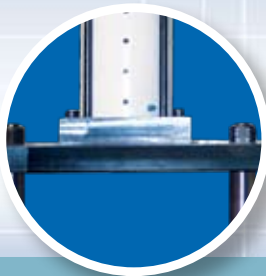




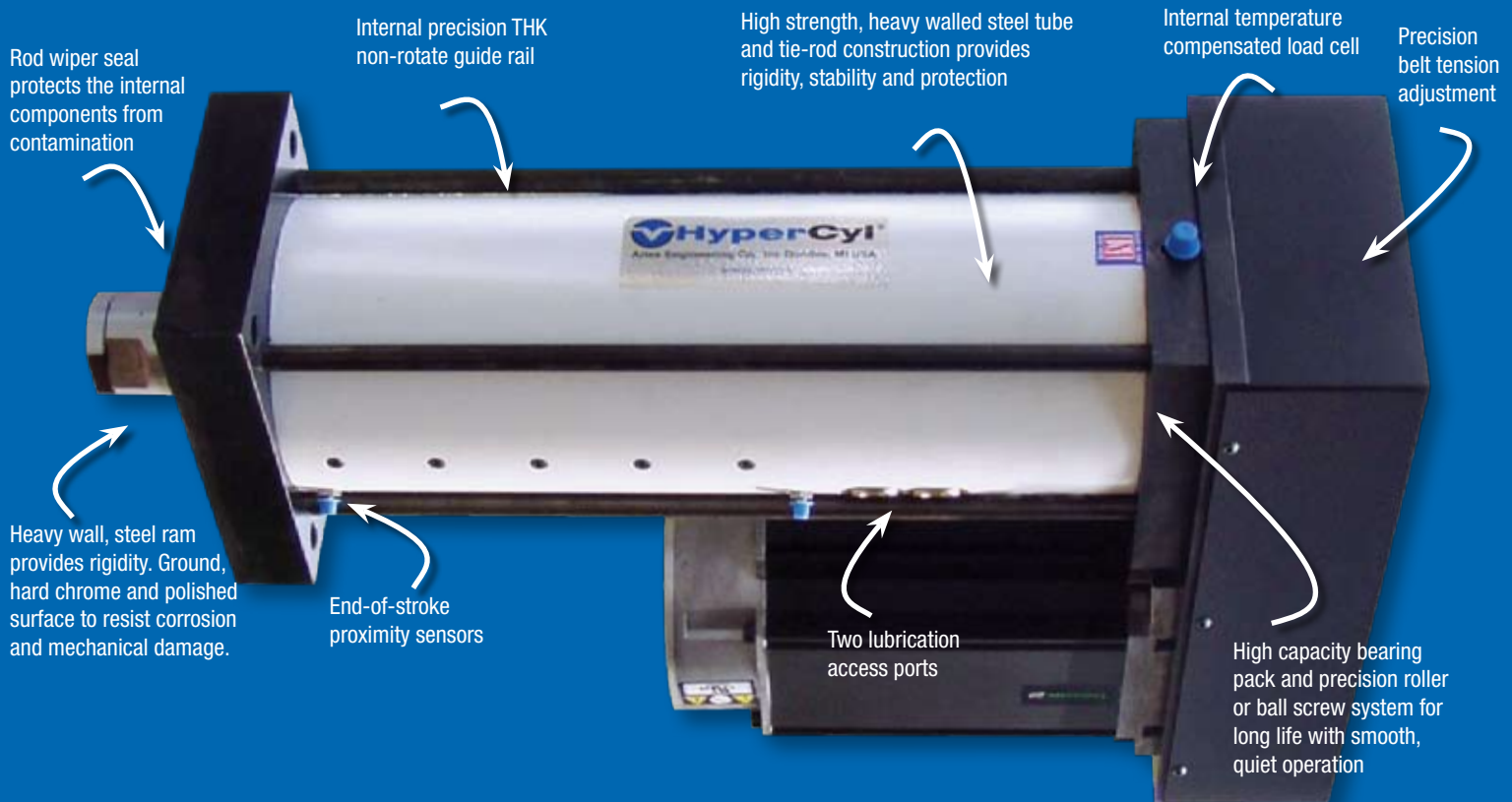
HyperCyl-ema[®]

Electro-Mechanical Actuators



Aries Engineering Company





Standard Features

HyperCyl-ema (electro-mechanical actuator) is a robust, servo driven actuator designed for precision assembly applications or applications not suited for standard HyperCyl or IntelliCyl products.

Available on both roller screw and ball screw configurations in load ratings from 5 kN to 230 kN (1 – 25 tons), HyperCyl-ema provides a new level of price/performance in the automotive, aerospace, DOD, appliance, medical, electronics and transportation industries in a wide range of applications.

Capable of .0025mm (.0001") repeatability and up to 500mm/sec ram speeds, HyperView-ema provides

the performance and flexibility required in both current and future manufacturing environments and, it's built in the USA.

When mated with the optional HyperView-Press signature analysis controller, precise force/distance monitoring, trending, data logging, Cpk and data analysis capability improves finished product quality and substantially reduces manufacturing costs. HyperCyl-ema is available as an actuator only/ actuator and drive/actuator, drive and HyperView-Press package. Complete turnkey press stations are also available.

Performance Data

ROLLER SCREW:

Model	Load Rating (lb)	Max Velocity (in/s)	Standard Stroke Length (in)	Roller Screw Dia. (mm)	Lead (mm)	Motor Size	Max. Continuous Torque (in-lb)	Drive Ratio	Dynamic Load Rating per Million Revs (lbs)	Life Expectancy Under Load (in x 10 ⁶)
HPEL-01-RS	2000	16.4	8	25	10	115U2E (CT)	134.5	1.2:1	19696	56
HPEL-02-RS	4000	12.3	8	25	10	142U2E (CT)	207.2	1.6:1	19696	47
HPEL-04-RS	8000	10.5	8	39	10	190U2D (CT)	354.0	1.9:1	31771	25
HPEL-08-RS	16000	8.0	8	48	10	190U2F (CT)	519.5	2.5:1	57309	18
HPEL-10-RS	20000	6.3	8	48	25	190U2F (CT)	519.5	7.9:1*	51754	17
HPEL-15-RS	30000	6.7	8	48	25	ESM190-21.5kW (IIS)	880.0	7:1*	51754	5.1
HPEL-20-RS	40000	4.8	8	64	15	ESM190-21.5kW (IIS)	880.0	5.8:1*	96021	8.2
HPEL-25-RS	50000	4.0	8	64	15	ESM190-21.5kW (IIS)	880.0	7:1*	96021	4.2

CT=Control Techniques Motor

IIS-Industrial Indexing System Motor

* = Combination Gear & Belt

The L₁₀ expected life of a roller/ball screw actuator is expressed as a linear travel distance that 90% of properly lubricated and maintained roller/ball screws manufactured are expected to meet or exceed. This is not a guarantee and the data shown in this catalog should be used for estimation purposes only.

BALL SCREW:

Model	Load Rating (lb)	Max Velocity (in/s)	Standard Stroke Length (in)	Ball Screw Dia. (mm)	Lead (mm)	Motor Size (Control Techniques)	Max. Continuous Torque (in-lb)	Drive Ratio	Dynamic Load Rating per Million Revs (lbs)	Life Expectancy Under Load (in x 10 ⁶)
HPEL-01-BS1	2000	16.4	8	25	10	115U2E (CT)	134.5	1.2:1	5148	6.7
HPEL-01-BS2	2000	16.4	8	32	10	115U2E (CT)	134.5	1.2:1	5935	10
HPEL-02-BS1	4000	8.0	8	32	10	115U2E (CT)	134.5	2.5:1	5935	1.3
HPEL-02-BS2	4000	7.7	8	40	10	115U2E (CT)	134.5	2.6:1	14590	19
HPEL-04-BS1	8000	6.6	8	40	10	142U2E (CT)	207.2	3:1	14590	2.4
HPEL-04-BS2	8000	13.8	8	50	20	190U2E (CT)	447.8	2.9:1	17715	8.5
HPEL-06-BS1	12000	8.2	8	50	20	190U2E (CT)	447.8	4.8:1*	17715	2.5
HPEL-08-BS1	16000	7.3	8	63	20	190U2F (CT)	519.5	5.4:1*	23178	2.4
HPEL-10-BS1	20000	6.0	8	63	20	190U2F (CT)	519.5	6.6:1*	23178	1.2

Please consult the factory for 14.00" stroke actuators.

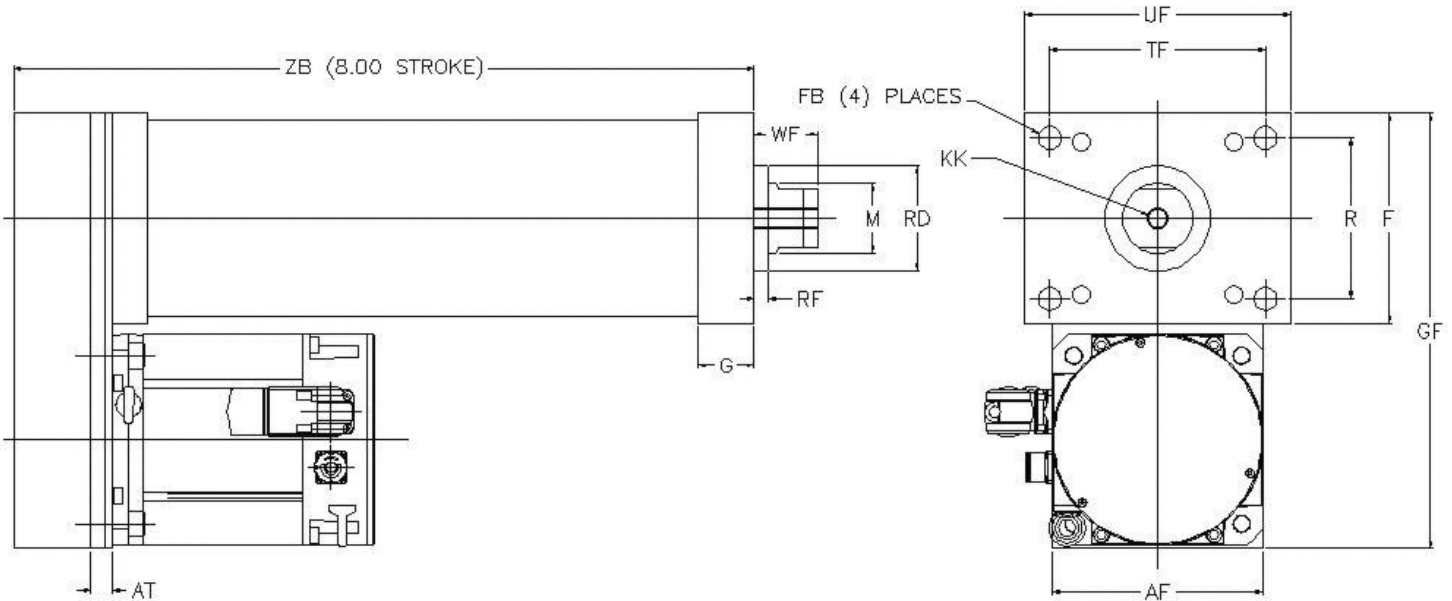
* Planetary gear used in conjunction with drive ratio.



Model	F	FB	G	GF	UF	TF	KK	M	R	RD	RF	WF	ZB	AF	AT
HPEL-01-RS	5.00	0.53	1.25	10.75	6.25	5.31	3/4-16	2.00	3.32	3.00	0.38	2.25	25.00	5.50	0.63
HPEL-02-RS	5.00	0.53	1.25	10.75	6.25	5.31	3/4-16	2.00	3.32	3.00	0.38	2.25	25.00	5.50	0.63
HPEL-04-RS	7.50	0.81	2.00	17.50	9.50	7.69	3/4-16	2.50	5.73	3.75	0.50	2.75	27.50	8.75	0.75
HPEL-08-RS	8.50	0.81	2.00	17.50	11.00	9.25	1-14	3.00	6.00	4.25	0.50	2.75	30.50	8.75	1.00
HPEL-10-RS	8.50	0.81	2.00	17.50	11.00	9.25	1-14	3.00	6.00	4.25	0.50	2.75	30.50	8.75	1.00
HPEL-15-RS	8.50	0.81	2.00	17.50	11.00	9.25	1-14	3.00	6.00	4.25	0.50	2.75	34.44	8.75	1.00
HPEL-20-RS	8.50	0.81	2.00	23.50	11.00	9.25	1-1/2-12	3.50	6.00	4.75	0.50	3.00	32.81	12.75	1.00
HPEL-25-RS	8.50	0.81	2.00	21.25	11.00	9.25	1-1/2-12	3.50	6.00	4.75	0.50	3.00	36.32	11.25	1.00

Model	F	FB	G	GF	UF	TF	KK	M	R	RD	RF	WF	ZB	AF	AT
HPEL-01-BS1	5.00	0.53	1.25	10.75	6.25	5.31	3/4-16	2.00	3.32	3.00	0.38	2.25	23.00	5.50	0.63
HPEL-01-BS2	5.00	0.53	1.25	10.75	6.25	5.31	3/4-16	2.00	3.32	3.00	0.38	2.25	25.00	5.50	0.63
HPEL-02-BS1	5.00	0.53	1.25	13.50	6.25	5.31	3/4-16	2.00	3.32	3.00	0.38	2.25	25.00	8.00	0.63
HPEL-02-BS2	5.00	0.53	1.25	12.00	6.25	5.31	3/4-16	2.50	3.32	3.50	0.38	2.25	27.00	6.25	0.63
HPEL-04-BS1	5.00	0.53	1.25	13.50	6.25	5.31	3/4-16	2.50	3.32	3.50	0.38	2.25	27.00	8.00	0.63
HPEL-04-BS2	7.50	0.81	2.00	17.50	9.50	7.69	1-14	3.00	5.73	4.25	0.50	2.75	26.63	8.75	0.75
HPEL-06-BS1	7.50	0.81	2.00	16.25	9.50	7.69	1-14	3.00	5.73	4.25	0.50	2.75	27.63	8.75	0.75
HPEL-08-BS1	7.50	0.81	2.00	16.25	9.50	7.69	1-14	3.50	5.73	4.75	0.50	2.75	28.00	8.75	0.75
HPEL-10-BS1	8.50	0.81	2.00	17.50	11.00	9.25	1-14	3.50	6.00	4.75	0.50	2.75	30.50	8.75	1.00

NOTE: All models are of reverse-parallel design.



HyperCyl-ema Ordering Information

HPEL - - - -

Load Rating (1, 2, 3, 4, 8, 10, 15, 20, 25 tons)

RS - Roller Screw or BS - Ball Screw

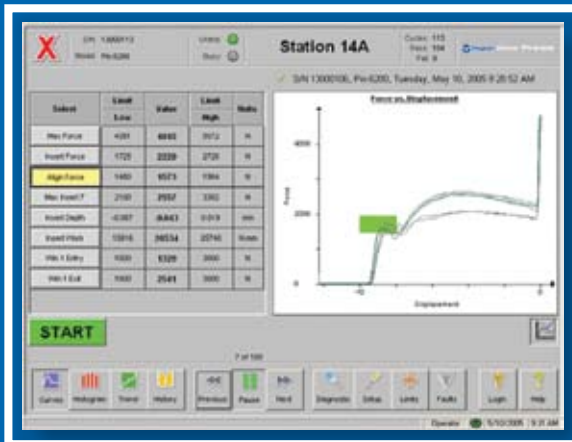
Stroke (8.00" or 14.00")

Options (D = Drive, S = HyperView Press, C = Cable Sets)



Press Monitoring Best Practices

The HyperView-Press® comes out of the box with advanced algorithms designed for the simplest to the most complex press monitoring requirements. Sciometric has embedded press monitoring “best practices” into the system based on decades of experience with press applications. During setup, the HyperView-Press® gathers information from the wizard and automatically makes modifications to the software to fit the specific customer implementation requirements. The wizard provides the best of both worlds: the deployment simplicity of an off-the-shelf solution coupled with the benefits of a custom solution tailored to your exact press monitoring requirements.

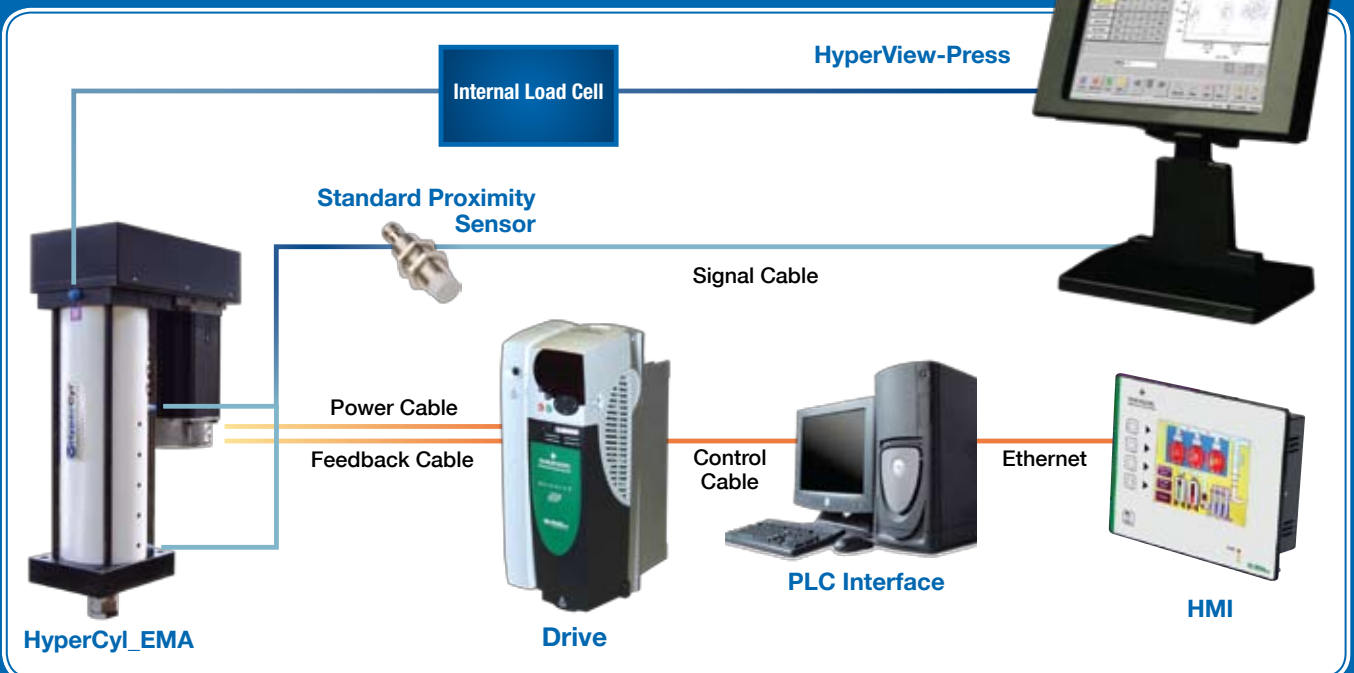


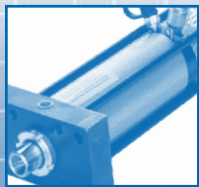
The HyperView-Press® uses Sciometric's advanced signature analysis technology to eliminate false accepts and find more defects than other press monitoring systems.



BENEFITS

- Out-of-the-box solution for monitoring test and assembly processes.
- Flexible system can be configured to qualify virtually any manufacturing process.
- Powerful data acquisition hardware allows sampling up to 24 analog and 6 quadrature encoder channels.
- Large, user friendly 10.4" touch interface provides detailed results of the manufacturing process.
- Wide library of processing and analysis toolsets available.
- Communication via discrete I/O, or optionally through industry standard hardware (RS232, RS485, 10/100 BaseT) and protocols (Devicenet1, Profibus1, Interbus1, Ethernet I/P, Modbus TCP).





 **HyperCyl®**



 **HyperPress®**



 **HyperPierce®**



 **HyperView-Press®**



**HyperCyl Products are
Environmentally Friendly.**



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