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21



## FORKLIFT ATTACHMENTS AND MASTS

Catalogue



atib.com

# INDEX

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- 1. General Information** ➔ Pag. 5
- 2. Sideshifts** ➔ Pag. 13
- 3. Fork Positioners** ➔ Pag. 21
- 4. Multi Pallet Handlers** ➔ Pag. 37
- 5. Rotators** ➔ Pag. 49
- 6. Clamps** ➔ Pag. 57
- 7. Rotating Clamps** ➔ Pag. 83
- 8. Roll and Tyre Clamps** ➔ Pag. 99
- 9. Hydraulic and Mechanical Attachments** ➔ Pag. 115
- 10. Forks** ➔ Pag. 131
- 11. Masts and Hydraulic Kits** ➔ Pag. 137
- 12. Special and Customised Attachments and Masts** ➔ Pag. 143



## 1. General Information

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- |            |                               |         |
|------------|-------------------------------|---------|
| <b>1.1</b> | Our Company                   | Pag. 6  |
| <b>1.2</b> | General Information           | Pag. 8  |
| <b>1.3</b> | Fitting Informations          | Pag. 9  |
| <b>1.4</b> | Sideshift                     | Pag. 10 |
| <b>1.5</b> | Solenoid Valve                | Pag. 10 |
| <b>1.6</b> | Residual Capacity Calculation | Pag. 11 |

## OUR COMPANY

**A.T.I.B. S.r.l.** is an established reality that is always looking for technological and cultural innovation, with the aim of achieving the maximum performance of its products to better meet the needs of each customer.

Since 1972, **A.T.I.B. S.r.l.** engineers have been studying and producing reliable, high-performance and high-quality Attachments and Masts for Lift Trucks, that have always helped consumers to solve difficult logistic problems, making goods handling faster and safer all over the world.

### OUR VISION



**GROWTH:** The investments made over the years have allowed us not only to maintain the high quality of our products, but also to keep up with technological evolution, making us a dynamic and cutting-edge company.



**EXPERTISE:** The experience gained over the years identifies us and allows us to take advantage of our knowledge to define the most suitable solutions for each type of work and satisfy each of our customers.



**COMMUNICATION:** Our networking across Europe and in some non-European countries allows us to be open to different cultures, responding promptly to every request through modern communication channels.

### PRODUCTION PLANT

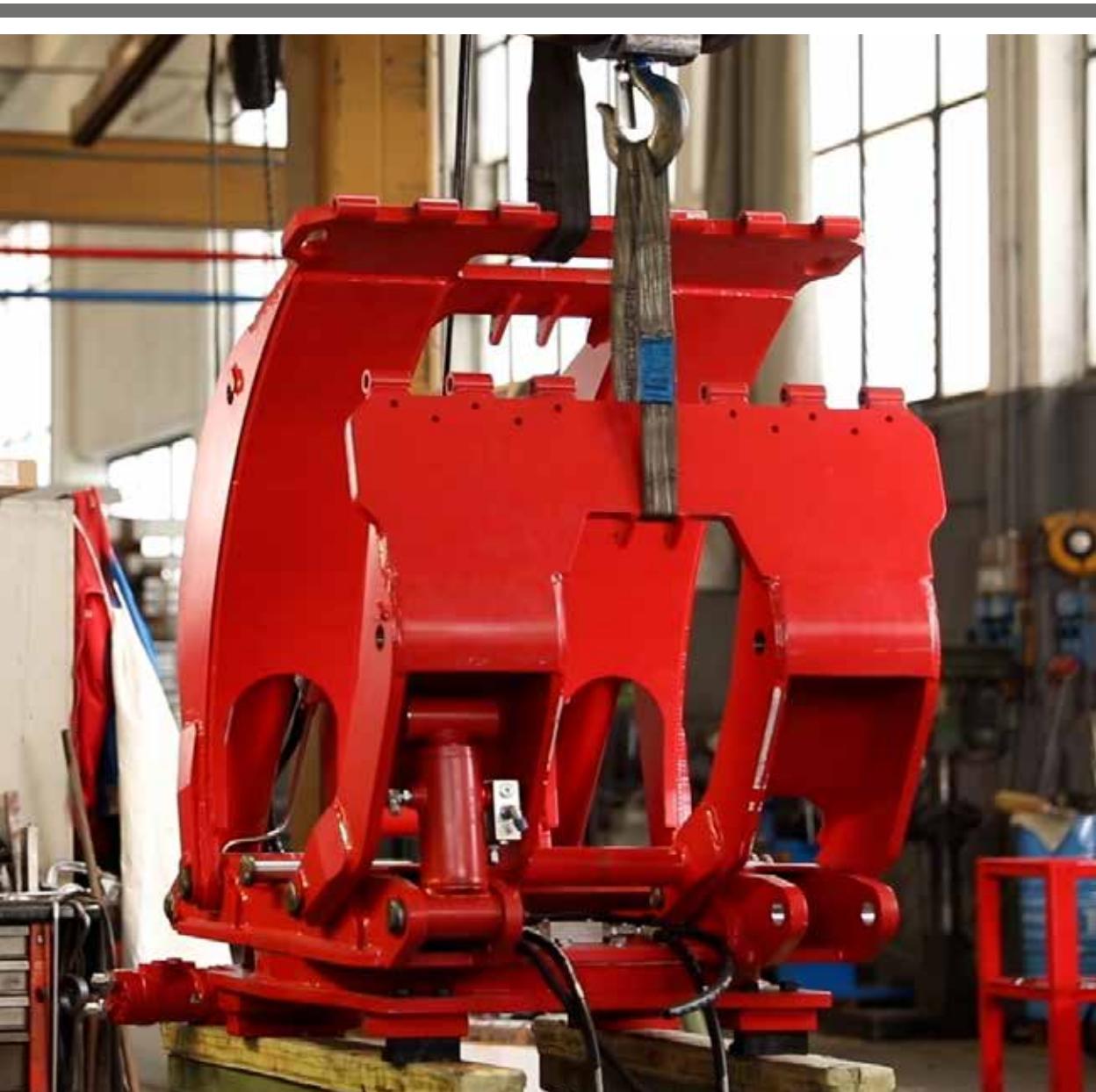
The production plant is located in northern Italy, in the province of Brescia, and has a total surface area of 35,000 m<sup>2</sup> which includes 11,000 m<sup>2</sup> covered by buildings. Different production machinery are currently operating, including traditional machine tools, painting lines and also manual and robotic welding systems. A.T.I.B. S.r.l. also performs various complementary operations requested by customers, such as the assembly of the components, packaging operations and the preparation of all related documentation and certifications.

### TECHNICAL DEPARTMENT

Our engineers are able to satisfy any request, designing not only standard attachments, but also developing special ones, specific for each type of goods and handling operations. Thanks to our decades of experience, we are able to create attachments and masts for material handling that are reliable, long-lasting, safe and at the same time that minimize downtime, avoiding damages to goods and increasing productivity.

### QUALITY SYSTEM

Each stage of the production process held in A.T.I.B. S.r.l. is regularly monitored, in order to ensure that all employees work in complete safety and to guarantee all customers to have ongoing checks of the actions and initiatives that set out all the required quality standards.



## GENERAL INFORMATION

**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 our products are subject to reviews and modifications, as a continual product improvement. A.T.I.B. S.r.l. 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. S.r.l. 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.

**PRICES:** The indicated prices are in Euro and are without V.A.T. or any other taxes applicable at the moment of delivery. If not expressly indicated in the order confirmation, we will apply our general conditions of sale.

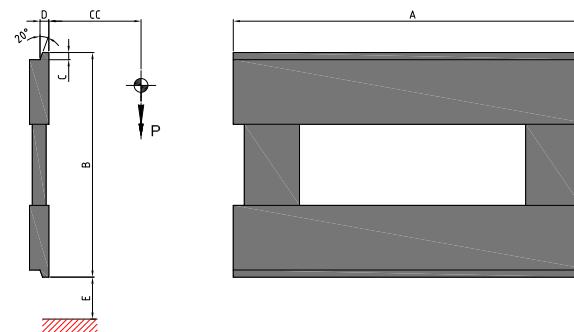
**DELIVERY CONDITIONS:** If not expressly indicated in the order confirmation, the prices are intended EX WORKS, all other expenses are therefore under customer's responsibility.

## FITTING INFORMATION

**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.



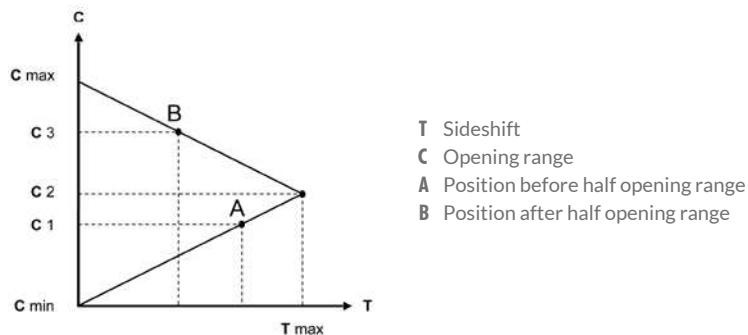
ISO 2328 FEM	FORKLIFT CAPACITY P - Kg	LOAD CENTRE mm	A mm	B mm	C mm	D mm	E mm
I	up to 999	400	®	331	13	16	A 76 B 114
II	1000 to 2500	500	®	407	13	16	A 76 B 152
III	2501 to 4999	500	®	508	16	21,5	A 76 B 203
IV	5000 to 8000	600	®	635	19	25,5	A 127 B 254
V	8001 to 10999	600	®	728	25	34	A 127 B 257

## SIDESHIFT

It facilitates the manoeuvres of the trolley drivers and for this reason is increasingly in demand and used. A.T.I.B. S.r.l. offers two different types of Sideshift:

- **SEMI-INTEGRAL SIDESHIFT:** It uses a separate cylinder for translation and therefore has a constant stroke with any opening. In this case, the weight, thickness and centre of gravity are slightly modified.

- **SIDESHIFTING VALVE:** It uses the same cylinders that make the clamping. The stroke depends on the opening, which is equal to zero both in maximum amplitude and in minimum closing. As the stroke may be higher than defined by the forklift stability rules (100+100 mm up to 6300 Kg capacity and 150+150 mm for higher capacities), it could cause problems with lateral stability and therefore premature wear of the mast profiles. It is therefore considered necessary to verify its applicability with the manufacturer of the forklift itself. The Sideshifting Valve does not affect the weight, thickness or centre of gravity of the equipment and therefore does not further limit the residual flow of the carriage. To determine the travel of the Sideshifting Valve with a given load you have to calculate the difference between the width of the load with the maximum opening and the minimum opening. The translation will correspond to the lesser of these two results.



## 1.5

### SOLENOID VALVE

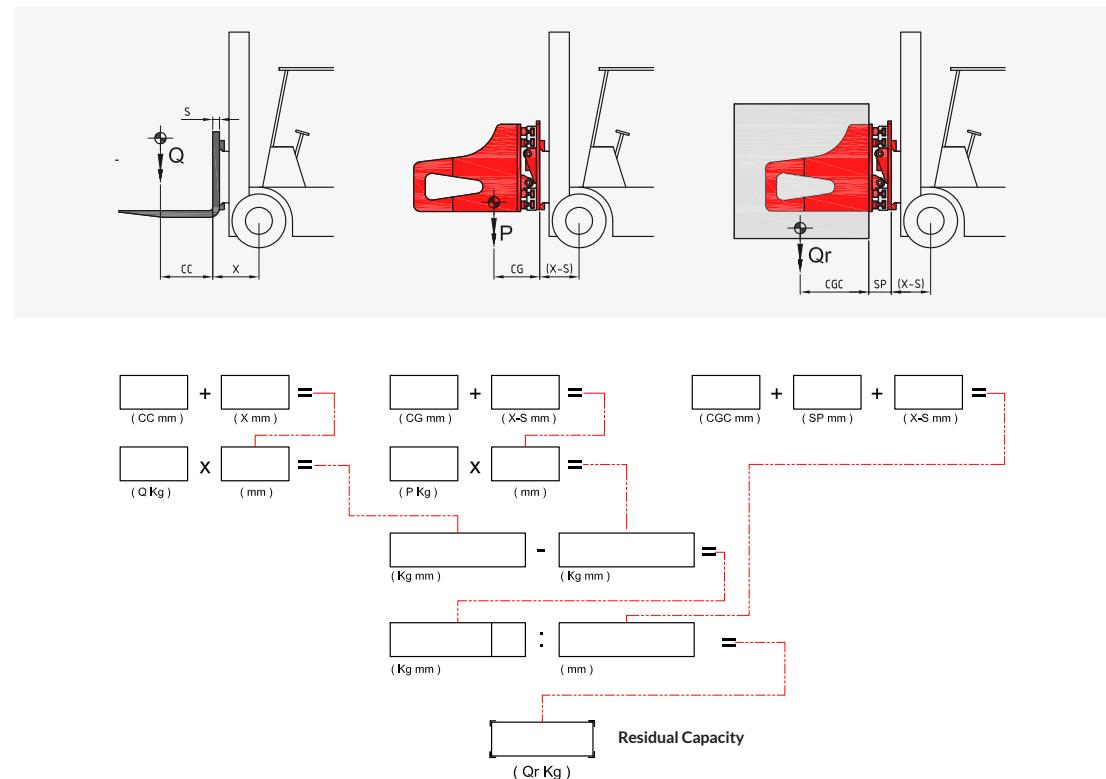
The Solenoid Valve is used to direct the oil flow in one between two hydraulic functions, usually when the attachment requires three. The first two are operated by the Control Valve, while the Solenoid Valve operates the third. For example, a Rotating Clamp with Sideshift has a dedicated first function for clamping (for safety reasons), while the second function is connected with a Solenoid Valve, so that it can be rotated or translated. To power the solenoid valve, the forklift must be equipped with a feeding cable that runs from the generator or battery through the mast to the fork carriage. The Solenoid Valve can be operated by means of a push-button switch on a lever or a lever switch installed on the control panel. Please note that the solenoid valve coil must have the same control voltage as the forklift.

## RESIDUAL CAPACITY CALCULATION

Knowing the residual capacity of your forklift is important in determining its compatibility with the attachments. To know it exactly, however, it is necessary to consult the manufacturer of the forklift itself, while for that of the equipment, just read the data shown on the label glued on it, under "Nominal Capacity".

However, it is possible to obtain approximately the Residual Capacity through the calculation shown at the bottom of the page.

**NOTICE:** The calculation applies only to "stable" loads; in case of transport of liquid containers it is necessary to consult the manufacturer of the forklift. Never exceed the nominal range of the attachment. The result obtained from this calculation is not to be considered effective, but only approximate. We invite you to consult the cart manufacturer for confirmation of this data.



Scan this QR code to quickly calculate the Residual Capacity of your Forklift.



## 2. Sideshifts

- |            |   |         |
|------------|---|---------|
| <b>2.1</b> | <b>209</b> Hook on Sideshift ISO2       | Pag. 14 |
| <b>2.2</b> | <b>109</b> Hook on Sideshift ISO3       | Pag. 15 |
| <b>2.3</b> | <b>108</b> Reinforced Hook on Sideshift | Pag. 16 |
| <b>2.4</b> | <b>122</b> Integral Sideshift           | Pag. 17 |
| <b>2.5</b> | Options & Special Equipment             | Pag. 18 |



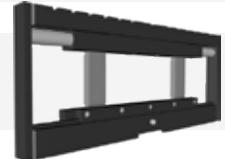
209



109



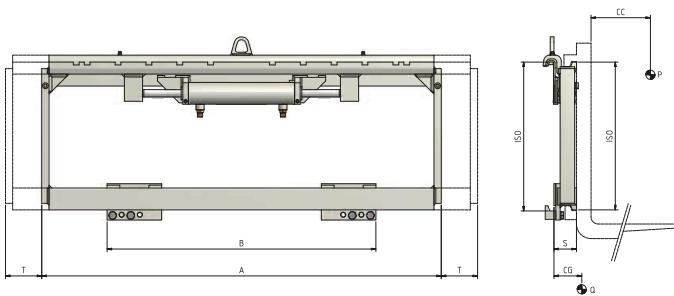
108



122

# 209

## HOOK ON SIDESHIFT ISO2



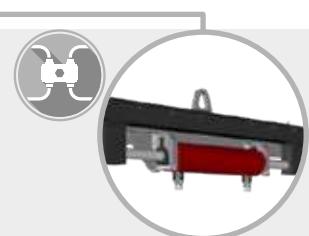
Model 209 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift.

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	PRICE euro
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	-



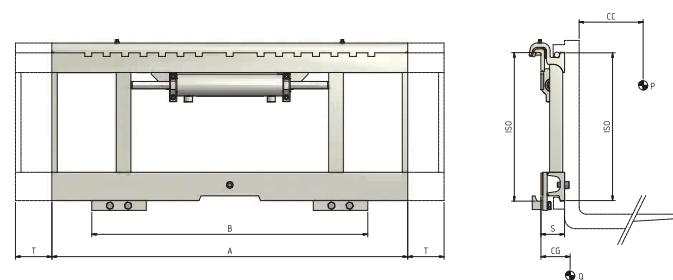
Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 18.

References on table are related to standard attachments.  
For special or customised version see options at page 18.  
For hydraulic connection position see detail below.



# 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	PRICE euro
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	-

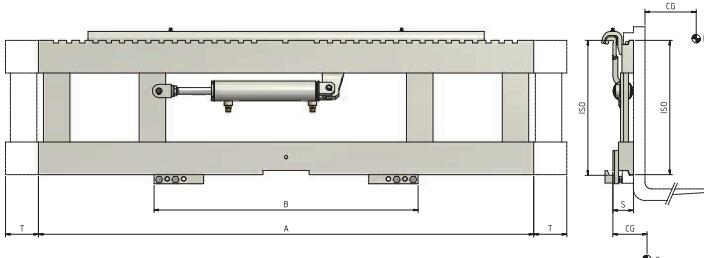


Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 18.

References on table are related to standard attachments.  
For special or customised version see options at page 18.  
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.

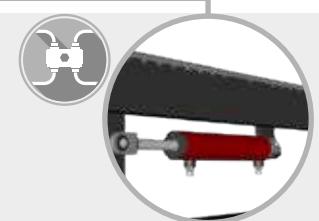
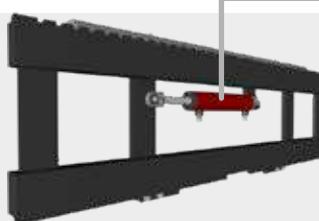
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MINIMUM FORK CARRIAGE B - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
03GFA2C3014	2500	500	II	1300	1000	100	62	39	111	-
03GFA2C3033	2500	500	II	1400	1000	100	62	39	118	-
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

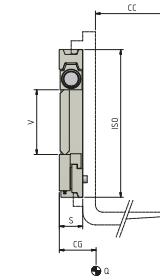
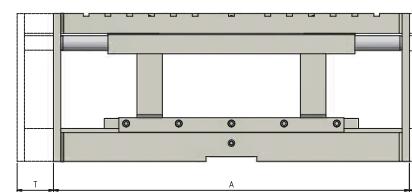


Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 18.

References on table are related to standard attachments.  
For special or customised version see options at page 18.  
For hydraulic connection position see detail below.



# 122 INTEGRAL SIDESHIFT



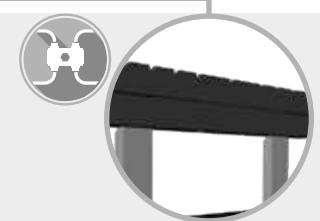
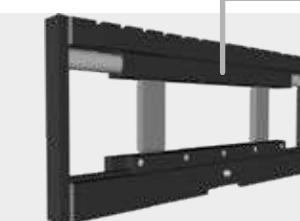
Model 122 allows to move the load in a transverse direction than the forklift way, in order to ease the grab and drop of the load without making annoying operations with the forklift. Brackets can be realized for the integral models 122, upon submission of construction drawings from the client.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	VISIBILITY V - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
03WFA2C3002	2500	500	II	920	209	100	65	34	72	-
03WFA2C3007	2500	500	II	1020	209	100	65	34	80	-
03WLL3C3002	5000	500	III	1150	265	100	75	39	160	-
03WLL3C3025	5000	500	III	1350	265	100	75	39	172	-
03TR04C3003	6000	600	IV	1800	202	100	100	62	405	-
03TR04C3012	6000	600	IV	2000	202	100	100	62	450	-
03TR04C5008	8000	600	IV	1800	202	150	100	62	495	-
03TR04C5004	8000	600	IV	2000	202	150	100	62	570	-

References on table are related to standard attachments.  
For special or customised version see options at page 18.  
For hydraulic connection position see detail below.



Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 18.



## 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

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



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 -



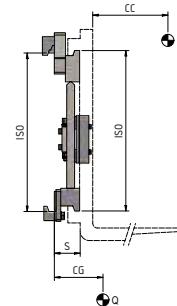
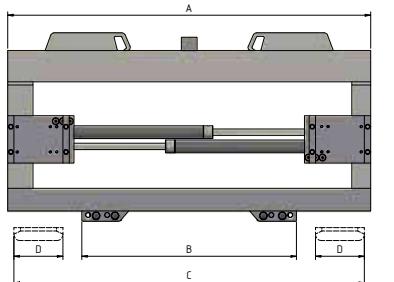


### 3. Fork Positioners

- |             |   |         |
|-------------|---|---------|
| <b>3.1</b>  | <b>575</b> Fork Positioner  | Pag. 22 |
| <b>3.2</b>  | <b>577</b> Fork Positioner with Integral Sideshift                        | Pag. 23 |
| <b>3.3</b>  | <b>675</b> Fork Positioner  | Pag. 24 |
| <b>3.4</b>  | <b>676</b> Fork Positioner with Integral Sideshift                        | Pag. 25 |
| <b>3.5</b>  | <b>475</b> Fork Positioner  | Pag. 26 |
| <b>3.6</b>  | <b>476</b> Fork Positioner with Integral Sideshift                        | Pag. 27 |
| <b>3.7</b>  | <b>598</b> Pin Type Fork Positioner for Fem Forks with Integral Sideshift | Pag. 28 |
| <b>3.8</b>  | <b>599</b> Pin Type Fork Positioner for Fem Forks                         | Pag. 29 |
| <b>3.9</b>  | <b>673FS</b> Double Pin Type Fork Positioner with Welded Forks            | Pag. 30 |
| <b>3.10</b> | <b>673F</b> Double Pin Type Fork Positioner for Fem Forks                 | Pag. 31 |
| <b>3.11</b> | <b>678</b> Integrated Fork Positioner with Integral Sideshift             | Pag. 32 |
| <b>3.12</b> | <b>883</b> Wide Opening Fork Positioner                                   | Pag. 33 |
| <b>3.13</b> | Options & Special Equipment   | Pag. 34 |

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



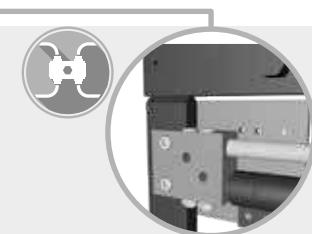
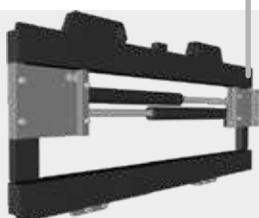
Model 575, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized fork movement. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is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

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE 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	PRICE euro
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	-

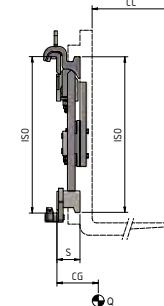
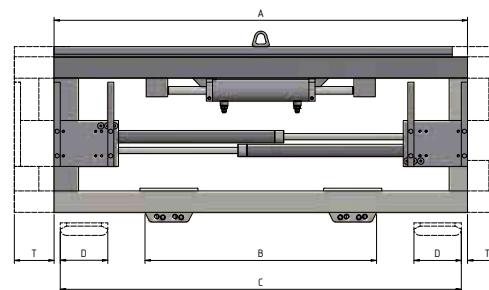


Hydraulic functions required: 1.  
Maximum working pressure: 110 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 577 FORK POSITIONER WITH INTEGRAL SIDESHIFT



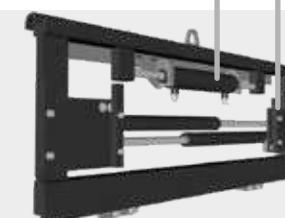
Model 577, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized fork movement. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is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

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE 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	PRICE euro
18PFA2C2014	2500	500	II	970	920	340 / 920	130	100	62	30	80	-
18PFA2C2013	2500	500	II	1040	920	340 / 990	130	100	62	32	85	-
18PFA2C2015	2500	500	II	1150	920	340 / 1100	130	100	62	34	90	-
18PLL3C2010	5000	500	III	1150	1060	380 / 1100	150	100	75	40	130	-
18PLL3C2015	5000	500	III	1250	1060	380 / 1200	150	100	75	41	140	-
18PLL3C2016	5000	500	III	1350	1150	380 / 1300	150	100	75	42	150	-

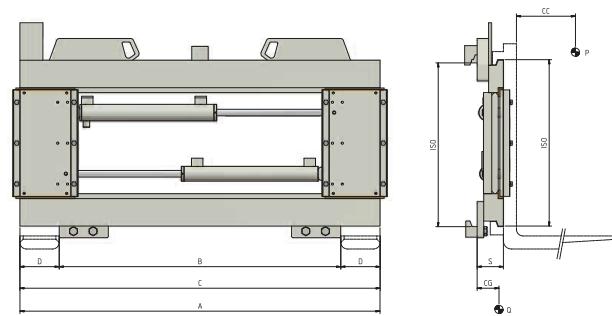


Hydraulic functions required: 2.  
Maximum working pressure: 110 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 675 FORK POSITIONER



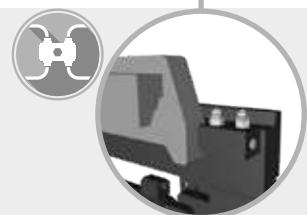
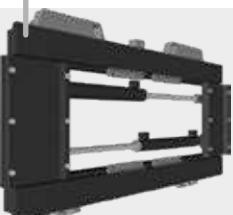
Model 675 guarantees a constant and synchronized fork movement thanks to the differentiated cylinders. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE			FORKS WIDTH D - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					B - mm	C MIN - mm	C MAX - mm					
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	-

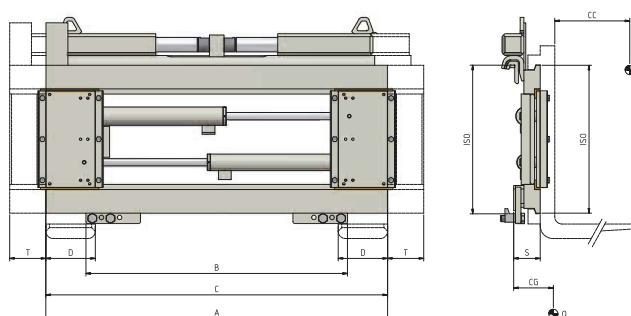


Hydraulic functions required: 1.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 676 FORK POSITIONER WITH INTEGRAL SIDESHIFT



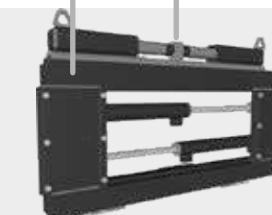
Model 676 guarantees a constant and synchronized fork movement thanks to the differentiated cylinders. We suggest not to mount forks over 1500 mm long on these attachments. Adjustable plates allow to use forks with different sections size. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE			FORKS WIDTH D - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					B - mm	C MIN - mm	C MAX - mm						
17TLL3C2004	5000	500	III	1500	1080	430	1500	150	100	80	46	202	-
17TLL3C2005	5000	500	III	1560	1150	430	1560	150	100	80	46	205	-
17TLL3C2006	5000	500	III	1660	1250	430	1660	150	100	80	46	210	-
17TR04C2009	8000	600	IV	1420	1400	560	1420	200	100	94	49	313	-
17TR04C2013	8000	600	IV	1600	1640	560	1600	200	100	94	50	374	-
17TR04C2011	8000	600	IV	1800	1700	560	1800	200	100	94	50	383	-
17TR04C2012	8000	600	IV	2000	1800	560	2000	200	150	94	50	409	-

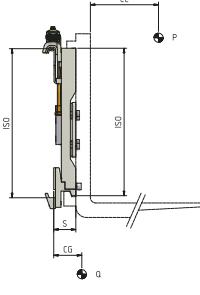
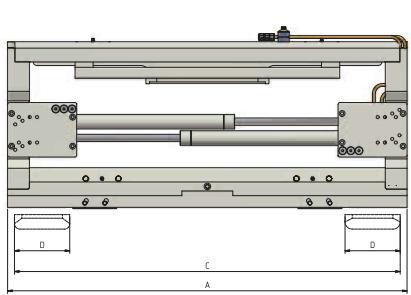


Hydraulic functions required: 2.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 475 FORK POSITIONER



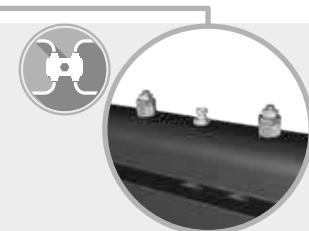
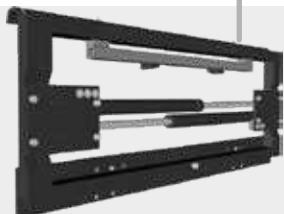
Model 475, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized fork movement and it's completely made of Aluminum. This material makes it perfect for food, chemical and pharmaceutical industry. We suggest not to mount forks over 1500 mm long 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	PRICE euro
					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	-

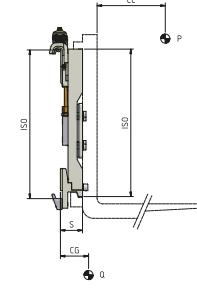
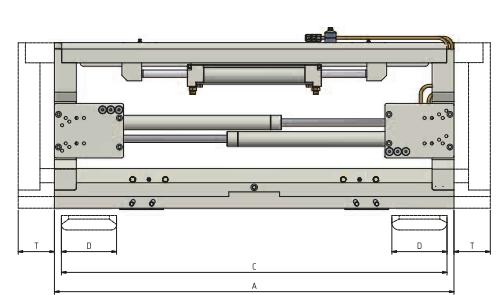


Hydraulic functions required: 1.  
Maximum working pressure: 110 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 476 FORK POSITIONER WITH INTEGRAL SIDESHIFT



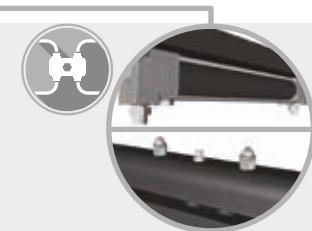
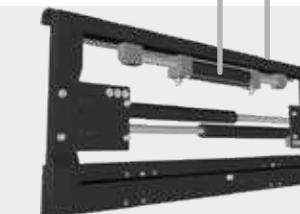
Model 476, realized with the exclusive "Moving Housing System" (A.T.I.B. Patented), guarantees a constant and synchronized fork movement and it's completely made of Aluminum. This material makes it perfect for food, chemical and pharmaceutical industry. We suggest not to mount forks over 1500 mm long 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	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					C MIN - mm	C MAX - mm						
18EFA2C2001	2500	500	II	920	350	880	130	100	61	30	34	-
18EFA2C2002	2500	500	II	970	350	930	130	100	61	30	36	-
18EFA2C2005	2500	500	II	1040	350	1000	130	100	61	31	39	-
18EFA2C2006	2500	500	II	1100	350	1060	130	100	61	32	41	-
18EFA2C2007	2500	500	II	1150	350	1110	130	100	61	32	44	-
18ELL3C2001	5000	500	III	1020	350	940	150	100	70	31	57	-
18ELL3C2002	5000	500	III	1070	350	990	150	100	70	32	59	-
18ELL3C2003	5000	500	III	1150	350	1070	150	100	70	33	60	-
18ELL3C2004	5000	500	III	1170	350	1090	150	100	70	33	61	-
18ELL3C2005	5000	500	III	1250	350	1170	150	100	70	35	64	-
18ELL3C2006	5000	500	III	1350	350	1270	150	100	70	37	66	-



Hydraulic functions required: 2.  
Maximum working pressure: 110 bar.  
Oil flow rate: see table at page 34.

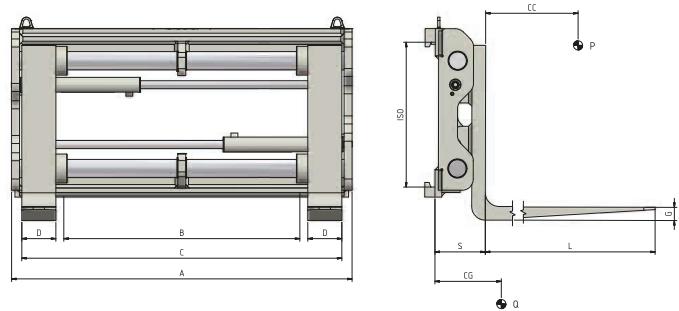
References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.





# 673FS

DOUBLE PIN TYPE FORK POSITIONER WITH WELDED FORKS



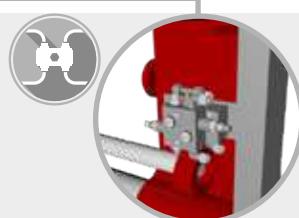
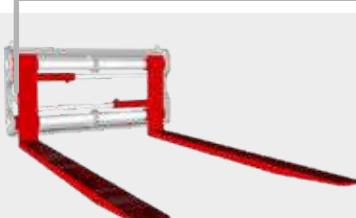
Model 673FS guarantees a constant and synchronized movement of the forks by standard installation of a flow divider. Designed to withstand extreme usage cycles. Customized versions can be manufactured on request, with forks of different sections and lengths and check valve for barrel grabbing. A pressure 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	MIN FORK CARRIAGE 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	PRICE euro
18YFA2A0001	2500	500	II	980	750	360    930	120x40x1200	160	242	235	-
18YFA2A0002	2500	500	II	1040	750	360    990	120x40x1200	160	241	245	-
18YFA2A0003	2500	500	II	1100	750	360    1050	120x40x1200	160	239	255	-
18YFA2A0004	2500	500	II	1150	750	360    1100	120x40x1200	160	237	265	-
18YLL3A0001	5000	500	III	1150	880	400    1080	150x50x1200	192	262	425	-
18YLL3A0002	5000	500	III	1250	880	400    1180	150x50x1200	192	255	440	-
18YLL3A0003	5000	500	III	1350	1000	400    1280	150x50x1200	192	251	455	-
18YLL3A0004	5000	500	III	1560	1210	400    1490	150x50x1200	192	239	480	-
18YLL3A0005	5000	500	III	1660	1210	400    1590	150x50x1200	192	234	500	-
18YLM4A0004	5000	600	IV	1200	900	550    1110	150x60x1200	222	222	565	-
18YLM4A0005	5000	600	IV	1400	1100	550    1310	150x60x1200	222	220	620	-
18YR04A0001	8000	600	IV	1740	1450	550    1650	200x60x1200	220	227	750	-
18YR04A0002	8000	600	IV	1800	1500	550    1710	200x60x1200	220	225	760	-
18YR04A0003	8000	600	IV	2000	1700	550    1910	200x60x1200	220	219	800	-
18YR14A0001	8000	900	IV	2200	2070	550    2110	200x70x1200	231	265	880	-
18YR14A0002	8000	900	IV	2400	2070	550    2310	200x70x1200	231	245	900	-



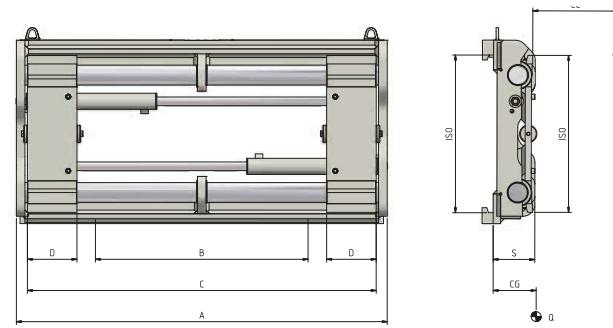
Hydraulic functions required: 1.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 673F

DOUBLE PIN TYPE FORK POSITIONER FOR FEM FORKS



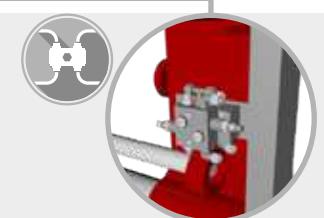
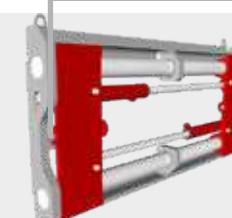
Model 673F guarantees a constant and synchronized movement of the forks by standard installation of a flow divider. Designed to withstand extreme usage cycles. Customized versions can be manufactured on request, with bolted forks and check valve for barrel grabbing. A pressure relief valve is supplied as standard on each model.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE 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	PRICE euro
18ZFA2C0001	2500	500	II	980	750	360    930	130	120	56	145	-
18ZFA2C0002	2500	500	II	1040	750	360    990	130	120	56	155	-
18ZFA2C0003	2500	500	II	1100	750	360    1050	130	120	55	165	-
18ZFA2C0004	2500	500	II	1150	750	360    1100	130	120	55	175	-
18ZLL3C0003	5000	500	III	1150	880	400    1080	150	148	71	245	-
18ZLL3C0001	5000	500	III	1250	880	400    1180	150	148	66	260	-
18ZLL3C0004	5000	500	III	1350	1000	400    1280	150	148	64	290	-
18ZLL3C0002	5000	500	III	1560	1210	400    1490	150	148	58	315	-
18ZLL3C0005	5000	500	III	1660	1210	400    1590	150	148	57	335	-
18ZLM4C0001	5000	600	IV	1200	900	550    1110	150	158	70	365	-
18ZLM4C0002	5000	600	IV	1400	1100	550    1310	150	158	68	400	-
18ZR04C0003	8000	600	IV	1740	1450	550    1650	200	158	70	480	-
18ZR04C0004	8000	600	IV	1800	1500	550    1710	200	158	70	505	-
18ZR04C0005	8000	600	IV	2000	1700	550    1910	200	158	71	525	-
18ZR14C0001	8000	900	IV	2200	2070	550    2110	200	158	73	630	-
18ZR14C0002	8000	900	IV	2400	2070	550    2310	200	158	72	675	-

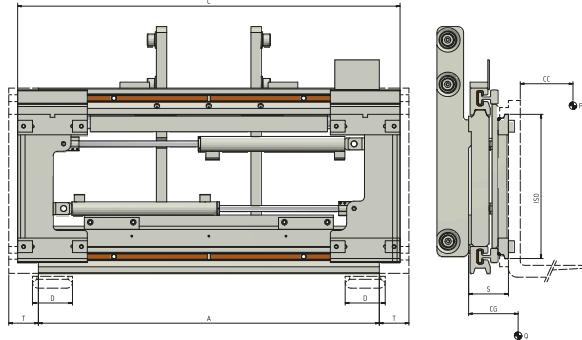


Hydraulic functions required: 1.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 678 INTEGRATED FORK POSITIONER WITH INTEGRAL SIDESHIFT



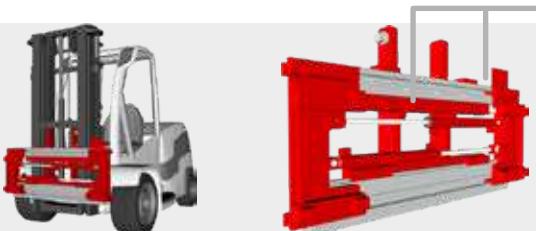
Model 678 guarantees a constant and synchronized fork movement thanks to the differentiated cylinders and it can be integrated into the mast, replacing the original fork carriage, reducing the thickness and increasing at the same time the forklift residual capacity. Models with FEM Forks Connections, 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 C MIN - mm C MAX - mm	FORKS WIDTH D - mm	STROKE T - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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	-

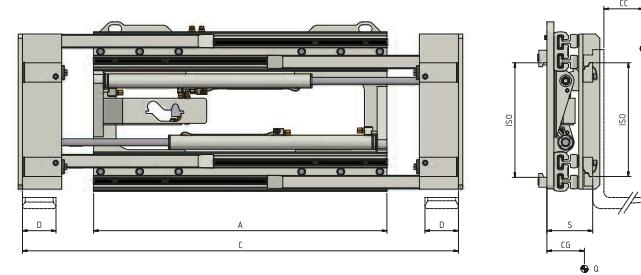


Hydraulic functions required: 2.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



# 883 WIDE OPENING FORK POSITIONER



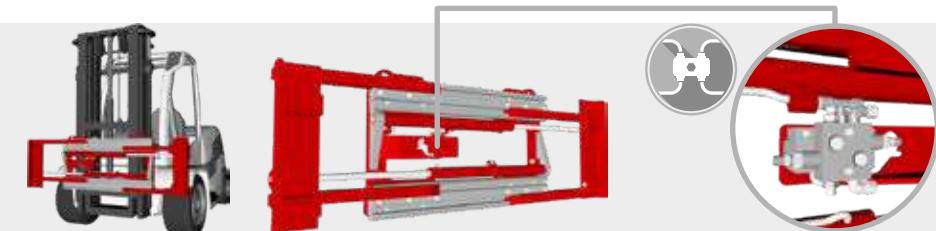
Model 883 allows a fork opening range that exceed the structure of the attachment itself. These attachments are suitable for voluminous loads handling (as planks, tubes, panels, plates, etc.), even when they're not palletized. Models with Sideshifting Valve, Semi-Integral Sideshift, Welded Forks, Bolt-on 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	MIN FORK CARRIAGE 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	PRICE euro
17PFA2C0024	2400	500	II	950	770	560 1750	130	164	63	185	-
17PFA2C0025	2400	500	II	1050	870	560 1850	130	164	64	195	-
17PH23C0002	3000	500	III	1050	810	560 1850	130	174	66	210	-
17PH23C0003	3000	500	III	1150	910	560 1950	130	174	65	215	-
17PLL3C0031	4500	500	III	1050	810	560 1840	150	207	85	290	-
17PLL3C0035	4500	500	III	1250	970	560 2040	150	207	83	300	-
17PLL3C0033	4500	500	III	1350	1070	560 2140	150	207	82	305	-
17PKR4C0001	4500	600	IV	1200	810	560 1960	150	250	92	510	-
17PKR4C0002	4500	600	IV	1300	910	560 2060	150	250	91	520	-
17PKR4C0003	4500	600	IV	1400	1010	560 2160	150	250	90	528	-
17PQ54C0001	7000	600	IV	1600	1210	560 2360	200	250	95	570	-
17PQ54C0006	7000	600	IV	1800	1410	560 2560	200	250	94	588	-



Hydraulic functions required: 1.  
Maximum working pressure: 80 bar.  
Oil flow rate: see table at page 34.

References on table are related to standard attachments.  
For special or customised version see options at page 34.  
For hydraulic connection position see detail below.



## OPTIONS &amp; 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
598	ISO2	5	15	10
598	ISO3	10	20	15
598	ISO4	10	20	15
599	ISO2	5	15	10
599	ISO3	10	20	15
599	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 sideways capacity values.



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

## SPECIAL EQUIPMENT

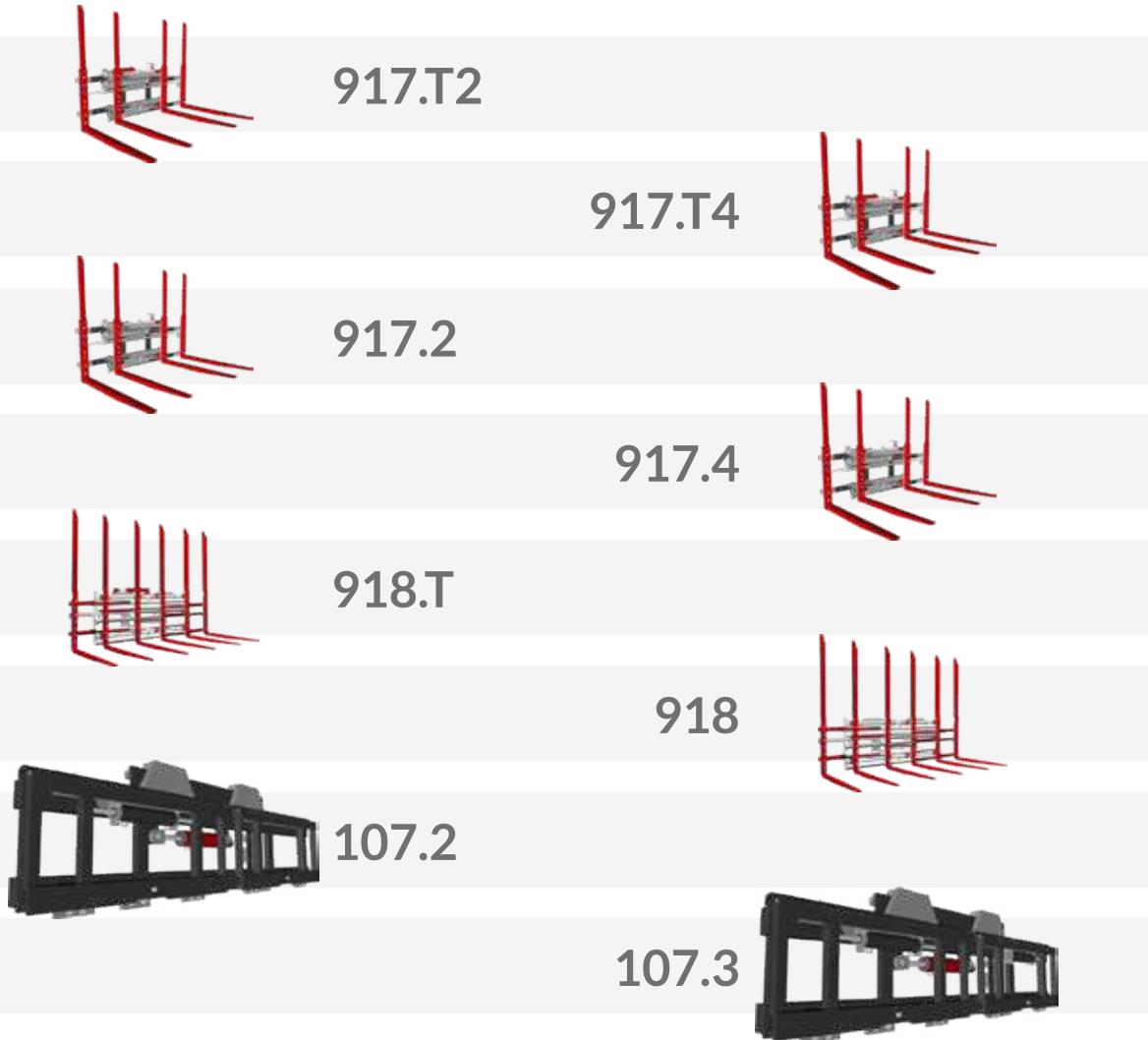
Forks positioners with special width and/or stroke can be provided on request.

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



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

On request we can produce the attachments with pin type forks or equipped with a pair of telescopic forks.  
**598**On request we can produce the attachments with pin type forks or equipped with a pair of telescopic forks.  
**599**On request we can produce attachments with welded or bolted forks, or equipped with a pair of telescopic forks.  
**883**

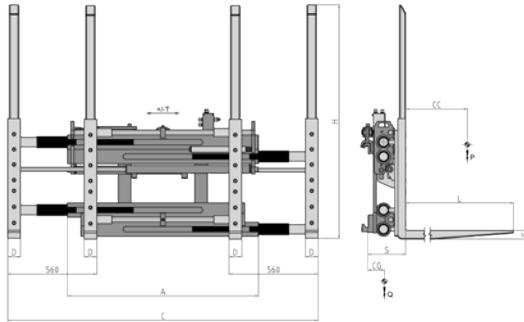


## 4. Multipallet Handlers

- |                   |  |         |
|-------------------|--|---------|
| <b>4.1 917.T2</b> | Double Fork Positioner with Semi-Integral Sideshift for 1-2 Pallet   | Pag. 38 |
| <b>4.2 917.T4</b> | Double Fork Positioner with Semi-Integral Sideshift for 1-2-4 Pallet | Pag. 39 |
| <b>4.3 917.2</b>  | Double Fork Positioner for 1-2 Pallet                                | Pag. 40 |
| <b>4.4 917.4</b>  | Double Fork Positioner for 1-2-4 Pallet                              | Pag. 41 |
| <b>4.5 918.T</b>  | Triple Fork Positioner with Semi-Integral Sideshift                  | Pag. 42 |
| <b>4.6 918</b>    | Triple Fork Positioner   | Pag. 43 |
| <b>4.7 107.2</b>  | Twin Sideshift   | Pag. 44 |
| <b>4.8 107.3</b>  | Triple Sideshift   | Pag. 45 |
| <b>4.9</b>        | Options & Special Equipment  | Pag. 46 |

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.

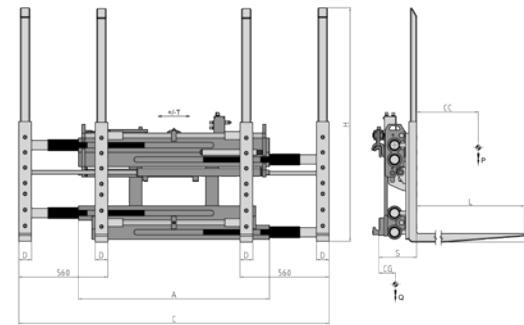
REFERENCE	ATTACHMENT CAPACITY P-Kg	LOAD CENTER CC-mm	ISO 2328 FEM	CARRIAGE WIDTH A-mm	OPENING RANGE		FORKS	STROKE T-mm	THICKNESS S-mm	CENTER OF GRAVITY CG-mm	WEIGHT Q-Kg	PRICE euro	
					C MIN-mm	C MAX-mm							
15REA2A1004	2200	600	II	1200	560	1940	80x40x1150	1460	100	224	205	480	-
15RFB2A1005	2500	600	II	1200	560	1940	80x50x1150	1460	100	234	220	550	-
15RFB3A1005	2600	600	III	1200	560	1940	80x50x1150	1460	100	234	210	550	-
15RHF3A1005	3200	600	III	1200	560	1940	80x60x1150	1460	100	254	220	635	-
15RJV3A1003	4000	600	III	1400	560	1940	80x60x1150	1460	100	254	195	650	-



Hydraulic functions required: 2.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.

## 917.T4 DOUBLE FORK POSITIONER WITH SEMI-INTEGRAL SIDESHIFT FOR 1-2-4 PALLET



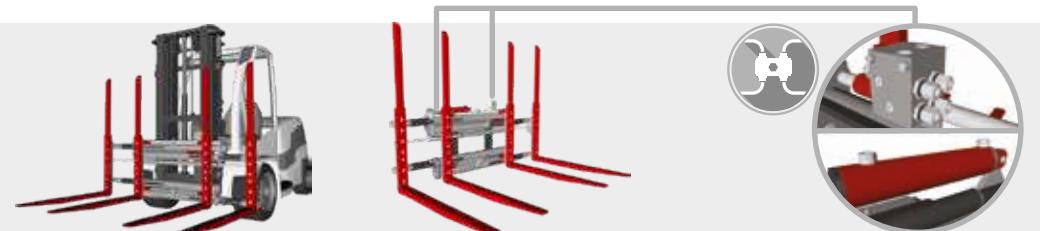
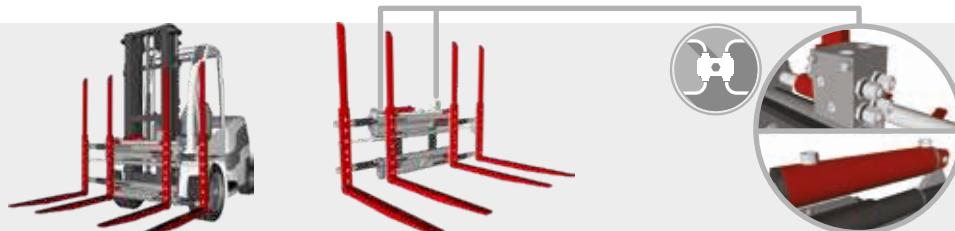
Model 917.T4 allows to move one, two pallets side by side, or four pallets in double depth, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace. Semi-integral 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	STROKE T-mm	THICKNESS S-mm	CENTER OF GRAVITY CG-mm	WEIGHT Q-Kg	PRICE euro	
					C MIN-mm	C MAX-mm							
15RFC3A1001	2500	1200	III	1400	560	1940	80x60x2400	1460	100	225	480	1050	-
15RJ64A1001	3600	1200	IV	1400	560	1940	80x70x2400	1460	150	235	435	1320	-
15RKY4A1001	4600	1200	IV	1400	560	1940	80x70x2400	1460	150	235	445	1380	-



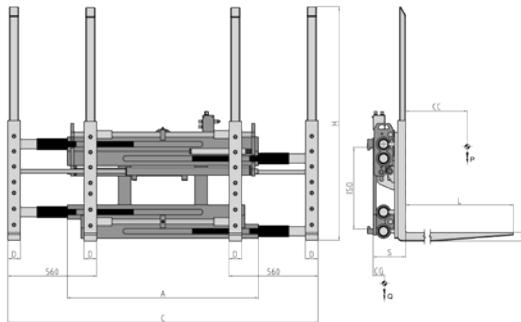
Hydraulic functions required: 2.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.



# 917.2

## DOUBLE FORK POSITIONER FOR 1-2 PALLET



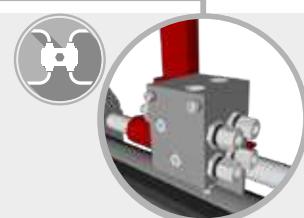
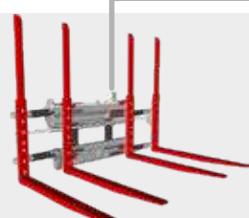
Model 917.2 allows to move one or two pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS DxGxL mm	H mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					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	495	-
15RFB3A0005	2600	600	III	1200	560	1940	80x50x1150	1460	164	210	535	-
15RHF3A0005	3200	600	III	1200	560	1940	80x60x1150	1460	174	220	605	-
15RJV3A0003	4000	600	III	1400	560	1940	80x60x1150	1460	174	195	620	-



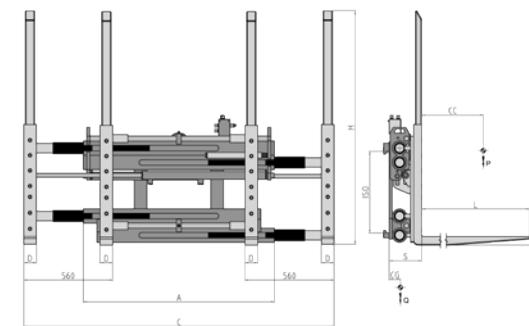
Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.



# 917.4

## DOUBLE FORK POSITIONER FOR 1-2-4 PALLET



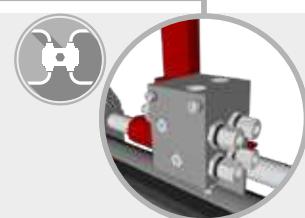
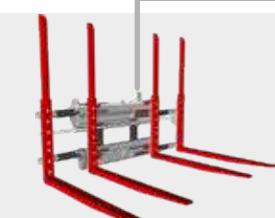
Model 917.4 allows to move one, two pallets side by side, or four pallets in double depth, thanks to the small dimension of the frame that eases operations in limited spaces. Four Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS DxGxL mm	H mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					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	-



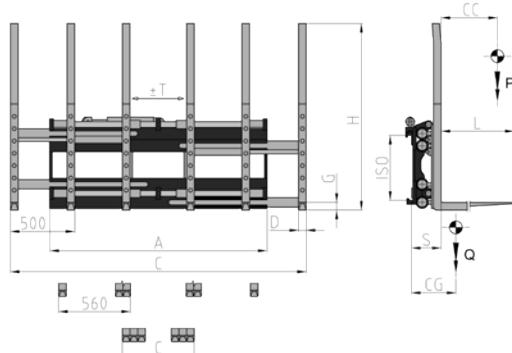
Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.



# 918.T

TRIPLE FORK POSITIONER WITH SEMI-INTEGRAL SIDESHIFT

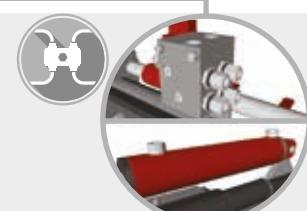


Model 918.T allows to move one, two or three pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Six Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace. Semi-integral sideshift facilitates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

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	PRICE euro	
					C MIN - mm	C MAX - mm							
15SH33A1001	3000	600	III	1630	560	2285	60x50x1150	1460	100	245	205	820	-
15SH33A1002	3000	600	III	1795	560	2450	60x50x1150	1460	100	250	200	840	-
15SJ53A1001	3600	600	III	1630	560	2285	60x60x1150	1460	100	248	240	860	-
15SJ53A1002	3600	600	III	1795	560	2450	60x60x1150	1460	100	248	237	880	-
15SJ53A1003	3600	600	III	2285	560	2940	60x60x1150	1460	100	248	225	980	-

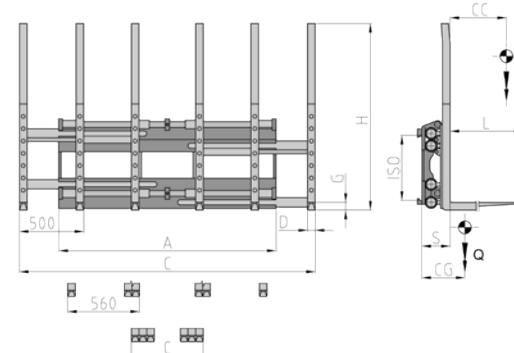


Hydraulic functions required: 2.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.



# 918

TRIPLE FORK POSITIONER

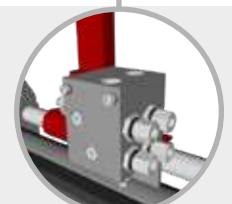
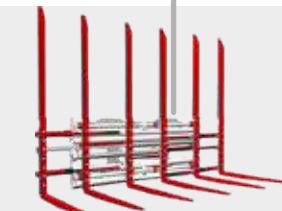


Model 918 allows to move one, two or three pallets side by side, thanks to the small dimension of the frame that eases operations in limited spaces. Six Bolt-on Forks, supplied as standard with reinforced heel and load backrest, make them easy and quick to replace.

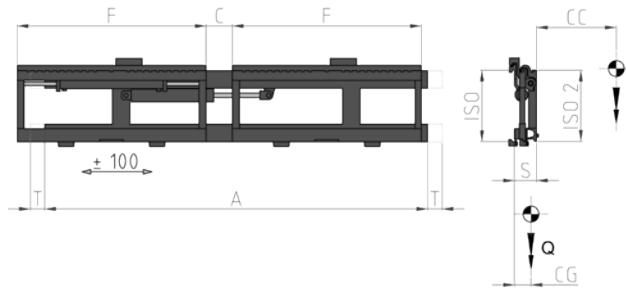
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	OPENING RANGE		FORKS	STROKE	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					C MIN - mm	C MAX - mm						
15SH33A0001	3000	600	III	1630	560	2285	60x50x1150	1460	209	198	715	-
15SH33A0002	3000	600	III	1795	560	2450	60x50x1150	1460	209	218	760	-
15SJ53A0001	3600	600	III	1630	560	2285	60x60x1150	1460	219	225	755	-
15SJ53A0002	3600	600	III	1795	560	2450	60x60x1150	1460	219	217	815	-
15SJ53A0003	3600	600	III	2285	560	2940	60x60x1150	1460	219	210	900	-



Hydraulic functions required: 1.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.



# 107.2 TWIN SIDESHIFT



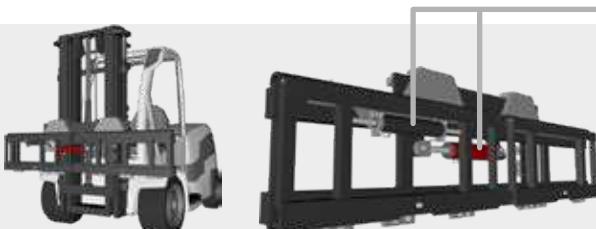
Twin Sideshift allows to move multiple pallets simultaneously. Model 107.2 is made of a back shifting structure, where in the front, a fixed carriage and an additional shifting carriage are connected. This permits the moving of two or four pallets at the same time, it depends on the type of forks used.

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	PRICE euro
				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	-

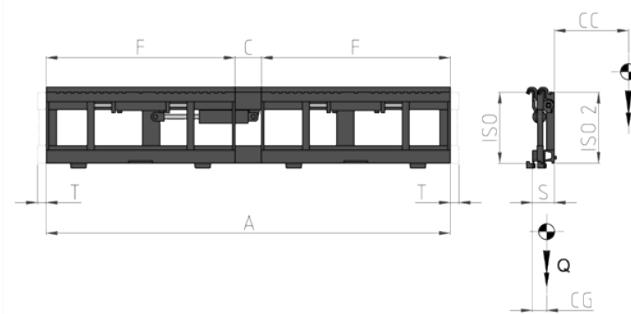


Hydraulic functions required: 2.  
Maximum working pressure: 200 bar.  
Oil flow rate: see table at page 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.



# 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	PRICE euro
				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 46.

References on table are related to standard attachments.  
For special or customised version see options at page 46.  
For hydraulic connection position see detail below.



## OPTIONS & SPECIAL EQUIPMENT

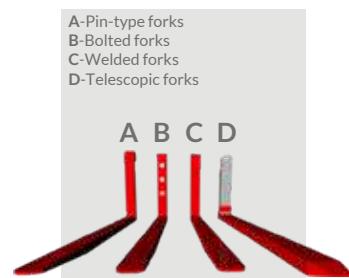


### OIL FLOW RATE



### SPECIAL EQUIPMENT

Forks positioners 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.



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.



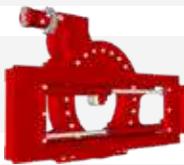
**In bold** sideshift capacity values.



### 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**

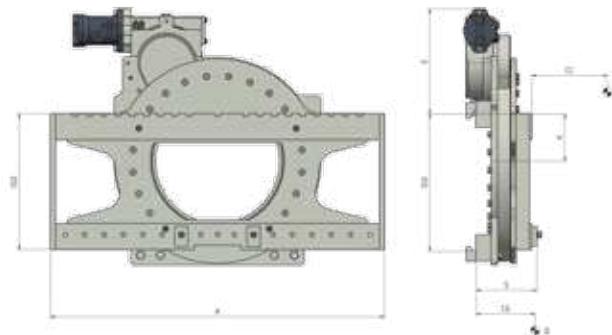
## 5. Rotators

- |            |  |         |
|------------|--|---------|
| <b>5.1</b> | <b>301</b> 360° Rotator                                  | Pag. 50 |
| <b>5.2</b> | <b>301RFI</b> 360° Rotator with Integral Fork Positioner | Pag. 51 |
| <b>5.3</b> | <b>213</b> 360° Box Rotator with Upper Restraint Arm     | Pag. 52 |
| <b>5.4</b> | <b>219</b> 360° Box Rotator with L-Shaped Arm            | Pag. 53 |
| <b>5.5</b> | Options & Special Equipment                              | Pag. 54 |

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

# 301

360° ROTATORS

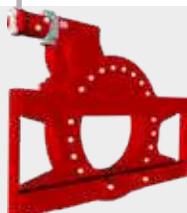


Model 301 provides a continuous 360° rotation in both directions. Forks with reinforced lower hooks are required to move the overturned load. Different versions with Pin-Type Forks are also available. Special versions for Foundries, Agricultural or Fishing Industries can be realized on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	HEIGHT E - mm	MIN FORK CARRIAGE mm	ROTATION CENTER X - mm	OIL VOLUME LITRES/MIN	TORQUE Nm P 100 bar	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
23EC42C0002	1600	500	II	1000	329	580	141	8.1	6700	167	78	184	-
23EE82C0002	2200	500	II	1100	329	580	141	8.1	6700	167	79	187	-
23EH23C0002	3000	500	III	1150	369	750	185	8.8	7400	177	80	310	-
23EHS3C0002	3400	500	III	1270	369	750	185	8.8	12300	177	81	320	-
23EK63C0024	4200	500	III	1400	369	750	185	8.8	12300	177	83	330	-
23EL83C0002	4800	500	III	1660	369	750	185	8.8	12300	177	86	340	-
23EKR4C0001	4500	600	IV	1350	290	1060	235	12	13000	203	93	576	-
23ELM4C0001	5000	600	IV	1600	290	1060	235	12	13000	203	95	600	-
23END4C0001	5500	600	IV	1800	290	1060	235	14	14100	203	92	670	-
23EQ54C0001	7000	600	IV	2000	290	1050	262	18	16200	231	112	838	-
23ER04C0002	8000	600	IV	2000	290	1050	262	22	24200	231	112	838	-
23ERQ5C0001	10000	600	V	2000	380	1630	224	26	29500	256	132	1450	-

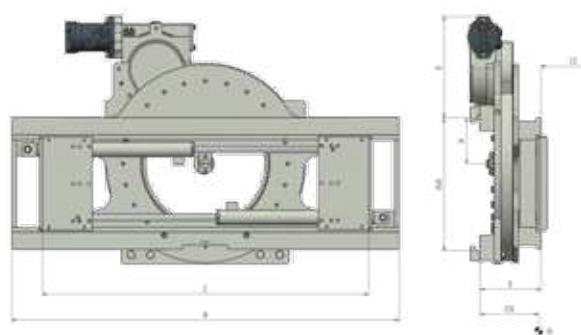
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 54.

References on table are related to standard attachments.  
For special or customised version see options at page 54.  
For hydraulic connection position see detail below.



# 301RFI

360° ROTATORS WITH INTEGRAL FORK POSITIONER

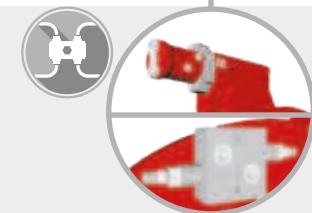
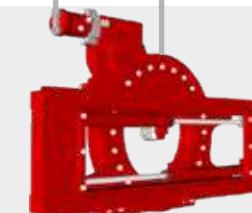


Model 301RFI provides a continuous 360° rotation in both directions. It can adjust the distance between the forks to adapt to loads of different sizes thanks to the hydraulic functions. Forks with Reinforced Lower Hooks are required to move the overturned load. Different versions with Pin-Type Forks are also available. Special versions for Foundries, Agricultural or Fishing Industries can be realized on request.

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	CARRIAGE WIDTH A - mm	MIN FORK CARRIAGE mm	ROTATION CENTER X - mm	OPENING RANGE C MIN - mm	OPENING RANGE C MAX - mm	HEIGHT E - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
23EC42C3001	1600	500	II	900	580	141	320	900	314	189	95	236	-
23EC42C3002	1600	500	II	1000	580	141	320	1000	314	189	96	246	-
23EE82C3010	2200	500	II	1000	580	141	320	1000	314	189	96	246	-
23EE82C3002	2200	500	II	1100	580	141	320	1100	314	189	97	256	-
23EH23C3006	3000	500	III	1100	750	185	430	1100	336	197	99	400	-
23EH23C3002	3000	500	III	1150	750	185	430	1150	336	197	100	406	-
23EH23C3003	3000	500	III	1270	750	185	430	1270	336	197	101	416	-
23EHS3C3001	3400	500	III	1150	750	185	430	1150	336	197	100	406	-
23EHS3C3002	3400	500	III	1270	750	185	430	1270	336	197	101	416	-
23EK63C3001	4200	500	III	1270	750	185	430	1270	336	197	101	416	-
23EK63C3002	4200	500	III	1660	750	185	430	1660	336	197	106	436	-
23EL83C3001	4800	500	III	1270	750	185	430	1270	336	197	101	416	-
23EL83C3002	4800	500	III	1660	750	185	430	1660	336	197	106	436	-
23ELM4C3001	5000	600	IV	1600	1060	235	560	1600	307	227	117	734	-
23END4C3001	5500	600	IV	1800	1060	235	560	1800	307	227	120	760	-
23EQ54C3001	7000	600	IV	2000	1050	262	560	2000	287	276	140	950	-
23ER04C3002	8000	600	IV	2000	1050	262	560	2000	287	276	140	950	-

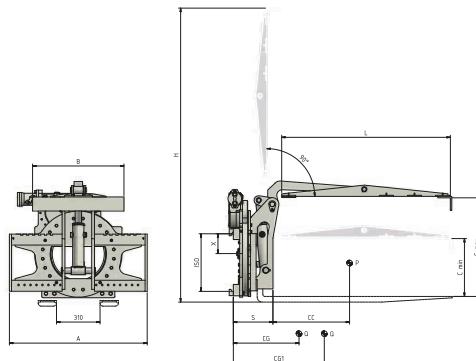
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 54.

References on table are related to standard attachments.  
For special or customised version see options at page 54.  
For hydraulic connection position see detail below.



# 213

## 360° BOX ROTATOR WITH UPPER RESTRAINT ARM



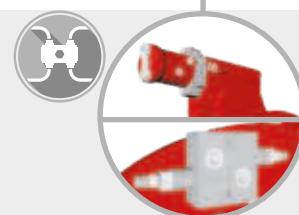
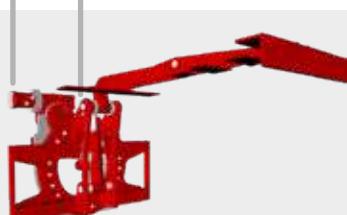
Model 213 is recommended for all emptying boxes operations (for junk, recycling, or in the agricultural industries), thanks to the special locking system of the box during rotation.

REFERENCE	CLOSED ATTACHMENT CAPACITY	LOAD CENTER	ISO 2928	CARRIAGE WIDTH	HEIGHT	BOX HEIGHT FROM FORKS LEVEL	PLATE LENGTH	THICKNESS	CENTER OF GRAVITY	CENTER OF GRAVITY	WEIGHT	PRICE	
	P - Kg	CC - mm	FEM	A - mm	H - mm	C MIN - mm	C MAX - mm	L - mm	S - mm	CG - mm	CG1 - mm	Q - Kg	euro
25A342A0006	2500	500	II	980	1945	360	680	1175	320	175	245	275	-



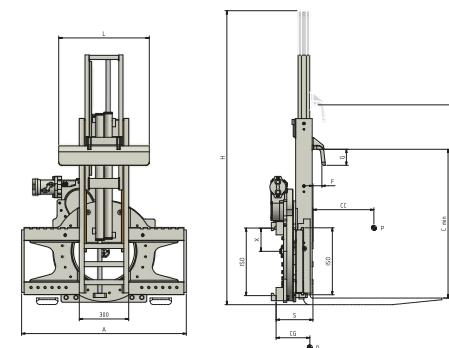
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 54.

References on table are related to standard attachments.  
For special or customised version see options at page 54.  
For hydraulic connection position see detail below.



# 219

## 360° BOX ROTATOR WITH L-SHAPED ARM



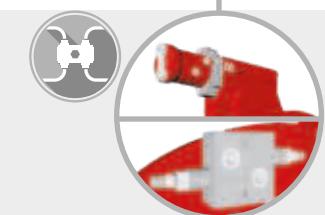
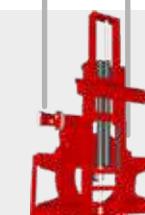
Model 219 is recommended for all emptying boxes operations (for junk, recycling, or in the agricultural industries), thanks to the special locking system of the box during rotation.

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2928	CARRIAGE WIDTH	HEIGHT	BOX HEIGHT FROM FORKS LEVEL	HOOK DIMENSION	THICKNESS	CENTER OF GRAVITY	WEIGHT	PRICE	
	P - Kg	CC - mm	FEM	A - mm	H - mm	C MIN - mm	C MAX - mm	F x G x L mm	S - mm	CG - mm	Q - Kg	euro
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 54.

References on table are related to standard attachments.  
For special or customised version see options at page 54.  
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	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	23ERO...	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	23ERO...	15/15	60/50	35/30
213	25A34...	10/10	60/40	25/25
219	all	10/10	60/40	25/25

In bold all capacities of the functions other than 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

Closing of the central opening  
ISO2  
ISO3  
ISO4  
ISO5

Sideshifting valve  
for models 301RFI with  
pin-type forks

ISO2  
ISO3  
ISO4  
ISO5

Semi-integral sideshift

ISO2  
ISO3  
ISO4  
ISO5

Automatic greasing system for  
semi-integral sideshift

Mechanical block of  
rotation at 180°



### SPECIAL EQUIPMENT

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.



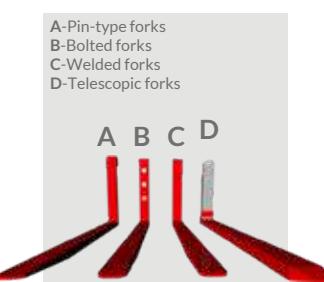
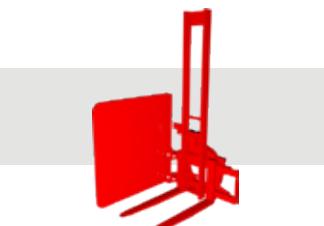
Pin-type fork connection  
ISO2  
ISO3  
ISO4

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





**474.170**



**474.150**



**474.131**



**116.131**



**474.130**



**116.130**



**474.137**



**474.195**



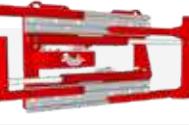
**474.141**



**474.180**



**474.181**



**474.160**



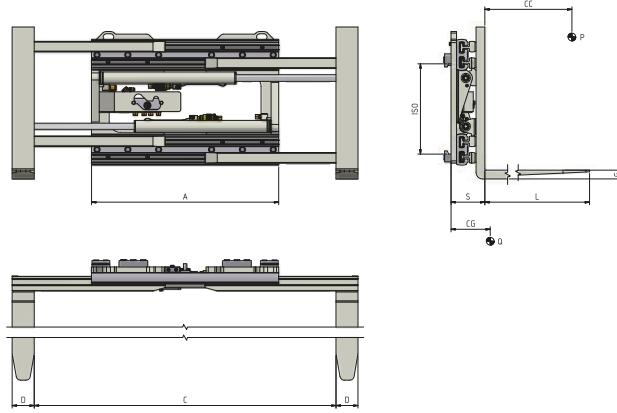
**474.190**

## 6. Clamps

- 6.1** **474.170** Fork Clamp Pag. 58
- 6.2** **474.150** Clamp with Rotating Forks Pag. 60
- 6.3** **474.131** Bale Clamp with Thin Blades Pag. 62
- 6.4** **116.131** Bale Clamp with Thin Blades Pag. 64
- 6.5** **474.130** Bale Clamp with Wavy Edged Arms Pag. 66
- 6.6** **116.130** Bale Clamp with Wavy Edged Arms Pag. 68
- 6.7** **474.137** Clamp with Rubber Covered Arms Pag. 70
- 6.8** **474.195** Foam Rubber Clamp Pag. 72
- 6.9** **474.141** Block Clamp with Compensating Arms Pag. 73
- 6.10** **474.12.180** Box and Appliances Clamp with Two Pivoting Arms Pag. 74
- 6.11** **474.24.180** Box and Appliances Clamp with Two Pivoting Arms Pag. 75
- 6.12** **474.181** Box and Appliances Clamp with Fixed Arms Pag. 76
- 6.13** **474.160** Drum Clamp for One or Two Drums Pag. 78
- 6.14** **474.190** Drum Clamp for Two or Four Drums Pag. 79
- 6.15** Options & Special Equipment Pag. 80

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

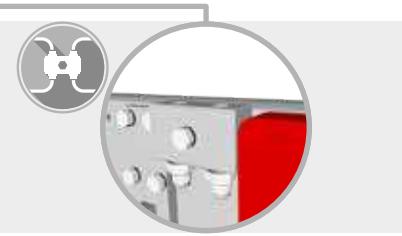
	REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS C MIN - mm C MAX - mm	FORKS D x G x L mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
*	11L03AQ2A0004	1200	1400	500	II	850	340 1380	100x40x1200	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



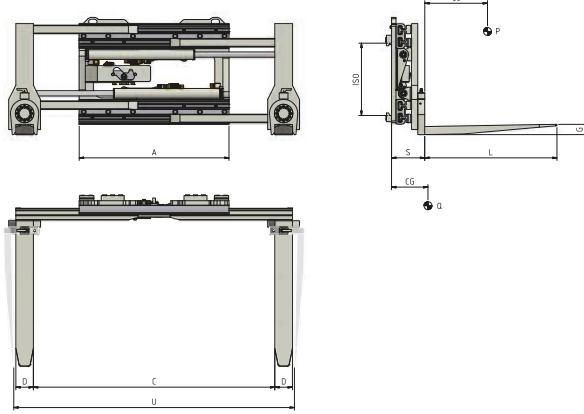
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



# 474.150 CLAMP WITH ROTATING FORKS

## 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.

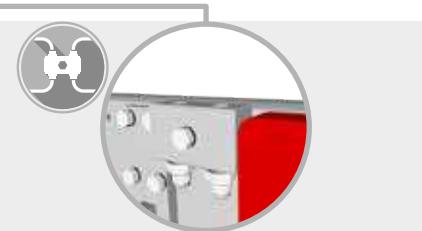
REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS C MIN - mm C MAX - mm U MIN - mm U MAX - mm		OPENING RANGE BETWEEN 90° ROTATED FORKS D x G x L mm S - mm		FORKS THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
						A - mm	C MIN - mm	C MAX - mm	U MIN - mm	U MAX - mm	D x G x L mm	S - 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

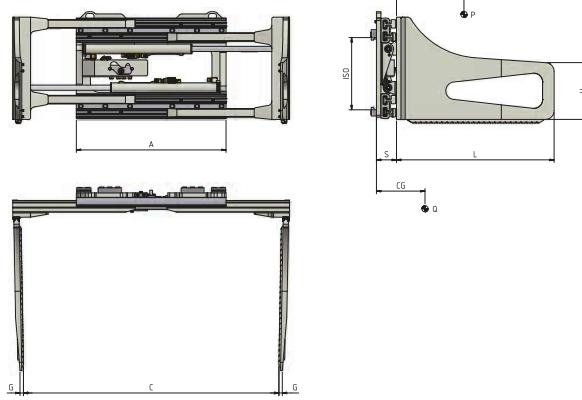


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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.

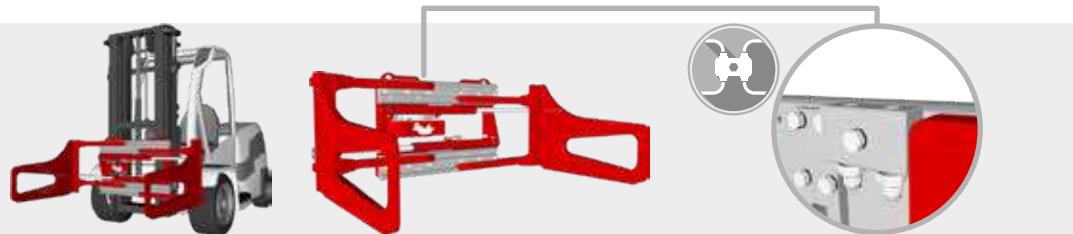
## BALE CLAMP WITH THIN BLADES

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	PRICE euro
					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	-

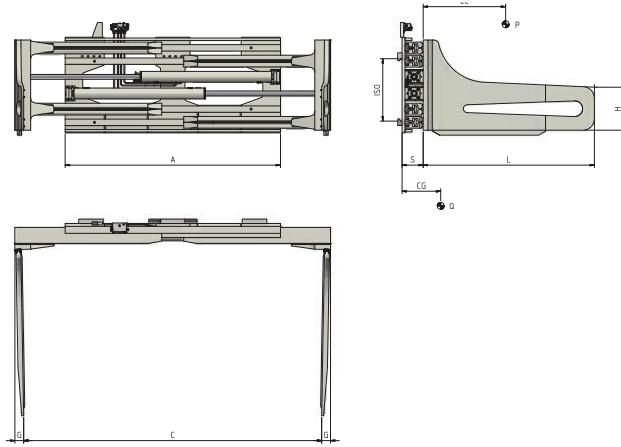


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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	PRICE euro
					C MIN - mm	C MAX - mm	G - 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	-	

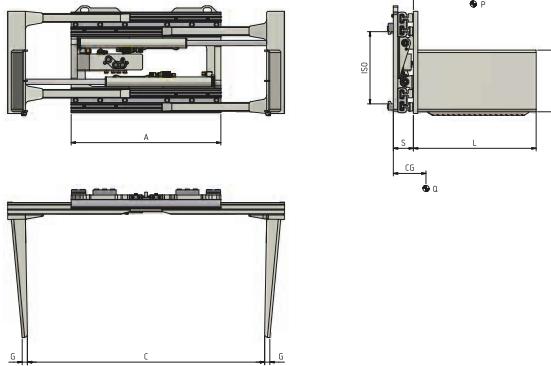


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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.

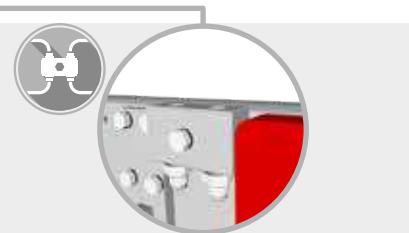
## BALE CLAMP WITH WAVY EDGED ARMS

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	PRICE euro
					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	-

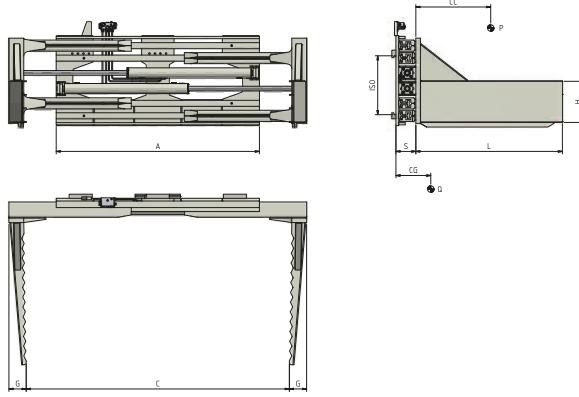


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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.

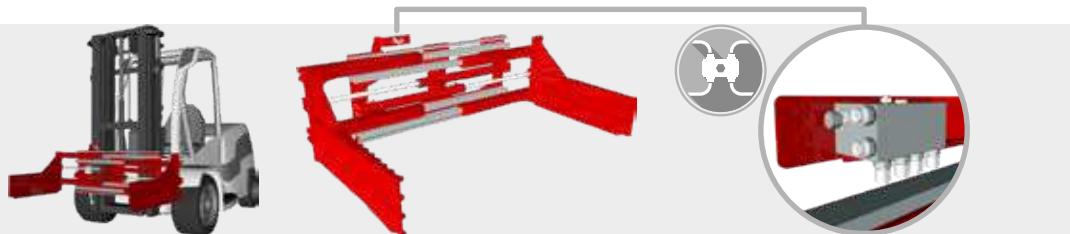
## BALE CLAMP WITH WAVY EDGED ARMS

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	PRICE euro
					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	-



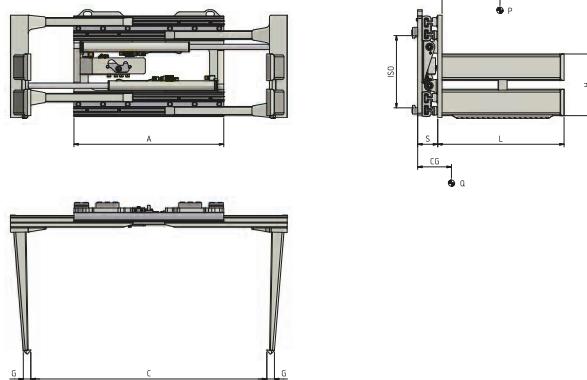
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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.

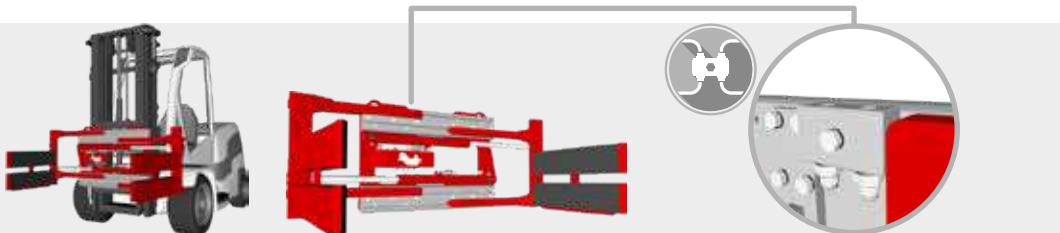
## CLAMP WITH RUBBER COVERED ARMS

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	PRICE euro
					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	-

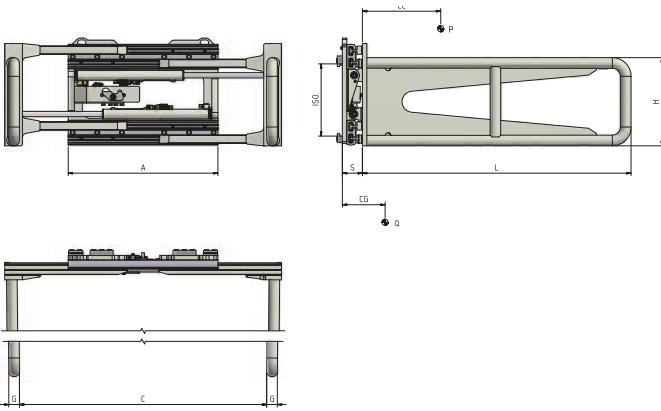


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



## 474.195 FOAM RUBBER CLAMP



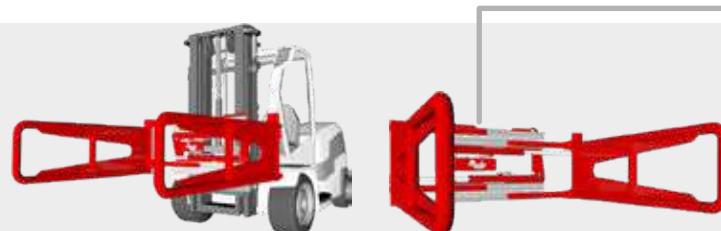
Model 474.195, with tubular arms, is suggested to customers who need to move voluminous loads as foam rubber or polyurethane blocks. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve 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.

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	PRICE euro
					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	-

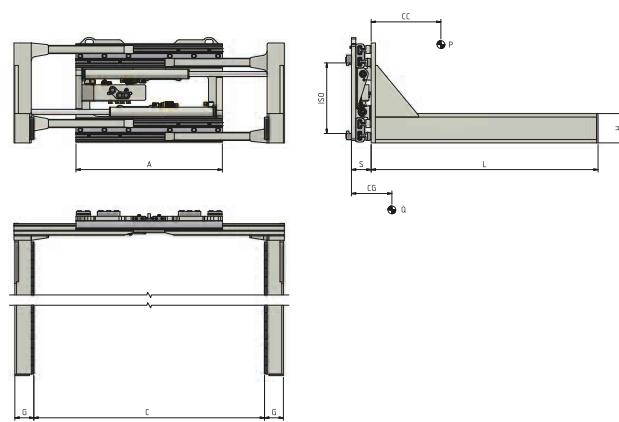


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



## 474.141 BLOCK CLAMP WITH COMPENSATING ARMS



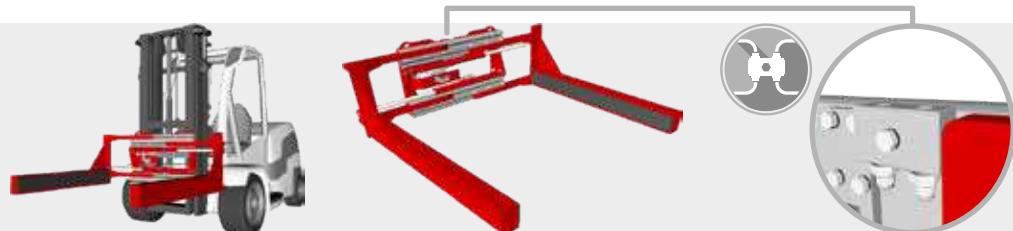
Model 474.141, with compensating arms, is suggested to customers who need to move concrete blocks and building materials. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied 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	PRICE euro
					C MIN - mm	C MAX - mm					
11L20BE2A0001	1400	500	II	1050	400	1750	120x150x1095	137	252	405	-
11L20BE2A0002	1400	500	II	1050	400	1750	120x150x1295	137	306	422	-
11L20CG2A0001	1700	500	II	1050	400	1750	120x150x1095	137	252	405	-
11L20CG2A0002	1700	500	II	1050	400	1750	120x150x1295	137	306	422	-
11L20D62A0001	1900	500	II	1150	370	1820	125x170x1100	137	268	500	-
11L20D62A0002	1900	500	II	1150	370	1820	125x170x1300	137	327	493	-
11L20EY2A0001	2400	500	II	1150	370	1820	125x170x1100	137	268	465	-
11L20EY2A0002	2400	500	II	1150	370	1820	125x170x1300	137	327	493	-
11L20G03A0001	2700	500	III	1100	390	1760	125x170x1100	157	260	547	-
11L20G03A0002	2700	500	III	1100	390	1760	125x170x1300	157	311	573	-

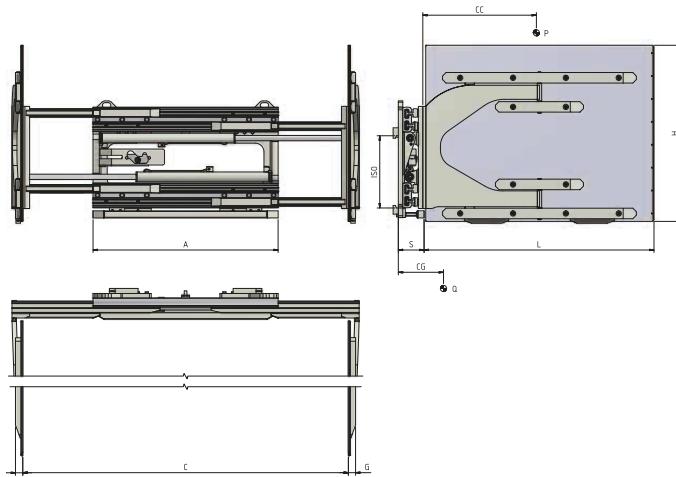


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



## 474.12.180 BOX 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.

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	PRICE euro
					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.

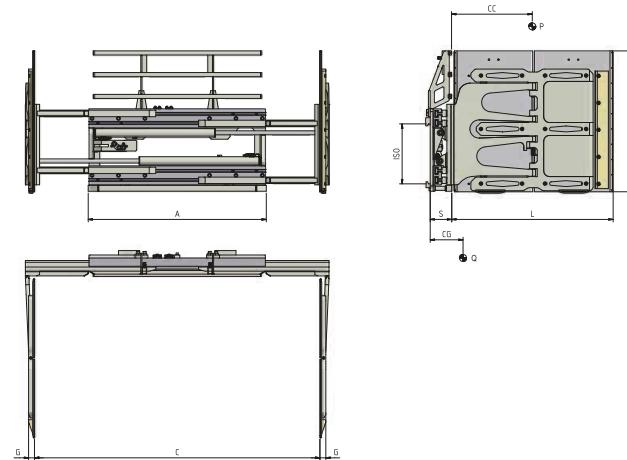


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



## 474.24.180 BOX 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.

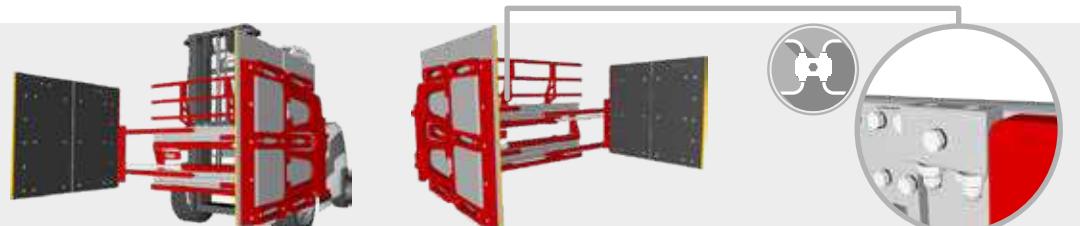
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	FRAME WIDTH A - mm	OPENING RANGE		BLADES SIZES GxHxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					C MIN - mm	C MAX - mm					
* 11L15D62A0004	1500	675	II	1380	420	2040	51x1200x1350	188	448	865	-
* 11L15D62A0005	1500	675	II	1550	460	2260	51x1200x1350	188	436	875	-
* 11L15D63A0006	1900	675	III	1850	560	2760	51x1200x1350	188	407	920	-
* 11L15D63A0007	1900	675	III	2000	460	2710	51x1200x1350	188	402	930	-
* 11L15D63A0008	2000	675	III	2050	420	2680	51x1200x1350	188	401	950	-

\* Splitted contact pads and load backrest on blade models.



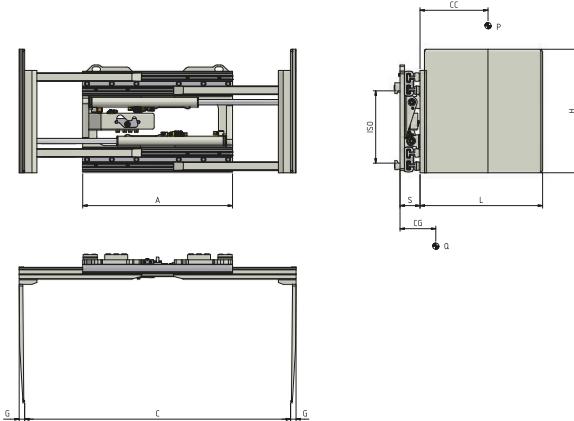
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
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.

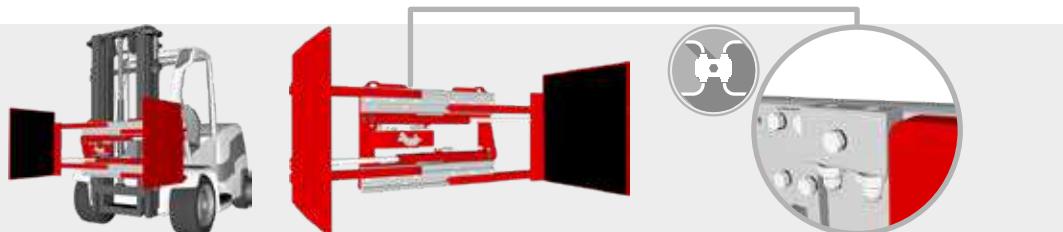
## BOX AND APPLIANCES CLAMP WITH FIXED ARMS

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	PRICE euro
					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	-

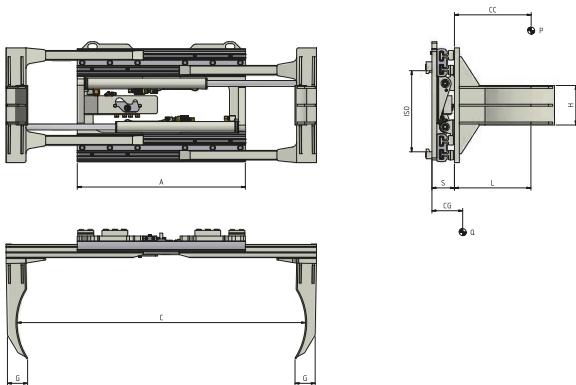


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



# 474.160 DRUM CLAMP FOR ONE OR TWO DRUMS



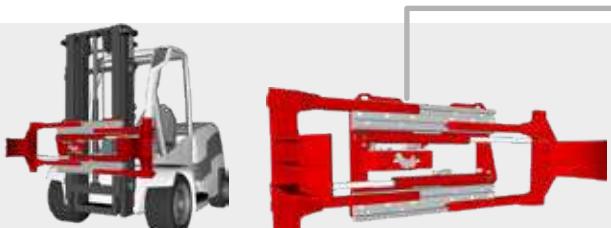
Model 474.160 is specifically suggested to customers who need to move one or two barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each 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.

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	PRICE euro
					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	-

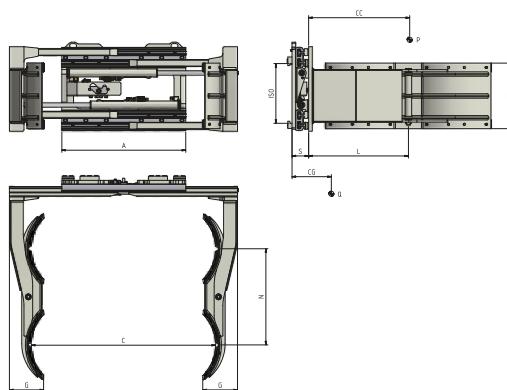


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



# 474.190 DRUM CLAMP FOR TWO OR FOUR DRUMS



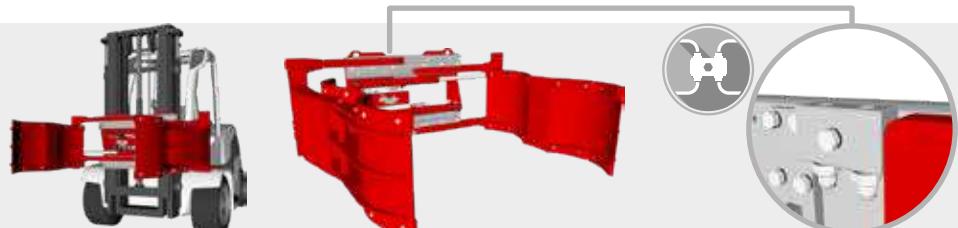
Model 474.190 is specifically suggested to customers who need to move two or four barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each 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	DISTANCE N - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					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 80.

References on table are related to standard attachments.  
For special or customised version see options at page 80.  
For hydraulic connection position see detail below.



## OPTIONS &amp; 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	ISO2	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	-



## SPECIAL EQUIPMENT

Manual pressure-relief panel with pressure gauge and indicator lamp

Electronic pressure-relief panel with keyboard and indicator lamp

Automatic pressure-relief system

Sideshifting valve

Semi-integral sideshift ISO2 -  
ISO3 -  
ISO4 -

Automatic greasing system for semi-integral sideshift

Bolt-on forks  
(for model 474.170) 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  
474.150 On request we can realize the attachment with forks of any section and length.

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

474.137  
474.195  
474.141 On request we can realize the attachment with blades of any length.

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.

474.180  
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

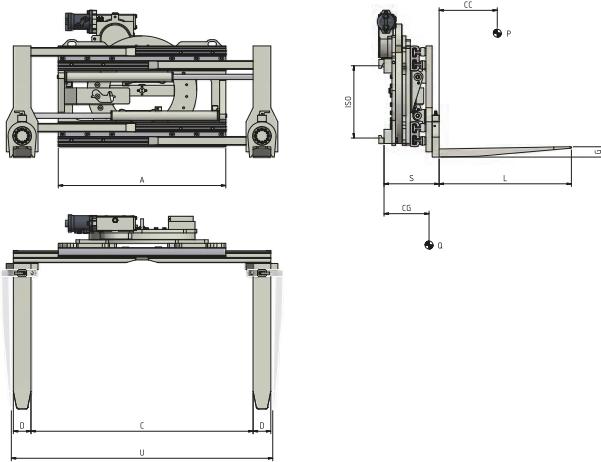
- |            |                    |  |         |
|------------|--------------------|--|---------|
| <b>7.1</b> | <b>301.474.170</b> | 360° Rotating Fork Clamp                       | Pag. 84 |
| <b>7.2</b> | <b>301.474.150</b> | 360° Rotating Clamp with Rotating Forks        | Pag. 86 |
| <b>7.3</b> | <b>301.474.4</b>   | 360° Rotating Clamp with 4 Forks               | Pag. 88 |
| <b>7.4</b> | <b>301.474.131</b> | 360° Rotating Bale Clamp with Thin Blades      | Pag. 90 |
| <b>7.5</b> | <b>301.474.160</b> | 360° Rotating Drum Clamp for One or Two Drums  | Pag. 92 |
| <b>7.6</b> | <b>301.474.190</b> | 360° Rotating Drum Clamp for Two or Four Drums | Pag. 93 |
| <b>7.7</b> | <b>636</b>         | 360° Rotating Drum Clamp for One Drum          | Pag. 94 |
| <b>7.8</b> |                    | Options & Special Equipment                    | Pag. 95 |

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.



## 301.474.150 360° ROTATING CLAMP WITH ROTATING FORKS

### 360° ROTATING CLAMP WITH ROTATING FORKS



Model 301.474.150, with rotating forks, suitable for handling goods on pallets or by tightening and rotating the load. 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 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.

REFERENCE	CLAMPING CAPACITY P - Kg	CAPACITY ON FORKS P - Kg	LOAD CENTER CC - mm	ISO 2329 FEM	FRAME WIDTH A - mm	OPENING RANGE BETWEEN FORKS		OPENING RANGE BETWEEN 90° ROTATED FORKS				FORKS DxGxL mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
						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	-		

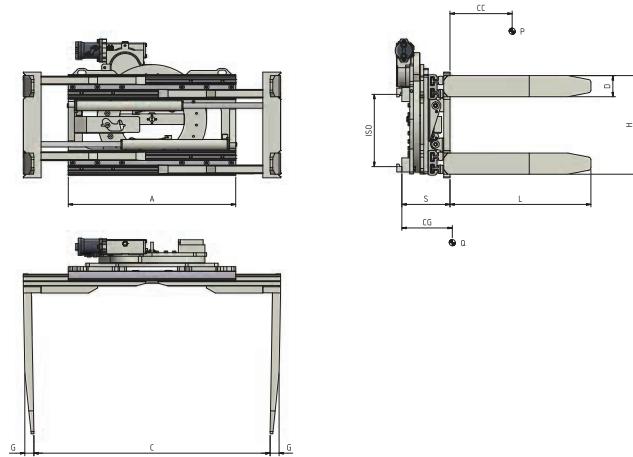
\* Suitable models for Europallets handling

Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
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	DISTANCE	THICKNESS	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					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	-

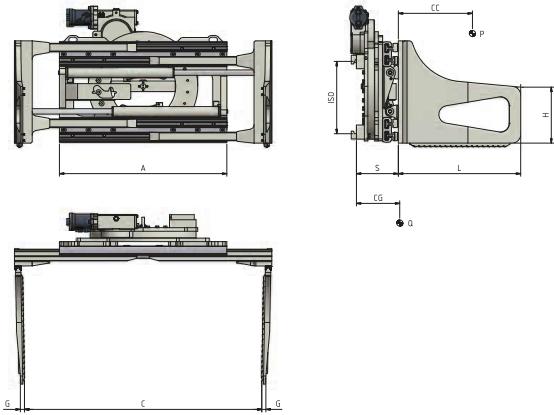


Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
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 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.

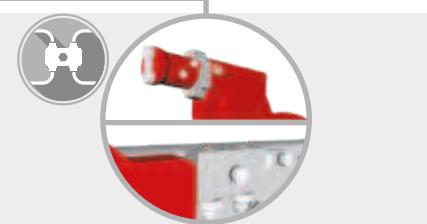
## 360° ROTATING BALE CLAMP WITH THIN BLADES

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	PRICE euro
					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	348	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	-

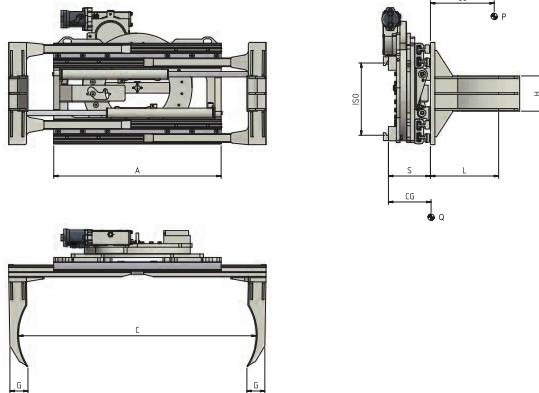


Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
For hydraulic connection position see detail below.



## 301.474.160 360° ROTATING DRUM CLAMP FOR ONE OR TWO DRUMS



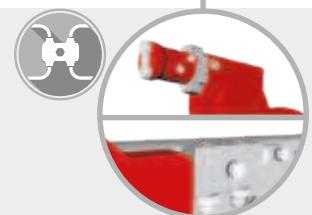
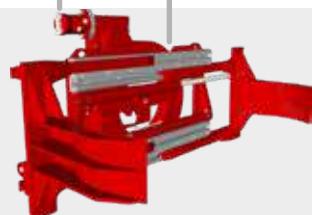
Model 301.474.160 is specifically suggested to customers who need to move and rotate one or two barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard 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.

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	PRICE euro
					C MIN - mm	C MAX - mm					
11M23AQ2A0001	1200	330	II	950	490	1730	100x200x330	234	132	390	-
11M23BE2A0001	1400	330	II	950	450	1600	100x200x330	267	146	476	-

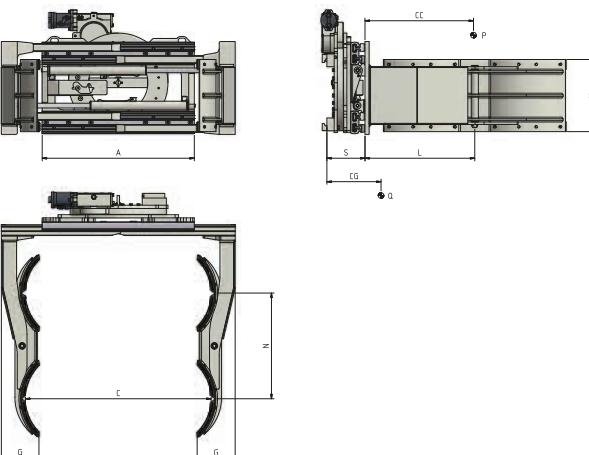


Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
For hydraulic connection position see detail below.



## 301.474.190 360° ROTATING DRUM CLAMP FOR TWO OR FOUR DRUMS



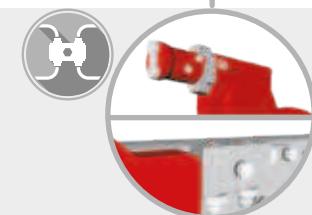
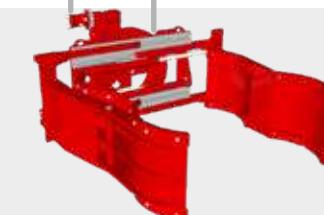
Model 301.474.190 is specifically suggested to customers who need to move and rotate two or four barrels together. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard 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		BLADES SIZES GxHxL mm	DISTANCE H - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
					C MIN - mm	C MAX - mm						
11M24AQ2A0001	1200	670	II	950	340	1340	235x450x675	660	234	214	442	-
11M24D62A0001	1900	675	II	1050	330	1680	235x450x675	660	267	212	696	-



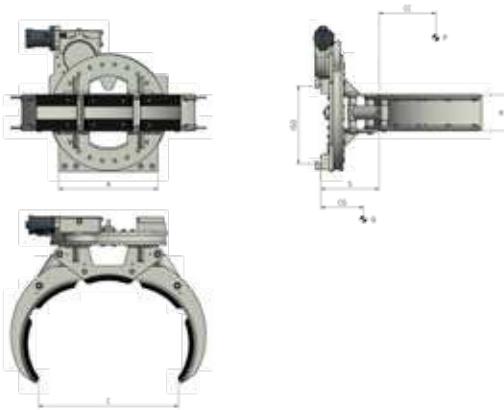
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
For hydraulic connection position see detail below.



# 636

## 360° ROTATING DRUM CLAMP FOR ONE DRUM



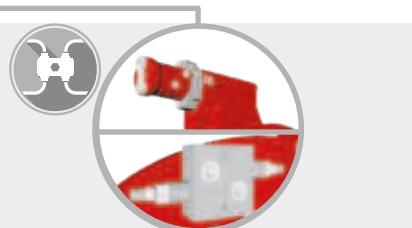
Model 636 is specifically suggested to customers who need to move and rotate just one barrel. The clamping force, which can be set through a hydraulic valve, allows a safe movement of the load. A pressure relief valve, a non-return valve and a regenerative valve are supplied as standard on each model. 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	PRICE euro
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 95.

References on table are related to standard attachments.  
For special or customised version see options at page 95.  
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
301.474.4	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 rotation capacity values.



### 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 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

Bolt-on forks ISO2  
(for model 301.474.170) ISO3  
ISO4

Forks rotation with hydraulic control (for model 301.474.150)

Cylinder protection plate

Wear-free plates under the frame

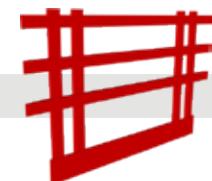
Wear-free plates under the blades (for model 301.474.131)



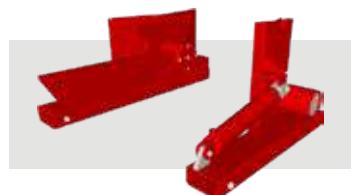
### SPECIAL EQUIPMENT

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

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



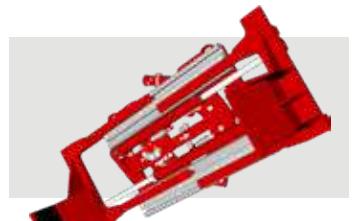
On request we can supply every attachment of the 301.474.170 series with flat slip-on arms, slip-on arms for drums and with a 90° or 180° hydraulic rotation.



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 301.474.190 of various diameters for barrel grabbing.







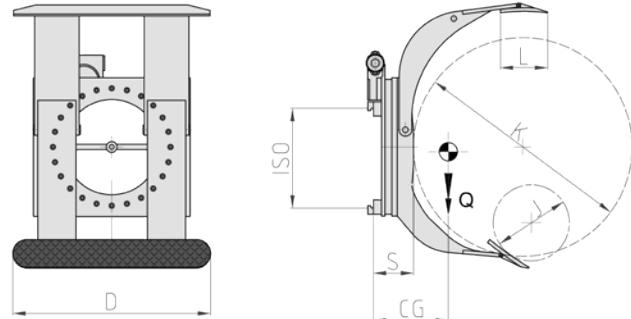
## 8. Roll and Tyres Clamps

- |             |  |          |
|-------------|--|----------|
| <b>8.1</b>  | <b>340SF</b> 360° Rotating Roll Clamp with Fixed Short Arm                         | Pag. 100 |
| <b>8.2</b>  | <b>340SM</b> 360° Rotating Roll Clamp with Adjustable Arms                         | Pag. 101 |
| <b>8.3</b>  | <b>340DF</b> 360° Rotating Roll Clamp with Fixed Short Arm and Split Long Arm      | Pag. 102 |
| <b>8.4</b>  | <b>340DM</b> 360° Rotating Roll Clamp with Adjustable Arms and Split Long Arm      | Pag. 103 |
| <b>8.5</b>  | <b>340TF</b> 360° Rotating TISSUE Roll Clamp with Fixed Short Arm                  | Pag. 104 |
| <b>8.6</b>  | <b>340TM</b> 360° Rotating TISSUE Roll Clamp with Adjustable Arms                  | Pag. 105 |
| <b>8.7</b>  | <b>342SF</b> 360° Rotating Roll Clamp with 90° Forward Tipping and Fixed short Arm | Pag. 106 |
| <b>8.8</b>  | <b>342SM</b> 360° Rotating Roll Clamp with 90° Forward Tipping and Adjustable Arms | Pag. 107 |
| <b>8.9</b>  | <b>343SF</b> Roll Clamp with 90° Forward Tipping and Fixed Short Arm               | Pag. 108 |
| <b>8.10</b> | <b>343SM</b> Roll Clamp with 90° Forward Tipping and Adjustable Arms               | Pag. 109 |
| <b>8.11</b> | <b>364</b> Roll Clamp with Reduced Heights   | Pag. 110 |
| <b>8.12</b> | <b>340PN</b> Tyres Clamp   | Pag. 111 |
| <b>8.13</b> | Options & Special Equipment  | Pag. 112 |

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	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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	-



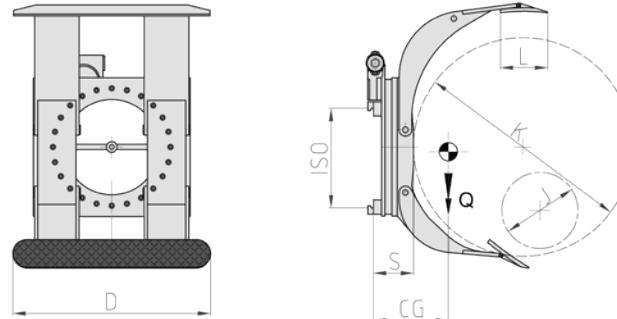
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
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	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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	-



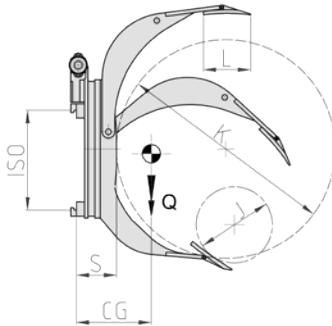
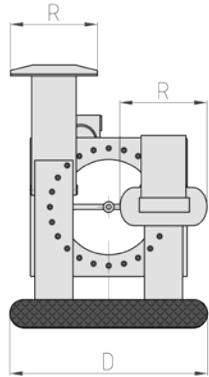
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 340DF

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



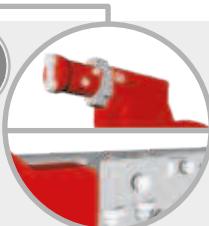
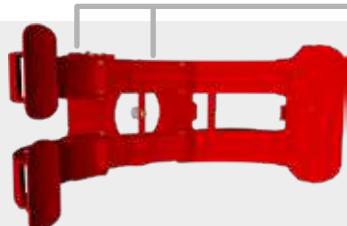
Model 340DF is made of a short fixed arm and a long split arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments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

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS		THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
			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	-



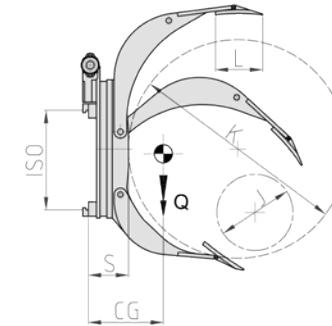
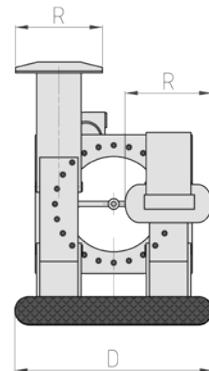
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 340DM

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



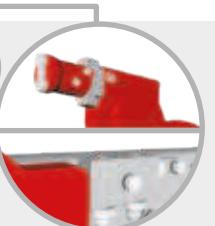
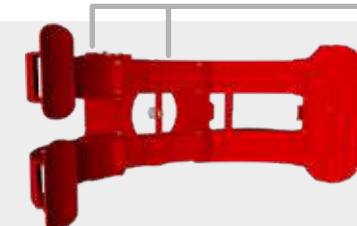
Model 340DM is made of a short adjustable arm, that allows a wider opening, and a long split arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact 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	PRICE euro
			J - mm	K - mm	DxL - mm	RxL - mm				
21G032G2C0001	900	II	250	1100	700x200	310x200	178	205	445	-
21G032G2C0002	900	II	250	1400	700x200	310x200	178	210	505	-
21G032Q2C0001	1300	II	250	1150	750x250	315x250	186	225	540	-
21G032Q2C0002	1300	II	250	1300	750x250	315x250	186	235	560	-
21G03342C0001	2000	II	250	1300	850x250	365x250	202	240	650	-
21G03343C0001	2000	III	250	1300	850x250	365x250	202	240	770	-
21G03343C0002	2000	III	250	1600	850x250	365x250	202	245	840	-
21G033G3C0003	2600	III	300	1300	900x250	390x250	215	250	910	-
21G033G3C0004	2600	III	480	1600	900x250	390x250	215	260	975	-
21G033Q3C0001	3000	III	250	1300	1015x300	445x300	225	265	1030	-
21G033W4C0001	3600	IV	480	1800	1050x300	465x300	255	270	1465	-



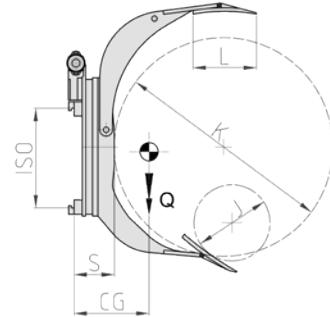
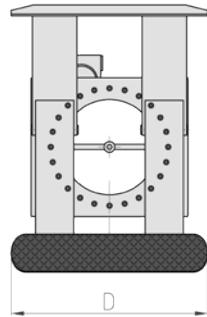
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 340TF

360° ROTATING TISSUE ROLL CLAMP  
WITH FIXED SHORT ARM



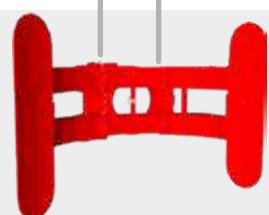
Model 340TF is made of a short fixed arm and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact pads allow to find the best attachments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



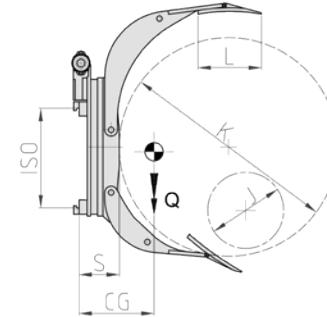
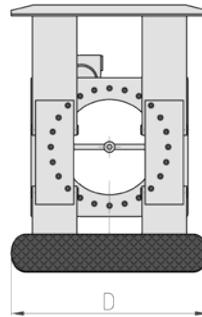
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 340TM

360° ROTATING TISSUE ROLL CLAMP  
WITH ADJUSTABLE ARMS



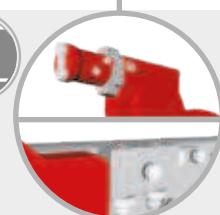
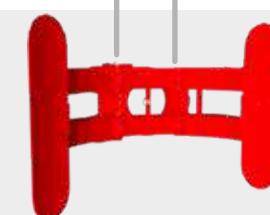
Model 340TM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more overlapping rolls which have the same diameter. A wide choice of openings, capacities and contact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



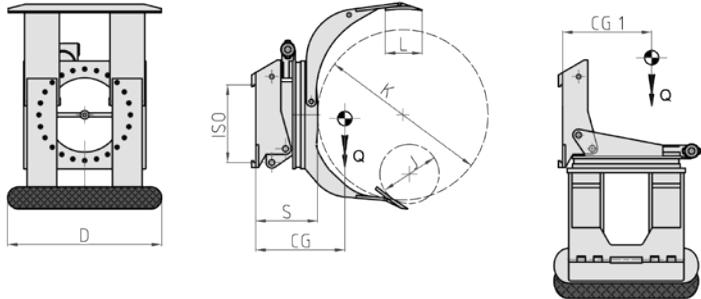
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
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.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S- mm	CENTER OF GRAVITY CG- mm	CENTER OF GRAVITY CGI - mm	WEIGHT Q- Kg	PRICE euro
			J- mm	K- mm						
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 112.

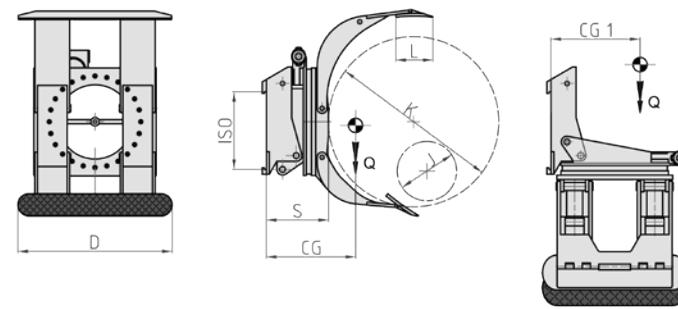
References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



x2

# 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 Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S- mm	CENTER OF GRAVITY CG- mm	CENTER OF GRAVITY CGI - mm	WEIGHT Q- Kg	PRICE euro
			J- mm	K- mm						
21J012G2C0001	900	II	250	1100	700x200	295	270	395	700	-
21J012G2C0002	900	II	250	1400	700x200	295	275	415	740	-
21J012Q2C0001	1300	II	250	1150	750x250	295	290	435	760	-
21J012Q2C0002	1300	II	250	1300	750x250	295	295	445	790	-
21J01342C0001	2000	II	250	1300	850x250	310	305	475	890	-
21J01343C0001	2000	III	250	1300	850x250	335	305	475	1080	-
21J01343C0002	2000	III	250	1600	850x250	335	310	495	1150	-
21J013G3C0001	2600	III	300	1300	900x250	370	315	505	1265	-
21J013G3C0002	2600	III	480	1600	900x250	370	325	535	1320	-
21J013Q3C0001	3000	III	250	1300	1015x300	380	330	530	1580	-
21J013W4C0001	3600	IV	480	1800	1050x300	420	335	580	1920	-

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.

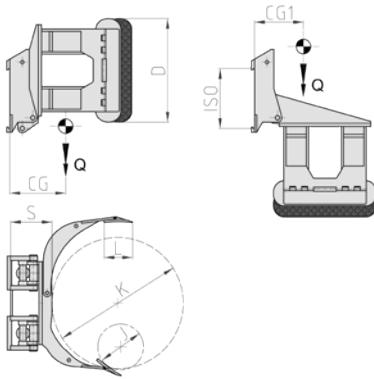
Hydraulic functions required: 3.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.



x2

# 343SF

ROLL CLAMP WITH 90° FORWARD TIPPING  
AND FIXED SHORT ARM



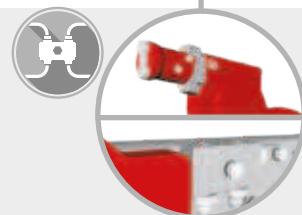
Model 343SF is made of a short fixed arm and a long complete arm. 90° frontal tipping allows the gripping of rolls with the same diameter, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best attachments for every needs.

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg	PRICE euro
			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	-
21K003G3C0001	2600	III	550	1300	900x250	300	260	430	990	-
21K003G3C0002	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	-



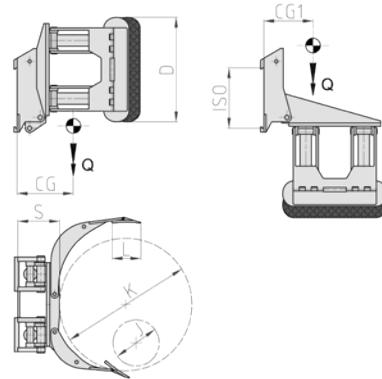
Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 343SM

ROLL CLAMP WITH 90° FORWARD TIPPING  
AND ADJUSTABLE ARMS



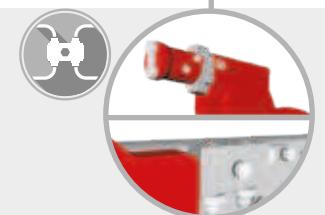
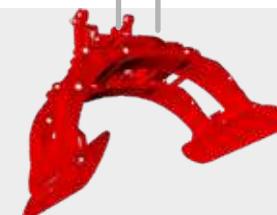
Model 343SM is made of a short adjustable arm, that allows a wider opening, and a long complete arm. 90° frontal tipping allows the gripping of rolls with the same diameter, placed perpendicular to the axis of the forklift. A wide choice of openings, capacities and contact pads allow to find the best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

REFERENCE	ATTACHMENT CAPACITY Kg	ISO 2328 FEM	ROLLS DIAMETER		CONTACT PADS	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg	PRICE euro
			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	-

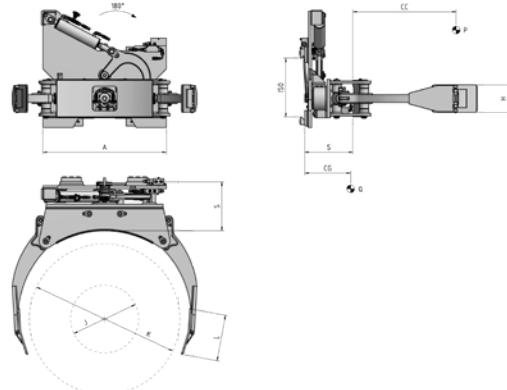


Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 364 ROLL CLAMP WITH REDUCED HEIGHTS



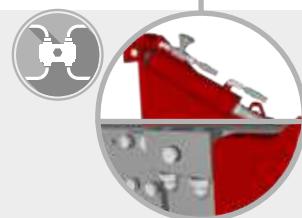
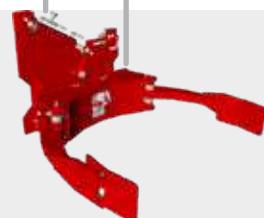
Model 364 can be produced with a 90°, 180° or 360° rotation. It's recommended to handle rolls which have reduced heights, like rolls of tape, sticky labels and packaging cardboards for food industry.

REFERENCE	ATTACHMENT CAPACITY Kg	CENTER OF GRAVITY FEM	ISO 2328 ROTATION	CARRIAGE WIDTH A-mm	ROLLS DIAMETER J-mm	CONTACT PADS K-mm	THICKNESS HxL-mm	CENTER OF GRAVITY CG-mm	WEIGHT Q-Kg	PRICE euro
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 -

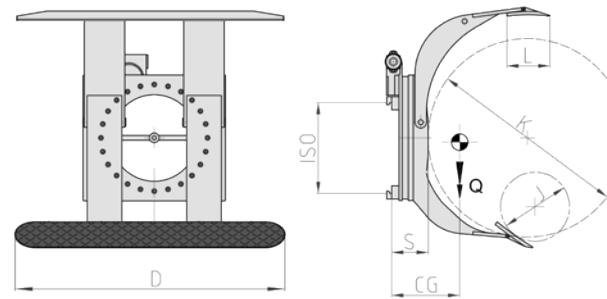


Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
For hydraulic connection position see detail below.



# 340PN TYRES CLAMP



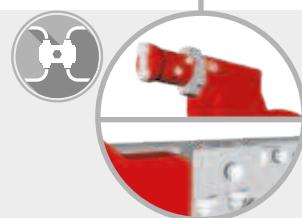
Model 340PN can be produced with a short fixed arm and a long complete one, or with a short fixed arm and both adjustable arms, it depends on the range of the grip diameter. 360° rotation can be mechanically blocked at 180° on request, and it allows to grab and rotate one or more tyres which have the 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 J-mm	CONTACT PADS K-mm	THICKNESS DxL-mm	CENTER OF GRAVITY CG-mm	WEIGHT Q-Kg	PRICE euro
21G042Q2C0002	1300	II	400	1300	1800x350	186	255 535 -	
21G052Q2C0002	1300	II	250	1300	1800x350	186	235 520 -	
21G002Q2C0023	1300	II	400	1300	2050x350	230	235 650 -	
21G042Q2C0004	1300	II	400	1600	1800x350	186	305 585 -	
21G052Q3C0001	1300	III	500	1600	1800x350	210	255 690 -	
21G042Q3C0002	1400	III	500	1800	1800x350	210	260 915 -	
21G00343C0005	2000	III	700	2000	1930x300	215	265 945 -	



Hydraulic functions required: 2.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 112.

References on table are related to standard attachments.  
For special or customised version see options at page 112.  
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 all capacities of the functions other than clamping.



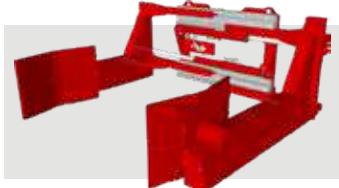
### ACCESSORIES

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



### SPECIAL EQUIPMENT

- 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 -
- 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 -

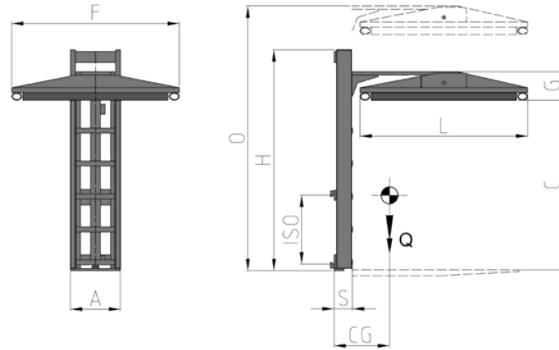




## 9. Hydraulic and Mechanical Attachments

- |             |             |   |          |
|-------------|-------------|---|----------|
| <b>9.1</b>  | <b>951</b>  | Load Stabilizer                             | Pag. 116 |
| <b>9.2</b>  | <b>505</b>  | Push-Pull with Sheet Retention              | Pag. 117 |
| <b>9.3</b>  | <b>505i</b> | Fork Mounted Push-Pull with Sheet Retention | Pag. 118 |
| <b>9.4</b>  | <b>490</b>  | Load Push                                   | Pag. 119 |
| <b>9.5</b>  | <b>600</b>  | Load Extender                               | Pag. 120 |
| <b>9.6</b>  | <b>965</b>  | Hydraulic Bucket                            | Pag. 121 |
| <b>9.7</b>  | <b>971</b>  | Fork Mounted Hydraulic Bucket               | Pag. 122 |
| <b>9.8</b>  | <b>968</b>  | Fork Mounted Mechanical Bucket              | Pag. 123 |
| <b>9.9</b>  | <b>980</b>  | Crane Jib                                   | Pag. 124 |
| <b>9.10</b> | <b>975</b>  | Crane Jib with Extending Arm                | Pag. 125 |
| <b>9.11</b> | <b>976</b>  | Fork Mounted Crane Jib with Extending Arm   | Pag. 126 |
| <b>9.12</b> | <b>940</b>  | Boom  | Pag. 127 |
| <b>9.13</b> |             | Options & Special Equipment                 | Pag. 128 |

# 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.

REFERENCE	ISO 2328 FEM	OPENING RANGE		FRAME				PLATE SIZES		THICKNESS	CENTER OF GRAVITY	WEIGHT	PRICE
		C MIN - mm	C MAX - mm	A - mm	H - mm	O - mm	F - mm	L - mm	G - mm	S - mm			
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	-

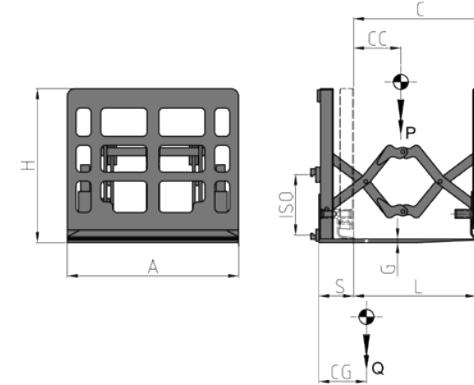
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 128.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

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



# 505 PUSH-PULL WITH SHEET RETENTION



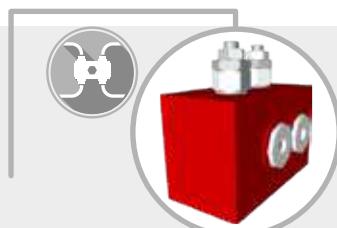
**505 Push-Pull** is a specific attachment designed to move not-palletized goods and which also allows to recover sheets of paper, cardboard or plastic. Removing the pallet leads to packaging cost reduction, allows to increase the volume of the transportable goods (especially in case of containers) and 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	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	STROKE C - mm	HEIGHT H - mm	LOADING PLATE A - mm	L - mm	G - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE
33B2J2A2001	1000	550	II	1120	1000	1200	1070	20	270	235	650	-
33B2J2A2002	1000	650	II	1270	1100	1200	1220	20	270	245	720	-
33B2U2A2001	1500	550	II	1120	1000	1250	1070	25	275	240	760	-
33B2U3A2002	1500	650	III	1270	1100	1250	1220	25	275	250	830	-
33B343A2001	2000	550	III	1120	1000	1250	1070	30	300	270	870	-
33B343A2002	2000	650	III	1270	1100	1250	1220	30	300	280	970	-

Hydraulic functions required: 2 + 1 Electric.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 128.

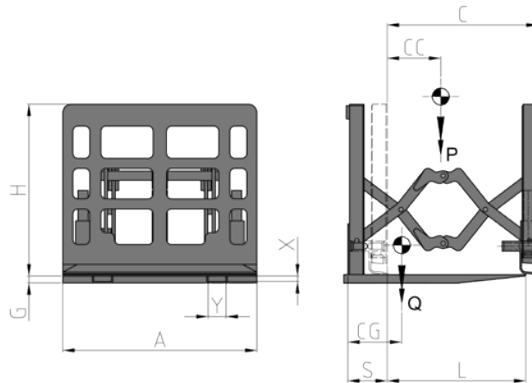
References on table are related to standard attachments.  
For special or customised version see options at page 128.

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 without sheets retention are also available.

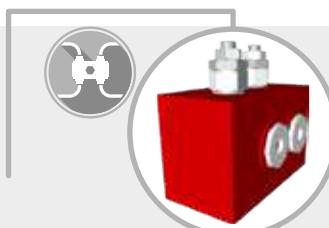
REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	FORKS MOUNTING SECTION	STROKE	HEIGHT	LOADING PLATE	THICKNESS	CENTER OF GRAVITY	WEIGHT	PRICE	
	P - Kg	CC - mm	YxX - mm	C - mm	H - mm	A - mm	L - mm	G - mm	S - mm	Q - Kg	euro
33B2J6D0001	1000	550	117x45	1120	1000	1200	1070	55	270	235	585
33B2J6D0002	1000	650	117x45	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 128.

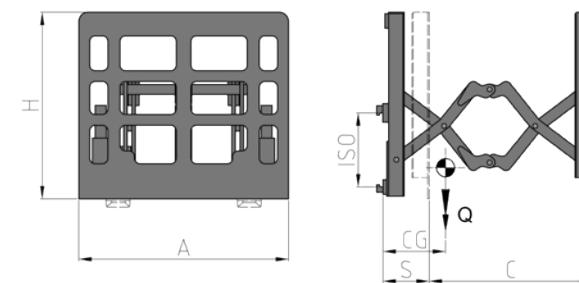
References on table are related to standard attachments.  
For special or customised version see options at page 128.

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	PRICE
	Kg		A - mm	H - mm	C - mm	S - mm	CG - mm	Q - Kg	euro
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	-



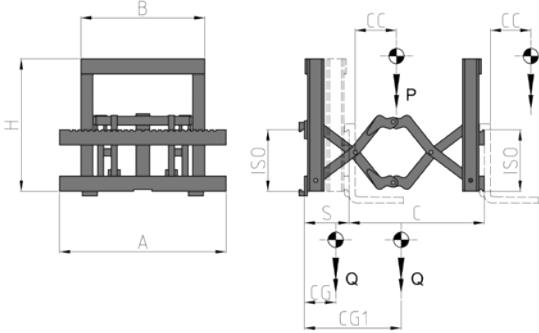
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 128.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

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



# 600 LOAD EXTENDER



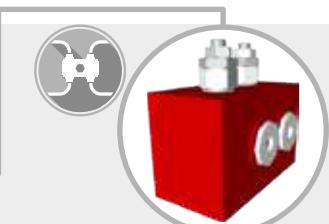
**600 Load Extender** is designed to arrange not-palletized goods in double depth. It's particularly suitable for double row storage or for loading trucks from one side, when confined spaces do not allow other maneuvers. Load Extender's range of capacities and strokes can be adapted to every customer's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

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	CLOSED CENTER OF GRAVITY CG - mm	EXTENDED CENTER OF GRAVITY CG1 - mm	WEIGHT Q - Kg	PRICE euro
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

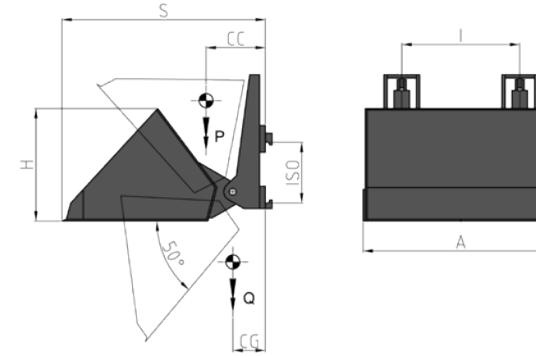
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 128.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

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



# 965 HYDRAULIC BUCKET



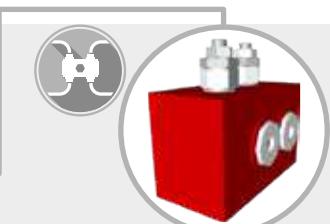
**965 Hydraulic Bucket** is designed to allow the load/unload operations of building industry materials (sand, gravel, concrete, terrain), but they are also used in agriculture.

REFERENCE	ISO 2328 FEM	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	LOADING CAPACITY m³	BUCKET SIZES A - mm	THICKNESS H - mm	BUCKET SIZES I - mm	THICKNESS S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
41A082A006	II	930	450	0,52	1000	704	580	1415	320	320	-
41A082A007	II	1110	450	0,62	1200	704	580	1415	340	340	-
41A0D2A001	II	1310	450	0,73	1400	704	580	1415	360	360	-
41A0E2A002	II	1530	480	0,85	1200	925	600	1540	360	480	-
41A0E3A002	III	1530	480	0,85	1200	925	600	1540	360	500	-
41A0J2A004	II	1760	480	0,98	1400	925	600	1540	390	510	-
41A0J3A004	III	1760	480	0,98	1400	925	600	1540	390	510	-
41A0L2A002	II	2010	480	1,12	1600	925	600	1540	410	540	-
41A0L3A002	III	2010	480	1,12	1600	925	600	1540	410	540	-
41A0P3A002	III	2610	520	1,45	1600	1205	800	1960	400	670	-
41A0P4A002	IV	2610	520	1,45	1600	1205	800	1960	400	670	-
41A0Q3A001	III	2920	520	1,62	1800	1205	800	1960	430	700	-
41A0Q4A001	IV	2920	520	1,62	1800	1205	800	1960	430	700	-
41A0S3A001	III	3240	520	1,8	2000	1205	800	1960	450	730	-
41A0S4A001	IV	3240	520	1,8	2000	1205	800	1960	450	730	-

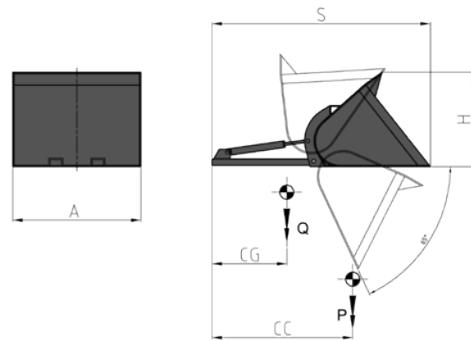
Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 128.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

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).

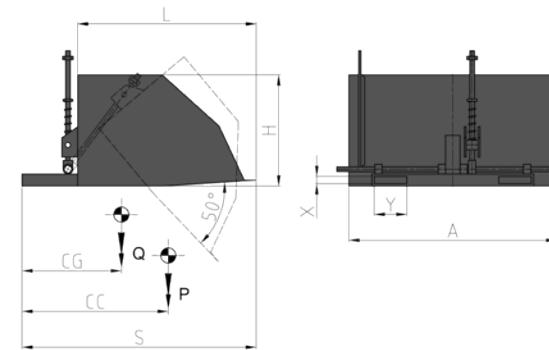
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	LOADING CAPACITY m³	BUCKET SIZES A - mm	H - mm	S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
41D086D002	930	950	0,52	1000	799	2075	820	280	-
41DOA6D002	1110	950	0,62	1200	799	2075	850	300	-
41D0D6D003	1310	950	0,73	1400	799	2075	880	400	-
41D0E6D001	1530	980	0,85	1200	952	2330	890	430	-
41DOJ6D001	1760	980	0,98	1400	952	2330	930	460	-
41DK6D001	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 128.

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).

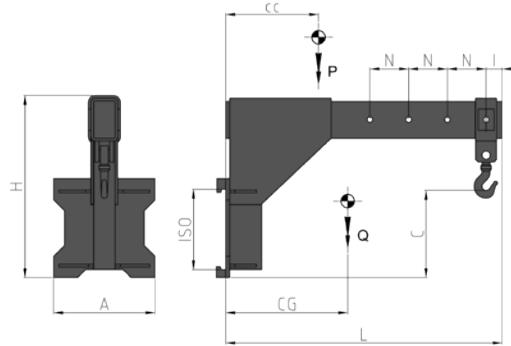
REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	LOADING CAPACITY m³	BUCKET SIZES A - mm	H - mm	L - mm	YxX - mm	S - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
41C086D001	800	450	0,5	1000	500	1100	175x55	1595	745	206	-
41COD6D001	1000	550	0,7	1200	500	1300	175x55	1795	849	243	-
41COJ6D001	1500	600	1	1400	600	1400	175x55	1895	931	293	-
41COL6D001	1800	600	1,2	1600	600	1400	215x55	1895	925	324	-
41COP6D001	2000	625	1,5	1800	600	1500	215x55	1995	978	350	-
41COU6D001	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.



# 980 CRANE JIB



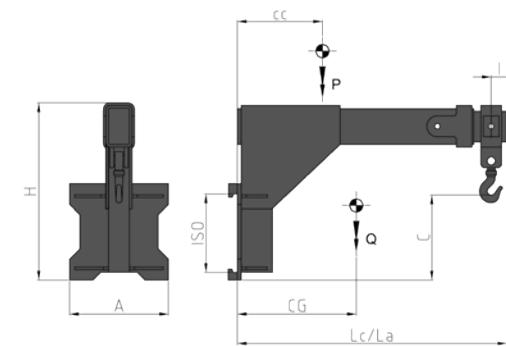
**980 Crane Jib** is designed to move suspended loads through the use of belts or chains.

REFERENCE	ATTACHMENT CAPACITY	LOAD CENTER	ISO 2328 FEM	WIDTH A - mm	HEIGHT H - mm	LENGHT L - mm	HOLE DISTANCE I - mm	AXIS-CENTER DISTANCE N - mm	HOOK HEIGHT C - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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	-
45LRO4C001	8000	600	IV	560	1305	1686	86	200	200	490	440	-



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

# 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 FEM	WIDTH A - mm	HEIGHT H - mm	LUNGHEZZA Lc - mm	LENGHT La - mm	HOLE DISTANCE I - mm	HOOK HEIGHT C - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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	-

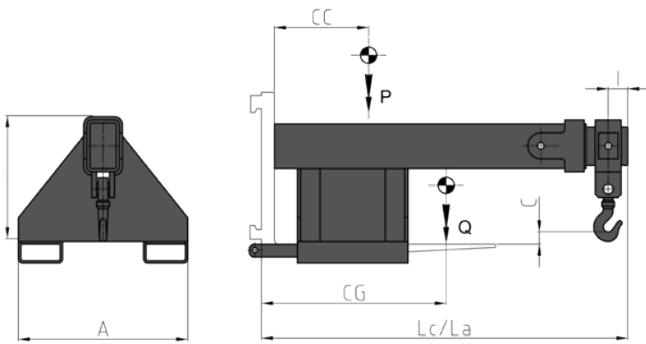


The combination of attachment and forklift must be homologated. The delivery of this attachment does not include the documents required for the homologation.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

References on table are related to standard attachments.  
For special or customised version see options at page 128.

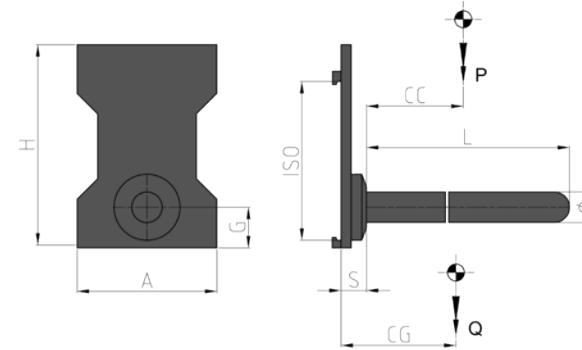
# 976 FORK MOUNTED CRANE JIB WITH EXTENDING ARM



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

REFERENCE	ATTACHMENT CAPACITY P - Kg	LOAD CENTER CC - mm	WIDTH A - mm	HEIGHT H - mm	LENGTH CLOSED Lc - mm	LENGTH OPEN La - mm	HOLE DISTANCE l - mm	HOOK HEIGHT C - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	PRICE euro
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 tubular load placed lengthwise to the axis of the forklift, for example like paper rolls, carpets, moquettes, 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 P - Kg	LOAD CENTER CC - mm	ISO 2328 FEM	DIAMETER Ø - mm	REAR PLATE A - mm	BOOM LENGTH H - mm	THICKNESS G - mm	CENTER OF GRAVITY L - mm	WEIGHT S - mm	PRICE Q - Kg	euro
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 128.



\*PIN-TYPE

References on table are related to standard attachments.  
For special or customised version see options at page 128.

## OPTIONS &amp; 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	35A2U...	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



## ACCESSORIES

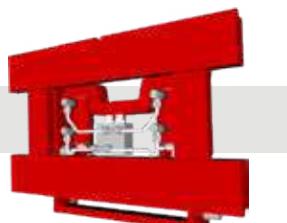
Pipes and fitting kit (for each hydraulic function)	-
Quick release hoses couplings kit (for each hydraulic function)	-
Pressure gauge	-
Quick release hooks	-
Solenoid valve two functions with electric kit (specify voltage)	-
Pressure relief valve	-
3 position pressure relief valve	-
Semi-integral sideshift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



## SPECIAL EQUIPMENT

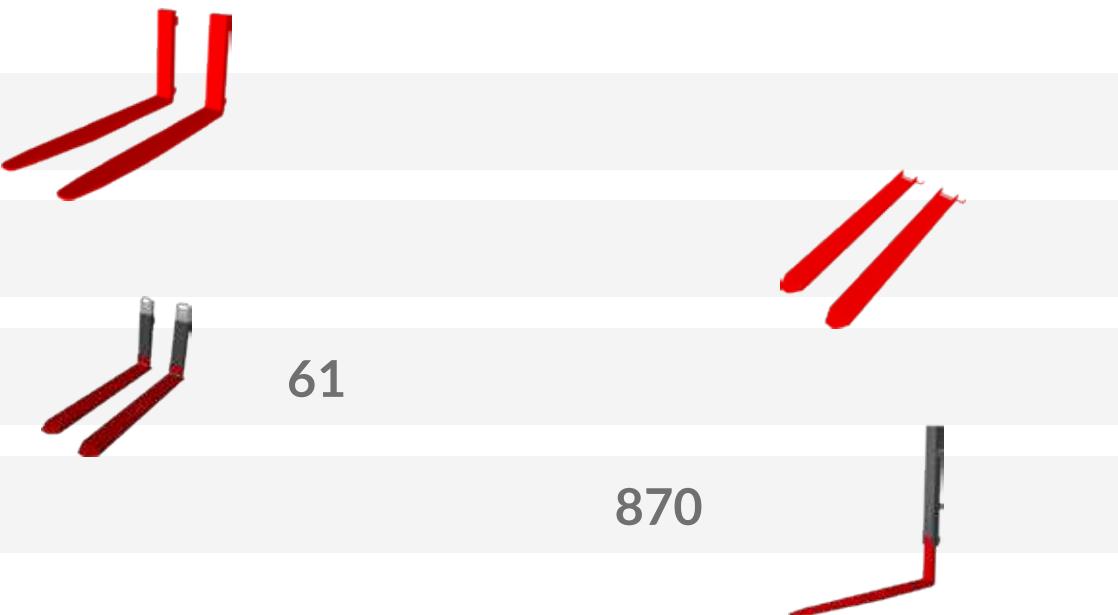
On request we can supply attachments with different specifications than those described in the list.

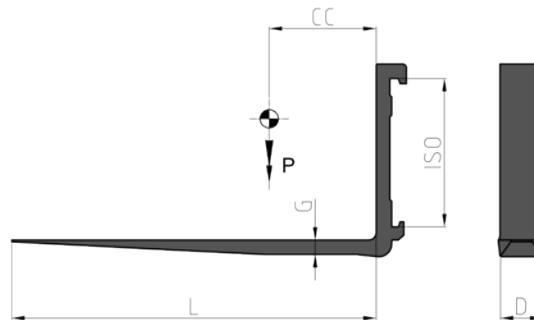
On request we can supply the load stabilizers with special openings realized with double cylinder.



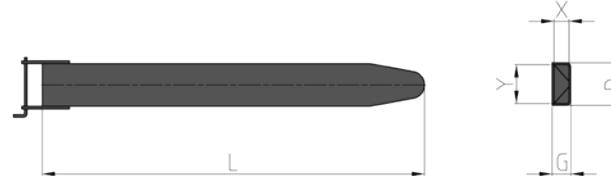
## 10. Forks

- |             |                             |          |
|-------------|-----------------------------|----------|
| <b>10.1</b> | Forks                       | Pag. 132 |
| <b>10.2</b> | Forks Extensions            | Pag. 133 |
| <b>10.3</b> | <b>61</b> Telescopic Forks  | Pag. 134 |
| <b>10.4</b> | <b>870</b> Lift Drop Fork   | Pag. 135 |
| <b>10.5</b> | Options & Special Equipment | Pag. 136 |



**FORKS**

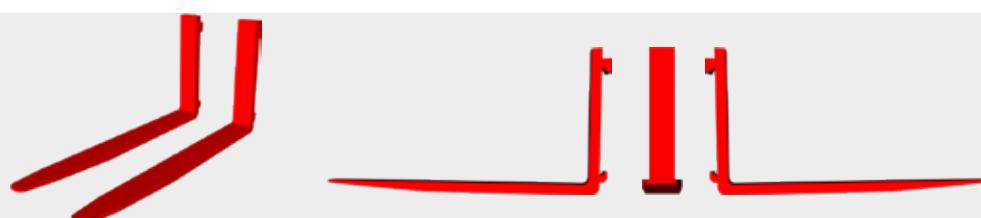
Forks of any capacity, section and lenght,  
for any kind of forklift.

**FORKS EXTENSIONS**

Forks Extensions of any capacity, section  
and lenght, 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.

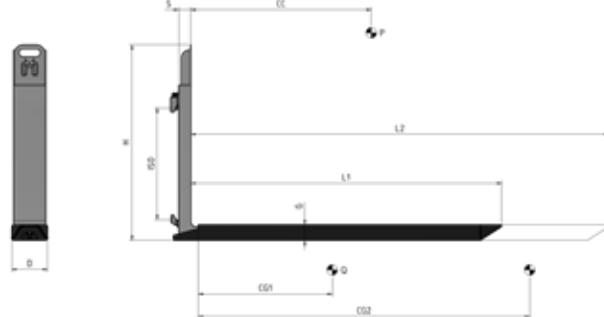


Forks extensions are available for all ISO classes and in various lengths. Forks lenght must be at least the 60% of the length of the extensions. Net prices available on request.



References on table are related to standard attachments.  
For special or customised version see options at page 136.

# 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 FEM	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	PRICE PER PAIR euro
				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	-

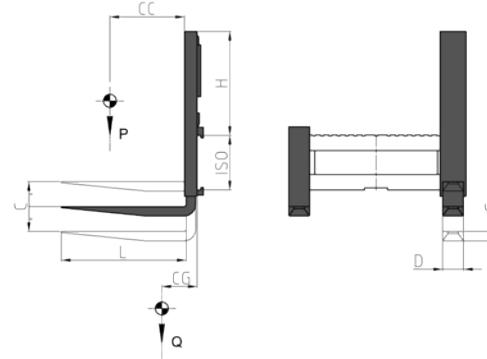


Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 136.

References on table are related to standard attachments.  
For special or customised version see options at page 136.  
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 FEM	FORK SECTION		HEIGHT H - mm	LENGTH L - mm	STROKE C - mm	CENTER OF GRAVITY CG - mm	WEIGHT Q - Kg	*PRICE euro
				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

\* The price includes both the Lift Drop of a fork and a pair of forks with features as per table.



Hydraulic functions required: 1.  
Maximum working pressure: 175 bar.  
Oil flow rate: see table at page 136.

References on table are related to standard attachments.  
For special or customised version see options at page 136.  
For hydraulic connection position see detail below.



## OPTIONS &amp; 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.

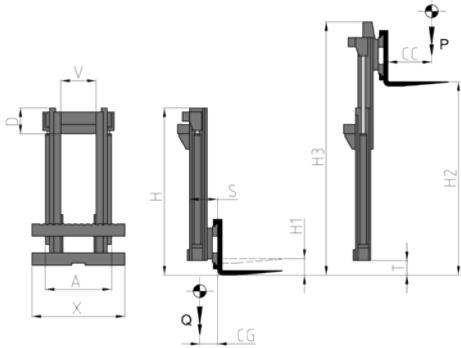
On request we can supply special stop-pallets with or without load backrest.



## 11. Masts and Hydraulic Kits

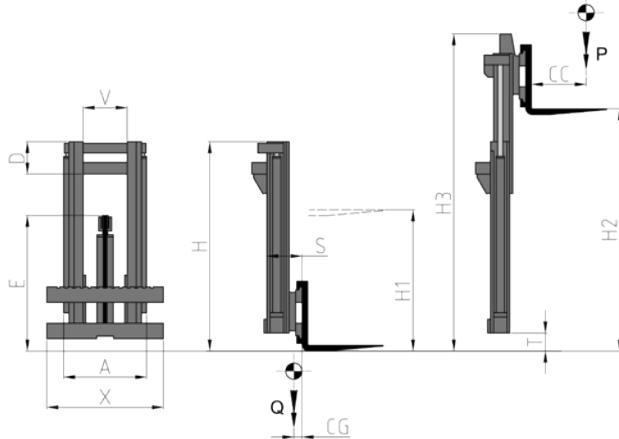
- |             |                |                                |          |
|-------------|----------------|--------------------------------|----------|
| <b>11.1</b> | <b>828</b>     | Simplex Mast without Free Lift | Pag. 138 |
| <b>11.2</b> | <b>810-838</b> | Duplex Mast Full Free Lift     | Pag. 138 |
| <b>11.3</b> | <b>808-809</b> | Triplex Mast Full Free Lift    | Pag. 139 |
| <b>11.4</b> | <b>848</b>     | Quadruplex Mast Full Free Lift | Pag. 139 |
| <b>11.5</b> |                | Hose Reel Kit                  | Pag. 140 |
| <b>11.6</b> |                | 4 Core Electric Cable Reel     | Pag. 141 |

# 828 SIMPLEX MAST WITHOUT FREE LIFT



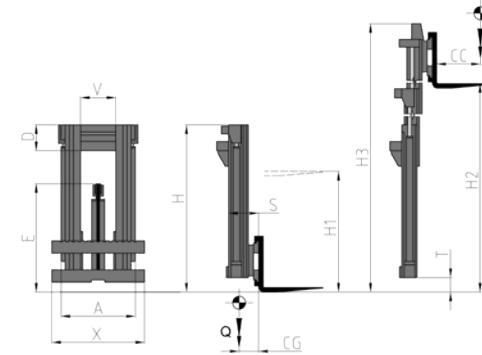
**Simplex Mast** is designed with a capacity from 1t to 52t. It is intended for small-capacity Forklift Trucks, for laser-guided shuttles, for naval uses or for high-capacity Forklift Trucks to handle full or empty containers, that could be superimposed up to the eighth row. Hydraulic or Electrical Systems,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

# 810-838 DUPLEX MAST FULL FREE LIFT



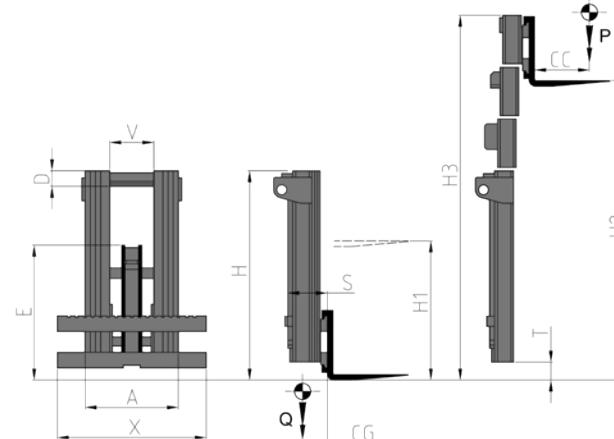
**Duplex Mast** differs from the Simplex one because of the presence of the full free lift of the forklift plate. It's recommended when working with reduced dimensions in height and when multiple overlapped pallets are needed.

# 808-809 TRIPLEX MAST FULL FREE LIFT



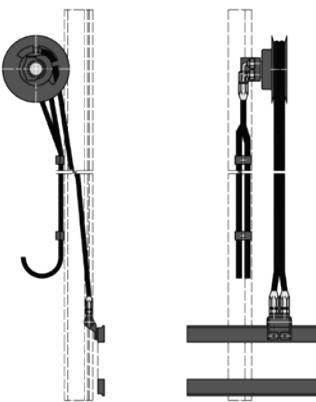
**Triplex Mast** combines big lifting height with reduced dimensions in height and full free lift of the Forklift plate. Hydraulic or Electrical Systems, Sideshifts and Hydraulic Fork Positioners can be supplied on request, as well as specific handling attachments. **Triplex Mast** can be supplied with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

# 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	PRICE
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	-
67RP3J02	SAE 100 R7	5/16"	SWIVEL	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	-

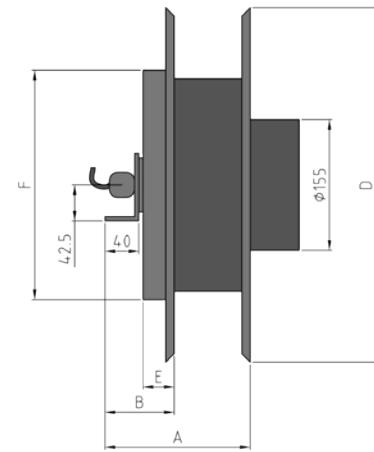
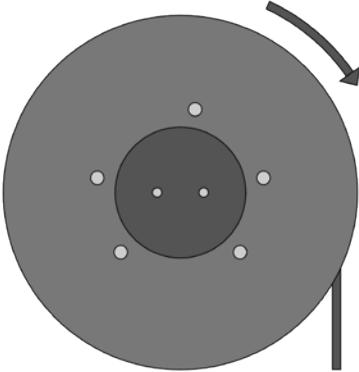


References on table are related to standard attachments.  
On request we can supply attachments with different specifications.



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	PRICE					€
			mm	m	A - mm	B - mm	D - 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 and Customised Attachments and Masts**

Trilateral Head for VNA Trucks	Pag. 142
Wide Opening Fork Positioner with 4 Forks	Pag. 144
Integrated Fork Positioner with Articulated Arm for Telehandlers	Pag. 145
Clamp with 90° Rotating Forks and Slip-on Smooths Arms	Pag. 146
Tires Clamp with 90° Tipping forward Arms	Pag. 147
Duplex Mast with Coils Clamp for AGV Machines	Pag. 148
Triplex Mast with Double Fork Positioner for AGV Machines	Pag. 149

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



148

Triplex Mast with Double Fork Positioner for AGV Machines



149

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