

# X18

## Tiltrotator 12-16 tonnes

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### A tiltrotator for midsized excavators between 12 and 16 tonnes

The Steelwrist X18 tiltrotator is designed to deliver the power and versatility that is a must for midsized excavators. Our tiltrotators have a low building height, high tilt angle and an unbeatable relationship between strength and weight thanks to steel cast components.

#### The tiltrotator brings versatility to the excavator in small to big tasks

With a midsized excavator you can take on projects of varying sizes, from small scale landscaping tasks to roadwork or foundation work on construction sites. The X18 tiltrotator enhances the efficiency of the excavator as it enables you to rotate a work tool 360 degrees and tilt 45 degrees in each direction, with top of the class precision and controllability. This facilitates your work and makes you flexible to take on a variety of challenging new jobs.

Steelwrist quick couplers and tiltrotators follow the symmetrical standard (S-standard), the fastest growing coupler type internationally. The attachment coupler on the tiltrotator has Front Pin Lock (FPL) safety solution, a mechanical lock of the front shaft which significantly limits the risk of an unintended drop of work tools. The tiltrotator is delivered with a control system that fits your excavator regardless if you need a two or four hose solution. With a tiltrotator that has high flow hydraulics you will be able to use the tiltrotator in a more fuel efficient way and it allows for efficient use of high flow work tools. A robust and easily calibrated Absolute Rotation sensor in the high flow swivel gives high accuracy data to Machine Control Systems.

A Sandwich configuration is often chosen for this size of excavators. This means that a quick coupler is mounted on the excavator arm, making it possible to disconnect the tiltrotator and pick up and connect a work tool directly.

#### Steelwrist SQ auto connection system and the Open-S standard

Steelwrist SQ is our high performing automatic oil connection technology used to easily change and connect hydraulic work tools on the excavator. All SQ products comply with the Open-S standard. This means that the SQ system is designed to be able to connect to other brands following the Open-S standard. S-type tiltrotators (from S50 and up) are upgradeable to SQ-type at a later stage.

#### Control system

Steelwrist supply two types of tiltrotator control systems. Quantum is an advanced control system where ergonomics, easy installation and fuel efficiency, remote support and automatic tool recognition are important parts of the system. The four hose proportional machine control is the more basic system.

#### Gripper cassette (option)

Equip the tiltrotator with a gripper cassette with a finger gripper that will make your excavator even more flexible, handling objects with precision. The gripper cassette can be retrofitted.

#### Central lubrication (option)

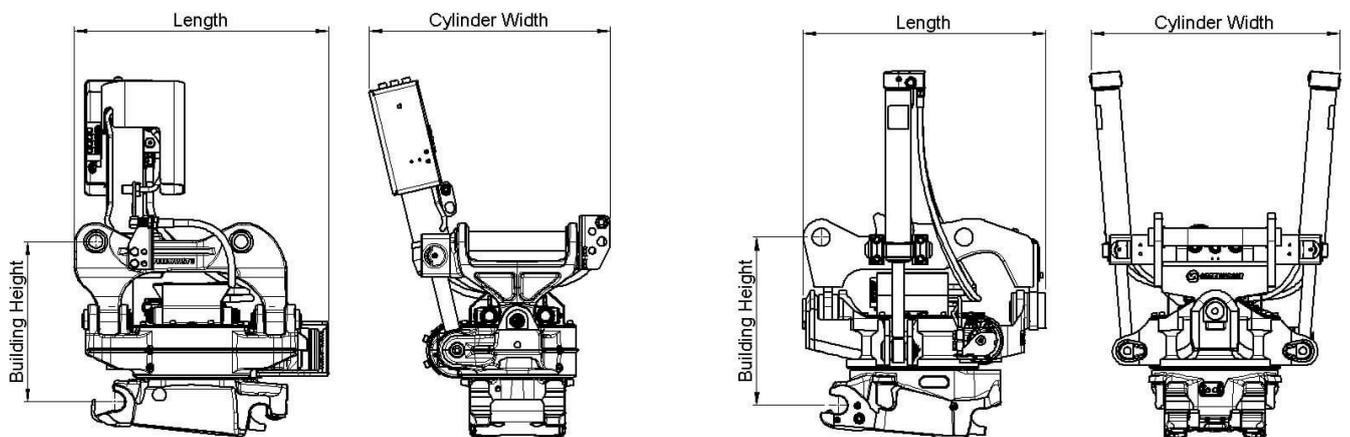
Our tiltrotators can be equipped directly from factory with central lubrication that fits all central lubrication systems on the market.

*The X18 tiltrotator is also available with Verachttert (CW) or Lehnhoff (HS) coupler interface. For Verachttert (CW) the tiltrotator always has a Direct fit configuration.*



## 🔧 Technical specification

| Tiltrotator                     | X18   | X18    | X18    | X18     | X18     | X18     |
|---------------------------------|-------|--------|--------|---------|---------|---------|
| Machine Interface               | S60   | SQ60-4 | SQ60-5 | DF      | DF      | DF      |
| Tiltrotator Quick Coupler       | S60   | SQ60-4 | SQ60-5 | S60     | SQ60-4  | SQ60-5  |
| Machine weight [ton]            | 12-16 | 12-16  | 12-16  | 12-16   | 12-16   | 12-16   |
| Max Breakout torque [kNm]       | 150   | 150    | 150    | 150     | 150     | 150     |
| Weight from [kg]                | 360   | 360    | 360    | 360     | 360     | 360     |
| Building height [mm]            | 560   | 560    | 560    | 582     | 582     | 582     |
| Length [mm]                     | 726   | 726    | 726    | 773     | 773     | 773     |
| Cylinder width [mm]             | 763   | 763    | 763    | 763     | 763     | 763     |
| Max tilt angle [degrees]        | ±45   | ±45    | ±45    | ±45     | ±45     | ±45     |
| Max width dipper arm [mm]       | -     | -      | -      | 322     | 322     | 322     |
| Pin diameter [mm]               | -     | -      | -      | 60-75   | 60-75   | 60-75   |
| Pin distance [cc-measure ] [mm] | -     | -      | -      | 300-460 | 300-460 | 300-460 |
| Tilt Torque [kNm]               | 41    | 41     | 41     | 41      | 41      | 41      |
| Rotational Torque [kNm]         | 7,8   | 7,8    | 7,8    | 7,8     | 7,8     | 7,8     |
| Hydraulic AUX with gripper      | 1     | 1      | 1      | 1       | 1       | 1       |
| Hydraulic AUX without gripper   | 2     | 2      | 2      | 2       | 2       | 2       |
| Lifting hook [ton]              | -     | -      | -      | 5       | 5       | 5       |
| Oil Flow [l/min]                | 94    | 94     | 94     | 94      | 94      | 94      |
| Max pressure [bar]              | 210   | 210    | 210    | 210     | 210     | 210     |
| Max Pressure Separate AUX [bar] | 350   | 350    | 350    | 350     | 350     | 350     |
| Safety solution                 | FPL   | FPL    | FPL    | FPL     | FPL     | FPL     |



# Work tools and Open-S – the world industry standard for fully automatic quick couplers

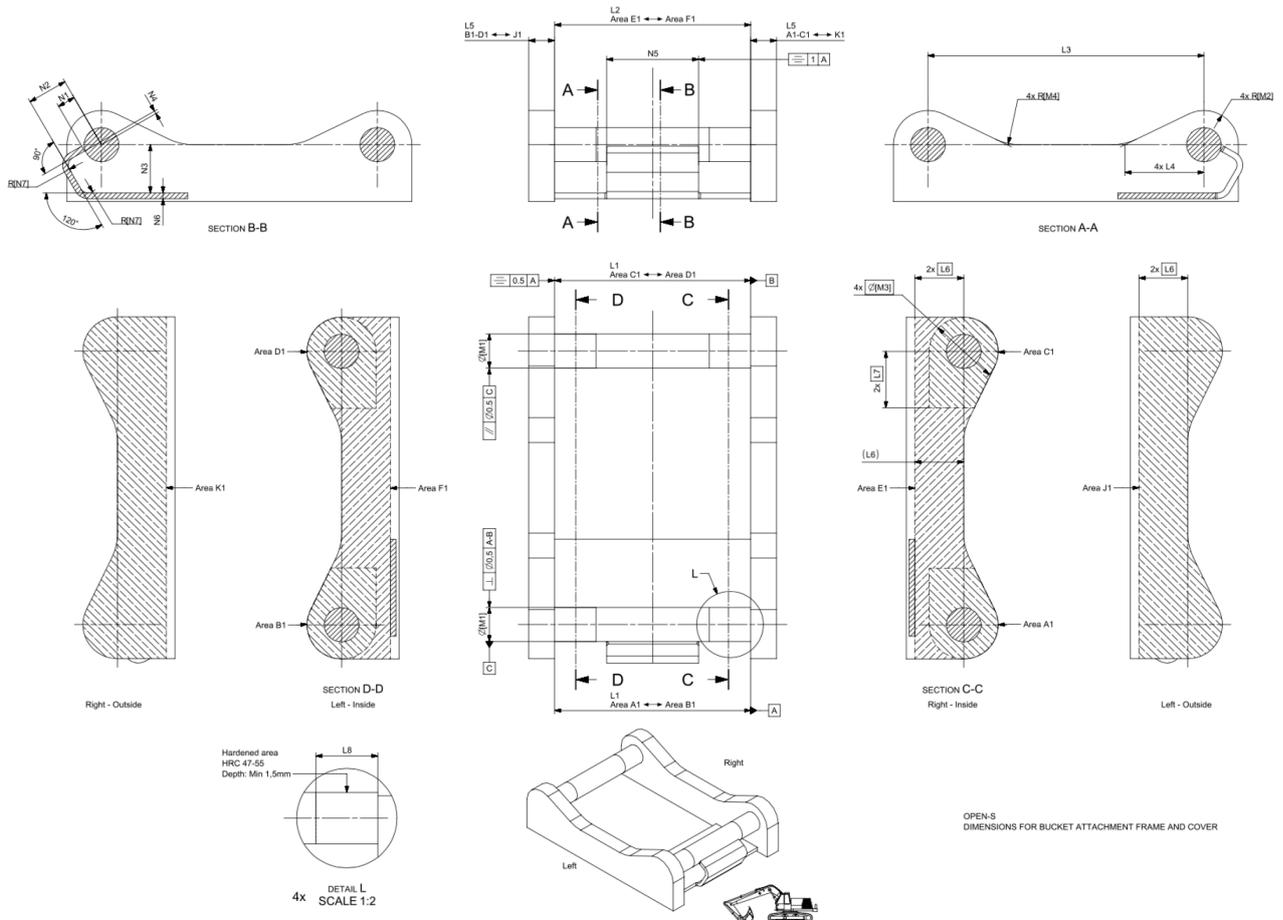


The Symmetrical Quick Coupler standard for excavators (the S-Standard) is an industry standard that was originally defined in 2006 by the Swedish Trade Association for Suppliers of Mobile Machines.

The Symmetrical standard, which is an open standard not controlled by one specific manufacturer, has since its inception grown to become a well-known coupler standard on the international market. The demand for quick couplers with integrated hydraulic couplings and electrical connectors, so called Fully Automatic Quick Couplers continue to grow.

In order to achieve interchangeability the request for a standardized and well-defined interface is therefore apparent.

As fully Automatic Quick Couplers have more intricate functions than a standard Mechanical Quick Coupler it is crucial that also non hydraulic work tools include certain features such as hardened shafts and cover plates etc. The purpose of this document is to define the technical dimensions for mechanical (non fully hydraulic) work tools to be used with Open-S Quick Couplers.



OPEN-S DIMENSIONS FOR BUCKET ATTACHMENT FRAME AND COVER

|                 | L1<br>Width      | L2<br>C. Width | L3<br>C-C         | L4            | L5<br>Thickn. | L6<br>Tol. area | L7<br>Tol. area | L8<br>Hardening | M1<br>Shaft D | M2<br>Radius | M3<br>Tol Area | M4         | N1           | N2          | N3      | N4<br>Offset | N5<br>Width | N6<br>Rec Th. | N7<br>Radius |
|-----------------|------------------|----------------|-------------------|---------------|---------------|-----------------|-----------------|-----------------|---------------|--------------|----------------|------------|--------------|-------------|---------|--------------|-------------|---------------|--------------|
| <b>OS45M</b>    | 291,5<br>+1/-0,5 | 291 Min        | 430,25<br>+/-0,25 | 100 +/-2      | 40 Max        | 70              | 85              | 60 Min          | 45 f8         | 45 Max       | 90             | 30<br>+/-2 | 23,5<br>+/-1 | 65<br>+/-1  | 70 Min  | 8<br>+/-1    | 140<br>+/-1 | 8             | 15 Max       |
| <b>OS50M</b>    | 271,5<br>+1/-0,5 | 271 Min        | 430,25<br>+/-0,25 | 100 +/-2      | 40 Max        | 70              | 85              | 70 Min          | 50 f8         | 45 Max       | 90             | 30<br>+/-2 | 26<br>+/-1   | 65<br>+/-1  | 70 Min  | 8<br>+/-1    | 140<br>+/-1 | 8             | 15 Max       |
| <b>OS60M</b>    | 341,5<br>+1/-0,5 | 341 Min        | 480,25<br>+/-0,25 | 137,5<br>+/-2 | 45 Max        | 85              | 100             | 75 Min          | 60 f8         | 60 Max       | 120            | 30<br>+/-2 | 31<br>+/-1   | 70<br>+/-1  | 85 Min  | 6<br>+/-1    | 160<br>+/-1 | 10            | 20 Max       |
| <b>OS65M</b>    | 441,5<br>+1/-0,5 | 441 Min        | 530,25<br>+/-0,25 | 152,5<br>+/-2 | 55 Max        | 90              | 110             | 90 Min          | 65 f8         | 65 Max       | 130            | 30<br>+/-2 | 33,5<br>+/-1 | 83<br>+/-1  | 90 Min  | 6<br>+/-1    | 230<br>+/-1 | 10            | 20 Max       |
| <b>OS70M</b>    | 451,5<br>+1/-0,5 | 451 Min        | 600,25<br>+/-0,25 | 205 +/-2      | 55 Max        | 115             | 115             | 95 Min          | 70 f8         | 75 Max       | 150            | 50<br>+/-2 | 36<br>+/-1   | 90<br>+/-1  | 115 Min | 7<br>+/-1    | 225<br>+/-1 | 12            | 30 Max       |
| <b>OS70/55M</b> | 551,5<br>+1/-0,5 | 551 Min        | 600,25<br>+/-0,25 | 205 +/-2      | 55 Max        | 115             | 115             | 95 Min          | 70 f8         | 75 Max       | 150            | 50<br>+/-2 | 36<br>+/-1   | 102<br>+/-1 | 115 Min | 5<br>+/-1    | 320<br>+/-1 | 12            | 30 Max       |
| <b>OS80M</b>    | 591,5<br>+1/-0,5 | 591 Min        | 670,25<br>+/-0,25 | 220 +/-2      | 65 Max        | 135             | 135             | 120 Min         | 80 f8         | 90 Max       | 180            | 50<br>+/-2 | 41<br>+/-1   | 110<br>+/-1 | 135 Min | 8<br>+/-1    | 310<br>+/-1 | 15            | 30 Max       |
| <b>OS90M</b>    | 751,5<br>+1/-0,5 | 751 Min        | 750,25<br>+/-0,25 | 225 +/-2      | 80 Max        | 155             | 150             | 160 Min         | 90 f8         | 110 Max      | 220            | 50<br>+/-2 | 46<br>+/-1   | 130<br>+/-1 | 155 Min | 2<br>+/-1    | 400<br>+/-1 | 15            | 30 Max       |

Standardization by the Open-S Alliance. Revision A, May 17, 2021 | For more information please see [www.opens.org](http://www.opens.org)

