



Check list for footwear manufacturing

Date	
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Check list documents

Auditor Name:		Factory's Name				
email:		Contact Name				
Tel:		Tel:				
Fax:		mail				
Cell:		Cell:				
Layout	Layout of the process plants	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Daily hours		
Electric schemes	Scheme and technical project	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> 8 h/day	<input type="checkbox"/> 16 h/day	<input type="checkbox"/> 24 h/day <input type="checkbox"/> 24 h/day <input type="checkbox"/> 24 h/day
Heating plant	Scheme and technical project	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Day/week		
HVAC plant	Scheme and technical project	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> 5 day/week	<input type="checkbox"/> 6 day/week	<input type="checkbox"/> 7 day/week
Cold water production	Scheme and technical project	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Month/year		
Bills	Electricity bills:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> 12 month/year	<input type="checkbox"/> 6 month/year	<input type="checkbox"/> 11 month/year
Bills	NG bills	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
Bills	Oil bills	<input type="checkbox"/> YES	<input type="checkbox"/> NO			

Energy Bills

	Electricity		Heat (choose fuel: NG; Oil, Coal)		Water	
Month	[kWh]	[€]] fill with kg, l	[€]	[m ³]	[€]
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
TOTAL						

Product and process

Type of production		Process characterization		Cycle phases	
Man shoes	<input type="checkbox"/>	Cutting	<input type="checkbox"/>	whole cycle on site	<input type="checkbox"/>
Woman shoes	<input type="checkbox"/>	Shoe upper closing and stitching	<input type="checkbox"/>	cycle only partially on site	<input type="checkbox"/>
Children	<input type="checkbox"/>	Shoe lasting and finishing	<input type="checkbox"/>	Cutting	<input type="checkbox"/>
Unisex	<input type="checkbox"/>	Other	<input type="checkbox"/>	Shoe upper closing and stitching	<input type="checkbox"/>
Other	<input type="checkbox"/>			Shoe lasting and finishing	<input type="checkbox"/>
Input to factory		Output from factory		Other (please specify)	
Input 1 (raw hide) [m ² /y]		Pairs of shoes [n ^o /y]			
Pairs of shoe upper [n ^o /y]		Pairs of shoe upper [n ^o /y]			

Offices

General information of the building

Dimension		Building dates				Refurbishment				
Volume [m3]		<input type="checkbox"/> Before 1919	<input type="checkbox"/> 1919 - 1945	<input type="checkbox"/> 1946 - 1960	<input type="checkbox"/> 1961 - 1971	What	<input type="checkbox"/> Floor insulation	<input type="checkbox"/> Roof insulation	<input type="checkbox"/> Wall insulation	<input type="checkbox"/> Door and windows
Surface [m2]		<input type="checkbox"/> 1972 - 1981	<input type="checkbox"/> 1982 - 1990	<input type="checkbox"/> 1991 - 2000	<input type="checkbox"/> after 2000	When				

General information of HVAC plant

Heating system

Typology		Heat generator				Terminals				
<input type="checkbox"/> Central	<input type="checkbox"/> Independent	<input type="checkbox"/> Boiler	<input type="checkbox"/> Heat pump	<input type="checkbox"/> CHP	<input type="checkbox"/> District heating	<input type="checkbox"/> Hot air generator	<input type="checkbox"/> Radiator	<input type="checkbox"/> Radiant panels	<input type="checkbox"/> Fan Coil	<input type="checkbox"/> Air units
Fuel		Temperature control			Hot water production					
<input type="checkbox"/> Nat gas	<input type="checkbox"/> GPL	<input type="checkbox"/> Other	<input type="checkbox"/> Central	<input type="checkbox"/> Local	<input type="checkbox"/> Gas water heater	<input type="checkbox"/> Elect water heater	<input type="checkbox"/> Combi heater	<input type="checkbox"/> District heating	<input type="checkbox"/> Solar heating	<input type="checkbox"/> Other

Cooling system

Air conditioning system				Cooling facility			Fuel (in case of adsorption chiller)			
<input type="checkbox"/> None	<input type="checkbox"/> Central with air	<input type="checkbox"/> Central with water	<input type="checkbox"/> Split system	<input type="checkbox"/> Other	<input type="checkbox"/> Compressor	<input type="checkbox"/> Adsorption chiller	<input type="checkbox"/> Heat exchanger	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> GPL	<input type="checkbox"/> Other

Lighting system

Office Equipment

Lamp Typology	n° of lamps	Watt/ lamp	work hours/day	Autom Control?	Equipment typology	N° of devices	Watt/device	work hours/day	Turned on uselessly?	Obsolete?
Fluorescent				<input type="checkbox"/> Yes <input type="checkbox"/> No	Computer				<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Incandescent				<input type="checkbox"/> Yes <input type="checkbox"/> No	Printer				<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
LED				<input type="checkbox"/> Yes <input type="checkbox"/> No	Copier				<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Neon				<input type="checkbox"/> Yes <input type="checkbox"/> No	Monitor				<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other (_____)				<input type="checkbox"/> Yes <input type="checkbox"/> No	Other (_____)				<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Evaluations

Environment		Building Envelope			HVAC Plant			Lighting		
Internal summer t [°C]	Internal winter t [°C]	Insulation?	Windows airtight	Internal build-up condensation?	Age of heat generator	Different comfort in different rooms?	Temp. Regulation for different zones?	Electronic Ballast or control system?	lighting compliant with requirements?	Light are turned on uselessly?
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> >20 y <input type="checkbox"/> <20 y	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Process Phase - Shoe upper closing and stitching

Employed Machines

Machine function		Machine datasheet						Embedded electric motors		
N° of machines	Typology	Year of production	El Power [kW]	Thpower [kW]	Temp [°C]	working (h/day)	Notes	1 Pel (kW)	2 Pel (kW)	3 Pel (kW)

Other facilities not embedded in a specific machine

<u>Electric Motors</u>	Number of motors	Year of production	Nominal power (kW)	speed [rpm]	<u>Lighting</u>	Number of lamps	Year of production	Nominal power (kW)	Typology of lamp	Model
Type 1					Type 1					
Type 2					Type 2					
Type 3					Type 3					
<u>Pumps</u>	Number of pumps	Year of production	Nominal power (kW)	Inverter application?	<u>Fans</u>	Number of fans	Year of production	Nominal power (kW)	Air flow [m3/h]	Inverter application?
Type 1				<input type="checkbox"/> Yes <input type="checkbox"/> No	Type 1					<input type="checkbox"/> Yes <input type="checkbox"/> No
Type 2				<input type="checkbox"/> Yes <input type="checkbox"/> No	Type 2					<input type="checkbox"/> Yes <input type="checkbox"/> No
Type 3				<input type="checkbox"/> Yes <input type="checkbox"/> No	Type 3					<input type="checkbox"/> Yes <input type="checkbox"/> No

Energy final use

Steam		Hot water		Electricity		Compressed Air		Cooling water	
Temperature [°C]		Temperature [°C]		Consumption [kWh/y]		Consumption [m3/y]		Temperature [°C]	
Consumption [t/y]		Consumption [m3/y]		Voltage [V]		Pressure		Consumption [m3/y]	



Notes

Energy production and distribution

Energy production and distribution											
Steam			Hot water			Cold water			Compressed air		
Consumption	<i>t/year</i>		Consumption	<i>m3/year</i>		Consumption	<i>m3/year</i>		Consumption	<i>Nm3/year</i>	
Direct use	%		Process	%		Process	%		Hours of operation	<i>h</i>	
Hot water production	%		Climatization	%		Climatization	%		Pressure	<i>bar</i>	
Power	<i>kW</i>		Power	<i>kW</i>		temperature	<i>°C</i>		Compressor 1	<i>Constructor</i>	
Pressure	<i>bar</i>		Pressure	<i>bar</i>						<i>model</i>	
temperature	<i>°C</i>		temperature	<i>°C</i>						<i>Nominal power</i>	
CHP	<i>Year of production</i>		Heat exchangers	<i>Year of production</i>		Chiller 1	<i>Elpower kW</i>			<i>Flow rate [m3/h]</i>	
	<i>number</i>			<i>Number</i>			<i>Model</i>			<i>Installation year</i>	
	<i>Electric power (kW)</i>			<i>Thermal power (kW)</i>			<i>Refr power kW</i>			Compressor 2	<i>Constructor</i>
	<i>Thermal power (kW)</i>			<i>Temperature(°C)</i>		<i>COP</i>		<i>model</i>			
	<i>Temperature(°C)</i>			<i>Model</i>		Chiller 2	<i>Elpower kW</i>		<i>Nominal power</i>		
	<i>Model</i>						<i>Model</i>		<i>Flow rate [m3/h]</i>		
				<i>Refr power kW</i>			<i>Installation year</i>				
Boiler	<i>Year of production</i>		Boiler	<i>Year of production</i>		Adsorption chiller	<i>Model</i>			<i>Constructor</i>	
	<i>number</i>			<i>number</i>			<i>Th power input</i>			<i>model</i>	
	<i>Efficiency(%)</i>			<i>Efficiency(%)</i>			<i>Refr power kW</i>			<i>Nominal power</i>	
	<i>Nominal power (kW)</i>			<i>Nominal power (kW)</i>		<i>COP</i>		<i>Flow rate [m3/h]</i>			
	<i>Temperature(°C)</i>			<i>Temperature(°C)</i>				<i>Installation year</i>			
	<i>Model</i>			<i>Model</i>							

Notes

MACHINES TO PREPARE AND STITCH SHOE UPPERS	MACCHINE PER PREPARAZIONE ED ORLATURA DI CONFEZIONE TOMAIA	BOTTOM ASSEMBLY AND PROCESSING MACHINES	MACCHINE PER IL MONTAGGIO E LA LAVORAZIONE DEL FONDO	FINISHING MACHINES	MACCHINE PER IL FINISSAGGIO	MACHINES TO PREPARE: Toe caps - Stiffeners Insoles - Heels - Soles Wells - Strips, edgings, mignon Die-cutter - Smallware Lasts	MACCHINE PER PREPARAZIONE DI: Puntale - Contrafforte Sottopiede - Tacco - Suola Guardolo - Strisce, Bordi, Mignon Fustella - Minuterie Forma
Leather splitting machine	Spaccapelli	Insole tacking machine	Macchina fissasottopiede	Ironing machine	Stiratrice	TOE PUFFS	PUNTALE
Stamping machine	Timbratrice	Insole trimming machine	Rifilatrice sottopiede	Edge setting machine	Lissatrice	Toe caps skiving machine	Smussatrice per puntali
Skiving machine	Smussatrice	Backpart moulding machine	Macchina garbasperoni	Brushing machine	Banco spazzola	STIFFENERS	CONTRAFFORTE
Assembling machine	Accoppiatrice	Roughing machine: Upper edge	Macchina cardatrice giretomaia	Shoe stamping machine	Timbratrice per scarpa	Machines for stiffeners	Macchine per contrafforti
Machine to apply reinforcing tape to upper edges	Applica nastrino rinforzo	Moccasin ironing machine	Stiratrice mocassino	Box stamping machine	Timbratrice per scatole	INSOLES	SOTTOPIEDE
Machine to prepare and trim edges and seams	Macchina per preparare e rifinire bordi e cuciture	Upper and/or its parts wetting machine	Macchina per umidificare tomaia e/o sue parti	Sock-cementing machine	Incollatrice per tallonetta di pulizia	CAD-CAM system for insoles	Sistema CAD-CAM per sottopiedi
Vamp pre-forming machine	Garbatrice mascherine	Pulling-over and lasting machine	Premonta - monta	Equipment for dressing by airbrush	Attrezzatura per apprettatura con aerografo	Insole cutting machine	Macchina per tagliare i sottopiedi
Injection press - plating machine	Stampatrice-Placcatrice	Upper to last fixing machine	Macchina per fissare la tomaia alla forma	Belt or manual conveyor	Trasportatore a nastro o a manovola	Skiving machine for fibreboard	Smussatrice tallonette in fibrato
Perforating machine	Bucatrice	Linings pulling and fixing machine	Macchina per tirare e fissare le fodere	SHOE REPAIRING MACHINES	MACCHINE PER RIPARATORI	Machine to fit metal shanks to board shanks	Accoppiatrice lamina metallica a tallonetta
Edge folding machine	Ripiegatrice del bordo	Waist laster	Macchina montafianchi	Cylinder arm machine for repairers	Macchina da cucire a braccio per riparatori	Insole to board shank assembling machine	Accoppiatrice sottopiede a tallonetta
Machine applying toe puffs	Macchina per applicare puntali	"Refresir" trimming machine	Rifilatrice "refresir"	2-thread sewing machine	Cucitrice a 2 fili	Press for performing insole	Pressa per garbatura di sottopiede
Cementing machine	Incollatrice	Seat laster	Montaboette	Equipment for various works	Attrezzatura per lavorazioni varie	Automatic production line for insoles	Linea di produzione automatizzata per sottopiedi
Pleating machine for uppers	Macchina pieghettatrice	Seat laster - Waist laster	Montabette - montafianchi	Sole and heel press	Pressa per soles e tacchi	Other machines for insoles	Altre macchine per sottopiedi
Sewing machine with arm	Macchina da cucire a braccio	Beating machine	Ribattitrice	Bench with activating oven and exhauster	Banco con forno attivatore e aspiratore	HEELS	TACCO
Flat-bed sewing machine	Macchina da cucire piana	Heat setters	Camere climatiche	Finishing bench	Banco di finissaggio	CAD-CAM system for heel	Sistema CAD-CAM per tacco
Post sewing machine	Macchina da cucire a colonna	Heel-seat beater	Battiboetta	Brushing machine for public applications	Spazzolatrice per ambienti pubblici	Heel-covering machine	Macchina per la copertura di tacchi
Upper lining trimming machine	Rifilatrice fodera tomaia	Lasted shoe roughing	Cardatura bordo montato	MACHINES FOR SYNTHETIC MATERIALS	MACCHINE PER IL SINTETICO	Manual heel manufacturing machine	Macchine manuali per lavorazione tacco
Strobel machine for insole application	Macchina per strobel applicazione sottopiede	Automatic roughing and/or gluing machine for lasted shoe	Cardatrice e/o incollatrice automatiche per scarpa montata	Thermoplastic soles injection machine	Macchina per iniezione di soles termoplastico	NC for heel manufacturing	Controllo numerico per lavorazione tacco
Eyelets, rivets, hooks, rings vis applying machine	Macchina per applicazione occhielli, rivetti, ganci, anelli, vis	Sole applying press	Pressa per applicazione suola	EVA soles injection machine	Macchina per iniezione di soles EVA	Press to assemble leather heels	Pressa per assemblaggio tacchi in cuoio
Upper lacing machine	Macchina allacciatomaie	Brushing machine to remove glue along edge last	Pulitrice a disco per rimozione colla lungo filoforma	Vulcanized rubber soles injection machine	Macchina per iniezione di soles gomma vulcanica	SOLES	SUOLA
Boot turn-out machine	Macchina rovescia stivali	Last pulling machine	Macchina levaforme	PUR soles injection machine	Macchina per iniezione di soles PUR	CAD-CAM system for soles	Sistema CAD-CAM per suola
Semi-finished product dispenser	Distributore semilavorato	Heel fixing-nailing machine	Macchina per fissare - inchiodare il tacco	PUR soles pouring machine	Macchina a colata di soles PUR	Manual soles manufacturing machines	Macchine manuali per lavorazione suola
WASTE PROCESSING	TRATTAMENTO RIFIUTI	Channel processing machine	Macchina per lavorazione a increna	Other machines for synthetic materials	Altre macchine per sintetico	Working centre for leather soles	Centro di lavoro per suola in cuoio
Blowers	Ventilatori	Stitch-marking machine	Macchina per marcapunto	Moulds	Stampi	WELTS	GUARDOLO
Pumps	Pompe	Trimming machine	Fresatrice	PATTERN-MAKING AND CUTTING MACHINES	MACCHINE PER MODELLERIA E TAGLIO	Machines to prepare welts	Macchine per preparazione guardolo
Belt filter press/filter press	Filtri	Manual ornamental ribbing machine for soles	Rigatrice ornamentale suola manuale	CAD system	Sistema CAD	STRIPS, EDGINGS, MIGNON	STRISCE, BORDI, MIGNON
Cyclone	Ciclone	Band buffing machine	Smerigliatrice a nastro	Cutter up	Taglierina	Machines for strips, edgings, mignon	Macchine per strisce, bordi, mignon
Extractor fan	Ventilatori estrazione	Sole and/or welt sewing machines	Cucitrice suola e/o guardolo	Pantograph	Pantografo	DIE-CUTTER	FUSTELLA
Scrubber	Scrubber	Last-fitting machine	Macchina calzaforme	Shoe last thermoforming machine	Apparecchiatura per conchiglie su forma	Die cutting machines	Macchine per realizzare fustelle
		To lift nailing machine	Applicatrice copritacco	Model area measuring machine	Misuratrice area modelli	SMALLWARE	MINUTERIE
		Conveyor belt	Trasportatore	Die-cutting machine	Fustellatrice	Machines per metal smallware	Macchine per minuterie metalliche
				Computer aided cutting table	Tavolo di taglio computerizzato	LASTS	FORMA
				Strip cutter	Tagliastricce	CAD-CAM system for lasts	Sistema CAD-CAM per forme
						Digitizer for lasts	Digitalizzatore per forme
						Machines for lasts	Macchine per forme