



modularisdrive 

**We come from the heart of the green land
with the environmentally friendly products**

Limiting the possibility of hydraulic oil leaking
into the nature to the minimum

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We increase your machine's
power, economic efficiency and value!

With our tools, your machine will become
multifunctional and more profitable.

Universal Multifunctional Grapple



modularisdrive 

About us

1991 – First project during college years: Silage cutting machine „OSA” 1995 - Development and design of handling and gripping tools

1997 – Start of development and production of „Attachments and tools for heavy construction machinery”



2013 – Start of collaboration with the company KGL in developing a new line of hydraulic swivel motors and collaborating in production processes

2013–2017: Development of new Universal Multifunctional Grapples „MODULARIS DRIVE”

2016 – Presentation BAUMA 2016



| | |
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| Multifunctional Grapple for Construction machinery | 2 |
| Easy and fast - arms and grip units replacement | 3 |
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Why choose **Modularis**?

With our Grapple, your machine will become multifunctional and more profitable.

The construction of the MODULARIS Universal Multifunctional Grapple is designed to completely protect the mechanism and hydraulic system.

Due to the innovative KGL hydraulic Swivel Hydromotor and hydraulic system you can achieve a better grip and rotation as well as more precise control.

Designed for reliable gripping, safe work and quick replacement.

Lower fuel consumption due to the lighter construction and greater power.

Ecologically friendly as it reduces the chance of hydraulic oil spilling into the environment.

Safe purchase, guarantee and try before you buy.



More functions with one tool – Easily and quickly interchangeable arms - grip units

Multifunctional Grapple for **Construction machinery**



Universal - The Best Grip
Grapple (Demolition & Sorting)



Sorting Grapple



Energy wood &
Biomass Grapple



Alligator Grapple



Bulk material Grapple



Timber & Logs &
Biomass Grapple



Wood Shear Grapple

MAIN BENEFITS

- Easily and quickly interchangeable arms-grip unitsexchange
- Much higher grip power
- Less weight – higher capacity
- Reduced Load centre
- All manipulation / handling functions with one toll for all material
- Totally closed chasis – no damage from outside
- Environmentally friendly product



Modular concept design of the grapple assembly

Easy and fast - **arms & grip units replacement**

Unit replacement by machine operator from the Machine / simply by hand



Replacement by hand, fix with locking screw



Grapple with the **BEST GRIP**



Reliable & Safe Grip

Designed for reliable gripping, safe work and less energy consumption.

Innovative **Concept**

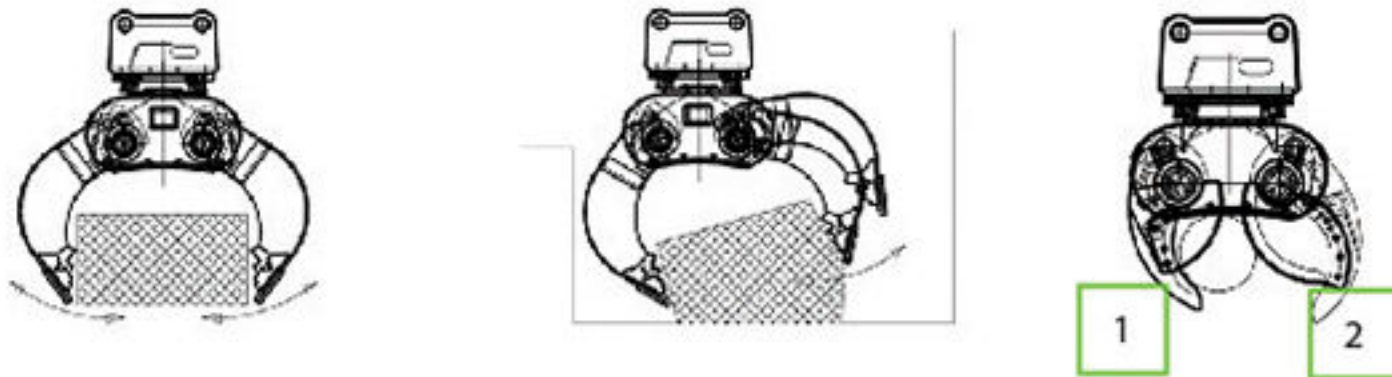
A – Synchro Control hydraulic system with the best performance. It uses the new innovative principle of operation. Much more gripping power and the most reliable grip.



The BEST GRIP with **A - Synchro hydraulic control system**



The unique Grapple which adapts the gripping force to the load.



A - Synchro movement

- Arms 1&2 - Synchro movement till the load shape (timber, rock, log...)
- Arm 1 - Hold (cut) the load
- Arm 2 - continues with movement (gripping, cutting)

A-Synchro arm (grip unit) movement

The only Grapple on the market which has »A – Synchro Grip« synchro & asynchro arm movement – the arms shape & arm movements adapt to the load shape and the functions which the user needs.

Asynchronous movement of the grip arms allows:

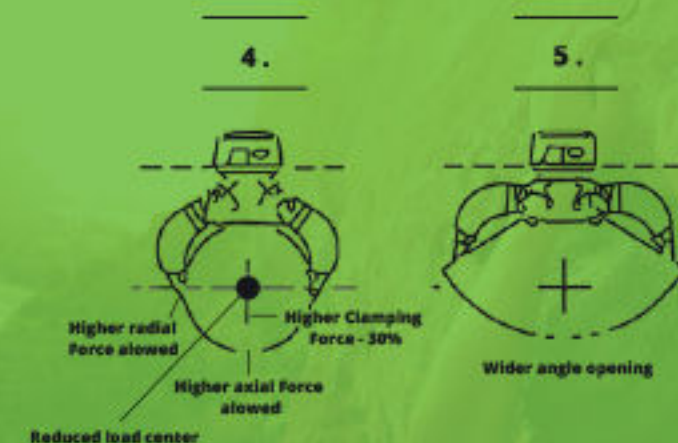
- Handling the asymmetric shaped loads in limited positions
- Adjustment of the gripping surfaces of the shape of the load
- Optimal and most reliable grip at the end position of the arms

Advanced approach of the Grapple design **the new Innovative Modularis Drive Unit**

Other concepts



Our concept



Universal Modularis

Multifunctional Drive unit

The new Universal Multifunctional Drive unit for all applications uses different arms – shells – grip units, for demolition, sorting, handling & Rock handling, Wood Shearing, waste sorting, root pulling & forestry work. New innovative hydraulic drive concept - model protection & patent pending.

- Extremely robust due to high quality material and new design with totally closed chasis
- Integrated non-return valve guarantees secure retention of loads.
- Including the innovative KGL Swivel motor with 360° endless rotation for precise manipulation
- 30% higher closing force achieved by new Modularis Drive hydraulic system/ 30% less weight due to innovative design
- A – Synchro movement adapts the arm grip to the load shape

| Machine op. weight (t/lbs) | Rotation Tor. (Nm/ft.lbs) | Flow Rot. (l/min-GPM) | Flow Clamp (l/min-GPM) | Axial L. Cap. (kN)/lbf) | Radial I. Cap. (kNm /lbf) | Weight (kg/lbs) | Article Code |
|----------------------------|---------------------------|-----------------------|------------------------|-------------------------|---------------------------|-----------------|--------------------|
| 3 - 5 | 6 600 - 11 000 | 1200 885 | 7 1,85 | 20 5,28 | 5 11240 | 35 7868 | 166 366 MD 3.0 E |
| 5 - 8 | 11 000 - 17 600 | 1500 1106 | 10 2,64 | 35 9,25 | 60 13489 | 45 10116 | 235 518 MD 6.0 E |
| 8 - 12 | 17 600 - 26 400 | 1500 1106 | 15 3,96 | 45 11,89 | 90 20233 | 63 14163 | 260 573 MD 9.0 E |
| 10-15 | 22 000 - 33 000 | 2000 1475 | 15 3,96 | 50 13,21 | 120 26977 | 84 18884 | 345 761 MD 12.0 E |
| 14- 18 | 30 800 - 39 600 | 2500 1844 | 20 5,28 | 60 15,85 | 160 35969 | 112 25179 | 475 1047 MD 16.0 E |
| 17 - 21 | 37 400 - 46 200 | 3500 2581 | 20 5,28 | 100 26,42 | 200 44962 | 140 31473 | 700 1543 MD 20.0 E |
| 19 - 25 | 41 800 - 55 000 | 4000 2950 | 35 9,25 | 120 31,70 | 250 56202 | 175 39342 | 780 1720 MD 25.0 E |
| 23 - 30 | 50 600 - 66 000 | 5000 3688 | 35 9,25 | 150 39,63 | 300 67443 | 210 47210 | 950 2094 MD 30.0 E |

Max. Op. pressure MPa (bar / psi) = 35(350) / 5071



Models MD 3.0 - 12.0
 High precision KGL Swivel motor
 High capacity radial bearing significantly increases the payload of the Grapple
 Modularis A – Synchro Hydraulic Drive for the most reliable Grip allows Synchro & Asynchro arms movement



Models MD 16.0 - 30.0
 Rotation with hydromotor and transmission reduction

The Best Grip Grapple

(Universal Demolition, Sorting, Digging & Rock handling)

A-SYNCHRO ARM MOVEMENT

ENVIROMENTALLY FRIENDLY

SELF TOUCH SYSTEM

COMPLETELY PROTECTED MECHANISM AND HYDRAULIC SYSTEM

MORE GRIP POWER

LESS WEIGHT - REDUCED LOAD CENTER - HIGHER CAPACITY



Demolition



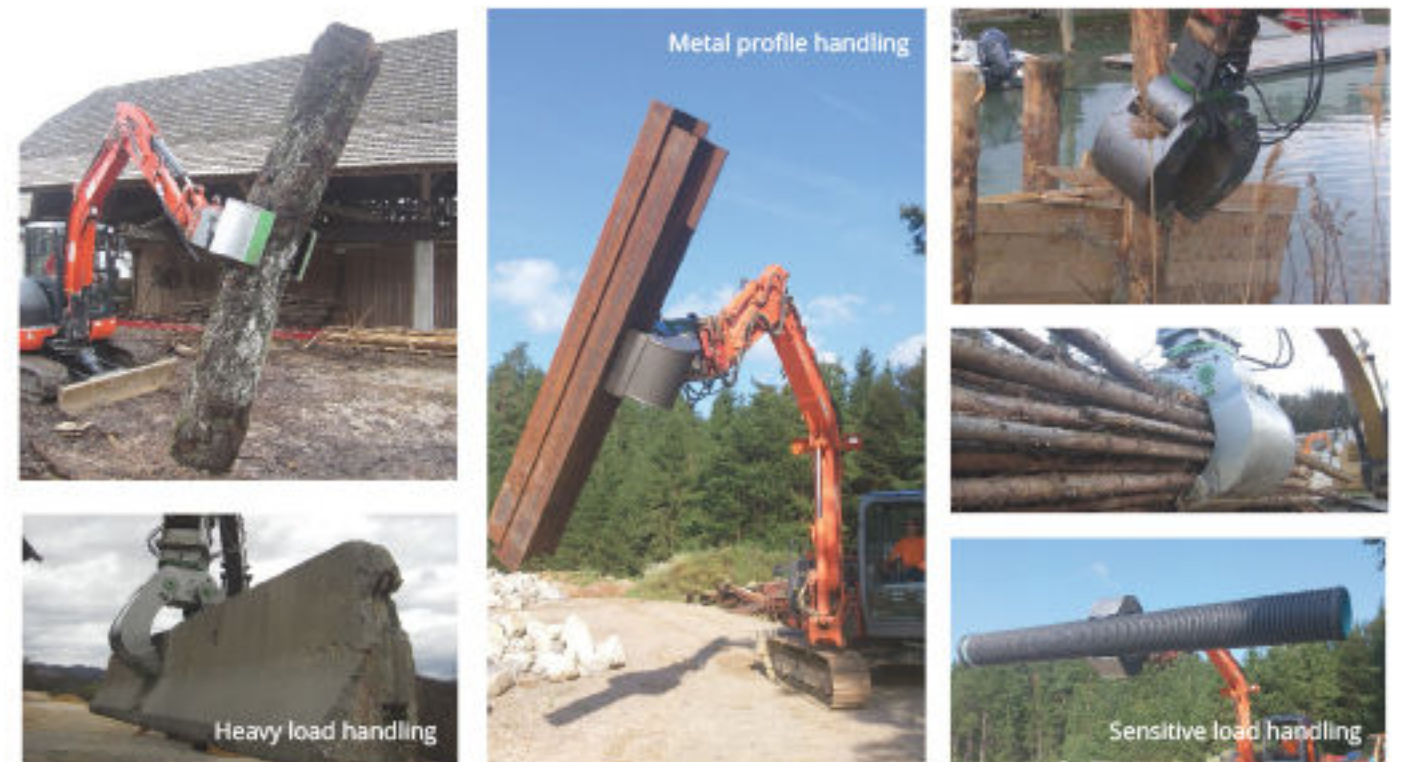
Rock Handling and Manipulation



Each gripping detail is designed with a purpose - the Best Grip Grapple



Timber & wood handling, Placing wooden piles



Modularis Multifunctional tool

The new Universal Multifunctional “the best Grip” Grapple for demolition & sorting & Rock Handling for excavators from 3t / 6600 lbs to 30t / 66000 lbs operating weight

- New improved The best grip arm shape - model protection
- The new innovative design - We simply imitated the hHuman hands .
- Extremely robust due to the use of cutting edge material 50HB steel
- Much more higher Grip power achieved by new shape
- The most reliable Grip achieved by A – Synchro arms
- movement adapts to the load shape.

The Best Grip Grapple

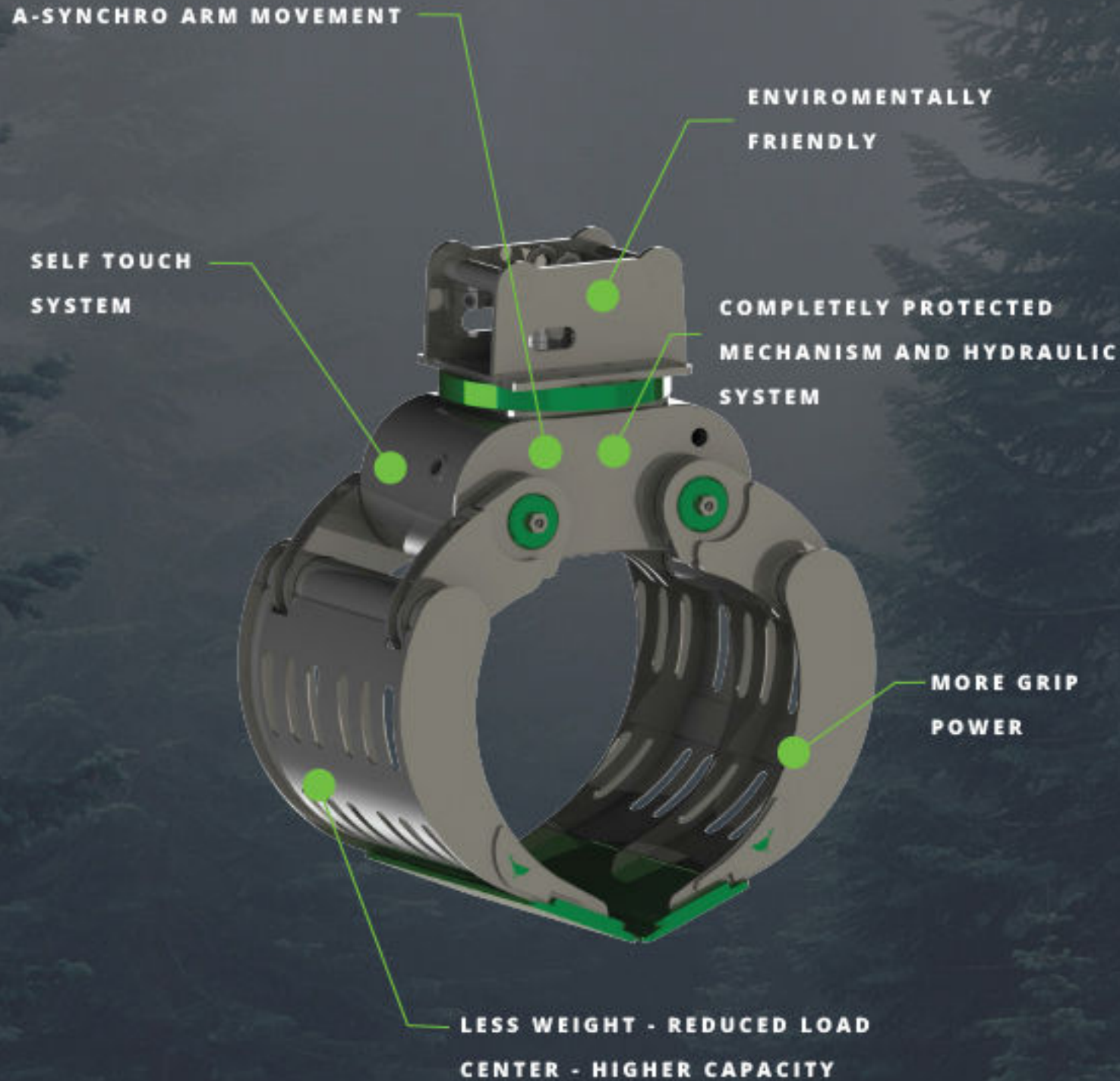
(Universal / Sorting / Demolition / Digging / Rock handling)

| Type | Volume (l/c.y.) | Width B (mm/in) | Max Opening A (mm/in) | Height (mm) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight(kg/lbs) |
|---------|-----------------|-----------------|-----------------------|--------------|--------------------------|------------------------|------------------------------|
| MD 3.0 | 70 / 0,09 | 350 / 13,78 | 1050 / 41,34 | 750 / 29,53 | 16 / 3597 | 74 / 163 | 240 / 529 |
| MD 6.0 | 150 / 0,20 | 450 / 17,72 | 1400 / 55,12 | 880 / 34,65 | 29 / 6519 | 130 / 287 | 365 / 805 |
| MD 9.0 | 250 / 0,33 | 550 / 21,65 | 1650 / 64,96 | 980 / 38,58 | 31 / 6969 | 190 / 419 | 450 / 992 |
| MD 12.0 | 300 / 0,39 | 600 / 23,62 | 1700 / 66,93 | 1150 / 45,28 | 36 / 8093 | 260 / 573 | 605 / 1334 |
| MD 16.0 | 420 / 0,55 | 650 / 25,59 | 1750 / 68,90 | 1370 / 53,94 | 46 / 10341 | 300 / 661 | 775 / 1709 |
| MD 20.0 | 560 / 0,73 | 800 / 31,50 | 2200 / 86,61 | 1450 / 57,09 | 55 / 12364 | 490 / 1080 | 1190 / 2624 |
| MD 25.0 | 760 / 0,99 | 900 / 35,43 | 2300 / 90,55 | 1550 / 61,02 | 75 / 16861 | 585 / 1290 | 1365 / 3009 |
| MD 30.0 | 870 / 1,14 | 1000 / 39,37 | 2400 / 94,49 | 1650 / 64,96 | 85 / 19109 | 690 / 1521 | 1640 / 3616 |

Grapple weight - without connection plate



Sorting Grapple



Modularis Multifunctional tool - Sorting Grapple

The new Universal Multifunctional "Sorting" Grapple for sorting for excavators from 6t / 13200 lbs to 25t / 55000 lbs operating weight

- Wide range of sorting applications used by most customers.
- Modularis recommends a more useful version "the Best GRIP"
- Extremely robust due to the use of cutting edge material 500 HB steel
- The most reliable Grip achieved by A - Synchro arms movement adapts to the load shape.

Sorting Grapple (Universal / Sorting)

| Type | Volume (l/c.y.) | Width B (mm/in) | Max Opening A (mm/in) | Height (mm) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight(kg/lbs) |
|---------|-----------------|-----------------|-----------------------|--------------|--------------------------|------------------------|------------------------------|
| MD 6.0 | 270 / 0,35 | 650 / 25,59 | 1700 / 66,93 | 1030 / 40,55 | 29 / 6519 | 164 / 362 | 399 / 880 |
| MD 9.0 | 400 / 0,52 | 750 / 29,53 | 1980 / 77,95 | 1150 / 45,28 | 31 / 6969 | 240 / 529 | 500 / 1102 |
| MD 12.0 | 480 / 0,63 | 800 / 31,50 | 2100 / 82,68 | 1250 / 49,21 | 36 / 8093 | 328 / 724 | 673 / 1485 |
| MD 16.0 | 720 / 0,94 | 900 / 35,43 | 2300 / 90,55 | 1450 / 57,09 | 46 / 10341 | 379 / 835 | 854 / 1883 |
| MD 20.0 | 1000 / 1,31 | 1000 / 39,37 | 2650 / 104,33 | 1700 / 66,93 | 55 / 12364 | 619 / 1365 | 1319 / 2908 |
| MD 25.0 | 1200 / 1,57 | 1100 / 43,31 | 2750 / 108,27 | 1750 / 68,90 | 75 / 16861 | 739 / 1629 | 1519 / 3349 |

Grapple weight - without connection plate



Alligator Grapple

Universal Sorting, Demolition, Rock Handling, Waste sorting, Forest clearing, Root pulling & Timber + Log handling

A-SYNCHRO ARM MOVEMENT

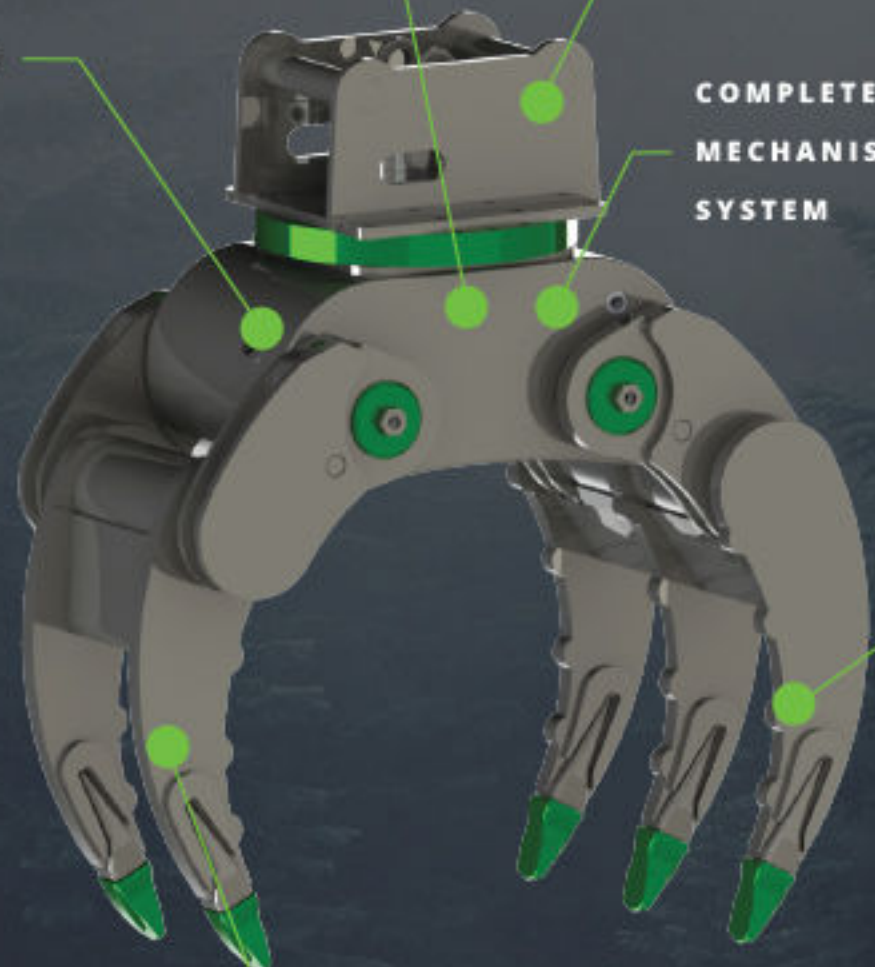
ENVIROMENTALLY FRIENDLY

SELF TOUCH SYSTEM

COMPLETELY PROTECTED MECHANISM AND HYDRAULIC SYSTEM

MORE GRIP POWER

LESS WEIGHT - REDUCED LOAD CENTER - HIGHER CAPACITY



A - Synchro Grip for Root pulling and forest clearing



Timber & Log Manipulation



Grapple with the **BEST GRIP**

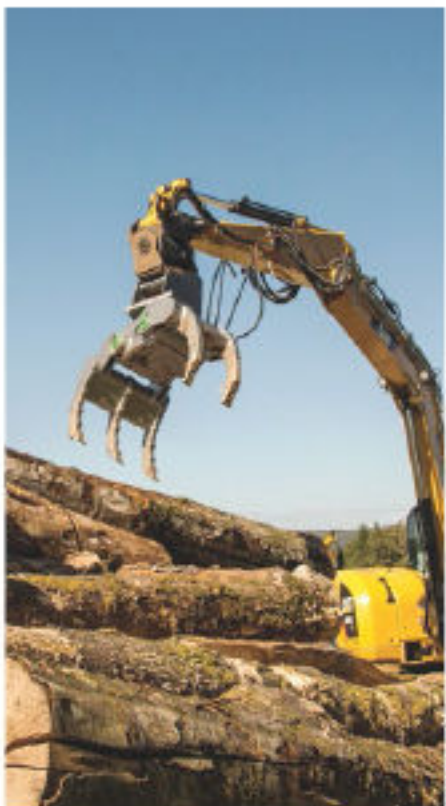
Manipulation



Forest work - clearing & root pulling



Log & Timber Handling



Modularis Multifunctional tool - Alligator Grapple

The new Universal Multifunctional "Alligator" Grapple for Demolition, Sorting & Rock Handling for excavators from 3t / 6600 lbs to 30t / 66000 lbs operating weight

- Extremely robust due to high quality material and new design with totally closed chasis
- Integrated non-return valve guarantees secure retention of loads.
- Including the innovative KGL Swivel motor with 360° endless rotation for precise manipulation
- 30% higher closing force achieved by new Modularis Drive hydraulic system/ 30% less weight due to innovative design
- A - Synchro movement adapts the arm grip to the load shape

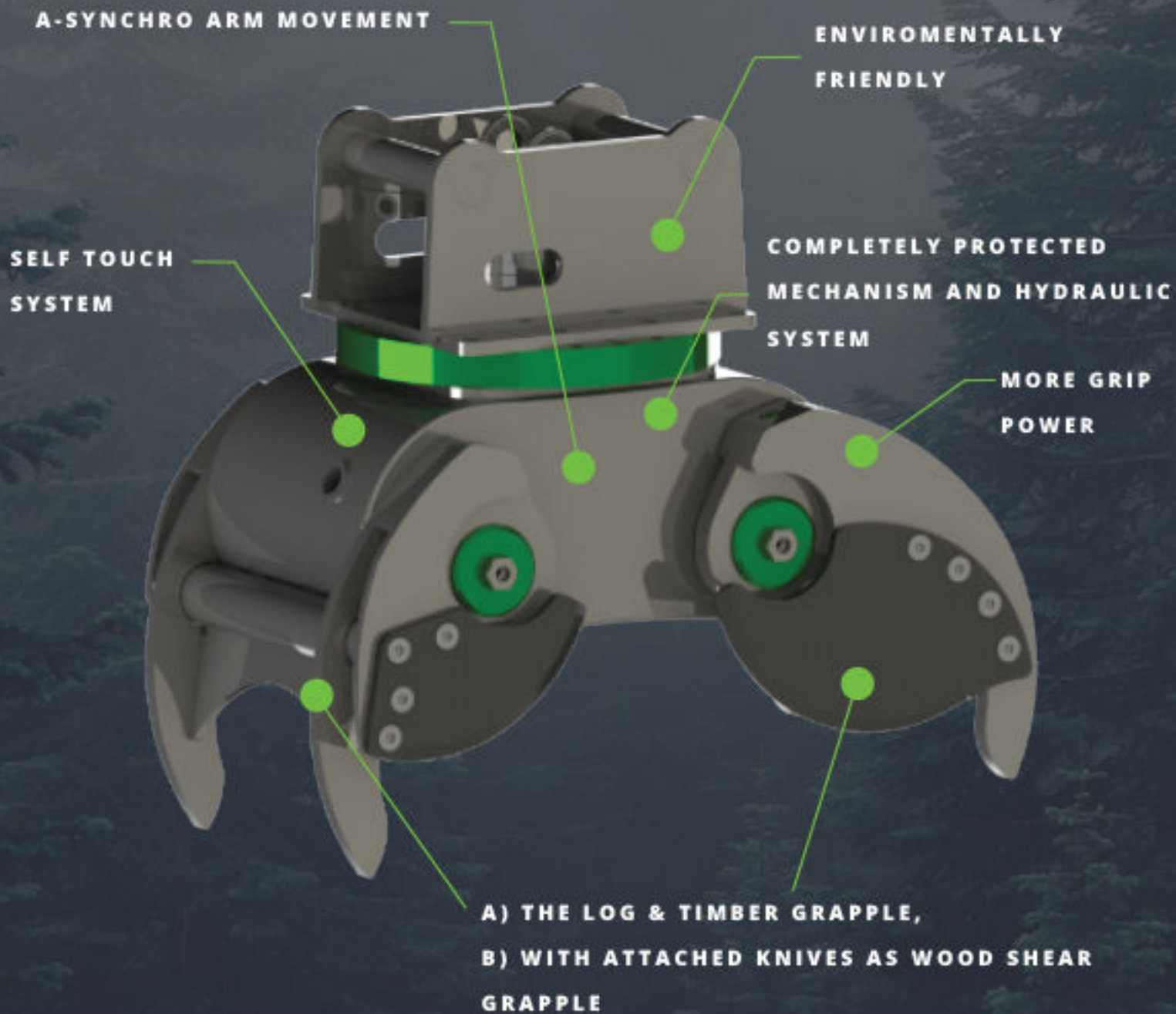
Alligator Grapple Universal Sorting, Demolition, Rock Handling, Forest clearing & Root pulling

| Type | Min Diameter C (mm/in) | Width B (mm/in) | Max Opening A (mm/in) | Height (mm/in) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight (kg/lbs) |
|---------|------------------------|-----------------|-----------------------|----------------|--------------------------|------------------------|-------------------------------|
| MD 3.0 | 150 / 5,91 | 550 / 21,65 | 1100 / 43,31 | 800 / 31,50 | 16 / 3597 | 95 / 209 | 261 / 575 |
| MD 6.0 | 200 / 7,87 | 650 / 25,59 | 1300 / 51,18 | 900 / 35,43 | 29 / 6519 | 170 / 375 | 405 / 893 |
| MD 9.0 | 300 / 11,81 | 650 / 25,59 | 1400 / 55,12 | 930 / 36,61 | 31 / 6969 | 180 / 397 | 440 / 970 |
| MD 12.0 | 300 / 11,81 | 700 / 27,56 | 1500 / 59,06 | 1100 / 43,31 | 36 / 8093 | 250 / 551 | 595 / 1312 |
| MD 16.0 | 300 / 11,81 | 800 / 31,50 | 1700 / 66,93 | 1300 / 51,18 | 46 / 10341 | 375 / 827 | 850 / 1874 |
| MD 20.0 | 360 / 14,17 | 950 / 37,40 | 1900 / 74,80 | 1500 / 59,06 | 55 / 12364 | 600 / 1323 | 1300 / 2866 |
| MD 25.0 | 360 / 14,17 | 950 / 37,40 | 1900 / 74,80 | 1500 / 59,06 | 75 / 16861 | 665 / 1466 | 1445 / 3186 |
| MD 30.0 | 400 / 15,75 | 1100 / 43,31 | 2100 / 82,68 | 1700 / 66,93 | 85 / 19109 | 950 / 2094 | 1900 / 4189 |



Wood Shear Grapple

Cutting trees, clearing bushes, trimming trees in parks, clearing branches along roads and waterways



Clearing bushes, trimming trees, clearing branches along roads and waterways



Innovative Grapple design with knives for maximum cutting performance



Trees & Timber cutting and handling



Modularis Multifunctional tool Wood Shear Grapple

The new Universal Multifunctional "Wood Shear" Grapple for wood cutting and handling for excavators from 5t / 11000 lbs to 25t / 55000 lbs operating weight

- New innovative "Wood Shear" knife shape - model protection, patent pending
- The new innovative design – Grapple & Wood Shear in one tool
- Extremely robust and easy to maintain, due to use of cutting- edge material 500 HB steel
- Much higher shear power achieved by new knife shape
- The cutting wood can be achieved by A – Synchro arm movement (arms always hold the tree first .. then finish the cutting)

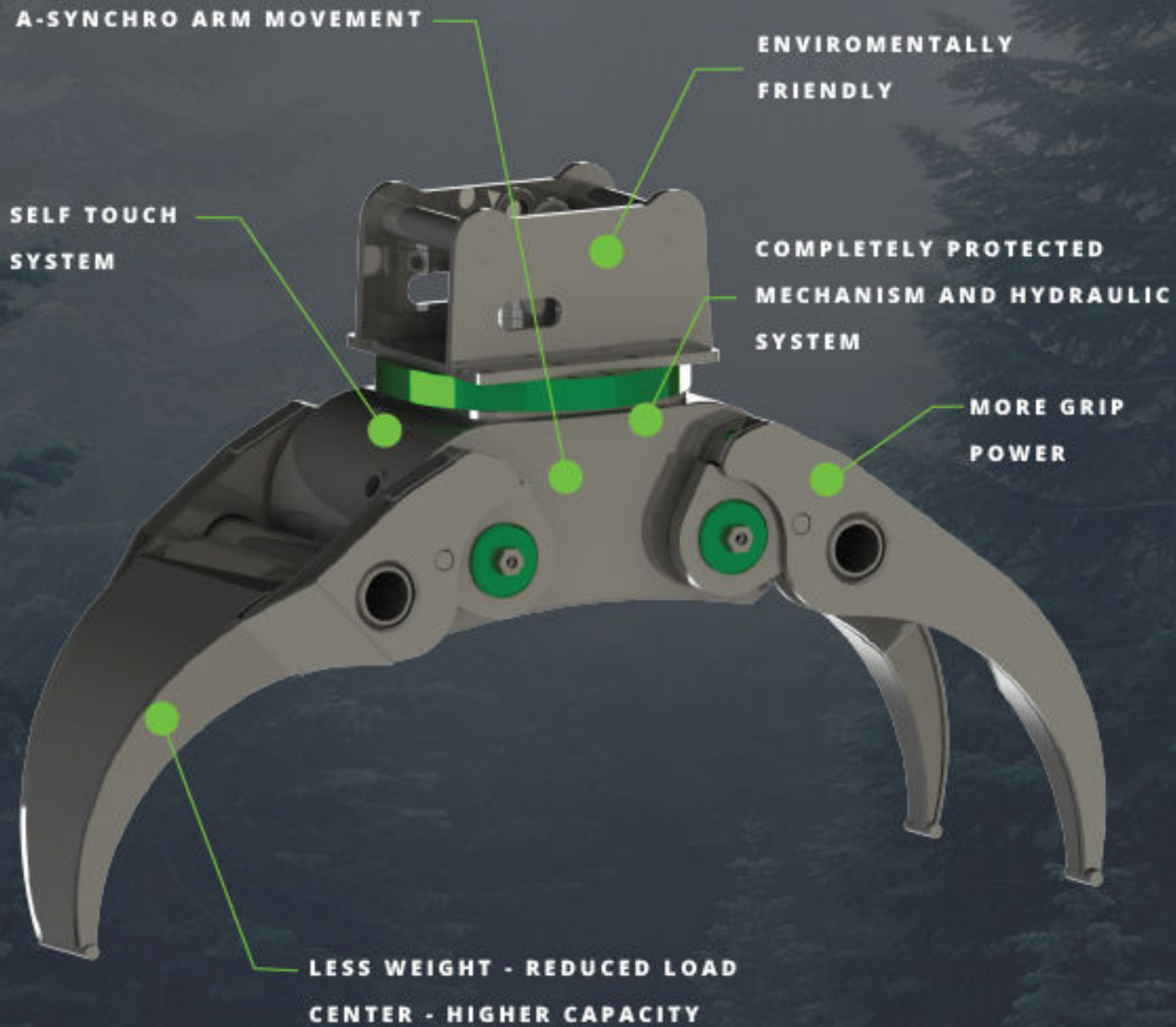
Wood Shear Grapple (Energy wood / Timber / Logs Cutting)

| Type | Max Cutting Diameter C (mm/in) | Width B (mm/in) | Max Opening A (mm/in) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight (kg/lbs) |
|---------|--------------------------------|-----------------|-----------------------|--------------------------|------------------------|-------------------------------|
| MD 6.0 | 200 / 7,87 | 500 / 19,69 | 630 / 24,80 | 65 / 14613 | 80 / 176 | 315 / 694 |
| MD 9.0 | 250 / 9,84 | 550 / 21,65 | 750 / 29,53 | 75 / 16861 | 100 / 220 | 360 / 794 |
| MD 12.0 | 300 / 11,81 | 600 / 23,62 | 800 / 31,50 | 85 / 19109 | 150 / 331 | 495 / 1091 |
| MD 16.0 | 350 / 13,78 | 700 / 27,56 | 900 / 35,43 | 102 / 22931 | 205 / 452 | 680 / 1499 |
| MD 20.0 | 400 / 15,75 | 800 / 31,50 | 900 / 35,43 | 123 / 27652 | 300 / 661 | 1000 / 2205 |
| MD 25.0 | 400 / 15,75 | 800 / 31,50 | 900 / 35,43 | 144 / 32372 | 320 / 705 | 1100 / 2425 |



Timber & Wood & Biomass Grapple

Modularis Multifunctional tool – Timber Grapple



Modularis Multifunctional tool - Timber Grapple

The new Universal Multifunctional "Timber" Grapple for handling for excavators from 3t / 6600 lbs to 12t / 26400 lbs operating weight

- Wide range of sorting and manipulation with wood, logs, timbers and bio-mass material
- The most reliable Grip achieved by A – Synchro arm movement adapts to the load shape.

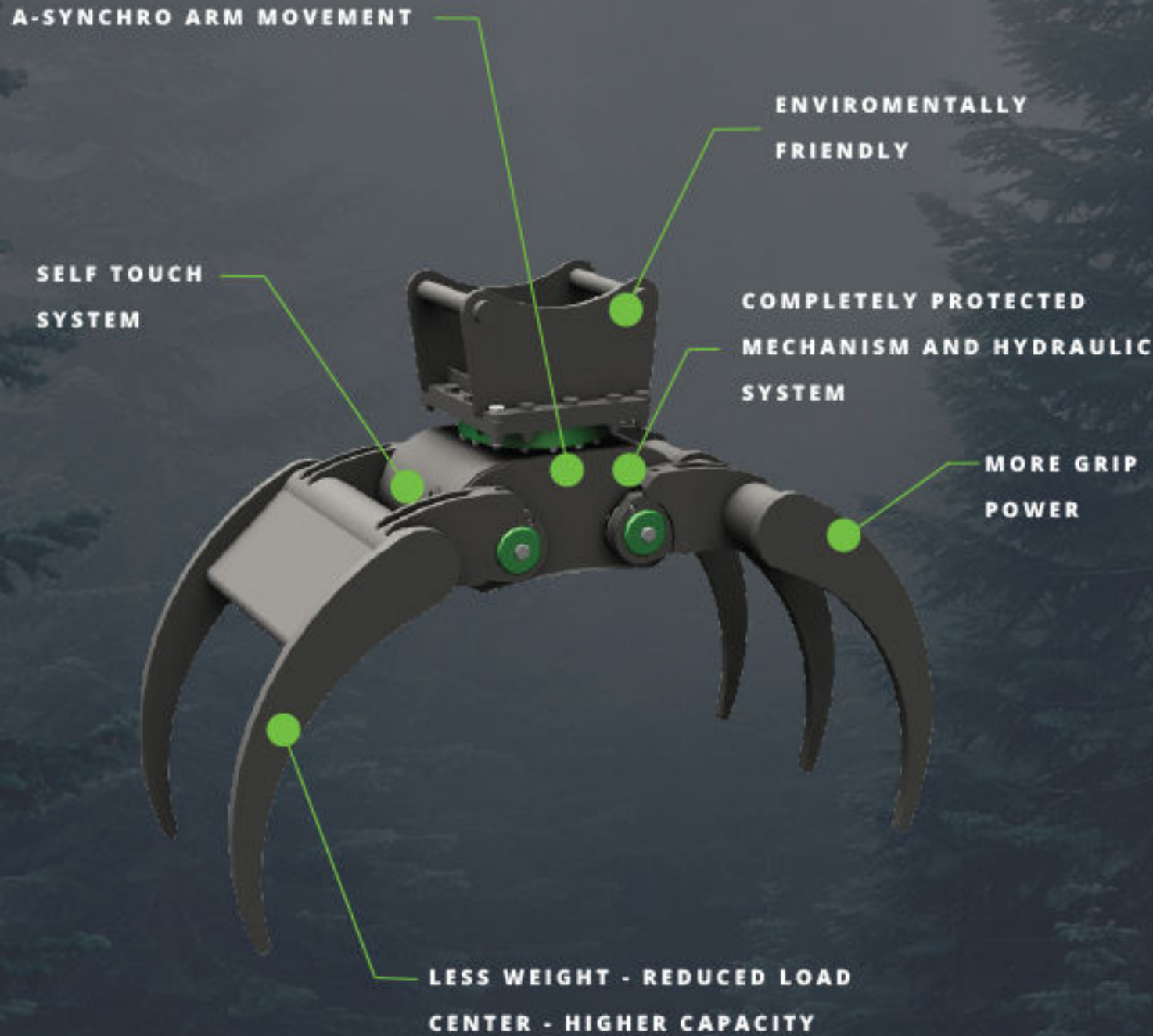
Timber Grapple (Energy wood / Timber / Logs Handling)

| Type | Width B (mm/in) | Max Opening A (mm/in) | Height (mm) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight(kg/lbs) |
|---------|--------------------|--------------------------|----------------|-----------------------------|---------------------------|---------------------------------|
| MD 3.0 | 300 / 11,81 | 1100 / 43,31 | 800 | 16 / 3597 | 82 / 181 | 248 / 547 |
| MD 6.0 | 400 / 15,75 | 1250 / 49,21 | 870 | 29 / 6519 | 100 / 220 | 335 / 739 |
| MD 9.0 | 500 / 19,69 | 1500 / 59,06 | 950 | 31 / 6969 | 122 / 269 | 382 / 842 |
| MD 12.0 | 500 / 19,69 | 1500 / 59,06 | 1100 | 36 / 8093 | 145 / 320 | 490 / 1080 |



Biomass Grapple

Manipulation of biomass, straw, hay and manure



Modularis Multifunctional tool - Biomass Grapple

The new Universal Multifunctional "Biomass" Grapple for biomass manipulation for excavators from 3t / 6600 lbs to 25t / 55000 lbs operating weight

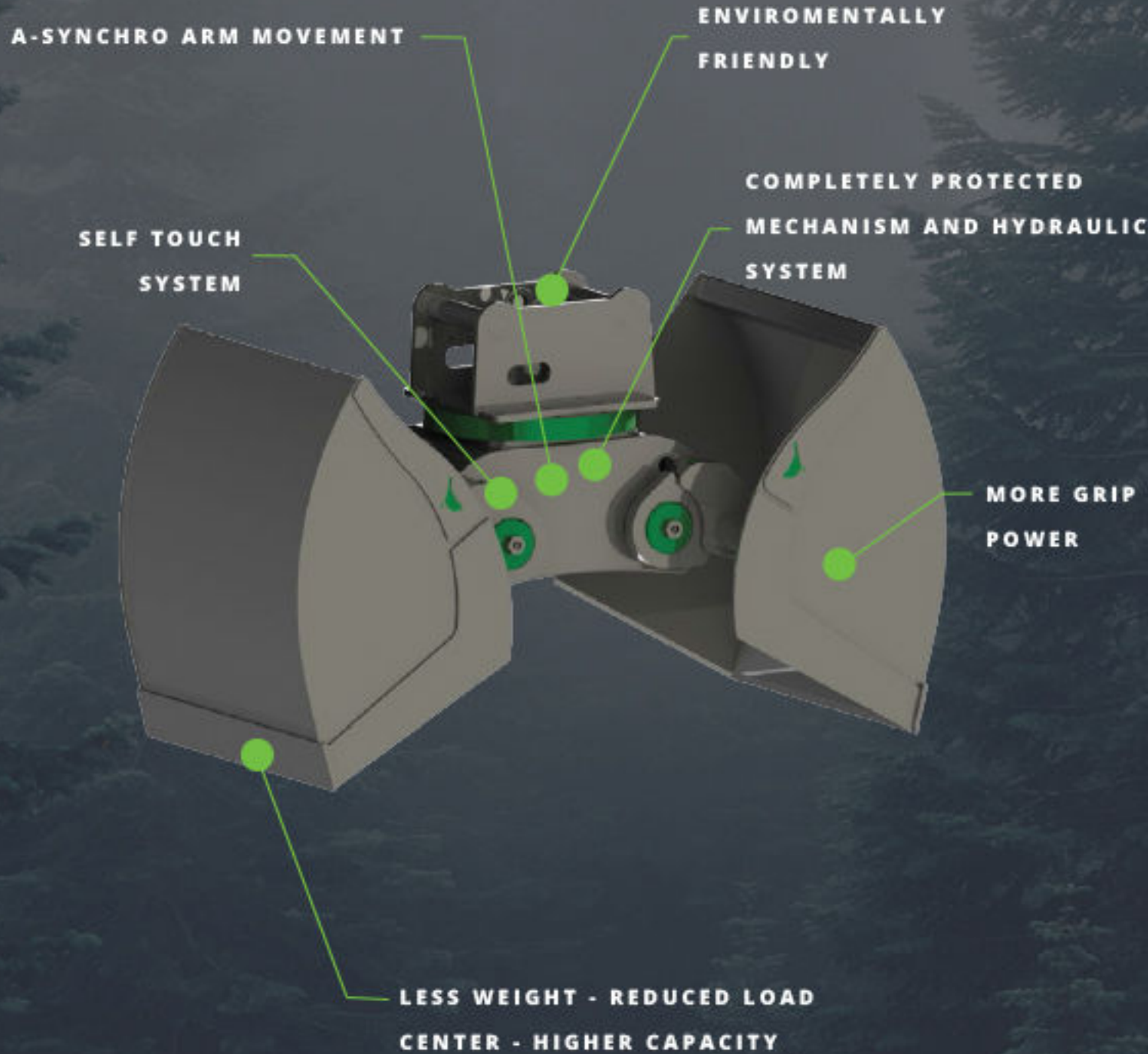
- New improved "Biomass" arm shape
- High volume capacity design for light material handling
- Much higher Grip power achieved by new shape
- The most reliable Grip achieved by A - Synchro arm movement adapts to the load shape

Biomass Grapple (Energy wood / Waste Sorting / Hay & Straw- Manure loading)

| Type | Volume (l/c.y.) | Width B (mm/in) | Max Opening A (mm/in) | Height (mm) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight(kg/lbs) |
|---------|-----------------|-----------------|-----------------------|--------------|--------------------------|------------------------|------------------------------|
| MD 3.0 | 270 / 0,35 | 700 / 27,56 | 1500 / 59,06 | 950 / 37,40 | 16 / 3597 | 112 / 246 | 278 / 612 |
| MD 6.0 | 400 / 0,52 | 800 / 31,50 | 1700 / 66,93 | 1100 / 43,31 | 29 / 6519 | 200 / 441 | 435 / 959 |
| MD 9.0 | 480 / 0,63 | 900 / 35,43 | 1980 / 77,95 | 1350 / 53,15 | 31 / 6969 | 212 / 467 | 472 / 1040 |
| MD 12.0 | 720 / 0,94 | 1000 / 39,37 | 2100 / 82,68 | 1450 / 57,09 | 36 / 8093 | 294 / 648 | 639 / 1409 |
| MD 16.0 | 1000 / 1,31 | 1100 / 43,31 | 2300 / 90,55 | 1640 / 64,57 | 46 / 10341 | 441 / 973 | 916 / 2020 |
| MD 20.0 | 1200 / 1,57 | 1200 / 47,24 | 2650 / 104,33 | 1850 / 72,83 | 55 / 12364 | 706 / 1556 | 1406 / 3099 |
| MD 25.0 | 1300/1.70 | 1300 / 51,18 | 2700 / 106,30 | 1900 / 74,80 | 75 / 16861 | 782 / 1725 | 1562 / 3444 |



Bulk material Grapple



Modularis Multifunctional tool - Bulk material Grapple

The new Universal Multifunctional "Bulk material" Grapple for bulk material handling for excavators from 3t / 13200 lbs to 30t / 13200 lbs operating weight

- New improved "Bulk shell" arm shape
- High volume capacity design for light material handling
- Much higher load power achieved by new shape

Bulk material Grapple (Sand, coal, cereals, earth, wood chips, bulk materials handling)

| Type | Volume (l/c.y.) | Width B (mm/in) | Max Opening A (mm/in) | Height (mm) | Closing force F (kN/lbs) | Arms Weight (kg / lbs) | Total Grapple weight(kg/lbs) |
|--------|-----------------|-----------------|-----------------------|-------------|--------------------------|------------------------|------------------------------|
| MD 3.0 | 70 / 0,09 | 300 / 11,81 | 1150 / 45,28 | 0 / 0 | 16 / 3597 | 69 / 152 | 235 / 518 |
| | 95 / 0,12 | 400 / 15,75 | | | | 81 / 179 | 247 / 545 |
| | 120 / 0,16 | 500 / 19,69 | | | | 93 / 205 | 259 / 571 |
| MD 6.0 | 160 / 0,21 | 400 / 15,75 | 1350 / 53,15 | 0 / 0 | 29 / 6519 | 127 / 280 | 362 / 798 |
| | 200 / 0,26 | 500 / 19,69 | | | | 138 / 304 | 373 / 822 |
| | 240 / 0,31 | 600 / 23,62 | | | | 149 / 328 | 384 / 847 |
| | 320 / 0,42 | 800 / 31,50 | | | | 167 / 368 | 402 / 886 |
| MD 9.0 | 300 / 0,39 | 600 / 23,62 | 1500 / 59,06 | 0 / 0 | 31 / 6969 | 200 / 441 | 460 / 1014 |
| | 350 / 0,46 | 700 / 27,56 | | | | 210 / 463 | 470 / 1036 |
| | 400 / 0,52 | 800 / 31,50 | | | | 222 / 489 | 482 / 1063 |

