

# ALLROUNDER 820 A

## Clamp-Design

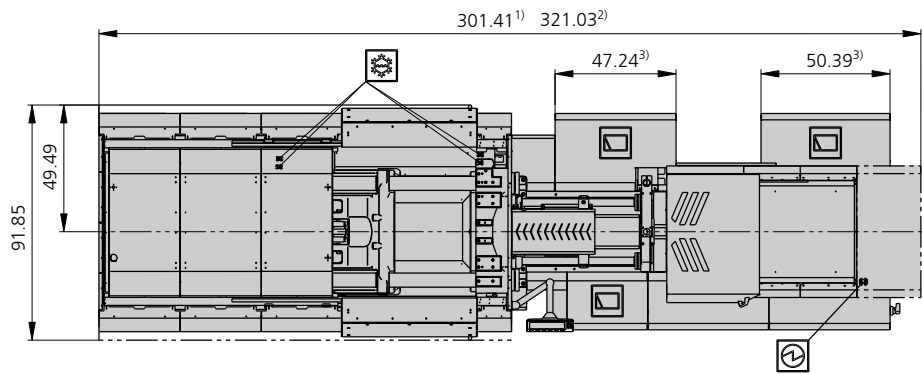
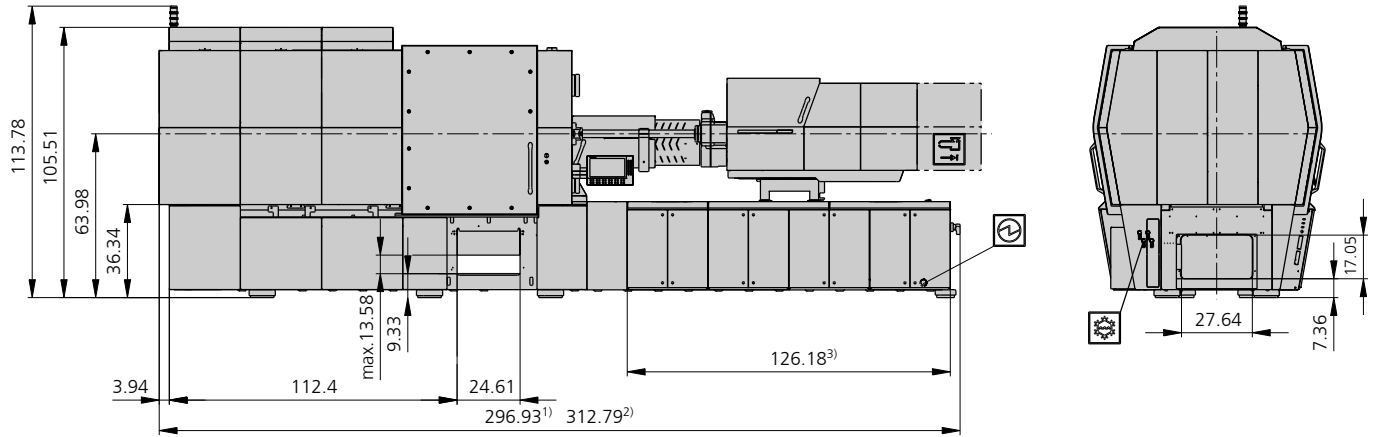
Distance between tie bars: 32.28 x 32.28" (820 x 820 mm)

Clamping force: 445 tons


Injection unit: 29.8 oz, 45.4 oz

**ARBURG**

# MACHINE DIMENSIONS | 820 A



 Electrical connection

 Cooling water connection

- 1) Injection unit 29.8 oz
- 2) Injection unit 45.4 oz
- 3) Depending on drive power and injection unit

# TECHNICAL DATA | 820 A

Clamping unit			820 A	
with clamping force	max. tons		445	
Opening force   stroke	max. tons   inch		---   29.53	
Mold height, fixed   variable	min.-max. inch		---   13.78-33.46	
Platen daylight fixed   variable	max. inch		---   43.31-62.99	
Distance between tie bars (w x h)	inch		32.28 x 32.28	
Mold mounting platens (w x h)	max. inch		46.10 x 46.10	
Weight of movable mold half	max. lbs		8800	
Ejector force   stroke	max. tons   inch		9.46   9.84	
Dry cycle time EUROMAP	Comfort	min. s - inch	2.3 - 22.60	
	Ultimate	min. s - inch	1.8 - 22.60	

Injection unit			29.8 oz			45.4 oz		
with screw diameter	mm		55	60	70	60	70	80
Effective screw length	L/D		22	20	17	23	20	17.5
Screw stroke	max. inch		9.45			11.02		
Calculated stroke volume	max. cu. inch		34.8	41.4	56.3	48.3	65.8	85.8
Shot weight	max. oz / PS		18.4	21.9	29.8	25.5	34.7	45.4
Material throughput	max. lbs/h PS		189.2	211.2	253.0	275.0	319.0	385.0
	max. lbs/h PA6.6		94.6	105.6	127.6	136.4	162.8	193.6
Injection pressure	max. psi		34510	29000	21315	36250	29000	22185
Holding pressure time	max. s - psi		300-27550	300-23200	300-16965	300-31610	300-23200	300-17690
Injection flow <sup>2</sup>	Comfort [+]	max. cu. inch/s	15.9 [21.7]	19 [25.9]	25.8 [35.2]	20.7 [27.6]	28.2 [37.6]	36.8 [49]
	Ultimate [+]	max. cu. inch/s	29.0	34.5	47.1	43.1 [56.1]	58.7 [76.3]	76.7 [99.7]
Injection speed <sup>5</sup>	Comfort [+]	max. inch/s	4.33 [5.91]			4.72 [6.3]		
	Ultimate [+]	max. inch/s	7.87			9.84 [12.8]		
Screw circumferential speed	max. ft./min		180	197	230	167	197	226
Screw torque	max. ft./lbs		1115	1211	1417	1580	1846	2104
Nozzle contact force   retraction stroke	max. tons   inch		9.90   19.69			12.10   23.62		
Heating capacity   zones	kW		22.90   8			31.20   8		
Feed hopper	lbs		---			---		

Drive and connection			Comfort		Ultimate	
with injection unit			29.8 oz	45.4 oz	29.8 oz	45.4 oz
Net weight of machine	lbs		49060	51700	49060	51700
Sound press. level   Ref. only <sup>4</sup>	dB(A)		57   3		57   3	
Electrical connection <sup>3</sup>	kW		70	95	76	100
	Total	A	---	---	---	---
	Machine	A	---   90	---   110	---   100	---   100
Cooling water connection	Heat	A	70   ---	80   ---	70   ---	80   ---
	max. °F		86		86	
	min. Δp psi		22   1"		22   1"	

## Machine type

with EUROMAP size designation <sup>1</sup>

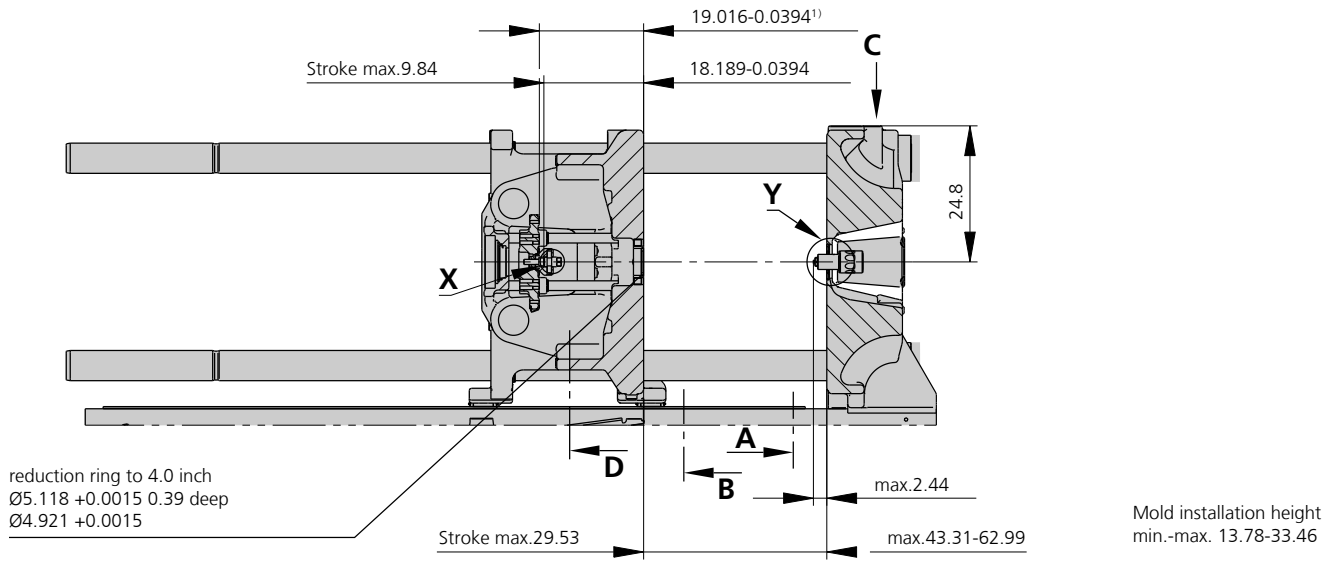
820 A 445 tons 29.8 oz | 45.4 oz

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

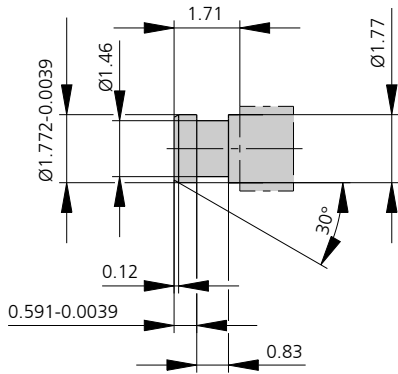
All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

- 1) Clamping force (tons) - Size of injection unit = max. stroke volume (cu. inch) x max. injection pressure (psi)
  - 2) Specification of maximum injection flow at maximum injection pressure.
  - 3) Specifications relate to 230V/60 cycles | 460V/60 cycles.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions.
  - 5) Forward speed of plasticizing screw at 1,000 bar injection pressure.
- [ ] Specifications apply to alternative equipment.

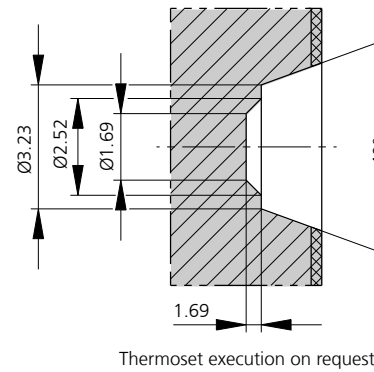
# MOLD INSTALLATION DIMENSIONS | 820 A



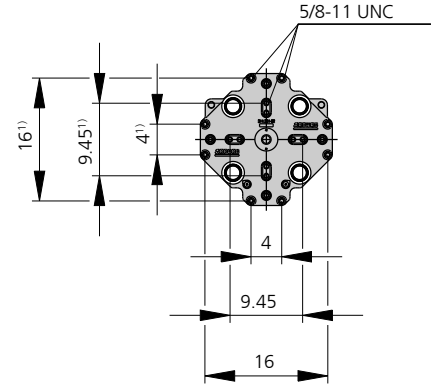
**Center ejector | X**



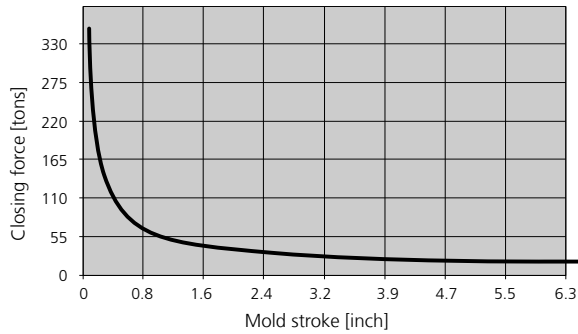
**Bore in mold (if required) | Y**



**Ejector plate | D**

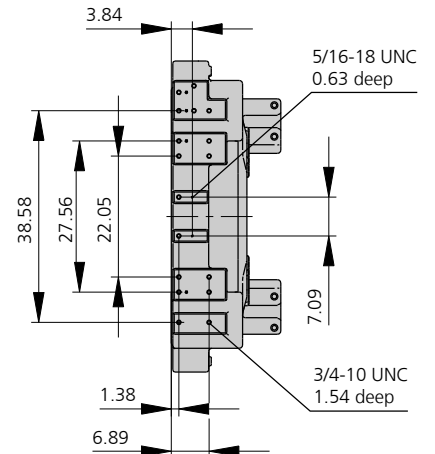


## Closing force for spring molds / during injection compression molding\*



\* automatic locking force adjustment up to 2.8 tons

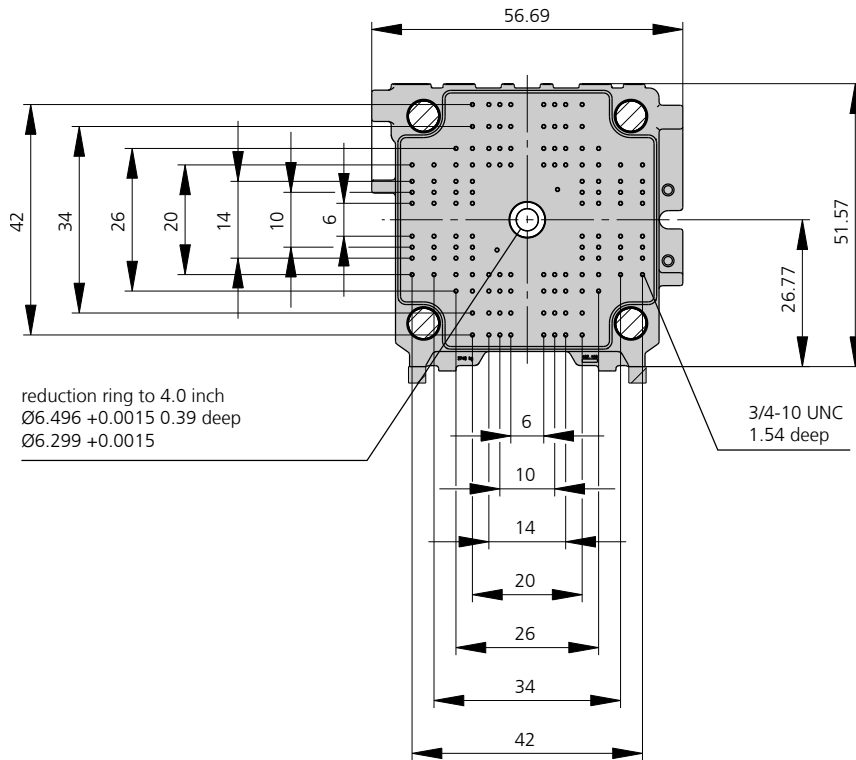
## Robotic system mounting | C



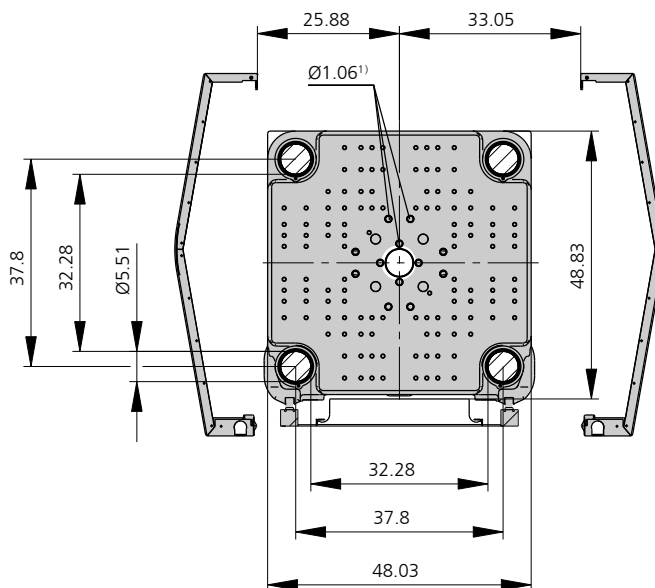
1) Positions ejector plate  
 Reinforced mold mounting platens optionally available (see performance variant 3)

# MOLD INSTALLATION DIMENSIONS | 820 A

## Fixed mold mounting platen | A



## Moving mold mounting platen | B



# SHOT WEIGHTS | 820 A

## Theoretical shot weights for the most important materials

Injection units		29.8 oz			45.4 oz			
Screw diameter	inch	2.17	2.36	2.76	2.36	2.76	3.15	
	mm	55	60	70	60	70	80	
Polystyrene	max. oz PS	18.4	21.9	29.8	25.5	34.7	45.4	
Styrene heteropolymerizates	max. oz SB	18.0	21.4	29.1	24.9	33.9	44.3	
	max. oz SAN, ABS <sup>1)</sup>	17.6	21.0	28.5	24.4	33.3	43.4	
Cellulose acetate	max. oz CA <sup>1)</sup>	20.7	24.6	33.5	28.7	39.1	51.0	
Celluloseacetobutyrate	max. oz CAB <sup>1)</sup>	19.2	22.9	31.1	26.7	36.3	47.5	
Polymethyl methacrylate	max. oz PMMA	19.0	22.6	30.8	26.3	35.9	46.9	
Polyphenylene oxide, mod.	max. oz PPO	17.1	20.3	27.6	23.7	32.2	42.1	
Polycarbonate	max. oz PC	19.3	23.0	31.3	26.8	36.5	47.7	
Polysulphone	max. oz PSU	20.0	23.7	32.3	27.7	37.7	49.2	
Polyamides	max. oz PA 6.6   PA 6 <sup>1)</sup>	18.2	21.7	29.6	25.4	34.5	45.1	
	max. oz PA 6.10   PA 11 <sup>1)</sup>	16.7	20.3	27.6	23.7	32.2	42.1	
Polyoximethylene (Polyacetal)	max. oz POM	22.7	27.0	36.8	31.5	42.9	56.0	
Polyethylene terephthalate	max. oz PET	21.9	26.0	35.4	30.4	41.3	54.0	
Polyethylene	max. oz PE-LD	13.9	16.5	22.5	19.3	26.2	34.3	
	max. oz PE-HD	14.3	17.0	23.2	19.9	27.1	35.4	
Polypropylene	max. oz PP	14.6	17.4	23.7	20.3	27.7	36.2	
Fluoropolymerides	max. oz FEP, PFA, PCTFE <sup>1)</sup>	29.4	35.0	47.6	40.8	55.6	72.6	
	max. oz ETFE	25.8	30.7	41.8	35.6	48.5	63.3	
Polyvinyl chloride	max. oz PVC-U	22.2	26.4	36.0	30.8	42.0	54.8	
	max. oz PVC-P <sup>1)</sup>	20.5	24.4	33.2	28.5	38.8	50.7	

1) average value

### ARBURG GmbH + Co KG

Arthur-Hehl-Strasse  
72290 Lossburg  
Tel.: +49 7446 33-0  
www.arburg.com  
contact@arburg.com