

ACTUATORLINE – ONE series



INTL. PATENT PENDING

FOR CLEAN ROOM
Class 3 according ISO 14644-1



ONE: Clean Room Quality

Unità lineari in “clean room” classe ISO 1

Linear Units up to Clean Room Class ISO 1

Per soluzioni di automazione in camere bianche fino a classe ISO1 (DIN EN ISO 14644-1) – prodotto in attesa di brevetto internazionale ; prima unità lineare al mondo per elevate prestazioni in “clean room”.

Protezione speciale dei componenti interni al profilo di alluminio con cinghia in poliuretano, anche durante il movimento del cursore. Mettendo in depressione l'Unità Lineare si estraggono le particelle generate durante il moto all'interno dell'unità stessa.

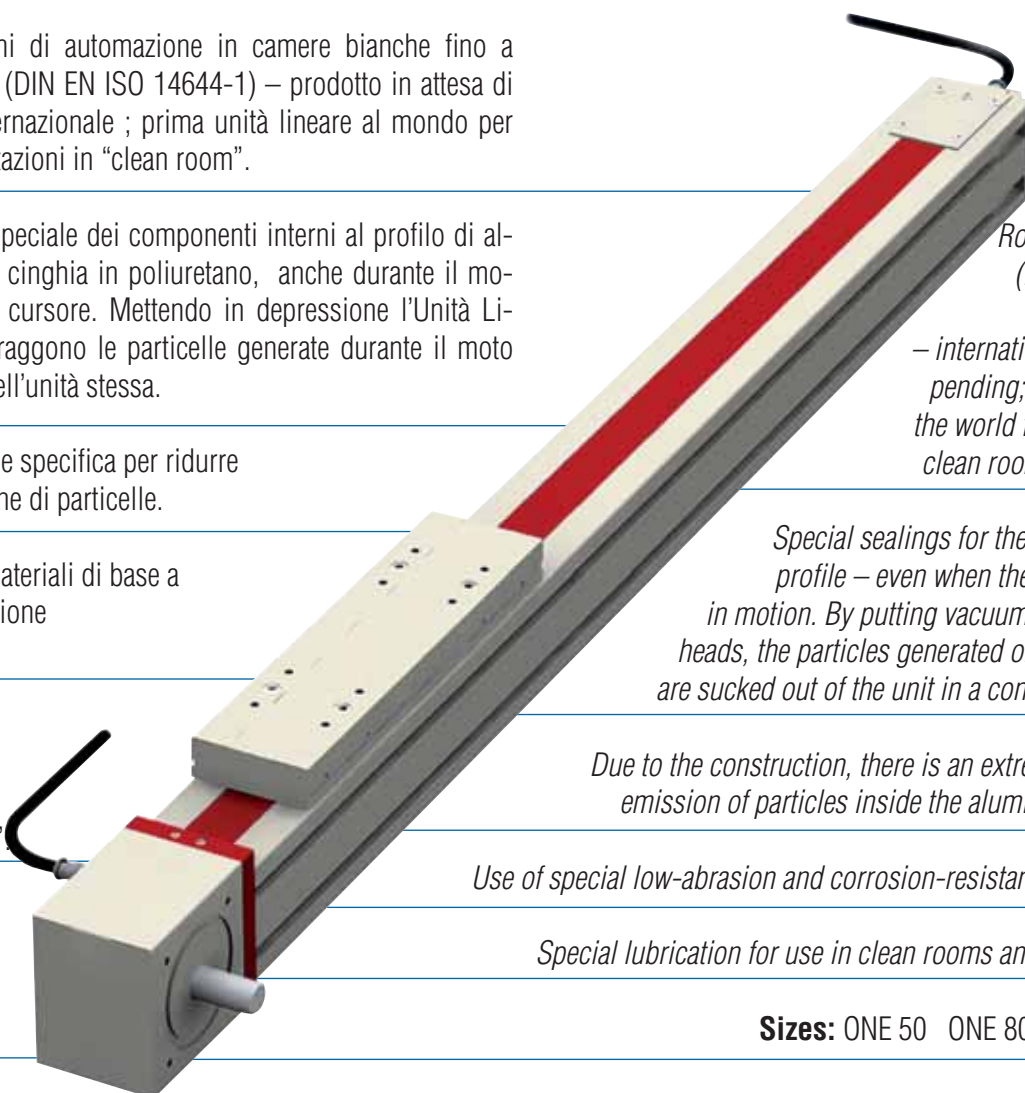
Progettazione specifica per ridurre la generazione di particelle.

Utilizzo di materiali di base a bassa emissione di particelle.

Utilizzo di lubrificanti speciali per “clean room”

Taglie:

ONE 50
ONE 80
ONE 110



For automation solutions up to Clean Room Class 1 (DIN EN ISO 14644-1) – international patent; pending; first unit in the world for maximal clean room qualities.

Special sealings for the aluminium profile – even when the carriage is in motion. By putting vacuum on the end heads, the particles generated on the inside are sucked out of the unit in a controlled way.

Due to the construction, there is an extremely small emission of particles inside the aluminium body.

Use of special low-abrasion and corrosion-resistant materials.

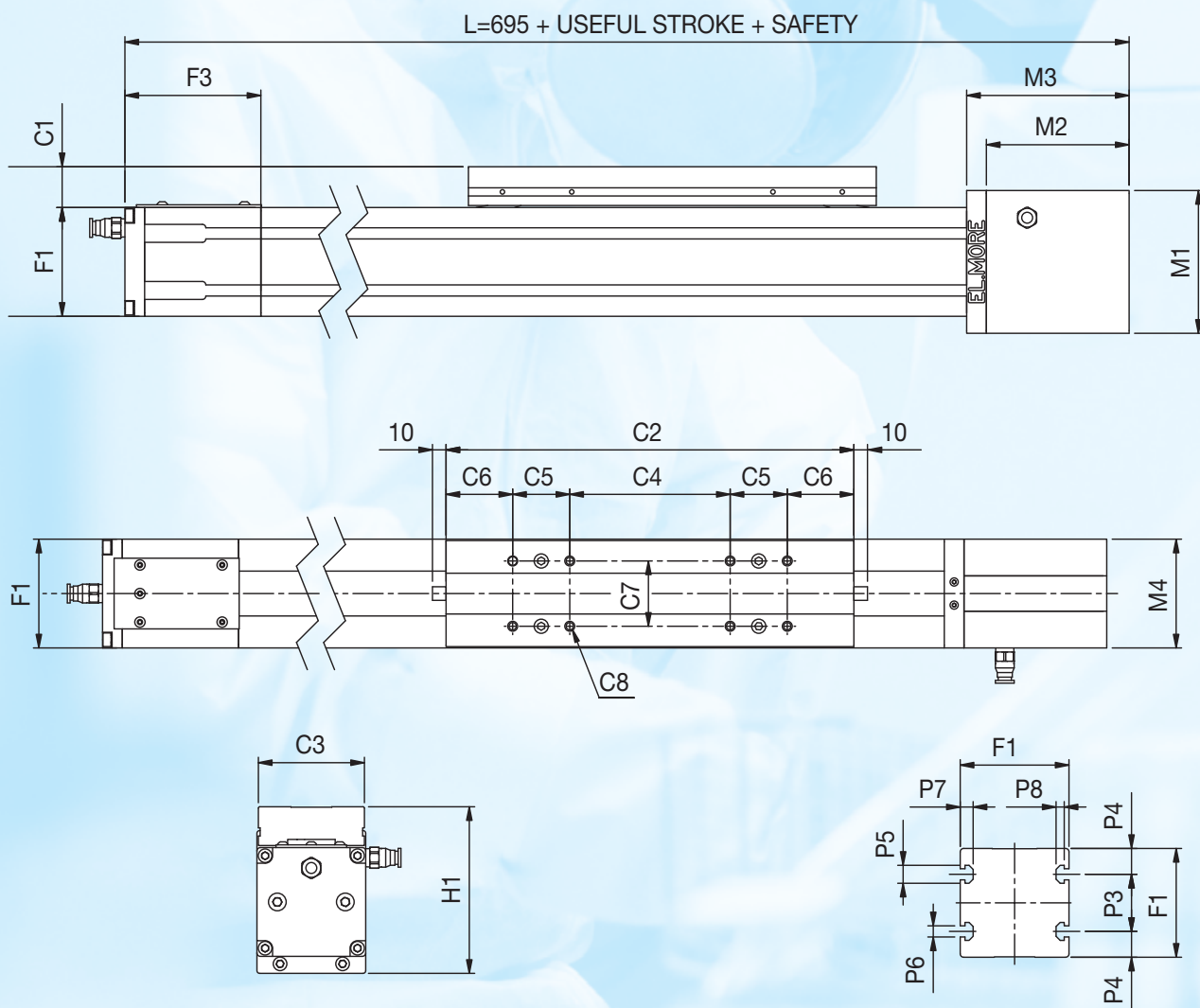
Special lubrication for use in clean rooms and vacuums.

Sizes: ONE 50 ONE 80 ONE 110



INTL. PATENT PENDING

CLEAN ROOM Linear Units ONE Series



Dimensions [mm]

	H1	M1	M2	M3	M4	C1	C2	C3	C4	C5	C6	C7	C8	F1	F3	P3	P4	P5	P6	P7	P8
ONE 50	80	70	70	80	60	20	150	48	62	26	18	30,5	8xM5 prof. 6mm	50	65	26	12	8,3	4,2	6,2	4
ONE 80	122,5	105	105	120	80	30	300	78	118	42	49	48	8xM6 prof. 6mm	80	100	42	19	13,5	8,4	9,8	6
ONE 110	167,5	145	145	160	130	40	380	108	140	60	60	70	8xM8 prof. 6mm	110	135	62	24	18	11,3	12	8,5

For further details please visit our website www.elmore.it and download the relative dxf-files

CLEAN ROOM Linear Units ONE Series

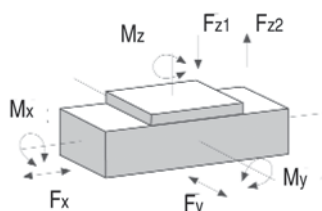


Technical data

		ONE 50	ONE 80	ONE 110
Min. useful stroke length	[mm]	100	100	100
Max. useful stroke length	[mm]	3700	6000	6000
Max. positioning repeatability	[mm]	0,05	0,05	0,05
Max. speed	[m/s]	4	5	5
Max. acceleration	[m/s ²]	50	50	50
Type of belt		22-AT5	32-AT10	50-AT10
Type of pulley		Ø 37-Z23-Backlash 0	Ø 60-Z19-Backlash 0	Ø 86-Z27-Backlash 0
Carriage displacement per pulley turn	[mm]	115	190	270
Carriage weight	[kg]	0,4	2,7	5,6
Zero travel weight	[kg]	1,8	10,5	22,5
Weight for 100 mm useful stroke	[kg]	0,4	1	1,4

Theoric and maximum permissible loads

		ONE 50				ONE 80				ONE 110			
		Theoretical load rating		Max. recomm ended load		Theoretical load rating		Max. recommended load		Theoretical load rating		Max. recommended load	
		static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic	static	dynamic
FX	[N]	890	670	640	480	2230	1670	1600	1200	4410	3310	3180	2400
FY	[N]	7000	4490	1260	490	43400	34800	7810	3760	79000	55000	14220	5940
FZ	[N]	7000	4490	1260	490	43400	34800	7810	3760	79000	55000	14220	5940
MX	[Nm]	42	27	7	3	620	480	108	52	1300	860	235	90
MY	[Nm]	230	150	41	16	3170	2540	570	270	7110	4950	1280	530
MZ	[Nm]	230	150	41	16	3170	2540	570	270	7110	4950	1280	530





Belt driven **CLEAN ROOM** Linear Units **ONE Series**

Main Features

CERTIFIED CLEAN ROOM CLASS

ONE series is a device tested by IPA FRAUNHOFER Institute – Stuttgart (D).
We achieved the following cleanness class using a vacuum pump and a special sealing belt (Intl. Patent Pending)

“ISO CLASS 3” according to ISO 14644-1
“CLASS 1” according to U.S. FED 209 E

VACUUM SYSTEM

ONE Series has specific connection nipples installed on the drive-end and on idle-end of the units, where the vacuum systems will be connected.

The value of air suction must be evaluated case by case, but EL.MORE already tested 0,8 Bar on ONE 80 from 1.000 mm up to 4.000 mm stroke. We achieved ISO CLASS 1 thanks to the combined action of vacuum pump and EL.MORE special sealing belt.

SELECTED MECHANICAL COMPONENTS

ONE Series is assembled with selected high quality components.

Only Stainless Steel material (AISI 303, AISI 440C) is used for bearings, linear guides, shafts, pulleys, and other metallic components. Where it is impossible to use Stainless Steel material, EL.MORE provides a special treatment tested under severe conditions and under particle generation.

DRIVEN BELT

ONE Series is the first linear unit driven by timing belt capable to achieve ISO CLASS 3.

We are using selected high quality polyurethane timing belts, AT profile, manufactured by leading companies in this field.

LUBRICATION

ONE Series is equipped with “innovative and hi-tech linear guides” with special spacing cage among the balls of carriages. This feature supports a long-term maintenance and a low particle generation if combined with special lubricant, specifically developed and adopted for Clean Room and Vacuum applications.

RANGE

ONE Series is now available in 3 different sizes, for multi axes combinations:

- ONE 50
- ONE 80
- ONE 110

Maximum stroke is 6.000 mm, except ONE 50 where the maximum stroke is 3.700 mm

For technical details and load capability, please refer to the previous pages.

AVAILABILITY

ONE Series is available 4 – 5 weeks after receipt of order.

This is a “customized” product: we suggest to verify with EL.MORE the delivery time.

In any case the official Order Confirmation coming from Customer Service of EL.MORE states the scheduled delivery time.



Italy

ROLLON S.r.l.

Via Trieste 26
I-20871 Vimercate (MB)
Phone: (+39) 039 62 59 1
Fax: (+39) 039 62 59 205
E-Mail: infocom@rollon.it
www.rollon.it

Germany

ROLLON GmbH

Voisweg 5c
D-40878 Ratingen
Phone: (+49) 2102 87 45 0
Fax: (+49) 2102 87 45 10
E-Mail: info@rollon.de
www.rollon.de

USA

ROLLON Corporation

101 Bilby Road. Suite B
Hackettstown, NJ 07840
Phone: +1 (973) 300-5492
Fax: +1 (908) 852-2714
E-Mail: info@rolloncorp.com
www.rolloncorp.com

France

ROLLON S.A.R.L.

Les Jardins d'Eole, 2 allée des Séquoias
F-69760 Limonest
Phone: (+33) (0)4 74 71 93 30
Fax: (+33) (0)4 74 71 95 31
E-Mail: infocom@rollon.fr
www.rollon.fr

NL

ROLLON B.V.

P.O. Box 1916900 AD Zevenaar
Phone: (+31) 316 581 999
Fax: (+31) 316 341 236
E-Mail: info@rollon.nl
www.rollon.nl

Gli indirizzi aggiornati dei nostri partner commerciali si trovano all'indirizzo www.rollon.it - www.elmore.it
All addresses of our global sales partners can also be found in the internet at www.rollon.it - www.elmore.it