

REFERENCE LIST

**Vacuum Degassing (VD) &
Vacuum Oxygen Degassing
(VOD)
2025**



1 Reference List – Vacuum & Vacuum Oxygen Degassing

Client	Type	Description	
NUCOR Nebraska (USA, 2024)	100 t VD Vacuum cover with alloy system, temperature and sampling robot, wire feeder and automation	<ul style="list-style-type: none"> › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Level 2 IMAS › Supervision of Erection & Commissioning 	Start up 2025
Stahlwerk Bous GmbH (Germany, 2023)	70 t VD Mechanical pumps with cyclone and filter unit	<ul style="list-style-type: none"> › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Level 2 IMAS › Supervision of Erection & Commissioning 	Start up 2025
VDM Unna (Germany, 2022)	35 t VD/VOD Steam ejector vacuum pump	<ul style="list-style-type: none"> › Basic & Detail Engineering › Equipment supply › Supervision of Erection & Commissioning 	Start up 2023
NUCOR Darlington (USA, 2019)	110t VD-Plant Auxiliaries: WFM, T&P, Hydris- manipulator (Mechanical pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2021
NPO (Russia, 2018)	Complete Alloy Steel Plant 8t EAF 8t LF 8t VD-VOD (Mechanical pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning 	Start up 2021

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Client	Type	Description	
		<ul style="list-style-type: none"> › Level 2 Process Automation › Process Know How & Technology 	
GRUPO FRISA (Mexico, 2018)	Revamping 50t VD to VOD (Mechanical pumps) Installation of an Oxygen Blowing lance and modification of the vacuum pump system including Automation upgrade	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2018
PASARGAD Steel (Iran, 2016)	160t VD – Plant Material Handling System (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › 	Start up 2017
GLORIA Material Technology Corporation (Taiwan, 2016)	Complete Alloy Steel Plant 60t EAF 60t AOD 60t LF 60t VD-VOD (Mechanical pumps) Material Handling System Fume Treatment System Two Segment Caster for Blooms up to 1.200 mm dia. Ingot Casting & Mechanized Ingot Casting (ATS-System)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2024
Rubiera Special Steel S.P.A. (Italy, 2016)	Revamping 75t VD to VOD-Extension Installation of an Oxygen Blowing lance and modification of the vacuum pump system including Automation upgrade (Steam ejectors and watering pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2016

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Client	Type	Description	
	including Automation upgrade		
GRUPO FRISA (Mexico, 2014)	Complete Alloy Steel Plant 50t EAF 50t LF 50t VD (Mechanical pumps) Material Handling System Ingot Casting	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2016
BUDERUS EDELSTAHL (Germany, 2014)	110t VD-VOD Plant (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2015
TAEWOONG Special Steel (South Korea, 2013)	Complete Alloy Steel Plant 150t EAF 150t LF 150t VD-VOD (Steam Ejector pumps with Water-ring Pumps) Material Handling System Ingot Casting & Vacuum Stream Degassing Plant	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2016
voestalpine STAHL Linz (Austria, 2013)	New Steam Ejector Vacuum Pump System for RH-Plant No. 4	› Basic and Detail design, Hardware supply, supervision of erection and commissioning	Start up 2015
LOHMANN Edelstahl GmbH (Germany, 2012)	8t VO-VOD (DETEM) (Mechanical pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2013

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Client	Type	Description	
TAIGANG STAINLESS STEEL (TISCO) (China, 2011)	2x 45t VD-VOD plant (Steam Ejector pumps) Material Handling System	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2013
APERAM (Imphy) (France, 2011)	6/15t LF 6/15t VD-VOD (Steam Ejector pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2012
DEW Deutsche Edelstahlwerke Witten (Germany, 2011)	NEW Secondary Metallurgy Center: 120t VD-VOD plant (Steam Ejector pumps with Water-ring Pumps) 120t Ladle Furnace Material Handling System	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2014
DEW Deutsche Edelstahlwerke Witten (Germany, 2011)	Revamping Existing 120t VD-VOD plant New Vacuum cover, Oxygen Blowing Lance, New Automation and Instrumentation, modification of existing vacuum pump System. (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation 	Start up 2012
SeAH Besteel Corp. (South Korea, 2011)	150t LF 150t VD (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply 	Start up 2012

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Client	Type	Description	
		<ul style="list-style-type: none"> › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	
FUSHUN Special Steel (China, 2009/2010)	30t VHD (VAD) 30t VD-VOD (Steam Ejector pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Level 2 Process Automation › Process Know How & Technology 	Start up 2011
SeAH Besteel Corp. (South Korea, 2008)	160t (190t) Ladle Furnace 160t VD-Plant 500t VSD (Vacuum Stream Degasser) (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning 	Start up 2009
Nunki Steel (Italy, 2008)	80t VD-VOD Degasser (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2009
Breitenfeld Edelstahl (Austria, 2007)	2 x 50/60 t Ladle Furnace 50/60t VD-VOD (Steam Ejector pumps with Water-ring Pumps) Material Handling System Fume Treatment System Ingot Casting	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning 	Start up 2009
Kalyani (India, 2007)	45t VD-VSD (Steam Ejector pumps with Water-ring Pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Automation and Visualization 	Start up 2009

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Client	Type	Description	
		<ul style="list-style-type: none"> › Supervision of Erection & Commissioning 	
Energomash (Russia, 2007)	15t VD-VOD-Plant (Steam Ejector pumps) 15t Ladle Furnace	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2012
voestalpine Donawitz (Austria, 2005)	67t VD (Steam Ejector pumps)	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2006
ESFARAYEN ALLOY STEEL COMPLEX (Iran, 2000)	50t EAF (40 MVA) 50t Ladle Furnace 50t VD-VOD plant (Steam Ejector pumps with Water-ring Pumps) 50t Streamdegassing Material Handling System Fume Treatment System Ingot Casting	<ul style="list-style-type: none"> › Engineering & Layout › Basic & Detail Engineering › Equipment supply › Automation and Visualization › Supervision of Erection & Commissioning › Process Know How & Technology 	Start up 2002