



Equipment description	Equipment type	Internal code	Location	Supplier	Year of Build-Revision	Number of equipment	Primary use (see also the treatments list)	Dimensions w x d x h (mm)
Atmosphere Treatments Implants								
Chamber Furnaces	LLF 8	301 / 304 / 307 / 310	Calderara di Reno	CIEFFE	2008 / 2018	4 (on-line)	Carburizing, Carbonitriding, Austenitizing and oil Quenching	910 x 1220 x 910
Chamber Furnaces	FVF8	501 / 502	Calderara di Reno	CIEFFE	2008	2 (on-line)	High temperature Tempering, Annealing, Atmosphere distension	910 x 1220 x 910
Chamber Furnaces	FVF8	601	Calderara di Reno	CIEFFE	2008	1 (on-line)	Low Temperature Tempering	910 x 1220 x 910
Vacuum Furnaces	NCV3	801 / 802 / 803	Calderara di Reno	CIEFFE MEAPFORNI	801: 2008 802-803: 2019	3 (on-line)	Gas Nitriding, Carbonitriding, Oxidation, Low pressure Tempering (vacuum)	910 x 1220 x 910
Vacuum Washing Machine	WCF1	401	Calderara di Reno	CIEFFE	2008	1 (on-line)	Pre-Washing and Washing in alkaline solution	910 x 1220 x 910
Vacuum Washing Machine	WCF2	402	Calderara di Reno	Rübig	1999-2009	1 (on-line)	Pre-Washing and Washing in alkaline solution	910 x 1220 x 910
Cryogenic Cell	FVF-SZ1	701	Calderara di Reno	CIEFFE	2008	1 (on-line)	Cryogenic Treatment (sub-zero, with liquid Nitrogen)	910 x 1220 x 910
Automatic Loaders	LOADER	1 e 2	Calderara di Reno	CIEFFE	2006 / 2008	2 (on-line)	Automatic handling of Loads	Carrying capacity 1500 kg
Vacuum Furnace	NCV4	901 / 902	Calderara di Reno	CIEFFE	2003	1 (off-line)	Gas Nitriding, Nitrocarburizing, Oxidation, Low pressure Annealing (vacuum)	1200 x 1800 x 800
Vacuum Furnace	NCV5	907 / 908	Calderara di Reno	CIEFFE	2015	1 (off-line)	Gas Nitriding, Nitrocarburizing, Oxidation, Atmosphere or Low pressure Annealing (with KN & KC probes Regulation)	1200 x 1800 x 800

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Low Pressure Treatments Equipments								
Automatic Loader	LOADER	12	Calderara di Reno	ATD	2006	1 (vacuum line)	Automatic Handling of Loads	Carrying capacity 500kg
Cryogenic Cell	SZ	13	Calderara di Reno	ATD	2006	1 (vacuum line)	Cryogenic Treatment (sub-zero)	600 x 900 x 600
Vacuum Washing Machine	WCF1	14	Calderara di Reno	ATD	2006	1 (vacuum line)	Pre-Washing and Washing in Alkaline Solution	600 x 900 x 600
Vacuum Furnace	NCV1	15	Calderara di Reno	ATD	2006	1 (vacuum line)	Vacuum, Tempering, Annealing, Stabilizing	600 x 900 x 600
Cooling or quenching Module	A-HPQ	19	Calderara di Reno	ATD	2006	1 (vacuum line)	Mobile camera for Nitrogen quencing up to 20 Bar	600 x 900 x 600
Vacuum Furnace	A-LPC	20 / 21	Calderara di Reno	ATD	2006	1 (vacuum line)	Low pressure Carburizing, Vacuum Austenitizing	600 x 900 x 600
Vacuum Furnace	A-LPN	22 / 25	Calderara di Reno	ATD	22: 2013 25: 2016	1 (vacuum line)	Low Pressure Nitriding, Low pressure Annealing (with KN & KC probes Regulation), Low Pressure Nitrocarburizing	600 x 900 x 600
Vacuum Furnace	VWC9812-15VC	SYS1	Calderara di Reno	SYSTHERMS	2021	1 (linea vuoto)	Vacuum Quenching, Low pressure Carburizing, Vacuum Solubilization and Ageing	900 x 800 x 1200 1500 Kg
Microblasting, Shot Blasting, Shot Peening								
Carousel Shot Blasting machine	SCM 2R	GRA1	Calderara di Reno	Coser	1982-2005	1	Shot Blasting, Deburring	Ø 900 x 1400 h mm
Rotary Drum Shot Blasting machine	Sel Rotor 100	GRA2	Calderara di Reno	Coser	2008	1	Shot Blusting, Deburring	Ø 1.000 x 1000 h mm
Shot Peening	S80SAT4	SP01	Calderara di Reno	Norblast	2012	1	Shot Peening Blasting	Ø 100 x 500 h mm
Sandblaster	S8014	NOR02	Calderara di Reno	Norblast	2008	1	Corundum Blasting	Up to 1000 mm
Microblasting	SD9B	NOR03	Calderara di Reno	Norblast	2016	1	Glass Microball (with rotating basket)	Up to 1000 mm
Microblasting	20M0048	NOR01	Calderara di Reno	Norblast	2005	1	Glass Microball Blasting	Up to 1000 mm
Microblasting	TAP500	NOR04	Calderara di Reno	Norblast	2018	1	Glass Microball (with carpet)	Fino a 1000 mm

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Plasma Treatment Equipments								
Plasma Ionic Nitriding Furnace	PN60/60 DUO	PN01	Calderara di Reno	Rübig	2001-2008	1 (2 stations)	Plasma Ionic Nitriding and Nitrocarburizing	Ø 600 x 600 h mm
Plasma Ionic Nitriding Furnace	EV100/180 DUO	PN02	Calderara di Reno	Rübig	2020	1 (2 stations)	Plasma Ionic Nitriding and Nitrocarburizing	Ø 1000 x 1800 h mm
PVD Coating	RIV	RIV01	Calderara di Reno	VCS	2008	1	PVD Coatings	Effective h 850 mm Coverable w 700 mm
PVD Coating	RIV	RIV02	Calderara di Reno	VCS	2019	1	PVD Coatings	Effective h 600 mm Coverable w 400 mm
Others Equipments								
Manual straightening	RPRS25	RAD1	Calderara di Reno	Galdabini	1999	1	Straightening	Up to 1000 mm
Dewar Cell	DCLA	CD01	Calderara di Reno	SIAM	2017	1	Subzero to -190°	Ø 600 x L 600 mm
Tribofinishing	VIB VAO 125	VA01	Calderara di Reno	LOI	2019	1	Isotropic finishing (automatic)	Capacity 125 liter
Tribofinishing	VIB VAO 250	VA02	Calderara di Reno	LOI	2019	1	Isotropic finishing (automatic)	Capacity 250 liter
Tribofinishing	VIB VAO 125	VL01	Calderara di Reno	LOI	2019	1	Isotropic finishing (automatic)	Capacity 125 liter
Tribofinishing	VIB VMM 45 SP.3	VCM01	Calderara di Reno	LOI	2019	1	Isotropic finishing (automatic)	Capacity 45 liter
Tribofinishing	MVTRLA 1500.51 S	TDL01	Calderara di Reno	LOI	2019	1	Automatic washing table	–