

**EPSON**<sup>®</sup>  
EXCEED YOUR VISION

# VT6L ALL-IN-ONE 6-AXIS ROBOT



# The ultra affordable all-in-one solution that's compact and easy to use.



Powerful features at an extraordinary price

**With next-level technology at an incredible price,** the VT6L All-in-One 6-Axis robot is ideal for a wide variety of simple applications. Delivering many of the features found in Epson's high-end robots, including powerful Epson RC+<sup>®</sup> development software and easy integration tools, such as vision guidance, the VT6L offers a reach up to 900 mm and a payload up to 6 kg. A feature-packed performer, it includes a built-in controller, plus simplified cabling with a hollow end-of-arm design in a compact, SlimLine structure — all at a remarkably low cost. The VT6L offers 110 V and 220 V power and installs in minutes. Plus, there's no battery required for the encoder, reducing the overall cost of ownership.

# VT6L ALL-IN-ONE



## Compact, All-in-One Solution

With a built-in controller, this space-saving All-in-One has everything you need — and installs in minutes. Emergency Stop, I/O, USB, Ethernet and Teach Pendant are all available from the easy-access back panel.

## Feature-packed at an amazing price

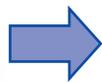
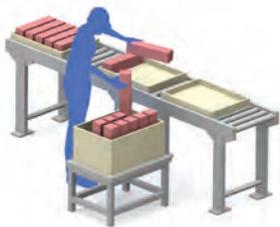
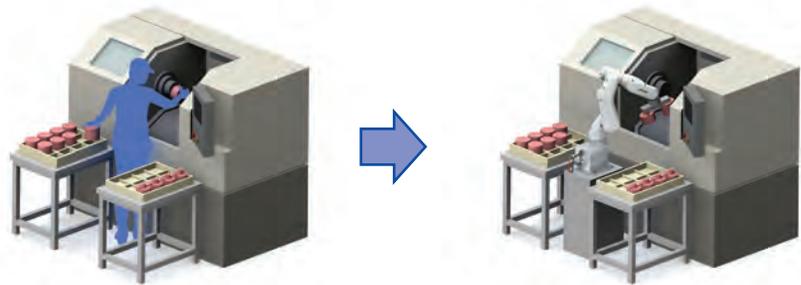
- **Full featured; ultra low cost** — the same powerful features found in Epson's high-end robots, at an incredibly affordable price; with a reach up to 900 mm and payload up to 6 kg
- **Easy to use** — intuitive and feature-packed Epson RC+ development software makes it easy to create powerful solutions
- **All-in-One solution** — includes built-in controller
- **SlimLine design** — compact wrist pitch enables access to hard-to-reach areas in confined spaces
- **Comes standard with 110 V and 220 V power** — low wattage and power consumption
- **Fast, easy integration** — installs in minutes; requires less time and money for system integration
- **Integrated vision guidance option** — designed specifically for robot guidance; makes it easy to automate simple applications when vision is required
- **Simplified cabling** — hollow end-of-arm design makes end-of-arm tooling easier than ever
- **No battery required for encoder** — minimizes downtime and reduces overall cost of ownership
- **Application versatility** — ideal for machine-tool and injection-molding load/unload, pick-and-place, dispensing and simple assembly projects

# All you need for your next automation application

With a 900 mm reach and 6 kg payload, the VT6L is built to handle a wide variety of applications.

**Whether it's loading and unloading, packaging or parts assembly,** this full-featured performer offers the perfect solution for most simple automation applications. Its SlimLine design provides the ideal fit for factories with limited floor space, while its compact wrist enables easy access to hard-to-reach areas. In addition, its powerful tools and software allow you to create a customized system to meet the requirements for your next application.

## MACHINE LOAD/UNLOAD



## PACKAGING

## ASSEMBLY





## Automation Applications

The VT6L All-in-One 6-Axis robot is extremely versatile, providing a wide range of automation possibilities:

- Assembly
- Pick and place
- Material handling
- Packaging
- Kitting/Tray loading
- Machine tending
- Screw driving
- Dispensing
- Palletizing
- Lab analysis and testing
- Inspection and test
- Finishing
- Grinding/Polishing

# Intuitive and feature-packed Epson® RC+ development software

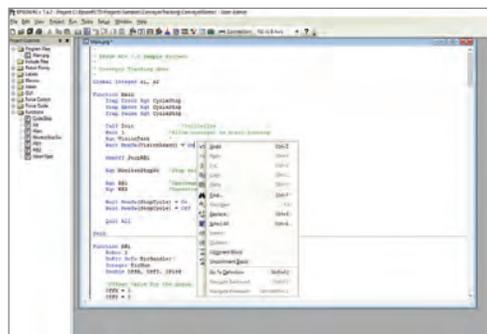
## Smart, intuitive software for Epson robots

Epson RC+ software offers the ultimate selection of powerful, ease-of-use features, reducing the development time for automated robot solutions. This advanced software gives users the tools they need to quickly build robot automation systems. Intuitive by design, Epson RC+ software was engineered to simplify even the most complex of applications.

- ▶ **Editor** — auto-assist editing makes programming easier than ever
- ▶ **Integrated debugger** — easily identify issues in record time
- ▶ **Simulator** — fine-tune your application with 3D visual feedback before building your machine
- ▶ **Integrated environment** — one environment for both your robot and a variety of complementary solutions, including Vision Guide, IntelliFlex Feeding System and more

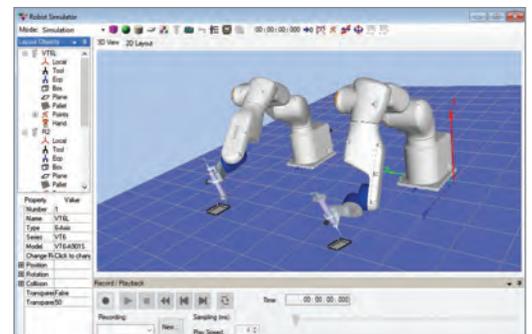
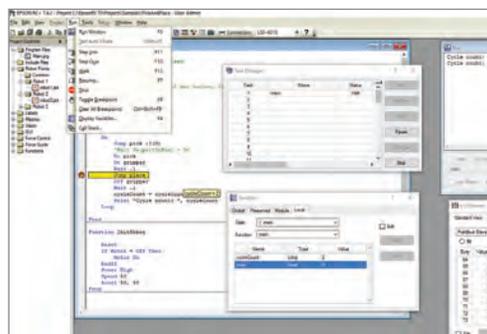
### EDITOR

Speed up program editing time with auto-indent, syntax assist, color-based keywords and comments.



### INTEGRATED DEBUGGER

Powerful debugging features including the ability to set break points, single-step programs, view variable settings and much more.



### SIMULATOR

Real-time 3D simulation of robot workcell allows you to program your application and see it in action before building your machine.

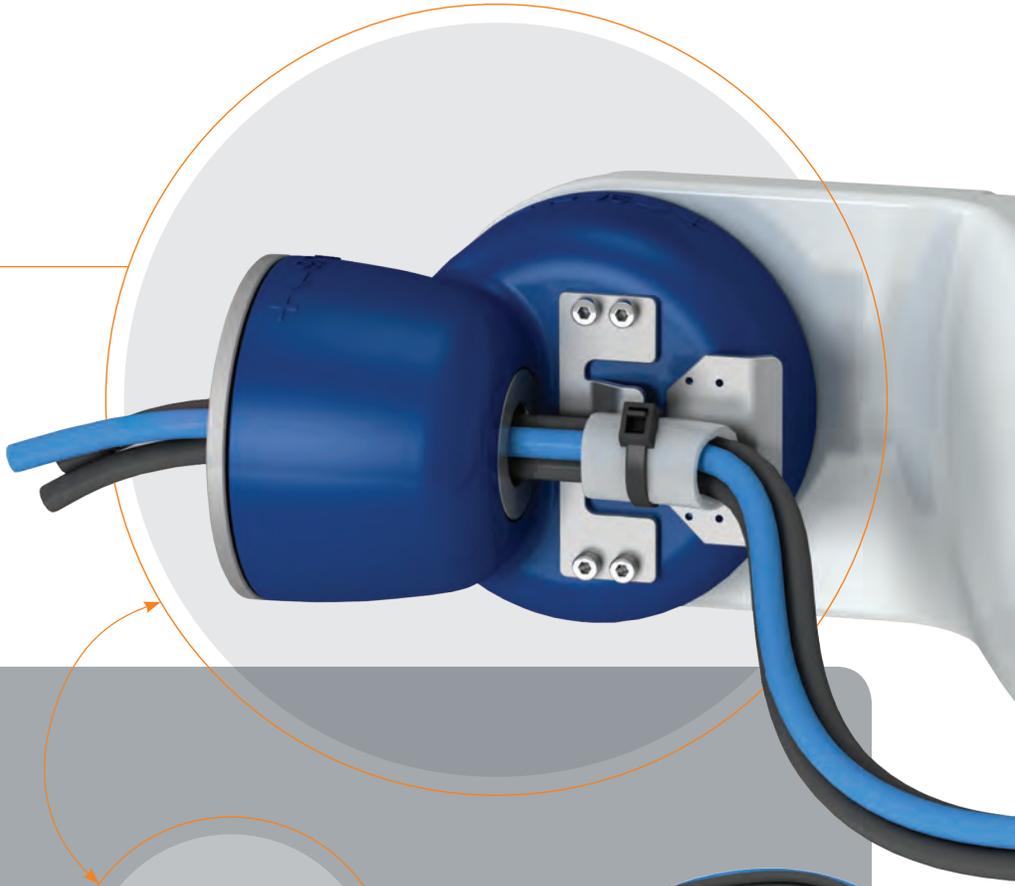
# Efficient hardware design

As with all Epson 6-Axis robots, the VT6L features a SlimLine design, compact wrist and large working range. Motors, amplifiers and other internal components were made by Epson to maximize performance.

*Easy, end-of-arm connection for electrical and pneumatic lines.*

## Simplified end-of-arm cabling

Hollow end-of-arm design makes end-of-arm tooling easier than ever. This unique structure reduces the typical long end-of-arm cable loop required to eliminate pinching and pulling on the tooling.



## Options and Accessories

### Integrated Vision Guidance

- **Highly regarded in the industry** as simple to use with a wide variety of powerful tools, Epson Vision Systems have provided integrated robot guidance for over 20 years. Our Vision Guide software features high-performance tools in an intuitive point-and-click environment.



VT6L shown with mobile mounted camera for use with Epson Vision Guide

### Fieldbus Interface Options

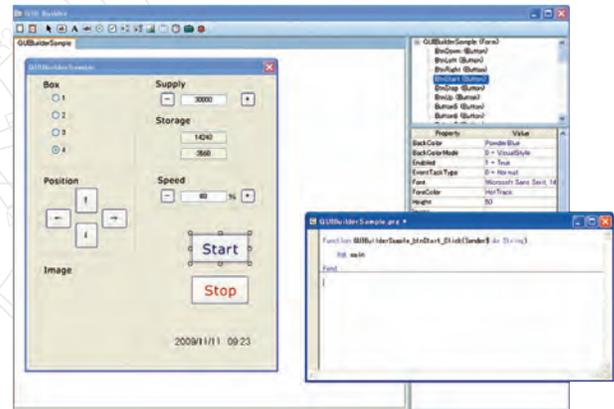
- **Fieldbus I/O interfaces** are used in factories worldwide to reduce cabling costs and setup time, and promote standard device usage. However, there is not one accepted Fieldbus I/O standard. That's why we offer a wide variety of options including:
  - Ethernet/IP
  - DeviceNet
  - EtherCAT
  - PROFINET
  - PROFIBUS
  - CC-Link

### GUI Builder

- **Epson's GUI Builder provides** the tools necessary to create graphical user interfaces from within the Epson RC+ Development Environment. With the built-in GUI Builder toolset, users can work from one development environment, which helps reduce overall development time.
  - Create GUI's without Visual Studio or other third-party software tools
  - Create and debug GUI forms from your Epson RC+ Project
  - Form and control events are executed as SPEL+® tasks

- **SPECIALLY PRICED** VT6L All-in-One + vision guidance bundle available with PV1 Vision Guide.

See your local distributor for more information.



## SPECIFICATIONS

**Mounting Type**<sup>1</sup> Tabletop/Ceiling/Wall Mount

**Arm Length** 920 mm

### Payload

Rated 3 kg

Max. 6 kg

### Repeatability

Joint #1 - 6 ±0.1 mm

**Standard Cycle Time**<sup>2</sup> 0.60 sec

### Max. Reach

P Point: Joints #1-5 Center 920 mm

P Point: Joints #1-6 Flange Surface 1,000 mm

### Max. Motion Range

Joint #1 ±170°

Joint #2 -160° ~ +65° (225°)

Joint #3 - 51° ~ +190° (241°)

Joint #4 ±200°

Joint #5 ±125°

Joint #6 ±360°

### Allowable Moment of Inertia

Joint #4 0.3 kg·m<sup>2</sup>

Joint #5 0.3 kg·m<sup>2</sup>

Joint #6 0.1 kg·m<sup>2</sup>

**Brakes** All axes

**Standard I/O** In 24/Out 16

**Remote I/O** In 8/Out 8

(Remote function assigned to standard I/O)

## OTHER

**Power** AC 100 - 240 V single phase

**Power Consumption** 1.2 kVa

**Power Cable Length** 5 m

**Weight (cables not included)** 40 kg: 88.2 lb

**Controller** Built-in controller

**Installation Environment** Standard

### Safety Standard

CE Mark, EMC Directive, Machinery Directive

ANSI/RIA R15.06-2012, NFPA 79 (2007 Edition)

## WHAT'S IN THE BOX

VT6L All-in-One 6-Axis Robot

Robot power cable

Epson RC+ software

USB cable

E-Stop unit with cable

VT6L Robot System Safety & Installation Manual

Connector set (I/O, hand I/O and safety circuit

connectors)

## SUPPORT

**Customer Service** (562) 290-5920,

service@robots.epson.com

**Applications Support** (562) 290-5930,

applications@robots.epson.com

**Sales Inquiries** (562) 290-5997,

info@robots.epson.com

## ORDERING INFORMATION

### Product Name

VT6L

### Product Code

VT6L-A901SS

### Options

Vision Guide CV2

Available

Vision Guide PV1

Available

VT6L External Cable Mounting Plates

R12NZ900ZW

VT6L Camera Mounting Bracket

R12NZ900ZZ

OCR (for use with Vision Guide)

R12NZ920H3

Epson RC+ 7.0 API

R12NZ920AE

GUI Builder 7.0

R12NZ900AH

External Control Point (ECP) Option

R12NZ900AF

TP3 – Teach Pendant

R12NZ900N3

TP2 – Teach Pendant

R12NZ900L9

Ethernet/IP Fieldbus I/O (Slave)

R12NZ900TH

Ethernet/IP Fieldbus I/O (Master)

R12NZ900NZ

DeviceNet Fieldbus I/O (Slave)

R12NZ900TE

DeviceNet Fieldbus I/O (Master)

R12NZ900NX

PROFINET Fieldbus I/O (Slave)

R12NZ900TG

PROFIBUS Fieldbus I/O (Slave)

R12NZ900TF

PROFIBUS Fieldbus I/O (Master)

R12NZ900NY

EtherCAT Fieldbus I/O (Slave)

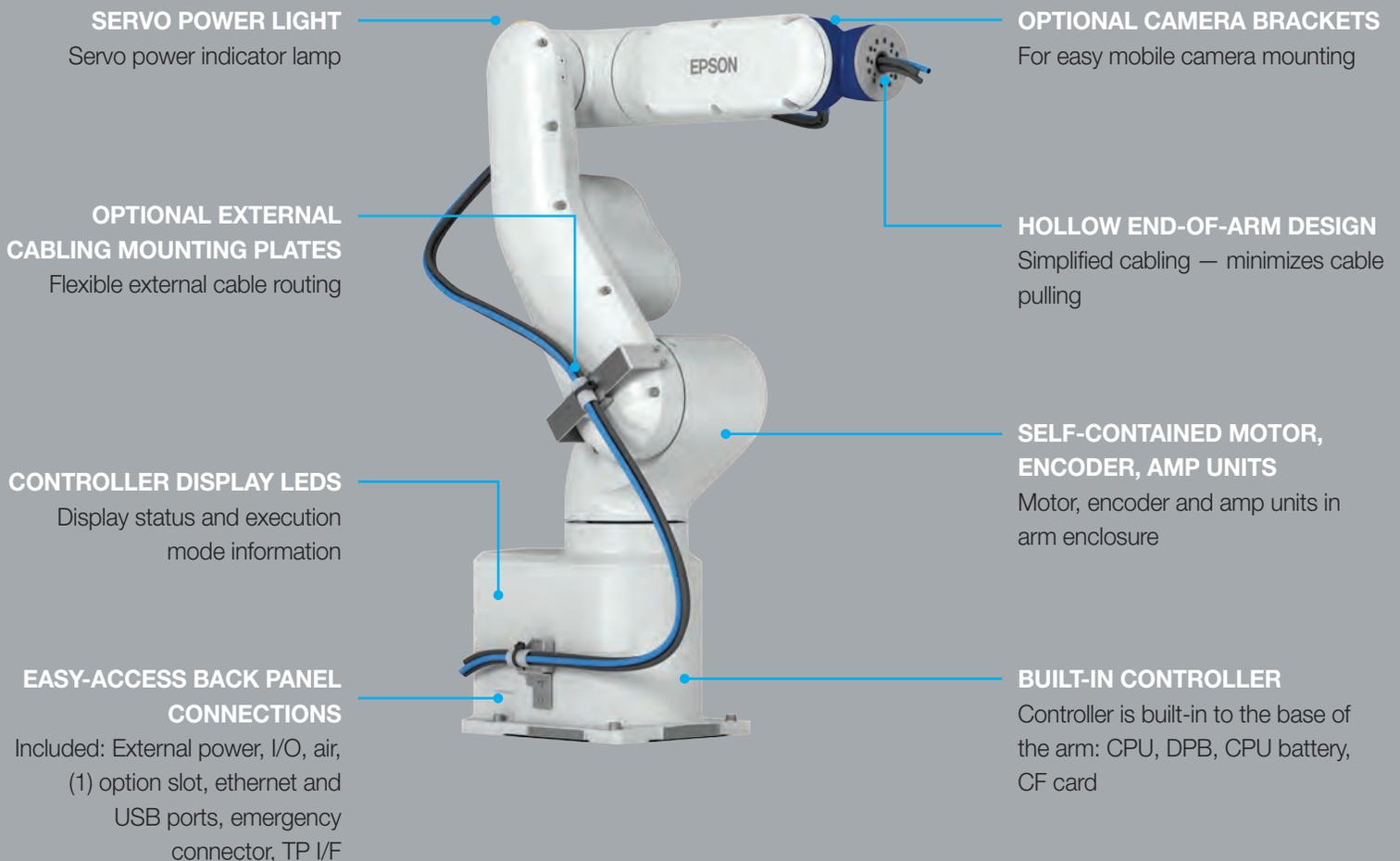
R12NZ900TX

CC-Link Fieldbus I/O (Slave)

R12NZ900TD

1 Default software setting is "tabletop." To use the VT6L in a wall or ceiling mount configuration requires changing the model setting in Epson RC+.

2 Cycle time based on roundtrip arch motion (300 mm horizontal, 25 mm vertical) with 2 kg payload (path coordinates optimized for maximum speed).



# SCARA

G6-55+S



## The Epson Advantage

### Leading Epson Technology

- Epson is the #1 SCARA robot manufacturer in the world
- We introduced the world's first folding-arm 6-Axis robot
- Epson's proprietary QMEMS Technology with special gyro sensors significantly reduces residual vibration, resulting in faster cycle times

### What you need, when you need it

- The Epson lineup features 6-Axis and SCARA robots with payloads up to 20 kg and a reach ranging from 175 to 1,480 mm
- We offer a wide range of integrated options including Vision Guidance, Force Guidance and more

# 6-AXIS



**Why Choose Epson Robots:** As precision automation specialists, the Epson Robots team has been building automation products for over 35 years. As a leader in small-parts assembly applications, we've introduced many firsts. As a result, our innovative products are hard at work in thousands of manufacturing facilities throughout the world.

## Intuitive programming software

- Epson RC+ software is extremely user-friendly, making automation setup fast and easy

## Reliability you can count on

- Our team is dedicated to helping you find the best solution for your automation needs
- Epson robots are long-lasting and require little maintenance



## Epson Business Solutions

Epson is a leading provider of innovative technology solutions that help businesses succeed.

We partner with you to best meet your specific needs, focusing on:

- Improved productivity
- World-class customer service and support
- Cost-effective, high-quality solutions
- A commitment to the environment

Discover how Epson can help you work toward the future. [www.epson.com/forbusiness](http://www.epson.com/forbusiness)

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