DRILLING

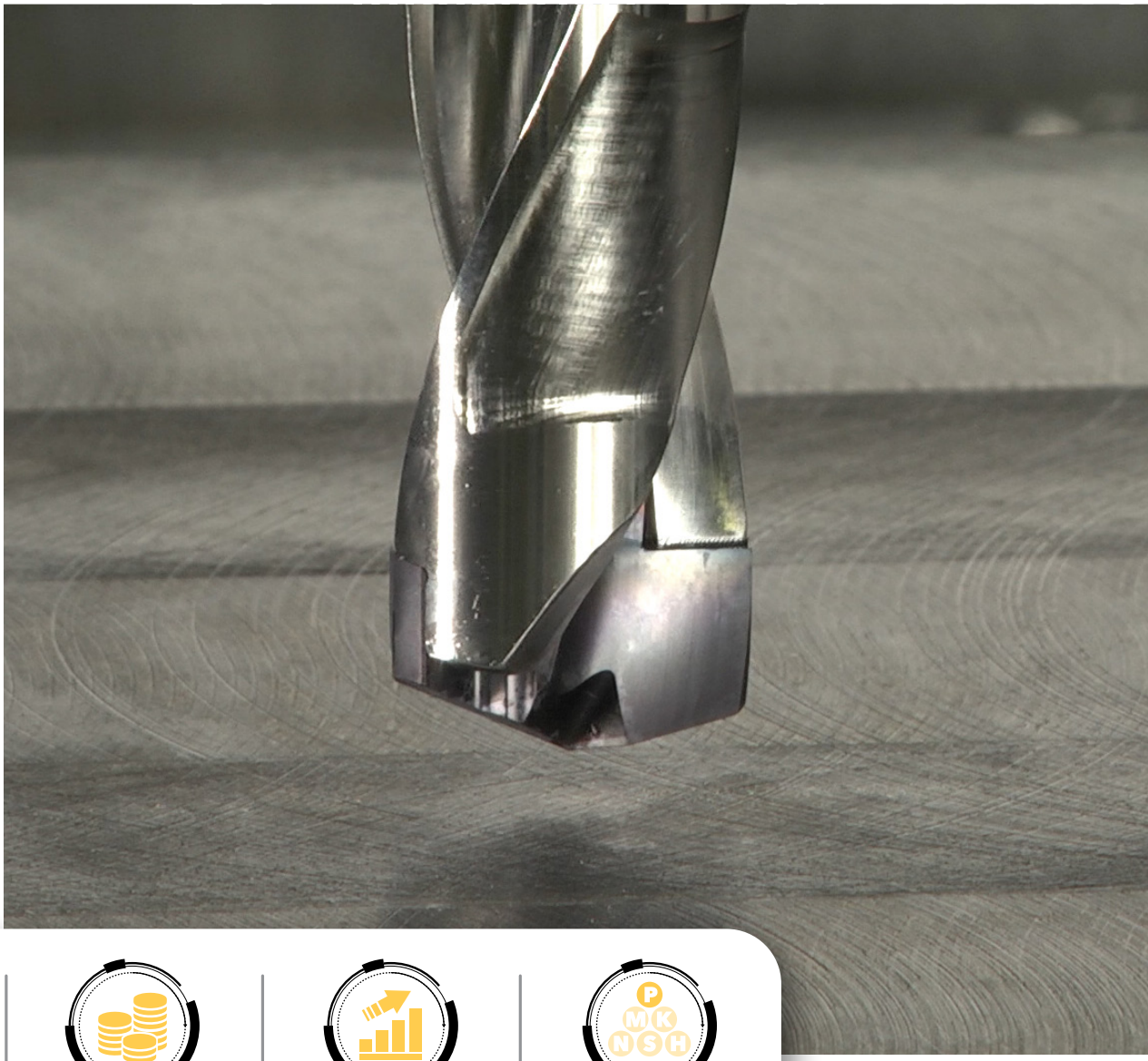
16-2022

MAY 2022

METRIC

NPA

New Product Announcement



Cost Effective Insert

High Productivity

For Non-Alloy and Carbon Steels

Member IMC Group

ISCAR

SUMOCHAM

CHAMDRILL LINE

A New IHP SUMOCHAM Drilling Heads for Non-Alloy / Carbon Steels

NPA New Product Announcement

SUMOCHAM
CHAMDRILL LINE

Cost Effective Insert

High Productivity

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Highlights

A New SUMOCHAM Drilling Head with Optimized IHP Geometry Specially Designed for Machining Non-Alloy / Carbon Steels

- Available in the drilling range of 10-22 mm diameters
- Dedicated honing size strengthens the cutting edge and extends tool life when working with non-alloy / carbon steels

IHP drilling heads are made from IC948 special TiAlCrN PVD coated grade that substantially improves the insert efficiency and reliability. In addition, high oxidation and chipping resistance can be achieved due to the special multilayered structure of the coating.

- Hard cemented carbide substrate combined with a new PVD coating
- The sub-micron substrate has superior wear resistance properties
- High oxidation and chipping resistance due to special TiAlCrN multilayered structure

Availability
In stock.

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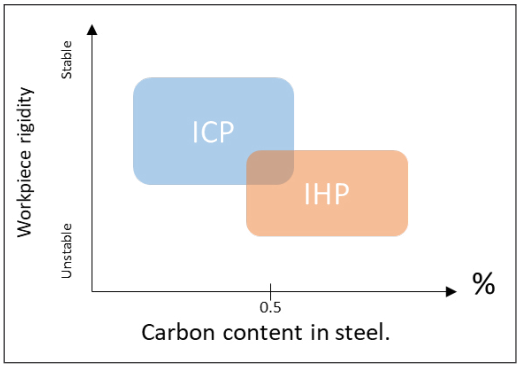
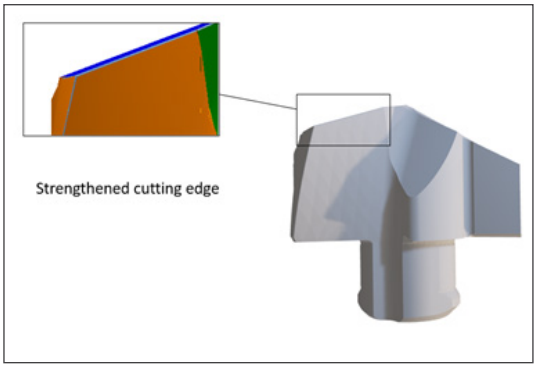
NPA New Product Announcement

SUMOCHAM CHAMDRILL LINE

Increased Durability on Non-Alloy Steels and Unstable Drilling Applications





Cost Effective Insert

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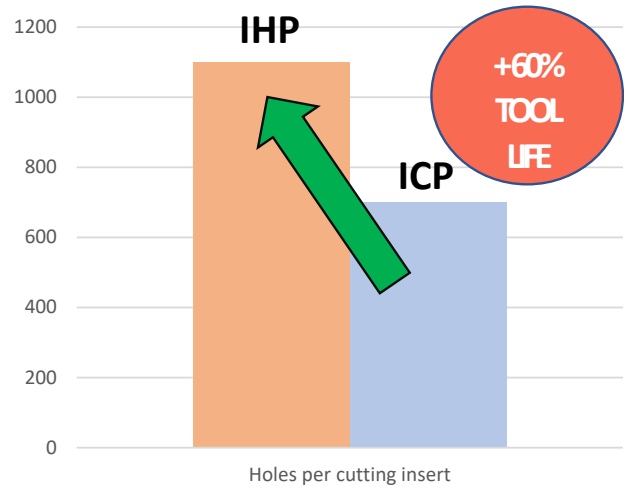
TEST REPORT

Material: Low carbon steel 1060 / 182 HBW
Coolant type/pressure: Emulsion/15-20 bar (internal)

	NEW	Reference
Insert designation	IHP 126 IC948	ICP 126 IC908
Grade	IC948	IC908
Drilling diameter (mm)	12.6	12.6
Drilling depth (mm)	60	60
Cutting speed (m/min)	100	100
Feed (mm/rev)	0.28	0.28
Insert tool life (m)	60	42
Holes per cutting inserts	1100	700



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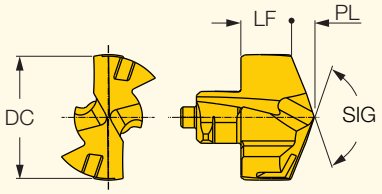
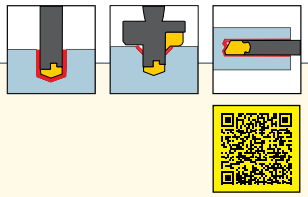
IHP

Exchangeable Drilling Heads for DCN Drills,
for Machining ISO P Materials (Non-alloy and Carbon Steel)





Designation	Dimensions					IC948
	DC	PL	LF	SIG	Po. Size	
IHP 100	10.00	1.500	4.70	140	10	•
IHP 103	10.30	1.550	4.65	140	10	•
IHP 105	10.50	1.590	4.61	140	10	•
IHP 108	10.80	1.650	4.55	140	10	•
IHP 110	11.00	1.670	4.93	140	11	•
IHP 115	11.50	1.760	4.84	140	11	•
IHP 120	12.00	1.820	5.18	140	12	•
IHP 123	12.30	1.870	5.13	140	12	•
IHP 125	12.50	1.910	5.09	140	12	•
IHP 126	12.60	1.930	5.07	140	12	•
IHP 127	12.70	1.950	5.05	140	12	•
IHP 130	13.00	1.960	5.64	140	13	•
IHP 133	13.30	2.010	5.59	140	13	•
IHP 135	13.50	2.050	5.55	140	13	•
IHP 140	14.00	2.120	6.03	140	14	•
IHP 145	14.50	2.210	5.94	140	14	•
IHP 150	15.00	2.270	6.46	140	15	•
IHP 151	15.10	2.290	6.44	140	15	•
IHP 155	15.50	2.360	6.37	140	15	•
IHP 160	16.00	2.420	6.88	140	16	•
IHP 165	16.50	2.510	6.79	140	16	•
IHP 170	17.00	2.590	7.31	140	17	•
IHP 175	17.50	2.680	7.22	140	17	•
IHP 180	18.00	2.730	7.77	140	18	•
IHP 190	19.00	2.880	8.12	140	19	•
IHP 200	20.00	3.020	8.58	140	20	•
IHP 210	21.00	3.180	9.00	140	21	•
IHP 220	22.00	3.320	9.44	140	22	•

• Intermediate sizes can be supplied on request

SUMOCHAM
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Material Groups

Recommended Machining Conditions

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.(1)	V m/min	SUMOCHAM Feed vs. Drill Diameter D=10-11.9 mm/rev	D=12-13.9 mm/rev	D=14-15.9 mm/rev	D=16-19.9 mm/rev	D=20-25.9 mm/rev
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	80-**110**-140	0.15 **0.21** 0.28	0.18 **0.24** 0.30	0.20 **0.27** 0.35	0.25 **0.35** 0.45	0.25 **0.35** 0.45
		≥ 0.25 %C	Annealed	650	190	2	80-**105**-130					
		< 0.55 %C	Quenched and tempered	850	250	3	80-**100**-120					
		≥ 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	0.14 **0.21** 0.28	0.16 **0.24** 0.32	0.18 **0.26** 0.35	0.23 **0.31** 0.40	0.25 **0.35** 0.45
			Quenched and tempered	930	275	7	70-**90**-110					
				1000	300	8	50-**70**-90					
				1200	350	9	40-**55**-70					
	High alloyed steel, cast steel and tool steel		Annealed	680	200	10	50-**70**-90	0.12 **0.17** 0.22	0.15 **0.20** 0.25	0.18 **0.23** 0.28	0.20 **0.25** 0.30	0.22 **0.27** 0.33
			Quenched and tempered	1100	325	11	40-**60**-80					

■ Recommended cutting data

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