

passion  
for precision

fraisa

## Thread cutting **s-tap**

**NEW**



# Universal tapping in steel with the new s-tap

With the **s-tap**, FRAISA is launching a completely redesigned, coated universal tap. Tapping tools of the type s-tap made of HSS have been specifically designed for universal tapping in steel materials.

With the innovation **s-tap**, FRAISA establishes a new performance benchmark for universal tapping in steel. **s-tap** makes thread cutting reliable!

Thanks to the new **s-tap** concept, superior results can be achieved in terms of productivity, process reliability, quality and cost reduction. **s-tap** stands for universal and reliable application. The performance of **s-tap** is apparent when tapping various materials – but particularly with steel materials.

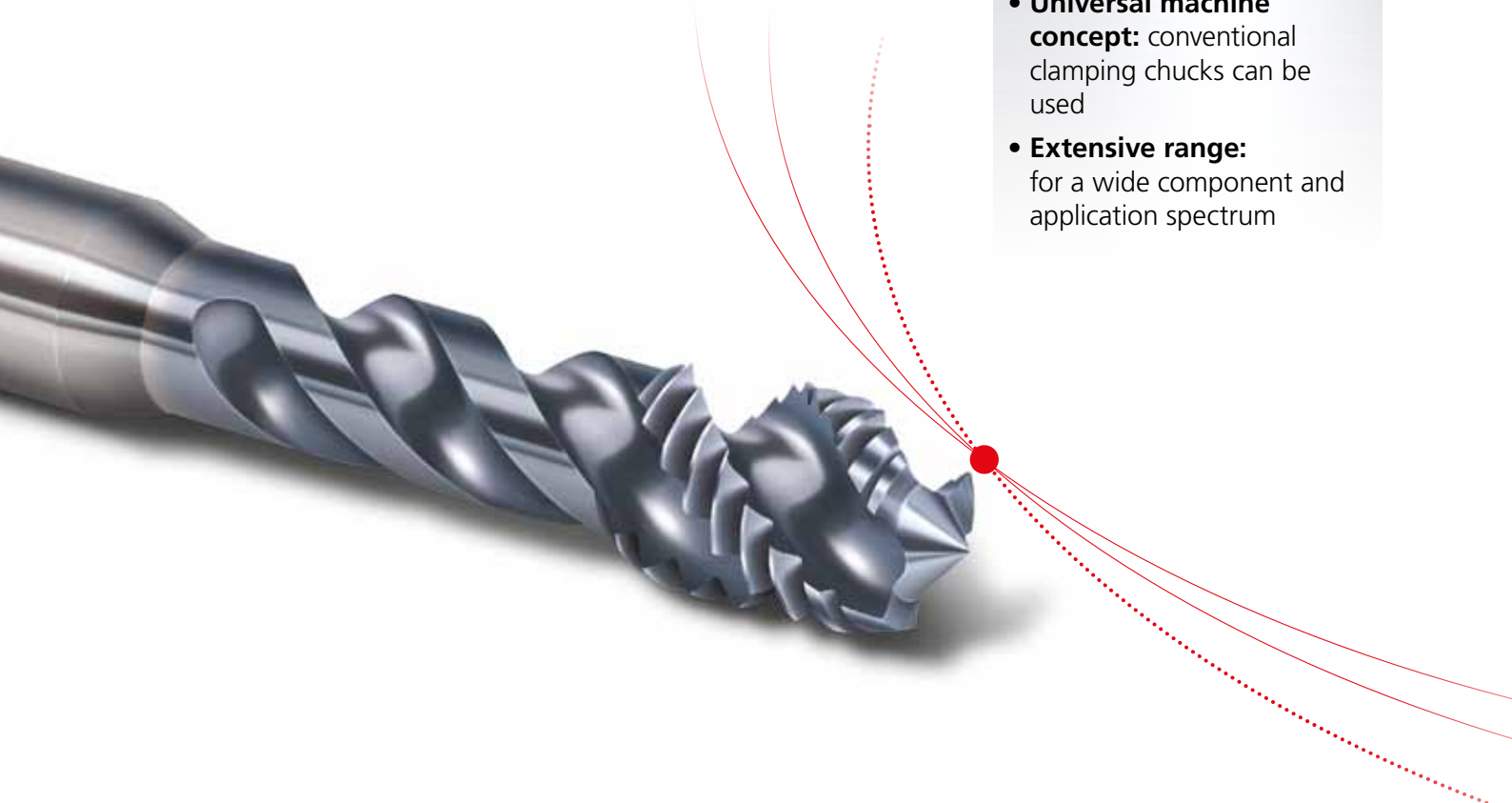
Moreover, the metric range as well as the gas thread variant offer outstanding possibilities and great potential for optimisation when tapping in steel.

The safe application of the **s-tap** tapping process is created through a combination of new technology and tried-and-tested technology: a new substrate, a new deburring process and new cutting edge conditioning combine with the tried-and-tested FRAISA coating concept.





The cutting edge design was modified by means of up-to-date processes using cutting geometry developed particularly for steel materials. The coating adhesion was also substantially improved.

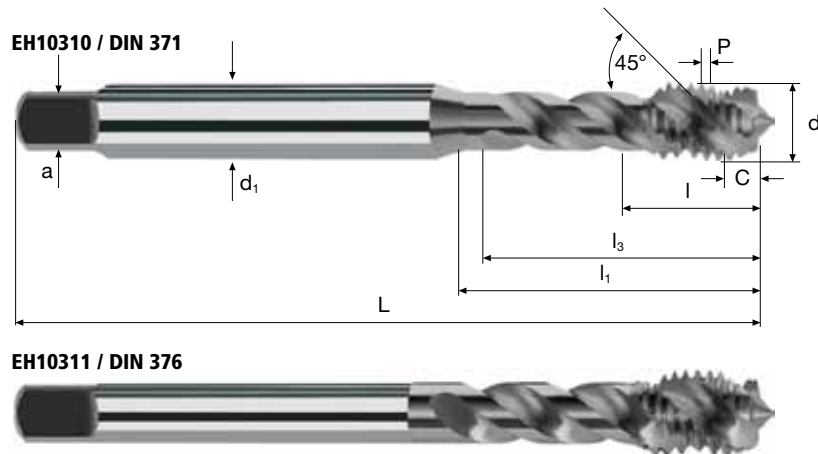
## The advantages:

- **High process safety** due to dimension-specific cutting edge conditioning
- **Long tool life**
- **Safe optimisation:** resulting in reduced inspection and very stable application behaviour
- **Rigid tapping and length compensation**
- **Reduction of the production costs**
- **Fewer tool types necessary**
- **Universal machine concept:** conventional clamping chucks can be used
- **Extensive range:** for a wide component and application spectrum







# Taps s-tap

<b>M</b>	<b>ISO 2 (6H)</b>
	<b>HSS-E Co5</b>
	
	<b>Form C</b>



<b>Rm</b> < 850	<b>Rm</b> 850-1100									
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Example: Order-N°.											Article-N°.		Ø-Code		TiCN	
											EH10310		.034		EH10310	
Ø-Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a								
.034	M 2	0.40	45	8.0	—	10.5	2.8	2.1	3	1.60						•
.040	M 2.5	0.45	50	9.0	—	13.0	2.8	2.1	3	2.05						•
.044	M 3	0.50	56	4.0	18.0	16.0	3.5	2.7	3	2.50						•
.058	M 4	0.70	63	5.6	21.0	19.0	4.5	3.4	3	3.30						•
.084	M 5	0.80	70	6.4	25.0	23.0	6.0	4.9	3	4.20						•
.088	M 6	1.00	80	8.0	30.0	28.0	6.0	4.9	3	5.00						•
.160	M 8	1.25	90	10.0	35.0	33.0	8.0	6.2	3	6.80						•
.174	M10	1.50	100	12.0	39.0	37.0	10.0	8.0	3	8.50						•

Example: Order-N°.											Article-N°.		Ø-Code		TiCN	
											EH10311		.240		EH10311	
Ø-Code	d	P	L	l	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub>	a								
.240	M12	1.75	110	14.0	50.0	48.0	9.0	7.0	3	10.20						•
.244	M14	2.00	110	16.0	58.0	56.0	11.0	9.0	4	12.00						•
.246	M16	2.00	110	16.0	58.0	56.0	12.0	9.0	4	14.00						•
.312	M18	2.50	125	20.0	65.0	63.0	14.0	11.0	4	15.50						•
.314	M20	2.50	140	20.0	72.0	70.0	16.0	12.0	4	17.50						•
.316	M22	2.50	140	20.0	72.0	70.0	18.0	14.5	4	19.50						•
.320	M24	3.00	160	24.0	74.0	72.0	18.0	14.5	4	21.00						•

Other versions can be found in the FRAISA catalogue  
"Carbide drills | Thread cutting tools 2015/16".



Where is it possible to ask questions concerning the product?

If you have any question, please send an email to [mail.ch@fraisa.com](mailto:mail.ch@fraisa.com). You may also directly contact our local customer consultant.

The FRAISA application engineers will be happy to advise you.

For further information, please refer to [fraisa.com](http://fraisa.com)



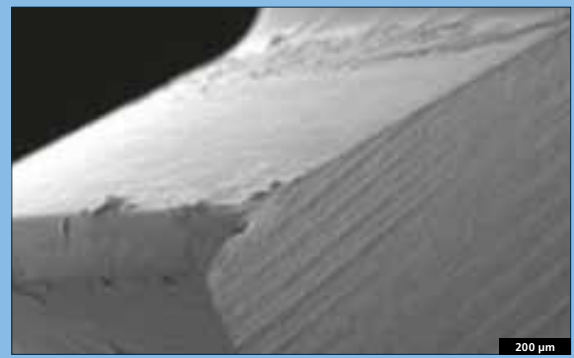
## Process reliability in a new dimension

Process reliability decreases in difficult machining situations. Even minor deviations in the material, environment or strategy can trigger tool breakage.

The **s-tap** concept increases process reliability and reproducibility:

- Robust cutting edge with sufficient reserve for process deviations
- Continuous wear development even during unfavorable conditions
- Cutting edge preparation for cutting wedge reinforcement
- Hard and tough HSS substrate for maximum breakage resistance
- Universal and high-performance TiCN hard material coating

### Cutting edge rounding (CER)



Conventional CER



CER s-tap

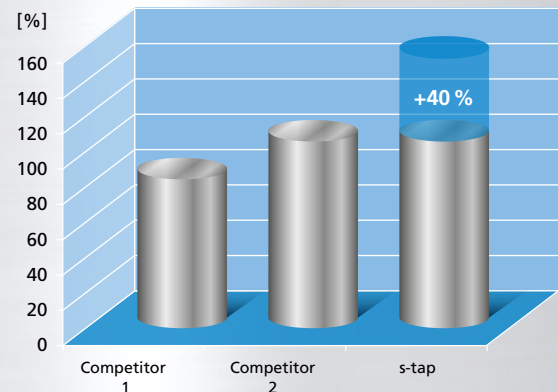
## Longer tool life due to greater wear resistance

The ideal design of the cutting edge prevents a premature uncontrolled wear increase. This is clearly shown in the application example of a tapped blind hole 2xD in tempered steel:

s-tap	M8 ISO 2
Material	42CrMo4
Cutting speed $v_c$	7 m/min
Thread depth	16 mm
Cooling lubricant	Emulsion 8 %
Number of tapped holes	500

As usual, FRAISA supplies process safe application data for each tool.

### Increase of tool life



Quick orders, quick deliveries. Simply order, and delivery will be made the next day. You can also order from our e-shop at [www.fraisa.com](http://www.fraisa.com).



Here, you will be provided with further information on the FRAISA Group.



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