

engcon[®]

TOOL CATALOG
Excavators



Develop your machine and your business concept

You and your machine are a good starting point. By using equipment from engcon, it will be an even more effective, versatile and profitable unit.

Center stage is our world-leading tiltrotator – the excavator's wrist for machines from 1.7 to 35.3 tons. We have built a complete tool system around it, System engcon. System engcon provides security and maximum utilization of your machine. engcon has more than 20 years experience designing and manufacturing tiltrotators – and still leads development for our customer's profitability. We can now offer the following products:

- New upgraded tiltrotators – EC02B, EC10B, EC15B and EC20B – with higher machine weights.
- Tiltrotators developed on the EC-Oil concept, engcon's quick hitch with automatic oil couplings, allows the easy changing of your hydraulic tools.
- Simple and exact control of all tools thanks to Microprop, our new proportional control system.
- A comprehensive tool system – System engcon – where all components are adapted to each other and allow your excavator to manage a whole range of extra tasks.

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NEW

Sweeper roller, crane arm and fork lift frame for excavators.

System engcon makes your excavator a profit machine

More and more excavator owners know that profitability has a name: System engcon. Our comprehensive tool system gives your excavator maximum flexibility, allowing you to take on more and varied tasks.

engcon has developed a whole range of tools based on the tiltrotator. They all fulfill our high quality and functionality demands that make work easier, more efficient and more profitable. System engcon provides you with a total solution that allows your machine to overcome all challenges.



engcon is quality certified according to SS-EN ISO 9001:2000



engcon mis environmentally certified according to SS-EN ISO 14001:2004



Maximum tilt- power – more even operation

engcon's tiltrotators are equipped with **double-action tilt cylinders** for maximum tilting force and more even operation. The even load reduces shearing forces. Apart from the advantages of strength and functionality, spare parts and complete cylinders cost less. engcon's cylinders are also easier to service than other competing types. The valve block is located in the lower section, which reduces the risk of hydraulic hose crushing and bending damage. engcon's tiltrotators can be matched with most of the existing excavators and backhoe loaders on the market with machine weights of 1.6–35.3 tons.



Tiltrotators

EC02B: Adaptable to all excavators in weight class 1.7–3.9 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top bracket can be adapted to most machines on the market.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands

Quick hitches: We offer most of the quick hitches available on the market.

Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC02B with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

EC02B



EC05B: Adaptable to all excavators in weight class 3.3–7.7 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top brackets can be adapted to most machines.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands

Quick hitches: We offer most of the quick hitches available on the market.

Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC05B with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC05B



EC10B: Adaptable to all excavators in weight class 6.6–15.4 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top bracket can be adapted to most machines.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands
- Extra outlet with high-flow as standard, or double extra outlets (does not apply to models with grab)

Quick hitches: We offer most of the quick hitches available on the market.

Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC10B with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC10B



- ▶ Larger link bearings on the tilt cylinders
- ▶ Larger contact surface for cylinder shafts (thicker lugs on the frame)
- ▶ New locking for tilt- and cylinder pin
- ▶ Support for worm screw
- ▶ New locking for axial bearing
- ▶ Increased bolt quality for center ring
- ▶ Reinforced frame with flange around lower part of housing

EC15B: Adaptable to all excavators in weight class 13.2–19.8 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top bracket can be adapted to most machines.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands
- Extra outlet with high-flow as standard, or double extra outlets (does not apply to models with grab)

Quick hitches: We offer most of the quick hitches available on the market.

Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC15B with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC15B



- ▶ Larger link bearings on the tilt cylinders
- ▶ Larger contact surface for cylinder shafts (thicker lugs on the frame)
- ▶ New locking for tilt- and cylinder pin
- ▶ Support for worm screw
- ▶ New locking for axial bearing
- ▶ Increased bolt quality for center ring
- ▶ Reinforced frame with flange around lower part of housing
- ▶ Shearing protection between tool hitch and frame
- ▶ Reinforced frame with e.g. thicker center plate
- ▶ Reinforced top bracket

EC20B: Adaptable to all excavators in weight class 17.6–26.5 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top bracket can be adapted to most machines.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands
- Extra outlet with high-flow as standard, or double extra outlets (does not apply to models with grab)

Quick hitches: We offer most of the quick hitches available on the market.

Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC20B with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC20B



- ▶ Larger link bearings on the tilt cylinders
- ▶ Larger contact surface for cylinder shafts (thicker lugs on the frame)
- ▶ Shorter unsupported length on worm screw
- ▶ Support for worm screw
- ▶ New locking for axial bearing (2 pins + support ring replaced)
- ▶ Increased bolt quality for center ring
- ▶ Reinforced center ring, forged
- ▶ Shearing protection between tool hitch and frame
- ▶ Reinforced S1 lower and upper sections
- ▶ Reinforced top bracket

EC30: Adaptable to all excavators in weight class 24.3–38.6 tons

Tiltrotators: Are supplied with tubes, quick couplings and electrical installation for one machine. Top bracket can be adapted to most machines.

- Rotation ∞
- $\pm 40^\circ$ tilt
- Complies with International safety demands
- Extra outlet with high-flow as standard, or double extra outlets (does not apply to models with grab)

Quick hitches: We offer most of the quick hitches available on the market.


Control systems: Choose between several different control systems based on your machine's characteristics. Equipping your EC30 with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC30





Rotate any way you like – tilt up to 40 degrees

If you don't need a tilt function, a rotator will get you a long way. engcon's rotators fit all excavators and backhoe loaders and offer unlimited rotation. The rotator is supplied with hose, quick couplings and electrical installation equipment. You choose the control system that suits you and your machine.

A tilt hitch provides all machines that do not require a rotator function the ability to tilt all types of buckets and tools through + / -40 degrees. A powerful and economical alternative that can be adapted to all types of excavators.

Rotators

EC05B-R, EC10B-R, EC15B-R, EC20B-R, EC30-R: Adaptable to all excavators and backhoe loaders in weight class 3.3–35.3 tons

If you only need rotation, without the tilt.

Rotator: Delivered with tubes, quick couplings and electrical installation equipment, Fits all excavators and backhoe loaders.

Quick hitches: We supply most of the quick hitches sold on today's market.

Control systems: Choose between a variety of control systems based on your machine's characteristics. Equipping your EC05B-R – EC30-R with engcon's Microprop proportional control system can be a real advantage, it gives you stepless control with the highest precision.

Electrical system: Can be adapted for 12 V or 24 V electrical systems.

Accessories: Integrated grab (p. 12–13)

EC05B-R | EC10B-R | EC15B-R | EC20B-R | EC30-R



Technical specification: p. 29

Tilt hitches

TFS30–TFS80, TFS1–TFS2: Adaptable to all excavators in weight class 1.1–35.3 tons

If you only need tilt without the rotation.

- Gives all buckets and implements a tilt range of $\pm 40^\circ$
- Powerful and good value
- TFS30 and TFS40 have one cylinder, the others two
- TFS1–TFS2 suite Volvo's quick-hitch system S1 (20), S2 (27)
- Complies with International safety demands
- High quality steel for high strength and light weight.

TFS30 | TFS40 | TFS45/50 | TFS60 | TFS70 | TFS80
TFS1 | TFS2/27 | TFS2



Technical specification: p. 29

Take a grip on the situation – safely

Sometimes you need an extra hand at work. engcon's optional grabber in high-strength steel gives you a perfect assistant for heavy objects such as posts, manhole covers and curbstones. A load valve in each grab cylinder increases safety at your workplace.



Optional grabbers

GR05–GR30*: Integrated grab for mounting on tiltrotator and rotator 1.6–35.3 tons

- Grab arm in hard-wearing steel for strength and light weight
- Load holding valve in each grab cylinder for safe lifts
- Grabs can be adapted to special requirements
- The perfect assistant at a construction site
- Deals easily with poles, kerbstones, etc.
- Practical for pipe and drain installation
- Available for tiltrotator/rotator EC05B, EC10B, EC15B, EC20B and EC30
- 3 claws as standard
- Complies with International safety demands

* Only with S80 or S3 hitch

GR05 | GR10 | GR20 | GR30*





Change tasks in seconds

EC-Oil, engcon's quick hitch with automatic hydraulic coupling function, works with all your hydraulic tools.

And even works perfectly with engcon's stone & scrap handling grabs, timber grabs, soil compactors and other tools such as hydraulic hammers, grab buckets, etc.

Quick hitch – EC-Oil

ECO45–ECO60: Adaptable to all excavators in weight class 6.6–19.8 tons

EC Oil is engcon's quick hitch system for automatic hydraulic coupling of hydraulic attachments. With the EC-Oil system below and above the tiltrotator, you can both swap between hydraulic attachments from the cab and quickly remove the tiltrotator, thus saving fuel during deep excavations and loading.

- ▶ Internal connections, protected from impact and dirt
- ▶ Electrical connections provide flexibility with a tiltrotator and other attachments
- Hydraulic locking for rapid change of attachment directly from the cab
- Gap-free connection
- Robust, reliable and good value
- Low mounting dimensions. Light weight
- Constructed from high-tensile steel
- Approved lifting hook

ECO45 | ECO50 | ECO60



Tiltrotator EC15B with EC-Oil on head and base.



Quick hitches

S30–S80, S1–S3: Adaptable to all excavators in weight class 1.1–35.3 tons

- Available with hydraulic or mechanical locking
- Hydraulic locking for fast implement changes straight from the cab
- Gap-free connection
- Fully reversible (S30-S80)
- Robust, reliable and good value
- Low mounting dimensions. Light weight
- Welded in high-tensile steel
- Approved lifting hook (not S30 and S40)

S30–S80 | S1–S3

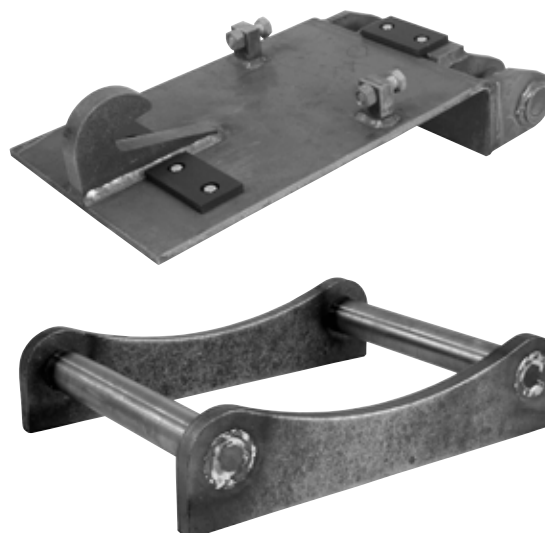


Adapter brackets

GS30–GS80, GS1–GS3: Adaptable to all excavators in weight class 1.1–35.3 tons

- Buckets can be easily modified for engcon's quick hitches
- Robust, reliable and good value
- Welded in high-tensile steel

GS30–GS80 | GS1–GS3



Tools that can take really tough treatment

engcon offers a wide tool program, adapted for your needs. The tools are made from high quality steel and designed for the greatest flexibility and crack resistance. Wearing and cutting steels have a hardness of approx. 500 Brinell. In addition, we reinforce the tools with Hardox on the most exposed points in order to handle extremely hard treatment.



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Designed for hard work

Requires less flow but provides the same degree of compaction. By connecting the soil compactor directly to the tiltrotator, one saves time and gets unlimited rotation.

Reinforced with Hardox.

Tarmac cutter for clean cuts – saves material and minimizes damage to surrounding ground.



Cutting edge of the highest quality with a hardness of 500 Brinell for maximum life. Wear parts reinforced with Hardox steel. Proven geometry for optimum bucket angle.

Grading bucket optimized for use with a tiltrotator

Top quality cutting steel with a hardness of 500 Brinell for maximum life.

Ripper built for Nordic weather conditions with frozen and hard ground.

Soil compactor

PP350, PP600, PP950: Adaptable to all excavators in weight class 6.6–35.3 tons

- Compression plate of wear-resistant sheet metal
- Side plates for leveling of filling mass
- Open short sides for easy emptying of plate's upper side
- Joined with rubber parts positioned for efficient insulation of the vibrations and sufficient stiffness for leveling
- Vibratory unit and hydraulic parts well protected inside side plates
- Can be equipped with the mounting of your choice
- Complete with flow valve
- Complies with International safety demands
- Delivered standard exclusive of attachment and machine tubes
- Tandem-coupled weights

PP350 | PP600 | PP950



Best in Test

engcon's soil compactor PP600 achieved the best results in an independent test performed by qualified geologist Dr. H. Seeliger in Kassel, Germany. The degree of compaction was remarkably high: 103.2 % with two passes and 101.6 % with six passes.

PP3200: Adaptable to all excavators in weight class 3.3–17.6 tons

- ▶ Low flow requirement (35 l) means that you can drive your PP3200 directly via the extra outlet on the tiltrotator
- ▶ Perfect for use with EC-Oil
- ▶ Variable working width
- ▶ Specially adapted compression plate
- Compression plate of wear-resistant sheet metal
- Side plates for leveling of filling mass
- Open short sides for easy emptying of plate's upper side
- Joined with rubber parts positioned for efficient insulation of the vibrations and sufficient stiffness for leveling
- Vibratory unit and hydraulic parts well protected inside side plates
- Can be equipped with the mounting frame of your choice
- Complies with International safety demands
- Delivered standard exclusive of attachment and machine tubes

Accessories: Widening plates, leveling blade, specially adapted compression plates for e.g. compacting with interlocking sheet piling

PP3200



Stone and scrap handling grab

SK05, SK10, SK15, SK20, SK30:

Adaptable to all excavators in weight class 3.3–35.3 tons

- Cutting implement reinforced with high-tensile steel
- All engcon SK grabs can be optionally fitted with detachable teeth
- Load holding valve and pressure accumulator have long-lasting gripping force and ensure safe lifting (SK)
- Complies with International safety standards
- Expansion bushes in large joints
- Swedish design for outstanding geometry and problem-free operation

SK05 | SK10 | SK15 | SK20 | SK30



SK20 with teeth



SK20 with S70-hitch



SK20 with rotator

Technical specification: p. 31

Timber grab

TG16S–TG55S: Adaptable to all excavators

engcon's timber grab – together with a tilt-rotator is the ultimate attachment for handling round timber and light sorting work. The grabs are reinforced with Hardox for long life and can be adapted to a large number of hitches.

TG16S–TG55S



Technical specification: p. 32

Deep excavation bucket

DB1–DB29: Adaptable to all excavators in weight class 1.6–30.9 tons

engcon deep excavation bucket – Robust design for tough jobs. A favorite for excavating and digging in extreme conditions where fast incision and easy filling are essential, for instance shaft digging and other bulk moving operations requiring high capacity. Available with or without teeth.

DB1–DB29



Grading bucket

GB2–GB29: Adaptable to all excavators in weight class 1.6–33.1 tons

engcon grading bucket – Optimized in consultation with experienced contractors for use with a tiltrotator. Chamfered edges from the base to the top to prevent collisions with house walls and other objects when the bucket is rotated. Conical shape for easier filling, adapted 16 degree angle between the mounting and base for easy bucket rotation without spilling material.

GB2–GB29



Cable bucket

CB2–CB25: Adaptable to all excavators in weight class 1.6–27.6 tons

engcon cable bucket – For excavating in very narrow spaces, e.g. for cable laying or other work involving narrow trenches. The long shape allows you to reach into deep channels while the tiltrotator remains above ground level.

Accessories: Teeth are available as an option and are then supplied ready-mounted.

CB2–CB25



Technical specification: p. 32

Ripper

R5–R30: Adaptable to all excavators in weight class 1.1–35.3 tons

engcon ripper – With an engcon ripper, you'll have no problems digging in frozen or hard ground. The ripper, also known as the frozen earth hook, is specially designed for optimum ripping and demolition of hard materials.

R5 | R10 | R15 | R20 | R30



Technical specification: p. 33

Tarmac cutter

TC05–TC20: Adaptable to all excavators in weight class 2.2–24.3 tons

engcon's tarmac cutter – With an engcon tarmac cutter you can make clean cuts and avoid unnecessary and costly tarmac wastage. It's also ideal for making neat cuts in lawns and other surfaces where precision is required.

TC05 | TC10 | TC15 | TC20



Technical specification: p. 33

Sweeper roller

SR800-SR1800: Sweeper roller for excavators

engcon's sweeper roller – used together with a tiltrotator, will increase the usability of your excavator and open new unexpected possibilities within many special applications. No matter if you're sweeping snow, sand, gravel or earth, this will quickly become your favorite implement that you just can't be without.

During the winter, you will find areas such as crosswalks, walkways, streetcar tracks, outhouse and container roofs, balcony roofs, etc. that normally need manual sweeping. During the summer you can use the brush for sweeping sand, lawns, foundations, walls, rock outcrops, etc. It's only your own imagination that limits the possibilities. It's driven by a hydraulic motor and geared down by a chain drive which allows you to change the rotational speed of the brush roller. The open design provides an unbeatable serviceability, and standard polypropylene brushes are quickly and easily changed.

SR800 | SR1300 | SR1600 | SR1800



Technical specification: p. 33

Crane arms

KRH350 – KR500: Crane arms for excavators

engcon's crane arms – Constructed from high-tensile steel with a special profile. The crane arms are made with mechanical or hydraulically extendable sections.

Note! Always check which safety demands apply when using crane arms on the actual machine. Due to safety requirements, crane arms may not be used with a tiltrotator.

Hydraulic KRH350



Technical specification: p. 33

Pallet forks

GH1000 – GHH1200: Pallet forks for excavators

engcon pallet forks – A robust and well thought out design for the best vision. Hardened forks provide a long life.

Note! Always check which safety requirements apply when using pallet forks on the actual machine. When using pallet forks together with a tiltrotator, the load holding valves should be mounted on the tiltrotator.

GH1000 | GHH1200



Technical specification: p. 33

Optional equipment

Control system

Microprop stepless proportional control system for tiltrotators

With our new, stepless proportional control system Microprop, your excavator will be at work faster and your excavator will be able to work faster and do almost anything. Microprop is fast to install and easy to calibrate and fine-tune. But most important of all, Microprop is robust and reliable and well protected from moisture and dust.

- Easy and quick to install thanks to our connector solution
- Automatic basic calibration
- The system performs a back-up of the settings from the cab module to the unit module
- PC software with calibration during operation
- A display shows any alarms and is used to perform certain settings
- 4 user banks for different operators
- Double feeder function
- Ability to move functions without a PC
- Robust design to increase reliability
- Available as option or for retrofitting
- A joystick with rollers can be selected
- Can be used with adapter joystick to avoid changing control levers in the machine

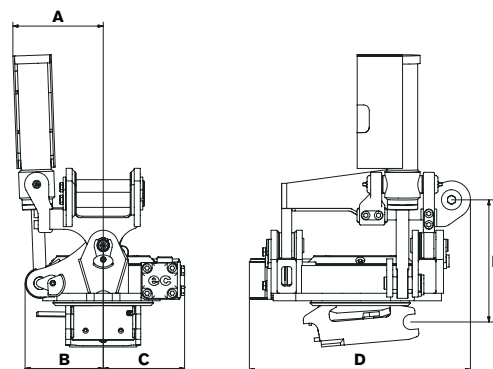
Microprop



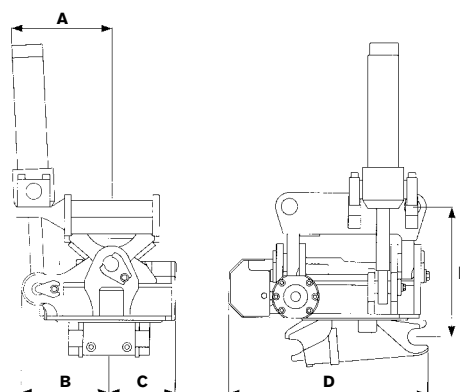
Specifications

Tiltrotators

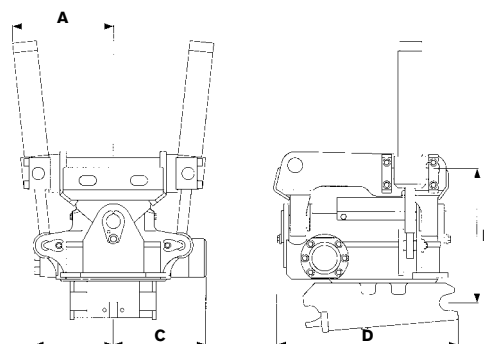
Type	EC02B
Width A: (in)	7.1
Width B: (in)	6.1
Width C: (in)	6.3
Total length D: (in)	17.1
Construction height E: (in)	9.6
Weight: (lbs)	from 143
Tilt range:	2x40°
Flow requirement: (gpm)	4.0–9.3
Working pressure: (lbs/sq in)	2,610–3,045
Standard mountings:	S30, S40, PUP35, PUP40
Max bucket width recommended by engcon: (in)	35.4
Max breakout force: (ft lbs)	1,233
Base machine weight: (tons)	1.65–3.9



Type	EC05B
Width A: (in)	10.4
Width B: (in)	8.7
Width C: (in)	8.3
Total length D: (in)	19.4
Construction height E: (in)	14.3
Weight: (lbs)	from 310
Tilt range:	2x40°
Flow requirement: (gpm)	4.0–9.3
Working pressure: (lbs/sq in)	2,610–3,045
Standard mountings:	S30, S40, PUP40, PUP45, PUP50
Max bucket width recommended by engcon: (in)	47.2
Max breakout force: (ft lbs)	3,082
Base machine weight: (tons)	3.3–7.7

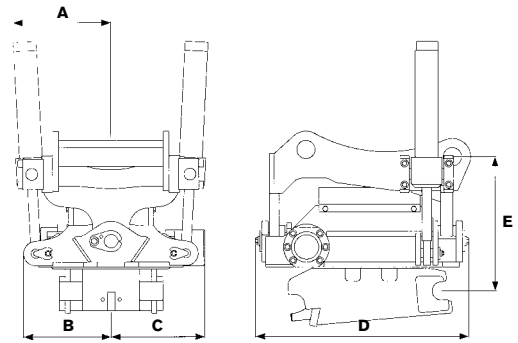


Type	EC10B
Width A: (in)	12.6
Width B: (in)	9.6
Width C: (in)	11.4
Total length D: (in)	21.1
Construction height E: (in)	16.5
Weight: (lbs)	from 594
Tilt range:	2x40°
Flow requirement: (gpm)	5.3–10.5
Working pressure: (lbs/sq in)	2,610–3,045
Standard mountings:	S45, S50, PUP50, PUP55, PUP60
Max bucket width recommended by engcon: (in)	55.1
Max breakout force: (ft lbs)	6,167
Base machine weight: (tons)	6.6–15.4

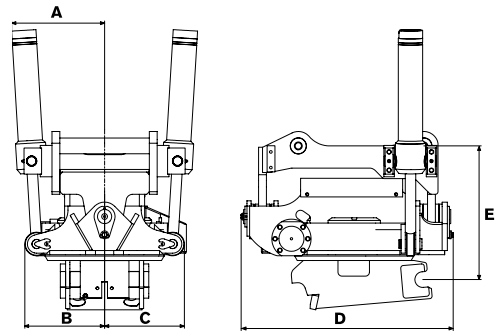


engcon reserves the right to modify designs without prior notice.

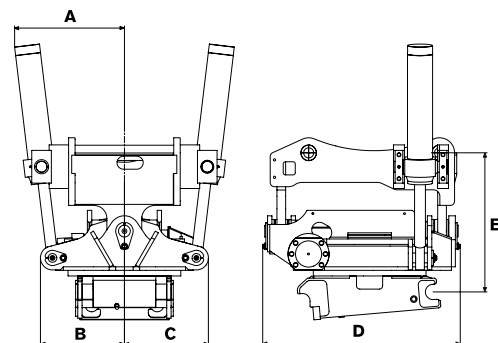
Type	EC15B
Width A: (in)	12.6
Width B: (in)	11.2
Width C: (in)	12.1
Total length D: (in)	27.5
Construction height E: (in)	17.3
Weight: (lbs)	from 792
Tilt range:	2x40°
Flow requirement: (gpm)	10.5–15.8
Working pressure: (lbs/sq in)	2610–3045
Standard mountings:	S60, PUP55, PUP60, PUP65, PUP70
Max bucket width recommended by engcon: (in)	63
Max breakout force: (ft lbs)	9,250
Base machine weight: (tons)	13.2–19.8



Type	EC20B
Width A: (in)	14.2
Width B: (in)	11.8
Width C: (in)	12.2
Total length D: (in)	31.5
Construction height E: (in)	17.7
Weight: (lbs)	from 1,034
Tilt range:	2x40°
Flow requirement: (gpm)	10.5–21
Working pressure: (lbs/sq in)	2,610–3,045
Standard mountings:	S60, S70, PUP60, PUP65, PUP70, PUP80
Max bucket width recommended by engcon: (in)	66.9
Max breakout force: (ft lbs)	12,333
Base machine weight: (tons)	17.6–26.5

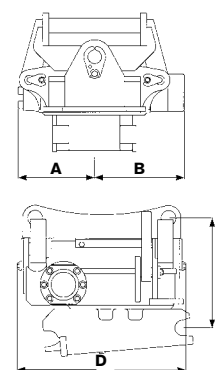


Type	EC30
Width A: (in)	19.7
Width B: (in)	15.4
Width C: (in)	15.4
Total length D: (in)	38.2
Construction height E: (in)	29.1
Weight: (lbs)	from 1,870
Tilt range:	2x40°
Flow requirement: (gpm)	10.5–21
Working pressure: (lbs/sq in)	2,610–3,045
Standard mountings:	S70, S80, PUP80, PUP90
Max bucket width recommended by engcon: (in)	86.6
Max breakout force: (ft lbs)	16,445
Base machine weight: (tons)	24.3–35.3



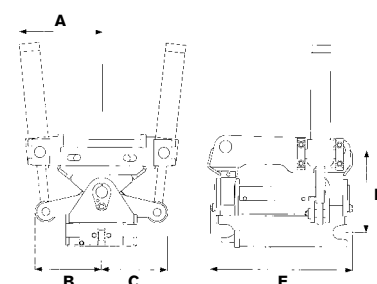
Rotators

Type	EC05B-R	EC10B-R	EC15B-R	EC20B-R	EC30-R
Width A: (in)	8.3	9.4	11.2	11.8	15.3
Width B: (in)	6.3	11.4	12.1	12.2	15.3
Construction height E: (in)	10.8	13.8	14.9	18.5	21.6
Total length D: (in)	19.1	22.0	27.6	31.5	35.4
Weight: (lbs)	297	550	682	946	1,496
Flow requirement: (gpm)	3.9-10.5	5.3-10.5	10.5-15.8	10.5-15.8	10.5-21
Working pressure: (lbs/sq in)	2,610-3,045	2,610-3,045	2,610-3,045	2,610-3,045	2,610-3,045
Base machine weight: (tons)	3.3-7.7	6.6-15.4	13.2-19.8	17.6-26.5	24.3-35.3

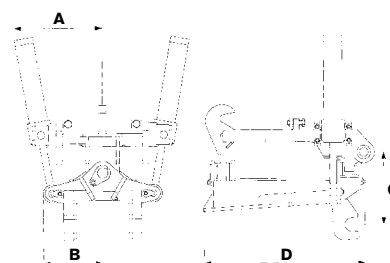


Tilt hitches

Type	TFS30	TFS40	TFS45/50	TFS60	TFS70	TFS80
Width A: (in)	7.8	9.8	12.6	13.8	16.9	22.0
Width B: (in)	6.1	8.7	9.8	10.4	15.2	16.3
Width C: (in)	3.5	3.9	9.8	10.4	15.2	16.3
Construction height D: (in)	8.5	8.7	12.2	13.4	22.8	24.8
Length E: (in)	12.4	14.2	21.3	21.6	30.3	35.4
Weight: (lbs)	66.0	88	275	352	528	726
Base machine weight: (tons)	0-2.2	3.3-6.6	6.6-13.2	13.2-17.6	19.8-24.3	24.3-35.3



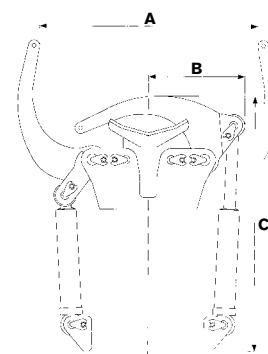
Type	TFS1	TFS2
Width A: (in)	17.7	19.7
Width B: (in)	11.8	13.2
Construction height C: (in)	14.6	20.1
Length D: (in)	32.7	34.4
Weight: (lbs)	11.0	19.3
Base machine weight: (tons)	19.8-26.5	26.5-35.3



Optional grabbers

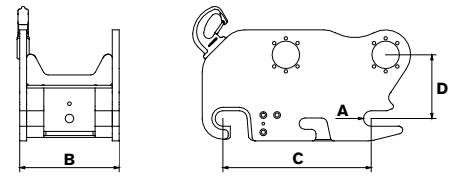
Type	GR05	GR10	GR20	GR30*
Max grab width A: (in)	14.6	24.0	31.1	42.5
Width B: (in)	7.9	10.6	13.8	17.3
Length C: (in)	23.0	29.9	35.8	38.6
Grab force: (lbs)	960	707	1 162	808
Weight: (lbs)	110	154	187	325
Max hydraulic pressure: (lbs/sq in)	30,450	30,450	30,450	30,450
Pinch force at 175 bar: (lbs)	3,025	2,746	4,100	3,489
Pinch force at 210 bar: (lbs)	3,638	3,293	4,915	4,303

* Type 30 only with S80 or S3 quick hitch.



Quick hitches – EC-Oil

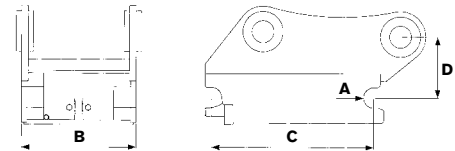
Type	ECO45	ECO50	ECO60
Axle diameter A: (in)	Ø1.77	Ø1.97	Ø2.36
Width B: (in)	11.4	10.6	13.4
Length C: (in)	16.9	16.9	18.9
Construction height D: (in)*	7.3	7.3	7.5
Weight: (lbs)*	220	231	396
Flow requirement: (gpm)	14.4	14.4	26.2
Max pressure: (lbs/sq in)	3,045	3,045	3,045
Base machine weight: (tons)	6.6–13.2	6.6–13.2	13.2–19.8



Quick hitches

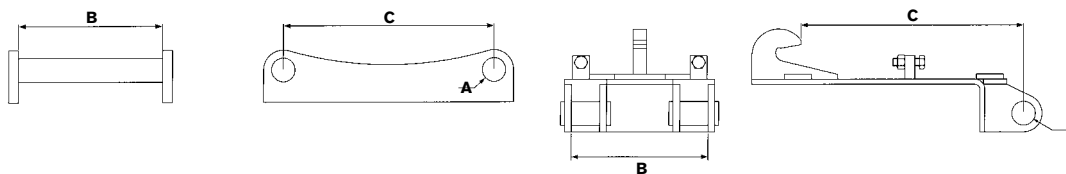
Type	S30/150	S30/180	S40/200	S40/240	S45	S50	S60	S70	S80
Axle diameter A: (in)	Ø1.18	Ø1.18	Ø1.57	Ø1.57	Ø1.77	Ø1.97	Ø2.36	Ø2.75	Ø3.15
Width B: (in)	5.9	7.1	7.8	9.4	11.4	10.6	13.4	17.7	23.2
Length C: (in)	7.8	9.1	11.8	11.8	16.9	16.9	18.9	23.6	26.4
Construction height D: (in)*	4.3	4.3	4.3	4.3	5.5	5.5	6.7	7.5	8.8
Weight: (lbs)*	22	22	55	55	99	110	275	462	682
Max pressure: (lbs/sq in)	3,045	3,045	3,045	3,045	3,045	3,045	3,045	3,045	3,045
Base machine weight: (tons)	1.1–3.3	1.1–3.3	2.2–6.6	2.2–6.6	6.6–13.2	6.6–13.2	13.2–19.8	17.6–27.6	27.6–38.6

* Depends on machine mounting.



Adapter bracket

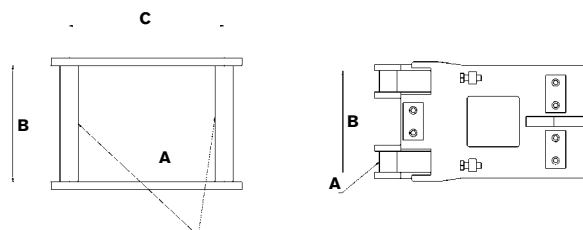
Type	GS30/150	GS30/180	GS40/200	GS40/240	GS45	GS50	GS60	GS70	GS80	GS1	GS2/27	GS3
Axle diameter A: (in)	Ø1.18	Ø1.18	Ø1.57	Ø1.57	Ø1.77	Ø1.97	Ø2.36	Ø2.75	Ø3.15	Ø2.75	Ø3.15	Ø3.94
Width B: (in)	5.9	7.1	7.8	9.4	11.4	10.6	13.4	17.7	23.2	15.7	17.7	24.4
Length C: (in)	7.8	9.1	11.8	11.8	16.9	16.9	18.9	23.6	26.4	29.5	31.9	34.2
Suits engcon RF:	S30	S30	S40	S40	S45	S50	S60	S70	S80	S1	S2/27	S3



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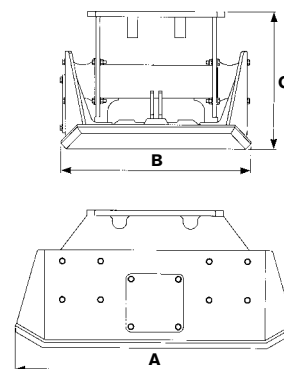
Standard hitch dimensions and alternative designation

Type	GS30/ 150	GS30/ 180	GS40/ 200	GS40/ 240	GS45	GS50	GS60	GS70	GS80	GS1	GS2	GS3
Axle diameter A: (in)	Ø1.18	Ø1.18	Ø1.57	Ø1.57	Ø1.77	Ø1.97	Ø2.36	Ø2.75	Ø3.15	Ø2.75	Ø3.15	Ø3.94
Width B: (in)	5.9	7.1	7.8	9.4	11.4	10.6	13.4	17.7	23.2	15.7	17.7	24.8
Length C: (in)	7.8	9.1	11.8	11.8	16.9	16.9	18.9	23.6	26.4	-	-	-
Suits engcon RF:	S30	S30	S40 RF10 B10	S40	S45 RF12 B12	S50 RF14 KM05	S60 S6 KM08	S70 RF25 KM09	S80 RF32	S1 RF20 B20	S2/27 RF27	S3 RF30



Soil compactor

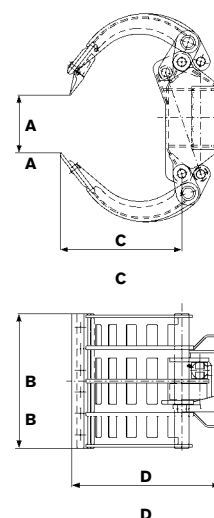
Type	PP350	PP600	PP950	PP3200
Compaction force: (lbs)	7,700	13,200	20,900	7,040
Weight excl. mounting: (lbs)	858	1,364	2,794	1,034
Length A: (in)	35.0	41.3	50.0	39.4
Width B: (in)	24.4	28.3	35.4	19.7–27.5
Height C: (in)	17.7	20.5	23.6	23.2
Compaction area: (sq ft)	4.5	6.3	9.7	4.3–6.0
Frequency: (rpm)	2 100	2 100	2 100	1 700/28
Hydr. flow: (gpm)	19.5	31.5	31.5	8.8



Stone and scrap handling grab

Type	SK05	SK10	SK15	SK20	SK30
Grab width A: (max. in)	43.7	65.3	70.5	78.3	101.2
Grab width A: (min. in)	0	0	0	0	0
Cutting width B: (in)	19.9	28.1	3.4	3.4	46.1
Jaw length C: (in)	18.1	26.8	31.1	34.3	42.5
Height D: (in)	22.8	31.1	37.8	42.1	53.5
Grab force: (lbs)	439	758	960	1 263	2 274
Pressure: (lbs/sq in)	3,045	3,045	3,045	3,045	3,045
Weight: (lbs)	396	715	1,188	1,364	2,629
Recommended tiltrotator/rotator:	EC05	EC10	EC15	EC20	EC30
Base machine weight: (tons)	3.3–7.7	6.6–15.4	13.3–19.8	17.6–26.5	24.3–35.3

Delivered with or without top bracket or rotator, depending on customer requirements.



Timber grab

Type	TG16S	TG22 PRO	TG28S	TG35S	TG42S	TG55S
Weight: (lbs)	123	275	550	605	748	1,562
Max load: (lbs)	2,860	11,000	11,000	11,000	15,400	22,000
Max opening (in)	36.4	48.3	60.6	74.8	74.8	98.8
Width: (in)	10.2	17.0	15.5	18.1	18.5	19.7
Grab area: (ft ²)	18.3	23.7	32.3	40.9	48.4	63.5

Deep excavation bucket

Type	DB1	DB1	DB2	DB2	DB2	DB2	DB2	DB3	DB5	DB6	DB6	DB7	DB7	DB9	DB9	DB11	DB11	DB11	DB12
Volume: (Gallon)	13.2	13.2	18.5	18.5	23.8	23.8	23.8	31.7	42.3	52.9	52.9	66.1	66.1	92.6	92.6	105.8	105.8	105.8	132.3
Width: (in)	15.7	15.7	17.7	17.7	21.7	21.7	21.7	21.7	23.6	23.6	23.6	23.6	23.6	27.6	27.6	27.6	27.6	27.6	31.5
Weight: (lbs)	88	88	110	110	132	132	143	154	209	286	308	462	473	506	517	616	627	660	693
Mounting:	S30/ 150	S30/ 180	S30/ 150	S30/ 180	S30/ 150	S30/ 180	S40	S40	S40	S40	S45	S45	S50	S45	S50	S45	50	S60	S50

Type	DB12	DB14	DB14	DB16	DB16	DB18	DB18	DB18	DB21	DB21	DB23	DB23	DB26	DB26	DB26	DB29	DB29	DB29
Volume: (Gallon)	132.3	158.7	158.7	198.4	198.4	238	238	238	291	291	330.7	330.7	370.4	370.4	370.4	423.3	423.3	423.3
Width: (in)	31.5	35.4	35.4	39.4	39.4	39.4	39.4	39.4	43.3	43.3	43.3	43.3	51.2	51.2	51.2	57.1	57.1	57.1
Weight: (lbs)	726	1,232	1,298	1,320	1,386	1,496	1,573	1,562	2,090	2,079	2,310	2,376	2,750	2,816	2,827	3,069	3,124	3,146
Mounting:	S60	S60	S1	S60	S1	S60	S70	S1	S70	S1	S70	S2	S70	S80	S2	S70	S80	S2

Grading bucket

Type	GB2	GB2	GB2	GB2	GB4	GB4	GB6	GB6	GB8	GB8	GB11	GB11	GB13	GB13	GB15
Volume: (Gallon)	23.8	23.8	34.4	34.4	52.9	52.9	79.4	79.4	97.9	97.9	132.3	132.3	158.7	158.7	198.4
Width: (in)	35.4	35.4	35.4	35.4	39.4	39.4	47.2	47.2	51.2	51.2	55.1	55.1	63.0	63.0	63.0
Weight: (lbs)	198	198	220	220	352	374	418	440	682	682	836	836	1,012	1,078	1,452
Mounting:	S30/ 150	S30/ 180	S30/ 150	S30/ 180	S40	S45	S40	S45	S45	S50	S45	S50	S60	S1	S60

Type	GB15	GB17	GB17	GB17	GB20	GB20	GB20	GB20	GB24	GB24	GB29	GB29	GB29
Volume: (Gallon)	198.4	238	238	238	291	291	291	291	370.4	370.4	423.3	423.3	423.3
Width: (in)	63.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	78.7	78.7	78.7	78.7	78.7
Weight: (lbs)	1,518	1,540	1,628	1,606	2,068	2,156	2,134	2,156	2,530	2,530	3,212	3,278	3,212
Mounting:	S1	S60	S70	S1	S60	S70	S1	S2	S70	S2	S70	S80	S2

Cable bucket

Type	CB2	CB2	CB3	CB3	CB3	CB5	CB5	CB10	CB10	CB15	CB15	CB20	CB20	CB25	CB25
Volume: (Gallon)	15.9	15.9	23.8	23.8	23.8	34.4	34.4	42.3	42.3	92.6	92.6	105.8	105.8	105.8	145.5
Width: (in)	9.8	9.8	9.8	9.8	9.8	11.8	11.8	15.7	15.7	19.7	19.7	23.6	23.6	23.6	23.6
Weight: (lbs)	77	77	121	121	121	370	374	409	413	572	649	836	858	891	1,298
Mounting:	S30/ 150	S30/ 180	S30/ 150	S30/ 180	S40	S40	S45	S45	S50	S60	S1	S60	S70	S1	S70/ S80

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Ripper

Type	R5	R5	R5	R10	R10	R15	R15	R20	R20	R20	R30	R30	R30
Height: (in)	23.6	23.6	23.6	27.6	27.6	35.4	35.4	47.2	47.2	47.2	55.1	55.1	55.1
Weight: (lbs)	187	187	189	242	242	396	418	748	836	792	990	1,078	1,067
Mounting:	S30/150	S30/180	S40	S45	S50	S60	S1	S60	S70	S1	S70	S80	S2

Tarmac cutter

Type	TC05	TC10	TC10	TC15	TC20	TC20
Diameter: (in)	Ø14.6	Ø18.5	Ø18.5	Ø18.5	Ø18.5	Ø18.5
Cutting depth: (in)	3.9	5.9	5.9	5.9	5.9	5.9
Weight: (lbs)	110	121	132	154	198	440
Mounting:	S40	S45	S50	S60	S70	S1

Sweeper roller

Type	SR800	SR1300	SR1600	SR1800
Width: (in)	31.5	51.2	63.0	70.1
Weight excl. mounting: (lbs)	462	528	572	605
Oil flow min/max: (gpm)	21/63	21/63	21/63	21/63

Crane arms

Type	KRH350	KRH350	KRH350	KR500	KR500
Variant:	Hydr	Hydr	Hydr	Mek	Mek
Total length: (in)	137.8	137.8	137.8	194.9	194.9
Min length: (in)	86.6	86.6	86.6	92.5	92.5
Max load: (lbs)	3,300–2,200	3,300–2,200	3,300–2,200	6,160–2,860	6,160–2,860
Weight: (lbs)	495	495	517	792	836
Bracket:	S45	S50	S60	S60	S70
Extension:	2-part	2-part	2-part	3-part	3-part
Lifting hook:	BKL 10	BKL 10	BKL 10	BKL 13	BKL 13

Pallet forks

Type	GH1000	GH1000	GH1200	GH1200	GH1200	GHH1200	GHH1200
Width: (in)	39.4	39.4	47.2	47.2	47.2	47.2	47.2
Fork: (in)	3.9x1.6x47.2	3.9x1.6x47.2	4.9x1.77x47.2	4.9x1.77x47.2	4.9x1.77x47.2	4.9x1.77x47.2	4.9x1.77x47.2
Weight: (lbs)	396	396	616	682	682	682	682
Bracket:	S45	S50	S60	B20	S70	S60	B20
TP 500	2.9 T	2.9 T	4.7 T	4.7 T	4.7 T	4.7 T	4.7 T

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