

XT® Hub Selection

HUB SELECTION

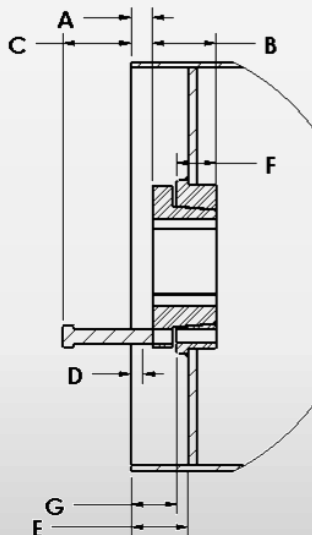
When choosing a hub and bushing system, it is important to understand the different design features and the effects they have on conveyor pulley applications. Consider a design that minimizes end disk pre-stressing, grips the shaft firmly, is easily removed, and is not adversely affected by the bending moments on the pulley shaft.

XT® HUBS AND BUSHINGS

The XT® Hub and Bushing system was specifically designed for use in conveyor pulleys with two hubs. The XT® design has a steep taper angle, 2" taper per foot, which minimizes end disk deflection or pre-stressing that occurs when bushings are installed. The reduction in end disk pre-stressing reduces the likelihood of end disk fatigue. The steep taper angle will reduce the clamping pressure on the shaft, but the XT® design compensates by increasing the number and size of the bolts used to install the bushing. The taper angle of the XT® design is self-locking, which alleviates bolt-breakage experienced on bushings with a taper angle greater than 2" taper per foot. The holes used to install and remove the bushing are spaced equally around the bushing split and keyway. Upon installation, this balances the load required at each bolt location, which provides consistent contact pressure on the shaft. During removal, the equally spaced jack-screws eliminate the chance of bushing breakage. The steep taper angle requires little force to remove the bushing, further reducing the chance of bushing breakage.

	XT® STYLE DRUM PULLEY						
	A	B	C	D	E	F	G
XT15	0.750	1.125	0.437	0.594	1.437	0.625	1.250
XT20	0.625	1.406	0.844	0.422	1.469	0.812	1.219
XT25	0.500	1.875	1.500	0.266	1.562	1.125	1.250
XT30	0.625	2.062	1.156	0.344	1.812	1.250	1.437
XT35	0.625	2.469	1.437	0.312	2.031	1.500	1.594
XT40	0.937	2.812	1.437	0.578	2.500	1.750	2.000
XT45	0.937	3.312	1.719	0.547	2.750	2.125	2.125
XT50	0.937	3.750	2.031	0.469	2.937	2.500	2.187
XT60	0.937	4.125	2.125	0.391	3.125	2.750	2.313
XT70	1.125	4.687	2.500	0.516	3.625	3.125	2.688
XT80	1.125	5.125	3.062	0.437	3.812	3.437	2.812
XT100	1.125	6.187	3.062	0.437	4.312	4.125	3.187
XT120	1.125	7.062	3.062	0.437	4.687	4.812	3.375

	XT® STYLE WING PULLEY						
	A	B	C	D	E	F	G
XT15	1.562	1.125	-	1.313	2.250	0.625	2.063
XT20	0.750	1.406	0.875	0.438	1.594	0.813	1.344
XT25	1.187	1.875	1.000	0.813	2.250	1.125	1.938
XT30	1.062	2.062	0.750	0.625	2.249	1.250	1.874
XT35	1.812	2.469	0.250	1.313	2.219	1.500	2.781
XT40	1.687	2.812	0.687	1.125	3.249	1.750	2.749
XT45	1.437	3.312	1.250	0.813	3.249	2.125	2.624
XT50	2.000	3.750	1.000	1.250	4.000	2.500	3.250
XT60	0.937	4.125	2.125	0.063	3.125	2.750	3.313
XT70	1.125	4.687	2.500	0.250	3.750	3.125	2.813
XT80	1.125	5.125	3.062	0.125	3.938	3.438	2.938
XT100	1.125	6.187	3.062	0.125	4.438	4.125	3.313
XT120	1.125	7.062	3.062	0.125	4.813	4.813	3.500

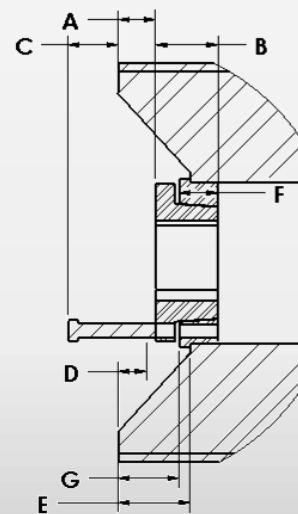


XT® DRUM PULLEY

*C: Space required to remove bushing using jackscrews with short hex key or open end wrench.

HUB SIZING

To select a hub size, choose the smallest hub that will allow the shaft size determined per ANSI/CEMA B105.1-1992. Torsional loading and shallow keyways may also affect hub sizing.



XT® WING PULLEY

HE Hub Selection

HUB SELECTION

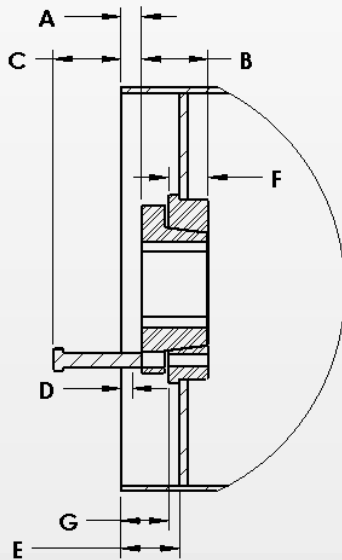
When choosing a hub and bushing system, it is important to understand the different design features and the effects they have on conveyor pulley applications. Consider a design that minimizes end disk pre-stressing, grips the shaft firmly, is easily removed, and is not adversely affected by the bending moments on the pulley shaft.

HE HUBS AND BUSHINGS

The HE Hub and Bushing system was specifically designed for use in conveyor pulleys with two hubs. The HE design has a very steep taper angle, 3" taper per foot, which minimizes end disk deflection or pre-stressing that occurs when bushings are installed. The reduction in end disk pre-stressing reduces the likelihood of end disk fatigue. The extra steep taper angle is on the edge of being self-locking and increases the likelihood of bolt breakage. Because of this, grade 8 bolts are standard on PCI's mild steel HE bushings, and the number of bolts increases from 4 to 6 on HE45 and larger hubs. The holes used to install and remove the bushing are spaced equally around the bushing split and keyway. Upon installation, this balances the load required at each bolt location, which provides consistent contact pressure on the shaft. During removal, the equally spaced jack-screws eliminate the chance of bushing breakage. The steep taper angle requires little force to remove the bushing, further reducing the chance of bushing breakage.

	HE STYLE DRUM PULLEY						
	A	B	C	D	E	F	G
HE25	0.593	1.805	1.861	0.325	1.818	1.140	1.500
HE30	0.658	2.200	2.147	0.294	2.130	1.265	1.750
HE35	0.719	2.780	2.594	0.344	2.380	1.515	1.875
HE40	0.844	2.925	2.373	0.441	2.630	1.765	2.125
HE45	0.903	3.200	3.182	0.500	3.068	2.140	2.438
HE50	0.937	3.700	3.921	0.454	3.475	2.515	2.750
HE60	0.937	3.940	4.376	0.374	3.755	2.765	3.000

	HE STYLE WING PULLEY						
	A	B	C	D	E	F	G
HE25	1.093	1.805	2.361	0.825	2.318	1.140	2.000
HE30	1.033	2.200	2.522	0.669	2.505	1.265	2.125
HE35	1.625	2.780	3.500	1.250	3.286	1.515	2.781
HE40	1.657	2.925	3.186	1.254	3.443	1.765	2.938
HE45	1.465	3.200	3.744	1.062	3.630	2.140	3.000
HE50	1.937	3.700	4.921	1.454	4.475	2.515	3.750
HE60	1.187	3.940	4.626	0.624	4.005	2.765	3.250

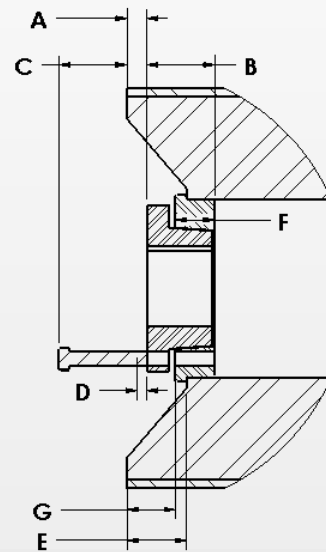


HE® DRUM PULLEY

*C: Space required to remove bushing using jackscrews with short hex key or open end wrench.

HUB SIZING

To select a hub size, choose the smallest hub that will allow the shaft size determined per ANSI/CEMA B105.1-1992. Torsional loading and shallow keyways may also affect hub sizing.



HE® WING PULLEY

QD[®] Hub Selection

HUB SELECTION

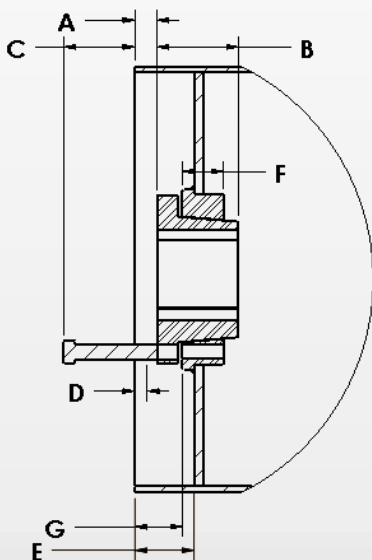
When choosing a hub and bushing system, it is important to understand the different design features and the effects they have on conveyor pulley applications. Consider a design that minimizes end disk pre-stressing, grips the shaft firmly, is easily removed, and is not adversely affected by the bending moments on the pulley shaft.

QD[®] HUBS AND BUSHINGS

The QD[®] Hub and Bushing system was designed primarily for use in sprockets and sheaves with one hub and has been used widely in conveyor pulleys due to its availability. The QD[®] design has a shallow taper angle, 3/4" taper per foot, causes the end disk to deflect or pre-stress when bushings are installed. bushing, further reducing the chance of bushing breakage.

	QD [®] STYLE DRUM PULLEY						
	A	B	C	D	E	F	G
JA	0.687	1.000	0.437	0.500	1.500	0.562	1.125
SH	0.750	1.312	0.812	0.500	1.875	0.812	1.375
SDS	0.750	1.312	0.812	0.500	1.812	0.750	1.375
SK	0.812	1.937	1.437	0.500	2.000	1.000	1.563
SF	0.875	2.062	1.375	0.500	2.187	1.000	1.750
E	1.000	2.750	2.062	0.500	2.687	1.125	2.187
F	1.062	3.750	2.937	0.500	3.000	1.250	2.437
JS	1.250	3.375	1.812	0.500	3.125	1.625	2.500
MS	1.250	4.812	2.250	0.500	3.562	2.375	2.812
NS	1.312	6.000	2.750	0.500	4.062	2.375	3.250
PS	1.375	6.500	3.750	0.500	4.250	2.875	3.375
WS	1.562	7.250	4.125	0.500	4.750	3.375	3.813
SS	1.625	8.750	4.187	0.500	5.250	3.875	4.125
ZS	1.562	8.750	4.125	0.500	5.562	4.875	4.312

	QD [®] STYLE WING PULLEY						
	A	B	C	D	E	F	G
JA	0.562	1.000	0.562	0.375	1.375	0.563	1.000
SH	0.625	1.312	0.937	0.375	1.625	0.813	1.125
SDS	0.625	1.312	0.937	0.375	1.625	0.750	1.188
SK	0.687	1.937	1.562	0.375	2.063	1.000	1.625
SF	0.750	2.062	1.500	0.375	2.250	1.000	1.813
E	0.875	2.750	2.187	0.375	3.000	1.125	2.500
F	0.937	3.750	3.062	0.375	4.000	1.250	3.438
JS	1.000	3.375	1.937	0.375	3.375	1.625	2.750
MS	1.125	4.812	2.375	0.375	4.133	2.375	3.563
NS	1.187	6.000	2.875	0.313	5.625	2.375	4.813
PS	1.250	6.500	3.875	0.250	5.750	2.875	4.875
WS	1.437	7.250	4.250	0.313	6.250	3.375	5.313
SS	1.500	8.750	4.312	0.250	7.500	3.875	6.375
ZS	1.437	8.750	4.250	0.188	6.563	4.875	5.313

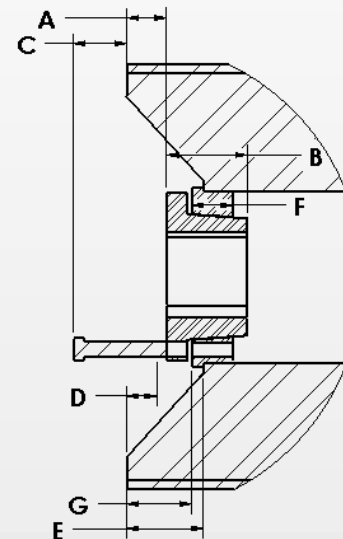


QD[®] DRUM PULLEY

*C: Space required to remove bushing using jackscrews with short hex key or open end wrench.

HUB SIZING

To select a hub size, choose the smallest hub that will allow the shaft size determined per ANSI/CEMA B105.1-1992. Torsional loading and shallow keyways may also affect hub sizing.



QD[®] WING PULLEY

Taper-Lock® Hub Selection

HUB SELECTION

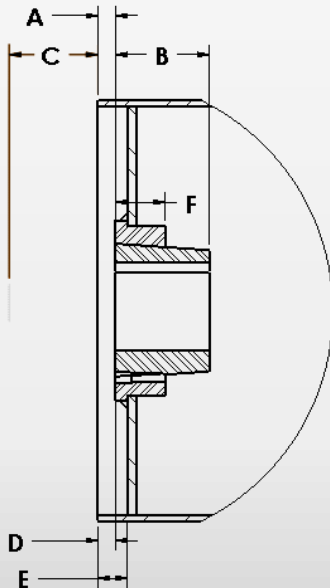
When choosing a hub and bushing system, it is important to understand the different design features and the effects they have on conveyor pulley applications. Consider a design that minimizes end disk pre-stressing, grips the shaft firmly, is easily removed, and is not adversely affected by the bending moments on the pulley shaft.

TAPER-LOCK® HUBS AND BUSHINGS

The Taper-Lock® Hub and Bushing system was designed primarily for use in sprockets and sheaves with one hub and has been used widely in conveyor pulleys due to its availability. The Taper-Lock® design has a taper angle of 8 degrees or 1-11/16" taper per foot, which minimizes end disk deflection. However, of all hub and bushing systems, it has the lowest ability to grip the shaft. When a Taper-Lock® bushing is installed, it is flush with the outer surface of the hub providing a clean appearance.

TYPE-K TAPERED HUB	TAPERED BUSHING	TAPER-LOCK® STYLE DRUM PULLEY					
		A	B	C	D	E	F
K12	1210	0.750	1.000	3.120	0.750	1.062	0.875
K16	1610	0.750	1.000	3.120	0.750	1.062	0.875
K20	2012	0.750	1.250	0.625	0.750	1.062	1.000
K25	2517	0.750	1.750	0.875	0.750	1.125	1.500
K30	3020	0.750	2.000	1.312	0.750	1.125	1.625
K35	3535	0.750	3.500	1.937	0.750	1.250	1.625
K40	4040	0.750	4.000	2.625	0.750	1.250	2.125
K45	4545	0.750	4.500	3.312	0.750	1.375	2.625
K50	5050	0.750	5.000	4.062	0.750	1.375	2.875
K60	6050	2.000	5.000	2.375	0.906	2.625	2.875
K70	7060	2.000	6.000	2.375	0.906	2.750	3.375
K80	8065	2.000	6.500	2.375	0.906	2.750	3.625
K100	10085	2.000	8.500	3.375	0.687	3.000	4.125
K120	120100	2.000	10.000	3.375	0.687	3.000	5.375

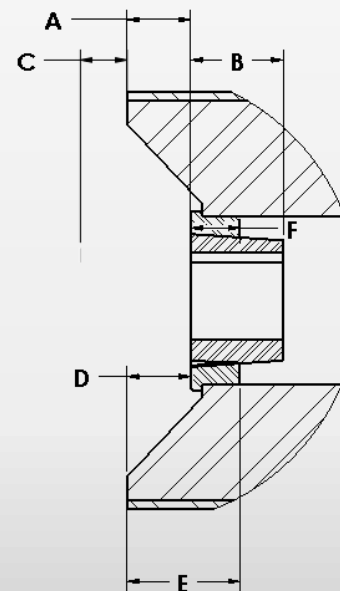
TYPE-K TAPERED HUB	TAPERED BUSHING	TAPER-LOCK® STYLE WING PULLEY					
		A	B	C	D	E	F
K12	1210	1.437	1.000	0.000	1.438	1.875	0.875
K16	1610	1.437	1.000	0.000	1.438	1.875	0.875
K20	2012	1.687	1.250	0.000	1.688	2.250	1.000
K25	2517	1.625	1.750	0.000	1.625	2.243	1.500
K30	3020	1.750	2.000	0.375	1.750	2.500	1.625
K35	3535	2.750	3.500	0.000	2.750	5.125	1.625
K40	4040	2.750	4.000	0.625	2.750	5.125	2.125
K45	4545	2.625	4.500	1.500	2.625	5.125	2.625
K50	5050	3.375	5.000	1.500	3.375	6.125	2.875
K60	6050	3.375	5.000	1.000	3.375	6.125	2.875
K70	7060	3.250	6.000	1.125	3.250	6.625	3.375
K80	8065	3.250	6.500	1.125	3.250	6.875	3.625
K100	10085	4.000	8.500	1.375	4.000	9.375	4.125
K120	120100	4.000	10.000	1.375	4.000	9.625	5.375



*C: Space required to remove bushing using jackscrews with short hex key or open end wrench.

HUB SIZING

To select a hub size, choose the smallest hub that will allow the shaft size determined per ANSI/CEMA B105.1-1992. Torsional loading and shallow keyways may also affect hub sizing.



TAPER-LOCK® DRUM PULLEY

TAPER-LOCK® WING PULLEY