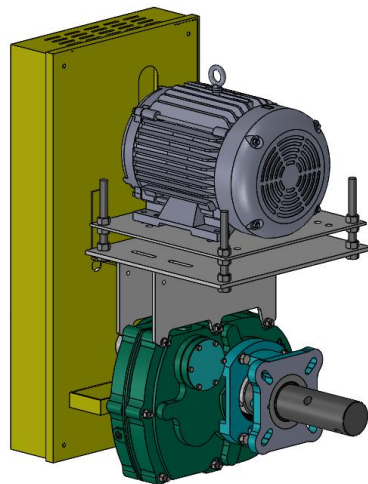


## Choosing Dodge for your Screw Conveyor Applications

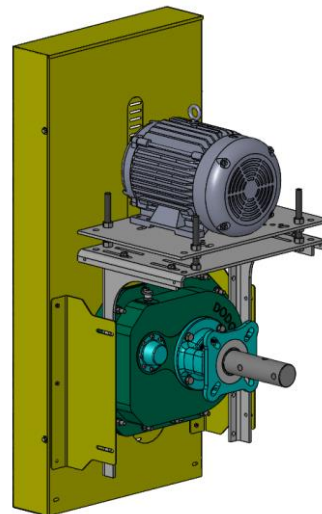
Dodge Industrial continues to be the long-lasting industry leader in the world of material handling. Dodge is known as the experts in bulk material handling for a wide variety of applications. Our purpose is to exceed customer expectations with our comprehensive approach to problem solving and innovation. We strive for continuous improvement in our products to help our customers achieve their strategic goals. Dodge’s innovation with a specific screw conveyor drive dates back to the 1960’s with the initial screw conveyor drive line of speed reducers and has since expanded to include offerings across the Torque-Arm family as well as Quantis line of speed reducers that conforms to Conveyor Equipment Manufacturers Association (CEMA) standards.



Belted drive options include solutions from SCXT to TAIL screw conveyor drives. Dodge has a primary focus around safety. This can be seen through the design of our motor mount and belt guard. Standard and long motor mounts plus belt guards are available for the optimal mounting position. Flexibility in adjustment, while keeping our customers safe. Optional motor mounts and belt guards are available for other mounting positions, if needed.



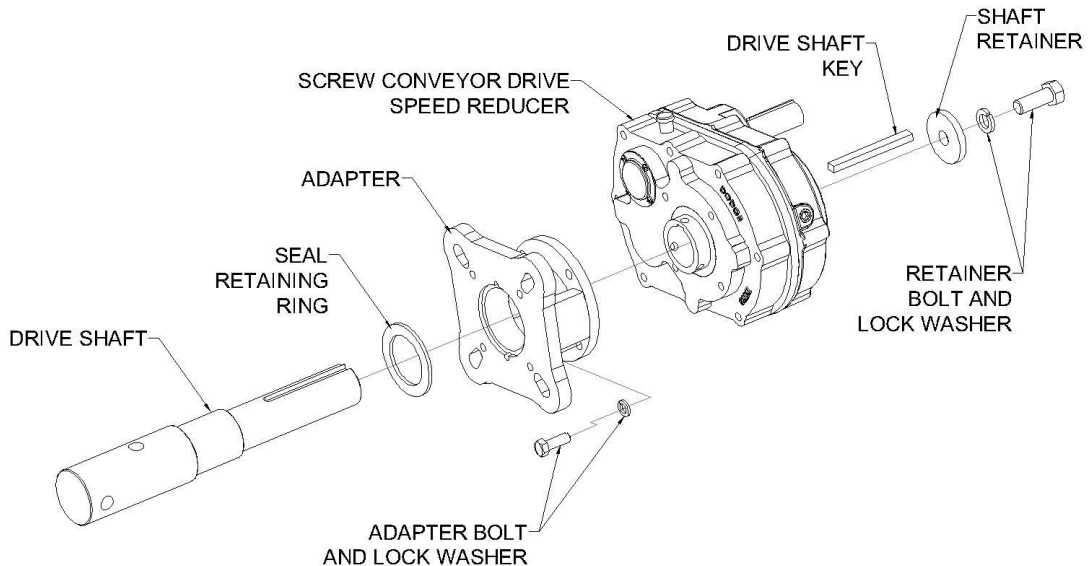
Dodge SCXT CEMA Screw  
Conveyor Drive Package



Dodge TAIL CEMA Screw  
Conveyor Drive Package



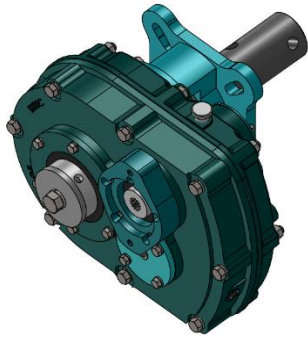
Each product line of screw conveyor drives can be supplied with a rugged, cast iron, four bolt mounting adapter utilizing double lip seals on trough end. Each adapter follows CEMA standards and can mount directly on trough end of the conveyor. All adapters have open center for contamination disposal. Optional adjustable packing kit bolts directly to CEMA adapter helping keep harsh materials contained in the screw conveyor. Pre-drilled drive shafts can be ordered from sizes 1-1/2" to 3-7/16" to accommodate all current CEMA screw diameter sizes and ensure simple installation. High-thrust, tier one supplied, tapered roller bearings are supplied on the output for all drive options. All bearings provide a minimum (L10) 5,000 hour life at a 1.0 service factor.



SCXT CEMA screw conveyor drives are provided in AGMA case sizes 107-407 with single and double reductions ranging from 5, 9, 15 & 25:1 nominal ratios. SCXT1A – SCXT7A drive shafts come standard 2-hole high quality alloy steel but optional drive shafts include 2-hole stainless steel, standard 3-hole and 3-hole stainless steel. SCXT8A has standard 3-hole steel drive shaft options. Ratings for fractional to 250 HP motors, output speeds up to 400 rpm and over 100,000 in-lbs torque. Adjustable packing kit available in SCXT1A – SCXT7A. Additional SCXT accessories include oil sump heater, harsh duty breathers, a cooling



shaft fan that can be mounted on the input shaft for additional thermal control and auxiliary seal kit which provides extra protection against contaminants on the outboard hub seal and input seal.



SCXT is also available with hydraulic motor input by going with product variant Hydroil SCXT or HSCXT. HSCXT CEMA screw conveyor drives are available in AGMA case sizes 107-315 with single and double reductions ranging from 5, 15 & 25:1 nominal ratios. Drive shaft options and all applicable accessories are the same as SCXT1A – SCXT7A. HSCXT drive part numbers include reducer, hydroil motor adapter and input shaft internally splined to readily mount hydroil vane motors that are supplied by Dodge.

Tall CEMA screw conveyor drives are provided in AGMA case sizes 107-315 with single and double reductions ranging from 5, 9, 15, 25, 31, 32, 33 & 40:1 nominal ratios. Drive shaft options include standard 3-hole and optional 3-hole stainless steel. Drive shafts have tapered fit which ensures simple installation and improved locking plate provides easy mechanical shaft removal. Ratings for fractional to 200 HP motors, output speeds up to 400 rpm and over 97,000 in-lbs torque. Additional Tall accessories include oil sump heater, harsh duty breathers, a cooling shaft fan that can be mounted on the input shaft for additional thermal control, v-ring seal kit which can be installed over input shaft & outboard hub to provide additional sealing protection for harsh duty environments and ABS polymer closed safety cover to help further protect outboard hub location from contaminants.

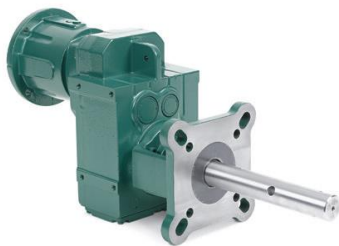


When belt drives are not desired, Dodge provides a simpler direct drive gearmotor solution. The gearmotor assemblies are offered in right angle helical bevel screw conveyor drive configurations for Motorized Torque-Arm (MTA) & Quantis Right-Angle Helical Bevel (RHB) as well as offset parallel Quantis Motorized Shaft Mount (MSM). Each Quantis offering is available with integral or C-face mounted motors and are interchangeable with major global competitors. Quantis screw conveyor drive packages can be ordered as standard or severe duty. Severe duty includes packing retainer, studs, nuts and braided felt seals for extra sealing protection.



MTA CEMA screw conveyor drives are provided in AGMA case sizes 115-315 with many ratios ranging from nominal 17:1 to 79:1. Drive shaft options include standard 3-hole and optional 3-hole stainless steel. Drive shafts have tapered fit which ensures simple installation and improved locking plate provides easy mechanical shaft removal. Ratings up to 150 HP motors, output speeds up to 198 rpm and over 136,000 in-lbs torque. MTA accessories are shared with TAll (except cooling shaft fan). MTA drives can be purchased as a hydraulically driven package which includes MTA reducer, motor adapter, couplings and hydraulic motor. These MTA hydraulic drive packages are offered in AGMA case sizes 115-307.

Quantis RHB CEMA screw conveyor drives are provided in six case sizes ranging from 38-128 with many ratios ranging from nominal 5:1 to 7480:1. Standard 3-hole drive shaft options are offered for CEMA screw sizes. Ratings up to 40 HP motors, output speeds up to 640 rpm and over 41,000 in-lbs torque. Quantis RHB accessories include oil sump heater, harsh duty breathers and durable plastic & metal closed safety covers to help protect outboard hub location from contaminants.



Quantis MSM CEMA screw conveyor drives are provided in same six case sizes as RHB configuration ranging from 38-128 with ratios ranging from nominal 6:1 to 7551:1. Standard 3-hole drive shaft options for CEMA screw sizes. Ratings up to 75 HP motors, output speeds up to 520 rpm and over 54,000 in-lbs torque. Quantis MSM accessories include oil sump heater and harsh duty breathers.

All Dodge screw conveyor drives are Smart Sensor ready. Our Smart Sensor for mechanical products is an easy-to-use, wireless sensor that monitors the health of our equipment and is third party ATEX certified for worry-free use in hazardous environments. For installation to our drives, the Smart Sensor is threaded into an adapter which then replaces one of the oil plug holes that is not being used. Temperature and vibration are monitored for the drive equipment and can be monitored through the Smart Sensor Platform app.



The following page shows a summary of all Dodge screw conveyor drive solutions.





Dodge CEMA Screw Conveyor Drives					
	(H)SCXT	TAII	MTA	Quantis RHB	Quantis MSM
CEMA Standard Compatible Components	Yes	Yes	Yes	Yes	Yes
AGMA Case Sizes (Dodge Sizes)	107 - 407 (SCXT1A - SCXT8A) 107 - 315 (HSCXT1A - HSCXT7A)	107 - 315 (TA0107L - TA7315H)	115 - 315 (MTA2115 - MTA7315)	(38 - 128)	(38 - 128)
Ratios	5:1 - 25:1	5:1 - 40:1	17:1 - 79:1	5:1 - 7480:1	6:1 - 7551:1
Drive Shaft Sizes	1-1/2" to 3-7/16"	1-1/2" to 3-7/16"	1-1/2" to 3-7/16"	1-1/2" to 3-7/16"	1-1/2" to 3-7/16"
Drive Shaft Options & Materials	2-Hole Steel 2-Hole Stainless Steel 3-Hole Steel 3-Hole Stainless Steel	3-Hole Steel 3-Hole Stainless Steel	3-Hole Steel 3-Hole Stainless Steel	3-Hole Steel	3-Hole Steel
Input Power	Up to 250 HP	Up to 200 HP	Up to 150 HP	Up to 40 HP	Up to 75 HP
Output Torque	Up to 100,000 in-lbs	Up to 97,000 in-lbs	Up to 136,000 in-lbs	Up to 41,000 in-lbs	Up to 54,000 in-lbs
Motor Mounting	- Foot Mount, Belt Drive (SCXT) - SAE 2 & 4 Bolt Mounting Flange, Splined (HSCXT)	- Foot Mount, Belt Drive	- C-Face, Coupling (MTA) - SAE Mounting Flange, Coupling (Hydraulic MTA)	- C-Face, Coupling - Integral Motor	- C-Face, Coupling - Integral Motor
Hydraulic Drive Package *	Yes	No	Yes	No	No
Smart Sensor Ready	Yes	Yes	Yes	Yes	Yes
Accessories	- Oil sump heater - Harsh duty breathers (Hydra-Lock & Fully Enclosed) - Cooling Shaft Fan (SCXT only) - Auxiliary Seal Kit	- Oil sump heater - Harsh duty breathers (Hydra-Lock & Fully Enclosed) - Cooling Shaft Fan - V-Ring Seal Kit - ABS Closed Safety Cover	- Oil sump heater - Harsh duty breathers (Hydra-Lock & Fully Enclosed) - V-Ring Seal Kit - ABS Closed Safety Cover	- Oil sump heater - Harsh duty breathers (Hydra-Lock & Fully Enclosed) - Durable Plastic or Metal Closed Safety Cover	- Oil sump heater - Harsh duty breathers (Hydra-Lock & Fully Enclosed)

\* HSCXT comes with reducer and motor adapter; hydraulic vane motor offered for purchase separately. Hydraulic MTA drive package includes reducer, motor adapter, couplings and hydraulic vane motor. CEMA adapter and drive shaft will need to be ordered separately for all hydraulic drive packages.