

CASE STUDY

INDUSTRIAL MANIPULATOR

Client: US Steel
Location: Pine Bluff, AR
Date: 4-16-14

Image of load



Application Analysis:

Load- pipeline couplings (steel pipe with threaded ID ends)
Weight- 45 – 225-lbs (20kg to 41kg)
Pipe diameter- 4" to 8"
Pipe length- 5" to 11" long (12.7c to 28c)
Pick point- from basket or pallet setting at 40" above floor level
Distance of travel- up to 6' (1.82m)
Place point- transfer to other pallet or basket and or into machine for machining
45° tilt- yes, requirement to tilt from horizontal to vertical and vertical to horizontal
Ceiling height- 40'
Overhead obstruction- lights at 15' (4.75m)
Environment- indoor ambient temperature
Cycle time- up to 350 per hour
Available air- 85-psi

Handling Cycle Description:

Grip pipe coupling from scissor lift table while in horizontal position, lift coupling and rotate 90 degrees to vertical position. Move coupling approximately 6' and place into dipping basket stacked up to four high.

Handling Solution:

Mirus 100 with magnetic grip tooling with 90 degree rotation



Technical Characters:

Supply : compressed air

Transmission of motion: through a parallelogram and terminal arm
Available - column mounted fixed to the floor
Configuration: - column mounted on transportable base plate
- fixed overhead mounted
- overhead mounted on rails
Capacity: 250-lbs (113 Kg) * (2450 mm radius)
Radius Max: 10.5' (2438 mm)* (range 180 kg)
Radius Min: 1.3" (400 mm)
Vertical lift: 5'- 5.75'- 6.75' (1500 - 1750 - 2050 mm)
Air pressure: from 0.5 to 0.8 MPa of clean, dry and oil free compressed air
Column axis: 360° continuous rotation
Intermediate axis: max 300° rotation
Noise level: <70 dB

Price range for this application \$27,000.00

End