



KIRKWOOD
INDUSTRIES



Toluca, Mexico Facilities



Start Year of Operation: Kirkwood 1974
TCS 2006

Address:

Calle 4 Norte 100 Parque Industrial Toluca 2000, C.P 50233. Toluca de Lerdo, Estado de México.

Footprint: : 23,000 m2

Plant Manager: Gerardo Avila

Certifications: ISO IATF16949:2016

Markets Served:

- Kirkwood: Automotive, Home Appliance, Power Tools, Aerospace, AGV, Marine, Life style
- TCS: Automotive, Marine, Water pumps
- Flex Door: Automotive, Industrial, Logistic, Residential

Service Offerings:

- Tooling Design
- Manufacture, Repair and Maintenance for tooling
- Engineering Changes (ECN)
- Quality Lab

Capabilities:

- Rolling Mill Copper
- Stamping
- Punching
- Spot Wleding
- Heat Treatment
- Grinding
- CNC Lathes Turning
- Hobb Gear
- Screw Machine Multispindle
- Knurling and Thread

Product Experience:

- Steel and Mica Commutators for HD Starters,
- Molding Commutators for motors, pumps,
- Slip Rings for Alternator,
- Tang commutators for Home Appliance
- Heavy Duty, Light Duty Starter and Alternator Shafts
- Industrial Doors

Sales locations



100% COMPLETE DELIVERIES
100% DELIVERIES ON TIME
0% DAMAGED MATERIAL PER LOGISTIC

CUSTOMER IS OWNER OF ALL THE LOGISTIC PROCESS
CUSTOMER PICK UP THE MATERIAL IN OUR FACILITIES

USA

1. WISCONSIN
2. TRENTON
3. CLEVELAND
4. NEW YORK

MEXICO

1. CDMX
2. ESTADO DE MEXICO
3. SAN LUIS POTOSI
4. QUERETARO
5. TORREON
6. CIUDAD JUAREZ
7. NUEVO LAREDO
8. CIUDAD ACUÑA



Capabilities



MANUFACTURING COMMUTATORS, SLIP RINGS

Rolling Mill Copper
Stamping
Punching
Molding
Spot Welding
Assemblies
Cold forging

SHAFT MACHINING

Thread
Grinding
Knurling
Turning



ESP. PROCESS

COMMUTATORS, SLIP
RINGS
Molding

SHAFT MACHINING
Induction Heating



METROLOGY LAB

CMM
Roundness testers
Micrometers
Calipers
Durometer
Micro hardness
Comparator



TOOL ROOM

CNC Vertical machining
center
Wire EDM machine
EDM
Turning
Milling
Drilling
Grinding
Sharpener

Maintenance preventive

CERTIFICATIONS

AENOR
Confía



IATF 16949 Certificate



RA02-0003/2023
IATF: 0465309

AENOR certifies that the organization

KWD INDUSTRIAS S.A. DE C.V.
has a quality management system according to the IATF 16949:2016 Standard

At the following site of production: Calle 4 Norte Int. 100 B Col. Parque Industrial Toluca.- Toluca, Estado de México (México)

For the following activities: Manufacturing of components for motors, alternators, starters and electric generators for the automotive industry

Exclusion: Product Design

First Issued on: 2023-01-02
Validity date: 2026-01-01


Rafael GARCÍA MEIRO
Chief Executive Officer



AENOR INTERNACIONAL, S.A.U.
Génova, 6. 28004 Madrid, España
Tel. 91 432 60 00 - www.aenor.com



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Products



Shafts

- ALTERNATORS
- STATERS
- MOTORS
- PUMPS



Slip Rings

- ALTERNATORS



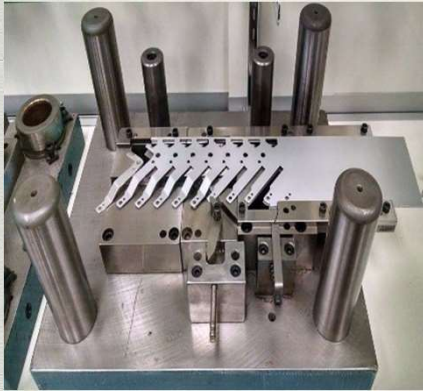
Commutators

- STARTERS
- MOTORS
- PUMPS

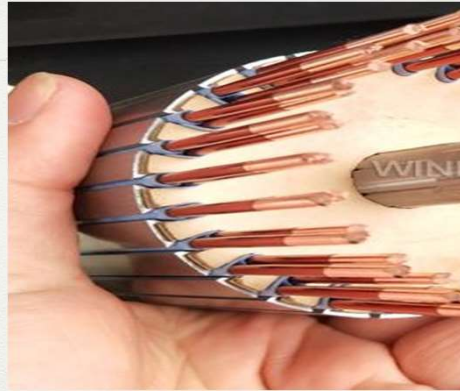
Machined Parts



Die-cut Parts



Hair pins



U retainers



Molding parts



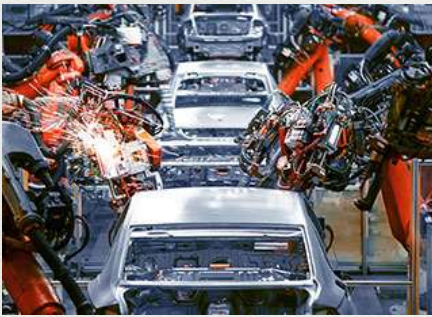


Cold Forging Products

- Coldmatic AKP 4-5
- The reliable coldformer for precision parts
- The Coldmatic AKP 4-5 five-station coldformer is the ideal machine for part sizes up to a diameter of 30 mm. Supported by a linear material feed, an extremely precise high-speed shearing station and the reliable part transfer system, the AKP 4-5 produces high-precision formed parts with a wide variety of geometries and materials.
All of this with an output of up to 160 parts/minute.
- Highlights
- Innovative touch screen machine controls
- Short conversion times, thanks to the Variblock quick-change system
- Very high production output (up to 160 parts/minute)
- Accurate transfer for complex part geometries
- Production in heated area up to 500° available as an option



Our apps



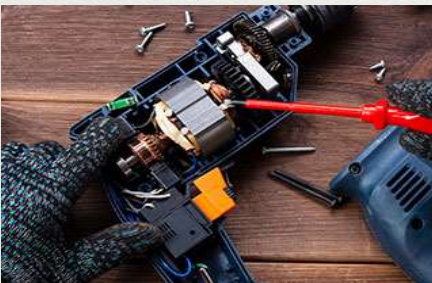
Automotive



Maritime



Aeronautics



Power Tools



Home Appliances



Motor Pumps



Applications

Heavy Duty





Applications

Light Duty





Commutators line



Steel and Mica Commutators

- We build a high quality mica and copper commutator. We use the best materials silver bearing copper and mica, that product are used for buses, heavy duty truck and aerospace app.
- 8000 RPM max.
- Comms characteristics:
 - ✓ Brush diameter max. 5.0 in
 - ✓ Bar length max. 3.75 in
 - ✓ Riser diameter 5.50 in
 - ✓ Overall Length 4.0 in



Molding Commutators

- We use our molding compound that is strong for high performance applications and quality for motors, pumps and trucks starters.
- 10,000 RPM max.



Slip Rings and Thermoset



Slip Rings

- We manufacture alternator slip rings for the automotive market and aftermarket, both domestic and foreign.



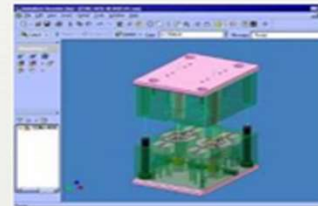
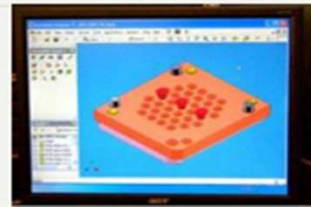
Thermoset Molding

- Our customers rely on Kirkwood molding compound as a trusted thermoset molder to provide thermoset molding expertise for product applications requiring protection against high operating temperatures, corrosive and electrical environments, and exposure to chemicals or fluids. Additionally, thermoset pot transfer molding is implemented within metal-to-thermoset or metal-to-plastic conversion projects, lightweighting efforts, and cost reduction and part consolidation of broader product assemblies.



Tool Room

Merik Group has the experience and expertise to provide the design and engineering required to ensure that parts and tools are being manufactured to the highest quality and produced at the optimum cost. We use CAD stations with the latest version of SolidWorks™, Inventor™ to provide design capabilities and a troubleshooting process before they become troublesome in production. Our Development Engineers partner with our customers to understand all aspects of the components function within the final application, APQP steps are applied routinely on every product development and PPAP's are issued to comply with our ISO/TS procedures.



Merik Group has invested on its in-house tooling facilities, to manufacture molding and stamping dies, fixtures, etc. that will be used in new products, as well as preventative maintenance to every tool. Among others there are precision mills, lathes and grinders. We also count on sophisticated equipment such as EDM (Electrical Discharge Machining) and CNC machining center, mills and lathes.

Provides:

1. Dies and tools
2. Design
3. ECO
4. Preventive maintenance
5. Corrective maintenance
6. Spare parts
7. Several machining devices

Metrology lab capabilities

We have a metrology laboratory equipped with accurate measuring devices as well as laboratory technicians with more than 5 years experience in the site

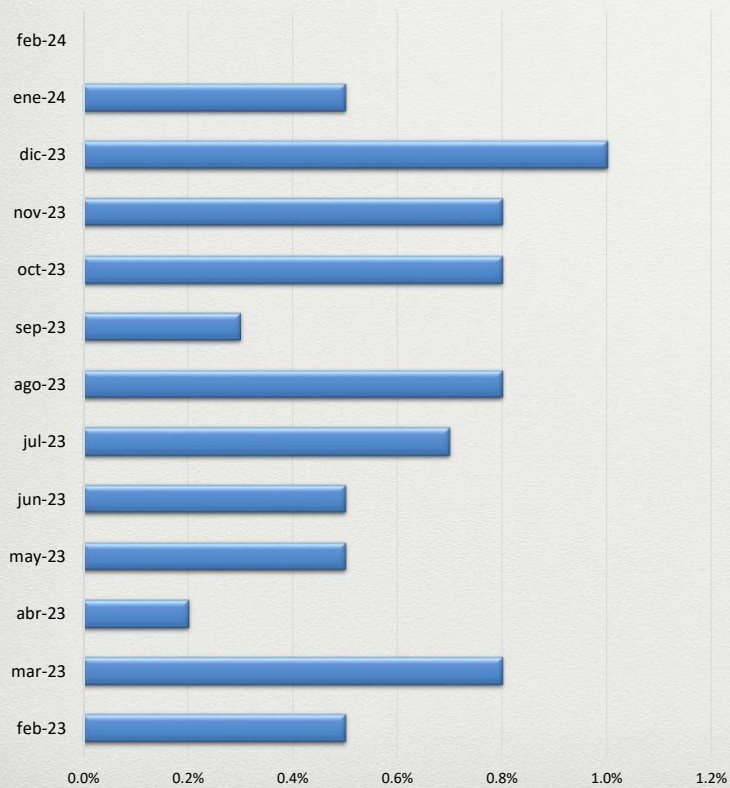


Current product dimensions

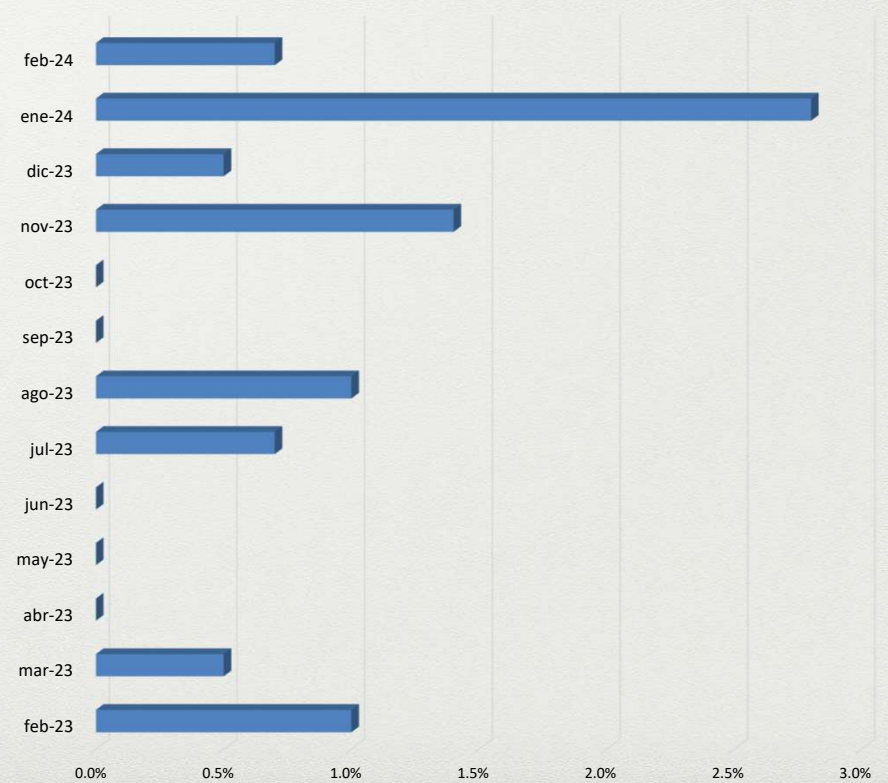
PART. No.	No. BARS	C	B	B1	F	D1	D2	A	E	W	X	M	G	H	K
		BRUSH DIA	BORE	COUNTER BORE/DIA	BAR LENGHT	FRONT EXT.	BACK EXT.	RISER DIA	OVERALL LENGHT	SLOT WIDHT	SLOT DEPTH	COUNTER BORE LENGHT	RISER WIDTH	FRONT EXT. WIDHT	BACK EXT. WIDTH
FM1455-13	13	1.250	0.405	0.528	1.140	1.213	1.200	1.320	1.470			0.323	0.177	0.165	0.118
FM511-14	14	1.750	0.745		1.187	1.375	1.375		1.25	0.074	0.155			0.031	0.031
FM511A-14	14	1.750	0.745		1.187	1.375	1.375		1.25	0.057	0.155			0.031	0.031
FM511B-14	14	1.750	0.745		1.187	1.375	1.375		1.25	0.064	0.155			0.031	0.031
FM511C-14	14	1.750	0.745		1.187	1.375	1.375		1.25	0.060	0.155			0.031	0.031
FM511G-14	14	1.750	0.681		1.187	1.375	1.375		1.25	0.057	0.156			0.031	0.031
FM511G-14S/R	14	1.750	0.681		1.188	1.375	1.375		1.250					0.031	0.031
FM511P-14	14	1.750	0.680		1.187	1.375	1.375		1.25	0.06	0.156			0.031	0.031
FM 28-21	21	2.010	0.614		1.825	1.700	1.475	2.600	1.95	0.109	0.29		0.275	0.031	0.062
FM1302-21CW	21	1.203	0.471		0.964	1.032		1.660	1.133	0.078	0.18	0.04	0.14	0.15	
FM1348-21	21	1.791	0.7406		2.11	1.654	1.654		2.346					0.118	0.118
FM2329-21L	21	1.345	0.380	0.849	1.150	1.325	1.230	1.869	1.260	0.110	0.200	0.494	0.224	0.078	0.032
FM377-21	21	1.295	0.650	0.87	0.812	1.187	1.236	1.750	1.362	0.09	0.187	0.57	0.17	0.48	0.07
FM377CH-21	21	1.295	0.607	0.87	0.812	1.187	1.236	1.750	1.362	0.091	0.187	0.57	0.187	0.48	0.07
FM 1769-23	23	1.625	0.611		1.7	1.375			1.76					0.062	
FM1348-23	23	1.791	0.668		2.11	1.65	1.65		2.344					0.12	0.12
FM1348A-23	23	1.825	0.668		2.11	1.65	1.65		2.344					0.12	0.12
FM1969-23	23	1.436	0.61	0.618	1.40	1.25	1.25	2.060	1.525	0.083	0.30	1.00	0.203	0.094	0.031
FM1970-23	23	1.506	0.611	0.618	1.500	1.312	-	2.092	1.563	0.083	0.286	1.000	0.230	0.062	-
FM1970A-23	23	1.506	0.611	0.618	1.500	1.312	-	2.092	1.563	0.105	0.286	1.000	0.203	0.062	-
FM1970B-23	23	1.506	0.611	0.618	1.500	1.312	-	2.092	1.563	0.110	0.286	1.000	0.203	0.062	-
FM2282-23L	23	1.7	0.621	0.634	1.250	1.531	1.375	2.39	1.343	0.130	0.332	0.906	0.203	0.062	0.031
FM85-23	23	1.578	0.5485		1.5	1.375		2.015	1.562	0.106	0.2		0.203	0.062	
FM85A-23	23	1.394	0.611		1.5	1.375		2.015	1.562	0.1065	0.2		0.203	0.062	
FM85B-23	23	1.578	0.0507		1.5	1.375		2.015	1.562	0.1065	0.2		0.203	0.062	

STRONG PEOPLE CULTURE

ABSENTEEISM < 1%



ROTATION < 1%





Customers



CONTACT

Sales.kwd@kirkwood.com.mx

customerservices@kirkwood.com.mx

[PHONE: +52 \(722\) 265 75 00 ext. 7951](tel:+52(722)2657500ext.7951)

[MOBILE: +52 \(722\) 571 30 54](tel:+52(722)5713054)

Спасибо Gracias شكر
Grazie Ευχαριστώ Dank U
Dziękuję Ευχαριστώ Danke
Merci Thank You
Danke Ngiyabonga
Grazie Dank U
Diolch Thank You
Obrigado Ευχαριστώ Danke
Tack Ngiyabonga
Dank U Diolch Thank You
Terima Kasih Diolch
Grazie Merci
Danke Ευχαριστώ
Diolch Gracias Merci Dank U
Tack Ευχαριστώ