



Barrett Technology® Inc.

<http://www.barrett.com/robot>

DATA SHEET



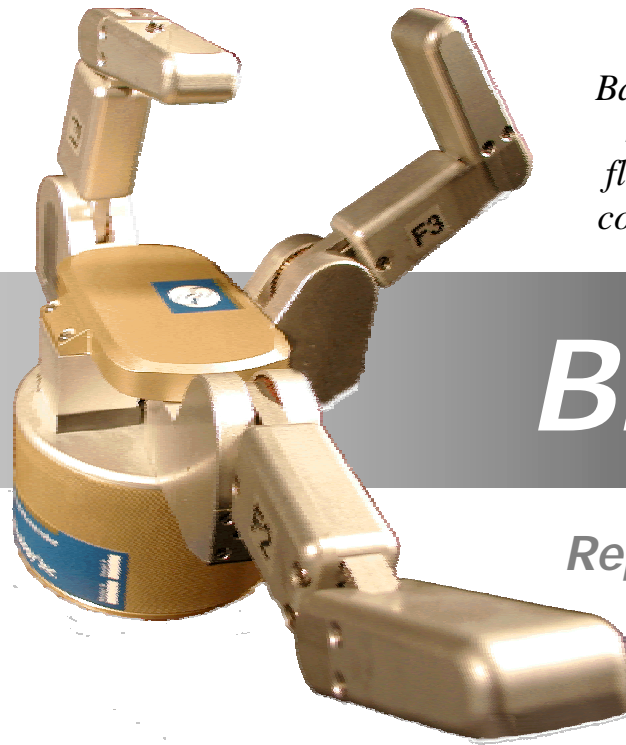
HAND TOOL AUTOMATION



MATERIAL HANDLING



PACKAGING/PALLETIZING



Barrett's versatile BH8-Series robotic hands give you the flexibility you need to reduce costs and increase production

BH8-262

Repeatability: 25 μ m
Weight: 1 kg
Payload: 6 kg

ADDITIONAL APPLICATIONS

- Component assembly
- Food handling
- Assembly line part orientation
- Quality control measurements for continuous process control
- Realtime environment interaction
- Handling castings
- Fiber bundles
- Glass and ceramics
- Meats and other foods
- Remote manipulation
- Biohazard material handling
- Nuclear waste

Big Functionality, Compact Form

The BH8-series BarrettHand is a multi-fingered programmable grasper with the dexterity to secure target objects of different sizes, shapes, and orientations. Even with its low weight (1.18kg) and compact form, it is totally self-contained.

Communicating by industry-standard serial communications, integration with any arm is fast and simple. The BH8-series immediately multiplies the value of any arm requiring flexible automation.

The BarrettHand BH8-series neatly houses a CPU, software, communications electronics, servo-controllers, and all 4 brushless motors. Of its three multi-jointed fingers, two have an extra degree of freedom with 180 degrees of lateral mobility supporting a large variety of grasp types.

Combined with its versatile software routines, a single BarrettHand BH8-series matches the functionality of an endless set of custom grippers -- yet switches part/tool shapes electronically within 0.5 seconds.

Similar in function to a Swiss Army knife, the BarrettHand integrates with your application by consolidating many custom gripper tools into a single smart grasper.

Simple Control

Barrett Technology's BHControl User Interface, C-Function Library, and firmware provide comprehensive ways of controlling the BH8-series Grasper.

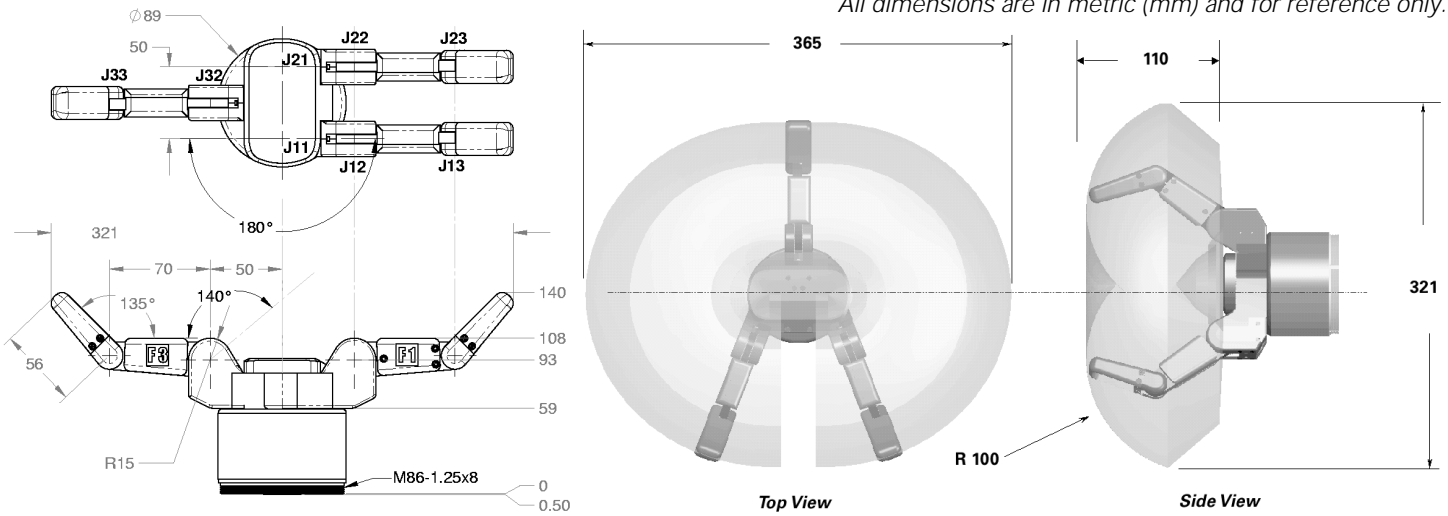
The BHControl Interface is a Windows 95/98/NT application providing an easy-to-use graphical user interface (GUI) for control of the BarrettHand. It was developed using Barrett's C-Function Library Version 4.0 for easy communication with the hand.

The BHControl Interface exposes all of the functionality provided by the C-Function Library, firmware, and BarrettHand in a graphical environment, without writing any code.

The BHControl User-Interface and firmware are included with every BarrettHand BH8-series purchase. The C-Function Library is available as an option.



All dimensions are in metric (mm) and for reference only.



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BH8-262 SPECIFICATIONS

Payload		6.0 kg
Weight		1.2 kg
Repeatability		25 µm
Motor Type		Brushless Electric
Power Requirements		Single phase 110/220 VAC (±15%)
Communication		RS-232C
Finger Speed	Finger full open to close	1.0 sec
	Full 180 degree spread	0.5 sec
Power Supply	Dimensions (mm) H x W x D	298 x 149 x 42
	Weight	1.224 kg
Kinematics	Total fingers	3
	Fingers which spread	2
	Total hand axes	8
	Total hand motors	4
Range of motion	Finger base joint	140°
	Fingertip joint	45°
	Finger Spread	180°

FEATURES & BENEFITS

Lightweight	Maximizes host arm's payload capacity Reduces accelerated inertia Enhances Safety
Compact fist	Reaches tight spots
Self-contained	Minimizes space, wires, and signal noise
All electric	Clean and quiet, no pneumatics or hydraulics No pumps, no hoses, no seals, no filters, no leaks
Human-scale	Immediately adaptable to hand-held tools Intuitive application development
Failsafe, non-backdrivable fingers	Object remains secure without power Payload capacity not limited by active force
Brushless DC motors	Samarium-Cobalt provides high torque, low mass Explosion proof (no brushes, no sparks) No brush replacements or brush debris Vacuum compatibility
Patented clutch mechanism and spreading fingers	Grasps a wide variety of objects Eliminates tool changer's cost and and wait time
Supervisory control	Easily issue high-level commands
RealTime control	Enables user to close control loops externally
RS-232C communications	Controllable from any host PC, even a PalmPilot Easy integration with PLCs