

PLAY 20X4 NAAMS SH | P/N 81401725

The Magswitch PLAY 20x4 SH magnetic gripper utilizes magnets arranged in a linear array to extend the footprint of the magnetic field. The SH version also adds the capability of handling high temperature parts. Custom pole shoes can be added to the PLAY 20x4 SH magnetic gripper to increase holding force on parts that are not flat. The extended footprint provides stability when handling long parts. The compact size of the PLAY 20x4 SH makes it a great choice for handling high temperature parts on a robot or in a welding fixture

WARNING!
Do Not Operate Unless In Contact With Ferrous Target

Specifications

Nominal Maximum Breakaway Force ^{1,2}	183.9 lb	83.43 kg
Nominal Maximum Shear Force ^{1,2}	55.84 lb	25.33 kg
Thickness for De-Stack ³	0.375 in	9.5 mm
Minimum Actuation Pressure	30 psi	2.07 Bar
Maximum Actuation Pressure	145 psi	10.00 Bar
Off-Target Actuation Pressure	56 psi	3.86 Bar
Actuator Volume	0.92 in ^ 3	15 cm ^ 3
Air Port Threads	2x M5x0.8	
Net Weight	2.62 lb	1.19 kg
Maximum Application Temperature	302 F	150 C
Individual Magnetic Pole Footprint	3.8"x1.2"	96.2mmx31.12mm
Mounting Options	2x Side: Ø6-M8-Ø6 1x Back: Ø6-M8-Ø6 1x Front: M6-M6	



Material Thickness - mm (in)	0.4 (0.016)	0.6 (0.024)	1 (0.039)	1.5 (0.059)	1.9 (0.075)	2.7 (0.106)	3.5 (0.138)	4.76 (0.187)
Maximum Force ^{1,2} - kg (lbs)	6.00 (13.2)	8.90 (19.6)	17.83 (39.3)	26.57 (58.6)	43.03 (94.9)	57.37 (126.5)	77.40 (170.6)	83.43 (183.9)

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

¹ Determined in laboratory environment on 2" thick SAE1018 Steel with surface roughness 63 micro inches with optimized pole shoes. 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.

² All data applies to unit with flat pole shoes (8800172) installed.

³ Tested and Determined with Two SAE1018 Steel Sheets L=200mm W=200mm Thickness=4mm.

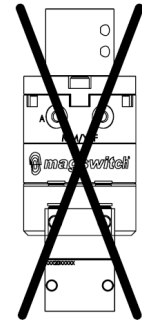
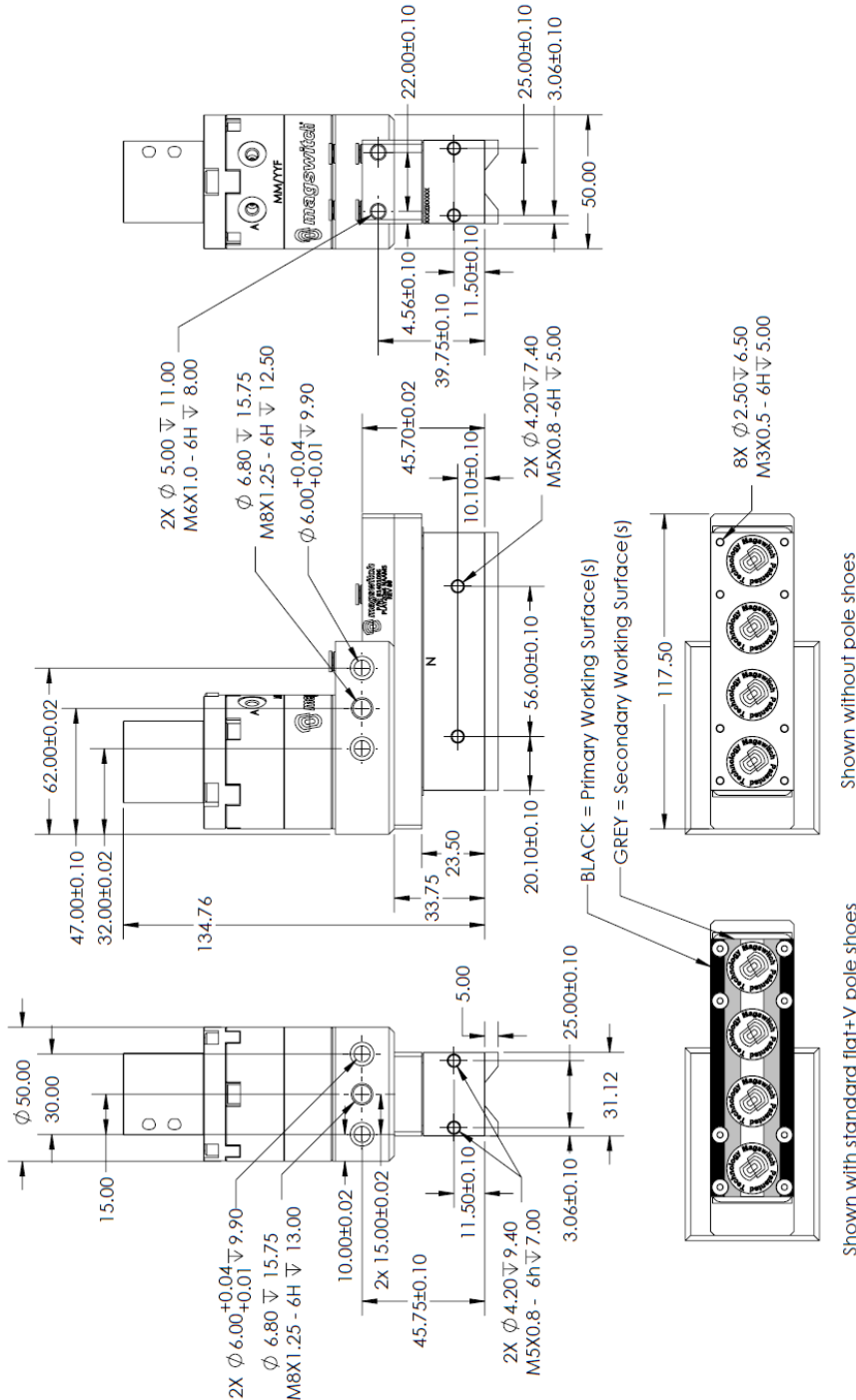
⁴ Values may vary by +/- 5%.

⁵ 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.

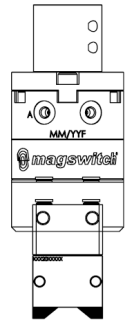
Pole shoes required for operation and included in package

Standard Kits Available:

PSK, PLAY20X4 NAAMS, FLAT/V COMBO, HIGH HEAT, NICKEL	88002148
--	----------



Pole Shoes Not Installed



Pole Shoes Installed