

BBB4 Screw Conveyor Drive Adapter Kit

The purpose of this document is to describe the available screw conveyor drive adapter kit options for the Cyclo® BBB4.

A screw conveyor uses a screw-like thread to move material in a trough or tube. Common applications are in grain handling, food processing, mining and aggregate industries.

An adapter kit is required to mount the BBB4 reducer to the screw conveyor. The adapter utilizes CEMA (Conveyor Equipment Manufacturing Association) Standard 300 for mounting dimensions.

The adapter connects the reducer to the trough. Reference *Figure 1*.

A drive shaft connects the reducer hollow shaft to the screw. The screw conveyor drive shaft is supplied as a three-hole design. The three holes allow the screw to be pinned to the screw conveyor drive shaft. See *Figure 2*. [The user or screw conveyor manufacturer supplies the bolts.]

CEMA 300 also standardizes the dimensions of the screw conveyor drive shaft.

Sumitomo Drive Technologies supplied screw conveyor adapter kits include the adapter, lip seal and hardware as standard. Reference *Figure 3*.

Figure 1. Typical Screw Conveyor Drive

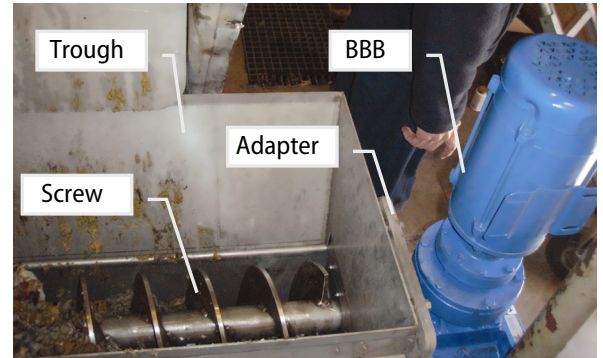


Figure 2. Typical Screw Conveyor Drive Shaft Arrangement

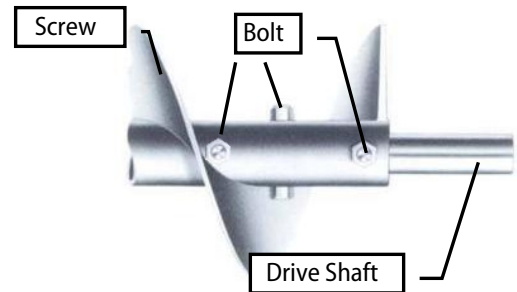
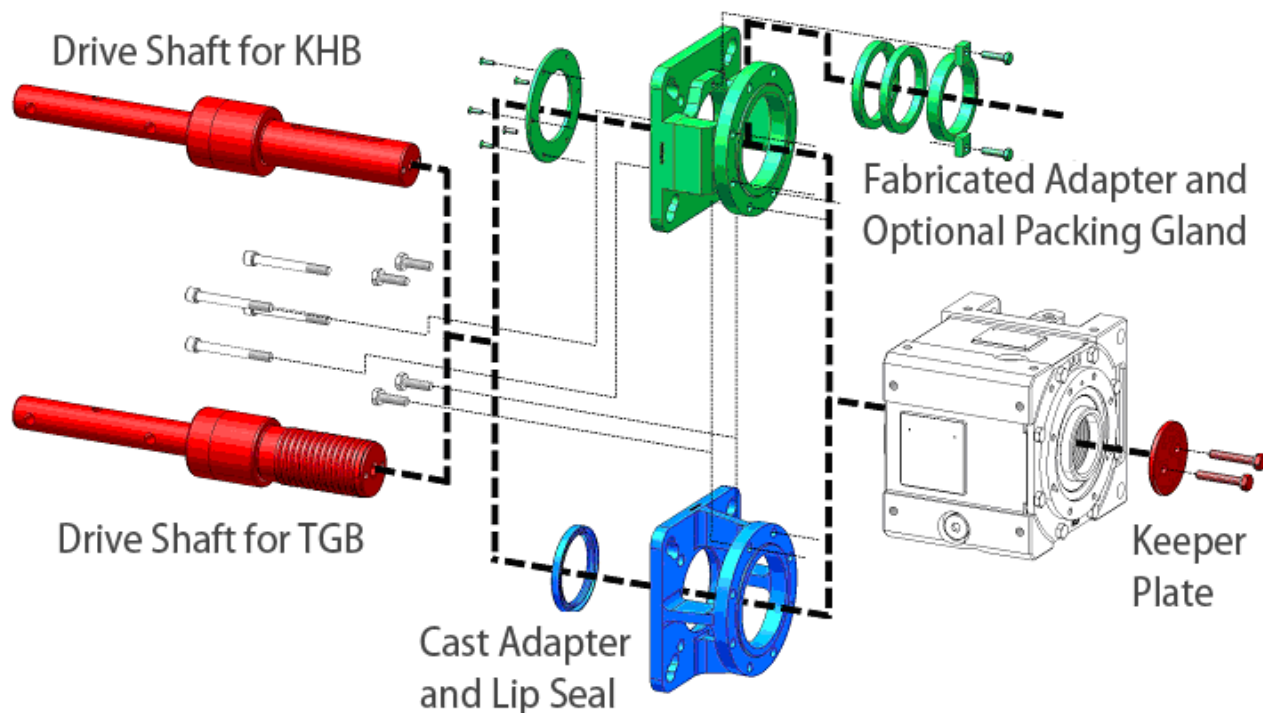


Figure 3. Assembly Schematic for Screw Conveyor Adapter and 3-Hole Drive Shaft



The screw conveyor drive shaft is ordered separately by BBB4 unit size & screw conveyor shaft diameter. The shaft kit includes the keeper plate and hardware as shown in *Figure 3*. The screw conveyor drive shaft is available for units with Tapered Grip Bushing or Keyed Hollow Bore. Reference *Tables 1* through *3*.

BBB4 Screw Conveyor Drive Adapter Kit (continued)

Table 1. Standard TGB 3-Hole Screw Conveyor Steel Shafts

Size	Shaft Diameters and Sumitomo Shaft Kit Numbers				
	Ø 1-1/2"	Ø 2"	Ø 2-7/16"	Ø 3"	Ø 3-7/16"
4A	118A4108-C3	118A4200-C3	118A4207-C3	118A4300-C3	
4B	118B4108-C3	118B4200-C3	118B4207-C3	118B4300-C3	
4C		118C4200-C3	118C4207-C3	118C4300-C3	118C4307-C3
4D		118D4200-C3	118D4207-C3	118D4300-C3	118D4307-C3
4E			118E4207-C3	118E4300-C3	118E4307-C3

Table 2. Standard Keyed 3-Hole Screw Conveyor Steel Shafts

Size	KHB Ø	Shaft Diameters and Sumitomo Shaft Kit Numbers				
		Ø 1-1/2"	Ø 2"	Ø 2-7/16"	Ø 3"	Ø 3-7/16"
4A	2"	118A5108-C3	118A5200-C3	118A5207-C3	118A5300-C3	
4B	2-3/8"	118B5108-C3	118B5200-C3	118B5207-C3	118B5300-C3	
4C	2-3/4"		118C5200-C3	118C5207-C3	118C5300-C3	118C5307-C3
4D	3-1/4"		118D5200-C3	118D5207-C3	118D5300-C3	118D5307-C3
4E	4"			118E5207-C3	118E5300-C3	118E5307-C3

Table 3. Standard Keyed 3-Hole Screw Conveyor Stainless Steel Shafts

Size	KHB Ø	Shaft Diameters and Sumitomo Shaft Kit Numbers				
		Ø 1-1/2"	Ø 2"	Ø 2-7/16"	Ø 3"	Ø 3-7/16"
4A	2"	118A5108-S3	118A5200-S3	118A5207-S3	118A5300-S3	
4B	2-3/8"	118B5108-S3	118B5200-S3	118B5207-S3	118B5300-S3	
4C	2-3/4"		118C5200-S3	118C5207-S3	118C5300-S3	118C5307-S3
4D	3-1/4"		118D5200-S3	118D5207-S3	118D5300-S3	118D5307-S3
4E	4"			118E5207-S3	118E5300-S3	118E5307-S3

* Note: Only screw conveyor drive shaft is AISI 316 (316SUS) stainless steel.

The adapter has been designed in cast and fabricated designs.
Tables 4 and 5 identify the part numbers for each variation, respectively.

Table 4. Cast Iron Screw Conveyor Drive Adapter Kit for BBB

Unit Size	4A		4B		4C		4D		4E	
SCD Shaft Size	Ø 1-1/2" ~ 3"		Ø 1-1/2" ~ 3"		Ø 2" ~ 3-7/16"		Ø 2" ~ 3-7/16"		Ø 2-7/16" ~ 3-7/16"	
Kit Part Number	118A4060		118B4060		118C4060		118D4060		118E4060	
Assembly Layout	TZAK1258		TZAK1260		TZAK1263		TZAK1265		TZAK1267	
Exploded View	TZAL9846		TZAL9847		TZAL9848		TZAL9849		TZAL9850	
Included Parts	Description	Qty	Description	Qty	Description	Qty	Description	Qty	Description	Qty
Adapter	TWMM1368	1	TWMM1360	1	TWMM1362	1	TWMM1567	1	TWMM1570	1
Screw	000M010A035NG	8	000M012A035NG	8	000M016A045NG	8	000M020A050NG	8	000M020A050NG	8
Lock Washer	062W010----NG	8	062W012----NG	8	062W016----NG	8	062W020----NG	8	062W020----NG	8
Output Seal	531N8010010-G	1	531N8010010-G	1	531N9511512-G	1	531N9511512-G	1	531N9511512-G	1

* Note: Material is ASTM A-48 Gray Cast Iron

BBB4 Screw Conveyor Drive Adapter Kit *(continued)*

Table 5. Fabricated Steel Screw Conveyor Drive Adapter Kit for BBB

Unit Size	4A		4B		4C		4D		4E	
SCD Shaft Size	1-1/2" ~ 3"		1-1/2" ~ 3"		2" ~ 3-7/16"		2" ~ 3-7/16"		2-7/16" ~ 3-7/16"	
Kit Part Number	118A4040		118B4040		118C4040		118D4040		118E4040	
Assembly Layout	TZAK1259		TZAK1261		TZAK1264		TZAK1266		TZAK1268	
Exploded View	TZAL4423		TZAL5466		TZAL5468		TZAL5469		TZAL5470	
Included Parts	Description	Qty	Description	Qty	Description	Qty	Description	Qty	Description	Qty
Adapter	TWMC8079	1	TWMC8240	1	TWMC8255	1	TWMC8545	1	NWMC7824	1
Screw	000M010A035NG	4	000M012A035NG	4	000M016A045NG	4	000M020A050NG	4	000M020A050NG	8
	009C010R095NG	4	009C012R095NG	4	009C016R105NG	4	009C020R120NG	4		
Lock Washer	062W010----NG	4	062W012----NG 069S012- ----NG	4	062W016----NG	4	062W020----NG	4	062W020----NG	8
	069S010----NG	4		069S016----NG	4	069S020----NG	4			
Gland Cover Kit	116E4-GC	1	116F4-GC	1	116G4-GC	1	116H4-GC	1	116J4-GC	1
Output Seal Kit	116E4-SL	1	116F4-SL	1	116G4-SL	1	116H4-SL	1	116J4-SL	1

* Note: Material is ASTM A-36 Plate Steel.