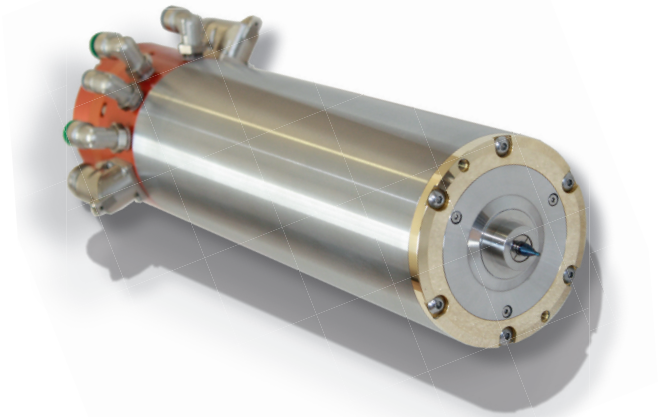
Data Sheet ASD-Cx



...ultra-precise aerostatic tool spindle with automatic collet system and radially outgoing spindle connections

			ASD060Cx	ASD080Cx	ASD090Cx
General	Body diameter	[mm]	100	100	100
	Total length	[mm]	415	415	415
	Weight	[kg]	16	16	16
	Speed	[rpm]	0 - 60,000	0 - 80,000	0 - 100,000
Motor option „high-power“, 400 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.7	0.7	0.7
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	270	370	440
	Rated current	[A]	10	10	10
	Peak current, RMS	[A]	20	20	20
	Shaft power	[kVA]	4.3	5.8	7.1
Motor option „high-power“, 200 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.7	0.7	0.7
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	170	205	265
	Rated current	[A]	18	18	18
	Peak current, RMS	[A]	36	36	36
	Shaft power	[kVA]	4.2	5.6	7.3
Motor option „iron-less“, 400 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.33	0.33	0.33
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	260	330	415
	Rated current	[A]	5	5	5
	Peak current, RMS	[A]	11	11	11
	Shaft power	[kVA]	2.1	2.8	3.4
Motor option „iron-less“, 200 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.33	0.33	0.33
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	160	180	240
	Rated current	[A]	9	9	9
	Peak current, RMS	[A]	18	18	18
	Shaft power	[kVA]	2.1	2.8	3.4
Rotary encoder	Type	[-]	incremental	incremental	incremental
	Lines	[-]	80	80	80
	Signal A/B	[-]	SinCos, 1 VSS	SinCos, 1 VSS	SinCos, 1 VSS
	Zero flag	[-]	yes (digital/ analog)	yes (digital/ analog)	yes (digital/ analog)
Bearing system	Bearing air supply pressure	[bar]	6 - 10	6 -10	6 -10
	Air cleanliness, ISO8573	[-]	3 or better	3 or better	3 or better
	Static radial zero position stiffness at the spindle nose	[N/µm]	> 40	> 30	> 18
	Static radial load capacity at the spindle nose	[N]	> 330	> 300	> 270
	Static axial zero position stiffness	[N/µm]	> 60	> 40	> 25
	Axial load capacity	[N]	> 600	> 550	> 500
Stability and precision	Taper run-out TIR	[nm]	< 100	< 100	< 100
	Shaft error in motion	[nm]	< 30	< 35	< 50
	Dynamic tool run-out *)	[µm]	< 0.5	< 0.8	< 1.3
	Spindle soak time	[min]	< 3	< 3	< 3
	Axial shaft growth	[µm]	< 3	< 5	< 7

all values are taken at 6 bar bearing air supply pressure
**) field-weakened operation*

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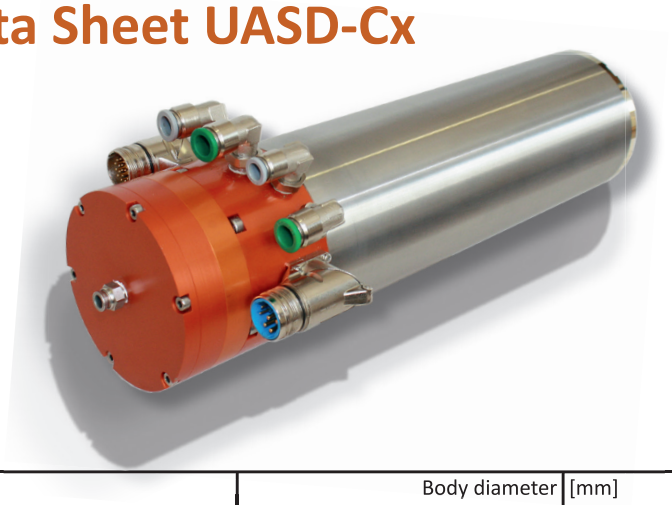
Data Sheet UASD-Cx



....also available as high-pressure aerostatic version available (UASD-Cx)

			UASD060Cx	UASD080Cx	UASD090Cx
General	Body diameter	[mm]	100	100	100
	Total length	[mm]	415	415	415
	Weight	[kg]	16	16	16
	Speed	[rpm]	0 - 60,000	0 - 80,000	0 - 100,000
Motor option „high-power“, 400 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.7	0.7	0.7
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	270	370	440
	Rated current	[A]	10	10	10
	Peak current, RMS	[A]	20	20	20
	Shaft power	[kVA]	4.3	5.8	7.1
Motor option „high-power“, 200 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.7	0.7	0.7
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	170	205	265
	Rated current	[A]	18	18	18
	Peak current, RMS	[A]	36	36	36
	Shaft power	[kVA]	4.2	5.6	7.3
Motor option „iron-less“, 400 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.33	0.33	0.33
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	260	330	415
	Rated current	[A]	5	5	5
	Peak current, RMS	[A]	11	11	11
	Shaft power	[kVA]	2.1	2.8	3.4
Motor option „iron-less“, 200 V max.	Type	[-]	3 phases, synchronous	3 phases, synchronous	3 phases, synchronous *)
	Constant torque	[Nm]	0.33	0.33	0.33
	Poles	[-]	2	2	2
	max. phase voltage, RMS	[V]	160	180	240
	Rated current	[A]	9	9	9
	Peak current, RMS	[A]	18	18	18
	Shaft power	[kVA]	2.1	2.8	3.4
Rotary encoder	Type	[-]	incremental	incremental	incremental
	Lines	[-]	80	80	80
	Signal A/B	[-]	SinCos, 1 VSS	SinCos, 1 VSS	SinCos, 1 VSS
	Zero flag	[-]	yes (digital/ analog)	yes (digital/ analog)	yes (digital/ analog)
Bearing system	Bearing air supply pressure	[bar]	20 - 30	20 - 30	20 - 30
	Air cleanliness, ISO8573	[-]	3 or better	3 or better	3 or better
	Static radial zero position stiffness at the spindle nose	[N/µm]	> 70	> 50	> 35
	Static radial load capacity at the spindle nose	[N]	> 900	> 800	> 750
	Static axial zero position stiffness	[N/µm]	> 75	> 70	> 60
	Axial load capacity	[N]	> 1,300	> 1,200	> 1,100
Stability and precision	Taper run-out TIR	[nm]	< 100	< 100	< 100
	Shaft error in motion	[nm]	< 35	< 40	< 55
	Dynamic tool run-out *)	[µm]	< 0.5	< 0.8	< 1.3
	Spindle soak time	[min]	< 3	< 3	< 3
	Axial shaft growth	[µm]	< 3	< 5	< 7

all values are taken at 20 bar bearing air supply pressure
**) field-weakened operatio*

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