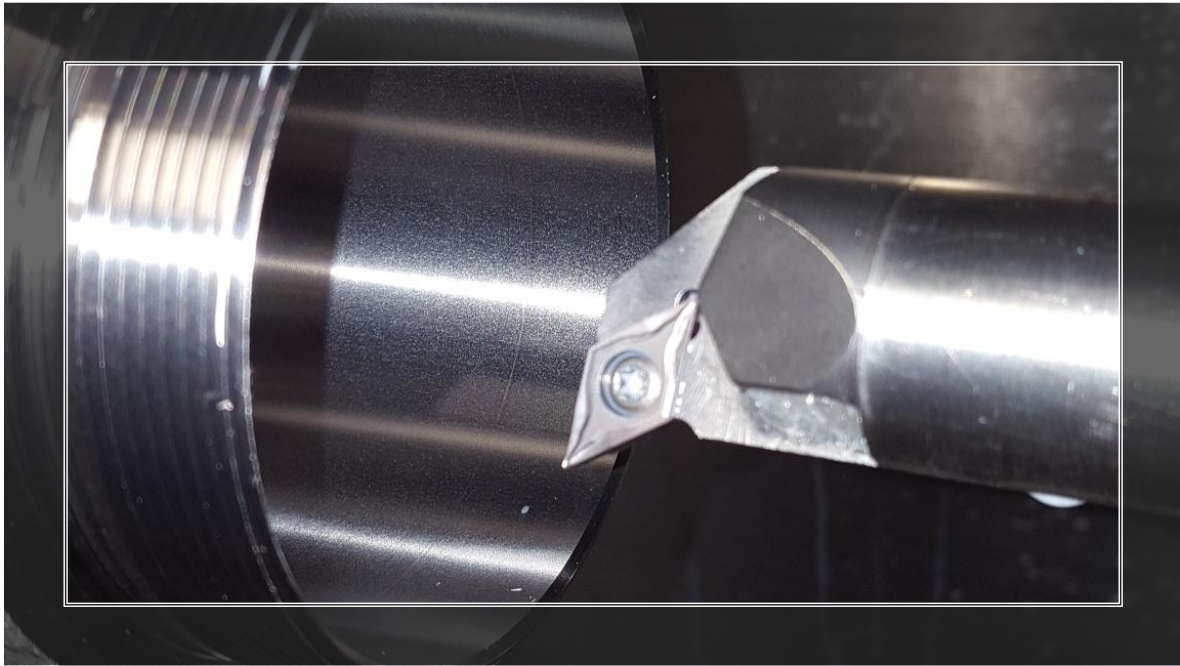


2018 Catalog



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.

機械加工において振動とは工具や表面のダメージ、旋削チップの破損を意味し、生産コストを大きく上げる要因の一つです。特にアスペクト比(高さ/直径比)の高い工具による切削加工では、振動問題が顕著に生じます。また、目立ちにくいものの、突出しの短い工具においても同様の問題が発生します。切削機器内の振動エネルギーを放出し、振動を中和させることにより振動問題を最小限に抑えるべく、**MAQ**は吸振器に対する最新のアプローチを結集した製品を提供しています。

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.

振動対策における最大の課題は、切削加工機器のコンディションの変化(切削工具・接合部の摩耗、切削材料の振動など)による振動数の変化です。多くの他社製品は、パフォーマンスを確かなものとするために、振動数に応じた調節を必要としています。しかし、こうした調節により振動問題を改善するどころか悪化させているケースも見受けられます。

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.

MAQ製品の強みは可変特性にあります。バネの剛性が振動数に応じて変化することにより、振動数の変化によって引き起こされる問題への対応が可能です。また、可変特性により、お手持ちの製品の表面仕上げの質・加工精度の向上が見込まれます。この点で**MAQ**は他社の追従を許さぬ性能を持ちます。機械加工のシンプル化により、**MAQ**製品は御社の生産性の向上を実現します。調節の必要性が無く、様々な生産・加工設備に対応可能です。

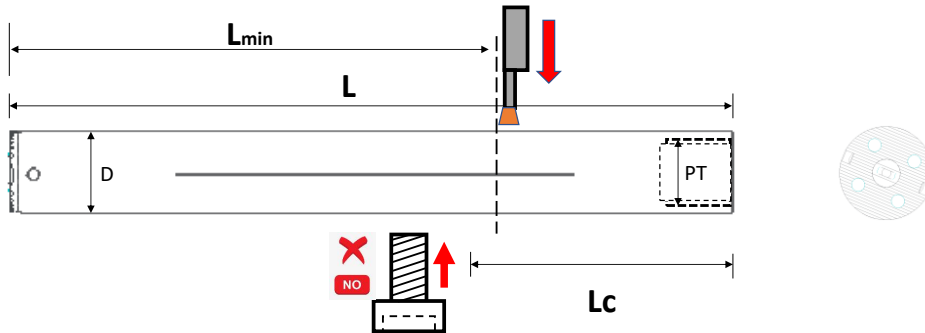
It is truly 'Plug and Play'!

Qilin Fu

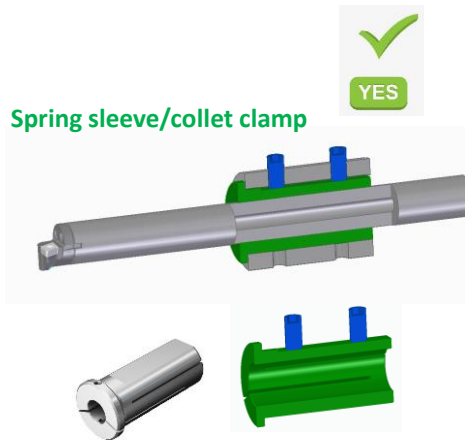
CEO&CTO MAQ AB

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



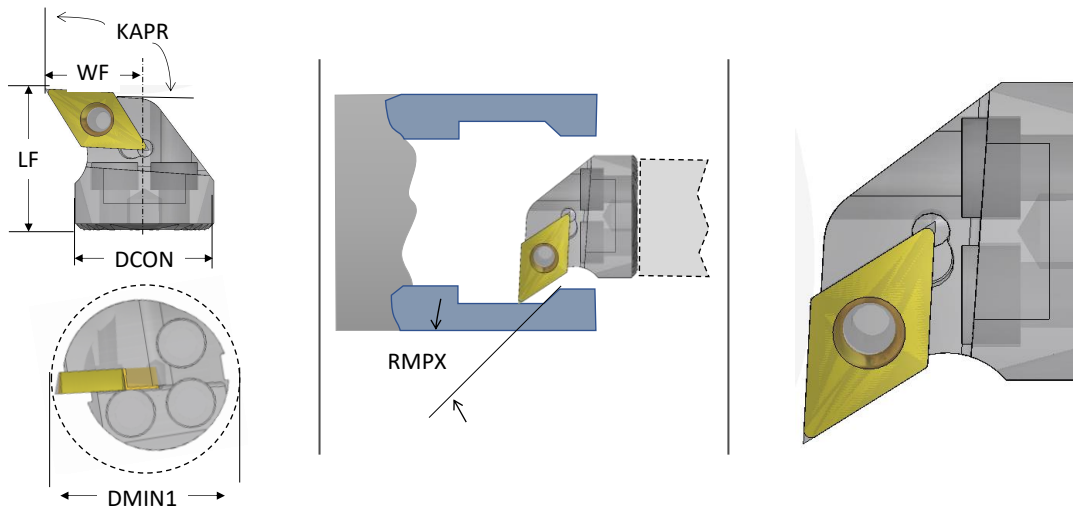
Standard: Metric								
Art. Nr	D (mm)	L(mm)	L _{min} (mm)	L _c (mm)	Screws	PT	Adapter	KG
STMD™ M12-144	12	144	93	36	M2	G 1/8"	SL12	0.18
STMD™ M16-170	16	170	117	48	M3	G 1/4"	SL16	0.25
STMD™ M20-200	20	200	137	60	M3	G 1/4"	SL20	0.50
STMD™ M25-255	25	255	180	75	M4	G 1/4"	SL25	1.10
STMD™ M32-320	32	320	213	96	M5	G 1/4"	SL32	2.10

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	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 1/4"	SL32	2.10

Delivery time: 2-3 days, all tools delivered with three clamping screws and an Allen wrench

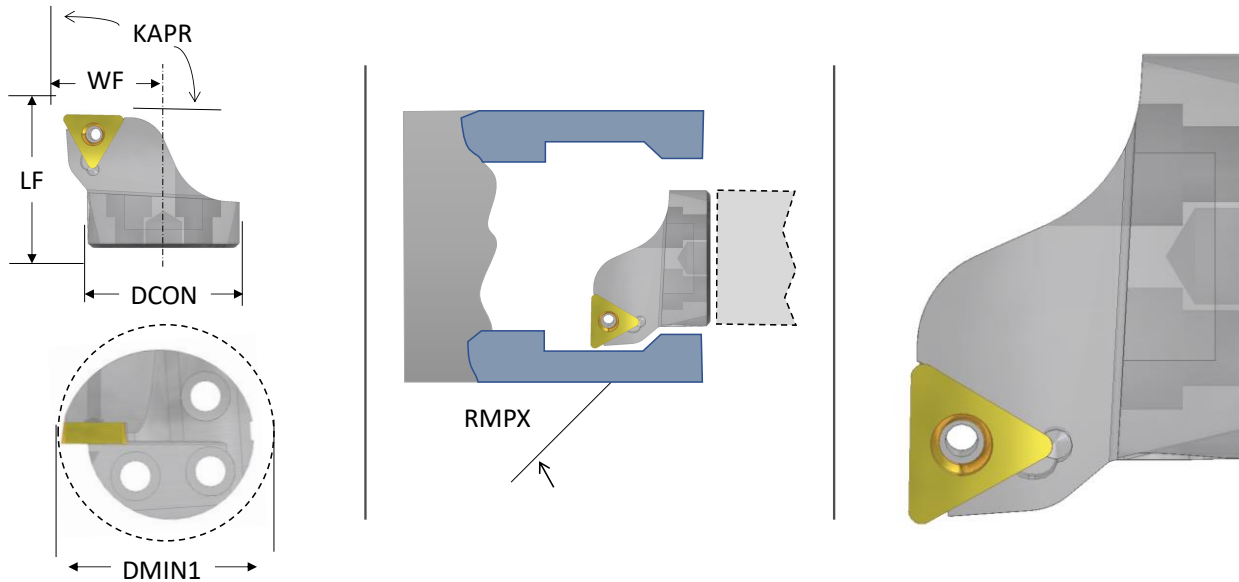
End effectors for SL adapters SDUCR:



Art. Nr	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	
SDUCR-12	SL 12	16	14	9	93	27	R	DCMT 0702XX	0.10
SDUCR-16-5/8	SL 16	20	16	11	93	27	R	DCMT 0702XX	0.10
SDUCR-20-3/4	SL 20	25	20	13	93	27	R	DCMT 11T3XX	0.20
SDUCR-25-1	SL 25	32	22	17	93	27	R	DCMT 11T3XX	0.40
SDUCR-32-1 1/4	SL 32	40	27	22	93	27	R	DCMT 11T3XX	0.80

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

End effecters for SL adapters STFQR:



Art. Nr.	DCON (mm)	DMIN1 (mm)	LF (mm)	WF (mm)	KAPR (°)	RMPX (°)	Hand	Insert	KG
<u>STFQR -16-5/8</u>	SL 16	20	16	11	91	NA	R	TCMT 0902XX	0.10
<u>STFQR -20-3/4</u>	SL 20	25	20	13	91	NA	R	TCMT 1103XX	0.20
<u>STFQR -25-1</u>	SL 25	32	22	17	91	NA	R	TCMT 1103XX	0.40
<u>STFQR -32-1 1/4</u>	SL 32	40	27	22	91	NA	R	TCMT 16T3XX	0.80

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

Customized tooling solution:

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