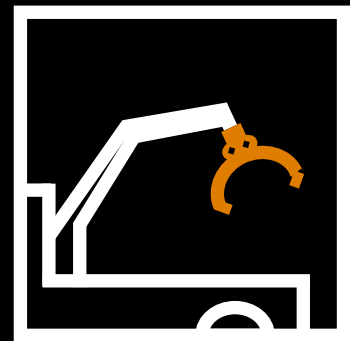




Attachments for Truck Cranes



Catalog

www.kinshofer.com

01/2008

KINSHOFER
crane and excavator attachments

Examples of attachments in use



Brick Stack Grapple KM 331



Brick Stack Grapple for Forklift KM 354



Special Brick Stack Grapple for 4 Stacks



Clamshell Bucket KM 604HPX



Clamshell Bucket with smaller volume KM 626HPX



Refuse Grapple KM 605U HPX



Rock Grapple KM 613HPX



Logging Grapple KM 632HPX-HD



Multi Purpose Grapple KM 641HPX



Pole Grapple KM 930



Barrier Lifter KM 932MB



Special Grapple for Barrels

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KINSHOFER Rotator Line

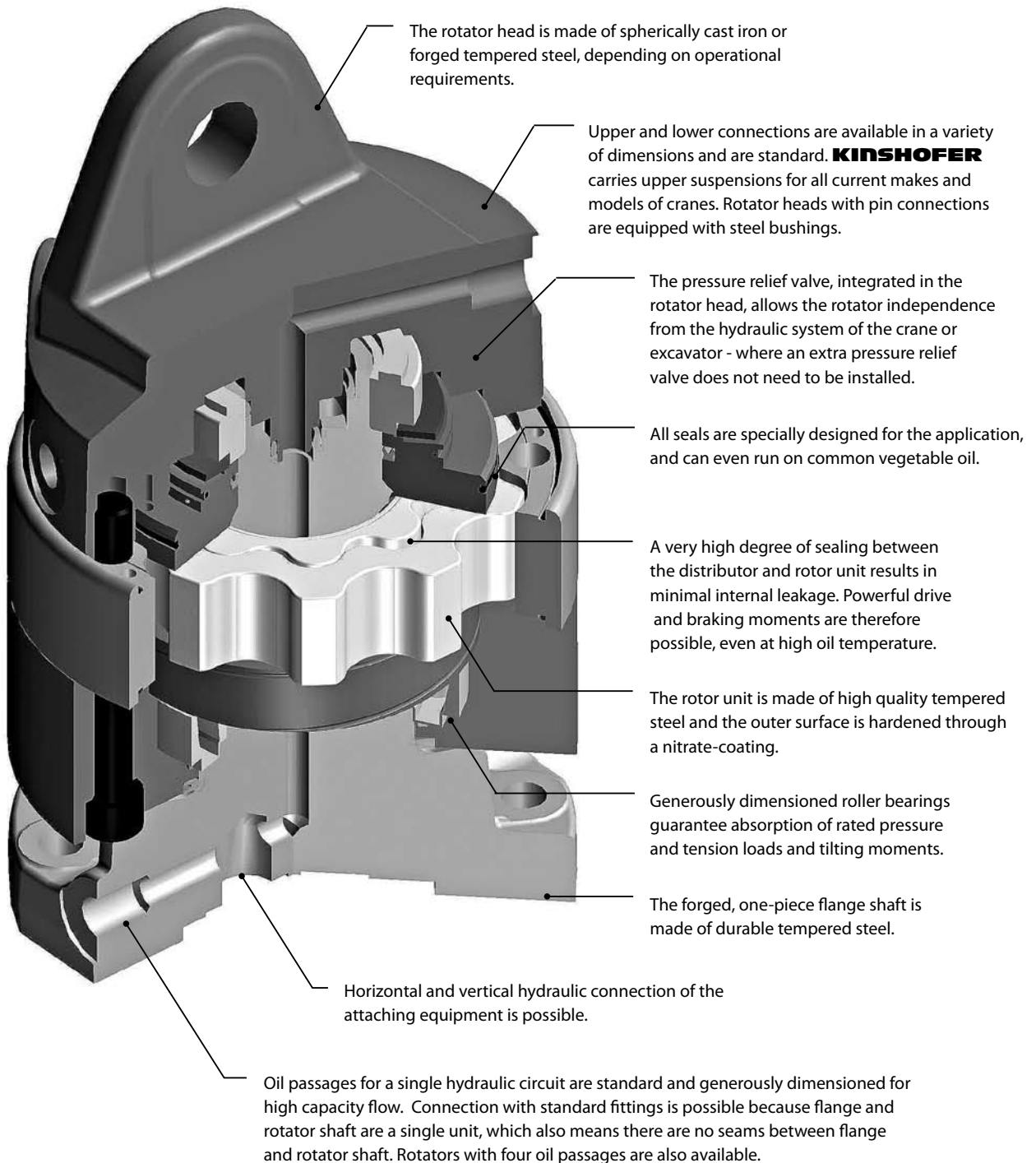
KINSHOFER manufactures rotators for truck loaders, excavators and logging operations. Years of experience in designing rotators and hydraulic load handling equipment guarantee high efficiency, long lasting rotators, specially tailored to meet your requirements.

The gear-type design ensures a very compact and powerful rotator. The precision control and braking ability is especially appreciated by operators. A grapple does not rotate unexpectedly when digging, even under maximum load, and there is no need for stability compensation when handling longer lengths of timber... these are only some of the many working situations where operators appreciate the advantages of using **KINSHOFER** rotators.

KINSHOFER-Rotators are the solution.



Features of **KINSHOFER** Rotators



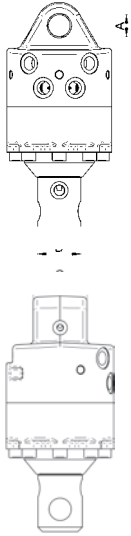
Product Range

KINSHOFER Rotator Line

Note concerning all rotators:

- upper and lower bearings are taper roller bearings
- all rotators come with JIC-fittings
- all rotators come with steel bushings in the head
- internal pressure relief valves, no port relief on crane necessary

KINSHOFER Gear type rotator with shaft up to 2000 kg/4400 lbs. load capacity



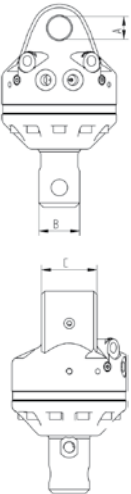
Type	Load Capacity (kg/lbs.)	Shaft Ø B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 02 S	2000/4400	49.5/1.95	60 x 25 / 2.36 x 0.98	220	770	25
KM 02 S-N – w/o oil ducts	2000/4400	49.5/1.95	60 x 25 / 2.36 x 0.98	220	770	20
KM 02 S-H – with integrated hook w/o oil ducts	2000/4400	Hook	60 x 25 / 2.36 x 0.98	220	770	20

Operating Pressure: 3750 psi
Pump Capacity: 6.5 to 13.0 GPM
Hydraulic Couplings: G 3/8"



KM 02 S

KINSHOFER Gear type rotator with shaft up to 4500 kg / 9900 lbs. load capacity



Type	Load Capacity (kg/lbs.)	Shaft Ø B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 04 S59-30	4500/9900	59/2.32	84 x 30/3.31 x 1.18	630	2200	60
KM 04 S	4500/9900	62/2.44	84 x 30/3.31 x 1.18	630	2200	60
KM 04 S63-30	4500/9900	63/2.48	84 x 30/3.31 x 1.18	630	2200	60
KM 04 S68-30	4500/9900	68/2.68	84 x 30/3.31 x 1.18	630	2200	60
KM 04 S69-30	4500/9900	69/2.72	84 x 30/3.31 x 1.18	630	2200	60
KM 04 S68-30US*	4500/9900	68/2.68	84 x 30/3.31 x 1.18	740	3300	75

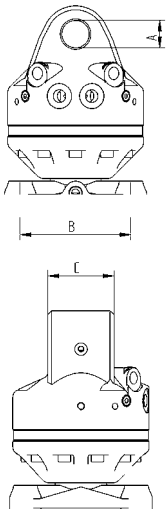
* steel motor-head

Operating Pressure: 4600 psi
Pump Capacity: 6.5 to 16.0 GPM
Hydraulic Couplings: M 18 x 1.5



KM 04 S

KINSHOFER Gear type rotator with flange up to 4500 kg / 9900 lbs. load capacity



Type	Load Capacity (kg/lbs.)	Hole pattern of flange B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 04 F	4500/9900	140/ 5.51	84 x 30/3.31 x 1.18	630	2200	60
KM 04 F140-30US*	4500/9900	140/ 5.51	84 x 30/3.31 x 1.18	740	6200	70

* steel motor-head

Operating Pressure: 4600 psi
Pump Capacity: 6.5 to 16.0 GPM
Hydraulic Couplings: M 18 x 1.5



KM 04 F



KM 04 F140-30US

KINSHOFER Gear type rotator with shaft up to 6000 kg / 13200 lbs. load capacity

Type	Load Capacity (kg/lbs.)	Shaft Ø B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 06 S68-40	6000/13200	68/2.68	84 x 40/3.31 x 1.57	740	3300	70

Operating Pressure: 4600 psi
Pump Capacity: 6.5 to 21.0 GPM
Hydraulic Couplings - in: G 1/2"
Hydraulic Couplings - out: M 18 x 1.5



KINSHOFER Gear type rotator with flange up to 18000 kg / 39600 lbs. load capacity

Type	Load Capacity (kg/lbs.)	Hole pattern of flange B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 06 F140-40	6000/13200	140/ 5.51	84 x 40/3.31 x 1.57	740	6300	75
KM 07 F180-40	7000/15400	180/ 7.09	84 x 40/3.31 x 1.57	1480	11100	285
KM 10 F180-50	10000/22000	180/ 7.09	110 x 50/4.33 x 1.97	1480	11100	165
KM 12 F180-50	12000/26400	180/ 7.09	110 x 50/4.33 x 1.97	1110	8900	165
KM 18 F275-60	18000/39600	Ø275/Ø10.83	125 x 60/4.92 x 2.36	1480	18400	155

Operating Pressure: 4600 psi
Pump Capacity: 6.5 to 21.0 GPM
Hydraulic Couplings - in: G 1/2"
Hydraulic Couplings - out: M 18 x 1.5



KM 06 F140-40

KINSHOFER Gear type rotator with flange and 4 oil ducts to operate 2 different functions

Type	Load Capacity (kg/lbs.)	Hole pattern of flange B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 04 F140-30-4	4500/9900	140/ 5.51	84 x 30/3.31 x 1.18	630	2200	90
KM 06 F173-35-4	6000/13200	Ø173/Ø6.81	81 x 35/3.19 x 1.38	740	6300	100
KM 10 F173-35/2-4	10000/22000	Ø173/Ø6.81	81 x 35/3.19 x 1.38	1480	8900	160

	KM 04 F140-30-4	KM 06 F173-35-4	KM 10 F173-35/2-4
Operating Pressure:	4600 psi	4600 psi	4600 psi
Pump Capacity:	6.5 to 16.0 GPM	6.5 to 26.0 GPM	6.5 to 26.0 GPM
Hydraulic Couplings (Rotator and Grapple):	M 18 x 1.5	G 1/2"	G 1/2" and G 3/4"



KM 04 F140-30-4

KINSHOFER Gear type rotator with flange for logging (incl. hose guard)

Type	Load Capacity (kg/lbs.)	Hole pattern of flange B (mm/in)	Upper connection (Width C x Pin-Ø A) (mm/in)	Torque (ft.lbs.)	Moment of deflection max (ft.lbs.)	Self Weight (lbs.)
KM 06F 173-35	6000/13200	Ø173/Ø6.81	81 x 35/3.19 x 1.38	740	6300	60
KM 10F 173-35/1	10000/22000	Ø173/Ø6.81	81 x 35/3.19 x 1.38	1480	8900	135
KM 10F 173-35/2	10000/22000	Ø173/Ø6.81	81 x 35/3.19 x 1.38	1480	8900	145
KM 10F 173-45	10000/22000	Ø173/Ø6.81	100 x 45/3.94 x 1.77	1480	8900	145
KM 10F 173-52	10000/22000	Ø173/Ø6.81	136 x 52.2/5.35 x 2.06	1480	8900	150

Operating Pressure: 4600 psi
Pump Capacity: 6.5 to 26.0 GPM
Hydraulic Couplings (Rotator and Grapple): G 1/2"



KM 10F 173-35/1

KM 501 - Upper Suspension between Rotator and Crane



KM 501

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.

Load Capacity (lbs.)	Self Weight (approx. lbs.)
up to 4400	10
up to 9900	20
up to 13200	30
up to 15400	40
up to 22000	55



KM 501

KM 511 - Upper Suspension with Pendulum Damper between Rotator and Crane



KM 511

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

Load Capacity (lbs.)	Self Weight (approx. lbs.)
up to 9900	30
up to 13200	45
up to 15400	55
up to 22000	70

KM 206 - Hose Guard



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.

hose guard for the rotator

KM 502 - Reduction Link between Rotator and Grapple



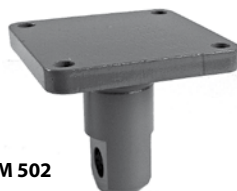
KM 502

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

Load Capacity (lbs.)	Self Weight (approx. lbs.)
up to 4400	4
up to 9900	7

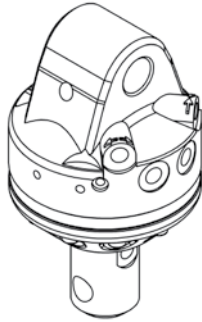


KM 502



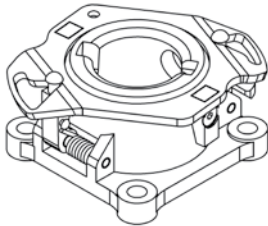
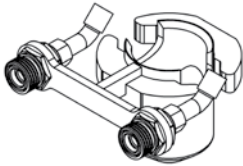
KM 502

KM 505 - 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 quick couplings and disengage the locking device manually. Upper elements of the quick-change system are available for all **KINSHOFER** shaft rotators. The KM 505 system can be used on most attachments which allows the versatility to quickly change the application with a minimum of down-time. Not suitable for heavy duty work.

Type	Description	Shaft Ø (mm/in)	Connection bottom (mm/in)	Self Weight (approx.) (lbs.)
KM 505	complete, incl. hydraulic couplings	62/2.44	Ø 140x18/Ø 5.51x0.70	35
KM 505	complete, incl. hydraulic couplings	68/2.68	Ø 140x18/Ø 5.51x0.70	35
KM 505 01	upper element fitted to rotator	62/2.44		10
KM 505 01	upper element fitted to rotator	68/2.68		10
KM 204 01	mobile part of hydraulic quick coupling (2 pieces) for KM 505 01			10
KM 505 02	lower element mounted onto attachment		Ø 140x18/Ø 5.51x0.70	15
KM 505 03	rigid suspension link with non rotating hook to connect to the KM 505 01 e.g. for attaching crane forks			15



KM 505 01



KM 505 02



KM 505 03

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



KM 204 01

KM 204 02

- KM 204 01** mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
- KM 204 02** fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)
- KM 204 03** hydraulic quick change kit incl. mobile and fixed parts (2 pieces each) mounted with adapters to rotator

Accessories for attaching Pallet Forks etc.



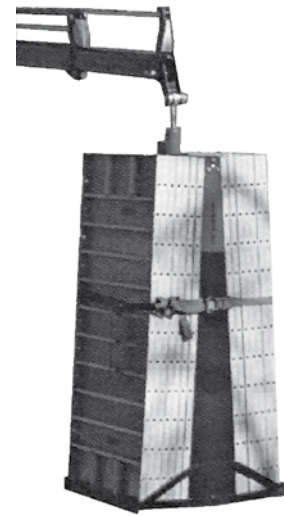
KM 460 03



KM 460 04

Type	Description	Load Capacity (kg / lbs.)	Self Weight (approx. lbs.)
KM 460 03	rigid suspension link with pin for KINSHOFER shaft rotators	4500/9900	20
KM 460 02	non rotating hook for KINSHOFER shaft rotators	2000/4400	20
KM 460 04	non rotating hook for KINSHOFER shaft rotators	4500/9900	30
KM 460 05	non rotating hook for KINSHOFER shaft rotators	5000/11100	40
KM 460 06	non rotating hook for KINSHOFER shaft rotators	6000/13200	40
KM 460 10	non rotating hook for KINSHOFER shaft rotators	10000/22000	60

A simple, innovative and dependable system for changing lift connections. Consisting of two pieces - the Kwikbel™, which is welded onto a "target" (form basket, skid steer or gas bottle rack) and the Striker, which hangs from a hook.



Benefits include:

- **Fast** - exchange attachments quickly as the self aligning Kwikbel™/Striker system needs no mechanical or hydraulic adjustments
- **Economical** - the Kwikbel™/Striker system can be handled by the operator alone and no rotator hydraulics are necessary
- **Safe** - direct contact with loads is eliminated which reduces finger pinch points; color coding allows operator to see work when fully extended
- **Reliable** - sealed roller thrust bearing for free turning action
- The Kwikbel™/Striker is suitable for loads up to 6500 lbs.

Form Crane Tool KM 507

Type	Description	Load Capacity (lbs.)	Self Weight (lbs.)
KM 507 01	Kwibel™ - welded onto a „target“ (form basket, skid steer or gas bottle rack)	6500	12
KM 507 02	Striker - hangs from a non rotating hook	6500	7

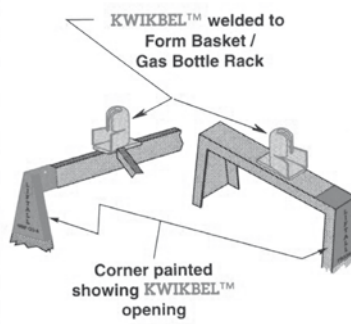
Technical Details



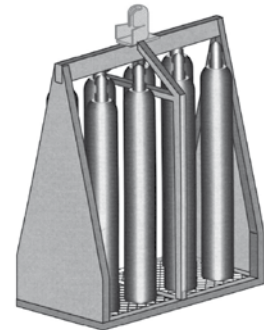
Kwikbel™



Striker



Painted corner showing Kwibel™ opening

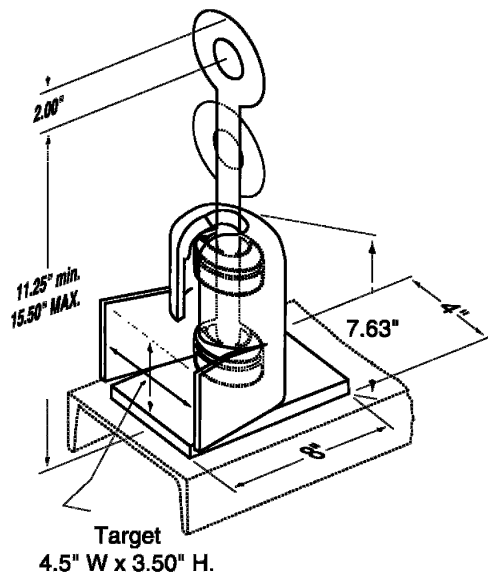


Kwibel™ application at gas bottle pack

Accessories

Type	Description	Load Capacity (lbs.)	Self Weight (lbs.)
KM 460 05	non rotating hook	11000	40

Technical Drawings

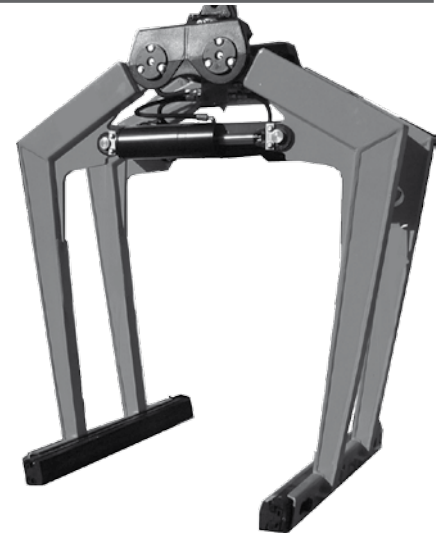


KM 331c

Brick Stack Grapple - Hydraulically operated

A robust brick stack grapple for loader cranes with two functions, the KM 331c handles loads up to 4500 lbs.

- **Standard** - fixed plunge depth with pivot clamping arms
- **Versatile** - opening range of 1.57in to 59.05in allows for handling of single concrete parts like curbstones, or handling complete brick stacks (palletized or non-palletized)
- **Synchronised** function of clamping arms due to sturdy gear-toothed quadrants
- **Safe** - internal pressure relief valves and non return valve ensure independence from crane pressure and maintains safe clamping force
- **Compact** - reduced overall height due to lower rotator position
- **Easy to use** - rubber rail inserts make it easier to move between the stacks, they are durable and replaceable
- **Adaptable** - different plunge depths or compression rail lengths are available on request



Brick Stack Grapple KM 331c

Type	Plunge Depth A (mm / in)	Load Capacity (lbs.)	Gripping G min./max. (in)	Height B (in)	Self Weight (lbs.)
KM 331 - 1000 c	1000/40	4400	8.5 - 56	61.1	695
KM 331 - 1100 c	1100/43	4400	6.3 - 57	65.5	705
KM 331 - 1200 c	1200/47	3960	3.8 - 58	69.5	715
KM 331 - 1300 c	1300/51	3520	1.6 - 59	73.4	725

Package consists of: brick stack grapple, **KINSHOFER** rotator KM 04 F, connecting hoses (rotator to grapple), upper suspension KM 501, compression rails (length 39.4 in), pressure relief valve, non-return valve

Please note:
 - The load capacity listed in the table depends on the surface conditions, the size of individual stones, stack size and kind of bundling. The capacity listed does not apply to stacks of low-profile and unbundled items.
 - Full plunge depth A is only suitable up to opening range of 43 in (see drawings)

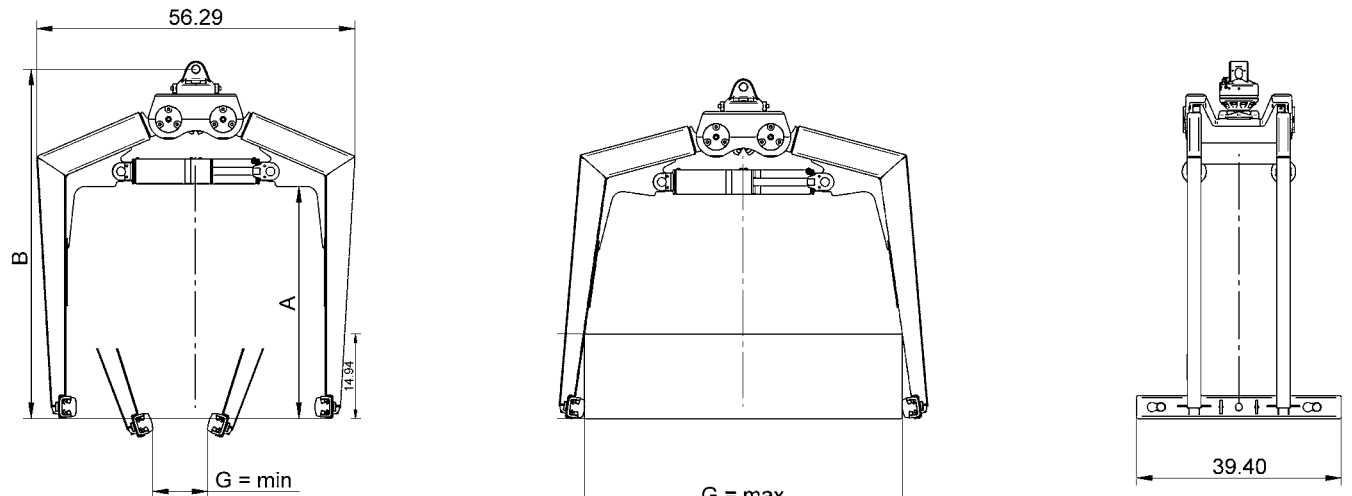
Accessories

Type	Description	Self Weight (lbs.)
KM 511	upper suspension with pendulum damper	35
KM 381 40	compression rails - 39.3in	90
KM 381 40	compression rails - 49.2in	115
	lifting hooks with safety latches (set of 4 hooks)	
	non-standard opening range: all grapples are available with opening ranges not listed. Call for details.	
	non-standard plunge depth: all grapples are available with plunge depths not listed. Call for details.	
	non-standard compression rails: all grapples are available with compression rail lengths not listed. Call for details.	

Requirements of Loader crane

Operating Pressure: max. 4500 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



Optimum opening range with full plunge depth

Max. opening range with reduced plunge depth

Pallet Fork

Self shifting & adjustable throat & tines with spindle or lock pin adjustment

KM 401Hc

An efficient pallet fork with a hydraulically compensating centre of gravity, the KM 401Hc has a maximum capacity of 6000lbs and can be used on loader cranes.

- **Effective** - handling many different kinds of loads, the KM401Hc saves you time and money due to its hydraulic compensation of centre of gravity. (The KM 401H allows multiple positioning and removal from under pallet in an economic, one-man operation)
- **Precise** - integrated KM 04 F rotation guarantees the operator the ability to precisely control and place loads
- **Versatile Height** - the lock pin style height adjustment handles loads from 41in to 65in
- **Versatile Width** - the tine spread can also be adjusted. The lock pin version adjusts from 33in to 57in wide, and the spindle version adjusts from 19in to 32in wide.
- **Easy to use** - loading a second row is simple. No part of the KM 401Hc pallet fork is wider than a standard pallet



Pallet Fork KM 401Hc

Type	Load Capacity (lbs.)	Throat Height (in)	Tine Length (in)	Tine Spread (in)	Tine Dimensions (width x height) (in)	Centre of Gravity (in)	Self Weight (lbs.)
KM 401Hc - spindle	6000	41-65	45	19-32	4 x 1.5	24	525
KM 401Hc - lock pin	6000	41-65	45	33-57	4 x 1.5	24	525

Package consists of: pallet fork, **KINSHOFER** rotator KM 04 F, short connecting hoses KM 203 01 (rotator to grapple), upper suspension KM 501

Please note: For safer handling of loads in higher elevation a protection trellis or protection chain should be used.

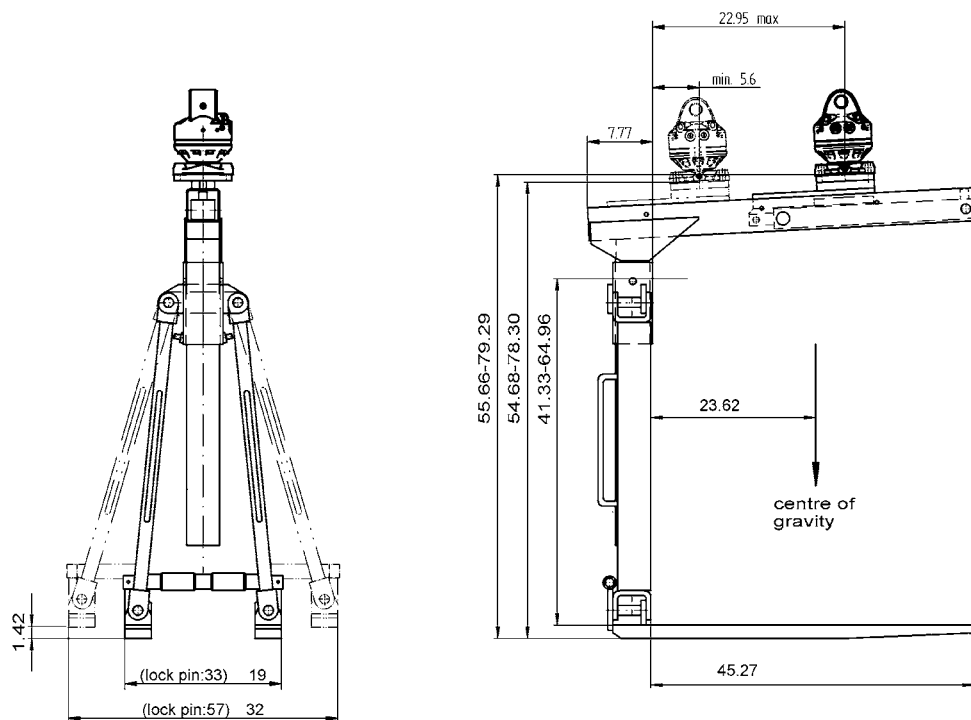
Accessories

Type	Description
KM 460	protection trellis for loads up to 4400 lbs. (43in x 43in, height 59in)
KM 460	protection trellis for loads up to 4400 lbs. (51in x 51in, height 59in)
KM 460 01	protection chain for loads up to 4400 lbs, for securing loads like shrink wrapped stone
KM 460 03	rigid suspension link with pin – for rotators up to 9900 lbs. capacity
KM 460 04	non rotating hook – for rotators up to 9900 lbs. capacity

Requirements of Loader crane

Operating Pressure: 3000 up to 3800 PSI
Pump Capacity: 2.5 to 10.5 GPM

Technical Drawings



KM 401

Pallet Fork

Self shifting & adjustable throat & tines with spindle or lock pin adjustment

An efficient pallet fork with spring loaded centre of gravity compensation, the KM 401 is for use on loader cranes for loads up to 6000 lbs

- **Efficient** - handling of different loads saves you time and money
- **Self shifting** - the top arm slide self adjusts to suit the load; travel can be preset depending on the center of gravity of the load to be picked up; compression springs return the slide to its original position once the load has been placed
- **Adjustable Height** - throat height is easily adaptable from 41in to 65in by lock pin
- **Adjustable Width** - tine spread can also be adapted from 33in to 57in using the lock pin version, or 19in to 32in with the spindle version
- **Narrow** - a second row can be easily loaded because no part of the pallet fork is wider than a standard pallet



Pallet Fork KM 401

Type	Load Capacity (lbs.)	Throat Height A (in)	Tine Length (in)	Tine spread Z (in)	Tine Dimensions (width x height) (in)	Centre of gravity (in)	Self Weight (lbs.)
KM 401 - spindle	6000	41-65	45	19-32	4 x 1.5	24	480
KM 401 - lock pin	6000	41-65	45	33-57	4 x 1.5	24	505

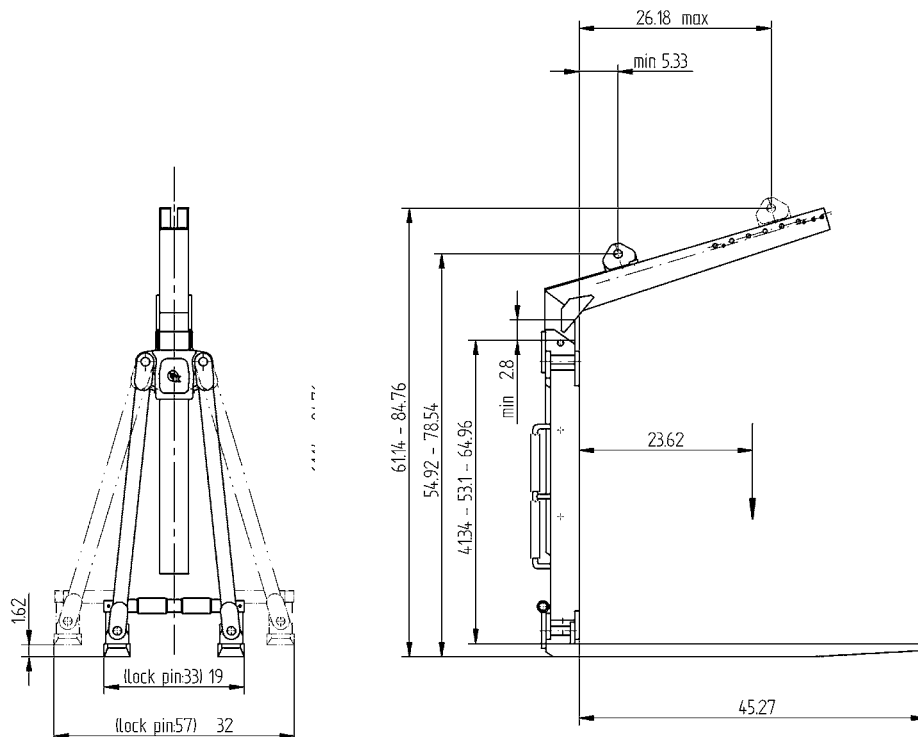
Please note:

- automatic compensation of centre of gravity functions with a minimum pack weight of about 1100 lbs.
- for safer handling of loads in higher elevation a protection trellis or protection chain should be used.

Accessories

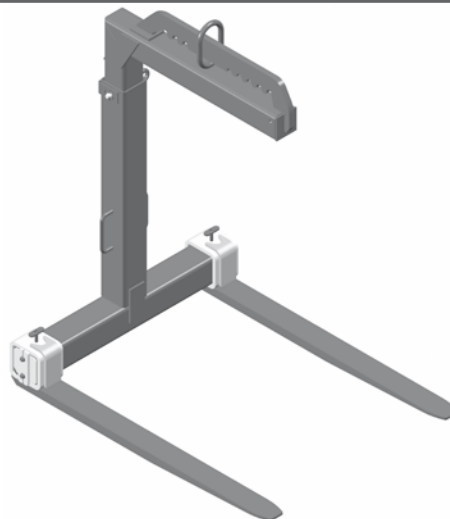
Type	Description
KM 460	protection trellis for loads of max. 4400 lbs. (43 x 43 in, height 59 in)
KM 460	protection trellis for loads of max. 4400 lbs. (51 x 51 in, height 59 in)
KM 460 01	protection chain for loads of max. 4400 lbs, for securing loads as shrink wrapped stone stacks to be lifted high above ground
KM 04 S	shaft rotator for controlling the rotation and placement of load
KM 460 03	rigid suspension link with pin - for rotators up to 9900 lbs. capacity
KM 460 04	non rotating hook - for rotators up to 9900 lbs. capacity

Technical Drawings



A sturdy pallet fork with mechanical centre of gravity compensation, the KM 416 can be used on loader cranes for loads up to 6000 lbs.

- For handling palletized and unpalletized loads of building material or stacked loads of concrete blocks, the KM 416 has a manually shifting collar that allows the crane operator to center the pickup trolley over the center of the load.
- The optional adjustable throat (KM 416 ADJ), available for irregular loads, adjusts from 48in to 68in by using a lock pin.
- The tines can be spread up to 40in and have lock pins to secure their positions.
- Easy tine adjustment allows for optimum load distribution.



Pallet Fork KM 416

Type	Load Capacity (lbs.)	Throat Height A (in)	Tine Length (in)	Tine Spread Z (in)	Tine Dimensions (width x height) (in)	Number of Tines	Centre of Gravity (in)	Self Weight (lbs.)
KM 416 - style A - ADJ	6000	48-68	46	40	4 x 1.5	2	24	490
KM 416 - style B	6000	48-68	47	40	2 x 1.5	6	24	530
KM 416 - style C	6000	48-68	46	40	4 x 1.5	2	24	515
KM 416 - style D	4500	48-68	46	40	4 x 1.25	2	24	475

Please note:

- additional tine spreads, throats, load capacities on request
- different styles of tines see p.16 „Different Styles of manually adjustable Tines“
- For safer handling of loads in higher elevation a protection trellis or protection chain should be used.

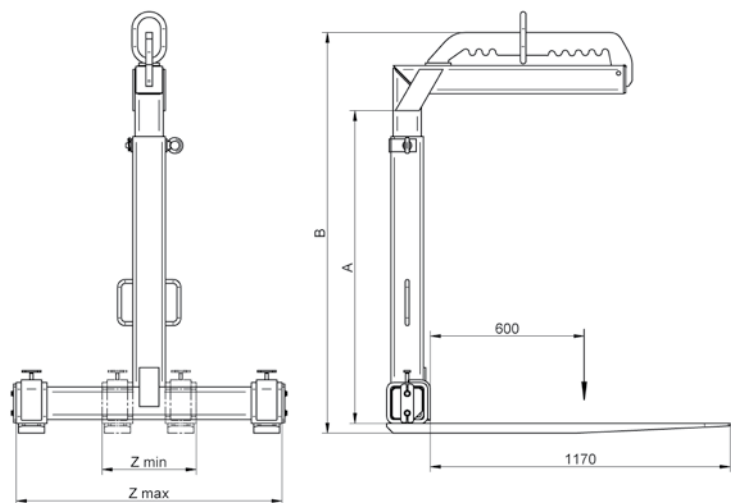
Definition of styles of tines:

Style	Description	Number of Tines	Dimensions Width (in)	Height (in)	Length (in)	Load capacity (lbs.)
A Standard		2	4	1.50	46	6000
B Block	6 tines instead of 2 tines	6	2	1.50	47	6000
C Offset	bracket is welded to the tine back in an offset of 6 in to the lower end of the tine	2	4	1.50	46	6000
D Roofers	thinner tines with lower load capacity	2	4	1.25	46	4500

Accessories

Type	Description
KM 460	protection trellis for loads up to 4400 lbs. (43 x 43 in, height 59 in)
KM 460	protection trellis for loads up to 4400 lbs. (51 x 51 in, height 59 in)
KM 460 01	protection chain for loads up to 4400 lbs, for securing loads like shrink wrapped stone stacks to be lifted high above ground
KM 04 S	backstop for supporting unbalanced loads
KM 460 03	shaft rotator for controlling the rotation and placement of load
KM 460 04	rigid suspension link with pin – for rotators up to 9900 lbs. capacity
KM 460 04	non rotating hook – for rotators up to 9900 lbs. capacity

Technical Drawings



The newest in our pallet fork line, the KM 420 incorporates the spring loaded centre of gravity style top arm with the versatility of various lower sections to accommodate your needs. Handling loads up to 6000 lbs, the pallet fork is for use with loader cranes.

- for handling palletized and unpalletized loads of building material or stacked loads of concrete blocks
- efficient handling of different loads saves time and money due to self shifting slide in the top arm
- travel can be preset depending on centre of gravity of load to be picked up
- compression springs return slide to its original position after load is removed
- throat height is easily adjusted from 48in to 90in by lock pin
- tine spread can also be adapted up to 40in by lock pins
- easy tine adjustment allows optimum load distribution



Pallet Fork KM 420

Type	Load Capacity (lbs.)	Throat Height (in)	Tine Length (in)	Tine Spread max (in)	Tine Dimensions (width x height) (in)	Number of Tines	Centre of gravity (in)	Self Weight (lbs.)
KM 420-4840-6000 - style A	6000	48-68	46	40	4 x 1.5	2	24	445
KM 420-6040-6000 - style A	6000	60-90	46	40	4 x 1.5	2	24	480
KM 420-4840-6000 - style B	6000	48-68	47	40	2 x 1.5	6	24	540
KM 420-6040-6000 - style B	6000	60-90	47	40	2 x 1.5	6	24	570
KM 420-4840-6000 - style C	6000	48-68	46	40	4 x 1.5	2	24	470
KM 420-6040-6000 - style C	6000	60-90	46	40	4 x 1.5	2	24	505
KM 420-4840-4500 - style D	4500	48-68	46	40	4 x 1.25	2	24	420
KM 420-6040-4500 - style D	4500	60-90	46	40	4 x 1.25	2	24	460

Please note:

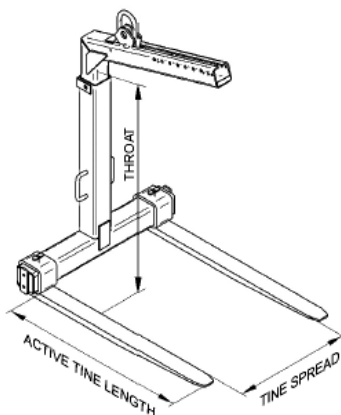
- automatic compensation of centre of gravity functions with a minimum pack weight of about 1100 lbs.
- additional tine spreads, throats, load capacities on request
- different styles of tines see p.16 „Different Styles of manually adjustable Tines“
- For safer handling of loads in higher elevation a protection trellis or protection chain should be used.

Definition of styles of tines:

Style	Description	Number of Tines	Dimensions Width (in)	Height (in)	Length (in)	Load capacity (lbs.)
A Standard		2	4	1.50	46	6000
B Block	6 tines instead of 2 tinesw	6	2	1.50	47	6000
C Offset	bracket is welded to the tine back in an offset of 6 in to the lower end of the tine	2	4	1.50	46	6000
D Roofers	thinner tines with lower load capacity	2	4	1.25	46	4500

Accessories

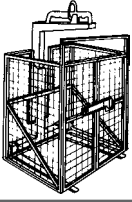
Type	Description
KM 460	protection trellis for loads up to 4400 lbs. (43 x 43 in, height 59 in)
KM 460	protection trellis for loads up to 4400 lbs. (51 x 51 in, height 59 in)
KM 460 01	protection chain for loads up to 4400 lbs, for securing loads like shrink wrapped stone stacks to be lifted high above ground backstop for supporting unbalanced loads
KM 04 S	shaft rotator for controlling the rotation and placement of load
KM 460 03	rigid suspension link with pin – for rotators up to 9900 lbs. capacity
KM 460 04	non rotating hook – for rotators up to 9900 lbs. capacity
KM 04 F	flange rotator for controlling the rotation and placement of the load
	flange adapter for KM 04 F



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 2000 kg. The trellis can be mounted within minutes and is therefore a flexible system on the construction site.



Dimensions (in)	Height (in)	Self Weight (lbs.)
43 x 43	59	150
51 x 51	59	175

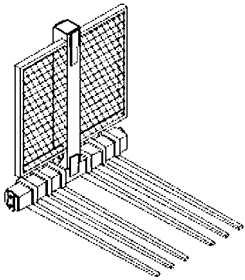
Other dimensions available on request.

KM 460 01 - Protection Chain

For safer handling of loads as stone stacks (shrink wrapped) in higher elevation - max. capacity of 2000 kg. Hooks on the crane fork are necessary for the use of protection chain.

Length (in)	Self Weight (lbs.)
20	9

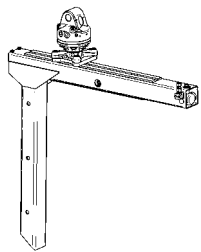
Backstop



A backstop can be welded to the throat of a pallet fork as support for unbalanced loads

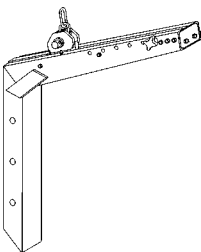
Different Methods for Centre of Gravity Compensation

Hydraulic shifting



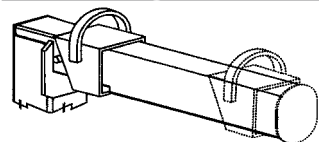
Hydraulic centre of gravity compensation: the slide in the top arm is moved by a cylinder in an economic one-man-operation. In combination with a rotator, precise positioning is no problem.

Self shifting



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

Manual shifting



Mechanical centre 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.

Different Types of Tine Adjustment

Spindle adjustment



Tines adjust by turning the spindle style bottom bar.

Lock pin adjustment



Tines adjust by changing the position of a lock pin at the bottom bar.

Manual adjustment



Tines are manually adjusted individually with the help of a spring loaded pin on the bottom bar.

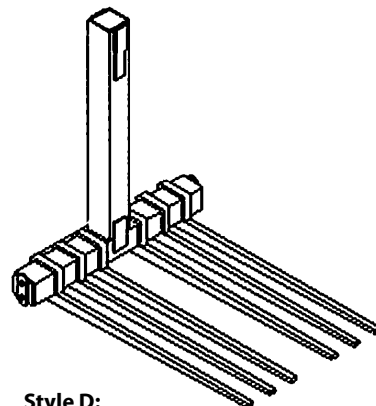
Different Styles of manually adjustable Tines

Depending on the requirements of the pallet fork there are different styles of manually adjustable tines

Style	Description	Number of Tines	Dimensions Width (in)	Height (in)
A	Standard	2	4	1.50
B	Block 6 tines instead of 2 tines	6	2	1.50
C	Offset bracket is welded to the tine back in an offset of 6 in to the lower end of the tine	2	4	1.50
D	Roofers thinner tines with lower load capacity	2	4	1.25



Style C:
6 in offset tines make it easier to slide out of the pallet especially on rough terrain



Style D:
Block tines for wrapped blocks without pallet

Note: "Stub tines" with an active length of 39 in are available on request

Wallboard fork for loader cranes - load capacity up to 6000 lbs

- The universal fork is a safe and efficient method for delivering sheets of building materials.
- The tilt cylinder and **KINSHOFER** rotator ensure accurate positioning.
- Using a hinged lower section, sheets of wallboard can be lifted and folded into a vertical position and clamped between the tines and frame, preventing the boards from sliding during handling.
- Security is assured even in case of a drop in pressure due to the SUN™ counterbalance valve that prevents the fork from opening unintentionally.
- Semi-tapered forged tines, equipped with rollers to protect sheets and pads prevent damage during unloading can be adjusted easily and a standard centre slide gives an additional support point for your loads.



Universal Fork KM 461c

Type	Load Capacity (lbs.)	Flat lift height		Tine Spread min - max (in)		Throat Height B (in)		Self Weight (lbs.)
		A (in)	B (in)	min	max	B	B	
KM 461 -48/63/18 c	6000	48	18	25	63	18	18	890
KM 461 -48/72/18 c	6000	48	18	25	72	18	18	915
KM 461 -48/84/18 c	6000	48	18	25	84	18	18	925
KM 461 -48/63/22 c	6000	48	22	25	63	22	22	900
KM 461 -48/72/22 c	6000	48	22	25	72	22	22	925
KM 461 -48/84/22 c	6000	48	22	25	84	22	22	935
KM 461 -54/63/18 c	6000	54	18	25	63	18	18	915
KM 461 -54/72/18 c	6000	54	18	25	72	18	18	970
KM 461 -54/84/18 c	6000	54	18	25	84	18	18	980
KM 461 -54/63/22 c	6000	54	22	25	63	22	22	900
KM 461 -54/72/22 c	6000	54	22	25	72	22	22	925
KM 461 -54/84/22 c	6000	54	22	25	84	22	22	935

Package consists of: wallboard fork, **KINSHOFER** rotator KM 04 F140-30US, hoses (rotator to fork), upper suspension KM 501, hose kit, counterbalance valve

Please note: – individual wallboard fork is also available

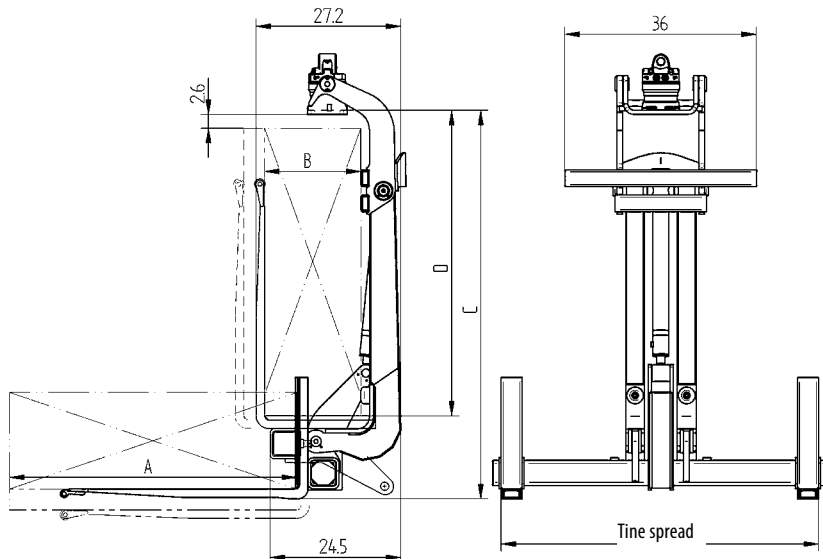
Accessories

Type	Description
KM 04 S68-30US	shaft rotator
KM 505	quick change system for shaft rotator KM 04 S68-30US
KM 461 08	adjustable backstop

Requirements of Loader Crane

Operating Pressure: 3000 psi
Pump Capacity: 15 to 30 GPM

Technical Drawings



The battery powered universal fork is for loader cranes and tower cranes with no boom tip hydraulics and handles loads up to 6000 lbs.

- The battery powered universal fork is independent from external hydraulic systems and works on jobsite tower cranes and telescopic Loader Cranes
- The self contained battery powered hydraulic system converts in minutes to utilize truck’s hydraulic power when used with a boom truck
- Universal fork is an efficient and safe method of delivering building materials
- Hinged lower section allows horizontally stored sheets of wallboard to be lifted and folded into a vertical position and clamped between tines and support beam, preventing the wallboards from sliding during handling
- Security is assured even in case of a drop in pressure due to the SUN™ counterbalance valve that prevents the fork from opening unintentionally.
- Semi-tapered forged tines, equipped with rollers to protect sheets and pads prevent damage during unloading can be adjusted easily and a standard centre slide gives an additional support point for your loads.



Universal Fork KM 461B

Type	Load Capacity (lbs.)	Flat lift height A (in)	Tine Spread min - max (in)	Throat Height B (in)	Self Weight (lbs.)
KM 461B -54/60/22	6000	54	60	22	715
KM 461B -54/60/27	6000	54	60	27	740

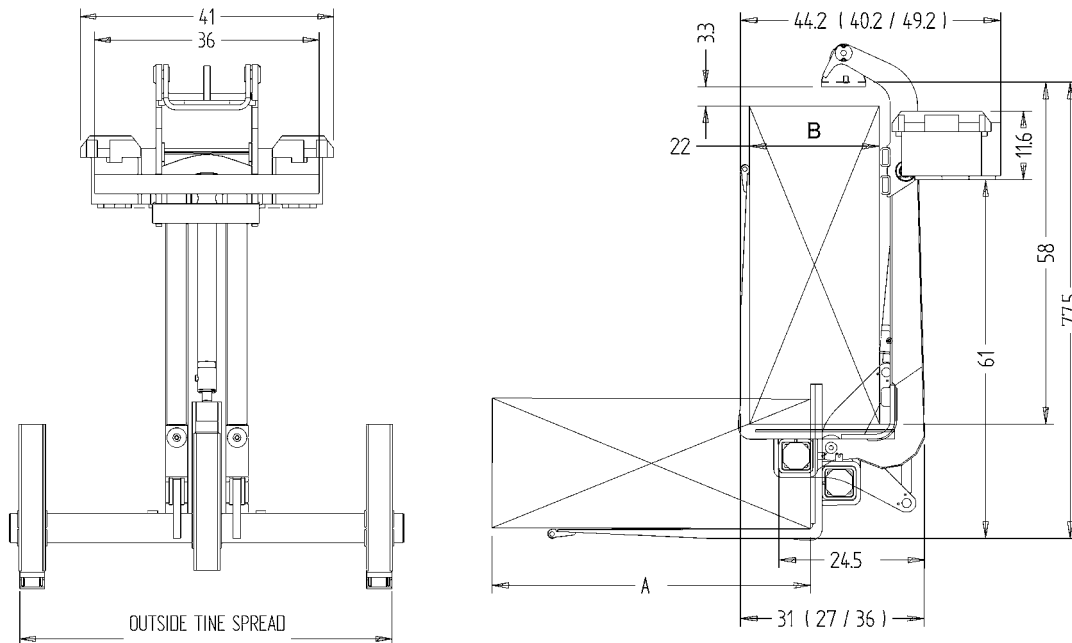
Package consists of: universal fork with
 – power pack: rechargeable 12 volt industrial trade batteries operate hydraulic pump when used with non-hydraulic crane
 – hydraulic system: operates ram to lower or fold up cradle for loading and carrying; when used with a boom truck a quick and simple conversion connects the truck’s hydraulic power

Please note: – additional dimensions on request

Accessories

Type	Description
KM 461 09	fork stand: holds fork upright for storage and transportation, designed for handling with fork lift truck with 48 in tines (weight 150 lbs)

Technical Drawings



Universal Fork - Low storage

KM 461Lc

A low-profile universal fork for loader cranes, the KM 461L handles up to 6000 lbs.

- Especially designed for "over-the-cab-storage" where limited space requires a very narrow fork frame and overall width.
- The tilt cylinder and **KINSHOFER** rotator ensure accurate positioning.
- Using a hinged lower section, sheets of wallboard can be lifted and folded into a vertical position and clamped between the tines and frame, preventing the boards from sliding during handling.
- Security is assured even in case of a drop in pressure due to the SUN™ counterbalance valve that prevents the fork from opening unintentionally.
- Semi-tapered forged tines, equipped with rollers to protect sheets and pads prevent damage during unloading can be adjusted easily and a standard centre slide gives an additional support point for your loads.



Universal Fork KM 461Lc

Type	Load Capacity (lbs.)	Flat lift height (in)	Tine Spread A (in)	Throat Height (in)	Self Weight (lbs.)
KM 461L -54/63/22 c	6000	54	25-63	22	835

Package consists of: universal fork, **KINSHOFER** rotator KM 04 S 68-30US, hoses (rotator to fork), upper suspension KM 501, hose kit, counterbalance valve

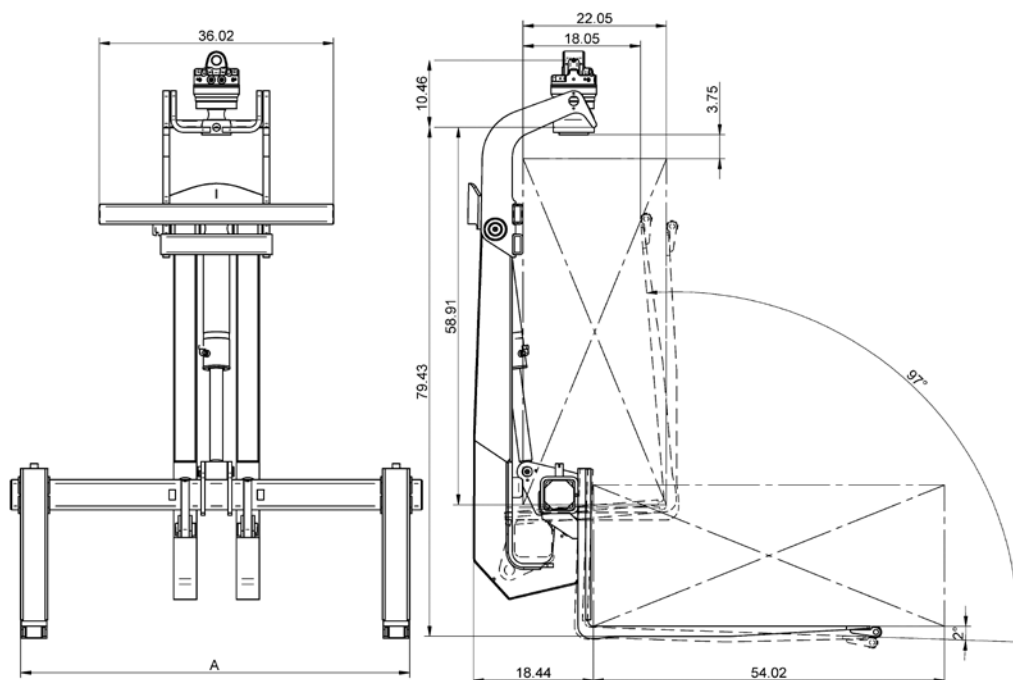
Please note:

- individual universal fork is also available
- additional dimensions on request
- other bottom bar lengths on request

Requirements of Loader Crane

Operating Pressure: 2600 psi
Pump Capacity: 6.5 to 20 GPM

Technical Drawings

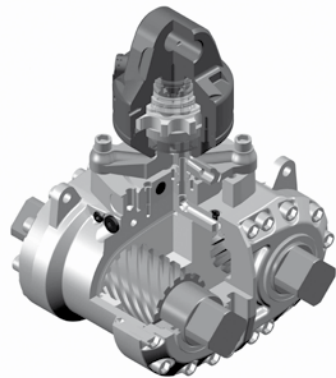
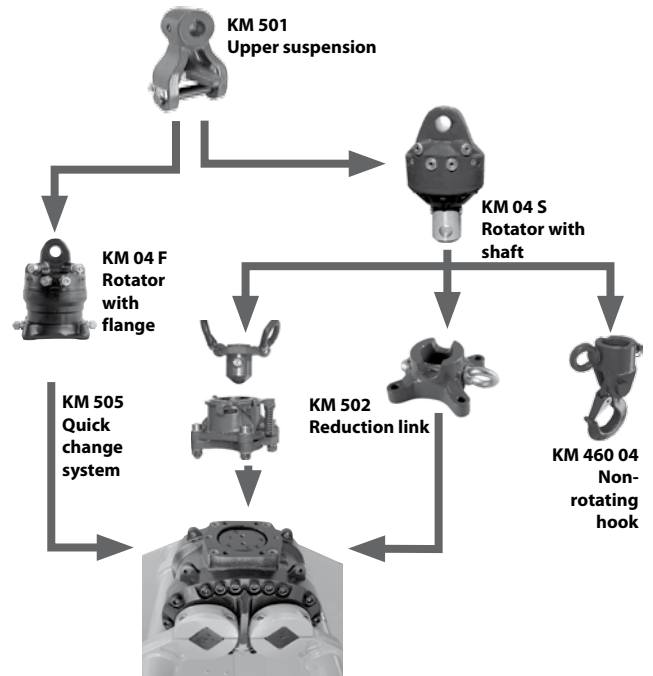


The **HPXdrive Standard** as an allround unit is perfect for the daily routine jobs. The advantages of the **HPXdrive-technology** – the constant high closing force and the compact design – guarantee a long life and rentability.

The standard rotator of the **HPXdrive Standard** is the KM 04F140-30V. In case a quick change to a non rotating hook is necessary, the **HPXdrive** can be delivered with the KM 04 S - in combination with the quick change system KM 505 or reduction link KM 502.

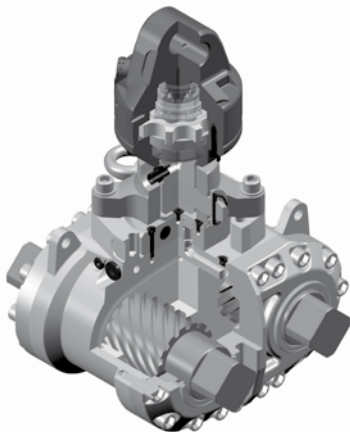
Technical Dates HPXdrive Standard:

Torque (at 3750 psi):	8900 ft. lbs.
Operating pressure:	3750 to 4600 psi
Pump capacity:	6.5 to 20.0 GPM



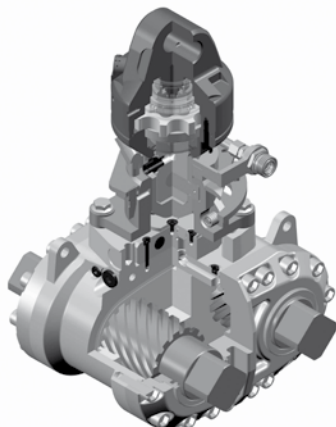
HPXdrive Standard with flange rotator

- Package consists of:** Upper suspension KM 501, **KINSHOFER** rotator KM 04 F140-30V, drive unit **HPXdrive Standard** with pressure relief valve and non-return valve
- Self Weight:** 310 lbs.
- Height:** 18.9 in



HPXdrive Standard/502 with shaft rotator and reduction link

- Package consists of:** upper suspension KM 501, **KINSHOFER** rotator KM 04 S, reduction link KM 502, quick change system KM 505, short connecting hoses KM 203 01, drive unit **HPXdrive Standard** with pressure relief valve and non-return valve
- Self Weight:** 320 lbs.
- Height:** 21.1 in



HPXdrive Standard/505 with shaft rotator and quick change system

- Package consists of:** Upper suspension KM 501, **KINSHOFER** rotator KM 04 S, quick exchange system KM 505, connecting hoses KM 203 01, drive unit **HPXdrive Standard** with pressure relief valve and non-return valve
- Self Weight:** 330 lbs.
- Height:** 22.6 in

Please note: The drive unit **HPXdrive Standard** can only be used in combination with **KINSHOFER**-rotator and **KINSHOFER**-shells..

We reserve the right to amend specifications without prior notice. **KINSHOFER** GmbH, 83666 Waakirchen, Germany

Exchangeable Shells

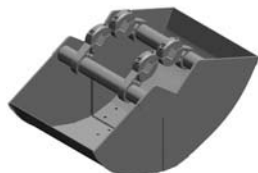
HPXdrive Standard

The bucket shells of the *HPXdrive Standard* are bolted to the shafts, and therefore it is very easy to replace them with another set of shells. Different types of shells for different applications can be refitted onto the driving unit, e.g. clamshell bucket, rock grapple, timber grapple, hay and forestry grapple and multi purpose clamshell. Other types of shells are available on request.



The interchangeable shells are delivered with an exchange aid that guarantees that the *HPXdrive Standard* can be positioned with ease.

Package consists of: exchangeable shells, bolt-on teeth (for KM 604HPX, KM 626HPX), exchange aid kit



Type	Capacity (litre/c.y.)	Width (in)	max. Opening (in)	Number of teeth/tines	Self Weight (lbs.)
Shells for clamshell bucket - KM 604HPX					
KM 604HPX-200S	200/0.26	15.75	55	4	200
KM 604HPX-250S	250/0.33	19.70	55	4	220
KM 604HPX-325S	325/0.43	23.60	55	6	275
KM 604HPX-350S	350/0.46	25.60	55	6	300
KM 604HPX-450S	450/0.59	31.50	55	6	330



Type	Capacity (litre/c.y.)	Width (in)	max. Opening (in)	Number of teeth/tines	Self Weight (lbs.)
Shells for small clamshell bucket - KM 626HPX					
KM 626HPX-95S	95/0.12	15.75	36	4	90
KM 626HPX-100S	100/0.13	17.70	36	4	110
KM 626HPX-150S	150/0.20	23.60	36	6	175



Type	Capacity (litre/c.y.)	Width (in)	max. Opening (in)	Number of teeth/tines	Self Weight (lbs.)
Shells for rock grapple - KM 613HPX					
KM 613HPX-0.16S	0.16m ² / 1/9 cord	16.55	48	-	155



Type	Capacity (litre/c.y.)	Width (in)	max. Opening (in)	Number of teeth/tines	Self Weight (lbs.)
Shells for multi purpose grapple - KM 641HPX					
KM 641HPX -200S	200/0.26	26.40	47	2 x 4	130
KM 641HPX -270S	270/0.35	25.50	63	2 x 3	225
KM 641HPX -340S	340/0.44	31.50	63	2 x 3	300
KM 641HPX -400S	400/0.52	37.00	63	2 x 4	330
KM 641HPX -460S	460/0.60	42.50	63	2 x 4	360

Please note: The driving unit *HPXdrive Standard* can only be used in combination with **KINSHOFER**-rotator and **KINSHOFER**-shells.

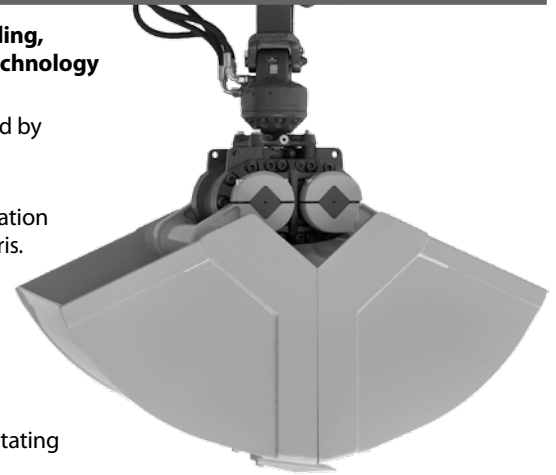
We reserve the right to amend specifications without prior notice. **KINSHOFER** GmbH, 83666 Waakirchen, Germany

KM 604HPX

Clamshell Bucket with *HPXdrive*

An allround clamshell bucket using the *HPXdrive Standard* for digging and handling, the KM 604HPX is ideal for the daily routine work. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability** of the *HPX drive*: The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the HPXdrive resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (4200 lbf. at 3750 psi operating pressure) for the entire opening and closing process.



Package Clamshell Bucket KM 604HPX with **KINSHOFER** flange rotator

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of teeth	Self Weight (lbs.)	Closing Force (lbf.)	Load Capacity (lbs.)
KM 604HPX-200	200/0.26	15.75	40	55	4	505	4200	6600
KM 604HPX-250	250/0.33	19.70	40	55	4	530	4200	6600
KM 604HPX-325	325/0.43	23.60	40	55	6	585	4200	6600
KM 604HPX-350	350/0.46	25.60	40	55	6	605	4200	6600
KM 604HPX-450	450/0.59	31.50	40	55	6	640	4200	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, pressure relief valve, non-return valve

Please note:
 - The KM 604HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.
 - For stiff boom cranes with cable, package comes with hook bale instead of rotator

Package Clamshell Bucket KM 604HPX/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of teeth	Self Weight (lbs.)	Closing Force (lbf.)	Load Capacity (lbs.)
KM 604HPX-200/502	200/0.26	15.75	42	55	4	515	4200	6600
KM 604HPX-250/502	250/0.33	19.70	42	55	4	540	4200	6600
KM 604HPX-325/502	325/0.43	23.60	42	55	6	595	4200	6600
KM 604HPX-350/502	350/0.46	25.60	42	55	6	615	4200	6600
KM 604HPX-450/502	450/0.59	31.50	42	55	6	650	4200	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, pressure relief valve, non-return valve

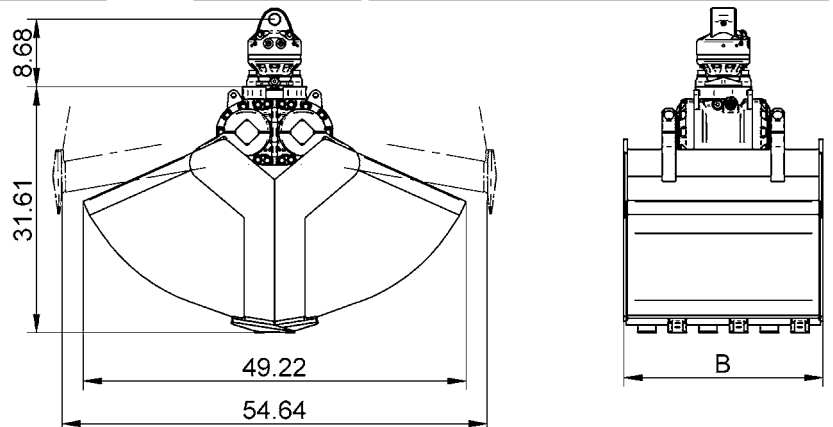
Accessories

Type	Description
KM 680	scraper
KM 685 06	welded hooks (2 pieces) / bolt-on eye
KM 685 07	wear plates to protect horizontal cutting edges (2 pieces)
KM 685 08	extension for excavating e.g.trenches (for canal and civil engineering) - 17.70 in (110 lbs.)
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings

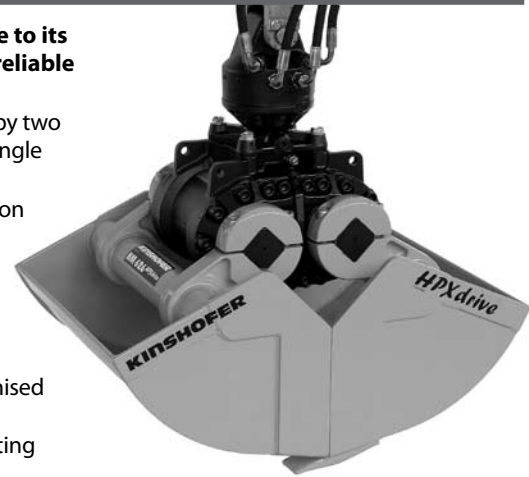


Small Clamshell Bucket with *HPXdrive*

KM 626HPX

The KM 626HPXdrive with the *HPXdrive Standard* for digging and handling, is due to its size ideal for small cranes. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability of the *HPX drive!*** The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the HPXdrive resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (6800 lbf. at 3750 psi operating pressure) for the entire opening and closing process.



Package Clamshell Bucket KM 626HPX with **KINSHOFER** flange rotator

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of teeth	Self Weight (lbs.)	Closing Force (lbf.)	Load Capacity (lbs.)
KM 626HPX-95	95/0.12	15.75	30	35	4	395	6800	4400
KM 626HPX-100	100/0.13	17.70	30	35	4	420	6800	4400
KM 626HPX-150	150/0.20	23.60	30	35	6	485	6800	4400

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, pressure relief valve, non-return valve

Please note:
 - The KM 626HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.
 - For stiff boom cranes with cable, package comes with hook bale instead of rotator

Package Clamshell Bucket KM 626HPX/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of teeth	Self Weight (lbs.)	Closing Force (lbf.)	Load Capacity (lbs.)
KM 626HPX-95/502	95/0.12	15.75	32	35	4	405	6800	4400
KM 626HPX-100/502	100/0.13	17.70	32	35	4	430	6800	4400
KM 626HPX-150/502	150/0.20	23.60	32	35	6	495	6800	4400

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, pressure relief valve, non-return valve

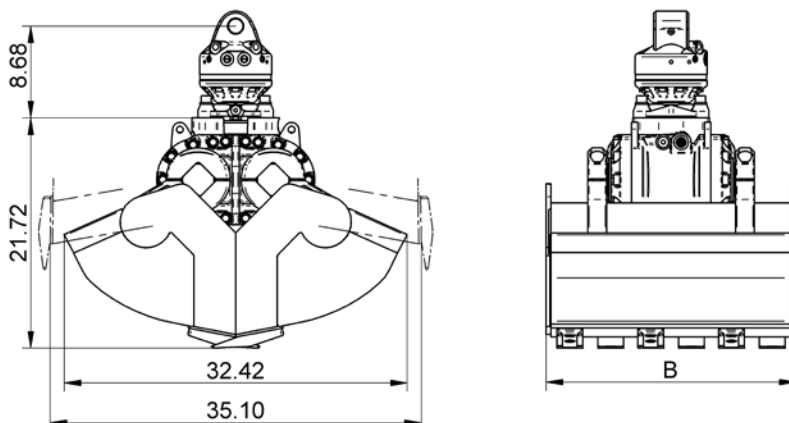
Accessories

Type	Description
KM 680	scraper
KM 685 06	welded hooks / bolt-on eyes (2 pieces)
KM 685 07	wear plates to protect horizontal cutting edges (2 pieces)
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



KM 613HPX

Rock Grapple with *HPXdrive*

The KM 613HPX with *HPXdrive Standard* for positioning and handling natural stones, curbstones etc. is an ideal tool for landscaping architecture. A non-return valve secures constant pressure even in case of unexpected pressure drop. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.



- **Reliability** of the *HPX drive!* The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the HPXdrive resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (3960 lbf. at 3750 psi operating pressure) for the entire opening and closing process.

Package Rock Grapple KM 613HPX with **KINSHOFER** flange rotator

Type	Capacity (m ² /cord)	Width B (in)	Height (in)	Max. Opening (in)	Self Weight (lbs.)	Closing Force (lbf.)	Load Capacity (lbs.)
KM 613HPX-0,16	0,16 m ² / 1/9 cord	15.75	39	47	460	3960	2200

Package consists of: rock grapple, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, pressure relief valve, non-return valve
Please note: KM 613HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.

Package Rock Grapple KM 613HPX/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Capacity (m ² /cord)	Width B (mm)	Height (mm)	Max. Opening (mm)	Self Weight (kg)	Closing Force (kN)	Load Capacity (kg)
KM 613HPX-0,16/502	0,16 m ² / 1/9 cord	15.75	41	47	470	3960	2200
	(m ² /cord)	(in)	(in)	(in)	(lbs.)	(lbf.)	(lbs.)

Package consists of: rock grapple, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, pressure relief valve, non-return valve

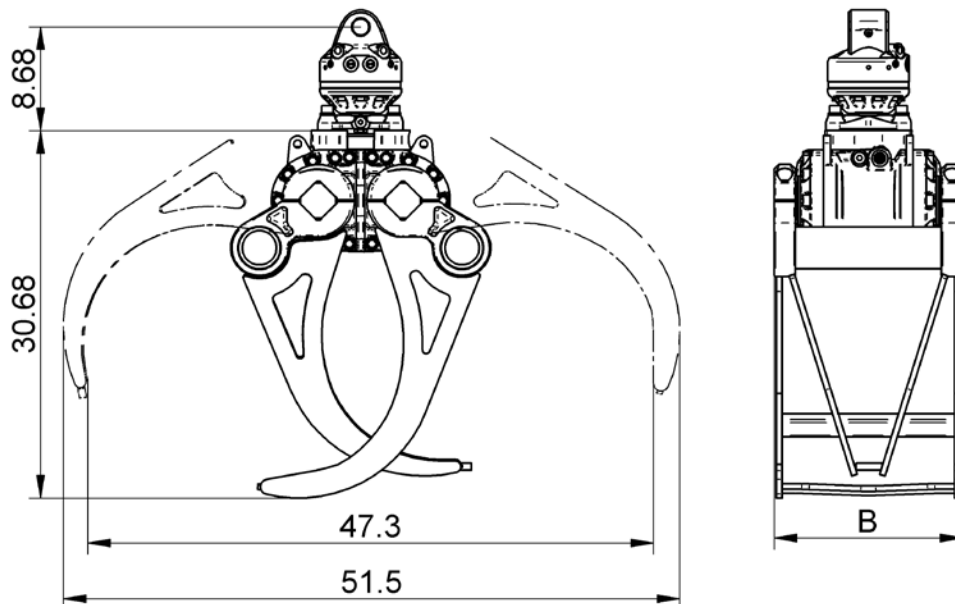
Accessories

Type	Description
KM 685 06	welded hooks (2 pieces) / bolt-on eye
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 6.5 to 20.0 GPM

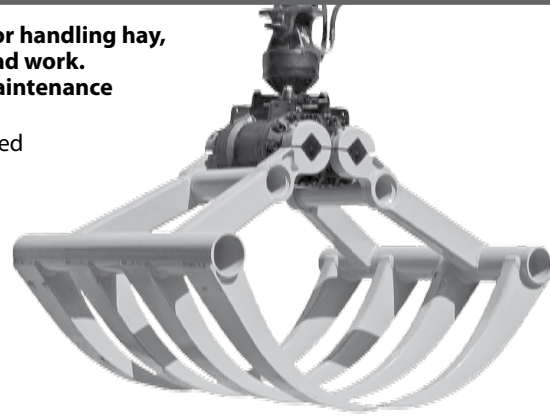
Technical Drawings



Multi Purpose Grapple with *HPXdrive*

KM 641HPX

The multi purpose grapple KM 641HPX using the *HPXdrive Standard* is ideal for handling hay, brushwood, compost or manure - often used for municipal operations and road work. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.



- **Reliability** of the *HPX drive*! The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the HPXdrive resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (3740 lbf. at 3750 psi operating pressure) for the entire opening and closing process.

Package Multi Purpose Grapple KM 641HPX with KINSHOFER flange rotator								
Type	Volume	Width B	Height	max. Opening	Number of tines	Self Weight	Closing Force	Load Capacity
	(litre/c.y.)	(in)	(in)	(in)		(lbs.)	(lbf.)	(lbs.)
KM 641HPX -200	200/0.26	26.40	38	47	2 x 4	440	3740	2200
KM 641HPX -270	270/0.35	25.50	43	63	2 x 3	535	3740	4400
KM 641HPX -340	340/0.44	31.50	43	63	2 x 3	610	3740	4400
KM 641HPX -400	400/0.52	37.00	43	63	2 x 4	640	3740	4400
KM 641HPX -460	460/0.60	42.50	43	63	2 x 4	670	3740	4400

Package consists of: multi purpose grapple, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, pressure relief valve, non-return valve

Please note: KM 641HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.

Package Multi Purpose Grapple KM 641HPX/502 with KINSHOFER rotator with shaft and reduction link								
Type	Volume	Width B	Height	Max. Opening	Number of tines	Self Weight	Closing Force	Load Capacity
	(litre/c.y.)	(in)	(in)	(in)		(lbs.)	(lbf.)	(lbs.)
KM 641HPX-200/502	200/0.26	26.40	40	47	2 x 4	450	3740	2200
KM 641HPX-270/502	270/0.35	25.50	45	63	2 x 3	545	3740	4400
KM 641HPX-340/502	340/0.44	31.50	45	63	2 x 3	620	3740	4400
KM 641HPX-400/502	400/0.52	37.00	45	63	2 x 4	650	3740	4400
KM 641HPX-460/502	460/0.60	42.50	45	63	2 x 4	680	3740	4400

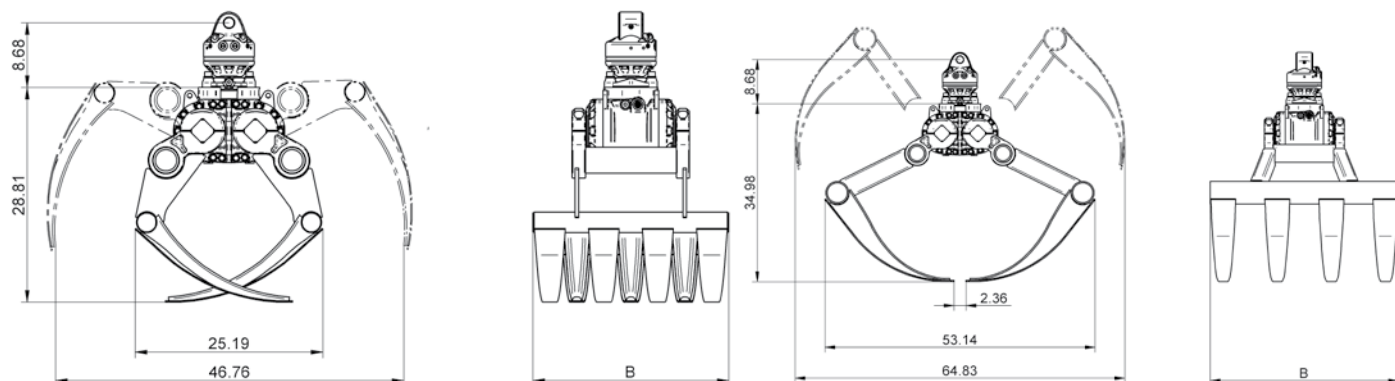
Package consists of: multi purpose grapple, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, pressure relief valve, non-return valve

Accessories:	
Type	Description
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



KM 641HPX-200

KM 641HPX-270 to KM 641HPX-460

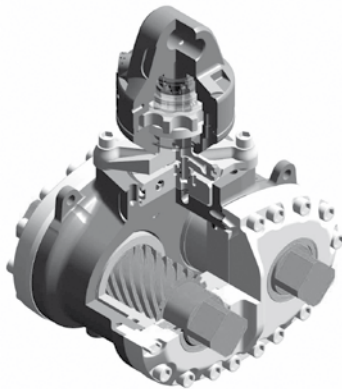
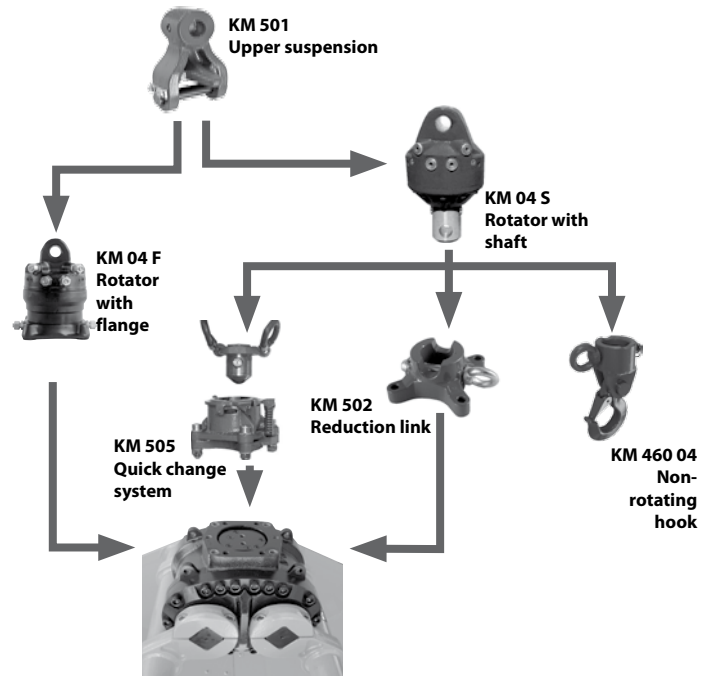
We reserve the right to amend specifications without prior notice. **KINSHOFER** GmbH, 83666 Waakirchen, Germany

The **HPXdrive Heavy Duty** is a powerful version for difficult tasks. The advantages of the **HPXdrive**-technology – the constant high closing force and the compact design – guarantee a long life and rentability.

The standard rotator of the **HPXdrive Heavy Duty** is the KM 04F140-30V. In case a quick change to a non rotating hook is necessary, the **HPXdrive** can be delivered with the KM 04 S – in combination with the quick change system KM 505 or reduction link KM 502.

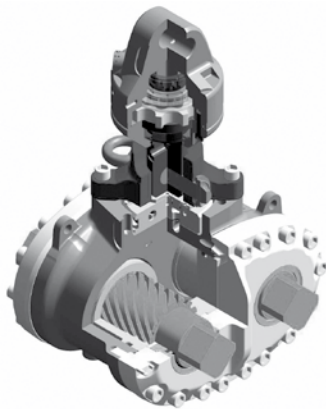
Technical Data HPXdrive Heavy Duty:

Torque (at 4600psi):	15500 ft. lbs.
Operating pressure:	3750 to 4600psi
Pump capacity:	10.5 to 24.0 GPM



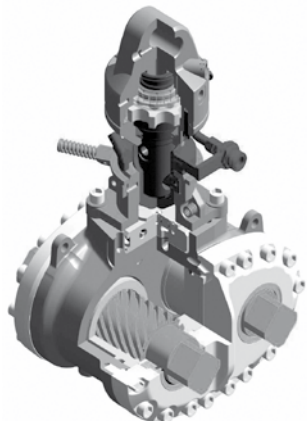
HPXdrive Heavy Duty with flange rotator

- Package consists of:** Upper suspension KM 501, **KINSHOFER** rotator KM 04 F140-30V, drive unit **HPXdrive Heavy Duty** with non-return valve
- Self Weight:** 405 lbs.
- Height:** 20.1 in



HPXdrive Heavy Duty/502 with shaft rotator and reduction link

- Package consists of:** Upper suspension KM 501, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, drive unit **HPXdrive Heavy Duty** with non-return valve
- Self Weight:** 420 lbs.
- Height:** 22.2 in



HPXdrive Heavy Duty/505 with shaft rotator and quick change system

- Package consists of:** Upper suspension KM 501, **KINSHOFER** rotator KM 04 S, quick change system KM 505, short connecting hoses KM 203 01, drive unit **HPXdrive Heavy Duty** with non-return valve
- Self Weight:** 430 lbs.
- Height:** 23.8 in

Please note: The drive unit **HPXdrive Heavy Duty** can only be used in combination with **KINSHOFER**-rotator and **KINSHOFER**-shells.

Exchangeable Shells

HPXdrive Heavy Duty

The bucket shells of the *HPXdrive Heavy Duty* are bolted to the shafts, and therefore it is very easy to replace them with another set of shells. Different types of shells for different applications can be refitted onto the driving unit, e.g. clamshell bucket, rock grapple, timber grapple, multi purpose grapple and multi purpose clamshell. Other types of shells are available on request.

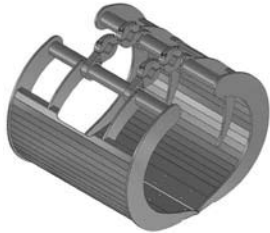


The interchangeable shells are delivered with an exchange aid that guarantees that the *HPXdrive Heavy Duty* can be positioned with ease.

Package consists of: exchangeable shells, bolt-on teeth (for KM 605HPX), exchange aid kit



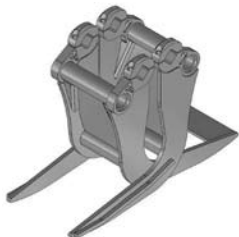
Type	Volume (litre/c.y.)	Width (in)	Max. Opening (in)	Number of Teeth/Tines	Self Weight (lbs.)
Shells for heavy duty clamshell bucket - KM 605HPX					
KM 605HPX-200S	200/0.26	15.75	56	4	295
KM 605HPX-250S	250/0.33	19.70	56	4	340
KM 605HPX-350S	350/0.46	25.60	56	6	375
KM 605HPX-450S	450/0.59	31.50	56	6	430
KM 605HPX-550S	550/0.72	39.40	56	8	495



Shells for heavy duty refuse grapple - KM 605U HPX					
KM 605U HPX-420S	420/0.55	39.40	60	-	510
KM 605U HPX-620S	620/0.80	39.40	60	-	565
KM 605U HPX-660S	660/0.86	39.40	78	-	610



Shells for heavy duty rock grapple - KM 613HPX-HD					
KM 613HPX-HD-0,35S	0,35 m ² / 2/9 cord	15.75	67	-	275



Shells for heavy duty logging grapple - KM 632HPX-HD					
Type:	bypass/butt	bypass/butt			
KM 632HPX -0.25S	1/4 cord / 3 3/4 sq ft	18.00	50/57	-	380 / 405
KM 632HPX -0.33S	1/3 cord / 5 1/2 sq ft	18.00	60/67	-	435 / 490
KM 632HPX -0.40S	2/5 cord / 6 1/2 sq ft	18.00	67/73	-	480 / 490

Please note: the shells are available with two different closing styles: „Butt“ (tines tip to tip) or „Bypass“ (interlocking tines).



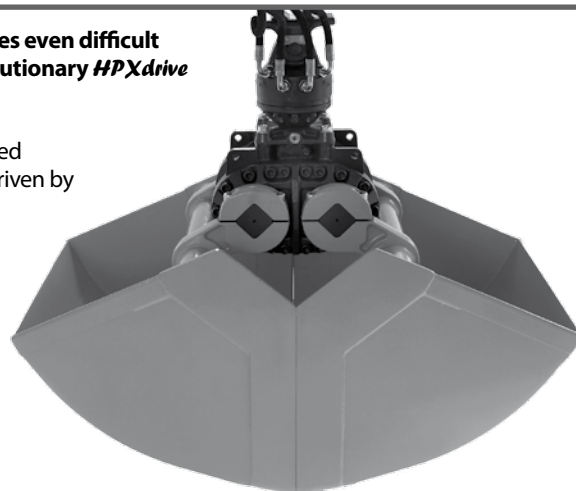
Shells for heavy duty multi purpose grapple - KM 641HPX-HD					
KM 641HPX-HD-0,4S	0,40 m ² / 2/7 cord	37.00	68	7	420

Please note: The drive unit *HPXdrive Heavy Duty* can only be used in combination with **KINSHOFER**-rotator and **KINSHOFER**-shells.

We reserve the right to amend specifications without prior notice. **KINSHOFER** GmbH, 83666 Waakirchen, Germany

A powerful clamshell bucket KM 605HPX with the *HPXdrive Heavy duty* manages even difficult tasks thanks to its high closing force - ideal for digging and handling. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability** of the *HPXdrive*. The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the *HPXdrive* resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (7480 lbf. at 4600 psi operating pressure) for the entire opening and closing process; high efficiency provided by hydro static bearings of the axes.



Package Clamshell Bucket KM 605HPX with **KINSHOFER** flange rotator

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of Teeth	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load capacity (lbs.)
KM 605HPX-200	200/0.26	15.75	41	56	4	705	7480	6600
KM 605HPX-250	250/0.33	19.70	41	56	4	750	7480	6600
KM 605HPX-350	350/0.46	25.60	41	56	6	780	7480	6600
KM 605HPX-450	450/0.59	31.50	41	56	6	835	7480	6600
KM 605HPX-550	550/0.72	39.40	41	56	8	900	7480	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, non-return valve

Please note:
 - The KM 605HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.
 - For stiff boom cranes with cable, package comes with hook bale instead of rotator

Package Clamshell Bucket KM 605HPX/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Volume (litre/c.y.)	Width B (in)	Height (in)	Max. Opening (in)	Number of Teeth	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load capacity (lbs.)
KM 605HPX-200/502	200/0.26	15.75	43	56	4	715	7480	6600
KM 605HPX-250/502	250/0.33	19.70	43	56	4	760	7480	6600
KM 605HPX-350/502	350/0.46	25.60	43	56	6	790	7480	6600
KM 605HPX-450/502	450/0.59	31.50	43	56	6	845	7480	6600
KM 605HPX-550/502	550/0.72	39.40	43	56	8	910	7480	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, non-return valve

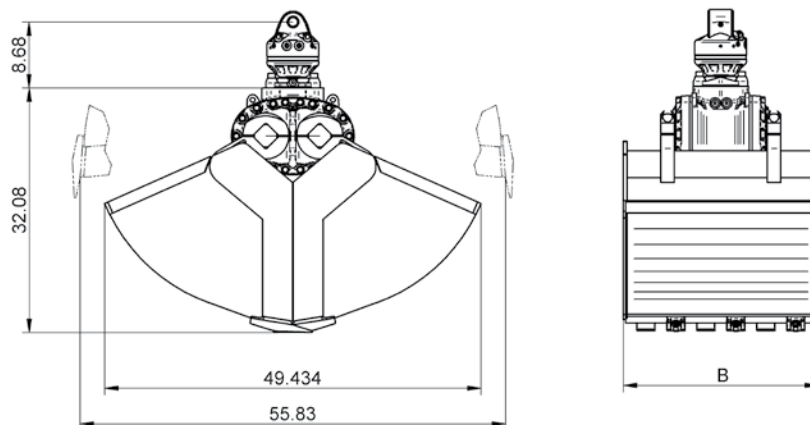
Accessories

Type	Description
KM 680	scraper
KM 685 06	welded hooks / bolt-on eyes (2 pieces)
KM 685 07	wear plates to protect horizontal cutting edges (2 pieces)
KM 685 08	extension for excavating e.g.trenches (for canal and civil engineering) - 17.70 in (130 lbs.)
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 10.5 to 24.0 GPM

Technical Drawings

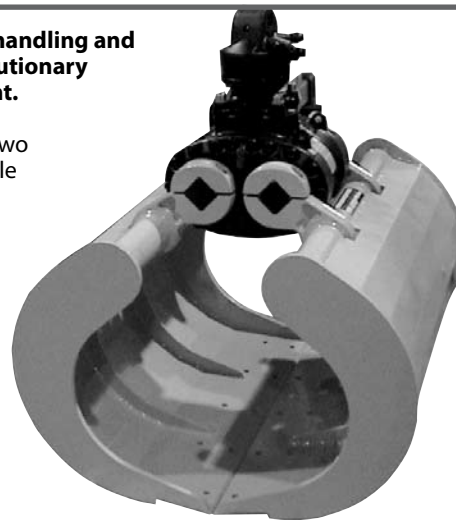


Heavy duty Refuse Grapple with *HPXdrive*

KM 605U HPX

The KM 605U HPX is a powerful clamshell bucket using the HPXdrive Heavy Duty for handling and easy digging tasks. The open shells enable the handling of bulky materials. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability** of the *HPXdrive*. The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle up** to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the *HPXdrive* resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (4800 lbf. at 4600 psi operating pressure) for the entire opening and closing process; high efficiency provided by hydro static bearings of the axes.



Package Refuse Grapple KM 605U HPX with **KINSHOFER**- flange rotator

Type	Volume (litre/c.y.)	Width B (in)	Height C (in)	Max. Opening A (in)	Self weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load capacity (lbs.)
KM 605U HPX-420	420/0.55	39.40	43	60	915	4800	6600
KM 605U HPX-620	620/0.80	39.40	48	60	970	4800	6600
KM 605U HPX-660	660/0.86	39.40	52	78	1015	3700	6600

Package consists of: clamshell bucket, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, non-return valve

Please note: KM 605U HPX is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.

Package Refuse Grapple KM 605U HPX/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Volume (litre/c.y.)	Width B (in)	Height C (in)	Max. Opening A (in)	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load Capacity (lbs.)
KM 605U HPX-420/502	420/0.55	39.40	45	60	930	4800	6600
KM 605U HPX-620/502	620/0.80	39.40	50	60	985	4800	6600
KM 605U HPX-660/502	660/0.86	39.40	54	78	1030	3700	6600

Package consists of: clamshell bucket, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, wear plates KM 685 07, welded hooks KM 685 06, non-return valve

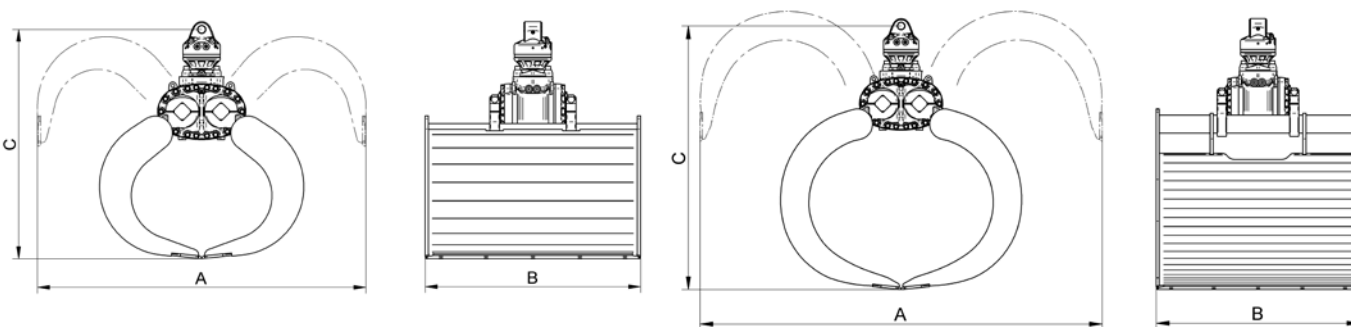
Accessories

Type	Description
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 10.5 to 24.0 GPM

Technical Drawings



KM 605U HPX-420 and KM 605U HPX-620

KM 605U HPX-660

KM 613HPX-HD

Heavy Duty Rock grapple with *HPXdrive*

The KM 613HPX-HD with *HPXdrive Heavy Duty* for positioning and handling natural stones, curbstones etc. is an ideal tool for landscaping architecture. A non-return valve secures constant pressure even in case of unexpected pressure drop. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability** of the *HPXdrive*. The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath no lubrication service is necessary. The compact design makes the *HPXdrive* resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (4840 lbf. at 4600 psi operating pressure) for the entire opening and closing process; high efficiency provided by hydro static bearings of the axes.



Package Rock Grapple KM 613HPX-HD with **KINSHOFER**- flange rotator

Type	Capacity (m ² /cord)	Width (in)	Height (in)	Max. Opening (in)	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load Capacity (lbs.)
KM 613HPX-HD-0,35	0,35 m ² / 2/9 cord	15.75	50	67	680	4840	4400

Package consists of: rock grapple, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, non-return valve
Please note: KM 613HPX-HD is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.

Package Rock Grapple KM 613HPX-HD/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Capacity (m ² /cord)	Width (in)	Height (in)	Max. Opening (in)	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load Capacity (lbs.)
KM 613HPX-HD-0,35/502	0,35 m ² / 2/9 cord	15.75	52	67	690	4840	4400

Package consists of: rock grapple, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, non-return valve

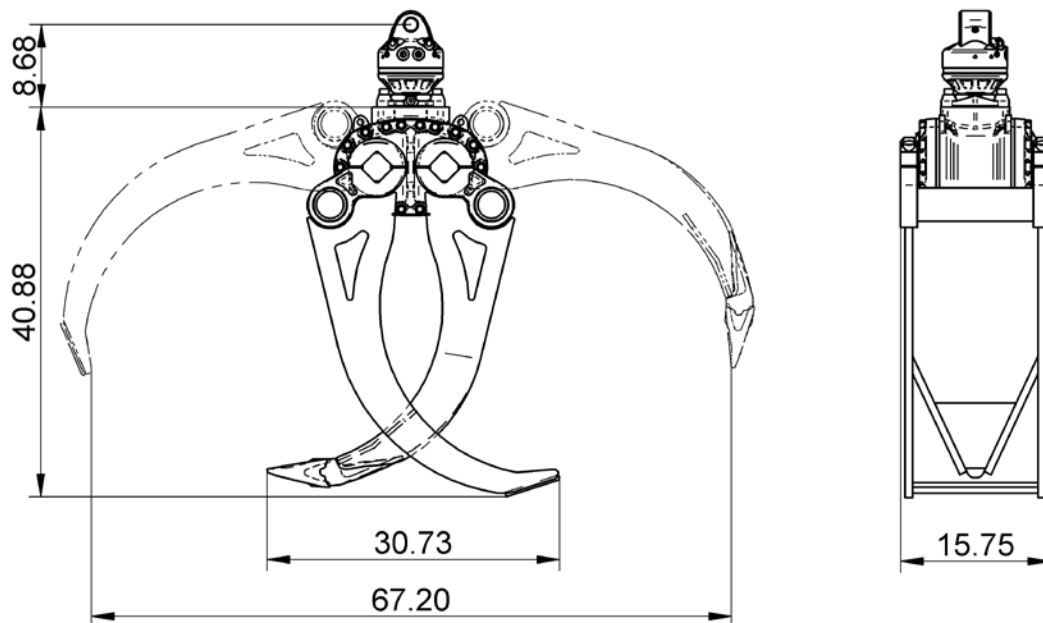
Accessories

Type	Description
KM 685 06	welded hooks / welded eyes (2 pieces)
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 10.5 to 24.0 GPM

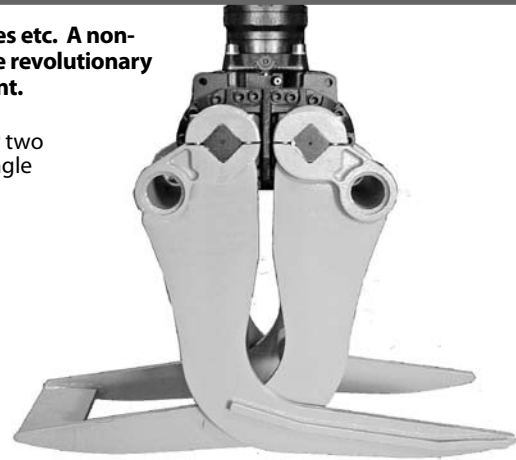
Technical Drawings



Logging Grapple with *HPXdrive*

KM 632HPX-HD

The KM 632HPX with *HPXdrive Heavy Duty* for loading short logs, shrubbery, branches etc. A non-return valve secures constant pressure even in case of unexpected pressure drop. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.



- **Reliability** of the *HPXdrive*. The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath no lubrication service is necessary. The compact design makes the *HPXdrive* resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (3900 lbf. at 4600 psi operating pressure) for the entire opening and closing process; high efficiency provided by hydro static bearings of the axes.

Package Logging Grapple KM 632HPX-HD with **KINSHOFER** flange rotator

Type	Capacity		Width (in)	max. Opening A		Height B		Self Weight		Load Capacity (lbs.)
	(cord / sq ft)			bypass type (in)	butt type (in)	bypass type (in)	butt type (in)	bypass type (lbs.)	butt type (lbs.)	
KM 632HPX -0.25	1/4 /	3 3/4	18.00	50	57	45	42	790	820	6600
KM 632HPX -0.33	1/3 /	5 1/2	18.00	60	67	49	45	850	885	6600
KM 632HPX -0.40	2/5 /	6 1/2	18.00	67	73	52	49	890	985	6600

Package consists of: logging grapple, **KINSHOFER** rotator KM 04 F140-30US, upper suspension KM 501, non-return valve
Please note: – KM 632HPX-HD is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.
 – The grapple is available with two different closing styles: „Butt“ (tines tip to tip) or „Bypass“ (interlocking tines)

Package Logging Grapple KM 632HPX-HD/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Capacity		Width (in)	max. Opening A		Height B		Self Weight		Load Capacity (lbs.)
	(cord / sq ft)			bypass type (in)	butt type (in)	bypass type (in)	butt type (lbs.)	bypass type (lbs.)	butt type (lbs.)	
KM 632HPX-0.25/502	1/4 /	3 3/4	18.00	50	57	47	44	800	830	6600
KM 632HPX-0.33/502	1/3 /	5 1/2	18.00	60	67	51	47	860	895	6600
KM 632HPX-0.40/502	2/5 /	6 1/2	18.00	67	73	54	51	900	995	6600

Package consists of: logging grapple, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, non-return valve

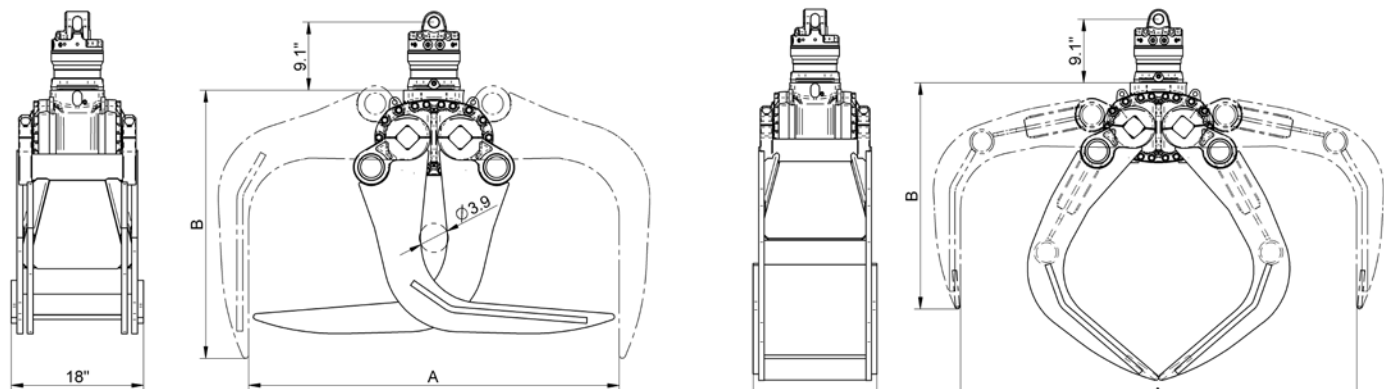
Accessories

Type	Description
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 10.5 to 24.0 GPM

Technical Drawings



KM 632HPX-HD - Bypass

KM 632HPX-HD - Butt

We reserve the right to amend specifications without prior notice. **KINSHOFER** GmbH, 83666 Waakirchen, Germany

KM 641HPX-HD

Heavy Duty Multi Purpose Grapple with *HPXdrive*

The multi purpose grapple KM 641HPX-HD using the *HPXdrive Heavy Duty* is ideal for handling hay, brushwood, compost or manure - often used for municipal operations and road work. The revolutionary *HPXdrive* technology guarantees a reliable and virtually maintenance free attachment.

- **Reliability** of the *HPXdrive*. The movement of the arms of the grapple is generated by two hollow shafts, which run opposed and have a helix thread, hydraulically driven by a single piston. No more hydraulic cylinder.
- **Longer life cycle** up to 50%! The drive unit runs in a permanent oil bath - no lubrication service is necessary. The compact design makes the *HPXdrive* resistant to dirt and debris.
- **Versatility** with different types of shells that can easily be refitted onto the driving unit.
- **Profitability** through low maintenance costs and longer life cycle.
- **Precise handling** with the gear-type **KINSHOFER** rotator and shells synchronised by the single piston turning both shafts.
- **Rotator with shaft** is available as an alternative, in case a quick change to a non-rotating hook is favoured.
- **Constant closing force** (5060 lbf. at 4600 psi operating pressure) for the entire opening and closing process; high efficiency provided by hydro static bearings of the axes.



Package Multi Purpose Grapple KM 641HPX-HD with **KINSHOFER** - flange rotator

Type	Capacity (m ² /cord)	Width (in)	Height (in)	Max. Opening (in)	Number of Tines	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load Capacity (lbs.)
KM 641HPX-HD-0,4	0,40/ 2/7 cord	37.00	47	68	7	825	5060	4400

Package consists of: grapple, **KINSHOFER** rotator KM 04 F140-30V, upper suspension KM 501, non-return valve
Please note: KM 641HPX-HD is also available with a **KINSHOFER** shaft rotator and quick change system KM 505.

Package Multi Purpose Grapple KM 641HPX-HD/502 with **KINSHOFER**-rotator with shaft and reduction link

Type	Capacity (m ² /cord)	Width (in)	Height (in)	Max. Opening (in)	Number of Tines	Self Weight (lbs.)	Closing Force (lbf. at 4600 psi)	Load Capacity (lbs.)
KM 641HPX-HD-0,4/502	0,40/ 2/7 cord	37.00	49	68	7	835	5060	4400

Package consists of: grapple, **KINSHOFER** rotator KM 04 S, reduction link KM 502, short connecting hoses KM 203 01, upper suspension KM 501, non-return valve

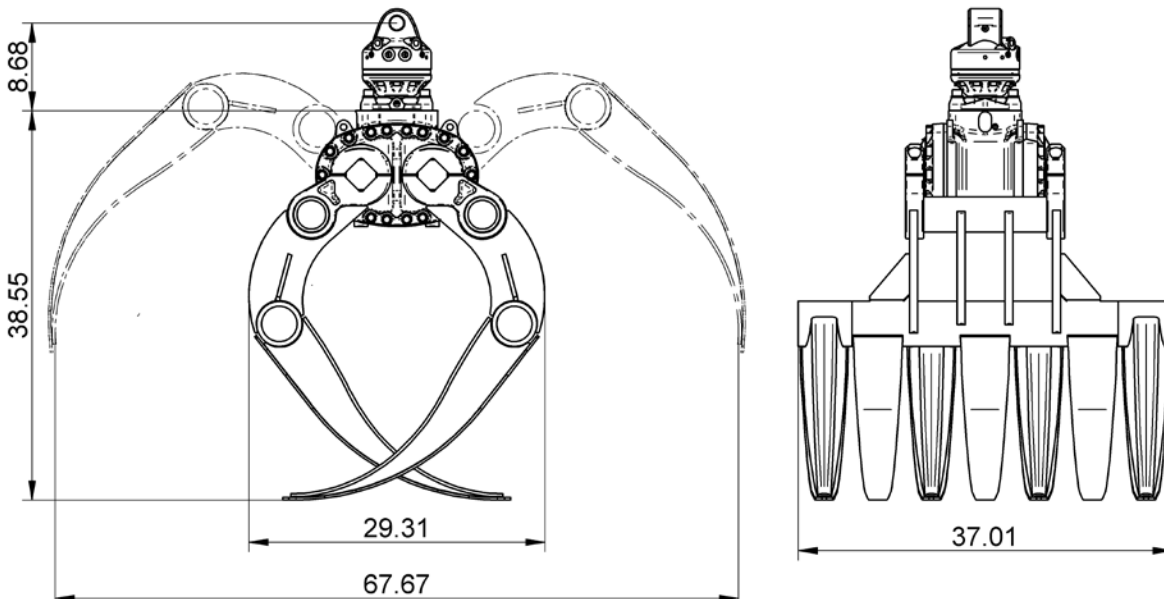
Accessories:

Type	Description
KM 204 01	mobile part of hydraulic quick coupling for hose (Ø 0.39 in, 2 pieces)
KM 204 02	fixed part of hydraulic quick coupling for rotator (Ø 0.39 in, 2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 to 4600 psi
Pump Capacity: 10.5 to 24.0 GPM

Technical Drawings



Heavy Duty Clamshell Bucket with horizontal hydraulic cylinder

KM 605c

The rugged Clamshell Bucket KM 605c is recognized as successful synthesis of form, function and performance.

- **Maximum loading height** is achieved through the compact design with the horizontal hydraulic cylinder.
- **Long life is ensured** through the use of 500 HB steel in the manufacture of the cutting edges and a generously dimensioned bearing system.
- **Synchronized opening and closing** through sturdy compensation bar.
- **Bolt-on digging teeth** are delivered with each clamshell bucket.
- **Excellent digging characteristics** are a result of high closing forces (6600 lbf. at 3750 psi operating pressure).



Clamshell Bucket KM 605c

Type	Volume (litre / c.y.)	Width B (in)	max. Opening (in)	Number of teeth	Self Weight (lbs.)	Load Capacity (lbs.)
KM 605-200 c	200 / 0.25	15.75	56	3	615	6600
KM 605-250 c	250 / 0.33	19.70	56	5	660	6600
KM 605-350 c	350 / 0.50	25.50	56	5	700	6600
KM 605-450 c	450 / 0.60	31.50	56	9	745	6600
KM 605-550 c	550 / 0.75	39.40	56	9	820	6600
KM 605-650 c	650 / 0.86	47.25	56	9	865	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501, non-return valve

Please note: individual clamshell bucket is also available

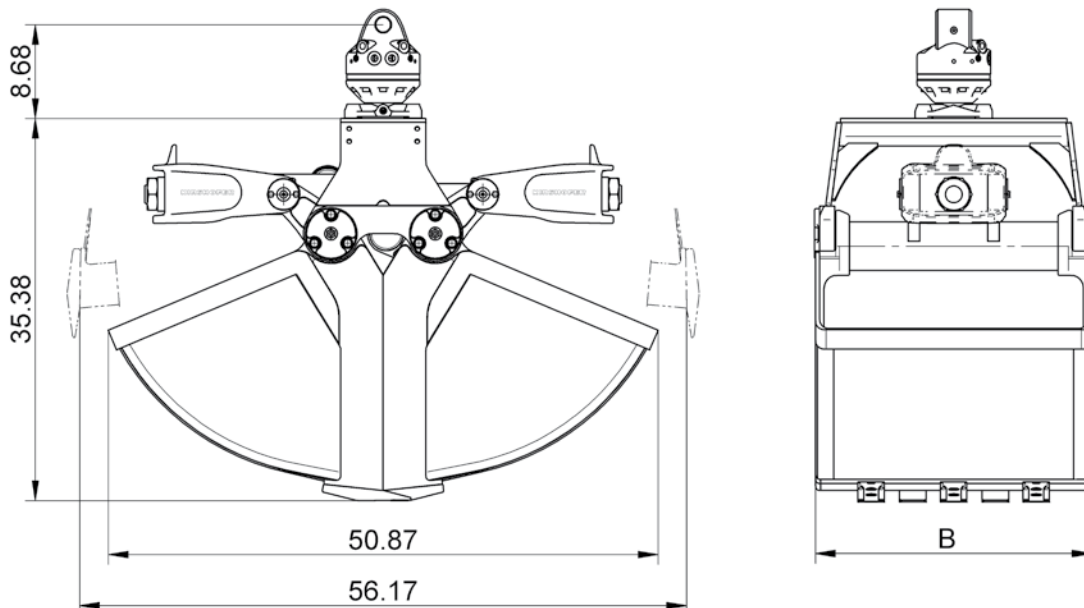
Accessories

Type	Description
KM 680	scraper
KM 685 05	adapter for mounting compression rails
KM 381 09	compression rails - 28in
KM 381 09	compression rails - 39in
KM 685 06	welded eyes/welded hooks (2 pieces)
KM 685 07	wear plates (2 pieces)

Requirements of Loader Crane

Operating Pressure: max. 3750 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



KM 602c

High Volume Clamshell Bucket with horizontal hydraulic cylinder

A robust clamshell bucket for handling loose material. For use on loader cranes with two functions or stiff boom cranes with one function.

- The clamshell bucket with one horizontal cylinder is a rugged grab for loose material such as soil and rubble; the special shape of the buckets and the wide separation between their axes enables wide opening and optimum filling characteristics.
- The working edges are vertical when the buckets are open and allow a deep plunge into a pile of material.
- High stability through reinforced buckets, torsion-free frame and generously dimensioned bearing system.
- Unique combination of compensator and cylinder guard has many advantages: parallel action, longer life for piston rod and seals, significant weight savings.
- Long life is ensured due to the use of 500 HB steel in the manufacture of cutting edges.
- Constant operating pressure due to automatic overload protection ensured by an integrated pressure relief valve.
- Excellent digging characteristics are the result of high closing forces (6200 lbf. at an operating pressure of 3750 psi).
- the non-return valve ensures your safety in the case of an unexpected pressure drop.



Clamshell Bucket KM 602c

Type	Volume (litre/c.y.)	Width B (in)	max. Opening (in)	Number of teeth required	Self Weight (lbs.)	Load Capacity (lbs.)
KM 602-300 c	300/0.40	19.70	72	5	1020	6600
KM 602-400 c	400/0.55	31.50	72	9	1080	6600
KM 602-500 c	500/0.65	39.40	72	9	1120	6600
KM 602-650 c	650/0.85	47.25	72	9	1150	6600
KM 602-1000 c	1000/1.30	47.25	86	9	1650	6600

Package consists of: clamshell bucket, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501, non-return valve

Please note:
 – individual clamshell bucket is also available
 – for stiff boom cranes with cable, package comes with hook bale instead of rotator

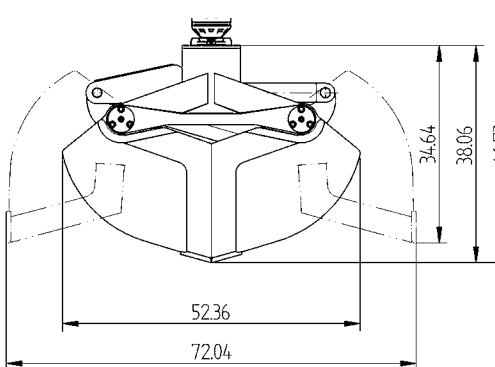
Accessories

Type	Description
KM 685 06	welded eyes / welded hooks (2 pieces)
KM 685 07	wear plates (2 pieces)

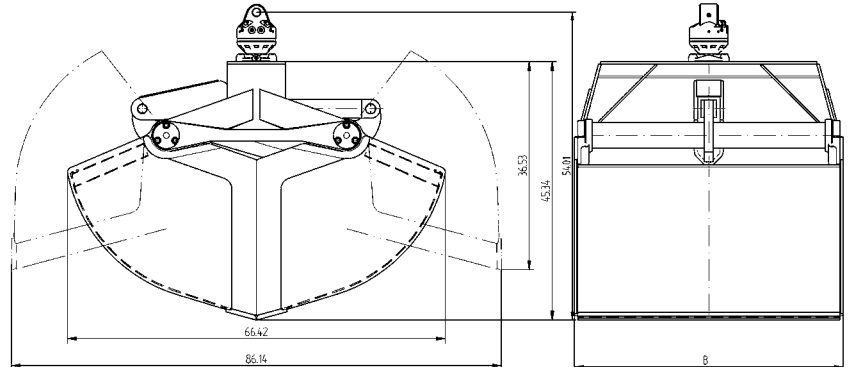
Requirements of Loader Crane

Operating Pressure: max. 3750 psi
Pump Capacity: 9.5 to 13.0 GPM

Technical Drawings



KM 602-300 c to KM 602-650 c



KM 602-1000 c

Clamshell Bucket with vertical hydraulic cylinder

KM 603c

A robust clamshell bucket for digging and handling, for use on loader cranes with two functions.

- A clamshell bucket with one vertical hydraulic cylinder the KM 603c is ideal for the excavation of foundations, cable trenches etc.
- Longevity is ensured through the use of 500 HB steel in the manufacture of cutting edges.
- The generously dimensioned bearing system will reduce wear.
- The enclosed hydraulic cylinder (in a hub unit) and short hydraulic connection hoses lower the risk of damage and down-time.
- Maximum loading height is achieved through the compact design.
- Excellent digging characteristics are the result of high closing forces (4400 lbf. at an operating pressure of 3750 psi).
- The non-return valve ensures your safety in the case of an unexpected pressure drop.



Clamshell Bucket KM 603c

Type	Volume (litre/c.y.)	Width B (in)	max. Opening (in)	Number of teeth	Self Weight (lbs.)	Load Capacity (lbs.)
KM 603-150 c	150/0.20	12.80	55	3	615	6600
KM 603-200 c	200/0.26	15.75	55	3	660	6600
KM 603-250 c	250/0.33	19.70	55	5	700	6600
KM 603-325 c	325/0.43	23.60	55	5	660	6600
KM 603-350 c	350/0.46	25.60	55	5	745	6600
KM 603-450 c	450/0.59	31.50	55	9	660	6600

Package consists of: clamshell bucket, bolt-on teeth, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501, non-return valve

Please note: individual clamshell bucket is also available

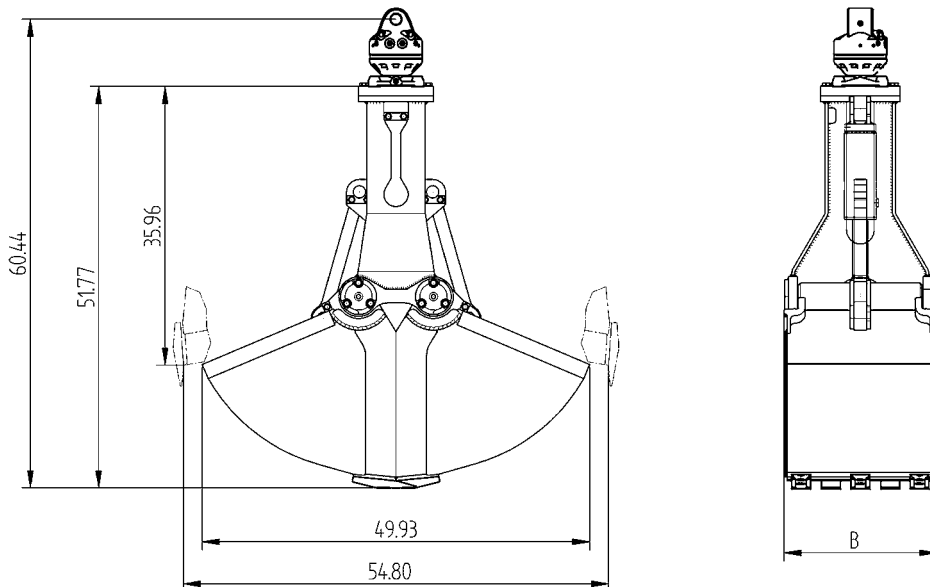
Accessories

Type	Description
KM 680	scraper
KM 685 05	adapter for mounting compression rails (non-return valve necessary)
KM 381 09	compression rails -28in
KM 381 09	compression rails - 39in
KM 685 06	welded eyes/welded hooks (2 pieces)
KM 685 07	wear plates (2 pieces)

Requirements of Loader Crane

Operating Pressure: 3750 psi
Pump Capacity: 6.5 to 20 GPM

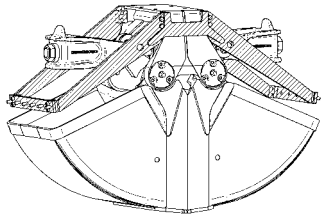
Technical Drawings



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.

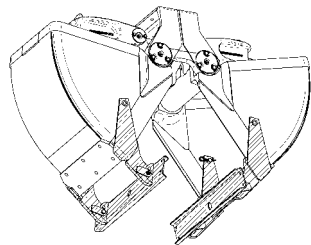


for Clamshell bucket

KM 603/ 604HPX/ 605/ 605HPX
KM 626HPX

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.



Type

Description

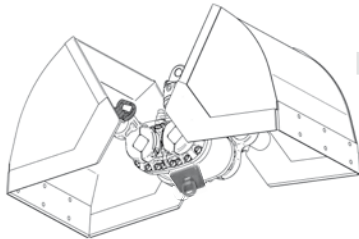
KM 685 05	adapters for compression rails
KM 381 09	compression rails - length 28.4 in (2 pieces)
KM 381 09	compression rails - length 39.4 in (2 pieces)

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

KM 685 05

KM 685 06 - Welded Eyes or Welded Hooks (2 pieces)

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



central lifting device **HPXdrive**

to suit lifting chain or sling

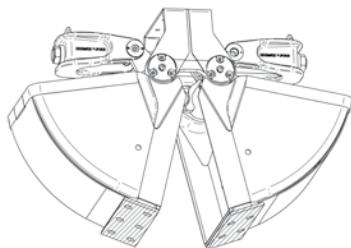


welded hook



welded eye

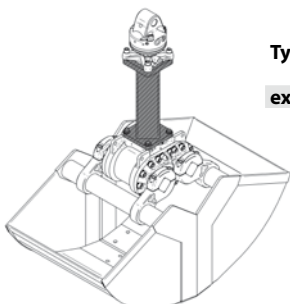
KM 685 07 - Wear Plates (2 pieces)



KM 685 07

reversible, to protect horizontal cutting edges
Note: different widths available (12 in., 24 in., 36 in. etc.)

KM 685 08 - Extension for excavating with the **HPXdrive Standard** or the **HPXdrive Heavy Duty**



Type

Description

extension HPXdrive	extension for excavating e.g.trenches (for canal and civil engineering) – 21.7 in (65 lbs.)
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Orange Peel Grapple up to 0.31 c.y.

KM 650 small

Small orange peel grapples for the handling of bulky scrap, the KM 650c series are for use on loader cranes with two functions.

- A long-lasting and efficient orange peel grapple, the KM 650c series is available with different tine shapes to accommodate handling a variety of materials:
 - KM 651: fully closing tines for handling swarf, loose waste, soil, gravel etc.
 - KM 652: half closing tines for handling swarf, scrap, rubbish, waste paper etc.
 - KM 653: pointed tines for bulky scrap, car bodies, bundled waste paper etc.
- All models are available in 4 or 5 tine versions, fitted with end-stops.
- The hydraulic cylinder pistons are protected by the gripping arms and the hydraulic hoses, connections and oil distributor are positioned in the robust centre section.
- Especially wear resistant materials used in the production of the gripping arms and oversized bearings ensure a long service life for these sturdy grapples.
- A lifting-eye on the centre section acts as an additional stop and a securing point during transportation.



Orange Peel Grapple KM 650 small

Type	Volume (litre/c.y.)	Number of Tines	max. Opening A (in)	Width D (closed) (in)	Height B (closed, incl. rotator) (in)	Self Weight (lbs.)	Load Capacity (lbs.)	Closing Force (lbf.)
KM 651-4 c	120/0.16	4	54	41	32	665	4400	2900
	180/0.24	4	57	42	33	690	4400	2650
	240/0.31	4	68	44	39	745	4400	2300
KM 651-5 c	120/0.16	5	54	41	32	735	4400	2900
	180/0.24	5	57	42	33	755	4400	2650
	240/0.31	5	68	44	39	825	4400	2300
KM 652-4 c	120/0.16	4	54	41	32	625	4400	2900
	180/0.24	4	57	42	33	635	4400	2650
	240/0.31	4	68	44	39	690	4400	2300
KM 652-5 c	120/0.16	5	54	41	32	700	4400	2900
	180/0.24	5	57	42	33	725	4400	2650
	240/0.31	5	68	44	39	790	4400	2300
KM 653-4 c	120/0.16	4	54	41	32	625	4400	2900
	180/0.24	4	57	42	33	635	4400	2650
	240/0.31	4	68	44	39	690	4400	2300
KM 653-5 c	120/0.16	5	54	41	32	700	4400	2900
	180/0.24	5	57	42	33	725	4400	2650
	240/0.31	5	68	44	39	790	4400	2300

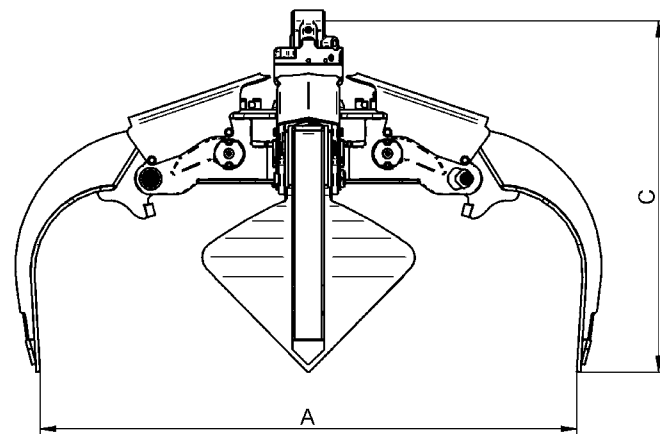
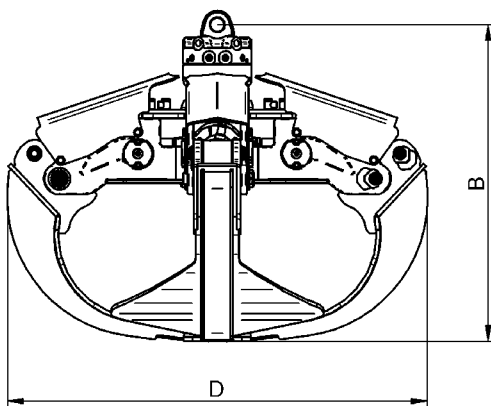
Package consists of: orange peel grapple, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501

Please note: individual orange peel grapple is also available

Requirements of Loader Crane

Operating Pressure: max. 3750 psi
Pump Capacity: 8.0 to 18.5 GPM

Technical Drawings



KM 650 large

Orange Peel Grapple up to 0.65 c.y.

Large orange peel grapples for the handling of bulky scrap, the KM 650c series are for use on loader cranes with two functions.

- A long-lasting and efficient orange peel grapple, the KM 650c series is available with different tine shapes to accommodate handling a variety of materials:
 - KM 651: fully closing tines for handling swarf, loose waste, soil, gravel etc.
 - KM 652: half closing tines for handling swarf, scrap, rubbish, waste paper etc.
 - KM 653: pointed tines for bulky scrap, car bodies, bundled waste paper etc.
- All models are available in 4, 5 or 6 tine versions, fitted with end-stops.
- The hydraulic cylinder pistons are protected by the gripping arms and the hydraulic hoses, connections and oil distributor are positioned in the robust centre section.
- Especially wear resistant materials used in the production of the gripping arms and oversized bearings ensure a long service life for these sturdy grapples.
- A lifting-eye on the centre section acts as an additional stop and a securing point during transportation.



Orange Peel Grapple KM 650 large								
Type	Volume (litre / c.y.)	Number of Tines	max. Opening A (in)	Width D (closed) (in)	Height B (closed, incl. rotator) (in)	Self Weight (lbs.)	Load Capacity (lbs.)	Closing Force (lbf.)
KM 651-4 c	250 / 0.33	4	61	51	40	1050	5500	3950
	350 / 0.46	4	68	50	44	1080	6600	3500
	500 / 0.65	4	85	52	53	1320	6600	2850
KM 651-5 c	250 / 0.33	5	61	51	40	1220	5500	3950
	350 / 0.46	5	68	50	44	1260	6600	3500
	500 / 0.65	5	85	52	53	1380	6600	2850
KM 651-6 c	250 / 0.33	6	61	51	40	1400	5500	3950
	350 / 0.46	6	68	50	44	1440	6600	3500
	500 / 0.65	6	85	52	53	1570	6600	2850
KM 652-4 c	250 / 0.33	4	61	51	40	985	5500	3950
	350 / 0.46	4	68	50	44	1070	6600	3500
	500 / 0.65	4	85	52	53	1125	6600	2850
KM 652-5 c	250 / 0.33	5	61	51	40	1170	5500	3950
	350 / 0.46	5	68	50	44	1220	6600	3500
	500 / 0.65	5	85	52	53	1320	6600	2850
KM 652-6 c	250 / 0.33	6	61	51	40	1350	5500	3950
	350 / 0.46	6	68	50	44	1390	6600	3500
	500 / 0.65	6	85	52	53	1510	6600	2850
KM 653-4 c	250 / 0.33	4	61	51	40	930	5500	3950
	350 / 0.46	4	68	50	44	940	6600	3500
	500 / 0.65	4	85	52	53	990	6600	2850
KM 653-5 c	250 / 0.33	5	61	51	40	1110	5500	3950
	350 / 0.46	5	68	50	44	1140	6600	3500
	500 / 0.65	5	85	52	53	1180	6600	2850
KM 653-6 c	250 / 0.33	6	61	51	40	1310	5500	3950
	350 / 0.46	6	68	50	44	1330	6600	3500
	500 / 0.65	6	85	52	53	1390	6600	2850

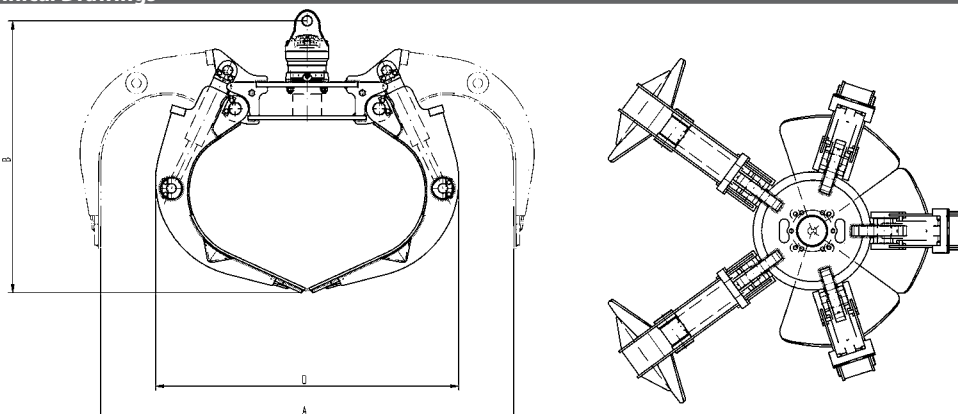
Package consists of: orange peel grapple, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501

Please note: individual orange peel grapple is also available

Requirements of Loader Crane

Operating Pressure: max. 3750 psi
Pump Capacity: 8.0 to 21.0 GPM

Technical Drawings



Refuse Grapple with horizontal hydraulic cylinder

KM 605Uc

The KM 605Uc is a robust grapple for handling all kinds of refuse material, for use on loader cranes.

- The use of 500 HB steel in the manufacture of the cutting edges ensures the longevity of the KM605U.
- With linkage arms made of forged steel and a generously dimensioned bearing system, overall wear is reduced.
- Your safety is assured in the event of an unexpected pressure drop due to the integrated non-return valve and a constant operating pressure is guaranteed through the automatic overload protection provided by the pressure relief valve.
- The compact design achieves a maximum loading height.
- Running at an operating pressure of 3100 psi, the KM 605Uc has a 6200 lbf. closing force.



—> Alternatively to the KM 605Uc the KM 605U HPX can be used

Refuse Grapple KM 605Uc

Type	Volume (litre/c.y.)	Width B (in)	max. Opening (in)	Self Weight (lbs.)	Load Capacity (lbs.)
KM 605U-420 c	420/0.55	39.40	60	790	4400
KM 605U-470 c	470/0.61	47.20	60	810	4400
KM 605U-660 c	660/0.86	39.40	78	955	4400
KM 605U-730 c	730/0.96	47.20	78	980	4400

Package consists of: refuse grapple, **KINSHOFER** rotator KM 04 F, short connecting hoses (between rotator and grab), upper suspension KM 501, pressure relief valve, non-return valve

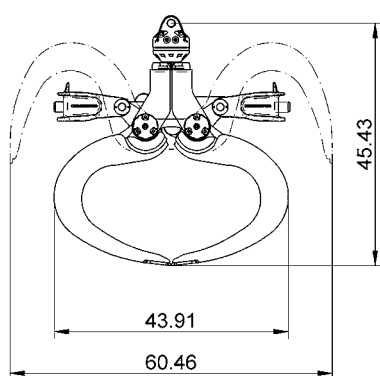
Accessories

Type	Description
KM 685 07	wear plates

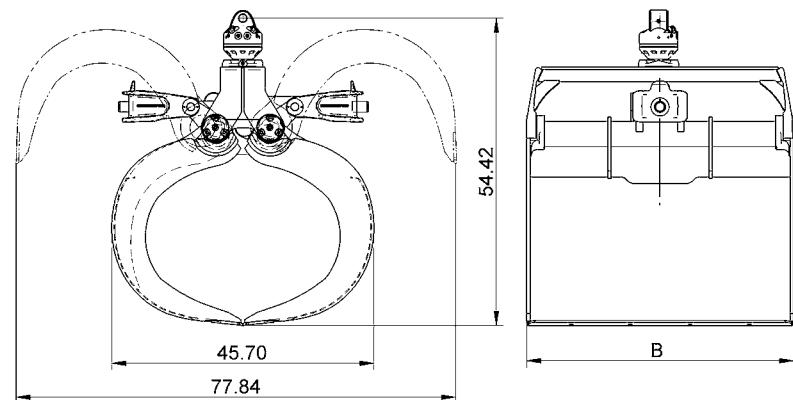
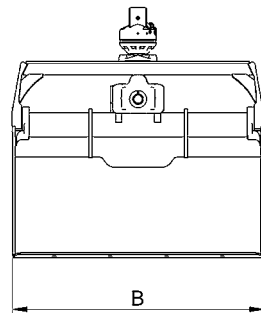
Requirements of Loader Crane

Operating Pressure: 4700 psi
Pump Capacity: 6 to 20.0 GPM

Technical Drawings



KM 605U -420 c / KM 605U -470 c



KM 605U -660 c / KM 605U -730 c

KM 632Rc

Railroad Grapple

Designed to handle the various demands of the rail, the KM 632Rc can be used for rail, bundled or individual ties. This robust and versatile tool is for use on loader cranes.

- The railroad grapple is ideal for handling railroad ties and rails and for clearing brush.
- Long service life is ensured by the sturdy construction and high quality components.
- Reduced wear resulting from generously dimensioned bearing system.
- Tine tips are vertical when the grapple is fully opened, allowing easy loading and unloading of bundled ties - directly from gondola cars.
- Exchangeable gears are standard and ensure synchronized movement of tines.
- Each arm is equipped with a heavy duty hydraulic cylinder, providing an extremely high clamping force.
- The gear-type continuous rotator allows precise positioning of the grapple.
- Guaranteed safety in case of pressure drop due to non-return valve.



Railroad Grapple KM 632Rc

Type	Capacity	Width	max. Opening A	Height B (closed incl. rotator)	Height C (open incl. rotator)	Self Weight	Load Capacity	Closing Force
	(cord / sq ft)	(in)	(in)	(in)	(in)	(lbs.)	(lbs.)	(lbf.)
KM 632R-0.25 c	1/4 / 3 3/4	23	69	42	54	970	6600	4950
KM 632R-0.33 c	1/3 / 5 1/2	23	78	47	59	1025	6600	4270
KM 632R-0.50 c	1/2 / 8	23	96	50	67	1315	6600	3370

Package consists of: railroad grapple, **KINSHOFER** rotator KM 04 F140-30US, short connecting hoses (between rotator and grab), upper suspension KM 501, removable synchronizing gears, non-return valve

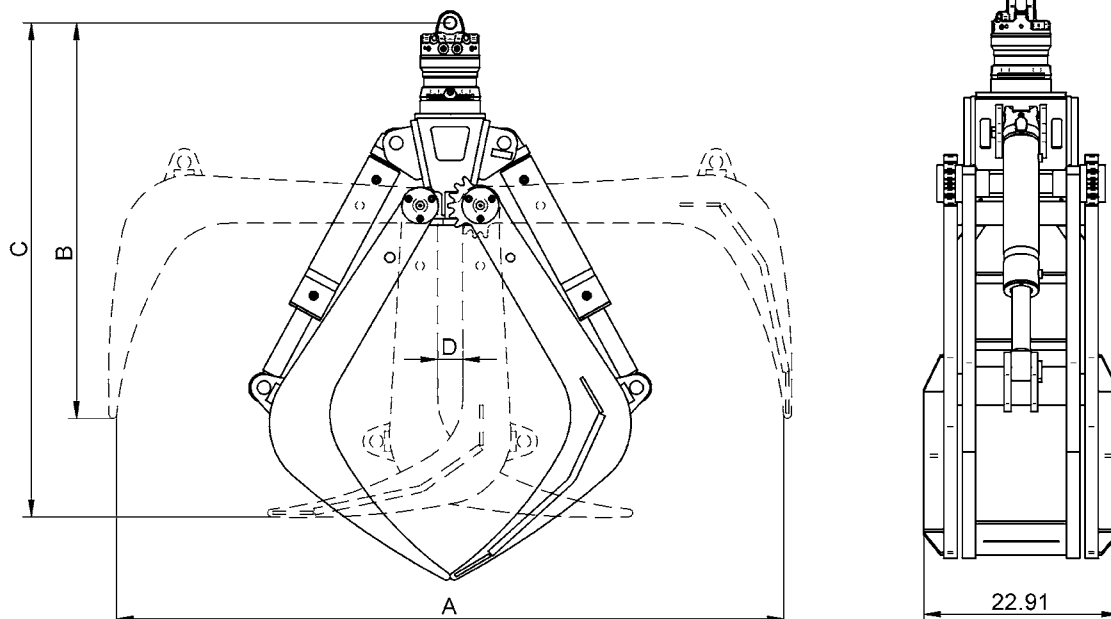
Accessories

Type	Description
KM 685 06	welded eyes / welded hooks (2 pieces)

Requirements of Loader Crane

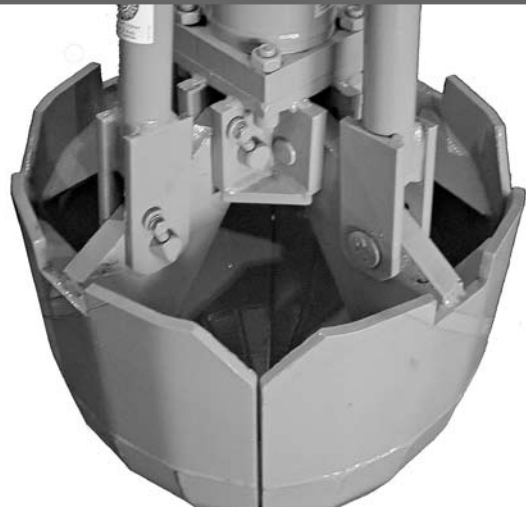
Operating Pressure: 4100 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



The KM 671c is a specially designed grapple for cleaning sewers, for use on loader cranes with two functions.

- With its compact design allowing for a deep drop into catch basins, the KM 671c is an efficient cleaning method ideal for suburban areas.
- A long service life is ensured by the sturdy construction using high quality components, including the generously dimensioned bearing system which reduces overall wear and a **KINSHOFER** rotator which enables continuous rotation.
- Available in three sizes, 0.04 c.y., 0.07 c.y. and 0.08 c.y., you are sure to find a KM 671c to suit your needs.



Sewer Cleaner KM 671c

Type	Volume (litre/c.y.)	max. Opening A (in)	Width D (closed) (in)	Height B (closed, incl. rotator) (in)	Height C (open, incl. rotator) (in)	Self Weight (lbs.)
KM 671-30 c	30/0.04	41	Ø 13.4	47	35	265
KM 671-50 c	50/0.07	58	Ø 15.0	56	40	320
KM 671-60 c	60/0.08	39	Ø 19.0	49	48	330

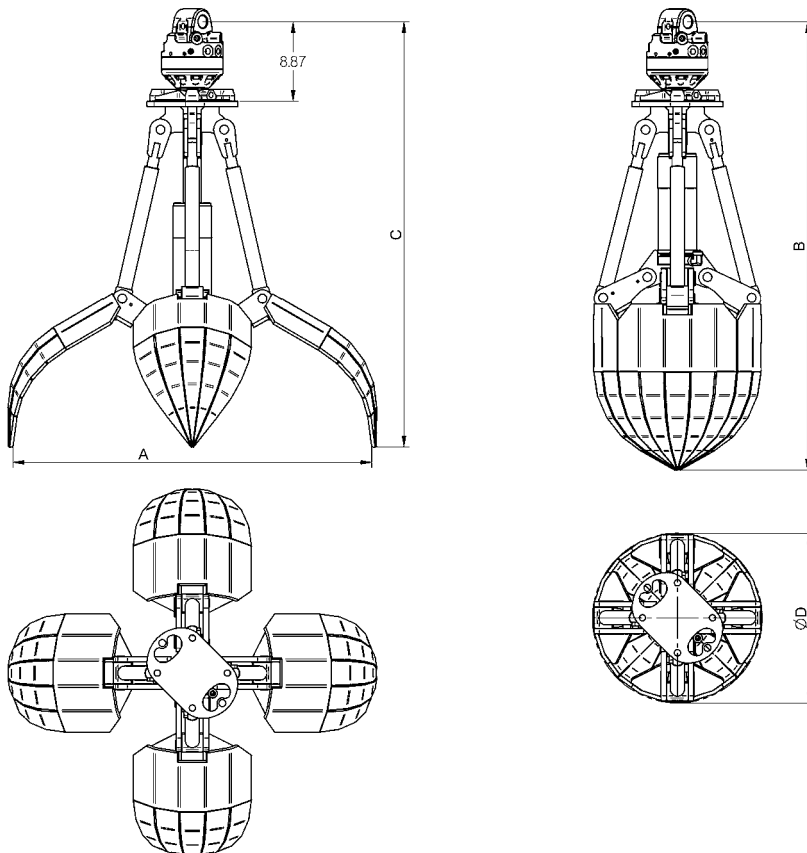
Package consists of: grapple, **KINSHOFER** rotator KM 04F, short connecting hoses (between rotator and grab), upper suspension KM 501

Please note: individual grapple is also available

Requirements of Loader Crane

Operating Pressure: max. 3750 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



For short and pulp wood, this versatile tool is for use on logging cranes and loader cranes.

- A sturdy bypass grapple for handling all kinds of wood and pulp.
- Long service life is ensured by the sturdy construction and high quality components.
- Reduced wear resulting from generously dimensioned bearing system.
- The narrow 10in width design allows the grapple to remain mounted during transport by using a special bracket to fix the grapple to the crane.
- Each arm is equipped with a heavy duty hydraulic cylinder, providing an extremely high clamping force.
- The gear-type continuous rotator allows precise positioning of the grapple.
- Guaranteed safety is assured in case of pressure drop due to non-return valve.



→ Alternatively to the KM 632Lc the KM 632HPX-HD can be used

Logging Grapple KM 632Lc

Type	Capacity (cord / sq ft)	Width (in)	max. Opening A (in)	Height C (in)	Self Weight (lbs.)	Load Capacity (lbs.)	Closing Force (lbf.)
KM 632L-0.11 c	1/9 / 1 3/4	10	45	34	310	8800	3300
KM 632L-0.12 c	1/8 / 2	10	50	36	320	8800	3000
KM 632L-0.17 c	1/6 / 2 3/4	10	53	39	335	8800	2800
KM 632L-0.20 c	1/5 / 3 1/4	10	59	41	360	8800	2500
KM 632L-0.25 c	1/4 / 3 3/4	10	66	43	380	8800	2200

Package consists of: logging grapple, **KINSHOFER** rotator KM 04 F140-30US, short connecting hoses (between rotator and grab), upper suspension KM 501, non-return valve

Accessories

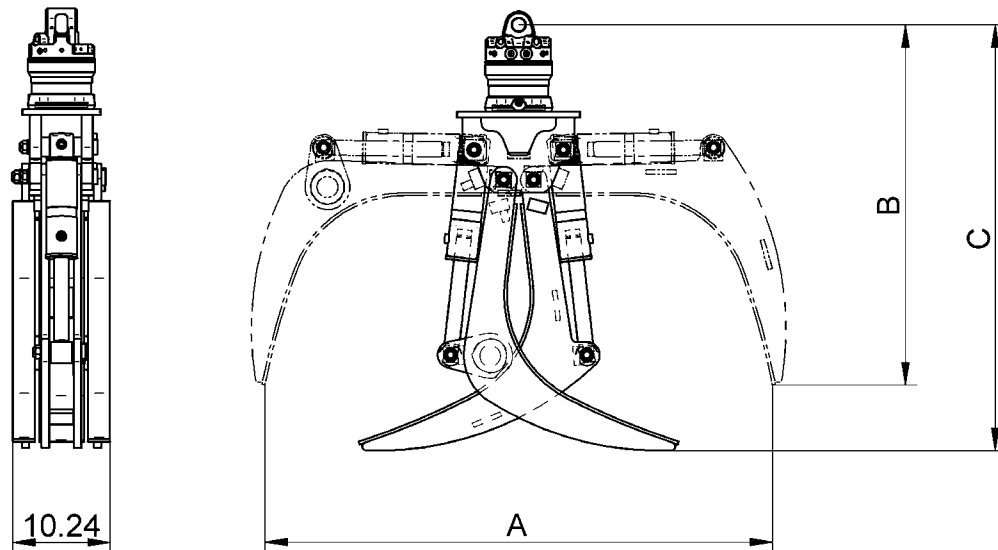
Type	Description
KM 04 S	shaft rotator
KM 505	quick change system for shaft rotator KM 04 S

Note: The narrow 10in width design allows the grapple to remain mounted during transport by using a special bracket to fix the grapple to the crane.

Requirements of Loader Crane

Operating Pressure: 3800 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



Large Logging Grapple

KM 634c

Robust and powerful tool for logs for logging cranes and excavators.

- Proven design for loading any kind of wood - especially for heavy duty operation.
- Equipped with a horizontal cylinder and wide gripping arm pivots.
- Long service life is ensured by the sturdy construction and high quality components.
- Optimised design allows extremely small grab diameter - ideal to handle thin timber securely.
- The logging grapple KM 634Sc has an even more sturdy construction and is equipped with a stronger rotator.
- High safety in case of pressure drop due to non-return valve.



Logging Grapple KM 634c

Type	Capacity (cord / sq ft)	Width B (in)	max. Opening A (in)	Height closed. (in)	Height G + rot (in)	Self Weight (lbs.)	Load Capacity (lbs.)	Closing Force (lbf)
KM 634-0.17 c	1/6 / 2 3/4	16.5	58	31	45	460	8800	2900
KM 634-0.25 c	1/4 / 3 3/4	19.5	73	37	52	655	11000	3600
KM 634-0.33 c	1/3 / 5 1/2	19.7	76	39	55	680	11000	3370
KM 634S-0.27 c	2/7 / 4 1/4	22.4	78	39	54	730	13200	3600
KM 634S-0.33 c	1/3 / 5 1/2	22.4	82	38	57	750	15400	3600
KM 634S-0.47 c	4/9 / 7 1/2	23.2	101	49	69	850	17400	3420

Package consists of: logging grapple, **KINSHOFER** rotator, short connecting hoses (between rotator and grab), upper suspension KM 501, hose guard, non-return valve

KINSHOFER Rotator

Continuous rotation and two oil passages. Overload protection is ensured by pressure relief valves.

Type	Upper connection (WidthxPin-Ø) (mm / in)	Torque (ft.lbs.)	Moment of deflection max. (ft.lbs.)
KM 634-0.17 c: KM 04 F140-30US	84 x 30 / 3.31 x 1.18	740	6300
KM 634-0.25 c: KM 06 F173-35	81 x 30 / 3.19 x 1.38	740	6300
KM 634-0.33 c to KM 634S-0.33 c: KM 10F173-45	100 x 45 / 3.94 x 1.77	1480	8900
KM 634-0.47 c: KM 10F173-52	136 x 52.2 / 5.35 x 2.06	1480	8900

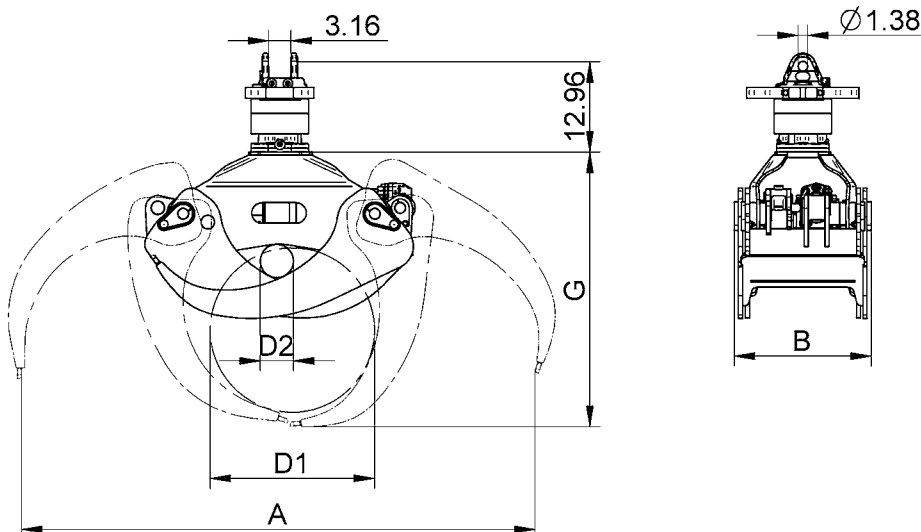
Accessories

Type	Description
KM 638-680	chainsaw - 27in length
KM 638-880	chainsaw - 35in length

Requirements of Loader Crane

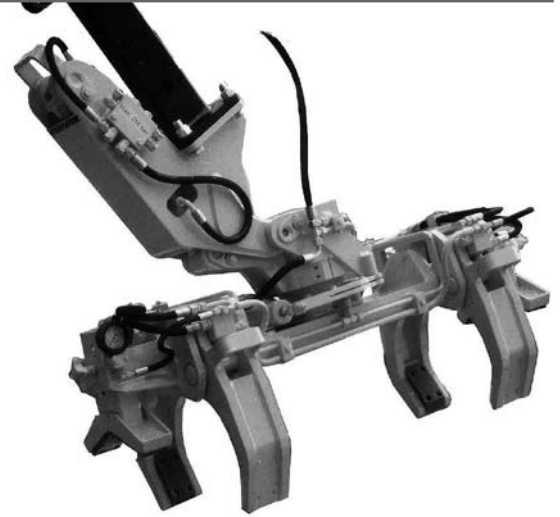
Operating Pressure: 3500 psi; KM 634-0.47 c: 4700 psi
Pump Capacity: 6.5 to 20.0 GPM

Technical Drawings



A hydraulically operated tool used for positioning poles, the KM 930c is for use on loader cranes with 3 functions.

- Ideal for gripping, lifting and righting hydro or other round poles.
- Designed to flange mount on the mechanical extension of the crane.
- Precision operation assured through continuous rotation, equipped with mechanically operated, hydraulic pilot controlled brake to prevent unintentional rotation.
- Three hydraulic functions are required to accommodate rotating, gripping and tilting.



Pole Grapple KM 930c

Type	Load Capacity (kg/lbs.)	Gripping min./max. A (in)	Width B (in)	Number of Tines	Self Weight (lbs.)	Closing force (lbf.)
KM 930-500 c	500/1000	4.0 - 11.8	31	2 x 1	435	2500
KM 930-1000 c	1000/2200	4.0 - 11.8	50	2 x 2	690	4950
KM 930-2000 c	2000/4400	10.0 - 23.6	54	2 x 4	1330	5500
KM 930-3000 c	3000/6600	10.0 - 23.6	64	2 x 6	1820	8600

Package consists of: pole grapple, **KINSHOFER**-rotator, hydraulic pilot controlled brake

Please note: different shapes and diameters of tines on request

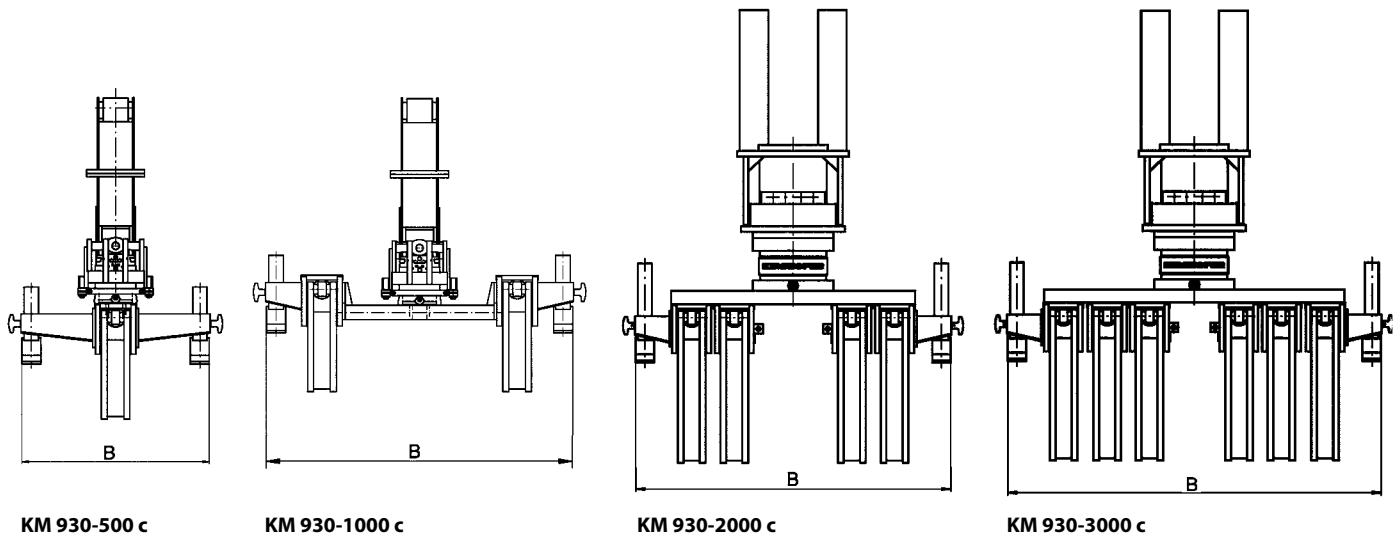
Accessories

Type	Description
KM 980 2	solenoid valve for additional oil circuit, up to 3600 psi, incl. hose guard, ready for mounting - 12 or 24 volt; the solenoid valve is necessary if crane has only 2 hydraulic functions

Requirements of Loader Crane

Operating Pressure: max. 2900 psi
Pump Capacity: 5.5 to 10.5 GPM

Technical Drawings



KM 930-500 c KM 930-1000 c KM 930-2000 c KM 930-3000 c

Bottle-Bank Discharge Unit for container

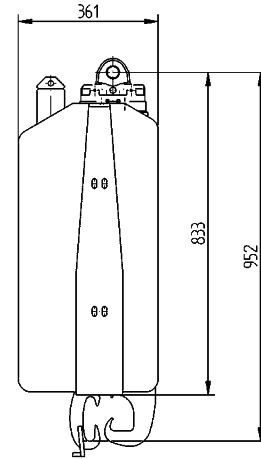
KM 920-1c

KINSHOFER container discharge attachments are characterised by short cycle times and an attractive acquisition price. Containers can be emptied even faster and more cost effectively with a one-man operation.

Bottle-Bank Discharge Unit KM 920-1c for Container with Ring System and with a low overall height

Bottle-bank discharge unit KM 920-1c for container with ring system with a low overall height:

- low overall height due to compact design
- rugged engineering with rope operation
- hooks on automatically when container is lifted
- precise positioning with **KINSHOFER** rotator
- protection against damage of container by automatic lift stop



Type	max. Lift of the hook (in)	Load Capacity (lbs.)	Height (incl. rotator) (in)	Self Weight (lbs.)	max. operating pressure (psi)	max. Pump Capacity (GPM)
KM 920-1c	20	4840	38	375	3025	16

Package consists of: bottle-bank discharge unit, **KINSHOFER** rotator, short connecting hoses KM 203 01, upper suspension with pendulum damper KM 511, non-return valve

Other Bottle-Bank Discharge Units on request

Bottle-bank discharge unit KM 920-11c for container with ring system



Bottle-bank discharge unit KM 920-12c for container with **KINSHOFER** mushroom system



Bottle-bank discharge unit KM 921c for container with **KINSHOFER** mushroom system or ring system



Accessories

Type	Description	Tilting Angle (deg.)	Self Weight (lbs.)
KM 924	Docking device for bottle-bank discharge units: it allows the discharge unit to be hydraulically docked and locked onto the crane jib. When unlocked, acts as a hydraulic pendulum damper. A solenoid valve for switch-over between the hydraulic circuits is included. Please state crane model when ordering. Operating pressure 4030 psi	90	155

The KM 932MB Barrier Lifter is a mechanical grapple for fast and convenient handling of concrete barriers and blocks.

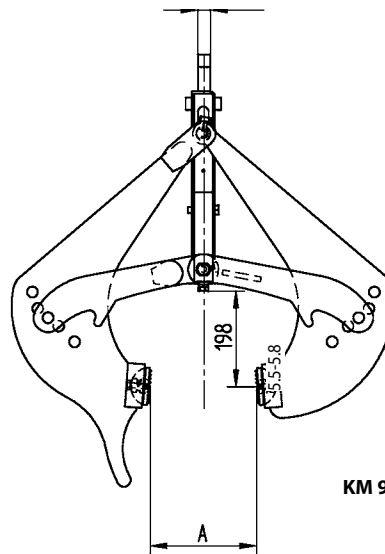
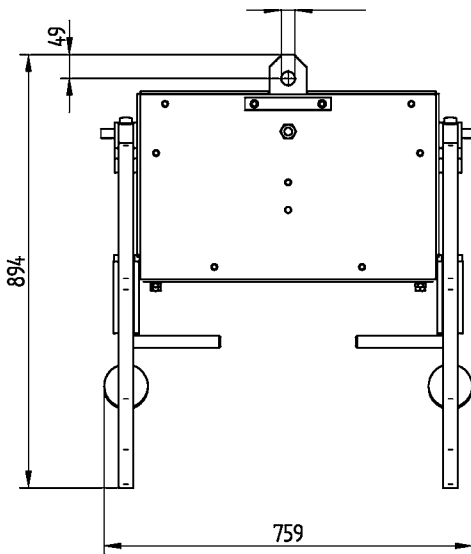
- **Safe:** Carbide gripping pads ensure safe operation, even on wet or coated surfaces.
- **Efficient:** The fully integrated, mechanically operated "latch & release" system allows the unit to function independently, without assistance from a ground man.
- **Versatile:** Multi-position arms are a standard feature. This means one unit can achieve different gripping ranges by simply changing a pin position.
- **Cost-effective:** The elimination of slings and chains means more cycles can be achieved per hour.
- **Fast:** The "latch & release" system functions automatically each time the load line is slackened.



Barrier Lifter KM932MB

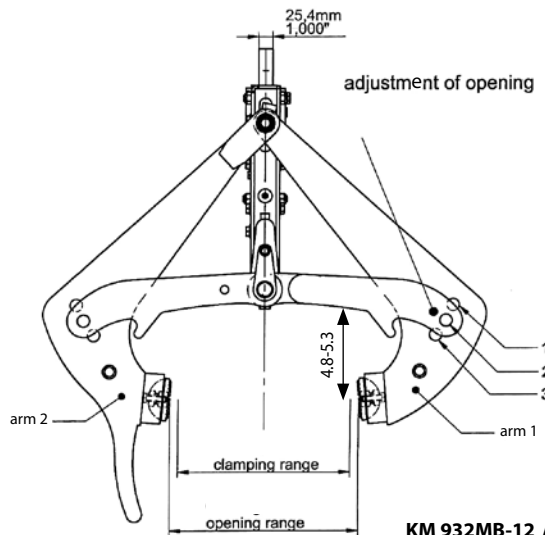
Type	Gripping (min./max.) A (in)	Self Weight (lbs.)	Load Capacity (lbs.)	Operating weight max (t / lbs.)
KM932MB-6 / 10	3.93 - 11.81	325	14500	27 / 59400
KM932MB-12 / 14	11.22 - 15.75	254	14500	27 / 59400

Technical Drawings



KM 932MB-6 / 10

KM 932MB



KM 932MB-12 / 14

For use on truck mounted cranes, KM 250 auger drives are an economical, robust solution for drilling holes for fence posts, poles, foundations and landscaping. Application specific wear parts and augers mean our auger packages are tailor-made to suit your needs.

- **Profitable** – With better speed and precision than alternative drilling methods, the KM250 drive units and augers save you time, labour and filling materials.
- **Adaptable** – A range of drive units with different auger diameters and digging teeth means a KM250 is available for all types of truck cranes, and suitable for a wide variety of applications.
- **Durable** – Designed and built to last, KM250 series drive units can handle hundreds of consecutive cycles.

FEATURES:

• **Drive Units:**

- steel housing can withstand high shock loading
- output shaft and gear carrier are a robust, one-piece construction
- components run in a maintenance free, constant oil bath
- gears can easily be shifted from forward to reverse to quickly free the unit from being jammed

• **Augers:**

- teeth are set on a continuous spiral to provide maximum penetration and uniform performance

• **Wear parts:**

- rubber locking system makes teeth easy to exchange
- using a hammer and punch, tooth exchange is done on-site
- Two teeth options:

Standard Duty / Allround Teeth – BS-A: made of tempered material, bolt-on teeth are suitable for earth and clay

Heavy Duty / Strong Tungsten Teeth – BS-S: tungsten tipped, suitable for medium-rich soil, stony or frozen ground, heavy clay or asphalt



Drive Unit KM 250-1952 / KM 250-3750 / KM 250-5550 / KM 250-7400

Drive Unit KM 250-1952:	Torque (at 2900 psi):	1440 ft.lbs.
	Operating Pressure:	2900 psi
	Recommended oil flow:	6.60 - 15.9 GPM
	Output shaft:	2.24 in square
	Self Weight:	99 lbs.
	Recommended type of truck crane:	7 tons per metre
	Upper connection(Width x pin-Ø)	3.31 x 1.18 in

Drive Unit KM 250-3750:	Torque (at 2900 psi):	2766 ft.lbs.
	Operating Pressure:	2900 psi
	Recommended oil flow:	10.6 - 19.8 GPM
	Output shaft:	2.24 in square
	Self Weight:	143 lbs.
	Recommended type of truck crane:	7 tons per metre
	Upper connection(Width x pin-Ø)	3.31 x 1.18 in

Drive Unit KM 250-5550:	Torque (at 2900 psi):	4093 ft.lbs.
	Operating Pressure:	2900 psi
	Recommended oil flow:	13.2 - 30.4 GPM
	Output shaft:	2.24 in square
	Self Weight:	176 lbs.
	Recommended type of truck crane:	7 tons per metre
	Upper connection(Width x pin-Ø)	3.31 x 1.18 in

Drive Unit KM 250-7400:	Torque (at 3480 psi):	5458 ft.lbs.
	Operating Pressure:	3480 psi
	Recommended oil flow:	18.5 - 37 GPM
	Output shaft:	2.24 in square
	Self Weight:	209 lbs.
	Recommended type of truck crane:	15 tons per metre
	Upper connection(Width x pin-Ø)	3.31 x 1.18 in

Augers with Drive Unit KM 250

Type	Application	Diameter of auger (mm / in)	Length of auger (without extension) (mm / in)	Wearparts Type / Teeth Qty.	Self Weight (lbs.)
BS-150-57A	standard duty	150 / 5.91	950 / 37.40	A / 2	50.60
BS-200-57A	standard duty	200 / 7.87	950 / 37.40	A / 2	55.00
BS-225-57A	standard duty	225 / 8.86	950 / 37.40	A / 2	61.60
BS-250-57A	standard duty	250 / 9.84	950 / 37.40	A / 2	68.20
BS-300-57A	standard duty	300 / 11.81	950 / 37.40	A / 4	74.80
BS-350-57A	standard duty	350 / 13.78	950 / 37.40	A / 4	81.40
BS-400-57A	standard duty	400 / 15.75	950 / 37.40	A / 6	83.60
BS-450-57A	standard duty	450 / 17.72	950 / 37.40	A / 6	94.60
BS-500-57A	standard duty	500 / 19.69	950 / 37.40	A / 8	107.80
BS-600-57A	standard duty	600 / 23.62	950 / 37.40	A / 8	138.60
<hr/>					
BS-100-57S	heavy duty	100 / 3.94	950 / 37.40	S / 0	81.40
BS-150-57S	heavy duty	150 / 5.91	950 / 37.40	S / 2	94.60
BS-200-57S	heavy duty	200 / 7.87	950 / 37.40	S / 2	99.00
BS-225-57S	heavy duty	225 / 8.86	950 / 37.40	S / 2	105.60
BS-250-57S	heavy duty	250 / 9.84	950 / 37.40	S / 2	112.20
BS-300-57S	heavy duty	300 / 11.81	950 / 37.40	S / 4	118.80
BS-350-57S	heavy duty	350 / 13.78	950 / 37.40	S / 4	125.40
BS-400-57S	heavy duty	400 / 15.75	950 / 37.40	S / 6	127.60
BS-450-57S	heavy duty	450 / 17.72	950 / 37.40	S / 6	138.60
BS-500-57S	heavy duty	500 / 19.69	950 / 37.40	S / 8	151.80
BS-600-57S	heavy duty	600 / 23.62	950 / 37.40	S / 8	182.60

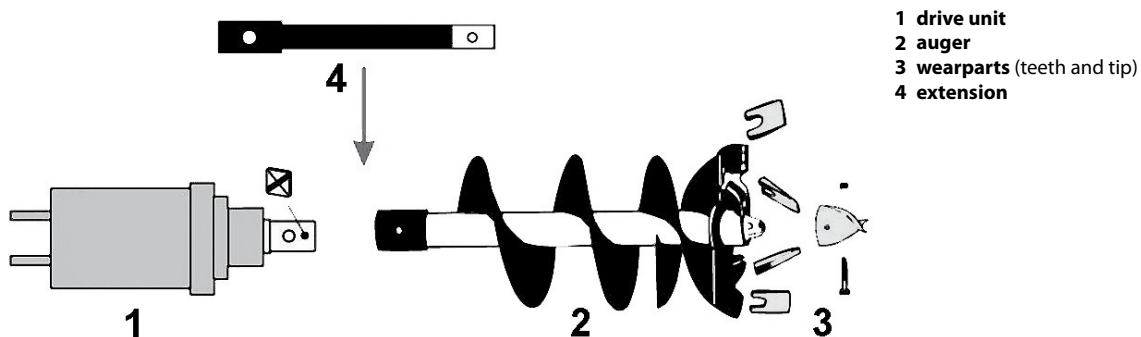


Package consists of: auger, wearparts (teeth and tip)

Accessories

Type	Description
KM 501	upper suspension between rotator and excavator - up to 12 t / 26400 lbs operating weight
KM 511	upper suspension with pendulum damper - up to 12 t / 26400 lbs operating weight
BV-1000-57	rigid extension for the drive units KM 250-4755 and KM 250-6020 – length 39.37 in (55 lbs.)

Technical Drawings for KM 250-1952 / KM 250-3750 / KM 250-5550 / KM 250-7400



KINSHOFER North America – Warranty Policy

KINSHOFER warrants its products against defects in material and workmanship for a period of one year from the date its products are available for shipment to the original purchaser. No responsibility will be assumed by **KINSHOFER** for repairs or parts other than those provided or supplied by **KINSHOFER**.

This warranty is limited to the replacement of parts or repair of parts, if repairs are authorized by **KINSHOFER**. It does not cover damages or defects due to normal wear and tear, misuse, alteration or neglect. **KINSHOFER** warrants that the products shall be delivered free of any claims of any third person by way of infringement, unless specifications are provided by the purchaser in which event the purchaser, holds **KINSHOFER** harmless against any claims which arise out of compliance with purchaser's specifications. No other warranty is expressed or implied and **KINSHOFER** assumes no responsibility for consequential damages arising from the failure of the products for any reason whatsoever, nor does it extend any warranty for any damages, whatsoever, for improper storage or handling by purchaser prior to placing into service. The purchaser shall determine the suitability for the product, for its use, and purchaser assumes all risks and liabilities in connection therewith.

KINSHOFER North America - Returned Goods Policy

Upon written authorization, **KINSHOFER** products can be returned for credit, provided merchandise is unused and complete. The customer pays freight back and a credit will be issued to the customer account upon satisfactory receipt and inspection of the returned products. No return can be processed without the issuance of an RMA number by **KINSHOFER**.

A 15% restocking fee will apply to all non-warranty related returns.

KINSHOFER North America – Warnings and Cautions

Ensure the correct equipment is obtained and installed for the application.

Ratings shown in **KINSHOFER** literature are applicable only to new products.

Working load limits (load capacity) shown are the maximum load the product is authorized to support under normal environmental conditions. Shock loading and abnormal conditions must be taken into account when selecting products.

Working load limits or safety factors for each **KINSHOFER** product may be affected by wear, misuse or environmental conditions. Regular inspections must be conducted to ensure the equipment continues to meet the most current revision of the published standard. Welding to any **KINSHOFER** products can be hazardous and should only be implemented after written permission from **KINSHOFER**.

KINSHOFER products are sold on the strict understanding that all product selection is the full responsibility of the purchaser. **KINSHOFER** accepts no liability for the use, misuse or incorrect application of its products.