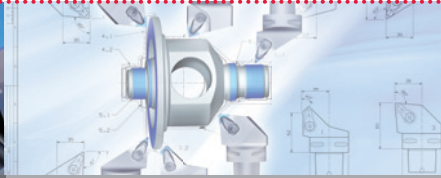


# SPK INNOVATION

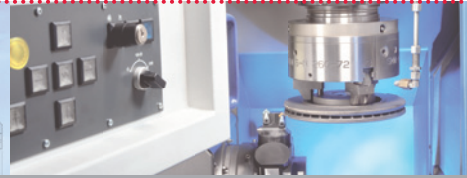
FOR THE MACHINING OF HARDENED STEEL



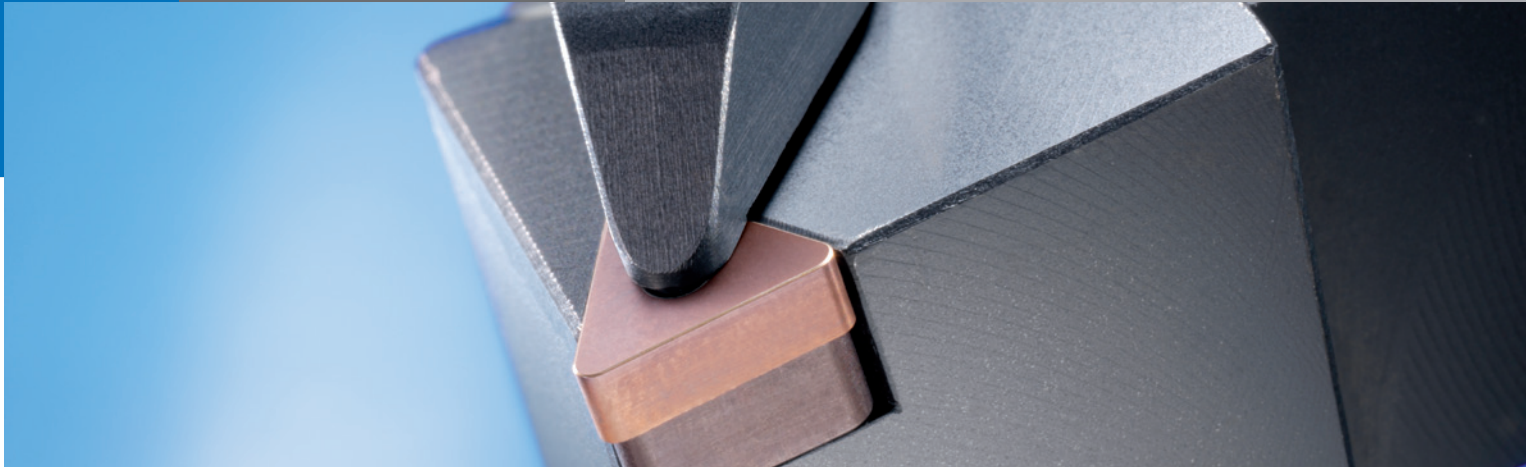
TOOLS



TECHNOLOGY



APPLICATION

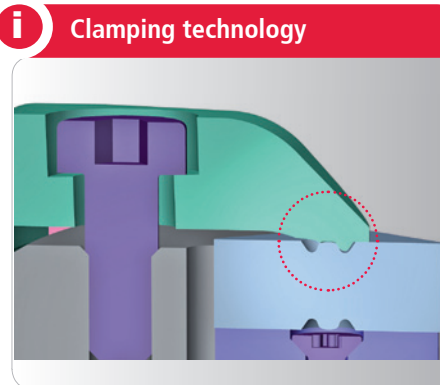


## IKS-PRO Mini

NEW CLAMPING TECHNOLOGY FOR HIGH PERFORMANCE HARD TURNING

## IKS-PROMini

IKS-PROMini was designed especially for the hard turning of small dimensions using inserts from the new SPK HD-LINE generation of cutting materials. It is based on the proven IKS-PRO system. The consistent, ongoing development and adjustment of the notch and clamping element geometry has resulted in a clamping system that fulfils the very particular requirements of hard turning. The form-fit and force-fit connection between clamping finger and insert ensures the retraction of the insert into the insert seating and guarantees an extremely stable and secure clamp for hard turning. At the same time, the cutting forces are optimally distributed across the entire insert seating and base. With varying cutting directions, the system holds the insert firmly in the insert seating and thereby ensures that the required positional and shape

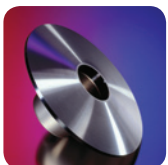


tolerances are met for components. This makes the IKS-PROMini the ideal clamping system for achieving the most narrow tolerances with complete process reliability; from continuous to heavily interrupted cuts.

### IKS-PROMini FOR HIGH PROCESS RELIABILITY

The new clamping system really shines when it comes to particularly complex machining operations, for example with varying machining directions, different depths of cut or heavily interrupted cuts. Regardless of the machining conditions,

the insert must sit in the insert seating with the utmost security. Together with the specially tailored cutting materials of the SPK HD-LINE, IKS-PROMini is the best choice for hard turning components with continuous to heavily interrupted cuts.



## HIGH-SPEED DURING HARD TURNING

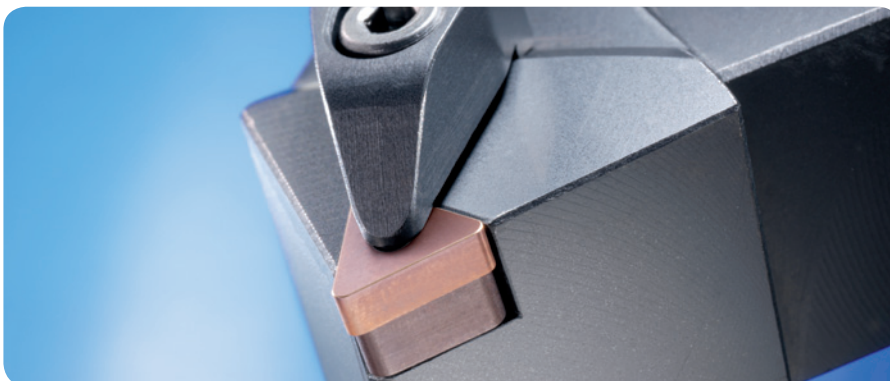
Cutting speeds up to 240 m/min with feed rate values up to 0.5 mm are setting new standards in terms of machining speed and machining volumes. In order to ensure process reliability when attaining this level of performance, the entire tool system – cutting material, inserts and tool carrier – must be designed accordingly. Together with the cutting materials and inserts of the SPK HD-LINE, IKS-PRO*Mini* is ensuring that this new high-speed dimension becomes standard.



### EASY TO USE

IKS-PRO*Mini* stands out with its practical, simple and fast operation. It ensures the optimum clamping of the insert and thereby the highest quality standards. IKS-PRO*Mini*

provides a basis for further increasing productivity for hard turning operations with high process reliability, while opening up further cost reduction possibilities.



## IKS-PROMini Turning Tools

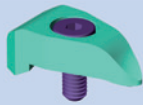

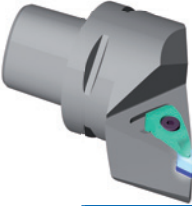
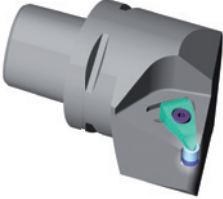
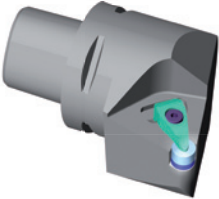
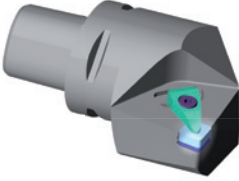
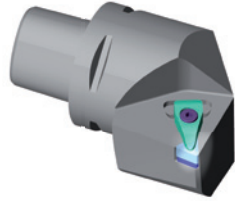
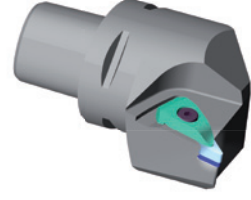

TYPE	ISO	SPK-REF.NO.	SPARE PARTS		
				for edge radii	
 DNGX 07 04 ..	CDJN L 2525 M07 - MD4	719.23.001.03	70.91.11.850.0	0,4 / 0,8	70.91.22.425.0
	CDJN R 2525 M07 - MD4	719.24.001.03	70.91.11.850.0	1,2 / 1,6	70.91.22.426.0
 RNGX 06 04 ..	CRSN L 2525 M06 - MD4	719.43.001.03	70.91.11.850.0		70.91.22.428.0
	CRSN R 2525 M06 - MD4	719.44.001.03	70.91.11.850.0		70.91.22.428.0
 RNGX 09 04 ..	CRSN L 2525 M09 - MD4	719.43.002.03	70.91.11.850.0		70.91.22.427.0
	CRSN R 2525 M09 - MD4	719.44.002.03	70.91.11.850.0		70.91.22.427.0
 SNGX 09 04 ..	CSYN L 2525 M09 - MD4	719.03.002.03	70.91.11.850.0	0,4 / 0,8	70.91.22.430.0
	CSYN R 2525 M09 - MD4	719.04.002.03	70.91.11.850.0	1,2 / 1,6	70.91.22.431.0
	CSXN L 2525 M09 - MD4	719.03.001.03	70.91.11.850.0	0,4 / 0,8	70.91.22.430.0
	CSXN R 2525 M09 - MD4	719.04.001.03	70.91.11.850.0	1,2 / 1,6	70.91.22.431.0
 TNGX 11 04 ..	CTGN L 2525 M11 - MD4	719.13.001.03	70.91.11.850.0	0,4 / 0,8	70.91.22.434.0
	CTGN R 2525 M11 - MD4	719.14.001.03	70.91.11.850.0	1,2 / 1,6	70.91.22.435.0
	CTJN L 2525 M11 - MD4	719.13.002.03	70.91.11.850.0	0,4 / 0,8	70.91.22.434.0
	CTJN R 2525 M11 - MD4	719.14.002.03	70.91.11.850.0	1,2 / 1,6	70.91.22.435.0
 VNGX 09 04 ..	CVJN L 2525 M09 - MD4	719.23.002.03	70.91.11.850.0	0,4 / 0,8	70.91.22.438.0
	CVJN R 2525 M09 - MD4	719.24.002.03	70.91.11.850.0	1,2 / 1,6	70.91.22.439.0
 WNGX 05 04 ..	CWXN L 2525 M05 - MD4	719.13.003.03	70.91.11.850.0	0,4 / 0,8	70.91.22.440.0
	CWXN R 2525 M05 - MD4	719.14.003.03	70.91.11.850.0	1,2 / 1,6	70.91.22.441.0

Note:

Basic Tool Equipment: shim for edge radii  $r = 0,4 / 0,8$  mm.

For edge radii  $r = 1,2 / 1,6$  mm, order shim separately!

## IKS-PROMini CMS Cutting Heads

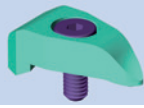

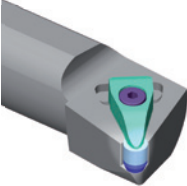
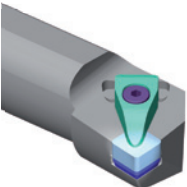
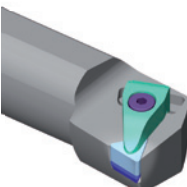
TYPE	ISO	SPK-REF.NO.	SPARE PARTS			
				for edge radii		
 DNGX 07 04 ..	CMS 5 - CDJN L 35060 - 07 - MD4	799.23.001.13	70.91.11.850.0	0,4 / 0,8	70.91.22.425.0	
	CMS 5 - CDJN R 35060 - 07 - MD4	799.24.001.13	70.91.11.850.0	1,2 / 1,6	70.91.22.426.0	
 RNGX 06 04 ..	CMS 5 - CRSN L 35060 - 06 - MD4	799.43.001.13	70.91.11.850.0		70.91.22.428.0	
	CMS 5 - CRSN R 35060 - 06 - MD4	799.44.001.13	70.91.11.850.0		70.91.22.428.0	
 RNGX 09 04 ..	CMS 5 - CRSN L 35060 - 09 - MD4	799.43.003.13	70.91.11.850.0		70.91.22.427.0	
	CMS 5 - CRSN R 35060 - 09 - MD4	799.44.003.13	70.91.11.850.0		70.91.22.427.0	
 SNGX 09 04 ..	CMS 5 - CSYN L 35060 - 09 - MD4	799.03.002.13	70.91.11.850.0	0,4 / 0,8	70.91.22.430.0	
	CMS 5 - CSYN R 35060 - 09 - MD4	799.04.002.13	70.91.11.850.0	1,2 / 1,6	70.91.22.431.0	
	CMS 5 - CSXN L 35060 - 09 - MD4	799.03.001.13	70.91.11.850.0	0,4 / 0,8	70.91.22.430.0	
	CMS 5 - CSXN R 35060 - 09 - MD4	799.04.001.13	70.91.11.850.0	1,2 / 1,6	70.91.22.431.0	
 TNGX 11 04 ..	CMS 5 - CTGN L 35060 - 11 - MD4	799.13.001.13	70.91.11.850.0	0,4 / 0,8	70.91.22.434.0	
	CMS 5 - CTGN R 35060 - 11 - MD4	799.14.001.13	70.91.11.850.0	1,2 / 1,6	70.91.22.435.0	
	CMS 5 - CTJN L 35060 - 11 - MD4	799.13.002.13	70.91.11.850.0	0,4 / 0,8	70.91.22.434.0	
	CMS 5 - CTJN R 35060 - 11 - MD4	799.14.002.13	70.91.11.850.0	1,2 / 1,6	70.91.22.435.0	
 VNGX 09 04 ..	CMS 5 - CVJN L 35060 - 09 - MD4	799.23.002.13	70.91.11.850.0	0,4 / 0,8	70.91.22.438.0	
	CMS 5 - CVJN R 35060 - 09 - MD4	799.24.002.13	70.91.11.850.0	1,2 / 1,6	70.91.22.439.0	
 WNGX 05 04 ..	CMS 5 - CWXN L 35060 - 05 - MD4	799.13.003.13	70.91.11.850.0	0,4 / 0,8	70.91.22.440.0	
	CMS 5 - CWXN R 35060 - 05 - MD4	799.14.003.13	70.91.11.850.0	1,2 / 1,6	70.91.22.441.0	

**Note:**

Basic Tool Equipment: shim for edge radii  $r = 0,4 / 0,8$  mm.

For edge radii  $r = 1,2 / 1,6$  mm, order shim separately!

## IKS-PROMini Boring Bars

TYPE	ISO	SPK-REF.NO.	SPARE PARTS		
				for edge radii r	
 RNGX 06 04 ..	S25M-CRSN L 2525 M06 - MD4	759.43.001.03	70.91.11.850.0		70.91.22.429.0
	S25M-CRSN R 2525 M06 - MD4	759.44.001.03	70.91.11.850.0		70.91.22.429.0
 SNGX 09 04 ..	S25M-CSYN L 2525 M09 - MD4	759.03.002.03	70.91.11.850.0	0,4 / 0,8	70.91.22.432.0
	S25M-CSYN R 2525 M09 - MD4	759.04.002.03	70.91.11.850.0	1,2 / 1,6	70.91.22.433.0
 TNGX 06 04 ..	S25M-CTJN L 2525 M11 - MD4	759.13.002.03	70.91.11.850.0	0,4 / 0,8	70.91.22.436.0
	S25M-CTJN R 2525 M11 - MD4	759.14.002.03	70.91.11.850.0	1,2 / 1,6	70.91.22.437.0

Note:

Basic Tool Equipment: shim for edge radii  $r = 0,4 / 0,8$  mm.  
For edge radii  $r = 1,2 / 1,6$  mm, order shim separately!

$D_{\min}$  for all boring bars = 42 mm



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