

Rexnord Roller Upgrade System Gearmotor Selections

– Falk Ultramite UB and Omnibox WBQM Gearmotors



FALK®



Gear

From small to large applications, Rexnord drives all types of conveyors. Falk® Ultramite® UB and Omnibox® WBQM provide quiet, efficient operation with an easy-to-mount kit for RUS upgrades.



Falk Ultramite UB Helical Reducers

- Highly efficient gear units
- Independent gearmotor design can be fitted with any NEMA or IEC motor
- Use with inverter duty motors to reduce spare parts inventory

Falk Omnibox Helical Worm Gears

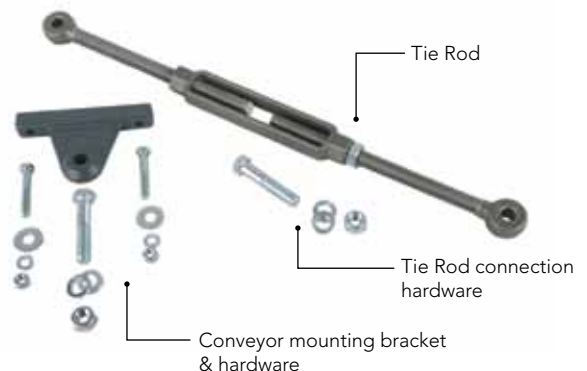
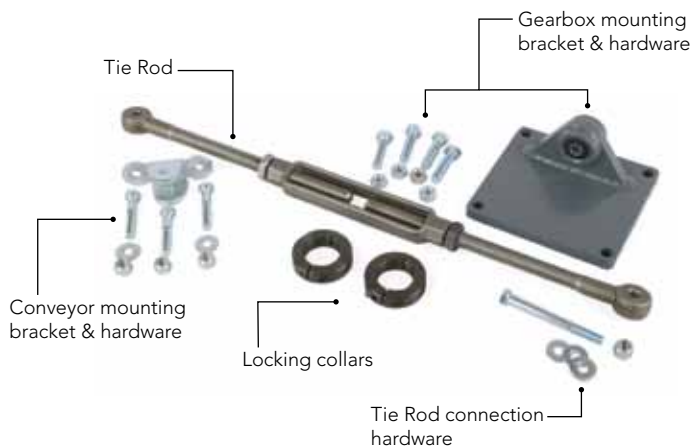
- Trouble-free performance on low-ratio, low-horsepower applications
- Standard dual Viton® seals and retained and sealed taper roller bearings



Roller Upgrade System (RUS)

It's never been easier to eliminate the high-maintenance costs and product damage of powered roller conveyors. With the superior performance of Rexnord case handling solutions and a Rexnord Roller Upgrade System, it is simple to:

- Eliminate up to 85% of your maintenance and operational costs
- Reduce product damage and returns
- Increase safety with fewer rotating parts
- Significantly reduce noise levels
- Reduce spare parts inventory by up to 90%
- Significantly reduce unplanned downtime
- Increase energy savings with upgraded drives on a more efficient system
- Install with minimal resources
- Increase effectiveness of gearboxes
- Increase effectiveness of installation



Falk Ultramite UB and Omnibox WBQM Delivers

It's a winning combination. Start with either a compact size that's the perfect fit, or ease the mounting of your unit to the RUS shaft with a complete kit for Ultramite UB or Omnibox WBQM installation. A complete kit includes gear and conveyor mounting brackets, torque arm, and appropriate fasteners. Assure quick and easy installation for any horizontal applications. Add positive torque transfer without corrosion or fretting, energy efficiency, and quick availability no matter where you're located.



Why Choose Ultramite UB Gear Drives?

Customer Preferred Motors

The Ultramite drive accepts standard, off-the-shelf NEMA/ IEC C-face and flange mounted motors, permitting the use of customer-preferred motor brands. The choice of motor manufacturer and specifications is up to you — the Ultramite accommodates industry standard frame sizes without costly motor adapter systems and special replacement motors. This makes it ideal for use with variable speed motors and drives.

Patented Bushing

An innovative motor bushing eliminates fretting between the motor and gear drive, and delivers positive torque transfer. This patented design offers easy installation and allows quick, trouble-free changeout even after years of hard, continuous use.



Why Choose Omnibox Gear Drives?

Excellent Shock Load Performance for Longer Life

Hardened, precision-ground, single-piece wormshafts resist wear for more life and uptime. Positively retained input bearings sustain high thrust loads, and output tapered roller bearings float inside the housing to absorb overhung and thrust loads.

Ready to Go

All Omnibox reducers are leak-tested and shipped with oil to eliminate setup time and startup failures.



Falk Ultramite UB Helical Bevel Gear Drive

Selection Tables

Table 1 — 1.20 Service Factor (Class I)

Total Ratio	LSS RPM	Motor HP at 1750rpm						
		0.5 56C	0.75 56C	1.0 143TC	1.5 145TC	2.0 145TC	3.0 182TC	5.0 184TC
14.0	125	03UBBQ3A14.0A_A 4765654	03UBBQ3A14.0A_A 4765654	03UBBQ3A14.0A_B 4765655	03UBBQ3A14.0A_B 4765655	03UBBQ3A14.0A_B 4765655	04UBBQ3A14.0A_C 4765718	05UBBQ3A14.0A_C 4765779
18.0	97	03UBBQ3A18.0A_A 4765657	03UBBQ3A18.0A_A 4765657	03UBBQ3A18.0A_B 4765658	03UBBQ3A18.0A_B 4765658	03UBBQ3A18.0A_B 4765658	04UBBQ3A18.0A_C 4765722	05UBBQ3A18.0A_C 4765782
20.0	88	03UBBQ3A20.0A_A 4765660	03UBBQ3A20.0A_A 4765660	03UBBQ3A20.0A_B 4765661	03UBBQ3A20.0A_B 4765661	04UBBQ3A20.0A_B 4765725	04UBBQ3A20.0A_C 4765726	05UBBQ3A20.0A_C 4765785
25.0	70	03UBBQ3A25.0A_A 4765663	03UBBQ3A25.0A_A 4765663	03UBBQ3A25.0A_B 4765664	03UBBQ3A25.0A_B 4765664	04UBBQ3A25.0A_B 4765729	04UBBQ3A25.0A_C 4765730	...
28.0	63	03UBBQ3A28.0A_A 4765666	03UBBQ3A28.0A_A 4765666	03UBBQ3A28.0A_B 4765667	03UBBQ3A28.0A_B 4765667	04UBBQ3A28.0A_B 4765733	05UBBQ3A28.0A_C 4765793	...
32.0	56	03UBBQ3A32.0A_A 4765669	03UBBQ3A32.0A_A 4765669	03UBBQ3A32.0A_B 4765670	04UBBQ3A32.0A_B 4765737	04UBBQ3A32.0A_B 4765737	05UBBQ3A32.0A_C 4765797	...
36.0	49	03UBBQ3A36.0A_A 4765672	03UBBQ3A36.0A_A 4765672	03UBBQ3A36.0A_B 4765673	04UBBQ3A36.0A_B 4765741	04UBBQ3A36.0A_B 4765741	05UBBQ3A36.0A_C 4765801	...
40.0	44	03UBBQ3A40.0A_A 4765675	03UBBQ3A40.0A_A 4765675	03UBBQ3A40.0A_B 4765676	04UBBQ3A40.0A_B 4765744	04UBBQ3A40.0A_B 4765744	05UBBQ3A40.0A_C 4765805	...
45.0	39	03UBBQ3A45.0A_A 4765678	03UBBQ3A45.0A_A 4765678	03UBBQ3A45.0A_B 4765679	04UBBQ3A45.0A_B 4765747	04UBBQ3A45.0A_B 4765747	...	...
50.0	35	03UBBQ3A50.0A_A 4765681	03UBBQ3A50.0A_A 4765681	04UBBQ3A50.0A_B 4765750	04UBBQ3A50.0A_B 4765750	05UBBQ3A50.0A_B 4765812	...	...

Table 2 — 1.40 Service Factor (Class II)

Total Ratio	LSS RPM	Motor HP at 1750rpm						
		0.5 56C	0.75 56C	1.0 143TC	1.5 145TC	2.0 145TC	3.0 182TC	5.0 184TC
14.0	125	03UBBQ3A14.0A_A 4765654	03UBBQ3A14.0A_A 4765654	03UBBQ3A14.0A_B 4765655	03UBBQ3A14.0A_B 4765655	03UBBQ3A14.0A_B 4765655	04UBBQ3A14.0A_C 4765718	05UBBQ3A14.0A_C 4765779
18.0	97	03UBBQ3A18.0A_A 4765657	03UBBQ3A18.0A_A 4765657	03UBBQ3A18.0A_B 4765658	03UBBQ3A18.0A_B 4765658	04UBBQ3A18.0A_B 4765721	04UBBQ3A18.0A_C 4765722	05UBBQ3A18.0A_C 4765782
20.0	88	03UBBQ3A20.0A_A 4765660	03UBBQ3A20.0A_A 4765660	03UBBQ3A20.0A_B 4765661	03UBBQ3A20.0A_B 4765661	04UBBQ3A20.0A_B 4765725	04UBBQ3A20.0A_C 4765726	...
25.0	70	03UBBQ3A25.0A_A 4765663	03UBBQ3A25.0A_A 4765663	03UBBQ3A25.0A_B 4765664	04UBBQ3A25.0A_B 4765729	04UBBQ3A25.0A_B 4765729	05UBBQ3A25.0A_C 4765788	...
28.0	63	03UBBQ3A28.0A_A 4765666	03UBBQ3A28.0A_A 4765666	03UBBQ3A28.0A_B 4765667	04UBBQ3A28.0A_B 4765733	04UBBQ3A28.0A_B 4765733	05UBBQ3A28.0A_C 4765793	...
32.0	56	03UBBQ3A32.0A_A 4765669	03UBBQ3A32.0A_A 4765669	03UBBQ3A32.0A_B 4765670	04UBBQ3A32.0A_B 4765737	04UBBQ3A32.0A_B 4765737	05UBBQ3A32.0A_C 4765797	...
36.0	49	03UBBQ3A36.0A_A 4765672	03UBBQ3A36.0A_A 4765672	03UBBQ3A36.0A_B 4765673	04UBBQ3A36.0A_B 4765741	04UBBQ3A36.0A_B 4765741	05UBBQ3A36.0A_C 4765801	...
40.0	44	03UBBQ3A40.0A_A 4765675	03UBBQ3A40.0A_A 4765675	03UBBQ3A40.0A_B 4765676	04UBBQ3A40.0A_B 4765744	05UBBQ3A40.0A_B 4765804	...	...
45.0	39	03UBBQ3A45.0A_A 4765678	03UBBQ3A45.0A_A 4765678	04UBBQ3A45.0A_B 4765747	04UBBQ3A45.0A_B 4765747	05UBBQ3A45.0A_B 4765808	...	...
50.0	35	03UBBQ3A50.0A_A 4765681	03UBBQ3A50.0A_A 4765681	04UBBQ3A50.0A_B 4765750	04UBBQ3A50.0A_B 4765750	05UBBQ3A50.0A_B 4765812	...	...

**Table 3 —
Straight Hollow Shaft Diameter (Inch)**

	1.25	1.375	1.50
03UB	X		
04UB		X	
05UB			X

Selection Example

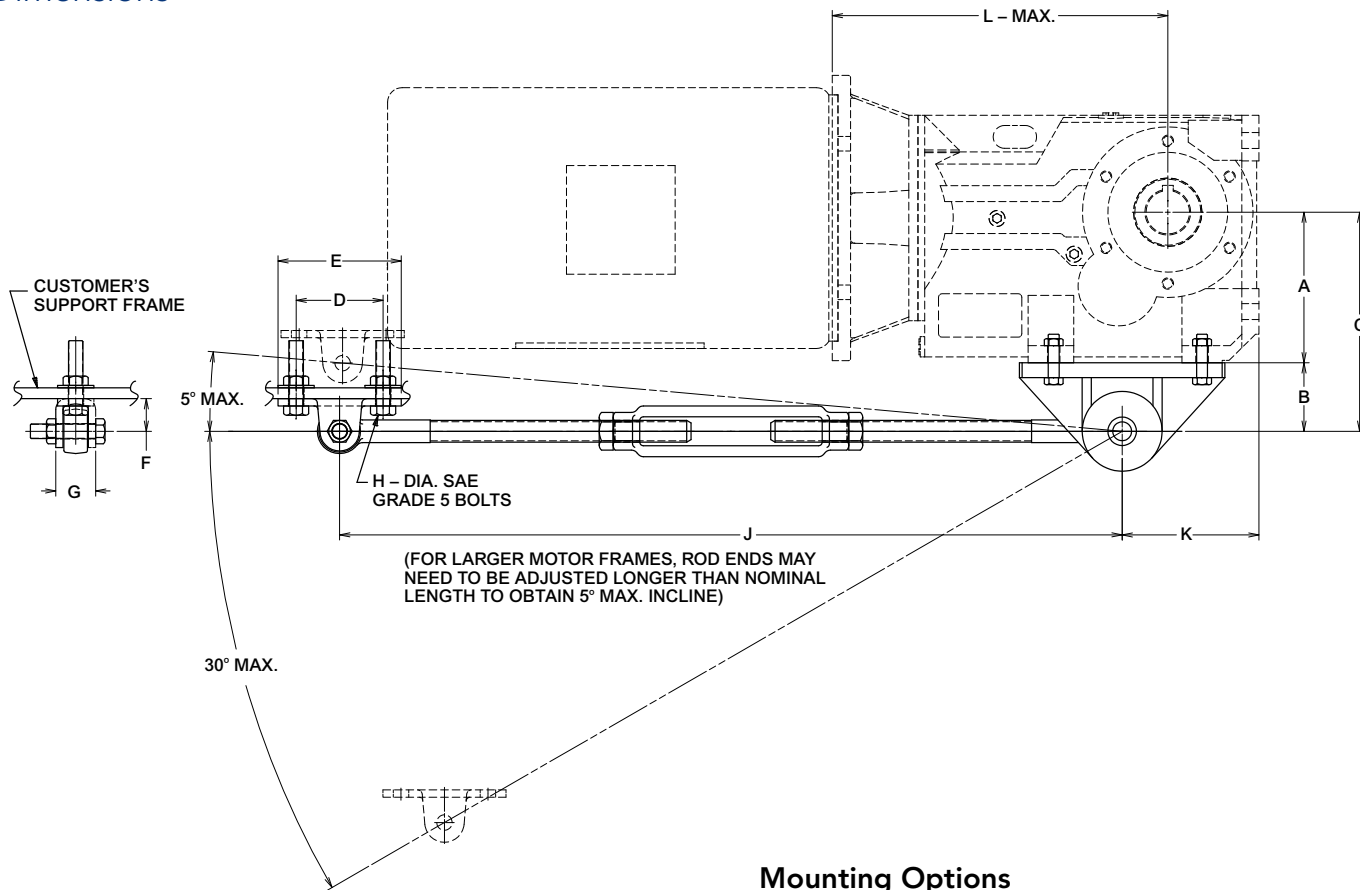
Application:

Customer has a straight running conveyor with a calculated demand of 1.62hp at a speed of 70rpm. They plan to use a 2hp, 1750rpm, 145TC frame motor. The application requires a 1.2 Service factor (Class I).

Selection:

Utilizing Table 1 — 1.20 Service Factor (Class I) above, the correct unit selection is an 04UBBQ3A25.0A_B, part # 4765729. This unit includes a 1.375 inch hollow low speed shaft. The required mounting kit from Table 4 on page 5 is 7708098. Please include both part numbers on your purchase order.

Dimensions



Mounting Options

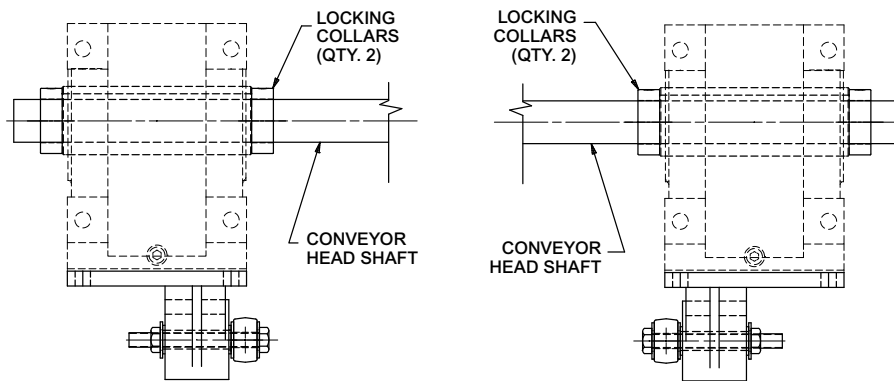


Table 4 — Dimensions (Inch)

Drive Size	A	B	C	D	E	F	G	H	J		K	L Max	Kit Part Number
									Min	Max			
03	3.94	1.57	5.51	2.50	3.56	1.00	1.25	0.375	21.00	27.00	3.40	11.57	7708097
04	4.41	4.89	6.30	2.50	3.56	1.00	1.25	0.375	21.00	27.00	3.97	11.57	7708098
05	5.20	2.36	7.56	3.00	4.25	1.12	1.38	0.500	24.00	30.00	4.72	11.57	7708099

Falk Omnibox WBQM Worm Gear Drive

Selection Tables

Table 5 — 1.20 Service Factor (Class I)

Total Ratio	LSS RPM	Motor HP at 1750rpm					
		0.5 56C	0.75 56C	1.0 143TC	1.5 145TC	2.0 145TC	3.0 182TC
15.0	117	1206WBQM1B15.0AA___	1206WBQM1B15.0AA___	1206WBQM1B15.0AB___	1206WBQM1B15.0AB___	1238WBQM1B15.0AB___	1262WBQM1B15.0AC___
20.0	88	1206WBQM1B20.0AA___	1206WBQM1B20.0AA___	1206WBQM1B20.0AB___	1238WBQM1B20.0AB___	1262WBQM1B20.0AB___	1300WBQM1B20.0AC___
25.0	70	1206WBQM1B25.0AA___	1206WBQM1B25.0AA___	1206WBQM1B25.0AB___	1238WBQM1B25.0AB___	1262WBQM1B25.0AB___	...
30.0	58.3	1206WBQM1B30.0AA___	1206WBQM1B30.0AA___	1238WBQM1B30.0AB___	1262WBQM1B30.0AB___	1300WBQM1B30.0AB___	...
40.0	43.8	1206WBQM1B40.0AA___	1206WBQM1B40.0AA___	1238WBQM1B40.0AB___	1300WBQM1B40.0AB___	...	...
50.0	35	1206WBQM1B50.0AA___	1238WBQM1B50.0AA___	1262WBQM1B50.0AB___	1300WBQM1B50.0AB___	...	...

Table 6 — 1.40 Service Factor (Class II)

Total Ratio	LSS RPM	Motor HP at 1750rpm					
		0.5 56C	0.75 56C	1.0 143TC	1.5 145TC	2.0 145TC	3.0 182TC
15.0	117	1206WBQM1B15.0AA___	1206WBQM1B15.0AA___	1206WBQM1B15.0AB___	1238WBQM1B15.0AB___	1262WBQM1B15.0AB___	1300WBQM1B15.0AC___
20.0	88	1206WBQM1B20.0AA___	1206WBQM1B20.0AA___	1206WBQM1B20.0AB___	1238WBQM1B20.0AB___	1262WBQM1B20.0AB___	...
25.0	70	1206WBQM1B25.0AA___	1206WBQM1B25.0AA___	1238WBQM1B25.0AB___	1262WBQM1B25.0AB___	1300WBQM1B25.0AB___	...
30.0	58.3	1206WBQM1B30.0AA___	1206WBQM1B30.0AA___	1238WBQM1B30.0AB___	1262WBQM1B30.0AB___	1300WBQM1B30.0AB___	...
40.0	43.8	1206WBQM1B40.0AA___	1238WBQM1B40.0AA___	1262WBQM1B40.0AB___	1300WBQM1B40.0AB___	...	...
50.0	35	1206WBQM1B50.0AA___	1238WBQM1B50.0AA___	1262WBQM1B50.0AB___	...	...	...

Table 7 — Average Efficiency

Ratio	LSS RPM	Efficiency
15	117	89%
20	88	85%
25	70	83%
30	58	80%
40	44	75%
50	35	71%

**Table 8 —
Straight Hollow Shaft Diameter (Inch)**

	1.25	1.44	1.50
1206	X	X	X
1238	X	X	X
1262	X	X	X
1300	X	X	X

Selection Example

Application:

Customer has a straight running conveyor with a calculated demand of 1.58hp at a speed of 88rpm. They plan to use a 2hp, 1750rpm, 145TC frame motor. The application requires a 1.2 Service Factor (Class I) and a low-speed shaft bore diameter of 1.44 inch.

Selection:

Utilizing Table 5 — 1.20 Service Factor (Class I) above, the correct unit selection is an 1262WBQM1B20.0AB___. Due to the efficiency losses while using a worm gear unit, it is important to ensure that the motor can accommodate the load as well as the expected losses. The efficiency of the a 20:1 ratio unit is 85% per Table 7. The required motor hp is $(1.58 / .85) = 1.86\text{hp}$ so a 2hp motor is sufficient. Each Omnibox unit has three options for the low-speed shaft bore, see Table 8. This application calls for a 1.44 inch bore diameter so the final model number is 1262WBQM1B20.0AB144. The required mounting kit from the Table 9 on page 7 is 10321761. Please include the Omnibox model number and the kit part number on your purchase order.

Dimensions

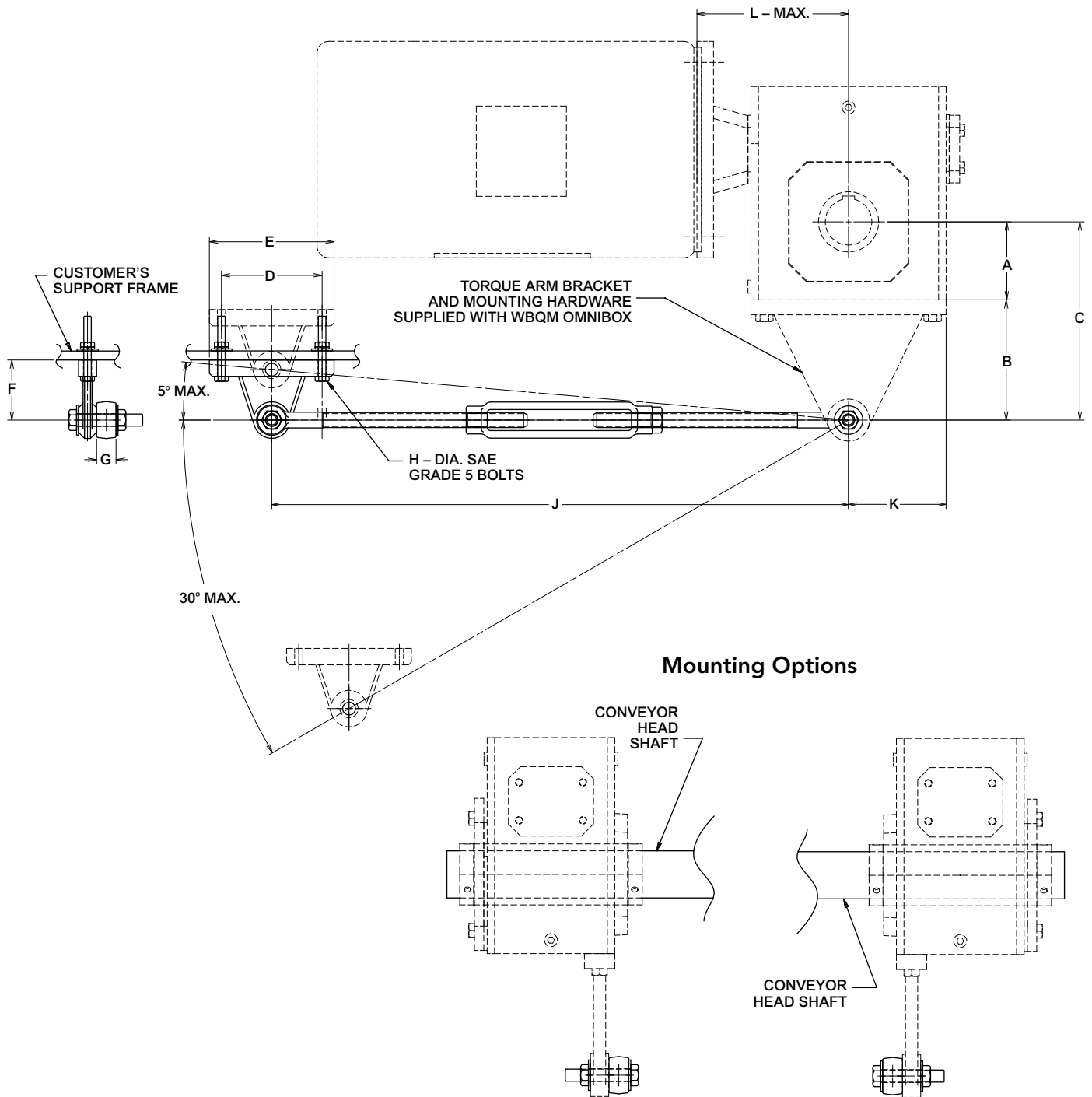


Table 9 — Dimensions (Inch)

Drive Size	A	B	C	D	E	F	G	H	J		K	L Max	Kit Part Number
									Min	Max			
1206	2.28	3.15	5.43	4.19	5.19	2.50	0.70	0.31	21.00	27.00	2.90	4.46	10321761
1238	2.50	3.25	5.75	4.19	5.19	2.50	0.70	0.31	21.00	27.00	3.06	4.63	10321761
1262	2.94	3.75	6.69	4.19	5.19	2.50	0.70	0.31	21.00	27.00	3.69	5.19	10321761
1300	3.25	5.00	8.25	4.19	5.19	2.50	0.70	0.31	21.00	27.00	4.06	6.62	10321761



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Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.

Rexnord Corporation

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

Process and Motion Control

The Rexnord Process and Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

Water Management

The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.

REXNORD

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