



PROMESS



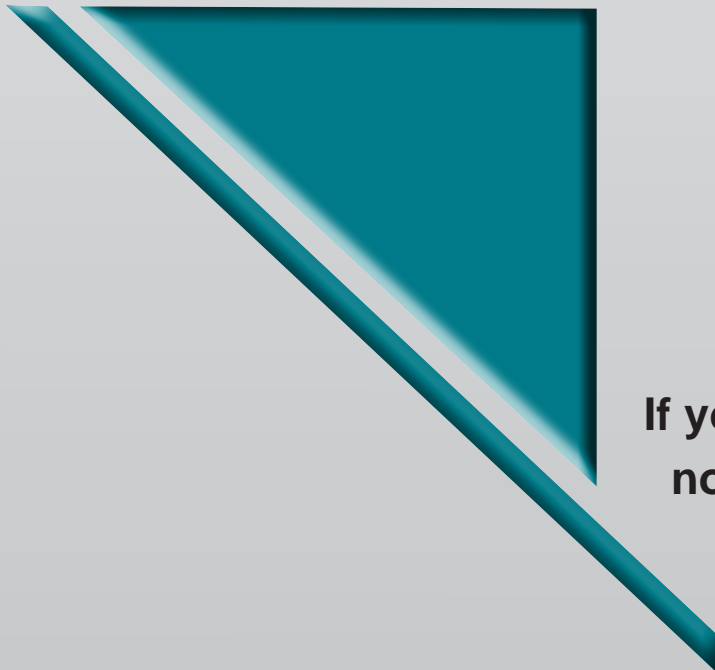
Sensing Systems for Manufacturing



Electro-Mechanical Assembly Press Systems

A fully electric assembly
press system with
integrated motion control
and monitoring.

**If you're not using our technology
now, you're pressing your luck.**



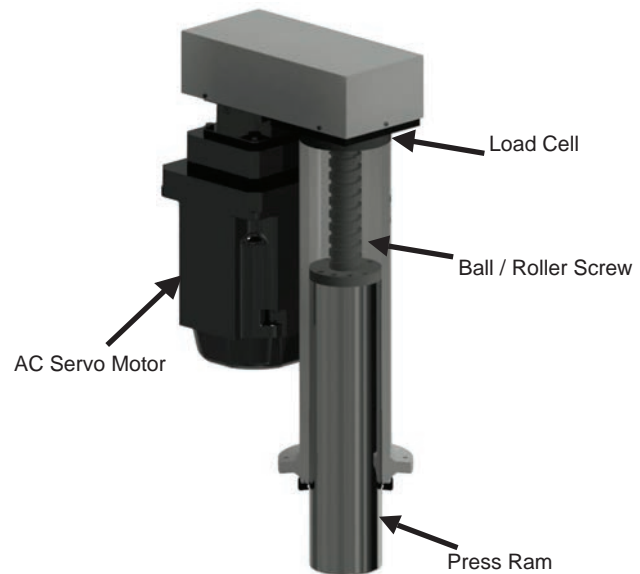
ELECTRO-MECHANICAL ASSEMBLY PRESS

If you need to push, pull, position, monitor and control every aspect of your assembly process, Promess has the **solution** for you. The Electro-Mechanical Assembly Press (EMAP) System.

The Promess EMAP System combines our servo-controlled ball screw press technology with our multi-axis motion control system to provide a high precision, closed loop press system.

Key Features of the EMAP:

- Ball screw design that features dynamic press load capacity 2.5 to 3 times greater than the stated load capacity
- Integrated load cell
- Servo system is sized to reach press load capacity within the continuous current zone of the motor and drive
- Push or pull with equal accuracy
- 360° mounting orientation



PRESS SIZES

EMAP Sizes*



EMAP Sizes	Force		Travel		Speed
	kN	LBS	mm	inch	mm/sec
EMAP 0.2kN	0.2	45	100	3.9	200
EMAP 01kN	1	225	100/300	3.9/11.8	200/150
EMAP 03kN	3	675	100, 300	3.9/11.8	200
EMAP 05kN	5	1,125	200, 350	8/13.8	200
EMAP 08kN	8	1,800	200, 350, 500	8/13.8/19	200
EMAP 12kN	12	2,700	200, 350, 500	8/13.8/19	200
EMAP 20kN	20	4,500	180, 350, 550	7/13.8/21.6	200
EMAP 30kN	30	6,750	180, 350, 550	7/13.8/21.6	200
EMAP 40kN	40	9,000	330, 660	13/26	200
EMAP 60kN	60	13,500	330, 660	13/26	200
EMAP 80kN	80	18,000	330, 660	13/26	175
EMAP 100kN	100	22,500	330, 660	13/26	200
EMAP 120kN	120	27,000	330, 660	13/26	175
EMAP 160kN	160	36,000	400	15.75	125
EMAP 300kN	300	67,500	400	15.75	100
EMAP 500kN	500	112,000	400	15.75	70

* Other sizes, stroke lengths and speeds available

SAMPLE APPLICATIONS



Press to Position

- Press to a programmable position
- Press to external sensor
- Press to torque
- Press to offset



Press to Shoulder

- Press to a programmable force
- Press to rate of change
- Gauge and press to shoulder
- Gauge force and position



Press to External Transducer

- Press to dimension (external probe)
- Press to flow
- Press to external force
- Press to torque



Crimping/Staking

- Crimp to a programmable force
- Crimp to a relative distance from a touch point
- Stake to a dimension
- Single or multiple staking points



Riveting

- Upset rivet to a force
- Upset rivet to a position
- Upset rivet to a relative dimension on the part
- Upset rivet to a functional specification



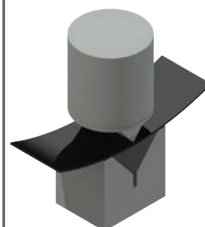
Spring Testing

- Measure spring rate
- Measure spring height at defined force
- Measure spring free height
- Measure spring retention



Forming

- Press and hold a constant force
- Press to shape
- Press to position
- Press to thickness

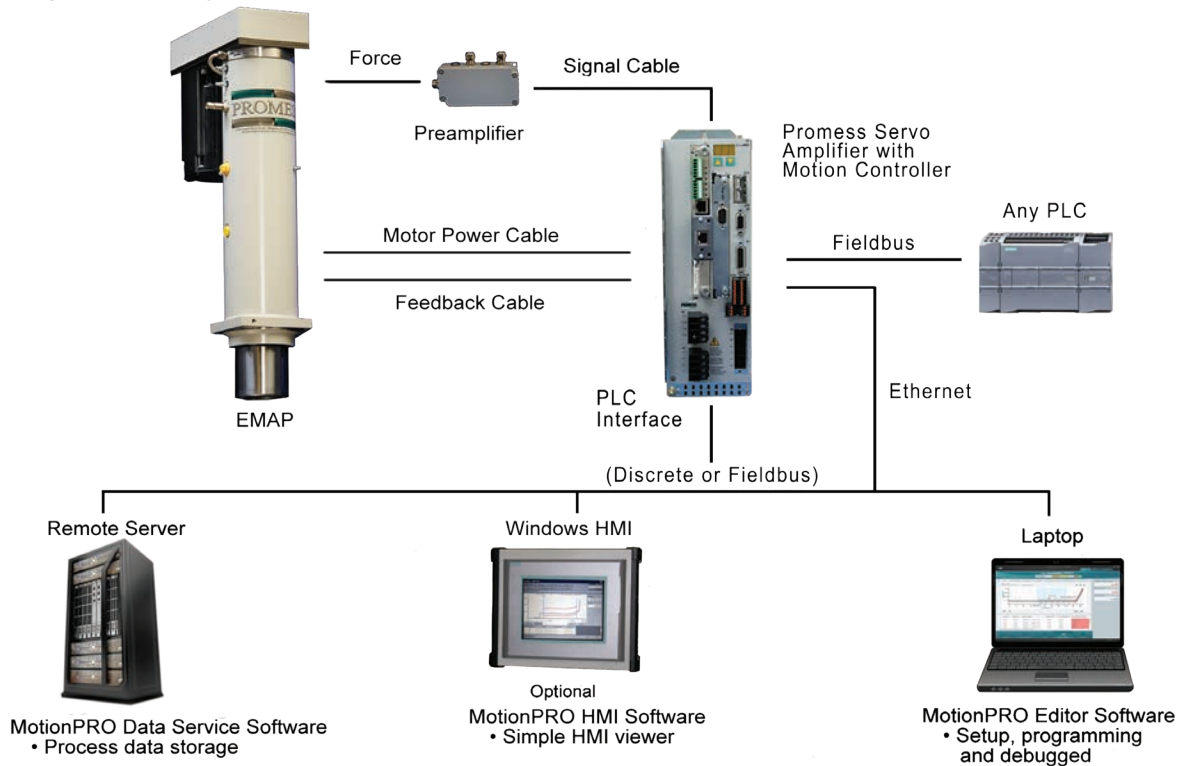


Bending/Straightening

- Bend/straighten to an external measure
- Push and pull to bend/straighten
- Gauge and make
- Customized algorithms

FLEXIBLE SYSTEM CONFIGURATION

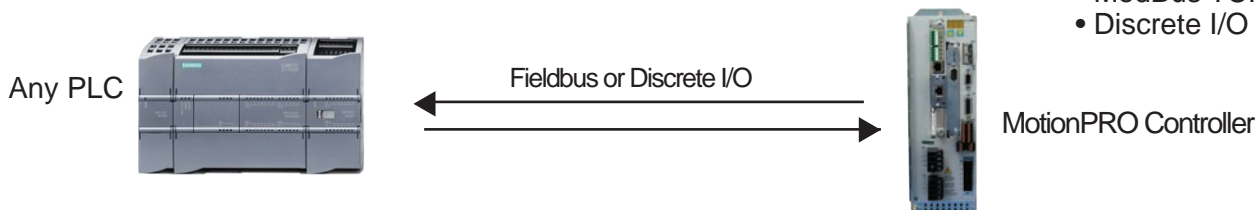
Promess software solutions offer a very high level of flexibility allowing our customers to configure the system solution to fit their process requirements.



There are three basic components that make up the Promess software package. The Editor which is used to create the setup and programs, the HMI components for local viewing and the Data Service for collecting and viewing data. These software components can be used individually (remotely or locally) or in conjunction with each other as required.

Interface / Fieldbus Options:

- EtherNet I/P
- Profibus
- ProfiNet
- DeviceNet
- ModBus TCP
- Discrete I/O



MOTIONPRO HMI

- Visualization of:
 - Signature curves
 - Gauge values
 - Live force, position, angle and sensor readings
 - Part Status (OK/NOK)
 - Faults and events
- Parameter setting screen
- Manual jogging screen
- Maintenance-free HMI
 - No virus scanners needed
- Complete visualization of one or multiple MotionPROs
- Multiple HMIs may be connected to one MotionPRO simultaneously
- Multilingual
- Windows CE and Windows 7 compatible

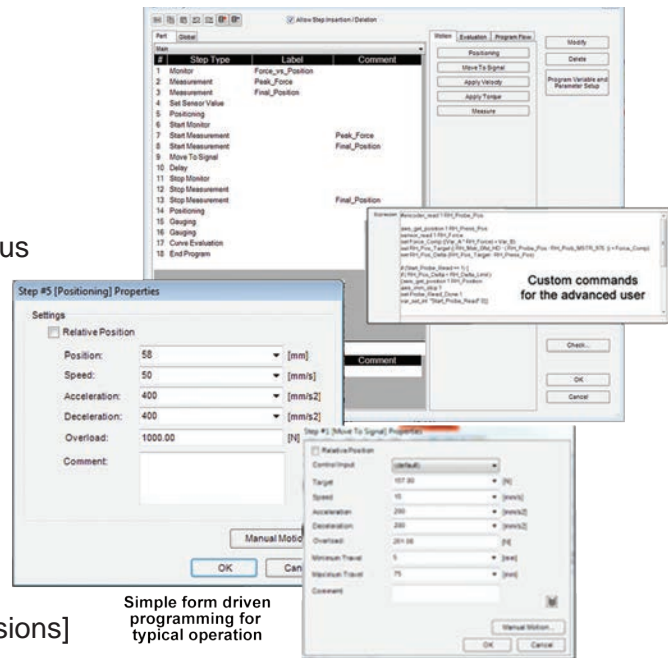
Windows HMI



MOTIONPRO EDITOR

Easy menu driven software includes:

- Rapid application development using powerful commands:
 - Motion control
 - Move to position / angle
 - Move to force / torque
 - Move to an external signal
 - Move to a rate of change
 - Move to a compensation factor
 - Data acquisition and signature monitoring
 - Acquire force, position, angle or sensor versus time or distance
 - Fixed high and low limits
 - Learned signature limits
 - Editable signature limits
 - Gauge force, position, angle or sensor
 - Pass / fail outputs
 - Data storage
 - Looping and branching
 - Custom commands
 - Formulas
 - "Real-time" formula evaluation [aka, live expressions]
- Program checker
- Program debugging aids
- Online and offline editing supported
- Cut and paste
- Editing history logging
- Multi-user access control
- Hardware diagnostics screen
- Parameter
- Manual jog scree
- Controller event logging

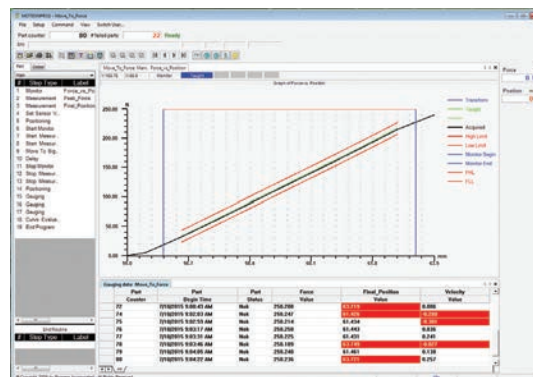


Simple form driven programming for typical operation

MOTIONPRO DATA SERVICE

Promess Database Viewer

- Provides total data recall of signatures and gauge values
- Works with Promess Database produced from any Promess product
- Remote viewing using:
 - Microsoft file sharing
 - Dropbox
 - Microsoft SkyDrive
 - USB drives
- Data recall features:
 - Recall monitored graphs
- Overlaid graphs
- Data filtering



Promess Data Service

- Easy set up
- Process data storage
 - Signature curve
 - Calculated and gauged values
- Server-level software
- Continuous and reliable storage MotionPRO
- Plug-in architecture:
 - Promess database
 - Q-DAS
 - Quality Works
 - Custom storage solutions
- Works independently of Editor and HMI Software
- Windows 7, Windows 8, Windows Server 2008 compatible
- Serial number tracking

PROCESS DEVELOPMENT CENTER

Promess would like to invite you to our Process Development Center. The PDC is available to help you develop your processes and confirm the Promess technology that is best suited for your application. Call today to set up a visit.

The Process Development Center gives you access to:

- EMAP (Electro-Mechanical Assembly Press) Work Stations with capabilities ranging from 0.2kN-300kN
- TorquePRO stations ranging from 1Nm-600Nm
- REMAP (Rotational Electro-Mechanical Assembly Presses) which combines rotational and linear motion in one machine



THE COMPANY



Promess is recognized as a leading U.S. manufacturer of highly adaptive monitoring and motion control systems used by companies around the world to assemble and test their products.



11429 Grand River Road
P.O. Box 748 • Brighton, MI 48116
810-229-9334 • Fax: 810-229-8125
promessinc.com • promess@promessinc.com
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Cloning the perfect part