HOLEMAKING

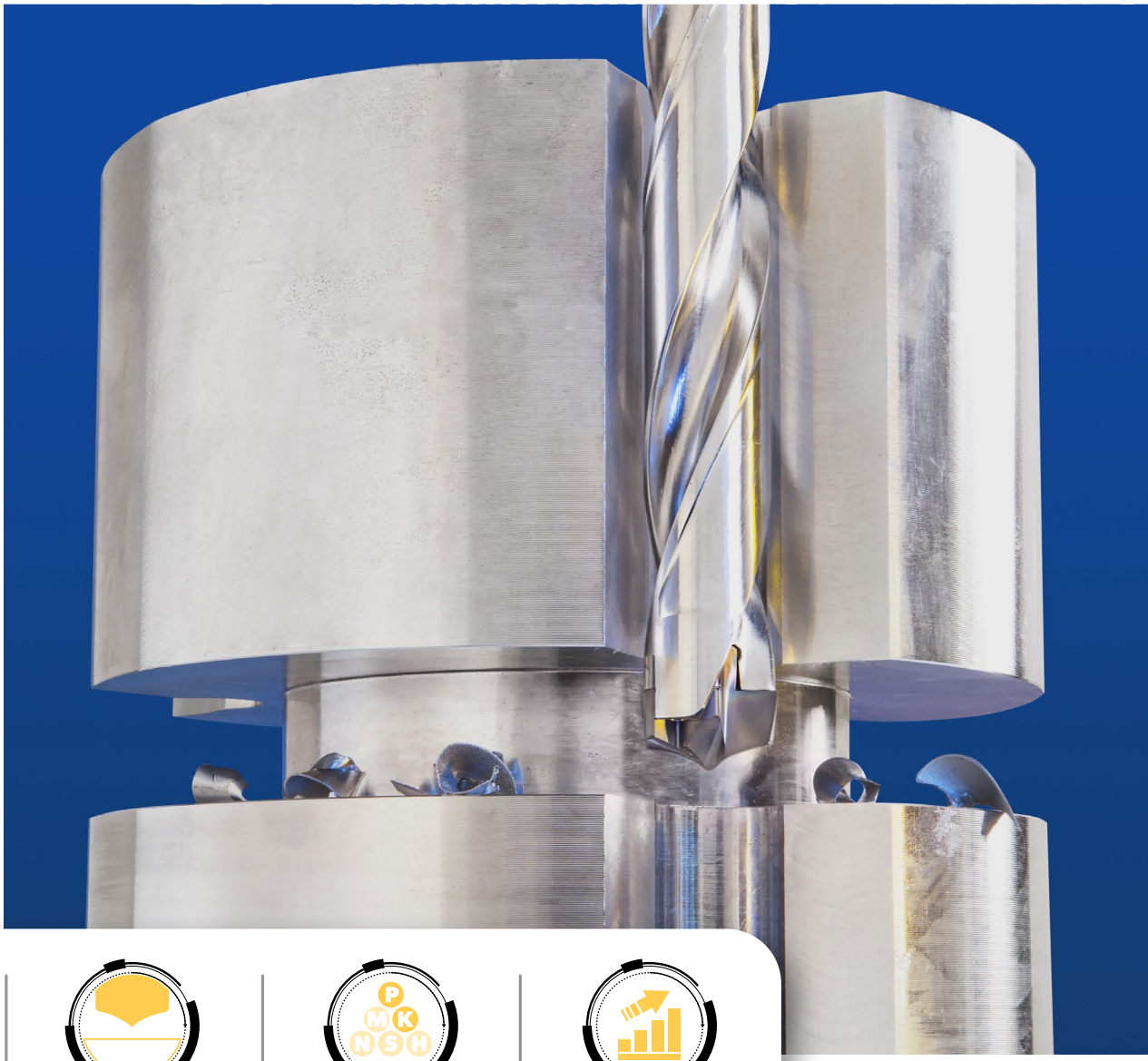
29-2024

JUNE 2024

METRIC

NPA

New Product Announcement



Self-Centering Insert

For Steel & Cast Iron

High Productivity

Member IMC Group

SUMOCHAMIQ

HCP Line Expansion

NPA New Product Announcement

SUMOCHAMIQ

Self-Centering Insert

For Steel & Cast Iron

High Productivity Inserts

Highlights

Expanding the SUMOCHAM Line
HCP Self-Centering Heads

ISCAR has expanded the **SUMOCHAM** line of HCP Self-Centering heads by introducing 0.1 mm diameter increment sizes in addition to the initially introduced 0.5 mm diameter increment sizes. The HCP drilling heads now offer a range of 4.0 to 32.9mm diameters in increments of 0.1mm.

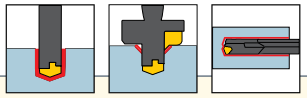
The HCP geometry is highly recommended for machining ISO-P and ISO K material groups, making it the preferred choice. This means that one drilling head can replace two other types, which lead to a reduction in stock.
The new HCP drilling heads can be easily mounted on any **SUMOCHAM** drill body in the appropriate pocket size.

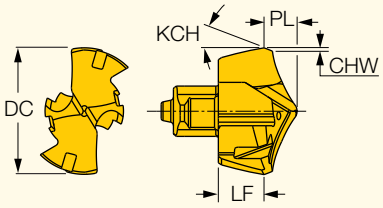
SUMOCHAMIQ

HCP-IQ

Exchangeable Self-Centering SUMOCHAM Drilling Heads, for Machining ISO P and ISO K Materials

https://www.iscar.com/eCatalog/Family.aspx?fnum=3593&mapp=DR&GFSTYP=M&srch=1





	Designation	Dimensions DC	LF	PL	CHW	KCH	SSC(1)	IC908
	HCP 260-IQ	26.00	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 261-IQ	26.10	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 262-IQ	26.20	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 263-IQ	26.30	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 264-IQ	26.40	9.12	5.950	0.60	30.0	26.0	●
	HCP 265-IQ	26.50	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 266-IQ	26.60	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 267-IQ	26.70	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 268-IQ	26.80	9.12	5.950	0.60	30.0	26.0	●
NEW	HCP 269-IQ	26.90	9.12	5.950	0.60	30.0	26.0	●
	HCP 270-IQ	27.00	9.45	6.200	0.62	30.0	27.0	●
NEW	HCP 271-IQ	27.10	9.45	6.200	0.60	30.0	27.0	●
NEW	HCP 272-IQ	27.20	9.45	6.200	0.60	30.0	27.0	●
NEW	HCP 273-IQ	27.30	9.45	6.200	0.60	30.0	27.0	●
NEW	HCP 274-IQ	27.40	9.45	6.200	0.60	30.0	27.0	●
	HCP 275-IQ	27.50	9.45	6.200	0.62	30.0	27.0	●
NEW	HCP 276-IQ	27.60	9.45	6.200	0.60	30.0	27.0	●
NEW	HCP 277-IQ	27.70	9.45	6.200	0.62	30.0	27.0	●
NEW	HCP 278-IQ	27.80	9.45	6.200	0.60	30.0	27.0	●
NEW	HCP 279-IQ	27.90	9.45	6.200	0.60	30.0	27.0	●
	HCP 280-IQ	28.00	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 281-IQ	28.10	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 282-IQ	28.20	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 283-IQ	28.30	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 284-IQ	28.40	9.80	6.420	0.63	30.0	28.0	●
	HCP 285-IQ	28.50	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 286-IQ	28.60	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 287-IQ	28.70	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 288-IQ	28.80	9.80	6.420	0.63	30.0	28.0	●
NEW	HCP 289-IQ	28.90	9.80	6.420	0.63	30.0	28.0	●
	HCP 290-IQ	29.00	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 291-IQ	29.10	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 292-IQ	29.20	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 293-IQ	29.30	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 294-IQ	29.40	10.16	6.640	0.66	30.0	29.0	●
	HCP 295-IQ	29.50	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 296-IQ	29.60	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 297-IQ	29.70	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 298-IQ	29.80	10.16	6.640	0.66	30.0	29.0	●
NEW	HCP 299-IQ	29.90	10.16	6.640	0.66	30.0	29.0	●
	HCP 300-IQ	30.00	10.50	6.880	0.68	30.0	30.0	●
NEW	HCP 301-IQ	30.10	10.50	6.880	0.68	30.0	30.0	●

(1) Seat size code

SUMOCHAMIQ

HCP-IQ Continued

Exchangeable Self-Centering SUMOCHAM Drilling Heads, for Machining ISO P and ISO K Materials

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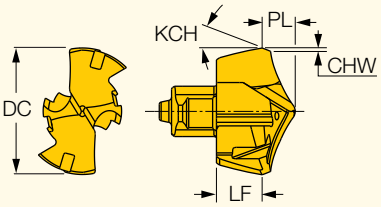

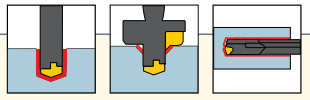

Designation	Dimensions DC	LF	PL	CHW	KCH	SSC(1)	IC908
NEW HCP 302-IQ	30.20	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 303-IQ	30.30	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 304-IQ	30.40	10.50	6.880	0.68	30.0	30.0	•
HCP 305-IQ	30.50	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 306-IQ	30.60	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 307-IQ	30.70	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 308-IQ	30.80	10.50	6.880	0.68	30.0	30.0	•
NEW HCP 309-IQ	30.90	10.50	6.880	0.68	30.0	30.0	•
HCP 310-IQ	31.00	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 311-IQ	31.10	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 312-IQ	31.20	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 313-IQ	31.30	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 314-IQ	31.40	11.00	6.960	0.65	30.0	31.0	•
HCP 315-IQ	31.50	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 316-IQ	31.60	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 317-IQ	31.70	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 3175-IQ	31.75	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 318-IQ	31.80	11.00	6.960	0.65	30.0	31.0	•
NEW HCP 319-IQ	31.90	11.00	6.960	0.65	30.0	31.0	•
HCP 320-IQ	32.00	11.20	7.340	0.77	30.0	32.0	•
NEW HCP 321-IQ	32.10	11.20	3.740	0.75	30.0	32.0	•
NEW HCP 322-IQ	32.20	11.20	3.740	0.75	30.0	32.0	•
NEW HCP 323-IQ	32.30	11.20	3.740	0.75	30.0	32.0	•
NEW HCP 324-IQ	32.40	11.20	3.740	0.75	30.0	32.0	•
HCP 325-IQ	32.50	11.20	7.340	0.77	30.0	32.0	•
NEW HCP 326-IQ	32.60	11.20	3.740	0.75	30.0	32.0	•
NEW HCP 327-IQ	32.70	11.20	3.740	0.75	30.0	32.0	•
NEW HCP 328-IQ	32.80	11.20	3.740	0.75	30.0	32.0	•
HCP 329-IQ	32.90	11.20	7.340	0.77	30.0	32.0	•

• Advance Self-Centering and high surface finish

(1) Seat size code

NPA New Product Announcement

SUMOCHAMIQ

Material Groups

Recommended Machining Conditions

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.	V m/min	SUMOCHAM Feed vs. Drill Diameter D=4-4.9	D=5-5.9	D=6-7.9	D=8-9.9	D=10-11.9	D=12-13.9	D=14-15.9	D=16-19.9	D=20-25.9	D=26-32.9
										mm/rev							
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	80-110-140	0.04	0.07	0.09	0.12	0.15	0.18	0.20	0.25	0.25	0.30
		≥ 0.25 %C	Annealed	650	190	2	80-105-130	**0.06**	**0.09**	**0.11**	**0.17**	**0.21**	**0.24**	**0.27**	**0.35**	**0.35**	**0.40**
		< 0.55 %C	Quenched and tempered	850	250	3	80-100-120	0.08	0.11	0.13	0.22	0.28	0.30	0.35	0.45	0.45	0.50
		≥ 0.55 %C	Annealed	750	220	4	70-90-110										
			Quenched and tempered	1000	300	5	50-70-90										
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	80-100-120	0.04	0.07	0.09	0.12	0.14	0.16	0.18	0.23	0.25	0.30
			Quenched and tempered	930	275	7	70-90-110	**0.06**	**0.09**	**0.12**	**0.18**	**0.21**	**0.24**	**0.26**	**0.31**	**0.35**	**0.40**
				1000	300	8	50-70-90	0.08	0.11	0.15	0.25	0.28	0.32	0.35	0.40	0.45	0.50
				1200	350	9	40-55-70										
	High alloyed steel, cast steel and tool steel		Annealed	680	200	10	50-70-90	0.06	0.07	0.09	0.12	0.12	0.15	0.18	0.20	0.22	0.25
			Quenched and tempered	1100	325	11	40-60-80	**0.07**	**0.09**	**0.11**	**0.16**	**0.17**	**0.20**	**0.23**	**0.25**	**0.27**	**0.30**
								0.08	0.10	0.12	0.20	0.22	0.25	0.28	0.30	0.33	0.35
	Stainless steel and cast steel		Ferritic/ martensitic	680	200	12	40-55-70	0.05	0.06	0.08	0.11	0.11	0.14	0.17	0.22	0.21	0.24
			Martensitic	820	240	13		**0.06**	**0.07**	**0.10**	**0.15**	**0.16**	**0.19**	**0.22**	**0.24**	**0.26**	**0.29**
								0.07	0.08	0.11	0.19	0.21	0.24	0.27	0.29	0.32	0.34
K	Gray cast iron (GG)		Ferritic / pearlitic		180	15	90-125-160	0.04	0.10	0.12	0.15	0.20	0.25	0.30	0.35	0.35	0.40
			Pearlitic / martensitic		260	16	80-110-140	**0.06**	**0.13**	**0.15**	**0.22**	**0.27**	**0.32**	**0.37**	**0.45**	**0.47**	**0.50**
	Nodular cast iron (GGG)		Ferritic		160	17	90-135-180	0.08	0.15	0.18	0.30	0.35	0.40	0.45	0.55	0.60	0.60
			Pearlitic		250	18	80-110-140										
	Malleable cast iron		Ferritic		130	19	90-125-160										
			Pearlitic		230	20	80-110-140										

Recommended cutting data

- When using external coolant supply only, reduce cutting speed by 10%
- When using more than 5XD drill ratio, reduce cutting parameters by 10%

No need to reduce the cutting parameters while using 8XD and up holders

Machining stainless steel is not recommended with QCP & HCP geometry