292mm cartridge
Washable media	25mm header
1.2 m² synthetic media	18.8m² glass fibre media



Holding Filter Frames

Features
#304 stainless steel - rust resistant
Factory poured integral seal
97mm depth with multiple filter depth capacity
Standard 607x607 frames suits all filter media brands
M8 stainless steel filter retaining bolts with guaranteed filter seal

Optional
Stainless steel clips

Designed Around Full Size 600x600 Filter Module

Filter Aspect Ratio of each AHU

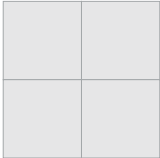
MT030



MT060



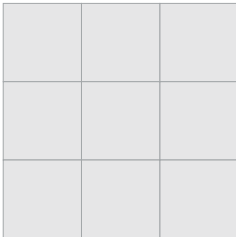
MT120



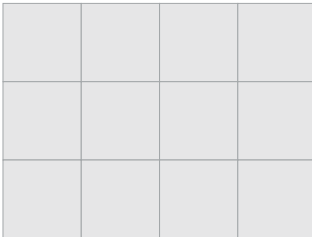
MT180



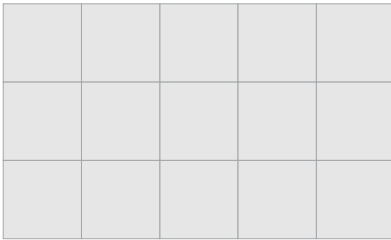
MT270



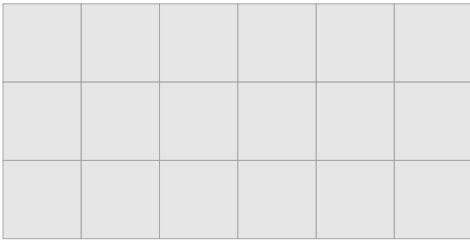
MT360



MT450



MT540



Designed For Easy Access And Installation

MT Air Handling units are designed for safe and easy access for maintenance. Installation flexibility makes the MT range a superior offering.

Componentry

Door Guard	Access Panels
Mechanically fixed aluminium mesh door guard	Access panels for coil inspection and cleaning
Sloping Drain Trays	Packaging
Moulded ABS tray	Full wooden pallet for freight protection
2 way slope to single point - zero water ponding	Location
PVC condensate connection	Suitable for indoor location only
Internal Doors	Custom Roof Kit available for outdoor installation
Outwards opening doors with multiple nylon handles for airtight seal	
Door handles have internal handles	
Lockable fan door handle for added safety	



MT Air Handling Range Specifications

Model MT 030 MT 060 MT 120 MT 180 MT 270 MT 360 MT 450 MT 540

Specifications

Air Flow (L/s) *1	750	1,500	3,000	5,000	7,500	10,000	12,500	15,000
Power supply	400V / 3 ph / 50Hz							
Number of fans	1	1	1	2	2	3	4	4
Motor rating (total) (kW)	1.3	1.7	2.8	5.6	7	10.5	14	14
Full load current (A/ph) *2	2.1	2.7	4.4	8.8	11.4	17.1	22.8	22.8

Nominal Cooling Capacity (kW) *3

2 row	9.6	20.0	44.4	69.5	113	106	139	171
4 row	15.0	33.3	66.6	114	171	225	305	370
6 row	19.2	40.5	82.7	140	210	295	385	465
8 row	22.0	46.7	93.5	157	235	335	425	520

Nominal Heating Capacity (kW) *4

1 row	18.0	40.0	79.9	128	199	216	277	305
2 row	31.7	64.6	133	222	334	363	464	519

Dimensions (mm)

Length Fan / Coil Section	1245	1445	1845	1845	2195	2045	2045	2045
Length Filter / Plenum	1245	1445	1445	1445	1645	1645	1645	1645
Width	800	1400	1400	2050	2050	2720	3370	4020
Height (incl. base)	900	900	1500	1500	2150	2190	2190	2190
Optional Filters Cells	1	2	4	6	9	12	15	18
FCU weight *5 (kg)	162	233	400	511	791	1043	1242	1442
Inlet plenum weight - bare (kg)	86	120	157	184	343	346	387	426

Notes: *1. Nominal Air flow based on approximately 2.5m/s coil face velocity

*2. Motor name plate rating not necessarily current draw at nominal operating point.

*3. Nominal Cooling capacity at nominal air flow, air entry 27/19, water in 6/out 13

*4. Nominal Heating capacity at nominal air flow, air entry 15, water in 80/out 60

*5. Nominal weight based on 6 row cooling coil plus 1 row heating coil, no other accessories fitted



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AND MANUFACTURED



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