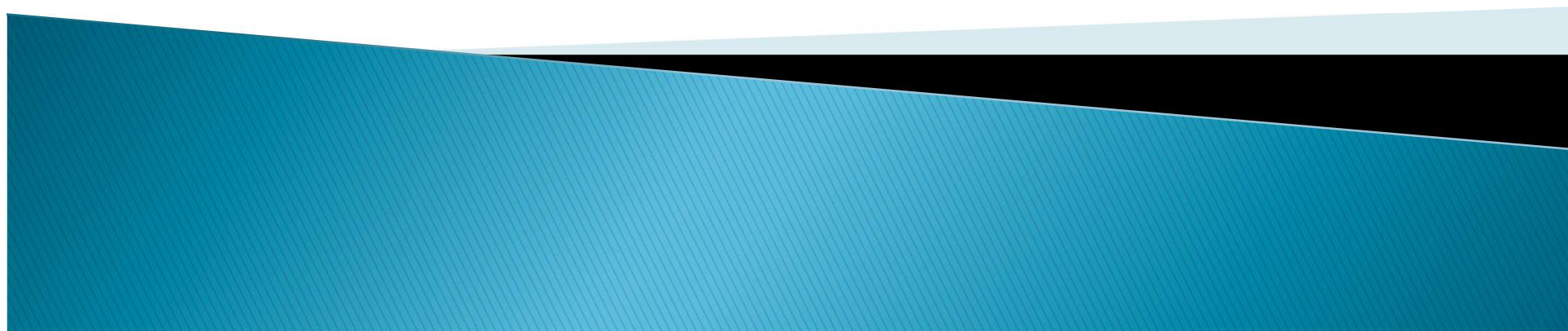


Sigam
marmitte



Marcianise Plant

(24.000 m2 – developed in 3 main buildings)



History

- ▶ The company was established at the early 60's by the Marfe's family.
- ▶ The business today is run by the second generation.
- ▶ After 10 years of growing activity, **SIGAM** had to manage the first expansion of the production plant up to 3.000 m².
- ▶ In 1996 we moved to the current premises whose surface is 20.000 m².
- ▶ In January 2017, there has been a facility expansion of 4.000 m².

What we do

We Develop, Manufacture and Distribute:

- ▶ Silencers and complete exhaust systems
- ▶ Pipes and Manifolds
- ▶ Universal Mufflers
- ▶ Catalytic Converters
- ▶ Universal catalytic converters
- ▶ DPF (FAP)
- ▶ Flexible Pipes
- ▶ Fitting Parts & Accessories

CUSTOMIZED SOLUTIONS FOR EVERY SECTOR



AGRICULTURE



FURNITURE



STREET FURNITURE



AIR CONDITIONING
AND HEATING



LIGHTING



MEDICAL



NAUTICAL



CATERING



SPORTS



TRANSPORTATION

BENDING



Sigam's advanced production plants allow the bending of tubes with round, square and rectangular sections. A qualified staff of technicians is able to support the customer in the initial choices and in the fundamental control phases.

Machinable sections: from 25 mm diameter to 114 mm in diameter.

Machinery: BLM left and right CNC

DEFORMATION



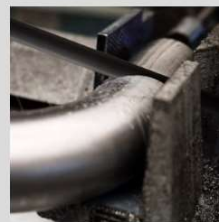
Bending or shaping the tube for Sigam is a process that has only one point of reference: perfection. Thanks to specific machinery and specialised technicians, Sigam helps any company to manage its specific needs.

TAPERING



Tapering consists of reducing or enlarging the diameter of a pipe and can be customised, to obtain precise diameters, on different types of pipe. Made on round and oval section tubes of most metal materials, such as: steel, stainless steel, aluminium, copper and brass. Sigam offers its customers the possibility to manage the cutting of tubes with diameters ranging from 4 to 150 mm and thicknesses up to 8 mm.

TUBE CUTTING



Sigam offers its customers the possibility to manage the cutting of pipes with diameters ranging from 4 to 150 mm and thicknesses up to 8 mm. In addition, it is possible to carry out threading, boring, turning, tapering and washing.

WELDING



Thanks to Sigam technologies, welding any type of pipe is not a problem.

Trust Sigam's consultants for access to all types of welding:

- TIG welding
- MIG or MAG welding
- YAG welding
- continuous wire welding

Machinable sections: from 25 mm diameter to 114 mm diameter.

INSULATION



Sigam offers specialised acoustic and thermal insulation products mainly for the automotive and industrial sectors. These solutions are used to manage sound and heat from the engine compartment to the exhaust. Technical experience and knowledge of materials allow us to offer engineering products in steel (METAL ENCAPSULATION's patented system) and textiles (Thermo Jacket - Glass fibre and silicone socks) that are applied in the most demanding industrial sectors.

Our Customer base

- ▶ Companies OEM operating in following sectors:
- ▶ Agricultural
- ▶ Construction
- ▶ Industrial building
- ▶ Logistic
- ▶ Energy

Industrial / Off Road

- ▶ Companies distributing spare parts for cars
- ▶ Spare Parts Importers, Buying Groups

Automotive

Some references

- ▶ **Agriculture:**
 - ▶ Argo Tractors, Kramer, Merlo, Manitou, CNH
- ▶ **Construction**
 - ▶ Atlas Copco, Dieci, Terex, Imer Group
- ▶ **Logistic**
 - ▶ Gruppo Kion (Linde, Still)
- ▶ **Energy**
 - ▶ Pramac, Himoinsa, Coelmo, Grupos Electrogenos
- ▶ **Cleaning and Roads Safety**
 - ▶ AeBi Schmidt, Autec France

Some OEM Customers:





Atlas Copco





DIECI



kramerALLRAD®



IMER



MESSERSINI
IL GIGANTE BLU

ASH GROUP
AEBI SCHMIDT Nido



Sigam

Power Generators



EUROPOWER



PRAMAC



mase
GENERATORS



COELMO



Tecno **Gen**
POWER GENERATORS

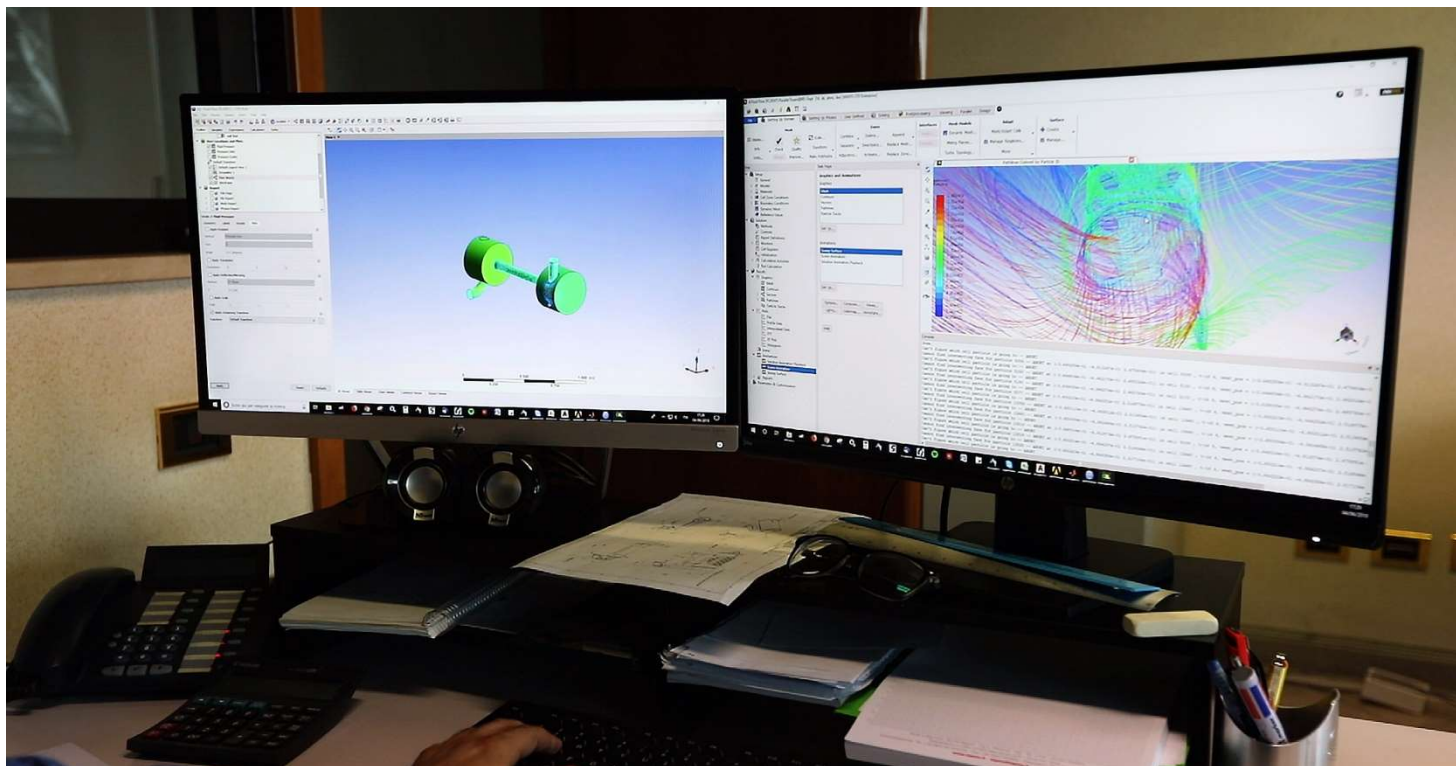
Ascot



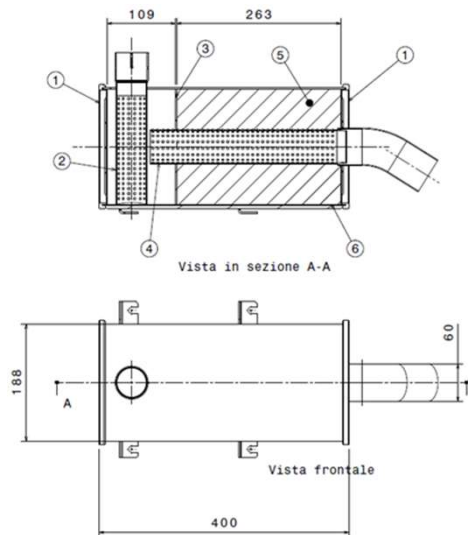
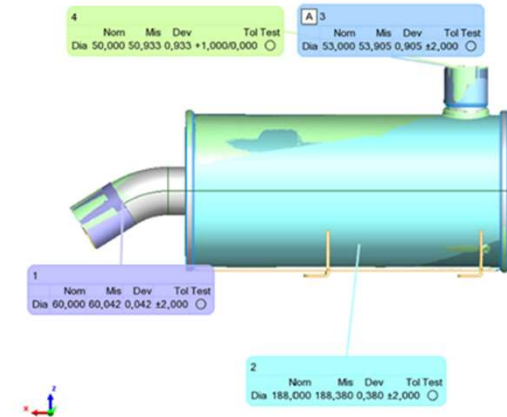
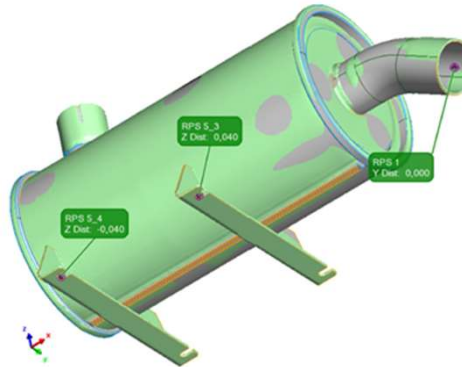
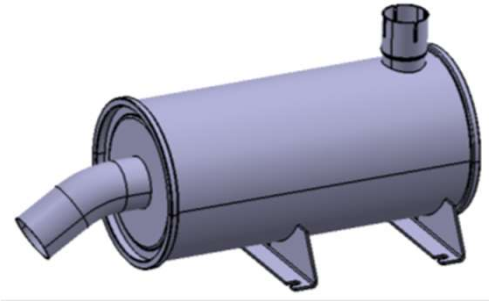
Sigam
MOTORI

R & D

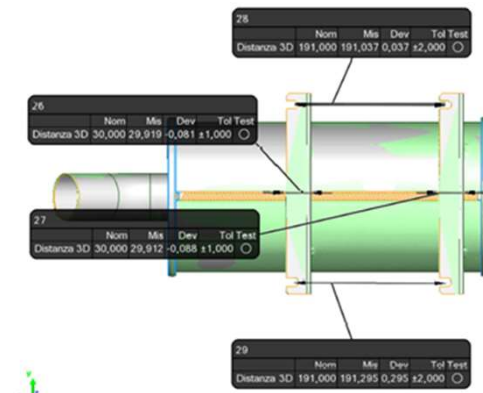
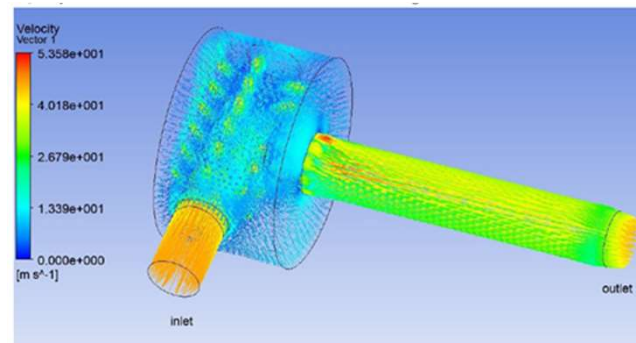
- ▶ Open to new forms of cooperation in research, to improve performances of products, our Company has long been in collaboration with *DIME* of the Faculty of Engineering of Naples and with the *CNR Institute of the Motor*: **an added value to our experience.**



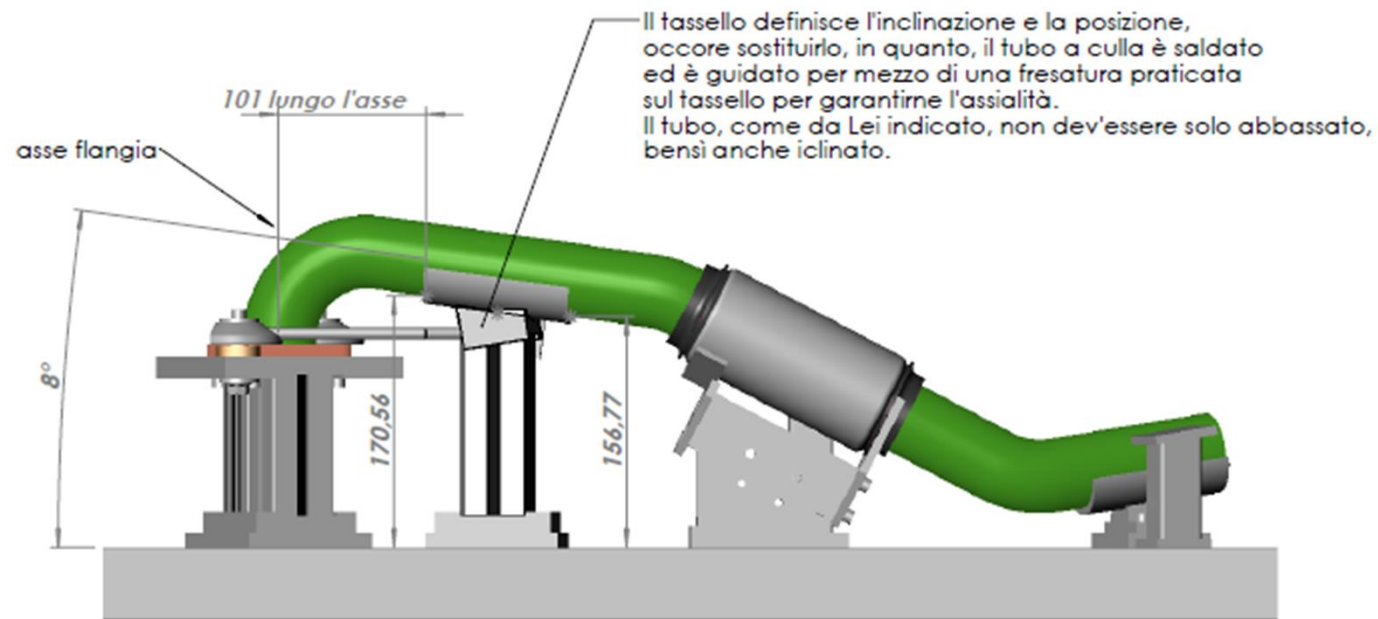
Exhaust System Development with Dimensional Report



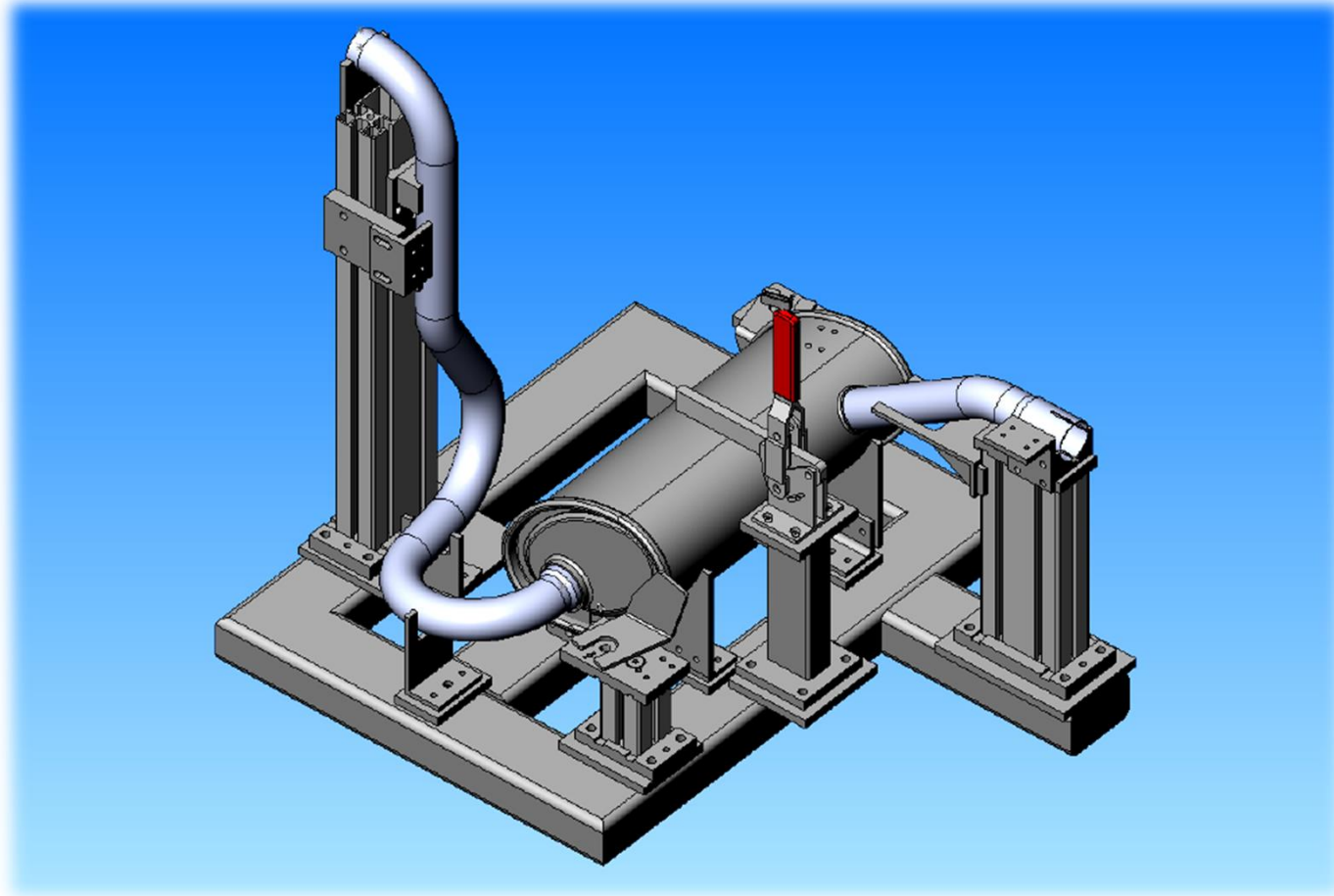
Engine: Kubota V2403-CR-TE4B 48.6 kW at 2700 rpm
 Exhaust flow: 8.6 m³/min
 Exhaust temperature: 530 °C
 Min. Allowable Exhaust Restriction 2.5 kPa
 Max. exhaust sound power level = 98 dB(A)



Quota Analysis (ISIR)



Fitting Precision



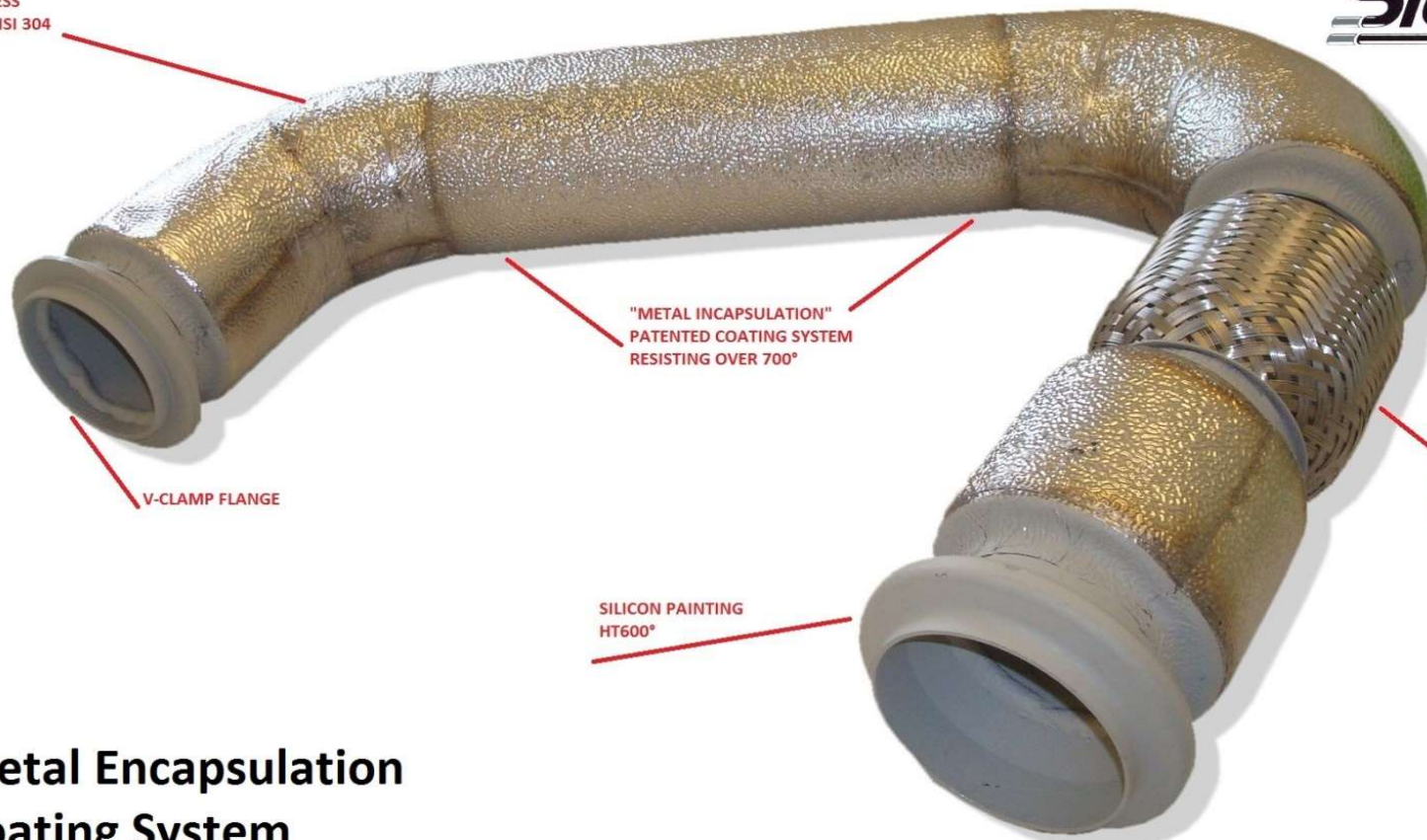
Technology

Thanks to its constant update in manufacturing technologies, **SIGAM** has been able to cooperate with world leading exhausts manufacturers, both for the AFM and for the OEM markets.



Insulation System

INNER PIPE
STAINLESS
STEEL AISI 304



"METAL INCAPSULATION"
PATENTED COATING SYSTEM
RESISTING OVER 700°

V-CLAMP FLANGE

SILICON PAINTING
HT600°

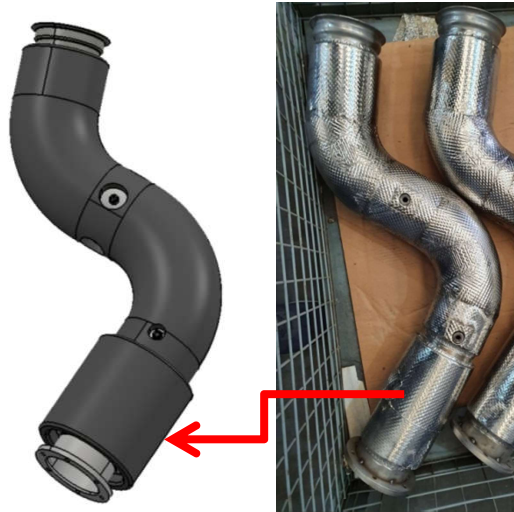
WITZMANN
STAINLESS STEEL
FLEXI PIPE
TRIPLE SKIN

Sigam
marmitta

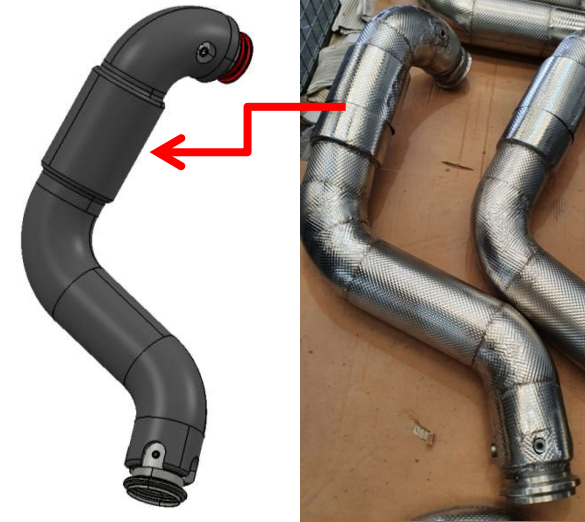
**Metal Encapsulation
Coating System**

Sigam
marmitta

Some examples with Metal Encapsulation



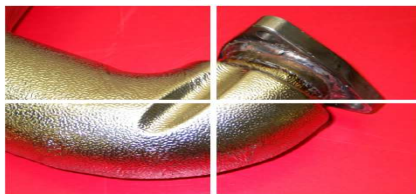
Flexible pipe covered
by the insulation with
Slip-on MetCap



Data Sheet Metal Encapsulation

The Thermal Management Technology For Exhaust Pipes

Metal Encapsulation SS2



Bespoke Metal Encapsulation

Hand made solution for single prototypes or low volume applications requiring a metal outer cover for either higher temperature resistance, enhanced durability or specific aesthetic qualities. In addition to the standard insulation, we can offer alternative insulation mediums such as Micropore®, Pyrogel®, Superwool® or silica needlemats. This bespoke option utilises welding techniques developed for the Metal Encapsulation SS2.

Insulated Flexible Bellows



The Thermal Management Technology For Exhaust Pipes

Metal Encapsulation SS2



Bespoke Metal Encapsulation

Hand made solution for single prototypes or low volume applications requiring a metal outer cover for either higher temperature resistance, enhanced durability or specific aesthetic qualities. In addition to the standard insulation, we can offer alternative insulation mediums such as Micropore®, Pyrogel®, Superwool® or silica needlemats. This bespoke option utilises welding techniques developed for the Metal Encapsulation SS2.

Insulated Flexible Bellows



Metal Encapsulation SS2 is the "hardshell" derivative of our well known pipe insulation system. It provides the same unsurpassed insulation performance whilst satisfying the requirement for a metal foil outer surface. In house tooling and welding processes have been developed to produce precise encapsulation which is highly durable and visually pleasing. The development costs of producing such a high quality product do however dictate that this solution is more suited for high volume projects. The skills and specialist equipment needed to provide this product necessitates that the customer's pipes are sent to us.



Currently under development is a fully insulated, gas tight bellows connector. The specifically developed insulation matrix ensures there is minimum stress loading on the high temperature fibres.

Metal Encapsulation SS2 elastomeric outer cover combines maximum flexibility with insulation protection.

Metal Encapsulation SS2 is the "hardshell" derivative of our well known pipe insulation system. It provides the same unsurpassed insulation performance whilst satisfying the requirement for a metal foil outer surface. In house tooling and welding processes have been developed to produce precise encapsulation which is highly durable and visually pleasing. The development costs of producing such a high quality product do however dictate that this solution is more suited for high volume projects. The skills and specialist equipment needed to provide this product necessitates that the customer's pipes are sent to us.

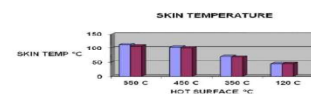


Currently under development is a fully insulated, gas tight bellows connector. The specifically developed insulation matrix ensures there is minimum stress loading on the high temperature fibres.

Metal Encapsulation SS2 elastomeric outer cover combines maximum flexibility with insulation protection.

SS2 METAL ENCAPSULATION® TM

Facts & More

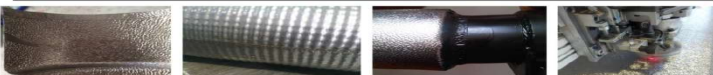


SS2 Metal Encapsulation® è un innovativo sistema isolante per la coibentazione integrale di tubazioni di scarico. Il sistema isolante si compone di un layering appositamente studiato e realizzato per permettere una performance costante per tutto il ciclo di vita della coibentazione.

SS2 Metal Encapsulation è particolarmente adatto per l'applicazione su tubazioni di scarico per motori Diesel abbinata con sistemi anti-inquinamento ed equipaggiata di filtri antiparticolato. In questa applicazione il mantenimento della temperatura è parte fondamentale per il funzionamento del sistema di scarico.

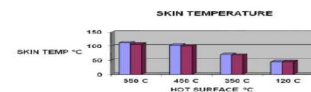
EURO VI APPROVED.

LAYERING	
SKIN ESTERNA	Acciaio Inox 404 spessore 0,17mm con finitura GrobKorn®
ISOLANTE	ThermProtect® ECRPHT Spessore medio 12mm Temperatura di Applicazione 750°C Densità 150-190Kg/Mc
TAGLIAFUOCO	FireHalt® Gold Temperatura di Applicazione 1000°C Spessore 0,30mm ISO 1182 Approved
TERMO RIFLETTENTE	Alluminio con rinforzo in fibra di vetro Spessore 50 µ



SS2 METAL ENCAPSULATION® TM

Facts & More

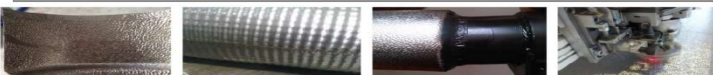


SS2 Metal Encapsulation® è un innovativo sistema isolante per la coibentazione integrale di tubazioni di scarico. Il sistema isolante si compone di un layering appositamente studiato e realizzato per permettere una performance costante per tutto il ciclo di vita della coibentazione.

SS2 Metal Encapsulation è particolarmente adatto per l'applicazione su tubazioni di scarico per motori Diesel abbinata con sistemi anti-inquinamento ed equipaggiata di filtri antiparticolato. In questa applicazione il mantenimento della temperatura è parte fondamentale per il funzionamento del sistema di scarico.

EURO VI APPROVED.

LAYERING	
SKIN ESTERNA	Acciaio Inox 404 spessore 0,17mm con finitura GrobKorn®
ISOLANTE	ThermProtect® ECRPHT Spessore medio 12mm Temperatura di Applicazione 750°C Densità 150-190Kg/Mc
TAGLIAFUOCO	FireHalt® Gold Temperatura di Applicazione 1000°C Spessore 0,30mm ISO 1182 Approved
TERMO RIFLETTENTE	Alluminio con rinforzo in fibra di vetro Spessore 50 µ



14 cnc high-precision units, fully equipped for the pipe deformation, electric, 4,0 connected



The ultimate Technologies



IBLM
ELECT 102

**Svasatubi^e
Rastrematubi**



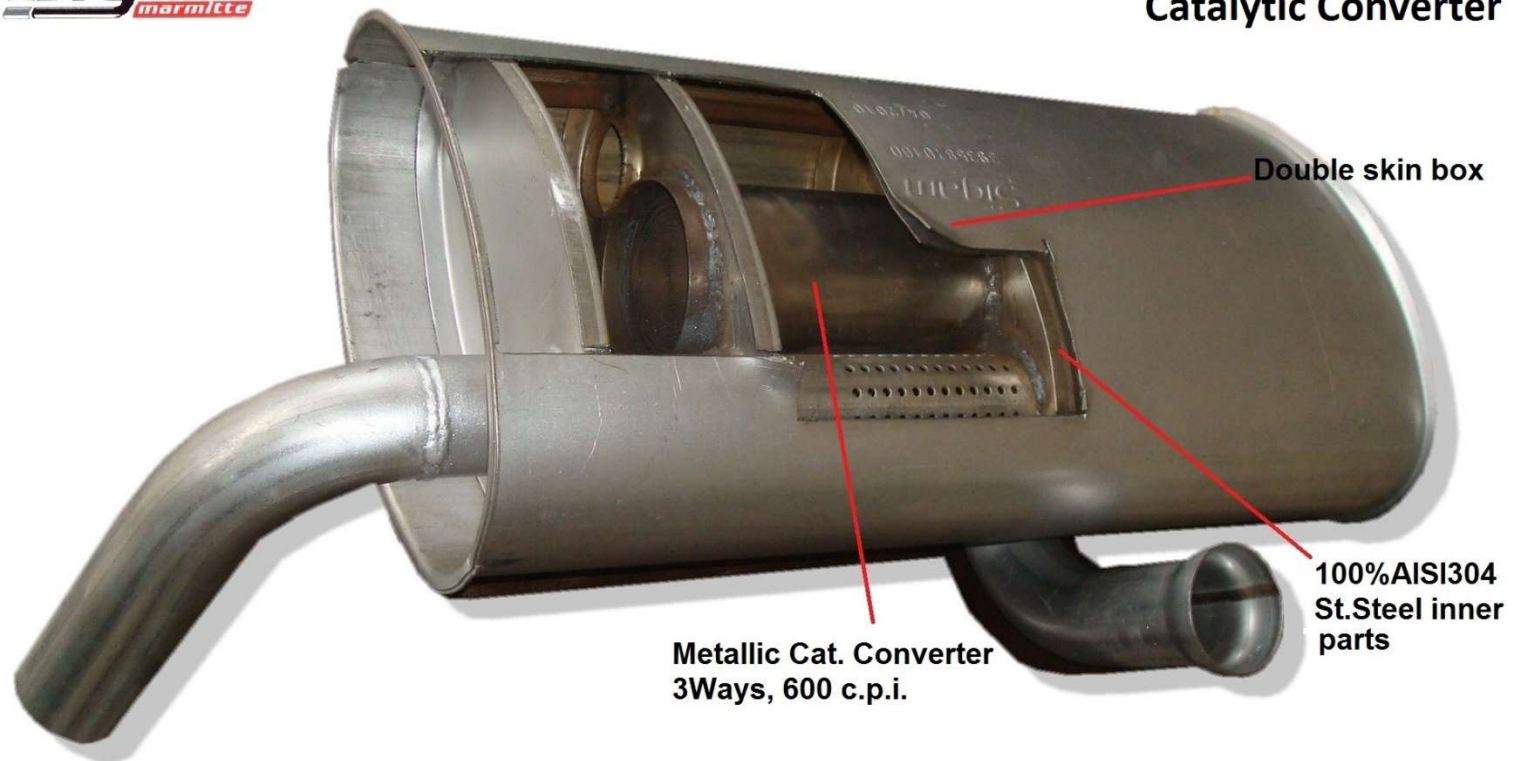
One of our «bending islands»



Exhaust System with Catalyst inside

Sigam
marmitta

Silencer with Inner
Catalytic Converter



Sigam
marmitta

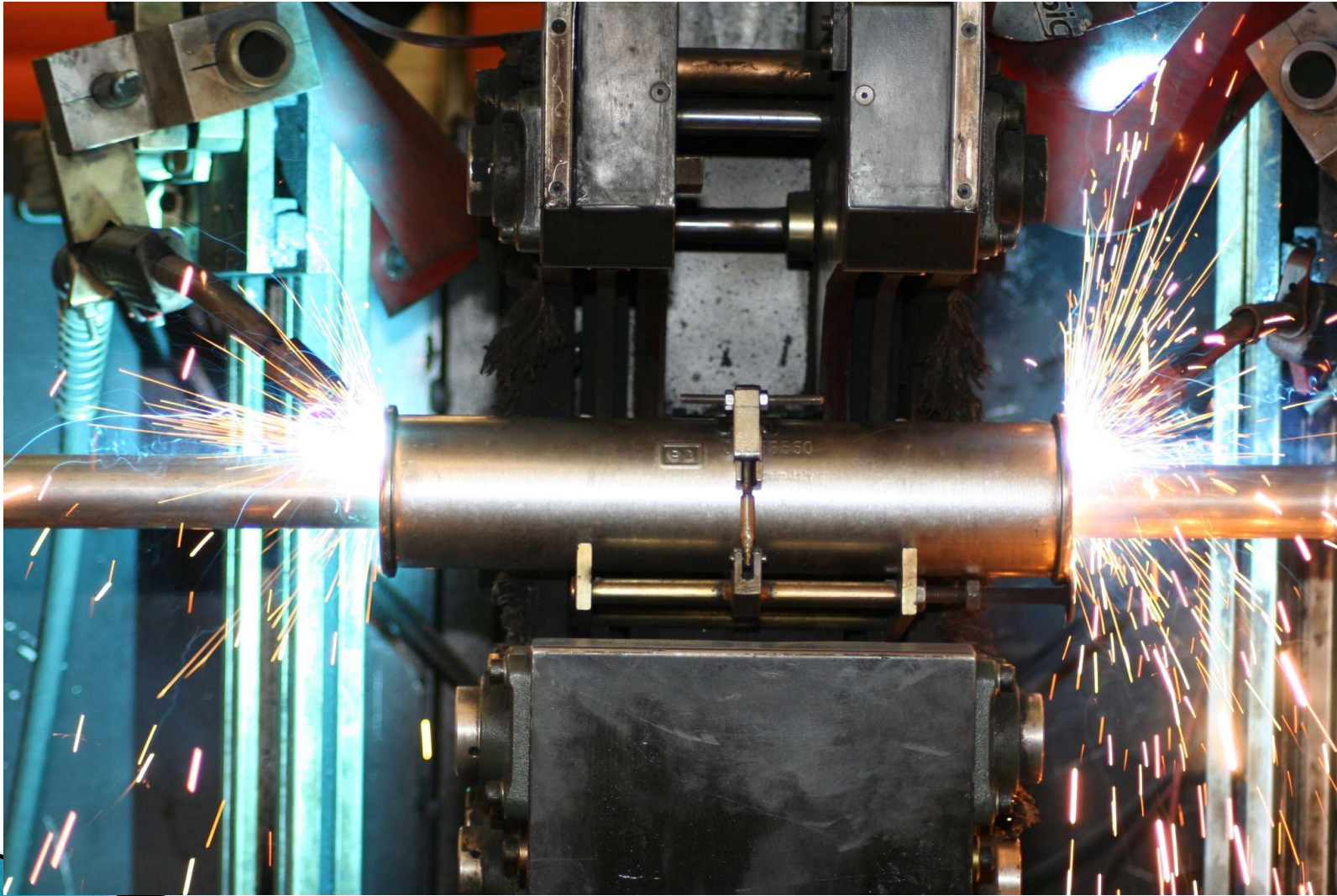
Horizontal Caps Seaming



Introduction of Internal Silencer



Automatic WELDING Machines



WPQR – Welding Certificate for AISI & DX+AS



0001 N° 0001 A 0001 N° 0001 B
0001 N° 0001 C 0001 N° 0001 D
0001 N° 0001 E 0001 N° 0001 F
0001 N° 0001 G 0001 N° 0001 H
0001 N° 0001 I 0001 N° 0001 J
0001 N° 0001 K 0001 N° 0001 L
0001 N° 0001 M 0001 N° 0001 N
0001 N° 0001 O 0001 N° 0001 P
0001 N° 0001 Q 0001 N° 0001 R
0001 N° 0001 S 0001 N° 0001 T
0001 N° 0001 U 0001 N° 0001 V
0001 N° 0001 W 0001 N° 0001 X
0001 N° 0001 Y 0001 N° 0001 Z
0001 N° 0001 AA 0001 N° 0001 AB
0001 N° 0001 AC 0001 N° 0001 AD
0001 N° 0001 AE 0001 N° 0001 AF
0001 N° 0001 AG 0001 N° 0001 AH
0001 N° 0001 AI 0001 N° 0001 AJ
0001 N° 0001 AK 0001 N° 0001 AL
0001 N° 0001 AM 0001 N° 0001 AN
0001 N° 0001 AO 0001 N° 0001 AP
0001 N° 0001 AQ 0001 N° 0001 AR
0001 N° 0001 AS 0001 N° 0001 AT
0001 N° 0001 AU 0001 N° 0001 AV
0001 N° 0001 AW 0001 N° 0001 AX
0001 N° 0001 AY 0001 N° 0001 AZ
0001 N° 0001 BA 0001 N° 0001 BB
0001 N° 0001 BC 0001 N° 0001 BD
0001 N° 0001 BE 0001 N° 0001 BF
0001 N° 0001 BG 0001 N° 0001 BH
0001 N° 0001 BI 0001 N° 0001 BJ
0001 N° 0001 BK 0001 N° 0001 BL
0001 N° 0001 BM 0001 N° 0001 BN
0001 N° 0001 BO 0001 N° 0001 BP
0001 N° 0001 BQ 0001 N° 0001 BR
0001 N° 0001 BS 0001 N° 0001 BT
0001 N° 0001 BU 0001 N° 0001 BV
0001 N° 0001 BW 0001 N° 0001 BX
0001 N° 0001 BY 0001 N° 0001 BZ
0001 N° 0001 CA 0001 N° 0001 CB
0001 N° 0001 CC 0001 N° 0001 CD
0001 N° 0001 CE 0001 N° 0001 CF
0001 N° 0001 CG 0001 N° 0001 CH
0001 N° 0001 CI 0001 N° 0001 CJ
0001 N° 0001 CK 0001 N° 0001 CL
0001 N° 0001 CM 0001 N° 0001 CN
0001 N° 0001 CO 0001 N° 0001 CP
0001 N° 0001 CQ 0001 N° 0001 CR
0001 N° 0001 CS 0001 N° 0001 CT
0001 N° 0001 CU 0001 N° 0001 CV
0001 N° 0001 CW 0001 N° 0001 CX
0001 N° 0001 CY 0001 N° 0001 CZ
0001 N° 0001 DA 0001 N° 0001 DB
0001 N° 0001 DC 0001 N° 0001 DD
0001 N° 0001 DE 0001 N° 0001 DF
0001 N° 0001 DG 0001 N° 0001 DH
0001 N° 0001 DI 0001 N° 0001 DJ
0001 N° 0001 DK 0001 N° 0001 DL
0001 N° 0001 DM 0001 N° 0001 DN
0001 N° 0001 DO 0001 N° 0001 DP
0001 N° 0001 DQ 0001 N° 0001 DR
0001 N° 0001 DS 0001 N° 0001 DT
0001 N° 0001 DU 0001 N° 0001 DV
0001 N° 0001 DW 0001 N° 0001 DX
0001 N° 0001 DY 0001 N° 0001 DZ
0001 N° 0001 EA 0001 N° 0001 EB
0001 N° 0001 EC 0001 N° 0001 ED
0001 N° 0001 EE 0001 N° 0001 EF
0001 N° 0001 EG 0001 N° 0001 EH
0001 N° 0001 EI 0001 N° 0001 EJ
0001 N° 0001 EK 0001 N° 0001 EL
0001 N° 0001 EM 0001 N° 0001 EN
0001 N° 0001 EO 0001 N° 0001 EP
0001 N° 0001 EQ 0001 N° 0001 ER
0001 N° 0001 ES 0001 N° 0001 ET
0001 N° 0001 EU 0001 N° 0001 EV
0001 N° 0001 EW 0001 N° 0001 EX
0001 N° 0001 EY 0001 N° 0001 EZ
0001 N° 0001 FA 0001 N° 0001 FB
0001 N° 0001 FC 0001 N° 0001 FD
0001 N° 0001 FE 0001 N° 0001 FF
0001 N° 0001 FG 0001 N° 0001 FH
0001 N° 0001 FI 0001 N° 0001 FJ
0001 N° 0001 FK 0001 N° 0001 FL
0001 N° 0001 FM 0001 N° 0001 FN
0001 N° 0001 FO 0001 N° 0001 FP
0001 N° 0001 FQ 0001 N° 0001 FR
0001 N° 0001 FS 0001 N° 0001 FT
0001 N° 0001 FU 0001 N° 0001 FV
0001 N° 0001 FW 0001 N° 0001 FX
0001 N° 0001 FY 0001 N° 0001 FZ
0001 N° 0001 GA 0001 N° 0001 GB
0001 N° 0001 GC 0001 N° 0001 GD
0001 N° 0001 GE 0001 N° 0001 GF
0001 N° 0001 GG 0001 N° 0001 GH
0001 N° 0001 GI 0001 N° 0001 GJ
0001 N° 0001 GK 0001 N° 0001 GL
0001 N° 0001 GM 0001 N° 0001 GN
0001 N° 0001 GO 0001 N° 0001 GP
0001 N° 0001 GQ 0001 N° 0001 GR
0001 N° 0001 GS 0001 N° 0001 GT
0001 N° 0001 GU 0001 N° 0001 GV
0001 N° 0001 GW 0001 N° 0001 GX
0001 N° 0001 GY 0001 N° 0001 GZ
0001 N° 0001 HA 0001 N° 0001 HB
0001 N° 0001 HC 0001 N° 0001 HD
0001 N° 0001 HE 0001 N° 0001 HF
0001 N° 0001 HG 0001 N° 0001 HH
0001 N° 0001 HI 0001 N° 0001 HJ
0001 N° 0001 HK 0001 N° 0001 HL
0001 N° 0001 HM 0001 N° 0001 HN
0001 N° 0001 HO 0001 N° 0001 HP
0001 N° 0001 HQ 0001 N° 0001 HR
0001 N° 0001 HS 0001 N° 0001 HT
0001 N° 0001 HU 0001 N° 0001 HV
0001 N° 0001 HW 0001 N° 0001 HX
0001 N° 0001 HY 0001 N° 0001 HZ
0001 N° 0001 IA 0001 N° 0001 IB
0001 N° 0001 IC 0001 N° 0001 ID
0001 N° 0001 IE 0001 N° 0001 IF
0001 N° 0001 IG 0001 N° 0001 IH
0001 N° 0001 II 0001 N° 0001 IJ
0001 N° 0001 IK 0001 N° 0001 IL
0001 N° 0001 IM 0001 N° 0001 IN
0001 N° 0001 IO 0001 N° 0001 IP
0001 N° 0001 IQ 0001 N° 0001 IR
0001 N° 0001 IS 0001 N° 0001 IT
0001 N° 0001 IU 0001 N° 0001 IV
0001 N° 0001 IW 0001 N° 0001 IX
0001 N° 0001 IY 0001 N° 0001 IZ
0001 N° 0001 JA 0001 N° 0001 JB
0001 N° 0001 JC 0001 N° 0001 JD
0001 N° 0001 JE 0001 N° 0001 JF
0001 N° 0001 JG 0001 N° 0001 JH
0001 N° 0001 JI 0001 N° 0001 JJ
0001 N° 0001 JK 0001 N° 0001 JL
0001 N° 0001 JM 0001 N° 0001 JN
0001 N° 0001 JO 0001 N° 0001 JP
0001 N° 0001 JQ 0001 N° 0001 JR
0001 N° 0001 JS 0001 N° 0001 JT
0001 N° 0001 JU 0001 N° 0001 JV
0001 N° 0001 JW 0001 N° 0001 JX
0001 N° 0001 JY 0001 N° 0001 JZ
0001 N° 0001 KA 0001 N° 0001 KB
0001 N° 0001 KC 0001 N° 0001 KD
0001 N° 0001 KE 0001 N° 0001 KF
0001 N° 0001 KG 0001 N° 0001 KH
0001 N° 0001 KI 0001 N° 0001 KJ
0001 N° 0001 KK 0001 N° 0001 KL
0001 N° 0001 KM 0001 N° 0001 KN
0001 N° 0001 KO 0001 N° 0001 KP
0001 N° 0001 KQ 0001 N° 0001 KR
0001 N° 0001 KS 0001 N° 0001 KT
0001 N° 0001 KU 0001 N° 0001 KV
0001 N° 0001 KW 0001 N° 0001 KX
0001 N° 0001 KY 0001 N° 0001 KZ
0001 N° 0001 LA 0001 N° 0001 LB
0001 N° 0001 LC 0001 N° 0001 LD
0001 N° 0001 LE 0001 N° 0001 LF
0001 N° 0001 LG 0001 N° 0001 LH
0001 N° 0001 LI 0001 N° 0001 LJ
0001 N° 0001 LK 0001 N° 0001 LL
0001 N° 0001 LM 0001 N° 0001 LN
0001 N° 0001 LO 0001 N° 0001 LP
0001 N° 0001 LQ 0001 N° 0001 LR
0001 N° 0001 LS 0001 N° 0001 LT
0001 N° 0001 LU 0001 N° 0001 LV
0001 N° 0001 LW 0001 N° 0001 LX
0001 N° 0001 LY 0001 N° 0001 LZ
0001 N° 0001 MA 0001 N° 0001 MB
0001 N° 0001 MC 0001 N° 0001 MD
0001 N° 0001 ME 0001 N° 0001 MF
0001 N° 0001 MG 0001 N° 0001 MH
0001 N° 0001 MI 0001 N° 0001 MJ
0001 N° 0001 MK 0001 N° 0001 ML
0001 N° 0001 MM 0001 N° 0001 MN
0001 N° 0001 MO 0001 N° 0001 MP
0001 N° 0001 MQ 0001 N° 0001 MR
0001 N° 0001 MS 0001 N° 0001 MT
0001 N° 0001 MU 0001 N° 0001 MV
0001 N° 0001 MW 0001 N° 0001 MX
0001 N° 0001 MY 0001 N° 0001 MZ
0001 N° 0001 NA 0001 N° 0001 NB
0001 N° 0001 NC 0001 N° 0001 ND
0001 N° 0001 NE 0001 N° 0001 NF
0001 N° 0001 NG 0001 N° 0001 NH
0001 N° 0001 NI 0001 N° 0001 NJ
0001 N° 0001 NK 0001 N° 0001 NL
0001 N° 0001 NM 0001 N° 0001 NN
0001 N° 0001 NO 0001 N° 0001 NP
0001 N° 0001 NQ 0001 N° 0001 NR
0001 N° 0001 NS 0001 N° 0001 NT
0001 N° 0001 NU 0001 N° 0001 NV
0001 N° 0001 NW 0001 N° 0001 NX
0001 N° 0001 NY 0001 N° 0001 NZ
0001 N° 0001 OA 0001 N° 0001 OB
0001 N° 0001 OC 0001 N° 0001 OD
0001 N° 0001 OE 0001 N° 0001 OF
0001 N° 0001 OG 0001 N° 0001 OH
0001 N° 0001 OI 0001 N° 0001 OJ
0001 N° 0001 OK 0001 N° 0001 OL
0001 N° 0001 OM 0001 N° 0001 ON
0001 N° 0001 OO 0001 N° 0001 OP
0001 N° 0001 OQ 0001 N° 0001 OR
0001 N° 0001 OS 0001 N° 0001 OT
0001 N° 0001 OU 0001 N° 0001 OV
0001 N° 0001 OW 0001 N° 0001 OX
0001 N° 0001 OY 0001 N° 0001 OZ
0001 N° 0001 PA 0001 N° 0001 PB
0001 N° 0001 PC 0001 N° 0001 PD
0001 N° 0001 PE 0001 N° 0001 PF
0001 N° 0001 PG 0001 N° 0001 PH
0001 N° 0001 PI 0001 N° 0001 PJ
0001 N° 0001 PK 0001 N° 0001 PL
0001 N° 0001 PM 0001 N° 0001 PN
0001 N° 0001 PO 0001 N° 0001 PP
0001 N° 0001 PQ 0001 N° 0001 PR
0001 N° 0001 PS 0001 N° 0001 PT
0001 N° 0001 PU 0001 N° 0001 PV
0001 N° 0001 PW 0001 N° 0001 PX
0001 N° 0001 PY 0001 N° 0001 PZ
0001 N° 0001 QA 0001 N° 0001 QB
0001 N° 0001 QC 0001 N° 0001 QD
0001 N° 0001 QE 0001 N° 0001 QF
0001 N° 0001 QG 0001 N° 0001 QH
0001 N° 0001 QI 0001 N° 0001 QJ
0001 N° 0001 QK 0001 N° 0001 QL
0001 N° 0001 QM 0001 N° 0001 QN
0001 N° 0001 QO 0001 N° 0001 QP
0001 N° 0001 QQ 0001 N° 0001 QR
0001 N° 0001 QS 0001 N° 0001 QT
0001 N° 0001 QU 0001 N° 0001 QV
0001 N° 0001 QW 0001 N° 0001 QX
0001 N° 0001 QY 0001 N° 0001 QZ
0001 N° 0001 RA 0001 N° 0001 RB
0001 N° 0001 RC 0001 N° 0001 RD
0001 N° 0001 RE 0001 N° 0001 RF
0001 N° 0001 RG 0001 N° 0001 RH
0001 N° 0001 RI 0001 N° 0001 RJ
0001 N° 0001 RK 0001 N° 0001 RL
0001 N° 0001 RM 0001 N° 0001 RN
0001 N° 0001 RO 0001 N° 0001 RP
0001 N° 0001 RQ 0001 N° 0001 RR
0001 N° 0001 RS 0001 N° 0001 RT
0001 N° 0001 RU 0001 N° 0001 RV
0001 N° 0001 RW 0001 N° 0001 RX
0001 N° 0001 RY 0001 N° 0001 RZ
0001 N° 0001 SA 0001 N° 0001 SB
0001 N° 0001 SC 0001 N° 0001 SD
0001 N° 0001 SE 0001 N° 0001 SF
0001 N° 0001 SG 0001 N° 0001 SH
0001 N° 0001 SI 0001 N° 0001 SJ
0001 N° 0001 SK 0001 N° 0001 SL
0001 N° 0001 SM 0001 N° 0001 SN
0001 N° 0001 SO 0001 N° 0001 SP
0001 N° 0001 SQ 0001 N° 0001 SR
0001 N° 0001 SS 0001 N° 0001 ST
0001 N° 0001 SU 0001 N° 0001 SV
0001 N° 0001 SW 0001 N° 0001 SX
0001 N° 0001 SY 0001 N° 0001 SZ
0001 N° 0001 TA 0001 N° 0001 TB
0001 N° 0001 TC 0001 N° 0001 TD
0001 N° 0001 TE 0001 N° 0001 TF
0001 N° 0001 TG 0001 N° 0001 TH
0001 N° 0001 TI 0001 N° 0001 TJ
0001 N° 0001 TK 0001 N° 0001 TL
0001 N° 0001 TM 0001 N° 0001 TN
0001 N° 0001 TO 0001 N° 0001 TP
0001 N° 0001 TQ 0001 N° 0001 TR
0001 N° 0001 TS 0001 N° 0001 TT
0001 N° 0001 TU 0001 N° 0001 TV
0001 N° 0001 TW 0001 N° 0001 TX
0001 N° 0001 TY 0001 N° 0001 TZ
0001 N° 0001 UA 0001 N° 0001 UB
0001 N° 0001 UC 0001 N° 0001 UD
0001 N° 0001 UE 0001 N° 0001 UF
0001 N° 0001 UG 0001 N° 0001 UH
0001 N° 0001 UI 0001 N° 0001 UJ
0001 N° 0001 UK 0001 N° 0001 UL
0001 N° 0001 UM 0001 N° 0001 UN
0001 N° 0001 UO 0001 N° 0001 UP
0001 N° 0001 UQ 0001 N° 0001 UR
0001 N° 0001 US 0001 N° 0001 UT
0001 N° 0001 UU 0001 N° 0001 UV
0001 N° 0001 UW 0001 N° 0001 UX
0001 N° 0001 UY 0001 N° 0001 UZ
0001 N° 0001 VA 0001 N° 0001 VB
0001 N° 0001 VC 0001 N° 0001 VD
0001 N° 0001 VE 0001 N° 0001 VF
0001 N° 0001 VG 0001 N° 0001 VH
0001 N° 0001 VI 0001 N° 0001 VJ
0001 N° 0001 VK 0001 N° 0001 VL
0001 N° 0001 VM 0001 N° 0001 VN
0001 N° 0001 VO 0001 N° 0001 VP
0001 N° 0001 VQ 0001 N° 0001 VR
0001 N° 0001 VS 0001 N° 0001 VT
0001 N° 0001 VU 0001 N° 0001 VV
0001 N° 0001 VW 0001 N° 0001 VX
0001 N° 0001 VY 0001 N° 0001 VZ
0001 N° 0001 WA 0001 N° 0001 WB
0001 N° 0001 WC 0001 N° 0001 WD
0001 N° 0001 WE 0001 N° 0001 WF
0001 N° 0001 WG 0001 N° 0001 WH
0001 N° 0001 WI 0001 N° 0001 WJ
0001 N° 0001 WK 0001 N° 0001 WL
0001 N° 0001 WM 0001 N° 0001 WN
0001 N° 0001 WO 0001 N° 0001 WP
0001 N° 0001 WQ 0001 N° 0001 WR
0001 N° 0001 WS 0001 N° 0001 WT
0001 N° 0001 WU 0001 N° 0001 WV
0001 N° 0001 WW 0001 N° 0001 WX
0001 N° 0001 WY 0001 N° 0001 WZ
0001 N° 0001 XA 0001 N° 0001 XB
0001 N° 0001 XC 0001 N° 0001 XD
0001 N° 0001 XE 0001 N° 0001 XF
0001 N° 0001 XG 0001 N° 0001 XH
0001 N° 0001 XI 0001 N° 0001 XJ
0001 N° 0001 XK 0001 N° 0001 XL
0001 N° 0001 XM 0001 N° 0001 XN
0001 N° 0001 XO 0001 N° 0001 XP
0001 N° 0001 XQ 0001 N° 0001 XR
0001 N° 0001 XS 0001 N° 0001 XT
0001 N° 0001 XU 0001 N° 0001 XV
0001 N° 0001 XW 0001 N° 0001 XZ
0001 N° 0001 YA 0001 N° 0001 YB
0001 N° 0001 YC 0001 N° 0001 YD
0001 N° 0001 YE 0001 N° 0001 YF
0001 N° 0001 YG 0001 N° 0001 YH
0001 N° 0001 YI 0001 N° 0001 YJ
0001 N° 0001 YK 0001 N° 0001 YL
0001 N° 0001 YM 0001 N° 0001 YN
0001 N° 0001 YO 0001 N° 0001 YP
0001 N° 0001 YQ 0001 N° 0001 YR
0001 N° 0001 YS 0001 N° 0001 YT
0001 N° 0001 YU 0001 N° 0001 YV
0001 N° 0001 YW 0001 N° 0001 YX
0001 N° 0001 YY 0001 N° 0001 YZ
0001 N° 0001 ZA 0001 N° 0001 ZB
0001 N° 0001 ZC 0001 N° 0001 ZD
0001 N° 0001 ZE 0001 N° 0001 ZF
0001 N° 0001 ZG 0001 N° 0001 ZH
0001 N° 0001 ZI 0001 N° 0001 ZJ
0001 N° 0001 ZK 0001 N° 0001 ZL
0001 N° 0001 ZM 0001 N° 0001 ZN
0001 N° 0001 ZO 0001 N° 0001 ZP
0001 N° 0001 ZQ 0001 N° 0001 ZR
0001 N° 0001 ZS 0001 N° 0001 ZT
0001 N° 0001 ZU 0001 N° 0001 ZV
0001 N° 0001 ZW 0001 N° 0001 ZX
0001 N° 0001 ZY 0001 N° 0001 ZZ

WELDING PROCEDURE QUALIFICATION RECORD (WPQR)

LEVEL 2

N. 19VE000253PW1A

Manufacturer **SIGAM s.r.l. - Marcianise (CE)**

WPQR No. **SIGAM AISI 01/2019**

Dated **28/03/2019**

Manufacturer's welding procedure (WPS)

SIGAM AISI 01/2019 - REV.2

Dated **14/02/2019**

RANGE OF QUALIFICATION

Welding process **135** Type **Partly mechanized**
Joint type **Plates and Pipes and build-up FW**
Single/Multiple pass **Single** (Impact and hardness property not applied)
Parent material group(s) **8-8** ISO/TR 15608; ISO/TR20172; ISO/TR 20173; ISO/TR20174
Sub group **8.1 only**
Parent material thickness (mm) **N.A.** Fillet Joint $t_1 = 0,84$ to $2,4$ $t_2 = 3$ to 12
Throat thickness (mm) **2,62 to 5,25**
Weld deposit. thickness (mm) **N.A.**
Outside pipe diameter (mm) **Outside diameter ≥ 21 mm**
Filler metal make **N.A.** Nr. of wires for process 12: **None**
Flux make **N.A.** Flux Designation: **N.A.**
Filler metal designation **Solid wire EN ISO 14343: G 19 9 L Si**
Shielding gas (ISO 14175) **M12 with CO₂ min. 2,0 max. 3,0** Backing gas (ISO 14175) **None**
Type of welding current **DCEP** Heat Input KJ/cm **no restrictions**
Welding position **PJ Transfer Mode Spray, Pulse, Globular transfer**
Preheat min. (°C) **+ 20** (if ISO/TR 17671-2 requirements are fulfilled) Interpass temp. Max. (°C) -
Interpass temp. Max. (°C) **N.A.** Postheat min. (°C) - Time (minutes) -
Post weld heat treatment / Ageing **None** Time (minutes) -
Other information

Welder's/Operator's name **DELLE CAVE PASQUALE**

Stamp No. **DR**

Welding test conducted by **SIGAM s.r.l. - Marcianise (CE)**

Mechanical test conducted by **A.Q.C. srl - Via Ferrante Imperato, 501 (NA)** Laboratory test No. **19/136B**

At presence of RINA Surveyor **L. Scarpati**

We confirm that statements in this record are correct and that the test welds were prepared, welded and tested and have fulfilled the requirements in accordance with **UNI EN ISO 15614-1: 2017** Standard.

Issued at: Genova

on 20 May 2019

[Signature]

RINA Services S.p.A.



0001 N° 0001 A 0001 N° 0001 B
0001 N° 0001 C 0001 N° 0001 D
0001 N° 0001 E 0001 N° 0001 F
0001 N° 0001 G 0001 N° 0001 H
0001 N° 0001 I 0001 N° 0001 J
0001 N° 0001 K 0001 N° 0001 L
0001 N° 0001 M 0001 N° 0001 N
0001 N° 0001 O 0001 N° 0001 P
0001 N° 0001 Q 0001 N° 0001 R
0001 N° 0001 S 0001 N° 0001 T
0001 N° 0001 U 0001 N° 0001 V
0001 N° 0001 W 0001 N° 0001 X
0001 N° 0001 Y 0001 N° 0001 Z
0001 N° 0001 AA 0001 N° 0001 AB
0001 N° 0001 AC 0001 N° 0001 AD
0001 N° 0001 AE 0001 N° 0001 AF
0001 N° 0001 AG 0001 N° 0001 AH
0001 N° 0001 AI 0001 N° 0001 AJ
0001 N° 0001 AK 0001 N° 0001 AL
0001 N° 0001 AM 0001 N° 0001 AN
0001 N° 0001 AO 0001 N° 0001 AP
0001 N° 0001 AQ 0001 N° 0001 AR
0001 N° 0001 AS 0001 N° 0001 AT
0001 N° 0001 AU 0001 N° 0001 AV
0001 N° 0001 AW 0001 N° 0001 AX
0001 N° 0001 AY 0001 N° 0001 AZ
0001 N° 0001 BA 0001 N° 0001 BB
0001 N° 0001 BC 0001 N° 0001 BD
0001 N° 0001 BE 0001 N° 0001 BF
0001 N° 0001 BG 0001 N° 0001 BH
0001 N° 0001 BI 0001 N° 0001 BJ
0001 N° 0001 BK 0001 N° 00

QUALITY

The focus on quality has been a milestone at **SIGAM**.

This means:

- ▶ Accurate choice of raw materials;
- ▶ Thickness of metal sheet, pipes, inside and outside plates in line with OES standards.
- ▶ Use of E-Glass as insulation material which makes our product compatible with strict environmental rules.



QUALITY and ENVIRONMENTAL CERTIFICATION





IONet, the association of the world's first class certification bodies, is the largest provider of management system certification in the world.
IONet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO N. 4493/01/S
CERTIFICATE No.

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
 IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

SIGAM S.R.L.
 VIA ROSAROLL, 105 80139 Napoli (NA) ITALIA

NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

VIA TRIVIO, 40 - ZONA INDUSTRIALE ASI 81025 Marcorianise (CE) ITALIA

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD
ISO 9001:2015

PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

PROGETTAZIONE E PRODUZIONE DI SILENZIATORI PER AUTOVETTURE.
 DESIGN AND PRODUCTION OF EXHAUST SYSTEMS FOR CARS.

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 sono soggetti al rispetto del documento RINA: Regolamento per la Certificazione di Sistemi di Gestione per la Qualità
 The use and validity of this certificate are subject to compliance with the RINA document: Rules for the certification of Quality Management Systems

Prima emissione First Issue	24.01.2001	Data decisione di rinnovo Renewal decision date	17.09.2018
Data scadenza Expiry Date	17.09.2021	Data revisione Revision date	17.09.2018

Antonio Paoletta
 Naples Management System
 Certification, Head


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





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





IONet, the association of the world's first class certification bodies, is the largest provider of management system certification in the world.
IONet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO N. EMS-1448/S
CERTIFICATE No.

SI CERTIFICA CHE IL SISTEMA DI GESTIONE AMBIENTALE DI
 IT IS HEREBY CERTIFIED THAT THE ENVIRONMENTAL MANAGEMENT SYSTEM OF

SIGAM S.R.L.
 VIA ROSAROLL, 105 80139 Napoli (NA) ITALIA

NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

VIA TRIVIO, 40 - ZONA INDUSTRIALE ASI 81025 Marcorianise (CE) ITALIA

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD
ISO 14001:2015

E AL REGOLAMENTO TECNICO ACCREDIA RT-09
 PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

PROGETTAZIONE E PRODUZIONE DI SILENZIATORI PER AUTOVETTURE, MEZZI INDUSTRIALI E MOTORI IN GENERE, ATTRAVERSO LE FASI DI TAGLIO, SAGOMATURA, SALDATURA E VERNICIATURA.
 DESIGN AND PRODUCTION OF EXHAUST SYSTEMS FOR CARS, INDUSTRIAL VEHICLES AND ALL TYPES OF ENGINES THROUGH THE CUTTING, SHAPING, WELDING AND PAINTING PHASES.

La validità del presente certificato è subordinata a sorveglianza periodica annuale / semestrale ed al riesame completo del sistema di gestione con periodicità triennale
 The use and the validity of this certificate are subject to compliance with the RINA document: Rules for the Certification of Environmental Management Systems
 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

Prima emissione First Issue	27.07.2006	Data decisione di rinnovo Renewal decision date	18.07.2018
Data scadenza Expiry Date	21.07.2021	Data revisione Revision date	18.07.2018

Antonio Paoletta
 Naples Management System
 Certification, Head


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





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

Measuring Arm Hexagon Absolute



**HEXAGON**
MANUFACTURING INTELLIGENCE

ROMER ABSOLUTE ARM
PORTABLE MEASURING ARM SYSTEMS

Portable. Accurate. Versatile. Effortless. Innovative.
ROMER Absolute Arm systems from Hexagon Manufacturing Intelligence are advanced portable metrology solutions for fast, reliable measurement wherever you need it.









Absolute Scanner AS1

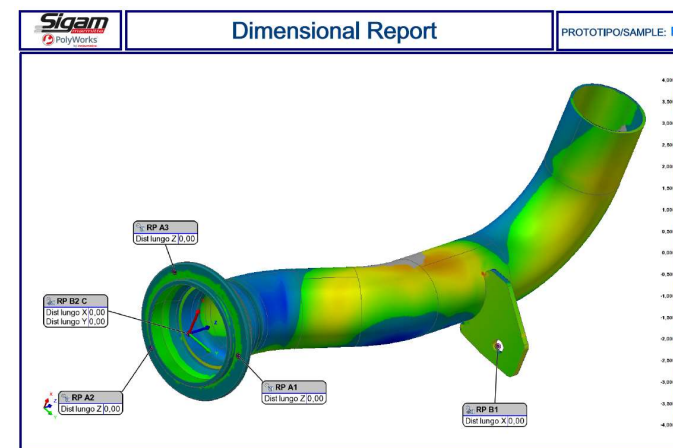
Lo scanner laser 3D leader di mercato per la misura con bracci portatili.



Scanner laser RS5

Lo scanner laser RS5 è un sensore di impiego universale progettato per l'integrazione perfetta con l'Absolute Arm a 7 assi.

- ✓ Controlli Dimensionali e Collaudi di Altissima Precisione
- ✓ Dichiarazione Conformità Prodotto
- ✓ Qualità e Affidabilità prodotti Garantita



Pipe Degrease & Cleaning



TYPICAL APPLICATION

If you have a number of parts to clean in a short time frame, or a bulky difficult-to-clean load, an Aquakleen automatic™ parts washer is the perfect answer. Productivity is increased as the operator is free to work on other tasks, typical soils to be cleaned include:

- Oil
- Ink
- Coolant
- Wax
- Grease
- Cutting Fluid

TYPICAL COMPONENTS

Include components with areas difficult to target such as:

- Engine components
- Drive mechanisms
- Gearboxes
- Fixings and fastenings

WHY CHOOSE AQUAKLEEN AUTOMATIC?

- PERFORMANCE**
Driven baskets assure a consistently high cleaning standard every time, delivering fluid to every part of the component to be cleaned
- ADAPTABILITY**
Plug and play approach offers greater flexibility of machine offering scalability from medium size tasks to larger and more complex industrial needs
- ACCURACY**
A choice of aqueous chemistry allows the most appropriate selection for the application and environmental compliance
- LOW ENERGY**
Insulated machines providing the lowest electricity consumption available on the market preventing wasted time and energy

	Large - M315	Large Plus - M316
Overall Dimensions (HxWxD) open	2360 x 1745 x 2065 mm	
Overall Dimensions (HxWxD) closed	1645 x 1745 x 1650 mm	
Usable Dimensions	600 x 1150 Ø mm	
Max load bearing	600 kg	1000 kg
Power Requirements	400 V (3 phase)	
Sump Capacity	200 litres	

PRODUCTIVITY
 Operator free cleaning allows skilled labour to be utilised in other tasks whilst high quality cleaning takes place

QUALITY
 Automated systems provide standardised performance each and every time

COMPLIANCE
 No operator exposure to hazardous chemicals or emissions due to enclosed automatic process and Safetykleen's range of unique aqueous detergents that are not classed as hazardous

New Degreasing (Phosphating), Painting, Drying Station



Work in progress



New Degreasing (Phosphating), Painting, Drying Station

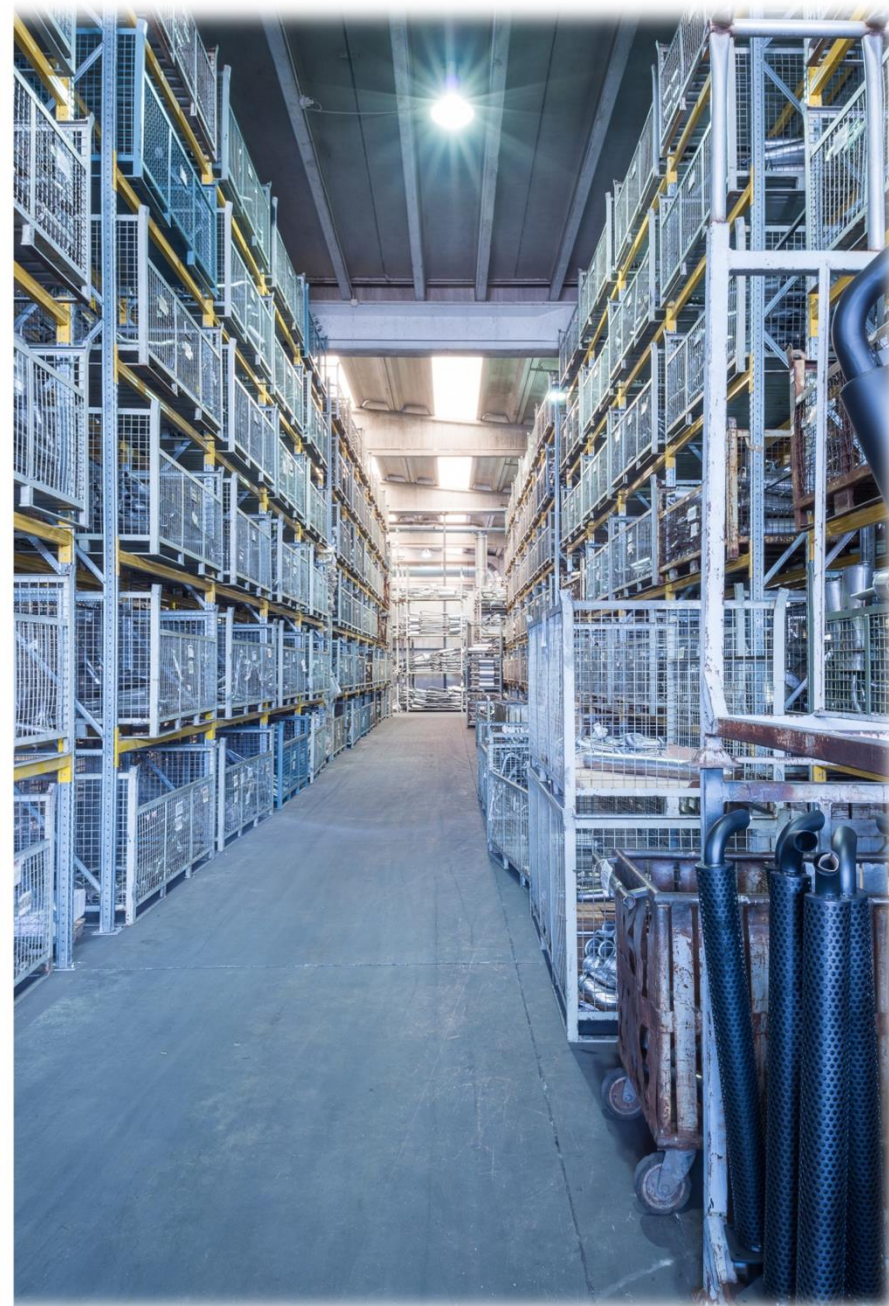


Work in progress

Our Warehouse

- ▶ 95.000 pcs ready to be dispatched
- ▶ 13.500 references
- ▶ About 55 pallets prepared every day
- ▶ About 29 daily shipments worldwide









Our Strenghts

- ▶ Dynamic Production Structure
- ▶ High Production Capacity
- ▶ Quick Decision Makers
- ▶ High Attention to the Market Requirements
- ▶ Listening to Customers Needs



Our Mission

- ▶ Focus on customer satisfaction
- ▶ Continuous improvement of the R&D dept.
- ▶ Strong partnership with our Suppliers to achieve goals
- ▶ Research of new raw materials, technologically advanced
- ▶ Quality
- ▶ Sustainability



The Technological Evolution

