

Active without Pressure and Efficient: The Clamping and Braking Element with spring-loaded energy storage **BW**.

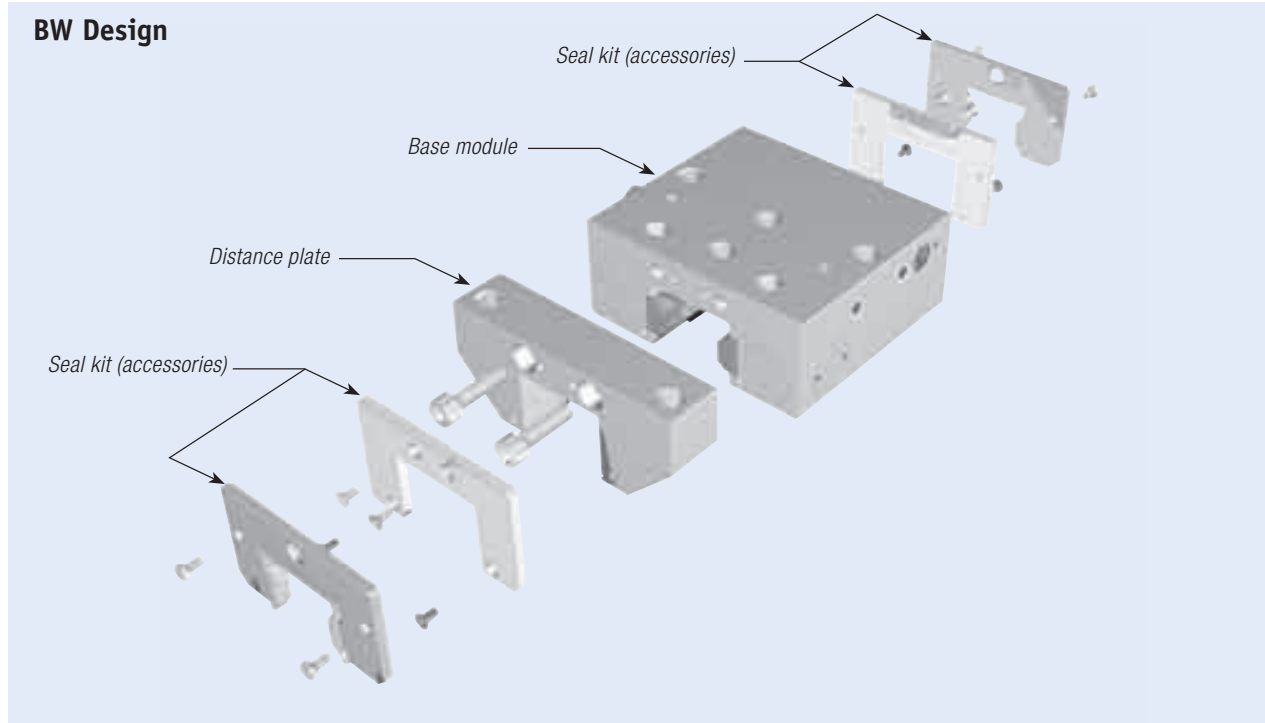
The BW series is based on a dual-effective wedge slide gear with spring-loaded energy storage for clamping and braking without pressure. Compressed air is used as the pressure medium. Positive fit contact sections mounted within a strong casing guarantee high axial and horizontal rigidity.

Because of the material combination of the linear guide/contact section, the linear guide won't be damaged by the contact section. In order to prevent damage from chips between the contact section and linear guide, the elements can be fitted with

original seals from the respective linear guide manufacturer and longitudinal seals as accessories. When used in harsh work environments or with cooling liquid, seals should be used as well. In order to guarantee the lifetime of the seals, follow the corresponding instructions from the respective linear guide manufacturer.

Details on the length of the brake path to be expected can be obtained from our technical advisors. The computations are based on serial tests and our industrial experience.

BW Design



Special characteristics:

- Special friction coating for braking
- Solid and rigid outer casing
- Lower air consumption
- Compact design, DIN 645 compatible
- Exact positioning
- Supporting forces up to 6,000 N
- Opening pressure >5.5 bar, **pneumatic**

Application scenarios for BW:

- Clamping in case of pressure drop
- Emergency OFF function
- Braking for linear motors
- Z-axes positioning in neutral position
- Machine table clamping of work centres

Variations:

The BW series offers various combination options. To screw elements from underneath a distance plate is required. Seals are recommended in harsh work environments.

Connection options:

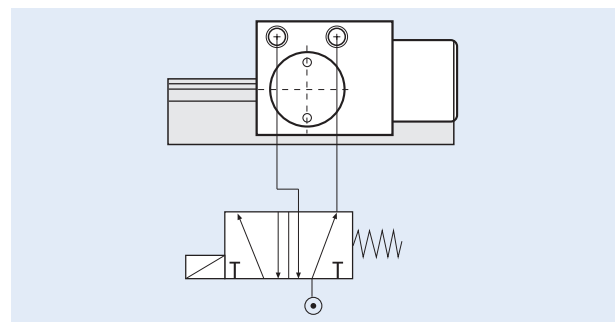
The basic version of the BW series features air connections on both sides. This means that the air connection and the air-release filter can be moved over to the opposite side. In addition, you can connect the element from the front (PLUS connection not possible at the front).

Higher supporting forces with PLUS connection (BWPS):

By using a 5/2 (overflow-free) or 5/3 valve it is possible to support the spring power with pneumatic pressure. By using the PLUS connection, the stated supporting force will be increased. Connection takes place according to the prestated plan.

When the PLUS connection is used, the air-release filter is replaced by connecting a second pneumatic tube. **The BWPS series** is fitted with integrated quick-action exhaust valves depending on the size of the unit.

For further information, please refer to the assembly instructions or visit www.zimmer-gmbh.com.



Rail manufacturer



Type of rail	Size	Type of carriage	Item number	Measure table (page 42 and 43)
HSR	35	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	BWPS 3501 AS1	1
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	BWPS 4501 AS1	2
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	BWPS 5501 AS1	3
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	BWPS 6501 AS1	4
NR/NRS	35	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	BWPS 3501 BS1	5
	45	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	BWPS 4501 BS1	6
	55	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	BWPS 5501 BS1	7
	65	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	BWPS 6501 BS1	8
SHS	35	SHS..C, SHS..LC	BWPS 3501 CS1	1
	45	SHS..C, SHS..LC	BWPS 4501 CS1	2
	55	SHS..C, SHS..LC	BWPS 5501 CS1	3
	65	SHS..C, SHS..LC	BWPS 6501 CS1	4
SRG	35	SRG..C, SRG..LC	BWPS 3501 ES1	1
	45	SRG..C, SRG..LC	BWPS 4501 ES1	2
	55	SRG..C, SRG..LC	BWPS 5501 ES1	3
	65	SRG..C, SRG..LC	BWPS 6501 ES1	4
SNR/SNS	35	SNR..C, SNR..LC, SNS..C, SNS..LC	BWPS 3501 IS1	5
	45	SNR..C, SNR..LC, SNS..C, SNS..LC	BWPS 4501 IS1	6
	55	SNR..C, SNR..LC, SNS..C, SNS..LC	BWPS 5501 IS1	7
	65	SNR..C, SNR..LC, SNS..C, SNS..LC	BWPS 6501 IS1	8

Rail manufacturer



1605, 1607 1645, 1647	35	1651, 1661, 1665, 1653, 1631	BWPS 3505 AS1	1
	45	1651, 1653	BWPS 4505 AS1	2
	55	1651, 1653	BWPS 5505 AS1	3
	65	1651, 1653	BWPS 6505 AS1	4
1805, 1807	35	1851, 1853	BWPS 3505 BS1	1
	45	1851, 1853	BWPS 4505 BS1	2
	55	1851, 1853	BWPS 5505 BS1	3
	65	1853	BWPS 6505 BS1	4

Rail manufacturer



MR	35	MR..A, MR..B	BWPS 3503 AS1	1
	45	MR..A, MR..B	BWPS 4503 AS1	2
	55	MR..A, MR..B	BWPS 5503 AS1	3
	65	MR..B	BWPS 6503 AS1	4

Rail manufacturer



LWH	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	BWPS 3510 AS1	1
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	BWPS 4510 AS1	2
	55	LWH..B, LWHG, LWHT..B, LWHTG	BWPS 5510 AS1	3
	65	LWH..B, LWHG, LWHT..B, LWHTG	BWPS 6510 AS1	4
LRX	35	LRXC, LRX, LRXG	BWPS 3510 BS1	1
	45	LRXC, LRX, LRXG	BWPS 4510 BS1	2
	55	LRXC, LRX, LRXG	BWPS 5510 BS1	3
	65	LRXC, LRX, LRXG	BWPS 6510 BS1	4
LWE	35	LWEC, LWE, LWETC, LWET, LWE..Q, LWET..Q, LWES..Q	BWPS 3510 CS1	1
	45	LWE, LWET	BWPS 4510 CS1	2

See page 13 for part number explanation

Type of rail	Size	Type of carriage	Item number	Measure table (page 42 and 43)
TKSD (KU5E)	35	KWSE, KWSE..-L	BWPS 3502 AS1	1
	45	KWSE, KWSE..-L	BWPS 4502 AS1	2
	55	KWSE, KWSE..-L	BWPS 5502 AS1	3
TKVD (KU5E)	35	KWVE..-B, KWVE..-B-EC, KWVE...-B-L, KWVE...-E, KWVE..-B-KT, KWVE..-B-KT-L	BWPS 3502 BS1	1
	45	KWVE..-B, KWVE..-B-EC, KWVE...-B-L, KWVE...-E, KWVE..-B-KT, KWVE..-B-KT-L	BWPS 4502 BS1	2
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L	⊗	
TSX - E (RUE)	35	RWU...-E, RWU...-E-L, RWU...-E-KT-L	BWPS 3502 DS1	1
	45	RWU...-E, RWU...-E-L, RWU...-E-KT-L	BWPS 4502 DS1	2
	55	RWU...-E, RWU...-E-L, RWU...-E-KT-L	BWPS 5502 DS1	3
	65	RWU...-E, RWU...-E-L	BWPS 6502 DS1	4

Rail manufacturer



BW

LS	35	LAS..KLZ, LAS.. FLZ, LAS..ELZ	BWPS 3504 AS1	1
LH	35	LAH..EMZ, LAH..GMZ	BWPS 3504 BS1	1
	45	LAH..EMZ, LAH..GMZ	BWPS 4504 BS1	2
	55	LAH..EMZ, LAH..GMZ	BWPS 5504 BS1	3
	65	LAH..EMZ, LAH..GMZ	BWPS 6504 BS1	4
SH	35	SAH..EMZ, SAH..GMZ	BWPS 3504 BS1	1
LY	35	LY..EL, LY..FL, LY.. GL, LY.. HL	BWPS 3504 CS1	1
	45	LY..EL, LY..FL, LY.. GL, LY.. HL	BWPS 4504 CS1	2
	55	LY..EL, LY..FL, LY.. GL, LY.. HL	BWPS 5504 CS1	3
	65	LY..EL, LY..FL, LY.. GL, LY.. HL	BWPS 6504 CS1	4
LA			x	
RA	35	RA..AL, RA..BL, RA..EM, RA..GM	⊗	
	45	RA..AL, RA..BL, RA..EM, RA..GM	⊗	
	55	RA..AL, RA..BL, RA..EM, RA..GM	⊗	
	65	RA..EM, RA..GM	BWPS 6504 FS1	4

Rail manufacturer



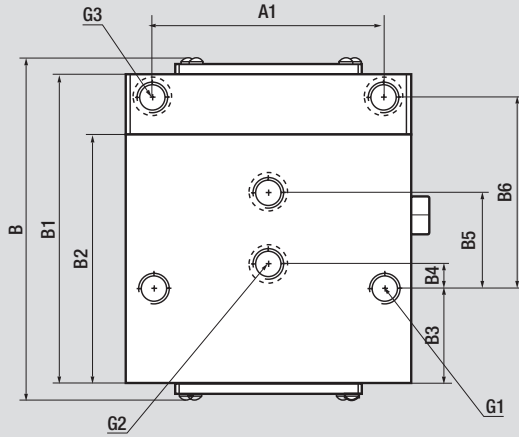
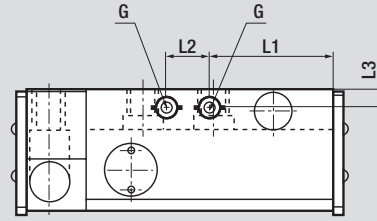
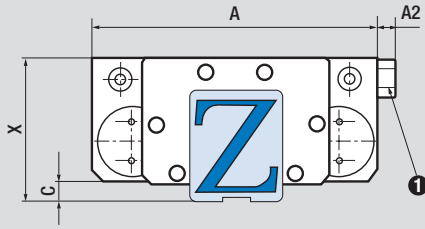
LGR..T, LGR..R	35	LGW..CC, LGW..HC	BWPS 3512 BS1	1
	45	LGW..CC, LGW..HC	BWPS 4512 BS1	2
	55	LGW..CC, LGW..HC	BWPS 5512 BS1	3
	65	LGW..CC, LGW..HC	BWPS 6512 BS1	4
HGR..T HGR..R	35	HGW..CC, HGW..HC	⊗	
	45	HGW..CC, HGW..HC	⊗	
	55	HGW..CC, HGW..HC	⊗	
	65	HGW..CC, HGW..HC	⊗	
RG..T	35	RGW..CC, RGW..HC	⊗	
	45	RGW..CC, RGW..HC	⊗	
	55	RGW..CC, RGW..HC	⊗	
	65	RGW..CC, RGW..HC	⊗	

Rail manufacturer



x: not feasible

See page 13 for part number explanation



Note: Consider measurement C!

Comment:
The air filter is not necessary if the PLUS-connection is being used.

Air connections are located on both sides and can be exchanged according to mounting requirements. The air connection can be fitted to the short side. Only one connection is necessary for function.

- G1: air connection
- G2: can be unscrewed from underneath with DIN 7984
- G3: can be unscrewed from underneath with DIN EN ISO 4762

1 air filter

Measure table	Holding power [N] BW Standard	Holding power [N] BW PLUS	min. releasing pressure [bar]	Normal liter [dm ³ /Stroke] Standard	Normal liter [dm ³ /stroke] PLUS	A [mm]	A1 [mm]	A2 [mm]	B [mm]	B1 [mm]	B2 [mm]	B3 [mm]
1	900	2300	5,5	0,05	0,335	100	82	6	max.140	113	90	42
2	1800	4000	5,5	0,081	0,542	120	100	6	max.157	129,5	104	40
3	2800	5000	5,5	0,106	1,062	140	116	6	max.189	159,5	135	52,5
4	3000	6000	5,5	0,166	1,935	170	142	6	max.216	179,5	150	56
5	900	2300	5,5	0,05	0,335	100	82	6	max.132	113	90	42
6	1800	4000	5,5	0,081	0,542	120	100	6	max.148	129,5	104	40
7	2800	5000	5,5	0,106	1,062	140	116	6	max.195	159,5	135	52,5
8	3000	6000	5,5	0,166	1,935	170	142	6	max.216	179,5	150	56

B4 [mm]	B5 [mm]	B6 [mm]	C [mm]	X [mm]	G	G1 ø/depth	G2 ø/depth	G3 ø/depth	L1 [mm]	L2 [mm]	L3 [mm]
5	31	62	6	48	G1/8"	M10/10	M10/9,5	M10/14	31	28	10
10	40	80	8	60	G1/8"	M12/15	M12/12,4	M12/18	52	18	9
12,5	47,5	95	11	70	G1/8"	M14/12,5	M14/12,5	M14/18	17	70	8,5
14	55	110	14	90	G1/4"	M16/22	M16/20	M16/22	20	75	20
0	31	62	7	44	G1/8"	M10/10	M10/10,7	M10/10,5	31	26	9
0	40	80	9	52	G1/8"	M12/10	M12/10,7	M12/12	52	16	8
0	47,5	95	11	63	G1/8"	M14/12	M14/15,7	M14/18	17	70	8,5
0	55	110	11	75	G1/4"	M16/14	M16/17,5	M16/20	20	75	11