



Fortis Machine Products Co., Ltd.

Fortis Technologies, S. de R.L. de C.V.

Professional Power Tool & Automotive Components Manufacturer



Precision Machined Parts • forgings • Assemblies
Custom Engineered Solutions

FORTIS GROUP VISION

Overview

“Always a Solution Ahead”

Business Definition

Fortis is a trusted producer of mission-critical component and sub-assemblies for integration into world-class products that benefit humanity. We focus on growth of precision machining, cold forging, and assembly of products for OEMs in North America, Asia, and Europe.

Value Shift

Our people and community are our most valuable resources. Quality is important in everything we do. We leverage key trends in manufacturing: data driven technology, automation, innovation that is software inspired; “hassle-free” customer experience; higher productivity; and flexible customer business models.

Value Leadership

We serve our customers with the best total value by providing innovative designs, proprietary assembly solutions, 6-Sigma quality execution, speed to market, advanced problem-solving processes, world class delivery systems and channels, and a global footprint.

Growth Plan

We will grow our core business, embrace our rich brand heritage, and develop emerging global markets, while diversifying our business into complex assemblies, medical products, and adjacent markets through organic expansion and acquisition.

FORTIS GROUP MISSION & VALUES

MISSION

Produce precision machined components and assemblies which require custom engineered solutions that provide customers high value from our supply chain.

CULTURE

“A PATTERN OF BELIEFS, VALUES, AND EXPECTATIONS THAT ARE SHARED BY ALL MEMBERS OF FORTIS GROUP.”

FORTIS GROUP MISSION & VALUES

MISSION

Produce precision machined components and assemblies which require custom engineered solutions that provide customers high value from our supply chain.

VALUES

FOCUS: Our highest priority is to satisfy our external & internal customers.

TEAMWORK: We encourage each Associate to achieve maximum individual potential as an empowered team member.

SPEED: We strengthen our competitive advantage by simplifying processes & compressing cycle times.

INTEGRITY: We expect our Associates to meet personal commitments & deal with facts.

PERFORMANCE: We coach our Associates to set ambitious goals & meet our high expectations including financial commitments.

ALLIANCE: We share technologies & best practices in a team approach with our suppliers.

CREATIVITY: We utilize engineering talent to create innovative designs, invent new techniques, & reduce cost.

FORTIS GROUP STRATEGIC INITIATIVES & GOALS

STRATEGIC INITIATIVES

Grow global revenue & profitability through organic expansion of Fortis' "share of wallet" at Top 3 customers; while diversifying customer base by marketing current products & unique capabilities.

2024 GOALS

- Achieve financial breakeven in Monterrey – real gross margin must cover expenses.
- Win Marmon Foodservice business & introduce Fortis to other Marmon Holdings' Divisions.
- Focus on Assembly business development by North America Leadership Team.
 - ✓ Build world-class showcase work cells & achieve ISO certification.
 - ✓ Reach proposal phase for gearbox assembly.
- Capture global Sango business.
- Introduce Fortis Group to Exhaust System OEMs in Japan.
- Explore Exhaust System OEM business in North America.
- Implement Productivity Initiatives in manufacturing bases.
 - ✓ Automation & robots.
 - ✓ Work sampling (Utilization).
 - ✓ 5S & safety.
 - ✓ World-class factories with Fortis Group "Feel".
- Attend Design & Contract Manufacturing (d2p.com) trade show in Novi, MI (6/19-6/20/24).
- Certify Nantong factory for Sango parts manufacturing.
- Explore options of delivering products from China to North America in case of disruption.
- Evaluate feasibility of investing in powder metal forming & sintering technology & production.

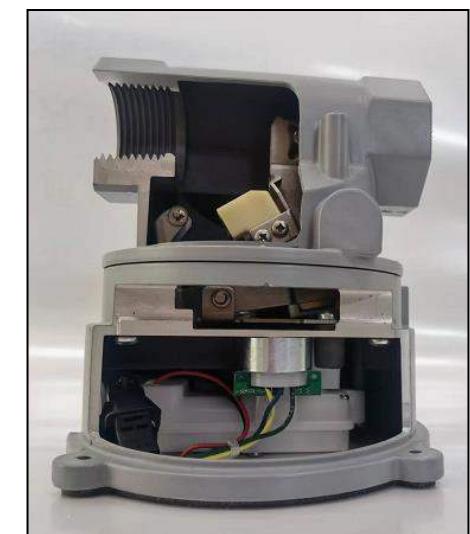
BUSINESS OVERVIEW

FORTIS MANUFACTURING SOLUTIONS

Precision Machined &
Cold Forged Parts

Precision Assemblies
Gear Box & Sub-assy

Custom Engineered
Solutions



UNIQUE SELLING PROPOSITION

- Full-service Supplier
- Superior Quality
 - ✓ ISO 9001:2015 & IATF16949:2016
 - ✓ Emphasis on repeatability & reproducibility; 6-Sigma tools
- Global Footprint
 - ✓ Operations in China & Mexico, US HQ
 - ✓ Flexible & adaptable plant layout in response to customer needs
 - ✓ LCP for parts & assemblies
- Supply Chain Management
 - ✓ Experience in global logistics support
 - ✓ Continuous supplier development
 - ✓ Kan-ban systems
 - ✓ 24/7 operation
- Other Process
 - ✓ 14 years of cold forge process experience
 - ✓ 19 years of investment casting process experience
 - ✓ 11 years of powder metallurgy process experience
- Long-Term Customer Focus
- Cost-down Solutions
 - ✓ VE/VA capability
 - ✓ Mfg. engineering support



CAPABILITIES

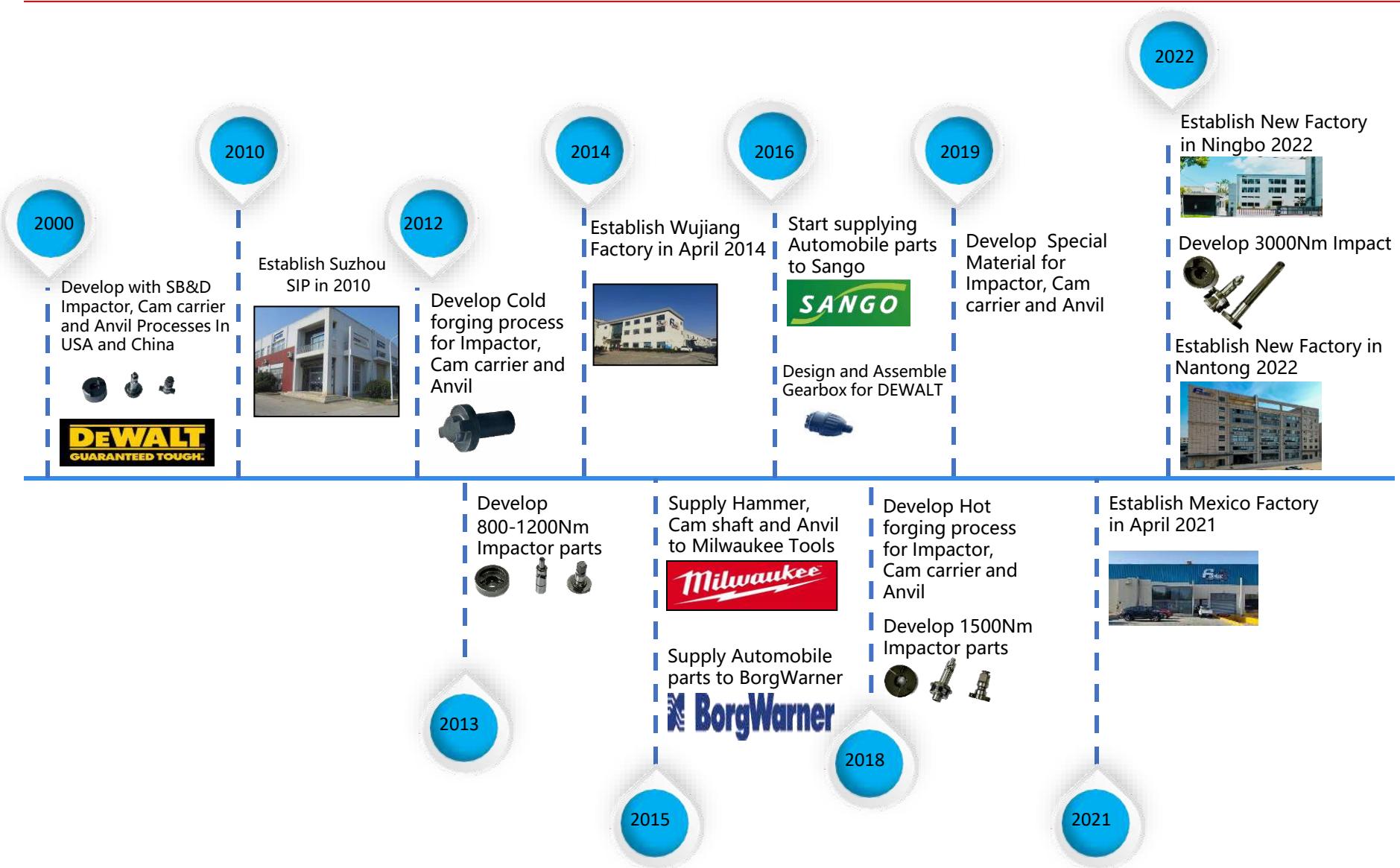
- Precision Assembly
 - ✓ Advance Product & Quality Plan
 - ✓ Design & build assembly cells
 - ✓ Pockets of Automation
 - ✓ Full Automation
 - ✓ Mistake-proofing
- Precision Parts Machining
 - ✓ Multi-axis CNC Turning
 - ✓ Milling and Hard Turning
 - ✓ High Speed Machining Centers
 - ✓ Grinding and Shot-peening
 - ✓ Lapping, Polishing, Honing
 - ✓ Ultrasonic Cleaning
 - ✓ Multi-axis Swiss machining
- Custom Engineered Solutions
 - ✓ New Product Design, Feasibility, and Development
 - ✓ Mistake-proofed & Computerized Assembly Cell Design and Build
 - ✓ Prototype and Proof-of-concept
 - ✓ Fixture Design and Build
 - ✓ Leak Test Design and Build
 - ✓ Impactor Tool Gearbox Durability Test Design and Build



GLOBAL FORTIS GROUP FOOTPRINT



OUR DEVELOPMENT HISTORY



FORTIS GROUP OPERATIONS

Since 1950, FORTIS products and services have been solving difficult manufacturing problems. The intention of FORTIS was, and still is, to be an innovative full-service company that addresses the complex and precise manufacturing requirements.



- Extensive experience in manufacturing and manufacturing Technology.
- Flexible and multidisciplinary teamwork.
- FORTIS Group employs 500+ Associates.
- Ingenuity and willingness to go beyond customer expectations.
- Global manufacturing space of 50,000+ square meters.

FORTIS GROUP - WUJIANG

Precision Machining & Assembly Operations (Product Launch & Low-volume/High Mix Production)



FORTIS GROUP - WUJIANG

Precision Machining & Assembly Operations (Product Launch & Low-volume/High Mix Production)



FORTIS GROUP - NINGBO

Cold Forging & Precision Machining Operations



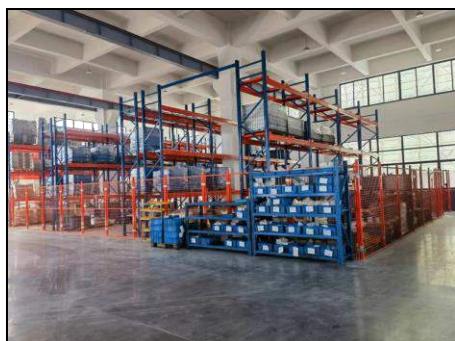
FORTIS GROUP - NINGBO

Cold Forging & Precision Machining Operations



FORTIS GROUP - NANTONG

Precision Machining Operation



FORTIS TECHNOLOGIES MONTERREY, MEXICO

Started Investment on New Factory in Monterrey, Mexico in November 2021.

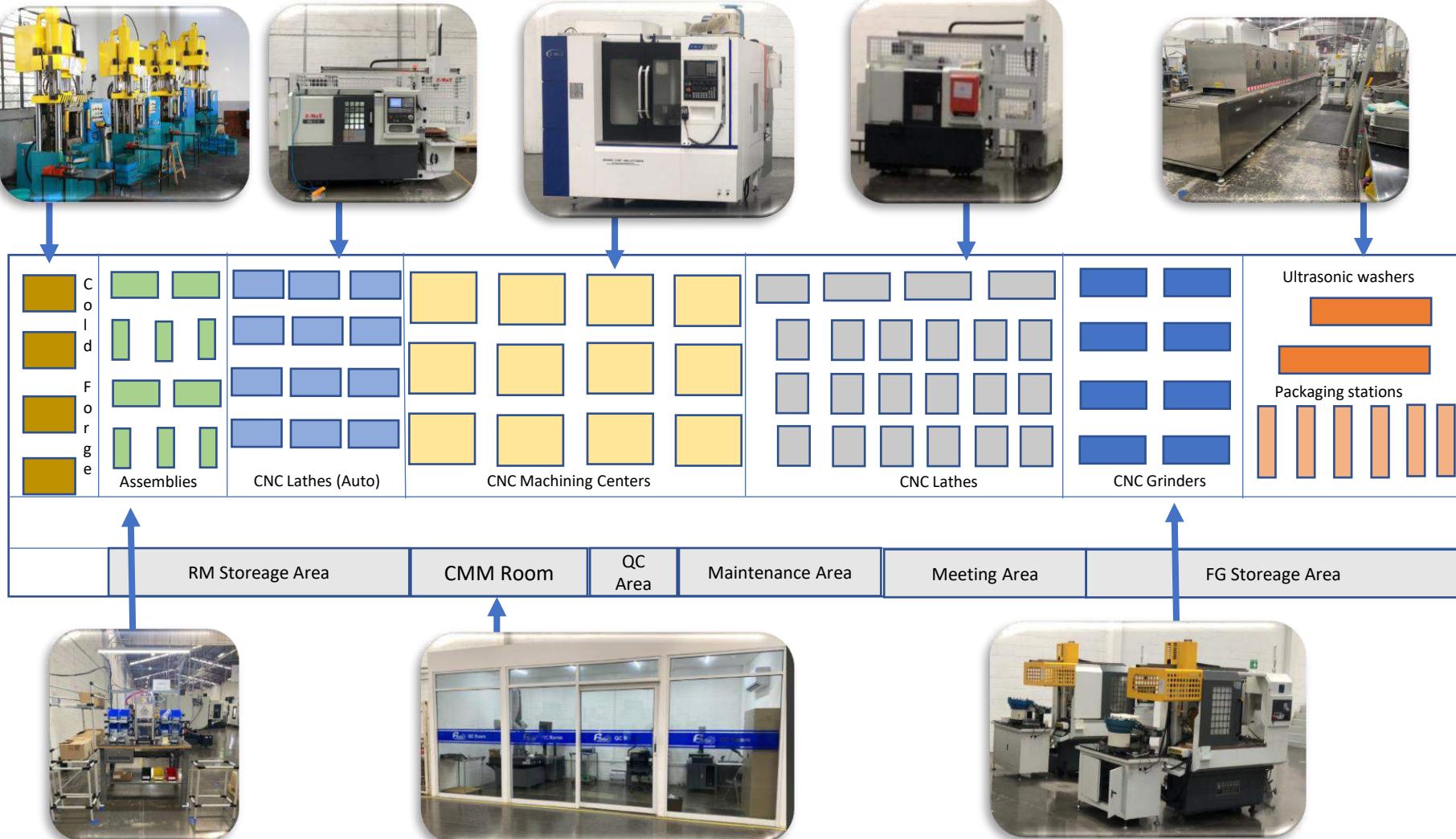
- Fully-owned subsidiary, not a Shelter operation
- IMEX certified
- VAT exempt
- Precision CNC Machining & Assembly
- New factory and High Precision Machines
- Managed by experienced Mexican nationals
- Production started in September 2022



SB&D-Fortis NA Localization Project Update

- Site and building study - January 2020
- Appoint Mexican General Manager – November 2020
- Legal entity established - June 2021
- Machines for Phase I arrived - November 2021
- Machines installed and training started - December 2021
- Fortis obtained IMMEX and PROSEC - Mid 2022
- SBD Supplier QA audit, and system test complete – Q3 2022
- Production pilot complete - July 2022
- Phase 1 production launch – September 2022
- Phase 3 Machines arrived - January 2023
- Mexican employees trained in China for phase 3 - Q2 2023
- Phase 2 approved for Outkast and Lil Jon - Q3 2023
- Approved 6 Chinese engineers for Monterrey rotating assignment
- Additional 10 lathes, 4 machining centers, and 4 forging presses scheduled for Monterrey

FORTIS MONTERREY MACHINE LAYOUT



FACTORY FLOOR WITH MACHINES



MACHINES IN MONTERREY



C N C
Lathe



C y l i n d r i c a l
grinder



Centerless
grinder



U l t r a s o n i c
cleaner



A u t o m a t i c
C N C L a t h e s



S h o t p e e n i n g

MACHINES IN MONTERREY



Cylindrical
grinder



CNC CENTER

QC/METROLOGY LABORATORY



Hardness
Tester



Ultraviolet
Light



Smart
Scope



CMM

MACHINES IN MONTERREY



A s s e m b l y
L i n e



C N C
C e n t e r s



C N C
L a t h e s



MACHINES IN MONTERREY

Precision Machining Operation



ADDITIONAL MACHINES FOR MONTERREY AT WUJIANG



ADDITIONAL MACHINES FOR MONTERREY AT WUJIANG



ADDITIONAL MACHINES FOR MONTERREY AT NINGBO



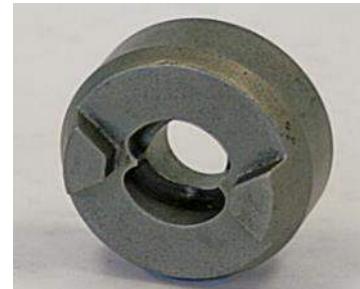
Localization of New Projects in Monterrey

Name of the Project: G2

G2 Cam Carrier
N408020



G2 Impactor
N408022



G2 Anvil
N415589



N408020-C2D1.pdf

N408022-C2D1.pdf

N415589-C2D1.pdf

Localization of New Projects in Monterrey

Name of the Project: HB2

HB2 Cam Carrier
N863617



N863617-C2D1 V3.2.pdf

HB2 Impactor
N863613



N863613-C2D1 V3.3.pdf

HB2 Anvil
N900940



N900940-C2D1 V4.3.pdf

HB2 Anvil
N911955



N911955-C2D1 V4.3.pdf

Localization of New Projects in Monterrey

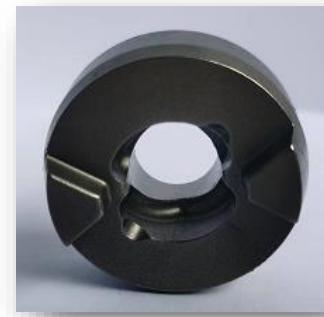
Name of the Project: Lil Jon

Lil Jon Cam Carrier
NA239782



NA239782-C2D1 V0.10.pdf

Lil Jon Impactor
NA239796



NA239796-C2D1 V0.12.pdf

Lil Jon Anvil
N799730



N799730-C2D1 V4.2.pdf

Localization of New Projects in Monterrey

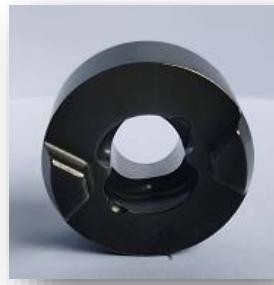
Name of the Project: Outkast

Outkast Cam Carrier
N875004



N875004-C2D1 V2.3.pdf

Outkast Impactor
N875007



N875007-C2D1 V2.3.pdf

Outkast Anvil
N799730



N799730-C2D1 V4.2.pdf

PRECISION MACHINED PARTS: EXAMPLES



Impactor: 200Nm .



Impactor: 300Nm .



Impactor400Nm .



Impactor: 700Nm .



Impactor: 1000Nm .



Cam shaft: 200Nm .



Cam shaft: 400Nm .



Cam shaft: 700Nm .



Cam shaft: 1000Nm .



Anvil



Anvil : 200Nm .



$\frac{1}{2}$ Anvil : 400Nm .



$\frac{1}{2}$ Anvil : 900Nm .



$\frac{1}{2}$ Anvil :700Nm .



Anvil :1000Nm .

OTHER PARTS FOR POWER TOOLS : EXAMPLES



Sleeve No 1: 200k/yr.



Anvil: 200k/yr.



Nut: 300k/yr.



Plate: 150k/year



Sleeve No2: 120k/yr.



CAMPACTOR CUP: 150k/yr.



LOCK,SPINDLE: 200k/yr.



SECONDARY GUIDEPOST:
300k/yr.



Shaft: 150k/yr.



Depth shaft: 170k/yr.



1/4 Collect No1 : 1600k/yr.



1/4 Collect No2: 100k/yr.



1/8 Chuck: 80k/yr.



Collect: 80k/yr.



Magazine Interface: 60/year

AUTOMOTIVE PARTS: : EXAMPLES



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020)



Powder metallurgy Process
(Material : PMZ4020Nb)



Powder metallurgy Process
(Material : PMZ4020Nb)



Hot forging Process
(Material : SUS430)



Powder metallurgy Process
(Material : PMZ4020Nb)



investment casting
(Material : SUS430)



investment casting
(Material : SUS430)



investment casting
(Material : SUS430)



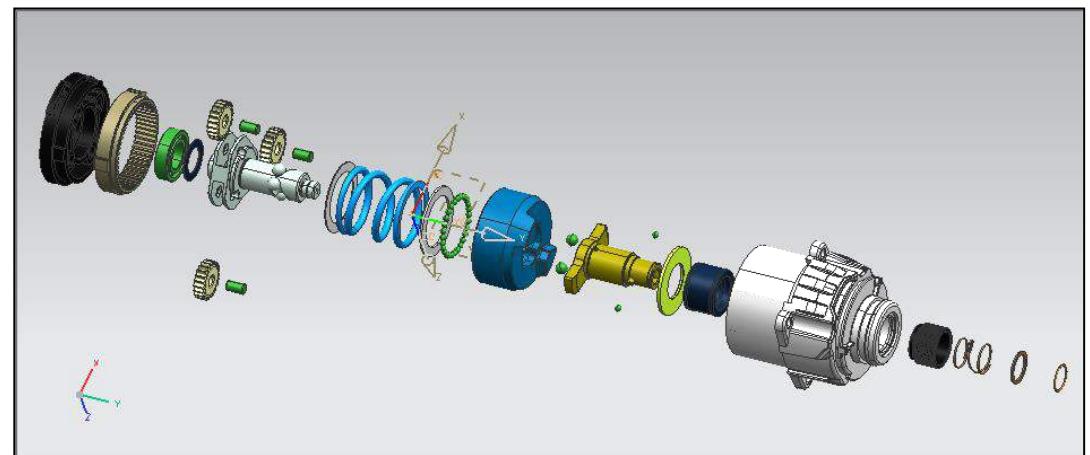
investment casting
(Material : SUS430)



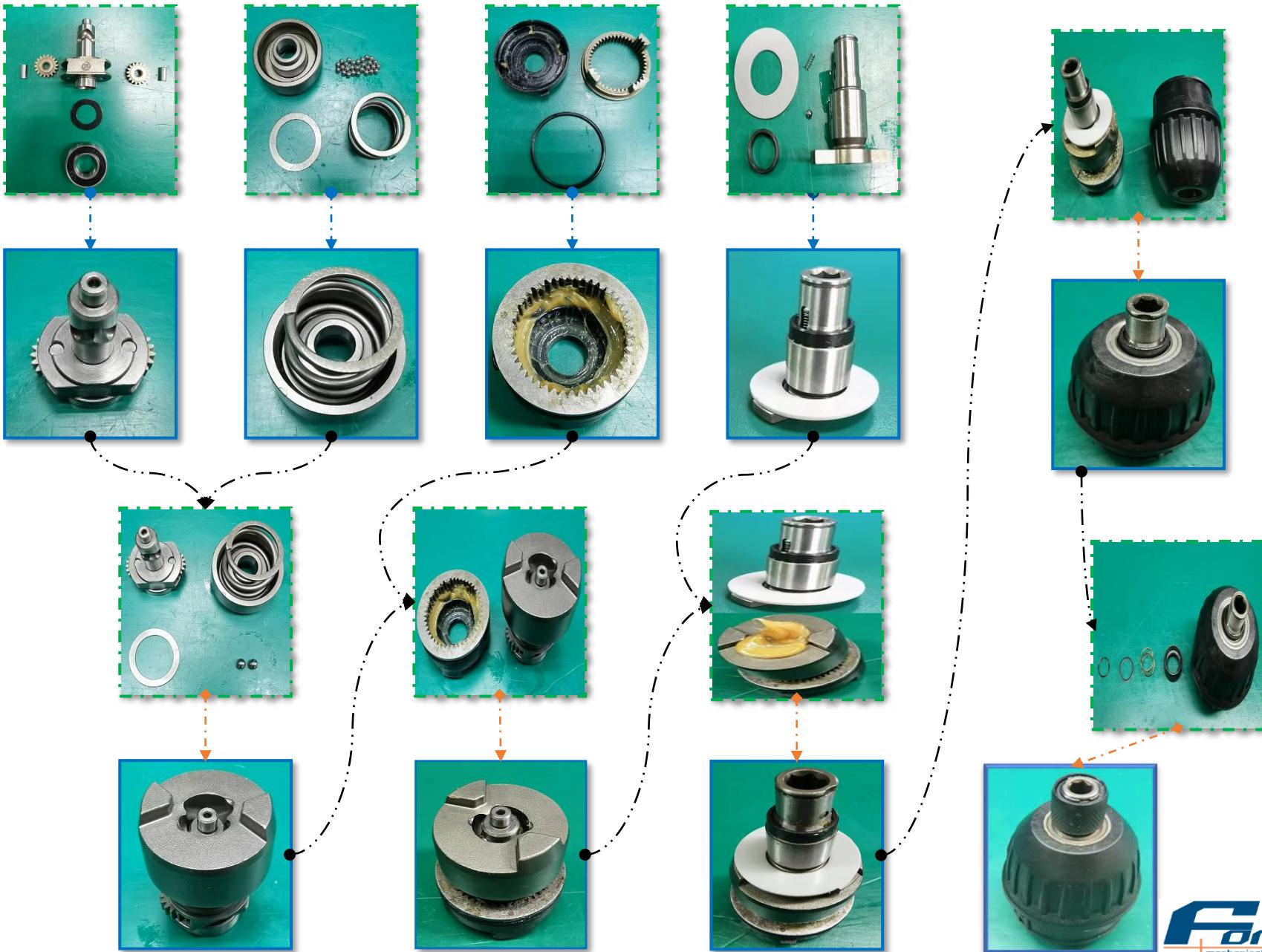
investment casting
(Material : SUS430)

IMPACTOR GEAR BOX ASSEMBLY

Components
details

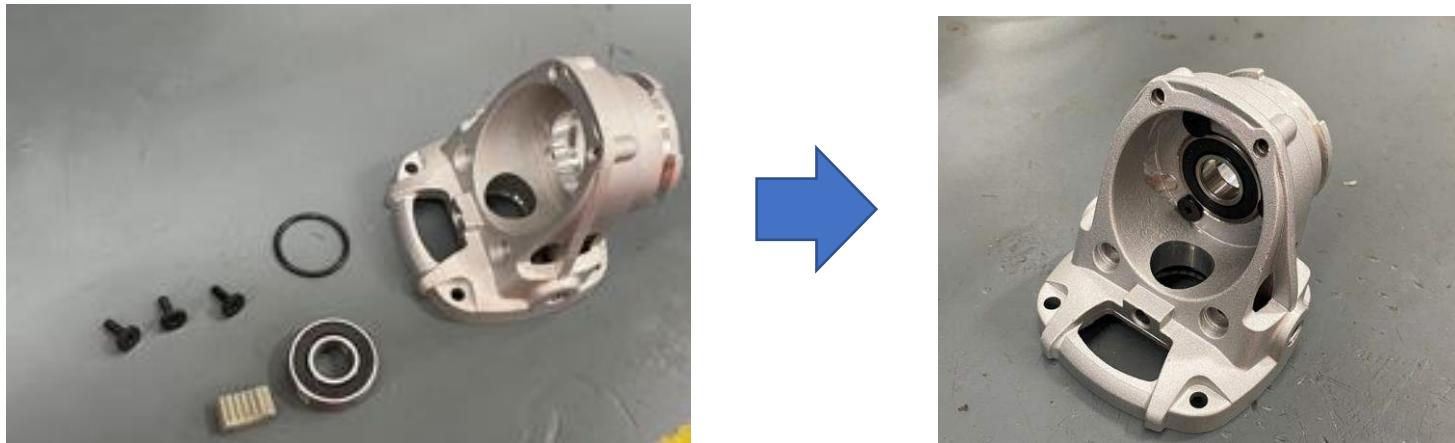


IMPACTOR GEARBOX COMPONENTS FLOW CHART



GEAR CASE ASSEMBLY

- Gear Case
 - NA401099
 - NA407131
 - NA407134



SUPPORT BRACKET ASSEMBLY

- Support bracket - roller
 - NA006123



RECIPROCATING SAW ASSEMBLY

- Reciprocating Saw

- N433743
- N433742
- N410611



HEDGE TRIMMER ASSEMBLY

- Reciprocating Saw
 - NA006704
 - N898290



ARVIN SANGO

- Localization: Sensor Boss O2

- G082
- J158
- J159
- J160



TTI - MILWAUKEE TOOLS

- Localization Project

- Wave 1: 7 parts
- Wave 2: 1 part (other parts replaced by Stubby)
- Wave 3: 9 parts
- Stubby

MET MEY Model	Iter	Old P/N	Rev	Proposal MKE Wave	New P/N	Rev	Quaote Volum	Part description	Pic.
2565	1	622578002 622578001	1	1	622578003	1	97,000	CAMSHAFT	
2565	9	621352232	3	1	621352232	3	6,544	ANVIL-1/2"DP	
2565	10	621352233	3	1	621352233	3	34,752	ANVIL-1/2" FR	
2565	15	693116096 693116069	1	1	693116121	1	92,000	HAMMER	
3453	20	621338104	3	1	621338104	3	415,811	Camshaft, 8620, OD 11.483mm/018620	
3453	21	621352294	4	1	621352294	4	599,908	1/4" Anvil SINGLE Ball	
3453	22	693116095	6	1	693116095	6	418,971	HAMMER, 8620 OD37MM/018620	



MET MEY Model	Iter	Old P/N	Rev	Proposal MKE Wave	New P/N	Rev	Quaote Volum	Part description	Pic.
2552	5	621338080	1	3	621338080	1	11,217	CAMSHAFT,20CRMNTI,OD11.483 /018256001	
2567/2569	6	622707001	2	3	622707001	2	298,237	3/8"ANVIL	
2566/2559 /2568	8	622070002	4	3	622070002	4	109,024	1/4"ANVIL	
2558	11	622114001	2	3	622114001	2	21,360	1/2"ANVIL	
2552	12	621352177	3	3	621352177	3	11,217	1/4" SQUARE ANVIL,20CR2NI4 /018298	
2552	19	693116080	2	3	693116080	2	11,217	HAMMER	

TTI - RYOBI

- Localization
 - Lugnut
 - Bushing



MARMON FOOD SERVICES

- Localization
 - Stainless Steel fittings & couplings



Beverage Dispensing & Ice Equipment

The world's leading supplier of beverage dispensing and ice equipment, tailoring systems to the most demanding environments to provide the perfect pour every time.

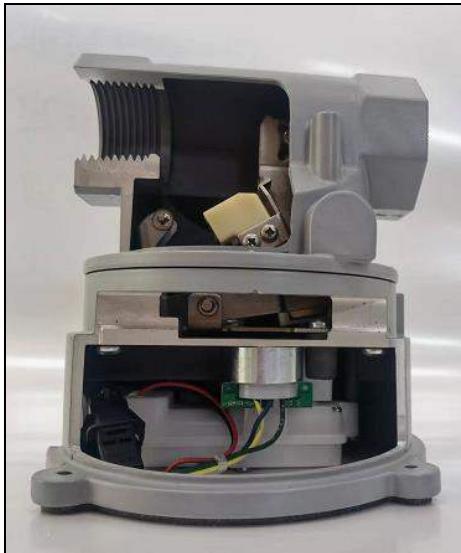
www.cornelius.com

CUSTOM ENGINEERING CAPABILITY

Fortis can develop the process and assembly line and determine process capability.

Fortis uses 5P process

- Planning
- Product Design & Development
- Process Design and Development
- Product and Process Validation
- Production



Gas Gate



Gear Box

GEAR BOX ASSEMBLY CELL

- Takt is balanced per station to allow single or multiple operators
- Can handle quick SKU changes in response to schedule changes
- Pockets of Automation & Mistake-proofing ensures good quality
- In-house product testing capability ensures reliability of gearbox
- OEE is better than fully-automated assembly



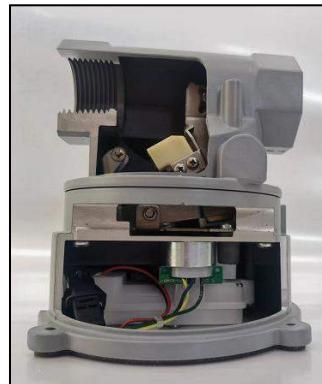
GAS GATE VALVE ASSEMBLY



Front



Side



ASSEMBLY CELL PANORAMA



Station 1

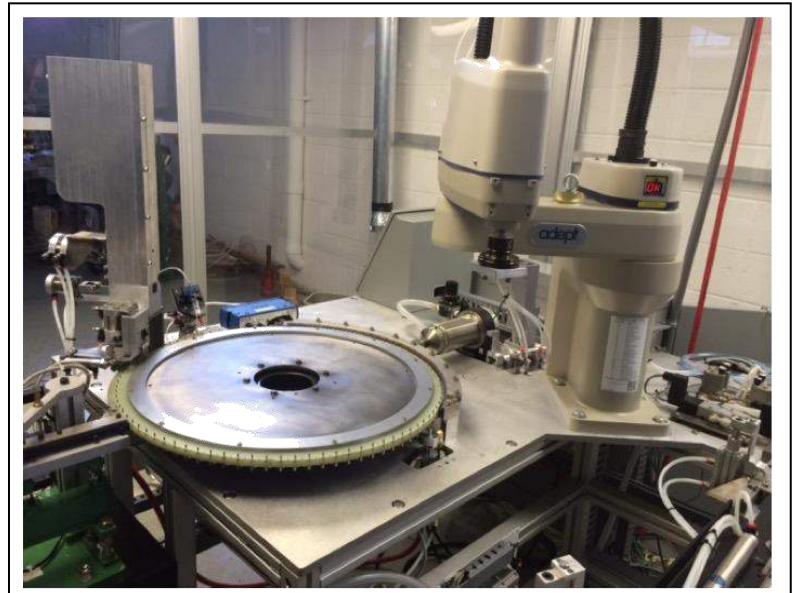
Station 6

- Good mistake proofing, driven by PFMEA
- Pockets of Automation
- Numerous real time metrics for efficiency and stabilization
- Great online work instructions
- Good visual que's

CUSTOM ENGINEERING CAPABILITY



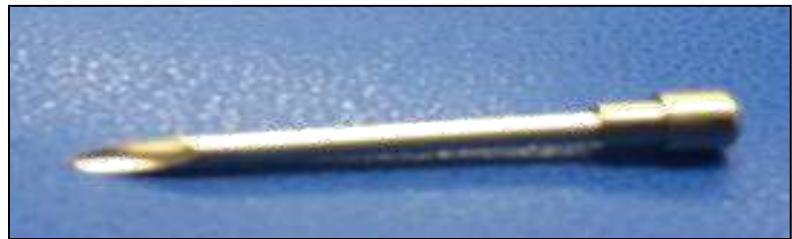
Clean Room for Medical Device



Automated Medical Needle Assembly Cell



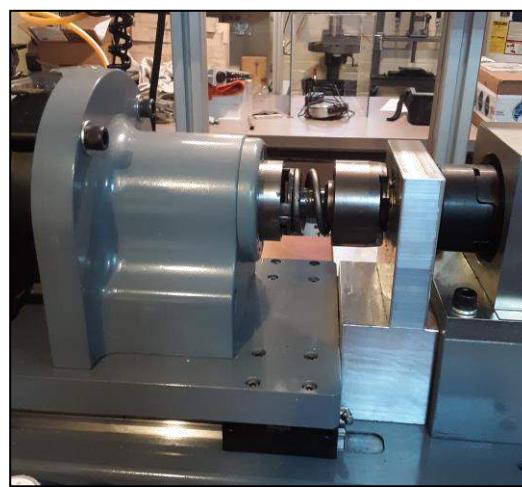
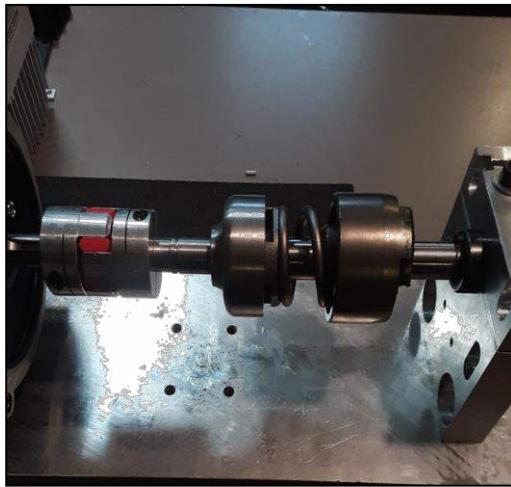
Medical Customer's Syringe with Needle



Assembled needle with Hub

CUSTOM ENGINEERING CAPABILITY

Fortis engineers developed a proprietary **Gearbox Durability Test Machine** to validate performance of **Impactor Tool** component parts during product development.



QUALITY IN OPERATION



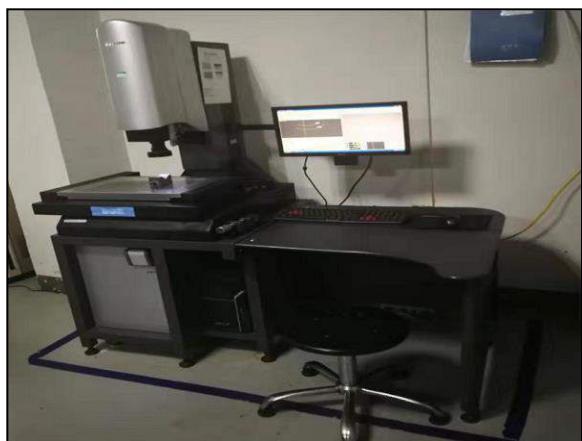
Lead Fly Series CMM



Roundness tester



Profile meter



Smart Scope (SP3020)



Vickers Hardness



Handheld XRF Spectrometer

ENGINEERED QUALITY

- Responsive engineering services
 - Design/models/prototypes
 - Full process development
- Employee participation in quality assurance
 - Quality is everyone's responsibility
 - State-of-the-art production facility combined with rigid quality controls standards results in:
 - + Close tolerances and fine finishes
 - + Repeatable quality and low PPMs
 - + Basis for developing and maintaining long-term relationships with key customers

QUALITY POLICY: "FORTIS and its subsidiaries are committed to achieving customer satisfaction by continual improvement of its manufactured products and services while maintaining the effectiveness of its Quality Management System and adherence to applicable standards and regulations."

CUSTOMERS & REFERENCES

Power Tools



Automotive



Other Industrial



FORTIS IS YOUR BEST PARTNER

- Proven record on mix-volume machined parts & assemblies
- Low-cost & affiliate material sources established
- Full-time global supplier development team
- Flexible workforce including 24/7 operation
- Production facilities in China and Mexico plus US (R&D)
- Global logistics & supply chain support
- Manufacturing engineering capability
- Experienced management team
- Have available capacity now
- Passed ISO 9001:2015 and IATF16949:2016 certifications

Thank You ! ! !