

# PLAY 20x4 NAAMS

P/N: 81401096

## Tool Features

Magswitch PLAY series utilizes field interaction between individual magnets to increase depth of field and spread the attractive force over a larger footprint. This allows for greater working loads and increased control over larger work pieces. With customizable pole shoes to fit almost any application, the PLAY is a great all around tool that is perfect for picking pipe and round as well as plate steel.

**WARNING!**  
**DO NOT OPERATE UNLESS IN  
 CONTACT WITH FERROUS TARGET**



## Specifications

<b>Maximum Breakaway Force</b> <sup>1,2</sup>	1272 N	
<b>Maximum Shear Force</b> <sup>1,2</sup>	50 lb	23 kg
<b>Thickness for De-Stack</b> <sup>3</sup>	0.16 in	4 mm
<b>Minimum Actuation Pressure</b>	30 psi	2.1 Bar
<b>Maximum Actuation Pressure</b>	145 psi	10 Bar
<b>Off-Target Actuation Pressure</b>	56 psi	3.9 Bar
<b>Actuator Volume</b>	0.92 in <sup>3</sup>	15 cm <sup>3</sup>
<b>Air Port Threads</b>	2x M5x0.8	
<b>Net Weight</b>	2.6 lb	1.2 kg
<b>Individual Magnetic Pole Footprint</b>	3.8" x 1.2"	96.2 mm x 31.12 mm
<b>Mounting Options</b>	2x Side: Ø6-M8-Ø6 / 1x Back: Ø6-M8-Ø6 / 1x Front: M6-M6	

Material Thickness - mm (in)	0.5 (0.020)	0.8 (0.031)	1.0 (0.039)	1.5 (0.059)	2.0 (0.079)	3.0 (0.118)	4.0 (0.157)	5.0 (0.197)	6.0 (0.236)	7.0 (0.276)
<b>Maximum Force</b> <sup>1,2,5</sup> - Newton (N)	111	210	256	547	711	909	1134	1280	1284	1284

1. 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.

2. All data applies to standard tool.

3. Determined with SAE1018 Steel L=200mm W=200mm.

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.

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

Magswitch Technology Europe GmbH  
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# PLAY 20x4 NAAMS

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## *Drawings*

Pole shoes are required for operation - Standard kits available:

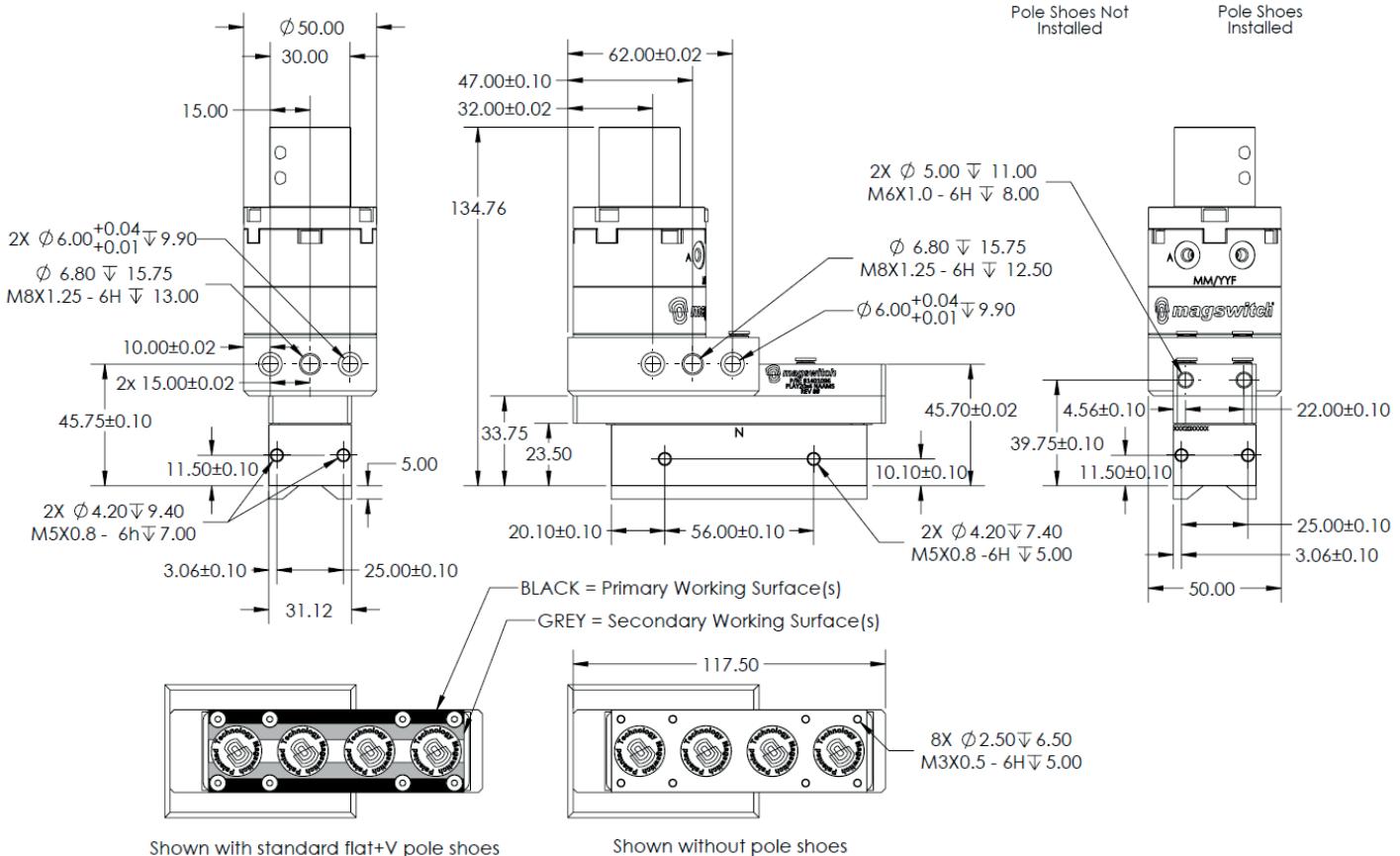
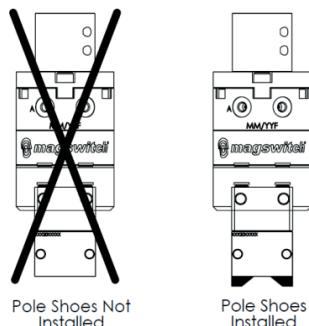
**PLAY20X4 Combination Pole Shoe Kit - 8800172**

**PLAY20X4 Teeth Pole Shoe Kit - 8800832**

**PLAY20X4 NAAMS 32mm Ball Mount (3-hole) - 8800500**

**PLAY20X4 NAAMS 28.5mm Ball Mount (3-hole) - 8800501**

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# PLAY30x7

P/N: 81401193

## Tool Features

Magswitch PLAY series utilizes field interaction between individual magnets to increase depth of field and spread the attractive force over a larger footprint. This allows for greater working loads and increased control over larger work pieces. With customizable pole shoes to fit almost any application, the PLAY is a great all around tool that is perfect for picking pipe and round as well as large plate steel.

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## Specifications

<b>Maximum Breakaway Force</b> <sup>1,2</sup>	3481 N	
<b>Maximum Shear Force</b> <sup>1,2</sup>	215 lb	97 kg
<b>Thickness for De-Stack</b> <sup>3</sup>	0.187 in	4,8 mm
<b>Minimum Actuation Pressure</b>	26.11 psi	1.8 Bar
<b>Maximum Actuation Pressure</b>	116 psi	8 Bar
<b>Off-Target Actuation Pressure</b>	61 psi	4.2 Bar
<b>Air Port Threads</b>	2x M5x0.8	
<b>Net Weight</b>	10.6 lb	4.8 kg
<b>Individual Magnetic Pole Footprint</b>	10.16"x1.6"	
<b>Mounting Options</b>	4x Side: Ø5-M5-Ø5 / 2x Top: Ø8-M8-Ø8	

<b>Material Thickness - mm (in)</b>	0.60 (0.024)	0.80 (0.031)	1.20 (0.047)	3.00 (0.118)	4.76 (0.187)	6.35 (0.250)	9.50 (0.374)	12.70 (0.500)	50.80 (2.000)
<b>Maximum Force</b> <sup>1,2,5</sup> - kg (lbs)	30.57 (67.39)	31.50 (69.45)	59.20 (130.51)	177.27 (390.81)	210.10 (463.19)	252.07 (555.71)	307.30 (677.48)	355.00 (782.64)	354.57 (781.69)
<b>Required Air Pressure</b> <sup>4</sup> - bar (psi)	3.60 (52)	3.20 (46)	2.80 (41)	1.80 (26)	1.80 (26)	1.80 (26)	1.80 (26)	1.80 (26)	1.80 (26)

1. 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.

2. All data applies to standard tool.

3. Determined with SAE1018 Steel L=200mm W=200mm.

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.

$$\text{SWL (Safe Working Load)} = \frac{\text{Maximum Force}^5}{\text{Safety Factor} (\geq 3)}$$

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# PLAY30x7

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## Drawings

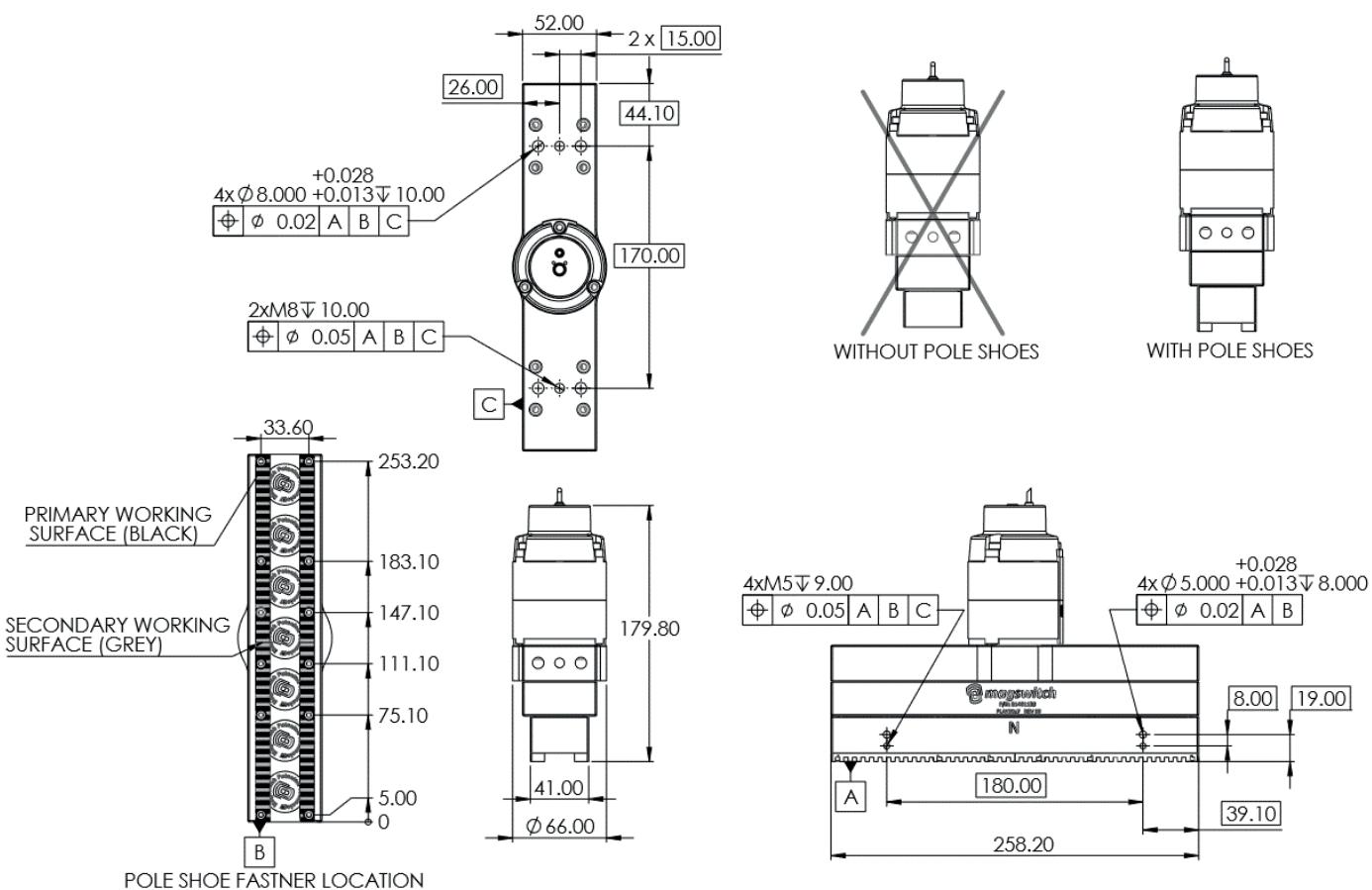
Pole shoes are required for operation - Standard kits available:

**PLAY30x7 Standard Pole Shoe Kit - 8800739**

**PLAY30x7 2mm Comb/Tooth Pole Shoe Kit - 8800748**

**PLAY30x7 Prox Cap Kit - 8800758**

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# PLAY50x4

P/N: 8140404

## Tool Features

Magswitch PLAY series utilizes field interaction between individual magnets to increase depth of field and spread the attractive force over a larger footprint. This allows for greater working loads and increased control over larger work pieces. With customizable pole shoes to fit almost any application, the PLAY is a great all around tool that is perfect for picking pipe and round as well as large plate steel.

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## Specifications

<b>Maximum Breakaway Force</b> <sup>1,2</sup>	9865 N									
<b>Maximum Shear Force</b> <sup>1,2</sup>	442.2 lb							200.6 kg		
<b>Thickness for De-Stack</b> <sup>3</sup>	0.375 in							9.5 mm		
<b>Minimum Actuation Pressure</b>	30.46 psi							2.1 Bar		
<b>Maximum Actuation Pressure</b>	145.04 psi							10 Bar		
<b>Net Weight</b>	22.0 lb							10 kg		
<b>Air Port Threads</b>	Rc 1/8									
<b>Mounting Options</b>	M8x1.25									
<b>Magnetic Pole Footprint</b>	8.78 " x 2.8 "					223 mm x 71.1 mm				
<b>Material Thickness - mm (in)</b>	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 (0.25)	9.53 (0.375)	12.7 (0.5)	19.05 (0.75)
<b>Maximum Force</b> <sup>1,2,5</sup> - kg (lbs)	104.8 (231.04)	146.8 (323.64)	214.9 (473.77)	255.5 (563.28)	310.2 (683.87)	434 (956.81)	592.1 (1305.3)	802.6 (1769.4)	943 (2078.9)	1005.8 (2217.4)

1. 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.

2. All data applies to unit with flat pole shoes installed.  
 3. Determined with SAE1018 Steel L=200mm W=200mm.  
 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.

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

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**PLAY50x4**  
 8140404

Doc Num 01

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# PLAY50x4

P/N: 8140404

## Drawings

Pole shoes are required for operation - Standard kits available:

**PLAY50X4 Standard Pole Shoe Kit - 8800308**

**PLAY50X4 Prox Cap Kit - 8800293**

**PLAY50X4 Mounting Kit - 8800719**

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