



Attachments for Construction Machines
XTRATILT ROTOBOX TILTROTATOR

BETTER WITHOUT
CYLINDER

www.hks-partner.com



The Best for Every Challenge

NO LIMITS TO INDIVIDUALITY

Each application is different and requires different tools as well. For this purpose, HKS has the largest market range of turning and swiveling tools, which ideally covers every application. Whether only simple pivoting or rotating, or both at once.

We develop, design and produce according to your ideas and thus achieve the best for you and your excavator.

Our design team adapts each product individually to your excavator, so the kinematics remain in the best possible way and the volume of each bucket can be utilized maximally.

Convince yourself of our solutions, likewise as well directly on site.

Trust in HKS with over 45 years experience in the field of hydraulic and pneumatic rotary actuators and fifteen years of successful products for the Construction Technology segment.

XTRATILT **XT**

- › Improved accessibility of operating positions by tilting
- › Easy handling of works on embankments



TILTROTATOR **TR**

- › Best possible accessibility of operating positions thanks to simultaneous tilting and rotating
- › Spatial positioning enables previously impossible areas of application for your attachments

ROTOBox **RB**

- › Improved accessibility of operating positions due to endless rotation
- › Immediate changeover from backhoe to face bucket by means of simple rotation



TILTROTATOR TR  



Combination
With adapter to dipperstick connection and quick coupler



Sandwich-Solution
With quick-coupler adapter and quick coupler

Further intermediate tilt angles available upon request.



RotoBox RB 



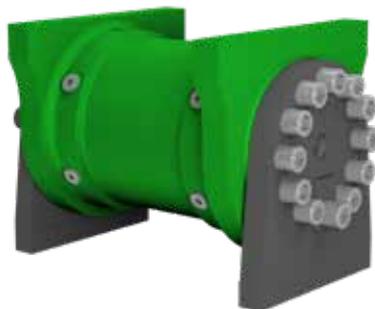
Combination
With adapter to dipperstick connection and quick coupler



Sandwich-Solution
With quick-coupler adapter and quick coupler



XTRATILT XT   

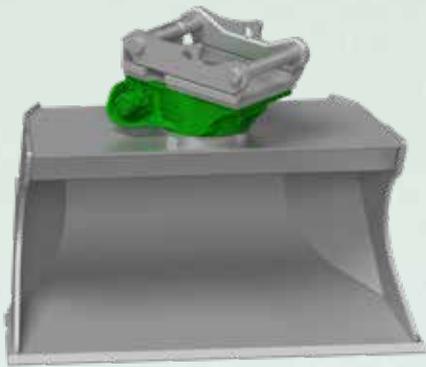


With Lugs
With lugs for direct connection. Oil feedthrough an optional extra.



Combination
With permanent shaft connection and quick coupler

Made to Measure - for loads of Applications



Direct-Connection

For connecting directly to the bucket

Discover the broad diversity of HKS Construction Technology products, and use them **to boost your productivity.**



Sandwich-Solution

With quick-coupler adapter and quick coupler



Direct-Connection

For connecting directly to the bucket

Variations over Combinations

Alternative:
Welded connection from adapter to dipperstick connection and XtraTilt for a more compact overall height.



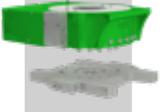
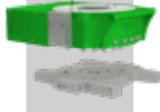
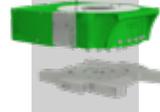
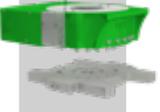
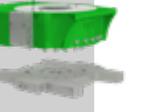
	XTRATILT	XTRATILT L-version	XTRATILT K-version	
	As a stand-alone device	With lugs for direct connection to the bucket	With adapter to dipperstick connection and quick coupler	With quick-coupler adapter and quick coupler
<p>Adapter to dipperstick connection (optional) Compatible with all excavators up to 100 t Also available as a welded version or with a quick coupler adapter</p>				
<p>BETTER WITHOUT CYLINDER HKS XtraTilt 54 models in 18 sizes up to 100 t Tilt angle: 100°, 140° or 180° Holding torque of up to 165,000 Nm</p>				
<p>Oil feedthrough (optional) two sizes - standard and XL Flow rate of up to 500 l/min 5 flow rate channels Optional power feedthrough</p>				
<p>HKS RotoBox In 7 sizes from 1 t to 55 t Torque of up to 12,000 Nm Up to 8 rotations/min (with adapter board)</p>				
<p>Quick coupler (optional) Compatible with all mechanical and hydraulic quick couplers</p>				

Special solutions available on request. Just contact us.

All facts at a glance:

- › Adapter board compatible with all quick couplers
- › Dipperstick connection individually adapted for all carrier devices
- › Can be used on all attachments

Legend:
 L = lugs
 C = combination (adapter to dipperstick connection/quick coupler adapter and quick coupler)

ROTOBOX		ROTOBOX K-version		TILTROTATOR		TILTROTATOR K-version	
As a stand-alone device		With adapter to dipperstick connection and quick coupler	With quick-coupler adapter and quick coupler	As a stand-alone device		With adapter to dipperstick connection and quick coupler	With quick-coupler adapter and quick coupler
							
				Optimised XtraTilt BVC-R model Increased performance – lower overall height		Optimised XtraTilt BVC-R model Increased performance – lower overall height	
							
							
							

Exact made-to-measure product for your excavator.
Higher bucket volume by preservation of the kinematics.

new

The optimized RotoBox decreases construction height,
width and weight in comparison to the previous model.



Further intermediate tilt angles available upon request.

Videos from fields of application to find under:

▶ www.hks-partner.com

TILTROTATOR

Form follows Function

- › 2x55° simultaneous tilting and endless rotating
- › A great solution to position and hold attachments in the working area of the machine space
- › More efficient machine utilisation and therefore reduced costs with the **TILTROTATOR**

The TiltRotator enables you to tilt your attachment $\pm 55^\circ$ (on request even higher) in both directions and rotate endlessly at the same time. These two functions provide three-dimensional positioning easily and accurately, increasing your efficiency and productivity.

With its compact and robust tilt unit, the TiltRotator is an incomparable alternative to conventional wider cylinder variants, which are prone to faults. An optimised XtraTilt with extended torque and reduced overall height is used for the TiltRotator.

Details

- › Standard tilt angle of 2 x 55° (even higher on request)
- › Holding torque of up to 90,000 Nm
- › Torque of up to 43,000 Nm
- › In 10 models for a carrier device weight of up to 55 t.
- › Up to 8 rotations per minute
- › Modular system design



Photo: Erwin Bauer



Less Consumption - More Performance



Your product advantages

More efficient machine utilisation rate

- › Optimized working width and therefore narrower and lighter working tools can be attached, which decreases the entire weight and excavation
- › Extended radius of action in a stationary position
- › Larger tilt angle
- › Attachment mounting with quick coupler from any stationary position of the carrier device
- › Increases the mobility of your attachments optimises their range of operation

Reduces construction site costs

- › Less re-adjustment of the vehicles saves time and fuel, reduces wear and tear to the machine
- › Fewer maintenance requirements and less lubrication reduce downtimes
- › Increased machine utilisation rates of up to 40% shorten the amortisation period
- › Easy retrofitting of existing machinery thanks to compatibility with all quick couplers and carrier devices
- › Maximum accessibility and precise maintenance of the selected operating positions
- › More orders can be completed during the same amount of time
- › Indispensable for gardening and landscaping, drainage channel construction and civil engineering

TR

Exact Positioning - without Expenditure



Conventional models

Minimum working width

x

- Projecting, disturbing cylinders. Problems with excavating
- Damage to the cylinders caused by soil, stones and dirt
- Continuous re-lubrication/greasing of the cylinder bearing necessary
- Bearings susceptible to maintenance
- Restricted tilt angle and angle-dependent tilt torque



HKS TILTROTATOR

BETTER WITHOUT CYLINDER

Minimum working width

$\sim \frac{x}{2}$

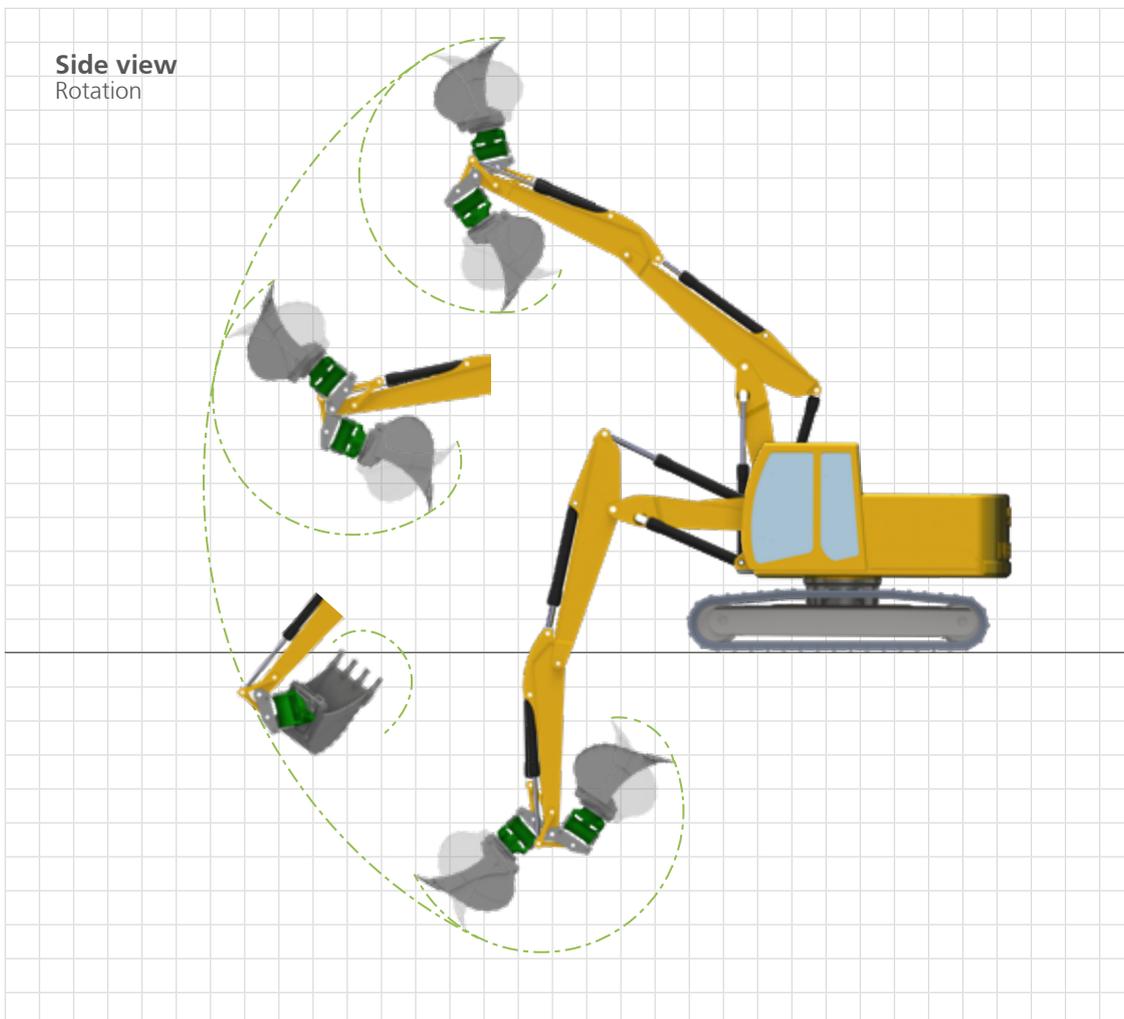
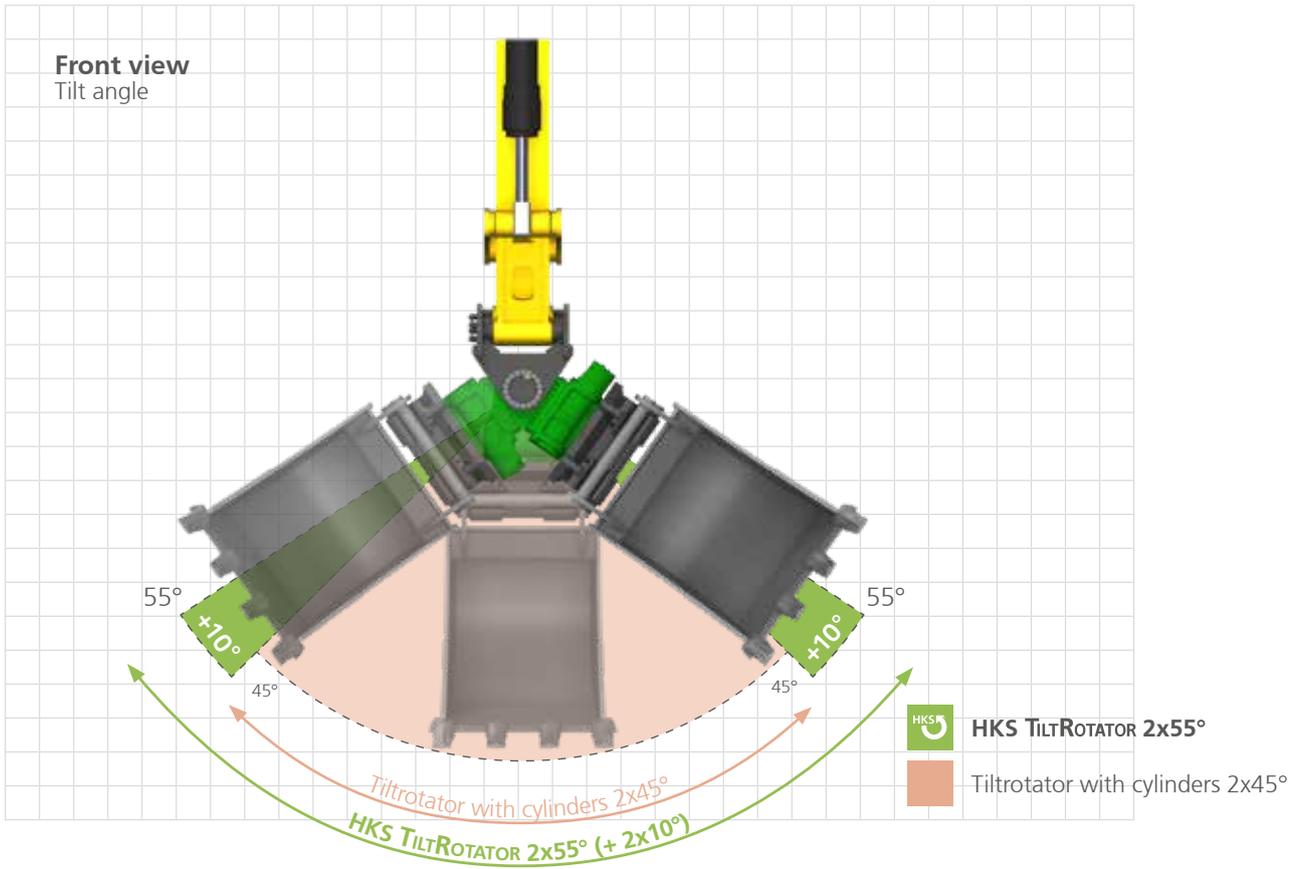
- Narrower width, compact, robust, insensitive to dirt, powerful
- Greater accessibility thanks to greater tilt angle
- Lower maintenance costs due to longer service intervals
- Maintenance-free, strong friction bearings
- Constant tilt torque, regardless of tilt angle

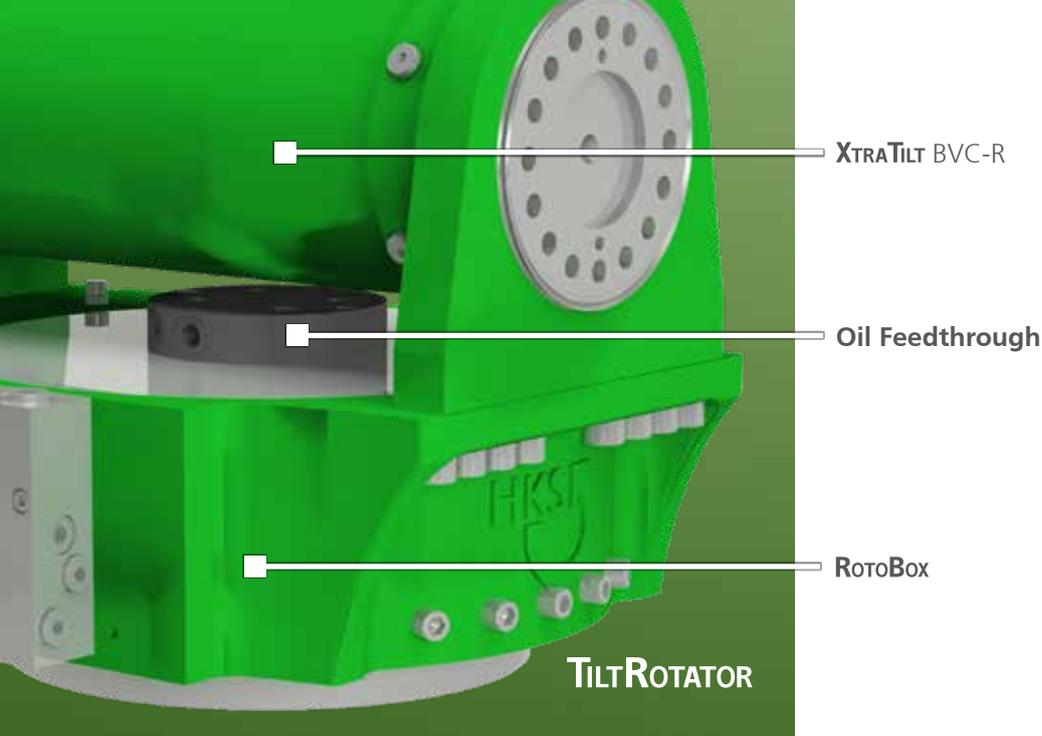
Simplified representation

Recommended bucket width

TILTROTATOR	TR 20	TR 35	TR 60	TR 90	TR 120	TR 150	TR 200	TR 270	TR 380	TR 550
Excavator class (t)	2,0 - 2,5	2,4 - 3,5	3 - 6	5,5 - 9	8 - 12	11 - 15	14 - 20	19 - 27	24 - 33	32 - 55
Recommended max. bucket width [mm]	1100	1200	1400	1500	1600	1700	1800	2000	o. r.	2600

Accessibility of operating positions

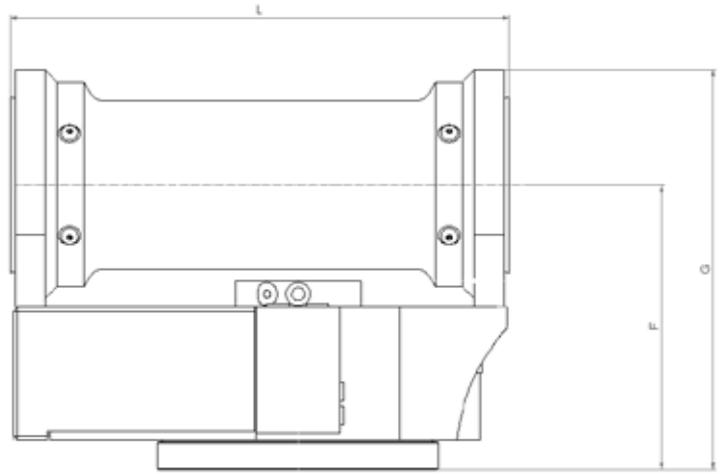
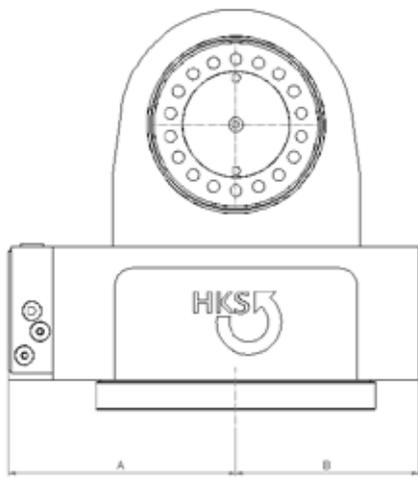




TILTROTATOR	TR 20		TR 35		TR 60		TR 90			TR 120		
Excavator class (t)	2,0 - 2,5		2,4 - 3,5		3 - 6		5,5 - 9			8 - 12		
Oil feedthrough version	-	Standard	-	Standard	-	Standard	-	Standard	XL	-	Standard	XL
Flow rate of oil feedthrough system at pressure differential $\Delta p = 10$ bar (HLP 46 30 °C)* [l/min]	-	42	-	42	-	52	-	52	130	-	52	130
Allocated RotoBox	RB 30		RB 30		RB 60		RB 120			RB 120		
Weight RotoBox excluding rotary feedthrough [kg]	ab 40		ab 40		ab 78		ab 110			ab 110		
Permitted axial load max. [N]	95.000		95.000		100.000		160.000			160.000		
Permitted radial load max [N]	48.000		48.000		95.000		140.000			140.000		
Torque @ 175 bar [Nm]	810		810		1.350		3.500			3.500		
U/min @ l/min at max. 175 bar	8 @ 28 l/min		8 @ 28 l/min		8 @ 28 l/min		8 @ 45 l/min			8 @ 45 l/min		
Allocated BVC-R	BVC-R 90		BVC-R 100		BVC-R 110		BVC-R 130			BVC-R 140		
Tilt angle	110°		110°		110°		110°			110°		
Amount of oil required per 6 sec. tilt time	3 l/min		5 l/min		7 l/min		15 l/min			21 l/min		
Displacement [dm³]	0,288		0,413		0,63		1,44			2,03		
Torque @ 210 bar [Nm]	1.700		2.600		3500		8500			10000		
Holding moment @ 210 bar [Nm]	5.000		7.500		11000		20000			22000		
Weight [kg]	27		35		58		80			99		
Dimensions												
A [mm]	176		176		200		251			251		
B [mm]	112		112		145		180			180		
F [mm]	193	223	198	228	222	254	264	294	307	266	296	309
G [mm]	263	293	273	303	307	339	378	401	414	378	408	421
L [mm]	301		353		484		480			540		
Total weight TR excluding rotary feedthrough [kg]	from 67	from 89	from 75	from 97	from 135	from 171	from 190	from 221	from 262	from 209	from 240	from 280

Deliveries and services are exclusively based on our Terms and Conditions.

Exact values are indicated in the technical drawings or the operating manual for your individual actuator..



new

TR 150			TR 200			TR 270			TR 380	TR 550
11 - 15			14 - 20			19 - 27			24 - 33	32 - 55
-	Standard	XL	-	Standard	XL	-	Standard	XL		
-	52	160	-	52	160	-	52	200	on request	500
RB 200			RB 200			RB 270			RB 380	RB 550
ab 159			ab 159			ab 260				
210.000			210.000			400.000			on request	on request
180.000			180.000			250.000				
4.700			4.700			8.000				
6 @ 45 l/min			6 @ 45 l/min			6 @ 55 l/min				
BVC-R 140 (more powerful version)			BVC-R 160			BVC-R 200			on request	on request
110°			110°			110°				
21 l/min			26 l/min			44 l/min				
2,08			2,53			4,32				
10500			15000			21000				
28000			38000			52000				
122			145			204			on request	on request
268			268			292				
215			215			280				
296	328	340	305	337	349	333	335	391		
415	447	459	441	473	485	476	478	534		
585			585			726				
from 281	from 319	from 390	from 304	from 342	from 410	from 464	from 518	from 654		

*) The pressure losses indicated were ascertained in the flow of the rotary feedthrough in one direction. Pressure losses caused by attachments such as screw connections or hoses have not been taken into account.
All mentioned weights without quick coupler, permanent shaft connection, adapter flange, cover and screw package.



Videos from fields of application to find under:
▶ www.hks-partner.com

ROTOBOX - Work Efficiency

- › Continuous rotating in both directions
- › The **ROTOBOX** is a great solution to position and hold attachments
- › Even more freedom of mobility due to an extended radius of action
- › Use of narrower working devices possible through the new, narrower width of the **ROTOBOX**

Extend your action radius to 360° with the RotoBox. This enables more flexible operation in a stationary position and additional fields of operation. Hydraulic tools requiring a large amount of oil can also be optimally used with the optional HKS oil feedthrough. Together with our sales experts, you will find the RotoBox that suits your specific applications.

Details

- › Torque of up to 12,000 Nm
- › Up to 8 rotations per minute
- › Operating pressure of up to 175 bar
- › In 7 sizes for a carrier device weight of up to 55 t

ROTOBOX - New Generation



New generation of the RotoBox

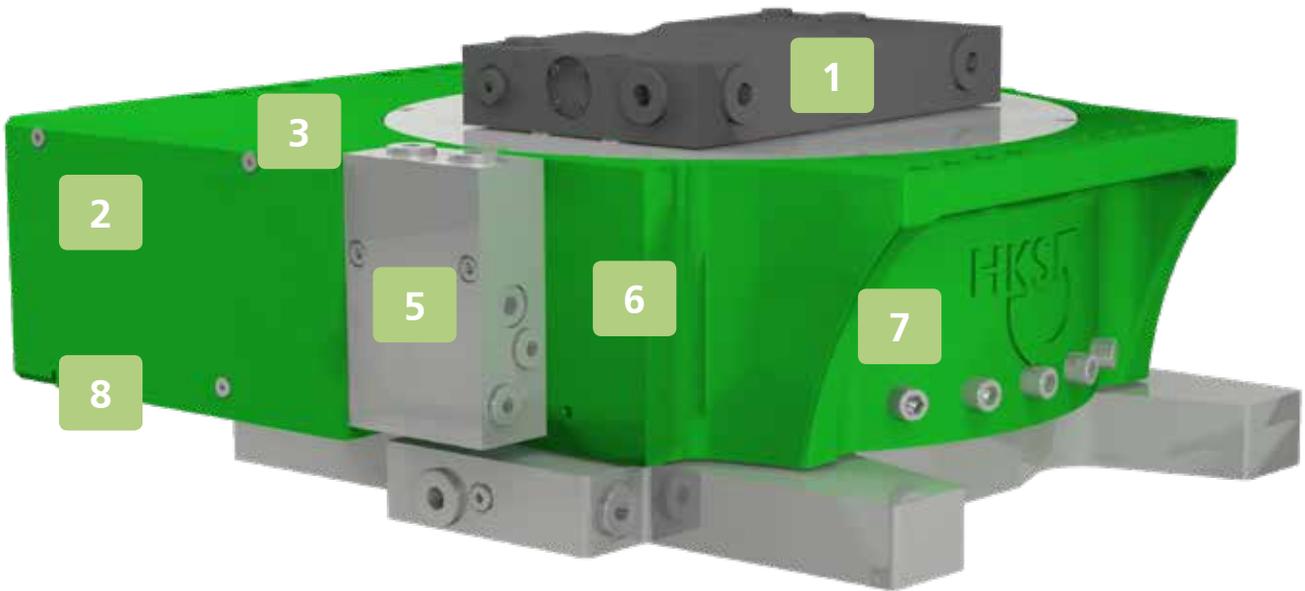
The new generation of the RotoBox is based on a completely new design. The focus was saving on height and weight while maximizing durability. The width has also been enhanced to allow the installation of narrower and therefore lighter attachments.

The two oil feedthrough units with up to 500l/min flow provide even more flexibility. Depending on the application, you can choose amongst our standard version to save weight and fuel, or the XL version of oil feedthrough for the more powerful version.

Your product advantages

- › **Precise operation:** exact maintenance of the selected position, thanks to low-backlash gears and precise holding torques
- › **Great flexibility:** compatible with all quick couplers and carrier devices and with the new narrower width enables to attach narrower working devices.
- › **Faster operation:** thanks to an endlessly rotating 360° action radius, your attachments achieve considerably more operating positions. For instance, by rotating the bucket a backhoe bucket can quickly be turned into a face bucket.
- › **Long service life:** thanks to high-strength steel casting and a worm gear drive filled in grease, downtimes are minimised, and a high utilisation rate of your machine is guaranteed.
- › **Durability:** protection against wear and tear and rust, thanks to special manufacturing methods that give the robust steel casting the utmost accuracy of shape.
- › **Cost savings:** no additional rotator required for hydraulic tools.

Your product advantages in details



1

The RotoBox comes with two different oil feedthrough units - either to avoid unnecessary weight (standard) or to utilize more power (XL). Also available excluding oil feedthrough.

2

The hydraulic motor is integrated in the housing and perfectly protected.

3

Housing made of high-strength steel castings. Saves weight and ensures high durability.

4

Instead of the threaded blind in the housing, passageway-drillings are utilized. Assembly and disassembly of rotary actuators and other possible attachments is enormously facilitated through that.

5

The RotoBox is equipped with flow-control and pressure relief valves, so that a pressure reduction at the excavator hydraulics is obsolete.

6

By changing the mounting of the worm wheel, the height could be reduced and with that as well the weight.

7

A worm wheel made out of bronze ensures greater durability and power.

8

For the RB 60 and RB 120 the hydraulic motor was built in the axial direction and thus the width was reduced, which makes it possible to use even narrower attachments.

Optimized Design - Powerful Technics

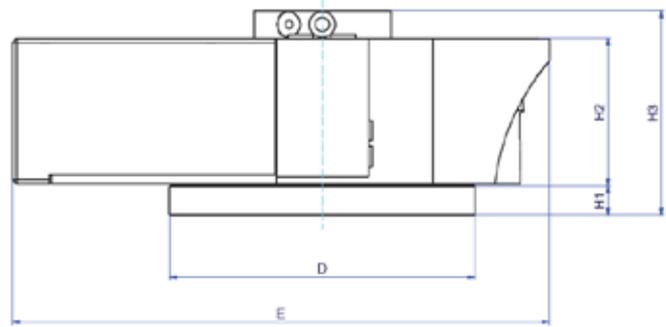
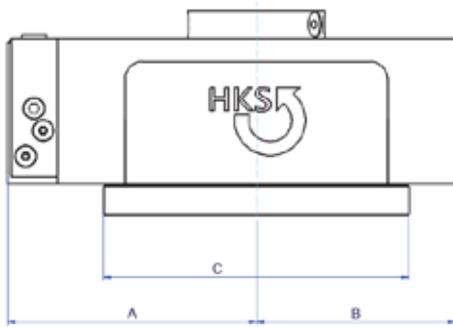
Our experienced staff will gladly help you select the right rotary drive. Contact us at:

► +49 6053 6163-0



RotoBox	RB 30		RB 60		RB 120		
Excavator class (t)	1 - 3,5		3 - 6		5 - 12		
Oil feedthrough version	-	Standard	-	Standard	-	Standard	XL
Flow rate of oil feedthrough system at pressure difference $\Delta p = 10$ bar (HLP 46 30 °C)*	-	42 [l/min]	-	52 [l/min]	-	52 [l/min]	130 [l/min]
Weight of RotoBox excluding rotary feedthrough [kg]	from 40		from 78		from 110		
Permitted axial load max. [N]	95.000		100.000		160.000		
Permitted radial load max [N]	48.000		95.000		140.000		
Torque @ 175 bar [Nm]	810		1.350		3.500		
U/min @ l/min at max. 175 bar	8 @ 28 l/min		8 @ 28 l/min		8 @ 45 l/min		
Recommended max. bucket width [mm]	1200		1400		1700		
Dimensions							
A [mm]	176		200		251		
B [mm]	112		145		180		
C [mm]	255		290		265	400	
D [mm]	290		275		265	360	
E [mm]	425		481		530		
H1 [mm]	30		32		30	43	
H2 [mm]	106		129		151		
H3 [mm]	146	172	188	198	201	206	231

Deliveries and services are exclusively based on our Terms and Conditions.
Exact values are indicated in the technical drawings or the operating manual for your individual actuator.



new

RB 200			RB 270			RB 380	RB 550
11 - 20			19 - 27			26 - 33	32 - 55
-	Standard	XL	-	Standard	XL	on request	
-	52 [l/min]	160 [l/min]	-	52 [l/min]	200 [l/min]	on request	500 [l/min]
from 159			from 260			from 500	~800
210.000			400.000			520.000	850.000
180.000			250.000			310.000	500.000
4.700			8.000			12.500	12.000
6 @ 45 l/min			6 @ 55 l/min			6 @ 80 l/min	5 @ 82 l/min
1800			2000			on request	2600
268			292			375	355
215			280			375	300
330	490		380	600	600	880	
330	490		380	500	600	600	
580	580		721		-	320	
32	44		2	56	-	400	
165			185			260	400
197	222	251	187	212	290	-	-

*) The pressure losses indicated were ascertained in the flow of the rotary feedthrough in one direction. Pressure losses caused by attachments such as screw connections or hoses have not been taken into account. All mentioned weights without quick coupler, permanent shaft connection, adapter flange, cover and screw package.

500
l/min

Maximum in Performance



HKS OIL FEEDTHROUGH

Details

- › 2 versions eligible (standard + XL)
- › 5 channels with up to 500l/min
- › Optional power rotary feedthrough
- › Up to 350 bar operating pressure

With the extra large HKS oil feedthrough, connected hydraulic tools are supplied with a flow rate of up to 500l/min oil (pressure difference $\Delta p = 10$ bar, (HLP 46 30 °C)).

Only the HKS oil feedthrough can get the flow rate supplied by your carrier device to your attachment at the lowest pressure difference. This feature enables your tools to operate at full capacity.

Don't make compromises – put your trust in HKS products.

The unique design and special manufacturing process allow for particularly large channels for greater passage and a low efficiency loss rate. The individual flow rates can be flexibly distributed using multiple connectors. The piping can therefore be optimally adjusted and implemented to suit your carrier device

With 5 oil channels available (2 for quick coupler, 2 for work unit, 1 for drain line) and a current power rotary feedthrough.

Special solutions for 3, 6 or 7 channels and more on request!

Product advantages

- › Maximum capacity for your hydraulic attachments
- › Wear-resistant, high-quality components
- › Your attachment has an operating pressure of up to 350 bar
- › Up to 500 l/min flow rate and extremely low pressure differential
- › Optimum adjustment to any quick coupler
- › Electric feedthrough with up to 12 connections of 2 amperes each
- › Available for the excavator class of 5-27t optional with standard version or extra large (XL) oil rotary feedthrough



Standard oil feedthrough

- › WEIGHT SAVING!
- › Low weight with extremely effective delivery of up to 52 l/min
- › Compatible with the new RotoBox
- › Already available for mini-excavators as from 1t
- › Minimum back pressure with viscous hydraulic oil HLP 46 at 30 °C

Oil feedthrough for RotoBox	RB 30	RB 60	RB 120	RB 200	RB 270
Excavator class (t)	1 - 3,5	3 - 6	5 - 12	11 - 20	19 - 27
Weight [kg]	7,5	13	10,5	10,5	10,5
Flow rate of oil feedthrough system at pressure difference $\Delta p = 10$ bar (HLP 46 30 °C)*	42 [l/min]	52 [l/min]	52 [l/min]	52 [l/min]	52 [l/min]



XtraLarge oil feedthrough (XL)

- › Compatible with the new RotoBox
- › Incredible delivery for powerful work assignments available from excavators as from 5t
- › Minimum back pressure with viscous hydraulic oil HLP 46 at 30 °C

Oil feedthrough for RotoBox	RB 120	RB 200	RB 270	new RB 380	RB 550
Excavator class (t)	5 - 12	11 - 20	19 - 27	26 - 33	32 - 55
Weight [kg]	22,9	35,5	57,2	on request	245
Flow rate of oil feedthrough system at pressure difference $\Delta p = 10$ bar (HLP 46 30 °C)*	130 [l/min]	160 [l/min]	200 [l/min]	on request	500 [l/min]

*) The pressure losses indicated were ascertained in the flow of the rotary feedthrough in one direction. Pressure losses caused by attachments such as screw connections or hoses have not been taken into account. All mentioned weights are excluding adapter flange, cover and screw package.



Videos from fields of application to find under:
▶ www.hks-partner.com

XTRATILT - Maintenance-free in Every Version

- › Tilt up to 2 x 90°
- › The **XTRATILT** is a great solution to position and hold attachments
- › An additional movement axis for greater versatility and flexibility

Many years of experience and innovation have made the XtraTilt even more robust, reliable and durable. Thanks to the special deflectors on both sides, dirt is prevented from entering the housing of the XtraTilt range, making it free from daily-maintenance from the day it leaves the factory. This feature considerably reduces maintenance costs. Together with our sales experts, you will find the XtraTilt that suits your specific applications.

Details

- › Standard rotating angles: 100°/140°/180°
- › Holding torque of up to 165,000 Nm
- › Operating pressure of up to 250 bar
- › 54 models for 18 sizes for a carrier device weight of up to 100 t
- › Further tilting weights available upon request

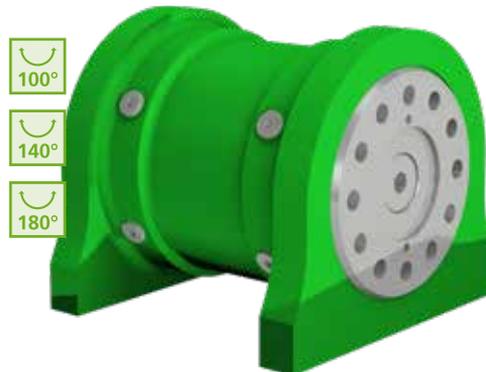


Progress by Longevity

Your product advantages

- › **Maintenance-free operation**, since there is no need for re-lubrication and readjustment.
- › **Unlimited flexibility**: compatible with all quick couplers and carrier devices.
- › **Less material excavation**: narrower attachment tools can be used, considerably reducing the working width.
- › **More precise operation**: high holding torques and precise manufacture ensure the exact maintenance of the selected position.
- › **Constant torque/holding torque**: regardless of the operating angle.
- › **Durability**: protection against wear, tear and rust thanks to special manufacturing, annealing and hardening processes which give the robust welded housings the utmost accuracy of shape.





BVC 1-11t

- › Long-term quality in the use of tilt buckets for excavator classes up to 11 t.
- › Available tilt angles of 100°, 140° and 180°



BVE 10-100t

- › Operating pressure of up to 250 bar
(alternative: 190 bar for tilt angle of 100°)
- › Designed for biologically degradable media (dual seals)
- › Reinforced shaft



BVD 1-16t

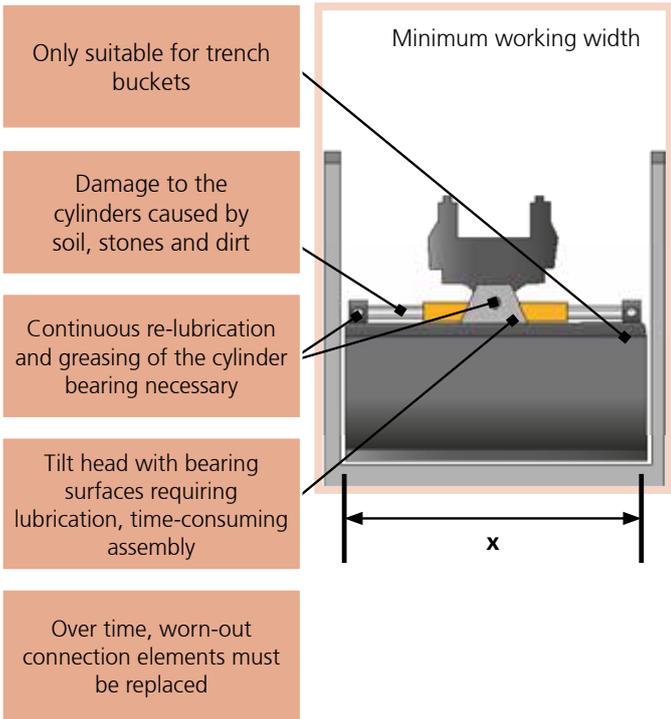
Compared to the BVC at the same output:

- › Lower space requirement
- › Ideal fit for all commercially available quick couplers
- › Regardless of the excavator hydraulics, thanks to directly connected load-holding valve
- › Only available with a tilt angle of 180°

Important Differences in Detail



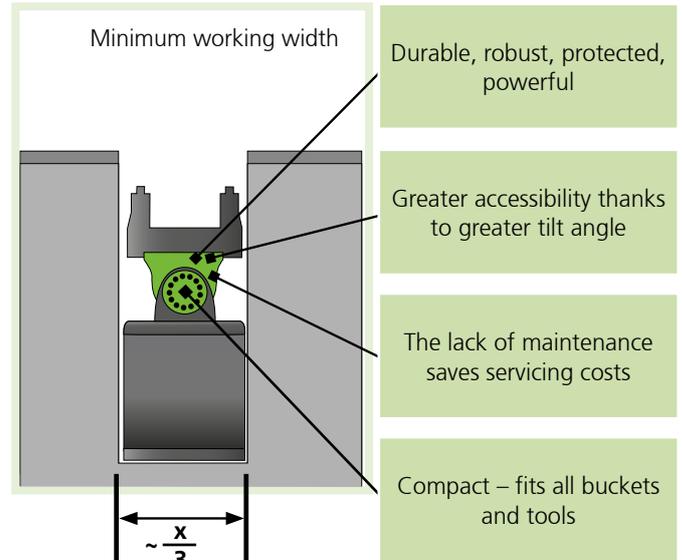
Bucket with linear cylinder



Simplified representation

HKS XTRATILT

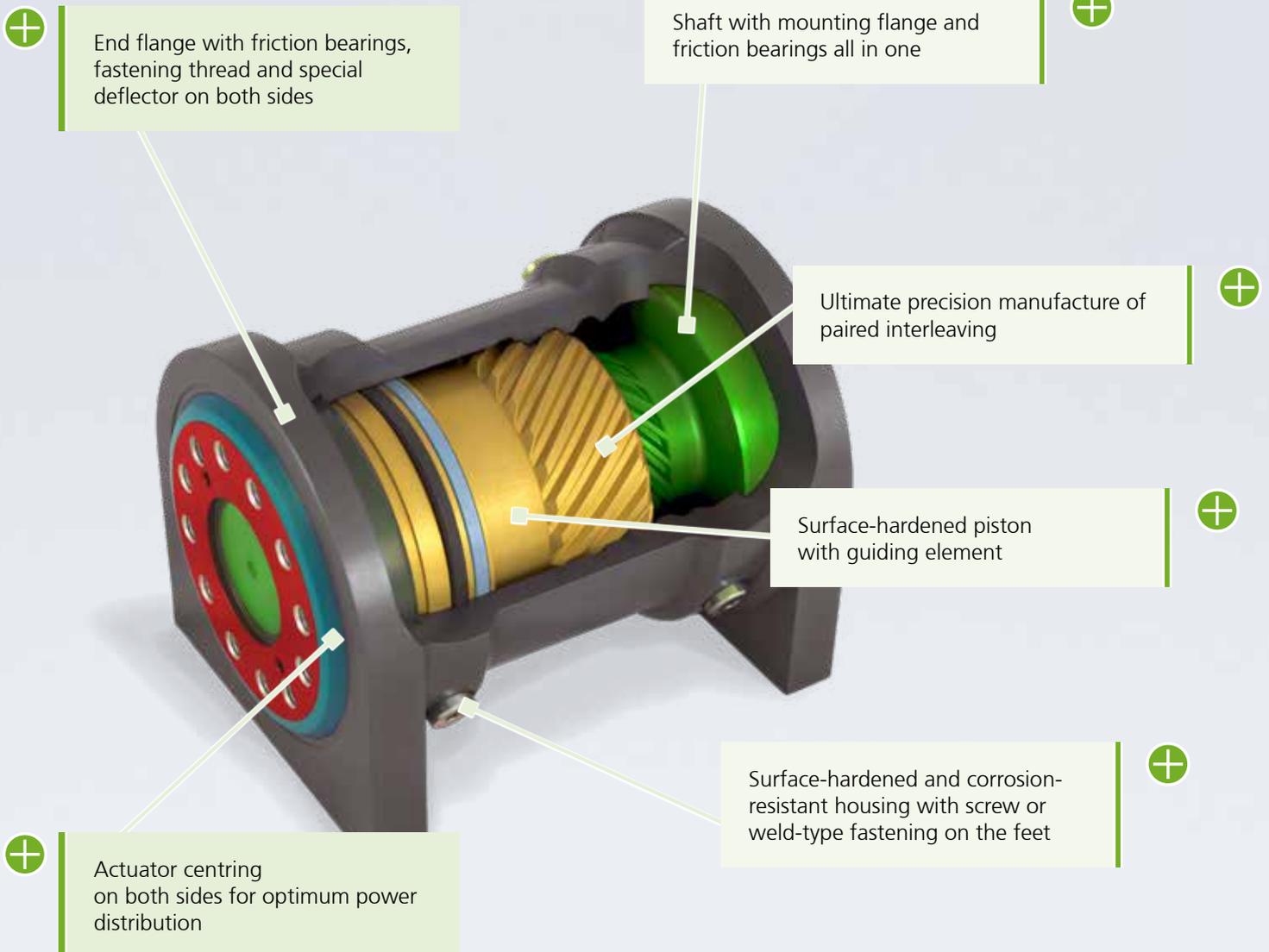
BETTER WITHOUT CYLINDER



Built for harsh everyday applications

The compact 4-part construction of high quality materials and precise manufacturing make the XtraTilt to the most robust rotary drive of its class.

Built for Long-Term Use



Convincing Performance

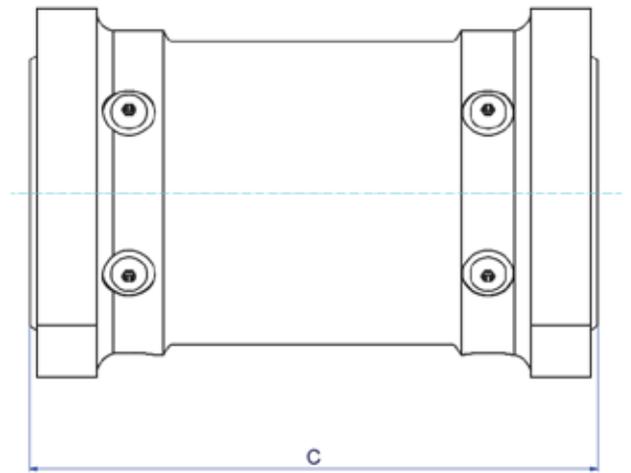
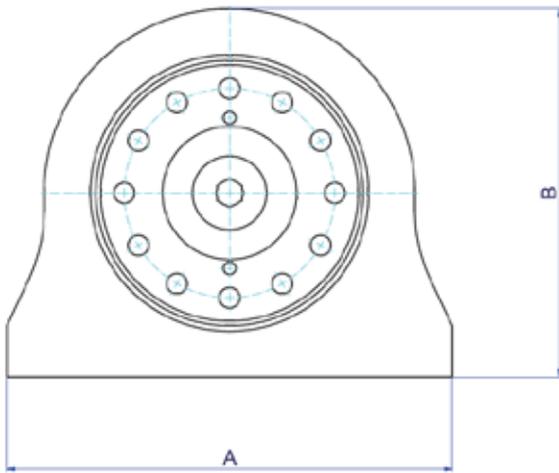
Our experienced staff will gladly help you select the right rotary drive. Contact us at: ▶ +49 6053 6163-0

XTRATILT Size	100			115			125*			130			160			180									
Excavator class (t)	< 1,8			1,8-3,8			3-5,5			4-6,8			7-9			8,5-11									
XTRATILT BV-Series	C	D	F ¹	C	D	F ¹	C	D	C	D	F ¹	C	D	F ¹	C										
Holding torque [Nm]	2.100			2.400			4.300			6.600			11.000			17.500			16.500						
Operating pressure [bar]	190			210			190			190			on request			190			190						
Tilt angle	100°	140°	180°	178°	180°		100°	140°	180°	178°	180°	100°	140°	180°	178°	180°	100°	140°	180°	178°	180°	100°	140°	180°	
Displacement [dm ³]	0,18	0,25	0,323	0,296	0,296		0,284	0,399	0,513	0,527	0,617	0,385	0,538	0,693	0,84	1,06	1,062	1,147	1,606	2,064	1,91	1,94	1,421	1,989	2,557
Weight [kg]	19	21	22	26	48		42	47	52	43	38	51	57	62	61	88	112	87	95	104	113	181	121	135	149
A [mm]	150			190			220			220			270			300			300			332			
B [mm]	152			179			187			212			227			266			266			290			
C [mm]	197	221	245	205	281		264	306	344	275	259	267	305	345	275	398	291	337	383	360	454	319	371	423	

The sizes BVC 140 and BVC 225 are on request.

F¹) Weight and dimensions are including lugs.

*) Manufacture on request



240		250		260	270	290	300	350	400*	420*	450*
11-16		15-23		22-26	25-29	28-34	28-38	37-50	48-60	58-70	68-100
F	D	F ¹	F	F ¹	F	F	F	F	F	F	F
34.000	34.000	34.000	40.000	40.000	43.000	54.000	80.000	90.000	100.000	140.000	165.000
250	210	210	250	210	250	250	250	250	250	250	250
100°	140°	140°	100°	120°	100°	100°	100°	100°	100°	100°	100°
180°	178°	140°	140°	180°	140°	140°	140°	140°	140°	140°	140°
1,851	3,78	2,97	1,777	3,02	3,29	4,115	4,239	5,742	7,969	9,512	10,884
182	191	269	202	321	269	301	365	555	696	1.240	1.403
186	206	269	236	321	301	344	365	622	760	1.426	1.655
390	380	400	412	410	450	492	490	570	608	760	800
328	328	370	353	387	380	400	400	478	515	620	680
354	440	510	368	538	420	482	534	540	565	675	707
412	470	510	430	538	482	548	608	612	641	800	835
on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request

Further sizes and tilt angles available on request ▶ vertrieb@hks-partner.com

All weights exclude quick coupler and adapter to dipperstick connection.

Deliveries and services are exclusively based on our Terms and Conditions.
Exact values are indicated in the technical drawings or the operating manual for your individual actuator.

Modular „TILTROTATOR“

Sandwich - the Solution

Along with an HKS RotoBox or HKS XtraTilt in a sandwich design, you have combined a flexible, modular TiltRotator.

The HKS sandwich solution enables an HKS TiltRotator to be equipped with a quick coupler instead of a fixed adapter to dipperstick connection, for instance, which means that the excavator driver can use the HKS TiltRotator like a standard attachment. The lower quick coupler is still responsible for the change-over of attachments.

FLEET MANAGEMENT. The HKS product can be used for your entire fleet.

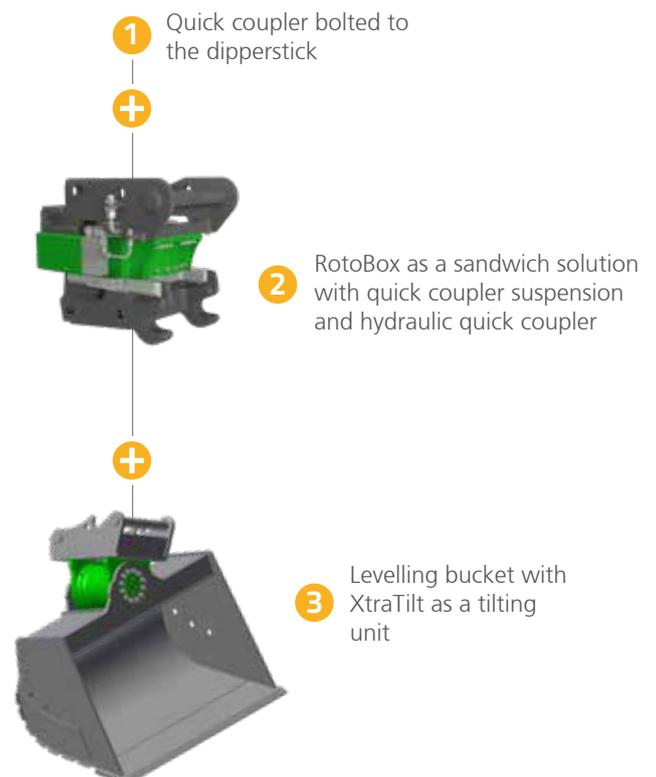
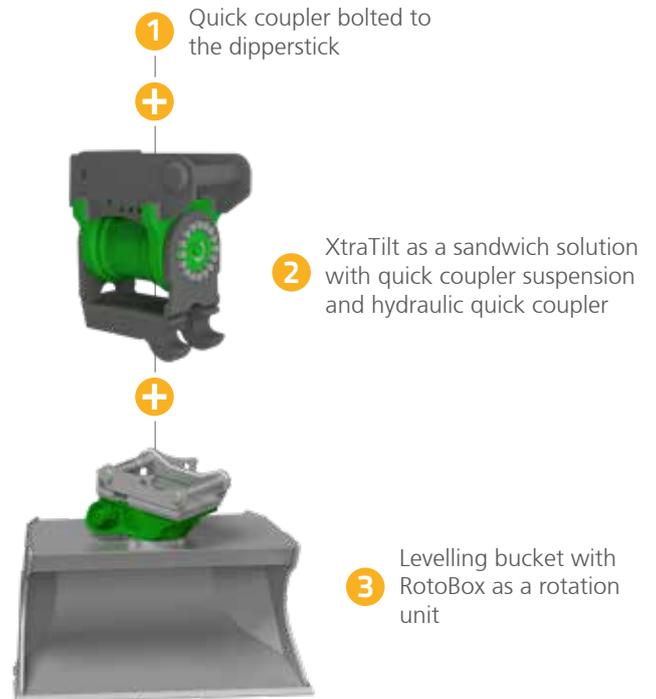
ATTACHMENTS. Existing attachments can still be used without the need for conversion. At the same time, all attachments can be combined with the HKS product for all carrier devices.

INDEPENDENCE. Decoupled by means of a sandwich solution, a carrier can be utilized without TiltRotator / RotoBox / XtraTilt – and therefore be used any time for personnel who are not experienced with an HKS product.

NO TEAR-OUT FORCE LOSSES. The HKS product can be removed if necessary, and the carrier device works at full power upon start-up.

WEIGHT REDUCTION. Should the lifting load be too high for the carrier device, the HKS product can be decoupled for this extreme application.

QUICK COUPLER. Both mechanical and fully hydraulic quick-coupler systems can be used and combined. At the same time, it is also possible to use two different systems. The permanently pressurised locking mechanism complies with EU machinery directives.



Flexibly replaceable

Here are some examples of how the sandwich solution allows you to work flexibly. You can use the right tool for the work at hand, at any time. As a combination with or without HKS products.

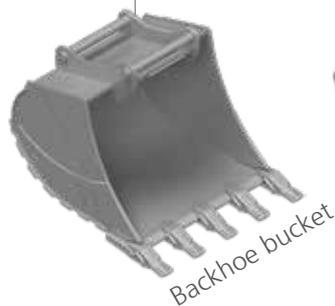
1

Quick coupler bolted to the dipperstick

+



+



Der neue HKS Sensor



Übermittlung von
Positionsdaten an eine 2D/3D
oder GPS Steuerung



Der Sensor von HKS misst die Rotationsposition ($\pm 1^\circ$) des Anbaugerätes, und übermittelt dann die exakten Positionsdaten des TiltRotators, XtraTilt oder einer RotoBox und des jeweiligen Anbaugerätes direkt in die Fahrerkabine des Baggers. Der Neigungssensor für Schwenkbewegungen eines XtraTilts ist bei den Herstellern von GPS-Steuerungssystemen bereits integriert. Mit dem neuen Sensor von HKS können Sie nun jedoch auch die Bewegungen einer RotoBox und eines TiltRotators mit diesem Steuerungssystem erkennen.

SPEZIFIKATIONEN

- › Rotationsposition ($\pm 1^\circ$)
- › Für alle Anbaugeräte geeignet
- › **Nachrüstbar für alle RotoBoxen**
- › Sehr robustes und leichtes Bauteil
- › Integrationsfähig in 2D / 3D und GPS Steuerungen
- › TiltRotator im Display dargestellt
- › Effizientes Arbeiten
- › Zeitersparnis, da kein Abstecken nötig
- › Unkompliziertes Arbeiten an schlecht einsehbaren Stellen
- › Verringern von möglichen Fehlerquellen
- › Verbesserte Sicherheit
- › Exakte Aushubtiefen, dadurch kein unabsichtliches Abtragen von Material
- › Kein Nachkontrollieren der Baugrube nötig





Learn from the Experts!

In order to experience the HKS Construction Technology „in action“, we regularly present our products at national and international construction machinery trade shows.

At the trade shows, we present our products with various buckets and numerous other attachments (e.g. stone mills, compressor plates, hammers, grabs, etc.).

In addition to the trade shows, you can always make an appointment to test-drive an excavator on our demonstration premises on site.

We are looking forward to your visit!

Equipment for in-house exhibitions and demonstrations available on request.

› demopark@hks-partner.com

The following excavators and tools are at your disposal on site

- › Grave space spoon
- › Small bucket
- › Compressor
- › Hammer
- › Grab
- › Milling machine

- › **TILTROTATOR** 8t excavator

- › **ROTOBOX** 10t excavator



On-Site Service

- ▶ service@hks-partner.com
- ▶ T +49 6053 6163-619

On-site and fast

You can steadily rely on getting a quality product with HKS. We have also set a target to implement the possible functions for the daily use of your machine.

If you need even on site support, our Service-Team helps personally and fast - even on site. We offer this service anywhere within Germany.

Since every HKS product is individually designed and manufactured for you, we know exactly which components are installed. Should you require support for one of our products, we can immediately provide assistance and replace parts quickly.

Our sales and service team appreciates to advise you with any challenge you experience.

During the winter months we offer regular maintenance. We - as your manufacturer - offer for example a complete maintenance and wear parts replacement, to ensure a smooth utilisation of your excavator.

We put great importance to the fact that you are satisfied with our products.

Meet our team of experts!



Modern German Engineering

When the foundation for HKS Dreh-Antriebe GmbH was laid in 1970, the company successfully broke new ground on the machine construction market. Then as nowadays the focus was on developing rotary actuators that can operate permanently and with precision, wherever rotation and tilting, precise acceleration or deceleration, positioning and keeping positions are required.

Founded over 45 years ago, the family-owned company with more than 200 employees and three production sites in Germany, successful manufacturer, developer and marketer of hydraulic and pneumatic rotary actuators appeals customers from international industries with its innovative technology and above-average know-how.

In addition to standard products, HKS offers individual solutions for every requirement of its customers. The company network spans the globe with partners, with an export share of more than 50 percent and with its outstanding quality „Made in Germany“, HKS positions itself on the world market. For numerous industrial applications, robust and powerful rotary actuators are manufactured for a wide range as for instance in the construction machinery sector, in mining, on- and offshore, automotive and marine engineering, mobile hydraulics, automation, robotics and medical training equipment, to name just a few. In addition to rotary actuators - rotary lift combinations and linear cylinders are part of the product range of HKS Dreh-Antriebe GmbH - as well as components from contract manufacturing.

HKS - We Turn The World.



Long-term References - Satisfied Customers



HPM GmbH - Goslar

Mr. Winter, machinist of H.P.M. Road and civil engineering company says, „the advantage is very clear that the HKS products without cylinder facilitate the work enormously. We have built-in a TR-K 60. The reason for this was not only the flexibility, but also the maintenance-free operation of the TiltRotator.“



Immo Herbst GmbH - Frankfurt/Main

Till Kuhlig about the built-in TiltRotator: „Not only the great service and that the installation was very simple and straightforward. The TiltRotator permits working in narrow, inaccessible places - this was a key point for our decision. It is important in horticulture and landscaping, that the excavator does not move too much on the lawn, to avoid damaging planted areas. The flexibility and therefore enormous operating positions are a major advantage with the TiltRotator.“

www.hks-partner.com

TILTROTATOR • ROTOBOX • XTRATILT



Scan me

- facebook.com/HKSDrehAntriebe
- twitter.com/HKSDrehAntriebe
- youtube.com/HKSDrehAntriebe
- issuu.com/hks_

Your partner

HKS Dreh-Antriebe GmbH® • Leipziger Straße 55 • 63607 Wächtersbach-Aufenau • Germany • T +49 6053 6163-0 • F +49 6053 6163-639

Copyright 2018 HKS Dreh-Antriebe GmbH®
DIN EN ISO 9001:2008 TÜV certified
Illustrations are approximations. No guarantee
for the information provided.
Subject to change without notice.
Version dated: 04/2018

