

# TALON® IV FAIL-SAFE

## TAL-IV SERIES

### GLASS MASK EDGE GRIPPING SMART END-EFFECTORS

#### FEATURES

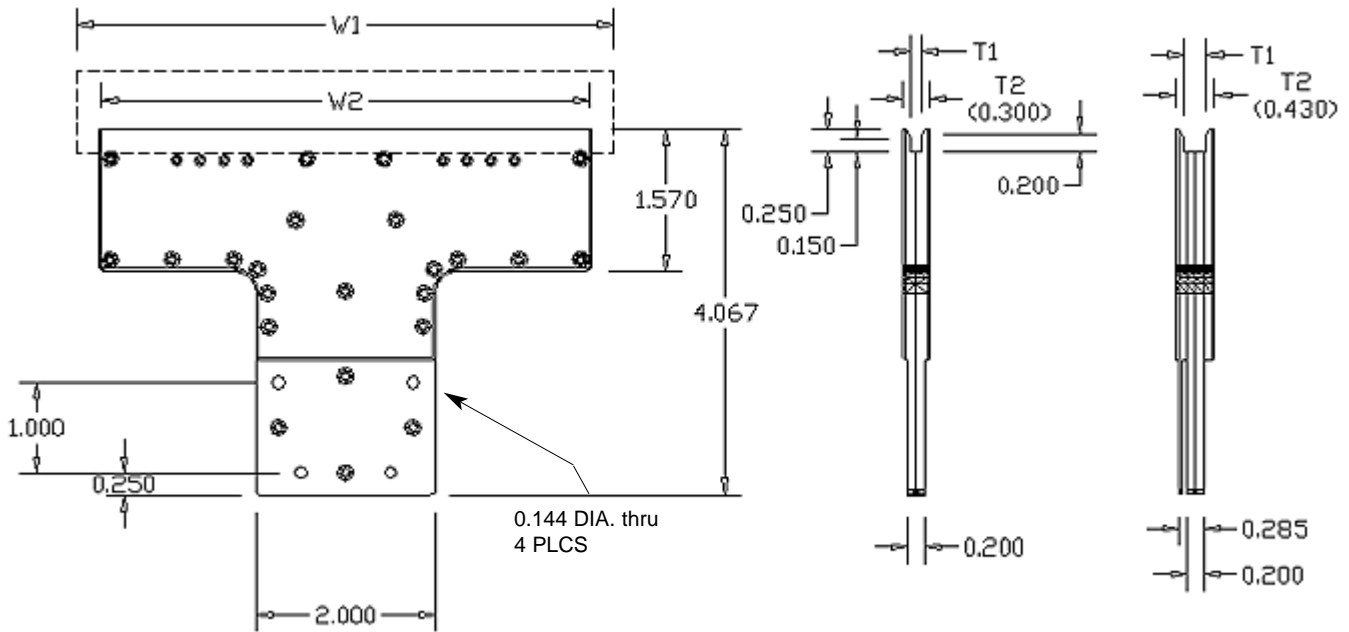
- Handles all standard masks
- 100% fail safe
- Operates in vacuum and atmosphere
- No front or backside contamination
- Optical substrate sensing
- Compatible with any holder
- Adaptable to any robot
- Available for custom sizes
- Light weight construction
- High Speed operation
- High holding forces
- Patents pending

The Talon® IV series of pressure driven, edge gripping end-effectors are designed for rectangular substrate handling such as glass masks and ceramic substrates. The Talon IV is designed with a grip reach of .200 inches (2.5 mm) from the substrate edge. The Talon® IV is a fail-safe device which means it will not release the product being held should a system failure occur. Failures dealt with include electrical power interruption as well as pressure interruption; these can be caused by any form of occurrence including a severed pressure line. The Talon® IV can be produced in any configuration to accommodate product of varying sizes beyond the standards currently produced.

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*"Giving Robotics A Hand"*



**PART NUMBER FORMAT: TAL - IV - W<sub>1</sub> - T<sub>1</sub> - OPTIONS**  
**EXAMPLE: TAL - IV - 6 - .090 - PS**

VERSIONS:

ALL DIMENSIONS IN INCHES			
SUBSTRATE	TALON IV	SUBSTRATE	TALON IV
W <sub>1</sub>	W <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>
4.0	3.5	.060	.300
4.0	3.5	.090	.300
4.0	3.5	.120	.300
5.0	4.5	.060	.300
5.0	4.5	.090	.300
5.0	4.5	.120	.300
6.0	5.5	.060	.300
6.0	5.5	.090	.300
6.0	5.5	.120	.300
6.0	5.5	.250*	.430

ALL DIMENSIONS IN INCHES			
SUBSTRATE	TALON IV	SUBSTRATE	TALON IV
W <sub>1</sub>	W <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>
7.0	6.5	.060	.300
7.0	6.5	.090	.300
7.0	6.5	.120	.300
7.0	6.5	.250	.430
9.0	8.5	.060	.300
9.0	8.5	.090	.300
9.0	8.5	.120	.300
9.0	8.5	.250	.430
13.0	12.5	.060	.300
13.0	12.5	.090	.300
13.0	12.5	.120	.300
13.0	12.5	.250*	.430

\*Light weight or hollow frame only.

OPTIONS: ES — The ES option designation signifies an Electro-Static-Discharge (ESD) System which is built into the Talon end-effector; This system permits the slow discharge of static electricity by contacting the substrate's edge and routing the charge through a dissipation resistor to ground.

PS — The PS option designation signifies a Photon Sense System which is built into the Talon end-effector. This system permits the visual interrogation of the substrate storage or holding device for presence and location detection. The sensor is located on the Talon's clamping center-line and can also be used for positioning purposes.