



COMPONENT/BEARING SERIES

COMPONENT SERIES

The recommended component series for bulk materials are listed in the Bulk Material Table. The alphabetical series codes refer to the minimum construction requirements for a screw conveyor used to convey a specific bulk material. Series A and B construction can be used for most light, non-abrasive and free-flowing bulk materials. Series C and D construction are recommended for dense, abrasive and sluggish bulk materials. Please consult KWS Engineering for further assistance.

Series A

Light Duty Construction – Series A bulk materials such as barley, cocoa beans, fish meal and sawdust are light, non-abrasive and very free-flowing. Light duty construction is very cost-effective and consists of the thinnest gauge materials available for screws, troughs and covers. Helicoid screws and angle flange troughs are recommended for Series A bulk materials.

Series B

Medium Duty Construction – Series B bulk materials such as alfalfa pellets, dry bagasse, activated carbon and crushed ice are slightly higher in bulk density, have some abrasiveness and are slightly less free-flowing when compared to Series A bulk materials. Medium duty construction is cost-effective and consists of slightly heavier gauge materials for screws, troughs and covers. Helicoid screws and angle flange troughs are recommended for Series B bulk materials.

Series C

Heavy Duty Construction – Series C bulk materials such as alumina fines, spent distiller's grain, foundry sand and sodium sulphate are dense, abrasive and sluggish when compared to Series A and B bulk materials. Heavy duty construction is required to prevent excessive maintenance or downtime and consists of heavy duty screws, troughs and covers. Sectional screws and formed flange troughs are recommended for Series C bulk materials.

Series D

Extra Heavy Duty Construction – Series D bulk materials such as adipic acid, blast furnace slag, cement clinker and lignite coal are very dense, extremely abrasive and very sluggish when compared to Series A, B or C bulk materials. Extra heavy duty construction is required to prevent excessive maintenance or downtime and consists of extra heavy duty screws, troughs and covers. Sectional screws with weld-on hardsurfacing and formed flange troughs are recommended for Series D bulk materials.



COMPONENT/BEARING SERIES

Component Series Tables

Screw Dia.	Shaft Dia.	Cover Thickness	Series A			Series B		
			Screw Number		Trough Thickness (Min.)	Screw Number		Trough Thickness (Min.)
			Helicoid	Sectional		Helicoid	Sectional	
4	1"	14 Ga.	4H206	N/A	14 Ga.	4H206*	N/A	14 Ga.
6	1-1/2"	14 Ga.	6H304*	6S309	14 Ga.	6H308*	6S309	14 Ga.
9	1-1/2" 2"	14 Ga.	9H306* 9H406*	9S309 9S409	14 Ga.	9H312* 9H412*	9S312 9S412	10 Ga.
12	2" 2-7/16" 3"	14 Ga.	12H408* 12H508* 12H614*	12S409 12S509 12S612	12 Ga.	12H412* 12H512* 12H614*	12S412 12S512 12S612	3/16"
14	2-7/16" 3"	14 Ga.	14H508* 14H614*	14S509 14S609	12 Ga.	14H508* 14H614*	14S512 14S612	3/16"
16	3"	14 Ga.	16H610*	16S612	12 Ga.	16H614*	16S616	3/16"
18	3" 3-7/16"	12 Ga.	N/A	18S612 18S712	10 Ga.	N/A	18S616 18S716	3/16"
20	3" 3-7/16"	12 Ga.	N/A	20S612 20S712	3/16"	N/A	20S616 20S716	3/16"
24	3-7/16"	12 Ga.	N/A	24S712	3/16"	N/A	24S716	3/16"
30	3-15/16"	10 Ga.	N/A	30S816	3/8"	N/A	30S824	3/8"
36	4-7/16"	3/16"	N/A	36S916	3/8"	N/A	36S924	3/8"
Screw Dia.	Shaft Dia.	Cover Thickness	Series C			Series D		
			Screw Number		Trough Thickness (Min.)	Screw Number		Trough Thickness (Min.)
			Helicoid	Sectional		Helicoid	Sectional	
4	1"	14 Ga.	4H206*	N/A	14 Ga.	4H206*	N/A	10 Ga.
6	1-1/2"	14 Ga.	6H312*	6S312	14 Ga.	6H312*	6S316*	10 Ga.
9	1-1/2" 2"	14 Ga.	9H312* 9H414*	9S316* 9S416	10 Ga.	9H312* 9H414*	9S324* 9S424*	3/16"
12	2" 2-7/16" 3"	14 Ga.	12H412* 12H512* 12H614*	12S416* 12S516 12S616	3/16"	12H412*-H 12H512*-H 12H614*	12S424* 12S524* 12S624*	1/4"
14	2-7/16" 3"	14 Ga.	14H508*-H 14H614	14S524 14S624*	3/16"	14H508*-H 14H614*-H	14S524 14S624*	1/4"
16	3"	14 Ga.	16H614*	16S616	3/16"	16H614*-H	16S624*	1/4"
18	3" 3-7/16"	12 Ga.	N/A	18S624* 18S724	3/16"	N/A	18S624* 18S724	1/4"
20	3" 3-7/16"	12 Ga.	N/A	20S624* 20S724*	3/16"	N/A	20S624* 20S724*	1/4"
24	3-7/16"	12 Ga.	N/A	24S724*	3/16"	N/A	24S724*	1/4"
30	3-15/16"	10 Ga.	N/A	30S832	3/8"	N/A	30S832	3/8"
36	4-7/16"	3/16"	N/A	36S932	3/8"	N/A	36S932	3/8"

*KWS Stock Component (Only Right Hand Screws) -H Hardsurfacing Recommended

COMPONENT/BEARING SERIES

The recommended bearing series for bulk materials are listed in the Bulk Material Table. The numerical series codes refer to the minimum requirements for screw conveyor hanger bearings used for a specific bulk material. Series 1 and 2 bearing materials are used for most non-abrasive bulk materials. Series 3 and 4 bearing materials are recommended for abrasive and extremely abrasive bulk materials. Please consult KWS Engineering for further assistance.

Series 1

Hanger bearings manufactured from engineered plastics such as Nylatron, Plastech and UHMW as well as oil-impregnated wood and ball bearings are recommended for non-abrasive bulk materials.

Series 2

Hanger bearings manufactured from engineered plastics such as Plastech as well as composite materials such as Gatke and ball bearings are recommended for bulk materials that have some abrasiveness when compared to Series A bulk materials.

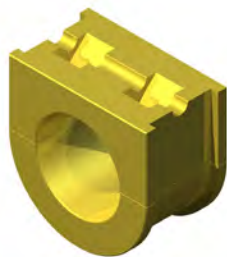
Series 3

Hanger bearings manufactured from bronze and hard iron metals are recommended for bulk materials that are abrasive when compared to Series A and B bulk materials.

Series 4

Hanger bearings manufactured from ceramic, hard iron, stellite, and hardsurfaced metals are recommended for bulk materials that are extremely abrasive when compared to Series A, B or C bulk materials.

Series	Bearing Material
1	Nylatron, Plastech, UHMW, Wood, Ball
2	Plastech, Gatke, Ball
3	Bronze, Hard Iron
4	Hard Iron, Stellite, Hardsurfaced, Ceramic



Style 216 hanger bearing



Style 226 hanger bearing