nexen

WEB CONTROL PRODUCTS

Technical Data Sheet

Safety Chuck

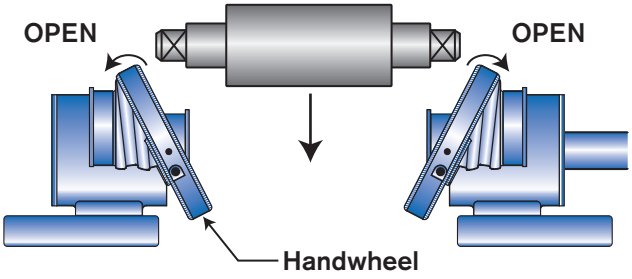
CSB25P, CSB25F, CSB50P, CSB50F, CSB75P, CSB75F, CSB125P, CSB125F CSB150P, CSB150F, CSB175P, CSB175F

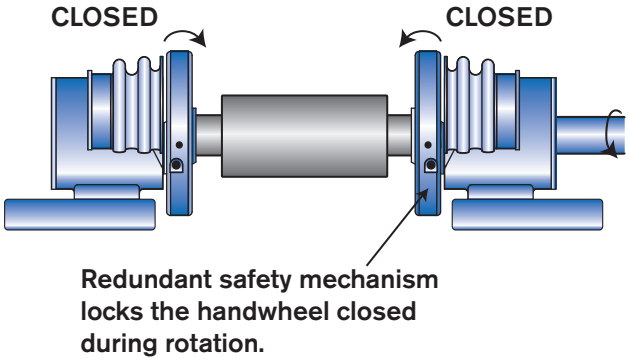
Nexen's line of rugged safety chucks provide roll shaft support and torque transmission at a low cost. The maintenance-free design ensures optimal performance throughout the life of each safety chuck. Nexen's units safe-guard your equipment by securing the roll shaft in place during any wind or unwind operation. Our safety chucks will only open with the socket in the upright position.

Available for either foot or flange mounting, these safety chucks complement Nexen's dependable line of tension control brakes, clutches and electronic tension control systems, offering you a complete package with seamless installation and operation.

- Redundant safety mechanisms securely lock shaft in place
- Long, maintenance-free life
  - Durable construction
  - Cast iron housing
  - Chrome plated, steel handwheel
  - Shaft socket hardened to Rockwell 56C
- Available in ready-to-assemble brake packages
- Manual unlock for most models
- Free turning precision ball bearings
- Finger guards on all models
- Shaft extensions with keyway
- Foot or flange mounting
- Metric size sockets available upon request

Nexen's easy to use safety chucks increase productivity by allowing for quick roll changes. Simply push the handwheel open to insert or remove a roll, then push closed to secure the roll in place. These quick couplings are an essential part of any web operation, adding ease and safety to your process with minimal cost and no maintenance required.





Safety Chuck Application Guide

General Information

Web Velocity	Mpm [fpm]	Roll Weight	Kg [lbs]
Maximum Roll Diameter	mm [inch]	Total Tension of Material (tissue, paper, plastic, etc.)	N [lbs]
Minimum Roll Diameter	mm [inch]		
Roll Width	mm [inch]	Maximum Torque Transmitted	Nm [in-lbs]

Air Shaft Information

Shaft Manufacturer		Shaft Type (lug, ledges, leaf)	
Shaft End Type (square, other)		Shaft Material (steel, aluminum, carbon fiber)	
Shaft End Size	mm [inch]	Shaft Weight	Kg [lbs]

The following data is required to select a safety chuck: maximum rpm, maximum roll weight, maximum torque, and socket size.

$$\frac{\textbf{Machine Velocity}\ \text{Mpm [fpm]}}{0.00314\ [0.262] \times \textbf{Minimum Roll Diameter}\ \text{mm [inch]}} = \underline{\qquad\qquad} \textbf{Maximum rpm}$$

$$\textbf{Maximum Roll Weight}\ \text{Kg [lbs]} + \textbf{Air Shaft Weight}\ \text{Kg [lbs]} = \underline{\qquad\qquad} \textbf{Maximum Weight Roll and Shaft}$$

$$\frac{\textbf{Total Tension}\ \text{N [lbs]} \times \textbf{Maximum Roll Diameter}\ \text{mm [inch]}}{2000\ [2]} = \underline{\qquad\qquad} \textbf{Maximum Torque Nm [in-lb]}$$

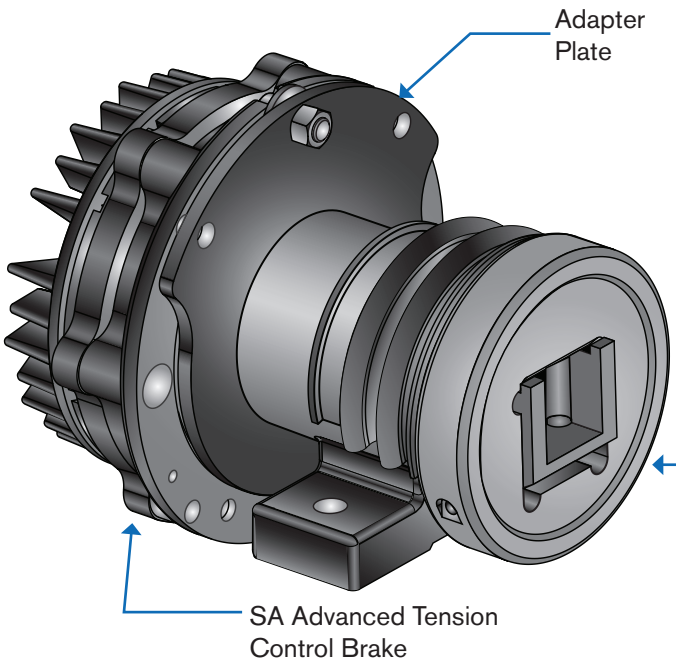
$$\textbf{Square Socket Size} = \underline{\qquad\qquad} \textbf{mm [inch]}$$

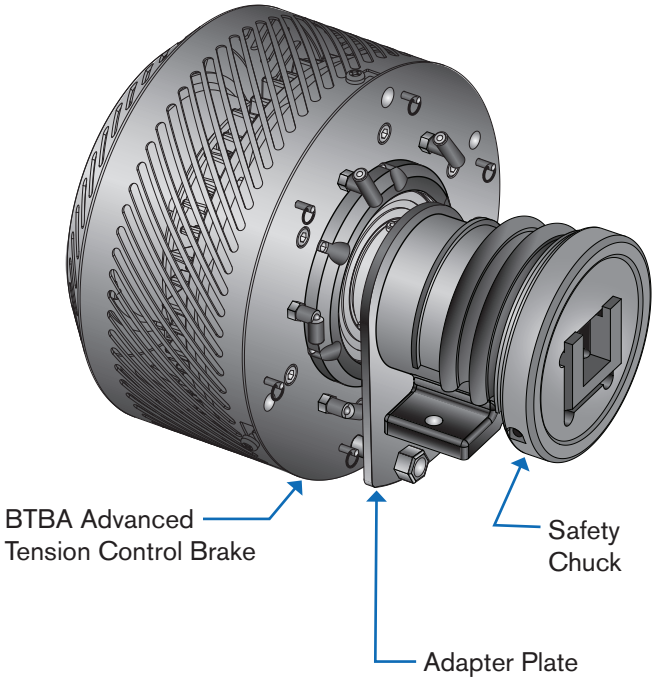
Safety Chuck Specifications

Type	Model	Socket Type	Max Socket Size	Stocked Socket Size	Stocked Shaft Length	Safety Button	Maximum Weight per Pair	Max RPM	Max Torque	Shipping Weight
Light Duty Tilt Plate	CSB25 (foot or flange)	U [square]	30 mm [1.25 in]	1.00 in 1.25 in	114.4 mm [4.50 in]	no	430 kg [950 lbs]	1300	122 Nm [90 ft-lb]	Foot: 5 kg [12 lbs] Flange: 5 kg [10 lbs]
Medium Duty Tilt Plate	CSB50 (foot or flange)	U [square]	30 mm [1.25 in]	1.00 in 1.25 in	127.1 [5.00 in]	no	839 kg [1850 lbs]	1300	176 Nm [130 ft-lb]	Foot: 8 kg [16 lbs] Flange: 7 kg [15 lbs]
	CSB75 (foot or flange)	U [square]	50 mm [2.00 in]	1.25 in 1.50 in	142.9 mm [5.63 in]	yes	1633 kg [3600 lbs]	1300	339 Nm [250 ft-lb]	Foot: 14 kg [30 lbs] Flange: 13 kg [29 lbs]
	CSB125 (foot or flange)	V [square]	40 mm [1.50 in]	1.25 in 1.50 in	142.9 mm [5.63 in]	yes	1360 kg [3000 lbs]	1000	287 Nm [212 ft-lb]	Foot: 14 kg [31 lbs] Flange: 14 kg [30 lbs]
Heavy Duty Tilt Plate	CSB150 (foot or flange)	U [square]	50 mm [2.00 in]	1.25 in 1.50 in 2.00 in	143.0 mm [5.63 in]	yes	3300 kg [7275 lbs]	2000	1300 Nm [959 ft-lb	Contact Factory
	CSB175 (foot or flange)	U [square]	80 mm [3.15 in]	2.00 in 3.00 in	143.0 mm [5.63 in]	yes	8400 kg [18500 lbs]	2000	2800 Nm [2065 ft-lb	Contact Factory

Brake Options

Nexen is committed providing easy-to-use mounting options to integrate our advanced brakes into your system. We offer brake adaptor plates that match each model to ensure superior design and seamless operation.





For proper brake selection, please consult the Nexen Product Catalog and the following selection table.

Safety Chucks Designed for Nexen Brakes with Adapter Kits

NOTE: For brakes and adapters to be used with CSB150 and CSB175 Safety Chucks, please consult the factory.

Safety Chuck Model	Socket Size	Socket Type	Shaft Diameter	Safety Button Location	Safety Chuck Part Number	Compatible Brake(s)*	Adaptor Kit Part Number
CSB25P (P= Foot Mount) ❑■	1.000 in	U (square)	28.56 mm [1.125 in]	N/A	970128	T&S-450A	960758
	1.250 in				970130		
	1.000 in				970129	T&S-600A	960759
	1.250 in				970131		
CSB25F (F= Flange Mount) ❑■	1.000 in	U (square)	28.56 mm [1.125 in]	N/A	970124	T&S-450A	Contact Nexen
	1.250 in				970126		
	1.000 in				970125	T&S-600A	Contact Nexen
	1.250 in				970127		
CSB50P (P= Foot Mount) ❑■	1.000 in	U (square)	31.75 mm [1.250 in]	N/A	970136	T&S-600A	960759
	1.250 in				970138		
	1.000 in				970137	T&S-800A	960760
	1.250 in				970139		
CSB50F (F= Flange Mount) ❑■	1.000 in	U (square)	31.75 mm [1.250 in]	N/A	970132	T&S-600A	Contact Nexen
	1.250 in				970134		
	1.000 in				970133	T&S-800A	Contact Nexen
	1.250 in				970135		
CSB75P (P= Foot Mount) ◆❖	1.250 in	U (square)	34.93 mm [1.375 in]	left side	970152	T&S-800A	960761
				right side	970153		
	1.500 in			left side	970158		
				right side	970159		
	1.250 in			left side	970154	T&S-1000A	960762
				right side	970155		
	1.500 in			left side	970160		
				right side	970161		
	1.250 in			left side	970156	BTBA-10	960763
				right side	970157		
	1.500 in			left side	970162		
				right side	970163		
	1.250 in			left side	960726	BTBA-12	960764
				right side	960728		
	1.500 in			left side	960734		
				right side	960736		
CSB75F (F= Flange Mount) ◆❖	1.250 in	U (square)	34.93 mm [1.375 in]	left side	970140	T&S-800A	960761
				right side	970141		
	1.500 in			left side	970146		
				right side	970147		
	1.250 in			left side	970142	T&S-1000A	960762
				right side	970143		
	1.500 in			left side	970148		
				right side	970149		

Safety Chuck Model	Socket Size	Socket Type	Shaft Diameter	Safety Button Location	Safety Chuck Part Number	Compatible Brake(s)*	Adaptor Kit Part Number
CSB75F (F= Flange Mount) ◆❖	1.250 in	U (square)	34.93 mm [1.375 in]	left side	970144	BTBA-10	960763
				right side	970145		
	1.500 in			left side	970150		
				right side	970151		
	1.250 in			left side	960730	BTBA-12	960764
				right side	960732		
	1.500 in			left side	960738		
				right side	960740		
CSB125P (P= Foot Mount) ◆❖	1.250 in	V (square)	34.93 mm [1.375 in]	left side	960765	T&S-800A	960761
				right side	970113		
	1.500 in			left side	970118		
				right side	970119		
	1.250 in			left side	970114	T&S-1000A	960762
				right side	970115		
	1.500 in			left side	970120		
				right side	970121		
	1.250 in			left side	970116	BTBA-10	960763
				right side	970117		
	1.500 in			left side	970122		
				right side	970123		
	1.250 in			left side	960742	BTBA-12	960764
				right side	960744		
	1.500 in			left side	960746		
				right side	960748		
CSB125F (F= Flange Mount) ◆❖	1.250 in	V (square)	34.93 mm [1.375 in]	left side	970100	T&S-800A	960761
				right side	970101		
	1.500 in			left side	970106		
				right side	970107		
	1.250 in			left side	970102	T&S-1000A	960762
				right side	970103		
	1.500 in			left side	970108		
				right side	970109		
	1.250 in			left side	970104	BTBA-10	960763
				right side	970105		
	1.500 in			left side	970110		
				right side	970111		
	1.250 in			left side	960750	BTBA-12	960764
				right side	960752		
	1.500 in			left side	960754		
				right side	960756		

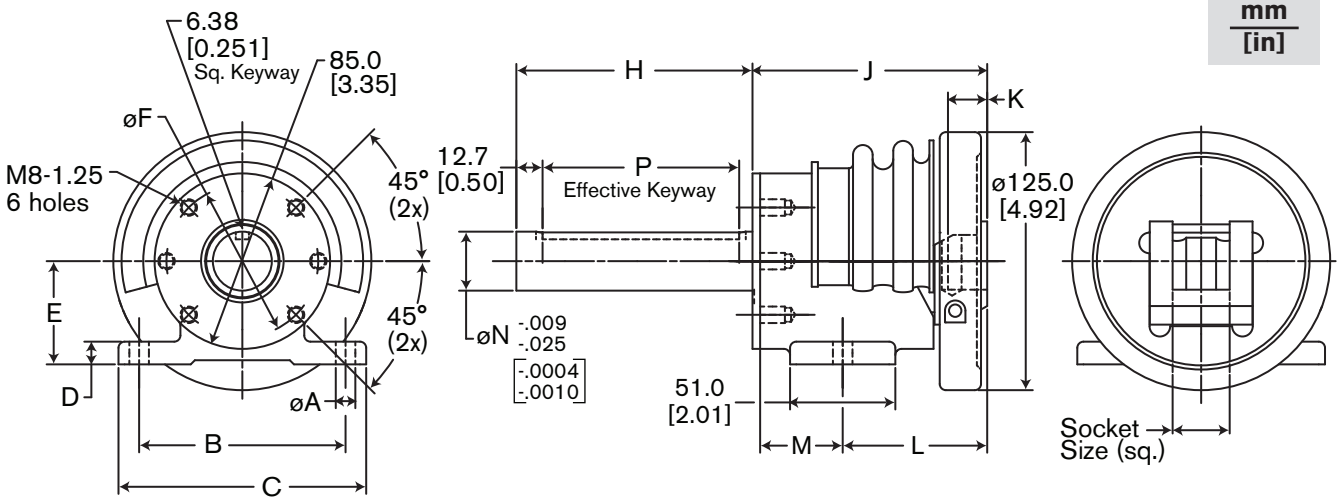
* Brake bore must match safety chuck shaft diameter.

❑■ See pages 6 and 7 for safety chuck mounting dimensions.
NOTE: Dimension "H" may be less than the value shown based upon model of brake used.

◆❖ See pages 8-11 for safety chuck mounting dimensions.
NOTE: Given shaft length of 142.9 mm [5.63 in] may be less based upon model of brake used.

Foot-Mount Safety Chuck with Shaft, Approximate Dimensions

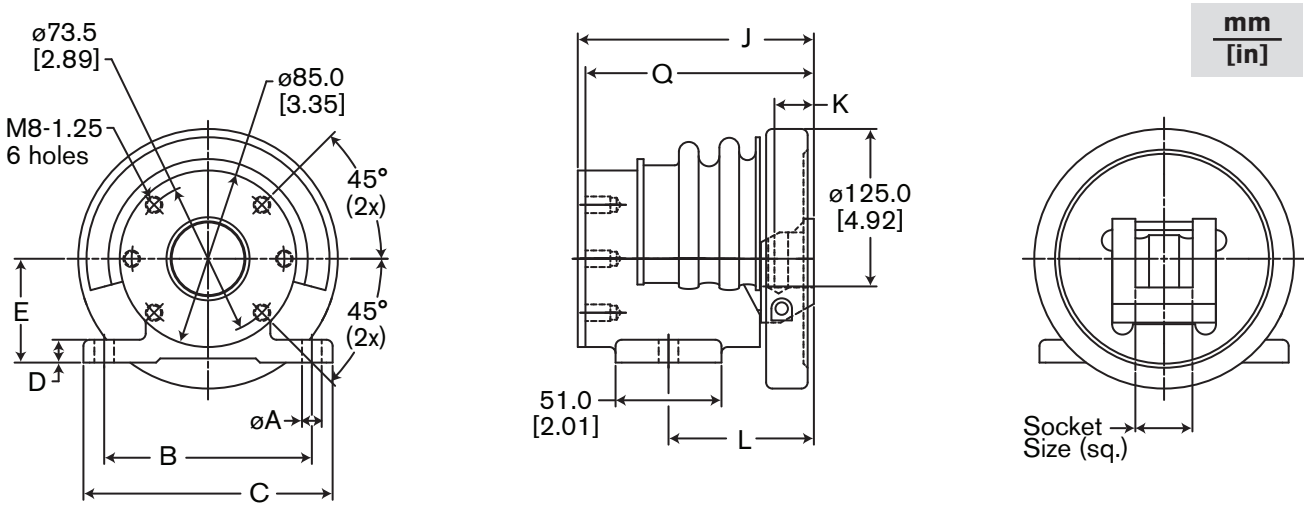
mm
[in]



Model	Product Number	Socket Size	øA	B	C	D	E	øF	H	J	K	L	M	øN	P
CSB25P	960710	1.00" U	9.5 [0.37]	100.0 [3.94]	120.0 [4.72]	11.0 [0.43]	50.0 [1.97]	73.5 [2.89]	114.4 [4.50]	113.7 [4.48]	19.0 [0.75]	70.0 [2.76]	40.0 [1.57]	28.575 [1.1250]	95.2 [3.75]
	960714	1.25" U													
CSB50P	960718	1.00" U	13.0 [0.51]	105.0 [4.13]	140.0 [5.51]	22.0 [0.87]	65.0 [2.56]	73.5 [2.89]	127.1 [5.00]	134.7 [5.30]	22.0 [0.87]	78.0 [3.07]	53.0 [2.09]	31.750 [1.2500]	108.0 [4.25]
	960720	1.25" U													

Foot-Mount Safety Chuck without Shaft, Approximate Dimensions

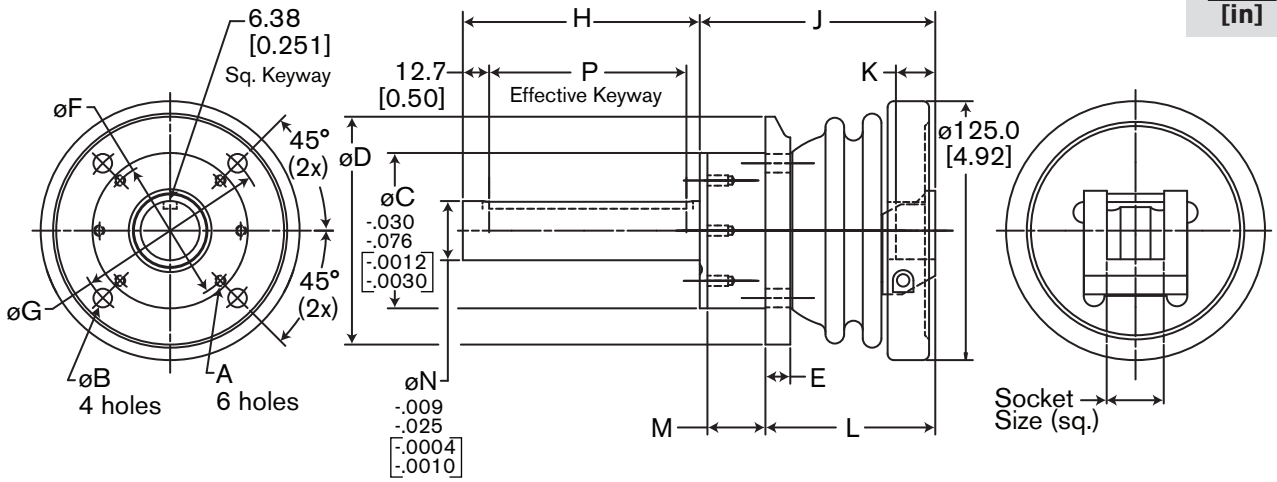
mm
[in]



Model	Product Number	Socket Size	øA	B	C	D	E	J	Q	K	L
CSB25P	960711	1.00" U	9.5 [0.37]	100.0 [3.94]	120.0 [4.72]	11.0 [0.43]	50.0 [1.97]	113.7 [4.48]	110.0 [4.33]	19.0 [0.75]	70.0 [2.76]
	960715	1.25" U									
CSB50P	960719	1.00" U	13.0 [0.51]	105.0 [4.13]	140.0 [5.51]	22.0 [0.87]	65.0 [2.56]	134.7 [5.30]	131.0 [5.16]	22.0 [0.87]	78.0 [3.07]
	960721	1.25" U									

Flange-Mount Safety Chuck with Shaft, Approximate Dimensions

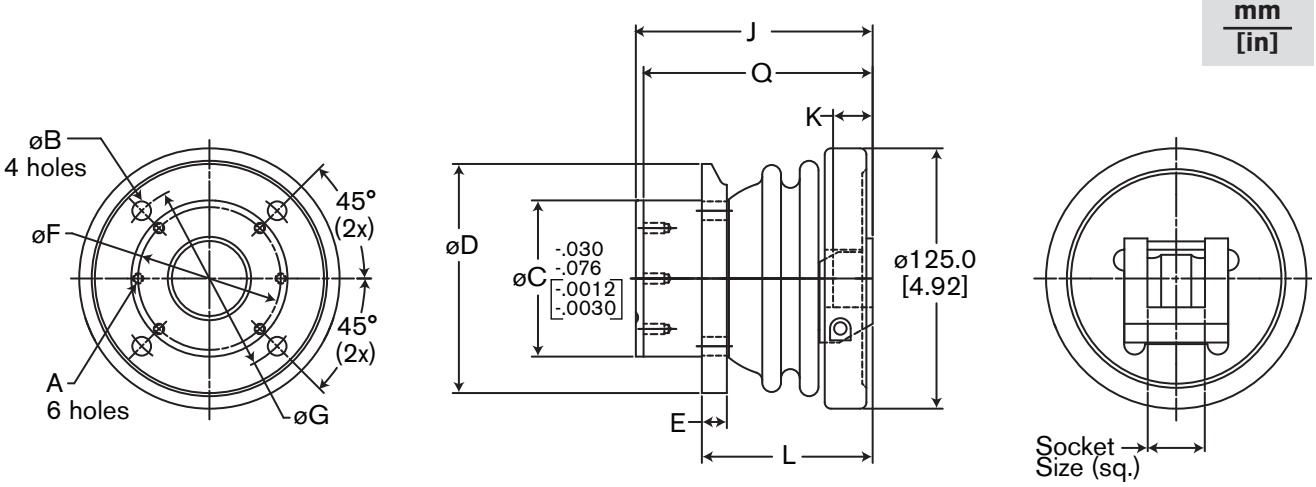
mm
[in]



Model	Product Number	Socket Size	A	øB	øC	øD	E	øF	øG	H	J	K	L	M	øN	P
CSB25F	960712	1.00" U	M5-0.8 6 holes	9.0 [0.35]	75.00 [2.953]	110.0 [4.33]	12.0 [0.47]	68.5 [2.70]	92.0 [3.62]	114.4 [4.50]	113.7 [4.48]	19.0 [0.75]	82.0 [3.23]	28.0 [1.10]	28.575 [1.1250]	95.2 [3.75]
	960716	1.25" U														
CSB50F	960722	1.00" U	M8-1.25 6 holes	11.0 [0.43]	90.00 [3.543]	140.0 [5.51]	15.0 [0.59]	76.0 [2.99]	115.0 [4.53]	127.1 [5.00]	134.7 [5.30]	22.0 [0.87]	91.0 [3.58]	40.0 [1.57]	31.750 [1.2500]	108.0 [4.25]
	960724	1.25" U														

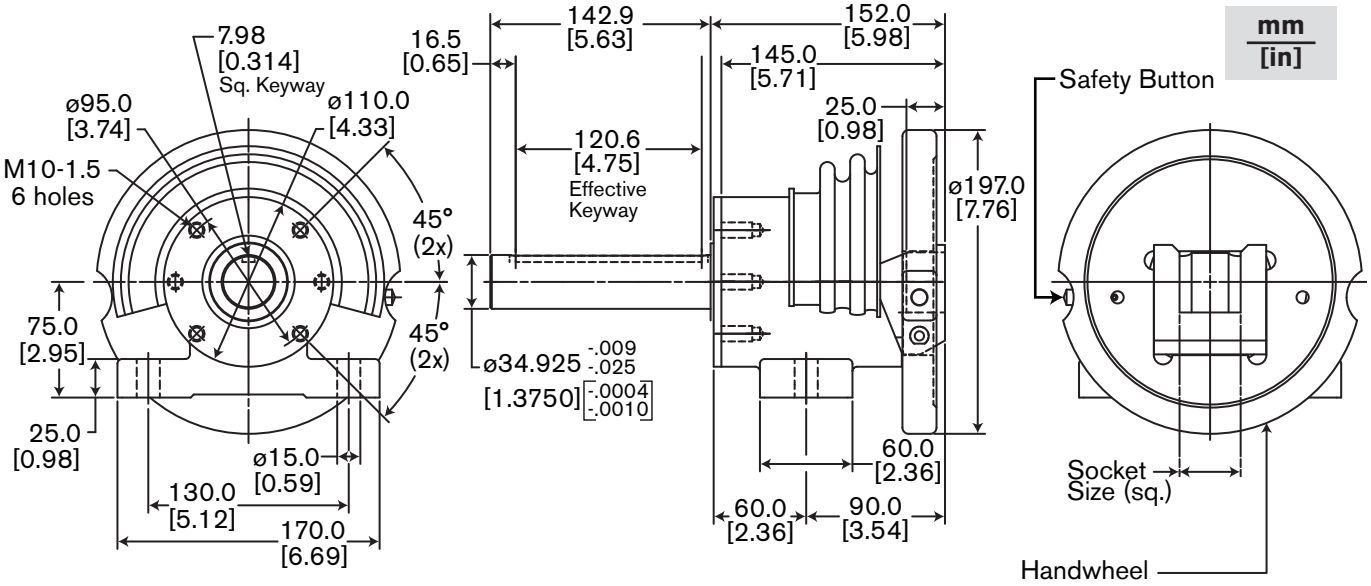
Flange-Mount Safety Chuck without Shaft, Approximate Dimensions

mm
[in]



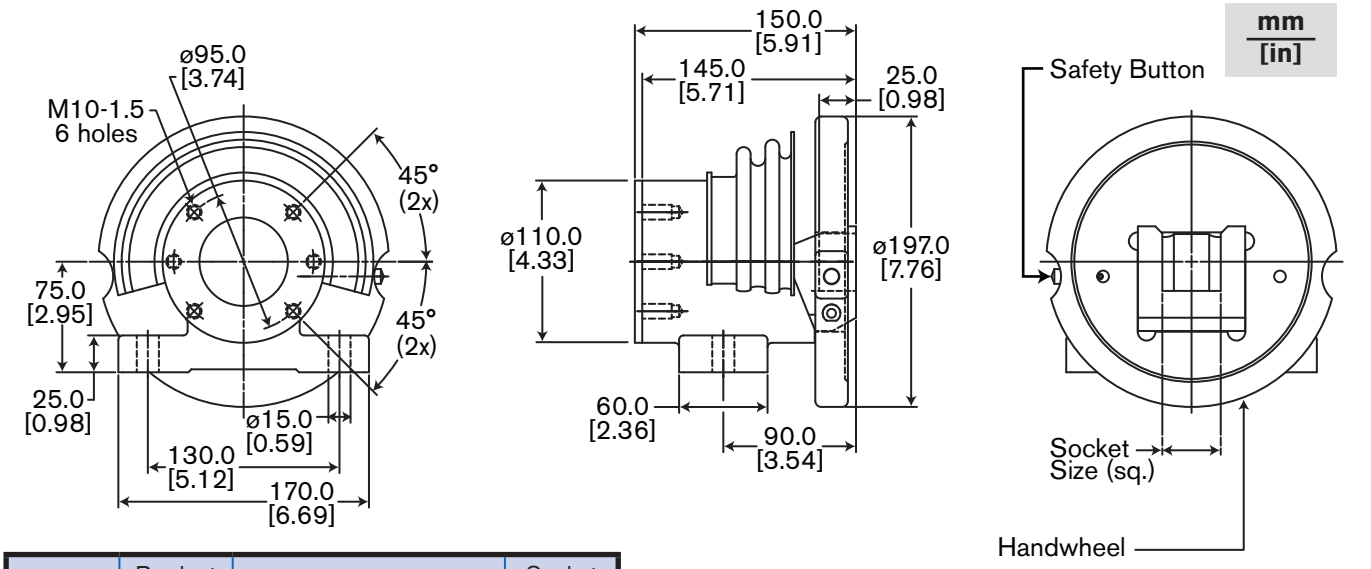
Model	Product Number	Socket Size	A	øB	øC	øD	E	øF	øG	J	Q	K	L
CSB25F	960713	1.00" U	M5-0.8 6 holes	9.00 [0.354]	75.000 [2.9528]	110.0 [4.33]	12.0 [0.47]	68.5 [2.70]	92.0 [3.62]	113.7 [4.48]	110.0 [4.33]	19.00 [0.748]	82.0 [3.23]
	960717	1.25" U											
CSB50F	960723	1.00" U	M8-1.25 6 holes	11.0 [0.43]	90.00 [3.543]	140.0 [5.51]	15.0 [0.59]	76.0 [2.99]	115.0 [4.53]	134.7 [5.30]	131.0 [5.16]	22.0 [0.87]	91.0 [3.58]
	960725	1.25" U											

Foot-Mount Safety Chuck with Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB75P	960726	Left side of handwheel	1.25" U
	960728	Right side of handwheel	
	960734	Left side of handwheel	1.50" U
	960736	Right side of handwheel	

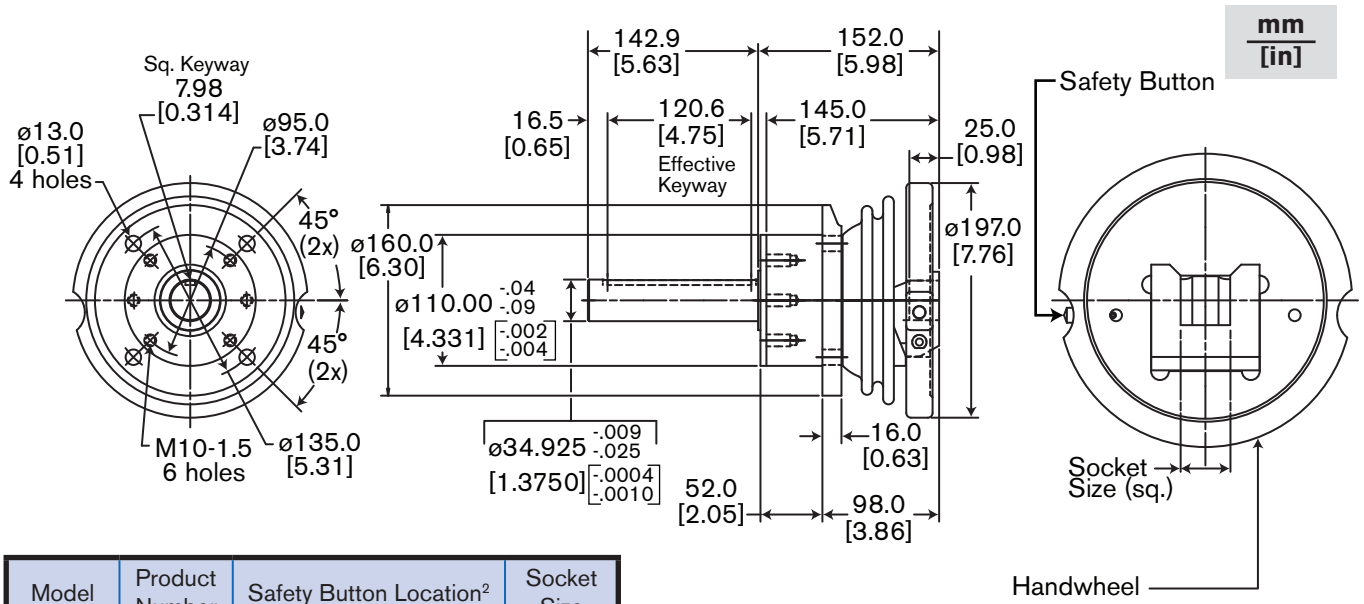
Foot-Mount Safety Chuck without Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB75P	960727	Left side of handwheel	1.25" U
	960729	Right side of handwheel	
	960735	Left side of handwheel	1.50" U
	960737	Right side of handwheel	

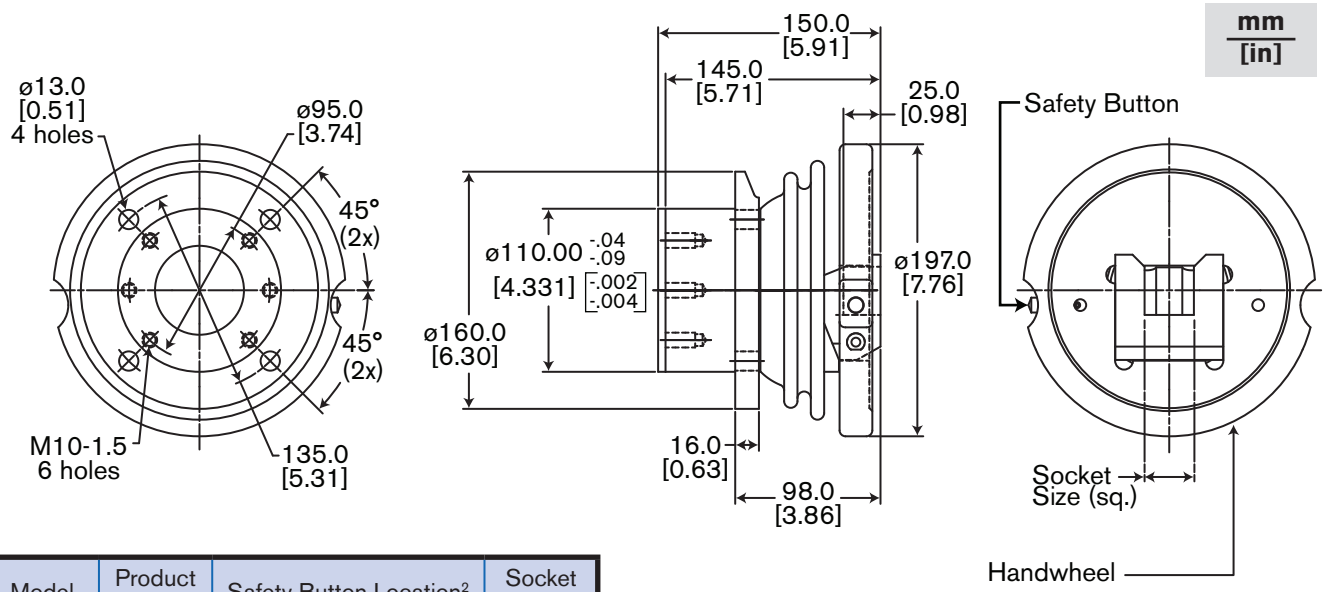
[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Flange-Mount Safety Chuck with Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB75F	960730	Left side of handwheel	1.25" U
	960732	Right side of handwheel	
	960738	Left side of handwheel	1.50" U
	960740	Right side of handwheel	

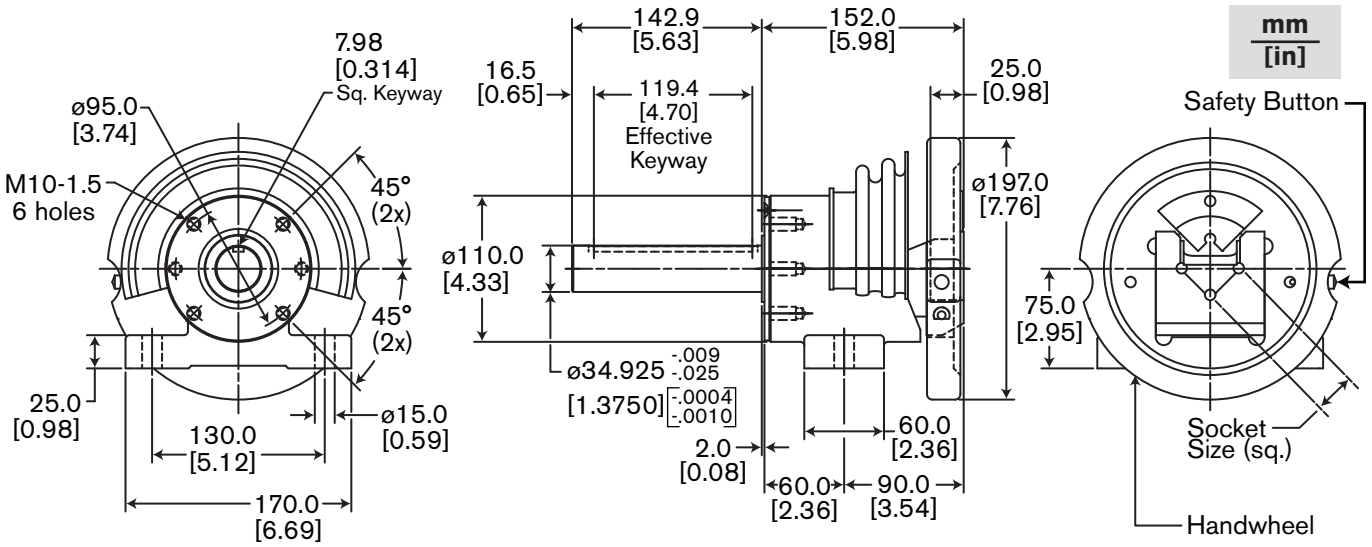
Flange-Mount Safety Chuck without Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB75F	960731	Left side of handwheel	1.25" U
	960733	Right side of handwheel	
	960739	Left side of handwheel	1.50" U
	960741	Right side of handwheel	

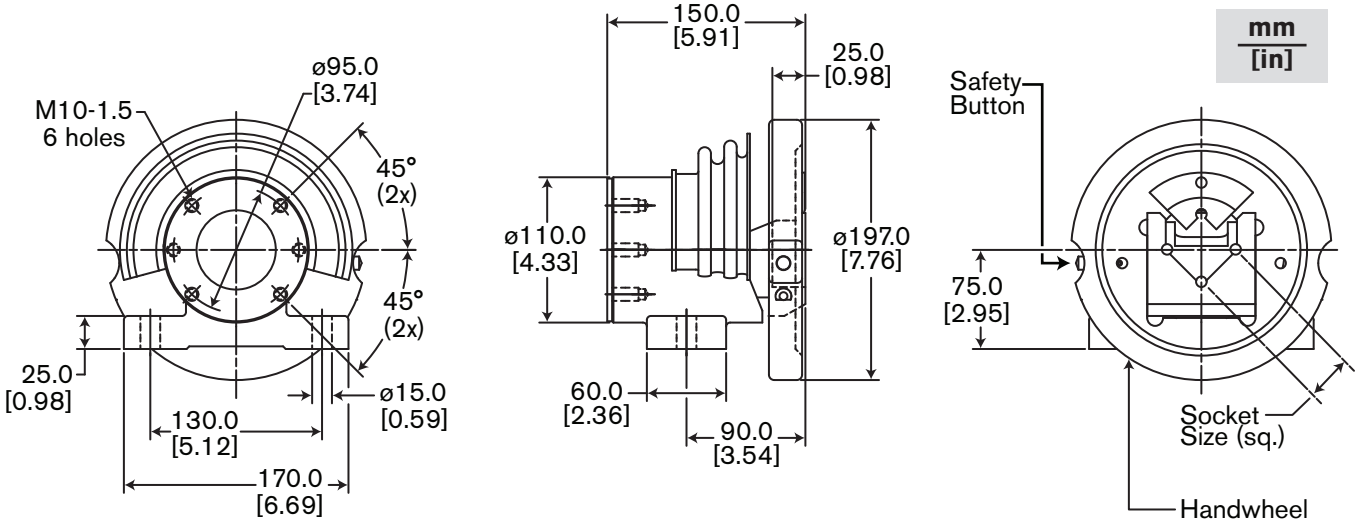
[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Foot-Mount Safety Chuck with Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location	Socket Size
CSB125P	960742	Left side of handwheel	1.25" V
	960744	Right side of handwheel	
	960746	Left side of handwheel	1.50" V
	960748	Right side of handwheel	

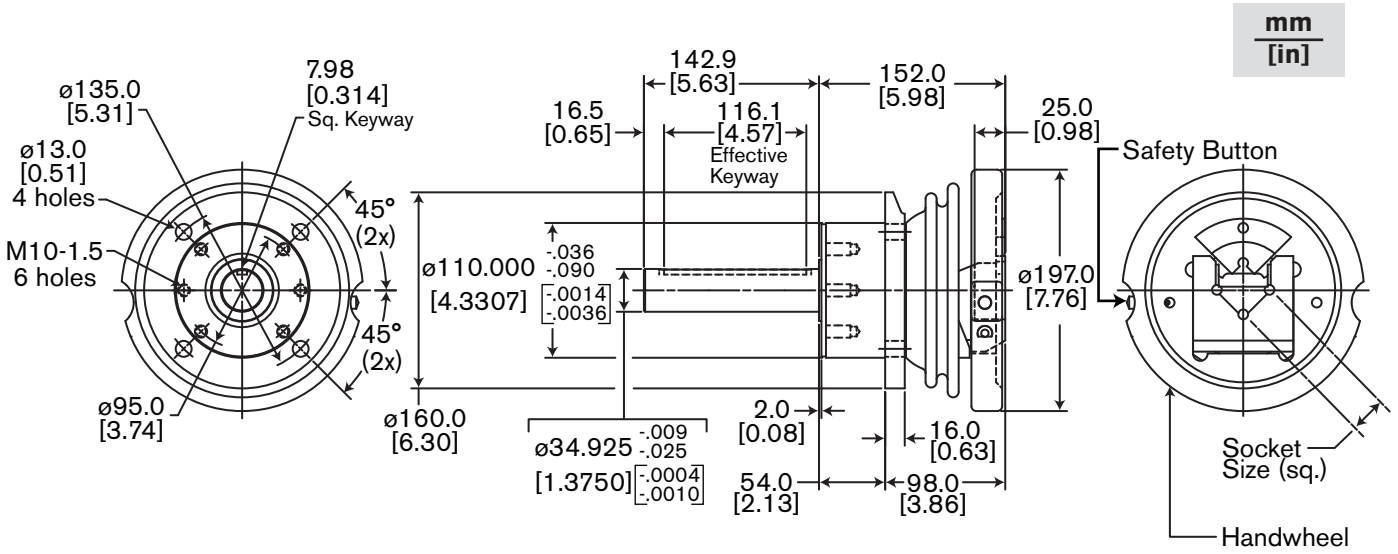
Foot-Mount Safety Chuck without Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB125P	960743	Left side of handwheel	1.25" V
	960745	Right side of handwheel	
	960747	Left side of handwheel	1.50" V
	960749	Right side of handwheel	

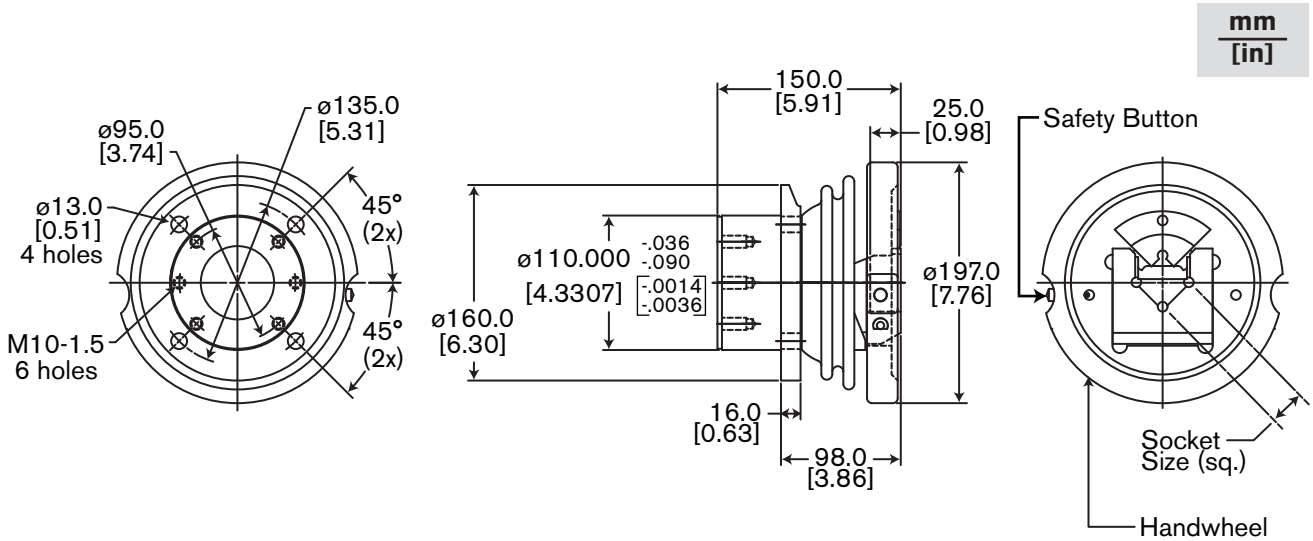
[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Flange-Mount Safety Chuck with Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location	Socket Size
CSB125F	960750	Left side of handwheel	1.25" V
	960752	Right side of handwheel	
	960754	Left side of handwheel	1.50" V
	960756	Right side of handwheel	

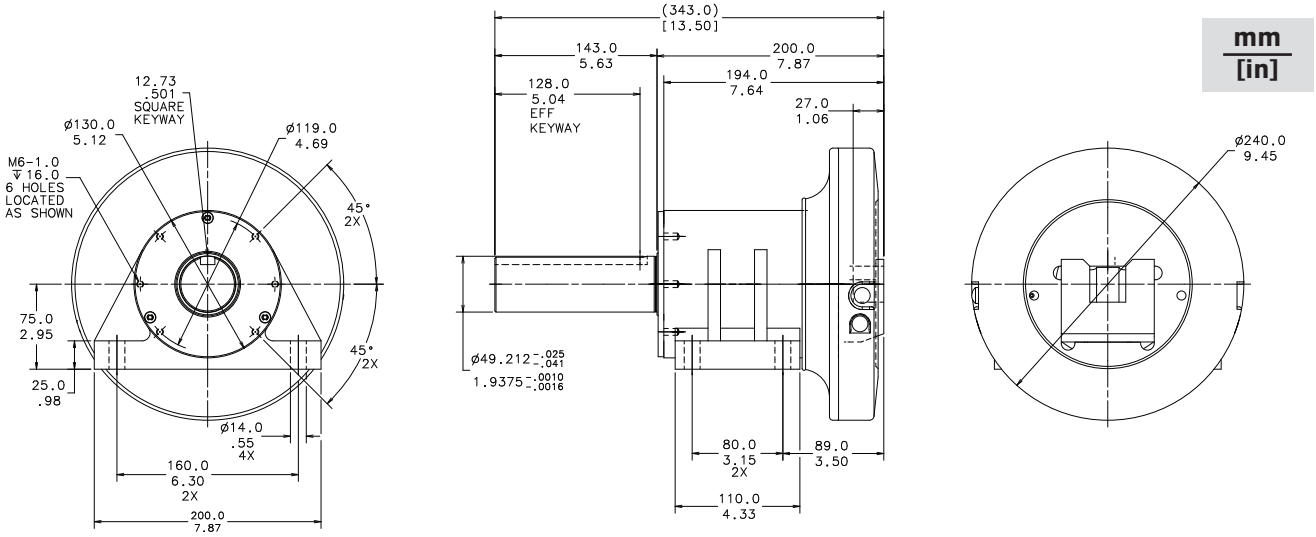
Flange-Mount Safety Chuck without Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB125F	960751	Left side of handwheel	1.25" V
	960753	Right side of handwheel	
	960755	Left side of handwheel	1.50" V
	960757	Right side of handwheel	

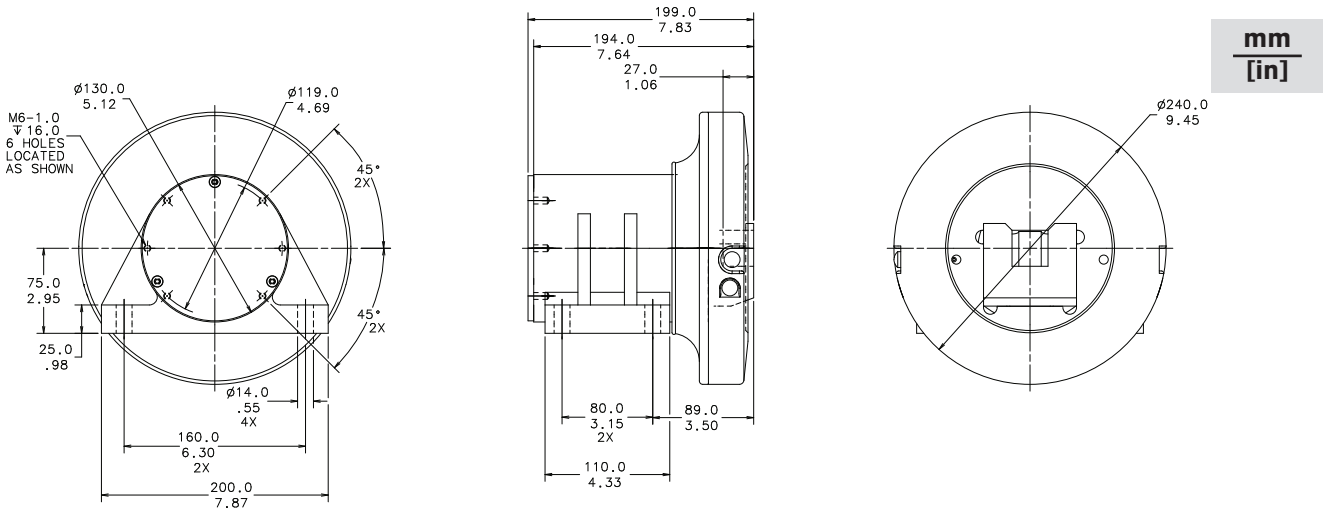
[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Foot-Mount Safety Chuck with Shaft[1], Approximate Dimensions



Model	Product Number	Safety Button Location[2]	Socket Size
CSB150P	970176	Left side of handwheel	1.25" U
	970184	Right side of handwheel	
	970192	Left side of handwheel	1.50" U
	970200	Right side of handwheel	
	970208	Left side of handwheel	2.00" U
	970216	Right side of handwheel	

Foot-Mount Safety Chuck without Shaft[1], Approximate Dimensions

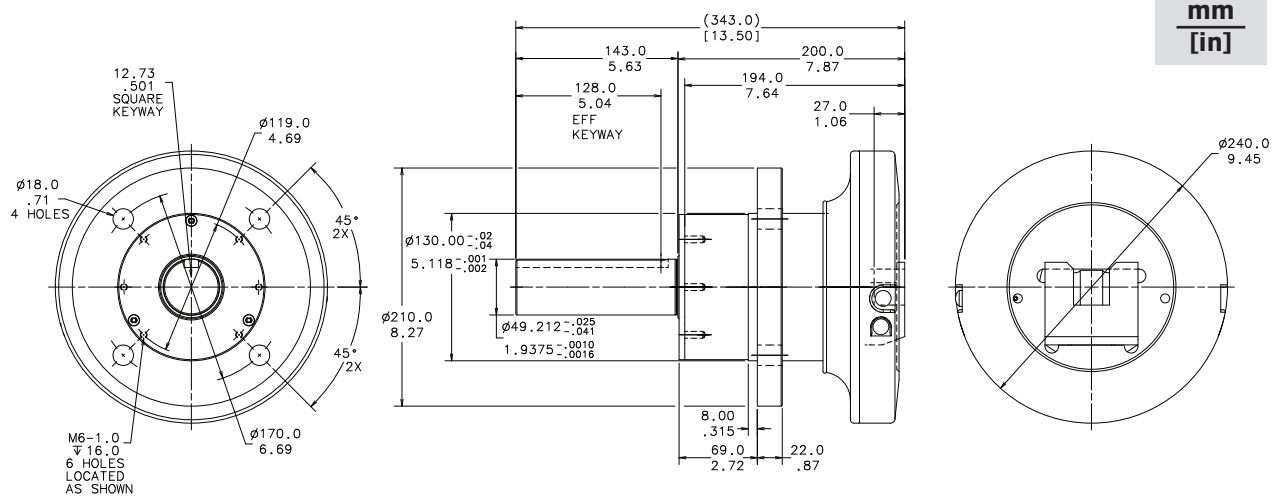


Model	Product Number	Safety Button Location[2]	Socket Size
CSB150P	970180	Left side of handwheel	1.25" U
	970188	Right side of handwheel	
	970196	Left side of handwheel	1.50" U
	970204	Right side of handwheel	
	970212	Left side of handwheel	2.00" U
	970220	Right side of handwheel	

[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Flange-Mount Safety Chuck with Shaft[1], Approximate Dimensions

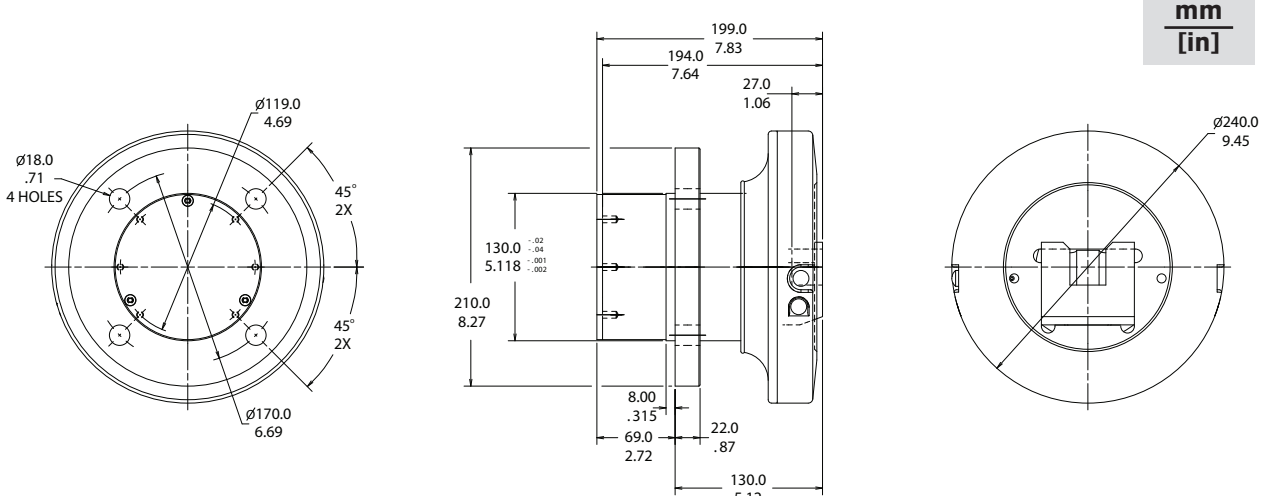
mm
[in]



Model	Product Number	Safety Button Location[2]	Socket Size
CSB150F	970174	Left side of handwheel	1.25" U
	970182	Right side of handwheel	
	970190	Left side of handwheel	1.50" U
	970198	Right side of handwheel	
	970206	Left side of handwheel	2.00" U
	970214	Right side of handwheel	

Flange-Mount Safety Chuck without Shaft[1], Approximate Dimensions

mm
[in]

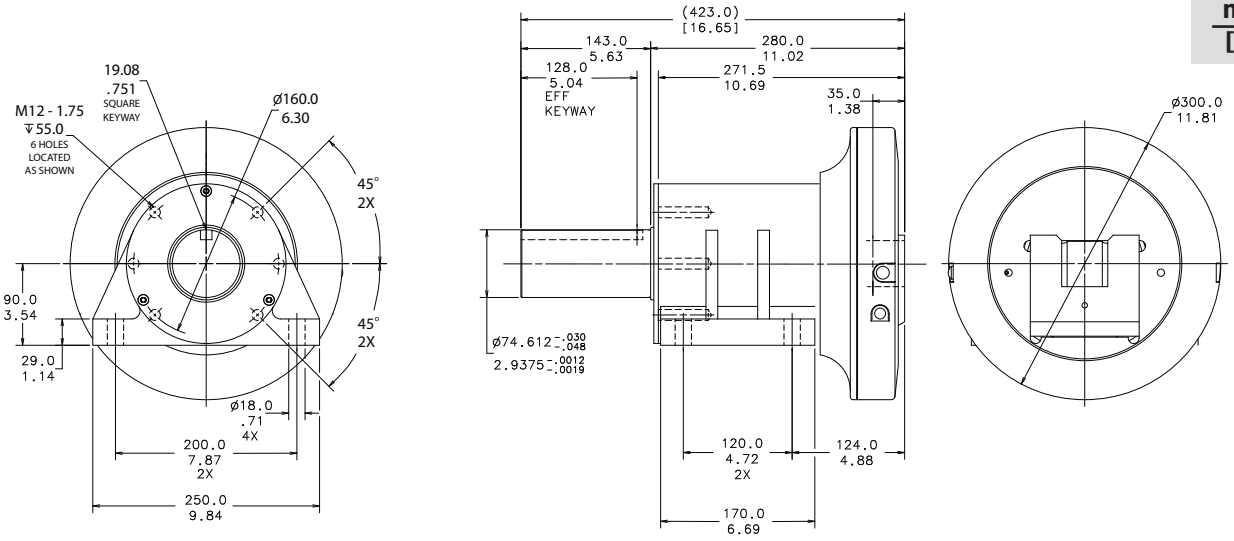


Model	Product Number	Safety Button Location[2]	Socket Size
CSB150F	970178	Left side of handwheel	1.25" U
	970186	Right side of handwheel	
	970194	Left side of handwheel	1.50" U
	970202	Right side of handwheel	
	970210	Left side of handwheel	2.00" U
	970218	Right side of handwheel	

[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Foot-Mount Safety Chuck with Shaft[1], Approximate Dimensions

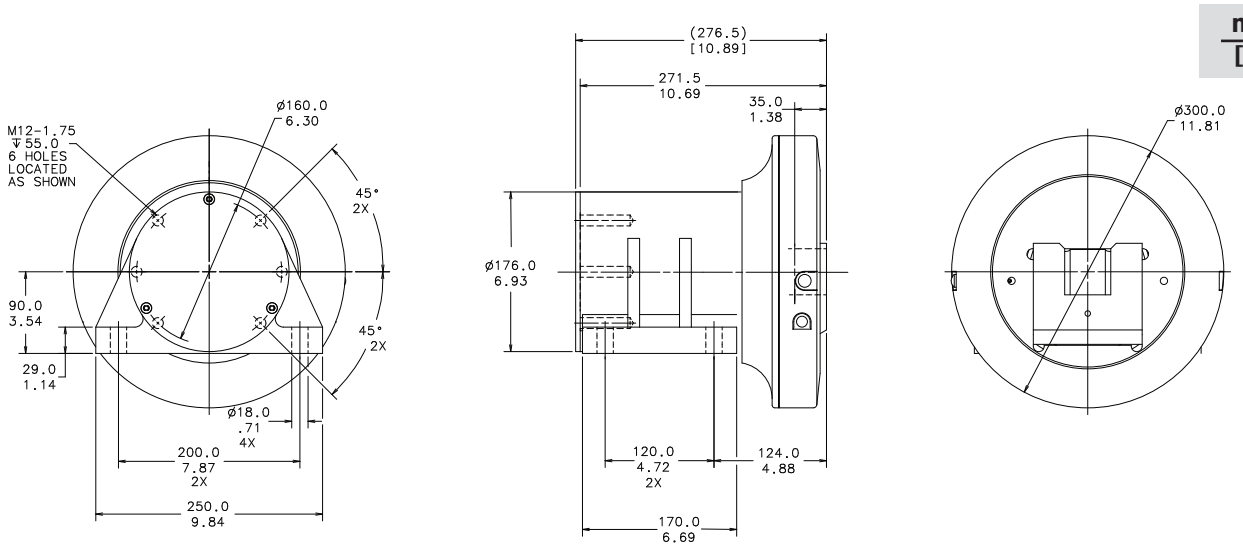
mm
[in]



Model	Product Number	Safety Button Location[2]	Socket Size
CSB175P	970224	Left side of handwheel	2.00" U
	970232	Right side of handwheel	
	970240	Left side of handwheel	3.00" U
	970248	Right side of handwheel	

Foot-Mount Safety Chuck without Shaft[1], Approximate Dimensions

mm
[in]

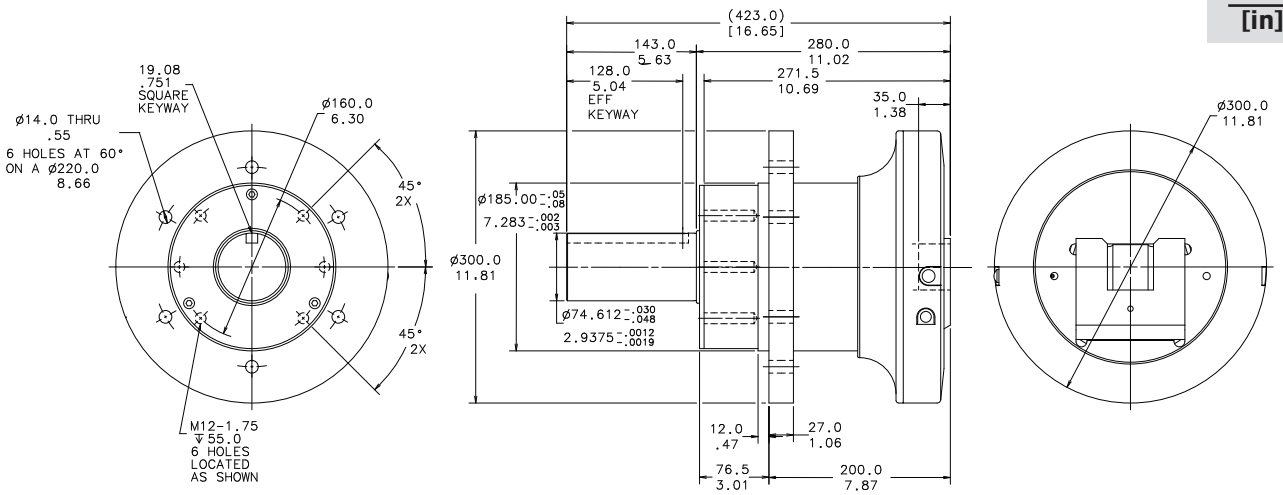


Model	Product Number	Safety Button Location[2]	Socket Size
CSB175P	970228	Left side of handwheel	2.00" U
	970236	Right side of handwheel	
	970244	Left side of handwheel	3.00" U
	970252	Right side of handwheel	

[1]These models have safety buttons.
[2]Location of safety button when facing socket.

Flange-Mount Safety Chuck with Shaft[1], Approximate Dimensions

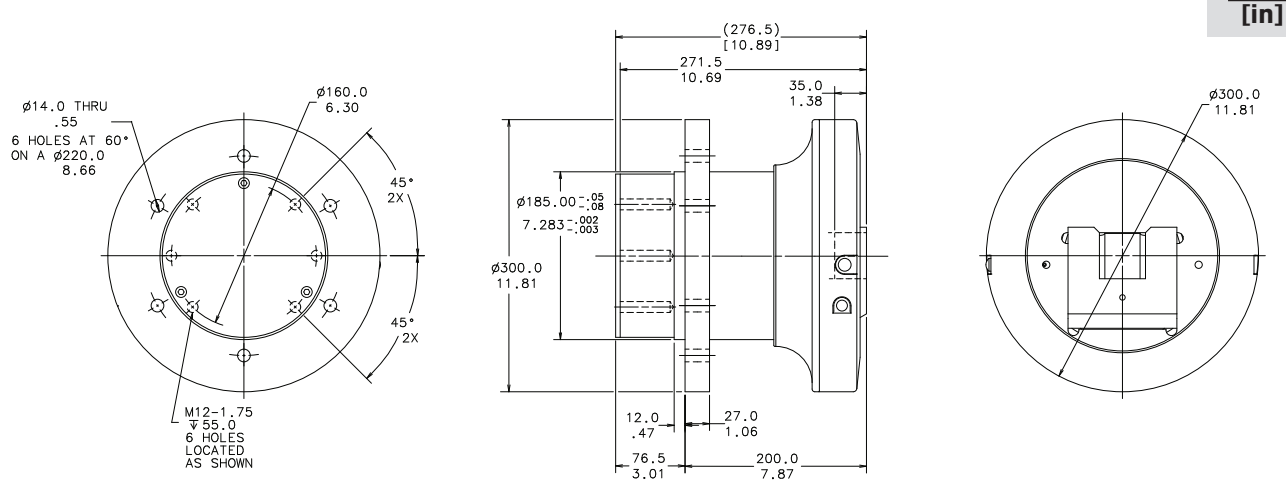
mm
[in]



Model	Product Number	Safety Button Location[2]	Socket Size
CSB175F	970222	Left side of handwheel	2.00" U
	970230	Right side of handwheel	
	970238	Left side of handwheel	3.00" U
	970246	Right side of handwheel	

Flange-Mount Safety Chuck without Shaft[1], Approximate Dimensions

mm
[in]

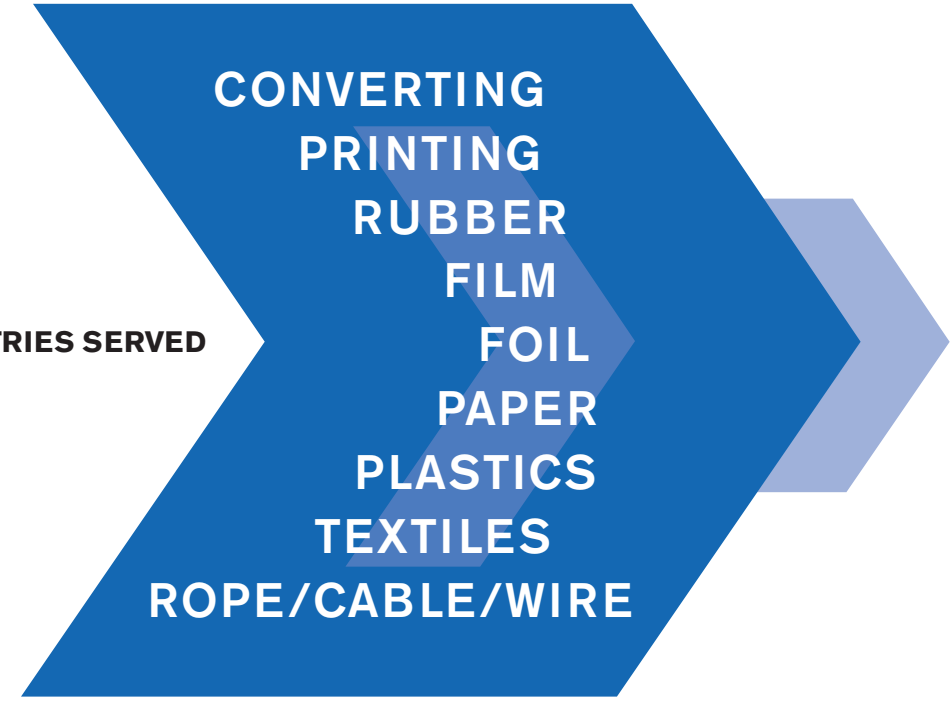


Model	Product Number	Safety Button Location[2]	Socket Size
CSB175F	970226	Left side of handwheel	2.00" U
	970234	Right side of handwheel	
	970242	Left side of handwheel	3.00" U
	970250	Right side of handwheel	

[1]These models have safety buttons.
[2]Location of safety button when facing socket.

PREMIUM TENSION CONTROL PRODUCTS

INDUSTRIES SERVED



In accordance with Nexen's established policy of constant product improvement, the specifications contained in this document are subject to change without notice. Technical data listed in this document are based on the latest information available at the time of printing and are also subject to change without notice. For current information, please consult www.nexengroup.com

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