

LEADER IN FULLY ELECTRIC MULTI-SHOT SOLUTIONS



**Plasdan**

Automation & Add-On Systems

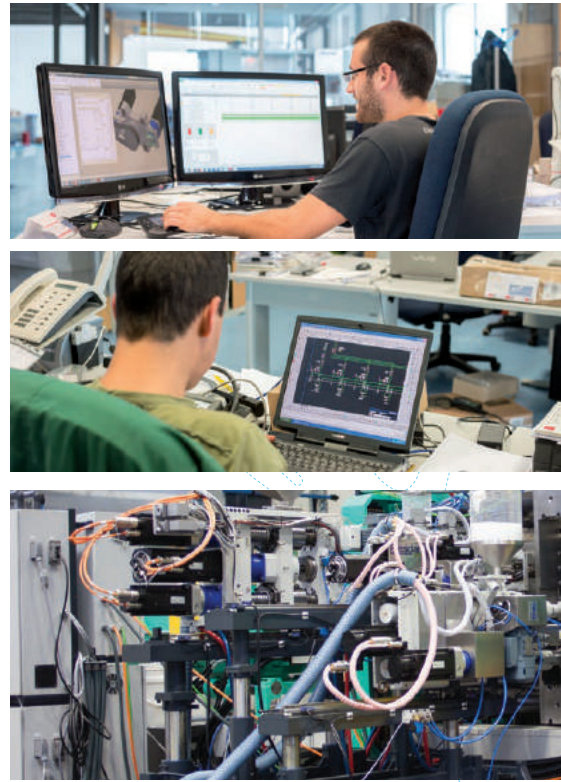
ecosystems

SUSTAINABLE INJECTION TECHNOLOGY

# FLEXIBLE & INNOVATIVE TECHNOLOGY



Evolve your standard injection moulding machine into a multi-shot capable machine

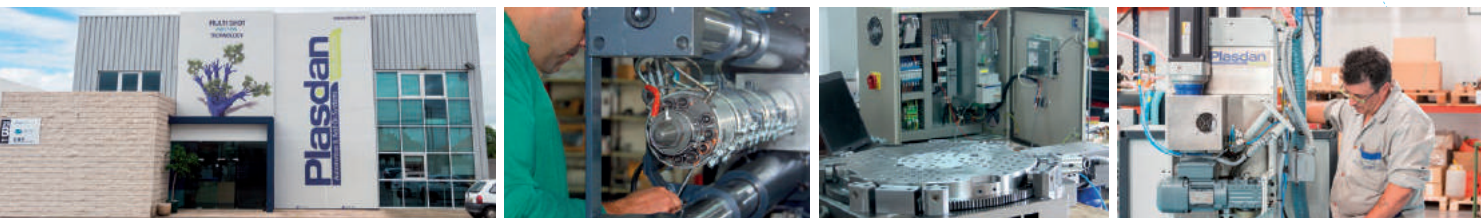
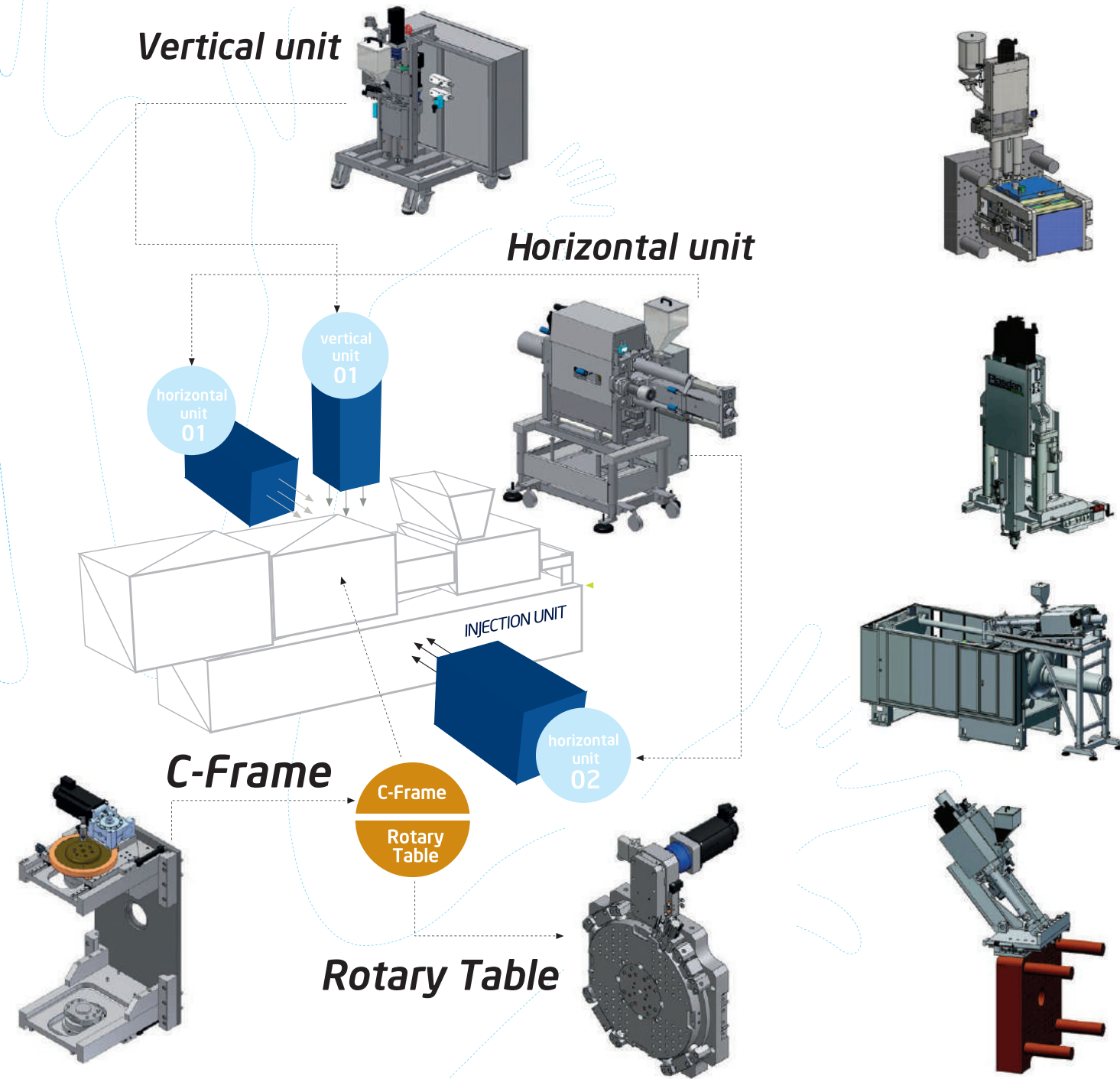


Simple and economical solutions to transform your standard injection moulding machines into multi-shot capable machines

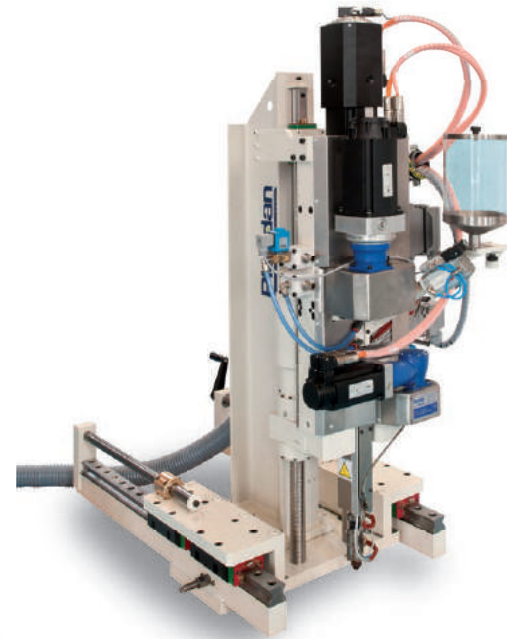
The top of the political, social and business agenda is the sustainability issue; companies may be held responsible for the impact of their operations at every stage. Managers must also deal with the expectations of a more environmentally aware public and the realization that reduced environmental impact must come without sacrificing product quality or function. This new environment offers the most progressive businesses fresh commercial opportunities to distinguish themselves from their competitors on the basis of both product quality and environmental performance. For these companies, leaner production processes, more recyclable designs and new ways of

delivering services with less material represent aggressive investments in a changing marketplace where environmental values have greater business currency.

Having the above in mind, Plasdan's target is also to increase the sustainability and productivity of its customers by transforming or adapting existing machinery in order to obtain cleaner, leaner, more flexible and cost-effective production. We offer integrated solutions for multi-component production with your existing machinery - rotary tables, injection units and moulds



## Vertical base set-up



## Horizontal base set-up



### Advantages:

- Flexible use on your existing machines
- High precision
- Excellent repeatability
- Easy installation
- Cost-effective
- Energy & space savings
- Increased productivity
- Low maintenance



## DIRECT DRIVE TECHNOLOGY

### INJECTION UNIT SPECIFICATIONS

Injection Unit	Units	EL.0310			EL.0610			EL.1520		
		30	35	40	40	45	50	55	60	65
Screw diameter	mm	30	35	40	40	45	50	55	60	65
Swept volume	cc	106,03	168,37	219	251,33	357,85	490,87	653,35	848,23	1078,45
Max. injection pressure, direct	bar	2000	1800	1400	2130	1700	1400	2100	1800	1530
Screw L:D ratio	L/D	22,83	19,63	19,5	22,00	19,56	19,00	22,00	20,00	19,00
Screw stroke	mm	150	175	175	200	225	250	275	300	325
Screw torque, standard	Nm	206,96	313,79	313,79	450,00	618,48	822,00	1063,24	1344,80	1669,23
Nozzle sealing force	kN	40,00	40,00	40,00	40,00	40,00	40,00	70,00	70,00	70,00
Max. nozzle retract stroke	mm	200	200	200	200	200	200	500	500	500
Max. linear velocity of screw, direct	mm/sec	155	155	155	150	150	150	140	140	140
Max. Injection rate, direct	cc/sec	109,56	149,13	169,65	188,50	238,56	294,52	332,00	395,00	464,00
Screw speed range, standard drive	r.p.m.	300	300	300	300	300	300	255	255	255
Electrical Supply	V	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480
Maximum current	A	80	80	80	125	125	125	200	200	200



### INJECTION UNIT SPECIFICATIONS

Injection Unit	Units	EL.0028			EL.0120			EL.0300			EL.0600		
		16	18	20	22	25	30	30	35	40	40	45	50
Screw diameter	mm	16	18	20	22	25	30	30	35	40	40	45	50
Swept volume	cc	16,08	22,90	31,42	41,81	61,36	102,49	106,03	168,37	219	251,33	357,85	490,87
Max. injection pressure, direct	bar	2200	1600	1320	2200	2000	1600	2000	1800	1400	2130	1700	1400
Screw L:D ratio	L/D	21,93	19,59	19,63	22,34	19,72	18,36	22,83	19,63	19,5	22,00	19,56	19,00
Screw stroke	mm	80	90	100	110	125	145	150	175	175	200	225	250
Screw torque, standard	Nm	37,91	52,11	69,25	89,58	126,50	206,96	206,96	313,79	313,79	450,00	618,48	822,00
Nozzle sealing force	kN	28,50	28,50	28,50	30,00	30,00	30,00	40,00	40,00	40,00	40,00	40,00	40,00
Max. nozzle retract stroke	mm	100	100	100	100	100	100	200	200	200	200	200	200
Max. linear velocity of screw, direct	mm/sec	112	112	112	150	150	150	155	155	155	150	150	150
Max. Injection rate, direct	cc/sec	22,52	28,50	35,19	57,02	73,63	106,03	109,56	149,13	169,65	188,50	238,56	294,52
Screw speed range, standard drive	r.p.m.	320	320	320	300	300	300	300	300	300	300	300	300
Electrical Supply	V	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480	400/480
Maximum current	A	32	32	32	32	32	32	80	80	80	125	125	125

In addition, our Electric Drive Injection Units offer these additional benefits:

- Quiet operation
- Smaller Package
- Cleaner - no hydraulic oil
- More energy efficient

### Host Machine Interface:

- Our modular injection units communicate to the host machine through signals available in the standard Robotic Interface.
- If a Robotic Interface is not available, the injection unit will need various commands and safety signals in order to synchronize with the host.

Injection Unit Controller Options - In addition to sophisticated injection control, we offer:

- Six zone sequential valve gate control
- Up to 24 zone hot runner controls
- Rotary table control

Integrating these functions into our powerful controller reduces system costs, saves floor space, and wiring.

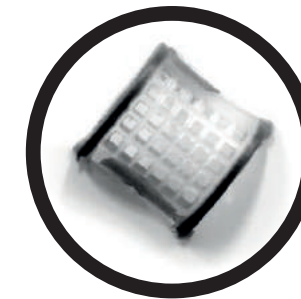


## SHOT-POT TECHNOLOGY

### High Speed Injection - High Precision

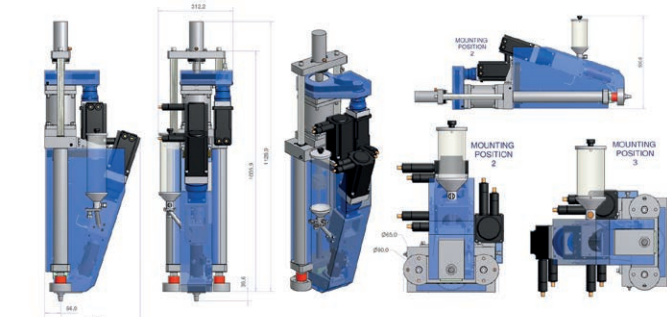
Highly demanding industries, such as medical, electronics and packaging, are requesting an extremely accurate and repeatable injection process. Plasdan developed a new line of fully electric injection units, capable of injecting below 1 cm<sup>3</sup>.

We can offer these injection units as stand-alone devices or integrate them into a completely automated production line.



### INJECTION UNIT SPECIFICATIONS

Injection Unit	Units	ELM.0003			ELM.0030		
		4	5	6	10	12	14
Screw diameter	mm	4	5	6	10	12	14
Swept volume	cc	1,88	2,95	4,24	12,00	17,00	23,50
Max. injection pressure, direct	bar	2400	2000	1800	2400	2000	1450
Screw L:D ratio	L/D	17	17	17	18	18	18
Screw stroke	mm	150	150	150	150	150	150
Screw torque, standard	Nm	26,44	26,44	26,44	70,00	70,00	70,00
Nozzle sealing force	kN	25,00	25,00	25,00	40,00	40,00	40,00
Max. nozzle retract stroke	mm	130	130	130	150	150	150
Max. linear velocity of screw, direct	mm/sec	500	500	500	400	400	400
Max. Injection rate, direct	cc/sec	6,28	9,82	14,14	32,00	45,33	62,67
Screw speed range, standard drive	r.p.m.	320	320	320	450	450	450
Electrical Supply	V	400/480	400/480	400/480	400/480	400/480	400/480
Maximum current	A	32	32	32	32	32	32





# ROTARY TABLE

The conventional rotary table is a positioning device, fixed on the machine platen. It is equipped with an electrical servomotor for fast, precise mould rotation, and PLC control with and is engineered to suit the host machine.

If Plasdan supplies the injection unit as well the PLC and controls for both the rotary table and the injection unit can be shared.

## Main Characteristics:

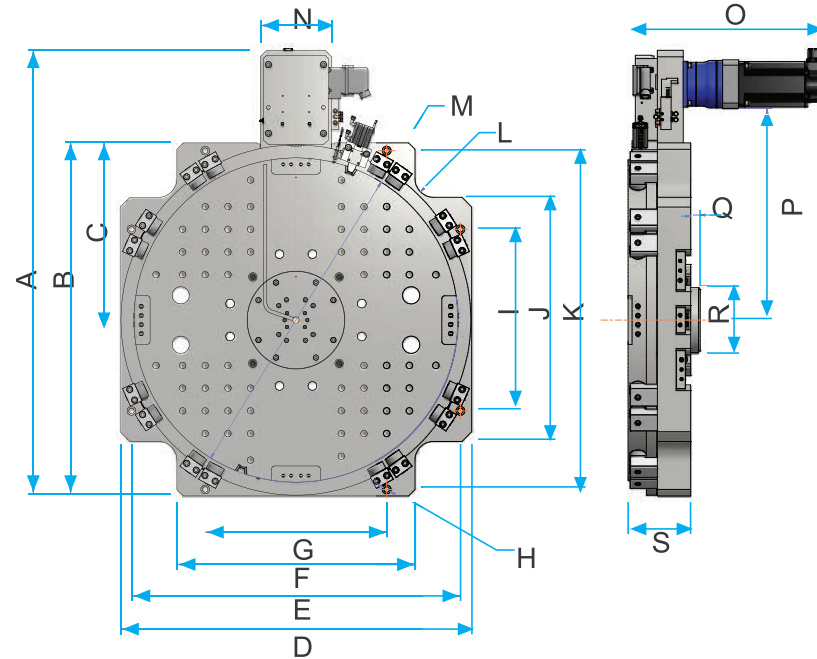
Centering holes and lock pin to ensure correct position before the mould closing.

Mould mounting bolt pattern and knock-outs per customer request (i.e. SPI, Euromap, or custom).

Air, oil and water connections on the sides of the rotary table.

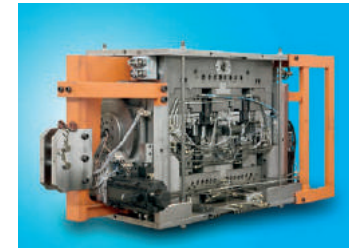
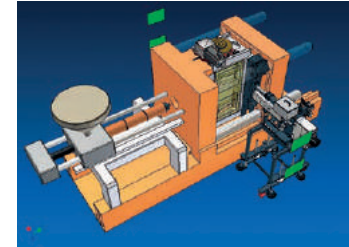
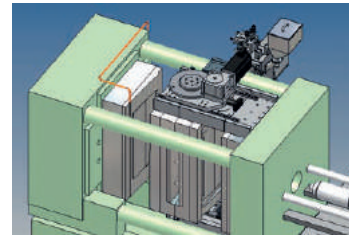
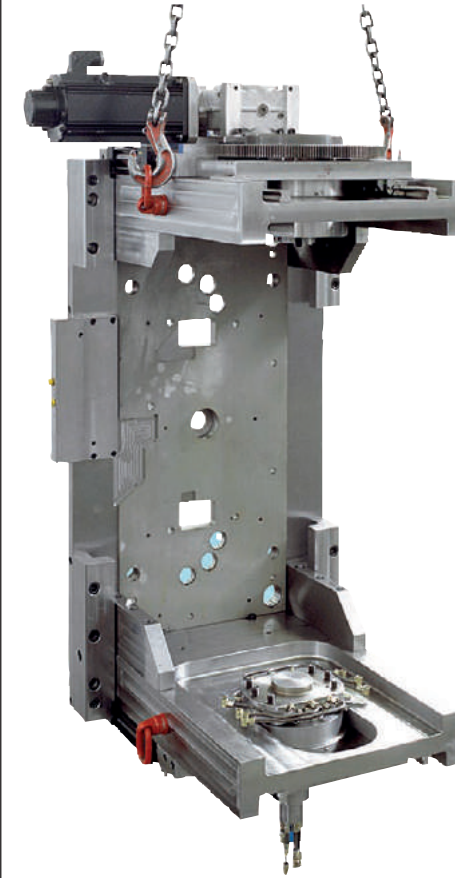
Can be used for 180° (2-shot), 120° (3-shot), or other moulding scenarios.

Standard components and electronics (service parts available worldwide).



# C-FRAME

Stack mould rotating device



As a leader in fully electric multi-shot solutions, Plasdan is capable of evolving your equipment without a huge investment. Our patented equipment offer you the opportunity to improve your competitiveness.

- Directly supported by the moulding machine structure fixed on one of the machine platens.
- The C-Frame construction often enables the changing of rotary stack moulds while in the press.

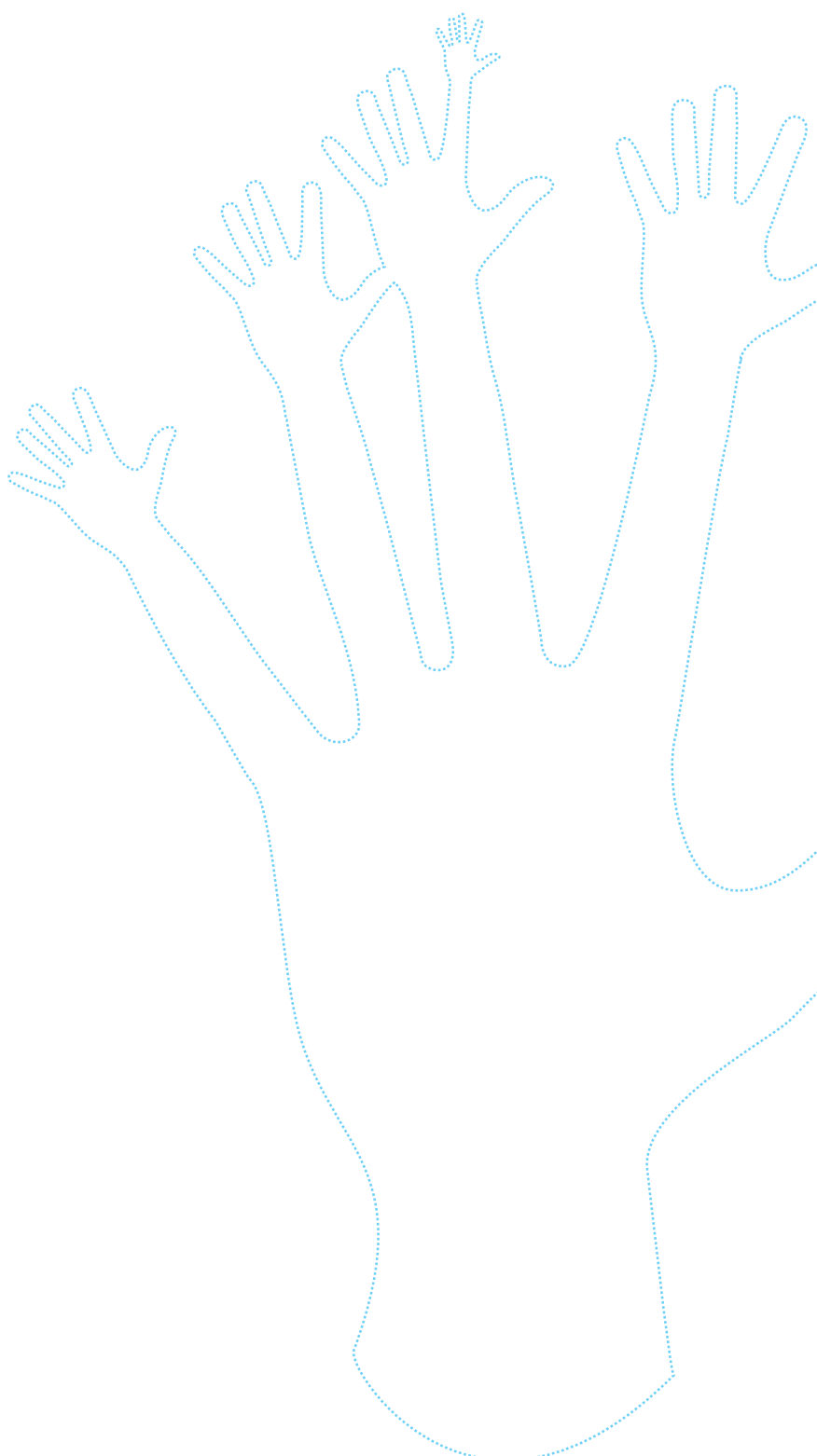
## Main characteristics:

- Separated from the mould, so different modular mould core assemblies can be mounted.
- Independent from machine clamp constraints
- Fitting into any appropriately sized moulding machine

## Rotary Tables [PRX]

Dimensions	PRX.0420	PRX.0450	PRX.0500	PRX.0550	PRX.0650	PRX.0700	PRX.0750	PRX.0800	PRX.0850	PRX.0950	PRX.1000	PRX.1100	PRX.1150	PRX.1200	PRX.1250	PRX.1300	PRX.1350	PRX.1400	PRX.1500	PRX.1550	PRX.1750	PRX.1800	PRX.1950
Number Of cooling circuits	2W+2O	2W+2O	2W+2O	2W+2O	2W+2O	2W+2O	2W+2O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O	4W+4O
Max. Tool Weight [kg]	300	300	500	550	850	1100	1350	1800	1900	2200	3200	4000	4500	5000	5000	5500	5800	6000	7000	8000	8500	9000	10200
Rotary Table Weight [kg]	250	300	340	350	550	500	690	1000	1250	1350	1430	1700	1850	2100	2300	2800	2800	3160	3500	3900	4850	5150	6300
Rotation Time [s]	2	2	2	2	2	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	4	4	4	4	4	4	4	4
A	726	828	888,5	927,5	1032,5	1019	1104,5	1211	1204,5	1312,5	1374,5	1665	1692,5	1738	1658	1838	1915,5	1934	1963,5	1970,5	2331,5	2199	2436
B	530	550	611	650	755	800	850	925	950	1027	1089	1178	1240	1304	1370	1400	1470	1508	1630	1648	1850	1913	2080
C	265	275	299,5	325	377,5	400	425	462,5	475	513,5	546,5	589	620	652	685	700	735	754	815	822	925	954	1040
D	570	615	640	665	775	770	820	930	920	1040	1085	1176	1270	1302	1375	1400	1450	1520	1650	1780	1870	1920	2100
E	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
F	336	420	428	445	500	550	560	580	600	690	735	830	830	965	965	1060	940	1160	1060	1218	1345	1345	1450
G	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
H	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M12 - M20)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)	(M16 - M24)
I	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
J	315	310	389	430	405	512	530	615	610	691	753	780	780	885	830	930	970	980	880	968	1120	1195	1180
K	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
L	R43	R57,5	R55	R57,5	R60	R50	R60	R60	R57,5	R57,5	R57,5	R85	R115	R100	R115	R100	R120	R120	R260	R116	R143	R143	R200
M	D420	D450	D500	D550	D650	D700	D750	R800	R850	D950	D1000	D1100	D1150	D1200	D1250	D1300	D1350	D1400	D1500	D1550	D1750	D1800	D1950
N	135	150	150	150	150	150	150	150	150	220	220	220	220	220	220	220	220	220	220	220	220	220	320
O	484	484	484	484	552	552	552	576	587,6	587,6	587,6	587,6	716,6	726,3	726,3	694,3	736,6	694,3	737,4	738,6	737,4	694,3	781,73
P	310	394,5	424,5	444	495	435	531,5	564	581,5	619,5	652,5	810	865,5	754,5	793,5	952	973,5	1003,5	886,5	937,5	1144,5	1069,5	1134
Q	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
R	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)	(110 - 250)
S	140	140	140	140	140	140	140	193	193	193	193	193	193	193	193	213	213	213	213	213	213	228	257





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