

SARRELMEX



*Top demand at elegance service*



# AGENDA





**Sarrel Group: group rol**



# SARREL

European Leader  
for electroplating on plastic parts

AUTOMOTIVE

HOME APPLIANCES

SANITARY

ELECTRONICS

PERFUMES

# Sarrel Group: General Figures



- Founded in 1959
- 3 international productive plants: France, Portugal & Mexico
- Around 1,000 employees
- Parts delivered in 30 countries all over the world
- 2023 Sarrel Group Turnover : 90 M€

For Sarrel Group, Quality of his products and excellence in his processes are a constant concern



ISO 9001



IATF 16949



ISO 14001

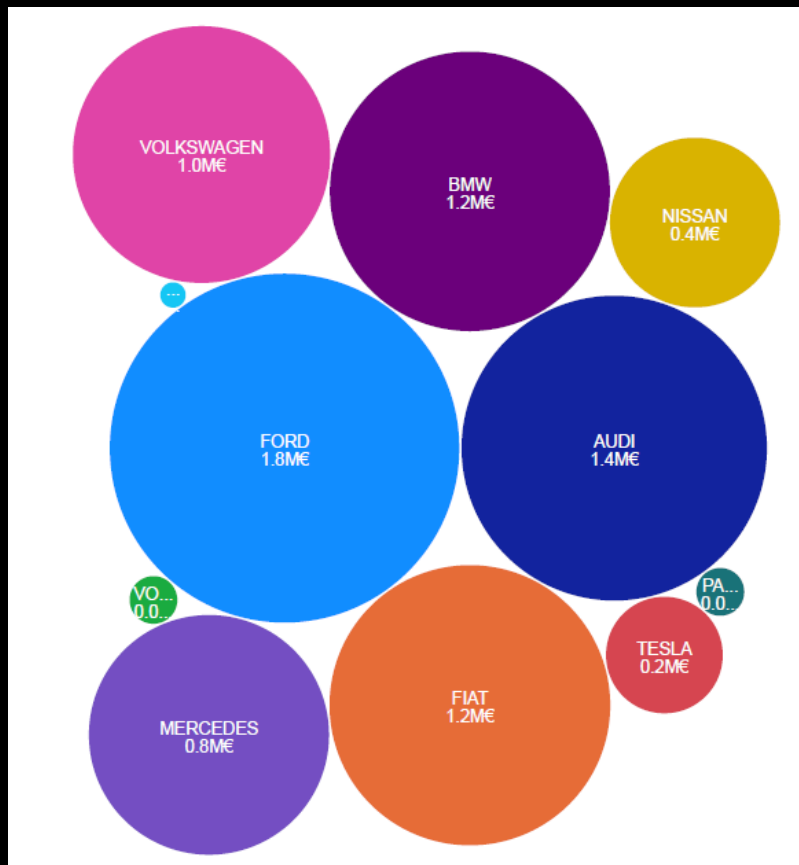


OHSAS 18001

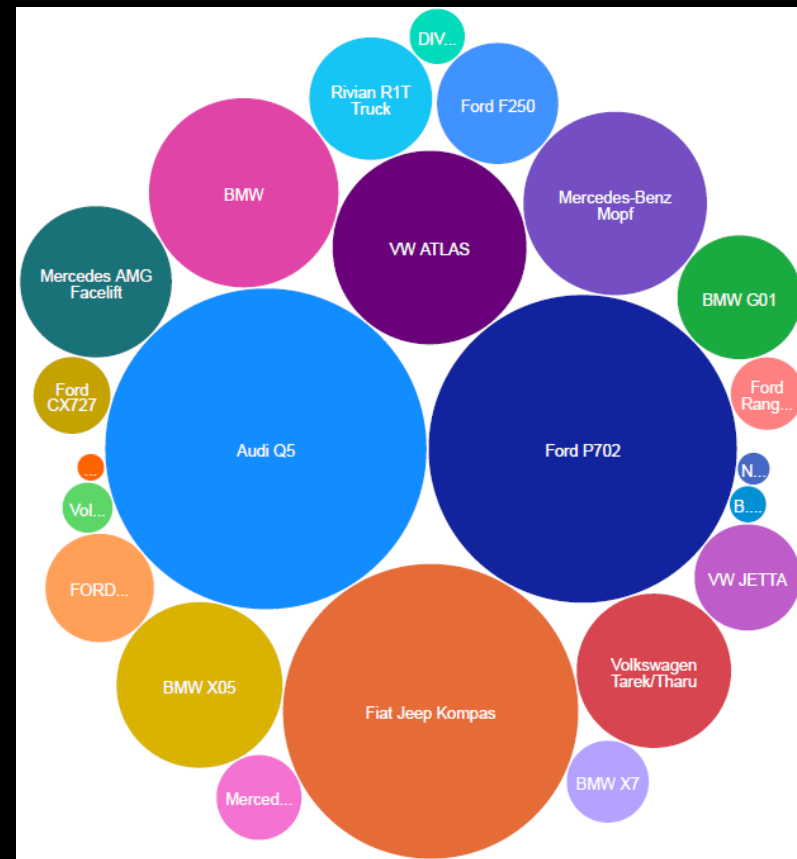


ISO 50001

Global TO 2023 SARREL Group: 80M€ - SARRELMEX TO 2023: 9M\$



SARRELMEX TO sharing per OEM



SARRELMEX TO sharing per vehicle



# Sarrel Group: International Presence



## INJECTION



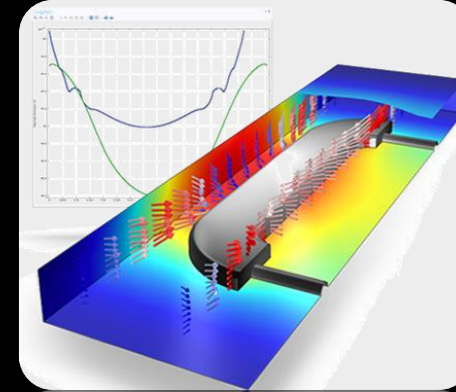
SARREL realizes the injection of parts to be plated thanks to its latest generation of equipment (Engel – KM) from 45T to 650T specialized on plastic injection from 1K o 2K materials specially designed for plating

## PLATING



- **SARREL** : capacity: 800,000 m<sup>2</sup>/year with 2 Chroming lines (350 employees)
- **SARRELIBER** : capacity: 800,000 m<sup>2</sup>/year with 2 Chroming lines (500 employees)
- **SARRELMEX** : capacity: 500,000 m<sup>2</sup>/year with 1 Chroming line (250 employees projected )

## SIMULATION AND CONTROL PROCESS OF PLATING



SARREL invested in simulation software for the plating process in order to anticipate thickness distribution according to orientation and quantity of parts and thus determine parameters to apply .

## PAINTING



SARREL Group enlarges its Surface treatment offer with various other applications:

- Resist painting before Chrome plating
- Top Coat painting or varnishing after Chrome plating process, on a saved área or directly on metallic coating .
- Tampo-printing

Depending on volumes to be produced, these paintings are applied manually or with robots.

## ASSEMBLY



Production, assembly and delivery of sub-assemblies is part of SARREL's know-how. Specialized machines are developed by our teams.

## METROLOGY

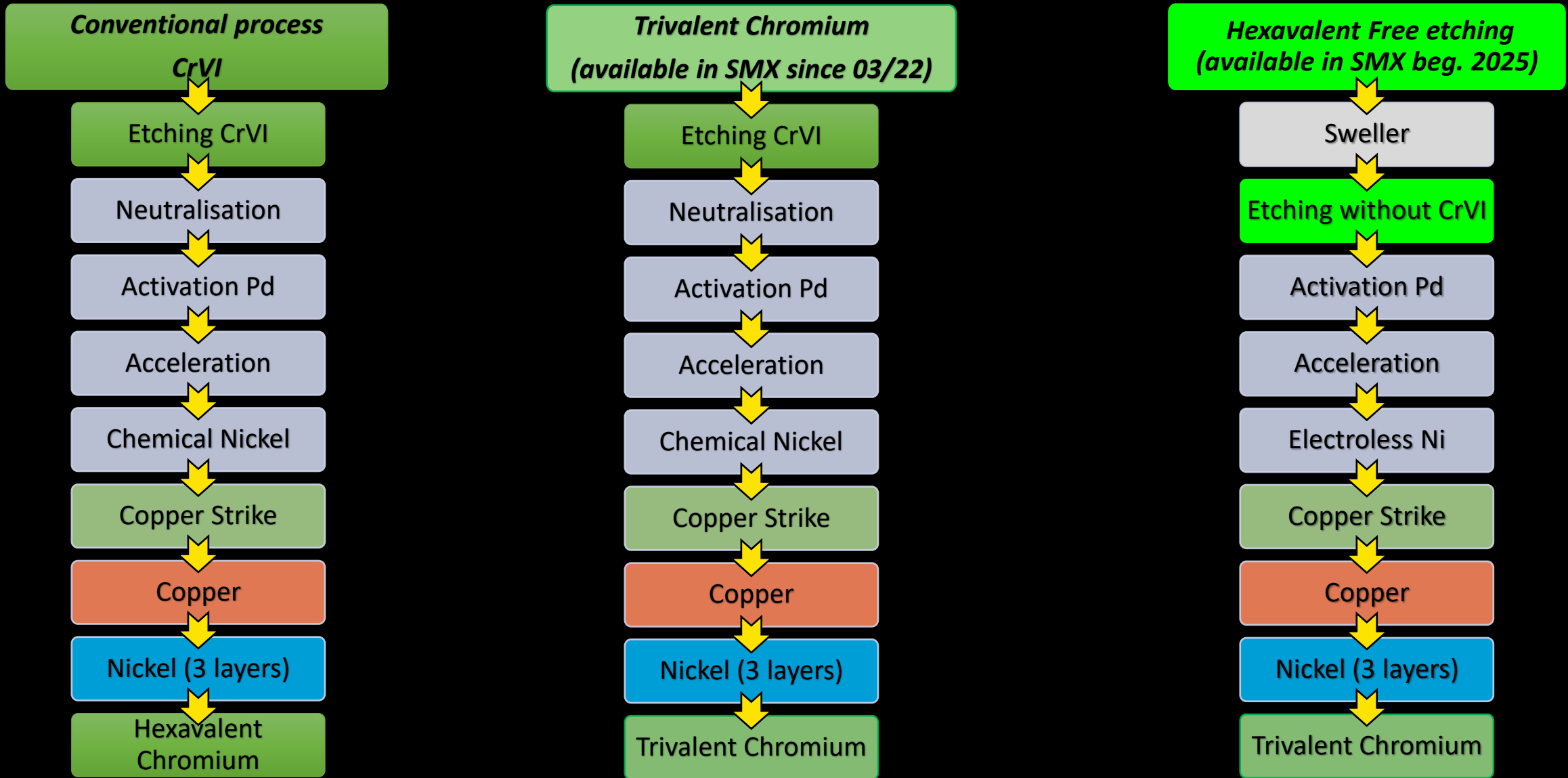


SARREL Group has Metrology equipment in each plant, from gages to tridimensional machine, including measuring laser arm. The measuring laser arm is ideal for Surface checking, model numerization, checking without contact, point cloud comparison with CAD model.





# Sarrel Group: Process evolution





# Sarrel Group: Finishings Portfolio

FINISHING	OEM	NAME
BRIGHT CHROME	BMW	Blue Chrome
	CHRYSLER	SZ0
	DAIMLER	7 F 24
	FIAT	CM600
	FORD	SM 300H
	GM	F-16K Z150 / Z80
	NISSAN	CR2P
	PSA	FVD M 001
	RENAULT	205. 179
	TOYOTA	11 CR 01
AUDI/VW	2ZZ	
CRYSTAL CHROME	FORD	SM 5077
	GM	F-90 R – W 756S – Galvano Silver
	MERCEDES	2A17 Silver Shadow
	PEUGEOT	HVV M041
	PORSCHE	GALV 09
	RENAULT	205.379 New real chrome
	ROVER	NOBLE CHROME
	SUZUKI	ZFG - CHROME MAT
	TOYOTA	11 CR 19
	VOLVO	SILK METAL
VW	3Q7	

FINISHING	OEM	NAME
SATIN CHROME	BMW	PERLGLANZ
	CHRYSLER	SATIN CHROME – SZ6
	DAIMLER	(7 J 22) – CHROM MATT III –
	CHRYSLER	2A11
	FIAT	CM604
	FORD	OPTIMUM ALUMINIUM SM 5029
	GM	F-63P
	PORSCHE	GALVANOSILBER 05 - GAL V05
	PSA	HVV M018
	RENAULT	205. 142
MAT CHROME	AUDI	BJ2
	FIAT	CM609 -ALLUMINIO (OPACO) VV-638/A
	FORD	SATIN CHROME / SATIN ALUMINIUM SM 322B
	GM	F-93K
	MITSUBISHI	CNH500 11 SILVER
	NISSAN	TK74
	VOLVO	CHROME BLASTED METAL

FINISHING	OEM	NAME
MATT NICKEL	FIAT	BEIGE VV-722
TRIVALENT BRIGHT CHROME	RENAULT	205 391 CHROME 3 MIROIR (ex-205 341)
TRIVALENT BRIGHT CHROME	RENAULT	205 391 CHROME 3 MIROIR (ex-205 341)
	PEUGEOT	TRIONIX BRILLANT HDX M001
TRIVALENT CRYSTAL CHROME	BMW	PEARL GREY
	PEUGEOT	TRIONIX CRISTAL HDX M041
TRIVALENT SATIN CHROME	BMW	STERLING GREY
	PEUGEOT	TRIONIX SATINE HDX M018
	RENAULT	205 342
BLUE CHROME (CRB microcracked + varnish)	RENAULT	215 161
SPLENDUR (CRB microcracked + varnish)	RENAULT	230.140
BRIGHT CHROME + BLACK VARNISH	PEUGEOT	BLACK CHROME FVG M001
BRIGHT CHROME + RED VARNISH	PEUGEOT	FREEZ BRUNDY HGF M056
BRIGHT CHROME + RED VARNISH	PEUGEOT	FREEZ BRUNDY HGF M056
BRIGHT CHROME + GREY VARNISH	PEUGEOT	CHROME ICE GREY
BRIGHT CHROME + PINK, RED VARNISH	PEUGEOT	CHROME CALIFORNIE
BRIGHT CHROME + LIGHT GREY VARNISH	PEUGEOT	CHROME BRONZE BELLEM

*\*Non exhaustive listing*



# Sarrel Group: Products Portafolio

## AUTOMOTIVE INTERIOR PARTS



## AUTOMOTIVE EXTERIOR PARTS



## HOME APPLIANCES & SANITARY



# Sarrel Group: Direct and Indirect Customers

## T1 CUSTOMERS

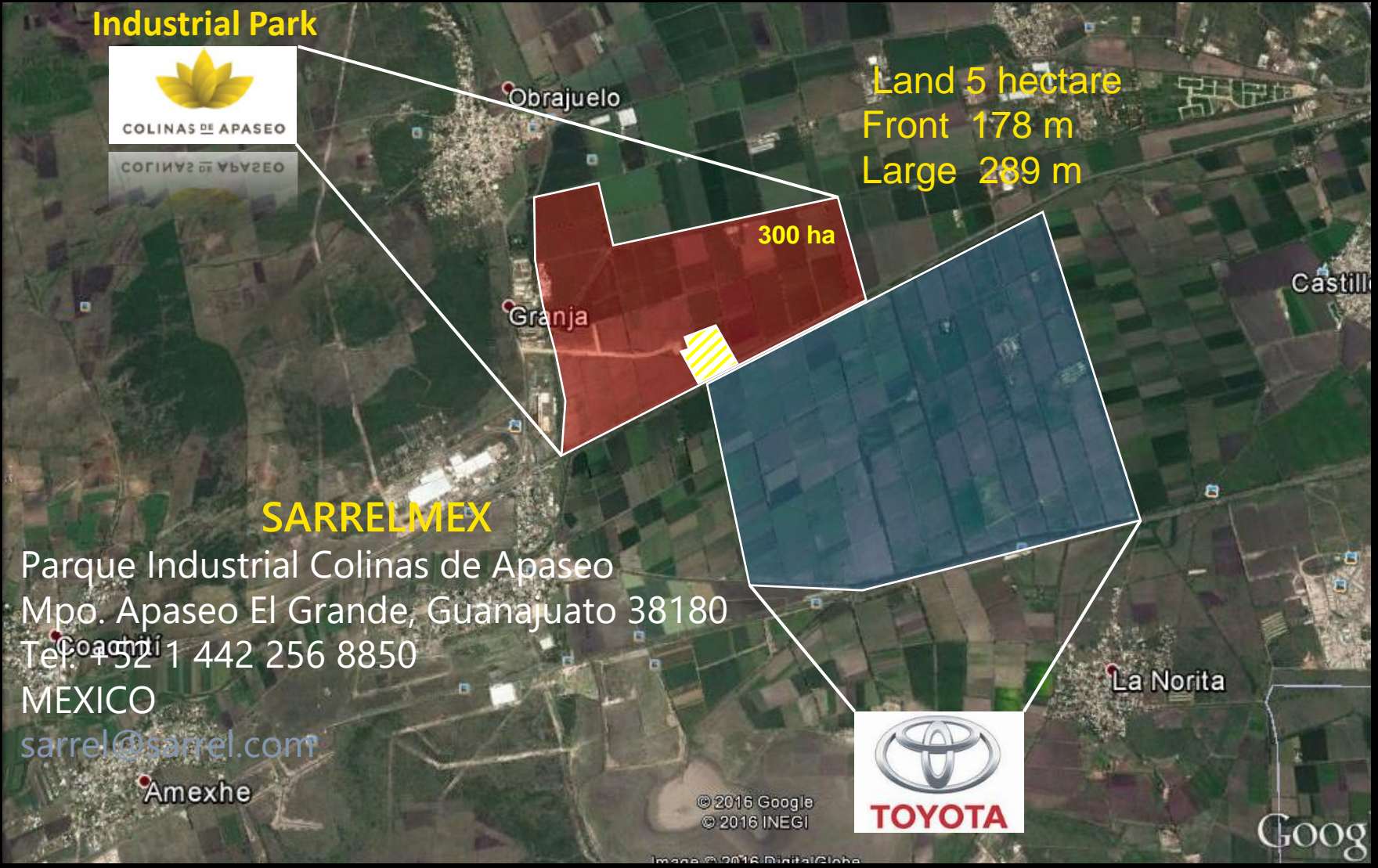


## OEM





# SARRELMEX: Location and general information

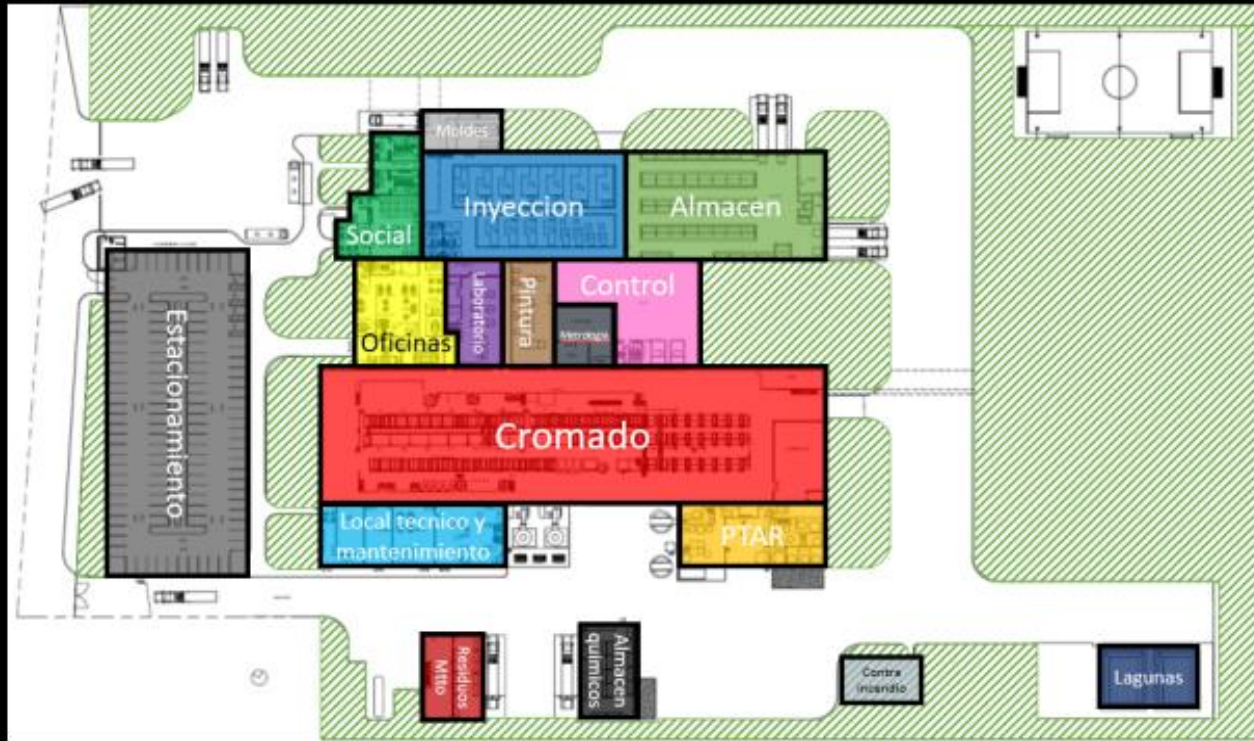


First Stage investment (2016-2023):  
 30 MUSD / 250 employees  
 1 Chroming Line  
 Projected Sales : 20 MUSD

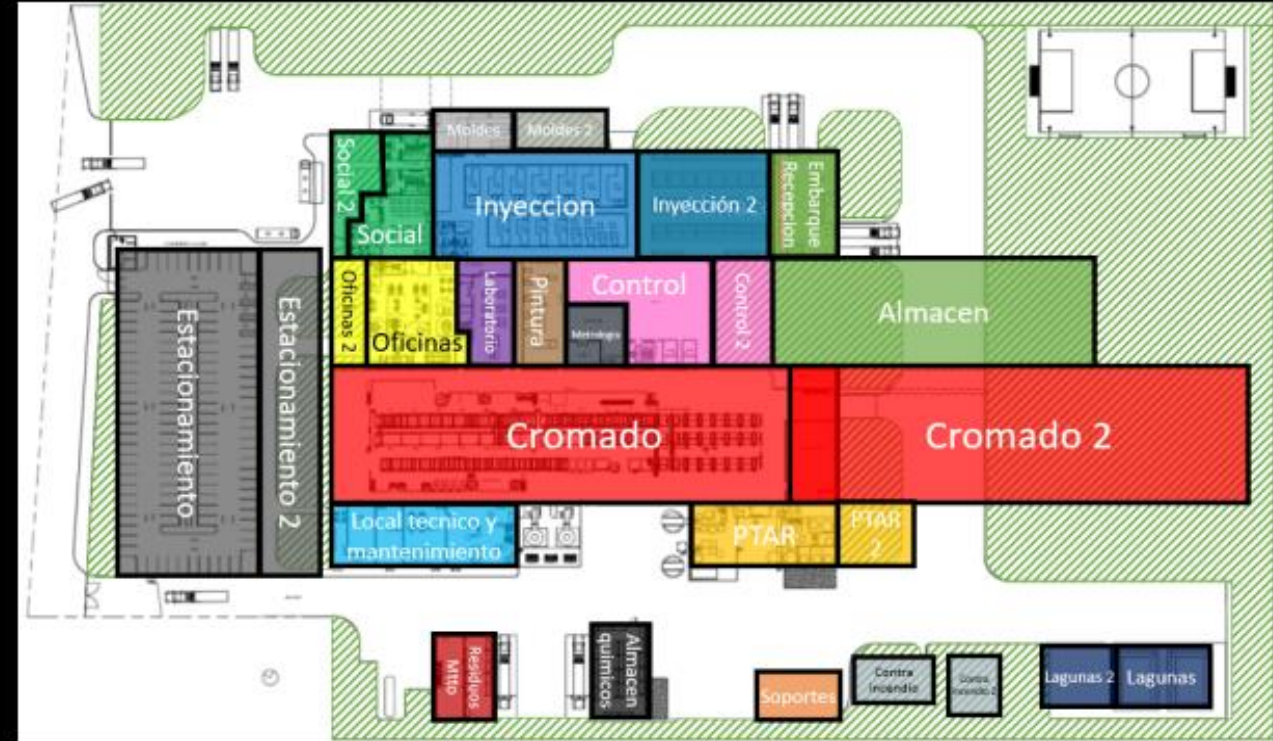
Second Stage investment (2024):  
 20 MUSD + 260 additional employees  
 1 additional chroming Line  
 Total Projected Sales: 40 MUSD



# SARRELMEX: General lay-out and projected growth



**1<sup>st</sup> Stage Lay-Out**



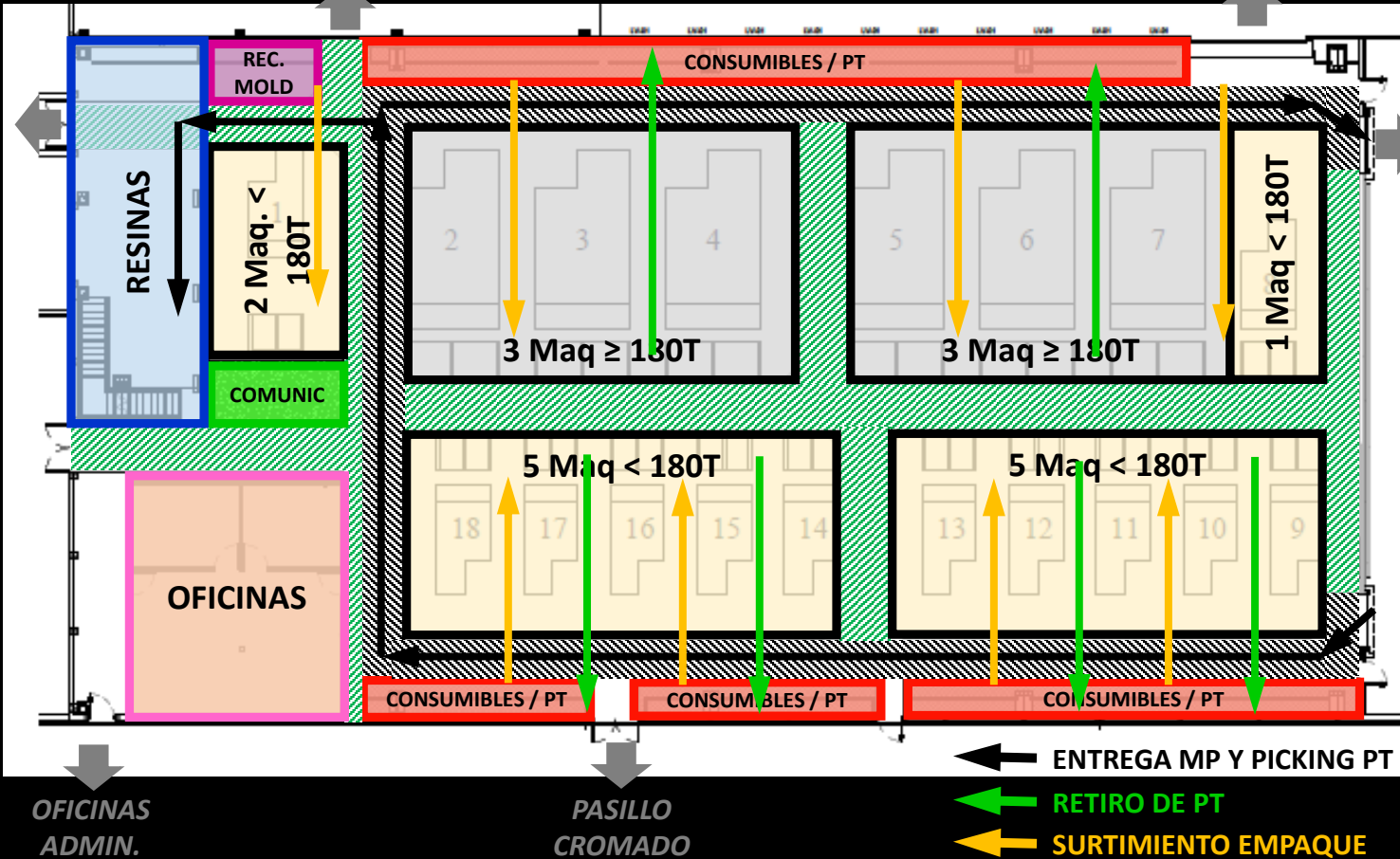
**2<sup>nd</sup> Stage Lay-Out**



# SARRELMEX: Injection

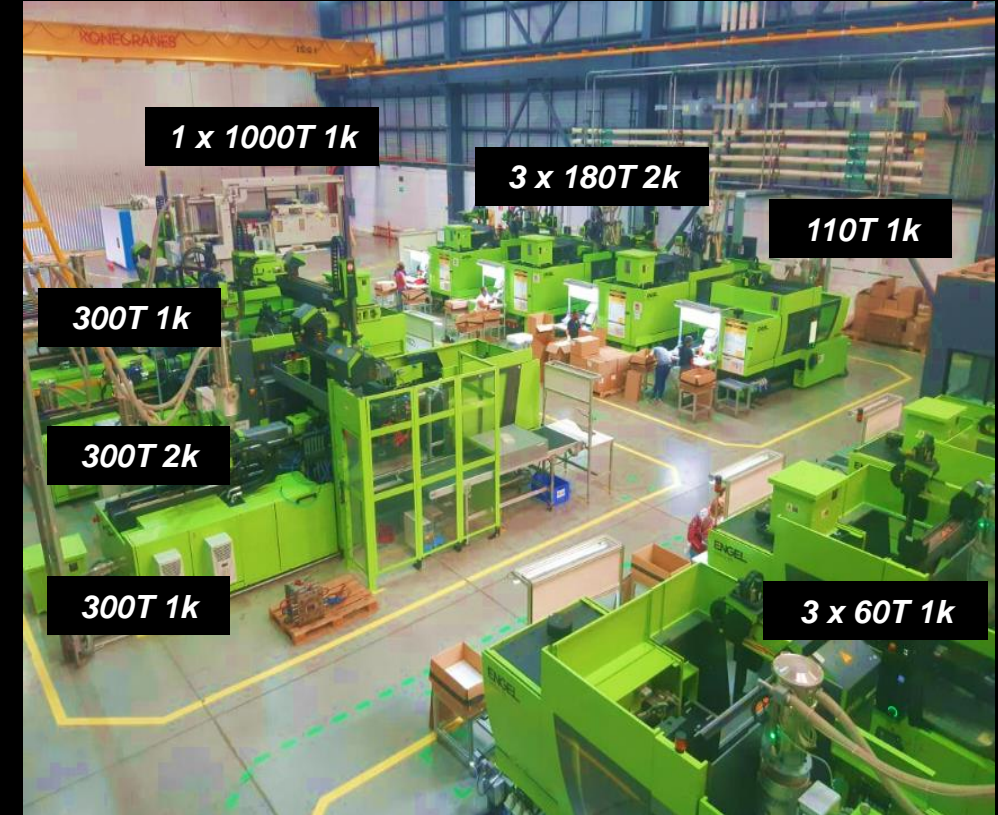
TALLER DE MOLDES

ACCESO MÁQUINAS



ALMACÉN

ALMACÉN



- PASILLO CARRITO MOTORIZADO
- PASILLO PEATONAL

**14 MÁQUINAS DE INYECCIÓN MENORES A 180T**  
**6 MÁQUINAS DE INYECCIÓN MAYORES A 180T**

1,000 T KM machine arrived in March 2022



## 2023 saturation of injection lines

		Global		
Machine	Type	Required hours	Available hours	Occupancy
MI-01	60T	4,850	6,885	70%
MI-02	110T	2,919	6,885	42%
MI-03	300T	4,411	6,885	64%
MI-04	180T/2K	5,595	6,885	81%
MI-05	180T/2K	3,351	6,885	49%
MI-06	60T	4,699	6,885	68%
MI-07	300T/2K	6,050	6,885	88%
MI-08	180T/2K	3,463	6,885	50%
MI-09	60T	3,184	6,885	46%
MI-10	300T	5,627	6,885	82%
MI-11	1000T	1,035	6,885	15%

\* 5.5 days a week considered in available time



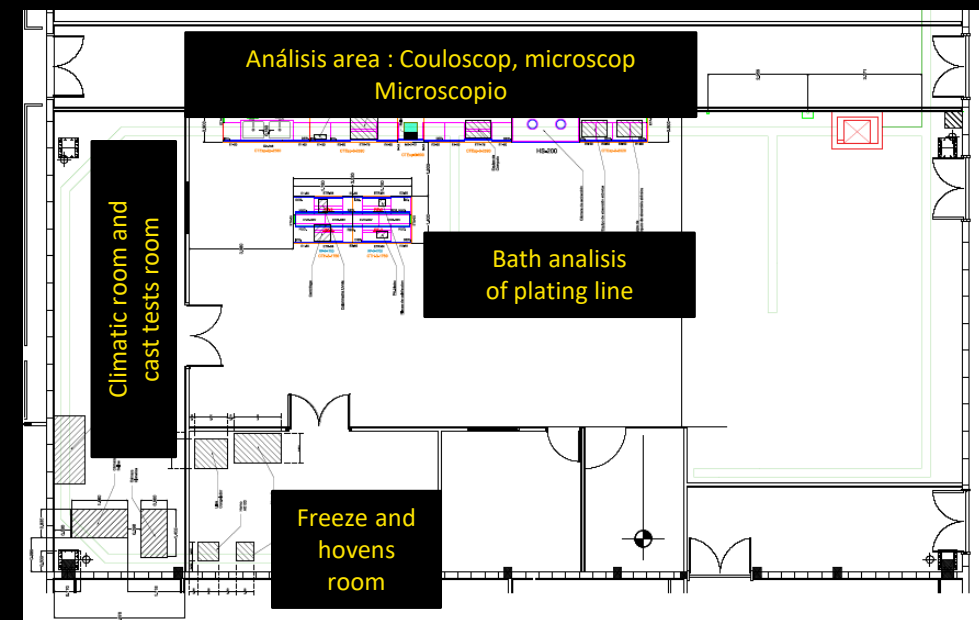












# SARRELMEX: Plating line Live-In Caregiver Program



*Live-In Caregiver Program*

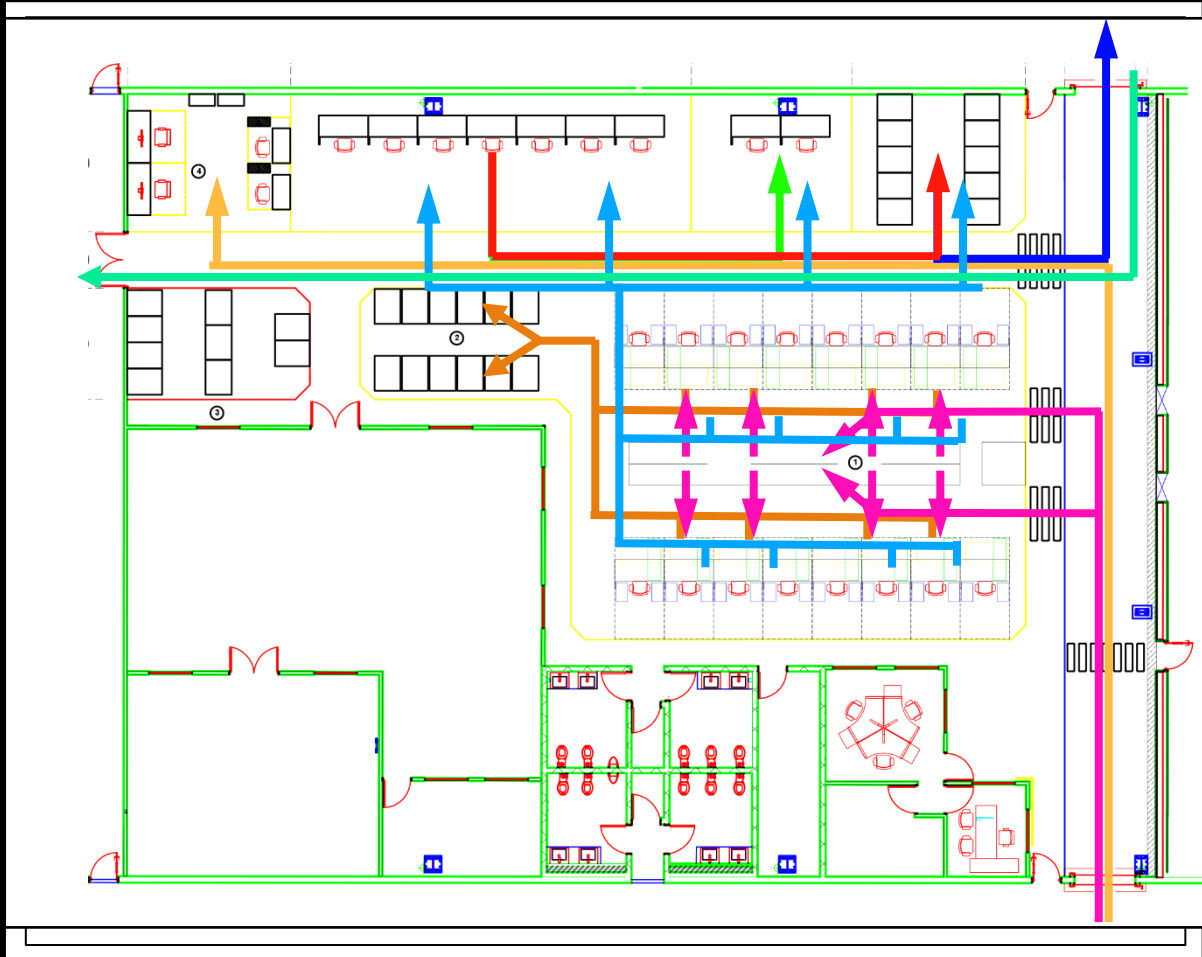
- Same supplier than previous 4 lines
- Large 101 m x 27 m width
- Current capacity: 4 b/h (96 b/día)
- 100% automatized
- Includes all improvements (Retex group)
- Supervision with 2 persons/shift
- U –line (improves operational control )
- Chroming Window : 3,000 mm x 1,200 mm
- Future Capacity: 13 b/h (312 b/day)
- 17 transporting robots
- CATS Management Software
- Croming capacity : 500,000 m2/year



EQUIPO		PRUEBAS	EQUIPO		PRUEBAS	Test
Coulescope (Fischer)		*Espesura *Step-Test	Espectrofotómetro UV-VIS (Perkin Elmer)		*Análisis baños de cromado	Thickness
2 Estufas (Froilabo)		*Choques Térmicos * Resistencia a Temperatura	Espectrofotómetro de absorción atómica (Perkin Elmer)		*Análisis baños de cromado	STEP Test
Microscópio (Leyca)		* Poros * Fisura	Centrífuga (KOCOUR)		*Análisis químicos	Tensile test on ABS or ABS/PC row material
Ultra-Congelador (Froilabo)		*Choques Térmicos	Potenciómetro		*Análisis químicos	Cutting Test
Cámara Climática (Wewontech)		*Ensayos climáticos (Temperatura y Humedad)				X Test
Camara de Corrosion (ASCOTT)		*Pruebas de Corrosión				Crossing Test
						ETCH Attack Determination
						Chemical Niquel Determination
						Pyrophosphate Copper Determination
						Bright Niquel Determination
						Semi Bright, Microporus & Satin
						Hexavalent Chrome Determination
						Thermal Resistance
						Thermal Shock//Thermal Cycle
						Climatic Test
						CASS Test
						Corrosion Test
						Ageing



# SARRELMEX: Control and assembly



- ABASTECIMIENTO INSPECCION**
- PRODUCTO TERMINADO**
- PRODUCTO PARCIAL**
- PRODUCTO FINAL ALMACEN**
- ENSAMBLE MURO DE CALIDAD**
- MURO DE CALIDAD PT**
- CALIDAD PROCESO**
- PRODUCTO A PINTURA**



**Inspection Zone**



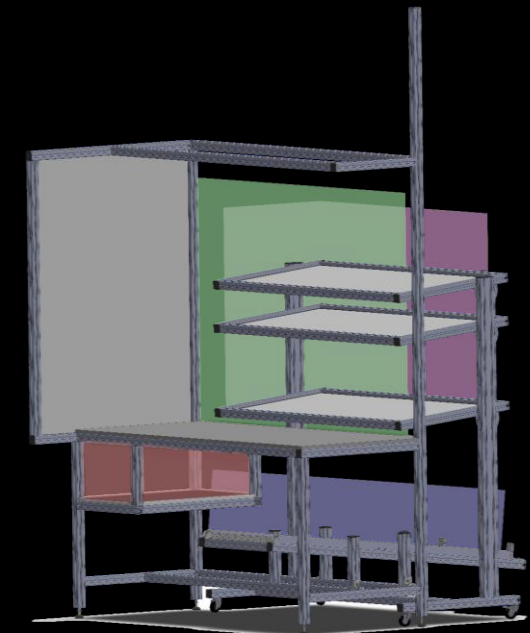
**Feeding Zone**



**Release Zone**



**Scrap Zone**





**IATF Certificate valid  
Until 30 March 2025**

# Thank You.

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