























HSS, HSS-E and carbide countersinks

Tool illustration				Tool material	Guhring no.
Standard	Form	Surface	Cutting direction	Diameter range	



60° countersinks

	HSS	470	
DIN 334	A	 rh	8.000 - 20.000
	HSS	472	
DIN 334	C	 rh	6.300 - 25.000
	HSS	471	
DIN 334	B	 rh	16.000 - 100.000
	HSS	473	
DIN 334	D	 rh	16.000 - 80.000

90° countersinks



	HSS	474	
DIN 335	A	 rh	8.000 - 20.000
	HSS	476	
DIN 335	C	 rh	4.300 - 31.000
	HSS	1326	
DIN 335	C	 rh	4.300 - 31.000
	HSS	327	
DIN 335	C	 rh	5.000 - 31.000
	HSS	477	
DIN 335	D	 rh	15.000 - 100.000
	HSS	328	
DIN 335	D	 rh	25.000 - 50.000
	HSS	475	
DIN 335	B	 rh	16.000 - 100.000

90° countersinks for fine tolerances





	HSS	436	
DIN 1866		 rh	2.000 - 19.000

Tool illustration				Tool material	Guhring no.
Standard	Form	Surface	Cutting direction	Diameter range	





90° countersinks for fine tolerances

	HSS	1318	
DIN 1866		 rh	5.000 - 19.000





90° countersinks for medial tolerances

	HSS	437	
DIN 1866		 rh	6.600 - 21.500
	HSS	1319	
DIN 1866		 rh	6.600 - 21.500







90° countersinks for tapping size holes

	HSS	438	
DIN 1866		 rh	6.000 - 19.000
	HSS	1323	
DIN 1866		 rh	6.000 - 15.000

90° countersinks

	HSS	498	
DIN 335	C	 rh	7.000 - 7.000
	HSS	499	
DIN 335	C	 rh	7.000 - 7.000

120° countersinks



	HSS	478	
DIN 347	A	 rh	8.000 - 20.000
	HSS	480	
Guhring std.		 rh	16.000 - 16.000
	HSS	481	
Guhring std.		 rh	25.000 - 40.000

 bright	 steam tempered	 nitrided lands	 nitrided	 golden brown	 TiAlN
 AITiN	 TiCN	 FIRE	 AlCrN	 S TiN	 MolyGlide

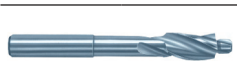

HSS, HSS-E and carbide countersinks

Tool illustration				Tool material	Gühring no.
Standard	Form	Surface	Cutting direction	Diameter range	




120° countersinks

				HSS	479
DIN 347	B		rh	20.000 - 100.000	

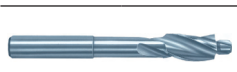

Counterbores with fixed pilots for fine tolerances

				HSS	482
DIN 373			rh	2.200 - 20.000	




			rh	HSS	324
DIN 373			rh	6.000 - 20.000	

			rh	HSS	485
Gühring std.			rh	18.000 - 40.000	

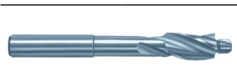

Counterbores with fixed pilots for medial tolerances

				HSS	483
DIN 373			rh	6.000 - 20.000	




			rh	HSS	325
DIN 373			rh	6.000 - 18.000	

			rh	HSS	486
Gühring std.			rh	18.000 - 40.000	

Counterbores with fixed pilots for tapping size holes



				HSS	484
DIN 373			rh	6.000 - 20.000	

			rh	HSS	326
DIN 373			rh	6.000 - 18.000	

			rh	HSS	487
Gühring std.			rh	18.000 - 33.000	




Tool illustration				Tool material	Gühring no.
Standard	Form	Surface	Cutting direction	Diameter range	




Counterbores with hole for detachable pilot

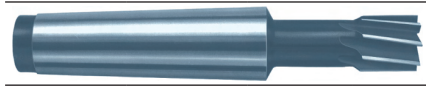


				HSS	463
DIN 375			rh	15.000 - 63.000	

Spot facers



				HSS-E	432
DIN 1862			rh	3.500 - 13.000	

			rh	HSS-E	433
DIN 1862			rh	6.000 - 30.000	

			rh	HSS-E	434
DIN 1862			rh	10.000 - 30.000	



			rh	HSS-E	435
DIN 1862			rh	20.000 - 48.000	



Back spotfacers













				Carbide	1640
Gühring std.			rh	44.000 - 115.000	

				HSS	1638
Gühring std.			rh	11.000 - 115.000	

De-burring forks

				Solid carbide	4101
Gühring std.			rh	2.000 - 8.000	

				Solid carbide	4100
Gühring std.			rh	2.000 - 8.000	

 bright
  steam tempered
  nitrided lands
  nitrided
  golden brown
  TiAlN
 AlTiN
  TiCN
  FIRE
  AlCrN
  TiN
  MolyGlide