

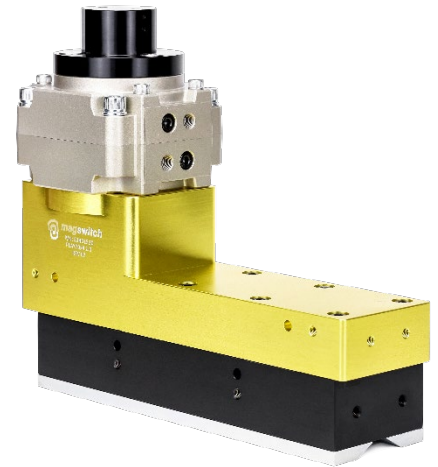
# PLAY70X4 2.0 SH | P/N: 81401736

## Summary

The Magswitch 2.0 LAY-series of magnetic grippers for robotic automation utilize magnets arranged in a linear array to extend the depth and footprint of the magnetic field. The PLAY 70x4 2.0 SH magnets have the added capability of handling high temperature parts. The larger footprint of the array magnets provide stability for large end effectors and workpieces. With the ability to add custom pole shoes, the LAY magnets can be used with many different part profiles. The PLAY 70x4 2.0 SH tools are strong, robust and a perfect material handling solution for pipe, tubes, plate steel and angle iron.

## Specifications

<b>Maximum Breakaway Force</b> <sup>1,2,4</sup>	17366	N		
<b>Maximum Shear</b> <sup>1,2,4</sup>	4218	N		
<b>Minimum Thickness for De-Stack</b> <sup>3</sup>	0.500	in	12.7	mm
<b>Overall Height (Max)</b>	11.8	in	300.5	mm
<b>Overall Length</b>	14.4	in	366.0	mm
<b>Overall Width</b>	4.9	in	125.0	mm
<b>Net Weight</b>	56.22	lbs	25.5	kg
<b>Air Port Threads</b>	Rc 1/4			
<b>Maximum Application Temperature</b>	302	F	150	C
<b>Magnetic Pole Footprint</b>	3.8x13.2	in	97.6x336	mm
<b>Max Allowable Pressure</b>	145	psi	1.00	MPa



Material Thickness - mm (in)	1.5 (0.059)	1.9 (0.075)	2.7 (0.106)	3 (0.118)	3.5 (0.138)	4.76 (0.187)	6.35 (0.250)	9.53 (0.375)	12.7 (0.500)	19.05 (0.750)	50 (1.969)
Maximum Force <sup>5</sup> (N)	1622	1915	3302	3505	4295	7190	8808	14501	15438	16944	17366
Required Air Pressure - bar (psi)	4.5 (65)	4.1 (60)	3.9 (56)	3.6 (52)	3.1 (45)	2.8 (40)	2.6 (38)	2.4 (35)	2.2 (32)	2.2 (32)	2.2 (32)

<sup>1</sup> Determined in laboratory environment on 2" thick SAE1018 Steel with surface roughness 63 micro inches. Many factors contribute to the actual breakaway force and safe working load in each application. Consult a Magswitch Applications Engineer and test the Magswitch in each application before deployment.

<sup>2</sup> All data applies to standard tool.

<sup>3</sup> Determined with SAE1018 Steel L=200mm W=200mm.

<sup>4</sup> Values may vary by +/- 5%.

<sup>5</sup> Maximum forces listed above are not safe lifting forces. Designer must take into account safety factor when specifying tool. Magswitch recommends SWL = 5:1 for most applications.

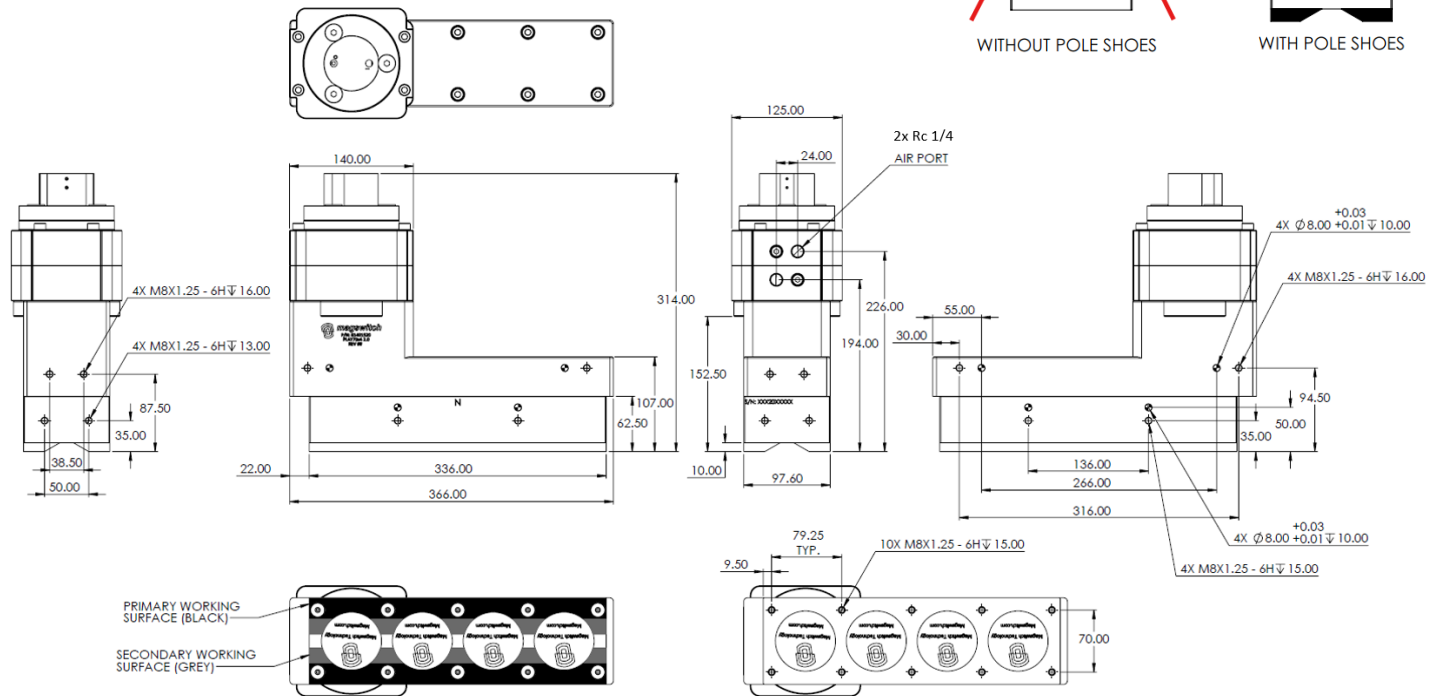
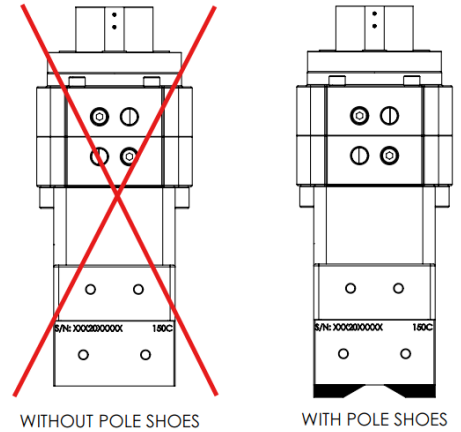
$$SWL \text{ (Safe Working Load)} = \frac{\text{Maximum Force}^5}{\text{Safety Factor} (\geq 5)}$$

**Pole shoes required for operation and included in package**

Standard kits available:

PSK, PLAY70X4 2.0, STANDARD, HIGH HEAT, NICKEL (included)	88002154
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**WARNING!**  
Do Not Operate Unless In Contact With Ferrous Target





MAGSWITCH PLAY70X4 2.0 SH

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### Center of Mass

