

Tools – Punches

Knockout Punches

RUKO's knockout punch hole-cutting tool includes punch, die and draw bolt (without ball bearing). Use for sheet steel, stainless-steel sheets, non-ferrous and light metals, and plastics. Replacement bolts are offered in three of the most popular sizes.

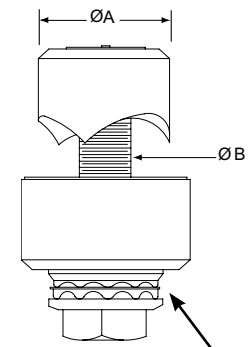
Features

- Cuts holes in thin materials quickly, easily, cleanly and without burrs.
- 3-point cut ensures less deformation of the punched parts, preventing damage to the draw-in bolt.
- The optional ball bearing between draw-in bolt and die plate makes handling simpler and quicker, reducing the force required by approx. 67% (replacement bolt part numbers, [103110K](#), [103112K](#), and [103116K](#)).
- The metric draw-in bolts are of the highest quality and are designed for extreme loads. If lost, they can be replaced for short periods of time by standard metric fine threaded bolts.



109220

Knockout Punches							
Part #	Pcs/Pkg	Price	Description	Actual Hole Size (Ø A)	Draw Bolt Size (Ø B)	Trade Hole Size	Works With
109220	1		Knockout punch hole-cutting tool	22 mm	M10	22 mm	101703 , 103110K
109225	1			22.5 mm	M10	22.5 mm	101703 , 103110K
109300	1			30 mm	M12	30 mm	101703 , 103112K
109305	1			30.5 mm	M12	30.5 mm	101703 , 103112K
1097012	1			0.875 inch	M10	1/2 inch	101703 , 103110K , RPS-16G, RPS-16K, CUR-16G, CUR-16K
1097034	1			1.115 inch	M12	3/4 inch	101703 , 103112K , RPS-20G, RPS-20K, CUR-20G, CUR-20K
1097010	1			1.362 inch	M12	1 inch	101703 , 103112K , RPS-25G, RPS-25K, CUR-25G, CUR-25K
1097114	1			1.6875 inch	M16	1-1/4 inch	101703 , 103116K , RPS-32G,RPS-32K, CUR-32G, CUR-32K
1097112	1			1.9375 inch	M16	1-1/2 inch	101703 , 103116K
1097020	1		2.375 inch	M16	2 inch	101703 , 103116K	
Replacement Draw Bolts							
103110K	1		M10 replacement bolt with ball-bearing bushing	22 mm, 22.5 mm 1/2 inch		109220 , 109225 , 1097012	
103112K	1		M12 replacement bolt with ball-bearing bushing	30 mm, 30.5 mm 3/4 to 1 inch		109300 , 109305 , 1097034 1097010	
103116K	1		M16 replacement bolt with ball-bearing bushing	1-1/4 to 2 inch		1097114 , 1097112 , 1097020	



Ball bearing only available with replacement draw bolts P/N [103110K](#), [103112K](#) and [103116K](#)

Note: Part number [109225](#) is recommended when punching holes for 22mm pilot devices.
Part number [109305](#) is recommended when punching holes for 30mm pilot devices

Hole Punch Recommendations					
Draw-In Bolt	Sheet Steel	Pilot Hole Ø	Stainless Steel Sheets	Non-Ferrous/Light Metals	Plastics
M8 x 1.0 mm	14 Ga, 2 mm	7/16"	18 Ga, 1 mm	8 Ga, 4 mm	8 Ga, 4 mm
M10 x 1.0 mm	14 Ga, 2 mm	9/16"	18 Ga, 1 mm	8 Ga, 4 mm	8 Ga, 4 mm
M12 x 1.5 mm	11 Ga, 3 mm	19/32"	14 Ga, 2 mm	8 Ga, 4 mm	8 Ga, 4 mm
M16 x 1.5 mm	11 Ga, 3 mm	3/4"	14 Ga, 2 mm	8 Ga, 4 mm	8 Ga, 4 mm



Tools – Countersink Bits

RUKO countersinks are CBN ground from fully hardened, High-Speed Steel (HSS) blanks. Since CBN (cubic crystalline boron nitride) is a much harder abrasive than either silicon carbide or corundum, CBN grinding of the fully hardened material creates a sharper and more durable cutting edge with precise tolerances.

Radially-adjusted relief grinding ensures that the cutting edge is always the highest point. Combined with the axial relief grinding, this guarantees a smooth, low-heat, chatter-free cut up to 30% faster than competing countersink bits.

This tough tool is suitable for all standard industrial materials: steel, cast iron, stainless steel, non-ferrous metal, thermoplastics, and duroplastics. Best results are achieved at low cutting speeds. Use of cutting oil or paste will provide longer tool life and superior quality work.

Available in both 82° taper for UNC and UNF fasteners and DIN 335 Type C 90° taper for metric fasteners.

RUKO Countersink Bits - Metric with 3-Flat Shank - 90° Taper

Part #	Price	Countersink Diameter (d1)	Nose Diameter (d3)	Total Length (L)	Shank Diameter (d2)
<u>102714</u>		10.4 mm [0.41 in]	2.5 mm [0.10 in]	50.0 mm [1.97 in]	6.0 mm [0.24 in]
<u>102716</u>		12.4 mm [0.49 in]	2.8 mm [0.11 in]	56.0 mm [2.20 in]	8.0 mm [0.31 in]
<u>102723</u>		25.0 mm [0.98 in]	3.8 mm [0.15 in]	67.0 mm [2.64 in]	10.0 mm [0.39 in]
<u>102153</u>		5-piece, 90° Countersink set - Includes: 102714, 102716, 102721, 102723			

RUKO Countersink Bits - Inch with Round Shank - 82° Taper

Part #	Price	Countersink Diameter (d1)	Nose Diameter (d3)	Total Length (L)	Shank Diameter (d2)
<u>102182</u>		1/4 in [6.4 mm]	3/64 in [1.2 mm]	1.77 in [45 mm]	0.2 in [5 mm]
<u>102183</u>		5/16 in [7.9 mm]	1/16 in [1.6 mm]	1.97 in [50 mm]	0.24 in [6 mm]
<u>102184</u>		3/8 in [9.5 mm]	5/64 in [2 mm]	1.97 in [50 mm]	0.24 in [6 mm]
<u>102186</u>		1/2 in [12.7 mm]	3/32 in [2.4 mm]	2.2 in [56 mm]	0.32 in [8 mm]
<u>102188</u>		5/8 in [15.9 mm]	7/64 in [2.8 mm]	2.36 in [60 mm]	0.39 in [10 mm]
<u>102189</u>		3/4 in [19.1 mm]	1/8 in [3.2 mm]	2.48 in [63 mm]	0.39 in [10 mm]
<u>102190</u>		7/8 in [22.2 mm]	9/64 in [4.3 mm]	2.64 in [67 mm]	0.39 in [10 mm]
<u>102191</u>		1 in [25.4 mm]	9/64 in [4.3 mm]	2.99 in [76 mm]	0.39 in [10 mm]
<u>102193RO</u>		5-piece, 82° Countersink set - Includes: 102182, 102184, 102186, 102189, 102191			



102153

