passion for precision



Thread cutting s-tap



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.

[2]

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



Rm < 850	Rm 850–1100										
	Example	e:	Article-N°.	Ø-Coc	le						TiCN
	Order	-N°.	EH10310	.034	1						EH10310
Ø-Code	d	Р	L	I	I 1	13	d 1	а	5	Ø	
.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	•

	Examp	le:	Article-N°.	Ø-Coc	le	-					TiCN
	Order-N°.		EH10311	.240)`						EH10311
Ø-Code	d	Р	L	I	I 1	1 3	d 1	а	5	Ø	
.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 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**. 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**

Taps s-tap





Rm < 850	Rm 850–1100											
	Exampl	e:	Article	e-N°.	Ø-Code	_						TiCN
	Order-N°.		EH11425		.551							EH11425
Ø-Code	d	P(TPI)	d (mm)	L	I	I 1	3	d 1	а	5	Ø	
.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	•
.556	G 3/4	14	26.441	140	14.5	72	70	20	16.0	5	24.50	•

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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)





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.

[5]



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



The fastest way to our E-Shop can be found here.

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