

ALLROUNDER 900 T

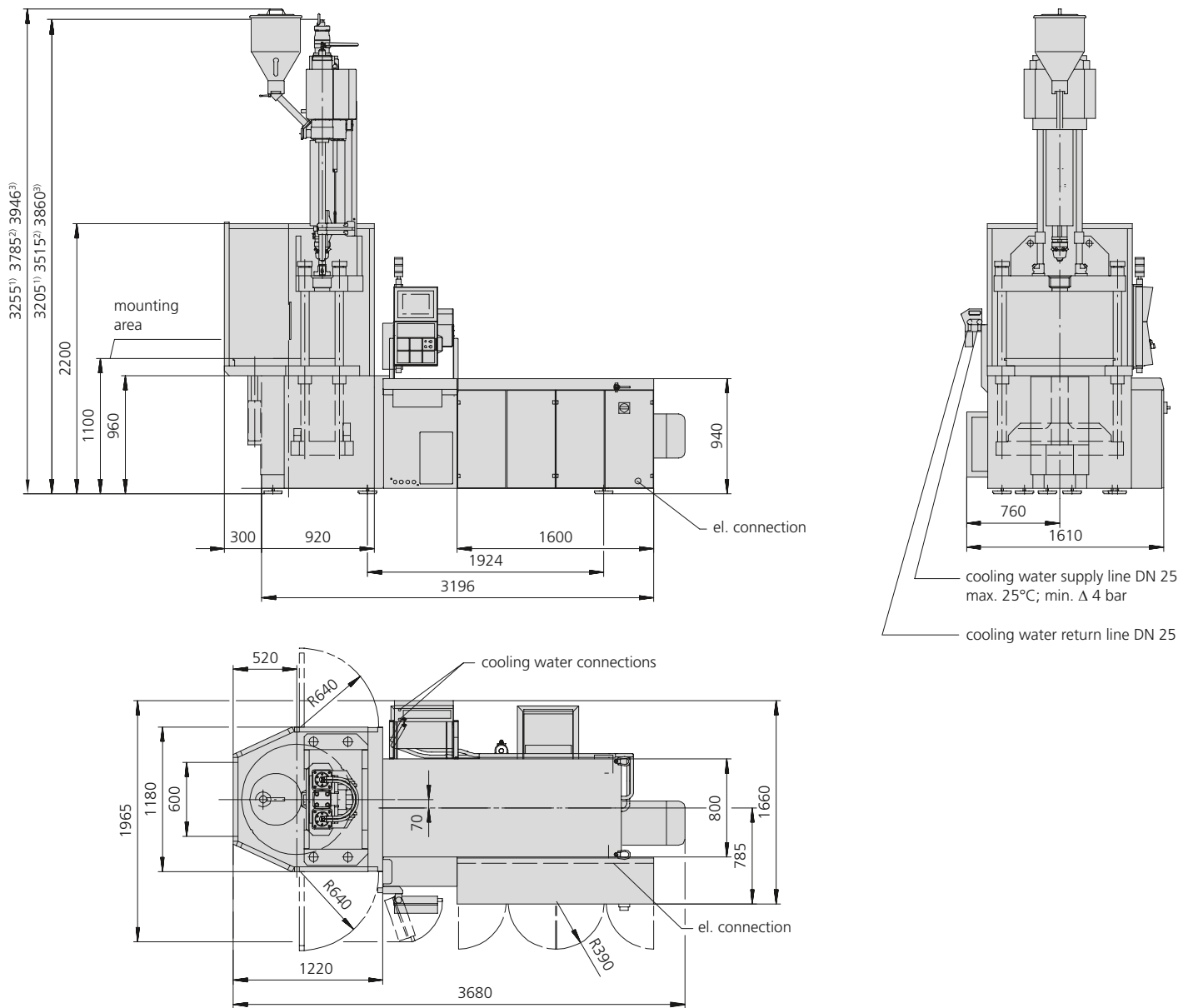
Technical data

Table diameter: 900 mm

Clamping forces: 400, 800 kN

Injection units (according to EUROMAP): 60, 150, 350

ARBURG



1) Dimensions apply for 900 T xxx-60
 2) Dimensions apply for 900 T xxx-150
 3) Dimensions apply for 900 T xxx-350

Machine model		900 T	900 T	900 T
EUROMAP size indication ¹⁾		400-60 800-60	400-150 800-150	800-350
Clamping unit				
Clamping force	max. kN	400 800	400 800	800
Closing force	max. kN	75	75	75
Opening force	max. kN	115 130	115 130	130
Opening stroke	max. mm	300	300	300
Mould height	min. mm	250	250	250
Mould platen daylight	max. mm	550	550	550
Table diameter	mm	900	900	900
Swivel angle left / right	degrees	180	180	180
Ejector force	max. kN	46	46	46
Ejector stroke	max. mm	150	150	150
Hydraulic, drive, general				
Drive power of the hydraulic pump	kW	18,5	18,5	22
Total connected load ²⁾	kW	24,6	31	34,4
Colour: plastic coated, structure light grey / mint green / canary yellow				
Control cabinet				
Safety standard according to		DIN EN 60204	DIN EN 60204	DIN EN 60204
Socket combination (1 single phase, 1 three-phase)		1 x 16 A	1 x 16 A	1 x 16 A
Injection unit				
		60	150	350
Screw diameter	mm	18 / 22 / 25	25 / 30 / 35	35 / 40 / 45
Effective screw length	L/D	24,5 / 20 / 17,5	24 / 20 / 17	23 / 20 / 18
Screw stroke	max. mm	80	110	145
Calculated injection volume	max. cm ³	20 / 30 / 39	54 / 78 / 106	139 / 182 / 230
Shot capacity	max. g PS	18 / 27 / 36	49 / 71 / 97	127 / 166 / 210
Material throughput ⁴⁾	max. kg/h PS	4,1 / 5,5 / 6,5	10 / 13,5 / 16	25 / 29 / 35
	max. kg/h PA 6.6	2,1 / 2,8 / 3,3	5 / 7 / 8	12,5 / 15 / 17,5
Injection pressure ³⁾	max. bar	2500 / 2340 / 1810	2500 / 2210 / 1620	2500 / 2120 / 1670
Injection flow ³⁾	max. cm ³ /s	54 / 80 / 104	80 / 114 / 156	128 / 168 / 212
Back pressure positive / negative	max. bar	350 / 200	350 / 200	350 / 160
Circumferential screw speed	max. m/min	50 / 62 / 70	52 / 63 / 73	47 / 53 / 60
Screw torque	max. Nm	90 / 110 / 120	210 / 250 / 290	480 / 550 / 610
Nozzle contact force	max. kN	50	50	60
Nozzle retraction stroke	max. mm	220	300	300
Installed cylinder heating power / heating zones	kW	2,85 / 3	8,8 / 4	8,8 / 4
Installed nozzle heating power	kW	0,3	0,6	0,6
Material hopper capacity	l	25	50	50
Machine dimensions and weights of the basic machine				
Oil capacity	l	230	230	230
Net weight	kg	4600 4700	4700 4800	5000
Electrical connection (pre-fused) ²⁾	A	63	80	100

1) 1st figure: clamping force (kN)

2nd figure: max. dosage volume (cm³) x max. injection pressure (kbar)

2) Values refer to 400 V/50 Hz. The load is symmetrically distributed on three phases. The specified value applies to the basic machine.

The connection value can be increased by additional options which may make 2 separate supply lines necessary (motor + controller/heating).

3) a combination of max. injection pressure and max injection flow (max. injection capacity) can be mutually exclusive, depending on the equipment-related motor output.

4) Deviations are possible depending upon process settings and material type.

These technical data specifications refer to the state at the time of printing. We reserve the right to modify specifications in the interest of a continuous program of further development.

Control unit and control cabinet

- SELOGICA controller (modular, graphic multiprocessor system)
- Cycle sequence programming with representative symbols
- Cycle step display in sequence diagram
- Function panel selection via function keyboard and direct jump
- Swivelling monitor unit located close to the mould
- TFT flat screen monitor, colour
- Graphic chart of injection pressure (nominal / actual value) and screw stroke (actual value)
- Freely programmable parameter pages
- Quality assurance program with fault evaluation and monitoring chart
- Optimisation and user help, follow-up functions at program end
- Extended monitoring of the mechanical sequence of mould and machine for complex applications
- Equipment-specific control system architecture with self-recognizing bus system
- Operating modes:
 - Set up
 - Test run without screw movement
- Data set administration via diskette
- Visual warning signal (warning lamp)
- Visual/audible warning signal (flashing light / siren)
- Equipment for switch-over to holding pressure with external signal, hydraulic pressure or material pressure with various pressure transducers
- Interface for V24 printer with documentation program for quality evaluation
- Interfaces for: plotter, production recorder, robotic handling device, part weighing scale, optical barrier, host processor, AQC, SPI, colouring unit, PC keyboard, ALL-ROUNDER@web,

THERMOLIFT, hot runner control unit and temperature control units for moulds and cylinder

- Socket combination 1 CEE, 1 Schuko 230 V
- Socket combination 1 CEE, 1 Schuko or 3 CEE, 3 Schuko 230 V with external supply line
- 1 additional heating regulation circuit for the nozzle
- Electric heating regulation circuits for moulds (adaptive) (3, 6, 9, 12, 15, 18); fuses for the mould heating 10 A, 2 kW
- Fuses for the mould heating 16 A, 3.5 kW
- 4 or 8 freely programmable inputs / outputs
- Core pull programs in many variants integrated in the SELOGICA control system
- Special processes such as injection coining, mould venting, etc.

Machine base with hydraulic system

- The hydraulic system operates with an energy-saving regulating pump and a servo valve for drive and pressure regulation
- ARBURG energy saving system AES (rpm changeable for hydraulic pump drive)
- Minimum oil volume, oil change interval every 20.000 hours
- Monitoring of oil level, oil temperature and oil filter contamination
- Fine mesh oil filter in the return line
- Oil tank venting via air filter
- Servo electric regulating valves
- Free standing machine base on anti-vibration pads
- Regulation of hydraulic oil temperature (programmable)
- Hydraulic oil preheat program for reduction of start up times
- Programmable, machine-related cooling water circuits with 4 free, manually adjustable mould connections
- 6/8 or 10 free cooling water circuits, manually adjustable

- Programmable, free cooling water circuits
- 1 or 2 central switch off valves for cooling water
- Crane with electric hoist to facilitate mould installation and for swivelling and changing the injection unit

Clamping unit

- Rotary table with 2 mould clamping positions 180° apart, advancement and retraction rotation
- Rotary table with 3 x 120° mould clamping positions
- Rotary table without centre column, rotary table surface fully exploitable
- Centrally applied fully hydraulic clamping system, clamping vertically downward
- 4 tie bar system
- Closing and opening speed profiles, 4 stage programmable
- Programmable closing and opening force
- Intermediate stop possible with closing and opening
- Monitoring of mould protection time
- Hydraulic mould protection, regulated
- Alarm either directly or after one repetition of the mould protection as selected
- After alarm "mould protection" mould can either be stopped or opened
- All axes of the mould clamping unit are programmed with controlled movements and can be moved simultaneously via energysaving two-circuit pump technology and operated with a pressure-holding function (T2 servoregulated)
- Hydraulic system with 3 regulating pumps for extended simultaneous movements (T3)
- Hydraulic ejector: forces, speeds, advancement and retraction delay as well as stroke count (up to 10) programmable

- Programmable ejector advanced at program end
- Hydraulic ejector is integrated into the insert / removal station
- Hydraulic ejector in regulated version possible
- A second ejector can be fitted
- Mould protection monitoring via ejector platen safety switch
- Automatic ramp course during switch-over to a lower speed and for stop of driving movements
- Core pulls with quick release coupling on the movable mould platen, core hold on pressure manually adjustable
- Programmable core hold on pressure
- Power operated safety gate, opening time programmable
- Photo-cell monitoring on the operator's side instead of the pneumatic guard
- During mould opening and closing simultaneous movement of nozzle and ejector possible
- Mould blow unit with pressure relief valve
- Swivel connections through the centre of the table to suit oil, water or pneumatic mediums
- Slip ring for electrical connections on the rotary table
- Mould installation height can be increased by 200 mm max.
- Mechanical mould closing protection

Injection unit

- Modular injection unit as complete assembly group
- Centrally fixed injection unit, vertical
- Device for horizontal injection in the mould parting line
- Lifting device for parting line injection
- Cleaning device for vertical injection unit
- Plasticizing cylinder as modular assembly, with central coupling
- Thermoplastic cylinder with universal screw, available in 3 different diameters

- Thermoplastic cylinder complete with very high wear resistant equipment
- Thermoplast, thermoset, vented and elastomer cylinder, as well as equipment for LSR processing available in various highly wear resistant categories
- Programmable nozzle speeds (2 stages) and advance and retract delay
- Monitored nozzle contact
- Continuous nozzle contact during the complete cycle
- Regulated injection speed profile, 5 steps programmable with injection delay
- Volume dependent injection monitoring
- Measurement, display and monitoring of injection time
- Switch over to holding pressure as a volume or time dependent function
- Material cushion monitoring
- Holding pressure profile regulated via polygon with 10 base points
- ARBURG AED electro-mechanical dosing (for injection unit 350)
- Dosage delay
- Screw circumferential speed display
- Adjustable positive and negative back pressure
- Dosage time display with programmable dosage time monitoring
- Dosage possible before or after nozzle retraction
- Material decompression with programmable decompression speed
- Open nozzle with screw-in tip
- Electronically regulated cylinder and nozzle heating
- Temperature regulator with digital temperature input, integrated in the SELOGICA controller
- Adaptive temperature regulation
- Temperature monitoring with tolerance band input in regulation mode
- 50 litre (25 litre with injection unit 60) corrosion proof stainless steel material hopper movable to a blocking and emptying position
- Material hopper, 100 litre
- Position-regulated screw (forced movement of injection axis)
- Injection process regulation
- Temperature regulated cylinder feed zone, programmable
- THERMOLIFT: combined drying and conveyance of plastic granules
- Programmable nozzle contact force, regulated nozzle contact pressure
- Needle type shut off nozzle, spring force actuated
- Needle type shut off nozzle, hydraulically actuated

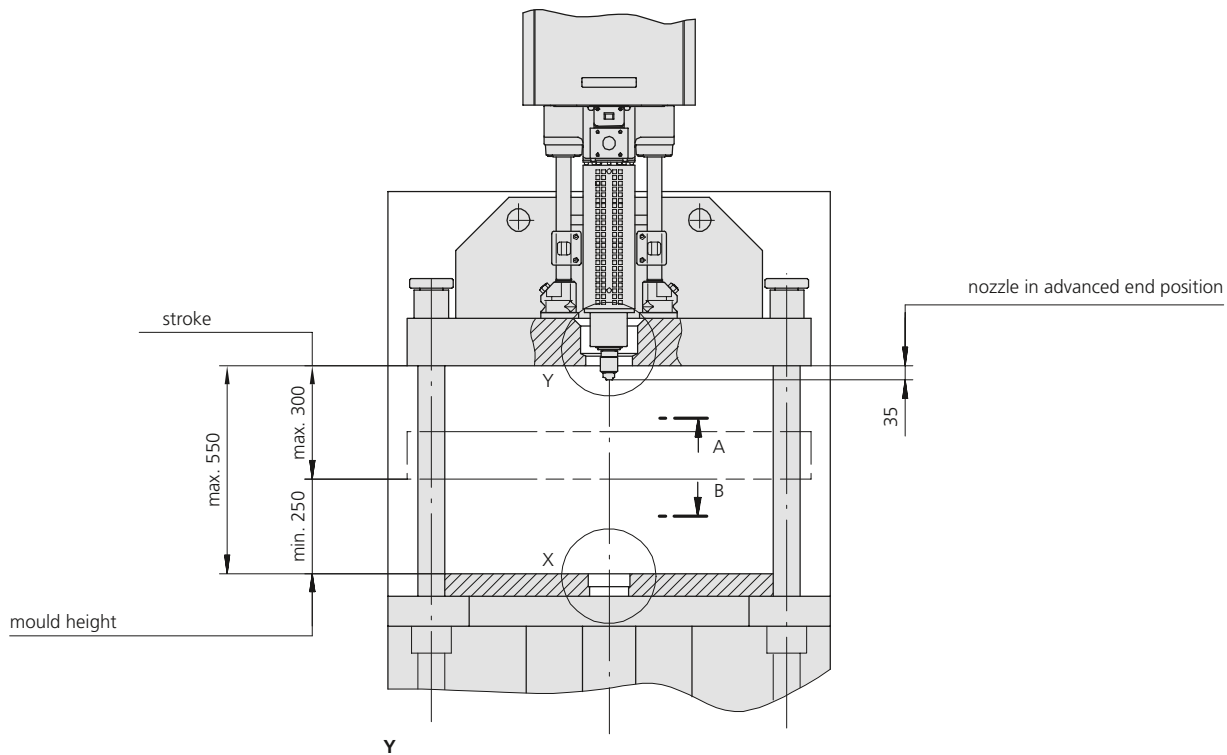
Extended functions

- Production control with nominal temperature value control, programmable alarm cycles, programmable switch-on / switchoff sequences as well as timecontrolled automatic switch-on/ off in second programming level for follow-up batch

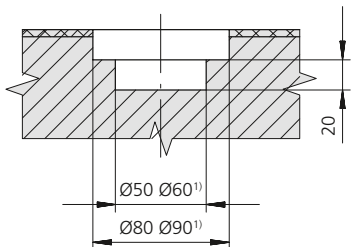
Regulated parameters

- Control cabinet temperature
- Hydraulic oil temperature
- Plasticizing cylinder temperature (adaptive)
- Screw rpm
- Injection flow, injection speed
- Holding pressure
- Movements and force of mould, nozzle and ejector
- Ramp control sequence for mould, ejector and nozzle end position
- Back pressure
- Granule feed zone temperature
- Electric mould heating circuits
- Mould cooling circuits
- Internal cavity pressure or screw chamber pressure
- Nozzle contact force
- Screw position
- Ejector position and ejector speed

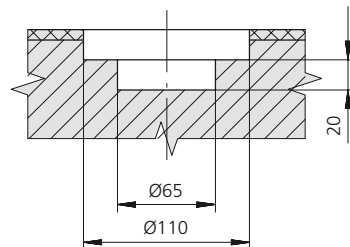
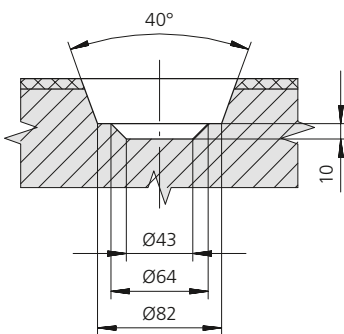
- Basic machine
- Options



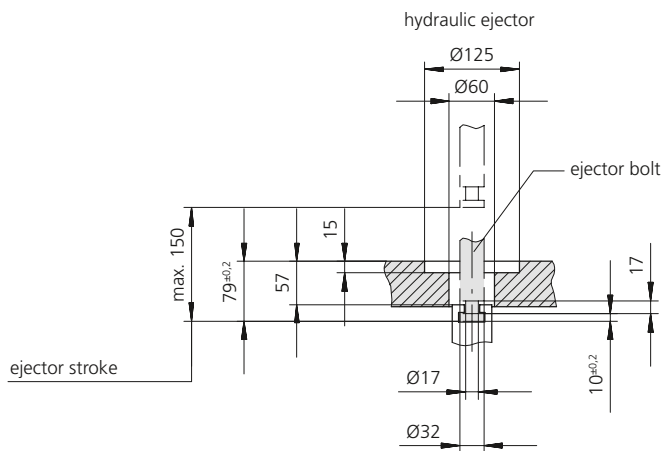
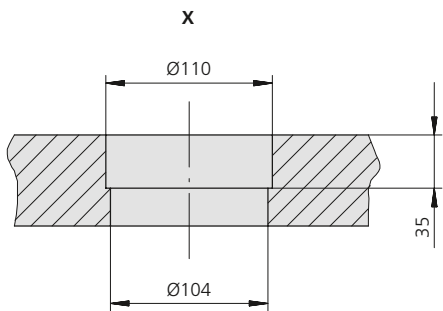
dimensions apply for injection unit 350



counter bore in the mould
required only for short sprue



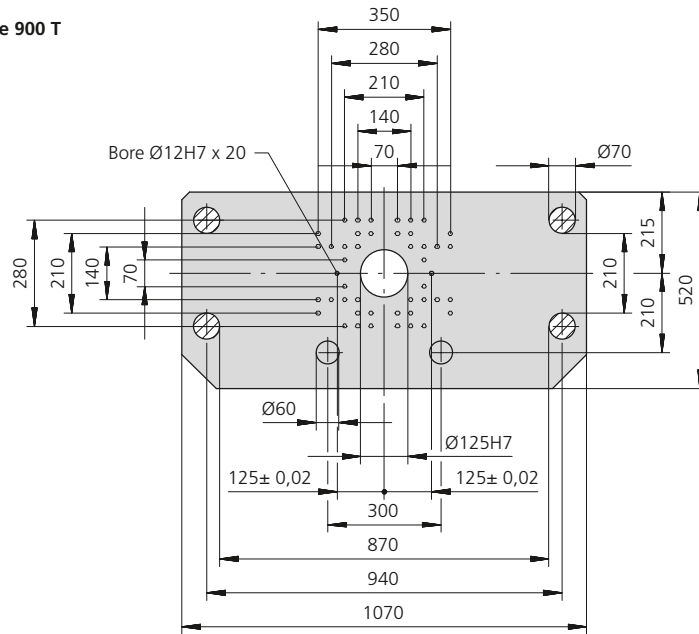
dimensions for thermoset moulds



1) Dimensions are valid for injection unit 150
See separate data sheet for parting line unit (on request)

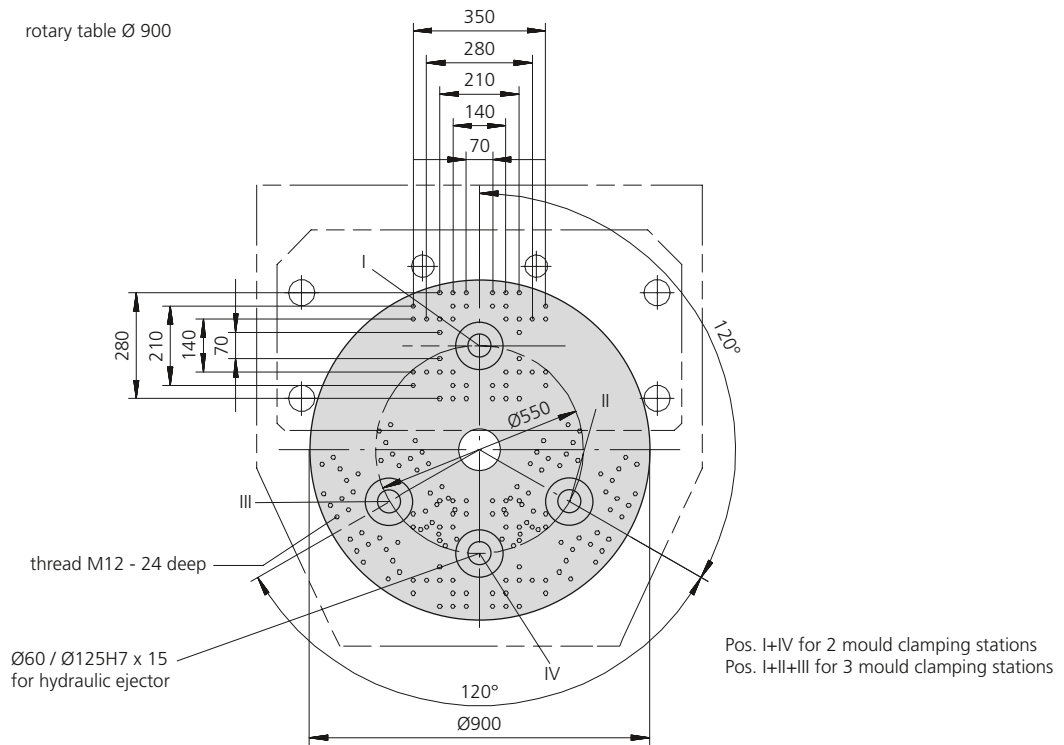
Movable mould platen for rotary table 900 T

View A

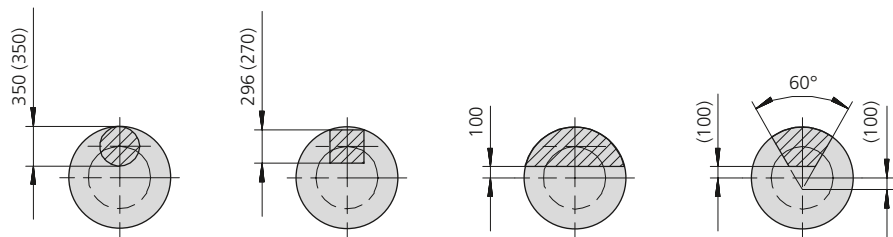


View B

rotary table Ø 900



Useful clamping surface without swivel connections



() Dimensions valid for 3 mould clamping stations

Maximum theoretical shot weights for the most important injection moulding materials (in grams)										
Injection units according to EUROMAP		60			150			350		
Screw diameter	mm	18	22	25	25	30	35	35	40	45
Polystyrene	PS	18	27	36	49	71	97	127	166	210
Styrene heteropolymerizates	SB	18	27	35	48	70	95	124	162	205
	SAN, ABS ¹⁾	18	26	34	48	69	93	122	160	202
Cellulose acetate	CA ¹⁾	21	31	41	56	80	109	143	187	237
Celluloseacetobutyrate	CAB ¹⁾	19	29	37	52	74	102	133	174	220
Polymethyl methacrylate	PMMA	19	29	37	51	73	100	132	172	218
Polyphenylene ether, mod.	PPE	17	25	33	46	66	90	118	154	195
Polycarbonate	PC	20	30	39	52	74	102	134	175	221
Polysulphone	PSU	20	30	39	54	77	106	138	181	229
Polyamides	PA 6.6, PA 6 ¹⁾	18	27	35	49	71	96	127	165	209
	PA 6.10, PA 11 ¹⁾	17	25	33	46	66	90	118	154	195
Polyoximethylene (Polyacetal)	POM	23	34	44	61	88	119	157	205	260
Polyethylene terephthalate	PET	22	33	43	59	85	115	152	198	251
Polyethylene	PE-LD	14	21	27	37	54	73	96	126	159
	PE-HD	14	21	28	38	56	76	99	130	164
Polypropylene	PP	15	22	29	39	57	77	101	133	168
Fluoropolymerides	FEP, PFA, PCTFE ¹⁾	30	44	57	79	114	155	204	266	337
	ETFE	26	39	50	69	99	135	178	232	294
Polyvinyl chloride	PVC-U	22	33	43	60	86	117	154	201	254
	PVC-P ¹⁾	21	31	41	55	79	108	142	186	235

1) average value

ARBURG GmbH + Co KG

Postfach 11 09 · 72286 Lossburg · Tel.: +49(0)7446 33-0 · Fax: +49(0)7446 33-3365 · www.arburg.com · e-mail: contact@arburg.com

With locations in | Europe: Germany, Belgium, Denmark, France, United Kingdom, Italy, Netherlands, Austria, Poland, Switzerland, Slovakia,

Spain, Czech Republic, Turkey, Hungary | **Asia:** People's Republic of China, Indonesia, Malaysia, Singapore, Thailand | **America:** Brazil, Mexico, USA

For more information, please go to www.arburg.com.

© 2008 ARBURG GmbH + Co KG

The brochure is protected by copyright. Any utilisation, which is not expressly permitted under copyright legislation, requires the previous approval of ARBURG.

All data and technical information have been compiled with great care. However, we are unable to guarantee its correctness. Individual illustrations and information may deviate from the actual delivery condition of the machine. The relevant valid operating instructions are applicable for the installation and operation of the machine.



ARBURG GmbH + Co KG Quality:

DIN EN ISO 9001 + 14001 certified