

Superior Clamping and Gripping



## K○N**TEC** KSM2 Multi Clamping Vise

The Allrounder in Workpiece Clamping

## **Superior Clamping and Gripping**



Henrik A. Schunk, Kristina I. Schunk, brand ambassador Jens Lehmann, and Heinz-Dieter Schunk

#### Top Performance in the Team

SCHUNK is the world's No. 1 in clamping technology and gripping systems - from the smallest parallel gripper to the largest standard chuck jaw program.

As a competence leader, we recognize and develop standards with a large potential for the future, which will drive the rapid progress in many industries.

Our customers profit from the expert knowledge, the experience and team spirit of 3,400 employees in our innovative family-owned company.

The Schunk family wishes you improved end results with our quality products.

h G. Sauce

#### **Superior Clamping and Gripping**

Jens Lehmann stands for safe, precise gripping and holding. As a brand ambassador of the SCHUNK team, the No. 1 goalkeeper represents our global competence leadership for gripping systems and clamping technology. The top performance of SCHUNK and Jens

Lehmann are characterized by dynamics, precision, and reliability.

For more information visit our website: schunk.com/lehmann

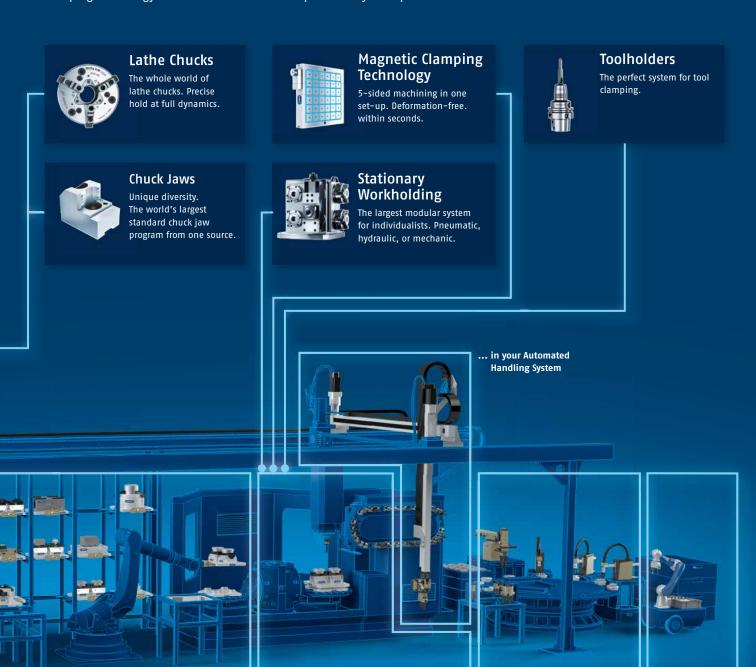


... for your Automated Machine Loading



## It's time to use of your machine's full potential!

With our superior components, find potentials in your machine, where you would least expect to find them. SCHUNK SYNERGY – the perfectly harmonized interplay between gripping systems and clamping technology – turns our customers into productivity champions.



... in your Machining Center

... in your Automated Assembly

... in your Service Robotics Application



Multi Clamping Vise

## Multi Clamping Vise KONTEC KSM2. Clever in Design. Unique in Operation. Exclusively available from SCHUNK.

#### Hold a tighter grip. Become more productive.

The KONTEC KSM2 is a real all-rounder for workpiece clamping. The new multi clamping vise allows a number of small workpieces as well as large workpieces to be clamped in an uncomplicated manner on a 3, 4 or 5-axis machine. Due to even slimmer jaws, the parts are now even more compact in comparison to the KONTEC KSM.

#### Benefit from modularity perfected.

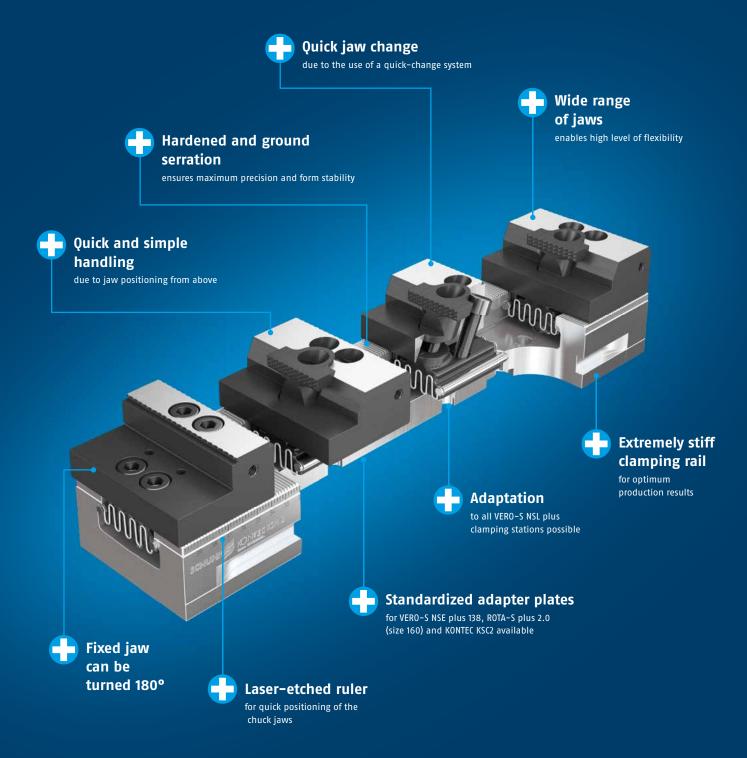
The KONTEC KSM2 is a clever module in the highly standardized SCHUNK modular system. The direct clamping on the multi clamping vises enables a maximum degree of part compactness. The direct workpiece clamping with the VERO-S NSE plus 138 quick-change pallet system enables any number of gauges for bore holes to be set along the clamping rail in a grid of 2 mm in a matter of seconds. Rotationally symmetrical parts can also be machined by mounting ROTA-S plus 2.0 toolholders on the clamping rail.

#### We make you quicker.

The jaws can be removed and the workpieces clamped with a single actuation key. The ability to remove individual jaws directly from the multi clamping vise per quick-change, reduces the set-up time dramatically.



## Our Promise to Deliver. Your Benefit.



## The Modular System for more Flexibility.

Regardless of whether you need a fixed jaw, adjustable jaw, pull-down jaw, parallel jaw, pendulum jaw, wedge-clamping element or connecting element – in the wide-range modular system you can always find the suitable jaw combination for your machining task.



Connecting element



Top jaw, soft GBW 40-35-16



Top jaw, soft GBW 65-35-16



Top jaw, soft GBW 90-35-16



Top jaw, grip GBG 40-35-10



Top jaw, grip GBG 65-35-10



Top jaw, grip GBG 90-35-10





Top jaw, hewn



Top jaw, ground GBP 40-35-10



Top jaw, ground GBP 65-35-10



Top jaw, ground GBP 90-35-10



Top jaw, hewn GBC 40-35-11



Top jaw, hewn GBC 65-35-11

GBC 90-35-11



Parallel jaw grip 90



Parallel jaw smooth 90



Parallel jaw grip 90



Workpiece supports 90 Height 11 mm



Workpiece supports 90 Height 17 mm



Jaw, soft Steel 90



Jaw, soft Aluminum 90



Workpiece supports 90 Height 25 mm



Workpiece supports 90 Height 30 mm



Parallel chuck jaw smooth 65



Workpiece support 65 Height 11 mm



Workpiece support 65 Height 17 mm



Workpiece support 65 Height 25 mm



Workpiece support 65 Height 30 mm



Parallel chuck jaw grip 40



Parallel chuck jaw smooth 40



Pull-down jaw, grip round 40



Parallel chuck jaw, grip round 40



Workpiece support 40 Height 25 mm



Workpiece support Height 11 mm, screwable



Adjustable support Height 17 mm

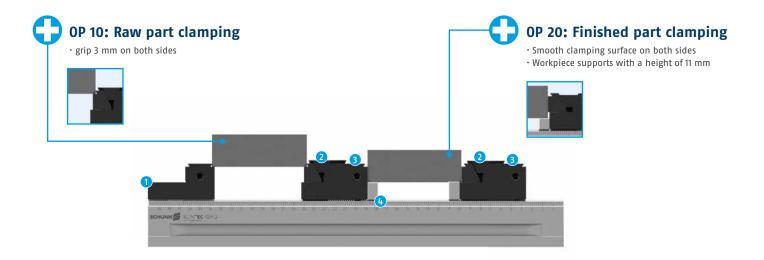


Support for height 30 mm Support for height 25 mm

## Set up faster with the KONTEC KSM2 Starter Kit

Two set-ups in one.

No jaw change required.



#### **KONTEC KSM2 Starter kit**

- KONTEC KSM2 90-400 (1363860)
- KONTEC KSM2 90-500 (1363902)
- KONTEC KSM2 90-600 (1363911)
- KONTEC KSM2 90-650 (1363913)
- 1 Jaw fixed B-90, SCHUNK-ID: 0490730
- 2 Parallel jaw B-90, SCHUNK-ID: 0490753
- 3 Adjustable jaw B-90, SCHUNK-ID: 0490733
- Workpiece support H-11, SCHUNK-ID: 0490761

Get your starter kit now and safe money.



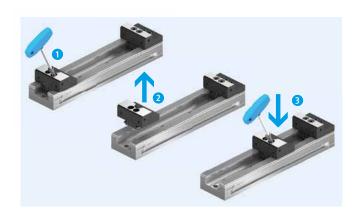
### Simple and quick Jaw Change in any Position.

The entire jaw range can be positioned on any gauge for bore holes in a grid of 2 mm, regardless of the width and version of the clamping rail. The workpieces can be clamped and the jaws changed with the same actuation key. The adjustable jaws can be lifted out of the rail and re-positioned quickly and simply in any position with the integrated quick-change system. A high-grip pull-down jaw, parallel jaw or high-grip pendulum jaw is optionally used. A clamping force of 30 kN is achieved with a tightening torque of 50 Nm.

#### Quick change of the support jaws

The multi clamping vises KSM2 are equipped with a jaw quick-change system by default. The support jaw can be loosened and removed or offset via two screws. The jaw is removed by lifting it upwards. Therefore, every single jaw can be removed without disturbing the other jaws. The jaw change is carried out in less than one minute.

- 1 Loosen the screws
- 2 Remove the jaw by lifting it upwards
- Insert the jaw from the top, position it as desired, and tighten the screws
- 4 Unclamped position
- 6 Clamped position





#### Quick change of chuck jaws

The support jaws of the multi clamping vise KSM2 are equipped with a jaw quick-change system by default. The jaw can be loosened and exchanged via a screw. The jaw change takes less than 30 seconds.

- 1 Pull-down jaw grip
- 2 Parallel jaw
- 3 Pendulum jaw grip with pull-down effect



## Positioning of the Clamping Rails.

The multi clamping vise KONTEC KSM2 is based on a 90 mm wide clamping rail with lengths of 260, 400, 500, 600 or 650 mm. The high-quality, hardened, ground fine serration is extremely wear resistant due to the deep hardening. The KONTEC KSM2 multi clamping vise can be clamped and aligned in three different ways.

#### 1. With VERO-S quick-change pallet system

The clamping rail is equipped with VERO-S interfaces which allow the clamping pins for VERO-S to be fastened (up to a base body length of 500 mm = 2 clamping pins or from 600 mm = 3 clamping pins).



#### 2. With grid holes

Positioning and mounting with two fitting screws with dia. 12 f7/M12 in both the first and last bore hole of the clamping rail. Additionally connected with M12 cylindrical screws through the remaining bore holes.



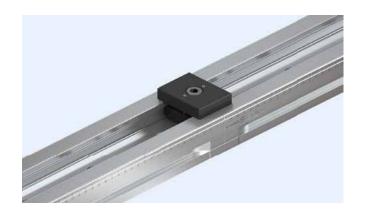
#### 3. With T-slots or screws

- Alignment in the T-slot (14, 16, 18 mm) with the suitable alignment set for T-slots. For a T-slot with a width of 12 mm, use simply two cylindrical pins (dia. 12).
- Clamping with screws through the clamping rail or with clamping claws at the side.



#### 4. Connection of the clamping rails

By using a connection element, two or more KSM2 clamping rails can be connected with each other or lengthened.



### Various Application Options. Customized Application.

#### KSM2 with APK VERO-S NSE plus 138-V1

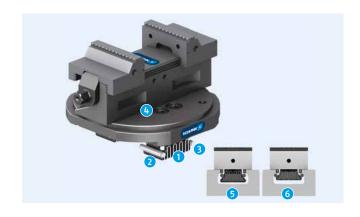
The combination of VERO-S NSE plus 138-V1 with the KSM2 allows flexible pitches among the quick-change pallet modules. The quick-change pallet modules can be positioned as desired on the serration (grid dimension 2 mm).



#### Adapter plates for KSM2 rails

Further clamping devices can be simple and fast exchanged on the KSM2 rails by using an adapter plate and due to the clever clamping mechanism.

- 1 Clamps
- 2 Locking roller for clamping the clamping devise on the KSM2 rail
- 3 Return spring for releasing of the clamping mechanism
- 4 Freely accessible clamping screws
- 5 Unclamped position
- 6 Clamped position



#### KSM2 with APK KONTEC KSC2

The combination of the KSM2 vise and the KSC2 centric-clamping vise enables small cubic workpieces to be clamped rapidly and flexibly. The KSM2 vise can be re-equipped in just a few steps, making it even more multi-functional.



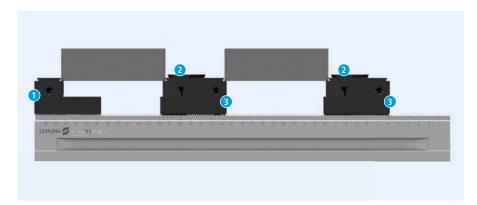
#### KSM2 with APK ROTA-S plus 2.0 160

The KSM2 vise can also be used as a clamping device carrier. In combination with the ROTA-S plus 2.0 manual chuck, the lathe chucks can be positioned quickly and easily on the KSM2 rail. Rotationally symmetric workpieces can also be clamped quickly and reliably by the 3-jaw chuck.



### **Clamping Principle with a Parallel Jaw 0P10**

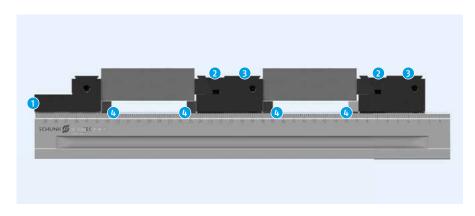
Fixed standard and adjustment jaws with grip step are prepared for OP 10. The parallel jaw grip – inserted in the adjustable jaw – is clamping the workpiece against the fixed jaw. The workpiece lies on the appropriate, prepared step. The fixed adjustable jaw is used then as a fixed jaw for the next workpiece.



- 1 Jaw fixed B-90 SCHUNK-ID: 0490730
- Parallel chuck jaw B-90 SCHUNK-ID: 0490753
- 3 Adjustable jaw B-90 SCHUNK-ID: 0490733

## Clamping Principle with a Parallel Jaw 0P 20

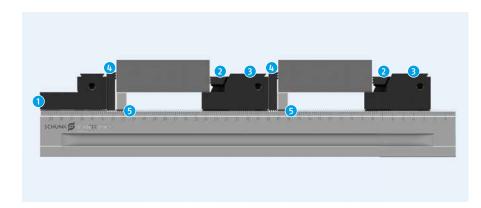
Fixed standard and adjustment jaws with smooth surface are prepared for OP 20. The parallel jaw smooth – inserted in the adjustable jaw – is clamping the workpiece against the fixed jaw. The workpiece lies on the appropriate workpiece support. The fixed adjustable jaw is used then as a fixed jaw for the next workpiece.



- 1 Jaw fixed B-90 SCHUNK-ID: 0490730
- 2 Parallel chuck jaw B-90 SCHUNK-ID: 0490753
- 3 Adjustable jaw B-90 SCHUNK-ID: 0490733
- Workpiece support H-11 SCHUNK-ID: 0490758 SCHUNK-ID: 0490761

## Clamping Principle with Pendulum Jaws and Pull-down

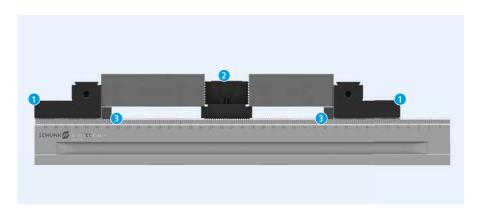
The fixed jaw is prepared with a top jaw grip. The pendulum jaw grip is inserted in the adjustable jaw, and the workpiece clamps against the fixed jaw. The pendulum mechanism compensates small irregularities of the workpiece. The workpiece lies on the appropriate workpiece support. The downward movement of the jaw generates an additional pull down effect.



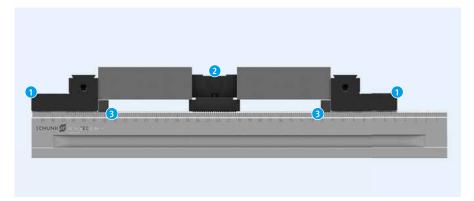
- 1 Jaw fixed B-90 SCHUNK-ID: 0490730
- Parallel jaw grip 90 SCHUNK-ID: 0490754
- 3 Adjustable jaw B-90 SCHUNK-ID: 0490733
- Top jaw grip B-90 SCHUNK-ID: 0490571
- 5 Workpiece support H-17 SCHUNK-ID: 0490762

#### **Clamping Principle of the Wedge Clamping Elements**

Usually it is a combination of wedge clamping elements and fixed standard jaws. An extension of the standard jaws is possible by using toop jaws. Both workpieces are simultaneously clamped via a wedge clamping element. The workpiece lies on the workpiece support and the wedge clamping element.



- 1 Jaw fixed B-90 SCHUNK-ID: 0490730
- Wedge clamping element KSE with grip clamping surface SCHUNK-ID: 0490736
- Workpiece support H-11 SCHUNK-ID: 1329412



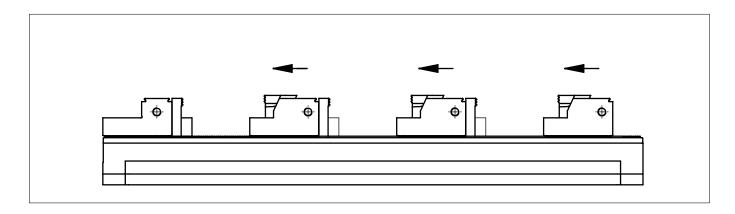
- 1 Jaw fixed B-90 SCHUNK-ID: 0490730
- Wedge clamping element KSE with smooth clamping surface SCHUNK-ID: 0490735
- Workpiece support H-11 SCHUNK-ID: 1329412

## **Clamping Capacity**

The clamping range shows the max. workpiece size depending on the number of clamping areas for the individual rail lengths.

#### Adjustable jaws with pull-down jaw grip 40 mm

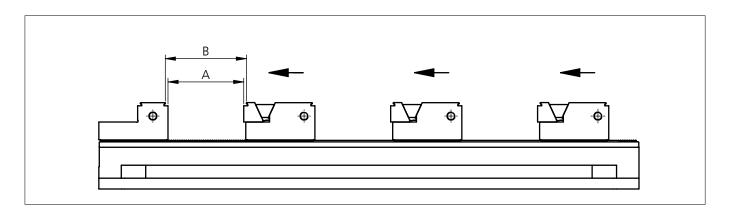
Туре	Number of	umber of workpieces							
	1	2	3	4	5	6	7		
KONTEC KSM2 260	134	36	-	-	-	-	-		
KONTEC KSM2 400	274	106	50	22	-	-	-		
KONTEC KSM2 500	374	156	82	45	24				
KONTEC KSM2 600	474	206	116	72	44	26	-		
KONTEC KSM2 650	524	230	135	84	54	34	20		



#### Adjustable jaws with parallel jaws (dimension A)

Туре	Number of workpie	umber of workpieces							
	1	2	3	4	5	6	7		
KONTEC KSM2 260	134	36	-	-	-	-	-		
KONTEC KSM2 400	274	106	50	22	-	-	-		
KONTEC KSM2 500	374	156	82	45	24				
KONTEC KSM2 600	474	206	116	72	44	26	-		
KONTEC KSM2 650	524	230	135	84	54	34	20		

Dimension B = A + 5 mm



#### Clamping forces of the adjustable jaws KSM2

Size	Max. tightening torque	Max. clamping force
	[Nm]	[kN]
Adjustable jaw 40	50	30
Adjustable jaw 65	50	30

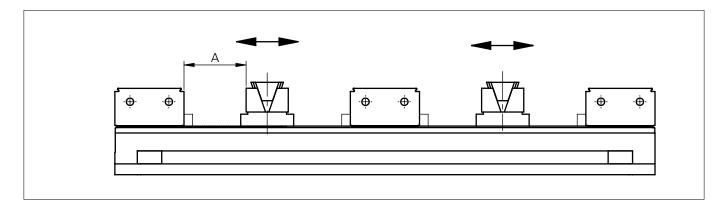
Size	Max. tightening torque	Max. clamping force
	[Nm]	[kN]
Adjustable jaw 90	50	30
Adjustable jaw 65, H = 165 mm	50	30

## **Clamping Capacity**

The clamping range shows the max. workpiece size depending on the number of clamping areas for the individual rail lengths.

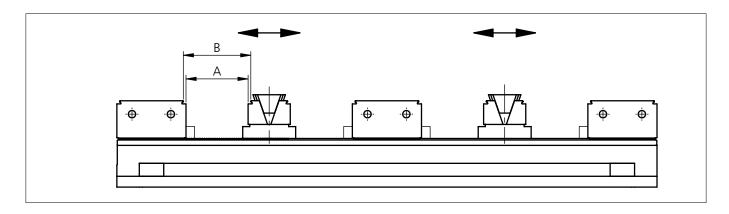
#### With wedge clamping jaws smooth

Туре	Number of workpieces	umber of workpieces							
	2	4	6	8					
	A	A	A	A					
KONTEC KSM2 260	45	-	-	-					
KONTEC KSM2 400	115	31	-	-					
KONTEC KSM2 500	165	56	19	-					
KONTEC KSM2 600	215	81	36	14					
KONTEC KSM2 650	240	93	44	20					



#### With wedge clamping jaw, grip

Туре	Number of workp	nber of workpieces							
	2	4		4 6		6			
	A	В	Α	В	A	В	A	В	
KONTEC KSM2 260	45	50	-	-	-	-	-	-	
KONTEC KSM2 400	115	120	31	36	-	-	-	-	
KONTEC KSM2 500	165	170	56	61	19	24	-	-	
KONTEC KSM2 600	215	220	81	86	36	41	14	19	
KONTEC KSM2 650	240	245	93	98	44	49	20	25	



#### Clamping forces of the wedge clamping jaws KSM2

Size	Max.	Max.
	tightening torque	clamping force
	[Nm]	[kN]
Wedge clamping jaw, smooth	50	30
Wedge clamping jaw 40, grip	50	30

Multi Clamping Vise

## **Clamping Rail**

Without system jaws

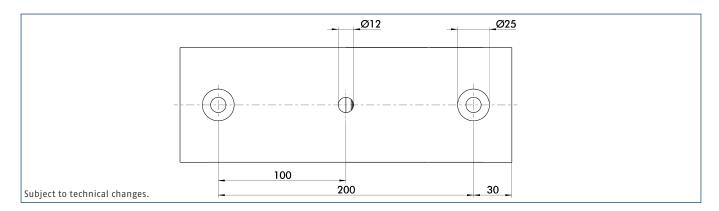
#### Scope of delivery

Clamping rail including operating manual



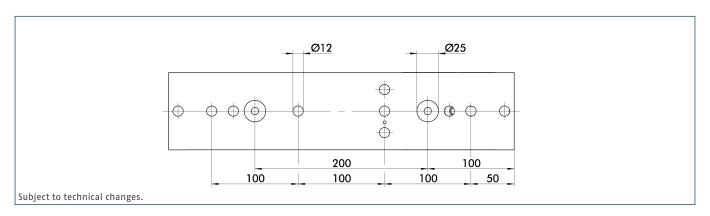
#### Clamping rail KONTEC KSM 2 90-260

Description	ID	Rail width	Rail height	Clamping force	Max. torque	Weight
		[mm]	[mm]	[kN]	[Nm]	[kg]
KSM2 90-260	0490723	90	45	30	50	5



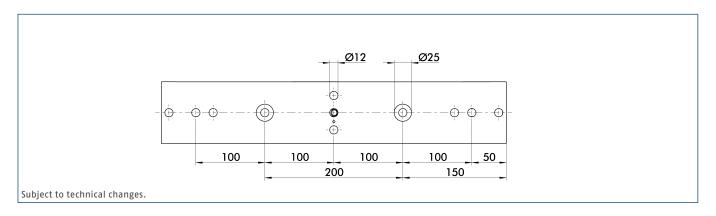
#### Clamping rail KONTEC KSM2 90-400

Description	ID	Rail width	Rail height	Clamping force	Max. torque	Weight
		[mm]	[mm]	[kN]	[Nm]	[kg]
KSM2 90-400	0490724	90	45	30	50	7.7



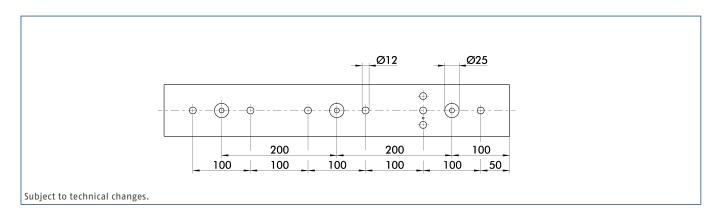
#### Clamping rail KONTEC KSM2 90-500

Description	ID	Rail width	Rail height	Clamping force	Max. torque	Weight
		[mm]	[mm]	[kN]	[Nm]	[kg]
KSM2 90-500	0490725	90	45	30	50	9.6



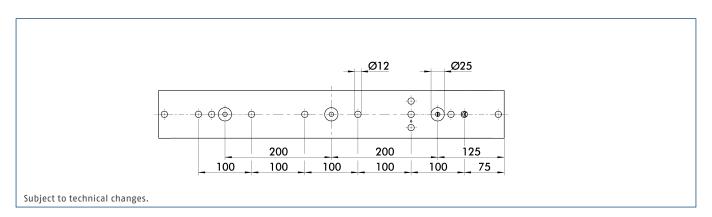
#### Clamping rail KONTEC KSM2 90-600

Description	ID	Rail width	Rail height	Clamping force	Max. torque	Weight
		[mm]	[mm]	[kN]	[Nm]	[kg]
KSM2 90-600	0490726	90	45	30	50	11.5



#### Clamping rail KONTEC KSM2 90-650

Description	ID	Rail width	Rail height	Clamping force	Max. torque	Weight
		[mm]	[mm]	[kN]	[Nm]	[kg]
KSM2 90-650	0490727	90	45	30	50	12.5



## **New Tombstones**

## Tombstone with KONTEC KSM2 First-class Equipment for your horizontal Machining Center

Horizontal machining centers are becoming ever more popular. Usually, all the machines are equipped with shuttle tables. Therefore set-up during process time is possible, but also linking with pallet storages is simple, and is already standard for many customers (e.g. FASTEMS). SCHUNK offers a multitude of matching tombstones in various versions, including all kinds of clamping technology components. Benefit from the endless combination possibilities for perfectly adapting the tombstones to machines and workpieces.

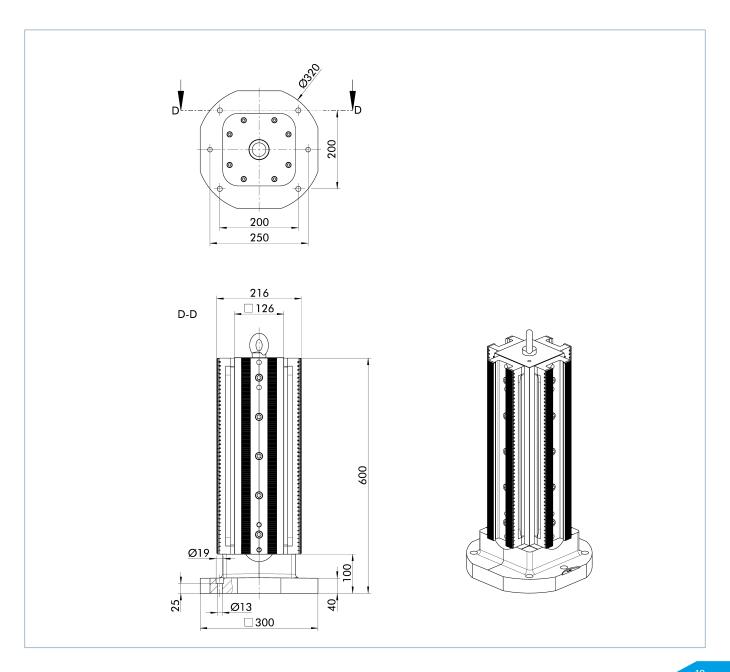


With multi clamping vise KSM2

#### Scope of delivery



Description	ID	Base plate	Tombstone height
		[mm]	[mm]
SAT-KSM2 90-500 4V Ø 320 blank	1346917	Rund Ø 320	600

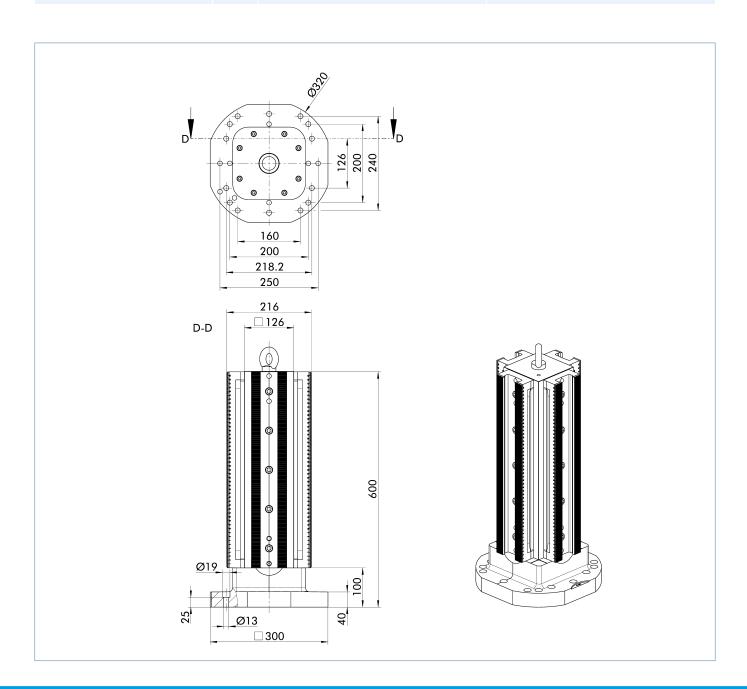


With multi clamping vise KSM2

#### Scope of delivery

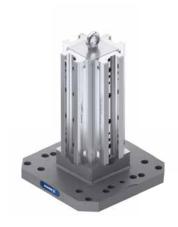


Description	ID	Base plate	Tombstone height
		[mm]	[mm]
SAT-KSM2 90-500 4V Ø 320	1346918	Rund Ø 320	600

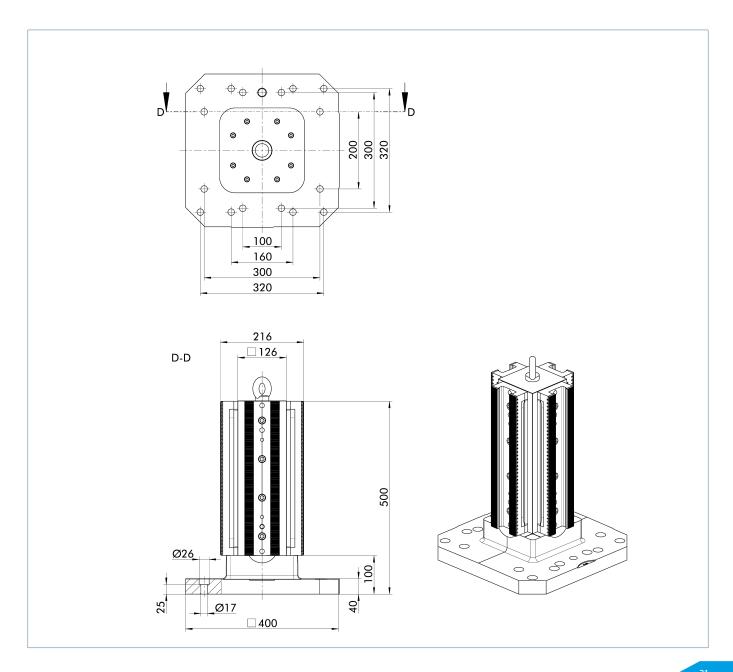


With multi clamping vise KSM2

#### Scope of delivery



Description	ID	Base plate	Tombstone height [mm]	
		[mm]	[mm]	
SAT-KSM2 90-400 4V 400 x 400	1346919	400 x 400	500	

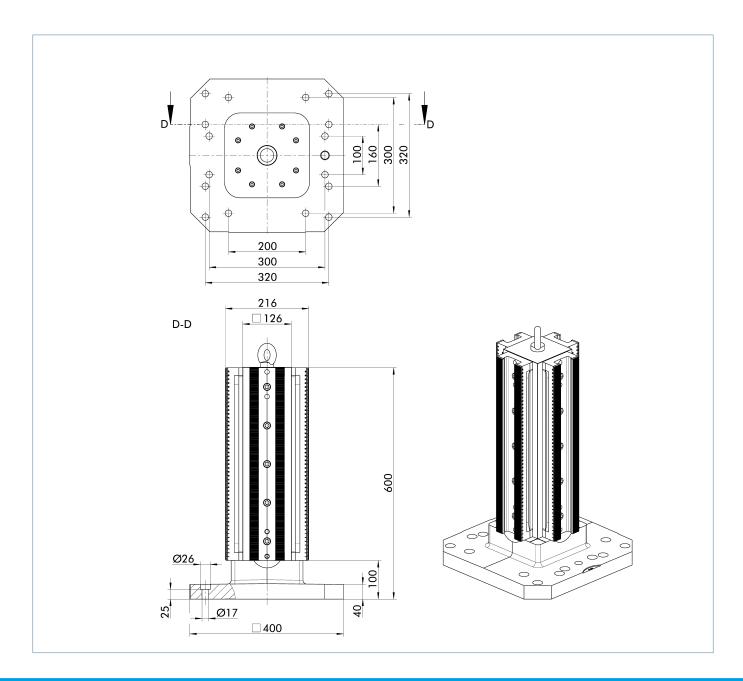


With multi clamping vise KSM2

#### Scope of delivery



Description	ID	Base plate	Tombstone height [mm]	
		[mm]	[mm]	
SAT-KSM2 90-500 4V 400 x 400	1346920	400 x 400	600	

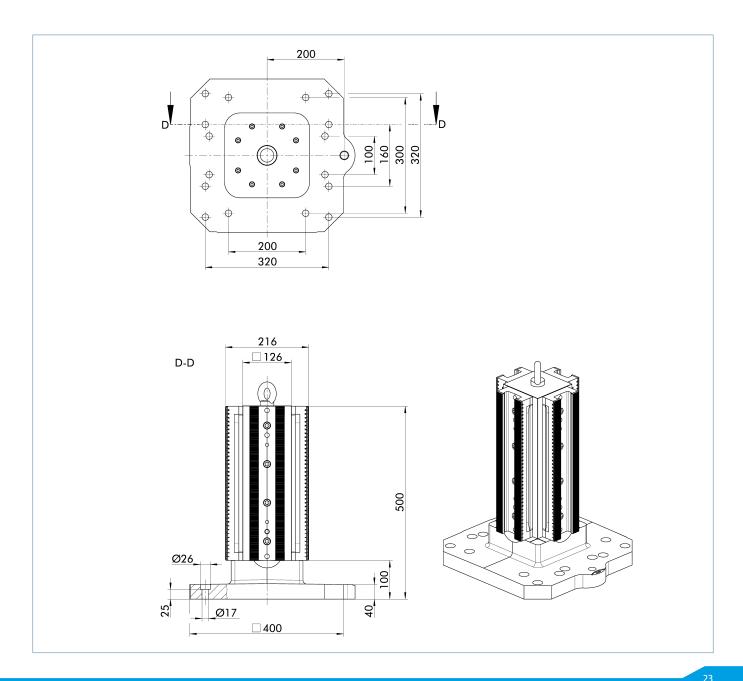


With multi clamping vise KSM2

#### Scope of delivery



Description	ID	Base plate	Tombstone height
SAT-KSM2 90-400 4V 500 x 500	1346921	500 x 500	500

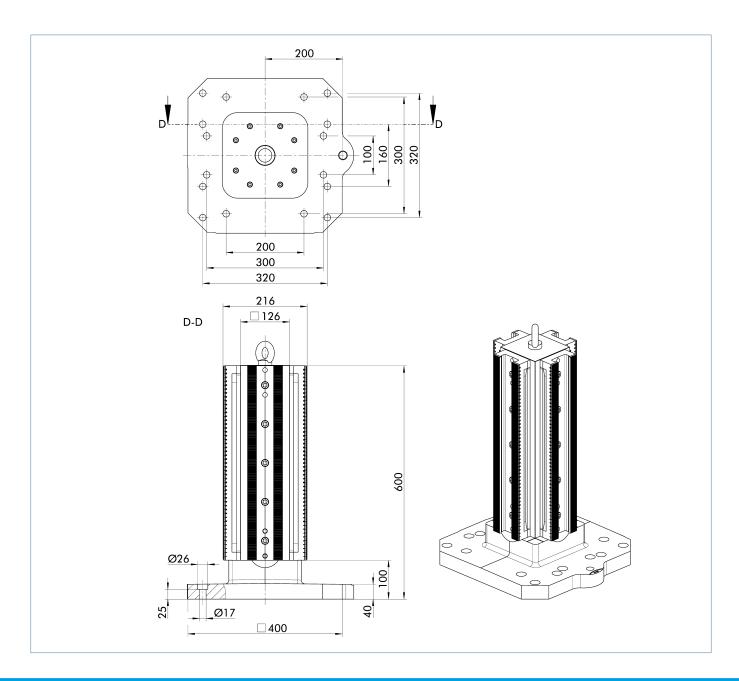


With multi clamping vise KSM2

#### Scope of delivery



Description	ID	Base plate	Tombstone height [mm]	
		[mm]	[mm]	
SAT-KSM2 90-500 4V 500 x 500	1346922	500 x 500	600	



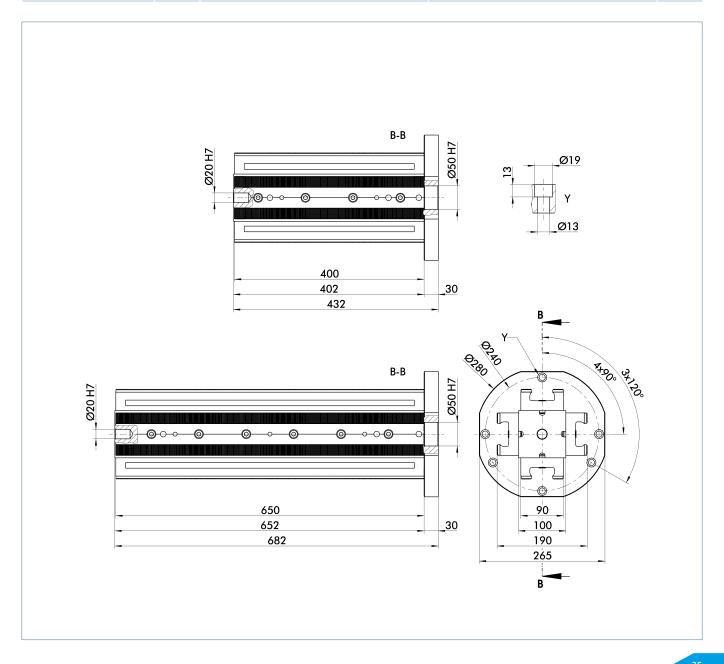
## **Clamping Pillar**

With clamping rails for dividing attachments

#### Scope of delivery



Description	ID	Rail width [mm]		Weight [kg]
SSK KSM2 90-400	0490743	90	400	73
SSK KSM2 90-650	0490744	90	650	110



#### System Jaws

	Description	Suitable for	Width [mm]	ID
	Standard jaw smooth, fixed (1 piece) Fixed stop for workpieces. With smooth clamping surface on both sides.	KSM2 90	90	1329339
	Standard jaw grip, fixed (1 piece)		40	0490728
	Fixed stop for workpieces. With grip step of 3 mm and smooth clamping surface on both sides.	KSM2 90	65	0490729
			90	0490730
Ting	<b>Adjustable jaw smooth</b> (1 piece) The first side is used for mounting the clamping inserts for clamping the workpieces. The second side has a smooth clamping surface.	KSM2 90	90	1329342
-	Adustable jaw grip (1 piece)		40	0490731
	The first side is used for mounting the clamping inserts for clamping the workpieces.  The second side has a grip step of 3 mm and a smooth clamping surface.	KSM2 90	65	0490732
alual)			90	0490733
	Adjustable jaw grip, height 165 mm (1 piece) Higher adjustable jaw for a better accessibility of the machine spindle. The first side is used for mounting the clamping inserts for clamping the workpieces. The second side is equipped with grip step of 3 mm and a smooth clamping surface.	KSM2 90	65	0490734
	Block jaw, fixed (1 piece) Central jaw for clamping two workpieces. Both sides have a grip step of 3 mm and a smooth clamping surface.	KSM2 90	90	1329340
	Prism jaw grip, fixed (1 piece) Central jaw from clamping of two bulky workpieces. Both sides have a prism-shaped grip step of 3 mm.	KSM2 90	90	1329341
	Adapter plate (1 piece) For clamping of bulky workpieces. (Clamping inserts are not included in the scope of delivery.)	KSM2 90	90	1329343
	Wedge clamping element, smooth (1 piece) Central jaw for clamping two workpieces. Both sides have a smooth clamping surface and a support height of 11 mm.	KSM2 90	90	1329345
	Wedge clamping element, grip 3 mm (1 piece) Central jaw for clamping two workpieces. Both sides have a grip step and a smooth clamping surface. Support height: 11 mm.	KSM2 90	90	1329347



#### System Jaws

Description	Suitable for	Width	ID
		[mm]	
Wedge clamping element, serrated (1 piece) Central jaw for clamping two workpieces. Both sides have a serrated clamping surface and a support height of 11 mm.	KSM2 90	90	1329346

#### **Clamping Inserts**

	Description	Suitable for	Width [mm]	ID
F	<b>Pull-down jaw, serrated</b> (1 piece) Clamping insert for adjustable jaws with serrated clamping surface and pull-down effect.	KSM2 90	40	0490750
7	<b>Pull-down jaw, serrated, round (</b> 1 piece) Clamping insert for adjustable jaws with round and serrated clamping surface and pull-down effect.	KSM2 90	90	1329348
	Parallel jaw, serrated, round (1 piece) Clamping insert for adjustable jaws with round and serrated clamping surface.	KSM2 90	90	1329349
1	Parallel jaw, smooth (1 piece)	KSM2 90	40	0490778
7.7	Clamping insert for adjustable jaws with smooth clamping surface.	KJN2 90	90	0490779 0490780
	Parallel jaw, grip (1 piece)		40	0490751
	Clamping insert for adjustable jaws with a grip step of 3 mm and smooth clamping surface.	KSM2 90	90	0490752 0490753
	Parallel jaw, serrated (1 piece) Clamping insert for adjustable jaws with serrated clamping surface.	KSM2 90	90	0490786
F	Pendulum jaw, serrated (1 piece) Clamping insert for adjustable jaws with serrated clamping surfaces, and pendulum mechanism for compensating small workpiece unevennesses.	KSM2 90	90	0490754
The second second	Clamping wedge (1 piece) Clamping insert for adjustable jaws for mounting soft jaws.	KSM2 90	90	0490721

#### **Clamping Inserts**

	Description		Width	ID
	Soft jaw, aluminum (1 piece) suitable for clamping wedge ID 0490721		[mm] 90	0490722
	Soft jaw, steel (1 piece) suitable for clamping wedge ID 0490721	KSM2 90	90	0490777
9	Clamping inserts for adapter plate			0403803

#### **Jaw Product Range Top Jaws**

	Description		Suitable for [mm]	Width [mm]	_	Depth [mm]	ID
	GBC 40-35-11	Hewn jaw (1 piece)	<b>.</b>	40		11	0490555
3	GBC 65-35-11		KSM2 90	65	35	11	0490562
	GBC 90-35-11			90	35	11	0490569
	GBP 40-35-10			40	35	10	0490578
•	GBP 65-35-10	Ground jaw (1 piece)	KSM2 90	65	35	10	0490579
•1	GBP 90-35-10			90	35	10	0490580
	GBW 40-35-16	Soft jaw (1 piece)		40	35	16	0490556
6	GBW 65-35-16		KSM2 90	65	35	16	0490589
	GBW 90-35-16			90	35	16	0490570
The same of the sa	GBG 40-35-10			40	35	10	0430183
3 3	GBG 65-35-10	Jaw, grip (1 piece)	KSM2 90	65	35	10	0490564
	GBG 90-35-10			90	35	10	0490571
0	GBG-W 35-35-10.5	Jaw with reversable grip (1 piece)	KSM2 90	35	35	10.5	0430718



#### **Adapter Plates**

Beschreibung	Suitable for	Width	ID
		[mm]	
Adapter plate with quick-change pallet system VERO-S NSE plus 138-V1 APK VERO-S NSE plus 138-V1 (1 piece)	KSM2 90	90	0471590
Adpater plate with manual chuck ROTA-S plus 2.0 APK ROTA-S plus 2.0 160-42 (1 piece)	KSM2 90	90	0471591
Adpater plate with centric clamping vise KSC2 APK KSC2 (1 piece	KSM2 90	90	0471592

#### Accessories

	Description	Suitable for	Height	ID
			[mm]	
	Torque wrench 5 - 50 Nm with square-drive 3/8", without hexagonal insert	KSM2 90		0432355
	Hexagonal pin insert SW 8 for torque wrench with 3/8"	KSM2 90		0490764
	Connectin element for connecting two clamping rails	KSM2 90		0490765
	Workpiece stop, medium	KSM2 90		0430710
	Workpiece support for KSM2 jaw width 40 mm Hardened and ground	KSM2 90	25	0490757
			30	0490787
	Workpiece support for KSM2 jaw width 65 mm Hardened and ground	KSM2 90	11	0490758
			17	0490759
			25	0490760
			30	0490788

#### Accessories

	Description	Suitable for	Height	ID
			[mm]	
	Workpiece support for KSM2 jaw width 90 mm Hardened and ground		11 17	0490761 0490762
		KSM2 90	25	0490763
			30	0490789
	Underlay, screwable, height 11 mm (1 piece)	KSM2 90	11	1329412
0 _		T-Nut 12 mm/M10		0432043
91	Classica account for description description	T-Nut 14 mm/M12		0432044
\$ 7	Clamping screws for clamping claws	T-Nut 16 mm/M14		0432045
		T-Nut 18 mm/M16		0432046
and the second		T-Nut 12 mm		0490756
T O		T-Nut 14 mm		0490549
	Clamping screws for multi clamping vises	T-Nut 16 mm		0490550
		T-Nut 18 mm		0490588
•	Clamping screws	20/M12 für T-Nut 20		1329403
		22/M12 für T-Nut 22		1329404
		24/M12 für T-Nut 24		1329405
	Clamping claws	KSM2 90		0490604
J	Fitting screw Ø 12f7/M12	KSM2 90		0432047
G.		T-Nut 14 mm		0432209
3	Alignment and centering set	T-Nut 16 mm		0432210
		T-Nut 18 mm		0432211
1	Orientation pins	D = 14h6 für T-Nut 14		1329406
		D = 14h6 für T-Nut 16		1329407
		D = 14h6 für T-Nut 18		1329408
	Adjustable support (1 piece) for vibration damping  KSM2 90			1329385

#### Accessories

	Description		Height [mm]	ID
	Support, height 8 mm (1 piece) for vibration damping			1329386
	Support, height 13 mm (1 piece) for vibration damping  Cover plate 84 x 50 mm		13	1329387
				1334879
	Cover plate 86 x 50 mm			1334878
	Cover plate 86 x 200 mm	KSM2 90		1334880







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