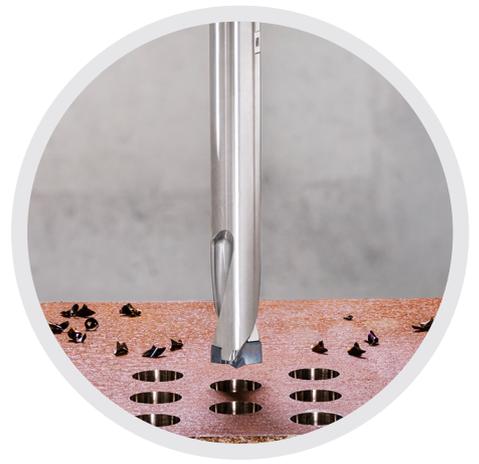


# Innovative Holemaking

For Profile Construction Beams



**SUMOCHAM**



**SPADECHAM**

# **SUMOCHAM SPADECHAM**

The demand for steel in the fields of construction and infrastructure account for more than half of the overall global demand.

ISCAR strives to expand its array of solutions for drilling applications, and has succeeded by providing its customers with high productivity tools and technologies for holemaking.

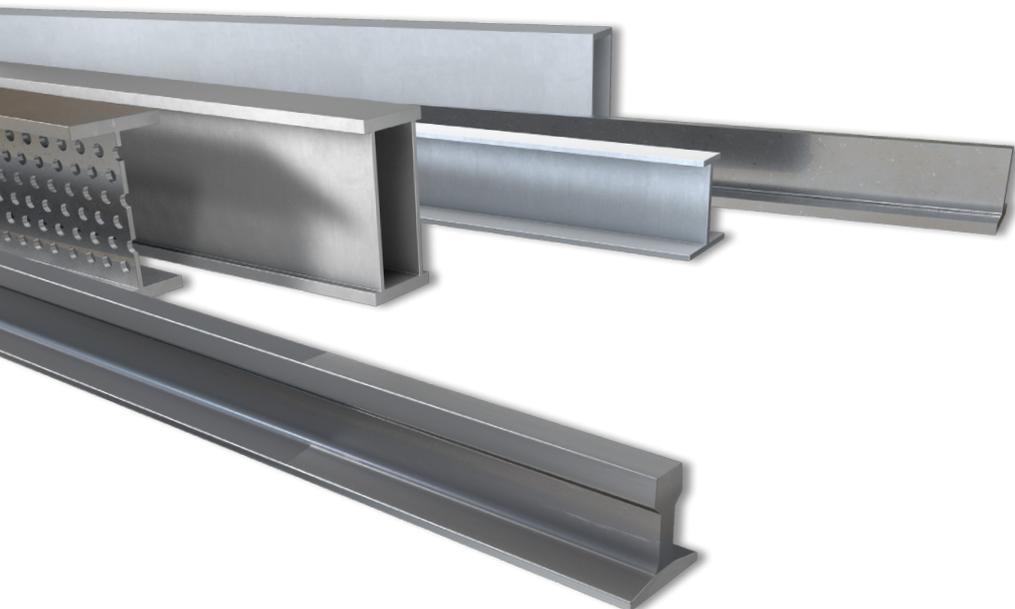
Most construction and infrastructure projects require the use of structural steel. Profile beams are formed into various shapes and cross-sections and are comprised of different chemical compositions in order to obtain maximum mechanical properties. The profiled beam has a very stiff design in respect to its cross-section, which enables the delivery of high structural loads to the structured frame.

**Structural beams are commonly used in a wide range of industries, such as**

- Construction and architecture
- Railway
- Naval and aerospace
- Infrastructure/civil engineering



Structural beams can either be bolted or welded together in construction. Whenever the beams are bolted, there is a need for drilling the parts to assemble the segments for a complete structure. The most efficient way to drill these parts, while obtaining an accurate hole and clean cut, is by using **ISCAR's SUMO-CHAM-BD** and **SPADE-CHAM** drill.



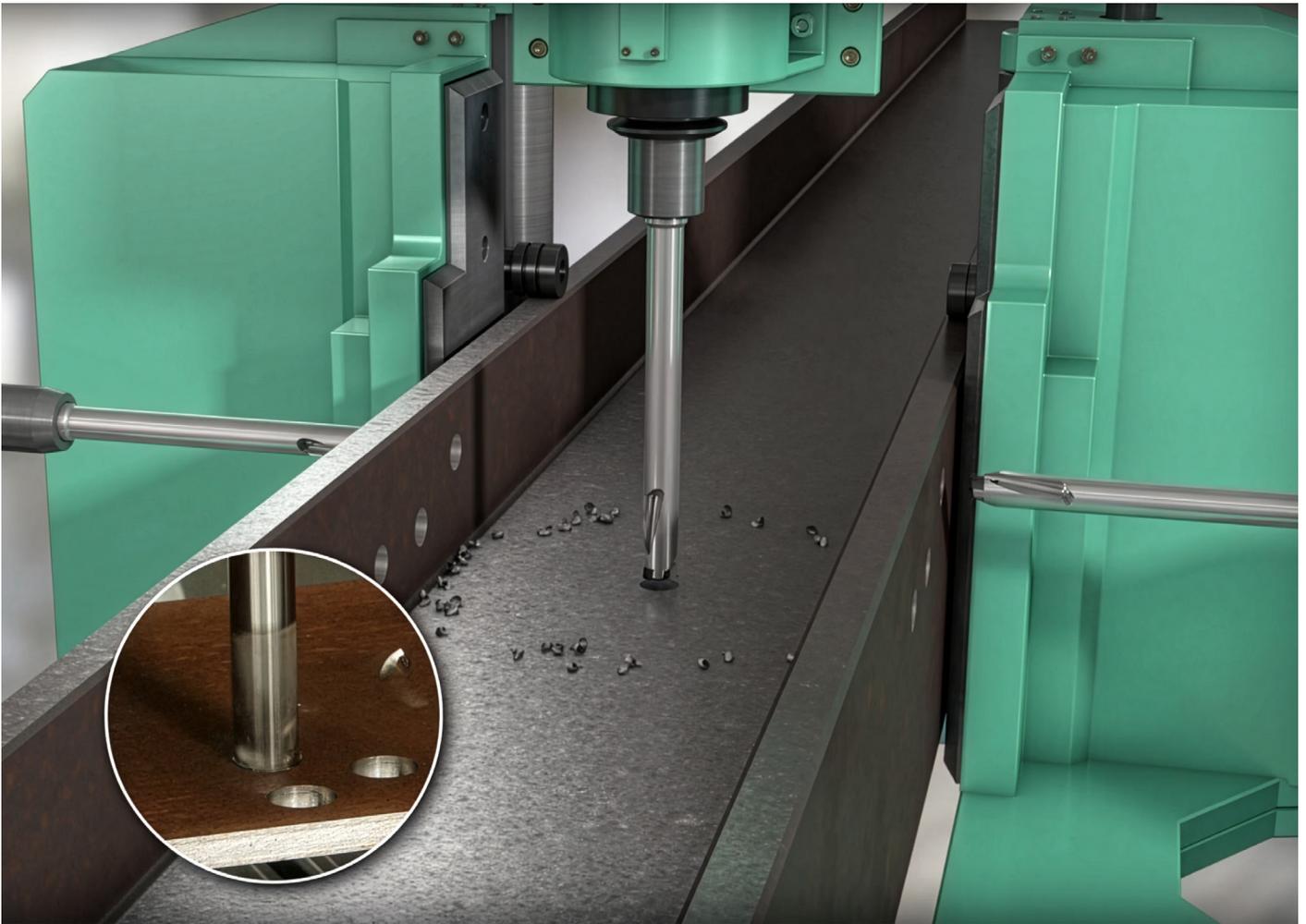
View **ISCAR's** unique solution for drilling structural beams



# **SUMOCHAM SPADECHAM**

ISCAR's remarkable **SPADE-CHAM** drill and **SUMO-CHAM-BD** drilling heads are the ultimate solution for drilling structural beams. They feature concave cutting edges

that substantially enhance the self-centering capability of the drill, delivering accurate hole operations and eliminating the need for deburring while providing high productivity and cost efficiency to the customer.



## Self CENTERING



No burrs on the exit due to the sharp cutting edge that eliminates the need for deburring.

No noise and no vibrations due to the dedicated insert geometry.

Tough nano-layer **PVD** coating for high chipping and wear resistance.



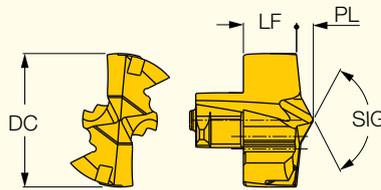
**SUMO-CHAM** line **SELF-CLAMPING** mechanism.

Reinforced tool body for better rigidity.

Internal coolant nozzles compatible with **MQL**.

## IHP-BD

Exchangeable Drilling Heads for DCN Drills for Machining Construction Beams and Structural Steel Materials



Designation	Dimensions					IC954
	DC	LF	PL	SIG <sup>(1)</sup>	SSC <sup>(2)</sup>	
IHP 138-BD	13.80	5.40	1.700	128	13.0	●
IHP 140-BD	14.00	5.60	1.800	128	14.0	●
IHP 1429-BD	14.29	5.60	1.800	128	14.0	●
IHP 160-BD	16.00	6.10	1.950	128	16.0	●
IHP 170-BD	17.00	6.80	2.000	128	17.0	●
IHP 1746-BD	17.46	6.80	2.000	128	17.0	●
IHP 178-BD	17.80	6.80	2.000	128	17.0	●
IHP 180-BD	18.00	7.30	2.400	128	18.0	●
IHP 1905-BD	19.05	7.60	2.550	128	19.0	●
IHP 200-BD	20.00	8.10	2.600	128	20.0	●
IHP 2064-BD	20.64	8.10	2.600	128	20.0	●
IHP 210-BD	21.00	8.50	2.650	128	21.0	●
IHP 218-BD	21.80	8.50	2.650	128	21.0	●
IHP 220-BD	22.00	8.70	2.750	128	22.0	●
IHP 225-BD	22.50	8.70	2.750	128	22.0	●
IHP 230-BD	23.00	9.30	2.900	128	23.0	●
IHP 2381-BD	23.81	9.30	2.900	128	23.0	●
IHP 240-BD	24.00	10.00	3.000	128	24.0	●
IHP 250-BD	25.00	10.00	3.100	128	25.0	●
IHP 254-BD	25.40	10.00	3.100	128	25.0	●
IHP 258-BD	25.80	10.00	3.100	128	25.0	●
IHP 260-BD	26.00	10.30	3.300	128	26.0	●
IHP 265-BD	26.50	10.30	3.300	128	26.0	●
IHP 2699-BD	26.99	10.30	3.300	128	26.0	●
IHP 270-BD	27.00	10.80	3.400	128	27.0	●
IHP 275-BD	27.50	10.80	3.400	128	27.0	●
IHP 280-BD	28.00	11.30	3.550	128	28.0	●
IHP 2858-BD	28.58	11.30	3.550	128	28.0	●
IHP 300-BD	30.00	12.00	3.800	128	30.0	●
IHP 3016-BD	30.16	12.00	3.800	128	30.0	●
IHP 3175-BD	31.75	12.40	3.900	128	31.0	●
IHP 320-BD	32.00	13.30	3.950	128	32.0	●

● Intermediate sizes can be supplied on request

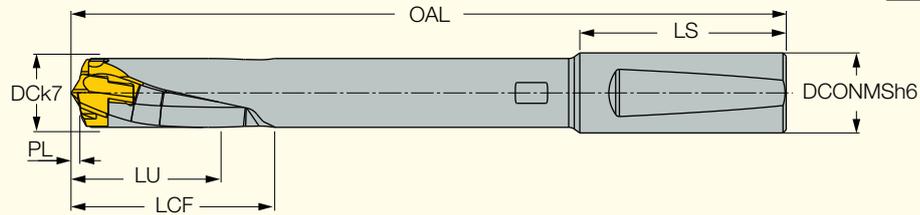
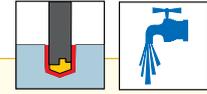
<sup>(1)</sup> SIG angle varies  $\pm 5^\circ$ ; depends on insert design optimization

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



## DCN-N-5D-BD

Exchangeable Head Drills with a Reinforced Body and a WN Shank, Diameter Ratio 5xD, for Construction Beam Industry



Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	DCONMS	LU	OAL	PL	LCF	LS	SSC <sup>(3)</sup>	MIID <sup>(4)</sup>	
DCN 135-050-16N-5D-BD	13.50	13.99	16.00	40.00	153.60	1.600	50.0	57.0	13.0	IHP 135-BD	K DCN 10-13.99
DCN 140-050-16N-5D-BD	14.00	14.99	16.00	40.00	157.70	1.700	50.0	57.0	14.0	IHP 140-BD	K DCN 14-17.99
DCN 160-050-20N-5D-BD	16.00	16.99	20.00	40.00	175.00	1.950	50.0	59.0	16.0	IHP 160-BD	K DCN 14-17.99
DCN 170-050-20N-5D-BD	17.00	17.99	20.00	40.00	182.00	2.000	50.0	59.0	17.0	IHP 170-BD	K DCN 14-17.99
DCN 180-050-20N-5D-BD	18.00	18.99	20.00	40.00	189.40	2.400	50.0	59.0	18.0	IHP 180-BD	K DCN 18-21.99
DCN 190-050-20N-5D-BD	19.00	19.99	20.00	40.00	197.10	2.550	50.0	59.0	19.0	IHP 190-BD	K DCN 18-21.99
DCN 200-050-25N-5D-BD	20.00	20.99	25.00	40.00	207.60	2.600	50.0	64.0	20.0	IHP 200-BD	K DCN 18-21.99
DCN 210-050-25N-5D-BD	21.00	21.99	25.00	40.00	214.70	2.650	50.0	64.0	21.0	IHP 210-BD	K DCN 18-21.99
DCN 220-050-25N-5D-BD	22.00	22.99	25.00	40.00	221.80	2.750	50.0	64.0	22.0	IHP 220-BD	K DCN 22-26.99
DCN 230-050-25N-5D-BD	23.00	23.99	25.00	40.00	228.90	2.900	50.0	64.0	23.0	IHP 230-BD	K DCN 22-26.99
DCN 240-050-25N-5D-BD	24.00	24.99	25.00	40.00	236.00	3.000	50.0	64.0	24.0	IHP 240-BD	K DCN 22-26.99
DCN 250-050-32N-5D-BD	25.00	25.99	32.00	40.00	246.10	3.100	50.0	68.0	25.0	IHP 250-BD	K DCN 22-26.99
DCN 260-050-32N-5D-BD	26.00	26.99	32.00	40.00	253.30	3.300	50.0	68.0	26.0	IHP 260-BD	K DCN 22-26.99
DCN 270-050-32N-5D-BD	27.00	27.99	32.00	40.00	260.40	3.400	50.0	68.0	27.0	IHP 270-BD	K DCN 27-32.99
DCN 280-050-32N-5D-BD	28.00	28.99	32.00	40.00	267.60	3.550	50.0	68.0	28.0	IHP 280-BD	K DCN 27-32.99
DCN 300-070-32N-5D-BD	30.00	30.99	32.00	50.00	280.80	3.800	70.0	68.0	30.0	IHP 300-BD	K DCN 27-32.99
DCN 320-070-32N-5D-BD	32.00	32.99	32.00	50.00	295.00	3.950	70.0	68.0	32.0	IHP 320-BD	K DCN 27-32.99

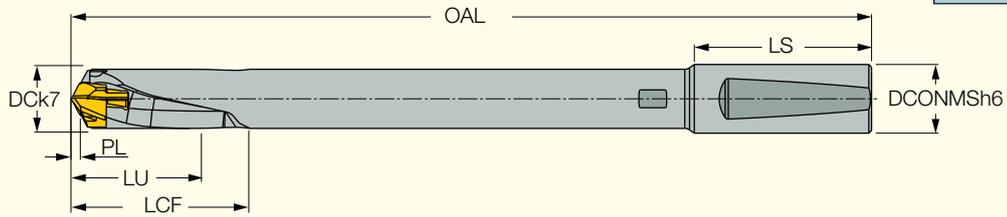
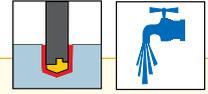
• Do not mount smaller drilling heads other than the specified range of the drill body

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code
- <sup>(4)</sup> Master insert identification



## DCN-N-8D-BD

Exchangeable Head Drills with a Reinforced Body and a WN Shank, Diameter Ratio 8xD, for Construction Beam Industry.



Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	DCONMS	LU	LCF	PL	LS	OAL	SSC <sup>(3)</sup>	MIID <sup>(4)</sup>	
DCN 135-050-16N-8D-BD	13.50	13.99	16.00	40.00	50.0	1.600	57.0	194.10	13	IHP 130-BD	K DCN 10-13.99
DCN 140-050-16N-8D-BD	14.00	14.99	16.00	40.00	50.0	1.700	57.0	199.70	14	IHP 140-BD	K DCN 14-17.99
DCN 160-050-20N-8D-BD	16.00	16.99	20.00	40.00	50.0	1.950	59.0	223.00	16	IHP 160-BD	K DCN 14-17.99
DCN 170-050-20N-8D-BD	17.00	17.99	20.00	40.00	50.0	2.000	59.0	233.00	17	IHP 170-BD	K DCN 14-17.99
DCN 180-050-20N-8D-BD	18.00	18.99	20.00	40.00	50.0	2.400	59.0	243.40	18	IHP 180-BD	K DCN 18-21.99
DCN 190-050-20N-8D-BD	19.00	19.99	20.00	40.00	50.0	2.550	59.0	254.10	19	IHP 190-BD	K DCN 18-21.99
DCN 200-050-25N-8D-BD	20.00	20.99	25.00	40.00	50.0	2.600	64.0	267.60	20	IHP 200-BD	K DCN 18-21.99
DCN 210-050-25N-8D-BD	21.00	21.99	25.00	40.00	50.0	2.650	64.0	277.70	21	IHP 210-BD	K DCN 18-21.99
DCN 220-050-25N-8D-BD	22.00	22.99	25.00	40.00	50.0	2.750	64.0	287.80	22	IHP 220-BD	K DCN 22-26.99
DCN 230-050-25N-8D-BD	23.00	23.99	25.00	40.00	50.0	2.900	64.0	297.90	23	IHP 230-BD	K DCN 22-26.99
DCN 240-050-25N-8D-BD	24.00	24.99	25.00	40.00	50.0	3.000	64.0	308.00	24	IHP 240-BD	K DCN 22-26.99
DCN 250-050-32N-8D-BD	25.00	25.99	32.00	40.00	50.0	3.100	68.0	321.10	25	IHP 250-BD	K DCN 22-26.99
DCN 260-050-32N-8D-BD	26.00	26.99	32.00	40.00	50.0	3.300	68.0	331.30	26	IHP 260-BD	K DCN 22-26.99
DCN 270-050-32N-8D-BD	27.00	27.99	32.00	40.00	50.0	3.400	68.0	341.40	27	IHP 270-BD	K DCN 27-32.99
DCN 280-050-32N-8D-BD	28.00	28.99	32.00	40.00	50.0	3.550	68.0	351.60	28	IHP 280-BD	K DCN 27-32.99
DCN 300-070-32N-8D-BD	30.00	30.99	32.00	50.00	70.0	3.800	68.0	370.80	30	IHP 300-BD	K DCN 27-32.99
DCN 320-070-32N-8D-BD	32.00	32.99	32.00	50.00	70.0	3.950	68.0	391.00	32	IHP 320-BD	K DCN 27-32.99

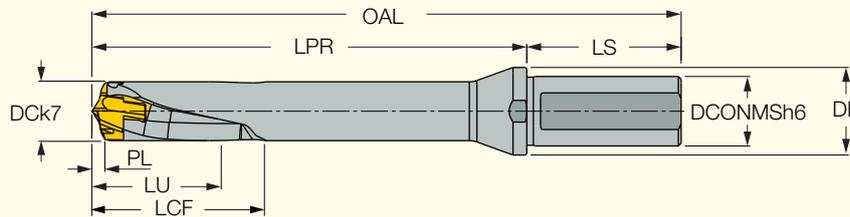
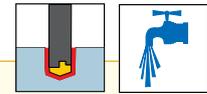
• Do not mount smaller drilling heads other than the specified range of the drill body

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code
- <sup>(4)</sup> Master insert identification



## DCN-A-5D-BD

Exchangeable Head Drills with a Reinforced Body and a Flat Shank, Diameter Ratio 5xD, for the Construction Beam Industry

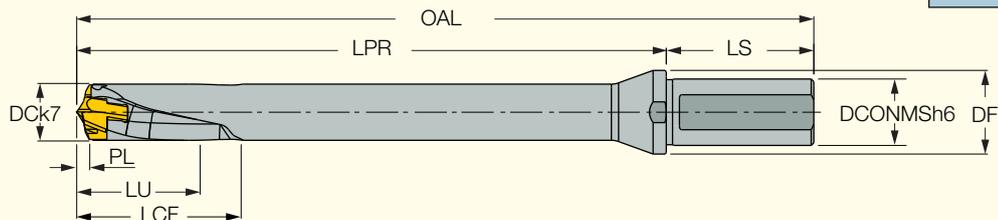
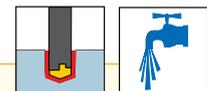


Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	DF	DCONMS	LU	LCF	LPR	PL	LS	OAL	SSC <sup>(3)</sup>	MIID <sup>(4)</sup>	
DCN 0531-196-063A-5D-BD	.531	.551	.830	.625	1.5700	3.803	1.96	.06300	1.890	5.693	13.0	IHP 135-BD	K DCN 10-13.99
DCN 0551-196-063A-5D-BD	.551	.590	.830	.625	1.5700	3.965	1.96	.06700	1.890	5.854	14.0	IHP 140-BD	K DCN 14-17.99
DCN 0630-196-075A-5D-BD	.630	.669	1.060	.625	1.5700	4.565	1.96	.07700	1.970	6.533	16.0	IHP 160-BD	K DCN 14-17.99
DCN 0669-196-075A-5D-BD	.669	.708	1.060	.750	1.5700	4.843	1.96	.07900	1.970	6.811	17.0	IHP 170-BD	K DCN 14-17.99
DCN 0709-196-100A-5D-BD	.709	.748	1.260	1.000	1.5700	5.134	1.96	.09400	2.200	7.339	18.0	IHP 180-BD	K DCN 18-21.99
DCN 0748-196-100A-5D-BD	.748	.787	1.260	1.000	1.5700	5.435	1.96	.10000	2.200	7.640	19.0	IHP 190-BD	K DCN 18-21.99
DCN 0787-196-100A-5D-BD	.787	.826	1.260	1.000	1.5700	5.654	1.96	.10200	2.200	7.858	20.0	IHP 200-BD	K DCN 18-21.99
DCN 0827-196-100A-5D-BD	.827	.866	1.260	1.000	1.5700	5.931	1.96	.10400	2.200	8.136	21.0	IHP 210-BD	K DCN 18-21.99
DCN 0866-196-100A-5D-BD	.866	.905	1.260	1.000	1.5700	6.211	1.96	.10800	2.200	8.415	22.0	IHP 220-BD	K DCN 22-26.99
DCN 0906-196-100A-5D-BD	.906	.944	1.260	1.000	1.5700	6.492	1.96	.11400	2.360	8.697	23.0	IHP 230-BD	K DCN 22-26.99
DCN 0945-196-125A-5D-BD	.945	.984	1.530	1.250	1.5700	6.772	1.96	.11800	2.360	9.134	24.0	IHP 240-BD	K DCN 22-26.99
DCN 0984-196-125A-5D-BD	.984	1.023	1.530	1.250	1.5700	7.012	1.96	.12200	2.360	9.374	25.0	IHP 250-BD	K DCN 22-26.99
DCN 1024-196-125A-5D-BD	1.024	1.063	1.540	1.250	1.5700	7.295	1.96	.13000	2.360	9.657	26.0	IHP 260-BD	K DCN 22-26.99
DCN 1063-196-125A-5D-BD	1.063	1.102	1.530	1.250	1.5700	7.575	1.96	.13400	2.360	9.937	27.0	IHP 270-BD	K DCN 27-32.99
DCN 1102-196-125A-5D-BD	1.102	1.181	1.540	1.250	1.5700	7.856	1.96	.14000	2.360	10.219	28.0	IHP 280-BD	K DCN 27-32.99
DCN 1181-275-125A-5D-BD	1.181	1.220	1.540	1.250	1.9600	8.378	2.75	.15000	2.360	10.740	30.0	IHP 300-BD	K DCN 27-32.99
DCN 1260-275-125A-5D-BD	1.260	1.299	1.530	1.250	1.9600	8.935	2.75	.15600	2.360	11.297	32.0	IHP 320-BD	K DCN 27-32.99

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code
- <sup>(4)</sup> Master insert identification

## DCN-A-8D-BD

Exchangeable Head Drills with a Reinforced Body and a Flat Shank, Diameter Ratio 8xD, for Construction Beam Industry.



Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	DF	DCONMS	LU	LCF	LPR	PL	LS	OAL	SSC <sup>(3)</sup>	MIID <sup>(4)</sup>	
DCN 0531-196-063A-8D-BD	.531	.551	.830	.625	1.5700	1.96	5.398	.06300	1.890	7.287	13	IHP 130-BD	K DCN 10-13.99
DCN 0551-196-063A-8D-BD	.551	.590	.830	.625	1.5700	1.96	5.618	.06700	1.890	7.508	14	IHP 140-BD	K DCN 14-17.99
DCN 0630-196-075A-8D-BD	.630	.669	1.060	.750	1.5700	1.96	6.455	.07700	1.970	8.423	16	IHP 160-BD	K DCN 14-17.99
DCN 0669-196-075A-8D-BD	.669	.708	1.060	.750	1.5700	1.96	6.850	.07900	1.970	8.819	17	IHP 170-BD	K DCN 14-17.99
DCN 0709-196-100A-8D-BD	.708	.748	1.060	1.000	1.5700	1.96	7.260	.09400	2.200	9.465	18	IHP 180-BD	K DCN 18-21.99
DCN 0748-196-100A-8D-BD	.718	.787	1.260	1.000	1.5700	1.96	7.679	.10000	2.200	9.884	19	IHP 190-BD	K DCN 18-21.99
DCN 0787-196-100A-8D-BD	.787	.826	1.260	1.000	1.5700	1.96	8.016	.10200	2.200	10.220	20	IHP 200-BD	K DCN 18-21.99
DCN 0827-196-100A-8D-BD	.827	.866	1.260	1.000	1.5700	1.96	8.411	.10400	2.200	10.616	21	IHP 210-BD	K DCN 18-21.99
DCN 0866-196-100A-8D-BD	.866	.905	1.260	1.000	1.5700	1.96	8.809	.10800	2.200	11.014	22	IHP 220-BD	K DCN 22-26.99
DCN 0906-196-100A-8D-BD	.906	.944	1.260	1.250	1.5700	1.96	9.209	.11400	2.360	11.413	23	IHP 230-BD	K DCN 22-26.99
DCN 0945-196-125A-8D-BD	.945	.984	1.530	1.250	1.5700	1.96	9.606	.11800	2.360	11.969	24	IHP 240-BD	K DCN 22-26.99
DCN 0984-196-125A-8D-BD	.984	1.023	1.530	1.250	1.5700	1.96	9.965	.12200	2.360	12.728	25	IHP 250-BD	K DCN 22-26.99
DCN 1024-196-125A-8D-BD	1.024	1.063	1.540	1.250	1.5700	1.96	10.366	.13000	2.360	12.728	26	IHP 260-BD	K DCN 22-26.99
DCN 1063-196-125A-8D-BD	1.083	1.102	1.530	1.250	1.5700	1.96	10.764	.13400	2.360	13.526	27	IHP 270-BD	K DCN 27-32.99
DCN 1102-196-125A-8D-BD	1.102	1.181	1.540	1.250	1.5700	1.96	11.163	.14000	2.360	13.526	28	IHP 280-BD	K DCN 27-32.99
DCN 1181-275-125A-8D-BD	1.181	1.220	1.540	1.250	1.9600	2.75	11.921	.15000	2.360	14.283	30	IHP 300-BD	K DCN 27-32.99
DCN 1260-275-125A-8D-BD	1.260	1.299	1.530	1.250	1.9700	2.75	12.715	.15600	2.360	15.077	32	IHP 320-BD	K DCN 27-32.99

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code
- <sup>(4)</sup> Master insert identification

## Self CENTERING

No noise and no vibrations due to the dedicated insert geometry.

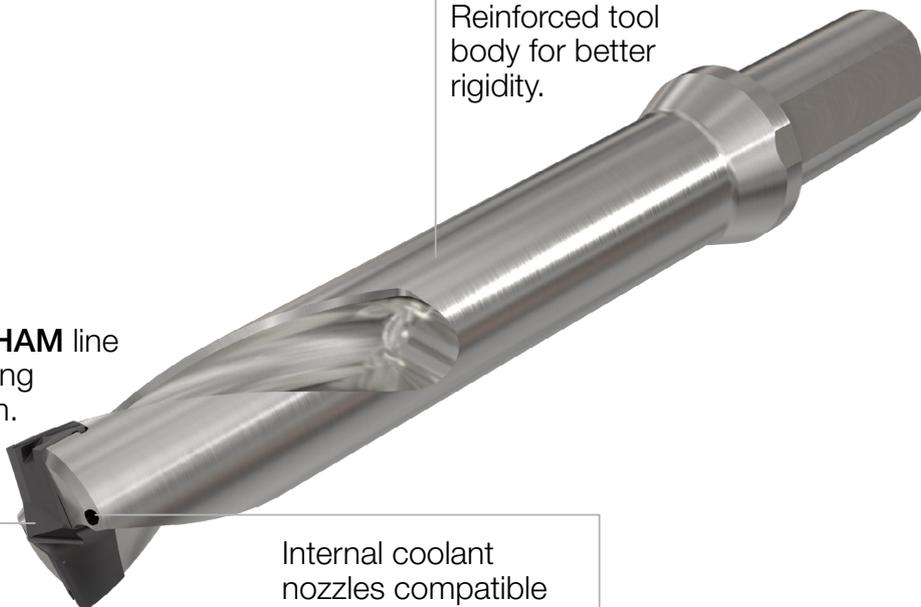
No burrs on the exit due to the sharp cutting edge that eliminates the need for deburring.



Tough nano-layer **PVD** coating for high chipping and wear resistance.

Reinforced tool body for better rigidity.

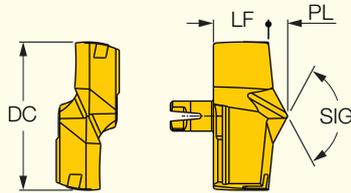
**SPADE-CHAM** line self-clamping mechanism.



Internal coolant nozzles compatible with **MQL**.

## IFHP-BD

Exchangeable DFN Drill Heads for Machining Construction Beams and Structural Steel Materials

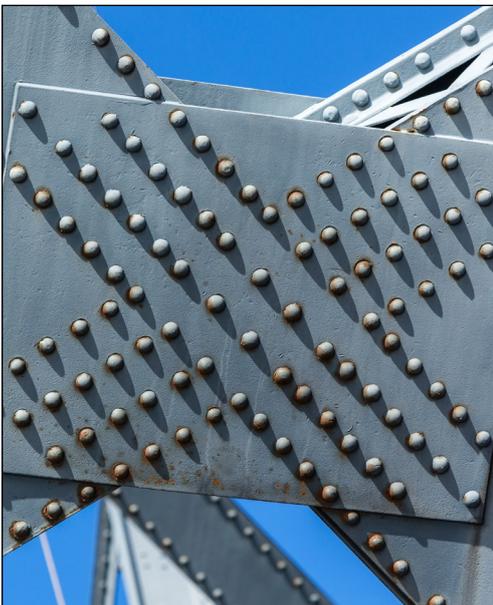


Designation	Dimensions					IC954
	DC	LF	SSC <sup>(1)</sup>	PL	SIG <sup>(2)</sup>	
IFHP 330-SPADE-BD	33.00	10.80	33.0	4.250	137	●
IFHP 3334-SPADE-BD	33.34	10.80	33.0	4.250	137	●
IFHP 335-SPADE-BD	33.50	10.80	33.0	4.250	137	●
IFHP 340-SPADE-BD	34.00	11.60	34.0	4.510	137	●
IFHP 3493-SPADE-BD	34.93	11.60	34.0	4.510	137	●
IFHP 3651-SPADE-BD	36.51	12.40	36.0	4.760	137	●
IFHP 380-SPADE-BD	38.00	14.10	38.0	5.030	137	●
IFHP 381-SPADE-BD	38.10	14.10	38.0	5.030	137	●
IFHP 390-SPADE-BD	39.00	13.40	39.0	5.160	137	●
IFHP 397-SPADE-BD	39.70	13.40	39.0	5.160	137	●

• Intermediate sizes can be supplied on request

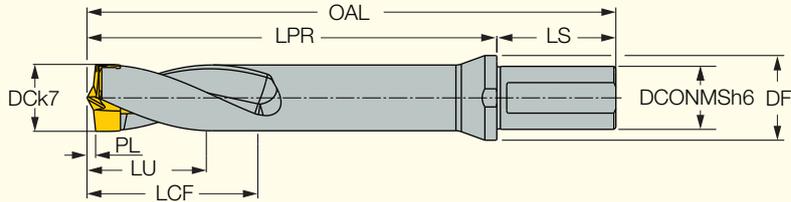
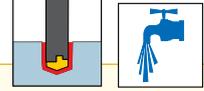
<sup>(1)</sup> Seat size code

<sup>(2)</sup> SIG angle varies  $\pm 5^\circ$ ; depends on insert design optimization



## DFN A-5D-BD

Exchangeable Head Drills with a Reinforced Body and a Flat Shank, Diameter Ratio 5xD, for Construction Beam Industry



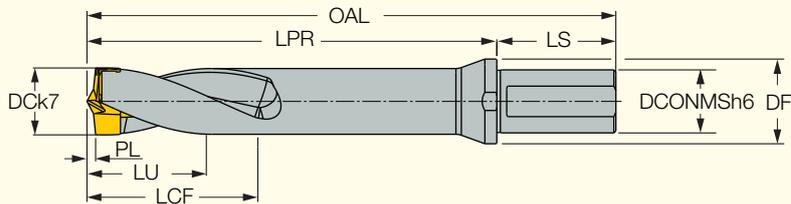
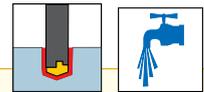
Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	LPR	DF	DCONMS	LU	LCF	PL	LS	OAL	SSC <sup>(3)</sup>	
DFN 330-070-32A-5D-BD	33.00	33.99	199.60	43.00	32.00	50.00	70.0	4.250	60.0	259.60	33	K DFN 30-40
DFN 340-080-32A-5D-BD	34.00	34.99	205.70	43.00	32.00	50.00	80.0	4.510	60.0	265.70	34	K DFN 30-40
DFN 360-080-32A-5D-BD	36.00	36.99	217.90	43.00	32.00	50.00	80.0	4.760	60.0	277.90	36	K DFN 30-40
DFN 380-080-32A-5D-BD	38.00	38.99	231.00	43.00	32.00	50.00	80.0	5.030	60.0	291.00	38	K DFN 30-40
DFN 390-080-32A-5D-BD	39.00	39.99	236.60	43.00	32.00	50.00	80.0	5.160	60.0	296.60	39	K DFN 30-40

• Do not mount smaller drilling heads other than the specified range of the drill body

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code

## DFN A-5D-BD

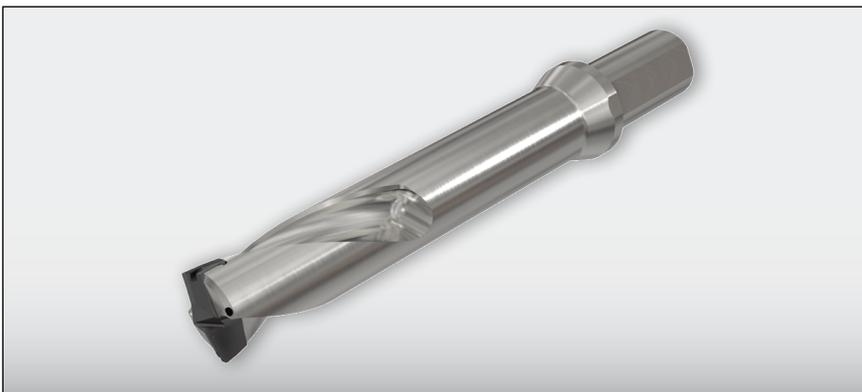
Exchangeable Head Drills with a Reinforced Body and a Flat Shank, Diameter Ratio 5xD, for Construction Beam Industry



I N C H												
Designation	DCN <sup>(1)</sup>	DCX <sup>(2)</sup>	LPR	DF	DCONMS	LU	LCF	PL	LS	OAL	SSC <sup>(3)</sup>	
DFN 1299-275-125A-5D-BD	1.299	1.338	7.858	1.693	1.250	1.9600	2.75	.16700	2.360	10.220	33.0	K DFN 30-40
DFN 1339-315-125A-5D-BD	1.339	1.378	8.098	1.693	1.250	1.9600	3.15	.17800	2.360	10.461	34.0	K DFN 30-40
DFN 1417-315-125A-5D-BD	1.414	1.456	8.579	1.693	1.250	1.9600	3.15	.18700	2.360	10.941	36.0	K DFN 30-40
DFN 1496-315-125A-5D-BD	1.496	1.535	9.094	1.693	1.250	1.9600	3.15	.19800	2.360	11.457	38.0	K DFN 30-40
DFN 1535-315-125A-5D-BD	1.535	1.575	9.315	1.693	1.250	1.9600	3.15	.20300	2.360	11.677	39.0	K DFN 30-40

• Do not mount smaller drilling heads other than the specified range of the drill body

- <sup>(1)</sup> Cutting diameter minimum
- <sup>(2)</sup> Cutting diameter maximum
- <sup>(3)</sup> Seat size code



# Innovative Holemaking

For Profile Construction Beams

