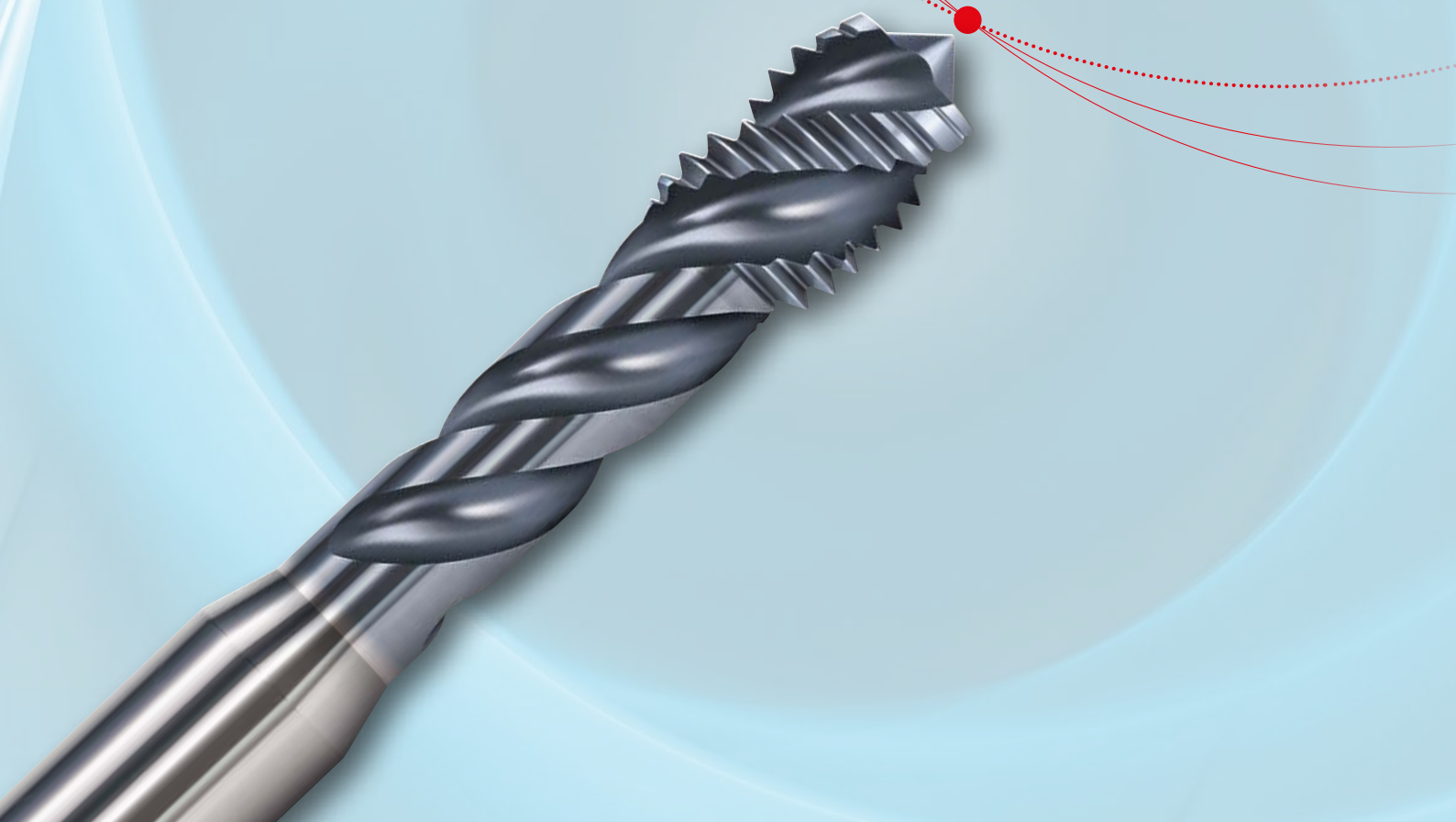
passion
for precision

fraisa

Thread cutting s-tap



Universal tapping in steel
with s-tap taps

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.

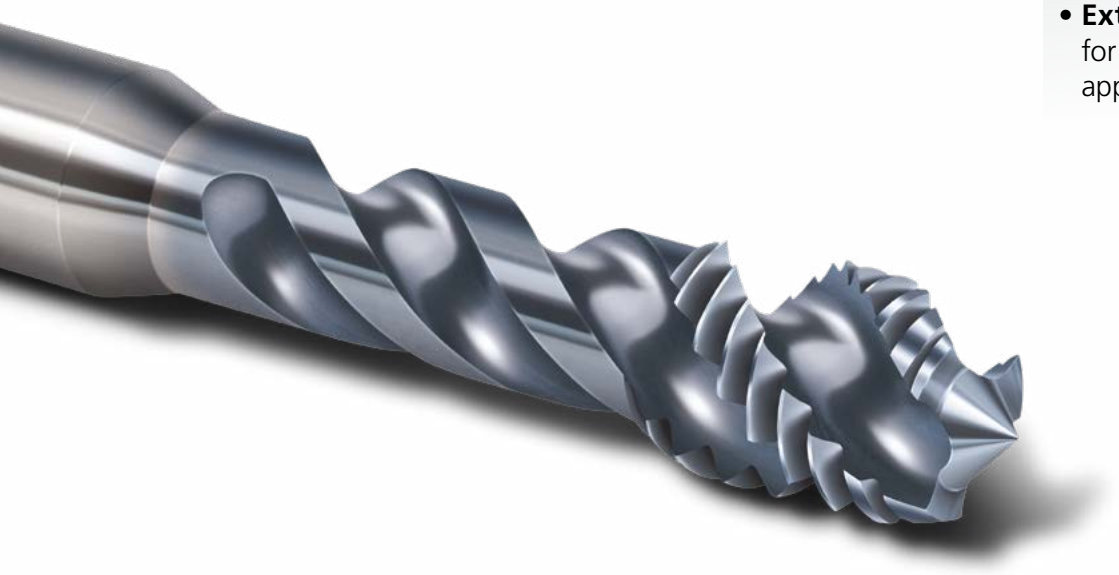
Moreover, the metric range as well as the gas thread variant offer outstanding possibilities and great potential for optimisation when tapping in steel.

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.

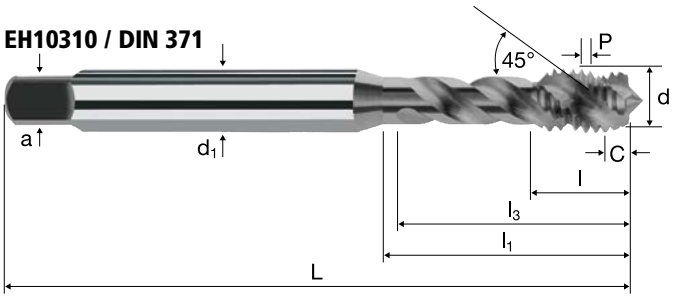
The advantages:

- **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

M	**ISO 2 (6H)**
HSS-E Co5	
DIN 371/376	
	Form C



Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G)**

Example: **Order-N°.** Article-N°. **EH10310** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TiCN
											EH10310
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°. **EH10311** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_1	a			TiCN
											EH10311
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 I Thread cutting tools 2021".

Taps s-tap

G

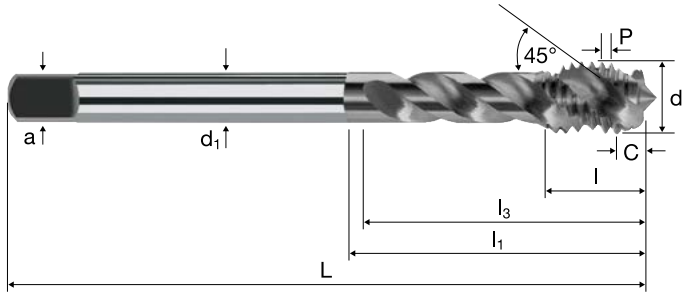
55°

HSS-E Co5

DIN 5156

X · P

Form C



Rm < 850	Rm 850-1100						Inox Stainless		GG(G)

Example: **Order-N°.** Article-N°. **EH11425** ø-Code **551**

ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_1	a			TiCN EH11425
551	**G 1/8**	**28**	9.728	90	7.3	35	33	7	5.5	3	8.80	●
552	**G 1/4**	**19**	13.157	100	10.7	39	37	11	9.0	4	11.80	●
553	**G 3/8**	**19**	16.662	100	10.7	39	37	12	9.0	4	15.25	●
554	**G 1/2**	**14**	20.955	125	14.5	65	63	16	12.0	4	19.00	●
555	**G 5/8**	**14**	22.911	125	14.5	65	63	18	14.5	4	21.00	●

Other versions can be found in the FRAISA catalogue
"Carbide drills I Thread cutting tools 2021".

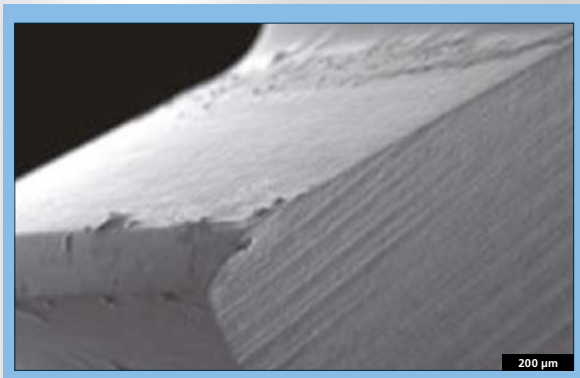
Process reliability in a new dimension

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

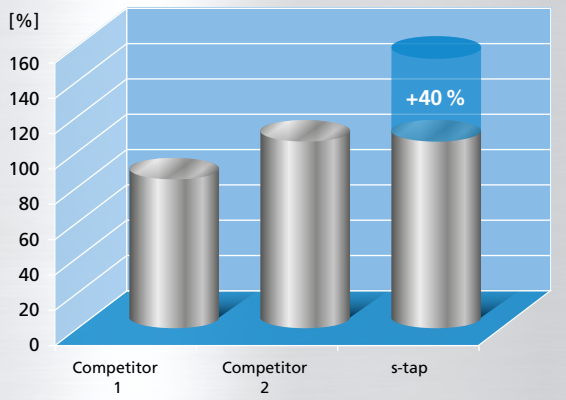
Longer tool life due to greater wear resistance

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



Scan this QR code to find more information on the FRAISA Group.

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