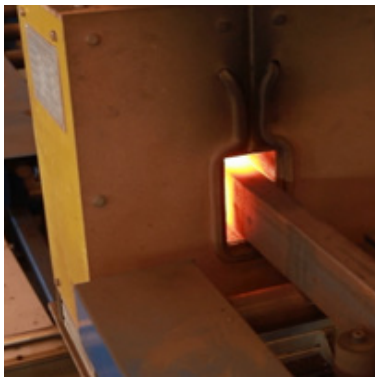
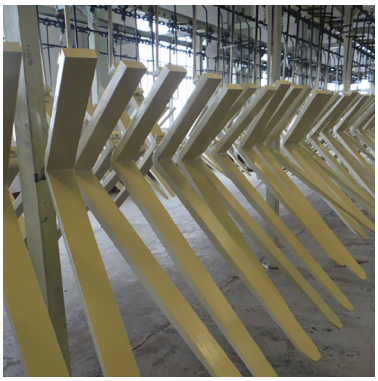
Forks







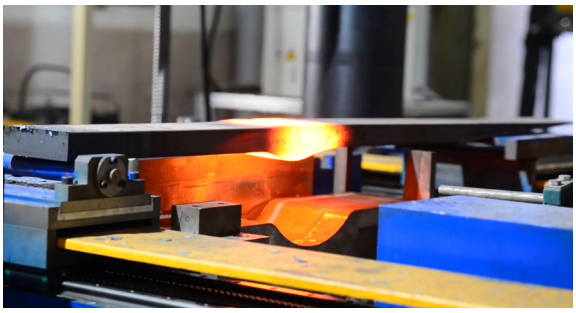


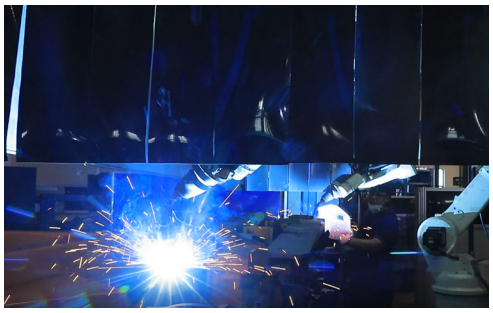


BOLZONI

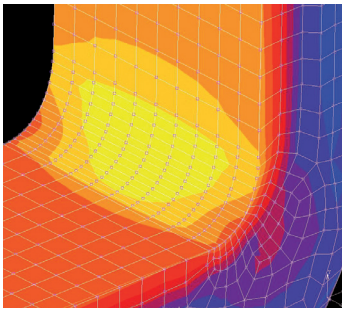


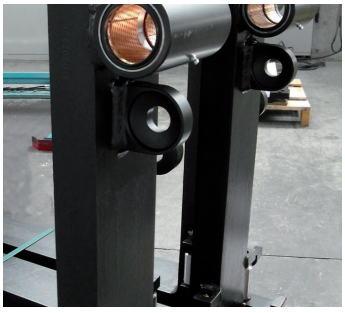






Quality, Safety, Efficiency Worldwide







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

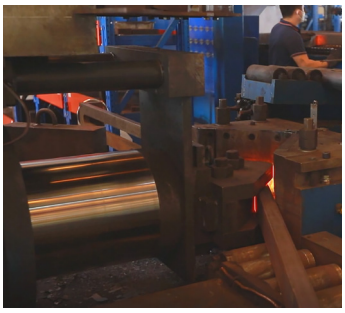
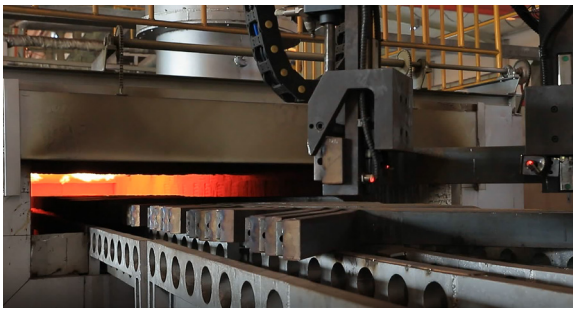
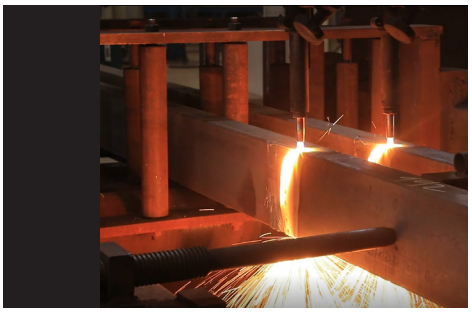
High-capacity manufacturing facilities offer flexibility in production volume output and fork model availability, required by OEM's on equipments installed at the origin and by the after-market, suitable for different machines and various applications.

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:

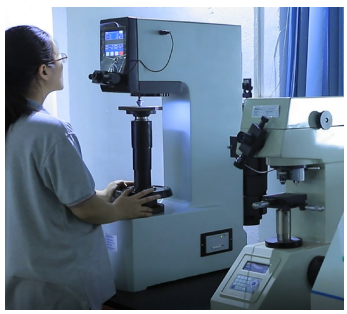
- 1 fatigue test of 1,000,000 cycles at 25% overload.
- 1 static test of 2 cycles with triple nominal capacity.
- 1 resilience test at -20°C with a resulting value higher than 27 Joules.

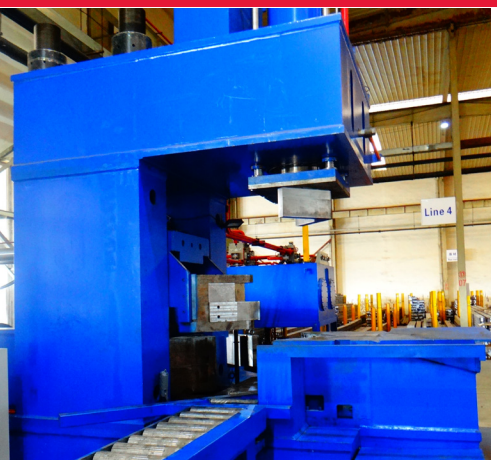
The following certifications are proof of Bolzoni Group's commitment to continuous improvements in quality and efficiency. The aim is to provide the best product and service support to customers worldwide, in full observance of a fair social policy towards the employees, customers, suppliers and society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

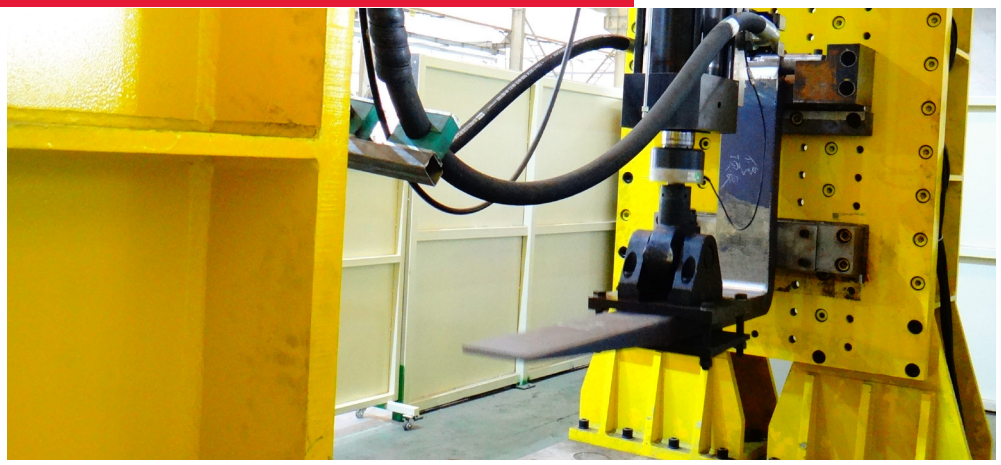
- ISO 9001 Quality System Certification.
- ISO 3834-2 Quality Management in Welding.
- UNI EN 14001:2004 Environment Certification.

Quality checks during the production processes.

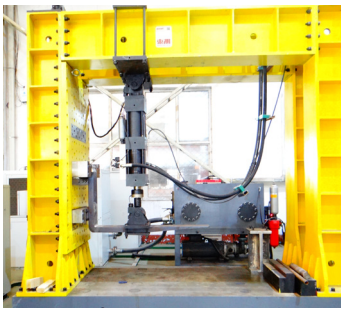


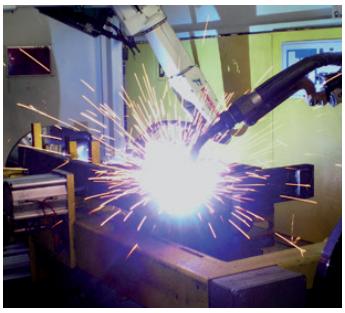















Non-standard FEM Forks & BIG Forks

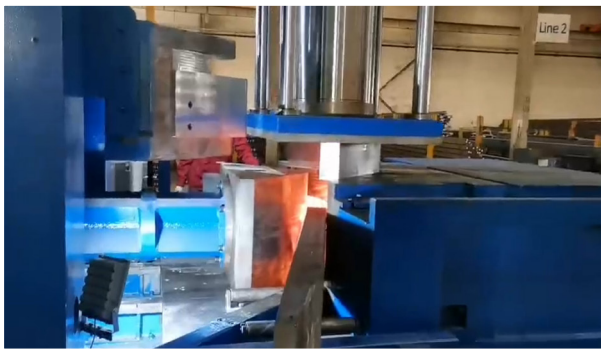
Bolzoni Group offers a wide range of non-standard FEM forks, such as Pin-type forks, Quick detach forks, Peek-A-Boo forks, Gypsum forks, Folding forks, Brass/Stainless steel coated forks, Bolt-on forks, Full taper and polished forks, Drum handing forks and other special forks.
We also offer **BIG forks** with high capacity up to 220 tons. BIG forks are usually used heavy duty construction, harbor/railway station handling, mine/stone industry, steel industry and other industries that requires lifting and transporting heavy loads.

The finest steel materiai available is selected to produce Bolzoni **BIG forks.**
The largest fatigue testing equipment in the industry to support the High quality of BIG forks. The hardness of forks is checked and controlled within optimal range. Magnetic particle test is performed on all welding and heels for all forks.

The technical features meet and even beyond the industry standards. BIG forks we offer section up to 400*200mm. Some commonly used sizes for BIG forks are listed below.

Width	Thickness	Capacity(pair)	Load center
mm	mm	kg	mm
200	90	22.000	600
200	100	26.000	600
250	90	26.000	600
250	100	32.000	600
300	90	30.000	600
300	100	38.000	600
300	110	48.000	600




Line 2

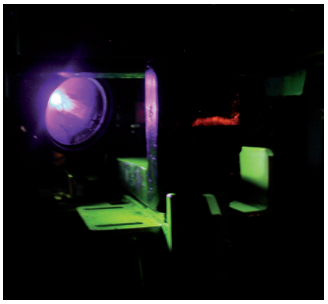






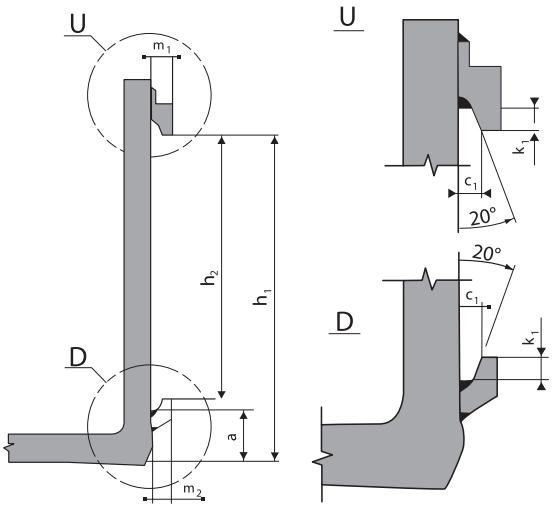



Line 2




BOLZONI 博威尼





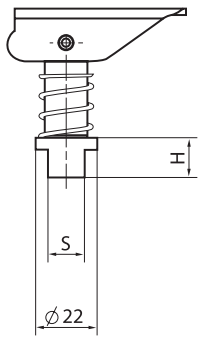
FEM/ISO Mounting Standards

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.

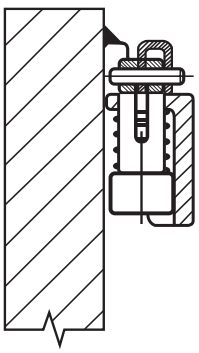
Main measurements are listed in the following chart:

Truck Rated capacity		Rated load center distance	Fork arm type	a	c_1	h_1	h_2		m_1	m_2	k_1
							mm				
Class	kg	mm		mm	mm	mm		mm		mm	mm
					+1,0/0	± 3,0		tol.	max.	max.	min.
1	0-999	400	A	76	16,5	394	306	+1,0/0	28	26	14
			B	114		432					
2	1000-2500	500	A	76	16,5	470	382	+1,0/0	31	29	14
			B	152		546					
3	2501-4999	500	A	76	22	568	477	+1,5/0	40	38	17
			B	203		695					
4	5000-8000	600	A	127	26	743	598	+1,5/0	47	45	20
			B	254		870					
5*	8001-10999	600	A	127	35	830	680	+1,5/0	65	63	26
			B	257		960					

** 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

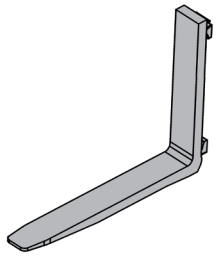
Forks must be checked regularly to ensure the heel thickness is not less than 10% of the original thickness as per ISO 5057. If the fork thickness is less that 10%, the fork must be replaced or rerated.

Repairs and tests

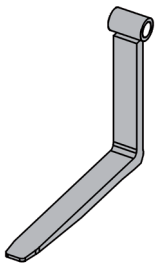
Repairs should be decided or carried out by authorized, expert personnel only, in accordance with recommendations of fork manufacturer.
Do not repair surface cracks or wear by welding.
In case of repairs requiring fork re-setting, forks should be subjected to an appropriate heat-treatment.
Fork subjected 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:

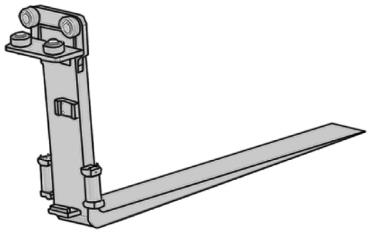
Bolzoni Group has the right fork for any application …



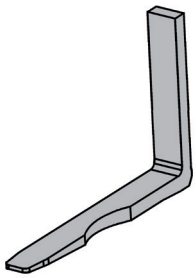
Standard FEM Fork



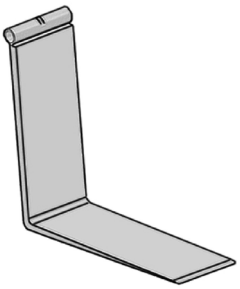
Pin-Type fork



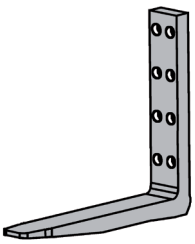
Customized Fork



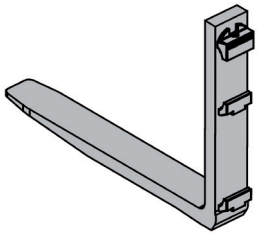
Drum Handling Fork



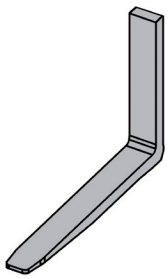
Polished and Tapered Fork



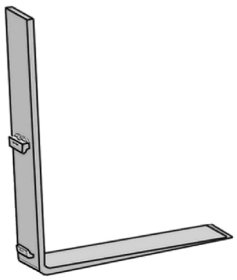
Bolt-on Fork



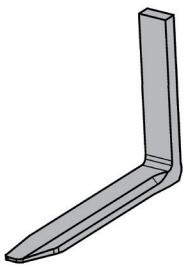
Fork with 3rd Hook



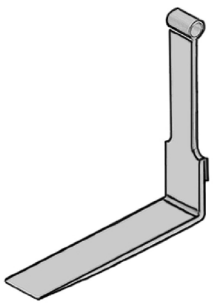
Blank Fork



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.

79BA0063BIG EN - 04.2023

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BOLZONI GROUP