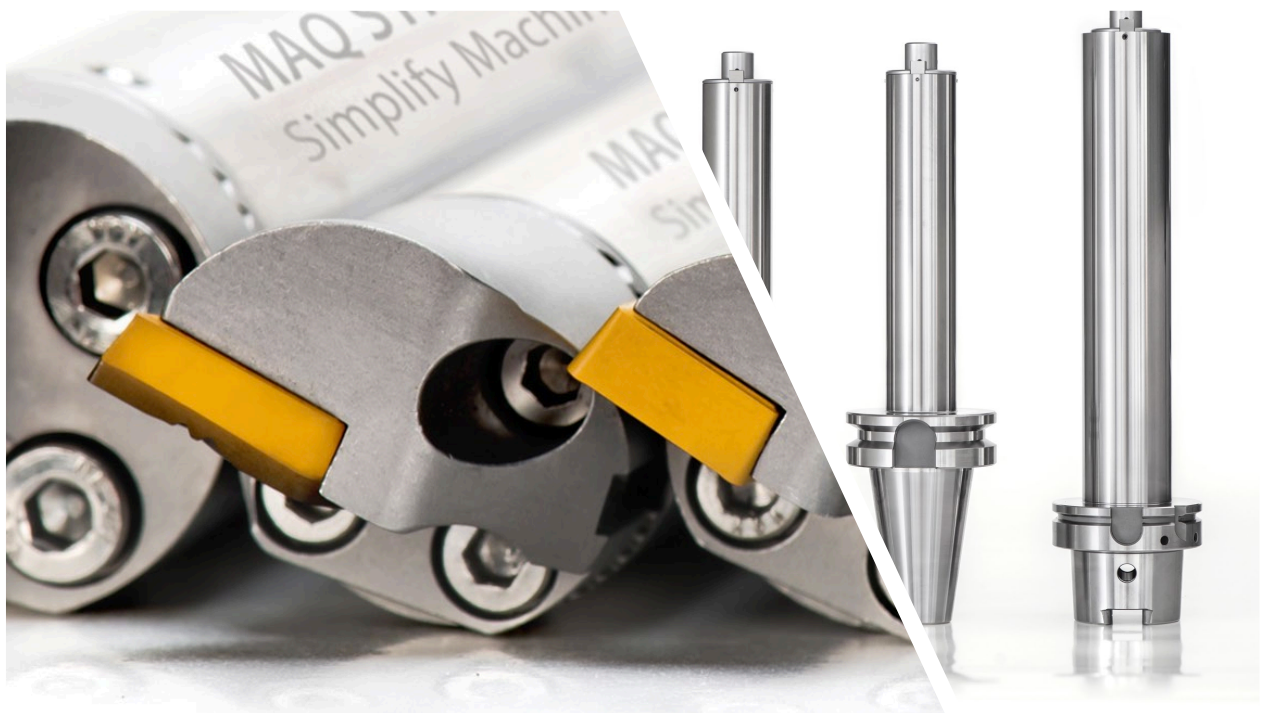


2020 Catalog



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 works at any set up you have in your production facility.

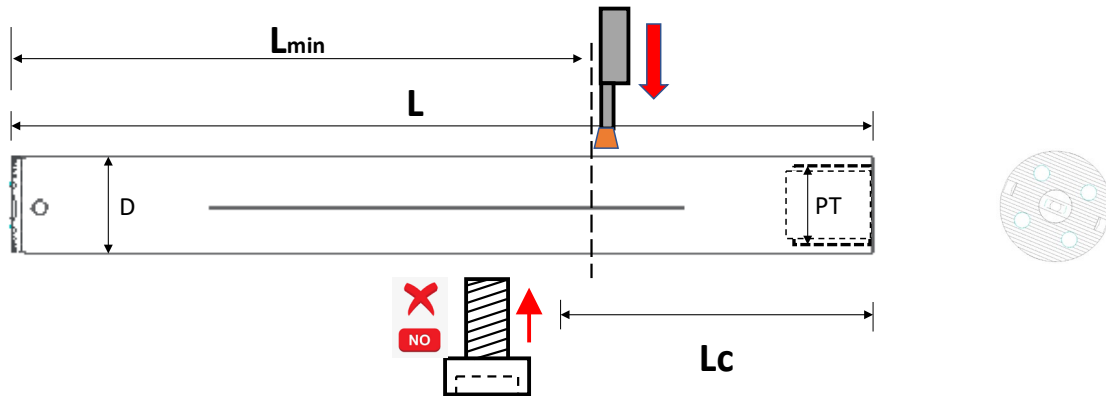
It is truly 'Plug and Play'!

Qilin Fu

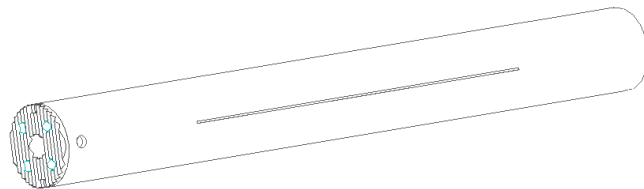
CTO @MAQ AB

Turning tools:

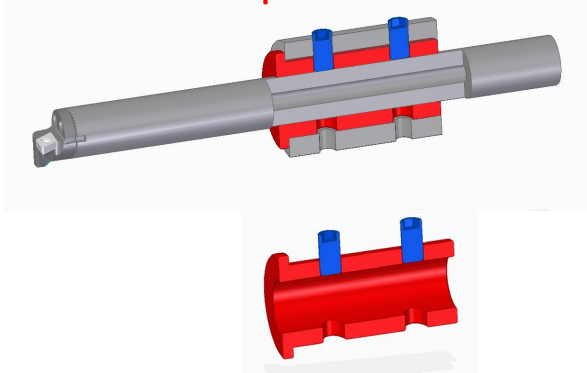
Straight holder (without clamping feature) with SL (Serration Lock) interface:



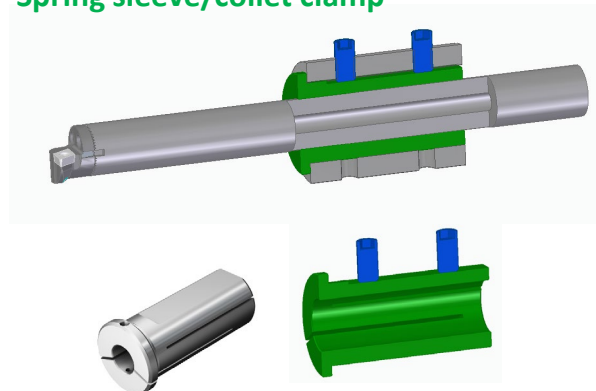
- L – total length
- L_{min} – minimum total length after cutting
- L_c – recommended clamping length
- D – diameter
- PT – pipe thread





Direct screw clamp



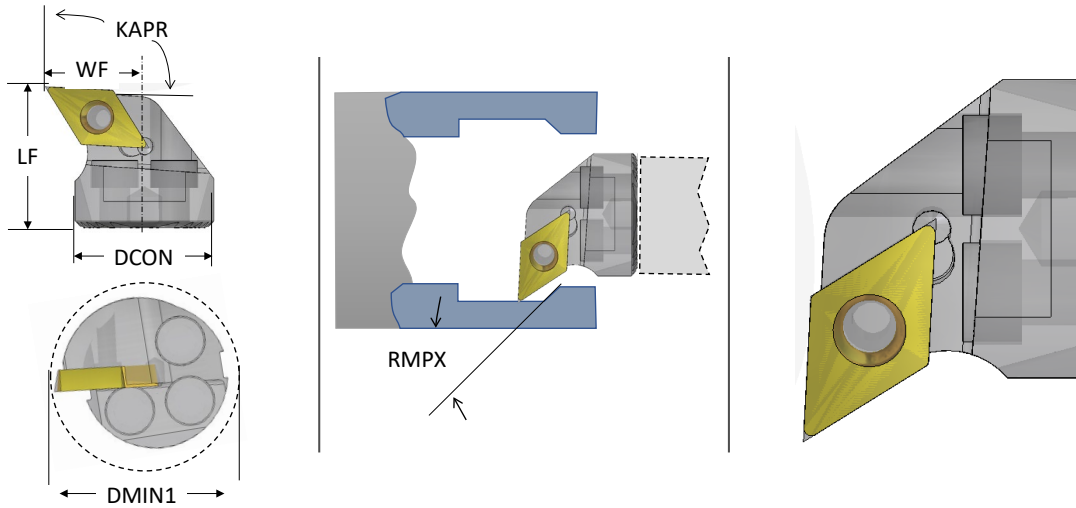
Spring sleeve/collet clamp



Standard: Metric								
Art. Nr	D (mm)	L (mm)	Lmin (mm)	Lc (mm)	Screws	PT	Adapter	
STMD™ M12-144	12	144	144	36	M2X8, M2X14	G 1/8"	SL12	0.18
STMD™ M16-170	16	170	117	48	M3X8	G 1/4"	SL16	0.25
STMD™ M16-204	16	204	204	48	M3X8	NA	SL16	0.50
STMD™ M20-200	20	200	137	60	M3X8	G 1/4"	SL20	0.50
STMD™ M20-260	20	260	260	60	M3X8	NA	SL20	1.00
STMD™ M25-255	25	255	180	75	M4X9	G 1/4"	SL25	1.10
STMD™ M25-330	25	330	255	75	M4X9	G 1/4"	SL25	1.70
STMD™ M32-320	32	320	213	96	M5X12	G 1/2"	SL32	2.10
STMD™ M32-416	32	416	309	96	M5X12	G 1/2"	SL32	3.50
STMD™ M40-408	40	408	260	120	M6X14	G 1/2"	SL40	3,90
STMD™ M40-528	40	528	312	120	M6X14	G 1/2"	SL40	5.00
STMD™ M50-520-40	50	520	324	150	M6X14	G 3/4"	SL40	8,00
STMD™ M50-518-50	50	518	322	150	M8X14	G 3/4"	SL50	8,00
STMD™ M50-662-40	50	662	384	150	M6X14	G 3/4"	SL40	9.40
STMD™ M50-660-50	50	660	382	150	M8X14	G 3/4"	SL50	9.40
STMD™ M60-630-40	60	630	424	180	M6X14	G 3/4"	SL40	13.6
STMD™ M60-628-60	60	628	422	180	M8X14	G 3/4"	SL60	13.6
STMD™ M60-810-40	60	810	484	180	M6X14	G 3/4"	SL40	16,4
STMD™ M60-808-60	60	808	482	180	M8X14	G 3/4"	SL60	16,4
Delivery time: 2-3 days, all tools delivered with three clamping screws and an Allen wrench								

Standard: Inch								
Art. Nr	D (inch)	L (inch)	Lmin (inch)	Lc (inch)	Screws	PT	Adapter	
STMD™ I 5/8-6.7	0.625	6.7	4.6	1.875	M3X8	G 1/4"	SL16	0.25
STMD™ I 3/4-7.9	0.75	7.9	5.4	2.25	M3X8	G 1/4"	SL20	0.50
STMD™ I 1-10	1	10	7.1	3	M4X9	G 1/4"	SL25	1.10
STMD™ I 1-13	1	13	8.1	3	M4X9	G 1/4"	SL25	1.70
STMD™ I 1 1/4-12.6	1.25	12.6	8.4	3.75	M5X12	G 1/2"	SL32	2.10
STMD™ I 1 1/4-16.4	1.25	16.4	12.2	3.75	M5X14	G 1/2"	SL32	3.50
STMD™ I 1 1/2-16.1-40	1,50	16,1	10.2	4,72	M6X14	G 1/2"	SL40	3,90
STMD™ I 2-20.4-40-40	2	20.4	11	5.90	M6X14	G 1/2"	SL40	8,00
Delivery time: 2-3 days, all tools delivered with three clamping screws and an Allen wrench								

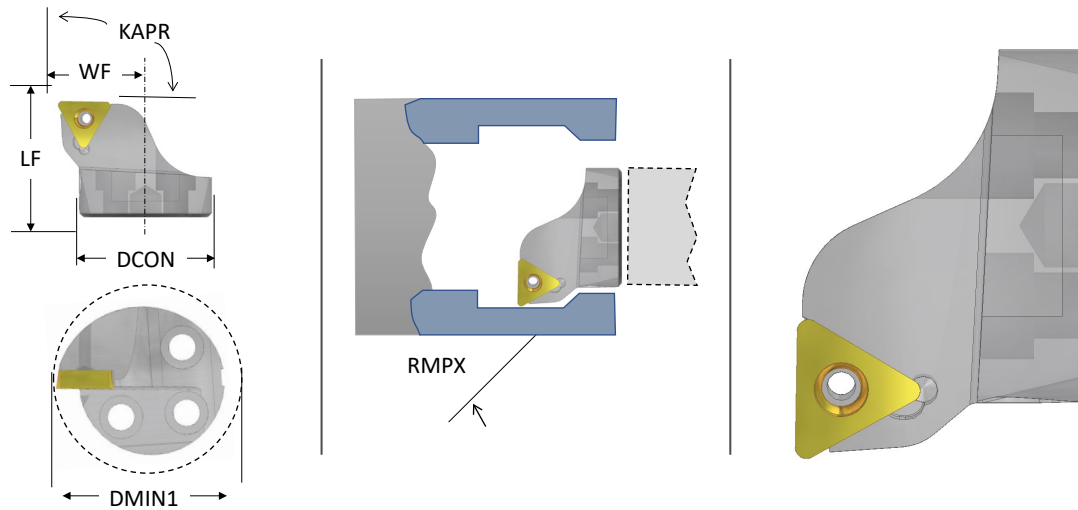
End effectors for SL adapters SDUCR:




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

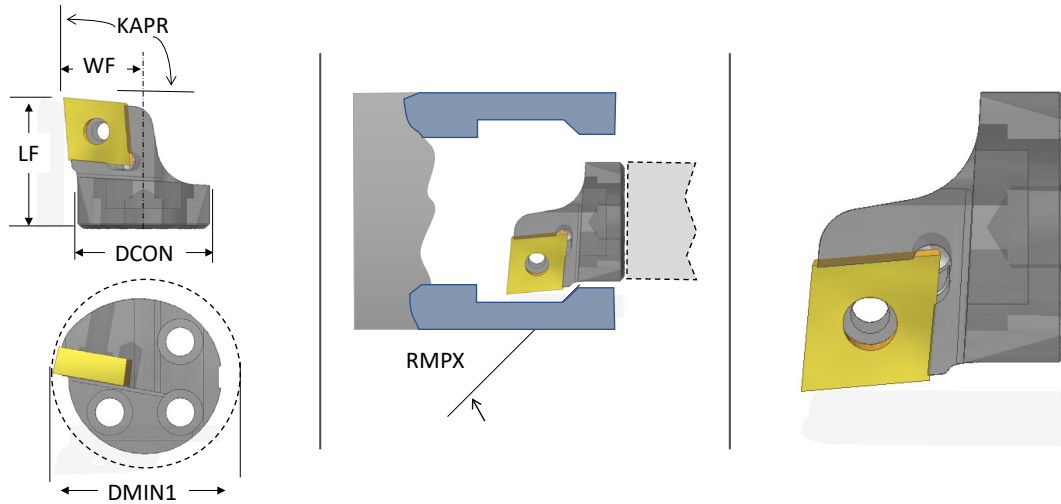
End effectors for SL adapters STFCR:




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

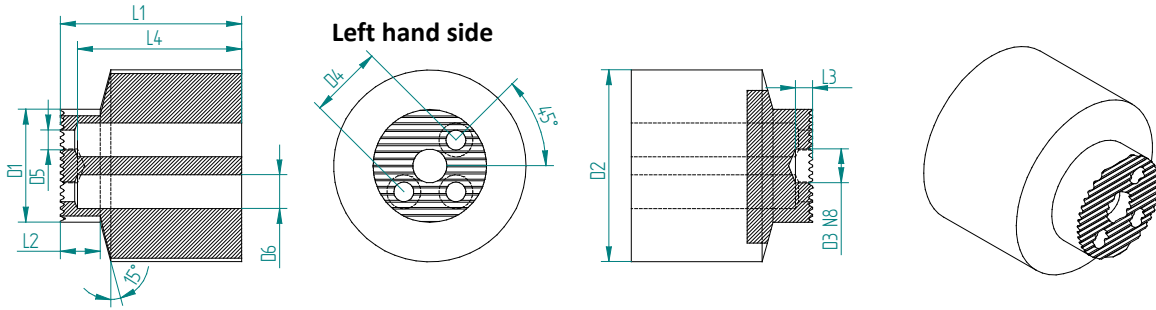
End effectors for SL adapters SCLCR:



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

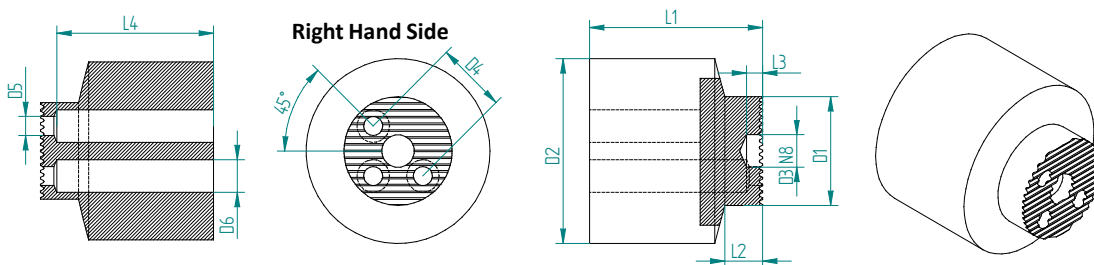
SL Blanks Left Hand Side:



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

Customized tooling solution:

MAQ offers customized tooling solution as well and [click-here](#) to send your request through our company website.