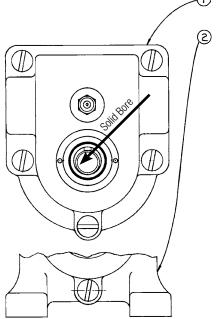


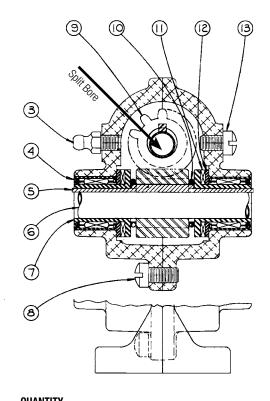
0100-0219\_06

## **FLOAT-A-SHAFT® Compact Series – 1:1 Ratio METRIC**

Standard Mount & Foot Mount - High Torque - Roller Bearing

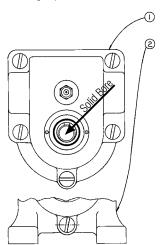
	MODEL	R/LH	BORES
NT	0120-0100	RH	12MM X 12MM
STANDARD MOUNT	0121-0100	LH	12MM X 12MM
	0122-0100	RH	12MM X 15MM
	0123-0100	LH	12MM X 15MM
	0124-0100	RH	15MM X 15MM
	0125-0100	LH	15MM X 15MM
FOOT MOUNT	0126-0100	RH	12MM X 12MM
	0127-0100	LH	12MM X 12MM
	0128-0100	RH	12MM X 15MM
	0129-0100	LH	12MM X 15MM
	0130-0100	RH	15MM X 15MM
	0131-0100	LH	15MM X 15MM

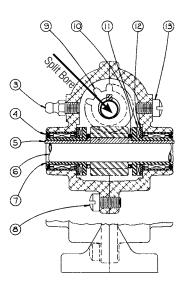




			QUANTITY											
			STANDARD MOUNT				FC	FOOT MOUNT						
ITEM	PART NO.	DESCRIPTION	0120-0100	0121-0100	0122-0100	0123-0100	0124-0100	0125-0100	0126-0100	0127-0100	0128-0100	0129-0100	0130-0100	0131-0100
1	0110-9110	GEAR CASE HOUSING, COMPACT	1	1	1	1	1	1						
2	0112-9112	GEAR CASE HOUSING, FOOT MOUNT, COMPACT							1	1	1	1	1	1
3	0100-1601	ZERK GREASE FITTING, 1/4-28	1	1	1	1	1	1	1	1	1	1	1	1
4	0100-1220	BEARING, NEEDLE, ROLLER	4	4	4	4	4	4	4	4	4	4	4	4
5	0100-1505	KEY, STEP, 4MM X 4MM	2	2	1	1			2	2	1	1		
	0100-1504	KEY, STEP, 4MM X 4MM			1	1	2	2			1	1	2	2
6	0100-1708	ROD, DOWEL, PAPER	2	2	1	1			2	2	1	1		
	0100-1710	ROD, DOWEL, PLASTIC			1	1	2	2			1	1	2	2
7	0100-3401	BUSHING, FLANGE 12MM BORE	4	4	2	2			4	4	2	2		
	0100-3402	BUSHING, FLANGE 15MM BORE			2	2	4	4			2	2	4	4
8	0200-1810	SCREW, FILL HD, 1/4-20	5	5	5	5	5	5	5	5	5	5	5	5
9	0100-2102	GEAR, 10 T, RH	2		1				2		1			
	0100-1102	GEAR, 10 T, LH		2		1				2		1		
	0100-2103	GEAR, 10 T, RH			1		2				1		2	
	0100-1103	GEAR, 10 T, LH				1		2				1		2
10	0100-1006	O-RING, VITON	4	4	4	4	4	4	4	4	4	4	4	4
11	0200-1212	BEARING, THRUST	4	4	4	4	4	4	4	4	4	4	4	4
12	0100-1312	WASHER, THRUST	4	4	4	4	4	4	4	4	4	4	4	4
13	0100-2604	SCREW, FILL HD, 1/4-20	1	1	1	1	1	1	1	1	1	1	1	1

Drawing repeated for reference





## Installation

Keyway MUST extend to end of shaft. IT IS NOT POSSIBLE TO USE A SECTIONED SHAFT WITH A ROLLER BEARING FLOAT-A-SHAFT. Without removing the plastic tubes, align the Float-A-

Shaft Keyway Types
Full Length
Section

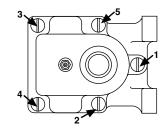
Shaft® with the shaft on which it is to be used and gently press it on. Be sure the key is properly aligned with the keyway. The plastic tubes will fall out as the shaft extends through the unit. Save the plastic tubes for removal of the Float-A-Shaft® for maintenance or repair. Be sure to reinsert the plastic tubes as the shaft is withdrawn, otherwise the internal parts will slip out of position and disassembly may be required to restore proper alignment.

**Reassembly:** Reference the numbering diagram on page 1 to complete the following instructions, matching the numbers with corresponding bores.

**SOLID BORE REASSEMBLY:** Lay Gear Case Housing (1) horizontal, with inside surface facing up. Install Roller Bearing (4) in solid bores of Gear Case Housing (1). Apply Loctite® #601 on solid bores of gear case housing before pressing in roller bearings. Press from inside to outside. Inside face of roller bearing must be flush with inside machined surface of gear case housing. Slide one end of the Gear Case Housing (1) onto the most accessible end of one shaft. Then install a Thrust Washer (12), a Thrust Bearing (11), a Flanged Bushing (7), and an O-Ring (10). The O-Ring (10) should be temporarily positioned on the largest outside diameter of the flanged bushing at this time. Next, place the Key (5) in the keyway and slide the Gear (9) onto the shaft over the key. Position the Flanged Bushing (7) such that the key also engages the flanged bushing. On the opposite side of the gear, place an O-Ring (10) and a Flanged Bushing (7) engaging the Key (5). Temporarily position the O-Ring (10) on the largest outside diameter of the flanged bushing. Next, continue with a Thrust Bearing (11) and a Thrust Washer (12).

**SPLIT BORE REASSEMBLY:** On the other shaft, which is positioned at a 90° angle, place the following parts: a loose Roller Bearing (4), a Thrust Washer (12), a Thrust Bearing (11), a Flanged Bushing (7), and an O-Ring (10). Place the O-Ring (10) on the largest outside diameter of the flanged bushing. Next, place the Key (5) in the keyway and slide the Gear (9) onto the shaft over the key. The key should engage both the Flanged Bushing (7) and Gear (9). On the opposite side of the gear, place an O-Ring (10), a Flanged Bushing (7), a Thrust Bearing (11), a Thrust Washer (12), and a Roller Bearing (4). Position the O-Ring (10) on the largest outside diameter of the flanged bushing. Apply Loctite® #601 on solid bores of gear case housing before pressing in roller bearings. Position this total assembly into the Gear Case Housing (1), making sure the teeth of the gears mesh. CAUTION: When trying to get the gears to mesh, rotate the gears to prevent possible damage to the

teeth. Refer to diagram on page 1 for proper O-Ring (10) positioning. To complete assembly, install the other half of the Gear Case Housing (1) and tighten the Screws (8) in the order shown here. In case of shaft binding, check for possible misalignment of the shafts or for oversized shaft diameters.



**Shaft Requirements:** Shafts should be made of power transmission steel grade 4140 or better. A tolerance of +.000/- .002 is recommended for the shaft diameters. The shaft surfaces should be 32 RMS maximum for stationary applications, and 16 RMS maximum for traversing applications. Shaft straightness should be .0015 TIR per foot.

**Lubrication and Maintenance Schedule:** All Float-A-Shaft® gear boxes have been lubricated at the factory with Mobilith® SHC 460. Compact Float-A-Shaft® gear boxes are initially filled with 0.34 oz. (10.1 ml) of grease to achieve 55% fill on the units. However, units require more lubrication prior to operation. Periodic re-lubrication is also necessary for optimum performance. When re-lubricating, inject Mobilith® SHC 460 (maximum operating temperature of 300°F or higher and EP rated) into gear case, as required, via the grease zerk provided. *Mobilith® SHC 460 - 14 oz grease cartridge* ● *P/N 0100-1605* 

Lubrication and maintenance schedules are dependent on the application. General guidance is provided below and a maintenance plan can be developed based on the use case.

	USE CASE							
MAINTENANCE	Continuous/ Heavy Duty	Intermittent/ Light Duty	Minimal					
Inject 1/10 oz. of Mobilith SHC460 into gear housing	1 ½ Months	3 Months	6 Months					
Disassemble and purge unit. Hand lubricate all bearings and gears with 1 oz. of Mobilith SHC460	6 Months	1 Year	1 Year					

Mobilith® SHC 460 is a registered trademark of Exxon Mobil Corporation, www.mobil.com Float-A-Shaft® is a registered trademark of Tolomatic, Inc.



COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV = ISO 9001 =

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