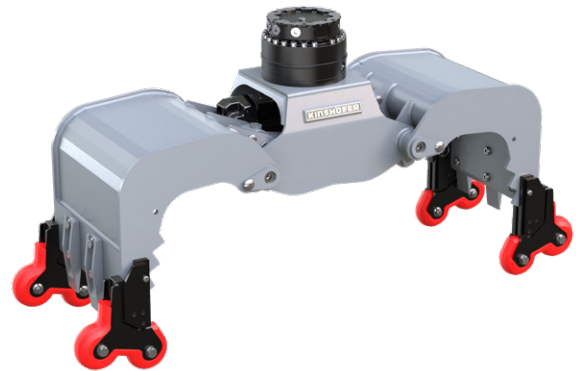
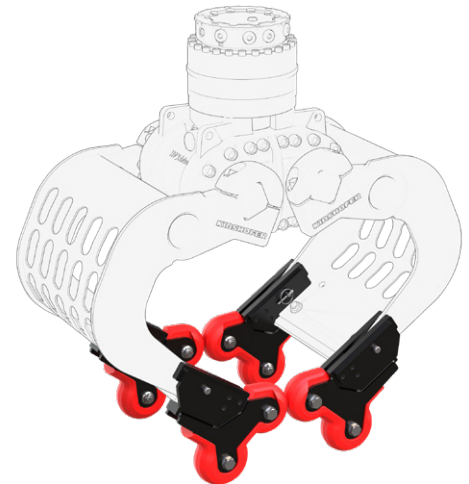


The device is simply attached to the bottom of the shells and you can grip concrete parts, curbs, etc. precisely, safely and without damage. The 4-Grip is simply plugged onto the grab shells and secured with a folding pin. The gripper teeth must not be removed, which significantly reduces assembly time.

Thanks to its special kinematics you can grab items not only when closing the shells but also when opening. Shaft rings can be loaded and unloaded fast and easy without damaging them!

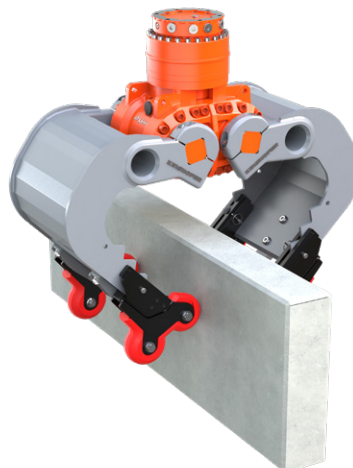
- ▷ **Economic solution**, as it is only an accessory that increases the flexibility of your attachment.
- ▷ **Robust design**.
- ▷ **Plastic compression rolls** avoid damage of the material to be gripped.
- ▷ **Fast and easy mounting and removal** on site.
- ▷ **Low additional weight**: only 28kg/61.6lbs in total.
- ▷ **High load capacity of 750kg/1650lbs**.



**Precise gripping of very narrow objects**



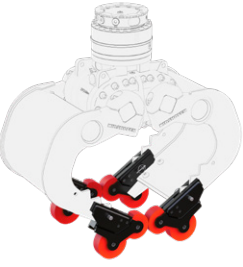
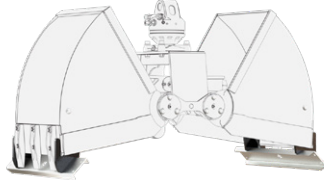
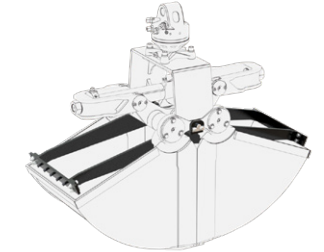

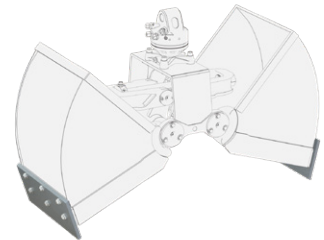

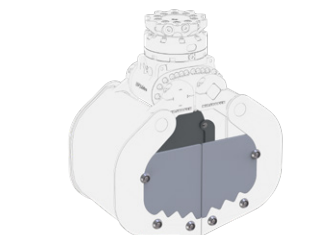
**Careful gripping of plain, slippery surfaces**



**Safe inside gripping without retooling**

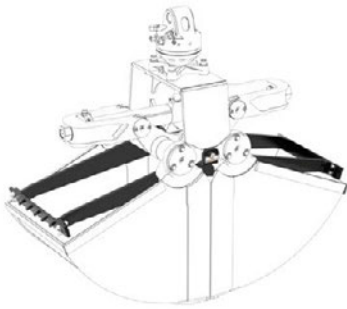


## Accessories

	Type	Description
	<b>KM 685 05-D04-A04</b>	4-grip for D04/A04 grabs (load capacity max. 750kg/1650lbs). Specify grab type when ordering
	<b>KM 685 05-D06/09-A06/09</b>	4-grip for D06/D09 and A06/A09 grabs (load capacity max. 750kg / 1650lbs). Specify grab type when ordering
	<b>KM 685 05E*</b>	adapter for compression rails for C-grabs (load capacity max. 250kg/550lbs). Specify grab type when ordering
	<b>KM 381 09 (720)</b>	compression rails, 720mm / 28.3in length
	<b>KM 381 09 (1000)</b>	compression rails, 1000mm / 39.3in length
	<b>KM 680 1t-4t*</b>	scraper
	<b>KM 680 5t-8t*</b>	scraper
	<b>KM 680 9t-12t*</b>	scraper
	<b>KM 680 C12/18VE*</b>	scraper
* specify width of grab when ordering		
	<b>KM 685 06E hook</b>	welded hook
	<b>KM 685 06E hook set 2</b>	welded hooks, set with 2 pieces
	<b>KM 685 07E set</b>	wear plate set to protect cutting edges
	<b>KM 685 08 HPX-450E</b>	digging extension for general construction length: 450mm / 17.7in; weight: 60kg / 132lbs
	<b>KM 980-2 2t-8t c</b>	solenoid valve for additional oil circuit, up to 26MPa (260bar) / 3770psi, incl. parts and mounting
	<b>KM 685 09E-A02-A09</b>	bolt-on side plates for A04 to A09-grabs (Specify grab type when ordering)

## Accessories

Type	Description
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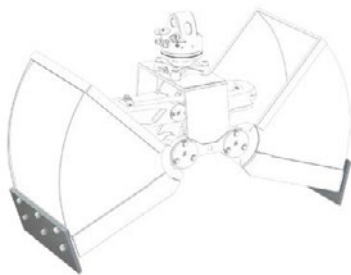


<b>KM 680 C12/18VE*</b>	scraper
<b>KM 680 C25VE*</b>	scraper
<b>KM 680 C30V*</b>	scraper
<b>KM 680 C40VHD*</b>	scraper
<b>KM 680 C60VHD*</b>	scraper

\* specify width of grab when ordering



<b>KM 685 06E hook</b>	welded hook
<b>KM 685 06E hook set 2</b>	welded hooks, set with 2 pieces



<b>KM 685 07E set</b>	wear plate set to protect cutting edges
<b>KM 685 07&gt;19t set</b>	wear plate set to protect cutting edges

<b>KM 685 09E</b>	bolt-on side plates (specify grab type when ordering)
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<b>KM 685 10</b>	backwall to load fine grained goods
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<b>KM 980-2 2t-8t c</b>	solenoid valve for additional oil circuit, up to 26MPa (260 bar/ 3770psi), incl. parts and mounting
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unlockable flip switch (hold to run)



KHS Control

## Installations sets for hydraulic quick couplers and tilt couplers

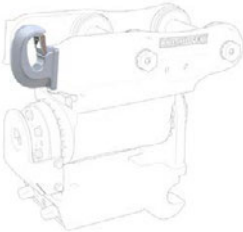
Type	Description
KHS01L installation set safety	incl. KHS Control unit
KHS01L installation set basic	incl. unlockable flip switch (hold to run)
KHS03L installation set safety	incl. KHS Control unit
KHS03L installation set basic	incl. unlockable flip switch (hold to run)
KHS08L installation set safety	incl. KHS Control unit
KHS08L installation set basic	incl. unlockable flip switch (hold to run)

## Non-return valve sets for hydraulic tilt couplers TC



Type	Description
TC02-180 NRV	non-return valve set for TC02
TC03-180 NRV	non-return valve set for TC03
TC05-180 NRV	non-return valve set for TC05
TC07-180 NRV	non-return valve set for TC07
TC10-180 NRV	non-return valve set for TC10
TC14-180 NRV	non-return valve set for TC14

## Load hook for quick couplers and tilt couplers



Type	Description
KM 685 06 KSW01 hook	load hook for system L-Lock (1t / 2200lbs load capacity)
KM 685 06 KSW03 hook	load hook for system L-Lock (3t / 6600lbs load capacity)
KM 685 06 KSW08 hook	load hook for system L-Lock (5t / 11000lbs load capacity)

KMS01L socket & KMS03L socket



KMS08L socket

## Sockets for mechanic quick couplers and tilt couplers

Type	Description
KMS01L socket	socket for mechanical System L-Lock (KMS01)
KMS03L socket	socket for mechanical System L-Lock (KMS03)
KMS08L socket	socket for mechanical System L-Lock (KMS08) and S-Lock

## Quick coupling adapters for System L-Lock



Type	Description
KSW01 rigid	bolt-on adapter
KSW01 cardanic	adapter for cardanic suspension incl. suspension, w/o pendulum damper
KSW03 rigid	bolt-on adapter
KSW03 cardanic	adapter for cardanic suspension incl. suspension, w/o pendulum damper
KSW08 rigid	bolt-on adapter
KSW08 cardanic	adapter for cardanic suspension incl. suspension, w/o pendulum damper

unlockable flip switch (hold to run)



KHS Control

## Installations sets for hydraulic quick couplers and tilt couplers

Type	Description
KHS08L installation set safety	incl. KHS Control unit
KHS08L installation set basic	incl. unlockable flip switch (hold to run)
KHS10L installation set safety	incl. KHS Control unit
KHS10L installation set basic	incl. unlockable flip switch (hold to run)
KHS21L installation set safety	incl. KHS Control unit
KHS21L installation set basic	incl. unlockable flip switch (hold to run)
KHS25L installation set safety	incl. KHS Control unit
KHS25L installation set basic	incl. unlockable flip switch (hold to run)



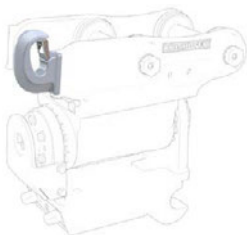
## Locking sensor for hydraulic quick couplers and tilt couplers with System L-Lock

Type	Description
KHS-L-Sensor	2 sensors support the secure locking, only in combination with KHS10-25L installation set sensor
KHS10-25L installation set sensor	KHS-L installation set safety including cable loom for quick coupler sensors

## Non-return valve sets for hydraulic tilt couplers TC



Type	Description
TC14-140 NRV	non-return valve set for TC14-140
TC19-140 NRV	non-return valve set for TC19-140
TC23-140 NRV	non-return valve set for TC23-140



## Load hook for quick couplers and tilt couplers

Type	Description
KM 685 06 KSW10 hook	load hook (8t/17600lbs load capacity)
KM 685 06 KSW21 hook	load hook (10t/22000lbs load capacity)
KM 685 06 KSW25 hook	load hook (18t/39600lbs load capacity)



## Sockets for mechanic quick couplers and tilt couplers

Type	Description
KMS10L socket	socket for mechanic System L-Lock (KMS10L)
KMS21/25L socket	socket for mechanic System L-Lock (KMS21L/KMS25L)
KMS08L socket	socket for mechanic System L-Lock (KMS08) and S-Lock



## Quick coupling adapters for System L-Lock

Type	Description
KSW10 rigid	bolt-on adapter
KSW10 cardanic	adapter for cardanic suspension incl. suspension, w/o pendulum damper
KSW21/25 rigid	bolt-on adapter
KSW21/25 cardanic	adapter for cardanic suspension incl. suspension, w/o pendulum damper



torque meter



alignment monitor

## Torque Meter

Applying the correct torque during the installation of screw piles is paramount to ensure the structure is safely secured. Receiving data of real-time applied torque which is accurate up to 99.7% for this critical procedure is made easy with this new auger torque device. The torque meter is simply attached between the mounting bracket and the earth drill hood pin. The device is able to measure torque values up to 25000Nm / 18437.5 ft.lbs and the software can be installed to run from the customer's own laptop if preferred.

Type	Torque range (Nm/ ft.lbs)	Height (mm/in)	Diameter (mm/in)	Weight (kg/lbs)	Pin (Ø mm/in)	For earth drills / torque heads
TM25	5000-25000 / 3687.5-18437.5	430 / 16.9	270 / 10.6	59 / 129.8	45 / 1.8	15000MAX - 25000MAX

## Standard Software

Microsoft Office Mobile; Word Mobile; Excel Mobile; PowerPoint Mobile; Pocket OneNote; Outlook Mobile; Windows Media Player; Microsoft Pictures and Videos; Internet Explorer Mobile; Adobe Reader LE; Contacts / Calendar; Calculator Notes / Tasks; Online help

## Alignment Monitor

At foundation drilling and screw piling a correct alignment is essential. From the drivers' cabin and at deeper drills it is not possible to see if the earth drill is still in a correct vertical position. The alignment monitor has been developed especially to solve this known problem. Thanks to the sensor which is mounted to the earth drill and the display in the drivers' cabin, the operator can supervise the drilling procedur exactly and correct each deviation immediately.

The tool is compatible to all earth drill types and can be switched on and off. The compact as well bright LED-display can be installed easily to the drivers' cabine. The sensibility of the equipment can be fitted to the current application.

Due to its water-resistance, the sensor is suitable for all weather conditions. 12V up to 24V operating range.

## Pictures

