

EFRA APPENDIX 8 HOMOLOGATION OF MUFFLERS

1. GENERAL

For each class there are different levels/procedures for homologation. Anyone who wishes to have a muffler tested and homologated must submit 2 samples and a drawing before December 1st to the muffler homologation officer. Mufflers will be tested between December 1st and february 28th and will be put on the EFRA webpage for publication on March 1st. After publication no other mufflers will be added to the list before the end of the running year.

1.1 1:8 IC muffler rules Each new muffler must be of a 3-chamber type and will be tested with an engine equipped with an inlet silencer (according to EFRA rules). Up till 40.000 RPM the muffler may not produce more then 82 dB, measured at 10 meters distance and 1 meter high.

1.2 1:10 IC Track Each new muffler must be a 2-chamber type and will be tested with an engine equipped with an inlet silencer (according to EFRA rules). The muffler may not produce more then 82 dB, measured at 10 meters distance and 1 meter high.

2 HOMOLOGATION FEE

will be: see General Rules 3.5.7.

If a second test is necessary an additional cost of: see General Rules 3.5.7..

3. HOMOLOGATION NUMBER:

every accepted muffler is issued with an EFRA homologation-number which must be indelibly marked on the side wall.

4. TECHNICAL DETAILS

A very important factor in the control of the noise level of a muffler is the design of the mandatory 2nd chamber and the total length of the outlet pipe.

The first cone may be trimmed by the individual user within a small range to set up the best total system length.

The first cone may be trimmed by the individual user within a small range (max. 5 mm) to set up the best total system length.

5. TOLERANCES

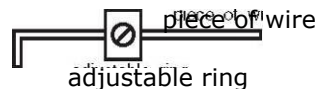
Recognising that the component parts of a muffler are joined together, it is quite clear, that there may be some slight differences in total measurements.

This will not lead to dramatic noise level variation, but one important point must be mentioned:

The 2nd cone must be in line with the outlet pipe, if this is a feature of the original design. To check this, refer to the drawings.

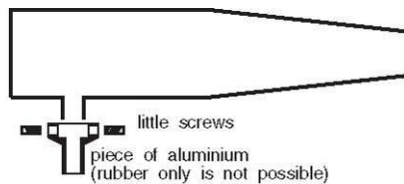
The outlet pipe may have a minus-tolerance of 2 mm.

To the total length of the outlet pipe use a tool similar to that shown below.



6. PRACTICAL TIP

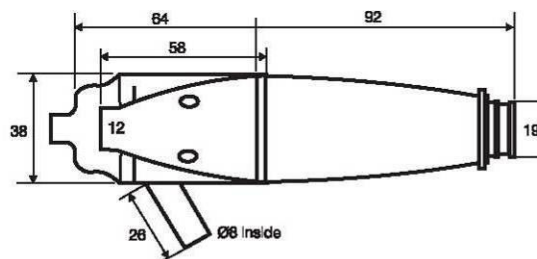
Some drivers cut the outlet pipe, because they fear damage during the race. Of course this is not allowed. To help in such a case, here is a tip:



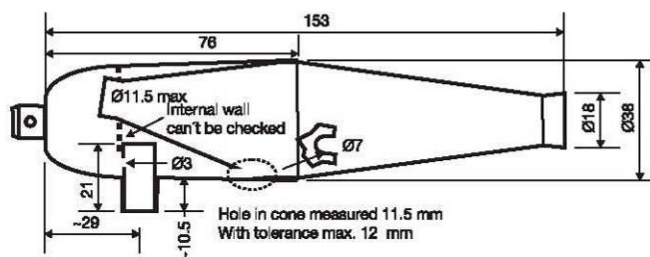
7. EFRA APPROVED MUFFLER The following mufflers do comply with the 2001 noise rules .
 Nr. Manufacturer Remarks

EFRA9901	NovaRossi
EFRA2001	CR France
EFRA2002	Picco
EFRA2003	Swiss Power
EFRA2004	CR France
EFRA2005	Cipolla
EFRA2006	NovaRossi 51109/51009/51059/me
EFRA2007	LM 3 chamber Sirio
EFRA2009	Rossi
EFRA2010	OPS-RC Power OP37970
EFRA2011	Mielke 1202P
EFRA2012	BP
EFRA2013	Sirio
EFRA2014	Bergonzoni
EFRA2015	NovaRossi 51010/51110/51060
EFRA2017	Max power
EFRA2018	Max power SP
EFRA2019	Golden Lion Enterprise Off-Roa
EFRA2020	R&B off-road / R&B003
EFRA2021	Schepis Italy
EFRA2022	Axe Rossi
EFRA2023	SPM B type
EFRA2024	SPM Off-road L type
EFRA2025	LRP off-road
EFRA2026	IDM
EFRA2027	RCMC off-road
EFRA2028	RC Power / OPS OPS37941
EFRA2029	Radiosistemi RC1
EFRA2030	Radiosistemi RC2
EFRA2031	Radiosistemi RC3
EFRA2032	Radiosistemi RC4

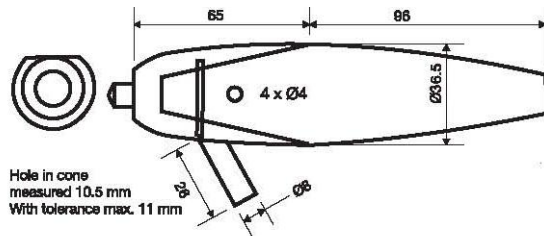
EFRA2032	Radiosistemi RC4
EFRA2033	Picco / Mega type A
EFRA2034	Technokit
EFRA2035	Thunder Tiger 1796
EFRA2036	Max Power
EFRA2037	ATS
EFRA2038	Picco/Mega Type B
EFRA2039	Thunder Tiger 1797
EFRA2040	AxeRossi Schumacher
EFRA2041	Mielke 2500
EFRA2042	OS Engines T-2060SC
EFRA2043	OS Engines T-2060
EFRA2045	R&B
EFRA2046	Picco 69/3 chamber
EFRA2047	Hong Nor
EFRA2048	Radiosistemi
EFRA2050	Axe Rossi type B
EFRA2051	R&R Non Solo Racing
EFRA2052	NovaRossi 51011/51061/51111
EFRA2053	GRP Gandini 21-01
EFRA2054	GRP Gandini 21-02
EFRA2055	GRP Gandini 21-03
EFRA2056	Sirio buggy 2006-1
EFRA2057	Sirio buggy 2006
EFRA2058	Sirio
EFRA2059	Ho Bao buggy
EFRA2060	Shengine buggy
EFRA2061	Mielke
EFRA2062	Hongnor buggy
EFRA2063	LRP buggy, same as SH
EFRA2064	DI Monaco Model
EFRA2065	Orion SRP21
EFRA2066	Orion SRB21



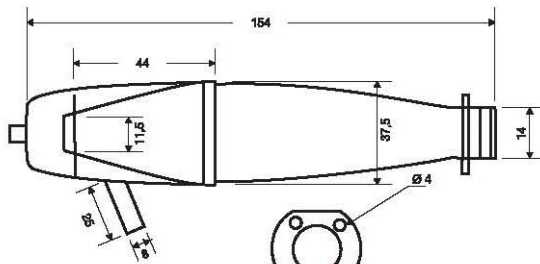
EFRA 9901
Novarossi



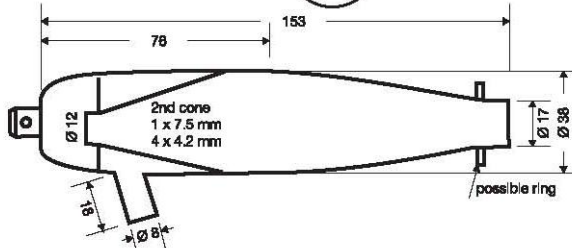
EFRA 2001
CR France



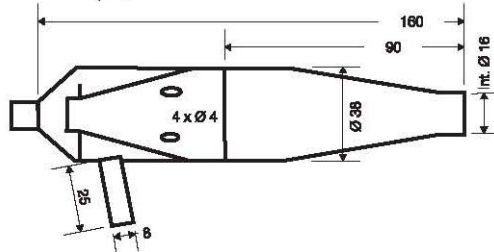
**EFRA 2002
Picco**



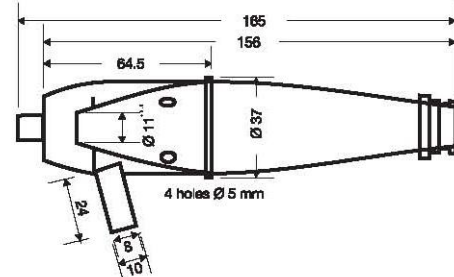
EFRA 2003 Swiss
Power



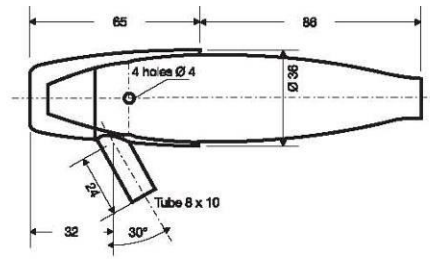
EFRA 2004 CR
France



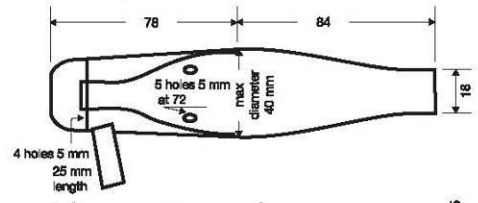
**EFRA 2005
Cipolla**



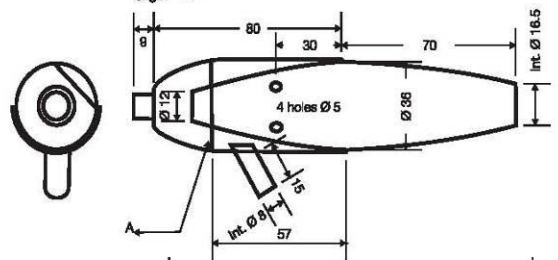
**EFRA 2006
NovaRossi
51009**



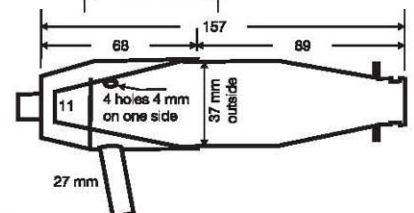
**EFRA 2007
LM/Sirio**



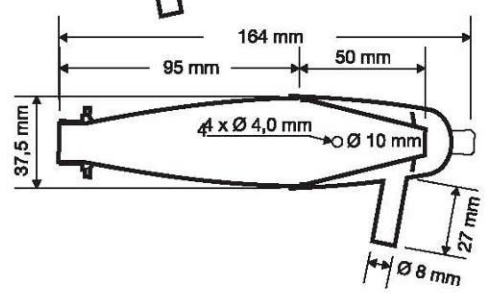
**EFRA 2009
Rossi**



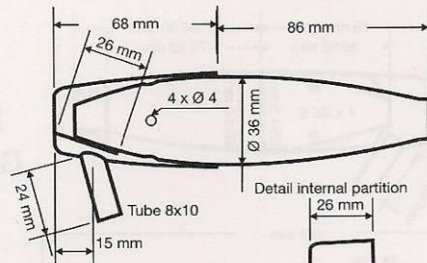
**EFRA 2010
RC-Power/
OPS OP37970**



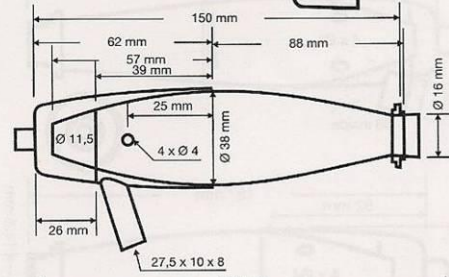
**EFRA 2011
Mielke 1202P**



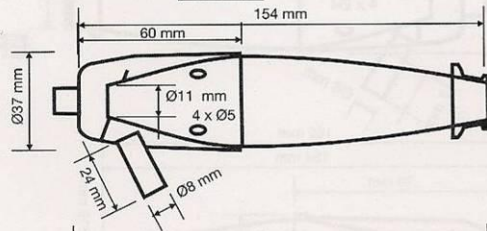
**EFRA 2012
BP Racing**



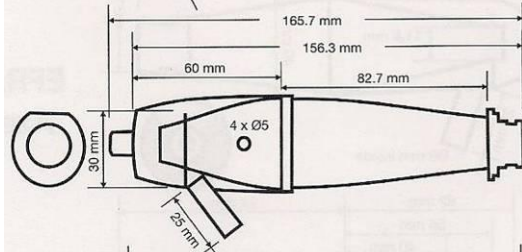
EFRA 2013
Sirlo



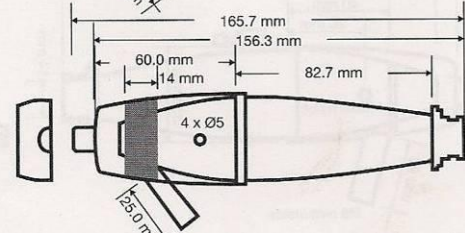
EFRA 2014
Bergonzoni



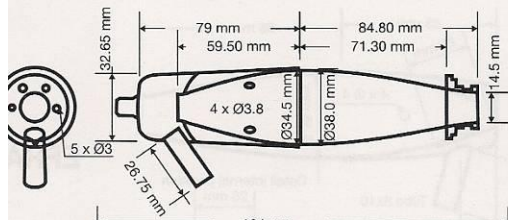
EFRA 2015
NovaRossi



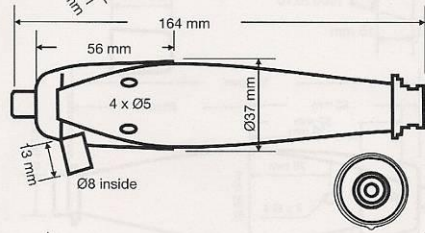
EFRA 2017
Max power



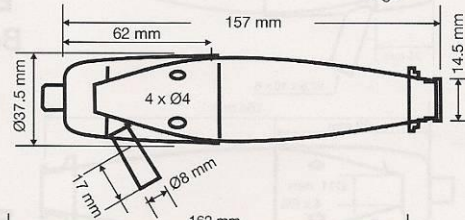
EFRA 2018
Max power



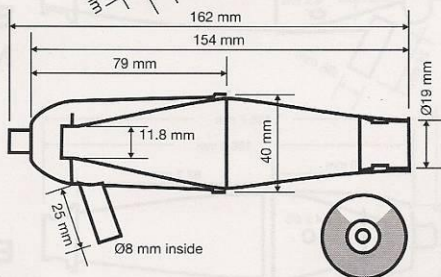
**EFRA 2019
Golden Lion
Enterprise**



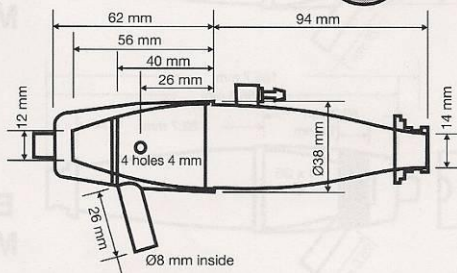
**EFRA 2020
R&B**



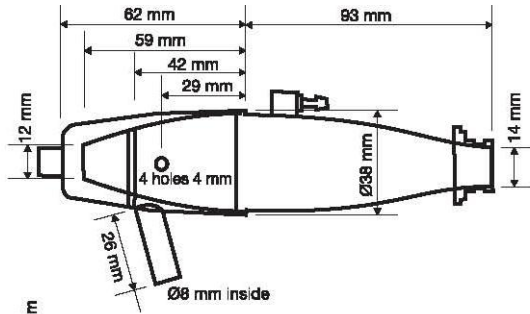
**EFRA 2021
Schepis**



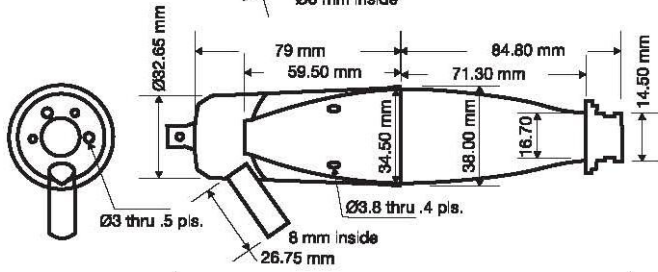
**EFRA 2022
Axe Rossi**



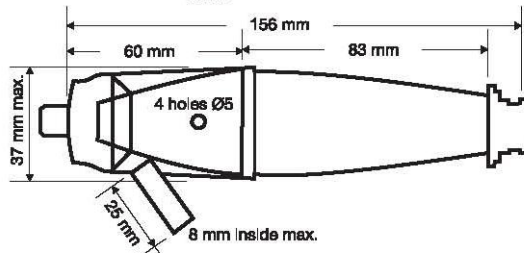
**EFRA 2023
SPM**



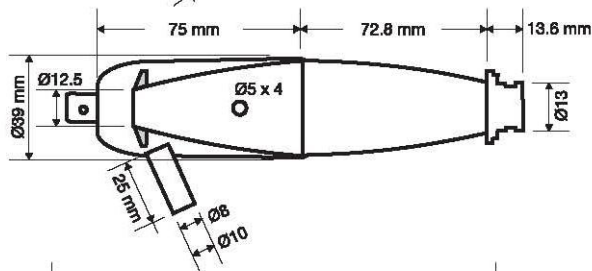
EFRA 2024 s
Off-Road



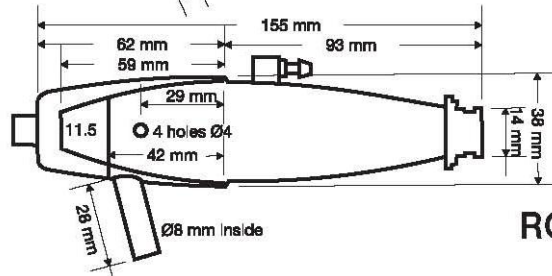
EFRA 2025
LRP



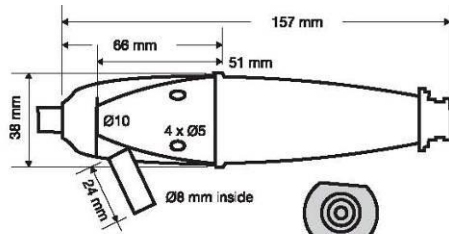
EFRA 2026
IDM



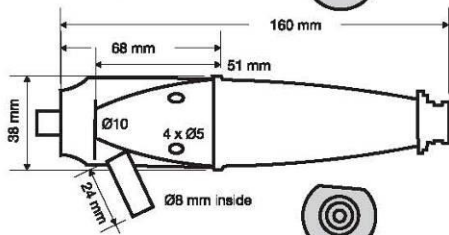
EFRA 2027
RCMC



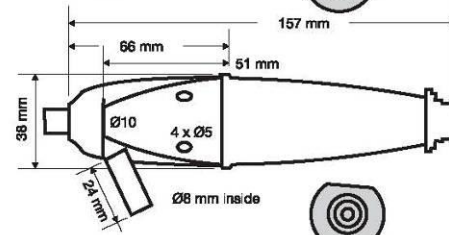
EFRA 2028
RC Power/OPS



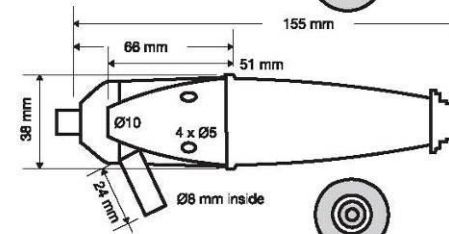
EFRA 2029
Radiosistem



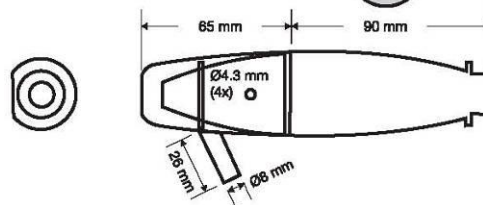
EFRA 2030
Radiosistemi



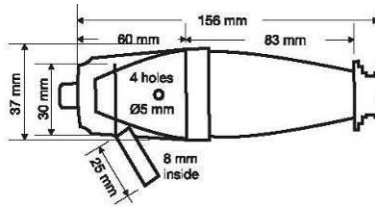
EFRA 2031
Radiosistemi



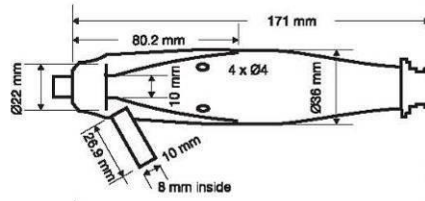
EFRA 2032
Radiosistemi



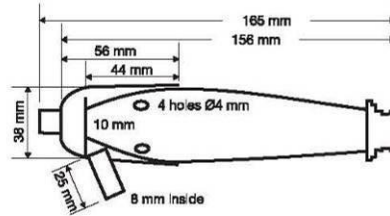
EFRA 2033
Picco/Mega



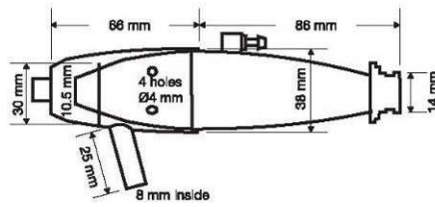
EFRA 2034
Technokit



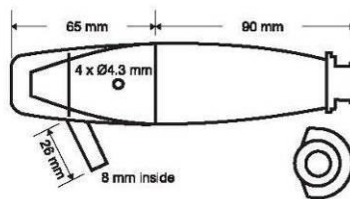
EFRA 2035
Thunder Tiger



EFRA 2036
Max power



EFRA 2037
ATS



EFRA 2038
Picco/Mega

MUFFLERS 2008

Finally you will find here the complete list with mufflers for 2008. At the end I got some more mufflers than expected which also needed to be tested. Weather conditions in Holland were far not good this winter, like in the rest of Europe. This is one reason it costs some more time and a few days extra for administration matters.

EFRA3001	R&B	M1098-OM
EFRA3002	R&B	M1104-OM
EFRA3003	R&B	M1106-OM
EFRA3004	NovaRossi	M1105-om
EFRA3005	NovaRossi	M1103-om
EFRA3006	NovaRossi	M1102-om
EFRA3007	NovaRossi	M1099-om
EFRA3008	GRP	on road
EFRA3009	GRP	off road
EFRA3010	AxeRossi	
EFRA3011	BP	
EFRA3012	Mielke	
EFRA3013	SPM	
EFRA3014	Sirio off-road	off-road
EFRA3015	Sirio onroad	on-road
EFRA3016	Hongnor	
EFRA3017	Radio Sistemi	number 1 (0006)
EFRA3018	Radio Sistemi	number 2 (0004)
EFRA3019	Radio Sistemi	number 3 off-road
EFRA3020	Schepis	
EFRA3021	Di Monaco	
EFRA3022	Grossi	
EFRA3023	VP Racing	
EFRA3024	Max	
EFRA3025	OS	T2080-1
EFRA3026	OS	T2080-2
EFRA3027	OS	2008S-2
EFRA3028	OS	2008S-1
EFRA3029	Team Orion	short type
EFRA3030	Team Orion	long type
EFRA3031	Picco	track
EFRA3032	Picco	off-road
EFRA3033	SH/Golden Lion	SA217
EFRA3034	RCE	track
EFRA3035	RCE	off-road
EFRA3036	JP	on-road
EFRA3037	LRP 36220	off-road
EFRA3038	LRP 36230	off-road
EFRA3039	LRP 36240	off-road
EFRA3040	Serpent Mega 203056	on-road
EFRA3041	Serpent Mega 203057	off-road
EFRA3042	Serpent Mega Max 223028	on road

The first 19 numbers should be available at the moment and the rest will follow as soon as those manufacturers have start their production. It will be up to the distributors to get them for their countries. I already asked NovaRossi and GRP to make sure they are available in Spain for the first GP, later this month on April 12th and 13th. I hope the rest of the companies will also make sure enough mufflers will be available at track site. This is the Warm-Up for the Euro's later this year.