HTV
The Horizontal To Vertical machine (HTV) is a remote controlled machine designed to bring tubulars from a horizontal Catwalk Machine to a vertical (inside the derrick) position and position the tubulars in the mousehole for building stands. The HTV guides the upper part of the complete stand for handover to the bridge rack. It can also reverse the operation and bring tubulars from a vertical position to the Catwalk Machine.

Technical Specifications
HTV DESIGN DATA
Service Horizontal to vertical tubular handling
Power classification 675 V, 3W or 4x1.5kW
Design standards NACE/ISO 13628-1 (Fabrication), PED
Rules and regulations
Safety working load (SWL) 20,000 kg
Height above (SAW) 1,240 kg (vertical + hanging) 9,050 kg (horizontal to vertical) or unwinding weight
WINDING HEIGHT
Max. operating pressure 207 bar

VDM
The V-Door Machine (VDM) is a remotely controlled machine primarily designed to trip drill pipe from pipe chute to well center. It can also be used for bringing tubulars from a horizontal Catwalk Machine to a vertical (inside the derrick) position, and position the tubulars in the mousehole for building stands. The machine is remotely operated from the drills cabin. The VDM consists of a main support frame with an arm controlled by a hydraulic cylinder. The arm can accommodate both an elevator or gripper head. The elevator is primarily used during tripping of drill pipe, but can also be used during stand building of drill pipe up to 8". The gripper heads are used during stand building and casing handling up to 22". The machine travels vertically inside the V-door and is hoisted by an electrical winch with a dual drum. It is guided by two guide rails mounted on the derrick wall.

Technical Specifications
VDM DESIGN DATA
Service Horizontal to vertical tubular handling
Power classification 675 V, 3W or 4x1.5kW
Design standards NACE/ISO 13628-1 (Fabrication), PED
Rules and regulations
Safety working load (SWL) 20,000 kg
Height above (SAW) 2,020 kg
WINDING HEIGHT
Max. operating pressure 207 bar

PLS-5
The Pick up Laydown System with 5 metric ton capacity (PLS-5) is a pick and lay down arm for transferring tubulars from a horizontal position on a conveyor to a vertical position either at the well center or at the mousehole and return.

Technical Specifications
PLS-5 DESIGN DATA
Service Horizontal to vertical tubular handling
Boom extension reach 275 in – 295 in
Backlash from mast 15,900 kg
Tubular size OD 3 ½" - 22"
Reach: CL column to CL mousehole 156 in
Reach: CL column to CL well bore 247 in
Reach: CL column to CL mouseable 156 in
Tubular size OD 3 ½" - 22"
Max. operating pressure 207 bar
Max. speed up to 1,000 lbs max load 3.5 °/sec
Max. speed over 1,000 lbs 3 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 5 °/sec
Max. speed over 1,000 lbs 3.5 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 1.8 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 1 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs

PLS-7
The Pick up Laydown System with 7 metric ton capacity (PLS-7) includes columns, crown, winch, carriage, pivoting boom and telescopic arm. The PLS-7 is one component of a stand building system that is used to deliver single range II or range III tubulars from a horizontal position on a conveyor to a vertical position either at the well center or at the mousehole.

Technical Specifications
PLS-7 DESIGN DATA
Service Horizontal to vertical tubular handling
Boom extension reach 275 in – 295 in
Backlash from mast 15,900 kg
Tubular size OD 3 ½" - 22"
Reach: CL column to CL mousehole 156 in
Reach: CL column to CL well bore 247 in
Reach: CL column to CL mouseable 156 in
Tubular size OD 3 ½" - 22"
Max. operating pressure 207 bar
Max. speed up to 1,000 lbs max load 3.5 °/sec
Max. speed over 1,000 lbs 3 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 3 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 1.8 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs
Max. speed up to 1,000 lbs max load 3 °/sec
Max. speed over 1,000 lbs 0.5 °/sec
Max. gripping force 1,050 lbs

*For reference only, please contact your local sales contact for more information.