



# **Class 12 - 37t** 26,400 - 81,400lbs

## **Attachments for Excavators**

General Construction
Demolition
Forestry
Utilities, Oil and Gas
Recycling & Waste Management











































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## Quick Couplers System L-Lock 10-34t / 22,000-74,800lbs

KMS-L / KHS-L

The L-Lock System was designed to be fully compatible with the known and in nationally adopted Lehnhoff adapters. For maximum reliability, all contact surfaces of the L-Lock quick couplers are machined and therefore lock safely and without unwanted play or movement.

The hydraulic versions are equipped with drop stop claws for additional safety.

here with load hook and drop stop claws

- **▷** KMS-L with mechanic locking system.
- **▶ KHS-L with hydraulic locking system.**
- ▶ Safe mechanic or hydraulic locking available.
- ▶ Use of robust and durable cast housings.
- ▶ Fully compatible with the original quick coupler systems or standards.
- All hydraulic quick couplers system L-Lock are equipped with drop stop claws as standard! The Kinshofer quick coupler systems thus fully comply with all applicable national and international standards and regulations, including Machinery Directive 2006/42/EG, DIN EN 474-1, ISO13031 and SUVA.



The hydraulic KHS+ quick couplers are characterized by a very high safety standard. The drop stop (extended quick coupler claw) prevents the attachment from falling down if the quick coupler lock is accidentally not locked properly. To further increase safety, the KHS+ quick coupler has also been equipped with two sensors that reliably indicate proper locking. The KHS+ couplers fully comply with all applicable national and international standards and regulations, including Machinery Directive 2006/42/EG, DIN EN 474-1, ISO13031 and SUVA.

| Mechanic Quick Couplers KMS-L |                      |                           |  |  |  |  |
|-------------------------------|----------------------|---------------------------|--|--|--|--|
| Туре                          | Locking              | <b>Weight</b><br>(kg/lbs) | Operating weight (t/lbs)                               |  |  |  |
| KMS10L                        | mechanic             | 170 / 374                 | 10 - 19 / 22,000 - 41,800                              |  |  |  |
| KMS21L<br>KMS25L              | mechanic<br>mechanic | 270 / 594<br>360 / 792    | 19 - 28 / 41,800 - 61,600<br>26 - 34 / 57,200 - 74,800 |  |  |  |
| KMS21L                        | mechanic             | 170 / 374<br>270 / 594    | 10 - 19 / 22,000 - 41,80<br>19 - 28 / 41,800 - 61,60   |  |  |  |

Package consists of: mechanic quick coupler, socket

| Hydraulic Quick Couplers KHS-L (including drop stop) |           |           |                           |  |  |  |
|--|-----------|-----------|---------------------------|--|--|--|
| Туре   | Locking   | Weight    | Operating weight          |  |  |  |
|  |           | (kg/lbs)  | (t/lbs)                   |  |  |  |
| KHS10L   | hydraulic | 170 / 374 | 10 - 19 / 22,000 - 41,800 |  |  |  |
| KHS21L   | hydraulic | 270 / 594 | 19 - 28 / 41,800 - 61,600 |  |  |  |
| KHS25L   | hydraulic | 360 / 792 | 26 - 34 / 57,200 - 74,800 |  |  |  |
|  | •         |           |                           |  |  |  |

Package consists of: hydraulic quick coupler with drop stop claws

| Hydraulic Quick Couplers KHS-L+ (including drop stop & sensors) |           |                    |                     |                           |  |  |
|---|-----------|--------------------|---------------------|---------------------------|--|--|
| Туре  | Locking   | Weight<br>(kg/lbs) | Suitable<br>adapter | Operating weight (t/lbs)  |  |  |
| KHS10L+   | hydraulic | 174 / 385          | KSW10               | 10 - 19 / 22,000 - 41,800 |  |  |
| KHS21L+   | hydraulic | 279 / 614          | KSW21               | 19 - 28 / 41,800 - 61,600 |  |  |
| KHS25L+   | hydraulic | 369 / 812          | KSW25               | 26 - 34 / 57,200 - 74,800 |  |  |

Package consists of: hydraulic quick coupler with drop stop claws, KHS10-25L installation set sensor, KHS-L-Sensor



KHS21L+ here with hook



Requirements of carrier machine for KHS-L

Operating pressure (to be set at excavator): 210 - 300bar / 3,040 - 4,350psi
Hydraulic system: one double-acting hydraulic circuit

Note: excavator needs to be equipped with quick coupler control.

## **Quick Couplers System S-Lock 10-30t / 22,000-66,000lbs**

KMS-S / KHS-S

The S-Lock System was designed to be fully compatible with the internationally adopted S-Standard adapters. In addition to a specially engineered, centrally located locking mechanism, the S-Lock coupler features a second locking mechanism at the front pin, providing a twin lock system for maximum safety.

- > KMS-S with mechanic locking system.
- > KHS-S with hydraulic locking system.
- ▶ Safe mechanic or hydraulic locking available.
- ▶ Use of robust and durable cast housings.
- Fully compatible with the original quick coupler systems or standards.



| Mechanic Quick Couplers KMS-S                       |          |                    |                           |  |  |
|---|----------|--------------------|---------------------------|--|--|
| Туре  | Locking  | Weight<br>(kg/lbs) | Operating weight (t/lbs)  |  |  |
| KMS60S  | mechanic | 181 / 398          | 10 - 18 / 22,000 - 39,600 |  |  |
| KMS70S  | mechanic | 298 / 656          | 18 - 30 / 39,600 - 66,000 |  |  |
| Package consists of: mechanic quick coupler, socket |          |                    |                           |  |  |

| Hydraulic Quick Couplers KHS-S |                         |                           |                           |  |  |
|--------------------------------|-------------------------|---------------------------|---------------------------|--|--|
| Туре                           | Locking                 | <b>Weight</b><br>(kg/lbs) | Operating weight (t/lbs)  |  |  |
| KHS60S                         | hydraulic               | 183 / 403                 | 10 - 18 / 22,000 - 39,600 |  |  |
| KHS70S                         | hydraulic               | 300 / 660                 | 18 - 30 / 39,600 - 66,000 |  |  |
| Package consists of            | hydraulic quick coupler |                           |                           |  |  |

| Installation sets for hydraulic Quick Couplers KHS-S |                             |  |  |  |
|--|-----------------------------|--|--|--|
| Туре   | Description                 |  |  |  |
| KHS03L HD-KHS08L installation set safety             | incl. KHS Control unit      |  |  |  |
| KHS03L HD-KHS08L installation set basic              | incl_unlockable flip switch |  |  |  |

| Accessories          |  |
|----------------------|--|
| Туре                 | Description  |
| KM 685 06 KSW10 hook | load hook (8t / 17,600lbs load capacity) for KMS/KHS60S  |
| KM 685 06 KSW21 hook | load hook (10t / 22,000lbs load capacity) for KMS/KHS70S |

| Requirements of carrier machine for KHS-S |   |  |  |  |
|---|---|--|--|--|
| Operating pressure:                       | <b>160 - 300 bar / 2,320 - 4,350 psi</b> (to be set at excavator)                 |  |  |  |
| Hydraulic system:                         | one double-acting hydraulic circuit with safety switch (permanent pressure close) |  |  |  |
| Note:                                     | excavator needs to be equipped with quick coupler control.                        |  |  |  |

## Tilt Couplers System L-Lock 8.6-23t / 18,920-50,600lbs

TC L-Lock

The Kinshofer TC Tilt Couplers provide a tilting angle of up to 140°, increasing the flexibiliy and efficiency of all attachments to a maximum. Compatible with quick coupling system L-Lock. The hydraulic versions are equipped with drop stop claws for additional safety.

- ➢ All hydraulic quick couplers system L-Lock are equipped with drop stop claws as standard! The Kinshofer quick coupler systems thus fully comply with all applicable national and international standards and regulations, including Machinery Directive 2006/42/EG, DIN EN 474-1, ISO13031 and SUVA.
- ▶ Counter-balance valve mounted to the motor retains a secure position for the tilt coupler across the angle.
- ▷ Compact design, no cylinder.
- **▶** More flexibility.
- ▶ Low height thus high breakaway force.
- > Low maintenance.
- > Non-return valve set is optionally available.



| Mechanic Tilt Couplers TC KMS-L |                 |               |          |                    |                             |
|---------------------------------|-----------------|---------------|----------|--------------------|-----------------------------|
| Туре                            | Rotary<br>drive | Tilt<br>angle | Locking  | Weight<br>(kg/lbs) | Operating weight (t/lbs)    |
| TC14-140 KMS10L                 | RA14            | 2 x 70°       | mechanic | 315 / 693          | 8.6 - 14 / 18,920 - 30,800  |
| TC19-140 KMS10L                 | RA19            | 2 x 70°       | mechanic | 470 / 1,034        | 12.1 - 19 / 26,620 - 41,800 |
| TC23-140 KMS21L                 | RA23            | 2 x 70°       | mechanic | 630 / 1,386        | 16.7 - 23 / 36,740 - 50,600 |

Package consists of: upper bracket, rotary drive, mechanic quick coupler, socket

| Hydraulic Tilt Couplers TC KHS-L (incl. drop stop) |        |         |           |             |                             |
|--|--------|---------|-----------|-------------|-----------------------------|
| Туре   | Rotary | Tilt    | Locking   | Weight      | Operating weight            |
|  | drive  | angle   |           | (kg/lbs)    | (t/lbs)                     |
| TC14-140 KHS10L                                    | RA14   | 2 x 70° | hydraulic | 315 / 693   | 8.6 - 14 / 18,920 - 30,800  |
| TC19-140 KHS10L                                    | RA19   | 2 x 70° | hydraulic | 470 / 1,034 | 12.1 - 19 / 26,620 - 41,800 |
| TC23-140 KHS21L                                    | RA23   | 2 x 70° | hydraulic | 630 / 1,386 | 16.7 - 23 / 36,740 - 50,600 |

Package consists of: upper bracket, rotary drive, hydraulic quick coupler with drop stop claws

| Installation sets | for hydraulic | Tilt Couplers | TC KHS-L |
|-------------------|---------------|---------------|----------|

| Туре                           | Description                       |
|--------------------------------|-----------------------------------|
| KHS10L installation set safety | incl. KHS Control unit            |
| KHS10L installation set basic  | incl. unlockable flip switch      |
| KHS21L installation set safety | incl. KHS Control unit            |
| KHS21L installation set basic  | incl. unlockable flip switch      |
| TC14-140 NRV                   | non-return valve kit for TC14-140 |
| TC19-140 NRV                   | non-return valve kit for TC19-140 |
| TC23-140 NRV                   | non-return valve kit for TC23-140 |

#### Quick change adapters for KMS-L / KHS-L

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

#### Accessories

| Туре                 | Description                             |
|----------------------|---|
| KM 685 06 KSW10 hook | load hook (8t/17,600lbs load capacity)  |
| KMS10L socket        | socket                                  |
| KM 685 06 KSW21 hook | load hook (10t/22,000lbs load capacity) |
| KMS21/25L socket     | socket                                  |

## Requirements of carrier machine for TC KHS-L

|                     | Quick Coupler  | Rotary Drive   |
|---------------------|--|--|
| Hydraulic system:   | one double acting hydraulic circuit  | one double acting hydraulic circuit  |
| Operating pressure: | 210 - 300 bar / 3,040 - 4,350 psi (to be set at excavator)                       | 250 bar / 3,620 psi (to be set at excavator)                                     |
| Pump capacity:      | TC14: 10 - 28 l/min / 2.5 - 7.4 GPM<br>TC19/TC23: 20 - 40 l/min / 5.0 - 10.5 GPM | TC14: 10 - 28 l/min / 2.5 - 7.4 GPM<br>TC19/TC23: 20 - 40 l/min / 5.0 - 10.5 GPM |
| Note:               | excavator needs to be equipped with quick coupler control.                       |  |

The TC L-Lock+ tilt couplers are characterized by a very high safety standard. The drop stop (extended quick coupler claw) prevents the attachment from falling down if the quick coupler lock is accidentally not closed properly, despite visual indication or warning signal. The newly developed indicator pin shows on the one hand the locking status when the bolts are in/out and on the other hand also when the locking bolts are above the approved range.

- ▶ Drop Stop: The quick coupler claw curls around the front pin of the quick change adaptor and prevents the attachment from unintenional disengagment.
- ▶ Enormous safety: Indicator pin shows only one correct condition of the coupling process and is independent of sensors or electronics.
- Fully comply with all applicable national and international standards and regulations, including Machinery Directive 2006/42/EG, DIN EN 474-1, ISO13031 and SUVA
- ▷ Optionally available: a double unlockable non-return valve mounted to the motor provides a safe position of the TC tilt coupler across all angles.



| Hydraulic Tilt Couplers TC KHS-L+ (including drop stop & sensors) |                 |               |           |                    |                             |
|---|-----------------|---------------|-----------|--------------------|-----------------------------|
| Туре  | Rotary<br>drive | Tilt<br>angle | Locking   | Weight<br>(kg/lbs) | Operating weight (t/lbs)    |
| TC14-140 KHS10L+  | RA14            | 2 x 70°       | hydraulic | 319 / 702          | 8.6 - 14 / 18,920 - 30,800  |
| TC19-140 KHS10L+  | RA19            | 2 x 70°       | hydraulic | 479 / 1,054        | 12.1 - 19 / 26,620 - 41,800 |
| TC23-140 KHS21L+  | RA23            | 2 x 70°       | hydraulic | 639 / 1,406        | 16.7 - 23 / 36,740 - 50,600 |

Package consists of: upper bracket, rotary drive, hydraulic quick coupler, drop stop claws, KHS10-25L installation set sensor, KHS-L-Sensor

| Requirements of carrier machine for TC KHS-L+ |  |  |  |  |
|---|--|--|--|--|
|   | Quick Coupler  | Rotary Drive   |  |  |
| Hydraulic system:                             | one double acting hydraulic circuit  | one double acting hydraulic circuit  |  |  |
| Operating pressure:                           | 210 - 300 bar / 3,040 - 4,350 psi (to be set at excavator)                       | 250 bar / 3,620 psi (to be set at excavator)                                     |  |  |
| Pump capacity:                                | TC14: 10 - 28 l/min / 2.5 - 7.4 GPM<br>TC19/TC23: 20 - 40 l/min / 5.0 - 10.5 GPM | TC14: 10 - 28 I/min / 2.5 - 7.4 GPM<br>TC19/TC23: 20 - 40 I/min / 5.0 - 10.5 GPM |  |  |
| Note:   | excavator needs to be equipped with quick coupler control.                       |  |  |  |





The Kinshofer TC Tilt Couplers provide a tilting angle of up to 140°, increasing the flexibility and efficiency of all attachments to a maximum. Compatible with quick coupling system S-Lock.

- ▶ Counter-balance valve mounted to the motor retains a secure position for the tilt coupler across the angle.
- ▷ Compact design, no cylinder.
- **▶** More flexibility.
- ▶ Low height thus high breakaway force.
- > Low maintenance.
- > Non-return valve set is optionally available.



| Mechanic Tilt Couplers TC KMS-S |                 |               |          |                    |                               |
|---------------------------------|-----------------|---------------|----------|--------------------|-------------------------------|
| Туре                            | Rotary<br>drive | Tilt<br>angle | Locking  | Weight<br>(kg/lbs) | Operating weight (t/lbs)      |
| TC14-140 KMS60S                 | RA14            | 2 x 70°       | mechanic | 223 / 491          | 8.6 - 14.0 / 18,920 - 30,800  |
| TC19-140 KMS60S                 | RA19            | 2 x 70°       | mechanic | 415 / 913          | 12.1 - 19.0 / 26,620 - 41,800 |
| TC23-140 KMS70S                 | RA23            | 2 x 70°       | mechanic | 575 / 1,265        | 16.7 - 23.0 / 36,740 - 50,600 |

Package consists of: upper bracket, rotary drive, mechanic quick coupler, socket

| Hydraulic Tilt Couplers TC KHS-S |                 |               |           |                    |                               |
|----------------------------------|-----------------|---------------|-----------|--------------------|-------------------------------|
| Туре                             | Rotary<br>drive | Tilt<br>angle | Locking   | Weight<br>(kg/lbs) | Operating weight (t/lbs)      |
| TC14-140 KHS60S                  | RA14            | 2 x 70°       | hydraulic | 223 / 491          | 8.6 - 14.0 / 18,920 - 30,800  |
| TC19-140 KHS60S                  | RA19            | 2 x 70°       | hydraulic | 415 / 913          | 12.1 - 19.0 / 26,620 - 41,800 |
| TC23-140 KHS70S                  | RA23            | 2 x 70°       | hydraulic | 575 / 1,265        | 16.7 - 23.0 / 36,740 - 50,600 |

Package consists of: upper bracket, rotary drive, hydraulic quick coupler

| Installation sets for hydraulic Tilt Couplers TC KHS- | S                            |
|---|------------------------------|
| Туре  | Description                  |
|   |                              |
| KHS03L HD-KHS08L installation set safety              | incl. KHS Control unit       |
| KHS03L HD-KHS08L installation set basic               | incl. unlockable flip switch |
|   |                              |

| Accessories          |   |
|----------------------|---|
| Туре                 | Description   |
| KM 685 06 KSW10 hook | load hook (8t/17,600lbs load capacity) for TC KMS/KHS60S  |
| KM 685 06 KSW21 hook | load hook (10t/22,000lbs load capacity) for TC KMS/KHS70S |
| TC14-140 NRV         | non-return valve kit for TC14-140                         |
| TC19-140 NRV         | non-return valve kit for TC19-140                         |
| TC23-140 NRV         | non-return valve kit for TC23-140                         |

| Requirements of carrier machine for TC KHS-S |   |  |  |  |
|--|---|--|--|--|
|  | Quick Coupler   | Rotary Drive   |  |  |
| Hydraulic system:                            | one double-acting hydraulic circuit with safety switch (permanent pressure close) | one double acting hydraulic circuit  |  |  |
| Operating pressure:                          | 160 - 300 bar / 2,320 - 4,350 psi   | 210 - 310 bar / 3,040 - 4,500 psi  |  |  |
| Pump capacity:                               |   | TC14: 16 - 28 l/min / 4.2 - 7.4 GPM<br>TC23: 35 - 35 l/min / 9.3 - 9.3 GPM |  |  |
| Note:  | excavator needs to be equipped with quick coupler control.                        |  |  |  |

**RC06** 

With the compact RC rotary coupler you increase the freedom of movement in the entire working area of the excavator. Thanks to the robust and low construction (it is firmly bolted to the boom), the maximum breakaway and ripping forces are achieved.

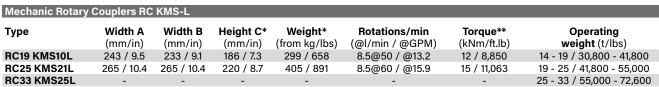
In addition to the usual movement, each attachment can be endlessly rotated by 360°.

This enables more flexible and faster work without moving the excavator.

The newly gained freedom of movement allows work to be carried out more precisely, which saves additional manual work steps.

Here in combination with the proven L-Lock quick coupling system.

- All hydraulic quick couplers system L-Lock are equipped with drop stop claws as standard! The Kinshofer quick coupler systems thus fully comply with all applicable national and international standards and regulations, including Machinery Directive 2006/42/EG, DIN EN 474-1, ISO13031 and SUVA.
- Compact and low design.
- ▶ More flexibility due to 360° rotation.
- ▶ Low height thus high breakaway force.
- Low maintenance.
- ▶ Lower quick coupler with mechanic or hydraulic locking available.



<sup>\*</sup>w/o quick coupler and upper bracket; \*\*@360° constant

Package consists of: upper bracket, rotation drive, mechanic quick coupler, socket

| Hydraulic Rotary Couplers RC KHS-L (with drop stop claws) |                    |                    |                      |                          |                                  |                         |                           |
|---|--------------------|--------------------|----------------------|--------------------------|----------------------------------|-------------------------|---------------------------|
| Туре  | Width A<br>(mm/in) | Width B<br>(mm/in) | Height C*<br>(mm/in) | Weight*<br>(from kg/lbs) | Rotations/min<br>(@I/min / @GPM) | Torque**<br>(kNm/ft.lb) | Operating weight (t/lbs)  |
| RC19 KHS10L   | 243 / 9.5          | 233 / 9.1          | 186 / 7.3            | 299 / 658                | 8.5@50 / @13.2                   | 12 / 8,850              | 14 - 19 / 30,800 - 41,800 |
| RC25 KHS21L   | 265 / 10.4         | 265 / 10.4         | 220 / 8.7            | 405 / 891                | 8.5@60 / @15.9                   | 15 / 11,063             | 19 - 25 / 41,800 - 55,000 |
| RC33 KHS25L   | -                  | -                  | -                    | -                        | -                                | -                       | 25 - 33 / 55,000 - 72,600 |

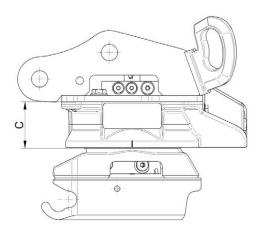
<sup>\*</sup>w/o quick coupler and upper bracket; \*\*@360° constant

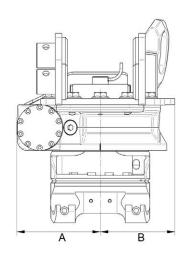
Package consists of: upper bracket, rotation drive, hydraulic quick coupler with drop stop claws

| Technical data and hydraulics RC |   |                              |  |  |  |  |
|----------------------------------|---|------------------------------|--|--|--|--|
| Туре                             | Breakout force max. (ISO)<br>(kN/kNm / lbf/ft.lb) | Bucket width max.<br>(mm/in) | Recommended oil flow rotate<br>(I/min / GPM) | Hydraulic pressure rotate max. (bar/psi) |  |  |
| RC19                             | 150/200 / 33,000/147,500                          | 1,800 / 70.8                 | 40 - 50 / 10.6 - 13.2                        | 250 / 3,600                              |  |  |
| RC25                             | 170/250 / 37,400/184,375                          | 2,000 / 78.7                 | 50 - 60 / 13.2 - 15.9                        | 250 / 3,600                              |  |  |
| RC33                             | 205/330 / 45,100/243,375                          | 2,200 / 86.6                 | 60 - 80 / 15.9 - 21.1                        | 250 / 3,600                              |  |  |

#### Requirements of carrier machine for RC KHS-L

|                   | Quick coupler   | Rotation drive                      |
|-------------------|---|-------------------------------------|
| Hydraulic system: | one double acting hydraulic circuit                       | one double acting hydraulic circuit |
| Note:             | excavator needs to be equipped with quick coupler control |                                     |





With the compact RC rotary coupler you increase the freedom of movement in the entire working area of the excavator. Thanks to the robust and low construction (it is firmly bolted to the boom), the maximum breakaway and ripping forces are achieved.

In addition to the usual movement, each attachment can be endlessly rotated by 360°. This enables more flexible and faster work without moving the excavator.

The newly gained freedom of movement allows work to be carried out more precisely, which saves additional manual work steps.

Here in combination with the proven S-Lock quick coupling system.

- **▷** Compact and low design.
- ▶ More flexibility due to 360° rotation.
- ▶ Low height thus high breakaway force.
- > Low maintenance.
- > Lower quick coupler with mechanic or hydraulic locking available.



RC06

| <b>Mechanic Rotary</b> | Couplers RC        | KMS-S              |                     |                          |                                  |                         |                           |
|------------------------|--------------------|--------------------|---------------------|--------------------------|----------------------------------|-------------------------|---------------------------|
| Туре                   | Width A<br>(mm/in) | Width B<br>(mm/in) | Height C<br>(mm/in) | Weight*<br>(from kg/lbs) | Rotations/min<br>(@I/min / @GPM) | Torque**<br>(kNm/ft.lb) | Operating weight (t/lbs)  |
| RC19 KMS60S            | 243 / 9.5          | 233 / 9.1          | 186 / 7.3           | 299 / 658                | 8.5@50 / @13.2                   | 12 / 8,850              | 14 - 19 / 30,800 - 41,800 |
| RC25 KMS70S            | 265 / 10.4         | 265 / 10.4         | 220 / 8.7           | 405 / 891                | 8.5@60 / @15.9                   | 15 / 11,063             | 19 - 25 / 41,800 - 55,000 |
| RC33 KMS70S            | -                  | -                  | -                   | -                        |                                  | -                       | 25 - 33 / 55,000 - 72,600 |

<sup>\*</sup>w/o quick coupler and upper bracket; \*\*@360° constant

Package consists of: upper bracket, rotation drive, mechanic quick coupler, socket

| Hydraulic Rotary | Couplers RC I      | KHS-S              |                     |                          |                                  |                         |                           |
|------------------|--------------------|--------------------|---------------------|--------------------------|----------------------------------|-------------------------|---------------------------|
| Туре             | Width A<br>(mm/in) | Width B<br>(mm/in) | Height C<br>(mm/in) | Weight*<br>(from kg/lbs) | Rotations/min<br>(@I/min / @GPM) | Torque**<br>(kNm/ft.lb) | Operating weight (t/lbs)  |
| RC19 KHS60S      | 243 / 9.5          | 233 / 9.1          | 186 / 7.3           | 299 / 658                | 8.5@50 / @13.2                   | 12 / 8,850              | 14 - 19 / 30,800 - 41,800 |
| RC25 KHS70S      | 265 / 10.4         | 265 / 10.4         | 220 / 8.7           | 405 / 891                | 8.5@60 / @15.9                   | 15 / 11,063             | 19 - 25 / 41,800 - 55,000 |
| RC33 KHS70S      | -                  | -                  | -                   | -                        | -                                | -                       | 25 - 33 / 55,000 - 72,600 |

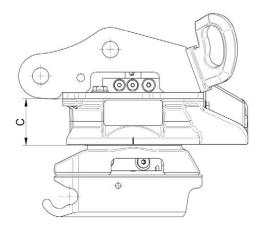
<sup>\*</sup>w/o quick coupler and upper bracket; \*\*@360° constant

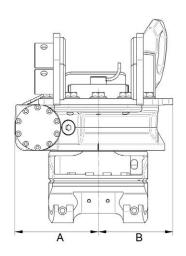
Package consists of: upper bracket, rotation drive, hydraulic quick coupler

| Technical dat | Technical data and hydraulics RC                  |                           |  |  |  |  |  |  |
|---------------|---|---------------------------|--|--|--|--|--|--|
| Туре          | Breakout force max. (ISO)<br>(kN/kNm / lbf/ft.lb) | Bucket width max. (mm/in) | Recommended oil flow rotate<br>(I/min / GPM) | Hydraulic pressure rotate max. (bar/psi) |  |  |  |  |
| RC19          | 150/200 / 33,000/147,500                          | 1,800 / 70.8              | 40 - 50 / 10.6 - 13.2                        | 250 / 3,600                              |  |  |  |  |
| RC25          | 170/250 / 37,400/184,375                          | 2,000 / 78.7              | 50 - 60 / 13.2 - 15.9                        | 250 / 3,600                              |  |  |  |  |
| RC33          | 205/330 / 45,100/243,375                          | 2,200 / 86.6              | 60 - 80 / 15.9 - 21.1                        | 250 / 3,600                              |  |  |  |  |

#### Requirements of carrier machine for RC KHS-S

|                   | Quick coupler   | Rotation drive                      |
|-------------------|---|-------------------------------------|
| Hydraulic system: | one double acting hydraulic circuit                       | one double acting hydraulic circuit |
| Note:             | excavator needs to be equipped with quick coupler control |                                     |





## **Accessories for Quick Couplers, Tilt Couplers & Rotary Couplers**

#### unlockable flip switch (hold to run)





**KHS Control** 

## Installations sets for hydraulic quick couplers and tilt couplers

| Туре                                     | Description                                |
|--|--|
| KHS03L HD-KHS08L installation set safety | incl. KHS Control unit                     |
| KHS03L HD-KHS08L installation set basic  | incl. unlockable flip switch (hold to run) |
| KHS10L installation set safety           | incl. KHS Control unit                     |
| KHS10L installation set basic            | incl. unlockable flip switch (hold to run) |
| KHS21L installation set safety           | incl. KHS Control unit                     |
| KHS21L installation set basic            | incl. unlockable flip switch (hold to run) |
| KHS25L installation set safety           | incl. KHS Control unit                     |
| KHS25L installation set basic            | incl. unlockable flip switch (hold to run) |



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

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

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



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



## Load hook for quick couplers and tilt couplers

| Туре                 | Description                             |
|----------------------|---|
| KM 685 06 KSW10 hook | load hook (8t/17,600lbs load capacity)  |
| KM 685 06 KSW21 hook | load hook (10t/22,000lbs load capacity) |
| KM 685 06 KSW25 hook | load hook (18t/39,600lbs load capacity) |
|                      |   |



## Sockets for mechanic quick couplers and tilt couplers

| Туре             | Description   |
|------------------|---|
| KMS10L socket    | socket for mechanical System L-Lock (KMS10L)        |
| KMS21/25L socket | socket for mechanical System L-Lock (KMS21L/KMS25L) |
| KMS08L socket    | socket for mechanical System S-Lock                 |

## **Quick coupling adapters for System L-Lock**



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

#### **NOX TILTROTATORS**

With our Tiltrotator, your attachments can be rotated by 360° continuously and tilted by up to 50° to both sides. Therefore, the efficiency of your machine will be increased dramatically as time and resources will be saved.

**FOUR FACTS ABOUT THE USE OF TILTROTATORS:** 

#### PRODUCTIVITY AND PROFITABILITY

MANAGE THE SAME AMOUNT OF WORK IN LESS TIME.

#### SAFFTY

THE NOX TILTROTATOR COMPLIES WITH ALL CURRENT SAFETY REGULATIONS AND HELPS THE OPERATOR AND SURROUNDING WORKFORCE TO ACHIEVE AN ACCIDENT-FREE ENVIRONMENT.

#### **VERSATILTY AND FLEXIBILITY**

INCREASE THE USE OF YOUR MACHINE DRAMATICALLY AND ACCEPT MORE JOBS. ESPECIALLY IN COMBINATION WITH THE NOX.

#### **READY FOR THE FUTURE**

THE NOX TILTROTATOR COMES GPS-READY WITH ITS VERY MODERN NOXProp+ CONTROL SYSTEM. THE MOST COMMON 3D MACHINE CONTROL SYSTEMS CAN BE IMPLEMENTED. EVEN RETROACTIVELY.



**Catalog: NOX Tiltrotators** 

## Tiltrotators 10-25t / 22,000-55,000lbs

**TR-NOX** 

Experience and innovation have led to one of the most advanced tools for excavators – the NOX Tiltrotator:  $360^\circ$  endless rotation and a tilt angle of up to  $2 \times 50^\circ$  make it a universal joint, that allows for many new application possibilities. In combination with a quick coupler and different attachments this means highest efficiency on each site.

#### Advantages:

- ▶ **Precision and safety** due to "smooth" proportional control.
- ▶ High stability and long service life thanks to special cast housing.
- ▶ **Low overall height** thanks to elliptic rotary actuator.
- ▶ **High and constant tilting force** due to cylinderless rotary actuator.
- No protruding parts: excavation with narrow bucket possible in small, deep canals, even under or in between existing tubes.
- ▶ **Low maintenance**: worm drive lubricated permanently (oil bath).







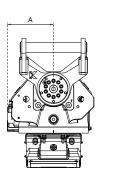
|  | TR14NOX                   | TR19NOX                   | TR25NOX                   |
|--|---------------------------|---------------------------|---------------------------|
| Operating weight (t/lbs)                           | 10 - 14 / 22,000 - 30,800 | 14 - 19 / 30,800 - 41,800 | 19 - 25 / 41,800 - 55,000 |
| Weight* (from) (kg/lbs)                            | 485 / 1,067               | 580 / 1,276               | 860 / 1,892               |
| Width A* (from) (mm/in)                            | 240 / 9.5                 | 230 / 9.1                 | 260 / 10.2                |
| Length B* (from) (mm/in)                           | 610 / 24.0                | 645 / 25.4                | 845 / 33.3                |
| Height C* (from) (mm/in)                           | 565 / 22.2                | 580 / 22.8                | 650 / 22.6                |
| Recommended bucket width max. (mm/in)              | 1,600 / 63.0              | 1,700 / 67.0              | 2,000 / 78.7              |
| Breakout force max. (ISO) (kN/lbf)                 | 110 / 24,200              | 150 / 33,000              | 170 / 37,400              |
| Breakout torque max. (kNm/ft.lb)                   | 145 / 106,937             | 200 / 147,500             | 250 / 184,375             |
| Tilt angle   | 2 x 50°                   | 2 x 50°                   | 2 x 50°                   |
| Tilt torque (constant) (kNm/ft.lb)                 | 31 / 22,860               | 40.5 / 29,870             | 51.7 / 38,130             |
| Rotation speed (1/min)                             | 8.5                       | 8.5                       | 8.5                       |
| Rotation torque (Nm/ft.lb)                         | 11,000 / 8,115            | 12,000 / 8,850            | 15,000 / 11,065           |
| Hydraulic pressure max. (MPa/psi)                  | 30 / 4,320                | 30 / 4,320                | 30 / 4,320                |
| Recommended pump capacity CSP (I/min / GPM)        | 80 - 160 / 21.1 - 42.3    | 100 - 180 / 26.4 - 47.6   | 120 - 200 / 31.7 - 52.8   |
| Recommended pump capacity DF04/06/10 (I/min / GPM) | 40/45 / 10.6/11.9         | 60/50 / 15.9/13.2         | 70/70 / 18.5/18.5         |
| Electric swivel                                    | optional                  | optional                  | optional                  |

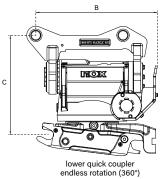
<sup>\*</sup> Specifications depend on the machine configuration (upper bracket and lower quick coupler)

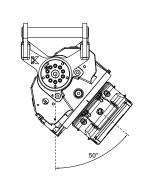
Note: Highflow swivel (DF10 HF / CSP HF) and Powerline (CSP PL) available

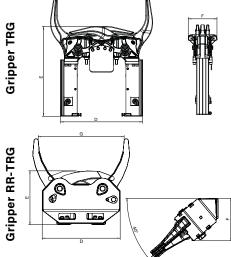
Standard package: tiltrotator, electrical control system, upper bracket, lower quick coupler

| Accessorie           | S                        |                                      |                   |                           |                          |                |
|----------------------|--------------------------|--------------------------------------|-------------------|---------------------------|--------------------------|----------------|
| Hydraulic<br>gripper | Weight                   | Dimensions D x E x F**               | Opening<br>max. G | Closing time***           | Closing force            | Load capacity  |
|                      | (approx. kg/lbs)         | (mm/in)                              | (mm/in)           | (sec)                     | (kN/lbf)                 | (kg/lbs)       |
| TRG11                | 80 / 176                 | 600 x 660 x 210 / 23.6 x 26 x 8.3    | 644 / 25.3        | 1.5***                    | 10 / 2,200               | 500 / 1,100    |
| TRG19                | 113 / 249                | 700 x 715 x 265 / 27.6 x 28.2 x 10.4 | 734 / 28.9        | 3.0***                    | 18.5 / 4,070             | 900 / 1,980    |
| TRG25                | 195 / 429                | 895 x 760 x 295 / 35.2 x 29.9 x 11.6 | 1,100 / 15.6      | 2.0***                    | 19.5 / 4,290             | 1,400 / 3,080  |
| RR-TRG               | 170 / 154                | 745 x 480 x 395 / 29.3 x 18.9 x 15.6 | 822 / 32.4        | 3.9****                   | 30.1 / 6,622             | 5,000 / 11,000 |
| The BR-TRG           | arinner is only availabl | e for TR19NOX and TR25NOX            | ** see technic    | al drawing *** at 25 l/mi | n / 6.5 GPM **** at 30 I | /min / 8 GPM   |







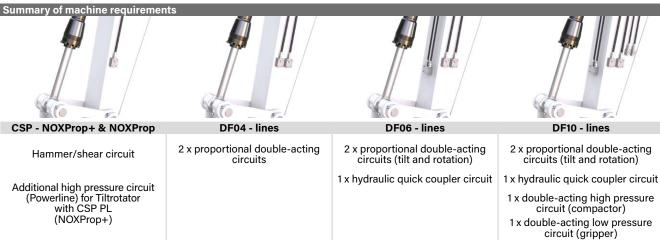


The NOXProp+ control system provides more safety and precision. NOX Tiltrotator, quick coupler and attached tools are controlled effectively and conveniently with ergonomic joysticks by the smart NOXProp+. Easily retrofittable for each excavator. Features are the individual function setting and the easy menu navigation thanks to the corresponding touchscreen. Integrated GPS, LTE, Bluetooth and WiFi link your machine with the digital workplace. In combination with our SmartTag, the connection with the fleet management is realized for maximum integration and effectivity.

#### **Key features NOXProp+:**

- > Optimal NOX performance thanks to perfectly adjusted control
- ▶ Autocalibration and Position indicator at the display.
- ▶ 4 different user profiles with up to 10 tool profiles (more flexibility)
- ▶ Integration with 2D/3D excavation system NOXGeo
- ▶ Easy installation, Connectivity (WiFi, LTE, GPS, Bluetooth) and remote maintenance.





| Overview of the different functions of the control sy | stems      |                       |                       |                       |
|---|------------|-----------------------|-----------------------|-----------------------|
|   | NOXProp+   | DF04                  | DF06                  | DF10                  |
| NOXGeo (GPS-ready)                                    | $\bigcirc$ | •                     | •                     | •                     |
| Autocalibration                                       | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Angle position indication                             | $\bigcirc$ | $\overline{\bigcirc}$ | $\bigcirc$            | $\overline{\bigcirc}$ |
| Individual operator settings                          | $\bigcirc$ | $\bigcirc$            |                       | $\bigcirc$            |
| Individual speed setting                              | $\bigcirc$ | $\overline{\bigcirc}$ | $\bigcirc$            | $\overline{\bigcirc}$ |
| Touchscreen in cabin                                  | $\bigcirc$ | $\overline{\bigcirc}$ | $\bigcirc$            | $\overline{\bigcirc}$ |
| Trouble shooting on display                           | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Remote maintenance                                    | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Connectivity tools (Bluetooth, LTE, WiFi)             | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Fully proportional control                            | $\bigcirc$ | depending on machine  | depending on machine  | depending on machine  |
| Changing roller position                              | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Individual tool settings                              | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Tilt, rotation & extra in same movement               | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | depending on machine  |
| High flow attachment (HF)                             | •          | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | •                     |
| Quick coupler safety sensors                          |            | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Quick coupler control                                 | $\bigcirc$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Driving/steering function                             | •          | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |
| Fleet management                                      | •          | •                     | •                     | •                     |
| Machine assistance systems                            | •          | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ | $\overline{\bigcirc}$ |





## Multi Purpose Grabs for **nox** Tiltrotators up to 25t / 55,000lbs

**A-Series** 

Especially adapted to the **nox** Tiltrotators there are different attachments available. The Multi Purpose Grab with hydraulic cylinder is ideally adjusted to the **nox** Tiltrotators for excavators with 11t / 24,200lbs up to 25t / 55,000lbs operating weight.

- ▶ The sophisticated ergonomics enable loading, sorting, digging and demolition operations with maximum efficiency.
- > Different adapters available.
- ▶ **Durability** due to the use of cutting edge material 500HB.



| Multi Purpos | e Grab  |                  |                 |                     |                 |                              |                               |                                |
|--------------|---------|------------------|-----------------|---------------------|-----------------|------------------------------|-------------------------------|--------------------------------|
| Туре         | for NOX | Width<br>(mm/in) | Opening (mm/in) | Volume (liter/c.y.) | Weight (kg/lbs) | Load<br>capacity<br>(kg/lbs) | Closing<br>force*<br>(kN/lbf) | Operating<br>weight<br>(t/lbs) |
|              |         | (111111/1111)    | (111111/1111)   | (III.eI/C.y.)       | (kg/103)        | (kg/103)                     | (KIN/IDI)                     |                                |
| A14TR-60     | TR14NOX | 600 / 23.6       | 1,890 / 74.4    | 260 / 0.3           | 510 / 1,122     | 3,000 / 6,600                | 30 / 6,600                    | 11 - 14 /<br>24,200 - 30,800   |
| A19TR-60     | TR19NOX | 600 / 23.6       | 1,900 / 74.8    | 300 / 0.4           | 570 / 1,254     | 4,000 / 8,800                | 27 / 5,940                    | 14 - 19 /<br>30,800 - 41,800   |
| A25TR-70     | TR25NOX | 700 / 27.5       | 2,038 / 80.2    | 400 / 0.5           | 815 / 1,793     | 5,000 / 11,000               | 38 / 8,360                    | 18 - 25 /<br>39,600 - 55,000   |

<sup>\*</sup> at 32 MPa (320 bar) / 4,640psi

Package consists of: multi purpose grab

Note: adapters of different manufacturers see "Mounting options..."

#### Requirements of carrier machine

 Operating pressure:
 max. 32 MPa (320 bar) / 4,640psi

 Pump capacity:
 50 - 100 l/min / 13 - 26.5 GPM

Pictures

A14TR-60 A19TR-60





A25TR-84

## Demolition & Sorting Grabs for **nox** up to 30t / 66,000lbs

**D-Series** 

Especially adapted to the **nox** Tiltrotators there are different attachments available. The Demolition and Sorting Grabs with hydraulic cylinder are ideally adjusted to the **nox** Tiltrotators for excavators with up to 25t / 55,000lbs operating weight.

- > Different adapters available.
- ▶ High closing force thanks to two horizontal hydraulic cylinders, completely protected by the carrier.
- ▶ The end positions (grab open) are hydraulically cushioned, to protect the cylinder when gripping the material.
- ▷ Shells with perforated shells and exchangeable cutting edges. Durable, exchangeable and turnable cutting edges (500HB).



| Demolition a | ınd Sorting G | irabs            |                 |                     |                 |                              |                              |                                |
|--------------|---------------|------------------|-----------------|---------------------|-----------------|------------------------------|------------------------------|--------------------------------|
| Туре         | for NOX       | Width<br>(mm/in) | Opening (mm/in) | Volume (liter/c.y.) | Weight (kg/lbs) | Load<br>capacity<br>(kg/lbs) | Closing<br>force<br>(kN/lbf) | Operating<br>weight<br>(t/lbs) |
| D14TR-60     | TR14NOX       | 600 / 23.6       | 1,555 / 61.2    | 260 / 0.34          | 400 / 880       | 3,000 / 6,600                | 30 / 6,600*                  | 11 - 14 /<br>24,200 - 30,800   |
| D19TR-80     | TR19NOX       | 800 / 31.5       | 1,550 / 61      | 300 / 0.39          | 500 / 1,100     | 4,000 / 8,800                | 27 / 5,940*                  | 14 - 19 /<br>30,800 - 41,800   |
| D19TR-100    | TR19NOX       | 1,000 / 39.3     | 1,870 / 73.6    | 500 / 0.65          | 595 / 1,309     | 4,000 / 8,800                | 25 / 5,500*                  | 14 - 19 /<br>30,800 - 41,800   |
| D25TR-84     | TR25NOX       | 840 / 33.1       | 1,890 / 74.4    | 380 / 0.49          | 725 / 1,595     | 5,000 / 11,000               | 42 / 9,240*                  | 18 - 25 /<br>39,600 - 55,000   |
| D25TR-100    | TR25NOX       | 1,000 / 39.3     | 1,890 / 74.4    | 450 / 0.58          | 770 / 1,694     | 5,000 / 11,000               | 42 / 9,240*                  | 18 - 25 /<br>39,600 - 55,000   |
| D30TR-115    | -             | 1,150 / 45.3     | 2,147 / 84.5    | 800 / 1.05          | 1,280 / 2,816   | 6,000 / 13,200               | 63 / 13,860**                | 25 - 30 /<br>55,000 - 66,000   |

<sup>\*</sup> at 32 MPa (320 bar) / 4,640 psi

Package consists of: demolition and sorting grab

Note: adapters of different manufacturers see "Mounting options..."

| Requirements of | carrier machine |
|-----------------|-----------------|
|-----------------|-----------------|

Operating pressure:

Pump capacity:

D14TR - D25TR max. 32 MPa (320 bar) / 4,640 psi 50 - 100 l/min / 13 - 26.5 GPM D30TR

max. 35 MPa (350 bar) / 5,040 psi 75 - 150 l/min / 19.8 - 39.6 GPM

## Pictures

## D14TR-60





D25TR-84



<sup>\*\*</sup> at 35 MPa (350 bar) / 5040 psi

exchange support. down. Mount the

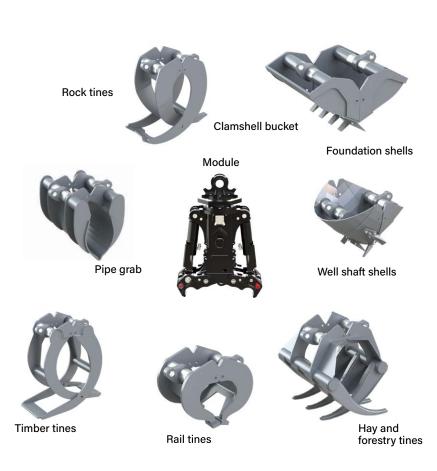
## **KINSHOFER** Shell Exchange System

Robust grabs for excavators with revolutionary exchange system in a single device. As a new demand on site arises, the attachment can be exchanged and the new application can commence. Easy remounting of shells for excavating, landscaping, laying pipes, logging, rail track handling etc.

- ▶ **Efficiency:** only the shells are replaced; exchange is possible with only one person
- Fastness: easy exchange of the lynch pin from the change-over system within 4 minutes, no hydraulic work necessary
- ▶ **Robust technics:** compact design through the integrated rotator. Robust shell bearing with coexisting change mechanism



## Clamshell buckets with exchangeable shells are available for











ē Remove the change-over with extraction tool







Insert the change-over pin and fasten the lynch pin.

Position the bucket carrier over the new attachment and close the locking unit hydraulically.

Remove the exchange support. Ready for use!

Especially adapted to the **nox** Tiltrotators there are different attachments available. The Clamshell Bucket with hydraulic cylinder is ideally adjusted to the **nox** Tiltrotators for excavators with 11t / 24,200lbs up to 19t / 41,800lbs operating weight.

Thanks tp the integrated C-VE shell exchange system, the grab is extremely flexible and versatile.

- ▶ Economic solution as only the shells have to be exchanged for another application bucket carrier, hydraulic cylinder and bearings are integrated into the unit.
- ▶ Long life is ensured due to the use of 500 HB steel in the manufacture of cutting edges.
- > Reduced wear resulting from generously dimensioned bearing system.
- ▶ **Excellent digging characteristics** are the result of high closing forces.



| Clamshell B | uckets  |            |             |              |             |                  |               |                              |
|-------------|---------|------------|-------------|--------------|-------------|------------------|---------------|------------------------------|
| Туре        | for NOX | Width      | Opening     | Volume       | Weight      | Load<br>capacity | Closing force | Operating weight             |
|             |         | (mm/in)    | (mm/in)     | (liter/c.y.) | (kg/lbs)    | (kg/lbs)         | (kN/lbf)      | (t/lbs)                      |
| C14TR-60    | TR14NOX | 600 / 23.6 | 1645 / 64.8 | 245 / 0.32   | 510 / 1,122 | 4,500 / 9,900    | 39 / 8,580    | 11 - 14 /<br>24,200 - 30,800 |
| C19TR-60    | TR19NOX | 600 / 23.6 | 1655 / 65.2 | 245 / 0.32   | 575 / 1,265 | 4,500 / 9,900    | 42 / 9,240    | 14 - 19 /<br>30.800 - 41.800 |

#### Package consists of: clamshell bucket

Note: adapters of different manufacturers see "Mounting options..."

### Requirements of carrier machine

 Operating pressure:
 max. 35 MPa (350 bar) / 5,040 psi

 Pump capacity:
 40 - 120 l/min / 10.6 - 31.7 GPM

Pictures

C14TR-60 C19TR-80





Lifting, moving and positioning of palletized or unpalletized materials is easy with the GAF or GAH Fork Set. Turn your excavator into a fork lift truck - ideal in combination with a Tiltrotator. Now also available with hydraulically adjustable tines for an even easier and more effective and secure working.

- ▶ High load capacity.
- ▶ Low self-weight.
- ▶ Very economic: low cost.
- ▶ Ideal for use with Tiltrotator: highest flexibility.
- Two versions available: with mechanically or hydraulically adjustable tines.
- ▶ **Easy mounting** thanks to a quick change adapter.
- > Different adapters available.
- Mechanical fork tines with adapter system L-Lock, Oilquick or Verachtert without surcharge.



| Mechanic For | rk Tines GAF       |                     |                                   |               |                 |                           |                                |
|--------------|--------------------|---------------------|-----------------------------------|---------------|-----------------|---------------------------|--------------------------------|
| Туре         | for NOX            | Standard<br>adapter | Load capacity<br>max.<br>(kg/lbs) | Width (mm/in) | Weight (kg/lbs) | Tine<br>length<br>(mm/in) | Operating<br>weight<br>(t/lbs) |
| GAF18        | TR14NOX<br>TR19NOX | S45<br>S60          | 4,000 / 8,800                     | 1,200 / 47.2  | 340 / 748       | 1,200 / 47.2              | 13 - 18 /<br>28,600 - 39,600   |
| GAF20        | TR19NOX<br>TR25NOX | S70                 | 4,000 / 8,800                     | 1,200 / 47.2  | 420 / 924       | 1,200 / 47.2              | 19 - 20 /<br>41,800 - 44,000   |
| GAF24        | TR25NOX            | S70                 | 5,000 / 11,000                    | 1,200 / 47.2  | 440 / 968       | 1,200 / 47.2              | 21 - 24 /<br>46,200 - 52,800   |

Package consists of: fork tines, frame with standard suspension for S-couplers\*

| Hydraulic Fork Tines GAF |                    |                     |                                   |               |                    |                           |                                |
|--------------------------|--------------------|---------------------|-----------------------------------|---------------|--------------------|---------------------------|--------------------------------|
| Туре                     | for NOX            | Standard<br>adapter | Load capacity<br>max.<br>(kg/lbs) | Width (mm/in) | Weight<br>(kg/lbs) | Tine<br>length<br>(mm/in) | Operating<br>weight<br>(t/lbs) |
| GAH18                    | TR14NOX<br>TR19NOX | S45<br>S60          | 4,000 / 8,800                     | 1,200 / 47.2  | 340 / 748          | 1,200 / 47.2              | 13 - 18 /<br>28,600 - 39,600   |
| GAH20                    | TR19NOX<br>TR25NOX | S70                 | 4,000 / 8,800                     | 1,200 / 47.2  | 420 / 924          | 1,200 / 47.2              | 19 - 20 /<br>41,800 - 44,000   |
| GAH24                    | TR25NOX            | S70                 | 5,000 / 11,000                    | 1,200 / 47.2  | 440 / 968          | 1,200 / 47.2              | 21 - 24 /<br>46,200 - 52,800   |

Package consists of: hydraulic fork tines, frame with standard suspension for S-couplers\*

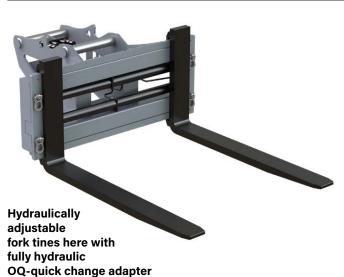
Note: put loads always the nearest to the back and to the centre of gravity

#### Requirements for carrier machine



The excavator must be conform to lifting regulations





Hydraulically adjustable fork tines here with cylinderless

NOX Tiltrotator



<sup>\*</sup>other adapters available on request

## Levelling Bar for **nox** Tiltrotators up to 24t / 52,800lbs

The AVB Levelling Bar with roller for NOX Tiltrotators is the ideal tool to level material for a smooth surface for excavators with up to 24t/52,800lbs operating weight.

- ▶ **Robust design:** no protruding parts, stable construction.
- ▶ Effective distribution and levelling of gravel etc.
- > Different adapters available.
- ▶ Different widths available.



here with adapter

| Levelling Bar with roll | er AVB                      |                  |                 |                          |
|-------------------------|-----------------------------|------------------|-----------------|--------------------------|
| Туре                    | for NOX                     | Width<br>(mm/in) | Weight (kg/lbs) | Operating weight (t/lbs) |
| AVB 24-2500             | TR14NOX / TR19NOX / TR25NOX | 2,500 / 98.4     | 420 / 924       | < 24 / 52,800            |
| AVB 24-2700             | TR14NOX / TR19NOX / TR25NOX | 2,700 / 106.3    | 470 / 748       | < 24 / 52,800            |

Package consists of: levelling bar with roller

Note: adapters of other manufacturers on request

| Accessories  |   |
|--------------|---|
| Туре         | Description   |
| KSW10-AVB    | adapter for system L-Lock KMS10L/KHS10L – up to 19t/41,800lbs         |
| KSW21/25-AVB | adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs |
| OQ60-AVB     | adapter for system Oilquick OQ60 - up to 15t/33,000lbs                |
| OQ60-5-AVB   | adapter for system Oilquick OQ60-5 – up to 15t/33,000lbs              |
| OQ65-AVB     | adapter for system Oilquick OQ65 - up to 22t/48,400lbs                |
| OQ70-AVB     | adapter for system Oilquick OQ70 – up to 28t/61,600lbs                |
| OQ70/55-AVB  | adapter for system Oilquick OQ70/55 – up to 32t/70,400lbs             |
| S60-AVB      | adapter for system S-Lock KMS60S/KHS60S – up to 18t/39,600lbs         |
| S70-AVB      | adapter for system S-Lock KMS70S/KHS70S - up to 30t/66,000lbs         |





**KRC** 

## Compactor Wheel 14t - 20t / 30,800 - 44,000 lbs

Designed for compacting the ground and fillings of trenches, this attachment provides a solid, uniform surface that lasts over time. Fitted with tapered roller bearings, wheel compactors are designed to ensure uniform operation, favouring a high degree of compacting. Available in 2 variants from a minimum of 14 t / 30,800 lbs up to a maximum of 20 t / 44,000 lbs.

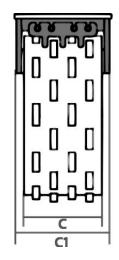
- > Smooth operation and high degree of compression thanks to the tapered roller bearings installed in the compactor wheel.
- ▶ High-strength steel and robust bearings ensure trouble-free operation.
- ▶ Long lifetime

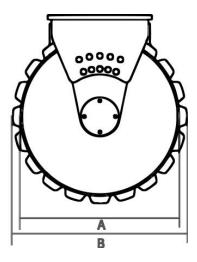


| Compactor W | heel                      |             |               |               |               |               |
|-------------|---------------------------|-------------|---------------|---------------|---------------|---------------|
| Туре        | Operating weight          | Width A*    | Width B*      | Width C*      | Width C1*     | Weight        |
|             | (t/lbs)                   | (mm/in)     | (mm/in)       | (mm/in)       | (mm/in)       | (kg/lbs)      |
| KRC3-300    | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 300 / 11.81   | 390 / 15.35   | 310 / 682     |
| KRC3-400    | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 400 / 15.75   | 490 / 19.29   | 320 / 704     |
| KRC3-500    | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 500 / 19.69   | 590 / 23.23   | 330 / 726     |
| KRC3-600    | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 600 / 23.62   | 690 / 27.17   | 340 / 748     |
| KRC3-800    | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 800 / 31.50   | 890 / 35.04   | 360 / 792     |
| KRC3-1000   | 8 - 14 / 17,600 - 30,800  | 600 / 23.62 | 700 / 27.56   | 1,000 / 39.37 | 1,090 / 42.91 | 700 / 1,540   |
| KRC4-300    | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 300 / 11.81   | 390 / 15.35   | 650 / 1,430   |
| KRC4-400    | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 400 / 15.75   | 490 / 19.29   | 700 / 1,540   |
| KRC4-500    | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 500 / 19.69   | 590 / 23.23   | 750 / 1,650   |
| KRC4-600    | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 600 / 23.62   | 690 / 27.17   | 800 / 1,760   |
| KRC4-800    | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 800 / 31.50   | 890 / 35.04   | 900 / 1,980   |
| KRC4-1000   | 14 - 20 / 30,800 - 44,000 | 900 / 35.43 | 1,000 / 39.37 | 1,000 / 39.37 | 1,090 / 42.91 | 1,000 / 2,200 |

Package consists of: compactor wheel

\*see technical drawing





**SKP** 

## Grading Buckets System S-Lock 12-38t / 26,400-83,600lbs

The SKP grading buckets are ideal for all types of grading and leveling work and are very robust with a low weight thanks to the use of HB 400 steel.

These properties make the bucket an efficient and profitable tool. Depending on the type, the bucket is suitable for excavators with an operating weight of up to 38t / 83,600lbs.

- ▶ Robust: low wear.
- ▶ Easy mounting to the carrier.
- > Different adapters available.
- ▶ No protruding parts.



| Grading Buckets SKP |              |              |                  |                           |
|---------------------|--------------|--------------|------------------|---------------------------|
| Туре                | Volume       | Width        | Weight           | Operating weight          |
|                     | (liter/c.y.) | (mm/in)      | (approx. kg/lbs) | (t/lbs)                   |
| SKP 14 - 600        | 600 / 0.78   | 1,600 / 63.0 | 390 / 858        | 12 - 14 / 26,400 - 30,800 |
| SKP 16 - 650        | 650 / 0.85   | 1,600 / 63.0 | 500 / 1,100      | 14 - 16 / 30,800 - 35,200 |
| SKP 18 - 750        | 750 / 0.98   | 1,700 / 66.9 | 520 / 1,144      | 16 - 18 / 35,200 - 39,600 |
| SKP 20 - 650        | 650 / 0.85   | 1,600 / 63.0 | 525 / 1,155      | 18 - 20 / 39,600 - 44,000 |
| SKP 20 - 750        | 750 / 0.98   | 1,600 / 63.0 | 530 / 1,166      | 18 - 20 / 39,600 - 44,000 |
| SKP 20 - 850        | 850 / 1.11   | 1,600 / 63.0 | 540 / 1,188      | 18 - 20 / 39,600 - 44,000 |
| SKP 20 - 950        | 950 / 1.24   | 1,600 / 63.0 | 550 / 1,210      | 18 - 20 / 39,600 - 44,000 |
| SKP 22 - 1100       | 1,100 / 1.44 | 1,800 / 70.7 | 670 / 1,474      | 20 - 22 / 44,000 - 48,400 |
| SKP 24 - 1200       | 1,200 / 1.57 | 1,800 / 70.7 | 780 / 1,716      | 22 - 24 / 48,400 - 52,800 |
| SKP 30 - 1800       | 1,800 / 2.35 | 2,000 / 78.7 | 1,200 / 2,640    | 24 - 30 / 52,800 - 66,000 |
| SKP 33 - 1800       | 1,800 / 2.35 | 2,000 / 78.7 | 1,200 / 2,640    | 30 - 33 / 66,000 - 72,600 |
| SKP 38 - 2000       | 2,000 / 2,61 | 2,000 / 78,7 | 1,400 / 3,080    | 33 - 38 / 72.600 - 83.600 |

Package consists of: bucket, standard adapter for S-coupler (other adapters on request)





**SKK** 

## Cable Buckets System S-Lock 12-35t / 26,400-77,000lbs

The SKK cable buckets are used for digging out cable ducts and are very robust with a low weight thanks to the use of HB 400 steel. These properties make the bucket an efficient and profitable tool.

Depending on the type, the bucket is suitable for excavators with an operating weight of up to 35t / 77,000 lbs.

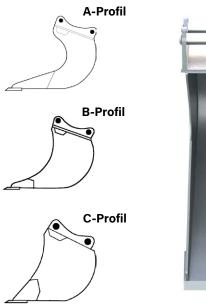
- ▷ Different forms available: conical or straight shape.
- ▶ **Robust:** also suitable for hard grounds.
- ▶ Easy mounting to the carrier.
- ▶ Different profiles available.
- > Different adapters available.
- ▶ No protruding parts.



| Cable Buckets SK | K            |            |                  |         |                           |
|------------------|--------------|------------|------------------|---------|---------------------------|
| Туре             | Volume       | Width      | Weight           | Profile | Operating<br>weight       |
|                  | (liter/c.y.) | (mm/in)    | (approx. kg/lbs) |         | (t/lbs)                   |
| SKK 14 - 250     | 250 / 0.33   | 300 / 11.8 | 110 / 242        | В       | 12 - 14 / 26,400 - 30,800 |
| SKK 14 - 275     | 275 / 0.36   | 400 / 15.7 | 120 / 264        | В       | 12 - 14 / 26,400 - 30,800 |
| SKK 14 - 300     | 300 / 0.39   | 500 / 19.7 | 140 / 308        | В       | 12 - 14 / 26,400 - 30,800 |
| SKK 14 - 330     | 330 / 0.43   | 600 / 23.6 | 150 / 330        | В       | 12 - 14 / 26,400 - 30,800 |
| SKK 22 - 300     | 300 / 0.39   | 300 / 11.8 | 260 / 572        | Α       | 14 - 22 / 30,800 - 48,400 |
| SKK 22 - 340     | 340 / 0.44   | 400 / 15.7 | 270 / 594        | Α       | 14 - 22 / 30,800 - 48,400 |
| SKK 22 - 380     | 380 / 0.50   | 500 / 19.7 | 280 / 616        | Α       | 14 - 22 / 30,800 - 48,400 |
| SKK 22 - 400     | 400 / 0.52   | 600 / 23.6 | 285 / 627        | Α       | 14 - 22 / 30,800 - 48,400 |
| SKK 22 - 450     | 450 / 0.59   | 700 / 27.6 | 290 / 638        | Α       | 14 - 22 / 30,800 - 48,400 |
| SKK 24 - 400     | 400 / 0.52   | 600 / 23.6 | 400 / 880        | Α       | 22 - 24 / 48,400 - 52,800 |
| SKK 30 - 500     | 500 / 0.65   | 600 / 23.6 | 500 / 1,100      | В       | 24 - 30 / 52,800 - 66,000 |
| SKK 33 - 850     | 850 / 1.11   | 700 / 27.6 | 750 / 1,650      | В       | 30 - 33 / 66,000 - 72,600 |
| SKK 35 - 900     | 900 / 1.18   | 800 / 31.5 | 800 / 1,760      | В       | 33 - 35 / 72,600 - 77,000 |

Package consists of: bucket, standard adapter for S-coupler (other adapters on request)







General Bucket for all kinds of excavation works in light and medium-heavy soils as well as for loading or backfilling of sand, gravel and earth. The integrated quick change adapter is adjusted to the system L-Lock. Other adapters on request.

- ▶ **Conical design** with narrowing by 2° on both sides.
- **Easy penetration and high excavating capacity.**
- ▶ Durable thanks to robust design and use of highly resistant wearout steel for the bucket base and side edges (400HB).
- ▶ Protruding bucket base for better grading behavior and protection from wearout.
- > Optimized kives and excavator teeth.



| General Buckets | s                  |                                |               |                    |          |                                |
|-----------------|--------------------|--------------------------------|---------------|--------------------|----------|--------------------------------|
| Туре            | Number<br>of teeth | Volume<br>ISO 7451<br>(m³/yd³) | Width (mm/in) | Weight<br>(kg/lbs) | Adapter  | Operating<br>weight<br>(t/lbs) |
| GB15L-040       | 2                  | 0.19 / 0.25                    | 400 / 15.8    | 262 / 576          | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB15L-050       | 3                  | 0.26 / 0.34                    | 500 / 19.7    | 284 / 625          | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB15L-060       | 3                  | 0.34 / 0.44                    | 600 / 23.6    | 305 / 671          | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB15L-080       | 4                  | 0.49 / 0.64                    | 800 / 31.5    | 367 / 807          | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB15L-100       | 4                  | 0.65 / 0.85                    | 1,000 / 39.4  | 417 / 917          | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB15L-120       | 5                  | 0.81 / 1.06                    | 1,200 / 47.2  | 479 / 1,054        | KSW10    | 10 - 15 / 22,000 - 33,000      |
| GB19L-040       | 2                  | 0.23 / 0.3                     | 400 / 15.8    | 320 / 704          | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB19L-050       | 3                  | 0.31 / 0.41                    | 500 / 19.7    | 349 / 768          | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB19L-060       | 3                  | 0.39 / 0.51                    | 600 / 23.6    | 374 / 823          | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB19L-080       | 4                  | 0.57 / 0.75                    | 800 / 31.5    | 447 / 983          | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB19L-100       | 4                  | 0.76 / 0.99                    | 1,000 / 39.4  | 509 / 1,120        | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB19L-120       | 5                  | 0.95 / 1.24                    | 1,200 / 47.2  | 584 / 1,285        | KSW10    | 15 - 19 / 33,000 - 41,800      |
| GB23L-060       | 3                  | 0.44 / 0.58                    | 600 / 23.6    | 474 / 1,043        | KSW21/25 | 19 - 23 / 41,800 - 50,600      |
| GB23L-080       | 4                  | 0.64 / 0.84                    | 800 / 31.5    | 541 / 1,190        | KSW21/25 | 19 - 23 / 41,800 - 50,600      |
| GB23L-100       | 4                  | 0.85 / 1.11                    | 1,000 / 39.4  | 614 / 1,351        | KSW21/25 | 19 - 23 / 41,800 - 50,600      |
| GB23L-120       | 5                  | 1.06 / 1.39                    | 1,200 / 47.2  | 701 / 1,542        | KSW21/25 | 19 - 23 / 41,800 - 50,600      |
| GB23L-140       | 5                  | 1.27 / 1.66                    | 1,400 / 55.1  | 774 / 1,703        | KSW21/25 | 19 - 23 / 41,800 - 50,600      |
| GB28L-060       | 3                  | 0.49 / 0.64                    | 600 / 23.6    | 592 / 1,302        | KSW21/25 | 23 - 28 / 50,600 - 61,600      |
| GB28L-080       | 4                  | 0.71 / 0.93                    | 800 / 31.5    | 697 / 1,533        | KSW21/25 | 23 - 28 / 50,600 - 61,600      |
| GB28L-120       | 5                  | 1.18 / 1.54                    | 1,200 / 47.2  | 878 / 1,932        | KSW21/25 | 23 - 28 / 50,600 - 61,600      |
| GB28L-140       | 5                  | 1.42 / 1.86                    | 1,400 / 55.1  | 972 / 2,138        | KSW21/25 | 23 - 28 / 50,600 - 61,600      |
| GB35L-080       | 3                  | 0.86 / 1.12                    | 800 / 31.5    | 949 / 2,088        | KSW21/25 | 26 - 35 / 57,200 - 77,000      |
| GB35L-140       | 4                  | 1.73 / 2.26                    | 1,400 / 55.1  | 1,338 / 3,054      | KSW21/25 | 26 - 35 / 57,200 - 77,000      |
| GB35L-160       | 5                  | 1.73 / 2.26                    | 1,600 / 63.0  | 1,494 / 3,287      | KSW21/25 | 26 - 35 / 57,200 - 77,000      |

Package consists of: general bucket incl. teeth, KSW-adapter for L-Lock

The Ditch Cleaning Bucket is the perfect tool to excavate, load and backfill sand, gravel and soil. Ditch cleaning, grading and levelling of embankments and lawns as well as digging trenches, skips and slopes are other applications for the DC-L series. The integrated quick change adapter is adjusted to the system L-Lock. Other adapters on request.

- ▶ Conical design with narrowing by 2° on both sides.
- **▶** Easy penetration and high excavating capacity.
- > For more flexibility best in combination with a tiltable quick coupler.
- ▶ Durable thanks to robust design and use of highly resistant wearout steel for the bucket base (400HB).



| Ditch Cleaning Buckets |                                       |                             |                 |         |                                |
|------------------------|---------------------------------------|-----------------------------|-----------------|---------|--------------------------------|
| Туре                   | <b>Volume</b><br>ISO 7451<br>(m³/yd³) | Cutting<br>width<br>(mm/in) | Weight (kg/lbs) | Adapter | Operating<br>weight<br>(t/lbs) |
| DC15L-180              | 0.44 / 0.58                           | 1,800 / 70.9                | 437 / 961       | KSW10   | 10-15 / 22,000-33,000          |
| DC15L-200              | 0.495 / 0.65                          | 2,000 / 78.7                | 476 / 1,047     | KSW10   | 10-15 / 22,000-33,000          |
| DC19L-180              | 0.60 / 0.78                           | 1,800 / 70.9                | 465 / 1,023     | KSW10   | 15-19 / 33,000-41,800          |
| DC19L-200              | 0.65 / 0.85                           | 2,000 / 78.7                | 506 / 1,113     | KSW10   | 15-19 / 33,000-41,800          |
| DC23L-200              | 0.90 / 1.18                           | 2,000 / 78.7                | 661 / 1,454     | KSW21   | 19-23 / 41,800-50,600          |
|                        |                                       |                             |                 |         |                                |

Package consists of: ditch cleaning bucket, KSW-adapter for L-Lock

## Tilt Buckets System L-Lock 10-35t / 22,000-77,000lbs

TB-L

The hydraulically driven tilt bucket with horizontal cylinder is ideal for all daily works in general construction. With a tilt angle of  $90^{\circ}$  (2 x  $45^{\circ}$ ) it is perfect for levelling and grading as well as for the construction of trenches, skips and slopes. The weld-on quick change adapter is compatible to the system L-Lock. Other adapters on request.

- > Drainage holes on both sides.
- ▶ **Conical design** with narrowing by 2° on both sides.
- > Easy penetration and high excavating capacity.
- ▶ Durable thanks to robust design and use of highly resistant wearout steel for the bucket base (400HB).



| Tilt Bucket |               |                                |                             |                    |         |                                |
|-------------|---------------|--------------------------------|-----------------------------|--------------------|---------|--------------------------------|
| Туре        | Tilt<br>angle | Volume<br>ISO 7451<br>(m³/yd³) | Cutting<br>width<br>(mm/in) | Weight<br>(kg/lbs) | Adapter | Operating<br>weight<br>(t/lbs) |
| TB15L-180   | 2 x 45°       | 0.44 / 0.58                    | 1,800 / 70.9                | 599 / 1,318        | KSW10   | 10-15 / 22,000-33,000          |
| TB15L-200   | 2 x 45°       | 0.495 / 0.65                   | 2,000 / 78.7                | 626 / 1,377        | KSW10   | 10-15 / 22,000-33,000          |
| TB19L-180   | 2 x 45°       | 0.60 / 0.78                    | 1,800 / 70.9                | 627 / 1,379        | KSW10   | 15-19 / 33,000-41,800          |
| TB19L-200   | 2 x 45°       | 0.65 / 0.85                    | 2,000 / 78.7                | 656 / 1,443        | KSW10   | 15-19 / 33,000-41,800          |
| TB19L-220   | 2 x 45°       | 0.70 / 0.92                    | 2,200 / 86.6                | 694 / 1,527        | KSW10   | 15-19 / 33,000-41,800          |
| TB23L-200   | 2 x 45°       | 0.90 / 1.18                    | 2,000 / 78.7                | 871 / 1,916        | KSW21   | 19-23 / 41,800-50,600          |
| TB23L-220   | 2 x 45°       | 1.00 / 1.31                    | 2,200 / 86.6                | 915 / 2,013        | KSW21   | 19-23 / 41,800-50,600          |
| TB28L-200   | 2 x 45°       | 1.22 / 1.60                    | 2,000 / 78.7                | 1,161 / 2,554      | KSW21   | 23-28 / 50,600-61,600          |
| TB35L-220   | 2 x 45°       | 1.43 / 1.87                    | 2,200 / 86.6                | 1,550 / 3,410      | KSW21   | 26-35 / 57,200-77,000          |

Package consists of: tilt bucket, KSW-adapter for L-Lock

## Screening Bucket 10-35t / 22,000-77,000lbs

VMS

The innovative screening bucket "Multiscreening" has two screening drums, one inside the other. The setting of the grain size is variable and takes place hydraulically from the cab - no time-consuming replacement of mechanical elements.

The screening bucket is available for excavators with an operating weight of up to 35t / 77,000 lbs.

- ▶ Individual setting of the screening size during the screening process hydraulically from the driver's cab.
- Screening range adjustable from 25 mm / 0.98 in up to 65 mm / 2.56 in (VMS14 up to 60 mm / 2.36 in).
- ▶ **Robust design** due to the use of HB400 steel for both screening drums.
- **▶** High screening performance for different materials.
- > Option: teeth.



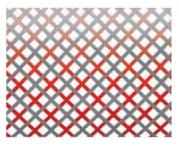
| Screening Bu | icket VMS        |                |   |                             |  |                     |                                |
|--------------|------------------|----------------|---|-----------------------------|--|---------------------|--------------------------------|
| Туре         | Width<br>(mm/in) | Length (mm/in) | <b>Height</b><br>w/o adapter<br>(mm/in) | Drum<br>diameter<br>(mm/in) | <b>Weight</b><br>w/o adapter<br>(kg/lbs) | Volume (liter/c.y.) | Operating<br>weight<br>(t/lbs) |
| VMS14        | 1,000 / 39.4     | 1,550 / 61.0   | 1,120 / 44.1                            | 870 / 34.3                  | 640 / 1,408                              | 420 / 0.55          | 10 - 14 /<br>22,000 - 30,800   |
| VMS20        | 1,250 / 49.2     | 1,800 / 70.9   | 1,500 / 59.1                            | 1,124 / 44.3                | 1,092 / 2,402                            | 980 / 1.28          | 14 - 25 /<br>30,800 - 55,000   |
| VMS30        | 1,800 / 70.9     | 2,300 / 90.6   | 1,950 / 76.8                            | 1,550 / 61.0                | 2,300 / 5,060                            | 2,390 / 3.13        | 25 - 35 /<br>55,000 - 77,000   |

Package consists of: screening bucket

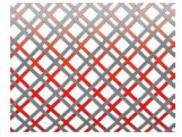
## Requirements of carrier machine

Operating pressure: max. 35 MPa (350 bar) / 5,040 psi

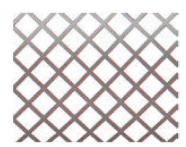
**Recommended pump capacity:** min. 30 - max. 150 l/min / min. 7.9 - max. 39.6 GPM



25 mm / 0.98 in



intermediate position



65 mm / 2.56 in

Robust multi purpose grab for excavators up to 15t / 33,000lbs, 20t / 44,000lbs or 27t / 59,400lbs operating weight - ideal for landscaping architecture.

- ▶ Efficient tool for the exact positioning of natural rocks and for the handling of filling material - without additional set-up times.
- ▶ The sophisticated ergonomics and the design of the shells enables loading, sorting, digging and demolition operations with maximum efficiency.
- ▶ Rigid mounting at the tilting joint of the bucket cylinder of the excavator guarantees precise positioning.
- The grab requires three hydraulic functions including the bucket cylinder.
- ▶ **Long life** is ensured due to the use of 500HB steel in the manufacture of cutting
- ▶ Robust, fully integrated rotation with sturdy slewing ring to withstand external forces, with connecting hoses located inside the hub. Hydraulic quick exchange systems are mountable directly. Integrated pressure relief valve against overcharge.

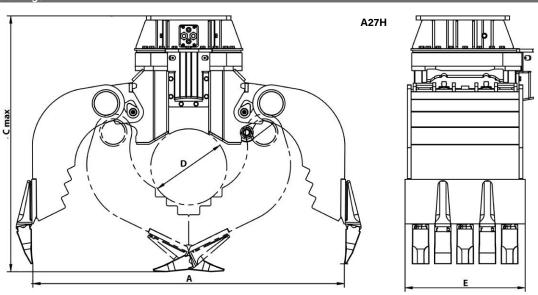


| Multi Purpose Grab A15H / A20H / A27H |                       |                         |                 |                            |                     |                       |                  |                              |                              |                       |                                |
|---------------------------------------|-----------------------|-------------------------|-----------------|----------------------------|---------------------|-----------------------|------------------|------------------------------|------------------------------|-----------------------|--------------------------------|
| Туре                                  | Width<br>E<br>(mm/in) | Opening<br>A<br>(mm/in) | Height C max.   | Grip. range D min. (mm/in) | Volume (liter/c.v.) | Number<br>of<br>teeth | Weight (kg/lbs)  | Load<br>capacity<br>(kg/lbs) | Closing<br>force<br>(kN/lbf) | Torque<br>(Nm/ft.lbs) | Operating<br>weight<br>(t/lbs) |
|                                       | (111111/111)          | (111111/111)            | (1111117111)    | (1111117111)               | (III.er/C.y.)       | teetii                | (kg/ibs)         | (kg/ibs)                     | (KIN/IDI)                    | (14111/11.105)        | (1/105)                        |
| A15H-60                               | 600 /<br>23.6         | 1,900 /<br>74.8         | 1,455 /<br>57.3 | 610 /<br>24.0              | 300 /<br>0.39       | 5                     | 690 /<br>1,518   | 4,000 /<br>8,800             | 27 /<br>5,940                | 3,000 /<br>2,212.5    | 11 - 15 /<br>24,200 - 33,000   |
| A20H-70                               | 700 /<br>27.6         | 2,040 /<br>80.3         | 1,620 /<br>63.8 | 550 /<br>21.7              | 400 /<br>0.52       | 7                     | 1,035 /<br>2,277 | 5,000 /<br>11,000            | 40 /<br>8,800                | 4,000 /<br>4,203.8    | 14 - 20 /<br>30,800 - 44,000   |
| A27H-80                               | 800 /<br>31.5         | 2,100 /<br>82.7         | 1,720 /<br>67.7 | 513 /<br>20.2              | 500 /<br>0.65       | 5                     | 1,500 /<br>3,300 | 6,000 /<br>13,200            | 63 /<br>13,860               | 5,000 /<br>3,687.5    | 18 - 27 /<br>39,600 - 59,400   |

Package consists of: multi purpose grab, bolt-on teeth, integrated rotation with sturdy slewing ring, non-return valve

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
| KM 691 15t     | adapter for specific solutions – up to 15t/33,000lbs   |
| KM 691 20t     | adapter for specific solutions – up to 20t/44,000lbs   |
| KM 691 27t     | adapter for specific solutions – up to 27t/59,400lbs   |
| KM 690 15t     | adapter for rigid mounting – up to 15t/33,000lbs   |
| KM 690 20t     | adapter for rigid mounting – up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting – up to 27t/59,400lbs   |
| OQ             | bolt-on-adapter for Oilquick OQ – 5t to 70t/11,000lbs to 15,4000lbs                                |
| KSW10 rigid    | bolt-on-adapter for system L-Lock KMS10L/KHS10L – up to 19t/41,800lbs                              |
| KSW21/25 rigid | bolt-on-adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs                      |
|                | adapters for quick change systems from other manufacturers or different sizes available on request |

| A15H / A20H                           | A27H  |
|---------------------------------------|---|
| max. 32 MPa (320 bar) / 4,640psi      | max. 35 MPa (350 bar) / 5,070psi  |
| 75 - max. 150 l/min / 20 - max. 40GPM | 75 - max. 150 l/min / 20 - max. 40GPM   |
| G 3/4" / G 1/2"                       | G 1" / G 1/2"   |
| max. 17 MPa (170 bar) / 2,460psi      | max. 17 MPa (170 bar) / 2,460psi  |
| 20 - max. 50 l/min / 5 - max. 13GPM   | 20 - max. 50 l/min / 5 - max. 13GPM   |
| n<br>7<br>G                           | nax. 32 MPa (320 bar) / 4,640psi<br>5 - max. 150 l/min / 20 - max. 40GPM<br>3 3/4" / G 1/2"<br>nax. 17 MPa (170 bar) / 2,460psi |



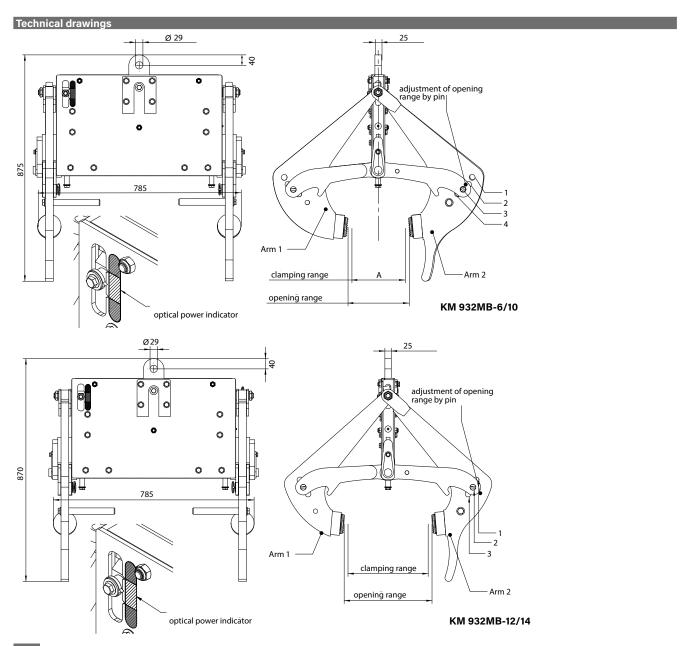
**KM 932MB** 

The KM 932MB barrier lifter is a mechanical grab 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 an additional operative.
- ▶ **Versatile**: Multi-position arms are a standard feature. This means one unit can achieve different gripping ranges by simply changing the position of four pins.
- ▶ Cost-effective: The elimination of slings and chains means more cycles can be achieved per hour.
- ▶ **Fast**: The "latch & release" system.



| Barrier Lifter KM 932MB |                     |            |             |                |                       |  |  |  |
|-------------------------|---------------------|------------|-------------|----------------|-----------------------|--|--|--|
| Туре                    | Gripping range<br>A | Width<br>E | Weight      | Load capacity  | Operating<br>weight   |  |  |  |
|                         | (mm/in)             | (mm/in)    | (kg/lbs)    | (kg/lbs)       | (t/lbs)               |  |  |  |
| KM 932MB-6/10           | 115-305 / 4.5-12    | 760 / 29.9 | 162 / 356.4 | 6,580 / 14,476 | 18-27 / 39,600-59,400 |  |  |  |
| KM 932MB-12/14          | 295-395 / 11.6-15.6 | 760 / 29.9 | 150 / 330   | 6,580 / 14,476 | 18-27 / 39.600-59.400 |  |  |  |



## **D15H-P to D37H-P**

Robust Demolition and Sorting Grabs for excavators from 10t / 22,000lbs to 37t / 81,400lbs operating weight. Well-suited for demolition and seperation of all kinds of building materials and waste.

- > Robust, fully integrated rotation with sturdy slewing ring to withstand external forces, with connecting hoses located inside the hub. Hydraulic quick change adapters are directly mountable to the head plate. Different bolt patterns are available. Integrated pressure relief valve to avoid peak-pressures in rotation
- > Exceptional closing forces provided by two horizontal hydraulic cylinders which are well protected by the carrier.
- ▶ The end position (grab open) is hydraulically cushioned to avoid damage to the cylinder when the grab is pushed into the material.
- ▶ The grabs feature **perforated shells** to let fine dust and debris through without larger pieces getting caught. The durable, replaceable and indexable wear blades (500HB) enable the grabs to pinch with their edges without excessive



| Demolition and Sorting Grabs D15H-P / D20H-P / D24H-P / D27H-P / D37H-P |                       |                         |                                 |                     |                 |                              |                              |                                |  |
|---|-----------------------|-------------------------|---------------------------------|---------------------|-----------------|------------------------------|------------------------------|--------------------------------|--|
| Туре  | Width<br>E<br>(mm/in) | Opening<br>A<br>(mm/in) | Height C<br>max min.<br>(mm/in) | Volume (liter/c.y.) | Weight (kg/lbs) | Load<br>capacity<br>(kg/lbs) | Closing<br>force<br>(kN/lbf) | Operating<br>weight<br>(t/lbs) |  |
| D15H-P-80   | 800 /                 | 1,550 /                 | 1,215 - 1,070 /                 | 300 /               | 630 /           | 4,000 /                      | 27 /                         | 10 - 15 /                      |  |
|   | 31.5                  | 61.0                    | 47.8 - 42.1                     | 0.39                | 1,386           | 8,800                        | 5,940                        | 22,000 - 33,000                |  |
| D20H-P-100  | 1,000 /               | 1,890 /                 | 1,400 - 1,205 /                 | 450 /               | 1,120 /         | 5,000 /                      | 43 /                         | 14 - 20 /                      |  |
|   | 39.4                  | 74.4                    | 55.1 - 47.4                     | 0.59                | 2,464           | 11,000                       | 9,460                        | 30,800 - 44000                 |  |
| D24H-P-100  | 1,000 /               | 2,005 /                 | 1,470 - 1,235 /                 | 650 /               | 1,175 /         | 5,000 /                      | 42 /                         | 18 - 24 /                      |  |
|   | 39.4                  | 78.9                    | 57.9 - 48.6                     | 0.85                | 2,585           | 11,000                       | 9,240                        | 39,600 - 52,800                |  |
| D27H-P-115  | 1,150 /               | 2,145 /                 | 1,575 - 1,375 /                 | 800 /               | 1,600 /         | 6,000 /                      | 63 /                         | 20 - 27 /                      |  |
|   | 45.3                  | 84.4                    | 62.0 - 54.1                     | 1.05                | 3,520           | 13,200                       | 13,860                       | 44,000 - 59400                 |  |
| D32H-P-120  | 1,200 /               | 2,200 /                 | 1,590 - 1,460 /                 | 900 /               | 2,050 /         | 8,000 /                      | 89 /                         | 27 - 32 /                      |  |
|   | 47.2                  | 86.6                    | 62.6 - 57.5                     | 1.18                | 4,510           | 17,600                       | 19,580                       | 59,400 - 70,400                |  |
| D37H-P-125  | 1,250 /               | 2,260 /                 | 1,620 - 1,480 /                 | 950 /               | 2,100 /         | 8,000 /                      | 86 /                         | 32 - 37 /                      |  |
|   | 49.2                  | 89.0                    | 63.8 - 58.3                     | 1.24                | 4,620           | 17,600                       | 18,920                       | 70,400 - 81,400                |  |

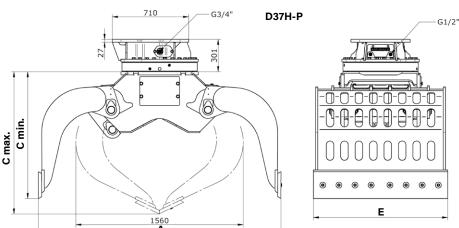
Package consists of: demolition and sorting grab, integrated rotation with sturdy slewing ring, wear blades and non-return valve

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
| KM 690 15t     | adapter for rigid mounting - up to 15t/33,000lbs   |
| KM 690 20t     | adapter for rigid mounting - up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting - up to 27t/59,400lbs   |
| KM 690 32t     | adapter for rigid mounting - up to 32t/70,400lbs   |
| OQ             | bolt-on-adapter for Oilquick - up to 70t/154,000lbs available                                      |
| KSW10 rigid    | bolt-on-adapter for system L-Lock KMS10L/KHS10L - up to 19t/41,800lbs.                             |
| KSW21/25 rigid | bolt-on-adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs                      |
| •              | adapters for quick change systems from other manufacturers or different sizes available on request |

#### Requirements of carrier machine

Operating pressure (open/close): D15 - D20: max. 32 MPa (320 bar) / 4,640 psi; D24 - D37: max. 35 MPa (350 bar) / 5,070 psi

D15 - D37: 75 - max. 150 l/min / 20 - max. 40 GPM Pump capacity (open/close): D15 - D20: G 3/4" / G 1/2"; D24 - D37: G 1" / G 1/2" Hydraulic connections (rotate): Operating pressure (rotate): D15 - D37: max. 14 MPa (140 bar) / 2,030 psi Pump capacity (rotate): D15 - D37: max. 50 l/min / 13 GPM



## **Demolition & Sorting Grabs incl. Integrated Adapter**

Robust multi purpose grabs with integrated quick change adapter system Oilquick for excavators from 14t / 30,800lbs to 37t / 81,400lbs operating weight. Well-suited for the demolition and seperation of all kinds of building materials and waste.

- Robust, fully integrated rotation with sturdy slewing ring to withstand external forces, with connecting hoses located inside the hub. Integrated pressure relief valve to avoid peak-pressures.
- ▷ Oilquick quick change adapter integrated, providing a low height.
- ▶ Exceptional closing forces provided by two horizontal hydraulic cylinders which are well protected by the carrier.
- ➤ The end position (grab open) is hydraulically cushioned to avoid damage to the cylinder when the grab is pushed into the material.
- ➤ The grabs feature **perforated shells** to let fine dust and debris through without larger pieces getting caught. The **durable**, **replaceable** and **indexable** wear **blades** (500HB) enable the grabs to pinch with their edges without excessive wear.



D20H-P-OQ65

| Grab with integrated Quick Change Adapter D20H-P-OQ to D37H-P-OQ |                       |                         |                       |                             |                        |                    |                              |                              |                                |
|--|-----------------------|-------------------------|-----------------------|-----------------------------|------------------------|--------------------|------------------------------|------------------------------|--------------------------------|
| Туре   | Width<br>E<br>(mm/in) | Opening<br>A<br>(mm/in) | Height C max. (mm/in) | Height<br>C min.<br>(mm/in) | Volume<br>(liter/c.y.) | Weight<br>(kg/lbs) | Load<br>capacity<br>(kg/lbs) | Closing<br>force<br>(kN/lbf) | Operating<br>weight<br>(t/lbs) |
| D20H-P-OQ65  | 1,000/39.4            | 1,890/<br>74.4          | -                     | 1,320/<br>52.0              | 450/<br>0.59           | 1,060/<br>2,332    | 5,000/<br>11,000             | 43/<br>9,460                 | 14-20/<br>30,800-44,000        |
| D24H-P-OQ65  | 1,000/39.4            | 2,005/<br>79.9          | -                     | 1,350/<br>52.0              | 650/<br>0.85           | 1,120/<br>2,464    | 5,000/<br>11,000             | 42/<br>9,240                 | 18-24/<br>39,600-52,800        |
| D27H-P-OQ70/55   | 1,150/45.3            | 2,140/<br>84.3          | 1,700/<br>66.9        | 1,500/<br>59.1              | 800/<br>1.05           | 1,500/<br>3,300    | 6,000/<br>13,200             | 63/<br>13,860                | 20-27/<br>44,000-59,400        |
| D32H-P-OQ70/55   | 1,200/47.2            | 2,200/<br>86.6          | 1,710/<br>67.3        | 1,580/<br>62.2              | 900/<br>1.18           | 1,960/<br>4,312    | 8,000/<br>17,600             | 89/<br>19,580                | 27-32/<br>59,400-70,400        |
| D32H-P-OQ80  | 1,200/47.2            | 2,200/<br>86.6          | 1,750/<br>68.9        | 1,620/<br>63.8              | 900/<br>1.18           | 2,000/<br>4,400    | 8,000/<br>17,600             | 89/<br>19,580                | 27-32/<br>59,400-70,400        |
| D37H-P-OQ80  | 1,250/49.2            | 2,260/<br>86.6          | 1,750/<br>68.9        | 1,610/<br>63.4              | 950/<br>1.24           | 2,100/<br>4,620    | 8,000/<br>17,600             | 86/<br>18,920                | 32-37/<br>70,400-81,400        |

Package consists of: demolition and sorting grab, integrated rotation with adapter for Oilquick, wear blades and non-return valve

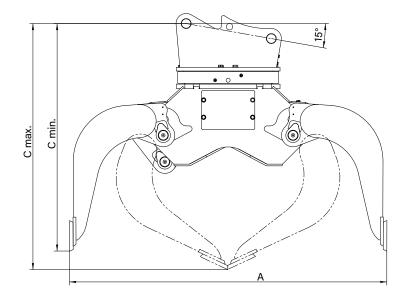
#### Other sizes on request

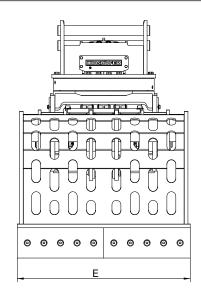
## Requirements of carrier machine

Operating pressure (open/close): D20/D24/D27: max. 32 MPa (320 bar/4,640psi); D32/D37: max. 35 MPa (350 bar/ 5,070psi)

Pump capacity (open/close): 75 - max. 150 l/min / 20 - max. 40GPM Operating pressure (rotate): max. 14 MPa (140 bar/2,030psi)

Pump capacity (rotate): max. 50 l/min / 13GMP





## **Demolition and Sorting Grabs HD**

## D15H-P HD to D40H-P HD

Robust multi-purpose grab with perforated shells, for excavators up to 50t / 110,000lbs operating weight, the HD D-Series grabs are ideal for demolition and sorting of all kinds of building materials.

- > Robust Delta-box frame with dust-proof axle bearing points. Perforated shells let fine dust and gravel through without large pieces getting caught
- ▶ Durable and reversable cutting edges can be used to pick up different materials, with their tips. Cutting edges on D19 series and higher can be turned three ways, reducing replacement costs.
- ▶ Robust, fully integrated rotator with sturdy slewing ring to withstand external forces, with pressure relief valve to ensure overload protection, and connecting hoses protected inside the hub.
- ▶ Exceptional closing forces achieved with a horizontally positioned hydraulic cylinder that is protected by the bucket carrier.
- Cylinder is hydraulically cushioned.



| Heavy Duty Demolition and Sorting Grab D15H-P-75HD to D40H-P125HD |            |              |                  |              |            |               |               |                 |                  |
|---|------------|--------------|------------------|--------------|------------|---------------|---------------|-----------------|------------------|
| Туре  | Width<br>E | Opening<br>A | Height<br>C max. | Volume       | Weight     | Load capacity | Closing force | Torque          | Operating weight |
|   | (mm/in)    | (mm/in)      | (mm/in)          | (liter/c.y.) | (kg/lbs)   | (kg/lbs)      | (kN/lbf)      | (Nm/ft.lbs)     | (t/lbs)          |
| D15H-P-75HD   | 750 /      | 1,730 /      | 1,220*** /       | 340 /        | 855*** /   | 5,000 /       | 43 /          | 3,000 /         | 10 - 18 /        |
|   | 29.5       | 68.1         | 48.0             | 0.44         | 1,881      | 11,000        | 9,460         | 2,212.5         | 22,000 - 39,600  |
| D16H-P-90HD   | 900 /      | 1,730 /      | 1,220*** /       | 415 /        | 895*** /   | 5,500 /       | 43 /          | 3,000 /         | 12 - 20 /        |
|   | 35.4       | 68.1         | 48.0             | 0.54         | 1,969      | 12,100        | 9,460         | 2,212.5         | 26,400 - 44,000  |
| D19H-P-85HD   | 850 /      | 1,725 /      | 1,225 /          | 365 /        | 1,025 /    | 6,500 /       | 60 /          | 3,000/5,700* /  | 12 - 24 /        |
|   | 33.5       | 67.9         | 48.2             | 0.48         | 2,255      | 14,300        | 13,200        | 2,212.5/4,203.8 | 26,400 - 52,800  |
| D20H-P-100HD  | 1,000 /    | 1,865 /      | 1,255 /          | 480 /        | 1,115 /    | 7,000 /       | 60 /          | 3,000/5,700* /  | 13 - 25 /        |
|   | 39.4       | 73.4         | 49.4             | 0.63         | 2,453      | 15,400        | 13,200        | 2,212.5/4,203.8 | 28,600 - 55,000  |
| D24H-P-100HD  | 1,000 /    | 1,965 /      | 1,340 /          | 570 /        | 1,315 /    | 8,000 /       | 62 /          | 3,000/5,700* /  | 15 - 30 /        |
|   | 39.4       | 77.4         | 52.8             | 0.75         | 2,893      | 17,600        | 13,640        | 2,212.5/4,203.8 | 33,000 - 66,000  |
| D25H-P-100HD  | 1,000 /    | 2,050 /      | 1,440*** /       | 650 /        | 1,450*** / | 7,000 /       | 62 /          | 5,700** /       | 18 - 28 /        |
|   | 39.4       | 80.7         | 56.7             | 0.85         | 3,190      | 15,400        | 13,640        | 4,203.8         | 39,600 - 61,600  |
| D27H-P-120HD  | 1,200 /    | 2,050 /      | 1,440*** /       | 760 /        | 1,495*** / | 8,000 /       | 62 /          | 5,700** /       | 20 - 30 /        |
|   | 47.2       | 80.7         | 56.7             | 0.99         | 3,289      | 17,600        | 13,640        | 4,203.8         | 44,000 - 66,000  |
| D32H-P-110HD  | 1,100 /    | 2,195 /      | 1,395 /          | 825 /        | 1,790 /    | 10,500 /      | 80 /          | 7,000** /       | 20 - 40 /        |
|   | 43.3       | 86.4         | 54.9             | 1.08         | 3,938      | 23,100        | 17,600        | 5,162.5         | 44,000 - 88,000  |
| D40H-P-125HD  | 1,250 /    | 2,325 /      | 1,480 /          | 960 /        | 2,010 /    | 13,500 /      | 92 /          | 7,000** /       | 30 - 50 /        |
|   | 49.2       | 91.5         | 58.3             | 1.26         | 4,422      | 29,700        | 20,240        | 5,162.5         | 66,000 - 11,0000 |

Package consists of: demolition and sorting grab, integrated rotation with sturdy slewing ring, cutting edges and non-return valve

Optional second heavy duty motor for D19H-P HD, D20H-P HD, D24H-P HD

Note: \*optional with 2 motors for rotation \*\*second heavy duty hydraulic motor comes standard \*\*\*incl. CW4 (integrated)

| Туре      | Description  |
|-----------|--|
| KM 690    | adapter for rigid mounting – up to 70t/15,4000lbs  |
| OQ        | bolt-on-adapter for Oilquick – up to 70t/15,4000lbs available                                      |
| KSW rigid | bolt-on-adapter for system L-Lock KMS-L/KHS-L – up to 40t/88,000lbs                                |
| •         | adapters for quick change systems from other manufacturers or different sizes available on request |

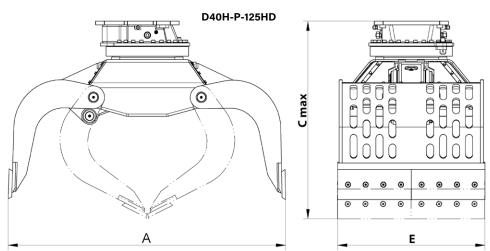
#### Requirements of carrier machine

Operating pressure (open/close): D15-D40: max. 35 MPa (350 bar) / 5,070 psi

Pump capacity (open/close): D15/16: max. 80 l/min / 21 GPM; D19-27: max. 100 l/min / 26.5 GPM; D32-40: max. 120 l/min / 32 GPM

D15-D40: max. 14 Mpa (140 bar) / 2,030 psi Operating pressure (rotate):

Pump capacity (rotate): D15-D24: max. 40 l/min / 10.5 GPM; D25-D40: 40 - max. 60 l/min / 10.5 - max. 16 GPM



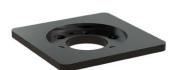
## **Mounting Options for Hydraulic Attachments - rigid mount**

## KM 690 - adapter for rigid mount



| Туре       | Operating<br>weight<br>(t/lbs) |  |
|------------|--------------------------------|--|
| KM 690 15t | up to 15 / 33,000              |  |
| KM 690 20t | up to 20 / 44,000              |  |
| KM 690 27t | up to 27 / 59,400              |  |
| KM 690 32t | up to 32 / 70,400              |  |
| KM 690 40t | up to 40 / 88,000              |  |
|            |                                |  |

## KM 691 - adapter for specific solutions



| Туре       | Operating<br>weight<br>(t/lbs) |
|------------|--------------------------------|
| KM 691 15t | up to 15 / 33,000              |
| KM 691 20t | up to 20 / 44,000              |
| KM 691 27t | up to 27 / 59,400              |

## KSW rigid - bolt-on adapter for quick coupler system L-Lock



| Туре           | for quick coupler<br>System L-Lock | Operating<br>weight<br>(t/lbs) |
|----------------|------------------------------------|--------------------------------|
| KSW10 rigid    | KMS10L / KHS10L                    | up to 19 / 41,800              |
| KSW21/25 rigid | KMS21/25L / KHS21/25L              | up to 40 / 88,000              |

## S rigid - bolt-on adapter for quick coupler system S-Lock



| Туре      | for quick coupler<br>System S-Lock | Operating<br>weight<br>(t/lbs) |
|-----------|------------------------------------|--------------------------------|
| S60 rigid | KMS60S / KHS60S                    | up to 18 / 39,600              |
| S70 rigid | KMS70S / KHS70S                    | up to 30 / 66,000              |

**Note:** adapters for quick change systems for other manufacturers or other sizes on request

## **Mounting Options for Hydraulic Attachments - rigid mount**

## OQ - bolt-on adapter for system "Oilquick" incl. hoses



| Туре            | For attachments     | Operating weight (t/lbs)  |
|-----------------|---------------------|---------------------------|
| OQ60/2 rigid    | breakers            | 8 - 15 / 17,600 - 33,000  |
| OQ60/4 rigid    | grabs, shears       | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/2 rigid  | breakers            | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/3 rigid  | compactors, planers | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/4 rigid  | grabs, shears       | 8 - 15 / 17,600 - 33,000  |
| OQ65/2 rigid    | breakers            | 14 - 22 / 30,800 - 48,400 |
| OQ65/3 rigid    | compactors, planers | 14 - 22 / 30,800 - 48,400 |
| OQ65/4 rigid    | grabs, shears       | 14 - 22 / 30,800 - 48,400 |
| OQ70/2 rigid    | breakers            | 15 -28 / 33,000 - 61,600  |
| OQ70/3 rigid    | compactors, planers | 15 -28 / 33,000 - 61,600  |
| OQ70/4 rigid    | grabs, shears       | 15 -28 / 33,000 - 61,600  |
| OQ70/55/2 rigid | breakers            | 18 - 32 / 39,600 - 70,400 |
| OQ70/55/3 rigid | compactors, planers | 18 - 32 / 39,600 - 70,400 |
| OQ70/55/4 rigid | grabs, shears       | 18 - 32 / 39,600 - 70,400 |
| OQ80/2 rigid    | breakers            | 25 - 43 / 55,000 - 94,600 |
| OQ80/3 rigid    | compactors, planers | 25 - 43 / 55,000 - 94,600 |
| OQ80/4 rigid    | grabs, shears       | 25 - 43 / 55,000 - 94,600 |

## SW - bolt-on adapter for system "Liebherr"



| Туре                | Operating weight (t/lbs)  |
|---------------------|---------------------------|
| SW48 rigid          | 14 - 30 / 30,800 - 66,000 |
| SW48 Likufix rigid* | 14 - 30 / 30,800 - 66,000 |
| SW66 rigid          | 28 - 45 / 61,600 - 99,000 |
| SW66 Likufix rigid* | 28 - 45 / 61,600 - 99,000 |

<sup>\*</sup>incl. hoses

#### CW - bolt-on adapter for system "Verachtert"



| Туре          | Operating weight (t/lbs)  |
|---------------|---------------------------|
| CW30 rigid    | 15 - 25 / 33,000 - 55,000 |
| CW40 rigid    | 20 - 30 / 44,000 - 66,000 |
| CW45 rigid    | 25 - 40 / 55,000 - 88,000 |
| CW30S rigid** | 15 - 25 / 33,000 - 55,000 |
| CW40S rigid** | 20 - 30 / 44,000 - 66,000 |
| CW45S rigid** | 25 - 40 / 55.000 - 88.000 |

<sup>\*\*</sup>smaller S-version

Note: adapters for quick change systems for other manufacturers or other sizes on request

exchange support. down. Mount the

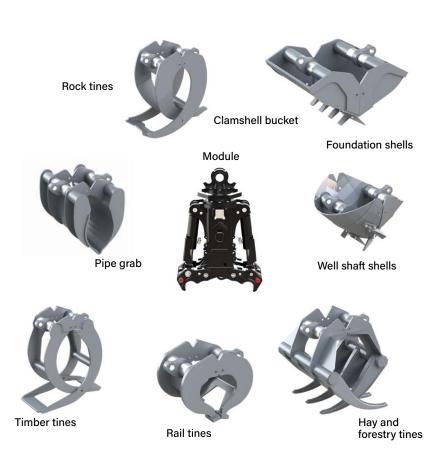
## **KINSHOFER** Shell Exchange System

Robust grabs for excavators with revolutionary exchange system in a single device. As a new demand on site arises, the attachment can be exchanged and the new application can commence. Easy remounting of shells for excavating, landscaping, laying pipes, logging, rail track handling etc.

- ▶ **Efficiency:** only the shells are replaced; exchange is possible with only one person
- Fastness: easy exchange of the lynch pin from the change-over system within 4 minutes, no hydraulic work necessary
- ▶ **Robust technics:** compact design through the integrated rotator. Robust shell bearing with coexisting change mechanism



## Clamshell buckets with exchangeable shells are available for











Position the bucket carrier over the new attachment and close the locking unit hydraulically.









Insert the change-over pin and fasten the lynch pin.

Remove the exchange support. Ready for use!

C<sub>18</sub>VE

## Clamshell Bucket w/exchangeable shells 13-18t / 28,600-39,600lbs

Clamshell Bucket with exchangeable shells and vertical cylinders for excavators from 13t/28600lbs to 18t/39600lbs operating weight - through quick and easy exchange of shells, the C18VE is ideal for different applications, for excavation operations, landscaping, trench digging, handling of logs and more. The shells can be changed in less than four minutes.

- ▶ **Economic solution** as only the shells have to be exchanged for another application. Bucket carrier, hydraulic cylinder and bearings are integrated into the unit.
- ▶ **Long life** is ensured due to the use of 500HB steel in the manufacture of
- ▶ **Reduced wear** resulting from generously dimensioned bearing system.
- ▶ Excellent digging characteristics are the result of high closing forces (42 kN / 9,240 lbf at 35 MPa / 5,070 psi operating pressure, varies depending



| Clamshell Bu | ıcket C18VE        |                      |                          |                     |                        |                 |                    |                           |
|--------------|--------------------|----------------------|--------------------------|---------------------|------------------------|-----------------|--------------------|---------------------------|
| Туре         | Width<br>E (mm/in) | Opening<br>A (mm/in) | Height<br>C max. (mm/in) | Length<br>F (mm/in) | Volume<br>(liter/c.y.) | Number of teeth | Weight<br>(kg/lbs) | Load capacity<br>(kg/lbs) |
| C18VE-33     | 335 / 13.2         | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 125 / 0.16             | 3               | 590 / 1,298        | 4,500 / 9,900             |
| C18VE-40     | 400 / 15.8         | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 160 / 0.21             | 3               | 605 / 1,331        | 4,500 / 9,900             |
| C18VE-50     | 500 / 19.7         | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 200 / 0.26             | 5               | 630 / 1,386        | 4,500 / 9,900             |
| C18VE-60     | 600 / 23.6         | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 245 / 0.32             | 5               | 655 / 1,441        | 4,500 / 9,900             |
| C18VE-80     | 800 / 31.5         | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 330 / 0.43             | 9               | 705 / 1,551        | 4,500 / 9,900             |
| C18VE-100    | 1,000 / 39.4       | 1,655 / 65.2         | 1,595 / 62.8             | 1,360 / 53.5        | 415 / 0.54             | 9               | 755 / 1,661        | 4,500 / 9,900             |

Package consists of: clamshell bucket, bolt-on teeth, KINSHOFER rotator with hose guard, 2 weld-on eyes, shell exchange aid kit and non-return valve

## KINSHOFER Rotator

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

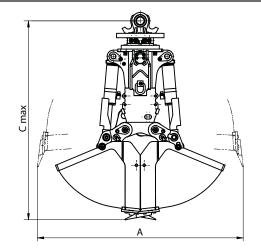
| Туре          | Upper connection<br>(width x pin-Ø) | Torque          | Bending moment max. |
|---------------|-------------------------------------|-----------------|---------------------|
|               | (mm/in)                             | (Nm/ft.lbs)     | (Nm/ft.lbs)         |
| KM 10 F275-60 | 125 x 60 / 4.9 x 2.4                | 1,500 / 1,106.3 | 14,000 / 10,325     |

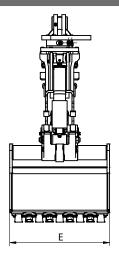
#### Accessories

| Туре              | Description   |
|-------------------|---|
|                   | ·   |
| KM 501 13t-25t    | upper suspension without pendulum damper  |
| KM 511 13t-25t    | upper suspension with pendulum damper   |
| KM 510 13t-25t    | single pendulum damper  |
| KSW10 cardanic    | adapter for system L-Lock KMS10L/KHS10L incl. cardan link excl. pendulum damper – up to 19t/41,800lbs         |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper - up to 40t/88,000lbs |
|                   | adapters for quick change systems from other manufacturers or different sizes on request                      |
| KM 680 C18VE      | scraper   |

#### Requirements of carrier machine

| Operating pressure (open/close):        | max. 35 MPa (350 bar) / 5,070 psi      |
|---|--|
| Recommended pump capacity (open/close): | 75 - max. 150 l/min / 20 - max. 40 GPM |
| Operating pressure (rotate):            | max. 32 MPa (320 bar) / 4,640 psi      |
| Recommended pump capacity (rotate):     | 20 - max. 50 l/min/ 5 - max. 13 GPM    |





# **Exchangeable Shells for C18VE**

#### Exchangeable Shells for C18VE Shells are interchangeable and available in all widths. Rapid exchange with shell stand and pin exchange tool. Туре Width Opening Height Volume Number Weight Loading Closing capacity complete of teeth shells force (mm/in) (mm/in) (mm/in) (liter/c.y.) (kg/lbs) (kg/lbs) (kN/lbf) Clamshell Bucket C18VE-33S 335 / 13.2 1,655 / 65.2 1,595 / 62.8 125 / 0.16 160 / 352 4,500 / 9,900 42 / 9,240 C18VE-40S 400 / 15.8 1,655 / 65.2 1,595 / 62.8 160 / 0.21 3 180 / 396 4,500 / 9,900 42 / 9,240 C18VE-50S 500 / 19.7 1,655 / 65.2 1,595 / 62.8 200 / 0.26 5 195 / 429 4,500 / 9,900 42 / 9,240 C18VE-60S 600 / 23.6 1,655 / 65.2 1,595 / 62.8 245 / 0.32 225 / 495 4,500 / 9,900 42 / 9,240 C18VE-80S 800 / 31.5 1,655 / 65.2 1,595 / 62.8 330 / 0.43 9 275 / 605 4,500 / 9,900 42 / 9,240 C18VE-100S 1,000 / 39.4 1,655 / 65.2 1,595 / 62.8 415 / 0.54 9 325 / 715 4,500 / 9,900 42 / 9,240 **Excavating Grab** C18VE-33S EG 335 / 13.2 1,205 / 47.4 1,430 / 56.3 90 / 0.12 125 / 275 4,500 / 9,900 57 / 12,540 **C18VE-40S EG** 400 / 15.8 1,120 / 44.1 1,385 / 54.5 55 / 0.07 130 / 286 4.500 / 9.900 60 / 13.200 3 **C18VE-80S EG** 800 / 31.5 820 / 32.3 1,380 / 54.3 100 / 0.13 9 185 / 407 4,500 / 9,900 69 / 15,180 Pipe Grab Ø600 mm/ Ø100-Ø600/ C18VE-83S PG 830 / 32.7 1,625 / 64 295\*/649 4,500 / 9,900 41 / 9,020 Ø3.9 - Ø23.6 Ø23.6 \*incl. support C18VE-97S WSG Ø 970 / Ø38.2 970 / 38.2 1,410 / 55.5 110 / 0.14 170 / 374 4,500 / 9,900 65 / 14,300 note: larger shells available on request Hay and Forestry Grab A18VE-95S 955 / 37.6 1,830 / 72 1,685 / 66.3 400 / 0.52 225 / 495 4,500 / 9,900 41 / 9,020 1,220 / 48 A18VE-122S 275 / 605 4,500 / 9,900 32 / 7,040 1,835 / 72.2 1,725 / 67.9 600 / 0.78 m2 / cord R18VE-49S 1,850 / 72.8 1,820 / 71.7 195 / 429 4,500 / 9,900 33 / 7,260 490 / 19.3 0.50 / 0.34 **Timber Grab** m2 / cord T18VE-49S-0,5 490 / 19.3 1,830 / 72 1,825 / 71.9 0.50 / 0.34 200 / 440 4,500 / 9,900 30 / 6,600 T18VE-49S-0.6 220 / 484 4,500 / 9,900 33 / 7,260 490 / 19.3 1,975 / 77.8 1,905 / 75 0.60 / 0.40Rail Tines C18VE-50S RG 500 / 19.7 1,250 / 49.2 1,400 / 55.1 130 / 286 4,500 / 9,900 44 / 9,680

Package consists of: shells, teeth (for clamshell bucket, excavating and well shaft grab), shell exchange aid kit and pin extraction tool

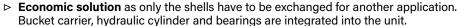
Note: special shells on request

C25VE

# Clamshell Bucket w/exchangeable shells 19-25t / 41,800-55,000lbs

Clamshell Bucket with exchangeable shells and vertical cylinders for excavators from 19t / 41,800lbs to 25t / 55,000lbs operating weight - through quick and easy exchange of shells, the C25VE is ideal for different applications, for excavation operations, landscaping, trench digging, handling of logs and more.

The shells can be changed in less than four minutes.



- ▶ **Long life** is ensured due to the use of 500HB steel in the manufacture of
- ▶ **Reduced wear** resulting from generously dimensioned bearing system.
- **Excellent digging characteristics** are the result of high closing forces (60kN / 13,200lbf at 35 MPa / 5,070psi operating pressure, varies depending on width).



| Clamshell Bucl | ket C25VE          |                      |                         |                     |                        |                 |                    |                           |
|----------------|--------------------|----------------------|-------------------------|---------------------|------------------------|-----------------|--------------------|---------------------------|
| Туре           | Width<br>E (mm/in) | Opening<br>A (mm/in) | Height<br>C max.(mm/in) | Length<br>F (mm/in) | Volume<br>(liter/c.y.) | Number of teeth | Weight<br>(kg/lbs) | Load capacity<br>(kg/lbs) |
| C25VE-42       | 420 / 16.5         | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 210 / 0.27             | 3               | 950 / 2,090        | 6,000 / 13,200            |
| C25VE-50       | 500 / 19.7         | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 250 / 0.33             | 4               | 980 / 2,156        | 6,000 / 13,200            |
| C25VE-60       | 600 / 23.6         | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 305 / 0.40             | 5               | 1,010 / 2,222      | 6,000 / 13,200            |
| C25VE-80       | 800 / 31.5         | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 410 / 0.54             | 7               | 1,080 / 2,376      | 6,000 / 13,200            |
| C25VE-100      | 1,000 / 39.4       | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 520 / 0.68             | 7               | 1,180 / 2,596      | 6,000 / 13,200            |
| C25VE-120      | 1,200 /47.2        | 1,940 / 76.4         | 1,940 / 76.4            | 1,700 / 66.9        | 625 / 0.82             | 9               | 1,250 / 2,750      | 6,000 / 13,200            |

Package consists of: clamshell bucket, bolt-on teeth, rotator with hose guard, 2 weld-on eyes, shell exchange aid kit and non-return valve

| <b>Exchangeable Shells</b> | C25VE-S            |                        |                 |                    |                           |
|----------------------------|--------------------|------------------------|-----------------|--------------------|---------------------------|
| Туре                       | Width E<br>(mm/in) | Volume<br>(liter/c.y.) | Number of teeth | Weight<br>(kg/lbs) | Load capacity<br>(kg/lbs) |
| C25VE-42S                  | 420 / 16.5         | 210 / 0.27             | 3               | 350 / 770          | 6,000 / 13,200            |
| C25VE-50S                  | 500 / 19.7         | 250 / 0.33             | 4               | 390 / 858          | 6,000 / 13,200            |
| C25VE-60S                  | 600 / 23.6         | 305 / 0.40             | 5               | 420 / 924          | 6,000 / 13,200            |
| C25VE-80S                  | 800 / 31.5         | 410 / 0.54             | 7               | 490 / 1,078        | 6,000 / 13,200            |
| C25VE-100S                 | 1,000 / 39.4       | 520 / 0.68             | 7               | 580 / 1,276        | 6,000 / 13,200            |
| C25VE-120S                 | 1,200 / 47.2       | 625 / 0.82             | 9               | 650 / 1,430        | 6,000 / 13,200            |

Package consists of: exchangeable shells, exchange aid kit and extraction tool for pin

Note: special shells available on request

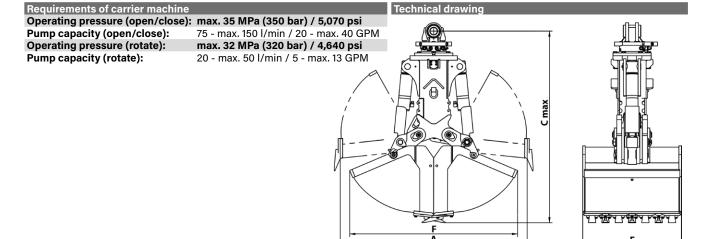
#### KINSHOFER Rotator

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

| Туре          | Upper connection (width x pin-Ø) (mm/in) | <b>Torque</b><br>(Nm/ft.lbs) | Bending moment max.<br>(Nm/ft.lbs) |
|---------------|--|------------------------------|------------------------------------|
| KM 15 F340-70 | 180 x 70 / 7.1 x 2.8                     | 3,000 / 2,212.5              | 25,000 / 18,437.5                  |

#### Accessories

| Туре              | Description   |
|-------------------|---|
| KM 501 19t-60t    | upper suspension without pendulum damper  |
| KM 511 19t-60t    | upper suspension with pendulum damper   |
| KM 510 19t-60t    | single pendulum damper  |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper - up to 40t/88,000lbs |
|                   | adapters for quick change systems from other manufacturers or different sizes on request                      |
| KM 680 C25VE      | scraper   |



**C30V** 

# Re-handling Clamshell Bucket 18-30t / 39,600-66,000lbs

Durable Re-handling Clamshell Bucket, especially for loading bulk materials for excavators from 18t/39,600lbs to 25t/55,000lbs, as well as re-handling excavator from 20t/44,000lbs to 30t/66,000lbs.

- > Optimal loading due to high volume of the torsion-resistant shells and precise positioning thanks to flat, robust 15t-rotator.
- Long life is ensured thanks to wear-resistant shells and hardened pins and bushings. All breaing points are sealed.
- ▶ Excellent digging characteristics are the result of high closing forces due to two vertical cylinders.
- ▶ Non-return valve is optionally available.



| Re-handling Cla | amshell Bucket | : C30V        |              |                  |                  |              |               |                  |
|-----------------|----------------|---------------|--------------|------------------|------------------|--------------|---------------|------------------|
| Туре            | Opening<br>A   | Width<br>E    | Length<br>F  | Height<br>C min. | Height<br>C max. | Volume       | Weight        | Load<br>capacity |
|                 | (mm/in)        | (mm/in)       | (mm/in)      | (mm/in)          | (mm/in)          | (liter/c.y.) | (kg/lbs)      | (kg/lbs)         |
| C30V-100-21     | 2,100 / 82.7   | 1,000 / 39.4  | 1,740 / 68.6 | 1,460 / 57.5     | 2,130 / 83.9     | 830 / 1.09   | 1,050 / 2,310 | 6,000 / 13,200   |
| C30V-120-21     | 2,100 / 82.7   | 1,200 / 47.2  | 1,740 / 68.6 | 1,460 / 57.5     | 2,130 / 83.9     | 1,000 / 1.31 | 1,150 / 2,530 | 6,000 / 13,200   |
| C30V-150-21     | 2,100 / 82.7   | 1,500 / 59.1  | 1,740 / 68.6 | 1,460 / 57.5     | 2,130 / 83.9     | 1,250 / 1.64 | 1,220 / 2,684 | 6,000 / 13,200   |
| C30V-180-21     | 2,100 / 82.7   | 1,800 / 70.87 | 1,740 / 68.6 | 1,460 / 57.5     | 2,130 / 83.9     | 1,500 / 1.96 | 1,290 / 2,838 | 6,000 / 13,200   |
| C30V-180-23     | 2,300 / 90.6   | 1,800 / 70.87 | 1,885 / 74.2 | 1,465 / 57.7     | 2,230 / 87.8     | 1,800 / 2.35 | 1,300 / 2,860 | 6,000 / 13,200   |
| C30V-200-23     | 2,300 / 90.6   | 2,000 / 78.7  | 1,885 / 74.2 | 1,465 / 57.7     | 2,230 / 87.8     | 2,000 / 2.62 | 1,350 / 2,970 | 6,000 / 13,200   |

## Package consists of: re-handling clamshell bucket, KINSHOFER rotator

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

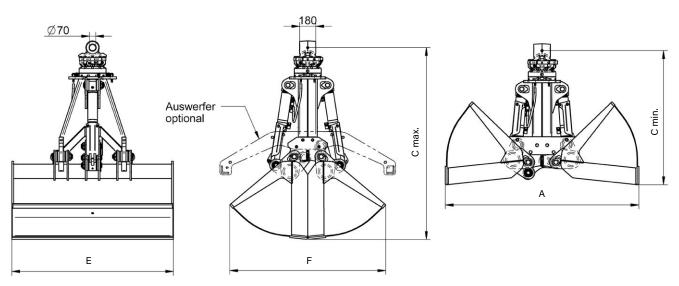
| Туре           | Upper connection<br>(width x Ø-pin) | Torque        | Bending moment max. |
|----------------|-------------------------------------|---------------|---------------------|
|                | (mm/in)                             | (Nm/ft.lbs)   | (Nm/ft.lbs)         |
| KM 15 F273/273 | 180 x Ø 70 / 71 / Ø2.76             | 2,000 / 1,475 | 50,000 / 36,875     |

# Accessories

| Туре           | Description  |
|----------------|--|
| KM 501 19t-60t | upper suspension without pendulum damper                         |
| KM 511 19t-60t | upper suspension with pendulum damper                            |
| KM 510 19t-60t | single pendulum damper   |
| KM 680 C30V    | scraper for C30V - specify width and opening when ordering alone |

## Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070 psi Pump capacity (open/close): 120 - max. 200 l/min / 32 - max. 53 GPM Operating pressure (rotate): max. 35 MPa (350 bar) / 5,070 psi Pump capacity (rotate): 20 - 50 l/min / 5.3 - 13.2 GPM



C40VHD

Durable Re-handling Clamshell Bucket, especially for loading bulk materials for excavators from 18t / 39,600lbs to 25t / 55,000lbs, as well as re-handling excavators from 20t / 44,000lbs to 40t / 88,000lbs.

- > Optimal loading due to high volume of the torsion-resistant shells and precise positioning thanks to integrated rotation.
- ▶ Long life is ensured due to the use of 500HB steel in the manufacture of cutting edges. Shell back walls (8 mm/0.3in, 400HB) also resist highly abrasive materials. Bearing points with specially coated bushings and hardened pins.
- ▶ Wear resistant shells. C40VHD-C: due to closed shells ideal for very fine-grained loads (e.g. fertilizer).
- ▶ With integrated rotation: Swivel and bevel sealed. Rotary feedthrough and motor accessible directly.
- **Excellent digging characteristics** are the result of high closing forces due to two vertical cylinders.
- ▶ **Non-return valve** is optionally available.



C40VHD-24

| Re-handling Clamshell Buckets with open shells C40VHD |                    |                    |                     |                        |                    |                           |
|---|--------------------|--------------------|---------------------|------------------------|--------------------|---------------------------|
| Туре  | Opening<br>(mm/in) | Width E<br>(mm/in) | Height C<br>(mm/in) | Volume<br>(liter/c.y.) | Weight<br>(kg/lbs) | Load capacity<br>(kg/lbs) |
| C40VHD-125-24   | 2,400 / 94.5       | 1,250 / 49.2       | 2,530 / 99.6        | 1,250 / 1.64           | 1,670 / 3,674      | 7,000 / 15,400            |
| C40VHD-150-24   | 2,400 / 94.5       | 1,500 / 59.1       | 2,530 / 99.6        | 1,500 / 1.96           | 1,700 / 3,740      | 7,000 / 15,400            |
| C40VHD-175-24   | 2,400 / 94.5       | 1,750 / 68.9       | 2,530 / 99.6        | 1,750 / 2.29           | 1,770 / 3,894      | 7,000 / 15400             |
| C40VHD-200-24   | 2,400 / 94.5       | 2,000 / 78.7       | 2,530 / 99.6        | 2,000 / 2.62           | 1,920 / 4,224      | 7,000 / 15,400            |
| C40VHD-125-26   | 2,600 / 102.4      | 1,250 / 49.2       | 2,640 / 59.1        | 1,560 / 2.04           | 1,680 / 3,696      | 7,000 / 15,400            |
| C40VHD-150-26   | 2,600 / 102.4      | 1,500 / 59.1       | 2,640 / 59.1        | 1,875 / 2.45           | 1,760 / 3,872      | 7,000 / 15,400            |
| C40VHD-175-26   | 2,600 / 102.4      | 1,750 / 68.9       | 2,640 / 59.1        | 2,190 / 2.86           | 1,830 / 4,026      | 7,000 / 15,400            |
| C40VHD-180-26   | 2,600 / 102.4      | 1,800 / 70.9       | 2,640 / 59.1        | 2,300 / 3.01           | 1,850 / 4,070      | 7,000 / 15,400            |
| C40VHD-200-26   | 2,600 / 102.4      | 2,000 / 78.7       | 2,640 / 59.1        | 2,500 / 3.27           | 1,990 / 4,378      | 7,000 / 15,400            |
| C40VHD-150-28   | 2,800 / 110.2      | 1,500 / 59.1       | 2,740 / 107.9       | 2,250 / 2.94           | 1,870 / 4,114      | 7,000 / 15,400            |
| C40VHD-175-28   | 2,800 / 110.2      | 1,750 / 68.9       | 2,740 / 107.9       | 2,600 / 3.40           | 1,960 / 4,312      | 7,000 / 15,400            |
| C40VHD-200-28   | 2,800 / 110.2      | 2,000 / 78.7       | 2,740 / 107.9       | 3,000 / 3.92           | 2,050 / 4,510      | 7,000 / 15,400            |
| C40VHD-230-28   | 2,800 / 110.2      | 2,300 / 90.6       | 2,740 / 107.9       | 3,500 / 4.58           | 2,150 / 4,730      | 7,000 / 15,400            |
| C40VHD-150-30   | 3,000 / 118.1      | 1,500 / 59.1       | 2,820 / 111         | 2,600 / 3.40           | 1,920 / 4,224      | 7,000 / 15,400            |
| C40VHD-175-30   | 3,000 / 118.1      | 1,750 / 68.9       | 2,820 / 111         | 3,000 / 3.92           | 2,010 / 4,422      | 7,000 / 15,400            |
| C40VHD-200-30   | 3,000 / 118.1      | 2,000 / 78.7       | 2,820 / 111         | 3,500 / 4.58           | 2,100 / 4,620      | 7,000 / 15,400            |
| C40VHD-230-30   | 3,000 / 118.1      | 2,300 / 90.6       | 2,820/ 111          | 4,000 / 5.23           | 2,250 / 4,950      | 7,000 / 15,400            |

| Re-handling Clamshell Buckets with closed shells C40VHD-C (other opening widths on request) |                    |                    |                     |              |                    |                |
|---|--------------------|--------------------|---------------------|--------------|--------------------|----------------|
| Туре  | Opening<br>(mm/in) | Width E<br>(mm/in) | Height C<br>(mm/in) | Volume       | Weight<br>(kg/lbs) | Load capacity  |
| 0401410 405 00 0  | , , ,              | ,                  | ,                   | (liter/ c.y) |                    | (kg/lbs)       |
| C40VHD-125-26-C   | 2,600 / 102.4      | 1,250 / 49.2       | 2,640 / 59.1        | 1,875 / 2.45 | 1,870 / 4114       | 7,000 / 15,400 |
| C40VHD-150-26-C   | 2,600 / 102.4      | 1,500 / 59.1       | 2,640 / 59.1        | 2,250 / 2.94 | 1,970 / 4334       | 7,000 / 15,400 |
| C40VHD-175-26-C   | 2,600 / 102.4      | 1,750 / 68.9       | 2,640 / 59.1        | 2,625 / 3.43 | 2,070 / 4554       | 7,000 / 15,400 |
| C40VHD-200-26-C   | 2,600 / 102.4      | 2,000 / 78.7       | 2,640 / 59.1        | 3,000 / 3.92 | 2,180 / 4796       | 7,000 / 15,400 |

All package consists of: re-handling clamshell bucket, KINSHOFER rotation (pin-Ø 70mm/2.8in / lug distance 227mm/8.9in)

#### Accessories

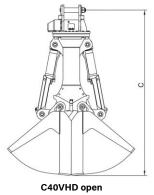
Description Type

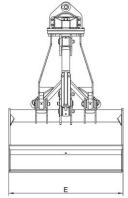
KM 501 RD50 upper suspension without pendulum damper

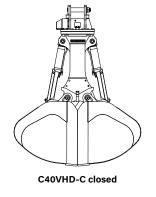
**KM 680 C40VHD** scraper, weight approx. 250kg/550lbs - specify width and opening when ordering alone

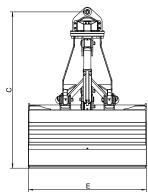
#### Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070psi Pump capacity (open/close): 120 - max. 200 l/min / 32 - max. 53GPM max. 14 MPa (140 bar) / 2,030psi Operating pressure (rotate): Pump capacity (rotate): 20 - 30 I/min / 5 - 8GPM









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# **Mounting Options for Hydraulic Attachments - cardanic mount**

## KM 501 - upper suspension without pendulum damper - specify excavator type when ordering



 Type
 for rotators
 Upper connection rotator (width x pin-Ø) (mm/in)

 KM 501 13t-25t
 KM 10 F275-60
 125 x 60 / 4.9 x 2.36

 KM 501 19t-60t
 KM 15 F340-70 / KM 15 F273-70
 180 x 70 / 7.1 x 2.76

## KM 511 - upper suspension with pendulum damper - specify excavator type when ordering



 Type
 for rotators
 Upper connection rotator (width x pin-Ø) (mm/in)

 KM 511 13t-25t
 KM 10 F275-60
 125 x 60 / 4.9 x 2.36

 KM 511 19t-60t
 KM 15 F340-70 / KM 15 F273-70
 180 x 70 / 7.1 x 2.76

## KM 510 - single pendulum damper without upper suspension - specify rotator type when ordering



#### KSW cardanic - adapter for quick coupler system L-Lock incl. cardan link excl. pendulum damper



 Type
 for quick coupler System L-Lock
 Operating weight (t/lbs)

 KSW10 cardanic
 KMS10L / KHS10L
 up to 19 / 41,800

 KSW21/25 cardanic
 KMS21/25L / KHS21/25L
 up to 40 / 88,000

# S cardanic - adapter for quick coupler system S-Lock incl. cardan link excl. pendulum damper



 
 Type
 for quick coupler System S-Lock
 Operating weight (t/lbs)

 \$60 cardanic
 KMS60S / KHS60S
 up to 18 / 39,600

 \$70 cardanic
 KMS70S / KHS70S
 up to 30 / 66,000

# OQ cardanic - upper suspension with pendulum damper incl. adapter "Oilquick" and hoses



| Туре             | Operating weight          |
|------------------|---------------------------|
|                  | (t/lbs)                   |
| OQ60 cardanic    | 8 - 15 / 17,600 - 33,000  |
| OQ60-5 cardanic  | 8 - 15 / 17,600 - 33,000  |
| OQ65 cardanic    | 14 - 22 / 30,800 - 48,400 |
| OQ70 cardanic    | 15 - 28 / 33,000 - 61,600 |
| OQ70/55 cardanic | 18 -32 / 39,600 - 70,400  |
| OQ80 cardanic    | 25 - 43 / 55,000 - 94,600 |

# SW cardanic - upper suspension with pendulum damper incl. adapter "Liebherr"



| Туре                   | Operating weight          |
|------------------------|---------------------------|
|                        | (t/lbs)                   |
| SW48 cardanic          | 14 - 30 / 30,800 - 66,000 |
| SW48 Likufix cardanic* | 14 - 30 / 30,800 - 66,000 |
| SW66 cardanic          | 28 - 45 / 61,600 - 99,000 |
| SW66 Likufix cardanic* | 28 - 45 / 61,600 - 99,000 |
|                        |                           |

<sup>\*</sup>incl. hoses

## CW cardanic - upper suspension with pendulum damper incl. adapter "Verachtert"



| Туре             | Operating weight (t/lbs)  |
|------------------|---------------------------|
| CW30 cardanic    | 15 - 25 / 33,000 - 55,000 |
| CW40 cardanic    | 20 - 30 / 44,000 - 66,000 |
| CW45 cardanic    | 25 - 40 / 55,000 - 88,000 |
| CW30S cardanic** | 15 - 25 / 33,000 - 55,000 |
| CW40S cardanic** | 20 - 30 / 44,000 - 66,000 |
| CW45S cardanic** | 25 - 40 / 55,000 - 88,000 |

<sup>\*\*</sup>smaller S-version

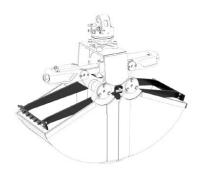
Note: adapters for quick change systems for other manufacturers or other sizes on request

# **Additional and Small Parts**

# Accessories

Type

# Description

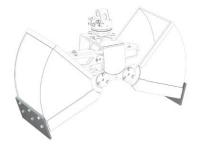


| KM 680 C12/18VE* | scraper |
|------------------|---------|
| KM 680 C25VE*    | scraper |
| KM 680 C30V*     | scraper |
| KM 680 C40VHD*   | scraper |

<sup>\*</sup> specify width of grab when ordering



| KM 685 06E hook       | welded hooks                    |
|-----------------------|---------------------------------|
| KM 685 06E hook set 2 | welded hooks, set with 2 pieces |



| KM 685 07E set    | wear plate set to protect cutting edges |
|-------------------|---|
| KM 685 07>19t set | wear plate set to protect cutting edges |
|                   |   |
|                   |   |

| KM 685 09E | bolt-on side plates<br>(specify grab type when ordering) |  |
|------------|--|--|
|            | (Specify glab type when ordering)                        |  |

| KM 980-2 2t-8t c   | solenoil valve for additional oil circuit,               |
|--------------------|--|
| KIVI 900-2 21-01 C | up to 26MPa (260 har/ 3.770psi) incl. parts and mounting |

# 5-Finger Timber Grab 11-27t / 24,200-59,400lbs

# D15H-T / D20H-T / D27H-T

The robust 5-finger timber grab combines the strength of the demolition and sorting grabs of the D-series with highly wear resistant timber grab tines. For excavators of up to 15t / 33,000lbs, 20t / 44,000lbs or 27t / 59,400lbs operating weight – ideal for forestry works, rolled lumber, special demolition tasks and pile foundations.

- Kinematics of tines avoids clamping of material made of highly wear resistant material (500HB).
- ▶ Branches with only 100mm / 3.9in diameter can be gripped firmly.
- ▶ Robust, fully integrated rotation with two motors and sturdy slewing ring to withstand external forces. Hydraulic quick exchange systems are mountable directly. Integrated pressure relief valve against overcharge.
- ▶ Exceptional closing forces through two horizontally positioned hydraulic cylinders that are protected by the bucket carrier.
- > Cylinders are hydraulically cushioned.



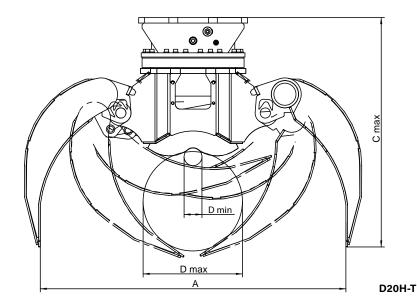
D20H-T

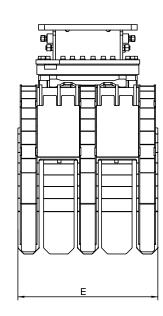
| Timber Grab D15H-T / D20H-T / D27H-T |            |              |                 |                 |                  |          |               |               |             |                  |
|--------------------------------------|------------|--------------|-----------------|-----------------|------------------|----------|---------------|---------------|-------------|------------------|
| Туре                                 | Width<br>E | Opening<br>A | Log-Ø<br>D min. | Log-Ø<br>D max. | Height<br>C max. | Weight   | Load capacity | Closing force | Torque      | Operating weight |
|                                      | (mm/in)    | (mm/in)      | (mm/in)         | (mm/in)         | (mm/in)          | (kg/lbs) | (kg/lbs)      | (kN/lbf)      | (Nm/ft.lbs) | (t/lbs)          |
| D15H-T                               | 740 /      | 740 /        | 100 /           | 500 /           | 1,040 /          | 690 /    | 3,000 /       | 37 /          | 5,700 /     | 11 - 15 /        |
| ו-חפוע                               | 29.1       | 29.1         | 3.9             | 19.7            | 40.9             | 1518     | 6,600         | 8,140         | 5,204       | 24,200 - 33,000  |
| D20H-T                               | 825 /      | 825 /        | 100 /           | 580 /           | 1,350 /          | 1,045 /  | 4,000 /       | 42 /          | 5,700 /     | 14 - 20 /        |
| D20H-1                               | 32.5       | 32.5         | 3.9             | 22.8            | 53.1             | 2,299    | 8,800         | 9,240         | 5,204       | 30,800 - 44,000  |
| D27H-T                               | 1,000 /    | 1,000 /      | 125 /           | 700 /           | 1,655 /          | 1,665 /  | 6,000 /       | 59 /          | 5,700 /     | 18 - 27 /        |
| D2/H-I                               | 39.4       | 39.4         | 4.9             | 27.6            | 65.2             | 3,663    | 13,200        | 12,980        | 5,204       | 39,600 - 59,400  |

Package consists of: timber grab, integrated rotation with sturdy slewing ring and non-return valve

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
| KM 690 15t     | adapter for rigid mounting – up to 15t/33,000lbs   |
| KM 690 20t     | adapter for rigid mounting - up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting - up to 27t/59,400lbs   |
| OQ             | bolt-on-adapter for Oilquick OQ – 5t to 70t/11000lbs to 15,4000lbs                                 |
| KSW10 rigid    | bolt-on-adapter for system L-Lock KMS10L/KHS10L – up to 19t/41,800lbs                              |
| KSW21/25 rigid | bolt-on-adapter for system L-Lock KMS21/25L / KHS21/25L – up to 40t/88,000lbs                      |
|                | adapters for quick change systems from other manufacturers or different sizes available on request |

| Requirements of carrier machine    |                              |                              |                              |  |  |  |  |  |
|------------------------------------|------------------------------|------------------------------|------------------------------|--|--|--|--|--|
|                                    | D15H-T                       | D20H-T                       | D27H-T                       |  |  |  |  |  |
| Operating pressure (open/close):   | 32 MPa (320 bar) / 4,640 psi | 32 MPa (320 bar) / 4,640 psi | 35 MPa (350 bar) / 5,070 psi |  |  |  |  |  |
| Pump capacity (open/close):        | 75 - max. 150 l/min/         | 75 - max. 150 l/min/         | 75 - max. 150 l/min/         |  |  |  |  |  |
| rullip capacity (open/close).      | 20 - max. 40 GPM             | 20 - max. 40 GPM             | 20 - max. 40 GPM             |  |  |  |  |  |
| Hydraulic connection (open/close): | G 3/4" / G 1/2"              | G 3/4" / G 1/2"              | G 1" / G 1/2"                |  |  |  |  |  |
| Operating pressure (rotate):       | 17 Mpa (170 bar) / 2,460 psi | 17 Mpa (170 bar) / 2,460 psi | 17 Mpa (170 bar) / 2,460 psi |  |  |  |  |  |
| Pump capacity (rotate):            | 25 - max. 60 l/min/          | 25 - max. 60 l/min/          | 25 - max. 60 l/min/          |  |  |  |  |  |
| rump capacity (rotate):            | 6.5 - max. 16 GPM            | 6.5 - max. 16 GPM            | 6.5 - max. 16 GPM            |  |  |  |  |  |





# Timber Grab 13-20t / 28,600-44,000lbs

Timber grabs for mobile excavators and static excavators from 13t / 28,600lbs to 20t / 44,000lbs operating weight.

- ▶ Long life is ensured due to the use of 500HB steel in the manufacture of cutting edges.
- ▶ **Reduced wear** resulting from generously dimensioned bearing system.
- > Rotator integrated in the gripping arm carrier
- **▷** Excellent closing characteristics.
- ▶ **360° endless rotation** mounted directly without short hoses.
- > Hydraulically cushioned cylinders.



| Timber Grab T20V |            |              |                  |                 |                                     |             |                  |               |  |  |
|------------------|------------|--------------|------------------|-----------------|-------------------------------------|-------------|------------------|---------------|--|--|
| Туре             | Width<br>E | Opening<br>A | Height<br>C max. | Log-Ø<br>D min. | Volume                              | Weight      | Load<br>capacity | Closing force |  |  |
|                  | (mm/in)    | (mm/in)      | (mm/in)          | (mm in)         | (m <sup>2</sup> / ft <sup>2</sup> ) | (kg/lbs)    | (kg/lbs)         | (kN/lbf)      |  |  |
| T20V-0,60        | 490 / 19.3 | 1,970 / 77.6 | 2,110 / 83.1     | 100 / 3.9       | 0.60 / 6.5                          | 610 / 1,342 | 4,500 / 9,900    | 25 / 5,500    |  |  |
| T20V-0,80        | 490 / 19.3 | 2,180 / 85.8 | 2,255 / 88.8     | 120 / 4.7       | 0.80 / 8.6                          | 635 / 1,397 | 4,500 / 9,900    | 22 / 4,840    |  |  |
| T20V-1,00        | 490 / 19.3 | 2,350 / 92.5 | 2,370 / 93.3     | 140 / 5.5       | 1.00 / 10.8                         | 660 / 1,452 | 4,500 / 9,900    | 20 / 4,400    |  |  |
| T20V-1,25        | 490 / 19.3 | 2,500 / 98.4 | 2,500 / 98.4     | 160 / 6.3       | 1.25 / 14.5                         | 685 / 1,507 | 4,500 / 9,900    | 19 / 4,180    |  |  |

Package consists of: timber grab, KINSHOFER rotator, non-return valve and hose guard

#### KINSHOFER Rotator

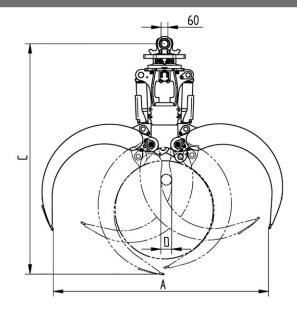
Continuous rotation and two oil passages. Overload protection is ensured by pressure relief valves.

| Туре          | Upper connection        | Torque         | Bending moment max. |  |  |
|---------------|-------------------------|----------------|---------------------|--|--|
|               | (width x pin-Ø) (mm/in) | (Nm/ft.lbs)    | (Nm/ft.lbs)         |  |  |
| KM 10 F275-60 | 125 x 60 / 4.9 x 2.36   | 2,000 / 10,325 | 14,000 / 10,325     |  |  |

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
|                |  |
| KM 501 13t-25t | upper suspension without pendulum damper   |
| KM 511 13t-25t | upper suspension with pendulum damper  |
| KM 510 13t-25t | single pendulum damper   |
| KSW10 cardanic | adapter for system L-Lock KMS10L/KHS10L incl. cardan link excl. pendulum damper – up to 19t/41,8000lbs |
|                | adapters for quick change systems from other manufacturers or different sizes on request               |

# Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070 psi
Pump capacity (open/close): 75 - max. 150 l/min / 20 - max. 40 GPM
Operating pressure (rotate): max. 32 MPa (320 bar) / 4,640 psi
Pump capacity (rotate): 20 - max. 50 l/min / 5 - max. 13 GPM



**T30V** 

# Timber Grab 20-30t / 44,000-66,000lbs

Timber grabs for mobile excavators and static excavators from 20t / 44,000lbs to 30t / 66,000lbs operating weight.

- ▶ **Long life** is ensured due to the use of 400HB steel in the manufacture of cutting edges.
- ▶ **Reduced wear** resulting from generously dimensioned bearing system.
- > Rotator integrated in the gripping arm carrier
- **▷** Excellent closing characteristics.
- ▶ **360° endless rotation** mounted directly without short hoses.
- > Hydraulically cushioned cylinders.



| <b>Timber Grab</b> | Timber Grab T30V |               |                  |                 |                 |              |               |                  |               |  |  |
|--------------------|------------------|---------------|------------------|-----------------|-----------------|--------------|---------------|------------------|---------------|--|--|
| Туре               | Width<br>E       | Opening<br>A  | Height<br>C max. | Log-Ø<br>F min. | Log-Ø<br>D max. | Volume       | Weight        | Load<br>capacity | Closing force |  |  |
|                    | (mm/in)          | (mm/in)       | (mm/in)          | (mm/in)         | (mm/in)         | $(m^2/ft^2)$ | (kg/lbs)      | (kg/lbs)         | (kN/lbf)      |  |  |
| T30V-0,50          | 720 / 28.3       | 2,185 / 86.0  | 2,215 / 87.2     | 100 / 3.9       | 800 / 31.5      | 0.50 / 5.4   | 900 / 1,980   | 6,000 / 13,200   | 38 / 8,360    |  |  |
| T30V-0,60          | 720 / 28.3       | 2,335 / 91.9  | 2,290 / 90.2     | 110 / 4.3       | 870 / 34.3      | 0.60 / 6.5   | 920 / 2,024   | 6,000 / 13,200   | 36 / 7,920    |  |  |
| T30V-0,80          | 720 / 28.3       | 2,605 / 102.6 | 2,425 / 95.5     | 120 / 4.7       | 1,000 / 39.4    | 0.80 / 8.6   | 960 / 2,212   | 6,000 / 13,200   | 34 / 7,480    |  |  |
| T30V-1,00          | 720 / 28.3       | 2,850 / 112.2 | 2,550 / 100.4    | 140 / 5.5       | 1,125 / 44.3    | 1.00 / 10.8  | 980 / 2,156   | 6,000 / 13,200   | 32 / 7,040    |  |  |
| T30V-1,25          | 720 / 28.3       | 3,135 / 123.4 | 2,695 / 106.1    | 150 / 5.9       | 1,260 / 49.6    | 1.25 / 13.5  | 1,020 / 2,244 | 6,000 / 13,200   | 30 / 6,600    |  |  |

Package consists of: timber grab, KINSHOFER rotator with hose guard, non-return valve

#### KINSHOFER Rotator

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

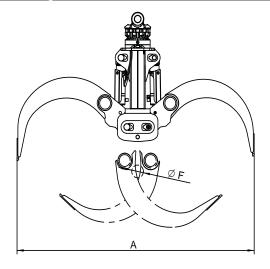
| Туре          | Upper connection        | Torque        | Bending moment max. |
|---------------|-------------------------|---------------|---------------------|
|               | (width x pin-Ø) (mm/in) | (Nm/ft.lbs)   | (Nm/ft.lbs)         |
| KM 15 F273-70 | 180 x 70 / 7.1 x 2.76   | 2,000 / 1,475 | 50,000 / 36,875     |

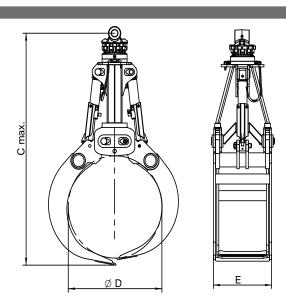
# Accessories

| Туре              | Description  |
|-------------------|--|
| KM 501 19t-60t    | upper suspension without pendulum damper   |
| KM 511 19t-60t    | upper suspension with pendulum damper  |
| KM 510 19t-60t    | single pendulum damper   |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper  |
|                   | adapters for quick change systems from other manufacturers or different sizes on request |

# Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070 psi 75 - max. 150 l/min / 20 - max. 40 GPM Pump capacity (open/close): max. 35 MPa (350 bar) / 5,070 psi Operating pressure (rotate): Pump capacity (rotate): 20 - max. 50 l/min / 5 - max. 13 GPM





T40VHD

# Timber Grab 25 - 40t / 55,000-88,000lbs

Timber grab for mobile excavators and static excavators from 25t / 55,000lbs to 40t / 88,000lbs operating weight.

- ▶ **Long life** is ensured due to the use of 400HB steel in the manufacture of cutting edges.
- ▶ **Reduced wear** resulting from generously dimensioned bearing system.
- ▶ **Robust rotation** integrated in the center part, with hose guard.
- ▶ Optimal plunge into the log pile thanks to the large opening.
- ▶ Cylinder with **counter-balance valve** and end position damping.
- ▶ **High closing forces** of up to 45kN / 9,900lbs at an operating pressure of 35MPa / 5,075psi, varies depending on width.



| Timber Grab T40VHD |                         |                             |                            |                            |                       |                    |                 |                              |                              |
|--------------------|-------------------------|-----------------------------|----------------------------|----------------------------|-----------------------|--------------------|-----------------|------------------------------|------------------------------|
| Туре               | Opening<br>A<br>(mm/in) | Height<br>C max.<br>(mm/in) | Log-Ø<br>F min.<br>(mm/in) | Log-Ø<br>D max.<br>(mm/in) | Width<br>E<br>(mm/in) | Volume<br>(m²/ft²) | Weight (kg/lbs) | Load<br>capacity<br>(kg/lbs) | Closing<br>force<br>(kN/lbf) |
| T40VHD-1,00        | 2,600 /                 | 2,700 /                     | 90 /                       | 1,100 /                    | 810 /                 | 1.00 /             | 1,605 /         | 6,000 /                      | 45 /                         |
|                    | 102.4                   | 106.3                       | 3.5                        | 43.3                       | 31.9                  | 10.8               | 3,531           | 13,200                       | 9,900                        |
| T40VHD-1,25        | 2,800 /                 | 2,810 /                     | 90 /                       | 1,200 /                    | 810 /                 | 1.25 /             | 1,625 /         | 6,000 /                      | 42 /                         |
|                    | 110.2                   | 110.6                       | 3.5                        | 47.2                       | 31.9                  | 13.5               | 3,575           | 13,200                       | 9,240                        |
| T40VHD-1,50        | 3,140 /                 | 2,990 /                     | 90 /                       | 1,400 /                    | 810 /                 | 1.50 /             | 1,665 /         | 6,000 /                      | 37 /                         |
|                    | 123.6                   | 117.7                       | 3.5                        | 55.1                       | 31.9                  | 16.2               | 3,663           | 13,200                       | 8,140                        |
| T40VHD-1,75        | 3,395 /                 | 3,135 /                     | 100 /                      | 1,500 /                    | 810 /                 | 1.75 /             | 1,740 /         | 6,000 /                      | 34 /                         |
|                    | 133.6                   | 123.4                       | 3.9                        | 59.1                       | 31.9                  | 18.8               | 3,828           | 13,200                       | 7,480                        |
| T40VHD-2,00        | 3,670 /                 | 3,280 /                     | 100 /                      | 1,575 /                    | 810 /                 | 2.00 /             | 1,765 /         | 6,000 /                      | 31 /                         |
|                    | 144.5                   | 129.1                       | 3.9                        | 62.0                       | 31.9                  | 21.5               | 3,883           | 13,200                       | 6,820                        |

Package consists of: timber grab, KINSHOFER rotation with sturdy slewing ring and hose guard, non-return valve

| Access | COLIDS |
|--------|--------|
| -      | 01103  |

Description Type

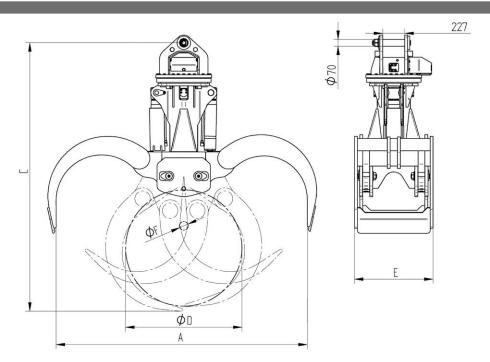
KM 501 RD50 upper suspension without pendulum damper

KSW21/25 cardanic adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper

adapters for quick change systems from other manufacturers or different sizes on request

#### Requirements of carrier machine

max. 35 MPa (350 bar) / 5,070 psi Operating pressure (open/close): 120 - 200 l/min / 32 - 53 GPM Pump capacity (open/close): Operating pressure (rotate): max. 14 MPa (140 bar) / 2,030 psi Pump capacity (rotate): 25 - 60 l/min / 6.5 - 16 GPM



# Universal Mulcher 10-15t / 22,000-33,000lbs

KUM4

The universal mulcher KUM is an excavator mulcher ideal for the maintenance of green spaces and the management of public greenery: cleaning undergrowth and roadsides.

The universal mulcher is available for excavators with an operating weight of up to 15t / 33,000 lbs.

- Reinforced body and double bottom for extremely high shock and torsion resistance.
- ▶ Valve group integrated as standard optimizes the performance of the engine, protects against pressure peaks and extends its service life.
- ▶ Height-adjustable support roller and sliding coupling for high functionality and work adapted to the situation.
- ➤ Shaft equipped with blades is suitable for mowing grass and low vegetation; the configuration with flails is ideal for demanding jobs such as cutting scrub and brush with branches up to 100mm / 3.94in in diameter.
- ▶ Gear motor with reinforced seal.



| <b>Universal Mulc</b> | her KUM4                  |                           |                                  |                  |                                   |                                |                                |
|-----------------------|---------------------------|---------------------------|----------------------------------|------------------|-----------------------------------|--------------------------------|--------------------------------|
| Туре                  | Mulch<br>width<br>(mm/in) | Total<br>width<br>(mm/in) | Height<br>w/o adapter<br>(mm/in) | Depth<br>(mm/in) | Weight<br>w/o adapter<br>(kg/lbs) | Ø-Clippings<br>max.<br>(mm/in) | Operating<br>weight<br>(t/lbs) |
| KUM4-110              | 1,100 / 43.3              | 1,300 / 51.2              | 620 / 24.4                       | 855 / 33.7       | 455 / 1,001                       | 80 - 100 /<br>3.15 - 3.94      | 10 - 15 /<br>22,000 - 33,000   |
| KUM4-130              | 1,300 / 51.2              | 1,600 / 63.0              | 620 / 24.4                       | 855 / 33.7       | 505 / 1,111                       | 80 - 100 /<br>3.15 - 3.94      | 10 - 15 /<br>22,000 - 33,000   |
| KUM4-150              | 1,500 / 59.1              | 1,800 / 70.9              | 620 / 24.4                       | 855 / 33.7       | 540 / 1,188                       | 80 - 100 /<br>3.15 - 3.94      | 10 - 15 /<br>22,000 - 33,000   |

Package consists of: universal mulcher

| Requirements of carrier machine |
|---------------------------------|
|---------------------------------|

Operating pressure max.: 28 MPa (280 bar) / 4,032 psi Recommended pump capacity min. - max.: 65 - 150 l/min / 17.2 - 39.6 GPM

ATTENTION: Piston motor necessary for carriers with very high oil pressure!

**KFM** 

# Forestry Mulcher 10-20t / 22,000-44,000lbs

High performance and maximum robustness for a device that has to withstand high loads. This forestry mulcher is designed for the toughest jobs in forestry, deep cleaning of forests of all sizes.

The KFM5 is suitable for excavators with an operating weight of 10t up to 20t / 22,000 - 44,000lbs.

- ▶ Can be equipped with **two different mulching drums** as required:
  - R2: for heavy work and especially for crushing plants
  - R3: for cutting brushwood to chopping trees
- ▶ **Optimum use of rotor performance**, e.g. to efficiently clear large trunks, through mechanically opening front and rear flaps (optionally hydraulic).
- > The hydraulics and hydraulic motor are cooled with forced ventilation driven directly by the rotor, which keeps the oil temperature constant.
- The **reinforced housing with double bottom** protects the mulcher from impact and warping. Skids in HB400.
- ▶ **Piston engine with variable displacement** for carriers with very high oil pressure.



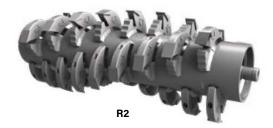
| <b>Forestry Mulche</b> | r KFM                     |                           |   |                         |  |                                |                                |
|------------------------|---------------------------|---------------------------|---|-------------------------|--|--------------------------------|--------------------------------|
| Туре                   | Mulch<br>width<br>(mm/in) | Total<br>width<br>(mm/in) | <b>Height</b><br>w/o adapter<br>(mm/in) | <b>Depth</b><br>(mm/in) | <b>Weight</b><br>w/o adapter<br>(kg/lbs) | Ø-Clippings<br>max.<br>(mm/in) | Displacement<br>engine<br>(cc) |
| KFM5-100-R2            | 1,015 / 40.0              | 1,300 / 51.2              | 740 / 29.1                              | 720 / 28.3              | 535 / 1,177                              | 220 / 8.66                     | 23 - 46                        |
| KFM5-100-R3            | 1,015 / 40.0              | 1,300 / 51.2              | 740 / 29.1                              | 720 / 28.3              | 550 / 1,210                              | 220 / 8.66                     | 23 - 46                        |
| KFM5-120-R2            | 1,280 / 50.4              | 1,540 / 60.6              | 740 / 29.1                              | 720 / 28.3              | 600 / 1,320                              | 220 / 8.66                     | 23 - 46                        |
| KFM5-120-R3            | 1,280 / 50.4              | 1,540 / 60.6              | 740 / 29.1                              | 720 / 28.3              | 610 / 1,342                              | 220 / 8.66                     | 23 - 46                        |
| KFM6-110-R2            | 1,150 / 45.3              | 1,520 / 59.8              | 910 / 35.8                              | 760 / 29.9              | 980 / 2,156                              | 280 / 11.0                     | 32 - 64                        |
| KFM6-110-R3            | 1,150 / 45.3              | 1,520 / 59.8              | 910 / 35.8                              | 760 / 29.9              | 1,010 / 2,222                            | 280 / 11.0                     | 32 - 64                        |
| KFM6-130-R2            | 1,350 / 53.1              | 1,740 / 68.5              | 910 / 35.8                              | 760 / 29.9              | 1,060 / 2,332                            | 280 / 11.0                     | 32 - 64                        |
| KFM6-130-R3            | 1,350 / 53.1              | 1,740 / 68.5              | 910 / 35.8                              | 760 / 29.9              | 1,100 / 2,420                            | 280 / 11.0                     | 32 - 64                        |
| KFM6-150-R2            | 1,550 / 61.0              | 1,950 / 76.8              | 910 / 35.8                              | 760 / 29.9              | 1,130 / 2,486                            | 280 / 11.0                     | 32 - 64                        |
| KFM6-150-R3            | 1,550 / 61.0              | 1,950 / 76.8              | 910 / 35.8                              | 760 / 29.9              | 1,180 / 2,596                            | 280 / 11.0                     | 32 - 64                        |

Package consists of: forestry mulcher

Requirements of carrier machine

40 MPa (400 bar) / 5,760 psi Operating pressure max.: 90 - 300 l/min / 23.8 - 79.3 GPM Recommended pump capacity min. - max.:

Drum options





# Rock Grabs 14-40t / 30,800-88,000lbs

Rock grab for excavators from 14t / 30,800lbs up to 40t / 88,000lbs operating weight, depending on the size, for the positioning and handling of natural rocks.

- > For rigid or cardanic mounting.
- ▶ Robust, fully integrated rotation with sturdy slewing ring to withstand external forces, with connecting hoses located inside the hub. Hydraulic quick exchange systems are mountable directly. Integrated pressure relief valve against overcharge.
- ▶ Exceptional closing forces through two horizontally positioned hydraulic cylinders that are protected by the bucket carrier.
- ▶ Large gripping volume due to widely spaced pivots.
- ▶ Integrated non-return valve guarantees secure handling of loads.
- > Cylinders are hydraulically cushioned.

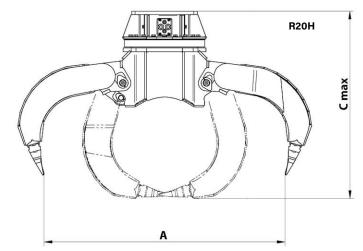


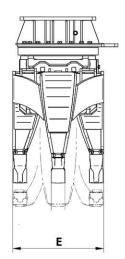
| Rock Grabs R20H / R27H / R40H |              |               |                  |                         |               |                  |                           |  |
|-------------------------------|--------------|---------------|------------------|-------------------------|---------------|------------------|---------------------------|--|
| Туре                          | Width<br>E   | Opening<br>A  | Height<br>C max. | Volume                  | Weight        | Load<br>capacity | Operating<br>weight       |  |
|                               | (mm/in)      | (mm/in)       | (mm/in)          | (m <sup>2</sup> /cords) | (kg/lbs)      | (kg/lbs)         | (t/lbs)                   |  |
| R20H-0,40                     | 720 / 28.3   | 1,800 / 70.9  | 1,340 / 52.8     | 0.40 / 0.27             | 1,050 / 2,310 | 5,000 / 11,000   | 14 - 20 / 30,800 - 44,000 |  |
| R27H-0,55                     | 840 / 33.1   | 2,040 / 80.3  | 1,500 / 59.1     | 0.55 / 0.37             | 1,500 / 3,300 | 6,000 / 13,200   | 18 - 27 / 39,600 - 59,400 |  |
| R40H-0,60                     | 1,020 / 40.2 | 2,684 / 105.7 | 1,651 / 65.0     | 0.60 / 0.40             | 2,050 / 4,510 | 7,000 / 15,400   | 27 - 40 / 59,400 - 88,000 |  |

Package consists of: rock grab, integrated rotation with sturdy slewing ring and non-return valve

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
| KM 690 20t     | adapter for rigid mounting - up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting – up to 27t/59,400lbs   |
| OQ             | bolt-on adapter for Oilquick OQ - 5t to 70t/11,000lbs to 15,4000lbs                      |
| KSW10 rigid    | bolt-on adapter for system L-Lock KMS10L/KHS10L – up to 19t/41,800lbs                    |
| KSW21/25 rigid | bolt-on adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs            |
|                | adapters for quick change systems from other manufacturers or different sizes on request |
| KM 501 19t-60t | upper suspension without pendulum damper   |
| KM 511 19t-60t | upper suspension with pendulum damper  |
| KM 510 19t-60t | single pendulum damper   |
| KM 693 01      | adapter for cardanic mount for R20H  |
| KM 693 02      | adapter for cardanic mount for R27H  |

| R20H                     | R27H   | R40H                               |
|--------------------------|--|------------------------------------|
| max. 32 MPa (320 bar ) / | max. 35 MPa (350 bar) /  | max. 35 MPa (350 bar) /            |
| 4,640 psi                | 5,070 psi  | 5,070 psi                          |
| 75 - max. 150 l/min /    | 75 - max. 150 l/min /  | 75 - max. 150 l/min /              |
| 20 - max. 40 GPM         | 20 - max. 40 GPM   | 20 - max. 40 GPM                   |
| G 3/4" / G 1/2"          | G 3/4" / G 1/2"  | 25 S / 16 S                        |
| max. 14 MPa (140 bar) /  | max. 14 MPa (140 bar) /  | max. 14 MPa (140 bar) /            |
| 2,030 psi                | 2,030psi   | 2,030 psi                          |
| 20 - max. 50 l/min /     | 20 - max. 50 l/min /   | 20 - max. 50 l/min /               |
| 5 - max. 13 GPM          | 5 - max. 13 GPM  | 5 - max. 13 GPM                    |
|                          | max. 32 MPa (320 bar ) / 4,640 psi 75 - max. 150 l/min / 20 - max. 40 GPM G 3/4" / G 1/2" max. 14 MPa (140 bar) / 2,030 psi 20 - max. 50 l/min / | max. 32 MPa (320 bar ) / 4,640 psi |





**P22V** 

# Orange Peel Grabs with 4/5 tines up to 22t / 48,400lbs

Orange peel grab with 4 tines or 5 tines for the handling of bulky scrap with excavators from 16t / 35,200lbs to 22t / 48,400lbs operating weight.

- > 4 tines version available with pointed tines.
- ▶ With **5 tines** available in **4 different tine profiles**:
  - F: fully closing tines
  - H: half closing tines
  - W: wide style of pointed tines
  - T: pointed tines
- > Hydraulic cylinders are fitted with replaceable piston rod protection.
- ▶ Oil distribution and hydraulic hoses are protected in the centre section.
- ▶ Shell bearings with high resistant steel bushings and hardened, ground pins.
- > Shell tips made of 500HB cutting edge material, exchangeable individually as wear parts.
- ▷ Closing force 17kN/3,740lbf at an operating pressure of 35 MPa/5,070psi, varies depending on width.
- ▶ **Non-return valve** is optionally available.



| <b>Orange Peel Gral</b> | b P22V              |              |              |                  |              |                 |               |                  |
|-------------------------|---------------------|--------------|--------------|------------------|--------------|-----------------|---------------|------------------|
| Туре                    | Width E<br>(closed) | Opening<br>A | Height C     | Height C<br>min. | Volume       | Number of tines | Weight        | Load<br>capacity |
|                         | (mm/in)             | (mm/in)      | (mm/in)      | (mm/in)          | (liter/c.y.) | (pcs.)          | (kg/lbs)      | (kg/lbs)         |
| P22V-450-4T             | 1,370 / 53.9        | 1,910 / 75.2 | 1,545 / 60.8 | 1,240 / 48.8     | 450 / 0.6    | 4               | 810 / 1,782   | 7,000 / 15,400   |
| P22V-450-5F             | 1,370 / 53.9        | 1,910 / 75.2 | 1,545 / 60.8 | 1,240 / 48.8     | 450 / 0.6    | 5               | 1,145 / 2,519 | 7,000 / 15,400   |
| P22V-450-5H             | 1,370 / 53.9        | 1,910 / 75.2 | 1,545 / 60.8 | 1,240 / 48.8     | 450 / 0.6    | 5               | 1,035 / 2,277 | 7,000 / 15,400   |
| P22V-450-5W             | 1,370 / 53.9        | 1,910 / 75.2 | 1,545 / 60.8 | 1,240 / 48.8     | 450 / 0.6    | 5               | 970 / 2,134   | 7,000 / 15,400   |
| P22V-450-5T             | 1,370 / 53.9        | 1,910 / 75.2 | 1,545 / 60.8 | 1,240 / 48.8     | 450 / 0.6    | 5               | 950 / 2,090   | 7,000 / 15,400   |

Package consists of: orange peel grab, KINSHOFER rotator, head plate

## KINSHOFER Rotator

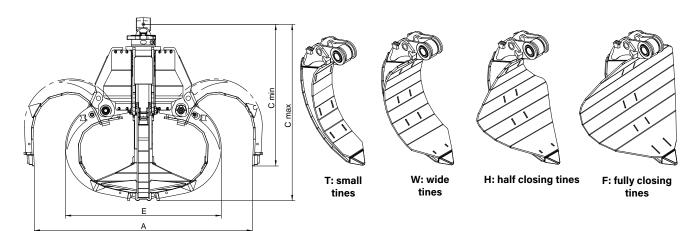
Continuous rotation and two oil passages. Overload protection is ensured by pressure relief valves.

| (width x pin-Q                          | 0)                 | max.            |
|---|--------------------|-----------------|
| (mm/in)                                 | (Nm/ft.lbs)        | (Nm/ft.lbs)     |
| <b>KM 10 F275-60</b> 125 x 60 / 4.9 x 2 | 2.36 2,000 / 1,475 | 14,000 / 10,325 |

| Туре              | Description   |
|-------------------|---|
| KM 501 13t-25t    | upper suspension without pendulum damper  |
| KM 511 13t-25t    | upper suspension with pendulum damper   |
| KSW10 cardanic    | adapter for system L-Lock KMS10L/KHS10L incl. cardan link excl. pendulum damper - up to 19t/ 41,800lbs. |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper                 |
|                   | adapters for quick change systems from other manufacturers or different sizes on request                |

# Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070 psi Pump capacity (open/close): 50 - max. 150 l/min / 13 - max. 40 GPM Operating pressure (rotate): max. 32 MPa (320 bar) / 4,640 psi Pump capacity (rotate): 20 - max. 50 l/min / 5 - max. 13 GPM



Orange peel grab rigid mount with 3 tines and 600l / 0.78c.y. or 3 or 4 tines and 800l / 1.05c.y. volume for the handling of bulky scrap with excavators from 18t / 39,600lbs to 25t / 55,000lbs operating weight.

Especially developed for heavy duty tasks.

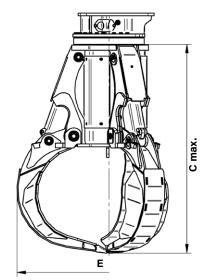
- > Hydraulic cylinders are fitted with replaceable piston rod protection and are hydraulically cushioned.
- ▶ Greasing points are easily accessible.
- Reinforced tines made of wear-resistant steel 400HB.
- Weld-on tips made of high resistant forged and tempered steel 500HB.
- Accurate fittings eliminate tine distorsion, solid end stops (open & close).
- Reinforced bolts, large bearing surface for bolts, specially coated solid steel bushings.
- Robust, fully integrated rotation with sturdy slewing ring with internal hoses guarantees optimum force transmission and prevents hose break. The integrated pressure relief valve protects against overcharge.
- > **Swivel and bevel sealed**. Rotary feedthrough and motor accessible directly.
- > Non-return valve is optionally available.
- High closing force 38kN / 8360lbf. at an operating pressure of 35MPa / 5,070psi, varies depending on width.

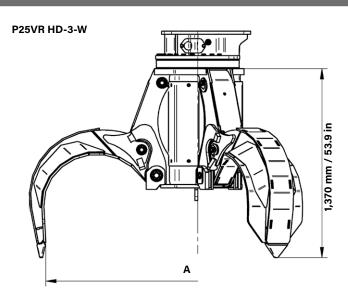
| Orange Peel Grab P25\ | /R HD               |              |                  |              |                 |               |                  |
|-----------------------|---------------------|--------------|------------------|--------------|-----------------|---------------|------------------|
| Туре                  | Width E<br>(closed) | Opening<br>A | Height C<br>max. | Volume       | Number of tines | Weight        | Load<br>capacity |
|                       | (mm/in)             | (mm/in)      | (mm/in)          | (liter/c.y.) | (pcs.)          | (kg/lbs)      | (kg/lbs)         |
| P25VR HD-600-3W*      | 1,420 / 55.9        | 2,200 / 86.6 | 1,775 / 69.9     | 600 / 0.78   | 3               | 1,650 / 3,630 | 3,000 / 6,600    |
| P25VR HD-800-3W*      | 1,560 / 61.4        | 2,200 / 86.6 | 1,775 / 69.9     | 800 / 1.05   | 3               | 1,700 / 3,740 | 3,000 / 6,600    |
| P25VR HD-800-4W*      | 1,550 / 61.0        | 2,250 / 88.6 | 1,780 / 70.1     | 800 / 1.05   | 4               | 1,980 / 4,356 | 3,000 / 6,600    |
| * prices w/o adapter  |                     |              |                  |              |                 |               |                  |

Package consists of: orange peel grab, integrated rotation with sturdy slewing ring, head plate, hose guard, bolt-on bottom plate with welded lifting eye

| Accessories    |  |
|----------------|--|
| Туре           | Description  |
| KM 691 27t     | adapter for specific solutions – up to 27t/59,400lbs                                     |
| KM 690 20t     | adapter for rigid mounting - up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting - up to 27t/59,400lbs   |
| OQ             | bolt-on adapter for Oilquick OQ – 5t to 70t/11,000lbs to 15,4000lbs                      |
| KSW10 rigid    | bolt-on adapter for system L-Lock KMS10L/KHS10L – up to 19t/41,800lbs                    |
| KSW21/25 rigid | bolt-on adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs            |
|                | adapters for quick change systems from other manufacturers or different sizes on request |

| Requirements of carrier machine    |   |   |
|------------------------------------|---|---|
|                                    | P25VR HD-3-W                            | P25VR HD-4-W                            |
| Operating pressure (open/close):   | max. 35 MPa (350 bar) / 5,070 psi       | max. 35 MPa (350 bar) / 5,070 psi       |
| Pump capacity (open/close):        | 120 - max. 200 l/min / 32 - max. 53 GPM | 120 - max. 200 l/min / 32 - max. 53 GPM |
| Hydraulic connection (open/close): | G 3/4"                                  | G 3/4"                                  |
| Operating pressure (rotate):       | 14 MPa (140 bar) / 2,030 psi            | 14 MPa (140 bar / 2,030 psi             |
| Pump capacity (rotate):            | max. 50 l/min / 13 GPM                  | max. 50 l/min / 13 GPM                  |
| Hydraulic connection (rotate):     | G 1/2"                                  | G 1/2"                                  |





P30VHD

7,000 / 15,400

7,000 / 15,400

7,000 / 15,400

7,000 / 15,400

7,000 / 15,400

7,000 / 15,400

# Orange Peel Grabs Heavy Duty with 4/5 tines

Orange peel grab with 4 or 5 tines and 600l / 0.78c.y. or 800l / 1.05c.y. volume for the handling of bulky scrap with excavators from 20t / 44,000lbs to 30t / 66,000lbs operating weight - for heavy duty tasks.

- ▶ Available in two different volumes and diverse tine profiles.
- Hydraulic cylinders are fitted with replaceable piston rod protection and are hydraulically cushioned.
- ▶ Oil distribution and hydraulic hoses are protected in the carrier.
- Reinforced tines made of wear-resistant steel 400HB.

1,520 / 59.8

1,520 / 59.8

1,525 / 60.0

1,525 / 60.0

1,525 / 60.0

1,525 / 60.0

- Weld-on tips made of high resistant forged and tempered steel 500HB.
- Accurate fittings eliminate tine distorsion, solid end stops (open & close).
- ▶ **Robust, fully integrated rotation** with sturdy slewing ring with internal hoses guarantees optimum force transmission and prevents hose break. The integrated pressure relief valve protects against overcharge.

2,130 / 83.9

2,130 / 83.9

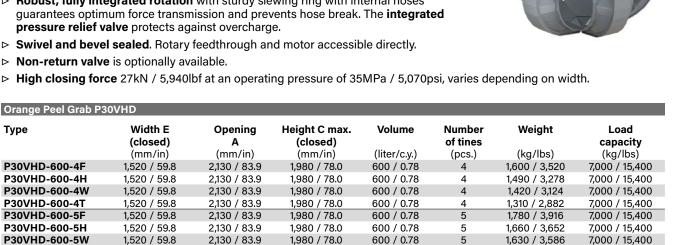
2,290 / 90.2

2.290 / 90.2

2,290 / 90.2

2,290 / 90.2

- > Swivel and bevel sealed. Rotary feedthrough and motor accessible directly.
- Non-return valve is optionally available.
- High closing force 27kN / 5,940lbf at an operating pressure of 35MPa / 5,070psi, varies depending on width.



600 / 0.78

600 / 0.78

800 / 1.05

800 / 1.05

800 / 1.05

800 / 1.05

5

5

5

5

5

5

1,490 / 6,278

1,830 / 4,026

1,730 / 3,806

1,670 / 3,674

1,520 / 3,344

2,065 / 81.3 Package consists of: orange peel grab, integrated rotation with sturdy slewing ring, head plate, hose guard, bolt-on bottom plate with welded lifting eye

1,980 / 78.0

1,980 / 78.0

2,065 / 81.3

2,065 / 81.3

2,065 / 81.3

#### Accessories

Type

P30VHD-600-4F

P30VHD-600-4H

P30VHD-600-4W

P30VHD-600-4T

P30VHD-600-5F

P30VHD-600-5H

P30VHD-600-5W

P30VHD-600-5T

P30VHD-800-5F

P30VHD-800-5H

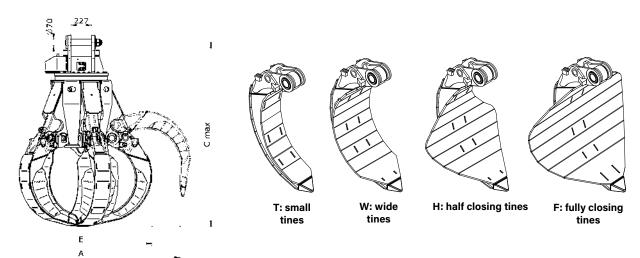
P30VHD-800-5W

P30VHD-800-5T

| Туре              | Description  |
|-------------------|--|
| KM 501 RD50       | upper suspension without pendulum damper   |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper  |
|                   | adapters for quick change systems from other manufacturers or different sizes on request |

# Requirements of carrier machine

max. 35 MPa (350 bar) / 5,070 psi Operating pressure (open/close): Pump capacity (open/close): 120 - max. 200 l/min / 32 - max. 53 GPM Hydraulic connection (open/close / rotate): 17 MPa (170 bar) / 2,460 psi Operating pressure (rotate): Pump capacity (rotate): 20 - max. 30 l/min / 5 - max. 8 GPM



Orange peel grab with 3 tines for the handling of bulky scrap with excavators from 26t / 57,200lbs to 40t / 88,000lbs operating weight - for heavy duty tasks.

- ▶ Hydraulic cylinders are fitted with **replaceable piston rod protection** and are hydraulically cushioned.
- ▶ Easy accessible greasing points.
- ▶ Reinforced tines made of wear-resistant steel 400HB.
- ▶ Weld-on tips made of high resistant forged and tempered steel 500HB.
- > Accurate fittings eliminate tine distorsion, solid end stops (open & close).
- ▶ Reinforced bolts, large bearing surface for bolts, specially coated solid steel bushings.
- ▶ **Robust, fully integrated rotation** with sturdy slewing ring with internal hoses guarantees optimum force transmission and prevents hose break. The integrated pressure relief valve protects against overcharge.
- > Swivel and bevel sealed. Rotary feedthrough and motor accessible directly.
- ▶ Non-return valve is optionally available.
- ▶ High closing force 38 kN / 8,360lbf. at an operating pressure of 35MPa / 5,070lbs., varies depending on width.



| Orange Peel Grab P40VHD |                                |                         |                                      |                        |                              |                 |                              |
|-------------------------|--------------------------------|-------------------------|--------------------------------------|------------------------|------------------------------|-----------------|------------------------------|
| Туре                    | Width E<br>(closed)<br>(mm/in) | Opening<br>A<br>(mm/in) | Height C max.<br>(closed)<br>(mm/in) | Volume<br>(liter/c.y.) | Number<br>of tines<br>(pcs.) | Weight (kg/lbs) | Load<br>capacity<br>(kg lbs) |
| P40VHD-600-3W*          | 1,420 / 55.9                   | 2,200 / 86.6            | 2,170 / 85.4                         | 600 / 0.78             | ື 3 ໌                        | 1,390 / 3,058   | 6,000 / 13,200               |
| P40VHD-800-3W*          | 1,585 / 62.4                   | 2,200 / 86.6            | 2,170 / 85.4                         | 800 / 1.05             | 3                            | 1,430 / 3,146   | 6,000 / 13,200               |
| P40VHD-1000-3W          | 1,630 / 64.2                   | 2,440 / 96.1            | 2,300 / 90.6                         | 1,000 / 1.31           | 3                            | 1,585 / 3,487   | 6,000 / 13,200               |
| P40VHD-1250-3W          | 1,830 / 72.0                   | 2,660 / 104.7           | 2,415 / 95.1                         | 1,250 / 1.64           | 3                            | 1,660 / 3,652   | 6,000 / 13,200               |
| P40VHD-1500-3W          | 1,860 / 73.2                   | 2,835 / 111.6           | 2,510 / 98.8                         | 1,500 / 1.96           | 3                            | 2,045 / 4,499   | 6,000 / 13,200               |
| * prices w/o adapter    |                                |                         |                                      |                        |                              |                 |                              |

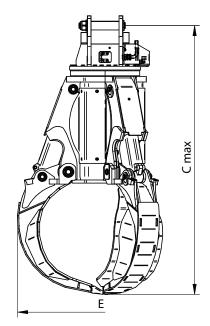
Package consists of: orange peel grab, integrated rotation with sturdy slewing ring, head plate, hose guard, bolt-on bottom plate with

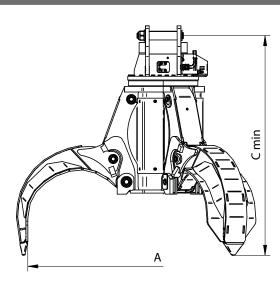
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|--------|----|----|-----|----|
|        |    |    |     |    |

| Туре              | Description  |
|-------------------|--|
| KM 501 RD50       | upper suspension without pendulum damper   |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper  |
|                   | adapters for quick change systems from other manufacturers or different sizes on request |

| Requirements of | carrier machine |
|-----------------|-----------------|
|-----------------|-----------------|

| Operating pressure (open/close):            | max. 35 MPa (350 bar) / 5,070 psi   |
|---|-------------------------------------|
| Pump capacity (open/close):                 | 120 - max. 200 l/min / 32 - 53 GPM  |
| Hydraulic connection (open/close / rotate): | 1" / 1/2"                           |
| Operating pressure (rotate):                | max. 17 MPa (170 bar) / 2,460 psi   |
| Pump capacity (rotate):                     | 20 - max. 30 l/min / 5 - max. 8 GPM |





P40VHD

# Orange Peel Grabs Heavy Duty with 4/5 tines

Orange peel grab with 4 or 5 tines and 600l / 0.78c.y. or 800l / 1.05c.y. volume for the handling of bulky scrap with excavators with up to 40t/88,000lbs operating weight - for heavy duty tasks.

- > Available in two different volumes and diverse tine profiles.
- Hydraulic cylinders are fitted with replaceable piston rod protection and are hydraulically cushioned.
- ▶ Oil distribution and hydraulic hoses are protected in the carrier.
- ▶ Reinforced tines made of wear-resistant steel 400HB.
- Weld-on tips made of high resistant forged and tempered steel 500HB.
- ▶ **Accurate fittings** eliminate tine distorsion, **solid end stops** (open & close).
- Reinforced bolts, large bearing surface for bolts, specially coated solid steel bushings.
- ▶ Robust, fully integrated rotation with sturdy slewing ring with internal hoses guarantees optimum force transmission and prevents hose break. The integrated pressure relief valve protects against overcharge.
- > Swivel and bevel sealed. Rotary feedthrough and motor accessible directly.
- Non-return valve is optionally available.
- ▶ High closing force 38 kN / 8,360lbf at an operating pressure of 35MPa / 5,070psi, varies depending on width.

| Orange Peel Grab P40V | HD                  |              |                           |              |                 |               |                  |
|-----------------------|---------------------|--------------|---------------------------|--------------|-----------------|---------------|------------------|
| Туре                  | Width E<br>(closed) | Opening<br>A | Height C max.<br>(closed) | Volume       | Number of tines | Weight        | Load<br>capacity |
|                       | (mm/in)             | (mm/in)      | (mm/in)                   | (liter/c.y.) | (pcs.)          | (kg/lbs)      | (kg/lbs)         |
| P40VHD-600-5H         | 1,430 / 56.3        | 2,200 / 86.6 | 2,170 / 85.4              | 600 / 0.78   | 5               | 1,870 / 4,114 | 10,000 / 22,000  |
| P40VHD-600-5W         | 1,430 / 56.3        | 2,200 / 86.6 | 2,170 / 85.4              | 600 / 0.78   | 5               | 1,900 / 4,180 | 10,000 / 22,000  |
| P40VHD-600-5T         | 1430 / 56.3         | 2,200 / 86.6 | 2,170 / 85.4              | 600 / 0.78   | 5               | 1,730 / 3,806 | 10,000 / 22,000  |
| P40VHD-800-4W         | 1,545 / 60.8        | 2,165 / 85.2 | 2,170 / 85.4              | 800 / 1.05   | 4               | 1,680 / 3,696 | 10,000 / 22,000  |
| P40VHD-800-4T         | 1,545 / 60.8        | 2,165 / 85.2 | 2,170 / 85.4              | 800 / 1.05   | 4               | 1,530 / 3,366 | 10,000 / 22,000  |
| P40VHD-800-5F         | 1,560 / 61.2        | 2,190 / 86.2 | 2,170 / 85.4              | 800 / 1.05   | 5               | 2,140 / 4,708 | 10,000 / 22,000  |
| P40VHD-800-5H         | 1,560 / 61.2        | 2,190 / 86.2 | 2,170 / 85.4              | 800 / 1.05   | 5               | 1,965 / 4,323 | 10,000 / 22,000  |
| P40VHD-800-5W         | 1,560 / 61.2        | 2,190 / 86.2 | 2,170 / 85.4              | 800 / 1.05   | 5               | 1,965 / 4,323 | 10,000 / 22,000  |
| P40VHD-800-5T         | 1,560 / 61.2        | 2,190 / 86.2 | 2,170 / 85.4              | 800 / 1.05   | 5               | 1,775 / 3,905 | 10,000 / 22,000  |

Package consists of: orange peel grab, integrated rotation with sturdy slewing ring, head plate, hose guard, bolt-on bottom plate with welded lifting eye

#### Accessories

| Туре              | Description  |
|-------------------|--|
| KM 501 RD50       | upper suspension without pendulum damper   |
| KSW21/25 cardanic | adapter for system L-Lock KMS21/25L / KHS21/25L incl. cardan link excl. pendulum damper  |
|                   | adapters for quick change systems from other manufacturers or different sizes on request |

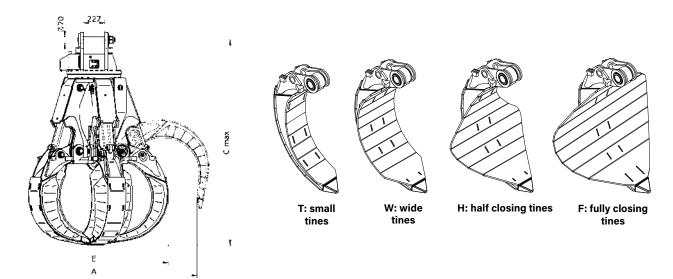
## Requirements of carrier machine

Operating pressure (open/close): max. 35 MPa (350 bar) / 5,070 psi 120 - max. 200 l/min / 32 - max. 53 GPM Pump capacity (open/close):

Hydraulic connection (open/close / rotate):

14 MPa (140 bar) / 2030 psi - max. 25 MPa (250 bar) / 3,620 psi Operating pressure (rotate):

Pump capacity (rotate): 20 - max, 50 l/min / 5 - max, 13 GPM



# **Mounting Options for Hydraulic Attachments - cardanic mount**

## KM 501 - upper suspension without pendulum damper - specify excavator type when ordering



## KM 511 - upper suspension with pendulum damper - specify excavator type when ordering



 Type
 for rotators
 Upper connection rotator (width x pin-Ø) (mm/in)

 KM 511 13t-25t
 KM 10 F275-60
 125 x 60 / 4.9 x 2.36

 KM 511 19t-60t
 KM 15 F340-70 / KM 15 F273-70
 180 x 70 / 71 x 2.76

## KM 510 - single pendulum damper without upper suspension - specify rotator type when ordering



#### KSW cardanic - adapter for quick coupler system L-Lock incl. cardan link excl. pendulum damper



 Type
 for quick coupler System L-Lock
 Operating weight (t/lbs)

 KSW10 cardanic
 KMS10L / KHS10L
 up to 19 / 41,800

 KSW21/25 cardanic
 KMS21/25L / KHS21/25L
 up to 40 / 88,000

# S cardanic - adapter for quick coupler system S-Lock incl. cardan link excl. pendulum damper



 Type
 for quick coupler System S-Lock
 Operating weight (t/lbs)

 \$50 cardanic
 KMS60S / KHS60S
 up to 18 / 39,600

 \$70 cardanic
 KMS70S / KHS70S
 up to 30 / 66,000

# OQ cardanic - upper suspension with pendulum damper incl. adapter "Oilquick" and hoses



Type Operating weight
(t/lbs)

OQ60 cardanic 8 - 15 / 17,600 - 33,000

OQ60-5 cardanic 8 - 15 / 17,600 - 33,000

OQ65 cardanic 14 - 22 / 30,800 - 48,400

OQ70 cardanic 15 - 28 / 33,000 - 61,600

OQ70/55 cardanic 18 -32 / 39,600 - 70,400

OQ80 cardanic 25 - 43 / 55,000 - 94,600

# SW cardanic - upper suspension with pendulum damper incl. adapter "Liebherr"



| Туре                   | Operating weight (t/lbs)  |  |
|------------------------|---------------------------|--|
| SW48 cardanic          | 14 - 30 / 30,800 - 66,000 |  |
| SW48 Likufix cardanic* | 14 - 30 / 30,800 - 66,000 |  |
| SW66 cardanic          | 28 - 45 / 61,600 - 99,000 |  |
| SW66 Likufix cardanic* | 28 - 45 / 61,600 - 99,000 |  |

# CW cardanic - upper suspension with pendulum damper incl. adapter "Verachtert"

\*incl. hoses



| Туре             | Operating weight<br>(t/lbs) |
|------------------|-----------------------------|
| CW30 cardanic    | 15 - 25 / 33,000 - 55,000   |
| CW40 cardanic    | 20 - 30 / 44,000 - 66,000   |
| CW45 cardanic    | 25 - 40 / 55,000 - 88,000   |
| CW30S cardanic** | 15 - 25 / 33,000 - 55,000   |
| CW40S cardanic** | 20 - 30 / 44,000 - 66,000   |
| CW45S cardanic** | 25 - 40 / 55,000 - 88,000   |

<sup>\*\*</sup>smaller S-version

Note: adapters for quick change systems for other manufacturers or other sizes on request

# Multi-Quick Processor up to 50t / 110,000lbs

Used for cutting and crushing concrete with steel reinforcement and cutting steel structures, the **KINSHOFER** Multi-Quick Processor with DemaPower and DemaLink was developed for primary and secondary demolition. It has seven convenient jaw options: combi, demolition, pulveriser, steel, tank, universal and wood jaws.

- ➤ The patented DemaPower cylinder provides up to 20% more power and reduces cycle times to under 5 seconds.
- > Rotation circuit filters.
- > Twin rotation motors for extra rotation power.
- Guide plate at pivot point for more precise alignment and greater jaw stability.
- > All teeth and cutting blades are exchangeable.
- ▷ Bearing points engineered for optimum load handling and reduced wear.
- ▶ With the integrated DemaLink the jaw set can be exchanged on site in less than 10 minutes.

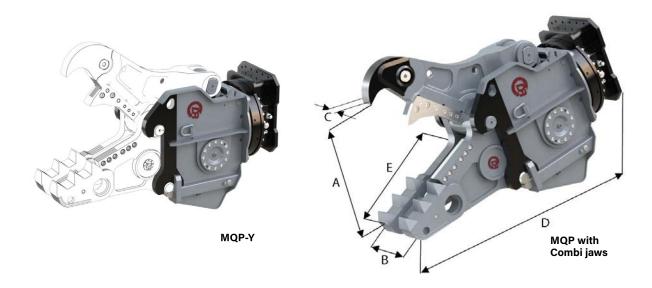


MQP with Combi-jaws

| Multi-Quick P | rocessor MQP without jaws  |               |              |            |              |                               |
|---------------|----------------------------|---------------|--------------|------------|--------------|-------------------------------|
| Туре          | Operating<br>weight        | Weight        | Height       | Width      | Depth        | Cycle times<br>(open / close) |
|               | (t/lbs)                    | (kg/lbs)      | (mm/in)      | (mm/in)    | (mm/in)      | (sec)                         |
| MQP-25-Y      | 18 - 25 / 39,600 - 55,000  | 1,215 / 2,673 | 1,095 / 43.1 | 640 / 25.2 | 1,130 / 44.5 | 1.5 / 2.3                     |
| MQP-30-Y      | 22 - 35 / 48,400 - 77,000  | 1,490 / 3,278 | 1,205 / 47.4 | 720 / 28.3 | 1,190 / 46.9 | 2.0 / 2.3                     |
| MQP-45-Y      | 32 - 50 / 70,400 - 110,000 | 1,825 / 4,015 | 1,330 / 52.4 | 720 / 28.3 | 1,290 / 50.8 | 2.0 / 2.9                     |

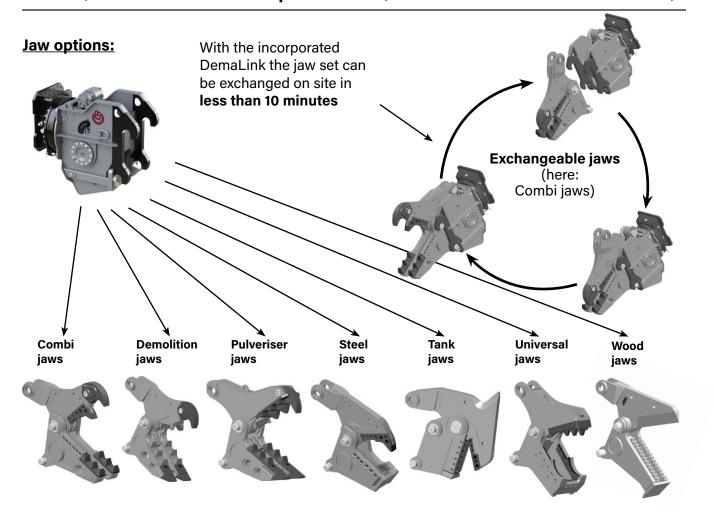
Package consists of: Multi-Quick Processor, integrated rotation with 2 motors

| Requirements of carrier machine  |                         |                         |                         |  |  |  |  |  |  |  |
|----------------------------------|-------------------------|-------------------------|-------------------------|--|--|--|--|--|--|--|
|                                  | MQP-25                  | MQP-30                  | MQP-45                  |  |  |  |  |  |  |  |
| Operating pressure (open/close): | max. 38 MPa (380 bar) / | max. 38 MPa (380 bar) / | max. 38 MPa (380 bar) / |  |  |  |  |  |  |  |
|                                  | 5,510 psi               | 5,510 psi               | 5,510 psi               |  |  |  |  |  |  |  |
| Pump capacity (open/close):      | 120 - max. 200 l/min/   | 150 - max. 250 l/min/   | 200 - max. 300 l/min/   |  |  |  |  |  |  |  |
|                                  | 32 - max. 53GPM         | 40 - max. 66 GPM        | 53 - max. 79.5 GPM      |  |  |  |  |  |  |  |
| Operating pressure (rotate):     | max. 14 MPa (140 bar) / | max. 14 MPa (140 bar) / | max. 14 MPa (140 bar) / |  |  |  |  |  |  |  |
|                                  | 2,030 psi               | 2,030 psi               | 2,030 psi               |  |  |  |  |  |  |  |
| Pump capacity (rotate):          | 40 - max. 60 l/min/     | 40 - max. 60 l/min/     | 40 - max. 60 l/min/     |  |  |  |  |  |  |  |
|                                  | 10.5 - max. 16 GPM      | 10.5 - max. 16 GPM      | 10.5 - max. 16 GPM      |  |  |  |  |  |  |  |



# Multi-Quick Processor Jaws up to 50t / 110,000lbs

# **MQP**



| <b>Multi-Quick Proce</b> | ssor Jaws                         |                   |                |                     |                   |                         |                         |              |
|--------------------------|-----------------------------------|-------------------|----------------|---------------------|-------------------|-------------------------|-------------------------|--------------|
| Туре                     | Weight<br>(complete<br>with yoke) | Weight<br>jaw set | Closing force* | Jaw<br>opening<br>A | Jaw<br>depth<br>E | Lower<br>jaw<br>width B | Upper<br>jaw<br>width C | Height<br>D  |
| Combi jaws:              | (kg/lbs)                          | (kg/lbs)          | (t/lbs)        | (mm/in)             | (mm/in)           | (mm/in)                 | (mm/in)                 | (mm/in)      |
| MQP-25-C                 | 2,060 / 4,532                     | 845 / 1,859       | 85 / 187,000   | 785 / 30.9          | 810 / 31.9        | 375 / 14.8              | 90 / 3.5                | 1,940 / 76.4 |
| MQP-30-C                 | 2,680 / 5,896                     | 1,190 / 2,618     | 100 / 220,000  | 870 / 34.3          | 920 / 36.2        | 440 / 17.3              | 100 / 3.9               | 2,155 / 84.8 |
| MQP-45-C                 | 3,365 / 7,403                     | 1,540 / 3388      | 130 / 286,000  | 980 / 38.6          | 990 / 39.0        | 450 / 17.7              | 100 / 3.9               | 2,360 / 92.9 |
| Demolition jaws:         |                                   |                   |                |                     |                   |                         |                         |              |
| MQP-25-D                 | 2,085 / 4,587                     | 870 / 1,914       | 90 / 198,000   | 815 / 32.1          | 810 / 31.9        | 460 / 18.1              | 90 / 3.5                | 1,980 / 78   |
| MQP-30-D                 | 2,690 / 5,918                     | 1,200 / 2,640     | 105 / 231,000  | 870 / 34.3          | 900 / 35.4        | 470 / 18.5              | 100 / 3.9               | 2,160 / 85   |
| MQP-45-D                 | 3,405 / 7,491                     | 1,580 / 3,476     | 130 / 286,000  | 990 / 39.0          | 960 / 37.8        | 515 / 20.3              | 100 / 3.9               | 2,355 / 92.7 |
| Pulveriser jaws:         |                                   |                   |                |                     |                   |                         |                         |              |
| MQP-25-P                 | 2,100 / 4,620                     | 885 / 1,947       | 85 / 187,000   | 790 / 31.1          | 810 / 31.9        | 400 / 15.7              | 325 / 12.8              | 1,980 / 78.0 |
| MQP-30-P                 | 2,665 / 5,863                     | 1,175 / 2,585     | 100 / 220,000  | 880 / 34.6          | 830 / 32.7        | 470 / 18.5              | 350 / 13.8              | 2,165 / 85.2 |
| MQP-45-P                 | 3,450 / 7,590                     | 1,625 / 3,575     | 130 / 286,000  | 980 / 38.6          | 945 / 37.2        | 515 / 20.3              | 400 / 15.7              | 2,355 / 92.7 |
| Steel jaws:              |                                   |                   |                |                     |                   |                         |                         |              |
| MQP-25-S                 | 1,985 / 4,367                     | 770 / 1,694       | 300 / 660,000  | 370 / 14.6          | 560 / 22.0        | 320 / 12.6              | 100 / 3.9               | 1,965 / 77.4 |
| MQP-30-S                 | 2,460 / 5,412                     | 970 / 2,134       | 340 / 748,000  | 410 / 16.1          | 600 / 23.6        | 355 / 14.0              | 120 / 4.7               | 1,910 / 75.2 |
| MQP-45-S                 | 3,130 / 6,886                     | 1,305 / 2,871     | 415 / 913,000  | 465 / 18.3          | 700 / 27.6        | 375 / 14.8              | 120 / 4.7               | 2,105 / 82.9 |
| Tank jaws:               |                                   |                   |                |                     |                   |                         |                         |              |
| MQP-25-T                 | 2,130 / 4,686                     | 915 / 2,013       | 295 / 649,000  | 333 / 13.1          | 570 / 22.4        | 265 / 10.4              | 100 / 3.9               | 1,910 / 75.2 |
| MQP-30-T                 | 2,710 / 5,962                     | 1,220 / 2,684     | 360 / 792,000  | 335 / 13.2          | 575 / 22.6        | 305 / 12.0              | 120 / 4.7               | 2,070 / 81.5 |
| MQP-45-T                 | 3,320 / 7,304                     | 1,495 / 3,289     | 460 / 101,200  | 390 / 15.4          | 630 / 24.8        | 305 / 12.0              | 120 / 4.7               | 2,275 / 89.6 |
| Universal jaws:          |                                   |                   |                |                     |                   |                         |                         |              |
| MQP-30-U                 | 2,640 / 5,808                     | 1,150 / 2,530     | 110 / 242,000  | 590 / 23.2          | 790 / 31.1        | 500 / 19.7              | 280 / 11.0              | 2,040 / 80.3 |
| MQP-45-U                 | 3,195 / 7,029                     | 1,370 / 3,015     | 145 / 319,000  | 670 / 26.4          | 830 / 32.7        | 525 / 20.7              | 310 / 12.2              | 2,225 / 87.6 |
| Wood jaws:<br>MQP-30-W   | 2,565 / 5,643                     | 1,075 / 2,365     | 85 / 187,000   | 1.005 / 39.6        | 880 / 34.6        | 360 / 14.2              | 90 / 3.5                | 2,175 / 85.6 |
| IVIQF-3U-VV              | 2,303 / 3,043                     | 1,070 / 2,305     | 00 / 107,000   | 1,000 / 39.0        | 000 / 34.0        | 300 / 14.2              | 90 / 3.3                | 2,170 / 00.0 |

<sup>\*</sup> closing force for C-, D-, P-, U- and W-jaw measured at front tooth, for S- and T-jaw measured at mid point of inner blade

The rotating demolition tools of the Dedicated Demolition Line have been developed for primary and secondary demolition. Their jaws are designed for each application area within a demolition job site: Combi Shear DLC, Demolition Shear DLD or Pulveriser DLP.

- ▶ Powerful cylinder with robust pin suspension.
- ▶ Cylinder in two chamber technique with speed valve.
- > Rotation with additional oil passage.
- > Twin rotation motors for extra rotation power.
- > Swing bearing double pivoted.
- ▶ Rotation circuit filters.
- > Teeth, shrouds and cutting blades exchangeable.
- ▷ Excellent speed/ power to weight ratio.
- DLP: exchangeable ground tooth-plate.



DLD-25

| Rotating ( | Rotating Combi Shears DLC    |                  |                     |               |                     |                    |                     |                  |                             |  |  |
|------------|------------------------------|------------------|---------------------|---------------|---------------------|--------------------|---------------------|------------------|-----------------------------|--|--|
| Туре       | Operating weight             | Weight           | Jaw<br>width        | Jaw<br>depth  | Lower jaw<br>width  | Upper jaw<br>width | Height              | Length<br>blades | Closing<br>force*           |  |  |
|            | (t/lbs)                      | (kg/lbs)         | <b>A</b><br>(mm/in) | E<br>(mm/in)  | <b>B</b><br>(mm/in) | C<br>(mm/in)       | <b>D</b><br>(mm/in) | (mm/in)          | (t/lbs)                     |  |  |
|            | 18 - 25 /                    | 1,880 /          | 785 /               | 800 /         | 390 /               | 90 /               | 1,995 /             | 400 /            | 70/100 /                    |  |  |
| DLC-25     | 39,600 - 55,000              | 4,136            | 30.9                | 31.5          | 15.4                | 3.5                | 78.5                | 15.7             | 154,000/220,000             |  |  |
| DLC-30     | 22 - 35 /<br>48,400 - 77,000 | 2,455 /<br>5,401 | 875 /<br>34.4       | 900 /<br>35.4 | 455 /<br>17.9       | 100 /<br>3.9       | 2,150 /<br>84.6     | 400 /<br>15.7    | 80/125 /<br>176.000/275.000 |  |  |
|            | 32 - 50 /                    | 3.085 /          | 980 /               | 990 /         | 470 /               | 100 /              | 2,365 /             | 500 /            | 110/150 /                   |  |  |
| DLC-45     | 70,400 - 110,000             | 6,787            | 38.6                | 39.0          | 18.5                | 3.9                | 93.1                | 19.7             | 242,000/330,000             |  |  |

| Rotating Demolition Shears DLD |                               |                  |                     |               |                     |                    |                     |                  |                              |  |
|--------------------------------|-------------------------------|------------------|---------------------|---------------|---------------------|--------------------|---------------------|------------------|------------------------------|--|
| Туре                           | Operating weight              | Weight           | Jaw<br>width        | Jaw<br>depth  | Lower jaw<br>width  | Upper jaw<br>width | Height              | Length<br>blades | Closing<br>force*            |  |
|                                | (t/lbs)                       | (kg/lbs)         | <b>A</b><br>(mm/in) | E<br>(mm/in)  | <b>B</b><br>(mm/in) | C<br>(mm/in)       | <b>D</b><br>(mm/in) | (mm/in)          | (t/lbs)                      |  |
|                                |                               | ` • •            |                     |               |                     | ` '                |                     | ` '              | ,                            |  |
| DLD-25                         | 18 - 25 /<br>39,600 - 55,000  | 1,905 /<br>4,191 | 825 /<br>32.5       | 800 /<br>31.5 | 390 /<br>15.4       | 90 /<br>3.5        | 2,035 /<br>80.1     | 200 /<br>7.9     | 75/125 /<br>165,000/275,000  |  |
| DLD-30                         | 22 - 35 /<br>48,400 - 77,000  | 2,450 /<br>5,390 | 870 /<br>34.3       | 885 /<br>84.8 | 450 /<br>17.7       | 100 /<br>3.9       | 2,155 /<br>84.8     | 200 /<br>7.9     | 85/135 /<br>187,000/297,000  |  |
| DLD-45                         | 32 - 50 /<br>70,400 - 110,000 | 3,110 /<br>6,842 | 990 /<br>39.0       | 945 /<br>37.2 | 470 /<br>18.5       | 100 /<br>3.9       | 2,360 /<br>92.9     | 200 /<br>7.9     | 110/160 /<br>242,000/252,000 |  |

| Rotating Pulveriser DLP |                     |          |                   |                   |                         |                         |             |                  |                 |  |  |
|-------------------------|---------------------|----------|-------------------|-------------------|-------------------------|-------------------------|-------------|------------------|-----------------|--|--|
| Туре                    | Operating<br>weight | Weight   | Jaw<br>width<br>A | Jaw<br>depth<br>E | Lower jaw<br>width<br>B | Upper jaw<br>width<br>C | Height<br>D | Length<br>blades | Closing force*  |  |  |
|                         | (t/lbs)             | (kg/lbs) | (mm/in)           | (mm/in)           | (mm/ in)                | (mm/in)                 | (mm/in)     | (mm/in)          | (t/lbs)         |  |  |
| DLP-25                  | 18 - 25 /           | 1,920 /  | 790 /             | 800 /             | 390 /                   | 325 /                   | 2,035 /     | 200 /            | 70/100 /        |  |  |
|                         | 39,600 - 55,000     | 4,224    | 31.1              | 31.5              | 15.4                    | 12.8                    | 80.1        | 7.9              | 154,000/220,000 |  |  |
| DLP-30                  | 22 - 35 /           | 2,425 /  | 860 /             | 885 /             | 450 /                   | 350 /                   | 2,155 /     | 200 /            | 80/125 /        |  |  |
|                         | 48,400 - 77,000     | 5,335    | 33.9              | 84.8              | 17.7                    | 13.8                    | 84.8        | 7.9              | 176,000/275,000 |  |  |
| DLP-45                  | 32 - 50 /           | 3,150 /  | 985 /             | 945 /             | 470 /                   | 400 /                   | 2,360 /     | 200 /            | 110/150 /       |  |  |
|                         | 70,400 - 110,000    | 6,930    | 38.8              | 37.2              | 18.5                    | 15.7                    | 92.9        | 7.9              | 242,000/330,000 |  |  |

<sup>\*</sup> closing force measured at front tooth / splitting tooth

# Rotating Shears with *DemaPower* up to 50t / 110,000lbs

DRC / DRD / DRP

The rotating demolition tools of the Dedicated Demolition Line have been developed for primary and secondary demolition. Their jaws are designed to each application area within a demolition job site: Combi Shear DRC, Demolition Shear DRD or Pulveriser DRP. The patented DemaPower cylinder concept provides up to 20% more power and obviously quicker cycle times.

- Maximized working speed with the DemaPower cylinder and robust pin suspension, four chamber technique and speed valve.
- > Rotation with additional oil passage.
- > Twin rotation motors for extra rotation power.
- > Swing bearing double pivoted.
- ▶ Rotation circuit filters.
- > Teeth, shrouds and cutting blades exchangeable.
- ▷ Excellent speed/ power to weight ratio.
- > DRP: exchangeable ground tooth-plate.



**DRD-25** 

| Rotating C | Rotating Combi Shears DRC     |                  |                     |               |                     |                    |                     |                  |                              |  |  |
|------------|-------------------------------|------------------|---------------------|---------------|---------------------|--------------------|---------------------|------------------|------------------------------|--|--|
| Туре       | Operating weight              | Weight           | Jaw<br>width        | Jaw<br>depth  | Lower jaw<br>width  | Upper jaw<br>width | Height              | Length<br>blades | Closing<br>force*            |  |  |
|            | (t/lbs)                       | (kg/lbs)         | <b>A</b><br>(mm/in) | E<br>(mm/in)  | <b>B</b><br>(mm/in) | C<br>(mm/in)       | <b>D</b><br>(mm/in) | (mm/in)          | (t/lbs)                      |  |  |
|            | ,                             |                  | , ,                 | , ,           |                     | ` '                |                     |                  | ,                            |  |  |
| DRC-25     | 18 - 25 /<br>39,600 - 55,000  | 1,880 /<br>4,136 | 785 /<br>30.9       | 800 /<br>31.5 | 390 /<br>15.4       | 90 /<br>3.5        | 1,995 /<br>78.5     | 400 /<br>15.7    | 85/120 /<br>187,000/264,000  |  |  |
| DRC-30     | 22 - 35 /<br>48,400 - 77,000  | 2,440 /<br>5,368 | 875 /<br>34.4       | 900 /<br>35.4 | 455 /<br>17.9       | 100 /<br>3.9       | 2,150 /<br>84.6     | 400 /<br>15.7    | 100/150 /<br>220,000/330,000 |  |  |
| DRC-45     | 32 - 50 /<br>70,400 - 110,000 | 3,060 /<br>6,732 | 990 /<br>39.0       | 975 /<br>38.4 | 470 /<br>18.5       | 100 /<br>3.9       | 2,365 /<br>93.1     | 500 /<br>19.7    | 130/185 /<br>286,000/407,000 |  |  |

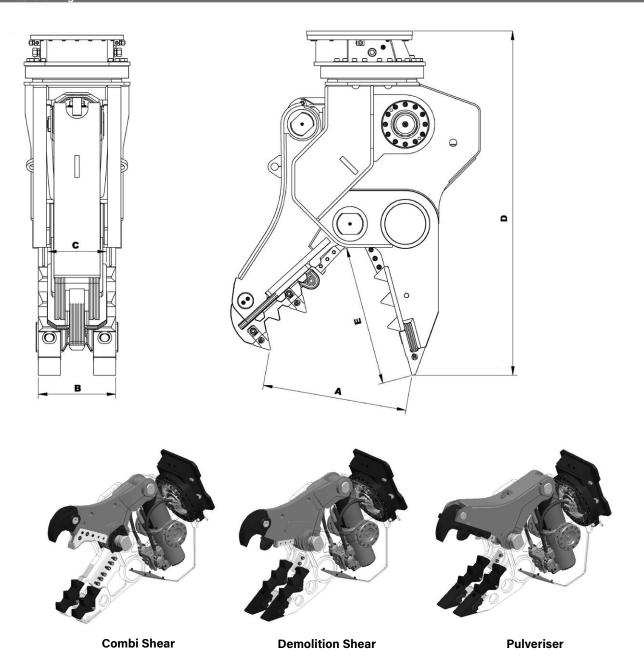
| Rotating Demolition Shears DRD |                  |          |              |              |                     |              |                     |                  |                 |  |  |
|--------------------------------|------------------|----------|--------------|--------------|---------------------|--------------|---------------------|------------------|-----------------|--|--|
| Туре                           | Operating weight | Weight   | Jaw<br>width | Jaw<br>depth | width               | width        | Height              | Length<br>blades | Closing force*  |  |  |
|                                | (t/lbs)          | (kg/lbs) | A<br>(mm/in) | E<br>(mm/in) | <b>B</b><br>(mm/in) | C<br>(mm/in) | <b>D</b><br>(mm/in) | (mm/in)          | (t/lbs)         |  |  |
| DRD-25                         | 18 - 25 /        | 1,905 /  | 825 /        | 800 /        | 390 /               | 90 /         | 2,035 /             | 200 /            | 90/145 /        |  |  |
|                                | 39,600 - 55,000  | 4,191    | 32.5         | 31.5         | 15.4                | 3.5          | 80.1                | 7.9              | 198,000/319,000 |  |  |
| DRD-30                         | 22 - 35 /        | 2,435 /  | 870 /        | 885 /        | 450 /               | 100 /        | 2,155 /             | 200 /            | 105/160 /       |  |  |
|                                | 48,400 - 77,000  | 5,357    | 34.3         | 84.8         | 17.7                | 3.9          | 84.8                | 7.9              | 231,000/352,000 |  |  |
| DRD-45                         | 32 - 50 /        | 3,085 /  | 990 /        | 945 /        | 470 /               | 100 /        | 2,360 /             | 200 /            | 130/195 /       |  |  |
|                                | 70,400 - 110,000 | 6,787    | 39.0         | 37.2         | 18.5                | 3.9          | 92.9                | 7.9              | 286,000/429,000 |  |  |

| Rotating Pulveriser DRP |                     |          |                   |                   |                         |                         |             |                  |                 |  |
|-------------------------|---------------------|----------|-------------------|-------------------|-------------------------|-------------------------|-------------|------------------|-----------------|--|
| Туре                    | Operating<br>weight | Weight   | Jaw<br>width<br>A | Jaw<br>depth<br>E | Lower jaw<br>width<br>B | Upper jaw<br>width<br>C | Height<br>D | Length<br>blades | Closing force*  |  |
|                         | (t/ lbs.)           | (kg/lbs) | (mm/in)           | (mm/ in)          | (mm/ in)                | (mm/ in)                | (mm/ in)    | (mm/in)          | (t/lbs)         |  |
| DRP-25                  | 18 - 25 /           | 1,910 /  | 790 /             | 800 /             | 390 /                   | 325 /                   | 1,980 /     | 200 /            | 85/130 /        |  |
|                         | 39,600 - 55,000     | 4,202    | 31.1              | 31.5              | 15.4                    | 12.8                    | 78.0        | 7.9              | 209,000/286,000 |  |
| DRP-30                  | 22 - 35 /           | 2,410 /  | 860 /             | 885 /             | 450 /                   | 350 /                   | 2,155 /     | 200 /            | 100/150 /       |  |
|                         | 48,400 - 77,000     | 5,302    | 33.9              | 84.8              | 17.7                    | 13.8                    | 84.8        | 7.9              | 220,000/330,000 |  |
| DRP-45                  | 32 - 50 /           | 3,125 /  | 980 /             | 945 /             | 470 /                   | 400 /                   | 2,360 /     | 200 /            | 130/185 /       |  |
|                         | 70,400 - 110,000    | 6,875    | 38.6              | 37.2              | 18.5                    | 15.7                    | 92.9        | 7.9              | 286,000/407,000 |  |

<sup>\*</sup> closing force measured at front tooth / splitting tooth

| Hydraulics               |                            |                                      |                            |                                    |                         |
|--------------------------|----------------------------|--------------------------------------|----------------------------|------------------------------------|-------------------------|
| Туре                     |                            | Open / close                         | F                          | Rotation                           | Cycle times             |
|                          | Pressure max.<br>(bar/psi) | Flow<br>(I/min/GPM)                  | Pressure max.<br>(bar/psi) | <b>Flow</b><br>(I/min/GPM)         | (open / close)<br>(sec) |
| DLC-25 / DLD-25 / DLP-25 | 380 / 5,510                | 120 - max. 200 /<br>31.7 - max. 52.8 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.5 / 2.5               |
| DLC-30 / DLD-30 / DLP-30 | 380 / 5,510                | 150 - max. 250 /<br>39.6 - max. 66.1 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.5 / 2.5               |
| DLC-45 / DLD-45 / DLP-45 | 380 / 5,510                | 200 - max. 300 /<br>52.8 - max. 79.3 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.6 / 2.9               |

| Hydraulics               |                            |                                      |                            |                                    |                         |
|--------------------------|----------------------------|--------------------------------------|----------------------------|------------------------------------|-------------------------|
| Туре                     | Open / close               |                                      | R                          | otation                            | Cycle times             |
| -                        | Pressure max.<br>(bar/psi) | Flow<br>(l/min)                      | Pressure max.<br>(bar/psi) | <b>Flow</b><br>(I/min)             | (open / close)<br>(sec) |
| DRC-25 / DRD-25 / DRP-25 | 380 / 5,510                | 120 - max. 200 /<br>31.7 - max. 52.8 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.0 / 2.3               |
| DRC-30 / DRD-30 / DRP-30 | 380 / 5,510                | 150 - max. 250 /<br>39.6 - max. 66.1 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.0 / 2.5               |
| DRC-45 / DRD-45 / DRP-45 | 380 / 5,510                | 200 - max. 300 /<br>52.8 - max. 79.3 | 140 / 2,030                | 40 - max. 60 /<br>10.6 - max. 15.9 | 2.0 / 2.9               |



The DXS Mobile Shear with its 360° rotation has been engineered to achieve an optimal power to weight ratio. This robust tool can be used for a wide variety of jobs including steel structural demolition, scrap yards, conditioning of industrial mixed scrap and even processing steel-reinforced concrete.

- ▶ 25% more power and fast cycle times thanks to DemaPower 2.0.
- > Protected cylinder, robust shear arm.
- ▶ **Heavy duty bearings** for reduced bushing wear without allowance.
- ▶ Very high cutting force: optimal power to weight ratio. Robust mouth.
- ▶ Optimal mouth design with large opening for scrap.
- ▶ **More cutting force** by displaced angles of the two cutting blades.
- All wear cutting blades can be turned three times.
- > Exchangeable, weldable piercing tip.
- With integrated OQ80/4 adapter (version FQC) available.
- ▶ Shear without rotation (version C) on request.



| Туре       | Weight*           | Length<br>A      | Opening<br>B  | Jaw<br>depth C | Primary cutter length  | Cutting force**       | Operating<br>weight (boom)    | Operating weight (dipper)      |
|------------|-------------------|------------------|---------------|----------------|------------------------|-----------------------|-------------------------------|--------------------------------|
|            | (kg/lbs)          | (mm/in)          | (mm/in)       | (mm/in)        | (mm/in)                | (kN/lbf)              | (t/lbs)                       | (t/lbs)                        |
| DXS-40-A   | 3,200 /<br>7,040  | 2,995 /<br>117.9 | 630 /<br>24.8 | 665 /<br>26.2  | 225/330 /<br>8.8/12.9  | 8,200 /<br>1,804,000  | 18 - 25 /<br>39,600 - 55,000  | 25 - 40 /<br>55,000 - 88,000   |
| DXS-40-FQC | 3,425 /<br>7,535  | 3,365 /<br>132.5 | 630 /<br>24.8 | 665 /<br>26.2  | 225/330 /<br>8.8/12.9  | 8,200 /<br>1,804,000  | 18 - 25 /<br>39,600 - 55,000  | -                              |
| DXS-50-A   | 4,500 /<br>9,900  | 3,280 /<br>129.1 | 730 /<br>28.7 | 780 /<br>30.7  | 250/380 /<br>9.8/14.9  | 10,000 /<br>2,200,000 | 25 - 35 /<br>55,000 - 77,000  | 35 - 50 /<br>77,000 - 110,000  |
| DXS-50-FQC | 4,630 /<br>10,186 | 3,650 /<br>143.7 | 730 /<br>28.7 | 780 /<br>30.7  | 250/380 /<br>9.8/14.9  | 10,000 /<br>2,200,000 | 25 - 35 /<br>55,000 - 77,000  | -                              |
| DXS-60-A   | 5,800 /<br>12,760 | 3,520 /<br>138.6 | 820 /<br>32.3 | 835 /<br>32.9  | 275/380 /<br>10.8/14.9 | 11,500 /<br>2,530,000 | 32 - 50 /<br>66,000 - 110,000 | 50 - 70 /<br>110,000 - 154,000 |
| DXS-60-FQC | 5,900 /<br>12,980 | 3,840 /<br>151.2 | 820 /<br>32.3 | 835 /<br>32.9  | 275/380 /<br>10.8/14.9 | 11,500 /<br>2,530,000 | 32 - 50 /<br>66,000 - 110,000 | -                              |

| Hydraulics |               |                                  |             |                     |                          |             |
|------------|---------------|----------------------------------|-------------|---------------------|--------------------------|-------------|
| Туре       | Open / close  |                                  | Re          | otation             | Back pressure            | Cycle times |
|            | Pressure max. | Flow                             |             |                     | (back pressure)          | open/close  |
|            | (bar/psi)     | (I/min/GPM)                      | (bar)       | (I/min/GPM)         | (bar)                    | (sec)       |
| DXS-40     | 380 / 5,510   | 200 - max. 300 / 53 - max. 79.5  | 140 / 2,030 | 40 - 60 / 10.5 - 16 | -                        | 3.2 / 3.3   |
| DXS-50     | 380 / 5,510   | 300 - max. 400 / 79.5 - max. 105 | 140 / 2,030 | 40 - 60 / 10.5 - 16 | -                        | 2.7 / 3.7   |
| DXS-60     | 380 / 5,510   | 400 - max. 500 / 105 - max. 132  | 200 / 2,880 | 60 / 16             | 10 (drain line required) | 3.0 / 3.8   |

| Steel profiles / allowed maximum sizes |                                   |                                     |                                     |  |  |  |  |  |
|--|-----------------------------------|-------------------------------------|-------------------------------------|--|--|--|--|--|
| Туре                                   | DXS-40                            | DXS-50                              | DXS-60                              |  |  |  |  |  |
| H-beam narrow/medium/wide              | HEA 400 / HEB 300 / HEM 140       | HEA 500 / HEB 360 / HEM 160         | HEA 600 / HEB 400 / HEM 180         |  |  |  |  |  |
| I-beam narrow/medium                   | IPE 550 / INP 450                 | IPE 600 / INP 500                   | IPE 700 / INP 550                   |  |  |  |  |  |
| L-angles (mm/in)                       | 250 x 250 x 25 / 9.8 x 9.8 x 0.98 | 300 x 300 x 25 / 11.8 x 11.8 x 0.98 | 300 x 300 x 30 / 11.8 x 11.8 x 1.18 |  |  |  |  |  |
| Solid round (mm/in)                    | 90 / 3.5                          | 95 / 3.7                            | 100 / 3.9                           |  |  |  |  |  |
| Solid square (mm/in)                   | 80 / 3.1                          | 85 / 3.3                            | 90 / 3.5                            |  |  |  |  |  |
| Piercing plate (mm/in)                 | 25 / 0.9                          | 25 / 0.9                            | 30 / 1.2                            |  |  |  |  |  |
| Pipe x wall (mm/in)                    | 406 x 9,5 / 15.9 x 0.37           | 457 x 9,5 / 17.9 x 0.37             | 559 x 9,5 / 22 x 0.37               |  |  |  |  |  |

Dimensions: standardized wide flange beams (HEA, HEB, HEM) and section steel (IPE, INP) according to DIN EN 10 034 or cross section / sheet thickness in mm/in

Note: The capability to cut the above profiles assumes the tensile strength of the steel 370 N/mm² as well as the shear operating pressure of 350bar/5040psi. In borderline cases, we recommend an actual test cut is made to determine whether the profile in question can be cut. Larger beams can be often cut in two steps.









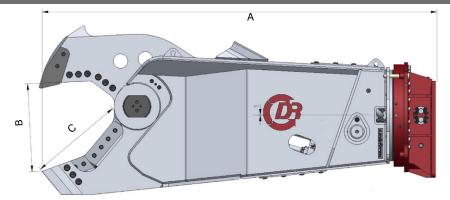












**DCC** 

# Concrete Crusher 14-45t / 30,800-99,000lbs

The DCC 2-cylinder concrete crushers have been especially developed for demolishing the thickest reinforced concrete, such as viaducts, quaysides and heavy foundations. The DCC concrete crusher works perfectly in combination with the latest model

excavators as well as specialized "High Reach Demolition Machines".

- ▶ 25% more power and extremely fast cycle times because of Dema Power 2.0 System.
- ▶ Double rotator motors or single piston motor ensure a high rotation force.
- ▶ **Filters in rotator** protect rotation circuit. High penetrating force for cutting.
- Robust slewing ring ensures it will survive even the heaviest demolition work.
- **▶** Highly durable jaws. Optimum cylinder protection.
- ▶ **Hydraulic system completely protected** by the yoke.
- Patented safety system to prevent overpressurisation of hydraulic cylinder rod side.
- > 3 versions: A, C and D (see drawing below).



| Concrete Cr | ushers DCC                      |                                   |                           |                   |  |
|-------------|---------------------------------|-----------------------------------|---------------------------|-------------------|--|
| Туре        | Operating<br>weight*<br>(t/lbs) | Weight**<br>(approx.)<br>(kg/lbs) | Jaw<br>opening<br>(mm/in) | Length<br>(mm/in) | Closing force<br>at point 1 (approx.)<br>(t/lbs) |
| DCC-20-A    | 14 - 20 / 30,800 - 44,000       | 1,500 / 3,300                     | -                         | -                 | 85 / 187,000                                     |
| DCC-20-C    | 14 - 20 / 30,800 - 44,000       | 1,500 / 3,300                     | -                         | -                 | 85 / 187,000                                     |
| DCC-20-D    | 14 - 20 / 30,800 - 44,000       | 1,500 / 3,300                     | -                         | -                 | 85 / 187,000                                     |
| DCC-25-A    | 18 - 25 / 39,600 - 55,000       | 2,000 / 4,400                     | 1,000 / 39.4              | 2,195 / 86.4      | 105 / 231,000                                    |
| DCC-25-C    | 18 - 25 / 39,600 - 55,000       | 2,100 / 4,620                     | 1,000 / 39.4              | 2,195 / 86.4      | 105 / 231,000                                    |
| DCC-25-D    | 18 - 25 / 39,600 - 55,000       | 2,000 / 4,400                     | 980 / 38.6                | 2,195 / 86.4      | 105 / 231,000                                    |
| DCC-30-A    | 20 - 35 / 44,000 - 77,000       | 2,425 / 5,335                     | 1,150 / 45.3              | 2,390 / 94.1      | 120 / 264,000                                    |
| DCC-30-C    | 20 - 35 / 44,000 - 77,000       | 2,465 / 5,423                     | 1,150 / 45.3              | 2,390 / 94.1      | 120 / 264,000                                    |
| DCC-30-D    | 20 - 35 / 44,000 - 77,000       | 2,425 / 5,335                     | 1,125 / 44.3              | 2,390 / 94.1      | 120 / 264,000                                    |
| DCC-40-A    | 25 - 45 / 55,000 - 99,000       | 3,250 / 7,150                     | 1,360 / 53.5              | 2,545 / 100.2     | 135 / 297,000                                    |
| DCC-40-C    | 25 - 45 / 55,000 - 99,000       | 3,300 / 7,260                     | 1,360 / 53.5              | 2,545 / 100.2     | 135 / 297,000                                    |
| DCC-40-D    | 25 - 45 / 55,000 - 99,000       | 3,250 / 7,150                     | 1,355 / 53.3              | 2,545 / 100.2     | 135 / 297,000                                    |
| *calculated | **without adapter               |                                   |                           |                   |  |

| Hydraulics |              |                       |             |                     |               |             |
|------------|--------------|-----------------------|-------------|---------------------|---------------|-------------|
| Тур        | Open / close |                       | Rotation    |                     | Back pressure | Cycle times |
|            | Pmax         | Flow                  | Pmax        | Flow                | max.          | •           |
|            | (bar/psi)    | (I/min/GPM)           | (bar/psi)   | (I/min/GMP)         | (bar/psi)     | (sec)       |
| DCC-20     | -            | -                     | -           | -                   | -             | -           |
| DCC-25     | 380 / 5,510  | 150 - 250 / 40 - 66   | 140 / 2,030 | 40 - 60 / 10.5 - 16 | -             | 2.3 / 3.0   |
| DCC-30     | 380 / 5,510  | 200 - 300 / 53 - 79.5 | 140 / 2,030 | 40 - 60 / 10.5 - 16 | -             | 2.5 / 3.4   |
| DCC-40     | 380 / 5,510  | 250 - 350 / 66 - 92.5 | 140 / 2,030 | 40 - 60 / 10.5 - 16 | -             | 3.3 / 3.6   |



DCC-A Standard



DCC-C with exchangeable tips, shrouds and long cutting blades



DCC-D with exchangeable wear parts and standard cutting blades

Designed for secondary demolition, our Static Pulverisers (standard or Extreme version) can both break up reinforced concrete structures and separate the steel. Up to 20% additional power and fast cycle times are achieved using the patented DemaPower cylinder concept for the Extreme version.

- ▶ DemaPower achieves optimal speed and power (Extreme version).
- > All teeth and scrapers are exchangeable.
- **▷** Exchangeable ground tooth plate and shrouds.
- ▷ Bearing points are engineered for optimum load handling and reduced wear.
- > Integrated dual action speed valve.
- > Optional: exchangeable cutting blades.
- ▶ Wear parts are exchangeable on site.



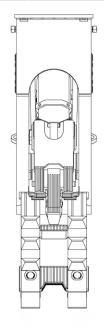
| Pulverisers DSP / DSP-Extreme |                            |                           |                           |  |  |  |  |  |
|-------------------------------|----------------------------|---------------------------|---------------------------|--|--|--|--|--|
| Туре                          | Operating weight (t/lbs)   | <b>Weight</b><br>(kg/lbs) | Closing force*<br>(t/lbs) |  |  |  |  |  |
| DSP-30                        | 20 - 35 / 44,000 - 77,000  | 2,135 / 4,697             | 80 / 176,000              |  |  |  |  |  |
| DSP-30-Extreme                | 20 - 35 / 44,000 - 77,000  | 2,115 / 4,653             | 100 / 220,000             |  |  |  |  |  |
| DSP-45                        | 30 - 50 / 66,000 - 110,000 | 2,670 / 5,874             | 110 / 242,000             |  |  |  |  |  |
| DSP-45-Extreme                | 30 - 50 / 66,000 - 110,000 | 2,645 / 5,819             | 130 / 286,000             |  |  |  |  |  |

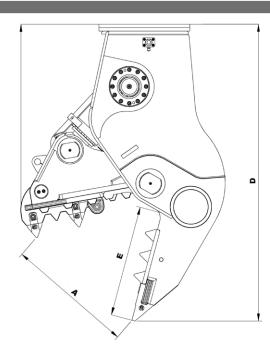
\*closing force calculated at front tooth

| Dimensions     |                  |                    |                    |              |                |                            |
|----------------|------------------|--------------------|--------------------|--------------|----------------|----------------------------|
| Туре           | Jaw opening<br>A | Lower jaw<br>width | Upper jaw<br>width | Height<br>D  | Jaw depth<br>E | Cutting blades<br>length** |
|                | (mm/in)          | (mm/in)            | (mm/in)            | (mm/in)      | (mm/in)        | (mm/in)                    |
| DSP-30         | 885 / 34.8       | 490 / 19.3         | 350 / 13.8         | 2,145 / 84.4 | 840 / 33.1     | 200 / 7.9                  |
| DSP-30-Extreme | 885 / 34.8       | 490 / 19.3         | 350 / 13.8         | 2,145 / 84.4 | 840 / 33.1     | 200 / 7.9                  |
| DSP-45         | 1,015 / 40       | 525 / 20.7         | 400 / 15.7         | 2,360 / 92.9 | 900 / 35.4     | 200 / 7.9                  |
| DSP-45-Extreme | 1,015 / 40       | 525 / 20.7         | 400 / 15.7         | 2,360 / 92.9 | 900 / 35.4     | 200 / 7.9                  |

<sup>\*\*</sup> cutting blades optional, not in standard package

| Hydraulics     |               |                                 |              |
|----------------|---------------|---------------------------------|--------------|
| Туре           |               | Open / close                    | Cycle times  |
|                | Pressure max. | Flow                            | (open/close) |
|                | (bar/psi)     | (I/min/GPM)                     | (sec)        |
| DSP-30         | 380 / 5,510   | 150 - max. 250 / 40 - max. 66   | 2.5 / 2.5    |
| DSP-30-Extreme | 380 / 5,510   | 150 - max. 250 / 40 - max. 66   | 2.0 / 2.3    |
| DSP-45         | 380 / 5,510   | 200 - max. 300 / 53 - max. 79.5 | 2.6 / 2.9    |
| DSP-45-Extreme | 380 / 5,510   | 200 - max. 300 / 53 - max. 79.5 | 2.0 / 2.9    |





DSP-30-Extreme

**DSP-R** 

# Rotating Pulverisers 20-50t / 44,000-110,000lbs

Designed for secondary demolition, our Rotating Pulverisers (standard or Extreme version) can both break up reinforced concrete structures and separate the steel. Up to 20% additional power and fast cycle times are achieved using the patented DemaPower cylinder concept for the Extreme version. Including a 360° rotation.

- DemaPower achieves optimal speed and power (Extreme version).
- ▷ All teeth and scrapers are exchangeable.
- **▷** Exchangeable ground tooth plate and shrouds.
- ▶ Bearing points are engineered for optimum load handling and reduced wear.
- ▶ Integrated dual action speed valve.
- > Optional: exchangeable cutting blades.
- > Wear parts are exchangeable on site.
- ▶ 360° rotation included.



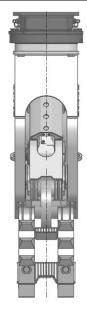
| Pulverisers DSP-R / DSP-R-Extreme |                            |                           |                           |  |  |  |  |  |
|-----------------------------------|----------------------------|---------------------------|---------------------------|--|--|--|--|--|
| Туре                              | Operating weight (t/lbs)   | <b>Weight</b><br>(kg/lbs) | Closing force*<br>(t/lbs) |  |  |  |  |  |
| DSP-30-R                          | 20 - 35 / 44,000 - 77,000  | 2,510 / 5,522             | 80 / 176,000              |  |  |  |  |  |
| DSP-30-R-Extreme                  | 20 - 35 / 44,000 - 77,000  | 2,490 / 5,478             | 100 / 220,000             |  |  |  |  |  |
| DSP-45-R                          | 30 - 50 / 66,000 - 110,000 | 3,045 / 6,699             | 110 / 242,000             |  |  |  |  |  |
| DSP-45-R-Extreme                  | 30 - 50 / 66,000 - 110,000 | 3,020 / 6,644             | 130 / 286,000             |  |  |  |  |  |

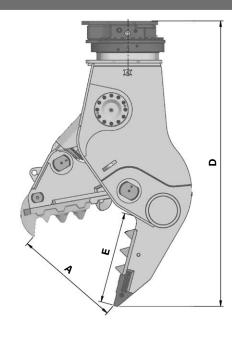
\*closing force calculated at front tooth

| Dimensions       |                             |                               |                               |                        |                           |                                       |
|------------------|-----------------------------|-------------------------------|-------------------------------|------------------------|---------------------------|---------------------------------------|
| Туре             | Jaw opening<br>A<br>(mm/in) | Lower jaw<br>width<br>(mm/in) | Upper jaw<br>width<br>(mm/in) | Height<br>D<br>(mm/in) | Jaw depth<br>E<br>(mm/in) | Cutting blades<br>length**<br>(mm/in) |
| DSP-30-R         | 885 / 34.8                  | 490 / 19.3                    | 350 / 13.8                    | 2,515 / 99.0           | 840 / 33.1                | 200 / 7.9                             |
| DSP-30-R-Extreme | 885 / 34.8                  | 490 / 19.3                    | 350 / 13.8                    | 2,515 / 99.0           | 840 / 33.1                | 200 / 7.9                             |
| DSP-45-R         | 1,015 / 40.0                | 525 / 20.7                    | 400 / 15.7                    | 2,730 / 107.5          | 900 / 35.4                | 200 / 7.9                             |
| DSP-45-R-Extreme | 1,015 / 40.0                | 525 / 20.7                    | 400 / 15.7                    | 2,730 / 107.5          | 900 / 35.4                | 200 / 7.9                             |

\*\* cutting blades optional, not in standard package

| Hydraulics       |               |                                 |               |             |              |
|------------------|---------------|---------------------------------|---------------|-------------|--------------|
| Туре             |               | Rota                            | Cycle times   |             |              |
|                  | Pressure max. | Flow                            | Pressure max. | Flow        | (open/close) |
|                  | (bar/psi)     | (I/min/GPM)                     | (bar/psi)     | (I/min/GPM) | (sec)        |
| DSP-30-R         | 380 / 5,510   | 150 - max. 250 / 40 - max. 66   | 140 / 2,030   | 60 / 16     | 2.5 / 2.5    |
| DSP-30-R-Extreme | 380 / 5,510   | 150 - max. 250 / 40 - max. 66   | 140 / 2,030   | 60 / 16     | 2.0 / 2.3    |
| DSP-45-R         | 380 / 5,510   | 200 - max. 300 / 53 - max. 79.5 | 140 / 2,030   | 60 / 16     | 2.6 / 2.9    |
| DSP-45-R-Extreme | 380 / 5,510   | 200 - max. 300 / 53 - max. 79.5 | 140 / 2,030   | 60 / 16     | 2.0 / 2.9    |





DSP-45-R

The robust earth drills for excavators from 10t / 22,000lbs to 22t / 48,400lbs operating weight is an economical and customized solution for drilling holes for e.g. fencing, road signage, landscaping and tree planting. Well borings, screw pile installations and sound barrier installations are also no problem for the earth drills.

- > Non Dislodgement Shaft (NDS) for more safety and lower down times, as this unique construction prevents the output shaft from dislodgement.
- ▶ Pre-filled with a colored gear oil. Not only is the use of a colored oil a good indicator of correct service, but it also aids identifying possible hydraulic oil leaks.
- ightharpoonup The heavy duty fabricated hoods feature **forged steel ears;** these high strength ears easily transmit the high torsional loads, experienced whilst drilling, without becoming fatigued.
- **▷** Easy access oil service points.
- > Optional for screw pile installation: torque meter for real time applied torque measuring.



| Earth Drills 15000MAX / 20000MAX / 25000MAX |                           |                 |           |              |            |           |                    |
|---|---------------------------|-----------------|-----------|--------------|------------|-----------|--------------------|
| Туре  | Operating<br>weight       | Shaft           | Rotations | Height       | Diameter   | Weight    | Matching<br>augers |
|   | (t/lbs)                   | (mm/in)         | (RPM)     | (mm/in)      | (mm/in)    | (kg/lbs)  | _                  |
| 15000MAX                                    | 10 - 15 / 22,000 - 33,000 | 75 / 2.9 square | 20 - 43   | 930 / 36.6   | 290 / 11.4 | 173 / 381 | S6 150 - 1200      |
| 20000MAX                                    | 13 - 20 / 28,600 - 44,000 | 75 / 2.9 square | 16 - 33   | 1,130 / 44.5 | 345 / 13.6 | 268 / 590 | S6 150 - 1200      |
| 25000MAX                                    | 15 - 22 / 33,000 - 48,400 | 75 / 2.9 square | 12 - 26   | 1,130 / 44.5 | 345 / 13.6 | 269 / 592 | S6 150 - 1500      |

#### Package consists of: earth drill

| Accessories           |  |
|-----------------------|--|
| Туре                  | Description  |
| S6 Ext-E 1500         | extension for earth drills 15000MAX to 25000MAX and S6 augers – 1,500mm / 59.1in length  |
| S6 Ext-E 2000         | extension for earth drills 15000MAX to 25000MAX and S6 augers - 2,000mm / 78.7in length  |
| S6 Ext-E 2500         | extension for earth drills 15000MAX to 25000MAX and S6 augers – 2,500mm / 98.4in length  |
| S6 Ext-E 3000         | extension for earth drills 15000MAX to 25000MAX and S6 augers – 3,000mm / 118.1in length |
| single pin hitch      | for earth drills 15000MAX to 25000MAX  |
| double pin hitch      | for earth drills 15000MAX to 25000MAX  |
| cradle hitch          | for earth drills 15000MAX to 25000MAX  |
| PRV-15000MAX-25000MAX | pressure relief valve for earth drills 15000MAX to 25000MAX                              |

| Technical data      |   |  |   |
|---------------------|---|--|---|
|                     | 15000MAX  | 20000MAX   | 25000MAX  |
| Hydraulic pressure: | 80 - 240 bar / 1,160 - 3,480 psi                  | 160 - 240 bar / 2,320 - 3,480 psi                  | 160 - 240 bar / 2,320 - 3,480 psi                 |
| Oil flow:           | 80 - 170 l/min / 21 - 45 GPM                      | 80 - 170 l/min / 21 - 45 GPM                       | 80 - 170 l/min / 21 - 45 GPM                      |
| Torque range:       | 5,024 - 15,071 Nm /<br>3,705.2 - 11,114.9 ft.lbs. | 13,043 - 19,564 Nm /<br>9,619.2 - 14,428.5 ft.lbs. | 16,503 - 24,755 Nm /<br>12,171 - 18,256.8 ft.lbs. |

## Pictures



double pin hitch





bi-directional valve

pressure relief valve

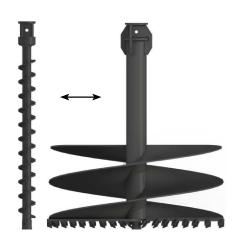


extension telescopic extension

Augers S6

The S6 auger is perfectly matched to the corresponding earth drills and every task. A constant spiral configuration and a shallow pitch flight guarantee extreme efficiency and productivity.

- Higher productivity by constant spiral configuration and the perfectly angled tooth holder.
- > Interchangeable pilots and teeth allow for differing ground conditions.
- **▷** Easy fitting of teeth and pilots.
- ▶ Patented Shock Lock-System: incorporating a shock absorbing rubber element to protect the tungsten carbide on the tooth assembly coupled with a solid locking pin to prevent tooth loss.
- ▶ High flexibility thanks to different auger extensions and telescopic extensions.



| Туре               | Diameter     | Spiral       | Total                                   | Connection      | Weight    | Number   | Tooth    |
|--------------------|--------------|--------------|---|-----------------|-----------|----------|----------|
|                    | , , ,        | length       | length                                  | , , ,           | 4 41 )    | of teeth | type     |
| 00 450 F Flb       | (mm/in)      | (mm/in)      | (mm/in)                                 | (mm/in)         | (kg/lbs)  | •        | F . II   |
| S6-150-E Earth     | 150 / 50     | 1 200 / 50 0 | 1000/74                                 | 75 / 0.0        | 58 / 128  | 0        | Earth    |
| S6-150-E Tungsten  | 150 / 5.9    | 1,320/ 52.0  | 1,880/74                                | 75 / 2.9 square | 58 / 128  | 0        | Tungsten |
| S6-150-E Rock      |              |              |   |                 | 58 / 128  | 2        | Rock     |
| S6-200-E Earth     | 000 / 70     | 4.000 / 47.0 | 4000 / 74                               | 75 / 0.0        | 55 / 121  | 2        | Earth    |
| S6-200-E Tungsten  | 200 / 7.9    | 1,200 / 47.2 | 1,880 / 74                              | 75 / 2.9 square | 59 / 130  | 2        | Tungsten |
| S6-200-E Rock      |              |              |   |                 | 59 / 130  | 3        | Rock     |
| S6-225-E Earth     | 005 / 00     |              | /                                       | <b></b> / 0 0   | 62 / 136  | 2        | Earth    |
| S6-225-E Tungsten  | 225 / 8.9    | 1,203 / 47.4 | 1,880 / 74                              | 75 / 2.9 square | 62 / 136  | 2        | Tungsten |
| S6-225-E Rock      |              |              |   |                 | 62 / 136  | 4        | Rock     |
| S6-250-E Earth     |              |              |   |                 | 67 / 147  | 2        | _ Earth  |
| S6-250-E Tungsten  | 250 / 9.8    | 1,225 / 48.2 | 1,880 / 74                              | 75 / 2.9 square | 67 / 147  | 2        | Tungsten |
| 66-250-E Rock      |              |              |   |                 | 66 / 145  | 4        | Rock     |
| 66-300-E Earth     |              |              |   |                 | 82 / 180  | 4        | _ Earth  |
| S6-300-E Tungsten  | 300 / 11.8   | 1,200 / 47.2 | 1,880 / 74                              | 75 / 2.9 square | 82 / 180  | 4        | Tungsten |
| 66-300-E Rock      |              |              |   |                 | 81 / 178  | 5        | Rock     |
| S6-350-E Earth     |              |              |   |                 | 90 / 198  | 4        | Earth    |
| S6-350-E Tungsten  | 350 / 13.8   | 1,125 / 44.3 | 1,880 / 74                              | 75 / 2.9 square | 90 / 198  | 4        | Tungsten |
| S6-350-E Rock      |              |              |   |                 | 89 / 196  | 6        | Rock     |
| S6-400-E Earth     |              |              |   |                 | 98 / 216  | 5        | Earth    |
| 66-400-E Tungsten  | 400 / 15.7   | 1,000 / 39.4 | 1,880 / 74                              | 75 / 2.9 square | 98 / 216  | 5        | Tungsten |
| 66-400-E Rock      |              |              |   |                 | 97 / 213  | 7        | Rock     |
| S6-450-E Earth     |              |              |   |                 | 111 / 244 | 6        | Earth    |
| S6-450-E Tungsten  | 450 / 17.7   | 1,000 / 39.4 | 1,880 / 74                              | 75 / 2.9 square | 111 / 244 | 6        | Tungsten |
| 66-450-E Rock      |              |              |   | •               | 109 / 240 | 8        | Rock     |
| S6-500-E Earth     |              |              |   |                 | 125 / 275 | 6        | Earth    |
| S6-500-E Tungsten  | 500 / 19.7   | 1,000 / 39.4 | 1,880 / 74                              | 75 / 2.9 square | 125 / 275 | 6        | Tungsten |
| S6-500-E Rock      |              |              |   | ·               | 123 / 271 | 9        | Rock     |
| S6-600-E Earth     |              |              |   |                 | 137 / 301 | 8        | Earth    |
| S6-600-E Tungsten  | 600 / 23.6   | 900 / 35.4   | 1,880 / 74                              | 75 / 2.9 square | 138 / 304 | 8        | Tungsten |
| S6-600-E Rock      |              |              |   | •               | 136 / 299 | 11       | Rock     |
| S6-750-E Earth     |              |              |   |                 | 168 / 370 | 9        | Earth    |
| S6-750-E Tungsten  | 750 / 29.5   | 875 / 34.4   | 1,880 / 74                              | 75 / 2.9 square | 168 / 370 | 9        | Tungsten |
| S6-750-E Rock      |              |              | ,                                       | •               | 170 / 374 | 14       | Rock     |
| S6-800-E Earth     |              |              |   |                 | 189 / 416 | 9        | Earth    |
| S6-800-E Tungsten  | 800 / 31.5   | 875 / 34.4   | 1,880 / 74                              | 75 / 2.9 square | 189 / 416 | 9        | Tungsten |
| S6-800-E Rock      |              |              | ,                                       |                 | 187 / 411 | 15       | Rock     |
| S6-900-E Earth     |              |              |   |                 | 224 / 493 | 10       | Earth    |
| S6-900-E Tungsten  | 900 / 35.4   | 875 / 34.4   | 1,880 / 74                              | 75 / 2.9 square | 224 / 493 | 10       | Tungsten |
| S6-900-E Rock      |              |              | ,                                       |                 | 221 / 486 | 17       | Rock     |
| S6-1000-E Earth    |              |              |   |                 | 229 / 504 | 11       | Earth    |
| S6-1000-E Tungsten | 1,000 / 39.4 | 700 / 27.6   | 1,880 / 74                              | 75 / 2.9 square | 229 / 504 | 11       | Tungsten |
| 66-1000-E Rock     | ,,           |              | ,                                       |                 | 226 / 497 | 19       | Rock     |
| 66-1200-E Earth    |              |              |   |                 | 316 / 695 | 15       | Earth    |
| S6-1200-E Tungsten | 1,200 / 47.2 | 600 / 23.6   | 1,880 / 74                              | 75 / 2.9 square | 316 / 695 | 15       | Tungsten |
| 66-1200-E Rock     | .,200 ,2     | 200 / 20.3   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                 | 316 / 695 | 23       | Rock     |
| S6-1500-E Earth    |              |              |   |                 | -         | -        | Earth    |
| S6-1500-E Tungsten | 1,500 / 59,1 | 600 / 23.6   | 1,880 / 74                              | 75 / 2.9 square | _         | _        | Tungsten |
| 66-1500-E Rock     | 1,000 / 0011 | 200 / 2010   | 1,000 / 14                              | 70 / 210 Square | _         | _        | Rock     |

# Earth Drills 20-45t / 44,000-99,000lbs 35000MAX / 42000MAX / 65000MAX

The robust earth drills for excavators from 20t / 44,000lbs to 45t / 99,000lbs operating weight is an economical and customized solution for drilling holes for e.g. fencing, road signage, landscaping and tree planting. Well borings, screw pile installations and sound barrier installations are also no problem for the earth drills.

- > Non Dislodgement Shaft (NDS) for more safety and lower down times, as this unique construction prevents the output shaft from dislodgement.
- ▶ Pre-filled with a colored gear oil. Not only is the use of a colored oil a good indicator of correct service, but it also aids identifying possible hydraulic oil leaks.
- The heavy duty fabricated hoods feature forged steel ears; these high strength ears easily transmit the high torsional loads, experienced whilst drilling, without becoming fatigued.
- ▶ Easy access oil service points.
- > Optional for screw pile installation: **Alignment monitor** for vertical adjustment.



35000MAX

| Earth Drills 35000MAX / 42000MAX / 65000MAX |                          |                  |           |              |          |             |                 |
|---|--------------------------|------------------|-----------|--------------|----------|-------------|-----------------|
| Туре  | Operating<br>weight      | Shaft            | Rotations | Height       | Diameter | Weight      | Matching augers |
|   | (t/lbs)                  | (mm/in)          | (RPM)     | (mm/in)      | (mm/in)  | (kg/lbs)    | -               |
| 35000MAX                                    | 20 - 45 / 44,000 - 99000 | 110 / 4.3 square | 11 - 31   | 1,411 / 55.6 | 406 / 16 | 442 / 972   | PA 300 - 1500   |
| 42000MAX                                    | 20 - 45 / 44,000 - 99000 | 110 / 4.3 square | 9 - 26    | 1,411 / 55.6 | 406 / 16 | 442 / 972   | PA 300 - 1800   |
| 65000MAX                                    | 21 - 45 / 46200 - 99,000 | 110 / 4.3 square | 8 - 21    | 1,556 / 61.3 | 406 / 16 | 480 / 1,056 | PA 300 - 2400   |

Package consists of: earth drill

| Accessories      |  |
|------------------|--|
| Туре             | Description  |
| PA Ext 2000      | extension for earth drills 35000MAX to 65000MAX and PA augers – 2,000mm / 78.7in length  |
| PA Ext 3000      | extension for earth drills 35000MAX to 65000MAX and PA augers – 3,000mm / 118.1in length |
| PA TeleExt 2000  | telescopic extension for PA augers – 2,000mm / 78.7in length                             |
| PA TeleExt 3000  | telescopic extension for PA augers – 3,000mm / 118.1in length                            |
| single pin hitch | for earth drills 35000MAX to 65000MAX  |
| adapter plate    | for earth drills 35000MAX to 65000MAX  |
| cradle hitch     | for earth drills 35000MAX to 65000MAX  |

| Technical data      |   |   |  |
|---------------------|---|---|--|
|                     | 35000MAX  | 42000MAX  | 65000MAX   |
| Hydraulic pressure: | 180 - 310bar / 2,610 - 4,500 psi                    | 180 - 310bar / 2,610 - 4,500 psi                    | 160 - 320bar / 2,320 - 4,640 psi                   |
| Oil flow:           | 80 - 225 l/min / 21 - 59.5 GPM                      | 80 - 225 l/min / 21 - 59.5 GPM                      | 100 - 280 l/min / 26.5 - 74 GPM                    |
| Torque range:       | 20,510 - 35,323 Nm /<br>15,126.1 - 26,050.7 ft.lbs. | 24,612 - 42,387 Nm /<br>18,151.4 - 31,260.4 ft.lbs. | 33,295 - 66,589 Nm /<br>24,555.1 - 49,109.4 ft.lbs |

# **Pictures**



single pin hitch

adapter plate





bi-directional valve



pressure relief valve



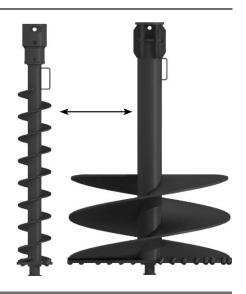
extension telescopic extension

PA

# **Heavy Duty Augers**

The PA auger is perfectly matched to the corresponding earth drills and every task. A constant spiral configuration and a shallow pitch flight guarantee extreme efficiency and productivity.

- ▶ **Higher productivity** by constant spiral configuration and the perfectly angled tooth holder.
- > Interchangeable pilots and teeth allow for differing ground conditions.
- **▷** Easy fitting of teeth and pilots.
- Patented Shock Lock-System: incorporating a shock absorbing rubber element to protect the tungsten carbide on the tooth assembly coupled with a solid locking pin to prevent tooth loss.
- ▶ **High flexibility** thanks to different auger extensions and telescopic extensions.
- ▶ Available in two lengths: 2,380mm / 93.7in or 3,380mm / 133.1in.



| PA Augers 2380 mm (specify choice of pilot and teeth when ordering) |                     |                       |                         |                       |                            |                 |               |
|---|---------------------|-----------------------|-------------------------|-----------------------|----------------------------|-----------------|---------------|
| Туре  | Diameter<br>(mm/in) | Spiral length (mm/in) | Total length<br>(mm/in) | Connection<br>(mm/in) | Weight (kg/lbs)            | Number of teeth | Tooth<br>type |
| PA-300-2380 Earth<br>PA-300-2380 Rock                               | 300 / 11.8          | 1,558 / 61.3          | 2,380 / 93.7            | 110 / 4.3 square      | 165 / 363<br>165 / 363     | 3<br>3          | Earth<br>Rock |
| PA-350-2380 Earth<br>PA-350-2380 Rock                               | 350 / 13.8          | 1,527 / 60.1          | 2,380 / 93.7            | 110 / 4.3 square      | 177 / 389<br>177 / 389     | 3<br>3          | Earth<br>Rock |
| PA-400-2380 Earth<br>PA-400-2380 Rock                               | 400 / 15.7          | 1,446 / 56.9          | 2,380 / 93.7            | 110 / 4.3 square      | 190 / 418<br>190 / 418     | 4<br>4          | Earth<br>Rock |
| PA-450-2380 Earth<br>PA-450-2380 Rock                               | 450 / 17.7          | 1,446 / 56.9          | 2,380 / 93.7            | 110 / 4.3 square      | 211 / 464<br>211 / 464     | 4<br>4          | Earth<br>Rock |
| PA-500-2380 Earth<br>PA-500-2380 Rock                               | 500 / 19.7          | 1,446 / 56.9          | 2,380 / 93.7            | 110 / 4.3 square      | 235 / 517<br>235 / 517     | 5<br>5          | Earth<br>Rock |
| PA-600-2380 Earth<br>PA-600-2380 Rock                               | 600 / 23.6          | 1,433 / 56.4          | 2,380 / 93.7            | 110 / 4.3 square      | 167 / 367<br>167 / 367     | 6<br>6          | Earth<br>Rock |
| PA-750-2380 Earth<br>PA-750-2380 Rock                               | 750 / 29.5          | 1,321 / 52.0          | 2,380 / 93.7            | 110 / 4.3 square      | 318 / 399<br>318 / 399     | 7<br>7          | Earth<br>Rock |
| PA-800-2380 Earth<br>PA-800-2380 Rock                               | 800 / 31.5          | 1,321 / 52.0          | 2,380 / 93.7            | 110 / 4.3 square      | 344 / 756<br>344 / 756     | 8<br>8          | Earth<br>Rock |
| PA-900-2380 Earth<br>PA-900-2380 Rock                               | 900 / 35.4          | 1,321 / 52.0          | 2,380 / 93.7            | 110 / 4.3 square      | 412 / 906<br>412 / 906     | 10<br>10        | Earth<br>Rock |
| PA-1000-2380 Earth<br>PA-1000-2380 Rock                             | 1,000 / 39.4        | 971 / 38.2            | 2,380 / 93.7            | 110 / 4.3 square      | 140 / 308<br>140 / 308     | 10<br>10        | Earth<br>Rock |
| PA-1200-2380 Earth<br>PA-1200-2380 Rock                             | 1,200 / 47.2        | 908 /35.7             | 2,380 / 93.7            | 110 / 4.3 square      | 522 / 1,148<br>522 / 1,148 | 12<br>12        | Earth<br>Rock |
| PA-1500-2380-Earth<br>PA-1500-2380-Rock                             | 1,500 / 59.1        | 750 / 29.5            | 2,380 / 93.7            | 110 / 4.3 square      | 735 / 1,617<br>735 / 1,617 | 15<br>15        | Erde<br>Fels  |

| _                  |              |   |               |                  |       |
|--------------------|--------------|---|---------------|------------------|-------|
| Туре               | Diameter     | Spiral length                           | Total length  | Connection       | Tooth |
|                    | (mm/ in)     | (mm/ in)                                | (mm/ in)      | (mm/in)          | type  |
| PA-300-3380 Earth  | 300 / 11.8   | 1,558 / 61.3                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-300-3380 Rock   |              | ,                                       | .,            |                  | Rock  |
| PA-350-3380 Earth  | 350 / 13.8   | 1,527 / 60,1                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-350-3380 Rock   | ,            | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | -,,           | ,                | Rock  |
| PA-400-3380 Earth  | 400 / 15.7   | 1,446 / 56.9                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-400-3380 Rock   | 100 / 1011   | ., ,                                    | 0,000 / 10011 | , oqua.o         | Rock  |
| PA-450-3380 Earth  | 450 / 17.7   | 1,446 / 56.9                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-450-3380 Rock   |              | ., ,                                    | 3,000 , 100   | , 5qua. 5        | Rock  |
| PA-500-3380 Earth  | 500 / 19.7   | 1,446 / 56.9                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-500-3380 Rock   | 000 / 1011   | ., ,                                    | 0,000 / 100   | , oqua.e         | Rock  |
| PA-600-3380 Earth  | 600 / 23.6   | 1,433 / 56.4                            | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-600-3380 Rock   | 000 / 20.0   | .,                                      | 0,000 / 100   | , equa.e         | Rock  |
| PA-750-3380 Earth  | 750 / 29.5   | 1,321 / 52                              | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-750-3380 Rock   | 700 / 2010   | .,02., 02                               | 0,000 / 100   | , squa.e         | Rock  |
| PA-800-3380 Earth  | 800 / 31.5   | 1,321 / 52                              | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-800-3380 Rock   |              | .,02., 02                               | 5,000 / 100   | , equale         | Rock  |
| PA-900-3380 Earth  | 900 / 35.4   | 1,321 / 52                              | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-900-3380 Rock   | 000 / 001 1  | 1,021 / 02                              | 0,000 / 10011 | no , no oquare   | Rock  |
| PA-1000-3380 Earth | 1,000 / 39.4 | 971 / 38.2                              | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-1000-3380 Rock  | 1,000 / 0014 | 3717 30.2                               | 0,000 / 100.1 | 110 / 410 Square | Rock  |
| PA-1200-3380 Earth | 1,200 / 47.2 | 908 / 35,7                              | 3,380 / 133.1 | 110 / 4.3 square | Earth |
| PA-1200-3380 Rock  | 1,200 / 41.2 | 300 / 33.7                              | 0,000 / 100.1 | 110 / 410 Square | Rock  |

The Heavy Duty drives are specifically designed for foundation screw pile installations and available for excavators with 21t/46,200lbs up to 50t/110,000lbs operating weight. The screw pile drives are manufactured according to the highest quality standards in terms of technology and materials, providing the end user with the highest level of reliability.

- > Non Dislodgement Shaft (NDS) for more safety and lower down times, as this unique construction prevents the output shaft from dislodgement.
- > Pre-filled with a colored gear oil. Not only is the use of a colored oil a good indicator of correct service, but it also aids identifying possible hydraulic oil leaks.
- ▶ The heavy duty fabricated hoods feature **forged steel ears**; these high strength ears easily transmit the high torsional loads, experienced whilst drilling, without becoming
- **▷** Easy access oil service points.
- > Optional for screw pile installation: **Alignment monitor** for vertical adjustment.



150000MAX

| Torque Heads 100000MAX / 150000MAX |                            |                    |           |              |          |               |
|------------------------------------|----------------------------|--------------------|-----------|--------------|----------|---------------|
| Туре                               | Operating weight           | Shaft              | Rotations | Height       | Diameter | Weight        |
|                                    | (t/lbs)                    |                    | (RPM)     | (mm/in)      | (mm/in)  | (kg/lbs)      |
| 100000MAX                          | 21 - 50 / 46,200 - 110,000 | 150 mm hex/ 5.9 in | 5 - 15    | 1,625 / 63.9 | 635 / 25 | 1,060 / 2,335 |
| 150000MAX                          | 21 - 50 / 46,200 - 110,000 | 150 mm hex/ 5.9 in | 4 - 12    | 1,865 / 73.4 | 765 / 30 | 1,490 / 3,278 |

Package consists of: torque heads

| Accessories      |                  |
|------------------|------------------|
| Туре             | Description      |
| double pin hitch | for torque heads |
| cradle hitch     | for torque heads |

| Technical data      |   |  |
|---------------------|---|--|
|                     | 100000MAX                                     | 150000MAX                                      |
| Hydraulic pressure: | 160 - 350 bar / 2,321 - 5,076 psi             | 160 - 340 bar / 2,321 - 4,931 psi              |
| Oil flow:           | 100 - 280 l/min / 26.4 - 74 GPM               | 100 - 340 l/min / 26.4 - 89.8 GPM              |
| Torque range:       | 45,746 - 100,069 Nm / 33,741 - 73,807 ft.lbs. | 71,680 - 152,319 Nm / 52,868 - 112,344 ft.lbs. |
| •                   |   |  |



cradle hitch



# **In-Site Monitor**

The In-Site range of products are the must have tool to enable you to perform with the required accuracy, precision and efficiency across all your torque applications. With three variants, In-Site is perfect for operators in all environments to get the best possible performance from their drive units.

Data can be viewed in real-time, allowing immediate adjustments as required to help keep jobsites as problem free as possible. Data can also be viewed offline in an easy to use dashboard format to give that enhanced level of understanding.

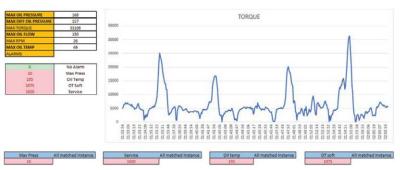
- ▶ Plug-and-Play
- ▶ Real time data analysis
- ▶ Wireless touch screen display
- ▶ Alignment monitor
- ▶ Pressure readouts
- ▷ Calculated torque value
- > Internal oil temperature records
- ▶ Time and date stamp of data
- ▶ Unit switch from metric to imperial
- ▶ Servicing alarm
- ▶ Temperature alarm
- ▶ Total run time





| In-Site Monitor   |                  |                 |                            |                               |                              |                                |
|-------------------|------------------|-----------------|----------------------------|-------------------------------|------------------------------|--------------------------------|
| Туре              | Alignment sensor | Pressure sensor | Flow<br>sensor<br>(mm)     | Temperature<br>sensor<br>(mm) | Earth drill<br>compatibility | Operating<br>weight<br>(t/lbs) |
| In-Site Align     | <b>✓</b>         | -               | -                          | -                             | from X1500                   | > 1 / 2,200                    |
| In-Site Data      | <b>✓</b>         | <b>√</b>        | -                          | -                             | from X1500                   | > 1 / 2,200                    |
| In-Site Data Plus | <b>✓</b>         | <b>✓</b>        | 500 x 325 /<br>19.7 x 12.8 | 320 x 310 /<br>12.6 x 12.2    | from 20000MAX                | > 13 / 28,600                  |

# Example





# **Mounting options for Earth Drills**

# Single pin hitches



| Туре                          | for earth drills    | with pin Ø<br>(mm/in) | Operating weight (t/lbs)  |
|-------------------------------|---------------------|-----------------------|---------------------------|
| KM 501-15000MAX-25000MAX-44,5 | 15000MAX - 25000MAX | 44.5 / 1.75           | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-45   | 15000MAX - 25000MAX | 45 / 1.77             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-50   | 15000MAX - 25000MAX | 50 / 1.97             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-55   | 15000MAX - 25000MAX | 55 / 2.17             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-60   | 15000MAX - 25000MAX | 60 / 2.36             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-65   | 15000MAX - 25000MAX | 65 / 2.56             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-70   | 15000MAX - 25000MAX | 70 / 2.76             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-75   | 15000MAX - 25000MAX | 75 / 2.95             | 8 - 22 / 17,600 - 48,400  |
| KM 501-15000MAX-25000MAX-80   | 15000MAX - 25000MAX | 80 / 3.15             | 8 - 22 / 17,600 - 48,400  |
| KM 501-35000MAX-65000MAX-60   | 35000MAX - 65000MAX | 60 / 2.36             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-65   | 35000MAX - 65000MAX | 65 / 2.56             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-70   | 35000MAX - 65000MAX | 70 / 2.76             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-75   | 35000MAX - 65000MAX | 75 / 2.95             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-80   | 35000MAX - 65000MAX | 80 / 3.15             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-90   | 35000MAX - 65000MAX | 90 / 3.54             | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-100  | 35000MAX - 65000MAX | 100 / 3.94            | 20 - 45 / 44,000 - 96,800 |
| KM 501-35000MAX-65000MAX-110  | 35000MAX - 65000MAX | 110 / 4.33            | 20 - 45 / 44,000 - 96,800 |

# Cardan link with system L-Lock



| Туре           | for earth drills | with adapter | Operating weight (t/lbs)  |
|----------------|------------------|--------------|---------------------------|
| KSW10-15000MAX | 15000MAX         | KSW10        | 10 - 15 / 22,000 - 33,000 |
| KSW10-20000MAX | 20000MAX         | KSW10        | 13 - 20 / 28,600 - 44,000 |
| KSW21-25000MAX | 25000MAX         | KSW21/25     | 15 - 22 / 33,000 - 48,400 |
| KSW21-35000MAX | 35000MAX         | KSW21/25     | 20 - 45 / 44,000 - 96,800 |
| KSW21-42000MAX | 42000MAX         | KSW21/25     | 20 - 45 / 44,000 - 96,800 |
| KSW21-65000MAX | 65000MAX         | KSW21/25     | 21 - 45 / 46.200 - 96.800 |

# Cradle hitch with system L-Lock



| Туре                  | for earth drills | with adapter | Operating weight (t/lbs)  |
|-----------------------|------------------|--------------|---------------------------|
| KSW10-15000MAX Cradle | 15000MAX         | KSW10        | 10 - 15 / 22,000 - 33,000 |
| KSW10-20000MAX Cradle | 20000MAX         | KSW10        | 13 - 20 / 28,600 - 44,000 |
| KSW21-25000MAX Cradle | 25000MAX         | KSW21/25     | 15 - 22 / 33,000 - 48,400 |

# Lower part of hitch for specific solution



| Туре                     | for earth drills    | Operating weight (t/lbs)  |  |
|--------------------------|---------------------|---------------------------|--|
| KM 691-15000MAX-25000MAX | 15000MAX - 25000MAX | 10 - 22 / 22,000 - 48,400 |  |
| KM 691-35000MAX-65000MAX | 35000MAX - 65000MAX | 20 - 45 / 44,000 - 99,000 |  |

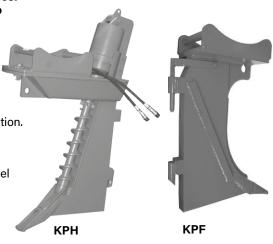
# Lower part of cradle hitch for specific solution



| Туре                            | for earth drills    | Operating weight (t/lbs)  |
|---------------------------------|---------------------|---------------------------|
| KM 691-15000MAX Cradle          | 15000MAX            | 10 - 15 / 22,000 - 33,000 |
| KM 691-20000MAX-25000MAX Cradle | 20000MAX - 25000MAX | 13 - 22 / 28,600 - 48,400 |

The Cable Ploughs are efficient tools to drill channels for cables or hoses. Depending on the type, the plough is suitable for excavators with up to 20t / 44,000lbs operating weight. The ploughs are available as mechanical (KPF) and hydraulic (KPH) version.

- ▶ **Solid Design:** very robust without protruding parts.
- ▶ Robust: also drills hard soil.
- ▶ **Plough kinematics:** easy plowing, even through roots and other vegetation.
- ▶ **Easy installation** onto the carrier machine.
- > Different widths available.
- ▶ One work step: opening for positioning of cables or hoses in the channel saves time.
- > Safety: better balance between plough and carrier.
- > KPH: incl. hydraulic auger.
- ▶ **Optional:** KPL tube layer incl. cable drum mountable.



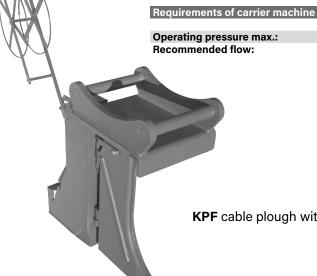
| Cable Ploug | ins KPF / | KPH and | Tube Lay | ers KPL |
|-------------|-----------|---------|----------|---------|
|             |           |         |          |         |

| Туре   | Lower plough width | Height       | Weight    | Operating weight     |
|--------|--------------------|--------------|-----------|----------------------|
|        | (mm/in)            | (mm/in)      | (kg/lbs)  | (t/lbs)              |
| KPF 14 | 70 / 2.8           | 1,000 / 39.4 | 300 / 660 | 12-14/ 26,400-30,800 |
| KPF 18 | 70 / 2.8           | 1,000 / 39.4 | 330 / 726 | 14-18/30,800-39,600  |
| KPF 20 | 70 / 2.8           | 1,000 / 39.4 | 370 / 814 | 18-20/ 39,600-44,000 |
| KPH 18 | 70 / 2.8           | 1,000 / 39.4 | 300 / 660 | 12-18/ 26,400-39,600 |
| KPL 02 | 30 / 1.2           | 1,000 / 39.4 | 60 / 132  | -                    |
| KPL 03 | 40 / 1.6           | 1,000 / 39.4 | 65 / 143  | -                    |
| KPL 04 | 50 / 2             | 1,000 / 39.4 | 70 / 154  | -                    |
| KPL 05 | 60 / 2.4           | 1,000 / 39.4 | 75 / 165  | -                    |
| KPL 06 | 70 / 2.8           | 1,000 / 39.4 | 95 / 209  | -                    |
| KPL 07 | 95 / 3.7           | 1,000 / 39.4 | 115 / 253 | -                    |
| KPL 08 | 120 / 4.7          | 1,000 / 39.4 | 140 / 308 | -                    |

Package consists of: cable plough or tube layer respectively (KPL incl. support for marker tape)

## Accessories

| Тур         | Description  |
|-------------|--|
| KST 09      | support for marker tape at tube layer  |
| KST 12      | wire rope between cable plough and carrier machine - length 4,500mm/177.2in              |
| KM 690 15t  | adapter for rigid mounting – up to 15t/33,000lbs   |
| KM 690 20t  | adapter for rigid mounting – up to 20t/44,000lbs   |
| KSW10 rigid | bolt-on adapter for system L-Lock KMS10L/KHS10L for rigid mounting – up to 19t/41,800lbs |
| OQ60/2      | bolt-on adapter for OilQuick OQ60 – up to 18t/39,600lbs                                  |
| OQ65/2      | bolt-on adapter for OilQuick OQ65 – up to 22t/48,400lbs                                  |
| 4- 6        | adapters for quick change systems from other manufacturers or different sizes on request |



KPF cable plough with KPL tube layer

240 bar / 3,480psi

27 - 75 l/min / 7 - 20GMP

**KFX** 

# Hydraulic Breakers 10-40t / 22,000-88,000lbs

The KFX breaker-series has two adjusting valves as standard. Firstly, a control valve on the cylinder of the hammer allows the operator to adjust the number of blows generated. A second valve allows the adjustment of the working pressure from 160bar / 2,320psi to 200bar / 2,900psi. Working in tunnels, and even underwater, is also possible by adding air tubes.

- ▶ **Regulation of the operating pressure:** KFX-breakers, regulating the working pressure from 160bar/2,320psi to 200bar/2,900psi can be managed manually by valve adjustment.
- ▶ **Blows adjustment:** For KFX-breakers, regulating the blow rate can be managed manually by adjusting a valve located on the side of the breaker.
- > Hydraulic system for blank firing: a regenerative oil circuit that avoids blank firing when the tool is not in contact with the rock.



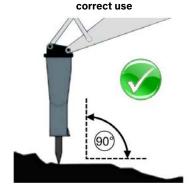
| Technical o | lata KFX      |                  |        |                    |                            |                           |
|-------------|---------------|------------------|--------|--------------------|----------------------------|---------------------------|
| Туре        | Weight        | Diameter<br>tool | Energy | Hits<br>per minute | Height with standard tools | Operating weight          |
|             | (kg/lbs)      | (mm/in)          | ( J)   | (/min)             | (mm/in)                    | (t/lbs)                   |
| KFX 16      | 950 / 2,090   | 115 / 4.5        | 2,600  | 600 - 900          | 1,940 / 76.4               | 10 - 17 / 22,000 - 37,400 |
| KFX 20      | 1,200 / 2,640 | 120 / 4.7        | 3,200  | 400 - 900          | 2,030 / 79.9               | 13 - 19 / 28,600 - 41,800 |
| KFX 26      | 1,650 / 3,630 | 135 / 5.3        | 4,200  | 400 - 800          | 2,290 / 90.2               | 18 - 24 / 39,600 - 52,800 |
| KFX 29      | 1,850 / 4,070 | 140 / 5.5        | 4,700  | 400 - 800          | 2,515 / 99.0               | 22 - 27 / 48,400 - 59,400 |
| KFX 32      | 2,200 / 4,840 | 150 / 5.9        | 5,400  | 400 - 800          | 2,560 / 100.8              | 23 - 31 / 50,600 - 68,200 |
| KFX 36      | 2,900 / 6,380 | 160 / 6.3        | 8,500  | 350 - 700          | 2,740 / 107.9              | 28 - 38 / 61,600 - 83,600 |
| KFX 40      | 3,200 / 7,040 | 160 / 6.3        | 9,000  | 300 - 650          | 2,740 / 107.9              | 30 - 40 / 66,000 - 88,000 |

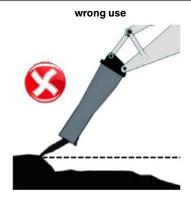
Package consists of: breaker, two standard tools at option (moil, blunt, pyramid, chisel) and nitrogen adapter

| Hydraulics KF | X                       |                    |                    |                                 |                             |
|---------------|-------------------------|--------------------|--------------------|---------------------------------|-----------------------------|
| Туре          | Pump capacity           | Operating pressure | Back pressure max. | Inner diameter<br>pressure line | Inner diameter<br>tank line |
|               | (I/min/GPM)             | (bar/psi)          | (bar/psi )         |                                 |                             |
| KFX 16        | 90 - 120 / 23.8 - 31.7  | 165 / 2,390        | 25 / 362           | 1"                              | 1"                          |
| KFX 20        | 110 - 140 / 29.1 - 37.0 | 170 / 2,460        | 25 / 362           | 1"                              | 1"                          |
| KFX 26        | 130 - 160 / 34.4 - 42.3 | 180 / 2,610        | 25 / 362           | 1"                              | 1"                          |
| KFX 29        | 140 - 180 / 37.0 - 47.6 | 180 / 2,610        | 25 / 362           | 1"                              | 1"                          |
| KFX 32        | 165 - 190 / 43.6 - 50.2 | 180 / 2,610        | 25 / 362           | 1"1/4                           | 1″1/4                       |
| KFX 36        | 180 - 240 / 57.6 - 63.4 | 180 / 2,610        | 25 / 362           | 1"1/4                           | 1″1/4                       |
| KFX 40        | 200 - 260 / 52.8 - 68.7 | 180 / 2,610        | 25 / 362           | 1"1/4                           | 1″1/4                       |

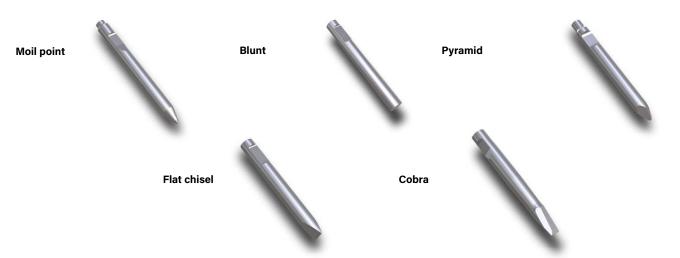
# Accessories

| Туре           | Description  |
|----------------|--|
| KFX-Auto-Lube  | automatic greasing system  |
| KFX-Tunnel-Set | specific system for tunnel works   |
| KFX-Water-Set  | stops water ingress  |
| KM 690 15t     | adapter for rigid mounting – up to 15t/33,000lbs   |
| KM 690 20t     | adapter for rigid mounting – up to 20t/44,000lbs   |
| KM 690 27t     | adapter for rigid mounting – up to 27t/59,400lbs   |
| KM 690 32t     | adapter for rigid mounting – up to 32t 70,400lbs   |
| KM 690 40t     | adapter for rigid mounting – up to 40t/88,000lbs   |
| KSW10 rigid    | bolt-on adapter for system L-Lock KMS10L/KHS10L for rigid mounting - up to 19t/41,800lbs |
| KSW21/25 rigid | bolt-on adapter for system L-Lock KMS21/25L / KHS21/25L - up to 40t/88,000lbs            |
| OQ             | bolt-on adapter for OilQuick – up to 70t/15,4000lbs                                      |
|                | adapters for quick change systems from other manufacturers or different sizes on request |





# Benefit from the large variety of chisels for different tasks.



| Tools for KFX      |              |                     |  |
|--------------------|--------------|---------------------|--|
|                    |              |                     |  |
| Туре               | Suitable for | Diameter<br>(mm/in) | Description  |
| KFX 16 Moil        | KFX 16       | 115 / 4.5           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 16 Blunt       | KFX 16       | 115 / 4.5           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 16 Pyramid     | KFX 16       | 115 / 4.5           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 16 Flat chisel | KFX 16       | 115 / 4.5           | flat chisel for medium-hard and layered rock                                 |
| KFX 16 Cobra       | KFX 16       | 115 / 4.5           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 20 Moil        | KFX 20       | 120 / 4.7           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 20 Blunt       | KFX 20       | 120 / 4.7           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 20 Pyramid     | KFX 20       | 120 / 4.7           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 20 Flat chisel | KFX 20       | 120 / 4.7           | flat chisel for medium-hard and layered rock                                 |
| KFX 20 Cobra       | KFX 20       | 120 / 4.7           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 26 Moil        | KFX 26       | 135 / 5.3           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 26 Blunt       | KFX 26       | 135 / 5.3           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 26 Pyramid     | KFX 26       | 135 / 5.3           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 26 Flat chisel | KFX 26       | 135 / 5.3           | flat chisel for medium-hard and layered rock                                 |
| KFX 26 Cobra       | KFX 26       | 135 / 5.3           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 29 Moil        | KFX 29       | 140 / 5.5           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 29 Blunt       | KFX 29       | 140 / 5.5           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 29 Pyramid     | KFX 29       | 140 / 5.5           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 29 Flat chisel | KFX 29       | 140 / 5.5           | flat chisel for medium-hard and layered rock                                 |
| KFX 29 Cobra       | KFX 29       | 140 / 5.5           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 32 Moil        | KFX 32       | 150 / 5.9           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 32 Blunt       | KFX 32       | 150 / 5.9           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 32 Pyramid     | KFX 32       | 150 / 5.9           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 32 Flat chisel | KFX 32       | 150 / 5.9           | flat chisel for medium-hard and layered rock                                 |
| KFX 32 Cobra       | KFX 32       | 150 / 5.9           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 36 Moil        | KFX 36       | 160 / 6.3           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 36 Blunt       | KFX 36       | 160 / 6.3           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 36 Pyramid     | KFX 36       | 160 / 6.3           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 36 Flat chisel | KFX 36       | 160 / 6.3           | flat chisel for medium-hard and layered rock                                 |
| KFX 36 Cobra       | KFX 36       | 160 / 6.3           | cobra chisel for quarry works such as primary demolition and block reduction |
| KFX 40 Moil        | KFX 40       | 160 / 6.3           | moil chisel for concrete, mediumhard and non-layered rock                    |
| KFX 40 Blunt       | KFX 40       | 160 / 6.3           | blunt chisel for reinforced concrete and highly compact rock                 |
| KFX 40 Pyramid     | KFX 40       | 160 / 6.3           | pyramid chisel for reinforced concrete and highly compact rock               |
| KFX 40 Flat chisel | KFX 40       | 160 / 6.3           | flat chisel for medium-hard and layered rock                                 |
| KFX 40 Cobra       | KFX 40       | 160 / 6.3           | cobra chisel for quarry works such as primary demolition and block reduction |

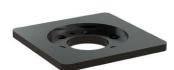
# **Mounting Options for Hydraulic Attachments - rigid mount**

# KM 690 - adapter for rigid mount



| Туре       | Operating<br>weight<br>(t/lbs) |  |
|------------|--------------------------------|--|
| KM 690 15t | up to 15 / 33,000              |  |
| KM 690 20t | up to 20 / 44,000              |  |
| KM 690 27t | up to 27 / 59,400              |  |
| KM 690 32t | up to 32 / 70,400              |  |
| KM 690 40t | up to 40 / 88,000              |  |
|            |                                |  |

# KM 691 - adapter for specific solutions



| Туре       | Operating<br>weight<br>(t/lbs) |
|------------|--------------------------------|
| KM 691 15t | up to 15 / 33,000              |
| KM 691 20t | up to 20 / 44,000              |
| KM 691 27t | up to 27 / 59,400              |

# KSW rigid - bolt-on adapter for quick coupler system L-Lock



| Туре           | for quick coupler<br>System L-Lock | Operating<br>weight<br>(t/lbs) |
|----------------|------------------------------------|--------------------------------|
| KSW10 rigid    | KMS10L / KHS10L                    | up to 19 / 41,800              |
| KSW21/25 rigid | KMS21/25L / KHS21/25L              | up to 40 / 88,000              |

# S rigid - bolt-on adapter for quick coupler system S-Lock



| Туре      | for quick coupler<br>System S-Lock | Operating<br>weight<br>(t/lbs) |
|-----------|------------------------------------|--------------------------------|
| S60 rigid | KMS60S / KHS60S                    | up to 18 / 39,600              |
| S70 rigid | KMS70S / KHS70S                    | up to 30 / 66,000              |

**Note:** adapters for quick change systems for other manufacturers or other sizes on request

# **Mounting Options for Hydraulic Attachments - rigid mount**

# OQ - bolt-on adapter for system "Oilquick" incl. hoses



| Туре                             | For attachments     | Operating weight (t/lbs)  |
|----------------------------------|---------------------|---------------------------|
| OQ60/2 rigid                     | breakers            | 8 - 15 / 17,600 - 33,000  |
| OQ60/4 rigid                     | grabs, shears       | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/2 rigid                   | breakers            | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/3 rigid                   | compactors, planers | 8 - 15 / 17,600 - 33,000  |
| OQ60-5/4 rigid                   | grabs, shears       | 8 - 15 / 17,600 - 33,000  |
| OQ65/2 rigid                     | breakers            | 14 - 22 / 30,800 - 48,400 |
| OQ65/3 rigid                     | compactors, planers | 14 - 22 / 30,800 - 48,400 |
| OQ65/4 rigid                     | grabs, shears       | 14 - 22 / 30,800 - 48,400 |
| OQ70/2 rigid                     | breakers            | 15 -28 / 33,000 - 61,600  |
| OQ70/3 rigid compactors, planers |                     | 15 -28 / 33,000 - 61,600  |
| OQ70/4 rigid                     | grabs, shears       | 15 -28 / 33,000 - 61,600  |
| OQ70/55/2 rigid                  | breakers            | 18 - 32 / 39,600 - 70,400 |
| OQ70/55/3 rigid                  | compactors, planers | 18 - 32 / 39,600 - 70,400 |
| OQ70/55/4 rigid                  | grabs, shears       | 18 - 32 / 39,600 - 70,400 |
| OQ80/2 rigid                     | breakers            | 25 - 43 / 55,000 - 94,600 |
| OQ80/3 rigid                     | compactors, planers | 25 - 43 / 55,000 - 94,600 |
| OQ80/4 rigid                     | grabs, shears       | 25 - 43 / 55,000 - 94,600 |

# SW - bolt-on adapter for system "Liebherr"



| Туре                | Operating weight (t/lbs)  |
|---------------------|---------------------------|
| SW48 rigid          | 14 - 30 / 30,800 - 66,000 |
| SW48 Likufix rigid* | 14 - 30 / 30,800 - 66,000 |
| SW66 rigid          | 28 - 45 / 61,600 - 99,000 |
| SW66 Likufix rigid* | 28 - 45 / 61,600 - 99,000 |

<sup>\*</sup>incl. hoses

# CW - bolt-on adapter for system "Verachtert"



| Туре          | Operating weight (t/lbs)  |
|---------------|---------------------------|
| CW30 rigid    | 15 - 25 / 33,000 - 55,000 |
| CW40 rigid    | 20 - 30 / 44,000 - 66,000 |
| CW45 rigid    | 25 - 40 / 55,000 - 88,000 |
| CW30S rigid** | 15 - 25 / 33,000 - 55,000 |
| CW40S rigid** | 20 - 30 / 44,000 - 66,000 |
| CW45S rigid** | 25 - 40 / 55.000 - 88.000 |

<sup>\*\*</sup>smaller S-version

Note: adapters for quick change systems for other manufacturers or other sizes on request

# KINSHOFER Rotators

**KINSHOFER** is a manufacturer of rotators for excavators, truck loaders and logging operations. Many years of experience in designing rotators and hydraulic load handling equipment allow the production of very efficient and long lasting rotators, specially tailored to each operational requirement.

- ▶ Wide range: depending on the usage and carrier unit the load capacity up to 15t and the design – a rotator with flange or with shaft is possible to use.
- ▶ "Gear-type"-design: ensures very compact and powerful rotators. Precise control of approach and stop even at a high oil temperature.
- ▶ Endless rotation with integrated oil ducts for one hydraulic circuit as standard; rotators with four oil passages are also available.
- ➤ The pressure relief valve allows the rotator independence from the hydraulic system of the excavator and prevents overstressing.
- ▶ Safe admission of pressure, move and bending load through big dimensioned roller bearings.
- ▶ Minimization of abrasion: by using high quality tempered steel, the outer surface is hardened through a nitrate-coating.



| Product Range Rotators |                  |                            |               |                            |         |                   |            |
|------------------------|------------------|----------------------------|---------------|----------------------------|---------|-------------------|------------|
| Туре                   | Load<br>capacity | Upper connection           | Torque        | Bending<br>moment          | •       | raulic<br>ections | Weight     |
|                        | (kg/lbs)         | (width x pin-Ø)<br>(mm/in) | (Nm/ft.lbs)   | <b>max.</b><br>(Nm/ft.lbs) | rotator | grab              | (kg/lbs)   |
| KM 04 F                | 4,500 / 9,900    | 84 x 30 / 3.3 x 1.1        | 850 / 626.9   | 3,000 / 2,212.5            | M18x1,5 | M18x1,5           | 26 / 57.2  |
| KM 04 F140-30USE       | 4,500 / 9,900    | 84 x 30 / 3.3 x 1.1        | 1,000 / 737.5 | 8,500 / 6,268.8            | M18x1,5 | M18x1,5           | 31 / 68.2  |
| KM 04 F140-30VE        | 4,500 / 9,900    | 84 x 30 / 3.3 x 1.1        | 850 / 626.9   | 3,000 / 2,212.5            | M18x1,5 | M18x1,5           | 26 / 57.2  |
| KM 06 F140-40          | 6,000 / 13,200   | 84 x 40 / 3.3 x 1.1        | 1,000 / 737.5 | 8,500 / 6,268.8            | G 1/2"  | G 1/2"            | 34 / 74.8  |
| KM 07 F180-40          | 7,000 / 15400    | 84 x 40 / 3.3 x 1.1        | 2,000 / 1,475 | 15,000 / 11,062.5          | G 1/2"  | M 27x2            | 76 / 167.8 |
| KM 10 F173-45E         | 10,000 / 22,000  | 100 x 45 / 3.9 x 1.8       | 2,000 / 1,475 | 12,000 / 8,850.0           | G 1/2"  | G 1/2"            | 65 / 143   |
| KM 10 F180-50          | 10,000 / 22,000  | 110 x 50 / 4.3 x 2.0       | 2,000 / 1,475 | 15,000 / 11,062.5          | G 1/2"  | M 27x2            | 78 / 171.6 |

| <b>Product Range Rotat</b> | ors Without Head Pla      | ates                         |                                     |             |                     |                    |
|----------------------------|---------------------------|------------------------------|-------------------------------------|-------------|---------------------|--------------------|
| Туре                       | Load capacity<br>(kg/lbs) | <b>Torque</b><br>(Nm/ft.lbs) | Bending moment max.<br>(Nm/ft.lbs.) | Hydraulic o | connections<br>grab | Weight<br>(kg/lbs) |
| KM 04 F140/150             | 4,500 / 9,900             | 850 / 626.9                  | 3,000 / 2,212.5                     | M18x1,5     | M18x1,5             | 34 / 74.8          |
| KM 06 F 140/180            | 6,000 / 13,200            | 1,000 / 737.5                | 8,500 / 6,268.8                     | G 1/2"      | G 1/2"              | 38 / 83.6          |
| KM 06 F173/180             | 6,000 / 13,200            | 1,000 / 737.5                | 8,500 / 6268.8                      | G 1/2"      | G 1/2"              | 34 / 74.8          |
| KM 07 F275/180             | 7,000 / 15,400            | 2,000 / 1475                 | 14,000 / 10,325                     | G 1/2"      | G 3/4"              | 73 / 160.6         |
| KM 10 F173/180             | 10,000 / 22,000           | 2,000 / 1475                 | 12,000 / 8,850                      | G 1/2"      | M27x2               | 60 / 132.0         |
| KM 10 F214/180             | 10,000 / 22,000           | 1,000 / 737.5                | 12,000 / 8,850                      | G 1/2"      | G 1/2"              | 44 / 96.8          |
| KM 10 F275/180V            | 10,000 / 22,000           | 2,000 / 1475                 | 14,000 / 10,325                     | G 1/2"      | G 3/4"              | 73 / 160.6         |
| KM 15 F340/220             | 15,000 / 33,000           | 3,000 / 2212.5               | 25,000 / 18,437.5                   | G 1/2"      | G 3/4"              | 160 / 352.0        |
| KM 15 F273/273             | 15,000 / 33,000           | 2,000 / 1475                 | 50,000 / 36,875                     | G 1/2"      | G 3/4"              | 71 / 156.2         |

| Head Plates for Rotator | 's                               |                           |                      |                         |
|-------------------------|----------------------------------|---------------------------|----------------------|-------------------------|
| Туре                    | for rotators                     | Load capacity<br>(kg/lbs) | Eye width<br>(mm/in) | Pin diameter<br>(mm/in) |
| KM 692 4t-6t 30         | KM 04 F140/150                   | 4,500 / 9,900             | 84 / 3.3             | 30 / 1.2                |
| KM 692 4t-6t 40         | KM 06 F173/180                   | 6,000 / 13,200            | 84 / 3.3             | 40 / 1.6                |
| KM 692 7t-10t 40        | KM 07 F275/180                   | 7,000/ 15,400             | 84 / 3.3             | 40 / 1.6                |
| KM 692 7t-10t 50        | KM 10 F173/180 - KM 10 F275/180V | 10,000 / 22000            | 110 / 4.3            | 50 / 2.0                |
| KM 692 7t-10t 60        | KM 10 F173/180 - KM 10 F275/180V | 10,000 / 22,000           | 125 / 4.9            | 60 / 2.4                |
| KM 692 15t 70 273       | KM 15 F273/273                   | 15,000 / 33,000           | 180 / 7.1            | 70 / 2.8                |
| KM 692 15t 70 340       | KM 15 F340/220                   | 15,000 / 33,000           | 180 / 7.1            | 70 / 2.8                |













KM 04 F KM 04 F USE

KM 06 F140-40

KM 10 F214/180

KM 10 F275-50

KM 15 F273/273





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