



Angular Heads



Tradition in perfection

„Reaching the highest standards – the goal remains the same, no matter whether the demands increase. Even greater precision, even more difficult geometries, even more performance. We are motivated by

2

our customers' concerns.

Once again we are pushing dimensions and limits: with the angular heads of our new CompactLine. The high performance characteristics that have always distinguished our products are now possible in even smaller spaces.

Are you ready to take the next big leap with us?"

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High-performance machining even in confined spaces

ROMAI's angular heads have always stood for maximum precision and highest process reliability.

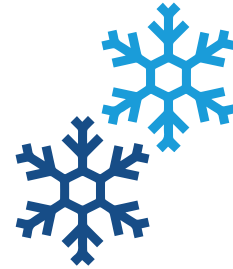
With our super slim CompactLine angular heads you can now master even narrower fields of operation.

This is made possible by optimised gear geometry and further optimisation of the basic structure. This allows you to achieve machining in even smaller dimensions - at the same price.

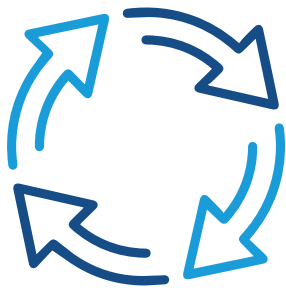




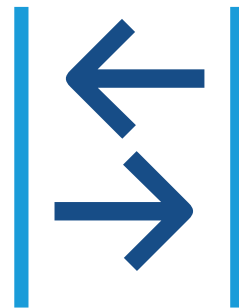
30% more compact and lighter than the previous standard series with same performance data



High-pressure coolant feed-through with up to **100 bar** for internal and external cooling



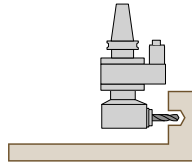
Friction-optimised seals for higher speeds



Ideal for demanding machining operations in **confined** spaces and machines with **low tool change data**

Versions

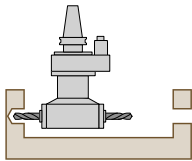
FORM S



Angular head 90°

For machining tasks without geometric constraints. Internal coolant optional (page 16).

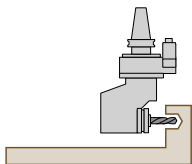
FORM S-2



Angular head 90° with bilateral output

For machining tasks in the two different directions or with different machining tools. Internal coolant optional (page 19).

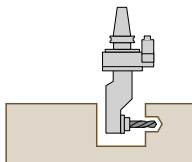
FORM W



Angular head 90° with offset output

For machining tasks with geometric constraints. Offset output to maximize the usable tool length. Internal coolant as standard, can be omitted on request (page 24).

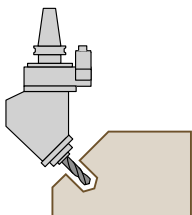
FORM G



Angular head 90° with offset output (narrow design for special applications)

For special machining tasks with tough geometric constraints. Offset output to maximize the usable tool length. Internal coolant optional (page 26).

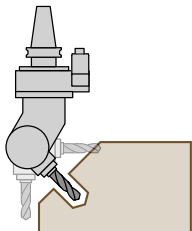
FORM F



Angular head with fixed angle (for special applications)

For special machining tasks in a fixed angular position. Internal coolant as standard, can be omitted on request (page 28).

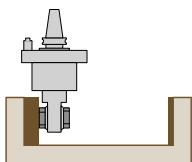
FORM D



Angular head 0°-90° with fine adjustment

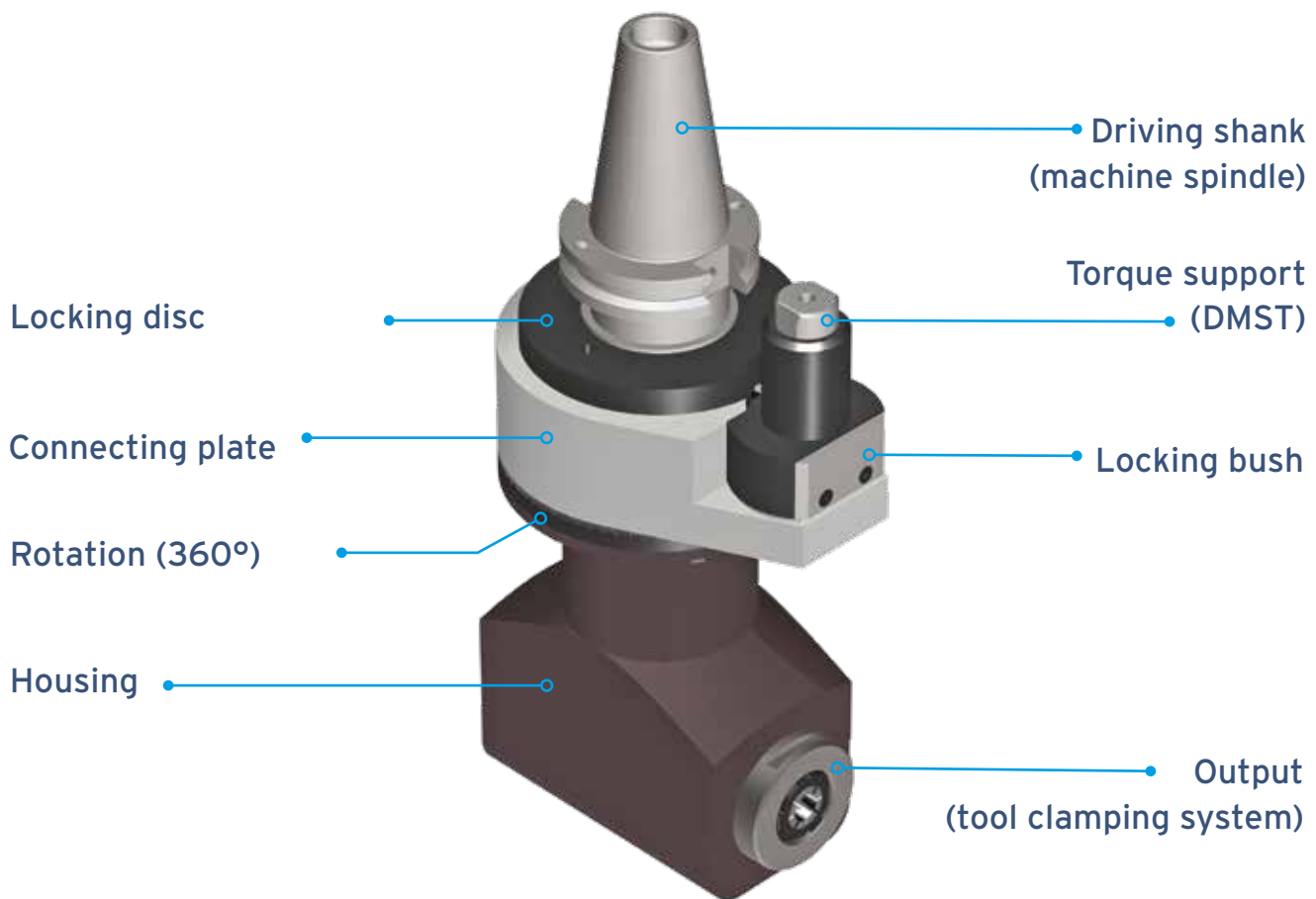
For machining tasks in changing, angular positions. Thanks to the infinitely variable adjustment, any angle between 0°-90° (process-reliable) can be set on the tool. Optionally up to 110°. With internal cooling as standard, can be omitted on request (page 32).

FORM X



Angular head for minimum space requirements

For machining tasks such as bearing seats in hydraulic pumps or crankcases. With a minimum width of 30 mm including disc cutters, Form X offers maximum flexibility for machining bearing seats with maximum precision even in the tightest of spaces (page 30).



Locking disc/locking bush

Precise locking of the angular head for automatic tool change. This ensures precise mounting in the magazine and thus a reliable process.

Connecting plate

Support of the angular head to prevent tilting during machining.

Rotation (360°)

All ROMAI standard angular heads can be rotated manually by 360°. They are fixed using clamping screws. Optionally with Hirth serration.

Driving shank

Mounting of the angular head in the processing machine. All machine interfaces can be realised, e.g. HSK, SK, PSC, MAS-BT (see page 8).

Torque support (DMST)

Fixes the angular head to the machine spindle and secures it against twisting as a result of the machining forces that occur. Due to the large number and differences in processing machines, the torque support is usually designed specifically for the machine and is customised by us for the respective machine type.

Output

Mounting of the machining tool. All tool clamping systems can be realised, e.g. collets, WFB, HSK, SK (see page 9).

Drives



CAT



Hollow shank
taper (HSK)



MAS-BT



Special drives



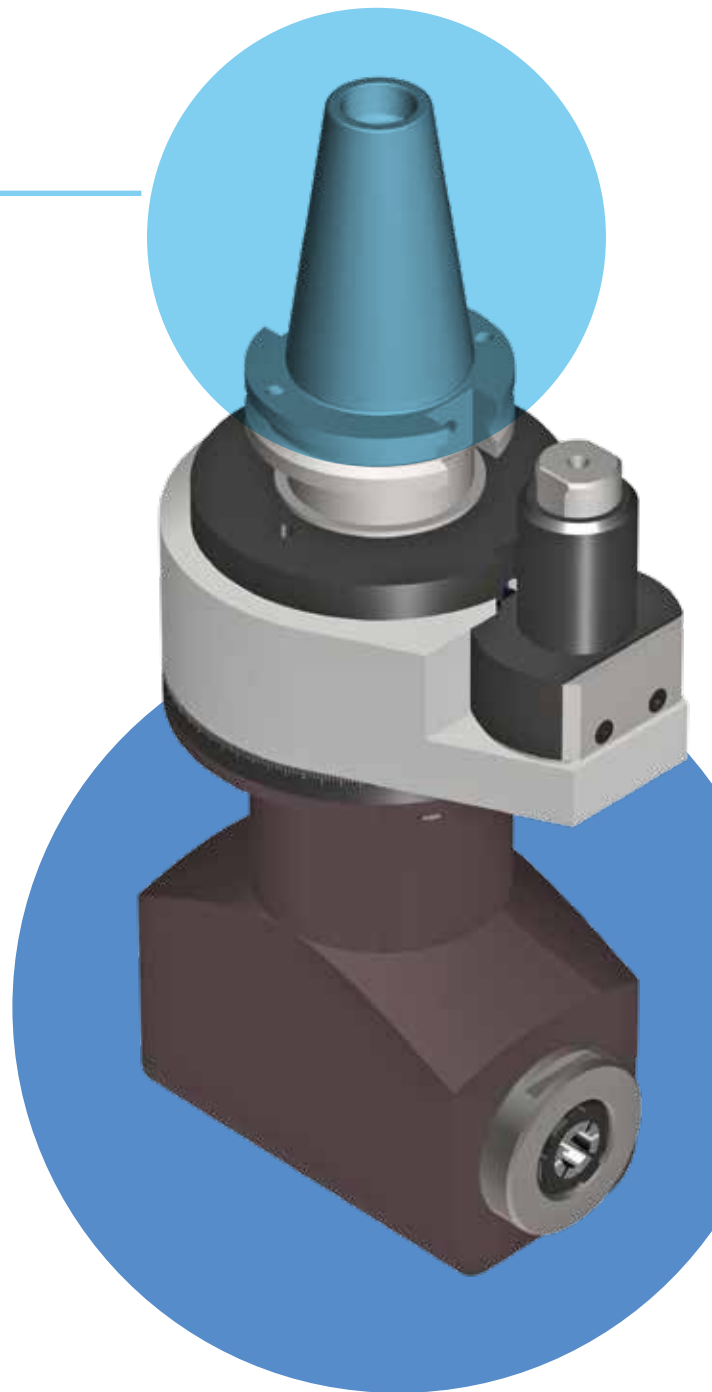
PSC



KM Kennametal™



Shank (SK)





ABS® KOMET®
(licence)



HYDRO-FIX®



ER Zeta collets
(Zeta® System Zollmann)



PSC



KM Kennametal™
(licence)



Shanks (SK)



Cutter spindles



ER collets
(Regofix system)
(licence)



Weldon & Whistle Notch



Hollow shank tapers
(HSK)



ER-A collets
(Regofix system)



WFB



Hydro clamp chucks



ERST-Zeta collets (Zeta®
System Zollmann)



Special outputs

Machine interfaces



Interface

CAT
Form A D/B

Available sizes

CAT 30
CAT 40
CAT 45
CAT 50
CAT 60



PSC
ISO 26623

C3	32
C4	40
C5	50
C6	63
C8	80
C8X	80X
C10	100



Hollow shank
tapers (HSK)
DIN 69893 / ISO 12164
Form A & C

HSK 25	HSK 80
HSK 32	HSK 100
HSK 40	HSK 125
HSK 50	HSK 160
HSK 63	



KM Kennametal™

KM 40
KM 50
KM 63
KM 80
KM 100



MAS-BT
JIS B 6339
Form AD/B

BT 30
BT 35
BT 40
BT 45
BT 50
BT 55
BT 60



Shanks (SK)
DIN 69871 / ISO 7388
Form AD/B

SK 30
SK 40
SK 45
SK 50
SK 60

Examples/Stop Block

Connecting versions



DMST



DMST + 4-point rest



DMST + 3-point rest

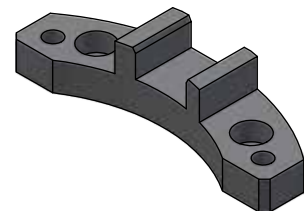
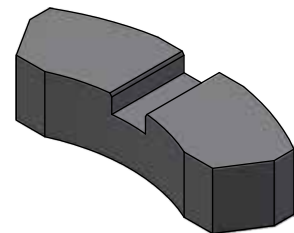


**Mechanical/hydraulic
additional clamping**

Stopp-Block

Machine connections from ROMAI are suitable for adaptation to the machining centre by the customer and are standardised in accordance with ISO 9524. When installing the angular heads, the torque support and the stop block must be matched to each other. Please note that - unless otherwise ordered - the stop block is included in the scope of delivery and the drilling pattern is provided by the customer. Optional customisation is possible.

See also the current version of the operating instructions at www.romai.de



Tool clamping systems



Interface

ABS® KOMET® (licence)

Available sizes

CAT 30
CAT 40
CAT 45
CAT 50
CAT 60



PSC

ISO 26623

C3 32
C4 40
C5 50
C6 63
C8 80
C8X 80X
C10 100



Cutter spindles

Ø 10 Ø 32
Ø 13 Ø 40
Ø 16 Ø 50
Ø 22 Ø 60
Ø 25 Ø 80
Ø 27



Hollow shank tapers (HSK)

DIN 69893 / ISO 12164
Form A & C

HSK 25 HSK 80
HSK 32 HSK 100
HSK 40 HSK 125
HSK 50 HSK 160
HSK 63



Hydro clamp chucks

Ø 6 Ø 20
Ø 8 Ø 25
Ø 10 Ø 32
Ø 12 Ø 40
Ø 14 Ø 50
Ø 16

Tool clamping systems

Interface

Available sizes

HYDRO-FIX®

NBC- 10/16-40	NBC- 42/50-62
NBC- 12/16-40	NBC- 42/60-62
NBC- 16/ 20-46	NBC- 50/60-70
NBC- 20/25-46	NBC- 60/80-100
NBC- 25/32-50	NBC- 80/100-120
NBC- 32/40-55	NBC- 100/120-140
NBC- 40/50-60	

KM Kennametal™

(licence)

KM 25
KM 32
KM 40
KM 50
KM 63
KM 80
KM 100

Collets

(Regofix system)
DIN 6499 / ISO 15488

ER 8 : 1-5 mm
ER 11 : 1-7 mm
ER 16 : 1-10 mm
ER 20 : 1-13 mm
ER 25 : 1-16 mm
ER 32 : 2-20 mm
ER 40 : 2-30 mm
ER 50 : 4-34 mm

ER

ER-A

ERST-Zeta collets

(Zeta® System Zollmann)
DIN 6388 / DIN 6499 /
ISO 15488

ER 8 : 1-5 mm
ER 11 : 1-7 mm
ER 16 : 1-10 mm
ER 20 : 1-13 mm
ER 25 : 1-16 mm
ER 32 : 2-20 mm
ER 40 : 2-30 mm
ER 50 : 4-34 mm

ER

ER-A

Tool clamping systems



Interface

Shanks (SK)

Available sizes

SK 30

SK 40

SK 45

SK 50

SK 60



Weldon & Whistle Notch

Ø 6 Ø 18

Ø 8 Ø 20

Ø 10 Ø 25

Ø 12 Ø 32

Ø 14 Ø 40

Ø 16



WFB

WFB 20

WFB 24

WFB 32

WFB 40

WFB 50



Made in
Germany

ROZAI®
WWW.ROZAI.DE

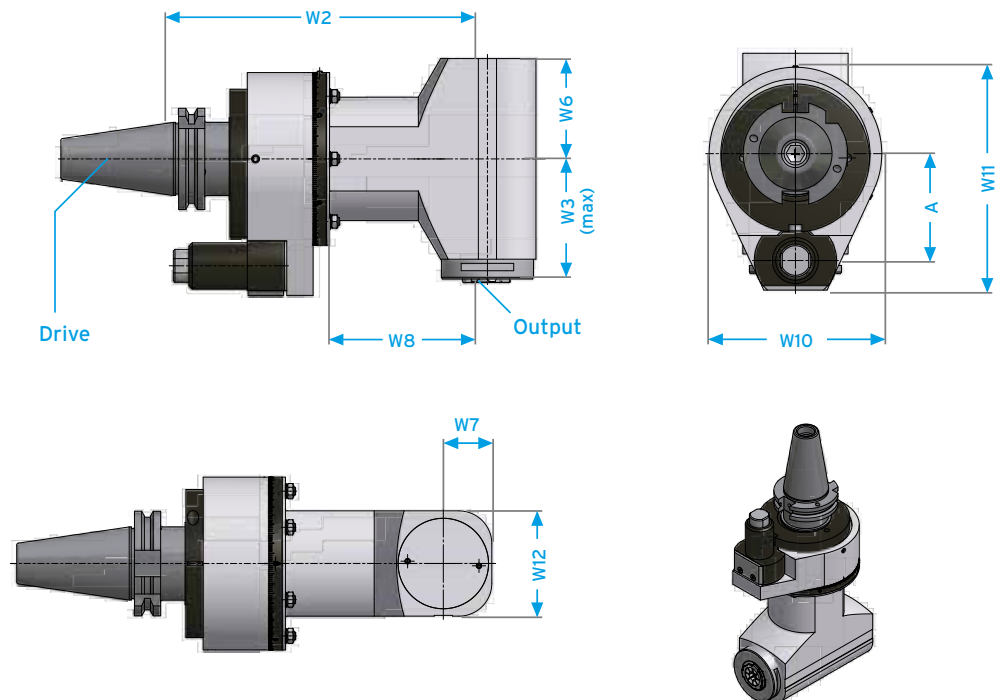
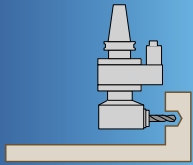
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WS-VDI25-Ø48-1.6:1-A7C

$i = 1.648 : 1$ $(n1)$ $(n2)$ $\triangle$ $\square$

$M_{max} = 15 \text{ Nm}$ $n1_{max} = 6000 \text{ 1/min}$

Specifications

Form S

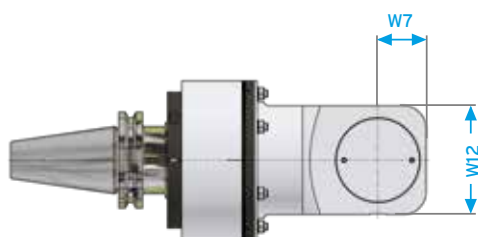
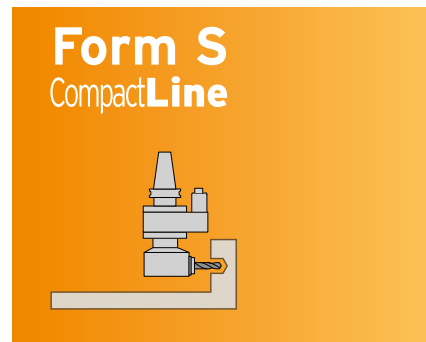
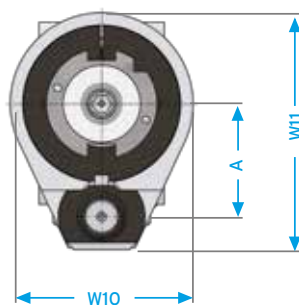
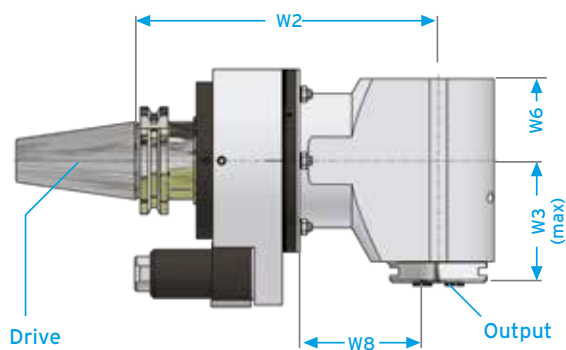


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	SK / CAT / BT ³	W2	HSK Form A & C ⁴	W2
S 4	10.000 rpm	10 Nm	2,5	SK 30	128	HSK 50	135
S 5	10.000 rpm	15 Nm	4	SK 40	150	HSK 63	160
S 6	8.000 rpm	43 Nm	7	SK 40	200	HSK 63	210
S 7	8.000 rpm	70 Nm	8	SK 40	200	HSK 63	210
S 10	6.000 rpm	120 Nm	13	SK 50	200	HSK 100	234
S 20	3.000 rpm	250 Nm	18	SK 50	200	HSK 100	234
S 30	2.000 rpm	500 Nm	32	SK 50	250	HSK 100	260

Type	Angular head dimensions							Output dimensions/tool clamping system							
	W6	W7	W8	W10	W11	W12	A*		W3		W3		W3		W3
S 4	30	17	40	77	122	36	65	ER-11 A	42	ER-16	63	20-12	54	-	-
S 5	40	21	48	85	126	42	65	ER-16 A	57	ER-20	83	24-16	62	-	-
S 6	53	32	98	105	136	64	65	ER-20 A	67	ER-25	89	32-20	77	Ø 16	91
S 7	58	32	98	105	136	64	65	ER-25 A	75	ER-32	98	40-25	88	Ø 20	97
S 10	63	34	97	125	191	80	110	ER-32 A	87	ER-40	119	40-25	99	Ø 20	100
S 20	84	45	90	160	208	99	110	ER-40 A	107	ER-50	150	50-32	115	Ø 32	120
S 30	105	60	135	180	238	120	130	ER-50 A	130	ER-50	145	50-32	139	Ø 42	121

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



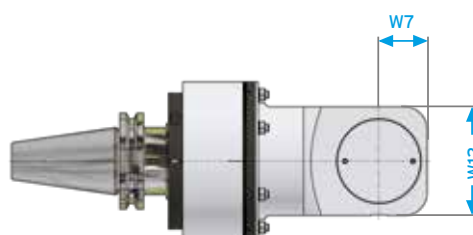
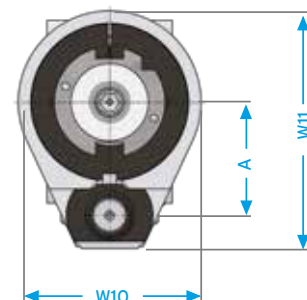
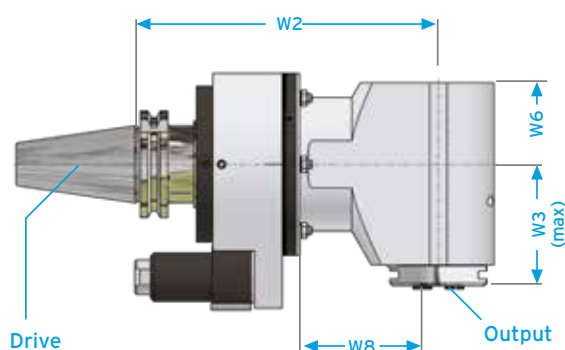
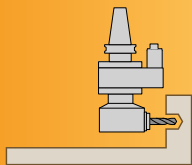
Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. Torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
S 5	10000 rpm	15 Nm	3,7	SK 40	127,5	HSK 63	137,5
S 6	8000 rpm	43 Nm	5,1	SK 40	132,5	HSK 63	142,5
S 7	8000 rpm	70 Nm	6,3	SK 40	148,5	HSK 63	158,5
S 10	6000 rpm	120 Nm	11,1	SK 50	166,5	HSK 100	176,5

Type	Angular head dimensions							Output dimensions/ tool clamping system			
	W6	W7	W8	W10	W11	W12	A*	Collets (REGO-FIX® system) - DIN 6499/ISO 15488			
								Internal clamping nut	W3	Internal clamping nut	W3
S 5	34	21	25,5	85	125,5	42	65	ER-16 A	53	-	
S 6	41,5	27	30,5	105	135,5	54	65	ER-20 A	63	ER-25 A	74
S 7	47	32	46,5	105	135,5	64	65	ER-25 A	70	ER-32 A	85
S 10	54	37	62	125	190,5	80	110	ER-32 A	81	ER-40 A	96

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388
⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

Specifications

Form S with IK/AK^a CompactLine

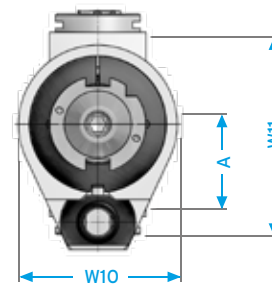
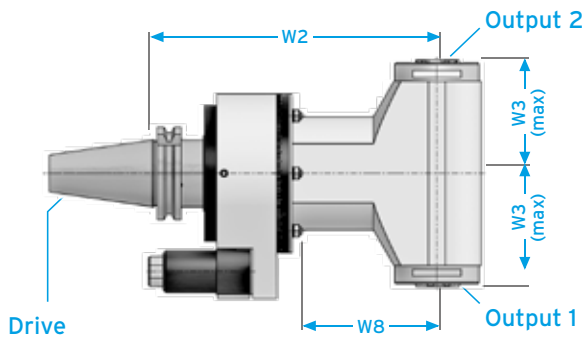


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
S 5 (IK)	10000 rpm	15 Nm	4	SK 40	153	HSK 63	163
S 6 (IK)	8000 rpm	43 Nm	6,1	SK 40	174	HSK 63	184
S 7 (IK)	8000 rpm	70 Nm	7	SK 40	175	HSK 63	185
S 10 (IK)	6000 rpm	120 Nm	12,3	SK 50	210	HSK 100	220

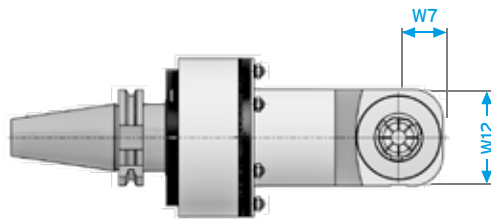
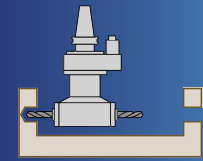
Type	Angular head dimensions								Output dimensions/ tool clamping system			
	W6 (AK)	W6 (IK)	W7	W8	W10	W11	W12	A*	Collets (REGO-FIX® system) - DIN 6499/ISO 15488			
									Internal clamping nut	W3	Internal clamping nut	W3
S 5 (IK)	34	52,5	21	51	85	125,5	48	65	ER-16 A	53	-	
S 6 (IK)	41,5	59,5	27	72	105	135,5	64	65	ER-20 A	63	ER-25 A	74
S 7 (IK)	47	64,5	32	73	105	135,5	72	65	ER-25 A	70	ER-32 A	85
S 10 (IK)	54	72	37	105,5	125	190,5	80	110	ER-32 A	81	ER-40 A	96

^a with internal cooling/external cooling | All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10

³ DIN 69871/ISO 7388 | ⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



Form S2



Type	Specification			Drive dimensions/Machine interface ²			
	Max. speed [1/min]	Max. Torque	Weight ¹ [kg]	SK / CAT / BT ³	W2	HSK Form A & C ⁴	W2
S5-2	10.000 rpm	15 Nm	4	SK 40	150	HSK 63	160
S6-2	8.000 rpm	43 Nm	7	SK 40	200	HSK 63	210
S7-2	8.000 rpm	70 Nm	8	SK 40	200	HSK 63	210
S10-2	6.000 rpm	120 Nm	13	SK 50	200	HSK 100	234
S20-2	3.000 rpm	250 Nm	19	SK 50	200	HSK 100	234
S30-2	2.000 rpm	500 Nm	32	SK 50	250	HSK 100	260

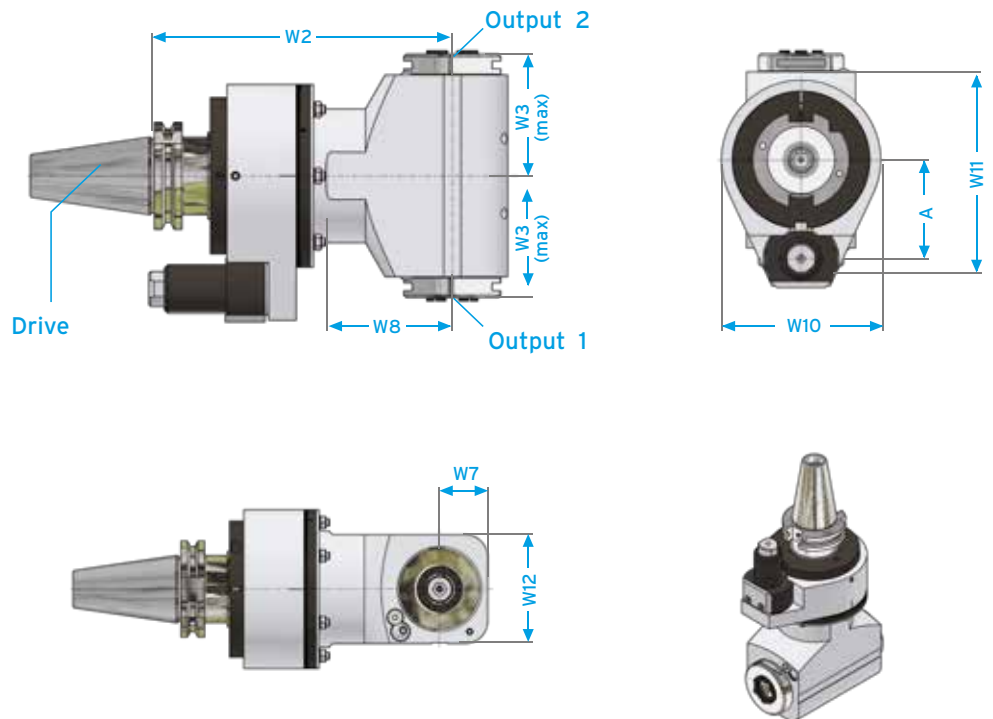
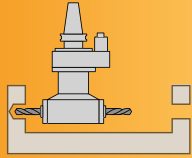
Type	Angular head dimensions						Output dimensions/tool clamping system							
	W7	W8	W10	W11	W12	A*	 ⁵	W3	 ⁵	W3		W3		W3
S5-2	21	48	85	126	42	65	ER-16 A	57	ER-20	83	24-16	62	-	-
S6-2	32	98	105	136	64	65	ER-20 A	67	ER-25	89	32-20	77	Ø 16	91
S7-2	32	98	105	136	64	65	ER-25 A	75	ER-32	98	40-25	88	Ø 20	97
S10-2	34	97	125	191	80	110	ER-32 A	87	ER-40	119	40-25	99	Ø 20	100
S20-2	45	90	160	208	99	110	ER-40 A	107	ER-50	150	50-32	115	Ø 32	120
S30-2	60	135	180	238	120	130	ER-50 A	130	ER-50	145	50-32	139	Ø 42	121

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

Specifications

Form S2 CompactLine

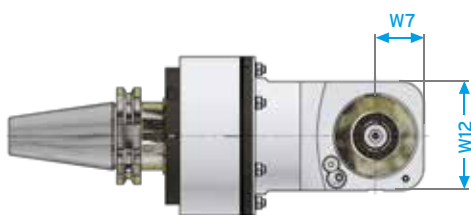
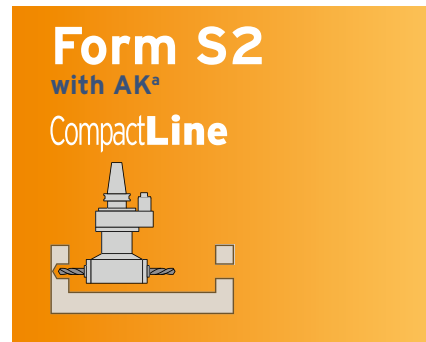
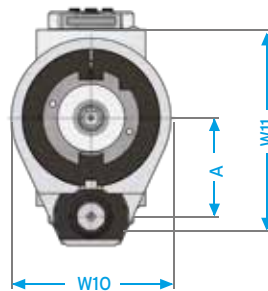
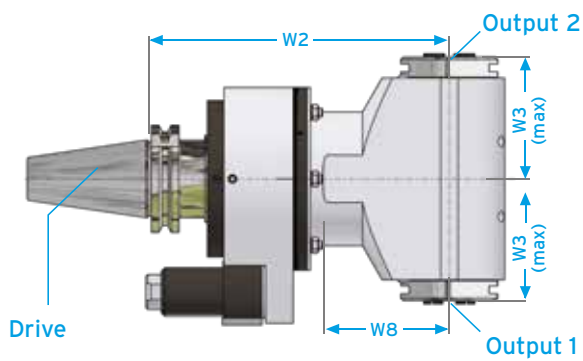


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. Torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
S2 5	10000 rpm	15 Nm	3,7	SK 40	127,5	HSK 63	137,5
S2 6	8000 rpm	43 Nm	5,1	SK 40	132,5	HSK 63	142,5
S2 7	8000 rpm	70 Nm	6,3	SK 40	148,5	HSK 63	158,5
S2 10	6000 rpm	120 Nm	11,1	SK 50	166,5	HSK 100	176,5

Type	Angular head dimensions					Drive dimensions/tool clamping system				
							Spannzangen (REGO-FIX® system) - DIN 6499/ISO 15488			
	W7	W8	W10	W11	W12	A*	Internal clamping nut	W3	Internal clamping nut	W3
S2 5	21	25,5	85	125,5	42	65	ER-16 A	53	-	
S2 6	27	30,5	105	135,5	54	65	ER-20 A	63	ER-25 A	74
S2 7	32	46,5	105	135,5	64	65	ER-25 A	70	ER-32 A	85
S2 10	37	62	125	190,5	80	110	ER-32 A	81	ER-40 A	96

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
S2 5 (AK)	10000 rpm	15 Nm	4	SK 40	153	HSK 63	163
S2 6 (AK)	8000 rpm	43 Nm	6,1	SK 40	174	HSK 63	184
S2 7 (AK)	8000 rpm	70 Nm	7	SK 40	175	HSK 63	185
S2 10 (AK)	6000 rpm	120 Nm	12,3	SK 50	210	HSK 100	220

Type	Angular head dimensions					A*	Output dimensions/ tool clamping system			
	W7	W8	W10	W11	W12		Collets (REGO-FIX® system) - DIN 6499/ISO 15488			
							Internal clamping nut	W3	Internal clamping nut	W3
S2 5 (AK)	21	51	85	125,5	48	65	ER-16 A	53	-	
S2 6 (AK)	27	72	105	135,5	64	65	ER-20 A	63	ER-25 A	74
S2 7 (AK)	32	73	105	135,5	72	65	ER-25 A	70	ER-32 A	85
S2 10 (AK)	37	105,5	125	190,5	80	110	ER-32 A	81	ER-40 A	96

^a with external cooling | All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10

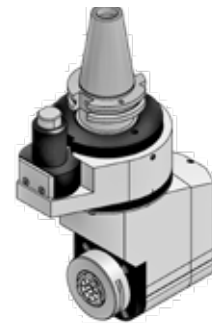
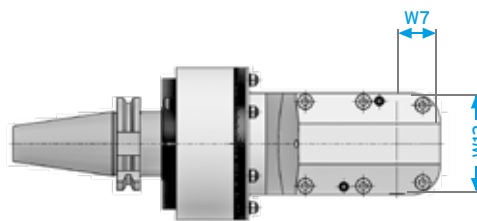
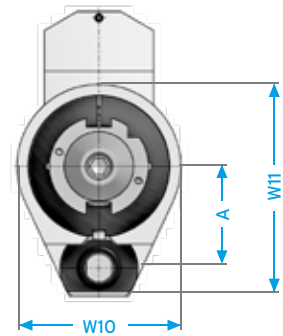
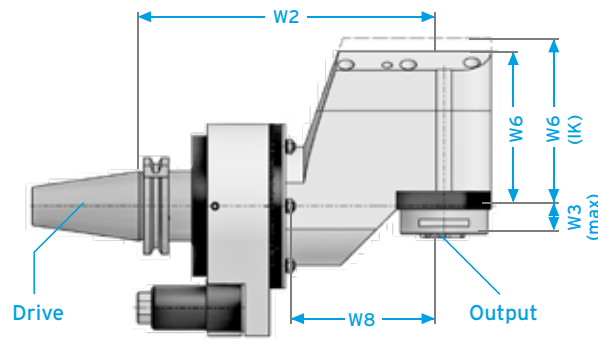
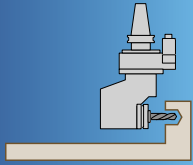
³ DIN 69871/ISO 7388 | ⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.





Specifications

Form W

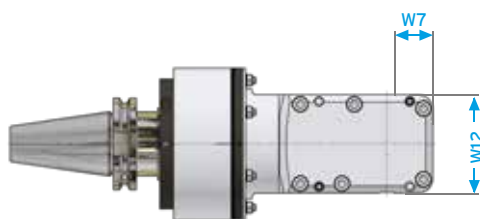
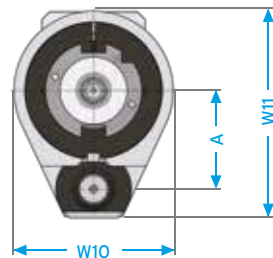
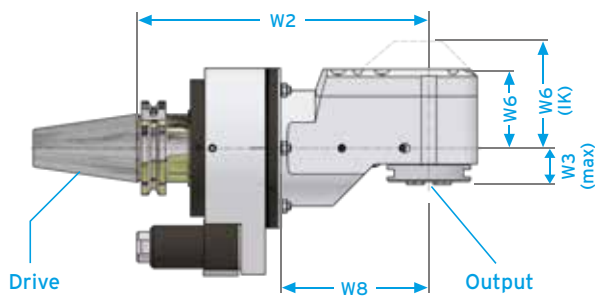


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	SK / CAT / BT ³	W2	HSK Form A & C ⁴	W2
W 5	10.000 rpm	15 Nm	5	SK 40	180	HSK 63	190
W 6	8.000 rpm	43 Nm	8	SK 40	220	HSK 63	230
W 7	8.000 rpm	70 Nm	10	SK 40	235	HSK 63	245
W 10	6.000 rpm	120 Nm	17	SK 50	245	HSK 100	279
W 20	3.000 rpm	250 Nm	25	SK 50	285	HSK 100	319
W 30	2.000 rpm	500 Nm	40	SK 50	319	HSK 100	329

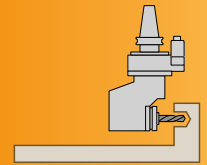
Type	Angular head dimensions								Output dimensions/tool clamping system							
	W6	W6 (IK)	W7	W8	W10	W11	W12	A*		W3		W3		W3		W3
W 5	63	80	26	79	85	126	55	65	ER-16 A	17	ER-20	39	24-16	22	-	-
W 6	78	98	30	119	105	136	70	65	ER-20 A	20	ER-25	42	32-20	29	Ø 16	44
W 7	77	98	34	133	105	136	76	65	ER-25 A	22	ER-32	46	40-25	30	Ø 20	47
W 10	95	116	45	142	125	191	90	110	ER-32 A	28	ER-40	58	40-25	36	Ø 20	41
W 20	125	140	50	175	160	208	110	110	ER-40 A	25	ER-50	70	50-32	33	Ø 32	43
W 30	150	169	65	204	180	238	130	130	ER-50 A	40	ER-50	60	50-32	35	Ø 42	36

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



Form W CompactLine



Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
W 5	10000 rpm	15 Nm	3,8	SK 40	156	HSK 63	166
W 6	8000 rpm	43 Nm	5,1	SK 40	170	HSK 63	180
W 7	8000 rpm	70 Nm	6,4	SK 40	193	HSK 63	203
W 10	6000 rpm	120 Nm	11,3	SK 50	221	HSK 100	231

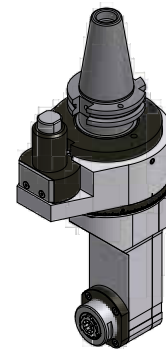
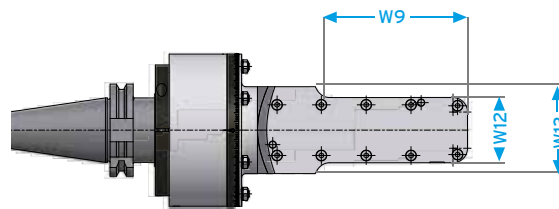
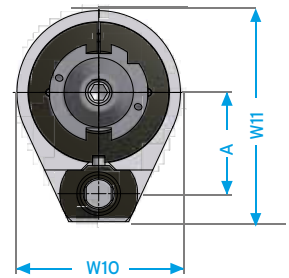
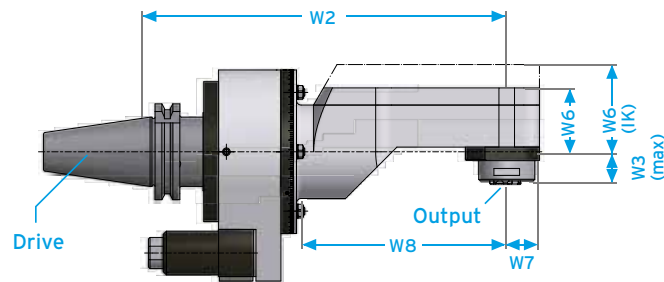
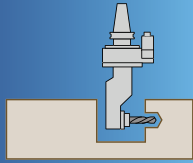
Type	Angular head dimensions								Output dimensions/ tool clamping system			
		W6 (IK)							Collets (REGO-FIX® system) - DIN 6499/ISO 15488			
	W6		W7	W8	W10	W11	W12	A*	Internal clamping nut	W3	Internal clamping nut	W3
W 5	35	55	21	54	85	125,5	50	65	ER-16 A	26,5	-	
W 6	43,5	62,5	26	68	105	135,5	58	65	ER-20 A	22	ER-25 A	25
W 7	52	70,5	32	91	105	135,5	68	65	ER-25 A	22	ER-32 A	33
W 10	57	75,5	40	116,5	125	190,5	80	110	ER-32 A	26	ER-40 A	37

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

Specifications

Form G

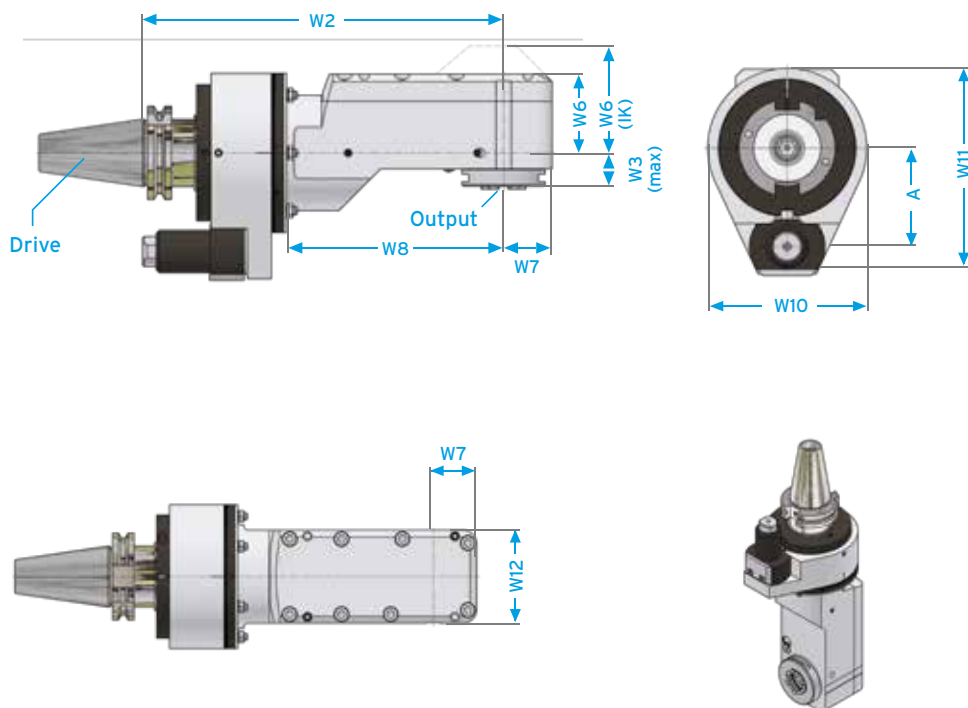


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	SK / CAT / BT ³	W2	HSK Form A & C ⁴	W2
G 5	10.000 rpm	15 Nm	5	SK 40	230	HSK 63	240
G 6	8.000 rpm	43 Nm	7	SK 40	240	HSK 63	250
G 7	8.000 rpm	70 Nm	9	SK 40	250	HSK 63	260
G 10	6.000 rpm	120 Nm	16	SK 50	290	HSK 100	324
G 20	3.000 rpm	250 Nm	22	SK 50	330	HSK 100	364
G 30	2.000 rpm	500 Nm	34	SK 50	380	HSK 100	414

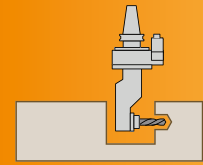
Type	Angular head dimensions										Output dimensions/tool clamping system							
	W6	W6 (IK) ⁵	W7	W8	W9	W10	W11	W12	W13	A [*]		W3		W3		W3		W3
G 5	42	67	21	128	95	85	126	45	50	65	ER-16 A	19	ER-20	41	24-16	24	-	-
G 6	56	84	25	138	95	105	136	55	70	65	ER-20 A	12 (0)	ER-25	33	32-20	21	Ø 16	36
G 7	66	98	32	148	120	105	136	65	76	65	ER-25 A	12 (0)	ER-32	25	40-25	27	Ø 20	34
G 10	98	123	40	186	140	125	191	80	90	110	ER-32 A	4	ER-40	26	40-25	4	Ø 20	9
G 20	113	138	45	220	140	160	208	99	110	110	ER-40 A	4	ER-50	36	50-32	4	Ø 32	9
G 30	130	155	55	265	150	180	238	119	130	130	ER-50 A	5	ER-50	30	50-32	5	Ø 42	6

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



Form G CompactLine



Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
G 5	10000 rpm	15 Nm	4	SK 40	184	HSK 63	194
G 6	8000 rpm	43 Nm	5,5	SK 40	207,5	HSK 63	217,5
G 7	8000 rpm	70 Nm	7,2	SK 40	238	HSK 63	248
G 10	6000 rpm	120 Nm	12,6	SK 50	276	HSK 100	286

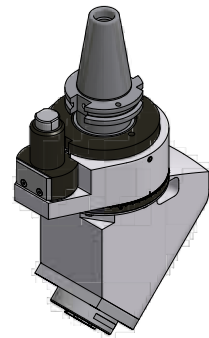
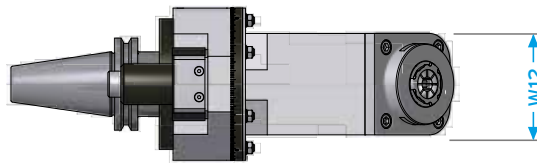
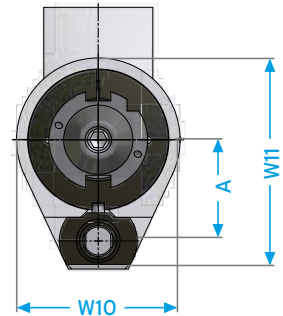
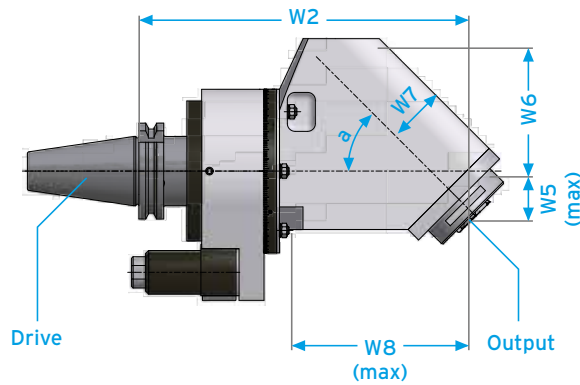
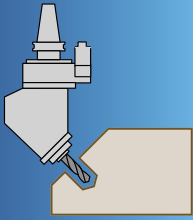
Type	Angular head dimensions										Output dimensions/ tool clamping system			
	W6	W6 (IK)	W7	W8	W9	W10	W11	W12	W13	A*	Collets (REGO-FIX® system) - DIN 6499/ISO 15488			
											Internal clamping nut	W3	Internal clamping nut	W3
G 5	35	55	21	82	-	85	125,5	-	50	65	ER-16 A	26,5	-	
G 6	43,5	62,5	26	105,5	-	105	135,5	-	58	65	ER-20 A	22	ER-25 A	25
G 7	52	70,5	32	136	-	105	135,5	-	68	65	ER-25 A	22	ER-32 A	33
G 10	57	75,5	40	171,5	-	125	190,5	-	80	110	ER-32 A	26	ER-40 A	37

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

Specifications

Form F



Type	Output dimensions/tool clamping system																	
	Angle α°		W5	W6	W8		W5	W6	W8		W5	W6	W8		W5	W6	W8	
F5	30°	ER-16 A	8	66	107	ER-20	19	66	126	24-16	11	66	111	-	-	-	-	
	45°		58	90	99		41	90	115		29	90	103					
	60°		39	88	87		58	88	98		43	88	90					
F6	30°	ER-20 A	7	75	119	ER-25	18	75	138	32-20	12	75	127	Ø 16	19	75	140	
	45°		27	90	109		43	90	125		33	90	115		44	90	126	
	60°		45	98	95		64	98	106		53	98	100		66	98	107	
F7	30°	ER-25 A	7	81	125	ER-32	19	81	145	40-25	14	81	136	Ø 20	18	81	144	
	45°		30	95	114		46	95	130		39	95	123		46	95	130	
	60°		50	101	99		70	101	111		61	101	106		69	101	110	
F10	30°	ER-32 A	7	90	149	ER-40	22	90	175	40-25	11	90	156	Ø 20	14	90	160	
	45°		34	105	137		55	105	158		40	105	143		43	105	146	
	60°		56	113	118		82	113	133		63	113	122		67	113	125	
F20	30°	ER-40 A	7	107	205	ER-50	27	107	240	50-32	11	107	212	Ø 32	14	107	216	
	45°		45	120	190		73	120	218		51	120	196		54	120	199	
	60°		75	125	165		110	125	185		82	125	169		86	125	172	
F30	30°	ER-50 A	8	130	256	ER-50	21	130	278	50-32	8	130	256	Ø 40	9	130	257	
	45°		55	140	236		73	140	254		55	140	236		56	140	237	
	60°		95	145	206		117	145	219		95	145	206		96	145	207	

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

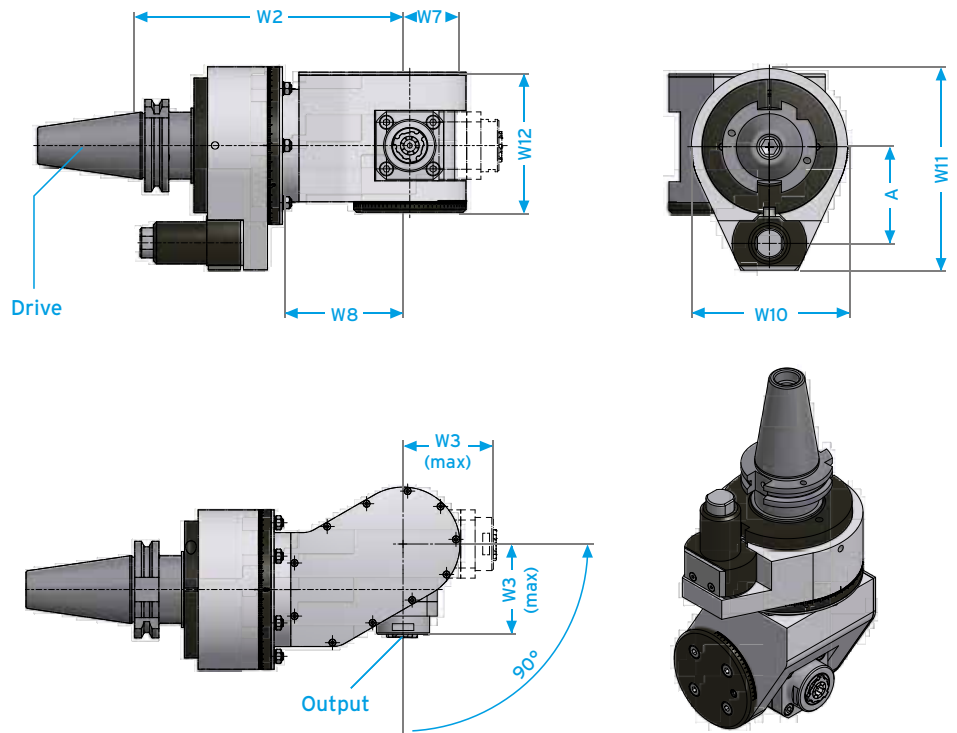
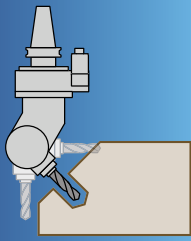
⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | ⁶ Optional angle according to customer requirements

Type	Specification				Drive dimensions/ machine interface ²					Angular head dimensions				
	Max. speed [l/min]	Max. torque.	Weight [kg]	Angle a	SK / HSK 3	W2				W7	W10	W11	W12	A*
F5	10.000 rpm	15 Nm	4	30°	SK 40	208	227	212	-	21	85	126	45	65
					HSK 63	218	237	222	-					
				45°	SK 40	200	216	204	-					
					HSK 63	210	226	214	-					
				60°	SK 40	188	199	191	-					
					HSK 63	198	209	201	-					
F6	8.000 rpm	43 Nm	7	30°	SK 40	220	239	228	241	32	105	136	64	65
					HSK 63	230	249	238	251					
				45°	SK 40	210	226	216	227					
					HSK 63	220	236	226	237					
				60°	SK 40	196	207	201	208					
					HSK 63	206	217	211	218					
F7	8.000 rpm	70 Nm	9	30°	SK 40	226	246	237	245	32	105	136	64	65
					HSK 63	236	256	247	255					
				45°	SK 40	215	231	224	231					
					HSK 63	225	241	234	241					
				60°	SK 40	200	212	207	211					
					HSK 63	210	222	217	221					
F10	6.000 rpm	120 Nm	14	30°	SK 50	262	288	269	273	34	125	191	80	110
					HSK 100	296	322	303	307					
				45°	SK 50	250	271	256	259					
					HSK 100	284	305	290	293					
				60°	SK 50	231	246	235	238					
					HSK 100	265	280	269	272					
F20	3.000 rpm	250 Nm	20	30°	SK 50	315	350	322	326	45	160	208	99	110
					HSK 100	349	384	356	360					
				45°	SK 50	300	328	306	309					
					HSK 100	334	362	340	343					
				60°	SK 50	275	295	279	282					
					HSK 100	309	329	313	316					
F30	2.000 rpm	500 Nm	32	30°	SK 50	370	392	370	371	55	180	238	110	130
					HSK 100	404	426	404	405					
				45°	SK 50	350	368	350	351					
					HSK 100	384	402	384	385					
				60°	SK 50	320	333	320	321					
					HSK 100	354	367	354	355					

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388
⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

Specifications

Form D

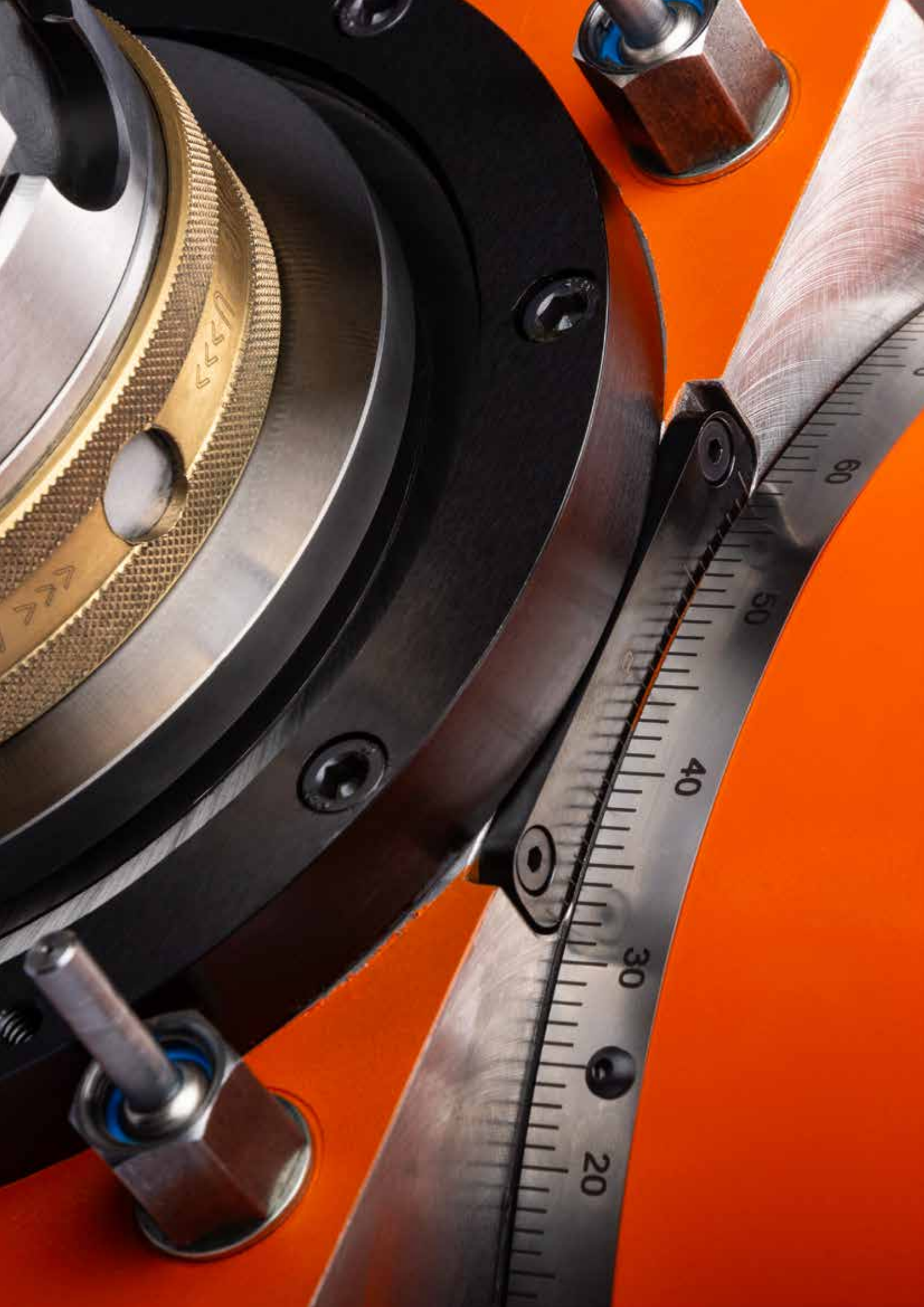


Type	Specification			Drive dimensions/machine interface ²			
	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	SK / CAT / BT ³	W2	HSK Form A & C ⁴	W2
D 5	10.000 rpm	15 Nm	6	SK 40	185	HSK 63	195
D 6	8.000 rpm	43 Nm	9	SK 40	200	HSK 63	210
D 7	8.000 rpm	70 Nm	12	SK 40	215	HSK 63	225
D 10	6.000 rpm	120 Nm	18	SK 50	225	HSK 100	259
D 20	3.000 rpm	250 Nm	37	SK 50	290	HSK 100	324
D 30	2.000 rpm	500 Nm	50	SK 50	280	HSK 100	314

Type	Angular head dimensions						Output dimensions/tool clamping system							
	W7	W8	W10	W11	W12	A*	 ⁵	W3	 ⁵	W3		W3		W3
D 5	38	83	85	126	101	65	ER-16A	60	ER-20	83	24-16	65	-	-
D 6	41	98	105	136	115	65	ER-20 A	75	ER-25	98	32-20	84	Ø 16	91
D 7	50	113	105	136	132	65	ER-25 A	84	ER-32	107	40-25	92	Ø 20	97
D 10	55	120	125	191	142	110	ER-32 A	90	ER-40	120	40-25	98	Ø 20	100
D 20	75	181	160	208	192	110	ER-40 A	122	ER-50	140	50-32	135	Ø 32	120
D 30	110	180	180	238	190	130	ER-50 A	130	ER-50	145	50-32	139	Ø 42	121

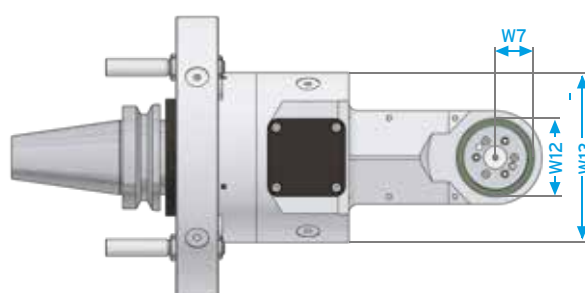
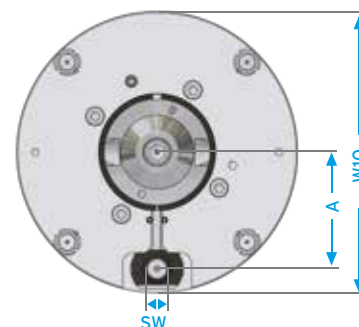
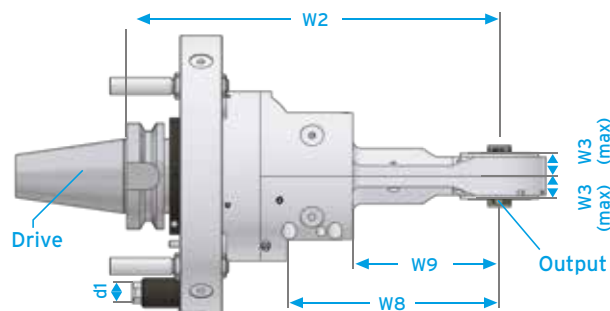
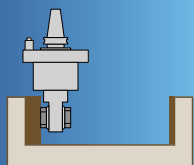
All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.



Spezifikationen

Form X



Type	Specification			Drive dimensions/machine interface ²			
^a	Max. speed [1/min]	Max. torque	Weight ¹ [kg]	DIN 69871 / ISO 7388 SK / CAT / BT ³	W2	DIN 69893 / ISO 12164 HSK Form A & C ⁴	W2
X 7	4000 rpm	30 Nm	28	SK 50	334	HSK 100	335
X 10	4000 rpm	80 Nm	34	SK 50	354	HSK 100	355
X 20	3000 rpm	160 Nm	38	SK 50	419	HSK 100	420

Type	Angular head dimensions							Output dimensions/ tool clamping system	
	W7	W8	W9	W10	W12	W13	A*	Cutter spindle	W3
X 7	31,5	123	118	265	63	160	110	FD 10	26
X 10	44	123	138	265	88	160	110	FD 22	32
X 20	58	136	190	265	116	160	110	FD 32	38,50

All dimensions in [mm]. ¹ Weight based on specified machine interface. | ² For other machine interfaces see page 10 | ³ DIN 69871/ISO 7388

⁴ DIN 69893/ISO 12164 | ⁵ Collets- DIN 6499/ISO 15488 | *Standard A dimensions: 65, 80, 110, 130. Optional according to customer requirements.

^aSpecial sizes/dimensions according to customer requirements

Special developments



Haven't found the perfect match? No problem.

"Only in the rarest of cases will you need a transmission gear that matches exactly the specifications shown here. At ROMAI, we design and produce according to customer specifications. An extensive catalogue of modules enables us to implement small deviations from the standard as well as completely new developments in a timely, high-quality and affordable manner.

Many years of experience, a high level of technical expertise and short delivery times make ROMAI one of the most sought-after transmission gear suppliers in all areas of machining, from automotive and aerospace to wind turbines.

We would be delighted to fulfil your wishes too."

Variety made to measure



All information in this brochure is correct as of 08/2024 subject to technical changes and printing errors. We provide our customers with design data in common 3D interchangeable formats. Further information, downloads, operating instructions, etc. can be found at www.romai.de. If you have any questions, please contact our sales department on +49 (0) 7042 8321-0.

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