



SANKYO
AUTOMATION



Precision. Quality. Reliability.

RollerDrive[®] RU Series

Zero-Backlash Servo Rotary Table

A mechanism developed through the pursuit of outstanding functionality and performance.

Superior Movement Achieved with Zero-backlash Technology

In factory automation equipment, motion control using servo systems is a crucial element which greatly affects equipment performance. Naturally, equipment specifications and performance are designed assuming that the expected motion is attained.

If there are factors such as backlash, insufficient rigidity or control instability in the motion control section, then output motion will deviate from input control commands. It will be difficult to attain the expected performance.

With the **RollerDrive** RU Series, a servomotor is mechanically reduced while maintaining powerful torque, rigidity and stability. An output motion, faithful to input control command can be attained by achieving zero-backlash with our unique preloaded mechanism.

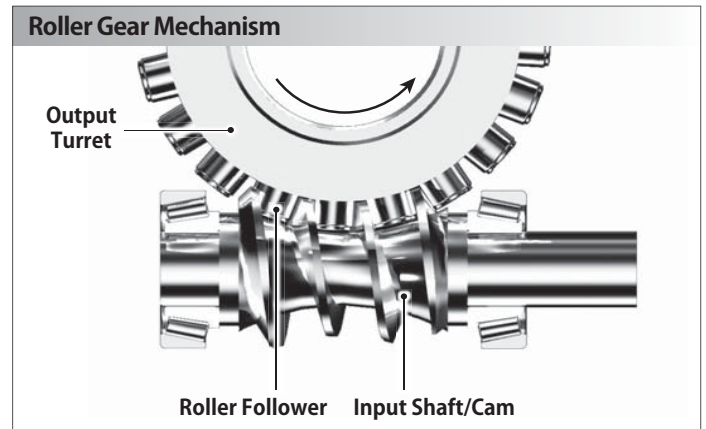
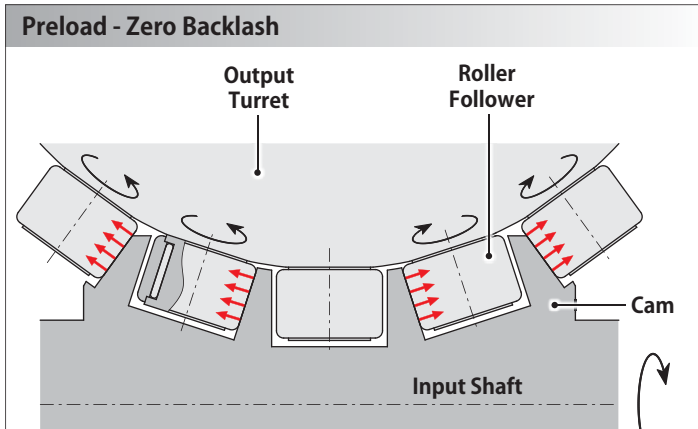
This is a revolutionary factory automation motion control unit, which combines rolling transmission for high-efficiency and elimination of wear, an orthogonal layout of input and output axis for greater compactness, and standard features like a large diameter hollow shaft for greater ease-of-use.

Theory of Operation

The **RollerDrive** reducer is a precision device that uses the roller gear mechanism, one of the finest motion control mechanisms available. The unit is constructed from an input shaft and a turret (output flange) that is assembled with roller followers. The roller followers are preloaded against a screw-like input shaft to eliminate output backlash.

Our proprietary adjustment mechanism provides optimum preload. The roller followers in the turret use internal roller bearings to transfer torque while rotating.

This mechanism ensures zero output backlash, precision, and efficiency while preventing wear. It also provides long-term, consistent accuracy. This servo driven rotary table is the ultimate motion control system.



RollerDrive® RU Series Features

Design

Our proprietary **RollerDrive®** technology incorporates a cam with a high gear reduction to deliver large torque capacities with smaller servo motors. Output motions are programmable through the servo motor controls in forward or reverse. The output flange is hollow and includes two tolerance diameters top and bottom.

Second Reducer Option

In addition to the internal cam ratio, the overall ratio can be increased up to 200:1 with a secondary reducer option. Our standard inline reducer adds 3 arc minutes backlash and the right angle adds 6 arc minutes. A 6 arc minute reducer with 360 arc seconds backlash, adds ± 9 arc seconds. This is derived by dividing the reducer backlash by the RU internal cam ratio.

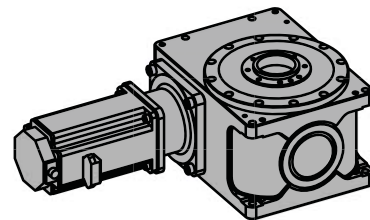
For example, our standard RU80 has a 20:1 internal cam ratio. A right angle reducer adds an additional ± 9 arc seconds or a total system positioning accuracy of ± 29 arc second. Advantages are larger load capacity, smaller footprint and less cost for a smaller motor drive.

Rigidity Suitable for Machining Applications

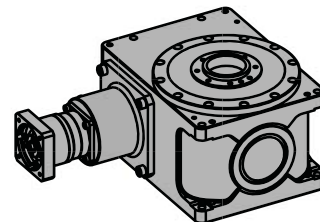
An exclusive output turret bearing and cast iron housing tolerates heavy vibrations associated with machine tool applications. Output torsional rigidity, axial loading, radial loading & bending moment capacities are rated much higher than comparable units. We offer an IP66 equivalent for flood coolant environments.

Versatile for Retooling

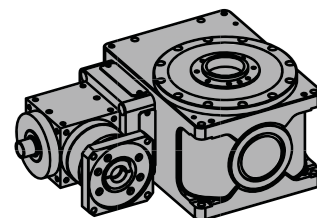
Capital investments for assembly machinery shouldn't be disposable. Our RU series can pace with the ever-changing tooling requirements. The output motions and speeds are programmable, the servo motor adapters and second reducers are interchangeable. Multiple mounting positions are available to meet your needs.



RU Positioner & Motor Adapter
(servo motor not supplied)

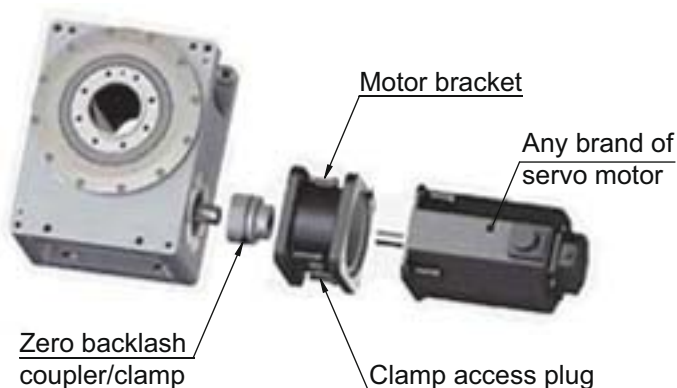


RU Positioner & Inline Reducer
(adapts to any servo motor)



RU Positioner & Right Angle Reducer
(adapts to any servo motor)

Motor Mount (Standard Gear Ratio Model)



Compatible with
all servo
motor brands

RollerDrive® Specifications

The RU series has two different lubrication options. Select the lubrication type according to your operating conditions. Oil bath lubrication is the standard lubrication method for high-speed operation and higher torque capacity. While grease lubrication should be selected for maintenance-free operation.

To check the service life of the RollerDrive will be satisfactory, see the specifications for the lubrication type. On the dynamic rated output torque charts, when the torque and speed is below the curve, an expected life of over 12,000 hours (B5) is guaranteed.

Capacity Chart Oil Units () denotes grease unit specifications

Sizes			RU40	RU63	RU80	RU100	RU125	
Gear ratio			15	20	20	20	20	
Max acceleration torque (start/stop @ 5 RPM)		N·m	82 (67)	191 (155)	260 (211)	796 (647)	1,352 (1,098)	
Static rated output torque (E-stop)		N·m	100	250	360	1,000	1,800	
Maximum output speed		rpm	200	150	150 (125)	150 (100)	150 (80)	
Nominal output speed		rpm	86 (60)	55 (40)	50 (35)	45 (30)	45 (30)	
Position Accuracy	Standard accuracy model	arcsec or less	±45*	±30*	±20*			
	High accuracy model		N/A	±15*	±10*			
Repeatability	Standard accuracy model	arcsec or less	±10*	±7*	±5*			
	High accuracy model		N/A	±3*	±2*			
Axial & radial surface runout	Standard accuracy model	µm or less	10					
	High accuracy model		N/A	2				
Dynamic	Allowable output axial load		N	3,000	12,500	16,500	21,000	50,000
	Allowable output radial load		N	2,000	11,000	14,000	18,000	35,000
	Allowable output bending moment load		N·m	100	700	1,000	1,700	5,000
	Product Weight		kg	9	20	35	50	95

* A second reducer option changes the overall angular positioning accuracy, see page 3 second reducer options for explanations.

Capacity Chart Oil Units () denotes grease unit specifications

Sizes		RU160	RU200	RU250	RU315	RU400	RU500	
Gear ratio		24	30	30	32	36	40	
Max acceleration torque (start/stop @ 5 RPM)	N·m	1,737 (1,410)	2,170 (1,760)	6,250	8,710	15,530	26,090	
Static rated output torque (E-stop)	N·m	2,400	3,090	8,160	11,720	21,290	34,950	
Maximum output speed	rpm	100 (60)	65 (40)	40	30	25	20	
Nominal output speed	rpm	33 (25)	26 (20)	20	15	13	12	
Positioning accuracy	Standard accuracy model	arcsec or less	± 20*					
	High accuracy model		± 10*					
Repeatability	Standard accuracy model	arcsec or less	± 5*					
	High accuracy model		± 3*					
Axial & radial surface runout	Standard accuracy model	µm or less	10					
	High accuracy model		3		5			
Dynamic	Allowable output axial load	N	55,000	63,000	130,000	140,000	160,000	180,000
	Allowable output radial load	N	43,000	48,000	95,000	110,000	135,000	150,000
	Allowable output bending moment load	N·m	9,700	16,000	38,000	65,000	110,000	200,000
	Product Weight	kg	140	180	380	660	985	1,585

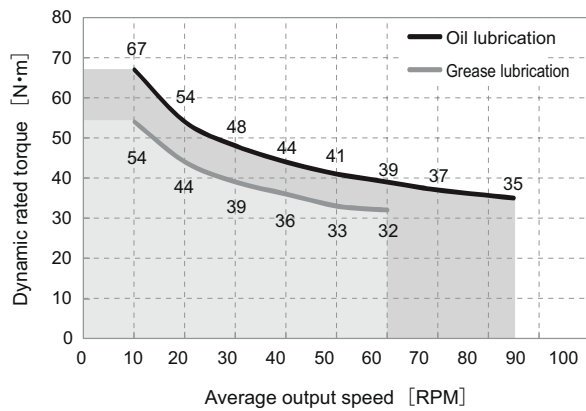
* A second reducer option changes the overall angular positioning accuracy, see page 3 second reducer options for explanations.

Dynamic Rated Output Torque

The dynamic rated output torque is the load torque for an expected service life of 12,000 hours or greater. The dynamic rated output torque is dependent on the average output rotation speed.

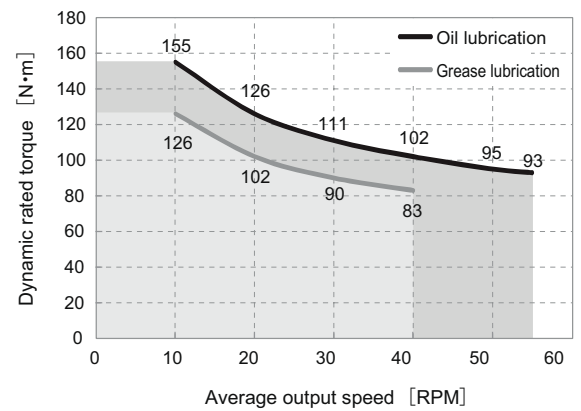
RU40

Gear ratio=15



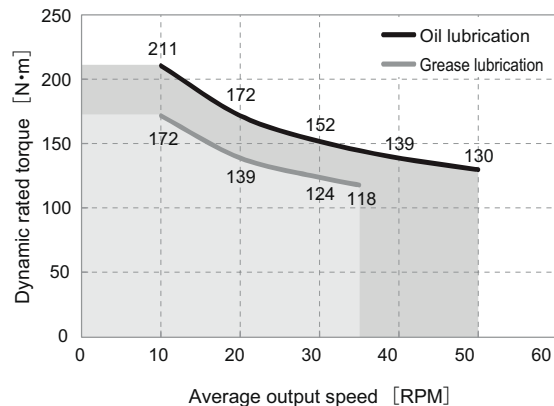
RU63

Gear ratio=20



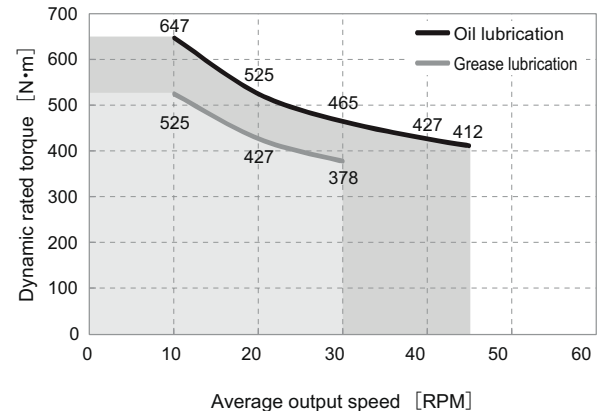
RU80

Gear ratio=20



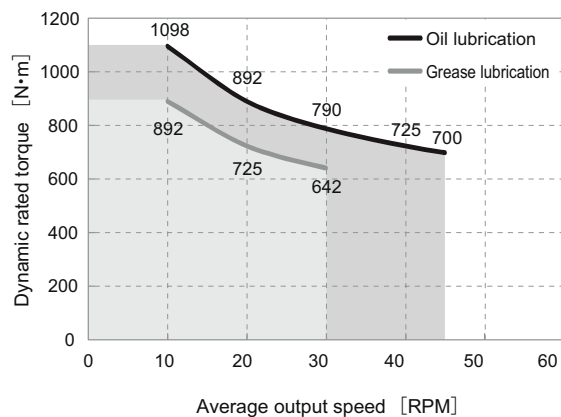
RU100

Gear ratio=20



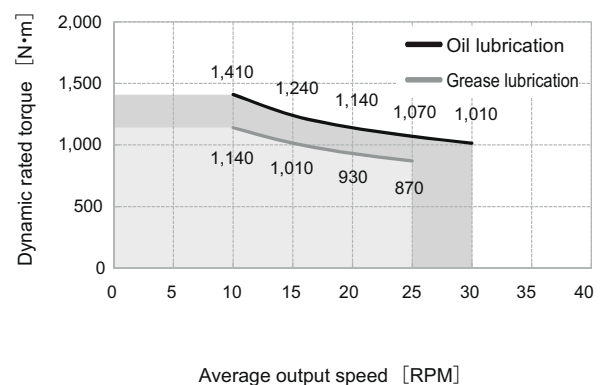
RU125

Gear ratio=20



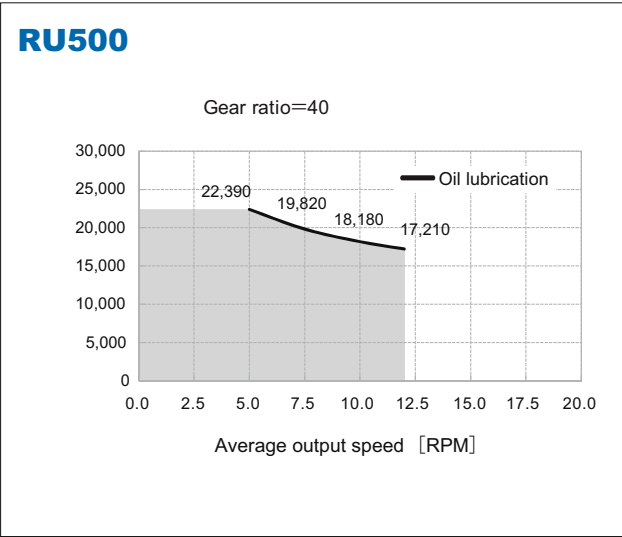
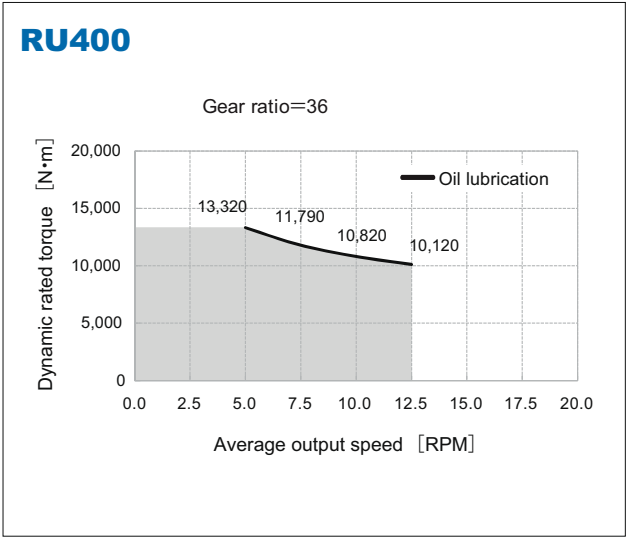
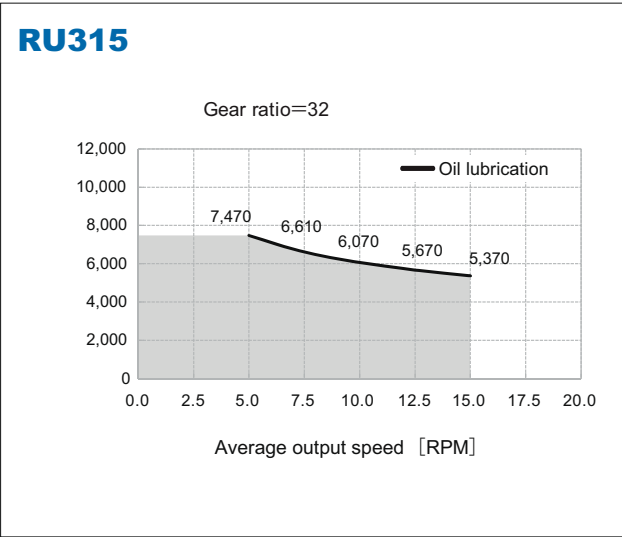
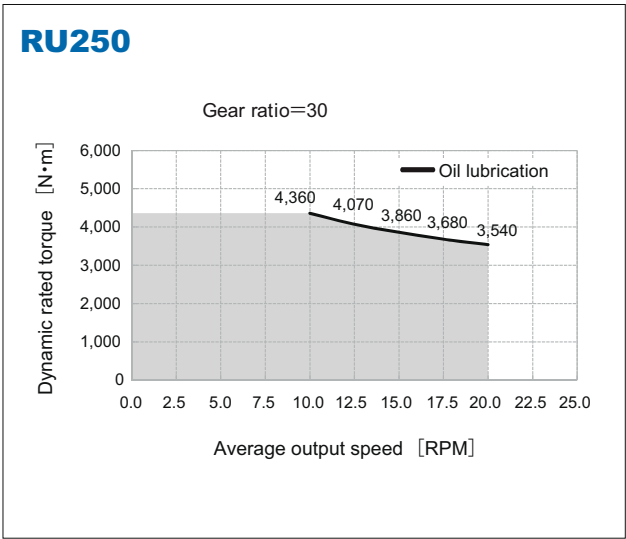
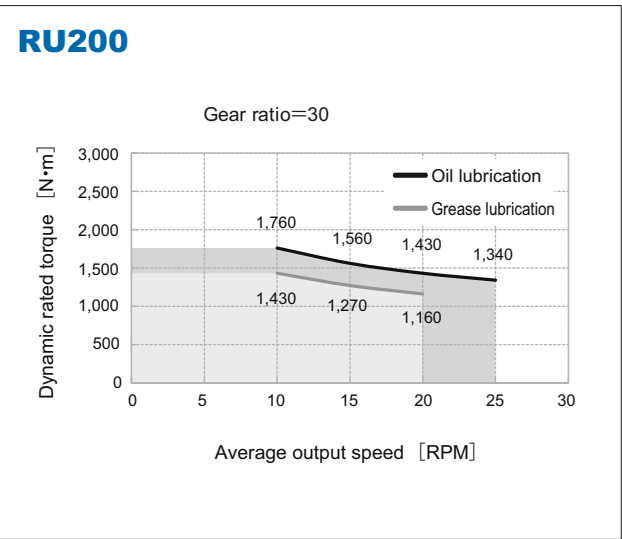
RU160

Gear ratio=24



Dynamic Rated Output Torque

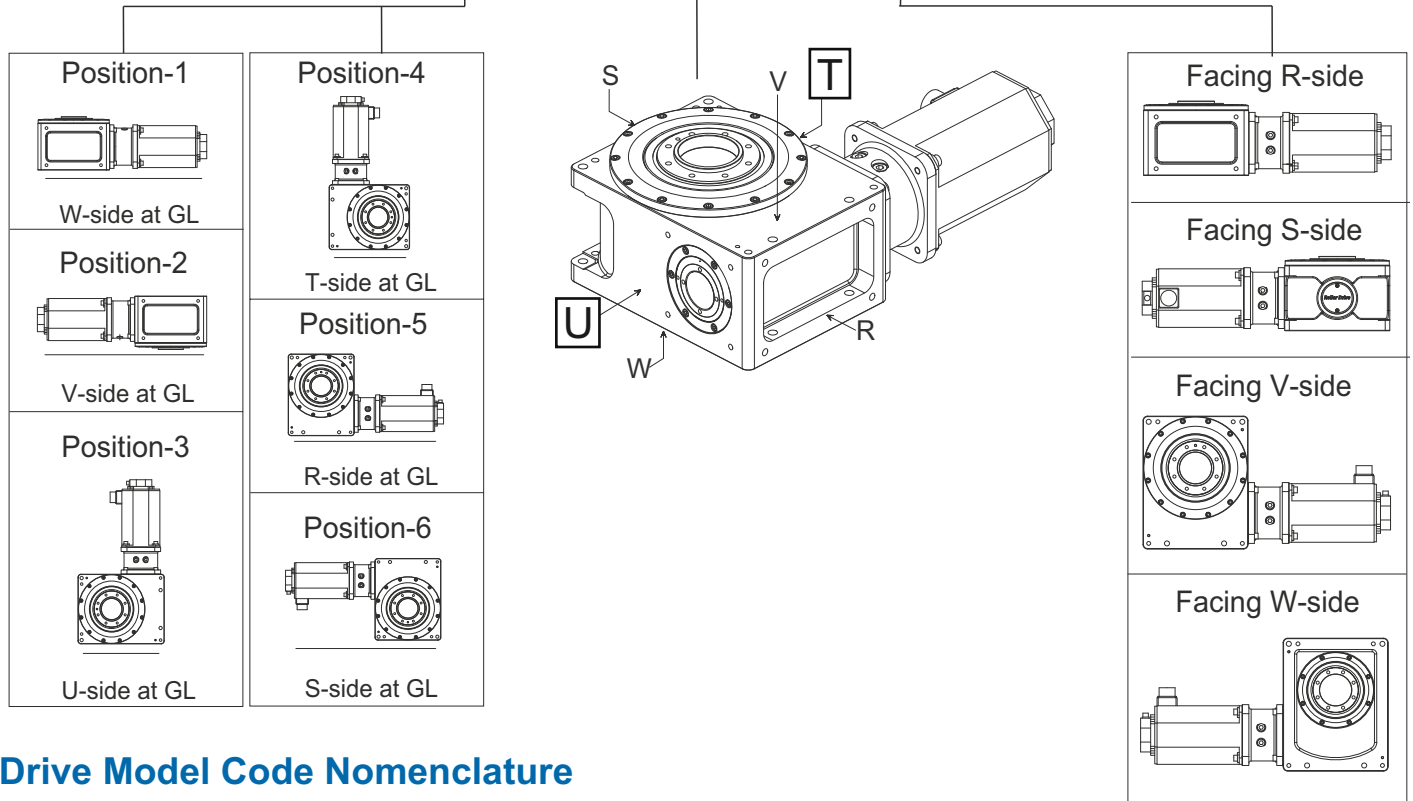
The dynamic rated output torque is the load torque for an expected service life of 12,000 hours or greater. The dynamic rated output torque is dependent on the average output rotation speed.



Model Code

Model Code Nomenclature

Model	Size	Cam	Mounting Position for Grease or Oil	Motor Mounting Position	Coupler Access Mount Position	Waterproof IP66 Option	Special Option
RU (Standard)	40	15:1	1·2·3·4·5·6 Oil lubrication (requires mounting position 1-6 below)	T: Standard Motor or reducer mounts on T-side (see drawing below)	R: Standard (Facing R-side)	Code Letter Blank (no option)	Code Letter Blank (no option)
	63, 80 100, 125	20:1			S: Standard (facing S-side)		
	160	24:1					
RUX (High accuracy & low runout)	200, 250	30:1	G Grease Lubrication (mounts in any angle or position below for sizes RU40 to RU200)	U: Option Motor or reducer mounts on U-side (see drawing below)	V: Standard (Facing V-side)	A: Includes IP66 equivalent option	/X: Detonates special requirements with a drawing
	315	32:1					
	400	36:1			W: Standard (facing W-side)		
	500	40:1					



Drive Model Code Nomenclature

VRB060 - 005 - 19EB16 - 1

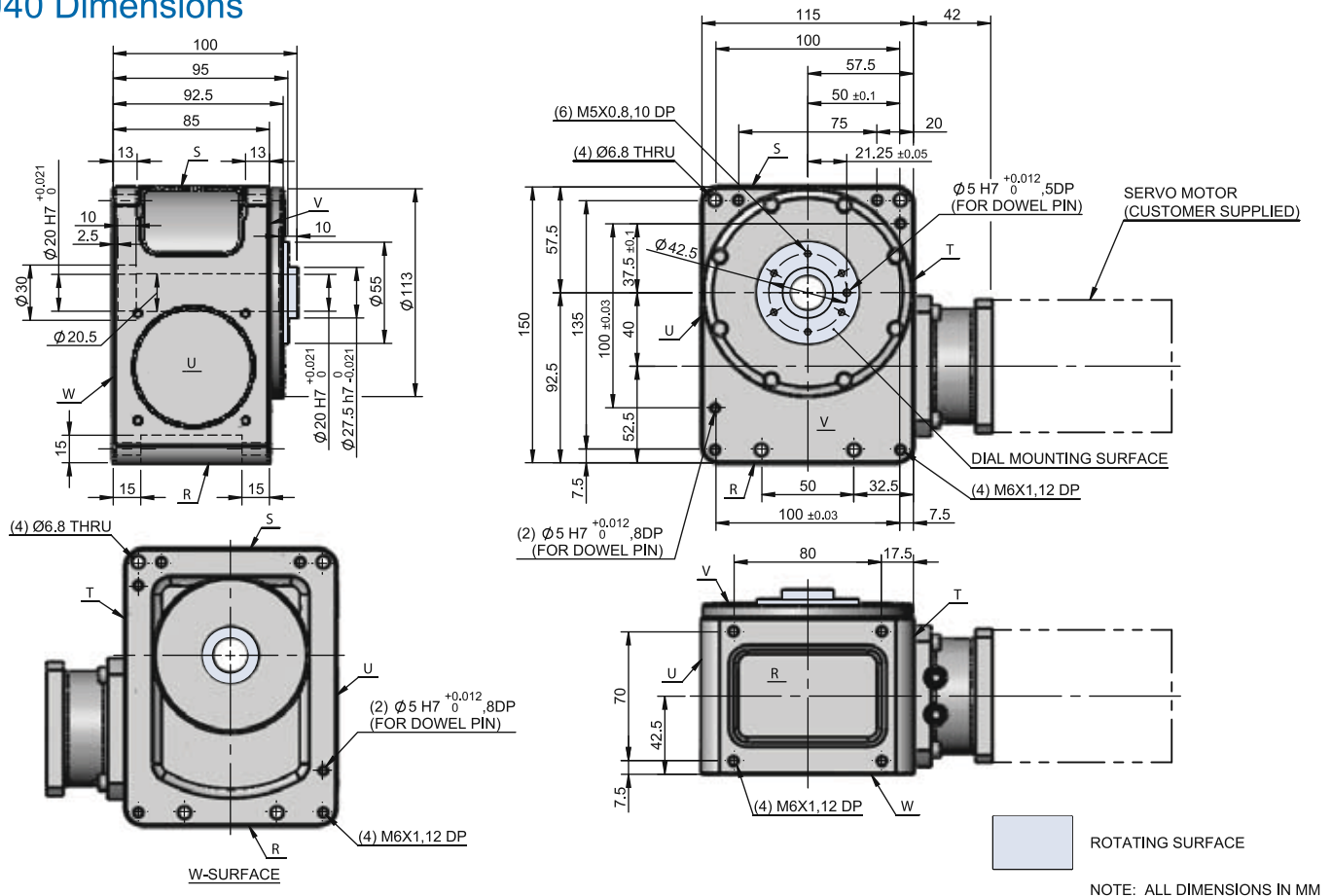
Drive Type	Reducer Ratio	Servo Motor Adapter Number	Right Angle Reducer U-Side Mounting	Right Angle Reducer T-Side Mounting
No 2nd reducer, Sankyo code to match servo motor mounting	003 = 3:1, 015 = 15:1 Stg-1: 3, 4, 5, 6, 7, 8, 9, 10:1 ratio Stg-2: 15, 16, 20, 25, 28, 30, 35, 40:1	Motor flange codes or drawing number to match the correct motor adapter.		
Inline reducer option				
Right angle reducer option	Stg-1: 1, 1.5, 2, 3, 4, 5:1 Stg-2: 7, 10, 15, 20, 25, 35, 50:1			

RU40 Specifications

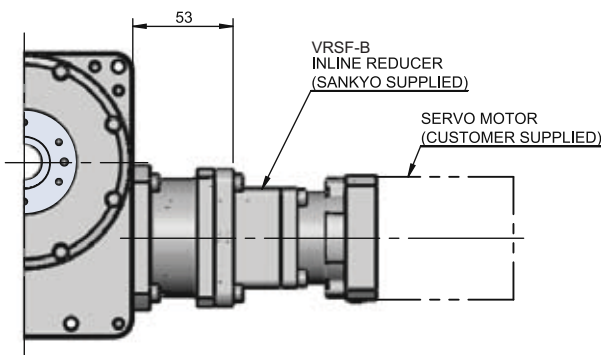


Gear Ratio	15:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	725 lb•in (82 N•m) oil bath
Max. Static Rated Torque (E-stop)	885 lb•in (100 N•m)
Max. Output Speed	200 RPM
Nominal Output Speed	86 RPM (60 RPM with grease)
Angular Positioning Accuracy	± 45 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 10 arc seconds (no 2nd reducer)
Max. Output Axial Load	675 lbs (3,000 N)
Max. Output Radial Load	450 lbs (2,000 N)
Max. Output Bending Moment	885 lb•in (100 N•m)
Internal Inertia	$5.0 \times 10^{-5} \text{ kg} \cdot \text{m}^2$
Internal Friction	7.96 lb•in (0.9 N•m)
Product Weight (no motor)	20 lbs (9 kg)
Product Weight (w/ inline reducer)	22 lbs (9.7 kg)

RU40 Dimensions

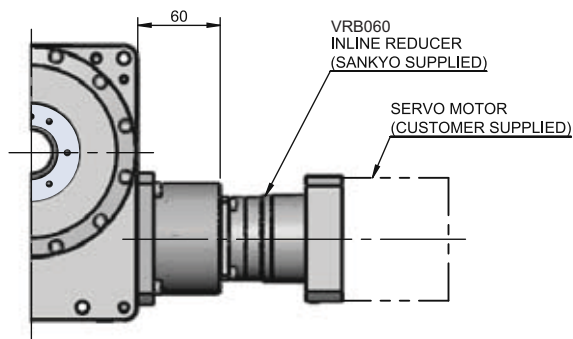


Inline Reducer Option



Right Angle Reducer Option (N/A)

RU63 Dimensions



Technical drawing of the motor and reducer assembly. The drawing shows a side view of the assembly with the following dimensions and labels:

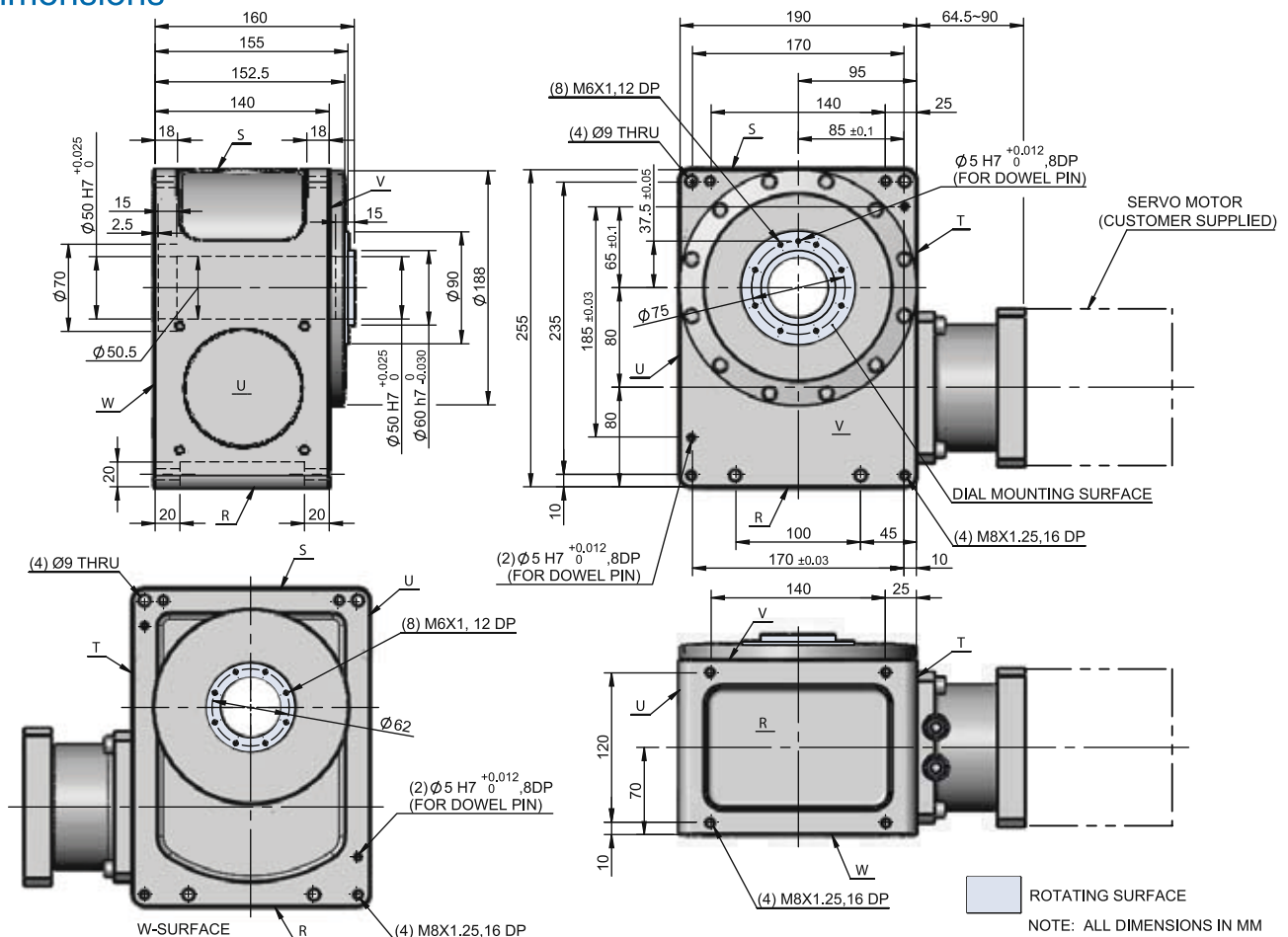
- 153**: Overall width of the assembly.
- 38**: Width of the motor housing.
- SEVRO MOTOR (CUSTOMER SUPPLIED)**: Label pointing to the motor housing.
- ATB075 RIGHT ANGLE REDUCER (SANKYO SUPPLIED)**: Label pointing to the reducer housing.
- 22**: Height of the reducer housing.
- 128**: Overall width of the reducer housing.

RU80 Specifications

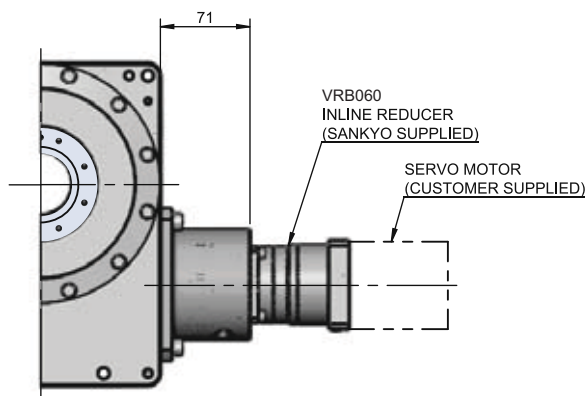


Gear Ratio	20:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	2,301 lb•in (260 N•m) oil bath
Max. Static Rated Torque (E-stop)	3,186 lb•in (360 N•m)
Max. Output Speed	150 RPM (125 with grease)
Nominal Output Speed	50 RPM (35 RPM with grease)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	3,710 lbs (16,500 N)
Max. Output Radial Load	3,147 lbs (14,000 N)
Max. Output Bending Moment	8,850 lb•in (1,000 N•m)
Internal Inertia	$5.1 \times 10^{-4} \text{ kg}\cdot\text{m}^2$
Internal Friction	23.01 lb•in (2.6 N•m)
Product Weight (no motor)	77 lbs (35 kg)
Product Weight (w/ inline reducer)	81 lbs (36.5 kg)
Product Weight (w/ right angle reducer)	93 lbs (42.2 kg)

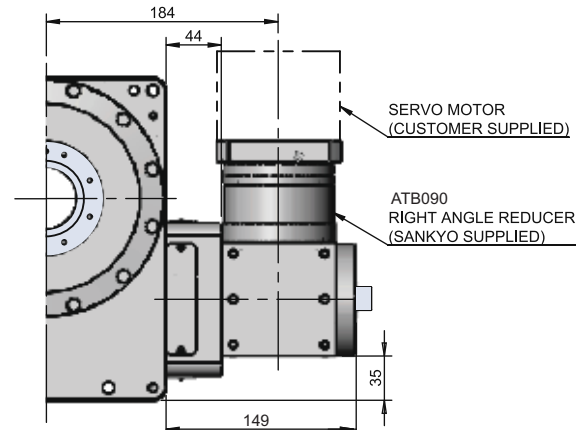
RU80 Dimensions



Inline Reducer Option



Right Angle Reducer Option

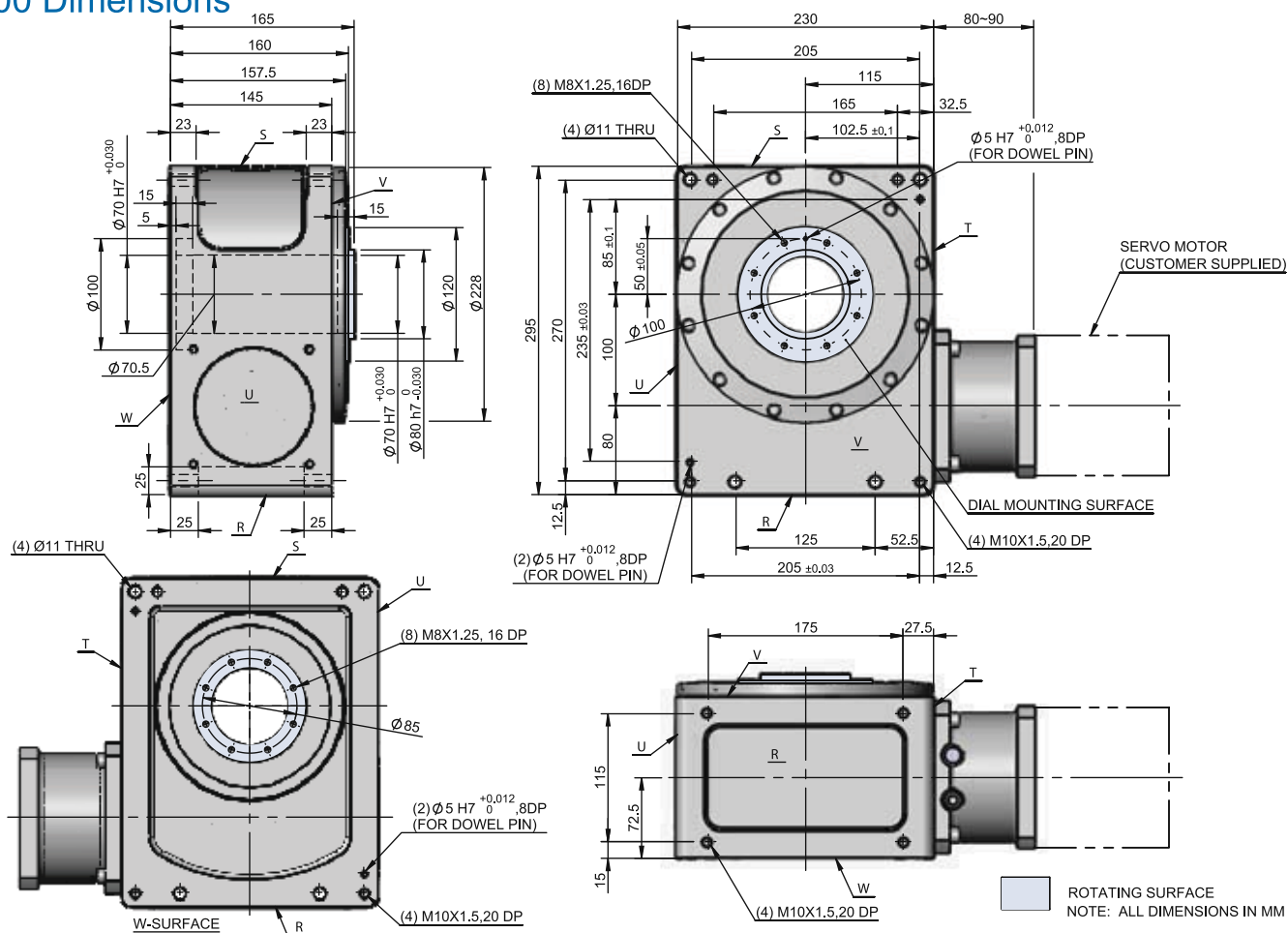


RU100 Specifications

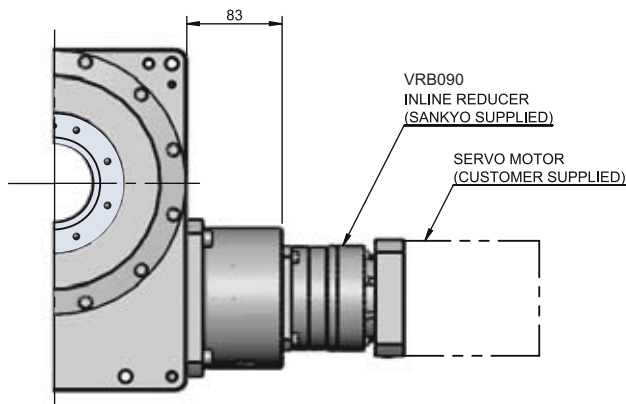


Gear Ratio	20:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	7,045 lb•in (796 N•m) oil bath
Max. Static Rated Torque (E-stop)	8,850 lb•in (1,000 N•m)
Max. Output Speed	150 RPM (100 with grease)
Nominal Output Speed	45 RPM (30 RPM with grease)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	4,721 lbs (21,000 N)
Max. Output Radial Load	4,047 lbs (18,000 N)
Max. Output Bending Moment	15,046 lb•in (1,700 N•m)
Internal Inertia	$9.5 \times 10^{-4} \text{ kg}\cdot\text{m}^2$
Internal Friction	33.63 lb•in (3.8 N•m)
Product Weight (no motor)	110 lbs (50 kg)
Product Weight (w/ inline reducer)	119 lbs (53.7 kg)
Product Weight (w/ right angle reducer)	137 lbs (61.8 kg)

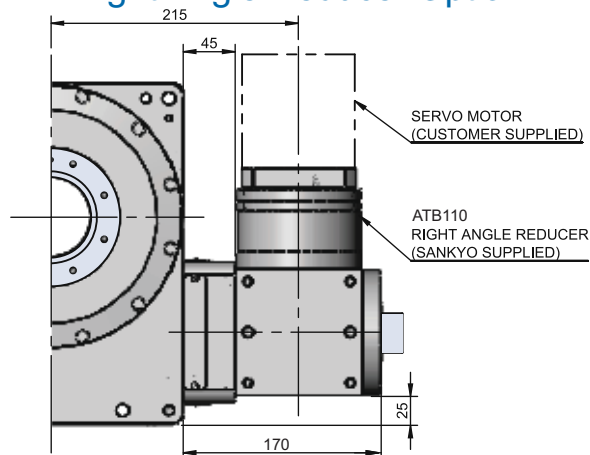
RU100 Dimensions



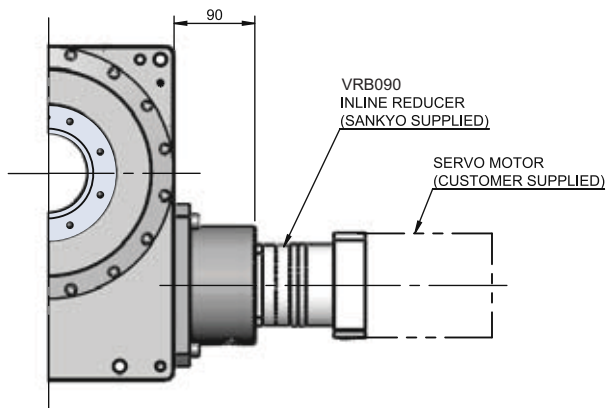
Inline Reducer Option



Right Angle Reducer Option



RU125 Dimensions



Technical drawing of the ATB110 Right Angle Reducer assembly. The drawing shows a side view of the reducer and a dashed outline of the servo motor. Dimensions are indicated in millimeters (mm):

- Overall width: 242
- Distance from the left face to the center of the servo motor: 47
- Distance from the left face to the center of the reducer: 172
- Height of the servo motor: 50

Labels and notes:

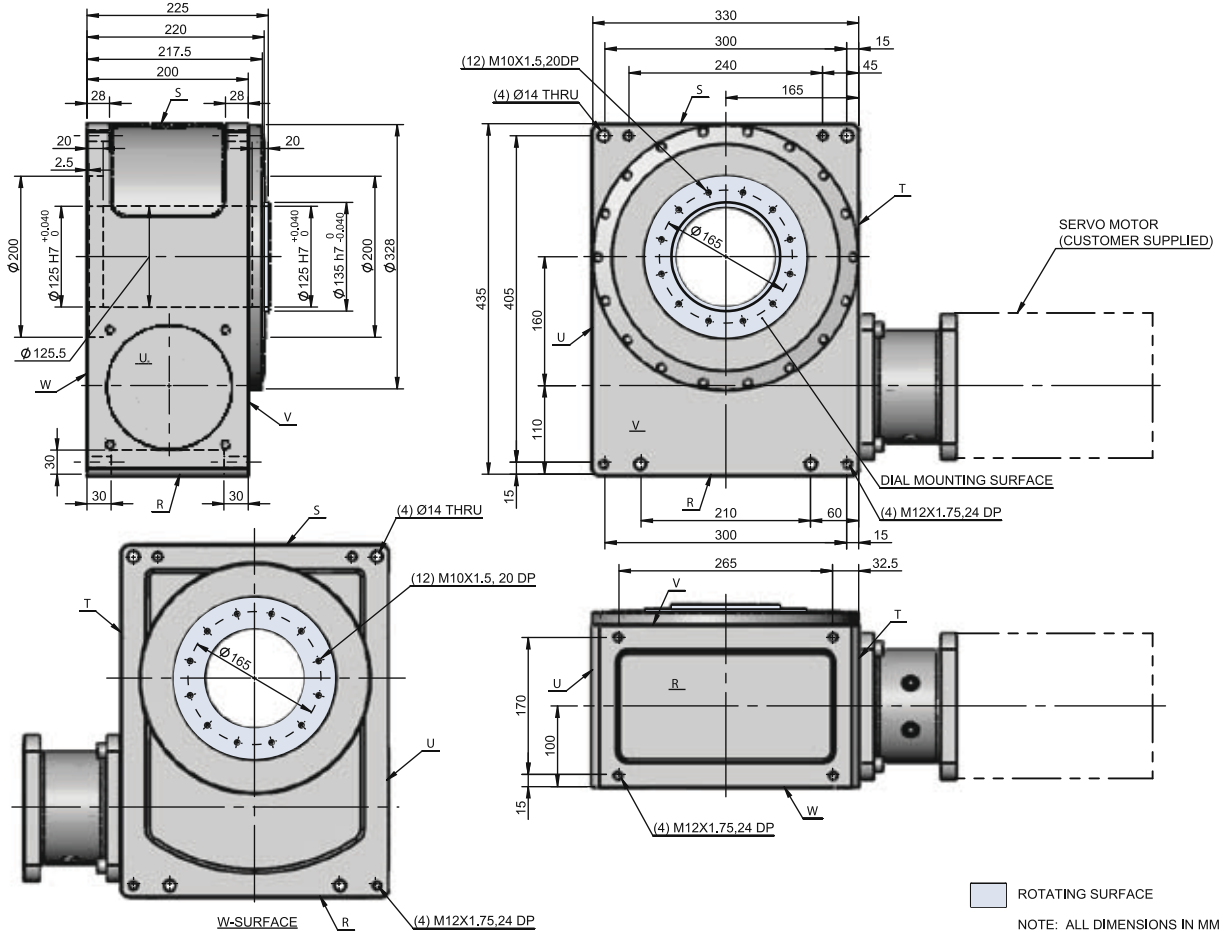
- SERVO MOTOR (CUSTOMER SUPPLIED)
- ATB110 RIGHT ANGLE REDUCER (SANKYO SUPPLIED)

RU160 Specifications

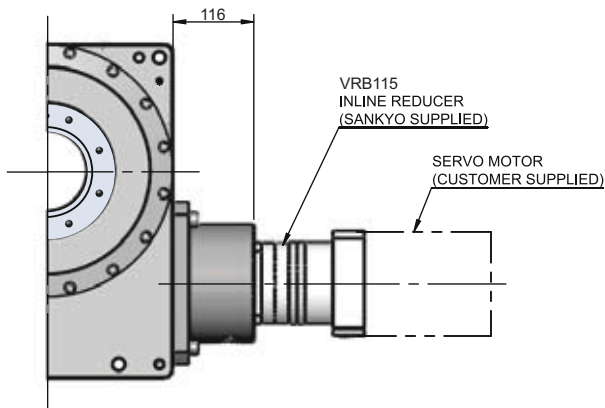


Gear Ratio	24:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	15,311 lb•in (1,730 N•m) oil bath
Max. Static Rated Torque (E-stop)	21,241 lb•in (2,400 N•m)
Max. Output Speed	100 RPM (60 with grease)
Nominal Output Speed	30 RPM (25 RPM with grease)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	12,364 lbs (55,000 N)
Max. Output Radial Load	9,665 lbs (43,000 N)
Max. Output Bending Moment	85,852 lb•in (9,700 N•m)
Internal Inertia	$4.1 \times 10^{-3} \text{ kg}\cdot\text{m}^2$
Internal Friction	72.57 lb•in (8.2 N•m)
Product Weight (no motor)	309 lbs (140 kg)
Product Weight (w/ inline reducer)	343 lbs (156 kg)
Product Weight (w/ right angle reducer)	353 lbs (160 kg)

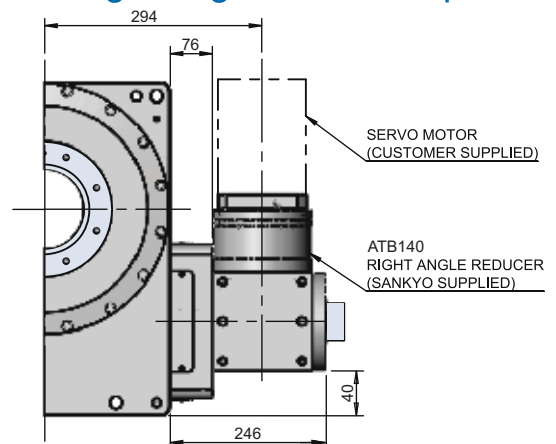
RU160 Dimensions



Inline Reducer Option



Right Angle Reducer Option

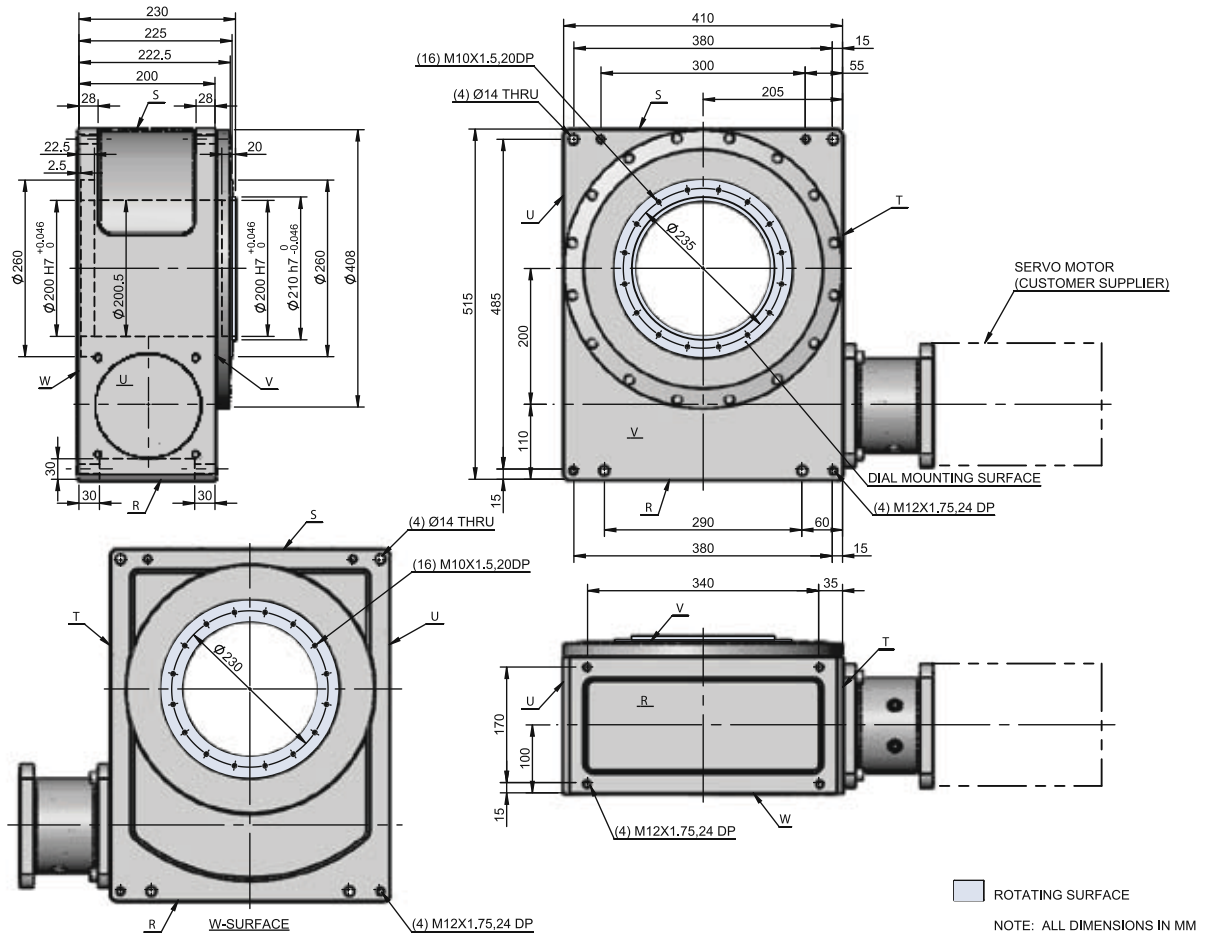


RU200 Specifications

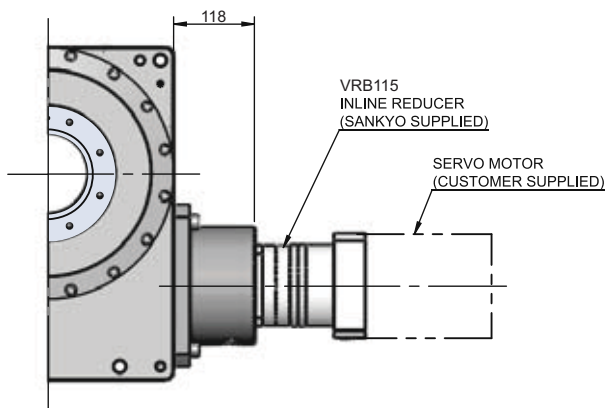


Gear Ratio	30:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	19,206 lb•in (2,170 N•m) oil bath
Max. Static Rated Torque (E-stop)	27,348 lb•in (3,090 N•m)
Max. Output Speed	65 RPM (40 with grease)
Nominal Output Speed	25 RPM (20 RPM with grease)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	14,162 lbs (63,000 N)
Max. Output Radial Load	10,790 lbs (48,000 N)
Max. Output Bending Moment	141,612 lb•in (16,000 N•m)
Internal Inertia	$5.2 \times 10^{-3} \text{ kg} \cdot \text{m}^2$
Internal Friction	89.39 lb•in (10.1 N•m)
Product Weight (no motor)	397 lbs (180 kg)
Product Weight (w/ inline reducer)	432 lbs (196 kg)
Product Weight (w/ right angle reducer)	441 lbs (200 kg)

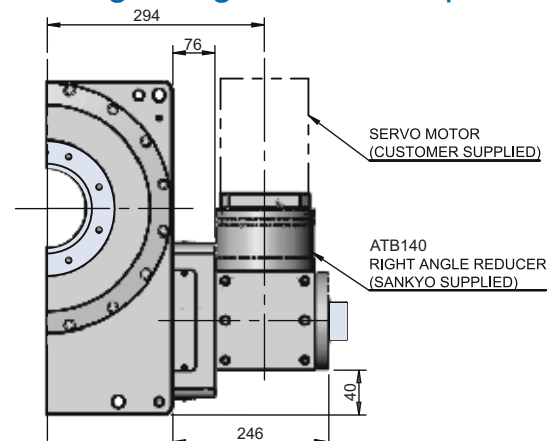
RU200 Dimensions



Inline Reducer Option



Right Angle Reducer Option

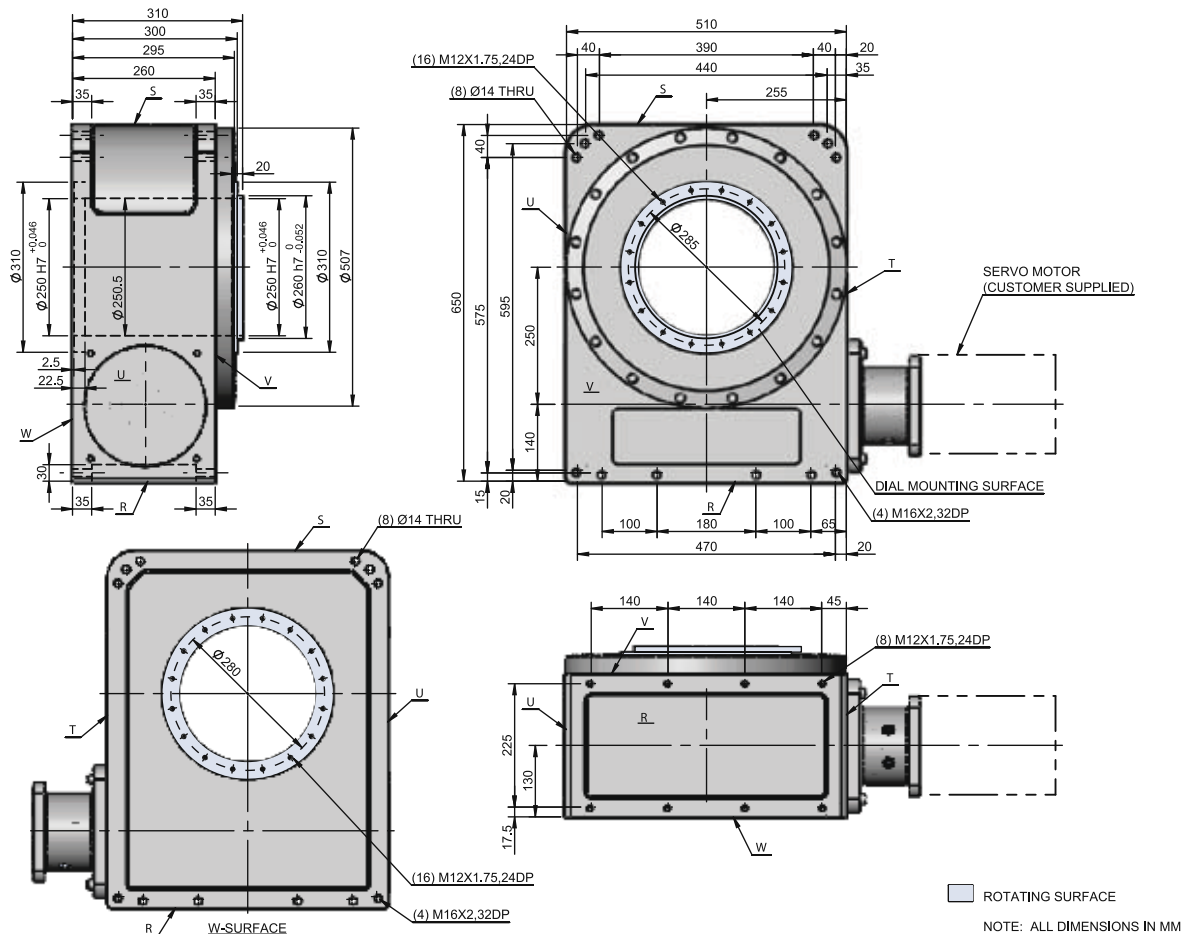


RU250 Specifications

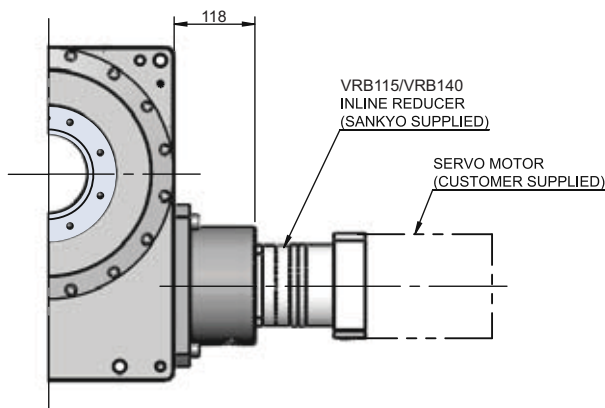


Gear Ratio	30:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	55,206 lb•in (6,250 N•m) oil bath
Max. Static Rated Torque (E-stop)	72,045 lb•in (8,140 N•m)
Max. Output Speed	40 RPM (no grease option)
Nominal Output Speed	20 RPM (no grease option)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	29,225 lbs (130,000 N)
Max. Output Radial Load	21,356 lbs (95,000 N)
Max. Output Bending Moment	336,328 lb•in (38,000 N•m)
Internal Inertia	3.28 x 10 ⁻² kg•m
Internal Friction	132.76 lb•in (15.0 N•m)
Product Weight (no motor)	837 lbs (380 kg)
Product Weight (w/ inline reducer)	873 lbs (396 kg)
Product Weight (w/ right angle reducer)	913 lbs (414 kg)

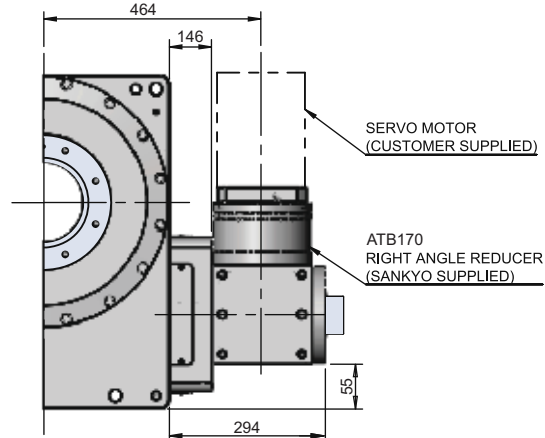
RU250 Dimensions



Inline Reducer Option



Right Angle Reducer Option

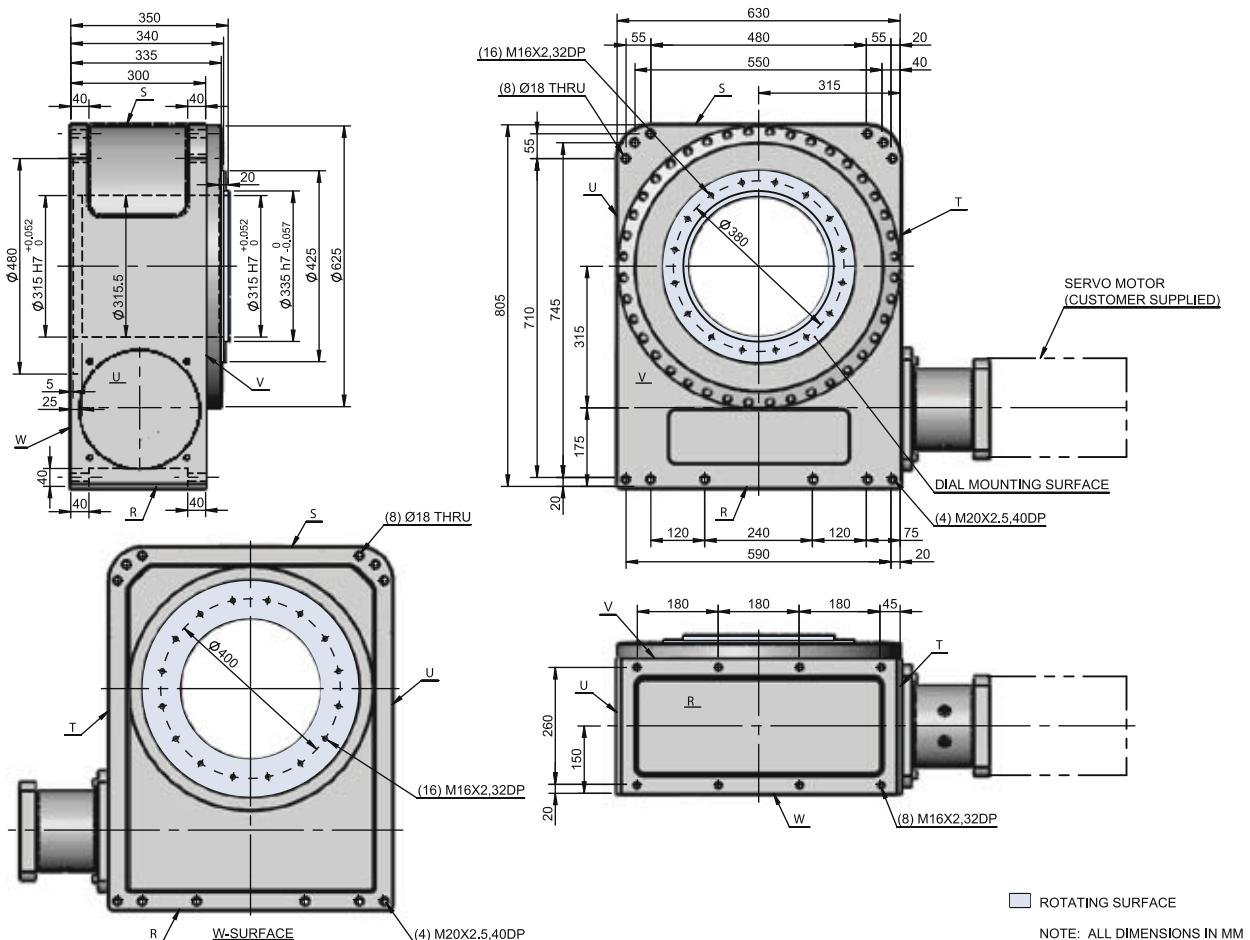


RU315 Specifications

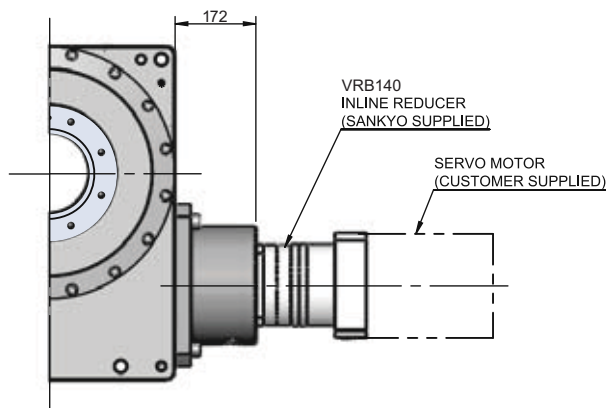


Gear Ratio	32:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	77,090 lb•in (8,710 N•m) oil bath
Max. Static Rated Torque (E-stop)	103,730 lb•in (11,740 N•m)
Max. Output Speed	30 RPM (no grease option)
Nominal Output Speed	15 RPM (no grease option)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	31,473 lbs (140,000 N)
Max. Output Radial Load	24,728 lbs (110,000 N)
Max. Output Bending Moment	575,298 lb•in (65,000 N•m)
Internal Inertia	$6.97 \times 10^{-2} \text{ kg} \cdot \text{m}^2$
Internal Friction	177.01 lb•in (20.0 N•m)
Product Weight (no motor)	1,455 lbs (660 kg)
Product Weight (w/ inline reducer)	1,490 lbs (676 kg)
Product Weight (w/ right angle reducer)	1,596 lbs (724 kg)

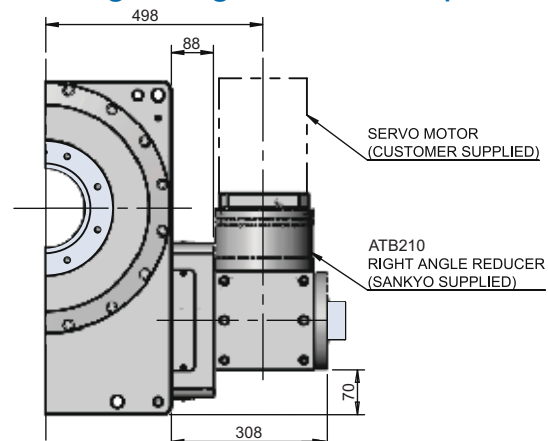
RU315 Dimensions



Inline Reducer Option



Right Angle Reducer Option

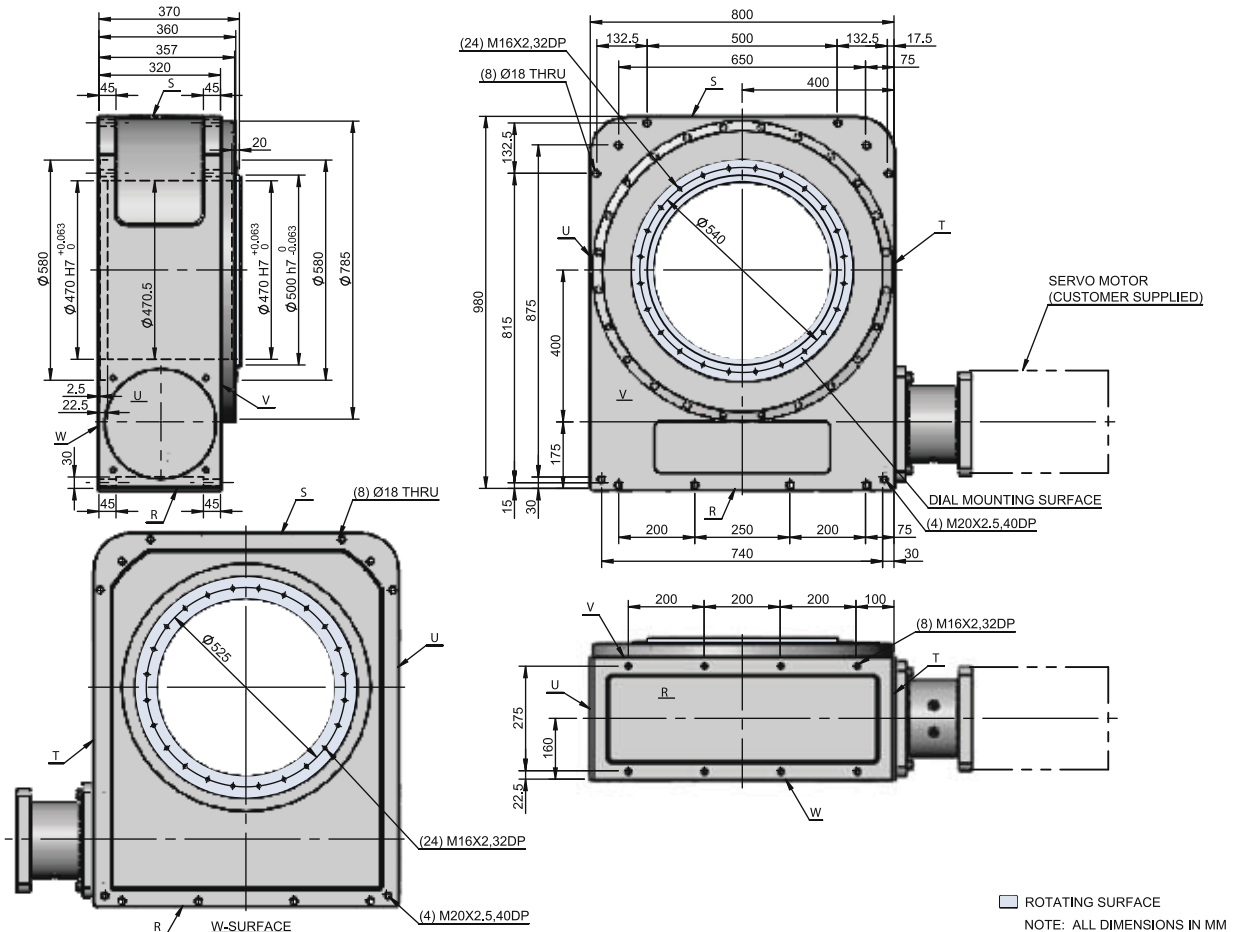


RU400 Specifications

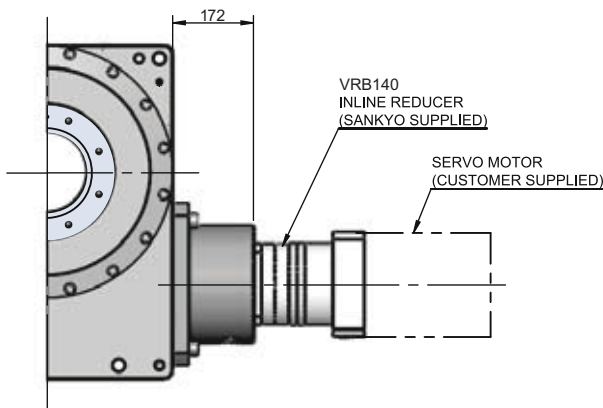


Gear Ratio	36:1 cam (up to 200:1 with 2nd reducer)
Max. Acceleration Torque	137,452 lb•in (15,530 N•m) oil bath
Max. Static Rated Torque (E-stop)	188,432 lb•in (21,290 N•m)
Max. Output Speed	25 RPM (no grease option)
Nominal Output Speed	13 RPM (no grease option)
Angular Positioning Accuracy	± 20 arc seconds (no 2nd reducer)
Repetitive Positioning Accuracy	± 5 arc seconds (no 2nd reducer)
Max. Output Axial Load	35,969 lbs (160,000 N)
Max. Output Radial Load	30,349 lbs (135,000 N)
Max. Output Bending Moment	973,582 lb•in (110,000 N•m)
Internal Inertia	0.205 kg•m ²
Internal Friction	281.45 lb•in (31.8 N•m)
Product Weight (no motor)	2,172 lbs (985 kg)
Product Weight (w/ inline reducer)	2,206 lbs (1,001 kg)
Product Weight (w/ right angle reducer)	2,313 lbs (1,049 kg)

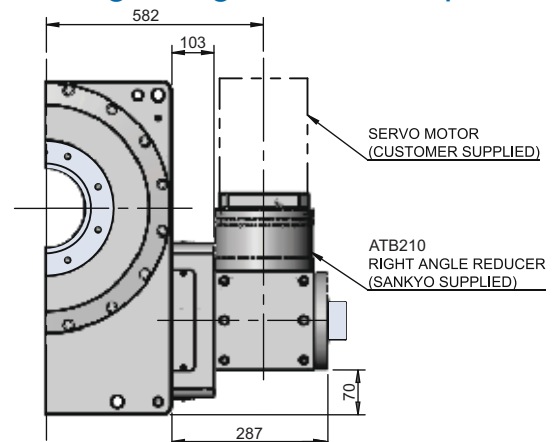
RU400 Dimensions



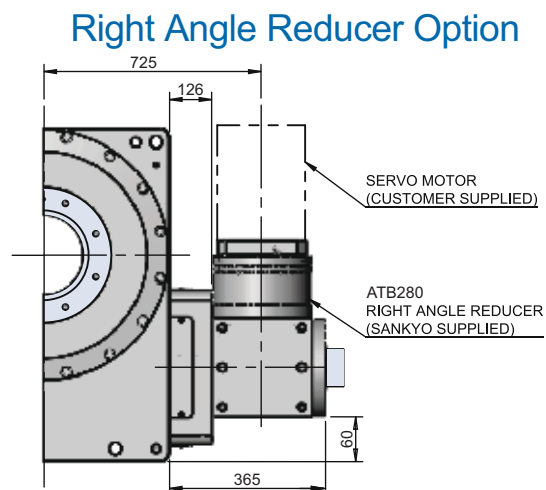
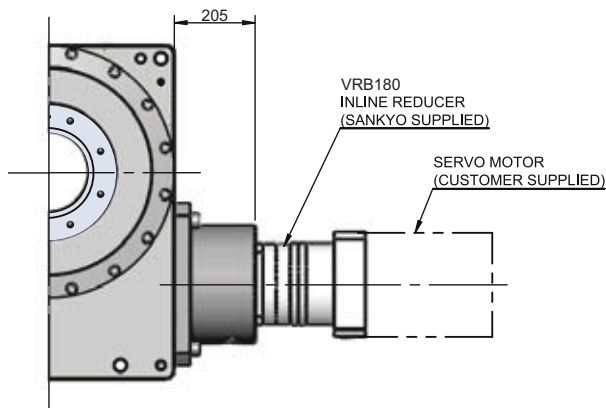
Inline Reducer Option



Right Angle Reducer Option



RU500 Dimensions



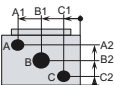
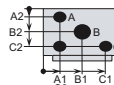
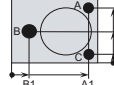
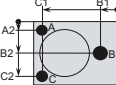
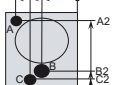
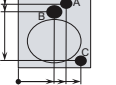
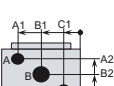
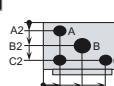
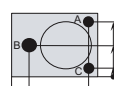
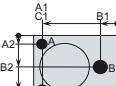
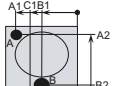
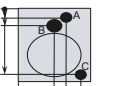
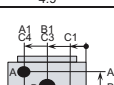
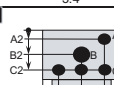
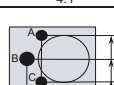
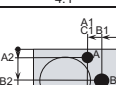
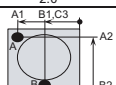
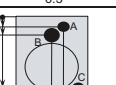
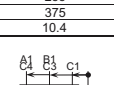
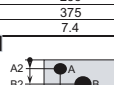
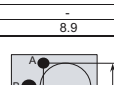
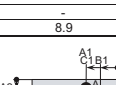
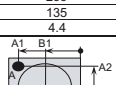
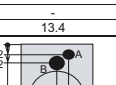
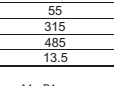
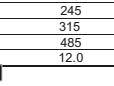
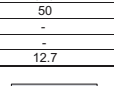
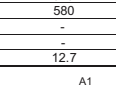
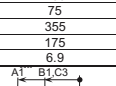
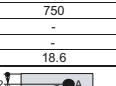
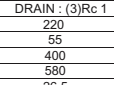
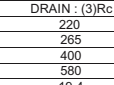
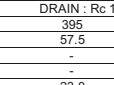
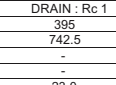
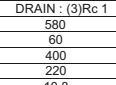
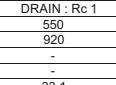
Oil Fill Locations and Capacity

:mm

Position	1	2	3	4	5	6
RU40						
A	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4
A1	67.5	67.5	27.5	27.5	20.5	20.5
A2	62.5	62.5	42.5	42.5	20.5	20.5
B	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage
B1	57.5	57.5	57.5	57.5	52.5	52.5
B2	42.5	42.5	42.5	42.5	42.5	42.5
C	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4
C1	47.5	47.5	87.5	87.5	119.5	119.5
C2	22.5	22.5	42.5	42.5	57.5	57.5
Cap.(L)	0.2	0.2	0.2	0.2	0.1	0.2
RU63						
A	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4
A1	92.5	92.5	32.5	32.5	15.5	15.5
A2	82.5	82.5	52.5	52.5	48.5	48.5
B	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage
B1	77.5	77.5	77.5	77.5	140.5	140.5
B2	52.5	52.5	52.5	52.5	112.5	112.5
C	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4	DRAIN : Rc 1/4	OIL FILL : Rc 1/4
C1	62.5	62.5	122.5	122.5	167.5	167.5
C2	22.5	22.5	52.5	52.5	77.5	77.5
Cap.(L)	0.4	0.4	0.4	0.4	0.2	0.5
RU80						
A	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	OIL FILL : Rc 1/4	DRAIN : Rc 1/4
A1	115	115	33	33	22	22
A2	110	110	55	55	40	40
B	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage
B1	95	95	95	95	175	175
B2	70	70	70	70	145	145
C	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	DRAIN : Rc 1/4	OIL FILL : Rc 1/4
C1	75	75	157	157	215	215
C2	30	30	85	85	95	95
Cap.(L)	1.0	0.7	0.9	0.9	0.6	1.2
RU100						
A	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8
A1	150	150	38	38	18	18
A2	110.5	110.5	52.5	52.5	115	115
B	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage
B1	115	115	115	115	215	215
B2	72.5	72.5	72.5	72.5	115	115
C	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8
C1	80	80	192	192	250	250
C2	34.5	34.5	92.5	92.5	145	145
Cap.(L)	1.5	1.1	1.3	1.3	0.7	1.9
RU125						
A	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8
A1	175	175	40	40	20	20
A2	150	150	60	60	140	140
B	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage	Sight Gage
B1	140	140	140	140	265	265
B2	95	95	95	95	140	140
C	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8	DRAIN : Rc 3/8	OIL FILL : Rc 3/8
C1	105	105	240	240	320	320
C2	40	40	130	130	175	175
Cap.(L)	4.0	2.8	3.4	3.4	2.3	4.5

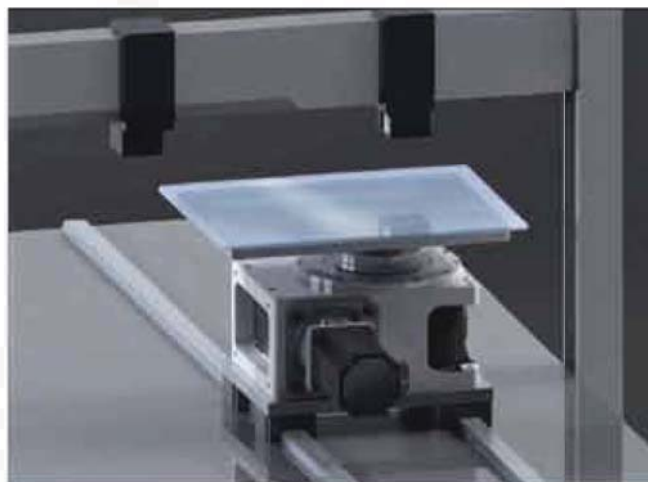
Oil Fill Locations and Capacity

UNIT : mm

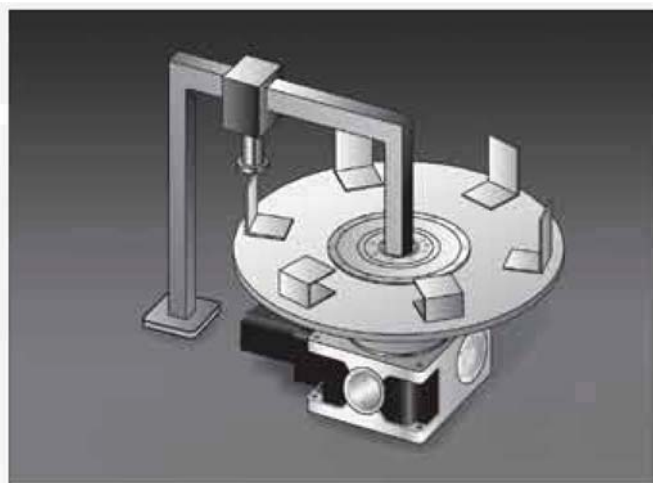
Position	1	2	3	4	5	6
RU160						
A	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2
A1	225	105	370	370	265	205
A2	170	35	290	40	395	55
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	165	165	110	110	165	165
B2	100	100	165	165	110	110
C	DRAIN : Rc 1/2	DRAIN : (2)Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2
C1	105	225	370	370	205	265
C2	35	170	40	290	55	395
C3	-	105	-	-	-	-
Oil (L)	3.4	2.3	2.9	2.9	1.7	4.0
RU200						
A	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2	OIL FILL : Rc 1/2
A1	295	115	425	425	320	255
A2	165	35	370	40	475	55
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	205	205	110	110	205	205
B2	100	100	205	205	110	110
C	DRAIN : Rc 1/2	DRAIN : (2)Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2	DRAIN : Rc 1/2
C1	115	295	425	425	255	320
C2	35	165	40	370	55	475
C3	-	115	-	-	-	-
Oil (L)	4.9	3.4	4.1	4.1	2.0	6.3
RU250						
A	OIL FILL : Rc 3/4	OIL FILL : Rc 3/4	OIL FILL : Rc 3/4	OIL FILL : Rc 3/4	OIL FILL : Rc 3/4	OIL FILL : Rc 3/4
A1	375	135	290	290	330	375
A2	210	50	465	45	605	65
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	255	255	140	140	255	255
B2	130	130	255	255	140	140
C	DRAIN : (3)Rc 3/4	DRAIN : (3)Rc 3/4	DRAIN : Rc 3/4	DRAIN : Rc 3/4	DRAIN : (3)Rc 3/4	DRAIN : Rc 3/4
C1	135	135	290	290	375	330
C2	50	210	45	465	65	605
C3	255	255	-	-	255	-
C4	375	375	-	-	135	-
Oil (L)	10.4	7.4	8.9	8.9	4.4	13.4
RU315						
A	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1
A1	485	145	340	340	465	455
A2	245	55	580	50	750	75
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	315	315	175	175	315	315
B2	150	150	315	315	175	175
C	DRAIN : (3)Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1	DRAIN : Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1
C1	145	145	340	340	455	465
C2	55	245	50	580	75	750
C3	315	315	-	-	355	-
C4	485	485	-	-	175	-
Oil (L)	13.5	12.0	12.7	12.7	6.9	18.6
RU400						
A	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1
A1	580	220	395	395	550	580
A2	265	55	742.5	57.5	920	60
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	400	400	175	175	400	400
B2	160	160	400	400	175	215
C	DRAIN : (3)Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1	DRAIN : Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1
C1	220	220	395	395	580	550
C2	55	265	57.5	742.5	60	920
C3	400	400	-	-	400	-
C4	580	580	-	-	220	-
Oil (L)	26.5	19.4	23.0	23.0	10.8	33.1
RU500						
A	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1	OIL FILL : Rc 1
A1	720	280	400	400	720	720
A2	280	65	940	60	1140	90
B	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE	SIGHT GAUGE
B1	500	500	200	200	500	500
B2	170	170	500	500	200	230
C	DRAIN : (3)Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1	DRAIN : Rc 1	DRAIN : (3)Rc 1	DRAIN : Rc 1
C1	280	280	400	400	720	700
C2	65	280	60	940	90	1140
C3	500	500	-	-	500	-
C4	720	720	-	-	280	-
Oil (L)	29.6	25.9	27.8	27.8	10.5	43.7



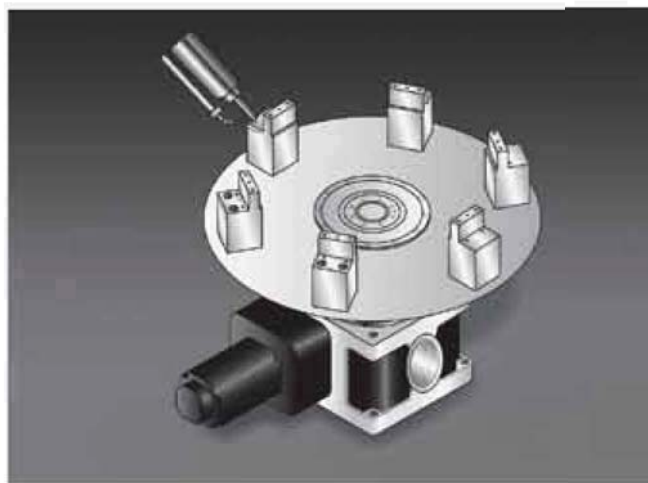
Oscillating Work with Off-Center Load



Glass Edge Polisher



Using the Hollow Shaft for Crimping



Boring Machine

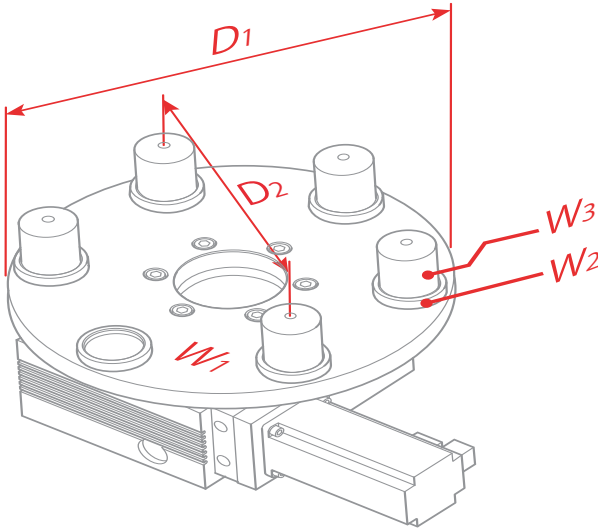
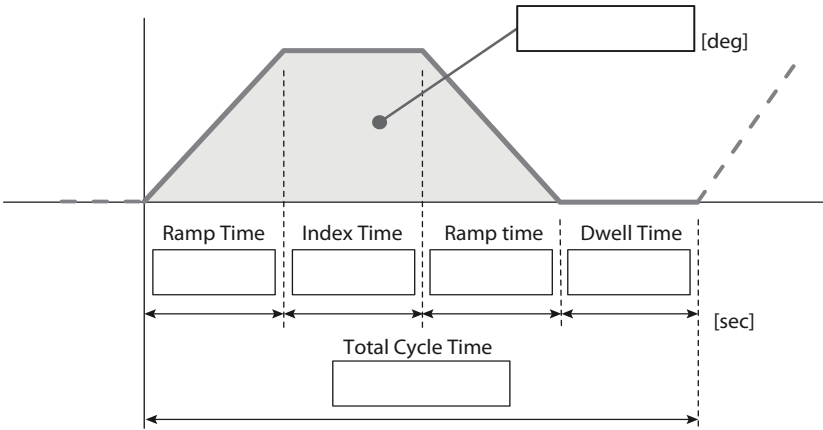


Rotary Positioner for Welding Machines



Vertical Ball Screw Drive

Application Form - Quote Request

<i>RollerDrive</i>® RU Series Programmable Motion Indexer			
COMPANY			TEL
ADDRESS			FAX
CITY	STATE	ZIP CODE	CONTACT NAME
A) LONGEST OUTPUT MOTION IN DEGREES & INCLUDE DESIRED TIME TO COMPLETE THIS MOTION			
B) INDEXING DIAL PLATE LOADING WITH STATION WEIGHTS & QUANTITY			
			DIAL PLATE DIAMETER: D ₁ [mm]
			DIAL PLATE WEIGHT: W ₁ [kg]
			STATION DIAMETER: D ₂ [mm]
			STATION FIXTURE WEIGHT: W ₂ [kg]
			STATION PART WEIGHT: W ₃ [kg]
Axial Load or Additional Forces from the Process [N]			Bending Moment from Unbalanced Loading [N·m]
C) MOTION			E) MOTOR INFORMATION
			MOTOR SHAFT DIAMETER _____ OUTPUT SHAFT LENGTH _____ MOTOR POWER [kW]
D) OPTIONS			F) MOTOR MOUNTING ORIENTATION
* Dowel Pin Holes: Housing _____ Output Flange _____ * Required Accuracy: Arc Seconds _____ Distance@Radius _____			INDEXER SIDE - T _____ INDEXER SIDE - U _____ (model code drawings for details)
			G) MOTOR MOUNTING CODE (SEE MOTOR MOUNTING CODES) _____

RU-2015



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