

XMiner™ – drive package for mining applications

Engineered to withstand the harsh environments
of mining and aggregate applications



XMiner™

The XMiner complete drive package was designed to fit the unique needs of **surface and underground belt conveyor applications**, specifically for the harsh environments found in the mining industry. Key features include a reversible housing for right- or left-hand shaft location, bolt-on motor mounting, and multiple torque arm mounting locations to adapt to any structure.

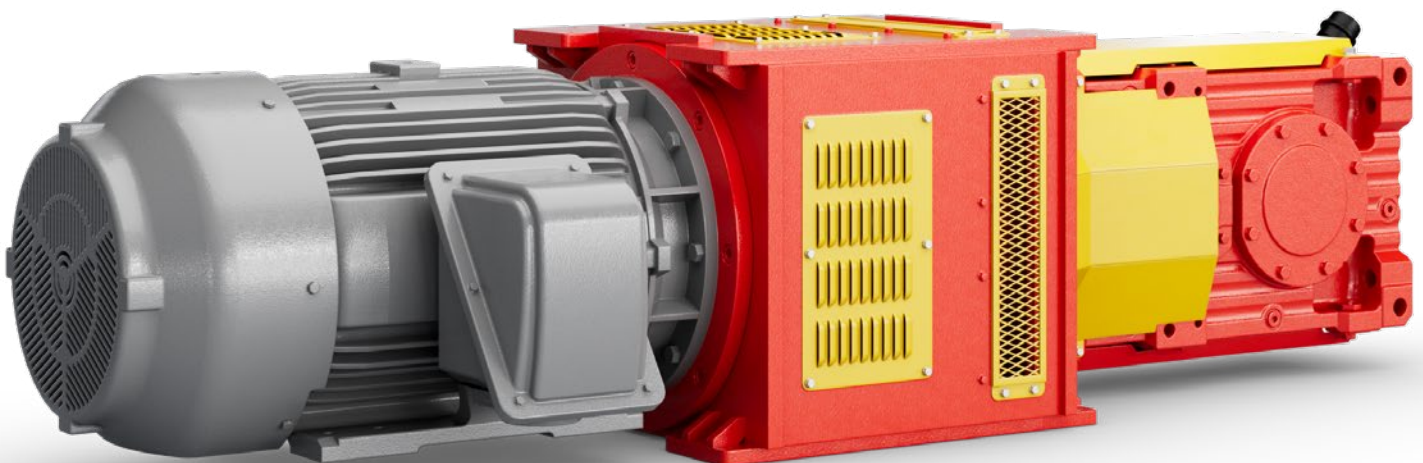
Designed and assembled in our heavy industrial gearing facility in South Carolina, the XMiner drive package consists of gear unit, fluid or flexible coupling, tunnel housing, torque arm, motor, and other available options.

XMINER complete drive package:

- X.K.e/HU bevel-helical gear unit
- Fluid coupling (Voith TVVS or other possible)
- Rigid flange coupling
- Tunnel housing with various anchoring locations on top and bottom
- Torque arm
- Flanged motor (SEW DRN or NEMA D-flange or C-face possible)

Typical applications

- Belt conveyors
- Chain conveyors
- Crushers
- Apron feeders



Why choose the XMiner?

Global - With a footprint spanning 55 countries, 17 production plants, and more than 90 Drive Technology Centers, we deliver global engineering and reliability with local expertise and service.

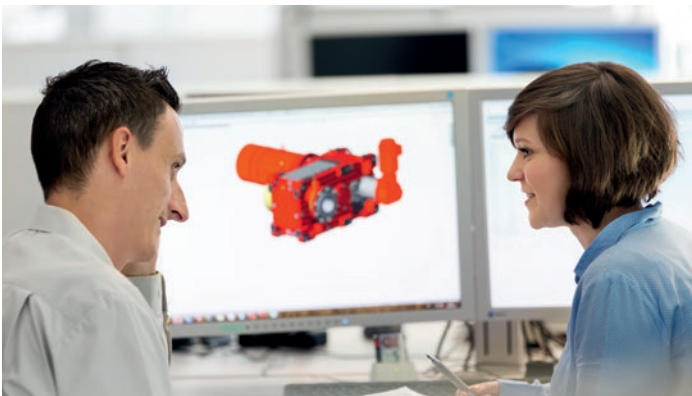
Flexible - Our modular concept enables us to develop industrial gear unit systems that suit your requirements perfectly – and consistently. Our global network also means we can deliver these solutions very rapidly.

Versatile - From mining to cement production and from steel manufacturing to food processing – heavy industrial gear units from SEW-EURODRIVE are powerful, reliable, and future-proof.

Reliable - Our range of services helps you ensure your drive technology runs efficiently and without interruption. We carry out inspection, maintenance, repair, and replacement work wherever and whenever it is required.

Our Large Industrial Gear facility, located in Wellford, South Carolina, houses assembly, engineering, and maintenance services for a broad range of industrial gear units. The 160,000 sq. ft. facility is equipped to handle nearly any industrial gear assembly or maintenance project, ranging from replacing seals to building 40 ton drive packages.

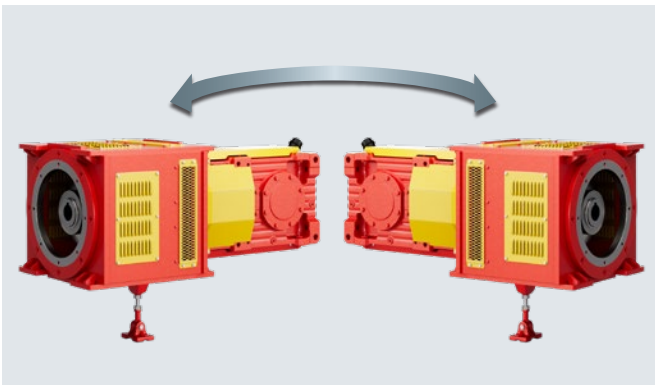
The multi-station facility is equipped with 30+ overhead cranes, two large paint booths, and a massive inventory and storage retrieval system.



SEW-EURODRIVE offers a wide range of industrial gear units for applications requiring high torque. Our modular design concept allows multiple combinations using standard components. The result is more options and faster deliveries for a wide range of applications

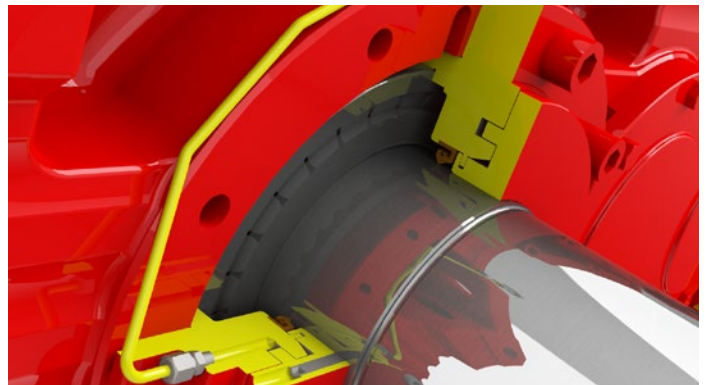
SEW-EURODRIVE also provides engineering support and service — from process planning to project development to startup. Our renowned, worldwide service ensures that you have comprehensive support after startup and throughout the life of the drive.

XMiner – Tough and reliable drive for harsh conditions



➤ Reversible housing design

- Right- or left-hand shaft location in one unit
- Less inventory / spares
- Either CCW or CW rotation



➤ Taconite heavy-duty sealing system

- Abrasive environments: Mining, Cement
- Labyrinth sealing path
- Grease purgeable
- Laminar rings prevent grease from getting pumped into gear unit seals

Optimized design for mining

Features and benefits:

- Torque range to 1.5 mil lb-in
- Gear ratio from 6.3 to 450
- Shaft diameters up to 13 inches
- Inch solid and hollow output shafts available

- Worldwide service and assembly centers ensure SEW-Eurodrive is there for you!
- Many other customization options possible; reach out to SEW-EURODRIVE for your application needs!

Maintenance friendly

Easier maintenance with mining breather, HSS grease line, LSS grease line, oil sight glasses, oil drain valve, magnetic drain plug, and nameplate on F6 surface

Enhanced cooling

The XMiner utilizes a powerful diagonal fan and specially-designed inlet and outlet guards to maximize cooling airflow

Multiple torque arm positions

8 torque arm positions on the steel tunnel adapter (4 positions on top and 4 on bottom) make the XMiner drop-in ready for many existing configurations

Soft start, strong finish

Designed to accommodate the industry-standard Voith TVVS fluid coupling; other couplings possible

Motor flexibility

SEW-Eurodrive DRN motors available up to 500 HP. Other IEC and NEMA D-flange and C-face motors can be used

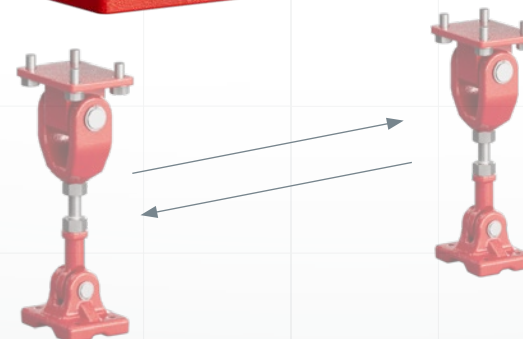


Output shaft options

Numerous options to connect with your application, from solid, keyed LSS with coupling, to our patented TorqLOC® hollow shaft mounting system, now with standard inch bores

Reduce spare inventory

X.e Series Universal Housing (UH) provides invert-ability, strength, and superior thermal performance



Designed and assembled in the U.S.A.

Our facility in Wellford, SC stocks one of the largest inventories of industrial gearing parts in the U.S. Plus, with local engineering and assembly, you can count on custom solutions delivered quickly.

Find more information on our full line of large industrial gear units here.





UNDERGROUND size selection @ 60°F and 1,800 rpm				
iN	*n2	Motor Power (PM) [HP]		
	[rpm]	150	200	300
14	131	140e	**	200e
16	113	140e	150e	200e
18	103	140e	150e	200e
20	89	140e	150e	200e
22.4	81	140e	150e	200e
25	69	140e	150e	200e
28	63	140e	160e	200e
31.5	55	150e	160e	200e
35.5	50	150e	160e	200e

Highlighted items indicate extra inventory stocked in the U.S.

* Output speeds shown are approximate values.

** Ask your SEW-Eurodrive representative



SURFACE size selection @ 100°F and 1,800 rpm				
iN	*n2	Motor Power (PM) [HP]		
	[rpm]	150	200	300
14	131	(140e)	**	(200e)
16	113	140e	(150e)	(200e)
18	103	140e	(150e)	(200e)
20	89	140e	(150e)	(200e)
22.4	81	140e	(150e)	(200e)
25	69	140e	(150e)	(200e)
28	63	140e	160e	(200e)
31.5	55	150e	160e	200e
35.5	50	150e	160e	200e

Highlighted items indicate extra inventory stocked in the U.S.

* Output speeds shown are approximate values.

() Indicates oil-to-air cooler recommended.

** Ask your SEW-Eurodrive representative.

Nomenclature Example: X3KS140e/HU/T

Product Nomenclature	Identifier	Description
	X	Unit series
	3	Number of gear unit stages: 3 = 3 stages
	K	Gear unit design: K = Bevel-helical gear unit
	S	Output shaft: S = Solid shaft with key T = Hollow shaft with TorqLOC® mounting system
	140	Gear unit sizes: 140 / 150 / 160 / 170 / 200 / 210 (bold are currently stocked)
	e	Generation X.e
	/ HU	Housing design: HU = Universal housing
	/ T	Gear unit mounting: T = Torque arm

Mechanical Overview	Abbreviation	Units	Description	Range
	MN2	[lb-in]	Nominal torque rating	194,716 - 699,209
	PN1	[HP]	Nominal power rating	160 - 1,275
	n2	[rpm]	Output speed (@ 1800 rpm in)	50 - 136
	PM	[HP]	Nominal motor power	100 - 450
	iex	[-]	Ratio	14 - 35.5

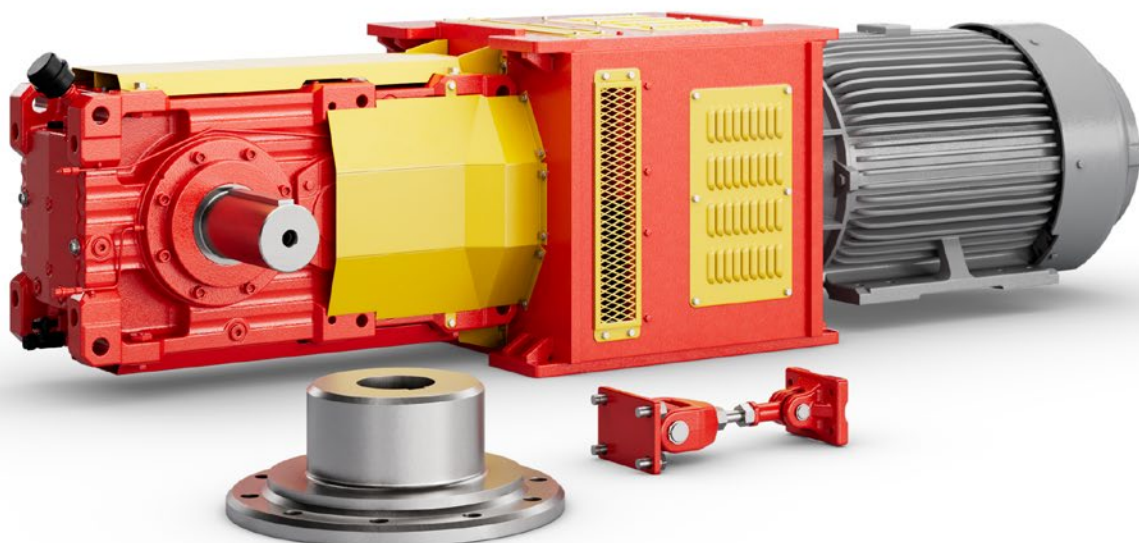
Thermal Overview

→ **Underground application defined per the following assumptions:**

- ≤ 60°F max. ambient temperature (≥ 32°F min.)
- No direct sunlight
- ≤ 3,280 ft above sea level
- Ambient air velocity (va) <= 4.6 ft/sec
- Continuous operation for >= 10 hours per day

→ **Surface application defined per the following assumptions:**

- ≤ 100°F max. ambient temperature (≥ 32°F min.)
- No direct sunlight
- ≤ 6,560 ft. above sea level
- Ambient air velocity (va) ≤ 10 ft/sec
- Continuous operation for ≤ 10 hours per day



Data / Reference

HSS Fluid Coupling Selection

$n_1 = 1,800 \text{ rpm}$

Voith TVVS size

Gear unit size	Motor Power (PM) [kW] [HP]								
	75 100	93 125	112 150	149 200	186 250	224 300	261 350	298 400	336 450
140e	422	422	422	-	-	-	-	-	-
150e	422	422	422	487	487	-	-	-	-
200e	-	-	-	-	-	562	562	562	562

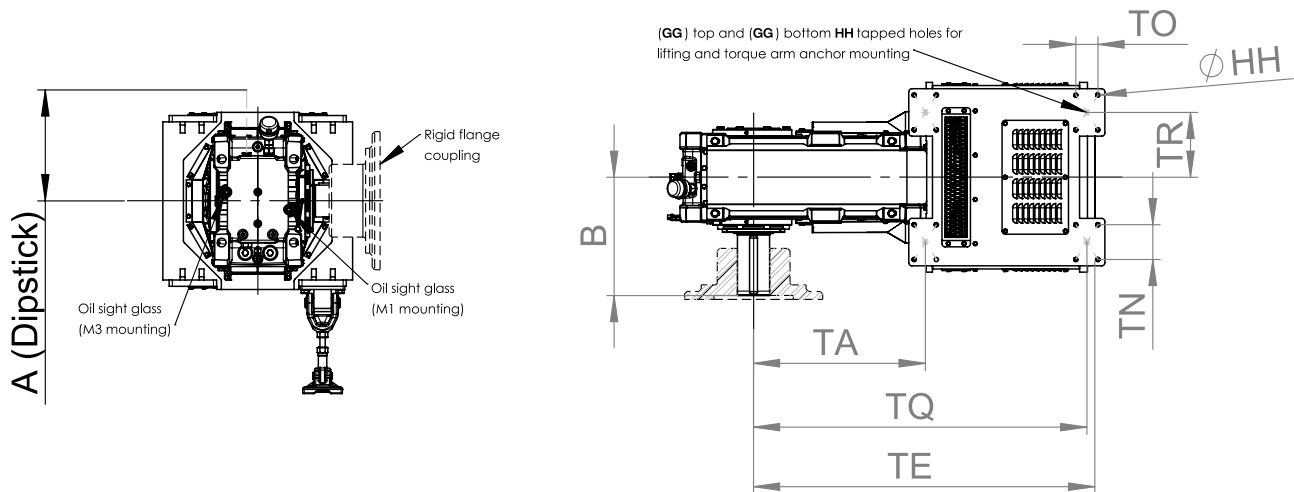
Product Description

The TVVS fluid coupling offers a torque limitation of 140% (with respect to nominal load) thanks to its large delay fill chamber and annular chamber shell. Additionally, the TVVS provides 100% torque limitation (with respect to nominal load) in the event of empty or partially loaded conveyors.

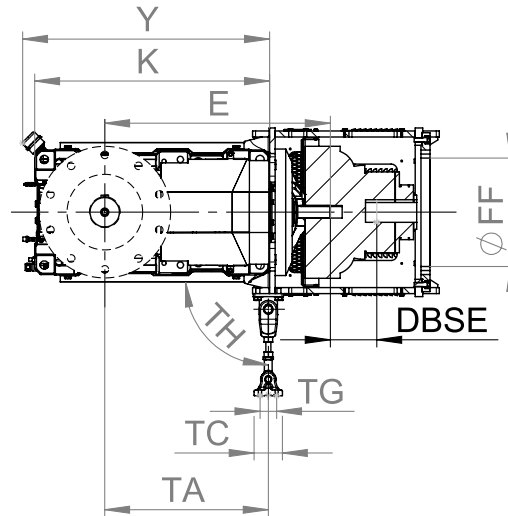
Connecting Coupling Types

TVVS size	Connection	Description
422	EEK-E	Outer shaft hub connection
487	EEK-M	Inner shaft hub connection
562	EPK	Flexible cam coupling

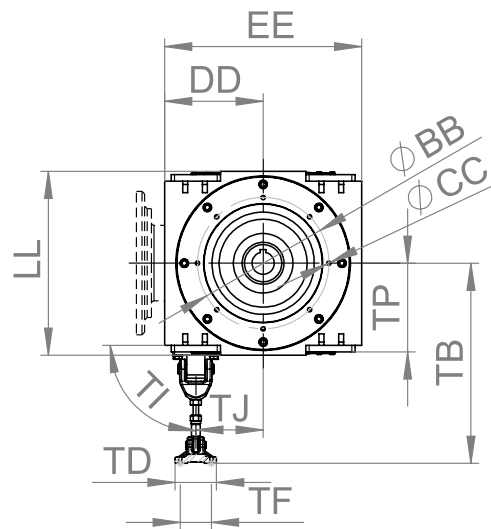
Other high speed couplings can be used, but Voith TVVS are pre-designed. Voith is a registered trademark of the Voith Group of companies.



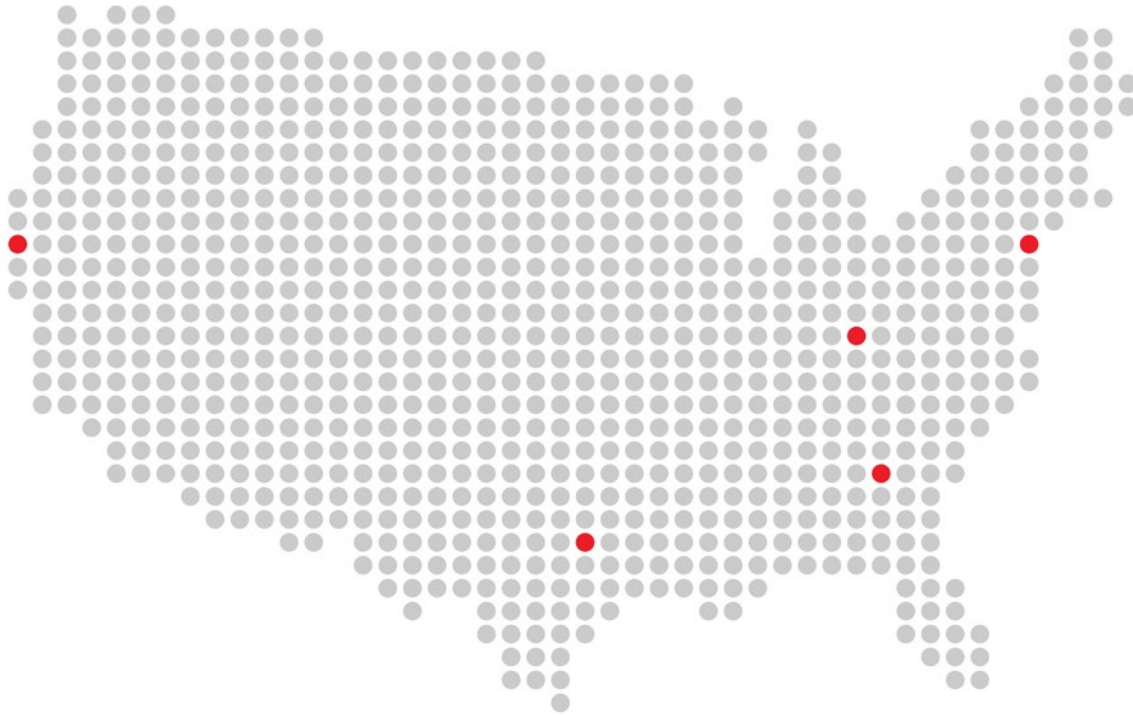
XMiner Size	Motor Power [HP]	Generic Dimensions [in]						Weight lbs.
		A	B	DBSE	E	K	Y	No motor
140e	150	16.77	17.01	8.07	35.79	38.98	40.79	3,650
150e	200	16.77	18.70	8.07	37.44	38.98	40.79	4,000
200e	300	22.17	24.09	12.96	51.81	54.45	55.47	6,200



Torque Arm [in]														
TA	TB (min/max.)	TC	TD	TE	TF	TG	TH	TI	TJ	TN	TO	TP	TQ	TR
27.15	28.9 / 30.47	4.72	6.30	51.18	4.72	2.76	90° ± 5°	90° ± 1°	10.25	5.50	3.50	13.50	52.71	10.25
27.15	28.9 / 30.47	4.72	6.30	54.00	4.72	2.76	90° ± 5°	90° ± 1°	10.25	5.50	3.50	13.50	52.71	10.25
37.50	38.9 / 40.87	7.09	9.45	73.26	7.40	5.12	90° ± 5°	90° ± 1°	12.00	6.75	5.75	17.00	72.80	12.00



Tunnel Adapter Dimensions [in]							
BB	CC	DD	EE	FF	GG	HH	LL
20.00	(8) 3/4"-10 UNC	14.00	28.00	18.00	16	3/4"-10 UNC	27.00
20.00	(8) 3/4"-10 UNC	14.00	28.00	18.00	16	3/4"-10 UNC	27.00
20.00	(8) 3/4"-10 UNC	16.50	33.00	18.00	16	3/4"-10 UNC	35.00



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