



STEELWRIST
EARTHMOVING EFFICIENCY



OPEN |

Steelwrist SQ
Full Automatic Quick Coupler Systems

Changing between hydraulic powered work tools has never been faster and easier. No more compromise on safety at the work site. Maximize your machine utilization and productivity by using full automatic quick couplers today.



***RIGHT TOOL
RIGHT JOB
RIGHT TIME***



STEELWRIST MAIN EVENTS

Today a global manufacturer of tiltrotators, quick couplers and work tools for excavators. Own sales and support in 20 countries and growing.

Open-S - the open industry standard for fully automatic quick couplers for excavators

2020

Fully Automatic Quick Couplers (SQ)
Powered Work Tools
Quantum Control System and Tool Recognition

2017

Front Pin Lock (FPL)
patented quick coupler safety system

2012

Control System
Work Tools
First OEM agreement

2009

Steelwrist founded with focus on Tiltrotators and Quick Couplers

2005

SQ AUTO CONNECTION SYSTEM

Changing powered work tools in seconds

Fully automatic quick couplers are becoming increasingly popular in the demolition industry thanks to the greatly enhanced productivity, safety, and comfort benefits.

With Steelwrist SQ technology you can change between hydraulic powered work tools such as breaker, crusher, shear, grapple as well as mechanical work tools in only seconds – all without leaving the cabin!

In 2017 we introduced our patented Qplus™ technology which radically changes the "inside" of the hydraulic couplings and makes us unique in the market.

Steelwrist Qplus™ offers customers unique benefits such as:

HIGHER FLOW

The coupler flow measures up to 37 percent more compared to competitor products and reduce heat build up. More flow - faster tool speed and cycle times!

MORE UPTIME

Our sealing technology is significantly more durable compared to competitor products. This will give you more hours in operation before sealings have to be changed.

IMPROVED SERVICEABILITY

Changing seals in Steelwrist couplings is done fast and easy without need for proprietary and complicated tools.

Steelwrist Qplus™

- Higher flow
- More uptime
- Improved serviceability

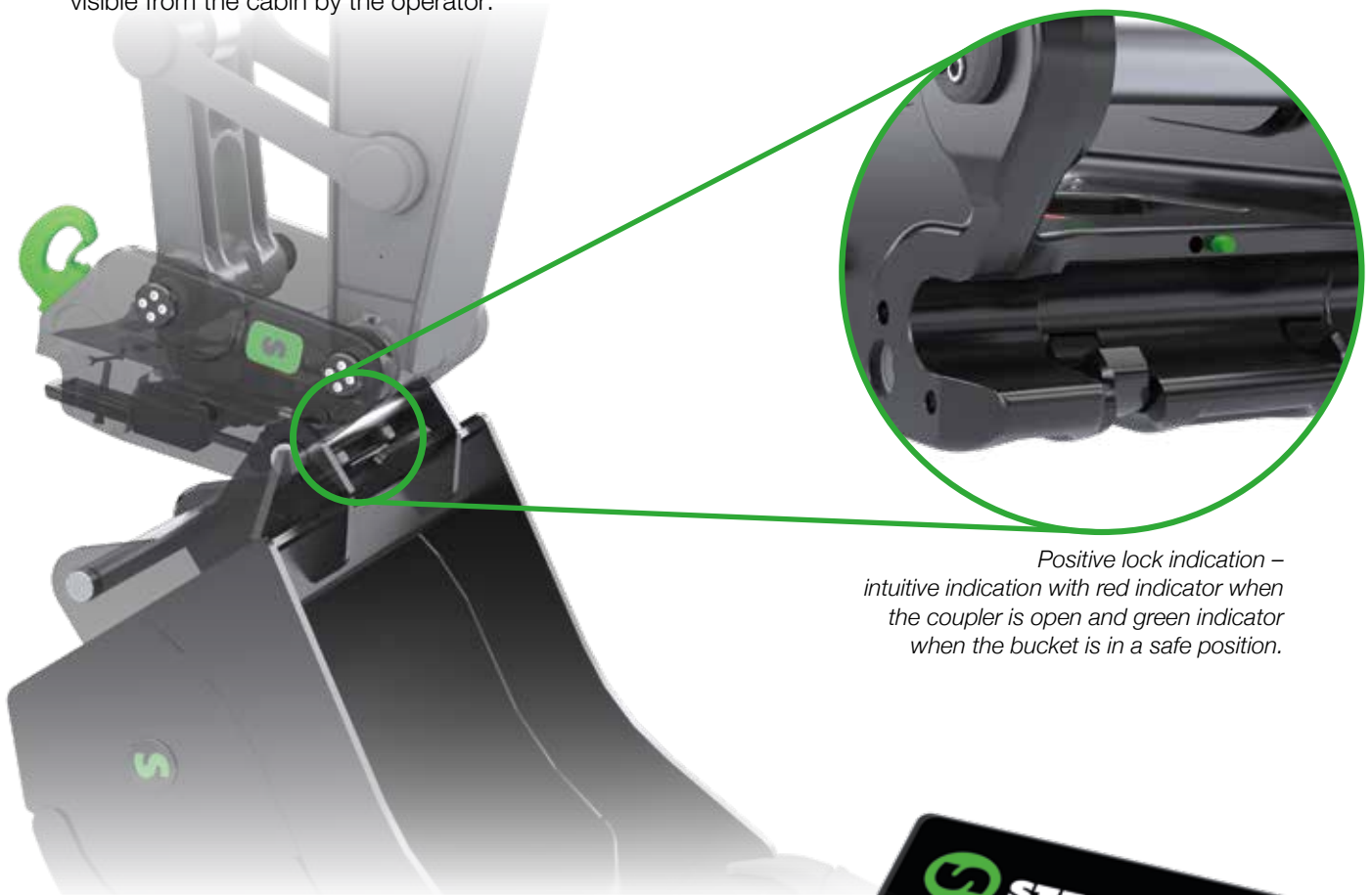
FRONT PIN LOCK – FPL

Safe when changing work tools

Work safety is paramount, that is why we in 2012 developed our patented Front Pin Lock technology that enhances safety on quick couplers.

The Front Pin Lock (FPL) system minimizes the risk of a dropped bucket or work tool as long as the front pin is connected. The front pin is easily visible from the cabin by the operator.

Front Pin Lock is designed for high durability and tough environments. The system is not dependent on sensors and works equally well with all types of excavators, and is compliant with ISO13031.



Positive lock indication – intuitive indication with red indicator when the coupler is open and green indicator when the bucket is in a safe position.

QUICK COUPLER CONTROLLER

If your excavator is not prepared for a quick coupler system Steelwrist offer a Quick Coupler Controller for controlling and monitoring the quick coupler functions such as locking, unlocking, and optional pressure relief for SQ couplers.

The control system module is installed in the cabin and the indicator panel provides clear and easy indications of the various functions and peace of mind for the operator.



SQ FOR DEMOLITION AND RECYCLING APPLICATIONS

Always use the right tools

With every new demolition job comes new challenges, whether it may be location, space, structure, transport, time, resources or other. With Steelwrist SQ technology, your excavator turns into a true tool carrier and provide you with the flexibility and versatility to face these challenges, day in and day out.

Increase productivity and safety by always using the correct tool when crushing, cutting, lifting, sorting, loading and cleaning. No more compromises needed.

KEY BENEFITS WITH SQ:

- **MACHINE UTILIZATION**

Remove time thieves. SQ allows operator and machine to work continuously at all times. More work done with less.

- **SAFETY**

Every powered work tool is designed and optimized for a certain operation or usage. Work safety increases when operators can easily change and use the best tool for the job.



- UPTIME

Tidy hose installations avoid cuts or damages from re-bars and other sharp debris.

- ENVIRONMENT

No oil spill during tool change. Effective material sorting at the job site helps recycling and reduces cost in waste handling.

- TRANSPORT

Easily connect and disconnect the work tool for every machine transport.

Range of SQ adaptors available depending on the type of powered work tool.



SQ FOR GENERAL CONSTRUCTION APPLICATIONS

Enabling new dimensions with SQ Tiltrotator

Tiltrotators are able to rotate 360 degrees and tilt 45 degrees in each direction with top of the class precision and controllability. This allows you to do the same job faster or do things you could only imagine before.

The combination of using a range of work tools (mechanical and hydraulic powered) beneath the tiltrotator makes it possible to increase productivity and efficiency even further. Customers who started to use tiltrotators never go back.

The tiltrotator is fast becoming a common product in many segments, such as:

- Building and Construction
- Infrastructure
- Ground works
- Utility work (pipes, water and sewage)
- Landscaping
- Road construction
- Demolition
- Recycling
- Railway



SQ TECHNOLOGY

All Steelwrist tiltrotators from X18 to X32 (14-33 ton excavators) can be equipped with SQ technology. Steelwrist offer two types of tiltrotator configurations combined with SQ quick coupler:

1. Tiltrotator SQ / SQ

SQ on the top side of the tiltrotator (upper coupler) and SQ on the bottom side of the tiltrotator. This configuration allows for rapid changes directly from the quick coupler (Hydraulic breaker, Tiltrotator) as well as beneath the tiltrotator (Sweeper, Compactor).

2. Tiltrotator SQ / S

SQ on the top side of the tiltrotator (upper coupler) and S on the bottom side of the tiltrotator. This configuration allows for rapid changes directly from the quick coupler (Hydraulic breaker, Tiltrotator). Mechanical work tools beneath the tiltrotator can be changed rapidly, while external hose connections are required for hydraulic powered work tools.



SQ ADAPTORS

Connecting work tools efficiently

The core of the fully automatic quick coupler technology is that it connects the work tool in a safe way, and also connects the hydraulic couplings of the work tool in an automatic way.

Our SQ adaptors are built on the symmetrical Open-S standard and therefore work perfectly with other manufacturers working within the Open-S standard.

All male couplings in the SQ adaptors include the Qplus™ technology, giving your work tool higher flow capabilities and more uptime.

Regardless if you need an SQ adaptor or a weld on adaptor we have the cost effective solution that you need.

Our design philosophy is always to minimize the building height, reduce weight and optimize hose routings for each type of work tool.

Cross section of complete SQ coupler and adapter system mounted to breaker.



SQ Coupler



SQ Adaptor from above



Bolt on SQ adaptor with manifold



Bolt on SQ adaptor for internal hoses



Pendulum Adaptors



Weld on SQ adaptors - high



Weld on SQ adaptors - low



SQ SIZE AND CONNECTIONS, DIMENSIONS AND LOCATIONS

Select specifications for your needs

The hydraulic requirements of the work tools define which coupler size that will be suitable for you. Important questions when selecting the correct quick coupler are:

- What are the work tools flow requirements?
- How many functions do the work tools have?
- Do the work tools require leak oil?
- Machine weight?

Steelwrist representatives will help you with answers about which models and connection setups are suitable for your excavator and work tool.

Qplus Flow specifications		
	Continuous max*	Recommended Max
1" Couplings	300 lit/min	450 lit/min
3/4" Couplings	180 lit/min	300 lit/min
1/2" Couplings	90 lit/min	180 lit/min
3/8" Couplings	45 lit/min	75 lit/min
1/4" Couplings	25 lit/min	60 lit/min

** At 5 bar back pressure (male + female)*





Example of SQ80 H-cylinder with female couplings.

Example of number of couplings depending on type of work tool*							● Required ○ Not Required
SQ size	Total no of Couplings	Coupling sizes	2 functions	2 functions + leak oil	1 function + leak oil	1 function	Machine weight
SQ60-4	4	2x3/4", 2x1/2"	●●●●	●●●●	●●●●○	○●●●○	12-20
SQ60-5	5	2x3/4", 2x3/8", 1x1/2"	●●●○●	●●●○●	●●●○●	○●●○●	12-20
SQ65	5	2x3/4", 1x1/2", 1x3/4"	●●●○●	●●●●●	○●●●●○	○●●○●○	14-22
SQ70	5	2x1", 2x1/2", 1x3/4"	●●●○●	●●●●●	○●●●●○	○●●○●○	18-33
SQ70/55	6	2x1", 2x1/2", 2x3/4"	○●●●●○	●●●●●○	○●●●●○	○●●○●○	15-33
SQ80	6	2x1", 2x1/2", 2x3/4"	○●●●●○	●●●●●○	○●●●●○	○●●○●○	25-43
SQ90	9	4x1", 3x1/2", 1x3/4", 1x3/8"	●●●○●●	●●●○●●	●●●○●●	●●●○●●	40-70

* Please verify with your tool manufacturer as the need of connections can vary depending on manufacturer and market standards.



SORTING GRAPPLE

Two-way direction circuit
2 hydraulic lines open/close
2 hydraulic lines for rotation



CONCRETE CRUSHER

Two-way direction circuit
2 hydraulic lines open/close
2 hydraulic lines for rotation
1 leak oil/drain line



DRUM CUTTER

Two-way direction circuit
2 hydraulic lines
1 leak oil/drain line



HAMMER / BREAKER

One way direction circuit
2 hydraulic lines



Products that comply with the standard are marked "Open-S".

A GOOD SOLUTION FOR THE MACHINE OWNER AND THE INDUSTRY

Open-S - The new global standard

Open-S is the open standard for fully automatic quick couplers for excavators. The goal is to give machine operators and contractors around the world the freedom to combine quick couplers, tiltrotators and work tools from manufacturers that are in compliance with the standard, and to promote continued technological development.

Open-S is owned and managed by an independent organization, Open-S Alliance, and builds on the independent and established standard that already exists for quick couplers - the S standard. Steelwrist is a full member of the Open-S Alliance.

FREEDOM TO CHOOSE AND COMBINE

With an open standard for quick couplers, machine operators and contractors can more easily choose quick couplers, tiltrotators and work tools from different manufacturers, and be confident that they will function together. The standard also means that dealers can provide clearer information about which products fit together.

TECHNOLOGICAL DEVELOPMENT

With a common standard it is easier for industry manufacturers to continue to compete with performance and functionality, and still offer customers compatibility.

OPEN STANDARD

We believe in open standard interfaces, so the SQ system is designed to be able to connect to other brands following the Open-S standard.

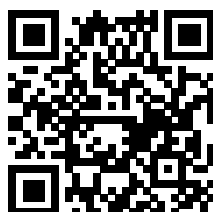


SAFETY FIRST

Reducing the risk of accidents and incidents is a priority and in recent years major and important advances have been made in terms of product and operator safety. With Open-S you can be more confident that these solutions will continue to work. The open interface defines hydraulic couplers and ensures that a combination of products from different manufacturers will not in any way interfere with or alter the safety solution of each individual product.

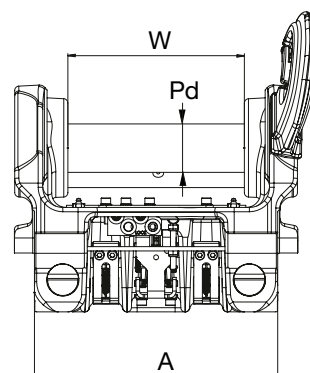
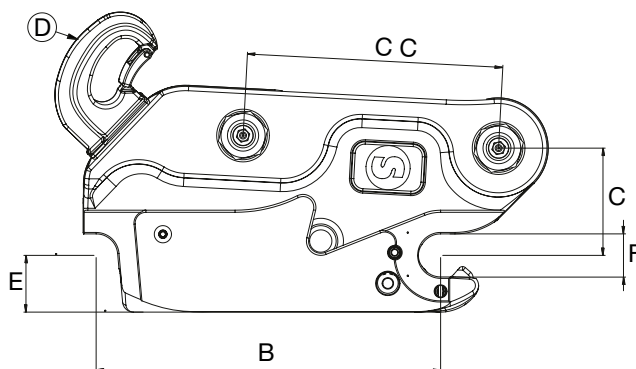
The future is open!

Read more at opens.org



SQ COUPLER

Machine Weight [ton]	12-20	12-20	14-22	18-32	15-32	25-43	40-70
Model	SQ60-4	SQ60-5	SQ65	SQ70	SQ70/55	SQ80	SQ90
Dimensions [same as]	S60	S60	S65	S70	S70	S80	S90
Weight [kg]	120	120	170	250	280	430	750
A. Width [mm]	340	340	440	450	548	590	750
B. Length [mm]	480	480	530	600	600	670	750
C. Building height [mm]	135	135	160	175	210	230	265
D. Lifting hook [tons]	5	5	8	8	8	10	15
E. Height [mm]	Max 80	Max 80	Max 95	Max 100	Max 100	Max 115	Max 125
F. Diameter grip [mm]	60	60	65	70	70	80	90
Pd. Pin diameter [mm]	60-80	60-80	60-80	60-80	70-90	80-110	100-130
W. Max width dipper arm [mm]	304	304	330	400	382	480	510
C/C. Pin Distance [mm]	330-460	330-460	330-460	270-485	470-570	385-585	500-630
Couplings	4	5	5	5	6	6	9
3/8"	-	2	-	-	-	-	1
1/2"	2	1	2	2	2	2	3
3/4"	2	2	3	1	2	2	1
1"	-	-	-	2	2	2	4
Electrical Connector	Yes	Yes	Yes	Yes	Yes	Yes	Yes



TILTROTATOR WITH SQ COUPLER (Value with gripper)

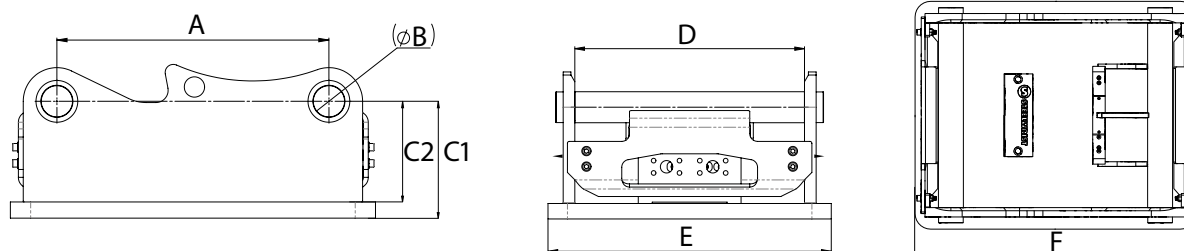
Machine Weight [ton]	12-18	16-20	18-26	25-32
Model	X18	X20	X26	X32
Upper coupler	SQ60-5	SQ65 SQ60-5	SQ65 SQ70 SQ70/55	SQ70 SQ70/55 SQ80
Attachment coupler Dedicated	SQ60-5	SQ65 SQ60-5	SQ65 SQ70 SQ70/55	SQ70 SQ70/55 SQ80
Max tilt angle [Degrees]	± 45	± 45	± 45	± 45
Req hydraulic oil flow [l/min]	80-100	100-120	100-120	120-140
Max pressure [bar]	210	210	210	210
Hydraulic extra functions	2(1)	2(1)	2(1)	2(1)
Weight from [kg]	400 (512)	445 (557)	570 (687)	840 (957)

All dimensions are depending on configuration.

SQ ADAPTORS BOLT ON

Machine Weight [ton]	12-20	12-20	14-22	18-32	18-3	25-43	40-70
With manifold	SQ60-4	SQ60-5	SQ65	SQ70	SQ70/55	SQ80	SQ90
Weight* [kg]	197	198	220	265	267	391	612
A. Pin distance C/C [mm]	480,25	480,25	530,25	600,25	600,25	670,25	750,25
B. Pin diameter [mm]	60	60	65	70	70	80	90
C1. Height [mm]	195	195	208,5	255	225	238	273
D. Pin width [mm]	341	341	441	451	551	591	751
E. Adapter plate width [mm]	Depends on tool						
F. Adapter plate length [mm]	Depends on tool						
For internal hoses	SQ60-4	SQ60-5	SQ65	SQ70	SQ70/55	SQ80	SQ90
Weight* [kg]	175	176	188	221	224	327	495
A. Pin distance C/C [mm]	480,25	480,25	530,25	600,25	600,25	670,25	750,25
B. Pin diameter [mm]	60	60	65	70	70	80	90
C1. Height [mm]	195	195	208,5	255	225	238	273
D. Pin width [mm]	341	341	441	451	551	591	751
E. Adapter plate width [mm]	Depends on tool						
F. Adapter plate length [mm]	Depends on tool						

* Calculated weight without couplings and hoses



SQ ADAPTORS WELD ON

Machine Weight [ton]	12-20	12-20	14-22	18-32	18-32	25-43	40-70
High	SQ60-4	SQ60-5	SQ65	SQ70	SQ70/55	SQ80	SQ90
A. Pin distance C/C [mm]	480,25	480,25	530,25	600,25	600,25	670,25	750,25
B. Pin diameter [mm]	60	60	65	70	70	80	90
C2. Height [mm]	155	155	169	220	190	248	235
F. Adapter plate length [mm]	600	600	661	741	741	837	950
Low	SQ60-4	SQ60-5	SQ65	SQ70	SQ70/55	SQ80	SQ90
A. Pin distance C/C [mm]	480,25	480,25	530,25	600,25	600,25	670,25	750,25
B. Pin diameter [mm]	60	60	65	70	70	80	90
C2. Height [mm]	105	105	115	135	152	160	235
F. Adapter plate length [mm]	797	797	862	940	937	837	950

SQ PENDULUM ADAPTORS

Machine Weight [ton]	12-20	14-22	18-32	18-32
Model	SQ60-5	SQ65	SQ70	SQ70/55

COMPACTOR/VIBRO				
Machine Weight [ton]	2-6	5-12	10-22	16-30
Model	HC20	HC40	HC60	HC90
Vibration Force [kN]	20	40	60	90
Vibration Frequency [Hz]	38	38	38	38
Weight [kg]	250	387	620	969
Length [mm]	700	850	960	1050
Width [mm]	410	610	700	800
Height [mm]	493	542	595	643
Load Area [m ²]	0,27	0,52	0,67	0,98
Hydraulic Pressure [rec/max]	150/250	150/250	150/250	150/250
Hydraulic Flow [l/min]	30-50	60-80	90-120	120-140
Bracket	SQ60-4, SQ60-5	SQ60-4, SQ60-5	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55, SQ80

SWEEPER			
Model	SW1000	SW1500	SW2000
Width [mm]	1000	1500	2000
Motor	Dual Motor Direct Drive	Dual Motor Direct Drive	Dual Motor Direct Drive
Mudflap	Standard	Standard	Standard
Flow requirements [l/min]	40-130	40-130	40-130
Integrated parking stand	Yes	Yes	Yes
Brush / Option	Bee-Line / Twisted core cartridge brushes		
Bracket	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55, SQ80		

SERVICE KITS	
Service Box SQ	Tools, couplings (2x) & seals (6x)
DRIVERS BOXES	
Drivers box SQ60	Tools, couplings, seals – 3/4", 1/2", 3/8"
Drivers box SQ60DE	Tools, couplings, seals – 3/4", 1/2", 1/4"
Drivers box SQ65	Tools, couplings, seals – 3/4", 1/2"
Drivers box SQ70-80	Tools, couplings, seals – 1", 3/4", 1/2"



Service Box SQ



Drivers Box SQ

MULTI GRAPPLE					
Machine Weight [ton]	3-6	6-12	8-16	12-18	19-26
Model	MG20	MG25	MG32	MG40	MG55
Gripper area [m²]	0,2	0,25	0,32	0,4	0,55
Gripper reach [mm]	1357	1515	1800	1938	2432
Gripper reach, smallest object [mm]	55	98	98	109	155
Max Load [kg]	3000	5000	6000	7000	10000
Weight [kg]	192	312	410	561	869
Gripper force [kN] [tip against tip]	12,5	17	21	25	38
Height [tip against tip] [mm]	843	919	1101	1127	1309
Height [max open] [mm]	747	781	949	941	1061
Width [mm]	504	594	660	691	795
Bracket	SQ60-4, SQ60-5	SQ60-4, SQ60-5	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55, SQ80

STONE AND SORTING GRAPPLE					
Machine Weight [ton]	6-12	8-16	10-20	16-26	22-32
Model	SG20	SG25	SG32	SG40	SG55
Gripper area [m²]	0,2	0,25	0,32	0,4	0,55
Gripper reach [mm]	1250	1707	1830	2204	2716
Max Load [kg]	3000	6000	7000	8000	12000
Weight [kg]	198	377	540	717	1268
Gripper force [kN] [tip against tip]	10	15	20	25	40
Height [tip against tip] [mm]	655	848	1010	1126	1301
Height [max open] [mm]	500	610	863	826	911
Width [mm]	518	600	654	700	1000
Bracket	SQ60-4, SQ60-5	SQ60-4, SQ60-5	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55, SQ80

FINGER GRAPPLE				
Machine Weight [ton]	6-12	10-18	8-18	16-26
Model	FG20-5/FG20-7	FG25-5/FG25-7	FG32-5/FG32-7	FG40-5/FG40-7
Gripper area [m²]	0,2	0,25	0,32	0,4
Gripper reach [mm]	1389	1552	1823	1956
Max Load [kg]	3000	6000	7000	8000
Weight [kg]	219/242	407/439	630/680	724/785
Gripper force [kN] [tip against tip]	10	15	20	25
Height [tip against tip] [mm]	817	877	1033	1088
Height [max open] [mm]	686	700	863	866
Width [mm]	504	672	698	754
Bracket	SQ60-4, SQ60-5	SQ60-4, SQ60-5	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55	SQ60-4, SQ60-5, SQ65, SQ70, SQ70/55

Grapples = Max operating pressure [bar] 250



MEMBERS OF:



Steelwrist UK Ltd

Unit 1f Vantage Business Park, Bloxham Road, Banbury, OX16 9UX, UK

Switchboard +44 1608 66 25 34 | Sales +44 1608 66 25 34

Service +44 1608 66 25 34 | Spareparts +44 1608 66 25 34

www.steelwrist.com