



Kuenz goes New York

Barge Cranes

künz

Smart logistics from Europe to New York City



Cranes at the Marine Transfer Station Flushing Bay, New York.



Lifting of the crane on a barge

Waste management in New York City

In the megacity New York, 10,000 tons of waste are produced each day. The NYC Department of Sanitation (NYDOS) is responsible for the collection and transportation of this large quantity garbage. In order to keep a city the size of NYC clean, a sophisticated process is required. Eight Kuenz Barge Cranes, identical in design, increase the efficiency of one of the steps in the process. Primarily to relief the heavily congested streets of NYC, the NYDOS organizes the waste removal by barges. The waste is collected by garbage trucks and carried to Marine Transfer Stations. Inside the Marine Transfer Station, the garbage is loaded into containers. From there, the loaded containers are moved by barge to either Staten Island or the New Jersey shore. The eight Kuenz gantry cranes are used to load and discharge the barges and to hand over the container to the loading station inside the Marine Transfer Station. In 2012, four Barge Cranes were installed, two at

the Flushing Bay location and two at the Hamilton Avenue site. Another four Kuenz Barge Cranes are located on 91st Street, Manhattan and South West Brooklyn. The primary contractors for the construction of the Marine Transfer Stations are the companies Prismatic and Skanska. In 2018, two more Kuenz cranes will be installed at the Watco Transloading LLC facility situated Elizabeth, New Jersey. With these Kuenz Barge Cranes, the waste containers will be loaded from barge to train and carried to the final location.

Technical information on the cranes

All Kuenz Barge Cranes of the NYC Department of Sanitation are built as conventional double-girder bridges with a cantilever. The gantry bridges in New Jersey are designed as single-girder bridges with superstructure. The main steel construction of the gantry bridge consists of moving support, rigid support

and bridge girders. The hoist rope reeving is executed as a rigid rope tower. This system enables sway-free travel in gantry and trolley direction as well as fast positioning.

Excellent logistical planning and execution

Due to limited space at the site and access only by sea, a new logistics concept from Kuenz was required. For the first time, fully assembled cranes have been delivered to the final site. Kuenz crane components were transported to the Gdynia shipyard in Poland. There, the cranes were assembled and commissioned, which included overload testing. After the inspection, four fully assembled cranes were loaded on a large sea transport vessel and shipped to New York. Upon arriving in New York harbor, the cranes were loaded onto barges and transported to the sites in Flushing Bay and Hamilton Avenue. With a floating crane, the Kuenz Barge Cranes were lifted to their final position.

Tom Zimmermann
Vice President Construction Operations,
Prismatic Development Corporation

„As major part of this contract, the Transfer Stations were each equipped with two container gantry cranes. We put our faith into Kuenz America to design, manufacture and deliver the six giant cranes fully assembled to each of the construction sites. The cranes arrived in perfect condition and were installed and commissioned without issue. We were confident in our choice of Kuenz cranes for this project, and their flawless performance certainly contributed to our success.“



Technical information on the cranes

Location Flushing Bay	
2 Kuenz Barge Cranes	
Year of construction: 2012	
Location Hamilton Avenue	
2 Kuenz Barge Cranes	
Year of construction: 2012	
Location 91st Street Manhattan	
2 Kuenz Barge Cranes	
Year of construction: 2017	
Location South West Brooklyn	
2 Kuenz Barge Cranes	
Year of construction: 2017	
Capacity	30 st / 27 t
Track width	50 ft / 15.2 m
Cantilever fixed column	56 ft / 17.2 m
Cantilever hinged column	12 ft / 3.7 m
Lifting height	60 ft / 18.3 m
Lifting height over TOR	49 ft / 14.9 m
Working speeds:	
Hoist's rated load	171 ft/min / 0 - 52 m/min
Hoist with partial load	341 ft/min / 0 - 104 m/min
Gantry drive	230 ft/min / 0 - 70 m/min
Trolley drive	400 ft/min / 0 - 122 m/min
Power:	
Main hoist	325 kW / 100%ED
Gantry drive	12 x 13.2 kW / 100%ED
Trolley drive	4 x 18 kW / 100%ED

Location Watco New Jersey	
2 Kuenz Barge Cranes	
Year of construction: 2018	
Capacity	30 st / 27 t
Track width	100 ft / 30.4 m
Cantilever fixed column	64 ft / 19.5 m
Cantilever hinged column	52 ft / 16.0 m
Lifting height	62 ft / 19 m
Lifting height over TOR	49 ft / 15 m
Working speeds:	
Hoist's rated load	98 ft/min / 0 - 30 m/min
Hoist with partial load	197 ft/min / 0 - 60 m/min
Gantry drive	262 ft/min / 0 - 80 m/min
Trolley drive	492 ft/min / 0 - 150 m/min
Power:	
Main hoist	2 x 130 kW / 60%ED
Gantry drive	8 x 18 kW / 60%ED
Trolley drive	4 x 13 kW / 60%ED

New York  New Jersey

Further information: www.kuenz.com

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