



# ARMAX

## ELECTRO-MECHANICAL JOINING SYSTEM



## ARMAX SERVO PRESS



## ARMAX IS THE HIGH QUALITY DEVICE FOR JOINING AND PRESS-FITTING

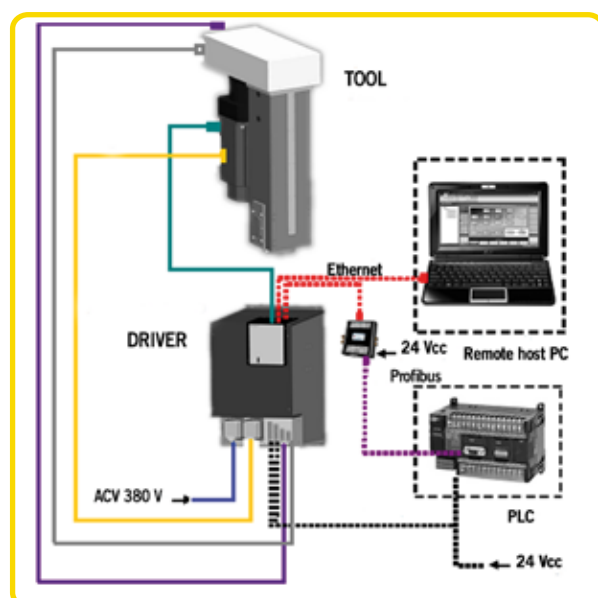
### MAIN APPLICATIONS

- Press fitting of bearing, valve seat, valve guide, bushing, plug and pin
- Multi-stage press fitting
- Riveting
- Flattening/Straightening

### MAIN FEATURES

- **Improvement of production process:** load, position, speed and time are constantly under control allowing for better efficiency of the whole process.
- **Full traceability:** the collection of a variety of data during cycle ensures 100% traceability.
- **Easy setup:** the system can be simply configured as it is composed just of tool, controller and cable.
- **Respect of environment:** energy consumption and noise are considerably reduced thanks to the servo motor drive.

### PRESS FITTING OF EXPANDER PLUGS ON CAR GEARBOXES



### TYPICAL SYSTEM CONFIGURATION

- Internal strain gauge load cell
- Measuring direction: tension/compression
- Heavy duty ball screws or planetary screws
- Moving part supported by ball rail system providing higher resistance to radial load
- Special design on request

## EXAMPLE OF FORCE-DISPLACEMENT DIAGRAM WITH CONTROL WINDOWS



## FLEXIBLE SOFTWARE

- **High level of programming freedom:** a specialized programming language, similar to that employed for robotic control systems, allows to perform complex movements.
- **Easy creation of new programs:** a specific function enables to create new programs for general purposes in few steps by setting a small number of parameters.
- **Several evaluation methods:** load, stroke and load rate values are measured on final and peak points as well as on other desired points. Positioning is possible with a digital (TTL) or analogic external transducer too. Moreover, a control window allows for real time monitoring of press fitting as it shows an evaluation area created by a tolerance range added to the actual stroke/load curve.

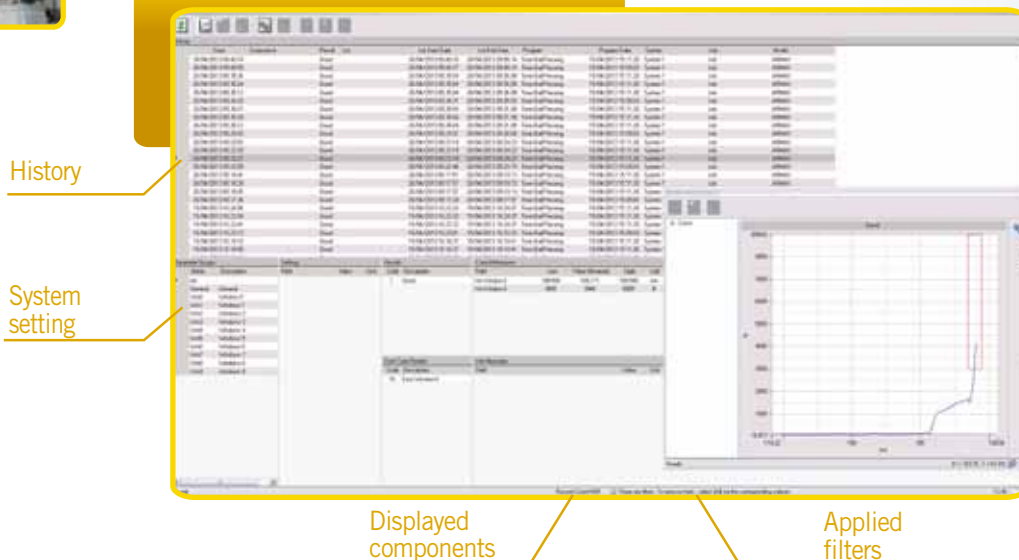
## ASSEMBLING OF INJECTOR COMPONENTS WITH CRITICAL DUTY CYCLES



## SOFTWARE MAIN FEATURES

- 32 programs on board
- 10 control windows for each program
- Multiple view environment
- Step by step configuration of programs
- Offline programming
- Up to 5 systems management through one HMI
- Real time load and stroke control
- Data collection
- Advanced user management
- Advanced access management

## EXAMPLE OF PRODUCTION DATA AND MACHINE SETTING OF AN ASSEMBLY LINE

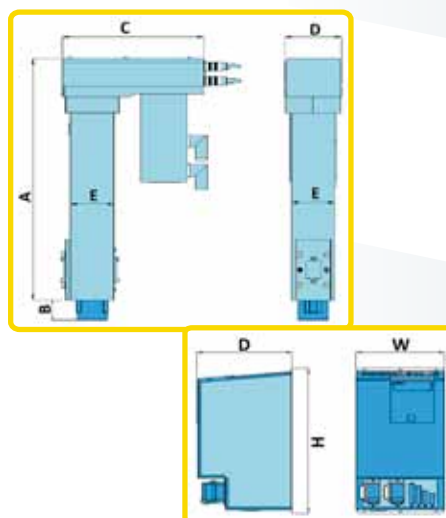


## PRODUCT LINEUP

	ARM5K-HP1	ARM20K-HP1	ARM30K-HP1	ARM60K-HP1	ARM100K-HP1
Max force (kN)	±5	±20	±30	±60	±100
Stroke (mm)	200	200/300	200/300	300	300
Max speed (mm/s)	200	300	300	150	150
Max acceleration (mm/s <sup>2</sup> )	1000	1500	1500	1000	1000
Load accuracy	≤1% load cell fs				
Stroke repeatability	±0.01 mm (under identical load)				
Driver	Armdrive005	Armdrive020	Armdrive030	Armdrive100	Armdrive100

## TOOL SIZE (mm)

Model - Stroke	A	B	C	D	E
ARM5K-HP1 - 200	517	40	291	116	90
ARM20K-HP1 - 200	614	40	319	165	120
ARM20K-HP1 - 300	725	40	319	165	120
ARM30K-HP1 - 200	647	40	354	165	120
ARM30K-HP1 - 300	727	40	354	165	120
ARM60K-HP1 - 300	792	40	482	233	180
ARM100K-HP1 - 300	932	40	510	233	220



## DRIVER

Model	ARMDRIVE005	ARMDRIVE020	ARMDRIVE030	ARMDRIVE100
Absorbed power (kW)	2	4	13	18.5
Frequency (Hz)	50÷60	50÷60	50÷60	50÷60
Power supply	AC 380...480 V ± 10 % (power)		DC 24 V -15%/+20% (logic)	
Size (WxHxD) (mm)	198x415x274	239x415x279	280x465x294	363x620x301
PC interface	Ethernet (RJ 45)			
PLC interface	Profibus DP slave / Digital I/O			
Additional digital I/O	3I/10 (24I / 24O optional)			
Analog input	(0 ÷ 10) V / 11 bit			
External transducer TTL	Optional			

Specifications are subject to change without prior notice.