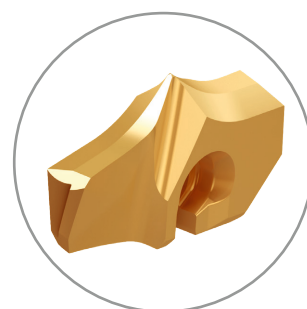


SPADETWIST

SELF-CENTERING DRILL HEAD LPC FOR LARGE DIAMETER DRILLS

- ▶ Excellent hole accuracy and premium surface finish
 - ▶ Improved cylindricity and straightness
- ▶ Rigid clamping for reliable performance and long tool life
 - ▶ Reduced cycle and tool change time
- ▶ Head dia. range: Ø20-34.5 mm (0.5 mm increments)
 - ▶ Optimally for steel and cast iron



GENERAL INFORMATION

The **SpadeTwist** product line now includes a drill head **LPC** for large diameter hole making.

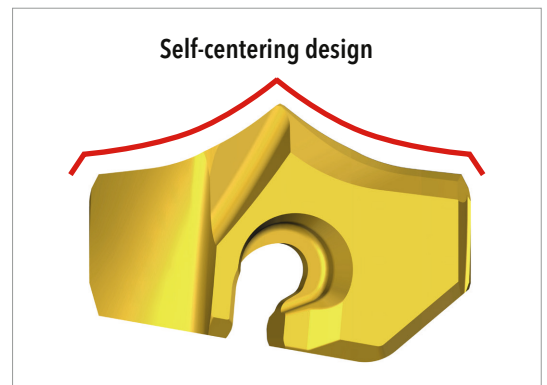
The head-changeable **SpadeTwist** series from now features a drill head **LPC**, which boosts production while lowering costs, making it the best possible choice.

Direct drilling without a pilot hole is achievable thanks to the special edge geometry's self-centering capabilities, which shortens the process time and results in exceptional hole accuracy and surface polish.

Additionally, the new multilayered coating grade increases tool longevity, and the optimized high-rigidity flute shape enables chip evacuation with less resistance.

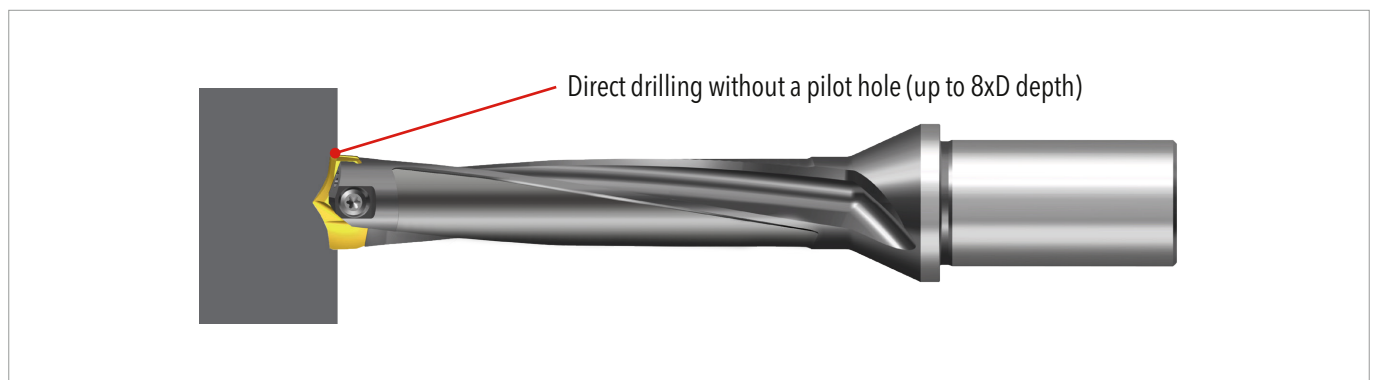
TECHNICAL FEATURES & ADVANTAGES

- Unique self-centering geometry LPC
- Excellent hole accuracy and premium surface finish
- Improved cylindricity and straightness
- Rigid clamping for reliable performance and long tool life
- Head diameter range: Ø20-34.5 mm (0.5 mm increments)
- Compatible with the existing SpadeTwist holders
- Head indexing on the machine means reduced cycle and tool change time
- Optimally suited for steel and cast iron applications



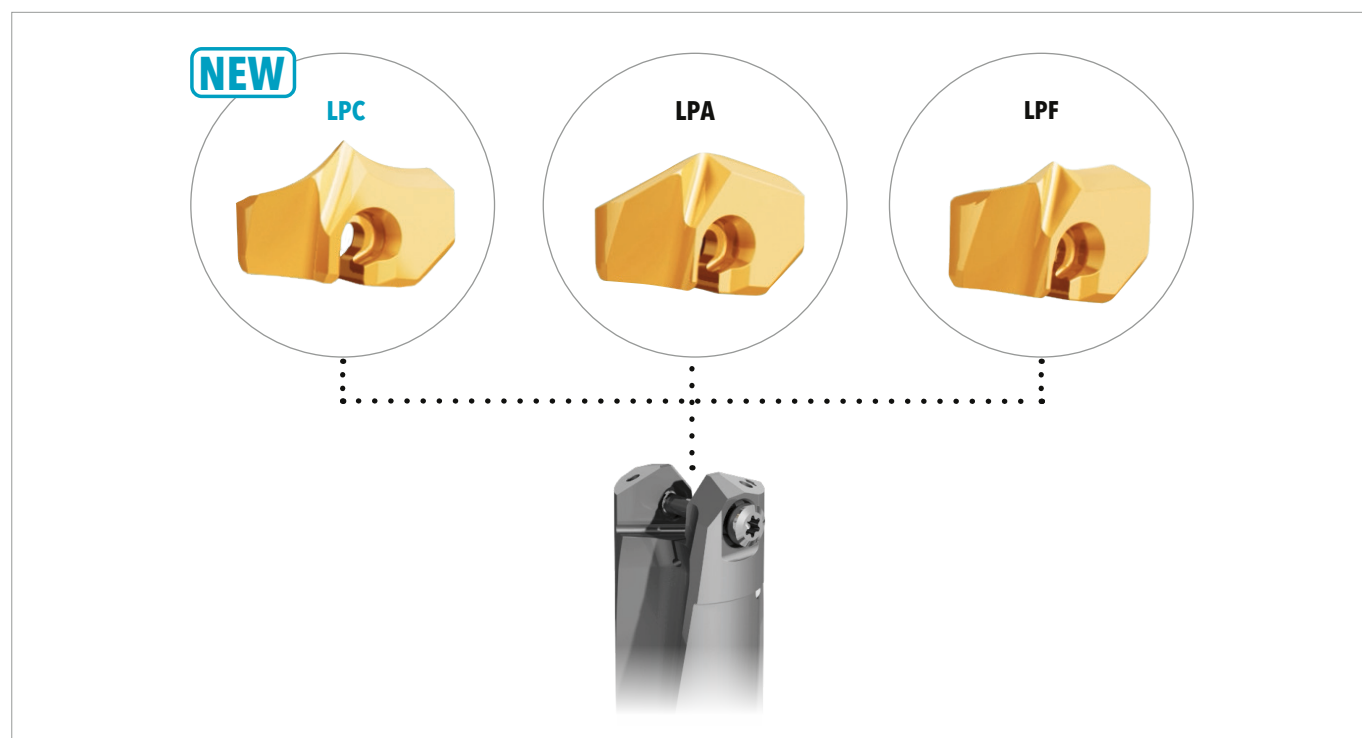
SELF CENTERING DESIGN ENABLES >5XD DRILLING WITHOUT A PRE-HOLE

- Reduced cycle time and improved productivity



SPADETWIST HEADS

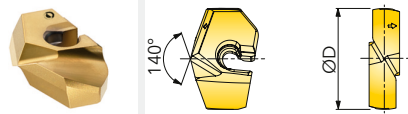
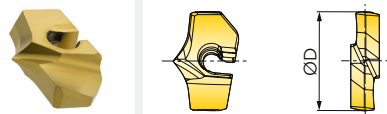
- 3 head types for one SpadeTwist holder


RECOMMENDED CUTTING DATA

ISO	Material		Condition	Tensile Strength (N/mm²)	Hardness HB	Material No.	Cutting speed Vc(m/min)	Feed (mm/rev) vs. drill diameter		
								Ø 20-25.9	Ø 26-29.9	Ø 30-34.9
P	Non-alloy steel and cast steel, free cutting steel	<0,25%C	Annealed	420	125	1	80-140	0,25-0,45	0,30-0,50	0,30-0,50
		≥0,25%C	Annealed	650	190	2	80-130	0,25-0,45	0,30-0,50	0,30-0,50
		<0,55%C	Quenched and tempered	850	250	3	80-120	0,25-0,45	0,30-0,50	0,30-0,50
		≥0,55%C	Annealed	750	220	4	70-110	0,25-0,45	0,30-0,50	0,30-0,50
			Quenched and tempered	1000	300	5	50-90	0,25-0,45	0,30-0,50	0,30-0,50
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	80-120	0,20-0,40	0,25-0,45	0,25-0,45
			Quenched and tempered	930	275	7	70-110	0,20-0,40	0,25-0,45	0,25-0,45
				1000	300	8	50-90	0,20-0,40	0,25-0,45	0,25-0,45
				1200	350	9	40-70	0,20-0,40	0,25-0,45	0,25-0,45
	High alloy steel, cast steel and tool steel		Annealed	680	200	10	50-90	0,20-0,30	0,25-0,35	0,25-0,35
			Quenched and tempered	1100	325	11	40-80	0,20-0,30	0,25-0,35	0,25-0,35
K	Cast iron nodular (GGG)		Ferritisch		160	15	90-180	0,30-0,50	0,35-0,55	0,35-0,55
			Perlitisch		250	16	80-140	0,30-0,50	0,35-0,55	0,35-0,55
	Grey cast iron (GG)		Ferritisch		180	17	90-165	0,30-0,50	0,35-0,55	0,35-0,55
			Perlitisch		260	18	80-140	0,30-0,50	0,35-0,55	0,35-0,55
	Malleable cast iron		Ferritisch		130	19	90-160	0,30-0,50	0,35-0,55	0,35-0,55
			Perlitisch		230	20	80-140	0,30-0,50	0,35-0,55	0,35-0,55

Steel Cast iron

Remark: For deep hole drilling (+8xD), reduce the cutting parameters by 30%

DRILL HEADS FOR SPADETWIST DRILLS
Steel Machining

Steel C machining

Flat bottom machining


D	steel	designation steel C	flat bottom	grade
20,0	LPA2000R01	LPC2000R01	LPF2000R01	IN 2505
20,5	LPA2050R01	LPC2050R01	LPF2050R01	IN 2505
21,0	LPA2100R01	LPC2100R01	LPF2100R01	IN 2505
21,5	LPA2150R01	LPC2150R01	LPF2150R01	IN 2505
22,0	LPA2200R01	LPC2200R01	LPF2200R01	IN 2505
22,5	LPA2250R01	LPC2250R01	LPF2250R01	IN 2505
23,0	LPA2300R01	LPC2300R01	LPF2300R01	IN 2505
23,5	LPA2350R01	LPC2350R01	LPF2350R01	IN 2505
24,0	LPA2400R01	LPC2400R01	LPF2400R01	IN 2505
24,5	LPA2450R01	LPC2450R01	LPF2450R01	IN 2505
25,0	LPA2500R01	LPC2500R01	LPF2500R01	IN 2505
25,5	LPA2550R01	LPC2550R01	LPF2550R01	IN 2505
26,0	LPA2600R01	LPC2600R01	LPF2600R01	IN 2505
26,5	LPA2650R01	LPC2650R01	LPF2650R01	IN 2505
27,0	LPA2700R01	LPC2700R01	LPF2700R01	IN 2505
27,5	LPA2750R01	LPC2750R01	LPF2750R01	IN 2505
28,0	LPA2800R01	LPC2800R01	LPF2800R01	IN 2505
28,5	LPA2850R01	LPC2850R01	LPF2850R01	IN 2505
29,0	LPA2900R01	LPC2900R01	LPF2900R01	IN 2505
29,5	LPA2950R01	LPC2950R01	LPF2950R01	IN 2505
30,0	LPA3000R01	LPC3000R01	LPF3000R01	IN 2505
30,5	LPA3050R01	LPC3050R01	LPF3050R01	IN 2505
31,0	LPA3100R01	LPC3100R01	LPF3100R01	IN 2505
31,5	LPA3150R01	LPC3150R01	LPF3150R01	IN 2505
32,0	LPA3200R01	LPC3200R01	LPF3200R01	IN 2505
32,5	LPA3250R01	LPC3250R01	LPF3250R01	IN 2505
33,0	LPA3300R01	LPC3300R01	LPF3300R01	IN 2505
33,5	LPA3350R01	LPC3350R01	LPF3350R01	IN 2505
34,0	LPA3400R01	LPC3400R01	LPF3400R01	IN 2505
34,5	LPA3450R01	LPC3450R01	LPF3450R01	IN 2505
35,0	LPA3500R01		LPF3500R01	IN 2505
35,5	LPA3550R01		LPF3550R01	IN 2505
36,0	LPA3600R01		LPF3600R01	IN 2505
36,5	LPA3650R01		LPF3650R01	IN 2505
37,0	LPA3700R01		LPF3700R01	IN 2505
37,5	LPA3750R01		LPF3750R01	IN 2505
38,0	LPA3800R01		LPF3800R01	IN 2505
38,5	LPA3850R01		LPF3850R01	IN 2505
39,0	LPA3900R01		LPF3900R01	IN 2505
39,5	LPA3950R01		LPF3950R01	IN 2505
40,0	LPA4000R01		LPF4000R01	IN 2505
40,5	LPA4050R01		LPF4050R01	IN 2505
41,0	LPA4100R01		LPF4100R01	IN 2505

D	steel	designation steel C	flat bottom	grade
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