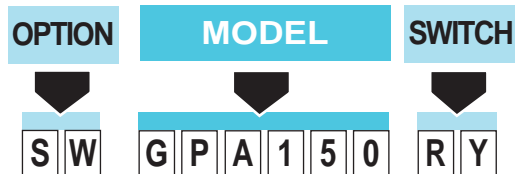


# GP/RA/RG FIELD RETROFIT

To order field retrofit switch and hardware kits for all Tol-O-Matic actuators:  
SW (Then the model and bore size, and type of switch needed)

Example: SWGPA150RY  
(Hardware and Form A Reed switch with 5 meter lead for 1.5" bore Angular Gripper)

See tables below for purchasing switch hardware and shock absorber option.  
(NOTE: Mounting hardware is required if replacing switch for any actuator manufactured before 7/1/97.)



**NOTE:** If replacing a Quick-Disconnect switch manufactured before 7-1-97 it will also be necessary to replace or rewire the female-end coupler with the in-line splice. (Refer to page 215).

## RACK & PINION ROTARY ACTUATOR SWITCHES

KIT (HARDWARE & SWITCH)	DESCRIPTION	SWITCH ONLY (NO HARDWARE)
KT	Hall-effect (Sinking) Switch with 5 meter lead	3600-9094
KM	Hall-effect (Sinking) Switch with Quick-disconnect Coupler (Male)	3600-9095
TT	Hall-effect (Sourcing) Switch with 5 meter lead	3600-9092
TM	Hall-effect (Sourcing) Switch with Q-D Coupler (Male)	3600-9093
	Connector (Female) 5 meter lead	2503-1025

## RACK & PINION ROTARY ACTUATOR OPTIONS

ITEM	ASSEMBLY NUMBERS FOR MODELS		
	RA075	RA100	RA125
Switch Hardware Only (RotoGripper Also)	2506-9999	2506-9999	2506-9999
Shock Absorber <sup>1</sup>	1812-1028	1816-1028	1816-1028

<sup>1</sup> One shock absorber only.

## GRIPPER SWITCHES

KIT (HARDWARE & SWITCH)	DESCRIPTION	SWITCH ONLY (NO HARDWARE)	
		BORE SIZE - 3/8", 5/8", 1"	1-1/2", 2", 3"
BY	Form C Reed Switch with 5 meter lead	—	3600-9084
BX	Form C Reed Switch with Quick-disconnect Coupler (Male)	—	3600-9085
RY	Form A Reed Switch with 5 meter lead	—	3600-9082
RX	Form A Reed Switch with Quick-disconnect Coupler (Male)	—	3600-9083
CY	ac Triac Reed Switch with 5 meter lead	—	3600-9086
CX	ac Triac Reed Switch with Quick-disconnect Coupler (Male)	—	3600-9087
KY	Hall-effect (Sinking) Switch with 5 meter lead	3600-9094	3600-9090
KX	Hall-effect (Sinking) Switch with Quick-disconnect Coupler (Male)	3600-9095	3600-9091
TY	Hall-effect (Sourcing) Switch with 5 meter lead	3600-9092	3600-9088
TX	Hall-effect (Sourcing) Switch with Q-D Coupler (Male)	3600-9093	3600-9089
	Connector (Female) 5 meter lead	2503-1025	2503-1025

## GRIPPER OPTIONS

ITEM	ASSEMBLY NUMBERS FOR MODELS					
	GPA/GPP038	GPA/GPP063	GPA/GPP100	GPA/GPP150	GPA/GPP200	GPA/GPP300
Switch Hardware Only	1903-9999	1906-9999	2506-9999	2506-9999	2506-9999	2506-9999

# PERFORMANCE TESTED

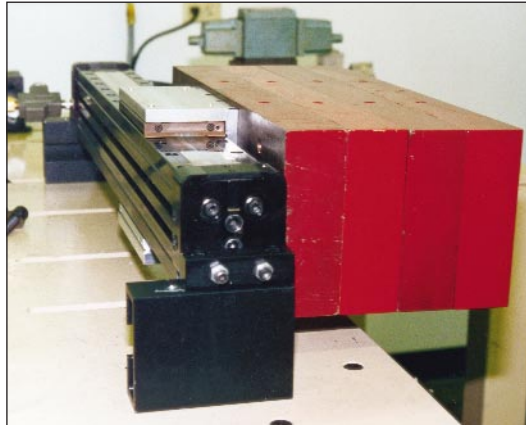
Every Tol-O-Matic product is laboratory tested to meet the highest performance standards possible.

At Tol-O-Matic, we want to ensure that the products you buy from us exceed your expectations. That is why we put every new product we manufacture through months of rigorous testing programs before it can wear the Tol-O-Matic name.

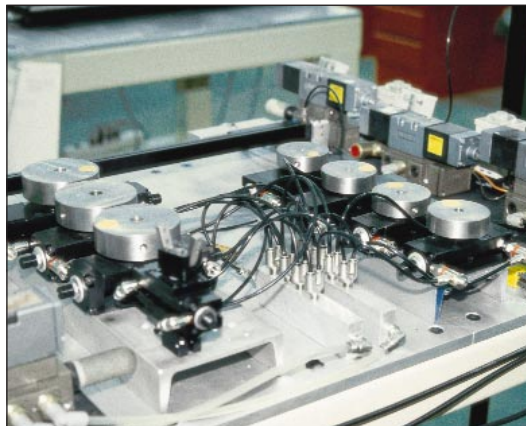
Every Tol-O-Matic product must first exceed our performance expectations in every test. From prototype to finished product, cycle after cycle, units are checked and rechecked for wear and fatigue.

The same rigorous testing standards were applied to the BC4 Series Band Cylinder. Through the use of finite element testing, deflection and stress tests were run to determine if any weak points were present in the design. When subjected to continuous loads and moments, fatigue life tests of the bearing system were also run, as well as tests to determine the proper bearing preload and lubrication. Once positive results from the finite testing were determined, the cylinders were cycled over and over again for *millions* of linear feet, checking parts for durability every step of the way.

Tol-O-Matic stands behind every product we sell. When sized and selected properly, we know our products will stand the test of time.



This BC3 Series Band Cylinder with a 240 lb. side load resulting in a substantial MS moment, has cycled over 2,000,000 linear feet without fail. The 18-inch stroke cylinder moving its 240 lb. load six inches per second will continue to cycle for millions more linear feet before meeting Tol-O-Matic's performance expectations.



These Tol-O-Matic rack and pinion rotary actuators have run over 10,000,000 cycles carrying over the maximum rated loads for their bore size without fail.



Here, angular grippers in various bore sizes are being run for endurance tests simulating gripping in both directions. One test included running them with increased air flow, maximizing stress on the jaw mechanism. Tests also included determining the actual grip force capacity of each gripper. After endless tests and 10,000,000 cycles, they are still going strong.