

SWB-MET[®] 1069

SWB-MET[®] 1241



HEAT-TREATED BRONZE SLIDING BEARING,
MAINTENANCE-BOUND



SWB-MET® 1069 sliding bearing

Heat-treated sliding bearing bronze, for area and shock loading • Great wear resistance, very good emergency running properties • Maintenance-bound

PROPERTIES		This heat-treated bronze alloy is very good resistant against high loading pressure and impact loads. The main applications of this material are bearings, guide slide bearings, spindle nut, sliding parts. As a result of the chemical resistance the material can be applied where acids, bases and sea water occur.		
MACHINABILITY		SBS heavy duty bronze 1069 is very good to process. Carbide tipped tools are not necessary.		
SWB/Z Cylindrical bushing SWB/B Flanged bushing SWB/A Thrust washer SWB/S Strips	MATERIAL PROPERTIES **	Sand Casting*	Centrifugal Casting*	Unit
	Tensile strength R_m	724 (620)	793 (655)	[N/mm ²]
	Yield strength $R_{p0.2}$	379 (345)	407 (345)	[N/mm ²]
	Elongation A_5	8 (4)	10 (5)	[%]
	Brinell hardness	223 (202)	228 (202)	[HB 30]
	Rockwell hardness	97 (94)	98 (94)	[HRB]
	Compressive strength ultimate σ_{dB}	1069	1069	[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 ADVICE		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.		

* 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.

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



SWB-MET® 1241 sliding bearing

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

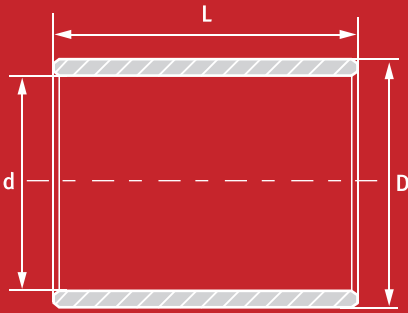
PROPERTIES	This material is characterised by his excellent physical properties and herefore superior to other sliding bronze's. This in his elements accurate controlled material will be used predominant in aircraft, carriage and crane industries as well as slide support bearings and piston bearings. 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 SBS 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 σ_{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 ADVICE			
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.		

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

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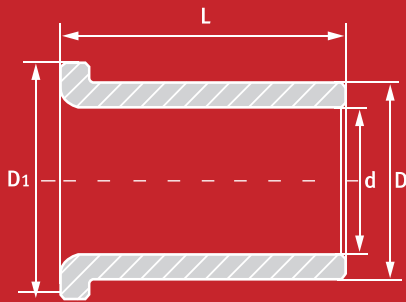
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SWB/Z Cylindrical bushing



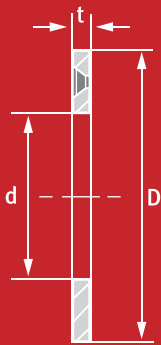
SWB	Z	50	65	70
Type (SWB-MET®)	Geometry (Cylindrical bushing)	Inner diameter 50 mm (d)	Outer diameter 65 mm (D)	Length 70 mm (L)

SWB/B Flanged bushing



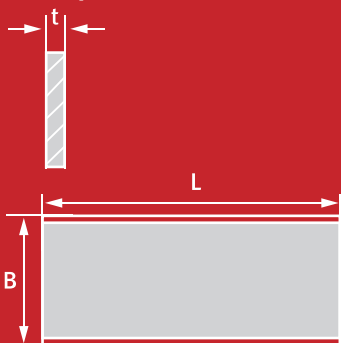
SWB	B	50	65	70
Type (SWB-MET®)	Geometry (Flanged bushing)	Inner diameter 50 mm (d)	Outer diameter 65 mm (D)	Length 70 mm (L)

SWB/A Thrust washer



SWB	A	30	60	05
Type (SWB-MET®)	Geometry (Thrust washer)	Inner diameter 30 mm (d)	Outer diameter 60 mm (D)	Thickness 5 mm (t)

SWB/S Strips



SWB	S	30	70	10
Type (SWB-MET®)	Geometry (Strip)	Width 30 mm (B)	Length 70 mm (L)	Thickness 1.0 mm (t)

All sizes and measurements are produced to customer's specification.