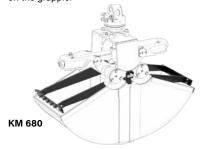
## **Accessories for Clamshell Buckets**

## KM 680 - Scraper

Scrapers for clamshell buckets with narrow widths clear the inside of the shells of sticky materials such as clay, during each opening. The design varies depending on the grapple.



| Туре      | for Clamshell bucket  |
|-----------|---|
| KM 680 01 | KM 603/ 604/ 604HPX/ 605/ 605HPX/ 606/ 607  |
| KM 680 02 | KM 626HPX   |
| KM 505 04 | link-set for KM 604HPX/605HPX/626HPX in<br>combination with KM 505 / KM 505 HD and scraper KM 680 |

link for the combination KM 505 (HD) + HPXdrive + scraper



## KM 685 05 - Adapters for Compression Rails

Adapters enable mounting of compression rails or support for concrete rings, for handling paving slabs, curbstones, concrete rings etc. The adapters can only be used with a **non-return valve**. They are not suitable for the use with a scraper.



| Туре           | Description                                      |
|----------------|--|
| KM 685 05      | adapters for compression rails                   |
| KM 381 09 720  | compression rails - length 28 in long (2 pieces) |
| KM 381 09 1000 | compression rails – length 39 in long (2 pieces) |

The adapters for compression rails are available for the following clamshell buckets: KM 603 / 604HPX / 605 / 605HPX / 605U HPX

KM 685 05

## KM 685 06 - Central Lifting Device for HPX, Welded Hook or Welded Eye

The central lifting device for HPXdrive, welded eyes or welded hooks suit lifting chains or slings. The max. capacity per eye or hook is 2200 lbs.

## KM 685 06 hook



| KM 685 06 HPX SD     | to suit lifting chain or sling, 1 piece  |
|----------------------|--|
| KM 685 06 HPX HD     | to suit lifting chain or sling, 1 piece  |
| KM 685 06 hook       | to suit lifting chain or sling, 1 piece  |
| KM 685 06 hook set 2 | to suit lifting chain or sling, 2 pieces |
| KM 685 06 hook set 4 | to suit lifting chain or sling, 4 pieces |
| KM 685 06 eye        | to suit lifting chain or sling, 1 piece  |
| KM 685 06 eye set 2  | to suit lifting chain or sling, 2 pieces |



central lifting device HPXdrive



welded hook



## KM 685 07 - Wear Plates (2 pieces)



| Туре          | Description  |
|---------------|--|
| KM 685 07 set | wear plates, 2 pieces, reversible, to protect horizontal cutting edges |

## KM 685 08 - Extension for Excavating with HPXdrive



| Туре             | Description  |
|------------------|--|
| KM 685 08-450 mm | HPXdrive extension for excavating e.g. trenches (for canal and civil engineering) 17.7 in (66 lbs) |

## **Accessories for Rotators**

# **KINSHOFER** Rotator Line



An upper suspension is a cardan link between rotator and crane. It is available for all current makes and models of cranes. Please specify dimensions when ordering.

| Туре         | Load capacity | Self weight   |
|--------------|---------------|---------------|
|              | (lbs)         | (approx. lbs) |
| KM 501 3000  | up to 6600    | 11            |
| KM 501 4500  | up to 9900    | 22            |
| KM 501 6000  | up to 13200   | 33            |
| KM 501 10000 | up to 22000   | 55            |



A pendulum damper reduces the horizontal swing of the attachment. It can also be retrofitted to an existing upper suspension.

| Туре         | Load capacity<br>(lbs) | Self weight (approx. lbs) |
|--------------|------------------------|---------------------------|
| KM 511 4500  | up to 9900             | 33                        |
| KM 511 6000  | up to 13200            | 44                        |
| KM 511 10000 | up to 22000            | 66                        |



The hose guard is a metal bow to be attached onto the rotator. It is designed to protect the hoses of the rotator from damage i.e. from protruding branches

|        |                            | Self weight (approx. lbs) |
|--------|----------------------------|---------------------------|
| KM 206 | hose guard for the rotator | 7                         |

## duction Link between Rotator and Grapple



A reduction link adapts a shaft type rotator to an attachment with a standard hole pattern for a

| Туре        | Load capacity (lbs) | Self weight (approx. lbs) |
|-------------|---------------------|---------------------------|
| KM 502 3000 | up to 6600          | 4                         |
| KM 502 4500 | up to 9900          | 7                         |
| KM 502 6000 | up to 13200         | 9                         |

Weight (approx. lbs) 18 22

> 18 20

> 26

33



| KМ | 460 | U3 |
|----|-----|----|

| g Pallet Forks etc. |  |                 |
|---------------------|--|-----------------|
| Туре                | Description                            | Type of rotator |
| KM 460 03 KM 03 S   | rigid suspension link with pin for all | KM 03           |
| KM 460 03 KM 04 S   | KINSHOFER shaft-type rotators          | KM 04           |
| KM 460 08 KM 03 S   | rigid hook for all                     | KM 03           |
| KM 460 08 KM 04 S   | KINSHOFER shaft rotators               | KM 04           |
| KM 460 04 KM 04 S   | non-rotating swinging hook for all     | KM 04           |
| KM 460 04 KM 06 S   | KINSHOFER shaft rotators               | KM 06           |

| KM 460 10 | non-rotating swinging hook for all<br>KINSHOFER flange rotators | KM 10 F173<br>(KM 04 to KM 10) | 55 |
|-----------|---|--------------------------------|----|



## **Accessories for Rotators**

## KM 505 - Quick Change System for Shaft-Type Rotators up to 4000 kg Load Capacity

The quick change system enables an easy exchange between different attachments. The mechanical coupling and locking is achieved by the turning motion of the rotator. You simply disconnect the quick couplings and disengage the locking device manually. The upper element of the quick change system is available for all KM 04 - shaft rotators. The KM 505 system allows the easy exchange between pallet fork and brick stack grapple for example - not suitable for heavy duty work.

| Туре      | Description  | Hole pattern<br>of flange<br>(in) | Self<br>weight<br>(lbs) |
|-----------|--|-----------------------------------|-------------------------|
| KM 505    | complete, incl. hydraulic couplings (KM 204 01)                  | 0.16 x Ø0.71 / 🗆 5.51             | 27                      |
| KM 505 01 | upper element fitted to rotator incl. 2 mobile parts             |                                   | 11                      |
| KM 204 01 | mobile part of hydraulic quick coupling (2 pieces) for KM 505 01 |                                   |                         |
| KM 505 02 | lower element mounted onto attachment                            | 0.16 x Ø0.71 / 🗆 5.51             | 15                      |
| KM 505 03 | rigid suspension link with non-rotating hook to connect to the k | (M 505 01                         | 15                      |





KM 505 01





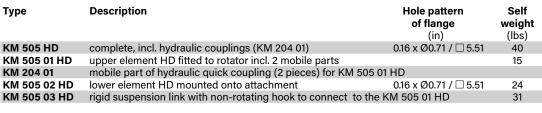
KM 505 03

KM 505 02

### KM 505 HD - Heavy Duty Quick Change System for Shaft-Type Rotators

The quick change system enables an easy exchange between different attachments. The mechanical coupling and locking is achieved by the turning motion of the rotator. You simply disconnect the quick couplings and disengage the locking device manually. The upper element of the heavy duty quick change system is available for the KINSHOFER shaft rotators KM 04 S68-30US or KM 06 S68-40. The KM 505 system allows the easy exchange between pallet fork and clamshell bucket for example - especially developed for the heavy duty task with clamshell buckets.









KM 505 01 HD





KM 505 02 HD

KM 203 - Connecting Hoses & KM 204 - Hydraulic Quick Change Kit for Hoses



| Туре      | Description  |
|-----------|--|
| KM 203 01 | short connecting hoses between rotator and attachment with standard fittings M 18 x 1,5 (2 pieces) |
| KM 203 03 | long connecting hoses between rotator and crane - please specify dimensions (4 pieces)             |



| KM 204 01 | mobile part of hydraulic quick coupling for hose (Ø 0.4 in, 2 pieces)                                    |
|-----------|--|
| KM 204 02 | fixed part of hydraulic quick coupling for rotator (Ø 0.4 in, 2 pieces)                                  |
| KM 204 03 | hydraulic quick change kit incl. mobile and fixed parts (2 pieces each) mounted with adapters to rotator |

KM 204 03

| KM 332/333        | Accessories for Brick Stack Grap |   |                | pples           |
|-------------------|----------------------------------|---|----------------|-----------------|
| Compression Rails |                                  |   |                |                 |
|                   | Туре                             | Description   | Length<br>(in) | Weight<br>(lbs) |
|                   | KM 381 29 720                    |   | 28             | 37              |
|                   | KM 381 29 1000                   | compression rails with smooth rubber inserts (2 pieces)                           | 39             | 53              |
| KM 381 29         | KM 381 29 1250                   |   | 49             | 62              |
| Sec. 18           | KM 381 39 720                    |   | 28             | 53              |
|                   | KM 381 39 900                    |   | 35             | 62              |
| GC.               | KM 381 39 1000                   | compression rails with two rubber inserts, upper insert contoured,                | 39             | 73              |
|                   | KM 381 39 1100                   | lower insert smooth (2 pieces each)   | 43             | 84              |
|                   | KM 381 39 1200                   | lower insert smooth (2 pieces each)   | 47             | 88              |
| KM 381 39         | KM 381 39 1250                   |   | 49             | 92              |
|                   | KM 381 39 1400                   |   | 55             | 97              |
|                   |                                  |   |                |                 |
|                   | KM 381 32 1000                   | spring loaded rails with parallel-action teeth (2 pieces) -                       | 39             | 136             |
|                   | KM 381 32 1250                   | fitted in seconds by locking lever  | 49             | 167             |
| KM 381 32         | )                                |   |                |                 |
|                   | KM 381 09 720                    |   | 28             | 37              |
|                   | KM 381 09 1000                   | compression rails for adapter KM 381 38 (2 pieces)                                | 39             | 51              |
|                   | KM 381 09 1250                   |   | 49             | 62              |
| KM 391 09         |                                  |   |                |                 |
|                   | KM 381 38                        | adapter for clamping arms to take compression rails KM 381 09                     |                | 88              |
|                   | <b>.</b>                         |   |                |                 |
|                   | Please note:                     | additional lengths of compression rails are available on request                  |                |                 |
| Others            |                                  |   |                |                 |
|                   | _                                |   |                |                 |
|                   | Туре                             | Description   |                | Weight<br>(lbs) |
|                   | Non-Standard O                   | pening Range: all grapples are available with opening ranges not listed. Call for | details        |                 |
|                   |                                  | unge Depth: all grapples are available with plunge depth not listed. Call for det |                |                 |
| 67                |                                  |   |                |                 |



KM 381 08

KM 381 08 tilting Device to reduce overall height of the equipfor shaft rotators 26 ment in transport for flange rotators



KM 381 18 height Reduction Link to reduce the overall height of the equipment in transport - for 33 flange rotators

KM 381 31

KM 381 18

KM 381 05 height Stop for quick adjustment of plunge depth KM 381 06 spring Loaded Guide Rails for stabilizing the top layer of the stack KM 381 07 spring Loaded Guide Plates for lateral stabilizing of the stack KM 381 31 adapter for Concrete Pipes with diameters from 31.5 to 53.2 in 132

## **Accessories for Pallet Forks**

## KM 460 - Protection Trellis

For safer handling of bricks and other stacked goods or loose materials in higher elevation - max. capacity of 4400 lbs. The trellis can be mounted within minutes and is therefore a flexible system on the construction site.



| Туре        | Dimensions | Height | Self weight |
|-------------|------------|--------|-------------|
|             | (in)       | (in)   | (lbs)       |
| KM 460 1100 | 43 x 43    | 59     | 150         |
| KM 460 1300 | 51 x 51    | 59     | 175         |

Other dimensions available on request.

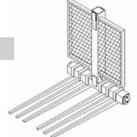
### KM 460 01 - Protection Chain

For safer handling of loads as stone stacks (shrink wrapped) in higher elevation - max. capacity of 4400 lbs. Hooks on the crane fork are necessary for the use of protection chain.

| Туре      | Length | Self weight |
|-----------|--------|-------------|
|           | (in)   | (lbs)       |
| KM 460 01 | 20     | 9           |

### Backstop

| Туре      | Description   |
|-----------|---|
| KM 460 02 | A backstop can be welded to the throat of a pallet fork as support for unbalanced loads |



# **Different Methods for Center of Gravity Compensation**

## **Hydraulic Shifting**



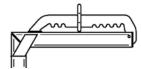
Hydraulic center of gravity compensation: the slide in the top arm is moved by a cylinder in an economic one-man-operation. In combination with a rotator, precise positioning is no problem.

### Self Shifting



Spring loaded center of gravity compensation: self shifting slide in the top arm; travel can be preset depending on the center of gravity of load to be picked up. Compression springs return slide to initial position after load is removed.

### **Comb System**



Mechanical center of gravity compensation: manual change of position of shifting collar by the operator. Suspension ring for crane hook or connection plate for use with flange rotator are available.