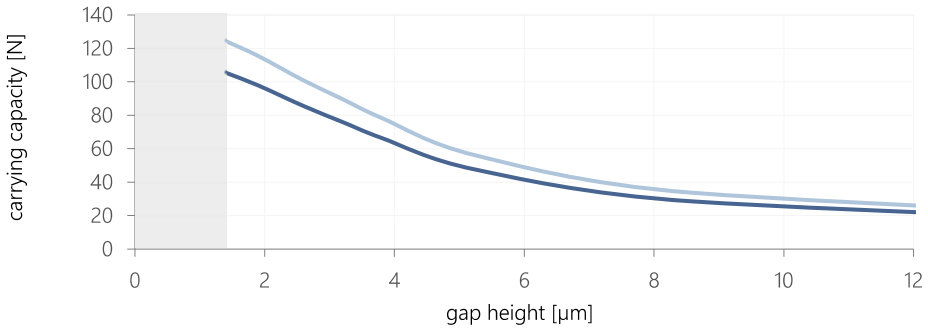
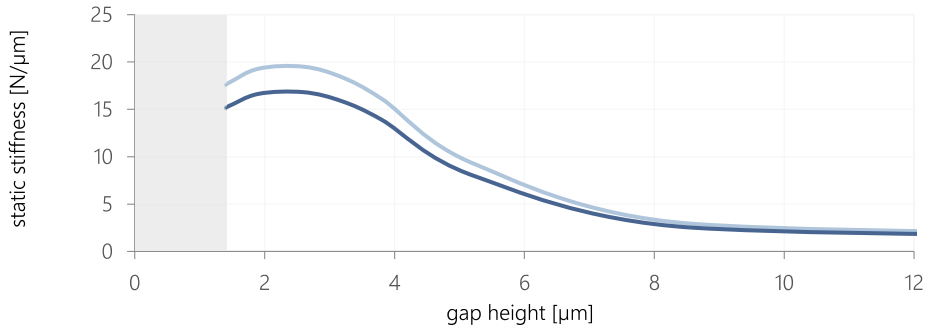
EZ-0053 Standard Air Bearings

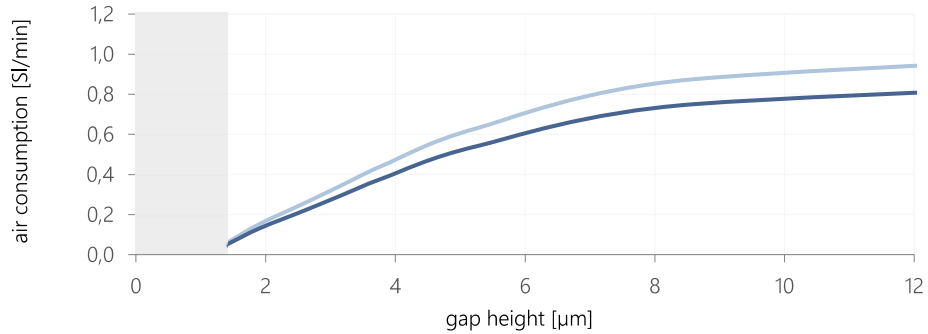
EITZENBERGER
KINEMATIK MIT LUFT

Designation	Diameter	Nominal load capacity	Static stiffness	Air consumption	Ident No.	Center screw
EZ-0053-020	20 mm	78 N	16 N/µm	0.29 Sl/min	0005481	EZ-0149 M10x1 R3
EZ-0053-025	25 mm	126 N	25 N/µm	0.17 Sl/min	0004735	EZ-0149 M10x1 R3
EZ-0053-030	30 mm	195 N	45 N/µm	0.38 Sl/min	0004738	EZ-0149 M10x1 R3
EZ-0053-035	35 mm	270 N	58 N/µm	0.42 Sl/min	0009417	EZ-0149 M10x1 R3
EZ-0053-040	40 mm	350 N	83 N/µm	0.49 Sl/min	0002427	EZ-0149 M10x1 R3
EZ-0053-045	45 mm	445 N	89 N/µm	0.44 Sl/min	0001977	EZ-0149 M12x1 R5
EZ-0053-050	50 mm	560 N	90 N/µm	0.51 Sl/min	0004005	EZ-0149 M12x1 R5
EZ-0053-055	55 mm	730 N	135 N/µm	0.50 Sl/min	0004740	EZ-0149 M12x1 R5
EZ-0053-060	60 mm	860 N	160 N/µm	0.58 Sl/min	0001995	EZ-0149 M12x1 R5
EZ-0053-080	80 mm	1500 N	345 N/µm	0.65 Sl/min	0003713	EZ-0149 M16x1 R8
EZ-0053-100	100 mm	2300 N	510 N/µm	0.40 Sl/min	0004658	EZ-0149 M24x1.5 R11
EZ-0053-120	120 mm	3400 N	640 N/µm	1.95 Sl/min	0004744	EZ-0149 M24x1.5 R11
EZ-0053-150	150 mm	5400 N	830 N/µm	1.25 Sl/min	0006218	EZ-0149 M24x1.5 R11
EZ-0053-170	170 mm	6600 N	1050 N/µm	2.13 Sl/min	0006296	EZ-0149 M36x1.5 R22
EZ-0053-310	310 mm	24500 N	3600 N/µm	3.84 Sl/min	0030380	EZ-0249 M72x2 R50

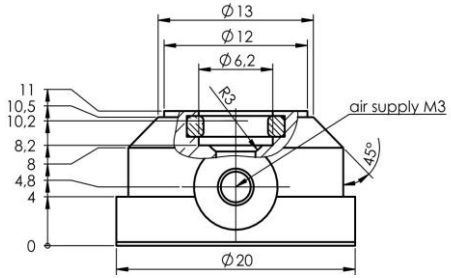
Standard Air Bearing EZ-0053-020







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

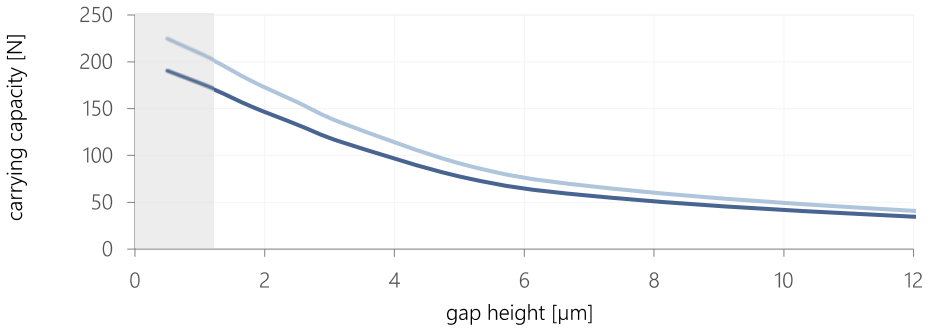
Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	105	120
Nominal carrying capacity	N	78	92
Gap height [3]	µm	3.1	3.1
Static stiffness [3]	N/µm	16.0	19.0
Air consumption [3]	Sl/min	0.29	0.33
Maximum velocity [3]	m/s	5	6
Weight	g	7	7
Air supply thread		M3	
Adapted with pressure screw		EZ-0149/EZ-0150 M10x1-R3	

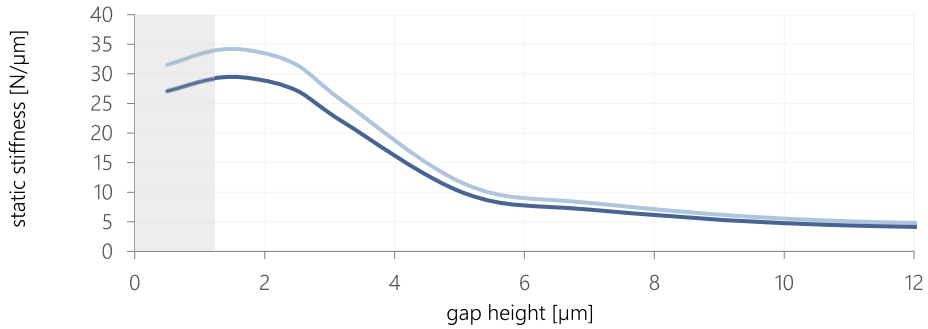
[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

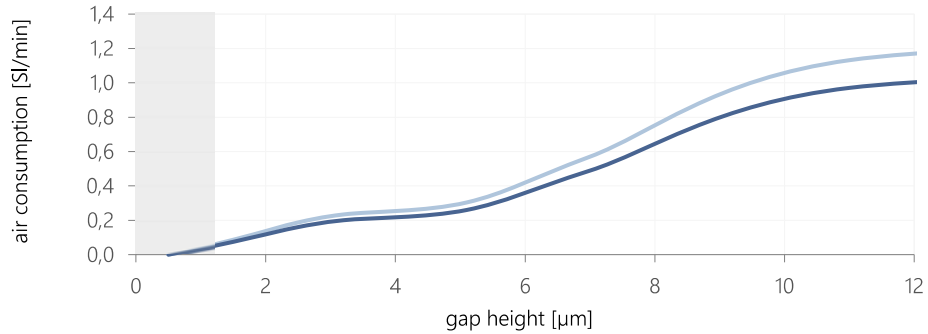
Visit our website for information on bearing design and function, counterface and air quality requirements, and the definition of gap height.

Subject to technical modifications and typographical errrors.

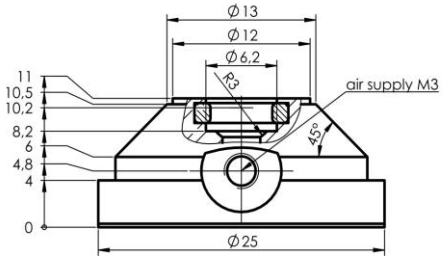
Standard Air Bearing EZ-0053-025







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	170	200
Nominal carrying capacity	N	125	145
Gap height [3]	µm	2.8	2.8
Static stiffness [3]	N/µm	25.0	29.0
Air consumption [3]	Sl/min	0.17	0.20
Maximum velocity [3]	m/s	5	6
Weight	g	11	11
Air supply thread		M3	
Adapted with pressure screw		EZ-0149/EZ-0150 M10x1-R3	

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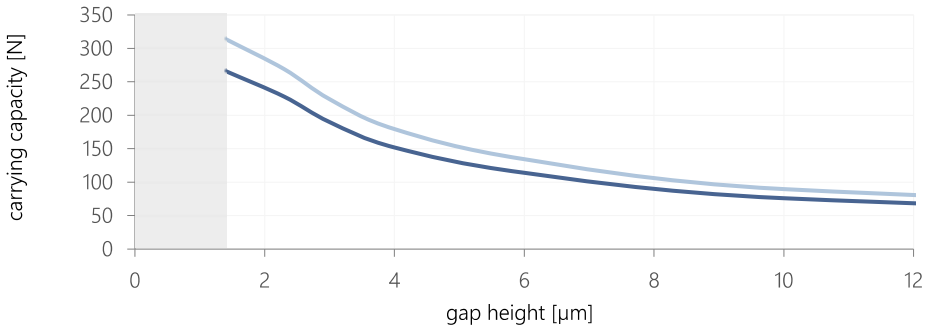
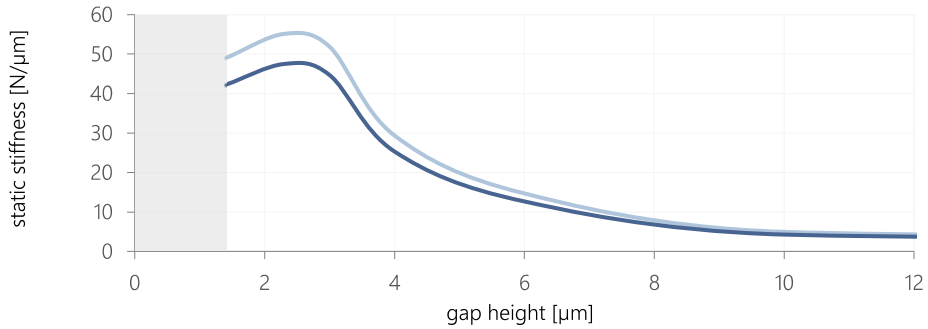
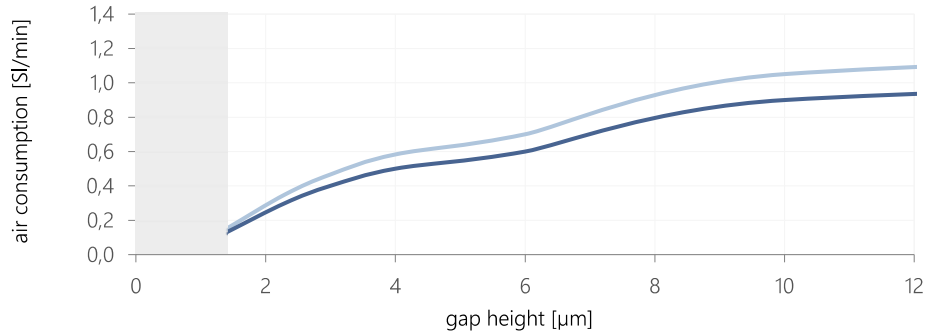
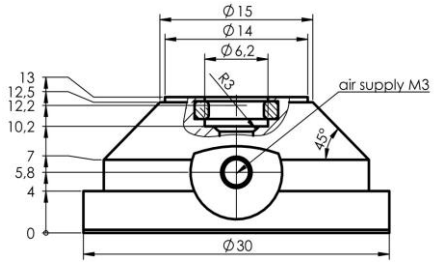
Standard Air Bearing EZ-0053-030







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	265	310
Nominal carrying capacity	N	195	230
Gap height [3]	µm	2.9	2.9
Static stiffness [3]	N/µm	45.0	52
Air consumption [3]	Sl/min	0.38	0.45
Maximum velocity [3]	m/s	5	6
Weight	g	17	17
Air supply thread		M3	
Adapted with pressure screw		EZ-0149/EZ-0150	M10x1-R3

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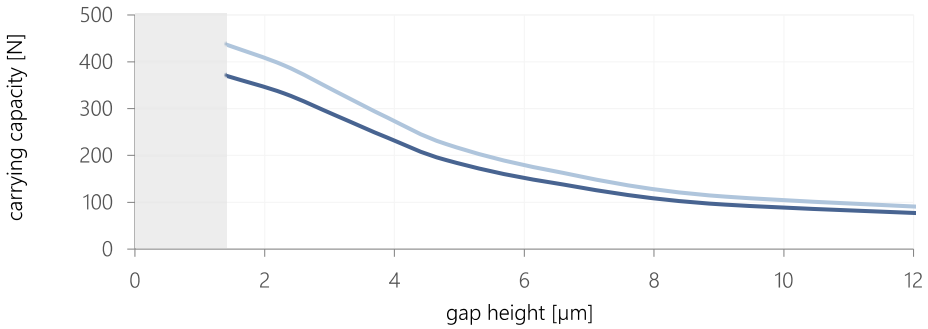
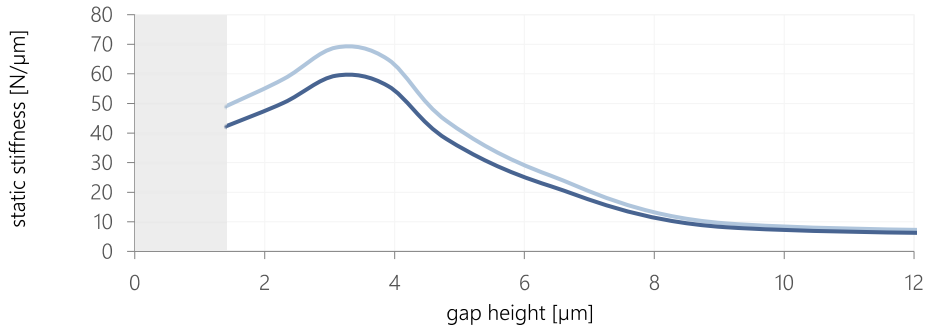
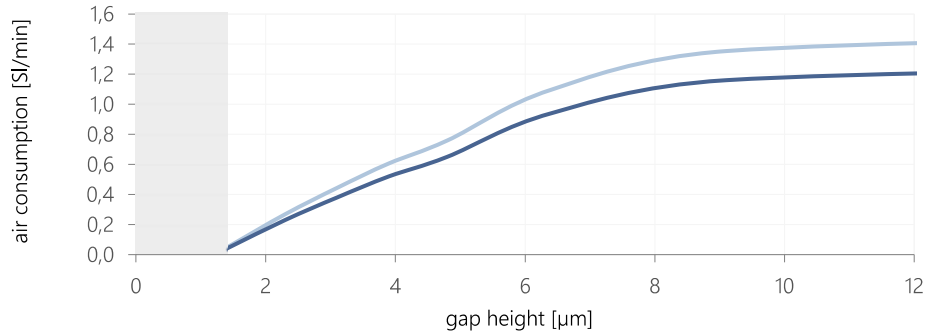
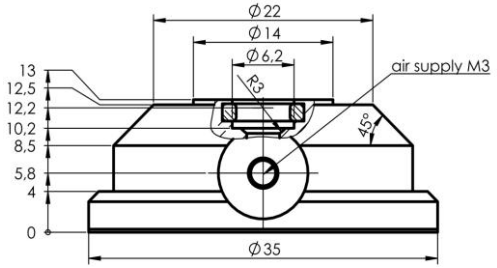
Standard Air Bearing EZ-0053-035







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	370	435
Nominal carrying capacity	N	270	320
Gap height [3]	µm	3.3	3.3
Static stiffness [3]	N/µm	58	68
Air consumption [3]	Sl/min	0.42	0.48
Maximum velocity [3]	m/s	5	6
Weight	g	25	25
Air supply thread		M3	
Adapted with pressure screw		EZ-0149/EZ-0150	M10x1-R3

[1] Patents: US 6,164,827, DE 199 18 564 A1
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[3] at nominal carrying capacity

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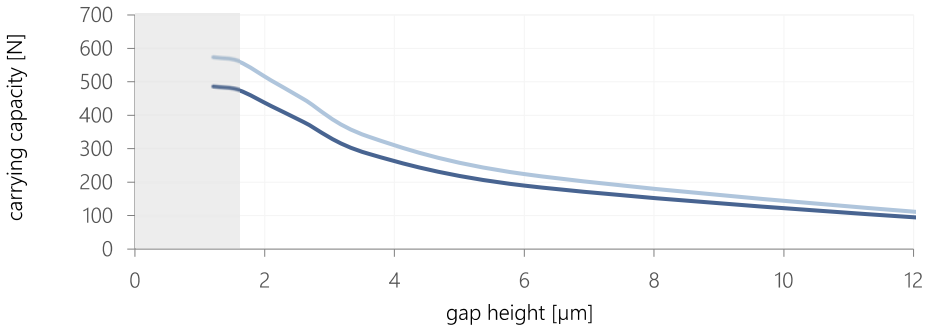
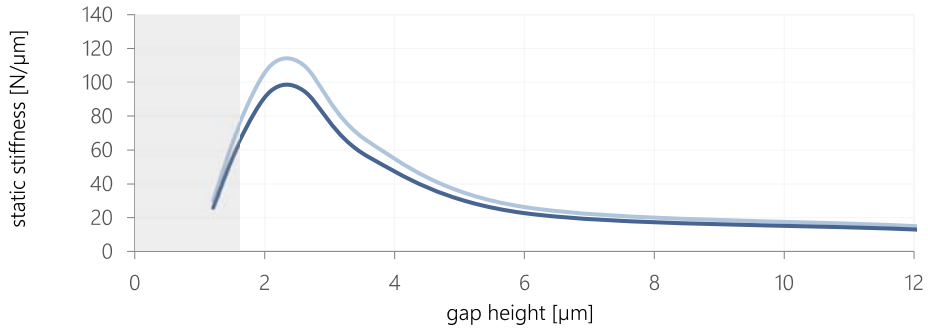
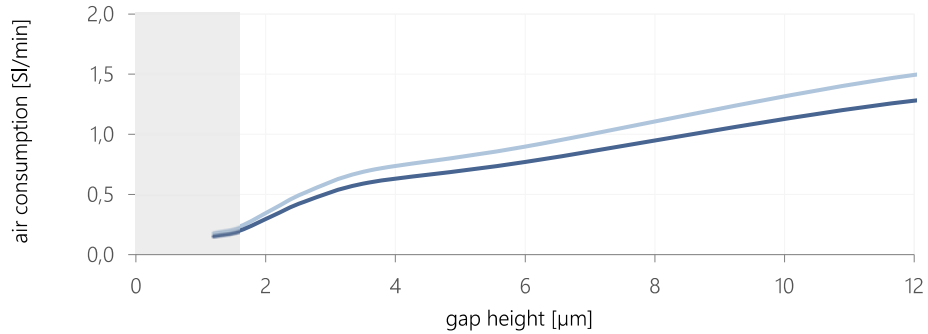
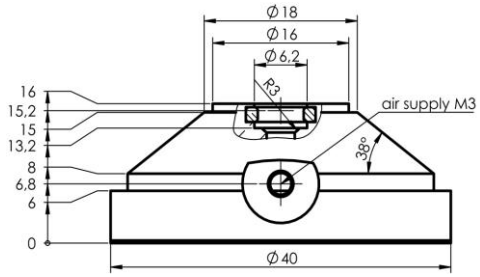
Standard Air Bearing EZ-0053-040







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	475	560
Nominal carrying capacity	N	350	410
Gap height [3]	µm	2.9	2.9
Static stiffness [3]	N/µm	83	96
Air consumption [3]	Sl/min	0.49	0.57
Maximum velocity [3]	m/s	5	6
Weight	g	39	39
Air supply thread		M3	
Adapted with pressure screw		EZ-0149/EZ-0150	M10x1-R3

[1] Patents: US 6,164,827, DE 199 18 564 A1
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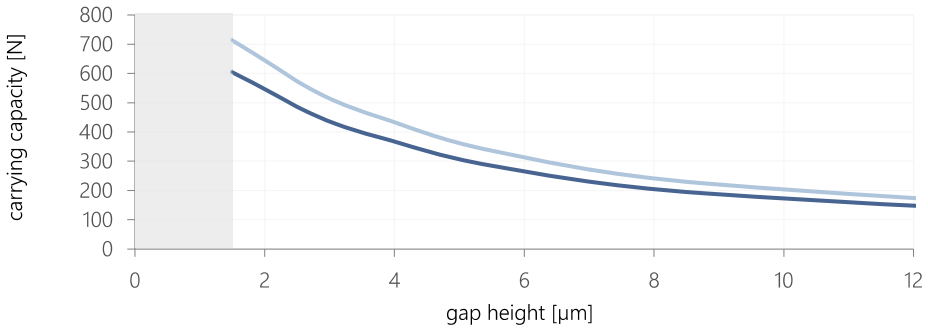
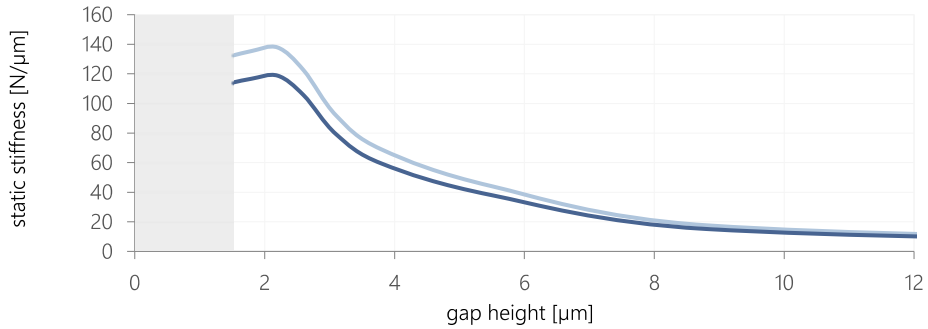
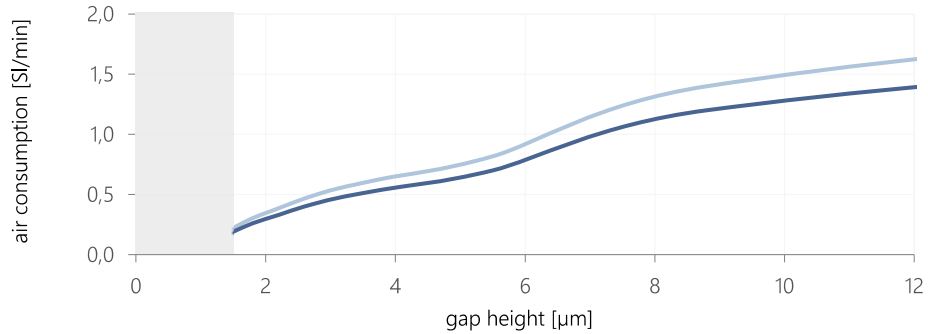
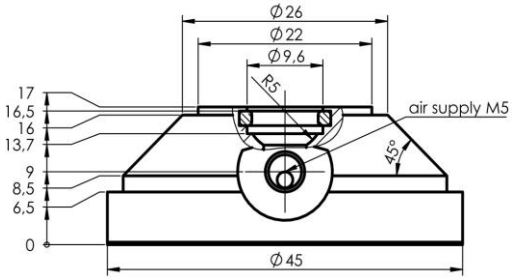
Standard Air Bearing EZ-0053-045







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	600	710
Nominal carrying capacity	N	445	520
Gap height [3]	µm	2.9	2.9
Static stiffness [3]	N/µm	89	100
Air consumption [3]	Sl/min	0.44	0.52
Maximum velocity [3]	m/s	5	6
Weight	g	55	55
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M12x1-R5

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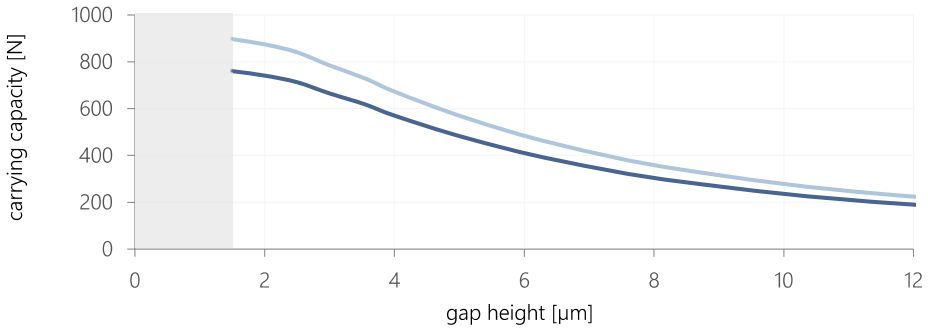
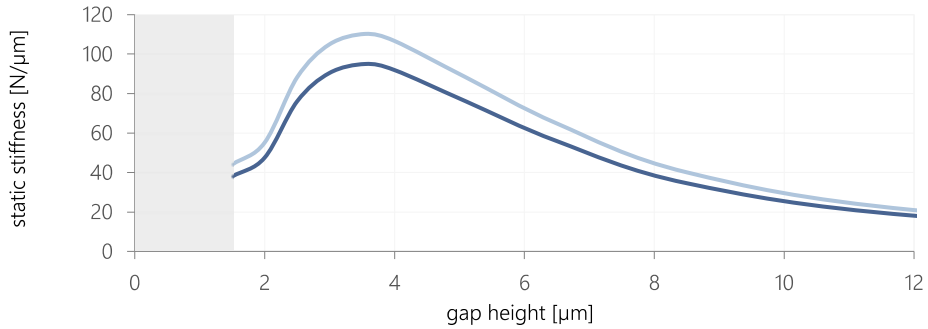
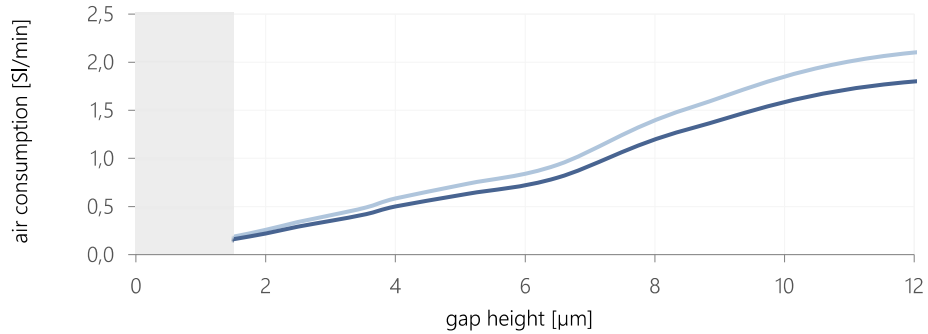
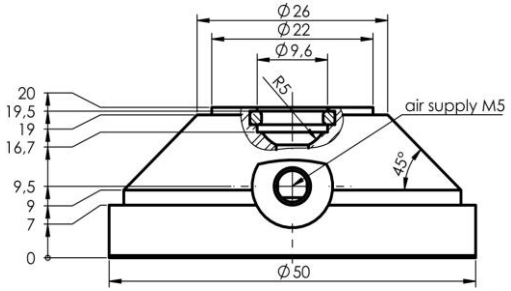
Standard Air Bearing EZ-0053-050







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	760	890
Nominal carrying capacity	N	560	660
Gap height [3]	µm	4.1	4.1
Static stiffness [3]	N/µm	90	105
Air consumption [3]	Sl/min	0.51	0.60
Maximum velocity [3]	m/s	5	6
Weight	g	77	77
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M12x1-R5

[1] Patents: US 6,164,827, DE 199 18 564 A1
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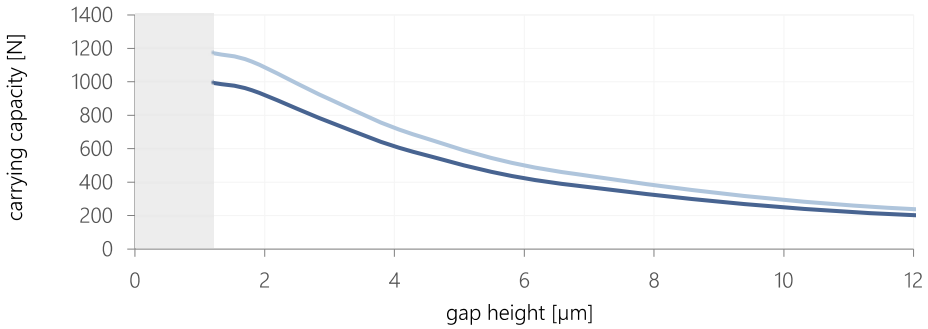
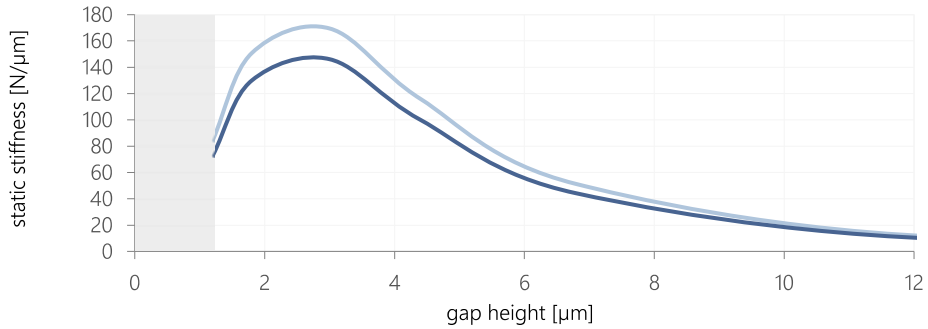
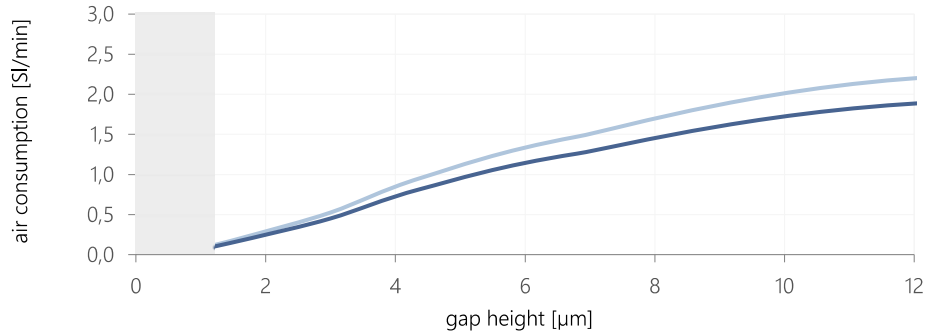
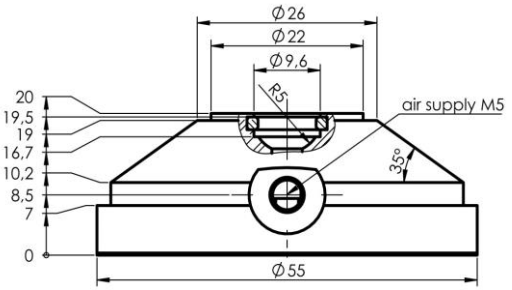
Standard Air Bearing EZ-0053-055







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	990	1150
Nominal carrying capacity	N	730	860
Gap height [3]	µm	3.2	3.2
Static stiffness [3]	N/µm	135	160
Air consumption [3]	Sl/min	0.50	0.59
Maximum velocity [3]	m/s	5	6
Weight	g	95	95
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M12x1-R5

[1] Patents: US 6,164,827, DE 199 18 564 A1
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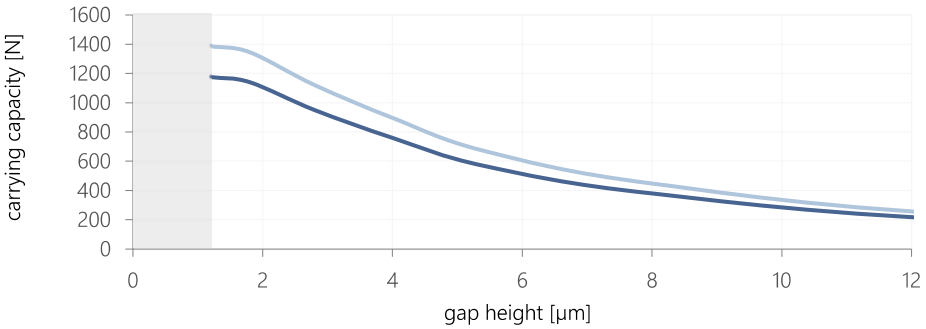
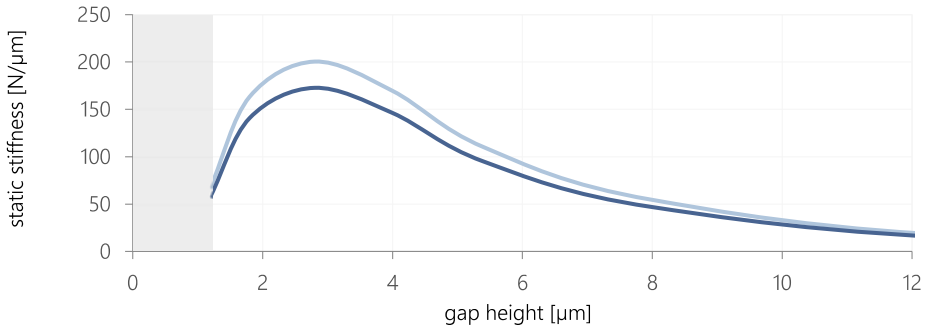
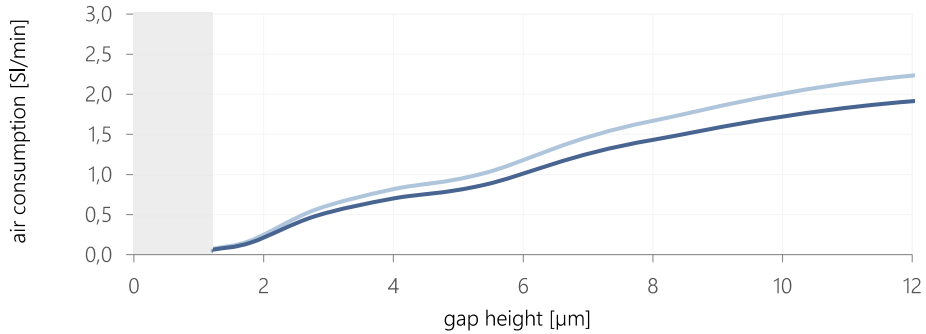
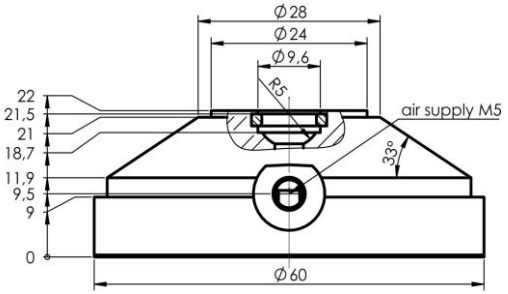
Standard Air Bearing EZ-0053-060







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	1150	1350
Nominal carrying capacity	N	860	1000
Gap height [3]	µm	3.3	3.3
Static stiffness [3]	N/µm	160	185
Air consumption [3]	Sl/min	0.58	0.67
Maximum velocity [3]	m/s	5	6
Weight	g	129	129
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M12x1-R5

[1] Patents: US 6,164,827, DE 199 18 564 A1
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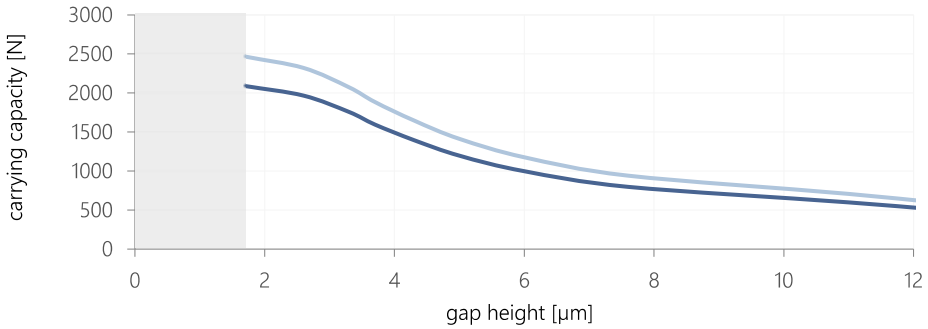
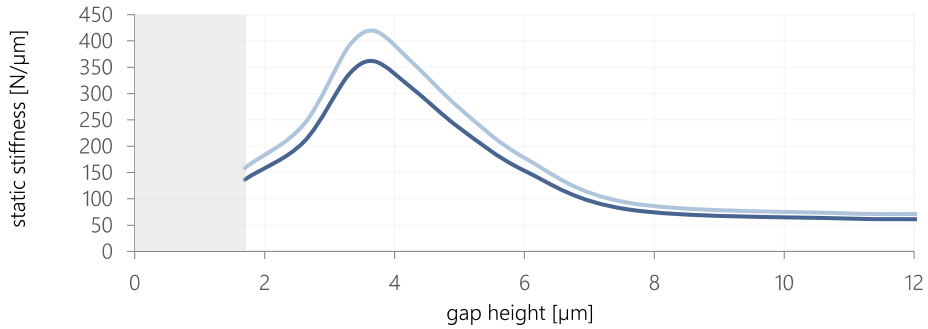
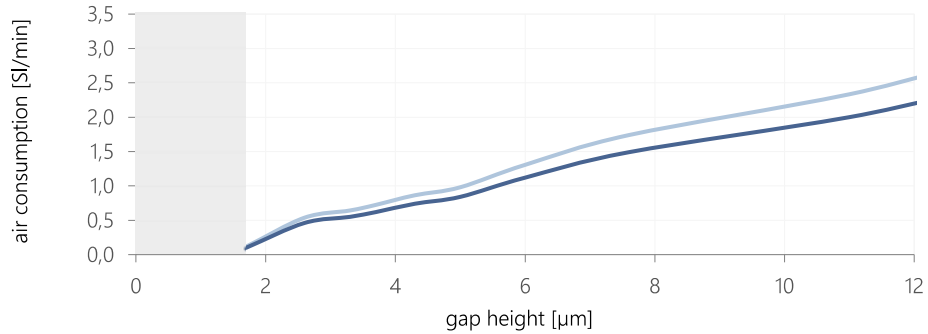
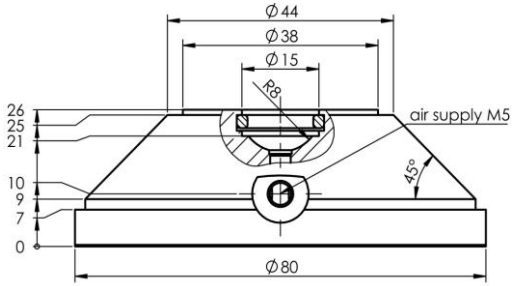
Standard Air Bearing EZ-0053-080







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

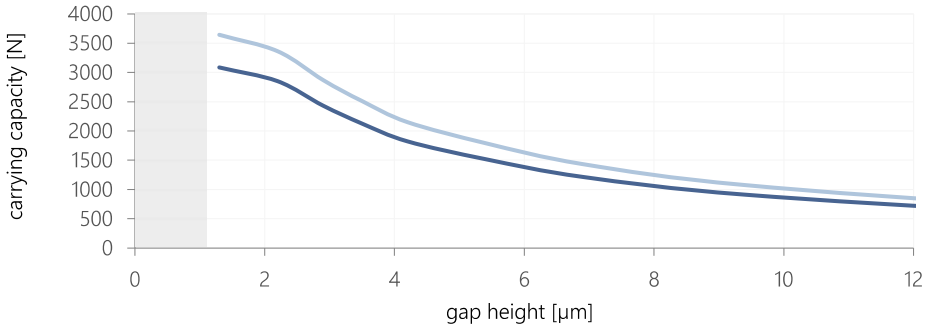
Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	2050	2450
Nominal carrying capacity	N	1500	1800
Gap height [3]	µm	3.9	3.9
Static stiffness [3]	N/µm	345	400
Air consumption [3]	Sl/min	0.65	0.76
Maximum velocity [3]	m/s	5	6
Weight	g	240	240
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M16x1-R8

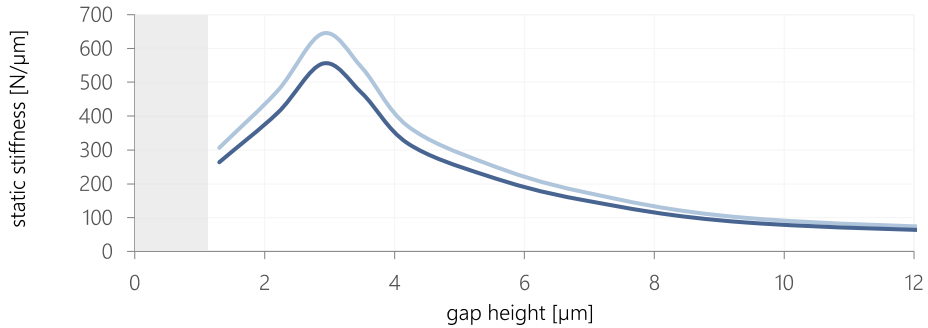
[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

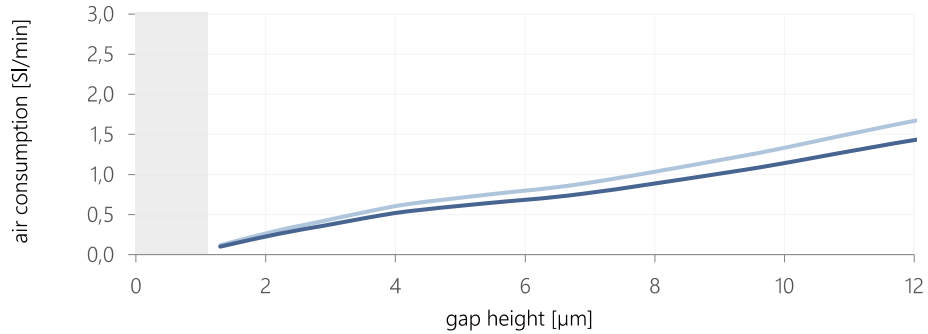
Visit our website for information on bearing design and function, counterface and air quality requirements, and the definition of gap height.

Subject to technical modifications and typographical errrors.

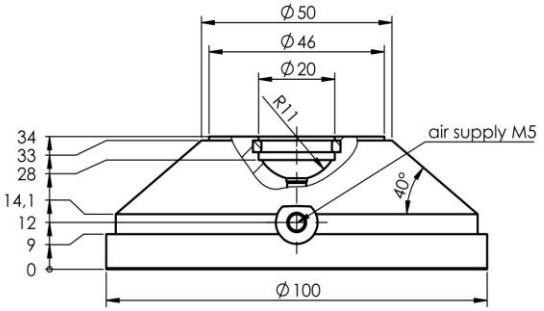
Standard Air Bearing EZ-0053-100







mixed friction range | 5 bar | 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	3100	3650
Nominal carrying capacity	N	2300	2700
Gap height [3]	µm	3.1	3.1
Static stiffness [3]	N/µm	510	600
Air consumption [3]	Sl/min	0.40	0.46
Maximum velocity [3]	m/s	5	6
Weight	g	528	528
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M24x1.5-R11

[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

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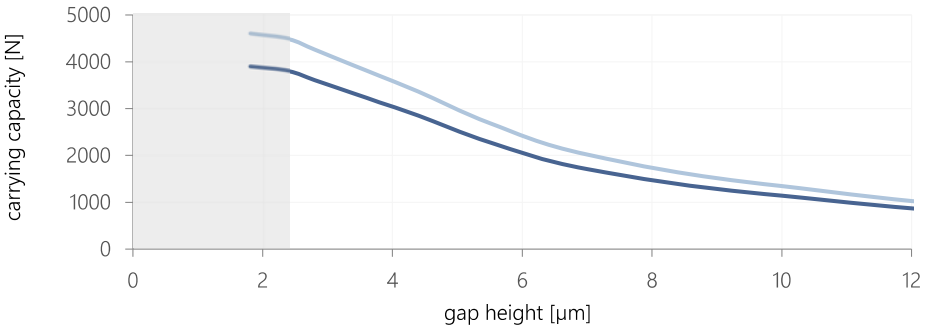
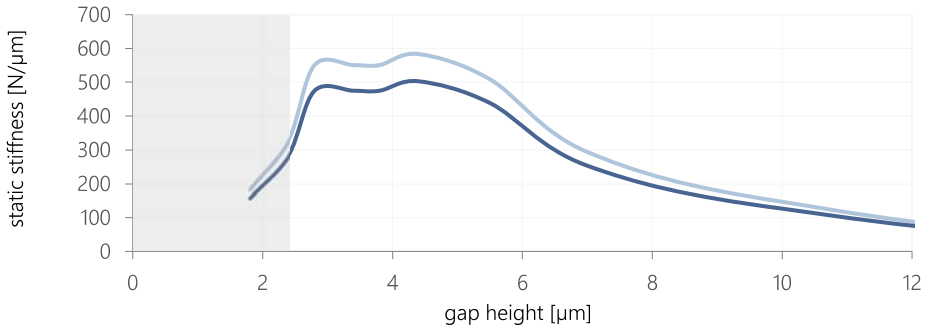
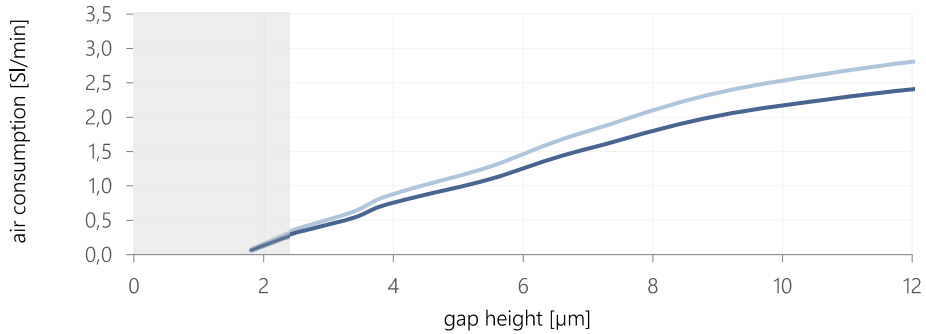
Subject to technical modifications and typographical errrors.

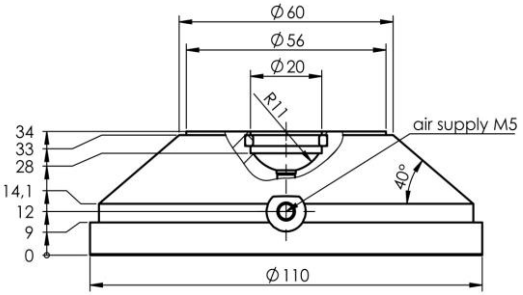
Standard Air Bearing EZ-0053-110







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

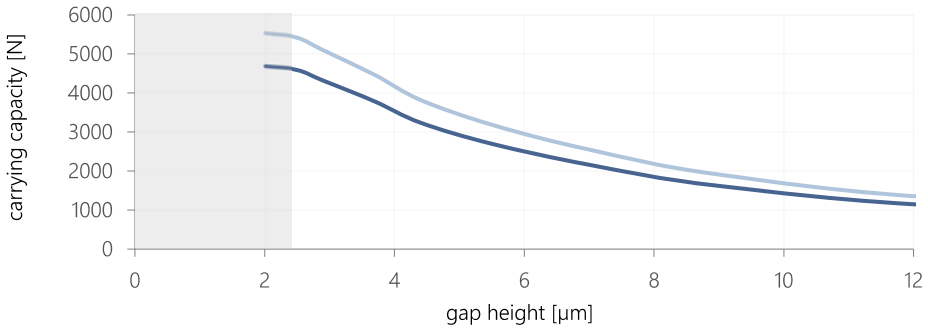
Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	3800	4450
Nominal carrying capacity	N	2800	3300
Gap height [3]	µm	4.5	4.5
Static stiffness [3]	N/µm	495	570
Air consumption [3]	Sl/min	0.87	1.02
Maximum velocity [3]	m/s	5	6
Weight	g	661	661
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M24x1.5-R11

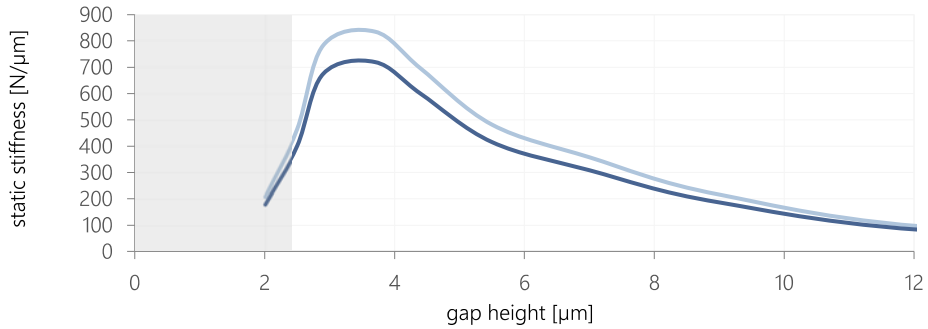
[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

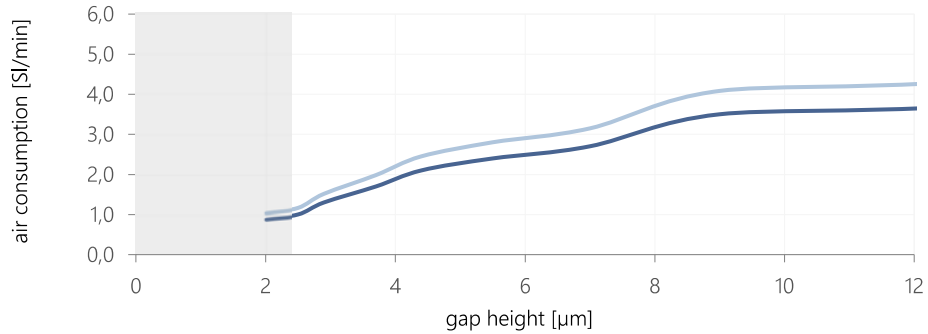
Visit our website for information on bearing design and function, counterface and air quality requirements, and the definition of gap height.

Subject to technical modifications and typographical errrors.

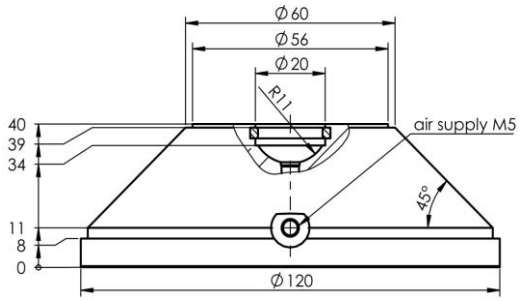
Standard Air Bearing EZ-0053-120







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	4650	5500
Nominal carrying capacity	N	3400	4050
Gap height [3]	µm	4.1	4.1
Static stiffness [3]	N/µm	640	750
Air consumption [3]	Sl/min	1.95	2.27
Maximum velocity [3]	m/s	5	6
Weight	g	849	849
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M24x1.5-R11

[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

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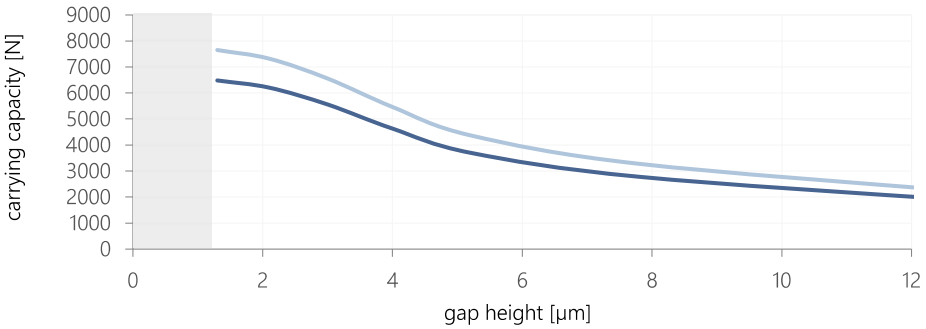
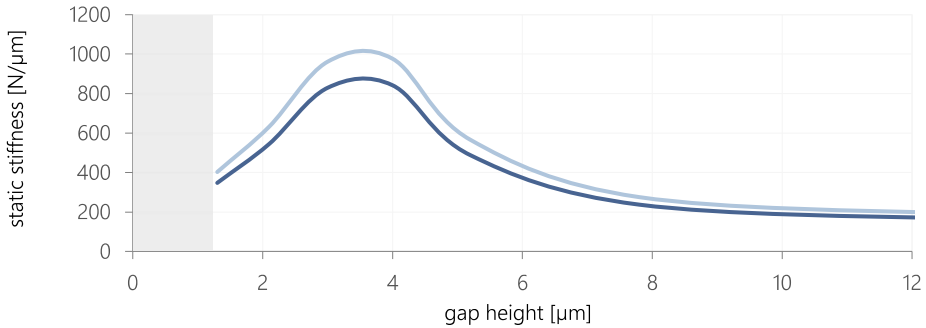
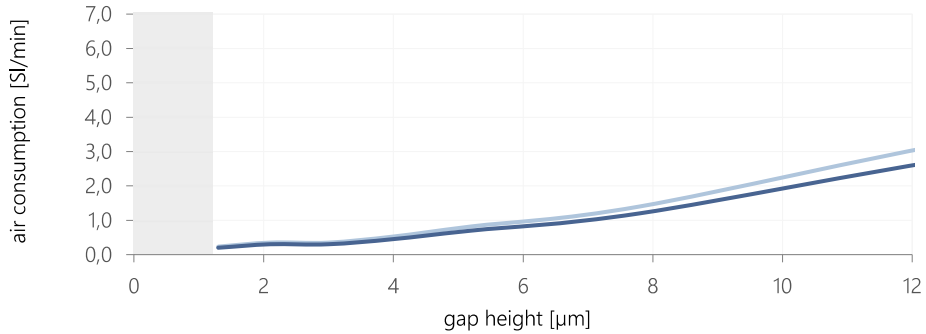
Subject to technical modifications and typographical errrors.

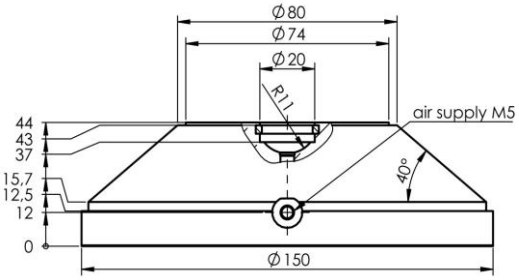
Standard Air Bearing EZ-0053-150







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

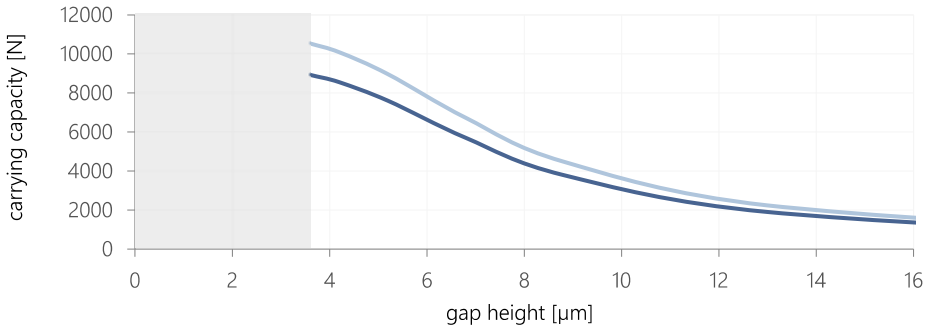
Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	N	7400	8700
Nominal carrying capacity	N	5400	6400
Gap height [3]	µm	3.1	3.1
Static stiffness [3]	N/µm	830	960
Air consumption [3]	Sl/min	0.32	0.37
Maximum velocity [3]	m/s	5	6
Weight	kg	1.5	1.5
Air supply thread		M5	
Adapted with pressure screw		EZ-0149/EZ-0150	M24x1.5-R11

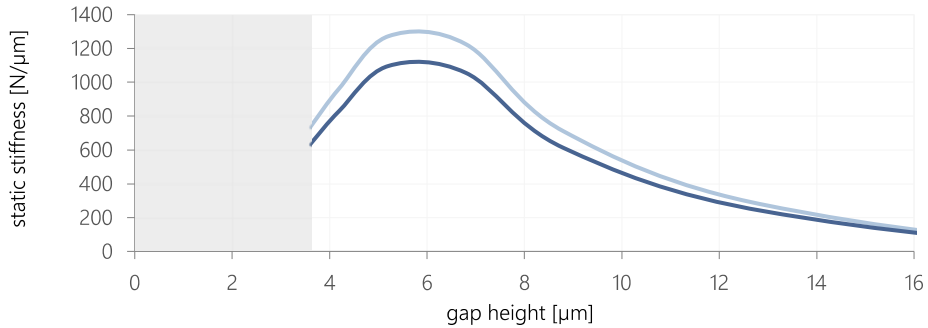
[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

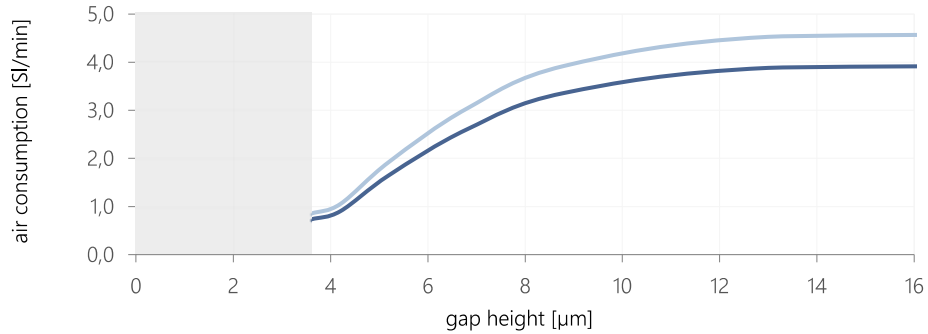
Visit our website for information on bearing design and function, counterface and air quality requirements, and the definition of gap height.

Subject to technical modifications and typographical errrors.

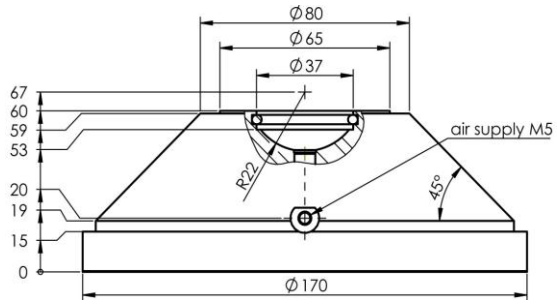
Standard Air Bearing EZ-0053-170







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

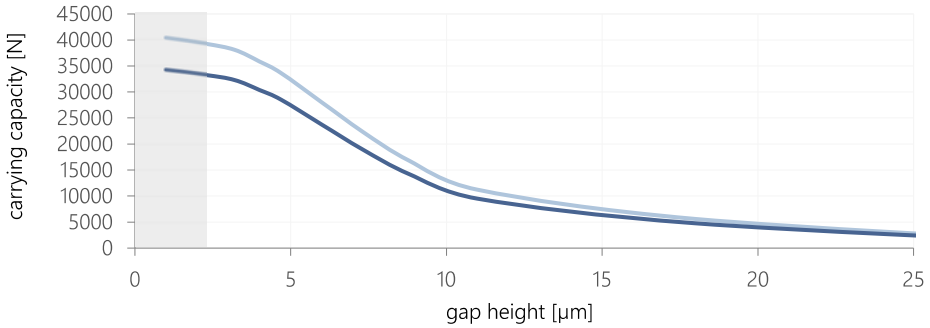
Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	kN	9.0	10.5
Nominal carrying capacity	kN	6.6	7.8
Gap height [3]	µm	6.0	6.0
Static stiffness [3]	N/µm	1050	1200
Air consumption [3]	Sl/min	2.13	2.48
Maximum velocity [3]	m/s	5	6
Weight	kg	2.4	2.4
Air supply thread		M5	
Adapted with pressure screw		EZ-0149	M36x1.5-R22

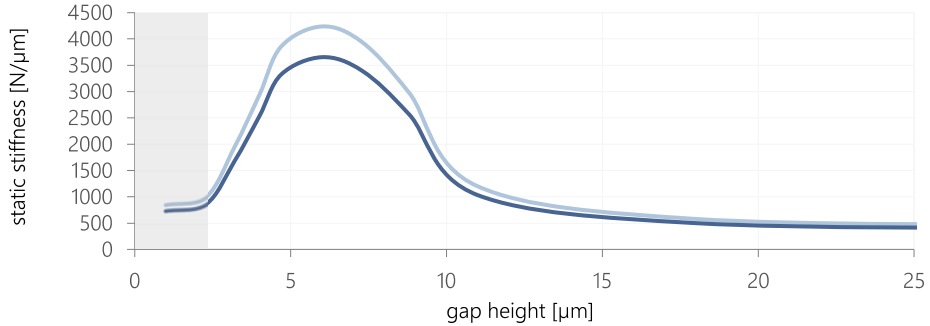
[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

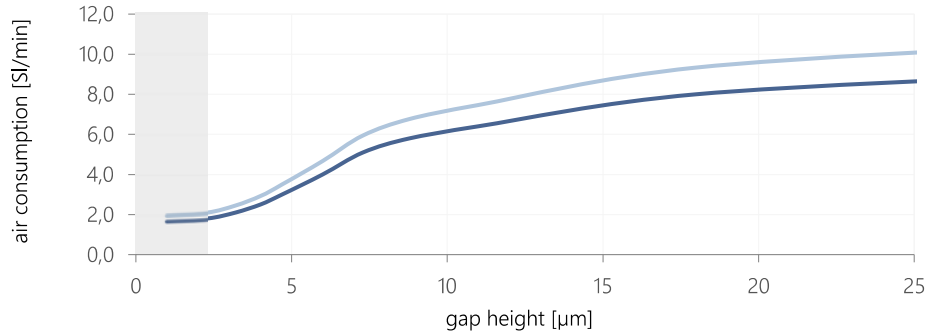
Visit our website for information on bearing design and function, counterface and air quality requirements, and the definition of gap height.

Subject to technical modifications and typographical errrors.

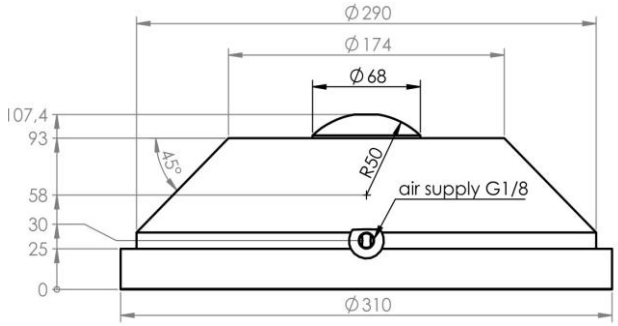
Standard Air Bearing EZ-0053-310







mixed friction range 5 bar 6 bar



Thermodynamically optimized air cushion due to micro groove system.[1] Bearing surface with dry running coating.

Air supply pressure [2]	bar_{rel}	5	6
Maximum carrying capacity	kN	33.0	39.0
Nominal carrying capacity	kN	24.5	28.5
Gap height [3]	µm	5.8	5.8
Static stiffness [3]	N/µm	3600	4150
Air consumption [3]	Sl/min	3.84	4.48
Maximum velocity [3]	m/s	5	6
Weight	kg	14.0	14.0
Air supply thread		G1/8"	
Adapted with pressure screw		EZ-0249 M72x2-R50	

[1] Patents: US 6,164,827, DE 199 18 564 A1
[2] deviating supply pressures on request
[3] at nominal carrying capacity

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Subject to technical modifications and typographical errrors.