CUSTOMER

WPD Italia S.r.l.
Viale Aventino, 102
00153 Roma

MEASURING MAST NAME

TUSCANIA H120

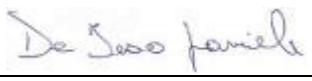
LOCATION

Tuscania, Viterbo

MET MAST CODE

TUSCANIA

Installation report
Annexes to the work procedure

Date: **13/10/2022**	Author: **Daniele De Ieso**	

Annex - A1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Grid	Map datum:	Altitudine:	Zone	Longitude X: EST	Latitude Y: NORD
UTM	**WGS 84**	**qt. s.l.m. 284**	**32 T**	**736152**	**4706302**
Decimal degrees	**N 42° 28' 23"**		**E 11° 52' 21.9"**		

Soil	Prevalence ground	Mix of rock and ground	Prevalence rock
	X		

Terrain usage	Uncultured	Seeded	Orchard	Residential	Industrial	Pasture
		X				

Vegetation	Absent	Bare	Stain	Forest	Scattered trees
	X				

Morphology	Plain	Hill	Valley	Highland	Peak	Ridge
		X				

INSTRUMENTS

Description	Serial Num	Type & model	Direction orientation	Booms orientation	Boom lenght
Speed sensor at m **123**	**01223021**	**Thies FC Advanced II 4.3352.10.000**	**----**	**TOP**	**2.50 m**
Speed sensor at m **118.5**	**01223020**	**Thies FC Advanced II 4.3352.10.000**	**----**	**120°**	**3.00 m**
Speed sensor at m **100**	**01223019**	**Thies FC Advanced II 4.3352.10.000**	**----**	**120°**	**3.00 m**
Speed sensor at m **80**	**01223018**	**Thies FC Advanced II 4.3352.10.000**	**----**	**120°**	**3.00 m**
Speed sensor at m **60**	**01223017**	**Thies FC Advanced II 4.3352.10.000**	**----**	**120°**	**3.00 m**
Wind Vane at m **118.5**	**02223060**	**Thies FC 4.3151.00.901**	**300°**	**300°**	**3.00 m**
Wind Vane at m **80**	**02222059**	**Thies FC 4.3150.00.901**	**300°**	**300°**	**3.00 m**
Pressure sensor at m **5**	**B220025**	**Ammonit AB60**			
Thermo-Hygrometer at m **118**	**258924**	**Galltec KPC 1/6-ME**			
Temperature sensor at m **60**	**247357**	**Galltec TPC 1/6-ME**			
Datalogger a m **5**	**D204056**	**Ammonit Meteo-40 plus** **1 x 12V / 50 W** Panel + **1 x 48 Ah / 12 V** Battery			
Beaconing system Supply System	~~YES~~ **NO**	**2x2000 cd Lamps at 119-35 m + 2x32 cd Lamps a 75 m + 6 red-white orbs.** **2 x 24V / 110W** Panels + **2 x 90 Ah / 12V** Batteries			

Memory Card	**Ammonit Meteo 40 plus**	
Mast structure type	**TELEVES 450 XL**	**Height: m 93**
Shielded three-core cable		**Lenght: m 123-118-100-80-60**
Shielded two-core cable		**Lenght: m 118.5 - 80**
Copper grounding cable	**Yellowgreen Ø35**	**Lenght: m 125**
Lightning rod	**330° - Ø35/ Ø10**	**Lenght: m 3.00+1.00**
Grounding rod	**Earthing Rod**	**Lenght: m 2.00 X 1.5**

MOUNTING

Installation Company	**IDNAMIC ITALIA S.r.l.**	
Installation date	Date: **13/10/2022**	
Datalogger measurement start time	Date: **13/10/2022**	Time: **16:30**
Installation correctness check and real time verification (See Annex 7)	~~YES~~	**NO**

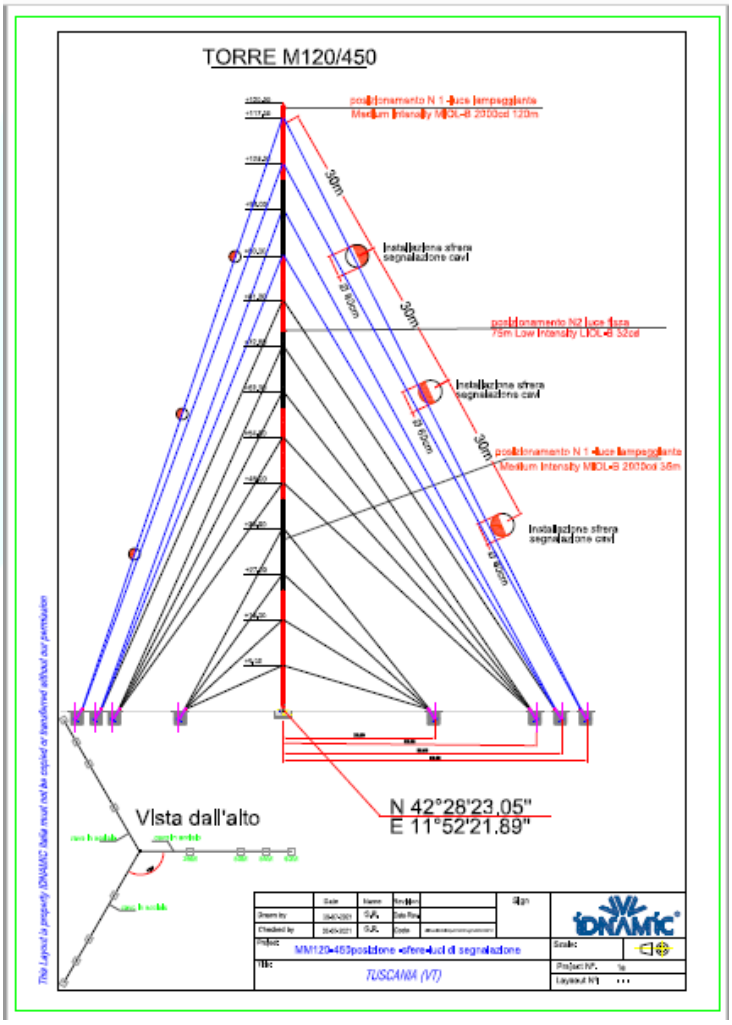
Date:	Mounting responsible:	Signature
13/10/2022	**Daniele De Ieso**	De Ieso Daniele

Annex - A2 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

SECTION CODES



MOUNTING

Installation Company	**IDNAMIC ITALIA S.r.l.**		
Installation date	Date: **13/10/2022**		
Datalogger measurement start time	Date: **13/10/2022**	Time: **15:00**	
Installation correctness check and real time verification (See Annex 7)		**YES**	**NO**

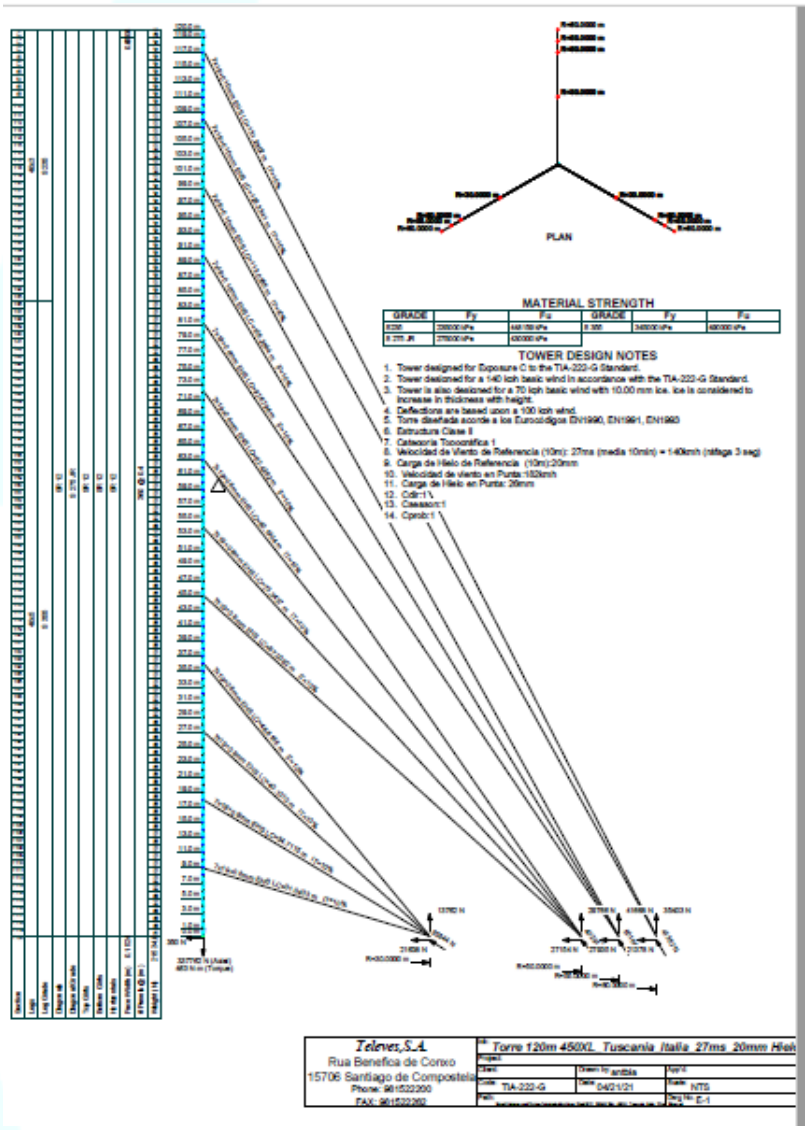
Date: **13/10/2022**	Mounting responsible: **Daniele De Ieso**	Signature

ANNEX - A 3/1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

TOWER DATASHEET



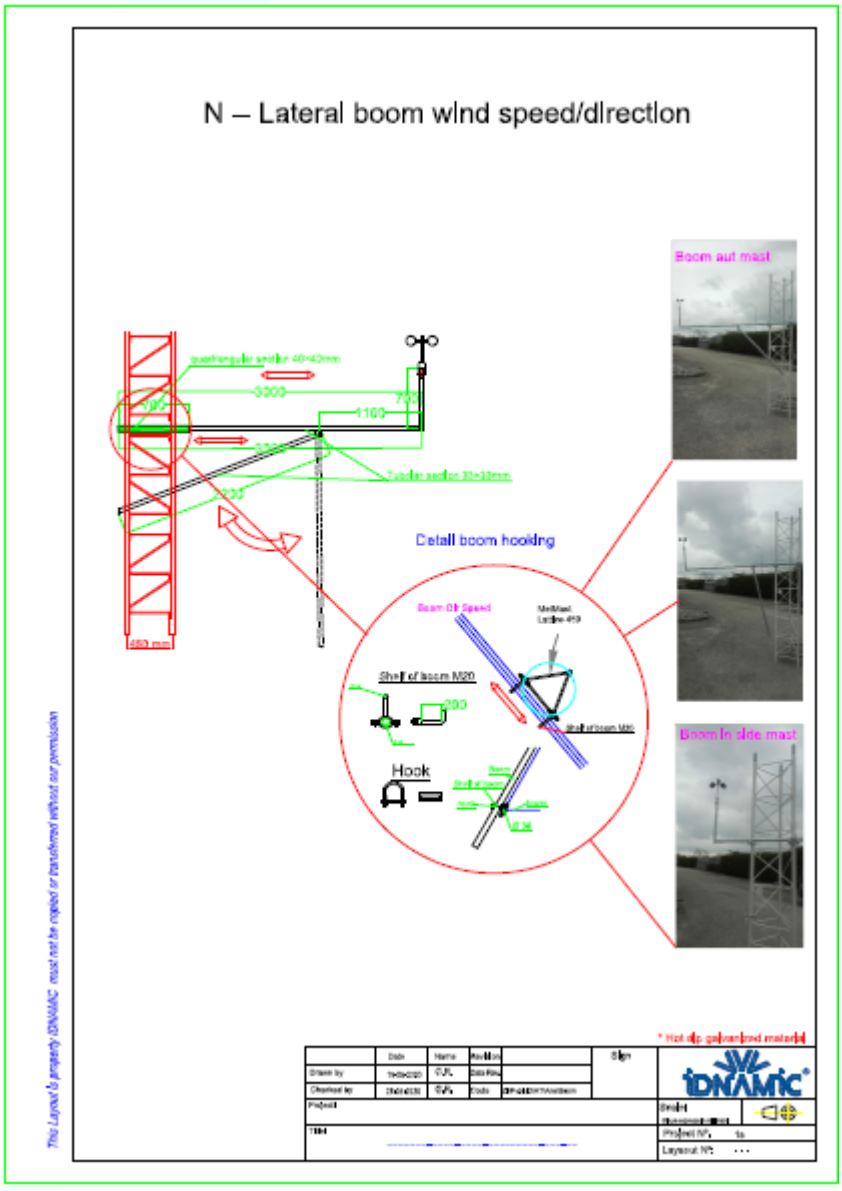
Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX – A 3/1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Boom Specification



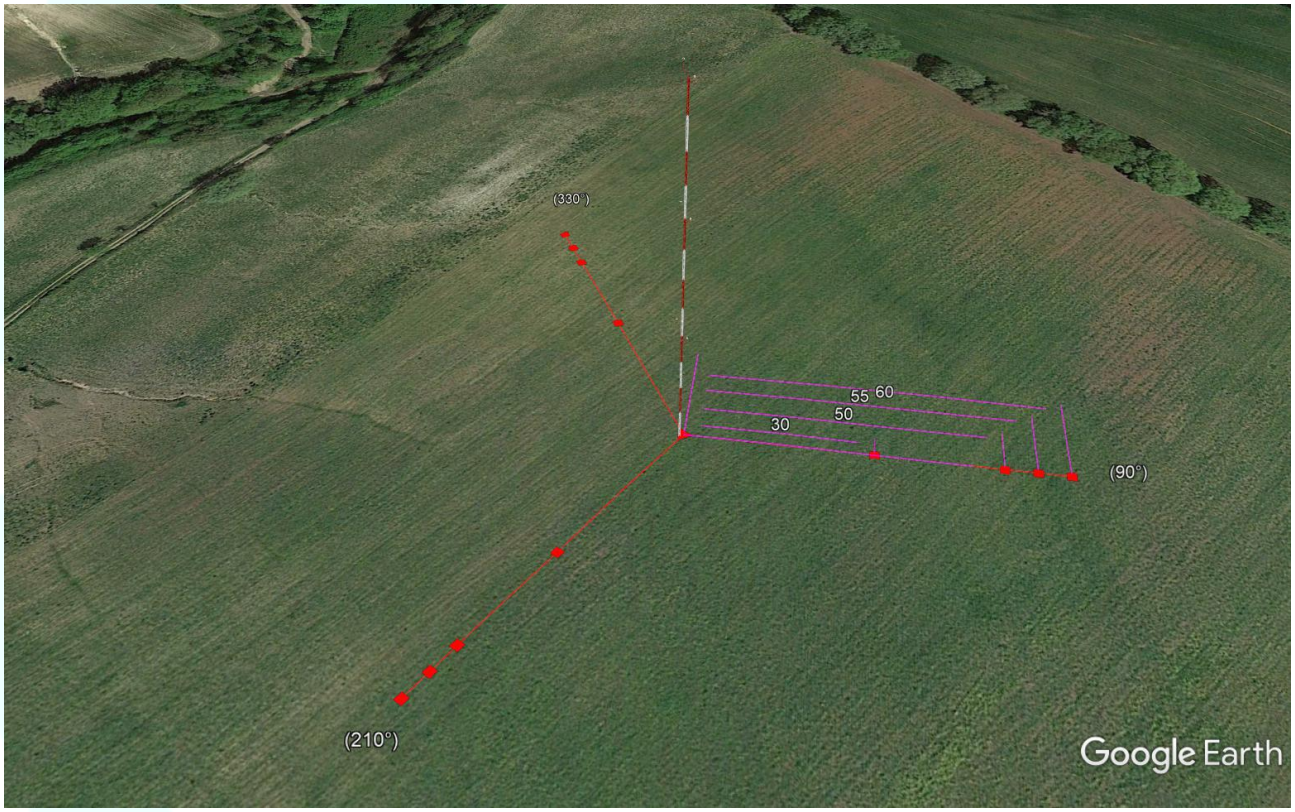
Date: **13/10/2022**

Operator signature: **Daniele De Ieso**

ANNEX - A 3/2 to the work procedure

Measuring station first installation report	
Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

LAYOUT OF THE TOWER



The anchors are oriented at 90° - 210° - 330°
The foundation plates are positioned at 30 – 50 – 55 - 60 meters

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 5/1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Wind speed sensors height and orientation

SPEED 123 m / TOP°

SPEED 118.5 m / 120°

SPEED 100 m / 120°

SPEED 80 m / 120°

SPEED 60 m / 120°

Note: The sensor orientation is intendend referred to the magnetic north which has been measured by compass. Therefore the magnetic declination angle has been not considered here.

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 5/2 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Wind direction sensors height and orientation

DIRECTION 118.5 m / 300°

DIRECTION 80 m / 300°

The deadband (North mark) of the Wind direction sensors is pointing to **300°**

Note: the sensor orientation is referred to the magnetic north which has been measured by compass. Therefore the magnetic declination angle has been not considered here.

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 6/1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Satellite image of the installation site

SATELLITE VIEW OF THE SITE

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 6/2 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Picture of the site before the installation works

This Photo traces back to the Site Visit performed in June

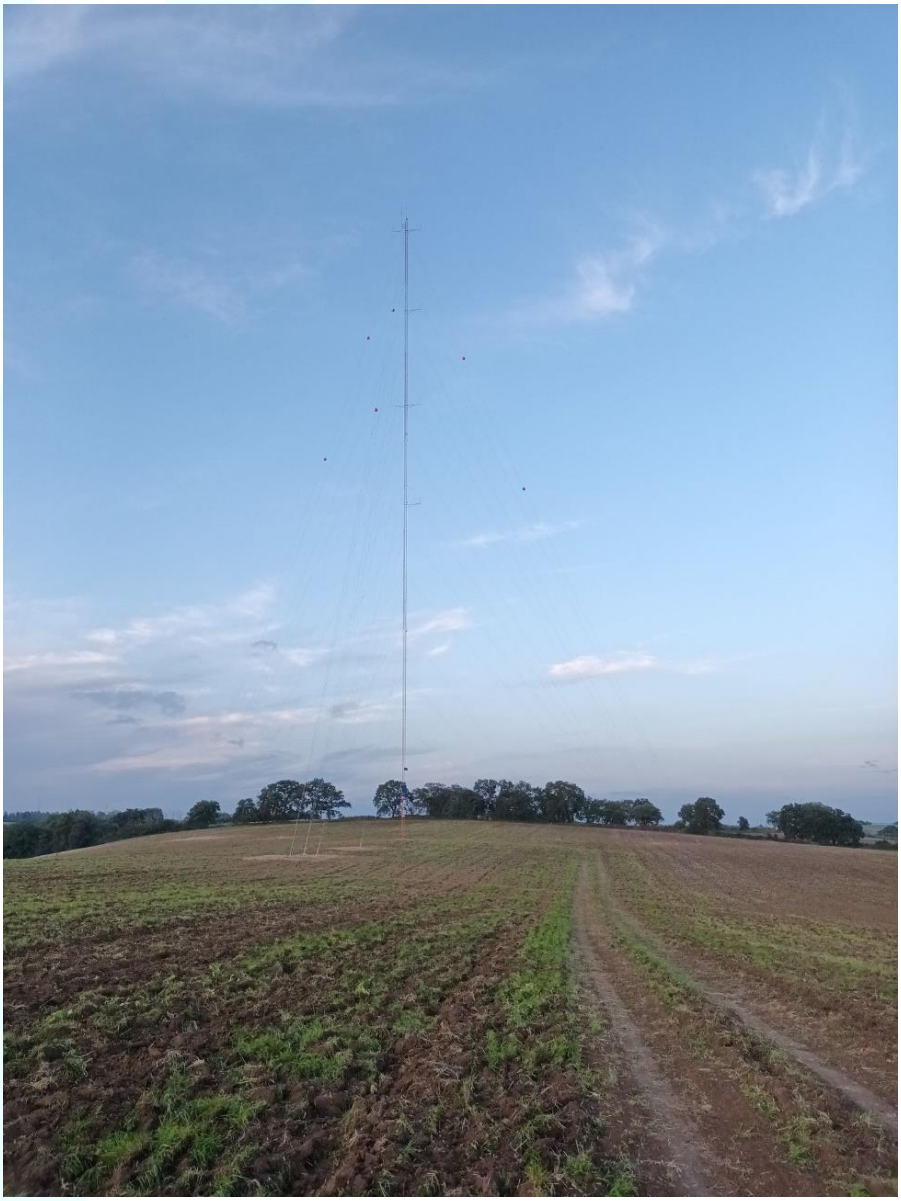
Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 6/3 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Picture of the site after the installation works



Additional Photos Will Be Sent Alongide The Report

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 6/6 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Wind speed sensor
Thies 4.3352.10.000 at 123 m **- TOP**
S/N: 01223021

Wind speed sensor
Thies 4.3352.10.000 at 118.5 m **– 120°**
S/N: 01223020

Wind speed sensor
Thies 4.3352.10.000 at 100 m **– 120°**
S/N: 01223019

Wind speed sensor
Thies 4.3352.10.000 at 80 m **– 120°**
S/N: 01223018

Date: **13/10/2022**

Operator signature: **Daniele De Ieso**

De Ieso Daniele

ANNEX - A 6/6 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Wind speed sensor
Thies 4.3352.10.000 at 60 m **– 120°**
S/N: 01223017

Wind vane
Thies 4.3151.00.901 at 118.5 m **– 300°**
S/N: 02222060

Wind vane
Thies 4.3151.00.901 at 118.5 m **– 300°**
S/N: 02222059

Barometer
Ammonit AB60 in the box Logger
S/N: B220025

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 6/7 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

Datalogger
Ammonit Meteo-40M plus at 5 mt
S/N: D204056

Thermo-Hygrometer
Galltec Mela KPC 1/6-ME at 118m
S/N: 258924

Temperature Sensor
Galltec Mela TPC at 60m
S/N: 247357

2000 cd Lamps
Lux Solar LXS at 119 mt and 35 mt
S/N: MIOL B1 220567/MB01 at 119mt
S/N: MIOL B10 220534/MB10 at 35mt

32 cd Lamps
Lux Solar LXS at 75mt
S/N: ABQ791 - 2224
S/N: ABQ766 - 2224

Date: **13/10/2022**

Operator signature: **Daniele De Ieso**

ANNEX - A 7 to the work procedure

Measuring station first installation check report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

STRUMENTATION	S/N
C1: Speed sensor on **123**	**01223021**
C2: Speed sensor at m **118.5**	**01223020**
C3: Speed sensor at m **100**	**01223019**
C4: Speed sensor at m **80**	**01223018**
C5: Speed sensor at m **60**	**01223017**
D1: Wind Vane at m **118.5**	**02222060**
D2: Wind vane at m **80**	**02222059**
A1: Pressure sensor at m **5**	**B220025**
A2/A3: Thermo-Hygrometer at m **118**	**258924**
A4: Temperature sensor at m **60**	**247357**
Datalogger **Ammonit Meteo-40M plus**	**D204056**

Structure verification checks	C	NC
Tower anchors verification	X	
Ancoring cables tensioning verification	X	
Tower linearity check	X	
Tower vertical position	X	
Lightning rod check	X	
Sensor booms check	X	
Booms orientation check	X	
Remote data transmission checks		
E-mail sending check	X	
Remote connection test	X	
GSM network availability check	**100%**	

	Electronic devices verification		C	NC	Note
	Date and time check		X		
	Current date	Current time			
	13/10/2022	**16:30**			
	Battery voltage check				**P = 12.8V**
	Signal presence check channels				
	Signal presence check channels				
	Beaconing system check		X		
	Datalogger wirings check		X		
	Wind speed sensor (123 m) check		X		**4.93 m/s** (datalogger real time data)
	Wind speed sensor (118.5 m) check		X		**4.64 m/s** (datalogger real time data)
	Wind speed sensor (100 m) check		X		**5.15 m/s** (datalogger real time data)
	Wind speed sensor (80 m) check		X		**4.23 m/s** (datalogger real time data)
	Wind speed sensor (60 m) check		X		**3.28 m/s** (datalogger real time data)
	Wind direction (m 118.5) check		X		**23°** (datalogger real time data)
	Wind direction (m 80) check		X		**39°** (datalogger real time data)
	Pressure sensor (5 m) check		X		**980.5 hPa** (datalogger real time data)
	Termoigrometer at (118 m) check		X		**15.8°C – 68.4%** (datalogger real time data)
	Temperature sensor at (60 m) check		X		**15.7°** (datalogger real time data)

LEGEND: C = COMPLIANT ÷ NC = NOT COMPLIANT

Additional notes: **The tower has been installed according to the regulations and is operative.**

Date: **13/10/2022**

Operator signature: **Daniele De Ieso**

ANNEX - A 8 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

IMPORTANT RECOMMENDATIONS

As general rule, a periodical check of the tower must be done even if it has been designed and realized for a temporary usage in the installation site. It is strongly adviced to check the anchor pickets and the guys tension within one month of the installation date and, after, every three months.
Please, consider that the steel ropes can be affected by little variations due to wind and temperature conditions.

Warning: do not execute any inspection and/or reparation activity in case of strong wind condition or harsh weather conditions.

A periodical revision is recommended for installation places with high salt concentration (seaside zone) and/or in case of corrosive environments.

Any type of installation and/or maintenance activities must be performed from specialized personnel only.

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 9/1 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

CERTIFICATE UNI EN ISO 9001:2015

PLC Srl
ISPEZIONI VERIFICHE CERTIFICAZIONI

00198 Roma
Via Ancona, 21
Tel. 06.85.35.06.30
Fax 06.85.30.09.69
www.plcert.com
E.mail: info@plcert.com
Iscr. R.E.A.: 1074689
C.F. / P.IVA 08118891004

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO
SGQ N°059 A - SGA N° 040 D

SISTEMA GESTIONE QUALITÀ

CERTIFICATO N° 453/A/2008

Si attesta che il Sistema di Gestione per la Qualità di:

iDNAMiC

IDNAMIC ITALIA S.r.l.
Area PIP Strada Statale 212 km 9,00 snc – 82020 Pietrelcina (BN)

Applicato nell'Unità Operativa sita in
Area PIP Strada Statale 212 km 9,00 snc – 82020 Pietrelcina (BN)

Sistema di Gestione per la Qualità conforme alla norma

UNI EN ISO 9001:2015

valutato secondo le prescrizioni del Regolamento Tecnico RT-05 (*)

Relativamente a:

settore IAF 28(*)	*Campo di applicazione:* **Progettazione, fornitura, assemblaggio, installazione, manutenzione, rimozione di torri anemometriche e relativa strumentazione**
settore IAF 35	*Campo di applicazione:* **Elaborazione ed analisi dei dati del vento**

Data 1° emissione	**2008-06-03**
Data di aggiornamento	**2020-06-22**
Data di scadenza	**2023-06-02**

La Direzione
Dott.ssa Antonella De Vitis

La presente certificazione si intende riferita agli aspetti gestionali dell'impresa nel suo complesso ed è utilizzabile ai fini della qualificazione delle imprese di costruzione ai sensi dell'articolo 84 del D.Lgs. 50/2016 e s.m.i. e Linee Guida ANAC applicabili.

La validità del presente certificato è subordinata a sorveglianza periodica e al riesame completo del sistema di gestione aziendale con periodicità triennale.

Per informazioni puntuali ed aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato, si prega di contattare il n° telefonico 06 85352830 o l'indirizzo e-mail info@plcert.com

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 9/2 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

CERTIFICATE ISO 45001:2018

RINA

CISQ is a member of IQNet
www.iqnet-certification.com

IQNet, the association of the world's first class certification bodies, is the largest provider of management system certificates in the world. IQNet is composed of more than 39 bodies and counts over 150 subsidiaries all over the globe.

Per informazioni sulla validità del certificato, visitare il sito www.rina.org

For information concerning validity of the certificate, you can visit the site www.rina.org

CERTIFICATO N. **OHS-806**
CERTIFICATE No.

Si certifica che il Sistema di Gestione della Sicurezza e della Salute sul luogo di lavoro di
It is hereby certified that the Occupational Health and Safety Management System of

IDNAMIC ITALIA S.R.L.

S.S. 212 KM 9 AREA P.I.P. 82020 Pietrelcina (BN) ITALIA

nelle seguenti unità operative / *in the following operational units*

S.S. 212 KM 9 AREA P.I.P. 82020 Pietrelcina (BN) ITALIA E CANTIERI OPERATIVI

è conforme alla norma / *is in compliance with the standard*

ISO 45001:2018

per le seguenti attività / *for the following activities*

IAF:28
IAF:36

PROGETTAZIONE, ASSEMBLAGGIO, INSTALLAZIONE, MANUTENZIONE E RIMOZIONE DI TORRI ANEMOMETRICHE E RELATIVA STRUMENTAZIONE. ELABORAZIONI ED ANALISI DEI DATI DEL VENTO.

DESIGN, ASSEMBLY, INSTALLATION, MAINTENANCE AND REMOVAL OF ANEMOMETRIC TOWERS AND RELATED INSTRUMENTATION. WIND DATA PROCESSING AND ANALYSIS.

La validità del presente certificato è subordinata a sorveglianza periodica annuale / semestrale ed al riesame completo del sistema di gestione con periodicità triennale
The validity of this certificate is dependent on an annual / six monthly audit and on a complete review, every three years, of the management system
L'uso e la validità del presente certificato è soggetto al rispetto del documento RINA: Regolamento per la Certificazione dei Sistemi di Gestione della Sicurezza e Salute sul luogo di lavoro
The use and validity of this certificate are subject to compliance with the RINA document: Rules for the Certification of Occupational Health and Safety Management Systems

Prima emissione *First Issue*	26.01.2012	Data decisione di rinnovo *Renewal decision date*	19.01.2021
Data scadenza *Expiry Date*	19.01.2024	Data revisione *Revision date*	19.01.2021

Gianluca De Fraia
Naples Management System Certification, Head

RINA Services S.p.A.
Via Corsica 12 - 16128 Genova Italy

ACCREDIA
SCR N° 003 F

FEDERAZIONE CISQ
www.cisq.com
CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale
CISQ is the Italian Federation of management system Certification Bodies

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**

ANNEX - A 9/2 to the work procedure

Measuring station first installation report

Measurement Station of	**TUSCANIA H120**
Station Code	**TUSCANIA**

CERTIFICATE ISO 14001:2015

CERTIFICATE

No. SCUK005401E

SOCOTEC

certifies that :

IDNAMIC ITALIA S.R.L.

Area PIP Strada Statale 212 km 9,00 snc - 82020 - Pietrelcina (BN), Italy

operates a management system that has been assessed as conforming to :

ISO 14001:2015

for the scope of activities :

Design, supply, assembly, installation, maintenance, removal of anemometer towers and related instrumentation. Wind data processing and analysis.

Issue date : 02 November 2021
Valid until : 01 November 2024 (Subject to adherence to the agreed ongoing programme, successful endorsement of certification following each audit and compliance with the terms and conditions of certification.)
Original date of certification : 02 November 2021

Mo Ghaus Operations Director SOCOTEC Certification UK

SOCOTEC Certification UK Ltd, 6 Gordano Court
Serbert Close, Portishead, Bristol BS20 7FS
UNITED KINGDOM
http://socotec-certification-international.co.uk

Date: **13/10/2022**	Operator signature: **Daniele De Ieso**