- Manual /
- Pneumatic /
- Hydro-pneumatic /
- Mechanical eccentric /
 - Impactor Marking /







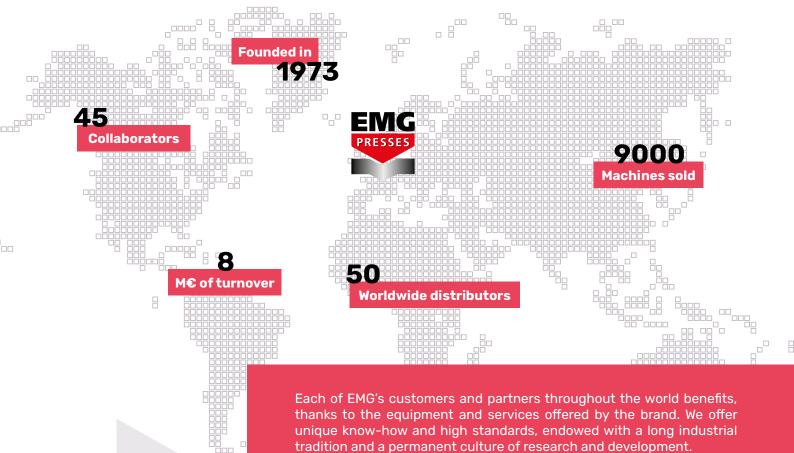








Present across 5 continents with a strong and reliable chain of distributors, manufacturers or retailers selected by EMG who are locally recognized for their experience and quality-orientated service.









SUMMARY



Manual Rack Presses

FROM 200 TO 5,000 KG

Pages 4 to 13 /



Manual Toggle Presses

FROM 500 TO 2,000 KG

Pages 14 to 19 /



Pneumatic Presses

FROM 360 TO 6,000 KG

Pages 22 to 29 /



Impactor Presses

FROM 600 TO 6,000 KG

Pages 30 to 33 /



Hydro-pneumatic Presses

FROM 7 TO 100 T

Pages 34 to 39 /



Mechanical Presses

FROM 6 TO 80 T

Pages 40 to 52 /

A Mark of Excellence in Productivity

EMG has earned its reputation of excellence thanks to its integrated design and production methods and a solid technological prowess. This is backed up by an efficient distribution network, in compliance with the expectations of manufacturers.

Benefitting from a strategy dedicated to quality and active search of performances, EMG equipments ensures competitivity, reliability and durability which are the core values for productivity of companies in numerous industries:

- ▶ Watchmaking, jewellery,
- Mechanical optics,
- ▶ Electrical equipment,

- ➤ Automotive industry,
- > Electrical goods, toys,
- **▶** Locksmithing...



A manufacturer with a well-recognized expertise, EMG has developed, for the last 3 generations, a wide range of products and services appreciated by manufacturers all around the world.





Integrated production and skills

The production workshops facilitate integrated production, this is ensured by a multidisciplinary team proficient in all production steps from A-Z. From designing to complex mechanical operations and assembly with precision, going through various machining operations: milling, turning, surface or cylindrical grinding.

EMG also integrates thermal or surface treatment, mechanised welding with machining, or paint.

















EMG test space for your samples

EMG proposes for its customers a showroom and test laboratory related to the production workshops, at its headquarters. This is to allow demonstrations and for customers to use and handle all our models.

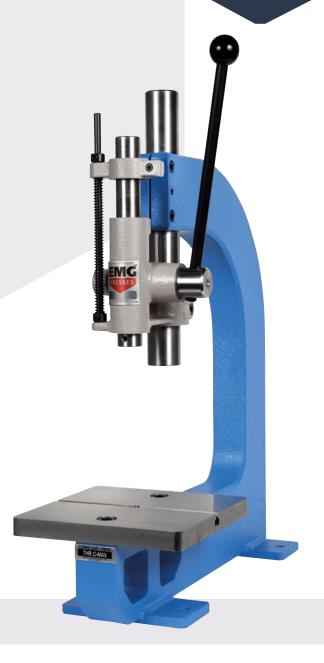
It is this department where all the tests on presses are carried out from the samples submitted by our customers and potential customers.





from 200 to 5,000 kg





Power available depending on the force applied to the lever arm

MANUAL RACK PRESSES	2HR	3HR	4HR 4HRLP	4HR C-MAX	14HR	18HR	50HR 50HRLP	50HR LPTR
Static power exerted on the lever in kg	Power restored by the press in the direction of the slider in kg							
5	35	60	90	90	110	190	350	350
10	75	120	180	180	220	380	700	700
15	110	180	270	270	330	570	1050	1050
20	150	240	360	360	440	760	1400	1400
25	185	300	450	450	550	950	1750	1750
Maximum permitted power by the press	200	400	600	600	1400	1800	5000	5000

from 200 to 600 kg

Rack Presses

2HR - 3HR - 4HR - 4HRLP - 4HR C-MAX

The power is linear and constant over the whole travel according to the applied load on the lever.

These presses are robust, accurate, flexible and ergonomic. These are frequently used for assembly, connections of rings or bearings, small forms, various crimping operations, etc...

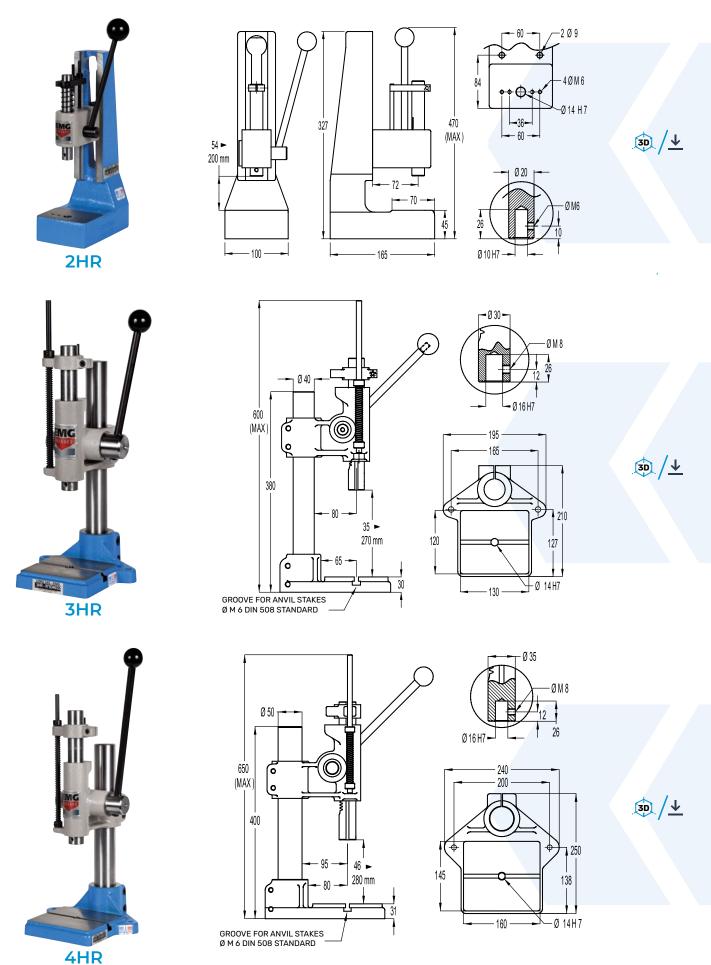
- Slider adjusted and locked for rotation, ensuring longevity and precision.
- Automatic raising of the slider by spring (adjustable tension, except 2HR).
- Quick and reliable adjustment of the clear height.
- Accurate adjustment of bottom dead center by a mechanical stop ensuring the repetitiveness of the cycle.
- Adjustment of the starting position of the lever in order to optimize ergonomy of the press.
- Base support and press head made of FGL 250 cast iron, thus ensuring robustness and rigidity.
- Predisposition for fixation on a bench.
- No maintenance, no greasing.
- Paint: Frame in sky blue, RAL 5015 Sky Blue paint RAL 7036.



TECHNICAL CHARACTERISTICS:

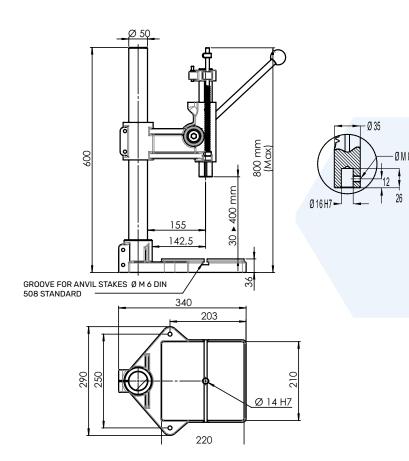
	2HR ⊌	3HR ⊌	4HR ⊌	4HRLP ⊌	4HR C-MAX ⊌
Power (kg)	200	400	600	600	600
Travel (mm)	0 ▶ 50	0 ▶ 80	0 ▶ 100	0 ▶ 100	0 ▶ 100
Adjustable clear height (mm)	54 ▶ 200	35 ▶ 270	46 ▶ 280	30 ▶ 400	95 ▶ 305
Swan-neck depth (mm)	72	80	95	155	350
Angle of rotation per mm of travel	4°58	4°02	3°37	3°37	3°37
Slider bore (mm)	10H7 x 24	16H7 x 26	16H7 x 26	16H7 x 26	Ø16H7 x 26
Table bore (mm)	14H7	14H7	14H7	14H7	14H7
Table (mm)	100 x 70	130 x 120	160 x 145	210 x 220	250 x 250
Weight (kg)	8	17	24	38	95

from 200 to 600 kg

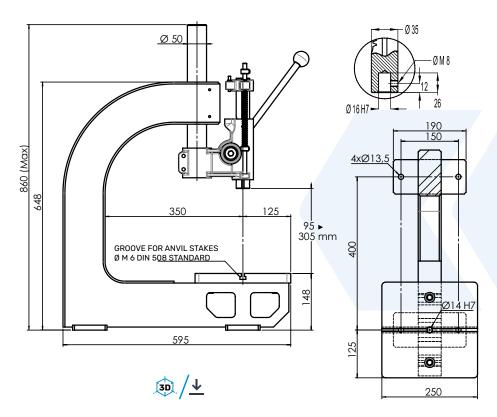


from 200 to 600 kg









3D /<u>↓</u>

Options

COUNTER

5 digit counter with reset function.



BDC MICROMETRIC ADJUSTMENT

Bottom dead center adjustment system, graduated every 0.02mm.



QUALITY CONTROL BY FORCE AND/OR DISPLACEMENT SENSORS

EMG proposes management solutions regarding force and/or displacement thanks to its force and displacement sensor solutions which can be adapted as per the requirement for a 100% control.



See pages 20-21

ANVIL STAKES

Set of 2 anvil stakes for securing the tools in T slots.



COLLET

Collet chuck with ER25 collet for Ø1.5 to Ø16 mm shank (Ø to be selected).





CAPSTAN: TRAVEL + 100 MM, CLEAR HEIGHT INCREASED

For bigger parts, possibility to increase the 100 mm travel (on the 4HR model), change the column to increase the clear height and replace the level by a 3-arm capstan.

4HR press with 200mm travel, clear height +600 mm and 3-arm capstan.



Non return system: does not release the lever until the end of travel (ensures complete and repeatable execution of the operation).



Working stroke: from 0 to 88 mm.

Additional options ///

- On request: special bores, press head only.
- · Special RAL paint.
- · Locking of the press head on the column for rotation.
- Special services on request (press modifications, small tooling and fitting).

See pages 48 to 51

HYGIENIC VERSIONS

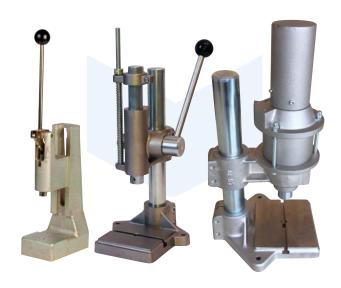


Zinc/nickel Version Press

Fully zinc-plated and/or nickel-plated laboratory press.

These treatments are the most commonly used in the world of anticorrosion. It is a question of taking advantage of their exceptional properties to protect a part against external aggressions.

Ideal for use of the press in "Salt Spray" type atmospheres or to avoid pollution of a laboratory by the standard paint and/or lubrication of our machines.



Press Version, Stainless Steel

These special presses are made in a very careful construction with pickled and passivated external welds and external polishing.

Stainless steel is required by the food, pharmaceutical, parachemical and cosmetic industries for obvious hygiene reasons, as the production environment is subject to repeated and powerful cleaning to avoid contamination.





High Force Capacity Manual Rack Presses

from 1,400 to 5,000 kg

High Force Capacity Manual Rack Presses

14HR - 18HR - 50HR - 50HRLP - 50HRLPTR

The power is linear and constant over the whole travel according to the applied load on the capstan.

These models complete the range of rack presses. These presses, strongly built, propose significant power throughout the travel thanks to the high quality tempered steel pinions.

These models are used for assembly, connections and deep fitting, especially for applications requiring a significant travel and/or a significant clear height.

- · Control by 3-arm capstan or wheel.
- Slider adjusted and locked for rotation, ensuring longevity and precision.
- Tempered steel pinion.
- Cast iron or mechanically welded frame ensuring robustness and rigidity.
- Option for fixation on a bench.
- · Removable circular table.
- Maintenance by grease nipple.
- · Sky Blue paint RAL 5015.

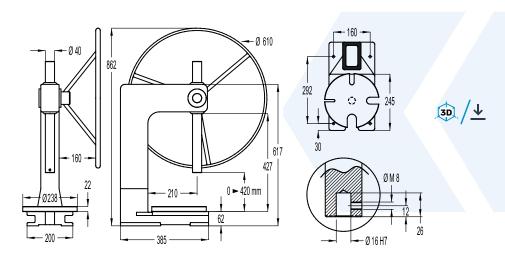


TECHNICAL CHARACTERISTICS:

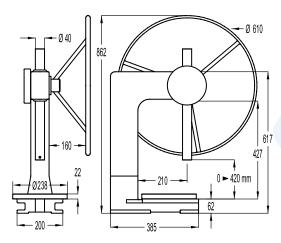
	14HR ⊌	18HR ⊌	50HR ⊌	50HRLP Ŭ	50HRLPTR Ŭ
Power (kg)	1400	1800	5 000	5 000	5 000
Travel (mm)	0 ▶ 420	0 ▶ 420	0 ▶ 530	270 ▶ 800	530
Clear height (mm)	420	420	530	800	415 ▶ 1015
Swan-neck depth (mm)	210	210	250	310	300
Angle of rotation per mm of travel	3°	9°7	12°	12°	12°
Slider bore (mm)	16H7 x 26	16H7 x 26	16H7 x 26	16H7 x 26	16H7 x 26
Table (mm)	240 x 200	240 x 200	210 x 250	250 x 360	250 x 360
Table recess (mm)	55 x 90	55 x 90	70 x 120	82 x 115	82 x 115
Ø rotating table	238	238	238	238	238
Weight (kg)	45	50	145	145	210

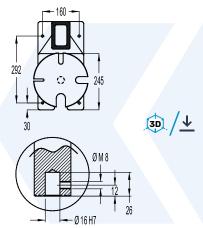
High Force Capacity Manual Rack Presses-from 1,400 to 5,000 kg



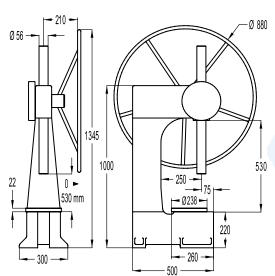


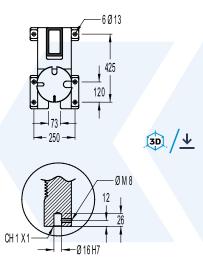






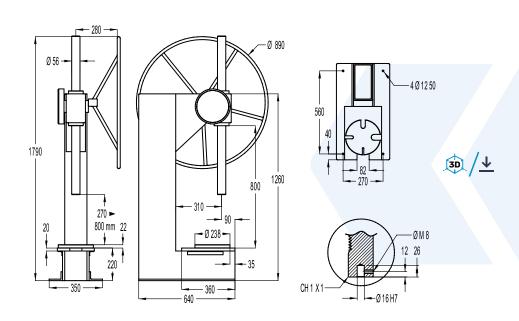




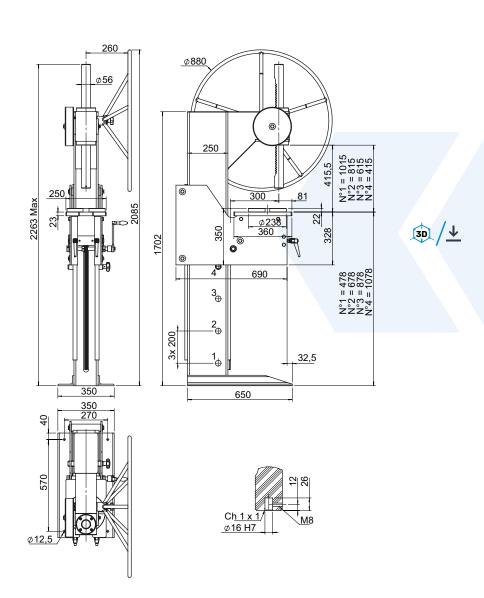


High Force Capacity Manual Rack Presses-from 1,400 to 5,000 kg









Options

SUPPORT BASE FOR 17HR OR 18HR PRESSES



The press support base for the 14HR and 18HR models allows you to design an ergonomic workstation.

Its height is 850 mm (table/floor) and its size is 550 x 400 mm.

50HR PRESS SUPPORT BASE



The press support base for the 50HR model allows you to design an ergonomic workstation. Its height is 690 mm (table/floor) and its size is 650 x 500 mm.

STROKE LIMITING COLLAR



The stroke limiting collar is a mechanical stop that limits the working stroke.

Special services

50HR LP PRESS, CLEAR HEIGHT 1600 MM AND EFFORT REDUCTION SYSTEM ON THE WHEEL



EMG, manufacturer of industrial machines, offers special equipment made to measure, and perfectly adapted to the specifications and constraints of production





Manual Toggle Presses

from 500 to 2,000 kg

Manual Toggle Presses

5HR - 7HR - 15HR - 20HR 7HR C-MAX - 15HR LP - 20HR LP

The maximum power is obtained at the end of travel according to the applied load on the lever.



These presses are robust, accurate, flexible and ergonomic. These are frequently used for assembly, connection of rings or bearings, small forms, various crimping operations, etc.

- •Slider adjusted and locked for rotation, ensuring longevity and precision.
- Automatic raising of slider by spring
- •Quick and reliable adjustment of the clear height.
- •Accurate adjustment of bottom dead center by a mechanical stop ensuring the repetitiveness of the cycle.
- •Base support and press head made of FGL 250 cast iron, thus ensuring robustness and rigidity.
- •No maintenance, no greasing.
- •Option for fixation on a bench.
- •Paint: Light blue RAL 5015 frame Platinum grey RAL 7036 press head.

/ Manual Toggle Presses from 500 to 2,000 kg



TECHNICAL CHARACTERISTICS:

	5HR ⊌	7HR ⊌	15HR ⊌	20HR
Power (kg)	500	700	1500	2 000
Travel (mm)	50	40	30 / 60	60
Adjustable clear height (mm)	42 ▶ 185	35 ▶ 260	60 ▶ 250	120 ▶ 280
Swan-neck depth (mm)	72	95	102	130
Slider bore (mm)	10H7x24	16H7x26	16H7x26	16H7x26
Table bore (mm)	14H7	14H7	32H7	32H7
Table (mm)	100x70	160x145	200x180	220x200
Max. angle of rotation of the lever	90°	90°	90°	90°
Weight (kg)	9	25	32	65

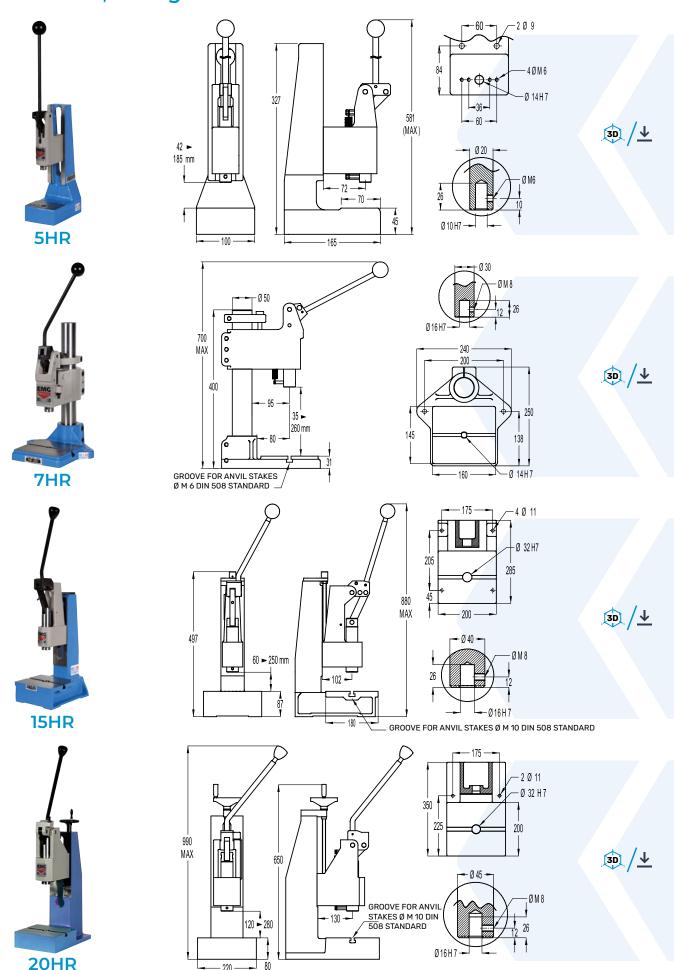
High Force Capacity Manual Toggle Presses from 700 to 2,000 kg



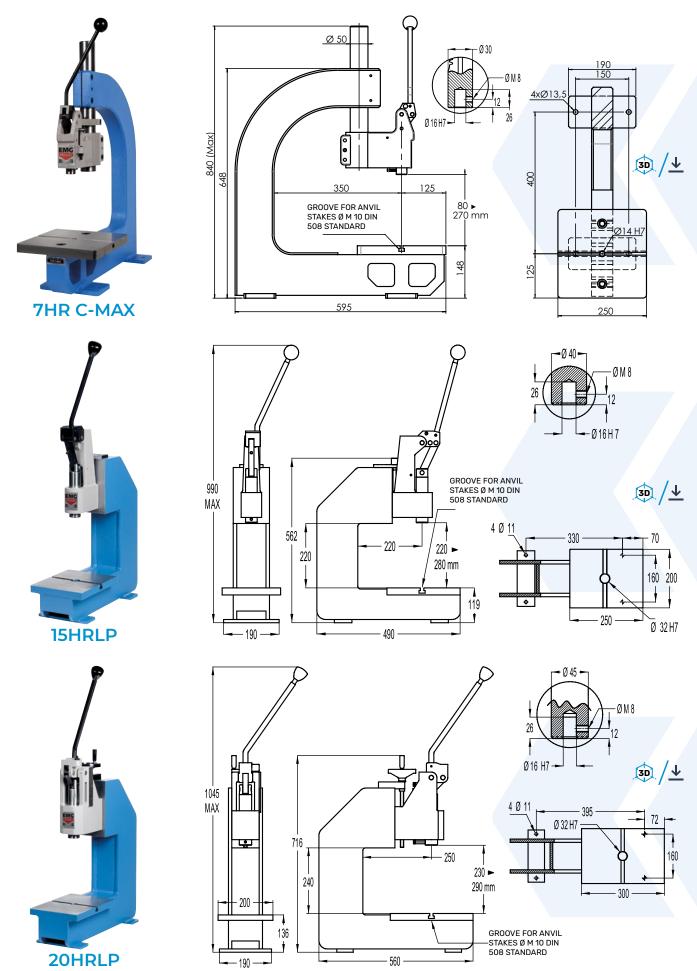
TECHNICAL CHARACTERISTICS:

	7HR C-MAX ⊌	15HRLP	20HRLP
Power (kg)	700	1500	2 000
Travel (mm)	40	30 / 60	60
Adjustable clear height (mm)	80 ▶ 270	220 ▶ 280	230 ▶ 290
Swan-neck depth (mm)	350	220	250
Slider bore (mm)	16H7 x 26	16H7 x 26	16H7 x 26
Table bore (mm)	14H7	32H7	32H7
Table (mm)	250 x 250	200 x 250	200 x 300
Max. angle of rotation of the lever	90°	90°	90°
Weight (kg)	95	55	70

/ Manual Toggle Presses from 500 to 2,000 kg

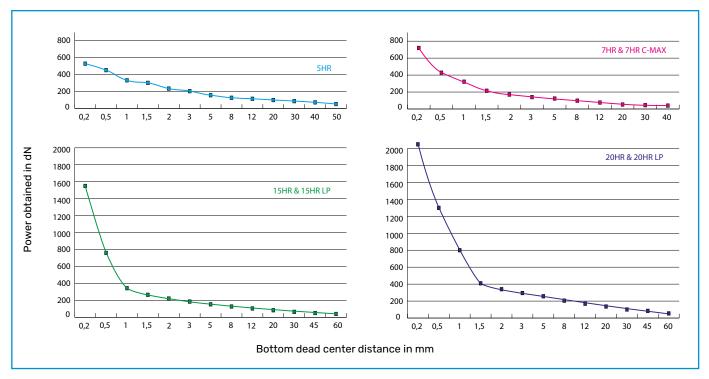


/ High Force Capacity Manual Toggle Presses from 700 to 2,000 kg



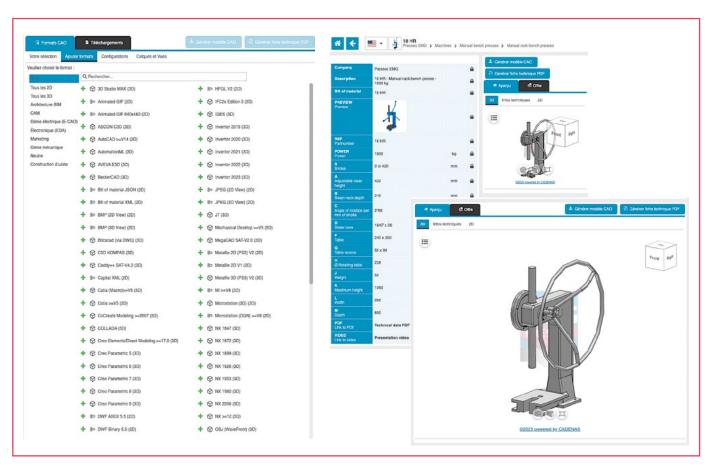
Manual Toggle Presses

Power exerted by the press with a force of 20 Kg at the center of the spherical knob and perpendicular to the lever of the press.



CAD/CAM

The 3D files of our manual and pneumatic presses are available online to easily integrate our machines into your tooling, layout and workstation ergonomics studies.



Options

COUNTER

5 digit counter with reset function.



BDC MICROMETRIC ADJUSTMENT



QUALITY CONTROL BY FORCE AND/OR DISPLACEMENT SENSORS

EMG proposes management solutions regarding force and/or displacement thanks to its force and displacement sensor solutions which can be adapted as per the requirement for a 100% control.



See pages 20-21

ANVIL STAKES

Set of 2 anvil stakes for securing the tools in T slots.



COLLET



NON RETURN SYSTEM

Non return system: does not release the lever until the end of travel (ensures complete and repeatable execution of the operation).



PRESS VERSION ZINC/NICKEL PLATING AND INOX SEE PAGE 9



Additional options ///

- On request: special bores, press head only.
- · Special RAL paint.
- On 7HR: Locking of the press head on the column for rotation.
- Special services on request (press modifications, small tooling and fitting).

See pages 48 to 51

for Manual and Pneumatic Presses

EMG offers all types of force/ displacement monitoring thanks to force and displacement sensor solutions adapted to each need, for 100% parts control. It is the quality guaranteed by the monitoring of industrial processes:

- > Permanent quality control
- > Product process control
- > Total traceability
- > Monitoring the production

The quality assurance goes through a permanent process check.

The EMG presses, equipped with the force and / or displacement sensor allowing production of compliant parts from the beginning of the production process.

The detection of anomalies is immediate if the requested parameters are not reached, the monitoring unit delivers an «OK» or «NOK» message by means of an optical display, a sound signal, or by locking the press in position.

This signal allows the operator to immediately isolate the defected part.

The information is stored in the control unit and can be exported to a PC for analysis, statistics or archiving.

TABLE OF CHARACTERISTICS

EMG Solutions	Solution 1	Solution 2	Solution 3
Features			
Force management	☺	☺	☺
Distance management		☺	☺
Mini – maxi mode	☺	☺	☺
Pass or no pass mode			☺
Smiley OK / NOK or bar graph	☺	☺	☺
Buzzer	☺	☺	☺
Display of evaluation curves			☺
Effort versus time			☺
Window passage			☺
Enveloping curves			☺
Instantaneous values	☺	☺	☺
Nb of measurement / second	4000	4000	4000
Number of storable programs	1	6	96
Screen			
Display		5" touchscreen	
Resolution (pixels)	800*480	800*480	800*480
Plug and play function (TEDS)	☺	☺	☺
Force input Strain gauge	☺	©	©
Force input +/-10VDC		☺	☺
Potentiometric displacement input or +/-10VDC		©	©
TTL displacement input (Heidenhain pinout)	_	©	©
Keyboard emulation USB output	☺	©	©
USB input (key, QR scanner)		☺	☺
Ethernet output			© -
Clock with battery		☺	© -
Sequence Mode			☺
Inputs/outputs on external module	optional	optional	optional



Force Monitoring

for Manual and Pneumatic Presses

Three standard solutions exist in the range.

Specific solutions can be proposed according to customer needs.

Solution 1 Force + thresholds

Solution 1 makes it possible to evaluate the force instantaneously or by pre-setting a minimum and maximum force. A green or red smiley or a bargraph, coupled with a buzzer, will indicate the smooth running of the press cycle. Peak values are also available.



Solution 2

Force + displacement + thresholds

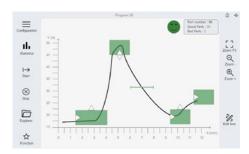
Solution 2 makes it possible to evaluate the force and the displacement instantaneously or by pre-setting a force and a minimum and maximum stroke. A green or red smiley or a bargraph, coupled with a buzzer, will indicate the smooth running of the press cycle. Peak values are also available.



Solution 3

Force + displacement + curves

Solution 3 makes it possible to evaluate the force and the displacement by setting either thresholds, windows or enveloping curves. The evaluation curve will instantly appear on the screen. A green or red smiley, coupled with a buzzer, will indicate that the press cycle is running smoothly.





Force sensor	
(PN) Nominal power	2 kN -> 60 kN
Plug and play	☺
Overload (in % of PN)	150%
Breakage (in % of PN)	300%
Accuracy (in % of PN)	0,25% < 5kN / 0,5% > 5kN
Sensor height (mm)	free height loss ± 60mm
Protection class	IP67
Tool attachment	Ø16H7 x 26mm
Displacement sensor	
Туре	potentiometric (other on request)
Plug and play	☺
Stroke	100 -> 500mm
Accuracy (in % of stroke)	±0.05 %
Lifetime	100 x106 movements
Protection class	IP65



Pneumatic Presses

from 360 to 6,000 kg

Pneumatic Presses

6PHR - 6PHR C-MAX - 8PHR - 1T 1T LP - 2T - 3T - 4,3 T - 2T LP 3T LP - 4,3T LP - 6T LP

The range of EMG pneumatic presses completes the range of manual presses and perfectly complies with the customer requirements when the stroke rates are more significant and/or the power to be restored is high.

Single or continuous stroke, the range of EMG pneumatic presses is integrated into the workstations or production line, ensuring Ergonomy - Operator safety - Process reliability.



2 pneumatic presses range:

- Direct push double effect presses from 360 kg to 1t
- · Indirect push double effect presses from 2t to 6t

These presses are robust, accurate, flexible and ergonomic. These are frequently used for assembly, connections of rings or bearings, small forms, various crimping operations, etc.

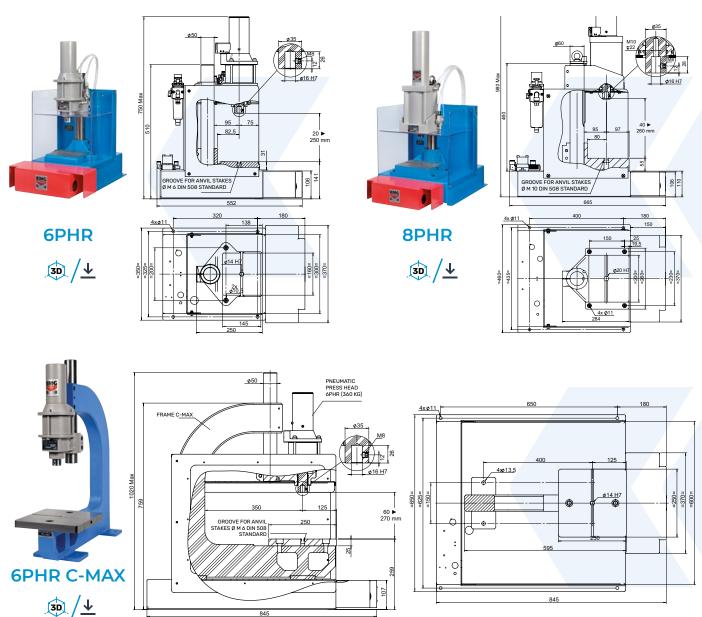
- · Slider adjusted and locked for rotation, ensuring longevity and precision.
- Automatic load of the cylinder when controls released
- Quick and reliable adjustment, with locking ensuring perfect repetitiveness.
- Accurate adjustment of bottom dead center by a mechanical stop ensuring the repetitiveness of the cycle.
- Cast iron FGL 250 or mechanically welded frame ensuring robustness and rigidity.
- · No maintenance, no greasing.
- Paint: Sky blue RAL 5015 frame Platinum grey RAL 7036 press head.

All cylinders are manufactured by EMG and have millions of users across the world which testifies to their exceptionally good quality. The slider is made of chromated steel set on rings and locked for rotation by a key. The piston slides effortlessly in the chromated cylinder, seals ensuring perfect sealing of the cylinder.

The power of our presses is indicated with a pressure at 6 bars and is proportionally adjustable as a standard from 3 to 6 bars.

E.g.: the 6PHR press delivers 360 kg at 6 bars, and thus 180 kg at 3 bars, 240 kg at 4 bars and 300 kg at 5 bars.

/ Direct Push Double Effect Presses from 360 kg to 700 kg



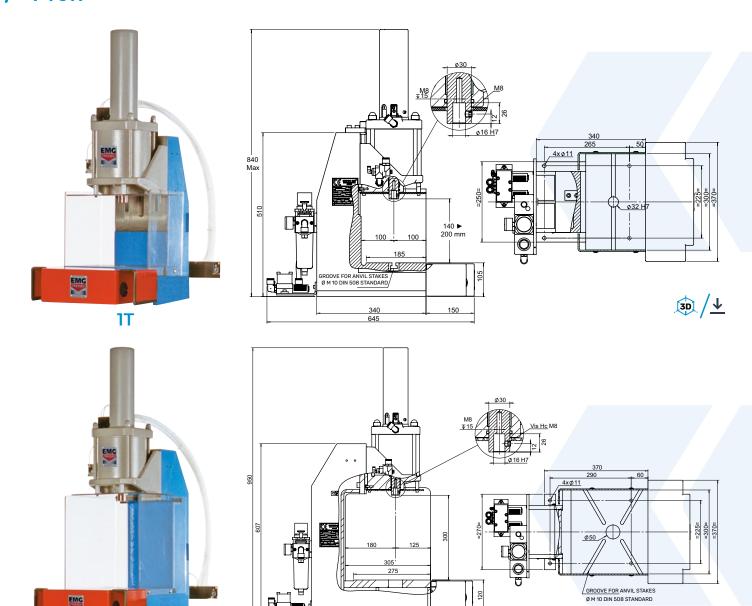
Stroke adjustment:

The stroke of our presses is adjustable by a mechanical precision nut, graduated to 1/10th of a mm with a locking ensuring a perfect repetition of the cycle. View of stroke end mechanical stop and information sensor for bottom dead center timeout (optional).

TECHNICAL CHARACTERISTICS	6PHR ▼	6PHR C-MAX ✓	8PHR ⊌
Power (kg)	360	360	700
Travel (mm)	0 ▶ 50	0 ▶ 50	0 ▶ 100
Adjustable clear height (mm)	20 ▶ 250	60 ▶ 270	40 ▶ 260
Swan-neck depth (mm)	95	350	95
Slider bore (mm)	16H7 x 26	16H7 x 26	16H7 x 26
Table bore (mm)	14H7	14H7	20H7
Table (mm)	160 x 145	250 x 250	200 x 170
Press speed (mm/sec.)	150	150	130
Air consumption (I.)	0,6	0,6	2,3
Weight (kg)	25	95	50



Direct Push Double Effect Presses



370

<u>3D</u> /<u>↓</u>

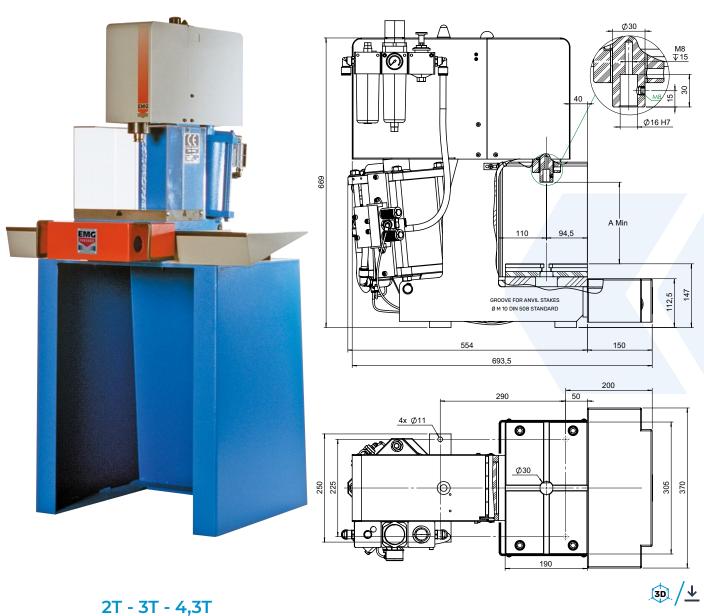
TECHNICAL CHARACTERISTICS:

1T LP

	1T ⊌	1T LP ♥	2T ⊌	3T ⊌	4,3T ⊌
Power (kg)	1000	1000	2 000	3 000	4 300
Travel (mm)	0 ▶ 100	0 ▶ 100	0 ▶ 69	0 ▶ 54	0 ▶ 40
Adjustable clear height (mm)	140 ▶ 200	300	200	180	175
Swan-neck depth (mm)	100	180	110	110	110
Slider bore (mm)	16H7 x 26	16H7 x 26	16H7 x 30	16H7 x 30	16H7 x 30
Table bore (mm)	32H7	50H11	30	30	30
Table (mm)	300 x 185	300 x 275	305 x 190	305 x 190	305 x 190
Press speed (mm/sec.)	100	100	75	48	36
Air consumption (I.)	3,4	3,4	5,2	5,2	5,2
Weight (kg)	125	150	150	150	150

Indirect Push Double Effect Presses

/ from 2 to 4,3 Tons



2T - 3T - 4,3T (base support in option)

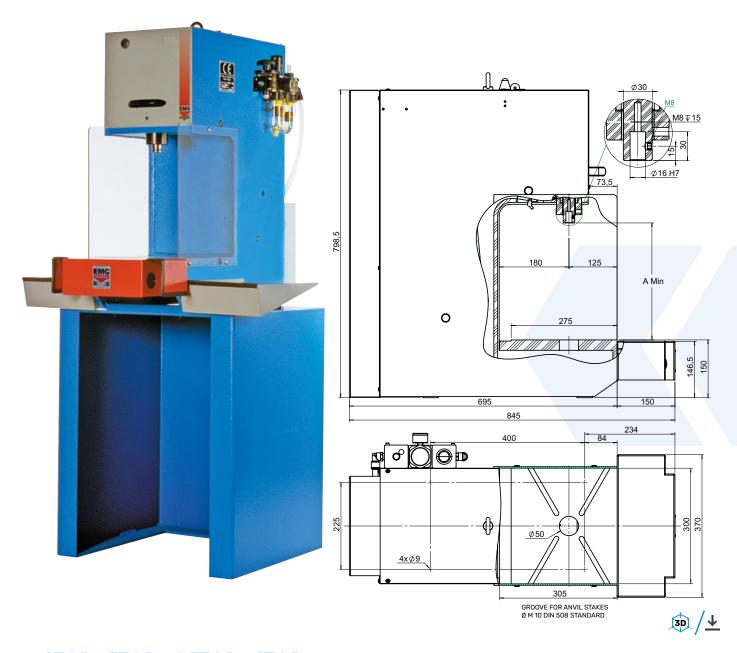
Stroke adjustment:

The stroke of our presses is adjustable by a mechanical precision nut, graduated to 1/10th of a mm with a locking ensuring a perfect repetition of the cycle.

View of stroke end mechanical stop and information sensor for bottom dead center timeout (optional).



/ Indirect Push Double Effect Presses from 2 to 6 Tons



2T LP - 3T LP - 4,3T LP - 6T LP (base support in option)

TECHNICAL CHARACTERISTICS:

	2T LP ⊌	2TLP ⊌	4,3T LP ▼	6T LP ▼
Power (kg)	2 000	3 000	4 300	6 000
Travel (mm)	0 ▶ 69	0 ▶ 54	0 ▶ 40	0 ▶ 50
Adjustable clear height (mm)	315	300	295	305
Swan-neck depth (mm)	180	180	180	180
Slider bore (mm)	16H7 x 30	16H7 x 30	16H7 x 30	16H7 x 30
Table bore (mm)	50	50	50	50
Table (mm)	300 x 275	300 x 275	300 x 275	300 x 275
Press speed (mm/sec.)	75	48	36	30
Air consumption (I.)	5,2	5,2	5,2	9,8
Weight (kg)	200	200	200	230



Versions of Control for Pneumatic Presses



Version 1 integration by the customer

Only machine delivered, no controls, no equipment.



Version 2

running condition with two hand controls

Version 1+

- Two hand controls with push buttons.
- · Protection of side and top tables.
- Distributor, check valve, control valve of protection cover and pneumatic fittings.
- Regulation and lubrication filter (lockable).



Version 3

running condition with two hand or pedal controls

Version 2 +

- Pedal control for embedded tool work*
- •2-position key selector



*Definition: The embedded tools must be intrinsically safe. Their corresponding openings and safety distances must be in compliance with the standards in force or must not exceed 6 mm. Any risk of additional deformation outside the embedded tools must be avoided.

Options

ADDITIONAL REGULATOR

Additional regulator allowing working with a pressure from 0.5 to 6 bars.

1% REGULATOR

Power regulator, adjustable from 0.5 to 6 bars with digital pressure gauge ensuring a repetitiveness

of the cycle and precision up to 1%.

3% REGULATOR

Power regulator, adjustable from 0.5 to 6 bars with dial pressure gauge ensuring a repetitiveness of the cycle and



COUNTER

5 digit counter with reset function.



QUALITY CONTROL BY FORCE AND/OR DISPLACEMENT SENSORS

EMG proposes management solutions regarding force and/or displacement thanks to its force and displacement sensor solutions which can be adapted as per the requirement for a 100% control.



See pages 20-21

EXHAUST FILTER

instead of 85).

Complete exhaust filter system for reduction in pollution and noise levels (75 dB



Press speed regulation by exhaust restrictor.



BDC MICROMETRIC ADJUSTMENT

Bottom dead center adjustment system, graduated every 0.02mm.



ANVIL STAKES

Set of 2 anvil stakes for securing the tools in T slots.



COLLET

Collet chuck with ER25 collet for Ø1.5 to Ø16 mm shank (Ø to be selected).



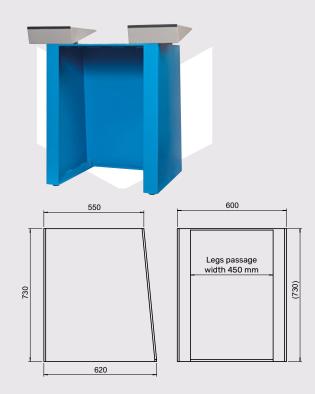


BASE SUPPORT AND LATERAL PANELS

Press base support and set of 2 350x250 mm side panels.

These accessories allow the design of a very ergonomic workstation:

- · Legs passage 450 mm.
- Height of base support 730 mm (755 mm with anti-vibration supports).
- Lateral panels inclined for the 350 x 250 mm parts.



Additional options ///

- Bottom Dead center timeout, allowing:
- Stalling the press from 0 to 15s at bottom dead center.
- Ensuring attainment of bottom dead center thanks to a detection in the last mm.
- •Press locking at bottom dead center by a support on the two hand controls and engaged by an impulse on the two hand control.
- Special RAL paint.
- Special services on request (press modifications, small tooling and fitting).

See pages 48 to 51

Impactor Presses

from 600 to 6,000 kg

Impactor Presses

PM6 - PM30 - PM60 - PM6P - PM30P - PM60P

At the time of ISO standardization, identification and traceability of parts, EMG presses propose a range of impactor presses and numbering, riveting and crimping accessories combining performance, precision and security.

This range is found in numerous workshops. The power delivered is constant and regular, and remains exact irrespective of the force applied on the lever.

These presses have an adjustable impact force and a mechanism which prevents the double impact return effect.



POSSIBILITY OF MARKING

Indicative values (number of characters depending on the height and material)

PRESSES	600	KG	300	0 KG	600	0 KG
MATERIAL	ALUMINIUM	IRON	ALUMINIUM	IRON	ALUMINIUM	IRON
1 mm	14	7	28	15	75	36
2 mm	12	5	24	12	65	26
3 mm	8	3	20	9	56	17
4 mm	6	2	16	8	50	15
5 mm	5	1	14	6	46	12
6 mm	-	-	6	3	40	8
10 mm	-	-	3	1	20	5

Manual Impactor Presses from 600 to 6 000 kg







PM6 PM30 PM60 Power (kg) 3 000 6 000 600 Max. downstroke (mm) 40 40 25 Impact stroke (mm) 0.2 0.2 0.2 Adjustable clear height (mm) 30 ▶ 250 40 ▶ 250 70 ▶ 520 Swan-neck depth (mm) 86 123 174 Ø of the shank of the tool (mm) Ø6 x 27 Ø 10 x 38 Ø 16 x 48 160 x 160 220 x 220 Table (mm) 100 x 100 Weight (kg) 30 100 11

PM6

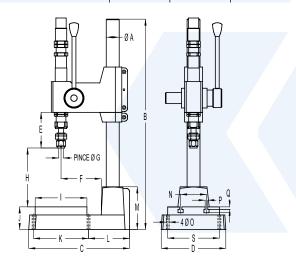
PM30

PM60

TABLE OF VALUES OF MANUAL IMPACTOR PRESSES

	PM6	PM30	PM60
Α	Ø 30	Ø 40	Ø 70
В	500	650	1000
С	215	312	445
D	130	200	280
Е	46	110	145
F	86	123	174
G	Ø6 x 27	Ø 10 x 38	Ø 16 x 48
Н	30 ▶ 250	40 ▶ 250	70 ▶ 520
ı	100	160	220
J	50	70	90

	PM6	PM30	PM60
K	135	170	230
L	80	127	190
М	70	132	190
N	50	80	120
0	Ø 6,50	Ø 8,50	Ø 10,50
Р	6	8	12
Q	9	10	13
R	6	8	9
S	90	160	230



Pneumatic Impactor Presses

from 600 to 6 000 kg







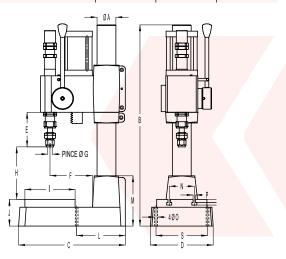
PM60 P

	PM6 P ⊌	PM30 P ⊌	PM60 P ⊌
Power (kg)	600	3 000	6 000
Max. downstroke (mm)	30	40	45
Impact stroke (mm)	0.2	0.2	0.2
Adjustable clear height (mm)	40 ▶ 300	60 ▶ 300	100 ▶ 300
Swan-neck depth (mm)	86	135	190
Ø of the shank of the tool (mm)	Ø6 x 27	Ø 10 x 38	Ø 16 x 48
Table (mm)	100 x 100	160 x 160	240 x 240
Weight (kg)	15	38	120

TABLE OF VALUES OF PNEUMATIC IMPACTOR PRESSES

	PM6 P	PM30 P	PM60 P
	PMOP	PM30 P	PMOU P
Α	Ø 40	Ø 60	Ø 100
В	500	640	830
С	242	340	503
D	140	200	300
Е	46,5	110	145
F	86	135	190
G	Ø 6 x 27	Ø 10 x 38	Ø 16 x 48
Н	40 ▶ 300	60 ▶ 300	100 ▶ 300
ı	100	160	240
J	60	85	110

	PM6 P	PM30 P	PM60 P
K	110	170	250
L	117	155	228
М	90	150	210
N	50	80	120
0	Ø 6,50	Ø 8,50	Ø 10,50
Р	6	8	12
Q	6	8	9
R	9	10	13
S	110	164	250



Versions of Control for Impactor Presses

///

Version 1 integration by the customer

Only machine delivered, no controls, no equipment.



Version 2

running condition with two hand controls

Version 1+

- Two hand controls with push buttons.
- · Protection of side and top tables.
- Distributor, check valve, control valve of protection cover and pneumatic fittings.
- · Regulation and lubrication filter (lockable).



Version 3

running condition with two hand or pedal controls

Version 2 +

- Pedal control for embedded tool work*
- •2-position key selector



*Definition: The embedded tools must be intrinsically safe. Their corresponding openings and safety distances must be in compliance with the standards in force or must not exceed 6 mm. Any risk of additional deformation outside the embedded tools must be avoided.

Options

COUNTER

5 digit counter with reset function.



EXHAUST FILTER

Complete exhaust filter system for reduction in pollution and noise levels (75 dB instead of 85).



ANVIL STAKES

Set of 2 anvil stakes for securing the tools in T slots.



BASE SUPPORT AND LATERAL PANELS

Press base support and set of 2 350x250 mm side panels.

These accessories allow the design of a very ergonomic workstation:

- · Legs passage 450 mm.
- Height of base support 730 mm (755 mm with anti-vibration supports).
- Lateral panels inclined for the 350 x 250 mm parts.



MARKING ACCESSORIES



Additional options ///

ON REQUEST:

- Special bores, complete press head only.
- Special RAL paint.
- Special services on request (press modifications, small tooling and fitting).

See pages 48 to 51

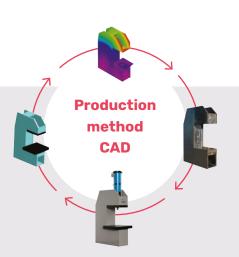
Hydro-pneumatic Presses

from 7 to 100 T

Hydro-pneumatic Presses

7T - 15T - 30T - 50T - 75T - 100T FRAME RANGE

Only pressed air type available.



Our cylinder is a compressed air cylinder with closed hydraulic circuits, which allows attaining the requested loads with a stroke which is triggered when the piston gets a resistance. The action is very simple and similar to pneumatic double effect cylinders. This technology thus combines the advantages of both pneumatic and hydraulic systems, without any adverse effects (these include for example, no noisy, dirty hydraulic motors, and low air consumption).

RapidityPower

QualityEconomy

Quiet
 No maintenance

A very wide range of machines combining:

• 60+ different cylinders

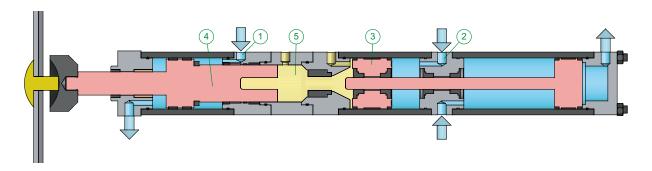
With 3 different frames

Hydro-pneumatic Presses

Explanatory Diagram of Operation

Step 1 the fast approach run without power

The cylinder is supplied with compressed air at the marks (1) and (2). The rapid but rapid yet controlled descent of the feed piston (3) and the slider (4) takes place until resistance is reached. In this step, the oil fills the hydraulic chamber (5).

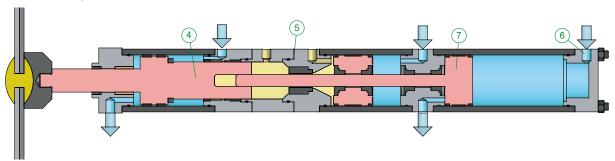


Step 2

the slow working stroke with power

A control valve switches the pneumatic supply to the mark (6), the working piston (7) descends.

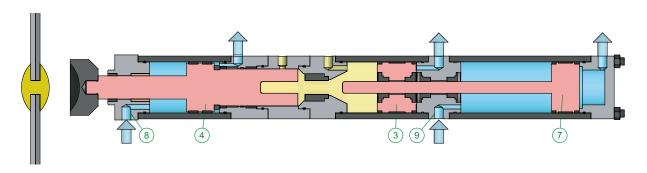
During this phase, the plunger rod of the working piston (7) enters in the hydraulic chamber (5), compresses the oil, which greatly increases the power of the slider (4).



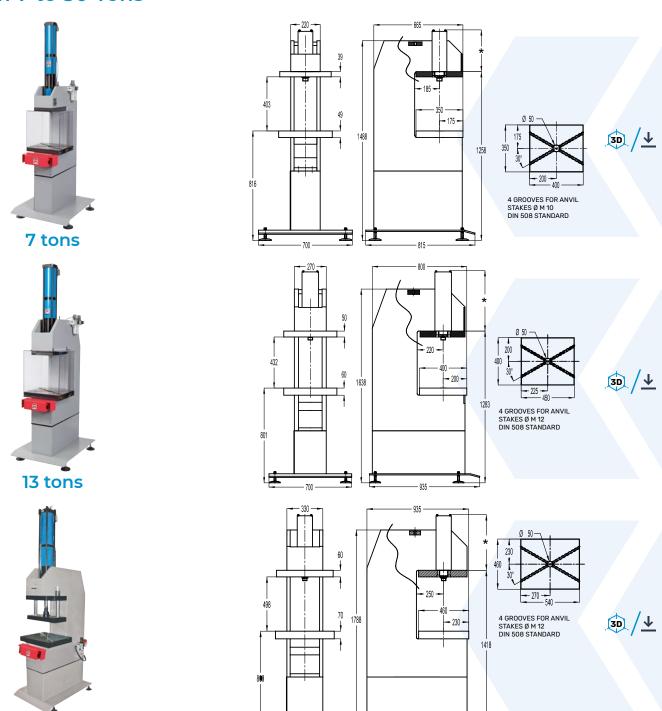
Step 3

the return stroke and the stand-by position

The cylinder is supplied with compressed air on the marks (8) and (9). The slider (4), the feed piston (3) and the working piston (7) rise at high speed and remain held in the high position.



/ Hydro-pneumatic Presses from 7 to 30 Tons



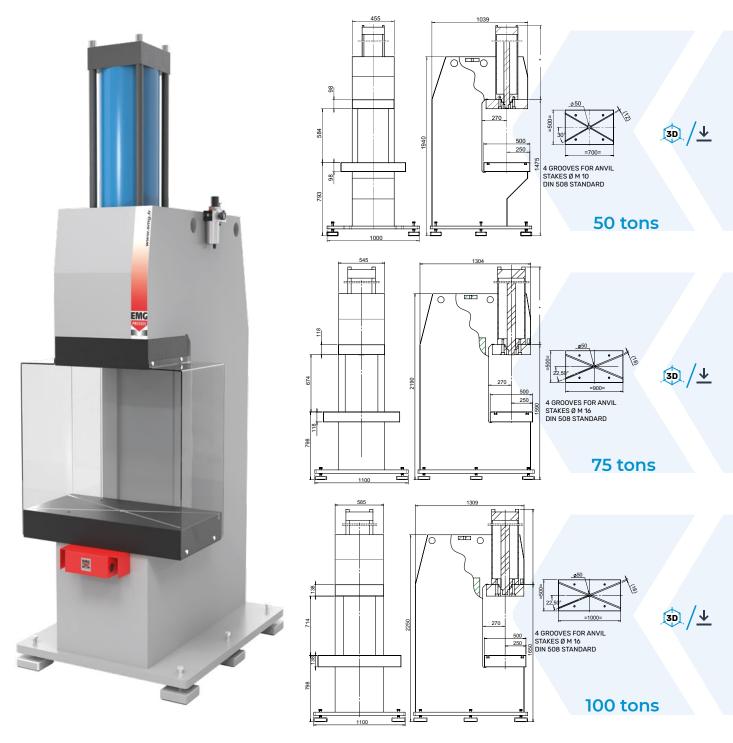
EXAMPLES	7 tons range frame	13 tons range frame	30 tons range frame
Power *	6 910 ► 7 820 kg	13 380 ▶ 14 000 kg	28 300 kg ▶ 30 650 kg
Total stroke *	50 ► 400 mm	50 ► 300 mm	50 ▶ 400 mm
Travel *	6 ► 60 mm	6 ► 40 mm	6 ▶ 40 mm
Clear height	400 mm	430 mm	500 mm
Swan-neck depth	185 mm	220 mm	250 mm
Fixing of tool on cylinder	M30 x 2 x 25 mm	M30 x 2 x 25 mm	M39 x 2 x 35 mm
Total length of the cylinder *	650 ► 1790 mm	695 ▶ 1660 mm	800 ▶ 2 010 mm
Table	400 x 350 mm	450 x 400 mm	540 x 460 mm
Weight *	500 kg	750 kg	1 200 kg

±

30 tons

^{*} as per the choice of the cylinder

/ Hydro-pneumatic Presses from 50 to 100 Tons



EXAMPLES	50 tons range frame	75 tons range frame	100 tons range frame
Power *	45 900 kg ► 47 600 kg	72 700 kg	98 500 kg
Total stroke *	70 ▶ 400 mm	100 à 300 mm	100 à 300 mm
Travel *	6 ▶ 40 mm	10 ▶ 16 mm	8 ▶ 12 mm
Clear height	580 mm	670 mm	710 mm
Swan-neck depth	270 mm	270 mm	270 mm
Fixing of tool on cylinder	M42 x 2 x 40 mm	M64 x 2 x 60 mm	M64 x 2 x 60 mm
Total length of the cylinder *	957 ▶ 2084 mm	De 1329 ▶ 2288 mm	1329 ▶ 2288 mm
Table	700 x 500 mm	900 x 500 mm	1000 x 500 mm
Weight *	2 200 kg	4 500 kg	5 500 kg

as per the choice of the cylinder

Versions of Control for Hydro-pneumatic Presses





Only machine delivered, no controls, no equipment.

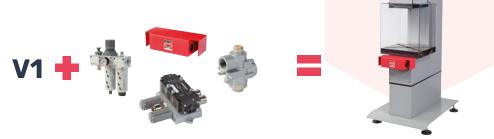


Version 2

running condition with two hand controls

Version 1+

- Two hand controls with push buttons.
- · Protection of side and top tables.
- Distributor, check valve, control valve of protection cover and pneumatic fittings.
- Regulation and lubrication filter (lockable).



Version 3

running condition with two hand or pedal controls

Version 2 +

- Pedal control for embedded tool work*
- •2-position key selector

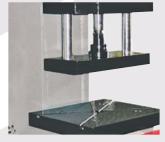


*Definition: The embedded tools must be intrinsically safe. Their corresponding openings and safety distances must be in compliance with the standards in force or must not exceed 6 mm. Any risk of additional deformation outside the embedded tools must be avoided.

Options

ANTI-ROTATION BY 2 COLUMNS

System of antirotation by 2 columns. (Loss of clear height).



ADDITIONAL REGULATOR

Additional regulator allowing working with a pressure from 0.5 to 6 bars.



3% REGULATOR

Power regulator, adjustable from 0.5 to 6 bars with dial pressure gauge ensuring a repetitiveness of the cycle and precision up to 3%.



Power regulator, adjustable from 0.5 to 6 bars with digital pressure gauge ensuring a repetitiveness of the cycle and precision up to 1%.



COUNTER

5 digit counter with reset function.



EXHAUST FILTER

Complete exhaust filter system for reduction in pollution and noise levels (75 dB instead of 85).



EXHAUST RESTRICTOR



ANVIL STAKES

Set of 2 anvil stakes for securing the tools in T slots.



Additional options ///

- Bottom Dead center timeout, allowing:
- Stalling the press from 0 to 15s at bottom dead center.
- Ensuring attainment of bottom dead center thanks to a detection in the last mm.
- Special RAL paint.

- •Press locking at bottom dead center by a support on the two hand controls and engaged by an impulse on the two hand control.
- Special services on request (press modifications, small tooling and fitting).

See pages 48 to 51



from 6 to 80 Tons

Mechanical Presses

6T-15T-25T-45T-80T

The range of EMG mechanical presses consist of 5 models from 6 to 80 T.

Being performance-oriented, these execute the most demanding applications with precision and reliability: watchmaking, jewellery, mechanical optics, electrical and electronic machines, automotive industry, electrical goods, toys, locksmithing...

Being durable, these guarantee you optimum quality and unparalleled productivity for a very long time!

The various operations are executed carefully thanks to the power reserve of each model and a very rigorous precision.



Variable stroke (mm) 4 ▶ 40 5 Clear height (mm) 200 Swan- neck depth (mm) 120 Number of cycle / mn 240 Adjustment of the swivel screw 0 ▶ 30 0	15 T 25 5 ► 75 5 ► 300 300 300 180 210 140 140 1 ► 50 0 ► 6	75 6 ▶ 100 00 350 10 220	400 300 100
Clear height (mm) 200 Swan- neck depth (mm) 120 Number of cycle / mn 240 Adjustment of the swivel screw 0 ▶ 30 0 Slider bore (mm) Ø26H7x40 Ø3	300 300 180 210 140 140	350 10 220 10 130	400 300 100
Swan- neck depth (mm) Number of cycle / mn Adjustment of the swivel screw Slider bore (mm) 926H7x40 93	180 210 140 140	10 220 10 130	300 100
Number of cycle / mn Adjustment of the swivel screw Slider bore (mm) Ø26H7x40 Ø3	140 140	130	100
Adjustment of the swivel screw 0 ▶ 30 0 Slider bore (mm) Ø26H7x40 Ø3			
Slider bore (mm) Ø26H7x40 Ø3	. FO 0.	60 0 70	
() g2011/X+0 g0	, > 30 0 > 0	0 0 70	0 ▶ 90
Motor power (kw) 0,5	8H7x55 Ø38H7	17x55 Ø50H7x6	55 Ø50H7x100
	1,1 2,2	,2 5,5	7,5
Air consumption per cycle (l.) 0,2	0,6	,7 0,9	0,7
Table dimension (mm) 450x220x30 450	x320x40 550x40	00x48 650x430x	(57 850x600x67
Weight (kg) 450			6 300

Characteristics of the Range

Frame

The frame is made of high quality mechanizedwelded steel with swan-neck structure. Regular weld seams and proper welding supports ensure an exceptional rigidity and a resistance against cutting impacts even during an intensive use.

The very thick sides of the frame reduce the swanneck opening.

Slider

The slider is made of cast iron FGS 300 mounted on steel or bronze sliding rails, adjustable by screws. The assembly is completely adjusted and scraped manually. The adjustment is carried out by stops mounted on the press frame.

The bedplate of the slider has holes and a central bore for fixing tools.

The sliding rails have machining in the form of "oil grooves" allowing an efficient lubrication.

A knock-out bar goes through the slider. The adjustment is carried out by a stop mounted on the frame.

Connecting rod/Swivel screw

The connecting rod is made of FGS 300 cast iron (steel on 80T) with bronze line completely scraped ensuring a perfect lubrication. It is lubricated by oil.

The swivel screw is made of pre-treated steel, completed by a surface treatment.

Shaft

The shaft is made of hardened forged steel. An oversulfinization after machining reduces the wear and tear due to friction. It runs on lubricated rings.

Stroke change

The stroke change is achieved very quickly by turning the disconnecting device of a turn and then selecting the desired stroke length.

Lubrification

The lubrication is centralized and ensured by a manual pump. The frequencies are to be adapted as per the cycles used (single or continuous stroke working).

Automatic pump (optional).

Twin-body solenoid valve

It is self-controlled and assembled with heavy duty silencers.

· Clutch/Brake

The movements of the press are obtained by a monodisc air clutch and managed by a brake. An air reservoir compensates for the possible failures of the network starting from the 25t model.



Standard control panel for mechanical presses

Mechanical Presses

• Two hand controls with push buttons.

Standard Equipment

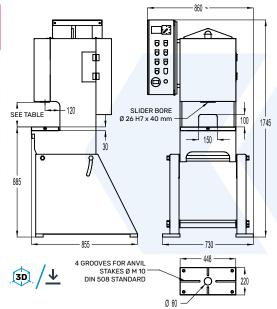
- Central greasing by manual pump
- 6 digit counter with reset function, 8 digit counter without reset function
- Single or continuous stroke
- 20° inclinable frame (option 45t and 80t)
- · Regulation with or without motor
- · Positive ejector in the slider
- · Balancing cylinders (45t and 80t)
- · Slider hydraulic unblocking (45t and 80t)

- · Automatic unblocking for the stroke adjustment (80t)
- EC compliance certificate
- User manual and electrical, pneumatic and hydraulic diagrams
- Periodical verification guide (regulatory follow-up, verification procedures, preventive maintenance, faults and remedies)

6, 15 and 25 Tons

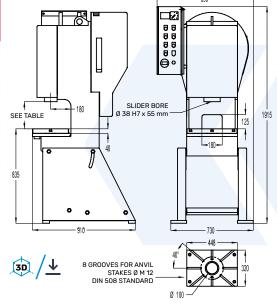


Stroke	Height at bottom dead center	Height at top dead center
4	178	182
10	175	185
18	171	189
25	167	192
32	164	196
36	162	198
39	160	199
40	160	200



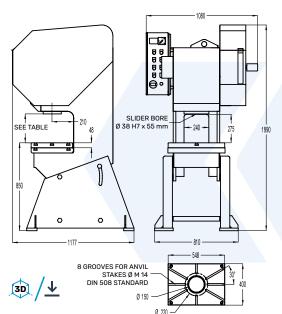


Stroke	Height at bottom dead center	Height at top dead center
5	261	266
20	253	273
38	245	283
53	237	290
65	231	296
72	227	299
75	226	301





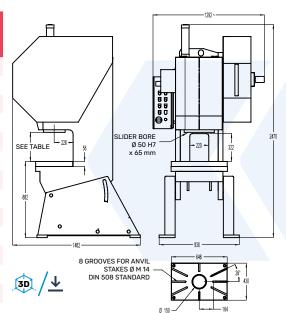
Stroke	Height at bottom dead center	Height at top dead center
5	262	267
13	258	271
24	252	276
34	248	282
44	242	286
53	238	291
61	234	295
67	231	298
71	229	300
74	227,5	301,5
75	227	302



/ Mechanical Presses 45 and 80 Tons

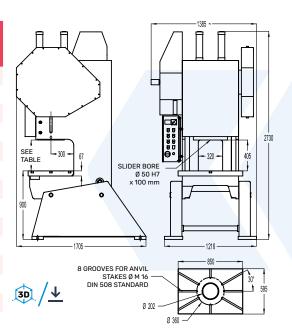


Stroke	Height at bottom dead center	Height at top dead center
6	299	305
14	295	309
26	289	315
39	282	321
50	277	327
61	271	332
71	266	337
79	262	341
86	259	345
92	256	348
97	253,5	350,5
99	251,5	351,5
100	252	352





Stroke	Height at bottom dead center	Height at top dead center
8	332	340
18	328	346
32	321	353
46	314	360
60	306	366
73	300	373
85	295	380
95	290	385
104	285	389
111	282	393
116	279	395
119	278	397
120	278	398



Standard control panel

///

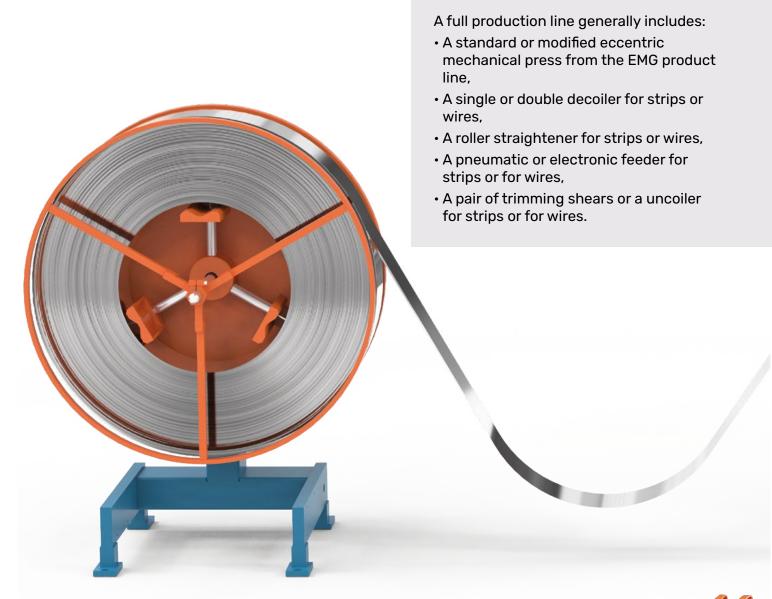
A 5" touch screen, easily accessible for the operator, allows the operation of the press and the access to the various menus (work cycles, information, statistics, faults, etc.



Complete Lines with Unwinder, Straightener, Feeder

EMG PRESSE creates full and customized manufacturing lines bands or for threads

Production equipment components are selected from our partners by our design department to ensure that your specifications and your requirements regarding profitability and quality are respected. They are compliant with all the strictest regulations.



Each production line is designed using the most stringent ergonomic principles and uses all protective equipment and barriers required for maximum operator safety.

Theymake it possible to manage a wide range of dimensions both in the length and thickness of the strips and various profiles, in a variety of materials to be straightened and cut, taking into account the most complex parameters of materials with high or low elastic limits.



/ Mechanical presses

Complete Lines with Unwinder, Straightener, Feeder



Options

VERTICAL SCREEN



The automatic vertical screen ensures front and side protection of the operator and third party. A support on the pedal ensures the descent of the screen to its bottom dead center, the start of the cycle authorized only if the proximity edge does not encounter any obstacle.

The operator can work with both hands free for loading or unloading parts even if the tool is not secured.

This machine gives you about 20% increased productivity with less fatigue and muscle strain.

Doors are mounted on hinges providing full access for quick and easy tool changing.

ELECTRONIC GUARDS

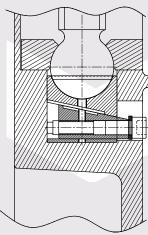


Electronic guards allow front protection of the dangerous zone and control the start of the cycle after one or two passes in the beam. Not requiring any use of two hand controls, this equipment ensures maximum safety while improving press productivity.

It is also possible to work with simple protection by using the pedal for starting the cycle.

Doors are mounted on hinges providing full access for quick and easy tool changing.

MECHANICAL UNLOCKING WEDGE (hydraulic and standard on 45T and 80T)



The bottom dead center slider unlocking wedge allows unlocking your press in a few minutes, without any change of parts.

ELECTRONIC CAM



The electronic cam programmer from OMRON, associated with its encoder, allows managing 8 outputs in order to manage a feeding device, blower, pilot release, cutting unit or any other machine periphery.

AUTOMATIC GREASING WITH LEVEL MONITORING (standard on 45T and 80T)

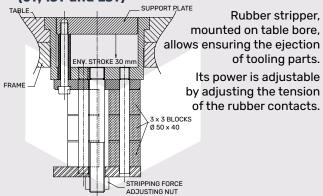
Automatic lubrication is done in place of manual centralized greasing.

It ensures better

It ensures better
I lubrication of the
machine without any
risk of omission by the
operator.

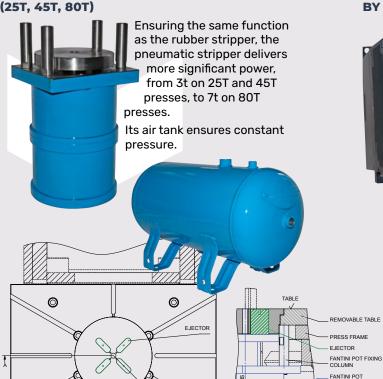
This option is strongly recommended in case of automatic working.

RUBBER STRIPPER (6T, 15T and 25T)



PNEUMATIC STRIPPER (25T, 45T, 80T)

0



SPEED VARIATOR WITH SELECTION BY POTENTIOMETER

In order to adjust the stroke rate of the press in the automatic work cycles, or for a slow descent in regulation with motor phase, all the mechanical presses can be delivered with a speed variator, adjustable by potentiometer.

Additional options ///

- Pedal control for working with embedded tools or stroke < 6 mm.
- Supply cam with 3/2 valve and closing valve.
- 6 digit preselection counter in order to stop the press as soon as the quantity is reached.

A-A
REMOVABLE TABLE

- Halogen or neon or LED lamp lighting on 500 flexible lines.
- Expansion chamber on exhaust for reducing the sound levels (-2dB).
- Set of anvil stakes.
- · Anti-vibration supports.
- · Special RAL paint.

*Definition: The embedded tools must be intrinsically safe. Their corresponding openings and safety distances must be in compliance with the standards in force or must not exceed 6 mm. Any risk of additional defor-mation outside the embedded tools must be avoided.

Special PressesSpecial Executions



To meet the needs of specific applications required by certain trades and fields of activity, EMG offers special equipment made to measure, perfectly adapted to the specifications and production constraints.



> 1T with special grids and light curtain



> 30T HYDRO XXL



clear height



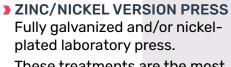


▶ 15T with integration of a platform for placing baskets









These treatments are the most commonly used in the world of anticorrosion.



▶ 6T for watch indutry



Special Executions

Customized Tools

Thanks to its design office and a fleet of more than 40 machining machines, EMG studies and carries out on request any modification or production of special presses as well as small press fixtures and tools.



3 4HRwith bearing mounting tooling



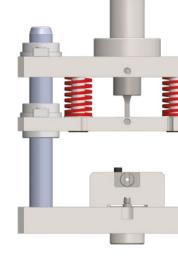
> 13T HYDRO
with deformation tooling

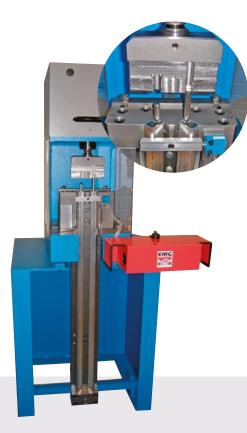


> 3T LP with calibration tool



• 6PHR with soap forming tooling





• 6TLP with pin fitting tooling and frame modification





3T with embedded die cutting tool



> 7T HYDRO with Ø cutting tools in plastic bins

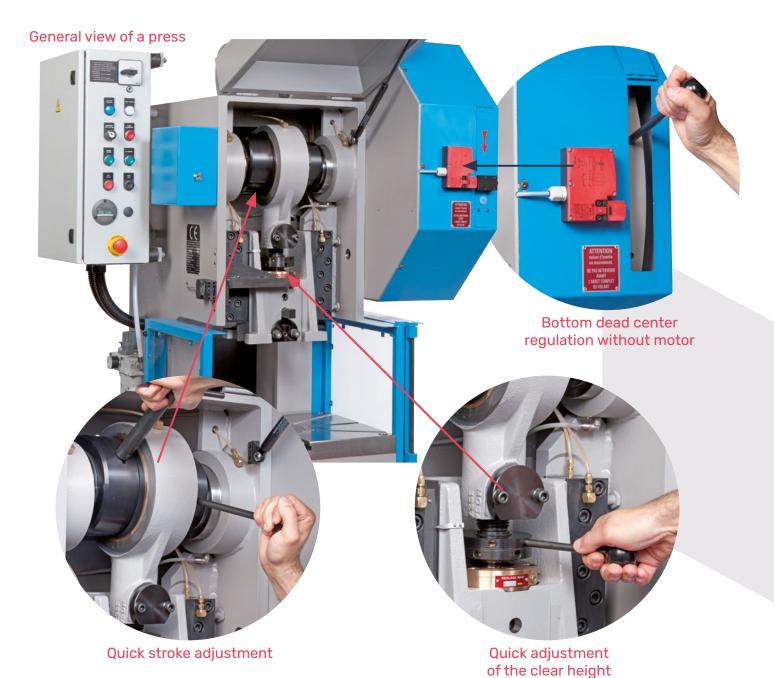


• 6TLP with shaft straightening tool



T with crimping tooling and special headroom

Production Quality





View of the 80T sprocket pinion assembly



Service key support



Inclination adjustment (hydraulic on 45 and 80T)

Integrated Production and Skills



The entire EMG range offers a wide range of options and adaptations to satisfy the requirements of each application:

LONG thus undertakes to design and equip special machines required by the specific activities of each and every profession.







The EMG presses guarantee a better return of investment to the manufacturers, thanks to its competitive acquisition and maintenance costs, high performance and an accurate and efficient ergonomy.

Some important points ensuring better productivity quickly and durably.





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