



Self-Lubricating
Sintered Bearings

STANDARD DIMENSIONS



*More than 1,600 references
permanently in stock for
immediate delivery*

www.selfoil.com



Self-Lubricating Sintered Bearings



Main Characteristics

The SELFOIL® Self-Lubricating Sintered Bearings are porous metallic components made of bronze or iron, impregnated with a lubricant oil.

The oil contained in the porosity provides a constant lubrication between bearing and shaft, so the system does not need any additional external lubricant.

Advantages

Economy

- No need for lubricators.
- Maintenance-free.

Safety

- Elimination of the risk of seizure.
- Thousands of working hours without wear.

Service

- More than 1,600 standard references.
- More than 280 distributors in Europe, America and Asia.

Availability

- Permanent stock.
- Immediate delivery.

Packaging

- Plastic bags with bar code.



Performance

- Extremely low noise.
- Very high dimensional precision.
- Dynamic load up to 10 MPa (100 kg/cm²).
- Linear speed up to 5 m/s.
- Working temperature from -20°C to +120°C.

Applications

- Automotive equipment: starters, electric windows, pedals, wipers, fuel systems, cooling systems, Exhaust Gas Recirculation (EGR), brakes, transmission, mirrors, sunroof, seating systems, etc.
- Medium and low power electric motors and gearboxes.
- Linear and rotary actuators: pneumatic, hydraulic and electromagnetic types.
- Household appliances: washing machines, fans, extractor fans, shaving machines, epilators, juicers, rotisserie, air conditioning, portable machine tools, coffee machines, whisking machines, vacuum cleaners, lawnmowers, boilers, etc.
- Home appliances: locks, garage doors, awnings, roller shutters, sliding doors/windows, office swivel chairs, rolling trolley wheels, hinges, furniture, etc.
- Industrial sector: bottling machinery, wood-working machinery, anemometers, gardening, automisms, key duplicating machines, sewing machines, industrial vehicles, electrical switchgear, etc.
- Other markets: mobility, medical, catering, industrial machines, farm machinery, toys, etc

AMES also manufactures bearings with custom sizes and shapes, and using high performance materials and lubricants suitable for the most demanding conditions of service. Please contact us at www.selfoil.com

Characteristics		SELFOIL®			SELFOIL® High Performance		
Material	Bronze Ames-A4®	Sintered bronze Ames-A4®, type C-T8Z4-K140 according to UNE 96002:2023 standard			Sintered bronze Ames-A4®, type C-T8Z4G-K120 according to UNE 96002:2023 standard		
	Bronze 90/10	Sintered Bronze 90/10 (Cu-10%Sn), type C-T10-K140 according to ISO 5755:2022 standard and type CT-1000 according to MPIF Std 35:2020 standard					
	Iron	Sintered steel, type F00C2-K200 according to ISO 5755:2012 standard and type FC0200-K20 according to MPIF Std 35:2020 standard					
Lubricant		Mineral paraffin oil Ames-01 with viscosity to ISO VG 68			Mineral paraffin oil Ames-02, with higher load capacity at higher pressures or lower speeds, and improved start-stop behavior		
Maximum load (MPa) ¹		Shaft speed (m/s)			Shaft speed (m/s)		
		< 0.25 or oscillating movement	0.25-0.50	0.50-3.00	< 0.25 or oscillating movement	0.25-0.50	0.50-3.00
	Bronze Ames-A4®	10.0	3.5	2.5	12.0	4.0	2.5
	Bronze 90/10	10.0	3.5	2.5	12.0	4.0	2.5
	Iron	8.0	3.0	2.0	12.0	3.5	2.0
Working temperature (°C)		-20 to +120					
Dimensional tolerances		Tolerances according to ISO 2795:2020 standard (see tables of dimensions)					
Properties		Typical	Minimum	Maximum	Typical	Minimum	Maximum
Density (g/cm³)	Bronze Ames-A4®	–	6.4	6.8	–	6.3	6.7
	Bronze 90/10	–	6.4	6.8	–	6.4	6.8
	Iron	–	5.6	6.0	–	5.6	6.0
Oil content (%)		–	19	–	–	19	–
Total porosity (%)		22	–	–	22	–	–
Radial crushing strength (MPa)	Bronze Ames-A4®	170	140	–	150	120	–
	Bronze 90/10	170	140	–	170	140	–
	Iron	200	160	–	200	160	–
Hardness (HB)	Bronze Ames-A4®	35	–	–	30	–	–
	Bronze 90/10	35	–	–	30	–	–
	Bronze bearings	40	–	–	40	–	–

(1) In case of linear speed higher than 3 m/s, please contact us at www.selfoil.com for a more detailed analysis of the application.

Assembly recommendations

Shaft hardness	Bronze Bearings	> 20 HRC
	Iron Bearings	> 50 HRC
Shaft roughness		< 0.3 Ra
Shaft dimensional tolerance		f7/g6
Housing dimensional tolerance		H7

Typical dimensional tolerances of the bearing inner diameter after assembly with a fitting mandrel

Cylindrical Bearings	H7
Cylindrical Flanged Bearings	H8

It is recommended that bearings be assembled following the guidelines described in the technical brochure.

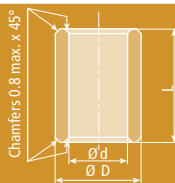
Recommendations for use

- Keep SELFOIL® bearings in the original packaging until assembly.
- Do not place SELFOIL® bearings in contact with absorbent materials (cardboard, paper, cloth...).
- Avoid shocks to the bearings during handling.
- Re-use of bearings after disassembly is not advised.
- Consult us if bearings will be working in contact with oxidising liquids or gases.
- SELFOIL® is a product designed for direct use. If machining is strictly necessary, please follow the guidelines indicated in page 11.

More information at www.selfoil.com



Types **A** and **AN** Cylindrical made of Bronze



Designation (reference for orders)

A cylindrical bronze bearing of 25 mm inner diameter, 30 mm outer diameter and 35 mm length, is designated as:
SELFOIL® Bearing A-25-30-35 (Bronze Ames-A4®)
SELFOIL® Bearing AN-25-30-35 (Bronze 90/10)

Diameter before fitting (mm)		L=Lengths (mm) Tolerance js13	Quantity per Bag
d=Ø inner Tolerance G7	D=Ø outer Tolerance s7		
2 ⁺¹² ₊₂	5 ⁺³¹ ₊₁₉	2 - 3	25
3 ⁺¹² ₊₂	6 ⁺³¹ ₊₁₉	4 - 5 - 6 - 10	25
4 ⁺¹⁶ ₊₄	6 ⁺³¹ ₊₁₉	5 - 8 - 10	25
4 ⁺¹⁶ ₊₄	7 ⁺³⁸ ₊₂₃	4 - 8 - 12	25
4 ⁺¹⁶ ₊₄	8 ⁺³⁸ ₊₂₃	4 - 5 - 6 - 8 - 10 - 12	25
5 ⁺¹⁶ ₊₄	8 ⁺³⁸ ₊₂₃	5 - 8 - 10 - 12 - 15 - 16	25
5 ⁺¹⁶ ₊₄	9 ⁺³⁸ ₊₂₃	4 - 5 - 8	25
5 ⁺¹⁶ ₊₄	10 ⁺³⁸ ₊₂₃	5 - 6 - 8 - 10 - 12 - 15	25
6 ⁺¹⁶ ₊₄	9 ⁺³⁸ ₊₂₃	4 - 6 - 10 - 12 - 16	25
6 ⁺¹⁶ ₊₄	10 ⁺³⁸ ₊₂₃	4 - 5 - 6 - 10 - 12 - 15 - 16	25
6 ⁺¹⁶ ₊₄	12 ⁺⁴⁶ ₊₂₈	5 - 6 - 8 - 10 - 12 - 15 - 16	25
7 ⁺²⁰ ₊₅	10 ⁺³⁸ ₊₂₃	5 - 8 - 10	25
8 ⁺²⁰ ₊₅	10 ⁺³⁸ ₊₂₃	6 - 10 - 15	25
8 ⁺²⁰ ₊₅	11 ⁺⁴⁶ ₊₂₈	6 - 8 - 12 - 16 - 20	25
8 ⁺²⁰ ₊₅	12 ⁺⁴⁶ ₊₂₈	6 - 8 - 10 - 12 - 15 - 16 - 20	25
8 ⁺²⁰ ₊₅	14 ⁺⁴⁶ ₊₂₈	8 - 10 - 12 - 15 - 16 - 20	25
9 ⁺²⁰ ₊₅	12 ⁺⁴⁶ ₊₂₈	6 - 10 - 14	25
9 ⁺²⁰ ₊₅	14 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 20	25
10 ⁺²⁰ ₊₅	13 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 16 - 20 - 25	25
10 ⁺²⁰ ₊₅	14 ⁺⁴⁶ ₊₂₈	8 - 10 - 16 - 20 - 25	25
10 ⁺²⁰ ₊₅	15 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 16 - 20 - 25	10
10 ⁺²⁰ ₊₅	16 ⁺⁴⁶ ₊₂₈	8 - 10 - 12 - 15 - 16 - 20 - 25	10
10 ⁺²⁰ ₊₅	18 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 20 - 25	10
12 ⁺²⁴ ₊₆	14 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 20	10
12 ⁺²⁴ ₊₆	15 ⁺⁴⁶ ₊₂₈	10 - 12 - 15 - 16 - 20 - 25	10
12 ⁺²⁴ ₊₆	16 ⁺⁴⁶ ₊₂₈	8 - 10 - 12 - 15 - 16 - 20 - 25	10
12 ⁺²⁴ ₊₆	17 ⁺⁴⁶ ₊₂₈	12 - 15 - 16 - 20 - 25	10
12 ⁺²⁴ ₊₆	18 ⁺⁴⁶ ₊₂₈	8 - 10 - 12 - 15 - 16 - 20 - 25 - 30	10
12 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	12 - 15 - 20 - 25 - 30	10
14 ⁺²⁴ ₊₆	18 ⁺⁴⁶ ₊₂₈	10 - 14 - 15 - 18 - 20 - 22 - 25 - 28	10
14 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	10 - 12 - 14 - 15 - 18 - 20 - 22 - 25 - 28 - 30	10
14 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	15 - 20 - 25 - 30	10
15 ⁺²⁴ ₊₆	18 ⁺⁴⁶ ₊₂₈	15 - 20 - 25 - 30	10
15 ⁺²⁴ ₊₆	19 ⁺⁵⁶ ₊₃₅	10 - 15 - 16 - 20 - 25 - 32	10
15 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	10 - 12 - 15 - 20 - 25 - 30	10
15 ⁺²⁴ ₊₆	21 ⁺⁵⁶ ₊₃₅	10 - 15 - 16 - 20 - 25 - 32	10
15 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	15 - 16 - 20 - 25 - 30	10
16 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	12 - 15 - 16 - 20 - 25 - 30 - 32	10
16 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	12 - 15 - 16 - 20 - 25 - 30 - 32 - 35	10
17 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	15 - 20 - 25 - 30 - 35	10
18 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	12 - 15 - 18 - 20 - 22 - 25 - 28 - 30 - 36	10
18 ⁺²⁴ ₊₆	24 ⁺⁵⁶ ₊₃₅	12 - 18 - 22 - 28 - 30 - 36	10
18 ⁺²⁴ ₊₆	25 ⁺⁵⁶ ₊₃₅	16 - 18 - 20 - 22 - 25 - 28 - 30 - 35 - 36	10
20 ⁺²⁸ ₊₇	24 ⁺⁵⁶ ₊₃₅	16 - 20 - 25 - 32	10
20 ⁺²⁸ ₊₇	25 ⁺⁵⁶ ₊₃₅	15 - 16 - 20 - 25 - 30 - 32 - 35	10
20 ⁺²⁸ ₊₇	26 ⁺⁵⁶ ₊₃₅	15 - 16 - 20 - 25 - 30 - 32 - 35 - 40	10
20 ⁺²⁸ ₊₇	27 ⁺⁵⁶ ₊₃₅	16 - 20 - 25 - 32	10

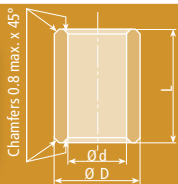
Tolerance in µm / Run-out: IT-9 for D ≤ 50 mm and IT-10 for D > 50 mm

Consult the updated dimensions at www.selfoil.com





Types **A** and **AN** Cylindrical made of Bronze



Designation (reference for orders)

A cylindrical bronze bearing of 25 mm inner diameter, 30 mm outer diameter and 35 mm length, is designated as:
SELFOIL® Bearing A-25-30-35 (Bronze Ames-A4®)
SELFOIL® Bearing AN-25-30-35 (Bronze 90/10)

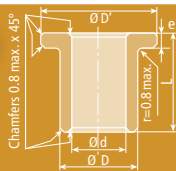
Diameter before fitting (mm)		L=Lengths (mm) Tolerance js13	Quantity per Bag
d=Ø inner Tolerance G7	D=Ø outer Tolerance s7		
20 ^{+28 +7}	28 ^{+56 +35}	16 - 20 - 25 - 30 - 32 - 35 - 40	10
20 ^{+28 +7}	30 ^{+56 +35}	20 - 25 - 30 - 35 - 40	10
22 ^{+28 +7}	27 ^{+56 +35}	15 - 18 - 20 - 22 - 25 - 28 - 30 - 35 - 36 - 40	10
22 ^{+28 +7}	28 ^{+56 +35}	18 - 20 - 22 - 25 - 28 - 30 - 35 - 36 - 40	10
22 ^{+28 +7}	29 ^{+56 +35}	18 - 22 - 28 - 36	10
25 ^{+28 +7}	30 ^{+56 +35}	20 - 25 - 30 - 32 - 35 - 40	10
25 ^{+28 +7}	32 ^{+68 +43}	20 - 25 - 30 - 32 - 35 - 40 - 45	10
25 ^{+28 +7}	35 ^{+68 +43}	25 - 30 - 35 - 40 - 45 - 50	5
28 ^{+28 +7}	32 ^{+68 +43}	20 - 22 - 25 - 28 - 32 - 36 - 40	5
28 ^{+28 +7}	33 ^{+68 +43}	20 - 22 - 25 - 28 - 32 - 36 - 40 - 45	5
28 ^{+28 +7}	35 ^{+68 +43}	25 - 30 - 35 - 40 - 45 - 50	5
28 ^{+28 +7}	36 ^{+68 +43}	22 - 28 - 36 - 45	5
30 ^{+28 +7}	35 ^{+68 +43}	20 - 25 - 30 - 35 - 40 - 45 - 50	5
30 ^{+28 +7}	38 ^{+68 +43}	20 - 24 - 25 - 30 - 35 - 38 - 40 - 45 - 50	5
30 ^{+28 +7}	40 ^{+68 +43}	20 - 25 - 30 - 35 - 40 - 45 - 50	5
32 ^{+34 +9}	38 ^{+68 +43}	20 - 25 - 32 - 40 - 50	5
32 ^{+34 +9}	40 ^{+68 +43}	20 - 25 - 30 - 32 - 35 - 40 - 45 - 50	5
35 ^{+34 +9}	40 ^{+68 +43}	20 - 25 - 30 - 35 - 40 - 45 - 50	5
35 ^{+34 +9}	41 ^{+68 +43}	25 - 35 - 40	5
35 ^{+34 +9}	44 ^{+68 +43}	22 - 28 - 35	5
35 ^{+34 +9}	45 ^{+68 +43}	25 - 30 - 35 - 40 - 45 - 50 - 60	5
36 ^{+34 +9}	42 ^{+68 +43}	22 - 28 - 36 - 45	5
36 ^{+34 +9}	45 ^{+68 +43}	22 - 28 - 36 - 45	5
38 ^{+34 +9}	44 ^{+68 +43}	25 - 35 - 45	5
40 ^{+34 +9}	45 ^{+68 +43}	35 - 40 - 45 - 50	5
40 ^{+34 +9}	46 ^{+68 +43}	25 - 30 - 32 - 40 - 50	5
40 ^{+34 +9}	50 ^{+68 +43}	25 - 32 - 40 - 45 - 50 - 60	5
45 ^{+34 +9}	51 ^{+83 +53}	28 - 36 - 45 - 56	5
45 ^{+34 +9}	55 ^{+83 +53}	30 - 35 - 40 - 45 - 50 - 55 - 60	5
45 ^{+34 +9}	56 ^{+83 +53}	28 - 36 - 45 - 56	5
45 ^{+34 +9}	60 ^{+83 +53}	40 - 45 - 50 - 60	2
50 ^{+34 +9}	56 ^{+83 +53}	32 - 40 - 50 - 63	2
50 ^{+34 +9}	60 ^{+83 +53}	32 - 40 - 45 - 50 - 60 - 63 - 70 - 100	2
55 ^{+40 +10}	65 ^{+83 +53}	40 - 55 - 70	2
60 ^{+40 +10}	70 ^{+89 +59}	50 - 60 - 90 - 120	2
60 ^{+40 +10}	72 ^{+89 +59}	50 - 60 - 70	1
60 ^{+40 +10}	80 ^{+89 +59}	90 - 120	1
63 ^{+40 +10}	70 ^{+89 +59}	40 - 50	1
70 ^{+40 +10}	80 ^{+89 +59}	90 - 120	1
80 ^{+56 +10} G8	95 ^{+125 +71} s8	70 - 80 - 90	1
80 ^{+56 +10} G8	100 ^{+125 +71} s8	80 - 120	1
100 ^{+66 +12} G8	120 ^{+133 +79} s8	80 - 120	1

SELFOIL® High Performance

Tolerance in µm

Run-out: IT-9 for D ≤ 50 mm and IT-10 for D > 50 mm

Consult the updated dimensions at www.selfoil.com



Types **B** and **BN**

Cylindrical Flanged

made of Bronze

Designation (reference for orders)

A cylindrical bronze bearing with flange of 16 mm inner diameter, 20 mm outer diameter and 25 mm length, is designated as:

SELFOIL® Bearing B-16-20-25/24-2 (Bronze Ames-A4°)

SELFOIL® Bearing BN-16-20-25/24-2 (Bronze 90/10)

Values 24-2 correspond to the flange diameter and thickness

Diameter before fitting (mm)		L=Lengths (mm) Tolerance js13	D'= Ø Flange (mm) Tolerance js13	Thickness (mm) Tolerance js14	Quantity per Bag
d=Ø inner Tolerance G8	D=Ø outer Tolerance s8				
3 ⁺¹⁶ ₊₂	6 ⁺³⁷ ₊₁₉	4 - 5 - 6 - 10	9	1.5	25
4 ⁺²² ₊₄	8 ⁺⁴⁵ ₊₂₃	4 - 5 - 8 - 10 - 12	12	2	25
6 ⁺²² ₊₄	10 ⁺⁴⁵ ₊₂₃	6 - 10 - 15 - 16	14	2	25
8 ⁺²⁷ ₊₅	12 ⁺⁵⁵ ₊₂₈	8 - 10 - 12 - 15 - 16	16	2	25
9 ⁺²⁷ ₊₅	14 ⁺⁵⁵ ₊₂₈	6 - 10 - 14	19	2.5	10
10 ⁺²⁷ ₊₅	13 ⁺⁵⁵ ₊₂₈	10 - 16 - 20	16	1.5	10
10 ⁺²⁷ ₊₅	14 ⁺⁵⁵ ₊₂₈	10 - 15 - 20	18	2	10
10 ⁺²⁷ ₊₅	15 ⁺⁵⁵ ₊₂₈	10 - 15 - 16 - 20	20	3	10
10 ⁺²⁷ ₊₅	16 ⁺⁵⁵ ₊₂₈	8 - 10 - 16	22	3	10
12 ⁺³³ ₊₆	15 ⁺⁵⁵ ₊₂₈	12 - 16 - 20	18	1.5	10
12 ⁺³³ ₊₆	17 ⁺⁵⁵ ₊₂₈	10 - 12 - 15 - 16 - 20 - 25	22	3	10
12 ⁺³³ ₊₆	18 ⁺⁵⁵ ₊₂₈	8 - 12 - 20	24	3	10
14 ⁺³³ ₊₆	18 ⁺⁵⁵ ₊₂₈	14 - 18 - 22	22	2	10
14 ⁺³³ ₊₆	20 ⁺⁶⁸ ₊₃₅	14 - 15 - 18 - 20 - 22 - 25 - 28 - 30	25	3	10
15 ⁺³³ ₊₆	19 ⁺⁶⁸ ₊₃₅	16 - 20 - 25	23	2	10
15 ⁺³³ ₊₆	20 ⁺⁶⁸ ₊₃₅	15 - 20 - 25 - 30	25	3	10
15 ⁺³³ ₊₆	21 ⁺⁶⁸ ₊₃₅	16 - 20 - 25 - 32	27	3	10
16 ⁺³³ ₊₆	20 ⁺⁶⁸ ₊₃₅	16 - 20 - 25	24	2	10
16 ⁺³³ ₊₆	22 ⁺⁶⁸ ₊₃₅	15 - 16 - 20 - 25 - 30 - 32	28	3	10
18 ⁺³³ ₊₆	22 ⁺⁶⁸ ₊₃₅	18 - 22 - 28	26	2	10
18 ⁺³³ ₊₆	24 ⁺⁶⁸ ₊₃₅	18 - 22 - 28	30	3	10
18 ⁺³³ ₊₆	25 ⁺⁶⁸ ₊₃₅	20 - 25 - 30 - 35	32	4	10
20 ⁺⁴⁰ ₊₇	24 ⁺⁶⁸ ₊₃₅	10 - 16 - 20 - 25	28	2	10
20 ⁺⁴⁰ ₊₇	26 ⁺⁶⁸ ₊₃₅	15 - 16 - 20 - 25 - 30 - 32	32	3	10
20 ⁺⁴⁰ ₊₇	28 ⁺⁶⁸ ₊₃₅	20 - 25 - 30 - 35	35	4	10
22 ⁺⁴⁰ ₊₇	27 ⁺⁶⁸ ₊₃₅	18 - 22 - 28	32	2.5	10
22 ⁺⁴⁰ ₊₇	28 ⁺⁶⁸ ₊₃₅	15 - 20 - 25 - 30 - 35 - 40	33	4	10
22 ⁺⁴⁰ ₊₇	29 ⁺⁶⁸ ₊₃₅	18 - 22 - 28 - 36	36	3.5	10
25 ⁺⁴⁰ ₊₇	30 ⁺⁶⁸ ₊₃₅	20 - 25 - 32	35	2.5	10
25 ⁺⁴⁰ ₊₇	32 ⁺⁸² ₊₄₃	20 - 25 - 30 - 32 - 35 - 40	40	4	10
25 ⁺⁴⁰ ₊₇	35 ⁺⁸² ₊₄₃	16 - 25 - 30	45	5	10
28 ⁺⁴⁰ ₊₇	33 ⁺⁸² ₊₄₃	22 - 28 - 36	38	2.5	10
28 ⁺⁴⁰ ₊₇	36 ⁺⁸² ₊₄₃	22 - 25 - 28 - 30 - 35 - 36 - 40	44	4	10
30 ⁺⁴⁰ ₊₇	38 ⁺⁸² ₊₄₃	20 - 25 - 30	46	4	10
30 ⁺⁴⁰ ₊₇	40 ⁺⁸² ₊₄₃	25 - 30 - 35 - 40	48	4	10
32 ⁺⁴⁸ ₊₉	38 ⁺⁸² ₊₄₃	20 - 25 - 32	44	3	10
32 ⁺⁴⁸ ₊₉	40 ⁺⁸² ₊₄₃	20 - 25 - 30 - 32 - 35 - 40	48	4	10
35 ⁺⁴⁸ ₊₉	45 ⁺⁸² ₊₄₃	20 - 25 - 30 - 35 - 40	55	5	10
36 ⁺⁴⁸ ₊₉	42 ⁺⁸² ₊₄₃	22 - 28 - 36	48	3	10
36 ⁺⁴⁸ ₊₉	45 ⁺⁸² ₊₄₃	22 - 28 - 36	54	4.5	10
40 ⁺⁴⁸ ₊₉	46 ⁺⁸² ₊₄₃	25 - 32 - 40	52	3	5
40 ⁺⁴⁸ ₊₉	50 ⁺⁸² ₊₄₃	25 - 30 - 32 - 35 - 40	60	5	5
45 ⁺⁴⁸ ₊₉	51 ⁺⁹⁹ ₊₅₃	28 - 36 - 45	57	3	5
45 ⁺⁴⁸ ₊₉	56 ⁺⁹⁹ ₊₅₃	28 - 36 - 45	67	5.5	5
50 ⁺⁴⁸ ₊₉	56 ⁺⁹⁹ ₊₅₃	32 - 40 - 50	62	3	5
50 ⁺⁴⁸ ₊₉	60 ⁺⁹⁹ ₊₅₃	32 - 40 - 50	70	5	5
60 ⁺⁵⁶ ₊₁₀	70 ⁺¹⁰⁵ ₊₅₉	50 - 60	80	5	5

SELFOIL® High Performance

Tolerance in µm

Run-out: IT-9 for D ≤ 50 mm and IT-10 for D > 50 mm

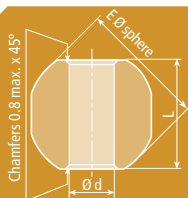
Consult the updated dimensions at www.selfoil.com





Type C Spherical

made of Bronze



Designation (reference for orders)

A spherical bronze bearing of 10 mm inner diameter, 22 mm sphere diameter and 16 mm length, is designated as:
SELFOIL® Bearing C-10-22-16 (Bronze Ames-A4®)

d=Ø inner (mm) Tolerance H7	E=Ø sphere (mm) Tolerance ± 0.05	L=Lengths (mm) Tolerance ± 0.15	Quantity per Bag
4	10	8	25
5	12	9	25
6	14	11	25
7	16	12	25
8	18	13	25
9	20	14.5	25
10	22	16	25
12	23	16	25

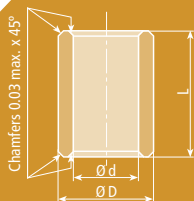
Run-out: IT-9

Consult the updated dimensions at www.selfoil.com



Type A Cylindrical

made of Bronze



Designation (reference for orders)

A cylindrical bronze bearing of 1" inner diameter, 1 1/2" outer diameter and 2" length, is designated as:
SELFOIL® Bearing A-1-1 1/2-2 (Bronze Ames-A4®)

IMPERIAL DIMENSIONS

Diameter before fitting (in)		L=Lengths (in) Tolerance js13	Quantity per Bag
d=Ø inner Tolerance G7	D=Ø outer Tolerance s7		
1/4	1/2	1/4 - 3/8 - 1/2 - 5/8 - 3/4	25
3/8	5/8	3/8 - 1/2 - 5/8 - 3/4 - 1	25
1/2	1 1/16	1/2 - 5/8 - 3/4 - 1 - 1 1/4	10
1/2	3/4	1/2 - 5/8 - 3/4 - 1 - 1 1/4	10
5/8	3/4	1/2 - 5/8 - 3/4 - 1 - 1 1/4	10
5/8	7/8	1/2 - 5/8 - 3/4 - 1 - 1 1/4	10
3/4	7/8	5/8 - 3/4 - 7/8 - 1 - 1 1/4	10
3/4	1	5/8 - 3/4 - 7/8 - 1 - 1 1/4	10
3/4	1 1/4	5/8 - 3/4 - 7/8 - 1 - 1 1/4	10
1	1 1/8	3/4 - 1 - 1 1/4 - 1 1/2	10
1	1 1/2	3/4 - 1 - 1 1/4 - 1 1/2 - 2	5
1 1/2	2	1 1/2 - 2 - 2 1/4 - 2 1/2	5
2	2 1/2	1 1/2 - 2 - 2 1/4 - 2 1/2	2
2 1/2	3	1 1/2 - 2 - 2 1/4 - 2 1/2	1

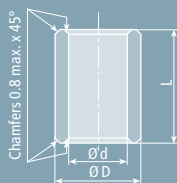
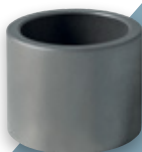
Run-out: IT-9 for D ≤ 2" and IT-10 for D > 2"

Consult the updated dimensions at www.selfoil.com



Type AF Cylindrical

made of Iron



Designation (reference for orders)

A cylindrical iron bearing of 25 mm inner diameter, 30 mm outer diameter and 32mm length, is designated as:
SELFOIL® Bearing AF-25-30-32

Diameter before fitting (mm)		L=Lengths (mm) Tolerance js13	Quantity per Bag
d=Ø inner Tolerance G7	D=Ø outer Tolerance s7		
3 ⁺¹² ₊₂	6 ⁺³¹ ₊₁₉	4 - 10	25
4 ⁺¹⁶ ₊₄	8 ⁺³⁸ ₊₂₃	8	25
6 ⁺¹⁶ ₊₄	9 ⁺³⁸ ₊₂₃	6 - 10 - 12 - 16	25
6 ⁺¹⁶ ₊₄	10 ⁺³⁸ ₊₂₃	6 - 10 - 16	25
6 ⁺¹⁶ ₊₄	12 ⁺⁴⁶ ₊₂₈	6	25
8 ⁺²⁰ ₊₅	11 ⁺⁴⁶ ₊₂₈	8 - 12 - 16	25
8 ⁺²⁰ ₊₅	12 ⁺⁴⁶ ₊₂₈	8 - 12 - 16 - 20	25
10 ⁺²⁰ ₊₅	13 ⁺⁴⁶ ₊₂₈	10 - 20 - 25	25
10 ⁺²⁰ ₊₅	14 ⁺⁴⁶ ₊₂₈	10 - 16 - 20	25
10 ⁺²⁰ ₊₅	15 ⁺⁴⁶ ₊₂₈	10	10
12 ⁺²⁴ ₊₆	15 ⁺⁴⁶ ₊₂₈	12 - 16 - 20	10
12 ⁺²⁴ ₊₆	16 ⁺⁴⁶ ₊₂₈	12 - 16 - 20 - 25	10
12 ⁺²⁴ ₊₆	17 ⁺⁴⁶ ₊₂₈	12	10
14 ⁺²⁴ ₊₆	18 ⁺⁴⁶ ₊₂₈	14 - 22	10
14 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	14 - 28	10
15 ⁺²⁴ ₊₆	19 ⁺⁵⁶ ₊₃₅	16 - 20	10
16 ⁺²⁴ ₊₆	20 ⁺⁵⁶ ₊₃₅	16 - 20 - 25 - 32	10
16 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	16 - 20 - 25	10
18 ⁺²⁴ ₊₆	22 ⁺⁵⁶ ₊₃₅	18 - 22	10
18 ⁺²⁴ ₊₆	24 ⁺⁵⁶ ₊₃₅	22	10
20 ⁺²⁸ ₊₇	24 ⁺⁵⁶ ₊₃₅	16 - 20 - 25 - 32	10
20 ⁺²⁸ ₊₇	26 ⁺⁵⁶ ₊₃₅	16 - 20 - 25 - 32	10
22 ⁺²⁸ ₊₇	27 ⁺⁵⁶ ₊₃₅	18 - 22	10
25 ⁺²⁸ ₊₇	30 ⁺⁵⁶ ₊₃₅	20 - 25 - 32	10
25 ⁺²⁸ ₊₇	32 ⁺⁶⁸ ₊₄₃	20 - 25 - 32	10
30 ⁺²⁸ ₊₇	38 ⁺⁶⁸ ₊₄₃	24 - 30 - 38	5
32 ⁺³⁴ ₊₉	38 ⁺⁶⁸ ₊₄₃	32	5
35 ⁺³⁴ ₊₉	44 ⁺⁶⁸ ₊₄₃	22 - 28 - 35	5
36 ⁺³⁴ ₊₉	42 ⁺⁶⁸ ₊₄₃	22	5
40 ⁺³⁴ ₊₉	46 ⁺⁶⁸ ₊₄₃	25 - 32 - 40	5
40 ⁺³⁴ ₊₉	50 ⁺⁶⁸ ₊₄₃	25 - 32 - 40 - 50	5
45 ⁺³⁴ ₊₉	51 ⁺⁸³ ₊₅₃	28 - 45	5
45 ⁺³⁴ ₊₉	55 ⁺⁸³ ₊₅₃	35	5
45 ⁺³⁴ ₊₉	56 ⁺⁸³ ₊₅₃	36	5
50 ⁺³⁴ ₊₉	56 ⁺⁸³ ₊₅₃	32	2
50 ⁺³⁴ ₊₉	60 ⁺⁸³ ₊₅₃	32 - 50	2
60 ⁺⁴⁰ ₊₁₀	70 ⁺⁸⁹ ₊₅₉	60 - 90	2
70 ⁺⁴⁰ ₊₁₀	80 ⁺⁸⁹ ₊₅₉	120	1
80 ⁺⁵⁶ ₊₁₀ G8	100 ⁺¹²⁵ ₊₇₁ s8	120	1
100 ⁺⁶⁶ ₊₁₂ G8	120 ⁺¹³³ ₊₇₉ s8	120	1

SELFOIL® High Performance

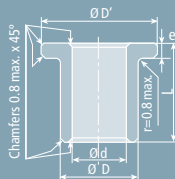
Tolerance in µm

Run-out: IT-9 for D ≤ 50 mm and IT-10 for D > 50 mm

Consult the updated dimensions at www.selfoil.com



Type **BF** Cylindrical Flanged made of Iron



Designation (reference for orders)
A cylindrical iron bearing with flange of 16 mm inner diameter, 22 mm outer diameter and 25 mm length, is designated as: **SELFOIL® Bearing BF-16-22-25/28-3**
Values 28-3 correspond to the flange diameter and thickness

Diameter before fitting (mm)		L=Lengths (mm) Tolerance js13	D'=Ø Flange (mm) Tolerance js13	e=Thickness (mm) Tolerance js14	Quantity per Bag
d=Ø inner Tolerance G8	D=Ø outer Tolerance s8				
3 ⁺¹⁶ ₊₂	6 ⁺³⁷ ₊₁₉	4	9	1.5	25
6 ⁺²² ₊₄	10 ⁺⁴⁵ ₊₂₃	6 - 10 - 16	14	2	25
8 ⁺²⁷ ₊₅	12 ⁺⁵⁵ ₊₂₈	8 - 12 - 16	16	2	25
10 ⁺²⁷ ₊₅	13 ⁺⁵⁵ ₊₂₈	10 - 16	16	1.5	10
10 ⁺²⁷ ₊₅	15 ⁺⁵⁵ ₊₂₈	10 - 16 - 20	20	2.5	10
12 ⁺³³ ₊₆	15 ⁺⁵⁵ ₊₂₈	12 - 16 - 20	18	1.5	10
12 ⁺³³ ₊₆	17 ⁺⁵⁵ ₊₂₈	12 - 16	22	2.5	10
14 ⁺³³ ₊₆	18 ⁺⁵⁵ ₊₂₈	14 - 18 - 22	22	2	10
16 ⁺³³ ₊₆	20 ⁺⁶⁸ ₊₃₅	16 - 20	24	2	10
16 ⁺³³ ₊₆	22 ⁺⁶⁸ ₊₃₅	16 - 20 - 25	28	3	10
18 ⁺³³ ₊₆	24 ⁺⁶⁸ ₊₃₅	18 - 22	30	3	10
20 ⁺⁴⁰ ₊₇	24 ⁺⁶⁸ ₊₃₅	16 - 20 - 25	28	2	10
20 ⁺⁴⁰ ₊₇	26 ⁺⁶⁸ ₊₃₅	16 - 20 - 25	32	3	10
22 ⁺⁴⁰ ₊₇	29 ⁺⁶⁸ ₊₃₅	18 - 22 - 28 - 36	36	3.5	10
25 ⁺⁴⁰ ₊₇	30 ⁺⁶⁸ ₊₃₅	20 - 32	35	2.5	10
25 ⁺⁴⁰ ₊₇	32 ⁺⁸² ₊₄₃	25 - 32	39	3.5	10
30 ⁺⁴⁰ ₊₇	38 ⁺⁸² ₊₄₃	30	46	4	10
32 ⁺⁴⁸ ₊₉	40 ⁺⁸² ₊₄₃	20 - 32	48	4	10
36 ⁺⁴⁸ ₊₉	45 ⁺⁸² ₊₄₃	22 - 36	54	4.5	10
40 ⁺⁴⁸ ₊₉	50 ⁺⁸² ₊₄₃	25 - 32 - 40	60	5	5
50 ⁺⁴⁸ ₊₉	60 ⁺⁹⁹ ₊₅₃	50	70	5	5
60 ⁺⁵⁶ ₊₁₀	70 ⁺¹⁰⁵ ₊₅₉	60	80	5	5

SELFOIL® High
Performance

Tolerance in µm

Run-out: IT-9 for D ≤ 50 mm and IT-10 for D > 50 mm

Consult the updated dimensions at www.selfoil.com





Rods for Machining

Types

T and TN

made of Bronze

Designation (reference for orders)

A solid bronze rod of 25 mm diameter and 50 mm length is designated as:

SELFOIL® Rod T-25-50 (Bronze Ames-A4®)

SELFOIL® Rod TN-25-50 (Bronze 90/10)

A hollow bronze rod of 38 mm inner diameter,

66 mm outer diameter and 120 mm length, is designated as:

SELFOIL® Bearing T-38-66-120 (Bronze Ames-A4®)

SELFOIL® Bearing TN-38-66-120 (Bronze 90/10)

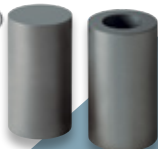
	d=Ø inner (mm)	D=Ø outer (mm)	L=Length (mm)	Quantity per Bag
Solid	—	15 ± 0.8	30 Minimum	5
	—	20 ± 0.8	25 Minimum	5
	—	20 ± 0.8	50 Minimum	2
	—	25 ± 0.8	25 Minimum	2
	—	25 ± 0.8	50 Minimum	2
	—	32 ± 0.8	40 Minimum	2
	—	32 ± 0.8	80 Minimum	1
	—	42 ± 0.8	50 Minimum	1
	—	42 ± 0.8	100 Minimum	1
	—	45 ± 1.0	90 Minimum	1
	—	52 ± 1.0	60 Minimum	1
	—	52 ± 1.0	120 Minimum	1
	—	62 ± 1.5	120 Minimum	1
	—	70 ± 1.5	120 Minimum	1
	—	80 ± 1.5	120 Minimum	1
	—	105 ± 2.0	120 Minimum	1
	—	125 Minimum	80 Minimum	1
	—	125 Minimum	140 Minimum	1
	—	149 Minimum	80 Minimum	1
	—	149 Minimum	140 Minimum	1
Hollow	—	178 Minimum	140 Minimum	1
	—	202 Minimum	80 Minimum	1
	38 ± 0.8	66 ± 1.5	65 Minimum	1
	38 ± 0.8	66 ± 1.5	120 Minimum	1
	45 ± 0.8	105 ± 1.5	120 Minimum	1
	53 ± 1.0	85 ± 1.5	65 Minimum	1
	53 ± 1.0	85 ± 1.5	120 Minimum	1
	59 Maximum	125 Minimum	80 Minimum	1
	59 Maximum	125 Minimum	140 Minimum	1
	68 ± 1.5	104 ± 1.5	65 Minimum	1
	68 ± 1.5	104 ± 1.5	120 Minimum	1
	79 Maximum	149 Minimum	80 Minimum	1
	79 Maximum	149 Minimum	140 Minimum	1
	83 ± 1.5	123 ± 2.0	65 Minimum	1
	83 ± 1.5	123 ± 2.0	120 Minimum	1
	98 ± 1.5	142 ± 2.0	65 Minimum	1
	98 ± 1.5	142 ± 2.0	120 Minimum	1
	110 Maximum	178 Minimum	80 Minimum	1
	110 Maximum	178 Minimum	140 Minimum	1
	150 Maximum	202 Minimum	140 Minimum	1

Tolerance in mm

Consult the updated dimensions at www.selfoil.com



Type TF made of Iron



Rods for Machining

Designation (reference for orders)

A solid iron rod of 25 mm diameter and

50 mm length is designated as:

SELFOIL® Rod TF-25-50

A hollow iron rod of 38 mm inner diameter, 66 mm

outer diameter and 120 mm length, is designated as:

SELFOIL® Rod TF-38-66-120

	d=Ø inner (mm)	D=Ø outer (mm)	L=Length (mm)	Quantity per Bag
Solid	—	15 ± 1.0	30 ± 2.0	5
	—	20 ± 1.0	25 ± 2.0	5
	—	20 ± 1.0	50 ± 2.0	2
	—	25 ± 1.0	25 ± 2.0	2
	—	25 ± 1.0	50 ± 2.0	2
	—	32 ± 1.0	40 ± 2.0	2
	—	32 ± 1.0	80 ± 2.0	1
	—	42 ± 1.0	50 ± 2.0	1
	—	42 ± 1.0	100 ± 2.0	1
	—	45 ± 1.0	90 ± 2.0	1
	—	52 ± 1.0	60 ± 2.0	1
	—	52 ± 1.0	120 ± 2.0	1
	—	62 ± 1.0	120 ± 2.0	1
	—	70 ± 1.0	120 ± 2.0	1
	—	80 ± 1.0	120 ± 2.0	1
Hollow	38 ± 1.0	66 ± 1.5	65 ± 2.0	1
	38 ± 1.0	66 ± 1.5	120 ± 2.0	1
	53 ± 1.0	85 ± 1.5	65 ± 2.0	1
	53 ± 1.0	85 ± 1.5	120 ± 2.0	1

Tolerance in mm

Consult the updated dimensions at www.selfoil.com

Machining conditions

The surface porosity in the inner diameter must remain open following machining of the rod in order to preserve the self-lubricating function of the product. Dry machining is recommended, using pressurised air as coolant.

Turning

K10 type tungsten carbide tools (WC), or boron nitride tools (BN), are recommended. The tool must be sharpened with a 200 grain diamond wheel under abundant cooling. The finishing pass should be carried out using a freshly sharpened tool.

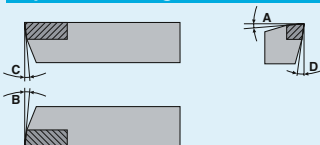
Drilling

The same machining conditions as those used to drill a wrought rod are recommended, using K10 type tungsten carbide tools (WC). The final dimension must be reached by turning.

Grinding

Grinding of the functional zones providing self-lubrication is discouraged in order to avoid contamination with abrasive particles, which can cause premature shaft wear during operation.

Optimal cutting conditions



Angle in degrees

Angle	Bronze	Iron
A	0-3	5-7
B	5-7	5-7
C	5-7	5-7
D	5-7	5-7

	Rough turning	Final turning
Cutting speed	100 - 120 m/min	100 - 120 m/min
Feed	0.1 mm/turn	0.06 mm/turn
Pass depth	1 mm	0.05 - 0.1 mm

Re-impregnation

Re-impregnation must be carried out in two steps:

1. Removal of chips and abrasive particles using a volatile solvent, ideally in an ultrasonic bath.
2. Immersion of the Rods in Ames-01 oil at 60°C for 24 hours.

Designed and manufactured by
AMES in Spain (UE)

ISO 9001 – ISO 14001 –
IATF 16949 – ISO 50001 certified

*SELFOIL[®] complies with the European Directives:
ELV (2000/53/EC)
RoHS (2011/65/EU)*



Official distributor:

K00014A - 0322 - EN - 1.000



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