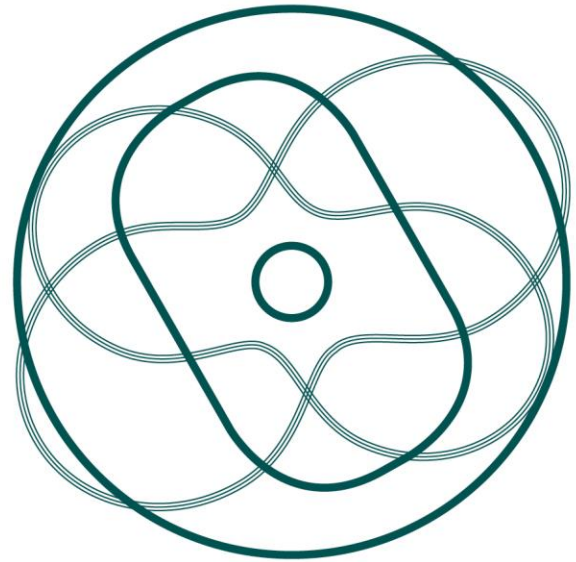


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Your soundproofing partner

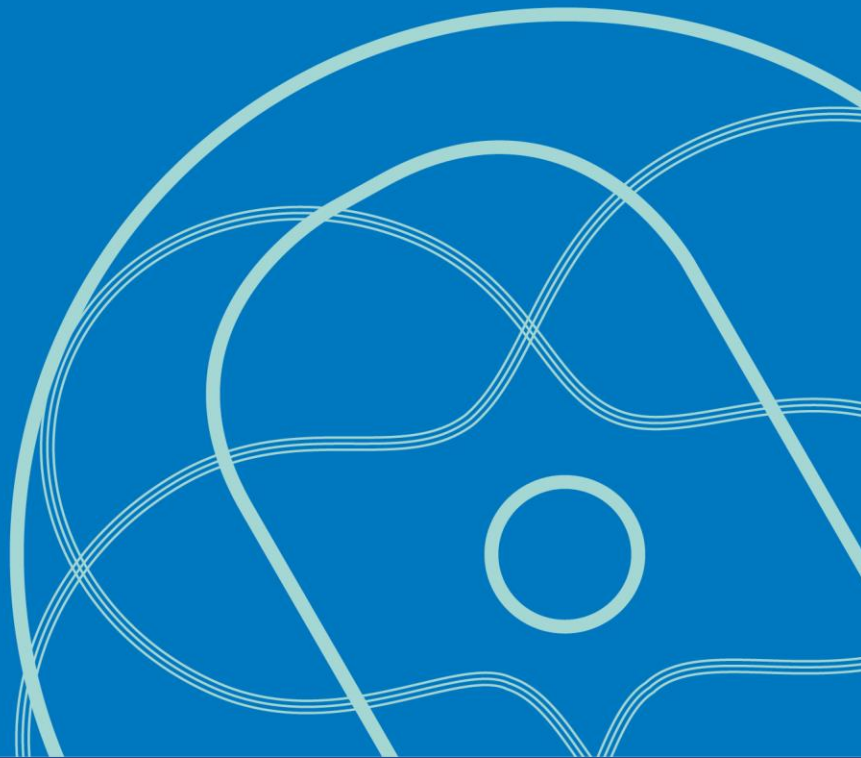
Your plant or equipment is **too loud**?

Do you want to **reduce** the noise emission?




Silencing is
our passion
and mission
stopnoise engineering srl

Stopnoise Engineering,
leading supplier
of **Industrial Silencers**
and **Soundproofing**
Enclosures, has the right
solution for you.



Stopnoise Engineers are willing to design and propose the most suitable soundproofing product to **solve your noise problem definitely.**





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3 steps to define and give you the right solution

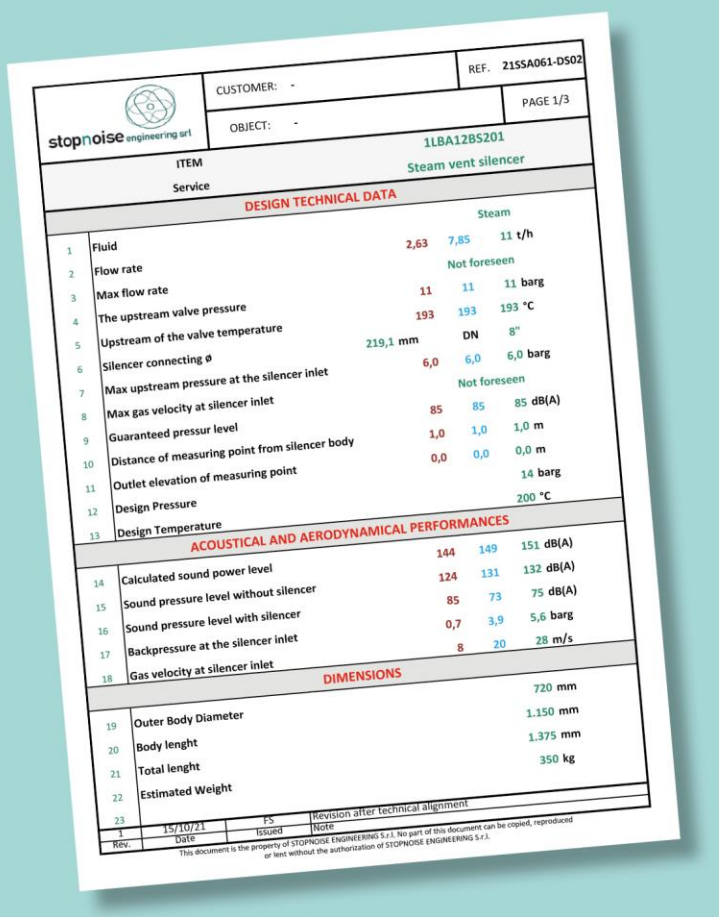


1 STEP DESIGN

Understand Customer's needs.

Carry out the acoustic, fluid-dynamic and mechanical design calculations based on our softwares according to Technical Standards and Law Prescriptions.

Submit a clear technical and economic proposal together with the product drawing.



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CUSTOMER: -

REF. 21SSA061-DS02

OBJECT: -

PAGE 1/3

ITEM		1LBA12BS201
Service		Steam vent silencer
DESIGN TECHNICAL DATA		
1	Fluid	Steam
2	Flow rate	2,63 7,85 11 t/h
3	Max flow rate	Not foreseen
4	The upstream valve pressure	11 11 11 barg
5	Upstream of the valve temperature	193 193 193 °C
6	Silencer connecting ø	219,1 mm DN 8"
7	Max upstream pressure at the silencer inlet	6,0 6,0 6,0 barg
8	Max gas velocity at silencer inlet	Not foreseen
9	Guaranteed pressur level	85 85 85 dB(A)
10	Distance of measuring point from silencer body	1,0 1,0 1,0 m
11	Outlet elevation of measuring point	0,0 0,0 0,0 m
12	Design Pressure	14 barg
13	Design Temperature	200 °C
ACOUSTICAL AND AERODYNAMICAL PERFORMANCES		
14	Calculated sound power level	144 149 151 dB(A)
15	Sound pressure level without silencer	124 131 132 dB(A)
16	Sound pressure level with silencer	85 73 75 dB(A)
17	Backpressure at the silencer inlet	0,7 3,9 5,6 barg
18	Gas velocity at silencer inlet	8 20 28 m/s
DIMENSIONS		
19	Outer Body Diameter	720 mm
20	Body lenght	1.150 mm
21	Total lenght	1.375 mm
22	Estimated Weight	350 kg
23		

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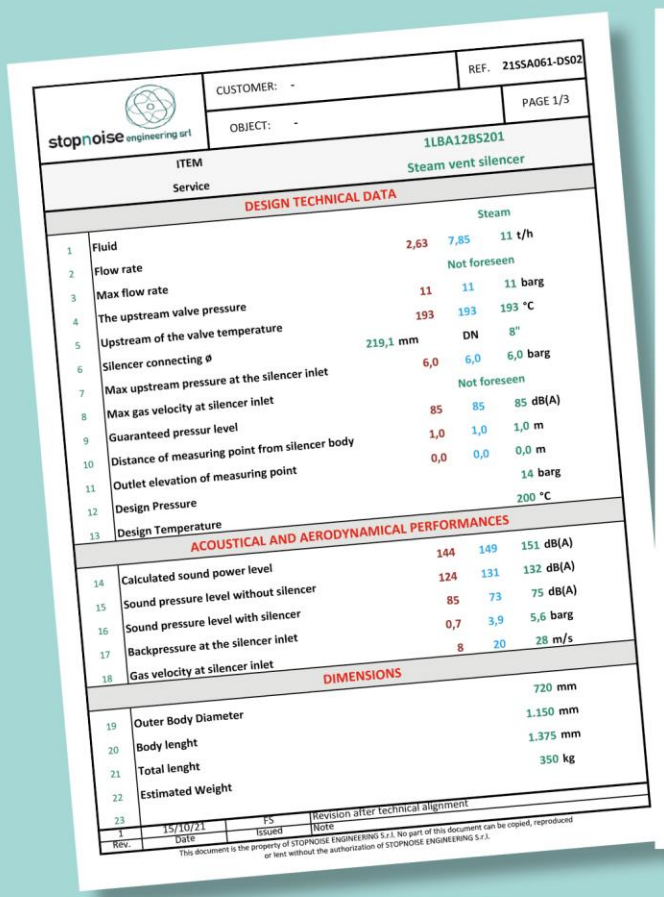
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1 STEP DESIGN

Understand Customer's needs.

Carry out the acoustic, fluid-dynamic and mechanical design calculations based on our softwares according to Technical Standards and Law Prescriptions.

Submit a clear technical and economic proposal together with the product drawing.



stopnoise engineering srl | CUSTOMER: - | REF. 21SSA061-DS02 | OBJECT: - | PAGE 1/3

ITEM: 1LBA12BS201
Service: Steam vent silencer

DESIGN TECHNICAL DATA

1	Fluid			Steam	
2	Flow rate	2,63	7,85	11	t/h
3	Max flow rate			Not foreseen	
4	The upstream valve pressure	11	11	11	barg
5	Upstream of the valve temperature	193	193	193	°C
6	Silencer connecting ø	219,1	mm	DN	8"
7	Max upstream pressure at the silencer inlet	6,0	6,0	6,0	barg
8	Max gas velocity at silencer inlet			Not foreseen	
9	Guaranteed pressur level	85	85	85	dB(A)
10	Distance of measuring point from silencer body	1,0	1,0	1,0	m
11	Outlet elevation of measuring point	0,0	0,0	0,0	m
12	Design Pressure			14	barg
13	Design Temperature			200	°C

ACOUSTICAL AND AERODYNAMICAL PERFORMANCES

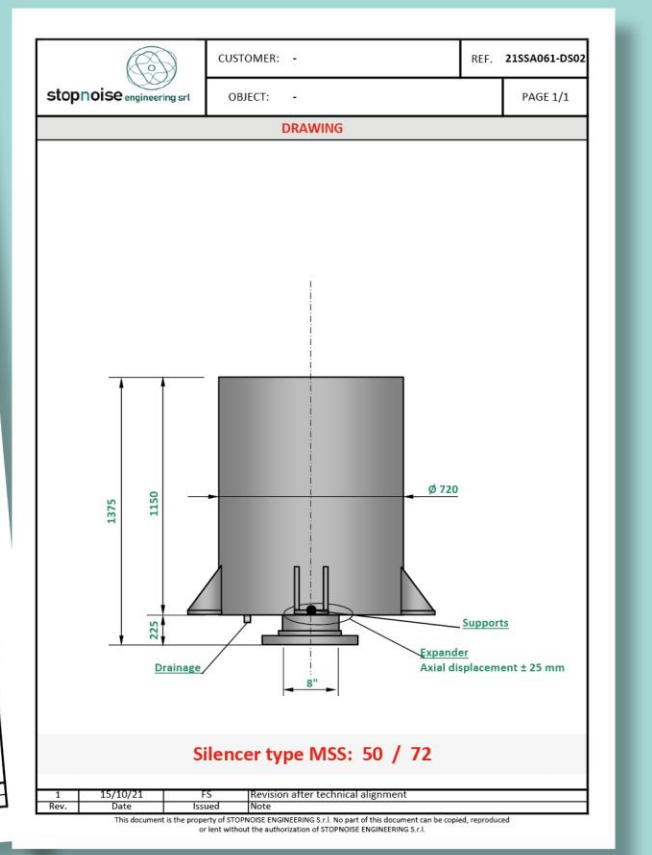
14	Calculated sound power level	144	149	151	dB(A)
15	Sound pressure level without silencer	124	131	132	dB(A)
16	Sound pressure level with silencer	85	73	75	dB(A)
17	Backpressure at the silencer inlet	0,7	3,9	5,6	barg
18	Gas velocity at silencer inlet	8	20	28	m/s

DIMENSIONS

19	Outer Body Diameter	720 mm
20	Body lenght	1.150 mm
21	Total lenght	1.375 mm
22	Estimated Weight	350 kg
23		

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DRAWING

Silencer type MSS: 50 / 72

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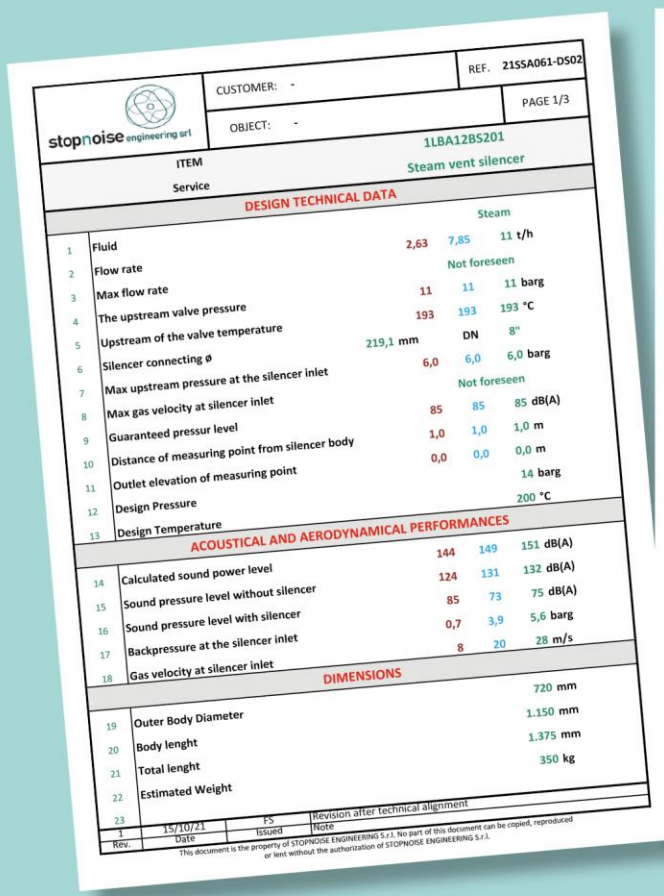
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CUSTOMER: -

REF. 21SSA061-DS02

OBJECT: -

PAGE 1/3

ITEM 1LBA12BS201

Service Steam vent silencer

DESIGN TECHNICAL DATA

1	Fluid			Steam	
2	Flow rate	2,63	7,85	11	t/h
3	Max flow rate			Not foreseen	
4	The upstream valve pressure	11	11	11	barg
5	Upstream of the valve temperature	193	193	193	°C
6	Silencer connecting ø	219,1	mm	DN	8"
7	Max upstream pressure at the silencer inlet		6,0	6,0	6,0 barg
8	Max gas velocity at silencer inlet			Not foreseen	
9	Guaranteed pressur level	85	85	85	dB(A)
10	Distance of measuring point from silencer body	1,0	1,0	1,0	m
11	Outlet elevation of measuring point	0,0	0,0	0,0	m
12	Design Pressure			14	barg
13	Design Temperature			200	°C

ACOUSTICAL AND AERODYNAMICAL PERFORMANCES

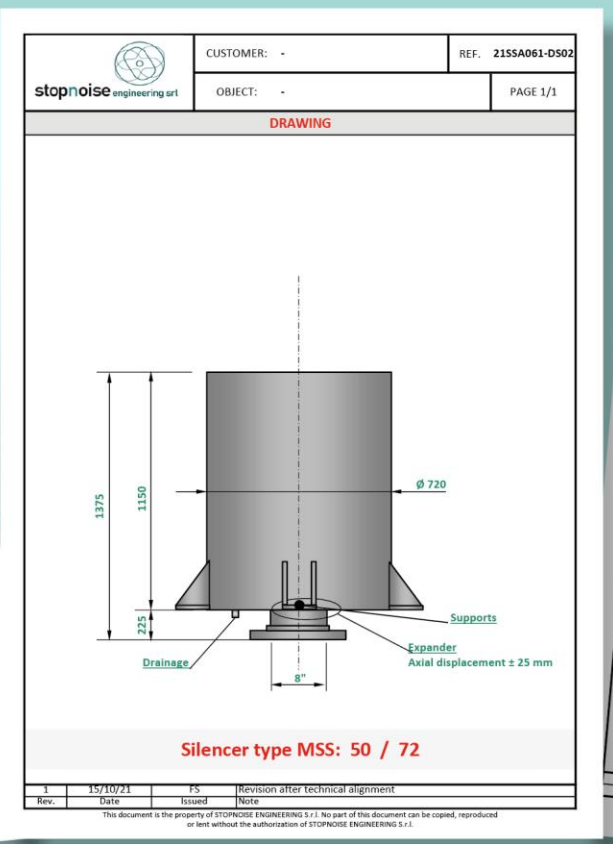
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15	Sound pressure level without silencer	124	131	132	dB(A)
16	Sound pressure level with silencer	85	73	75	dB(A)
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DIMENSIONS

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CUSTOMER: -

REF. 21SSA061-DS02

OBJECT: -

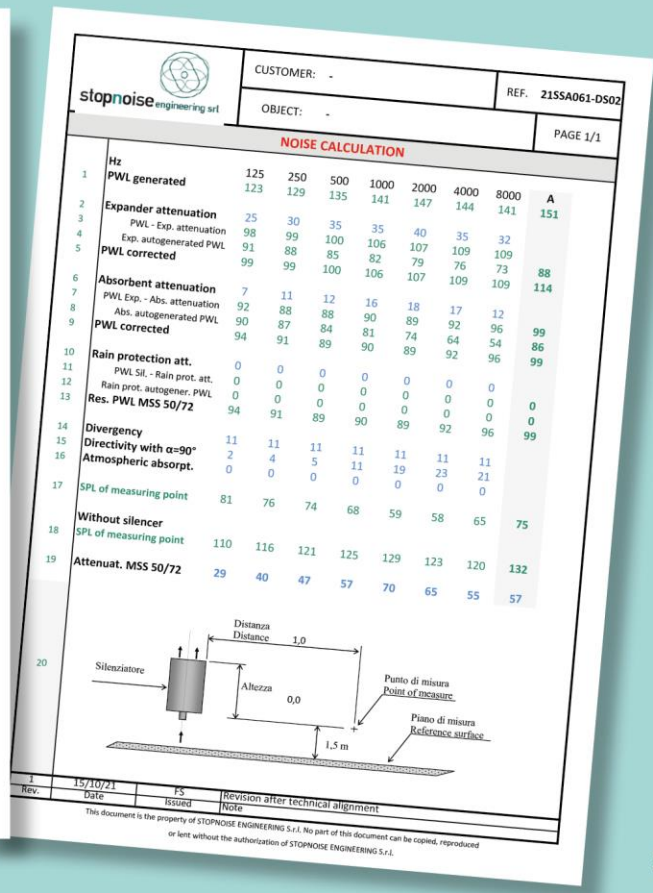
PAGE 1/1

DRAWING

Silencer type MSS: 50 / 72

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CUSTOMER: -

REF. 21SSA061-DS02

OBJECT: -

PAGE 1/1

NOISE CALCULATION

	Hz	125	250	500	1000	2000	4000	8000	A
1	PWL generated	123	129	135	141	147	144	141	151
2	Expander attenuation	25	30	35	35	40	35	32	
3	PWL - Exp. attenuation	98	99	100	106	107	109	109	
4	Exp. autogenerated PWL	91	88	85	82	79	76	73	88
5	PWL corrected	99	99	100	106	107	109	109	114
6	Absorbent attenuation	7	11	12	16	18	17	12	
7	PWL Exp. - Abs. attenuation	92	88	88	90	89	92	96	
8	Abs. autogenerated PWL	90	87	84	81	74	64	54	99
9	PWL corrected	94	91	89	90	89	92	96	86
10	Rain protection att.	0	0	0	0	0	0	0	99
11	PWL Sil. - Rain prot. att.	0	0	0	0	0	0	0	
12	Rain prot. autogener. PWL	0	0	0	0	0	0	0	0
13	Res. PWL MSS 50/72	94	91	89	90	89	92	96	0
14	Divergency	11	11	11	11	11	11	11	99
15	Directivity with α=90°	2	4	5	11	19	23	21	
16	Atmospheric absorpt.	0	0	0	0	0	0	0	
17	SPL of measuring point	81	76	74	68	59	58	65	75
18	Without silencer SPL of measuring point	110	116	121	125	129	123	120	132
19	Attenuat. MSS 50/72	29	40	47	57	70	65	55	57

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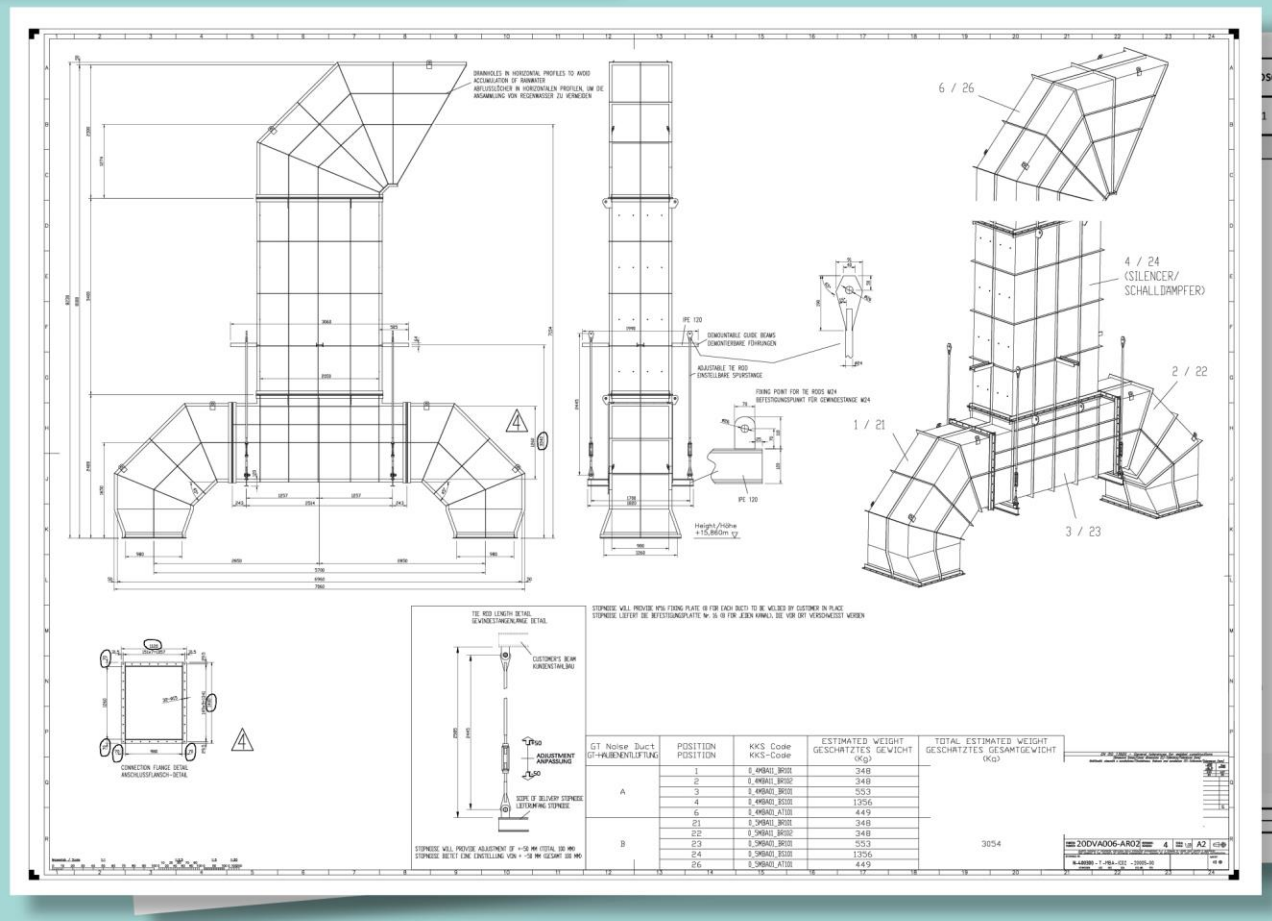
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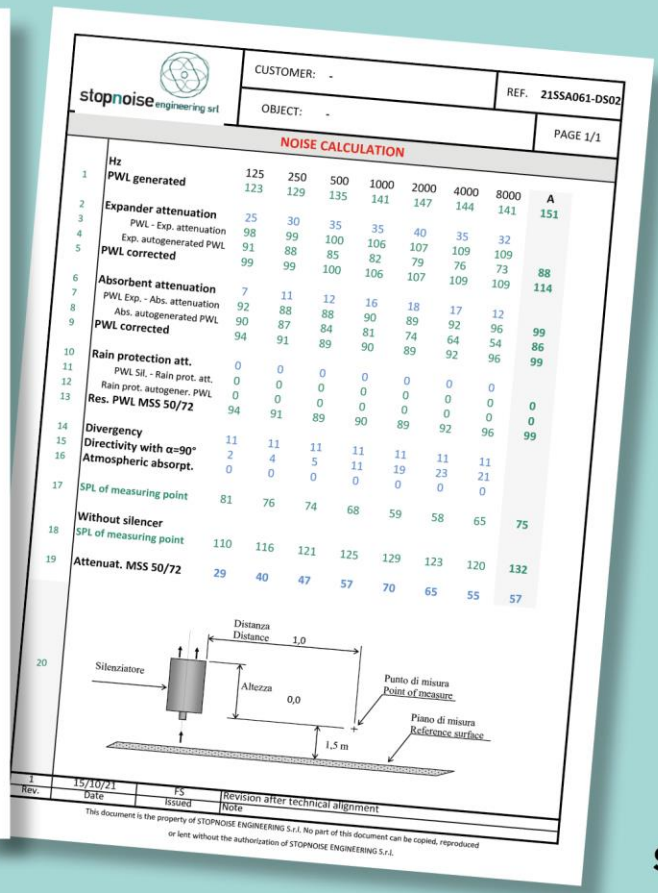
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stopnoise engineering srl | CUSTOMER: - | REF. 21SSA061-DS02 | OBJECT: - | PAGE 1/1

NOISE CALCULATION

	Hz	125	250	500	1000	2000	4000	8000	A
1	PWL generated	123	129	135	141	147	144	141	151
2	Expander attenuation	25	30	35	35	40	35	32	
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5	PWL corrected	99	99	100	106	107	109	109	114
6	Absorbent attenuation	7	11	12	16	18	17	12	
7	PWL Exp. - Abs. attenuation	92	88	88	90	89	92	96	
8	Abs. autogenerated PWL	90	87	84	81	74	64	54	99
9	PWL corrected	94	91	89	90	89	92	96	86
10	Rain protection att.	0	0	0	0	0	0	0	99
11	PWL Sil. - Rain prot. att.	0	0	0	0	0	0	0	
12	Rain prot. autogener. PWL	0	0	0	0	0	0	0	0
13	Res. PWL MSS 50/72	94	91	89	90	89	92	96	0
14	Divergency	11	11	11	11	11	11	11	99
15	Directivity with α=90°	2	4	5	11	19	23	21	
16	Atmospheric absorpt.	0	0	0	0	0	0	0	
17	SPL of measuring point	81	76	74	68	59	58	65	75
18	Without silencer SPL of measuring point	110	116	121	125	129	123	120	132
19	Attenuat. MSS 50/72	29	40	47	57	70	65	55	57

20

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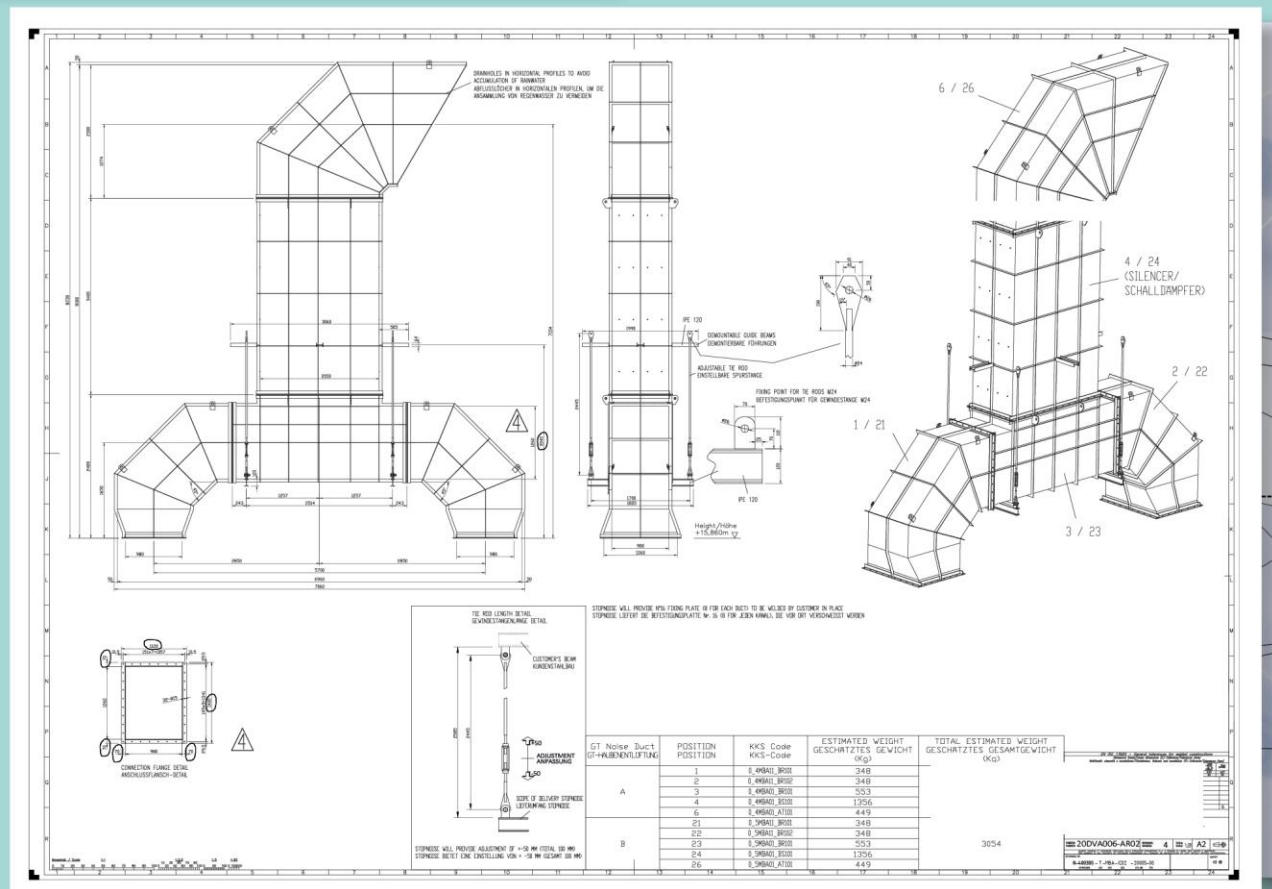
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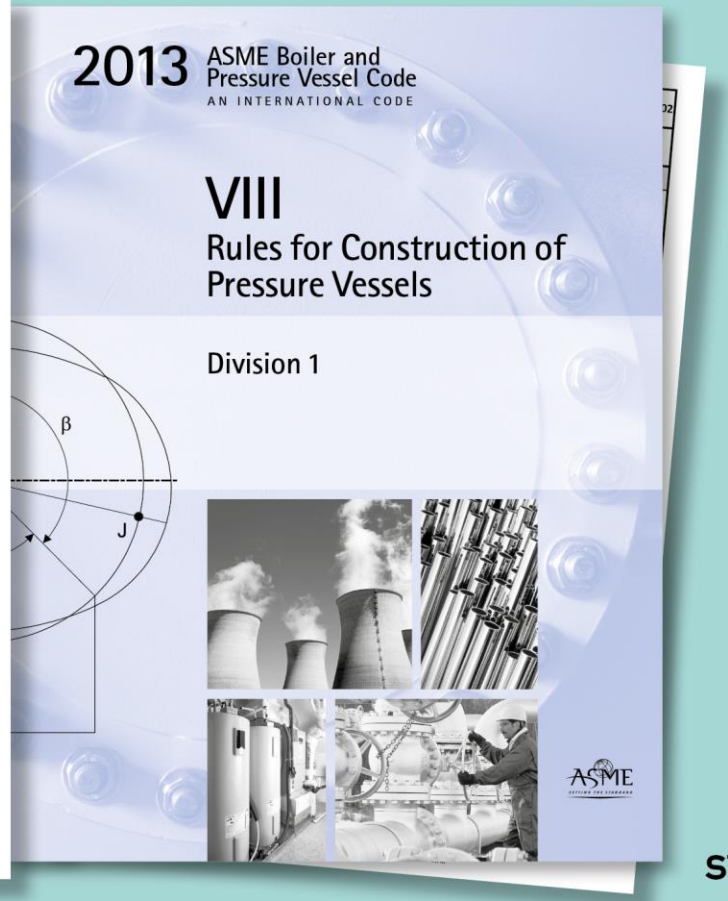
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Submit a clear technical and economic proposal together with the product drawing.





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2 STEP CONSTRUCTION

All our products are manufactured by selected Partner Shops and tested according to dedicated Inspection Plans by qualified personnel.

The maximum attention is paid to the quality of each single item.









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3 STEP DELIVERY

Pack and deliver the product on time.

Prepare and submit all the contractual documentation to the Customer.

Provide adequate support and assistance.









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Our **Products and Services**

› Silencers for atmospheric discharge of gases
› Silencers for engine flue gases
› Silencers for ventilation systems
› Soundproofing systems for gas turbines
› Soundproofing enclosures
› Acoustic remediation
› Services



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Silencers for atmospheric discharge of gases

Safety, Relief, Start-Up and Regulation Valve Discharge Silencers, Vent Silencers, Blow-Off Silencers, Blow-Down Silencers





WORKING PRINCIPLE

1) Diffusion: progressive and controlled expansion of the fluid through a diffuser
2) Absorption: noise attenuation through absorbing medium
Attenuation levels up to 75 dB(A)

DESIGN

› **100% customized solutions**
› **According to ASME, EN, PED (2014/68/EU)**
› **Materials**: carbon steel, alloy steel, stainless steel or combination of materials
› Standard and customized **paintings**
› Possibility of **multiple entries**

APPLICATIONS

› Process plants for gases, fluids, air and steam
› Combustion boilers
› HRSG
› Gas and petrochemical industries
› LNG gasification plants
› Thermal and nuclear plants
› Combined-cycle plants

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Silencers for engine flue gases

Flue gases of internal combustion engines of cogeneration sets and power generation sets







WORKING PRINCIPLE

1) Resonance: noise reduction and reflection in a geometrically-tuned resonating chamber
2) Absorption: noise attenuation through absorbing medium
Attenuation levels from 15 to 50 dB(A)

DESIGN

› Standard solutions from catalogue and **customized solutions**
› **Materials**: carbon steel, alloy steel, stainless steel or combination of materials
› **Standard** and customized **paintings**
› Possibility of **axial/radial inlet and outlet**
› Possibility of **multiple entries**
› Possibility to **couple silencers** for higher acoustic performance

ACCESSORIES

› Inlet or outlet nozzles slotted or with pipe clamps
› Arrangement for catalyst allocation
› Spark arrestor
› Expansion joints
› Flap or elbow on the outlet for weather protection
› Saddles for horizontal installation or supports for vertical installation

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Silencers for ventilation systems

Fan intake or discharge silencers and silencers for ventilation ducts





WORKING PRINCIPLE

Absorption: noise attenuation through absorbing medium
Attenuation levels up to 60 dB(A)

DESIGN

› **100% customized solutions**
› Silencer layout with **rectangular or round section**
› Silencers constituted only by **baffles** installed within customer's ducts
› **Materials**: carbon steel, alloy steel, stainless steel or combination of materials
› Standard and customized **paintings**

ACCESSORIES

› Inlet and outlet flanges
› Cone connections with upstream and downstream ducts
› Filtering cells and houses
› Weatherproof grills or protections
› Saddles for horizontal installation or supports for vertical installation

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Soundproofing systems for gas turbines

Combustion air inlet on GT, Discharge of exhaust gases from GT







WORKING PRINCIPLE

Absorption: noise attenuation through absorbing medium
Attenuation levels up to 60 dB(A)
Fluid-dynamic analysis to ensure the correct GT functioning (even CFD on request)

COMBUSTION AIR INTAKE FOR GT

› **100% customized solutions**
› **Materials:** carbon steel, galvanized steel, alloy steel, stainless steel or combination of materials
› Possibility of **integrating additional items/services:**
- Filtration units/houses
- Louvers for air intake
- Electric and lighting systems
- Walkways, stairs and other accessories

EXHAUST GAS DISCHARGE FROM GT

› **100% customized solutions**
› **Material selection** according to operating temperatures and conditions
› Construction details to **compensate the thermal expansion** of different components:
› **Flexible solutions:**
- Stack baffles
- Ducted silencers
- Complete stacks

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Soundproofing enclosures

Enclosures for applications within mechanical, metallurgical, chemical, oil & gas, paper and food fields







DESIGN
› **100% customized solutions**
› **Acoustic** design (attenuation from 15 to 45 dBA)
› **Ventilation system** design
› **Structural** design according to national and international rules
› **Lighting** design
› **CFD** design (on request)

APPLICATIONS
› Gas and steam turbines
› Gen sets
› Compressors
› Pumps
› Transformers
› Electric boards
› Ventilators and fans

ACCESSORIES
› Lighting and electric systems
› Firefighting system
› Ventilation systems
› Air conditioning systems
› Instrumentation

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Acoustic remediation

Treatments for the reduction of the environmental acoustic impact



AVAILABLE TREATMENTS

› **Environmental** treatments
› Soundproofing **doors and windows**
› Sound **absorbing lining**
› **Shieldings and walls**
› Soundproofed **ventilation** systems







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Services

Additional services related to environmental and industrial acoustics





AVAILABLE SERVICES

› Environmental **impact studies**
› Acoustic **mapping**
› **Acoustic measurement** campaigns for intervention definition or testing the delivered and installed supply
› **Forecast acoustic calculations**

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Company Management System according to ISO 9001:2015



BUREAU VERITAS
Certification

STOPNOISE ENGINEERING SRL

V. Della Resistenza 121/B - 20090 BUCCINASCO (MI) - ITALY

Certified site:

V. Della Resistenza 121/B – 20090 BUCCINASCO (MI) - ITALY

Bureau Veritas Italia S.p.A. certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

Design and manufacturing of silencers
and enclosures for industrial soundproofing.

IAF sector(s): **18**

Original cycle start date: **10 April 2014**

Expiry date of previous cycle: **09 April 2020**

Certification / Recertification Audit date: **06 March 2020**

Certification / Recertification cycle start date: **20 March 2020**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **09 April 2023**

Certificate No. - Version: IT254532- 1 Revision date: **20 March 2020**

GIORGIO LANZAFAME – Local Technical Manager

Certification body address:
Bureau Veritas Italia S.p.A., Viale Monza, 347 - 20126 Milano, Italia

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

SGQ N° 009A

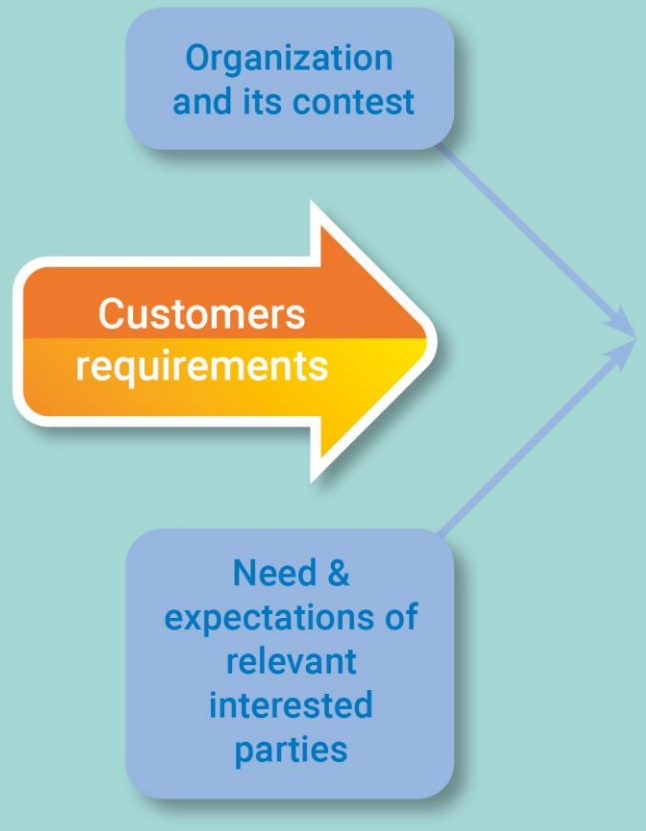
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC mutual Recognition Agreements

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please refer to the website www.bureauveritas.it

Our Business Model

ISO 9001-2015

Quality Management System



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Our Business Model

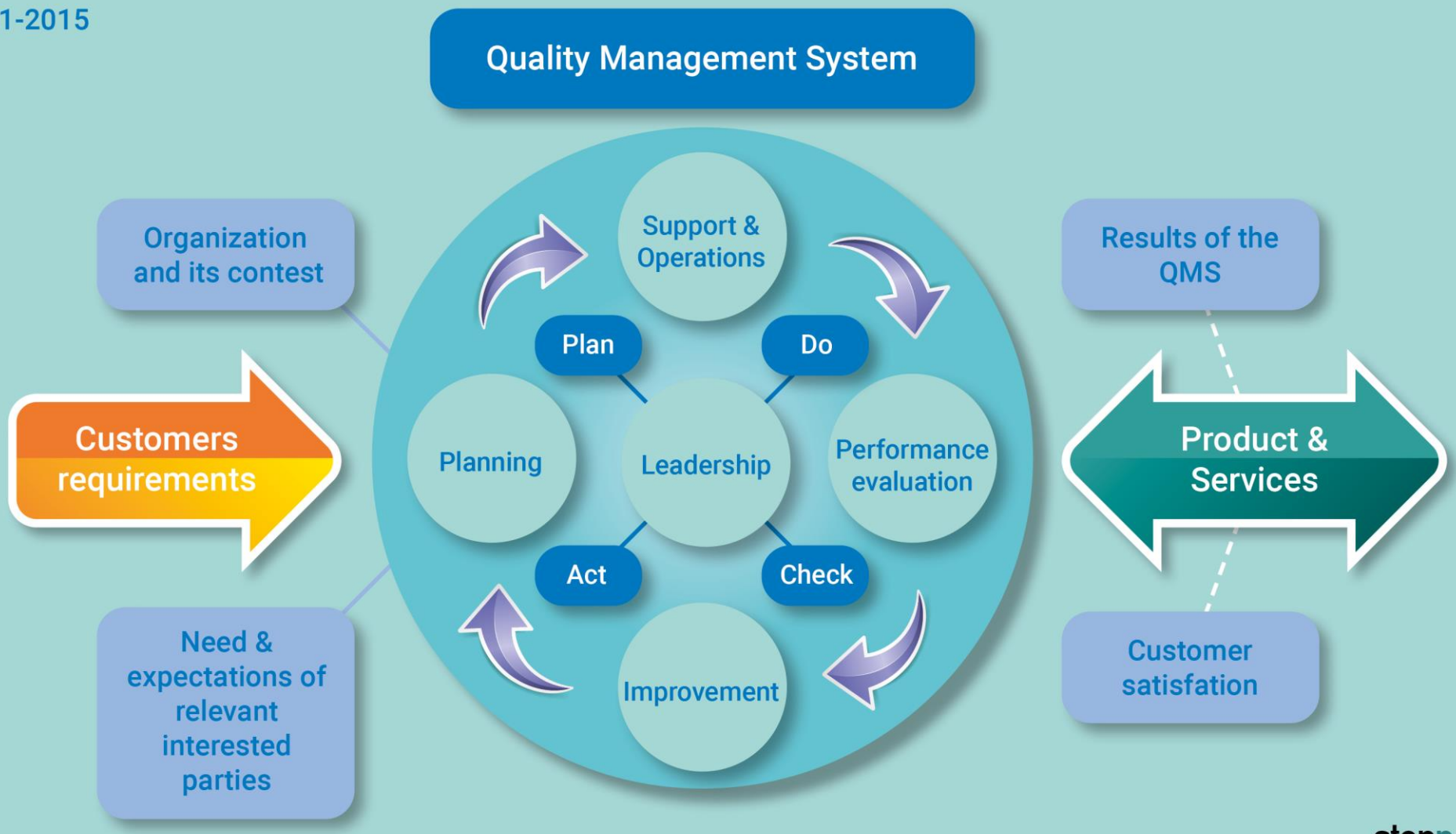
ISO 9001-2015



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Our Business Model

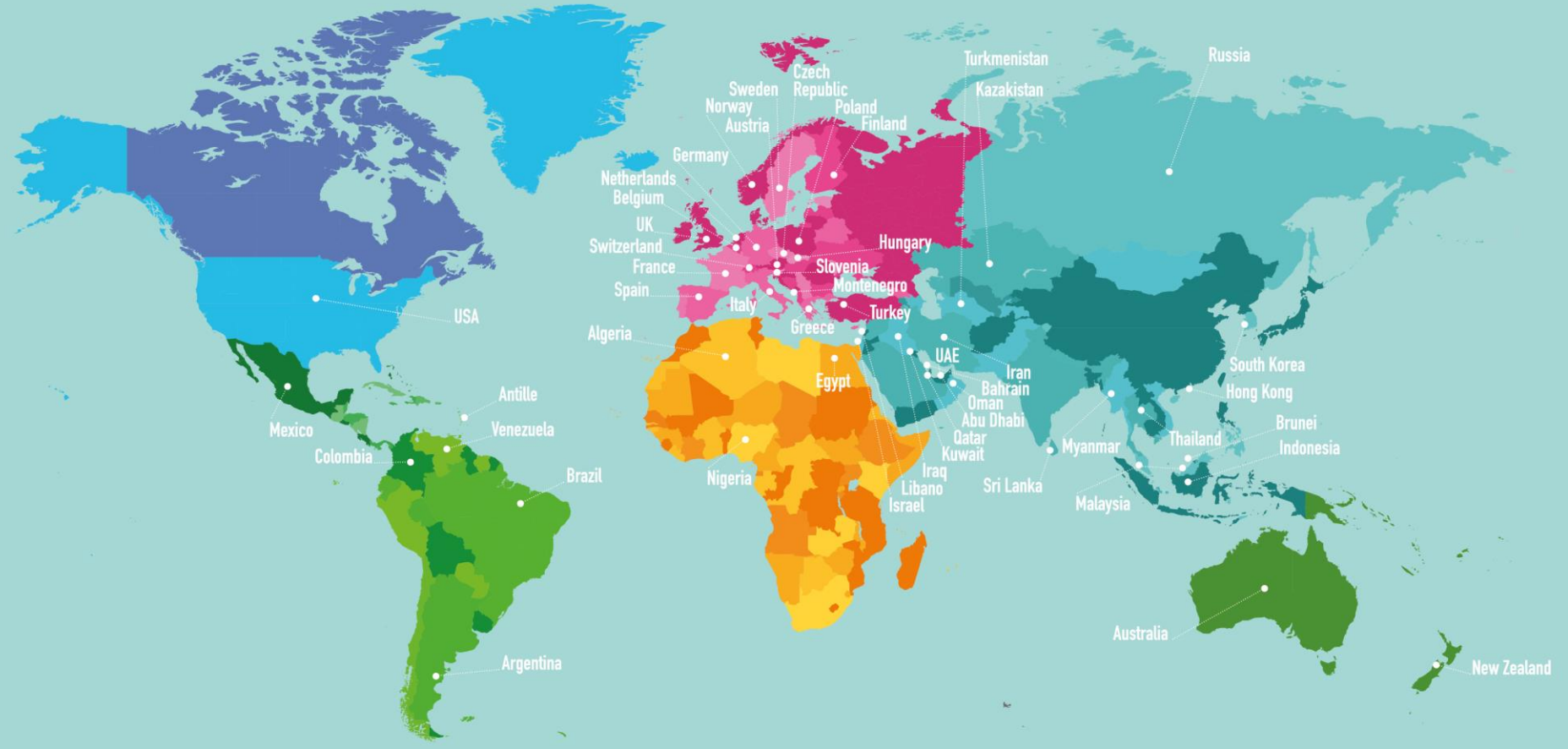
ISO 9001-2015



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Design and Manufacturing in **Italy**, deliveries all around the **World**

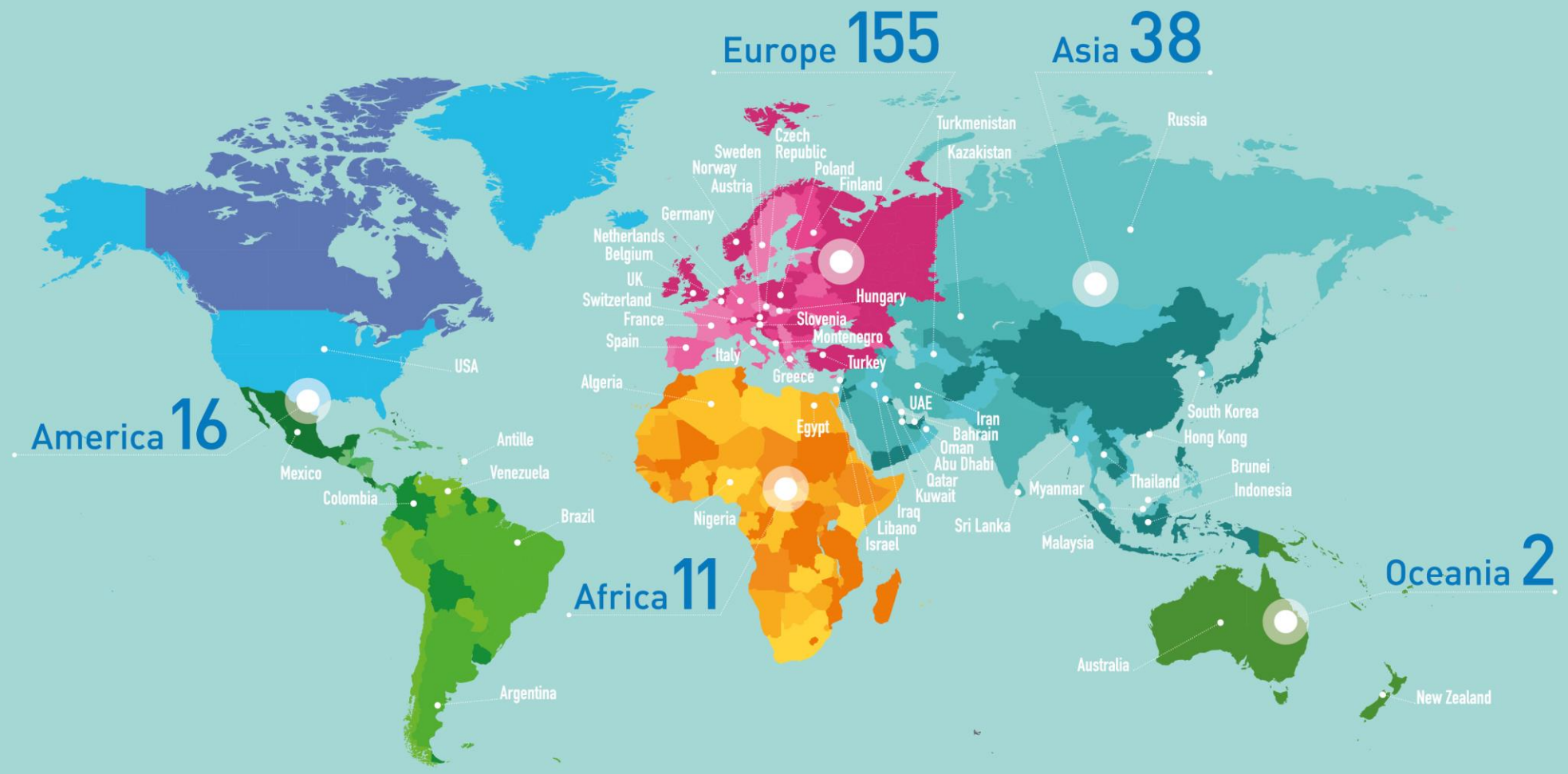
FINAL DESTINATION OF RELEVANT PROJECTS CARRIED OUT BY STOPNOISE ENGINEERING SINCE 2014



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Design and Manufacturing in **Italy**, deliveries all around the **World**

FINAL DESTINATION OF RELEVANT PROJECTS CARRIED OUT BY STOPNOISE ENGINEERING SINCE 2014



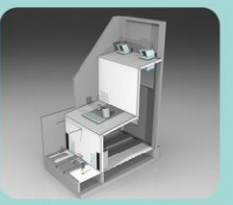
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Design and Manufacturing in **Italy**, deliveries all around the **World**

FINAL DESTINATION OF RELEVANT PROJECTS CARRIED OUT BY STOPNOISE ENGINEERING SINCE 2014



Set of ventilation exhaust ducts with internal silencers for GT noise enclosure – Volkswagen Plant, Germany (2020)



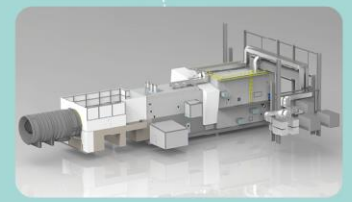
Soundproofed enclosures for power transformers – Cepagatti and Kotor conversion stations, Italy and Montenegro (2015)



Soundproofed test room for marine engines – Italy (2019)



Set of steam vent silencers for a 220 MW power plant based on ST MHPS F4 – Termocandelaria Power Plant, Colombia (2021)



Soundproofing enclosures for GT V94.3A4 on a 450 MW combined cycle power plant Mazandaran II Power Plant, Iran (2016)



Silencers for ID fan flue gases Kwinana Waste-To-Energy Plant, Australia

Europe 155

Asia 38

America 16

Africa 11

Oceania 2

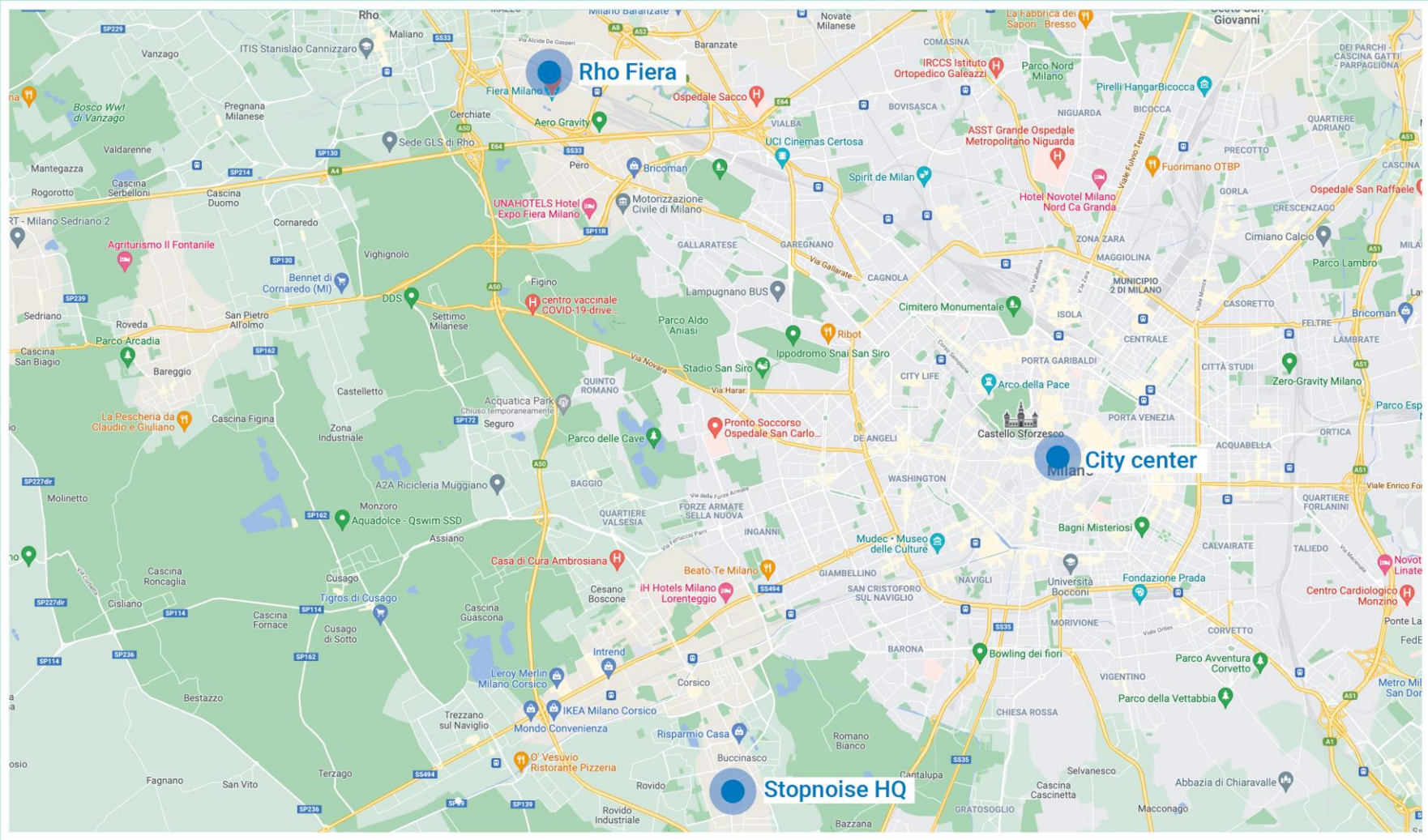
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Thank you

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