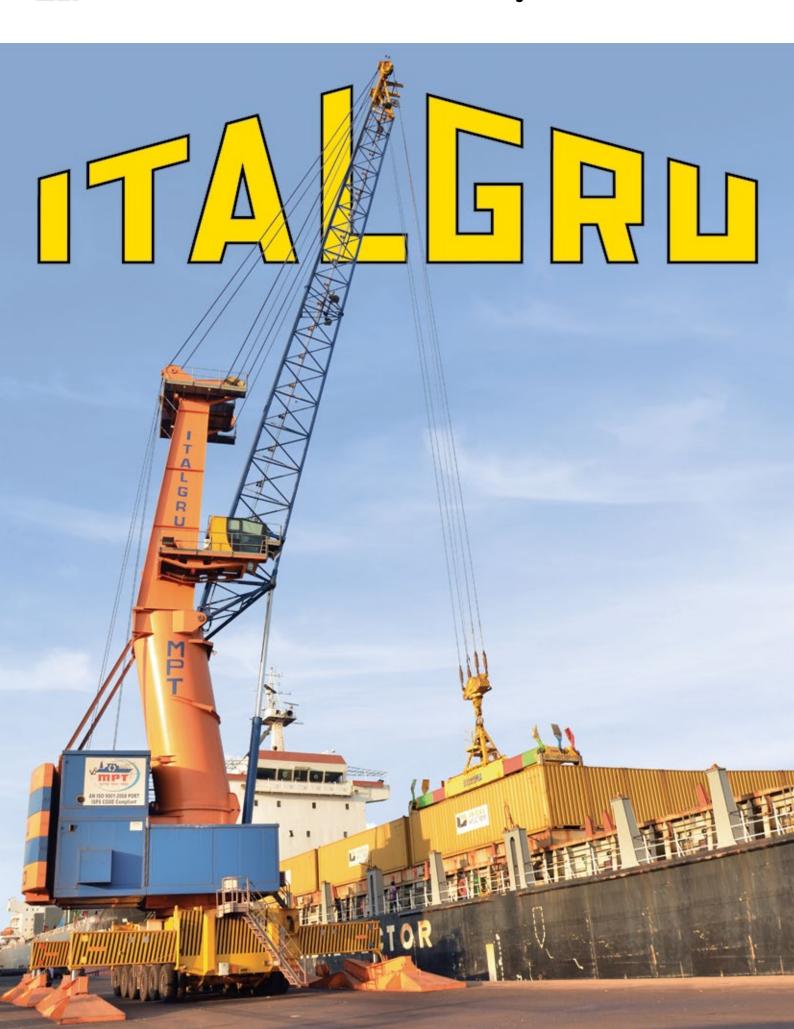


PORT EQUIPMENT

www.italgru.com





ITALGRU is a well established market leader in: Mobile harbour cranes / oil rig, cargo vessel, FPSO, FSO and barge cranes / Special, heavyduty hoists and systems / Refurbishment and upgrading of existing cranes.

Experience has taught us that success should never be an end in itself and this is the reason why ITALGRU is constantly geared towards the future. To maintain our position as market leader requires a constant commitment towards the research of new solutions, improved production, and first class service and technologies to ensure greater customer satisfaction.

FROM ENGINEERING TO SERVICE ITALGRU offers its customers added value along with a high degree of satisfaction and competitive prices through a solid and flexible corporate structure, the continuous development of innovative technologies, and a team of people who are able to realize and produce solutions suited to customer requirements while taking care of the finest details.

From 1954 we carry your weight

ITALGRU S.r.l. has proven experience in providing specific operational solutions in the cargo handling industry. These solutions cater to the most important logistic segments such as harbour, off-shore, shipyard, and steel mills businesses. The operational team is made up of highly qualified individuals who are capable of analyzing and planning projects based on top productivity and managerial strategies that result in efficient and effective solutions. Customers can be assured of the highest levels of quality and safety. Competence and innovation are the pillars behind the ITALGRU brand, designs and developments.

Since 1995, ITALGRU S.r.l. – a Bonfanti family-owned company – has played a vital role in both the local Italian and international markets in the heavy-duty lifting, cargo handling and industrial automation sectors.

MAIN REFERENCES

- AFRIMEL (BRAZZAVILLE CONGO)
- ANCONA PORT AUTHORITY (ITALY)
- AMEROPA (CROATIA)
- ARAB STEVEDORING COMPANY (EGYPT)
- ARYA BANADER IRANIAN STEVEDORING COMPANY (IRAN)
- AVLITA STEVEDORING COMPANY (RUSSIA)
- BRIAMO STEVEDORING COMPANY (ITALY)
- CCI ROCHEFORT (FRANCE)
- CAGLIARI STEVEDORING COMPANY (ITALY)
- CEREAL DOCKS (ITALY)
- COCHIN PORT TRUST (INDIA)
- COOPSETTE (ITALY)
- DOCKS CEREALI S.p.A. (ITALY)
- DUNKIRK PORT AUTHORITY (FRANCE)
- ECOLOGICA S.p.A. (ITALY)
- IFA (ITALY)
- IMPREPORT (ITALY)
- IMPRESA PORTUALE METROPOLITANA (ITALY)
- ITALTERMINAL (ITALY)
- KANDLA PORT TRUST (INDIA)
- LA ROCHELLE PORT AUTORITY (FRANCE)
- MANFREDONIA STEVEDORING COMPANY (ITALY)
- MEC, MYANMAR (MYANMAR)
- MORMUGAO PORT TRUST (INDIA)
- MULTISERVICE (ITALY)
- NADEP (ITALY)
- NEW MANGALORE PORT TRUST (INDIA)
- O.R.M.M.E.S. (ITALY)
- PORT NOGARO STEVEDORING COMPANY (ITALY)
- PETROLIFERA ITALO RUMENA (ITALY)
- ROUEN PORT AUTHORITY (FRANCE)
- SARDA GRU STEVEDORING COMPANY (ITALY)
- SO.RI.MA. STEVEDORING COMPANY (ITALY)
- SYNDICAT MIXTE PORT OF DIEPPE (FRANCE)
- PORT OF VASTO STEVEDORING COMPANY (ITALY)
- VIBO VALENTIA STEVEDORING COMPANY (ITALY)
- TCO STEVEDORING COMPANY (ITALY)
- TCDD IZMIR PORT (TURKEY)
- GICEP, PORT OF SKIKDA (ALGERIA)
- SOSERSID, PORT OF FOS SUR MER (FRANCE)
- PELINDO IV, MAKASSAR (INDONESIA)
- PELINDO III, SURABAYA (INDONESIA)
- CCI SAINT MALO (FRANCE)
- DEENDAYAL PORT TRUST (INDIA)





ith over 50 years of experience in the cargo handling industry, our mobile harbour cranes are the result of careful studies of technological developments and the application of the necessary technologies to modern harbour equipment in order to handle every type of goods.

Efficient, mobile and versatile, ITALGRU's mobile harbour cranes can be used in any port for the handling of:

- bulk materials, steel or scrap metal,
- general cargo and heavy loads
- containers

Our state-of-the-art ITALGRU electronic crane management system ensures that the crane's performance is optimized.

Constant available maximum lifting power and high turnover speeds are monitored contineously.

Safe, smooth and precise crane handling is a result of innovative engineering and constant customer feedback and implementation of latest technologies available.

Our crane designs, in compliance with F.E.M. 1.001 Design Rules allow for classifications from A3 to A8 based on client's requirements.

According to the customer's requirements, our Mobile Harbour Cranes are available in both configuration: with hydraulic drives and with electric drives.



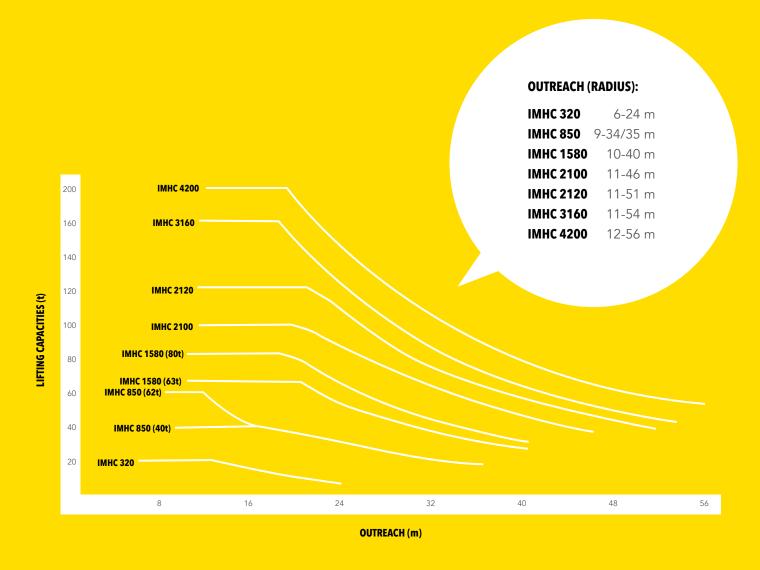
FOR CONTAINER



FOR BULK



HEAVY LIFT CRANES



OUTREACH (RADIUS): 6 - 24 m MAX CAPACITY: 20 t



A fast and versatile crane the IMHC 320 is suitable for handlinggoods and pallets (with either a mechanical or an electric-hydraulic grab system) in limited spaces.

- The crane is available in two versions:
 1. Single winch with 2 ropes
 2. Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

Α	Minimum outreach/Radius	6 m
В	Maximum outreach/Radius	24 m
С	Overall height tower	17,4 m
D	Tower cab height (operator eye level)	11,4 m
Е	Height of boom fulcrum	9,9 m

HOISTING HEIGHTS

F	Above quay level until 22 m radius	23 m
G	Above quay level at maximum radius	18 m
Н	Under quay level	10 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	3,5 m
L	Minimum overall width outriggers	5 m
M	Maximum Propping base	7,0 x 7,3 m
	Chassis dimensions in travel mode (approx.)	10 x 6 m

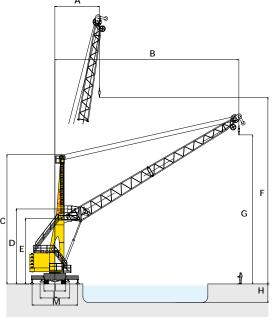
DIMENSIONS WITH TOWER AND BOOM LOWERED

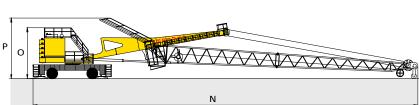
Ν	Overall lenght	45 m
0	Machinery house height	6,2 m
Р	Overall height	7,4 m

TRAVEL GEAR

Axles	2
Steering axles	2
Driven axles	1

OUTREACH/ RADIUS	HEAVY USE	GENERAL CARGO	GRAB USE
m	t Under hook	t Under hook	t Under ropes
6.0	20.0	20.0	10.0
8.0	20.0	20.0	10.0
10.0	20.0	20.0	10.0
12.0	20.0	20.0	10.0
14.0	20.0	20.0	10.0
16.0	20.0	17.2	10.0
18.0	17.2	14.4	10.0
20.0	14.8	12.4	10.0
22.0	12.8	10.8	10.0
24.0	11.3	9.5	8.5





Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT

OUTREACH (RADIUS): 9 - 34/35 m MAX CAPACITY: 40 t



- The crane is built in two variants:
 1. Single winch with 2 ropes
 2. Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

Α	Minimum outreach/Radius	8 - 9 m
В	Maximum outreach/Radius	34 - 35 m
С	Overall height tower	23,4 m
D	Tower cab height (operator eye level)	17,5 m
Е	Height of boom fulcrum	12,2 m

HOISTING HEIGHTS

F	Above quay level until	30 m: h = 30 m
G	Above quay level at maximum radius	22 m
Н	Under quay level	15 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	4,5 m
L	Minimum overall width outriggers	8,4 m
M	Maximum Propping base	9,25 x 10 m
	Chassis dimensions in travel mode (approx.)	12 6 x 8 4 m

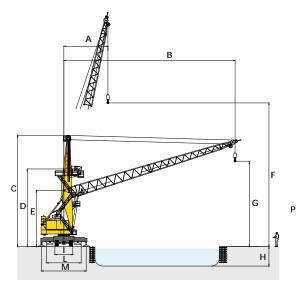
DIMENSIONS WITH TOWER AND BOOM LOWERED

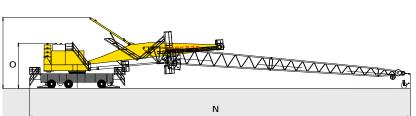
Ν	Overall lenght	53,5 m
0	Machinery house height	7,6 m
Р	Overall height	11,2 m

TRAVEL GEAR

Axles	3
Steering axles	3
Driven axles	1

OUTREACH/ RADIUS	HEAVY USE	GENERAL CARGO CONTAINERS	GRAB USE
m	t Under hook	t Under hook	t Under ropes
8.0 - 9.0	40.0 - 62.0	36.0 - 50.0	25.0 - 42.0
10.0	40.0 - 62.0	36.0 - 50.0	25.0 - 42.0
12.0	40.0 - 62.0	36.0 - 50.0	25.0 - 42.0
14.0	40.0 - 56.9	36.0 - 50.0	25.0 - 41.9
16.0	40.0 - 48.6	36.0 - 48.4	25.0 - 36.0
18.0	40.0 - 41.5	36.0 - 41.3	25.0 - 30.9
20.0	36.3	31.8 - 34.9	25.0 - 26.4
22.0	31.5	28.4 - 30.1	24.6
24.0	28.3	25.5	22.1
26.0	25.6	23.1	19.9
28.0	23.0	20.7	18.0
30.0	20.7	18.7	16.4
32.0	18.7	16.9	15.0
34.0	17.0	15.4	13.8
35.0	16.5	15.0	13.0





Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT

OUTREACH (RADIUS): 10 - 40 m MAX CAPACITY: 80 t



Ideally suitable for feeder and medium sized vessels, the IMHC 1580 is built forfast and efficient handling of bulk, coils and containers (telescopic 20° or 40° spreader).

- The crane is built in two variants:
 1. Single winch with 2 ropes
 2. Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

Α	Minimum outreach/Radius	10 m
В	Maximum outreach/Radius	40 m
С	Overall height tower	25,7 m
D	Tower cab height (operator eye level)	18 m
Е	Height of boom fulcrum	13 m

HOISTING HEIGHTS

F	Above quay level	34 m
G	Above quay level at max. rad.	25 m
Н	Under quay level	15 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	4,5 m
L	Minimum overall width outriggers	8,4 m
M	Maximum Propping base	10 x 10 m
	Chassis dimensions in travel mode (approx.)	13.5 x 8.4 m

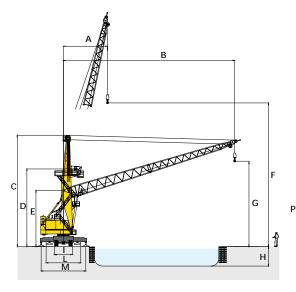
DIMENSIONS WITH TOWER AND BOOM LOWERED

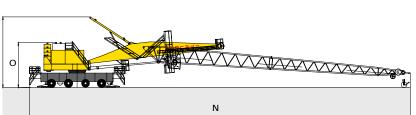
Ν	Overall lenght	60 m
0	Machinery house height	7,8 m
Р	Overall height	12,4 m

TRAVEL GEAR

Axles	4
Steering axles	4
Driven axles	2

OUTREACH/ RADIUS	HEAVY USE	GENERAL CARGO CONTAINERS	GRAB USE
m	t Under hook	t Under hook	t Under ropes
10.0	63.0 - 80.0	50.0	42.0
12.0	63.0 - 80.0	50.0	42.0
14.0	63.0 - 80.0	50.0	42.0
16.0	63.0 - 80.0	50.0	42.0
18.0	63.0 - 79.4	50.0	42.0
20.0	63.0 - 67.7	50.0	42.0
22.0	58.6	50.0	42.0
24.0	51.4	45.3	39.9
26.0	46.0	43.5	35.7
28.0	42.0	40.0	32.2
30.0	38.5	36.5	29.3
32.0	35.0	33.0	26.8
34.0	32.0	30.0	24.6
36.0	29.5	27.5	22.7
38.0	27.0	25.0	21.1
40.0	25.0	23.0	19.6





Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT

OUTREACH (RADIUS): 11 - 46 m MAX CAPACITY: 100 t



A true allrounder, the IMHC 2100 is the flagship within our range. Flexibility and fast handling of all sorts of cargoes on vessels up to post-panamax size: for bulk with mechanical or 4-rope grabs, coils and containers (telescopic 20' e 40' spreader).

The crane is built in two variants:

- Single winch with 2 ropes
 Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

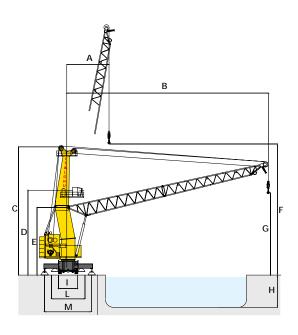
Α	Minimum outreach/Radius	11 m
В	Maximum outreach/Radius	46 m
С	Overall height tower	31,4 m
D	Tower cab height (operator eye level)	21 m
Е	Height of boom fulcrum	17 m

HOISTING HEIGHTS

F	Above quay level	> 35 m
G	Above quay level at maximum radius	20 m
Н	Under quay level	12 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	5 m
L	Minimum overall width outriggers	9,8 m
M	Maximum Propping base	12 x 13,4 m
	Chassis dimensions in travel mode (approx.)	16,2 x 9,8 m



TRAVEL GEAR

Axles	5
Steering axles	5
Driven axles	2

OUTREACH/ RADIUS	HEAVY USE	GENERAL CARGO CONTAINERS	GRAB USE
m	t Under hook	t Under hook	t Under ropes
11.0	100.0	50.0	42.0
12.0	100.0	50.0	42.0
14.0	100.0	50.0	42.0
16.0	100.0	50.0	42.0
18.0	100.0	50.0	42.0
20.0	100.0	50.0	42.0
22.0	86.8	50.0	42.0
24.0	75.8	50.0	42.0
26.0	67.0	47.3	36.0
28.0	59.8	47.3	35.0
30.0	54.5	47.3	35.0
32.0	49.4	47.3	32.0
34.0	45.8	45.8	29.0
36.0	42.0	42.0	26.6
38.0	38.6	38.6	24.5
40.0	35.4	35.4	22.5
42.0	33.0	33.0	20.7
44.0	30.5	30.5	19.3
46.0	28.0	28.0	16.6

Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT

OUTREACH (RADIUS): 11 - 51 m MAX CAPACITY: 120 - 125 t



A true allrounder, the IMHC 2120 is the flagship within our range. Flexibility and fast handling of all sorts of cargoes on vessels up to post-panamax size: for bulk with mechanical or 4-rope grabs, coils and containers (telescopic 20' e 40' spreader).

- The crane is built in two variants:
 1. Single winch with 2 ropes
 2. Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

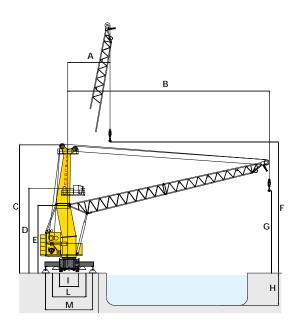
Α	Minimum outreach/Radius	11 m
В	Maximum outreach/Radius	51 m
С	Overall height tower	33 m
D	Tower cab height (operator eye level)	21/24 m
Е	Height of boom fulcrum	17,5 m

HOISTING HEIGHTS

F	Above quay level	> 40 m
G	Above quay level at maximum radius	25 m
Н	Under quay level	15 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	5 m
L	Minimum overall width outriggers	9,8 m
M	Maximum Propping base	12 x 13,4 m
	Chassis dimensions in travel mode (approx.)	16,2 x 9,8 m



TRAVEL GEAR

Axles	6
Steering axles	6
Driven axles	2

OUTREACH/ RADIUS	HEAVY USE	TWIN LIFT	SINGLE LIFT	GRAB USE
m	t Under hook	t Under hook	t Under hook	t Under ropes
11.0	120.0 - 125.0	65.0	50.0	50.0
12.0	120.0 - 125.0	65.0	50.0	50.0
14.0	120.0 - 125.0	65.0	50.0	50.0
16.0	120.0 - 125.0	65.0	50.0	50.0
18.0	120.0 - 125.0	65.0	50.0	50.0
20.0	120.0	65.0	50.0	50.0
22.0	112.5	65.0	50.0	50.0
24.0	102.5	65.0	50.0	50.0
26.0	93.0	65.0	50.0	50.0
28.0	84.5	65.0	50.0	50.0
30.0	80.0	65.0	50.0	50.0
32.0	71.5	65.0	50.0	50.0
34.0	66.5	62.5	50.0	50.0
36.0	61.5	58.5	50.0	48.0
38.0	57.5	55.0	50.0	45.0
40.0	54.0	52.0	50.0	42.0
42.0	50.5	49.0	49.0	39.0
44.0	47.5	46.5	46.5	36.5
46.0	44.5	44.0	44.0	34.0
48.0	41.5	41.5	41.5	32.0
50.0	39.0	39.0	39.0	30.0
51.0	37.5	37.5	37.5	29.0



Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT

OUTREACH (RADIUS): 11 - 54 m MAX CAPACITY: 160 t



The IMHC 3160 has been designed to efficiently load and unload vessles up to the size of post-panamax carriers. The crane allows to handle all types of cargo including heavy lifts up to 160 tons.

- The crane is built in two variants:
 1. Single winch with 2 ropes
 2. Double winch with 4 ropes (4-ropes grab crane)

GENERAL DIMENSIONS AND WEIGHTS

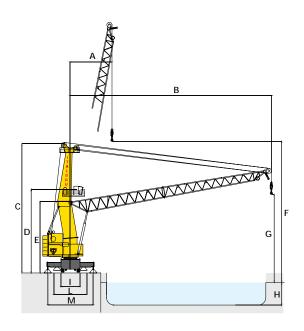
Α	Minimum outreach/Radius	11 m
В	Maximum outreach/Radius	54 m
С	Overall height tower	39,6 m
D	Tower cab height (operator eye level)	29 m
Е	Height of boom fulcrum	23,2 m

HOISTING HEIGHTS

F	Above quay level	> 45 m
G	Above quay level at maximum radius	29 m
Н	Under quay level	15 m

CHASSIS AND PROPPING SYSTEM WITH STANDARD PADS

	Overall width of undercarriage	5,5 m
L	Minimum overall width outriggers	9,8 m
M	Maximum Propping base	13 x 17,3 m
	Chassis dimensions in travel mode (approx.)	21,3 x 9,8 m



TRAVEL GEAR

Axles	7 - 8
Steering axles	7 - 8
Driven axles	2

OUTREACH/ RADIUS	HEAVY USE	TWIN LIFT	SINGLE LIFT	GRAB USE
m	t Under hook	t Under hook	t Under hook	t Under ropes
11.0	160.0	65.0	50.0	60.0
12.0	160.0	65.0	50.0	60.0
14.0	160.0	65.0	50.0	60.0
16.0	150.0	65.0	50.0	60.0
18.0	150.0	65.0	50.0	60.0
20.0	146.0	65.0	50.0	60.0
22.0	132.0	65.0	50.0	60.0
24.0	119.0	65.0	50.0	60.0
26.0	107.5	65.0	50.0	60.0
28.0	98.5	65.0	50.0	60.0
30.0	90.5	65.0	50.0	60.0
32.0	83.5	65.0	50.0	60.0
34.0	77.5	65.0	50.0	56.0
36.0	72.0	65.0	50.0	52.5
38.0	67.5	63.0	50.0	49.0
40.0	63.0	60.0	50.0	46.0
42.0	59.0	57.0	50.0	43.5
44.0	55.0	54.0	50.0	41.0
46.0	51.5	51.0	50.0	39.0
48.0	48.0	48.0	48.0	37.0
50.0	45.0	45.0	45.0	35.0
52.0	42.5	42.5	42.5	33.0
53.0	41.0	41.0	41.0	32.0
54.0	40.0	38.0	38.0	30.0

Other dimensions, lifting capacities, working speeds and equipments are available on request.



CONTACT



Available configuration

Besides the standard travelling on carrier, all Italgru Mobile Harbour Cranes are available in configuration with portal on rail and portal on tires or mounted on fixed pedestal.

Green solutions

More and more often, environmental-friendly strategies drive the investments of Port Operators. Italgru's answer to this trend is the new design of all IMHC models, now available with electric drives. This new design is in addition to the traditional Italgru hydraulic drives configuration and is dedicated to our Customers focused on eco-friendly solutions.



SPECIFICATION

- Fully electric
- No. of axles for better load distribution
- Power recovery unit
- High FEM classification
- Giant pads for reduced pressure on quay



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