Vertical Assembly Elevator Machine

Introduction

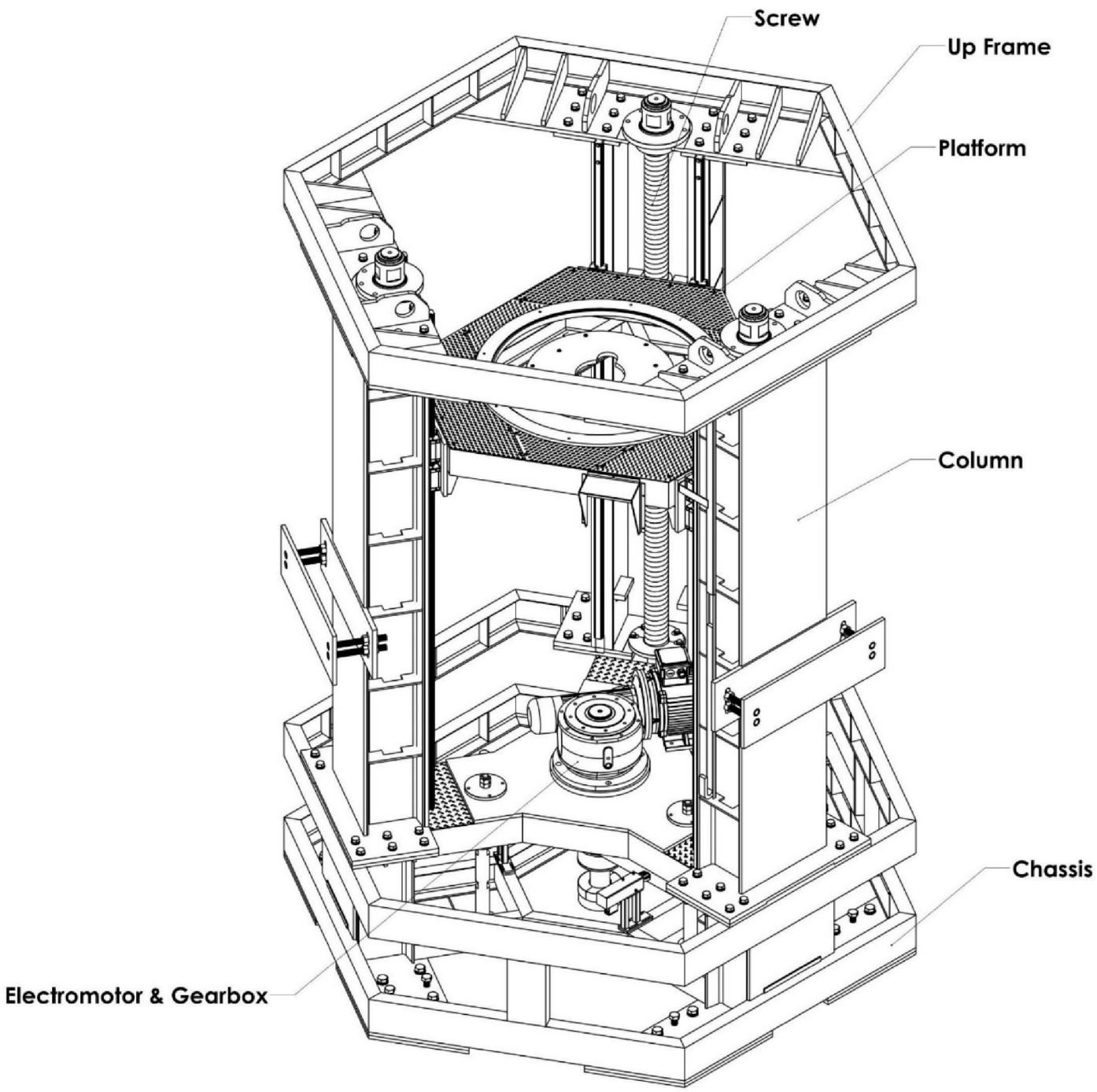
This machine is designed for the vertical movement of cylindrical workpieces weighing up to 12 tons. Its driving system is an electromotor gearbox connected to three vertical leadscrews, and it moves the working platform of the machine. The central platform is connected to the leadscrews by the screw nuts, and the rotation of the leadscrews causes the linear movement of the platform. This power transmission system and the electromotor gearbox, is installed at the end of the machine chassis. The central shaft of electromotor gearbox connects to each of the leadscrews by pulleys and timing belts. using of the timing belt increases the accuracy of the movement and synchronizes the rotation of all three axes, as well as alignment of the linear movement of platform. Therefore, the linear movement and up and down of the workpiece in its movement course is done without any slip along the horizon, which is the main advantage for this machine.

Applications

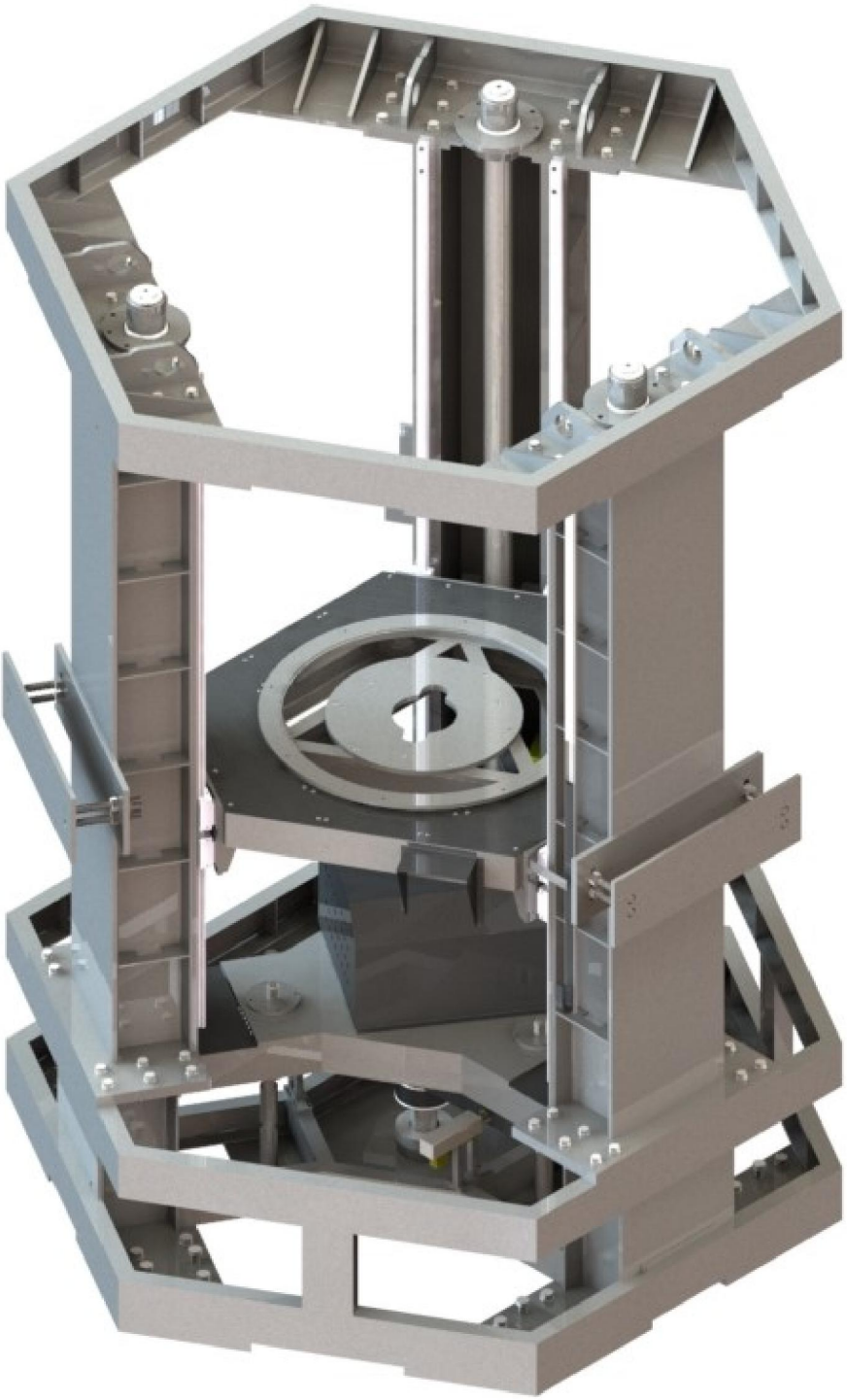
- vertical movement of cylindrical workpieces weighing up to 12 tons
- workpiece linear movement without any slip along the horizon

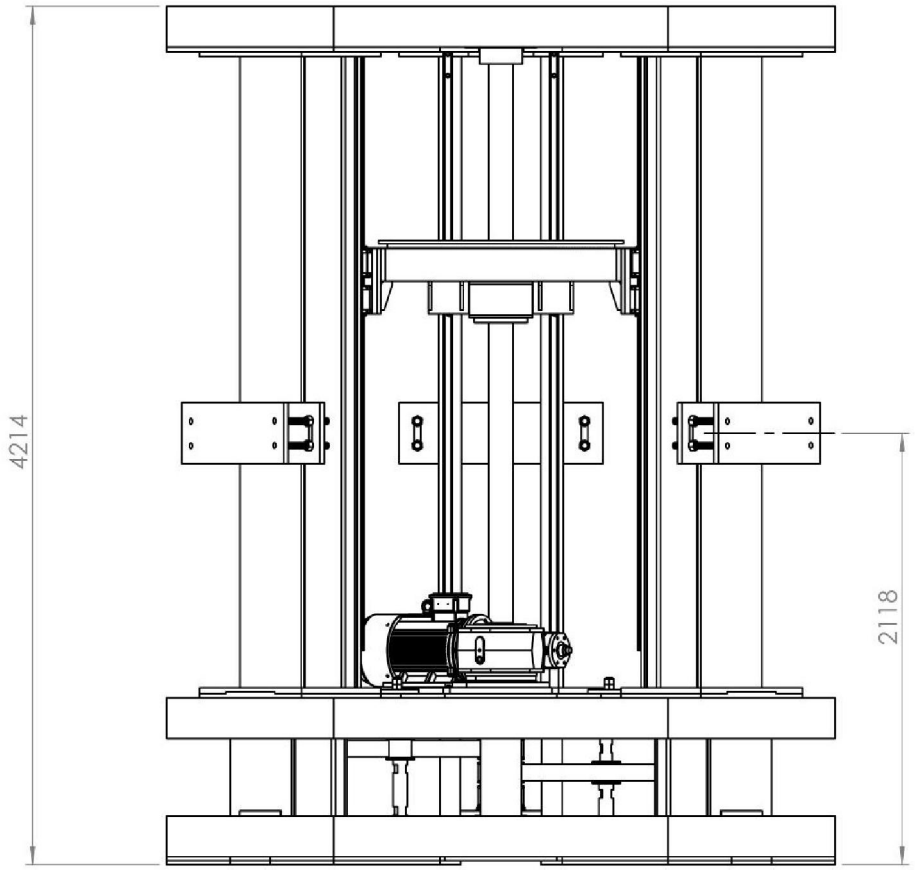
Equipment

- Chassis
- Three Columns
- Up Frame
- Platform
- Three Leadscrews
- Three Screw Nuts
- Electromotor & Gearbox
- Driving System
- Automatic Lubrication System


Screw
Up Frame
Platform
Column
Chassis
Electromotor & Gearbox

Mechanic Specification				
No.	**Item**			**Value**
1	Machine Overall Dimensions	Length		2939 mm
		Width		3278 mm
		Hight		4214 mm
		Weight		9000 kg
2	Workpiece	Min. Diameter		300 mm
		Max. Diameter		1800 mm
		Min. Length		0 m
		Max. Length		4 m
		Max. Weight		12000 kg
3	Platform	Up & Down Stroke		2400 mm
		Up & Down Velocity		10 or 20 mm/s
4	Driving System	Electromotor	Type	AC Motor
			Power	22 kw
		Gearbox	Type	Worm Gear
		Leadscrews	Type	Trapezoidal Thread
			Diameter	120 mm
			Pitch	10 mm
			Material	CK45
		Nut	Material	UNS – C95800
			Hight	135 mm
5	Control & Electric	Machine's control system		Manual
		Panel's degree of protection		IP22
		Machine’s Electric Power Consumption		220V-50 Hz-1PH-42A

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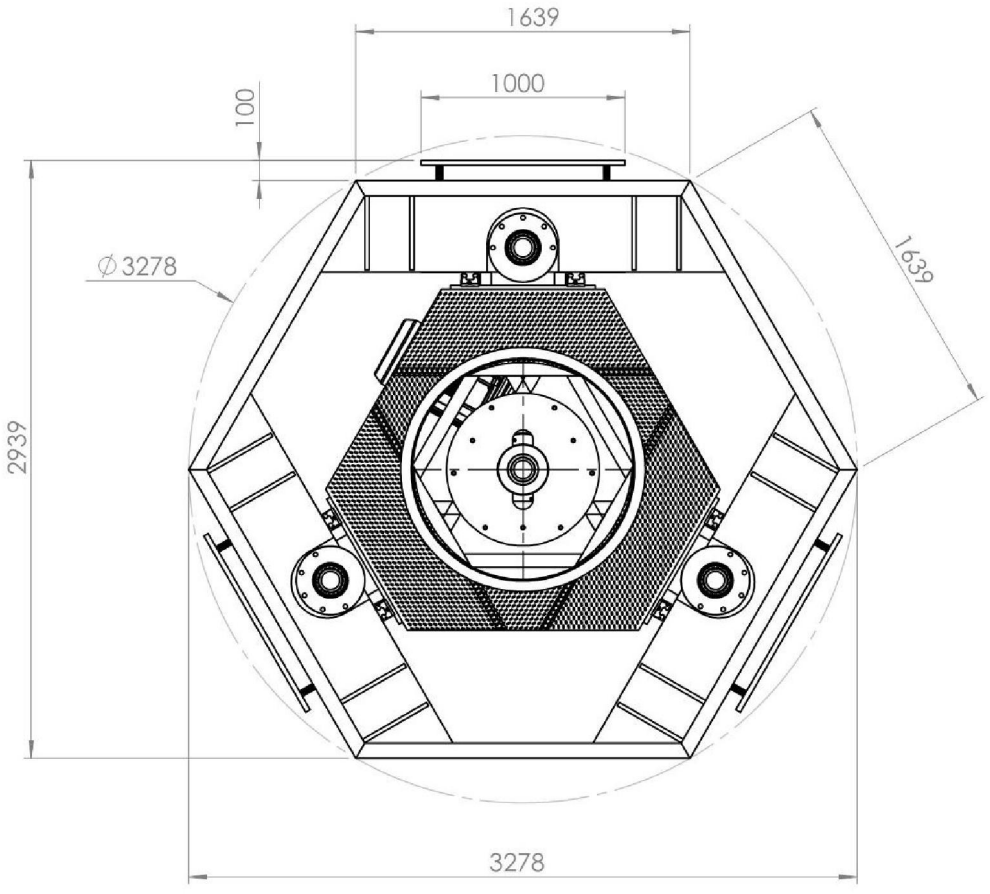
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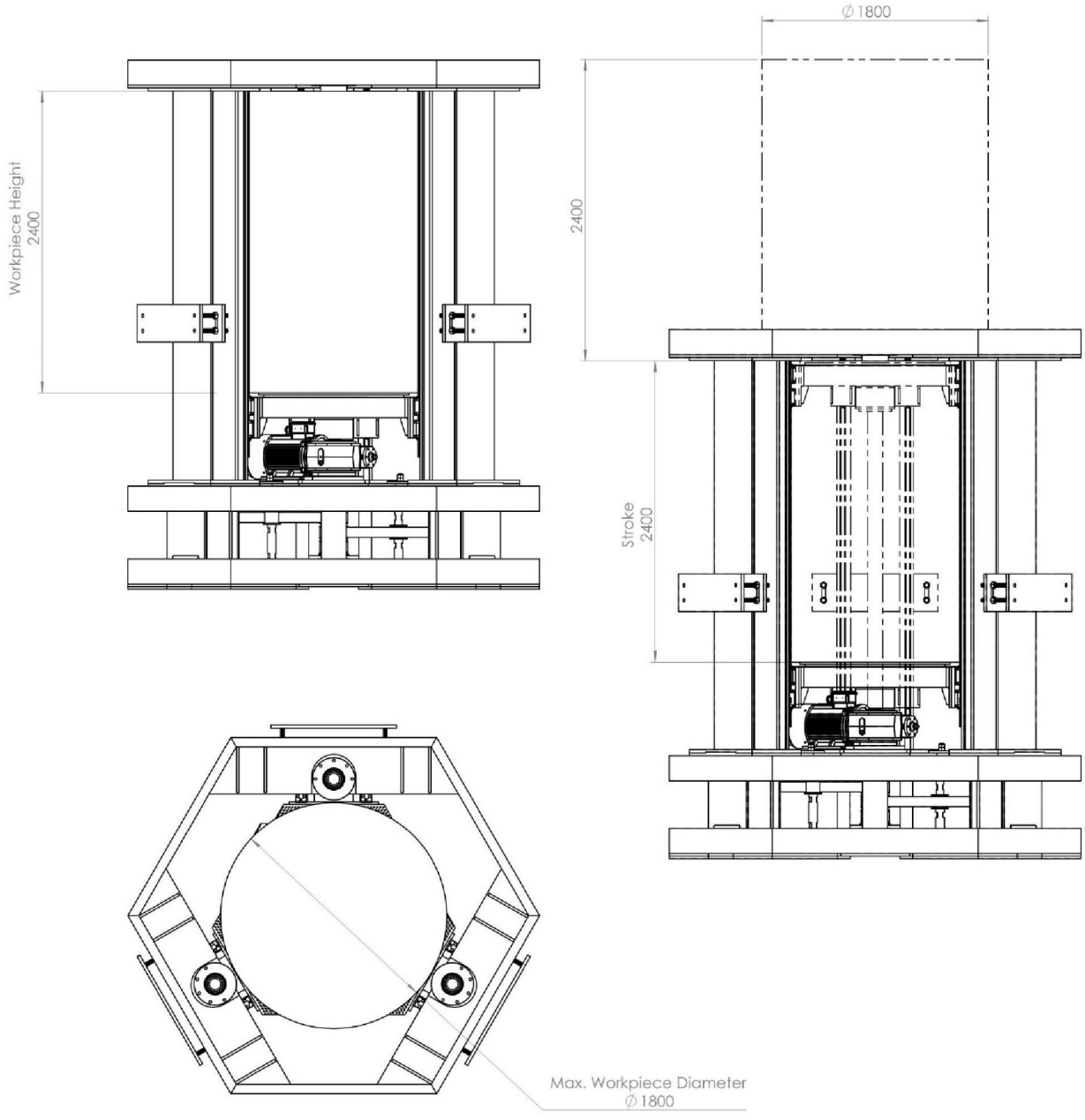
3278


Workpiece Height
2400
∅1800
2400
Stroke
2400
Max. Workpiece Diameter
∅1800