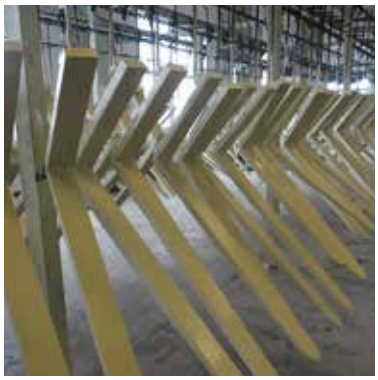
Forks











BOLZONI

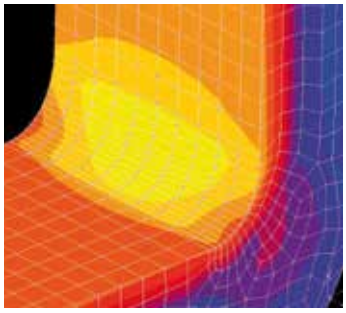








Quality, Safety, Efficiency Worldwide







High quality

Bolzoni Group offers complete range of forks for lift trucks, construction and agricultural material handling machines, in many different capacities, sections and lengths, ISO and special mountings.

Innovation

Strongly focused on product innovation, Bolzoni Group has employed the most advanced technologies and software for fork designing.
By using first class raw material and applying modern technological solutions and automated production processes, forks are produced according to customer requirements and the industry's strictest standards.

Flexibility

High-capacity manufacturing facilities offer flexibility in production volume output and fork model availability, required by OEM's on equipments installed at the origin and by the after-market, suitable for different machines and various applications.

Advanced production process

Production standards for all Bolzoni forks are based on common key- features:

- Innovative and highly automated production process.
- Prime quality steel offering good welding characteristics and strong resistance to wear.
- Reinforced fork heel, bended in multi-phase press mould.
- Automated welding of upper and lower hooks with a robotic system, granting better quality of the welding, quality repeatibility and higher process speed.
- Complete heat treatment with hardening and tempering on the entire fork, providing the best quality and reliability characteristics.







Production processes at the Longhua plant, P.R.C.

Certified Quality

Certified quality of chemical composition and of the heat treatment applied on raw material used. Bar coding allowing for the tracking of raw material back to source.

All forks produced comply with the parameters outlined in ISO 2328 and 2330.
In order to satisfy these standards, each different type of forks is subjected to the following tests:

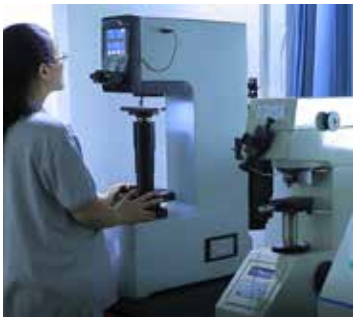
- 1 fatigue test of 1,000,000 cycles at 25% overload.
- 1 static test of 2 cycles with triple nominal capacity.
- 1 resilience test at -4F° with a resulting value higher than 27 Joules.

The following certifications are proof of Bolzoni Group's commitment to continuous improvements in quality and efficiency. The aim is to provide the best product and service support to customers worldwide, in full observance of a fair social policy towards the employees, customers, suppliers and society in general while respecting the environment:

- ISO 9001 Quality System Certification.
- ISO 3834-2 Quality Management in Welding.
- UNI EN 14001:2015 Environment Certification.

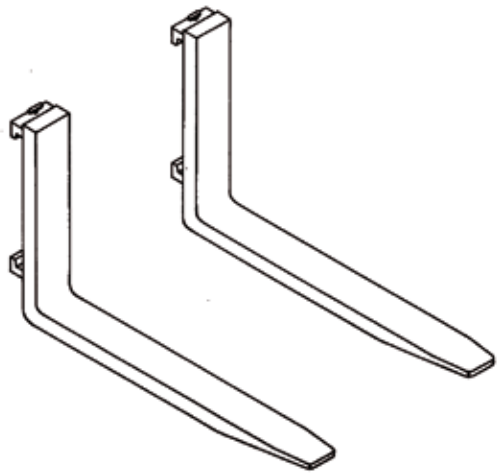
Quality checks during the production processes.



Forks

ITA Mounting Class II



Range: 3,700 - 5,500 Lbs.

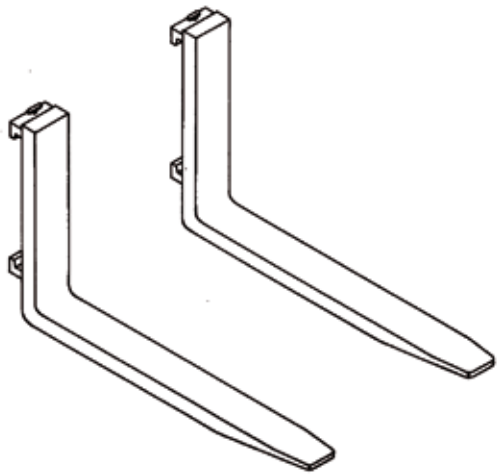
Part Number	Capacity per pair Lbs. @ 24"	Mounting Class	Fork Section			Taper Type	Fork Weight
			W	T	L		Lbs.
H51C100350910SD	3,700	II	4.0"	1.25"	36"	STD	79
H51C100351070SD	3,700	II	4.0"	1.25"	42"	STD	86
H51C100351220SD	3,700	II	4.0"	1.25"	48"	STD	93
H51C100400910SD	5,500	II	4.0"	1.50"	36"	STD	88
H51C100401070SD	5,500	II	4.0"	1.50"	42"	STD	95
H51C100401220SD	5,500	II	4.0"	1.50"	48"	STD	104
H51C100401370SD	5,500	II	4.0"	1.50"	54"	STD	115
H51C100401520SD	5,500	II	4.0"	1.50"	60"	STD	128
H51C100450910SD	5,500	II	4.0"	1.75"	36"	STD	101
H51C100451070SD	5,500	II	4.0"	1.75"	42"	STD	108
H51C100451070TP	5,500	II	4. 0"	1.75"	42"	FTP	106
H51C100451220SD	5,500	II	4.0"	1.75"	48"	STD	117
H51C100451220TP	5,500	II	4.0"	1.75"	48"	FTP	115
H51C100451370SD	5,500	II	4.0"	1.75"	54"	STD	130
H51C100451370TP	5,500	II	4.0"	1.75"	54"	FTP	126
H51C100451520SD	5,500	II	4.0"	1.75"	60"	STD	143
H51C100451520TP	5,500	II	4.0"	1.75"	60"	FTP	139
H51C100451830SD	5,500	II	4.0"	1.75"	72"	STD	173
H51C122401070SD	5,500	II	5.0"	1.50"	42"	STD	128
H51C122401220SD	5,500	II	5.0"	1.50"	48"	STD	134
H51C122401220TP	5,500	II	5.0"	1.50"	48"	FTP	132
H51C122401370SD	5,500	II	5.0"	1.50"	54"	STD	152
H51C122451070SD	5,500	II	5.0"	1.75"	42"	STD	139
H51C122451220SD	5,500	II	5.0"	1.75"	48"	STD	150
H51C122451370SD	5,500	II	5.0"	1.75"	54"	STD	165
H51C122451520SD	5,500	II	5.0"	1.75"	60"	STD	176
H51C122451830SD	5,500	II	5.0"	1.75"	72"	STD	220

Notes:

- Taper Type:
  - STD = Standard Fork.
  - FTP = Tapered Fork.
- Warranty: 24 months from date of delivery to customers, for defective materials or workmanship. This warranty does not apply if such defect has been caused by alteration, improper use or opeartion.

Options:

- Different fork sections and lenghts.
- Pin-type mounting.
- Forks for special applications.



Range: 8,200 - 10,000 Lbs.

Part Number	Capacity per pair Lbs. @ 24"	Mounting Class	Fork Section			Taper Type	Fork Weight
			W	T	L		Lbs.
H51E122451070SD	8,200	III	5.0"	1.75"	42"	STD	150
H51E122451220SD	8,200	III	5.0"	1.75"	48"	STD	163
H51E122451520SD	8,200	III	5.0"	1.75"	60"	STD	192
H51E122500910SD	10,000	III	5.0"	2.00"	36"	STD	151
H51E122501070SD	10,000	III	5.0"	2.00"	42"	STD	165
H51E122501070TP	10,000	III	5.0"	2.00"	42"	FTP	163
H51E122501220SD	10,000	III	5.0"	2.00"	48"	STD	179
H51E122501220TP	10,000	III	5.0"	2.00"	48"	FTP	176
H51E122501370SD	10,000	III	5.0"	2.00"	54"	STD	194
H51E122501520SD	10,000	III	5.0"	2.00"	60"	STD	212
H51E122501520TP	10,000	III	5.0"	2.00"	60"	FTP	196
H51E122501830SD	10,000	III	5.0"	2.00"	72"	STD	245
H51E122502130SD	10,000	III	5.0"	2.00"	84"	STD	289
H51E122502438SD	10,000	III	5.0"	2.00"	96"	STD	333
H51E150501070SD	10,000	III	6.0"	2.00"	42"	STD	194
H51E150501220SD	10,000	III	6.0"	2.00"	48"	STD	209
H51E150501220TP	10,000	III	6.0"	2.00"	48"	FTP	207
H51E150501370SD	10,000	III	6.0"	2.00"	54"	STD	229
H51E150501520SD	10,000	III	6.0"	2.00"	60"	STD	249
H51E150501830SD	10,000	III	6.0"	2.00"	72"	STD	304
H51E150502130SD	10,000	III	6.0"	2.00"	84"	STD	346
H51E150502438SD	10,000	III	6.0"	2.00"	96"	STD	381
H51E200401220TP	10,000	III	8.0"	1.50"	48"	FTP	201
H51E200401520TP	10,000	III	8.0"	1.50"	60"	FTP	225

Notes:

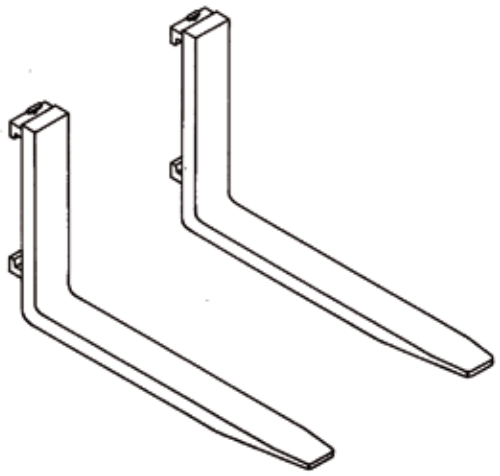
- Taper Type:
  - STD = Standard Fork.
  - FTP = Tapered Fork.
- Warranty: 24 months from date of delivery to customers, for defective materials or workmanship. This warranty does not apply if such defect has been caused by alteration, improper use or opeartion.

Options:

- Different fork sections and lenghts.
- Pin-type mounting.
- Forks for special applications.

Forks

ITA Mounting Class IV



Range: 12,600 - 17,500 Lbs.

Part Number	Capacity per pair Lbs. @ 24"	Mounting Class	Fork Section			Taper Type	Fork Weight
			W	T	L		Lbs.
H51G150501220SD	12,600	IV	6.0"	2.00"	48"	STD	114
H51G150501370SD	12,600	IV	6.0"	2.00"	54"	STD	123
H51G150501520SD	12,600	IV	6.0"	2.00"	60"	STD	136
H51G150501830SD	12,600	IV	6.0"	2.00"	72"	STD	155
H51G150502130SD	12,600	IV	6.0"	2.00"	84"	STD	170
H51G150502438SD	12,600	IV	6.0"	2.00"	96"	STD	196
H51G150600910SD	15,500	IV	6.0"	2.36"	36"	STD	110.5
H51G150601070SD	15,500	IV	6.0"	2.36"	42"	STD	122.5
H51G150601220SD	15,500	IV	6.0"	2.36"	48"	STD	133
H51G150601370SD	15,500	IV	6.0"	2.36"	54"	STD	145
H51G150601520SD	15,500	IV	6.0"	2.36"	60"	STD	156
H51G150601830SD	15,500	IV	6.0"	2.36"	72"	STD	179
H51G150602130SD	15,500	IV	6.0"	2.36"	84"	STD	201
H51G150602438SD	15,500	IV	6.0"	2.36"	96"	STD	224
H51G150651220SD	17,500	IV	6.0"	2.50"	48"	STD	147
H51G150651370SD	17,500	IV	6.0"	2.50"	54"	STD	153
H51G150651520SD	17,500	IV	6.0"	2.50"	60"	STD	171
H51G150651830SD	17,500	IV	6.0"	2.50"	72"	STD	195
H51G150652130SD	17,500	IV	6.0"	2.50"	84"	STD	217
H51G150652438SD	17,500	IV	6.0"	2.50"	96"	STD	231.5
H51G180501220TP	15,200	IV	7.0"	2.00"	48"	FTP	118
H51G200501220SD	16,800	IV	8.0"	2.00"	48"	STD	125
H51G200501830SD	16,800	IV	8.0"	2.00"	72"	STD	201
H51G200502438SD	16,800	IV	8.0"	2.00"	96"	STD	251
H51G250401200TP	13,400	IV	10.0"	1.50"	48"	FTP	159
H51G250401520TP	13,400	IV	10.0"	1.50"	60"	FTP	186

Notes:

- Taper Type:
  - STD = Standard Fork.
  - FTP = Tapered Fork.
- Warranty: 24 months from date of delivery to customers, for defective materials or workmanship. This warranty does not apply if such defect has been caused by alteration, improper use or opeartion.

Options:

- Different fork sections and lenghts.
- Pin-type mounting.
- Forks for special applications.









Non-standard ISO Forks & High Capacity Forks

Bolzoni Group offers a wide range of non-standard ISO forks, such as Pin-type forks, Quick detach forks, Peek-A-Boo forks, Gypsum forks, Folding forks, Brass/Stainless steel coated forks, Bolt-on forks, Full taper and polished forks, Drum handing forks and other special designs.
The range also includes **High Capacity Forks**, up to 400,000 Lbs. **High Capacity Forks** are usually used in the heavy-duty construction, in the harbor/railway station handling, in the mine/stone industry, as well as in the steel industry and in other industries requiring lifting and handling of heavy loads.
To meet the heavy-duty requirements of these industries, **High Capacity Forks** are manufactured with high quality steel and undergo the most severe tests required by the market. In particular we inspect the fork's hardness and perform the magnetic particle test, both on all weldings and fork heels.

With technical features meeting and even exceeding industry standards, Bolzoni **High Capacity Forks** are available in several sections, up to 16"x 8".
Forks backheight, length and hooking system can be customized.
Find here below some commonly used sizes.

Width	Thickness	Capacity(pair)	Load center
in.	in.	Lbs	in.
8"	3.5"	48,000	24"
8"	4.0"	57,000	24"
10"	3.5"	57,000	24"
10"	4.0"	70,000	24"
12"	3.5"	66,000	24"
12"	4.0"	83,000	24"
12"	4.3"	105,000	24"

Note: Max. forks length 157"

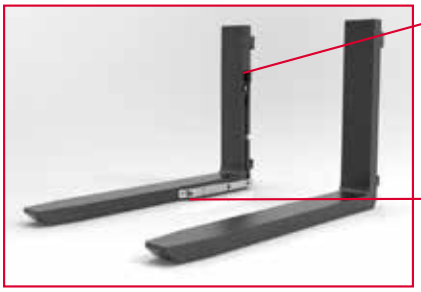
Vision Systems *Easy*-FORK

Easy-FORK Vision Systems significantly increase safety in the storage areas.

The Easy-Fork Vision Systems range includes the Side fork camera, the Tip fork camera.

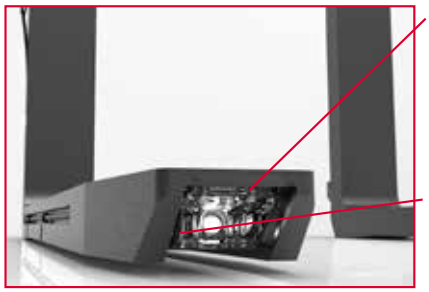
Thanks to the camera position, the driver can have a clear view on both forks, with a horizontal 52° viewing angle, while maintaining the correct ergonomic position on the seat. Camera images are displayed on a 7 inch. monitor installed inside the driver cabin. The connection between camera and monitor can be wireless (standard) or through a reinforced cable with cable-reel.

Easy-FORK factory kit and aftermarket solutions are available in customized and different configurations.



Fork mounted side camera

The high quality fork mounted side camera is a great help to the forklift truck driver during loading, unloading and warehousing operations, in particular when moving pallets at high levels on shelves.



Fork mounted tip camera

This type of solution allows the complete visibility upfront even when the load is on the forks. The robust IR camera has triple LED lights and is completely integrated in the fork tip. The connection cable remains inside the blade. Thanks to the led lights, the loading is made safe even in low light conditions.

In case of standard wireless transmission, the position of battery and transmitter is on top of the fork shank in a well-protected and easy to access location.

Benefit

- Installation within 5 minutes
- Completely wireless through bluetooth: no cabling
- Fork power supply by Li-ion compact battery packs
- Digital calibration
- Load warning for tip and side loading
- Easy to install in combination with fork positioners
- Efficient power management
- Tested 1,000,000 cycles at 125% of capacity
- Automatic compensation for mast tilt angle



iForks, the hugely successful RAVAS scale forks.

With only 2.28" fork height and no external components on the fork shank, iForks-32 looks more and more like standard lift truck forks. The upgraded 3200 driver display offers attractive new features, like standard Bluetooth connectivity.



Lithium ion power: compact, green and reliable.

All scale components on the forks are hidden below and behind the fork shoe, creating an efficient look for iForks-32.

No external components on the fork shank, making iForks-32 even more easy to fit onto fork positioners. iForks-32 is only marginally higher than standard lift truck forks.

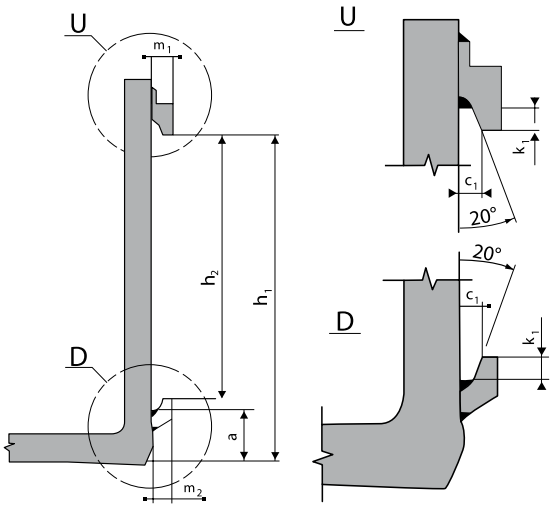
High accuracy: automatic compensation for mast tilt.

The 3200 weight indicator includes automatic tilt compensation, to automatically correct weight errors that occur when the mast tilts and the forks are not in horizontal position.The 3200 instrument automatically logs tip loads and overload events.



Lithium Standard with Bluetooth

Bluetooth 4.0 is a standard feature on the 3200, providing connectivity to tablets and smart phones. The RAVAS WeightsApp is available from Google Play and the App store. It acts as a remote display and remote control for the scale, but also allows you to download data from the 3200 instrument and send it via email.



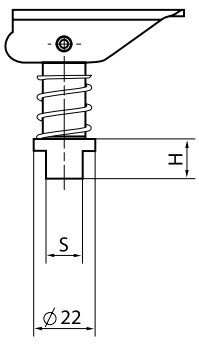
FEM/ISO Mounting Standards

The FEM / ISO mounting is the most common way of connecting forks to the lift-truck.
According to the lift truck capacity, the ISO standards are divided into 5 classes, each of them having a „A“ and „B“ version. The difference between version „A“ and „B“ is the clearance from the lower hook to the floor. Measurements are defined by the International Standard ISO 2328.

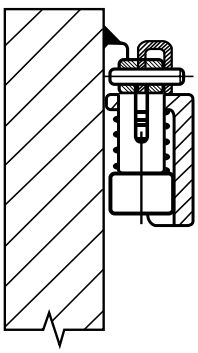
Main measurements are listed in the following chart:

Truck Rated capacity		Rated load center distance	Fork arm type	a	c_1	h_1	h_2		m_1	m_2	k_1
Class	lb	in.		in.	in. +0.04/ -0.00	in. +0.12/ -0.12	in.	in. tol.	in. max.	in. max.	in. min.
1	0-1,999	24”	A	3.00”	0.65”	15.50”	12.05”	+0.04/-0.00	1.10”	1.03”	0.55”
			B	4.50”		17.00”					
2	2,000-5,500	24”	A	3.00”	0.65”	18.50”	15.04”	+0.04/-0.00	1.22”	1.14”	0.55”
			B	6.00”		21.50”					
3	5,501-10,000	24”	A	3.00”	0.87”	22.36”	18.78”	+0.06/-0	1.57”	1.50”	0.67”
			B	8.00		27.36”					
4	10,001-17,500	24”	A	5.00”	1.03”	29.25”	23.54”	+0.06/-0	1.85”	1.78”	0.79”
			B	10.00”		34.25”					
5*	17,501-24,000	24”	A	5.00”	1.38”	32.67”	26.77”	+0.06/-0	2.56”	2.48”	1.03”
			B	10.12”		37.80”					

* Capacity ISO 5 are still often included in ISO 4.



Kit assembly



Kit fit on fork

Hook Pin Kits

Hook pin is a mandatory locking device which prevents the fork from sliding off the carriage.

It is supplied as a kit, including the following components:
n. 1 pin
n. 1 lever
n. 1 spring pin
n. 1 spring

Forks in service on forklift trucks

General

Fork correct dimensioning and conditions are essential for safe, cost-effective and damage-free pallet handling operations. Therefore, a regular fork inspection system should be put in place to ensure perfect operating conditions. Inspections, repairs or replacements shall be carried out as a pair.

Inspections

Forks in use shall be inspected at intervals of 12 months or less depending on possible severe application, multi-shift operation and fork conditions. Regular inspections should be carried out by trained personnel. In case of detected damage, failures, deformations etc. forks shall be withdrawn from service and not be returned to service unless satisfactorily repaired or rerated.

Cracks

Check visually inner heel and top and bottom hook areas to detect possible cracks. Apply non-destructive crack detection tests if necessary. If surface cracks are detected, forks should be withdrawn from service.

Straightness

Check the straightness of the upper face of the blade and the front face of the shank. If deviation exceeds 0,5% of blade length or shank height, fork shall be withdrawn from service.

Angle

Check the fork upper face of the blade to load face of the shank. If fork has a deviation greater than 3 degrees from original specifications, fork shall be withdrawn from service

Height difference in fork tips

Check a pair of forks mounted on the fork carrier to detect difference in tip heights. If difference in tip heights exceeds 3% of the blade length, the pair of forks shall be withdrawn from service.

Locking devices

Check the fork positioning locking to ensure their normal operation and wear conditions. If any fault is found, fork shall be withdrawn from service.

Marking

Forks shall be marked with the nominal capacity and load center – according to ISO 2330. If marking is not clearly legible, fork shall be withdrawn from service.

Hooks

Check the fork hooks for possible wear, damage and cracks. If clearance between fork and fork carrier is visually excessive, forks shall be withdrawn from service.

Wear

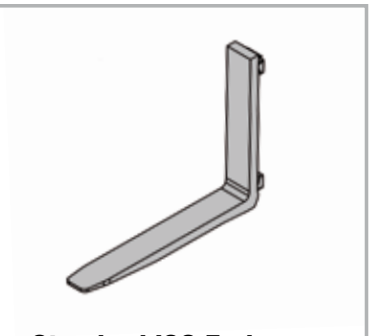
Forks must be checked regularly to ensure the heel thickness is not less than 10% of the original thickness as per ISO 5057. If the fork thickness is less that 10%, the fork must be replaced or rerated.

Repairs and tests

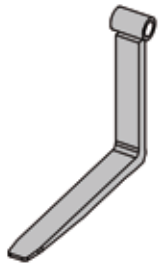
Repairs should be decided or carried out by authorized, expert personnel only, in accordance with recommendations of fork manufacturer. Do not repair surface cracks or wear by welding. In case of repairs requiring fork re-setting, forks should be subjected to an appropriate heat-treatment. Fork subjected to repairs different from repairs or replacements of the positioning lock and/or marking, can only return to service after having passed a yield test as described in ISO 2330.

A wide range of ISO mounting forks with different tip and taper shapes,
special application forks used in a variety of industries and handling situations:

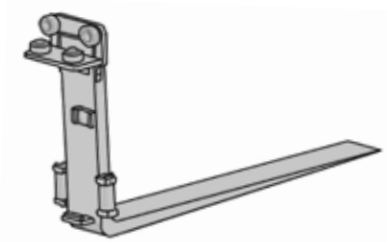
Bolzoni Group has the right fork for any application …



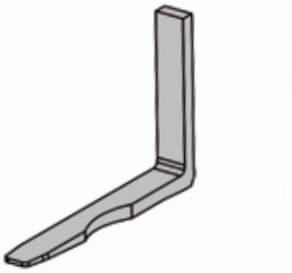
Standard ISO Fork



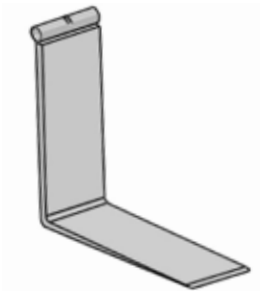
Pin-Type fork



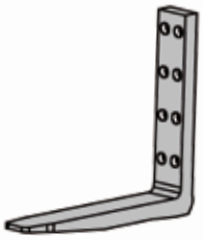
Customized Fork



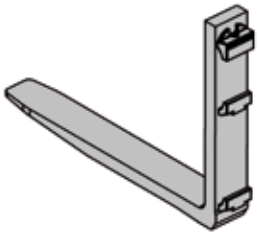
Drum Handling Fork



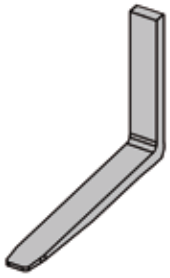
Polished and Tapered Fork



Bolt-on Fork



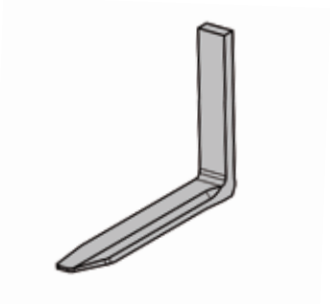
Fork with 3rd Hook



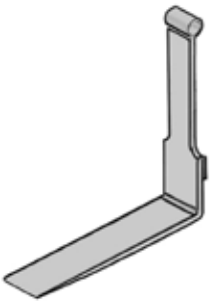
Blank Fork



Fork with High Back



Coil Handling Fork



Peek-A-Boo Fork

...and even more!

For any questions or for further information, please contact Bolzoni Group.

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