

bilz

3D Synchro 同步絲攻夾頭

M0.5 to M42



再生能源



機械加工



汽車



電子零件



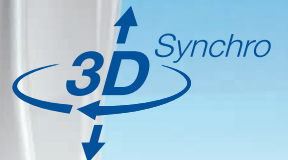
光學產品



精密機械



刀具製造



特點

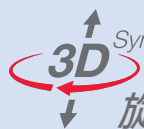
- 拉伸和壓縮方向的最小長度補償
- 滾珠軸承（即扭力無關型）懸吊
- 適用於高達 80 bar 的内部冷卻液供應
- 適用於絲攻和螺紋成型刀
- 適用於右旋和左旋螺紋
- 優化的彈簧/阻尼技術 ($\pm 0.5\text{mm}$) 3D 同步
- 完全密封的功能空間（可在高達 80°C 的溫度下清洗）
- 優化的密封（相當於 IP68）
- 100% 相容 SCK

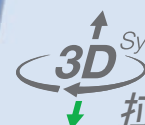
可透過軸向調整螺絲從兩側預調刀具
(螺絲不包含在供貨範圍內)

優勢

- 大幅降低螺紋加工側向壓力
- 補償同步誤差
- 提高製程穩定性
- 延長絲攻或成型刀的使用壽命
- 提高螺紋質量

我們的彈簧減震技術
可減少攻牙和螺紋成型的負荷

 **3D Synchro**
旋轉方向
斷屑過程中的減震

 **3D Synchro**
拉動方向
補償同步誤差（退刀）

 **3D Synchro**
壓縮阻尼
補償同步誤差（進刀）

最佳應用

您可以將我們的 3D 同步絲攻夾頭用作驅動刀柄的夾頭，也可以將其直接夾緊在機器主軸中。

bilz

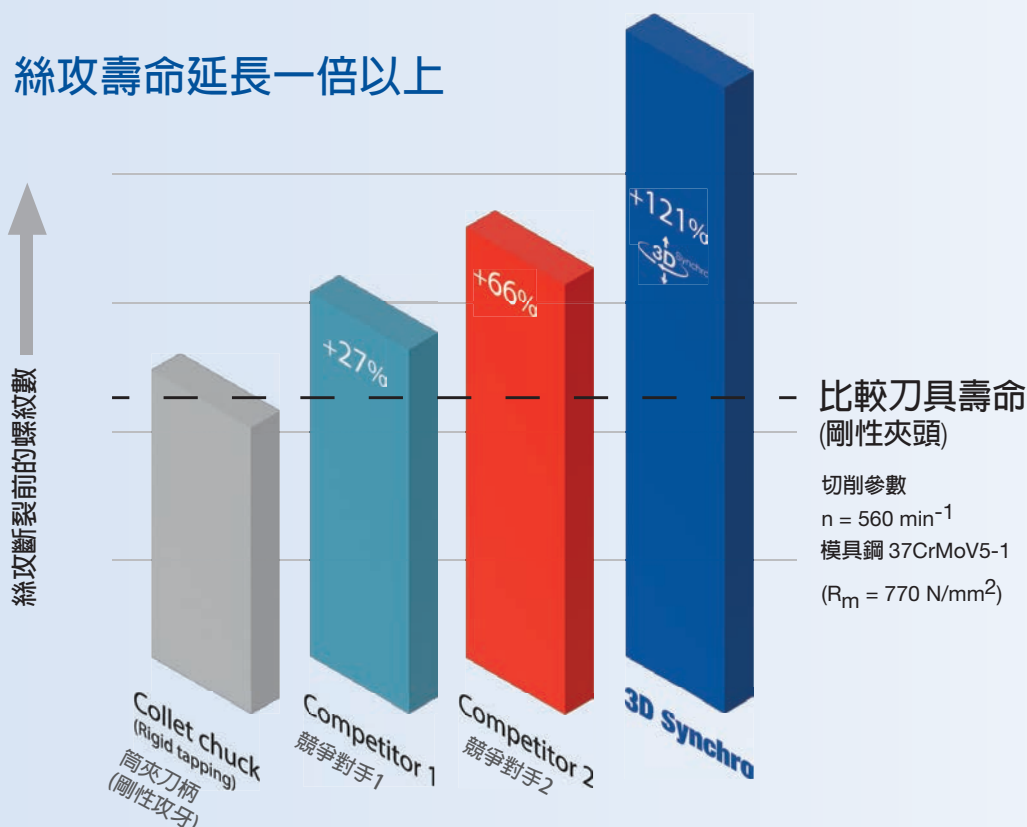


更高的製程穩定性 更好的螺紋品質 更長的使用壽命

最新一代 S3D 同步絲攻刀柄已根據當前市場需求進行了調整。刀具預調可從工具機側和刀具側進行，冷卻液的導入也已優化，確保冷卻液無洩漏地輸送至絲攻。

拉伸和壓縮的長度補償（例如 $\pm 0.5 \text{ mm}$ ）以及旋轉方向的阻尼可補償最小的同步誤差和位置偏差。這降低了刀具螺紋側面的壓力，並最大限度地減少了所需的切削力。

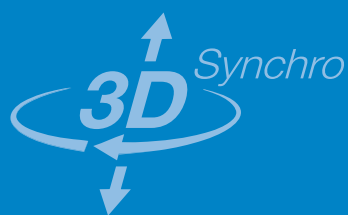
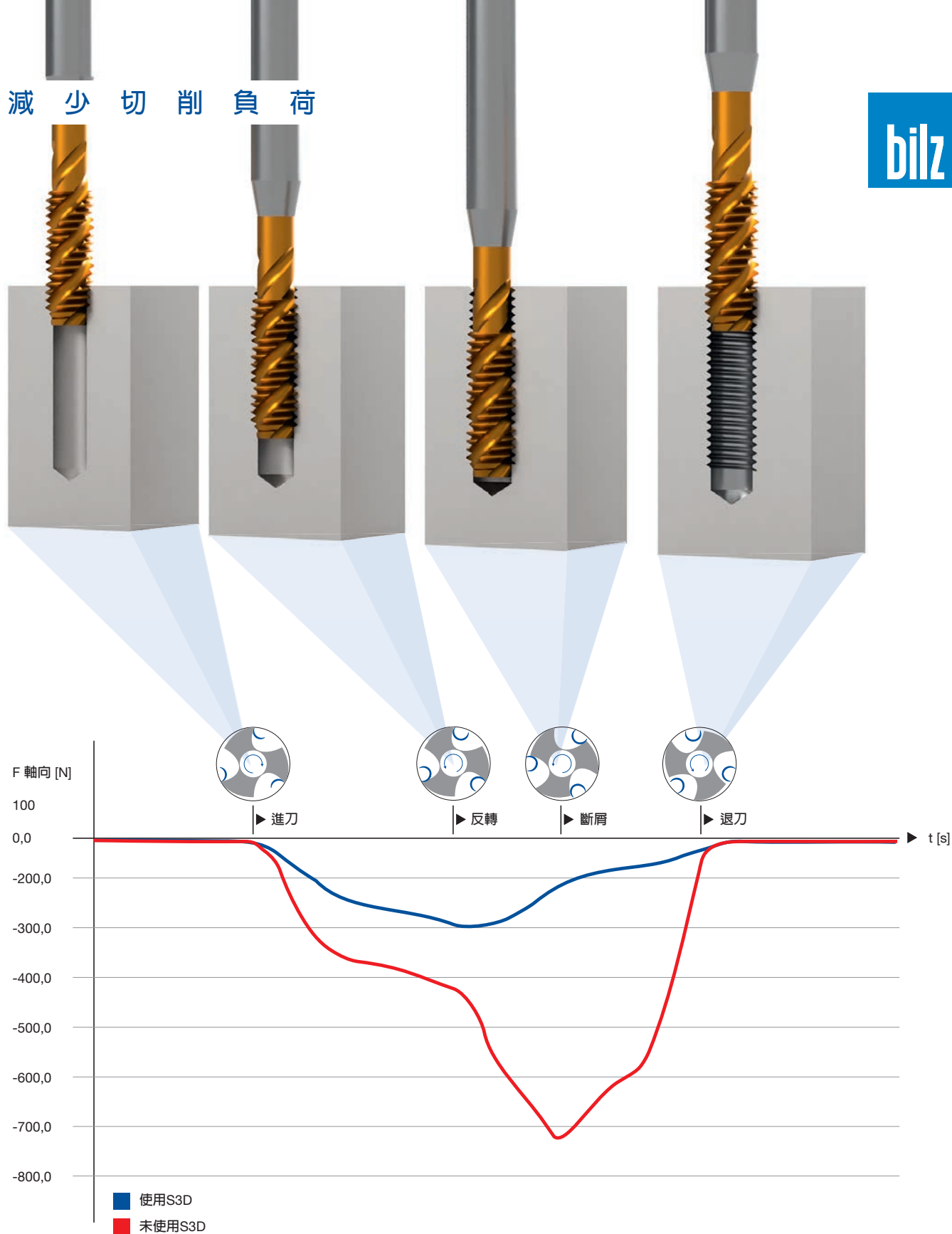
絲攻壽命延長一倍以上



*1 在工具鋼 X37CrMoV5-1 ($R_m = 770 \text{ N/mm}^2$) 中，使用 S3D 同步絲攻夾頭進行 $n = 560 \text{ min}^{-1}$ 的耐久性測試時，M8 絲攻的刀具壽命為 220%，而使用標準剛性夾頭時，刀具壽命為 100%。

*2 使用 S3D 同步絲攻夾頭，在灰鑄鐵 GG20 ($R_m > 200 \text{ N/mm}^2$) 上使用 M10 絲攻時，200% 切削速度 = 25 m/min；而使用標準剛性夾頭時，100% 切削速度 = 12.5 m/min，在保證螺紋質量和公差的前提下。使用標準剛性夾頭時，由於螺紋形狀不再符合公差要求，因此無法提高切削速度。

減少切削負荷



所採用的彈性體設計穩定，耐所有冷卻液/潤滑劑。由於定義了長度補償，阻尼元件的塑性變形被排除。

這使得刀具在整個使用壽命期間都能保持一致的切削性能。

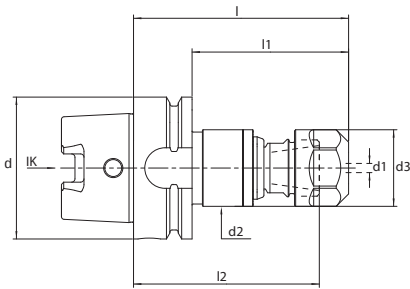
Synchro Chuck	Ideal Thread range	Machine interface	Cooling	Features	Page
S3D	M4-M12	HSK-A	IC		6
S3D	M8-M20	HSK-A	IC		7
S3D	M4-M12	Weldon	IC	DIN1835B+E	9
S3D	M8-M20	Weldon	IC	DIN1835B+E	10
S3D	M4-M12	HSK-A	MQL	1-Channel	11
S3D	M8-M20	HSK-A	MQL	1-Channel	12
S3D	M4-M12	HSK-A	MQL	2-Channel	13
S3D	M8-M20	HSK-A	MQL	2-Channel	14
SCK	M14-M30	HSK-A	IC		15
SCK	M30-M42	HSK-A	IC		16
SCK	M14-M30	Weldon	IC	DIN1835B+E	17
SCK	M30-M42	Weldon	IC	DIN1835B+E	18
S3D	M4-M10	HSK-A	IC	Slim design	20
nano	M0,5-M4,0	Weldon	IC	DIN1835B+E	22
Accessories					21

螺紋範圍和夾頭尺寸

我們可以涵蓋哪些範圍？

Synchro Chuck	最佳螺紋範圍	夾持 Ø	允許螺紋範圍
S3D0...ER11	M0.5 - M4	Ø 1 - 5	M0.5 - M4
S3D1...ER20	M4 - M12	Ø 4.5 - 12	M4-M12
S3D2...ER32	M8 - M20	Ø 4.5 - 18	M4-M20
SCK3...ER40	M14 - M30	Ø 10 - 22	M4-M30
SCK4...ER50	M30 - M42	Ø 22 - 32	M4-M42

S3D – Synchro Chuck for M4-M12

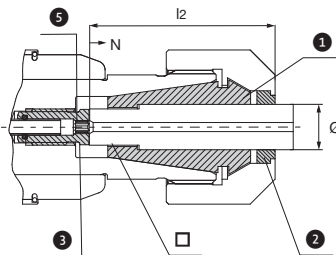


S3D1-ER20-K1-HSKA

d1	Designation/Id. Nr.		d	d2	d3	l	l1	l2
M4-M12	S3D1-ER20-95,5-K1-HSKA63 5181691	+/-0,5	63	34	34	95,5	69,5	82,5
M4-M12	S3D1-ER20-160-K1-HSKA63 5185749	+/-0,5	63	34	34	160	134	147
M4-M12	S3D1-ER20-102-K1-HSKA100 5185751	+/-0,5	100	34	34	102	73	89

Coolant tube, transfer unit and key are not included in the scope of delivery

ER/ESX20 – Clamping units



Collet

Sealing disc

Screw

N = Adjustment

l2 = Insert depth

Ø = Shaft diameter

□ = Drive square

Accessories:

Allen key / length adjustment



Designation	Id. Nr.
SCK-2,5-90, (l < 104mm)	5012199
SCK-2,5-180, (l > 104mm)	9172118

Coolant pipe / transfer unit



Designation	Id. Nr.
UE4/HSK63	5025376
UE4/HSK100	5028428

Mounting key



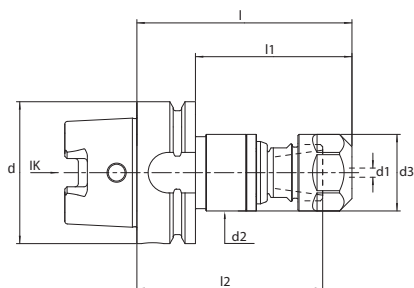
Designation	Id. Nr.
HSK63	6738421
HSK100	6738303

ER/ESX..GB auf DIN6499B / ISO15488B / 428E

Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)

 Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
4,5 x 3,4	SPE4,5x3,4C-ESX20 5013770	ER20/ ESX20	M4	M6		29	3	2,5
5,0 x 4,0	SPE5x4C-ESX20 5013774				M5	30		
6,0 x 4,9	SPE6x4,9C-ESX20 5012479		M5, M6	M8		31		
6,3 x 5,0	SPE6,3x5C-ESX20 5073202				M6 M8			
7,0 x 5,5	SPE7x5,5C-ESX20 5208940		M7	M9, M10				
7,1 x 5,6	SPE7,1x5,6C-ESX20 5073203				M9			
8,0 x 6,2/6,3	SPE8x6,2/6,3C-ESX20 5012481		M8	M11	M8 M10	36		
9,0 x 7,0/7,1	SPE9x7/7,1C-ESX20 5012482		M9	M12	M12	37		
10,0 x 8,0	SPE10x8C-ESX20 5012483		M10		M10	41		
11,0 x 9,0	SPE11x9C-ESX20 5013775			M14		42		
11,2 x 9,0	SPE11,2x9C-ESX20 5035343				M14			
12 x 9,0	SPE12X9C-ESX20 5198365		M12					

S3D – Synchro Chuck for M8-M20



Accessories:

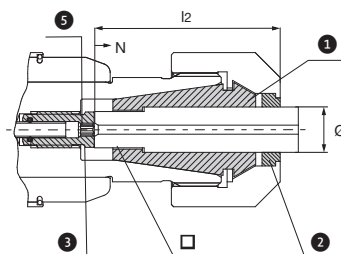
Allen key / length adjustment	
Designation	Id. Nr.
SCK-3-90, (l < 104mm)	5012201
SCK-3-180, (l > 104mm)	9172126

Coolant pipe / transfer unit	
Designation	Id. Nr.
UE4/HSK63	5025376
UE4/HSK100	5028428

S3D2-ER32-K1-HSKA								
	Designation/Id. Nr.		d	d2	d3	l	l1	l2
M8-M20	S3D2-ER32-109-K1-HSKA63 5190093	+/-0,5	63	50	50	109	83	94,5
M8-M20	S3D2-ER32-115,5-K1-HSKA100 5190624	+/-0,5	100	50	50	115,5	86,5	101

Coolant tube, transfer unit and key are not included in the scope of delivery

ER/ESX20 – Clamping units



- Collet
 - Sealing disc
 - Screw
- N = Adjustment
l2 = Insert depth
Ø = Shaft diameter
□ = Drive square

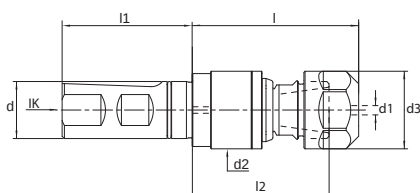
Mounting key	
Designation	Id. Nr.
HSK63	6738421
HSK100	6738303

ER/ESX..GB auf DIN6499B / ISO15488B / 470E

Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)

 Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
6,0 x 4,9	SPE6x4,9C-ESX32 5013821	ER32/ ESX32	M5, M6	M8		31	3	3
6,3 x 5,0	SPE6,3x5C-ESX32 5073204							
7,0 x 5,5	SPE7x5,5C-ESX32 5013822		M7	M9, M10				
7,1 x 5,6	SPE7,1x5,6C-ESX32 5073205							
8,0 x 6,2/6,3	SPE8x6,2/6,3C-ESX32 5013823		M8	M11	M8 M10	36		
9,0 x 7,0/7,1	SPE9x7/7,1C-ESX32 5012485		M9	M12	M12	37		
10,0 x 8,0	SPE10x8C-ESX32 5012486		M10		M10	41		
11,0 x 9,0	SPE11x9C-ESX32 5012487			M14		42		
11,2 x 9,0	SPE11,2x9C-ESX32 5073206				M14			
12,0 x 9,0	SPE12x9C-ESX32 5012488		M12	M16				
12,5x10	SPE12,5x10C-ESX32 5035344				M16			
14,0 x 11,0/11,2	SPE14x11/11,2C-ESX32 5012489			M18	M18	44		
16,0 x 12,0/12,5	SPE16x12/12,5C-ESX32 5012490			M20	M22	45		
18,0 x 14,5	SPE18x14,5C-ESX32 5013787				M22, M24			

S3D – Synchro Chuck for M4-M12



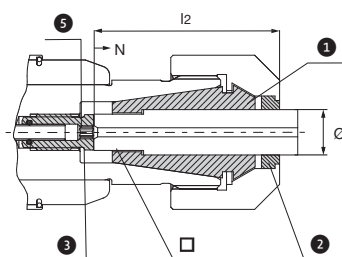
S3D1-ER20-K1-W DIN1835B+E									
	Designation/Id. Nr.		d	d2	d3	l	l1	l2	
d1									
M4-M12	S3D1-ER20-73-K1-W20 5185755	+/-0,5	20	34	34	73		60	
M4-M12	S3D1-ER20-73-K1-W25 5181694	+/-0,5	25	34	34	73		60	

Allen key is not included in delivery

Accessories:

Allen key / length adjustment	
	
Designation	Id. Nr.
SCK-2,5-90, (l < 104mm)	5012199
SCK-2,5-180, (l > 104mm)	9172118

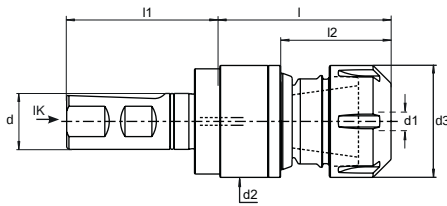
ER/ESX20 – Clamping units



-  Collet
 -  Sealing disc
 -  Screw
- N = Adjustment
l2 = Insert depth
Ø = Shaft diameter
□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 428E								
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)								
 Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
4,5 x 3,4	SPE4,5x3,4C-ESX20 5013770	ER20/ ESX20	M4	M6		29		2,5
5,0 x 4,0	SPE5x4C-ESX20 5013774				M5	30		
6,0 x 4,9	SPE6x4,9C-ESX20 5012479		M5, M6	M8		31		
6,3 x 5,0	SPE6,3x5C-ESX20 5073202				M6 M8			
7,0 x 5,5	SPE7x5,5C-ESX20 5208940		M7	M9, M10				
7,1 x 5,6	SPE7,1x5,6C-ESX20 5073203				M9			
8,0 x 6,2/6,3	SPE8x6,2/6,3C-ESX20 5012481		M8	M11	M8 M10	36	3	
9,0 x 7,0/7,1	SPE9x7/7,1C-ESX20 5012482		M9	M12	M12	37		
10,0 x 8,0	SPE10x8C-ESX20 5012483		M10		M10	41		
11,0 x 9,0	SPE11x9C-ESX20 5013775			M14		42		
11,2 x 9,0	SPE11,2x9C-ESX20 5035343				M14			
12,0 x 9,0	SPE12x9C-ESX20 5198365		M12					

S3D – Synchro Chuck for M8-M20



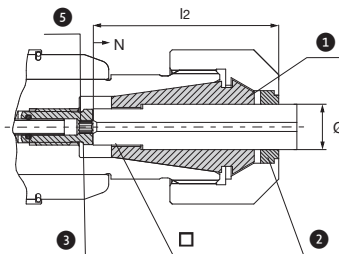
S3D2-ER32-K1-W DIN1835B+E									
	Designation/Id. Nr.		d	d2	d3	l	l1	l2	
d1									
M8-M20	S3D2-ER32-87,5-K1-W25 5190629	+/-0,5	25	50	50	87,5		73	

Allen key is not included in delivery

Accessories:

Allen key / length adjustment	
	
Designation	Id. Nr.
SCK-3-90, (l < 104mm)	5012201
SCK-3-180, (l > 104mm)	9172126

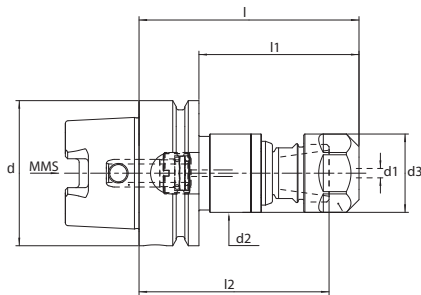
ER/ESX32 – Clamping units



-  Collet
 -  Sealing disc
 -  Screw
- N = Adjustment
l2 = Insert depth
Ø = Shaft diameter
□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 428E									
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)									
 Ø x □	Designation/Id. Nr. Designation/Id. No.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5	
6,0 x 4,9	SPE6x4,9C-ESX32 5013821	ER32/ ESX32	M5, M6	M8		31	3	3	
6,3 x 5,0	SPE6,3x5C-ESX32 5073204								
7,0 x 5,5	SPE7x5,5C-ESX32 5013822		M7	M9, M10					
7,1 x 5,6	SPE7,1x5,6C-ESX32 5073205								
8,0 x 6,2/6,3	SPE8x6,2/6,3C-ESX32 5013823		M8	M11	M8 M10	36			
9,0 x 7,0/7,1	SPE9x7/7,1C-ESX32 5012485		M9	M12	M12	37			
10,0 x 8,0	SPE10x8C-ESX32 5012486		M10		M10	41			
11,0 x 9,0	SPE11x9C-ESX32 5012487			M14		42			
11,2 x 9,0	SPE11,2x9C-ESX32 5073206				M14				
12,0 x 9,0	SPE12x9C-ESX32 5012488		M12	M16					
12,5x10	SPE12,5x10C-ESX32 5035344				M16				
14,0 x 11,0/11,2	SPE14x11/11,2C-ESX32 5012489				M18	M18			44
16,0 x 12,0/12,5	SPE16x12/12,5C-ESX32 5012490				M20	M22			45
18,0 x 14,5	SPE18x14,5C-ESX32 5013787				M22, M24				47

S3D – Synchro Chuck for M4-M12 MQL-1 Channel Version



S3D1-ER20-M1-HSKA									
	Designation/Id. Nr.		d	d2	d3	l	l1	l2	
M4-M12	S3D1-ER20-95,5-M1-HSKA63 5181692	+/-0,5	63	34	34	95,5	69,5	82,5	
M4-M12	S3D1-ER20-160-M1-HSKA63 5185771	+/-0,5	63	34	34	160	134	147	
M4-M12	S3D1-ER20-102-M1-HSKA100 5194488	+/-0,5	100	34	34	102	73	89	

MQL transfer unit included
Allen key is not included in delivery

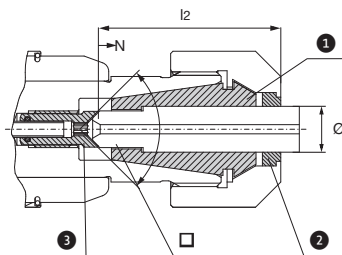
Accessories:

Allen key / length adjustment



Designation	Id. Nr.
SCK-2,5-90, (l < 104mm)	5012199
SCK-2,5-180, (l > 104mm)	9172118

ER/ESX20 – Clamping units MQL Ausführung



Collet

Sealing disc

Screw

N = Adjustment

l2 = Insert depth

Ø = Shaft diameter

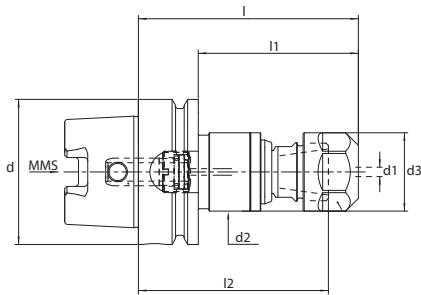
□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 428E

Clamping unit– ER Version B (consisting of collet, sealing disc, adjusting screw)

 Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
4,5 x 3,4	SPE4,5x3,4B-ESX20 5047586	ER20/ ESX20	M4	M6		29	2	2,5
5,0 x 4,0	SPE5x4B-ESX20 5047587				M5	30		
6,0 x 4,9	SPE6x4,9B-ESX20 5011485		M5, M6	M8		31	3	
7,0 x 5,5	SPE7x5,5B-ESX20 5011486		M7	M9, M10		31		
8,0 x 6,2/6,3	SPE8x6,2/6,3B-ESX20 5011487		M8	M11	M8, M10	36	3	
9,0 x 7,0/7,1	SPE9x7/7,1B-ESX20 5011488		M9	M12	M12	37		
10,0 x 8,0	SPE10x8B-ESX20 5011489		M10		M10	41		
11,0 x 9,0	SPE11x9B-ESX20 5045461			M14		42		
12,0 x 9,0	SPE12x9B-ESX20 517747		M12					

S3D – Synchro Chuck for M8-M20 MQL-1 Channel Version



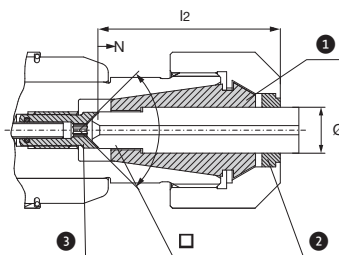
S3D2-ER32-M1-HSKA									
	Designation/Id. Nr.			d	d2	d3	l	l1	l2
d1									
M8-M20	S3D2-ER32-109-M1-HSKA63 5189297	+/-0,5		63	50	50	109	83	94,5
M8-M20	S3D2-ER32-115,5-M1-HSKA100 5190128	+/-0,5		100	50	50	115,5	86,5	101

MQL transfer unit included
Allen key is not included in delivery

Accessories:

Allen key / length adjustment	
	
Designation	Id. Nr.
SCK-3-90, (l < 104mm)	5012201
SCK-3-180, (l > 104mm)	9172126

ER/ESX32 – Clamping units MQL Ausführung



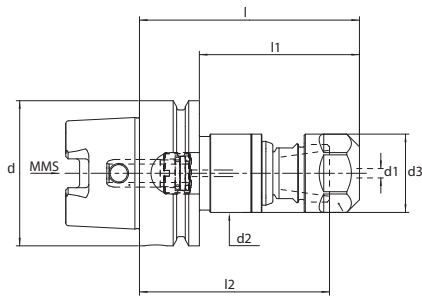
-  Collet
 -  Sealing disc
 -  Screw
- N = Adjustment
l2 = Insert depth
Ø = Shaft diameter
□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 470E

Clamping unit– ER Version B (consisting of collet, sealing disc, adjusting screw)

	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	
Ø x □								5
9,0 x 7,0/7,1	SPE9x7/7,1B-ESX32 5012108	ER32/ ESX32	M9	M12	M12	37	3	3
10,0 x 8,0	SPE10x8B-ESX32 5012109		M10		M10	41		
11,0 x 9,0	SPE11x9B-ESX32 5012110			M14		42		
12,0 x 9,0	SPE12x9B-ESX32 5012111		M12	M16		44		
14,0 x 11,0	SPE14x11B-ESX32 5012112			M18	M18	45		
16,0 x 12,0/12,5	SPE16x12,5B-ESX32 5012113			M20	M22			

S3D – Synchro Chuck for M4-M12 MQL-2 Channel Version

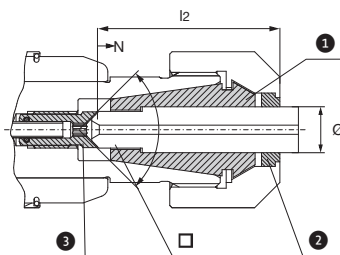


S3D1-ER20-M2-HSKA									
	Designation/Id. Nr.		d	d2	d3	l	l1	l2	
M4-M12	S3D1-ER20-95,5-M2-HSKA63 5181693	+/-0,5	63	34	34	95,5	69,5	82,5	
M4-M12	S3D1-ER20-160-M2-HSKA63 5185773	+/-0,5	63	34	34	160	134	147	
M4-M12	S3D1-ER20-102-M2-HSKA100 5185772	+/-0,5	100	34	34	102	73	89	

MQL transfer unit included

Allen key is not included in delivery

ER/ESX20 – Clamping units MQL Ausführung



Collet

Sealing disc

Screw

N = Adjustment

l2 = Insert depth

Ø = Shaft diameter

□ = Drive square

Accessories:

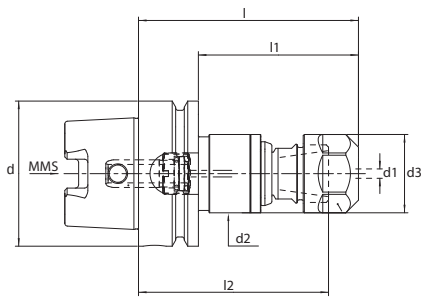
Allen key / length adjustment	
	
Designation	Id. Nr.
SCK-2,5-90, (l < 104mm)	5012199
SCK-2,5-180, (l > 104mm)	9172118

ER/ESX..GB auf DIN6499B / ISO15488B / 428E

Spanneinheit – ER Ausführung B (bestehend aus Collet chuck, Sealing disc, Screw)

 Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
4,5 x 3,4	SPE4,5x3,4B-ESX20 5047586	ER20/ ESX20	M4	M6,		29	2	2,5
5,0 x 4,0	SPE5x4B-ESX20 5047587				M5	30		
6,0 x 4,9	SPE6x4,9B-ESX20 5011485		M5, M6	M8		31	3	
7,0 x 5,5	SPE7x5,5B-ESX20 5011486		M7	M9, M10		31		
8,0 x 6,2/6,3	SPE8x6,2/6,3B-ESX20 5011487		M8	M11	M8, M10	36	3	
9,0 x 7,0/7,1	SPE9x7/7,1B-ESX20 5011488		M9	M12	M12	37		
10,0 x 8,0	SPE10x8B-ESX20 5011489		M10		M10	41		
11,0 x 9,0	SPE11x9B-ESX20 5045461			M14		42		
12x9,0	SPE12x9B-ESX20 517747		M12					

S3D – Synchro Chuck for M8-M20 MQL-2 Channel Version



S3D2-ER32-M2-HSKA

d1	Designation/Id. Nr.		d	d2	d3	l	l1	l2
M8-M20	S3D2-ER32-109-M2-HSKA63 5190631	+/-0,5	63	50	50	109	83	94,5
M8-M20	S3D2-ER32-115,5-M2-HSKA100 5194491	+/-0,5	100	50	50	115,5	86,5	101

MQL transfer unit included

Allen key is not included in delivery

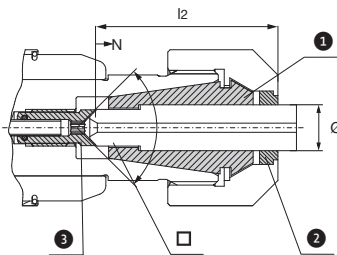
Accessories:

Allen key / length adjustment



Designation	Id. Nr.
SCK-3-90, (l < 104mm)	5012201
SCK-3-180, (l > 104mm)	9172126

ER/ESX32 – Clamping units MQL Ausführung



- 1 Collet
- 2 Sealing disc
- 3 Screw

N = Adjustment

l2 = Insert depth

Ø = Shaft diameter

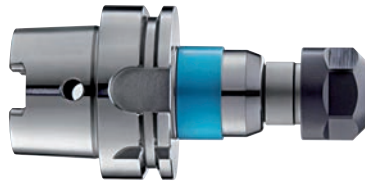
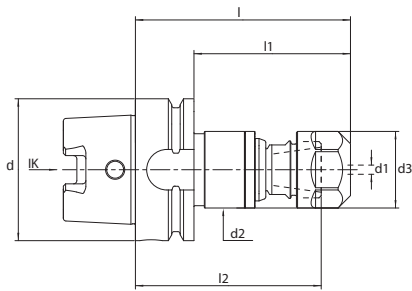
□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 470E

Spanneinheit – ER Ausführung B (bestehend aus Collet chuck, Sealing disc, Screw)

Ø x □	Designation/Id. Nr.	S3D.../ ER...	DIN 371	DIN 374 DIN 376	ISO	l2	N	5
9,0 x 7,0/7,1	SPE9x7/7,1B-ESX32 5012108	ER32/ ESX32	M9	M12	M12	37	3	3
10,0 x 8,0	SPE10x8B-ESX32 5012109		M10		M10	41		
11,0 x 9,0	SPE11x9B-ESX32 5012110			M14		42		
12,0 x 9,0	SPE12x9B-ESX32 5012111		M12	M16				
14,0 x 11,0	SPE14x11B-ESX32 5012112			M18	M18	44		
16,0 x 12,0/12,5	SPE16x12,5B-ESX32 5012113			M20	M22	45		

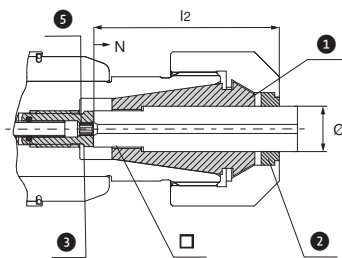
SCK – Synchro Chuck for M14-M30



SCK3/HSK-A – ESX40									
	Designation/Id. Nr.		d	d2	d3	l	l1	l2	
M14-M30 11 - 22	SCK3-146,5/HSK-A63-ESX40-BL 5017524	+/-0,8	63	63	63	146,5	120,5	50,3	
M14-M30 11 - 22	SCK3-136/HSK-A80-ESX40-BL 5040638	+/-0,8	80	63	63	136	110	50,3	
M14-M30 11 - 22	SCK3-138/HSK-A100-ESX40-BL 5017526	+/-0,8	100	63	63	138	109	50,3	

Coolant tube, coolant transfer unit (CT) and adjustment key included

ER/ESX40 – Clamping units IK



Collet

Sealing disc

Screw

N = Adjustment

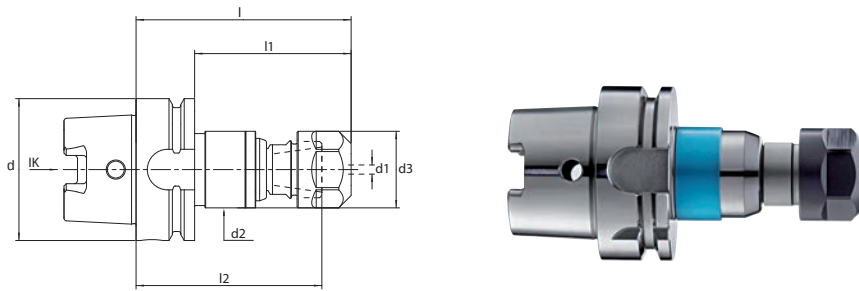
l2 = Insert depth

Ø = Shaft diameter

□ = Drive square

ER/ESX..GB auf DIN6499B / ISO15488B / 472E									
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)									
 Ø x □	Designation/Id. Nr.	SCK.../ ESX...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5	
10,0 x 8,0	SPE10x8C-ESX40 5016652	ER40/ ESX40	M10		M10	41	3	3	
11,0 x 9,0	SPE11x9C-ESX40 5016653			M14		42			
11,2 x 9	SPE11,2x9C-ESX40 5073207				M14				
	12,0 x 9,0		SPE12x9C-ESX40 5016654	M12	M16				
14,0 x 11,0/11,2	SPE14x11/11,2C-ESX40 5016655			M18	M20	44			
16,0 x 12,0/12,5	SPE16x12/12,5C-ESX40 5016656			M20	M22	45			
18,0 x 14,5	SPE18x14,5C-ESX40 5016657			M22		47			
20,0 x 16,0	SPE20x16C-ESX40 5016658			M27	M27 M30	52			
22,0 x 18,0	SPE22x18C-ESX40 5016659				M30				54

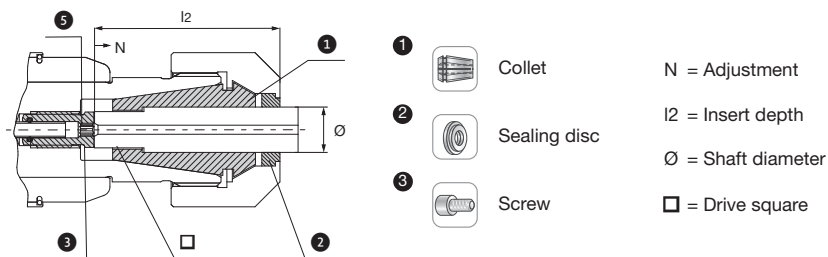
SCK – Synchro Chuck for M30-M42



SCK3/HSK-A – ESX50								
	Designation/Id. Nr.		d	d2	d3	l	l1	l2
d1								
M30-M42	SCK4-205/HSK-A100-ESX50-BL	+/-2,0	100	100	78	205	176	66
22 - 32	5085403							

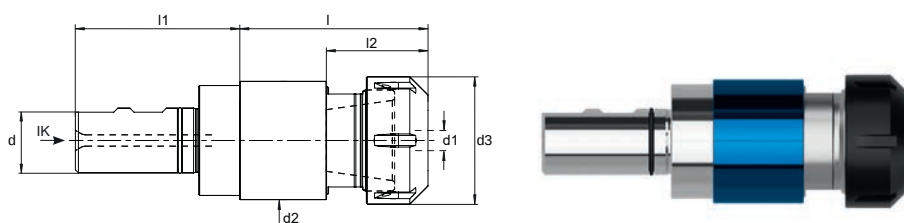
Coolant tube, coolant transfer unit (CT) and adjustment key included

ER/ESX50 – Clamping units IK



ER/ESX..GB auf DIN6499B /ISO15488B / 477E								
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)								
	Designation/Id. Nr.	SCK.../ ESX...	DIN 371	DIN 374 DIN 376	ISO	l2	N	
Ø x □								5
22 x 18	SPE22x18C-ESX50 5085426	ER50/ ESX50		M30		69	4	6
25 x 20	SPE25x20C-ESX50 5085427			M33	M36	71		
28 x 22	SPE28x22C-ESX50 5085428			M36		73		
32 x 24	SPE32x24C-ESX50 5085429			M39 M42		75		

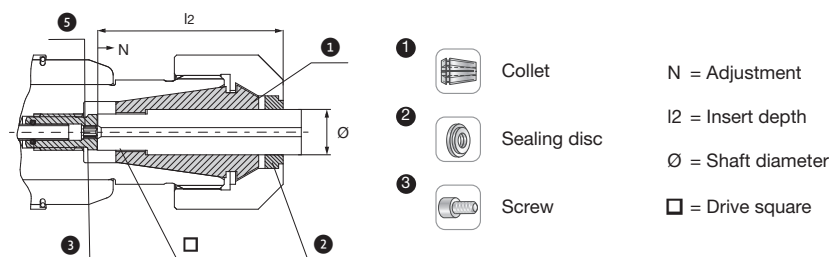
SCK – Synchro Chuck for M14-M30



SCK3/W – ESX40 DIN1835B+E									
	Designation/Id. Nr.			d	d2	d3	l	l1	l2
d1									
M14-M30	SCK3-113,5//W32-ESX40-BL	+/-0,8		32	63	63	113,5	61	50,3
11 - 22	5017528								

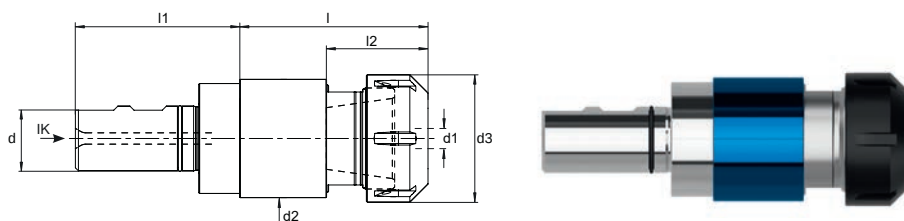
Adjustment key included!

ER/ESX40 – Clamping units IK



ER/ESX..GB auf DIN6499B / ISO15488B / 472E								
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)								
 Ø x □	Designation/Id. Nr.	SCK.../ ESX...	DIN 371	DIN 374 DIN 376	ISO	l2	N	 5
10,0 x 8,0	SPE10x8C-ESX40 5016652	ER40/ ESX40	M10		M10	41	3	6
11,0 x 9,0	SPE11x9C-ESX40 5016653			M14		42		
11,2 x 9	SPE11,2x9C-ESX40 5073207				M14			
12,0 x 9,0	SPE12x9C-ESX40 5016654		M12	M16				
14,0 x 11,0/11,2	SPE14x11/11,2C-ESX40 5016655			M18	M18	44		
16,0 x 12,0/12,5	SPE16x12/12,5C-ESX40 5016656			M20	M22	45		
18,0 x 14,5	SPE18x14,5C-ESX40 5016657			M22		47		
20,0 x 16,0	SPE20x16C-ESX40 5016658			M27	M27 M30	52		
22,0 x 18,0	SPE22x18C-ESX40 5016659			M30		54		

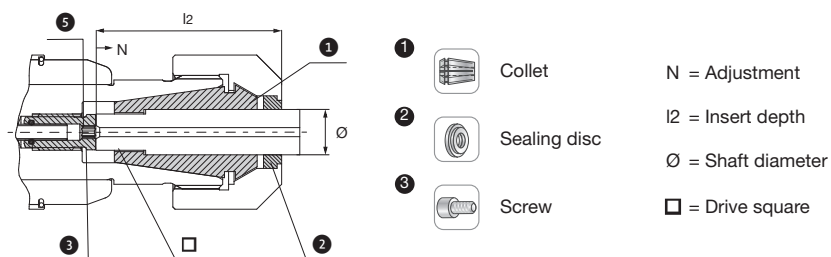
SCK – Synchro Chuck for M30-M42



SCK4/W – ESX50 DIN1835B+E								
	Designation/Id. Nr.		d	d2	d3	l	l1	l2
d1								
M30-M42	SCK4-176/W40-ESX50-BL	+/-2,0	40	100	78	176	71	66
22 - 32	5085404							

Adjustment key included!

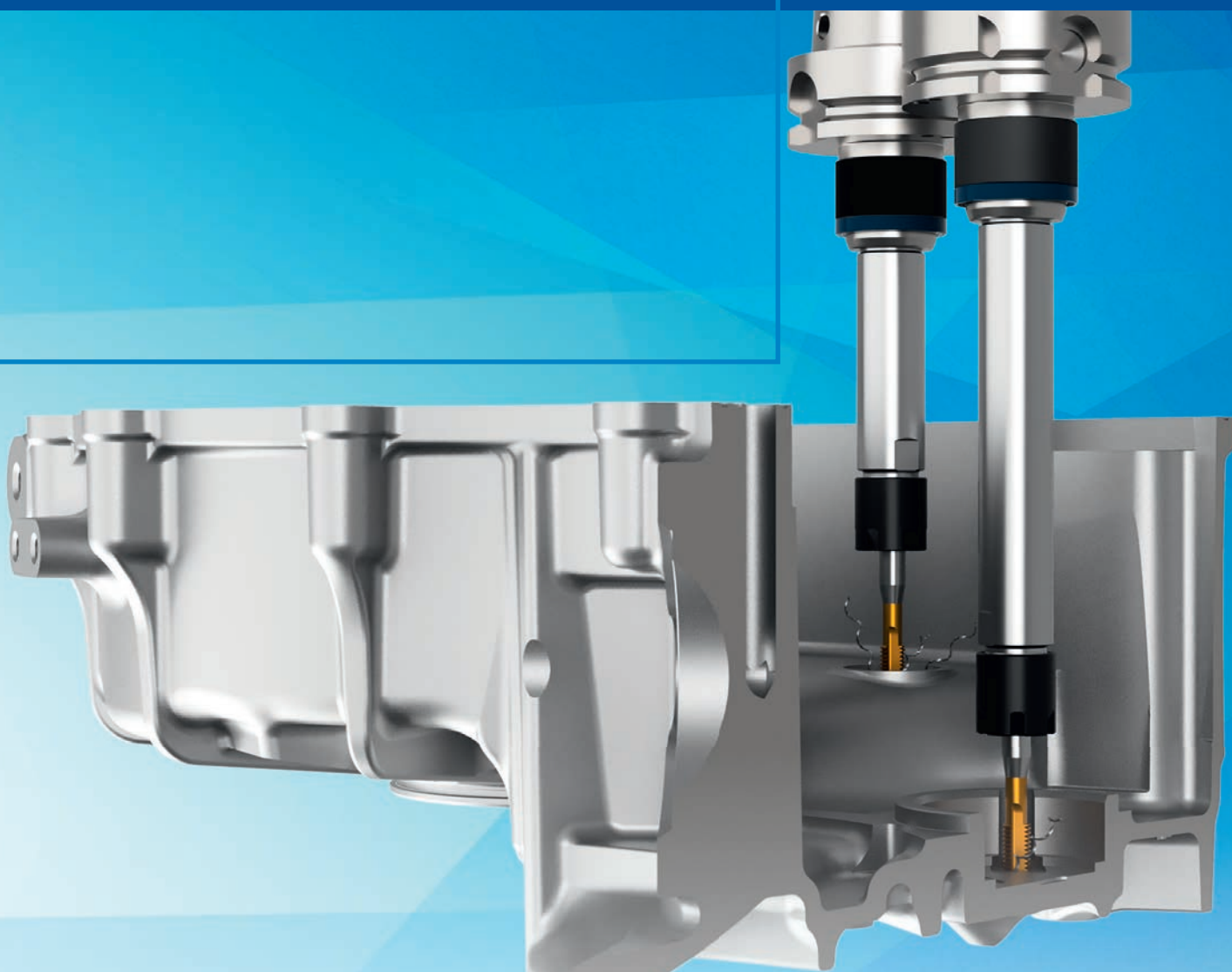
ER/ESX50 – Clamping units IK



ER/ESX..GB auf DIN6499B /ISO15488B / 477E								
Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)								
 Ø x □	Designation/Id. Nr.	SCK.../ ESX...	DIN 371	DIN 374 DIN 376	ISO	l2	N	
22 x 18	SPE22x18C-ESX50 5085426	ER50/ ESX50		M30		69	4	6
25 x 20	SPE25x20C-ESX50 5085427			M33	M36	71		
28 x 22	SPE28x22C-ESX50 5085428			M36		73		
32 x 24	SPE32x24C-ESX50 5085429			M39 M42		75		

3D 同步絲攻夾頭 細長型

M4 to M10



RENEWABLE
ENERGY



GENERAL
MECHANICAL
ENGINEERING



AUTOMOTIVE



ELEKTRONIC



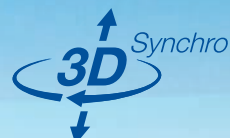
OPTICS



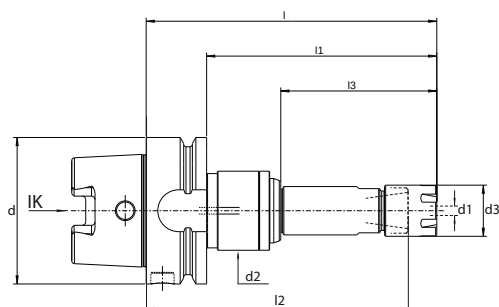
PRECISION
ENGINEERING



TOOLMAKING



S3D – Synchro Chuck for M4-M10 Slim design



Accessories:

Allen key / length adjustment



Designation	Id. Nr.
SCK-2,5-90, l = (0 - 100mm)	5012201
SCK-2,5-190, l = (101 - 190mm)	9172126
SCK-2,5-320, l = (191 - 330mm)	9173934

Coolant pipe / transfer unit



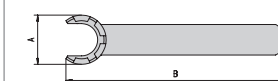
Designation	Id. Nr.
UE4/HSK63	5025376
UE4/HSK100	5028428

Mounting key



Designation	Id. Nr.
HSK63	6738421
HSK100	6738303

Wrench

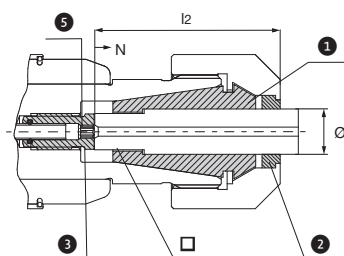


Designation	Id. Nr.
E16M	6932510

S3D1-ER16M-K1-HSKA63										
d1	Designation/Id. Nr.		d	d2	d3	l	l1	l2	l3	
M4-M10	S3D1-ER16M-125-K1-HSKA63 5216277	+/- 0,5	63	34	22	125	99	113,5	67,1	
	S3D1-ER16M-150-K1-HSKA63 5216278	+/- 0,5	63	34	22	150	124	138,5	92,1	
	S3D1-ER16M-175-K1-HSKA63 5216279	+/- 0,5	63	34	22	175	149	163,5	117,1	
	S3D1-ER16M-200-K1-HSKA63 5216280	+/- 0,5	63	34	22	200	174	188,5	142,1	
S3D1-ER16M-K1-HSKA100										
M4-M10	S3D1-ER16M-125-K1-HSKA100 5216329	+/- 0,5	63	34		125	99	113,5	60,6	
	S3D1-ER16M-150-K1-HSKA100 5216330	+/- 0,5	63	34	22	150	124	138,5	85,6	
	S3D1-ER16M-175-K1-HSKA100 5216331	+/- 0,5	63	34	22	175	149	163,5	110,6	
	S3D1-ER16M-200-K1-HSKA100 5216332	+/- 0,5	63	34	22	200	174	188,5	135,6	

Coolant tube, transfer unit and key are not included in the scope of delivery

ER/ESX16 – Clamping units



Collet

Sealing disc

Screw

N = Adjustment

l2 = Insert depth

Ø = Shaft diameter

□ = Drive square

ER/ESX...GB auf DIN6499B / ISO15488B / 470E

Clamping unit– ER Version C (consisting of collet, sealing disc, adjusting screw)

	Designation/Id. Nr.	S3D.../ ER...	DIN371	DIN374 DIN376	ISO	l2	N	
4,5x3,4	SPE4,5x3,4C-ESX16 5046280	ER16/ ESX16	M4	M6		29	2	2
5,0x4,0	SPE5x4C-ESX16 5046279				M5	30		
6,0x4,9	SPE6x4,9C-ESX16 5046276		M5, M6	M8		31		
7,0x5,5	SPE7x5,5C-ESX16 5046275		M7	M9, M10		31	3	
8,0x6,2	SPE8x6,2C-ESX16 5046274		M8	M11	M8, M10	36		
9,0x7,0	SPE9x7C-ESX16 5033588		M9	M12*	M12*	37		
								2,5

* For easy processing

Variant	Designation Id. Nr.		A	B	C	L1		L2	SW
Clamping Nut for sealing disc						Collet chuck			
						with Drive square	without Drive square		
S3D1 ER16*	EX16-IC 6931372		28	22,5	M22x1,5	12	12,0–15,5	5	25
S3D1 ER20	EX20-IC 6931227		34	24	M25x1,5	13	13,0–16,5	5	30
S3D2 ER25	EX25-IC 6941678		42	25	M32x1,5	13,5	13,5–17,0	5	
S3D2 ER32	EX32-IC 6933897		50	27,5	M40x1,5	14,5	14,5–18,0	5	
SCK3 ESX40	EX40-IC 6948425		63	30,5	M50x1,5	16,5	16,5–20,0	5	
SCK4 ESX50	EX50-IC 5085410		78	40,3	M64x2	19	19,0–26,0	7	

* Not compatible with S3D...ER16M...

Torque wrench TORCO-FIX				
	Designation	Id.Nr.	L1	Torque Nm
	TORCO-FIX I	6734177	335	10 – 50
	TORCO-FIX II	6734178	465	40 – 200
	TORCO-FIX III	6734179	565	60 – 300

Variant	Assembly keys TORCO-FIX					
		Designation	Nr	TORCO-Fix	a	b
ER11		A-E11P	5047900	I	32	61
ER16		A-E16P	6953670	I, II	44	71
ER20		A-E20P	5003125	II	52	81
ER25		A-E 25	6953671	II	70	72
ER32		A-E 32	6952304	II, III	80	72
ESX40		A-E 40	5000742	II, III	96	82
ESX50		A-E 50	5003124	III	111	94
ER11M		A-E 11M	5047901	I	16,8	54,4
ER16M		A-E 16M	5047902	I, II	22,5	56,2
ER20M		A-E 20M	5047903	I, II	29	68,2
ER25M		A-E 25M	5076778	I, II	36	70,0



Mounting fixture

Designation/Id. Nr.	h mm	l mm	b mm
S3D0-SCK3 5195314	220	108	200
Compatible with S3D... ER11M, ...ER16M, ...ER20, ... ER32 und SCK...ESX40			



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