

Drill Series

噴射鑽頭 / 油孔鑽頭

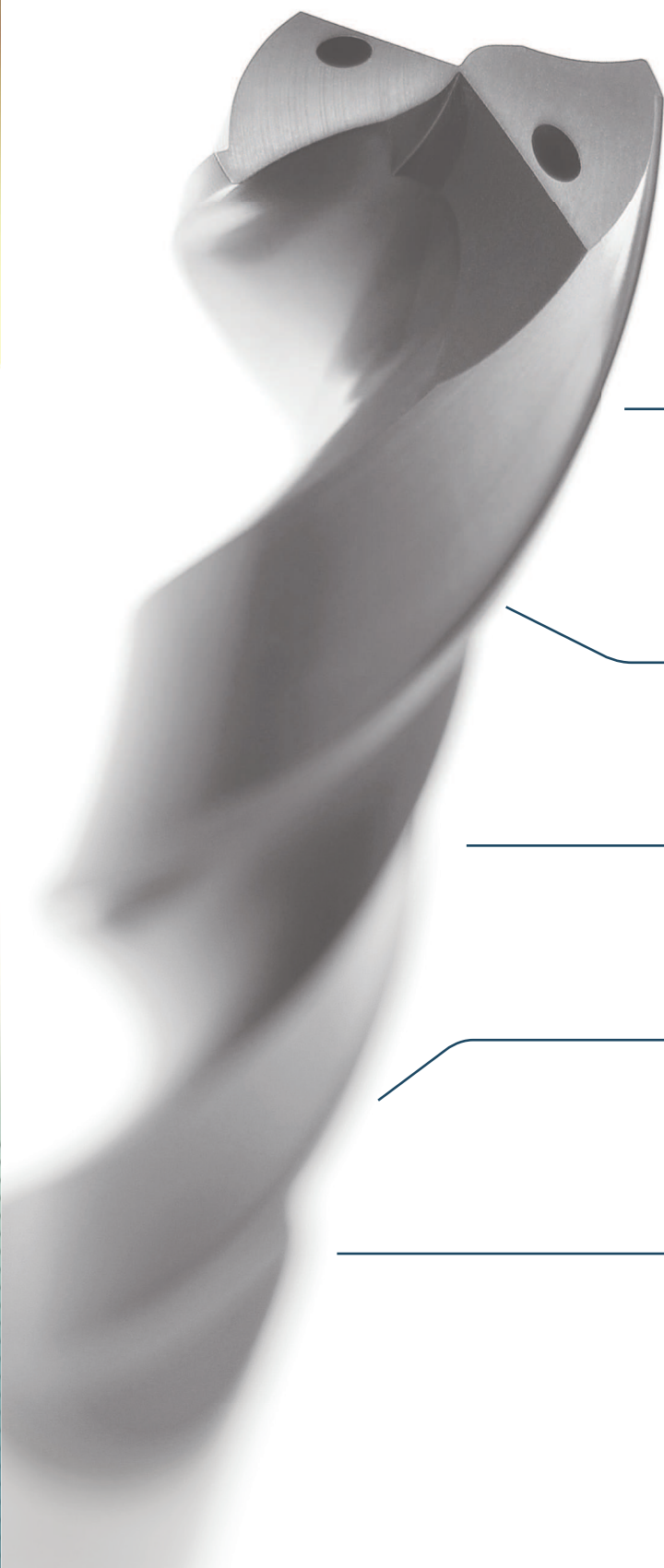
Jet Drill / Coolant Drill



- High Feed
- High Quality
- High Performance

■ Carbide Drill Series

Technical Data



◀ Long tool life
長壽命

▶ Cutting edges designed to prevent chipping at corners
防止角部崩潰

◀ Optimized chip pocket at end of cutting edge
最佳設計的底刃容削槽

◀ Smooth chip flow due to high potential
特殊排削槽

◀ A new *nACro*[®] coating
全新複合奈米薄膜

▶ Tool diameter tolerance
h7 mm for all size
刀刃容許公差 h7 mm

▶ Superior wear and chipping resistance due to optimally matched coating and carbide material
奈米超硬底材驚異高抗損性
優異耐磨耗性



■ Carbide Drill Series

Technical Data

● Details 產品特點

It is suitable for high speed drilling in wet condition and drilling in dry condition.
適用於高速濕式加工和乾式加工2種方式

● 高效能、高精度加工

Save time to 20%~50% possible
加工時間縮減20%~50%可行

● 高能率加工

Smooth connection between flute and shank
prevents a condition of stress
低磨擦、高排削性

● 多功能

Working process finish in one time,
increasing productivity
加工一次完成，產能速增



nACro 塗層 nACro Coating

nACro 塗層表現了優異的耐熱性、極佳的與被切削材料的潤滑性，
可發揮高速濕式加工和乾式加工的卓越性能
nACro coat is wealthy in the lubrication with the work
material and excellent to heat-resistance.

高可靠性 High reliability

使用了優異耐削性和耐磨性的特殊刀刃形狀，實現了穩定的加工
It is possible to operate stably due to new geometric.
Chipping resistance, wear resistance of corner edge is increased.

使用銑刀刀柄 End mill shank

使用了刀柄尺寸與銑刀的外徑
相匹配的立銑刀柄，實現了高精度鑽孔
Extremely precise positioning and stable drilled diameter.

螺旋孔直接給油大大的提高了排屑效率

內部給油方式使得高速的濕式加工和乾式加工成為可能
Excellent chip removal by spiral mist-holes
high speed drilling in wet condition and drilling in MQL

Selection Chart 選擇基準

Be sure to confirm the flute length by stocked tables.
根據不同的鑽頭尺寸，也有可能無法滿足表中所記載的加工深度。請務必確認尺寸表之溝槽長度。

根據被切削材料的選擇標準 drilling depth Selection Chart according to	Item 商品名稱	nACro 3XD 噴射鑽頭 nACro Drills 3SD	nACro 5XD 噴射鑽頭 nACro Drills 5SD	nACro 鑽頭 油孔型 (3SDC用) nACro Drills with Coolant-Hole(3SDC)	nACro 鑽頭 油孔型 (5SDC用) nACro Drills with Coolant-Hole(5SDC)	nACro 鑽頭 油孔型 (8SDC用) nACro Drills with Coolant-Hole(8SDC)
	Specification 規格	超硬鑽頭 Solid Drills				
	Sizes 尺寸範圍	φ 3~φ 20	φ 3~φ 20	φ 4.1~φ 16	φ 3~φ 30	φ 3~φ 12
	Drilling Depth 加工深度 (D:鑽頭直徑)	3D	5D	3D	5D	8D
	Cutting Fluids 切削油劑	濕式 & 乾式 Wet & Dry			濕式 & 霧式 Wet & MQL	
根據加工深度的選擇基準 Selection Chart according to drilling depth	Structural Steels SS400 普通結構軋鋼(~250HB)	◎	◎	◎	◎	◎
	Carbon Steels S45C 碳素鋼(~250HB)	◎	◎	◎	◎	◎
	Alloy Steels SCM, SCR 合金鋼(~30HRC)	◎	◎	◎	◎	◎
	Mold Steels SKD61 模具鋼(~30HRC)	◎	◎	◎	◎	◎
	Pre-Hardened Steels NAK, HAP 預硬化鋼(30~40HRC)	◎	◎	◎	◎	◎
	Hardened Steels SCM, SKD 調質鋼(30~40HRC)	◎	◎	◎	◎	◎
	Hardened Steels SKD61 高硬度鋼(40~50HRC)	◎	◎	◎	◎	◎
	Hardened Steels SKD11 高硬度鋼(50~55HRC)					
	Hardened Steels SKD, SKH 高硬度鋼(55~70HRC)	X	X	X	X	X
	Stainless Steels SUS304 奧氏體不銹鋼	X	X	○*	○*	○*
	Stainless Steels SUS420, 440 馬氏體不銹鋼	○	○	○	○	○
	Nickel Alloy Titanium Alloy 鈦合金耐熱合金	X	X	X	X	X
	Cast Irons FC250 灰口鑄鐵	◎	◎	◎	◎	◎
	Ductile Cast Irons FCD450 球墨鑄鐵	◎	◎	◎	◎	◎
	Aluminum Alloys AC, ADC 鋁合金					
Copper Alloy C1100 銅合金						

- 1 有高精度加工要求時，推薦使用濕式加工。For precision drilling, use drills in wet condition.
- 2 被切削材料硬度大於60 HRC時，請使用濕式加工。Use drills in wet condition in case of work material having over 60HRC hardness.
- 3 鑽頭直徑在1mm以下時，請使用濕式加工。Use in wet condition when drill size is under 1mm.
- 4 請採用內部給油方式。Use internal lubrication system.

* 請在加工的同時充分加入水溶性切削油劑。Be used in wet condition.

◎ : 最適用 Excellent ○ : 適用 Good X : 不適用 Not Used 無標示(No mark) : 不推薦 Not recommended