

# NPA

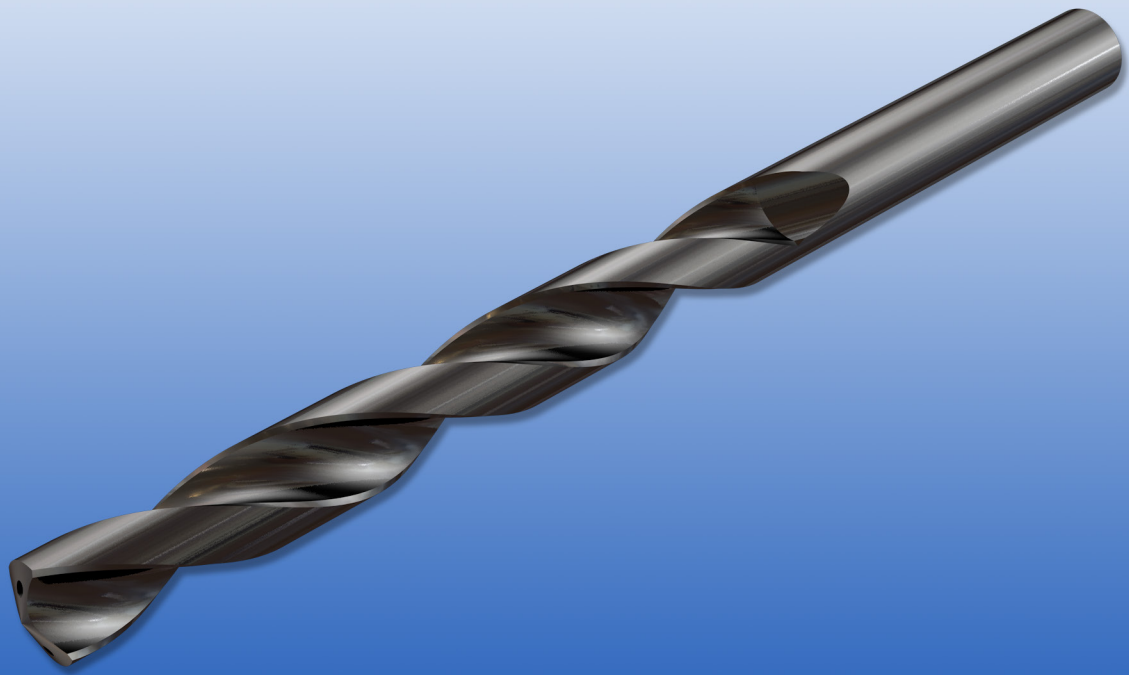
New Product Announcement

HOLE MAKING

20-2020

JUNE 2020 • METRIC

PAGE 1 / 6



**SOLIDDRILL**

**Expansion of  
SCD-ACP8N (8XD)  
Solid Carbide Drills**

## **SOLIDDRILL**

### **Highlights**

**ISCAR is expanding its range of SCD-ACP8N (8xD) drills by introducing new items ranging from 3-10mm in increments of 0.1mm.**

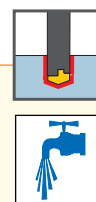
**See NPA 39-2018 for the initial product launch.**

Following market demands, ISCAR has expanded the range of SCD-ACP8N (8xD) solid carbide drills.

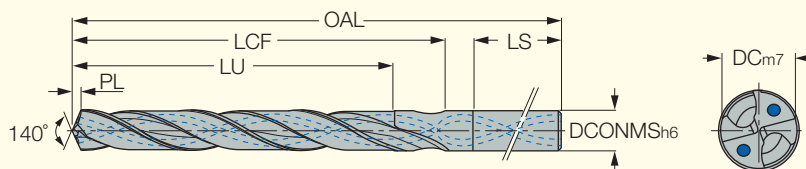
# SOLIDDRILL

## SCD-ACP8N (8xD)

Solid Carbide Drills with Coolant Holes, Drilling Depth 8xD



DC	Tolerance m7
3.00-6	0.004-0.016
6.01-10	0.006-0.021
10.01-18	0.007-0.025
18.01-21	0.008-0.029



Designation	Dimensions								IC908
	DC	DCONMS	LU	LCF	OAL	LS	Th <sup>(1)</sup>	PL	
SCD 030-029-060 ACP8N	3.00	6.00	29.00	34.0	72.00	34.0	-	0.55	●
SCD 031-029-060 ACP8N	3.10	6.00	29.00	34.0	72.00	34.0	-	0.56	●
SCD 032-029-060 ACP8N	3.20	6.00	29.00	34.0	72.00	34.0	-	0.58	●
SCD 033-029-060 ACP8N	3.30	6.00	29.00	34.0	72.00	34.0	M4	0.60	●
SCD 034-029-060 ACP8N	3.40	6.00	29.00	34.0	72.00	34.0	-	0.62	●
SCD 035-029-060 ACP8N	3.50	6.00	29.00	34.0	72.00	34.0	-	0.64	●
SCD 036-029-060 ACP8N	3.60	6.00	29.00	34.0	72.00	34.0	-	0.66	●
SCD 037-029-060 ACP8N	3.70	6.00	29.00	34.0	72.00	34.0	-	0.67	●
SCD 038-036-060 ACP8N	3.80	6.00	36.00	43.0	81.00	35.0	-	0.69	●
SCD 039-036-060 ACP8N	3.90	6.00	36.00	43.0	81.00	35.0	-	0.71	●
SCD 040-036-060 ACP8N	4.00	6.00	36.00	43.0	81.00	35.0	-	0.73	●
SCD 041-036-060 ACP8N	4.10	6.00	36.00	43.0	81.00	35.0	-	0.75	●
SCD 042-036-060 ACP8N	4.20	6.00	36.00	43.0	81.00	35.0	M5	0.76	●
SCD 043-036-060 ACP8N	4.30	6.00	36.00	43.0	81.00	35.0	-	0.78	●
SCD 044-036-060 ACP8N	4.40	6.00	36.00	43.0	81.00	35.0	-	0.80	●
SCD 045-036-060 ACP8N	4.50	6.00	36.00	43.0	81.00	35.0	-	0.82	●
SCD 046-036-060 ACP8N	4.60	6.00	36.00	43.0	81.00	35.0	-	0.84	●
SCD 047-036-060 ACP8N	4.70	6.00	36.00	43.0	81.00	35.0	-	0.86	●
SCD 048-048-060 ACP8N	4.80	6.00	48.00	57.0	95.00	36.0	-	0.87	●
<b>NEW</b> SCD 049-048-060 ACP8N	4.90	6.00	48.00	57.0	95.00	36.0	-	0.89	●
<b>NEW</b> SCD 050-048-060 ACP8N	5.00	6.00	48.00	57.0	95.00	36.0	M6	0.91	●
SCD 051-048-060 ACP8N	5.10	6.00	48.00	57.0	95.00	36.0	-	0.93	●
SCD 052-048-060 ACP8N	5.20	6.00	48.00	57.0	95.00	36.0	-	0.95	●
SCD 053-048-060 ACP8N	5.30	6.00	48.00	57.0	95.00	36.0	-	0.96	●
<b>NEW</b> SCD 054-048-060 ACP8N	5.40	6.00	48.00	57.0	95.00	36.0	-	0.98	●
SCD 055-048-060 ACP8N	5.50	6.00	48.00	57.0	95.00	36.0	-	1.00	●
<b>NEW</b> SCD 056-048-060 ACP8N	5.60	6.00	48.00	57.0	95.00	36.0	-	1.02	●
<b>NEW</b> SCD 057-048-060 ACP8N	5.70	6.00	48.00	57.0	95.00	36.0	-	1.04	●
SCD 058-048-060 ACP8N	5.80	6.00	48.00	57.0	95.00	36.0	-	1.06	●
<b>NEW</b> SCD 059-048-060 ACP8N	5.90	6.00	48.00	57.0	95.00	36.0	-	1.07	●
SCD 060-048-060 ACP8N	6.00	6.00	48.00	57.0	95.00	36.0	M7	1.09	●
SCD 061-064-080 ACP8N	6.10	8.00	64.00	76.0	114.00	36.0	-	1.11	●
SCD 062-064-080 ACP8N	6.20	8.00	64.00	76.0	114.00	36.0	-	1.13	●
SCD 063-064-080 ACP8N	6.30	8.00	64.00	76.0	114.00	36.0	-	1.15	●
<b>NEW</b> SCD 064-064-080 ACP8N	6.40	8.00	64.00	76.0	114.00	36.0	-	1.16	●
<b>NEW</b> SCD 065-064-080 ACP8N	6.50	8.00	64.00	76.0	114.00	36.0	-	1.18	●
<b>NEW</b> SCD 066-064-080 ACP8N	6.60	8.00	64.00	76.0	114.00	36.0	-	1.20	●
<b>NEW</b> SCD 067-064-080 ACP8N	6.70	8.00	64.00	76.0	114.00	36.0	-	1.22	●
<b>NEW</b> SCD 068-064-080 ACP8N	6.80	8.00	64.00	76.0	114.00	36.0	M8	1.24	●
<b>NEW</b> SCD 069-064-080 ACP8N	6.90	8.00	64.00	76.0	114.00	36.0	-	1.26	●
<b>NEW</b> SCD 070-064-080 ACP8N	7.00	8.00	64.00	76.0	114.00	36.0	-	1.27	●
<b>NEW</b> SCD 071-064-080 ACP8N	7.10	8.00	64.00	76.0	114.00	36.0	-	1.29	●

<sup>(1)</sup> Used for standard thread size

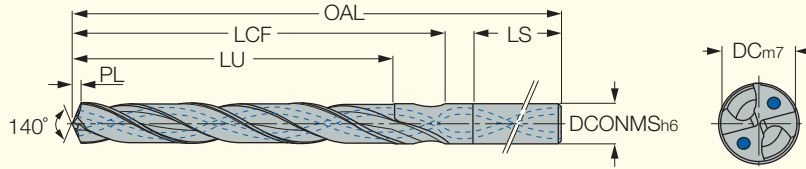
# SOLIDDRILL

## SCD-ACP8N (8xD) (continued)

Solid Carbide Drills with Coolant Holes, Drilling Depth 8xD



DC	Tolerance m7
3.00-6	0.004-0.016
6.01-10	0.006-0.021
10.01-18	0.007-0.025
18.01-21	0.008-0.029



		Dimensions							IC908
Designation	DC	DCONMS	LU	LCF	OAL	LS	Th <sup>(1)</sup>	PL	
NEW SCD 072-064-080 ACP8N	7.20	8.00	64.00	76.0	114.00	36.0	-	1.31	●
NEW SCD 073-064-080 ACP8N	7.30	8.00	64.00	76.0	114.00	36.0	-	1.33	●
NEW SCD 074-064-080 ACP8N	7.40	8.00	64.00	76.0	114.00	36.0	-	1.35	●
NEW SCD 075-064-080 ACP8N	7.50	8.00	64.00	76.0	114.00	36.0	-	1.36	●
NEW SCD 076-064-080 ACP8N	7.60	8.00	64.00	76.0	114.00	36.0	-	1.38	●
NEW SCD 077-064-080 ACP8N	7.70	8.00	64.00	76.0	114.00	36.0	-	1.40	●
NEW SCD 078-064-080 ACP8N	7.80	8.00	64.00	76.0	114.00	36.0	M9	1.42	●
NEW SCD 079-064-080 ACP8N	7.90	8.00	64.00	76.0	114.00	36.0	-	1.44	●
NEW SCD 080-064-080 ACP8N	8.00	8.00	64.00	76.0	114.00	36.0	-	1.46	●
NEW SCD 081-080-100 ACP8N	8.10	10.00	80.00	95.0	142.00	40.0	-	1.47	●
NEW SCD 082-080-100 ACP8N	8.20	10.00	80.00	95.0	142.00	40.0	-	1.49	●
NEW SCD 083-080-100 ACP8N	8.30	10.00	80.00	95.0	142.00	40.0	-	1.51	●
NEW SCD 084-080-100 ACP8N	8.40	10.00	80.00	95.0	142.00	40.0	-	1.53	●
NEW SCD 085-080-100 ACP8N	8.50	10.00	80.00	95.0	142.00	40.0	M10	1.55	●
NEW SCD 086-080-100 ACP8N	8.60	10.00	80.00	95.0	142.00	40.0	-	1.57	●
NEW SCD 087-080-100 ACP8N	8.70	10.00	80.00	95.0	142.00	40.0	-	1.58	●
NEW SCD 088-080-100 ACP8N	8.80	10.00	80.00	95.0	142.00	40.0	-	1.60	●
NEW SCD 089-080-100 ACP8N	8.90	10.00	80.00	95.0	142.00	40.0	-	1.62	●
NEW SCD 090-080-100 ACP8N	9.00	10.00	80.00	95.0	142.00	40.0	-	1.64	●
NEW SCD 091-080-100 ACP8N	9.10	10.00	80.00	95.0	142.00	40.0	-	1.66	●
NEW SCD 092-080-100 ACP8N	9.20	10.00	80.00	95.0	142.00	40.0	-	1.67	●
NEW SCD 093-080-100 ACP8N	9.30	10.00	80.00	95.0	142.00	40.0	-	1.69	●
NEW SCD 094-080-100 ACP8N	9.40	10.00	80.00	95.0	142.00	40.0	-	1.71	●
NEW SCD 095-080-100 ACP8N	9.50	10.00	80.00	95.0	142.00	40.0	M11	1.73	●
NEW SCD 096-080-100 ACP8N	9.60	10.00	80.00	95.0	142.00	40.0	-	1.75	●
NEW SCD 097-080-100 ACP8N	9.70	10.00	80.00	95.0	142.00	40.0	-	1.77	●
NEW SCD 098-080-100 ACP8N	9.80	10.00	80.00	95.0	142.00	40.0	-	1.78	●
NEW SCD 100-080-100 ACP8N	10.00	10.00	80.00	95.0	142.00	40.0	-	1.82	●

<sup>(1)</sup> Used for standard thread size

## SOLIDDRILL

**Machining Data for Solid Carbide Drills - IC908 D=3.0-20.0 mm**

ISO	Material	Condition	Tensile Strength [N/mm <sup>2</sup> ]	Hardness HB	Material No.	
<b>P</b>	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
	Low alloy steel and cast steel (less than 5% of alloying elements)	Quenched and tempered	1000	300	5	
			Annealed	600	200	6
		Quenched and tempered	930	275	7	
			1000	300	8	
			1200	350	9	
	High alloyed steel, cast steel, and tool steel	Annealed	680	200	10	
		Quenched and tempered	1100	325	11	
	Stainless steel and cast steel	Ferritic/martensitic	680	200	12	
		Martensitic	820	240	13	
<b>M</b>	Stainless steel	Austenitic	600	180	14	
<b>K</b>	Grey cast iron <sup>(GG)</sup>	Ferritic/pearlitic		180	15	
		Pearlitic		260	16	
	Nodular cast iron <sup>(GGG)</sup>	Ferritic		160	17	
		Pearlitic		250	18	
	Malleable cast iron	Ferritic		130	19	
		Pearlitic		230	20	
<b>N</b>	Aluminum-wrought alloy	Not cureable		60	21	
		Cured		100	22	
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
		>12% Si	Cured		90	24
	Copper alloys	>12% Si	High temperature		130	25
		>1% Pb	Free cutting		110	26
		Brass			90	27
		Electrolitic copper			100	28
	Non-metallic	Duroplastics, fiber plastics				29
		Hard rubber				30
<b>S</b>	High temp. alloys	Fe based	Annealed		200	31
		Ni or Co based	Cured		280	32
			Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium Ti alloys		RM 400			36
		Alpha+beta alloys cured	RM 1050			37
<b>H</b>	Hardened steel	Hardened		55 HRC	38	
		Hardened		60 HRC	39	
	Chilled cast iron	Cast		400	40	
	Cast iron	Hardened		55 HRC	41	

- When using external coolant supply only, reduce cutting speed by 10%
- Use internal coolant supply when machining austenitic stainless steel

## SOLIDDRILL

Mtl. No.	Cutting Speed Vc m/min	Feed (mm/rev) vs. Drill Diameter				
		Ø3-5	Ø5.1-8	Ø8.1-12	Ø12.1-16	Ø16.1-20
1	80-120	0.10-0.18	0.15-0.25	0.2-0.30	0.20-0.35	0.25-0.40
2	80-110	0.10-0.18	0.15-0.25	0.2-0.30	0.20-0.35	0.25-0.40
3	70-100	0.10-0.20	0.15-0.28	0.2-0.35	0.20-0.38	0.25-0.42
4						
5	70-90	0.10-0.18	0.15-0.25	0.2-0.30	0.20-0.35	0.25-0.40
6						
7	60-80	0.10-0.18	0.15-0.25	0.2-0.30	0.20-0.35	0.25-0.40
8						
9	50-70	0.10-0.20	0.15-0.28	0.2-0.35	0.20-0.38	0.25-0.42
10	60-80	0.10-0.20	0.15-0.28	0.18-0.35	0.20-0.38	0.25-0.42
11	50-70	0.10-0.15	0.12-0.20	0.14-0.25	0.16-0.30	0.18-0.32
12	25-75	0.04-0.10	0.05-0.15	0.05-0.18	0.08-0.20	0.10-0.20
13	25-75	0.04-0.10	0.05-0.15	0.05-0.18	0.08-0.20	0.10-0.20
14	25-75	0.04-0.10	0.05-0.15	0.05-0.18	0.08-0.20	0.10-0.20
15	85-105	0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.50	0.35-0.55
16	75-90	0.15-0.25	0.20-0.35	0.25-0.45	0.30-0.50	0.35-0.55
17	65-80	0.12-0.20	0.15-0.25	0.20-0.35	0.25-0.40	0.30-0.45
18						
19						
20						
21	70-300	0.10-0.25	0.15-0.35	0.25-0.45	0.30-0.50	0.35-0.55
22						
23	70-200					
24	70-300	0.07-0.18	0.12-0.25	0.20-0.35	0.25-0.45	0.30-0.50
25						
26						
27						
28						
29						
30						
31	15-35	0.02-0.07	0.04-0.10	0.06-0.12	0.08-0.15	0.08-0.18
32						
33						
34						
35						
36						
37						
38	40-70	0.06-0.10	0.08-0.12	0.10-0.14	0.12-0.16	0.14-0.18
39						
40						
41						

As a starting value, the middle of the recommended machining range should be used.  
Then, (according to wear results), conditions can be changed in order to optimize performance.