

2019 Catalog



Contact your nearest distributor of MAQ
STMD™ Self-Tuning Mass Dampers

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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.

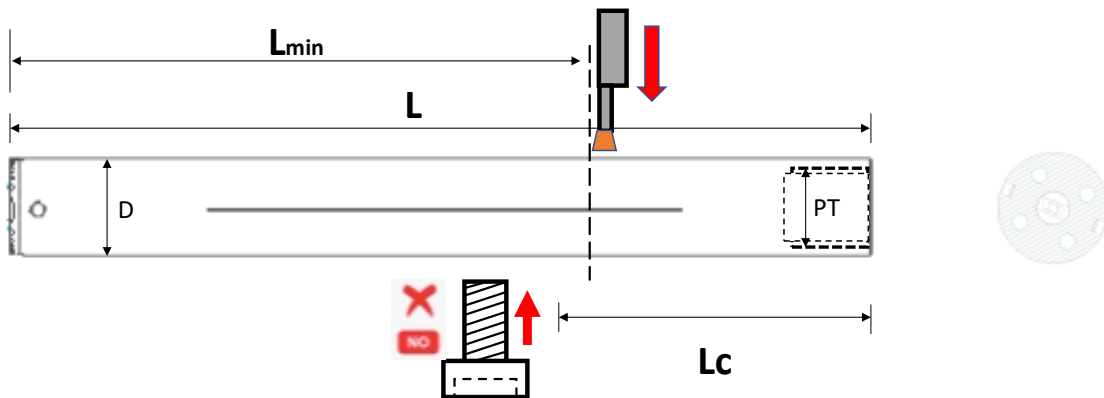
It is truly 'Plug-and-Play!'

Qilin Fu

CTO, MAQ AB

Turning tools:

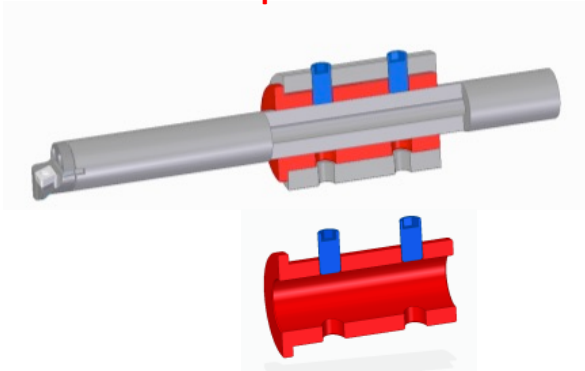
Straight holder (without clamping feature) with SL (Serration Lock) interface:



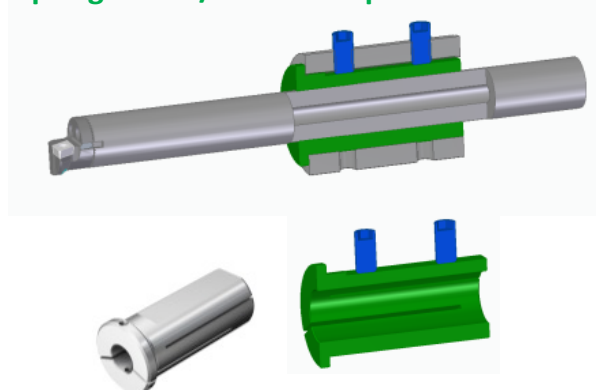
- L** – total length
- L_{min}** – minimum total length after cutting
- L_c** – recommended clamping length
- D** – diameter
- PT** – pipe thread




Direct screw clamp




Spring sleeve/collet clamp



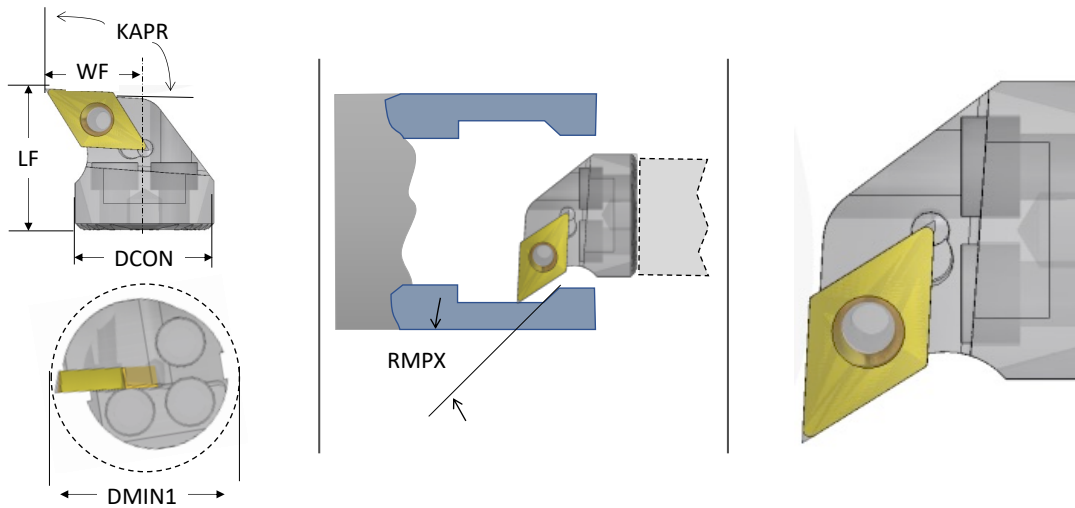
Standard: Metric								
Art. Nr	D (mm)	L(mm)	Lmin (mm)	Lc (mm)	Screws	PT	Adapter	 KG
STMD™ M12-144	12	144	93	36	M2	G 1/8"	SL12	0.18
STMD™ M16-170	16	170	117	48	M3	G 1/4"	SL16	0.25
STMD™ M16-204	16	204	149	48	M3	NA	SL16	0.50
STMD™ M20-200	20	200	137	60	M3	G 1/4"	SL20	0.50
STMD™ M20-260	20	260	171	60	M3	NA	SL20	1.00
STMD™ M25-255	25	255	180	75	M4	G 1/4"	SL25	1.10
STMD™ M25-330	25	255	180	75	M4	G 1/4"	SL25	1.10
STMD™ M32-320	32	320	213	96	M5	G 1/2"	SL32	2.10
STMD™ M40-408	40	408	260	120	M6	G 1/2"	SL40	3,00
STMD™ M50-518-40	50	518	280	150	M6	G 1/2"	SL40	8,00
STMD™ M50-526-50	50	526	288	150	M8	G 1/2"	SL40	8,00


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	 KG
STMD™ I 5/8-6.7	0.625	6.7	4.6	1.875	M3	G 1/4"	SL16	0.25
STMD™ I 3/4-7.9	0.75	7.9	5.4	2.25	M3	G 1/4"	SL20	0.50
STMD™ I 1-10	1	10	7.1	3	M4	G 1/4"	SL25	1.10
STMD™ I 1 1/4-12.6	1.25	12.6	8.4	3.75	M5	G 1/2"	SL32	2.10
STMD™ I 1 1/2-16.1	1,50	16,1	10.2	4,72	M6	G 1/2"	SL40	3,00
STMD™ I 2-20.4-40	2	20.4	11	5.90	M6	G 1/2"	SL40	8,00

All tools delivered with three clamping screws and an Allen wrench

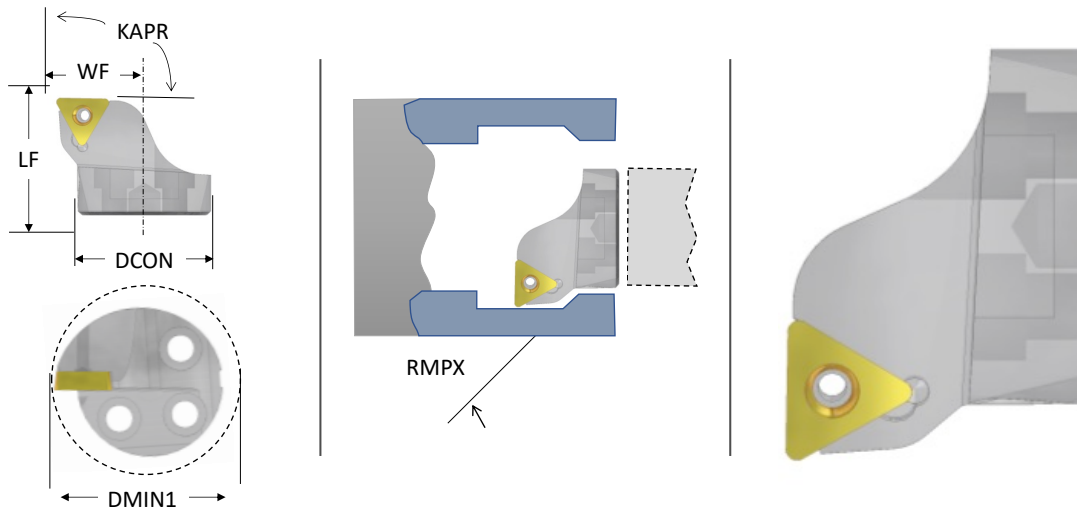
End effectors for SL adapters SDUCR:



Art. Nr	DCON (mm)	DMIN 1 (mm)	LF (mm)	WF (mm)	KAP R (°)	RMP X (°)	Hand	Insert	
<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

All cutter heads are delivered with the insert clamp screw.

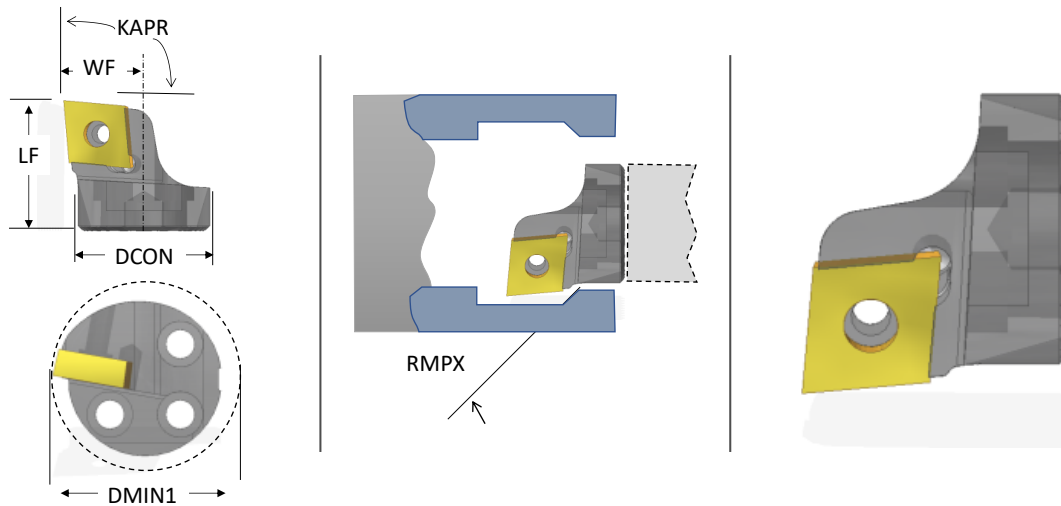
End effectors for SL adapters STFQR:




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

All cutter heads are delivered with the insert clamp screw.

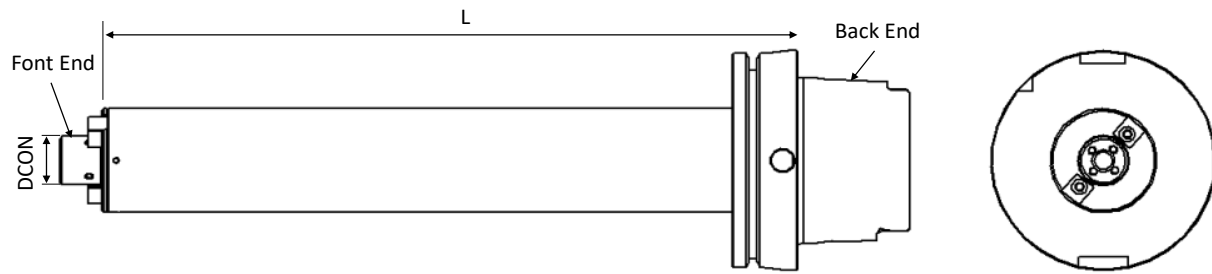
End effecters for SL adapters SCLCR:



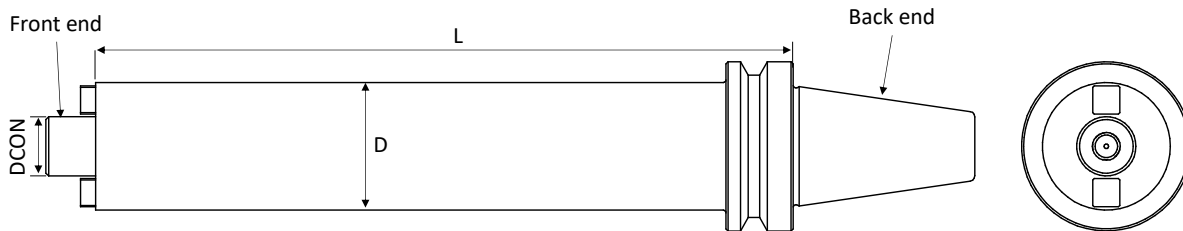
Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	
<u>SCLCR-12</u>	SL 12	16	14.4	10	95	NA	R	CCMT 0602XX	0.01
<u>SCLCR-16-5/8</u>	SL 16	20	15.4	11	95	NA	R	CCMT 0602XX	0.01
<u>SCLCR-20-3/4</u>	SL 20	25	19.1	13	95	NA	R	CCMT 09T3XX	0.02
<u>SCLCR-25-1</u>	SL 25	32	21.1	17	95	NA	R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

All cutter heads are delivered with the insert clamp screw.

Milling tools:



Art. Nr	Back End	D (mm)	L (mm)	Front End DCON	KG	Through Coolant
STMD HSK63A 48-210 M22	HSK63A	47.5	210	Arbor M22	3,5	Yes
STMD HSK63A 48-260 M22	HSK63A	47.5	260	Arbor M22	4	Yes
STMD HSK100A 48-310 M22	HSK100A	47.5	310	Arbor M22	6	Yes
STMD HSK100A 48-260 M22	HSK100A	47.5	260	Arbor M22	5	Yes
STMD HSK100A 60-340 M22	HSK100A	60	340	Arbor M22	9	Yes



Art. Nr	Back End	D (mm)	L (mm)	Front End DCON	KG	Through Coolant
STMD BT40 48-260 M22	BT40	47.5	260	Arbor M22	4	Yes
STMD BT50 48-260 M22	BT50	47.5	260	Arbor M22	5	Yes

Customized tooling solution:

MAQ offers customized tooling solution as well visit our website at www.maqab.com to request a custom solution.