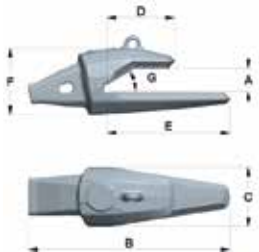




R10 SPECIFICATIONS Teeth, Adapters, Accessories

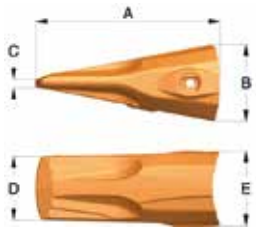
TS C-rex 001 EN, Oct 2022



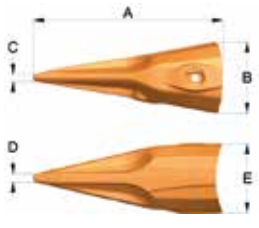
BE



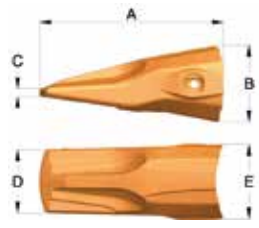
SL



GPE



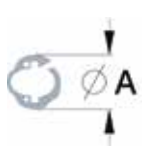
VE



GPL



LP



LR



LT

Typical machine weight - Excavator
Maximum breakout force in HD/XHD

12-14 MT
88 kN

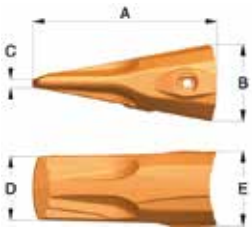
Typical machine weight - Loader
Maximum breakout force in HD/XHD

12-14 MT
158 kN

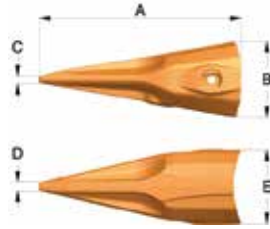
| Type | Part. no | | | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|--|--|------------|------|------|------|------|------|---------|-----------|
| BE | R10BE25 | | | 27 | 281 | 83 | 95 | 171 | 90 | 30° | 5.5 |
| SL | R10SL20 | | | 20 (20-30) | 278 | 83 | N/A | N/A | 88 | 25° | 6.2 |
| GPE | R10GPE | | | 208 | 86 | 10 | 72 | 84 | | | 3.2 |
| VE | R10VE | | | 228 | 86 | 8 | 10 | 84 | | | 2.7 |
| GPL | R10GPL | | | 208 | 86 | 9 | 72 | 84 | | | 3.5 |
| LP | R10LP | | | 19 | 69 | | | | | | 0.1 |
| LR | R10LR | | | 29 | | | | | | | - |
| LT | R10LT | | | 358 | 62 | | | | | | 0.4 |



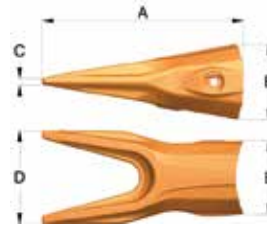
R14 SPECIFICATIONS Teeth



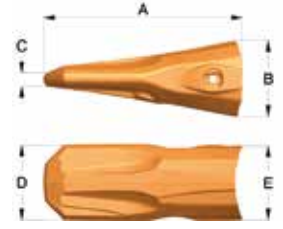
GPE 



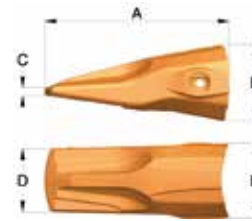
VE 



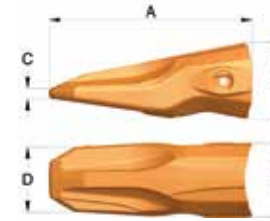
WE 



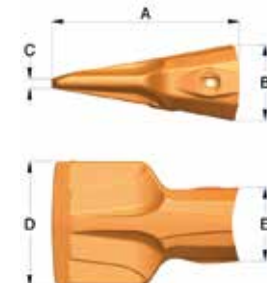
AE 



GPL 












AL 



FE 

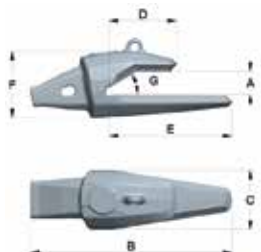
Typical machine weight - Excavator 14-17 MT
Maximum breakout force in HD/XHD 112 kN

Typical machine weight - Loader 14-17 MT
Maximum breakout force in HD/XHD 202 kN

| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------|------|------|------|------|------|---------|-----------|
| GPE | R14GPE | |  | 240 | 100 | 11 | 83 | 97 | | | 4.7 |
| VE | R14VE | |  | 265 | 100 | 9 | 10 | 97 | | | 4.3 |
| WE | R14WE | |  | 265 | 100 | 9 | 123 | 97 | | | 5.1 |
| FE | R14FE | |  | 240 | 100 | 13 | 156 | 97 | | | 6.4 |
| AE | R14AE | |  | 262 | 100 | 18 | 98 | 97 | | | 6.2 |
| GPL | R14GPL |  | | 240 | 100 | 10 | 83 | 97 | | | 5.5 |
| AL | R14AL |  | | 269 | 100 | 15 | 85 | 97 | | | 7.3 |



R14 SPECIFICATIONS Adapters, Accessories



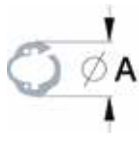
BE 



SL  












LP  



LR  

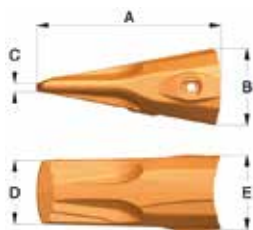


LT  

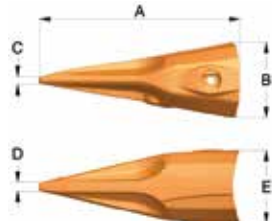
| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------------|---------|---------|---------|---------|---------|------------|--------------|
| BE | R14BE30 |  | | 32 | 325 | 96 | 110 | 198 | 103 | 30° | 8.7 |
| BE | R14BE40 | |  | 42 | 325 | 96 | 110 | 198 | 103 | 30° | 8.7 |
| SL | R14SL30 |  |  | 30 (30-40) | 322 | 96 | N/A | N/A | 101 | 25° | 9.5 |
| LP | R14LP |  |  | 22 | 80 | | | | | | 0.2 |
| LR | R14LR |  |  | 32 | | | | | | | - |
| LT | R14LT |  |  | 383 | 65 | | | | | | 0.6 |



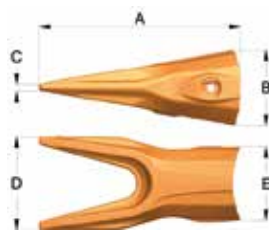
R18 SPECIFICATIONS Teeth



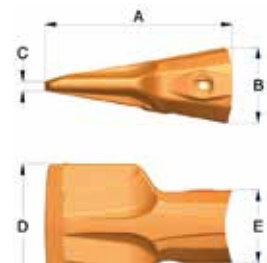
GPE 



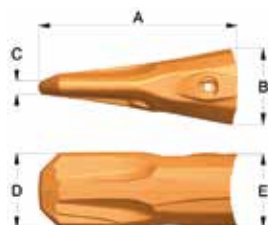
VE 



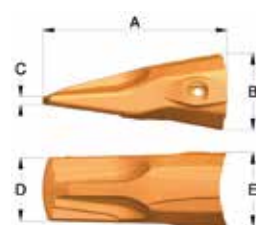
WE 



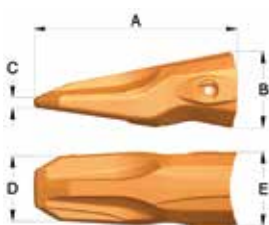
FE 



AE 



GPL 



AL 

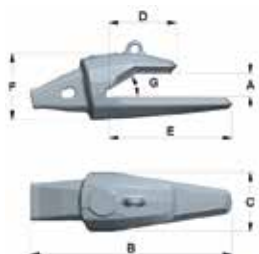
Typical machine weight - Excavator 17-25 MT
Maximum breakout force in HD/XHD 147 kN

Typical machine weight - Loader 17-25 MT
Maximum breakout force in HD/XHD 265 kN

| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | Weight kg |
|------|----------|---|---|------|------|------|------|------|-----------|
| GPE | R18GPE |  |  | 267 | 111 | 12 | 92 | 108 | 6.8 |
| VE | R18VE |  |  | 294 | 111 | 11 | 11 | 108 | 5.8 |
| WE | R18WE |  |  | 294 | 111 | 11 | 137 | 108 | 7.0 |
| FE | R18FE |  |  | 273 | 111 | 14 | 182 | 108 | 9.1 |
| AE | R18AE |  |  | 290 | 111 | 20 | 109 | 108 | 8.5 |
| GPL | R18GPL |  |  | 267 | 111 | 11 | 92 | 108 | 7.6 |
| AL | R18AL |  |  | 298 | 111 | 17 | 94 | 108 | 10.0 |



R18 SPECIFICATIONS Adapters, Accessories



BE 



SL  



TL 



















LP  



LR  

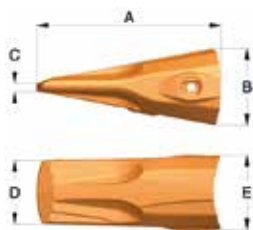


LT  

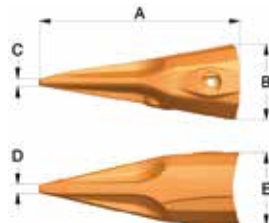
| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel° | Weight kg |
|------|----------|---|---|------------|---------|---------|---------|---------|---------|-------------|--------------|
| BE | R18BE40 |  |  | 42 | 361 | 106 | 120 | 220 | 119 | 30° | 11.9 |
| BE | R18BE45 |  |  | 47 | 362 | 106 | 119 | 221 | 119 | 30° | 12.1 |
| SL | R18SL30 |  |  | 30 (30-40) | 357 | 106 | N/A | N/A | 114 | 25° | 12.8 |
| TL | R18TL40 |  |  | 42 | 356 | 106 | 215 | 125 | 121 | 25° | 12.8 |
| LP | R18LP |  |  | 25 | 90 | | | | | | 0.2 |
| LR | R18LR |  |  | 35 | | | | | | | - |
| LT | R18LT |  |  | 408 | 65 | | | | | | 0.6 |



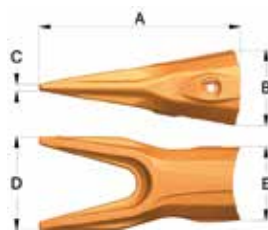
R23 SPECIFICATIONS Teeth



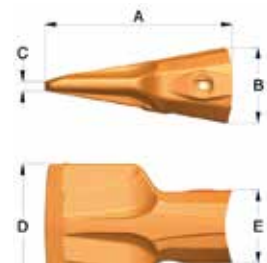
GPE 



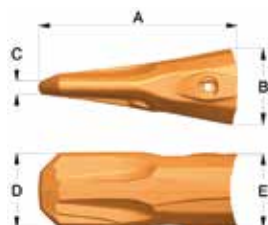
VE 



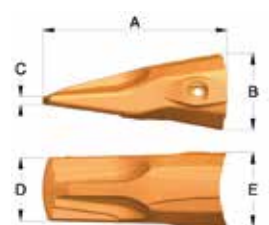
WE 



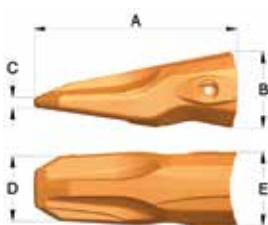
FE 



AE 












GPL 



AL 

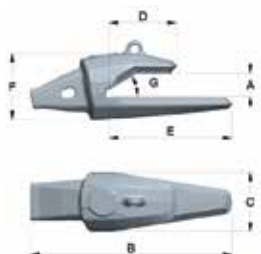
Typical machine weight - Excavator 25-35 MT
Maximum breakout force in HD/XHD 184 kN

Typical machine weight - Loader 25-35 MT
Maximum breakout force in HD/XHD 331 kN

| Type | Part. no |   | A mm | B mm | C mm | D mm | E mm | Weight kg |
|------|----------|---|------|------|------|------|------|-----------|
| GPE | R23GPE |  | 301 | 125 | 14 | 104 | 122 | 9.6 |
| VE | R23VE |  | 332 | 125 | 12 | 13 | 122 | 8.4 |
| WE | R23WE |  | 332 | 125 | 12 | 155 | 122 | 9.9 |
| FE | R23FE |  | 309 | 125 | 16 | 205 | 122 | 13.1 |
| AE | R23AE |  | 328 | 125 | 22 | 123 | 122 | 12.4 |
| GPL | R23GPL |  | 301 | 125 | 13 | 104 | 122 | 10.8 |
| AL | R23AL |  | 337 | 125 | 19 | 107 | 122 | 14.4 |



R23 SPECIFICATIONS Adapters, Accessories



BE 



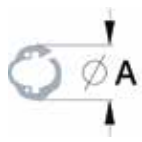
SL  



TL 
















LP  



LR  

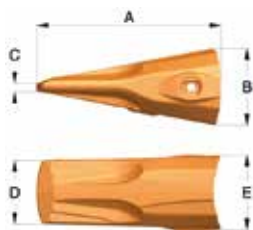


LT  

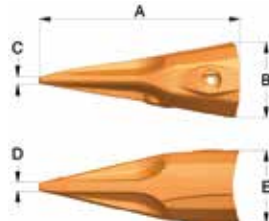
| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------------|------|------|------|------|------|---------|-----------|
| BE | R23BE40 | |  | 42 | 408 | 120 | 137 | 249 | 130 | 30° | 17.5 |
| BE | R23BE50 | |  | 52 | 408 | 120 | 137 | 249 | 130 | 30° | 17.3 |
| SL | R23SL40 |  |  | 40 (40-50) | 404 | 120 | N/A | N/A | 127 | 25° | 18.3 |
| TL | R23TL40 |  | | 42 | 403 | 120 | 244 | 140 | 130 | 25° | 18.3 |
| LP | R23LP |  |  | 28 | 102 | | | | | | 0.3 |
| LR | R23LR |  |  | 40 | | | | | | | - |
| LT | R23LT |  |  | 435 | 69 | | | | | | 0.9 |



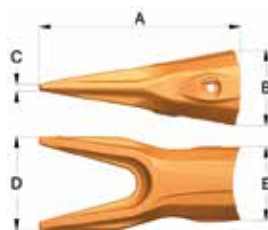
R29 SPECIFICATIONS Teeth



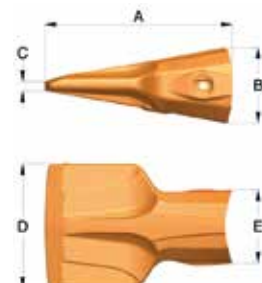
GPE 



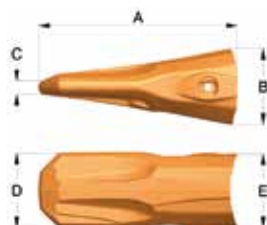
VE 



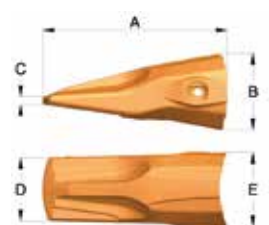
WE 



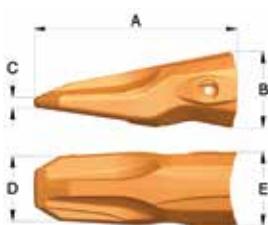
FE 



AE 





GPL 



AL 

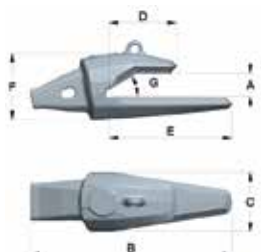
Typical machine weight - Excavator 35-45 MT
Maximum breakout force in HD/XHD 233 kN

Typical machine weight - Loader 35-45 MT
Maximum breakout force in HD/XHD 419 kN

| Type | Part. no |   | A mm | B mm | C mm | D mm | E mm | Weight kg |
|------|----------|---|------|------|------|------|------|-----------|
| GPE | R29GPE |  | 331 | 138 | 15 | 115 | 134 | 12.6 |
| VE | R29VE |  | 340 | 138 | 15 | 15 | 134 | 10.9 |
| WE | R29WE |  | 365 | 138 | 13 | 170 | 134 | 13.5 |
| FE | R29FE |  | 340 | 138 | 18 | 226 | 134 | 17.4 |
| AE | R29AE |  | 361 | 138 | 24 | 136 | 134 | 16.2 |
| GPL | R29GPL |  | 331 | 138 | 14 | 115 | 134 | 14.5 |
| AL | R29AL |  | 371 | 138 | 21 | 117 | 134 | 19.2 |



R29 SPECIFICATIONS Adapters, Accessories



BE 



SL  



TL 
















LP  



LR  



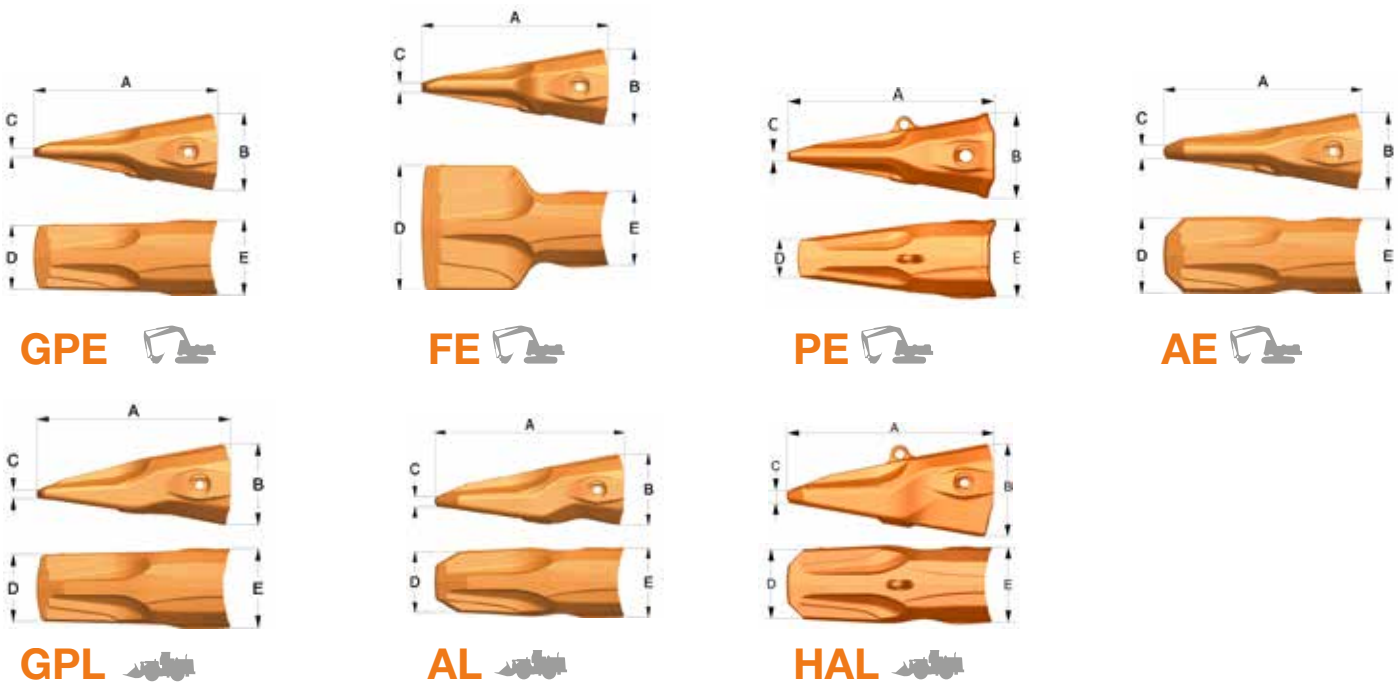
LT  

| Type | Part. no |   | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|------------|---------|---------|---------|---------|---------|------------|--------------|
| BE | R29BE50 |  | 52 | 449 | 132 | 150 | 274 | 148 | 30° | 23.7 |
| BE | R29BE60 |  | 62 | 449 | 132 | 148 | 274 | 148 | 30° | 23.6 |
| SL | R29SL50 |   | 50 (50-65) | 444 | 132 | N/A | N/A | 144 | 25° | 21.0 |
| TL | R29TL50 |  | 52 | 443 | 132 | 268 | 156 | 150 | 25° | 24.6 |
| LP | R29LP |   | 31 | 112 | | | | | | 0.4 |
| LR | R29LR |   | 43 | | | | | | | - |
| LT | R29LT |   | 460 | 70 | | | | | | 1.0 |



R35 SPECIFICATIONS Teeth

TS C-rex 001 EN, Oct 2022




Typical machine weight - Excavator
Maximum breakout force in HD/XHD

40-50 MT
296 kN

Typical machine weight - Loader
Maximum breakout force in HD/XHD

45-55 MT
510 kN

| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------|------|------|------|------|------|---------|-----------|
| GPE | R35GPE |  | | 374 | 156 | 18 | 130 | 151 | | | 18.7 |
| FE | R35FE |  | | 385 | 156 | 21 | 255 | 151 | | | 25.1 |
| PE | R35PE |  | | 410 | 156 | 21 | 90 | 151 | | | 21.2 |
| AE | R35AE |  | | 407 | 156 | 27 | 153 | 151 | | | 23.8 |
| GPL | R35GPL |  | | 375 | 156 | 16 | 130 | 151 | | | 20.9 |
| AL | R35AL |  | | 419 | 156 | 23 | 133 | 151 | | | 27.8 |
| HAL | R35HAL |  | | 419 | 186 | 27 | 157 | 151 | | | 36.3 |

Combi Wear Parts AB
Box 205, SE-681 24 Kristinehamn, Sweden
Tel: +46 550 410 550
combiwearparts.com



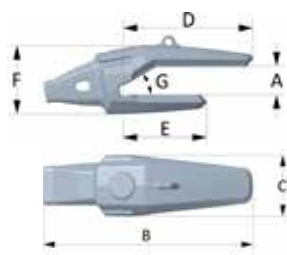


R35 SPECIFICATIONS Adapters, Accessories

TS C-rex 001 EN, Oct 2022



TL  



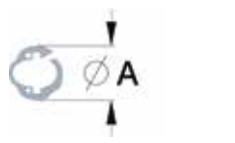
UA  



WC  




















LP  



LR  



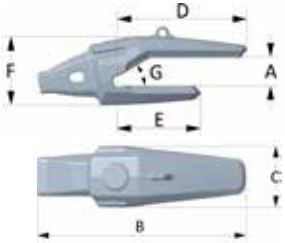
LT  

| Type | Part. no |   | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|------|------|------|------|------|------|---------|-----------|
| TL | R35TL65 |   | 67 | 501 | 149 | 303 | 174 | 170 | 30° | 34.3 |
| UA | R35UA60 |   | 62 | 500 | 149 | 306 | 198 | 163 | 30° | 32.9 |
| UA | R35UA65 |   | 67 | 500 | 149 | 304 | 198 | 163 | 30° | 32.5 |
| UA | R35UA70 |   | 72 | 500 | 149 | 301 | 192 | 163 | 30° | 32.4 |
| WC | R35WC |   | 163 | 73 | 126 | | | | | 3.2 |
| LP | R35LP |   | 34 | 127 | | | | | | 0.6 |
| LR | R35LR |   | 49 | | | | | | | - |
| LT | R35LT |   | 485 | 75 | | | | | | 1.1 |

Combi Wear Parts AB
 Box 205, SE-681 24 Kristinehamn, Sweden
 Tel: +46 550 410 550
 combiwearparts.com



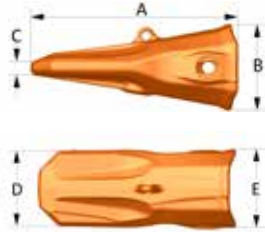
R50 SPECIFICATIONS Teeth, Adapters, Accessories



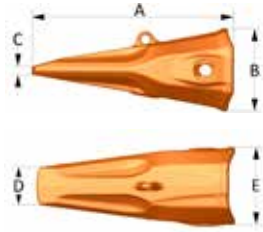
UA  



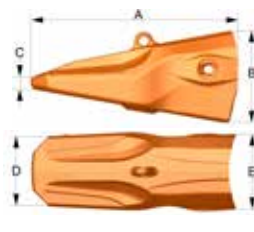
WC  



AE 



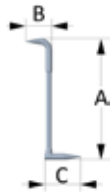
PE 



HAL 



LP  























LT  

Typical machine weight - Excavator
Maximum breakout force in HD/XHD

50-80 MT
400 kN

Typical machine weight - Loader
Maximum breakout force in HD/XHD

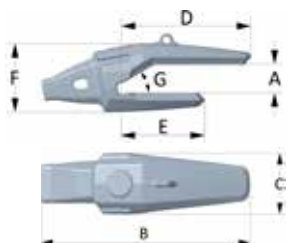
80-100 MT
720 kN

| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------|------|------|------|------|------|---------|-----------|
| UA | R50UA70 |  |  | 72 | 583 | 171 | 362 | 233 | 190 | 30° | 51,6 |
| UA | R50UA75 |  |  | 77 | 583 | 171 | 359 | 230 | 190 | 30° | 51,3 |
| UA | R50UA80 |  |  | 82 | 583 | 171 | 356 | 227 | 190 | 30° | 50,7 |
| WC | R50WC |  |  | 184 | 82 | 142 | | | | | 3,9 |
| AE | R50AE |  |  | 448 | 186 | 32 | 171 | 178 | | | 33,4 |
| PE | R50PE |  |  | 454 | 186 | 20 | 87 | 178 | | | 28,4 |
| HAL | R50HAL |  |  | 461 | 224 | 31 | 160 | 178 | | | 53,1 |
| LP | R50LP |  |  | 40 | 146 | | | | | | 1,0 |
| LT | R50LT |  |  | 422 | 91 | 125 | | | | | 1,1 |



R70 SPECIFICATIONS Teeth, Adapters, Accessories

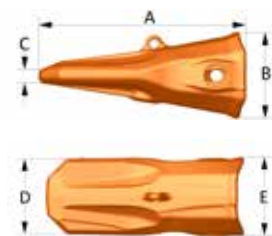
TS C-rex 001 EN, Oct 2022



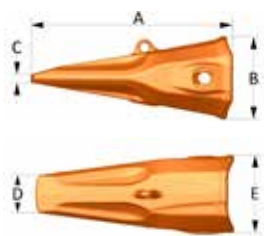
UA  



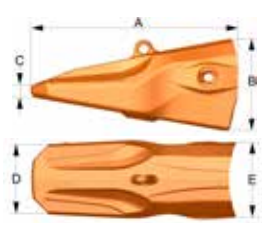
WC  



AE 



PE 



HAL 




















LP  



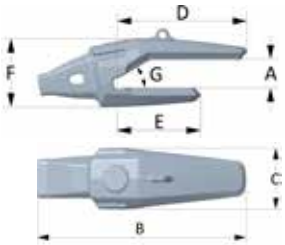
LT  

| | |
|--------------------------------------|------------|
| Typical machine weight - Excavator | 80-120 MT |
| Maximum breakout force in HD/XHD | 576 kN |
| Typical machine weight - Face shovel | 80-120 MT |
| Maximum breakout force in HD/XHD | 720 kN |
| Typical machine weight - Loader | 100-150 MT |
| Maximum breakout force in HD/XHD | 1037 kN |

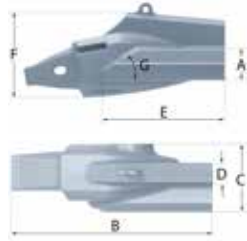
| Type | Part. no |  |  | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|----------|---|---|------|------|------|------|------|------|---------|-----------|
| UA | R70UA75 |  |  | 77 | 707 | 199 | 409 | 263 | 215 | 30° | 91,3 |
| UA | R70UA90 |  |  | 92 | 707 | 199 | 409 | 263 | 224 | 30° | 90,3 |
| WC | R70WC |  |  | 217 | 97 | 177 | | | | | 7,3 |
| AE | R70AE |  |  | 505 | 220 | 35 | 198 | 210 | | | 50,3 |
| PE | R70PE |  |  | 510 | 220 | 32 | 116 | 210 | | | 45,8 |
| HAL | R70HAL |  |  | 513 | 258 | 35 | 187 | 210 | | | 78,0 |
| LP | R70LP |  |  | 46 | 169 | | | | | | 1,4 |
| LT | R70LT |  |  | 422 | 91 | 125 | | | | | 1,1 |



R130 SPECIFICATIONS Teeth, Adapters, Accessories



UA



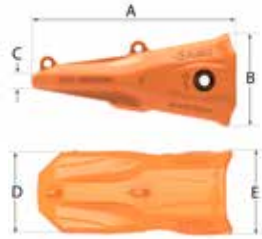
CLA CRA



WC



WCC



AE



LP



LT

Typical machine weight - Excavator
Maximum breakout force in HD/XHD 1

250–350 MT
1050 kN

Typical machine weight - Face shovel
Maximum breakout force in HD/XHD

250–390 MT
1300 kN

| Type | Part. no | | | A mm | B mm | C mm | D mm | E mm | F mm | G bevel | Weight kg |
|------|------------|--|--|------|------|------|------|------|------|---------|-----------|
| UA | R130UA140 | | | 142 | 921 | 268 | 554 | 372 | 327 | 30° | 201,5 |
| CLA | R130CLA140 | | | 140 | 947 | 320 | 90 | 580 | 400 | 30° | 370 |
| CRA | R130CRA140 | | | 140 | 947 | 320 | 90 | 43 | 400 | 30° | 370 |
| WC | R130WC | | | 296 | 129 | 241 | | | | | 18,1 |
| WCC | R130WCC | | | 296 | 129 | 237 | | | | | 17,2 |
| AE | R130AE | | | 656 | 296 | 49 | 270 | 283 | | | 125 |
| LP | R130LP | | | 60 | 233 | | | | | | 3,1 |
| LT | R130LT | | | 427 | 80 | 165 | | | | | 1,2 |



EXCAVATOR TEETH AND ADAPTERS

ADAPTER

WEAR CAP

BE

A 1 1/2 bottom leg adapter. Designed for both general and tough excavation in different types of ground.

SL

Top mounted single leg adapter designed for use in general conditions whenever a smooth surface is required.

UA

A 1 1/2 top leg adapter. Designed for both excavators and loaders. Can be used with or without a wear cap.

WC/WCC

Mechanical wear cap protects the adapter topside in high abrasion and impact applications.

LOCK

LP

Reusable locking pin of forged steel also usable in hot slag applications.

LR

Locking ring integrated in the tooth. Secures the locking function and simplifies teeth exchange.

TOOTH

GPE

Standard tooth with slim design for optimal penetration and durability in general purpose applications.

VE

The tooth for maximum penetration. Makes light work of hard surface layers and frozen ground.

WE

Used primarily in a corner position in combination with VE, this tooth provides the penetration demanded by hard surfaces.

FE

An extra-wide tooth for excavating and cleaning – penetration and straight-edge performance from a single solution.

TOOTH

TOOTH

TOOL

AE

Abrasion tooth for highly abrasive soils and rocks such as granite, basalt and sandstone. The design provides maximal wear material with maintained good penetration.

PE

Penetration tooth with added body mass and narrow tip combines penetration with impact and abrasion resistance.

LT

Tool for turning the locking ring in locked and unlocked position.



LOADER TEETH AND ADAPTERS

ADAPTER

SL

Top mounted single leg adapter designed for use in general conditions whenever a smooth surface is required.

TL

A 1 1/2 top leg adapter. Designed for both general and tough loading in different types of ground conditions.

UA

A 1 1/2 top leg adapter. Designed for both excavators and loaders. Can be used with or without a wear cap.

WEAR CAP

WC

Mechanical wear cap protects the adapter topside in high abrasion and impact applications.

LOCK

LP

Reusable locking pin of forged steel also usable in hot slag applications.

LR

Locking ring integrated in the tooth. Secures the locking function and simplifies teeth exchange.

TOOTH

GPL

In both general and highly abrasive environments. This all-round tooth is popular for its excellent penetration.

AL

Abrasion tooth with a high level of penetration. Recommended in blasted rock application.

HAL

Outstanding wear resistance combined with a high level of penetration. This tooth provides extra protection for the lower part of the adapter and is ideal where ground conditions are highly abrasive.

TOOL

LT

Tool for turning the locking ring in locked and unlocked position.



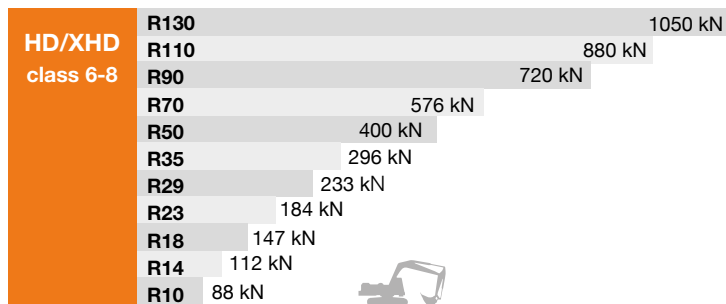
APPLICATION TABLE

APPLICATION TABLE Based on DIN 18300 ground classification

| Ground classification | Description of ground conditions | Working conditions | Application |
|---|--|--|-------------|
| Class 1 Top soil without stones | Top layer of soil. | Very little wear. Very little penetration resistance. No impact resistance. | GP |
| Class 2 Wet ground | Sludge, mud, peat. | Little wear. Very little penetration resistance. No impact resistance. | GP |
| Class 3 Light ground | Sand, fine gravel, sandy soil. Stone size up to approx. 60 mm | Moderate wear. Little penetration resistance. No impact resistance. | GP |
| Class 4 Moderately heavy ground | Very stony ground, gravel, stones. Stone size above 60 mm. | Considerable wear. Some penetration resistance. Moderate impact resistance. | GP / HD |
| Class 5 Dense, moderately heavy ground | Till, rigid clay, sand-clay mix, moraine, marl. | Considerable wear. Moderate penetration resistance. Little impact, some break through resistance. | HD |
| Class 6 Dense, heavy ground | Hard marl and clay, hard sandy ground, hard stony soil. Stone size up to approx. 200 mm. | Considerable wear. Considerable penetration resistance. Considerable impact and break through resistance. | HD |
| Class 7 Lighter rock | Loose rock, crumbled rock, slate. Very hard ground with stones, approx. 200 mm or bigger. | Usually considerable wear. Considerable penetration resistance. Considerable impact and break through resistance. | XHD |
| Class 8 Heavy rock | Blasted rock, size over 0,1 m ³ . | Very significant wear. Considerable penetration resistance. Very significant impact and break through resistance. | XHD |

For further information on welding, assembly and maintenance, see welding and assembly instructions.

Breakout force diagram – Backhoe



Breakout force diagram

