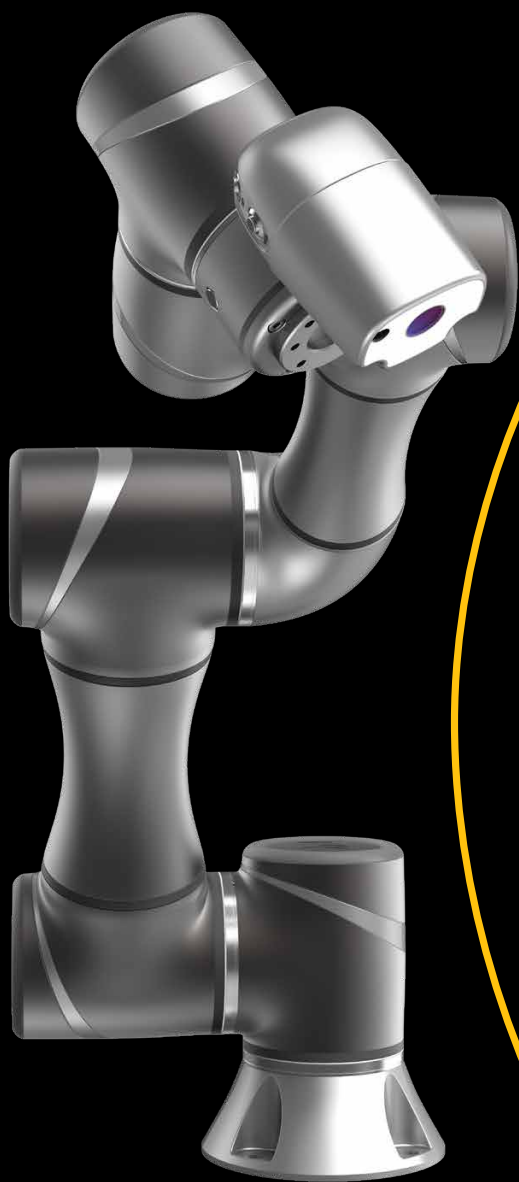


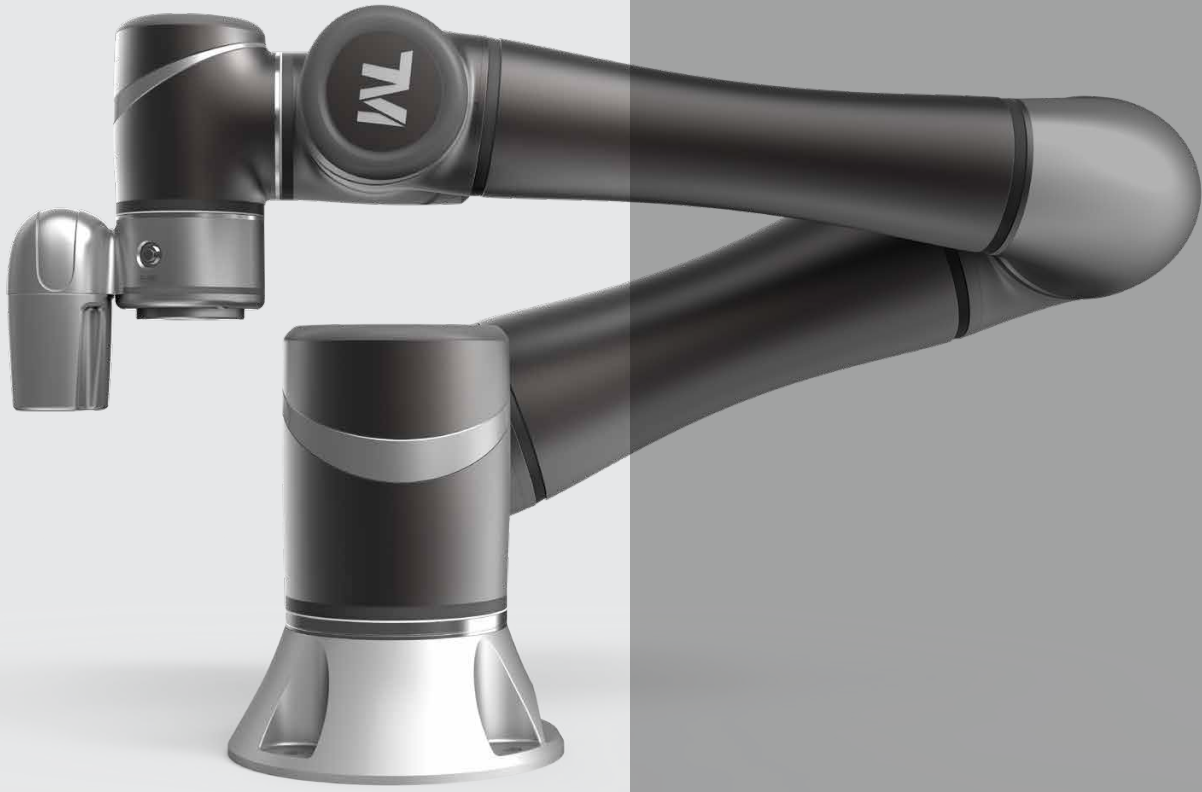


AUSTRALIS
ENGINEERING

Smart thinking
in motion



TM Robot
Collaborative robots



TM TECHMAN ROBOT

Smart, Simple, Safe

Revolutionary User Interface

You can implement your automation task with Techman Robot's revolutionary, intuitive user interface - an all graphic flow-chart based HMI. Each Techman Robot is equipped with well designed, hand-guided functions with servo assist. You can lock selected axes to allow adjustment in defined planes and then fine tune the co-ordinates within the programming package.

Innovative Software - TMflow™

TMflow™ is flow based robot editing software that features intuitive click and drag programming. Even users without robot programming experience can successfully complete a visual pick & place programme in as little as 5 minutes.

Safety is our Priority

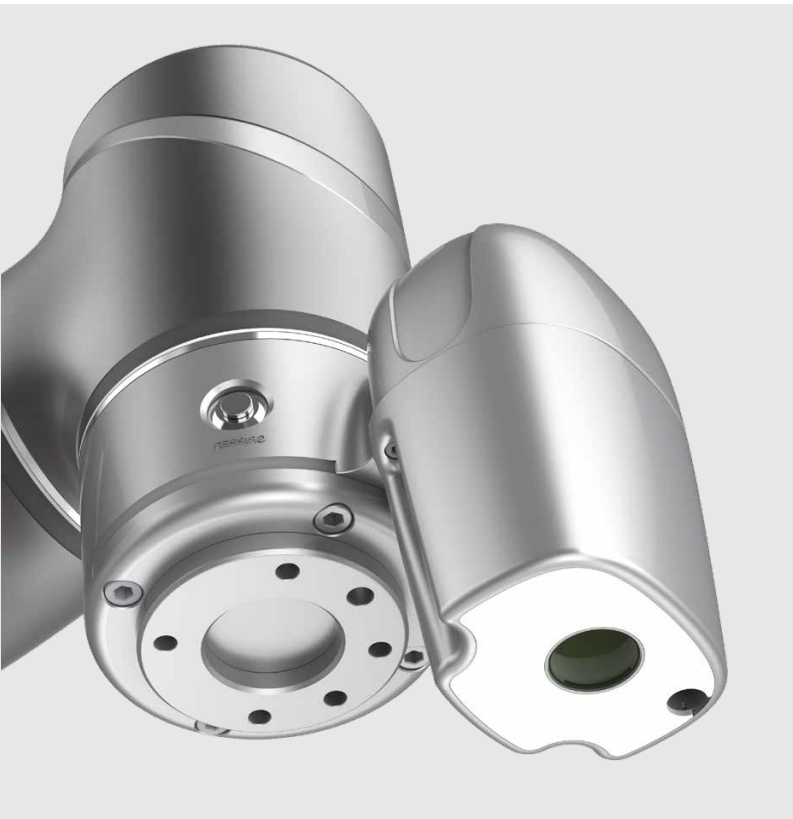
Cobots manufactured by Techman Robot comply with the ISO10218-1 and ISO/TS15066 human-robot co-operation safety requirements for collaborative robots; allowing the robot to be programmed with both speed and force limits. TM Robot can provide a pressure-free and safe environment for human operators to work in. Safety is inherent in the design of the whole robot, its hardware, software and operational design.



Official TM Robot Distributor

Australis Engineering are official Australian distributors and integrators of TM Robots.

Australis are certified to offer Basic and Advanced TM Robot training.



Built-in Vision System

Robot vision or the ability to “see” and interpret visual data into command prompts is one of the features that makes TM Series cobots superior to other robots. TM Vision™ is a built-in vision system that provides easily programmed functions such as item detection, image enhancement and barcode identification.



Shape based pattern matching



Image based pattern matching



Position alignment with 2 points



Irregular item detection (blob finder)



Colour plane extraction



Change line thickness, patch holes etc

Masters in Robot Vision

TM Series cobots have a vision system that is fully integrated with both the hardware and software of the robot. This is not just an after-market add-on.

Many standard robot vision functions are already built into the TM Robot system using the in-built 1.2 / 5 Megapixel camera.



Contrast enhancement



Image smoothing



Image thresholding converts to Black/White



1D / 2D Barcode/ QR Code Identification



Barcode/ QR Code Colour identification



TM5

The first choice for flexible automation applications

TM Robot's TM5 cobot features simple programming, innovative, integrated vision capabilities together with the latest safety functionality, all leading to rapid deployment in a huge variety of applications.

Having the vision identification system completely integrated with the cobot platform provides an easy and intuitive way to achieve robot calibration to a work piece or tooling, product selection, 1D or 2D barcodes and a host of other vision applications delivering a true Industry 4.0 solution.

TM5 is suitable for machine tending, bin picking, small parts assembly and sorting, computing, quality control, retail, electronics, health, pharmaceuticals, and medtech, food and beverage and many other applications.

|| The most intelligent collaborative robot with built-in vision."

Specifications in brief (TM5-700 / TM5-900)

- Reach: TM5-700 - 700mm. TM5-900 - 900mm
- Load capability: TM5-700 - 6kg. TM5-900 - 4kg
- Operational temperature range (arm) 0 to 50°C
- Built-in Robot Vision 1.2M/5M pixels colour camera
- Shape matching, barcode and QR code reading, colour recognition and OCR
- Fits numerous standard grippers and tooling





TM12 and TM14

Versatile payloads with extended reach

TM Robot's TM12 and TM14 offer versatile payload and reach capabilities. The TM12 offers a 12kg payload and a 1300mm reach and the TM14 offers a 14kg payload and 1100mm reach.

The TM12 and TM14 cobots are easy to deploy, highly flexible, virtually maintenance free and offer a high performance automated solution for manufacturing. They are suitable for palletising, logistics, materials handling, machine tending, bin picking, packaging, polishing, sanding and de-burring.

Specifications in brief (TM12 / TM14)

- Reach: TM12 - 1300mm. TM14 - 1100mm
- Load capability: TM12 - 12kg. TM14 - 14kg
- Operational temperature range (arm) 0 to 50°C
- Built-in Robot Vision 1.2M/5M pixels colour camera
- Shape matching, barcode and QR code reading, colour recognition and OCR
- Fits numerous standard grippers and tooling
- TM-M series of also available for integration with AGV's and mobile robots

TM Palletizer

The TM Palletizer is a complete robot solution that is exclusively designed for palletising automation. It includes built in software to allow users to establish their palletising operation quickly.

- Up to 7 cartons per minute
- Adjustable pillar with a maximum reach of 1200mm and a corresponded maximum stack height of 2325mm. (3 pillar strokes with different max. stack height)
- 17 certified PL-d cell level safety functions
- TMstudio Palletizing Wizard – Simple palletising set up with simulation and collision detection

|| Set-up a Visual Pick & Place programme in as little as 5 minutes."

OnRobot End Effectors

Plug & Play Solutions



OnRobot grippers open new possibilities for automating tasks that you never thought possible. Their cutting edge gripping and sensing systems for industrial automation permit truly collaborative applications that enable people to work side-by-side with collaborative robots on assembly, surface finishing, pick and place, palletising, machine tending or testing.



2FG7 - 2 finger gripper



3FG15 - 3 finger gripper



MG10 magnetic gripper



Gecko gripper



RG2 2kg gripper



RG2-FT smart gripper



RG6 6kg gripper



Soft gripper



VGC10 Mini vacuum gripper



VG10 vacuum gripper



VG20 vacuum gripper



2FGP20 palletising gripper



Sander



Screw driver



Dual quick changer



Quick changer



TM5-700



TM5-900

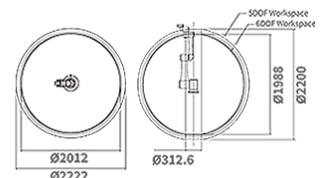
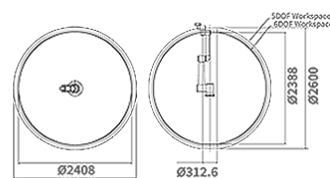
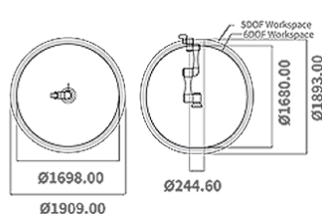
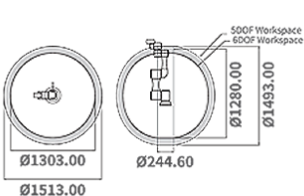


TM12



TM14

Model		TM5-700	TM5-900	TM12	TM14	TM12M	TM14M
Weight		22.1 kg	22.6 kg	33.3kg	32.6kg	33.3kg	32.6kg
Payload		6kg	4kg	12kg	14kg	12kg	14kg
Reach		700mm	900mm	1300mm	1100mm	1300mm	1100mm
Max. Speed		1.1 m/s	1.4 m/s	1.3 m/s	1.1 m/ms	1.3m/s	1.1 m/s
Joint Ranges	J1	+ / - 270°					
	J2, J4, J5	+ / - 180°					
	J3	+ / - 155°	+ / - 166°	+ / - 163°	+ / - 166°	+ / - 163°	
	J6	+ / - 270°					
Speed	J1, J2	180° /s	120° /s				
	J3	180° /s					
	J4, J5	225° /s	180° /s	150° /s	180° /s	150°/s	
	J6	225° /s	180° /s				
Repeatability		+ / - 0.05mm		+ / - 0.1mm			
Degrees of Freedom		6 Rotating Joints					
I/O Ports		Control Box	Tool Conn.	Control Box		Tool conn.	
	Digital In	16	3 or 4*	16		4	
	Digital Out	16	3 or 4*	16		4	
	Analog In	2	1	2		1	
	Analog Out	1	0	1		0	
I/O Power supply		24V 1.5A for control box and 24V 1.5A for tool					
IP Classification		IP54 (arm)		IP54			
Power Consumption		Typical 220 watts		Typical 300 watts			
Max. Power Capacity**		Max. 1300 - 1400 watts		Max. 2200 watts		Max. 1500 watts***	
Temperature		The robot can work in a temperature range of 0 to 50°C					
Power Supply		100-240 VAC, 50-60Hz (Reg.) DC24V / 48V (Mobile Model)		100-240VAC, 50-60 Hz		DC 20V-60V	
I/O Interface		3x COM	1x HDMI	3x LAN	4x USB2.0	2x USB3.0	(1x VGA - TM5*)
Certification		CE (regional model), SEMI S2 (option)					
Variation Models		X: without camera; M: Mobile (DC version - TM5 only); SEMI: SEMI S2 certified					
Robot Vision							
Eye in Hand (Built in)		1.2M / 5M pixels, colour camera					
Eye to Hand (Option)		Support maximum 2 GigE cameras					
* By regional model							
** Max. power capacity is the max. output capacity of the power supply system designed in the control box.							
*** Max. capacity can be increased to 2500 watts with an external 1000 watt power supply							





AUSTRALIS
ENGINEERING

The smart choice

Contact us today to
discuss your next cobot
project

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