

Conical countersink assortment Yellow/blue ring HSS 90° DIN 335 C 6 pieces

Particularly suitable for processing conventional steels, cast iron and non-ferrous metals (aluminium, copper, aluminium alloys and plastics). Available in the ORSY® system cassette.

Burr- and chatter-free countersinking and deburring

Precision conical countersink with 3 cutting edges, precision-ground

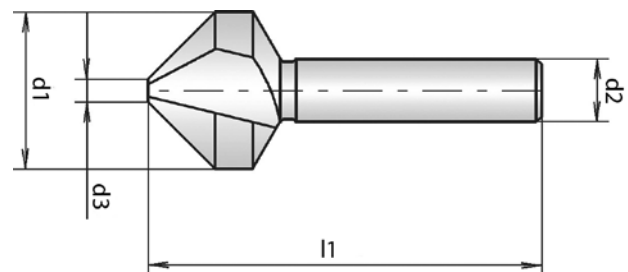
Optimised geometry for hand-guided use

Less effort required, improved countersinking quality and chip removal compared to conventional conical countersinks

Compact and practical ORSY®-system-compatible system cassette with useful details, such as stackability, optimised joint and easy opening



Number of pieces in assortment/set	6 PCS
Material to be processed	Steel, Cast metal, Non-ferrous metal
Quality	ZEBRA-Premium
Standards	DIN 335
Form	C
Cutting material	HSS
Countersink angle	90 Degree
Surface	Uncoated
Number of cutting edges	3 PCS
Shank style	Cylindrical
Service life	●●○○
Countersinking speed (point system)	●●○○
Countersinking quality (point system)	●●●○
Versatility	●●○○
Countersinking behaviour (point system)	●●●○
Material of sub-group	General structural steels, Non-alloyed tempering steels, Alloyed tempering steels, Nitriding steels, Tool steels, High-speed steels, Cast iron, Ductile iron, Malleable cast iron, White cast iron, Aluminium, Aluminium alloys, Aluminium wrought alloys, Aluminium casting alloys (<10% silicon), Aluminium casting alloys (>10% silicon), Magnesium alloys, Copper, low-alloyed, Brass, short-chipping, Brass, long-chipping, Bronze, short-chipping, Bronze, long-chipping, Plastics, thermoset, Plastics, thermoplastic, Plastics, aramide-fibre reinforced, Plastics, glass/carbon-fibre-reinforced
Color Coding System	Yellow Aluminium\Non-Ferrous Metal Blue Steel



Art. no. 0694 117 001

P. Qty.: 1

Assignment of conical countersink to screw standards

Conical countersink nominal diameter d1	For countersunk head screws	For countersunk head screws
	DIN EN ISO 10642 (formerly DIN 7991)	DIN EN ISO 2009, 2010, 7046, 7047 (formerly DIN 963, 964, 965, 966)
6.3 mm	M3	M3
8.3 mm	M4	-
10.4 mm	M5	M4, M5
12.4 mm	M6	M6
16.5 mm	M8	M8
20.5 mm	-	M10

Cutting values for conical countersink HSS 90° DIN 335C yellow/blue ring

For dia. 6.3–10.4					
Material designation	Tensile strength	v _c	f		
			Dia. 6.3	Dia. 8.3	Dia. 10.4
General structural steels	≤ 500 N/mm ²	15,8	0,025	0,025	0,025
	≤ 1000 N/mm ²	15,8	0,025	0,025	0,025
Unalloyed heat-treated steels	≤ 700 N/mm ²	15,8	0,025	0,025	0,025
	≤ 850 N/mm ²	15,8	0,025	0,025	0,025
	≤ 1000 N/mm ²	15,8	0,025	0,025	0,025
Alloyed heat-treated steels	≤ 1000 N/mm ²	13	0,020	0,020	0,020
	≤ 1400 N/mm ²	13	0,020	0,020	0,020
Nitriding steels	≤ 1000 N/mm ²	13	0,020	0,020	0,020
	≤ 1400 N/mm ²	13	0,020	0,020	0,020
Tool steels	≤ 850 N/mm ²	13	0,020	0,020	0,020
	≤ 1400 N/mm ²	13	0,020	0,020	0,020
High-speed steels	≤ 1400 N/mm ²	13	0,020	0,020	0,020
Cast iron	≤ 240 HB	15,8	0,025	0,025	0,025
	≤ 350 HB	15,8	0,025	0,025	0,025
Spheroidal-graphite and malleable iron	≤ 240 HB	15,8	0,025	0,025	0,025
	≤ 350 HB	15,8	0,025	0,025	0,025
Chilled cast iron	≤ 350 HB	15,8	0,025	0,025	0,025
Aluminium and aluminium alloys	≤ 400 N/mm ²	21,8	0,025	0,025	0,025
Aluminium wrought alloys	≤ 650 N/mm ²	21,8	0,025	0,025	0,025
Aluminium cast alloys ≤ 10 % Si	≤ 600 N/mm ²	21,8	0,025	0,025	0,025
Aluminium cast alloys > 10 % Si	≤ 600 N/mm ²	21,8	0,025	0,025	0,025
Magnesium alloys	≤ 400 N/mm ²	21,8	0,025	0,025	0,025
Copper, low-alloyed	≤ 500 N/mm ²	21,8	0,025	0,025	0,025
Brass, short-chipping	≤ 600 N/mm ²	21,8	0,025	0,025	0,025
Brass, long-chipping	≤ 600 N/mm ²	21,8	0,025	0,025	0,025
Bronze, short-chipping	≤ 600 N/mm ²	21,8	0,025	0,025	0,025
Bronze, short-chipping	≤ 850 N/mm ²	21,8	0,025	0,025	0,025
Bronze, long-chipping	≤ 850 N/mm ²	21,8	0,025	0,025	0,025
Bronze, long-chipping	≤ 1000 N/mm ²	21,8	0,025	0,025	0,025
Plastics	≤ 150 N/mm ²	21,8	0,025	0,025	0,025

For dia. 12.4–20.5					
Material designation	Tensile strength	v _c	f		
			Dia. 12.4	Dia. 16.5	Dia. 20.5
General structural steels	≤ 500 N/mm ²	15,8	0,020	0,020	0,020
	≤ 1000 N/mm ²	15,8	0,020	0,020	0,020

For dia. 12.4–20.5

Material designation	Tensile strength	v_c	f		
			Dia. 12.4	Dia. 16.5	Dia. 20.5
Unalloyed heat-treated steels	$\leq 700 \text{ N/mm}^2$	15,8	0,020	0,020	0,020
	$\leq 850 \text{ N/mm}^2$	15,8	0,020	0,020	0,020
	$\leq 1000 \text{ N/mm}^2$	15,8	0,020	0,020	0,020
Alloyed heat-treated steels	$\leq 1000 \text{ N/mm}^2$	13	0,020	0,015	0,015
	$\leq 1400 \text{ N/mm}^2$	13	0,020	0,015	0,015
Nitriding steels	$\leq 1000 \text{ N/mm}^2$	13	0,020	0,015	0,015
	$\leq 1400 \text{ N/mm}^2$	13	0,020	0,015	0,015
Tool steels	$\leq 850 \text{ N/mm}^2$	13	0,020	0,015	0,015
	$\leq 1400 \text{ N/mm}^2$	13	0,020	0,015	0,015
High-speed steels	$\leq 1400 \text{ N/mm}^2$	13	0,020	0,015	0,015
Cast iron	$\leq 240 \text{ HB}$	15,8	0,020	0,020	0,020
	$\leq 350 \text{ HB}$	15,8	0,020	0,020	0,020
Spheroidal-graphite and malleable iron	$\leq 240 \text{ HB}$	15,8	0,020	0,020	0,020
	$\leq 350 \text{ HB}$	15,8	0,020	0,020	0,020
Chilled cast iron	$\leq 350 \text{ HB}$	15,8	0,020	0,020	0,020
Aluminium and aluminium alloys	$\leq 400 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Aluminium wrought alloys	$\leq 650 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Aluminium cast alloys $\leq 10 \% \text{ Si}$	$\leq 600 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Aluminium cast alloys $> 10 \% \text{ Si}$	$\leq 600 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Magnesium alloys	$\leq 400 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Copper, low-alloyed	$\leq 500 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Brass, short-chipping	$\leq 600 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Brass, long-chipping	$\leq 600 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Bronze, short-chipping	$\leq 600 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Bronze, short-chipping	$\leq 850 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Bronze, long-chipping	$\leq 850 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Bronze, long-chipping	$\leq 1000 \text{ N/mm}^2$	21,8	0,020	0,020	0,020
Plastics	$\leq 150 \text{ N/mm}^2$	21,8	0,020	0,020	0,020

Legend
 v_c = cutting speed [m/min]


f = feed (mm/r)

The suggested cutting values are reference values and must be adapted to the respective conditions.

Details/Application

Contents for art. no. 0694 117 001
Designation

Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M3

Art. no.
0694 117 006
Quantity

1

Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M4

0694 117 008

1

Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M5

0694 117 010

1

Contents for art. no. 0694 117 001

Designation	Art. no.	Quantity
Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M6	0694 117 012	1
Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M8	0694 117 016	1
Countersink, yellow/blue ring, HSS 90° DIN 335 C Suitable for screw M10	0694 117 020	1
Empty box for DIN 335 C countersink	0633 001 006	1

Related products

	Art. no.
CUT+COOL drilling and cutting oil Aerosol can 400 ml	0893 050 004
Drilling and cutting foam CUT+COOL 400 ml	0893 050 007
CUT+COOL Perfect drilling and cutting oil Aerosol can 400 ml	0893 050 008
Cut and Cool Perfect drilling/cutting paste 500 ml	0893 050 010
ABS 18 COMPACT M-CUBE cordless drill/driver With 2 x 4.0 Ah batteries; with additional accessories	5701 800 2