US Stocking Distributor:
LM-Tarbell
140 Industrial Drive
E. Longmeadow, Ma 01028
1-800-513-3163
Fax: 413-525-3735
www.LM-Tarbell.com

AMES

Self-lubricating Sintered Bearings

SELFOIL®

Sintered Silencers and Filters

bronfil

PERMANENT STOCK

Self-lubricating Sintered Bronze Bearings

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Sintered Silencers and Filters

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1.1

Self-Lubricating Sintered *BRONZE* Bearings

The SELFOIL® Self-Lubricating Bronze Bearings, achieved by means of sintering, offer:

Safety

- Elimination of the risk of seizure
- Permanent lubrication film
- 20 to 30% of the volume is oil impregnated
- Quiet function
- Low friction coefficient

Economy

- Elimination of lubricators
- Maintenance-free
- Permanent stock
- Immediate delivery
- More than 200 distributors in Europe

Technology

- Very high precision
- Loads up to 10MPa (100 kg./sq.cm)
- Speeds up to 30,000 r.p.m.

Material

- SC-Sn8-Zn4-66 (lead free)

Impregnation oil

- ISO-VG-68 viscosity paraffinic mineral oil
- Temperatures from -20°C to +120°C

Allowable load

- PV=2,5MPa*m/s

Presentation

- Packaging in plastic bags with bar code
- The quantity per bag is the minimum order per piece

It is also possible to manufacture bearings with different sizes, materials and lubricants from those indicated in this booklet.

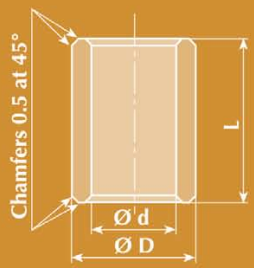
Application

The constant improvement in the manufacture of self-lubricating bearings has allowed to use them in a whole range of manufacturing sectors, such as:

- Sewing machines
- Small appliances
- Locks
- Fans and extractor fans
- Spits
- Electric watches
- Traditional washing machines (washing machine agitators)
- Washing machine water pumps
- Garage doors
- Aluminium sliding windows
- Air conditioning
- Portable machine tools
- Machinery for wood
- Bottling machinery
- Gardening machines
- Key duplicating machines
- Automatic filing cabinets and rollers
- Bus and coach chairs
- Office swivel chairs
- Shaving machines
- Toys (small motors, electric trains)
- Cinema and slide projector
- Turntables and cassettes
- High and low power electrical motors
- Automotive equipment such as alternators, service break pedals, clutch pedal, door hines, speed counters, windscrean wiper motors, heating motors, gear change levers, distributors, etc.

1.2

Type A Cylindrical



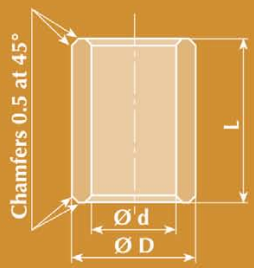
Pre-fitting diameter d inner Ø	D outer Ø	Lengths L (Tolerance js13)	Quantity per Bag
2 $^{+12}_{+2}$	5 $^{+31}_{+19}$	2 - 3	25
3 $^{+12}_{+2}$	6 $^{+31}_{+19}$	4 - 5 - 6 - 10	25
4 $^{+16}_{+4}$	6 $^{+31}_{+19}$	5 - 8 - 10	25
4 $^{+16}_{+4}$	7 $^{+38}_{+23}$	4 - 8 - 12	25
4 $^{+16}_{+4}$	8 $^{+38}_{+23}$	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 µ

1.3

AMES

Type A Cylindrical



Pre-fitting diameter d inner Ø	D outer Ø	Lengths L (Tolerance js13)	Quantity per Bag
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	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 $^{+66}_{+12}$	100 $^{+125}_{+71}$	80 - 120	1
100 $^{+66}_{+12}$	120 $^{+163}_{+79}$	80 - 120	1

Tolerance in µ

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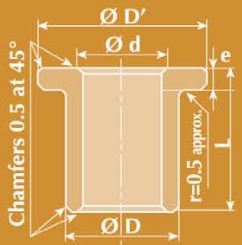
1.4

Type *B* Flanged



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

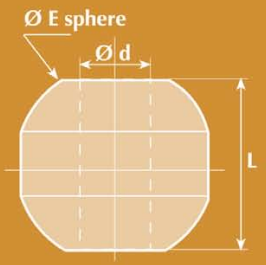
Tolerance in µ

1.5

AMES

Type **C**

Spherical



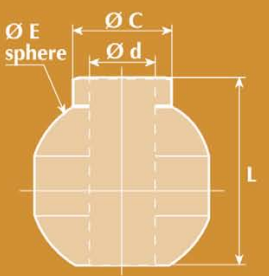
d inner Ø Tolerance H7	E sphere Ø Tolerance ± 0.05	Lengths -L Tolerance ± 0.15	Quantity per Bag
4	10	8	25
5	12	9	25
6	14	11	25
7	16	12	25
8	18	13	25
9	20	14.5	25
10	22	16	25
12	23	16	25

1.6

AMES

Type **D**

Spherical with collar



d inner Ø Tolerance H7	E sphere Ø Tolerance ± 0.05	C collar Ø Tolerance ± 0.05	Lengths - L Tolerance ± 0.15	Quantity per bag
4	10	6	10	25
5	12	8	11	25
6	14	9	13	25
7	16	10.5	14	25
8	18	12.5	16	25
9	20	14	17	25
10	22	15	18	25
12	23	17.5	18	25

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Machining rods

	d inner Ø	D outer Ø	Length	Quantity per bag
Solid	—	15 ±0.8	30 ±1.5	5
	—	20 ±0.8	25 ±1.5	5
	—	20 ±0.8	50 ±1.5	2
	—	25 ±0.8	25 ±1.5	2
	—	25 ±0.8	50 ±1.5	2
	—	32 ±0.8	40 ±1.5	2
	—	32 ±0.8	80 ±1.5	1
	—	42 ±0.8	50 ±1.5	1
	—	42 ±0.8	100 ±2	1
	—	45 ±1	90 ±2	1
	—	52 ±1	60 ±2	1
	—	52 ±1	120 ±2	1
	—	62 ±1.5	120 ±2	1
	—	70 ±1.5	120 ±2	1
	—	80 ±1.5	120 ±2	1
	—	105 ±2	120 ±2	1
Hollow	38 ±1	66 ±1.5	65 ±2	1
	38 ±1	66 ±1.5	120 ±2	1
	45 ±1	105 ±1.5	120 ±2	1
	53 ±1	85 ±1.5	65 ±2	1
	53 ±1	85 ±1.5	120 ±2	1
	68 ±1	104 ±1.5	65 ±2	1
	68 ±1	104 ±1.5	120 ±2	1
	83 ±1	123 ±1.5	65 ±2	1
	83 ±1	123 ±1.5	120 ±2	1
	98 ±1	142 ±1.5	65 ±2	1
	98 ±1	142 ±1.5	120 ±2	1

Tolerance in mm

EXTRA LARGE RODS (stocks to be enquired)

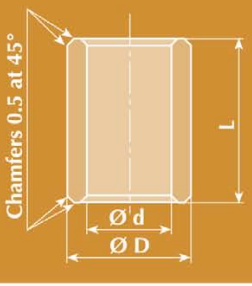
	d inner Ø	D outer Ø	Length	Quantity per bag
Solid	—	114	165	1
	—	127	165	1
	—	152	165	1
	—	177	165	1
	—	203	165	1
Hollow	32	102	165	1
	50	140	165	1
	58	114	165	1
	75	152	165	1
	101	178	165	1
	114	152	165	1
	127	178	165	1
	152	203	165	1

1.8

AMES

Type A

Cylindrical



DIMENSIONS IN INCHES

Pre-fitting diameter			
d inner Ø (Tolerance G7)	D outer Ø (Tolerance s7)	Lengths L (Tolerance js13)	Quantity per Bag
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″	11/16″	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

SELFOIL®

2.1

Self-Lubricating Sintered *IRON* bearings

Technical Information

Material	AFNOR FC10-U3-56 SINT A10
Minimum density (g/cm³)	5.6
Linear speed (m/s)	0.1 to 4
Static Pressure (daN/sq.cm)	450
Dynamic Presssure (daN/sq.cm)	80
PV Maximum	18
Temperature range	-20°C to +120°C
Mineral Oil	ISO VG 68
Minimum Open Porosity %	20
Inside tolerance on d	G7/G8
Outside tolerance on D	s7/s8
Eccentricity out D/ins d	IT 9 (minimum 0.050 mm)

Recommendations for mounting

Mounting conditions are given in the AMES brochure "Self-lubricating Sintered bearings SELFOIL", in the chapter "Mounting of Cylindrical Bearings".

To obtain optimum performance from Iron bearings, we recommend using shafts with the following parameters:

Shaft hardness	> 50 HRC
Surface Roughness	< 0.3
Housing tolerances	H7
Shaft tolerances	f7/g6

Tolerances after mounting of bearing

Cylindrical	H7
Flanged	H8

Special Requests: Ask us

For use in special environments such as high or low temperatures, or in contact with foodstuff, AMES will provide you with homologated solutions.

Machining

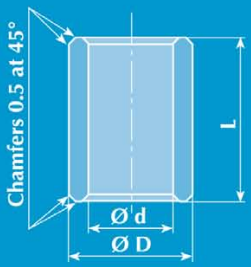
See guidelines given in the AMES brochure "How to machine sintered bronze and iron bearings". Machine only under dry conditions and do not use cutting oils. Air can be used as a coolant. Remove dust and filings with a volatile solvent. Reimpregnate with oil after machining according to AMES specifications.

Recommendations for use

Keep AMES bearings in the original packaging until mounting. Do not place the bearings in contact with absorbent materials (cardboard, paper, rag...). Avoid shocks during manipulation. Do not put bearings in contact with water. Re-use after mounting is strongly discouraged.

2.2

Type AF Cylindrical

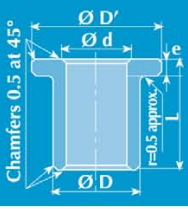


Pre-fitting diameter		Lengths	
d inner Ø	D outer Ø	L	Quantity
G7	s7	js13	per Bag
3 +12 +2	6 +31 +19	4 - 10	25
4 +16 +4	8 +38 +23	8	25
6 +16 +4	9 +38 +23	6 - 10 - 12 -16	25
6 +16 +4	10 +38 +23	6 - 10 -16	25
6 +16 +4	12 +46 +28	6	25
8 +20 +5	11 +46 +28	8 - 12 - 16	25
8 +20 +5	12 +46 +28	8 - 12 - 16 - 20	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 +66 +12	100 +125 +71	120	1
100 +66 +12	120 +163 +79	120	1

Tolerance in µ

2.3

Type BF
Flanged Bearing



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

Tolerance in µ

2.4

Type TF
Machining Rods

	d inner Ø	D outer Ø	Length	Quantity per bag
Solid	—	$15^{\pm1}$	$30^{\pm2}$	5
	—	$20^{\pm1}$	$25^{\pm2}$	5
	—	$20^{\pm1}$	$50^{\pm2}$	2
	—	$25^{\pm1}$	$25^{\pm2}$	2
	—	$25^{\pm1}$	$50^{\pm2}$	2
	—	$32^{\pm1}$	$40^{\pm2}$	2
	—	$32^{\pm1}$	$80^{\pm2}$	1
	—	$42^{\pm1}$	$50^{\pm2}$	1
	—	$42^{\pm1}$	$100^{\pm2}$	1
	—	$45^{\pm1}$	$90^{\pm2}$	1
	—	$52^{\pm1}$	$60^{\pm2}$	1
	—	$52^{\pm1}$	$120^{\pm2}$	1
	—	$62^{\pm1}$	$120^{\pm2}$	1
	—	$70^{\pm1}$	$120^{\pm2}$	1
	—	$80^{\pm1}$	$120^{\pm2}$	1
Hollow	$38^{\pm1}$	$66^{\pm1.5}$	$65^{\pm2}$	1
	$38^{\pm1}$	$66^{\pm1.5}$	$120^{\pm2}$	1
	$53^{\pm1}$	$85^{\pm1.5}$	$65^{\pm2}$	1
	$53^{\pm1}$	$85^{\pm1.5}$	$120^{\pm2}$	1

Tolerance in mm

Bronfil®
Silencers and filters

BRONFIL® filtering elements from AMES are state-of-the-art products, effective in multiple applications. BRONFIL® products feature a cleaning-friendly design, mechanical strength, and resistant to extreme temperatures.

Metallic filters are manufactured by sintering metallic particles of homogeneous dimensions, which are previously classified.

The chemical composition of the spherical bronze used for the manufacture of the BRONFIL filters is 90% Cu and 10% Sn.

Properties of BRONFIL® filtering elements

Repeatability
A careful classification of raw materials, together with a steady production process allows to obtain large production series of filters having invariable permeability throughout all their points.

Filtering efficiency
BRONFIL® filtering elements are called "depth filters" because of their unique structure. Fluids are obliged to follow a winding way. This allows to retain particles with needle shape that would otherwise pass in the direction of their smaller size.

Easy cleaning
Filtering elements are cleaned by means of solvents or by reverse circulation (using the same fluid or another adequate one) with no need to remove the filtering element. After cleaning, the filter recovers its initial characteristics. This property is maintained even after several washings.

Machining
BRONFIL® filters are ready for any machining process, i.e., turning, milling, drilling, etc.

It is not recommended to machine flow surfaces, as it causes pore blinding.

Welding
Welding conditions are similar to equivalent solid materials, except for the inconveniences caused by a large number of pores.

BRONZE can be welded by resistance, tin welding o arch welding as required.

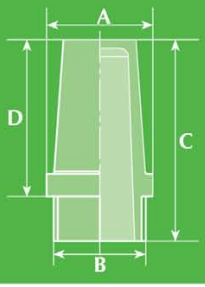
Easy machining and welding, as well as a self-supporting structure allow to produce composite or large sized filters.

Corrosion resistant
BRONFIL® elements are resistant to most adverse environments, in accordance with their base material.

Temperature resistant
AMES sintered filters are incombustible, having a rated operation range from -250ºC through +200ºC (+450ºC under a reducing atmosphere).

3.2

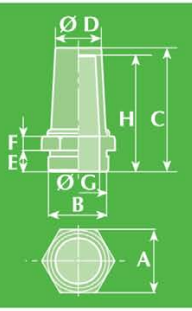
BRONFIL® Silencers with thread



Type	A	B	C	D	Working surface in sq.cm	Air Flow Rate L/min*
1/8″	11	1/8″	24	17.5	3.50	875
1/8″ BPC	11	1/8″	30	23.5	4.40	1,835
1/4″	14	1/4″	27	18.5	6.00	1,500
1/4″ BPC	14	1/4″	38	29.5	9.10	3,410
3/8″	17.5	3/8″	35	25	10.00	2,500
3/8″ BPC	17.5	3/8″	46	36	14.80	5,550
1/2″	21	1/2″	44	33	18.00	4,500
1/2″ BPC	21	1/2″	58	47	23.66	8,875
3/4″	26.8	3/4″	60	46.6	32.00	8,000
3/4″ BPC	26.8	3/4″	69	55.5	37.00	13,875
1″	38	1″	71	56	45.00	15,500

3.3

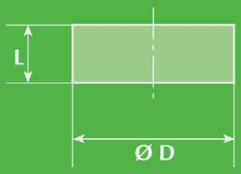
BRONFIL® "RL" Silencers with solid brass thread



Type	A	B	C	D	E	F	G	H	Working surface in sq.cm	Air flow rate L/min*
M5	8	M5	19	5.4	4	3	3	17.3	1.50	630
1/8″	12	1/8″	23.5	7.8	5	3.5	5.1	21.5	3.10	1,100
1/8″ BPC	12	1/8″	28.9	7.8	5	3.5	5.1	26.9	4.20	2,210
1/4″	15	1/4″	29.6	9.5	6	4,6	7.1	27.3	5.10	2,225
1/4″ BPC	15	1/4″	36.4	9.5	6	4.6	7,.1	34.1	6.90	3,040
3/8″	19	3/8″	36.8	12.6	7	5.5	9	34.2	8.60	2,905
3/8″ BPC	19	3/8″	45.7	12.6	7	5.5	9	43.1	11.70	4,205
1/2″	23	1/2″	45.6	16	8.5	6.2	13,2	42.6	15.85	4,620
1/2″ BPC	23	1/2″	57.1	16	8.5	6.2	13.2	54.1	21.40	7,225
3/4″	29	3/4″	56.3	20.4	10	7	17.6	52.8	26.10	7,075
3/4″ BPC	29	3/4″	71.5	20.4	10	7	17.6	68.0	35.20	11,535
1″	36	1″	70	26	12	8	24	66	41.80	16,935

*With these flow rates, the pressure drop in the Silencers will be of 0.5 bar.

BRONFIL® Filter Discs



D	L
4	4
6	3
6	6
8	10
10	4
10	10
12	10
12	12
12	15
14	10
16	10
28	3

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