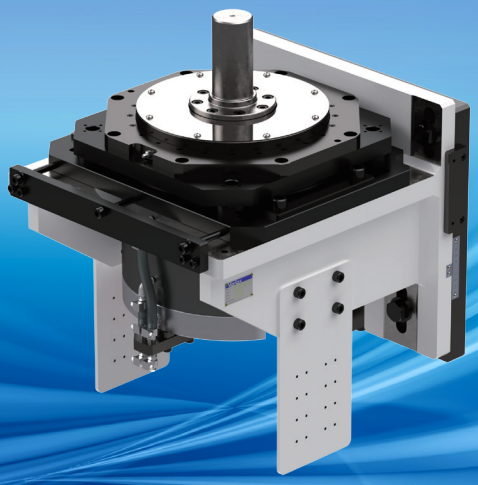
An indexing/skewing drive system for rotating the motor cores used for electric motors in automobiles.

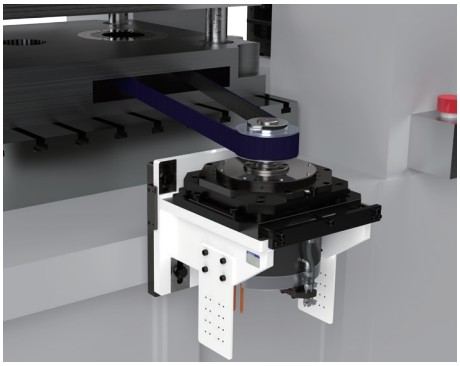
Servo-dex EVR1 Series

The Servo-dex EVR1 series is an indexing or skewing drive system for rotating the motor core for production lines making motor cores for hybrid, PHEV, and EV car motors.
By connecting a high-performance servo motor directly to the motor core, it can index core stacks with high-speed and high-torque, while allowing you to set the rotation angle freely.
With fusion of a servo motor and a cam motion curve, high speed and a variety rotational stacking build-ups are possible. This contributes to improved productivity of high-quality motor cores.



Features

- High-end model combining high speed, high precision and multiple functions
- It also supports arbitrary rotation angle settings, and skew processing of the motor core
- The communication function allows you to check the status of the operation from a remote location
- Its high precision positioning increases mold life.
- The combination of a servo driven feeder and a servodex device results in maximum motor core line optimization
- Servo tuning automatically adjusts the gain according to the mold's load.



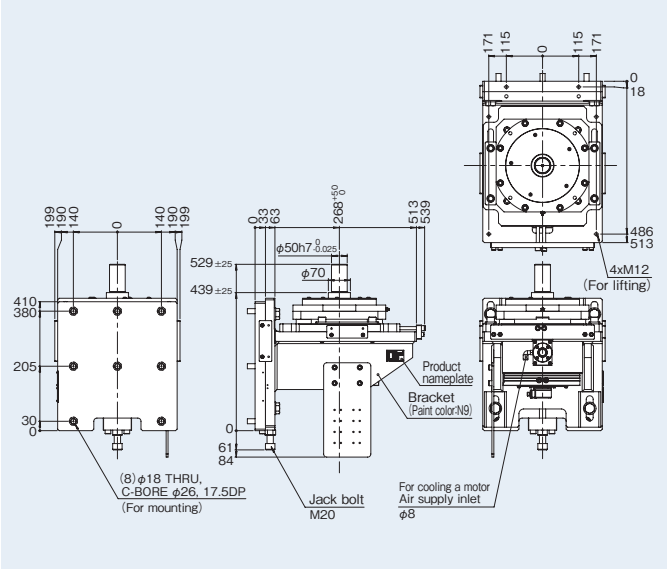
Specification table

Item	Unit	General specifications		High power specifications	
		EVR1-230R	EVR1-310R	EVR1-230U	EVR1-310U
Rated torque	N·m	173	238	453	792
Maximum torque	N·m	538	1300	643	1300
Rated rpm	rpm	798	777	823	777
Load inertia(max)*2	kg·m²	0.5	1.5	0.5	1.5
Indexing angle	deg	Any angle			
Layout angle	deg	Any angle			
Permitted axial load*3	N	100			
Permitted radial load*4 *5	N	2,000	4,400	2,000	4,400
Motor capacity	Kw	15	19	39	65
Operating air pressure*6	Mpa	0.4~0.5		–	
Required cooling air volume*7	L/min	220		–	
Maximum cooling capacity required	Kw	–		7.2	6.58
Cooling water volume required	L/min	–		12.1	19.5
Product weight	kg	233	260	233	260

*1 Indicates the accuracy of a single unit. It does not include the residual vibration that occurs when using a timing belt.
*2 The capacity changes, depending on the speed ratio and the load being handled. *3 Represents the weight of the load.
*4 Represents the load applied to the center height of the output shaft.
*5 Use a timing belt that has a low elastic deformation to suppress residual vibration.
*6 Used for cooling air. *7 The capacity varies, depending on the amount of cooling air supplied.
Cooling air is supplied when the motor temperature reaches 60°C or higher.

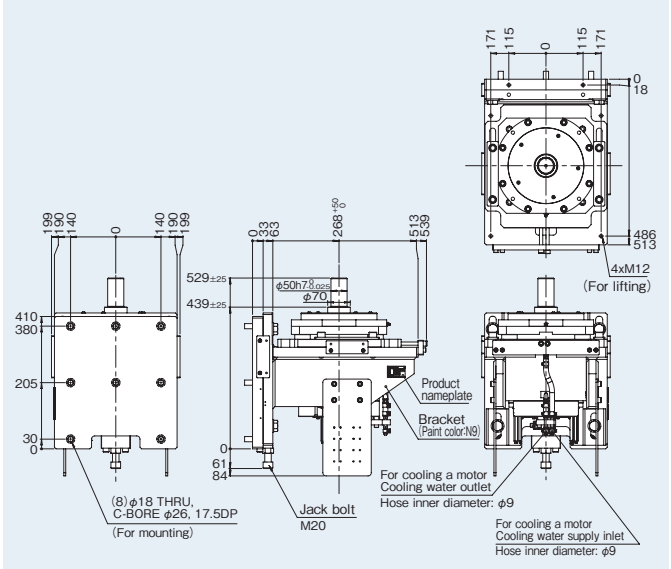
Dimensional drawing

EVR1-230R

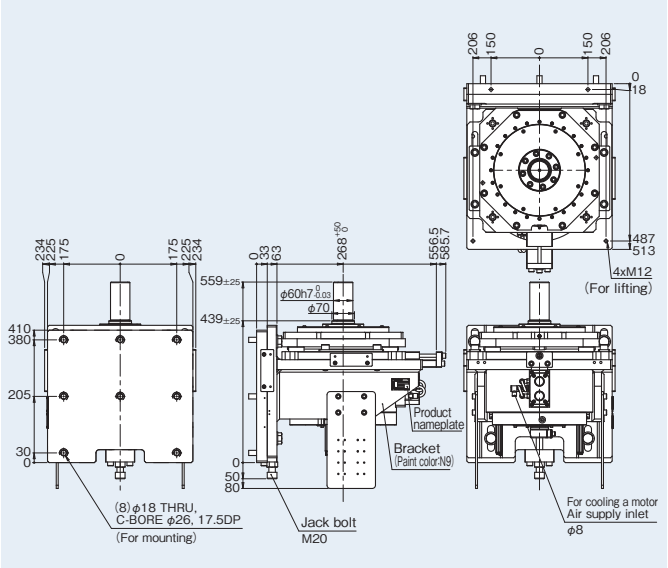


EVR1-230U

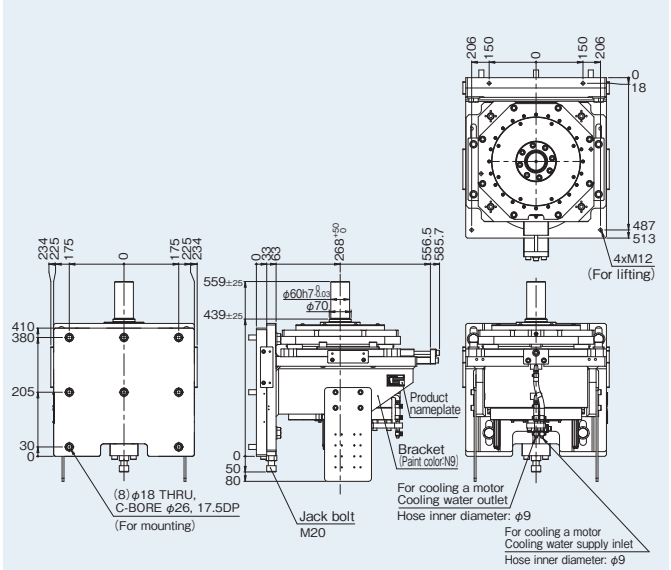
[Unit:mm]



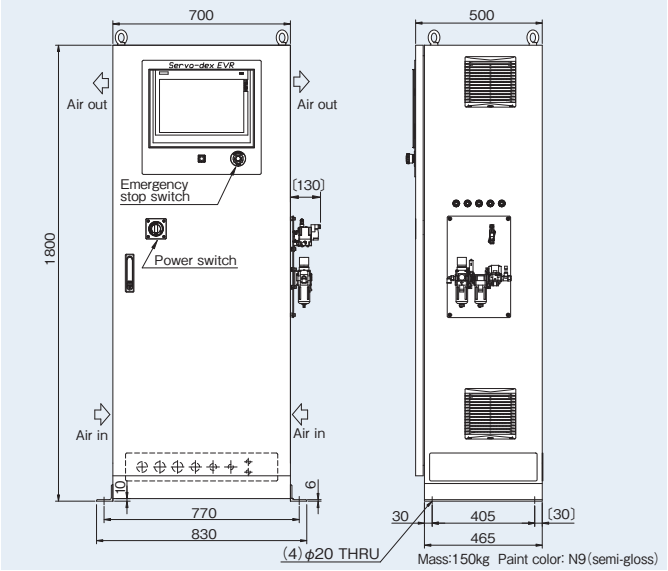
EVR1-310R



EVR1-310U



Control panel



* The control panel size varies, depending on the motor size and type.
Please check the product specifications for details.