

# MAQ Catalog



MAQ AB  
Stenhuggarvagen 1  
132 38 Saltsjö-boo  
Sweden

## ***All about plug and play***

Vibration in machining means damaged parts and surface, destroyed cutting inserts, and dramatically increased production costs. Machining operations using high length to diameter ratio tools (L/D) have the most prominent vibration issues, and let's not forgetting that short overhang tools also have the same problem but a bit less prominent. MAQ integrates a new approach to mass dampening in the tool body to extract the vibration energy from the cutting tool body to minimize the movement and neutralize the vibration problem.

**The** complex problem is the change of vibration frequency on cutting tools due to the cutting condition changes (tool wear, wearing joints, variation of work piece materials, changes of machining set up, etc.). For these reasons, leading competitor's products on the market require the optimized tuning of the cutting tools to ensure its performance. The out of tuning condition could make the vibration problem even worse, instead of improving.

**What** makes the MAQ products competitive is the self-tuning property. The spring elements adjust its stiffness according to the vibration frequency and overcome the problem of frequency changes. With its unique self-tuning property, MAQ tools outperform the solutions on the market and delivers the benefit to customers with better surface finish, better tolerance and higher process reliability. MAQ tools boost the productivity through simply machining, as you do not need any tuning, and it is truly 'Plug and Play'!

***Qilin Fu***

CTO @MAQ AB

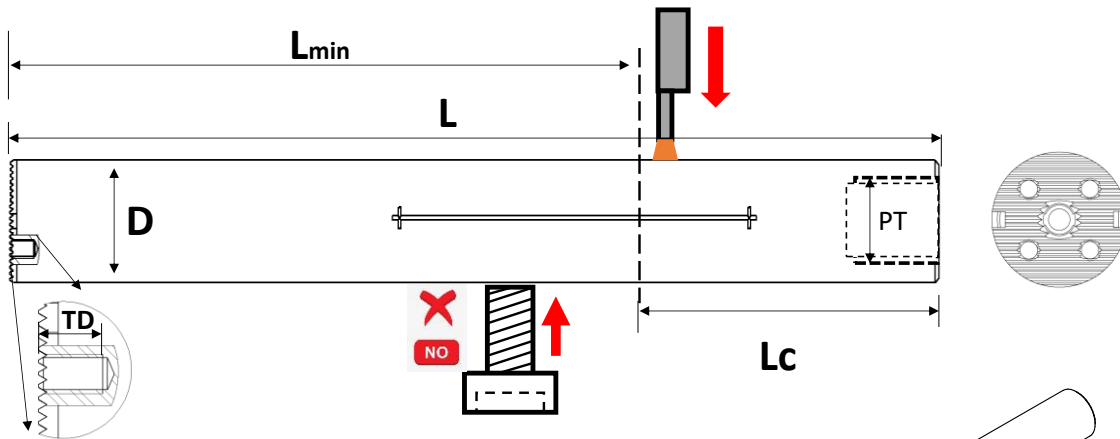
[www.maqab.com](http://www.maqab.com)

## Contents

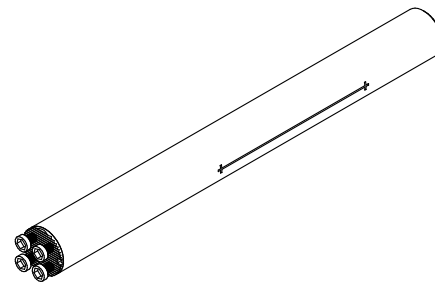
Turning tools:.....	4
Straight holder (without clamping feature) with SL (Serration Lock) interface:.....	4
Straight holder in mm with SL interface: .....	5
Straight holder in inch with SL interface: .....	6
Straight holder with cutter heads:.....	7
End effecters for SL adapters SDUCR:.....	9
End effecters for SL adapters STFGR:.....	10
End effecters for SL adapters SCLCR: .....	11
End effecters for SL adapters PDUNR:.....	12
End effecters for SL adapters PTFNR:.....	12
End effecters for SL adapters PCLNR: .....	13
SL Blanks Left Hand Side:.....	14
SL Blanks Right Hand Side: .....	15
Milling tools:.....	16
Milling tools – with back-ends: .....	16
Milling tools – straight shank: .....	18
Milling tools – cutting heads:.....	18

## Turning tools:

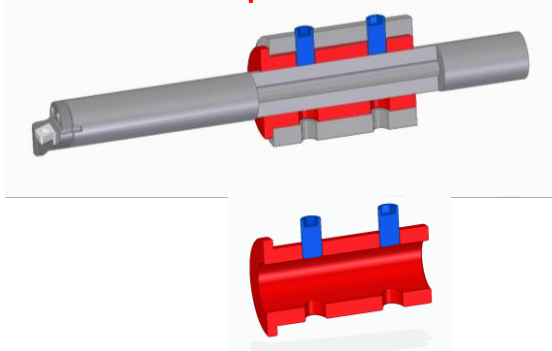
Straight holder (without clamping feature) with SL (Serration Lock) interface:



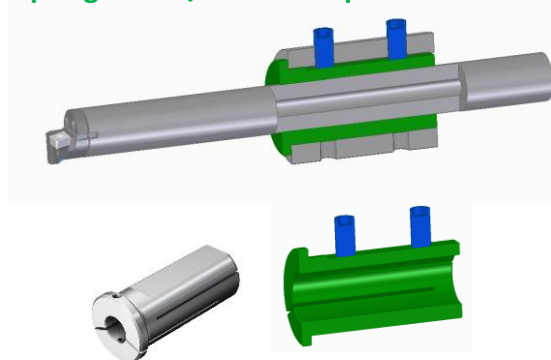
- L** – total length
- L<sub>min</sub>** – minimum total length after cutting
- L<sub>c</sub>** – recommended clamping length
- D** – diameter
- PT** – pipe thread
- TD** – thread depth




**Direct screw clamp**



**Spring sleeve/collet clamp**




**Straight holder in mm with SL interface:**

Standard: Metric (with exchangeable heads)										
Art. Nr	D (mm)	L (mm)	Lmin (mm)	Lc (mm)	Screws	TD (mm)	PT	Adapter	Material	 KG
<b>STMD™ M12-144</b>	12	144	144	36	M2X8 or 14	5.5	NA	SL12	Carbide <sup>2</sup>	0.18
<b>STMD™ M16-170</b>	16	170	117	48	M3X8	5.5	G ¼	SL16	Steel	0.25
<b>STMD™ M16-204</b>	16	204	204	48	M3X8	5.5	NA	SL16	Carbide <sup>2</sup>	0.50
<b>STMD™ M16-268</b>	16	268	268	48	M3X8	5.5	NA	SL16	Carbide <sup>2</sup>	0.75
<b>STMD™ M20-200</b>	20	200	137	60	M3X8	5.5	G ¼	SL20	Steel	0.50
<b>STMD™ M20-260</b>	20	260	260	60	M3X8	5.5	NA	SL20	Carbide <sup>2</sup>	1.00
<b>STMD™ M20-340</b>	20	340	340	60	M3X8	5.5	G ¼	SL20	Carbide <sup>2</sup>	1.50
<b>STMD™ M25-255</b>	25	255	180	75	M4X9	6.5	G ¼	SL25	Steel	1.10
<b>STMD™ M25-330</b>	25	330	255	75	M4X9	6.5	G ¼	SL25	Steel	1.70
<b>STMD™ M25-430</b>	25	430	430	75	M4X9	6.5	G ¼	SL25	Carbide <sup>2</sup>	3.20
<b>STMD™ M32-320</b>	32	320	213	96	M5X12	10	G ½	SL32	Steel	2.10
<b>STMD™ M32-416</b>	32	416	309	96	M5X12	10	G ½	SL32	Steel	3.50
<b>STMD™ M32-544</b>	32	544	544	96	M5X12	10	G ¼	SL32	Carbide <sup>2</sup>	6.40
<b>STMD™ M40-408 1C</b>	40	408	260	120	M6X14	10	G ½	SL40	Steel	3,90
<b>STMD™ M40-408 3C</b>	40	408	260	120	M6X14	10	G ½	SL40	Steel	3,90
<b>STMD™ M40-528 1C</b>	40	528	312	120	M6X14	10	G ½	SL40	Steel	5.00
<b>STMD™ M40-528 3C</b>	40	528	312	120	M6X14	10	G ½	SL40	Steel	5.00
<b>STMD™ M50-518-40</b>	50	520	324	150	M6X14	10	G ¾	SL40	Steel	8,00
<b>STMD™ M50-518-50</b>	50	518	322	150	M8X14	12	G ¾	SL50	Steel	8,00
<b>STMD™ M50-660-40</b>	50	662	384	150	M6X14	10	G ¾	SL40	Steel	9.40
<b>STMD™ M50-660-50</b>	50	660	382	150	M8X14	12	G ¾	SL50	Steel	9.40
<b>STMD™ M60-628-40</b>	60	630	424	180	M6X14	10	G ¾	SL40	Steel	13.6
<b>STMD™ M60-628-60</b>	60	628	422	180	M8X14	12	G ¾	SL60	Steel	13.6
<b>STMD™ M60-808-40</b>	60	810	484	180	M6X14	10	G ¾	SL40	Steel	16,4
<b>STMD™ M60-808-60</b>	60	808	482	180	M8X14	12	G ¾	SL60	Steel	16,4

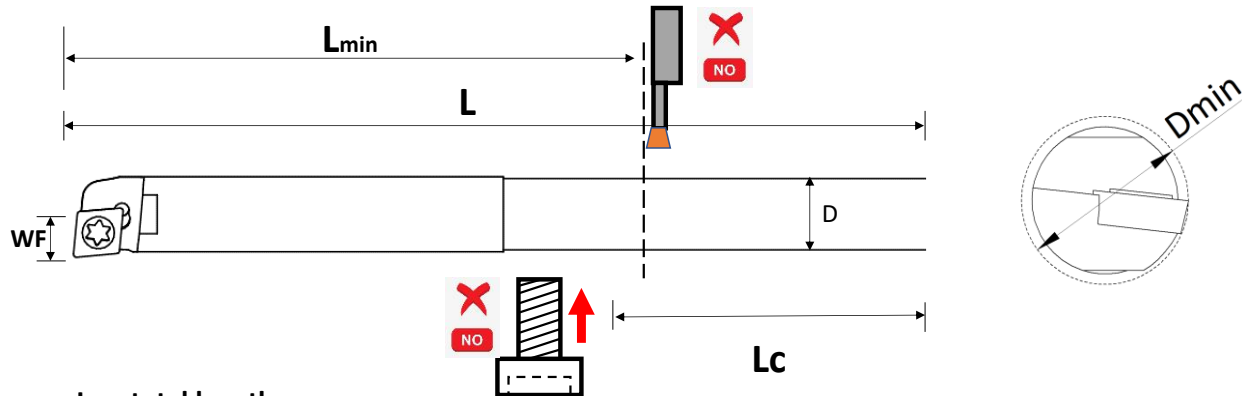
Delivery time: 2-3 days, all tools delivered with three clamping screws and an Allen wrench  
 Carbide<sup>2</sup> – Carbide back end joined with steel

**Straight holder in inch with SL interface:**

Standard: Inch (with exchangeable heads)									
Art. Nr	D (inch)	L (inch)	Lmin (inch)	Lc (inch)	Screws	PT	Adapter	Material	 KG
<b>STMD™   1/2-5.7</b>	0.50	5.7	5.7	1.41	M2X8 or 14	NA	SL12	Carbide	0.10
<b>STMD™   5/8-6.7</b>	0.625	6.7	4.6	1.88	M3X8	G ¼	SL16	Steel	0.25
<b>STMD™   5/8-8.0</b>	0.625	8.0	8.0	1.88	M3X8	NA	SL16	Carbide <sup>1</sup>	0.50
<b>STMD™   5/8-10.6</b>	0.625	10.6	10.6	1.88	M3X8	NA	SL16	Carbide <sup>1</sup>	0.75
<b>STMD™   3/4-7.9</b>	0.75	7.9	5.4	2.25	M3X8	G ¼	SL20	Steel	0.50
<b>STMD™   3/4-10.3</b>	0.75	10.2	10.2	2.25	M3X8	NA	SL20	Carbide <sup>1</sup>	1.00
<b>STMD™   3/4-13.4</b>	0.75	13.4	13.4	2.25	M3X8	NA	SL20	Carbide <sup>1</sup>	1.50
<b>STMD™   1-10</b>	1.00	10.0	7.1	3.00	M4X9	G ¼	SL25	Steel	1.10
<b>STMD™   1-13</b>	1.00	13.0	8.1	3.00	M4X9	G ¼	SL25	Steel	1.70
<b>STMD™   1-16.9</b>	1.00	16.9	16.9	3.00	M4X9	NA	SL25	Carbide	3.20
<b>STMD™   1 1/4-12.6</b>	1.25	12.6	8.4	3.75	M5X12	G ½	SL32	Steel	2.10
<b>STMD™   1 1/4-16.4</b>	1.25	16.4	12.2	3.75	M5X14	G ½	SL32	Steel	3.50
<b>STMD™   1 1/2-16.0-40</b>	1.50	16.0	10.2	4,72	M6X14	G ½	SL40	Steel	3.90
<b>STMD™   1 1/2-20.8-40</b>	1.50	20.8	12.3	4,72	M6X14	G ½	SL40	Steel	5.00
<b>STMD™   2-20.4-SL40</b>	2.00	20.4	12.7	5.90	M6X14	G ¾	SL40	Steel	8.00
<b>STMD™   2-20.4-SL50</b>	2.00	20.4	12.7	5.90	M6X14	G ¾	SL50	Steel	8.00
<b>STMD™   2-26.0-SL40</b>	2.00	26.0	15.0	5.90	M6X14	G ¾	SL40	Steel	9.40
<b>STMD™   2-26.0-SL50</b>	2.00	26.0	15.0	5.90	M6X14	G ¾	SL50	Steel	9.40
<b>STMD™   2 1/2-24.7-SL40</b>	2.50	24.7	16.7	7.10	M6X14	G ¾	SL40	Steel	13.60
<b>STMD™   2 1/2-24.7-SL60</b>	2.50	24.7	16.7	7.10	M6X14	G ¾	SL60	Steel	13.60
<b>STMD™   2 1/2-31.8-SL40</b>	2.50	31.8	19.1	7.10	M6X14	G ¾	SL40	Steel	16.40
<b>STMD™   2 1/2-31.8-SL60</b>	2.50	31.8	19.1	7.10	M6X14	G ¾	SL60	Steel	16.40

Delivery time: 2-3 days, all tools delivered with three clamping screws and an Allen wrench  
 Carbide<sup>1</sup> – Carbide back end joined with steel

### Straight holder with cutter heads (Metric):



**L** – total length

**L<sub>min</sub>** – minimum total length after cutting

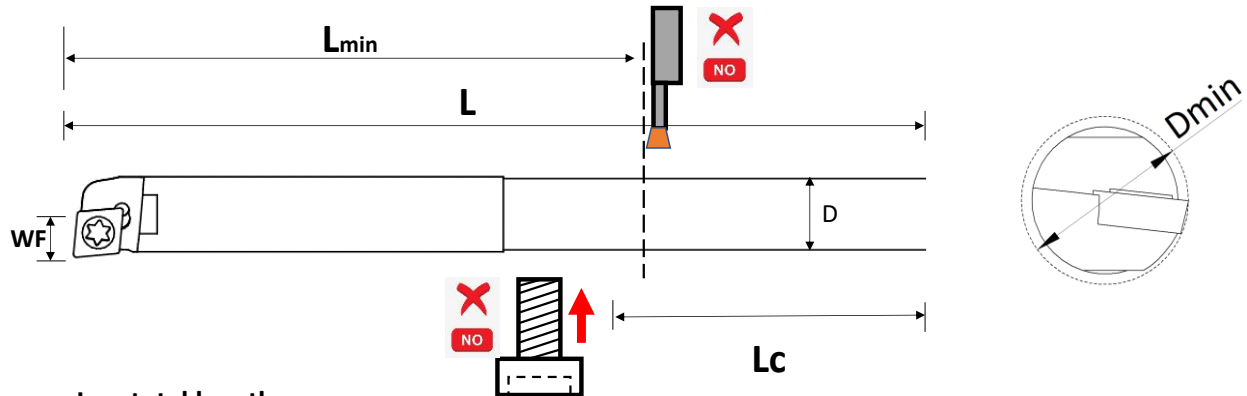
**L<sub>c</sub>** – recommended clamping length

**D** – diameter

**WF** – distance from cutting point to centre with master insert

Art. Nr	D (mm)	L (mm)	L <sub>min</sub> (mm)	L <sub>c</sub> (mm)	WF (mm)	Coolant	DMIN1 (mm)	Master insert	Material	KG
<b>STMD™ M10-150 SDUCR</b>	10	160 <sup>1</sup>	160	30	9	No	15	DCMT 0702XX	Carbide <sup>2</sup>	0.20
<b>STMD™ M10-150 SLCR</b>	10	160 <sup>1</sup>	160	30	6,1	No	12	CCMT 0602XX	Carbide <sup>2</sup>	0.20
<b>STMD™ M10-150 STFCR</b>	10	160 <sup>1</sup>	160	30	6,8	No	13	TCMT 0902XX	Carbide <sup>2</sup>	0.20
<b>STMD™ M12-180 SDUCR</b>	12	192 <sup>1</sup>	192	36	8,9	Yes	16	DCMT 0702XX	Carbide <sup>2</sup>	0.30
<b>STMD™ M12-180 SLCR</b>	12	192 <sup>1</sup>	192	36	8,5	Yes	16	CCMT 0602XX	Carbide <sup>2</sup>	0.30
<b>STMD™ M12-180 STFCR</b>	12	192 <sup>1</sup>	192	36	9	Yes	16	TCMT 0902XX	Carbide <sup>2</sup>	0.30
160 <sup>1</sup> , 192 <sup>1</sup> – total length to the cutting point Carbide <sup>2</sup> – Carbide back end joined with steel										

### Straight holder with cutter heads (Inch):



**L** – total length

**L<sub>min</sub>** – minimum total length after cutting

**L<sub>c</sub>** – recommended clamping length

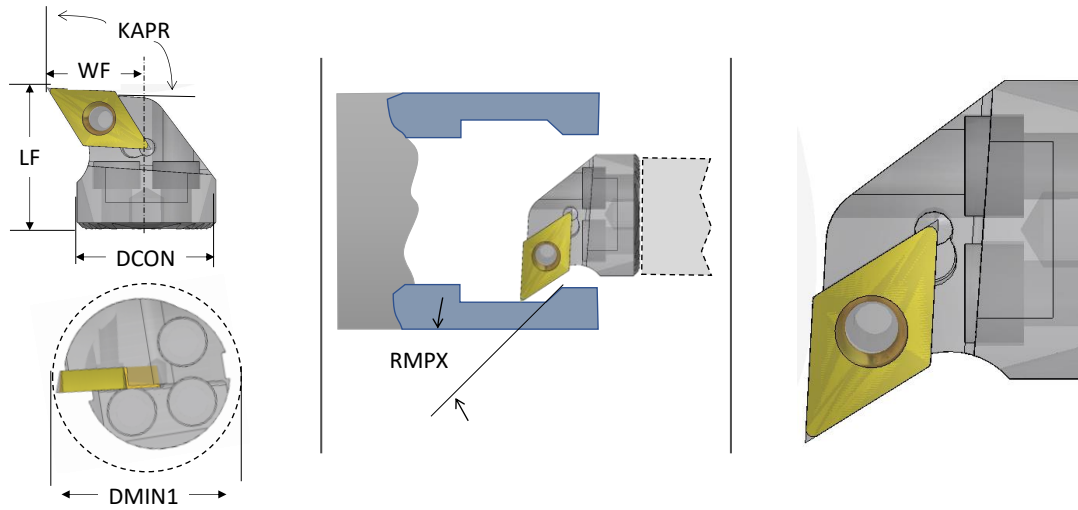
**D** – diameter

**WF** – distance from cutting point to centre with master insert

Art. Nr	D (mm)	L (mm)	L <sub>min</sub> (mm)	L <sub>c</sub> (mm)	WF (mm)	Coolant	D <sub>MIN1</sub> (mm)	Master insert	Material	KG
<b>STMD™ I 3/8-5.9 SDUCR</b>	<b>3/8</b>	5.9 <sup>1</sup>	5.9 <sup>1</sup>	1.18	0.35	No	0.59	DCMT 0702XX	Carbide <sup>2</sup>	0.20
<b>STMD™ I 3/8-5.9 SCLCR</b>	<b>3/8</b>	5.9 <sup>1</sup>	5.9 <sup>1</sup>	1.18	0.24	No	0.47	CCMT 0602XX	Carbide <sup>2</sup>	0.20
<b>STMD™ I 3/8-5.9 STFCR</b>	<b>3/8</b>	5.9 <sup>1</sup>	5.9 <sup>1</sup>	1.18	0.27	No	0.51	TCMT 0902XX	Carbide <sup>2</sup>	0.20
<b>STMD™ I ½ -7.1 SDUCR</b>	<b>½</b>	7.1 <sup>1</sup>	7.1 <sup>1</sup>	1.42	0.35	Yes	0.63	DCMT 0702XX	Carbide <sup>2</sup>	0.30
<b>STMD™ I ½ -7.1 SCLCR</b>	<b>½</b>	7.1 <sup>1</sup>	7.1 <sup>1</sup>	1.42	0.33	Yes	0,63	CCMT 0602XX	Carbide <sup>2</sup>	0.30
<b>STMD™ I ½ -7.1 STFCR</b>	<b>½</b>	7.1 <sup>1</sup>	7.1 <sup>1</sup>	1.42	0.35	Yes	0,63	TCMT 0902XX	Carbide <sup>2</sup>	0.30
5.9 <sup>1</sup> , 7.1 <sup>1</sup> – total length to the cutting point Carbide <sup>2</sup> – Carbide back end joined with steel										



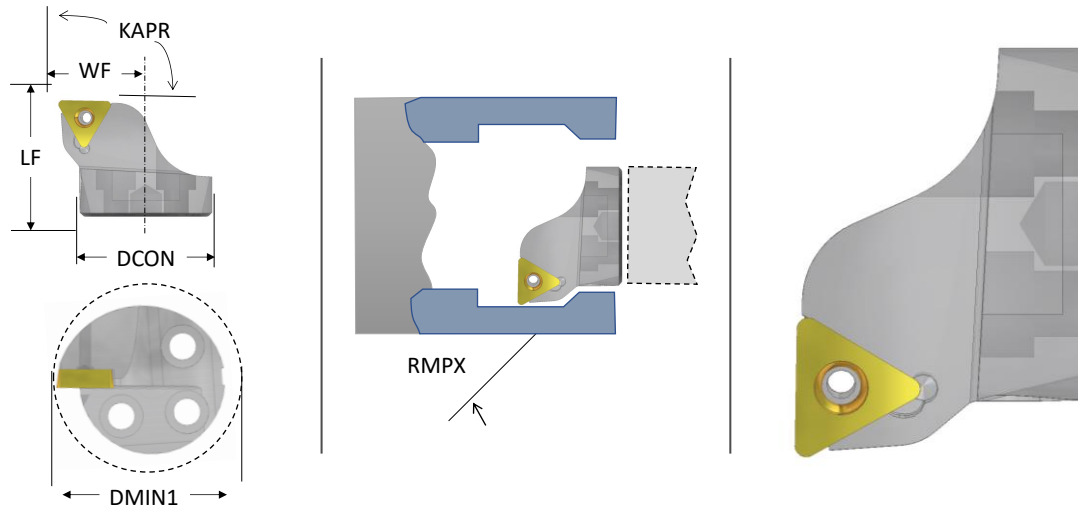
### End effectors for SL adapters SDUCR:



Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<b>SDUCR-12</b>	SL 12	16	14	9	93	27	R	DCMT 0702XX	0.01
<b>SDUCR-16-5/8</b>	SL 16	20	16	11	93	27	R	DCMT 0702XX	0.01
<b>SDUCR-20-3/4</b>	SL 20	25	20	13	93	27	R	DCMT 11T3XX	0.02
<b>SDUCR-25-1</b>	SL 25	32	22	17	93	27	R	DCMT 11T3XX	0.04
<b>SDUCR-32-1 1/4</b>	SL 32	40	27	22	93	27	R	DCMT 11T3XX	0.07
<b>SDUCR-40-1 1/2</b>	SL 40	50	32	27	93	27	R	DCMT 11T3XX	0,14

Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.

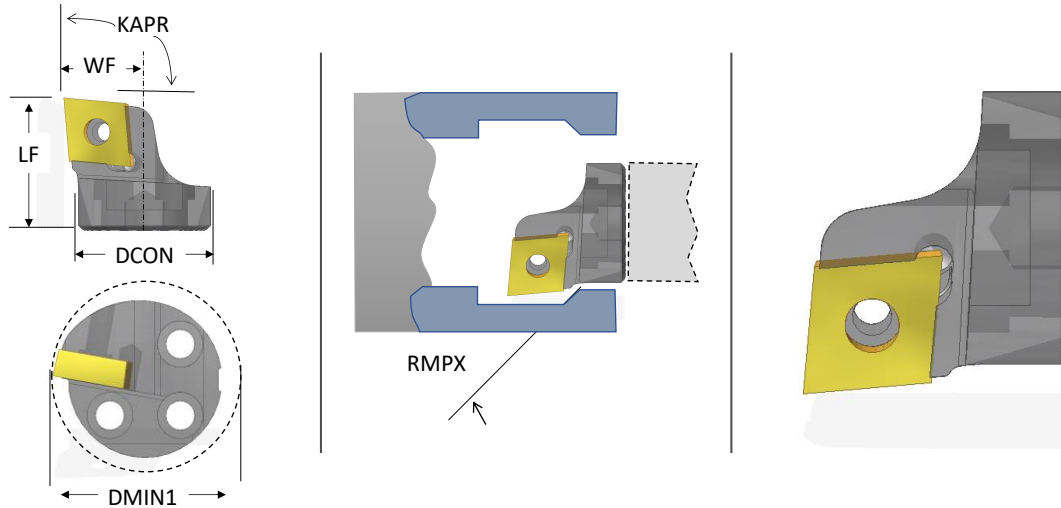
### End effectors for SL adapters STFCR:



Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<b>STFCR-12</b>	SL 12	16	14	9	91	NA	R	TCMT 0902XX	0.01
<b>STFCR-16-5/8</b>	SL 16	20	16	11	91	NA	R	TCMT 0902XX	0.01
<b>STFCR-20-3/4</b>	SL 20	25	20	13	91	NA	R	TCMT 1103XX	0.02
<b>STFCR-25-1</b>	SL 25	32	22	17	91	NA	R	TCMT 1103XX	0.04
<b>STFCR-32-1 1/4</b>	SL 32	40	27	22	91	NA	R	TCMT 16T3XX	0.07
<b>STFCR-40-1 1/2</b>	SL 40	50	32	27	91	NA	R	TCMT 16T3XX	0.14

Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.

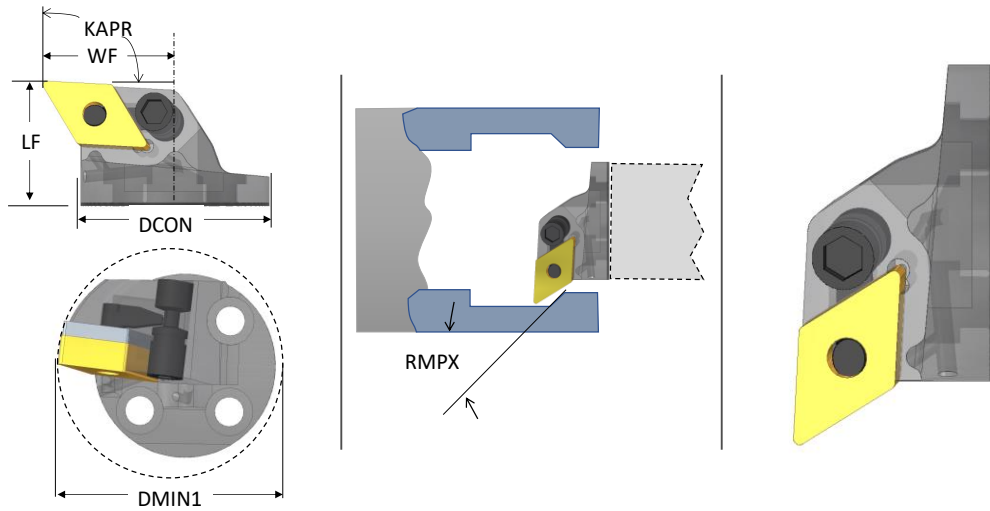
## End effectors for SL adapters SCLCR:



Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<b>SCLCR-12</b>	SL 12	16	14.4	10	95	NA	R	CCMT 0602XX	0.01
<b>SCLCR-16-5/8</b>	SL 16	20	15.4	11	95	NA	R	CCMT 0602XX	0.01
<b>SCLCR-20-3/4</b>	SL 20	25	19.1	13	95	NA	R	CCMT 09T3XX	0.02
<b>SCLCR-25-1</b>	SL 25	32	21.1	17	95	NA	R	CCMT 09T3XX	0.04
<b>SCLCR-32-1 1/4</b>	SL 32	40	24.1	22	95	NA	R	CCMT 09T3XX	0.07
<b>SCLCR-40-1 1/2</b>	SL 40	50	25.1	27	95	NA	R	CCMT 09T3XX	0.14

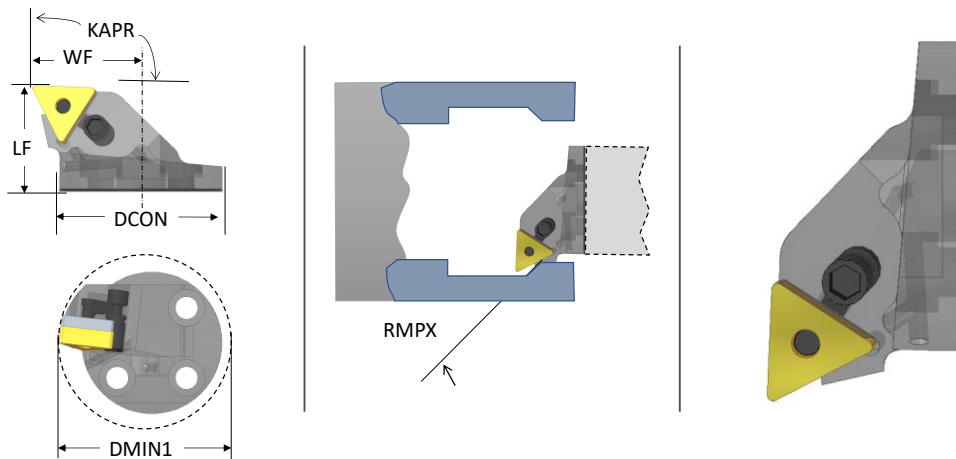
Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.

### End effecters for SL adapters PDUNR:



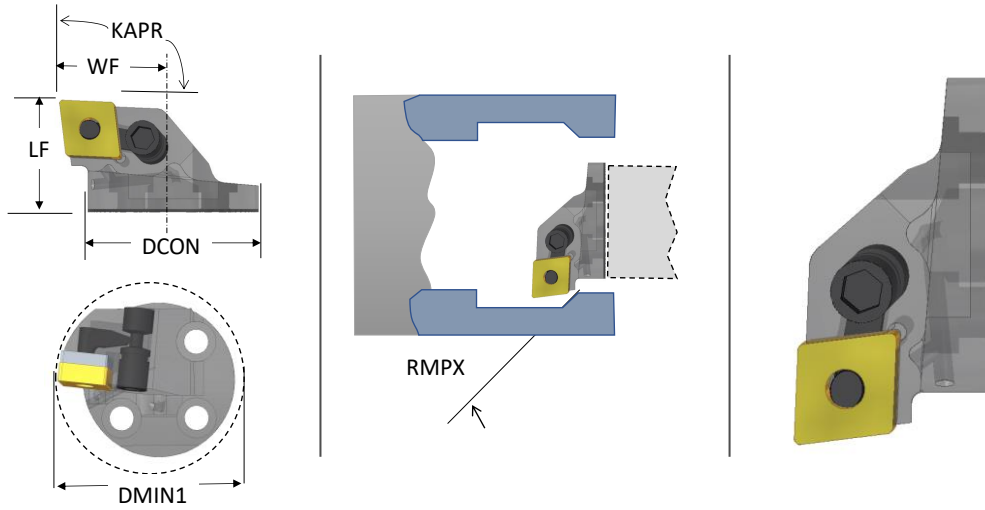
Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<b>PDUNR-40-1 1/2</b>	SL 40	50	26	27	93	27	R	DNMG 1506XX	0,14
Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.									

### End effecters for SL adapters PTFNR:



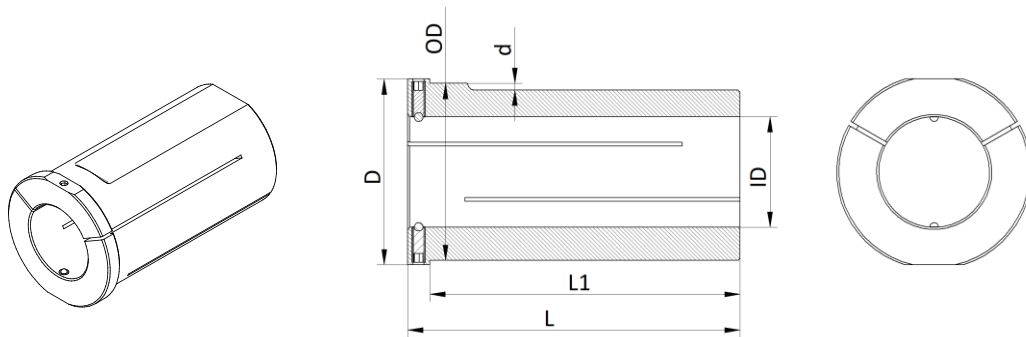
Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<b>PTFNR-40-1 1/2</b>	SL 40	50	26	27	91	NA	R	TNMG 1604XX	0.14
Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.									

### End effectors for SL adapters PCLNR:



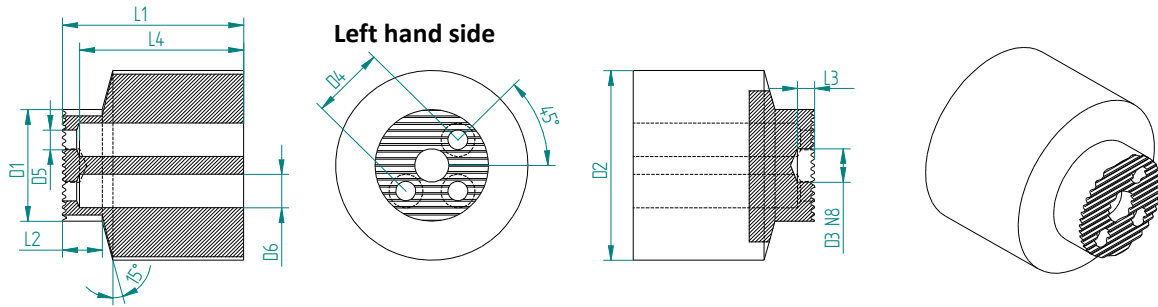
Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	0.14
<b>PCLNR-40-1 1/2</b>	SL 40	50	26	27	95	NA	R	CNMG 1204XX	
Delivery time: 2-3 days, all cutter heads are delivered with the insert clamp screw.									

## Reduction sleeves



Art. Nr	OD g6 (mm)	ID H7 (mm)	L (mm)	D (mm)	L1 (mm)	D (mm)
RS 40-32	40	32	75	43	70	1.5
RS 40-25	40	25	75	42	70	1.5
RS 40-20	40	20	75	42	70	1.5
RS 40-16	40	16	75	42	70	1.5
RS 40-12	40	12	75	42	70	1.5
RS 40-10	40	10	75	42	70	1.5

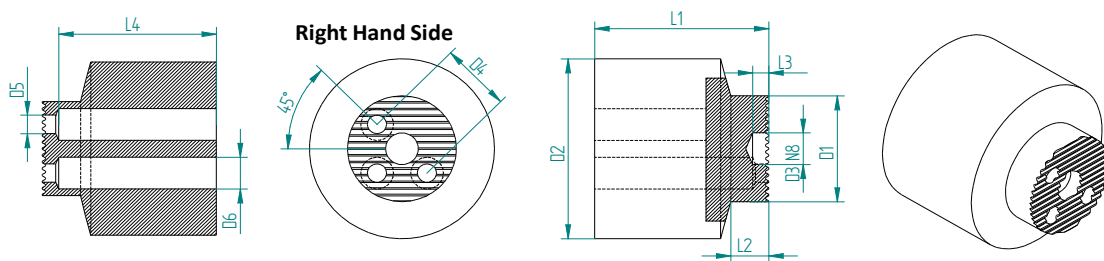
## SL Blanks Left Hand Side:



Art. Nr	D1 (mm)	D2 (mm)	D3 N8** (mm)	D4 (mm)	D5 (mm)	D6 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
SL12-20-20 L	12	20	4	7.4	2.5	4	20	7	3	17
SL16-26-25 L	16	26	4	9.5	3.5	6	25	7	3	22
SL20-34-32 L	20	34	6	13	3.5	6	32	7	3	29
SL25-40-40 L	25	40	6	16	4.5	7.5	40	7	3	37
SL32-50-50 L	32	50	6	22	5.5	9	50	11	3	47
SL40-60-60 L	40	60	6	28	6.5	10.5	60	11	3	57
SL50-70-70 L	50	70	8	35	8.5	13.5	70	11	4	67

\*\*: all SL blank parts will be supplied with a centering pin equivalenting the dimension

## SL Blanks Right Hand Side:

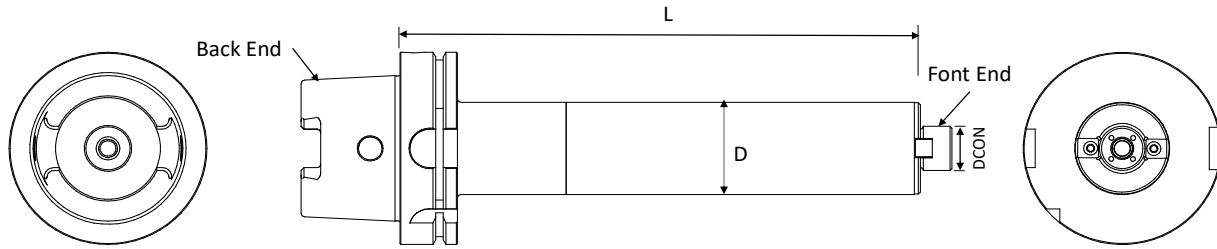



Art. Nr	D1 (mm)	D2 (mm)	D3 N8** (mm)	D4 (mm)	D5 (mm)	D6 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)
SL12-20-20 R	12	20	4	7.4	2.5	4	20	7	3	17
SL16-26-25 R	16	26	4	9.5	3.5	6	25	7	3	22
SL20-34-32 R	20	34	6	13	3.5	6	32	7	3	29
SL25-40-40 R	25	40	6	16	4.5	7.5	40	7	3	37
SL32-50-50 R	32	50	6	22	5.5	9	50	11	3	47
SL40-60-60 R	40	60	6	28	6.5	10.5	60	11	3	57
SL50-70-70 R	50	70	8	35	8.5	13.5	70	11	4	67

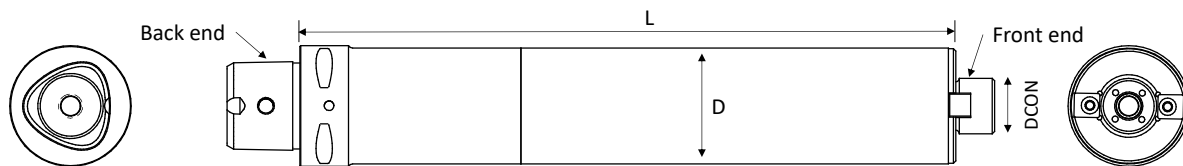
\*\*: all SL blank parts will be supplied with a centering pin equivalenting the dimension


## Milling tools:

### Milling tools – with back-ends:

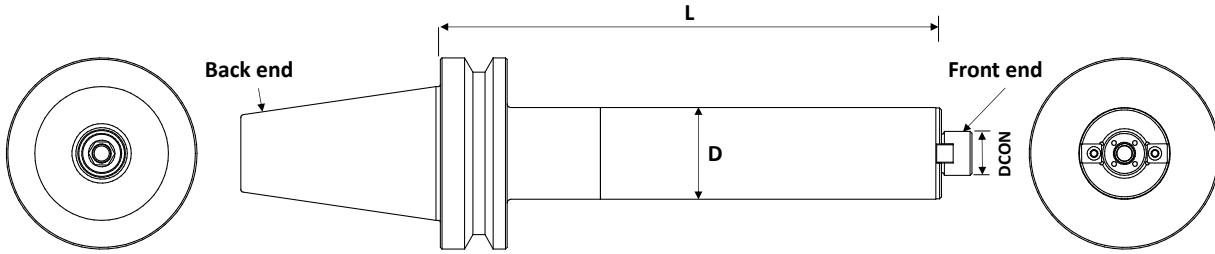



Product code	Back End	D (mm)	L (mm)	Front End   DCON	 KG	Through Coolant
STMD HSK63A 48-213 M22	HSK63A	48	213	Arbor   M22	3,5	Yes
STMD HSK63A 48-263 M22	HSK63A	48	263	Arbor   M22	4	Yes
STMD HSK63A 48-313 M22	HSK63A	48	313	Arbor   M22	5	Yes
STMD HSK100A 48-213 M22	HSK100A	48	213	Arbor   M22	4	Yes
STMD HSK100A 48-263 M22	HSK100A	48	263	Arbor   M22	5	Yes
STMD HSK100A 48-313 M22	HSK100A	48	313	Arbor   M22	6	Yes



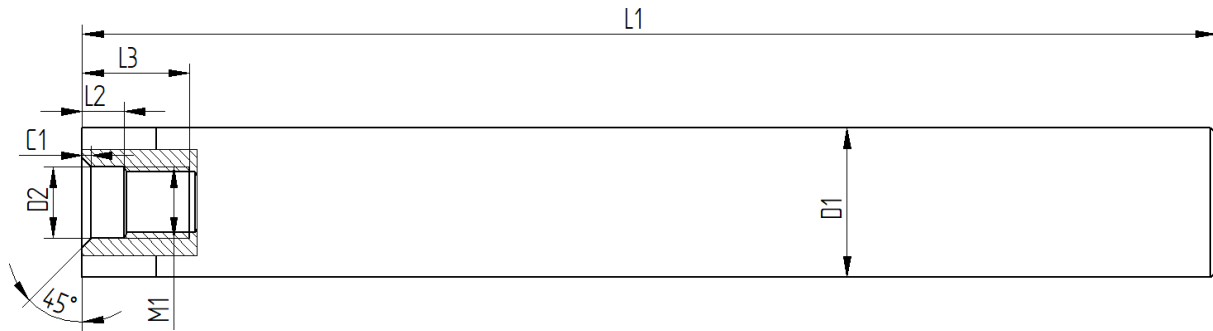
Product code	Back End	D (mm)	L (mm)	Front End   DCON	 KG	Through Coolant
STMD PSC50 48-213 M22	PSC50	48	213	Arbor   M22	3,5	Yes
STMD PSC50 48-263 M22	PSC50	48	263	Arbor   M22	4	Yes
STMD PSC50 48-313 M22	PSC50	48	313	Arbor   M22	6	Yes





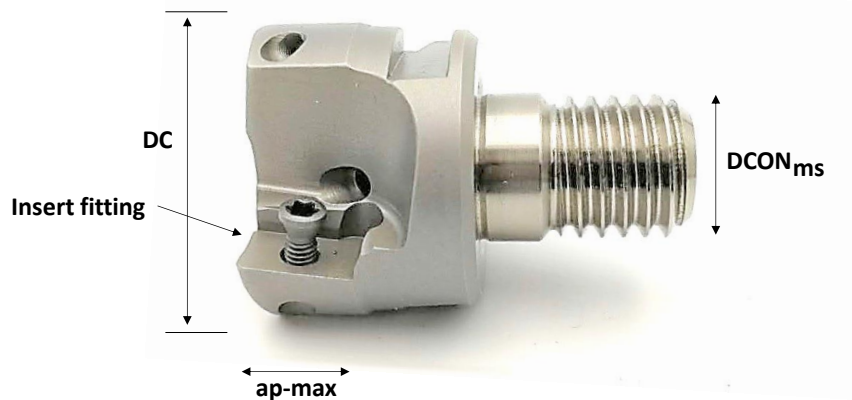
Product code	Back End	D (mm)	L (mm)	Front End   DCON	 Weight	Through Coolant
STMD BT40 48-213 M22	BT40	48	213	Arbor   M22	4	Yes
STMD BT40 48-263 M22	BT40	48	263	Arbor   M22	5	Yes
STMD BT40 48-313 M22	BT40	48	313	Arbor   M22	6	Yes
STMD BT50 48-213 M22	BT50	48	213	Arbor   M22	6	Yes
STMD BT50 48-263 M22	BT50	48	263	Arbor   M22	7	Yes
STMD BT50 48-313 M22	BT50	48	313	Arbor   M22	8	Yes

### Milling tools – straight shank:



Product code	D1	L1	D2	M1	L2	L3	C1		Through Coolant
STMD M25-190 M12	25	190	12.5	M12X1.75	7	18	1.5	0.7	Yes
STMD M32-236 M16	32	236	17	M16X2	7	20	1.5	1	Yes
Dimension in mm.									

### Milling tools – cutting heads:



Product code	DC	DCON <sub>ms</sub>	Inserts	Type of insert		Fit to	Wrench	Through Coolant
R390-26-M12-X3	26	M12	X3	R390 11T3	0.05	STMD M25-190 M12	W26	Yes
R390-33-M16-X4	33	M16	X4	R390 11T3	0.09	STMD M32-236 M16	W33	Yes