

AX SERIES

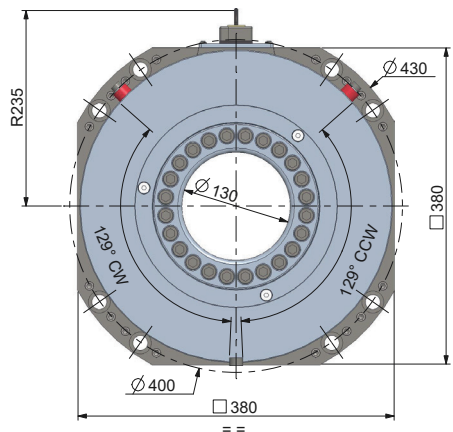
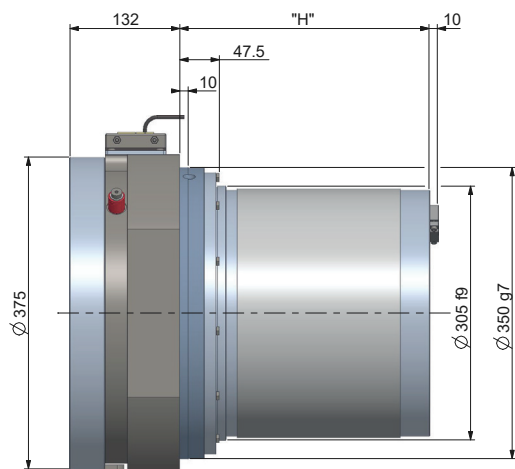
B-AXIS
DIRECT DRIVE
TRANSMISSION
MODULES



DIRECT-DRIVE MOTION TECHNOLOGY

BEARING SIZE: 200

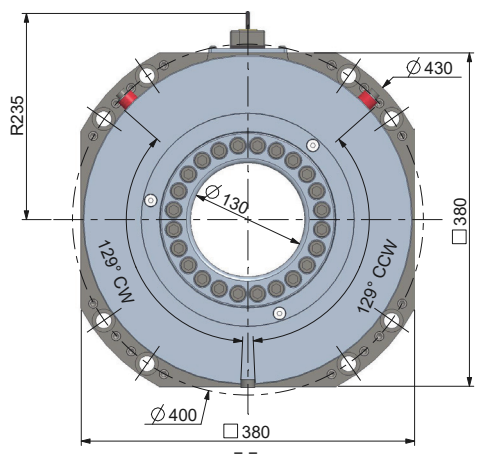
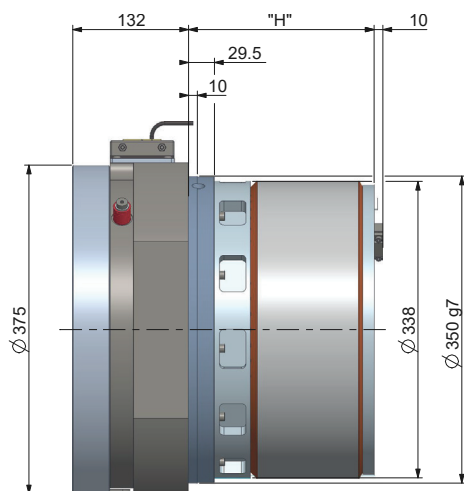
"B" AXIS TYPE: AX200-M260
D.D. MOTOR TYPE: MK-CS-260



PRODUCT RANGE MK-CS 260

	SIZE 100	SIZE 150	SIZE 200	SIZE 250
H (mm)	199,5	249,5	299,5	349,5

"B" AXIS TYPE: AX200-M290
D.D. MOTOR TYPE: MK-CS-290

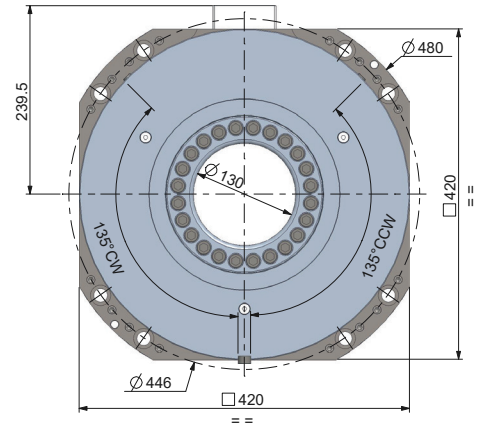
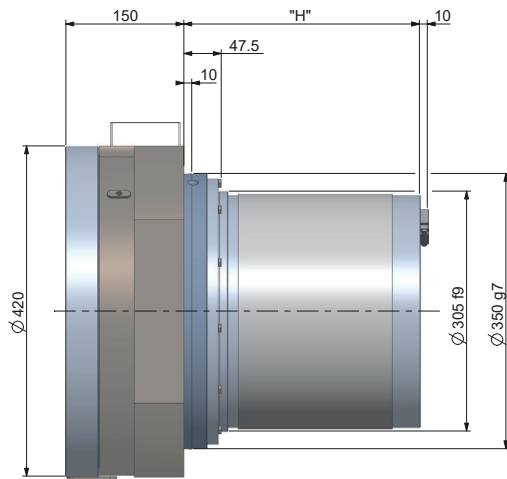


PRODUCT RANGE MK-CS 290

	SIZE 070	SIZE 100	SIZE 150	SIZE 200
H (mm)	181,5	211,5	261,5	311,5

BEARING SIZE: 260

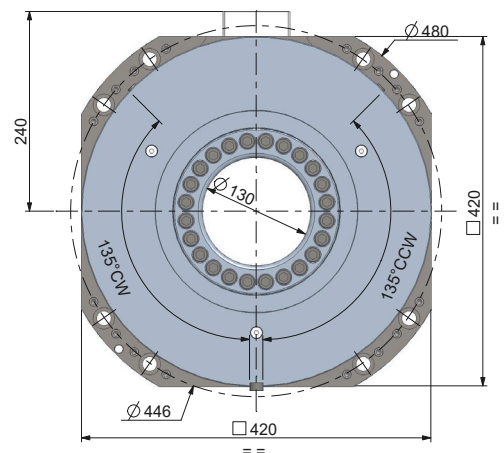
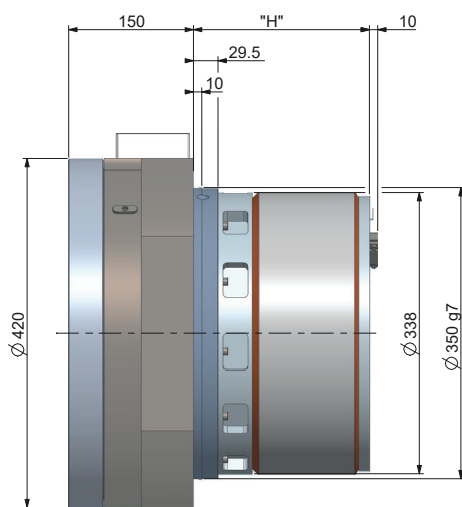
"B" AXIS TYPE: AX260-M260
D.D. MOTOR TYPE: MK-CS-260



PRODUCT RANGE MK-CS 260

	SIZE 100	SIZE 150	SIZE 200	SIZE 250
H (mm)	199,5	249,5	299,5	349,5

"B" AXIS TYPE: AX260-M290
D.D. MOTOR TYPE: MK-CS-290



PRODUCT RANGE MK-CS 290

	SIZE 070	SIZE 100	SIZE 150	SIZE 200
H (mm)	181,5	211,5	261,5	311,5



TRANSMISSION MODULE TYPE: AX200-M260						
D.D. MOTOR DATA					ENCODER DATA	
D.D.M. series MK-CS-260/...	SIZE 100	SIZE 150	SIZE 200	SIZE 250		
Tac [Nm]	128	194	278	327	AMO system - Absolute EnDat2.2	
Iac [A]	6,4	9	9	11	Line count	860 T/rev
Twc [Nm]	321	480	650	800	Interpolation factor	14 bit
Iwc [A]	15,9	21,8	21,8	27	Total digital resolution	23 bit
Tpk [Nm]	580	873	1166	1405	Precision / repeatability	± 1 arcsec
Ipk [A]	39,8	53	53	67	System accuracy	±8 arcsec

TRANSMISSION MODULE TYPE: AX200-M290						
D.D. MOTOR DATA					ENCODER DATA	
D.D.M. series MK-CS-290/...	SIZE 070	SIZE 100	SIZE 150	SIZE 200		
Tac [Nm]	132	186	275	343	AMO system - Absolute EnDat2.2	
Iac [A]	8,5	7,1	7	10,6	Line count	860 T/rev
Twc [Nm]	322	455	695	926	Interpolation factor	14 bit
Iwc [A]	20,5	17	17,3	28,3	Total digital resolution	23 bit
Tpk [Nm]	646	868	1290	1600	Precision / repeatability	± 1 arcsec
Ipk [A]	58	46	45,6	68	System accuracy	±8 arcsec

TRANSMISSION MODULE TYPE: AX260-M260						
D.D. MOTOR DATA					ENCODER DATA	
D.D.M. series MK-CS-260/...	SIZE 100	SIZE 150	SIZE 200	SIZE 250		
Tac [Nm]	128	194	278	327	AMO system - Absolute EnDat2.2	
Iac [A]	6,4	9	9	11	Line count	1088 T/rev
Twc [Nm]	321	480	650	800	Interpolation factor	14 bit
Iwc [A]	15,9	21,8	21,8	27	Total digital resolution	24 bit
Tpk [Nm]	580	873	1166	1405	Precision / repeatability	± 1 arcsec
Ipk [A]	39,8	53	53	67	System accuracy	±6 arcsec

TRANSMISSION MODULE TYPE: AX260-M290						
D.D. MOTOR DATA					ENCODER DATA	
D.D.M. series MK-CS-290/...	SIZE 070	SIZE 100	SIZE 150	SIZE 200		
Tac [Nm]	132	186	275	343	AMO system - Absolute EnDat2.2	
Iac [A]	8,5	7,1	7	10,6	Line count	1088 T/rev
Twc [Nm]	322	455	695	926	Interpolation factor	14 bit
Iwc [A]	20,5	17	17,3	28,3	Total digital resolution	24 bit
Tpk [Nm]	646	868	1290	1600	Precision / repeatability	± 1 arcsec
Ipk [A]	58	46	45,6	68	System accuracy	±6 arcsec

CLAMPING SYSTEM DATA						
Clamping torque (@80 bar) (Pmax 100bar)	Standard	6300	[Nm]	Clamping System is the same for all the configurations. The performance of the two versions are listed in the table aside.		
Clamping torque (@80 bar) (Pmax 100bar)	Advanced	11100	[Nm]			

INTEGRATED DIRECT DRIVE TRANSMISSION MODULE FOR B-AXIS TILTING HEAD

Smart MODULAR concept

The range of AX rotary transmission modules is made of 2 variants, corresponding to the respective bearing diameter: AX-200 and AX-260.

Each variant can be equipped with different motor sizes and options, in order to make the product **flexible** and suitable for multiple configurations.

APPLICATION FIELDS EXAMPLES

Realization of the 4th or 5th axis on:

- Movable column milling machines
- Vertical machining centres

Integrated structural design

- **DIRECT DRIVE MOTOR (TORQUE MOTOR)**
- **SUPPORT BEARING WITH INTEGRATED ABSOLUTE HIGH ACCURACY ENCODER**
- **HYDRAULIC ACTUATED CLAMPING DEVICE**
HIGH TORQUE OPTION FOR INDEXED TURNING OPERATIONS



MAJOR INNOVATIONS AND BENEFITS

- Integrated Direct Drive technology
- Very competitive cost/performance ration
- Machine interface simple to design
- Ease and speed of installation
- Wide range of customizations due to the modular composition
- Ease and speed of geometrical alignment
- Reliability and precision due to rational assembly and low number of components
- Maintenance free
- High stiffness
- Positioning accuracy
- High performance hydraulic clamp for indexed axis machining



DIRECT-DRIVE MOTION TECHNOLOGY

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