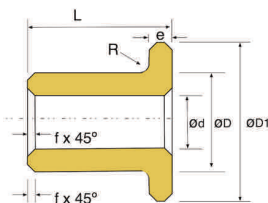


# Shafts & Bearings

Imperial flanged

## Oilite® Bushes

Oil Impregnated Sintered Bronze



### DISCOUNTS

Quantity	List Price
1 - 9	-
10-24	-22%
25-49	-38%
50-99	-44%
100-199	-52%
200-499	-65%
500-999	-68%
1000+	-74%

Designed to fit a H8 housing.

PART NUMBER	Inner Diameter Ød"			Outer Diameter ØD"			ØD1"	e"	Basic L"	PRICE EACH
	Basic	Min.	Max.	Basic	Min.	Max.				
HPCQFI030504									1/4	£2.26
HPCQFI030506	3/16	0.1880	0.1885	5/16	0.3137	0.3142	0.3750	0.062	3/8	£0.81
HPCQFI030508									1/2	£2.55
HPCQFI040604									1/4	£2.49
HPCQFI040606	1/4	0.2505	0.2510	3/8	0.3767	0.3772	0.5000	0.062	3/8	£1.03
HPCQFI040608									1/2	£1.06
HPCQFI040612									3/4	£3.19
HPCQFI050804									1/4	£2.90
HPCQFI050806	5/16	0.3130	0.3135	1/2	0.5020	0.5025	0.6250	0.062	3/8	£1.34
HPCQFI050808									1/2	£1.61
HPCQFI050812									3/4	£3.42
HPCQFI050906									5/16	0.3120
HPCQFI060808	3/8	0.3755	0.3760	1/2	0.5015	0.5020	0.6250	0.062	1/2	£2.90
HPCQFI060814									7/8	£4.64
HPCQFI060908									1/2	£1.85
HPCQFI061006	3/8	0.3757	0.3762	5/8	0.6265	0.6275	0.7500	0.125	3/8	£2.32
HPCQFI061008									1/2	£2.37
HPCQFI061010									5/8	£2.37
HPCQFI061012									3/4	£2.37
HPCQFI070908	7/16	0.4401	0.4406	9/16	0.5641	0.5651	0.7500	0.062	1/2	£3.48
HPCQFI070912									3/4	£3.48
HPCQFI081008	1/2	0.5000	0.5005	5/8	0.6265	0.6275	0.7500	0.098	1/2	£3.48



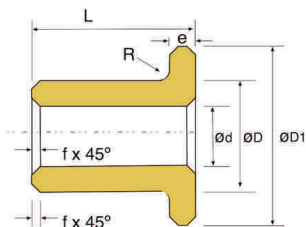
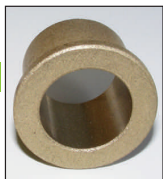
PART NUMBER	Inner Diameter Ød"			Outer Diameter ØD"			ØD1"	e"	Basic L"	PRICE EACH
	Basic	Min.	Max.	Basic	Min.	Max.				
HPCQFI081016	1/2	0.5000	0.5005	5/8	0.6265	0.6275	0.7500	0.098	1	£4.98
HPCQFI081208	1/2	0.5008	0.5013	3/4	0.7517	0.7527	1.0000	0.125	1/2	£3.15
HPCQFI081212									3/4	£3.15
HPCQFI081216									1	£3.48
HPCQFI081218									1 1/8	£5.32
HPCQFI101208	5/8	0.6275	0.6285	3/4	0.7525	0.7535	1.1250	0.094	1/2	£2.50
HPCQFI101216									1	£3.59
HPCQFI101218									1 1/8	£3.85
HPCQFI101408	5/8	0.6255	0.6265	7/8	0.8770	0.8780	1.2500	0.125	1/2	£3.48
HPCQFI101412									3/4	£5.02
HPCQFI101416									1	£4.64
HPCQFI101418									1 1/8	£6.51
HPCQFI121612	3/4	0.7508	0.7518	1	1.0020	1.0030	1.3750	0.125	3/4	£4.06
HPCQFI121616									1	£5.10
HPCQFI121620									1 1/4	£6.72
HPCQFI121624									1 1/2	£8.96
HPCQFI141616									7/8	0.8755
HPCQFI141812	7/8	0.8757	0.8767	1 1/8	1.1270	1.280	1.6250	0.125	3/4	£4.64
HPCQFI141816									1	£4.98
HPCQFI141820									1 1/4	£6.26
HPCQFI141824									1 1/2	£10.69
HPCQFI162012	1	1.0010	1.0020	1 1/4	1.2520	1.2530	1.5000	0.125	3/4	£5.85
HPCQFI162016									1	£8.42
HPCQFI162018									1 1/8	£9.21
HPCQFI162024									1 1/2	£11.49
HPCQFI182216	1 1/8	1.1260	1.1270	1 3/8	1.3776	1.3786	1.8750	0.125	1	£8.24
HPCQFI182220									1 1/4	£10.01
HPCQFI182224									1 1/2	£13.06
HPCQFI182228									1 3/4	£15.04
HPCQFI202412	1 1/4	1.2510	1.2520	1 1/2	1.5030	1.5040	1.8750	0.125	3/4	£8.10
HPCQFI202420									1 1/4	£11.70
HPCQFI202424									1 1/2	£13.65
HPCQFI202616	1 1/4	1.2516	1.2526	1 5/8	1.6280	1.6295	2.0000	0.125	1	£14.39
HPCQFI202620									1 1/4	£17.02
HPCQFI202624									1 1/2	£19.62
HPCQFI202628									1 3/4	£22.63
HPCQFI222612	1 3/8	1.3745	1.3755	1 5/8	1.6270	1.6285	1.8750	0.125	3/4	£8.13
HPCQFI222620									1 1/4	£11.93
HPCQFI242824	1 1/2	1.5016	1.5026	1 3/4	1.7510	1.7525	1.8770	0.120	1 1/2	£14.65
HPCQFI242830									1 7/8	£17.49
HPCQFI243020	1 1/2	1.5016	1.5026	1 7/8	1.8780	1.8795	2.5000	0.188	1 1/4	£18.85
HPCQFI243024									1 1/2	£22.82
HPCQFI243028									1 3/4	£27.10
HPCQFI243032									2	£31.38

# Shafts & Bearings

Metric flanged

## Oilite® Bushes

Oil Impregnated Sintered Bronze



### DISCOUNTS

Quantity	List Price
1 - 9	-
10-24	-22%
25-49	-38%
50-99	-44%
100-199	-52%
200-499	-65%
500-999	-68%
1000+	-74%

Metric ISO 2795.

Designed to fit a H7 housing to run on a f7 shaft.

PART NUMBER	Inner Diameter Ød (G7)			Outer Diameter ØD (s7)			ØD1	e	Basic L	PRICE EACH
	Basic	Min.	Max.	Basic	Min.	Max.				
HPCQFM020503	02	2.002	2.012	05	5.019	5.031	8	1.5	03	£2.03
HPCQFM030604	03	3.002	3.012	06	6.019	6.031	9	1.5	04	£2.03
HPCQFM040804	04	4.004	4.016	08	8.023	8.038	12	2	04	£2.03
HPCQFM040806									06	£2.03
HPCQFM040808									08	£2.03
HPCQFM040812									12	£2.03
HPCQFM050904	05	5.004	5.016	09	9.023	9.038	13	2	04	£2.26
HPCQFM050905									05	£2.26
HPCQFM050908									08	£2.26
HPCQFM061004	06	6.004	6.016	10	10.023	10.038	14	2	04	£2.26
HPCQFM061006									06	£2.26
HPCQFM061010									10	£2.26
HPCQFM071108	07	7.005	7.020	11	11.028	11.046	15	2	08	£2.26
HPCQFM081206									06	£2.26
HPCQFM081208									08	£2.26
HPCQFM081212									12	£2.66
HPCQFM081216	08	8.005	8.020	12	12.028	12.046	16	2	16	£2.66
HPCQFM101310									10	£1.58
HPCQFM101316									16	£1.94
HPCQFM101320									20	£2.15
HPCQFM101508	10	10.005	10.020	15	15.028	15.046	21	3	08	£1.92
HPCQFM101510									10	£2.26



PART NUMBER	Inner Diameter Ød (G7)			Outer Diameter ØD (s7)			ØD1	e	Basic L	PRICE EACH
	Basic	Min.	Max.	Basic	Min.	Max.				
HPCQFM101516	10	10.005	10.020	15	15.028	15.046	21	3	16	£2.66
HPCQFM101520									20	£2.78
HPCQFM101608	10	10.005	10.020	16	16.028	16.046	22	3	08	£2.55
HPCQFM101610									10	£2.49
HPCQFM101616									16	£3.15
HPCQFM121512	12	12.006	12.024	15	15.028	15.046	21	3	12	£3.24
HPCQFM121516									16	£3.24
HPCQFM121520									20	£3.24
HPCQFM121712	12	12.006	12.024	17	17.028	17.046	23	3	12	£2.57
HPCQFM121716									16	£3.07
HPCQFM121720									20	£3.51
HPCQFM121725									25	£4.06
HPCQFM121808	12	12.006	12.024	18	18.028	18.046	24	3	08	£3.13
HPCQFM121812									12	£3.13
HPCQFM121820									20	£4.40
HPCQFM142010	14	14.006	14.024	20	20.035	20.056	26	3	10	£3.42
HPCQFM142014									14	£3.42
HPCQFM142020									20	£4.93
HPCQFM151916	15	15.006	15.024	19	19.035	19.056	25	3	16	£3.03
HPCQFM151920									20	£3.45
HPCQFM151925									25	£4.06
HPCQFM152110	15	15.006	15.024	21	21.035	21.056	27	3	10	£4.29
HPCQFM152115									15	£4.29
HPCQFM152120									20	£5.22
HPCQFM152125									25	£5.32
HPCQFM162016	16	16.006	16.024	20	20.035	20.056	27	3	16	£4.06
HPCQFM162020									20	£4.06
HPCQFM162025									25	£4.26
HPCQFM162212	16	16.006	16.024	22	22.035	22.056	28	3	12	£4.58
HPCQFM162216									16	£4.58
HPCQFM162220									20	£4.58
HPCQFM162225									25	£6.49
HPCQFM182412	18	18.006	18.024	24	24.035	24.056	30	3	12	£4.87
HPCQFM182418									18	£5.74
HPCQFM182422									22	£5.74
HPCQFM182430									30	£8.06
HPCQFM202416	20	20.007	20.028	24	24.035	24.056	30	3	16	£3.80
HPCQFM202420									20	£4.33
HPCQFM202425									25	£4.99
HPCQFM202615	20	20.007	20.028	26	26.035	26.056	32	3	15	£5.74
HPCQFM202620									20	£6.92
HPCQFM202625									25	£8.70
HPCQFM202630									30	£9.91
HPCQFM222820	22	22.007	22.028	28	28.035	28.056	34	3	20	£5.85
HPCQFM222825									25	£7.07
HPCQFM222830									30	£8.10
HPCQFM253020	25	25.007	25.028	30	30.035	30.056	39	3.5	20	£6.36
HPCQFM253025									25	£6.90
HPCQFM253032									32	£8.71

PART NUMBER	Inner Diameter Ød (G7)			Outer Diameter ØD (s7)			ØD1	e	Basic L	PRICE EACH
	Basic	Min.	Max.	Basic	Min.	Max.				
HPCQFM253220	25	25.007	25.028	32	32.043	32.068	39	3.5	20	£7.77
HPCQFM253225									25	£9.12
HPCQFM253230									30	£7.88
HPCQFM283620	28	28.007	28.028	36	36.043	36.068	44	4	20	£9.88
HPCQFM283625									25	£11.55
HPCQFM283630									30	£13.53
HPCQFM303820	30	30.007	30.028	38	38.043	38.068	46	4	20	£8.70
HPCQFM303825									25	£9.28
HPCQFM303830									30	£11.53
HPCQFM323820	32	32.009	32.034	38	38.043	38.068	46	4	20	£8.80
HPCQFM323825									25	£10.25
HPCQFM323832									32	£12.24
HPCQFM324020	32	32.009	32.034	40	40.043	40.068	48	4	20	£10.85
HPCQFM324025									25	£13.01
HPCQFM324030									30	£15.34
HPCQFM354525	35	35.009	35.034	45	45.043	45.068	55	5	25	£12.73
HPCQFM354535									35	£16.21
HPCQFM354540									40	£18.40
HPCQFM384825	38	38.009	38.034	48	48.043	48.068	58	5	25	£19.16
HPCQFM384835									35	£26.11
HPCQFM404625 *	40	40.009	40.034	46	46.043	46.068	56	5	25	£14.25
HPCQFM404632 *									32	£16.75
HPCQFM404640 *									40	£19.22
HPCQFM405025 *	40	40.009	40.034	50	50.043	50.068	60	5	25	£20.28
HPCQFM405030 *									30	£23.14
HPCQFM405040 *									40	£24.36
HPCQFM405050 *									50	£25.48
HPCQFM425240 *	42	42.009	42.048	52	52.053	52.099	62	5	40	£32.83
HPCQFM425250 *									50	£40.27
HPCQFM455535 *	45	45.009	45.048	55	55.053	55.099	65	5	35	£30.60
HPCQFM455545 *									45	£38.73
HPCQFM455555 *									55	£47.33
HPCQFM506032 *	50	50.009	50.048	60	60.053	60.099	70	5	32	£23.18
HPCQFM506040 *									40	£25.61
HPCQFM506050 *									50	£26.80

\* ID/OD tolerances: G8s8

## Lubrication

Standard OILITE® bearings are impregnated with a highly refined mineral oil to ISO VG (SAE 30) having a high viscosity index and containing anti-oxidant, anti-rust and defoamant additives.

A replenishment of oil should be carried out after 1000 hours of use or yearly. These intervals can be extended for bearings with relatively thick walls and shortened for low porosity bearings. Bearings running submerged in oil or in oil-splash will not require replenishment.

A wide range of operating temperatures are available. Please contact our Technical Department for further information.

To prevent possible seizures with stainless steel or hard-chromium plated shafts, an addition of molybdenum disulphide to the impregnation oil must be specified.

Any particular application thought to be outside standard conditions should be referred to our Technical Department.

However, here are some basic rules:

1. Low viscosity oil for low temperatures, high speeds or light loads
2. High viscosity oil for high temperatures, low speeds or heavy loads
3. High viscosity index oil for wide variations in operating temperatures
4. Oxidation stable oils for long-period usage
5. Oil with 'oiliness' additives for boundary conditions
6. Oil of lesser 'oiliness' for full film (hydrodynamic) conditions
7. Oil with Extreme Pressure (E.P.) additives for very heavy or shock loads

## Fitting

Before fitting make sure that all sharp edges are removed from the housing and mating shaft. The bearing must be free from grit and dust. Wash in oil if storage conditions are in doubt and re-oil if held in stock for more than a year or if stored in contact with an absorbent material.

Always use steady pressure to insert the bearing. Never use hammer blows. Shafts should ideally be hardened to approximately HRC 60 and ground to a surface roughness of  $R_a = 0.25 \mu\text{m}$ .

## Imperial

The standard inch range of OILITE® bearings is made to fit H8 housings and majority will give H8 fitted bores.

## Metric

The standard metric range of OILITE® bearings to ISO 2795 is made to G7/s7 limits of tolerance. These bearings when fitted into a rigid H7 housing, using a m5 fitting pin, will give a H7 bore, which when run on a f7 shaft will give good performance.

Note: In extreme circumstances a combination of tolerances can make insertion of the fitting pin difficult. For advice on the recommended course of action in such cases contact our Technical Department.

## Storage

OILITE® bearings can be stored for considerable periods without deterioration or loss of oil if kept in a metal or other non-absorbent container, at room temperature. Proximity to heat could cause oil loss by sweating, in which case re-oiling is necessary before fitting.

## Re-oiling

After machining of the bearing, or following oil loss during storage, immerse in high quality mineral oil to ISO VG 68 or ISO VG 150 (SAE 30 or SAE 40) at 60°C to 70° for 10 to 15 minutes and then cool in cold oil.

## Machining

A specialised Machine Shop is available and would be pleased to quote for your specific requirements.

Please contact our Technical Department.

## Metric caution

IN THE EU THERE ARE AT LEAST THREE 'STANDARDS' COVERING DIMENSIONS AND TOLERANCES OF METRIC BEARINGS

All the metric (ISO) bearings in this catalogue are manufactured to the tolerances set out in ISO 2795 - Plain Bearings from Sintered Material.

ISO 2795 is the standard used by the BSI for this type of bearings; it is widely used in other European countries.

Bearings conforming to other metric standards used in the EU are available in Britain; bearings made to these other standards may not suit the ISO 2795 fitting requirements and vice-versa. Incompatibility may result in bearing seizure or much reduced life, therefore great care must be taken in selecting matched bearing, housing, fitting-pin and shaft sizes. Bearings can be manufactured to meet many of these other standards; therefore, please contact our Technical Department for advice.

Please note that whilst we strive to increase the wide range of stock sizes the right to remove sizes from the list or later tolerances are retained.

## Material specifications

		Mandatory Values						Informative Values				
		Chemical Composition				Mechanical & Physical Properties						
Materials	MB Grade	(4) C	Cu	Fe	Sn	Total Other Elements Max. %	(1) Open Porosity P Min. %	(1) Oil Content Min. %	(2) Radial Crushing Strength K Min. N/mm <sup>2</sup>	(1) Density P Nominal g/cm <sup>3</sup>	Static Load Max N/mm <sup>2</sup>	(3) PV factor N/mm <sup>2</sup> x m/s
		Total %	%	%	%							
Oilite®	MB01-1	<0.3	Balance		9 to 11	2	27	24	120	6.0	35	1.8
	MB01-2	<0.3	Balance		9 to 11	2	22	20	160	6.4	50	1.8

MB01-1 Applicable to Bars, Plate Material and Imperial Bearings

MB01-2 Applicable to Metric Bearings.

Other bearing materials for special applications are also available

NOTES: 1. Density, oil content and open porosity determined according to BS5600 Pt 3 Section 3.2 1988

2. Radial crushing strength, according to BS ENISO 2739:- 1998

3. PV factor = Pressure (N/mm<sup>2</sup>) x bearing surface velocity (m/s) where pressure = load (N) ÷ projected area (d x L) and d = inside diameter (mm).

4. Bars and Plates may contain up to 1% C.

## Nearest equivalent specifications

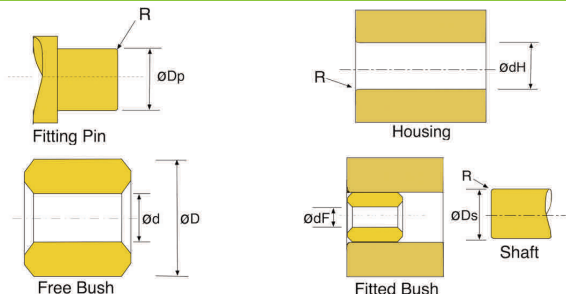
		UK BS5600		France	Germany	U.S.A.		
Materials	MB Grade	ISO 5755/1 1987	Part 5 Section 5.1 1988	NF ISO 5755/1 A 95-771-1	DIN 30 910 PART 3	M.P.I.F. STAND. 35	S.A.E	A.S.T.M.
Oilite® Bronze	MB01-1	P4011Z	P4011Z	FU-E10-60		CT-1000-K19	840	B438 Grd 1 Type 2
	MB01-2	P4012Z	P4012Z	FU-E10-64	SintA50	CT-1000-K26	841	

## Lubricants and additives

The standard stock range of Oilite® bearings is impregnated with a mineral oil SAE 30 viscosity; all machined Oilite® bearings and plates are supplied fully impregnated after machining. A wide range of lubricants is available to meet specific requirements within a temperature range of -60° C to 200° C, lubricant additives are also available to impart anti-wear properties in marginal lubrication conditions such as stainless steel shaft applications.



# Imperial plain bushes - fitting data

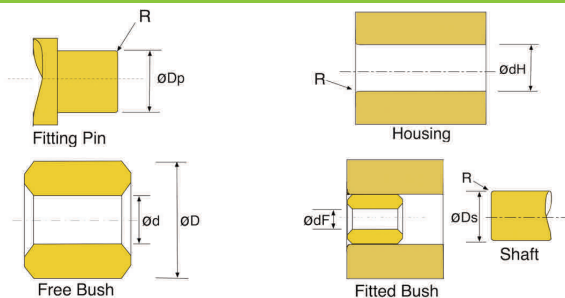


PART NUMBER	Basic Sizes		$\varnothing d_H$ " (H8)		$\varnothing D_p$ "		$\varnothing d_F$ "			$\varnothing D_s$ " (f7) (except *)	
	$\varnothing d$	$\varnothing D$	Min.	Max.	Min.	Max.	Min.	Max.	Tol.	Min.	Max.
HPCQI0305	3/16	5/16	0.3125	0.3134	0.1877	0.1879	0.1876	0.1866		0.1866	0.1871
HPCQI0406	1/4	3/8	0.3750	0.3759	0.2502	0.2504	0.2500	0.2507	H8	0.2489	0.2495
HPCQI0407	1/4	7/16	0.4375	0.4385	0.2498	0.2500	0.2496	0.2506		0.2484*	0.2490* *e7
HPCQI0408	1/4	1/2	0.5000	0.5010	0.2502	0.2504	0.2500	0.2504	H8	0.2489	0.2495
HPCQI0507	5/16	7/16	0.4375	0.4385	0.3127	0.3129	0.3125	0.3133	H8	0.3114	0.3120
HPCQI0508	5/16	1/2	0.5000	0.5010	0.3127	0.3129	0.3125	0.3131	H8	0.3114	0.3120
HPCQI0608	3/8	1/2	0.5000	0.5010	0.3752	0.3754	0.3750	0.3754	H8	0.3739	0.3745
HPCQI0610	3/8	5/8	0.6250	0.6260	0.3752	0.3754	0.3750	0.3759	H8	0.3739	0.3745
HPCQI0709	7/16	9/16	0.5625	0.5635	0.4377	0.4379	0.4375	0.4385	H8	0.4362	0.4369
HPCQI0711	7/16	11/16	0.6875	0.6885	0.4377	0.4379	0.4375	0.4385	H8	0.4362	0.4369
HPCQI0810	1/2	5/8	0.6250	0.6260	0.5002	0.5005	0.5000	0.5009	H8	0.4987	0.4994
HPCQI0811	1/2	11/16	0.6875	0.6885	0.5002	0.5005	0.5000	0.5012		0.4987	0.4994
HPCQI0812	1/2	3/4	0.7500	0.7512	0.5002	0.5005	0.5000	0.5010	H8	0.4987	0.4994
HPCQI0911	9/16	11/16	0.6875	0.6885	0.5625	0.5628	0.5625	0.5634	H8	0.5612	0.5619
HPCQI0912	9/16	3/4	0.7500	0.7512	0.5635	0.5638	0.5633	0.5644		0.5618*	0.5625* *h7
HPCQI1012	5/8	3/4	0.7500	0.7512	0.6252	0.6255	0.6250	0.6263		0.6237	0.6244
HPCQI1013	5/8	13/16	0.8125	0.8137	0.6252	0.6255	0.6250	0.6269		0.6237	0.6244
HPCQI1014	5/8	7/8	0.8750	0.8762	0.6252	0.6255	0.6250	0.6259	H8	0.6237	0.6244
HPCQI1115	11/16	15/16	0.9375	0.9387	0.6877	0.6880	0.6875	0.6880	H8	0.6892	0.6869

# Imperial plain bushes - fitting data

PART NUMBER	Basic Sizes		Ø dH" (H8)		Ø Dp"		Ø dF"			Ø Ds"(f7) (except *)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Tol.	Min.	Max.
HPCQI1214	3/4	7/8	0.8750	0.8762	0.7502	0.7505	0.7500	0.7513		0.7484	0.7492
HPCQI1215	3/4	15/16	0.9375	0.9387	0.7516	0.7519	0.7514	0.7531		0.7499*	0.7508* *k7
HPCQI1216	3/4	1	1.0000	1.0012	0.7502	0.7505	0.7500	0.7512	H8	0.7484	0.7492
HPCQI1218	3/4	1 1/8	1.1250	1.1262	0.7502	0.7505	0.7500	0.7512		0.7484	0.7492
HPCQI1220	3/4	1 1/4	1.2000	1.2516	0.7502	0.7505	0.7500	0.7520		0.7484	0.7492
HPCQI1416	7/8	1	1.0000	1.0012	0.8752	0.8755	0.8750	0.8761	H8	0.8737	0.8744
HPCQI1418	7/8	1 1/8	1.1250	1.1262	0.8752	0.8755	0.8750	0.8761	H8	0.8737	0.8744
HPCQI1618	1	1 1/8	1.1250	1.1262	1.0002	1.0006	1.0000	1.0012	H8	0.9984	0.9992
HPCQI1620	1	1 1/4	1.1250	1.2516	1.0002	1.0006	1.0000	1.0012	H8	0.9984	0.9992
HPCQI1624	1	1 1/2	1.5000	1.5016	1.0002	1.0006	1.0000	1.0016		0.9984	0.9992
HPCQI1822	1 1/8	1 3/8	1.3750	1.3766	1.1252	1.1256	1.1250	1.1265		1.1234	1.1244
HPCQI2024	1 1/4	1 1/2	1.5000	1.5016	1.2502	1.2506	1.2500	1.2514	H8	1.2480	1.2490
HPCQI2026	1 1/4	1 5/8	1.6250	1.6266	1.2502	1.2506	1.2500	1.2526		1.2480	1.2490
HPCQI2226	1 3/8	1 5/8	1.6250	1.6266	1.3752	1.3756	1.3750	1.3765	H8	1.3730	1.3740
HPCQI2228	1 3/8	1 3/4	1.7500	1.7516	1.3752	1.3756	1.3750	1.3765	H8	1.3730	1.3740
HPCQI2428	1 1/2	1 3/4	1.7500	1.7516	1.5002	1.5006	1.5000	1.5014	H8	1.4980	1.4990
HPCQI2430	1 1/2	1 7/8	1.8750	1.8766	1.5002	1.5006	1.5000	1.5016	H8	1.4980	1.4990
HPCQI2432	1 1/2	2	2.0000	2.0018	1.5002	1.5006	1.5000	1.5025		1.4980	1.4990
HPCQI2633	1 5/8	2 1/16	2.0625	2.0643	1.6252	1.6258	1.6250	1.6274		1.6230	1.6240
HPCQI2832	1 3/4	2	2.0000	2.0018	1.7502	1.7508	1.7500	1.7515	H8	1.7480	1.7490
HPCQI2836	1 3/4	2 1/4	2.2500	2.2518	1.7502	1.7508	1.7500	1.7515	H8	1.7480	1.7490
HPCQI3236	2	2 1/4	2.2500	2.2518	2.0002	2.0008	2.0000	2.0015	H8	1.9976	1.9988
HPCQI3240	2	2 1/2	2.2500	2.5018	2.0002	2.0008	2.0000	2.0011	H8	1.9976	1.9988
HPCQI3642	2 1/4	2 5/8	2.6250	2.6268	2.2502	2.2508	2.2500	2.2536		2.2476	2.2488
HPCQI3644	2 1/4	2 3/4	2.7500	2.7518	2.2502	2.2508	2.2500	2.2512	H8	2.2476	2.2488
HPCQI4048	2 1/2	3	3.0000	3.0018	2.5002	2.5008	2.5000	2.5013	H8	2.4976	2.4988
HPCQI4856	3	3 1/2	3.4980	3.5003	2.9957	2.9967	2.9955	2.9986		2.9922*	2.9940* *c8

# Metric plain bushes - fitting data

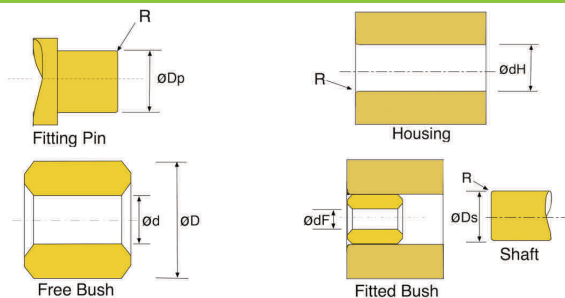


PART NUMBER	Basic Sizes		$\varnothing d_H$ (H7)		$\varnothing D_p$ (m5)		$\varnothing d_F$ (H7)		$\varnothing D_s$ (f7)	
	$\varnothing d$	$\varnothing D$	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQM0205	2	5	5.000	5.012	2.002	2.006	2.000	2.010	1.984	1.994
HPCQM0305	3	5	5.000	5.012	3.002	3.006	3.000	3.010	2.984	2.994
HPCQM0306	3	6	6.000	6.012	3.002	3.006	3.000	3.010	2.984	2.994
HPCQM0407	4	7	7.000	7.015	4.004	4.009	4.000	4.012	3.978	3.990
HPCQM0408	4	8	8.000	8.015	4.004	4.009	4.000	4.012	3.978	3.990
HPCQM0508	5	8	8.000	8.015	5.004	5.009	5.000	5.012	4.978	4.990
HPCQM0509	5	9	9.000	9.015	5.004	5.009	5.000	5.012	4.978	4.990
HPCQM0609	6	9	9.000	9.015	6.004	6.009	6.000	6.012	5.978	5.990
HPCQM0610	6	10	10.000	10.015	6.004	6.009	6.000	6.012	5.978	5.990
HPCQM0710	7	10	10.000	10.015	7.005	7.012	7.000	7.015	6.792	6.987
HPCQM0711	7	11	11.000	11.018	7.005	7.012	7.000	7.015	6.972	6.987
HPCQM0811	8	11	11.000	11.018	8.006	8.012	8.000	8.015	7.972	7.987
HPCQM0812	8	12	12.000	12.018	8.006	8.012	8.000	8.015	7.972	7.987
HPCQM0814	8	14	14.000	14.018	8.006	8.012	8.000	8.015	7.972	7.987
HPCQM0912	9	12	12.000	12.018	9.006	9.012	9.000	9.015	8.972	8.987
HPCQM0914	9	14	14.000	14.018	9.006	9.012	9.000	9.015	8.972	8.987
HPCQM1013	10	13	13.000	13.018	10.006	10.012	10.000	10.015	9.972	9.987
HPCQM1014	10	14	14.000	14.018	10.006	10.012	10.000	10.015	9.972	9.987

# Metric plain bushes - fitting data

PART NUMBER	Basic Sizes		Ø dH (H7)		Ø Dp (m5)		Ø dF (H7)		Ø Ds (f7)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQM1015	10	15	15.000	15.018	10.006	10.012	10.000	10.015	9.972	9.987
HPCQM1016	10	16	16.000	16.018	10.006	10.012	10.000	10.015	9.972	9.987
HPCQM1215	12	15	15.000	15.018	12.007	12.015	12.000	12.018	11.966	11.984
HPCQM1216	12	16	16.000	16.018	12.007	12.015	12.000	12.018	11.966	11.984
HPCQM1218	12	18	18.000	18.018	12.007	12.015	12.000	12.018	11.966	11.984
HPCQM1418	14	18	18.000	18.018	14.007	14.015	14.000	14.018	13.966	13.984
HPCQM1420	14	20	20.000	20.021	14.007	14.015	14.000	14.018	13.966	13.984
HPCQM1519	15	19	19.000	19.021	15.007	15.015	15.000	15.018	14.966	14.984
HPCQM1521	15	21	21.000	21.021	15.007	15.015	15.000	15.018	14.966	14.984
HPCQM1620	16	20	22.000	20.021	16.007	16.015	16.000	16.018	15.966	15.984
HPCQM1622	16	22	22.000	22.021	16.007	16.015	16.000	16.018	15.966	15.984
HPCQM1822	18	22	22.000	22.021	18.007	18.015	18.000	18.018	17.966	17.984
HPCQM1824	18	24	24.000	24.021	18.007	18.015	18.000	18.018	17.966	17.984
HPCQM1825	18	25	25.000	25.021	18.007	18.015	18.000	18.018	17.966	17.984
HPCQM2024	20	24	24.000	24.021	20.008	20.017	20.000	20.021	19.959	19.980
HPCQM2025	20	25	25.000	25.021	20.008	20.017	20.000	20.021	19.959	19.980
HPCQM2026	20	26	26.000	26.021	20.008	20.017	20.000	20.021	19.959	19.980
HPCQM2028	20	28	28.000	28.021	20.008	20.017	20.000	20.021	19.959	19.980
HPCQM2227	22	27	27.000	27.021	22.008	22.017	22.000	22.021	21.959	21.980
HPCQM2228	22	28	28.000	28.021	22.008	22.017	22.000	22.021	21.959	21.980
HPCQM2232	22	32	32.000	32.025	22.008	22.017	22.000	22.021	21.959	21.980
HPCQM2530	25	30	30.000	30.021	25.008	25.017	25.000	25.021	24.959	24.980
HPCQM2532	25	32	32.000	32.025	25.008	25.017	25.000	25.021	24.959	24.980
HPCQM2535	25	35	35.000	35.025	25.008	25.017	25.000	25.021	24.959	24.980
HPCQM2836	28	36	36.000	36.025	28.008	28.017	28.000	28.021	27.959	27.980
HPCQM3035	30	35	35.000	35.025	30.008	30.017	30.000	30.021	29.959	29.980
HPCQM3038	30	38	38.000	38.025	30.008	30.017	30.000	30.021	29.959	29.980
HPCQM3040	30	40	40.000	40.025	30.008	30.017	30.000	30.021	29.959	29.980

# Metric plain bushes - fitting data



PART NUMBER	Basic Sizes		Ø dH (H7)		Ø Dp (m5)		Ø dF (H7)		Ø Ds (f7)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQM3238	32	38	38.000	38.025	32.009	32.020	32.000	32.025	31.950	31.975
HPCQM3240	32	40	40.000	40.025	32.009	32.020	32.000	32.025	31.950	31.975
HPCQM3541	35	41	41.000	41.025	35.009	35.020	35.000	35.025	34.950	34.975
HPCQM3544	35	44	44.000	44.025	35.009	35.020	35.000	35.025	34.950	34.975
HPCQM3545	35	45	45.000	45.025	35.009	35.020	35.000	35.025	34.950	34.975
HPCQM3642	36	42	42.000	42.025	36.009	36.020	36.000	36.025	35.950	35.975
HPCQM3645	36	45	45.000	45.025	36.009	36.020	36.000	36.025	35.950	35.975
HPCQM3844	38	44	44.000	44.025	38.009	38.020	38.000	38.025	37.950	37.975
HPCQM3848	38	48	48.000	48.025	38.009	38.020	38.000	38.025	37.950	37.975
HPCQM4046	40	46	46.000	46.025	40.009	40.020	40.000	40.025	39.950	39.975
HPCQM4050	40	50	50.000	50.025	40.009	40.020	40.000	40.025	39.950	39.975
HPCQM4248	42	48	48.000	48.025	42.009	42.020	42.000	42.025	41.950	41.975
HPCQM4252	42	52	52.000	52.030	42.009	42.020	42.000	42.039	41.950	41.975
HPCQM4551	45	51	51.000	51.030	45.009	45.020	45.000	45.039	41.950	41.975
HPCQM4555	45	55	55.000	55.030	45.009	45.020	45.000	45.039	44.950	44.975
HPCQM4556	45	56	56.000	56.030	45.009	45.020	45.000	45.039	44.950	44.975
HPCQM4855	48	55	55.000	55.030	48.009	48.020	48.000	48.039	47.950	47.975
HPCQM4858	48	58	58.000	58.030	48.009	48.020	48.000	48.039	47.950	47.975

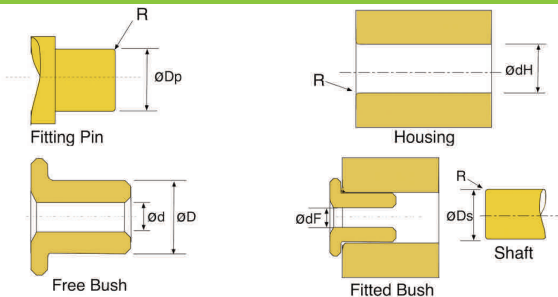
# Metric plain bushes - fitting data

PART NUMBER	Basic Sizes		Ø dH (H7)		Ø Dp (m5)		Ø dF (H7)		Ø Ds (f7)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQM5060	50	60	60.000	60.030	50.009	50.020	50.000	50.039	49.950	49.975
HPCQM5563	55	63	63.000	63.030	55.010	55.024	55.000	55.046	54.940	54.970
HPCQM5565	55	65	65.000	65.030	55.010	55.024	55.000	55.046	54.940	54.970
HPCQM6068	60	68	68.000	68.030	60.010	60.024	60.000	60.046	59.940	59.970
HPCQM6070	60	70	70.000	70.030	60.010	60.024	60.000	60.046	59.940	59.970
HPCQM6072	60	72	72.000	72.030	60.010	60.024	60.000	60.046	59.940	59.970
HPCQM6370	63	70	70.000	70.030	63.010	63.024	63.000	63.046	62.940	62.970

Fitting Data Oilite® Bushes

*'Never Knowingly Outpriced'*

# Imperial flanged bushes - fitting data



PART NUMBER	Basic Sizes"		Ø dH" (H8)		Ø" Dp		Ø" dF			Ø" Ds (f7) (except *)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Tol.	Min.	Max.
HPCQFI0305	3/16	5/16	0.3125	0.3134	0.1877	0.1879	0.1875	0.1883	H8	0.1866	0.1871
HPCQFI0406	1/4	3/8	0.3750	0.3759	0.2502	0.2504	0.2500	0.2504	H8	0.2489	0.2495
HPCQFI0508	5/16	1/2	0.5000	0.5010	0.3127	0.3129	0.3125	0.3127	H8	0.3114	0.3120
HPCQFI0509	5/16	9/16	0.5625	0.5635	0.3116	0.3118	0.3114	0.3121		0.3100*	0.3109* *d8
HPCQFI0608	3/8	1/2	0.5000	0.5010	0.3752	0.3754	0.3750	0.3756	H8	0.3739	0.3745
HPCQFI0609	3/8	9/16	0.5625	0.5635	0.3744	0.3746	0.3742	0.3748		0.3739*	0.3745* *d8
HPCQFI0610	3/8	5/8	0.6250	0.6260	0.3752	0.3754	0.3750	0.3758	H8	0.3739	0.3745
HPCQFI0709	7/16	9/16	0.5625	0.5635	0.4390	0.4392	0.4388	0.4401		0.4376*	0.4383* *k7
HPCQFI0810	1/2	5/8	0.6250	0.6260	0.4997	0.4999	0.4995	0.5001	J8	0.4981*	0.4988* *e7
HPCQFI0812	1/2	3/4	0.7500	0.7512	0.5002	0.5005	0.5000	0.5009	H8	0.4987	0.4994
HPCQFI1012	5/8	3/4	0.7500	0.7512	0.6266	0.6269	0.6264	0.6275		0.6251*	0.6258* *k7
HPCQFI1014	5/8	7/8	0.8750	0.8762	0.6252	0.6255	0.6250	0.6259	H8	0.6237	0.6244
HPCQFI1216	3/4	1	1.0000	1.0012	0.7502	0.7505	0.7500	0.7512	H8	0.7484	0.7492
HPCQFI1416	7/16	1	1.0000	1.0012	0.8752	0.8755	0.8750	0.8761	H8	0.8737	0.8744
HPCQFI1418	7/16	1 1/8	1.1250	1.1262	0.8752	0.8755	0.8750	0.8761	H8	0.8737	0.8744
HPCQFI1620	1	1 1/4	1.2500	1.2516	1.0007	1.0010	1.0050	1.0017		0.9993*	1.0000* *h7
HPCQFI1822	1 1/8	1 3/8	1.3750	1.3766	1.1252	1.1256	1.1250	1.1262	H8	1.1234	1.1244
HPCQFI2024	1 1/4	1 1/2	1.5000	1.5016	1.2502	1.2506	1.2500	1.2514	H8	1.2480	1.2490

# Imperial flanged bushes - fitting data

PART NUMBER	Basic Sizes <sup>1</sup>		Ø dH" (H8)		Ø" Dp		Ø" dF			Ø" Ds (f7) (except *)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Tol.	Min.	Max.
HPCQFI2026	1 1/4	1 5/8	1.6250	1.6266	1.2502	1.2506	1.2500	1.2515	H8	1.2480	1.2490
HPCQFI2226	1 3/8	1 5/8	1.6250	1.6266	1.3740	1.3744	1.3738	1.3752		1.3720*	1.3730* *e7
HPCQFI2428	1 1/2	1 3/4	1.7485§	1.7502§	1.5012	1.5016	1.5010	1.5020	F8	1.4990*	1.5000* *h7
HPCQFI2430	1 1/2	1 7/8	1.8750	1.8766	1.5002	1.5006	1.5000	1.5015	H8	1.4980	1.4990

§M8

## Imperial stock tolerances

Tolerances

*Plain Bearings*

*Flanged Bearings*

Length: L < 11/2" ± 0.005"  
L > 11/2" < 3" ± 0.010"

Length: L < 11/2" ± 0.005"  
L > 11/2" < 3" ± 0.010"

Concentricity: Full indicated movement, D with respect to d;  
d < 1/2" 0.002" max  
d > 1/2" < 11/2" 0.003" max  
d > 11/2" 0.004" max

Flange thickness e ± 0.003"  
Flange diameter D1 ± 0.005"

Concentricity: Full indicated movement, D with respect to d:

d < 1/2" 0.002" max  
d > 1/2" < 11/2" 0.003" max  
d > 11/2" 0.004" max

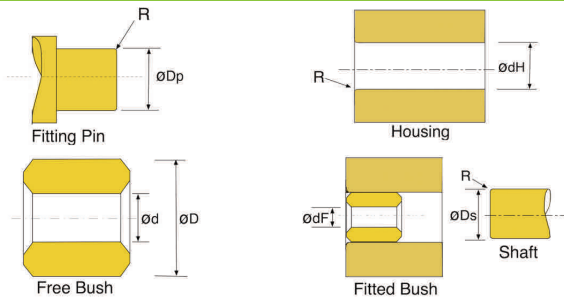
Chamfers: 45° chamfers are incorporated on inside and outside diameters at each end of bush. Chamfer length varies with bush wall thickness and outside diameter.

Radii: Radii varies with bush wall thickness and outside diameter. Contact our technical Department for details.

Fitting Data Oilite® Bushes



# Metric flanged bushes - fitting data



PART NUMBER	Basic Sizes		Ø dH (H7)		Ø Dp (m5)		Ø dF (H7)		Ø Ds (f7)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQFM0205	02	05	5.000	5.012	2.002	2.006	2.000	2.010	1.984	1.994
HPCQFM0306	03	06	6.000	6.012	3.002	3.006	3.000	3.010	2.984	1.994
HPCQFM0408	04	08	8.000	8.015	4.004	4.009	4.000	4.012	3.978	3.990
HPCQFM0509	05	09	9.000	9.015	5.004	5.009	5.000	5.012	4.978	4.990
HPCQFM0610	06	10	10.000	10.015	6.004	6.009	6.000	6.012	5.978	5.990
HPCQFM0711	07	11	11.000	11.018	7.005	7.012	7.000	7.015	6.972	6.987
HPCQFM0812	08	12	12.000	12.018	8.005	8.012	8.000	8.015	7.972	7.987
HPCQFM1013	10	13	13.000	13.018	10.005	10.012	10.000	10.015	9.972	9.987
HPCQFM1015	10	15	15.000	15.018	10.005	10.012	10.000	10.015	9.972	9.987
HPCQFM1016	10	16	16.000	16.018	10.005	10.012	10.000	10.015	9.972	9.987
HPCQFM1215	12	15	15.000	15.018	12.006	12.015	12.000	12.018	11.966	11.984
HPCQFM1217	12	17	17.000	17.018	12.006	12.015	12.000	12.018	11.966	11.984
HPCQFM1218	12	18	18.000	18.018	12.006	12.015	12.000	12.018	11.966	11.984
HPCQFM1420	14	20	20.000	20.021	14.006	14.015	14.000	14.018	13.966	13.984
HPCQFM1519	15	19	19.000	19.021	15.006	15.015	15.000	15.018	14.966	14.984
HPCQFM1521	15	21	21.000	21.021	15.006	15.015	15.000	15.018	14.966	14.984
HPCQFM1620	16	20	20.000	20.021	16.006	16.015	16.000	16.018	15.966	15.984
HPCQFM1622	16	22	22.000	22.021	16.006	16.015	16.000	16.018	15.966	15.984

# Metric flanged bushes - fitting data

PART NUMBER	Basic Sizes		Ø dH (H7)		Ø Dp (m5)		Ø dF (H7)		Ø Ds (f7)	
	Ø d	Ø D	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
HPCQFM1824	18	24	24.000	24.021	18.006	18.015	18.000	18.018	17.966	17.984
HPCQFM2024	20	24	24.000	24.021	20.007	20.017	20.000	20.021	19.959	19.980
HPCQFM2026	20	26	26.000	26.021	20.007	20.017	20.000	20.021	19.959	19.980
HPCQFM2228	22	28	28.000	28.021	22.007	22.017	22.000	22.021	21.959	21.980
HPCQFM2530	25	30	30.000	30.021	25.007	25.017	25.000	22.021	24.959	24.980
HPCQFM2532	25	32	32.000	32.025	25.007	25.017	25.000	25.021	24.959	24.980
HPCQFM2836	28	36	36.000	36.025	28.007	28.017	28.000	28.021	27.959	27.980
HPCQFM3038	30	38	38.000	38.025	30.007	30.017	30.000	30.021	29.959	29.980
HPCQFM3238	32	38	38.000	38.025	32.009	32.020	32.000	32.025	31.950	31.975
HPCQFM3240	32	40	40.000	40.025	32.009	32.020	32.000	32.025	31.950	31.975
HPCQFM3545	35	45	45.000	45.025	35.009	35.020	35.000	35.025	34.950	34.975
HPCQFM3848	38	48	48.000	48.025	38.009	38.020	38.000	38.025	37.950	37.975
HPCQFM4046	40	46	46.000	46.025	40.009	40.020	40.000	40.025	39.950	39.975
HPCQFM4050	40	50	50.000	50.025	40.009	40.020	40.000	40.025	39.950	39.975
HPCQFM4252	42	52	52.000	52.030	42.009	42.020	42.000	42.039	41.950	41.975
HPCQFM4555	45	55	55.000	55.030	45.009	45.020	45.000	45.039	44.950	44.975
HPCQFM5060	50	60	60.000	60.030	50.009	50.020	50.000	50.039	49.950	49.975

Fitting Data Oilite® Bushes

*'Never Knowingly Outpriced'*

# Metric flanged bushes - fitting data

## Metric stock tolerances

### Plain Bearings

Length:	L js 13
Concentricity:	Full indicated movement.
D with respect to d:	D < 50 mm IT9; D > 50 mm, IT 10.

### Flanged Bearings

Length:	L js 13
Flange thickness:	e js 13
Flange diameter:	D js 13
Concentricity:	Full indicated movement. D with respect to d: D < 50 mm IT9; D > 50mm, IT10.

### Chamfers:

45° chamfers are incorporated on inside and outside diameters at each end of the bush. Chamfer length varies with bush wall thickness and outside diameter.

### Flanged Bearings

Radii (between outside diameter and flange face)	
Outside Diameter	r max.
≤ 12	0.3
>12 ≤ 30	0.6
>30	0.8

### Plain and Flanged Bearings

Nominal Sizes (mm)		Tolerances					
		Standard Tolerances					
-	3	0.025	-	0.070	0.070		
3	6	0.030	-	0.090	0.090		
6	10	0.036	-	0.110	0.110		
10	18	0.043	-	0.135	0.135		
18	30	0.052	-	0.165	0.165		
30	50	0.062	-	0.195	0.195		
50	80	-	0.120	0.230	0.230		

