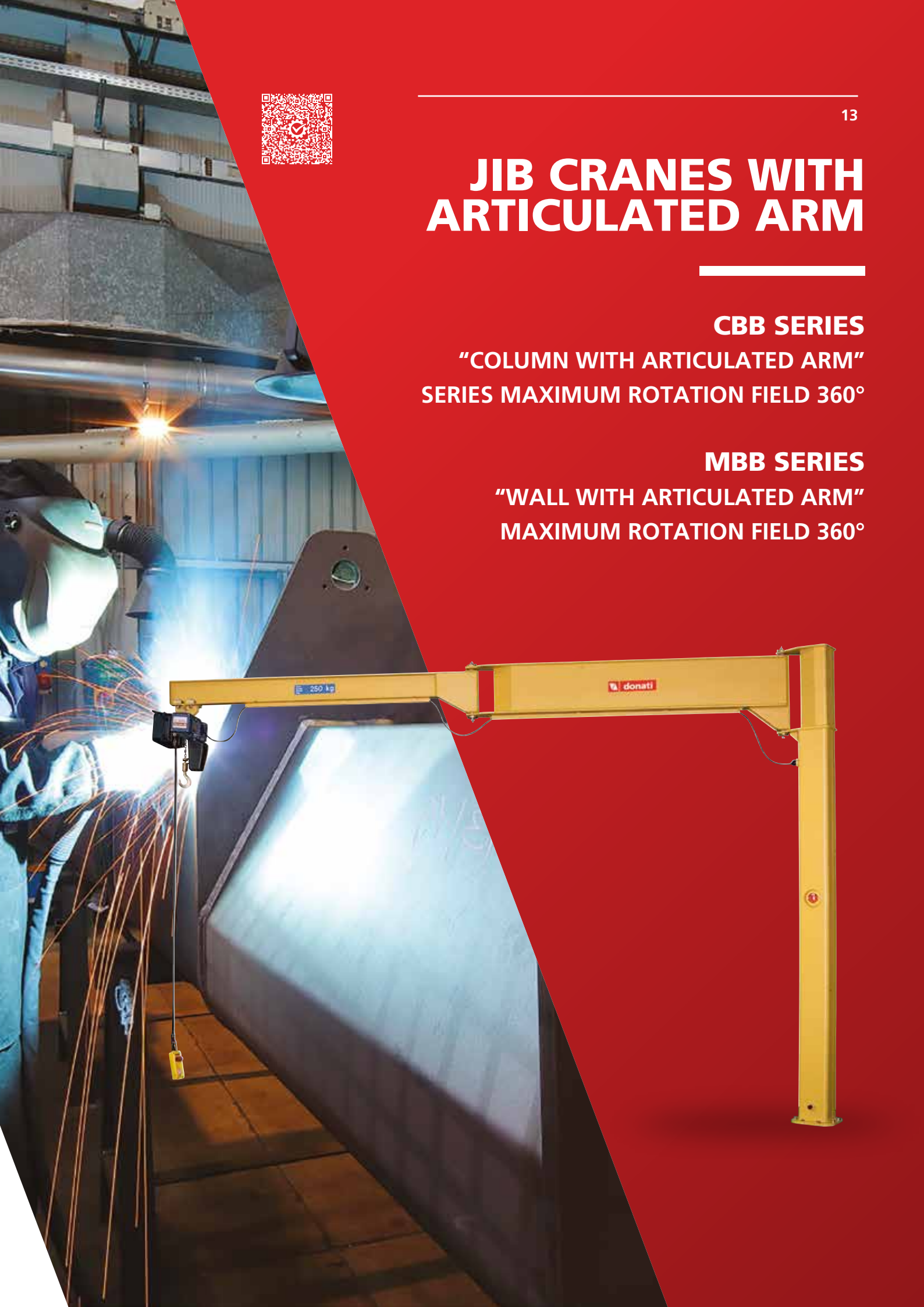
JIB CRANES WITH ARTICULATED ARM

CBB SERIES

"COLUMN WITH ARTICULATED ARM"
SERIES MAXIMUM ROTATION FIELD 360°

MBB SERIES

"WALL WITH ARTICULATED ARM"
MAXIMUM ROTATION FIELD 360°



CONCEPT CONSTRUCTION AND THE RANGE

Jib cranes, with manual or electric rotation in column or wall versions, are created to locally handle goods inside a plant, on a square or along with operating stations. Studied and designed also for use in difficult environmental conditions, jib cranes become full operating machines if used and integrated into production centres, machine tools or work benches. They adopt standardised parts which make it possible to create completely standardised configurations.

Jib cranes perform three operations:

- they vertically lift the load in space, using the hook of the lifting unit, generally composed of a DMK chain hoist or DRH wire rope hoist;
- they move the load transversally in space, with the use of a hoist-carrying trolley, either electric or manual, which moves along the radial axis of the crane arm (with the exception of cranes with articulated arm where the hoist normally does not move on the trolley since it is connected in a fixed position at the end of the arm);
- they rotate the load in space, around the constrained axis of the arm, through a manual push action of the load or electrically by means of a gear motor, serving the circular area below, limited by the rotation radius of the arm.

Jib cranes are mass produced for capacities starting from 63 to 10,000 kg and jibs from 2 to 10.5 m in the following executions:

- Jib cranes with manual rotation, max. capacity 2,000 kg
  - GBA SERIES column-mounted, 300° rotation
  - GBP SERIES wall-mounted, 270° rotation
- Jib cranes with articulated arm, max. capacity 500 kg
  - CBB SERIES column-mounted, 360° manual rotation
  - MBB SERIES wall-mounted, 360° manual rotation
- Jib cranes with motorised arm, max. capacity 2,000 kg
  - CBE SERIES column-mounted, 300° electric rotation
  - MBE SERIES wall-mounted, 270° electric rotation
- Jib cranes with continuous electric rotation, max. capacity 10,000 kg
  - GBR SERIES column-mounted, 360° electric rotation
- Jib cranes with continuous electric rotation, max. capacity 5,000 kg and max. manual capacity 2,000 kg
  - GBL SERIES column-mounted, 360° continuous rotation

CONSTRUCTION CHARACTERISTICS

MODULAR COMPONENTS

Thanks to the modular components all Donati jib cranes are tailor-made for customer needs in a fast and efficient
way - as standardised as well as special configurations. Basic versions are always available in the warehouse. Because of their extreme compactness the base components, columns, brackets and arms, enable the maximum use of the hook run and, thanks to their minimum lateral headroom, allow the optimal use in the operating area.

COLUMN

The column jib crane consists of a supporting column, made of press forged steel with a tubular structure with a polygonal section. This allows a high rigidity and stability of the crane and is fixed to the base with a base plate and a system of bolts and lug bolts. In the upper part a pair of plates support the arm and allow it to rotate.

SUPPORT BRACKET

The wall-mounted jib crane consists of a bracket support structure. This is formed by a pair of plates made of press-forged steel, fixed to the wall or anchored to a pillar with staybolts or screws which act as a support to the arm and allow it to rotate.

ROTATING ARM

The arm, rotating around its own axis, consists of a supporting girder for the run of the hoist-carrying trolley. Depending on the model it can be made in profile or channel version designed by Donati.

BRAKING DEVICE OF THE ARM

The arm of the manually rotated jib crane is fitted in all models with a braking system. The brake, the clutch with asbestos-free friction material, allows the regulation of the force of rotation of the arm and ensures the stability of positioning.

FIXING SYSTEMS OF THE CRANE

- Foundation frame with lug bolts. The jib cranes are generally designed to be fixed to the ground using the foundation frame with lug bolts inserted in the foundation plinth.
- Chemical bolts. The fixing of the column to the floor can be done using chemical bolts, also with a counterplate where necessary which allows better distribution of forces.
- Brackets and staybolts unit. This is used for fixing the bracket jib crane to a supporting pillar and is fitted with a pressure screw system which guarantees a better adhesion of the staybolts to the pillar.

DONATI LIFTING EQUIPMENT

Safe, versatile DMK electric chain hoists are used and for higher loads the DRH electric wire rope hoists (installed only on GBR and GBL series cranes) with 1 or 2 lifting and moving speeds.

HEIGHT OF COLUMNS AND LENGTH OF ARMS

The range of the jib cranes is characterised by a vast availability of standard models and made-to-measure in special models. All the cranes with a column of "base" height and also in half-metre variation, the cranes up to a top height of two metres as shown in the following table are standard models:

"STANDARD" HEIGHT OF THE COLUMNS (m)							
SERIES	CRANE HEIGHT	DIMENSION	"BASE" HEIGHT	OTHER "STANDARD" HEIGHTS			
GBA CBB-CBE	R-S	H	3	3.5	4	4.5	5
	T-U	H	3.5	4	4.5	5	5.5
	V-Z	H	4	4.5	5	5.5	6
GBR	2-3-4-5-6	H	4	4.5	5	5.5	6
GBL	2-3	H	3,5	4	-	-	-
	5	H	4	4.5	-	-	-

All the cranes with columns of heights different from the standard ones with "made to measure" heights are made in special execution or exceeding two metres or of a lower height with respect to the "base" column. There are also special cranes with arms lengths other than the standard ones in the technical tables.

FINISHING

Protection from atmospheric agents (dust, etc.) is guaranteed by a painting treatment that includes the application of a coat of yellow two component acrylic polyurethane enamel with a 50 micron thickness, after preparation of the surfaces with metallic sandblasting with SA2 grade. Drying in an oven for 15 minutes at a temperature of 45/50°C concludes the cycle.

SERVICE CLASS

The structural elements of the manually or electrically rotated, column-mounted or wall-mounted, jib cranes are dimensioned in the class of service ISO A5 (according to ISO 4301-1/88).

PROTECTION AND INSULATION OF ELECTRICAL PARTS

- Rotation motor: Protection IP54 (motors) IP23 (brakes); insulation class "F" (where necessary)
- Electrical panel: Minimum protection IP55 - Maximum voltage insulation 1500V (where necessary)
- Push-button panel: Protection IP65 - Maximum voltage insulation 500V (where necessary)
- Collector ring: Protection IP65 - Maximum voltage insulation 600V (where necessary)
- Rotation limit switch: Protection IP65 - Maximum voltage insulation 500V (where necessary)
- Connector blocks: Minimum protection IP65 - Maximum voltage insulation 1500V
- Cables: CEI 20/22 - Maximum power insulation 450/750V.

ELECTRIC POWER SUPPLY

The electrical jib cranes are designed to be powered with alternate electric power three-phase of: 400V according to IEC38-1. The CBE series "column" and MBE "wall" electrically rotated jib cranes must be powered with alternate electrical power with three-phase power + neutral + earth (~ 3 + N + T).

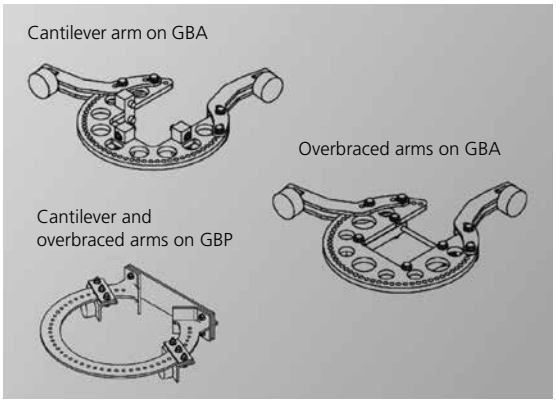
ENVIRONMENTAL CONDITIONS OF USE

Use temperatures: minimum - 10° C; maximum + 40°C Maximum relative humidity: 80% - Maximum altitude 1000 m above sea level. The standard crane must be installed in a ventilated environment, free from corrosive vapours (acid vapours, saline clouds, etc) and is designed for use in an indoor area (protected from bad weather). Special executions for outdoor service are available on request.

NOISE

The level of acoustic pressure emitted by the hoist is always lower than 85 dB (A). The incidence of environmental characteristics such as transmission of sound by metallic structures, reflection caused by combined machines and walls, is not included in the figure shown.

Rotation stops for arms on GBA and GBP



SPECIAL VERSIONS

On request the following can be supplied for jib cranes:

- Designs for outdoor service with wind speeds of up to 70 km/h (above this limit, a specific assessment by our technical service department must be carried out)
- Special anticorrosive paint.
- Protection cover for motors and control panel (GBR series).
- Hoist-trolley protection cover in standby position (GBA/GBP - CBE/MBE series).
- Gear protection guard (CBE/MBE series).
- Rotation motor with stainless steel brake blocks and / or tropicalisation (for electrically rotated cranes).
- Anti-condensation heaters.
- Rotation stops (GBA/GBP series).
- Supplementary electrical safety limit switches (for electrically rotated cranes).
- Power supply voltages different from the standard ones (for electrically rotated cranes).
- Columns with double opposite and parallel arms (GBA series).
- Customised column heights and arm lengths.
- Galvanised treatment for GBA/GBP series cranes with T and H version arm.

CRITERIA OF CHOICES AND LIMITS OF USE OF THE JIB CRANES

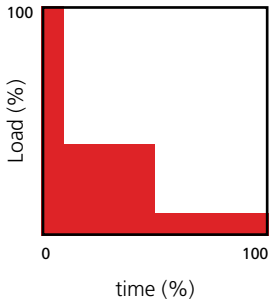
To obtain the complete responsiveness of the jib cranes, for the service they are intended for, it is necessary to check the parameters which characterise their limits of use and, thus, the right choice.
These are essentially the actual lifting capacity, the stress level and the functional parameters.

ACTUAL LIFTING CAPACITY
This is determined by the heaviest load to be lifted.

STRESS LEVEL

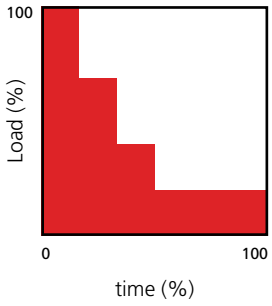
The stress level is determined considering the actual entity of the loads to be lifted and it is ascribable to one of the four load regimes shown below.

1) Light



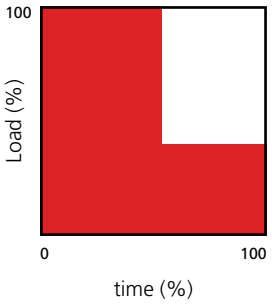
Crane which rarely lifts maximum loads but mainly reduced loads.

2) Medium



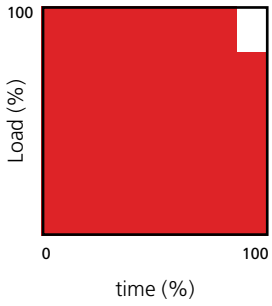
Crane which lifts in approximately the same proportions of maximum, medium and reduced loads.

3) Heavy



Crane which frequently lifts the maximum load but normally medium loads.

4) Very heavy



Crane which regularly lifts loads close to the maximum load.

FUNCTIONAL PARAMETERS

The functional parameters which must be carefully considered in the choice of jib cranes are:

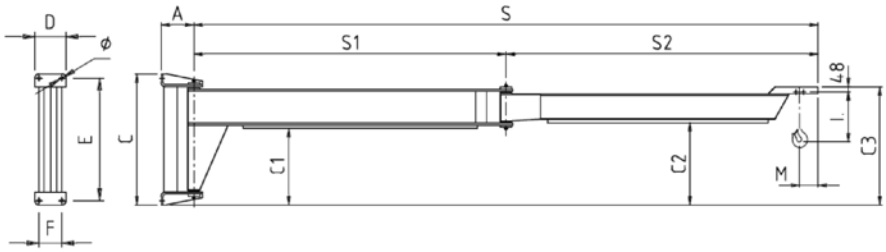
- Functional dimensions: height of the arm, which determines the hook run of the hoist, and its jib must be selected so as to guarantee the functional coverage of the area to be served in consideration of the surrounding environment.
- Type of travel (where necessary): manual or electric in relation to the characteristics of the mass to handle and the type of arm already selected.
- Nature of the load: delicate or not determines by its positioning the choice of the most suitable speeds of handling (lifting and travel).. In some cases it is indispensible to use hoists with two speeds with a slow speed of positioning.
- Area of use: the jib crane is characterised, by its conception, by intrinsic high elasticity which becomes even more evident when it is used for handling with loads close to the maximum lifting capacity and/or with prevalent localisation at the ends of the arm.
- Area of use: the jib cranes are intended to be used inside and/or in a covered area, sheltered from bad weather and the wind. Measures must be taken for outdoor use for a suitable surface treatment (sandblasting - painting (as well as):
  - for manually rotated cranes: an arm parking brake system and an adequate protection cover for the hoist-trolley.
  - for electrically rotated cranes: adequate protective covers for the hoist-trolley, for the motoreducer and for the electric panel.
- Frequency of use: if use is very high (frequent and/or repeated manoeuvres) with loads close to the maximum load the consequent fatigue of the operator due to manual handling must be taken into consideration.

Check, on the basis of the stress level intended for the crane, that the limits of use, type of service and n° of cycles intended in 10 years of work are not in contrast with the following table.

LIMITS OF USE OF THE JIB CRANES OF THE SERVICE CLASS ISO A5(ACCORDING TO ISO 4301-1/88)				
STRESS LEVEL	**1) LIGHT**	**2) MEDIUM**	**3) HEAVY**	**4) VERY HEAVY**
Type of service	intense irregular use	intermittent irregular use	regular light use	irregular use
Conditions of use	U 6	U 5	U 4	U 3
N° of operative cycles in 10 years	1.000.000	500.000	250.000	125.000

WALL-MOUNTED JIB CRANES WITH ARTICULATED ARM, WITH FIXED HOIST – MBB SERIES

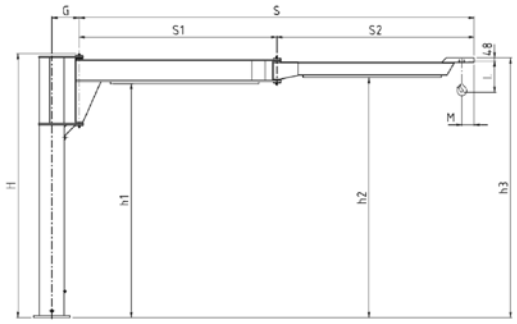
Wall-mounted jib crane
Rotation 360°



LIFTING CAPACITY (kg)	ARM S m	SIZE OF JIB CRANE	TYPE	WALL-MOUNTED JIB CRANES WITH ARTICULATED ARM, WITH FIXED HOIST - MBB SERIES OVERALL DIMENSIONS (mm)												ADDED HOIST		WEIGHT JIB CRANE kg
				S1	S2	A	C	C1	C2	C3	D	E	F	Ø	M	DMK	HEIGHT I	
125	3	A	A01A3A	1000	2000	225	644	200	373	591	200	594	150	15	180	1	275	114
			A01A3B	1500	1500	225	644	200	373	591	200	594	150	15	180	1	275	138
			A01A3C	2000	1000	225	644	200	373	591	200	594	150	15	180	1	275	160
	4	B	A01B4A	1000	3000	225	644	200	333	591	200	594	150	15	180	1	275	141
			A01B4B	1500	2500	225	644	200	333	591	200	594	150	15	180	1	275	163
			A01B4C	2000	2000	225	644	200	373	591	200	594	150	15	180	1	275	171
	5	B	A01B5A	2000	3000	225	644	200	333	591	200	594	150	15	180	1	275	198
			A01B5B	2500	2500	225	644	200	333	591	200	594	150	15	180	1	275	220
			A01B5C	3000	2000	225	644	200	373	591	200	594	150	15	180	1	275	230
	6	C	A02C6B	2500	3500	280	930	455	592	850	250	870	190	22	180	1	275	326
			A02C6C	3000	3000	280	930	455	592	850	250	870	190	22	180	1	275	361
	7	C	A02C7A	3000	4000	280	930	455	572	850	250	870	190	22	180	1	275	389
			A02C7B	3500	3500	280	930	455	592	850	250	870	190	22	180	1	275	410
250	3	B	A01B3A	1000	2000	225	644	200	333	591	200	594	150	15	180	1-2	275-310	124
			A01B3B	1500	1500	225	644	200	333	591	200	594	150	15	180	1-2	275-310	145
	4	C	A02C4A	1000	3000	280	930	455	552	850	250	870	190	22	180	1-2	275-310	218
			A02C4C	2000	2000	280	930	455	592	850	250	870	190	22	180	1-2	275-310	258
	5	C	A02C5A	2000	3000	280	930	455	552	850	250	870	190	22	180	1-2	275-310	295
			A02C5B	2500	2500	280	930	455	552	850	250	870	190	22	180	1-2	275-310	324
	6	D	A02D6B	2500	3500	280	930	455	552	850	250	870	190	22	180	1-2	275-310	348
			A02D6C	3000	3000	280	930	455	552	850	250	870	190	22	180	1-2	275-310	380
	7	D	A02D7A	3000	4000	280	930	455	552	850	250	870	190	22	180	1-2	275-310	405
			A02D7B	3500	3500	280	930	455	552	850	250	870	190	22	180	1-2	275-310	432
500	3	C	A02C3A	1000	2000	280	930	455	592	850	250	870	190	22	180	2	310	182
			A02C3F	1000	2000	280	930	455	592	850	250	870	190	22	190	3	378	182
			A02C3B	1500	1500	280	930	455	592	850	250	870	190	22	180	2	310	215
			A02C3G	1500	1500	280	930	455	592	850	250	870	190	22	190	3	378	215
	4	D	A02D4A	1000	3000	280	930	455	552	850	250	870	190	22	180	2	310	218
			A02D4F	1000	3000	280	930	455	552	850	250	870	190	22	190	3	378	218
			A02D4C	2000	2000	280	930	455	592	850	250	870	190	22	180	2	310	258
			A02D4H	2000	2000	280	930	455	592	850	250	870	190	22	190	3	378	258
	5	D	A02D5A	2000	3000	280	930	455	552	850	250	870	190	22	180	2	310	295
			A02D5F	2000	3000	280	930	455	552	850	250	870	190	22	190	3	378	295
			A02D5B	2500	2500	280	930	455	552	850	250	870	190	22	180	2	310	324
			A02D5G	2500	2500	280	930	455	552	850	250	870	190	22	190	3	378	324
	6	E	A03E6A	2000	4000	315	1240	725	780	1118	300	1160	220	34	180	2	310	518
			A03E6F	2000	4000	315	1240	725	780	1118	300	1160	220	34	190	3	378	518
			A03E6C	3000	3000	315	1240	725	820	1118	300	1160	220	34	180	2	310	575
			A03E6H	3000	3000	315	1240	725	820	1118	300	1160	220	34	190	3	378	575
	7	E	A03E7A	3000	4000	315	1240	725	780	1118	300	1160	220	34	180	2	310	633
			A03E7F	3000	4000	315	1240	725	780	1118	300	1160	220	34	190	3	378	633
			A03E7B	3500	3500	315	1240	725	780	1118	300	1160	220	34	180	2	310	683
			A03E7G	3500	3500	315	1240	725	780	1118	300	1160	220	34	190	3	378	683

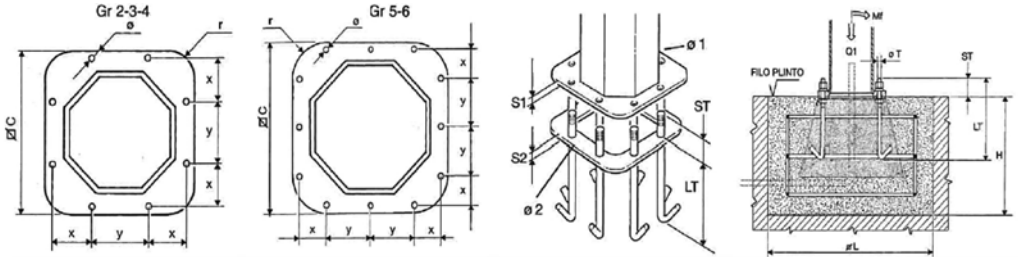
COLUMN-MOUNTED JIB CRANES WITHARTICULATED ARM, WITH FIXED HOIST – CBB SERIES

Column-mounted jib crane
Rotation 360°



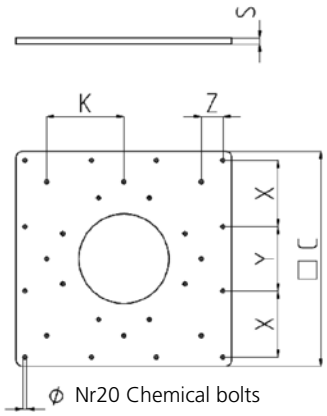
LIFTING CAPACITY (kg)	ARM S m	SIZE OF JIB CRANE	HEIGHT H mm		TYPE	COLUMN-MOUNTED JIB CRANE WITH ARTICULATED ARM, WITH FIXED HOIST - CBB SERIES OVERALL DIMENSIONS (mm)								ADDED HOIST		WEIGHT	
						UNDER BEAM										JIB CRANE kg	COLUMN BY m kg
			BASE	MAX.		h1	h2	h3	S1	S2	G	M	Δ	DMK	HEIGHT I		
125	3	R	3020	5020	A30R3A	2603	2777	2995	1000	2000	228	180	32	1	275	166	18.2
			3020	5020	A30R3B	2603	2777	2995	1500	1500	228	180	32	1	275	190	18.2
			3020	5020	A30R3C	2603	2777	2995	2000	1000	228	180	32	1	275	212	18.2
	4	S	3020	5020	A30S4A	2603	2737	2995	1000	3000	274	180	32	1	275	215	22.8
			3020	5020	A30S4B	2603	2737	2995	1500	2500	274	180	32	1	275	237	22.8
			3020	5020	A30S4C	2603	2777	2995	2000	2000	274	180	32	1	275	245	22.8
	5	S	3020	5020	A30S5A	2603	2737	2995	2000	3000	274	180	32	1	275	272	22.8
			3020	5020	A30S5B	2603	2737	2995	2500	2500	274	180	32	1	275	294	22.8
			3020	5020	A30S5C	2603	2777	2995	3000	2000	274	180	32	1	275	304	22.8
	6	T	3525	5525	A35T6B	3083	3220	3478	2500	3500	323	180	42	1	275	450	35
			3525	5525	A35T6C	3083	3220	3478	3000	3000	323	180	42	1	275	485	35
	7	T	3525	5525	A35T7A	3083	3200	3478	3000	4000	323	180	42	1	275	513	35
			3525	5525	A35T7B	3083	3220	3478	3500	3500	323	180	42	1	275	534	35
250	3	S	3020	5020	A30S3A	2603	2737	2995	1000	2000	274	180	32	1-2	275-310	198	22.8
			3020	5020	A30S3B	2603	2737	2995	1500	1500	274	180	32	1-2	275-310	220	22.8
	4	T	3525	5525	A35T4A	3083	3180	3478	1000	3000	323	180	42	1-2	275-310	342	35
			3525	5525	A35T4C	3083	3220	3478	2000	2000	323	180	42	1-2	275-310	382	35
	5	T	3525	5525	A35T5A	3083	3180	3478	2000	3000	323	180	42	1-2	275-310	419	35
			3525	5525	A35T5B	3083	3180	3478	2500	2500	323	180	42	1-2	275-310	448	35
	6	U	3525	5525	A35U6B	3083	3180	3478	2500	3500	386	180	42	1-2	275-310	520	43.5
			3525	5525	A35U6C	3083	3180	3478	3000	3000	386	180	42	1-2	275-310	552	43.5
	7	U	3525	5525	A35U7A	3083	3180	3478	3000	4000	386	180	42	1-2	275-310	577	43.5
			3525	5525	A35U7B	3083	3180	3478	3500	3500	386	180	42	1-2	275-310	604	43.5
500	3	T	3525	5525	A35T3A	3083	3220	3478	1000	2000	323	180	42	2	310	306	35
			3525	5525	A35T3F	3083	3220	3478	1000	2000	323	190	42	3	378	306	35
			3525	5525	A35T3B	3083	3220	3478	1500	1500	323	180	42	2	310	339	35
			3525	5525	A35T3G	3083	3220	3478	1500	1500	323	190	42	3	378	339	35
	4	U	3525	5525	A35U4A	3083	3180	3478	1000	3000	386	180	42	2	310	390	43.5
			3525	5525	A35U4F	3083	3180	3478	1000	3000	386	190	42	3	378	390	43.5
			3525	5525	A35U4C	3083	3220	3478	2000	2000	386	180	42	2	310	430	43.5
			3525	5525	A35U4H	3083	3220	3478	2000	2000	386	190	42	3	378	430	43.5
	5	U	3525	5525	A35U5A	3083	3180	3478	2000	3000	386	180	42	2	310	467	43.5
			3525	5525	A35U5F	3083	3180	3478	2000	3000	386	190	42	3	378	467	43.5
			3525	5525	A35U5B	3083	3180	3478	2500	2500	386	180	42	2	310	496	43.5
			3525	5525	A35U5G	3083	3180	3478	2500	2500	386	190	42	3	378	496	43.5
	6	V	4025	6025	A40V6A	3565	3620	3958	2000	4000	443	180	45	2	310	796	64
			4025	6025	A40V6F	3565	3620	3958	2000	4000	443	190	45	3	378	796	64
			4025	6025	A40V6C	3565	3660	3958	3000	3000	443	180	45	2	310	853	64
			4025	6025	A40V6H	3565	3660	3958	3000	3000	443	190	45	3	378	853	64
	7	V	4025	6025	A40V7A	3565	3620	3958	3000	4000	443	180	45	2	310	911	64
			4025	6025	A40V7F	3565	3620	3958	3000	4000	443	190	45	3	378	911	64
			4025	6025	A40V7B	3565	3620	3958	3500	3500	443	180	45	2	310	961	64
			4025	6025	A40V7G	3565	3620	3958	3500	3500	443	190	45	3	378	961	64

BASE PLATES, FOUNDATION FRAMES AND PLINTHS FOR GBR/GBL SERIES COLUMN-MOUNTED CRANES



SIZE OF JIB CRANE		2	3	4	5	6
Base plate and foundation frame (mm)	⍁C	750	860	910	1100	1220
	S1	20	25	30	35	40
	S2	10	10	10	10	10
	x	199	230	241	185	215
	y	281	325	341	320	350
	Ø 1	27	33	39	39	39
	Ø 2	25	31	37	37	37
	r	150	170	180	220	240
Anchorage bolts (mm)	ØT	M 24x3	M 30x3.5	M 36x4	M 36x4	M 36x4
	LT	600	700	800	800	800
	ST	90	105	125	130	135
Bolt clamping torque (Nm)		350	680	1200	1200	1200
Weight of frame with lug bolts (kg)		34.5	52.5	80	113	120
Foundation plinth (mm) (see warnings on the previous page)	⍁L	2500	3000	3200	4000	4200
	H	1150	1300	1300	1300	1300
Max jib crane weight (kg) (without hoist and trolley)	Q1	1540/1825	2520/2335	2870	3785/3475	4180
Maximum tilting movement allowed (kNm)	Mf	179/160	270/258	335	649/474	788

COUNTERPLATES FOR FIXING TO THE FLOOR WITH CHEMICAL BOLTS OF THE GBR-GBL SIZE 2-3 COLUMN-MOUNTED CRANES



SIZE			2	3
	Counterplate code		GBR250140	GBR350140
	Counterplate dimensions (mm)	⍁C	1200	1400
		X	370	430
		Y	360	440
		Z	120	170
		K	430	480
		S	35	45
		Ø	25	25
	Counterplate weight (kg)		340	600
	Maximum tilting movement allowed (kNm)	Mf*	200	300
Fixing characteristics	Type of concrete of the floor: Minimum Fck/Rck class (N/mm2)		C20/25	C20/25
	Type of chemical bolts (e.g.: HILTI HVU with threaded bars HILTI HAS)		M 20	M20
	Minimum thickness of floor block (mm)		220	220
	Diameter of hole in the floor (mm)		24	24
	Depth of the hole of the concrete in the floor (mm)		170	170
	Clamping torques of the bolts (Nm)		150	150
	Project resistance of traction of one bolt (kN)		74,6	74,6

Fixing of column with chemical bolts, requires a scrupulous verification of suitability in relation to type of support flooring. The suitability checks are the responsibility of the user and must be carried out by expert, qualified technicians who will evaluate the feasibility and formally assume the relative responsibilities.

* For the clamping torques of the bolts between the column and counterplate, see the relative clamping torques for the lug bolts on page 36.

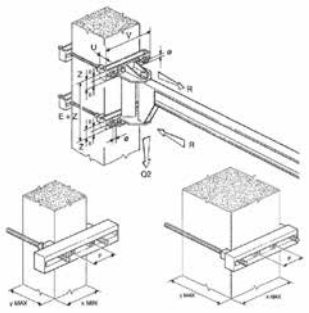
FIXING SYSTEMS FOR JIB CRANES

BRACKET AND STAYBOLTS UNIT FOR GBP/MBB/MBE SERIES WALL-MOUNTED CRANES

SIZE		A	B	C	D	E	F
Reactions (kN)	Q2	2.95	5	9.2	16.85	26.10	28.2
	R	11.9	21.75	27.05	49	66.8	120

TYPE OF BRACKET			01	02	03
Ø Staybolts/screws			M16	M20	M30
Clamping torques (Nm)	Staybolts		128	250	857
	Screws		205	400	1370
Bracket Type: Short (mm)	Code		GBK010110	GBP020110	GBP030110
	U		50	60	80
	V		420	490	532
	Z		75	90	135
	Weight (kg)		21	36	75
Pillar dimensions (mm)	x	min	200	250	300
		max	330	400	400
	y	max	850	810	750
Bracket Type: Medium (mm)	Code		GBK010120	GBP020120	GBP030120
	U		50	80	100
	V		550	640	682
	Z		75	120	145
	Weight (kg)		26	60	96

TYPE OF BRACKET			01	02	03
Ø Staybolts/screws			M16	M20	M30
Pillar dimensions (mm)	x	min	200	250	400
		max	460	550	550
	y	max	850	770	710
Bracket Type: Long (mm)	Code		GBK010130	GBP020130	GBP030130
	U		60	80	120
	V		740	840	882
	Z		85	120	155
	Weight (kg)		40	74	132
Pillar dimensions (mm)	x	min	460	550	550
		max	650	750	750
	y	max	830	770	670

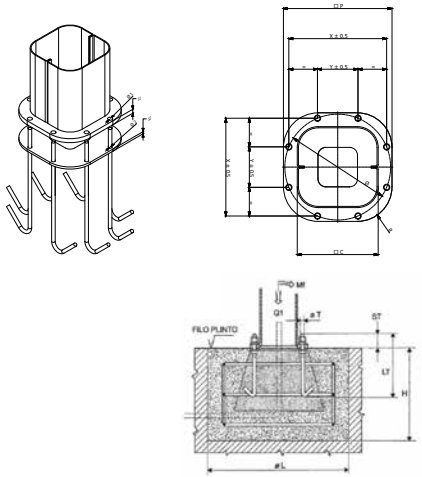


N.B.: The bracket and staybolts unit, used in the wall-mounted version for fixing the bracket to a pillar, is available on request.

BASE PLATES, FOUNDATION FRAMES AND PLINTHS FOR GBA/CBB/CBE SERIES COLUMN-MOUNTED CRANES

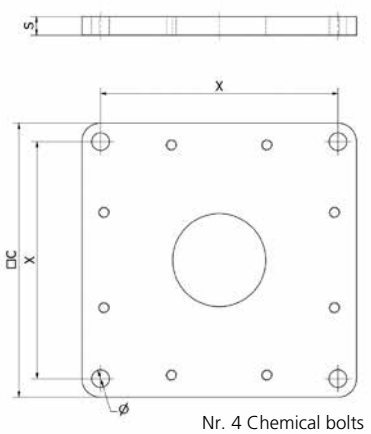
SIZE		R	S	T	U	V	Z
Code foundation set		GBK1R0260	GBK1S0260	GBK1T0260	GBK1U0260	GBK1V0260	GBK1Z0260
Base plate and foundation frame (mm)	⍁C	205	258	296	372	435	515
	⍁P	275	340	380	475	555	660
	S1	15	15	15	20	20	25
	S2	8	8	8	8	8	8
	x	247	305	345	432	506	599
	y	103	126	143	179	210	248
	Ø	268	330	373	468	548	648
	r	88	104	116	145	165	197
	Ø1	16	20	20	25	29	35
	Ø2	13	17	17	21	25	31
Lug bolts (mm)	ØT	M12	M16	M16	M20	M24	M30
	LT	400	450	450	550	600	700
	ST	40	45	45	55	60	75
Clamping torques (Nm)		45	105	105	200	350	680
Frame/bolt weight (kg)		8	13	14	23	35	61
Foundation plinth (mm)	⍁L	1200	1300	1400	1700	2000	2400
	H	800	800	900	900	1100	1100
Reaction (kN)	Q1	3.3	5.7	10.15	18.4	28.7	29.35
Momentum (kNm)	MF	12	21	31	57	107	164

The dimensions of the plinths are purely indicative!
The plinth must be dimensioned by expert, qualified technicians considering the real consistency of the ground and the maximum pressure it can withstand.



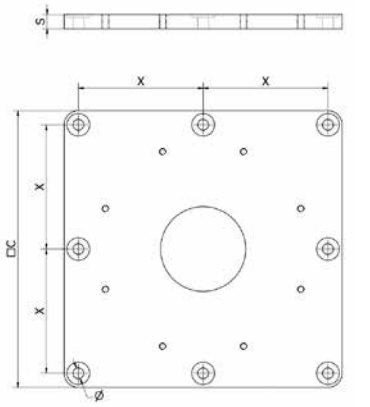
N.B.: The foundation frames with lug bolts, used in the column-mounted version for fixing the column itself to the foundation plinth is supplied on request.
* M= 1,11; ψ= 1,15

COUNTERPLATES FOR FIXING TO THE FLOOR WITH CHEMICAL BOLTS OF THE GBA/CBB/CBE COLUMN-MOUNTED CRANES



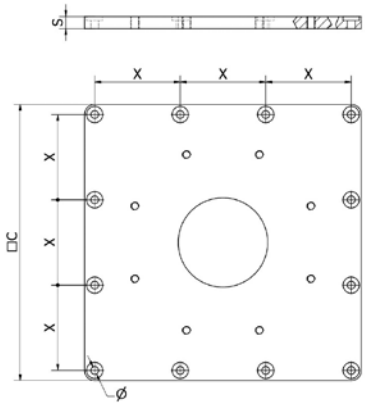
Nr. 4 Chemical bolts

COUNTERPLATES R - S



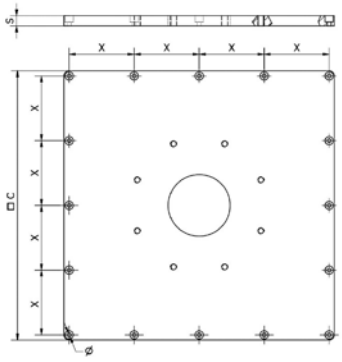
Nr. 8 Chemical bolts

COUNTERPLATES T



Nr. 12 Chemical bolts

COUNTERPLATES U - V - Z1



Nr. 16 Chemical bolts

COUNTERPLATES Z2

The fixing of the column using chemical bolts, needs a scrupulous check of suitability in relation to the type of support flooring.The suitability checks are the responsibility of the user and must be carried out by expert, qualified technicians who will evaluate the feasibility and formally undertake the relative responsibilities.

SIZE			R	S	T	U	V	Z1	Z2
	Counter plate and chemical bolts code		GBA2R0KPS	GBA2S0KPS	GBA2T0KPS	GBA2U0KPS	GBA2V0KPS	GBA2Z1KPS	GBA2Z2KPS
	Counterplate dimensions (mm)	⍁ C	295	445	490	680	995	1130	1310
		S	20	20	25	30	40	40	50
		x	255	395	220	210	315	360	315
		Nr x Ø	4x19	4x19	8x19	12x19	12x19	12x19	16x19
	Counterplate weight (kg)		15	30	45	100	285	375	640
	Maximum tilting movement allowed (kNm)	Mf*	11,8	20,7	31,2	56,7	107,3	135,6	164
Fixing characteristics	Type of concrete of the floor: Class Fck/Rck minimum (N/mm2)		C20/25	C20/25	C20/25	C20/25	C20/25	C20/25	C20/25
	Minimum floor thickness (mm)		170	170	170	170	170	170	170
	Diameter of hole in the floor (mm)		18	18	18	18	18	18	18
	Depth of the hole in floor's concrete (mm)		135	135	135	135	135	135	135
	Clamping torque of the bolts (Nm)		60	60	60	60	60	60	60
	Dowel height from top plate surface (mm)		45	45	40	35	25	25	15

* For the clamping torques of the bolts between the column and counterplate, see the relative clamping torques for the lug bolts on page 36.

REGULATIONS COMPLIANCE

REGULATORY REFERENCE FRAMEWORK

In the designing and construction of the manually and electrically rotated, column and wall-mounted jib cranes, the following standards and main technical rules have been taken into consideration:

- EN ISO 12100:2010 "General principles for design"
- EN ISO 13849-1:2008 "Safety-related parts of control systems (where required)"
- EN 12077-2:2008 "Limiting and indicating devices"
- EN 60204-32:2009 "Safety of machinery. Electrical equipment of machines. Requirements for hoisting machines"
- EN 60529:1997 "Degrees of protection provided by enclosures (IP Code)"
- ISO 4301-1:1988 "Cranes and lifting appliances Classification"
- FEM 1.001/98 "Rules for the design of hoisting appliances"

LEGISLATIVE REFERENCE FRAMEWORK

The manually or electrically rotated column and wall-mounted jib cranes are designed and produced in consideration of the "Essential Safety Requirements" of Annex I of Machinery Directive 2006/42/EC and are put on the market with the CE mark and CE Declaration of Conformity - Annex II A.

In addition the jib cranes are in compliance with the following directives:

- **LOW VOLTAGE DIRECTIVE 2014/35/UE**
- **ELECTROMAGNETIC COMPATIBILITY DIRECTIVE 2014/30/UE**

DONATI WEBSITE

Donati's window on the world for customer service.

Manuals and product information
The new Donati website has been designed to assist customers to they can easily find all of the updated information on Donati products at any time.
The Donati website makes it simple to consult and download product catalogues, technical manuals and product information sheets.

Donati Shop
The Donati Shop makes it possible to quickly and independently handle spare parts requests, thus reducing waiting times for customers.

Contact Section
The new contact section divided by departments lets you address your requests to the right team, so our staff can provide a faster and more accurate answer.

LEONARDO CONFIGURATION SYSTEM

Leonardo Configuration System is the Donati configurator system lets you configure and generate offers for Chain hoists, Jib cranes and Crane sets, easily and quickly; it lets you rapidly and efficiently respond to your customers' requests.

The suite is composed of two configurators:

Leonardo Product Configurator:
Used to configure chain hoists and jib cranes alone or in combination

Leonardo Crane Set Configurator:
Used to configure bridge cranes complete with all necessary accessories and Donati hoists.

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