

Automation  
Productivity  
SCAR Metalworking  
MILLING Machin  
New Threading  
NEW Met  
Systems  
Innovation DRILLING  
Connectivity  
Automation

# NPA

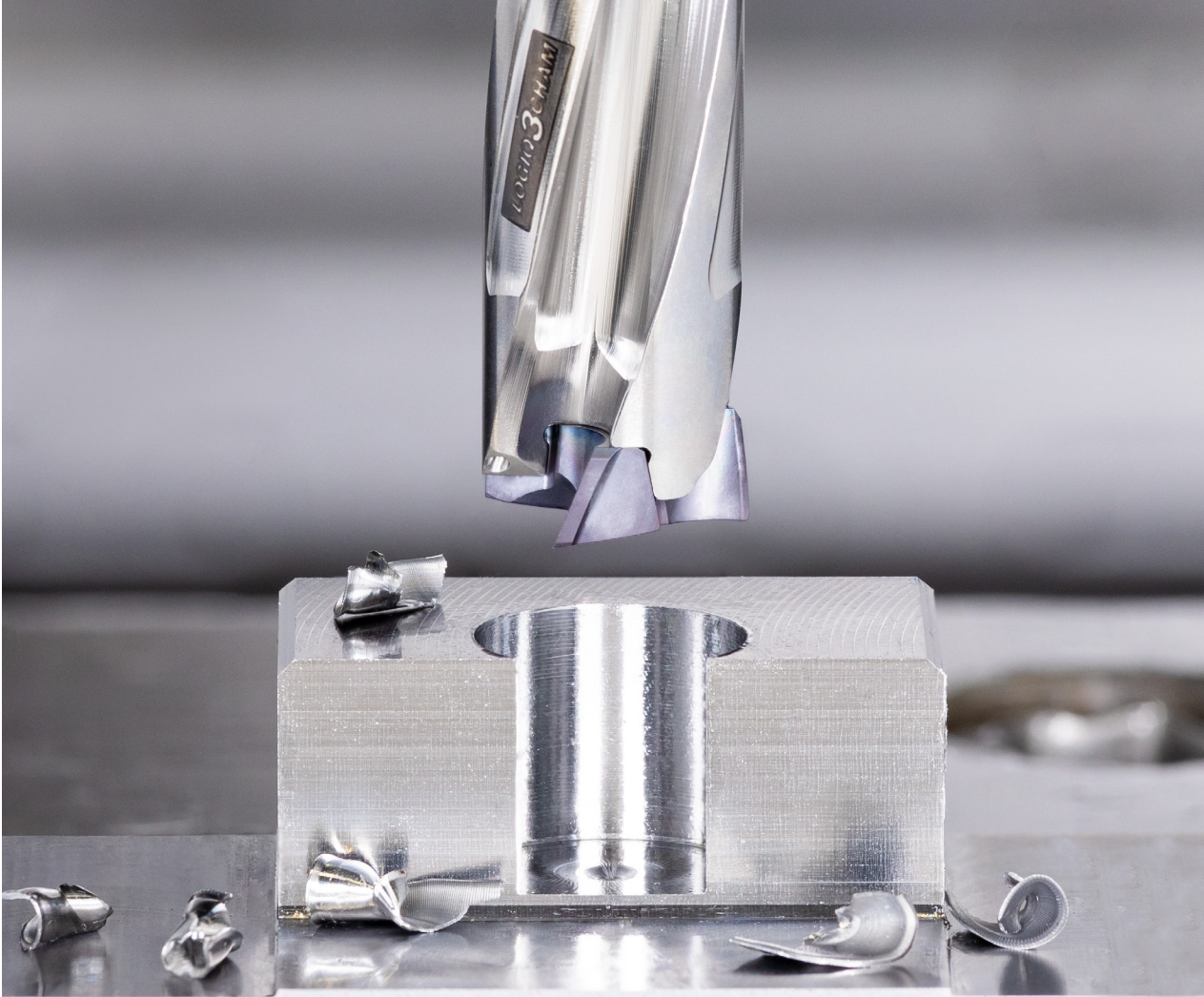
New Product Announcement

HOLE MAKING

03-2022

MARCH 2022

METRIC



Self-Centering  
Insert



For Steel &  
Cast Iron



High  
Productivity



**LOGIQ3CHAM**  
THREE FLUTE CHAMDRILL

# Flat LOGIQ3CHAM Drilling Heads



## METRIC



Self-Centering  
Insert



For Steel &  
Cast Iron



High  
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# NPA

New Product Announcement

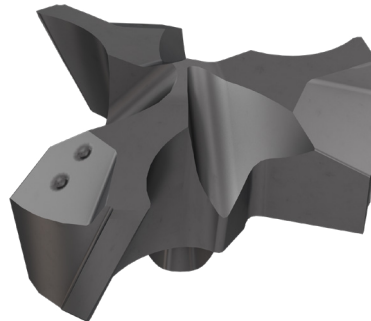
**LOGIQ3CHAM**  
THREE FLUTE CHAMDRILL

## Highlights

### ISCAR is Expanding the Application Range of the Successful LOGIQ3CHAM Drilling Line by Adding Flat 3 Flute Drilling Heads

Drilling with the F3P geometry combines the productivity advantages of the **LOGIQ3CHAM** line with a nearly flat bottom surface, required for diverse applications.

- The new F3P drill heads can be mounted on any **LOGIQ3CHAM** drill featuring the appropriate pocket size.
- The recommended cutting conditions for F3P drilling heads are the same as those recommended for H3P drilling heads.
- The new F3P tip design enables drilling in applications up to 8 L/D ratio without the need for pre-hole.



#### Availability

In stock.

# NPA

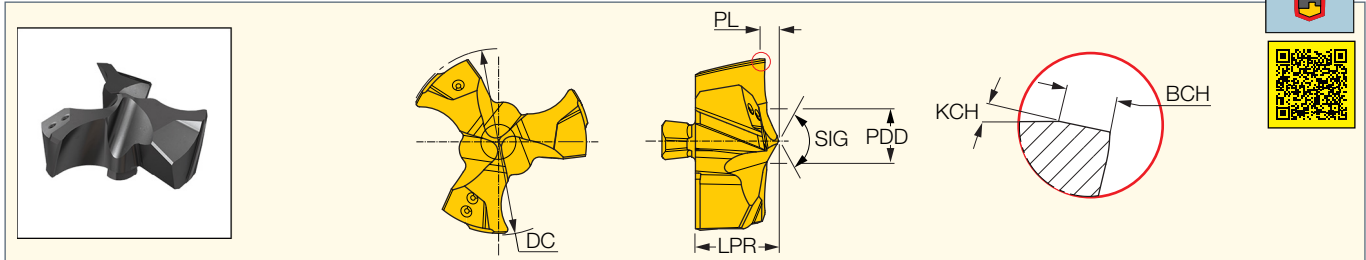
## New Product Announcement

### LOGIQ3CHAM

THREE FLUTE CHAMDRILL

#### F3P

Exchangeable 3 Flute Flat Drilling Heads for Machining Carbon and Alloy Steel (ISO P) and Cast Iron (ISO K)



Designation	Dimensions								IC908
	DC	LPR <sup>(1)</sup>	PL	PDD	SIG	BCH	KCH	SSC <sup>(2)</sup>	
F3P 120-IQ	12.00	4.90	0.790	2.96	133	0.40	15.0	12	●
F3P 125-IQ	12.50	4.90	0.790	2.96	133	0.40	15.0	12	●
F3P 130-IQ	13.00	5.39	0.990	3.52	130	0.40	15.0	13	●
F3P 135-IQ	13.50	5.39	0.990	3.52	130	0.40	15.0	13	●
F3P 140-IQ	14.00	6.42	1.110	4.16	124	0.40	15.0	14	●
F3P 145-IQ	14.50	6.42	1.110	4.16	124	0.40	15.0	14	●
F3P 150-IQ	15.00	6.72	1.190	3.81	121	0.40	15.0	15	●
F3P 155-IQ	15.50	6.72	1.190	3.81	121	0.40	15.0	15	●
F3P 160-IQ	16.00	7.03	1.090	3.95	121	0.40	15.0	16	●
F3P 165-IQ	16.50	7.03	1.090	3.95	121	0.40	15.0	16	●
F3P 170-IQ	17.00	7.70	1.160	4.09	121	0.40	15.0	17	●
F3P 175-IQ	17.50	7.70	1.160	4.09	121	0.40	15.0	17	●
F3P 180-IQ	18.00	8.02	1.230	5.86	131	0.40	15.0	18	●
F3P 185-IQ	18.50	8.02	1.230	5.86	131	0.40	15.0	18	●
F3P 190-IQ	19.00	8.09	1.270	6.19	131	0.40	15.0	19	●
F3P 195-IQ	19.50	8.09	1.270	6.19	131	0.40	15.0	19	●
F3P 200-IQ	20.00	8.59	1.340	6.54	132	0.40	15.0	20	●
F3P 205-IQ	20.50	8.59	1.340	6.54	132	0.40	15.0	20	●
F3P 210-IQ	21.00	9.02	1.410	6.92	132	0.40	15.0	21	●
F3P 215-IQ	21.50	9.02	1.410	6.92	132	0.40	15.0	21	●
F3P 220-IQ	22.00	9.97	1.680	7.19	132	0.40	15.0	22	●
F3P 225-IQ	22.50	9.97	1.680	7.19	132	0.40	15.0	22	●
F3P 230-IQ	23.00	10.17	1.750	7.66	132	0.40	15.0	23	●
F3P 235-IQ	23.50	10.17	1.750	7.66	132	0.40	15.0	23	●
F3P 240-IQ	24.00	10.59	1.820	7.79	132	0.40	15.0	24	●
F3P 245-IQ	24.50	10.59	1.820	7.79	132	0.40	15.0	24	●
F3P 250-IQ	25.00	10.81	1.660	8.09	131	0.40	15.0	25	●
F3P 255-IQ	25.50	10.81	1.660	8.09	131	0.40	15.0	25	●

● For nearly flat bottom hole applications

<sup>(1)</sup> LPR tolerance  $\pm 0.05$  mm

<sup>(2)</sup> Seat size code



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## PreHole Adjustment

Pre-Hole	ICP/ ICM/ ICN	ICK	HCP/H3P	FCP/F3P	QCP	ICG
ICP ICM ICN	✓	✗	✗	✗	✗	✗
ICK	✓	✓	✗	✗	✗	✗
HCP H3P	✓	✗	✓	✓	✗	✗
FCP F3P	✗	✗	✗	✓	✗	✗
QCP	✓	✗	✗	✓	✓	✗
ICG	✓	✓	✗	✗	✗	✓

\*For proper insert performance and centering, a bigger insert within a 1.0 mm range of the same diameter may be used



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## LOGIQ3CHAM Mounting instruction:

**It is important to fasten the drilling head manually prior to using the key!**

### LOGIQ 3CHAM THREE FLUTE CHAMDRILL

#### Drilling Head Mounting Procedure

- 
- 
- 
- 
- 
- 

#### Drilling Limitations

**\* 12°**

**\* 12°**

**Boring**

Max 0.02 mm

liter/min Coolant Flow Rate

flow rate

Drill Diameter D (mm)

Max 0.02 mm

bar Minimum Coolant Pressure

10 X D  
8 X D  
5 X D  
3 X D

#### Coolant Recommendations

Dry machining

Up to 2XD

\* Up to 6° reduce feed by 20%  
\* 6°-12° reduce feed by 50%



### Material Groups

ISO	Material	Condition	Tensile Strength Rm [N/mm <sup>2</sup> ]	Hardness HB	
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125
		≥ 0.25 %C	Annealed	650	190
		< 0.55 %C	Quenched and tempered	850	250
			Annealed	750	220
		≥ 0.55 %C	Quenched and tempered	1000	300
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	200
		Quenched and tempered		930	275
				1000	300
				1200	350
		High alloyed steel, cast steel and tool steel	Annealed	680	200
	Quenched and tempered	1100	325		
K	Gray cast iron (GG)	Ferritic / pearlitic		180	
		Pearlitic / martensitic		260	
	Nodular cast iron (GGG)	Ferritic		160	
		Pearlitic		250	
	Malleable cast iron	Ferritic		130	
		Pearlitic		230	

### Recommended Machining Conditions

Mtl. No.	VC m/min	Feed vs. Drill Diameter						
		D=12-13.9	D=14-15.9	D=16-17.9	D=18-19.9	D=20-21.9	D=22-23.9	D=24-25.9
		mm/rev						
1								
2	80-100-120	0.30	0.36	0.45	0.48	0.51	0.54	0.57
3		0.39	0.45	0.51	0.57	0.60	0.63	0.66
4	70-85-100	0.45	0.51	0.57	0.63	0.66	0.69	0.72
5	50-65-80							
6	70-90-110	0.33	0.36	0.39	0.42	0.45	0.48	0.51
7	70-85-100	0.39	0.42	0.48	0.51	0.54	0.57	0.60
8	50-65-80	0.42	0.48	0.54	0.60	0.63	0.66	0.69
9	40-50-60							
10	50-70-90	0.27	0.30	0.33	0.36	0.39	0.42	0.45
11	40-60-80	0.33	0.36	0.39	0.42	0.45	0.48	0.51
15	90-125-140							
16	80-110-120	0.40	0.45	0.54	0.60	0.66	0.72	0.78
17	90-135-160	0.60	0.66	0.72	0.78	0.84	0.90	0.96
18	80-110-120	0.78	0.84	0.90	0.96	1.02	1.08	1.14
19	90-125-140							
20	80-110-120							

■ Recommended cutting data