

Application

































<div>P</div> <div></div>	<div>P</div> <div></div>	<div>P</div> <div></div>	Steel		Shoulder Milling		Face milling
<div>M</div> <div></div>	<div>M</div> <div></div>	<div>M</div> <div></div>	Stainless steel		Shoulder- / Slot Milling		Ramping
<div>K</div> <div></div>	<div>K</div> <div></div>	<div>K</div> <div></div>	Cast iron		Copy Milling		Pocket milling
<div>N</div> <div></div>	<div>N</div> <div></div>	<div>N</div> <div></div>	Non Ferros Materials		Profile Milling		Helical milling
<div>S</div> <div></div>	<div>S</div> <div></div>	<div>S</div> <div></div>	Superalloy		Dynamic Milling		Plunge milling
<div>H</div> <div></div>	<div>H</div> <div></div>	<div>H</div> <div></div>	Hardened steels		Circle Segment Milling		
<div>O</div> <div></div>	<div>O</div> <div></div>	<div>O</div> <div></div>	Plastic and others		Micro Milling		

- Main application
- Secondary application
- No recommendation



















Product characteristics

<div>HSS-Co</div> <div>VHM</div>	Tool material		Unequal pitch
<div>AlTiN</div> <div>CrN</div> <div>TiAlN</div>	Coating		Cylindrical shank (without flat, HA) / shank tolerance
<div>polished</div>	Polished flutes		Weldon flat (HB) / shank tolerance
	Helix Angle / Uneven Helix Angle		Morse taper shank (MC) / shank tolerance
<div>e8</div>	Tolerance		Protection chamfer / sharp cutting edge
<div>DIN 6535</div> <div></div>	DIN / Company standard		With corner radius
	Length		Axial / radial coolant
	Machining direction	<div>1-3</div> <div>3-8</div> <div>8-10</div>	Number of teeth
	240° cutting / centre cut	<div>HSC</div> <div>HPC</div>	HSC / HPC









Application

<div>P</div> <div></div>	<div>P</div> <div></div>	<div>P</div> <div></div>	Steel		NC spotting drill
<div>M</div> <div></div>	<div>M</div> <div></div>	<div>M</div> <div></div>	Stainless steel	<div>A</div>  <div>B</div>  <div>D</div> 	Centre drill Shape
<div>K</div> <div></div>	<div>K</div> <div></div>	<div>K</div> <div></div>	Cast iron		Drilling
<div>N</div> <div></div>	<div>N</div> <div></div>	<div>N</div> <div></div>	Non Ferros Materials		Drill for pre drilling conical
<div>S</div> <div></div>	<div>S</div> <div></div>	<div>S</div> <div></div>	Superalloy		Drill for pre drilling cylinder
<div>H</div> <div></div>	<div>H</div> <div></div>	<div>H</div> <div></div>	Hardened steels		Step drills
<div>O</div> <div></div>	<div>O</div> <div></div>	<div>O</div> <div></div>	Plastic and others		Inclined entrance
<div></div>					Drilling on a convex surface

Product characteristics

<div>HSS</div>	<div>VHM</div>		Tool material		Cylindrical shank (without flat, HA) / shank tolerance
<div>AlCrN</div>	<div>TiAlN</div>	<div>Coated</div>	Coating		Weldon flat (HB) / shank tolerance
<div></div>	<div></div>		Helix angle		Morse taper shank (MC) / shank tolerance
<div></div>	<div></div>		Point angle		Offset shaft / Reduced shank
<div></div>			Countersink angle		Weldon Whistle-Notch / shank tolerance
<div></div>	<div></div>		Cutting tolerance		Whistle-Notch / shank tolerance
<div>DIN 340</div>	<div>DIN 1869</div>	<div>DIN 6537</div>	DIN		Internal coolant
<div></div>			Works standard	<div>1-3</div>  <div>3-8</div>  <div>8-10</div> 	Number of teeth
<div>3xD</div>	<div>8xD</div>	<div>12xD</div>	Drilling depth		

Application

<div>P</div> <div>●●</div>	<div>P</div> <div>○</div>	<div>P</div> <div></div>	Steel			Blind holes
<div>M</div> <div>●●</div>	<div>M</div> <div>○</div>	<div>M</div> <div></div>	Stainless steel			Through holes
<div>K</div> <div>●●</div>	<div>K</div> <div>○</div>	<div>K</div> <div></div>	Cast iron			Through holes and blind holes
<div>N</div> <div>●●</div>	<div>N</div> <div>○</div>	<div>N</div> <div></div>	Non Ferros Materials			
<div>S</div> <div>●●</div>	<div>S</div> <div>○</div>	<div>S</div> <div></div>	Superalloy			Power class
<div>H</div> <div>●●</div>	<div>H</div> <div>○</div>	<div>H</div> <div></div>	Hardened steels			
<div>0</div> <div>●●</div>	<div>0</div> <div>○</div>	<div>0</div> <div></div>	Plastic and others			

- Main application
- Secondary application
- No recommendation

Product characteristics

HSS-Co	VHM		Tool material		Cylinder (without flat, HA)
VS	VAP FeO	THL	Coating		Weldon flat (HB)
M	UNC	TR	Thread norm		Morse taper shank (MC)
RH	LH		Left hand thread Right hand thread		Cylinder shank with square piece
4HX	ISO 2 (6H)	7G	Tolerance field		Axial / radial coolant
B 3.5-5.5	D 3.5-5	E 1.5-2	Forme of taper lead		Number of teeth

Application

<div>P</div> <div>●●</div>	<div>P</div> <div>○</div>	<div>P</div> <div></div>	Steel
<div>M</div> <div>●●</div>	<div>M</div> <div>○</div>	<div>M</div> <div></div>	Stainless steel
<div>K</div> <div>●●</div>	<div>K</div> <div>○</div>	<div>K</div> <div></div>	Cast iron
<div>N</div> <div>●●</div>	<div>N</div> <div>○</div>	<div>N</div> <div></div>	Non Ferros Materials
<div>S</div> <div>●●</div>	<div>S</div> <div>○</div>	<div>S</div> <div></div>	Superalloy
<div>H</div> <div>●●</div>	<div>H</div> <div>○</div>	<div>H</div> <div></div>	Hardened steels
<div>O</div> <div>●●</div>	<div>O</div> <div>○</div>	<div>O</div> <div></div>	Plastic and others





















Blind holes



Through holes

- Main application
- Secondary application
- No recommendation

Product characteristics

<div>HSS</div>	<div>VHM</div>	Tool material	<div><div>+/- 0.003</div></div>	<div><div>+/- 0.005</div></div>	<div><div>H7</div></div>	Cutting tolerance
<div>TiN</div>	<div>TiAlN</div>	Coating	<div></div>			Cylindrical shank (without flat, HA)
<div></div>		Left-twist grooved	<div></div>			Weldon flat (HB)
<div></div>		Straight flutes	<div></div>			Morse taper shank (MC)
<div><div>1:10</div></div>	<div><div>1:16</div></div>	Taper	<div></div>			Cylinder shank with square piece
<div>DIN 204</div>	<div>DIN 212</div>	DIN	<div><div>1-3</div></div>	<div><div>3-8</div></div>	<div><div>8-10</div></div>	Number of teeth
<div></div>		Works standard	<div></div>	<div></div>	<div></div>	Axial / radial coolant

Application

<div>P</div> <div>●●</div>	<div>P</div> <div>○</div>	<div>P</div> <div></div>	Steel
<div>M</div> <div>●●</div>	<div>M</div> <div>○</div>	<div>M</div> <div></div>	Stainless steel
<div>K</div> <div>●●</div>	<div>K</div> <div>○</div>	<div>K</div> <div></div>	Cast iron
<div>N</div> <div>●●</div>	<div>N</div> <div>○</div>	<div>N</div> <div></div>	Non Ferros Materials
<div>S</div> <div>●●</div>	<div>S</div> <div>○</div>	<div>S</div> <div></div>	Superalloy
<div>H</div> <div>●●</div>	<div>H</div> <div>○</div>	<div>H</div> <div></div>	Hardened steels
<div>O</div> <div>●●</div>	<div>O</div> <div>○</div>	<div>O</div> <div></div>	Plastic and others









Countersinks



Counterbores

- Main application
- Secondary application
- No recommendation

Product characteristics

<div>HSS</div>	<div>VHM</div>	Tool material
<div>TiN</div>	<div>TiAlN</div>	<div>Coated</div> Coating
<div></div>		Unequal pitch
<div>DIN 334C</div>	<div>DIN 335C</div>	DIN
<div></div> <div>60°</div>	<div></div> <div>90°</div>	<div></div> <div>120°</div> Countersink angle
<div></div> <div>1</div>	<div></div> <div>3</div>	Number of teeth



Cylindrical shank
(without flat, HA)



Weldon flat (HB)



Morse taper shank (MC)



Three-surface grind
≥ 4
≥ 8



with hexagon socket