

APLAN

Process oriented automation

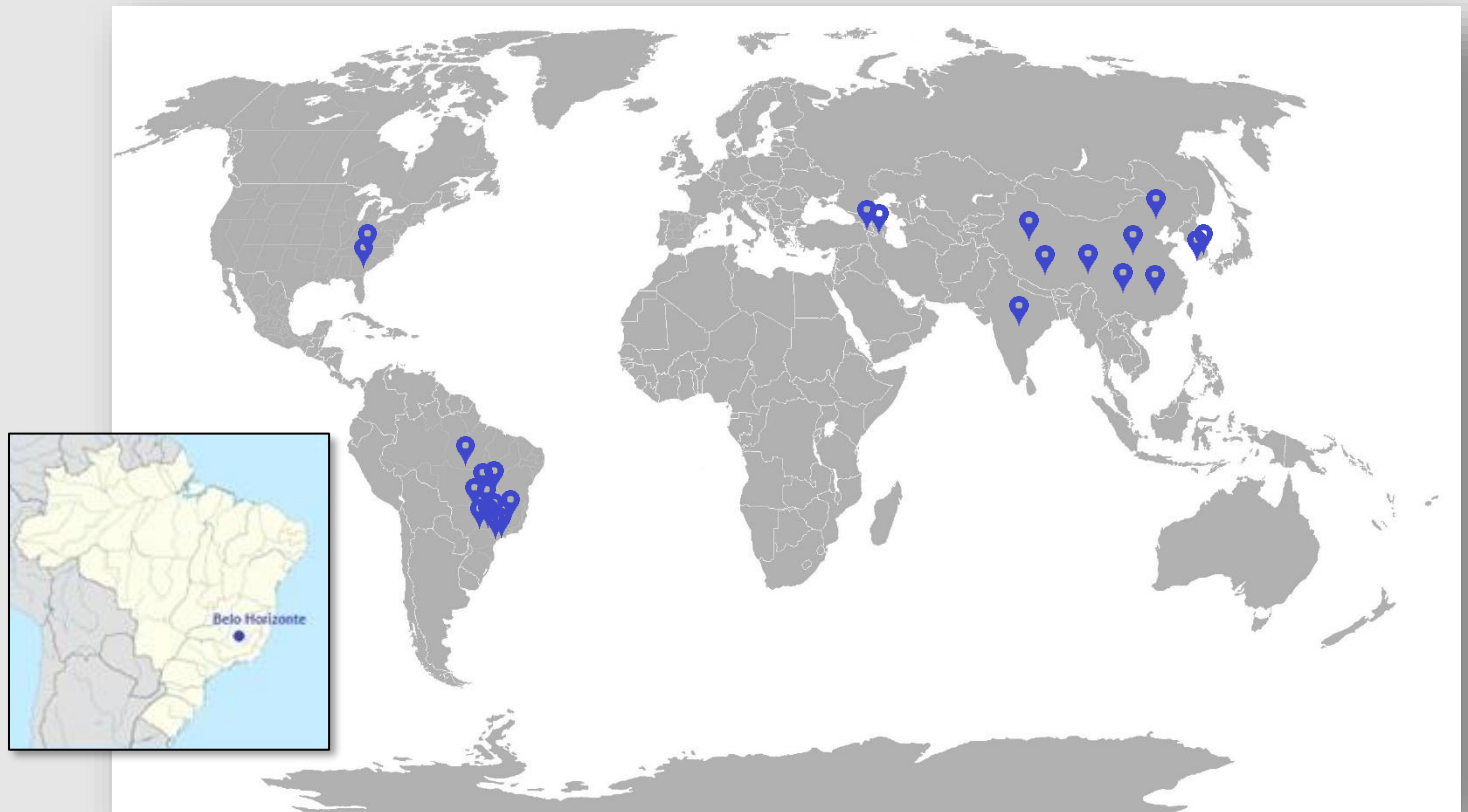
2023



The company

- Control and automation, electrical and mechanical engineering;
- Manufacturing of electrical panels and mechanical equipment;
- Testing, commissioning, training, startup and assisted operation;
- Assembly and installation at site;
- Process and metallurgical engineering;
- Expertise on maintenance of industrial equipment;
- Auditing and inspection of industrial equipment;
- Consumables, wearables and “hard-to-find” spare parts.

Built by highly experienced professionals, **APLAN** is formed by engineers with wide knowhow on the main industrial segments. We have absolute commitment to project development and deployment in several customers worldwide.



Services

Control and automation engineering:

- Basic engineering, HW and SW specification and budgeting;
- Control systems (PLCs and DCSs) and HMI systems;
- Fieldbus networks;
- Commissioning, training, startup and assisted operation;
- Optimization and special control algorithms.

Electrical engineering:

- Basic and detailed engineering;
- Instruments specification and instrumentation projects;
- Specification and budgeting;
- Manufacturing and installation of electric panels and cabinets;
- Commissioning, training, startup and assisted operation.

Mechanical engineering:

- Design, manufacturing and installation of industrial equipment.

Maintenance and operation:

- Expertise on maintenance of industrial equipment;
- Spare parts and/or consumables/wearables.

Consulting:

- Systems and equipment specification;
- Concept engineering and feasibility studies (incl. budgeting);
- Auditing and inspection of industrial equipment;
- Consulting on metallurgical processes.

















EtherNet/IP






Main projects




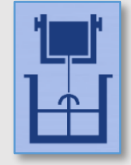



1. Steelmaking (Conventional Meltshop)

	[South Korea] EAF, LF, VD/VOD and VSD: Commissioning, startup and assisted operation of electric arc furnace, ladle furnace, VD/VOD plant, VSD plant and ingot casting car.		[Middle East] Hot billet charging system: Commissioning, startup and assisted operation of hot billet charging system.
	[USA] Ladle furnace: Programming, commissioning, startup and assisted operation of ladle furnace.		[Brazil (SP)] Gas purging system: Commissioning, startup and assisted operation of automatic coupling system for gas purging on ladles and purging stations.
	[South Korea] Ladle furnace and VD plant: Programming, commissioning, startup and assisted operation of ladle furnace and VD plant.		[Brazil (MG)] Gas purging system: Commissioning, startup and assisted operation of automatic coupling system for gas purging on ladles and purging stations.
	[China] VD plant: Programming, commissioning and startup of VD plant.		[Brazil (RJ)] Gas purging system: Installation, commissioning, startup and assisted operation of automatic coupling system for gas purging on ladles and ladle transfer cars.
	[Middle East] VD plant: Commissioning, startup and assisted operation of VD plant.		[Brazil (SP)] Wire feeding machine: Detailed engineering, fabrication of electric panels, programming, commissioning, startup and assisted of WFM.
	[USA] VD plant: Programming, commissioning, startup and assisted operation of VD plant.		[China] Mold washing unit: Commissioning and startup of mold washing unit (ingot casting plant).
	[China] Ingot casting car: Detailed engineering, programming, commissioning, startup and assisted operation of ingot casting car.		[Brazil (SP)] Consulting and know-how transfer: Consulting and know-how transfer: Automation, electric, process, metallurgy.

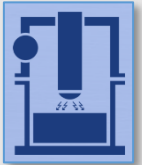

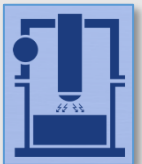





2. Mining and Refractories

	[Brazil (PA)] Milling, flotation and chemical reagents plant: Programming, commissioning, startup and assisted operation of interface for level 2 (specialist) system for milling, flotation and chemical reagents plant.		[China] Refractory manufacturing: Commissioning, startup and assisted operation of press for manufacturing of refractory bricks.
	[Brazil (MG)] Milling, flotation and chemical reagents plant: Programming, commissioning, startup and assisted operation of interface for level 2 (specialist) system for milling, flotation and chemical reagents plant.		




3. Secondary Metallurgy (Nonferrous)

	[Brazil (GO)] Engineering for submerged arc furnace: Concept, basic, detailed engineering and supply of PLC panels for submerged arc furnaces.		[Brazil (PA)] Ladle furnace: Programming, commissioning, startup and assisted operation of refining area (ladle furnace).
	[Brazil (GO)] Ladle furnace: Programming, commissioning, startup and assisted operation of refining area (ladle furnace). Revamping.		[Brazil (GO)] Metal granulation: Commissioning, startup and assisted operation of granulation area.
	[Brazil (GO)] Ladle furnace: Programming, commissioning, startup and assisted operation of refining area (ladle furnace).		[Brazil (GO)] Long term consultancy and maintenance contract: Long term consultancy and maintenance contract for definition and implementation of improvement on automation systems.
	[Brazil (GO)] Ladle furnace: Full maintenance / refurbishment of LF plant (mechanical, electrical, automation)		


4. Special Meltshop

	[China] Titanium VAR: Commissioning and startup of TiVAR (Titanium Vacuum Arc Remelting).		[China] ESR furnace: Commissioning, startup and assisted operation of ESR Furnace (8t).
	[China] Titanium Skull Melter: Programming, commissioning and startup of Titanium Skull Melter.		[Brazil (SP)] Slag furnace for ESR furnace: Detailed engineering, fabrication of electric panels, programming, commissioning, startup and assisted operation of slag furnace for ESR furnace.
	[China] ESR furnace: Commissioning, startup and assisted operation of ESR Furnace (250t).		[Brazil (SP)] ESR furnace: Detailed engineering, programming, commissioning, startup and assisted operation of ESR furnace.
	[China] ESR furnace: Commissioning, startup and assisted operation of ESR Furnace (16t).		[India] ESR furnace: Commissioning, startup and assisted operation of ESR Furnace.

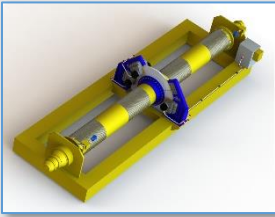
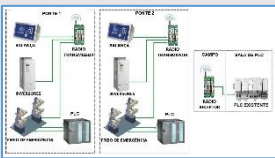

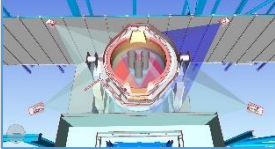
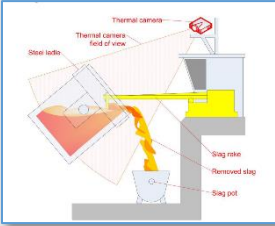
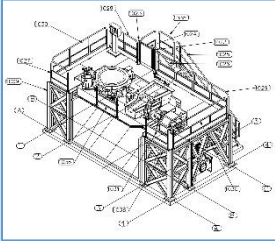
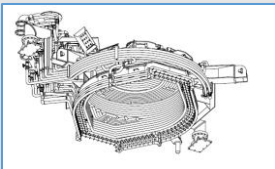
5. Cranes

	<p>[Brazil (PA)] Overhead crane: Construction supervision and commissioning of two 165t cranes.</p>		<p>[Brazil (GO)] Overhead crane: Full technological upgrade and capacity increase.</p>
	<p>[Brazil (GO)] Overhead crane: Construction supervision and commissioning of two 140t cranes.</p>		

6. Spare Parts, Consumables and Wearables

	<p>[Brazil] Steelmaking, mining, secondary metallurgy, special meltshops, cranes, reclaimers and stackers: Spare Parts, consumables, and wearables. Including special ones ("hard-to-find").</p>
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7. Safety and Special Equipment

	<p>[Brazil (PA)] Emergency brakes for cranes: Concept, basic, detailed engineering and supply of equipment for emergency brakes on overhead cranes (liquid metal).</p>
	<p>[Brazil (PA)] Cranes interface: Concept, basic, detailed engineering and supply of equipment for interface between overhead cranes and main automation system.</p>
	<p>[Brazil (GO)] ISEC electrode controller: Concept, basic, detailed engineering and supply of ISEC controller (ladle furnace 1 and 2).</p>
	<p>[Brazil (GO)] Thermal cameras system: Concept, basic, detailed engineering and supply of equipment for detection of ladle breakthrough via thermal cameras system (ladle furnace 1 and 2).</p>
	<p>[Brazil (GO)] Slag skimmer: Concept, basic and detailed engineering of remote operation of slag skimmer.</p>
	<p>[Brazil (GO)] Tundish and runner tilter: Concept, basic and detailed engineering of tundish/runner tilter.</p>
	<p>[Brazil (GO)] Project and manufacturing of new water cooled roof for ladle furnace: Project and manufacturing of new water-cooled roof for ladle furnace.</p>

Partnership

 <p>INTECO melting and casting technologies GmbH www.inteco.at</p>	Technical partner and sales representation.
 <p>TECTRADE Handelsgesellschaft mbH www.inteco.at</p>	Technical partner and sales representation.
 <p>ING. A. FRITZ VOITH Ges.m.b.H. & Co. KG. www.voith.at</p>	Technical service partner.

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