

D85 | P/N: 81401267

The D85 is a narrow-footprint tool intended for use picking sheet metal. Featuring multipole shallow field array technology, it is a mighty pneumatic tool which excels at de-stacking and lifting thin materials when most larger magnets can't get a grip.

WARNING!

Do Not Operate Unless In Contact With Ferrous Target

Specifications

Maximum Breakaway Force ^{1,2}	558 N	
Maximum Shear ^{1,2}	139 N	
Thickness for De-Stack ³	0.08 in	2.0 mm
Maximum Allowable Pressure	116 psi	8.0 Bar
On Target Actuation Pressure	40.6 psi	2.8 Bar
Net Weight	1.46 lb	0.67 kg
Air Port Thread	2x G1/8 (1/8 BSP)	
Mounting Options	Side - 1x NAAMS \square 6-M8- \square 6 Top - 1x 3/8-18 NPT	
Magnetic Pole Footprint	2.13" x 1.12"	54.0mm x 28.5mm



Material Thickness - mm (in)	0.5 (.020)	0.6 (.025)	0.7 (.028)	0.8 (.031)	1.0 (.039)	2.0 (.079)	3.0 (.118)	4.0 (0.157)	5.0 (0.197)
Maximum Force ^{1,2,5} - N	164	177	248	293	419	532	546	552	558
Required Air Pressure ⁴ - bar (psi)	1.4 (20.3)	1.4 (20.3)	1.6 (23.2)	1.8 (26.1)	2.0 (29.0)	2.6 (37.7)	2.8 (40.6)	2.8 (40.6)	2.8 (40.6)

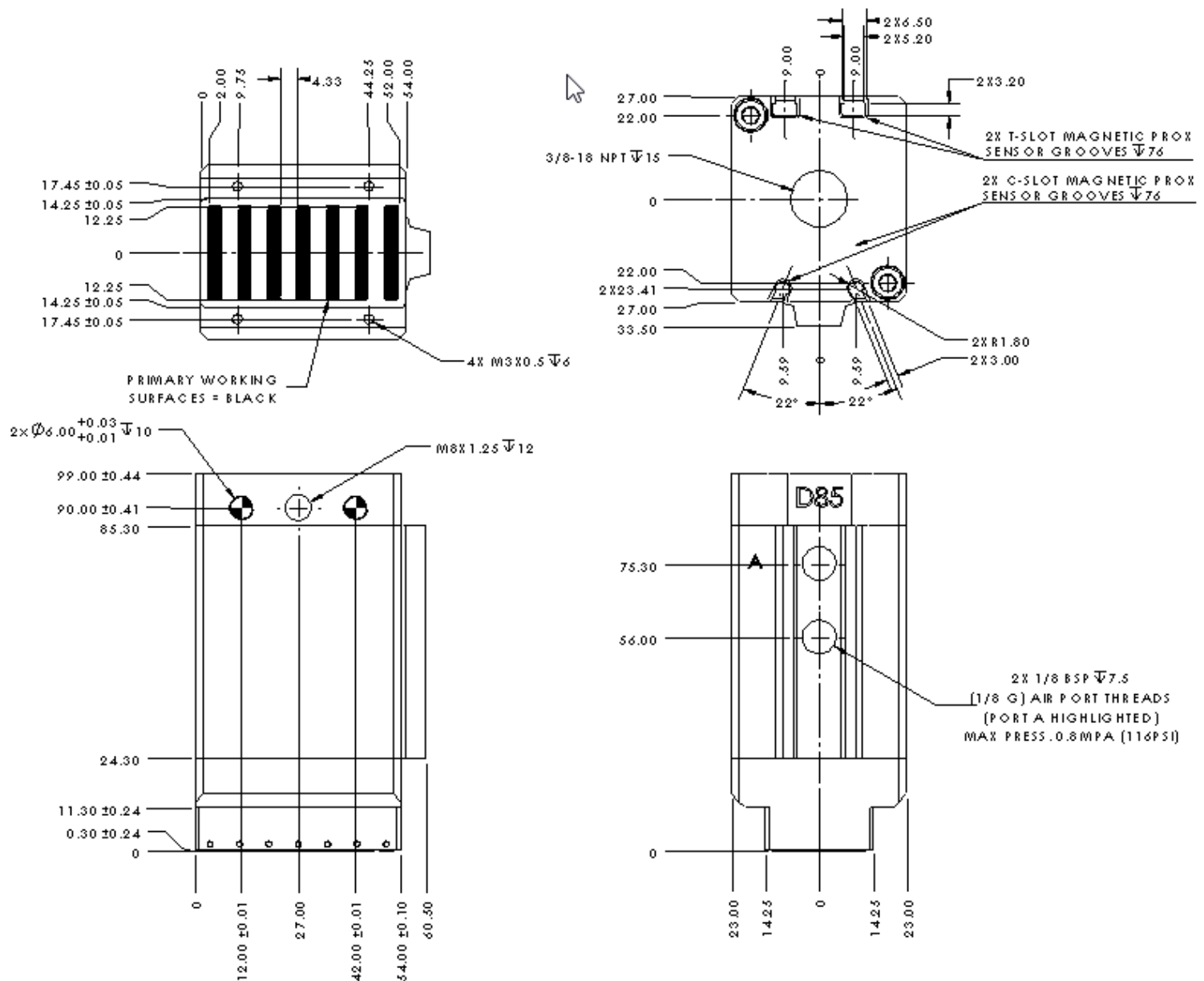
¹ Determined in laboratory environment on 2" thick SAE1018 Steel with surface roughness 63 micro inches. Many factors contribute to the actual breakaway force and safe working load in each application. Consult a Magswitch Applications Engineer and test the Magswitch in each application before deployment.

² All data applies to standard tool.

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

⁴ Values may vary by +/- 5%.

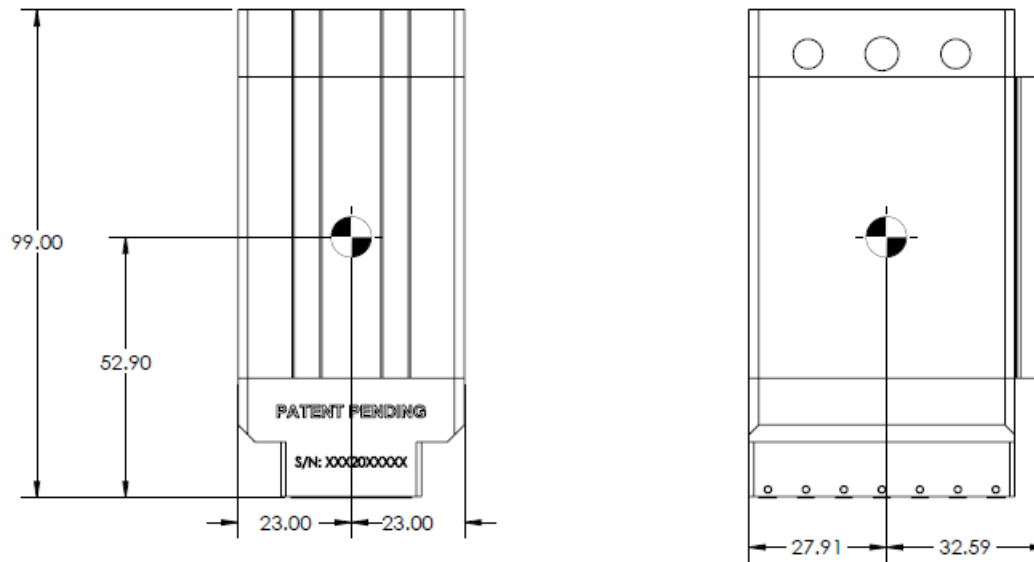
⁵ Maximum forces listed above are not safe lifting forces. Designer must take into account safety factor when specifying tool. Magswitch recommends SWL = 5:1 for most applications.





MAGSWITCH D85
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Center of Gravity (COG) Location



Sensor Placement

Approximate sensor positions are shown in the image below. Some adjustment may be required. Positions were determined by measuring from the top of the tool to the bottom of the sensor. Turck part number BIM-UNT-AP6X-0.2-RS4T was used to determine the ranges. Using a different sensor may result in a variance in these positions.

