

MATIC[®]



2020

CATALOGUE

FORKLIFT ATTACHMENTS AND MASTS



EN

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All A.T.I.B. Attachments are manufactured to conform to EU Directives 2006/42/CE of 17/05/2006.



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General Information

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OUR VISION

A.T.I.B. ambition is to confirm its position as one of the greatest Italian forklift attachments and masts manufacturer and to expand its presence all over the world increasing its competitiveness and maintaining its reputation for the high quality of its products and services. The goal of our company is to become a worldwide focus for technology and image. To reach this target, A.T.I.B. wants to promote to its customers those values that are coming along us from the beginning: **Growth:** technological and cultural as well as economical, basic to establish and maintain leadership in the market. **Competence:** for A.T.I.B. experience has a great importance, so we invested hardly on needed up-dating to keep ahead of competitors. Company offers to customers not only services and high added value products, but also effective partnership and personalized consultancies too. A.T.I.B. promotes cooperation as a helpful strategy to find suitable solutions for each company which successfully uses its attachments. **Communication:** communication with outside world (customers, suppliers and market in general) shows important feedbacks that help to direct efforts and to have necessary readiness to be competitive in tomorrow's market.

HISTORY

A.T.I.B. was founded in 1972 as manufacturer of mast and forklift attachments. In the following 45 years has continuously improved and expanded its range of production and services, becoming a qualified supplier with an excellent reputation all over Europe. In early nineties, A.T.I.B. has enlarged even more its offer with the creation of the Hook lift Roll on - Roll off System department. Today A.T.I.B. is an accomplished manufacturer that desires to face new challenges and horizons, with a tireless flow of new ideas and initiatives built up with a spirit searching for endless innovation.

THE MANUFACTURING PLANT

A.T.I.B. production plant is located nearly Brescia, in the north of Italy. The plant covers a surface of 35,000 m² with 11,000 m² of covered floor space. The plant has at its disposal machining centres and traditional machining tools, two painting lines and manual and robotic welding machines. Company offers also many other complementary operations required from customers, as parts assembly, packaging and preparation of every needed documentation and certification.

TECHNICAL DEPARTMENT

Technical department regularly works with CAD 3D system and is composed by specialised technicians that, having acquired significant experience and know-how during the years, can provide assistance and support for any enquiry regarding load systems. Design and features are planned internally, which allows us a constant control on production phases and an immediate feedback between technicians and production department.

COMPANY QUALITY SYSTEM

A.T.I.B. holds a quality system defined in the Company Quality Manuals and its associated documents, issued in accordance with ISO 9001:2008 legislation. This is the basis on which A.T.I.B. production process is continuously developed and improved. Each operator, especially those in charge of operations and activities regulated by the quality manual, is trained up in accordance with the guidelines laid down for its job and area. As a Representative Management, the Quality Assurance Manager exercises his role ensuring the proper and continuous implementation of the quality system.





GENERAL INFORMATION

CHOICE OF ATTACHMENT: The application of a forklift attachment comes from the need to improve the performance of the forklift itself. For this reason the choice of the attachment is very important and therefore its technical details, indicated in the present Price List, could be very useful.

INFORMATION ABOUT THE ORDER: As to avoid any misunderstanding, for any information about the orders, please refer to our order confirmation.

REFERENCE: The reference number indicated in the first column of the tables of the Price List identifies the attachment. The reference number will also be reported in our order confirmation, in our delivery note and in our invoice. It will also be reported, together with the serial number and the main technical details, on the identification plate of the attachment, which is very important for future spare parts orders.

ATTACHMENTS CAPACITY: It is very important to say that the capacity indicated in the column represents only the structural limit of the attachment. The type of load and the working conditions must be taken into consideration to determinate the most appropriate attachment. The indicated capacity is only referred to the attachment and not to the combination of forklift and attachment. The residual capacity can be worked out with a good approximation through the calculation indicated later, but it must always be confirmed by the manufacturer of the forklift.

FEM CLASSES: In this column is indicated the type of mounting provided for every attachment. The hooks are always standard for unified carriages ISO/FEM 1, 2, 3, 4 and 5. At request, with supplement on the price, we can also supply attachments with special hook systems.



TECHNICAL DATA: All products are subject to reviews and modifications, as a continual product improvement. A.T.I.B. reserves the right to make such modifications without notice. No modifications are allowed to our products unless agreed in writing with our technical department. Unauthorized modifications can seriously alter the technical properties of the attachments and will cause the immediate lapse of warranty.

SPARE PARTS: The use of non original A.T.I.B. spare parts may cause malfunction of the attachment and will cause the immediate lapse of warranty.

MOUNTING: Every element required for the mounting of our attachments on the forklift can be provided by us upon request. Consult our chapter about hydraulic kits and options.

OPTIONALS: In this section are reported the supplements for the most common options. The possibility to realize special modifications to standard products, must always be verified with our commercial and technical personnel.

SPECIAL PRODUCTS: Our technical department can realize special products upon request. Please do not hesitate to contact us!

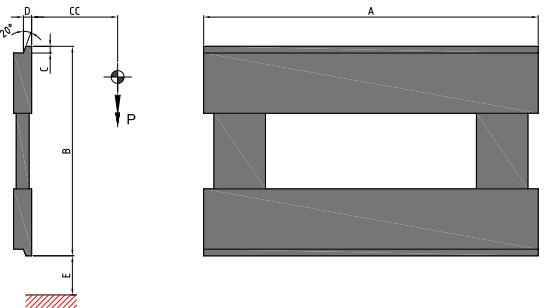


FITTING INFORMATIONS

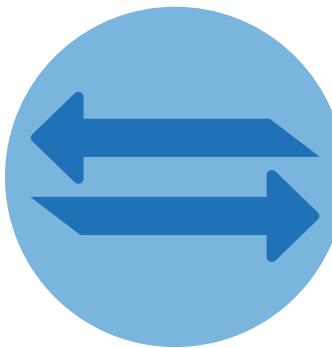
HYDRAULIC KITS: All the attachments of the present list could require one or more hydraulic kits for functioning. Their quantity is clearly reported in any page of this list for every attachment.

WORKING PRESSURE: The maximum working pressure of every attachment is clearly indicated.

ATTACHMENT HOOKS: The attachments are delivered with hooks ISO/FEM, the table is reported hereunder. All our attachments are provided with Fem A hooks. Fem B hooks can also be delivered upon request. Eventual special hooks can be realized on demand by providing our technical department with the technical details reported hereunder.



ISO 2328 FEM	FORKLIFT CAPACITY P - Kg	LOAD CENTRE mm	A mm	B mm	C mm	D mm	E mm
I	up to 999	400	⑧	331	13	16	A 76 B 114
II	1000 to 2500	500	⑧	407	13	16	A 76 B 152
III	2501 to 4999	500	⑧	508	16	21,5	A 76 B 203
IV	5000 to 8000	600	⑧	635	19	25,5	A 127 B 254
V	8001 to 10999	600	⑧	728	25	34	A 127 B 257

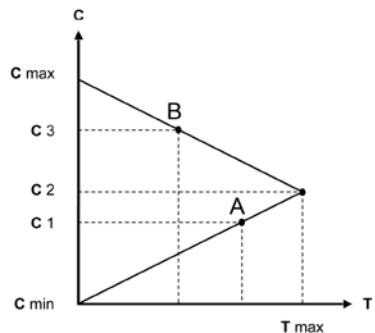


SIDESHIFT

SIDESHIFT: Sideshifts are more and more used to aid drivers in operating forklifts easily. A.T.I.B. offers two options:

SEMI-INTEGRAL SIDESHIFT: The semi-integral sideshift uses a separate cylinder for the sideshifting action and has the advantage of a constant side movement whatever the opening range is. Weight, thickness and load centre are increased, though.

SIDESHIFTING VALVE: This is often used on clamping units as it works with the same cylinders used for the clamping action. The stroke depends on the opening range left. It will be zero when the clamp is totally open or totally closed. The stroke available could be larger than that allowed under stability rules (100+100 mm up to 6300 kg and 150+150 mm for higher capacities) and could cause side stability problems as well as the premature wear of the mast profiles. You are strongly advised to check its suitability with the forklift manufacturer. The obvious advantage lies in the reduction of weight, thickness and lost load centre. Hence the available residual capacity is higher and manoeuvrability is better due to the arms side movement only, useful in small places. To find out the remaining stroke available with each load, calculate the difference between the load width and maximum and minimum opening. The remaining stroke available will be the smallest of the two results.



T Sideshift

$$A = (C_1 - C_{\min}) / 2$$

C Opening range

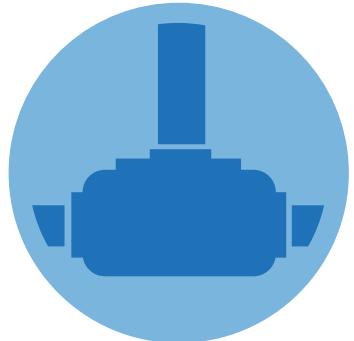
$$B = (C_{\max} - C_3) / 2$$

A Position before half opening range

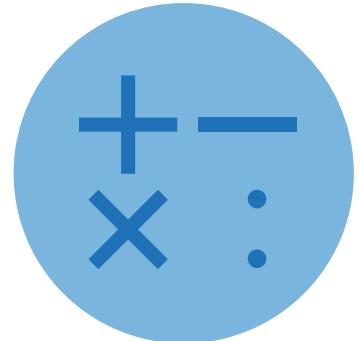
$$T_{\max} = (C_{\max} - C_{\min}) / 4$$

B Position after half opening range

$$C_2 = (C_{\max} + C_{\min}) / 2$$

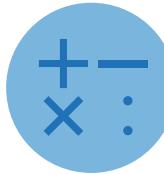


SOLENOID VALVE



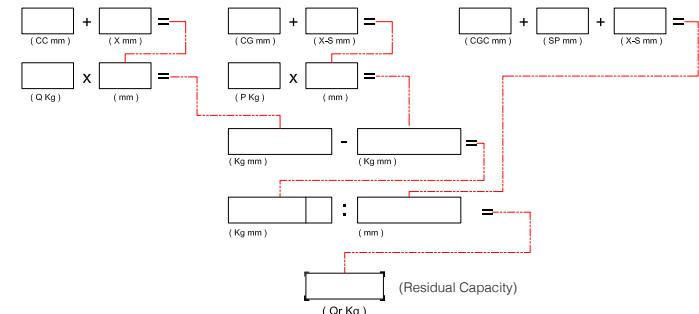
RESIDUAL CAPACITY CALCULATION

SOLENOID VALVE: The solenoid valve is used to direct the oil flow into one of two function, generally when the attachment has three different functions. The first two are operated by the control valve, the solenoid valve operates the third function. For example, a rotating clamp with sideshift has its own control circuit for clamping (for safety reason), the second one is combined with a solenoid valve, in order to operate either rotation or sideshift. To supply the solenoid valve the forklift truck must be equipped with a feeding cable that runs from the generator or battery and over the lift mast to the fork carriage. Either a push switch in the ball-head lever or a toggle switch installed in the instrument panel can operate the solenoid valve. Please note that the coil of the solenoid valve must have the same voltage as the control voltage in the forklift truck.



The result of this multiplication will be actual capacity of the attachment. Continuous line is for equipment's with load center at 500 mm. Dotted line is for equipment's with load center at 600 mm.

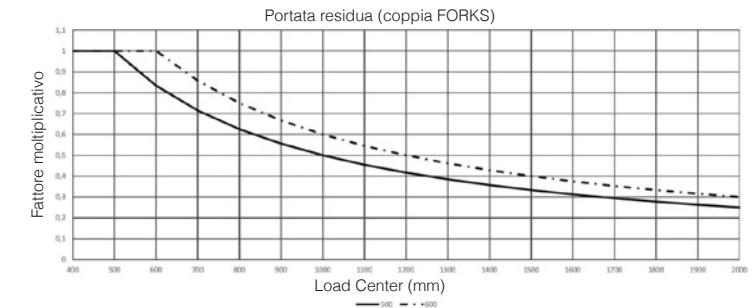
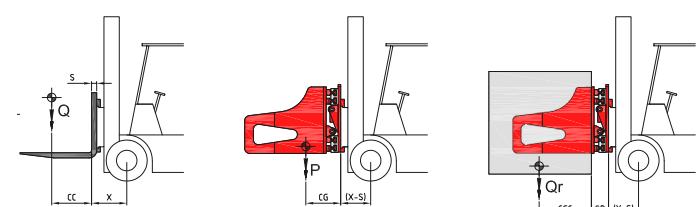
NOTA: The calculation las only for the "stable" loads, in the case of the transport of box of liquids please consult the manufacturer

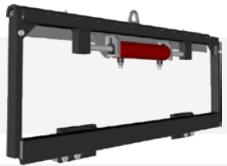
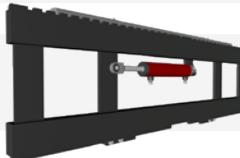
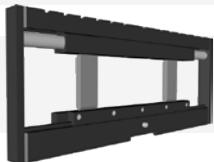


CARRELLO

ATTREZZATURA

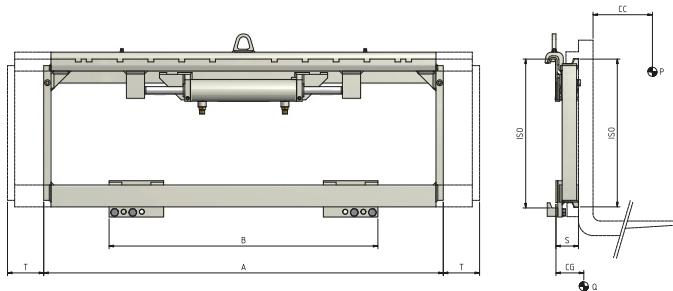
CARICO



2**Sideshifts****209****109****108****122****2.1** **209** [Hook on Sideshift ISO2](#)[Pag. 16](#)**2.2** **109** [Hook on Sideshift ISO3](#)[Pag. 17](#)**2.3** **108** [Reinforced Hook on Sideshift](#)[Pag. 18](#)**2.4** **122** [Integral Sideshift](#)[Pag. 19](#)**2.5** [Options & Special Equipment](#)[Pag. 20](#)

209

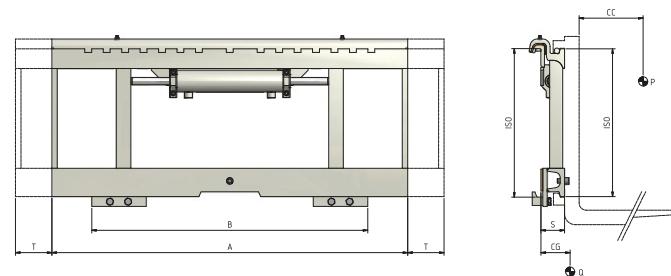
HOOK ON SIDESHIFT ISO2



Model 209 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift.

109

HOOK ON SIDESHIFT ISO3



Model 109 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift.

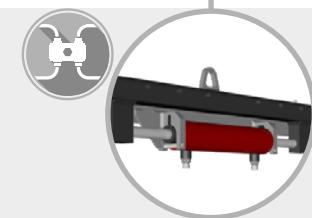
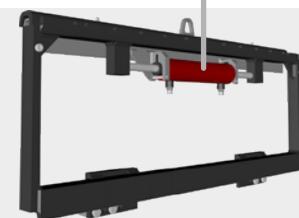
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MINIMUM FORK CARRIAGE B - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
03LFA2C3001	2500	500	II	920	860	100	63	34	48
03LFA2C3008	2500	500	II	970	910	100	63	35	49
03LFA2C3003	2500	500	II	1000	940	100	63	36	50
03LFA2C3004	2500	500	II	1020	960	100	63	36	51
03LFA2C3005	2500	500	II	1040	980	100	63	36	52
03LFA2C3006	2500	500	II	1100	1040	100	63	37	55
03LFA2C3007	2500	500	II	1150	1090	100	63	38	57

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MINIMUM FORK CARRIAGE B - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
03HLL3C3008	5000	500	III	1150	1000	100	75	40	103
03HLL3C3010	5000	500	III	1255	1100	100	75	41	110
03HLL3C3014	5000	500	III	1350	1200	100	75	42	118
03HLL3C3018	5000	500	III	1560	1540	100	75	42	130
03HLL3C3020	5000	500	III	1660	1640	100	75	43	137



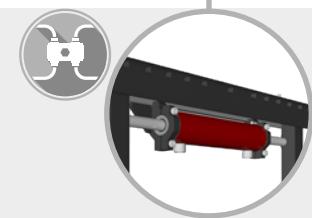
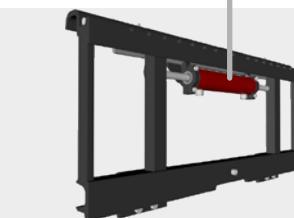
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 20.

References on table are related to standard attachments.
For special or customised version see options at page 20.
For hydraulic connection position see detail below.



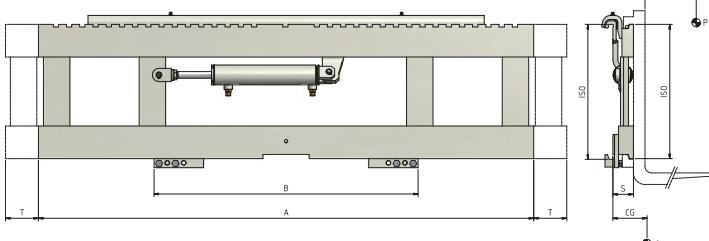
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 20.

References on table are related to standard attachments.
For special or customised version see options at page 20.
For hydraulic connection position see detail below.



108

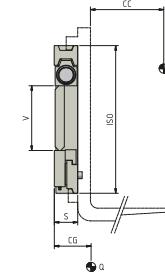
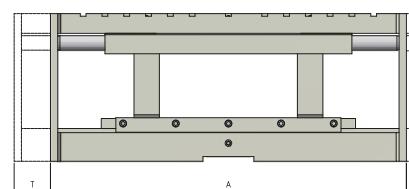
REINFORCED HOOK ON SIDESHIFT



Model 108 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift. Type 108 is also a reinforced model that allows the installation of the attachments on forklift carriages, which are narrower than the width of the sideshift itself.

122

INTEGRAL SIDESHIFT



Model 122 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift. Brackets can be realized for the integral models 122, upon submission of construction drawings from the client.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MINIMUM FORK CARRIAGE B - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
03GFA2C3014	2500	500	II	1300	1000	100	62	39	111
03GFA2C3033	2500	500	II	1400	1000	100	62	39	118
03GFA2C3016	2500	500	II	1500	1000	100	62	39	124
03GLL3C3099	5000	500	III	1400	1000	100	80	44	185
03GLL3C3011	5000	500	III	1500	1000	100	80	44	205
03GLL3C3014	5000	500	III	1660	1100	100	80	45	222
03GLL3C3042	5000	500	III	1800	1255	100	80	46	253
03GKR4C3001	4500	600	IV	1190	1000	100	95	43	182
03GKR4C3002	4500	600	IV	1420	1200	100	95	45	210
* 03GR04C3067	8000	600	IV	1190	1100	100	94	40	255
* 03GR04C3001	8000	600	IV	1420	1300	100	94	43	290
* 03GR04C3005	8000	600	IV	1800	1600	100	94	51	374
* 03GR04C5005	8000	600	IV	1800	1600	150	94	51	375
* 03GR04C5006	8000	600	IV	2000	1700	150	94	52	400
* 03GR04C5009	8000	600	IV	2200	1700	150	94	52	410
* 03GR04C5052	8000	900	IV	2200	1800	150	94	52	438
* 03GR04C5050	8000	1100	IV	2400	2000	150	94	53	472

* Heavy duty model, reinforced with lower rollers



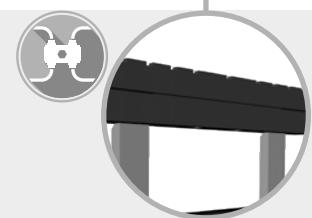
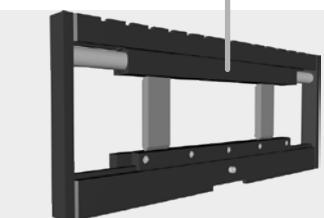
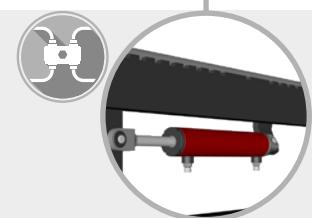
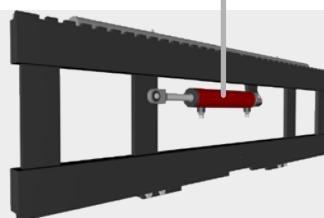
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 20.

References on table are related to standard attachments.
For special or customised version see options at page 20.
For hydraulic connection position see detail below.



Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 20.

References on table are related to standard attachments.
For special or customised version see options at page 20.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



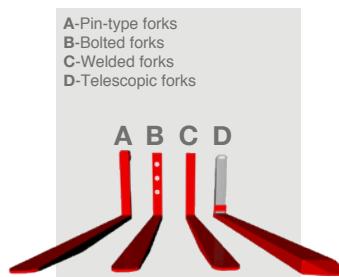
OIL FLOW RATE

TYPE	ISO 2328 FEM	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
209	ISO2	5	15	10
109	ISO3	10	20	15
108	ISO2	5	15	10
108	ISO3	10	20	15
108	ISO4	12	25	18
122	ISO2	5	15	10
122	ISO3	10	20	15
122	ISO4	12	25	18



SPECIAL EQUIPMENT

Brackets can be realized for the integral models (122), upon submission of construction drawings from the client.



Sideshifts with special width and/or stroke can be provided on request.

Forks with any section and length can be provided on request.



Load backrest of various widths and heights are available on request.



ACCESSORIES

Pipes and fitting kit
(for each hydraulic function) -

Quick release hoses couplings kit
(for each hydraulic function) -

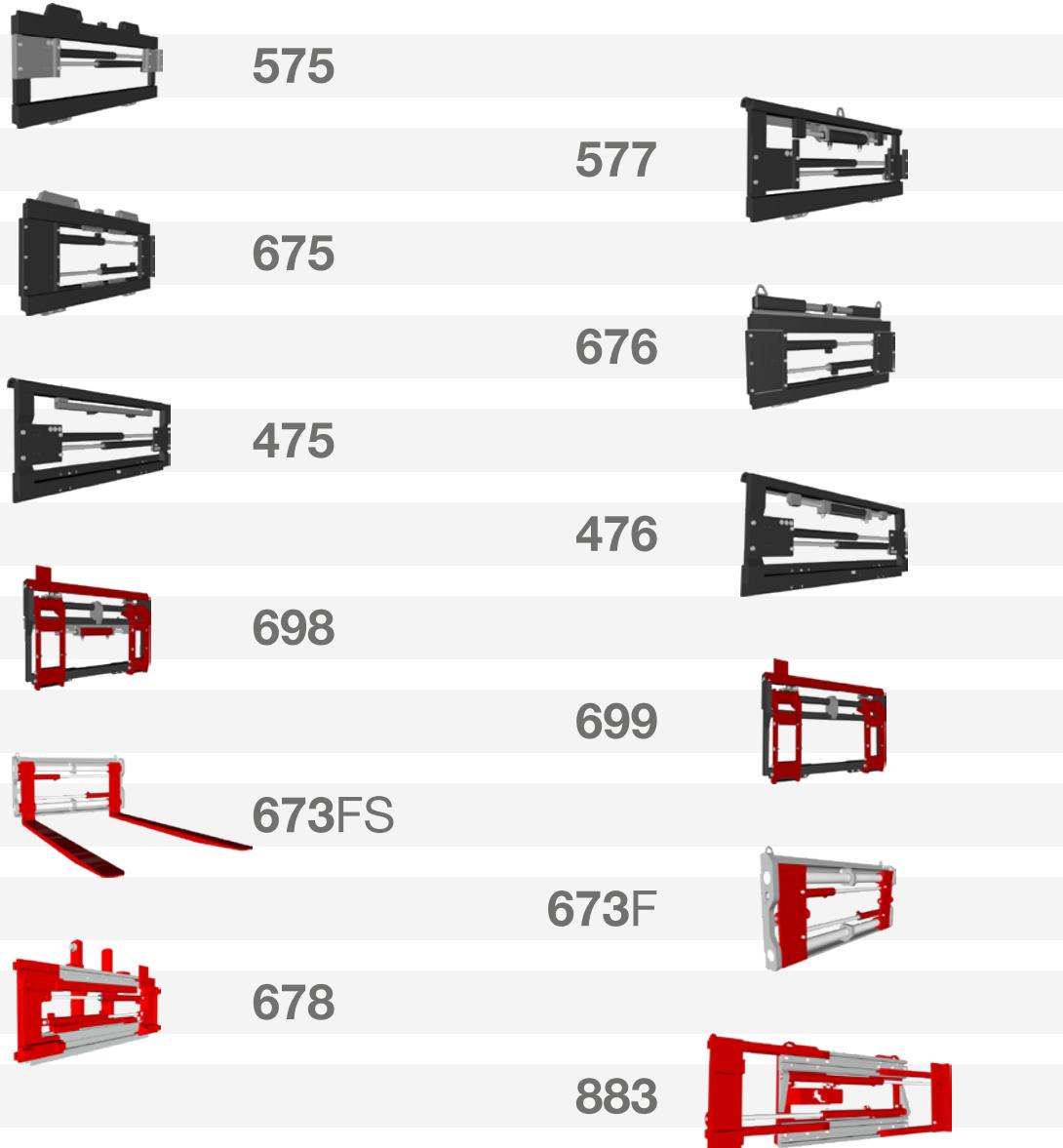
Pressure gauge -

Bronze wear pads -

Quick release hooks -

Drilling for load backrest -





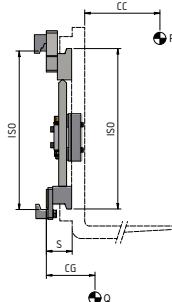
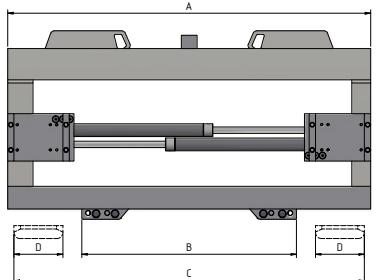
3

Fork Positioners

- 3.1 575** [Fork Positioner](#) [Pag. 24](#)
- 3.2 577** [Fork Positioner with Integral Sideshift](#) [Pag. 25](#)
- 3.3 675** [Fork Positioner](#) [Pag. 26](#)
- 3.4 676** [Fork Positioner with Integral Sideshift](#) [Pag. 27](#)
- 3.5 475** [Fork Positioner](#) [Pag. 28](#)
- 3.6 476** [Fork Positioner with Integral Sideshift](#) [Pag. 29](#)
- 3.7 698** [Pin Type Fork Positioner for FEM Forks with Integral Sideshift](#) [Pag. 30](#)
- 3.8 699** [Pin Type Fork Positioner for FEM Forks](#) [Pag. 31](#)
- 3.9 673FS** [Double Pin Type Fork Positioner with Welded Forks](#) [Pag. 32](#)
- 3.10 673F** [Double Pin Type Fork Positioner for FEM Forks](#) [Pag. 33](#)
- 3.11 678** [Integrated Fork Positioner with Integral Sideshift](#) [Pag. 34](#)
- 3.12 883** [Wide Opening Fork Positioner](#) [Pag. 35](#)
- 3.13 Options & Special Equipment** [Pag. 36](#)

Fork Positioners are designed to regulate in a hydraulic way the distance between the forks, in order to adapt to the different dimensions of the loads. They avoid the annoying operations of moving the forks manually, which is hard in the case of longer forks with significant weight.

575 FORK POSITIONER



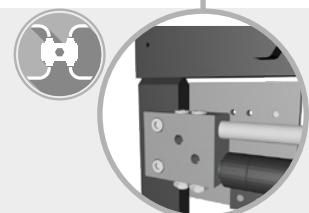
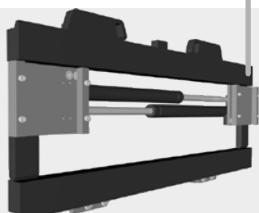
Model 575, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE C MIN - mm C MAX - mm	FORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
18LFA2C0021	2500	500	II	970	720	340 920	130	70	37	88
18LFA2C0022	2500	500	II	1040	720	340 990	130	70	38	93
18LFA2C0023	2500	500	II	1150	720	340 1100	130	70	40	99
18LLL3C0011	5000	500	III	1150	860	380 1100	150	80	44	141
18LLL3C0013	5000	500	III	1250	860	380 1200	150	80	45	150
18LLL3C0014	5000	500	III	1350	860	380 1300	150	80	46	160

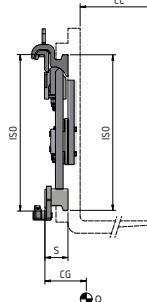
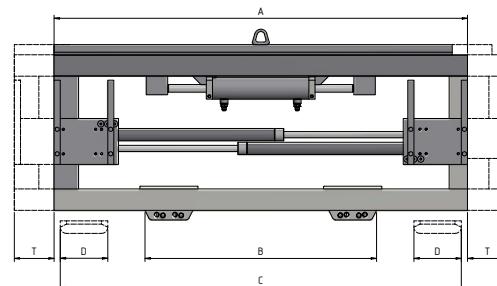


Hydraulic functions required: 1.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



577 FORK POSITIONER WITH INTEGRAL SIDESHIFT



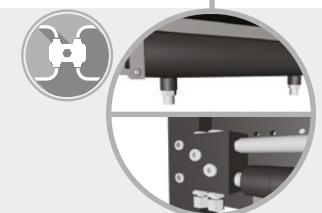
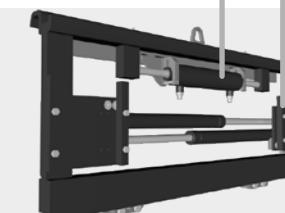
Model 577, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE C MIN - mm C MAX - mm	FORKS WIDTH D - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
18PFA2C2014	2500	500	II	970	720	340 920	130	100	62	30	80
18PFA2C2013	2500	500	II	1040	720	340 990	130	100	62	32	85
18PFA2C2015	2500	500	II	1150	720	340 1100	130	100	62	34	90
18PLL3C2010	5000	500	III	1150	860	380 1100	150	100	75	40	130
18PLL3C2015	5000	500	III	1250	860	380 1200	150	100	75	41	140
18PLL3C2016	5000	500	III	1350	950	380 1300	150	100	75	42	150



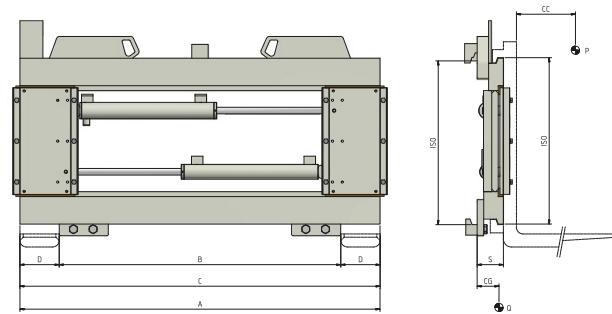
Hydraulic functions required: 2.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



675

FORK POSITIONER



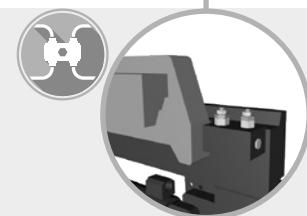
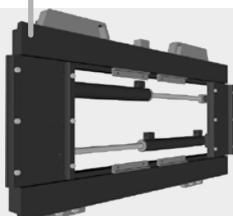
Model 675 guarantees a constant and synchronized forks movement thanks to the differentiated cylinders. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE C MIN - mm C MAX - mm	ORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
17SLL3C0004	5000	500	III	1500	880	430 1500	150	80	46	171
17SLL3C0005	5000	500	III	1560	950	430 1560	150	80	46	174
17SLL3C0006	5000	500	III	1660	1050	430 1660	150	80	46	180
17SR04C0001	8000	600	IV	1420	1200	560 1420	200	94	49	280
17SR04C0005	8000	600	IV	1600	1440	560 1600	200	94	50	339
17SR04C0003	8000	600	IV	1800	1500	560 1800	200	94	50	350
17SR04C0004	8000	600	IV	2000	1500	560 2000	200	94	50	375



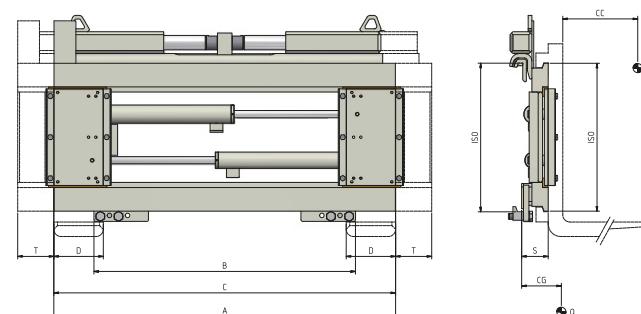
Hydraulic functions required: 1.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



676

FORK POSITIONER WITH INTEGRAL SIDESHIFT



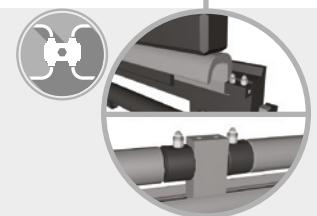
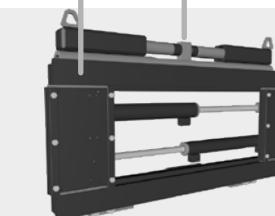
Model 676 guarantees a constant and synchronized forks movement thanks to the differentiated cylinders. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE C MIN - mm C MAX - mm	ORKS WIDTH D - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
17TLL3C2004	5000	500	III	1500	880	430 1500	150	100	80	46	202
17TLL3C2005	5000	500	III	1560	950	430 1560	150	100	80	46	205
17TLL3C2006	5000	500	III	1660	1050	430 1660	150	100	80	46	210
17TR04C2009	8000	600	IV	1420	1200	560 1420	200	100	94	49	313
17TR04C2013	8000	600	IV	1600	1440	560 1600	200	100	94	50	374
17TR04C2011	8000	600	IV	1800	1500	560 1800	200	100	94	50	383
17TR04C2012	8000	600	IV	2000	1500	560 2000	200	150	94	50	409



Hydraulic functions required: 2.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

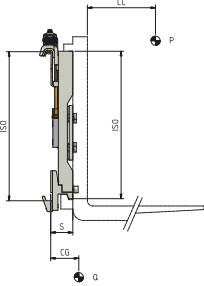
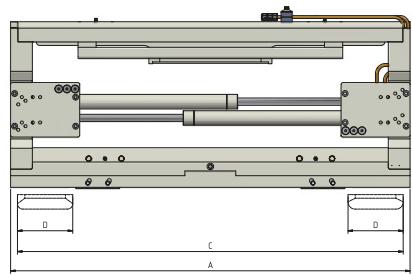
References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.





475

FORK POSITIONER

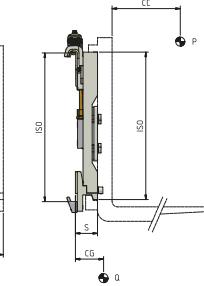


Model 475, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement and it's completely made of Aluminum. This material makes it perfect for food, chemical and pharmaceutical industry. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.



476

FORK POSITIONER WITH INTEGRAL SIDESHIFT



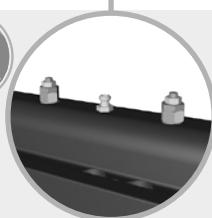
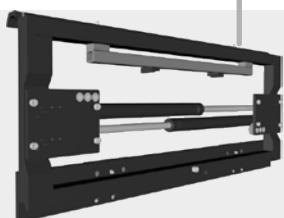
Model 476, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement and it's completely made of Aluminum. This material makes it perfect for food, chemical and pharmaceutical industry. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
18EFA2C0001	2500	500	II	920	350	880	130	61	30	28
18EFA2C0002	2500	500	II	970	350	930	130	61	30	30
18EFA2C0005	2500	500	II	1040	350	1000	130	61	31	33
18EFA2C0006	2500	500	II	1100	350	1060	130	61	32	35
18EFA2C0007	2500	500	II	1150	350	1110	130	61	32	38
18ELL3C0001	5000	500	III	1020	350	940	150	70	31	51
18ELL3C0002	5000	500	III	1070	350	990	150	70	32	52
18ELL3C0003	5000	500	III	1150	350	1070	150	70	33	54
18ELL3C0004	5000	500	III	1170	350	1090	150	70	35	55
18ELL3C0005	5000	500	III	1250	350	1170	150	70	35	58
18ELL3C0006	5000	500	III	1350	350	1270	150	70	37	60



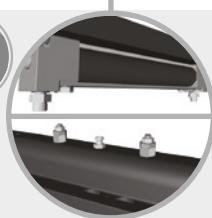
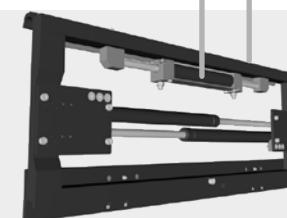
Hydraulic functions required: 1.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

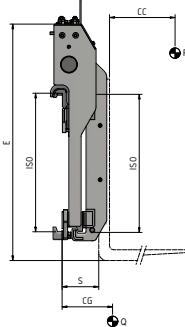
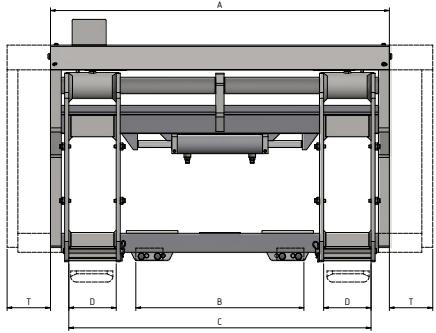
References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



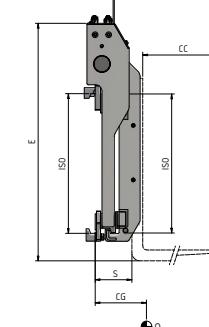
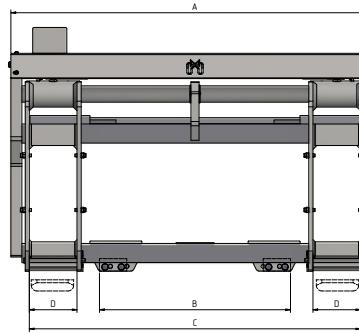
Hydraulic functions required: 2.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



698PIN TYPE FORK POSITIONER
FOR FEM FORKS WITH INTEGRAL SIDESHIFT

Model 698, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement. These attachments are perfect for the hardest uses thanks to the pockets sliding on pin. Adjustable plates allow to use forks with different sections size. Customised versions can be manufactured on request, with Pin Type Forks and check valve for barrel grabbing. A pressure relief valve is supplied as standard on each model.

699PIN TYPE FORK POSITIONER
FOR FEM FORKS

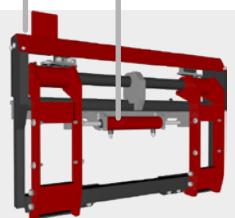
Model 699, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized forks movement. These attachments are perfect for the hardest uses thanks to the pockets sliding on pin. Adjustable plates allow to use forks with different sections size. Customised versions can be manufactured on request, with Pin Type Forks and check valve for barrel grabbing. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE C MIN - mm	POCKET WIDTH C MAX - mm	HEIGHT D - mm	STROKE E - mm	THICKNESS T - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
18HFA2C2021	2500	500	II	980	600	365	875	145	735	± 100	105	54	150
18HFA2C2022	2500	500	II	1040	660	365	935	145	735	± 100	105	55	154
18HFA2C2023	2500	500	II	1150	770	365	1045	145	735	± 100	105	57	160
18HFA2C2024	2500	500	II	1300	920	365	1195	145	735	± 100	105	57	167
18HH23C2007	3000	500	III	1150	770	425	1045	175	835	± 100	125	63	195
18HH23C2003	3000	500	III	1250	870	425	1145	175	835	± 100	125	63	199
18HH23C2004	3000	500	III	1350	970	425	1245	175	835	± 100	125	65	205
18HLL3C2013	5000	500	III	1250	870	435	1115	175	835	± 100	125	67	226
18HLL3C2014	5000	500	III	1350	970	435	1215	175	835	± 100	125	68	233
18HLL3C2015	5000	500	III	1550	1170	435	1415	175	835	± 100	125	69	253
18HLM4C2007	5000	600	IV	1350	970	480	1250	210	1035	± 100	145	198	265
18HLM4C2008	5000	600	IV	1550	1170	480	1450	210	1035	± 100	145	205	290
18HLM4C2009	5000	600	IV	1660	1280	480	1560	210	1035	± 100	145	211	300
18HLM4C2010	5000	600	IV	1800	1460	480	1700	210	1035	± 100	145	221	325



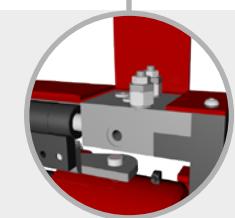
Hydraulic functions required: 2.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



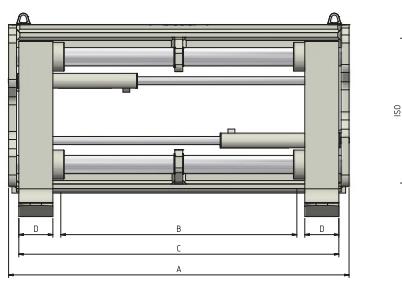
Hydraulic functions required: 1.
Maximum working pressure: 110 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



673FS

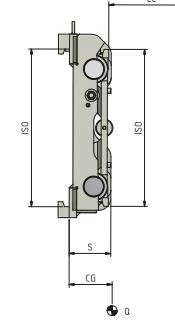
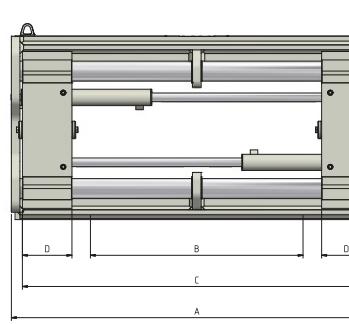
DOUBLE PIN TYPE FORK POSITIONER
WITH WELDED FORKS



Model 673FS guarantees a constant and synchronized forks movement thanks to the differentiated cylinders. These attachments are perfect for the hardest uses because of the pockets sliding on pin. Customised versions can be manufactured on request with different section sizes forks and check valve for barrel grabbing. A pressure relief valve is supplied as standard on each model.

673F

DOUBLE PIN TYPE FORK POSITIONER
FOR FEM FORKS



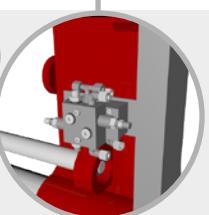
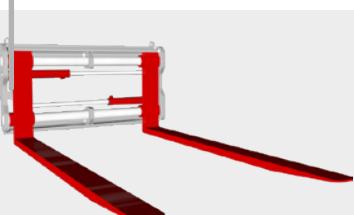
Model 673F guarantees a constant and synchronized forks movement thanks to the differentiated cylinders. These attachments are perfect for the hardest uses because of the pockets sliding on pin. Customised versions can be manufactured on request, with Bolted Forks and check valve for barrel grabbing. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	EXTERNAL HOOKS B - mm	OPENING RANGE		FORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						C MIN - mm	C MAX - mm				
18YFA2A0001	2500	500	II	980	750	360	930	120x40x1200	157	78	240
18YFA2A0002	2500	500	II	1040	750	360	990	120x40x1200	157	76	245
18YFA2A0003	2500	500	II	1100	750	360	1050	120x40x1200	157	74	250
18YFA2A0004	2500	500	II	1150	750	360	1100	120x40x1200	157	71	260
18YLL3A0001	5000	500	III	1150	880	400	1080	150x50x1200	192	265	440
18YLL3A0002	5000	500	III	1250	880	400	1180	150x50x1200	192	262	450
18YLL3A0003	5000	500	III	1350	1000	400	1280	150x50x1200	192	260	500
18YLL3A0004	5000	500	III	1560	1210	400	1490	150x50x1200	192	253	620
18YLL3A0005	5000	500	III	1660	1210	400	1590	150x50x1200	192	249	700
18YLM4A0004	5000	600	IV	1200	900	550	1110	150x60x1200	224	259	560
18YLM4A0005	5000	600	IV	1400	1100	550	1310	150x60x1200	224	256	620
18YR04A0001	8000	600	IV	1740	1450	550	1650	200x60x1200	224	248	730
18YR04A0002	8000	600	IV	1800	1500	550	1710	200x60x1200	224	247	760
18YR04A0003	8000	600	IV	2000	1700	550	1910	200x60x1200	224	243	820
18YR14A0001	8000	900	IV	2200	2150	550	2110	200x70x1200	234	240	880
18YR14A0002	8000	900	IV	2400	2150	550	2310	200x70x1200	234	237	900



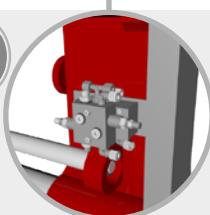
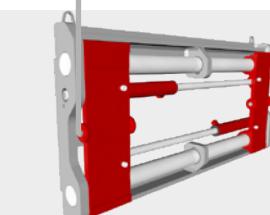
Hydraulic functions required: 1.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.

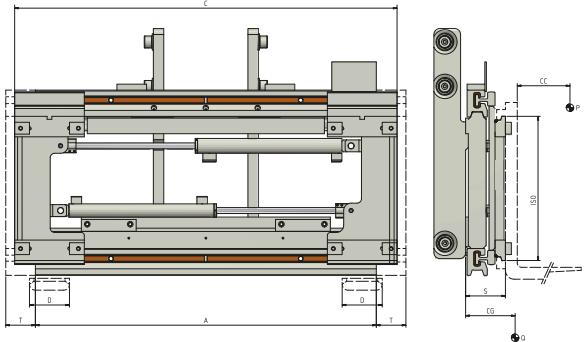


Hydraulic functions required: 1.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



678 INTEGRATED FORK POSITIONER WITH INTEGRAL SIDESHIFT



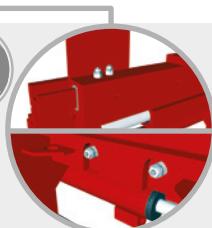
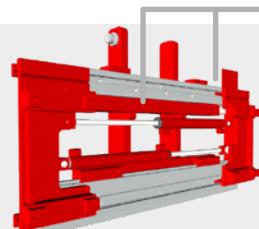
Model **678** guarantees a constant and synchronized forks movement thanks to the differentiated cylinders and it can be integrated into the mast, replacing the original fork carriage, reducing the thickness and increasing at the same time the forklift residual capacity. Models with FEM Forks Connections, Welded Forks, Bolt-on Forks, without sideshift or with check valve for barrel grabbing are also available.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS WIDTH D - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm					
17UFA2A2001	2500	500	II	980	490	1120	130	100	134	65	195
17UFA2A2002	2500	500	II	1040	490	1180	130	100	134	65	200
17UFA2A2003	2500	500	II	1100	490	1240	130	100	134	66	210
17UFA2A2005	2500	500	II	1150	490	1290	130	100	134	66	217
17UFA2A2006	2500	500	II	1350	490	1490	130	100	134	67	242
17UH23A2001	3000	500	III	1150	490	1290	130	100	145	70	225
17UH23A2002	3000	500	III	1350	490	1490	130	100	145	71	260
17UH23A2003	3000	500	III	1550	490	1690	130	100	145	72	285
17UH23A2004	3000	500	III	1650	490	1790	130	100	145	72	300
17ULL3A2004	5000	500	III	1150	490	1290	150	100	170	79	335
17ULL3A2001	5000	500	III	1350	490	1490	150	100	170	80	360
17ULL3A2002	5000	500	III	1550	490	1690	150	100	170	81	395
17ULL3A2003	5000	500	III	1650	490	1790	150	100	170	82	410

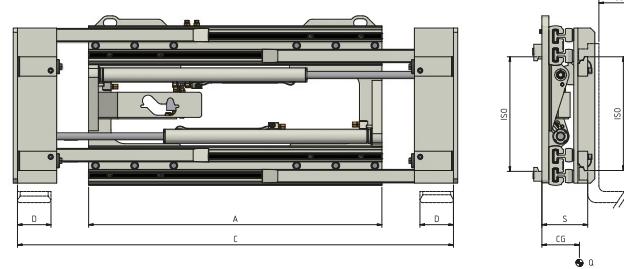


Hydraulic functions required: 2.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



883 WIDE OPENING FORK POSITIONER



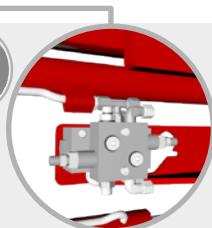
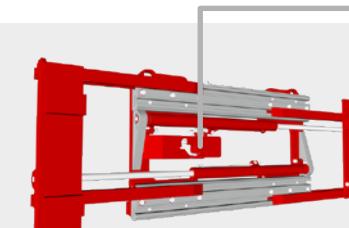
Model **883** allows a forks opening range that exceed the structure of the attachment itself. These attachments are suitable for voluminous loads handling (as planks, tubes, panels, plates, etc.), even when they're not palletized. Models with Sideshifting Valve, Semi-Integral Sideshift, Welded Forks, Bolt-on Forks or with check valve for barrel grabbing are also available on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
17PFA2C0024	2400	500	II	950	560	1750	130	164	57	180
17PFA2C0025	2400	500	II	1050	560	1850	130	164	63	190
17PH23C0002	3000	500	III	1050	560	1850	130	174	65	200
17PH23C0003	3000	500	III	1150	560	1950	130	174	67	210
17PLL3C0031	4500	500	III	1050	560	1840	150	202	71	285
17PLL3C0035	4500	500	III	1250	560	2040	150	202	72	300
17PLL3C0033	4500	500	III	1350	560	2140	150	202	75	330
17PKR4C0001	4500	600	IV	1200	560	1960	150	240	95	590
17PKR4C0002	4500	600	IV	1300	560	2060	150	240	100	600
17PKR4C0003	4500	600	IV	1400	560	2160	150	240	102	610
17PQ54C0001	7000	600	IV	1600	560	2360	200	240	105	625
17PQ54C0006	7000	600	IV	1800	560	2560	200	240	110	640



Hydraulic functions required: 1.
Maximum working pressure: 80 bar.
Oil flow rate: see table at page 36.

References on table are related to standard attachments.
For special or customised version see options at page 36.
For hydraulic connection position see detail below.



3.13

OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
575	all	2	8	5
577	all	2/5	8/15	5/10
675	17SLL...	15	25	20
675	17SR0...	35	60	45
676	17TLL...	15/10	25/20	20/15
676	17TR0...	35/12	60/25	45/18
475	all	2	8	5
476	ISO2	5	15	10
476	ISO3	10	20	15
698	ISO2	5	15	10
698	ISO3	10	20	15
698	ISO4	10	20	15
699	ISO2	5	15	10
699	ISO3	10	20	15
699	ISO4	10	20	15
673FS	ISO2	10	20	15
673FS	ISO3	15	25	20
673FS	18YR0...	30	60	40
673FS	18YR1...	35	60	45
673F	ISO2	10	20	15
673F	ISO3	15	25	20
673F	18ZR0...	30	60	40
673F	18ZR1...	35	60	45
678	17UFA...	10/5	20/15	15/10
678	17UH2...	15/5	25/15	20/10
883	17PFA...	10	20	15
883	17PH2...	15	25	20
883	17PLL...	15	25	20
883	17PKR...	30	60	45
883	17PQ5...	35	60	45

In **bold** the values referred to the sideshift capacities.



ACCESSORIES

Pipes and fitting kit (for each hydraulic function)	-
Quick release hose couplings kit (for each hydraulic function)	-
Pressure gauge	-
Bronze wear pads	-
Quick release hook	-

Drilling for load backrest

On request we can produce the attachments with welded or bolted forks, or equipped with a pair of telescopic forks.
673F

Solenoid valve two functions with electric kit (specify voltage)

On request we can produce the attachments with FEM hook, without sideshift, with welded or bolted forks, or equipped with a pair of telescopic forks.
678

Pressure relief valve (supplied as standard, except for 475 e 476)

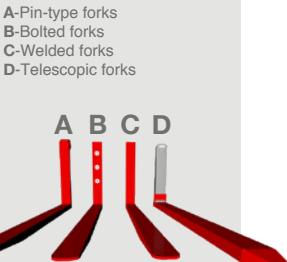
Check valve for barrel grabbing

Sideshifting valve (for models 883 / 673FS / 673F)

Semi-integral sideshift ISO2 for models ISO3 883 / 673FS / 673F) ISO4

Automatic greasing system for semi-integral sideshift

Bolt-on forks ISO2 (for model 673FS) ISO3 ISO4



SPECIAL EQUIPMENT

Forks positioners with special width and/or stroke can be provided on request.

Forks with any section and lenght can be provided on request.



Load backrest of various widths and heights are available on request.

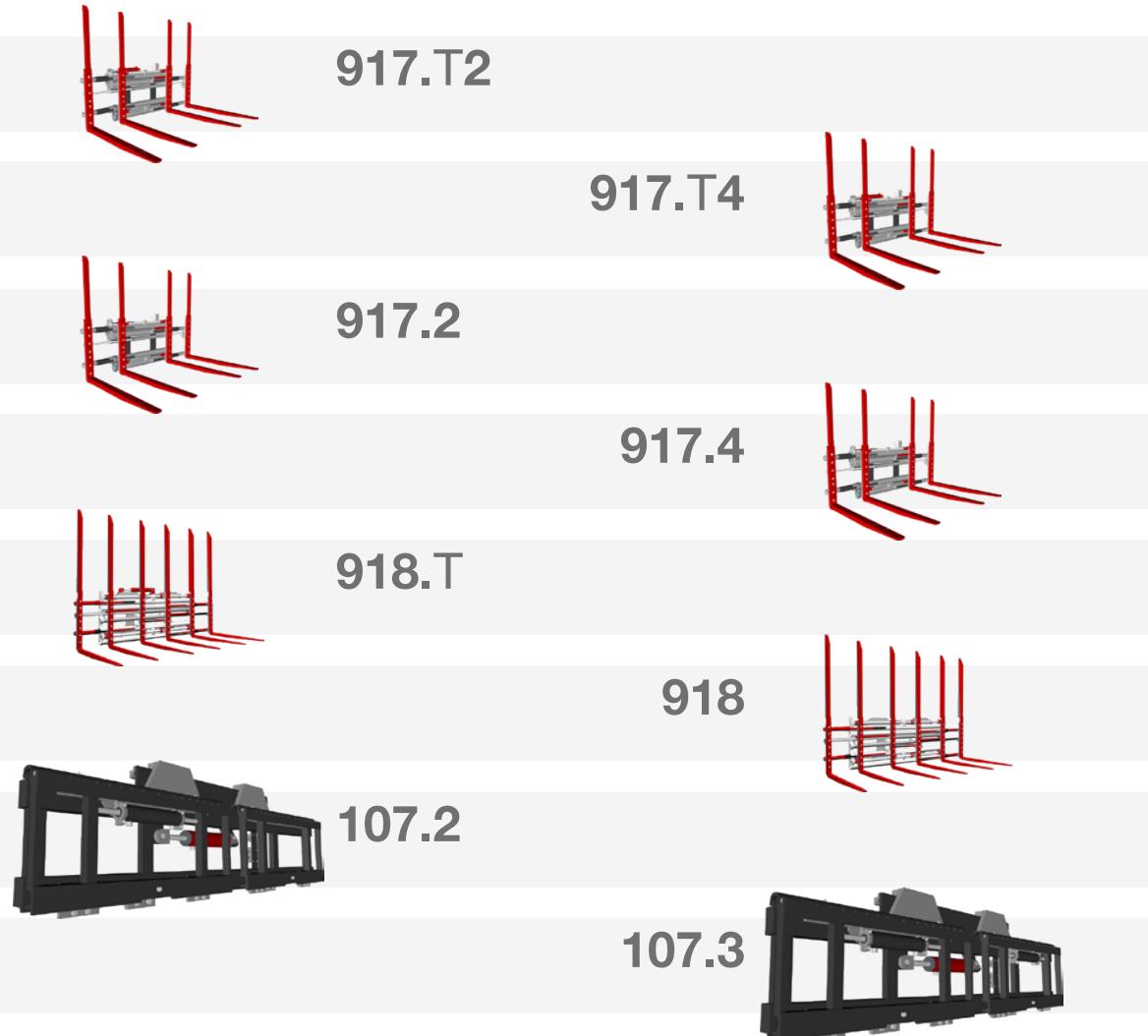


On request we can produce the attachments with pin type forks or equipped with a pair of telescopic forks.
698

On request we can produce the attachments with pin type forks or equipped with a pair of telescopic forks.
699

On request we can produce attachments with welded or bolted forks, or equipped with a pair of telescopic forks.
883





4

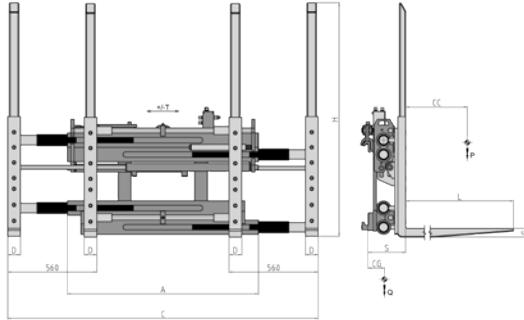
Multi Pallet Handlers

- 4.1 **917.T2** [Double Fork Positioner with Semi-Integral Sideshift for 1-2 Pallet](#) [Pag. 40](#)
- 4.2 **917.T4** [Double Fork Positioner with Semi-Integral Sideshift for 1-2-4 Pallet](#) [Pag. 41](#)
- 4.3 **917.2** [Double Fork Positioner for 1-2 Pallet](#) [Pag. 42](#)
- 4.4 **917.4** [Double Fork Positioner for 1-2-4 Pallet](#) [Pag. 43](#)
- 4.5 **918.T** [Triple Fork Positioner with Semi-Integral Sideshift](#) [Pag. 44](#)
- 4.6 **918** [Triple Fork Positioner](#) [Pag. 45](#)
- 4.7 **107.2** [Twin Sideshift](#) [Pag. 46](#)
- 4.8 **107.3** [Triple Sideshift](#) [Pag. 47](#)
- 4.9 **Options & Special Equipment** [Pag. 48](#)

The **Multi Pallets Handlers** can handle multiple pallets at the same time. Mostly used for trucks, wagons or containers load/unload, for the fact that they help to accelerate the operations and consequently to reduce consumption and costs. Suitable for logistics industries, glassmakers, beverage industries and pallet manufacturers companies.

917.T2

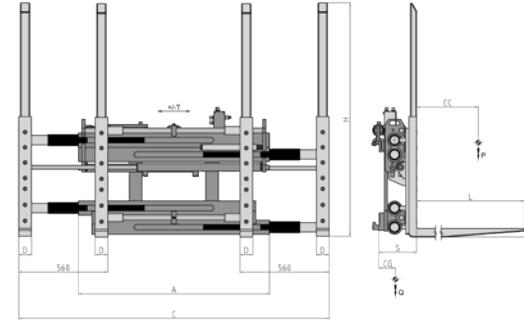
DOUBLE FORK POSITIONER
WITH SEMI-INTEGRAL SIDESHIFT FOR 1-2 PALLET



Model 917.T2 allows to move one or two pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace. Semi-integral sideshift facilitates even more the handle of the pallets.

917.T4

DOUBLE FORK POSITIONER
WITH SEMI-INTEGRAL SIDESHIFT FOR 1-2-4 PALLET



Model 917.T4 allows to move one, two pallets side by side, or four pallets in double depth, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace. Semi-integral sideshift facilitates even more the handle of the pallets.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS DxGxLmm	STROKE H mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
					C MIN - mm	C MAX - mm						
15REA2A1004	2200	600	II	1200	560	1940	80x40x1150	1460	100	180	205	480
15RFB2A1005	2500	600	II	1200	560	1940	80x50x1150	1460	100	190	220	580
15RFB3A1005	2600	600	III	1200	560	1940	80x50x1150	1460	100	190	210	550
15RHF3A1005	3200	600	III	1200	560	1940	80x60x1150	1460	100	200	220	635
15RJV3A1003	4000	600	III	1400	560	1940	80x60x1150	1460	100	200	195	670



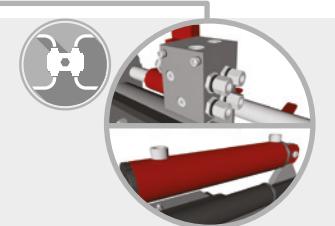
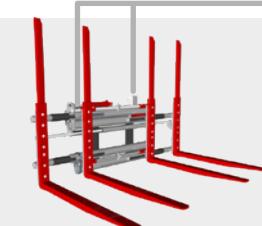
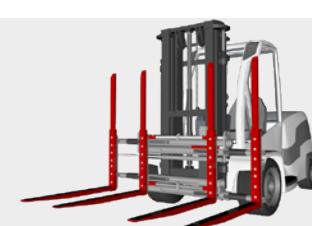
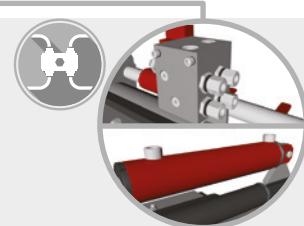
Hydraulic functions required: 2.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

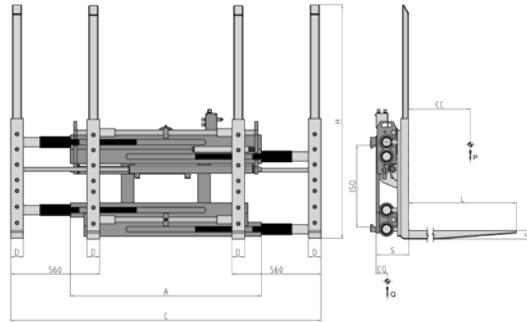
References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



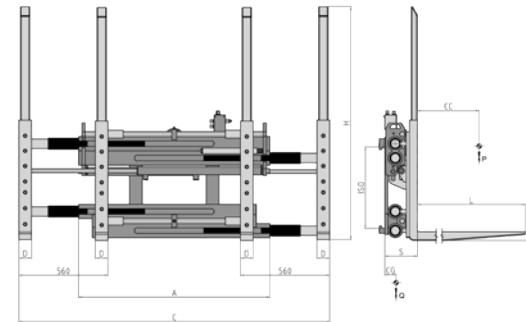
Hydraulic functions required: 2.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



917.2DOUBLE FORK POSITIONER
FOR 1-2 PALLET

Model 917.2 allows to move one or two pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

917.4DOUBLE FORK POSITIONER
FOR 1-2-4 PALLET

Model 917.4 allows to move one, two pallets side by side, or four pallets in double depth, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
					C MIN - mm	C MAX - mm					
15REA2A0004	2200	600	II	1200	560	1940	80x40x1150	1460	154	190	450
15RFB2A0005	2500	600	II	1200	560	1940	80x50x1150	1460	164	205	550
15RFB3A0005	2600	600	III	1200	560	1940	80x50x1150	1460	164	200	520
15RHF3A0005	3200	600	III	1200	560	1940	80x60x1150	1460	174	205	575
15RJV3A0003	4000	600	III	1400	560	1940	80x60x1150	1460	174	190	610



REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
					C MIN - mm	C MAX - mm					
15RFC3A0001	2500	1200	III	1400	560	1940	80x60x2400	1460	200	480	980
15RJ64A0001	3600	1200	IV	1400	560	1940	80x70x2400	1460	210	435	1250
15RKY4A0001	4600	1200	IV	1400	560	1940	80x70x2400	1460	210	445	1310



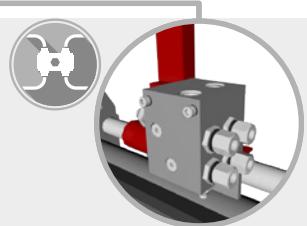
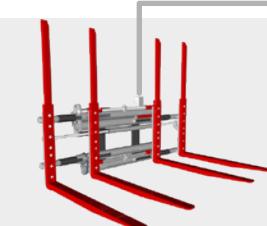
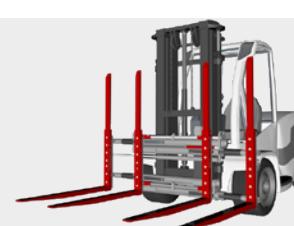
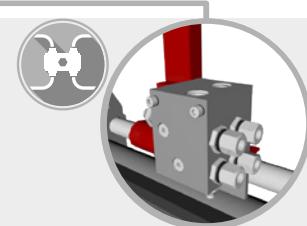
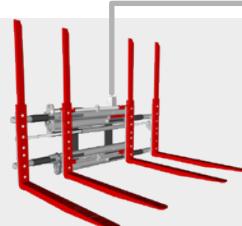
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



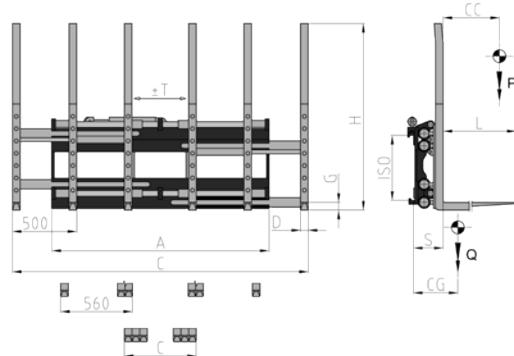
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



918.T

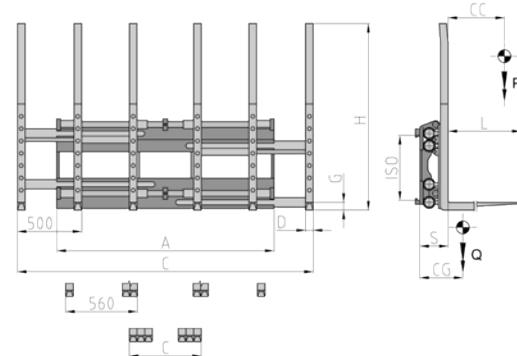
TRIPLE FORK POSITIONER WITH SEMI-INTEGRAL SIDESHIFT



Model 918.T allows to move one, two or three pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Six Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace. Semi-integral sideshift facilitates even more the handle of the pallets.

918

TRIPLE FORK POSITIONER



Model 918 allows to move one, two or three pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Six Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS	STROKE	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm					
15SH33A1001	3000	600	III	1630	560	2285	60x50x1150	1460	100	194	235 690
15SH33A1002	3000	600	III	1795	560	2450	60x50x1150	1460	100	194	233 730
15SJ53A1001	3600	600	III	1630	560	2285	60x60x1150	1460	100	204	240 785
15SJ53A1002	3600	600	III	1795	560	2450	60x60x1150	1460	100	204	237 810
15SJ53A1003	3600	600	III	2285	560	2940	60x60x1150	1460	100	204	225 930



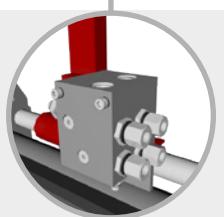
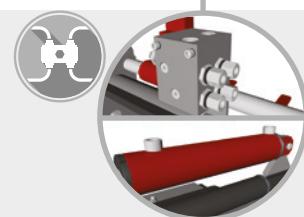
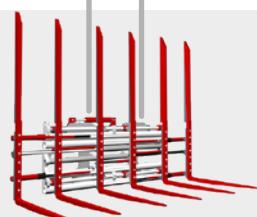
Hydraulic functions required: 2.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



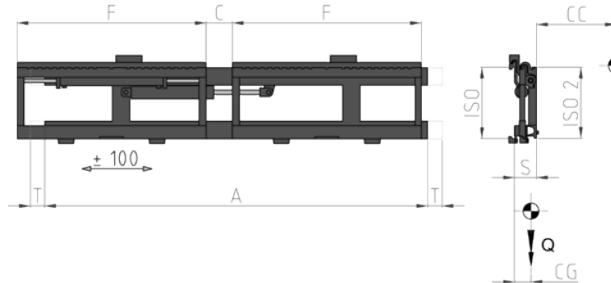
Hydraulic functions required: 1.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



107.2

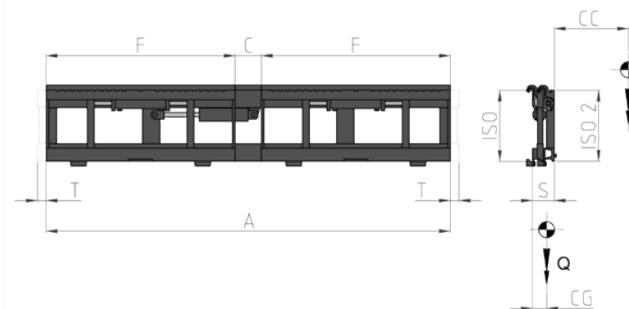
TWIN SIDESHIFT



Twin Sideshift allows to move multiple pallets simultaneously. Model **107.2** is made of a back shifting structure, where in the front, a fixed carriage and an additional shifting carriage are connected. This permits the moving of two or four pallets at the same time, it depends on the type of forks used.

107.3

TRIPLE SIDESHIFT



Triple Sideshift allows to move multiple pallets simultaneously. Model **107.3** is made of a back shifting structure, where in the front, two shifting carriage are connected. This permits the moving of two or four pallets at the same time, it depends on the type of forks used.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH		DISTANCE		STROKE	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
				A - mm	F - mm	C MIN - mm	C MAX - mm				
15GFA2C3001	2500	500	II	1610	800	10	160	100	125	67	234
15GFA2C3002	2500	500	II	1980	980	10	220	100	125	68	276
15GHY7C3002	3500	500	III	1980	980	20	220	100	144	77	382
15GHY7C3003	3500	500	III	2080	980	100	300	100	144	80	390

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH		DISTANCE		STROKE	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
				A - mm	F - mm	C MIN - mm	C MAX - mm				
15AFA2C0001	2500	500	II	1610	800	10	310	100	125	68	239
15AFA2C0002	2500	500	II	2100	980	20	420	100	125	68	286
15AHY7C0001	3500	500	III	2100	980	20	420	100	144	78	400
15AHY7C0002	3500	500	III	2180	980	100	500	100	144	80	408



Hydraulic functions required: 2.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



Hydraulic functions required: 2.
Maximum working pressure: 200 bar.
Oil flow rate: see table at page 48.

References on table are related to standard attachments.
For special or customised version see options at page 48.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
917.T2	all	30/ 10	50/ 20	45/15
917.T4	ISO3	30/ 10	50/ 20	45/15
917.T4	ISO4	30/ 15	50/ 25	45/ 20
917.2	all	30	50	45
917.4	ISO3	30	50	45
917.4	ISO4	30	50	45
918.T	all	30/ 15	50/ 25	45/ 20
918	all	30	50	45
107.2	all	10	20	15
107.3	all	10	20	15

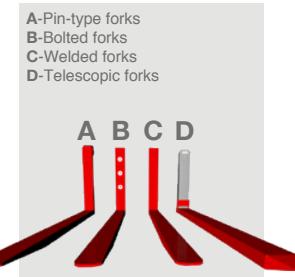
In **bold** the values referred to the sideshift capacities.



SPECIAL EQUIPMENT

Forks positioners with special width and/or stroke can be provided on request.

Forks with any section and lenght can be provided on request.



Load backrest of various widths and heights are available on request.



We can provide multi pallet handlers combined with load stabilizers on request. The carriage width and opening range of the load stabilizer are determined according to customers' specifications.



ACCESSORIES

Pipes and fitting kit
(for each hydraulic function) -

Quick release hoses couplings kit
(for each hydraulic function) -

Pressure gauge -

Bronze wear pads -

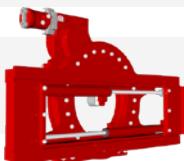
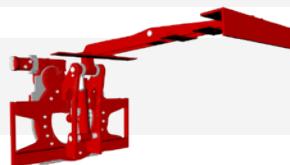
Quick release hooks -

Solenoid valve two functions
with electric kit (specify voltage) -

Pressure relief valve -

Automatic greasing system for
semi-integral sideshift -



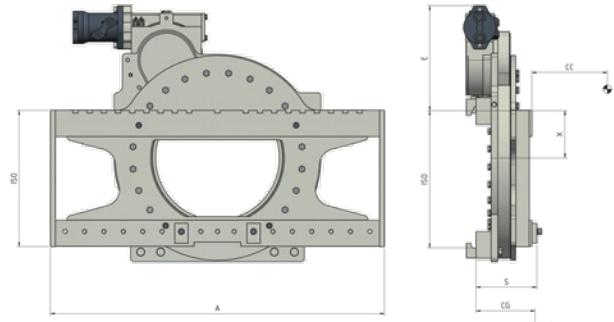
**301****301RFI****213****219****5****Rotators**

-
- | | | |
|-----|---|-------------------------|
| 5.1 | 301 <u>360° Rotator</u> | Pag. 52 |
| 5.2 | 301RFI <u>360° Rotator with Integral Fork Positioner</u> | Pag. 53 |
| 5.3 | 213 <u>360° Box Rotator with Upper Restraint Arm</u> | Pag. 54 |
| 5.4 | 219 <u>360° Box Rotator with L-Shaped Arm</u> | Pag. 55 |
| 5.5 | <u>Options & Special Equipment</u> | Pag. 56 |

Rotators are designed to rotate the load 360° non-stop both ways. 360° rotation comes from one or two hydraulic motors.

301

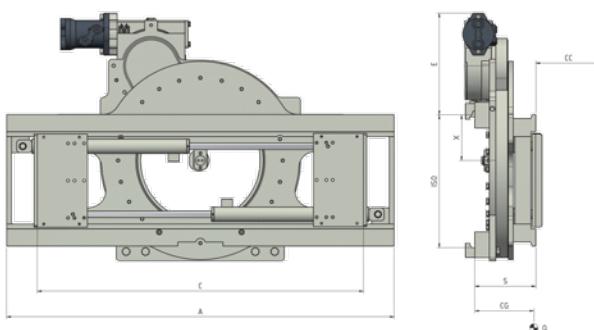
360° ROTATORS



Model 301 allows to rotate loads 360° non-stop both ways. Forks with reinforced lower hooks are required to move the overturned load. Different versions with Pin Type Forks are also available. Special versions can be realized for foundries, agricultural or fishing industries on request.

301RFI

360° ROTATORS
WITH INTEGRAL FORK POSITIONER



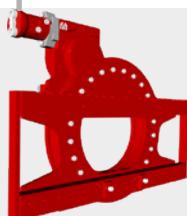
Model 301RFI allows to rotate loads 360° non-stop both ways. It can hydraulically regulates the distance between the forks, adapting to loads different sizes. Forks with reinforced lower hooks are required to move the overturned load. Different versions with Pin Type Forks are also available. Special versions can be realized for foundries, agricultural or fishing industries on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	HEIGHT E - mm	OIL VOLUME LITRES/MIN	TORQUE Nm P 100 bar	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
23EC42C0002	1600	500	II	1000	329	8.1	6700	159	94	180
23EE82C0002	2200	500	II	1100	329	8.1	6700	165	95	198
23EH23C0002	3000	500	III	1150	369	8.8	7400	194	110	330
23EHS3C0002	3400	500	III	1270	369	8.8	12300	194	111	340
23EK63C0024	4200	500	III	1400	369	8.8	12300	194	113	342
23EL83C0002	4800	500	III	1660	369	8.8	12300	194	113	352
23EKR4C0001	4500	600	IV	1350	290	12	13000	205	90	595
23ELM4C0001	5000	600	IV	1600	290	12	13000	205	95	630
23END4C0001	5500	600	IV	1800	290	14	14100	205	98	695
23EQ54C0001	7000	600	IV	2000	290	18	16200	245	115	800
23ER04C0002	8000	600	IV	2000	290	22	24200	245	115	828
23ERQ5C0001	10000	600	V	2000	380	26	29500	265	125	1590



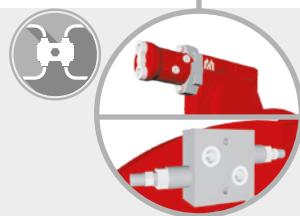
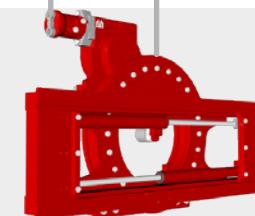
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 56.

References on table are related to standard attachments.
For special or customised version see options at page 56.
For hydraulic connection position see detail below.

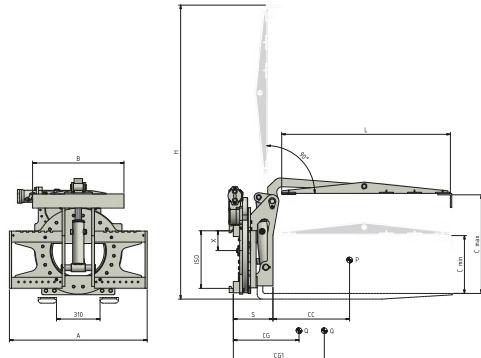


Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 56.

References on table are related to standard attachments.
For special or customised version see options at page 56.
For hydraulic connection position see detail below.

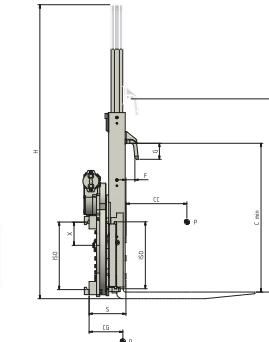


213 360° BOX ROTATOR WITH UPPER RESTRAINT ARM



Model 213 is recommended for emptying boxes in any applications (for junk, recycling, or in the agricultural industries), thanks to the special box blocking system during rotation.

219 360° BOX ROTATOR WITH L-SHAPED ARM



Model 219 is recommended for emptying boxes in any applications (for junk, recycling, or in the agricultural industries), thanks to the special box blocking system during rotation.

REFERENCE	CLOSED ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328 FEM	CARRIAGE WIDTH	HEIGHT FROM FORKS LEVEL	BOX HEIGHT FROM FORKS LEVEL	PLATE LENGTH	THICKNESS	CENTER OF GRAVITY CG - mm	CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg
	P - Kg	CC - mm		A - mm	H - mm	C MIN - mm	C MAX - mm	L - mm	S - mm	CG - mm	Q - Kg
25A342A0006	2500	500	II	980	1945	360	680	1175	320	175	245 275

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328 FEM	CARRIAGE WIDTH	HEIGHT FROM FORKS LEVEL	BOX HEIGHT FROM FORKS LEVEL	HOOK DIMENSION	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
	P - Kg	CC - mm		A - mm	H - mm	C MIN - mm	C MAX - mm	F x G x L mm	S - mm	CG - mm	Q - Kg
25C342A0013	2200	500	II	1000	1300	300	1000	55 x 100 x 500	225	150	310
25C342A0020	2200	500	II	1100	1300	300	1000	60 x 60 x 600	225	150	320
25C3Q3A0004	3000	500	III	1150	2100	300	1400	70 x 100 x 300	194	110	460



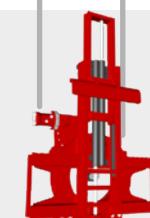
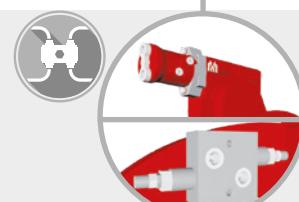
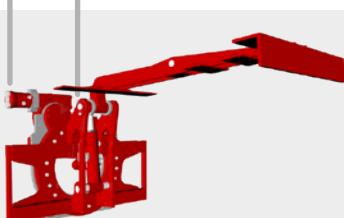
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 56.

References on table are related to standard attachments.
For special or customised version see options at page 56.
For hydraulic connection position see detail below.



Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 56.

References on table are related to standard attachments.
For special or customised version see options at page 56.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN	MAX	RECOMMENDED
		CAPACITY (l/min)	CAPACITY (l/min)	CAPACITY (l/min)
301	23EC4...	10	60	25
301	23EE8...	10	60	25
301	23EHS...	10	60	25
301	23EK6...	10	60	25
301	23EL8...	10	60	25
301	23ELM...	15	60	30
301	23END...	15	60	30
301	23EQ5...	15	60	35
301	23ER0...	15	60	35
301	23ERQ...	15	60	35
301RFI	23EC4...	15/10	60/35	35/25
301RFI	23EE8...	15/10	60/35	35/25
301RFI	23EH2...	15/10	60/35	35/25
301RFI	23EHS...	15/10	60/35	35/25
301RFI	23EK6...	15/10	60/35	35/25
301RFI	23EL8...	15/15	60/50	35/30
301RFI	23ELM...	15/15	60/50	35/30
301RFI	23END...	15/15	60/50	35/30
301RFI	23EQ5...	15/15	60/50	35/30
301RFI	23ER0...	15/15	60/50	35/30
213	25A34...	10/10	60/40	25/25
219	all	10/10	60/40	25/25

In **bold** the values referred to the capacities of those functions, which are different from the rotation.



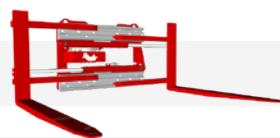
ACCESSORIES

Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Pressure gauge	-
Bronze wear pads	-
Quick release hooks	-
Drilling for load backrest	-
Solenoid valve two functions with electric kit (specify voltage)	-

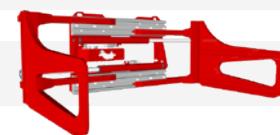
Pressure relief valve. -

Check valve for barrel grabbing	-	ISO2 ISO3 ISO4 ISO5
Sideshifting valve for models 301RFI with pin-type forks	-	ISO2 ISO3 ISO4 ISO5
Semi-integral sideshift	ISO2 ISO3 ISO4	-
Automatic greasing system for semi-integral sideshift	-	ISO2 ISO3 ISO4 ISO5
Mechanical block of rotation at 180°	-	
		
<h2>SPECIAL EQUIPMENT</h2>		
Forks positioners with special width and/or stroke can be provided on request.		
Special hooks for drums / boxes with various strokes and dimensions are available for the 213 and 219 models.		
Forks with any section and length can be provided on request.		
		
Load backrest of various widths and heights are available on request.		
		
Pin-type fork connection	ISO2 ISO3 ISO4	-
Side resistant arm (1000 mm)	ISO2 ISO3	-
Foundry version (heat shield on the crown)	ISO2 ISO3 ISO4 ISO5	-
Fishing industry version (heat shield on the crown and anti-corrosion treatment)	ISO2 ISO3 ISO4 ISO5	-
Motor protection	ISO2 ISO3 ISO4 ISO5	-
Closing of the central opening	ISO2 ISO3 ISO4 ISO5	
Central greasing system with heat-resistant grease	ISO2 ISO3 ISO4 ISO5	
		
		
		
		
		
		
		
		
		
		
		
		
		





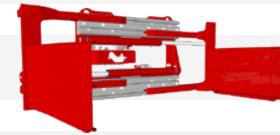
474.170



474.150



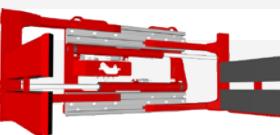
474.131



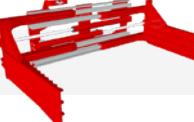
116.131



474.130



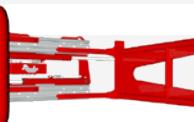
116.130



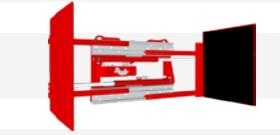
474.137



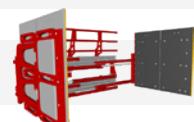
474.195



474.141



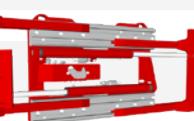
474.180



474.181



474.160



474.190

6

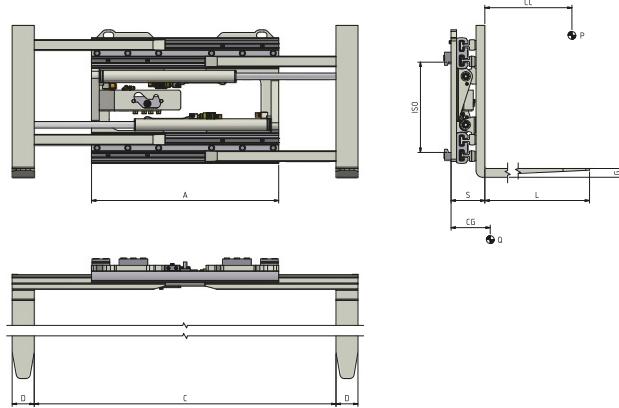
Clamps

- | | | |
|-------------|--|---------|
| 6.1 | 474.170 <u>Fork Clamp</u> | Pag. 60 |
| 6.2 | 474.150 <u>Clamp with Rotating Forks</u> | Pag. 62 |
| 6.3 | 474.131 <u>Bale Clamp with Thin Blades</u> | Pag. 64 |
| 6.4 | 116.131 <u>Bale Clamp with Thin Blades</u> | Pag. 66 |
| 6.5 | 474.130 <u>Bale Clamp with Wavy Edged Arms</u> | Pag. 68 |
| 6.6 | 116.130 <u>Bale Clamp with Wavy Edged Arms</u> | Pag. 70 |
| 6.7 | 474.137 <u>Clamp with Rubber Covered Arms</u> | Pag. 72 |
| 6.8 | 474.195 <u>Foam Rubber Clamp</u> | Pag. 74 |
| 6.9 | 474.141 <u>Block Clamp with Compensating Arms</u> | Pag. 75 |
| 6.10 | 474.12.180 <u>Box and Appliances Clamp with Two Pivoting Arms</u> | Pag. 76 |
| 6.11 | 474.24.180 <u>Box and Appliances Clamp with Two Pivoting Arms</u> | Pag. 77 |
| 6.12 | 474.181 <u>Box and Appliances Clamp with Fixed Arms</u> | Pag. 78 |
| 6.13 | 474.160 <u>Drum Clamp for One or Two Drums</u> | Pag. 80 |
| 6.14 | 474.190 <u>Drum Clamp for Two or Four Drums</u> | Pag. 81 |
| 6.15 | <u>Options & Special Equipment</u> | Pag. 82 |

Clamps are designed to move loads by clamping them on the sides. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the forks section and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

474.170

FORK CLAMP



Model 474.170, with welded forks, is suggested to customers who need to move the load both on pallets and by clamping it.

The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the forks section and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

FORK CLAMP

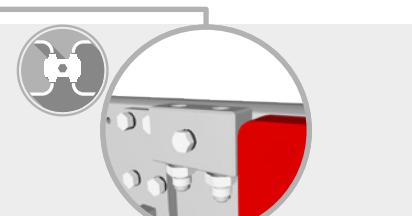
REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS		FORKS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						C MIN - mm	C MAX - mm				
* 11L03AQ2A0004	1200	1400	500	II	850	340	1380	100x40x1200	149	191	250
11L03AQ2A0013	1200	1400	500	II	950	440	1680	100x40x1200	149	194	252
11L03AQ2A0007	1200	1400	500	II	1050	540	1980	100x40x1200	149	188	261
* 11L03BE2A0018	1400	1900	500	II	950	360	1510	100x40x1200	182	188	350
11L03BE2A0019	1400	1900	500	II	1050	460	1810	100x40x1200	182	185	365
11L03BE2A0026	1400	1900	500	II	1150	560	2110	100x40x1200	182	182	381
11L03BE2A0027	1400	1900	500	II	1250	460	2010	100x40x1200	182	181	386
* 11L03CG2A0006	1700	2100	500	II	950	360	1510	100x40x1200	182	188	350
11L03CG2A0009	1700	2100	500	II	1050	460	1810	100x40x1200	182	185	365
* 11L03D62A0023	1900	2400	500	II	1050	330	1580	120x45x1200	187	202	390
11L03D62A0034	1900	2400	500	II	1150	430	1880	120x45x1200	187	199	409
11L03D62A0035	1900	2400	500	II	1250	530	2180	120x45x1200	187	195	425
11L03D62A0036	1900	2400	500	II	1350	630	2480	120x45x1200	187	192	441
* 11L03EY3A0012	2400	2900	500	III	1050	330	1580	120x45x1200	187	202	420
11L03EY3A0021	2400	2900	500	III	1150	430	1880	120x45x1200	187	199	409
11L03G03A0022	2700	3600	500	III	1100	470	1840	120x50x1200	215	208	550
* 11L03G03A0023	2700	3600	500	III	1200	320	1640	120x50x1200	215	204	514
11L03G03A0019	2700	3600	500	III	1300	470	2040	120x50x1200	215	202	539
11L03HY3A0014	3500	4500	500	III	1200	350	1760	150x50x1200	225	216	580
11L03HY3A0015	3500	4500	500	III	1300	450	2060	150x50x1200	225	215	606
11L03HY3A0016	3500	4500	500	III	1400	550	2360	150x50x1200	225	213	632
* 11L03KQ3A0001	4500	5000	500	III	1400	260	1790	150x60x1200	240	194	695
* 11L03KQ3A0002	4500	5000	500	III	1600	260	1990	150x60x1200	240	196	800
* 11L03LM4A0001	5000	6000	600	IV	1500	260	1890	150x65x1200	245	205	740
* 11L03LM4A0002	5000	6000	600	IV	1700	260	2090	150x65x1200	245	210	755
* 11L03ND4A0001	6000	7000	600	IV	1500	260	1890	150x70x1200	265	220	855
* 11L03ND4A0002	6000	7000	600	IV	1700	260	2090	150x70x1200	265	225	875
* 11L03Q54A0001	7000	8000	600	IV	1750	160	2040	200x70x1200	280	240	1010
* 11L03Q54A0002	7000	8000	600	IV	2000	160	2280	200x70x1200	280	260	1040

* Suitable models for Europallets handling



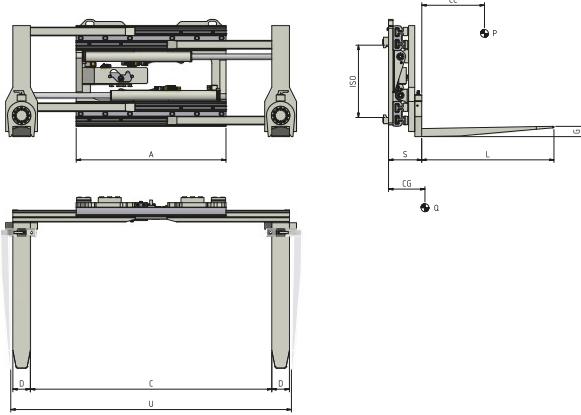
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.150

CLAMP WITH ROTATING FORKS



Model 474.150, with rotating forks, is suggested to customers who need to move the load both on pallets and by clamping it. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. The rotation of the forks can be operated manually or, on request, by cylinders which are activated from a hydraulic function of the forklift. Minimum and maximum openings can be adapted to different needs, as the forks dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

CLAMP WITH ROTATING FORKS

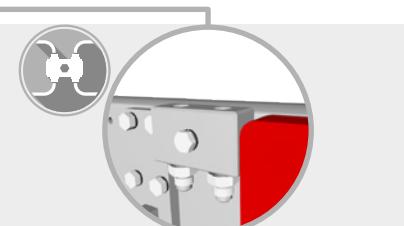
REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS C MIN - mm C MAX - mm		OPENING RANGE BETWEEN 90° ROTATED FORKS U MIN - mm U MAX - mm D x G x L mm		FORKS S - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						U MIN - mm	U MAX - mm	D x G x L mm					
* 11L05AQ2A0001	1200	1400	500	II	850	340	1380	590	1630	100x45x1000	191	198	273
11L05AQ2A0002	1200	1400	500	II	950	440	1680	690	1930	100x45x1000	191	196	282
* 11L05AQ2A0003	1200	1400	500	II	1050	540	1980	790	2230	100x45x1000	191	194	291
* 11L05AQ2A0004	1200	1400	500	II	1050	240	1380	490	1630	100x45x1000	191	199	288
* 11L05BE2A0011	1400	1900	500	II	950	310	1430	605	1725	120x50x1000	227	243	397
* 11L05BE2A0012	1400	1900	500	II	1050	310	1530	605	1825	120x50x1000	227	238	413
* 11L05BE2A0020	1400	1900	500	II	1150	540	2090	835	2385	120x50x1000	227	234	429
* 11L05BE2A0021	1400	1900	500	II	1250	440	1990	735	2285	120x50x1000	227	233	434
* 11L05CG2A0009	1700	2100	500	II	950	310	1430	605	1725	120x50x1000	227	243	397
* 11L05CG2A0012	1700	2100	500	II	1050	310	1530	605	1825	120x50x1000	227	238	413
* 11L05CG2A0013	1700	2100	500	II	1050	240	1390	535	1685	120x50x1000	227	237	405
* 11L05D62A0001	1900	2400	500	II	1050	250	1450	590	1790	150x50x1000	227	220	430
* 11L05D62A0002	1900	2400	500	II	1150	400	1850	740	2190	150x50x1000	227	216	445
* 11L05D62A0003	1900	2400	500	II	1150	200	1450	540	1790	150x50x1000	227	218	435
* 11L05D62A0004	1900	2400	500	II	1250	500	2150	840	2490	150x50x1000	227	213	461
* 11L05D62A0005	1900	2400	500	II	1350	600	2450	940	2790	150x50x1000	227	210	477
* 11L05EY3A0001	2400	2900	500	III	1050	250	1450	590	1790	150x50x1000	227	220	430
* 11L05EY3A0002	2400	2900	500	III	1150	400	1850	740	2190	150x50x1000	227	216	445
* 11L05EY3A0003	2400	2900	500	III	1150	200	1450	540	1790	150x50x1000	227	218	435
* 11L05G03A0001	2700	3500	500	III	1100	430	1800	790	2160	150x60x1000	274	236	578
* 11L05G03A0002	2700	3500	500	III	1200	330	1700	690	2060	150x60x1000	274	232	604
* 11L05G03A0003	2700	3500	500	III	1300	430	2000	790	2360	150x60x1000	274	230	622
* 11L05G03A0004	2700	3500	500	III	1400	530	2300	890	2660	150x60x1000	274	226	658

* Suitable models for Europallets handling



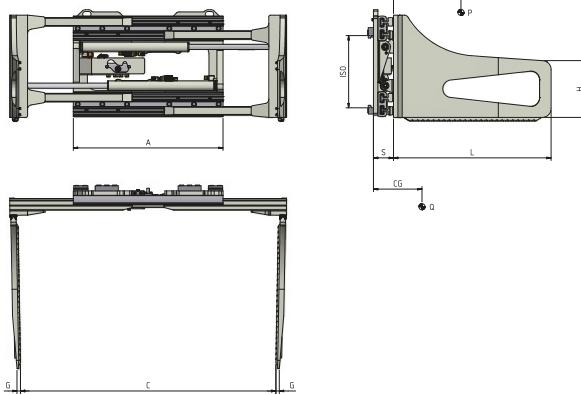
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.131

BALE CLAMP WITH THIN BLADES



Model 474.131, with full arms penetration thin welded forks, is suggested to customers who need to move bales of any material: paper, carton, plastic, junk or others. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

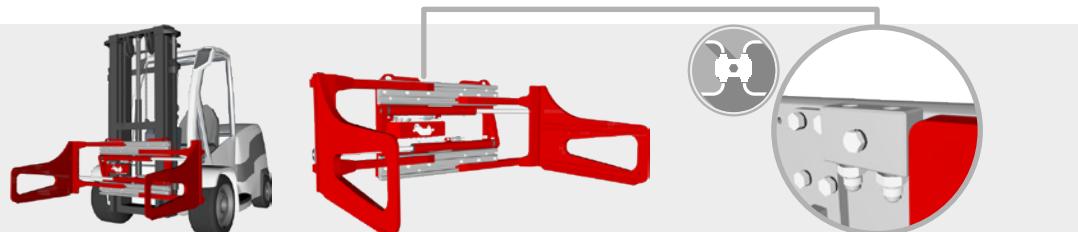
BALE CLAMP WITH THIN BLADES

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L07AQ2A0002	1200	500	II	850	420	1460	21x350x900	109	221	290
11L07AQ2A0001	1200	500	II	950	520	1760	21x350x900	109	216	310
11L07AQ2A0003	1200	500	II	1050	620	2060	21x350x900	109	212	320
11L07BE2A0002	1400	500	II	950	420	1570	21x400x1000	137	254	460
11L07BE2A0003	1400	500	II	1050	520	1870	21x400x1000	137	248	480
11L07BE2A0004	1400	500	II	1150	620	2170	21x400x1000	137	243	500
11L07BE2A0005	1400	500	II	1250	520	2070	21x400x1000	137	241	464
11L07CG2A0001	1700	500	II	950	420	1570	21x400x1000	137	254	450
11L07CG2A0002	1700	500	II	1050	520	1870	21x400x1000	137	248	460
11L07D62A0003	1900	500	II	1050	420	1670	23x400x1000	137	249	505
11L07D62A0004	1900	500	II	1150	520	1970	23x400x1000	137	244	510
11L07D62A0005	1900	500	II	1250	620	2270	23x400x1000	137	239	480
11L07D62A0006	1900	500	II	1350	720	2570	23x400x1000	137	235	510
11L07EY3A0001	2400	500	III	1050	420	1670	23x400x1000	137	249	520
11L07EY3A0002	2400	500	III	1150	520	1970	23x400x1000	137	244	540
11L07G03A0001	2700	500	III	1100	550	1920	26x400x1000	157	271	720
11L07G03A0002	2700	500	III	1100	530	1900	26x400x1200	157	329	750
11L07G03A0003	2700	500	III	1200	450	1820	26x400x1000	157	266	730
11L07G03A0004	2700	500	III	1200	430	1800	26x400x1200	157	322	815
11L07G03A0005	2700	500	III	1300	540	2110	26x400x1000	157	261	756
11L07G03A0006	2700	500	III	1300	530	2100	26x400x1200	157	316	810
11L07G03A0007	2700	500	III	1400	640	2410	26x400x1000	157	257	800
11L07G03A0008	2700	500	III	1400	630	2400	26x400x1200	157	311	828
11L07HY3A0001	3500	500	III	1200	470	1880	29x500x1200	167	366	910
11L07HY3A0002	3500	500	III	1200	460	1870	29x500x1500	167	452	965
11L07HY3A0003	3500	500	III	1300	570	2180	29x500x1200	167	360	958
11L07HY3A0004	3500	500	III	1300	560	2170	29x500x1500	167	445	1015
11L07HY3A0005	3500	500	III	1400	680	2490	29x500x1200	167	354	978
11L07HY3A0006	3500	500	III	1400	660	2470	29x500x1500	167	438	1035



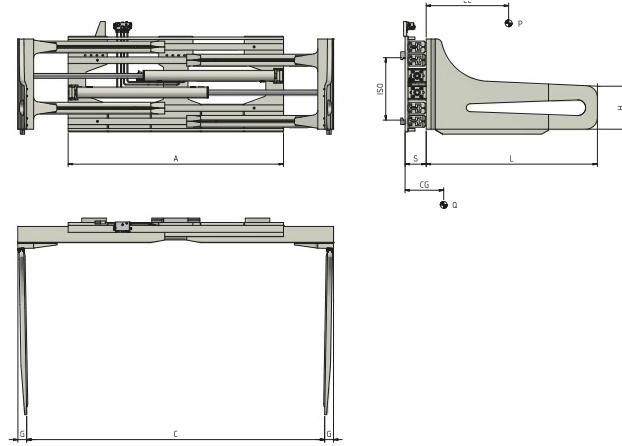
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



116.131

BALE CLAMP WITH THIN BLADES



Model 116.131, with full arms penetration thin welded forks, is suggested to customers who need to move bales of any material: paper, carton, plastic, junk or others. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

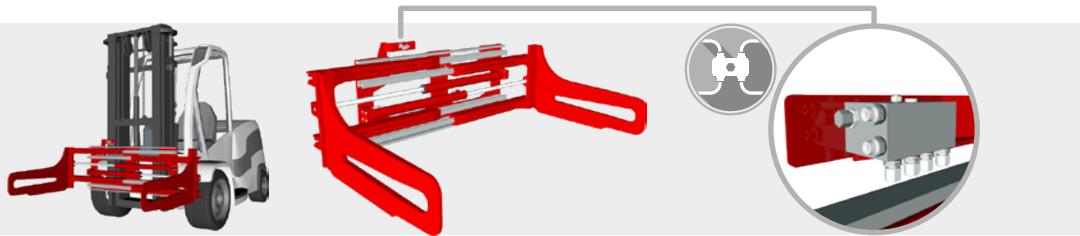
BALE CLAMP WITH THIN BLADES

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11G07KQ3A0005	4500	500	III	1400	630	2260	90x450x1200	185	210	1115
11G07KQ3A0006	4500	500	III	1400	620	2250	90x450x1400	185	230	1165
11G07KQ3A0007	4500	500	III	1400	610	2240	90x450x1600	185	250	1220
11G07KQ3A0008	4500	500	III	1700	630	2560	90x450x1200	185	200	1175
11G07KQ3A0009	4500	500	III	1700	620	2550	90x450x1400	185	220	1225
11G07KQ3A0010	4500	500	III	1700	610	2540	90x450x1600	185	240	1280
11G07LL4A0012	5000	600	IV	1600	660	2500	90x450x1200	185	177	1340
11G07LL4A0013	5000	600	IV	1600	650	2490	90x450x1400	185	195	1400
11G07LL4A0014	5000	600	IV	1600	640	2480	90x450x1600	185	237	1450
11G07LL4A0015	5000	600	IV	1700	760	2800	90x450x1200	185	158	1400
11G07LL4A0016	5000	600	IV	1700	750	2790	90x450x1400	185	191	1450
11G07LL4A0017	5000	600	IV	1700	740	2780	90x450x1600	185	215	1490
11G07NC4A0010	6000	600	IV	1600	660	2500	90x450x1200	185	169	1400
11G07NC4A0011	6000	600	IV	1600	650	2490	90x450x1400	185	197	1450
11G07NC4A0012	6000	600	IV	1600	640	2480	90x450x1600	185	231	1500
11G07NC4A0013	6000	600	IV	1700	760	2800	90x450x1200	185	149	1450
11G07NC4A0014	6000	600	IV	1700	750	2790	90x450x1400	185	186	1500
11G07NC4A0015	6000	600	IV	1700	740	2780	90x450x1600	185	209	1550
11G07Q44A0014	7000	600	IV	1800	650	2690	95x450x1200	215	185	1675
11G07Q44A0015	7000	600	IV	1800	640	2680	95x450x1400	215	199	1725
11G07Q44A0016	7000	600	IV	1800	630	2670	95x450x1600	215	227	1775
11G07Q44A0017	7000	600	IV	2000	850	3290	95x450x1200	215	158	1860
11G07Q44A0018	7000	600	IV	2000	840	3280	95x450x1400	215	189	1910
11G07Q44A0019	7000	600	IV	2000	830	3270	95x450x1600	215	217	1960
11G07QZ4A0009	8000	600	IV	1800	650	2690	95x450x1200	215	172	1720
11G07QZ4A0010	8000	600	IV	1800	640	2680	95x450x1400	215	199	1770
11G07QZ4A0011	8000	600	IV	1800	630	2670	95x450x1600	215	228	1820
11G07QZ4A0012	8000	600	IV	2000	850	3290	95x450x1200	215	152	1940
11G07QZ4A0013	8000	600	IV	2000	840	3280	95x450x1400	215	189	1990
11G07QZ4A0014	8000	600	IV	2000	830	3270	95x450x1600	215	213	2040



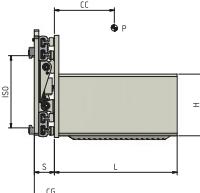
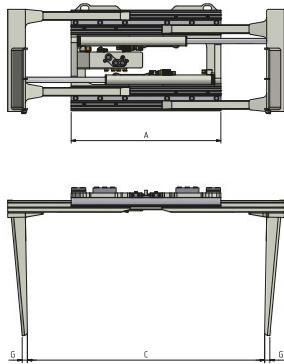
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.130

BALE CLAMP WITH WAVY EDGED ARMS



Model 474.130, with wavy edged arms, is suggested to customers who need to move voluminous loads of any kind. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

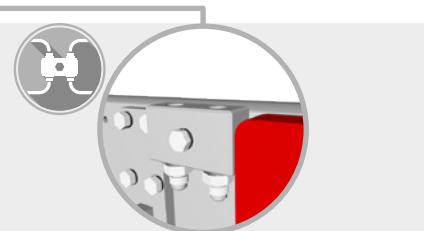
BALE CLAMP WITH WAVY EDGED ARMS

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L08AQ2A0001	1200	500	II	850	300	1340	30x350x900	109	218	254
11L08AQ2A0002	1200	500	II	950	400	1640	30x350x900	109	214	263
11L08AQ2A0003	1200	500	II	1050	500	1940	30x350x900	109	214	270
11L08BE2A0001	1400	500	II	950	320	1470	40x400x1000	137	253	390
11L08BE2A0002	1400	500	II	1050	420	1770	40x400x1000	137	248	406
11L08BE2A0003	1400	500	II	1150	520	2070	40x400x1000	137	242	422
11L08BE2A0004	1400	500	II	1250	420	1970	40x400x1000	137	236	427
11L08CG2A0001	1700	500	II	950	320	1470	40x400x1000	137	253	390
11L08CG2A0002	1700	500	II	1050	420	1770	40x400x1000	137	248	430
11L08D62A0001	1900	500	II	1050	290	1540	40x400x1000	137	251	412
11L08D62A0002	1900	500	II	1150	390	1840	40x400x1000	137	247	426
11L08D62A0003	1900	500	II	1250	490	2140	40x400x1000	137	242	440
11L08D62A0004	1900	500	II	1350	590	2440	40x400x1000	137	238	454
11L08EY3A0001	2400	500	III	1050	290	1540	40x400x1000	137	251	420
11L08EY3A0002	2400	500	III	1150	390	1840	40x400x1000	137	247	426
11L08G03A0001	2700	500	III	1100	410	1780	40x400x1000	157	271	542
11L08G03A0002	2700	500	III	1100	400	1770	40x400x1200	157	334	588
11L08G03A0003	2700	500	III	1200	310	1680	40x400x1000	157	265	568
11L08G03A0004	2700	500	III	1200	300	1670	40x400x1200	157	321	614
11L08G03A0005	2700	500	III	1300	410	1980	40x400x1000	157	259	594
11L08G03A0006	2700	500	III	1300	400	1970	40x400x1200	157	316	640
11L08G03A0007	2700	500	III	1400	510	2280	40x400x1000	157	255	620
11L08G03A0008	2700	500	III	1400	500	2270	40x400x1200	157	310	668
11L08HY3A0001	3500	500	III	1200	300	1710	40x500x1200	167	368	758
11L08HY3A0002	3500	500	III	1200	290	1700	40x500x1500	167	453	855
11L08HY3A0003	3500	500	III	1300	400	2010	40x500x1200	167	361	784
11L08HY3A0004	3500	500	III	1300	390	2000	40x500x1500	167	447	881
11L08HY3A0005	3500	500	III	1400	500	2310	40x500x1200	167	354	810
11L08HY3A0006	3500	500	III	1400	490	2300	40x500x1500	167	438	907



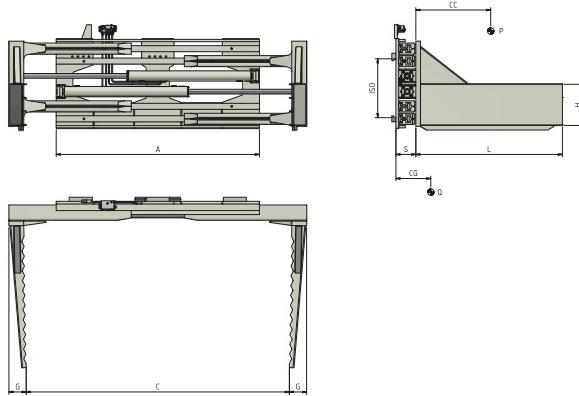
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



116.130

BALE CLAMP WITH WAVY EDGED ARMS



Model 116.130, with wavy edged arms, is suggested to customers who need to move voluminous loads of any kind. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

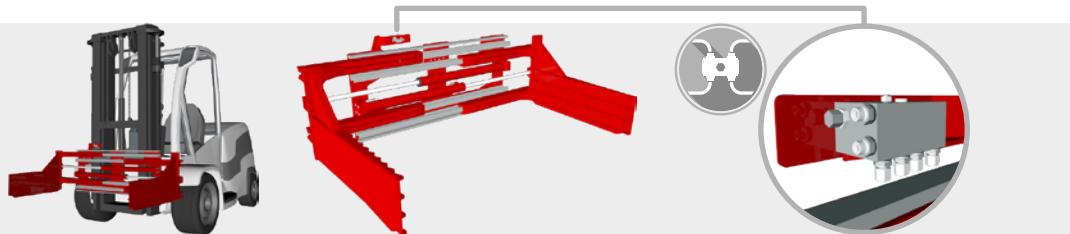
BALE CLAMP WITH WAVY EDGED ARMS

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11G08LL4A0001	5000	600	IV	1600	500	2340	140x450x1200	165	172	1260
11G08LL4A0002	5000	600	IV	1600	500	2340	140x450x1400	165	190	1310
11G08LL4A0003	5000	600	IV	1600	500	2340	140x450x1600	165	230	1360
11G08LL4A0004	5000	600	IV	1700	600	2640	140x450x1200	165	150	1310
11G08LL4A0005	5000	600	IV	1700	600	2640	140x450x1400	165	185	1360
11G08LL4A0006	5000	600	IV	1700	600	2640	140x450x1600	165	208	1410
11G08NC4A0001	6000	600	IV	1600	500	2340	140x450x1200	170	165	1320
11G08NC4A0002	6000	600	IV	1600	500	2340	140x450x1400	170	190	1370
11G08NC4A0003	6000	600	IV	1600	500	2340	140x450x1600	170	226	1420
11G08NC4A0004	6000	600	IV	1700	600	2640	140x450x1200	170	143	1370
11G08NC4A0005	6000	600	IV	1700	600	2640	140x450x1400	170	178	1420
11G08NC4A0006	6000	600	IV	1700	600	2640	140x450x1600	170	209	1470
11G08Q44A0001	7000	600	IV	1800	480	2520	140x450x1200	198	178	1455
11G08Q44A0002	7000	600	IV	1800	480	2520	140x450x1400	198	193	1505
11G08Q44A0003	7000	600	IV	1800	480	2520	140x450x1600	198	218	1555
11G08Q44A0004	7000	600	IV	2000	680	3120	140x450x1200	198	148	1645
11G08Q44A0005	7000	600	IV	2000	680	3120	140x450x1400	198	180	1695
11G08Q44A0006	7000	600	IV	2000	680	3120	140x450x1600	198	210	1745
11G08QZ4A0001	8000	600	IV	1800	480	2520	150x450x1200	205	166	1505
11G08QZ4A0002	8000	600	IV	1800	480	2520	150x450x1400	205	193	1555
11G08QZ4A0003	8000	600	IV	1800	480	2520	150x450x1600	205	220	1605
11G08QZ4A0004	8000	600	IV	2000	680	3120	150x450x1200	205	145	1725
11G08QZ4A0005	8000	600	IV	2000	680	3120	150x450x1400	205	180	1775
11G08QZ4A0006	8000	600	IV	2000	680	3120	150x450x1600	205	206	1825



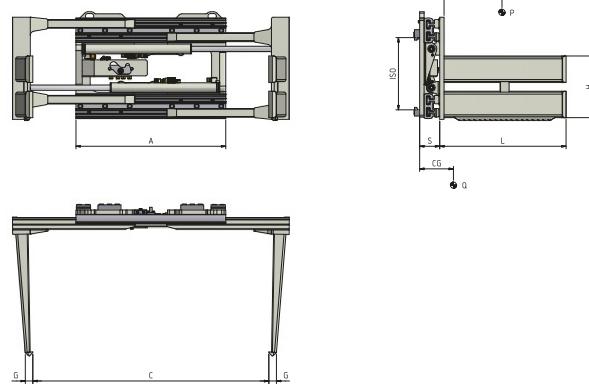
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.137

CLAMP WITH RUBBER COVERED ARMS



Model 474.137, with wavy edged rubber covered arms, is suggested to customers who need to move loads without damaging the packaging. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

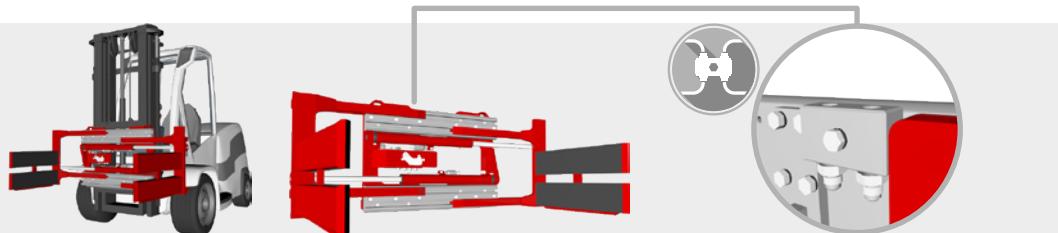
CLAMP WITH RUBBER COVERED ARMS

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L12AQ2A0001	1200	500	II	850	290	1330	40x350x900	109	171	250
11L12AQ2A0002	1200	500	II	950	390	1630	40x350x900	109	173	259
11L12AQ2A0003	1200	500	II	1050	490	1930	40x350x900	109	175	268
11L12BE2A0001	1400	500	II	950	310	1460	45x400x1000	137	187	367
11L12BE2A0002	1400	500	II	1050	410	1760	45x400x1000	137	187	383
11L12BE2A0003	1400	500	II	1150	510	2060	45x400x1000	137	184	399
11L12BE2A0004	1400	500	II	1250	410	1960	45x400x1000	137	183	411
11L12CG2A0001	1700	500	II	950	310	1460	45x400x1000	137	187	367
11L12CG2A0002	1700	500	II	1050	410	1760	45x400x1000	137	185	383
11L12D62A0001	1900	500	II	1050	280	1530	45x400x1000	137	181	396
11L12D62A0002	1900	500	II	1150	380	1830	45x400x1000	137	176	410
11L12D62A0003	1900	500	II	1250	480	2130	45x400x1000	137	173	422
11L12D62A0004	1900	500	II	1350	580	2430	45x400x1000	137	172	439
11L12EY2A0001	2400	500	III	1050	280	1530	45x400x1000	137	173	396
11L12EY2A0002	2400	500	III	1150	380	1830	45x400x1000	137	171	410



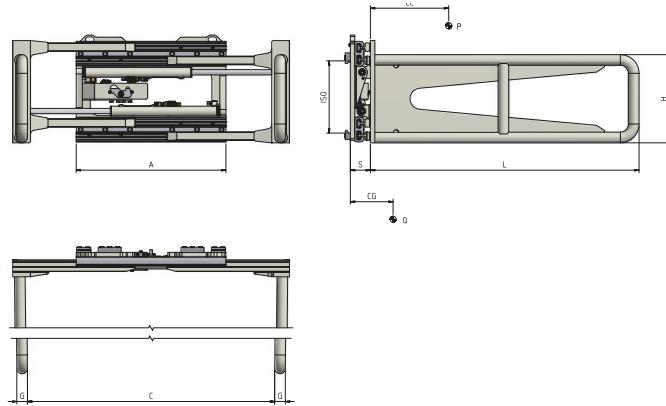
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.195

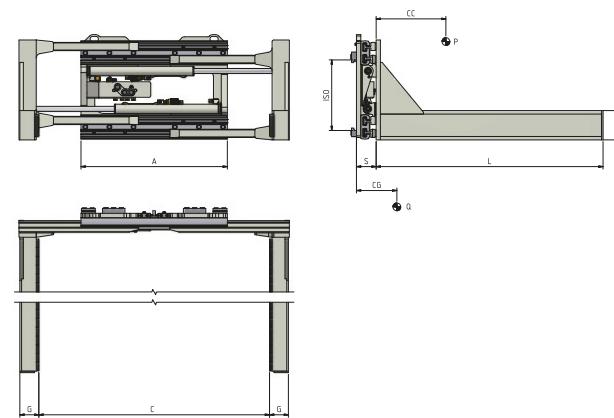
FOAM RUBBER CLAMP



Model 474.195, with tubular arms, is suggested to customers who need to move voluminous loads as foam rubber or polyurethane blocks. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

474.141

BLOCK CLAMP WITH COMPENSATING ARMS



Model 474.141, with compensating arms, is suggested to customers who need to move concrete blocks and building materials. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L27AQ2A0010	1200	500	II	1150	590	2150	65x500x1500	109	213	350
11L27AQ2A0011	1200	500	II	1150	580	2140	65x500x2000	109	232	400
11L27BE2A0009	1400	500	II	1150	580	2150	76x500x1500	137	246	433
11L27BE2A0010	1400	500	II	1150	570	2140	76x500x2000	137	273	472
11L27D62A0004	1900	500	II	1250	590	2260	76x500x1500	137	247	445
11L27D62A0005	1900	500	II	1250	580	2250	76x500x2000	137	271	500



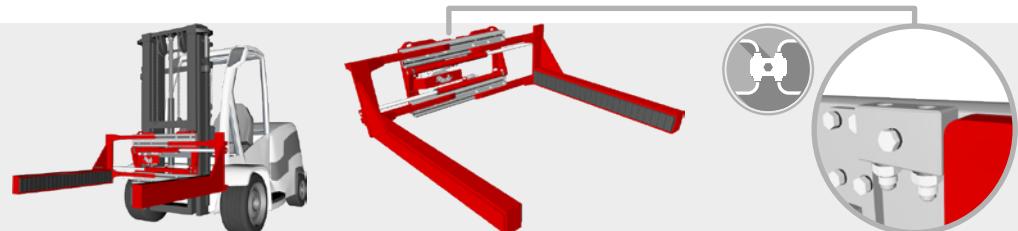
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

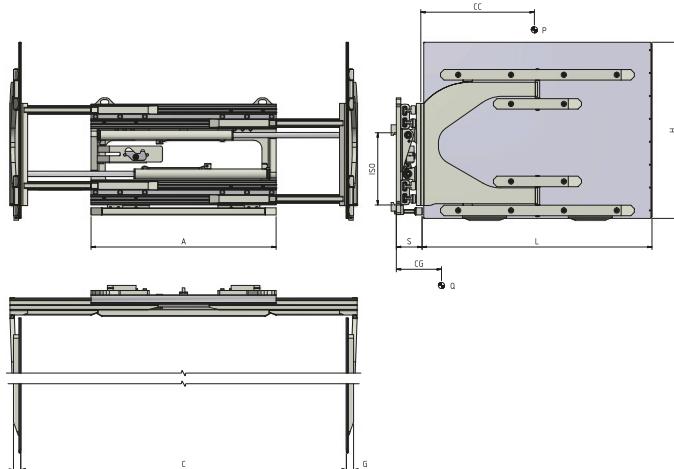
References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



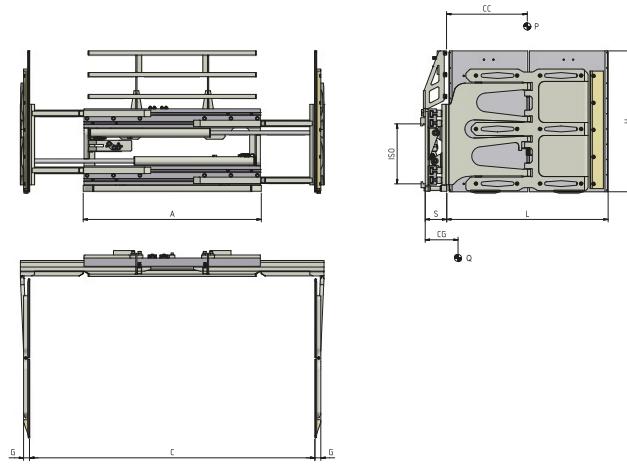
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.12.180BOX AND APPLIANCES CLAMP
WITH TWO PIVOTING ARMS

Model 474.12.180, with both pivoting rubber covered arms, is suggested to customers who need to move appliances and cardboards settled in double depth, on multiple rows and layers. This means that they can handle up to 12 domestic appliances or cardboards in one grab. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

474.24.180BOX AND APPLIANCES CLAMP
WITH TWO PIVOTING ARMS

Model 474.24.180, with both pivoting rubber covered arms, is suggested to customers who need to move appliances and cardboards settled in double depth, on multiple rows and layers. This means that they can handle up to 24 domestic appliances or cardboards in one grab. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

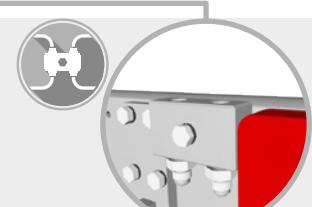
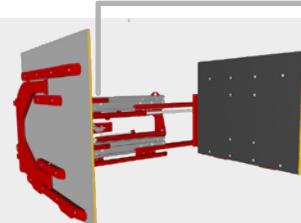
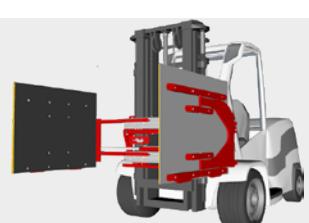
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L15AQ2A0020	1200	500	II	950	510	1750	42x1000x1000	146	340	425
11L15AQ2A0021	1200	650	II	950	510	1750	42x1000x1300	146	385	440
* 11L15AQ2A0022	1200	675	II	950	510	1750	46x1200x1350	146	440	505
11L15AQ2A0023	1200	500	II	1050	510	1850	42x1000x1000	146	336	440
11L15AQ2A0016	1200	650	II	1050	510	1850	42x1000x1300	146	381	455
* 11L15AQ2A0024	1200	675	II	1050	510	1850	46x1200x1350	146	438	530
11L15AQ2A0025	1200	500	II	1150	460	1860	42x1000x1000	146	333	450
11L15AQ2A0026	1200	650	II	1150	460	1860	42x1000x1300	146	378	465
* 11L15AQ2A0017	1200	675	II	1150	460	1860	46x1200x1350	146	435	570

* Splitted contact pads and load backrest on blade models.



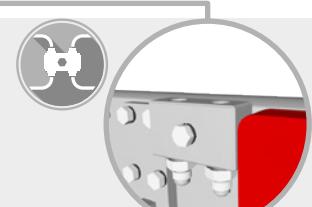
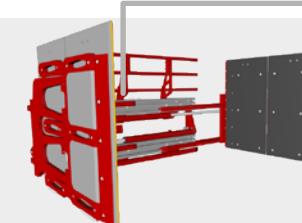
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



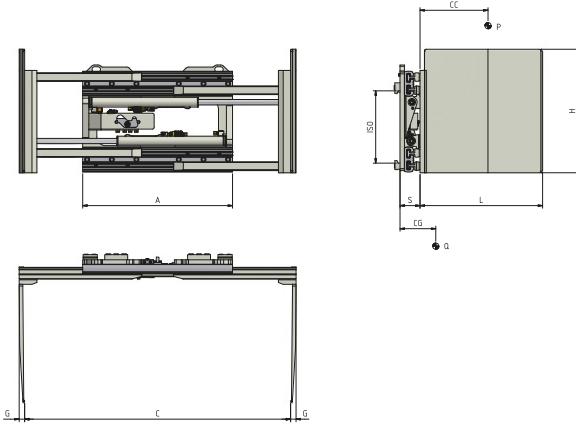
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.181

BOX AND APPLIANCES CLAMP WITH FIXED ARMS



Model 474.181, with both fixed rubber covered arms, is suggested to customers who need to move appliances and cardboards settled in double depth, on multiple rows and layers. This means that they can handle up to 12 domestic appliances or cardboards in one grab. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

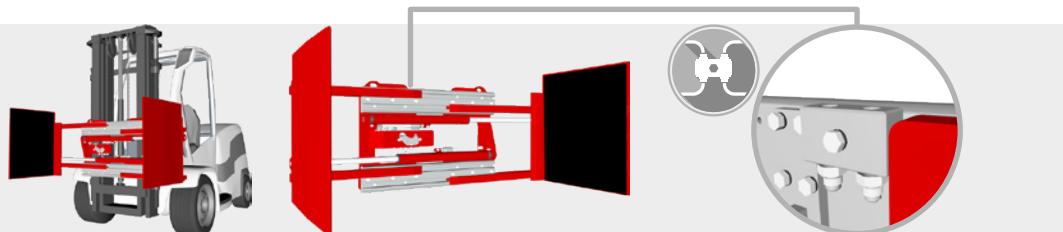
BOX AND APPLIANCES CLAMP WITH FIXED ARMS

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L14AQ2A0001	1200	500	II	950	580	1820	30x600x650	134	188	320
11L14AQ2A0002	1200	500	II	950	580	1820	30x700x650	134	201	335
11L14AQ2A0003	1200	500	II	950	580	1820	30x600x750	134	220	335
11L14AQ2A0004	1200	500	II	950	580	1820	30x700x750	134	234	350
11L14AQ2A0005	1200	500	II	950	580	1820	30x600x850	134	253	355
11L14AQ2A0006	1200	500	II	950	580	1820	30x700x850	134	268	370
11L14BE2A0001	1400	500	II	1050	590	1940	30x600x650	162	188	455
11L14BE2A0002	1400	500	II	1050	590	1940	30x700x650	162	201	477
11L14BE2A0003	1400	500	II	1050	590	1940	30x600x750	162	218	470
11L14BE2A0004	1400	500	II	1050	590	1940	30x700x750	162	232	494
11L14BE2A0005	1400	500	II	1050	590	1940	30x600x850	162	250	498
11L14BE2A0006	1400	500	II	1050	590	1940	30x700x850	162	266	516



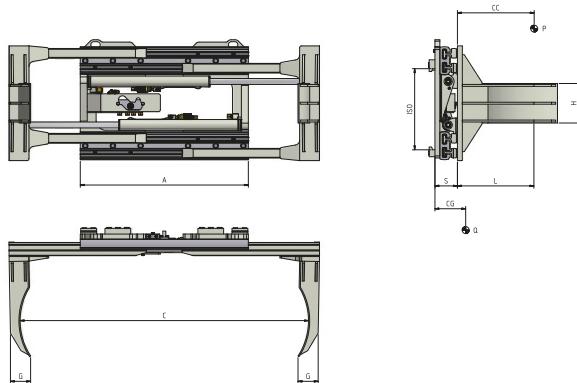
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



474.160

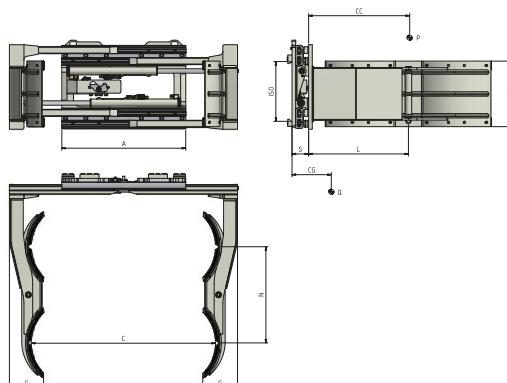
DRUM CLAMP FOR ONE OR TWO DRUMS



Model 474.160 is specifically suggested to customers who need to move one or two barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

474.190

DRUM CLAMP FOR TWO OR FOUR DRUMS



Model 474.190 is specifically suggested to customers who need to move two or four barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11L23AQ2C0001	1200	500	II	950	490	1730	100x200x330	109	102	230
11L23BE2C0001	1400	500	II	950	450	1600	100x200x330	137	109	316

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	DISTANCE N - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm					
11L24AQ2C0001	1200	500	II	950	440	1680	100x200x675	660	109	242	282
11L24D62C0001	1900	500	II	1050	330	1580	120x200x675	660	137	223	490



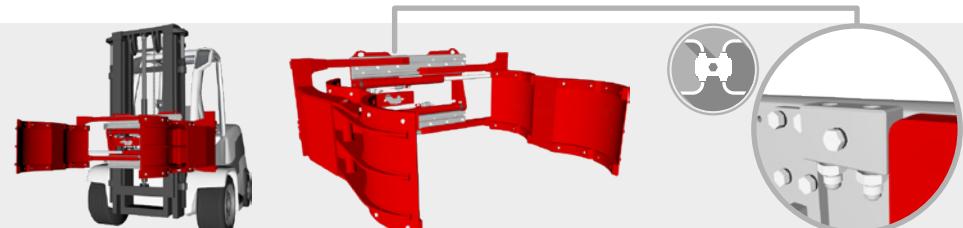
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 82.

References on table are related to standard attachments.
For special or customised version see options at page 82.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
474.170	ISO2	10	40	20
474.170	ISO3	15	40	25
474.170	ISO4	20	40	30
474.150	ISO2	10	40	20
474.150	ISO3	15	40	25
474.131	ISO2	10	40	20
474.131	ISO3	15	40	25
116.131	ISO3	15	40	25
116.131	ISO4	20	40	30
474.130	ISO2	10	40	20
474.130	ISO3	15	40	25
116.130	ISO4	20	40	30
474.137	ISO2	10	40	20
474.137	ISO3	15	40	25
474.195	ISO2	10	40	20
474.141	ISO3	15	40	25
474.141	ISO2	10	40	20
474.180	ISO2	10	40	20
474.181	ISO2	10	40	20
474.160	ISO2	10	40	20
474.190	ISO3	15	40	25



ACCESSORIES

Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Pressure gauge	-
Bronze wear pads	-
Quick release hooks	-
Solenoid valve two functions with electric kit (specify voltage)	-
Pressure relief valve, non-return valve and regenerative valve	-
3 positions pressure relief valve	-

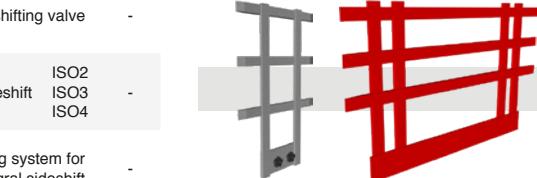
Manual pressure-relief panel with pressure gauge and indicator lamp



SPECIAL EQUIPMENT

Clamps with special width and/or stroke can be provided on request.

On request we can supply load backrests of various widths and heights. It is a standard equipment for boxes and appliance clamps with arms higher than 1000 mm.



Automatic pressure-relief system

Sideshifting valve

Semi-integral sideshift ISO2
ISO3 ISO4

Automatic greasing system for semi-integral sideshift

Preparation of clamp for quick change arms (up to 3500 Kg)

Preparation of clamp for quick change arms (over 3500 Kg capacity)

Preparation of quick change arms (up to 3500 Kg)

Preparation of quick change arms (over 3500 Kg capacity)

Bolt-on forks ISO2
ISO3 ISO4

Fork rotation with hydraulic control (for model 474.150)

Cylinder protection plate

Wear-free plates under the frame

Wear-free plates under the blades

Load backrest extensions and upperblades restraint structures for clamps of models 474.180

474.170 On request we can realize the attachment with forks of any section and length.
474.150

474.131
116.131
474.130 On request we can realize the attachment with blades of any length and height.
116.130
474.137
474.195

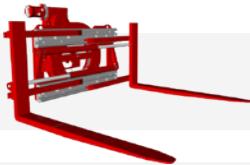
474.141 On request we can realize the attachment with blades of any length.

474.180 On request we can realize the attachment with blades of any length and height, with single or double wing and mechanical block of the oscillation.

474.181 On request we can realize the attachment with blades of any length and height.

474.160
474.190 On request we can realize the attachment with V-shaped plates of various diameters for barrel grabbing.

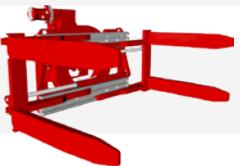




301.474.170



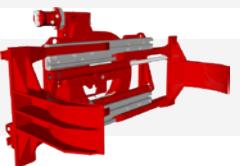
301.474.150



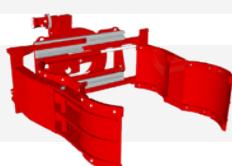
301.474.4



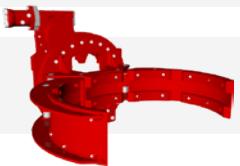
301.474.131



301.474.160



301.474.190



636

7

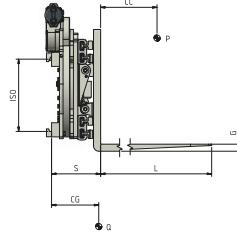
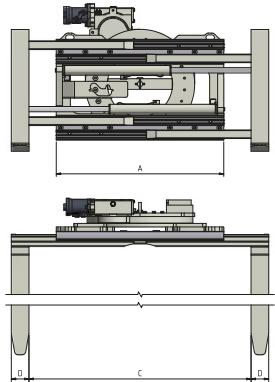
Rotating Clamps

- | | |
|--|--|
| 7.1 301.474.170 <u>360° Rotating Fork Clamp</u>
7.2 301.474.150 <u>360° Rotating Clamp with Rotating Forks</u>
7.3 301.474.4 <u>360° Rotating Clamp with 4 Forks</u>
7.4 301.474.131 <u>360° Rotating Bale Clamp with Thin Blades</u>
7.5 301.474.160 <u>360° Rotating Drum Clamp for One or Two Drums</u>
7.6 301.474.190 <u>360° Rotating Drum Clamp for Two or Four Drums</u>
7.7 636 <u>360° Rotating Drum Clamp for One Drum</u>
7.8 <u>Options & Special Equipment</u> | Pag. 86
Pag. 88
Pag. 90
Pag. 92
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Pag. 95
Pag. 96
Pag. 97 |
|--|--|

Rotating Clamps are designed to move and rotate loads by clamping them on the sides. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. 360° rotation works through indirect transmission and, on request, it can be cut down to 180° through a mechanical block. Minimum and maximum openings can be adapted to different needs, as the forks section and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

301.474.170

360° ROTATING FORK CLAMP



Model 301.474.170, with welded forks, is suggested to customers who need to move the load both on pallets and by clamping and rotating it. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the forks section and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

360° ROTATING FORK CLAMP

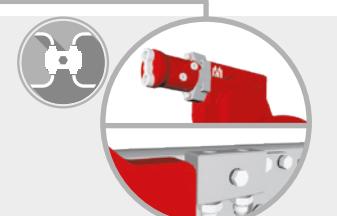
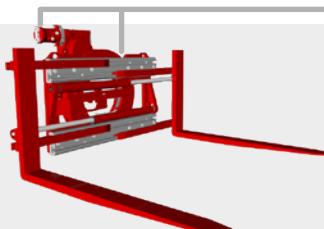
REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		FORKS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						C MIN - mm	C MAX - mm				
* 11M03AQ2A0006	1200	1400	500	II	850	340	1380	100x40x1200	279	159	388
11M03AQ2A0008	1200	1400	500	II	950	440	1680	100x40x1200	279	161	397
11M03AQ2A0010	1200	1400	500	II	1050	540	1980	100x40x1200	279	162	406
* 11M03BE2A0006	1400	1900	500	II	950	360	1510	100x40x1200	317	178	540
11M03BE2A0012	1400	1900	500	II	1050	460	1810	100x40x1200	317	179	560
11M03BE2A0013	1400	1900	500	II	1150	560	2110	100x40x1200	317	181	580
11M03BE2A0014	1400	1900	500	II	1250	460	2010	100x40x1200	317	182	602
* 11M03CG2A0001	1700	2100	500	II	950	360	1510	100x40x1200	317	178	545
11M03CG2A0008	1700	2100	500	II	1050	460	1810	100x40x1200	317	179	570
* 11M03D62A0015	1900	2400	500	II	1050	330	1580	120x45x1200	317	202	590
11M03D62A0020	1900	2400	500	II	1150	430	1880	120x45x1200	317	204	632
11M03D62A0021	1900	2400	500	II	1250	530	2180	120x45x1200	317	206	667
11M03D62A0022	1900	2400	500	II	1350	630	2480	120x45x1200	317	207	691
* 11M03EY3A0020	2400	2900	500	III	1050	330	1580	120x45x1200	317	207	660
11M03EY3A0040	2400	2900	500	III	1150	430	1880	120x45x1200	317	209	680
11M03G03A0025	2700	3600	500	III	1100	470	1840	120x50x1200	350	217	840
* 11M03G03A0015	2700	3600	500	III	1200	320	1640	120x50x1200	350	219	870
11M03G03A0023	2700	3600	500	III	1300	470	2040	120x50x1200	350	222	900
11M03G03A0026	2700	3600	500	III	1400	570	2340	120x50x1200	350	224	930
11M03HY3A0009	3500	4500	500	III	1200	350	1760	150x50x1200	360	233	799
11M03HY3A0022	3500	4500	500	III	1300	450	2060	150x50x1200	360	236	970
11M03HY3A0023	3500	4500	500	III	1400	550	2360	150x50x1200	360	239	1010
* 11M03KQ3A0001	4500	5000	500	III	1400	260	1790	150x60x1200	385	226	1235
* 11M03KQ3A0002	4500	5000	500	III	1600	260	1990	150x60x1200	385	228	1250
* 11M03KQ4A0002	3800	4500	600	IV	1500	260	1890	150x60x1200	385	228	1270
* 11M03KQ4A0003	3800	4500	600	IV	1600	260	1990	150x60x1200	385	230	1285
* 11M03LM4A0001	5000	6000	600	IV	1500	260	1890	150x65x1200	390	233	1310
* 11M03LM4A0002	5000	6000	600	IV	1700	260	2090	150x65x1200	390	263	1325
* 11M03ND4A0001	6000	7000	600	IV	1500	260	1890	150x70x1200	440	257	1545
* 11M03ND4A0002	6000	7000	600	IV	1700	260	2090	150x70x1200	440	260	1565
* 11M03Q54A0001	7000	8000	600	IV	1750	160	2040	200x70x1200	455	282	1700
* 11M03Q54A0002	7000	8000	600	IV	2000	160	2290	200x70x1200	455	296	1730

* Suitable models for Europallets handling



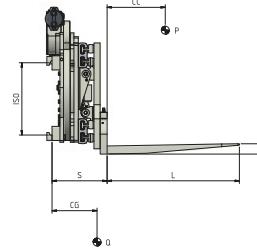
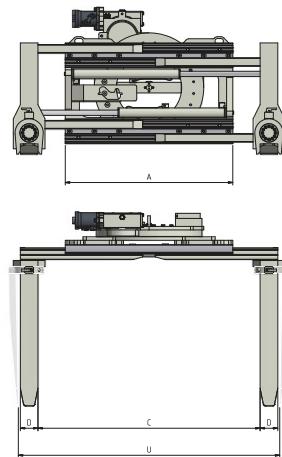
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



301.474.150

360° ROTATING CLAMP WITH ROTATING FORKS



Model 301.474.150, with rotating forks, is suggested to customers who need to move the load both on pallets and by clamping and rotating it. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. The rotation of the forks can be operated manually or, on request, by cylinders which are activated from a hydraulic function of the forklift. Minimum and maximum openings can be adapted to different needs, as the forks dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

360° ROTATING CLAMP WITH ROTATING FORKS

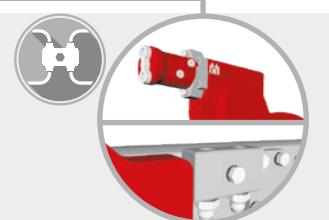
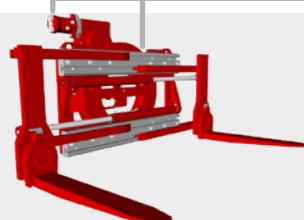
REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS		OPENING RANGE BETWEEN 90° ROTATED FORKS		FORKS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						C MIN - mm	C MAX - mm	U MIN - mm	U MAX - mm				
* 11M05AQ2A0005	1200	1400	500	II	850	340	1380	590	1630	100x45x1000	321	228	433
11M05AQ2A0006	1200	1400	500	II	950	440	1680	690	1930	100x45x1000	321	226	442
11M05AQ2A0001	1200	1400	500	II	1050	540	1980	790	2230	100x45x1000	321	224	451
* 11M05AQ2A0007	1200	1400	500	II	1050	240	1380	490	1630	100x45x1000	321	229	448
* 11M05BE2A0013	1400	1900	500	II	950	310	1430	605	1725	120x50x1000	357	273	557
* 11M05BE2A0004	1400	1900	500	II	1050	310	1530	605	1825	120x50x1000	357	268	573
11M05BE2A0003	1400	1900	500	II	1150	540	2090	835	2380	120x50x1000	357	264	589
11M05BE2A0014	1400	1900	500	II	1250	440	1990	735	2285	120x50x1000	357	263	594
* 11M05CG2A0005	1700	2100	500	II	950	310	1430	605	1725	120x50x1000	357	273	557
* 11M05CG2A0006	1700	2100	500	II	1050	310	1530	605	1825	120x50x1000	357	268	573
* 11M05CG2A0007	1700	2100	500	II	1050	240	1390	535	1685	120x50x1000	357	261	565
* 11M05D62A0002	1900	2400	500	II	1050	250	1450	590	1790	150x50x1000	357	250	590
11M05D62A0008	1900	2400	500	II	1150	400	1850	740	2190	150x50x1000	357	246	595
* 11M05D62A0009	1900	2400	500	II	1150	200	1450	540	1790	150x50x1000	357	248	595
11M05D62A0010	1900	2400	500	II	1250	500	2150	840	2490	150x50x1000	357	243	621
11M05D62A0011	1900	2400	500	II	1350	600	2450	940	2790	150x50x1000	357	240	637
* 11M05EY3A0002	2400	2900	500	III	1050	250	1450	590	1790	150x50x1000	357	250	630
11M05EY3A0009	2400	2900	500	III	1150	400	1850	740	2190	150x50x1000	357	246	645
* 11M05EY3A0010	2400	2900	500	III	1150	200	1450	540	1790	150x50x1000	357	248	635
11M05G03A0006	2700	3500	500	III	1100	430	1800	790	2160	150x60x1000	409	266	828
11M05G03A0007	2700	3500	500	III	1200	330	1700	690	2060	150x60x1000	409	263	854
11M05G03A0008	2700	3500	500	III	1300	430	2000	790	2360	150x60x1000	409	260	872
11M05G03A0009	2700	3500	500	III	1400	530	2300	890	2660	150x60x1000	409	256	908

* Suitable models for Europallets handling



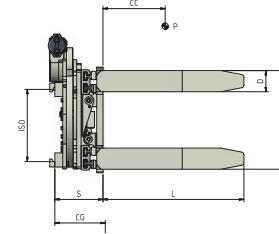
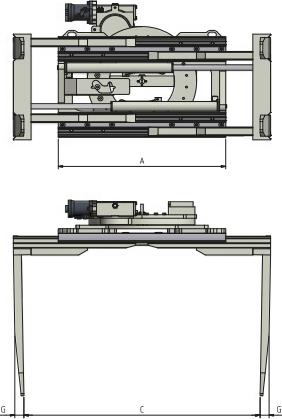
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



301.474.4

360° ROTATING CLAMP WITH 4 FORKS



Model **301.474.4**, with 4 welded forks, is suggested to customers who need to move the load both on pallets and by clamping and rotating it. Thanks to the pair of forks welded on each profile, this Clamp can also overturns loads for replacing pallets. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the forks dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

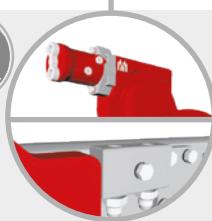
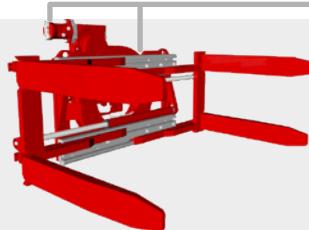
360° ROTATING CLAMP WITH 4 FORKS

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		FORKS DxGxL mm	DISTANCE H - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm					
11M33AQ2A0008	1200	500	II	850	420	1460	120x45x800	560	274	142	387
11M33AQ2A0009	1200	500	II	950	520	1760	120x45x800	560	274	147	394
11M33AQ2A0010	1200	500	II	1050	620	2060	120x45x800	560	274	158	403
11M33BE2A0014	1400	500	II	950	420	1570	120x50x1000	560	307	281	588
11M33BE2A0015	1400	500	II	1050	520	1870	120x50x1000	560	307	301	608
11M33BE2A0016	1400	500	II	1150	620	2170	120x50x1000	560	307	301	632
11M33BE2A0017	1400	500	II	1250	520	2070	120x50x1000	560	307	312	662
11M33CG2A0006	1700	500	II	950	420	1570	120x50x1000	560	307	281	588
11M33CG2A0007	1700	500	II	1050	520	1870	120x50x1000	560	307	291	604
11M33D62A0001	1900	500	II	1050	430	1680	150x50x1000	560	312	303	608
11M33D62A0002	1900	500	II	1150	530	1980	150x50x1000	560	312	316	624
11M33D62A0003	1900	500	II	1250	630	2280	150x50x1000	560	312	329	640
11M33EY3A0001	2400	500	III	1050	430	1680	150x50x1150	560	312	303	681
11M33EY3A0002	2400	500	III	1150	530	1980	150x50x1150	560	312	316	705
11M33GO3A0001	2700	500	III	1100	570	1940	180x50x1150	560	350	356	874
11M33GO3A0002	2700	500	III	1200	470	1840	180x50x1150	560	350	364	904
11M33GO3A0003	2700	500	III	1300	570	2140	180x50x1150	560	350	373	941
11M33GO3A0004	2700	500	III	1400	670	2440	180x50x1150	560	350	394	980
11M33HY3A0001	3500	500	III	1200	490	1900	200x60x1200	560	360	375	949
11M33HY3A0002	3500	500	III	1300	590	2100	200x60x1200	560	360	382	974
11M33HY3A0003	3500	500	III	1400	690	2500	200x60x1200	560	360	389	998



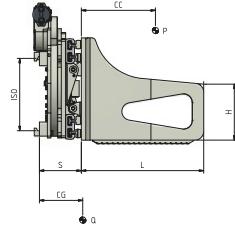
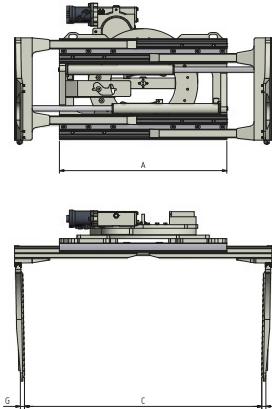
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



301.474.131

360° ROTATING BALE CLAMP WITH THIN BLADES



Model 301.474.131, with full arms penetration thin welded forks, is suggested to customers who need to move and rotate bales of any material: paper, carton, plastic, junk or others. The clamping force, which can be set through hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

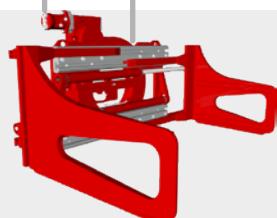
360° ROTATING BALE CLAMP WITH THIN BLADES

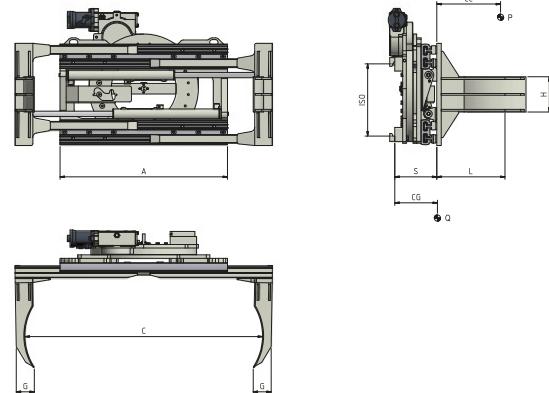
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
					C MIN - mm	C MAX - mm				
11M07AQ2A0001	1200	500	II	850	420	1460	21x350x900	234	220	450
11M07AQ2A0002	1200	500	II	950	520	1760	21x350x900	234	218	453
11M07AQ2A0003	1200	500	II	1050	620	2060	21x350x900	234	217	468
11M07BE2A0003	1400	500	II	950	420	1570	21x400x1000	267	263	588
11M07BE2A0002	1400	500	II	1050	520	1870	21x400x1000	267	261	608
11M07BE2A0004	1400	500	II	1150	620	2170	21x400x1000	267	259	620
11M07BE2A0005	1400	500	II	1250	520	2070	21x400x1000	267	257	636
11M07CG2A0003	1700	500	II	950	420	1570	21x400x1000	267	263	588
11M07CG2A0001	1700	500	II	1050	520	1870	21x400x1000	267	261	604
11M07D62A0002	1900	500	II	1050	420	1670	23x400x1000	267	268	609
11M07D62A0004	1900	500	II	1150	520	1970	23x400x1000	267	266	625
11M07D62A0005	1900	500	II	1250	620	2270	23x400x1000	267	263	641
11M07D62A0006	1900	500	II	1350	720	2570	23x400x1000	267	261	657
11M07EY3A0002	2400	500	III	1050	420	1670	23x400x1000	267	249	680
11M07EY3A0003	2400	500	III	1150	520	1970	23x400x1000	267	244	694
11M07G03A0004	2700	500	III	1100	540	1910	26x400x1000	292	290	940
11M07G03A0005	2700	500	III	1100	530	1900	26x400x1200	292	294	984
11M07G03A0006	2700	500	III	1200	440	1810	26x400x1000	292	285	964
11M07G03A0007	2700	500	III	1200	430	1800	26x400x1200	292	370	1010
11M07G03A0008	2700	500	III	1300	540	2110	26x400x1000	292	280	990
11M07G03A0003	2700	500	III	1300	530	2100	26x400x1200	292	338	1035
11M07G03A0009	2700	500	III	1400	640	2410	26x400x1000	292	275	1015
11M07G03A0010	2700	500	III	1400	630	2400	26x400x1200	292	334	1060
11M07HY3A0001	3500	500	III	1200	470	1880	29x500x1200	302	378	1150
11M07HY3A0002	3500	500	III	1200	460	1870	29x500x1500	302	462	1270
11M07HY3A0003	3500	500	III	1300	570	2180	29x500x1200	302	382	1190
11M07HY3A0004	3500	500	III	1300	560	2170	29x500x1500	302	458	1290
11M07HY3A0005	3500	500	III	1400	670	2480	29x500x1200	302	379	1200
11M07HY3A0006	3500	500	III	1400	660	2470	29x500x1500	302	454	1310



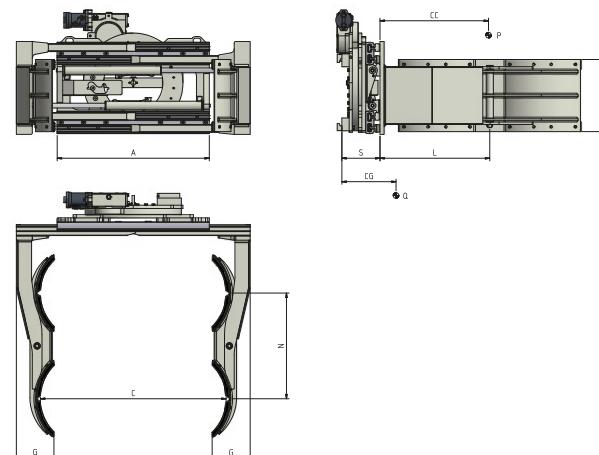
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



301.474.160360° ROTATING DRUM CLAMP FOR
ONE OR TWO DRUMS

Model 301.474.160 is specifically suggested to customers who need to move and rotate one or two barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

301.474.190360° ROTATING DRUM CLAMP FOR
TWO OR FOUR DRUMS

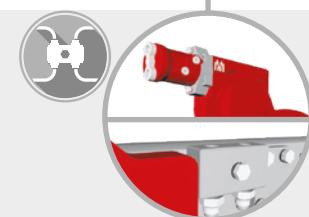
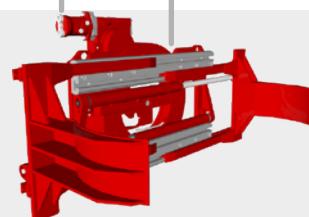
Model 301.474.190 is specifically suggested to customers who need to move and rotate two or four barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE C MIN - mm	BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	
11M23AQ2A0001	1200	330	II	950	490	1730	100x200x330	234	132	390
11M23BE2A0001	1400	330	II	950	450	1600	100x200x330	267	146	476



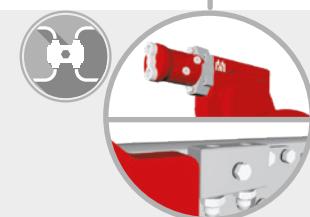
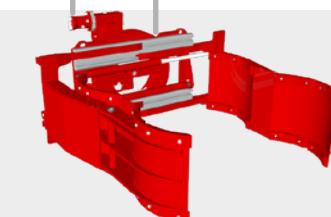
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



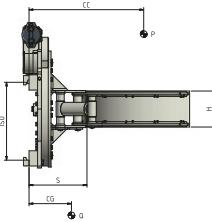
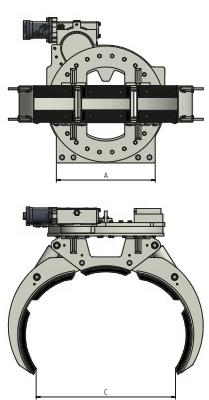
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



636

360° ROTATING DRUM CLAMP FOR ONE DRUM



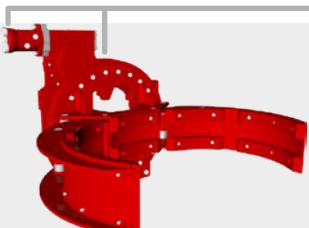
Model **301.474.160** is specifically suggested to customers who need to move and rotate just one barrel. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. Minimum and maximum openings can be adapted to different needs, as the arms dimensions and length. Side Shifting Valve and Semi-Integral Sideshift, are also available on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO FEM	FRAME WIDTH A - mm	DRUMS DIAMETER C MIN - mm C MAX - mm	BLADES HEIGHT H - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
49H2C0001	300	335	II	800	600 700	190	315	153	240



Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 97.

References on table are related to standard attachments.
For special or customised version see options at page 97.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
301.474.170	ISO2	10/10	40/60	20/25
301.474.170	ISO3	15/10	40/60	25/25
301.474.170	ISO4	15/15	40/60	30/30
301.474.150	ISO2	10/10	40/60	20/25
301.474.150	ISO3	15/10	40/60	25/25
301.474.150	ISO4	10/10	40/60	20/25
301.474.4	ISO2	10/10	40/60	20/25
301.474.4	ISO3	15/10	40/60	25/25
301.474.131	ISO2	10/10	40/60	20/25
301.474.131	ISO3	15/10	40/60	25/25
301.474.160	ISO2	10/10	40/60	20/25
301.474.190	ISO2	10/10	40/60	20/25
636	ISO2	10/10	40/45	20/20

In **bold** the values referred to the rotation capacities.



ACCESSORIES

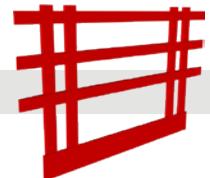
Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Preparation of quick change arms (over 3500 Kg capacity)	-
Pressure gauge	-
Bronze wear pads	-
Quick release hooks	-
Solenoid valve two functions with electric kit (specify voltage)	-
Pressure relief valve, non-return valve and regenerative valve	-
3 position pressure relief valve	-
Manual pressure-relief panel with pressure gauge and indicator lamp	-
Electronic pressure-relief panel with keyboard and indicator lamp	-
Automatic pressure-relief system	-
Mechanical block of rotation at 180°	-
Sideshifting valve	-
Semi-integral sideshift ISO2 ISO3 ISO4	-
Automatic greasing system for semi-integral sideshift	-
Preparation of clamp for quick change arms (up to 3500 Kg)	-
Preparation of clamp for quick change arms (over 3500 Kg)	-
Preparation of quick change arms (up to 3500 Kg capacity)	-
Bolt-on forks ISO2 ISO3 ISO4	-
Forks rotation with hydraulic control (for model 301.474.150)	-
Cylinder protection plate	-
Wear-free plates under the frame	-
Wear-free plates under the blades (for model 301.474.131)	-



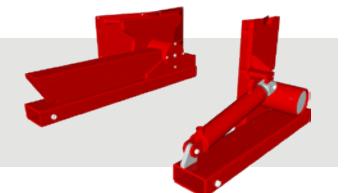
SPECIAL EQUIPMENT

Rotating Clamps with special width and/or stroke can be provided on request.

Load backrest of various widths and heights are available on request.



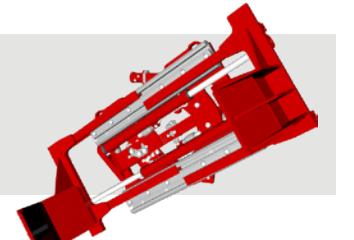
On request we can supply every attachment of the 301.474.170 series with flat slip-on arms, slip-on arms for drums and with a 90° or 180° hydraulic rotation.



301.474.170 On request we can realize the attachment with forks of any section and length.

301.474.131 On request we can realize the attachment with blades of any length and height.

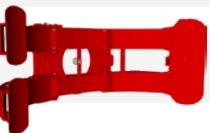
301.474.160 On request we can realize the attachment with V-shaped plates of various diameters for barrel grabbing.



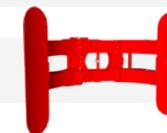




340SF



340DF



340TF



342SF



343SF



364

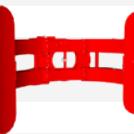
340SM



340DM



340TM



342SM



343SM



340PN



8

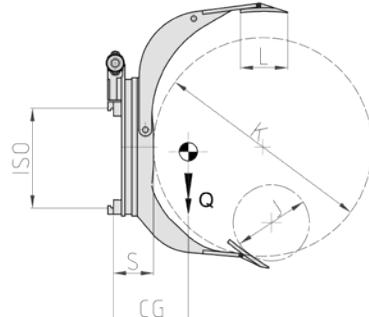
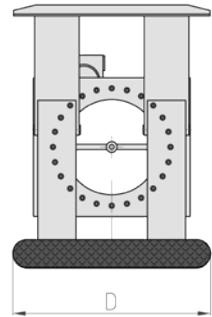
Roll and Tyres Clamps

- 8.1 **340SF** 360° Rotating Roll Clamp with Fixed Short Arm [Pag. 102](#)
- 8.2 **340SM** 360° Rotating Roll Clamp with Adjustable Arms [Pag. 103](#)
- 8.3 **340DF** 360° Rotating Roll Clamp with Fixed Short Arm and Split Long Arm [Pag. 104](#)
- 8.4 **340DM** 360° Rotating Roll Clamp with Adjustable Arms and Split Long Arm [Pag. 105](#)
- 8.5 **340TF** 360° Rotating TISSUE Roll Clamp with Fixed Short Arm [Pag. 106](#)
- 8.6 **340TM** 360° Rotating TISSUE Roll Clamp with Adjustable Arms [Pag. 107](#)
- 8.7 **342SF** 360° Rotating Roll Clamp with 90° Forward Tipping and Fixed short Arm [Pag. 108](#)
- 8.8 **342SM** 360° Rotating Roll Clamp with 90° Forward Tipping and Adjustable Arms [Pag. 109](#)
- 8.9 **343SF** Roll Clamp with 90° Forward Tipping and Fixed Short Arm [Pag. 110](#)
- 8.10 **343SM** Roll Clamp with 90° Forward Tipping and Adjustable Arms [Pag. 111](#)
- 8.11 **364** Roll Clamp with Reduced Heights [Pag. 112](#)
- 8.12 **340PN** Tyres Clamp [Pag. 113](#)
- 8.13 **Options & Special Equipment** [Pag. 114](#)

Roll and Tyres Clamps are specific attachments designed for handling paper rolls, tyres, rolls of cables, big concrete or iron pipes and other materials.

340SF

360° ROTATING ROLL CLAMP
WITH FIXED SHORT ARM



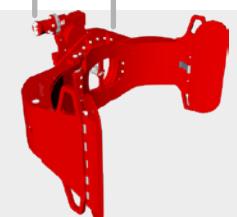
Model 340SF is made of a short fixed arm and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
			J - mm	K - mm				
21G002G2C0001	900	II	350	1100	700x200	178	200	400
21G002G2C0002	900	II	350	1400	700x200	178	205	480
21G002Q2C0001	1300	II	400	1150	750x250	186	220	520
21G002Q2C0002	1300	II	400	1300	750x250	186	230	525
21G00342C0003	2000	II	400	1300	850x250	202	235	620
21G00343C0002	2000	III	400	1300	850x250	202	235	750
21G00343C0003	2000	III	400	1600	850x250	202	240	820
21G003G3C0004	2600	III	550	1300	900x250	215	245	870
21G003G3C0005	2600	III	750	1600	900x250	215	255	940
21G003Q3C0003	3000	III	400	1300	1015x300	225	260	990
21G003W4C0001	3600	IV	750	1800	1050x300	255	275	1440



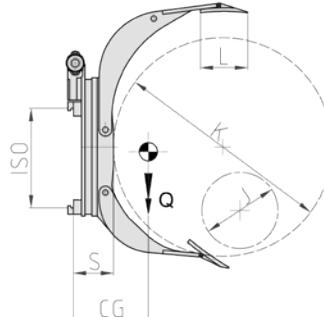
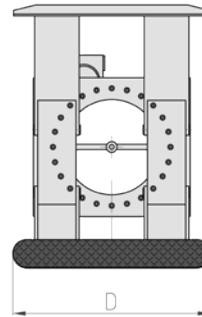
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



340SM

360° ROTATING ROLL CLAMP
WITH ADJUSTABLE ARMS



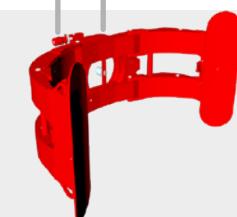
Model 340SM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
			J - mm	K - mm				
21G012G2C0001	900	II	250	1100	700x200	178	205	460
21G012G2C0002	900	II	250	1400	700x200	178	210	520
21G012Q2C0001	1300	II	250	1150	750x250	186	225	550
21G012Q2C0002	1300	II	250	1300	750x250	186	235	575
21G01342C0001	2000	II	250	1300	850x250	202	240	670
21G01343C0002	2000	III	250	1300	850x250	202	240	790
21G01343C0003	2000	III	250	1600	850x250	202	245	960
21G013G3C0004	2600	III	300	1300	900x250	215	250	860
21G013G3C0005	2600	III	480	1600	900x250	215	260	995
21G013Q3C0001	3000	III	250	1300	1015x300	225	265	1060
21G013W4C0001	3600	IV	480	1800	1050x300	255	270	1495



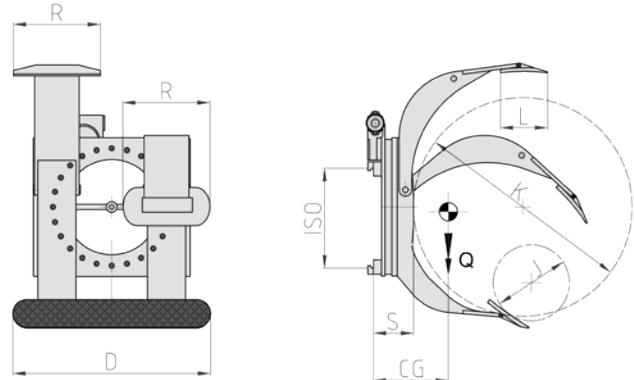
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



340DF

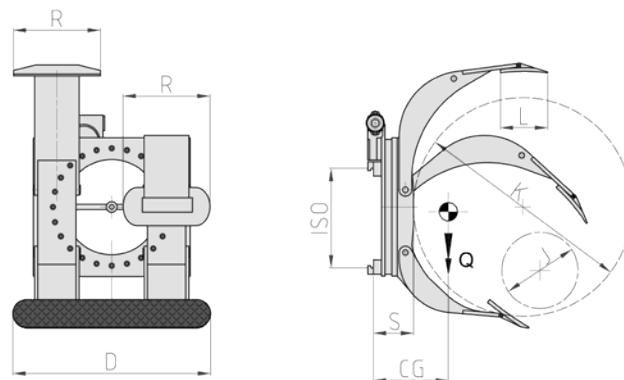
360° ROTATING ROLL CLAMP
WITH FIXED SHORT ARM AND SPLIT LONG ARM



Model 340DF is made of a short fixed arm and a long split arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

340DM

360° ROTATING ROLL CLAMP
WITH ADJUSTABLE ARMS AND SPLIT LONG ARM



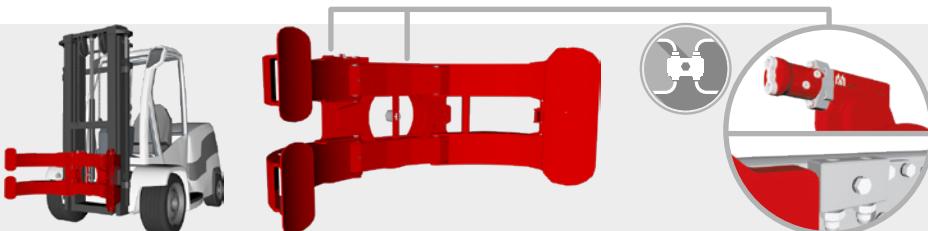
Model 340DM is made of a short adjustable arm, that allows a wider opening, and a long split arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS		THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
			J - mm	K - mm	DxL - mm	RxL - mm			
21G022G2C0001	900	II	350	1100	700x200	310x200	178	200	420
21G022G2C0002	900	II	350	1400	700x200	310x200	178	205	470
21G022Q2C0001	1300	II	400	1150	750x250	315x250	186	220	480
21G022Q2C0002	1300	II	400	1300	750x250	315x250	186	230	515
21G02342C0001	2000	II	400	1300	850x250	365x250	202	235	605
21G02343C0001	2000	III	400	1300	850x250	365x250	202	235	735
21G02343C0003	2000	III	400	1600	850x250	365x250	202	240	805
21G023G3C0003	2600	III	550	1300	900x250	390x250	215	245	855
21G023G3C0004	2600	III	750	1600	900x250	390x250	215	255	915
21G023Q3C0001	3000	III	400	1300	1015x300	445x300	225	260	970
21G023W4C0001	3600	IV	750	1800	1050x300	465x300	255	275	1410



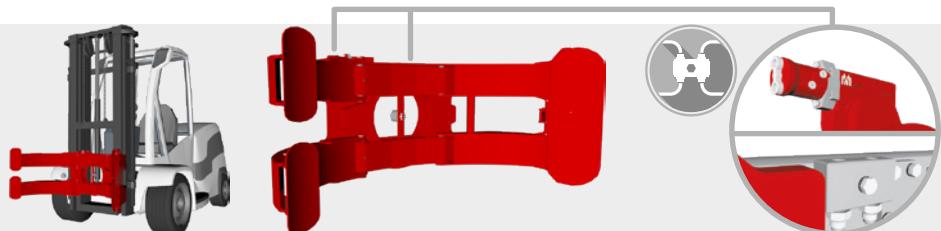
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



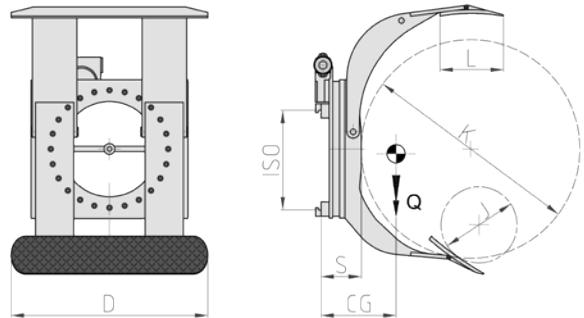
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



340TF

360° ROTATING TISSUE ROLL CLAMP
WITH FIXED SHORT ARM



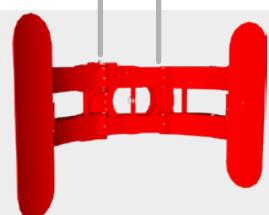
Model 340TF is made of a short fixed arm and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER J - mm	CONTACT PADS K - mm	THICKNESS DxL - mm	CENTER OF GRAVITY S - mm	WEIGHT Q - Kg	
21G042G2C0001	900	II	350	1400	850x300	178	215	495
21G042Q2C0001	1300	II	400	1600	1300x350	186	250	620
21G04343C0001	2000	III	400	1600	1400x350	202	260	835
21G043G3C0001	2600	III	750	1800	1400x350	215	275	1350
21G043G4C0007	2600	IV	1000	2400	1400x350	270	285	1870



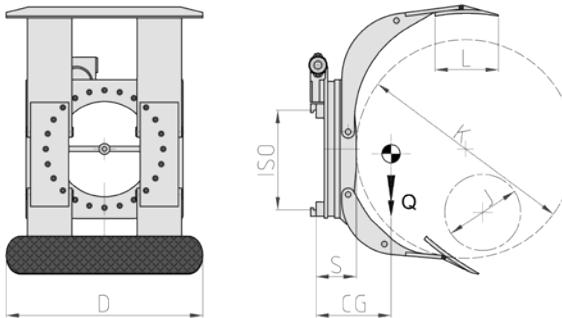
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



340TM

360° ROTATING TISSUE ROLL CLAMP
WITH ADJUSTABLE ARMS



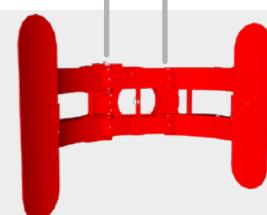
Model 340TM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER J - mm	CONTACT PADS K - mm	THICKNESS DxL - mm	CENTER OF GRAVITY S - mm	WEIGHT Q - Kg	
21G052G2C0001	900	II	250	1400	850x300	178	220	525
21G052Q2C0001	1300	II	250	1600	1300x350	186	255	650
21G05343C0001	2000	III	250	1600	1400x350	202	265	1025
21G053G3C0001	2600	III	480	1800	1400x350	215	280	1140
21G053G4C0005	2600	IV	480	2400	1400x350	270	285	1980



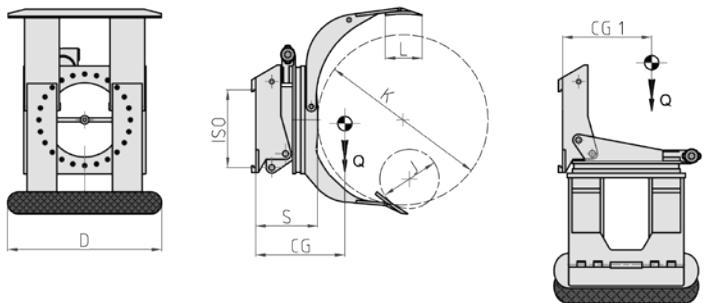
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



342SF

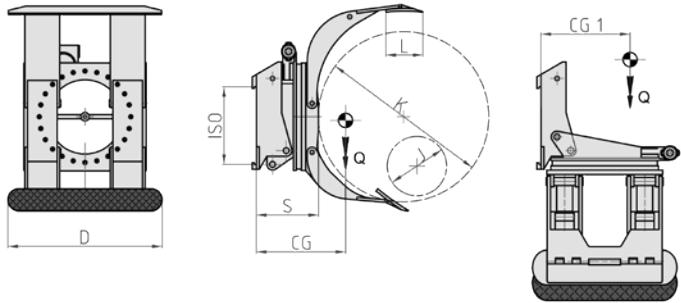
360° ROTATING ROLL CLAMP
WITH 90° FORWARD TIPPING AND FIXED SHORT ARM



Model 342SF is made of a short fixed arm and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. 90° frontal tipping allows the gripping of the rolls, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

342SM

360° ROTATING ROLL CLAMP
WITH 90° FORWARD TIPPING AND ADJUSTABLE ARMS



Model 342SM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. 90° frontal tipping allows the gripping of the rolls, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY	ISO 2328	ROLLS DIAMETER	CONTACT PADS	THICKNESS	CENTER OF GRAVITY	CENTER OF GRAVITY	WEIGHT	
	Kg	FEM	J - mm	K - mm	DxL - mm	S - mm	CG - mm	CG1 - mm	Q - Kg
21J002G2C0001	900	II	350	1100	700x200	295	265	390	640
21J002G2C0002	900	II	350	1400	700x200	295	270	410	690
21J002Q2C0001	1300	II	400	1150	750x250	295	285	430	705
21J002Q2C0002	1300	II	400	1300	750x250	295	290	440	740
21J00342C0001	2000	II	400	1300	850x250	310	300	470	820
21J00343C0001	2000	III	400	1300	850x250	335	300	470	1020
21J00343C0002	2000	III	400	1600	850x250	335	305	490	1090
21J003G3C0001	2600	III	550	1300	900x250	370	310	500	1195
21J003G3C0002	2600	III	750	1600	900x250	370	320	530	1260
21J003Q3C0001	3000	III	400	1300	1015x300	380	325	525	1510
21J003W4C0001	3600	IV	750	1800	1050x300	420	330	575	1840



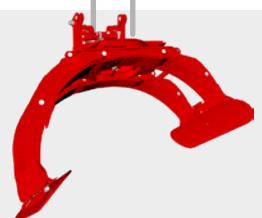
Hydraulic functions required: 3.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.

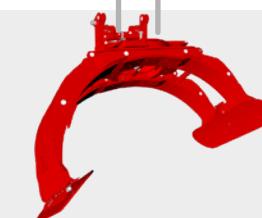


Hydraulic functions required: 3.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



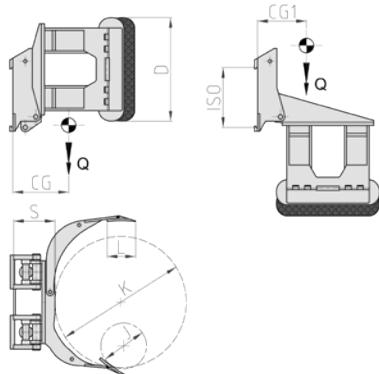
x2



x2

343SF

ROLL CLAMP WITH 90° FORWARD TIPPING
AND FIXED SHORT ARM



Model 343SF is made of a short fixed arm and a long complete arm. 90° frontal tipping allows the gripping of rolls with the same diameter, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS mm	THICKNESS mm	CENTER OF GRAVITY CG - mm	CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg
			J - mm	K - mm					
21K002G2C0001	900	II	350	1100	700x200	235	215	320	510
21K002G2C0002	900	II	350	1400	700x200	235	220	340	560
21K002Q2C0001	1300	II	400	1150	750x250	235	235	360	590
21K002Q2C0002	1300	II	400	1300	750x250	235	240	370	615
21K00342C0001	2000	II	400	1300	850x250	250	250	400	730
21K00343C0001	2000	III	400	1300	850x250	265	250	400	800
21K00343C0002	2000	III	400	1600	850x250	265	255	420	850
21K013G3C0001	2600	III	550	1300	900x250	300	260	430	990
21K013G3C0002	2600	III	750	1600	900x250	300	270	460	1040
21K003Q3C0001	3000	III	400	1300	1015x300	310	275	455	1070
21K003W4C0001	3600	IV	750	1800	1050x300	320	280	505	1495

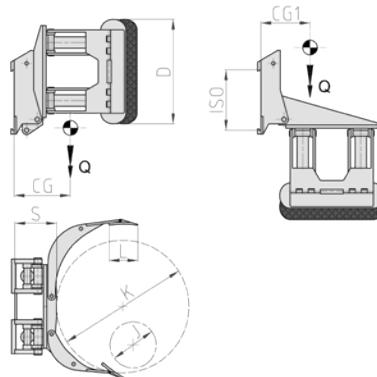


Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.

343SM

ROLL CLAMP WITH 90° FORWARD TIPPING
AND ADJUSTABLE ARMS



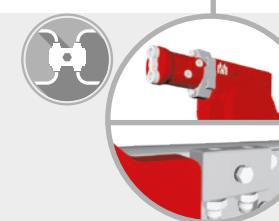
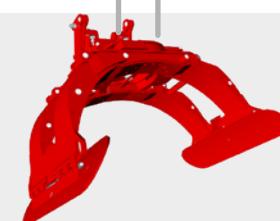
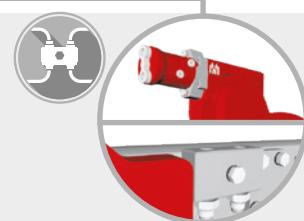
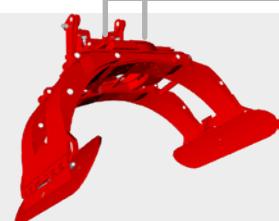
Model 343SM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 90° frontal tipping allows the gripping of rolls with the same diameter, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS mm	THICKNESS mm	CENTER OF GRAVITY CG - mm	CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg
			J - mm	K - mm					
21K012G2C0001	900	II	250	1100	700x200	235	220	325	560
21K012G2C0002	900	II	250	1400	700x200	235	225	345	610
21K012Q2C0001	1300	II	250	1150	750x250	235	240	365	640
21K012Q2C0002	1300	II	250	1300	750x250	235	245	375	665
21K01342C0001	2000	II	250	1300	850x250	250	255	405	780
21K01343C0001	2000	III	250	1300	850x250	265	255	405	850
21K01343C0002	2000	III	250	1600	850x250	265	260	425	900
21K013G3C0001	2600	III	300	1300	900x250	300	265	435	1040
21K013G3C0002	2600	III	480	1600	900x250	300	275	465	1095
21K013Q3C0001	3000	III	250	1300	1015x300	310	280	460	1120
21K013W4C0001	3600	IV	480	1800	1050x300	320	285	510	1545



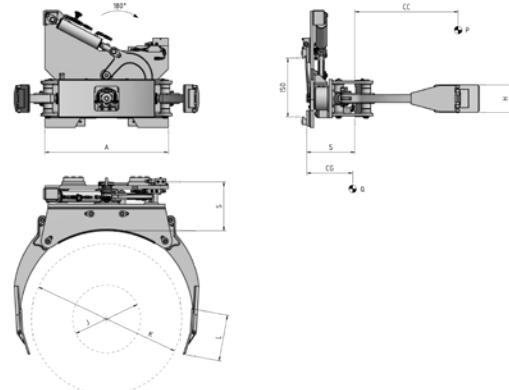
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



364

ROLL CLAMP WITH REDUCED HEIGHTS



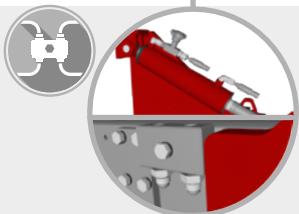
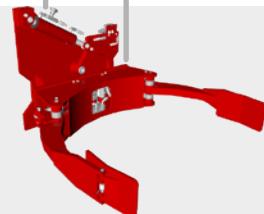
Model 364 can be produced with a 90°, 180° or 360° rotation. It's recommended to handle rolls which have reduced heights, like rolls of tape, sticky labels and packaging cardboards for food industry.

REFERENCE	ATTACHMENT CAPACITY Kg	CENTER OF GRAVITY	ISO 2328 FEM	ROTATION	CARRIAGE WIDTH A-mm	ROLLS DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
						J - mm	K - mm				
73AF022	400	625	II	90°	800	300	1250	160x200	350	236	295
73AF023	400	625	II	180°	800	300	1250	180x300	350	236	300
73AF029	500	600	II	360°	620	300	1200	180x300	310	260	330



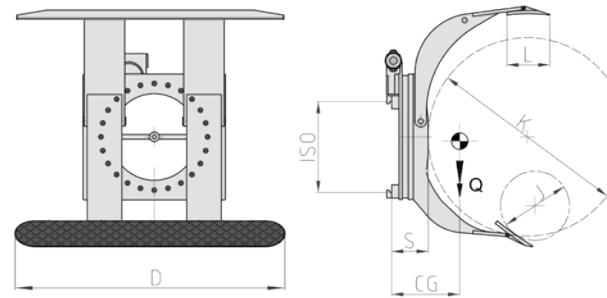
Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



340PN

TYRES CLAMP



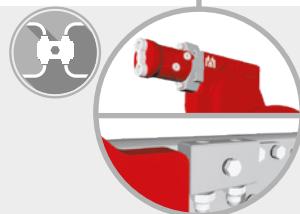
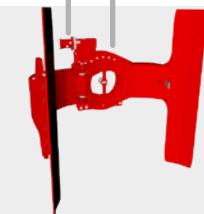
Model 340PN can be produced with a short fixed arm and a long complete one, or with a short fixed arm and both adjustable arms, it depends on the range of the grip diameter. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more tyres which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	TYRES DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
			J - mm	K - mm				
21G042Q2C0002	1300	II	400	1300	1800 x 350	186	255	535
21G052Q2C0002	1300	II	250	1300	1800 x 350	186	235	520
21G002Q2C0023	1300	II	400	1300	2050 x 350	230	235	650
21G042Q2C0004	1300	II	400	1600	1800 x 350	186	305	585
21G052Q3C0001	1300	III	500	1600	1800 x 350	210	255	690
21G042Q3C0002	1400	III	500	1800	1800 x 350	210	260	915
21G00343C0005	2000	III	700	2000	1930 x 300	215	265	945



Hydraulic functions required: 2.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 114.

References on table are related to standard attachments.
For special or customised version see options at page 114.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
340 SF	ISO2	20/10	40/60	25/25
340 SF	ISO3	22/10	40/60	30/25
340 SF	ISO4	30/15	50/60	35/35
340 SM	ISO2	20/10	40/60	25/25
340 SM	ISO3	22/10	40/60	30/25
340 SM	ISO4	30/15	50/60	35/35
340 DF	ISO2	20/10	40/60	25/25
340 DF	ISO3	22/10	40/60	30/25
340 DF	ISO4	30/15	50/60	35/35
340 DM	ISO2	20/10	40/60	25/25
340 DM	ISO3	22/10	40/60	30/25
340 DM	ISO4	30/15	50/60	35/35
340 TF	ISO2	20/10	40/60	25/25
340 TF	ISO3	22/10	40/60	30/25
340 TF	ISO4	25/15	50/60	30/30
340 TM	ISO2	20/10	40/60	25/25
340 TM	ISO3	22/10	40/60	30/25
340 TM	ISO4	25/15	50/60	30/30
342 SF	ISO2	20/10/15	40/60/40	25/25/20
342 SF	ISO3	22/10/15	40/60/40	30/25/20
342 SF	ISO4	30/15/15	50/60/60	35/35/25
342 SM	ISO2	20/10/15	40/60/40	25/25/20
342 SM	ISO3	22/10/15	40/60/40	30/25/20
342 SM	ISO4	30/15/15	50/60/60	35/35/25
343 SF	ISO2	20/15	40/40	25/20
343 SF	ISO3	22/15	40/40	30/20
343 SF	ISO4	30/15	50/60	35/25
343 SM	ISO2	20/15	40/40	25/20
343 SM	ISO3	22/15	40/40	30/20
343 SM	ISO4	30/15	50/60	35/25
364	ISO2	20/10	40/20	25/15
340 PN	ISO2	20/10	40/60	25/25
340 PN	ISO3	22/10	40/60	30/25

In bold the values referred to the capacities of those functions, which are different from the clamping.



ACCESSORIES

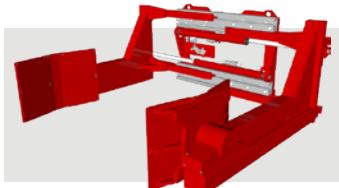
Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Pressure gauge	-



SPECIAL EQUIPMENT

Roll and tyres clamps with special width and/or stroke can be provided on request.

On request we can manufacture roll and tyres clamps with parallel arms, particularly appropriate for container loading/unloading operations, because of the reduced dimensions of the clamp unit. These models are available both in the rotating and in the fixed versions.



Semi-integral sideshift ISO2
ISO3
ISO4

Automatic greasing system for semi-integral sideshift

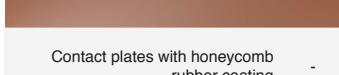
Mechanical block of rotation at 180°

On request we can supply milled contact plates, or coated with a corundum layer

Contact plates with standard rubber coating



Contact plates with smooth rubber coating



Contact plates with honeycomb rubber coating



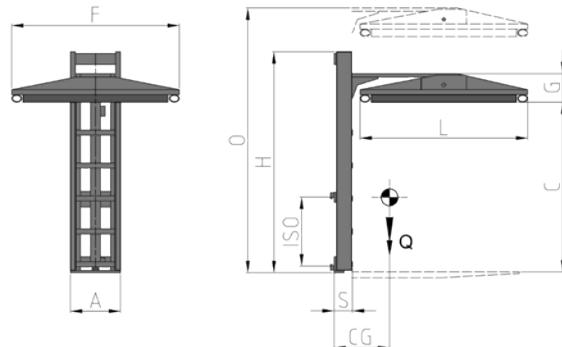
**9**

Various Hydraulic and Mechanical Attachments

- | | | | |
|-------------|-------------|--|----------|
| 9.1 | 951 | <u>Load Stabilizer</u> | Pag. 118 |
| 9.2 | 505 | <u>Push-Pull with Sheet Retention</u> | Pag. 119 |
| 9.3 | 505i | <u>Fork Mounted Push-Pull with Sheet Retention</u> | Pag. 120 |
| 9.4 | 490 | <u>Load Push</u> | Pag. 121 |
| 9.5 | 600 | <u>Load Extender</u> | Pag. 122 |
| 9.6 | 965 | <u>Hydraulic Bucket</u> | Pag. 123 |
| 9.7 | 971 | <u>Fork Mounted Hydraulic Bucket</u> | Pag. 124 |
| 9.8 | 968 | <u>Fork Mounted Mechanical Bucket</u> | Pag. 125 |
| 9.9 | 980 | <u>Crane Jib</u> | Pag. 126 |
| 9.10 | 975 | <u>Crane Jib with Extending Arm</u> | Pag. 127 |
| 9.11 | 976 | <u>Fork Mounted Crane Jib with Extending Arm</u> | Pag. 128 |
| 9.12 | 940 | <u>Boom</u> | Pag. 129 |
| 9.13 | | <u>Options & Special Equipment</u> | Pag. 130 |

951

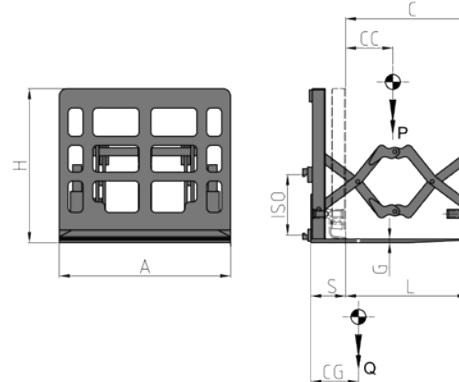
LOAD STABILIZER



951 Load Stabilizer is designed to stabilize unstable, voluminous or overlapped loads on pallets. It can be installed on the original fork carriage of the forklift, but also on other attachments like side shifts, double or triple side shifts, fork positioners and rotators. Special versions for double or triple fork positioners and for clamps available on request. Minimum and maximum openings can be adapted to different needs, as the dimensions of the Plate of the **Load Stabilizer**.

505

PUSH-PULL WITH SHEET RETENTION



505 Push-Pull is a specific attachment designed to move not-palletized goods and which also allows to recover sheets of paper, cardboard or plastic. Removing the pallet leads to packaging cost reduction, allows to increase the volume of the transportable goods (especially in case of containers) and it reduces encumbrance of space in warehouses. **Push-Pull's** range of capacities and strokes can be adapted to any customer need. Models without sideshifting movement and without sheets retention are also available.

REFERENCE FEM	OPENING RANGE		FRAME			PLATE SIZES		THICKNESS	CENTER OF GRAVITY	WEIGHT		
	C MIN - mm	C MAX - mm	A - mm	H - mm	O - mm	F - mm	L - mm	G - mm	S - mm	CG - mm	Q - Kg	
29F52A061	II	1000	1900	300	1300	2035	1000	1000	150	125	215	220
29F52A053	II	1000	1900	300	1300	2035	1000	1150	150	125	230	175
29F52A049	II	1000	2300	300	1700	2785	1000	1000	150	125	215	270
29F52A035	II	1000	2300	300	1700	2785	1000	1150	150	125	230	250
29F52A062	II	1100	2200	300	1500	2485	1000	1000	150	125	215	200
29F52A063	II	1100	2200	300	1500	2485	1000	1150	150	125	230	205
29F52A064	II	1200	2100	300	1300	2235	1000	1000	150	125	215	180
29F52A065	II	1200	2100	300	1300	2235	1000	1150	150	125	230	185
29F52A066	II	1200	2200	300	1400	2335	1000	1000	150	125	215	190
29F52A067	II	1200	2200	300	1400	2335	1000	1150	150	125	230	195
29F52A068	II	1200	2300	300	1500	2435	1000	1000	150	125	215	200
29F52A046	II	1200	2300	300	1500	2435	1000	1150	150	125	230	250
29F52A069	II	1300	2200	300	1300	2335	1000	1000	150	125	215	190
29F52A070	II	1300	2200	300	1300	2335	1000	1150	150	125	230	195



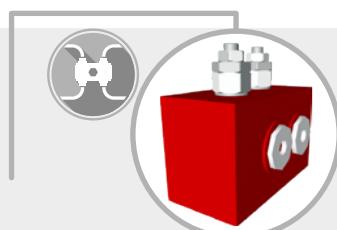
Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

References on table are related to standard attachments.
For special or customised version see options at page 130.

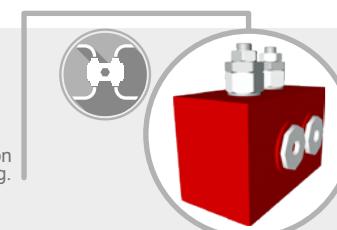


Hydraulic functions required: 2 + 1 Electric.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

References on table are related to standard attachments.
For special or customised version see options at page 130.



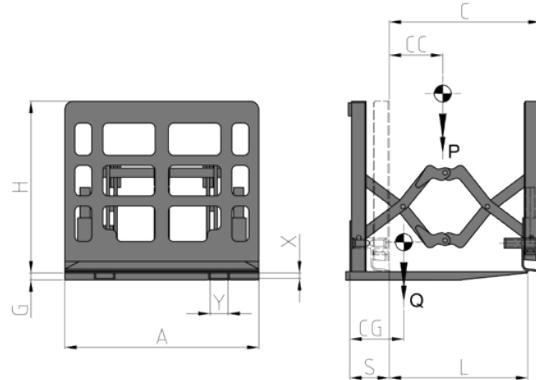
The positioning of the Hydraulic Connection is defined with the customer when ordering.



The positioning of the Hydraulic Connection is defined with the customer when ordering.

505i

FORK MOUNTED PUSH-PULL
WITH SHEET RETENTION



505i Push-Pull is a fork mounted attachment, designed to move not-palletized goods and which also allows to recover sheets of paper, cardboard or plastic. Removing the pallet leads to packaging cost reduction, allows to increase the volume of the transportable goods (specially in case of containers) and it reduces encumbrance of space in warehouses. **Push-Pull's** range of capacities and strokes can be adapted to any customer need. Models without sheet retention are also available.

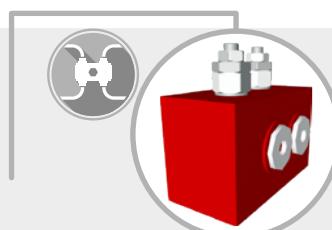
REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	FORKS MOUNTING SECTION	STROKE	HEIGHT	LOADING PLATE		THICKNESS	CENTER OF GRAVITY	WEIGHT						
						P - Kg	CC - mm	YxX - mm	C - mm	H - mm	A - mm	L - mm	G - mm	S - mm	CG - mm	Q - Kg
33B2J6D0001	1000	550	117x45	1120	1000	1200	1070	55	270	235	585					
33B2J6D0002	1000	650	117x45	1270	1100	1200	1220	55	270	245	650					
33B2U6D0001	1500	550	142x45	1120	1000	1250	1070	55	275	240	690					
33B2U6D0002	1500	650	142x45	1270	1100	1250	1220	55	275	250	760					
33B346D0001	2000	550	142x45	1120	1000	1250	1070	70	300	270	790					
33B346D0002	2000	650	142x45	1270	1100	1250	1220	70	300	280	890					



Hydraulic functions required: 1 + 1 Electric.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

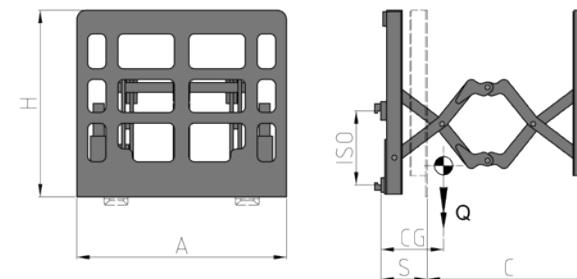
References on table are related to standard attachments.
For special or customised version see options at page 130.

The positioning of the Hydraulic Connection
is defined with the customer when ordering.



490

LOAD PUSH



490 Load-Push is designed to move not-palletized goods. Removing the pallet leads to packaging cost reduction, allows to increase the volume of the transportable goods (specially in case of containers) and it reduces encumbrance of space in warehouses. **Load-Push** is particularly suitable to arrange not-palletized goods in double depth. **Load-Push's** range of capacities and strokes can be adapted to any customer need.

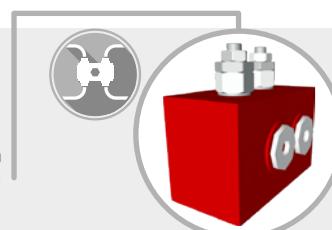
REFERENCE	CAPACITY	ISO 2328 FEM	WIDTH	HEIGHT	STROKE	THICKNESS	CENTER OF GRAVITY	WEIGHT
35A2J2A0001	1500	II	1200	1070	820	230	145	325
35A2J2A0002	1500	II	1200	1070	1070	230	145	335
35A2J2A0003	1500	II	1200	1170	1220	230	145	350
35A2U2A0001	2500	II	1200	1070	820	235	150	350
35A2U2A0002	2500	II	1200	1070	1070	235	150	360
35A2U2A0003	2500	II	1200	1170	1220	235	150	380



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

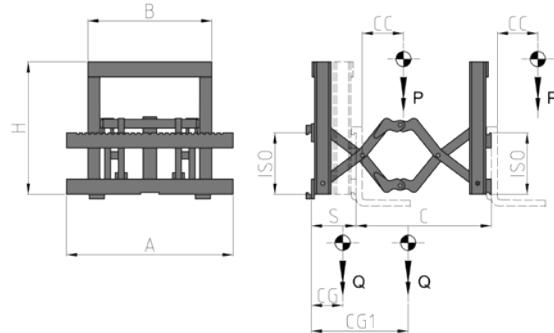
References on table are related to standard attachments.
For special or customised version see options at page 130.

The positioning of the Hydraulic Connection
is defined with the customer when ordering.



600

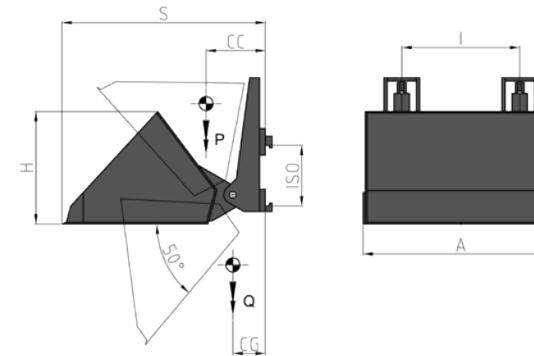
LOAD EXTENDER



600 Load Extender is designed to arrange not-palletized goods in double depth. It's particularly suitable for double row storage or for loading trucks from one side, when confined spaces do not allow other maneuvers. **Load Extender's** range of capacities and strokes can be adapted to every customer's need.

965

HYDRAULIC BUCKET



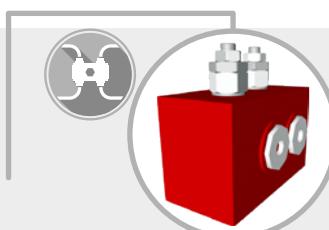
965 Hydraulic Bucket is designed to allow the load/unload operations of building industry materials (sand, gravel, concrete, terrain), but they are also used in agriculture.

REFERENCE	CLOSED ATTACHMENT CAPACITY P - Kg	EXTENDED ATTACHMENT CAPACITY P1 - Kg	LOAD CENTER CC - mm	ISO 2328 BACK	ISO 2328 FRONT	STROKE C - mm	FRAME DIMENSIONS BxH - mm	CARRIAGE WIDTH A - mm	THICKNESS S - mm	CLOSED CENTER OF GRAVITY CG - mm	EXTENDED CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg
37ABS2C0002	1500	800	500	II	II	950	800x1000	980	320	165	645	580
37ABS2C0003	1500	800	500	II	II	1200	800x1000	980	320	165	770	580
37ABS2C0004	1500	800	500	II	II	950	800x1000	1100	320	170	650	600
37ABS2C0005	1500	800	500	II	II	1200	800x1000	1100	320	170	775	600
37AFA7C0001	2500	1300	500	III	II	950	800x1000	1100	330	170	650	615
37AFA7C0002	2500	1300	500	III	II	1200	800x1000	1100	330	170	780	615
37AFA7C0003	2500	1300	500	III	II	950	800x1000	1300	330	175	670	650
37AFA7C0004	2500	1300	500	III	II	1200	800x1000	1300	330	175	795	650
37AJU3C0006	4000	2000	500	III	III	950	800x1000	1300	350	185	675	640
37AJU3C0007	4000	2000	500	III	III	1200	800x1000	1300	350	185	800	910
37AJU3C0008	4000	2000	500	III	III	950	800x1000	1650	350	200	685	960
37AJU3C0009	4000	2000	500	III	III	1200	800x1000	1650	350	200	810	960



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

References on table are related to standard attachments.
For special or customised version see options at page 130.

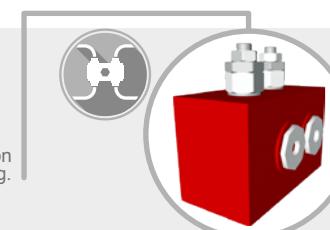


The positioning of the Hydraulic Connection is defined with the customer when ordering.



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

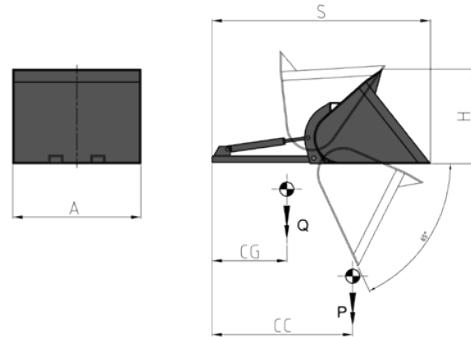
References on table are related to standard attachments.
For special or customised version see options at page 130.



The positioning of the Hydraulic Connection is defined with the customer when ordering.

971

FORK MOUNTED HYDRAULIC BUCKET



971 Fork Mounted Hydraulic Bucket is designed to allow the load/unload operations of building industry materials (sand, gravel, concrete, terrain), but they are also recommended in agriculture. It's particularly suitable for customers who use it only occasionally (for occasional or seasonal jobs).

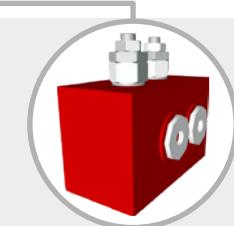
REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	LOADING CAPACITY	BUCKET SIZES	THICKNESS	CENTER OF GRAVITY	WEIGHT	
	P - Kg	CC - mm	m ³	A - mm	H - mm	S - mm	CG - mm	Q - Kg
41D086D002	930	950	0,52	1000	799	2075	820	280
41D0A6D002	1110	950	0,62	1200	799	2075	850	300
41D0D6D003	1310	950	0,73	1400	799	2075	880	400
41D0E6D001	1530	980	0,85	1200	952	2330	890	430
41D0J6D001	1760	980	0,98	1400	952	2330	930	460
41D0K6D001	2010	980	1,12	1600	952	2330	960	490



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 130.

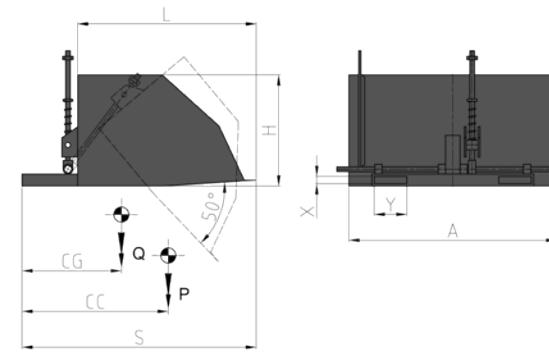
References on table are related to standard attachments.
For special or customised version see options at page 130.

The positioning of the Hydraulic Connection
is defined with the customer when ordering.



968

FORK MOUNTED MECHANICAL BUCKET



968 Fork Mounted Mechanical Bucket is designed to allow the load/unload operations of building industry materials (sand, gravel, concrete, terrain), but they are also used in agriculture. It's particularly suitable for customers who use it only occasionally (for occasional or seasonal jobs).

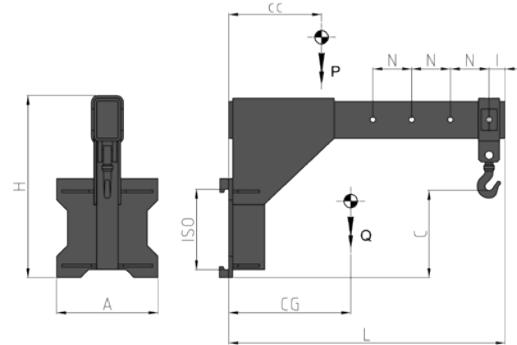
REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	LOADING CAPACITY	BUCKET SIZES	FORKS MOUNTING SECTION		THICKNESS	CENTER OF GRAVITY	WEIGHT	
	P - Kg	CC - mm	m ³	A - mm	H - mm	L - mm	YxX - mm	S - mm	CG - mm	Q - Kg
41C086D001	800	450	0,5	1000	500	1100	175x55	1595	745	206
41C0D6D001	1000	550	0,7	1200	500	1300	175x55	1795	849	243
41C0J6D001	1500	600	1	1400	600	1400	175x55	1895	931	293
41C0L6D001	1800	600	1,2	1600	600	1400	215x55	1895	925	324
41C0P6D001	2000	625	1,5	1800	600	1500	215x55	1995	978	350
41C0U6D001	2500	725	2	2000	650	1600	215x55	2095	1042	393



On request, we can supply attachments with
different specifications than those described in the table.

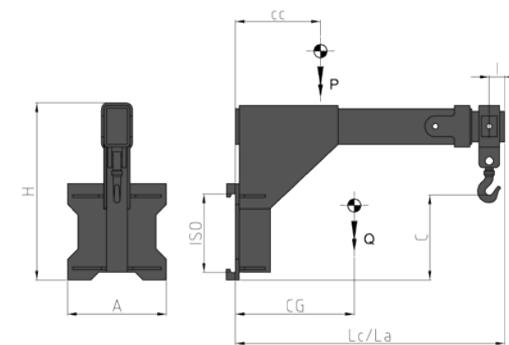
References on table are related to standard attachments.
For special or customised version see options at page 130.

980 CRANE JIB



980 Crane Jib is designed to move suspended loads through the use of belts or chains.

975 CRANE JIB WITH EXTENDING ARM



975 Crane Jib with Extending Arm is designed to move suspended loads through the use of belts or chains.

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328	WIDTH	HEIGHT	LENGTH	HOLE DISTANCE	AXIS-CENTER DISTANCE	HOOK HEIGHT	CENTER OF GRAVITY	WEIGHT
	P - Kg	CC - mm	FEM	A - mm	H - mm	L - mm	I - mm	N - mm	C - mm	CG - mm	Q - Kg
45LBS2C003	1500	500	II	480	900	1276	76	200	200	340	130
45LFA2C009	2500	500	II	480	900	1376	76	200	200	390	160
45LHY3C007	3500	500	III	480	1035	1476	76	200	200	410	230
45LLL3C001	5000	500	III	480	1035	1476	76	200	200	430	260
45LR04C001	8000	600	IV	560	1305	1686	86	200	200	490	440

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328	WIDTH	HEIGHT	LUNGHEZZA	LENGTH	HOLE DISTANCE	HOOK HEIGHT	CENTER OF GRAVITY	WEIGHT
	P - Kg	CC - mm	FEM	A - mm	H - mm	Lc - mm	Lo - mm	I - mm	C - mm	CG - mm	Q - Kg
45JFA2C001	2500	500	II	480	912	1376	1976	76	499	460	180
45JHY3C001	3500	500	III	480	1050	1376	1976	76	555	480	260
45JLL3C001	5000	500	III	480	1050	1376	1976	76	555	500	300
45JRO4C001	8000	600	IV	560	1345	1486	2086	86	695	510	580



The combination of attachment and forklift must be homologated. The delivery of this attachment does not include the documents required for the homologation.

References on table are related to standard attachments.
For special or customised version see options at page 130.

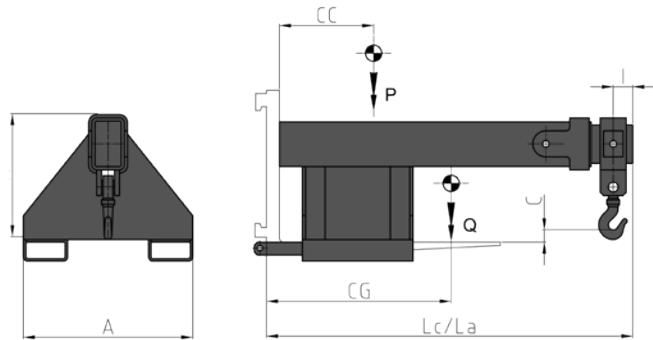


The combination of attachment and forklift must be homologated. The delivery of this attachment does not include the documents required for the homologation.

References on table are related to standard attachments.
For special or customised version see options at page 130.

976

FORK MOUNTED CRANE JIB WITH EXTENDING ARM

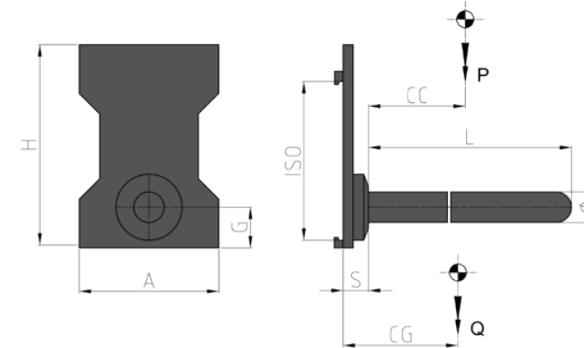


976 Fork Mounted Crane Jib with Extending Arm is designed to move suspended loads through the use of belts or chains.

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	WIDTH	HEIGHT	LENGTH CLOSED	LENGTH OPEN	HOLE DISTANCE	HOOK HEIGHT	CENTER OF GRAVITY	WEIGHT
	P - Kg	CC - mm	A - mm	H - mm	Lc - mm	Lo - mm	I - mm	C - mm	CG - mm	Q - Kg
45MFA6D001	2500	500	620	481	1376	1976	76	15	540	170
45MHY6D001	3500	500	720	580	1376	1976	76	20	250	250
45MLL6D001	5000	500	720	580	1376	1976	76	20	580	280
45MRO4C001	8000	600	830	730	1486	2086	86	20	590	530

940

BOOM



940 Boom is a mechanical attachment, ideal to take any HOSElar load placed lengthwise to the axis of the forklift, for example like paper rolls, carpets, mallettes, plastic, concrete or iron pipes, wire rod rolls. It's easy to fit it on the original fork carriage of the forklift and it's also available in different diameters and lengths, depending on the specific needs of the users.

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328 FEM	DIAMETER	REAR PLATE			BOOM LENGTH	THICKNESS	CENTER OF GRAVITY	WEIGHT
	P - Kg	CC - mm		Ø - mm	A - mm	H - mm	G - mm	L - mm	S - mm	CG - mm	Q - Kg
47A8L1C001	550	500	I	50	320	430	100	1000	75	163	66
47AA01C001	1000	500	I	60	320	430	100	1000	75	207	75
47AA02C001	1000	500	II	60	360	500	100	1000	90	155	100
47ABS2C001	1500	500	II	70	360	500	100	1000	90	188	108
47ABS2C002	1500	500	II	70	360	500	100	1500	90	335	120
47ABS2C003	1500	500	II	70	360	500	100	3200	90	971	177
47AFA2C001	2500	500	II	80	360	500	100	1200	90	283	125
47AFA2C002	2500	500	II	80	360	500	100	3600	90	1256	225
47AHY3C001	3500	500	III	100	400	610	180	1200	130	276	215
47AKQ3C001	4500	500	III	110	400	610	180	1500	130	411	248
47ALM4C001	5000	600	IV	120	550	760	200	1500	140	328	395
47AP94C001	6500	600	IV	140	550	760	200	1800	140	495	490
47ASS6C001	13000	600	*	220	*	*	300	1200	220	370	980



The combination of attachment and forklift must be homologated. The delivery of this attachment does not include the documents required for the homologation.

References on table are related to standard attachments.
For special or customised version see options at page 130.



*PIN-TYPE

References on table are related to standard attachments.
For special or customised version see options at page 130.

OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

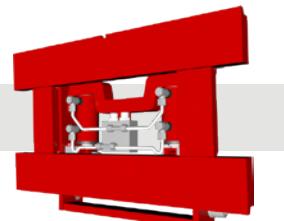
TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
951	all	10	30	15
505	all	15	30	20
505i	all	15	30	20
490	35A2J...	15	30	20
490	35AU...	20	40	30
600	37AB...	15	30	20
600	37AF...	20	40	30
600	37AJ...	20	40	30
965	ISO2	8	25	15
965	ISO3	12	40	25
965	ISO4	15	50	30
971	all	12	40	25



SPECIAL EQUIPMENT

On request we can supply attachments with different specifications than those described in the list.

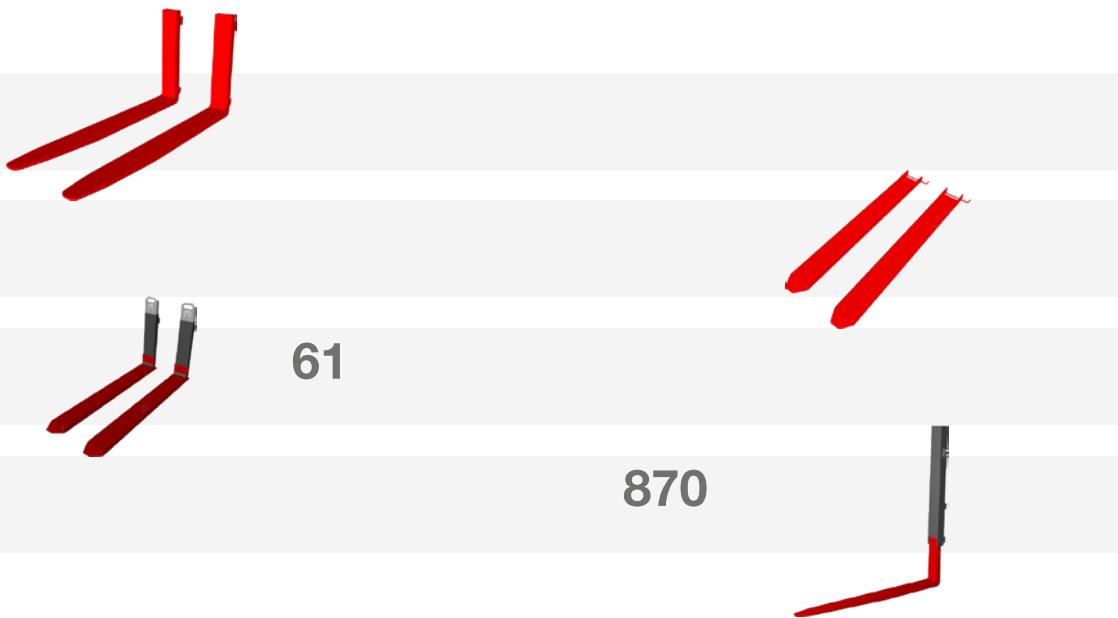
On request we can supply the load stabilizers with special openings realized with double cylinder.



ACCESSORIES

Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Pressure gauge	-
Quick release hooks	-
Solenoid valve two functions with electric kit (specify voltage)	-
Pressure relief valve	-
3 position pressure relief valve	-
Semi-integral sideshift ISO2 ISO3 ISO4	-
Automatic greasing system for semi-integral sideshift	-

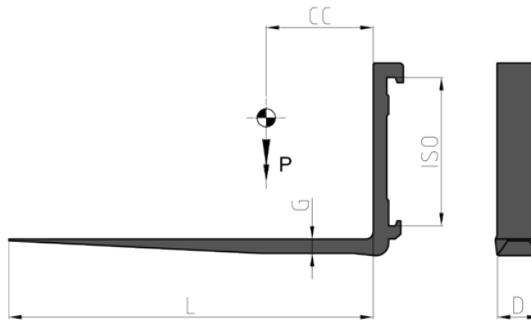




10 Forks

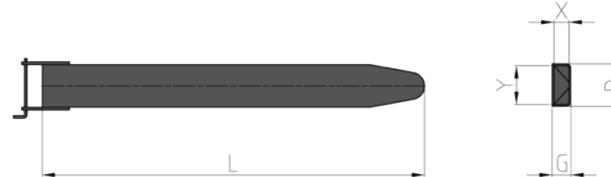
- | | | |
|-------------|--|---------------------------------|
| 10.1 | <u>Forks</u> | <u>Pag. 134</u> |
| 10.2 | <u>Forks Extensions</u> | <u>Pag. 135</u> |
| 10.3 | 61 <u>Telescopic Forks</u> | <u>Pag. 136</u> |
| 10.4 | 870 <u>Lift Drop Fork</u> | <u>Pag. 137</u> |
| 10.5 | <u>Options & Special Equipment</u> | <u>Pag. 138</u> |

FORKS



Forks and Forks Extensions
of any capacity, section and
length, for any kind of forklift.

FORKS EXTENSIONS



Forks and Forks Extensions
of any capacity, section and
length, for any kind of forklift.



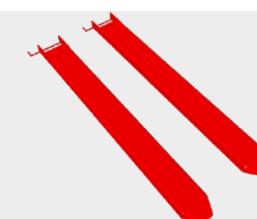
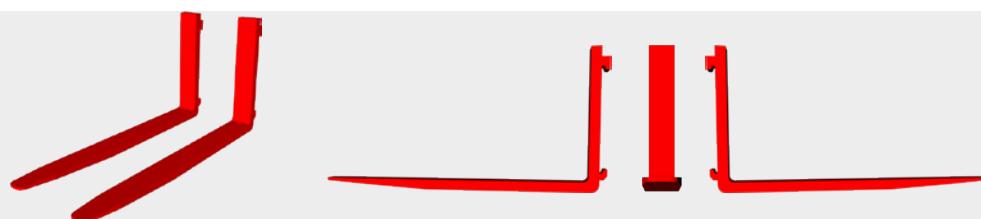
Available for all ISO classes, FEM A or FEM B.
On request we can supply special forks or forks for
Pin-Type application. Net prices available on request.

References on table are related to standard attachments.
For special or customised version see options at page 138.

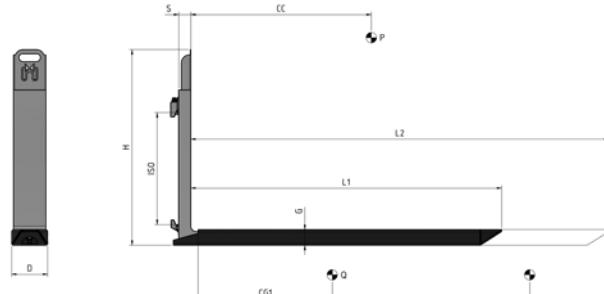


Forks extensions are available for all ISO classes and in
various lengths. Forks lenght must be at least the 60% of the
length of the extensions. Net prices available on request.

References on table are related to standard attachments.
For special or customised version see options at page 138.



61 TELESCOPIC FORKS



61 Telescopic Forks are hydraulic attachments designed to handle goods on pallet in double depth. Slight dimensions make them suitable for difficult operations in narrow spaces. **Telescopic Forks** work just with one cylinder, which allows to use smaller sizes forks with a higher Push-Pull strength. The synchronism between the two forks is regulated by a flow divider, provided as standard on each model.

REFERENCE	CAPACITY PER PAIR P - Kg	LOAD CENTER CC - mm	ISO 2328			FORK SECTION	HEIGHT H - mm	LENGTH L1 - mm	L2 - mm	THICKNESS S - mm	CENTER OF GRAVITY CG1 - mm	CENTER OF GRAVITY CG2 - mm	WEIGHT PER PAIR Q - Kg
			FEM	D - mm	G - mm								
53UFA2A139	2500	600	II	133	58	725	1000	1650	53	349	481	151	
53UFA2A133	2500	600	II	133	58	725	1150	1950	53	402	560	163	
53UFA2A126	2500	600	II	133	58	725	1250	2150	53	447	629	174	
53UFA2A119	2500	600	II	133	58	725	1350	2350	53	493	699	183	
53UKQ3A039	4500	600	III	163	58	850	1150	1950	53	375	511	218	
53UKQ3A028	4500	600	III	163	58	850	1250	2150	53	418	575	232	
53UKQ3A033	4500	600	III	163	58	850	1350	2350	53	462	641	247	

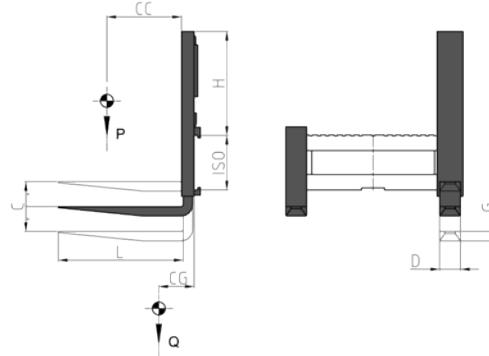


Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 138.

References on table are related to standard attachments.
For special or customised version see options at page 138.
For hydraulic connection position see detail below.



870 LIFT DROP FORK



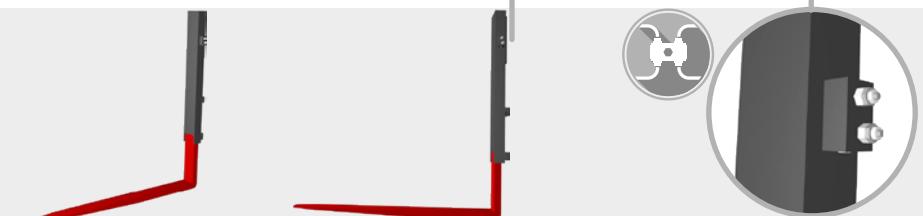
870 Lift-Drop Fork consists of a mechanism installed on a standard fork with FEM hook, that allows the lifting of the fork itself and ease the movement when the loads are not aligned or they are stand on inclined surfaces. For supplying the **Lift-Drop Fork** it's necessary to specify the forks length used.

REFERENCE	CAPACITY PER PAIR P - Kg	LOAD CENTER CC - mm	ISO 2328			FORK SECTION	HEIGHT H - mm	LENGTH L - mm	STROKE C - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg
			FEM	D - mm	G - mm						
55ABS2A2001	1500	500	II	100	35	1000	650	1000	200	180	98
55AFA2A2001	2500	500	II	130	40	1000	650	1000	200	190	129
55AHY3A4001	3500	500	III	130	45	1000	650	1000	300	210	161
55AKQ3A4001	4500	500	III	150	50	1000	650	1000	300	220	184
55AP94A6001	6500	600	IV	200	60	1200	750	1200	400	250	305



Hydraulic functions required: 1.
Maximum working pressure: 175 bar.
Oil flow rate: see table at page 138.

References on table are related to standard attachments.
For special or customised version see options at page 138.
For hydraulic connection position see detail below.



OPTIONS & SPECIAL EQUIPMENT



OIL FLOW RATE

TYPE	REFERENCE	MIN CAPACITY (l/min)	MAX CAPACITY (l/min)	RECOMMENDED CAPACITY (l/min)
61	all	15	25	20
870	all	15	40	20

A-Pin-type forks
B-Bolted forks
C-Welded forks
D-Telescopic forks



ACCESSORIES

Pipes and fitting kit
(for each hydraulic function) -

Quick release hoses couplings kit
(for each hydraulic function) -

Flow divider valve
(for model 61) -

Stop pallet
(for model 61) -



SPECIAL EQUIPMENT

On request we can supply forks with different specifications than those illustrated in this list.

On request we can supply special stop-pallets with or without load backrest.



11

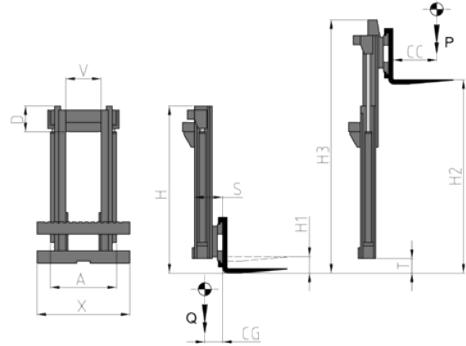
Mast Systems
and Hydraulic Kits

- | | | |
|-------------|--|--------------------------|
| 11.1 | 828 Simplex Mast without Free Lift | Pag. 140 |
| 11.2 | 810-838 Duplex Mast Full Free Lift | Pag. 140 |
| 11.3 | 808-809 Triplex Mast Full Free Lift | Pag. 141 |
| 11.4 | 848 Quadruplex Mast Full Free Lift | Pag. 141 |
| 11.5 | Hose Reel Kit | Pag. 142 |
| 11.6 | 4 Core Electric Cable Reel | Pag. 143 |

11.1

828

SIMPLEX MAST WITHOUT FREE LIFT

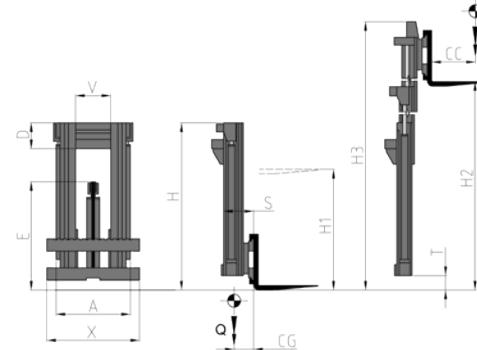


Simplex Mast is designed with a capacity from 1t to 52t. It is intended for small-capacity Forklift Trucks, for laser-guided shuttles, for naval uses or for high-capacity Forklift Trucks to handle full or empty containers, that could be superimposed up to the eighth row. Hydraulic or Electrical Systems, Sideshifts and Hydraulic Fork Positioners can be supplied on request, as well as specific handling attachments.

11.3

808-809

TRIPLEX MAST FULL FREE LIFT

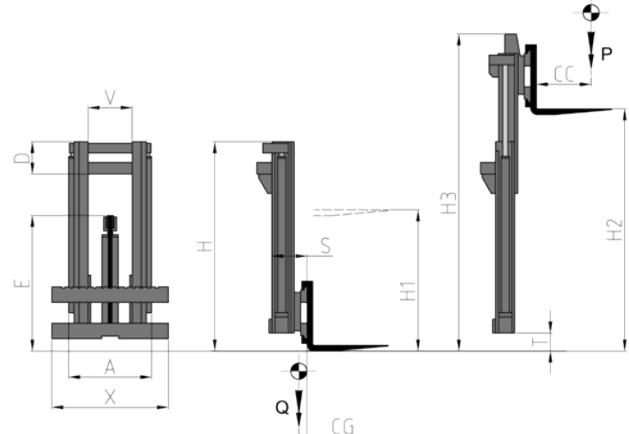


Triplex Mast combines big lifting height with reduced dimensions in height and full free lift of the Forklift plate. Hydraulic or Electrical Systems, Sideshifts and Hydraulic Fork Positioners can be supplied on request, as well as specific handling attachments. **Triplex Mast** can be supplied with capacities from 1t to 52t, for Forklift Truck of any type, or for fixed positions.

11.2

810-838

DUPLEX MAST FULL FREE LIFT

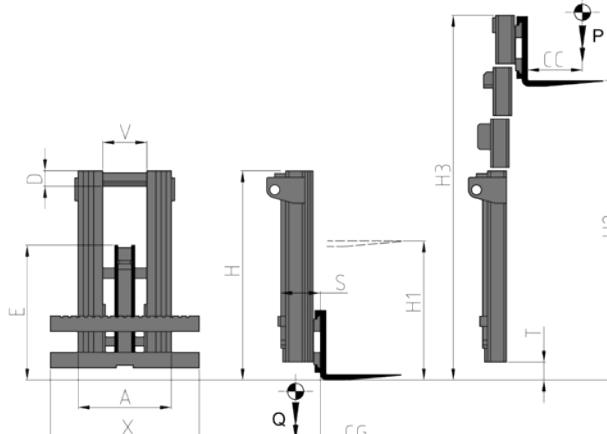


Duplex Mast differs from the Simplex one because of the presence of the full free lift of the forklift plate. It's recommended when working with reduced dimensions in height and when multiple overlapped pallets are needed.

11.4

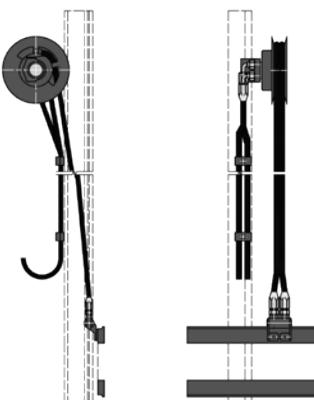
848

QUADRUPLEX MAST FULL FREE LIFT



Quadruplex Mast has the same use as the Triplex one, but it reduces even more the space when the Mast is closed and it increases the elevations. Hydraulic or Electrical Systems, Sideshifts and Hydraulic Fork Positioners can be supplied on request, as well as specific handling attachments.

HOSE REEL KIT



REFERENCE	HOSE	HOSE DIAMETER	CARRIAGE FITTING	HOSE REEL DIAMETER	HOSE LENGTH	POSITION
67NP2A01	SAE 100 R7	1/4"	SWIVEL	270 mm	4000 mm	RH
67NP3A01	SAE 100 R7	5/16"	SWIVEL	270 mm	3200 mm	RH
67RP2A01	SAE 100 R7	1/4"	TURN DOWN, CLAMP	270 mm	4000 mm	RH
67RP3A01	SAE 100 R7	5/16"	TURN DOWN, CLAMP	270 mm	3200 mm	RH
67NP2J01	SAE 100 R7	1/4"	SWIVEL	270 mm	4000 mm	LH
67NP3J01	SAE 100 R7	5/16"	SWIVEL	270 mm	3200 mm	LH
67RP2J01	SAE 100 R7	1/4"	TURN DOWN, CLAMP	270 mm	4000 mm	LH
67RP3J01	SAE 100 R7	5/16"	TURN DOWN, CLAMP	270 mm	3200 mm	LH
67NP2A02	SAE 100 R7	1/4"	SWIVEL	295 mm	4700 mm	RH
67NP3A02	SAE 100 R7	5/16"	SWIVEL	295 mm	4200 mm	RH
67NP4A01	SAE 100 R7	3/8"	SWIVEL	295 mm	3600 mm	RH
67RP2A02	SAE 100 R7	1/4"	TURN DOWN, CLAMP	295 mm	4700 mm	RH
67RP3A02	SAE 100 R7	5/16"	TURN DOWN, CLAMP	295 mm	4200 mm	RH
67NP2J02	SAE 100 R7	1/4"	SWIVEL	295 mm	4700 mm	LH
67NP3J02	SAE 100 R7	5/16"	SWIVEL	295 mm	4200 mm	LH
67NP4J01	SAE 100 R7	3/8"	SWIVEL	295 mm	3600 mm	LH
67RP2J02	SAE 100 R7	1/4"	TURN DOWN, CLAMP	295 mm	4700 mm	LH
67RP3J02	SAE 100 R7	5/16"	TURN DOWN, CLAMP	295 mm	4200 mm	LH
67NP2A05	SAE 100 R7	1/4"	SWIVEL	320 mm	5500 mm	RH
67NP3A05	SAE 100 R7	5/16"	SWIVEL	320 mm	5000 mm	RH
67NP4A03	SAE 100 R7	3/8"	SWIVEL	320 mm	4500 mm	RH
67RP2A05	SAE 100 R7	1/4"	TURN DOWN, CLAMP	320 mm	5500 mm	RH
67RP3A05	SAE 100 R7	5/16"	TURN DOWN, CLAMP	320 mm	5000 mm	RH
67NP2J05	SAE 100 R7	1/4"	SWIVEL	320 mm	5500 mm	LH
67NP3J05	SAE 100 R7	5/16"	SWIVEL	320 mm	5000 mm	LH
67NP4J03	SAE 100 R7	3/8"	SWIVEL	320 mm	4500 mm	LH
67RP2J05	SAE 100 R7	1/4"	TURN DOWN, CLAMP	320 mm	5500 mm	LH
67RP3J05	SAE 100 R7	5/16"	TURN DOWN, CLAMP	320 mm	5000 mm	LH
67NP2A04	SAE 100 R7	1/4"	SWIVEL	370 mm	7000 mm	RH
67NP3A04	SAE 100 R7	5/16"	SWIVEL	370 mm	6500 mm	RH
67NP4A02	SAE 100 R7	3/8"	SWIVEL	370 mm	5500 mm	RH
67RP2A04	SAE 100 R7	1/4"	TURN DOWN, CLAMP	370 mm	7000 mm	RH
67RP3A04	SAE 100 R7	5/16"	TURN DOWN, CLAMP	370 mm	6500 mm	RH
67NP2J04	SAE 100 R7	1/4"	SWIVEL	370 mm	7000 mm	LH
67NP3J04	SAE 100 R7	5/16"	SWIVEL	370 mm	6500 mm	LH
67NP4J02	SAE 100 R7	3/8"	SWIVEL	370 mm	5500 mm	LH
67RP2J04	SAE 100 R7	1/4"	TURN DOWN, CLAMP	370 mm	7000 mm	LH
67RP3J04	SAE 100 R7	5/16"	TURN DOWN, CLAMP	370 mm	6500 mm	LH

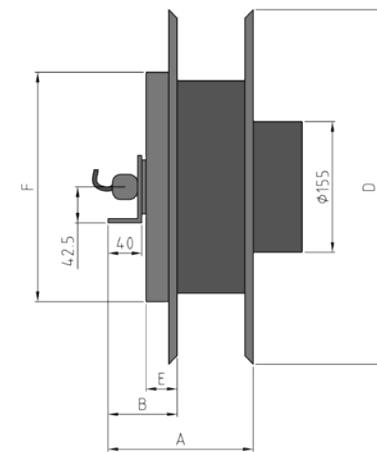
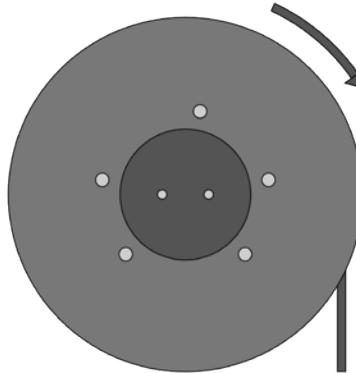


References on table are related to standard attachments.
On request we can supply attachments with different specifications.



References on table are related to standard attachments.
On request we can supply attachments with different specifications.

4 CORE ELECTRIC CABLE REEL



REFERENCE	CABLE DIAMETER	CABLE LENGTH	mm				
			A - mm	B - mm	D - mm	E - mm	F - mm
D0010113	9,3	5	161	82	235	30	228
D0010109	9,3	10	161	82	295	37	272
D0010114	9,3	15	161	82	370	37	322

Trilateral Head for VNA Trucks**12****Special Attachments**

<u>Trilateral Head for VNA Trucks</u>	<u>Pag. 144</u>
<u>Wide Opening Fork Positioner with 4 Forks</u>	<u>Pag. 146</u>
<u>Integrated Fork Positioner with Articulated Arm for Telehandlers</u>	<u>Pag. 147</u>
<u>Clamp with 90° Rotating Forks and Slip-on Smooths Arms</u>	<u>Pag. 148</u>
<u>Tires Clamp with 90° Tipping forward Arms</u>	<u>Pag. 149</u>
<u>Duplex Mast with Coils Clamp for AGV Machines</u>	<u>Pag. 150</u>
<u>Triplex Mast with Double Fork Positioner for AGV Machines</u>	<u>Pag. 151</u>

Wide Opening Fork Positioner with 4 Forks



Integrated Fork Positioner with Articulated Arm for Telehandlers



Clamp with 90° Rotating Forks and Slip-on Smooths Arms



Tires Clamp with 90° Tipping Forward Arms



Duplex Mast with Coils Clamp for AGV Machines



Triplex Mast with Double Fork Positioner for AGV Machines





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