

Automatic couplers

Quick coupler 4-70 tonnes

Couplers for excavators between 8 800 and 154 000 lbs – SQ couplers (OS®)

With an automatic coupler solution the hydraulic connection is integrated in the quick coupler and makes it possible to change hydraulic powered work tools, as well as mechanical work tools, in only seconds – all without leaving the cab.

Especially in the demolition industry frequent changes between different hydraulic powered work tools is part of the process and here the automatic couplers have quickly grown in popularity. On demolition job sites safety is crucial and the need to avoid personnel in the demolition zone is often mandatory, and therefore equipping the excavators with automatic couplers increases safety as well as productivity.

When using a tiltrotator, the automatic coupler enables you to disconnect the tiltrotator, for example when using a hydraulic breaker. Steelwrist automatic SQ couplers are cast in steel. Large pin contact surfaces, optimized use of materials and no weak weld seams make our coupler extremely compact and robust. The advantage of casting in steel is that materials can be optimized where needed (for example, contact surfaces to pins in order to minimize the pressure per square millimeter) and eliminate material where it is not needed. The result is an unrivaled relation between strength and weight.

Steelwrist SQ technology and the Open-S (OS®) standard

In 2017 Steelwrist introduced the SQ auto connection system for quick couplers and tiltrotators. With the SQ technology it is possible to connect both hydraulics and electrical signals in one movement. With eight different automatic coupler models we offer an SQ solution for excavators from two to 70 tonnes.

Steelwrist SQ automatic couplers are in compliance with Open-S (OS®) – the open industry standard for automatic couplers for excavators. With an open standard, machine operators and contractors can more easily choose quick couplers, tiltrotators and work tools from different manufacturers that are in compliance with the standard, and be confident that they will work together.

Safety solutions that work with all types of excavators

Steelwrist machine couplers and tiltrotator couplers come either with LockSense, Front Pin Lock or Front Pin Hook, machine independent safety solutions that work on all types of excavators, regardless if they are small, large, new or used. All solutions comply with international safety regulations such as EN474 and ISO13031.

Open-S V14 and H6 Electrical connectors (option)

The Open-S V14 electrical connector is a robust electrical connector with 14 spring-loaded contact pins, specially made for SQ automatic couplers (SQ50 and up) and work tool applications. It can be retrofitted in existing SQ type couplers and work tools. The Open-S V14 electrical connector can be used by all Open-S Alliance members, and is for MiC 4.0-equipped excavators the agreed standard.¹

The H6 electrical connector has been developed for the smaller SQ coupler sizes (SQ40) and builds on the well proven design and field experience with the Open-S V14 connector. It has six spring-loaded contact pins and all inner parts are fully environmentally sealed.

Quick Coupler Controller (option)

Quick Coupler Controller is a system for controlling and monitoring the Steelwrist quick coupler functions such as locking, unlocking, and optional pressure relief for SQ couplers and B-to-tank for shift in between dual direction and oneway flow. The control system module is installed in the cabin and the indicator panel provides clear and easy indications of the various functions. Installation is easy with the prepared connectors.

Regarding interchangeability between the SQ standard and other brands of fully hydraulic quick couplers and work tools, see link.



Information

Quick coupler	SQ40W			SQ50	SQ50W	SQ60-4	SQ60-4 W	SQ60-5	SQ60-5 W	SQ65	SQ70	SQ70/55	SQ80	SQ90
Machine weight [lb]	8800-15 400	SQ45	SQ45W	11000-2 6400	11000-2 6400	26400-4 4000	26400-4 4000	26400-4 4000	26400-4 4000	30800-4 8400	39600-7 0400	39600-7 0400	55000-9 4600	88000-1 54000
Max Breakout torque [kNm]														
Weight from [lb]	114	220	242	220	220	297	297	297	297	418	645	682	946	1650
Building height [inch]	5.51	5.31	6	5.12	5.31	6	6.89	6	6.89	6.30	7.87	8.27	9	10.43
Width [inch]	7.87			10.63	10.63	13.39	13.39	13.39	13.39	17.32	17.72	21.65	23.23	29.53
Length [inch]	11.81			17	17	18.90	18.90	18.90	18.90	20.87	23.62	23.62	26.38	29.53
Max width dipper arm [inch]	7.87			8	10.87	12	13.15	12	13.15	13	16.22	16.22	18.90	20
Pin diameter [inch]				1.77-2.3 6	1.77-2.5 6	2.36-3.1 5	2.36-3.1 5	2.36-3.1 5	2.36-3.1 5	2.36-3.1 5	2.36-3.5 4	2.76-3.5 4	2.76-4.3 3	3.54-5.1 2
Pin distance [cc-measure][inch]	7.87-14. 57			9.84-15	9.84-15	12.40-17 .13	15.75-18 .50	12.40-17 .13	15.75-18 .50	13-18.11	15.75-20 .47	14.57-22 .44	14.57-23	19.69-24 .80
Lifting hook [lb]	4400			11000	11000	11000	11000	11000	11000	17600	17600	17600	22000	33000
Max pressure [bar]														
Max Pressure Separate AUX [bar]														
Safety solution	FPH	Lock-Sense	Lock-Sense	FPL	FPL	FPL	FPL	FPL	FPL	Lock-Sense	FPL	Lock-Sense	FPL	FPL