

Imitation

No Time for Look Alikes!

Don't Settle for Less
Use ISCAR's Innovative Products



Machining Intelligently
ISCAR HIGH Q LINES



Imitation
No Time for Look Alikes!



THE ISCAR **CHAMELEON** IS BACK AND

BIGGER



CHAMIQDRILL
700 LINE

**NEW
LARGE DIAMETER
DRILLING**

ISCAR is introducing the **CHAMIQDRILL** family for the drilling range of 1.299 to 1.575" with 3/5 length to diameter ratios and 15.7" modular body.

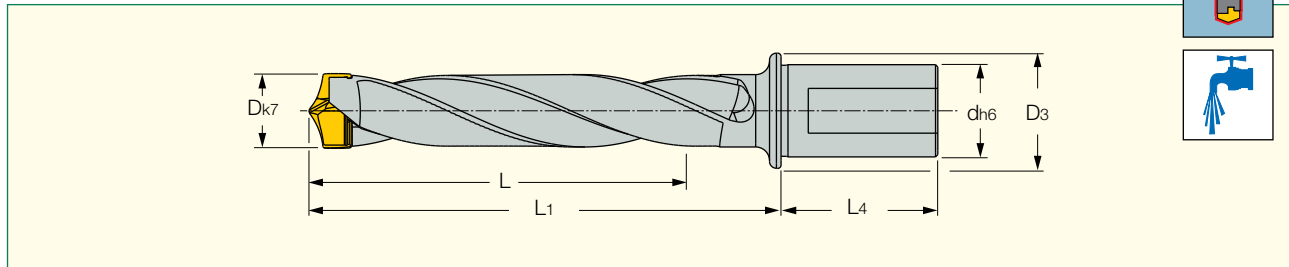
The **CHAMIQDRILL** features a unique design, utilizing the carbide flexibility for self-locking; eliminating the need for clamping accessories. The robust structure of the drill with the concave cutting edge design enables drilling at high feed rates, providing very accurate IT8 – IT9 hole tolerance.

The new design features a shorter overall drill length, compared with other drills with the same length to diameter ratios, which provides higher tool stiffness and stability.

The drill flutes have twisted coolant nozzles and carry indexable spade type drilling heads. The currently available drilling heads are for use on carbon and alloy steel (ISO P) and cast iron (ISO K). They are made of IC908, a PVD coated grade.

DFN A-3D-IQ

Indexable Head Drills with Coolant Holes and One Flat Shanks, Drilling Depth 3xD

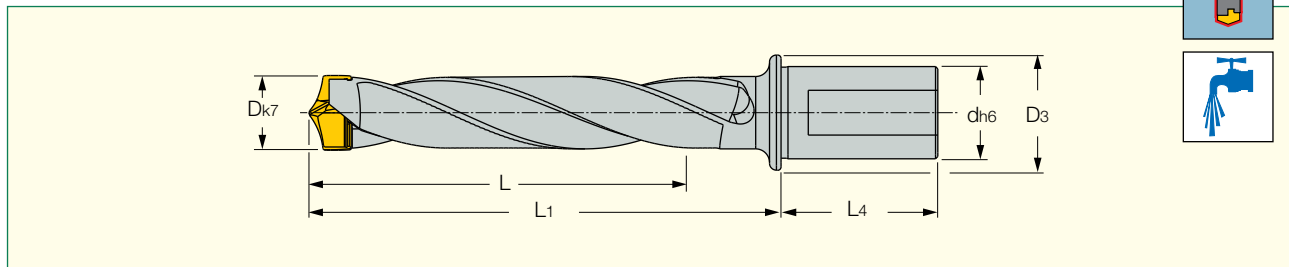


Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DFN 1299-389-125A-3D-IQ	1.299	1.335	3.89	1.250	1.650	5.70	2.68	33.0	K DFN 30-40
DFN 1339-401-125A-3D-IQ	1.339	1.374	4.01	1.250	1.650	5.88	2.68	34.0	K DFN 30-40
DFN 1378-413-125A-3D-IQ	1.378	1.413	4.13	1.250	1.650	6.05	2.68	35.0	K DFN 30-40
DFN 1417-425-125A-3D-IQ	1.417	1.453	4.25	1.250	1.650	6.22	2.68	36.0	K DFN 30-40
DFN 1457-437-125A-3D-IQ	1.457	1.492	4.37	1.250	1.650	6.40	2.68	37.0	K DFN 30-40
DFN 1496-448-125A-3D-IQ	1.496	1.531	4.48	1.250	1.650	6.57	2.68	38.0	K DFN 30-40
DFN 1535-460-125A-3D-IQ	1.554	1.571	4.60	1.250	1.650	6.74	2.68	39.0	K DFN 30-40
DFN 1575-472-125A-3D-IQ	1.575	1.610	4.72	1.250	1.650	6.91	2.68	40.0	K DFN 30-40

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

DFN A-5D-IQ

Indexable Head Drills with Coolant Holes and One Flat Shanks, Drilling Depth 5xD



Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DFN 1299-649-125A-5D-IQ	1.299	1.335	6.49	1.250	1.650	8.30	2.68	33.0	K DFN 30-40
DFN 1339-669-125A-5D-IQ	1.338	1.374	6.69	1.250	1.650	8.56	2.68	34.0	K DFN 30-40
DFN 1378-689-125A-5D-IQ	1.378	1.413	6.89	1.250	1.650	8.81	2.68	35.0	K DFN 30-40
DFN 1417-708-125A-5D-IQ	1.417	1.453	7.08	1.250	1.650	9.06	2.68	36.0	K DFN 30-40
DFN 1457-728-125A-5D-IQ	1.457	1.492	7.28	1.250	1.650	9.31	2.68	37.0	K DFN 30-40
DFN 1496-748-125A-5D-IQ	1.496	1.531	7.48	1.250	1.650	9.56	2.68	38.0	K DFN 30-40
DFN 1535-767-125A-5D-IQ	1.553	1.571	7.67	1.250	1.650	9.81	2.68	39.0	K DFN 30-40
DFN 1575-787-125A-5D-IQ	1.575	1.610	7.87	1.250	1.650	10.01	2.68	40.0	K DFN 30-40

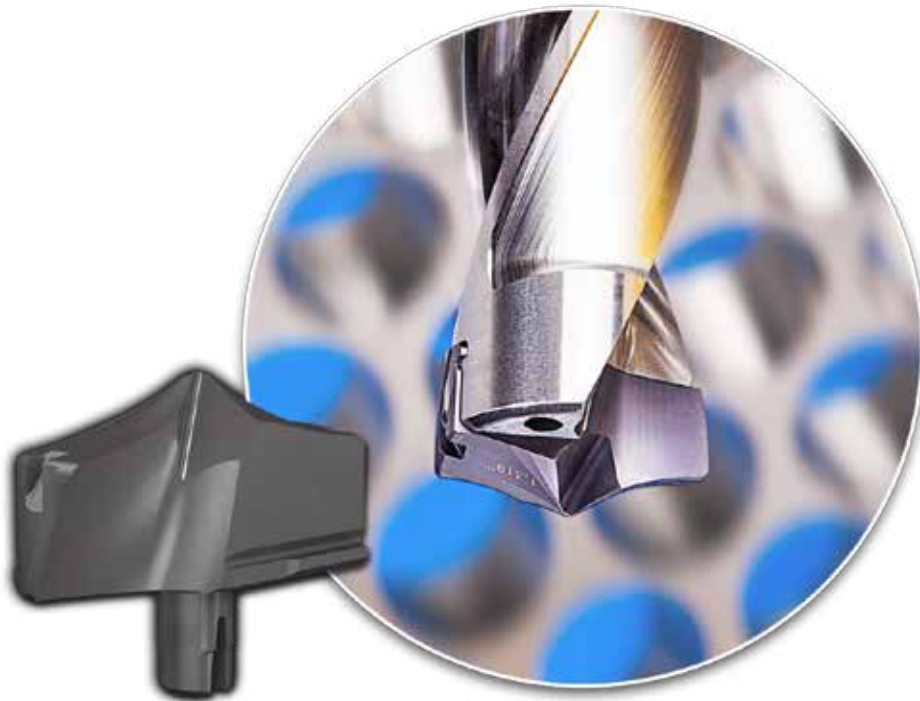
⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

15.75" Long Modular DFN Drills

Modular drills featuring two drill holders with one flat shank, each holder can carry 4 drill pocket head sizes for indexable HFP-IQ drilling heads.

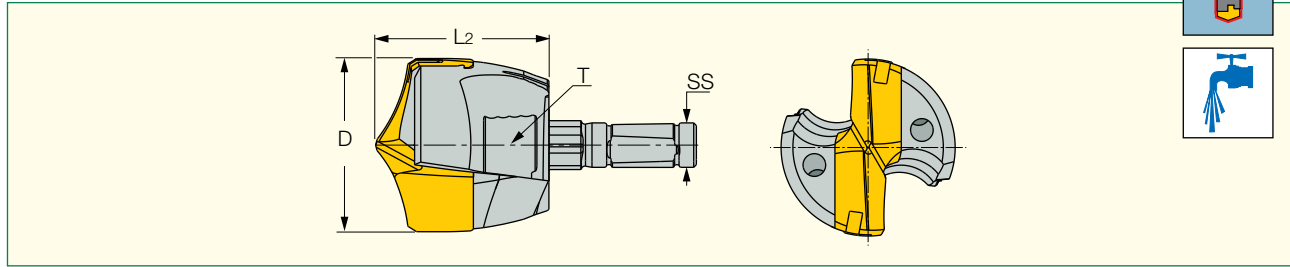
The modular drills cover the range of 1.299 to 1.575" diameter, coolant channels pass through all 3 drill element.

A unique user friendly locking mechanism neutralizes the fit gap and enables the diameter modularity and the ability to replace a damaged pocket.



DFN-HEAD

Indexable Pocket Heads with Coolant Holes for Drilling Holders

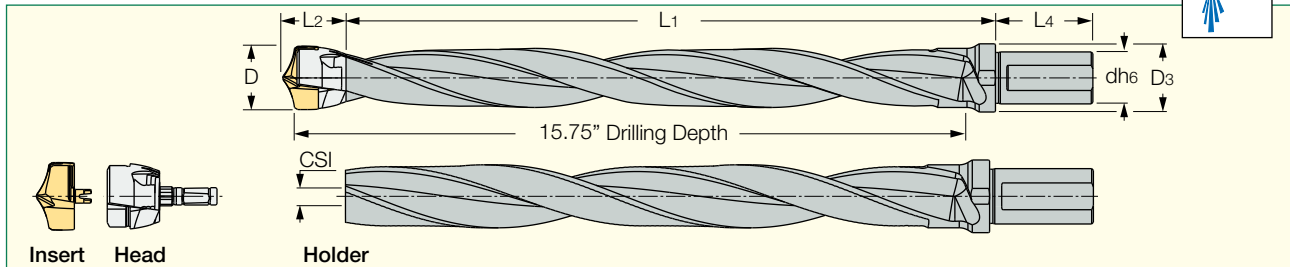


Designation	D _{min}	D _{max}	L ₂	SS ⁽¹⁾	T ⁽²⁾	Po. Size	Clamping Key
DFN 1299 HEAD-09-1.53	1.299	1.335	1.54	9	1.181	33.0	K DFN 30-40
DFN 1339 HEAD-09-1.53	1.339	1.374	1.54	9	1.181	34.0	K DFN 30-40
DFN 1378 HEAD-09-1.53	1.378	1.413	1.54	9	1.181	35.0	K DFN 30-40
DFN 1417 HEAD-09-1.53	1.417	1.453	1.54	9	1.181	36.0	K DFN 30-40
DFN 1457 HEAD-10-1.53	1.457	1.492	1.54	10	1.260	37.0	K DFN 30-40
DFN 1496 HEAD-10-1.53	1.496	1.531	1.54	10	1.260	38.0	K DFN 30-40
DFN 1535 HEAD-10-1.53	1.535	1.571	1.54	10	1.260	39.0	K DFN 30-40
DFN 1575 HEAD-10-1.53	1.575	1.610	1.54	10	1.260	40.0	K DFN 30-40

⁽¹⁾ Connection size ⁽²⁾ Clamping wrench size

DFN-HOLDER

Modular Drill Holders, Each Holder Can Carry 4 Drill Pocket Head Sizes



Designation	d	D ₃	L ₄	L ₁	L ₂	D _{min}	D _{max}	CSI ⁽¹⁾
DFN 1299-1417-A1.25-09HOL	1.250	1.650	2.67	15.75	1.54	1.299	1.453	9
DFN 1457-1575-A1.25-10HOL	1.250	1.650	2.67	15.75	1.54	1.457	1.610	10

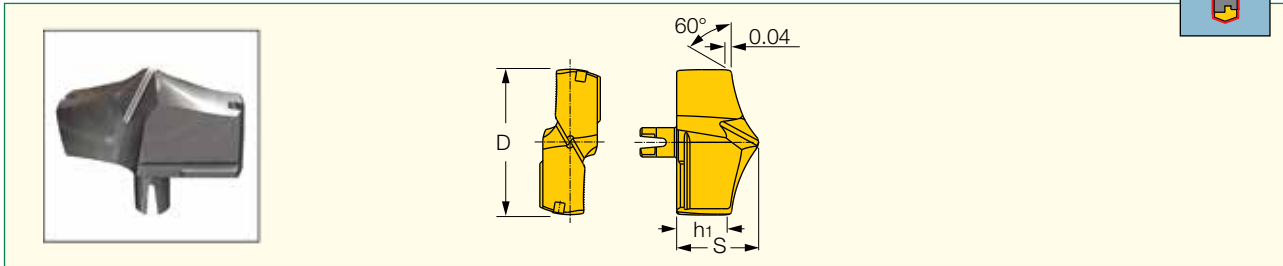
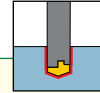
⁽¹⁾ DFN HEAD connection size.

MODULAR DFN Assembly Options

Holder	Head	Pocket Range	CSI
DFN 1299-1417-A1.25-09HOL	DFN 1299 HEAD-09-1.53	1.299-1.335	9
	DFN 1339 HEAD-09-1.53	1.339-1.374	9
	DFN 1378 HEAD-09-1.53	1.378-1.413	9
	DFN 1417 HEAD-09-1.53	1.417-1.453	9
DFN 1457-1575-A1.25-10HOL	DFN 1457 HEAD-10-1.53	1.457-1.492	10
	DFN 1496 HEAD-10-1.53	1.496-1.531	10
	DFN 1535 HEAD-10-1.53	1.535-1.571	10
	DFN 1575 HEAD-10-1.53	1.575-1.610	10

HFP-IQ

Exchangeable DFN Drill Heads, for Carbon and Alloy Steel (ISO P) and Cast Iron (ISO K)



Designation	Dimensions				IC908
	D	S	h ₁	Po. Size	
HFP 1299-IQ	1.299	.728	.441	33.0	●
HFP 1319-IQ	1.319	.728	.441	33.0	●
HFP 1339-IQ	1.339	.776	.476	34.0	●
HFP 1358-IQ	1.358	.776	.476	34.0	●
HFP 1378-IQ	1.378	.776	.476	35.0	●
HFP 1398-IQ	1.398	.776	.476	35.0	●
HFP 1417-IQ	1.417	.819	.500	36.0	●
HFP 1437-IQ	1.437	.819	.500	36.0	●
HFP 1457-IQ	1.457	.819	.504	37.0	●
HFP 1476-IQ	1.476	.819	.504	37.0	●
HFP 1496-IQ	1.496	.866	.543	38.0	●
HFP 1516-IQ	1.516	.866	.543	38.0	●
HFP 1535-IQ	1.535	.866	.535	39.0	●
HFP 1555-IQ	1.555	.866	.535	39.0	●
HFP 1575-IQ	1.575	.906	.567	40.0	●

• Intermediate sizes can be supplied on request.



**NEW
LARGE DIAMETER
DRILLING**







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**NEW
SUPERIOR EDGE
GEOMETRY**

SUMOCHAM IQ

HCP-IQ SUMOCHAM Drilling Heads

ISCAR is expanding the **SUMOCHAM** drilling head options, by introducing a revolutionary drilling head geometry that features concave cutting edges which substantially enhance the self-centering capability of the drill.

The new **HCP-IQ** drilling heads enable using up to 12xD long drills without the need for a pilot hole operation.

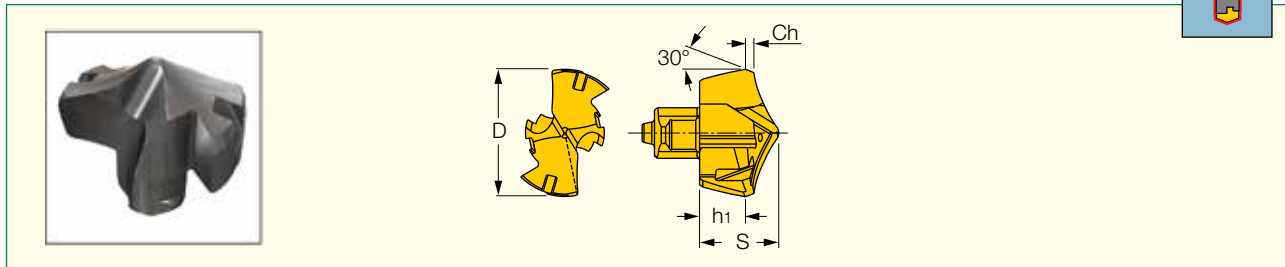
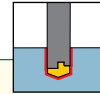
The new drilling heads are available in .315 to 1.020" diameters, in .004" increments.

By eliminating the need for a pilot hole, the new drilling heads shorten machining cycle time and the number of tools required for the drilling operation. This can provide a substantial cost reduction.

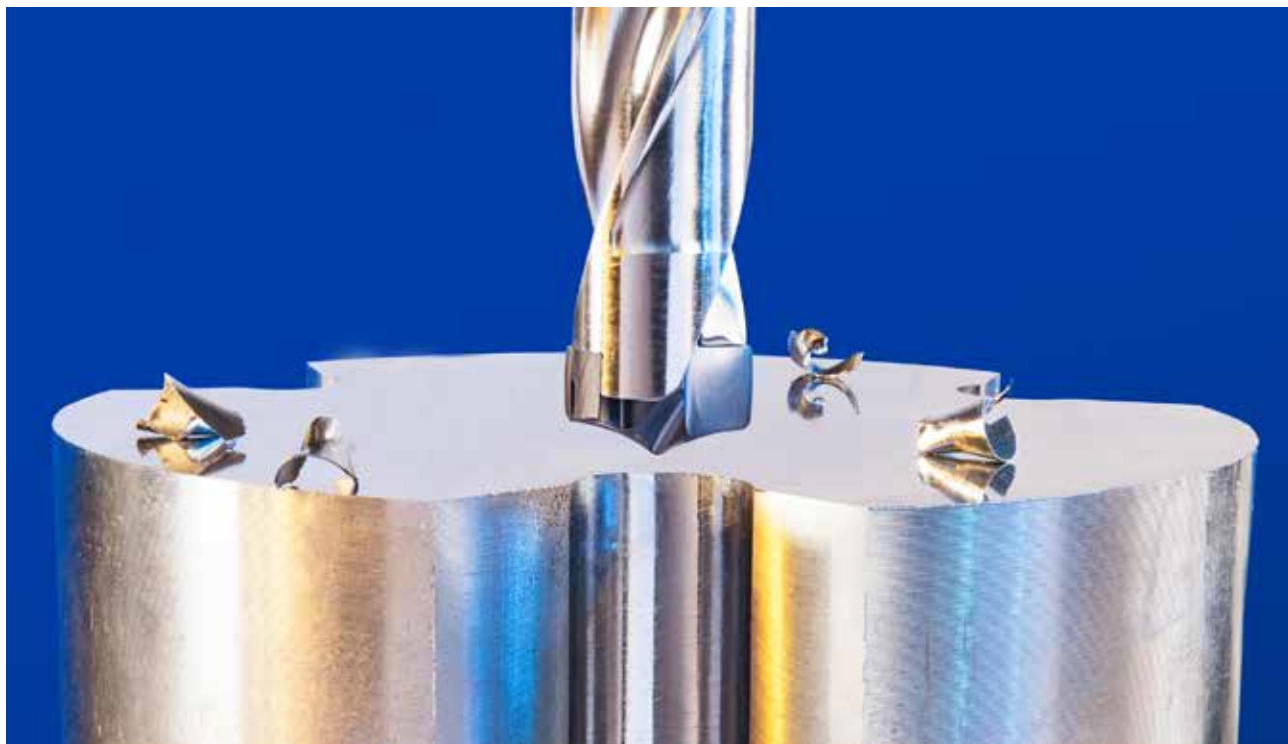


HCP-IQ

Exchangeable DCN Drill Self-Centering Heads, for Alloy Steel and Cast Iron



Designation	Dimensions					IC908
	D	S	h ₁	Ch	Po. Size	
HCP ...-IQ	.315-.350	.213	.128	.025	8.0	●
	.354-.390	.228	.140	.030	9.0	●
	.394-.429	.244	.137	.030	10.0	●
	.433-.469	.260	.152	.034	11.0	●
	.472-.508	.276	.151	.034	12.0	●
	.512-.547	.299	.161	.040	13.0	●
	.551-.587	.321	.178	.045	14.0	●
	.591-.626	.344	.191	.046	15.0	●
	.630-.665	.366	.212	.039	16.0	●
	.669-.705	.390	.210	.055	17.0	●
	.709-.744	.413	.230	.057	18.0	●
	.748-.783	.433	.250	.048	19.0	●
	.787-.823	.457	.267	.038	20.0	●
	.827-.862	.480	.285	.046	21.0	●
	.866-.902	.502	.298	.048	22.0	●
	.906-.941	.525	.311	.028	23.0	●
.945-.980	.547	.326	.054	24.0	●	
.984-1.020	.571	.333	.043	25.0	●	





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SUMOCHAM FLAT HEAD

Flat SUMOCHAM Drilling Heads

ISCAR is extending the application range of the successful **SUMOCHAM** drilling line by adding flat face drilling heads.

The new flat face drilling heads are designated **FCP**, designed for drilling steel components (ISO P/K material group).

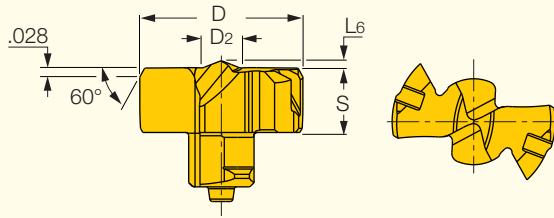
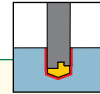
Drilling with the **FCP inserts** provides a nearly **flat bottom** in the hole, which is required in a variety of applications.

FCP Drill Head Features

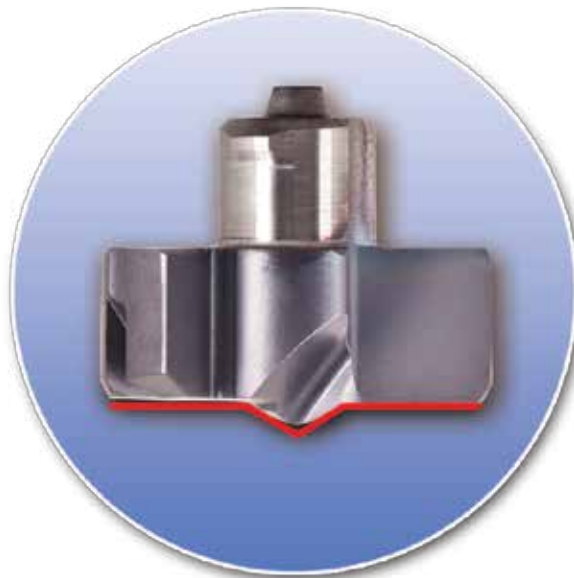
- Can be mounted on any **SUMOCHAM** drill featuring the appropriate pocket size.
- The recommended cutting conditions for the **FCP** drilling heads are the same as those recommended for **ICP** drilling heads.
- Made from **IC908** TiAlN PVD coated grade.

FCP

Exchangeable Flat Bottom DCN Drill Heads, for Steel and Cast Iron (ISO P and ISO K Materials)



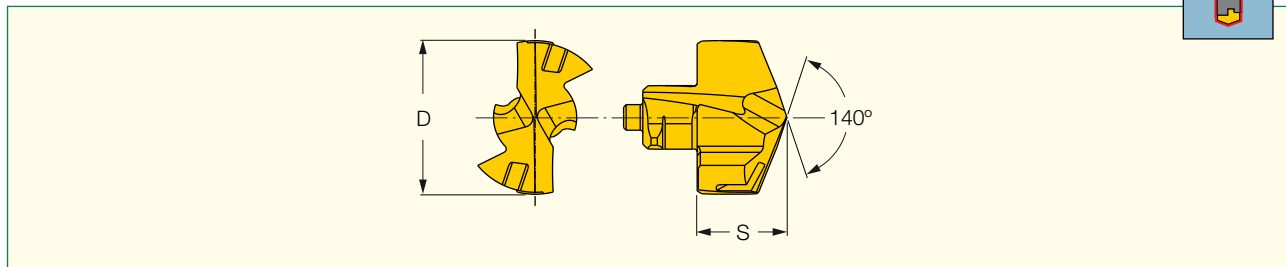
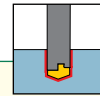
Designation	Dimensions					IC908
	D	D ₂	S	L ₆	Po. Size	
FCP ...	.315-.350	.096	.157	.015	8.0	●
	.354-.390	.100	.165	.016	9.0	●
	.394-.429	.114	.173	.019	10.0	●
	.433-.469	.117	.181	.021	11.0	●
	.472-.508	.123	.189	.022	12.0	●
	.512-.547	.139	.201	.023	13.0	●
	.551-.587	.150	.217	.024	14.0	●
	.591-.626	.167	.233	.026	15.0	●
	.630-.665	.160	.248	.027	16.0	●
	.669-.705	.163	.260	.028	17.0	●
	.709-.744	.164	.271	.028	18.0	●
	.748-.783	.167	.283	.029	19.0	●
	.787-.823	.258	.323	.042	20.0	●
	.827-.862	.272	.339	.043	21.0	●
	.866-.902	.281	.350	.044	22.0	●
	.906-.941	.292	.366	.044	23.0	●
.945-.980	.293	.382	.046	24.0	●	
.984-1.020	.297	.398	.047	25.0	●	



NEW
SUPERIOR EDGE
GEOMETRY

ICP \ICM\ICK

Exchangeable DCN Drill Heads



Designation	D	S	Pocket Size	IC908
ICP ...	.236-.252	.157	6.0	●
ICM ...	.256-.272	.169	6.5	●
ICK ...	.276-.311	.181	7.0	●
	.315-.350	.213	8.0	●
	.354-.390	.228	9.0	●
	.394-.429	.244	10.0	●
	.433-.469	.260	11.0	●
	.472-.508	.276	12.0	●
	.512-.547	.299	13.0	●
	.551-.587	.321	14.0	●
	.591-.626	.344	15.0	●
	.630-.665	.366	16.0	●
	.669-.705	.390	17.0	●
	.709-.744	.413	18.0	●
	.748-.783	.433	19.0	●
	.787-.823	.457	20.0	●
	.827-.862	.480	21.0	●
	.866-.902	.504	22.0	●
	.906-.941	.528	23.0	●
	.945-.980	.551	24.0	●
	.984-1.020	.571	25.0	●
	1.024-1.059	.602	26.0	●
	1.063-1.098	.638	27.0	●
	1.102-1.138	.669	28.0	●
	1.142-1.177	.705	29.0	●
	1.181-1.217	.736	30.0	●
	1.220-1.256	.772	31.0	●
	1.260-1.295	.803	32.0	●

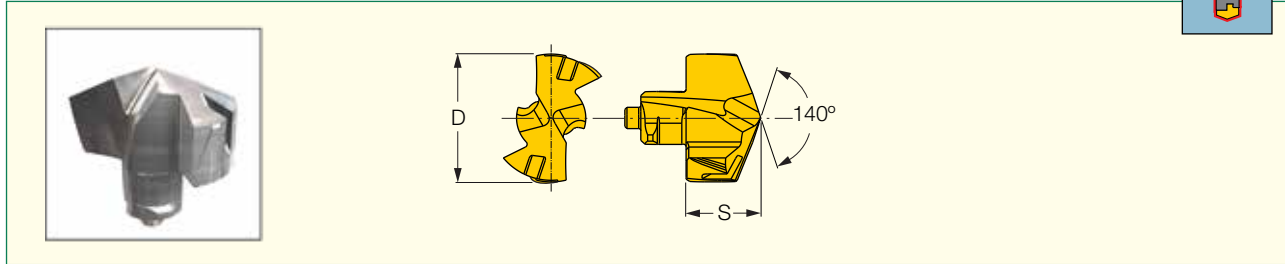
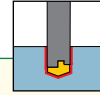
Drilling heads are available in increments of .039"

- **ICP** for use on carbon and alloy steel (ISO P).
The drill head has a honed cutting edge.
- **ICM** for use on stainless and high temperature alloys (ISO M).
The drill head features a T-land on the cutting edge.
- **ICK** for use on cast iron (ISO K).
The drill head is produced with a ground chamfer and a honed cutting edge.



ICP-2M \ ICK-2M

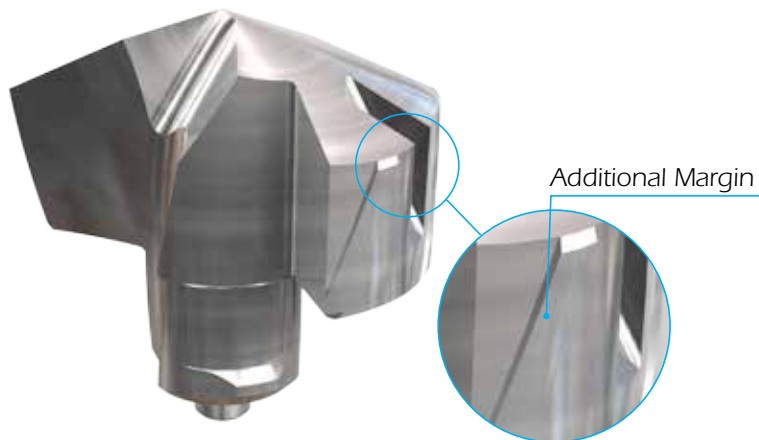
Double Margin Drilling Heads for DCN Drills for Machining Steel with High Surface Finish Results



Designation	Dimensions			IC908
	D	S	Pocket Size	
ICP-2M... ICK-2M...	.236-.252	.156	6.0	●
	.256-.272	.169	6.5	●
	.276-.311	.181	7.0	●
	.315-.350	.213	8.0	●
	.354-.390	.228	9.0	●
	.394-.429	.244	10.0	●
	.433-.469	.260	11.0	●
	.472-.508	.276	12.0	●
	.512-.547	.299	13.0	●
	.551-.587	.321	14.0	●
	.591-.626	.344	15.0	●
	.630-.665	.366	16.0	●
	.669-.795	.390	17.0	●
	.709-.744	.413	18.0	●
	.748-.783	.433	19.0	●
	.787-.823	.457	20.0	●
	.827-.862	.480	21.0	●
	.866-.902	.504	22.0	●
.906-.941	.528	23.0	●	
.945-.980	.551	24.0	●	
.984-1.020	.571	25.0	●	

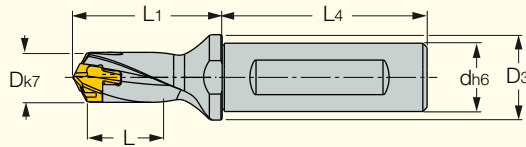
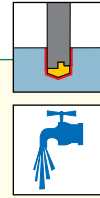
Drilling heads are available in increments of .039"

- **ICP** for use on carbon and alloy steel (ISO P).
The drill head has a honed cutting edge.
- **ICK** for use on cast iron (ISO K).
The drill head is produced with a ground chamfer and a honed cutting edge.
- Ordering example for ICP .524" drilling head: ICP 0524-2M IC908
- Can provide high surface finish of up to 64 microinches Ra, hole cylindricity and straightness, of up to .002".



DCN A-1.5D

Indexable Head Drills with Coolant Holes and One Flat Shanks, Drilling Depth 1.5xD



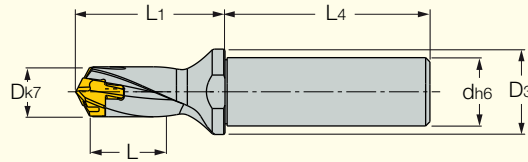
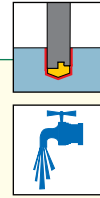
Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-035-050A-1.5D	.236	.252	.35	.500	.630	.99	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-038-050A-1.5D	.256	.271	.38	.500	.630	.99	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-043-050A-1.5D	.275	.291	.43	.500	.630	.99	1.77	7.0	K DCN 6-9.99
DCN 0295-044-050A-1.5D	.295	.311	.44	.500	.630	.99	1.77	7.0	K DCN 6-9.99
DCN 0315-047-050A-1.5D	.315	.331	.47	.500	.630	1.10	1.77	8.0	K DCN 6-9.99
DCN 0335-050-050A-1.5D	.335	.350	.50	.500	.630	1.10	1.77	8.0	K DCN 6-9.99
DCN 0354-053-050A-1.5D	.354	.370	.53	.500	.630	1.15	1.77	9.0	K DCN 6-9.99
DCN 0374-056-050A-1.5D	.374	.390	.56	.500	.630	1.15	1.77	9.0	K DCN 6-9.99
DCN 0394-059-063A-1.5D	.394	.409	.59	.625	.790	1.23	1.89	10.0	K DCN 10-13.99
DCN 0413-062-063A-1.5D	.413	.429	.59	.625	.790	1.23	1.89	10.0	K DCN 10-13.99
DCN 0433-065-063A-1.5D	.433	.449	.65	.625	.790	1.30	1.89	11.0	K DCN 10-13.99
DCN 0453-068-063A-1.5D	.453	.469	.68	.625	.790	1.33	1.89	11.0	K DCN 10-13.99
DCN 0472-071-063A-1.5D	.472	.488	.71	.625	.790	1.38	1.89	12.0	K DCN 10-13.99
DCN 0492-074-063A-1.5D	.492	.508	.74	.625	.790	1.38	1.89	12.0	K DCN 10-13.99
DCN 0512-077-063A-1.5D	.512	.527	.77	.625	.790	1.46	1.89	13.0	K DCN 10-13.99
DCN 0531-080-063A-1.5D	.531	.547	.80	.625	.790	1.46	1.89	13.0	K DCN 10-13.99
DCN 0551-083-063A-1.5D	.551	.567	.83	.625	.790	1.62	1.89	14.0	K DCN 14-17.99
DCN 0571-085-063A-1.5D	.571	.587	.85	.625	.790	1.62	1.89	14.0	K DCN 14-17.99
DCN 0591-089-075A-1.5D	.591	.626	.89	.750	.980	1.82	1.97	15.0	K DCN 14-17.99
DCN 0630-095-075A-1.5D	.630	.665	.95	.750	.980	1.94	1.97	16.0	K DCN 14-17.99
DCN 0669-100-075A-1.5D	.669	.705	1.00	.750	.980	2.06	1.97	17.0	K DCN 14-17.99
DCN 0709-106-100A-1.5D	.709	.744	1.06	1.000	1.260	2.19	2.20	18.0	K DCN 18-21.99
DCN 0748-112-100A-1.5D	.748	.783	1.12	1.000	1.260	2.30	2.20	19.0	K DCN 18-21.99
DCN 0787-118-100A-1.5D	.787	.823	1.18	1.000	1.260	2.43	2.20	20.0	K DCN 18-21.99
DCN 0827-126-100A-1.5D	.827	.862	1.26	1.000	1.260	2.55	2.20	21.0	K DCN 18-21.99
DCN 0866-130-100A-1.5D	.866	.902	1.30	1.000	1.260	2.67	2.20	22.0	K DCN 22-26.99
DCN 0906-138-125A-1.5D	.906	.941	1.38	1.250	1.653	2.79	2.36	23.0	K DCN 22-26.99
DCN 0945-142-125A-1.5D	.945	.980	1.42	1.250	1.653	2.91	2.36	24.0	K DCN 22-26.99
DCN 0984-150-125A-1.5D	.984	1.020	1.50	1.250	1.653	3.03	2.36	25.0	K DCN 22-26.99
DCN 1024-154-125A-1.5D	1.024	1.059	1.54	1.250	1.653	3.16	2.36	26.0	K DCN 22-26.99
DCN 1063-160-125A-1.5D	1.063	1.098	1.60	1.250	1.653	3.27	2.36	27.0	K DCN 27-32.99
DCN 1102-166-125A-1.5D	1.102	1.138	1.66	1.250	1.653	3.39	2.36	28.0	K DCN 27-32.99
DCN 1142-171-125A-1.5D	1.142	1.177	1.71	1.250	1.653	3.52	2.36	29.0	K DCN 27-32.99
DCN 1181-177-125A-1.5D	1.181	1.216	1.77	1.250	1.653	3.64	2.36	30.0	K DCN 27-32.99
DCN 1220-183-125A-1.5D	1.220	1.260	1.83	1.250	1.653	3.76	2.36	31.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



DCN R-1.5D

Indexable Head Drills with Coolant Holes and Cylindrical Shanks, Drilling Depth 1.5xD

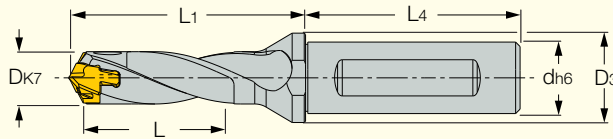
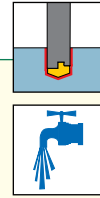


Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-035-050R-1.5D	.236	.252	.35	.500	.630	1.10	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-038-050R-1.5D	.256	.271	.38	.500	.630	1.10	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-043-050R-1.5D	.275	.291	.43	.500	.630	1.10	1.77	7.0	K DCN 6-9.99
DCN 0295-044-050R-1.5D	.295	.311	.44	.500	.630	1.10	1.77	7.0	K DCN 6-9.99
DCN 0315-047-050R-1.5D	.315	.331	.47	.500	.630	1.10	1.77	8.0	K DCN 6-9.99
DCN 0335-050-050R-1.5D	.335	.350	.50	.500	.630	1.10	1.77	8.0	K DCN 6-9.99
DCN 0354-053-050R-1.5D	.354	.370	.53	.500	.630	1.15	1.77	9.0	K DCN 6-9.99
DCN 0374-056-050R-1.5D	.374	.390	.56	.500	.630	1.15	1.77	9.0	K DCN 6-9.99
DCN 0394-059-063R-1.5D	.394	.409	.59	.625	.790	1.23	1.89	10.0	K DCN 10-13.99
DCN 0413-062-063R-1.5D	.413	.429	.62	.625	.790	1.23	1.89	10.0	K DCN 10-13.99
DCN 0433-065-063R-1.5D	.433	.449	.65	.625	.790	1.30	1.89	11.0	K DCN 10-13.99
DCN 0453-068-063R-1.5D	.453	.468	.68	.625	.790	1.33	1.89	11.0	K DCN 10-13.99
DCN 0472-071-063R-1.5D	.472	.488	.71	.625	.790	1.38	1.89	12.0	K DCN 10-13.99
DCN 0492-074-063R-1.5D	.492	.508	.74	.625	.790	1.38	1.89	12.0	K DCN 10-13.99
DCN 0512-077-063R-1.5D	.512	.527	.77	.625	.790	1.46	1.89	13.0	K DCN 10-13.99
DCN 0531-080-063R-1.5D	.531	.547	.80	.625	.790	1.46	1.89	13.0	K DCN 10-13.99
DCN 0551-083-063R-1.5D	.551	.567	.83	.625	.790	1.62	1.89	14.0	K DCN 14-17.99
DCN 0571-085-063R-1.5D	.571	.587	.85	.625	.790	1.62	1.89	14.0	K DCN 14-17.99
DCN 0591-089-075R-1.5D	.591	.626	.89	.750	.980	1.82	1.97	15.0	K DCN 14-17.99
DCN 0630-095-075R-1.5D	.630	.665	.95	.750	.980	1.94	1.97	16.0	K DCN 14-17.99
DCN 0669-100-075R-1.5D	.669	.705	1.00	.750	.980	2.06	1.97	17.0	K DCN 14-17.99
DCN 0709-106-100R-1.5D	.709	.744	1.06	1.000	1.260	2.19	2.20	18.0	K DCN 18-21.99
DCN 0748-112-100R-1.5D	.748	.783	1.12	1.000	1.260	2.30	2.20	19.0	K DCN 18-21.99
DCN 0787-118-100R-1.5D	.787	.823	1.18	1.000	1.260	2.43	2.20	20.0	K DCN 18-21.99
DCN 0827-126-100R-1.5D	.827	.862	1.26	1.000	1.260	2.55	2.20	21.0	K DCN 18-21.99
DCN 0866-130-100R-1.5D	.866	.902	1.30	1.000	1.260	2.67	2.20	22.0	K DCN 22-26.99
DCN 0906-138-125R-1.5D	.906	.941	1.38	1.250	1.653	2.79	2.36	23.0	K DCN 22-26.99
DCN 0945-142-125R-1.5D	.945	.980	1.42	1.250	1.653	2.91	2.36	24.0	K DCN 22-26.99
DCN 0984-150-125R-1.5D	.984	1.020	1.50	1.250	1.653	3.03	2.36	25.0	K DCN 22-26.99
DCN 1024-154-125R-1.5D	1.024	1.059	1.54	1.250	1.653	3.16	2.36	26.0	K DCN 22-26.99
DCN 1063-160-125R-1.5D	1.063	1.098	1.60	1.250	1.653	3.27	2.36	27.0	K DCN 27-32.99
DCN 1102-166-125R-1.5D	1.102	1.138	1.66	1.250	1.653	3.39	2.36	28.0	K DCN 27-32.99
DCN 1142-171-125R-1.5D	1.142	1.177	1.71	1.250	1.653	3.52	2.36	29.0	K DCN 27-32.99
DCN 1181-177-125R-1.5D	1.181	1.216	1.77	1.250	1.653	3.64	2.36	30.0	K DCN 27-32.99
DCN 1220-183-125R-1.5D	1.220	1.256	1.83	1.250	1.653	3.76	2.36	31.0	K DCN 27-32.99
DCN 1260-189-125R-1.5D	1.260	1.295	1.89	1.250	1.653	3.88	2.36	32.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

DCN A-3D

Indexable Head Drills with Coolant Holes and One Flat Shanks, Drilling Depth 3xD

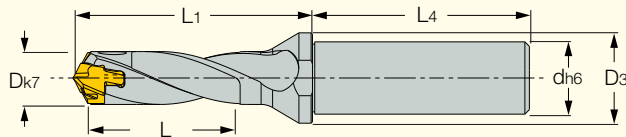
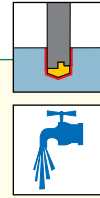


Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-071-050A-3D	.236	.250	.71	.500	.630	.84	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-079-050A-3D	.256	.271	.79	.500	.630	.91	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-082-050A-3D	.275	.291	.82	.500	.630	1.40	1.77	7.0	K DCN 6-9.99
DCN 0295-089-050A-3D	.295	.311	.89	.500	.630	1.46	1.77	7.0	K DCN 6-9.99
DCN 0315-094-050A-3D	.315	.331	.94	.500	.630	1.55	1.77	8.0	K DCN 6-9.99
DCN 0335-100-050A-3D	.335	.350	1.00	.500	.630	1.61	1.77	8.0	K DCN 6-9.99
DCN 0354-106-050A-3D	.354	.370	1.06	.500	.630	1.69	1.77	9.0	K DCN 6-9.99
DCN 0374-112-050A-3D	.374	.390	1.12	.500	.630	1.74	1.77	9.0	K DCN 6-9.99
DCN 0394-118-063A-3D	.394	.409	1.18	.625	.790	1.82	1.89	10.0	K DCN 10-13.99
DCN 0413-124-063A-3D	.413	.429	1.24	.625	.790	1.88	1.89	10.0	K DCN 10-13.99
DCN 0433-130-063A-3D	.433	.449	1.30	.625	.790	1.95	1.89	11.0	K DCN 10-13.99
DCN 0453-135-063A-3D	.453	.469	1.35	.625	.790	2.01	1.89	11.0	K DCN 10-13.99
DCN 0472-141-063A-3D	.472	.488	1.41	.625	.790	2.09	1.89	12.0	K DCN 10-13.99
DCN 0492-147-063A-3D	.492	.508	1.47	.625	.790	2.15	1.89	12.0	K DCN 10-13.99
DCN 0512-153-063A-3D	.512	.528	1.53	.625	.790	2.23	1.89	13.0	K DCN 10-13.99
DCN 0531-159-063A-3D	.531	.547	1.59	.625	.790	2.29	1.89	13.0	K DCN 10-13.99
DCN 0551-165-063A-3D	.551	.567	1.65	.625	.790	2.45	1.89	14.0	K DCN 14-17.99
DCN 0571-171-063A-3D	.571	.587	1.71	.625	.790	2.51	1.89	14.0	K DCN 14-17.99
DCN 0591-177-075A-3D	.591	.626	1.77	.750	.980	2.71	1.97	15.0	K DCN 14-17.99
DCN 0630-189-075A-3D	.630	.665	1.89	.750	.980	2.89	1.97	16.0	K DCN 14-17.99
DCN 0669-201-075A-3D	.669	.705	2.01	.750	.980	3.07	1.97	17.0	K DCN 14-17.99
DCN 0709-213-100A-3D	.709	.744	2.13	1.000	1.260	3.25	2.20	18.0	K DCN 18-21.99
DCN 0748-224-100A-3D	.748	.783	2.24	1.000	1.260	3.43	2.20	19.0	K DCN 18-21.99
DCN 0787-236-100A-3D	.787	.823	2.36	1.000	1.260	3.61	2.20	20.0	K DCN 18-21.99
DCN 0827-248-100A-3D	.827	.862	2.48	1.000	1.260	3.79	2.20	21.0	K DCN 18-21.99
DCN 0866-260-100A-3D	.866	.902	2.60	1.000	1.260	3.97	2.20	22.0	K DCN 22-26.99
DCN 0906-272-125A-3D	.906	.941	2.72	1.250	1.650	4.15	2.36	23.0	K DCN 22-26.99
DCN 0945-283-125A-3D	.945	.980	2.83	1.250	1.650	4.33	2.36	24.0	K DCN 22-26.99
DCN 0984-295-125A-3D	.984	1.020	2.95	1.250	1.650	4.51	2.36	25.0	K DCN 22-26.99
DCN 1024-307-125A-3D	1.024	1.059	3.07	1.250	1.650	4.68	2.36	26.0	K DCN 22-26.99
DCN 1063-319-125A-3D	1.063	1.098	3.19	1.250	1.650	4.87	2.36	27.0	K DCN 27-32.99
DCN 1102-331-125A-3D	1.102	1.138	3.31	1.250	1.650	5.05	2.36	28.0	K DCN 27-32.99
DCN 1142-342-125A-3D	1.142	1.177	3.42	1.250	1.650	5.22	2.36	29.0	K DCN 27-32.99
DCN 1181-354-125A-3D	1.181	1.216	3.54	1.250	1.650	5.41	2.36	30.0	K DCN 27-32.99
DCN 1220-366-125A-3D	1.220	1.256	3.66	1.250	1.650	5.59	2.36	31.0	K DCN 27-32.99
DCN 1260-378-125A-3D	1.260	1.296	3.78	1.250	1.650	5.76	2.36	32.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

DCN R-3D

Indexable Head Drills with Coolant Holes and Cylindrical Shanks, Drilling Depth 3xD



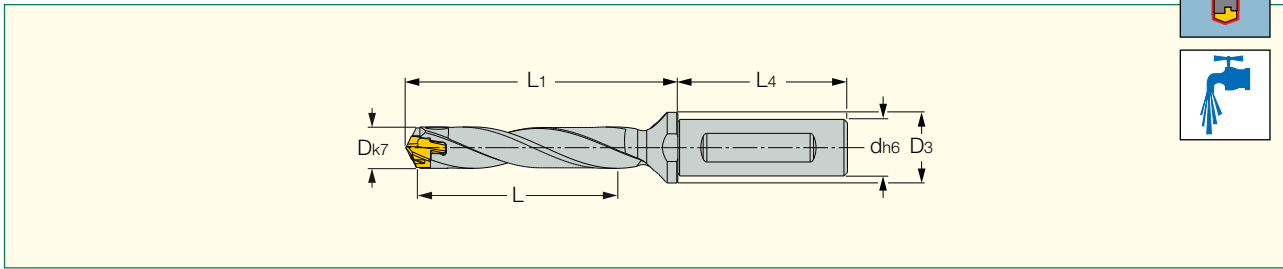
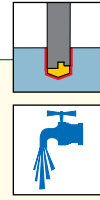
Designation	D _{min} (¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-071-050R-3D	.236	.250	.71	.500	.630	1.21	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-079-050R-3D	.256	.271	.79	.500	.630	1.29	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-082-050R-3D	.275	.291	.82	.500	.630	1.40	1.77	7.0	K DCN 6-9.99
DCN 0295-089-050R-3D	.295	.311	.89	.500	.630	1.40	1.77	7.0	K DCN 6-9.99
DCN 0315-094-050R-3D	.315	.331	.94	.500	.630	1.55	1.77	8.0	K DCN 6-9.99
DCN 0335-100-050R-3D	.335	.350	1.00	.500	.630	1.61	1.77	8.0	K DCN 6-9.99
DCN 0354-106-050R-3D	.354	.370	1.06	.500	.630	1.69	1.77	9.0	K DCN 6-9.99
DCN 0374-112-050R-3D	.374	.390	1.12	.500	.630	1.74	1.77	9.0	K DCN 6-9.99
DCN 0394-118-063R-3D	.394	.409	1.18	.625	.790	1.82	1.89	10.0	K DCN 10-13.99
DCN 0413-124-063R-3D	.413	.429	1.24	.625	.790	1.88	1.89	10.0	K DCN 10-13.99
DCN 0433-130-063R-3D	.433	.449	1.30	.625	.790	1.95	1.89	11.0	K DCN 10-13.99
DCN 0453-135-063R-3D	.453	.469	1.35	.625	.790	2.01	1.89	11.0	K DCN 10-13.99
DCN 0472-141-063R-3D	.472	.488	1.41	.625	.790	2.09	1.89	12.0	K DCN 10-13.99
DCN 0492-147-063R-3D	.492	.508	1.47	.625	.790	2.15	1.89	12.0	K DCN 10-13.99
DCN 0512-153-063R-3D	.512	.528	1.53	.625	.790	2.23	1.89	13.0	K DCN 10-13.99
DCN 0531-159-063R-3D	.531	.547	1.59	.625	.790	2.29	1.89	13.0	K DCN 10-13.99
DCN 0551-165-063R-3D	.551	.567	1.65	.625	.790	2.45	1.89	14.0	K DCN 14-17.99
DCN 0571-171-063R-3D	.571	.587	1.71	.625	.790	2.51	1.89	14.0	K DCN 14-17.99
DCN 0591-177-075R-3D	.591	.626	1.77	.750	.980	2.71	1.97	15.0	K DCN 14-17.99
DCN 0630-189-075R-3D	.630	.665	1.89	.750	.980	2.89	1.97	16.0	K DCN 14-17.99
DCN 0669-201-075R-3D	.669	.705	2.01	.750	.980	3.07	1.97	17.0	K DCN 14-17.99
DCN 0709-213-100R-3D	.709	.744	2.13	1.000	1.260	3.25	2.20	18.0	K DCN 18-21.99
DCN 0748-224-100R-3D	.748	.783	2.24	1.000	1.260	3.43	2.20	19.0	K DCN 18-21.99
DCN 0787-236-100R-3D	.787	.823	2.36	1.000	1.260	3.61	2.20	20.0	K DCN 18-21.99
DCN 0827-248-100R-3D	.827	.862	2.48	1.000	1.260	3.79	2.20	21.0	K DCN 18-21.99
DCN 0866-260-100R-3D	.866	.902	2.60	1.000	1.260	3.97	2.20	22.0	K DCN 22-26.99
DCN 0906-272-125R-3D	.906	.941	2.72	1.250	1.650	4.15	2.36	23.0	K DCN 22-26.99
DCN 0945-283-125R-3D	.945	.980	2.83	1.250	1.650	4.33	2.36	24.0	K DCN 22-26.99
DCN 0984-295-125R-3D	.984	1.020	2.95	1.250	1.650	4.51	2.36	25.0	K DCN 22-26.99
DCN 1024-307-125R-3D	1.024	1.059	3.07	1.250	1.650	4.68	2.36	26.0	K DCN 22-26.99
DCN 1063-319-125R-3D	1.063	1.098	3.19	1.250	1.650	4.87	2.36	27.0	K DCN 27-32.99
DCN 1102-331-125R-3D	1.102	1.138	3.31	1.250	1.650	5.05	2.36	28.0	K DCN 27-32.99
DCN 1142-342-125R-3D	1.142	1.177	3.42	1.250	1.650	5.22	2.36	29.0	K DCN 27-32.99
DCN 1220-366-125R-3D	1.220	1.256	3.66	1.250	1.650	5.59	2.36	31.0	K DCN 27-32.99
DCN 1260-378-125R-3D	1.260	1.296	3.78	1.250	1.650	5.76	2.36	32.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



DCN A-5D

Indexable Head Drills with Coolant Holes and One Flat Shanks, Drilling Depth 5xD



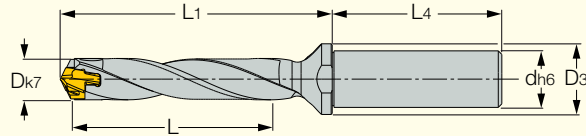
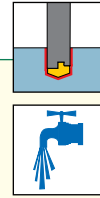
Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-118-050A-5D	.236	.250	1.18	.500	.630	1.73	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-130-050A-5D	.256	.271	1.30	.500	.630	1.84	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-138-050A-5D	.275	.291	1.38	.500	.630	1.95	1.77	7.0	K DCN 6-9.99
DCN 0295-148-050A-5D	.295	.311	1.48	.500	.630	2.05	1.77	7.0	K DCN 6-9.99
DCN 0315-157-050A-5D	.315	.331	1.57	.500	.630	2.18	1.77	8.0	K DCN 6-9.99
DCN 0335-167-050A-5D	.335	.350	1.67	.500	.630	2.28	1.77	8.0	K DCN 6-9.99
DCN 0354-177-050A-5D	.354	.370	1.77	.500	.630	2.39	1.77	9.0	K DCN 6-9.99
DCN 0374-187-050A-5D	.374	.390	1.87	.500	.630	2.49	1.77	9.0	K DCN 6-9.99
DCN 0394-196-063A-5D	.394	.409	1.96	.625	.790	2.61	1.89	10.0	K DCN 10-13.99
DCN 0413-206-063A-5D	.413	.429	2.06	.625	.790	2.70	1.89	10.0	K DCN 10-13.99
DCN 0433-216-063A-5D	.433	.449	2.16	.625	.790	2.82	1.89	11.0	K DCN 10-13.99
DCN 0453-226-063A-5D	.453	.469	2.26	.625	.790	2.92	1.89	11.0	K DCN 10-13.99
DCN 0472-236-063A-5D	.472	.488	2.36	.625	.790	3.03	1.89	12.0	K DCN 10-13.99
DCN 0492-246-063A-5D	.492	.508	2.46	.625	.790	3.13	1.89	12.0	K DCN 10-13.99
DCN 0512-256-063A-5D	.512	.528	2.56	.625	.790	3.25	1.89	13.0	K DCN 10-13.99
DCN 0531-266-063A-5D	.531	.547	2.65	.625	.790	3.35	1.89	13.0	K DCN 10-13.99
DCN 0551-275-063A-5D	.551	.567	2.75	.625	.790	3.55	1.89	14.0	K DCN 14-17.99
DCN 0571-285-063A-5D	.571	.587	2.85	.625	.790	3.65	1.89	14.0	K DCN 14-17.99
DCN 0591-295-075A-5D	.591	.626	2.95	.750	.980	3.89	1.97	15.0	K DCN 14-17.99
DCN 0630-315-075A-5D	.630	.665	3.15	.750	.980	4.15	1.97	16.0	K DCN 14-17.99
DCN 0669-335-075A-5D	.669	.705	3.35	.750	.980	4.41	1.97	17.0	K DCN 14-17.99
DCN 0709-354-100A-5D	.709	.744	3.54	1.000	1.260	4.67	2.20	18.0	K DCN 18-21.99
DCN 0748-374-100A-5D	.748	.783	3.74	1.000	1.260	4.92	2.20	19.0	K DCN 18-21.99
DCN 0787-394-100A-5D	.787	.823	3.94	1.000	1.260	5.18	2.20	20.0	K DCN 18-21.99
DCN 0827-413-100A-5D	.827	.862	4.13	1.000	1.260	5.44	2.20	21.0	K DCN 18-21.99
DCN 0866-433-100A-5D	.866	.902	4.33	1.000	1.260	5.70	2.20	22.0	K DCN 22-26.99
DCN 0906-453-125A-5D	.906	.941	4.53	1.250	1.650	5.96	2.36	23.0	K DCN 22-26.99
DCN 0945-472-125A-5D	.945	.980	4.72	1.250	1.650	6.22	2.36	24.0	K DCN 22-26.99
DCN 0984-492-125A-5D	.984	1.020	4.92	1.250	1.650	6.48	2.36	25.0	K DCN 22-26.99
DCN 1024-512-125A-5D	1.024	1.059	5.12	1.250	1.650	6.73	2.36	26.0	K DCN 22-26.99
DCN 1063-531-125A-5D	1.063	1.098	5.31	1.250	1.650	6.99	2.36	27.0	K DCN 27-32.99
DCN 1102-551-125A-5D	1.102	1.138	5.51	1.250	1.650	7.25	2.36	28.0	K DCN 27-32.99
DCN 1142-571-125A-5D	1.142	1.177	5.71	1.250	1.650	7.51	2.36	29.0	K DCN 27-32.99
DCN 1181-590-125A-5D	1.181	1.216	5.90	1.250	1.650	7.77	2.36	30.0	K DCN 27-32.99
DCN 1220-610-125A-5D	1.220	1.256	6.10	1.250	1.650	8.03	2.36	31.0	K DCN 27-32.99
DCN 1260-630-125A-5D	1.260	1.295	6.30	1.250	1.650	8.28	2.36	32.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



DCN R-5D

Indexable Head Drills with Coolant Holes and Cylindrical Shanks, Drilling Depth 5xD

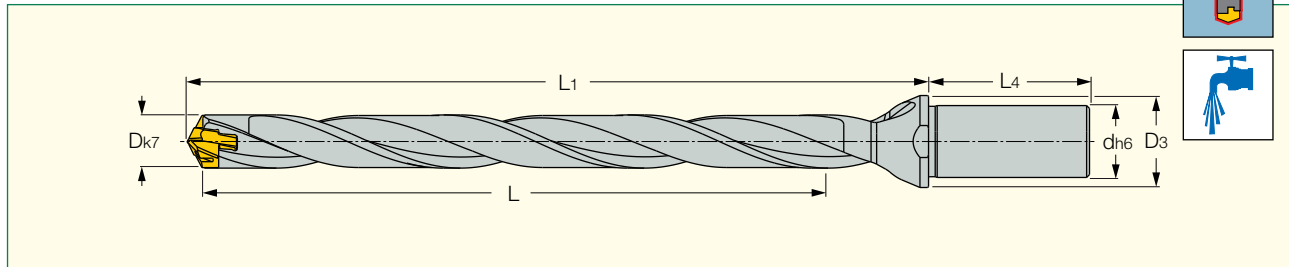


Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0236-118-050R-5D	.236	.250	1.18	.500	.630	1.73	1.77	6.0	K DCN 6-9.99-Y
DCN 0256-130-050R-5D	.256	.271	1.30	.500	.630	1.84	1.77	6.5	K DCN 6-9.99-Y
DCN 0275-138-050R-5D	.275	.291	1.37	.500	.630	1.96	1.77	7.0	K DCN 6-9.99
DCN 0295-148-050R-5D	.295	.311	1.48	.500	.630	2.05	1.77	7.0	K DCN 6-9.99
DCN 0315-157-050R-5D	.315	.331	1.57	.500	.630	2.18	1.77	8.0	K DCN 6-9.99
DCN 0335-167-050R-5D	.335	.350	1.67	.500	.630	2.28	1.77	8.0	K DCN 6-9.99
DCN 0354-177-050R-5D	.354	.370	1.77	.500	.630	2.39	1.77	9.0	K DCN 6-9.99
DCN 0374-187-050R-5D	.374	.390	1.87	.500	.630	2.49	1.77	9.0	K DCN 6-9.99
DCN 0394-196-063R-5D	.394	.409	1.96	.625	.790	2.61	1.89	10.0	K DCN 10-13.99
DCN 0413-206-063R-5D	.413	.429	2.06	.625	.790	2.70	1.89	10.0	K DCN 10-13.99
DCN 0433-216-063R-5D	.433	.449	2.16	.625	.790	2.82	1.89	11.0	K DCN 10-13.99
DCN 0453-226-063R-5D	.453	.469	2.26	.625	.790	2.92	1.89	11.0	K DCN 10-13.99
DCN 0472-236-063R-5D	.472	.488	2.36	.625	.790	3.03	1.89	12.0	K DCN 10-13.99
DCN 0492-246-063R-5D	.492	.508	2.46	.625	.790	3.13	1.89	12.0	K DCN 10-13.99
DCN 0512-256-063R-5D	.512	.528	2.56	.625	.790	3.25	1.89	13.0	K DCN 10-13.99
DCN 0531-265-063R-5D	.531	.547	2.65	.625	.790	3.35	1.89	13.0	K DCN 10-13.99
DCN 0551-275-063R-5D	.551	.567	2.75	.625	.790	3.55	1.89	14.0	K DCN 14-17.99
DCN 0571-285-063R-5D	.571	.587	2.85	.625	.790	3.65	1.89	14.0	K DCN 14-17.99
DCN 0591-295-075R-5D	.591	.626	2.95	.750	.980	3.89	1.97	15.0	K DCN 14-17.99
DCN 0630-315-075R-5D	.630	.665	3.15	.750	.980	4.15	1.97	16.0	K DCN 14-17.99
DCN 0669-335-075R-5D	.669	.705	3.35	.750	.980	4.41	1.97	17.0	K DCN 14-17.99
DCN 0709-354-100R-5D	.709	.744	3.54	1.000	1.260	4.67	2.20	18.0	K DCN 18-21.99
DCN 0748-374-100R-5D	.748	.783	3.74	1.000	1.260	4.92	2.20	19.0	K DCN 18-21.99
DCN 0787-394-100R-5D	.787	.823	3.94	1.000	1.260	5.18	2.20	20.0	K DCN 18-21.99
DCN 0827-413-100R-5D	.827	.862	4.13	1.000	1.260	5.44	2.20	21.0	K DCN 18-21.99
DCN 0866-433-100R-5D	.866	.902	4.33	1.000	1.260	5.70	2.20	22.0	K DCN 22-26.99
DCN 0906-453-125R-5D	.906	.941	4.53	1.250	1.650	5.96	2.36	23.0	K DCN 22-26.99
DCN 0945-472-125R-5D	.945	.980	4.72	1.250	1.650	6.22	2.36	24.0	K DCN 22-26.99
DCN 0984-492-125R-5D	.984	1.020	4.92	1.250	1.650	6.48	2.36	25.0	K DCN 22-26.99
DCN 1024-512-125R-5D	1.024	1.059	5.12	1.250	1.650	6.73	2.36	26.0	K DCN 22-26.99
DCN 1063-531-125R-5D	1.063	1.098	5.31	1.250	1.650	6.99	2.36	27.0	K DCN 27-32.99
DCN 1102-551-125R-5D	1.102	1.138	5.51	1.250	1.650	7.25	2.36	28.0	K DCN 27-32.99
DCN 1181-590-125R-5D	1.181	1.216	5.90	1.250	1.650	7.71	2.36	30.0	K DCN 27-32.99
DCN 1220-610-125R-5D	1.220	1.256	6.10	1.250	1.650	8.03	2.36	31.0	K DCN 27-32.99
DCN 1260-630-125R-5D	1.260	1.295	6.30	1.250	1.650	8.28	2.36	32.0	K DCN 27-32.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

DCN R-12D

Indexable Head Drills with Coolant Holes and Cylindrical Shanks, Drilling Depth 12xD



Designation	D _{min} ⁽¹⁾	D _{max}	L	d	D ₃	L ₁	L ₄	Po. Size	Clamping Key
DCN 0472-567-063R-12D	.472	.488	5.67	.630	.790	6.34	1.89	12.0	K DCN 10-13.99
DCN 0492-591-063R-12D	.492	.508	5.91	.630	.790	6.57	1.89	12.0	K DCN 10-13.99
DCN 0512-614-063R-12D	.512	.528	6.14	.630	.790	6.83	1.89	13.0	K DCN 10-13.99
DCN 0531-639-063R-12D	.532	.547	6.39	.630	.790	7.07	1.89	13.0	K DCN 10-13.99
DCN 0551-661-063R-12D	.551	.567	6.61	.630	.980	7.41	1.97	14.0	K DCN 14-17.99
DCN 0571-685-063R-12D	.571	.587	6.85	.630	.790	7.64	1.97	14.0	K DCN 14-17.99
DCN 0591-709-075R-12D	.591	.626	7.09	.750	.984	8.02	1.97	15.0	K DCN 14-17.99
DCN 0630-756-075R-12D	.630	.665	7.56	.750	.984	8.56	1.97	16.0	K DCN 14-17.99
DCN 0669-803-075R-12D	.669	.705	8.03	.750	.984	9.09	1.97	17.0	K DCN 14-17.99
DCN 0709-850-100R-12D	.709	.744	8.50	1.000	1.260	9.63	2.20	18.0	K DCN 18-21.99
DCN 0748-898-100R-12D	.748	.783	8.98	1.000	1.260	10.16	2.20	19.0	K DCN 18-21.99
DCN 0787-945-100R-12D	.787	.823	9.45	1.000	1.260	10.69	2.20	20.0	K DCN 18-21.99
DCN 0827-992-100R-12D	.827	.862	9.92	1.000	1.260	11.23	2.20	21.0	K DCN 18-21.99
DCN 0866-1039-100R-12D	.866	.902	10.39	1.000	1.260	11.76	2.20	22.0	K DCN 22-26.99
DCN 0906-1087-125R-12D	.906	.941	10.87	1.250	1.650	12.30	2.36	24.0	K DCN 22-26.99
DCN 0945-1134-125R-12D	.945	.980	11.34	1.250	1.650	12.83	2.36	23.0	K DCN 22-26.99
DCN 0984-1181-125R-12D	.984	1.020	11.81	1.250	1.650	13.37	2.36	25.0	K DCN 22-26.99

• Prior to using the 12xD drill, it is recommended to drill a pre-hole by using a DCN 1.5xD drill or a centering drill.

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



Standard Tools





Imitation No Time for Look Alikes!

NEW
HIGH PRODUCTIVITY
COMBI DRILL



COMBICHAM

ISCAR is introducing **COMBICHAM**, featuring large diameter indexable drills with an interchangeable pilot drilling head and one flat shank.

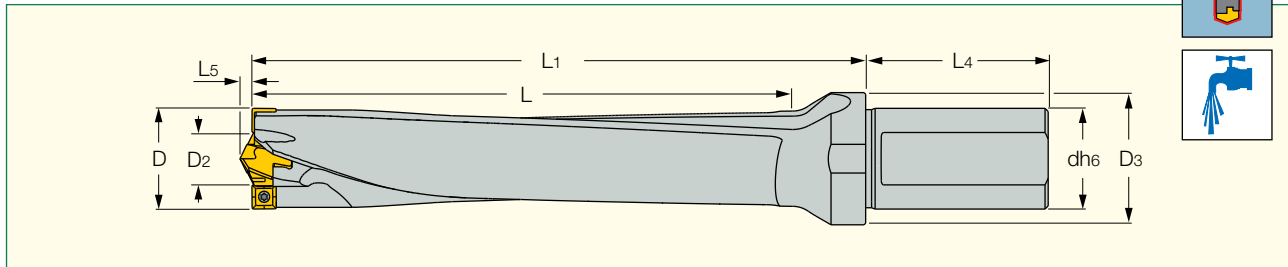
The new drill provides an excellent solution for drilling 1.125-2.000" diameter holes in a drilling depth of up to 5xD. The **COMBICHAM** features a pilot **SUMOCHAM** drilling head and standard SOGX/SOGT wiper square inserts in various sizes, made from IC808 **SUMO TEC** PVD coated grade. As the drill is fully effective, it enables high feed

drilling, providing high drilling rates, and high accuracy and surface finish.

The **COMBICHAM** is compatible with MQL coolant type and features two peripheral coolant nozzles to provide high coolant flow directly to the cutting zone. The precise ground self-centering geometry of the leading **SUMOCHAM** head provides high penetration rates and eliminates the need for making a pre-hole prior to using the **COMBICHAM**.

MNC

Large Diameter Indexable Drills with Pilot Drilling Head and One Flat Shanks, Drilling Depth 5xD



Designation	D	D ₂	L	L ₁	L ₄	L ₅	d	D ₃	Insert ⁽¹⁾	Insert ₁ ⁽²⁾
MNC1125-563-125-0630-07-5	1.125	.630	5.63	7.09	2.36	.122	1.250	1.653	SOGX 070305W	ICP 0630
MNC1250-625-125-0709-07-5	1.250	.709	6.25	7.81	2.36	.134	1.250	1.653	SOGX 070305W	ICP 0709
MNC1500-750-150-0827-10-5	1.500	.827	7.50	9.10	2.67	.164	1.500	1.968	SOGT 100408W	ICP 0827
MNC1625-813-150-0965-10-5	1.625	.965	8.13	9.83	2.67	.185	1.500	1.968	SOGT 100408W	ICP 0965
MNC1750-875-150-0850-12-5	1.750	.850	8.75	10.60	2.67	.208	1.500	1.968	SOGT 120408W	ICP 0850
MNC2000-1000-150-110-12-5	2.000	1.100	10.00	11.90	2.67	.246	1.500	1.968	SOGT 120408W	ICP 1098

Hole tolerance: D+.004/-0.002 in average conditions. However, it can be higher or lower according to machine and tooling conditions @ Intermediate sizes are available on request

(1) Outer insert (2) Central insert





Imitation No Time for Look Alikes!



DR-TWIST INDEXABLE DRILL LINE

New HD Chipbreaker for Drilling Low Carbon Steel

It is well-known that the main challenge of machining low carbon steel is to avoid long curly chips that might jam in the drill's gullets and damage the tool, which may poorly affect hole quality and interrupt the drilling process.

The new chipformer prevents that phenomenon by cutting the material into short chips which are easily evacuated along the flutes.

The new chipbreaker was implemented on **SOMX 05, 06, 07** and **SOMT 09, 12, 16** inserts with 4 cutting edges.

The suffix **HD** designates the new inserts, for example: **SOMX 070305-HD**.

The new **-HD** chipbreaker produces short chips, due to a higher deflector, in comparison with the DT or the GF chipbreaker construction.

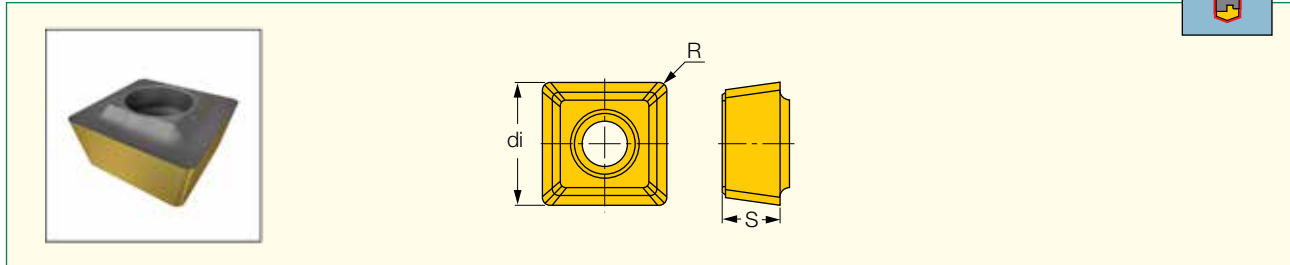
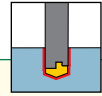
Features

- Excellent chipbreaking on soft materials
- High surface quality
- High hole diameter accuracy

DR-TWIST
INDEXABLE DRILL LINE

SOMT-HD

Inserts for DR Drills, for Carbon Steel and Soft Materials

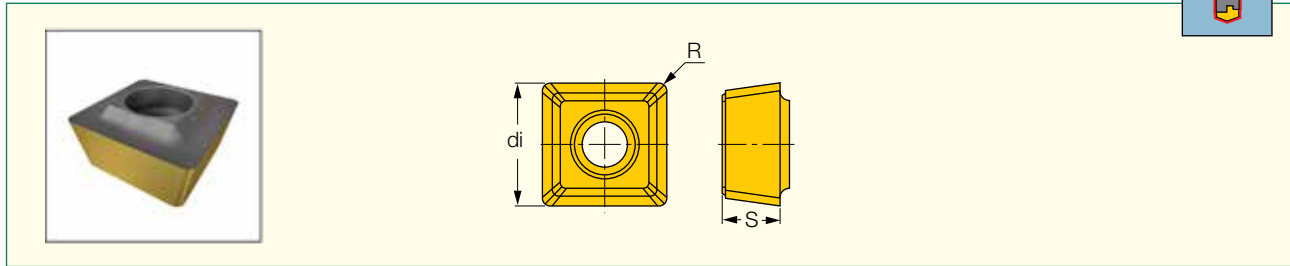
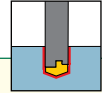


Designation	Dimensions			IC808
	di	S	R	
SOMT 09T306-HD	.354	.150	.024	●
SOMT 120408-HD	.500	.187	.031	●
SOMT 160512-HD	.630	.219	.047	●



SOMX-HD

Inserts for DR Drills, for Carbon Steel and Soft Materials

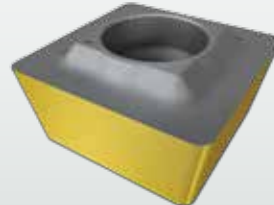
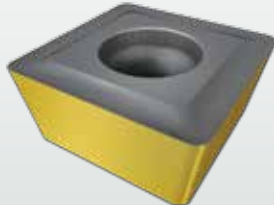
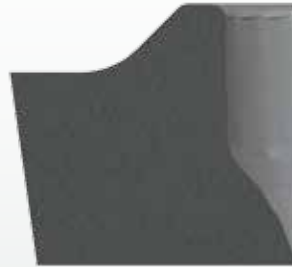


Designation	Dimensions			IC808
	di	S	R	
SOMX 050204-HD	.213	.094	.016	●
SOMX 060304-HD	.244	.126	.016	●
SOMX 070305-HD	.303	.142	.020	●

NEW
OUTSTANDING SOLUTION
FOR DRILLING LOW
CARBON STEEL

DT Chipformer

HD Chipformer







Imitation No Time for Look Alikes!



SUMO^{UNI}**CHAM**

DCNS Modular Drills for CHAMRING Holders

ISCAR is introducing the **SUMO UNICHAM** - new drills without a flange, for chamfering operations by using the standard **CHAMRING** modular chamfering drill holders.

The **SUMO UNICHAM** combines the advantages of the **SUMOCHAM** drills with those of the **CHAMRING**, to chamfer around holes in a diameter range of **.295 to 1.020"** and L/D ratio of **3xD** and **5xD**.

The projection of the **SUMO UNICHAM** inserted into the **CHAMRING** can be adjusted for various drilling depths in blind- and through-hole applications

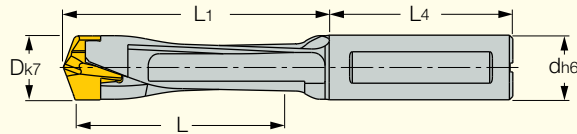
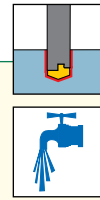
for the standard 30°, 45° and 60° chamfers, by using XCGT inserts.

The **SUMO UNICHAM** drill is polished and features a wiper along the tool body, providing improved surface finish and smooth chip evacuation. This new drill uses standard **SUMOCHAM ICP/K/M** drilling heads.

Following the introduction of the **SUMO UNICHAM**, ISCAR has also expanded the **CHAMRING** chamfering drill holders to a new diameter range of **.827-.984"**.

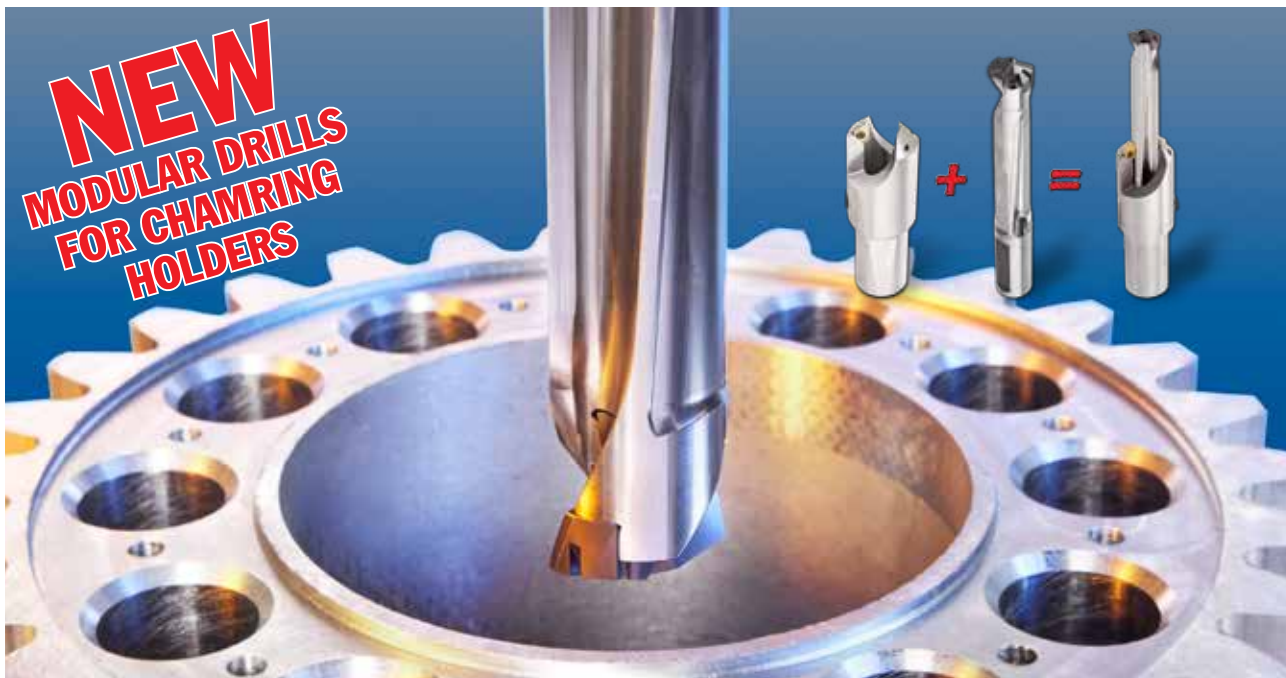
DCNS-3D

Indexable Head Drills without a Flange and One Flat Shank,
Drilling Depth 3xD, Suitable for Chamfering Holders



Designation	D _{min} ⁽¹⁾	D _{max}	L	d	L ₁	L ₄	Po. Size	Clamping Key
DCNS 0295-089-031B-3D	.295	.311	.89	.315	1.35	1.42	7.0	K DCN 6-9.99
DCNS 0315-094-031B-3D	.315	.331	.94	.315	1.37	1.42	8.0	K DCN 6-9.99
DCNS 0335-100-035B-3D	.335	.350	1.00	.354	1.45	1.42	8.0	K DCN 6-9.99
DCNS 0354-106-035B-3D	.354	.370	1.06	.354	1.53	1.42	9.0	K DCN 6-9.99
DCNS 0374-112-039B-3D	.374	.390	1.12	.394	1.59	1.42	9.0	K DCN 6-9.99
DCNS 0394-118-039B-3D	.394	.409	1.18	.394	1.78	1.61	10.0	K DCN 10-13.99
DCNS 0413-124-043B-3D	.413	.429	1.24	.433	1.84	1.61	10.0	K DCN 10-13.99
DCNS 0433-130-043B-3D	.433	.449	1.30	.433	1.91	1.61	11.0	K DCN 10-13.99
DCNS 0453-135-047B-3D	.453	.469	1.36	.472	1.97	1.61	11.0	K DCN 10-13.99
DCNS 0472-141-047B-3D	.472	.488	1.42	.472	2.05	1.61	12.0	K DCN 10-13.99
DCNS 0492-147-051B-3D	.492	.508	1.48	.512	2.11	1.81	12.0	K DCN 10-13.99
DCNS 0512-153-051B-3D	.512	.528	1.54	.512	2.19	1.85	13.0	K DCN 10-13.99
DCNS 0531-159-055B-3D	.531	.547	1.59	.551	2.25	1.69	13.0	K DCN 10-13.99
DCNS 0551-165-055B-3D	.551	.567	1.65	.551	2.33	1.73	14.0	K DCN 14-17.99
DCNS 0571-171-059B-3D	.571	.587	1.71	.591	2.39	1.77	14.0	K DCN 14-17.99
DCNS 0591-177-059B-3D	.591	.626	1.77	.591	2.47	1.77	15.0	K DCN 14-17.99
DCNS 0630-189-063B-3D	.630	.665	1.89	.630	2.74	1.89	16.0	K DCN 14-17.99
DCNS 0669-201-066B-3D	.669	.705	2.01	.669	2.83	1.89	17.0	K DCN 14-17.99
DCNS 0709-213-070B-3D	.709	.744	2.13	.709	2.97	1.89	18.0	K DCN 18-21.99
DCNS 0748-224-074B-3D	.748	.783	2.24	.748	3.09	2.13	19.0	K DCN 18-21.99
DCNS 0787-236-078B-3D	.787	.823	2.36	.787	3.47	2.13	20.0	K DCN 18-21.99
DCNS 0827-248-082B-3D	.827	.862	2.48	.827	3.57	2.36	21.0	K DCN 18-21.99
DCNS 0866-260-086B-3D	.866	.902	2.60	.866	3.71	2.36	22.0	K DCN 22-26.99
DCNS 0906-272-090B-3D	.906	.941	2.72	.906	3.85	2.36	23.0	K DCN 22-26.99
DCNS 0945-283-094B-3D	.945	.980	2.83	.945	3.99	2.36	24.0	K DCN 22-26.99
DCNS 0984-295-098B-3D	.984	1.020	2.95	.984	4.13	2.36	25.0	K DCN 22-26.99

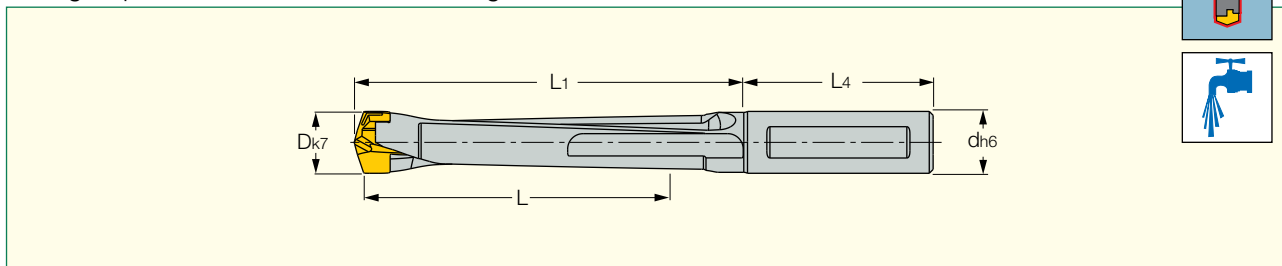
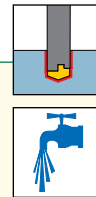
⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



NEW
MODULAR DRILLS
FOR CHAMFRING
HOLDERS

DCNS-5D

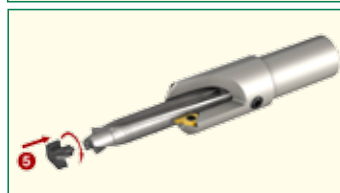
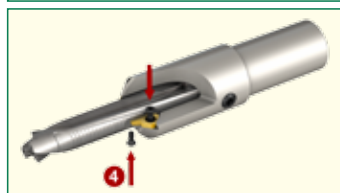
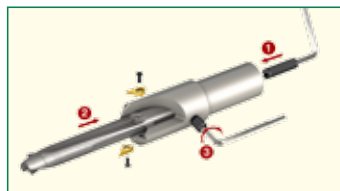
Indexable Head Drills without a Flange and One Flat Shank, Drilling Depth 5xD, Suitable for Chamfering Holders



Designation	D _{min} ⁽¹⁾	D _{max}	L	d	L ₁	L ₄	Po. Size	Clamping Key
DCNS 0295-148-031B-5D	.295	.311	1.48	.315	1.94	1.42	7.0	K DCN 6-9.99
DCNS 0315-157-031B-5D	.315	.331	1.57	.315	2.22	1.42	8.0	K DCN 6-9.99
DCNS 0335-167-035B-5D	.335	.350	1.67	.354	2.12	1.42	8.0	K DCN 6-9.99
DCNS 0354-177-035B-5D	.354	.370	1.77	.354	2.24	1.42	9.0	K DCN 6-9.99
DCNS 0374-187-039B-5D	.374	.390	1.87	.394	2.33	1.42	9.0	K DCN 6-9.99
DCNS 0394-196-039B-5D	.394	.409	1.97	.394	2.57	1.61	10.0	K DCN 10-13.99
DCNS 0413-206-043B-5D	.413	.429	2.07	.433	2.67	1.61	10.0	K DCN 10-13.99
DCNS 0433-216-043B-5D	.433	.449	2.17	.433	2.78	1.61	11.0	K DCN 10-13.99
DCNS 0453-226-047B-5D	.453	.469	2.26	.472	2.88	1.61	11.0	K DCN 10-13.99
DCNS 0472-236-047B-5D	.472	.488	2.36	.472	2.99	1.61	12.0	K DCN 10-13.99
DCNS 0492-246-051B-5D	.492	.508	2.46	.512	3.09	1.81	12.0	K DCN 10-13.99
DCNS 0512-256-051B-5D	.512	.528	2.56	.512	3.21	1.85	13.0	K DCN 10-13.99
DCNS 0531-265-055B-5D	.531	.547	2.66	.551	3.31	1.69	13.0	K DCN 10-13.99
DCNS 0551-275-055B-5D	.551	.567	2.76	.551	3.43	1.73	14.0	K DCN 14-17.99
DCNS 0571-285-059B-5D	.571	.587	2.85	.591	3.53	1.77	14.0	K DCN 14-17.99
DCNS 0591-295-059B-5D	.591	.626	2.95	.591	3.65	1.77	15.0	K DCN 14-17.99
DCNS 0630-315-063B-5D	.630	.665	3.15	.630	4.00	1.89	16.0	K DCN 14-17.99
DCNS 0669-335-066B-5D	.669	.705	3.35	.669	4.17	1.89	17.0	K DCN 14-17.99
DCNS 0709-354-070B-5D	.709	.744	3.54	.709	4.39	1.89	18.0	K DCN 18-21.99
DCNS 0748-374-074B-5D	.748	.783	3.74	.748	4.59	2.13	19.0	K DCN 18-21.99
DCNS 0787-394-078B-5D	.787	.823	3.94	.787	5.04	2.13	20.0	K DCN 18-21.99
DCNS 0827-413-082B-5D	.827	.862	4.13	.827	5.22	2.36	21.0	K DCN 18-21.99
DCNS 0866-433-086B-5D	.866	.902	4.33	.866	5.44	2.36	22.0	K DCN 22-26.99
DCNS 0906-453-090B-5D	.906	.941	4.53	.906	5.66	2.36	23.0	K DCN 22-26.99
DCNS 0945-472-094B-5D	.945	.980	4.72	.945	5.88	2.36	24.0	K DCN 22-26.99
DCNS 0984-492-098B-5D	.984	1.020	4.92	.984	6.10	2.36	25.0	K DCN 22-26.99

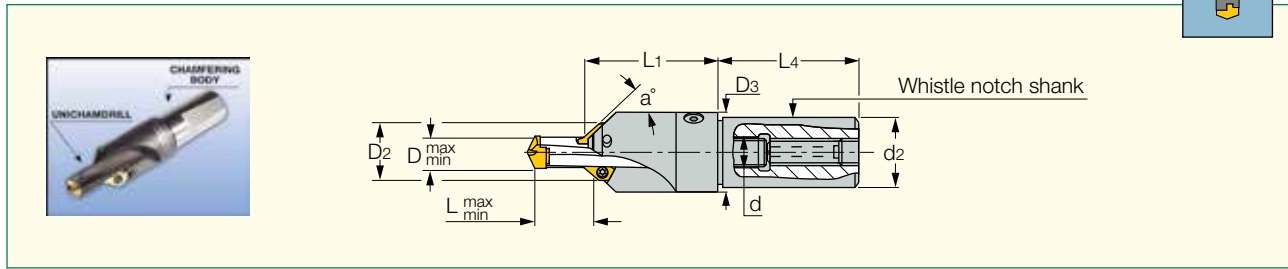
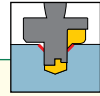
⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.

CHAMRING Initial Assembly



CHAMRING

Drill Holders for Drilling and Chamfering in One Operation



Designation	DCN...	D _{min}	D _{max}	DCNS 3D		DCM 3.5D		DCNS 5D		d	D ₃	D ₂	L ₁	L ₄	d ₂	Inserts
				L _{min}	L _{max}	L _{min}	L _{max}	L _{min}	L _{max}							
CHAMRING 0315-W1.00-06	DCN...295	.295	.311	.496	.945	.49	.86	.681	1.496	.315	.984	.74	1.87	2.205	1	XCGT 06...
	DCN...315	.315	.331	.531	.969	.55	.90	.972	1.772	.315	.984	.74	1.87	2.205	1	XCGT 06...
CHAMRING 0354-W1.00-06	DCN...335	.335	.350	.496	1.031	.59	1.05	.728	1.693	.354	.984	.78	1.87	2.205	1	XCGT 06...
	DCN...354	.354	.370	.512	1.150	.62	1.07	.902	1.843	.354	.984	.78	1.87	2.205	1	XCGT 06...
CHAMRING 0394-W1.00-09	DCN...375	.374	.390	.508	1.094	.68	1.15	1.024	1.850	.394	.984	.98	2.65	2.205	1	XCGT 09...
	DCN...394	.394	.409	.571	1.252	.56	1.12	1.248	2.039	.394	.984	.98	2.65	2.205	1	XCGT 09...
CHAMRING 0433-W1.00-09	DCN...413	.413	.429	.618	1.311	.57	1.16	1.228	2.134	.433	.984	1.02	2.65	2.205	1	XCGT 09...
	DCN...433	.433	.449	.638	1.390	.71	1.77	1.343	2.256	.433	.984	1.02	2.65	2.205	1	XCGT 09...
CHAMRING 0472-W1.00-09	DCN...453	.453	.469	.594	1.445	.61	1.30	1.331	2.339	.472	.984	1.06	2.65	2.205	1	XCGT 09...
	DCN...472	.472	.488	.650	1.484	.76	1.39	1.441	2.425	.472	.984	1.06	2.65	2.205	1	XCGT 09...
CHAMRING 0512-W1.00-09	DCN...492	.492	.508	.634	1.559	.79	1.47	1.563	2.551	.512	1.496	1.1	2.65	2.205	1	XCGT 09...
	DCN...512	.512	.528	.689	1.634	.84	1.51	1.681	2.677	.512	1.496	1.1	2.65	2.205	1	XCGT 09...
CHAMRING 0551-W1.25-09	DCN...531	.531	.547	.697	1.689	.77	1.55	1.630	2.768	.551	1.496	1.12	2.65	2.362	1.25	XCGT 09...
	DCN...551	.551	.567	.713	1.772	.85	1.64	1.764	2.878	.551	1.496	1.12	2.65	2.362	1.25	XCGT 09...
CHAMRING 0591-W1.25-09	DCN...571	.571	.587	.756	1.756	.79	1.66	1.732	2.909	.591	1.496	1.16	2.65	2.362	1.25	XCGT 09...
	DCN...591	.591	.626	.776	1.866	.99	1.72	1.874	3.177	.591	1.496	1.16	2.65	2.362	1.25	XCGT 09...
CHAMRING 0630-W1.25-09	DCN...630	.630	.665	.768	2.180	1.04	1.94	2.244	3.445	.63	1.496	1.2	2.65	2.362	1.25	XCGT 09...
CHAMRING 0669-W1.25-09	DCN...669	.669	.705	.843	2.161	1.12	2.06	2.201	3.484	.669	1.496	1.24	2.65	2.362	1.25	XCGT 09...
CHAMRING 0709-W1.25-09	DCN...709	.709	.744	.953	2.567	1.22	2.24	2.362	3.661	.709	1.496	1.28	2.65	2.362	1.25	XCGT 09...
CHAMRING 0748-W1.25-09	DCN...748	.748	.783	1.122	2.453	1.43	2.49	2.638	3.937	.748	1.496	1.32	2.95	2.362	1.25	XCGT 09...
CHAMRING 0787-W1.25-09	DCN...787	.787	.823	1.531	2.894	1.56	2.64	3.110	4.449	.787	1.496	1.35	2.95	2.362	1.25	XCGT 09...
CHAMRING 0827-W1.5-09	DCN...827	.827	.862	1.307	2.720			2.992	4.331	.827	1.968	1.394	3.322	2.677	1.5	XCGT 09...
CHAMRING 0866-W1.5-09	DCN...866	.866	.902	1.437	2.807			3.189	4.508	.866	1.968	1.433	3.322	2.677	1.5	XCGT 09...
CHAMRING 0906-W1.5-09	DCN...906	.906	.941	1.571	2.976			3.268	4.783	.906	1.968	1.472	3.322	2.677	1.5	XCGT 09...
CHAMRING 0945-W1.5-09	DCN...945	.945	.980	1.709	3.110			3.583	5.000	.945	1.968	1.512	3.322	2.677	1.5	XCGT 09...
CHAMRING 0984-W1.5-09	DCN...984	.984	1.020	1.846	3.252			3.819	5.236	.984	1.968	1.551	3.322	2.677	1.5	XCGT 09...

• It is recommended to apply external coolant on the chamfering inserts • Reduce the recommended feed and speed by 50% when machining maximum chamfer size • L_{min} & L_{max} dimensions are based on the 45° chamfering insert. Chamfering angle (a°) is dependent on the chamfering insert being used.

Suitable drills: DCM-3.5D, DCNS-3D, DCNS-5D

Assembly Instructions

- Insert the UNICHAMDRILL into the CHAMRING prior to clamping the chamfering inserts.
- Adjust the UNICHAMDRILL protrusion by using the rear screw, then correct adjustment using the side clamping screw.
- Attach the chamfering inserts.

Adjustment of UNICHAMDRILL Protrusion

- Loosen the chamfering inserts clamping screws.
- Loosen the side clamping screw.
- Adjust the UNICHAMDRILL protrusion by using the rear screw, then correct adjustment using the side clamping screw.
- Re-tighten the chamfering inserts.

Spare Parts



Designation	Side Locking Screw	Side Locking Key	BACK Screw	Back Screw Key	Insert Screw	Torx Key	Torex Blade	Handle
CHAMRING 0315-0354	SR M6X6DIN916	HW 3.0	SR M6X1S	HW 3.0	SR 14-560	T-8/53		
CHAMRING 0394-0787	SR M10X10DIN916	HW 5.0	SR M10X1.5S	HW 5.0	SR 14-544/S		BLD T15/S7	SW6-SD
CHAMRING 0827-0984	SR M16X16 DIN1835-B	HW 8.0	SR M12X1.75S	HW 6.0	SR 14-544/S		BLD T15/S7	SW6-SD



Imitation
No Time for Look Alikes!

NEW
INDEXABLE GUNDRILL

SUMOGUN

High Table Feeds

ISCAR is introducing the new **SUMOGUN** line for deep drilling applications of a diameter range of .394 to 1.023" with standard lengths of 15.7" and 31.5".

SUMOGUN enables replacement of the drilling head inside the machine – there is no need to remove the drill for head indexing.

A polyamide plastic key is available for clamping and removing the **SUMOGUN** head.

The **SUMOGUN** features two straight flutes carrying the standard **SUMOCHAM** drilling heads. The **SUMOCHAM** drilling heads are fully effective,

which enables drilling at much higher table feed rates, compared to most other gundrills available in the market.

The **SUMOGUN** provides the enduser the ability to clamp different head geometries according to the material and application.

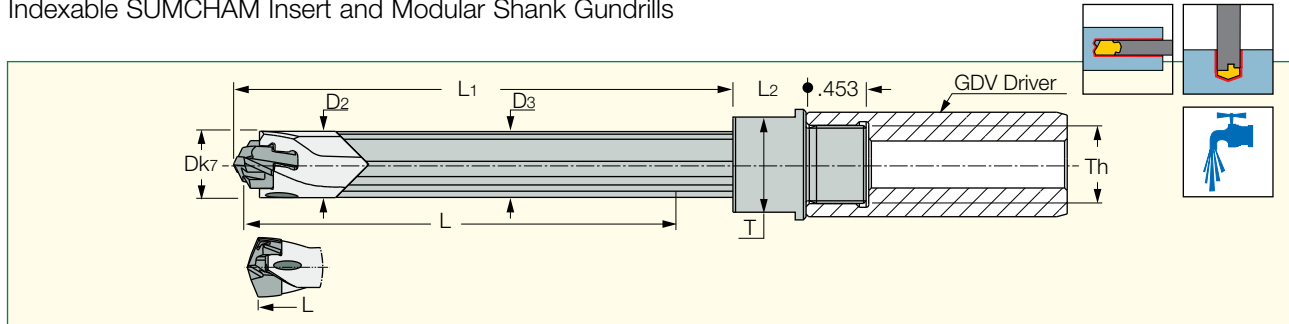
Drill Pocket

The drill features an innovative unique pocket which can undergo at least 25 head replacements. The connection between the pocket and tube is done by a new welding process for high torque resistance.



MNCNT-T2

Indexable SUMCHAM Insert and Modular Shank Gundrills



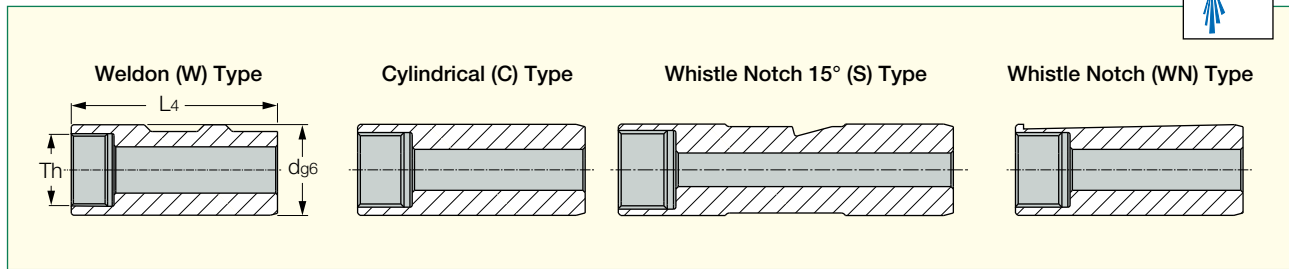
Designation	D _{min} ⁽¹⁾	D _{max}	D ₂	D ₃	Po. Size	L	L ₁	Th	L ₂	T	Clamping Key
MNCNT 100-400-MF16X1-T2	.394	.413	.382	.378	10.0	15.75	16.93	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 100-800-MF16X1-T2	.394	.413	.382	.378	10.0	31.50	32.68	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 105-400-MF16X1-T2	.413	.433	.402	.398	10.0	15.75	16.93	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 105-800-MF16X1-T2	.413	.433	.402	.398	10.0	31.50	32.68	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 110-400-MF16X1-T2	.433	.452	.421	.417	11.0	15.75	16.93	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 110-800-MF16X1-T2	.433	.452	.421	.417	11.0	31.50	32.68	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 115-400-MF16X1-T2	.453	.472	.441	.437	11.0	15.75	16.93	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 115-800-MF16X1-T2	.453	.472	.441	.437	11.0	31.50	32.68	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 120-400-MF16X1-T2	.472	.492	.461	.457	12.0	15.75	16.93	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 120-800-MF16X1-T2	.472	.492	.461	.457	12.0	31.50	32.68	MF16X1	.394	.630	K DCN 10-13.99
MNCNT 125-400-MF16X1-T2	.492	.511	.480	.476	12.0	15.75	16.93	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 125-800-MF16X1-T2	.492	.511	.480	.476	12.0	31.50	32.68	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 130-400-MF16X1-T2	.512	.531	.500	.496	13.0	15.75	16.93	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 130-800-MF16X1-T2	.512	.531	.500	.496	13.0	31.50	32.68	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 135-400-MF16X1-T2	.531	.551	.520	.516	13.0	15.75	16.93	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 135-800-MF16X1-T2	.531	.551	.520	.516	13.0	31.50	32.68	MF16X1	.472	.630	K DCN 10-13.99
MNCNT 140-400-MF16X1-T2	.551	.570	.539	.535	14.0	15.75	16.93	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 140-800-MF16X1-T2	.551	.570	.539	.535	14.0	31.50	32.68	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 145-400-MF16X1-T2	.571	.590	.559	.555	14.0	15.75	16.93	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 145-800-MF16X1-T2	.571	.590	.559	.555	14.0	31.50	32.68	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 150-400-MF16X1-T2	.591	.630	.579	.575	15.0	15.75	16.93	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 150-800-MF16X1-T2	.591	.630	.579	.575	15.0	31.50	32.68	MF16X1	.472	.630	K DCN 14-17.99
MNCNT 160-400-MF20X1-T2	.630	.669	.610	.606	16.0	15.75	16.93	MF20X1	.472	.866	K DCN 14-17.99
MNCNT 160-800-MF20X1-T2	.630	.669	.610	.606	16.0	31.50	32.68	MF20X1	.472	.866	K DCN 14-17.99
MNCNT 170-400-MF20X1-T2	.669	.708	.650	.646	17.0	15.75	16.93	MF20X1	.472	.866	K DCN 14-17.99
MNCNT 170-800-MF20X1-T2	.669	.708	.650	.646	17.0	31.50	32.68	MF20X1	.472	.866	K DCN 14-17.99
MNCNT 180-400-MF20X1-T2	.709	.748	.689	.685	18.0	15.75	16.93	MF20X1	.472	.866	K DCN 18-21.99
MNCNT 180-800-MF20X1-T2	.709	.748	.689	.685	18.0	31.50	32.68	MF20X1	.472	.866	K DCN 18-21.99
MNCNT 190-400-MF20X1-T2	.748	.787	.728	.724	19.0	15.75	16.93	MF20X1	.472	.866	K DCN 18-21.99
MNCNT 190-800-MF20X1-T2	.748	.787	.728	.724	19.0	31.50	32.68	MF20X1	.472	.866	K DCN 18-21.99
MNCNT 200-400-MF20X1-T2	.787	.826	.768	.764	20.0	15.75	16.93	MF20X1	.551	.866	K DCN 18-21.99
MNCNT 200-800-MF20X1-T2	.787	.826	.768	.764	20.0	31.50	32.68	MF20X1	.551	.866	K DCN 18-21.99
MNCNT 210-400-MF20X1-T2	.827	.866	.807	.803	21.0	15.75	16.93	MF20X1	.551	.866	K DCN 18-21.99
MNCNT 210-800-MF20X1-T2	.827	.866	.807	.803	21.0	31.50	32.68	MF20X1	.551	.866	K DCN 18-21.99
MNCNT 220-400-MF20X1-T2	.866	.905	.846	.843	22.0	15.75	16.93	MF20X1	.551	.866	K DCN 18-21.99
MNCNT 220-800-MF20X1-T2	.866	.905	.846	.843	22.0	31.50	32.68	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 230-400-MF20X1-T2	.906	.944	.886	.882	23.0	15.75	16.93	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 230-800-MF20X1-T2	.906	.944	.886	.882	23.0	31.50	32.68	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 240-400-MF20X1-T2	.945	.984	.925	.921	24.0	15.75	16.93	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 240-800-MF20X1-T2	.945	.984	.925	.921	24.0	31.50	32.68	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 250-400-MF20X1-T2	.984	1.023	.965	.965	25.0	15.75	16.93	MF20X1	.551	.866	K DCN 22-26.99
MNCNT 250-800-MF20X1-T2	.984	1.023	.965	.965	25.0	31.50	32.68	MF20X1	.551	.866	K DCN 22-26.99

⁽¹⁾ Do not mount smaller drilling heads than specified range for drill body.



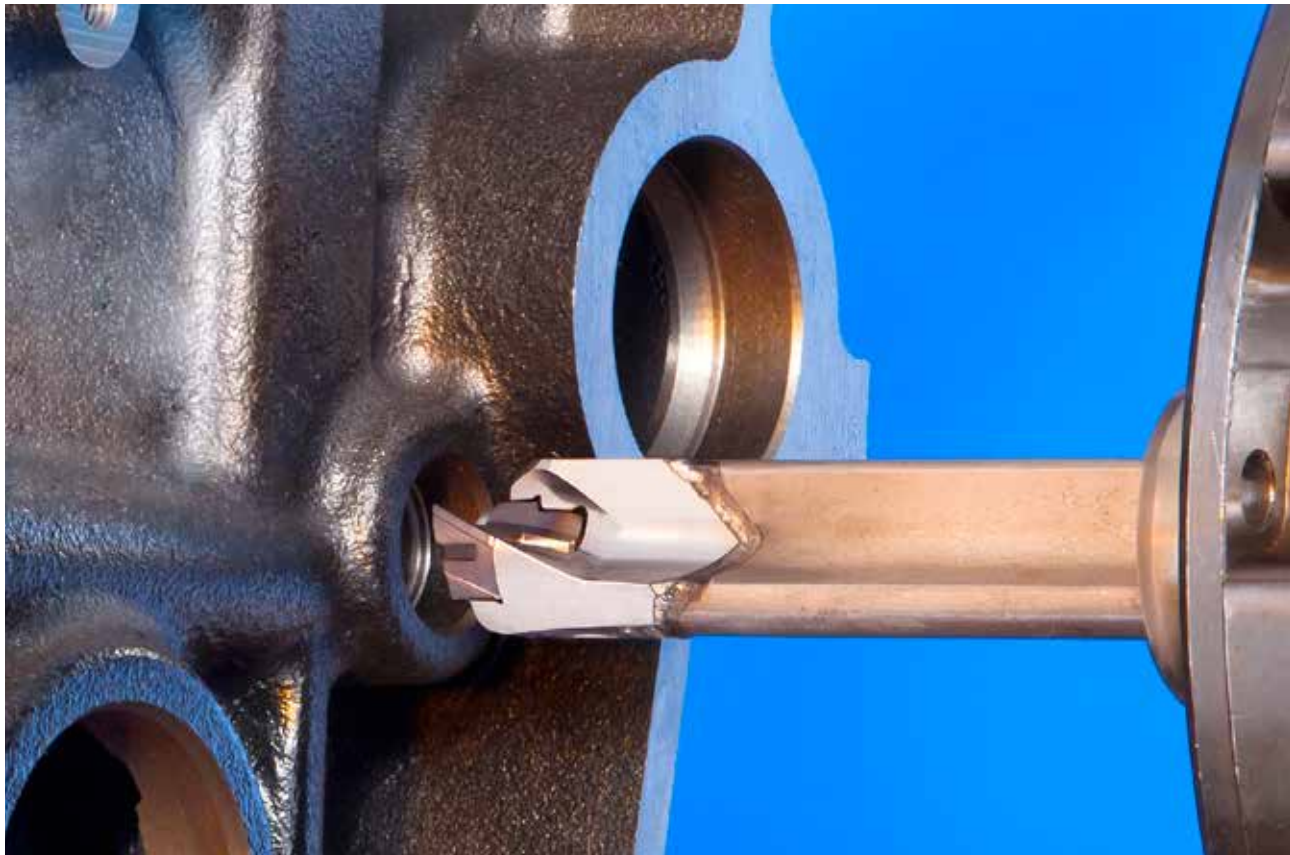
GDV

Shanks for SUMOGUN Modular Gundrills with Threaded Connection



Designation	T _h	d	Shank ⁽¹⁾	L ₄
GDV56-MF16X1-I-WN.75"	MF16X1	.750	S	2.75
GDV99-MF16X1-I-W.75"	MF16X1	.750	W	2.75
GDV10-MF16X1-M-C20	MF16X1	.787	C	1.97
GDV22-MF16X1-M-W20	MF16X1	.787	W	1.97
GDV80-MF16X1-I-WN1.00"	MF16X1	1.000	WN	2.75
GDV11-MF20X1-M-C25	MF20X1	.984	C	2.20
GDV23-MF20X1-M-W25	MF20X1	.984	W	2.20
GDV57-MF20X1-M-WN25	MF20X1	.984	S	2.76
GDV100-MF20X1-I-W1.00"	MF20X1	1.000	W	2.28
GDV58-MF20X1-I-WN1.00"	MF20X1	1.000	S	2.75
GDV101-MF20X1-I-W1.25"	MF20X1	1.250	W	2.28
GDV97-MF20X1-I-C1.25"	MF20X1	1.250	C	2.28
GDV12-MF20X1-M-C32	MF20X1	1.260	C	2.36
GDV24-MF20X1-M-W32	MF20X1	1.260	W	2.36
GDV13-MF20X1-M-C40	MF20X1	1.575	C	2.76
GDV25-MF20X1-M-W40	MF20X1	1.575	W	2.76

⁽¹⁾ W-Weldon, C-Cylindrical, S-Whistle notch 15°, WN-Whistle notch







Imitation No Time for Look Alikes!



TRIDEEP

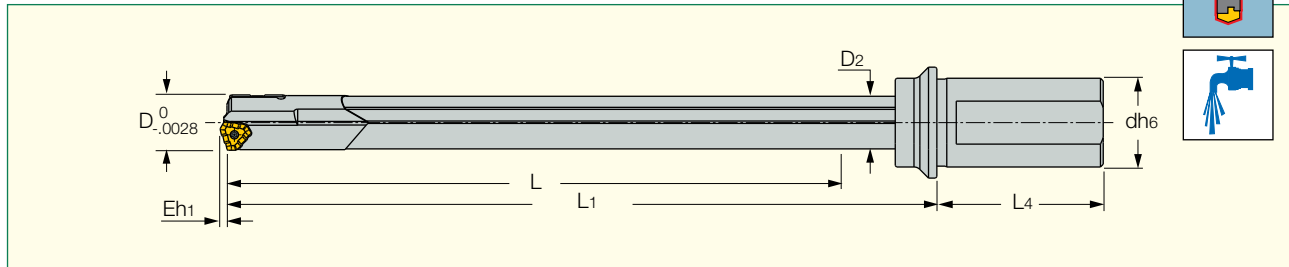
New Gundrill and Deep Drilling Heads Carrying Inserts with 3 Edges

The **TOGT** inserts feature 3 chip splitting cutting edges, a positive rake chipbreaker and a wiper for high hole surface quality. The new inserts are available in 5 sizes, made from IC908, a versatile PVD coated grade.

- The only deep drills with a 3 cutting edged insert (other manufacturers only offer inserts with 1 or 2 cutting edges)
- Highly accurate peripherally ground insert, provides high hole diameter accuracy of IT10
- The chip splitter produces narrow chips for efficient chip evacuation, enabling higher feed rates compared to other drills available in the market
- A wiper on the insert provides extra fine surface finish
- Direct insert mount - no adjustment needed for accurate hole diameter
- The drills can carry the new economic solid carbide or the brazed guide pads

GD-DH

Gundrills Carrying Triangular Inserts Feature 3 Chip Splitting Cutting Edges and a Wiper for High Hole Surface Quality



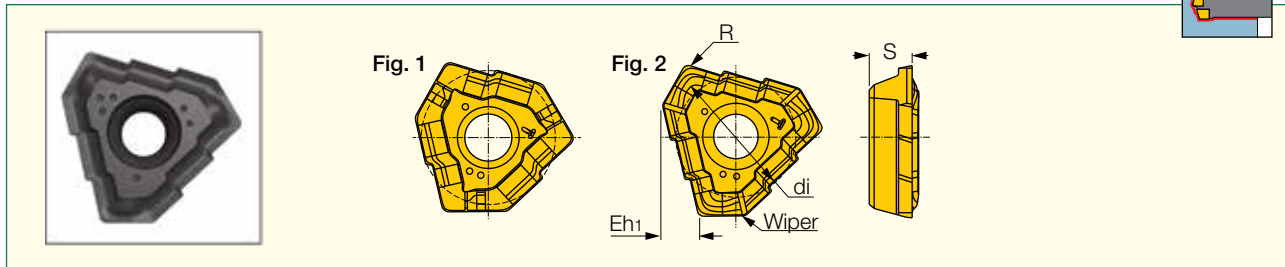
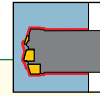
Designation	D	L	d	D2	L1	Eh1	L4	Insert
GD-DH 0.685-10D-11"	.685	7.09	1.000	.638	8.66	.086	2.21	TOGT 08..
GD-DH 0.685-15D-11"	.685	10.63	1.000	.638	12.21	.086	2.21	TOGT 08..
GD-DH 0.685-25D-11"	.685	17.72	1.000	.638	19.29	.086	2.21	TOGT 08..
GD-DH 0.718-10D-11"	.718	7.48	1.000	.677	9.13	.118	2.21	TOGT 09..
GD-DH 0.718-15D-11"	.718	11.22	1.000	.677	12.87	.118	2.21	TOGT 09..
GD-DH 0.718-25D-11"	.718	18.70	1.000	.677	20.35	.118	2.21	TOGT 09..
GD-DH 0.734-10D-11"	.734	7.48	1.000	.677	9.13	.118	2.21	TOGT 09..
GD-DH 0.734-15D-11"	.734	11.22	1.000	.677	12.87	.118	2.21	TOGT 09..
GD-DH 0.734-25D-11"	.734	18.70	1.000	.677	20.35	.118	2.21	TOGT 09..
GD-DH 0.750-10D-11"	.750	7.87	1.000	.717	9.57	.118	2.21	TOGT 09..
GD-DH 0.750-15D-11"	.750	11.81	1.000	.717	13.50	.118	2.21	TOGT 09..
GD-DH 0.750-25D-11"	.750	19.69	1.000	.717	21.38	.118	2.21	TOGT 09..
GD-DH 0.785-10D-11.25"	.785	8.27	1.250	.748	10.04	.118	2.36	TOGT 09..
GD-DH 0.785-15D-11.25"	.785	12.40	1.250	.748	14.17	.118	2.36	TOGT 09..
GD-DH 0.785-25D-11.25"	.785	20.67	1.250	.748	22.44	.118	2.36	TOGT 09..
GD-DH 0.810-10D-11.25"	.810	8.27	1.250	.748	10.04	.125	2.36	TOGT 10..
GD-DH 0.810-15D-11.25"	.810	12.40	1.250	.748	14.17	.125	2.36	TOGT 10..
GD-DH 0.810-25D-11.25"	.810	20.67	1.250	.748	22.44	.125	2.36	TOGT 10..
GD-DH 0.812-10D-11.25"	.812	8.27	1.250	.748	10.04	.125	2.36	TOGT 10..
GD-DH 0.812-15D-11.25"	.812	12.40	1.250	.748	14.17	.125	2.36	TOGT 10..
GD-DH 0.812-25D-11.25"	.812	20.67	1.250	.748	22.44	.125	2.36	TOGT 10..
GD-DH 0.845-25D-11.25"	.845	21.65	1.250	.787	23.47	.133	2.36	TOGT 10..
GD-DH 0.875-15D-11.25"	.875	13.58	1.250	.827	15.47	.133	2.36	TOGT 11..
GD-DH 0.875-25D-11.25"	.875	22.64	1.250	.827	24.53	.133	2.36	TOGT 11..
GD-DH 0.937-10D-11.25"	.937	9.84	1.250	.906	11.85	.133	2.36	TOGT 11..
GD-DH 0.937-15D-11.25"	.937	14.76	1.250	.906	16.77	.133	2.36	TOGT 11..
GD-DH 0.937-25D-11.25"	.937	24.61	1.250	.906	26.61	.133	2.36	TOGT 11..
GD-DH 1.000-15D-11.25"	1.000	15.35	1.250	.945	17.40	.141	2.36	TOGT 12..
GD-DH 1.000-25D-11.25"	1.000	25.59	1.250	.945	27.64	.141	2.36	TOGT 12..
GD-DH 1.062-25D-11.5"	1.062	27.56	1.500	1.024	29.33	.141	2.76	TOGT 12..

• Note: Gundrills can be supplied with up to 60 inch length on request.

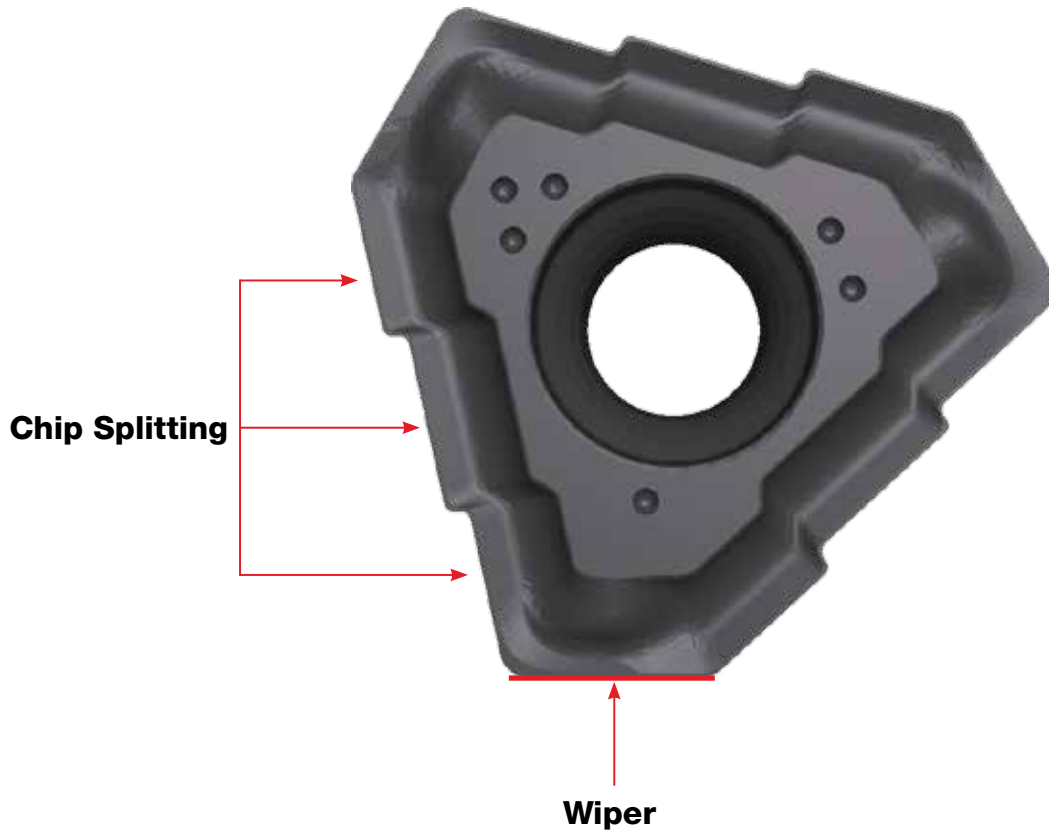


TOGT

Deep Drilling Inserts with 3 Chip Splitting Cutting Edges, Positive Rake Chipbreaker and a Wiper



Designation	Dimensions					Fig.	IC908
	di	R	E _{h1}	S			
TOGT 080305-DT	.337	.020	.086	.110	1	●	
TOGT 090305-DT	.328	.020	.118	.118	2	●	
TOGT 100305-DT	.363	.020	.125	.130	2	●	
TOGT 110405-DT	.409	.020	.133	.150	2	●	
TOGT 120405-DT	.456	.020	.141	.169	2	●	







Imitation

No Time for Look Alikes!



FINEBEAM

ISCAR-UNITAC

Deep Hole Drilling Heads Featuring Upgraded Accuracy

ISCAR-UNITAC is upgrading two drilling head families and adding a new family. The two upgraded families are being replaced with two new and **more accurate** boring heads.

- DSD-EF is being replaced by **DSD ###.##-EF-FB**
- DDD-EF is being replaced by **DDD ###.##-EF-FB**
- **DSD ###.##-IF-FB**, a new family of drilling heads with internal thread connection has been added.

To obtain higher accuracy and improved performance, the tools of all three families feature an option of new **solid carbide guide pads** and new, more **precise inserts**:

The new peripheral **NPHT-RG** inserts actually replace the current NPMT-R2 inserts. In order to ensure the tool's precision, the former NPMT-R2 utility inserts

cannot be mounted on the peripheral pocket of the new tools as **they are not interchangeable**.

Expanded Small Diameter Range

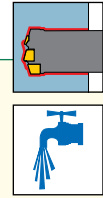
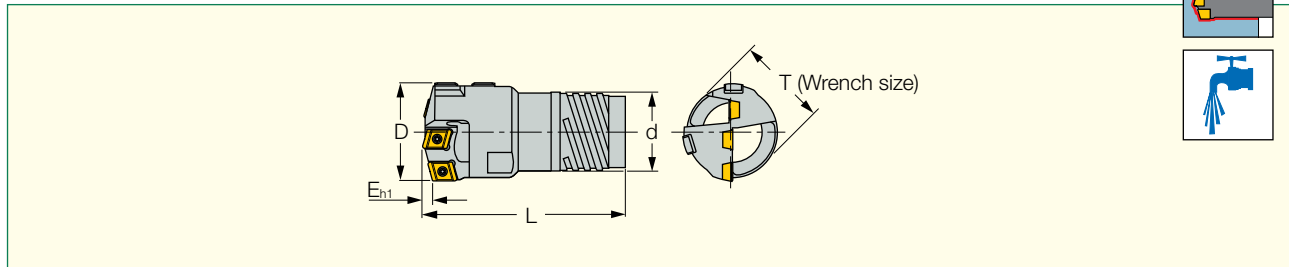
For the new **.984 to 1.181"** small diameter range, new size **NPMT 050503R/L** inserts have been added, for the internal position on the new drills.

- Improved drill accuracy, 30-50% tighter head diameter tolerance
- Better hole straightness and surface finish
- Higher feed, which increases productivity
- Wider mouth opening improves chip flow
- Extended diameter range: .984-2.559"
- New internal thread heads

FINEBEAM

ISD-EF-FB

Deep Single Tube Drills with External 4 Start Thread for High Feed



Designation	D _{min}	D _{max}	L	E _{h1}	d	T	T _s ⁽¹⁾
ISD-EF 0.984-1.039-FB	.984	1.039	2.756	.120	.768	.748	TS-I6
ISD-EF 1.040-1.129-FB	1.040	1.129	2.756	.120	.827	.827	TS-I7
ISD-EF 1.130-1.220-FB	1.130	1.220	2.953	.120	.925	.945	TS-I8
ISD-EF 1.221-1.311-FB	1.221	1.311	3.071	.120	1.004	1.024	TS-I9
ISD-EF 1.312-1.425-FB	1.312	1.425	3.150	.120	1.102	1.102	TS-I10
ISD-EF 1.426-1.559-FB	1.426	1.559	3.543	.120	1.181	1.181	TS-I11
ISD-EF 1.560-1.692-FB	1.560	1.692	3.740	.160	1.299	1.260	TS-I12
ISD-EF 1.693-1.850-FB	1.693	1.850	3.937	.160	1.417	1.417	TS-I13
ISD-EF 1.851-2.035-FB	1.851	2.035	3.937	.160	1.535	1.496	TS-I14
ISD-EF 2.036-2.212-FB	2.036	2.212	4.331	.160	1.693	1.811	TS-I15
ISD-EF 2.213-2.385-FB	2.213	2.385	4.528	.200	1.850	1.969	TS-I16
ISD-EF 2.386-2.559-FB	2.386	2.559	4.528	.200	2.008	2.126	TS-I17

• Ordering example: ISD-EF 1.697-FB

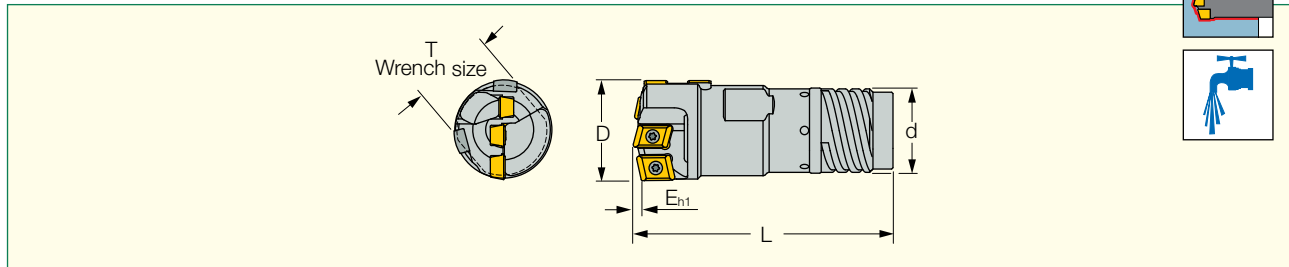
⁽¹⁾ Tube designation



FINEBEAM

IDD-EF-FB

Deep Double Tube Drills with External 4 Start Thread for High Feed



Designation	D _{min}	D _{max}	L	E _{h1}	d	T	T _s ⁽¹⁾	T _{si} ⁽²⁾
IDD-EF 0.984-1.039-FB	.984	1.039	2.756	.120	.827	.748	TDO-I3	TDI-N3
IDD-EF 1.040-1.129-FB	1.040	1.129	2.953	.120	.925	.827	TDO-I4	TDI-N4
IDD-EF 1.130-1.220-FB	1.130	1.220	2.953	.120	1.004	.945	TDO-I5	TDI-N5
IDD-EF 1.221-1.311-FB	1.221	1.311	3.150	.120	1.102	1.024	TDO-I6	TDI-N6
IDD-EF 1.312-1.425-FB	1.312	1.425	3.543	.120	1.181	1.102	TDO-I7	TDI-N7
IDD-EF 1.426-1.559-FB	1.426	1.559	3.740	.160	1.299	1.181	TDO-I8	TDI-N8
IDD-EF 1.560-1.692-FB	1.560	1.692	3.937	.160	1.417	1.260	TDO-I9	TDI-N9
IDD-EF 1.693-1.850-FB	1.693	1.850	3.937	.160	1.535	1.417	TDO-I10	TDI-N10
IDD-EF 1.851-2.035-FB	1.851	2.035	4.331	.160	1.693	1.496	TDO-I11	TDI-N11
IDD-EF 2.036-2.212-FB	2.036	2.212	4.528	.200	1.850	1.811	TDO-I12	TDI-N12
IDD-EF 2.213-2.385-FB	2.213	2.385	4.528	.200	2.008	1.969	TDO-I13	TDI-N13
IDD-EF 2.386-2.559-FB	2.386	2.559	4.528	.200	2.008	2.126	TDO-I13	TDI-N13

• Ordering example: IDD-EF 1.693-FB

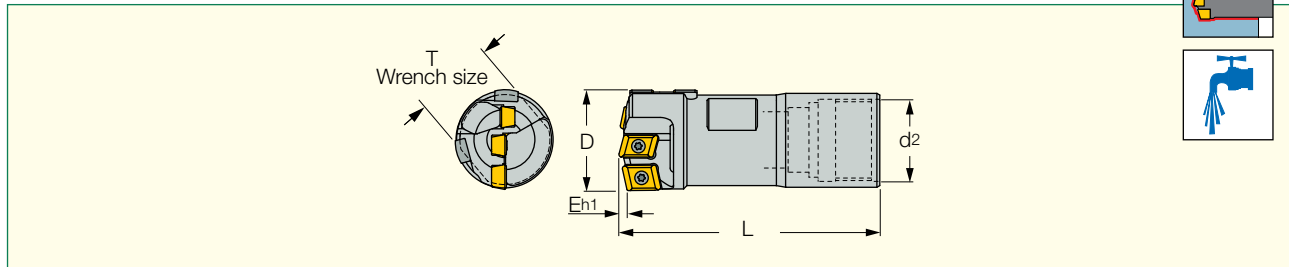
(1) Outer tube designation (2) Inner tube designation



FINEBEAM

ISD-IF-FB

Deep Single Tube Drills with Internal Single Start Thread



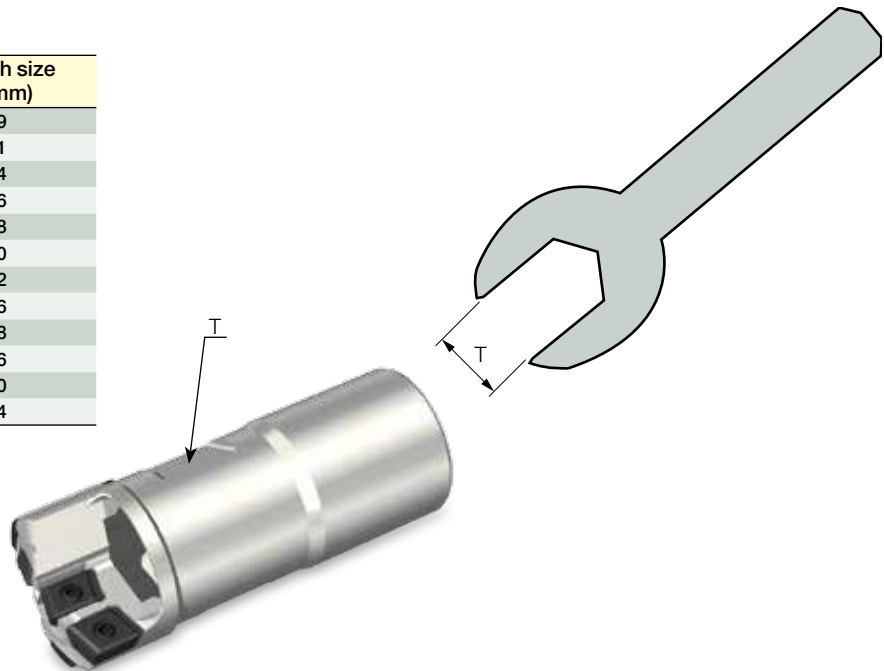
Designation	D _{min}	D _{max}	L	E _{h1}	d ₂	T _s ⁽¹⁾
ISD-IF 0.984-1.062-FB	.984	1.062	2.756	.120	.787	TS-010
ISD-IF 1.063-1.141-FB	1.063	1.141	2.756	.120	.866	TS-011
ISD-IF 1.142-1.181-FB	1.142	1.181	2.756	.120	.866	TS-011
ISD-IF 1.182-1.259-FB	1.182	1.259	2.953	.120	.945	TS-012
ISD-IF 1.260-1.338-FB	1.260	1.338	2.953	.120	1.024	TS-013
ISD-IF 1.339-1.456-FB	1.339	1.456	3.543	.120	1.063	TS-014
ISD-IF 1.457-1.574-FB	1.457	1.574	3.740	.120	1.181	TS-015
ISD-IF 1.575-1.732-FB	1.575	1.732	3.937	.160	1.299	TS-016
ISD-IF 1.733-1.850-FB	1.733	1.850	4.134	.160	1.457	TS-017
ISD-IF 1.851-2.047-FB	1.851	2.047	4.134	.160	1.614	TS-018
ISD-IF 2.048-2.244-FB	2.048	2.244	4.331	.160	1.732	TS-019
ISD-IF 2.245-2.401-FB	2.245	2.401	4.528	.200	1.929	TS-020
ISD-IF 2.402-2.559-FB	2.402	2.559	4.528	.200	2.087	TS-021

• Ordering example: ISD-IF 1.697-FB

⁽¹⁾ Tube designation

Wrench Size

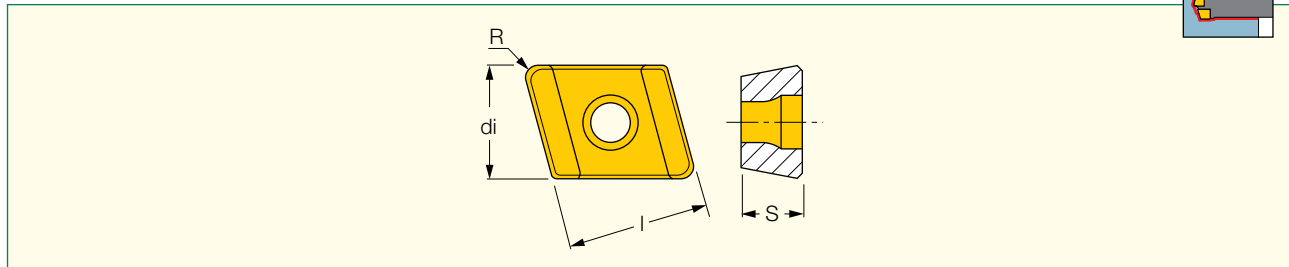
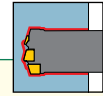
Diameter D _c (inch)	Wrench size W (mm)
.984 - 1.039	19
1.040 - 1.130	21
1.130 - 1.220	24
1.221 - 1.311	26
1.311 - 1.425	28
1.426 - 1.559	30
1.559 - 1.693	32
1.693 - 1.850	36
1.851 - 2.035	38
2.036 - 2.213	46
2.213 - 2.386	50
2.386 - 2.559	54



FINEBEAM

NPHT-RG

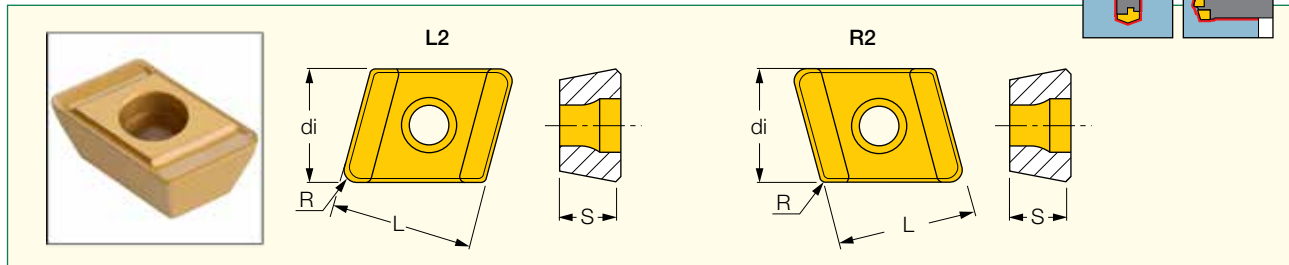
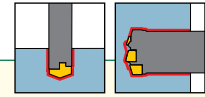
Peripheral Precision Inserts for Drilling Heads ISD-EF-FB / IDD-EF-FB / ISD-IF-FB



Designation	Dimensions				Tough ↔ Hard	
	di	R	S	l	IC908	IC520
NPHT 06003RG	.236	.012	.118	.315	●	●
NPHT 07504RG	.295	.016	.157	.394	●	●
NPHT 09004RG	.354	.016	.157	.394	●	●
NPHT 11004RG	.433	.016	.157	.394	●	●
NPHT 13004RG	.512	.016	.157	.394	●	●

NPMT-L2/R2

Inserts for Drilling Heads ISD-EF / IDD-EF

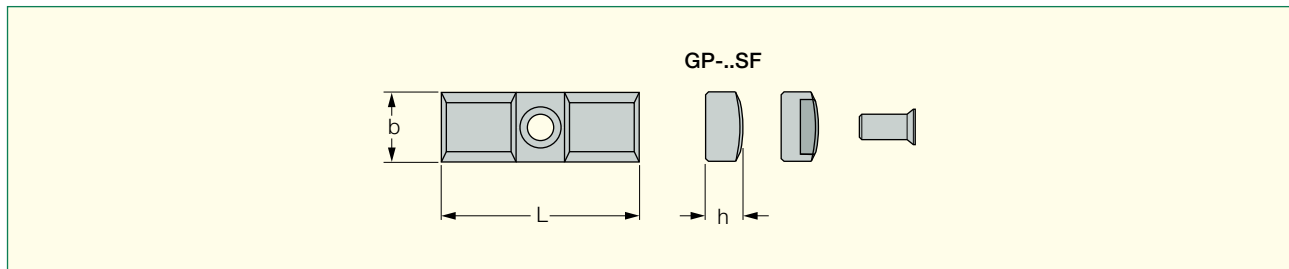


Designation	Dimensions				Tough ↔ Hard		
	di	R	S	l	IC9025	IC908	IC520
NPMT 05503R/L2	.217	.012	.118	.315	●	●	●
NPMT 06504R/L2	.256	.031	.157	.394	●	●	●
NPMT 0804R/L2	.315	.031	.157	.394	●	●	●
NPMT 09504R/L2	.374	.031	.157	.394	●	●	●
NPMT 12504R/L2	.492	.031	.157	.394	●	●	●

ISCAR DEEP DRILL

GP

Deep Drilling Head Guide Pads



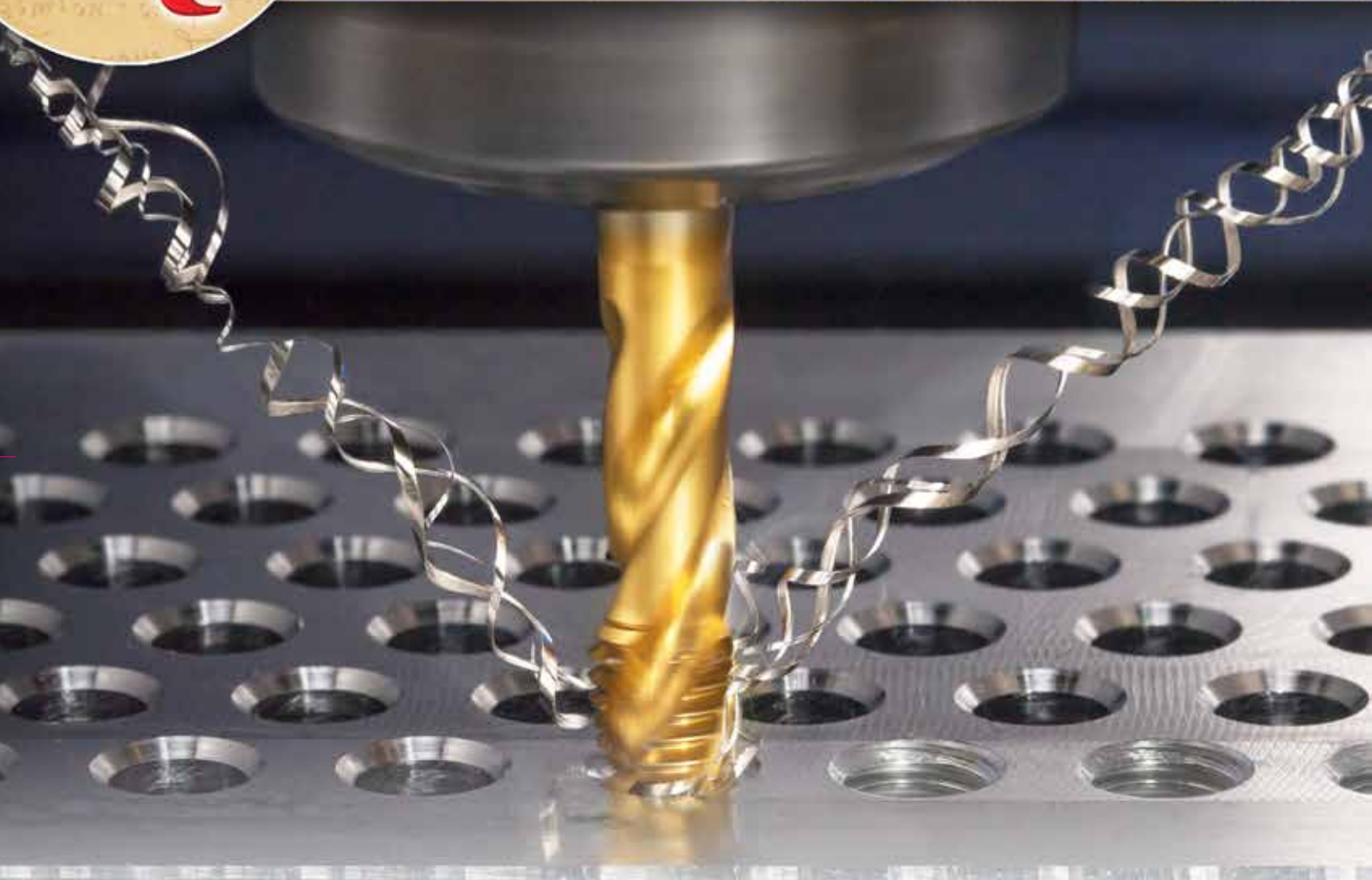
Designation	b	L	h	D plus ⁽¹⁾
GP-01CD	.236	.787	.130	.000
GP-01CDTA	.236	.787	.130	.000
GP-02CDTA	.236	.787	.150	.000
GP-03CD	.236	.787	.154	.000
GP-03CDTA	.236	.787	.154	.000
GP-06S-120-CDZAP	.236	.787	.118	.000
GP-07S-CDZAP	.276	.787	.138	.000
GP-10CDTA	.276	.787	.138	.000
GP-04CD	.315	.787	.173	.000
GP-04CDTA	.315	.787	.173	.000
GP-05CD	.315	.984	.138	.000
GP-05CDTA	.315	.984	.138	.000
GP-06+1CD	.315	.984	.177	.039
GP-06+2CD	.315	.984	.177	.079
GP-06+3CD	.315	.984	.177	.118
GP-06CDTA	.315	.984	.177	.000
GP-08S-CDZAP	.315	.984	.177	.000
GP-11CDTA	.315	.984	.177	.000
GP-10S-CDZAP	.394	1.181	.177	.000
GP-07+1CD	.394	1.378	.236	.039
GP-07+2CD	.394	1.378	.236	.079
GP-07+3CD	.394	1.378	.236	.118
GP-07+4CD	.394	1.378	.236	.157
GP-07CD	.394	1.378	.236	.000
GP-07CDTA	.394	1.378	.236	.000
GP-12S-CDZAP	.472	1.378	.217	.000
GP-08+1CD	.551	1.575	.295	.039
GP-08+2CD	.551	1.575	.295	.079
GP-08+3CD	.551	1.575	.295	.118
GP-08+4CD	.551	1.575	.295	.157
GP-08+5CD	.551	1.575	.295	.197
GP-08CD	.551	1.575	.295	.000
GP-08CDTA	.551	1.575	.295	.000
GP-09+1CD	.709	1.575	.354	.039
GP-09+2CD	.709	1.575	.354	.079
GP-09+3CD	.709	1.575	.354	.118
GP-09+4CD	.709	1.575	.354	.157
GP-09+5CD	.709	1.575	.354	.197
GP-09CD	.709	1.575	.354	.000
GP-09CDTA	.709	1.575	.354	.000

• Select an outer cartridge and pad for the required enlarged diameter. • Pads without grade identification are made from steel with brazed carbide tips.

⁽¹⁾ Nominal diameter increment



Imitation No Time for Look Alikes!



ONETAP

New Taps - Each Useful for a Variety of Materials

The **ONETAP** significantly **reduces the range of taps required for various materials and tapping applications**, providing the highest efficiency in production economy.

ONETAP's new patented geometry was developed to the highest technological standard, providing the following advantages:

- Reduced and well-distributed cutting load that prevents overfeed tapping process
- Assures high surface quality (up to the last part)
- Increases tool life up to two times (depending on cutting conditions and workpiece material), compared with the currently available taps

Available are the two most common geometries:

- **Gun point** taps – for through holes
- **Spiral flute** taps – for blind holes

Gun Point Taps

Gun point taps, used for through holes, push the chips forward. They feature the strongest tap design due to their shallow flutes. Their straight flutes are used only for conducting the coolant fluid, not for chip evacuation.

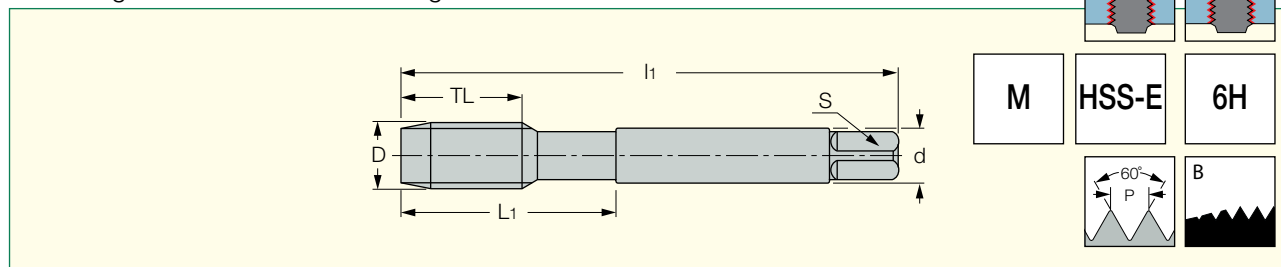
Spiral Flute Taps

Spiral flute taps are the best option for blind holes. Spiral flutes are used for both chip evacuation and coolant flow.

ONETAP

TPG M (HSS) Metric

HSS Machine Taps for ISO Metric Coarse Threads,
According to DIN 13 for a Wide Range of Materials

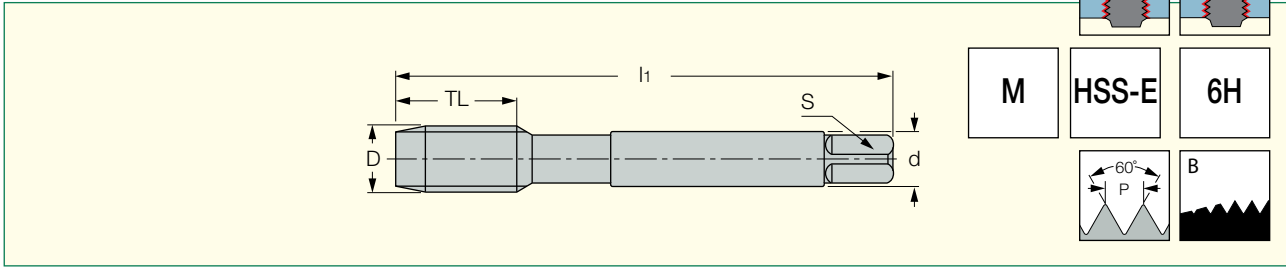


Designation	Dimensions									Tough ↔ Hard		
	D	Pitch	Li	TL	L1	d	S	Pre-hole	Standard	HE	HES	HET
	TPG M-2X0.4-M	M2	0.40	45.00	8.0	13.0	2.80	2.10	1.60	DIN 371	●	
TPG M-2.2X0.45-M	M2.2	0.45	45.00	8.0	13.0	2.80	2.10	1.75	DIN 371	●		●
TPG M-2.3X0.4-M	M2.3	0.40	45.00	8.0	13.0	2.80	2.10	1.90	DIN 371	●		●
TPG M-2.5X0.45-M	M2.5	0.45	50.00	9.0	15.0	2.80	2.10	2.05	DIN 371	●	●	●
TPG M-2.6X0.45-M	M2.6	0.45	50.00	9.0	15.0	2.80	2.10	2.10	DIN 371	●		●
TPG M-3X0.5-M	M3	0.50	56.00	11.0	18.0	3.50	2.70	2.50	DIN 371	●	●	●
TPG M-3.5X0.6-M	M3.5	0.60	56.00	12.0	20.0	4.00	3.00	2.90	DIN 371	●	●	●
TPG M-4X0.7-M	M4	0.70	63.00	13.0	21.0	4.50	3.40	3.30	DIN 371	●	●	●
TPG M-4.5X0.75-M	M4.5	0.75	70.00	14.0	25.0	6.00	4.90	3.70	DIN 371	●		●
TPG M-5X0.8-M	M5	0.80	70.00	15.0	25.0	6.00	4.90	4.20	DIN 371	●	●	●
TPG M-6X1.0-M	M6	1.00	80.00	17.0	30.0	6.00	4.90	5.00	DIN 371	●	●	●
TPG M-7X1.0-M	M7	1.00	80.00	17.0	30.0	7.00	5.50	6.00	DIN 371	●		●
TPG M-8X1.25-M	M8	1.25	90.00	20.0	35.0	8.00	6.20	6.80	DIN 371	●	●	●
TPG M-9X1.25-M	M9	1.25	90.00	20.0	35.0	9.00	7.00	7.80	DIN 371	●		●
TPG M-10X1.5-M	M10	1.50	100.00	22.0	39.0	10.00	8.00	8.50	DIN 371	●	●	●
TPG M-11X1.5-M	M11	1.50	100.00	22.0	-	8.00	6.20	9.50	DIN 376	●	●	●
TPG M-12X1.75-M	M12	1.75	110.00	24.0	-	9.00	7.00	10.20	DIN 376	●	●	●
TPG M-14X2.0-M	M14	2.00	110.00	26.0	-	11.00	9.00	12.00	DIN 376	●	●	●
TPG M-16X2.0-M	M16	2.00	110.00	27.0	-	12.00	9.00	14.00	DIN 376	●	●	●
TPG M-18X2.5-M	M18	2.50	125.00	30.0	-	14.00	11.00	15.50	DIN 376	●	●	●
TPG M-20X2.5-M	M20	2.50	140.00	32.0	-	16.00	12.00	17.50	DIN 376	●	●	●
TPG M-22X2.5-M	M22	2.50	140.00	32.0	-	18.00	14.50	19.50	DIN 376	●		●
TPG M-24X3.0-M	M24	3.00	160.00	34.0	-	18.00	14.50	21.00	DIN 376	●	●	●
TPG M-27X3.0-M	M27	3.00	160.00	36.0	-	20.00	16.00	24.00	DIN 376	●		●
TPG M-30X3.5-M	M30	3.50	180.00	40.0	-	22.00	18.00	26.50	DIN 376	●	●	●



TPG MF (HSS) Metric

HSS Machine Taps for ISO Metric Fine Threads,
According to DIN 13 for a Wide Range of Materials

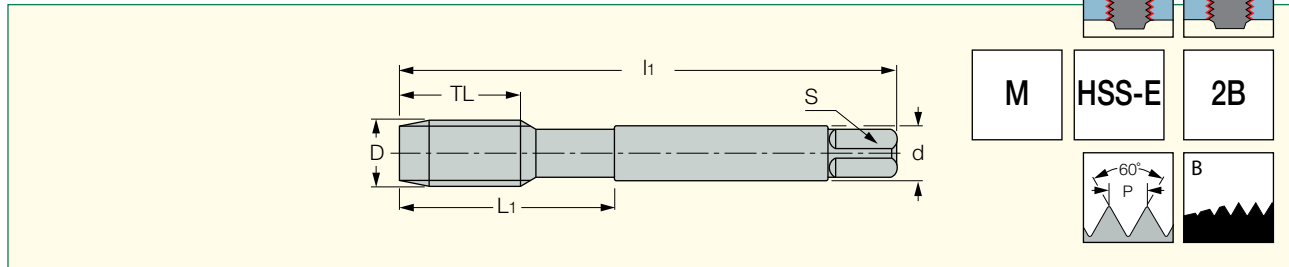


Designation	Dimensions								Tough ↔ Hard		
	D	Pitch	l ₁	TL	d	S	Pre-hole	Standard	HE	HES	HET
TPG MF-4X0.5-M	M4	0.50	63.00	10.0	2.80	2.10	3.50	DIN 374	●		●
TPG MF-5X0.5-M	M5	0.50	70.00	11.0	3.50	2.70	4.50	DIN 374	●	●	●
TPG MF-6X0.75-M	M6	0.75	80.00	13.0	4.50	3.40	5.20	DIN 374	●		●
TPG MF-6X0.5-M	M6	0.50	80.00	13.0	4.50	3.40	5.50	DIN 374	●	●	●
TPG MF-7X0.75-M	M7	0.75	80.00	14.0	5.50	4.30	6.20	DIN 374	●		●
TPG MF-8X1.0-M	M8	1.00	90.00	17.0	6.00	4.90	7.00	DIN 374	●	●	●
TPG MF-8X0.75-M	M8	0.75	80.00	14.0	6.00	4.90	7.20	DIN 374	●		●
TPG MF-10X1.25-M	M10	1.25	100.00	22.0	7.00	5.50	8.80	DIN 374	●		●
TPG MF-10X1.0-M	M10	1.00	90.00	18.0	7.00	5.50	9.00	DIN 374	●	●	●
TPG MF-10X0.75-M	M10	0.75	90.00	18.0	7.00	5.50	9.20	DIN 374	●	●	
TPG MF-12X1.5-M	M12	1.50	100.00	22.0	9.00	7.00	10.50	DIN 374	●	●	
TPG MF-12X1.25-M	M12	1.25	100.00	22.0	9.00	7.00	10.80	DIN 374	●	●	●
TPG MF-12X1.0-M	M12	1.00	100.00	18.0	9.00	7.00	11.00	DIN 374	●		●
TPG MF-14X1.5-M	M14	1.50	100.00	22.0	11.00	9.00	12.50	DIN 374	●	●	●
TPG MF-14X1.25-M	M14	1.25	100.00	22.0	11.00	9.00	12.80	DIN 374	●		●
TPG MF-14X1.0-M	M14	1.00	100.00	18.0	11.00	9.00	13.00	DIN 374	●	●	
TPG MF-16X1.5-M	M16	1.50	100.00	22.0	12.00	9.00	14.50	DIN 374	●	●	●
TPG MF-16X1.0-M	M16	1.00	100.00	18.0	12.00	9.00	15.00	DIN 374	●		●
TPG MF-18X1.5-M	M18	1.50	110.00	25.0	14.00	11.00	16.50	DIN 374	●		●
TPG MF-18X1.0-M	M18	1.00	110.00	20.0	14.00	11.00	17.00	DIN 374	●		●
TPG MF-20X1.5-M	M20	1.50	125.00	25.0	16.00	12.00	18.50	DIN 374	●		
TPG MF-20X1.0-M	M20	1.00	125.00	20.0	16.00	12.00	19.00	DIN 374	●		●
TPG MF-22X1.5-M	M22	1.50	125.00	25.0	18.00	14.50	20.50	DIN 374	●		●
TPG MF-22X1.0-M	M22	1.00	125.00	20.0	18.00	14.50	21.00	DIN 374	●		●
TPG MF-24X2.0-M	M24	2.00	140.00	27.0	18.00	14.50	22.00	DIN 374	●		●
TPG MF-24X1.5-M	M24	1.50	140.00	27.0	18.00	14.50	22.50	DIN 374	●		●
TPG MF-26X1.5-M	M26	1.50	140.00	28.0	18.00	14.50	24.50	DIN 374	●		●
TPG MF-27X2.0-M	M27	2.00	140.00	28.0	20.00	16.00	25.00	DIN 374	●		●
TPG MF-27X1.5-M	M27	1.50	140.00	28.0	20.00	16.00	25.50	DIN 374	●		●
TPG MF-28X1.5-M	M28	1.50	140.00	28.0	20.00	16.00	26.50	DIN 374	●		●
TPG MF-30X2.0-M	M30	2.00	150.00	30.0	22.00	18.00	28.00	DIN 374	●		●
TPG MF-30X1.5-M	M30	1.50	150.00	30.0	22.00	18.00	28.50	DIN 374	●		●

ONETAP

TPG UNC (HSS) Metric

HSS Machine Taps for Unified Coarse Threads for a Wide Range of Materials



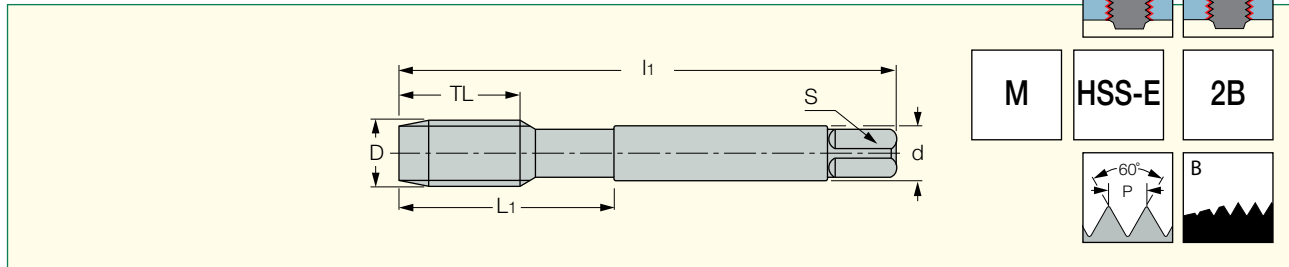
Designation	Dimensions									Tough ↔ Hard	
	D	TPI	I ₁	TL	L ₁	d	S	Pre-hole	Standard	HE	HET
TPG UNC-#4-40-M	#4	40.0	56.00	11.0	18.0	3.50	2.70	2.30	DIN 371	●	●
TPG UNC-#5-40-M	#5	40.0	56.00	11.0	18.0	3.50	2.70	2.60	DIN 371	●	●
TPG UNC-#6-32-M	#6	32.0	56.00	12.0	20.0	4.00	3.00	2.85	DIN 371	●	●
TPG UNC-#8-32-M	#8	32.0	63.00	13.0	21.0	4.50	3.40	3.50	DIN 371	●	●
TPG UNC-#10-24-M	#10	24.0	70.00	15.0	25.0	6.00	4.90	3.90	DIN 371	●	●
TPG UNC-#12-24-M	#12	24.0	80.00	16.0	30.0	6.00	4.90	4.50	DIN 371	●	●
TPG UNC-1/4-20-M	1/4"	20.0	80.00	17.0	30.0	7.00	5.50	5.20	DIN 371	●	●
TPG UNC-5/16-18-M	5/16"	18.0	90.00	20.0	35.0	8.00	6.20	6.60	DIN 371	●	●
TPG UNC-3/8-16-M	3/8"	16.0	100.00	22.0	39.0	9.00	7.00	8.00	DIN 371	●	●
TPG UNC-7/16-14-M	7/16"	14.0	100.00	22.0	-	8.00	6.20	9.40	DIN 376	●	●
TPG UNC-1/2-13-M	1/2"	13.0	110.00	25.0	-	9.00	7.00	10.75	DIN 376	●	●
TPG UNC-9/16-12-M	9/16"	12.0	110.00	26.0	-	11.00	9.00	12.25	DIN 376	●	●
TPG UNC-5/8-11-M	5/8"	11.0	110.00	27.0	-	12.00	9.00	13.50	DIN 376	●	●
TPG UNC-3/4-10-M	3/4"	10.0	125.00	30.0	-	14.00	11.00	16.50	DIN 376	●	●
TPG UNC-7/8-9-M	7/8"	9.0	140.00	32.0	-	18.00	14.50	19.50	DIN 376	●	●
TPG UNC-1-8-M	1"	8.0	160.00	36.0	-	20.00	16.00	22.25	DIN 376	●	●



ONETAP

TPG UNF (HSS) Metric

HSS Machine Taps for Unified Fine Threads, for a Wide Range of Materials

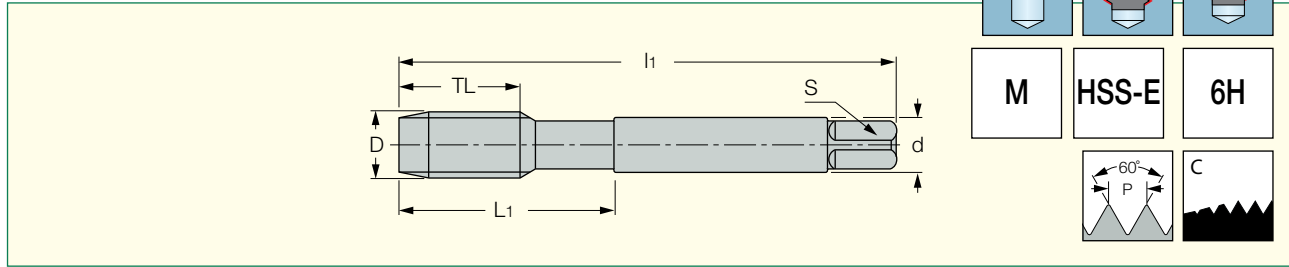


Designation	Dimensions										Tough ↔ Hard	
	D	TPI	Li	TL	L1	d	S	Pre-hole	Standard	HE	HET	
TPG UNF-#4-48-M	#4	48.0	56.00	11.0	18.0	3.50	2.70	2.40	DIN 371	●	●	
TPG UNF-#5-44-M	#5	44.0	56.00	11.0	18.0	3.50	2.70	2.70	DIN 371	●	●	
TPG UNF-#6-40-M	#6	40.0	56.00	12.0	20.0	4.00	3.00	3.00	DIN 371	●	●	
TPG UNF-#8-36-M	#8	36.0	63.00	13.0	21.0	4.50	3.40	3.50	DIN 371	●	●	
TPG UNF-#10-32-M	#10	32.0	70.00	15.0	25.0	6.00	4.90	4.10	DIN 371	●	●	
TPG UNF-#12-28-M	#12	28.0	80.00	16.0	30.0	6.00	4.90	4.70	DIN 371	●	●	
TPG UNF-1/4-28-M	1/4"	28.0	80.00	17.0	30.0	7.00	5.50	5.50	DIN 371	●	●	
TPG UNF-5/16-24-M	5/16"	24.0	90.00	17.0	35.0	8.00	6.20	6.90	DIN 371	●	●	
TPG UNF-3/8-24-M	3/8"	24.0	100.00	18.0	39.0	9.00	7.00	8.50	DIN 371	●	●	
TPG UNF-7/16-20-M	7/16"	20.0	100.00	22.0	-	8.00	6.20	9.90	DIN 374	●	●	
TPG UNF-1/2-20-M	1/2"	20.0	100.00	22.0	-	9.00	7.00	11.50	DIN 374	●	●	
TPG UNF-9/16-18-M	9/16"	18.0	100.00	22.0	-	11.00	9.00	12.90	DIN 374	●	●	
TPG UNF-5/8-18-M	5/8"	18.0	100.00	22.0	-	12.00	9.00	14.50	DIN 374	●	●	
TPG UNF-3/4-16-M	3/4"	16.0	110.00	25.0	-	14.00	11.00	17.50	DIN 374	●	●	
TPG UNF-7/8-14-M	7/8"	14.0	125.00	26.0	-	18.00	14.50	20.50	DIN 374	●	●	
TPG UNF-1-12-M	1"	12.0	140.00	28.0	-	20.00	16.00	23.25	DIN 374	●	●	



TPS M (HSS) Metric

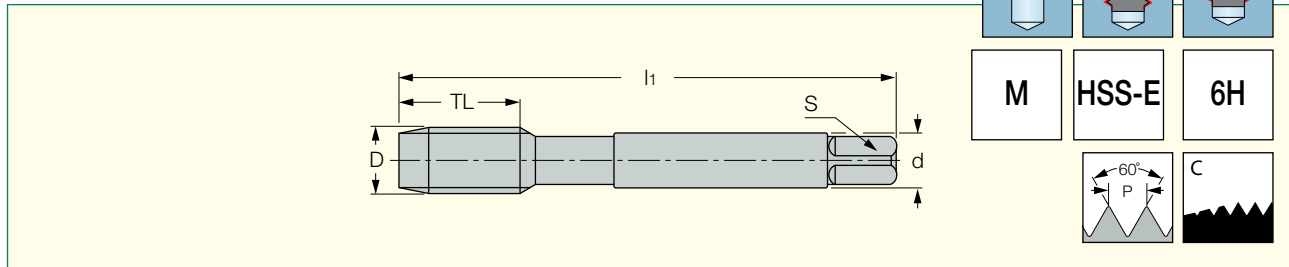
HSS Spiral Flute Machine Taps for Metric Coarse Threads,
According to DIN 13 for a Wide Range of Materials



Designation	Dimensions										Tough ← Hard		
	D	Pitch	Li	TL	L1	d	S	Pre-hole	Standard	Coolant	HE	HES	HET
TPS M-2X0.4-M	M2	0.40	45.00	8.0	13.0	2.80	2.10	1.60	DIN 371	N	●		●
TPS M-2.2X0.45-M	M2.2	0.45	45.00	8.0	13.0	2.80	2.10	1.75	DIN 371	N	●		●
TPS M-2.3X0.4-M	M2.3	0.40	45.00	8.0	13.0	2.80	2.10	1.90	DIN 371	N	●		●
TPS M-2.5X0.45-M	M2.5	0.45	50.00	9.0	15.0	2.80	2.10	2.05	DIN 371	N	●	●	●
TPS M-2.6X0.45-M	M2.6	0.45	50.00	9.0	15.0	2.80	2.10	2.10	DIN 371	N	●		●
TPS M-3X0.5-M	M3	0.50	56.00	6.0	18.0	3.50	2.70	2.50	DIN 371	N	●	●	●
TPS M-3.5X0.6-M	M3.5	0.60	56.00	7.0	20.0	4.00	3.00	2.90	DIN 371	N	●		●
TPS M-4X0.7-M	M4	0.70	63.00	7.0	21.0	4.50	3.40	3.30	DIN 371	N	●	●	
TPS M-4.5X0.75-M	M4.5	0.75	70.00	8.0	25.0	6.00	4.90	3.70	DIN 371	N	●	●	
TPS M-5X0.8-M	M5	0.80	70.00	8.0	25.0	6.00	4.90	4.20	DIN 371	N	●	●	●
TPS M-6X1.0-M	M6	1.00	80.00	10.0	30.0	6.00	4.90	5.00	DIN 371	N	●		●
TPS M-7X1.0-M	M7	1.00	80.00	10.0	30.0	7.00	5.50	6.00	DIN 371	N	●	●	
TPS M-8X1.25-M	M8	1.25	90.00	13.0	35.0	8.00	6.20	6.80	DIN 371	N	●	●	●
TPS M-9X1.25-M	M9	1.25	90.00	13.0	35.0	9.00	7.00	7.80	DIN 371	N	●	●	
TPS M-10X1.5-M	M10	1.50	100.00	15.0	39.0	10.00	8.00	8.50	DIN 371	N	●	●	●
TPS M-11X1.5-M	M11	1.50	100.00	17.0	-	8.00	6.20	9.50	DIN 376	N	●		●
TPS M-12X1.75-M	M12	1.75	110.00	18.0	-	9.00	7.00	10.20	DIN 376	N	●	●	●
TPS M-14X2.0-M	M14	2.00	110.00	20.0	-	11.00	9.00	12.00	DIN 376	N	●	●	●
TPS M-16X2.0-M	M16	2.00	110.00	20.0	-	12.00	9.00	14.00	DIN 376	N	●	●	●
TPS M-16X2.0-M-B	M16	2.00	110.00	20.0	-	12.00	9.00	14.00	DIN 376	Y	●		
TPS M-18X2.5-M	M18	2.50	125.00	25.0	-	14.00	11.00	15.50	DIN 376	N	●		●
TPS M-18X2.5-M-B	M18	2.50	125.00	25.0	-	14.00	11.00	15.50	DIN 376	Y	●		
TPS M-20X2.5-M	M20	2.50	140.00	25.0	-	16.00	12.00	17.50	DIN 376	N	●	●	●
TPS M-20X2.5-M-B	M20	2.50	140.00	25.0	-	16.00	12.00	17.50	DIN 376	Y	●		
TPS M-22X2.5-M	M22	2.50	140.00	25.0	-	18.00	14.50	19.50	DIN 376	N	●		●
TPS M-22X2.5-M-B	M22	2.50	140.00	25.0	-	18.00	14.50	19.50	DIN 376	Y	●		
TPS M-24X3.0-M	M24	3.00	160.00	30.0	-	18.00	14.50	21.00	DIN 376	N	●	●	●
TPS M-24X3.0-M-B	M24	3.00	160.00	30.0	-	18.00	14.50	21.00	DIN 376	Y	●		
TPS M-27X3.0-M	M27	3.00	160.00	30.0	-	20.00	16.00	24.00	DIN 376	N	●		●
TPS M-30X3.5-M	M30	3.50	180.00	35.0	-	22.00	18.00	26.50	DIN 376	N	●		●
TPS M-30X3.5-M-B	M30	3.50	180.00	35.0	-	22.00	18.00	26.50	DIN 376	Y	●		

TPS MF (HSS) Metric

HSS Spiral Flute Machine Taps for Metric Fine Threads,
According to DIN 13 for a Wide Range of Materials

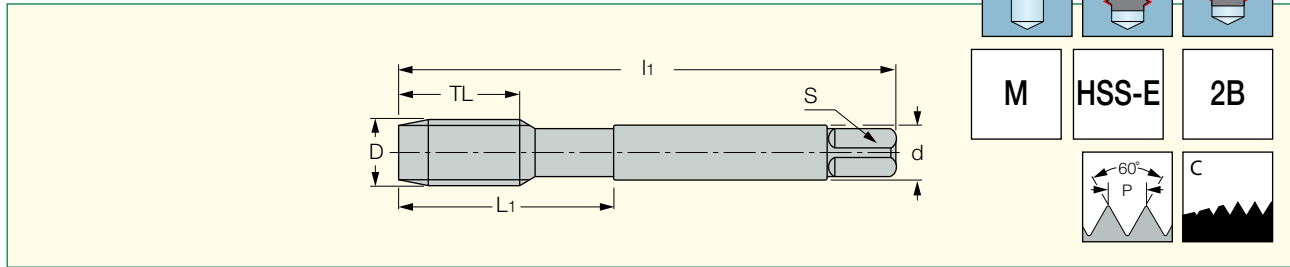


Designation	Dimensions								Tough ↔ Hard		
	D	Pitch	l ₁	T _L	d	S	Pre-hole	Standard	HE	HES	HET
TPS MF-4X0.5-M	M4	0.50	63.00	5.0	2.80	2.10	3.50	DIN 374	●		●
TPS MF-5X0.5-M	M5	0.50	70.00	5.0	3.50	2.70	4.50	DIN 374	●		●
TPS MF-6X0.75-M	M6	0.75	80.00	8.0	4.50	3.40	5.20	DIN 374	●		●
TPS MF-6X0.5-M	M6	0.50	80.00	5.0	4.50	3.40	5.50	DIN 374	●		●
TPS MF-7X0.75-M	M7	0.75	80.00	10.0	5.50	4.30	6.20	DIN 374	●		●
TPS MF-8X1.0-M	M8	1.00	90.00	10.0	6.00	4.90	7.00	DIN 374	●		●
TPS MF-8X0.75-M	M8	0.75	80.00	8.0	6.00	4.90	7.20	DIN 374	●		●
TPS MF-10X1.25-M	M10	1.25	100.00	16.0	7.00	5.50	8.80	DIN 374	●		●
TPS MF-10X1.0-M	M10	1.00	90.00	10.0	7.00	5.50	9.00	DIN 374	●		●
TPS MF-10X0.75-M	M10	0.75	90.00	10.0	7.00	5.50	9.20	DIN 374	●	●	●
TPS MF-12X1.5-M	M12	1.50	100.00	15.0	9.00	7.00	10.50	DIN 374	●	●	●
TPS MF-12X1.25-M	M12	1.25	100.00	15.0	9.00	7.00	10.80	DIN 374	●	●	●
TPS MF-12X1.0-M	M12	1.00	100.00	11.0	9.00	7.00	11.00	DIN 374	●	●	●
TPS MF-14X1.5-M	M14	1.50	100.00	15.0	11.00	9.00	12.50	DIN 374	●	●	●
TPS MF-14X1.25-M	M14	1.25	100.00	15.0	11.00	9.00	12.80	DIN 374	●		●
TPS MF-14X1.0-M	M14	1.00	100.00	11.0	11.00	9.00	13.00	DIN 374	●	●	●
TPS MF-16X1.5-M	M16	1.50	100.00	15.0	12.00	9.00	14.50	DIN 374	●	●	●
TPS MF-16X1.0-M	M16	1.00	100.00	12.0	12.00	9.00	15.00	DIN 374	●		●
TPS MF-18X1.5-M	M18	1.50	110.00	17.0	14.00	11.00	16.50	DIN 374	●		●
TPS MF-18X1.0-M	M18	1.00	110.00	13.0	14.00	11.00	17.00	DIN 374	●		●
TPS MF-20X1.5-M	M20	1.50	125.00	17.0	16.00	12.00	18.50	DIN 374	●	●	●
TPS MF-20X1.0-M	M20	1.00	125.00	14.0	16.00	12.00	19.00	DIN 374	●		●
TPS MF-22X1.5-M	M22	1.50	125.00	17.0	18.00	14.50	20.50	DIN 374	●		●
TPS MF-22X1.0-M	M22	1.00	125.00	14.0	18.00	14.50	21.00	DIN 374	●		●
TPS MF-24X2.0-M	M24	2.00	140.00	20.0	18.00	14.50	22.00	DIN 374	●		●
TPS MF-24X1.5-M	M24	1.50	140.00	20.0	18.00	14.50	22.50	DIN 374	●		●
TPS MF-26X1.5-M	M26	1.50	140.00	20.0	18.00	14.50	24.50	DIN 374	●		●
TPS MF-27X2.0-M	M27	2.00	140.00	20.0	20.00	16.00	25.00	DIN 374	●		●
TPS MF-27X1.5-M	M27	1.50	140.00	20.0	20.00	16.00	25.50	DIN 374	●		●
TPS MF-28X1.5-M	M28	1.50	140.00	20.0	20.00	16.00	26.50	DIN 374	●		●
TPS MF-30X2.0-M	M30	2.00	150.00	22.0	22.00	18.00	28.00	DIN 374	●		●
TPS MF-30X1.5-M	M30	1.50	150.00	22.0	22.00	18.00	28.50	DIN 374	●		●

ONETAP

TPS UNC (HSS) Metric

HSS Spiral Flute Machine Taps for Unified Coarse Threads, for a Wide Range of Materials



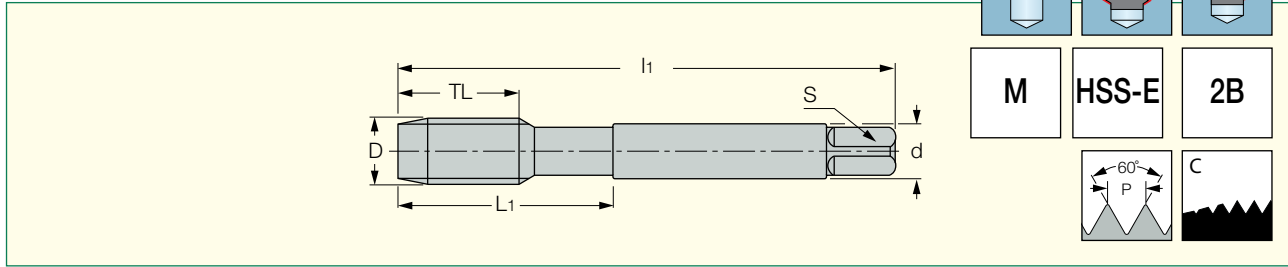
Designation	Dimensions									Tough ↔ Hard	
	D	TPI	I ₁	TL	L ₁	d	S	Pre-hole	Standard	HE	HETI
TPS UNC-#4-40-M	#4	40.0	56.00	6.0	18.0	3.50	2.70	2.30	DIN 371	●	●
TPS UNC-#5-40-M	#5	40.0	56.00	7.0	18.0	3.50	2.70	2.60	DIN 371	●	●
TPS UNC-#6-32-M	#6	32.0	56.00	7.0	20.0	4.00	3.00	2.85	DIN 371	●	●
TPS UNC-#8-32-M	#8	32.0	63.00	8.0	21.0	4.50	3.40	3.50	DIN 371	●	●
TPS UNC-#10-24-M	#10	24.0	70.00	10.0	25.0	6.00	4.90	3.90	DIN 371	●	●
TPS UNC-#12-24-M	#12	24.0	80.00	10.0	30.0	6.00	4.90	4.50	DIN 371	●	●
TPS UNC-1/4-20-M	1/4"	20.0	80.00	13.0	30.0	7.00	5.50	5.20	DIN 371	●	●
TPS UNC-5/16-18-M	5/16"	18.0	90.00	14.0	35.0	8.00	6.20	6.60	DIN 371	●	●
TPS UNC-3/8-16-M	3/8"	16.0	100.00	16.0	39.0	9.00	7.00	8.00	DIN 371	●	●
TPS UNC-7/16-14-M	7/16"	14.0	100.00	17.0	-	8.00	6.20	9.40	DIN 376	●	●
TPS UNC-1/2-13-M	1/2"	13.0	110.00	20.0	-	9.00	7.00	10.75	DIN 376	●	●
TPS UNC-9/16-12-M	9/16"	12.0	110.00	20.0	-	11.00	9.00	12.25	DIN 376	●	●
TPS UNC-5/8-11-M	5/8"	11.0	110.00	22.0	-	12.00	9.00	13.50	DIN 376	●	●
TPS UNC-3/4-10-M	3/4"	10.0	125.00	25.0	-	14.00	11.00	16.50	DIN 376	●	●
TPS UNC-7/8-9-M	7/8"	9.0	140.00	27.0	-	18.00	14.50	19.50	DIN 376	●	●
TPS UNC-1-8-M	1"	8.0	160.00	30.0	-	20.00	16.00	22.25	DIN 376	●	●



ONETAP

TPS UNF (HSS) Metric

HSS Spiral Flute Machine Taps for Unified Fine Threads, for a Wide Range of Materials



Designation	Dimensions									Tough ↔ Hard	
	D	TPI	l ₁	TL	L ₁	d	S	Pre-hole	Standard	HE	HETI
TPS UNF-#4-48-M	#4	48.0	56.00	6.0	18.0	3.50	2.70	2.40	DIN 371	●	●
TPS UNF-#5-44-M	#5	44.0	56.00	7.0	18.0	3.50	2.70	2.70	DIN 371	●	●
TPS UNF-#6-40-M	#6	40.0	56.00	7.0	20.0	4.00	3.00	3.00	DIN 371	●	●
TPS UNF-#8-36-M	#8	36.0	63.00	8.0	21.0	4.50	3.40	3.50	DIN 371	●	●
TPS UNF-#10-32-M	#10	32.0	70.00	10.0	25.0	6.00	4.90	4.10	DIN 371	●	●
TPS UNF-#12-28-M	#12	28.0	80.00	10.0	30.0	6.00	4.90	4.70	DIN 371	●	●
TPS UNF-1/4-28-M	1/4"	28.0	80.00	10.0	30.0	7.00	5.50	5.50	DIN 371	●	●
TPS UNF-5/16-24-M	5/16"	24.0	90.00	10.0	35.0	8.00	6.20	6.90	DIN 371	●	●
TPS UNF-3/8-24-M	3/8"	24.0	100.00	10.0	39.0	9.00	7.00	8.50	DIN 371	●	●
TPS UNF-7/16-20-M	7/16"	20.0	100.00	13.0	-	8.00	6.20	9.90	DIN 374	●	●
TPS UNF-1/2-20-M	1/2"	20.0	100.00	13.0	-	9.00	7.00	11.50	DIN 374	●	●
TPS UNF-9/16-18-M	9/16"	18.0	100.00	15.0	-	11.00	9.00	12.90	DIN 374	●	●
TPS UNF-5/8-18-M	5/8"	18.0	100.00	15.0	-	12.00	9.00	14.50	DIN 374	●	●
TPS UNF-3/4-16-M	3/4"	16.0	110.00	17.0	-	14.00	11.00	17.50	DIN 374	●	●
TPS UNF-7/8-14-M	7/8"	14.0	125.00	17.0	-	18.00	14.50	20.50	DIN 374	●	●
TPS UNF-1-12-M	1"	12.0	140.00	20.0	-	20.00	16.00	23.25	DIN 374	●	●

