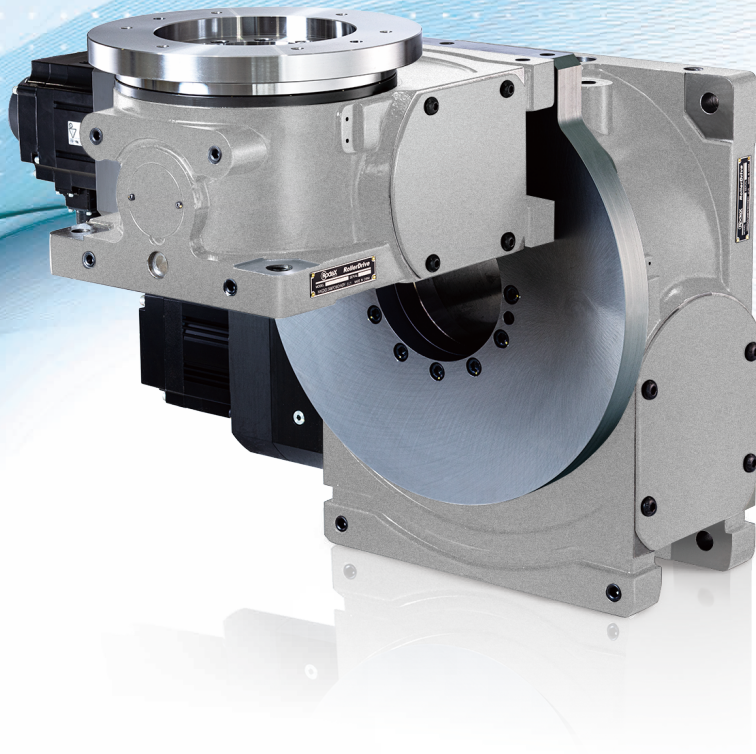


Welding positioner (Cantilever-mounted 2-axis type)

RollerDrive[®]

 **SPT series**



Welding positioner innovation



Superior movement achieved with zero-backlash technology

SPT series models come with Sankyo's RollerDrive zero-backlash reducer mechanism, enabling faithful operation with no disruptions in behavior in response to outside forces. RollerDrive's good settling performance enables takt time reduction. Torque is transmitted through rolling contact while maintaining the proper precompression state, preventing drops in accuracy even during extended use.

Commercially available servo motors can be mounted.



- Features**
- ▶ The thin welding positioner body enables a compact overall system configuration.
 - ▶ The large-diameter hollow bore makes wiring and line installation easy.
 - ▶ The cam mechanism creates outstanding settling performance, and provides the rigidity needed to withstand emergency stops.



Specifications

Model		SPT02		SPT06	
		Tabletop type		Tabletop type	
		Rotary axis	Tilting axis	Rotary axis	Tilting axis
Output table diameter	mm	155	—	155	—
Output hollow diameter	mm	120	118	120	170
Allowable payload	kg	200	—	600	—
Allowable moment load ^{*1}	N·m	1,095	1,395	1,795	6,925
Gear ratio		140	140	140	120
Rotation angle	deg	0 ~ 360	± 135	0 ~ 360	± 135
Maximum rotating speed	min ⁻¹	30 (1sec/180deg)	30 (0.5sec/90deg)	30 (1sec/180deg)	20 (0.75sec/90deg)
Repeatability	mm	± 0.03 (R=250mm)	± 0.03 (R=250mm)	± 0.03 (R=250mm)	± 0.03 (R=250mm)
Momentary max. allowable torque	N·m	1,900	2,720	2,720	6,900
Start / Stop limit torque	N·m	875	1,095	1,350	1,675
Internal moment of inertia at the input shaft ^{*2}	kg·m ²	3.73×10^{-4}	7.40×10^{-4}	3.73×10^{-4}	2.336×10^{-3}
Recommended motor power ^{*3}	kW	1kW	1.5kW	1.5kW	2kW
Paint color		Silver	Silver	Silver	Silver
Net weight	kg	280		450	

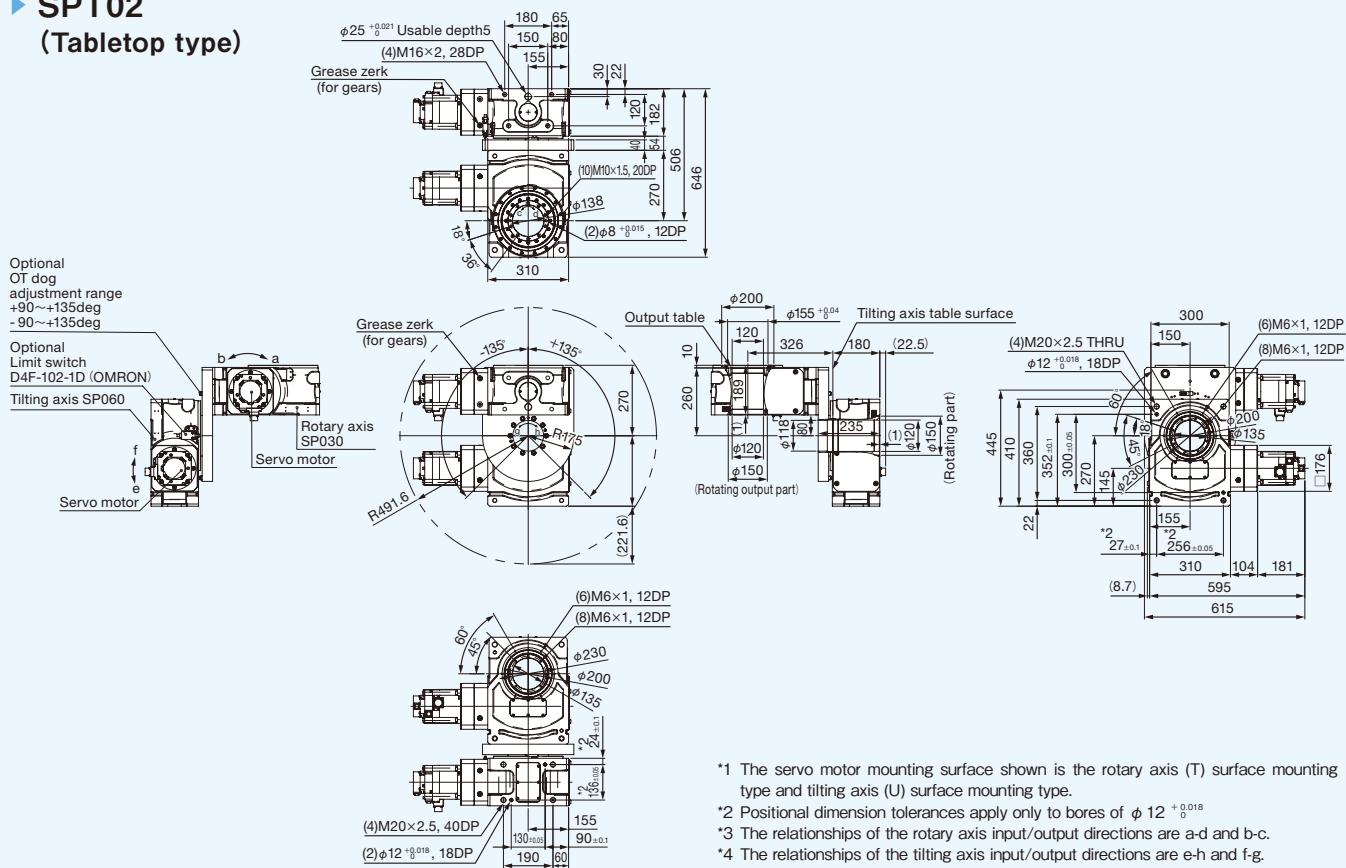
^{*1} The allowable moment load varies depending on the load weight. Please refer to the allowable moment diagrams for more information.

^{*2} Internal moment of inertia at the input shaft depends on the SP attachment code. For details, see the attachment code selection table on page 7 of the SP catalog.

^{*3} Recommended motor power value is reference only. It depends on the operating conditions.

Dimensions

▶ SPT02 (Tabletop type)



*1 The servo motor mounting surface shown is the rotary axis (T) surface mounting type and tilting axis (U) surface mounting type.

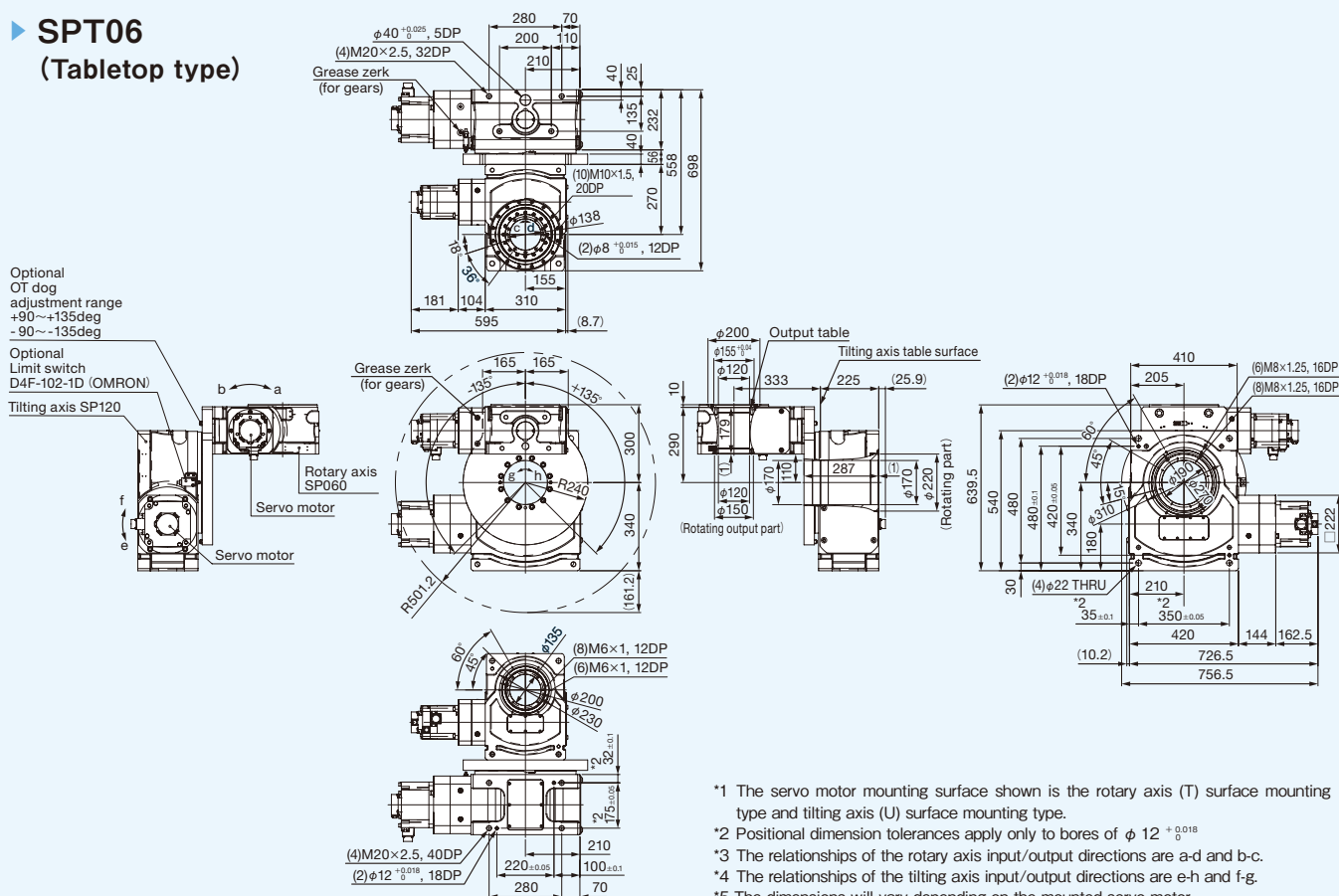
*2 Positional dimension tolerances apply only to bores of $\phi 12^{+0.018}_0$

*3 The relationships of the rotary axis input/output directions are a-d and b-c.

*4 The relationships of the tilting axis input/output directions are e-h and f-g.

*5 The dimensions will vary depending on the mounted servo motor.

▶ SPT06 (Tabletop type)



*1 The servo motor mounting surface shown is the rotary axis (T) surface mounting type and tilting axis (U) surface mounting type.

*2 Positional dimension tolerances apply only to bores of $\phi 12^{+0.018}_0$

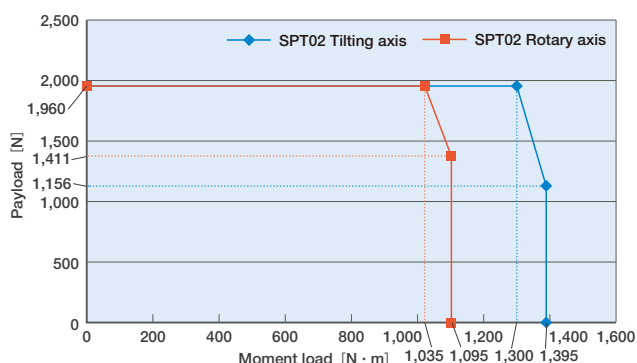
*3 The relationships of the rotary axis input/output directions are a-d and b-c.

*4 The relationships of the tilting axis input/output directions are e-h and f-g.

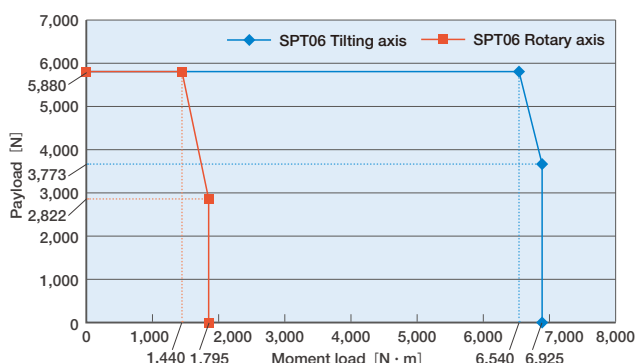
*5 The dimensions will vary depending on the mounted servo motor.

Allowable Moment Load Diagrams

SPT02



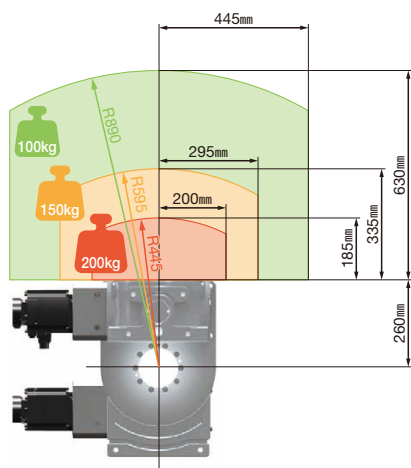
SPT06



Allowable Payloads *Payload value is reference only.

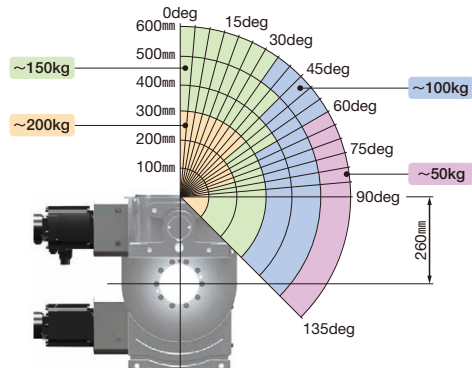
SPT02

▶ Allowable payloads for different centers of gravity of load



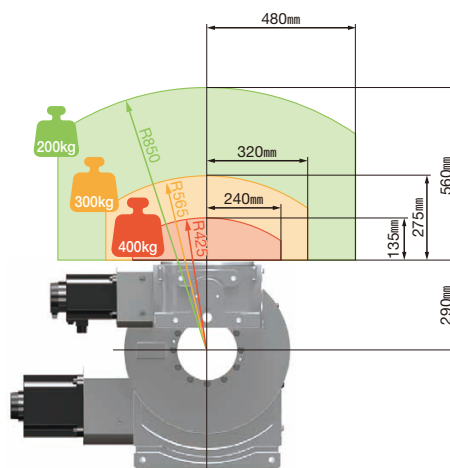
▶ Allowable payloads and swing angles for loads with centers of gravity at different height positions

*The center of gravity positions shown apply when the rotary axis is in the center.



SPT06

▶ Allowable payloads for different centers of gravity of load



▶ Allowable payloads and swing angles for loads with centers of gravity at different height positions

*The center of gravity positions shown apply when the rotary axis is in the center.

