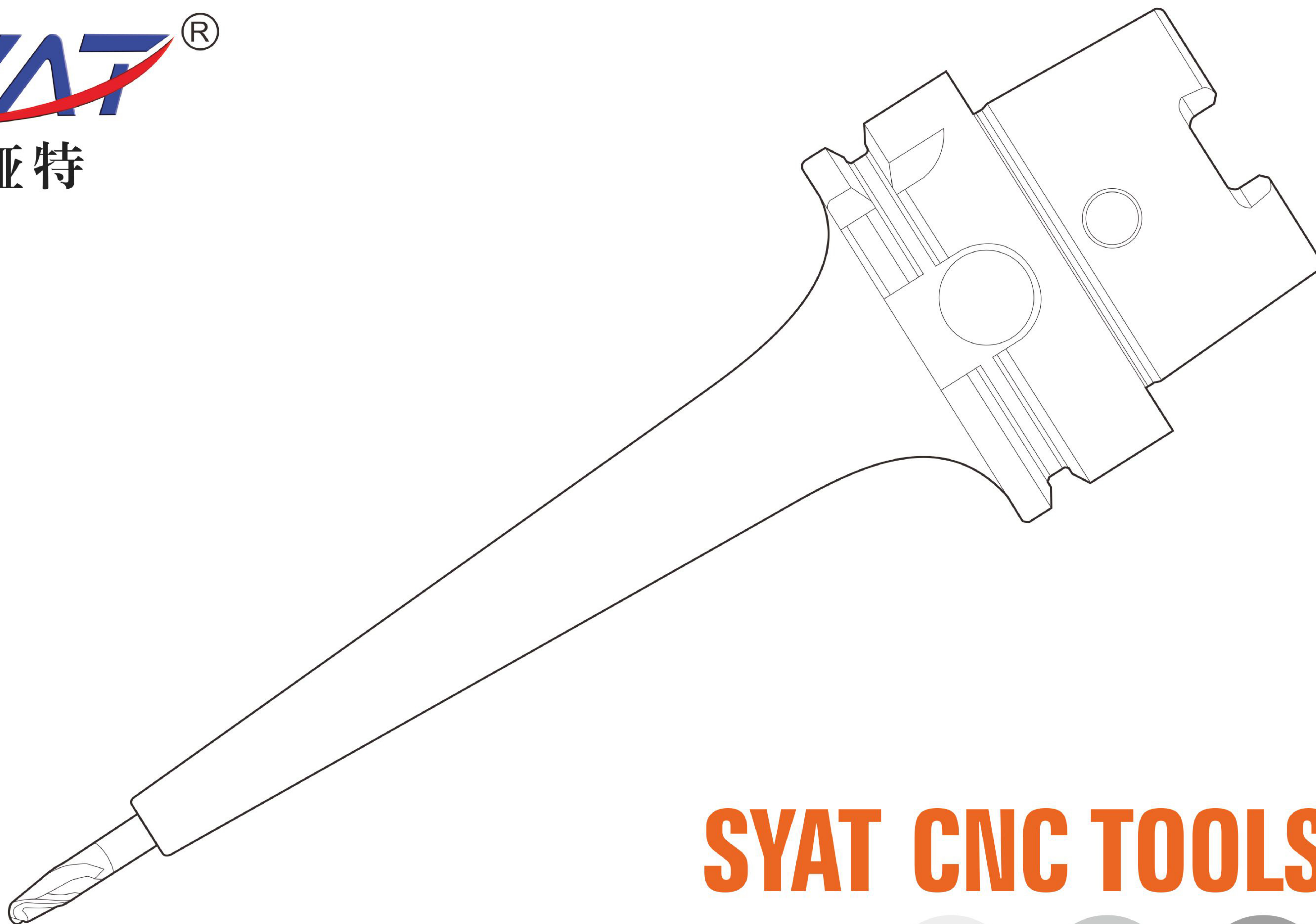
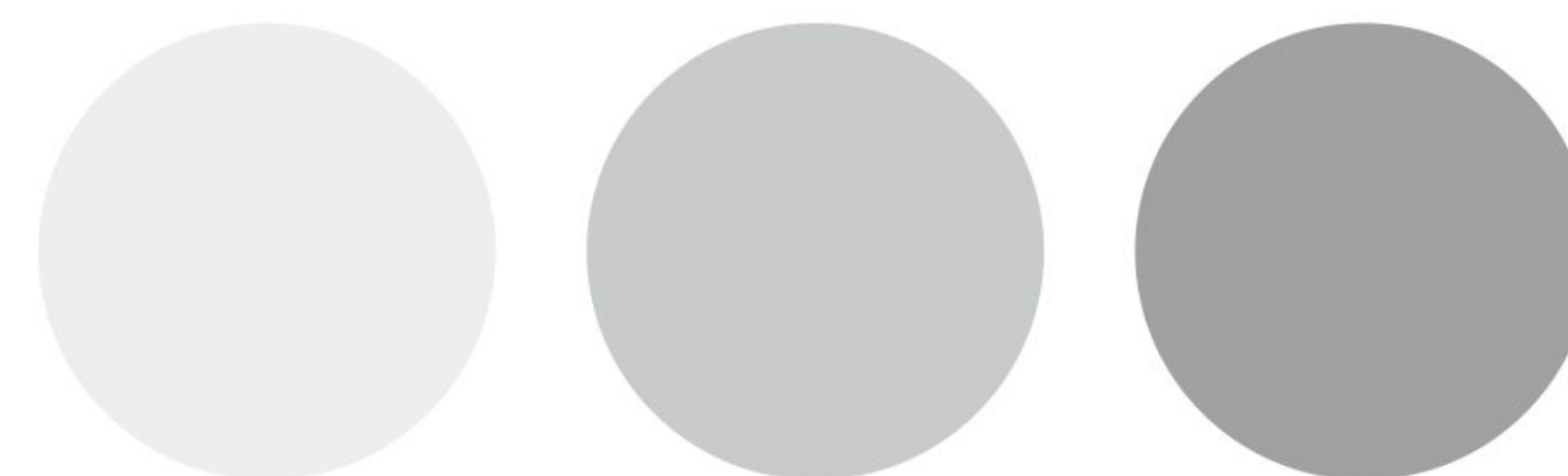




SYAT CNC TOOLS

SYAT TECHNOLOGY CO.,LTD.





about us

SYAT TECHNOLOGY CO.,LTD. is a company integrating production, sales and service. The company has a strong team of scientific research and development. The main products are thermal expansion knife handle series, electromagnetic induction heat shrinkable machine, high-speed knife handle series, tungsten steel milling cutter series, CNC blade series and so on.

Our company has introduced the advanced cutting tools such as mold industry, automobile industry, aviation industry and so on. To sample production of various types of its difficult to special-shaped cutting tools, machining and manufacturing to provide a complete set of processing program.

We in line with the diversification of products and excellent price to enter the market, pursuing a policy of "industrial science and technology, quality first, customer first, sincere service". Through scientific management and excellent equipment, with the continuous innovation of products and improve the quality to meet the needs of more customers. We look forward to the new and old customers sincere

Cooperation, create a better tomorrow! Companies always adhere to the "quality first, customer first" for the purpose of the enterprise, uphold the "quality and reliability, honesty, innovation" Business philosophy, "sincere, perfect, fast" marketing service system, dedicated to meet the needs of customers and make unremitting efforts.

ELECTROMAGNETIC INDUCTION THERMAL EXPANSION INSTRUMENT

OUTPUT POWER SUPPLY: SINGLE-PHASE 220V 50/60HZ 25AMP 【16AMP (ST-500/450)】
OUTPUT POWER: 4000W/2500W/1000W (ADJUSTABLE)
【3000W/2000W/1000W (ADJUSTABLE)ST-500/450】
PRODUCT SIZE: 550mm(W),500mm(D),850mm(H)
HEATING RANGE: ST-550 Φ 3- Φ 32mm/ST-450 Φ 3- Φ 20mm
HEAT THESHANK MATERIAL:ALLOY STEEL AND STAINLESS STEEL MATERIALS



ST-550/500/450 ELECTROMAGNETIC INDUCTION THERMAL EXPANSION INSTRUMENT

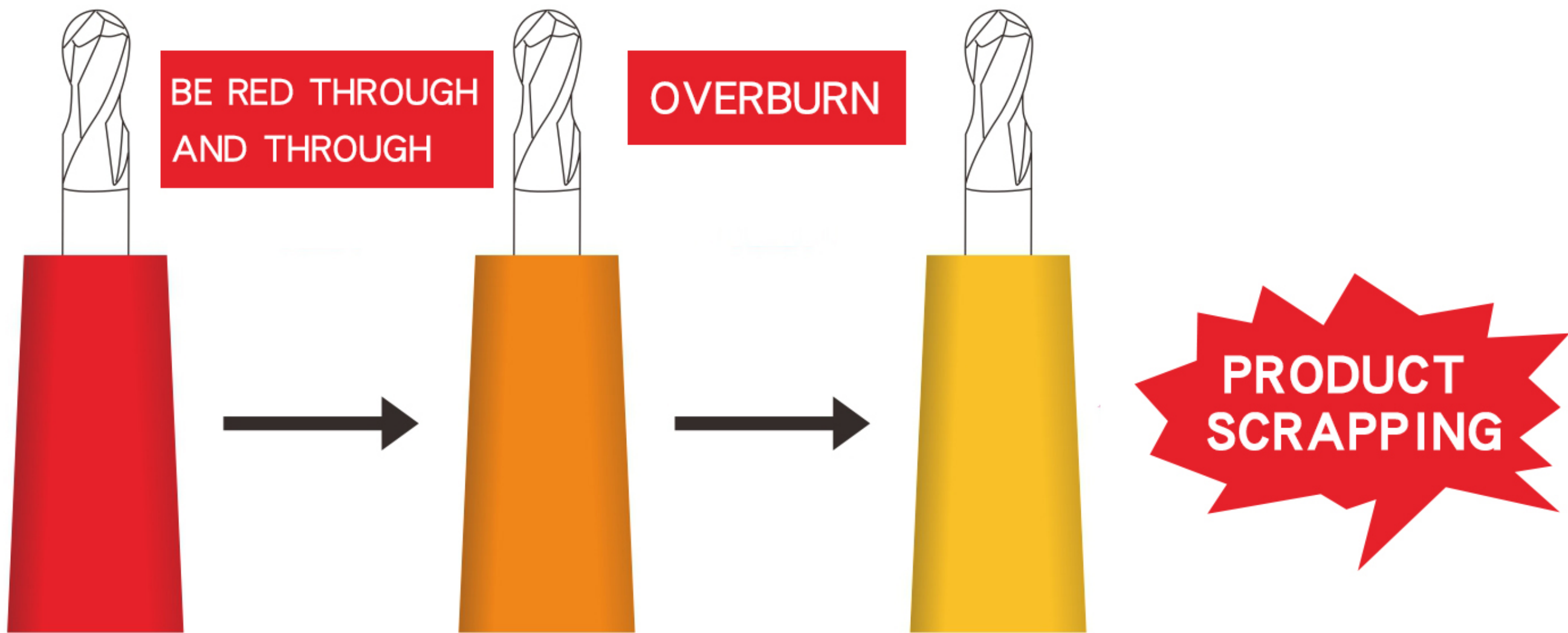
- ALLOY STEEL AND STAINLESS STEEL MATERIALS ARE UNIVERSAL
- THE MAXIMUM HEATINGSPEED IS 5 SECONDS(ST-500 6 SECONDS)
- THE THERMAL EXPANSION INSTRUMENT HAS GOOD STABILITY
- NO NEED TO REPLACE THE HEATING GUIDE RING
- CAN BE DIRECTLY HEATED Φ 3-32MM INNER DIAMETER

SAFETY PRECAUTIONS FOR USE DURING HOT UNLOADING



PROHIBIT REPEATED
HEATING

IF THE TOOL IS NOT SUCCESSFULLY
REMOVED AFTER A SINGLE HEATING,
PLEASE COMPLETELY COOL THE TOOL
HANDLE BEFORE REHEATING.



ELECTROMAGNETIC INDUCTION THERMAL EXPANSION INSTRUMENT

ST-550/500/450

ELECTROMAGNETIC INDUCTION THERMAL EXPANSION INSTRUMENT

PRODUCT FEATURES

- THE MAXIMUM HEATINGSPEED IS 5 SECONDS
- ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION(ENERGY SAVING)
- SAVE LABOR COSTS
- ONE THERMAL EXPANSION METER CAN SUPPLY 5-10 MACHINING CENTERS



ST-450



ST-500



ST-550

● Basic Parameters

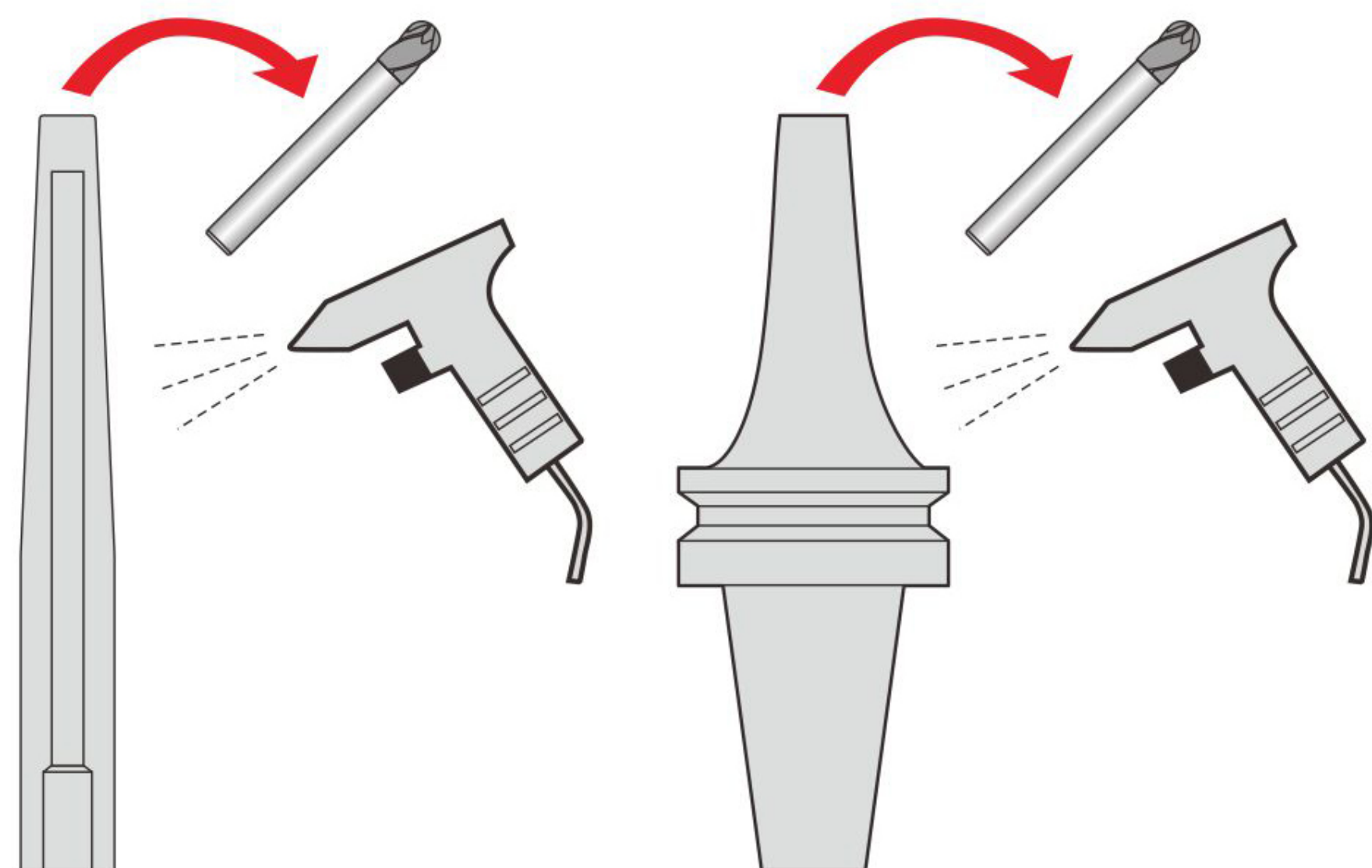
MODEL NUMBER	ST-450	ST-500	ST-550
POWER SUPPLY	220V/50Hz (16A) 2.5 SQUARE THREE CORE CABLE	220V/50Hz (16A) 2.5 SQUARE THREE CORE CABLE	220V/50Hz (25A) 4 SQUARE THREE CORE CABLE
POWER REGULATION	3000W/2000W/1000W (ADJUSTABLE)	3000W/2000W/1000W (ADJUSTABLE)	4000W/2500W/1000W (ADJUSTABLE)
GAS PRESSURE RANGE	0~0.7Mpa (0~7.0Bar)	0~0.7Mpa (0~7.0Bar)	0~0.7Mpa (0~7.0Bar)
TRACHEA DIAMETER	8mm	8mm	8mm
HEATING KNIFE HANDLE MATERIAL	ALLOY STEEL AND STAINLESS STEEL MATERIAL	ALLOY STEEL AND STAINLESS STEEL MATERIAL	ALLOY STEEL AND STAINLESS STEEL MATERIAL
HEATING RANGE	3~20mm	3~32mm	3~32mm
OPERATING AMBIENT TEMPERATURE	-10°~50°	-10°~50°	-10°~50°
PRODUCT SIZE	550×500×850mm	550×500×850mm	550×500×850mm
PRODUCT WEIGHT	40±1Kg	40±1Kg	40±1Kg
WARRANTY PERIOD	12MONTHS	12MONTHS	18MONTHS
SELECTIVE COLOR	BLACK	BLACK	BLACK/WHITE (CHOICE)

ACCESSORY PRODUCTS

ANTI DETACHMENT PLIERS	ANTI DETACHMENT ACCESSORIES	HEIGHTENING ACCESSORES	PLACING KNIFE HANDLE ACCESSORIES	PLACING KNIFE HANDLE ACCESSORIES	SPANNER
MODEL : RSO-125	MODEL : KHS-D	MODEL : ZGDZ-1	MODEL : A63-BT40	MODEL : DZ-M10	
					

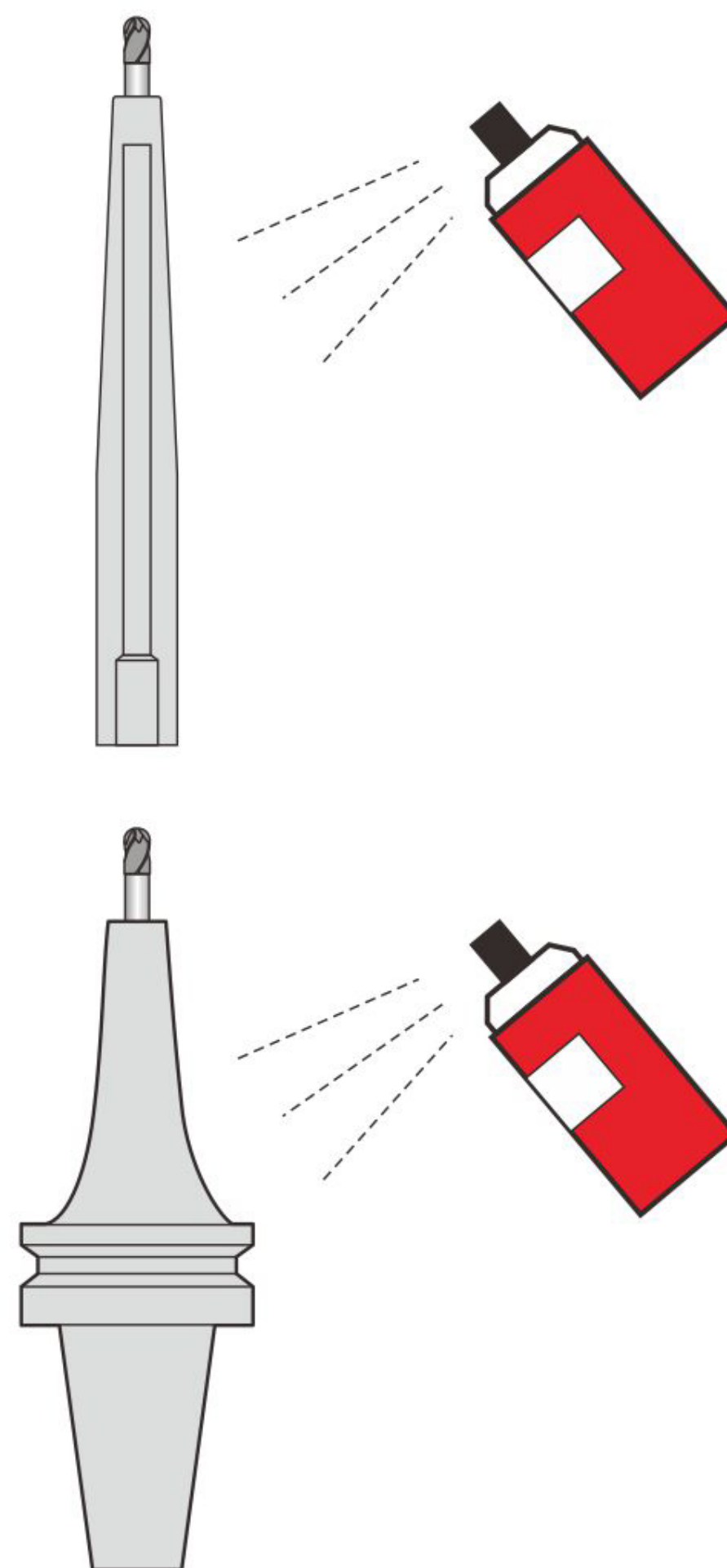
ENSURE TOOL CLEANLINESS AND DRYNESS

- Before using the new knife handle, clean the surface of the knife handle with a dust-free cloth, especially the inner hole of the knife handle to ensure cleanliness and dryness. After using the tool knife handle on the machine tool, if there is oil or coolant on the surface, use air to blow dry the oil and water, and clean the surface and inner holes with a dust-free cloth to ensure that the tool knife handle is clean and dry.
- Please use an electromagnetic induction thermal expansion instrument to heat the required thermal expansion tool handle and install the tool.
- If the assembly is a pull pin without internal cooling holes, please follow the following steps when hot disassembling the tool.
- After the hot disassembly tool is water-cooled, please first pour out the residual water inside the handle, and then use gas to blow dry the water.



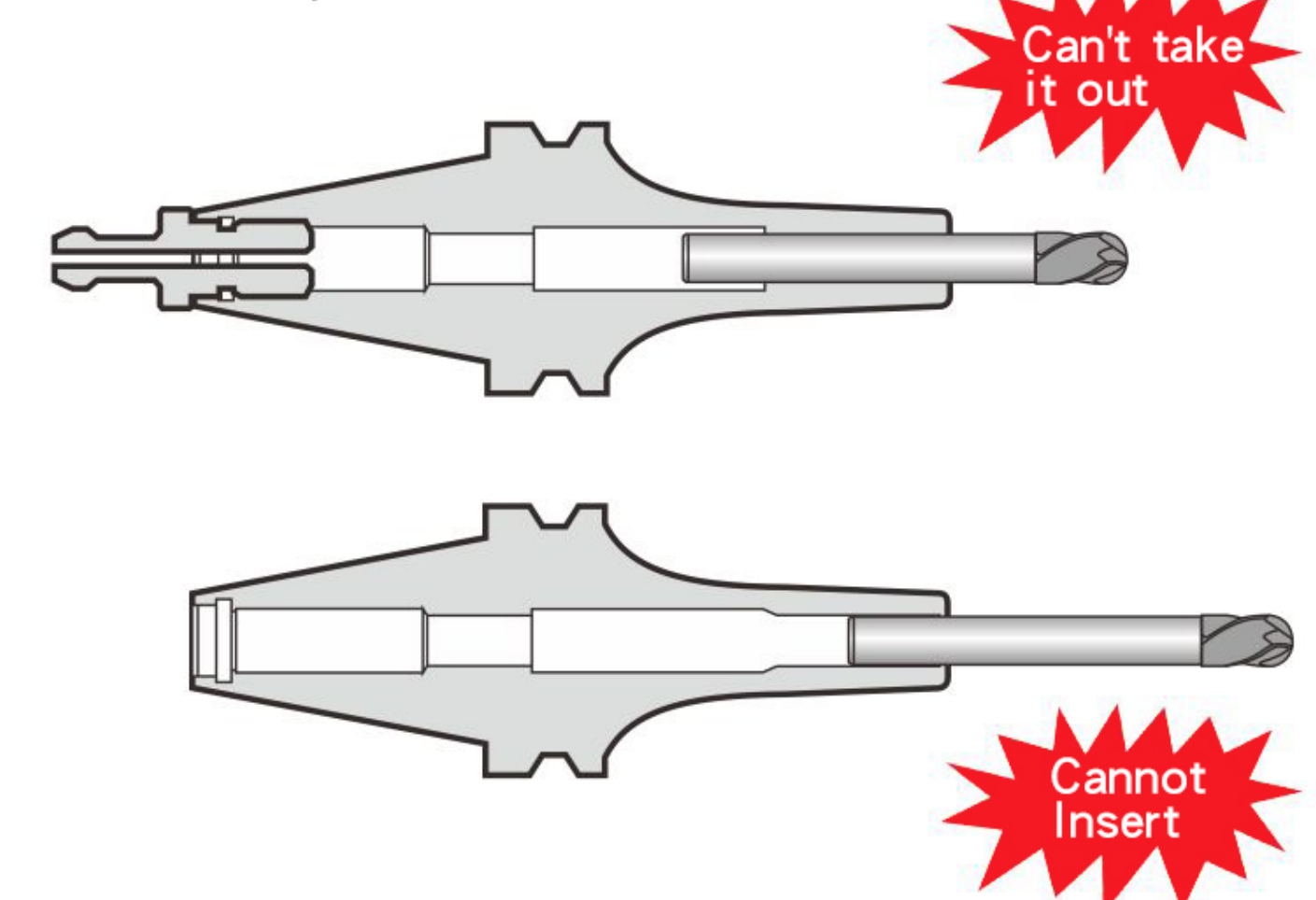
RUST PREVENTION MEASURES

- During the period when the thermal expansion tool handle is not in use, try not to remove the milling cutter as much as possible to ensure that the inner hole of the tool handle is not oxidized. Please use anti rust oil to spray the surface of the tool handle to ensure that it does not rust. Before using hot charging, please use a dust-free cloth to wipe the surface of the tool handle clean and dry.

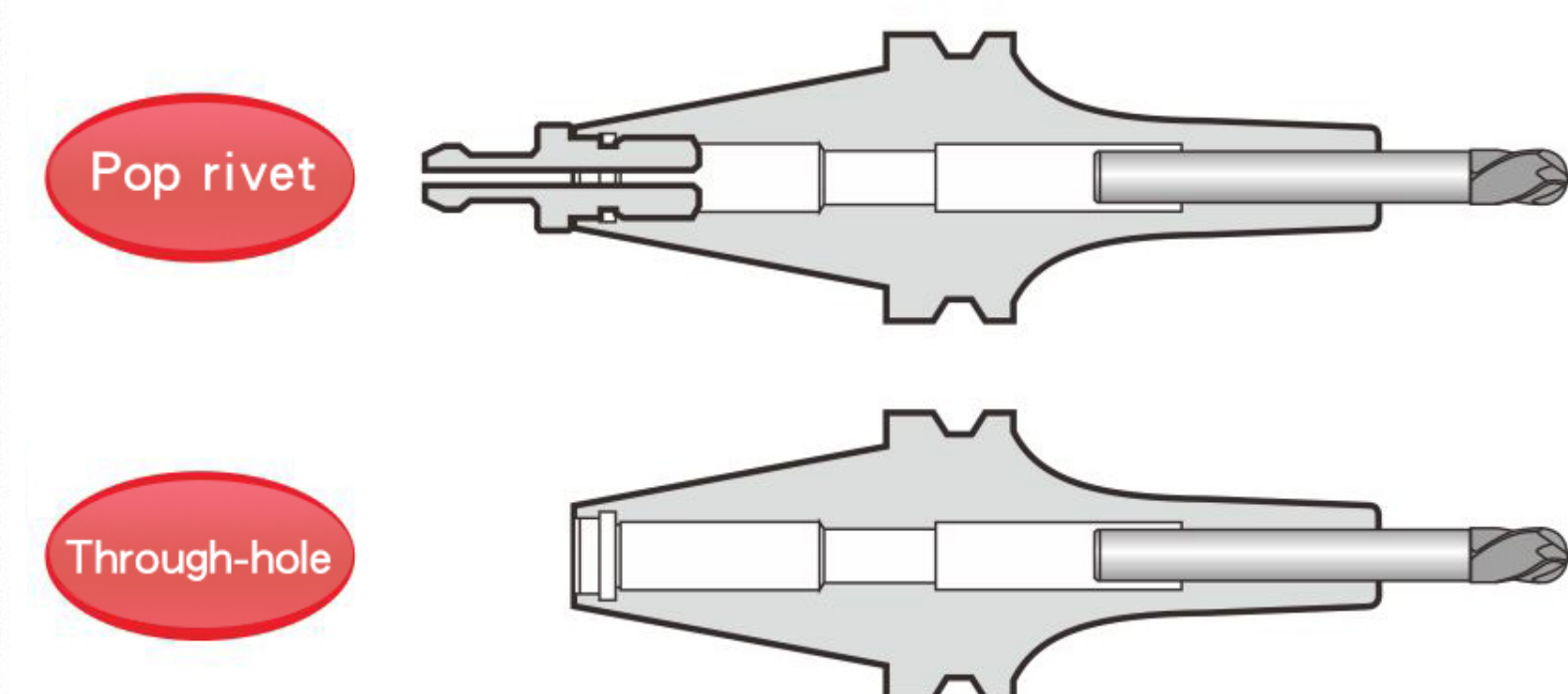


MATTERS NEEDING ATTENTION

- After using the thermal expansion handle for a period of time, if it is difficult to install and remove, maintenance of the handle is necessary to remove the carbon deposits left by the high temperature inside the hole of the thermal expansion handle.



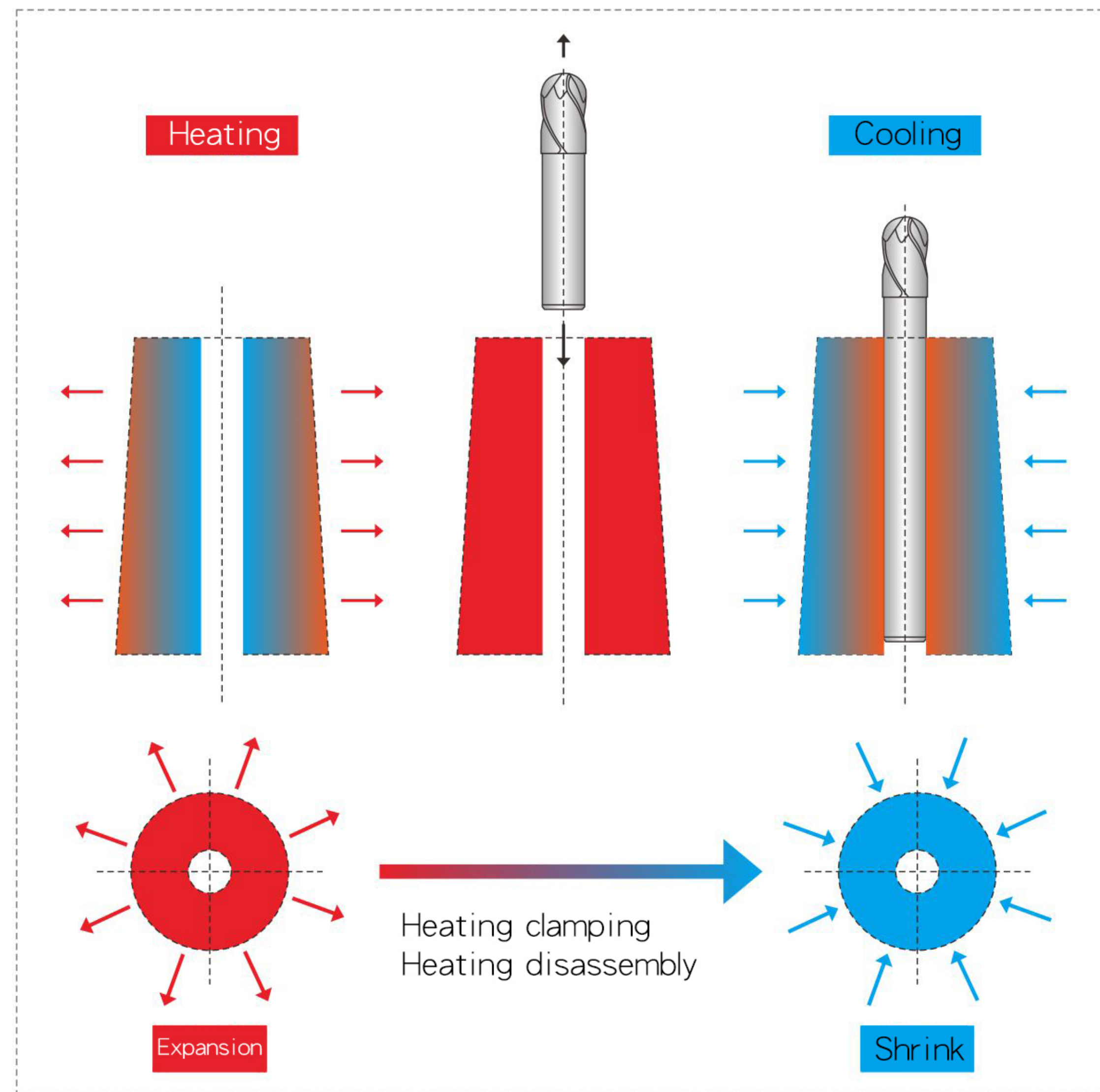
- Please use internal pop rivet, otherwise please remove the pop rivet and heat them again. Usually, the nail cannot be inserted into the tool without releasing air.



TOOL SYSTEM

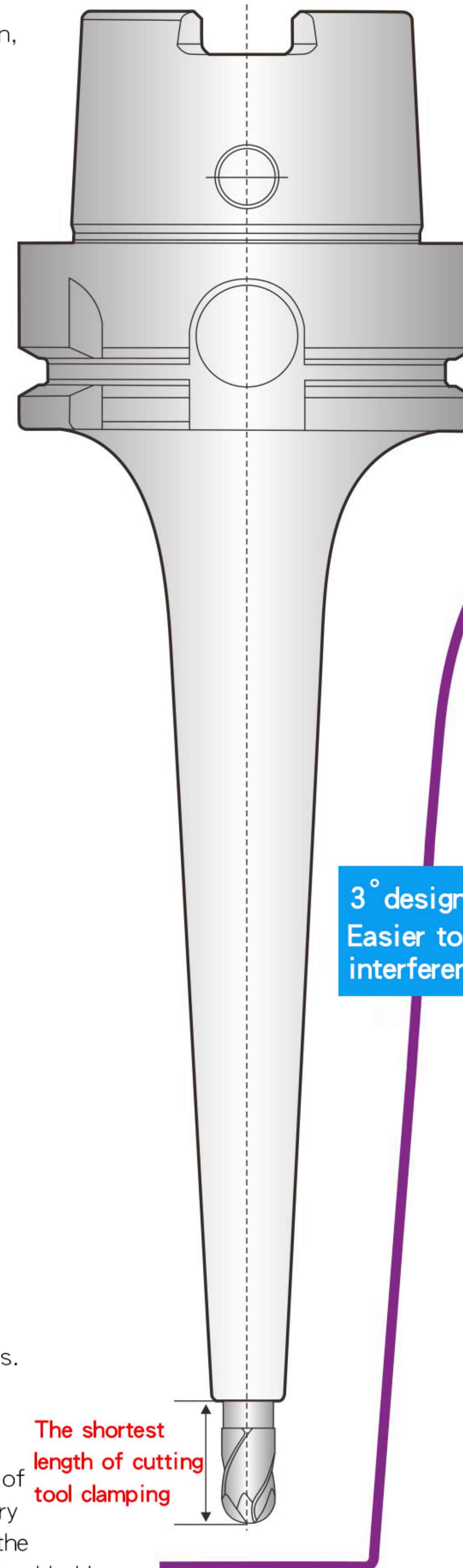
WORKING PRINCIPLE OF THERMAL EXPANSION

- The thermal expansion tool handle adopts the principle of thermal expansion and contraction, and uses a thermal induction device to heat the clamping part of the tool in a short period of time. The tool handle expands the inner diameter and immediately inserts the tool into the tool holder. The cooling and contraction of the handle can provide uniform clamping force to the knife handle.
- There is no mechanical clamping component between the tool and the knife handle, which can solve the extremely important problems of balance, jumping accuracy, and clamping strength in high-speed machining.

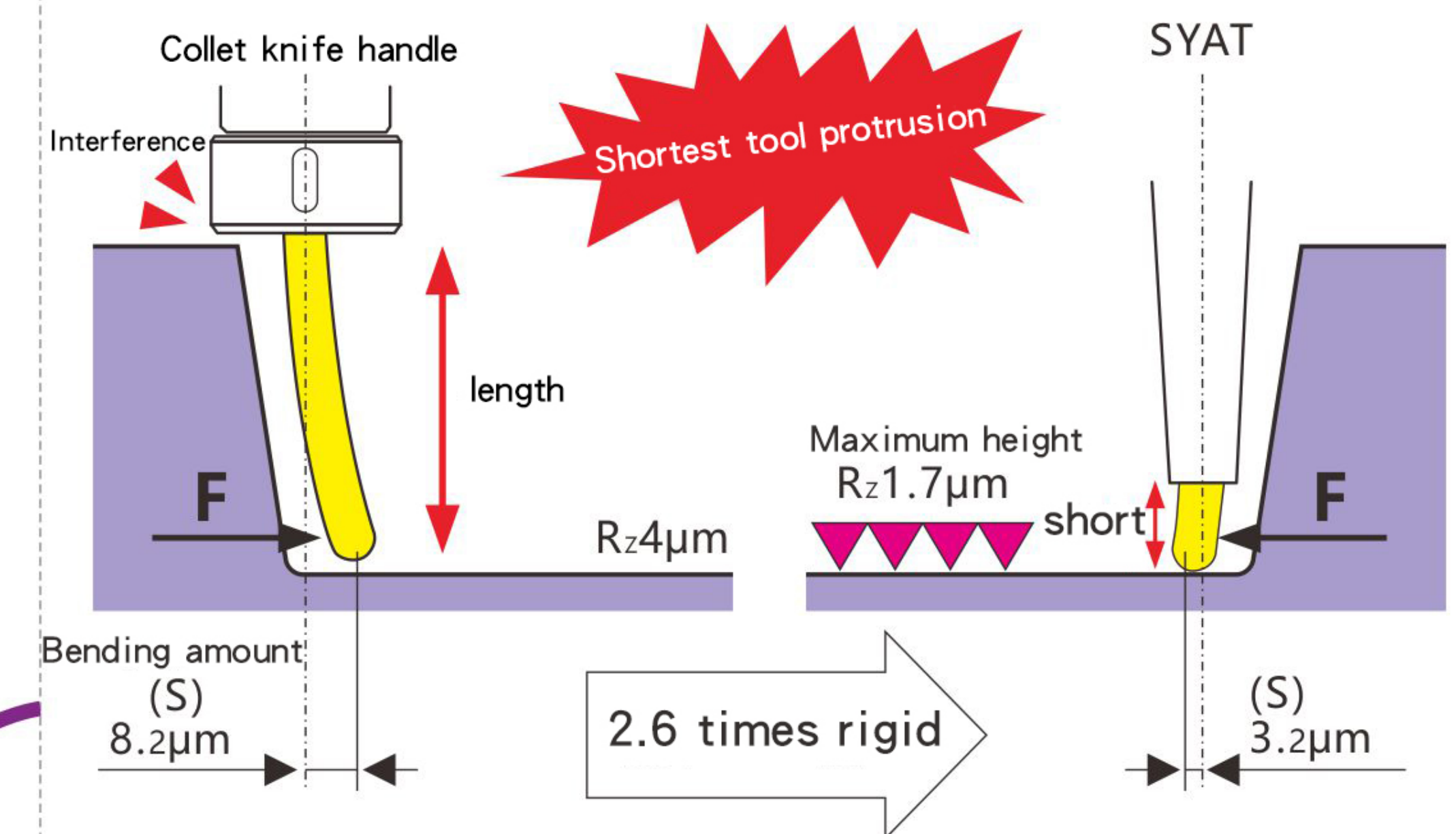


CLAMPING RANGE TOLERANCE

- Recommended tools for clamping cylindrical knife handles with thermal expansion tool holders. The tolerance for the handle with a diameter of $\leq 6\text{mm}$ is h5. The tolerance for the handle with a diameter greater than 6mm is h6.
- Hard alloy cutting tools must be used as the cutting tool material, because the red hardness of other cutting tool materials is poor, and the expansion coefficient of the cutting tool is very close to that of the thermal expansion tool holder, which can cause the cutting tool inside the thermal expansion tool holder to not be taken out normally and affect the normal use of the tool holder.

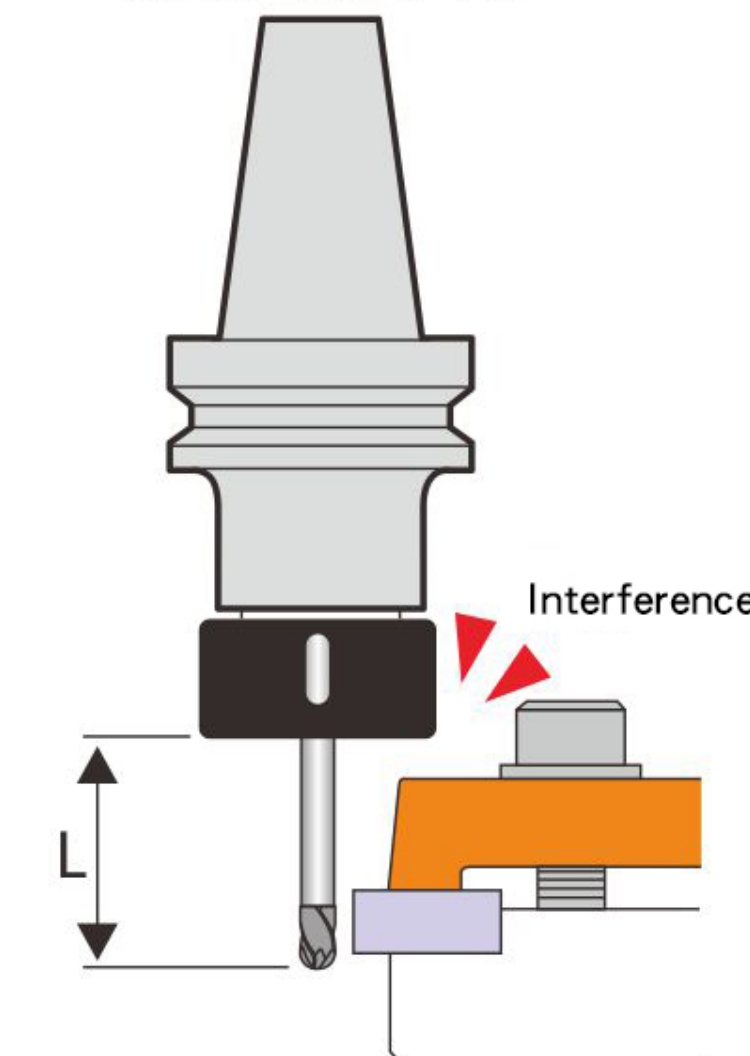


HIGH RIGIDITY

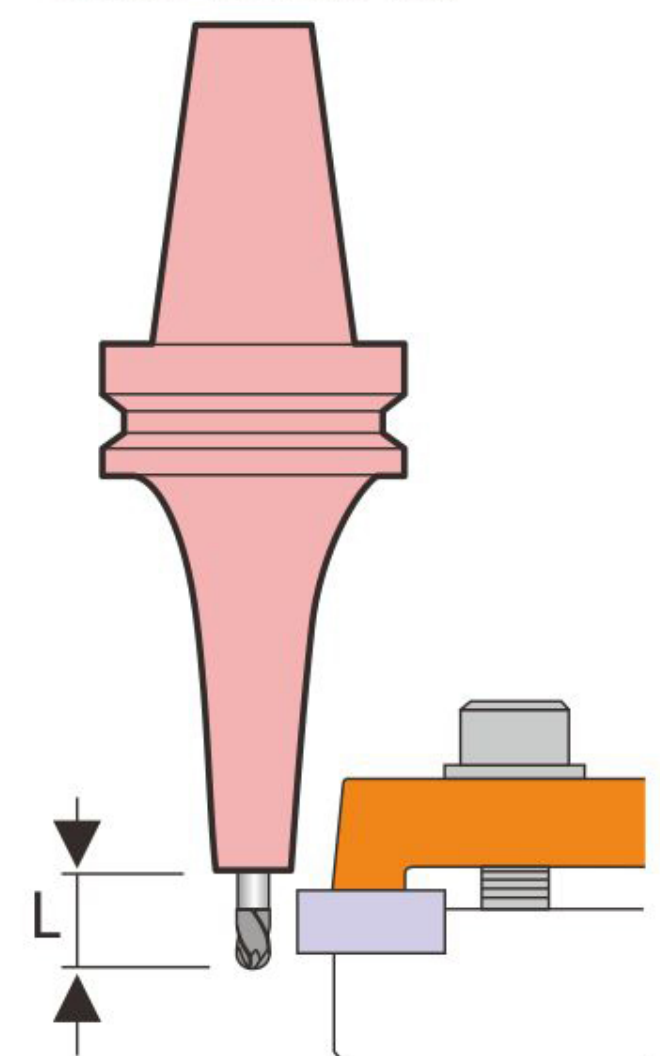


PROCESSING COMPARISON TEST

SPRING COLLET SHANK
BT40-ER16-70



SYAT
BT30-SHB6-80

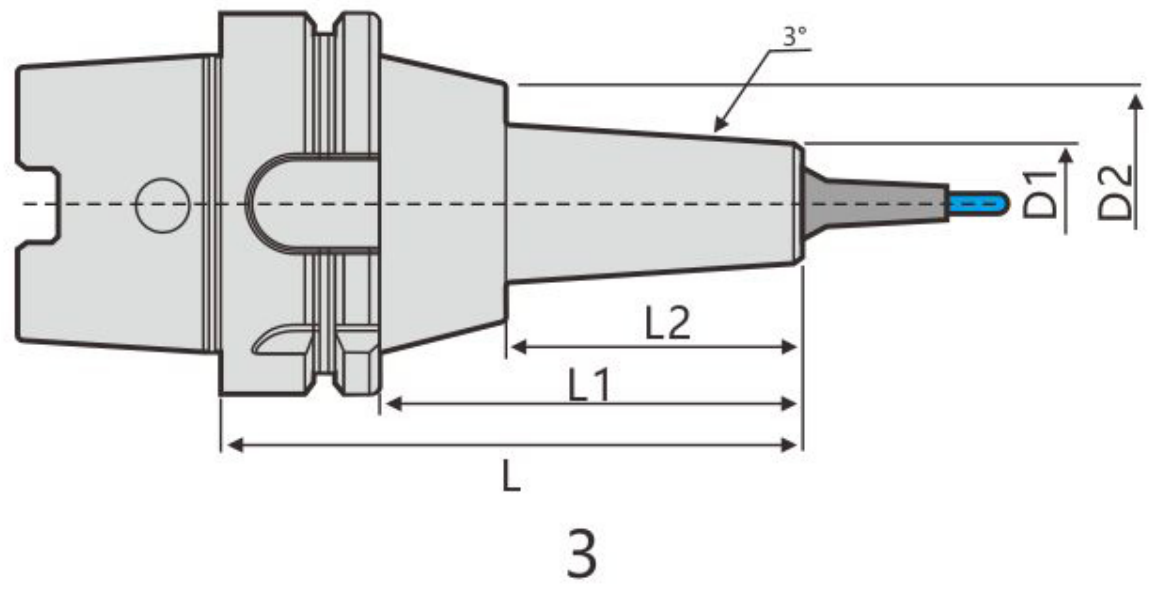
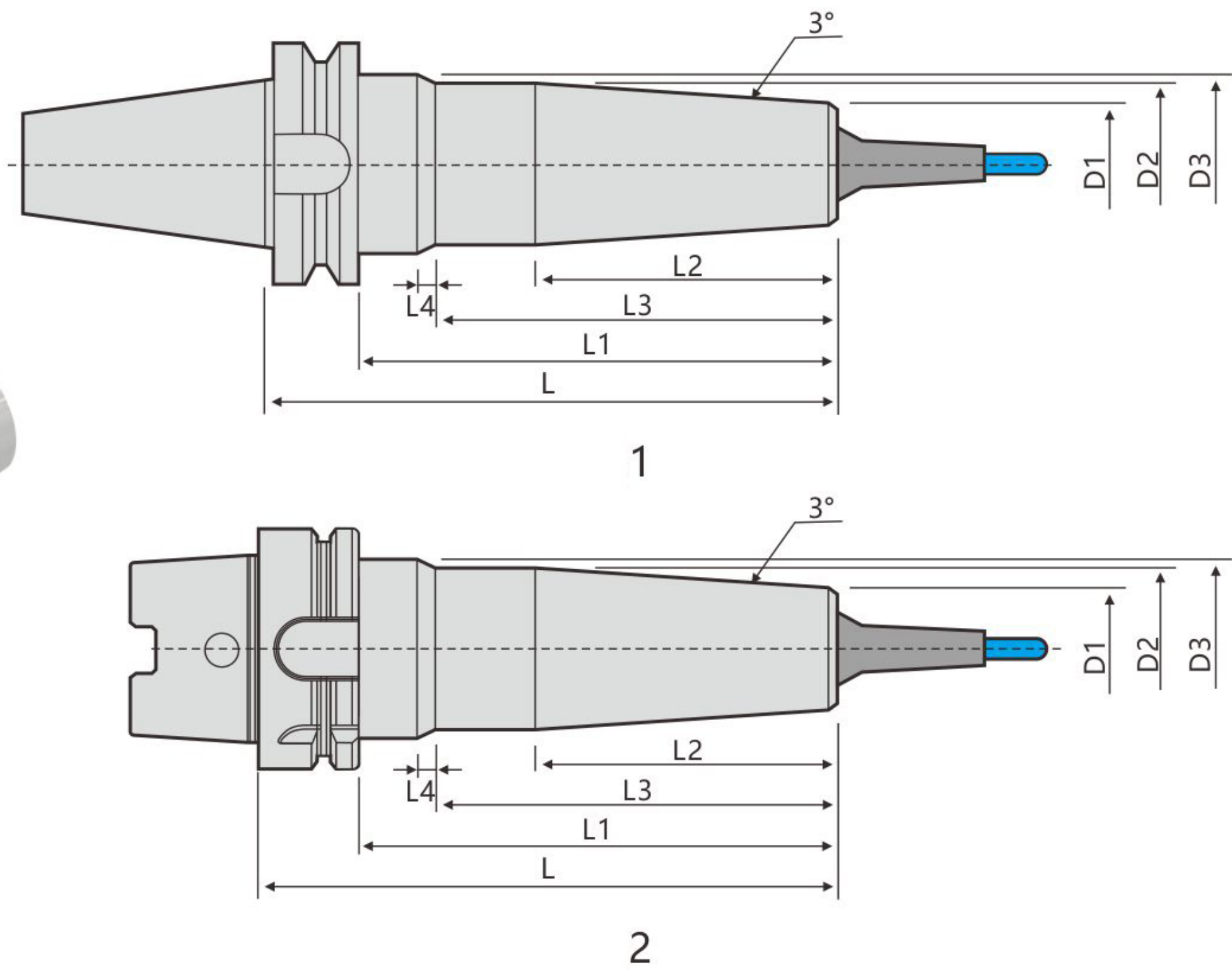


HIGH CLAMPING FORCE

	COLLET KNIFE HANDLE	SYAT
(Clamping principle)	Elastic deformation is generated through the cutting groove of the barrel clamp to clamp the tool	Utilizing the difference in thermal expansion coefficients between hard alloy cutting tools and tool holders
Clamping force	21N·m (2.1kgf·m) Elastic deformation	62N·m (6.2kgf·m) Thermal expansion → Contractile force Strong clamping force and stable performance 3X

SPLIT TYPE THERMAL EXPANSION KNIFE HANDLE

MAS 403	Taper Accuracy	G Value	RPM	Coolant System
-BT/HSK	AT3	2.5	25000	

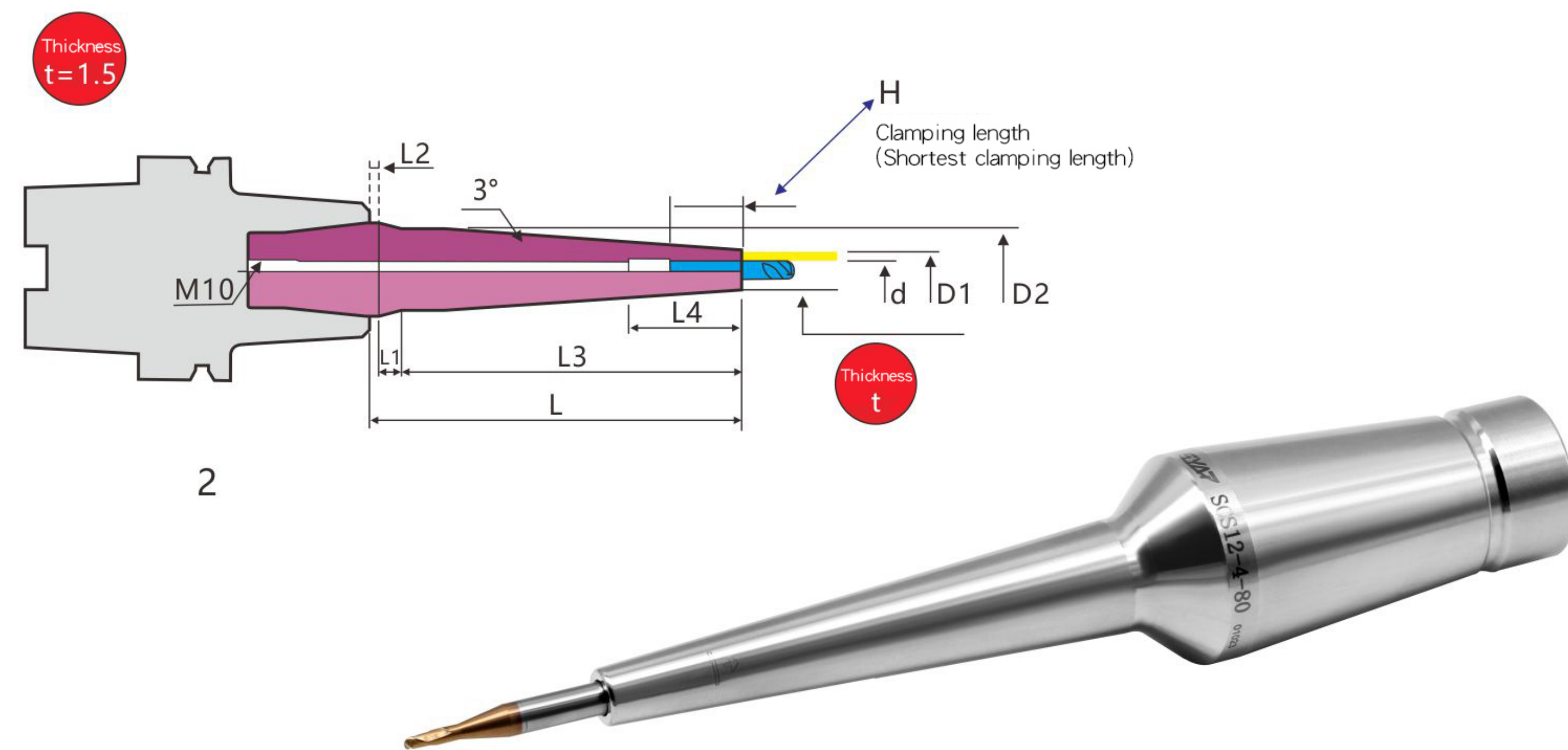
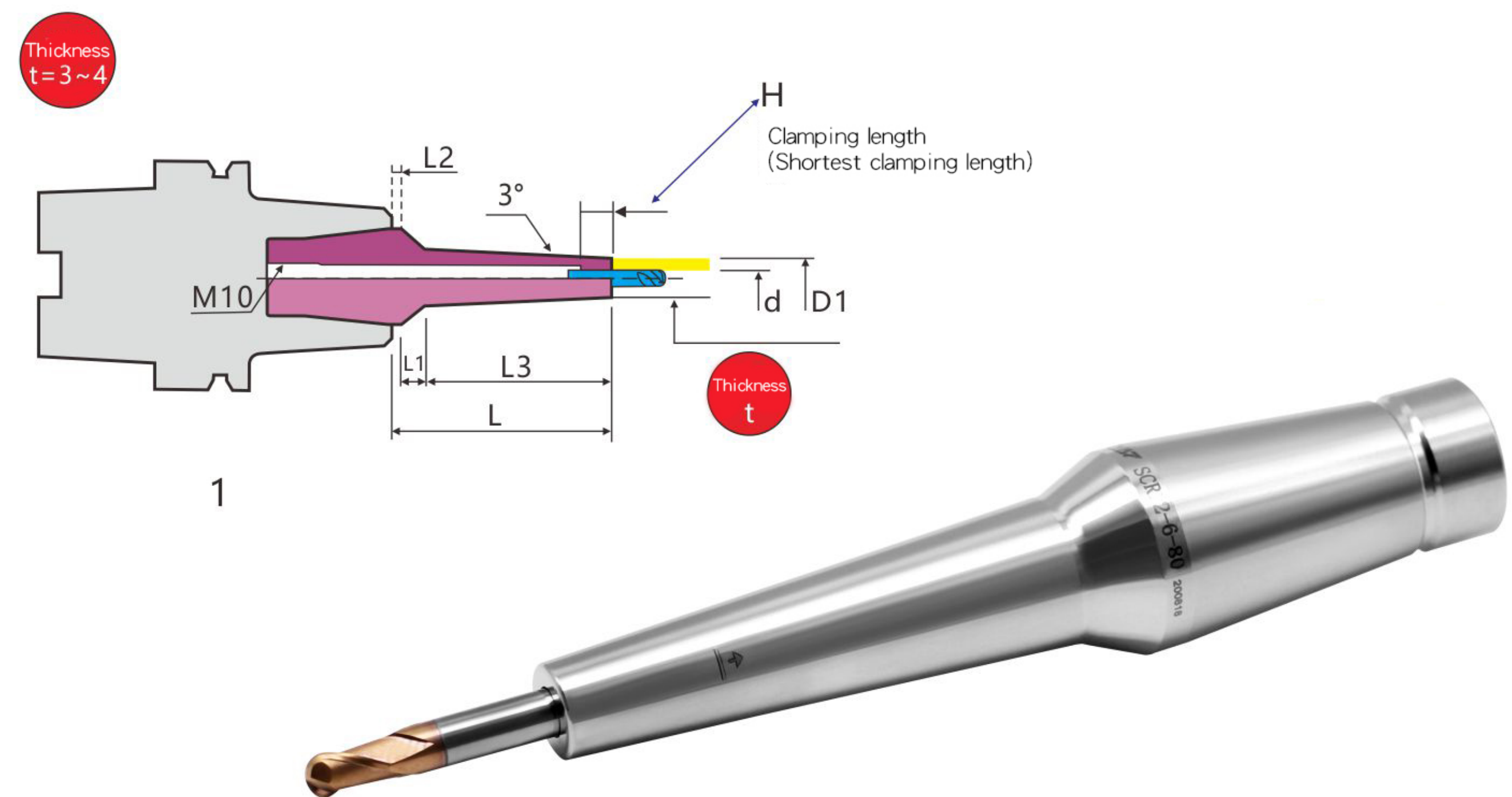


●Stock

Unit: mm

Specifications	Diagram	D1	D2	D3	L	L1	L2	L3	L4	L5	Stock
BT30-SLK12-45	1	38			45	23					●
BT40-SLK12-45		38			45	18					○
BT40-SLK12-75		38			75	48					●
BT40-SLK12-135		38	47		135	108	86				●
BT40-SLK12-225		38	47	52	225	198	86	140	5		○
BT50-SLK12-75	1	38	65		75	37	25			12	●
BT50-SLK12-105		38	65		105	67	55			12	●
BT50-SLK12-135		38	65		135	97	85			12	●
BT50-SLK12-225		38	65		225	187	150			37	○
HSK A63-SLK12-75	2	38			75	49					●
HSK A63-SLK12-135		38	47		135	109	86				●
HSK A63-SLK12-165		38	47		165	139	86				●
HSK A63-SLK12-200		38	47	52	200	174	86	140	5		●
HSK A63-SLK12-225		38	47	52	225	199	86	140	5		●
HSK A100-SLK12-105	3	38	65		105	76	43			33	●
HSK A100-SLK12-135		38	65		135	106	73			33	●
HSK A100-SLK12-225		38	83		225	196	163			33	●
HSK E50-SLK12-75	2	38			75	49					●
HSK E50-SLK12-120		38			120	94					●

STAINLESS STEEL THERMAL EXPANSION TUBE CLAMP



● Stock

Unit: mm

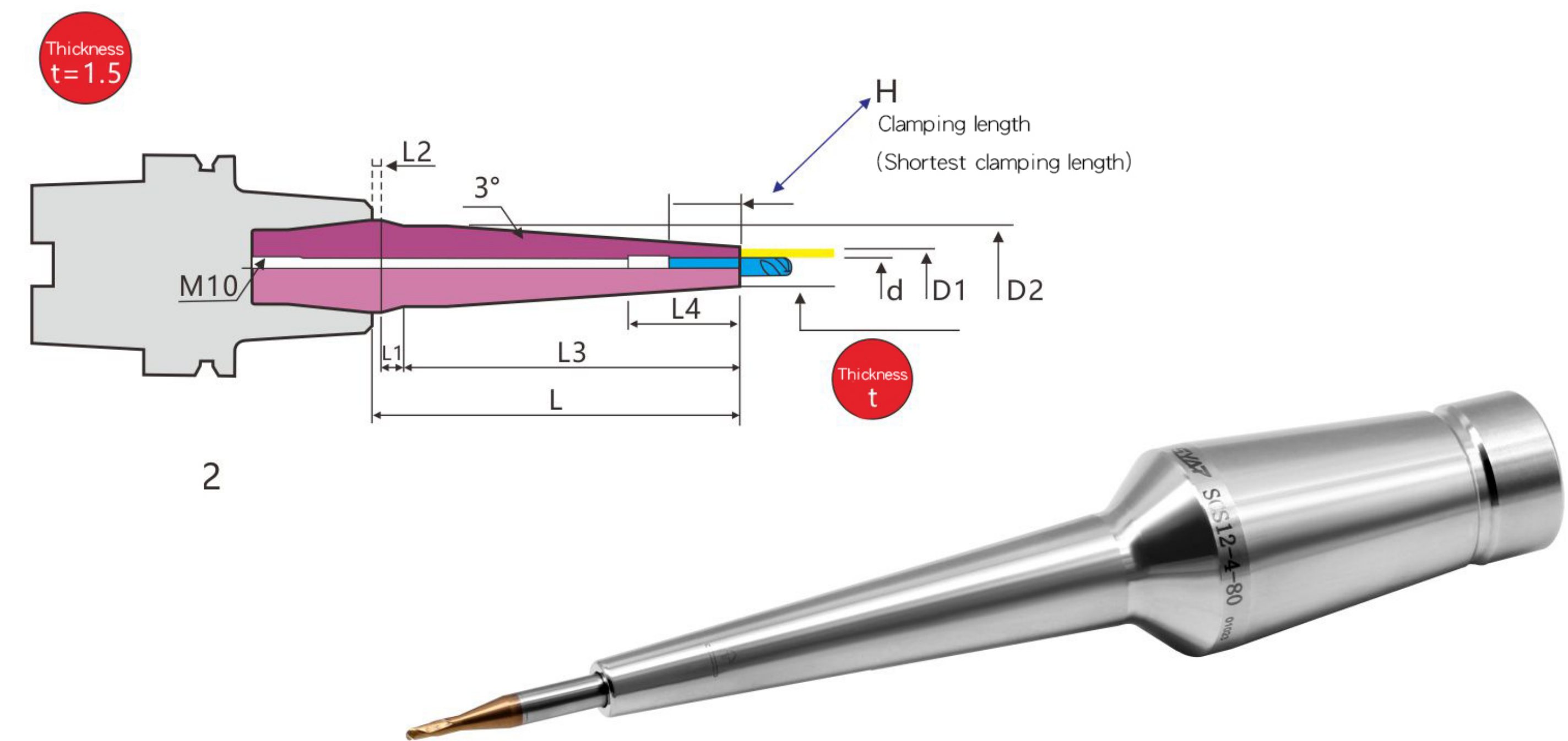
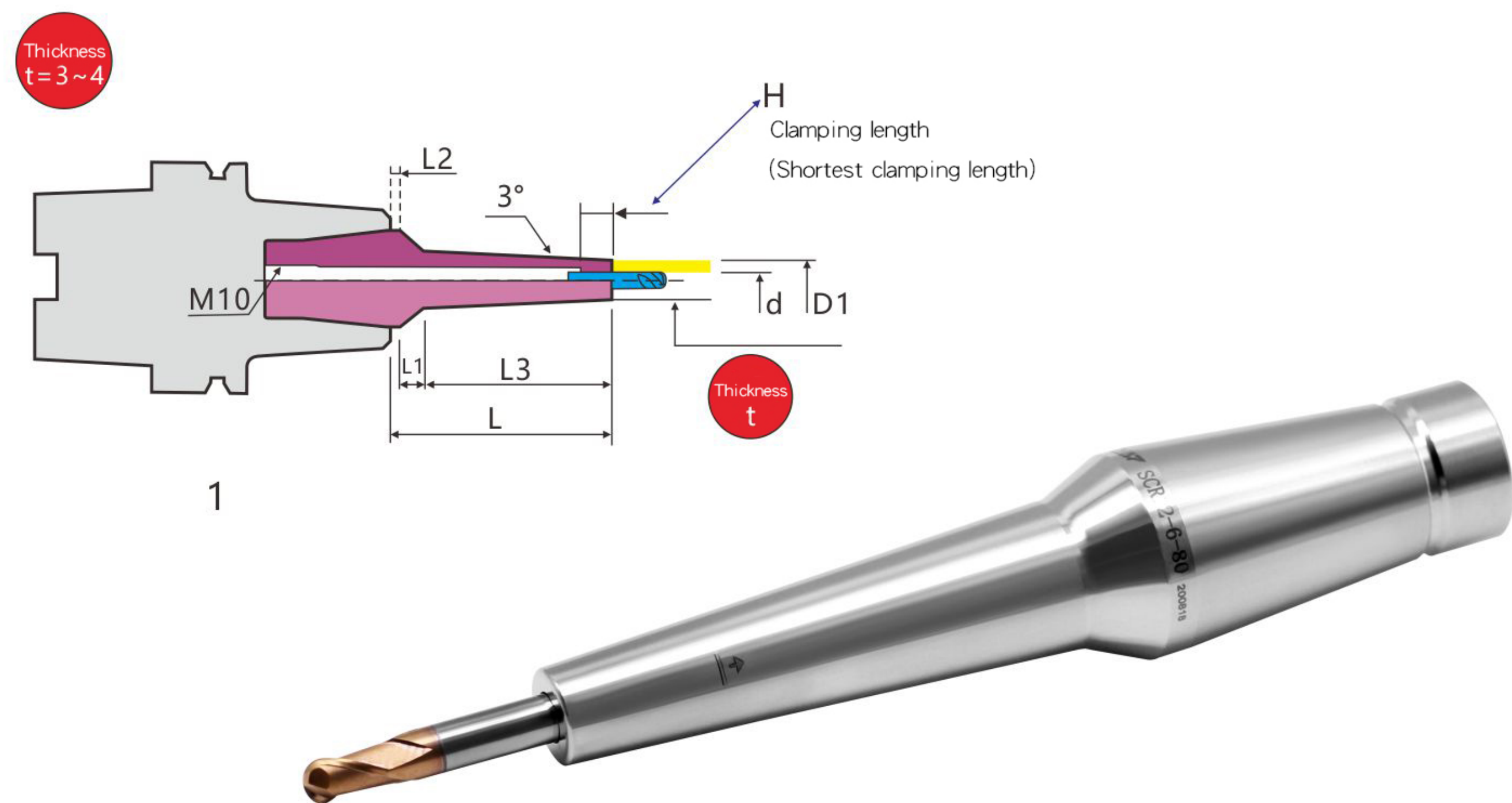
Specifications	Diagram	d	D1	D2	(t)	L	L1	L2	L3	L4	H	Stock
SCR12-3-35	1	3	7.5		2.25	35	9.5	3.5	22		10	●
SCR12-3-55		3	7.5		2.25	55	9.5	3.5	42		10	●
SCR12-3-80		3	7.5		2.25	80	9.5	3.5	67		10	●
SCR12-3-110		3	7.5		2.25	110	9.5	3.5	97		10	●
SCR12-4-35		4	10		3	35	9.5	3.5	22		13	●
SCR12-4-55		4	10		3	55	9.5	3.5	42		13	●
SCR12-4-80		4	10		3	80	9.5	3.5	67		13	●
SCR12-4-110		4	10		3	110	9.5	3.5	97		13	●
SCR12-6-35		6	12		3	35	9.5	3.5	22		20	●
SCR12-6-55		6	12		3	55	9.5	3.5	42		20	●
SCR12-6-80		6	12		3	80	9.5	3.5	67		20	●
SCR12-6-110		6	12		3	110	9.5	3.5	97		20	●
SCR12-8-35		8	14		3	35	9.5	3.5	22		25	●
SCR12-8-55		8	14		3	55	9.5	3.5	42		25	●
SCR12-8-80		8	14		3	80	9.5	3.5	67		25	●
SCR12-8-110		8	14		3	110	9.5	3.5	97		25	●
SCR12-10-35		10	16		3	35	9.5	3.5	22	55	30	●
SCR12-10-55		10	16		3	55	9.5	3.5	42	55	30	●
SCR12-10-80		10	16		3	80	9.5	3.5	67	55	30	●
SCR12-10-110	2	10	16	25	3	110	9.5	3.5	97	55	30	●
SCR12-12-35	1	12	20		4	35	9.5	3.5	22	55	30	●
SCR12-12-55		12	20		4	55	9.5	3.5	42	55	30	●
SCR12-12-80	2	12	20	25.5	4	80	—	3.5	—	55	30	●
SCR12-12-110		12	20	25.5	4	110	—	3.5	—	55	30	●

● Stock

Unit: mm

Specifications	Diagram	d	D1	D2	(t)	L	L1	L2	L3	L4	H	Stock
SCS12-3-35	1	3	6		1.5	35	9.5	3.5	22		10	●
SCS12-3-55		3	6		1.5	55	9.5	3.5	42		10	●
SCS12-3-80		3	6		1.5	80	9.5	3.5	67		10	●
SCS12-3-110		3	6		1.5	110	9.5	3.5	97		10	●
SCS12-4-35		4	7		1.5	35	9.5	3.5	22		13	●
SCS12-4-55		4	7		1.5	55	9.5	3.5	42		13	●
SCS12-4-80		4	7		1.5	80	9.5	3.5	67		13	●
SCS12-4-110		4	7		1.5	110	9.5	3.5	97		13	●
SCS12-6-35		6	9		1.5	35	9.5	3.5	22		20	●
SCS12-6-55		6	9		1.5	55	9.5	3.5	42		20	●
SCS12-6-80		6	9		1.5	80	9.5	3.5	67		20	●
SCS12-6-110		6	9		1.5	110	9.5	3.5	97		20	●
SCS12-8-35		8	11		1.5	35	9.5	3.5	22		25	●
SCS12-8-55		8	11		1.5	55	9.5	3.5	42		25	●
SCS12-8-80		8	11		1.5	80	9.5	3.5	67		25	●
SCS12-8-110		8	11		1.5	110	9.5	3.5	97		25	●
SCS12-10-35		10	13		1.5	35	9.5	3.5	22	55	30	●
SCS12-10-55		10	13		1.5	55	9.5	3.5	42	55	30	●
SCS12-10-80		10	13		1.5	80	9.5	3.5	67	55	30	●
SCS12-10-110		10	13		1.5	110	9.5	3.5	97	55	30	●
SCS12-12-35	2	12	15		1.5	35	9.5	3.5	42	55	30	●
SCS12-12-55		12	15		1.5	55	9.5	3.5	42	55	30	●
SCS12-12-80		12	15		1.5	80	9.5	3.5	67	55	30	●
SCS12-12-110	2	12	15	25	1.5	110	—	3.5	—	55	30	●

STAINLESS STEEL THERMAL EXPANSION TUBE CLAMP



● Stock

Unit: mm

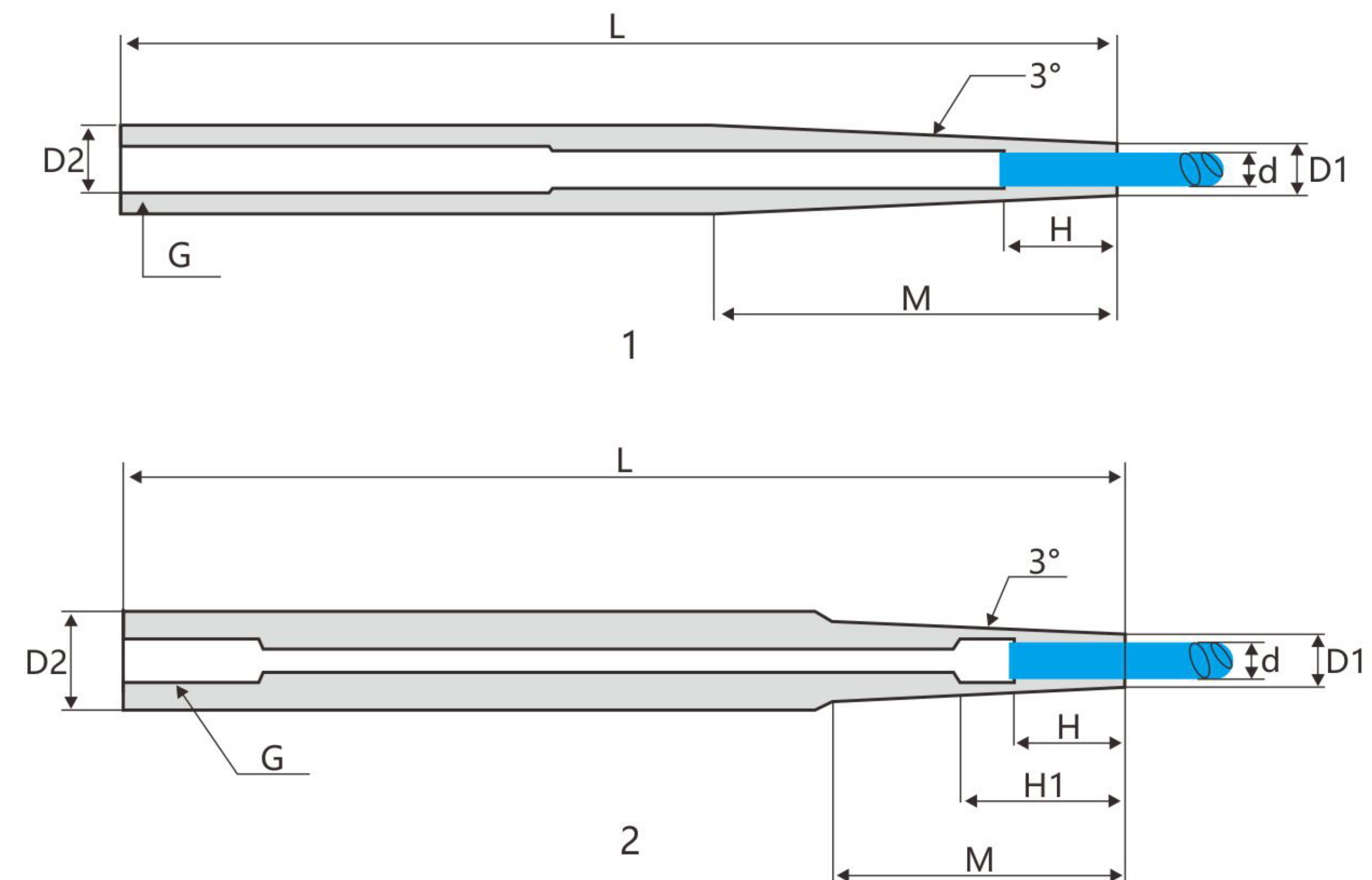
Specifications	Diagram	d	D1	D2	(t)	L	L1	L2	L3	L4	H	Stock
DCR12-3-35	1	3	7.5		2.25	35	9.5	3.5	22		10	●
DCR12-3-55		3	7.5		2.25	55	9.5	3.5	42		10	●
DCR12-3-80		3	7.5		2.25	80	9.5	3.5	67		10	●
DCR12-3-110		3	7.5		2.25	110	9.5	3.5	97		10	●
DCR12-4-35		4	10		3	35	9.5	3.5	22		13	●
DCR12-4-55		4	10		3	55	9.5	3.5	42		13	●
DCR12-4-80		4	10		3	80	9.5	3.5	67		13	●
DCR12-4-110		4	10		3	110	9.5	3.5	97		13	●
DCR12-6-35		6	12		3	35	9.5	3.5	22		20	●
DCR12-6-55		6	12		3	55	9.5	3.5	42		20	●
DCR12-6-80		6	12		3	80	9.5	3.5	67		20	●
DCR12-6-110		6	12		3	110	9.5	3.5	97		20	●
DCR12-8-35		8	14		3	35	9.5	3.5	22		25	●
DCR12-8-55		8	14		3	55	9.5	3.5	42		25	●
DCR12-8-80		8	14		3	80	9.5	3.5	67		25	●
DCR12-8-110		8	14		3	110	9.5	3.5	97		25	●
DCR12-10-35		10	16		3	35	9.5	3.5	22	55	30	●
DCR12-10-55		10	16		3	55	9.5	3.5	42	55	30	●
DCR12-10-80		10	16		3	80	9.5	3.5	67	55	30	●
DCR12-10-110	2	10	16	25	3	110	9.5	3.5	97	55	30	●
DCR12-12-35	1	12	20		4	35	9.5	3.5	22	55	30	●
DCR12-12-55		12	20		4	55	9.5	3.5	42	55	30	●
DCR12-12-80	2	12	20	25.5	4	80	—	3.5	—	55	30	●
DCR12-12-110		12	20	25.5	4	110	—	3.5	—	55	30	●

● Stock

Unit: mm

Specifications	Diagram	d	D1	D2	(t)	L	L1	L2	L3	L4	H	Stock
DCS12-3-35	1	3	6		1.5	35	9.5	3.5	22		10	●
DCS12-3-55		3	6		1.5	55	9.5	3.5	42		10	●
DCS12-3-80		3	6		1.5	80	9.5	3.5	67		10	●
DCS12-3-110		3	6		1.5	110	9.5	3.5	97		10	●
DCS12-4-35		4	7		1.5	35	9.5	3.5	22		13	●
DCS12-4-55		4	7		1.5	55	9.5	3.5	42		13	●
DCS12-4-80		4	7		1.5	80	9.5	3.5	67		13	●
DCS12-4-110		4	7		1.5	110	9.5	3.5	97		13	●
DCS12-6-35		6	9		1.5	35	9.5	3.5	22		20	●
DCS12-6-55		6	9		1.5	55	9.5	3.5	42		20	●
DCS12-6-80		6	9		1.5	80	9.5	3.5	67		20	●
DCS12-6-110		6	9		1.5	110	9.5	3.5	97		20	●
DCS12-8-35		8	11		1.5	35	9.5	3.5	22		25	●
DCS12-8-55		8	11		1.5	55	9.5	3.5	42		25	●
DCS12-8-80		8	11		1.5	80	9.5	3.5	67		25	●
DCS12-8-110		8	11		1.5	110	9.5	3.5	97		25	●
DCS12-10-35		10	13		1.5	35	9.5	3.5	22	55	30	●
DCS12-10-55		10	13		1.5	55	9.5	3.5	42	55	30	●
DCS12-10-80		10	13		1.5	80	9.5	3.5	67	55	30	●
DCS12-10-110	2	10	13		1.5	110	9.5	3.5	97	55	30	●
DCS12-12-35		12	15		1.5	35	9.5	3.5	42	55	30	●
DCS12-12-55		12	15		1.5	55	9.5	3.5	42	55	30	●
DCS12-12-80		12	15		1.5	80	9.5	3.5	67	55	30	●
DCS12-12-110	2	12	15	25	1.5	110	—	3.5	—	55	30	●

THERMAL EXPANSION EXTENSION ROD (STAINLESS STEEL MATERIAL)



● Stock

Specifications	Diagram	d	D1	D2	(t)	L	G	H	H1	M	Stock
ST10-SHSB4-100-M19	1	4	8	10	2	100	—	13	—	19	●
ST12-SHSB3-115-M47	1	3	7	12	2	115	—	10	—	47	●
ST12-SHSA4-115-M47		4	7	12	1.5	115	—	13	—	47	●
ST12-SHSB4-115-M38		4	8	12	2	115	—	13	—	38	●
ST12-SHSB6-115-M19		6	10	12	2	115	—	13	—	19	●
ST16-SHSA4-115-M42	2	4	7	16	1.5	115	M10	13	—	42	●
ST16-SHRA4-115-M57	1	4	10	16	3	115	M10	13	—	57	●
ST16-SHSA4-150-M86		4	7	16	1.5	150	M10	13	—	86	●
ST16-SHRA4-150-M57		4	10	16	3	150	M10	13	—	57	●
ST16-SHSB6-115-M57		6	10	16	2	115	M10	19	—	57	●
ST16-SHRA6-115-M38		6	12	16	3	115	M10	19	—	38	●
ST16-SHSB6-150-M57		6	10	16	2	150	M10	19	—	57	●
ST16-SHRA6-150-M38		6	12	16	3	150	M10	19	—	38	●
ST16-SHSA8-150-M50		8	11	16	1.5	150	M10	25	—	50	●
ST16-SHSB8-150-M28		8	13	16	2.5	150	M10	25	—	28	●
											●

Unit: mm

Specifications	Diagram	d	D1	D2	(t)	L	G	H	H1	M	Stock
ST20-SHRA4-145-M80	1	4	10	20	3	145	M10	13	—	80	●
ST20-SHRA4-175-M95		4	10	20	3	175	M10	13	—	95	●
ST20-SHRB6-145-M80		6	10	20	3	145	M10	19	—	80	●
ST20-SHRA6-145-M76		6	12	20	3	145	M10	19	—	76	●
ST20-SHRA6-175-M76		6	12	20	3	175	M10	19	—	76	●
ST20-SHRA8-145-M57		8	14	20	3	145	M10	25	—	57	●
ST20-SHRA8-175-M57		8	14	20	3	175	M10	25	—	57	●
ST20-SHRA10-150-M50		10	16	20	3	150	M10	30	60	50	●
ST25-SHRA6-150-M67	2	6	12	25	3	150	M10	19	—	67	●
ST25-SHRA6-200-M97		6	12	25	3	200	M10	19	—	97	●
ST25-SHRA8-150-M67		8	14	25	3	150	M10	25	—	67	●
ST25-SHRA8-200-M105	1	8	14	25	3	200	M10	25	—	105	●
ST25-SHSB10-150-M67	2	10	16	25	3	150	M10	30	60	67	●
ST25-SHSB10-200-M105	1	10	16	25	3	200	M10	30	60	105	●
ST25-SHSB12-150-M80		12	19	25	3.5	150	M10	30	60	80	●
ST25-SHSB12-200-M80		12	19	25	3.5	200	M10	30	60	80	●

THERMAL EXPANSION EXTENSION ROD (ALLOY STEEL MATERIAL)

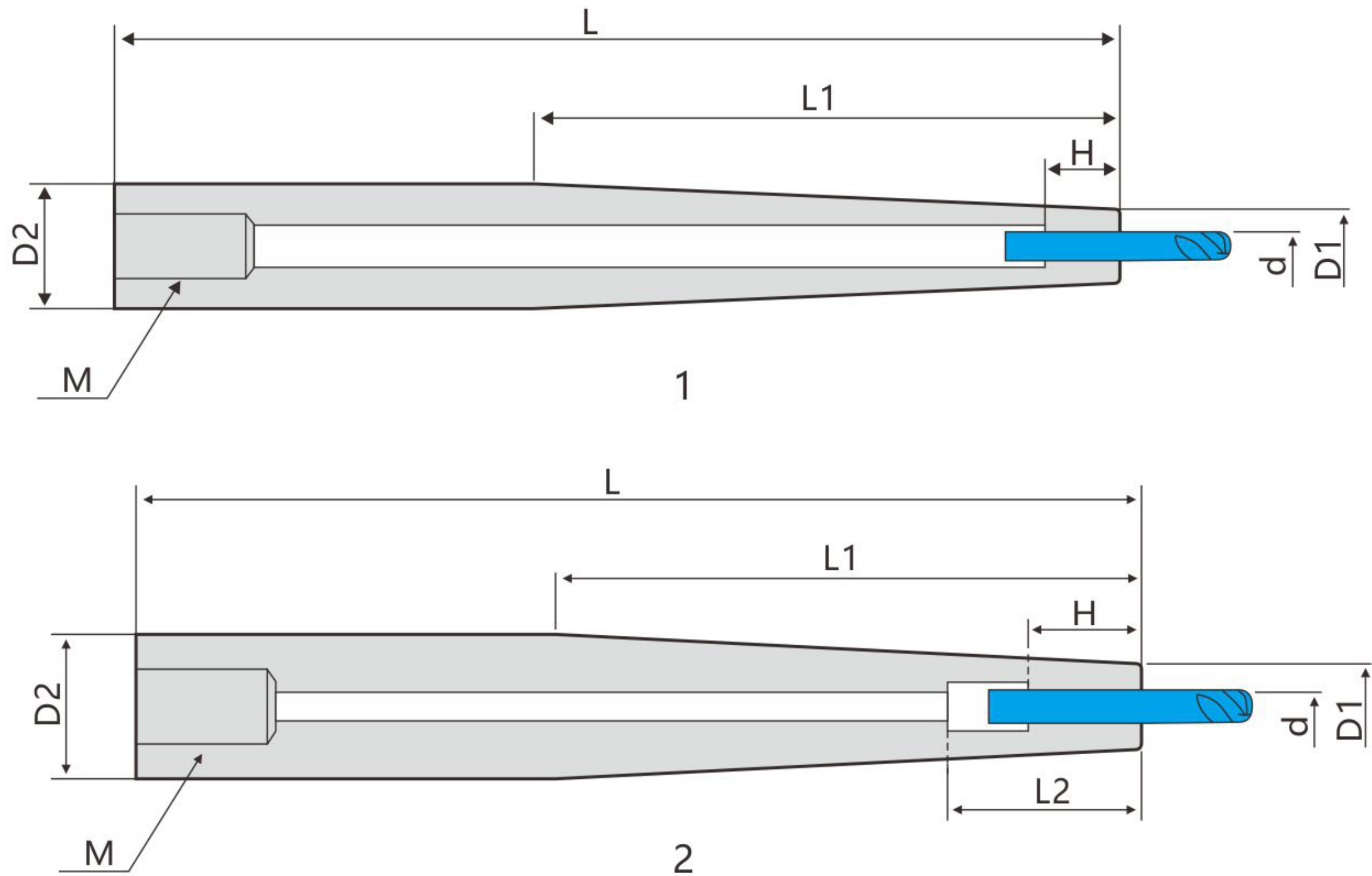
MAS 403

Taper Accuracy
AT3

G Value

RPM

Coolant System



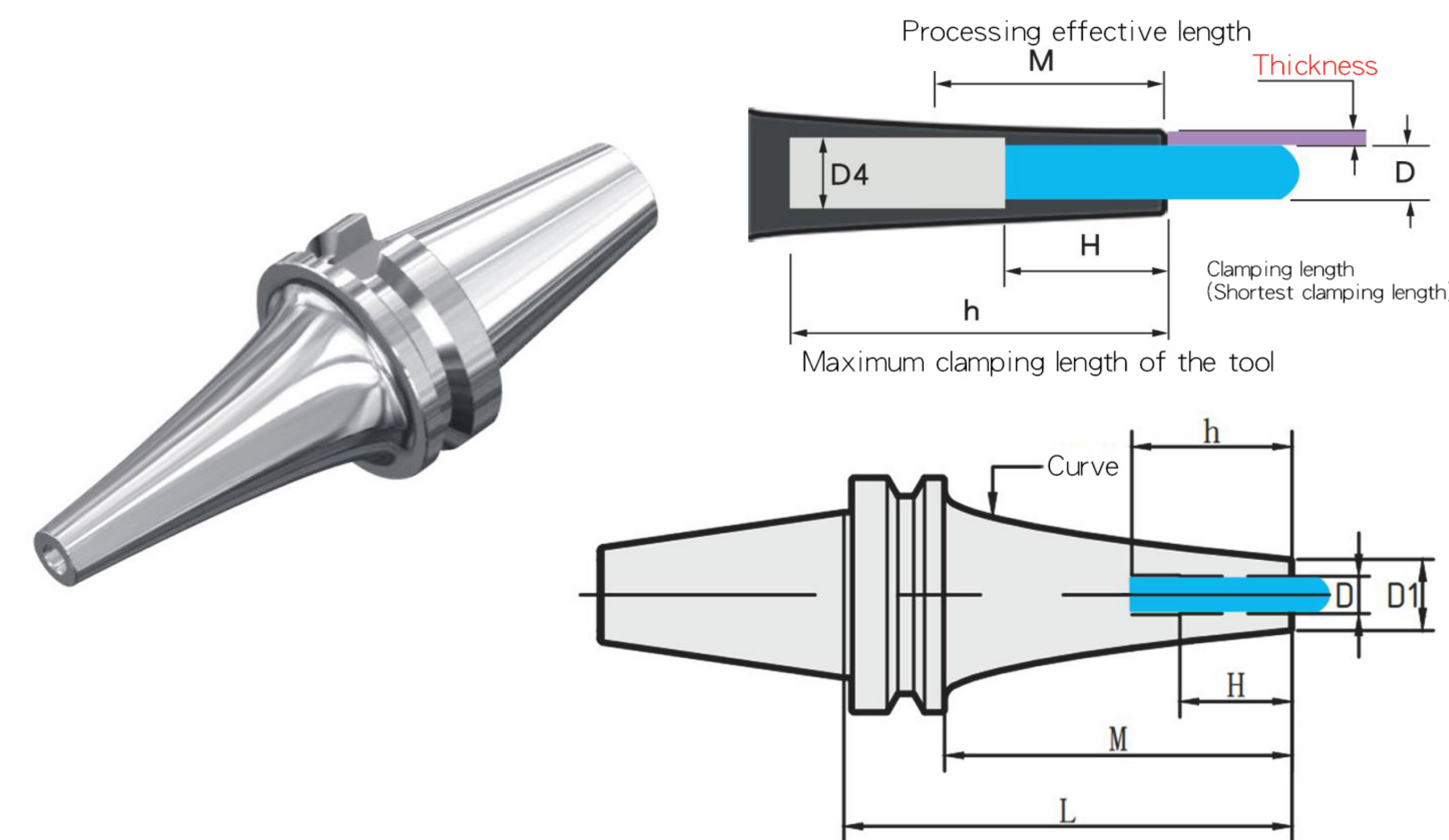
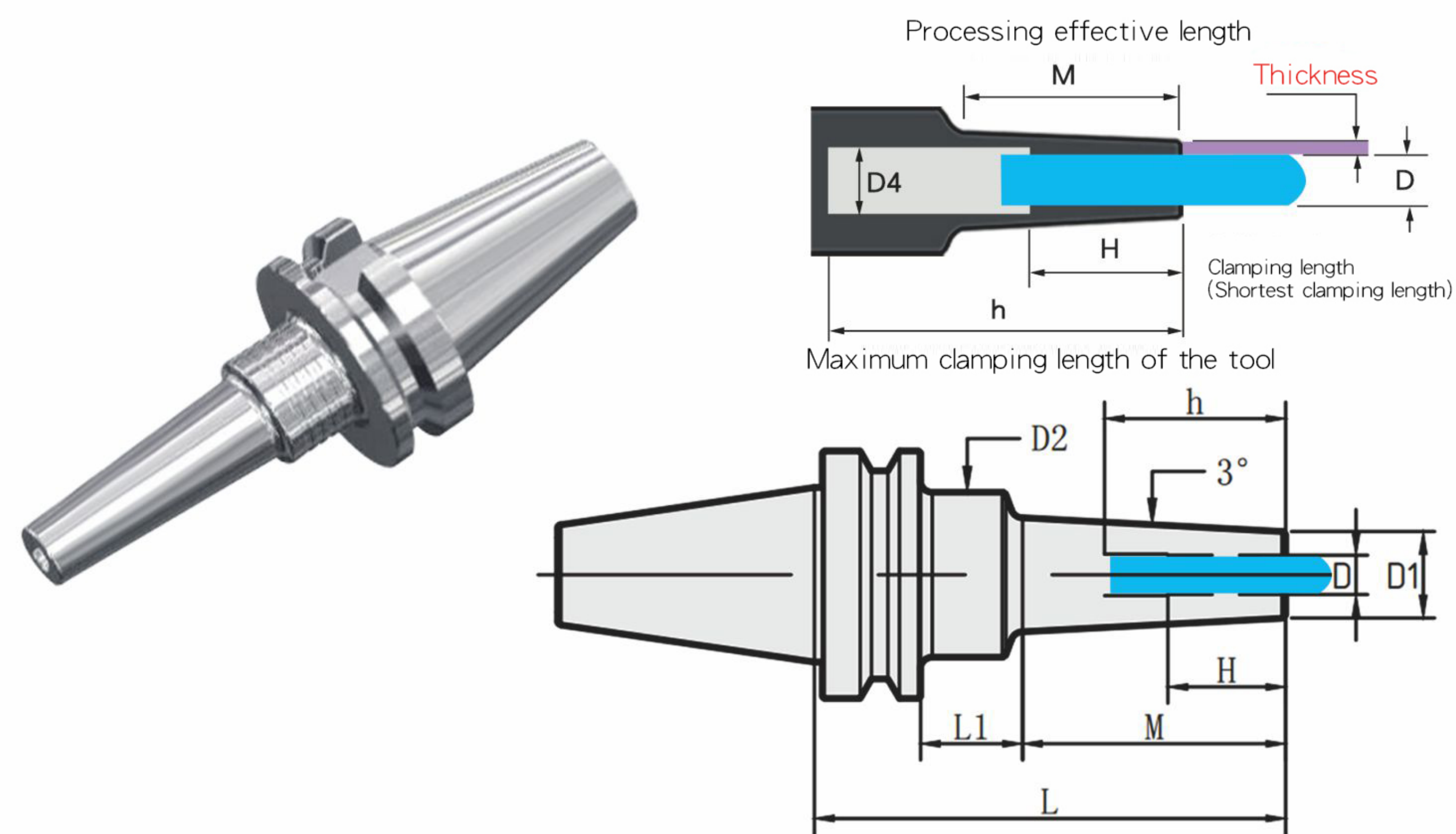
●Stock

Unit: mm

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	M	Stock
ST12-SHB4-120-M55	1	4	8	12		2	120	55			13	M8	●
ST12-SHB6-120-M55		6	10	12		2	120	55			20	M8	●
ST16-SHB4-120-M55		4	9	16		2.5	120	55			13	M10	●
ST16-SHB4-160-M75		4	9	16		2.5	160	75			13	M10	●
ST16-SHB6-120-M55		6	11	16		2.5	120	55			20	M10	●
ST16-SHB6-160-M75		6	11	16		2.5	160	75			20	M10	●
ST16-SHB8-120-M55		8	13	16		2.5	120	55			25	M10	●
ST16-SHB8-160-M75		8	13	16		2.5	160	75			25	M10	●
ST20-SHB4-160-M75		4	10	20		3	160	75			13	M10	●
ST20-SHB4-200-M95		4	10	20		3	200	95			13	M10	●
ST20-SHB6-120-M55		6	12	20		3	120	55			20	M10	●
ST20-SHB6-160-M75		6	12	20		3	160	75			20	M10	●
ST20-SHB6-200-M95		6	12	20		3	200	95			20	M10	●
ST20-SHB8-120-M55		8	14	20		3	120	55			25	M10	●
ST20-SHB8-160-M75		8	14	20		3	160	75			25	M10	●
ST20-SHB8-200-M75		8	14	20		3	200	75			25	M10	●

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	M	Stock
ST20-SHB10-120-M55	2	10	16	20		3	120	55	55		30	M10	●
ST20-SHB10-160-M75		10	16	20		3	160	75	55		30	M10	●
ST25-SHB8-160-M75	1	8	14	25		3	160	75			25	M10	●
ST25-SHB8-200-M95		8	14	25		3	200	95			25	M10	●
ST25-SHB10-160-M75	2	10	16	25		3	160	75	55		30	M10	●
ST25-SHB10-200-M95		10	16	25		3	200	95	55		30	M10	●
ST25-SHB12-120-M55		12	19	25		3.5	120	55	55		30	M10	●
ST25-SHB12-160-M75		12	19	25		3.5	160	75	55		30	M10	●
ST25-SHB12-200-M95	1	12	20	25		4	200	95	55		30	M10	●
ST32-SHB8-160-M75		8	14	32		3	160	75			25	M10	○
ST32-SHB8-200-M95		8	14	32		3	200	95			25	M10	○
ST32-SHB10-160-M75		10	17	32		3.5	160	75	55		30	M10	○
ST32-SHB10-200-M95	2	10	17	32		3.5	200	95	55		30	M10	○
ST32-SHB12-160-M75		12	19	32		3.5	160	75	55		30	M10	○
ST32-SHB12-200-M95		12	20	32		4	200	95	55		30	M10	○
ST32-SHB16-160-M75		16	24	32		4	160	75	55		32	M10	○

BT30 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



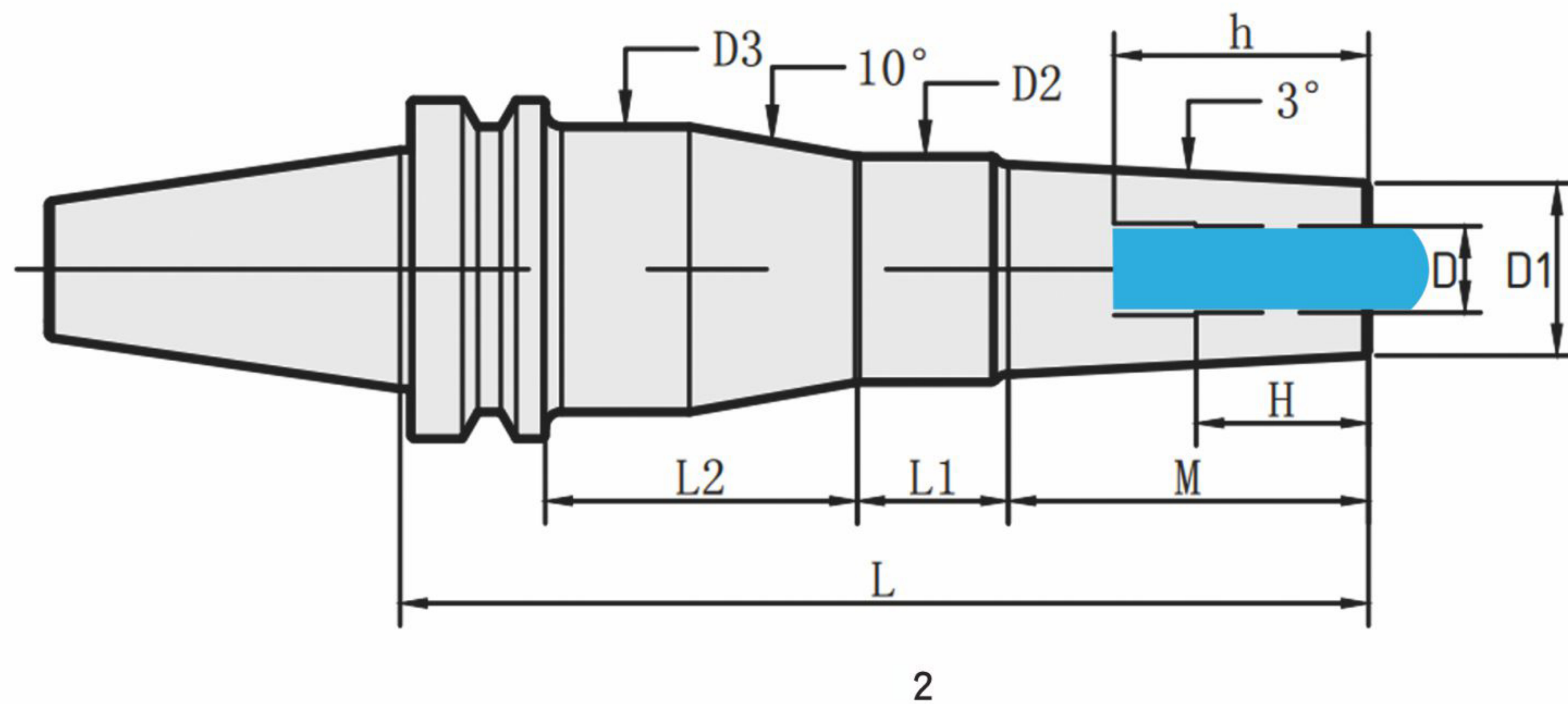
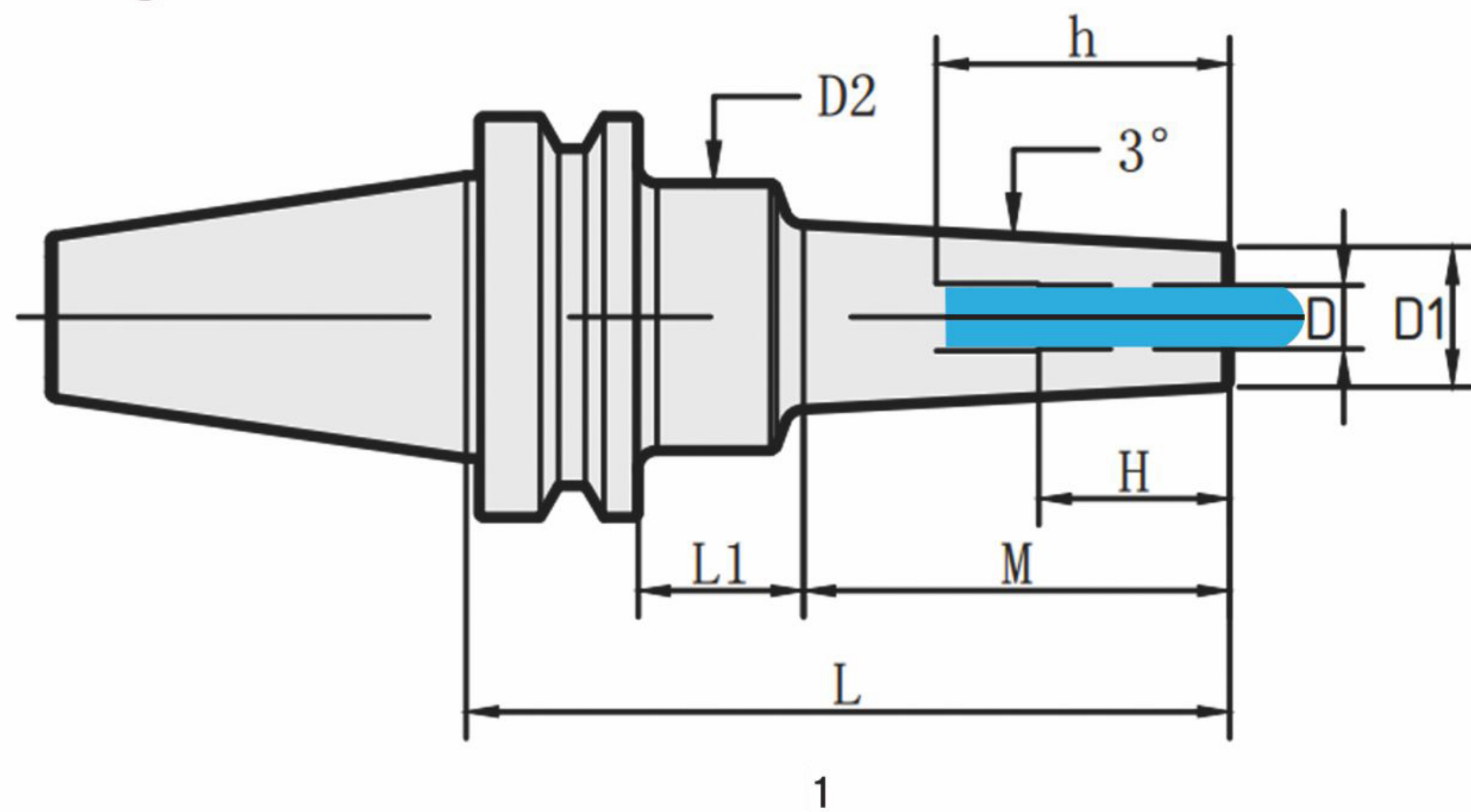
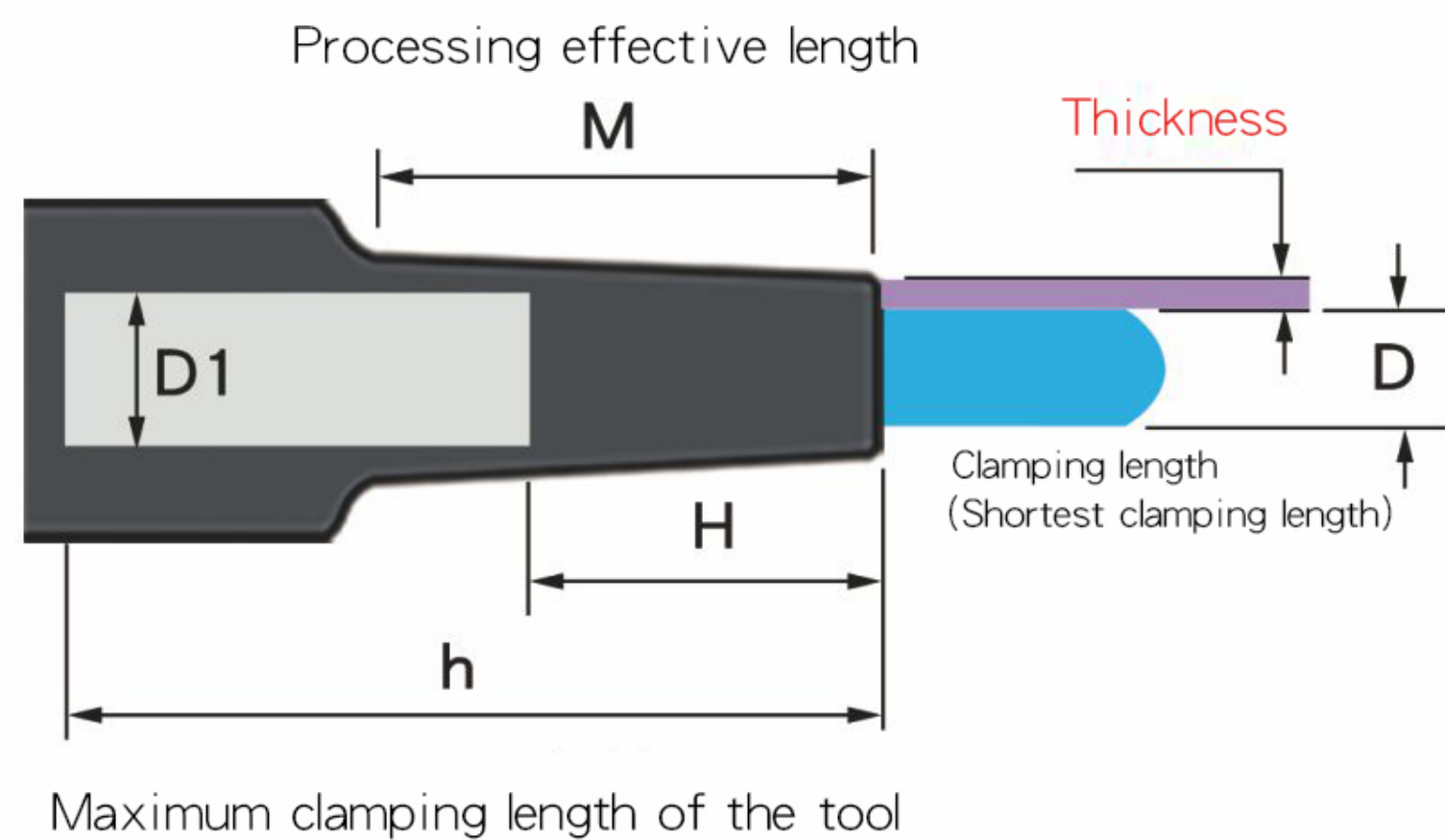
● Standing inventory ○ Small inventory

Specifications	D	D1	t	L	M	L1	L2	D2	D4	H	h	Stock
BT30 SHSA4- 60-M 22	4	7	1.5	60	22	16	-	20	5	12	80	●
- 75-M 22				75		31		25			99	●
- 95-M 42				95	42						119	●
-120-M 67				120	67						144	●
BT30 SHRA4- 75-M 22	4	10	3	75	22	31	-	25	5	12	99	●
BT30 SHSA6- 60-M 22	6	9	1.5	60	22	16	-	20	7	18	80	●
- 75-M 22				75		31		25			99	●
- 95-M 42				95	42						119	●
-120-M 67				120	67						144	●
BT30 SHRA6- 75-M 22	6	12	3	75	22	31	-	25	7	18	99	●
BT30 SHRA8- 75-M 22		14		75		31		25		24		●
BT30 SHRA10- 75-M 22	10	16	3	75	22	31	-	25	11	30	99	●
BT30 SHRA12- 75-M 22	12	20	4	75	22	31		25	13	30	99	●
BT30 SHRA16- 60-M 22	16	26	5	60	22	16		34	16.6	32	60	●
BT30 SHRA20- 65-M 22	20	32	6	65	22	21		40	20.6	38	60	●

Unit:mm

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT30 SHSA4- 75 CV	4	7	1.5	75	54	34	5	-	-	13	100	●
- 90 CV				90	68						114	●
-120 CV				120	98						144	○
BT30 SHRA4- 90 CV	4	10	3	90	68	34	5	-	-	13	114	●
-120 CV				120	98						144	○
BT30 SHSA6- 75 CV	6	9	1.5	75	54	34	7	-	-	18	100	●
- 90 CV				90	68						114	●
-120 CV				120	98						144	○
BT30 SHRA6- 90 CV	6	13	3.5	90	68	34	7	-	-	18	114	●
-120 CV				120	98						144	○
BT30 SHSA8- 75 CV	8	11	1.5	75	54	34	9	-	-	24	100	●
- 90 CV				90	68						114	●
BT30 SHRA8- 90 CV	8	16	4	90	68	34	9	-	-	24	144	●
BT30 SHSA10- 75 CV	10	13	1.5	75	54	34	11	-	-	30	100	●
- 90 CV				90	68						114	●
BT30 SHRA10- 90 CV	10	19	4.5	90	68	34	11	-	-	30	114	●

BT40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

Unit:mm

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT40 SHSA4- 95-M 22	1	4	7	1.5	95	42	26	-	25	-	12	130	○
-120-M 67					120	67						155	○
-125-M 42					125	42	56		26			160	○
-150-M 67					150	67	25		185			○	
-150-M 97						97	26		26				○
-155-M 42	2	155	42		33	53	40	190	○				
-180-M 67		180	67		215			○					
-180-M 97	1		97		56	-	25	-		○			
-210-M 97	2		210		97	33	53		39		245	○	
BT40 SHRA4- 75-M 22	1	4	10	3	75	22	26	-	25	-	12	110	○
- 95-M 42					95	42						26	

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT40 SHRA4-105-M 22	1	4	10	3	105	22	56	-	26	-	12	140	
-120-M 67					120	67	26		25			155	●
-125-M 42					125	42	56		26			160	○
-135-M 22	2				135	22	33	53		40		170	
-150-M 67	1				150	67	56	-	25	-		185	●
-150-M 97						97	26						
-155-M 42	2				155	42	33	53	26	40		190	○
-180-M 67						180	67			25		39	215
-180-M 97	97				56		-	26	-	●			
-180-M127					127			26				36	○
-210-M 97	2				210	97	33	53	26	40		245	

BT40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT40 SHRA4 -210-M127	1	4	10	3	210	127	56	-	36	-	12	245	○
-240-M127	2				240	127	28	58		50		275	
BT40 SHSA6 - 95-M 42	1	6	9	1.5	95	42	26	-	25	-	18	130	○
-120-M 67					120	67			26			155	○
-125-M 42					125	42	56		25			160	○
-150-M 67					150	67						185	○
-150-M 97						97	26		36				○
-155-M 42	2				155	42	33	53	25	39		190	○
-180-M 67					180	67			26	40		215	○
-180-M 97	1					97	56	-	36	-			○
-210-M 97	2				210	97	28	58		50		245	○
BT40 SHSB6 - 95-M 42	1	6	10	2	95	42	26	-	25	-	18	130	○
-120-M 67					120	67						155	●
-125-M 42					95	42	26	-	25	-		160	○
-150-M 67					150	67						185	●
-150-M 97						97	26		32				○
-155-M 42	2				155	42	33	53	26	40		190	○
-180-M 67					180	67			25	39		215	
-180-M 97	1					97	56	-	36	-			●
-180-M127						127	26						○
-210-M 97	2				210	97	28	58		50		245	
-210-M127	1			4		127	56	-		-			
-210-M157						157	26						
-240-M127	2				240	127	28	58		50		275	
-240-M157	1					157	56	-		-			
-270-M157	2				270	157	28	58		50		305	
BT40 SHRB6 - 75-M 22	1	6	14		75	22	26	-	32	-	18	110	○
- 95-M 42					95	42						130	●
-105-M 22					105	22	56		36			140	
-120-M 67					120	67	26		32			155	●
-125-M 42					125	42	56					160	○
-135-M 22	2				135	22	28	58	36	50		170	
-150-M 67	1				150	67	56	-	32	-		185	●
-155-M 42	2				155	42	28	58	36	50		190	○
-180-M 67					180	67						215	●
BT40 SHSA8 - 95-M 42	1	8	11	1.5	95	42	26	-	25	-	24	130	
-120-M 67					120	67			36			155	○

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT40 SHSA8-125-M 42	1	8	11	1.5	125	42	56	-	36	-	24	160	
-150-M 67					150	67						185	○
-150-M 97						97	26						○
-155-M 42	2				155	42	33	53	25	39		190	
-180-M 67					180	67	28	58	36	50		215	
-180-M 97	1					97	56	-		-			○
-210-M 97	2				210	97	28	58		50		245	○
BT40 SHSB8 - 95-M 42	1	8	13	2.5	95	42	26	-	32	-	24	130	○
-120-M 67					120	67						155	●
-125-M 42					125	42	56		36			160	
-150-M 67					150	67						185	●
-150-M 97						97	26		32				○
-155-M 42	2				155	42	30	56		46		190	
-180-M 67					180	67	28	58	36	50	24	215	
-180-M 97	1					97	56	-		-			●
-180-M127						127	26						○
-210-M 97	2				210	97	28	58		50		245	
-210-M127	1			5		127	56	-		-			
-210-M157						157	26						
-240-M127	2				240	127	28	58		50		275	
-240-M157	1					157	56	-		-			
-270-M157	2				270	157	28	58	42	53		305	
BT40 SHRB8 - 75-M 22	1	8	18		75	22	26	-	32	-	24	110	○
- 95-M 42					95	42			36			130	●
-105-M 22					105	22	56					140	
-120-M 67					120	67	26					155	●
-125-M 42					125	42	56					160	○
-135-M 22	2				135	22	30	56	32	46		170	
-150-M 67	1				150	67	56	-	36	-		185	●
-155-M 42	2				155	42	30	56	32	46		190	○
-180-M 67					180	67	28	58	36	50		215	○
BT40 SHSA10 - 95-M 42	1	10	13	1.5	95	42	26	-	25	-	30	130	
-120-M 67					120	67			36			155	○
-125-M 42					125	42	56					160	○
-150-M 67					150	67						185	○
-150-M 97						97	26						○
-155-M 42	2				155	42	28	58		50		190	○

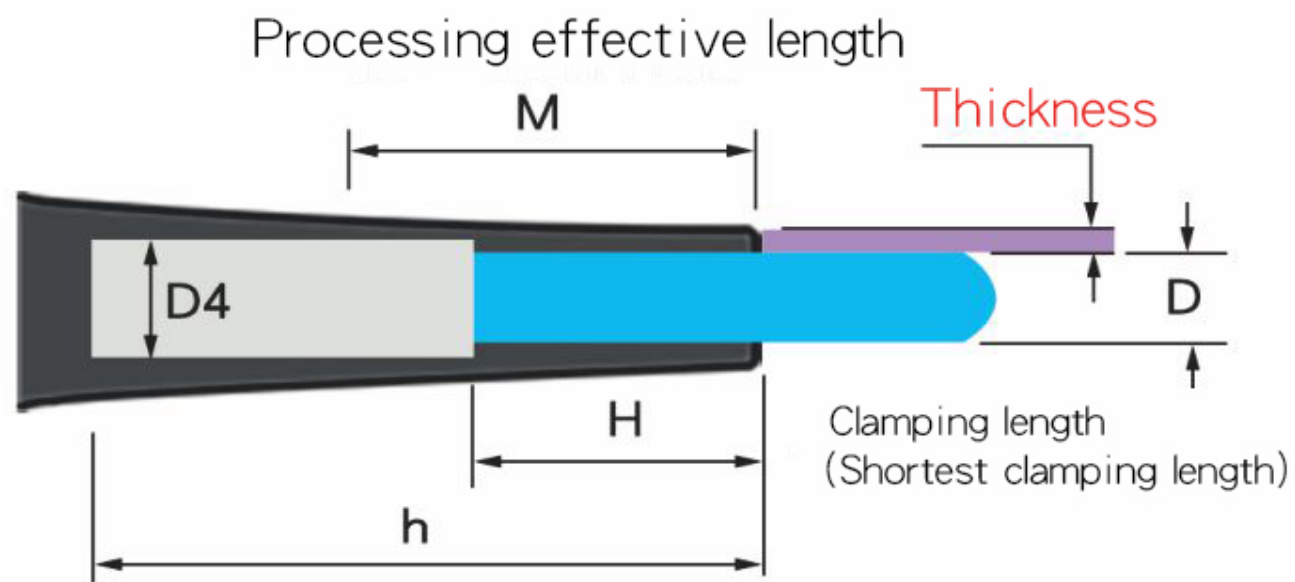
BT40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock							
BT40 SHSA10-180-M 67	2	10	13	1.5	180	67	28	58	-	50	30	215	○							
-180-M 97	1					97	56	-		-		○								
-210-M 97	2					210	97	28		58		50	245							
BT40 SHSB10- 95-M 42	1	10	16	3	95	42	26	-	32	-	30	130	○							
-120-M 67					120	67			36			155	●							
-125-M 42					125	42						56	160							
-150-M 67					150	67		32	185	●										
-150-M 97									97	26		○								
-155-M 42	2				155	42	28	58	36	50		190								
-180-M 67	1				180	67		-		-		215	●							
-180-M 97												97	56	50	190	○				
-180-M127												127	26	50						
-210-M 97	2				210	97	28	58	36	50		245								
-210-M127	1											127	56	-	50	-	220			
-210-M157																	157	26		
-240-M127																				
-240-M157	157											56								
-270-M157					270	157	86					305								
BT40 SHRB10- 75-M 22	1	10	22	6	75	22	26	-	32	-	30	110	○							
- 95-M 42					95	42						130	●							
-105-M 22					105	22						56	140							
-120-M 67					120	67	26	36	155	●										
-125-M 42									125	42		56	160	○						
-135-M 22	2				135	22	28	58	50	170										
-150-M 67	1				150	67	56	-	-	185		●								
-155-M 42	2				155	42	28	58	50	190		○								
-180-M 67					180	67				215		○								
BT40 SHSA12- 95-M 42	1	12	15	1.5	95	42	26	-	32	-	30	130								
-120-M 67					120	67			36			155	●							
-125-M 42					125	42						56	160							
-150-M 67					150	67			185	●										
-150-M 97									97	26		○								
-155-M 42	2				155	42	28	58	50	190										
-180-M 67	1				180	67	30	56	32	46		215								
-180-M 97												97	56	-	36	-	●			
-210-M 97												2	210	97	28	58	50	245		
BT40 SHSB12- 95-M 42	1	12	19	3.5	95	42	26	-	32	-	30	130	○							

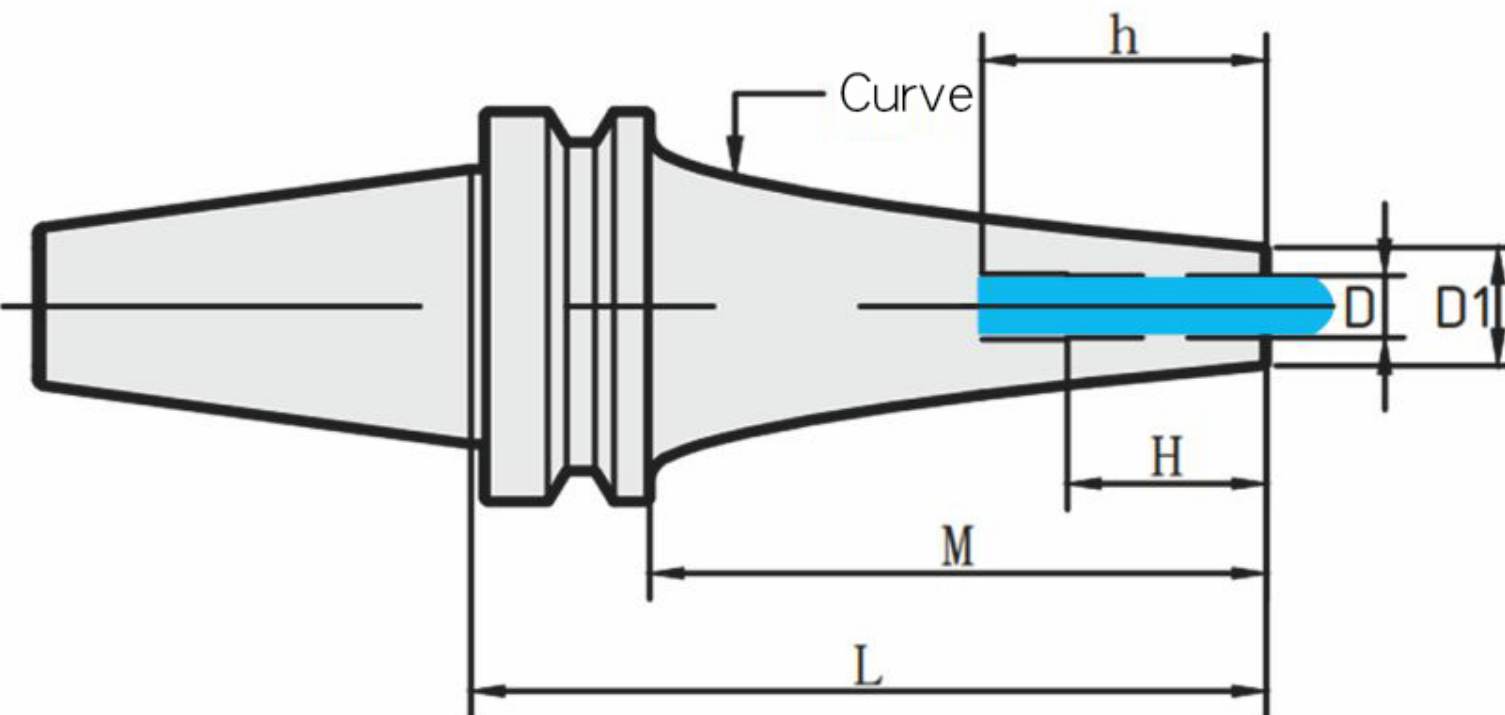
Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock	
BT40 SHSB12-120-M 67	1	12	19	3.5	120	67	26	-	36	-	30	155	●	
-125-M 42					125	42	56					160		
-150-M 67									150			67	26	185
-150-M 97					97	50	160							○
-155-M 42	2				155	42	28	58	36	50		190		
-180-M 67					180	67	56					26	215	
-180-M 97	1							97	-	50			-	190
-180-M127					127				○					
-210-M 97					210	97	86	220						
-210-M127						127	56							
-210-M157	157					26								
-240-M127	240					127	86		250					
-240-M157					157	56								
-270-M157					280	157	86		280					
BT40 SHRB12- 75-M 22	1	12	26	7	75	22	26	-	-	-	30	85	○	
- 95-M 42					95	42			50			105	●	
-105-M 22					105	22	56		115					
-120-M 67					120	67	26		130			●		
-125-M 42					125	42	56		135			○		
-135-M 22					135	22	86		145					
-150-M 67					150	67	56		160			●		
-155-M 42					155	42	86		165			○		
-180-M 67					180	67			190			○		
BT40 SHSB16- 95-M 42	1	16	24	4	95	42	26	-	-	-	32	105	○	
-120-M 67					120	67						130	●	
-125-M 42					125	42	56		50			135		
-150-M 67					150	67	26		42			160	●	
-150-M 97									97			50	○	
-155-M 42					155	42	86		165					
-180-M 67					180	67	56		190					
-180-M 97												97	26	●
-180-M127												127	26	○
-210-M 97												210	97	86
-210-M127					127	56								
-210-M157					157	26								
-240-M127					240	127	86		250					
-240-M157						157	56							

BT40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT40 SHSB16-270-M157	1	16	24	4	270	157	86	-	50	-	32	280	
BT40 SHRB16- 75-M 22	1	16	32	8	75	22	26	-	50	-	32	85	○
- 95-M 42					95	42			42			105	●
-105-M 22					105	22	56		50			115	
-120-M 67					120	67	26					130	●
-125-M 42					125	42	56					135	○
-135-M 22					135	22	86					145	
-150-M 67					150	67	56					160	●
-155-M 42					155	42	86					165	○
-180-M 67					180	67						190	○
-210-M 97					210	97						220	
BT40 SHSB20- 95-M 42	1	20	29	4.5	95	42	26	-	42	-	40	105	○
-120-M 67					120	67						130	●
-125-M 42					125	42	56		50			135	
-150-M 67					150	67						160	●
-150-M 97						97	26						○
-155-M 42	2				155	42	28	58	42	53		165	
-180-M 67	1				180	67	86	-	50	-		190	
-180-M 97						97	56						●
-180-M127						127	26						○
-210-M 97					210	97	86					220	
-210-M127						127	56						
-210-M157						157	26						
-240-M127					240	127	86					250	
-240-M157						157	56						
-270-M157					270	157	86					280	
BT40 SHRB20- 95-M 42	1	20	38	9	95	42	26	-	50	-	40	105	●
-120-M 67					120	67						130	●
-125-M 42					125	42	56					135	○
-150-M 67					150	67						160	●
-155-M 42					155	42	86					165	○
-180-M 67					180	67						190	○
BT40 SHRB25- 95-M 42	1	25	45	10	95	42	26	-	50	-	45	105	●
-125-M 42					125		56					130	○
-155-M 42					155		86					165	○
-180-M 67					180	67						190	○



Maximum clamping length of the tool



Unit:mm

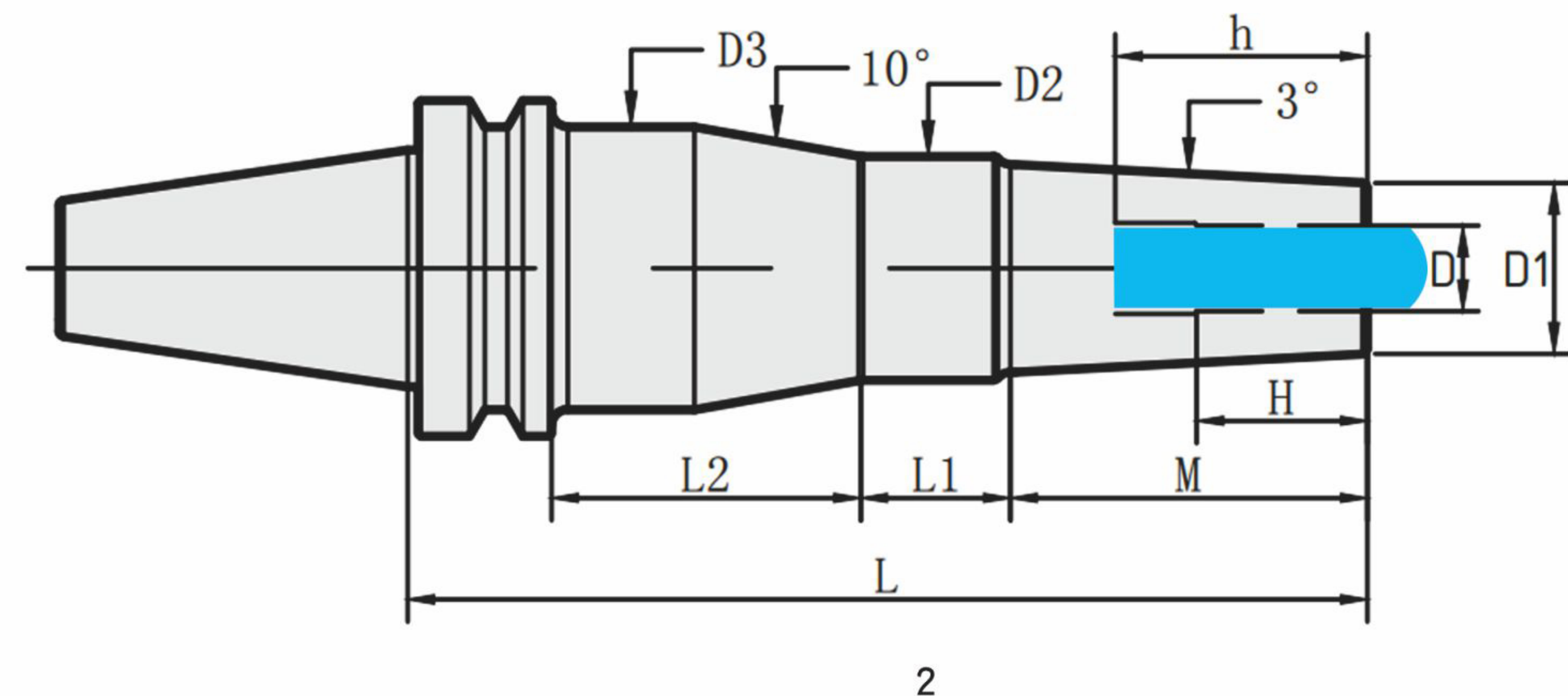
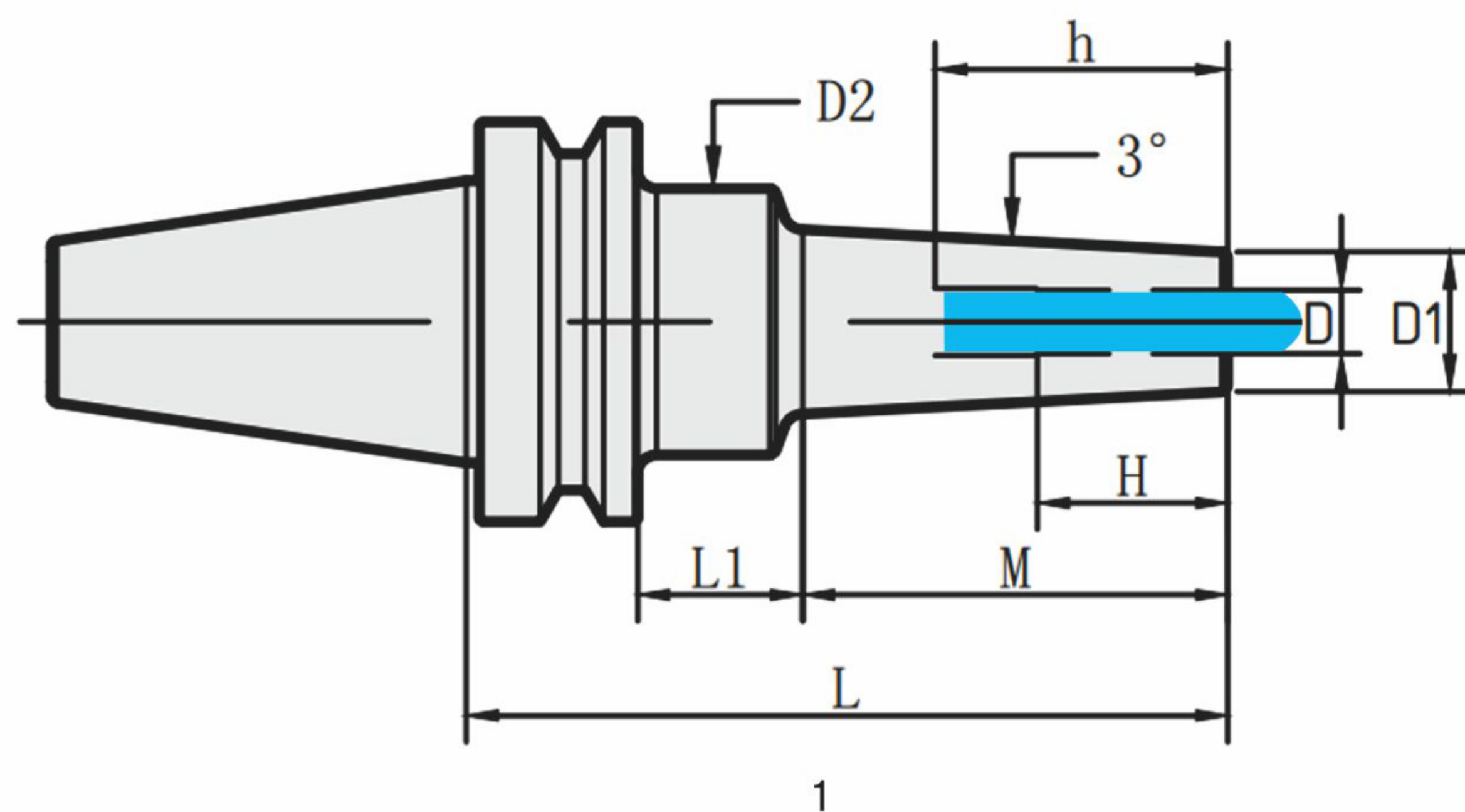
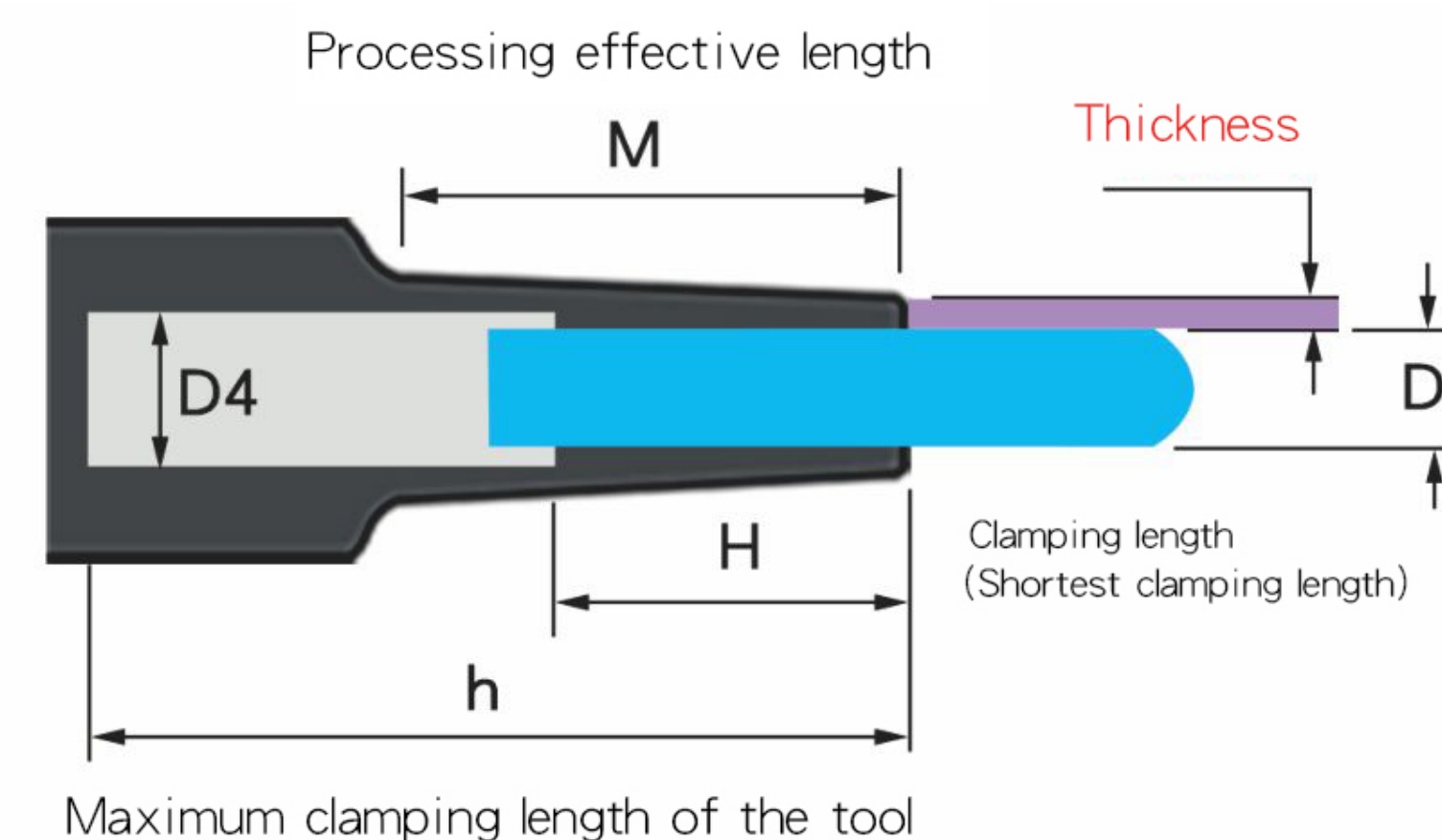
Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT40 SHSA4- 90 CV	4	7	1.5	90	64	53	5	-	-	13	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
-240 CV				240	214						217	
BT40 SHRA4-120 CV	4	10	3	120	94	53	5	-	-	18	155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
BT40 SHSA6- 90 CV	6	9	1.5	90	64	53	7	-	-	19	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
-240 CV				240	214						275	
BT40 SHRA6- 90 CV	6	13	1.5	90	64	53	7	-	-	19	125	●
-120 CV				120	94						155	●

BT40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT40 SHRA6-150 CV	6	13	3.5	150	124	53	7	-	-	19	185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
BT40 SHSA8- 90 CV	8	11	1.5	90	64	53	9	-	-	24	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
-240 CV				240	214						275	
BT40 SHRA8- 90 CV	8	16	4	90	64	53	9	-	-	25	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
BT40 SHSA10- 90 CV	10	13	1.5	90	64	53	11	-	-	30	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
BT40 SHSA10-210 CV				210	184	53	11	-	-	30	245	●
-240 CV				240	214						275	
BT40 SHRA10 - 90 CV	10	19	4.5	90	64	53	11	-	-	30	125	●
-120 CV				120	94						155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
BT40 SHSA12 - 90 CV	12	15	1.5	90	64	53	14	-	-	30	125	●
-120 CV				120	94		13				155	●
-150 CV				150	124						185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●
-240 CV				240	214						275	
BT40 SHRA12 - 90 CV	12	22	5	90	64	53	14	-	-	30	125	●
-120 CV				120	94						155	●
-150 CV				150	124		13				185	●
-180 CV				180	154						215	●
-210 CV				210	184						245	●

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT40 SHSB16 - 90 CV	16	21	2.5	90	64	53	17	-	-	32	100	●
-120 CV				120	94						130	●
-150 CV				150	124						160	●
-180 CV				180	154						190	●
-210 CV				210	184						220	●
-240 CV				240	214						250	
BT40 SHSB20 - 90 CV	20	26	3	90	64	50.5	21	-	-	40	100	●
-120 CV				120	94	53					130	●
-150 CV				150	124						160	●
-180 CV				180	154						190	●
-210 CV				210	184						220	●
-240 CV				240	214						250	

BT50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHSA4-110-M 42	1	4	7	1.5	110	42	30	-	26	-	12	165	
-135-M 67					135	67			25			190	●
-140-M 42					140	42	60					195	
-165-M 67					165	67			26			220	
-165-M 97						97	30		25				
-170-M 42	2				170	42	33	57		39		225	
-195-M 67					195	67						250	
-195-M 97	1					97	60	-		-			
-225-M 97	2				225	97	33	57	26	40		280	
BT50 SHRA4- 90-M 22	1	4	10	3	90	22	30	-	25	-	12	145	
-110-M 42					110	42			26			165	●
BT50 SHRA4-120-M 22	1	4	10		120	22	60	-	25	-	12	175	
-135-M 67					135	67	30		26			190	●
-140-M 42					140	42	60					195	
-150-M 22	2			3	150	22	33	57	25	39		205	
-165-M 67	1				165	67	60	-	26	-		220	●
-165-M 97						97	30						
-170-M 42	2				170	42	33	57		40		225	
-195-M 67					195	67						250	
-195-M 97	1					97	60	-		-			○
-195-M127						127	30		36				
-225-M 97	2				225	97	33	57	26	40		280	○

Unit:mm

BT50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHRA4-225-M 127	1	4	10	3	225	127	60	-	36	-	12	280	
-255-M 127	2				255	127	30	60	32	46		310	
BT50 SHSA6-110-M 42	1	6	9	1.5	110	42	30	-	26	-	18	165	
-135-M 67					135	67						190	
-140-M 42					140	42	60					195	
-165-M 67					165	67						220	
-165-M 97						97	30		36				
-170-M 42	2				170	42	33	57	26	40		225	
-195-M 67					195	67						250	
-195-M 97	1					97	60	-	36	-			
-225-M 97	2				225	97	28	62		50		280	
BT50 SHSB6-110-M 42	1	6	10	2	110	42	30	-	26	-	18	165	●
-135-M 67					135	67			25			190	●
-140-M 42					140	42	60					195	
-165-M 67					165	67			26			220	●
-165-M 97						97	30		32				
-170-M 42	2				170	42	33	57	25	39		225	
-195-M 67					195	67			26	40		250	
-195-M 97	1					97	60	-	32	-			○
-195-M 127						127	30		36				
-225-M 97	2				225	97	28	62		50		280	○
-225-M 127	1					127	60	-		-			
-225-M 157						157	30						
-255-M 127	2				255	127	28	62		50		310	
-255-M 157	1					157	60	-		-			
-285-M 157	2				285	157	30	60	32	46		340	
BT50 SHRB6- 90-M 22	1	6	14	4	90	22	30	-	32	-	18	145	
-110-M 42					110	42						165	●
-120-M 22					120	22	60					175	
-135-M 67					135	67	30		36			190	●
-140-M 42					140	42	60					195	
-150-M 22	2				150	22	30	60	32	46		205	
-165-M 67	1				165	67	60	-		-		220	○
-170-M 42	2				170	42	28	62	36	50		225	
-195-M 67					195	67	30	60	32	46		250	
BT50 SHSA8-110-M 42	1	8	11	1.5	110	42	30	-	25	-	24	165	
-135-M 67					120	67			36			190	

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHSA8-140-M 42	1	8	11	1.5	140	42	60	-	36	-	24	195	
-165-M 67					165	67			32			220	
-165-M 97						97	30		36				
-170-M 42	2				170	42	33	57	25	39		225	
-195-M 67					195	67	28	62	36	50		250	
-195-M 97	1					97	60	-		-			
-225-M 97	2			2.5	225	97	28	62		50		280	
BT50 SHSB8-110-M 42	1	8	13		110	42	30	-	32	-	24	165	●
-135-M 67					120	67						190	●
-140-M 42					125	42	60		36			195	
-165-M 67					150	67						220	●
-165-M 97						97	30		32				
-170-M 42	2				155	42		60		46		225	
-195-M 67					180	67			36			250	
-195-M 97	1					97	60	-		-			○
-195-M 127						127	30						
-225-M 97	2				210	97	28	62	36	50		280	○
-225-M 127	1					127	60	-	32	-			
-225-M 157						157	30		42				
-255-M 127	2				240	127	28	62	36	50		310	
-255-M 157	1					157	60	-	42	-			
-285-M 157	2				270	157	28	62		56		340	
BT50 SHRB8- 90-M 22	1	8	18	5	90	22	30	-	32	-	24	145	
-110-M 42					110	42			36			165	●
-120-M 22					120	22	60					175	
-135-M 67					135	67	30					190	●
-140-M 42					140	42	60					195	
-150-M 22	2				150	22	30	60	32	46		205	
-165-M 67	1			1.5	165	67	60	-	36	-		220	○
-170-M 42	2				170	42	28	62		50		225	
-195-M 67					195	67	30	60	32	46		250	
BT50 SHSA10-110-M 42	1	10	13		110	42	30	-	25	-	30	165	
-135-M 67					135	67			36			190	
-140-M 42					140	42	60					195	
-165-M 67				1.5	165	67						220	
-165-M 97						97	30						
-170-M 42	2				170	42	33	57	25	39		225	

BT50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHSA10-195-M 67	2	10	13	1.5	195	67	28	62	36	50	30	250	
-195-M 97	1					97	60	-	32	-			
-225-M 97	2				225	97	28	62	36	50		280	
BT50 SHSB10-110-M 42	1	10	16	3	110	42	30	-	32	-	30	165	●
-135-M 67					135	67						190	●
-140-M 42					140	42	60		36			195	
-165-M 67					165	67			32			220	●
-165-M 97						97	30						
-170-M 42	2				170	42	28	62	36	50		225	
-195-M 67					195	67	30	60	32	46		250	
-195-M 97	1					97	60	-		-			○
-195-M127						127	30		42				
-225-M 97	2				225	97		60	32	46		280	○
-225-M127	1					127	60	-	50	-			
-225-M157						157	30						
-255-M127	2				255	127	28	62	42	56		310	
-255-M157	1					157	60	-	50	-			
-285-M157					285	157	90					340	
BT50 SHRB10- 90-M 22	1	10	22	6	90	22	30	-	32	-	30	145	
-110-M 42					110	42						165	●
-120-M 22					120	22	60					175	
-135-M 67					135	67	30		42			190	●
-140-M 42					140	42	60		36			195	
-150-M 22	2				150	22	30	60	32	46		205	
-165-M 67	1				165	67	60	-	42	-		220	○
-170-M 42	2				170	42	28	62	36	50		225	
-195-M 67					195	67			42	56		250	
BT50 SHSA12-110-M 42	1	12	15	1.5	110	42	30	-	32	-	30	165	
-135-M 67					135	67			36			190	
-140-M 42					140	42	60					195	
-165-M 67					165	67			32			220	
-165-M 97						97	30		36				
-170-M 42	2				170	42		60	32	46		225	
-195-M 67					195	67	28	62	36	50		250	
-195-M 97	1					97	60	-		-			
-225-M 97	2				225	97	28	62		50		280	
BT50 SHSB12-110-M 42	1	12	19	3.5	110	42	30	-	32	-	30	165	●

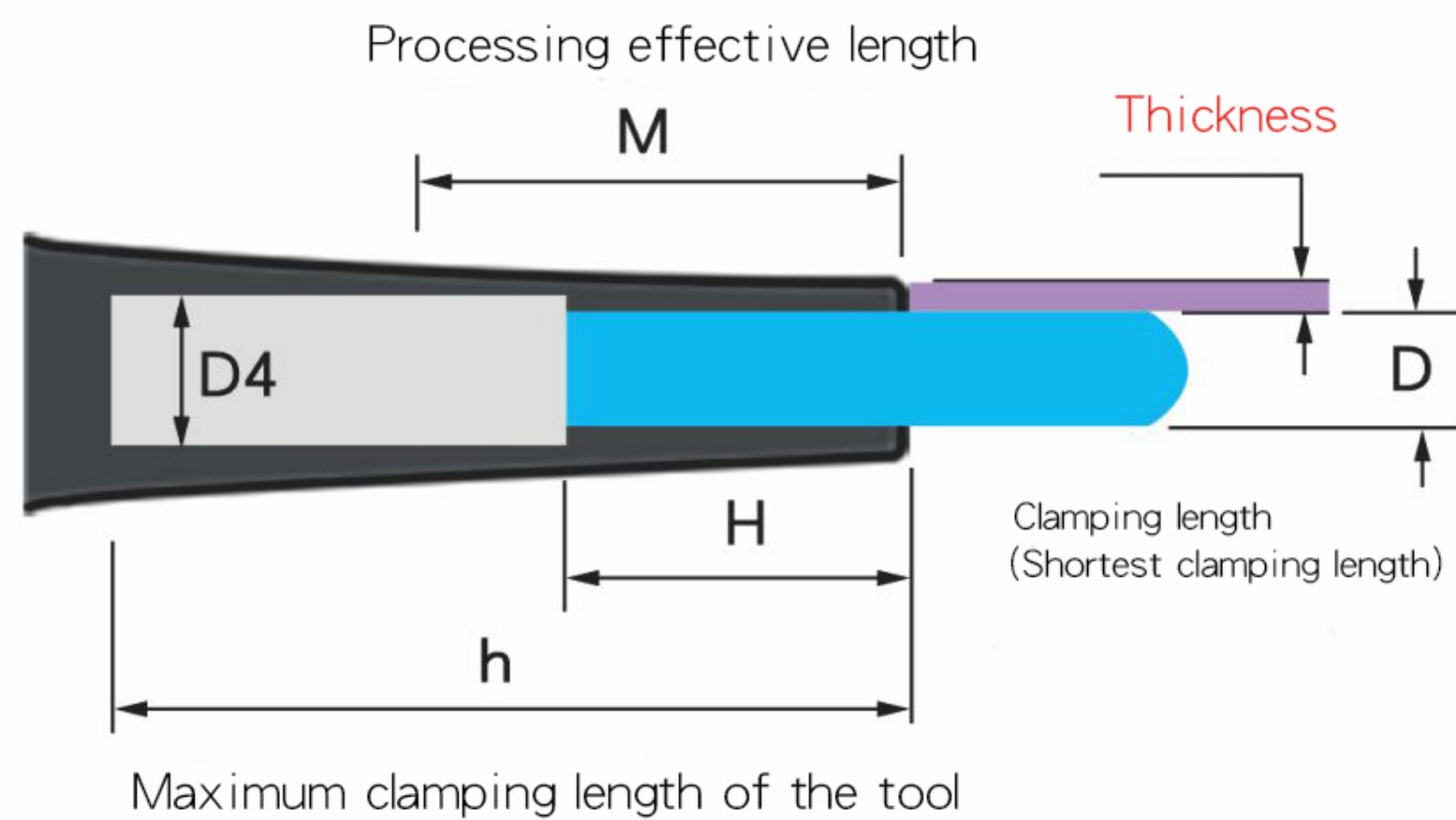
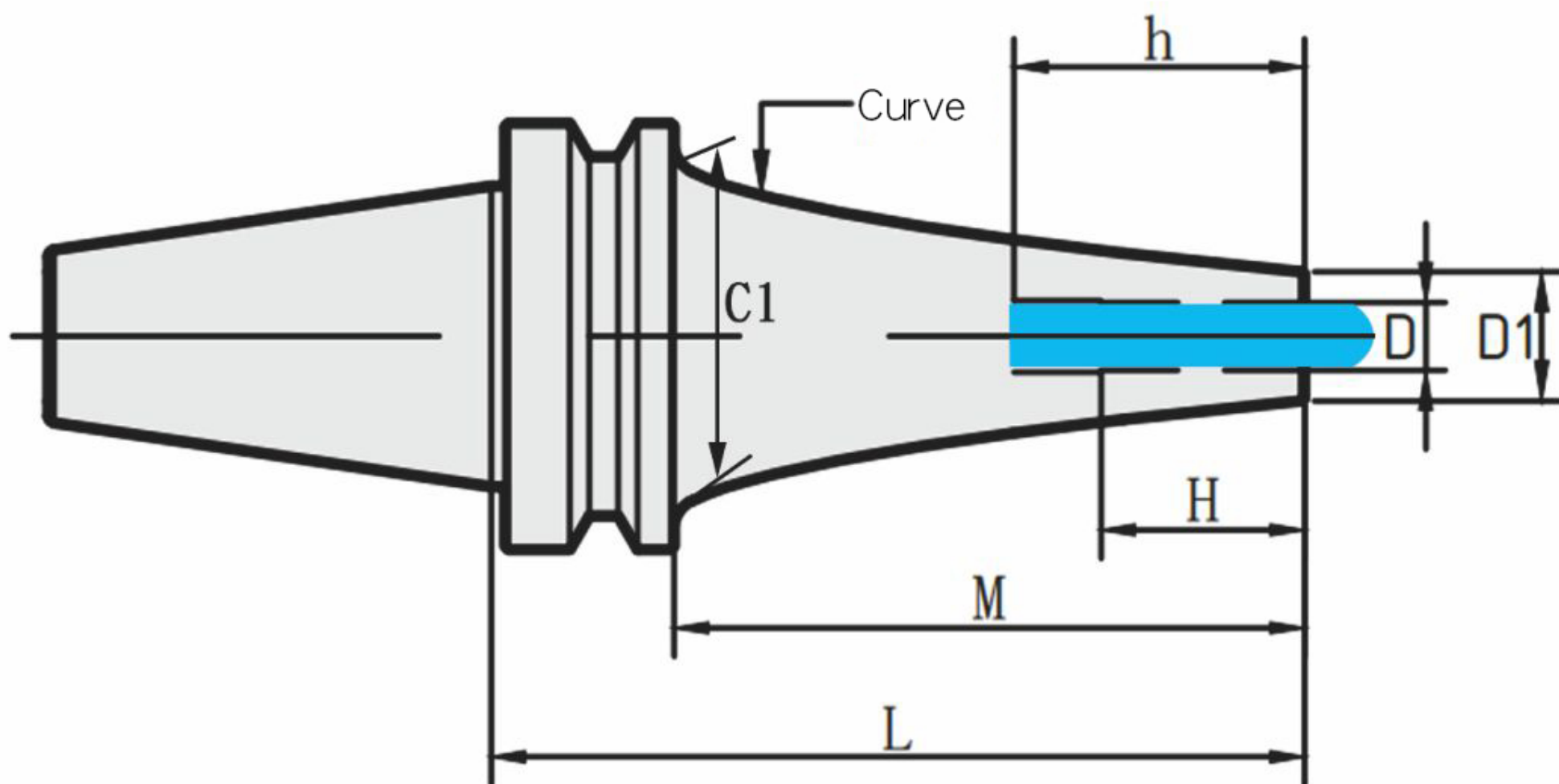
Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHSB12-135-M 67	1	12	19	3.5	135	67	30	-	32	-	30	190	●
-140-M 42					140	42	60		36			195	
-165-M 67					165	67						220	○
-165-M 97						97	30		42				
-170-M 42	2				170	42	28	60	36	50		225	
-195-M 67					195	67						250	
-195-M 97	1					97	60	-	42	-			
-195-M127						127	30		50				
-225-M 97					225	97	90					280	
-225-M127						127	60		42				
-225-M157						157	30						
-255-M127				7	255	127	90		50			310	
-255-M157						157	60		42				
-285-M157	2				285	157	25	62		56		340	
BT50 SHRB12- 90-M 22	1	12	26		90	22	30	-	50	-	30	145	
-110-M 42					110	42			42			165	●
-120-M 22					120	22	60					175	
-135-M 67					135	67	30					190	●
-140-M 42					140	42	60		50			195	
-150-M 22					150	22	28	62	42	56		205	
-165-M 67					165	67	60	-		-		220	○
-170-M 42					170	42	28	62		56		225	
-195-M 67					195	67						250	
BT50 SHSB16-110-M 42	1	16	24	4	110	42	30	-	42	-	32	165	●
-135-M 67					135	67						190	●
-140-M 42					140	42	60		50			195	
-165-M 67					165	67			42			220	●
-165-M 97						97	30						
-170-M 42					170	42	28	62		56		225	
-195-M 67					195	67	90	-	50	-		250	
-195-M 97						97	60						○
-195-M127						127	30						
-225-M 97					225	97	28	62	42	56		280	○
-225-M127						127	60	-	53	-			
-225-M157						157	30		50				
-255-M127					255	127	28	62	53	67		310	
-255-M157						157	60	-		-			

BT50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHSB16-285-M157	1	16	24	4	285	157	28	62	53	67	32	340	
BT50 SHRB16- 90-M 22	1	16	32	8	90	22	30	-	50	-	32	145	○
-110-M 42					110	42						165	●
-120-M 22					120	22	60					175	
-135-M 67					135	67	30		42			190	●
-140-M 42					140	42	60		50			195	
-150-M 22	2				150	22	28	62	42	56		205	
-165-M 67	1				165	67	60	-	50	-		220	●
-170-M 42	2				170	42	28	62	42	56		225	
-195-M 67	1				195	67	90	-	50	-		250	●
-195-M 97						97	60		53				●
-195-M127						127	30						●
-225-M 97	2				225	97	28	62		67		280	○
-225-M127	1					127	60	-	50	-			○
-225-M157						157	30		53				○
-255-M127	2				255	127	28	62		67		310	○
-255-M157	1					157	60	-		-			○
BT50 SHSB20-110-M 42	1	20	29	4.5	110	42	30	-	42	-	40	165	
-135-M 67					135	67						190	○
-140-M 42					140	42	60		50			195	●
-165-M 67					165	67						220	
-165-M 97						97	30		53				●
-170-M 42	2				170	42	28	62	42	56		225	○
-195-M 67	1				195	67	90	-	50	-		250	
-195-M 97						97	60		53				
-195-M127						127	30						●
-225-M 97	2				225	97	28	62		67		280	○
-225-M127	1					127	60	-	50	-			
-225-M157						157	30		53				
-255-M127	2				255	127	28	62		67		310	
-255-M157	1					157	60	-		-			
-285-M157	2				285	157	28	62		67		340	
BT50 SHRB20-110-M 42	1	20	38	9	110	42	30	-	53	-	40	165	
-135-M 67					135	67						190	●
-140-M 42					140	42	60		50			195	●
-165-M 67					165	67			53			220	○
-170-M 42	2				170	42	28	62		67		225	●
-195-M 67					195	67						250	○

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
BT50 SHRB25-110-M 42	1	16	32	8	110	42	30	-	53	-	45	165	●
-140-M 42					140		60					195	●
-170-M 42					170	42	28	62	50	56		225	
-195-M 67					195	67	90	-		-		250	●
-195-M 97						97	60		53				●
-195-M127						127	30						●
-225-M 97	2				225	97	28	62		67		280	○
-225-M127	1					127	60	-	50	-			○
-225-M157						157	30		53				○
-255-M127	2				255	127	28	62		67		310	○
-255-M157	1					157	60	-		-			○

BT50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



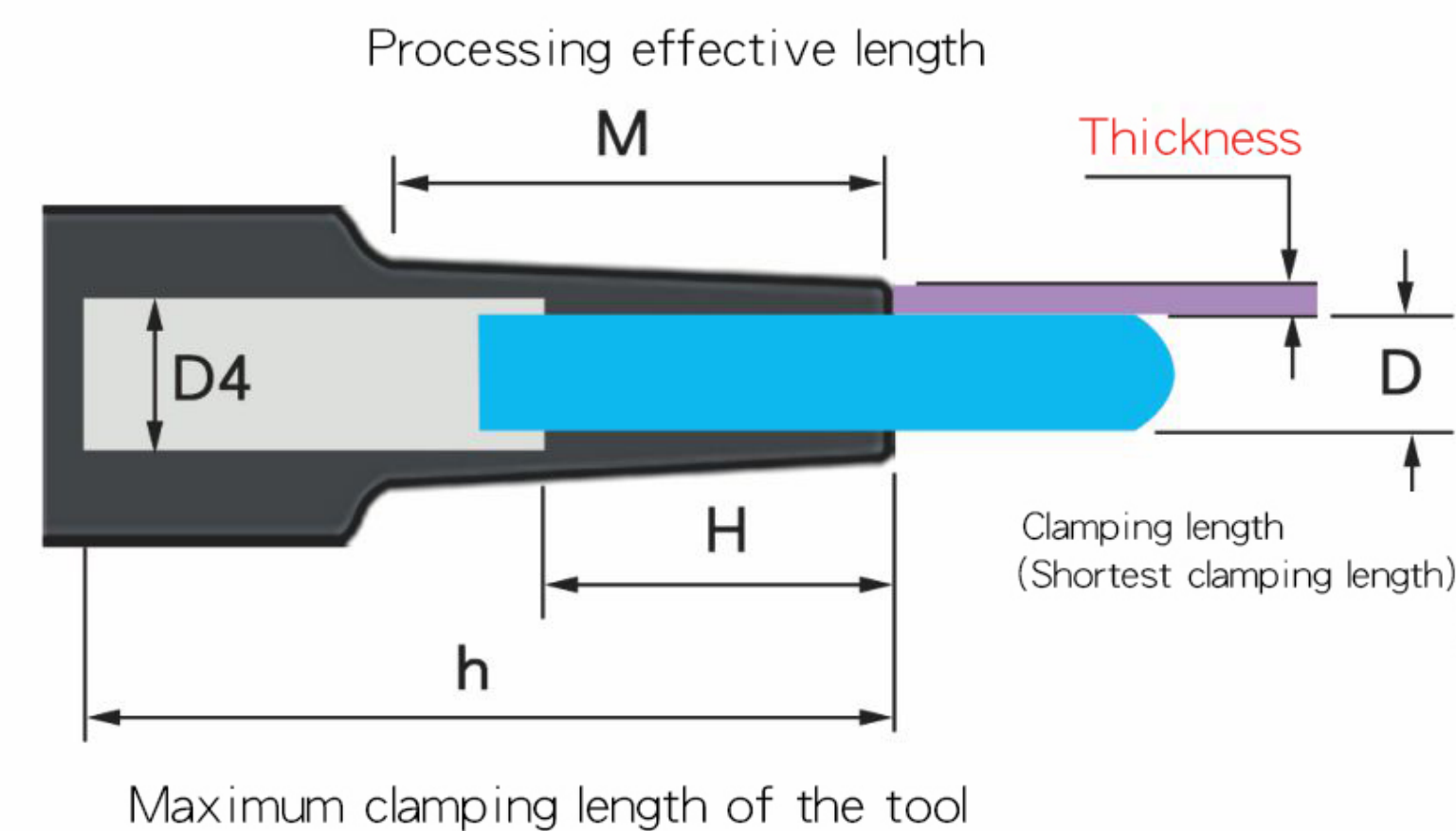
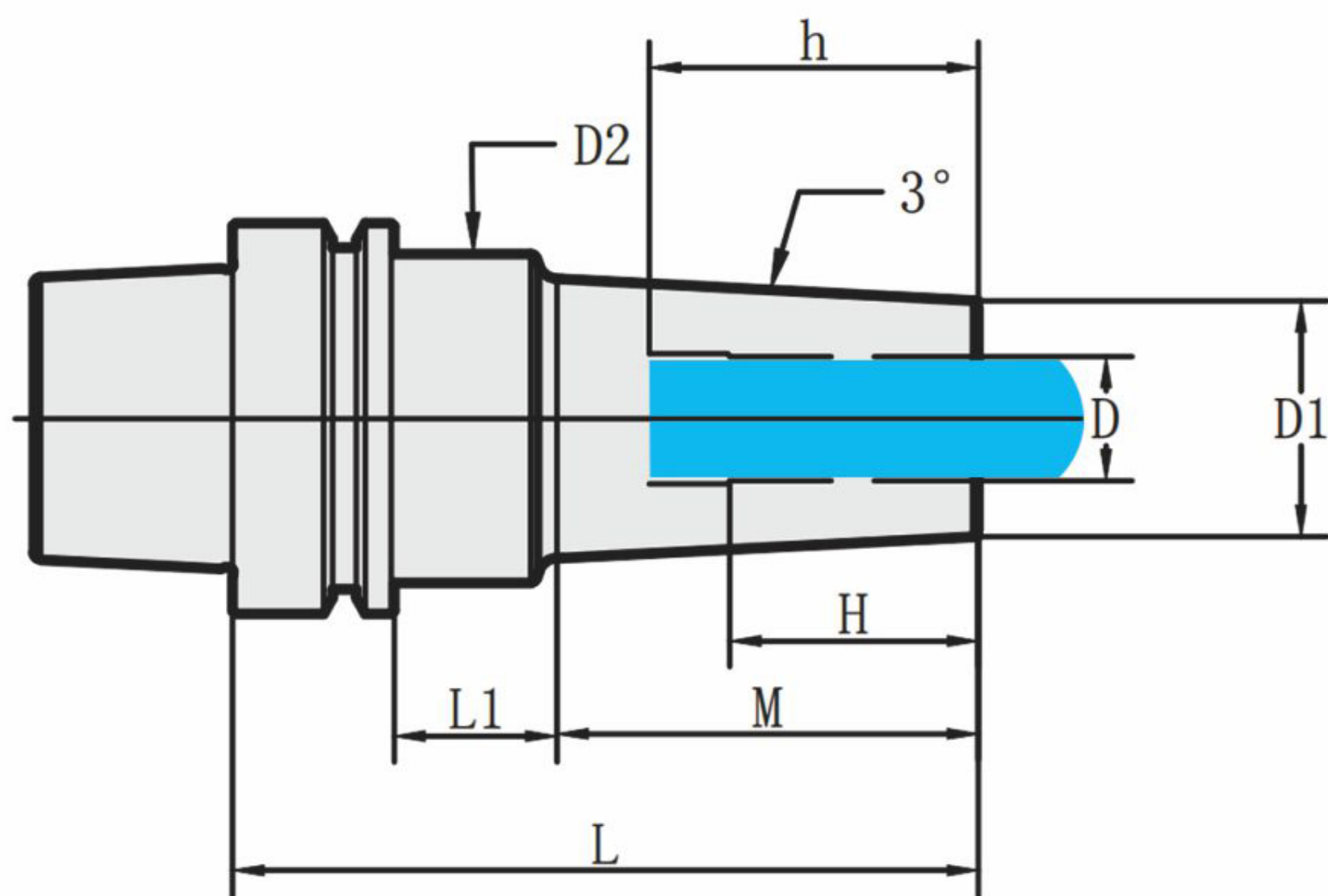
● Standing inventory ○ Small inventory

Unit:mm

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT50 SHSA4-165 CV	4	7	1.5	165	127	85	5	-	-	13	220	○
-195 CV				195	157						250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	
-315 CV				315	277						370	
BT50 SHSA6-165 CV	6	9	1.5	165	127	85	7	-	-	18	220	○
-195 CV				195	157						250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	
-315 CV				315	277						370	
BT50 SHSA8-165 CV	8	11	1.5	165	127	85	9	-	-	24	220	○
-195 CV				195	157						250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	
-315 CV				315	277						370	
BT50 SHRA8-195 CV	8	16	4	195	157	85	9	-	-	24	250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
BT50 SHSA10-165 CV	10	13	1.5	165	127	85	11	-	-	30	220	○
-195 CV				195	157						250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	
-315 CV				315	277						370	
BT50 SHRA10-165 CV	10	19	4.5	165	127	85	11	-	-	30	220	○
-195 CV				195	157						250	○
-225 CV				225	187						280	○
-255 CV				255	217						310	○
-285 CV				285	247						340	
BT50 SHSA12-165 CV	12	15	1.5	165	127	84	13	-	-	30	220	○
-195 CV				195	157	85					250	○
-225 CV				225	187						280	○
BT50 SHSA12-255 CV	12	15	1.5	255	217	85	13	-	-	30	310	○
-285 CV				285	247						340	
-315 CV				315	277						370	
BT50 SHRA12-165 CV	10	19	4.5	165	127	85	14	-	-	30	220	○
-195 CV				195	157		13				250	○
-225 CV				225	187						280	○
-255 CV				255	217						315	○
-285 CV				285	247						340	

A50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

Unit:mm

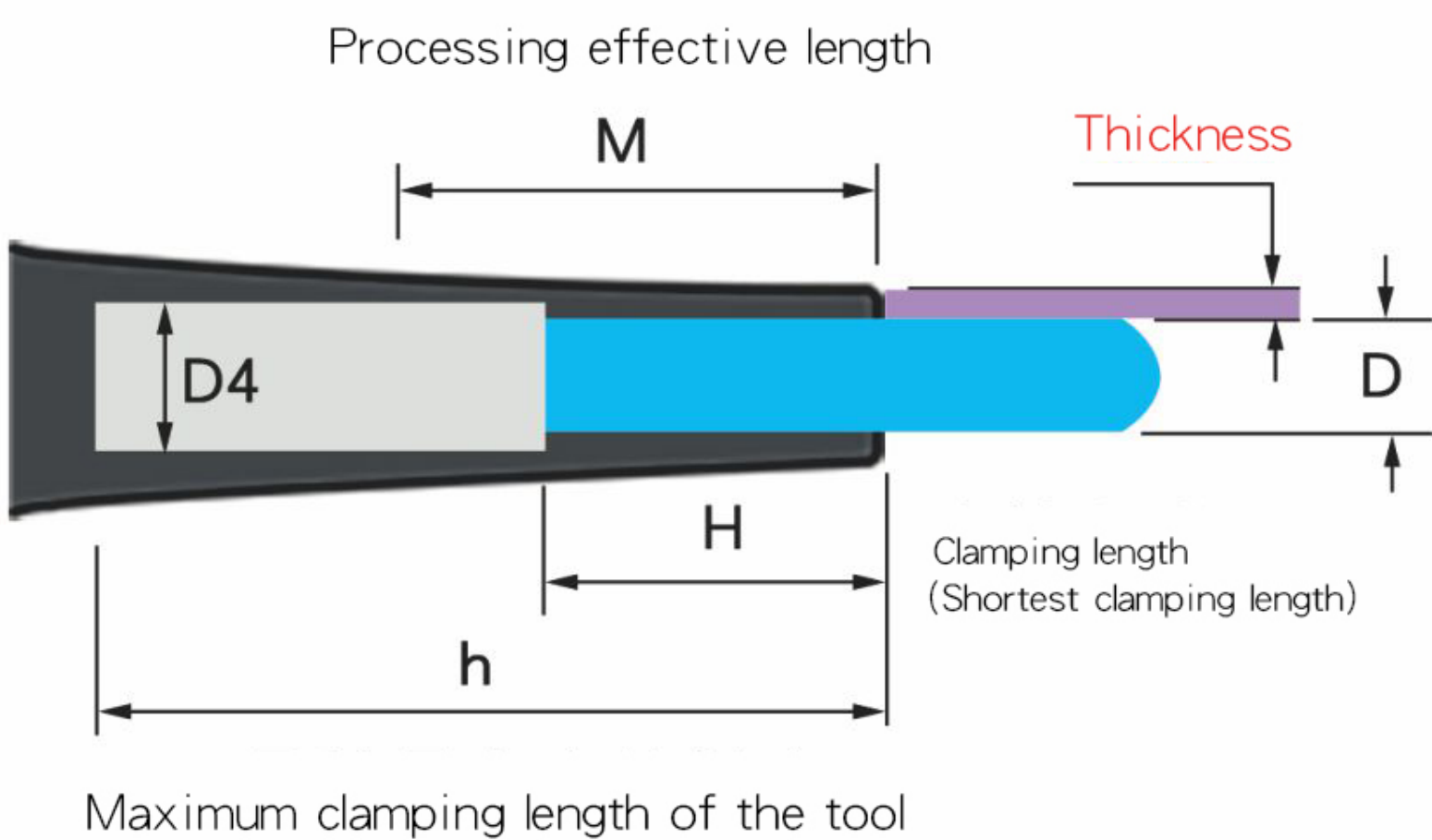
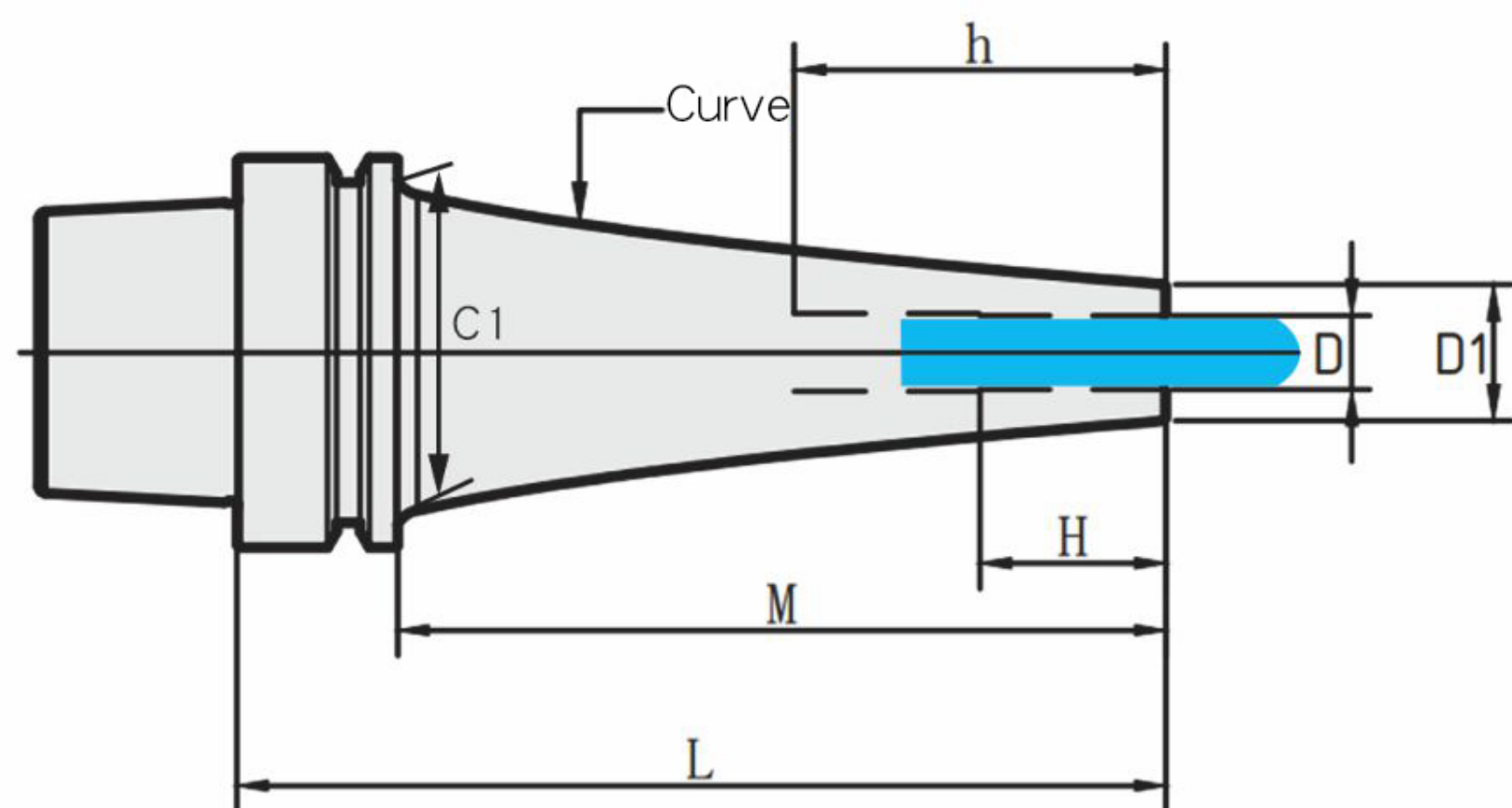
Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK A50 SHSA4- 60-M 22	4	7	1.5	60	22	12	5	20	9.3	13	50	○
- 75-M 22				75	22	27		25			61	●
- 80-M 42				80	42	12		20	11.4		70	●
- 95-M 42				95	42	27		25			85	●
HSK A50 SHRA4- 75-M 22	4	10	3	75	22	27	5	25	12.3	13	61	
- 95-M 42				95	42				14.4		81	
-120-M 67				120	67				17		106	
-150-M 97				150	97				20.2		135	
HSK A50 SHSA6- 60-M 22	6	9	1.5	60	22	12	7	20	11.3	18	42	●
- 75-M 22				75	22	27		25			61	●
- 80-M 42				80	42	12		20	13.4		62	●
- 95-M 42				95	42	27		25			81	○
-120-M 67				120	67				16		106	○
-150-M 97				150	97			32	19.2		135	●
HSK A40 SHRA6- 60-M 22	6	12	3	60	22	12	6.6	26	14.3	18	44	●
- 75-M 22				75	22	27	7	25			61	●
- 95-M 42				95	42				16.4		81	○
-120-M 67				120	67				19		106	

Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK A50 SHSB6- 95-M 42	6	10	2	95	42	27	6.6	25	14.4	18	77	○
-120-M 67				120	67		7		17		102	●
-150-M 97				150	97			32	20.2		135	●
HSK A50 SHRB6- 95-M 42	6	14	4	95	42	27	7	32	18.4	18	80	●
HSK A50 SHSA8- 65-M 22	8	11	1.5	65	22	17	8.6	26	13.3	24	49	
- 75-M 22				75	22	27	9	25	15.4		61	
- 85-M 42				85	42	17	8.6	26			67	
- 95-M 42				95	42	27	9	25			81	
-120-M 67				120	67			32	18		105	●
-150-M 97				150	97				21.2		132	●
HSK A50 SHRA8- 60-M 22	6	14	3	60	22	12	8.6	26	16.3	20	44	●
- 75-M 22				75	22	27	9	25			61	○
- 95-M 42				95	42				18.4		81	○
HSK A50 SHSB8- 95-M 42	8	13	2.5	95	42	27	9	32	17.4	24	77	●
-120-M 67				120	67				20		105	●
-150-M 97				150	97				23.2		132	●
HSK A50 SHRB8- 95-M 42	8	18	5	95	42	27	9	32	22.4	24	77	○
-120-M 67				120	67				25		105	

A50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK A50 SHSA10- 65-M 22	10	13	1.5	65	22	17	10.6	26	15.3	30	49	
- 75-M 22				75	22	27	11	25			61	○
- 85-M 42				85	42	17	10.6	26	17.4		64	●
- 95-M 42				95	42	27	11	25			81	●
-120-M 67				120	67			32	20		105	●
-150-M 97				150	97				23.2		135	○
HSK A50 SHRA10- 60-M 22	10	16	3	60	22	12	10.6	26	18.3	25	44	
- 75-M 22				75	22	27	11	25		30	60	
HSK A50 SHSB10- 95-M 42	10	16	3	95	42	27	11	32	20.4	30	80	○
-120-M 67				120	67				23		105	●
-150-M 97				150	97				26.2		135	●
HSK A50 SHRB10- 95-M 42	10	22	6	95	42	27	11	32	26.4	30	64	●
-120-M 67				120	67			42	29		107	
HSK A50 SHSA12- 65-M 22	12	15	1.5	65	22	17	12.6	26	17.3	25	49	○
- 75-M 22				75	22	27	13	25		30	60	○
- 85-M 42				85	42	17	12.6	26	19.4		64	○
- 95-M 42				95	42	27	13	32			80	○
-120-M 67				120	67				22		105	○
HSK A50 SHRA12- 60-M 22	12	20	4	60	22	12	12.6	26	22.3	25	44	○
- 75-M 22				75	22	27	13	25		30	62	○
HSK A50 SHSB12- 95-M 42	12	19	3.5	95	42	27	13	32	23.4	30	64	
-120-M 67				120	67				26		64	
-150-M 97				150	97				29.2		105	
HSK A50 SHRB12- 95-M 42	12	26	7	95	42	27	13	42	30.4	30	82	
-120-M 67				120	67				33		64	
HSK A50 SHSB16- 95-M 42	16	24	4	95	42	27	17	42	28.4	32	81	
-120-M 67				120	67				31		81	
HSK A50 SHRB16- 75-M 22	16	32	8	75	22	27	17	42	34.3		62	●
HSK A50 SHRA16- 60-M 22	16	26	5	60	22	12	16.6	34	28.3	32	44	●
HSK A50 SHSB20- 95-M 42	20	29	4.5	95	42	27	21	42	33.4	40	82	○
HSK A50 SHRA20- 65-M 22	20	32	6	65	22	17	20.6	40	34.3	38	49	

A50 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



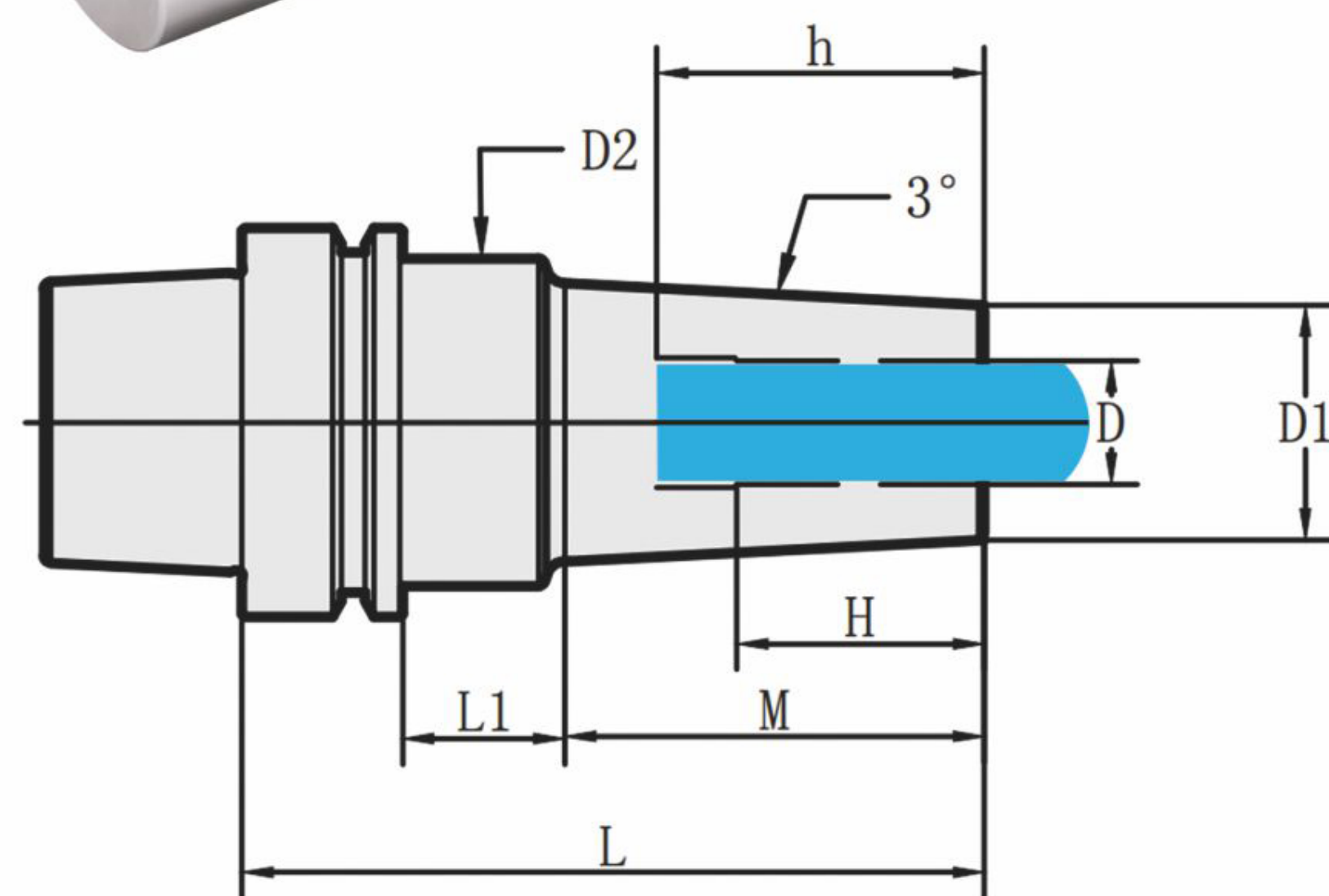
● Standing inventory ○ Small inventory

Unit:mm

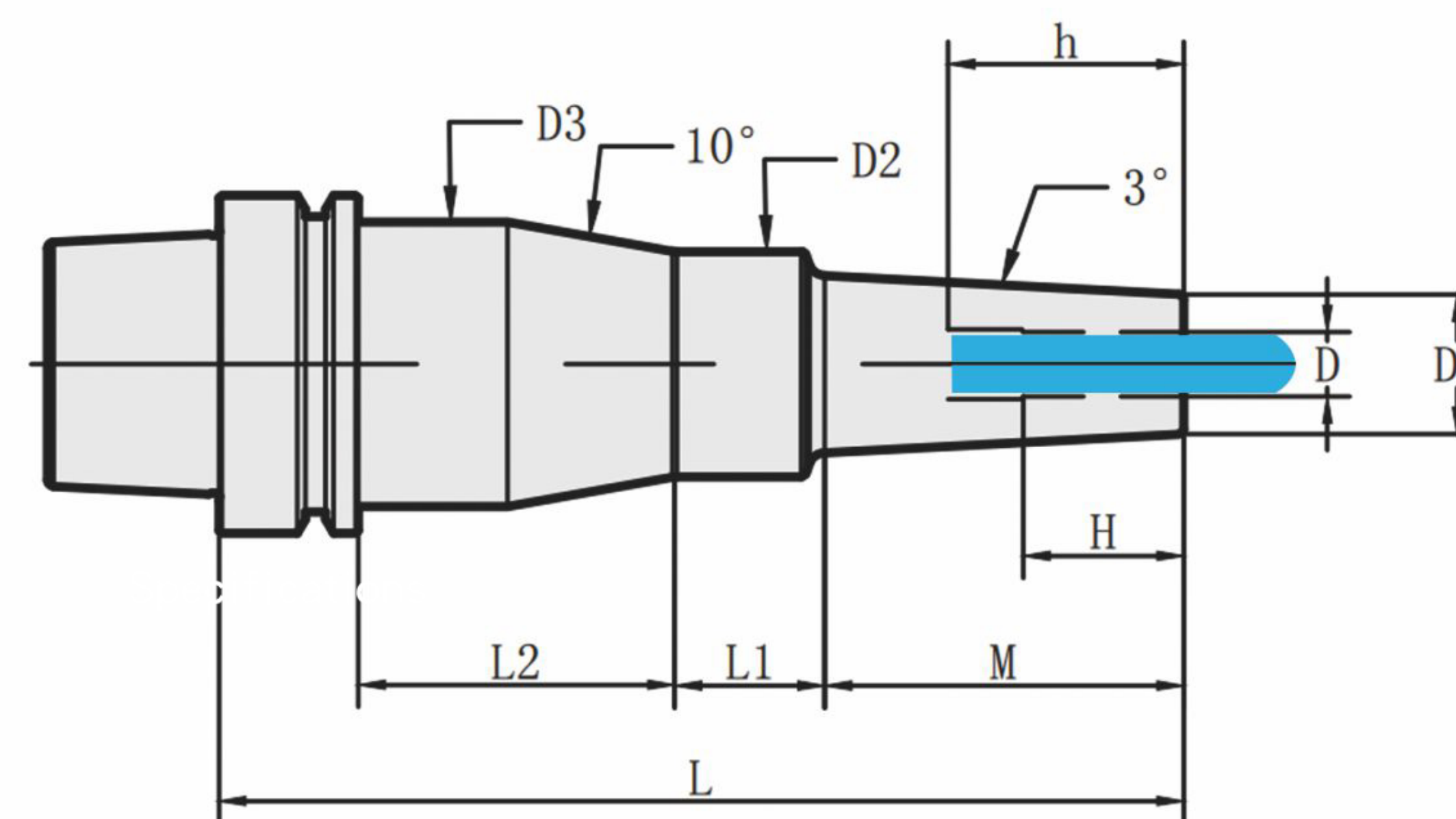
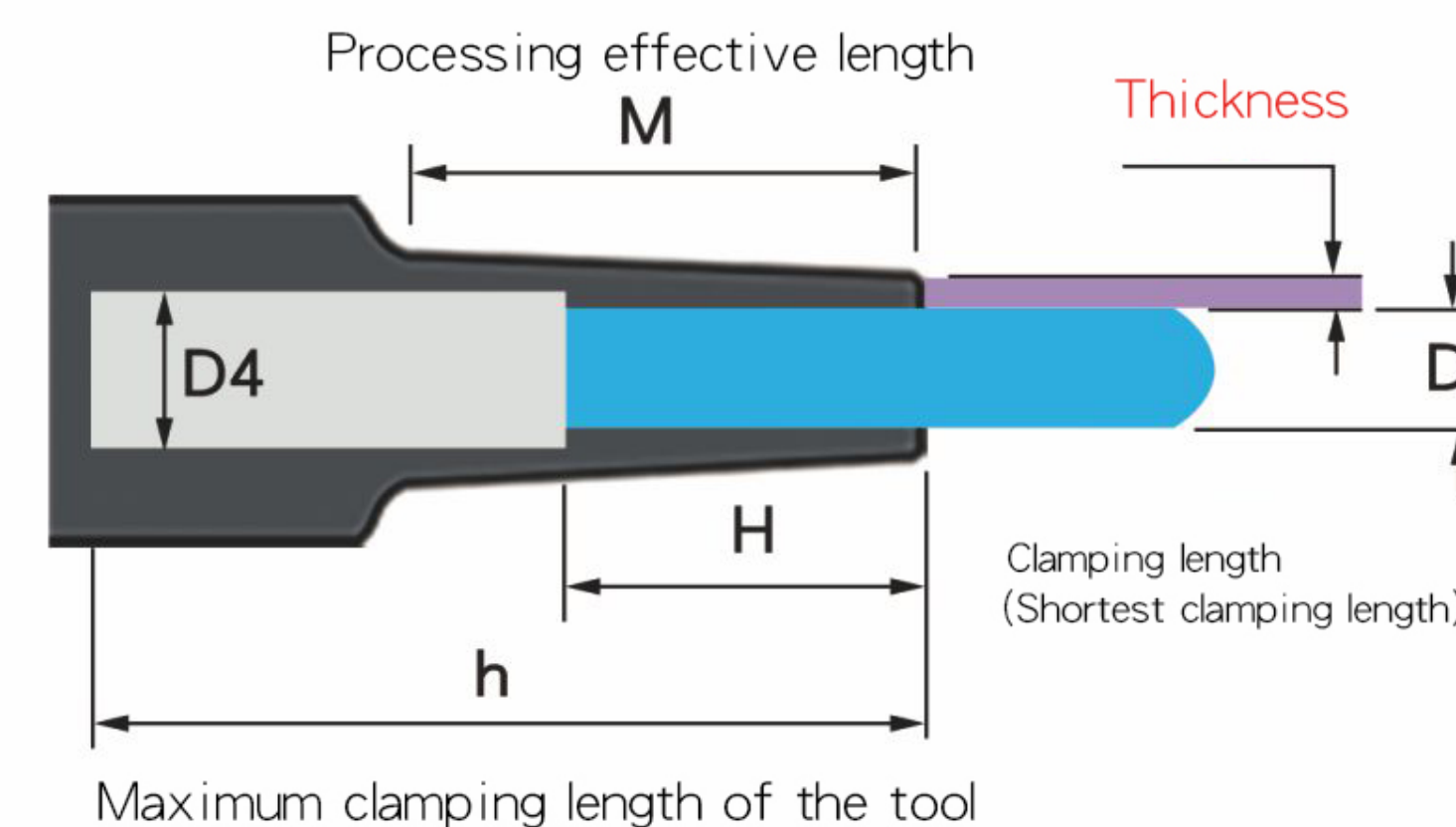
Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK A50 SHSA4- 90 CV	4	7	1.5	90	64	-	-	42	5	13	74	○
-120 CV				120	94						104	●
-150 CV				150	124						134	●
-180 CV				180	154						164	●
HSK A50 SHRA6-120 CV	4	10	3	120	94	-	-	42	5	13	104	
-150 CV				150	124						134	
HSK A50 SHRA6- 90 CV	6	9	1.5	90	64	-	-	42	7	18	74	
-120 CV				120	94						104	
-150 CV				150	124						134	●
-180 CV				180	154						164	●
HSK A50 SHRA6-120 CV	6	13	3.5	120	94	-	-	42	7	18	104	●
-150 CV				150	124						132	○
HSK A50 SHSA8- 90 CV	8	11	1.5	90	64	-	-	42	9	24	74	○
-120 CV				120	94						104	●
-150 CV				150	124						134	●
-180 CV				180	154						164	●
HSK A50 SHRA8-120 CV	8	16	4	120	94	-	-	42	9	24	102	○
-150 CV				150	124						132	

Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK A50 SHSA10- 90 CV	10	19	4.5	90	64	-	-	42	11	30	74	
-120 CV				120	94						104	
-150 CV				150	124						134	
-180 CV				180	154						164	
HSK A50 SHRA10-150 CV	10	19	4.5	150	124	-	-	42	11	30	132	

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



1



2

● Standing inventory ○ Small inventory

Unit:mm

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSA4 - 95-M 42	1	4	7	1.5	95	42	27	-	25	-	12	72	○
-120-M 67					120	67						97	○
-125-M 42					125	42	57					100	○
-150-M 67					150	67						127	○
-150-M 97						97	27						○
-155-M 42	2				155	42	33	54		39		130	○
-180-M 67					180	67			26	40		157	○
-180-M 97	1					97	57	-		-			○
-210-M 97	2				210	97	33	54	25	39		187	○
HSK A63 SHRA4 - 75-M 42	1	4	10	3	75	22	27	-	25	-	12	50	○
- 95-M 42					95	42						72	●

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHRA4 -105-M 22	1	4	10	3	105	42	57	-	26	-	12	80	
-120-M 67					120	67	27		25			100	●
-125-M 42					125	42	57		26			105	○
-135-M 22	2				135	22	33	54		40		110	
-150-M 67	1				150	67	57	-		-		130	●
-150-M 97						97	27		25				○
-155-M 42	2				155	42	33	54		39		135	○
-180-M 67					180	67						157	○
-180-M 97	1					97	57	-	26	-			●
-180-M127						127	27		36				○
-210-M 97	2				210	97	33	54	26	40		180	

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHRA4-210-M127	1	4	10	3	210	127	57	-	36	-	12	187	○
-240-M127	2				240	127	28	59		50		220	
HSK A63 SHSA6- 95-M 42	1	6	9	1.5	95	42	27		25	-	18	70	○
-120-M 67					120	67						100	○
-125-M 42					125	42	57					105	○
-150-M 67					150	67		54	26			130	○
-150-M 97						97	27		32				○
-155-M 42	2				155	42	33	-	25	39		135	○
-180-M 67					180	67		54	26	40		157	○
-180-M 97	1					97	57	-	36	-			○
-210-M 97	2				210	97	28	59		59		190	○
HSK A63 SHSB6- 95-M 42	1	6	10	2	95	42	27	-	26	-	18	72	○
-120-M 67					120	67			25			100	●
-125-M 42					125	42	57		26			105	○
-150-M 67					150	67			25			130	●
-150-M 97						97	27		36				○
-155-M 42	2				155	42	33	54	25	39		135	○
-180-M 67					180	67						157	
-180-M 97	1					97	57	-	36	-			●
-180-M127						127	27						○
-210-M 97	2				210	97	28	59		50		187	
-210-M127	1					127	57	-		-			○
-210-M157						157	27						○
-240-M127	2				240	127	28	59		50		220	
-240-M157	1					157	57	-		-			
-270-M157	2				270	157	30	57	32	46		250	
HSK A63 SHRB6- 75-M 22	1	6	14	4	75	22	27	-	32	-	18	50	○
- 95-M 42					95	42						72	●
-105-M 22					105	22	57		36			80	
-120-M 67					120	67	27					100	●
-125-M 42					125	42	57					105	○
-135-M 22	2				135	22	28	59		50		115	
-150-M 67	1				150	67	57	-	32	-		130	●
-155-M 42	2				155	42	30	57		46		135	○
-180-M 67					180	67						157	●
HSK A63 SHSA8- 95-M 42	1	8	11	1.5	95	42	27	-	36	-	24	70	
-120-M 67					120	67						100	○

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSA8-125-M 42	1	8	11	1.5	125	42	57	-	36	-	24	105	○
-150-M 67					150	67						130	○
-150-M 97						97	27						○
-155-M 42	2				155	42	33	54	25	39		135	○
-180-M 67					180	67	30	57	32	46		157	○
-180-M 97	1					97	57	-	36	-			○
-210-M 97	2				210	97	28	59		50		187	○
HSK A63 SHSB8- 95-M 42	1	8	13	2.5	95	42	27	-	36	-	24	72	○
-120-M 67					120	67			32			100	●
-125-M 42					125	42	57		36			105	
-150-M 67					150	67			32			130	●
-150-M 97						97	27						○
-155-M 42	2				155	42	30	57		46		135	
-180-M 67					180	67						157	
-180-M 97	1					97	57	-	36	-			●
-180-M127						127	27						○
-210-M 97	2				210	97		59		50		187	
-210-M127	1					127	57	-		-			○
-210-M157						157	27						○
-240-M127	2			5	240	127	30	57	32	46		217	
-240-M157	1					157	57	-	36	-			
-270-M157	2				270	157	28	59		50		247	
HSK A63 SHRB8- 75-M 22	1	8	18		75	22	27	-	32	-	24	50	○
- 95-M 42					95	42						72	●
-105-M 22				1.5	105	22	57		36			80	
-120-M 67					120	67	27		32			100	●
-125-M 42					125	42	57		36			105	○
-135-M 22	2				135	22	30	57	32	46		115	
-150-M 67	1				150	67	57	-	36	-		130	●
-155-M 42	2			1.5	155	42	30	57	32	46		135	○
-180-M 67					180	67						157	○
HSK A63 SHSA10- 95-M 42	1	10	13		95	42	27	-	36	-	30	72	
-120-M 67					120	67						100	○
-125-M 42					125	42	57					105	○
-150-M 67					150	67						130	○
-150-M 97						97	27						○
-155-M 42	2				155	42	33	54	25	39		135	○

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSA 10-180-M67	2	10	13	1.5	180	67	30	57	32	46	30	157	○
-180-M 97	1					97	57	-	36	-			○
-210-M 97	2				210	97	30	57	32	46		187	○
HSK A63 SHSB10- 95-M 42	1	10	16	3	95	42	27	-	36	-	30	72	○
-120-M 67					120	67			32			100	●
-125-M 42					125	42	57		36			105	
-150-M 67					150	67						130	●
-150-M 97						97	27		32				○
-155-M 42	2				155	42	28	59	36	50		135	
-180-M 67					180	67						157	
-180-M 97	1					97	57	-		-			●
-180-M127						127	27		50				○
-210-M 97	2				210	97	28	59	36	50		187	
-210-M127	1					127	57	-	50	-			○
-210-M157						157	27						○
-240-M127					240	127	87					220	
-240-M157						157	57						
-270-M157					270	157	87					247	
HSK A63 SHRB10- 75-M 22	1	10	22	6	75	22	27	-	36	-	30	50	○
- 95-M 42					95	42			32			72	●
-105-M 22					105	22	57		36			80	
-120-M 67					120	67	27					100	●
-125-M 42					125	42	57					105	○
-135-M 22	2				135	22	30	57	32	46		110	
-150-M 67	1				150	67	57	-	36	-		130	●
-155-M 42	2				155	42	28	59		50		135	○
-180-M 67					180	67			42	53		157	○
HSK A63 SHSA12- 95-M 22	1	12	15	1.5	95	42	27	-	36	-	30	72	
-120-M 67					120	67						100	○
-125-M 42					125	42	57					105	○
-150-M 67					150	67			32			127	○
-150-M 97						97	27		36				○
-155-M 42	2				155	42	30	57	32	46		135	○
-180-M 67					180	67						157	○
-180-M 97	2				180	97	57	-	36	-			○
-210-M 97	1				210	97	30	57	32	46		187	○
HSK A63 SHSB12- 95-M 22	1	12	19	3.5	95	42	27	-	36	-	30	72	○

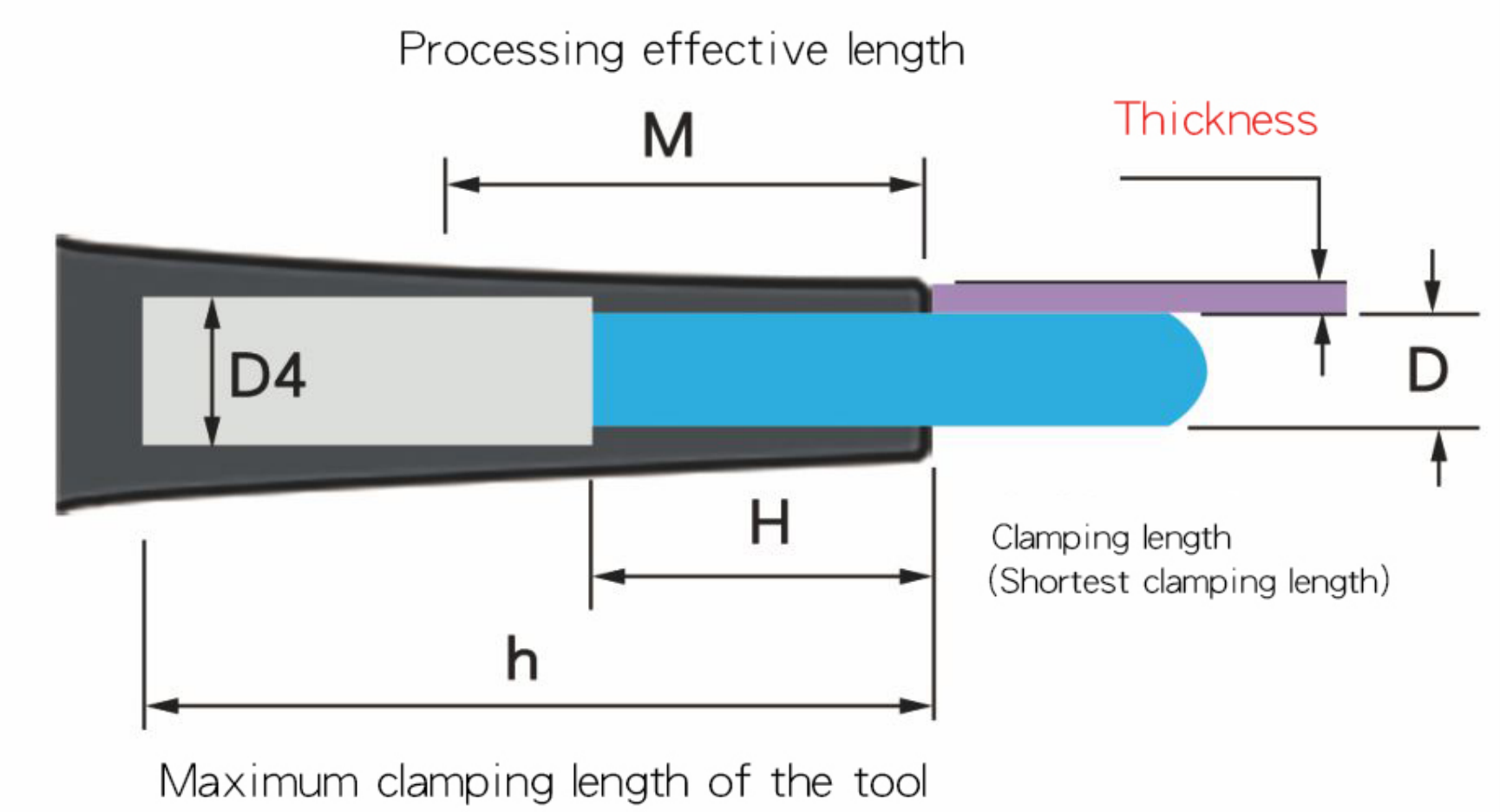
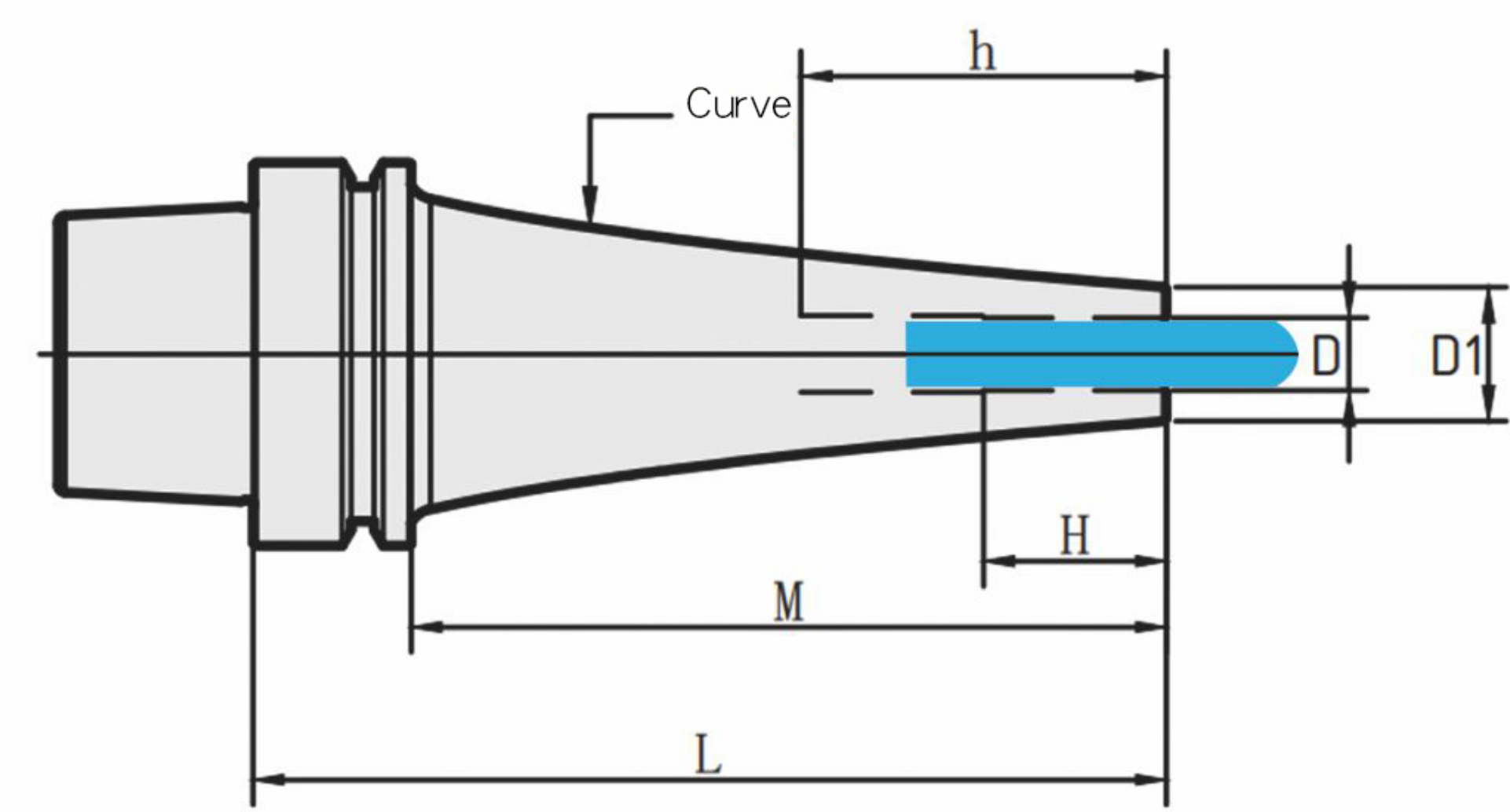
Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSB12-120-M 67	1	12	19	3.5	100	67	27	-	36	-	30	100	●
-125-M 42					125	42	57		32			105	
-150-M 67					150	67			36			127	●
-150-M 97						97	27		50				○
-155-M 42	2				155	42	30	57	32	46		135	
-180-M 67					180	67	28	59	36	50		157	
-180-M 97	1					97	57	-	50	-			●
-180-M127						127	27						○
-210-M 97					210	97	87					187	
-210-M127						127	57						○
-210-M157						157	27						○
-240-M127					240	127	87					217	
-240-M157						157	57						
-270-M157					270	157	87					257	
HSK A63 SHRB12- 75-M 22	1	12	26	7	75	22	27	-	42	-	30	50	○
- 95-M 42					95	42						72	●
-105-M 22					105	22	57		50			80	
-120-M 67					120	67	27					100	●
-125-M 42					125	42	57					105	○
-135-M 22	2				135	22	28	59	42	53		115	
-150-M 67	1			4	150	67	57	-	50	-		120	●
-155-M 42					155	42	87					127	○
-180-M 67					180	67						157	○
HSK A63 SHSB16- 95-M 42	1	16	24		95	42	27	-	42	-	32	72	○
-120-M 67					120	67			50			100	●
-125-M 42					125	42	57					105	
-150-M 67					150	67						127	●
-150-M 97						97	27						○
-155-M 42					155	42	87					130	
-180-M 67	2				180	67	28	59	42	53		157	
-180-M 97	1					97	57	-	50	-			●
-180-M127						127	27		53				○
-210-M 97				4	210	97	87	-	42	-		187	
-210-M127						127	57		53				○
-210-M157						157	27		50				○
-240-M127					240	127	87		53			217	
-240-M157						157	87		50				

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSB16-270-M157	1	16	24	4	270	157	87	-	50	-	32	247	
HSK A63 SHRB16- 75-M 22	1	16	32	8	75	22	27	-	50	-	32	50	○
- 95-M 42					95	42						72	●
-105-M 22					105	22	57					80	●
-120-M 67					120	67	27					100	●
-125-M 42					125	42	57		42			105	○
-135-M 22					135	22	87		50			130	
-150-M 67					150	67	57		42			127	
-155-M 42					155	42	87		50			135	○
-180-M 67					180	67				53		157	●
-210-M 67	2				210	67	28	89	50			187	●
-240-M 67					240	67		119				217	●
HSK A63 SHSB20- 95-M 42	1	20	29	4.5	95	42	27	-	50	-	40	72	
-120-M 67					120	67						100	○
-125-M 42					125	42	57					105	○
-150-M 67					150	67						127	○
-150-M 97						97	27						○
-155-M 42					155	42	87					130	○
-180-M 67					180	67						157	○
-180-M 97						97	57						○
-180-M127						127	27						
-210-M 97					210	97	87					187	
-210-M127						127	57						
-210-M157						157	27						
-240-M127					240	127	87					217	
-240-M157						157	57						
-270-M157					270	157	87					247	
HSK A63 SHRB20- 95-M 42	1	20	38	9	95	42	27	-	53	-	40	72	●
-120-M 67					120	67						100	●
-125-M 42					125	42	57					105	○
-150-M 67					150	67						127	
-155-M 42					155	42	87					130	○
-180-M 67					180	67						157	●
-210-M 67					210	67	117					187	●
-240-M 67					240	67	147					217	●
HSK A63 SHRB25- 95-M 22	1	25	45	10	95	22	27	-	53	-	45	72	●
-125-M 42					125	42	57					105	●

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHRB25-155-M 42	1	25	45	10	155	42	87	-	53	-	45	127	○
-180-M 67					180	67	87					147	●
-210-M 67					210	67	117					187	●
-240-M 67					240	67	147					217	●

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

Specifications	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSA4- 90 CV	4	7	1.5	90	64	-	-	-	-	13	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	
-240 CV				240	214						217	
-270 CV				270	244						245	
-300 CV				300	274						275	
HSK A63 SHRA4-120 CV	4	10	3	120	94	-	-	-	-	13	95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
HSK A63 SHSA6- 90 CV	6	9	1.5	90	64	-	-	-	-	19	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
-240 CV				240	214						217	

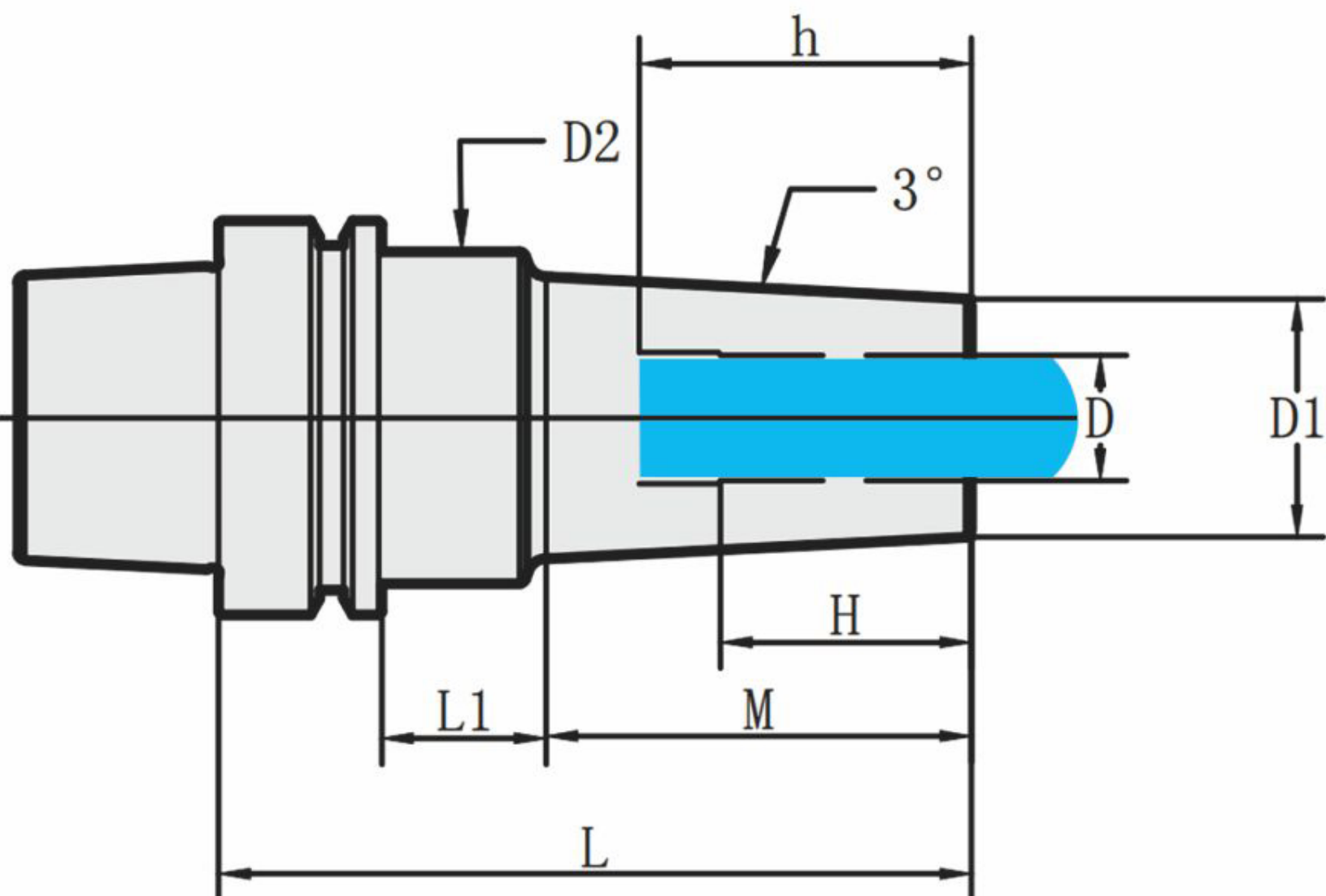
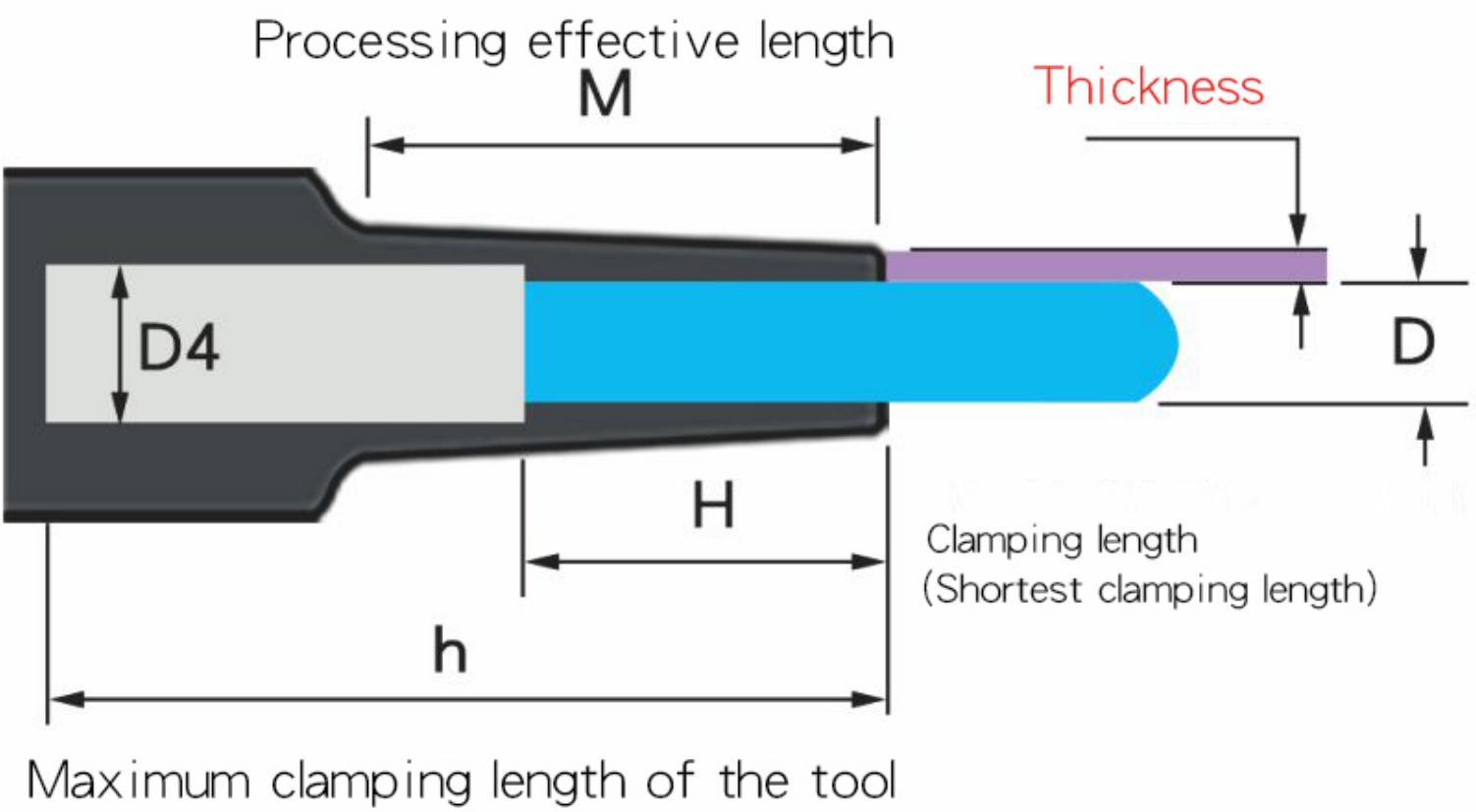
Specifications	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHSA6-270 CV	6	9	1.5	270	244	-	-	-	-	19	245	
-300 CV				300	274						275	
HSK A63 SHRA6- 90 CV	6	13	3.5	90	64	-	-	-	-	19	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
HSK A63 SHSA8- 90 CV	8	11	1.5	90	64	-	-	-	-	25	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
-240 CV				240	214						214	
-270 CV				270	244						245	
-300 CV				300	274						274	
HSK A63 SHRA8- 90 CV	8	16	4	90	64	-	-	-	-	25	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●

A63 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

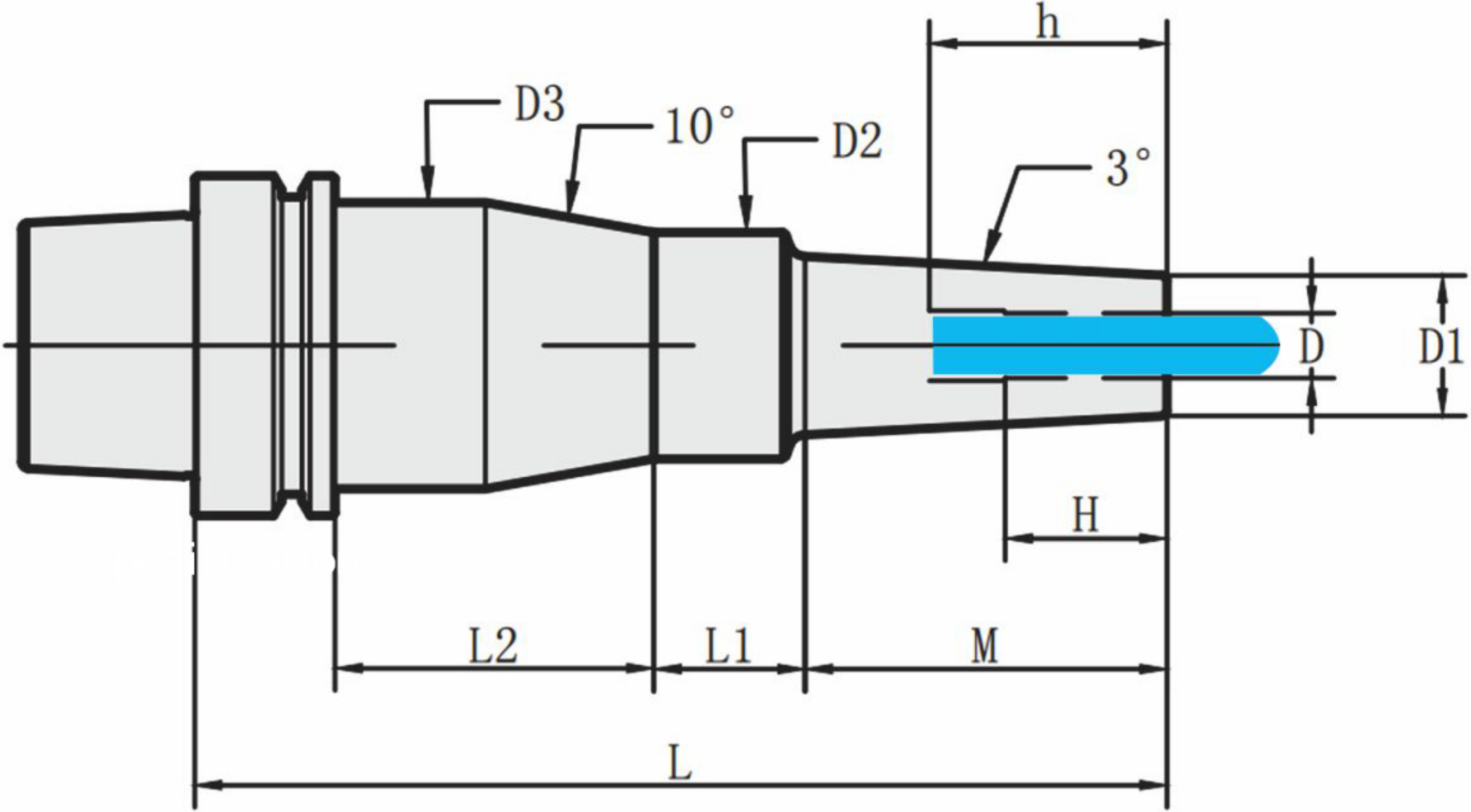
Specifications	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A63 SHRA8-180 CV	8	16	4	180	154	-	-	-	-	25	157	●
-210 CV				210	184						185	○
HSK A63 SHSA10-90 CV	10	13	1.5	90	64	-	-	-	-	30	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
-240 CV				240	214						217	
-270 CV				270	244						245	
-300 CV				300	274						274	
HSK A63 SHRA10-90 CV	10	19	4.5	90	64	-	-	-	-	30	70	○
-120 CV				120	94						95	●
-150 CV				150	124						125	●
-180 CV				180	154						157	●
-210 CV				210	184						185	○
HSK A63 SHSA12-90 CV	12	15	1.5	90	64	-	-	-	-	30	70	○
-120 CV				120	94						94	●
-150 CV				150	124						125	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
-240 CV				240	214						217	
-270 CV				270	244						245	
HSK A63 SHRA12-90 CV	12	22	5	90	64	-	-	-	-	30	70	○
-120 CV				120	94						95	●
-150 CV				150	124						127	●
-180 CV				180	154						157	●
-210 CV				210	184						187	○
HSK A63 SHSB16-90 CV	16	21	2.5	90	64	-	-	-	-	32	70	
-120 CV				120	94						95	
-150 CV				150	124						127	
-180 CV				180	154						157	
-210 CV				210	184						187	
-240 CV				240	214						217	
-270 CV				270	244						245	
HSK A63 SHSB20-90 CV	20	26	3	90	64	-	-	-	-	40	70	
-120 CV				120	94						95	
-150 CV				150	124						127	

Specifications	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
-180 CV	20	26	3	180	154	-	-	-	-	40	157	
-210 CV				210	184						187	
-240 CV				240	214						217	
-270 CV				270	244						245	

A 100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



1



2

● Standing inventory ○ Small inventory

Unit:mm

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHSA4-110-M 42	1	4	7	1.5	110	42	39	-	26	-	12	80	○
-135-M 67					135	67							105
-140-M 42					140	42	69		25			110	○
-165-M 67					165	67	26					135	○
-165-M 97						97			39				○
-170-M 42	2	4	7	1.5	170	42	33	66		40	140	○	
-195-M 67					195	67	25	39	165	○			
-195-M 97	1				97	69		-	-		○		
-225-M 97	2				225	97	33	66	39	195	○		
HSK A100 SHRA4- 90-M 22	1				4	10	3	90	22	39	-	26	-
-110-M 42		110	42										

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHRA4-120-M 22	1	4	10	3	120	22	69	-	26	-	12	90	
-135-M 67					135	67	39					105	●
-140-M 42					140	42	69					110	○
-150-M 22	2				150	22	33	66		40		120	
-165-M 67	1				165	67	69	-		-		135	●
-165-M 97						97	39						○
-170-M 42	2				170	42	33	66		40		140	○
-195-M 67	1				195	67		-	25	39		165	○
-195-M 97						97	69						●
-195-M127						127	39						○
-225-M 97	2				225	97	33	66	26	40		195	

A 100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHRA4-225-M127	1	4	10	3	225	127	69	-	36	-	12	195	○
-255-M127	2				255	127	29	71		50		225	
HSK A100 SHSA6-110-M 42	1	6	9	1.5	110	42	39	-	25	-	18	80	○
-135-M 67					135	67						105	○
-140-M 42					140	42	69					110	○
-165-M 67					165	67						135	○
-165-M 97						97	39		36				○
-170-M 42	2				170	42	33	66	25	39		140	○
-195-M 67					195	67			26	40		165	○
-195-M 97	1					97	69	-	36	-			○
-225-M 97	2				225	97	30	69	32	46		195	○
HSK A100 SHSB6-110-M 42	1	6	10	2	110	42	39	-	26	-	18	80	○
-135-M 67					135	67						105	●
-140-M 42					140	42	69					110	○
-165-M 67					165	67						135	●
-165-M 97						97	39		36				○
-170-M 42	2				170	42	33	66	26	40		140	○
-195-M 67					195	67						165	
-195-M 97	1					97	69	-	36	-			●
-195-M127						127	39						○
-225-M 97	2				225	97	28	71		50		195	
-225-M127	1					127	69	-	32	-			○
-225-M157						157	39						○
-255-M127	2				255	127	28	71	36	50		225	
-255-M157	1					157	69	-	32	-			
-285-M157	2				285	157	30	69		46		255	
HSK A100 SHRB6- 90-M 22	1	6	14	4	90	22	39	-	32	-	18	60	○
-110-M 42					110	42						80	●
-120-M 22					120	22	69		36			90	
-135-M 67					135	67	39		32			105	●
-140-M 42					140	42	69					110	○
-150-M 22	2				150	22	30	69		46		120	
-165-M 67	1				165	67	69	-	36	-		135	●
-170-M 42	2				170	42	28	71		50		140	○
-195-M 67					195	67						165	●
HSK A100 SHSA8-110-M 42	1	8	11	1.5	110	42	39	-	36	-	24	80	
-135-M 67					135	67			32			105	○

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHSA8-140-M 42	1	8	11	1.5	140	42	69	-	36	-	24	110	○
-165-M 67					165	67						135	○
-165-M 97						97	39						○
-170-M 42	2				170	42	28	71		50		140	○
-195-M 67					195	67			36			165	○
-195-M 97	1					97	69	-	32	-			○
-225-M 97	2				225	97	28	71	36	50		195	○
HSK A100 SHSB8-110-M 42	1	8	13	2.5	110	42	39	-	36	-	24	80	○
-135-M 67					135	67						105	●
-140-M 42					140	42	69		32			110	
-165-M 67					165	67						135	●
-165-M 97						97	39						○
-170-M 42	2				170	42	28	71	36	50		140	
-195-M 67					195	67	30	69	32	46		165	
-195-M 97	1					97	69	-		-			●
-195-M127						127	39		36				○
-225-M 97	2				225	97	30	69	32	46		195	
-225-M127	1			5		127	69	-	36	-			○
-225-M157						157	39		42				○
-255-M127	2				255	127	30	69	32	46		225	
-255-M157	1					157	69	-	42	-			
-285-M157	2				285	157	28	71		56		255	
HSK A100 SHRB8 - 90-M 22	1	8	18		90	22	39	-	32	-	24	60	○
-110-M 42				1.5	110	42			36			80	●
-120-M 22					120	22	69		32			90	
-135-M 67					135	67	39					105	●
-140-M 42					140	42	69					110	○
-150-M 22	2				150	22	30	69		46		120	
-165-M 67	1				165	67	69	-	36	-		135	●
-170-M 42	2				170	42	28	71		46		140	○
-195-M 67					195	67						165	○
HSK A100 SHSA10-110-M 42	1	10	13	1.5	110	42	39	-	25	-	30	80	
-135-M 67					135	67			36			105	○
-145-M 42					145	42	69		25			110	○
-165-M 67					165	67			36			135	○
-165-M 97						97	39						○
-170-M 42	2				170	42	28	71		50		140	○

A100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

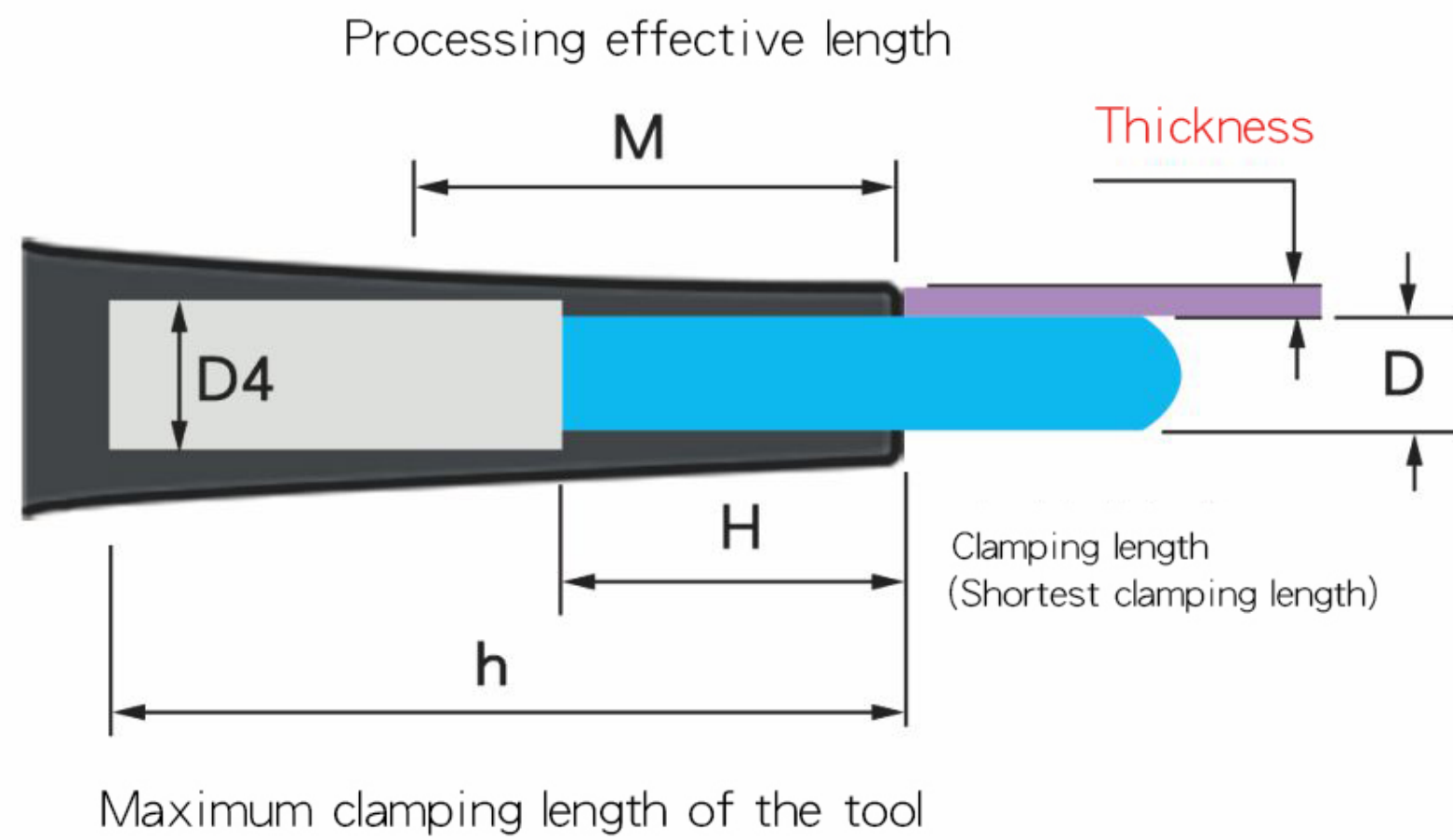
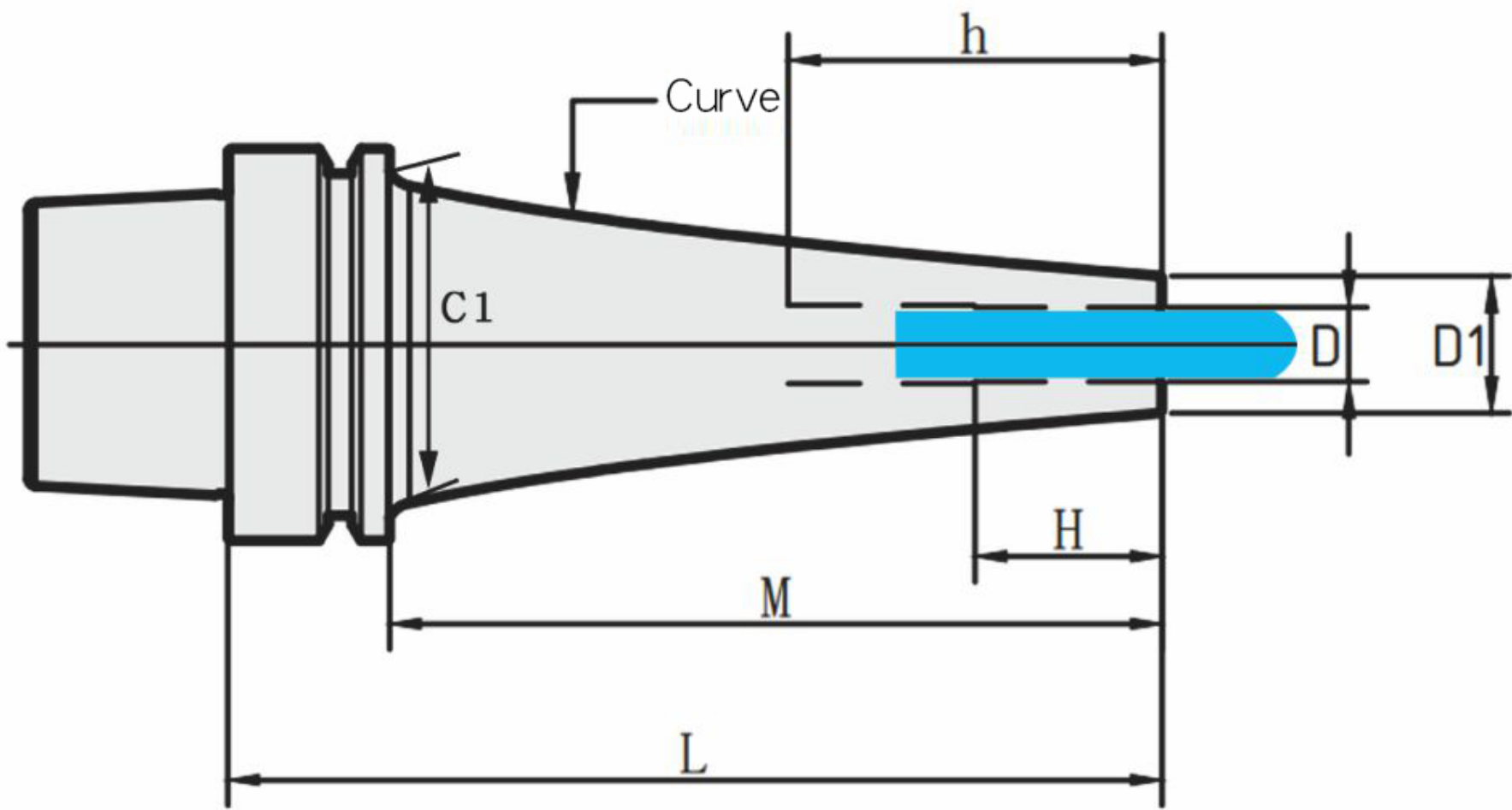
Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHSA10-195-M67	2	10	13	1.5	195	67	28	71	36	50	30	165	○
-195-M 97	1					97	69	-		-			○
-225-M 97	2				225	97	30	69	32	46		195	○
HSK A100 SHSB10-110-M 42	1	10	16	3	110	42	39	-	36	-	30	80	○
-135-M 67					135	67						105	●
-140-M 42					140	42	69		32			110	
-165-M 67					165	67						135	●
-165-M 97						97	39		36				○
-170-M 42	2				170	42	28	71		50		140	
-195-M 67					195	67						165	
-195-M 97	1					97	69	-		-			●
-195-M127						127	39		42				○
-225-M 97	2				225	97	30	69	32	46		195	
-225-M127	1					127	69	-	50	-			○
-225-M157						157	39		42				○
-255-M127					255	127	99		50			225	
-255-M157						157	69		42				
-285-M157					285	157	99		50			255	
HSK A100 SHRB10- 90-M 22	1	10	22	6	90	22	39	-	36	-	30	60	○
-110-M 42					110	42						80	●
-120-M 22					120	22	69					90	
-135-M 67					135	67	39		42			105	●
-140-M 42					140	42	69		32			110	○
-150-M 22	2				150	22	28	71	36	50		120	
-165-M 67	1				165	67	69	-		-		135	●
-170-M 42	2				170	42	28	71		50		140	○
-195-M 67					195	67						165	○
HSK A100 SHSA12-110-M 42	1	12	15	1.5	110	42	39	-	32	-	30	79	
-135-M 67					135	67						105	○
-140-M 42					140	42	69					110	○
-165-M 67					165	67						130	○
-165-M 97						97	39		36			134	○
-170-M 42	2				170	42	28	71		50		135	○
-195-M 67					195	67	30	69	32	46		160	○
-195-M 97	1				195	97	69	-	36	-			○
-225-M 97	2				225	97	28	71		50		190	○
HSK A100 SHSB12-110-M 42	1	12	19	3.5	110	42	39	-	36	-	30	79	○

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHSB12-135-M 67	1	12	19	3.5	135	67	39	-	32	-	30	104	●
-140-M 42					140	42	69					105	
-165-M 67					165	67			36			130	●
-165-M 97						97	39		50				○
-170-M 42	2				170	42	28	71	36	50		135	
-195-M 67					195	67						160	
-195-M 97	1					97	69	-	50	-			●
-195-M127						127	39						○
-225-M 97					225	97	99					190	
-225-M127						127	69		42				○
-225-M157						157	39		50				○
-255-M127					255	127	99					220	
-255-M157						157	69		42				
-285-M157					285	157	99		50			250	
HSK A100 SHRB12 - 90-M 22	1	12	26	7	90	22	39	-	50	-	30	55	○
-110-M 42					110	42			42			75	●
-120-M 22					120	22	69					85	
-135-M 67					135	67	39		50			100	●
-140-M 42					140	42	69		42			105	○
-150-M 22					150	22	99		50			115	
-165-M 67					165	67	69		42			130	●
-170-M 42					170	42	99		50			135	○
-195-M 67					195	67						160	○
HSK A100 SHSB16 -110-M 42	1	16	24	4	110	42	39	-	50	-	32	75	○
-135-M 67					135	67						100	●
-140-M 42					140	42	69					105	
-165-M 67					165	67			42			130	●
-165-M 97						97	39		50				○
-170-M 42					170	42	99					135	
-195-M 67					195	67		59				160	
-195-M 97						97	69	-	42				●
-195-M127						127	39		50				○
-225-M 97					225	97	99	-				190	
-225-M127						127	69						○
-225-M157						157	39		53				○
-255-M127	2				255	127	28	71		67		220	
-255-M157	1					157	69	-	50	-			

A 100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)

Specifications	Diagram	D	D1	t	L	M	L1	L2	D2	D3	H	h	Stock
HSK A100 SHSB16-285-M157	1	16	24	4	285	157	28	71	53	67	32	250	
HSK A100 SHRB16- 90-M 22	1	16	32	8	90	22	39	-	42	-	32	55	○
-110-M 42					110	42						75	●
-120-M 22					120	22	69					85	●
-135-M 67					135	67	39		50			100	●
-140-M 42					140	42	69					105	○
-150-M 22					150	22	99					115	
-165-M 67					165	67	69		42			130	
-170-M 42					170	42	99		50			135	○
-195-M 67					195	67						160	●
HSK A100 SHSB20-110-M 42	1	20	29	4.5	110	42	39	-	50	-	40	75	●
-135-M 67					135	67			42			100	●
-140-M 42					140	42	69		50			105	
-165-M 67					165	67						130	○
-165-M 97						97	39		53				○
-170-M 42	2				170	42	28	71	42	56		135	○
-195-M 67	1				195	67	99	-	50	-		160	○
-195-M 97						97	69						○
-195-M127						127	39		53				○
-225-M 97					225	97	99		50			190	○
-225-M127						127	69						
-225-M157						157	39		53				
-255-M127					255	127	99		50			220	
-255-M157						157	69						
-285-M157	2				285	157	28	71	53	67		250	
HSK A100 SHRB20-110-M 42	1	20	38	9	110	42	39	-	53	-	40	75	
-135-M 67					135	67						100	
-140-M 42					140	42	69					105	●
-165-M 67					165	67						130	●
-170-M 42					170	42	99		50			135	○
-195-M 67	2				195	67	28	71	53	67		160	
HSK A100 SHRB25-110-M 42	1	25	45	10	110	42	39	-	50	-	45	75	○
-140-M 42					140	42	69					105	●
-170-M 42	2				170	42	28	71	53	67		135	●

A100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

Unit:mm

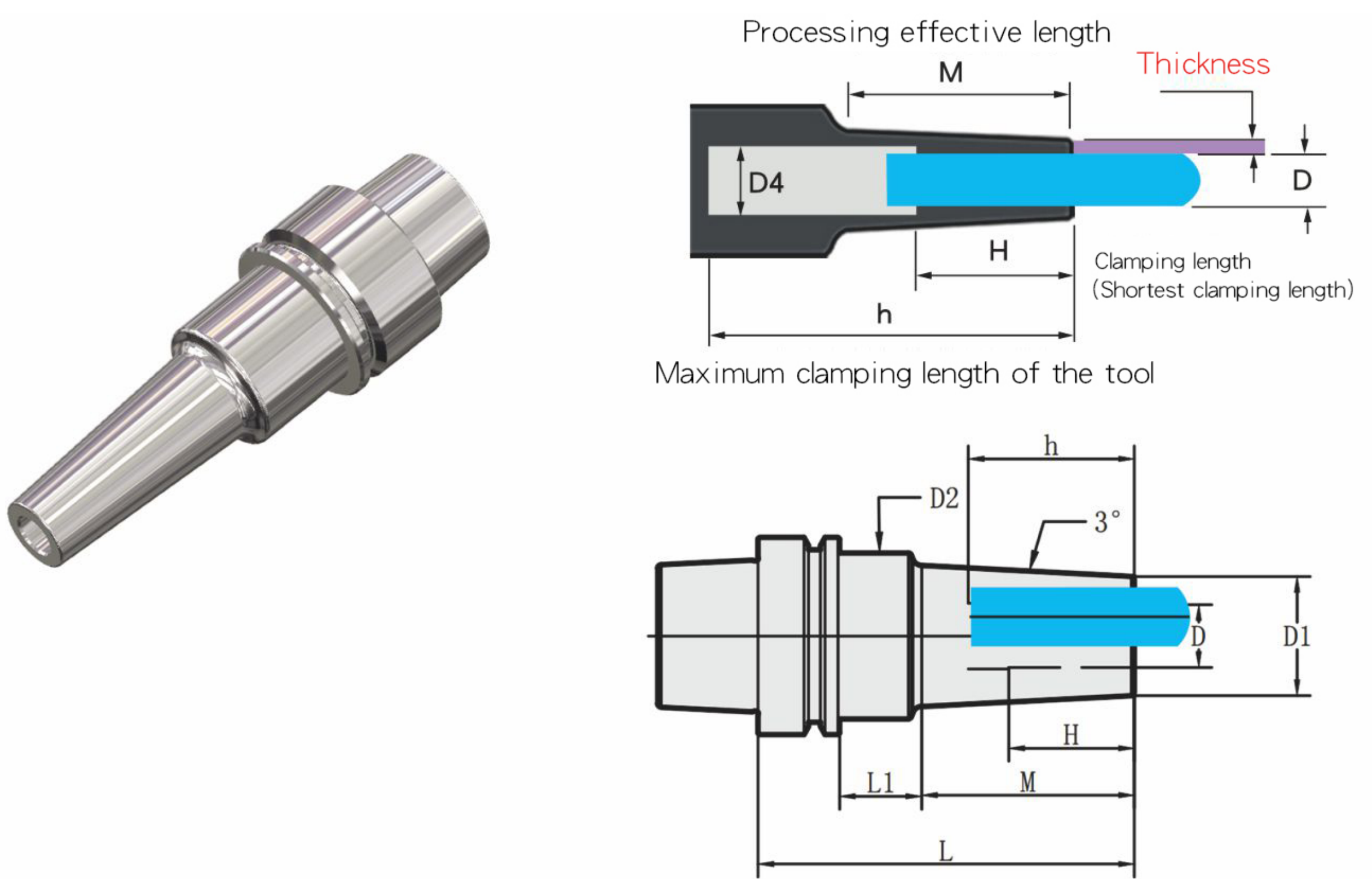
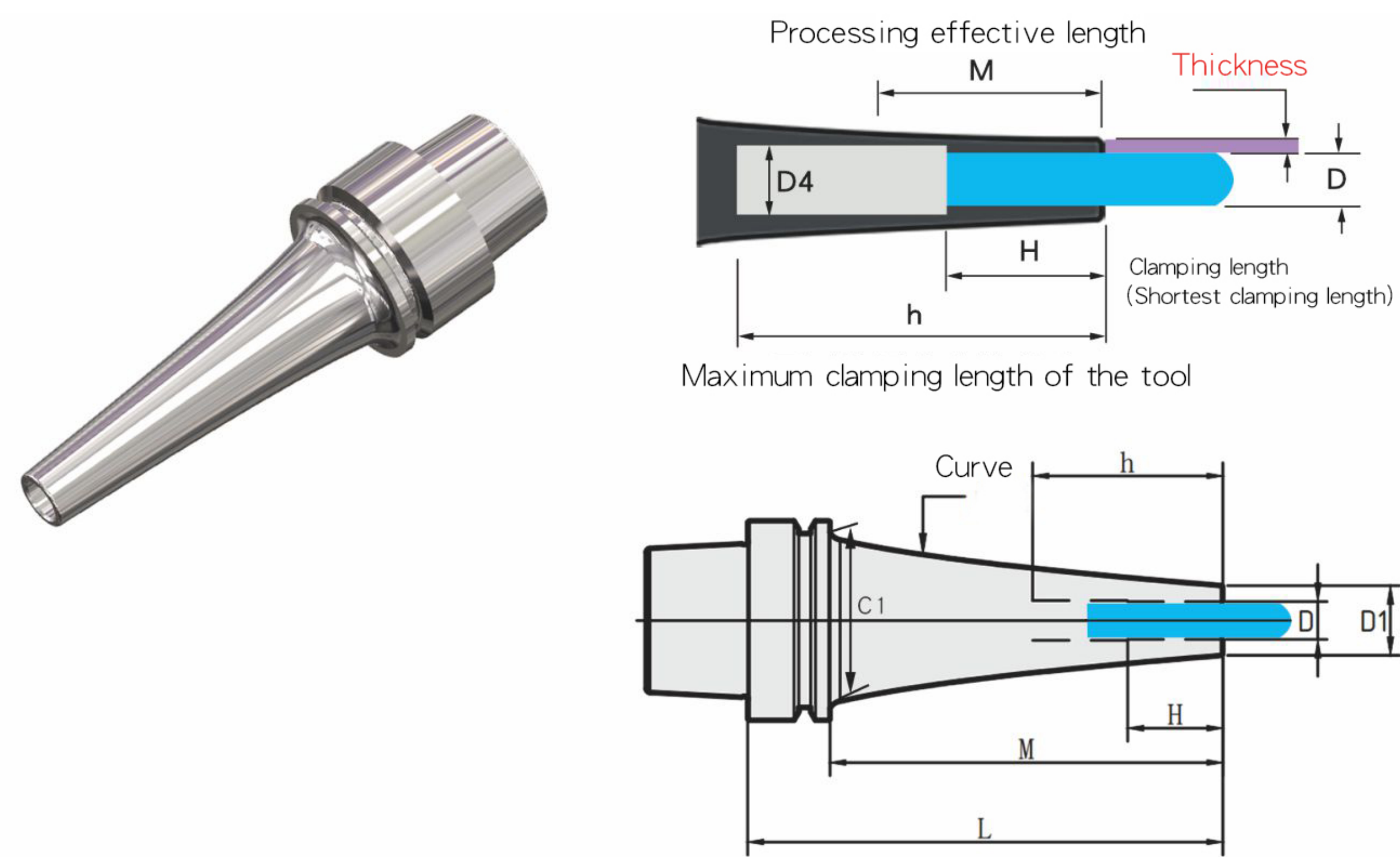
Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK A100 SHSA4 -165 CV	4	7	1.5	165	136	-	-	85	5	13	133	○
-195 CV				195	166						163	●
-225 CV				225	196						196	●
-255 CV				255	226						226	●
-285 CV				285	256						256	
-315 CV				315	286						286	
-345 CV				345	316						316	
HSK A100 SHSA6 -165 CV	6	9	1.5	165	136	-	-	85	7	18	136	
-195 CV				195	166						166	●
-225 CV				225	196						196	●
-255 CV				255	226						226	●
-285 CV				285	256						256	○
-315 CV				315	286						286	○
-345 CV				345	316						316	●
HSK A100 SHSA8 -165 CV	8	11	1.5	165	136	-	-	85	9	24	136	●
-195 CV				195	166						166	●
-225 CV				225	196						196	○
-255 CV				255	226						226	

Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK A100 SHSA8 -285 CV	8	11	1.5	285	256	-	-	85	9	24	256	
-315 CV				315	286						286	
-345 CV				345	316						311	○
HSK A100 SHRA8 -195 CV	8	16	4	195	166	-	-	85	9	24	166	●
-225 CV				225	196						196	●
-255 CV				255	226						226	●
-285 CV				285	256						256	○
HSK A100 SHSA10 -165 CV	10	13	1.5	165	136	-	-	85	11	30	136	○
-195 CV				195	166						166	●
-225 CV				225	196						196	●
-255 CV				255	226						226	●
-285 CV				285	256						251	○
-315 CV				315	286						286	
-345 CV				345	316						311	
HSK A100 SHRA10 -165 CV	10	19	4	165	136	-	-	85	11	30	136	
-195 CV				195	166						166	○
-225 CV				225	196						196	●
-255 CV				255	226						226	●

A 100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)

Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK A100 SHRA10-285 CV	10	19	4.5	285	256	-	-	85	11	30	256	●
HSK A100 SHSA12-165 CV	12	15	1.5	165	136	-	-	85	13	30	133	○
-195 CV				195	166						163	○
-225 CV				225	196						175	●
-255 CV				255	226						190	●
-285 CV				285	256						251	●
-315 CV				315	286						281	○
-345 CV				345	316						311	
HSK A100 SHRA12-165 CV	12	22	5	165	136	-	-	85	13	30	133	
-195 CV				195	166				14		163	
-225 CV				225	196				13		159	○
-255 CV				255	226						221	●
-285 CV				285	256						251	●
HSK A100 SHSB16-165 CV	16	21	2.5	165	136	-	-	85	17	32	131	●
-195 CV				195	166						161	○
-225 CV				225	196						191	○
-255 CV				255	226						221	●
-285 CV				285	256						251	●
-315 CV				315	286						281	●
-345 CV				345	316						311	○
HSK A100 SHSB20-165 CV	20	26	3	165	136	-	-	85	21	40	132	
-195 CV				195	166						161	
-225 CV				225	196						191	○
-255 CV				255	226						221	●
-285 CV				285	256						251	●
-315 CV				315	286						281	●
-345 CV				345	316						311	○

E32 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



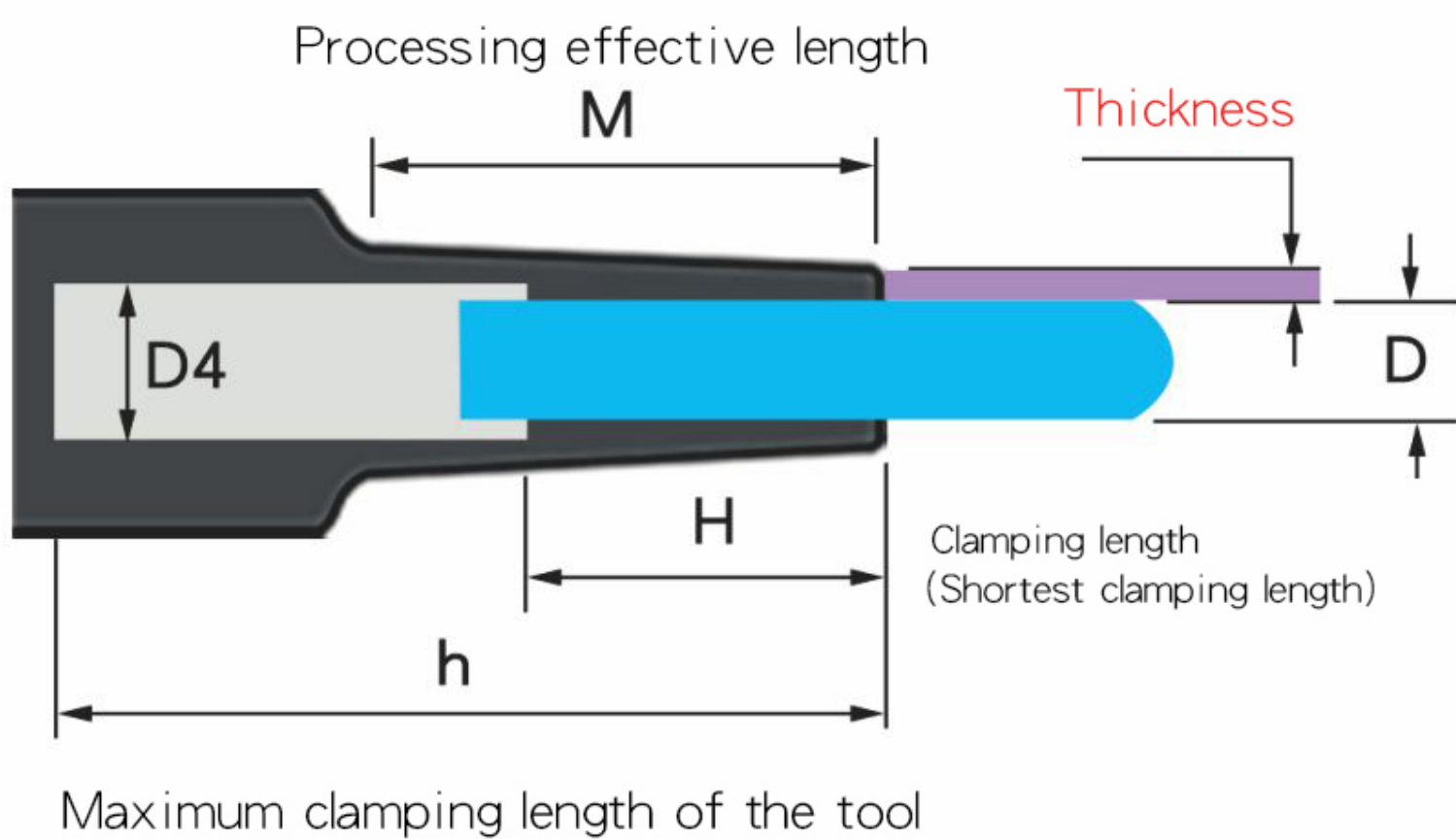
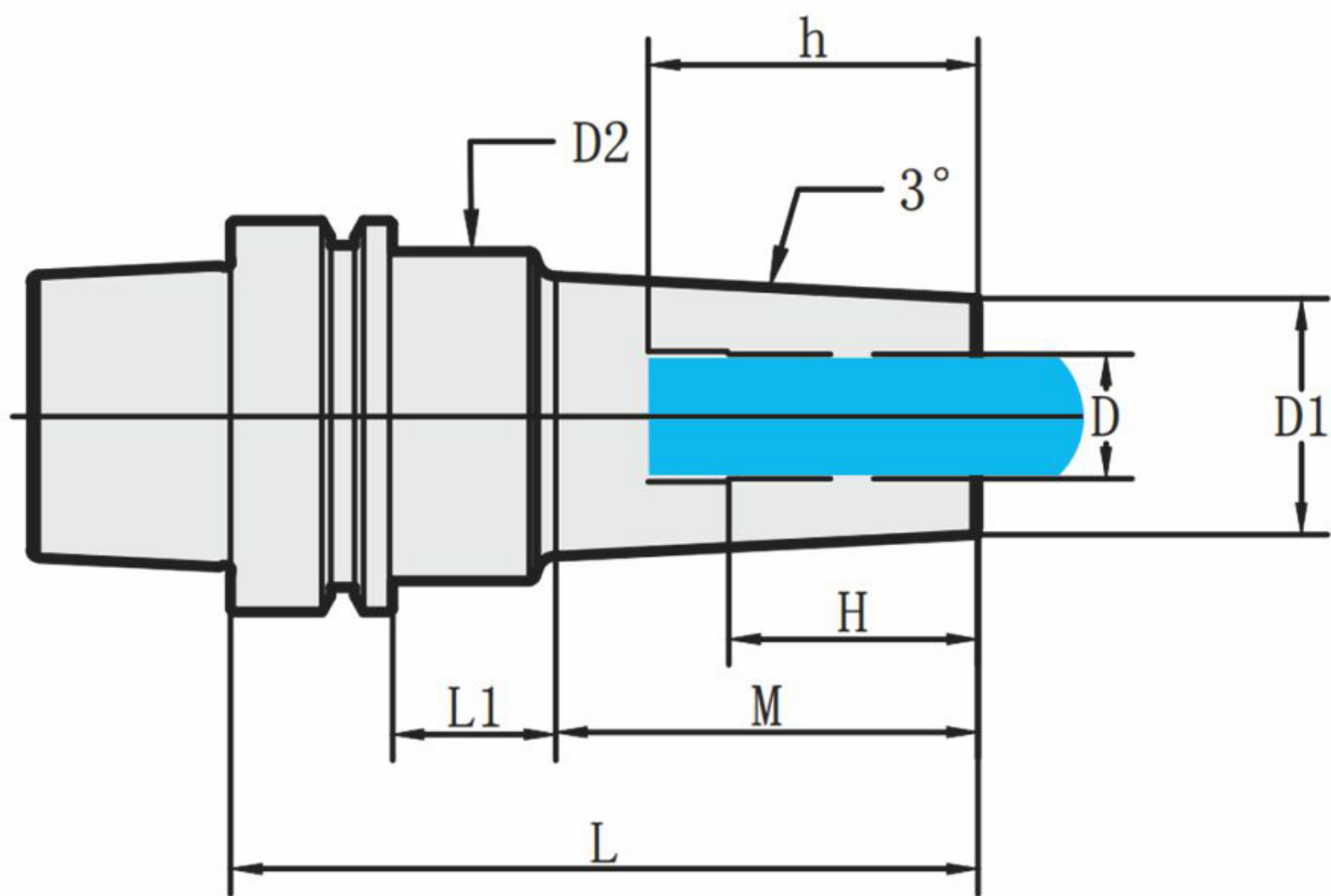
● Standing inventory ○ Small inventory

Specifications	D	D1	t	L	M	C1	D4	D2	D3	H	h	Stock
HSK E32 SHSA4- 60 CV	4	7	1.5	60	40	26	5	-	-	13	43	●
- 90 CV				90	70						73	●
HSK E32 SHSA6- 60 CV	6	9	3	60	40	26	7	-	-	18	43	●
- 90 CV				90	70						73	●
HSK E32 SHSA8- 60 CV	8	11	1.5	60	40	26	8.6	-	-	24	38	●
- 90 CV				90	70						38	●
HSK E32 SHSA10- 60 CV	10	13	1.5	60	40	26	10.6	-	-	30	48	●
- 90 CV				90	70						60	●

Unit:mm

Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK E32 SHSA4- 50-M 22	4	7	1.5	50	22	8	5	20	9.3	13	35	●
- 70-M 42				70	42				11.4		54	●
- 85-M 42				85	42	23		25			69	●
HSK E32 SHRA4- 50-M 22	4	10	3	50	22	8	5	20	12.3	13	35	●
- 70-M 42				70	42				14.4		54	●
- 85-M 42				85	42	23		25			69	●
HSK E32 SHSA6- 70-M 42	6	9	1.5	70	42	8	7	20	13.4	18	54	●
HSK E32 SHRA6- 50-M 22	6	12	3	50	22		6.6	26	14.3	18	39	●
- 70-M 42				70	42		7		16.4		54	●
- 85-M 42				85	42	23		25			69	●
HSK E32 SHRA8- 50-M 22	8	14	3	50	22	8	8.6	26	16.3	20	39	●
- 85-M 42				85	42	23	9	25	18.4	24	49	●
HSK E32 SHRA10- 55-M 22	10	16	3	55	22	13	10.6	26	18.3	25	44	●
HSK E32 SHRA12- 55-M 22	12	20	4	55	22	13	12.6	26	22.3	25	44	●
HSK E32 SHRA16- 55-M 35	16	26	5	55	35	-	16.6	-	-	32	44	●

E40 INTEGRATED THERMAL EXPANSION KNIFE HANDLE (STAINLESS STEEL MATERIAL)



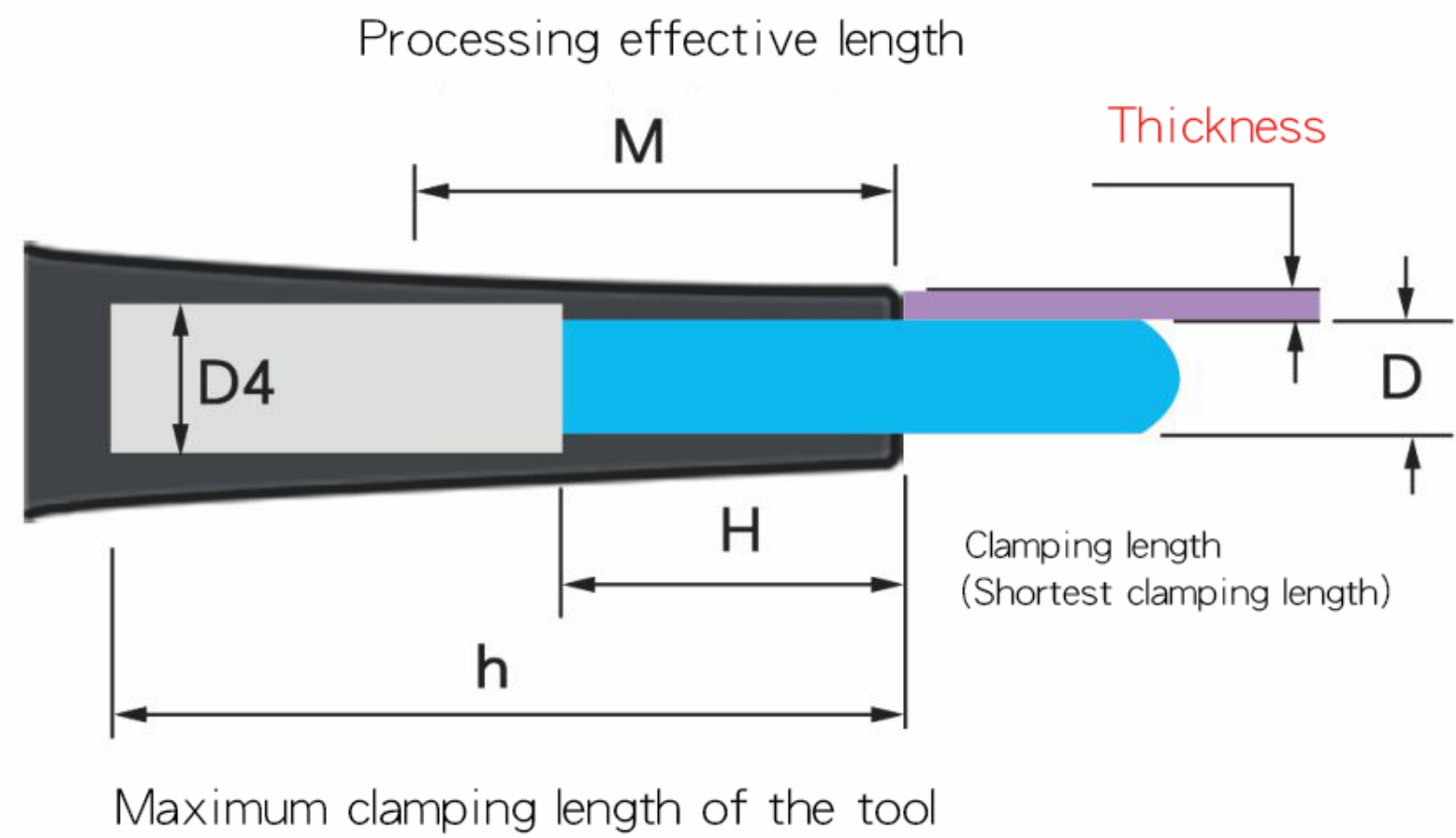
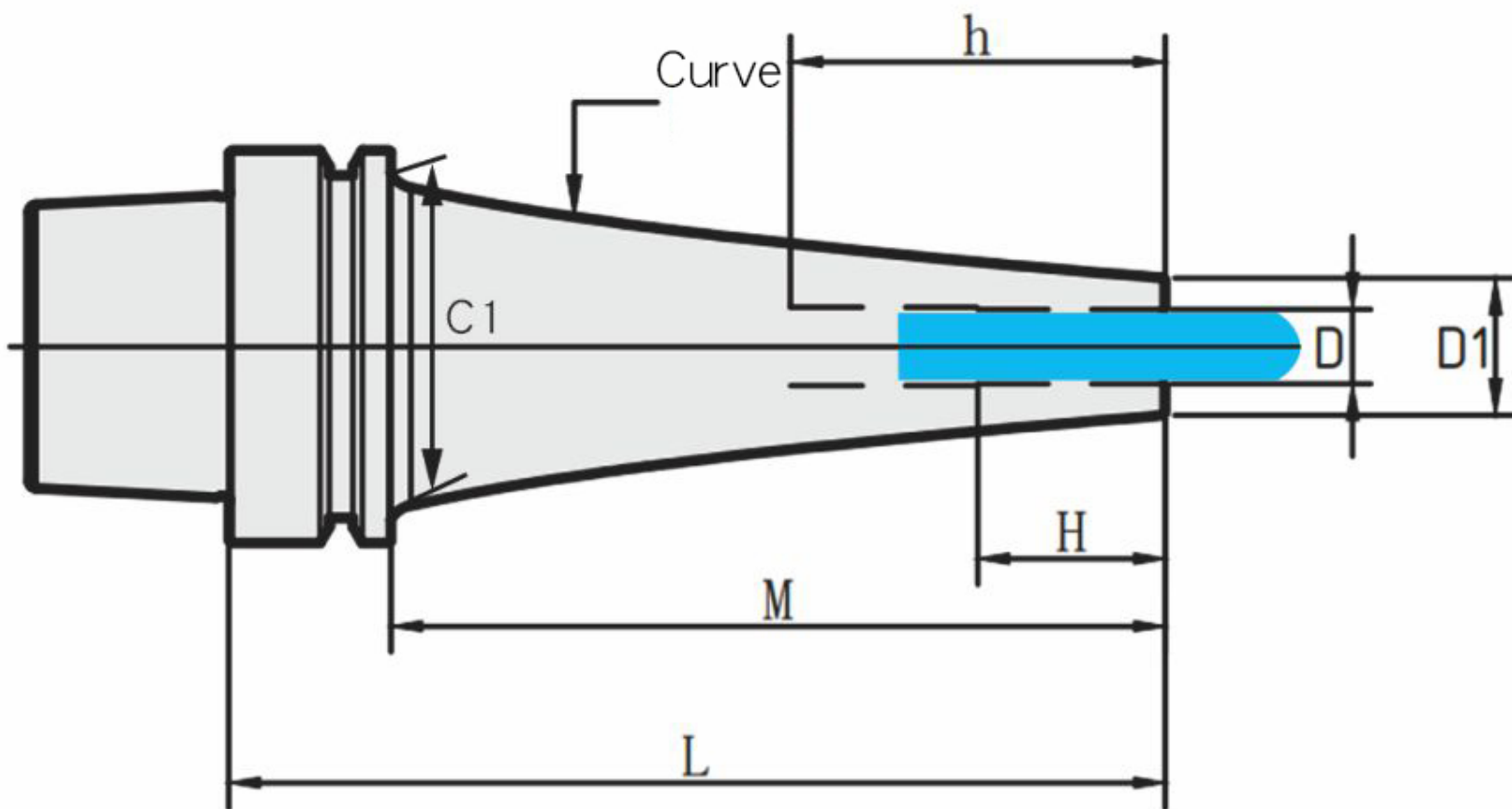
● Standing inventory ○ Small inventory

Unit:mm

Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK E40 SHSA4- 50-M 22	4	7	1.5	50	22	8	5	20	9.3	13	42	○
- 70-M 42				70	42				11.4		62	●
- 85-M 42				85	42	23		25			74	●
- 110-M 67				110	67				14		99	●
HSK E40 SHRA4- 50-M 22	4	10	3	50	22	8	5	20	12.3	13	42	
- 70-M 42				70	42				14.4		62	
- 85-M 42				85	42	23		25			69	
- 110-M 67				110	67				17		94	
HSK E40 SHSA6- 50-M 22	6	9	1.5	50	22	8	6.6	20	11.3	18	39	●
- 70-M 42				70	42				13.4		54	●
- 85-M 42				85	42	23		25			69	●
- 110-M 67				110	67				16		94	○
HSK E40 SHRA6- 50-M 22	6	12	3	50	22	8	6.6	26	14.3	18	39	○
- 70-M 42				70	42				16.4		54	●
- 85-M 42				85	42	23		25			69	●
- 110-M 67				110	67				19		94	●
HSK E40 SHSA8- 60-M 22	8	11	1.5	60	22	18	8.6	26	13.3	24	49	○
- 80-M 42				80	42				15.4		64	

Specifications	D	D1	t	L	M	L1	D4	D2	D3	H	h	Stock
HSK E40 SHSA8-100-M 42	8	11	1.5	100	42	38	9	25	15.4	24	84	
HSK E40 SHRA8- 50-M 22	8	14	3	50	22	8	8.6	26	16.3	20	39	
- 85-M 42				85	42	23		25	18.4		69	○
- 100-M 42				100	42	38					84	●
HSK E40 SHSA10- 60-M 22	10	13	1.5	60	22	18	10.6	26	15.3	30	49	●
- 85-M 42				80	42				17.4		64	●
- 100-M 42				110	42	38		25			89	○
HSK E40 SHRA10- 55-M 22	10	16	3	55	22	13	10.6	26	18.3	25	44	○
- 85-M 42				85	42	23		25	20.4		64	●
- 100-M 42				100	42	38					64	●
HSK E40 SHRA12- 55-M 22	12	20	4	55	22	13	12.6	30	22.3	25	44	●
- 85-M 42				85	42	23		32	24.4		74	○
HSK E40 SHRA16- 55-M 22	16	26	5	55	22	13	16.6	34	28.3	32	44	
HSK E40 SHRA20- 60-M 40	20	32	6	60	40	-	20.6	-	34	38	49	

A100 INTEGRATED THERMAL EXPANSION KNIFE HANDLE(STAINLESS STEEL MATERIAL)



● Standing inventory ○ Small inventory

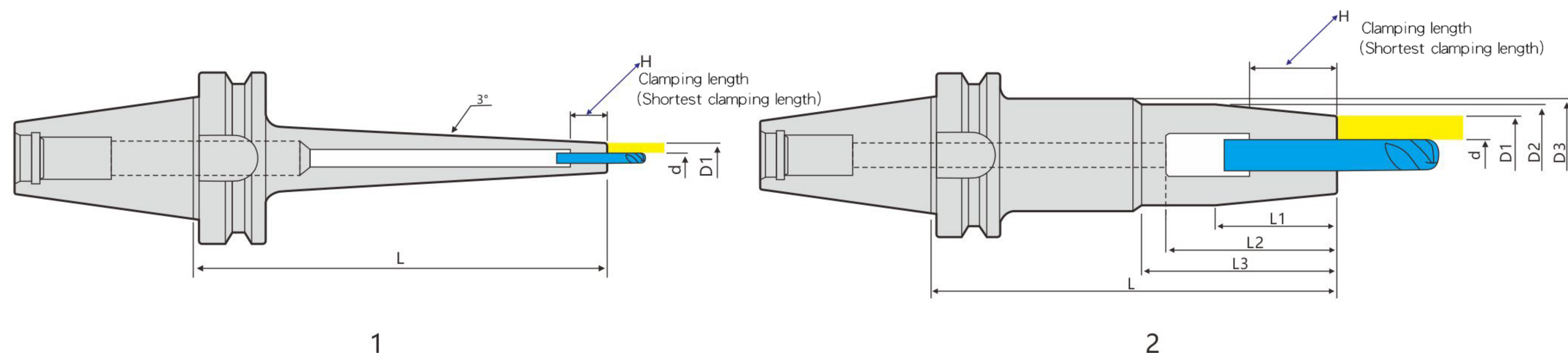
Unit:mm

Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK E40 SHSA4- 90 CV	4	7	1.5	90	70	-	-	34	5	13	74	○
-120 CV				120	100						104	●
-150 CV				150	130						134	●
HSK E40 SHRA4- 90 CV	4	10	3	90	70	-	-	34	5	13	81	●
-120 CV				120	100						111	
HSK E40 SHSA6- 90 CV	6	9	1.5	90	70	-	-	34	7	18	74	
-120 CV				120	100						104	
-150 CV				150	130						134	
HSK E40 SHRA6- 90 CV	6	13	3.5	90	70	-	-	34	7	18	74	●
-120 CV				120	100						104	●
HSK E40 SHSA8- 90 CV	8	11	1.5	90	70	-	-	34	9	24	74	●
-120 CV				120	100						104	○
-150 CV				150	130						134	○
HSK E40 SHRA8- 90 CV	8	16	4	90	70	-	-	34	9	24	74	●
-120 CV				120	100						104	●
HSK E40 SHSA10- 90 CV	10	19	1.5	90	70	-	-	34	9	30	74	●
-120 CV				120	100						104	○
-150 CV				150	130						134	

Specifications	D	D1	t	L	M	L1	L2	C1	D4	H	h	Stock
HSK E40 SHRA10- 90 CV	10	19	4.5	90	70	-	-	34	11	30	74	
-120 CV				120	100						104	

BT SERIES THERMAL EXPANSION KNIFE HANDLE

MAS 403	Taper Accuracy	G Value	RPM	Coolant System
-BT	AT3	2.5	25000	



● Stock

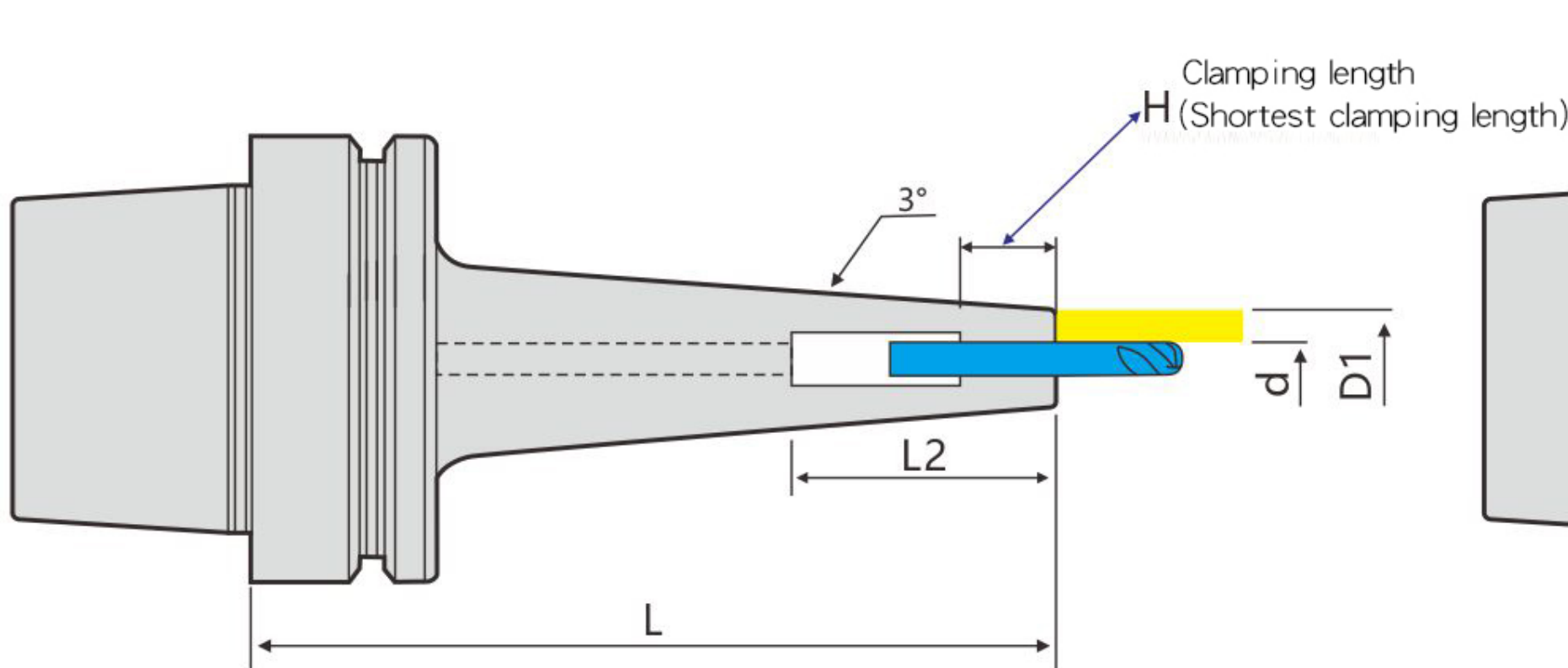
Unit:mm

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
BT30-SHB3-80	1	3	9			3	80				10	○
BT30-SHB4-80		4	10			4	80				13	●
BT30-SHB4-120		4	10			4	120				13	●
BT30-SHB6-80		6	13			4	80				20	●
BT30-SHB6-120		6	13			4	120				20	●
BT30-SHB8-80		8	15			4	80				25	●
BT30-SHB8-120		8	15			4	120				25	●
BT30-SHB10-80		10	17			4.5	80				30	●
BT30-SHB10-120		10	18			4.5	120				30	●
BT30-SHB12-80		12	20			4.5	80				30	●
BT30-SHB12-120		12	20			4.5	120				30	●
BT30-SHB16-90		16	26		38	6.5	90		70		32	●
BT30-SHB16-120		16	28		38	6.5	120		80		32	●
BT30-SHB20-90		20	32		40	6.5	90		70		40	●
BT30-SHB20-120		20	32		40	6.5	120		80		40	●
BT40-SHB3-90		3	9			3	90				10	○
BT40-SHB4-90		4	10			4	90				13	●
BT40-SHB4-120		4	10			4	120				13	●
BT40-SHB4-155		4	10			4	155				13	●
BT40-SHB4-185		4	10			4	185				13	●
BT40-SHB6-90		6	13			4	90				20	●
BT40-SHB6-120		6	13			4	120				20	●
BT40-SHB6-155		6	13			4	155				20	●
BT40-SHB6-185		6	13			4	185				20	●
BT40-SHB8-90		8	15			4	90				25	●
BT40-SHB8-120		8	15			4	120				25	●
BT40-SHB8-155		8	16			4	155				25	●
BT40-SHB8-185		8	16			4	185				25	●
BT40-SHB10-90		10	17			4.5	90				30	●
BT40-SHB10-120		10	18			4.5	120				30	●
BT40-SHB10-155		10	18			4.5	155				30	●
BT40-SHB10-185		10	18			4.5	185				30	●
BT40-SHB12-90		12	20			4.5	90				30	●
BT40-SHB12-120		12	20			4.5	120				30	●
BT40-SHB12-155		12	20			4.5	155				30	●
BT40-SHB12-185		12	20			4.5	185				30	●

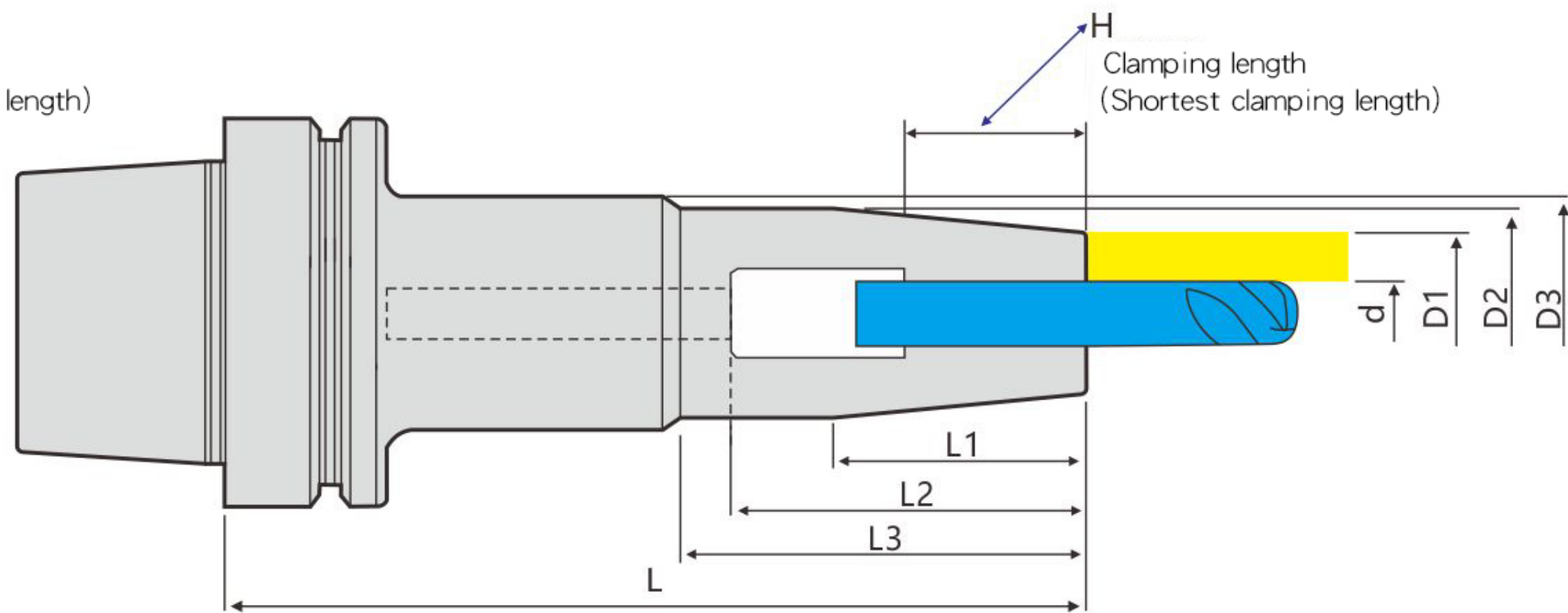
Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
BT40-SHB16-90	1	16	29		38	6.5	90		80		32	●
BT40-SHB16-130	2	16	29	38	38	6.5	130	50	80		32	●
BT40-SHB16-160		16	29	38	42	6.5	160	50	80	80	32	●
BT40-SHB16-200	1	16	29	38	42	6.5	200	50	80	80	32	○
BT40-SHB20-90		20	33		42	6.5	90		80		40	●
BT40-SHB20-130	2	20	33	42	42	6.5	130	56	80		40	●
BT40-SHB20-160		20	33	42	42	6.5	160	56	80	90	40	●
BT40-SHB20-200		20	33	42	48	6.5	200	56	80	90	40	○
BT40-SHB25-100		25	41		45	8	90	60	80		45	●
BT40-SHB25-130	2	25	41		45	8	130	60	80		45	●
BT40-SHB25-160		25	41	45	50	8	160	60	80	90	45	●
BT40-SHB25-200		25	41	45	50	8	200	60	80	90	45	●
BT50-SHB4-100	1	4	10			4	100				13	○
BT50-SHB4-160		4	10			4	160				13	○
BT50-SHB4-200		4	11			4	200				13	○
BT50-SHB6-100		6	13			4	100				20	○
BT50-SHB6-160		6	13			4	160				20	○
BT50-SHB6-200		6	13			4	200				20	○
BT50-SHB8-100		8	15			4	100				25	○
BT50-SHB8-160		8	16			4	160				25	○
BT50-SHB8-200		8	16			4	200				25	○
BT50-SHB10-100		10	18			4.5	100				30	○
BT50-SHB10-160		10	18			4.5	160				30	○
BT50-SHB10-200		10	18			4.5	200				30	○
BT50-SHB12-100		12	20			4.5	100				30	○
BT50-SHB12-160		12	20			4.5	160				30	○
BT50-SHB12-200		12	20			4.5	200				30	○
BT50-SHB16-100	1	16	29		38	6.5	100		80		32	○
BT50-SHB16-160	2	16	29	38	42	6.5	160	50	80	80	32	○
BT50-SHB16-200		16	29	38	42	6.5	200	50	80	80	32	○
BT50-SHB20-100	1	20	33		42	6.5	100		80		40	○
BT50-SHB20-160	2	20	33	42	42	6.5	160	56	80	90	40	○
BT50-SHB20-200		20	33	42	48	6.5	200	56	80	90	40	○
BT50-SHB25-115		25	41		45	8	100	60	80		45	○
BT50-SHB25-160		25	41	45	50	8	160	60	80	90	45	○
BT50-SHB25-200		25	41	45	50	8	200	60	80	90	45	○

HSK E40/E50 SERIES THERMAL EXPANSION KNIFE HANDLE

MAS 403	Taper Accuracy	G Value	RPM	Coolant System
-HSK	AT3	2.5	25000	



1



2

● Stock

Unit:mm

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
HSK E40-SHB3-80	1	3	9			3	80				10	○
HSK E40-SHB4-80		4	10			3	80				13	●
HSK E40-SHB4-120		4	10			3	120				13	●
HSK E40-SHB6-80		6	13			3.5	80				20	●
HSK E40-SHB6-120		6	13			3.5	120				20	●
HSK E40-SHB8-80		8	15			3.5	80				25	●
HSK E40-SHB8-120		8	15			3.5	120				25	●
HSK E40-SHB10-90		10	17			3.5	90		55		30	●
HSK E40-SHB10-120		10	18			4	120		55		30	●
HSK E40-SHB12-90		12	20			4	90		55		30	●
HSK E40-SHB12-120		12	20			4	120		55		30	●
HSK E40-SHB16-90	2	16	26		38	5	90		70		32	●
HSK E40-SHB16-120		16	26		38	5	120		80		32	●
HSK E40-SHB20-90		20	33		40	6	90		70		40	●
HSK E40-SHB20-120		20	33		40	6	120		80		40	●
HSK E50-SHB3-90	1	3	9			3	90				10	○
HSK E50-SHB4-90		4	10			3	90				13	●
HSK E50-SHB4-120		4	10			3	120				13	●
HSK E50-SHB4-150		4	10			3	150				13	●

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
HSK E50-SHB6-90	1	6	13			3.5	90				20	●
HSK E50-SHB6-120		6	13			3.5	120				20	●
HSK E50-SHB6-150		6	13			3.5	150				20	●
HSK E50-SHB8-90		8	15			3.5	90				25	●
HSK E50-SHB8-120		8	15			3.5	120				25	●
HSK E50-SHB8-150		8	16			4	150				25	●
HSK E50-SHB10-90		10	17			3.5	90		55		30	●
HSK E50-SHB10-120		10	18			4	120		55		30	●
HSK E50-SHB10-150		10	18			4	150		55		30	●
HSK E50-SHB12-90		12	20			4	90		55		30	●
HSK E50-SHB12-120		12	20			4	120		55		30	●
HSK E50-SHB12-150		12	20			4	150		55		30	●
HSK E50-SHB16-90	2	16	26		38	5	90		70		32	●
HSK E50-SHB16-120		16	26		38	5	120		80		32	●
HSK E50-SHB16-150		16	29	38	42	6.5	150	50	80		32	○
HSK E50-SHB20-90		20	33		40	6.5	90		70		40	●
HSK E50-SHB20-120		20	33		42	6.5	120		80		40	●
HSK E50-SHB20-150		20	33	42	42	6.5	150	56	80	80	40	○

HSK A63/A100 SERIES THERMAL EXPANSION KNIFE HANDLE

MAS 403

-HSK

Taper
Accuracy

AT3

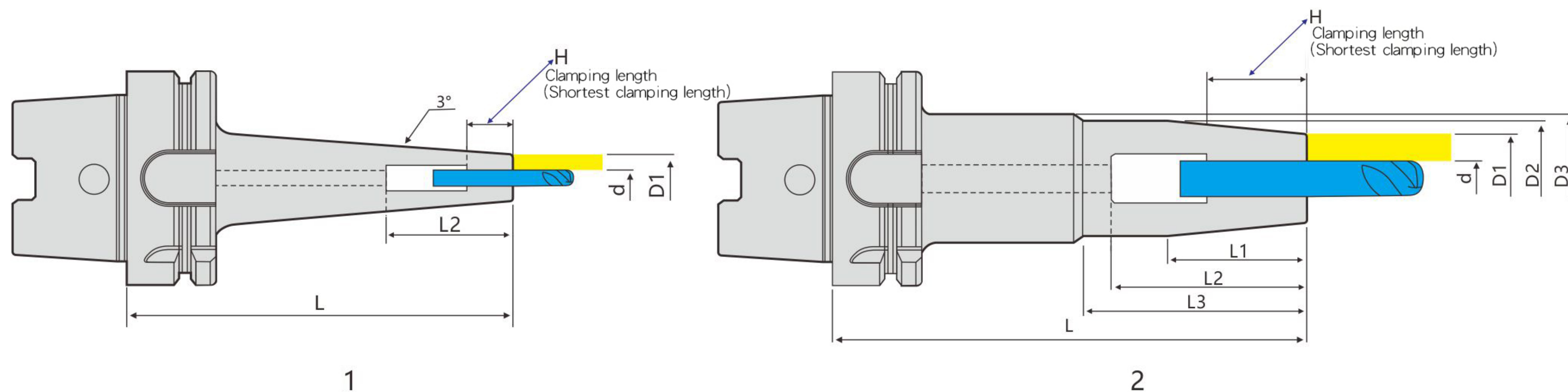
G Value

2.5

RPM

25000

Coolant
System



• Stock

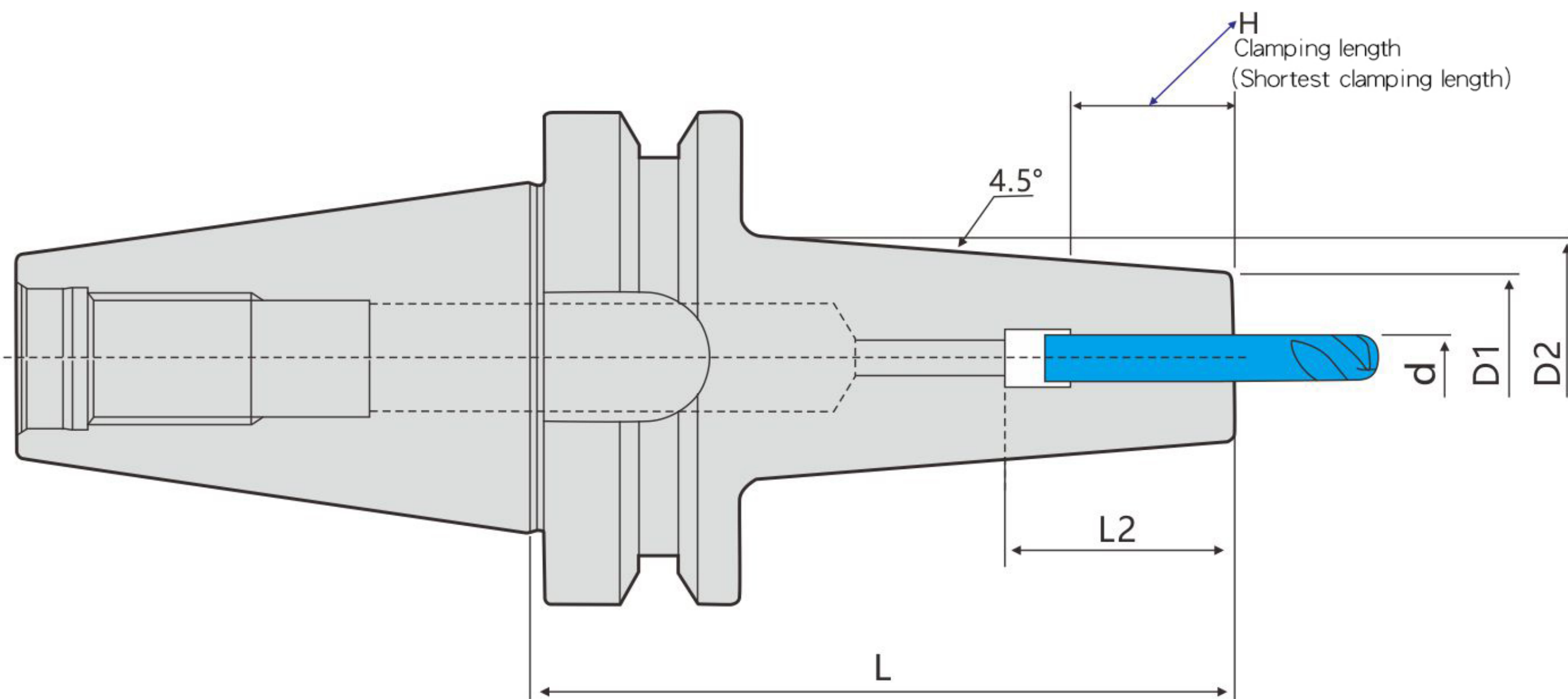
Unit:mm

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
HSKA63-SHB3-80	1	3	9			3	80				10	○
HSKA63-SHB4-80		4	12			4	80				13	●
HSKA63-SHB4-120		4	12			4	120				13	●
HSKA63-SHB4-160		4	12			4	160				13	●
HSKA63-SHB4-200		4	12			4	200				13	●
HSKA63-SHB6-80		6	14			4	80				20	●
HSKA63-SHB6-120		6	14			4	120				20	●
HSKA63-SHB6-160		6	14			4	160				20	●
HSKA63-SHB6-200		6	14			4	200				20	●
HSKA63-SHB8-80		8	16			4	80				25	●
HSKA63-SHB8-120		8	16			4	120				25	●
HSKA63-SHB8-160		8	16			4	160				25	●
HSKA63-SHB8-200		8	16			4	200				25	●
HSKA63-SHB10-80		10	19			4.5	80		55		30	●
HSKA63-SHB10-120		10	19			4.5	120		55		30	●
HSKA63-SHB10-160		10	19			4.5	160		55		30	●
HSK A63-SHB10-200		10	19			4.5	200		55		30	●
HSKA63-SHB12-80		12	21			4.5	80		55		30	●
HSKA63-SHB12-120		12	21			4.5	120		55		30	●
HSKA63-SHB12-160		12	21			4.5	160		55		30	●
HSKA63-SHB12-200		12	21			4.5	200		55		30	○
HSKA63-SHB16-95	1	16	29		38	6.5	95		80		32	●
HSKA63-SHB16-130	2	16	29	38	38	6.5	130	60	80		32	●
HSKA63-SHB16-160		16	29	38	42	6.5	160	60	80	80	32	●
HSKA63-SHB16-200	1	16	29	38	42	6.5	200	60	80	80	32	●
HSKA63-SHB20-100		20	33		42	6.5	100		80		40	●
HSKA63-SHB20-130	2	20	33	42	42	6.5	130	56	80		40	●
HSKA63-SHB20-160		20	33	42	48	6.5	160	56	80	90	40	●
HSKA63-SHB20-200		20	33	42	48	6.5	200	56	80	90	40	●

Specifications	Diagram	d	D1	D2	D3	(t)	L	L1	L2	L3	H	Stock
HSK A63-SHB25-115	2	25	41		45	8	115	60	80		45	●
HSKA63-SHB25-130		25	41		45	8	130	60	80		45	●
HSK A63-SHB25-160		25	41	45	50	8	160	60	80	90	45	●
HSK A63-SHB25-200		25	41	45	50	8	200	60	80	90	45	●
HSKA100-SHB4-100	1	4	12			4	100				13	○
HSKA100-SHB4-160		4	12			4	160				13	○
HSKA100-SHB4-200		4	12			4	200				13	○
HSKA100-SHB6-100		6	14			4	100				20	○
HSKA100-SHB6-160		6	14			4	160				20	○
HSKA100-SHB6-200		6	14			4	200				20	○
HSKA100-SHB8-100		8	16			4	100				25	○
HSKA100-SHB8-160		8	16			4	160				25	○
HSKA100-SHB8-200		8	16			4	200				25	○
HSKA100-SHB10-100		10	19			4.5	100				30	○
HSKA100-SHB10-160		10	19			4.5	160				30	○
HSKA100-SHB10-200		10	19			4.5	200				30	○
HSKA100-SHB12-100	1	12	21			4.5	100				30	○
HSK A100-SHB12-160		12	21			4.5	160				30	○
HSKA100-SHB12-200		12	21			4.5	200				30	○
HSKA100-SHB16-100	1	16	29		38	6.5	100		80		32	○
HSKA100-SHB16-160	2	16	29	38	42	6.5	160	50	80	80	32	○
HSKA100-SHB16-200		16	29	38	42	6.5	200	50	80	80	32	○
HSKA100-SHB20-100	1	20	33		42	6.5	100		80		40	○
HSKA100-SHB20-160	2	20	33	42	42	6.5	160	56	80	90	40	○
HSKA100-SHB20-200		20	33	42	48	6.5	200	56	80	90	40	○
HSK A100-SHB25-115		25	41		45	8	100	60	80		45	○
HSKA100-SHB25-160		25	41	45	50	8	160	60	80	90	45	○
HSK A100-SHB25-200	2	25	41	45	50	8	200	60	80	90	45	○

BT SERIES THERMAL EXPANSION KNIFE HANDLE

MAS 403	Taper Accuracy	G Value	RPM	Coolant System
-BT	AT3	2.5	25000	



● Stock

Specifications	d	D1	D2	L	L2	H	Stock
BT30-SHA3-60	3	11	15	60	20	10	○
BT30-SHA4-60	4	15	20	60	20	13	○
BT30-SHA6-80	6	21	27	80	36	20	○
BT30-SHA8-80	8	21	27	80	36	25	○
BT30-SHA10-80	10	24	32	80	40	30	○
BT30-SHA12-80	12	24	32	80	45	30	○
BT30-SHA16-80	16	27	34	80	48	32	○
BT40-SHA3-90	3	11	15	90	20	10	○
BT40-SHA4-90	4	15	20	90	20	13	○
BT40-SHA6-90	6	21	27	90	36	20	○
BT40-SHA6-120	6	21	27	120	36	20	○
BT40-SHA6-160	6	21	27	160	36	20	○
BT40-SHA8-90	8	21	27	90	36	25	○
BT40-SHA8-120	8	21	27	120	36	25	○
BT40-SHA8-160	8	21	27	160	36	25	○
BT40-SHA10-90	10	24	32	90	40	30	○
BT40-SHA10-120	10	24	32	120	40	30	○
BT40-SHA10-160	10	24	32	160	40	30	○
BT40-SHA12-90	12	24	32	90	45	30	○
BT40-SHA12-120	12	24	32	120	45	30	○
BT40-SHA12-160	12	24	32	160	45	30	○
BT40-SHA16-90	16	27	34	90	48	32	○
BT40-SHA16-120	16	27	34	120	48	32	○

Unit:mm

Specifications	d	D1	D2	L	L2	H	Stock
BT40-SHA16-160	16	27	34	160	48	32	○
BT40-SHA20-90	20	33	42	90	50	40	○
BT40-SHA20-120	20	33	42	120	50	40	○
BT40-SHA20-160	20	33	42	160	50	40	○
BT40-SHA25-100	25	44	53	100	56	45	○
BT40-SHA25-160	25	44	53	160	56	45	○
BT50-SHA3-100	3	11	15	100	20	10	○
BT50-SHA4-100	4	15	20	100	20	13	○
BT50-SHA4-160	4	15	20	160	20	13	○
BT50-SHA6-100	6	21	27	100	36	20	○
BT50-SHA6-160	6	21	27	160	36	20	○
BT50-SHA8-100	8	21	27	100	36	25	○
BT50-SHA8-160	8	21	27	160	36	25	○
BT50-SHA10-100	10	24	32	100	40	30	○
BT50-SHA10-160	10	24	32	160	40	30	○
BT50-SHA12-100	12	24	32	100	45	30	○
BT50-SHA12-160	12	24	32	160	45	30	○
BT50-SHA16-100	16	27	34	100	48	32	○
BT50-SHA16-160	16	27	34	160	48	32	○
BT50-SHA20-100	20	33	42	100	50	40	○
BT50-SHA20-160	20	33	42	160	50	40	○
BT50-SHA25-100	25	44	53	100	56	45	○
BT50-SHA25-160	25	44	53	160	56	45	○

HSK SERIES THERMAL EXPANSION KNIFE HANDLE

MAS 403

-HSK

Taper
Accuracy

AT3

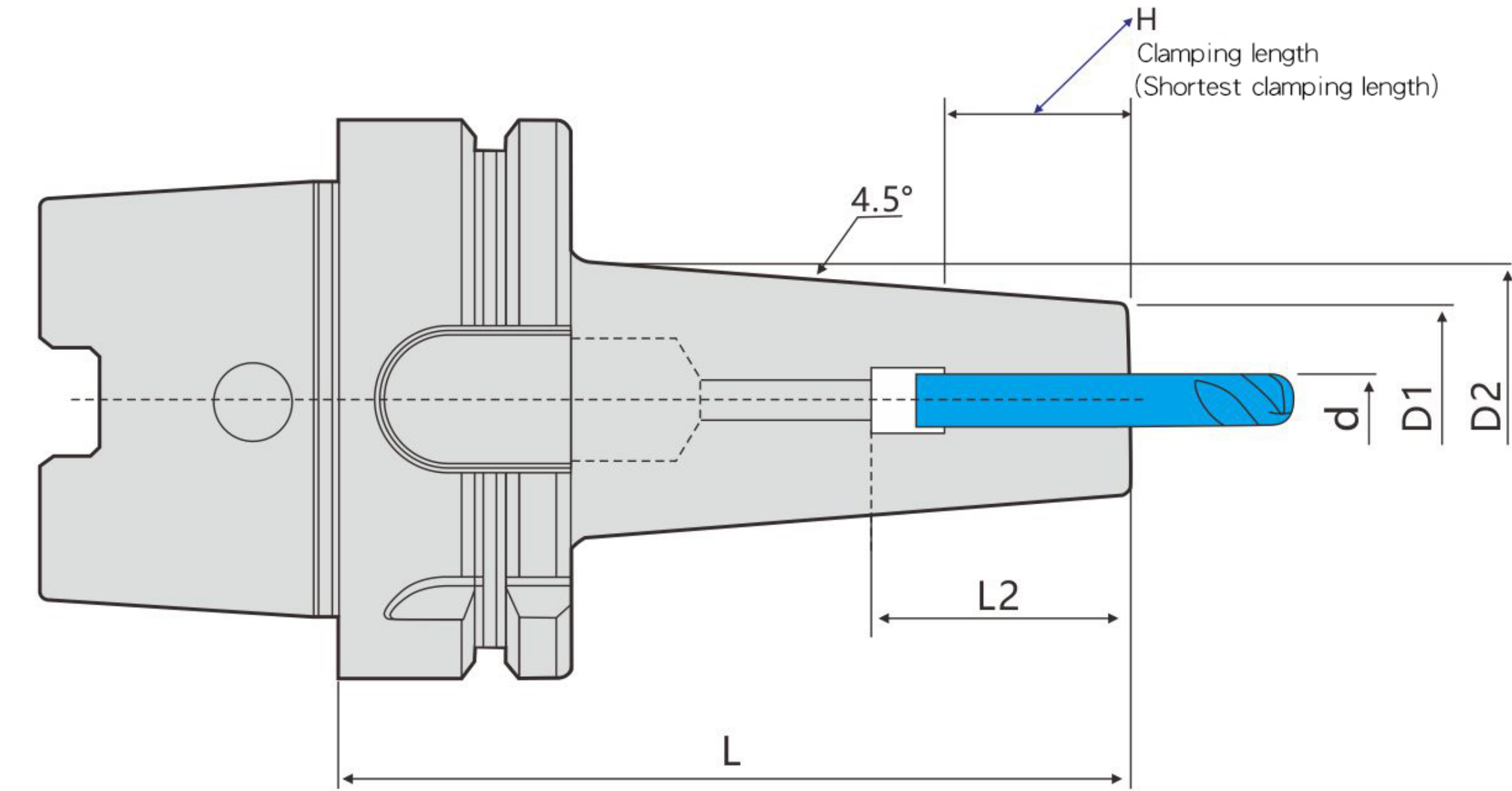
G Value

2.5

RPM

25000

Coolant
System



● Stock

Specifications	d	D1	D2	L	L2	H	Stock
HSK E40-SHA3-80	3	11	15	80	20	10	○
HSK E40-SHA4-80	4	15	20	80	20	13	○
HSK E40-SHA6-80	6	21	27	80	36	20	○
HSK E40-SHA8-80	8	21	27	80	36	25	○
HSK E40-SHA10-80	10	24	32	90	40	30	○
HSK E40-SHA12-90	12	24	32	90	45	30	○
HSK E50-SHA3-90	3	11	15	90	20	10	○
HSK E50-SHA4-90	4	15	20	90	20	13	○
HSK E50-SHA6-90	6	21	27	90	36	20	○
HSK E50-SHA8-90	8	21	27	90	36	25	○
HSK E50-SHA10-90	10	24	32	90	40	30	○
HSK E50-SHA12-90	12	24	32	90	45	30	○
HSK E50-SHA16-95	16	27	34	90	48	32	○

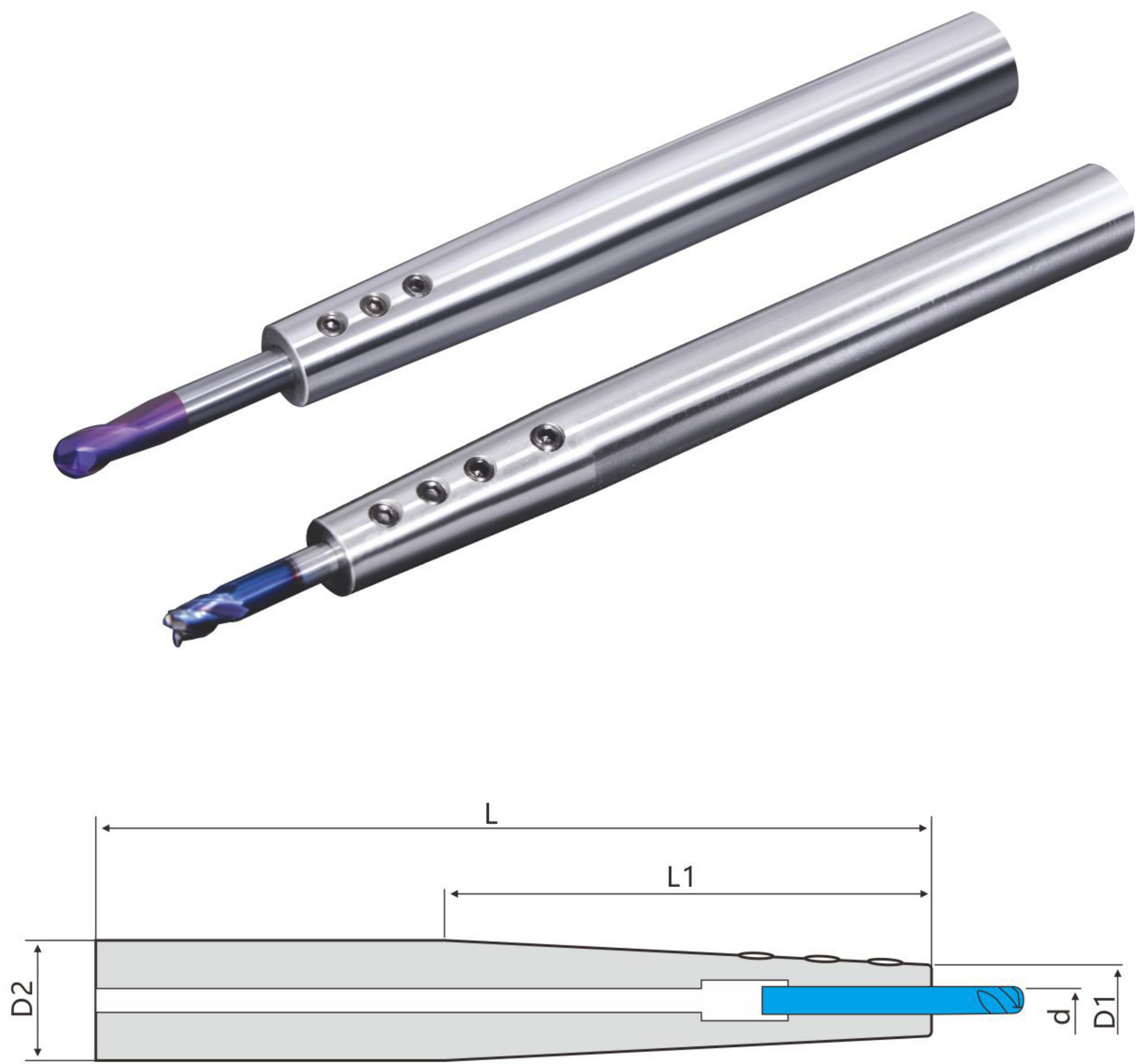
Unit:mm

Specifications	d	D1	D2	L	L2	H	Stock
HSK A63-SHA3-80	3	11	15	80	20	10	○
HSK A63-SHA4-80	4	15	20	80	20	13	○
HSK A63-SHA4-120	4	15	20	120	20	13	○
HSK A63-SHA4-160	4	15	20	160	20	13	○
HSK A63-SHA6-80	6	21	27	80	36	20	○
HSK A63-SHA6-120	6	21	27	120	36	20	○
HSK A63-SHA6-160	6	21	27	160	36	20	○
HSK A63-SHA8-80	8	21	27	80	36	25	○
HSK A63-SHA8-120	8	21	27	120	36	25	○
HSK A63-SHA8-160	8	21	27	160	36	25	○
HSK A63-SHA10-85	10	24	32	85	40	30	○
HSK A63-SHA10-120	10	24	32	120	40	30	○
HSK A63-SHA10-160	10	24	32	160	40	30	○
HSK A63-SHA12-90	12	24	32	90	45	30	○
HSK A63-SHA12-120	12	24	32	120	45	30	○
HSK A63-SHA12-160	12	24	32	160	45	30	○
HSK A63-SHA16-95	16	27	34	95	48	32	○
HSK A63-SHA16-120	16	27	34	120	48	32	○
HSK A63-SHA16-160	16	27	34	160	48	32	○
HSK A63-SHA20-100	20	33	42	100	50	40	○
HSK A63-SHA20-120	20	33	42	120	50	40	○
HSK A63-SHA20-160	20	33	42	160	50	40	○
HSK A63-SHA25-115	25	44	53	115	56	45	○
HSK A63-SHA25-160	25	44	53	160	56	45	○

SIDE FIXED EXTENSION ROD

Product features

- Strong seismic resistance
- High precision (0-0.01mm)
- Side lock type (Easy clamping)
- Sharp tool for small diameter deep cavity processing
(Replacing ER extension rod)
- About accessories:Special locking screw, Don't install other screws casually



Stock

Unit:mm

Specifications	d	D1	D2	L	L1	Screw	Stock
C10-SL4-100	4	9	10	100	25	M4×0.7	●
C12-SL4-120	4	9.5	12	120	25	M4×0.7	●
C12-SL6-120	6	10.5	12	120	25	M4×0.7	●
C16-SL4-160	4	10	16	160	70	M4×0.7	●
C16-SL6-160	6	12	16	160	70	M4×0.7	●
C16-SL8-160	8	14	16	160	70	M5×0.8	●
C16-SL6-200	6	12	16	200	70	M4×0.7	●
C16-SL8-200	8	14	16	200	70	M5×0.8	●
C20-SL8-160	8	14	20	160	70	M5×0.8	●
C20-SL10-160	10	17	20	160	70	M5×0.8	●
C20-SL12-160	12	19	20	160	70	M5×0.8	●
C20-SL6-200	6	12	20	200	70	M5×0.8	○
C20-SL8-200	8	14	20	200	70	M5×0.8	●
C20-SL10-200	10	17	20	200	70	M5×0.8	●
C20-SL12-200	12	19	20	200	70	M5×0.8	●

FULL BACK ARBOR

- The strong clamping force enables high-speed heavy cutting and optimal fine cutting
- Inside diameter inlet under 3mm perfect clamping
- Stable nut clamping and release torque for stable performance when changing mounting tool

MAS	Taper Accuracy	G Value	RPM	Coolant System
-BT	AT3			



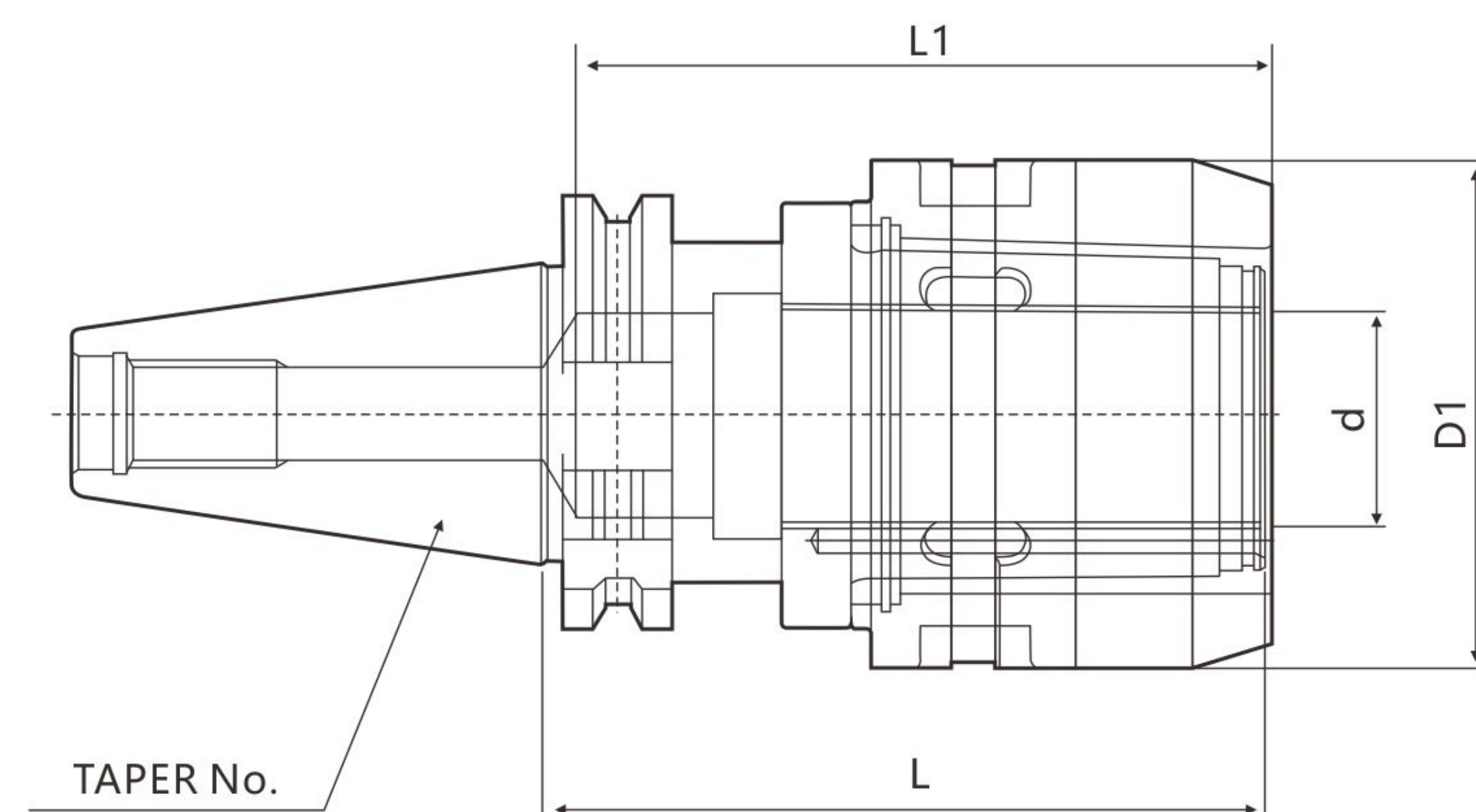
• Stock

Unit:mm

Specifications		d	D1	L	L1	Weight(kg)	Stock
30	BT30-MLC20-80	20	54	80	70	1.15	○
	BT30-MLC25-80	25	62.5	80	80	1.48	○
40	BT40-MLC20-105	20	54	105	70	1.77	○
	BT40-MLC25-105	25	62.5	105	80	2.10	○
	BT40-MLC32-105	32	74	105	100	2.40	●
	BT40-MLC32-135	32	74	135	100	3.10	○
50	BT50-MLC32-105	32	74	105	100	4.30	●
	BT50-MLC32-135	32	74	135	100	4.90	○
	BT50-MLC32-165	32	74	165	100	5.60	●
	BT50-MLC42-115	42	92	115	110	4.60	○
A63	HSK A63-MLC20-105	20	54	105	70	1.50	○
	HSK A63-MLC25-120	25	62.5	120	80	2.20	○
	HSK A63-MLC32-130	32	74	130	100	2.70	○
A100	HSK A100-MLC20-110	20	54	110	70	3.50	○
	HSK A100-MLC25-130	25	62.5	130	80	3.80	○
	HSK A100-MLC32-135	32	74	135	100	4.20	○
	HSK A100-MLC42-135	42	74	135	100	5.30	○

■ Strong elastic fixture

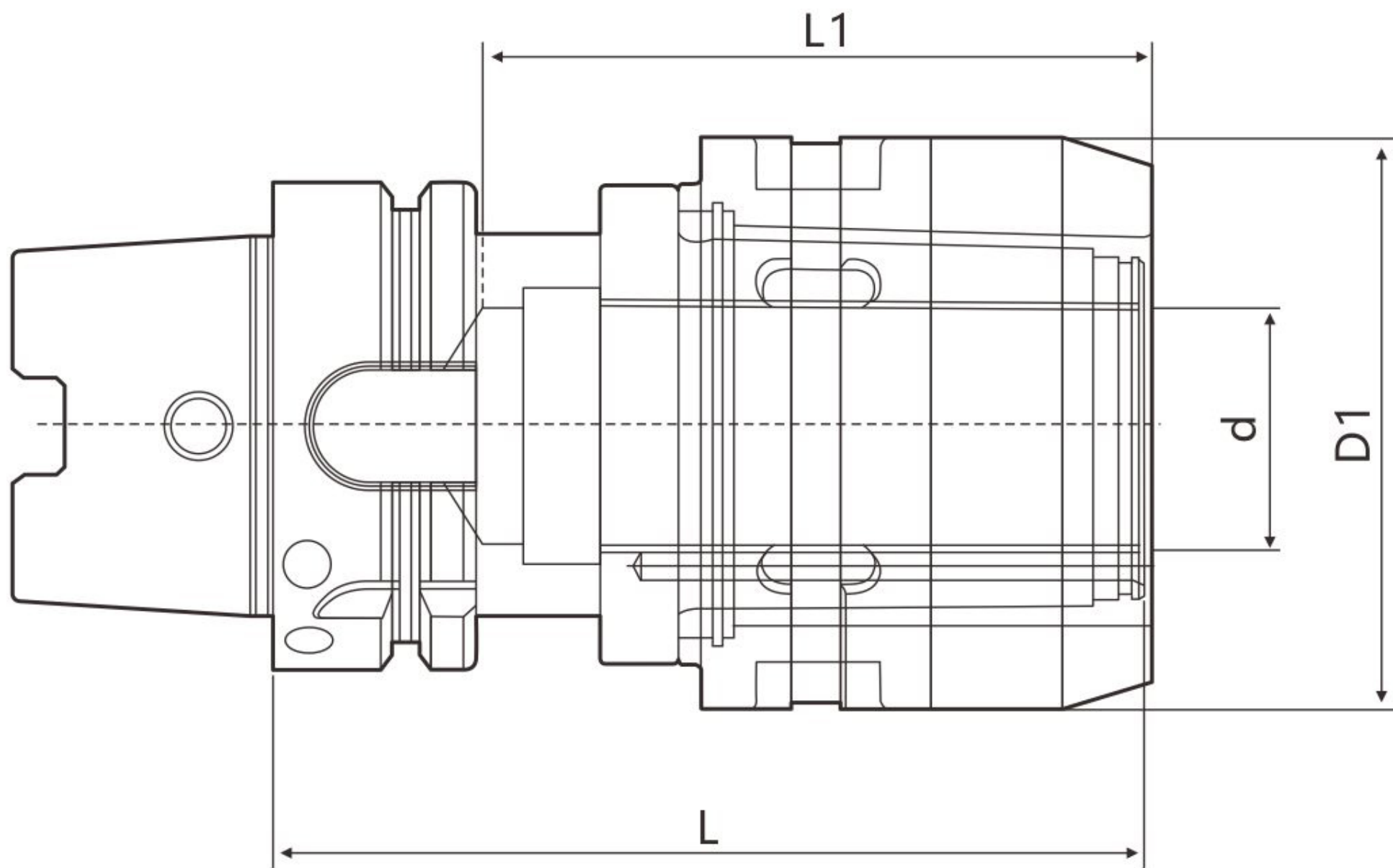
Strong elastic fixture	Specifications	Run-out	Stock
	SC20-4,6,8,10,12,16	(3×D) 0~0.015	○
	SC25-4,6,8,10,12,16,20	(3×D) 0~0.015	●
	SC32-4,6,8,10,12,16,19,20,24,25	(3×D) 0~0.015	●
	SC42-4,6,8,10,12,16,20,25,32	(3×D) 0~0.015	○



HIGH SPEED POWERFUL SHANK

- The strong clamping force enables high-speed heavy cutting and optimal fine cutting
- Inside diameter inlet under 3mm perfect clamping
- Stable nut clamping and release torque for stable performance when changing mounting tool

DIN 69893	Taper Accuracy	G Value	RPM	Coolant System
-HSK	AT3	6.3	20000	



● Stock Unit:mm

Specifications		d	D1	L	L1	Weight(kg)	Stock
30	BT30-MLC20-80 HS	20	54	80	70	1.15	○
	BT30-MLC25-80 HS	25	62.5	80	80	1.48	○
40	BT40-MLC20-105 HS	20	54	105	70	1.77	○
	BT40-MLC25-105 HS	25	62.5	105	80	2.10	●
	BT40-MLC32-105 HS	32	74	105	100	2.40	●
	BT40-MLC32-135 HS	32	74	135	100	3.10	○
50	BT50-MLC32-105 HS	32	74	105	100	4.30	○
	BT50-MLC32-135 HS	32	74	135	100	4.90	○
	BT50-MLC32-165 HS	32	74	165	100	5.60	○
	BT50-MLC42-115 HS	42	92	115	110	4.60	○
A63	HSK A63-MLC20-105 HS	20	54	105	70	1.50	○
	HSK A63-MLC25-120 HS	25	62.5	120	80	2.20	●
	HSK A63-MLC32-130 HS	32	74	130	100	2.70	●
	HSK A63-HPC25-110 GS	25	61	110	84	2.00	○
	HSK A63-HPC25-145 GS	25	61	145	119	2.60	○
	HSK A63-HPC32-110 GS	32	70.5	110	84	2.20	●
	HSK A63-HPC32-145 GS	32	70.5	145	119	2.90	○
A100	HSK A100-MLC20-110 HS	20	54	110	70	3.50	○
	HSK A100-MLC25-130 HS	25	62.5	130	80	3.80	○
	HSK A100-MLC32-135 HS	32	74	135	100	4.20	○
	HSK A100-MLC42-135 HS	42	74	135	100	5.30	○

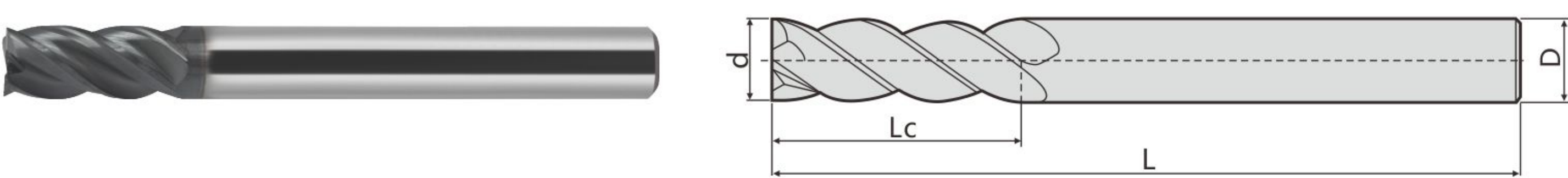
■ Strong elastic fixture

Strong elastic fixture	Specifications	Run-out	Stock
	SC20-4,6,8,10,12,16A	(3×D) 0~0.01	○
	SC25-4,6,8,10,12,16,20A	(3×D) 0~0.01	●
	SC32-4,6,8,10,12,16,20,25A	(3×D) 0~0.01	●
	SC42-4,6,8,10,12,16,20,25,32A	(3×D) 0~0.01	○

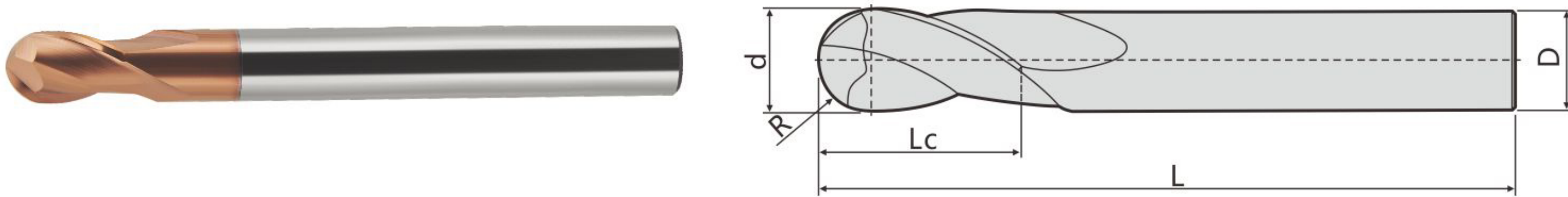
SOLID CARBIDE SQUARE END MILL

SOLID CARBIDE BALL END MILL

- EG HRC25~52
- EM HRC35~60



- EG HRC25~52
- EM HRC35~60



• Stock Unit: mm

Specifications	d	R	Lc	L	D	Stock
0.2×4D×50	0.2			50	4	●
0.3×4D×50	0.3			50	4	●
0.4×4D×50	0.4			50	4	●
0.5×4D×50	0.5			50	4	●
0.6×4D×50	0.6			50	4	●
0.7×4D×50	0.7			50	4	●
0.8×4D×50	0.8			50	4	●
0.9×4D×50	0.9			50	4	○
1×3×4D×50	1		3	50	4	●
1.5×4×4D×50	1.5		4	50	4	●
2×6×4D×50	2		6	50	4	●
2.5×8×4D×50	2.5		8	50	4	●
3×9×4D×50	3		9	50	4	●
4×11×4D×50	4		11	50	4	●
5×13×6D×50	5		13	50	6	●
6×16×6D×50	6		16	50	6	●
8×20×8D×60	8		20	50	8	●
10×25×10D×75	10		25	75	10	●
12×30×12D×75	12		30	75	12	●
14×34×16D×100	14		34	100	16	○
16×40×16D×100	16		40	100	16	●
20×45×20D×100	20		45	100	20	○
4×11×4D×75	4		11	75	4	●
6×16×6D×75	6		16	75	6	●
8×20×8D×75	8		20	75	8	●
4×11×4D×100	4		11	100	4	○
6×16×6D×100	6		16	100	6	●
8×20×8D×100	8		20	100	8	●
10×25×10D×100	10		25	100	10	●
12×30×12D×100	12		30	100	12	●
16×40×16D×150	16		40	150	16	○
20×45×20D×150	20		45	150	20	○

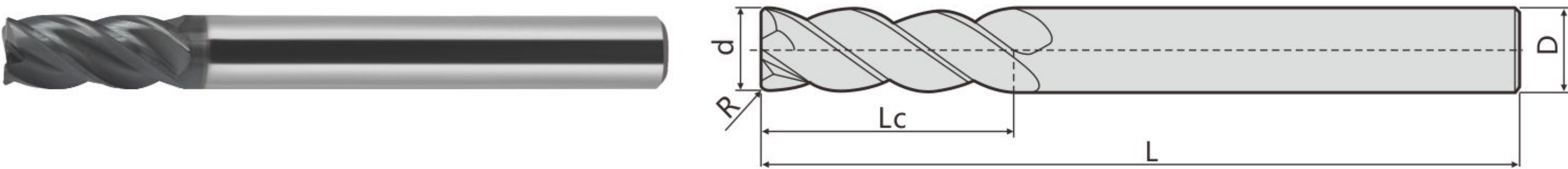
• Stock Unit: mm

Specifications	d	R	Lc	L	D	Stock
R0.15×4D×50	0.3	0.15		50	4	●
R0.2×4D×50	0.4	0.2		50	4	●
R0.25×4D×50	0.5	0.25		50	4	●
R0.3×4D×50	0.6	0.3		50	4	●
R0.35×4D×50	0.7	0.35		50	4	●
R0.4×4D×50	0.8	0.4		50	4	●
R0.45×4D×50	0.9	0.45		50	4	●
R0.5×4D×50	1	0.5	2	50	4	●
R0.75×4D×50	1.5	0.75	3	50	4	●
R1×4D×50	2	1	4	50	4	●
R1.25×4D×50	2.5	1.25	5	50	4	○
R1.5×4D×50	3	1.5	6	50	4	●
R2×4D×50	4	2	8	50	4	●
R2.5×6D×50	5	2.5	10	50	6	○
R3×6D×50	6	3	12	50	6	●
R3×6D×60	6	3	12	60	6	○
R4×8D×60	8	4	13	50	8	●
R5×10D×75	10	5	18	75	10	●
R6×12D×75	12	6	22	75	12	●
R8×16D×100	16	8	30	100	16	○
R10×20D×100	20	10	38	100	20	○
R2×4D×75	4	2	8	75	4	○
R3×6D×75	6	3	12	75	6	●
R4×8D×75	8	4	13	75	8	●
R2×4D×100	4	2	8	100	4	○
R3×6D×100	6	3	12	100	6	○
R4×8D×100	8	4	13	100	8	●
R5×10D×100	10	5	18	100	10	●
R6×12D×100	12	6	22	100	12	○

SOLID CARBIDE CORNER RADIUS END MILL

SOLID CARBIDE LONG NECK SQUARE END MILL

- EG HRC25~52
- EM HRC35~60

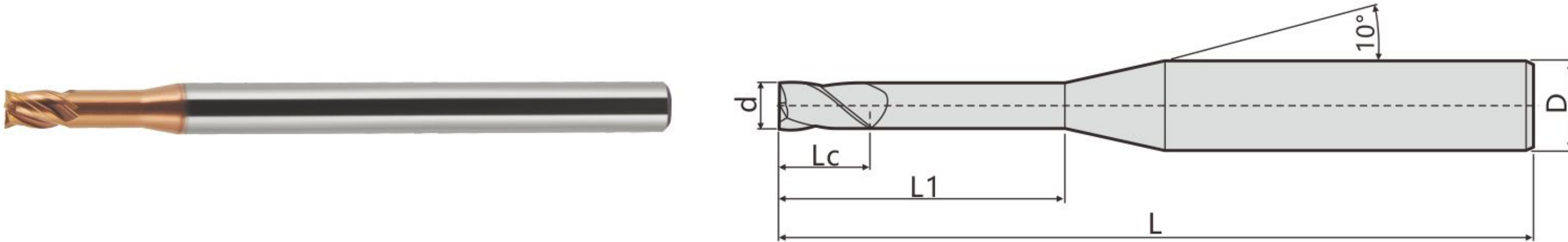


• Stock

Unit : mm

Specifications	d	R	Lc	L	D	Stock
1R0.2×4D×50	1	0.2	2	50	4	●
1.5R0.2×4D×50	1.5	0.2	3	50	4	●
2R0.2×4D×50	2	0.2	4	50	4	●
3R0.2×4D×50	3	0.2	6	50	4	●
4R0.2×4D×50	4	0.2	8	50	4	●
2R0.5×4D×50	2	0.5	4	50	4	●
3R0.5×4D×50	3	0.5	6	50	4	●
4R0.5×4D×50	4	0.5	8	50	4	●
6R0.5×6D×50	6	0.5	12	50	6	●
6R0.5×6D×60	6	0.5	12	60	6	●
8R0.5×8D×60	8	0.5	16	60	8	●
10R0.5×10D×75	10	0.5	20	75	10	●
12R0.5×12D×75	12	0.5	24	75	12	●
4R0.5×4D×75	4	0.5	8	75	4	●
6R0.5×6D×75	6	0.5	12	75	6	●
8R0.5×8D×75	8	0.5	16	75	8	●
6R0.5×6D×100	6	0.5	12	100	6	●
8R0.5×8D×100	8	0.5	16	100	8	●
10R0.5×10D×100	10	0.5	20	100	10	●
12R0.5×12D×100	12	0.5	24	100	12	●
4R1×4D×50	4	1	8	50	4	●
6R1×6D×50	6	1	12	50	6	●
6R1×6D×60	6	1	12	60	6	●
8R1×8D×60	8	1	16	60	8	●
10R1×10D×75	10	1	20	75	10	●
12R1×12D×75	12	1	24	75	12	●
6R1×6D×75	6	1	12	75	6	●
8R1×8D×75	8	1	16	75	8	●
6R1×6D×100	6	1	12	100	6	●
8R1×8D×100	8	1	16	100	8	●
10R1×10D×100	10	1	20	100	10	●
12R1×12D×100	12	1	24	100	12	●

- EG HRC25~52
- EM HRC35~60



• Stock

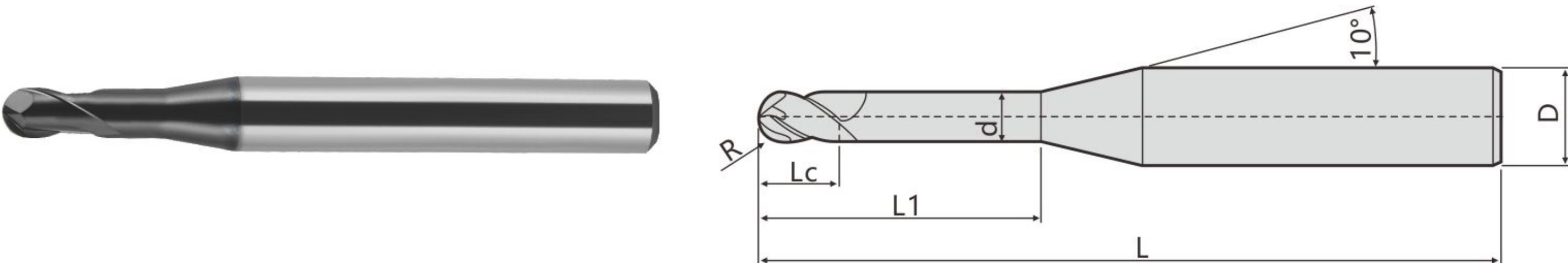
Unit : mm

Specifications	d	R	Lc	L1	L	D	Stock
1×4D×50 04	1		1.5	4	50	4	○
1×4D×50 06	1		1.5	6	50	4	○
1.5×4D×50 06	1.5		2.2	6	50	4	○
1.5×4D×50 08	1.5		2.2	8	50	4	○
2×4D×50 06	2		3	6	50	4	○
2×4D×50 08	2		3	8	50	4	○
2×4D×50 10	2		3	10	50	4	○
3×4D×50 10	3		4	10	50	4	○
1×6D×50 04	1		1.5	4	50	6	○
1×6D×50 06	1		1.5	6	50	6	○
1.5×6D×50 06	1.5		2.2	6	50	6	○
1.5×6D×50 08	1.5		2.2	8	50	6	○
2×6D×50 06	2		3	6	50	6	○
2×6D×50 08	2		3	8	50	6	○
2×6D×50 10	2		3	10	50	6	○
4×6D×50 12	4		6	12	50	6	○
3×6D×60 15	3		4	15	60	6	○
4×6D×60 12	4		6	12	60	6	○
4×6D×60 16	4		6	16	60	6	○
4×6D×60 20	4		6	20	60	6	○

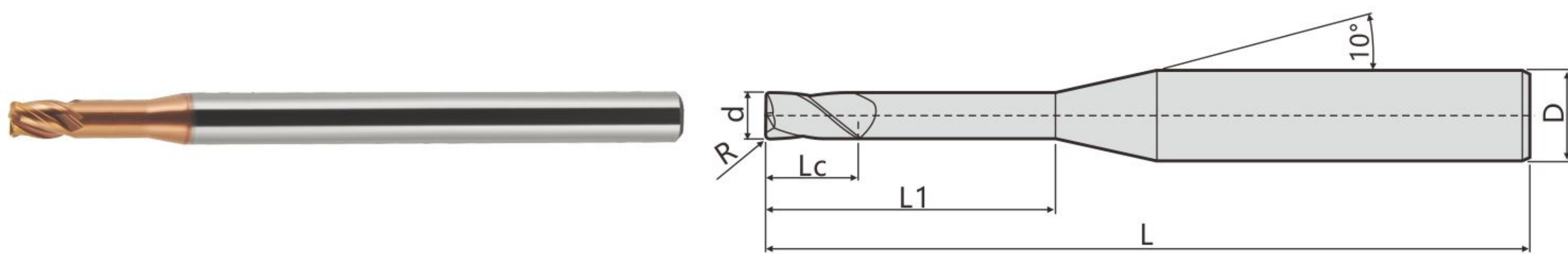
SOLID CARBIDE LONG NECK BALL END MILL

SOLID CARBIDE LONG NECK CORNER RADIUS END MILL

- EG HRC25~52
- EM HRC35~60



- EG HRC25~52
- EM HRC35~60



• Stock

Unit : mm

Specifications	d	R	Lc	L1	L	D	Stock
R0.5×4D×50 04	1	0.5	1.2	4	50	4	●
R0.5×4D×50 06	1	0.5	1.2	6	50	4	●
R0.75×4D×50 06	1.5	0.75	1.8	6	50	4	●
R0.75×4D×50 08	1.5	0.75	1.8	8	50	4	●
R1×4D×50 06	2	1	2.2	6	50	4	●
R1×4D×50 08	2	1	2.2	8	50	4	●
R1×4D×50 10	2	1	2.2	10	50	4	●
R1.5×4D×50 10	3	1.5	3.6	10	50	4	●
R0.5×6D×50 04	1	0.5	1.2	4	50	6	●
R0.5×6D×50 06	1	0.5	1.2	6	50	6	●
R0.75×6D×50 06	1.5	0.75	1.8	6	50	6	●
R0.75×6D×50 08	1.5	0.75	1.8	8	50	6	●
R1×6D×50 06	2	1	2.2	6	50	6	●
R1×6D×50 08	2	1	2.2	8	50	6	●
R1×6D×50 10	2	1	2.2	10	50	6	●
R2×6D×50 12	4	2	5	12	50	6	●
R1.5×6D×60 15	3	1.5	3.6	15	60	6	●
R2×6D×60 12	4	2	5	12	60	6	●
R2×6D×60 16	4	2	5	16	60	6	●
R2×6D×60 20	4	2	5	20	60	6	●

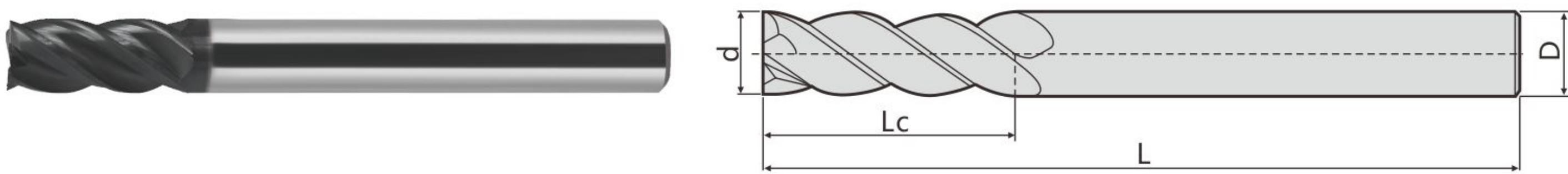
• Stock

Unit : mm

Specifications	d	R	Lc	L1	L	D	Stock
1R0.2×4D×50 04	1	0.2	1.5	4	50	4	●
1R0.2×4D×50 06	1	0.2	1.5	6	50	4	●
1.5R0.2×4D×50 06	1.5	0.2	2.2	6	50	4	●
1.5R0.2×4D×50 08	1.5	0.2	2.2	8	50	4	●
2R0.2×4D×50 06	2	0.2	3	6	50	4	●
2R0.2×4D×50 08	2	0.2	3	8	50	4	●
2R0.2×4D×50 10	2	0.2	3	10	50	4	●
3R0.2×4D×50 10	3	0.2	4	10	50	4	●
2R0.5×4D×50 06	2	0.5	3	6	50	4	●
2R0.5×4D×50 08	2	0.5	3	8	50	4	●
2R0.5×4D×50 10	2	0.5	3	10	50	4	●
3R0.5×4D×50 10	3	0.5	4	10	50	4	●
3R0.5×6D×60 15	3	0.5	4	15	60	6	●
4R0.5×6D×60 16	4	0.5	6	16	60	6	●
4R0.5×6D×60 20	4	0.5	6	20	60	6	●

SOLID CARBIDE SQUARE END MILL

• ESS HRC50°



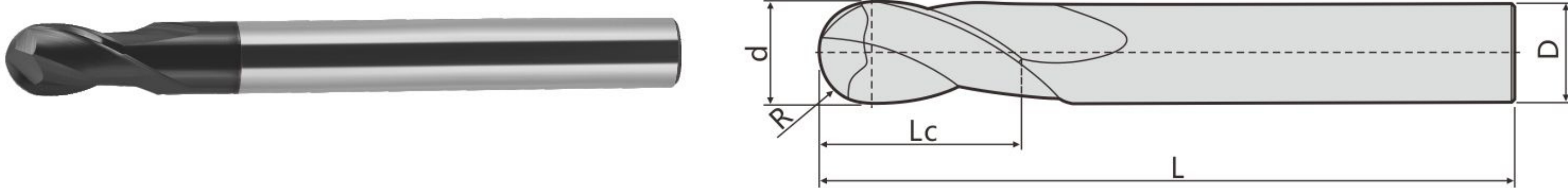
• Stock

Unit: mm

Specifications	d	R	Lc	L	D	Stock
ESS2002 0.2×50	0.2			50	4	○
ESS2003 0.3×50	0.3			50	4	○
ESS2004 0.4×50	0.4			50	4	○
ESS2005 0.5×50	0.5			50	4	○
ESS2006 0.6×50	0.6			50	4	○
ESS2007 0.7×50	0.7			50	4	○
ESS2008 0.8×50	0.8			50	4	○
ESS2009 0.9×50	0.9			50	4	○
ESS4010 1×50	1		3	50	4	○
ESS4015 1.5×50	1.5		4	50	4	○
ESS4020 2×50	2		6	50	4	○
ESS4025 2.5×50	2.5		8	50	4	○
ESS4030 3×50	3		9	50	4	○
ESS4040 4×50	4		11	50	4	○
ESS4060 6×50	6		16	50	6	○
ESS4060 6×60	6		16	60	6	○
ESS4080 8×60	8		20	60	8	○
ESS4100 10×75	10		25	75	10	○
ESS4120 12×75	12		30	75	12	○
ESS4160 16×100	16		40	100	16	○
ESS4200 20×100	20		45	100	20	○
ESHS4040 4×75	4		11	75	4	○
ESHS4060 6×75	6		16	75	6	○
ESHS4080 8×75	8		20	75	8	○
ESHHS4080 8×100	8		20	100	8	○
ESHS4100 10×100	10		25	100	10	○
ESHS4120 12×100	12		30	100	12	○

SOLID CARBIDE BALL END MILL

• ESB HRC50°



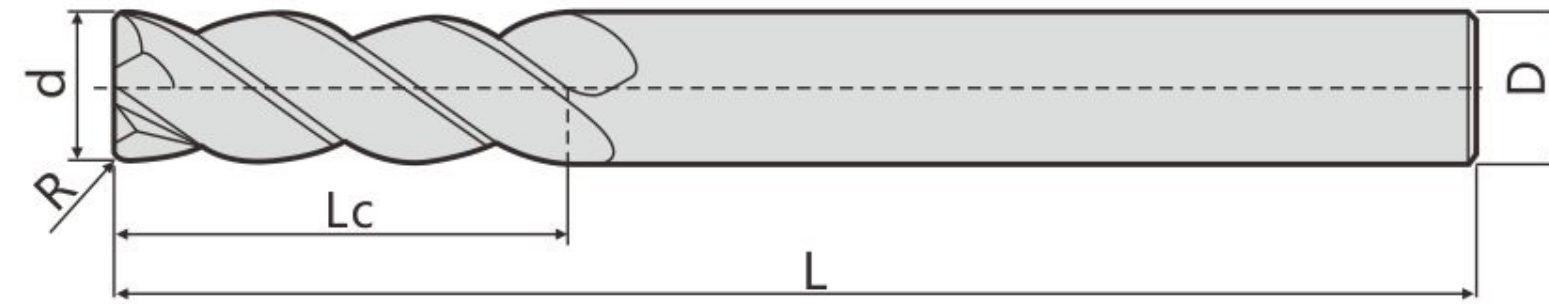
• Stock

Unit: mm

Specifications	d	R	Lc	L	D	Stock
ESB2002 R0.1×50	0.2	0.1		50	4	○
ESB2003 R0.15×50	0.3	0.15		50	4	○
ESB2004 R0.2×50	0.4	0.2		50	4	○
ESB2005 R0.25×50	0.5	0.25		50	4	●
ESB2006 R0.3×50	0.6	0.3		50	4	●
ESB2007 R0.35×50	0.7	0.35		50	4	●
ESB2008 R0.4×50	0.8	0.4		50	4	●
ESB2009 R0.45×50	0.9	0.45		50	4	●
ESB2010 R0.5×50	1	0.5	2	50	4	●
ESB2015 R0.75×50	1.5	0.75	3	50	4	●
ESB2020 R1×50	2	1	4	50	4	●
ESB2025 R1.25×50	2.5	1.25	5	50	4	○
ESB2030 R1.5×50	3	1.5	6	50	4	●
ESB2040 R2×50	4	2	8	50	4	●
ESB2060 R3×50	6	3	12	50	6	●
ESHB2060 R3×60	6	3	12	60	6	●
ESB2080 R4×60	8	4	13	60	8	●
ESB2100 R5×75	10	5	16	75	10	●
ESB2120 R6×75	12	6	20	75	12	●
ESHB2040 R2×75	4	2	8	75	4	●
ESHB2060 R3×75	6	3	12	75	6	●
ESHB2080 R4×75	8	4	13	75	8	●
ESHHB2080 R4×100	8	4	13	100	8	●
ESHB2100 R5×100	10	5	16	100	10	●
ESHB2120 R6×100	12	6	20	100	12	●

SOLID CARBIDE CORNER RADIUS END MILL

• ESR HRC50°



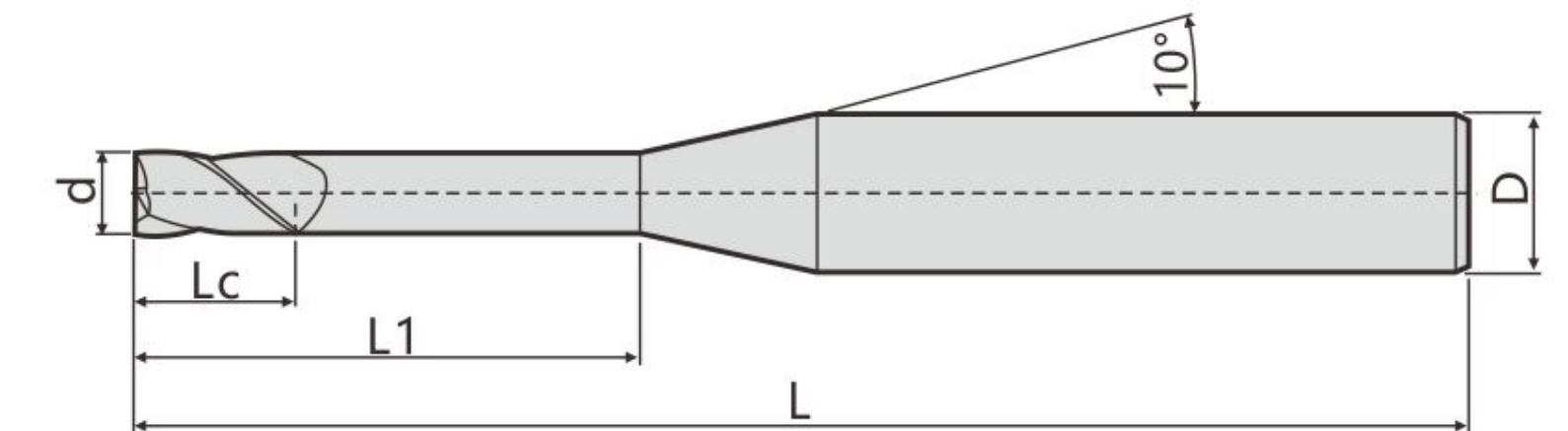
• Stock

Unit: mm

Specifications	d	R	Lc	L1	L	D	Stock
ESR2008-R0.1	0.8	0.1			50	4	○
ESR2009-R0.1	0.9	0.1			50	4	○
ESR2010-R0.2	1	0.2		2	50	4	●
ESR4015-R0.2	1.5	0.2		3	50	4	●
ESR4020-R0.2	2	0.2		4	50	4	●
ESR4030-R0.2	3	0.2		6	50	4	●
ESR4040-R0.2	4	0.2		8	50	4	●
ESR4060-R0.2	6	0.2		12	50	4	●
ESR4020-R0.5	2	0.5		4	50	4	●
ESR4030-R0.5	3	0.5		6	50	4	●
ESR4040-R0.5	4	0.5		8	50	4	●
ESR4060-R0.5	6	0.5		12	50	6	●
ESR4080-R0.5	8	0.5		16	50	8	●
ESR4100-R0.5	10	0.5		20	50	10	●
ESR4120-R0.5	12	0.5		24	50	12	●
ESHR4060-R0.5-60	6	0.5		12	60	6	●
ESHR4060-R0.5-75	6	0.5		12	75	6	●
ESHR4080-R0.5-75	8	0.5		16	75	8	●
ESHHR4080-R0.5-100	8	0.5		16	100	8	●
ESHR4100-R0.5-100	10	0.5		20	100	10	●
ESHR4120-R0.5-100	12	0.5		24	100	12	●
ESR4040-R1	4	1		8	50	4	●
ESR4060-R1	6	1		12	50	6	●
ESR4080-R1	8	1		16	60	8	●
ESR4100-R1	10	1		20	75	10	●
ESR4120-R1	12	1		24	75	12	●
ESHR4060-R1-60	6	1		12	60	6	●
ESHR4060-R1-75	6	1		12	75	6	●
ESHR4080-R1-75	8	1		16	75	8	●
ESHHR4080-R1-100	8	1		16	100	8	●
ESHR4100-R1-100	10	1		20	100	10	●
ESHR4120-R1-100	12	1		24	100	12	●

SOLID CARBIDE LONG NECK SQUARE END MILL

• ESDS HRC50°



• Stock

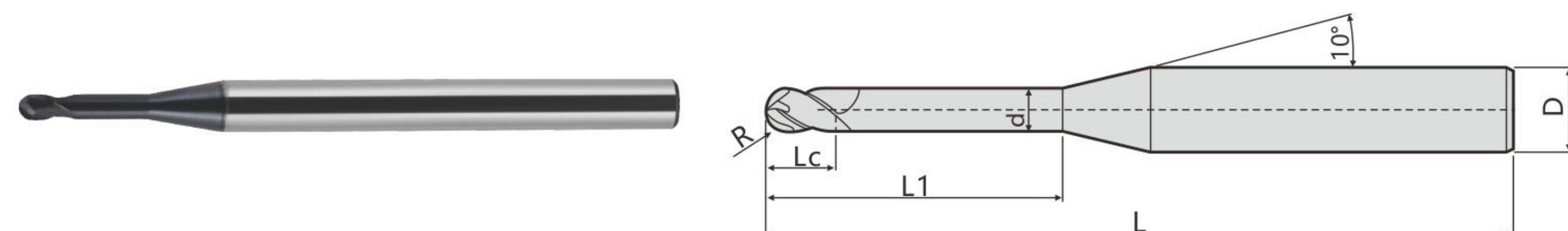
Unit: mm

Specifications	d	R	Lc	L1	L	D	Stock
ESDS4010-04-4D	1		1.5	4	50	4	○
ESDS4010-06-4D	1		1.5	6	50	4	○
ESDS4010-08-4D	1		1.5	8	50	4	○
ESDS4015-06-4D	1.5		2.2	6	50	4	○
ESDS4015-08-4D	1.5		2.2	8	50	4	○
ESDS4020-06-4D	2		3	6	50	4	○
ESDS4020-08-4D	2		3	8	50	4	○
ESDS4020-10-4D	2		3	10	50	4	○
ESDS4030-10-4D	3		4	10	50	4	○
ESDS4030-15-6D-60	3		4	15	60	6	○
ESDS4030-20-6D-60	3		4	20	60	6	○
ESDS4040-12-6D-50	4		6	12	60	6	○
ESDS4040-12-6D-60	4		6	12	60	6	○
ESDS4040-16-6D-60	4		6	16	60	6	○
ESDS4040-20-6D-60	4		6	20	60	6	○

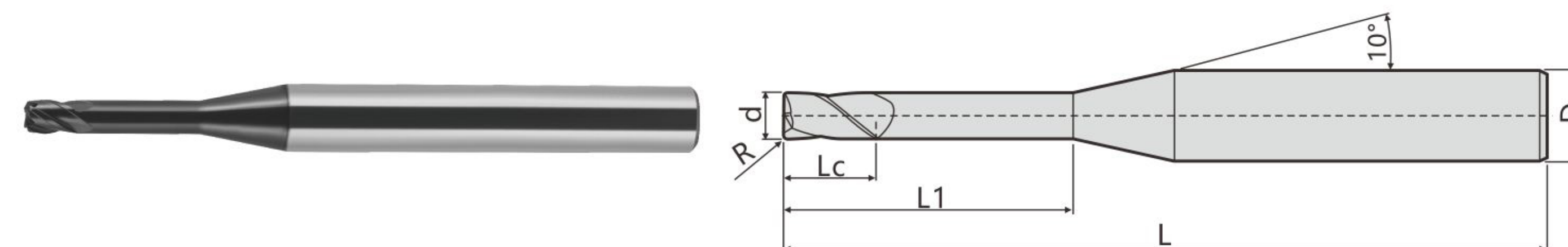
SOLID CARBIDE LONG NECK BALL END MILL

SOLID CARBIDE LONG NECK CORNER RADIUS END MILL

• ESDB HRC50°



• ESDR HRC50°



• Stock

Unit: mm

Specifications	d	R	Lc	L1	L	D	Stock
ESDB2010-04-4D	1	0.5	1.2	4	50	4	●
ESDB2010-06-4D	1	0.5	1.2	6	50	4	●
ESDB2010-08-4D	1	0.5	1.2	8	50	4	○
ESDB2015-06-4D	1.5	0.75	1.8	6	50	4	●
ESDB2015-08-4D	1.5	0.75	1.8	8	50	4	●
ESDB2020-06-4D	2	1	2.2	6	50	4	●
ESDB2020-08-4D	2	1	2.2	8	50	4	●
ESDB2020-10-4D	2	1	2.2	10	50	4	●
ESDB2030-10-4D	3	1.5	3.6	10	50	4	●
ESDB2030-15-6D-60	3	1.5	3.6	15	60	6	●
ESDB2030-20-6D-60	3	1.5	3.6	20	60	6	○
ESDB2040-12-6D-50	4	2	5	12	60	6	●
ESDB2040-12-6D-60	4	2	5	12	60	6	○
ESDB2040-16-6D-60	4	2	5	16	60	6	●
ESDB2040-20-6D-60	4	2	5	20	60	6	●

• Stock

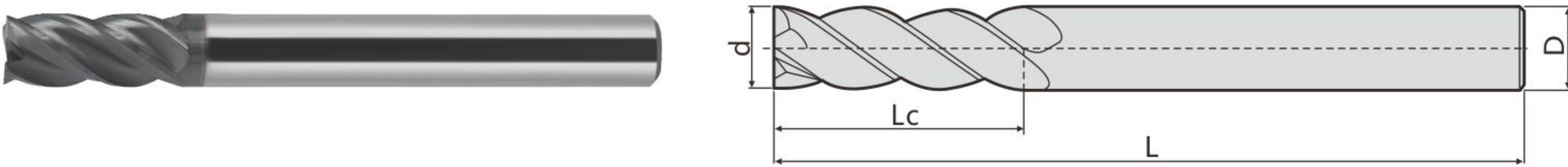
Unit: mm

Specifications	d	R	Lc	L1	L	D	Stock
ESDR4010-R0.2-04-4D	1	0.2	1.5	4	50	4	●
ESDR4010-R0.2-06-4D	1	0.2	1.5	6	50	4	●
ESDR4010-R0.2-08-4D	1	0.2	1.5	8	50	4	○
ESDR4015-R0.2-06-4D	1.5	0.2	2.2	6	50	4	●
ESDR4015-R0.2-08-4D	1.5	0.2	2.2	8	50	4	●
ESDR4020-R0.2-06-4D	2	0.2	3	6	50	4	●
ESDR4020-R0.2-08-4D	2	0.2	3	8	50	4	●
ESDR4020-R0.2-10-4D	2	0.2	3	10	50	4	●
ESDR4030-R0.2-10-4D	3	0.2	4	10	50	4	●
ESDR4030-R0.2-15-6D-60	3	0.2	4	15	60	6	○
ESDR4030-R0.2-20-6D-60	3	0.2	4	20	60	6	○
ESDR4040-R0.2-12-6D-50	4	0.2	6	12	60	6	○
ESDR4040-R0.2-12-6D-60	4	0.2	6	12	60	6	○
ESDR4040-R0.2-16-6D-60	4	0.2	6	16	60	6	○
ESDR4040-R0.2-20-6D-60	4	0.2	6	20	60	6	○
ESDR4020-R0.5-06-4D	2	0.5	3	6	50	4	●
ESDR4020-R0.5-08-4D	2	0.5	3	8	50	4	●
ESDR4020-R0.5-10-4D	2	0.5	3	10	50	4	○
ESDR4030-R0.5-10-4D	3	0.5	4	10	50	4	●
ESDR4030-R0.5-15-6D-60	3	0.5	4	15	60	6	●
ESDR4030-R0.5-20-6D-60	3	0.5	4	20	60	6	○
ESDR4040-R0.5-12-6D-50	4	0.5	6	12	60	6	●
ESDR4040-R0.5-12-6D-60	4	0.5	6	12	60	6	○
ESDR4040-R0.5-16-6D-60	4	0.5	6	16	60	6	●
ESDR4040-R0.5-20-6D-60	4	0.5	6	20	60	6	●
ESDR4040-R1-12-6D-50	4	1	6	12	50	6	○
ESDR4040-R1-12-6D-60	4	1	6	12	60	6	○
ESDR4040-R1-16-6D-60	4	1	6	16	60	6	○
ESDR4040-R1-20-6D-60	4	1	6	20	60	6	○

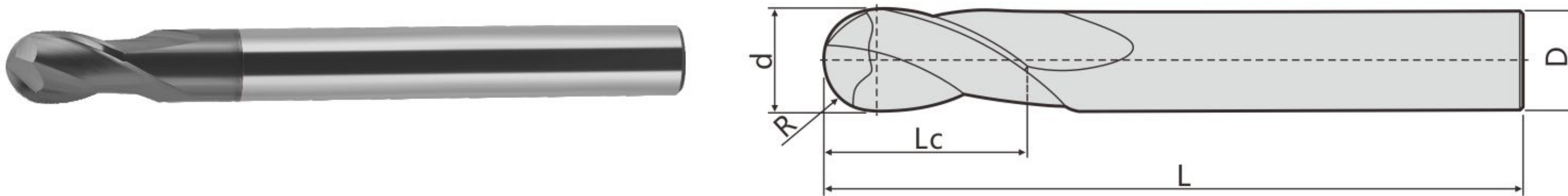
SOLID CARBIDE SQUARE END MILL

SOLID CARBIDE BALL END MILL

• EHS HRC40°-70°



• EHB HRC40°-70°



• Stock

Unit: mm

Specifications	d	R	Lc	L	D	Stock
EHS2002 0.2×50	0.2			50	4	○
EHS2003 0.3×50	0.3			50	4	○
EHS2004 0.4×50	0.4			50	4	○
EHS2005 0.5×50	0.5			50	4	○
EHS2006 0.6×50	0.6			50	4	○
EHS2007 0.7×50	0.7			50	4	○
EHS2008 0.8×50	0.8			50	4	○
EHS2009 0.9×50	0.9			50	4	○
EHS4010 1×50	1		3	50	4	○
EHS4015 1.5×50	1.5		4	50	4	○
EHS4020 2×50	2		6	50	4	○
EHS4025 2.5×50	2.5		8	50	4	○
EHS4030 3×50	3		9	50	4	○
EHS4040 4×50	4		11	50	4	○
EHS4060 6×50	6		16	50	6	○
EHS4060 6×60	6		16	60	6	○
EHS4080 8×60	8		20	60	8	○
EHS4100 10×75	10		25	75	10	○
EHS4120 12×75	12		30	75	12	○
EHS4160 16×100	16		40	100	16	○
EHS4200 20×100	20		45	100	20	○
EHHS4040 4×75	4		11	75	4	○
EHHS4060 6×75	6		16	75	6	○
EHHS4080 8×75	8		20	75	8	○
EHHS4080 8×100	8		20	100	8	○
EHHS4100 10×100	10		25	100	10	○
EHHS4120 12×100	12		30	100	12	○

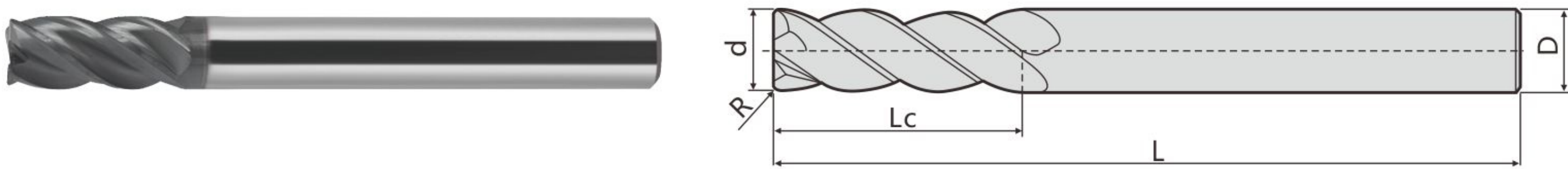
• Stock

Unit: mm

Specifications	d	R	Lc	L	D	Stock
EHB2002 R0.1×50	0.2	0.1		50	4	○
EHB2003 R0.15×50	0.3	0.15		50	4	○
EHB2004 R0.2×50	0.4	0.2		50	4	○
EHB2005 R0.25×50	0.5	0.25		50	4	●
EHB2006 R0.3×50	0.6	0.3		50	4	●
EHB2007 R0.35×50	0.7	0.35		50	4	●
EHB2008 R0.4×50	0.8	0.4		50	4	●
EHB2009 R0.45×50	0.9	0.45		50	4	○
EHB2010 R0.5×50	1	0.5	2	50	4	●
EHB2015 R0.75×50	1.5	0.75	3	50	4	●
EHB2020 R1×50	2	1	4	50	4	●
EHB2025 R1.25×50	2.5	1.25	5	50	4	○
EHB2030 R1.5×50	3	1.5	6	50	4	●
EHB2040 R2×50	4	2	8	50	4	●
EHB2060 R3×50	6	3	12	50	6	●
EHHB2060 R3×60	6	3	12	60	6	●
EHB2080 R4×60	8	4	13	60	8	●
EHB2100 R5×75	10	5	16	75	10	●
EHB2120 R6×75	12	6	20	75	12	●
EHHB2040 R2×75	4	2	8	75	4	○
EHHB2060 R3×75	6	3	12	75	6	●
EHHB2080 R4×75	8	4	13	75	8	●
EHHHB2080 R4×100	8	4	13	100	8	●
EHHB2100 R5×100	10	5	16	100	10	●
EHHB2120 R6×100	12	6	20	100	12	○

SOLID CARBIDE CORNER RADIUS END MILL

• EHR HRC40° -70°



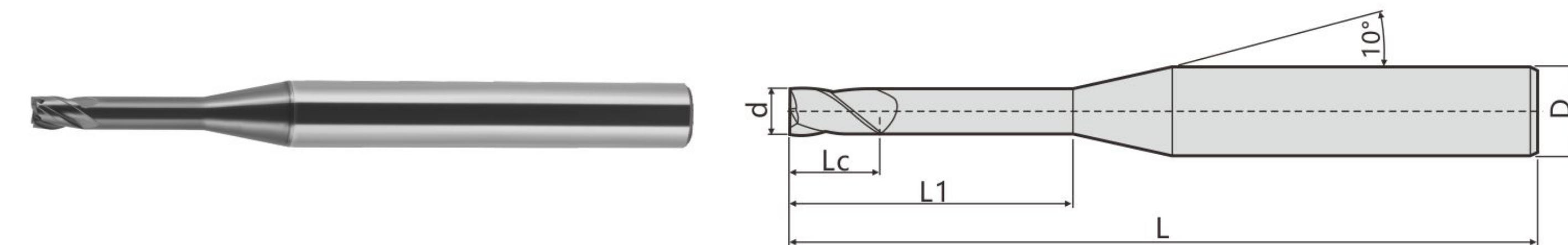
• Stock

Unit: mm

Specifications	d	R	Lc	L	D	Stock
EHR2008-R0.1	0.8	0.1		50	4	○
EHR2009-R0.1	0.9	0.1		50	4	○
EHR2010-R0.2	1	0.2	2	50	4	●
EHR4015-R0.2	1.5	0.2	3	50	4	●
EHR4020-R0.2	2	0.2	4	50	4	●
EHR4030-R0.2	3	0.2	6	50	4	●
EHR4040-R0.2	4	0.2	8	50	4	●
EHR4060-R0.2	6	0.2	12	50	4	●
EHR4020-R0.5	2	0.5	4	50	4	●
EHR4030-R0.5	3	0.5	6	50	4	●
EHR4040-R0.5	4	0.5	8	50	4	●
EHR4060-R0.5	6	0.5	12	50	6	●
EHR4080-R0.5	8	0.5	16	50	8	●
EHR4100-R0.5	10	0.5	20	50	10	●
EHR4120-R0.5	12	0.5	24	50	12	●
EHHR4060-R0.5-60	6	0.5	12	60	6	●
EHHR4060-R0.5-75	6	0.5	12	75	6	●
EHHR4080-R0.5-75	8	0.5	16	75	8	●
EHHR4080-R0.5-100	8	0.5	16	100	8	●
EHHR4100-R0.5-100	10	0.5	20	100	10	●
EHHR4120-R0.5-100	12	0.5	24	100	12	●
EHR4040-R1	4	1	8	50	4	●
EHR4060-R1	6	1	12	50	6	●
EHR4080-R1	8	1	16	60	8	●
EHR4100-R1	10	1	20	75	10	●
EHR4120-R1	12	1	24	75	12	●
EHHR4060-R1-60	6	1	12	60	6	●
EHHR4060-R1-75	6	1	12	75	6	●
EHHR4080-R1-75	8	1	16	75	8	●
EHHR4080-R1-100	8	1	16	100	8	●
EHHR4100-R1-100	10	1	20	100	10	●
EHHR4120-R1-100	12	1	24	100	12	●

SOLID CARBIDE LONG NECK SQUARE END MILL

• EHDS HRC40° -70°



• Stock

Unit: mm

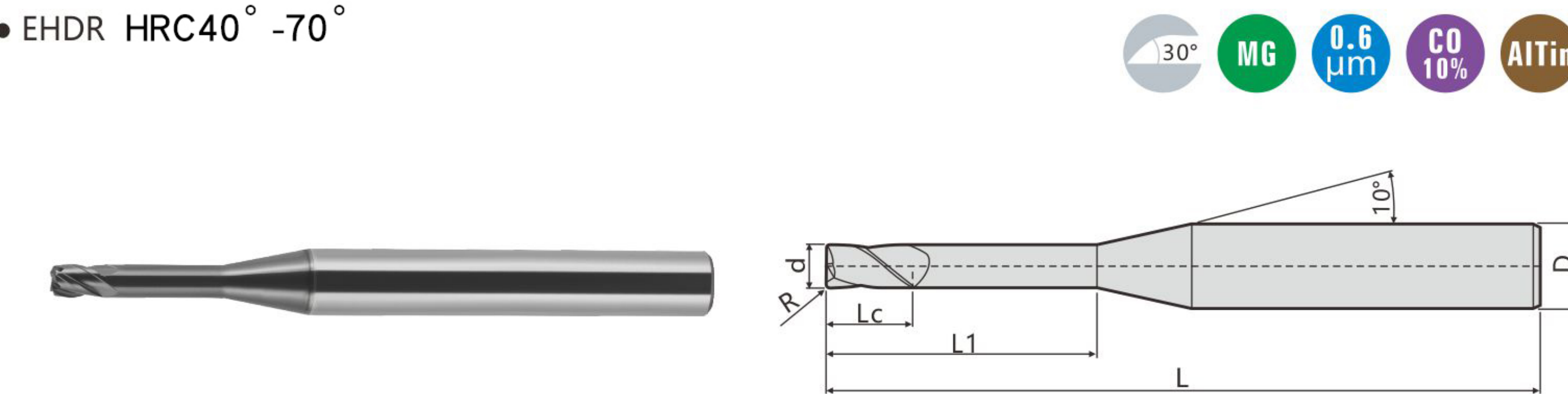
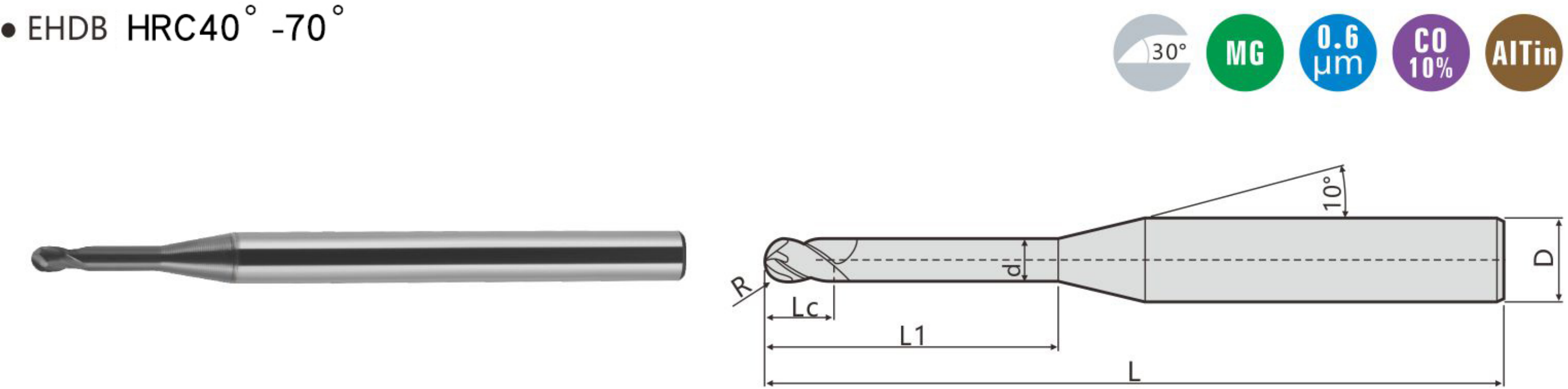
Specifications	d	R	Lc	L1	L	D	Stock
EHDS4010-04-4D	1		1.5	4	50	4	○
EHDS4010-06-4D	1		1.5	6	50	4	○
EHDS4010-08-4D	1		1.5	8	50	4	○
EHDS4015-06-4D	1.5		2.2	6	50	4	○
EHDS4015-08-4D	1.5		2.2	8	50	4	○
EHDS4020-06-4D	2		3	6	50	4	○
EHDS4020-08-4D	2		3	8	50	4	○
EHDS4020-10-4D	2		3	10	50	4	○
EHDS4030-10-4D	3		4	10	50	4	○
EHDS4030-15-6D-60	3		4	15	60	6	○
EHDS4030-20-6D-60	3		4	20	60	6	○
EHDS4040-12-6D-50	4		6	12	60	6	○
EHDS4040-12-6D-60	4		6	12	60	6	○
EHDS4040-16-6D-60	4		6	16	60	6	○
EHDS4040-20-6D-60	4		6	20	60	6	○

SOLID CARBIDE LONG NECK BALL END MILL

SOLID CARBIDE LONG NECK CORNER RADIUS END MILL

• EHDB HRC40° -70°

• EHDR HRC40° -70°



• Stock

Unit: mm

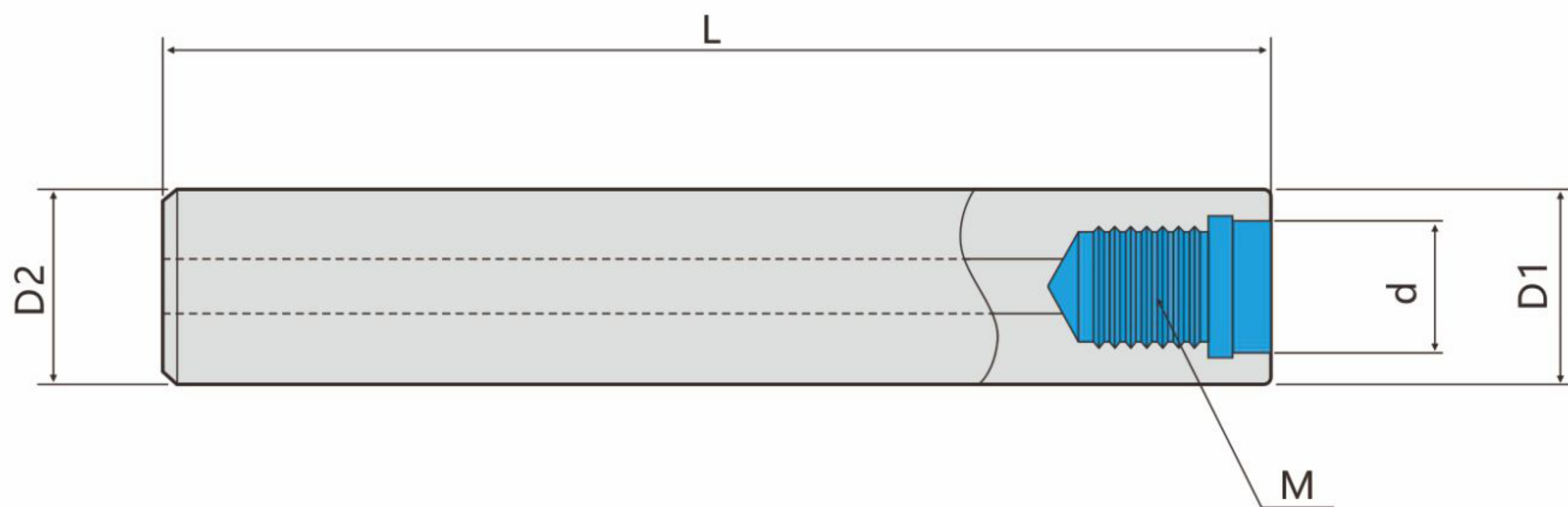
Specifications	d	R	Lc	L1	L	D	Stock
EHDB2010-04-4D	1	0.5	1.2	4	50	4	●
EHDB2010-06-4D	1	0.5	1.2	6	50	4	●
EHDB2010-08-4D	1	0.5	1.2	8	50	4	○
EHDB2015-06-4D	1.5	0.75	1.8	6	50	4	●
EHDB2015-08-4D	1.5	0.75	1.8	8	50	4	●
EHDB2020-06-4D	2	1	2.2	6	50	4	●
EHDB2020-08-4D	2	1	2.2	8	50	4	●
EHDB2020-10-4D	2	1	2.2	10	50	4	●
EHDB2030-10-4D	3	1.5	3.6	10	50	4	●
EHDB2030-15-6D-60	3	1.5	3.6	15	60	6	●
EHDB2030-20-6D-60	3	1.5	3.6	20	60	6	○
EHDB2040-12-6D-50	4	2	5	12	60	6	●
EHDB2040-12-6D-60	4	2	5	12	60	6	○
EHDB2040-16-6D-60	4	2	5	16	60	6	●
EHDB2040-20-6D-60	4	2	5	20	60	6	●

• Stock

Unit: mm

Specifications	d	R	Lc	L1	L	D	Stock
EHDR4010-R0.2-04-4D	1	0.2	1.5	4	50	4	●
EHDR4010-R0.2-06-4D	1	0.2	1.5	6	50	4	●
EHDR4010-R0.2-08-4D	1	0.2	1.5	8	50	4	○
EHDR4015-R0.2-06-4D	1.5	0.2	2.2	6	50	4	●
EHDR4015-R0.2-08-4D	1.5	0.2	2.2	8	50	4	●
EHDR4020-R0.2-06-4D	2	0.2	3	6	50	4	●
EHDR4020-R0.2-08-4D	2	0.2	3	8	50	4	●
EHDR4020-R0.2-10-4D	2	0.2	3	10	50	4	●
EHDR4030-R0.2-10-4D	3	0.2	4	10	50	4	●
EHDR4030-R0.2-15-6D-60	3	0.2	4	15	60	6	○
EHDR4030-R0.2-20-6D-60	3	0.2	4	20	60	6	○
EHDR4040-R0.2-12-6D-50	4	0.2	6	12	60	6	○
EHDR4040-R0.2-12-6D-60	4	0.2	6	12	60	6	○
EHDR4040-R0.2-16-6D-60	4	0.2	6	16	60	6	○
EHDR4040-R0.2-20-6D-60	4	0.2	6	20	60	6	○
EHDR4020-R0.5-06-4D	2	0.5	3	6	50	4	●
EHDR4020-R0.5-08-4D	2	0.5	3	8	50	4	●
EHDR4020-R0.5-10-4D	2	0.5	3	10	50	4	○
EHDR4030-R0.5-10-4D	3	0.5	4	10	50	4	●
EHDR4030-R0.5-15-6D-60	3	0.5	4	15	60	6	●
EHDR4030-R0.5-20-6D-60	3	0.5	4	20	60	6	○
EHDR4040-R0.5-12-6D-50	4	0.5	6	12	60	6	●
EHDR4040-R0.5-12-6D-60	4	0.5	6	12	60	6	○
EHDR4040-R0.5-16-6D-60	4	0.5	6	16	60	6	●
EHDR4040-R0.5-20-6D-60	4	0.5	6	20	60	6	●
EHDR4040-R1-12-6D-50	4	1	6	12	50	6	○
EHDR4040-R1-12-6D-60	4	1	6	12	60	6	○
EHDR4040-R1-16-6D-60	4	1	6	16	60	6	○
EHDR4040-R1-20-6D-60	4	1	6	20	60	6	○

TUNGSTEN STEEL SEISMIC TOOL BAR

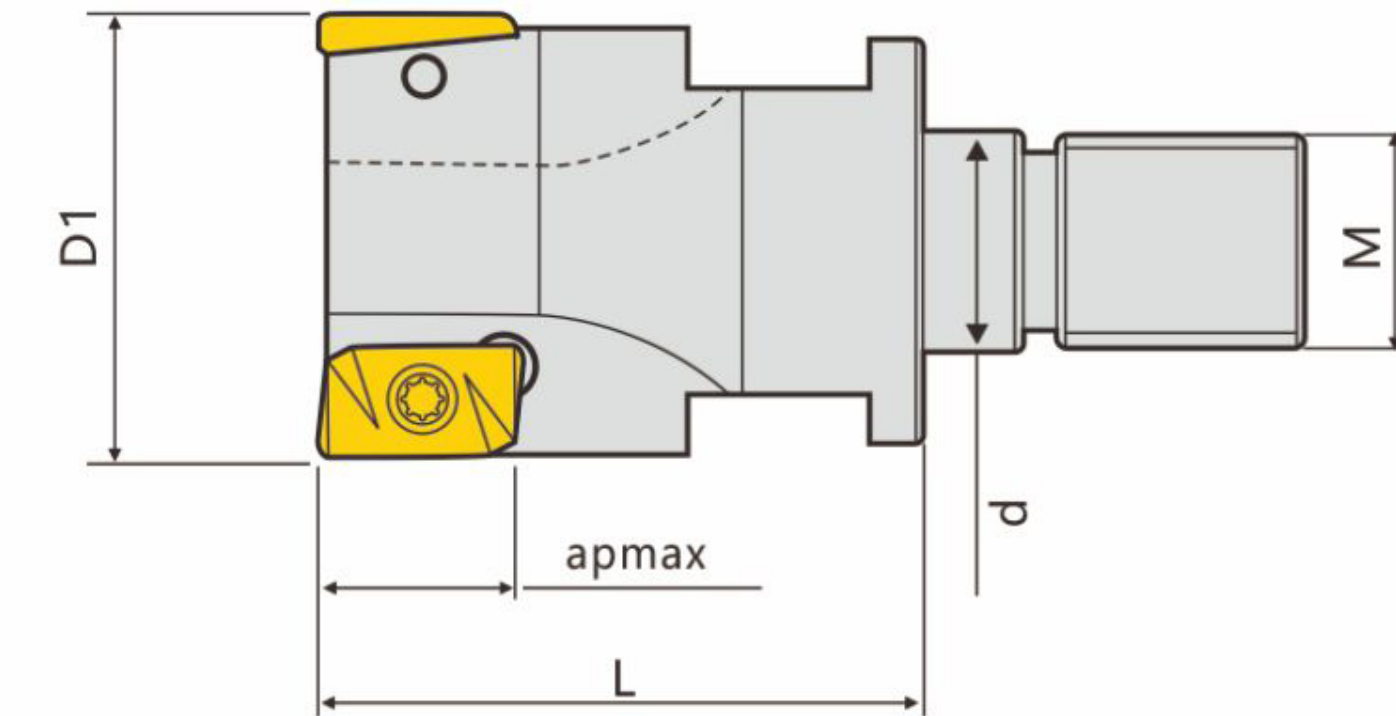


● Stock Unit:mm

Specifications	d	M	D1	D2	L	Stock
MFT08-100-M4	4.5	M4	8	8	100	●
MFT10-100-M5	5.5	M5	10	10	100	●
MFT10-120-M5	5.5	M5	10	10	120	●
MFT10-150-M5	5.5	M5	10	10	150	●
MFT10-100-M6	6.5	M6	10	10	100	●
MFT10-150-M6	6.5	M6	10	10	150	●
MFT10-200-M5	5.5	M5	10	10	200	●
MFT12-100-M6	6.5	M6	12	12	100	●
MFT12-150-M6	6.5	M6	12	12	150	●
MFT12-200-M6	6.5	M6	12	12	200	●
MFT15-100-M8	8.5	M8	15	15	100	●
MFT15-150-M8	8.5	M8	15	15	150	●
MFT15-200-M8	8.5	M8	15	15	200	●
MFT15-250-M8	8.5	M8	15	15	250	●
MFT15.6-100-M8	8.5	M8	15.6	15.6	100	●
MFT15.6-150-M8	8.5	M8	15.6	15.6	150	●
MFT15.6-200-M8	8.5	M8	15.6	15.6	200	●
MFT15.6-250-M8	8.5	M8	15.6	15.6	250	●
MFT15.6-300-M8	8.5	M8	15.6	15.6	300	●
MFT16-100-M8	8.5	M8	16	16	100	●
MFT16-120-M8	8.5	M8	16	16	120	●
MFT16-150-M8	8.5	M8	16	16	150	●
MFT16-200-M8	8.5	M8	16	16	200	●
MFT16-250-M8	8.5	M8	16	16	250	●
MFT16-300-M8	8.5	M8	16	16	300	●
MFT18-130-M10	10.5	M10	18	18	130	●
MFT19-100-M10	10.5	M10	19	19	100	●
MFT19-150-M10	10.5	M10	19	19	150	●
MFT19-200-M10	10.5	M10	19	19	200	●
MFT19-250-M10	10.5	M10	19	19	250	●

Specifications	d	M	D1	D2	L	Stock
MFT19-300-M10	10.5	M10	19	19	300	●
MFT19-350-M10	10.5	M10	19	19	350	●
MFT20-100-M10	10.5	M10	20	20	100	●
MFT20-150-M10	10.5	M10	20	20	150	●
MFT20-200-M10	10.5	M10	20	20	200	●
MFT20-250-M10	10.5	M10	20	20	250	●
MFT20-300-M10	10.5	M10	20	20	300	●
MFT20-350-M10	10.5	M10	20	20	350	●
MFT24-100-M12	12.5	M12	24	24	100	●
MFT24-150-M12	12.5	M12	24	24	150	●
MFT24-200-M12	12.5	M12	24	24	200	●
MFT24-250-M12	12.5	M12	24	24	250	●
MFT24-300-M12	12.5	M12	24	24	300	●
MFT24-350-M12	12.5	M12	24	24	350	●
MFT24-400-M12	12.5	M12	24	24	400	●
MFT25-100-M12	12.5	M12	25	25	100	●
MFT25-150-M12	12.5	M12	25	25	150	●
MFT25-200-M12	12.5	M12	25	25	200	●
MFT25-250-M12	12.5	M12	25	25	250	●
MFT25-300-M12	12.5	M12	25	25	300	●
MFT25-350-M12	12.5	M12	25	25	350	●
MFT25-400-M12	12.5	M12	25	25	400	●
MFT32-150-M16	17	M16	32	32	150	●
MFT32-200-M16	17	M16	32	32	200	●
MFT32-250-M16	17	M16	32	32	250	●
MFT32-300-M16	17	M16	32	32	300	●
MFT32-350-M16	17	M16	32	32	350	●
MFT32-400-M16	17	M16	32	32	400	●
MFT32-450-M16	17	M16	32	32	450	●
MFT32-500-M16	17	M16	32	32	500	●

MODULAR LOCK CUTTER HEAD



• Stock

Unit:mm

Specifications	d	D1	L	M	Suitable for milling cutter blades	Stock
BAP3-16-2T-M08	8.5	16		M8	APMT 1135	●
BAP3-17-2T-M08	8.5	17		M8		●
BAP3-20-2T-M10	10.5	20		M10		●
BAP3-20-3T-M10	10.5	20		M10		●
BAP3-21-2T-M10	10.5	21		M10		●
BAP3-21-3T-M10	10.5	21		M10		●
BAP3-25-3T-M12	12.5	25		M12		●
BAP3-25-4T-M12	12.5	25		M12		●
BAP3-26-3T-M12	12.5	26		M12		●
BAP3-26-4T-M12	12.5	26		M12		●
BAP3-33-4T-M16	17	33		M16		●
BAP3-35-4T-M16	17	35		M16		●
BAP4-25-2T-M12	12.5	25		M12	APMT 1604	●
BAP4-26-2T-M12	12.5	26		M12		●
BAP4-33-3T-M16	17	33		M16		●
BAP4-35-3T-M16	17	35		M16		●
BAP4-40-3T-M16	17	40		M16		●
ASPVM-16-2T-M08	8.5	16		M8	MPHW0603	●
ASPVM-17-2T-M08	8.5	17		M8		●
ASPVM-20-2T-M10	10.5	20		M10		●
ASPVM-21-2T-M10	10.5	21		M10		●
ASPVM-21-3T-M10	10.5	21		M10		●
ASPVM-26-4T-M12	12.5	26		M12		●
ASPVM-35-4T-M16	17	35		M16		●
MQT10-17-2T-M08	8.5	17		M8	YPHW100308 ZER-15	●
MQT10-21-2T-M10	10.5	21		M10		●
MQT10-21-3T-M10	10.5	21		M10		●
MQT10-26-4T-M12	12.5	26		M12		●

Specifications	d	D1	L	M	Suitable for milling cutter blades	Stock
WGR08-M04	4.5	8		M4	P3202-D08	●
WGR10-M05	5.5	10		M5	P3202-D10	●
WGR12-M06	6.5	12		M6	P3202-D12	●
WGR16-M08	8.5	16		M8	P3202-D16	●
WGR20-M10	10.5	20		M10	P3202-D20	●
WGR25-M12	12.5	25		M12	P3202-D25	●
WGR30-M16	17	30		M16	P3202-D30	●
WGR32-M16	17	32		M16	P3202-D32	●
PPH08-M04	4.5	8		M4	BNM-080	●
PPH10-M05	5.5	10		M5	BNM-100	●
PPH12-M06	6.5	12		M6	BNM-120	●
PPH16-M08	8.5	16		M8	BNM-160	●
PPH20-M10	10.5	20		M10	BNM-200	●
PPH25-M12	12.5	25		M12	BNM-250	●
PPH30-M16	17	30		M16	BNM-300	●
ABPF08-M04	4.5	8		M4	ZDFG-080	●
ABPF10-M05	5.5	10		M5	ZDFG-100	●
ABPF12-M06	6.5	12		M6	ZDFG-120	●
ABPF16-M08	8.5	16		M8	ZDFG-160	●
ABPF20-M10	10.5	20		M10	ZDFG-200	●
ABPF25-M12	12.5	25		M12	ZDFG-250	●
ABPF30-M16	17	30		M16	ZDFG-300	●
ASM07-08-1T-M04	4.5	8		M4	JDMT0702	●
ASM07-09-1T-M04	4.5	9		M4		●
ASM07-10-2T-M05	5.5	10		M5		●
ASM07-11-2T-M05	5.5	11		M5		●
ASM07-12-2T-M06	6.5	12		M6		●
ASM07-13-2T-M06	6.5	13		M6		●

MODULAR LOCK CUTTER HEAD

Specifications	d	D1	L	M	Suitable for milling cutter blades	Stock
ASM07-17-3T-M08	8.5	17		M8	JDMT0702	●
RD05-11-2T-M05	5.5	11		M5	RDEW0501	●
RD05-13-2T-M06	6.5	13		M6		●
RD07-16-2T-M08	8.5	16		M8		●
RD07-17-2T-M08	8.5	17		M8	RDEW0702	●
RD07-20-2T-M10	10.5	20		M10		●
RD07-21-2T-M10	10.5	21		M10		●
RD07-25-4T-M12	12.5	25		M12		●
RD07-26-4T-M12	12.5	26		M12		●
RD07-33-4T-M16	17	33		M16		●
RP08-16-2T-M08	8.5	16		M8	RPMW0802 MO	●
RP08-17-2T-M08	8.5	17		M8		●
RP08-20-2T-M10	10.5	20		M10		●
RP08-21-2T-M10	10.5	21		M10		●
RPT08-16-2T-M08	8.5	16		M8	RPMT08T2 MOE	●
RPT08-17-2T-M08	8.5	17		M8		●
RPT08-20-2T-M10	10.5	20		M10		●
RPT08-21-2T-M10	10.5	21		M10		●
RD08-16-2T-M08	8.5	16		M8	RDMT0802 MO	●
RD08-17-2T-M08	8.5	17		M8		●
RD08-20-2T-M10	10.5	20		M10		●
RD08-21-2T-M10	10.5	21		M10		●
RP10-20-2T-M10	10.5	20		M10	RPMW1003 MO	●
RP10-21-2T-M10	10.5	21		M10		●
RP10-25-2T-M12	12.5	25		M12		●
RP10-26-2T-M12	12.5	26		M12		●
RP10-35-3T-M16	17	35		M16		●
RD10-25-2T-M12	12.5	25		M12	RDMW10T3 MOT	●
RD10-26-2T-M12	12.5	26		M12		●
RD10-35-3T-M16	17	35		M16		●
RPT10-25-2T-M12	12.5	25		M12	RPMT10T3 MOE	●
RPT10-26-2T-M12	12.5	26		M12		●
RPT10-35-3T-M16	17	35		M16		●
RD12-26-2T-M16	17	26		M16	RDEW1204 MOT	●
RD12-32-2T-M12	12.5	32		M12		●
RD12-33-2T-M16	17	33		M16		●
RD12-35-3T-M16	17	35		M16		●
RD12-40-3T-M16	17	40		M16		●
R200-25-2T-M12	12.5	25		M12	RCKT10T3/1204	●
R200-26-2T-M12	12.5	26		M12		●

Specifications	d	D1	L	M	Suitable for milling cutter blades	Stock
R200-5R32-2T-M12	12.5	32		M12	RCKT10T3/1204	●
R200-5R33-2T-M16	17	33		M16		●
R200-32-2T-M12	12.5	32		M12		●
R200-33-2T-M16	17	33		M16		●
R390-16-2T-M08	8.5	16		M8	R390-11T308	●
R390-17-2T-M08	8.5	17		M8		●
R390-20-2T-M10	10.5	20		M10		●
R390-21-2T-M10	10.5	21		M10		●
R390-25-2T-M12	12.5	25		M12		●
R390-25-3T-M12	12.5	25		M12		●
R390-25-4T-M12	12.5	25		M12		●
R390-26-2T-M12	12.5	26		M12		●
R390-26-3T-M12	12.5	26		M12		●
R390-26-4T-M12	12.5	26		M12		●
R390-32-4T-M16	17	32		M16		●
R390-33-4T-M16	17	33		M16		●
R390-35-4T-M16	17	35		M16	LNMU0303ZER	●
EXN3-16-2T-M08	8.5	16		M8		●
EXN3-17-2T-M08	8.5	17		M8		●
EXN3-20-3T-M10	10.5	20		M10		●
EXN3-21-2T-M10	10.5	21		M10		●
EXN3-21-3T-M10	10.5	21		M10		●
EXN3-25-4T-M12	12.5	25		M12		●
EXN3-26-4T-M12	12.5	26		M12		●
EXN3-35-5T-M16	17	35		M16		●



TAIZHOU SYAT TECHNOLOGY CO.,LTD.

Add: No.79 Shangshan Village, Gaoqiao Street, Huangyan District, Taizhou City, Zhejiang Province

Contact number: 187 5830 5888

Email: manager@syattools.com



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