

MODULAR

DRILL

SYSTEMS



- Insert diameter range: 12.5-40mm, depth: 3,5,7,10x diameter.
- Excellent centering performance.
- Equipped with internal cooling holes to enhance tool life.
- Special design of inserts with low axial force for improved feed and machining efficiency.
- Optimized coating for better wear resistance.



By

Safety

CUTTING TOOLS



LION DRILL BODIES, MODELS AND SIZES

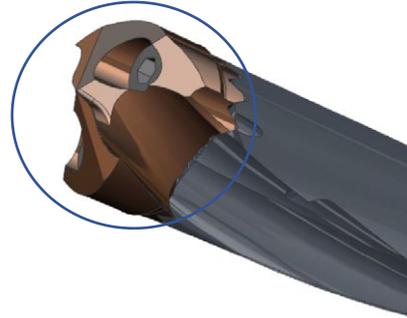
- Insert diameter range: 12-33.5mm, depth: 1.5x, 3x, 5x, 8x, 10x, 12x diameter.
- Resharpener allowance of 1.5mm-3mm is reserved for inserts to further reduce tool costs.
- Interchangeable carbide inserts and high rigidity alloy drill body greatly improve machining accuracy and efficiency.
- The radial tooth design of the insert and the drill body realizes high precision and high strength.
- Designed with internal coolant holes, it makes drilling cold enough for longer tool life and smoother chip evacuation.
- The same drill body can be assembled with different diameters of blades, saving tooling costs.
- Optimized spiral design for smooth chip evacuation control.
- Enhanced edge treatment dramatically improves machining life.
- Shank design suitable for a wide range of shank systems.
- Quick and easy insert change without removing the drill body from the machine.



OFFER CONDITIONS	
1,5D	6 piece
3D	6 piece
5D	8 piece
8D	15 piece

LION DRILL BODIES, MODELS AND SIZES

Installation Status



Screws

High-strength screws for stable locking of inserts from the head



Insert

A wide range of different cutting edges for different workpiece materials.



High-precision mating tooth profile for a solid connection

Inner Cooling Hole

Drill Body

The drill body is made of high-quality alloy steel with good rigidity and toughness.

Optimized drill tips for better centering performance

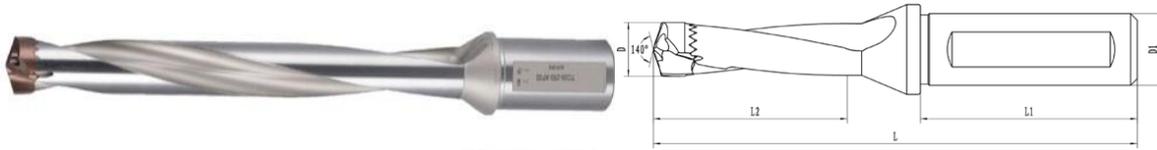
Chamfered main cutting edge for enhanced insert strength and wear resistance



Reinforced cutting edge protection for better chipping resistance during the cutting process

Superior coating for more wear-resistant inserts

JAWS DRILL BODIES, MODELS AND SIZES



Diameter (D) (h7)	1.5D			3D			5D			universal		Screw	Wrench
	Model	Size		Model	Size		Model	Size		Size			
		L2	L		L2	L		L2	L	L1	D1		
12.0-12.49	SC1.5-120-XP16	28	91	SC03-120-XP16	46	107	SC05-120-XP16	71	132			M2.2* 8	S6
12.5-13.49	SC1.5-130-XP16	30	92	SC03-130-XP16	49	112	SC05-130-XP16	76	142				
13.5-14.5	SC1.5-140-XP16	34	96	SC03-140-XP16	55	119	SC05-140-XP16	84	149				
14.51-15.5	SC1.5-150-XP20	35	100	SC03-150-XP20	58	129	SC05-150-XP20	89	159			M2.5* 9	S8
15.51-16.5	SC1.5-160-XP20	38	103	SC03-160-XP20	62	134	SC05-160-XP20	95	169				
16.51-17.5	SC1.5-170-XP20	39	105	SC03-170-XP20	66	140	SC05-170-XP20	101	175				
17.51-18.5	SC1.5-180-XP20	43	107	SC03-180-XP20	70	145	SC05-180-XP20	107	180			M3.0* 11	S10
18.51-19.5	SC1.5-190-XP25	44	115	SC03-190-XP25	73	160	SC05-190-XP25	112	195				
19.51-20.5	SC1.5-200-XP25	47	118	SC03-200-XP25	77	160	SC05-200-XP25	118	200				
20.51-21.5	SC1.5-210-XP25	48	119	SC03-210-XP25	80	160	SC05-210-XP25	123	200			M3.5* 12	S11
21.51-22.8	SC1.5-220-XP25	51	121	SC03-220-XP25	84	165	SC05-220-XP25	129	205				
22.81-23.8	SC1.5-230-XP25	51	122	SC03-230-XP25	81	165	SC05-230-XP25	134	215				
23.81-24.8	SC1.5-240-XP32	54	129	SC03-240-XP32	91	175	SC05-240-XP32	140	225			M4.0* 14	S12
24.81-25.8	SC1.5-250-XP32	54	129	SC03-250-XP32	93	175	SC05-250-XP32	145	230				
25.81-26.8	SC1.5-260-XP32	57	132	SC03-260-XP32	97	180	SC05-260-XP32	151	235				
26.81-27.8	SC1.5-270-XP32	58	133	SC03-270-XP32	99	180	SC05-270-XP32	156	245			M4.5* 15	S13
27.81-28.8	SC1.5-280-XP32	60	135	SC03-280-XP32	102	185	SC05-280-XP32	162	245				
28.81-29.9	SC1.5-290-XP32	61	136	SC03-290-XP32	105	190	SC05-290-XP32	167	250				
29.81-30.8	SC1.5-300-XP32	64	139	SC03-300-XP32	110	191	SC05-300-XP32	173	261			M4.5* 15	S14
30.81-32.0	SC1.5-320-XP32	67	143	SC03-320-XP32	116	201	SC05-320-XP32	181	266				
32.01-33.5	SC1.5-330-XP32	69	146	SC03-330-XP32	121	206	SC05-330-XP32	191	276				

JAWS DRILL BODIES, MODELS AND SIZES



Diameter (D) (h7)	8D		10D		12D		universal		Screw	Wrench			
	Model	Size		Model	Size		Size						
		L2	L		L2	L	L2	L			L1	D1	
12.0-12.49	SC08-120-XP16	107	168	SC10-120-XP16	-	-	-	-	-	-	M2.2*8	T6	
12.5-13.49	SC08-130-XP16	115	182	SC10-130-XP16	-	-	-	-	48	16			
13.5-14.5	SC08-140-XP16	127	194	SC10-140-XP16	156.5	220.5	SC12-140-XP16	186.5	249.5	-			-
14.51-15.5	SC08-150-XP20	136	204	SC10-150-XP20	166.7	232.7	SC12-150-XP20	198.7	263.7	50	20	M2.5*9	T8
15.51-16.5	SC08-160-XP20	144	214	SC10-160-XP20	178.5	243.5	SC12-160-XP20	211.5	276.5				
16.51-17.5	SC08-170-XP20	154	225	SC10-170-XP20	188.7	253.7	SC12-170-XP20	223.7	288.7				
17.51-18.5	SC08-180-XP20	162	230	SC10-180-XP20	198.8	264.8	SC12-180-XP20	236.8	301.8	56	25	M3.0*11	T8
18.51-19.5	SC08-190-XP25	171	255	SC10-190-XP25	209.9	280.9	SC12-190-XP25	248.9	314.8				
19.51-20.5	SC08-200-XP25	179	270	SC10-200-XP25	220.5	291.5	SC12-200-XP25	261.5	332.5				
20.51-21.5	SC08-210-XP25	188	266	SC10-210-XP25	230.6	361.6	SC12-210-XP25	273.6	344.6	60	32	M3.5*12	T15
21.51-22.8	SC08-220-XP25	196	275	SC10-220-XP25	244.1	315.1	SC12-220-XP25	289.7	360.7				
22.81-23.8	SC08-230-XP25	205	285	SC10-230-XP25	253.7	324.7	SC12-230-XP25	301.3	372.3				
23.81-24.8	SC08-240-XP32	213	300	SC10-240-XP32	264.9	339.9	SC12-240-XP32	264.9	389.5	60	32	M4.0*14	T15
24.81-25.8	SC08-250-XP32	222	305	SC10-250-XP32	270	350	SC12-250-XP32	326.6	401.6				
25.81-26.8	SC08-260-XP32	230	315	SC10-260-XP32	285.3	360.3	SC12-260-XP32	338.9	413.9				
26.81-27.8	SC08-270-XP32	239	325	SC10-270-XP32	295.3	370.3	SC12-270-XP32	350.9	425.9	60	32	M4.5*15	T15
27.81-28.8	SC08-280-XP32	247	330	SC10-280-XP32	306.2	381.2	SC12-280-XP32	363.8	438.8				
28.81-29.9	SC08-290-XP32	256	340	SC10-290-XP32	316.2	391.4	SC12-290-XP32	376	451				
29.81-30.8	SC08-300-XP32			SC10-300-XP32	327.9	402.9				60	32	M4.5*15	T15
30.81-32.0	SC08-320-XP32			SC10-320-XP32	345.9	424.9							
32.01-33.5	SC08-330-XP32			SC10-330-XP32	364	443							



SCPA



SCEA



SCMA



SCZA



SCJA



SCFA

SCPA: Yaygın çelik parçalarının işlenmesi için yüksek uç mukavemeti,AlCr kaplama (P)

SCEA: Yumuşak çelik ve dökme demirin işlenmesi için nispeten keskin uç,AlCrN kaplama(P/K)

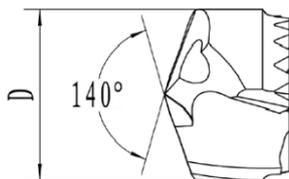
SCMA: Dayanıklı,taşlanmaya karşı dirençli bir matris olan AlTiN kaplama(M/K) paslanmaz çeliğin işlenmesine adanmıştır.

SCZA: Çift üst köşe tasarımına sahip,kendiliğinden merkezlenen matkap ucu,

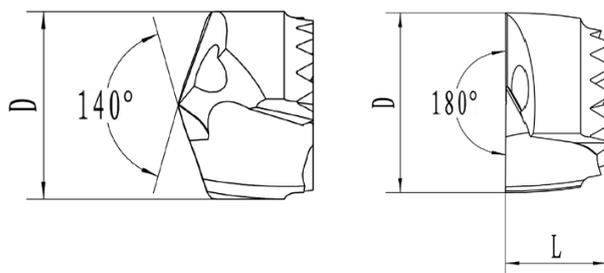
SCJA: Yapısal çeliğin işlenmesi için çift üst açılı tasarım, AlCrN kaplama

SCFA: Giriş pahı veya alt düz delik açma gereksinimleri için üstvaçı tasarımı,AlCr kaplama (P/K/M).





Diameter D(mm)	Model	Model	Model	L	Model	L
12,0	SCEA-1200	SCPA-1200	SCMA-1200	9,1	SCFA-1200	7,1
12,5	SCEA-1250	SCPA-1250	SCMA-1250	9,4	SCFA-1250	7,2
13,0	SCEA-1300	SCPA-1300	SCMA-1300	9,7	SCFA-1300	7,5
13,5	SCEA-1350	SCPA-1350	SCMA-1350	10,3	SCFA-1350	7,9
14,0	SCEA-1400	SCPA-1400	SCMA-1400		SCFA-1400	
14,5	SCEA-1450	SCPA-1450	SCMA-1450		SCFA-1450	
15,0	SCEA-1500	SCPA-1500	SCMA-1500	11,0	SCFA-1500	8,3
15,5	SCEA-1550	SCPA-1550	SCMA-1550		SCFA-1550	
16,0	SCEA-1600	SCPA-1600	SCMA-1600	11,6	SCFA-1600	8,8
16,5	SCEA-1650	SCPA-1650	SCMA-1650		SCFA-1650	
17,0	SCEA-1700	SCPA-1700	SCMA-1700	12,3	SCFA-1700	9,3
17,5	SCEA-1750	SCPA-1750	SCMA-1750		SCFA-1750	
18,0	SCEA-1800	SCPA-1800	SCMA-1800	12,9	SCFA-1800	9,8
18,5	SCEA-1850	SCPA-1850	SCMA-1850		SCFA-1850	
19,0	SCEA-1900	SCPA-1900	SCMA-1900	13,6	SCFA-1900	10,2
19,5	SCEA-1950	SCPA-1950	SCMA-1950		SCFA-1950	
20,0	SCEA-2000	SCPA-2000	SCMA-2000	14,1	SCFA-2000	10,7
20,5	SCEA-2050	SCPA-2050	SCMA-2050		SCFA-2050	
21,0	SCEA-2100	SCPA-2100	SCMA-2100	14,8	SCFA-2100	11,2
21,5	SCEA-2150	SCPA-2150	SCMA-2150		SCFA-2150	
22,0	SCEA-2200	SCPA-2200	SCMA-2200	15,0	SCFA-2200	
22,5	SCEA-2250	SCPA-2250	SCMA-2250		SCFA-2250	
23,0	SCEA-2300	SCPA-2300	SCMA-2300	15,2	SCFA-2300	
23,5	SCEA-2350	SCPA-2350	SCMA-2350		SCFA-2350	



Diameter D(mm)	Model	Model	Model	L	Model	L
24,0	SCEA-2400	SCPA-2400	SCMA-2400	15,4	SCFA-2400	11,3
24,5	SCEA-2450	SCPA-2450	SCMA-2450		SCFA-2450	
25,0	SCEA-2500	SCPA-2500	SCMA-2500	15,9	SCFA-2500	11,7
25,5	SCEA-2550	SCPA-2550	SCMA-2550		SCFA-2550	
26,0	SCEA-2600	SCPA-2600	SCMA-2600	17	SCFA-2600	12,2
26,5	SCEA-2650	SCPA-2650	SCMA-2650		SCFA-2650	
27,0	SCEA-2700	SCPA-2700	SCMA-2700	17,2	SCFA-2700	12,7
27,5	SCEA-2750	SCPA-2750	SCMA-2750		SCFA-2750	
28,0	SCEA-2800	SCPA-2800	SCMA-2800	17,8	SCFA-2800	13,2
28,5	SCEA-2850	SCPA-2850	SCMA-2850		SCFA-2850	
29,0	SCEA-2900	SCPA-2900	SCMA-2900	18,4	SCFA-2900	13,6
29,5	SCEA-2950	SCPA-2950	SCMA-2950		SCFA-2950	
30,0	SCEA-3000	SCPA-3000	SCMA-3000	19,0	SCFA-3000	14,1
31,5	SCEA-3050	SCPA-3050	SCMA-3050		SCFA-3050	
31,0	SCEA-3100	SCPA-3100	SCMA-3100			
31,5	SCEA-3150	SCPA-3150	SCMA-3150			
32,0	SCEA-3200	SCPA-3200	SCMA-3200			
32,5	SCEA-3250	SCPA-3250	SCMA-3250			
33,0	SCEA-3300	SCPA-3300	SCMA-3300			
33,5	SCEA-3350	SCPA-3350	SCMA-3350			

RECOMMENDED PROCESSING PARAMETER OF LIONS DRILL



			Diameter(mm)		
Workpiece Material	Recommended Insert Models	Cutting Speed Vc (m/min)	12 ~ 16	16 ~ 20	20-30.8
Mild Steel (~250HB)	SCPA/SCEA	80-120 (50-80)	0.15-0.3	0.15-0.3	0.15-0.35
Plain Steel(250-320HB)	SCPA/SCEA	70-120 (50-80)	0.15-0.3	0.15-0.3	0.15-0.35
Highly Hardened Steel(45HRC)	SCPA	40-90 (30-70)	0.1-0.2	0.1-0.2	0.15-0.25
Stainless Steel(~200HB)	SCMA/SCEA	50-90 (40-60)	0.1-0.2	0.1-0.2	0.15-0.25
Gray Cast Iron	SCPA/SCEA	50-100 (40-80)	0.15-0.3	0.15-0.35	0.15-0.4
Ductile Iron	SCPA/SCEA	50-90 (40-70)	0.15-0.3	0.15-0.35	0.15-0.35

It needs to make a pilot hole when processing with 8x and 12x diameter drill, processing parameters refer to the parameters in parentheses