



//2025.06

# 高压冷却刀杆系列



产品阵容包括外圆车削、切槽/切断刀杆  
以及相匹配的联接件和高压软管  
即使在低压冷却下也能带来刀具寿命的提高及良好的断屑能力

外圆车削

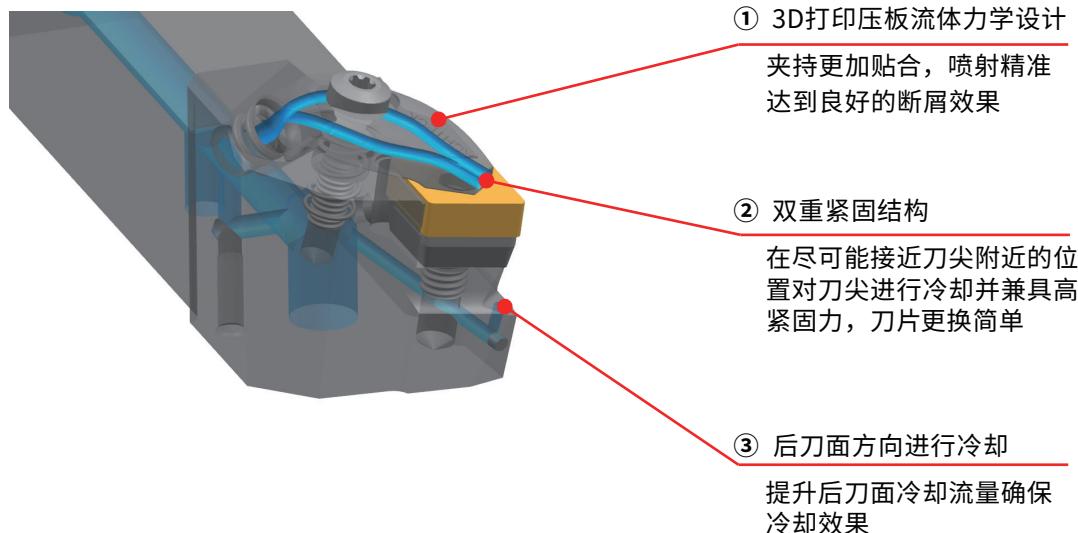
切槽、切断



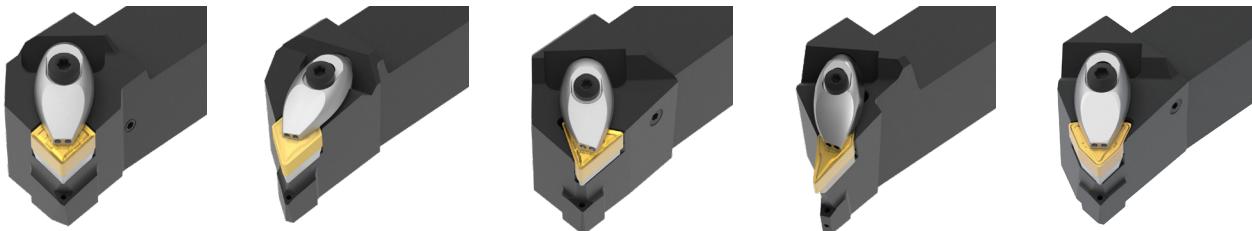
# 外圆车削高压冷却系列

通过精确的高压冷却技术，可以实现针对钛合金、高温合金等难加工材料的良好断屑效果，提高刀具使用寿命

## 独特的结构设计



## 外圆车削产品阵容



## 断屑效果对比



切削参数:  $V_c=280\text{m/min}$ ,  $f=0.26\text{mm/rev}$ ,  $ap=1.5\text{mm}$ , Wet  
加工材料: 4140合金钢  
刀片型号: CNMG 120408

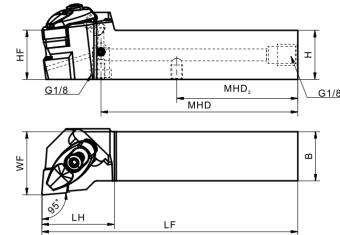
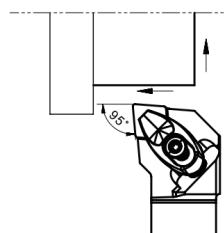
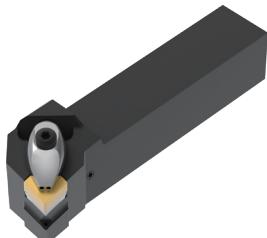
## 耐磨性能对比



切削参数:  $V_c=90\text{m/min}$ ,  $f=0.12\text{mm/rev}$ ,  $ap=0.4\text{mm}$ , Wet  
加工材料: GH4169  
刀片型号: CNMG 120408 外径车削

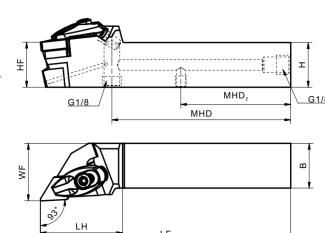
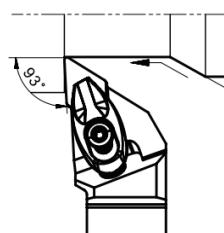
## ● 产品清单

## C型刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片		
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞		
	20	20	20	115		25	85	46.5	0.8	S-DCLNR1204812-12	SH060103	LT-H4 LT-H3 LT-H5	JDN18-U2N00	CP050210	FT-TP15	YAO.60-6.30-11.7-4	SR-C074012	PL-G1/8100	PL-060060	CN**1204**
DCLNR 2020X-12JT	20	20	20	115		25	85	46.5	0.8	S-DCLNR1204812-12	SH060103	LT-H4 LT-H3 LT-H5	JDN18-U2N00	CP050210	FT-TP15	YAO.60-6.30-11.7-4	SR-C074012	PL-G1/8100	PL-060060	CN**1204**
DCLNL 2020X-12JT	25	25	25	130	36.8	32	100	61.5												
DCLNR 2525X-12JT	25	25	25	130	36.8	32	100	61.5												
DCLNL 2525X-12JT	25	25	25	130	36.8	32	100	61.5												

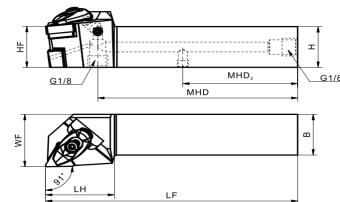
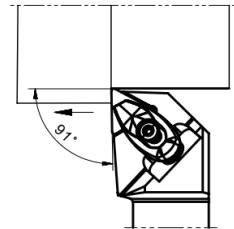
## D型刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片	
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞	
	20	20	20	125	45	25	85	46.5	0.8	S-DDJNR1504812-11	SH060103	LT-H4 LT-H3 LT-H5	JDN18-U2R18 JDN18-U2L18 JDN18-U2R18 JDN18-U2L18 JDN18-U2R18 JDN18-U2L18 JDN18-U2R18 JDN18-U2L18	CP050210	FT-TP15	YAO.60-6.30-11.7-4	SR-C074012	PL-G1/8100	PL-060060
DDJNR 2020X-1506JT	20	20	20	125	45	25	85	46.5											
DDJNL 2020X-1506JT	25	25	25	140	46	32	100	61.5											
DDJNR 2525X-1506JT	25	25	25	140	46	32	100	61.5											
DDJNL 2525X-1506JT	25	25	25	140	46	32	100	61.5											
DDJNR 2020X-1504JT	20	20	20	125	45	25	85	46.5											
DDJNL 2020X-1504JT	25	25	25	140	46	32	100	61.5											
DDJNR 2525X-1504JT	25	25	25	140	46	32	100	61.5											
DDJNL 2525X-1504JT	25	25	25	140	46	32	100	61.5											

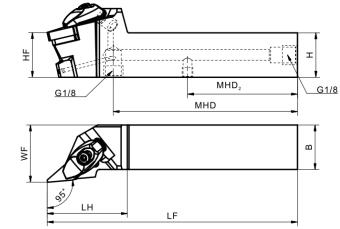
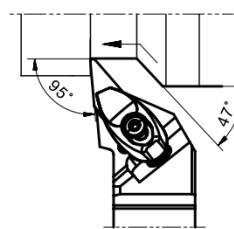
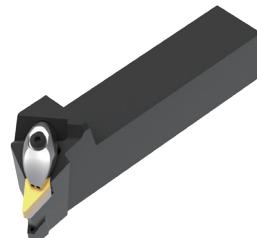
## ● 产品清单

## T型刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片		
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞	小螺 纹塞	
	20	20	20	120	35.8	25	93.5	46.5	0.8	S-DTN1603208	SH050085	LT-H3 LT-H5	JDN15-U2L20 JDN15-U2R20 JDN15-U2L20 JDN15-U2R20	CP040170	FT-TP09	YAO60-5.00-8-5	SR-C074012	PL-G1/8100	PL-060060	TN**1604**
DTGNR 2020X-16JT	20	20	20	120	35.8	25	93.5	46.5	0.8	S-DTN1603208	SH050085	LT-H3 LT-H5	JDN15-U2L20 JDN15-U2R20 JDN15-U2L20 JDN15-U2R20	CP040170	FT-TP09	YAO60-5.00-8-5	SR-C074012	PL-G1/8100	PL-060060	TN**1604**
DTGNL 2020X-16JT	25	25	25	135	37	32	107	61.5												
DTGNR 2525X-16JT	25	25	25	135	37	32	107	61.5												
DTGNL 2525X-16JT	25	25	25	135	37	32	107	61.5												

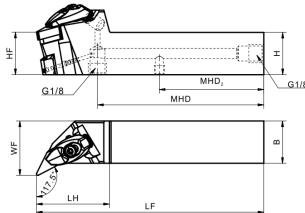
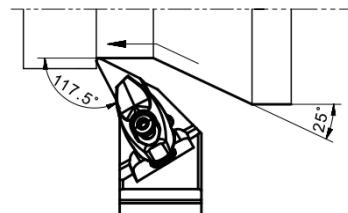
## V型47°刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片		
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞	小螺 纹塞	
	20	20	20	125	42.8	25	88	46.5	0.8	S-DVN1603212	SH050085	LT-H3 LT-H5	JDN15-U2L20-VN16 JDN15-U2R20-VN16 JDN15-U2L20-VN16 JDN15-U2R20-VN16	CP040170	FT-TP09	YAO60-5.00-8-5	SR-C074012	PL-G1/8100	PL-060060	VN**1604**
DVLNR 2020X-16JT	20	20	20	125	42.8	25	88	46.5	0.8	S-DVN1603212	SH050085	LT-H3 LT-H5	JDN15-U2L20-VN16 JDN15-U2R20-VN16 JDN15-U2L20-VN16 JDN15-U2R20-VN16	CP040170	FT-TP09	YAO60-5.00-8-5	SR-C074012	PL-G1/8100	PL-060060	VN**1604**
DVLNL 2020X-16JT	25	25	25	140	44.8	32	103	61.5												
DVLNR 2525X-16JT	25	25	25	140	44.8	32	103	61.5												
DVLNL 2525X-16JT	25	25	25	140	44.8	32	103	61.5												

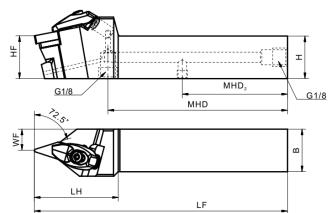
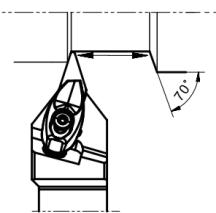
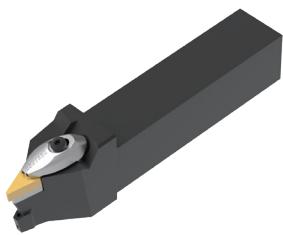
## ● 产品清单

## V型25°刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片		
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞		
DVPNR 2020X-16JT	20	20	20	118	43	25	81	46.5	0.8	S-DVN1603212	SH050085	LT-H3 LT-H5	JDN15-U2R20-VN16	CP040170	FT-TP09	YAO.605.00-8.5	SR-C074012	PL-G1/8100	PL-060060	VN**1604**
DVPNL 2020X-16JT													JDN15-U2L20-VN16							
DVPNR 2525X-16JT	25	25	25	134		32	98	61.5					JDN15-U2R20-VN16							
DVPNL 2525X-16JT													JDN15-U2L20-VN16							

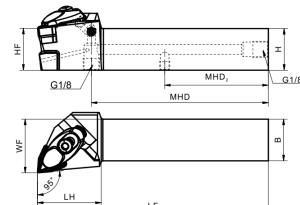
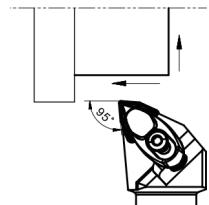
## V型70°刀杆



刀杆型号	尺寸 (mm)									配件								适用刀片		
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞		
DVVNN 2020X-16JT	20	20	20	130	49	10	87	46.5	0.8	S-DVN1603212	SH050085	LT-H3 LT-H5	JDN15-U2R20-VN16	CP040170	FT-TP09	YAO.605.00-8.5	SR-C074012	PL-G1/8100	PL-060060	VN**1604**
DVVNN 2525X-16JT	25	25	25	148		12.5	105	61.5					JDN15-U2L20-VN16							

## ● 产品清单

## W型刀杆

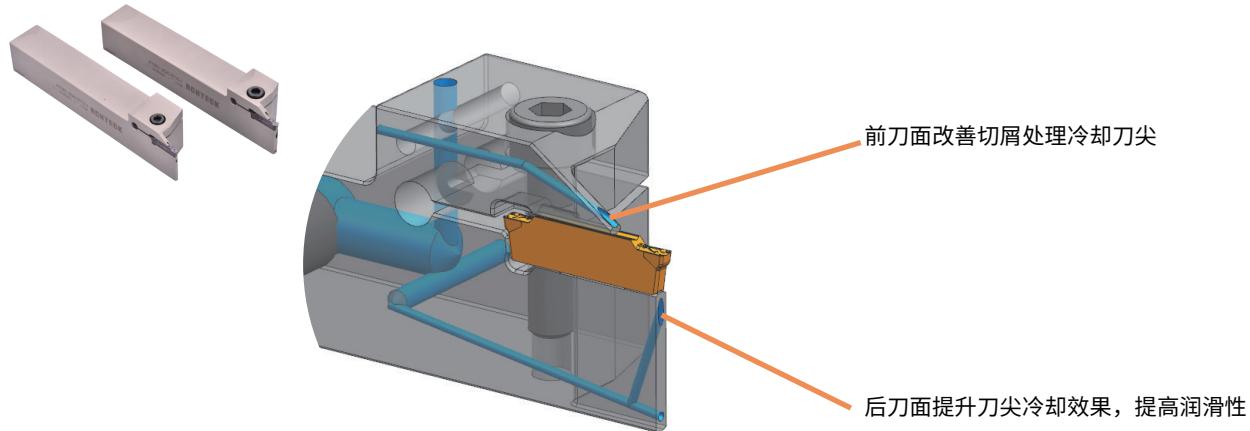


刀杆型号	尺寸 (mm)									配件									适用刀片	
	H	HF	B	LF	LH	WF	MHD	MHD <sub>2</sub>	刀尖 Re	刀垫	刀垫 螺钉	扳手	压板	压板 螺丝	扳手	弹簧	密封圈	大螺 纹塞		
	20	20	20	120	37.8	25	88	46.5	0.8	S-DWN0804812-11	SH060103	LT-H4 LT-H3 LT-H5	JDN18-U2N00	CP050210	FT-TP15	YB0.706.50-12.7.5	SR-C074012	PL-G1/8100	PL-060060	WN**0804**
DWLNR 2020X-08JT	20	20	20	120	37.8	25	88	46.5	0.8	S-DWN0804812-11	SH060103	LT-H4 LT-H3 LT-H5	JDN18-U2N00	CP050210	FT-TP15	YB0.706.50-12.7.5	SR-C074012	PL-G1/8100	PL-060060	WN**0804**
DWLNL 2020X-08JT	25	25	25	137	38	32	105	61.5												
DWLNR 2525X-08JT	25	25	25	137	38	32	105	61.5												
DWLNL 2525X-08JT	25	25	25	137	38	32	105	61.5												

# 外圆切槽、切断高压冷却刀杆

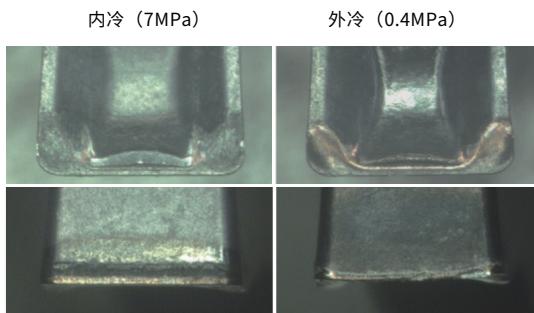
前、后刀面两个方向同时进行精准冷却供给，提高断屑性能，同时实现长寿命及稳定加工

## 结构设计



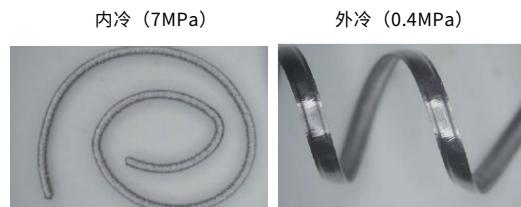
## 切削性能

### 耐磨损性能对比



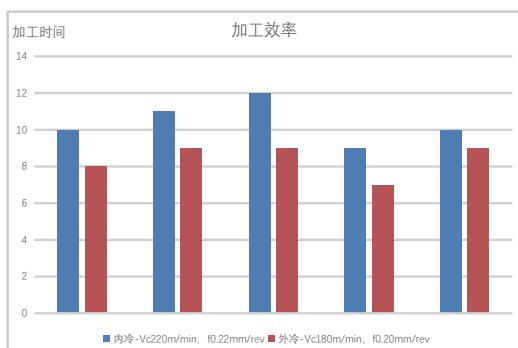
切削参数:  $V_c=220\text{m/min}$ ,  $f=0.2\text{mm/rev}$ ,  $ap=10\text{mm}$ , Wet  
加工材料: 4340合金钢  
刀片型号: ACD 202-CH AP301U 外径切槽

### 断屑性能对比



切削参数:  $V_c=200\text{m/min}$ ,  $f=0.12\text{mm/rev}$ ,  $ap=10\text{mm}$ , Wet  
加工材料: 4340合金钢  
刀片型号: ACD 202-CH AP301U 外径切槽

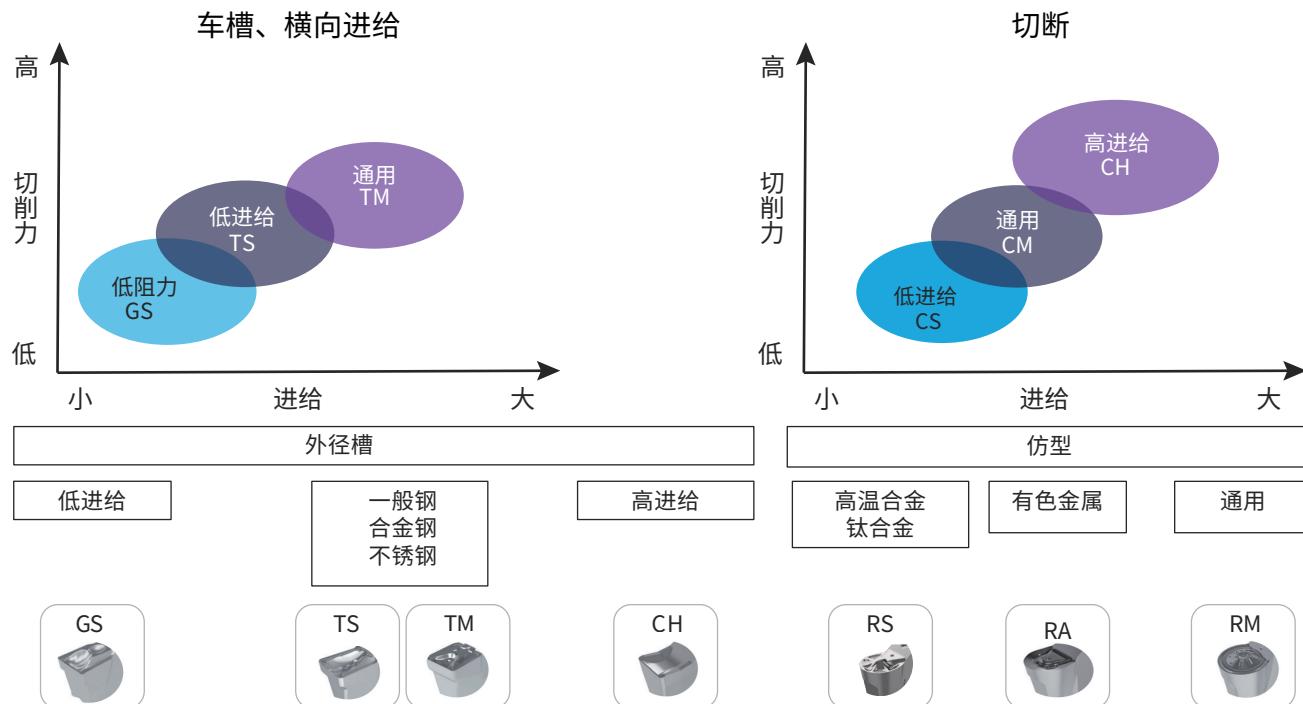
### 加工效率对比



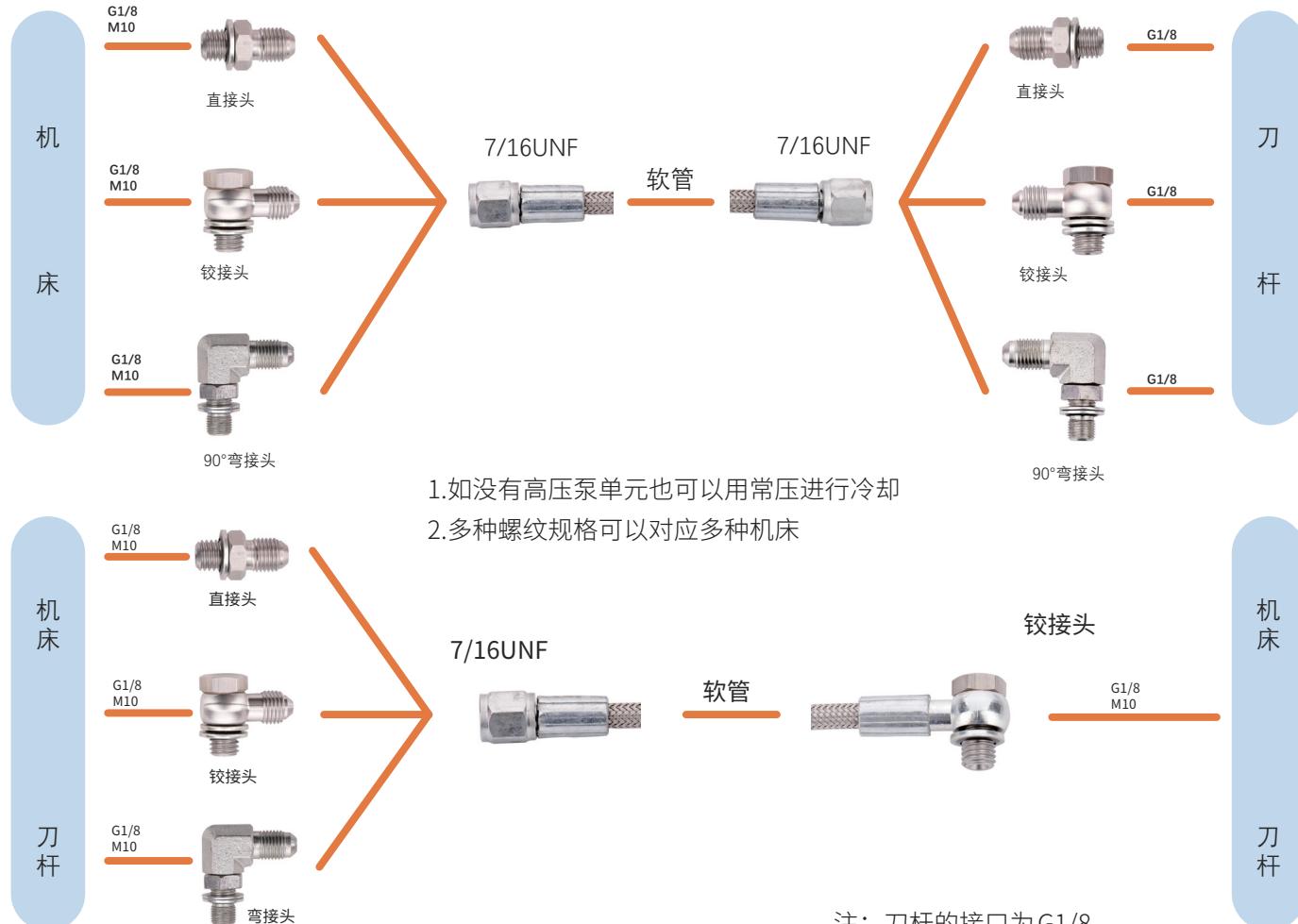
高压内冷刀杆—ATSER 2020-2T12-J  
切削参数:  $V_c=220\text{m/min}$ ,  $f=0.22\text{mm/rev}$ ,  $ap=10\text{mm}$ , Wet  
加工材料: 4340合金钢  
刀片型号: ACD 202-CH AP301U 外径切槽, 单槽用时20S

常规外冷刀杆—ATSER 2020-2T12  
切削参数:  $V_c=180\text{m/min}$ ,  $f=0.2\text{mm/rev}$ ,  $ap=10\text{mm}$ , Wet  
加工材料: 4340合金钢  
刀片型号: ACD 202-CH AP301U 外径切槽, 单槽用时22S

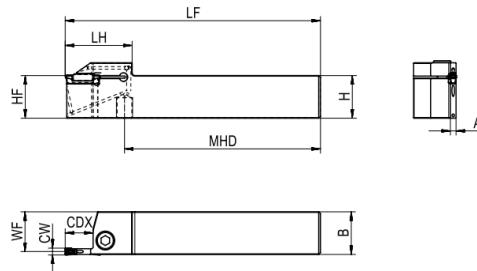
## ● 槽型搭配



## ● 安装连接



## ◆ 产品清单



槽宽	型号	尺寸								零件			适用刀片	
		H	HF	B	LF	LH	WF	CDX	MHD	CW	紧固螺丝	扳手	堵头螺丝	
2mm	ATSER 2020-2T12-J	20	20	20	125	37	19.1	12	73	2	SH050200	LT-H4	PL-G1/8080	ACD/ACS/ATD
	ATSEL 2020-2T12-J								115.5		SH050250		G1/8080	
	ATSER 2525-2T12-J	25	25	25	150	39	24.1		73	3	SH050200		PL-G1/8080	
	ATSEL 2525-2T12-J								115.5		SH050250		G1/8080	
3mm	ATSER 2020-3T12-J	20	20	20	125	37	18.8	25	73	4	SH060200	LT-H5	PL-G1/8080	ACD/ACS/ATD
	ATSEL 2020-3T12-J								115.5		SH060250			
	ATSER 2525-3T12-J	25	25	25	150	39	24.1		111	5				
	ATSEL 2525-3T12-J								120.5	6	SH080250		G1/8080	
4mm	ATSER 2020-4T10-J	20	20	20	125	37	18.3	20	73	4	SH060200	LT-H6	PL-G1/8080	ACD/ACS/ATD
	ATSEL 2020-4T10-J								115.5		SH060250			
	ATSER 2525-4T15-J	25	25	25	150	39	23.3		15	111				
	ATSEL 2525-4T15-J					45	22.8		25	5				
5mm	ATSER 2525-5T20-J	25	25	25	150	52	22.3	25	115	8	SH080250			ACD/ACS/ATD
	ATSEL 2525-5T20-J					58	21.9		115					
6mm	ATSER 2525-6T20-J	25	25	25	150	52	22.3	25	115	8	SH080250			ACD/ACS/ATD
	ATSEL 2525-6T20-J					58	21.9		115					
8mm	ATSER 2525-8T25-J	25	25	25	150	58	21.9	25	115	8	SH080250			ACD/ACS/ATD
	ATSEL 2525-8T25-J					58	21.9		115					

## ◆ 配件明细

名称	形状	型号	库存	螺纹规格	
				刀杆/机床连接侧	
直接头		JN 7/16-M10	●	M10	
铰接头		JH 7/16-G1/8	●	G1/8	
		JH 7/16-M10	●	M10	
弯接头		JC 7/16-G1/8	●	G1/8	
		JC 7/16-M10	●	M10	

名称	形状	型号	库存	螺纹规格		长度MM
				刀杆/机床连接侧		
软管		JT 7/16-7/16-200	●	7/16UNF	7/16UNF	200
		JT 7/16-7/16-250	●	7/16UNF	7/16UNF	250
软管		JT 7/16-G1/8-200	●	G1/8	7/16UNF	200
		JT 7/16-G1/8-250	●	G1/8	7/16UNF	250
		JT 7/16-M10-200	●	M10	7/16UNF	200
		JT 7/16-M10-250	●	M10	7/16UNF	250