

ALLROUNDER 820 S

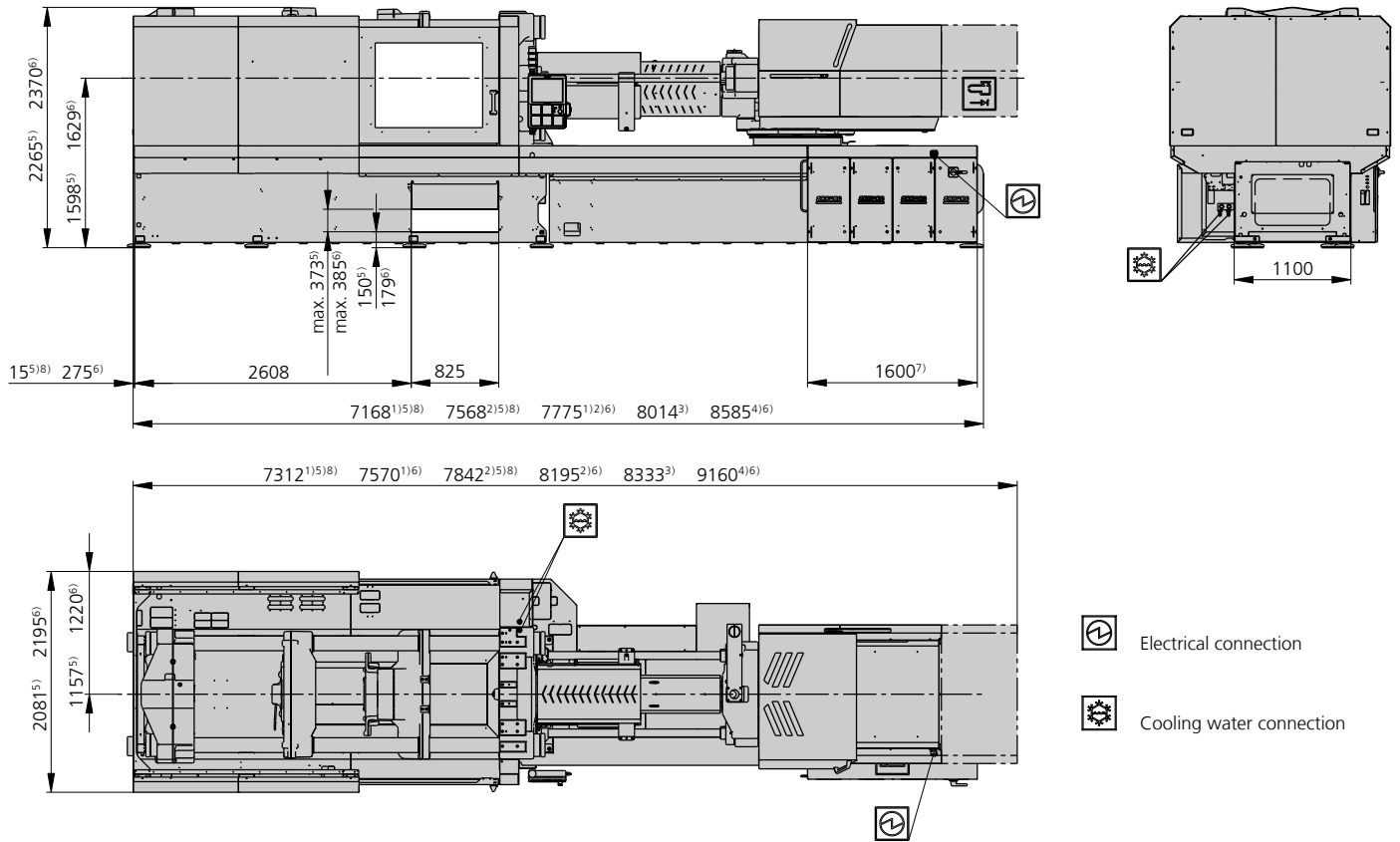
Distance between tie bars: 820 x 820 mm

Clamping force: 4000 kN

Injection unit (acc. to EUROMAP): 2100, 3200, 4600

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MACHINE DIMENSIONS | 820 S



- 1) Injection unit 2100
- 2) Injection unit 3200
- 3) Injection unit 4600 + 2 pumps
- 4) Injection unit 4600
- 5) Machine model with 1 pump or 2 pumps
- 6) Machine model with hydraulic accumulator
- 7) Subject to performance variant and injection unit size
- 8) Mould installation height variable with 1 pump or 2 pumps +260 mm

TECHNICAL DATA | 820 S

Clamping unit			820 S		
with clamping force	max. kN		4000		
Opening force stroke	max. kN mm		800 700		
Mould height, fixed variable	min. mm		850 [350-850]		
Platen daylight fixed variable	max. mm		1550 1050-1550		
Distance between tie bars (w x h)	mm		820 x 820		
Mould mounting platens (w x h)	max. mm		1171 x 1171		
Weight of movable mould half	max. kg		5000		
Ejector force stroke	max. kN mm		100 250		
Dry cycle time EUROMAP ²	1 pump	min. s - mm	5,0 - 574		
	2 pumps	min. s - mm	3,7 - 574		
	Accum.	min. s - mm	2,3 - 574		

Injection unit			2100			3200			4600		
with screw diameter	mm		60	70	80	70	80	90	80	90	100
Effective screw length	L/D		23	20	17,5	23	20	18	22,5	20	18
Screw stroke	max. mm		280			320			360		
Calculated stroke volume	max. cm ³		792	1078	1407	1232	1608	2036	1810	2290	2827
Shot weight	max. g PS		723	984	1286	1125	1469	1860	1653	2092	2583
Material throughput	max. kg/h PS		125	145	175	185	215	250	255	295	330
	max. kg/h PA6.6		62	74	88	93	110	125	120	150	170
Injection pressure	max. bar		2500	2000	1530	2500	2000	1580	2500	2000	1620
Holding pressure	max. bar		2500	2000	1530	2500	2000	1580	2500	2000	1620
Injection flow ²	1 pump	max. cm ³ /s	290	394	514	290	380	482	---		
	2 pumps	max. cm ³ /s	290	394	514	290	380	482	310	392	484
	Accum.	max. cm ³ /s	1132	1540	2012	1188	1552	1964	1264	1600	1976
Screw circumferential speed ²	1 pump	max. m/min	56	65	75	47	54	61	---		
	2 pumps	max. m/min	56	65	75	47	54	61	38	43	48
	Accum.	max. m/min	21	25	28	23	26	29	40	46	51
Screw torque	max. Nm		2140	2500	2550	3140	3510	3510	4400	4950	5000
Nozzle contact force retraction stroke	max. kN mm		110 600			110 600			110 600		
Heating capacity zones	kW		31,4 8			38,4 8			50,9 9		

Drive and connection			1 pump (servo)		2 pumps			Accum.		
with injection unit			2100	3200	2100	3200	4600	2100	3200	4600
Net weight of machine	kg		21000	22500	21000	22500	24600	---		
Sound press. level Insecurity ⁴	dB(A)		< 65		69 3			< 70		
Oil filling	l		360	460	380	460	610	460	460	610
Drive power ²	max. kW		55	55	55	55	75	37	37	45
Electrical connection ³	kW		89	96	89	96	129	71	78	99
	Total	A	---		---			---		
	Machine	A	125	125	125	125	160	100	100	125
Cooling water connection	max. °C		30		30			30		
	min. Δp bar		1,5 DN 25		1,5 G 2"			1,5 G 2"		

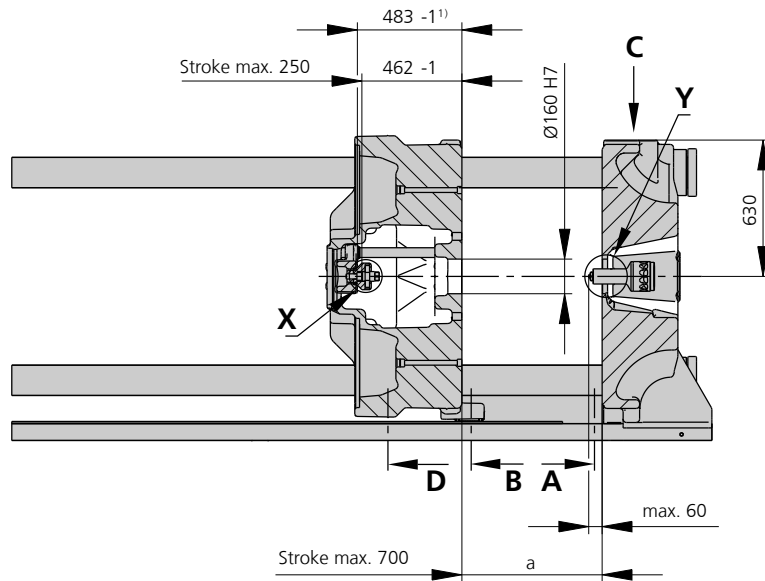
Machine type	
with EUROMAP size designation ¹	Drive
820 S 4000-2100	1 2 Accum.
820 S 4000-3200	1 2 Accum.
820 S 4000-4600	- 2 Accum.

Upon request: other machine types and mould installation heights, screws, drive powers etc.

All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm³) x max. injection pressure (kbar)
 - 2) Specifications depend on the drive variant / drive configuration.
 - 3) Specifications relate to 400 V/50 Hz.
 - 4) Detailed info in the operating instr.
- [] Specifications apply to alternative equipment.

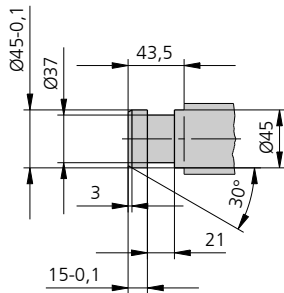
MOULD INSTALLATION DIMENSIONS | 820 S



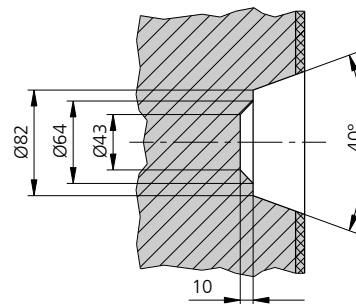
a max.	Mould installation height
Fixed	850
variable, manually	[550, 650, 750]
variable, automatically*	[350-850]

[] Specifications apply to alternative equipment
 * Variable installation height as standard in accumulator version

Ejector bolt | X

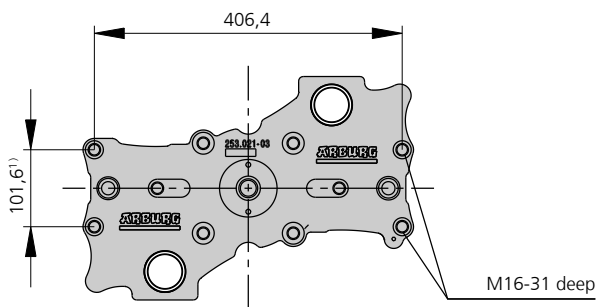


Bore in mould (if required) | Y

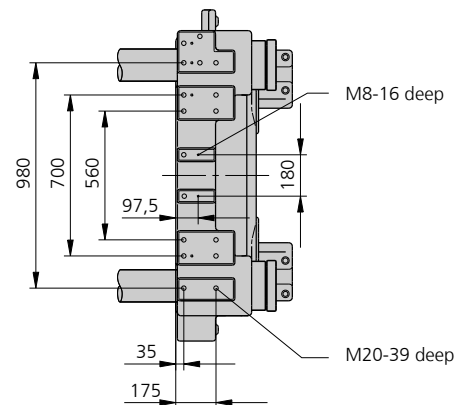


thermoset version available upon request

Ejector plate | D



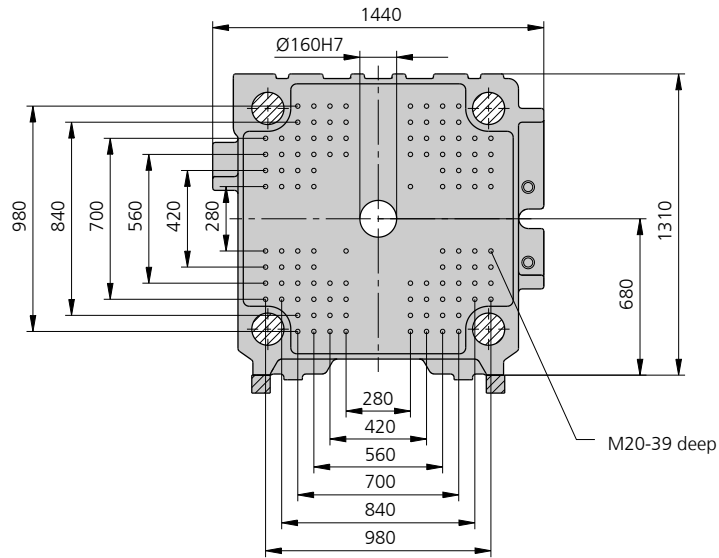
Robotic system mounting | C



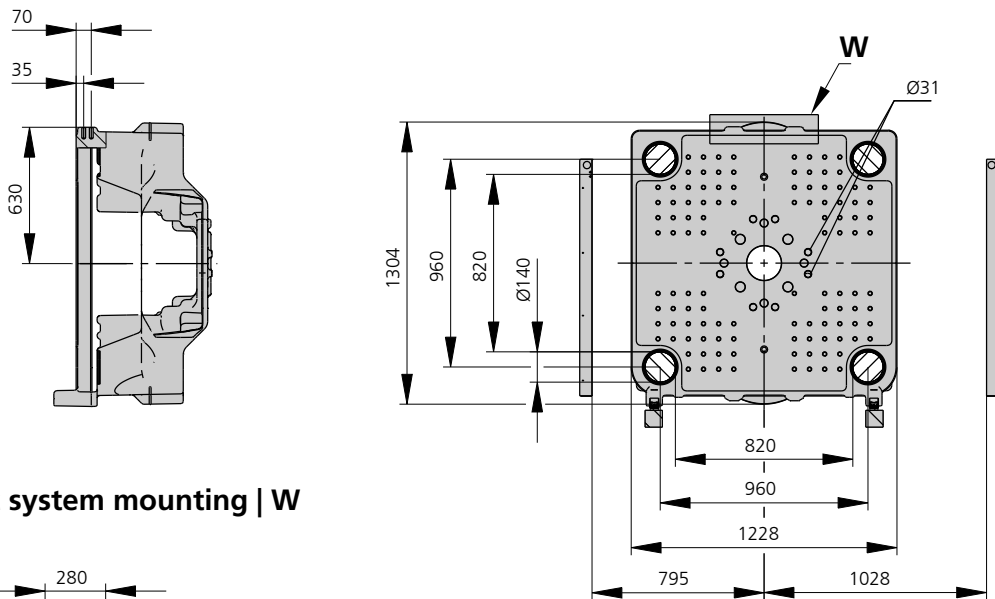
1) Positions of ejector plate

MOULD INSTALLATION DIMENSIONS | 820 S

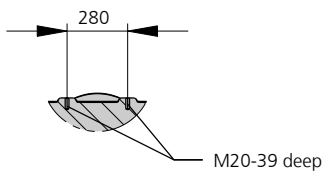
Fixed mould mounting platen | A



Moving mould mounting platen | B



Robotic system mounting | W



SHOT WEIGHTS | 820 S

Theoretical shot weights for the most important injection moulding materials

Injection units according to EUROMAP		2100			3200			4600		
Screw diameter	mm	60	70	80	70	80	90	80	90	100
Polystyrene	max. g PS	723	984	1286	1125	1469	1860	1653	2092	2583
Styrene heteropolymerizates	max. g SB	707	962	1256	1099	1436	1817	1615	2044	2523
	max. g SAN, ABS ¹⁾	693	943	1231	1077	1407	1781	1583	2003	2473
Cellulose acetate	max. g CA ¹⁾	814	1108	1447	1266	1654	2093	1860	2354	2907
Celluloseacetobutyrate	max. g CAB ¹⁾	757	1030	1346	1177	1538	1946	1730	2189	2703
Polymethyl methacrylate	max. g PMMA	747	1017	1329	1163	1518	1922	1708	2162	2669
Polyphenylene ether, mod.	max. g PPE	671	914	1194	1044	1364	1726	1535	1942	2398
Polycarbonate	max. g PC	760	1034	1351	1182	1544	1954	1737	2199	2714
Polysulphone	max. g PSU	785	1069	1396	1222	1596	2019	1795	2272	2805
Polyamides	max. g PA 6.6 PA 6 ¹⁾	719	978	1278	1118	1461	1848	1643	2080	2568
	max. g PA 6.10 PA 11 ¹⁾	671	914	1194	1044	1364	1726	1535	1942	2398
Polyoximethylene (Polyacetal)	max. g POM	893	1215	1588	1389	1814	2296	2041	2583	3189
Polyethylene terephthalate	max. g PET	861	1172	1531	1340	1750	2215	1969	2492	3076
Polyethylene	max. g PE-LD	546	744	971	850	1110	1405	1249	1580	1951
	max. g PE-HD	564	768	1003	877	1146	1450	1289	1632	2015
Polypropylene	max. g PP	576	784	1025	897	1171	1482	1317	1667	2058
Fluoropolymerides	max. g FEP, PFA, PCTFE ¹⁾	1157	1575	2058	1800	2352	2976	2646	3348	4134
	max. g ETFE	1015	1382	1805	1579	2063	2611	2321	2937	3626
Polyvinyl chloride	max. g PVC-U	874	1190	1554	1360	1776	2247	1998	2528	3121
	max. g PVC-P ¹⁾	808	1099	1436	1256	1641	2076	1846	2336	2884

1) average value

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