

SWB-MET® 1069

SWB-MET® 1241



HEAT-TREATED BRONZE SLIDING BEARING ,
MAINTENANCE-BOUND

SWB-MET® 1241 sliding bearing

made of heavy-duty bronze



Types	SWB/Z Cylindrical bushing	SWB/B Flanged bushing	SWB/A Thrust washer	SWB/S Stripes
-------	------------------------------	--------------------------	------------------------	------------------

TECHNICAL DATA

Description	Heat-treated sliding bearing bronze, for area and shock loading. Great wear resistance, very good emergency running properties. Bronze sliding material for high load capacities. Excellent resistance to galling. For applications in explosive environment. Maintenance-bound
Properties	This material is characterised by his excellent physical properties and herefore superior to other sliding bronze's. This in his elements accurate controlled material will be used predominant in aircraft, carriage and crane industries as well as slide support bearings and piston bearings. Furthermore the material will be used in pumps, valves, packing boxes, gear parts as well as in machine construction and cupping tools.
Machinability	Tungsten carbide tips are recommendable for cutting the heavy-duty bronze 1241, although for smaller quantities an HSS tooling can be used. Drilling and thread cutting is more difficult than at other smoother LHG heavy-duty alloys, but nevertheless feasible.

MATERIAL PROPERTIES **

	Sand Casting*	Centrifugal Casting*	Unit
Tensile strength R_m	896 (862)	930 (896)	[N/mm ²]
Yield strength $R_{p0,2}$	724 (655)	724 (655)	[N/mm ²]
Elongation A_5	4	6	[%]
Brinell hardness	269 (255)	293 (277)	[HB 30]
Rockwell hardness	27 (25)	30 (28)	[HRC]
Compressive strength ultimate $\bar{\sigma}_{dB}$	1206	1241	[N/mm ²]
Density	7,45	7,45	[g / cm ³]

TOLERANCE DETAILS

Housing – Ø	According to customer's specification
Bushing after mounting	According to customer's specification
Shaft tolerance	According to customer's specification
Shaft material	Hardened steel, surface roughness < R_z 6,3

MOUNTING ADVISE

Housing – Ø	Mounting bevel, min. 1,5 mm x 15-45°
Shaft	Mounting bevel, 5 mm x 15°, edges rounded
Force fitting mandrel	The application of an adequate force fitting mandrel is advisable. Grease lubrication of the outer surface may be necessary when mounting.
Maintenance	Oil or grease lubrication is necessary. Because of lubrication slots or lubrication drills, lubrication clearances can be reduced to a minimum and lubricant allocation can be improved.

This bearing type is only available as manufacture of new articles, no stocking.
Custom sizes are manufactured in a short term!

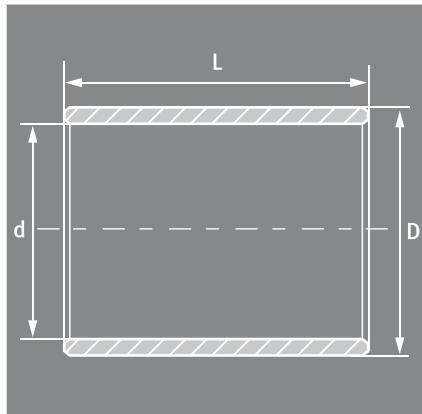
* All datas stated above are recommended values. Values stated in brackets are the minimum.

** The above stated material properties are valid for optimal operating conditions. Through changes of the application conditions e.g. higher sliding speed or strain, these values are subject to change

Custom sizes are produced in a short term

SWB/Z = Cylindrical bushing

List of our standard dimensions in mm.



		LHG description	d / D x L	LHG description	d / D x L
		SWB/Z176-162020	16/20x20	SWB/Z176-283620	28/36x20
		SWB/Z176-162212	16/22x12	SWB/Z176-283630	28/36x30
		SWB/Z176-162215	16/22x15	SWB/Z176-283640	28/36x40
		SWB/Z176-162220	16/22x20	SWB/Z176-303420	30/34x20
		SWB/Z176-182012	18/20x12	SWB/Z176-303430	30/34x30
		SWB/Z176-182020	18/20x20	SWB/Z176-303440	30/34x40
		SWB/Z176-182030	18/20x30	SWB/Z176-303620	30/36x20
		SWB/Z176-182212	18/22x12	SWB/Z176-303630	30/36x30
		SWB/Z176-182220	18/22x20	SWB/Z176-303640	30/36x40
		SWB/Z176-182230	18/22x30	SWB/Z176-303820	30/38x20
		SWB/Z176-182412	18/24x12	SWB/Z176-303830	30/38x30
		SWB/Z176-182420	18/24x20	SWB/Z176-303840	30/38x40
		SWB/Z176-182430	18/24x30	SWB/Z176-323620	32/36x20
		SWB/Z176-202315	20/23x15	SWB/Z176-323630	32/36x30
		SWB/Z176-202320	20/23x20	SWB/Z176-323640	32/36x40
		SWB/Z176-202330	20/23x30	SWB/Z176-323820	32/38x20
		SWB/Z176-202415	20/24x15	SWB/Z176-323830	32/38x30
		SWB/Z176-202420	20/24x20	SWB/Z176-323840	32/38x40
		SWB/Z176-202430	20/24x30	SWB/Z176-324020	32/40x20
		SWB/Z176-202615	20/26x15	SWB/Z176-324030	32/40x30
		SWB/Z176-202620	20/26x20	SWB/Z176-324040	32/40x40
		SWB/Z176-202630	20/26x30	SWB/Z176-353930	35/39x30
		SWB/Z176-222515	22/25x15	SWB/Z176-353940	35/39x40
		SWB/Z176-222520	22/25x20	SWB/Z176-353950	35/39x50
		SWB/Z176-222530	22/25x30	SWB/Z176-354130	35/41x30
		SWB/Z176-222615	22/26x15	SWB/Z176-354140	35/41x40
		SWB/Z176-222620	22/26x20	SWB/Z176-354150	35/41x50
		SWB/Z176-222630	22/26x30	SWB/Z176-354530	35/45x30
		SWB/Z176-222815	22/28x15	SWB/Z176-354540	35/45x40
		SWB/Z176-222820	22/28x20	SWB/Z176-354550	35/45x50
		SWB/Z176-222830	22/28x30	SWB/Z176-384230	38/42x30
		SWB/Z176-252820	25/28x20		
		SWB/Z176-252830	25/28x30		
		SWB/Z176-252840	25/28x40		
		SWB/Z176-253020	25/30x20		
		SWB/Z176-253030	25/30x30		
		SWB/Z176-253040	25/30x40		
		SWB/Z176-253220	25/32x20		
		SWB/Z176-253230	25/32x30		
		SWB/Z176-253240	25/32x40		
		SWB/Z176-283220	28/32x20		
		SWB/Z176-283230	28/32x30		
		SWB/Z176-283240	28/32x40		
		SWB/Z176-283420	28/34x20		
		SWB/Z176-283430	28/34x30		
		SWB/Z176-283440	28/34x40		

SWB/Z = Cylindrical bushing

List of our standard dimensions in mm.

LHG description	d / D x L	LHG description	d / D x L	LHG description	d / D x L
SWB/Z176-384240	38/42x40	SWB/Z176-505560	50/55x60	SWB/Z176-758550	75/85x50
SWB/Z176-384250	38/42x50	SWB/Z176-505840	50/58x40	SWB/Z176-758570	75/85x70
SWB/Z176-384530	38/45x30	SWB/Z176-505850	50/58x50	SWB/Z176-758590	75/85x90
SWB/Z176-384540	38/45x40	SWB/Z176-505860	50/58x60	SWB/Z176-759050	75/90x50
SWB/Z176-384550	38/45x50	SWB/Z176-506040	50/60x40	SWB/Z176-759070	75/90x70
SWB/Z176-384830	38/48x30	SWB/Z176-506050	50/60x50	SWB/Z176-759090	75/90x90
SWB/Z176-384840	38/48x40	SWB/Z176-506060	50/60x60	SWB/Z176-808560	80/85x60
SWB/Z176-384850	38/48x50	SWB/Z176-556040	55/60x40	SWB/Z176-808580	80/85x80
SWB/Z176-404430	40/44x30	SWB/Z176-556050	55/60x50	SWB/Z176-8085100	80/85x100
SWB/Z176-404440	40/44x40	SWB/Z176-556070	55/60x70	SWB/Z176-809060	80/90x60
SWB/Z176-404460	40/44x60	SWB/Z176-556340	55/63x40	SWB/Z176-809080	80/90x80
SWB/Z176-404830	40/48x30	SWB/Z176-556350	55/63x50	SWB/Z176-8090100	80/90x100
SWB/Z176-404840	40/48x40	SWB/Z176-556370	55/63x70	SWB/Z176-809560	80/95x60
SWB/Z176-404860	40/48x60	SWB/Z176-556540	55/65x40	SWB/Z176-809580	80/95x80
SWB/Z176-405030	40/50x30	SWB/Z176-556550	55/65x50	SWB/Z176-8095100	80/95x100
SWB/Z176-405040	40/50x40	SWB/Z176-556570	55/65x70	SWB/Z176-859060	85/90x60
SWB/Z176-405060	40/50x60	SWB/Z176-606540	60/65x40	SWB/Z176-859080	85/90x80
SWB/Z176-424630	42/46x30	SWB/Z176-606560	60/65x60	SWB/Z176-8590100	85/90x100
SWB/Z176-424640	42/46x40	SWB/Z176-606580	60/65x80	SWB/Z176-859560	85/95x60
SWB/Z176-424660	42/46x60	SWB/Z176-607040	60/70x40	SWB/Z176-859580	85/95x80
SWB/Z176-425030	42/50x30	SWB/Z176-607060	60/70x60	SWB/Z176-8595100	85/95x100
SWB/Z176-425040	42/50x40	SWB/Z176-607080	60/70x80	SWB/Z176-8510060	85/100x60
SWB/Z176-425060	42/50x60	SWB/Z176-607540	60/75x40	SWB/Z176-8510080	85/100x80
SWB/Z176-425230	42/52x30	SWB/Z176-607560	60/75x60	SWB/Z176-85100100	85/100x100
SWB/Z176-425240	42/52x40	SWB/Z176-607580	60/75x80	SWB/Z176-9010060	90/100x60
SWB/Z176-425260	42/52x60	SWB/Z176-657050	65/70x50	SWB/Z176-9010080	90/100x80
SWB/Z176-455030	45/50x30	SWB/Z176-657060	65/70x60	SWB/Z176-90100120	90/100x120
SWB/Z176-455040	45/50x40	SWB/Z176-657080	65/70x80	SWB/Z176-9010560	90/105x60
SWB/Z176-455060	45/50x60	SWB/Z176-657550	65/75x50	SWB/Z176-9010580	90/105x80
SWB/Z176-455330	45/53x30	SWB/Z176-657560	65/75x60	SWB/Z176-90105120	90/105x120
SWB/Z176-455340	45/53x40	SWB/Z176-657580	65/75x80	SWB/Z176-9011060	90/110x60
SWB/Z176-455360	45/53x60	SWB/Z176-658050	65/80x50	SWB/Z176-9011080	90/110x80
SWB/Z176-455530	45/55x30	SWB/Z176-658060	65/80x60	SWB/Z176-90110120	90/110x120
SWB/Z176-455540	45/55x40	SWB/Z176-658080	65/80x80	SWB/Z176-9510560	95/105x60
SWB/Z176-455060	45/55x60	SWB/Z176-707550	70/75x50	SWB/Z176-95105100	95/105x100
SWB/Z176-485340	48/53x40	SWB/Z176-707570	70/75x70	SWB/Z176-95105120	95/105x120
SWB/Z176-485350	48/53x50	SWB/Z176-707590	70/75x90	SWB/Z176-9511060	95/110x60
SWB/Z176-485360	48/53x60	SWB/Z176-708050	70/80x50	SWB/Z176-95110100	95/110x100
SWB/Z176-485640	48/56x40	SWB/Z176-708070	70/80x70	SWB/Z176-95110120	95/110x120
SWB/Z176-485650	48/56x50	SWB/Z176-708090	70/80x90	SWB/Z176-9511560	95/115x60
SWB/Z176-485660	48/56x60	SWB/Z176-708550	70/85x50	SWB/Z176-95115100	95/115x100
SWB/Z176-485840	48/58x40	SWB/Z176-708570	70/85x70	SWB/Z176-95115120	95/115x120
SWB/Z176-485850	48/58x50	SWB/Z176-708590	70/85x90	SWB/Z176-10011080	100/110x80
SWB/Z176-485860	48/58x60	SWB/Z176-758050	75/80x50	SWB/Z176-100110100	100/110x100
SWB/Z176-505540	50/55x40	SWB/Z176-758070	75/80x70	SWB/Z176-100110120	100/110x120
SWB/Z176-505550	50/55x50	SWB/Z176-758090	75/80x90	SWB/Z176-10011580	100/115x80

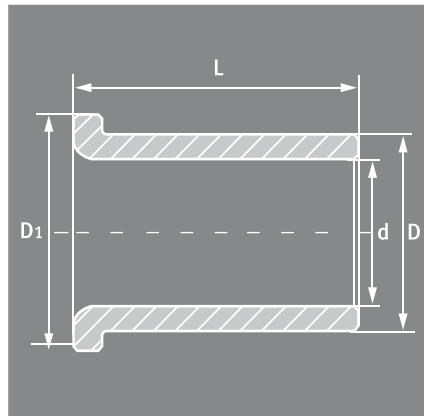
SWB/Z = Cylindrical bushing

List of our standard dimensions in mm.

LHG description	d / D x L	LHG description	d / D x L
SWB/Z176-100115100	100/115x100	SWB/Z176-160185180	160/185x180
SWB/Z176-100115120	100/115x120	SWB/Z176-170190120	170/190x120
SWB/Z176-10012080	100/120x80	SWB/Z176-170190180	170/190x180
SWB/Z176-100120100	100/120x100	SWB/Z176-170190200	170/190x200
SWB/Z176-100120120	100/120x120	SWB/Z176-170195120	170/195x120
SWB/Z176-10512080	105/120x80	SWB/Z176-170195180	170/195x180
SWB/Z176-105120100	105/120x100	SWB/Z176-170195200	170/195x200
SWB/Z176-105120120	105/120x120	SWB/Z176-180200150	180/200x150
SWB/Z176-10512580	105/125x80	SWB/Z176-180200180	180/200x180
SWB/Z176-105125100	105/125x100	SWB/Z176-180200250	180/200x250
SWB/Z176-105125120	105/125x120	SWB/Z176-180210150	180/210x150
SWB/Z176-11012580	110/125x80	SWB/Z176-180210180	180/210x180
SWB/Z176-110125100	110/125x100	SWB/Z176-180210250	180/210x250
SWB/Z176-110125120	110/125x120	SWB/Z176-190210150	190/210x150
SWB/Z176-11013080	110/130x80	SWB/Z176-190210180	190/210x180
SWB/Z176-110130100	110/130x100	SWB/Z176-190210250	190/210x250
SWB/Z176-110130120	110/130x120	SWB/Z176-190220150	190/220x150
SWB/Z176-120135100	120/135x100	SWB/Z176-190220180	190/220x180
SWB/Z176-120135120	120/135x120	SWB/Z176-190220250	190/220x250
SWB/Z176-120135150	120/135x150	SWB/Z176-200220180	200/220x180
SWB/Z176-120140100	120/140x100	SWB/Z176-200220200	200/220x200
SWB/Z176-120140120	120/140x120	SWB/Z176-200220250	200/220x250
SWB/Z176-120140150	120/140x150	SWB/Z176-200230180	200/230x180
SWB/Z176-130145100	130/145x100	SWB/Z176-200230200	200/230x200
SWB/Z176-130145120	130/145x120	SWB/Z176-200230250	200/230x250
SWB/Z176-130145150	130/145x150		
SWB/Z176-130150100	130/150x100		
SWB/Z176-130150120	130/150x120		
SWB/Z176-130150150	130/150x150		
SWB/Z176-140155100	140/155x100		
SWB/Z176-140155150	140/155x150		
SWB/Z176-140155180	140/155x180		
SWB/Z176-140160100	140/160x100		
SWB/Z176-140160150	140/160x150		
SWB/Z176-140160180	140/160x180		
SWB/Z176-150165120	150/165x120		
SWB/Z176-150165150	150/165x150		
SWB/Z176-150165180	150/165x180		
SWB/Z176-150170120	150/170x120		
SWB/Z176-150170150	150/170x150		
SWB/Z176-150170180	150/170x180		
SWB/Z176-160180120	160/180x120		
SWB/Z176-160180150	160/180x150		
SWB/Z176-160180180	160/180x180		
SWB/Z176-160185120	160/185x120		
SWB/Z176-160185150	160/185x150		

SWB/B = Flanged bushing

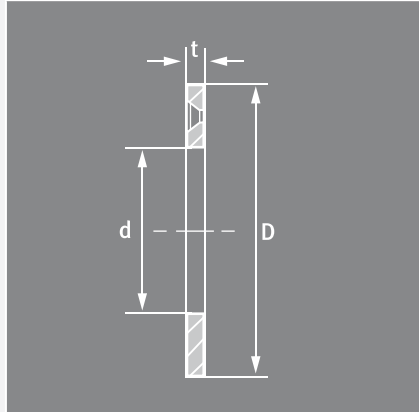
List shows standard dimensions in mm



LHG description	d / D / D ₁ - s x L	LHG description	d / D / D ₁ - s x L
SWB/B176-101610	10/16/20-3x10	SWB/B176-1012080	100/120/130-10x80
SWB/B176-121810	12/18/22-3x10	SWB/B176-100120100	100/120/130-10x100
SWB/B176-121815	12/18/22-3x15	SWB/B176-100120120	100/120/130-10x120
SWB/B176-121820	12/18/22-3x20	SWB/B176-10512580	105/125/135-10x80
SWB/B176-142010	14/20/25-3x10	SWB/B176-105125100	105/125/135-10x100
SWB/B176-142015	14/20/25-3x15	SWB/B176-105125120	105/125/135-10x120
SWB/B176-142020	14/20/25-3x20	SWB/B176-11013080	110/130/140-10x80
SWB/B176-152110	15/21/27-3x10	SWB/B176-110130100	110/130/140-10x100
SWB/B176-152115	15/21/27-3x15	SWB/B176-110130120	110/130/140-10x120
SWB/B176-152120	15/21/27-3x20	SWB/B176-120140100	120/140/150-10x100
SWB/B176-162212	16/22/28-3x12	SWB/B176-120140120	120/140/150-10x120
SWB/B176-162215	16/22/28-3x15	SWB/B176-120140150	120/140/150-10x150
SWB/B176-162220	16/22/28-3x20	SWB/B176-130150100	130/150/160-10x100
SWB/B176-182412	18/24/30-3x12	SWB/B176-130150120	130/150/160-10x120
SWB/B176-182420	18/24/30-3x20	SWB/B176-130150150	130/150/160-10x150
SWB/B176-182430	18/24/30-3x30	SWB/B176-140160100	140/160/170-10x100
SWB/B176-202615	20/26/32-3x15	SWB/B176-140160150	140/160/170-10x150
SWB/B176-202620	20/26/32-3x20	SWB/B176-140160180	140/160/170-10x180
SWB/B176-202630	20/26/32-3x30	SWB/B176-150170120	150/170/180-10x120
SWB/B176-222815	22/28/34-3x15	SWB/B176-150170150	150/170/180-10x150
SWB/B176-222820	22/28/34-3x20	SWB/B176-150170180	150/170/180-10x180
SWB/B176-222830	22/28/34-3x30	SWB/B176-160185120	160/185/200-12,5x120
SWB/B176-253220	25/32/38-4x20	SWB/B176-160185150	160/185/200-12,5x150
SWB/B176-253230	25/32/38-4x30	SWB/B176-160185180	160/185/200-12,5x180
SWB/B176-253240	25/32/38-4x40	SWB/B176-170195120	170/195/210-12,5x120
SWB/B176-283620	28/36/42-4x20	SWB/B176-170195180	170/195/210-12,5x180
SWB/B176-283630	28/36/42-4x30	SWB/B176-170195200	170/195/200-12,5x200
SWB/B176-283640	28/36/42-4x40	SWB/B176-180210150	180/210/220-15x150
SWB/B176-303820	30/38/44-4x20	SWB/B176-180210180	180/210/220-15x180
SWB/B176-303830	30/38/44-4x30	SWB/B176-180210250	180/210/220-15x250
SWB/B176-303840	30/38/44-4x40	SWB/B176-190220150	190/220/230-15x150
SWB/B176-324020	32/40/46-4x20	SWB/B176-190220180	190/220/230-15x180
SWB/B176-324030	32/40/46-4x30	SWB/B176-190220250	190/220/230-15x250
SWB/B176-324040	32/40/46-4x40	SWB/B176-200230180	200/230/240-15x180
SWB/B176-354530	35/45/50-5x30	SWB/B176-200230200	200/230/240-15x200
		SWB/B176-200230250	200/230/240-15x250
		SWB/B176-200230250	200/230/240-15x250
		SWB/B176-8095100	80/95/105-7,5x100
		SWB/B176-8510060	85/100/110-7,5x60
		SWB/B176-8510080	85/100/110-7,5x80
		SWB/B176-85100100	85/100/110-7,5x100
		SWB/B176-9011060	90/110/120-10x60
		SWB/B176-9011080	90/110/120-10x80
		SWB/B176-90110120	90/110/120-10x120
		SWB/B176-9511560	95/115/125-10x60
		SWB/B176-95115100	95/115/125-10x100
		SWB/B176-95115120	95/115/125-10x120
		SWB/B176-354540	35/45/50-5x40
		SWB/B176-354550	35/45/50-5x50
		SWB/B176-384830	38/48/54-5x30
		SWB/B176-384840	38/48/54-5x40
		SWB/B176-384850	38/48/54-5x50
		SWB/B176-405030	40/50/58-5x30
		SWB/B176-405040	40/50/58-5x40
		SWB/B176-405060	40/50/58-5x60
		SWB/B176-425230	42/52/60-5x30
		SWB/B176-425240	42/52/60-5x40
		SWB/B176-425260	42/52/60-5x60
		SWB/B176-455530	45/55/63-5x30
		SWB/B176-455540	45/55/63-5x40
		SWB/B176-455560	45/55/63-5x60
		SWB/B176-485840	48/58/66-5x40
		SWB/B176-485850	48/58/66-5x50
		SWB/B176-485860	48/58/66-5x60
		SWB/B176-506040	50/60/68-5x40
		SWB/B176-506050	50/60/68-5x50
		SWB/B176-506060	50/60/68-5x60
		SWB/B176-556540	55/65/73-5x40
		SWB/B176-556550	55/65/73-5x50
		SWB/B176-556570	55/65/73-5x70
		SWB/B176-607540	60/75/83-7,5x40
		SWB/B176-607560	60/75/83-7,5x60
		SWB/B176-607580	60/75/83-7,5x80
		SWB/B176-658050	65/80/88-7,5x50
		SWB/B176-658060	65/80/88-7,5x60
		SWB/B176-658080	65/80/88-7,5x80
		SWB/B176-708550	70/85/95-7,5x50
		SWB/B176-708570	70/85/95-7,5x70
		SWB/B176-708590	70/85/95-7,5x90
		SWB/B176-759050	75/90/100-7,5x50
		SWB/B176-759070	75/90/100-7,5x70
		SWB/B176-759090	75/90/100-7,5x90
		SWB/B176-809560	80/95/105-7,5x60
		SWB/B176-809580	80/95/105-7,5x80

All sizes and measurements are produced to customers specification

SWB/A = Thrust washer



SWB/S = Stripes & Plates

