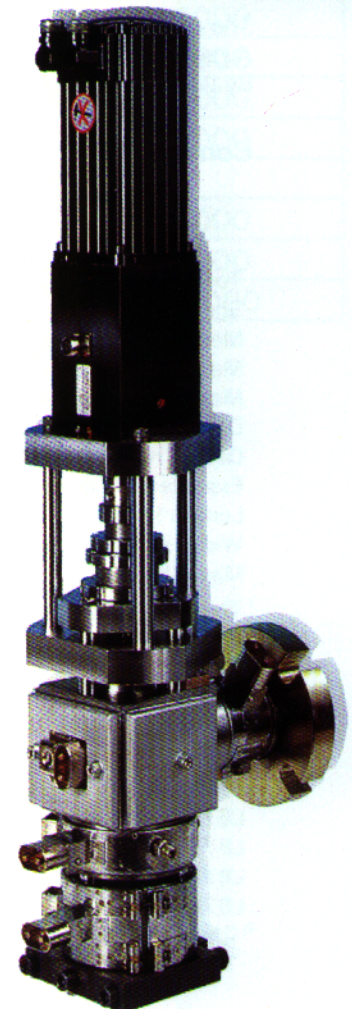
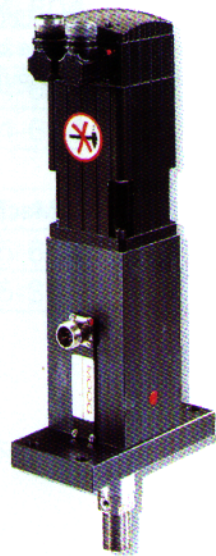


MOOG

Pioneer in Blow Molding

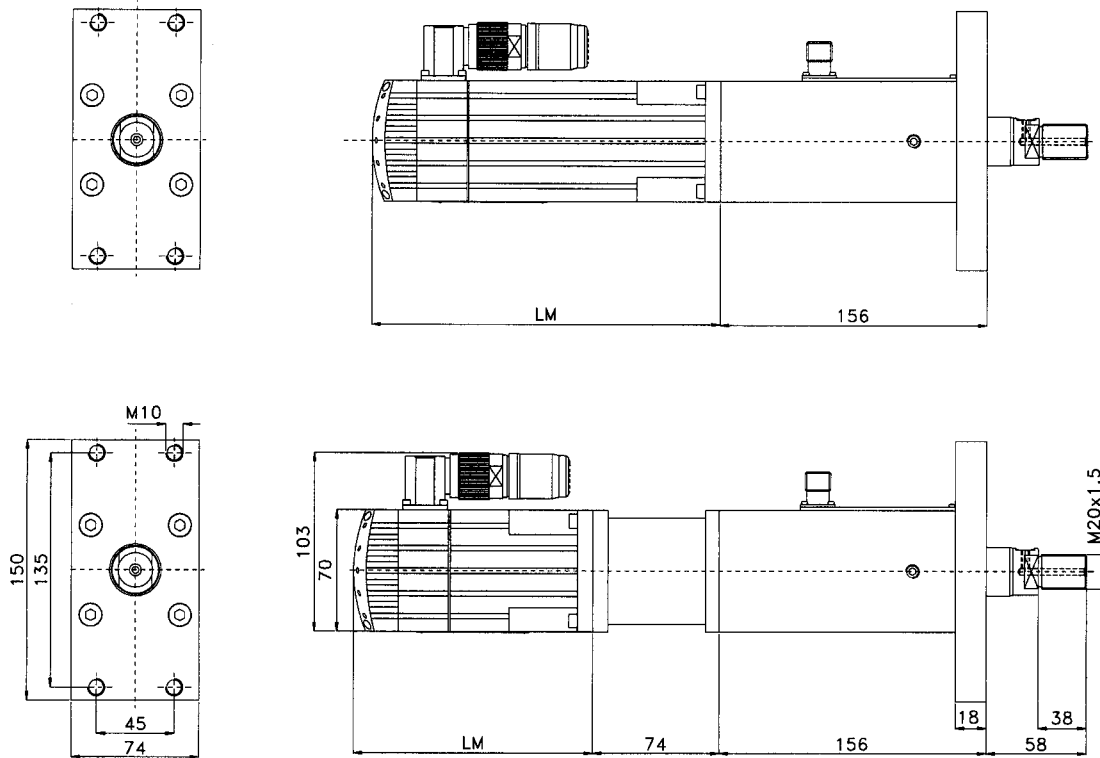
EMA PC

Electro-Mechanical Actuators for
Parison Control



- No leakage
- No product contamination
- No maintenance
- Flexible cables instead of pipes
- Higher efficiency
- Less power consumption
- Cost effective system solution

1 Ton Electromechanical Actuator



The actuator consists of a mechanical converter coupled to a MOOG brushless motor.
 A reduction gear box can be installed between the converter and the motor.
 By using different motors and gear boxes the output force ranges from 5 to 17 kN.

Converter & Gear box data

	Mechanical converter	Gear box module ⁽¹⁾	Combined data
Torque conversion factor ⁽²⁾	2350 [N/Nm]	2.88-3.84	6768-9024 [N/Nm]
Speed factor	2 [mm/rev]	0.33-0.25	0.67-0.5 [mm/rev]
Mechanical efficiency	0.75	0.96	0.72
Max continuous load	17 [kN]	10 [Nm] output	17 [kN]
Max rotation speed [RPM]	5000	4000 input	4000 (motor output)
Design equivalent dynamic load	10 [kN]	10 [Nm] output	10 [kN]
Design mean speed	20 [RPM] input		0.7 [mm/s]
Expected life at design load and speed [h]	20000	> 10000	20000
Length [mm]	156	74	230
Width x Depth [mm]	70x70	70x70	70x70
Mass [kg]	6.2	0.8	7

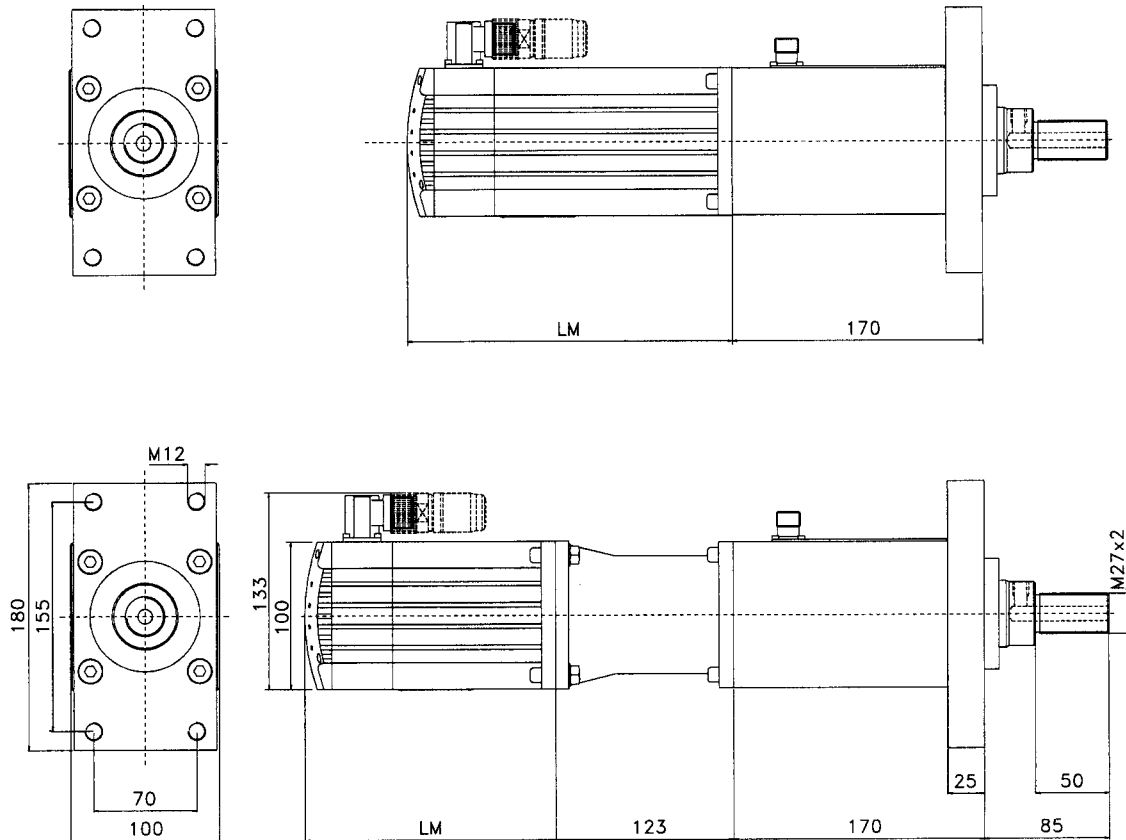
¹ The reduction gear unit has ratio 1:3 or 1:4 ² Net value

Actuator Data

Mod. n.	Motor & gear box configuration	max continuous load [N]	max speed [mm/s]	overall dimensions [mm] ^{3),4)}
L875-110	G423-..L05 + gearbox 1:4	5 400	33.3	345x70x70
L875-120	G423-..L40 w/o gearbox	8 700	133	360x70x70
L875-130	G423-..L15 + gearbox 1:3	11 100	44.4	370x70x70
L875-140	G423-..L25 + gearbox 1:3	17 200	44.4	396x70x70

³⁾ Connectors and flange overall dimensions not included ⁴⁾ Standard stroke 12 mm; 25 mm on request

3 Ton Electromechanical Actuator



The actuator consists of a mechanical converter coupled to a MOOG brushless motor. A reduction gear box can be installed between the converter and the motor. By using different motors and gear boxes the output force ranges from 10 to 40 kN.

Converter & Gear box data

	Mechanical converter	Gear box module ⁽¹⁾	Combined data
Torque conversion factor ⁽²⁾	2090 [N/Nm]	2.88-3.84	6019-8026 [N/Nm]
Speed factor	2 [mm/rev]	0.33-0.25	0.67-0.5 [mm/rev]
Mechanical efficiency	0.665	0.96	0.638
Max continuous load	50 [kN]	35 [Nm] output	50 [kN]
Max rotation speed [RPM]	3500	4000 input	3500 (motor output)
Design equivalent dynamic load	30 [kN]	35 [Nm] output	30 [kN]
Design mean speed	20 [RPM] input		0.7 [mm/s]
Expected life at design load and speed [h]	20000	> 10000	20000
Length [mm]	170	123	293
Width x Depth [mm]	100x100	100x100	100x100
Mass [kg]	13.7	3.1	16.8

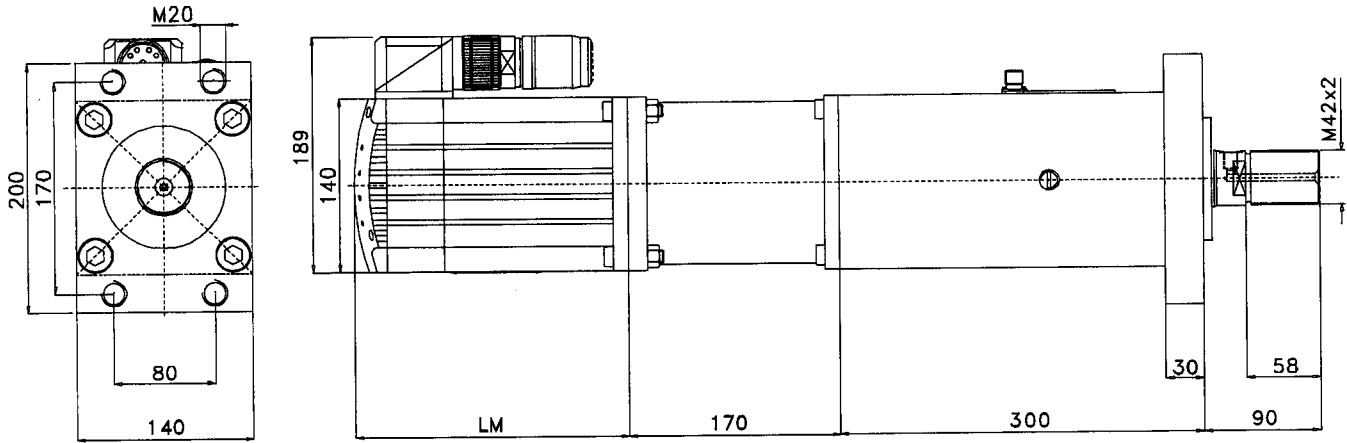
¹ The reduction gear unit has ratio 1:3 or 1:4 ² Net value

Actuator Data

Mod. n.	Motor & gear box configuration	max continuous load [N]	max speed [mm/s]	overall dimensions [mm] ^{3,4)}
L875-210	G424-..L20 w/o gearbox	10 000	116	342x100x100
L875-220	G424-..L10 + gearbox 1:4	20 000	29	440x100x100
L875-230	G424-..L20 + gearbox 1:3	28 000	38	465x100x100
L875-240	G424-..L20 + gearbox 1:4	38 000	29	465x100x100

³⁾ Connectors and flange overall dimensions not included ⁴⁾ Standard stroke 12 mm; 25 mm on request

9 Ton Electromechanical Actuator



The actuator consists of a mechanical converter coupled to a MOOG brushless motor. A reduction gear box is installed between the converter and the motor. By using different motors the output force ranges from 50 to 110 kN.

Converter & Gear box data

	Mechanical converter	Gear box module ⁽¹⁾	Combined data
Torque conversion factor ⁽²⁾	825 [N/Nm]	5.7	4700 [N/Nm]
Speed factor	5 [mm/rev]	0.167	0.83 [mm/rev]
Mechanical efficiency	0.70	0.95	0.67
Max continuous load	120 [kN]	300 [Nm] output	120 [kN]
Max rotation speed [RPM]	3000	3000 input	3000 (motor output)
Design equivalent dynamic load	90 [kN]	100 [Nm] output	90 [kN]
Design mean speed	5 [RPM] input		0.4 [mm/s]
Expected life at design load and speed [h]	20000	> 10000	20000
Length [mm]	300	170	470
Width x Depth [mm]	140x140	140x140	140x140
Mass [kg]	41	12	53

¹ The reduction gear unit has ratio 1:6

² Net value

Actuator Data

Mod. n.	Motor & gear box configuration	max continuous load [N]	max speed [mm/s]	overall dimensions [mm] ^{3),4)}
L875-310	G425-..L20 + gearbox	52 000	46	665x140x140
L875-320	G425-..L30 + gearbox	78 000	46	690x140x140
L875-330	G425-..L50 + gearbox	110 000	33	741x140x140

³⁾ Connectors and flange overall dimensions not included

⁴⁾ Standard stroke 12 mm; 25 mm on request

REFERENCE TABLE FOR ORDERING

EMA mod. n.	SUBCOMPONENTS			Matching Motor Controller mod. n.	Max Continuous Load (N)
	Converter mod. n.	Gear box mod. n.	Motor mod. n.		
L875-110	B98888	B98951	G423-204	L151-003 Or L180-310	5300
L875-120	B98888	-	G423-804		8700
L875-130	B98888	B98921	G423-404		11100
L875-140	B98888	B98921	G423-604		17200
L875-210	B67582	-	G424-604	L151-004 Or L180-410	10000
L875-220	B67582	B98950	G424-404		20000
L875-230	B67582	B98910	G424-604		28000
L875-240	B67582	B98950	G424-604		38000
L875-310	B98949	B98956	G425-404	L151-006 Or L180-510	52000
L875-320	B98949	B98956	G425-604		78000
L875-330	B98949	B98956	G425-804		110000