



TECHNICAL MACHINE SPECIFICATIONS





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MAPLAN

Injection units



Type	Injection volume	Injection pressure	Injection capacity	Pump output	Screw diameter	Strip intake opening ¹⁾
Map.fifo	cm ³	bar	cm ³ /sec	l/min	mm	mm
original						
C3	200	2520	80	68	27	45 x 14
C5 ⁶⁾	400	2223	121	68	27	45 x 14
C6 ⁷⁾	500	3225	87	68	27	55 x 18
C7	700	2316	121	68	27	55 x 18
C11	1000	1744	161	68	27	55 x 18
E3 ⁶⁾	1500	2267	119	68	42	60 x 18
E7	2000	2267	119	68	42	80 x 18
E9	2600	1768	159	68	42	80 x 18
F5	3500	2191	184	101	52	80 x 20
F7	4000	1930	209	101	52	80 x 20
H5	6000	2253	187	101	68	100 x 25
H6	7000	1931	218	101	68	100 x 25
H7	8500	1586	265	101	68	100 x 25
H8	8500	2253	187	101	68	100 x 25
H9	10000	1931	218	101	68	100 x 25
K5	10500	2153	273	141	80	100 x 25
K7	12500	1797	327	141	80	100 x 25
K9	14500	2153	273	141	80	100 x 25
K11	17500	1797	327	141	80	100 x 25
K13	22500	1538	382	141	80	100 x 25
K15	22500	2153	273	141	80	100 x 25

6) on request | 7) available for RAPID⁺



retract						
C6R ⁷⁾	500	3225	87	68	27	55 x 18
C7R	700	2316	121	68	27	55 x 18
C9R	860	2097	134	68	27	55 x 18
C11R	1000	1744	161	68	27	55 x 18
D7R	1500	2073	125	68	32	60 x 18

Type	Injection volume	Injection pressure	Injection capacity	Pump output	Screw diameter	Strip intake opening ¹⁾
Map.fifo	cm ³	bar	cm ³ /sec	l/min	mm	mm
ergo						
E3E	1500	2267	119	68	42	80 x 18
E7E	2000	2267	119	68	42	80 x 18
E9E	2600	1768	159	68	42	80 x 18
F5E	3500	2191	184	101	52	80 x 20
F7E	4000	1930	209	101	52	80 x 20
H5E	6000	2253	187	101	68	100 x 25
H6E	7000	1931	218	101	68	100 x 25
H7E	8500	1586	265	101	68	100 x 25
H8E	8500	2253	187	101	68	100 x 25
H9E	10000	1931	218	101	68	100 x 25
K5E	10500	2153	273	141	80	100 x 25
K7E	12500	1797	327	141	80	100 x 25
K9E	14500	2153	273	141	80	100 x 25
K11E	17500	1797	327	141	80	100 x 25
K13E	22500	1538	382	141	80	100 x 25
K15E	22500	2153	273	141	80	100 x 25

Injection units for EASY⁺

easy						
X3	50	2400	49	43	27	45 x 14
X7	100	2160	82	43	27	45 x 14
X11	200	2160	82	43	27	45 x 14
X13	250	1841	96	43	27	45 x 14
X15	300	1514	117	43	27	45 x 14
tpe						
Q3	59	1960	90	43	25	ø 40
Q5	85	1361	130	43	30	ø 40
T7	130	1842	96	43	35	ø 40
T9	170	1410	125	43	40	ø 40



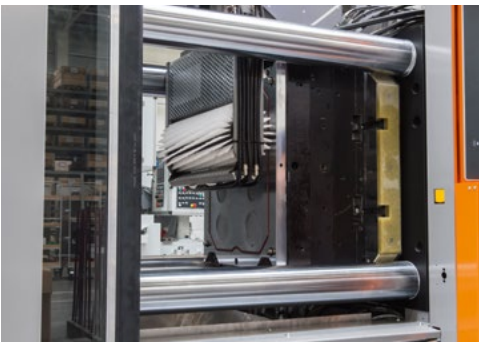
Horizontal

RAPID⁺ series



New standard in efficiency

Powerful and fast - the horizontal RAPID⁺ injection moulding machines from MAPLAN are designed for high speeds and automated processes. They support all common demoulding and automation concepts for fully automatic production, thereby significantly reducing personnel costs. A true all-rounder with a proven track record.



Brush and demoulding systems

Fully automatic demoulding devices and brushes for production of precise O-rings, seal elements and mould articles

RAPID ⁺ 200	RAPID ⁺ 300
200 - 1000	200 - 2600
C, CR	C, CR, D7R, E
2000	3000
1340	1370
600	810
640	850
40	40
-	-
510 x 510	670 x 670
570 x 570	610 x 800
520 x 520	625 x 625
18,2	18,2
10,4	19,2
25	31
59	59
3550 (C5)	4550 (C7)
1700	1950
2300	2400
7000 (C5)	10500 (C7)

RAPID ⁺ 400/460	RAPID ⁺ 570/630	RAPID ⁺ 800
200 - 4000	200 - 8500	3500 - 8500
C, CR, D7R, E, F	C, CR, D7R, E, F, H	F, H
4000 / 4600	5700 / 6300	8000
1490	1450	1450
700	800	900
1000	1100	1320
300	300	420
-	-	-
875 x 875	810 x 980	1000 x 1100
740 x 1000	810 x 1100	1100 x 1200
750 x 750	825 x 825	710 x 1150
35,6	30	49,7
32,4	34	42,8
45	55	76
101	115	141
5850 (E7)	6000 (F7)	7000 (H5)
2050	2150	2850
2600	2700	3100
16000 (E7)	25000 (F7)	33500 (H5)

Vertical
ERGO+ series



Ergonomics across
the board

Precise & versatile - the vertical MAPLAN ERGO+ injection moulding machines are designed to suit a variety of requirements and impress with their high quality and optimised repeat accuracy. The entire ERGO+ series comes equipped with the energy-saving servo-hydraulic MAP.cooldrive and the highprecision MAP.fifo injection unit.



Additional Equipment

Numerous equipment packages
available for process optimisation

ERGO+ 100/110	ERGO+ 160/180	ERGO+ 250/280
200 - 1000	200 - 2600	200 - 4000
C	C, E, EE	C, E, EE, F, FE
1000 / 1100	1600 / 1800	2500 / 2800
1019	978	965
450	450	500
520	600	700
70	150	200
-	-	-
300 x 400	450 x 510	560 x 650
400 x 500	535 x 550	670 x 700
415 x 305	545 x 175	680 x 320
12,3	18,2	18,2
6,8	10,4	14
18	25	27
43	68	68
2200	2300	2500
1550	1600	1650
3050 (C7)	3100 (C7)	3400 (E7)
4200 (C7)	7000 (C7)	9500 (E7)

ERGO+ 250XL/280XL	ERGO+ 320	ERGO+ 400/460	ERGO+ 500
200 - 4000	200 - 4000	200 - 10000	200 - 10000
C, E, EE, F, FE	C, E, EE, F, FE	C, E, EE, F, FE, H, HE	C, E, EE, F, FE, H, HE
2500 / 2800	3200	4000 / 4600	5000
965	1035	1150	1150
500	550	600	600
700	750	830	830
200	200	230	230
-	-	-	-
560 x 780	670 x 780	710 x 800	850 x 1000
670 x 800	760 x 850	820 x 900	960 x 1150
680 x 320	770 x 510	830 x 390	970 x 650
18,2	18,2	23,1	23,1
17	22,2	25,8	37
30	35	42	46
68	68	101	101
2500	2700	3000	3220
1750	1800	1800	1800
3400 (E7)	3500 (E9)	4000 (F5)	4100 (F7)
10000 (E7)	12000 (E9)	14500 (F5)	17500 (F7)

Vertical ERGOMAX⁺ series



The new size

We are pushing boundaries when it comes to size, precision and processing quality with the help of our new vertical ERGOMAX⁺ series, whether in the fully or semi-automatic production of elastomer articles. The entire ERGOMAX⁺ series comes equipped with our energy-saving servo-hydraulic MAP.cooldrive & our high-precision MAP.fifo injection unit. It has the advantage of flexible adjustment for different tool heights in combination with high clamping forces.



Additional Equipment

Numerous equipment packages available for process optimisation

ERGOMAX ⁺ 460/500	ERGOMAX ⁺ 570/600
700 - 10000	700 - 22500
C, E, EE, F, FE, H, HE	C, E, EE, F, FE, H, HE, K, KE
4600 / 5000	5700 / 6000
862	895
700	850
900	1050
200	200
520	550
710 x 800	810 x 1000
820 x 1000	950 x 1100
830 x 520	960 x 634
23,1	23,1
26,4	35
41	48
101	101
3600	3900
1800	2000
3500 (E7)	4200 (F7)
14000 (E7)	19000 (F7)

ERGOMAX ⁺ 720/780	ERGOMAX ⁺ 1000
700 - 22500	6000 - 22500
C, F, FE, H, HE, K, KE	H, K, KE
7200 / 7800	10000
995	1225
1000	1000
1200	1200
200	200
600	900
900 x 1000	1100 x 1350
1040 x 1250	1230 x 1400
1050 x 680	1240 x 800
49,7	49,7
36,2	48,6
70	80
141	141
3900	4400
2200	2200
4900 (H7)	5200 (K7)
25000 (H7)	43000 (K7)

Energy-efficient production for our future



MAP.fifo injection unit

Low waste and reduced loss of material with THE ORIGINAL



MAP.cooldrive

Improved energy efficiency with modern servo-electric drives



MAP.dci

Safe energy with the intelligent, demand controlled temperature units



Heating plate insulation

with optional Isobars to keep the heat in the mould

Vertical
CLEVER+ series



**Tried and tested
at the highest level**

Come prepared for a variety of applications with the help of the vertical CLEVER+ injection moulding machine in the basic model from 160 to 400 tons. Our powerful drive systems are used for all clamping force variants. The safety of your employees is also guaranteed with light curtains and safety glass. An especially attractive price-performance ratio is another advantage of the MAPLAN CLEVER+ series.



CLEVER+ series
Only available with Axial Piston Pump (APP).

CLEVER+ 160/180	CLEVER+ 250/280	CLEVER+ 320	CLEVER+ 400/460
200 - 1000	200 - 2600	200 - 4000	200 - 4000
C	C, E	C, E, F	C, E, F
1600 / 1800	2500 / 2800	3200	4000 / 4600
978	965	1035	1150
450	500	550	600
600	700	750	830
150	200	200	230
-	-	-	-
450 x 510	560 x 650	670 x 780	710 x 800
535 x 550	670 x 700	760 x 850	820 x 900
545 x 175	680 x 320	770 x 510	830 x 390
15	15	15	22
10,4	14	22,2	25,8
21	24	31	39
40	40	40	64
2300	2500	2550	3000
1600	1650	1800	1800
3100 (C7)	3400 (E7)	3500 (E9)	4000 (F5)
7000 (C7)	9500 (E7)	11500 (E9)	14500 (F5)

Vertical
FORCE+ presses



No injection unit needed

The MAPLAN FORCE+ is the perfect companion for special press applications. Once again, you can benefit from a range of MAPLAN+ advantages with this series. When it comes to pure CM or TM applications, an interesting alternative is to “leave out” the injection and plasticising unit. All presses can also be equipped with a number of accessories from our range for injection moulding machines. Furthermore, the new MAP.commander C6 machine control is more than perfect for the pressing process.

Of course, all MAPLAN models are available without injection unit in a press version.

FORCE+ 160/180	FORCE+ 250/280	FORCE+ 400/460
-	-	-
-	-	-
1600 / 1800	2500 / 2800	4000 / 4600
978	965	1150
450	500	600
600	700	830
150	200	230
-	-	-
450 x 510	560 x 650	710 x 800
535 x 550	670 x 700	820 x 900
545 x 175	680 x 320	830 x 390
18,2	18,2	23,1
10,4	14	25,8
23	25	42
68	68	101
2300	2500	3000
1600	1650	1800
2300	2800	3000
6500	8000	13000
Max. press speed mm/s:		
15	10	10

C-Frame
EASY+



Providing maximum accessibility to the working area

The EASY+ TOP TOP series is a top-opening machine that also injects from above. A major advantage arises here due to the fixed bottom mould part, which is essential for the connection of elastomer profiles. A comprehensive range of optional extras - such as ejectors - complete the machine concept.

Optionally available with APP (axial piston pump)



The EASY+ machines

Operated with the new MAP.commander C60, which has been intelligently integrated into the control cabinet and is tailored to the practical control of C-frame machines.

EASY+ 20	EASY+ 30	EASY+ 50
50 - 250	50 - 250	50 - 300 (59 - 170)
X	X	X (Q, T)
TT	TT	TT
200	300	500
860	900	900 (905)
295	300	500
425	425	750 (760)
130	125	250 (260)
-	-	-
300 x 300	300 x 300	600 x 400
on request	on request	on request
-	-	-
5,7	5,7	12,3
5,1	5,1	11,2 (-)
11	11	20
27	27	43
1300	1300	1450
1750	1750	2100 (2300)
2700	2700	3250 (4100)
2000	2200	6200

C-Frame
EASY+

EASY+ 100	EASY+ 160	EASY+ 250
50 - 1000 (59 - 170)	50 - 1000 (59 - 170)	50 - 1000
X, C7, C11 (Q, T)	X, C7, C11 (Q, T)	X, C7, C11
TT	TT	closing from bottom
1000	1600	2500
925	930	1400
500	500	550
780 (810)	810 (830)	1000
280 (310)	310 (330)	450
-	-	-
700 x 500	1000 x 700	1000 x 700
on request	on request	on request
-	-	-
12,3	12,3	12,3
14 (-)	28,8 (-)	22,4
on request	on request	on request
43	43	43
1950	2000	2100
2500 (2700)	2700 (2800)	3100
3500 (4600)	3600 (4700)	3700
9000	14000	20000



EASY+ machines for Rubber and TPE

Today, corner connections for car doors, boot lids and engine bonnets are produced from rubber or thermoplastic elastomer (TPE). The vertical EASY+ C-frame machines unit are the perfect choice for this application.



Product range
Production of moulded parts of TPE



TPE injection unit
MAPLAN TPE injection unit for optimised processing of products from thermoplastic elastomers

Vertical BOTTOM+



Vertical special machines

The unique BOTTOM+ design is suitable for special mould designs that require injection into the mould from below. BOTTOM+ models are available with various clamping forces and come with all customary MAPLAN+ benefits.

BOTTOM+ 160	BOTTOM+ 250	BOTTOM+ 300	BOTTOM+ 400
200 - 1000	200 - 1500	2000 - 2600	2000 - 2600
C	C, E	E	E
-	-	-	-
1600	2500	3000	4120
on request	on request	on request	on request
450	500	650	580
550	650	780	830
100	150	130	250
-	-	-	-
450 x 510	500 x 630	660 x 760	710 x 800
on request	on request	on request	on request
545 x 175	600 x 220	760 x 340	810 x 350

Vertical SPECIAL+



SPECIAL+ MR 320	SPECIAL+ MR 560	SPECIAL+ MR 850
on request	on request	on request
-	-	-
2 ram	2 ram	4 ram
3200 / 3600	5600	8500
-	-	-
550	600	800
750	850	1470
200	250	670
-	-	-
1300 x 700	1500 x 1000	1500 x 2500
-	-	-
1450 x 360	1800 x 400	1800 x 780 (2x)



Twin-Ram & Quattro-Ram

- Huge platen sizes realized by strong machine design, currently built with 4 clamping cylinders. This enables platen widths of up to 2500 mm.
- Optional 2nd MAP.commander C6 control panel for easy operation on both sides of the shuttle device.
- Ergonomic working height and excellent accessibility for this large-sized machine.
- Different injection units which can be combined from very small (200 ccm) to very large and dual-compound (2K).

Vertical MULTI+



2K Splitline

- One injection unit from the top, one injection unit horizontally from the side
- Versatile, as it can also be used as a single compound machine
- Different configurations of the second injection unit possible



2K Top

- 2 injection units from the top
- Same footprint as a single compound injection moulding machine
- Available with up to three hydraulic drives for faster processes



Increase your productivity

MAP.CRB COLD RUNNER SYSTEMS

Produce efficiently
with less compound:

MAPLAN ensures maximum performance, productivity, and profitability in elastomer processing with intelligent technologies. Rising raw material prices, high disposal costs, and constant cost pressure force companies to continuously improve their performance and produce in an environmentally friendly manner.

Therefore, we offer various cold runner systems that guarantee our customers particularly high efficiency in the production of rubber and elastomer articles. When cold runner systems are used correctly, producers gain many advantages compared to hot runner distributors.



Product overview

A MAP.CRB FOR ALL APPLICATIONS

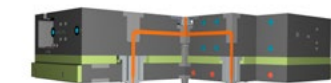
MAPLAN offers various cold runner systems for a variety of applications. Each system features unique characteristics and is tailored specifically for your production processes. The MAPLAN project team is happy to provide consultation.

SLIM



- Slim design saves daylight distance
- Easy & quick installation
- Very few wearing parts
- No cold runner heating plate required

SOLID



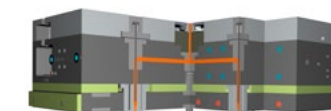
- Optimal heating contact area with mould
- Suitable for high-pressure applications
- Low-maintenance, robust solution
- Optionally available as **solid+** with manual nozzle flow adjustment

SPLIT



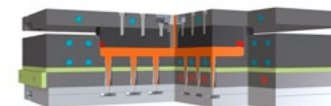
- Good for multi-colored materials
- Easy compound change
- Access to rubber channels for quick cleaning
- Optimal heating performance
- Good for non-symmetrical nozzle layouts

PINPOINT



- Based on MAP.crb solid
- Hydraulic needle shut-off nozzles
- For the highest injection pressures
- Optionally available as **pinpoint+** with mechanical nozzle stroke adjustment

ITM



- High number of nozzles possible
- Flexible with nozzle positions
- Suitable for small & precise parts
- Material savings & waste reduction

VALVE GATE



- External CRB needle valve control
- Flexible use on different machines
- Applicable on machines from other manufacturers
- Control via time, volume, or pressure sensors

The One-Stop-Shop 360° TURNKEY SOLUTIONS

For every MAP.autocell order, MAPLAN takes over the entire implementation from the idea to the finished product for the client: project planning, cell layout, robots and all automation components as well as the rubber injection machine and the safety devices are perfectly synchronised. MAPLAN technically implements the project up to launch, acceptance and the running-in of all components. You benefit from one contact person for all your concerns and components. Projects with certified MAPLAN premium technology partners reduce engineering costs, shorten the implementation phase and guarantee smooth functionality.

MAP.autocell

Turnkey MAPLAN 360° injection moulding systems include on request:

- Injection machine
- MAP.mate robotic systems
- Handling systems & conveyor belts
- Cold runner technology MAP.crb
- Brush & demoulding components
- Inspection devices & quality control
- Moulds
- Safety equipment
- Individual automation devices



Do you plan a customized rubber injection production cell?

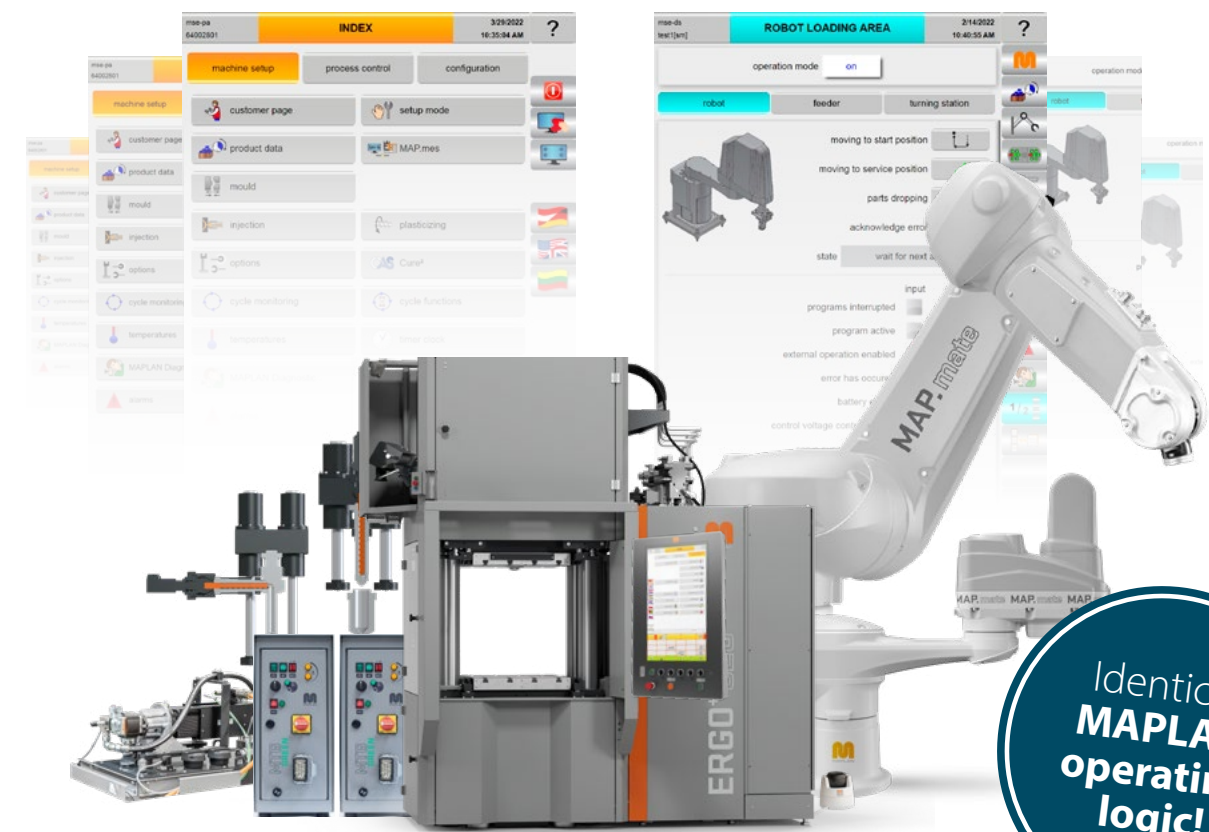
Send an enquiry now:
sales@maplan.at

The all-in-one control unit EASY SYSTEM CONTROL

- **Same look & feel** of the user interface
- **Remote maintenance** for injection machine & automation
- **Everything at a glance** with two operator panels
- **All components synchronised** in real-time
- **Real-time** diagnosis & data
- **One diagnostic system** for machine & cell
- **Cycle configuration**
- **Monitoring & documentation**
- **Same operating philosophy**
- **Remote maintenance**
- **Individualization**

MAP.commander C6
machine control

MAP.commander CC
automation control



**Identical
MAPLAN
operating
logic!**

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