

Symmetric Quickcoupler SQ

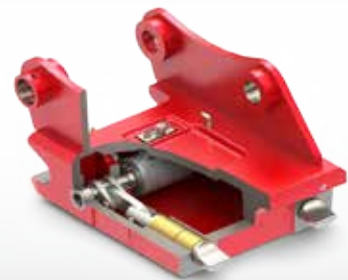


 12 - 70 t

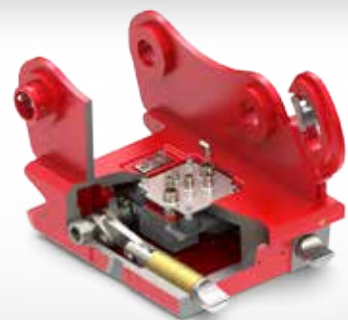
SQM



SQH



SQE



SQ - the symmetrical quickcoupler system by Lehnhoff for excavators from 12 to 70 t

The new SQ quickcoupler systems by Lehnhoff are based on the international S-standard. This open industrial standard specifies the measures and tolerances for symmetrical quick hitches. This ensures that all attachments using adapters of this standard are interchangeable. New and absolutely unique with regard to already existing, S-standard-based quickcoupler units: the Lehnhoff SQ quickcoupler provides the common hydraulic variety as well as a completely mechanically locking system thanks to its innovative locking technology.



The symmetrical SQ system allows the Simple conversion of a backhoe bucket into a shovel bucket.

Lehnhoff SQ: one standard - three varieties

All Lehnhoff SQ quickcouplers feature a compact and robust casing made of high-strength cast steel. The contact surfaces of the quickcoupler are mechanically machined for maximum functional safety. The coupling shaft of the adapter is inductively hardened. A low height of the housing ensures a high digging force.

Lehnhoff SQ quickcoupler are available in three different varieties:

- SQM - mechanical quickcoupler
- SQH - hydro-mechanical quickcoupler
- SQE - fully hydraulic quickcoupler



Adapter frame for backhoe bucket and bucket conversion



Weld-on adapter for welding onto attachments



Screw adapter for demolition tools, such as hammers, etc.

SQ adapter - suitable for all attachments of any kind or brand

Regardless of the attachment or its brand: Lehnhoff offers fitted SQ adapters for all attachments. Thanks to the defined S-standard, all SQ adaptations of one class work with all quickcouplers supporting the S-standard.

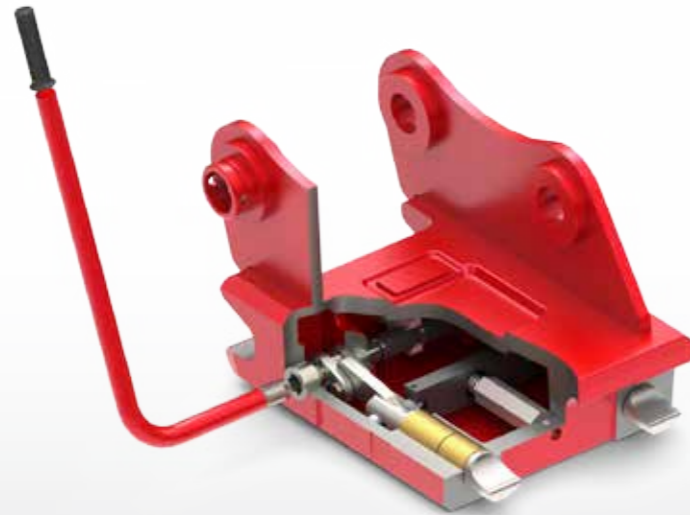
Lehnhoff SQ-adapter with S-Standard

SQ-Adapter	SQ 65	SQ 70	SQ 70/55	SQ 80	SQ 90
Excavator	12 - 22 t	22 - 28 t	28 - 32 t	32 - 45 t	45 - 70 t
Coupling shaft ϕ [mm]	65	70	70	80	90
Distance of axles [mm]	530	600	600	670	750

SQM - mechanical quickcoupler

Safe locking in no time at all - the mechanical symmetrical quickcoupler by Lehnhoff is unique worldwide.

- no hydraulic connection needed
- very simple mounting
- robust and low-maintenance components
- easy and quick locking and unlocking by socket wrench (120° rotation)
- secure and auto adjusting locking with dead-centre-mechanism (corresponds to EN474-1, Appendix B, ISO DIS 13031)



Mechanical symmetrical quickcoupler SQM

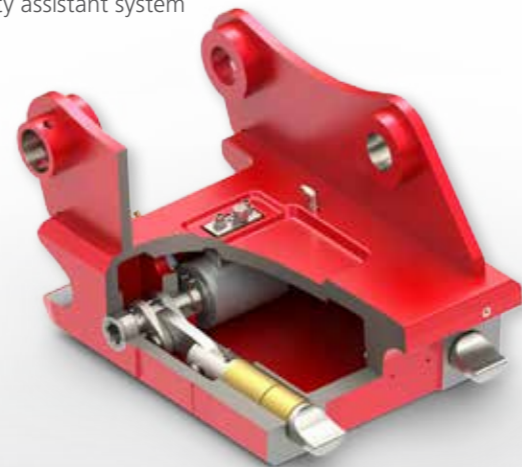
	SQM 65	SQM 70	SQM 70/55	SQM 80
Excavator	12 - 22 t	22 - 28 t	28 - 32 t	32 - 45 t
Coupling shaft Ø [mm]	65	70	70	80
Distance of axles [mm]	530	600	600	670
Width [mm]	440	450	550	590
Weight* ca. [kg]	200	260	300	400

* depending on excavator suspension

SQH - hydro-mechanical quickcoupler

Unique combination of safe mechanical dead-centre-locking and hydraulic actuator.

- comfortable locking and unlocking from within the cabin
- robust and low-maintenance components
- secure and auto adjusting locking with dead-centre-mechanism (corresponds to EN474-1, Appendix B, ISO DIS 13031)
- no permanent pressurisation of the hydraulic actuator needed
- Emergency release or locking can be ensured with a socket wrench if necessary, as with the mechanical version.
- compatible with all hydraulic quickcoupler pre-fittings of all excavator manufacturers
- optical locking indicator,
- Optional Lehmatic Safety Control (LSC) safety assistant system



Hydro-mechanical symmetrical quickcoupler SQH

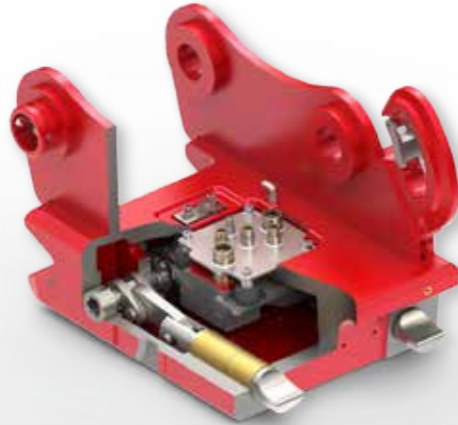
	SQH 65	SQH 70	SQH 70/55	SQH 80	SQH 90
Excavator	12 - 22 t	22 - 28 t	28 - 32 t	32 - 45 t	45 - 70 t
Coupling shaft Ø [mm]	65	70	70	80	90
Distance of axles [mm]	530	600	600	670	750
Width [mm]	440	450	550	590	750
Weight* ca. [kg]	200	260	300	400	500
Operating pressure min/max [bar]	180/350	180/350	180/350	180/350	180/350

* depending on excavator suspension

SQE - fully hydraulic quickcoupler

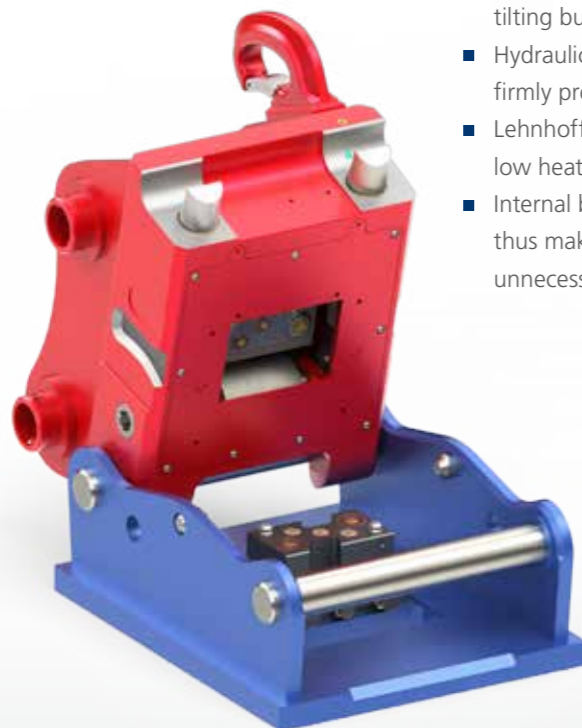
Combines all advantages of the hydro-mechanical system with additional coupling of the hydraulic lines. The valve block including five Lehnhoff short-stroke valves is safely and fully integrated in the quickcoupler housing.

- comfortable and safe locking and unlocking of all hydraulic attachments from within the cabin
- more efficient workflow: tool changing also profitable for short work cycles
- Emergency release or locking can be ensured with a socket wrench if necessary, as with the mechanical version.
- Robust, easy to clean and service
- Optional Lehmatic Safety Control (LSC) safety assistant system



Technical highlights

- Fully symmetrical arrangement of the valve block allows the use of hydraulic attachments even when they are rotated by 180°, such as tilting buckets, screening buckets, etc.
- Hydraulic tensioning support ensures that the valve blocks are kept firmly pressed together (HTD -Hydraulic Tensioning Device)
- Lehnhoff short stroke valves ensure minimum pressure loss and low heating from large oil flow
- Internal block depressurisation unit: Integrated into valve block, thus making costly and time-intensive installation on excavator unnecessary



Fully hydraulic symmetrical quickcoupler SQE (Energy link)

	SQE 65	SQE 70	SQE 70/55	SQE 80	SQE 90
Excavator	12 - 22 t	22 - 28 t	28 - 32 t	32 - 45 t	45 - 70 t
Coupling shaft \varnothing [mm]	65	70	70	80	90
Distance of axles [mm]	530	600	600	670	750
Width [mm]	440	450	550	590	750
Weight* ca. [kg]	220	280	330	430	540
Operating pressure min/max [bar]	180/350	180/350	180/350	180/350	180/350

* depending on excavator suspension

Lehnhoff short stroke valves

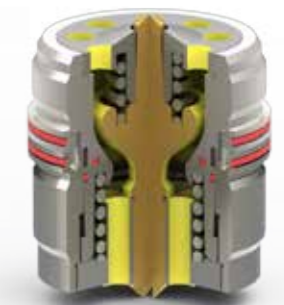
Des.	Size	Flow (l/min)	SQE 65	SQE 70	SQE 70/55	SQE 80	SQE 90
KV 1	> DN12 1/2"	110	3	2	2	2	-
KV 2	> DN16 5/8"	160	2	-	-	-	-
KV 3	> DN20 3/4"	240	-	1	1	1	1
KV 4	> DN25 1"	550	-	2	2	2	4

Lehnhoff short stroke valves

- connect attachments to working hydraulics safely and leak-free
- optimally designed for excavator and attachments with maximum oil flow
- minimum dynamic pressure
- low heating
- less fuel consumption
- higher efficiency
- easy to clean and service



Valves closed



Valves open - maximum flow

LSC Safety Assistance System

Full control at all times over all operating states of the quickcoupler from the driver's cab. Faulty locking and wear limits of the quickcoupler are immediately detected and displayed. The driver can react immediately.

- Permanent monitoring of the operating condition via integrated sensors
- Illuminated optical display and acoustic signals
- Control of the operating states via operating and display unit in driver's cab
- Safe two-finger operation of the unlocking function
- Optional for all new hydraulic Lehmatic and Variolock quickcoupler systems



Surpasses the safety requirements of SUVA from Jan. 2016

Corresponds to
 - Machinery Directive 2006/42/EC
 - Safety Product Standard EN 474-1 Appendix B
 - ISO/DIS 1303/2015 edition



Quickcoupler unlocked, not yet fully in adapter

Quickcoupler correctly and completely in adapter, locking bolts still retracted

Quickcoupler correctly locked

Quickcoupler incorrectly locked



Detailinfos im Video:
www.googl/SUdaGJ

www.lehnhoff.com



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