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New tilting tables and beam moulds for Gage Brothers (SD) USA

Gage Brothers is a well reputed precast company based out of Sioux Falls, South Dakota. With a history dating back to 1915 the company can be considered as one of the pioneers in the precast business where it offers its clients a wide range of solutions for multi-story residential constructions, institutional and commercial buildings. One of the more distinguished projects were the Sanford Medical center in Fargo and Minnesota Senate Building in St. Paul. The geographical reach of the company includes more than 9 states spreading from Colorado to Minnesota.

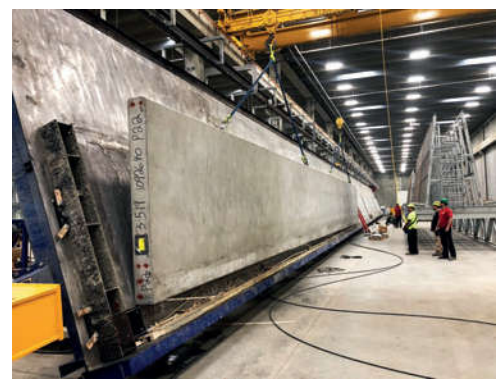
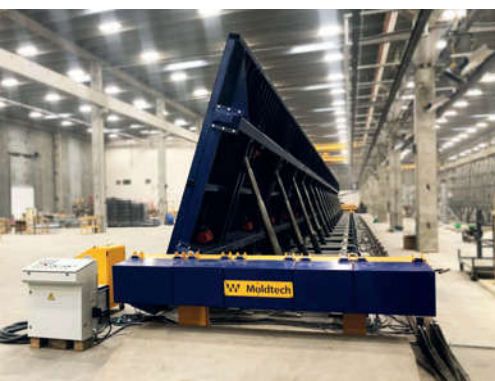
In 2018 the company took the decision to upgrade their production facilities and embark in a major investment for a new state-of-the-art facility near to the Sioux Falls airport. Moldtech, through its North American agent Nox-crete, was invited to propose solutions for the part concerning panel and pre-stressed beam production.

One of the requirements of the Gage Brothers was to have a highly automated solution including hydraulics in order to save as much as possible on labor intensive tasks. Another requirement was versatility to ensure that the solution allowed the production of the wide range of different precast products using the same production means.

With regards to panel production, Gage Brothers required 3 tilting tables each with a length of 200ft (60.96 meters) and a width of 13ft (3.96 meters). These tables feature stressing heads for a pre-stressing force up to 375 MT (826 kips) and a hydraulic bottom side shutter which can be adjusted in height from 5 to 16 inches. The casting plates of the tables are different in accordance to the variety of panel finishes Gage Brothers require for their clients. One of the tables has a smooth polished surface for producing panels with a shiny "mirror like" finish whereas other tables are supplemented with wood for making architectural panels. All tables have their own hydraulic center from which one controls the tilting of the table and the movement of the longitudinal shutters.



Outside view of the Gage Brothers' plant



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With regards to the pre-stressed beam line Moldtech supplied 2 moulds with a length of 240ft (73.15 meters).

One of the tables has also a hydraulic top shutter which moves inwards on the table allowing Gage Brothers to produce panel heights between 93 (236 cm) and 156 inches (396 cm). This shutter is subdivided into 6 segments which means one can cast panels of different heights at the same time.

With regards to the pre-stressed beam line Moldtech supplied 2 moulds with a length of 240ft (73.15 meters). These moulds feature hydraulic systems for opening and closing operations. Furthermore, the supply included removable box-outs with a variety of height supplements. The supply enables Gage Brothers to produce a wide variety of rectangular beams, inverted T and L shaped beams in widths between 24 (60.96 cm) and 36 inches (91.44 cm) and heights up to 48 inches (121.92 cm). The stressing heads are prepared to take up pre-stressing forces up to 640 MT (1408 kips).

Moldtech has been active on the North American market since 2016 through a collaboration with Nox-crete a leading provider of release agents. Through this collaboration Moldtech continues to offer innovative solutions for the American precasters.

FURTHER INFORMATION

Gage Brothers

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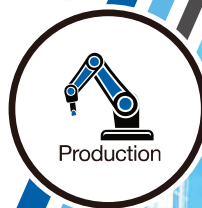
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