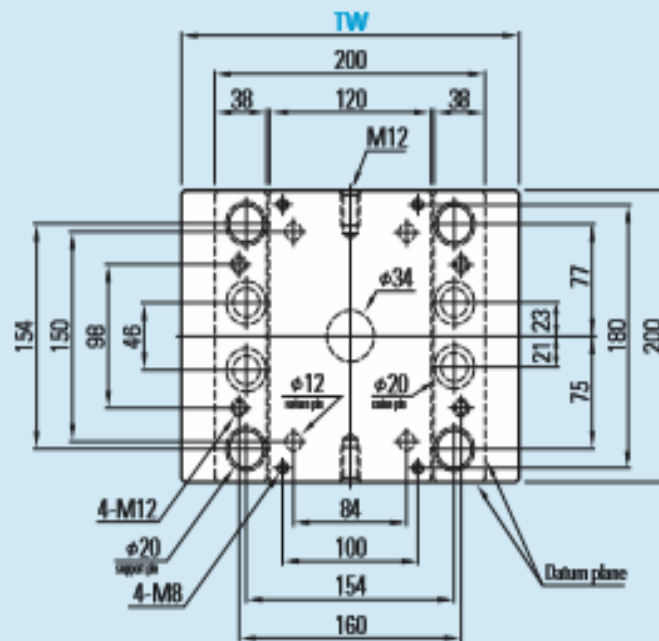


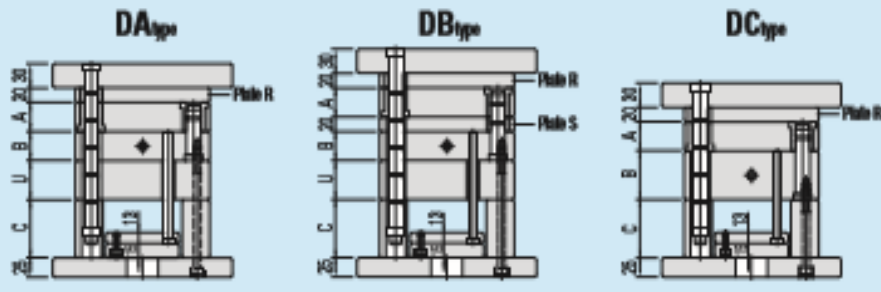
D & E Series 2020

Clamping plate spec.	TW
Clamping type	250
Ball-fixing type	280



High Rigidity type \odot P304

* Please note that the 2D diagrams in this catalog are created with isometric images, but not accurate.



364 **30E series** \Rightarrow DA, DB, DC and DD types without the corner skippers plate will become EA, EB, EC and ED types respectively

How to order

Order example **MDC DA 2020 30 30 60 S V M N OH 170** Option

Type	DA	DB	DC	DD	DE	DF
	EA	EB	EC	ED		

Nominal dimension

A DIMM	20	25	30	35	40	50
	60	70	80	90	100	

B DIMM	20	25	30	35	40	50
	60	70	80	90	100	

C DIMM	50	60	70	80	90
--------	----	----	----	----	----

If A and B dimension are 3 digits, specify the dimension with the first two-digit numbers.
e.g. (100-10)

If When selecting DE or DF without Plate C, specify 00.

	Width of clamping plate	Orientation of guide
S	250	
X	280	
Y	250	
Z	280	

U DIMM	
V	30
W	40
-	Types without backing plate

Length of support pin					
90	100	110	120	130	140
150	160	170	180	190	200
210	220	230	240	250	260
270	280				

Specification of support pin	
OH	Installs support pins at the outer position side with bushings
ON	Installs support pins at the outer positions without bushings
IH	Installs support pins at the inner positions with bushings
IN	Installs support pins at the inner positions without bushings

This may be changed to J or P by Futaba if there is any addition or change to the specification.

Specification of ejector	
M	Combustion type
L	Spacer type
-	When selecting DE or DF type

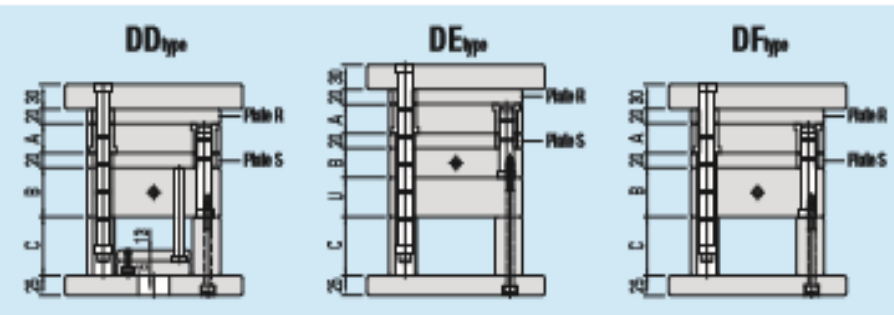
3-Plate Type C A E series 2020

How to order optional specification

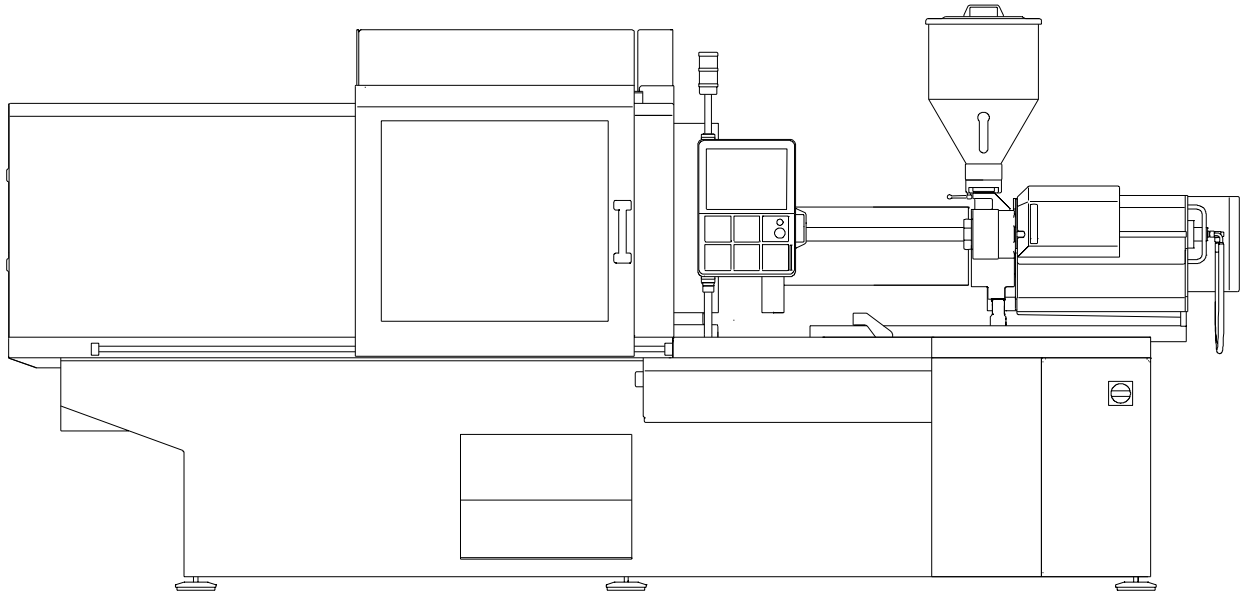
Order example **MDC DB 2020 40 30 50 S V M N OH 190 / S30 / #FK / #EH**

Code	Description
#FK	Removes the threaded holes for eye bolts for Plate B
#EH	Removes the hole for ejector rod
Material change	Changes the material of Plate R, A, S or B in Details → P.480

Code	Description
Plate S Thickness	Changes the Plate S thickness 20 to 30, 40 or 50
Additional processing	Specifications other than the above are also available. Refer to the separate volume "Additional Mold Base Processing & Mold Parts Editor" for details.



DE, DE and DF specifications without Plate C are also available (When ordering them, please specify 00 for C dimension).
DE For DE & DF type, ejector rod hole will not be machined.



ALLROUNDER 470 S

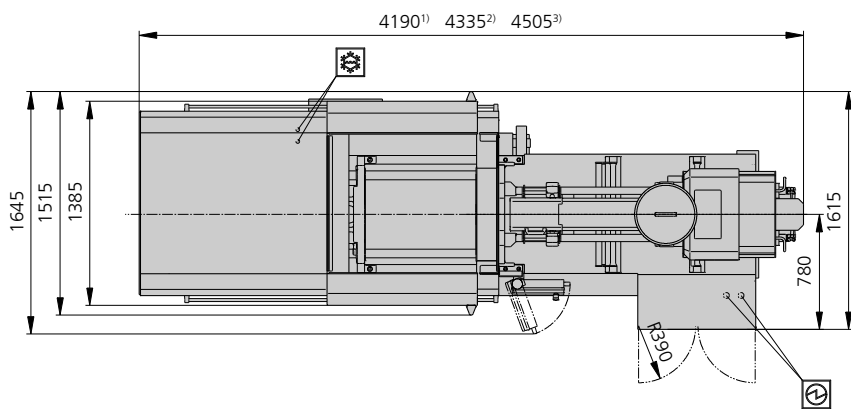
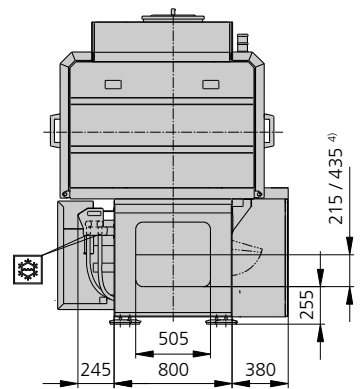
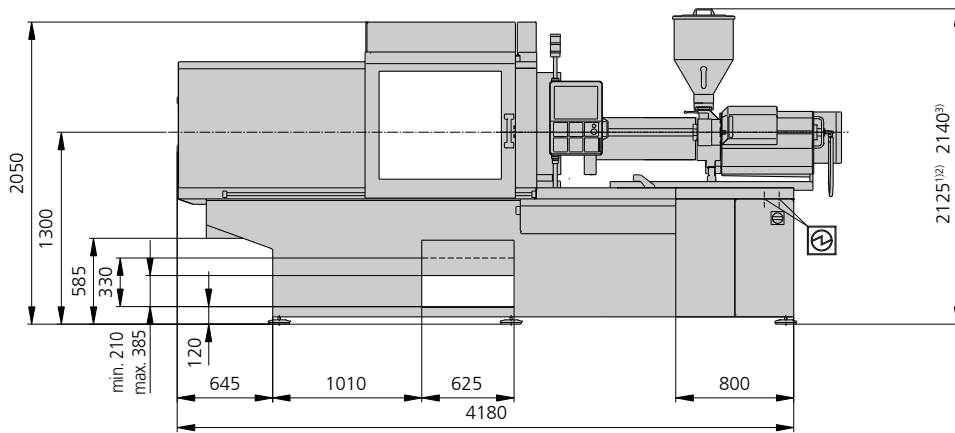
Distance between tie bars: 470 x 470 mm

Clamping force: 800, 1000, 1100 kN

Injection unit (acc. to EUROMAP): 170, 290, 400

ARBURG

MACHINE DIMENSIONS | 470 S



Electrical connection



Cooling water connection

- 1) injection unit 170
- 2) injection unit 290
- 3) injection unit 400
- 4) Conveyor belt

TECHNICAL DATA | 470 S

Clamping unit			470 S		
with clamping force	max. kN		800	1000	1100
Opening force stroke	max. kN mm		255 500		
Mould height, fixed variable	min. mm		250 ---		
Platen daylight fixed variable	max. mm		750 ---		
Distance between tie bars (w x h)	mm		470 x 470		
Mould mounting platens (w x h)	max. mm		637 x 637		
Weight of movable mould half	max. kg		760		
Ejector force stroke	max. kN mm		40 175		
Dry cycle time EUROMAP ²	1 pump	min. s - mm	2,3 2,1 - 329		
	2 pumps	min. s - mm	1,8 - 329		
	Accum.	min. s - mm	1,5 - 329		

Injection unit			170			290			400		
with screw diameter	mm		25	30	35	30	35	40	35	40	45
Effective screw length	L/D		24	20	17	23,3	20	17,5	23	20	18
Screw stroke	max. mm		120			150			160		
Calculated stroke volume	max. cm ³		59	85	115	106	144	188	154	201	254
Shot weight	max. g PS		54	77	105	97	132	172	141	184	232
Material throughput	max. kg/h PS		10	13,5	16	17	20,5	24,5	25	29	35
	max. kg/h PA6.6		5	7	8	8,5	10,5	12,5	12,5	15	17,5
Injection pressure	max. bar		2500	2000	1470	2500	2000	1530	2500	2000	1580
Holding pressure	max. bar		2500	2000	1470	2500	2000	1530	2500	2000	1580
Injection flow ²	1 pump	max. cm ³ /s	94 120	136 172	186 236	102 130	140 178	182 232	128	168	212
	2 pumps	max. cm ³ /s	94 120	136 172	186 236	102 130	140 178	182 232	128	168	212
	Accum.	max. cm ³ /s	216	312	424	316	430	562	492	642	814
Screw circumferential speed ²	1 pump	max. m/min	49 50	59 60	69 70	46 51	54 60	62 69	47	53	60
	2 pumps	max. m/min	49 50	59 60	69 70	46 51	54 60	62 69	47	53	60
	Accum.	max. m/min	14	17	19	20	24	27	16	19	21
Screw torque	max. Nm		210	250	290	320	380	430	480	550	610
Nozzle contact force retraction stroke	max. kN mm		50 210			60 240			60 300		
Heating capacity zones	kW		9,4 5			6,4 5			9,4 5		
Feed hopper	l		50			50			50		

Drive and connection			1 pump			2 pumps			Accum.		
with injection unit			170	290	400	170	290	400	170	290	400
Net weight of machine	kg		4500	4550	4750	4500	4550	4750	---		
Sound press. level Insecurity ⁴	dB(A)		66 3			66 3			66 3		
Oil filling	l		175			175			175		
Drive power ²	max. kW		18,5			18,5	18,5	22	15		
Electrical connection ³	kW		30	27	30	30	27	34	26	24	26
	Total	A	80			80	80	100	80	63	80
	Machine	A	---			---			---		
	Heating	A	---			---			---		
Cooling water connection	max. °C		25			25			30		
	min. Δp bar		1,5 DN 25			1,5 DN 25			1,5 DN 25		

Machine type		Drive
470 S 800-170 290		1 2 Accum.
470 S 1000-170 290 400		1 2 Accum.
470 S 1100-170 290 400		- 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).

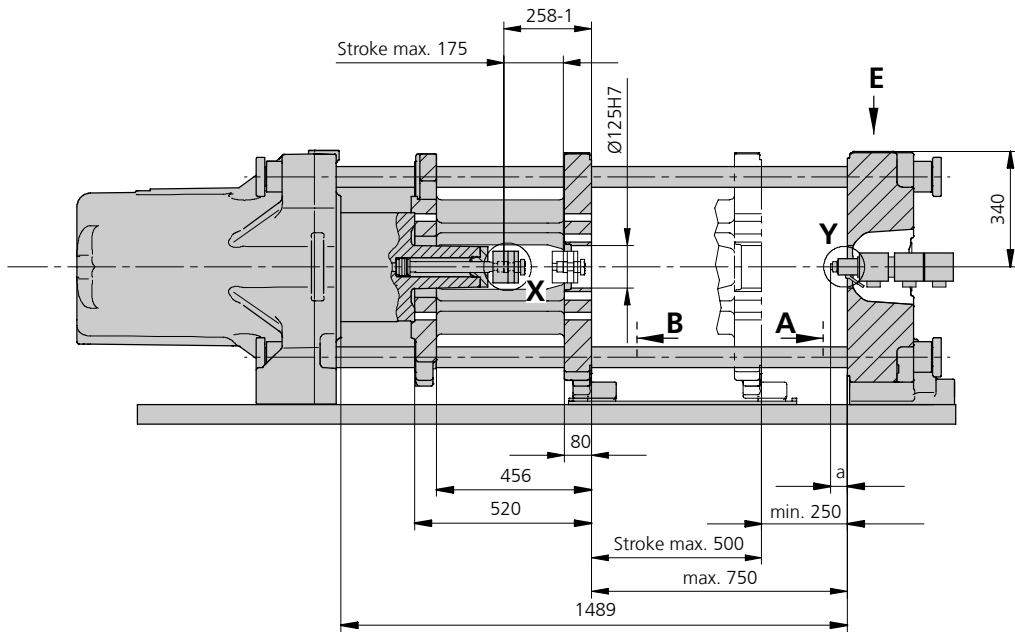
2) Specifications depend on the drive config. - 1st value applies to the lowest clamping force.

3) Specifications relate to 400 V/50 Hz.

4) Detailed info in the operating instr.

[] Specifications apply to alternative equipment.

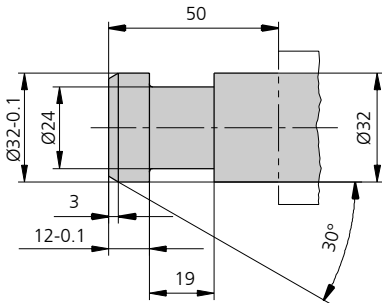
MOULD INSTALLATION DIMENSIONS | 470 S



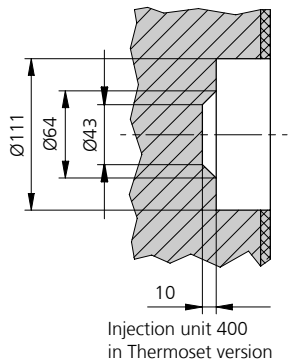
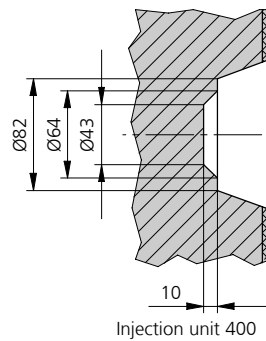
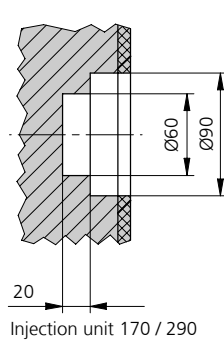
a max.	Injection unit	
	170 / 290	400
Standard	40	50
Thermoset	20	50

Dimensions for horizontally displaceable injection unit (VARIO principle) reduced by 20 mm

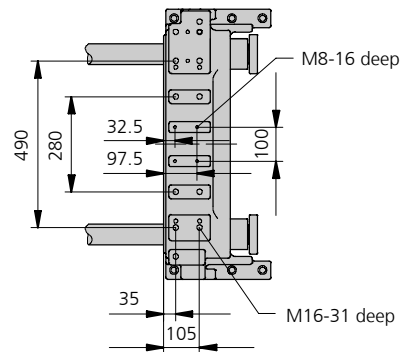
Ejector bolt | X



Bore in mould (if required) | Y

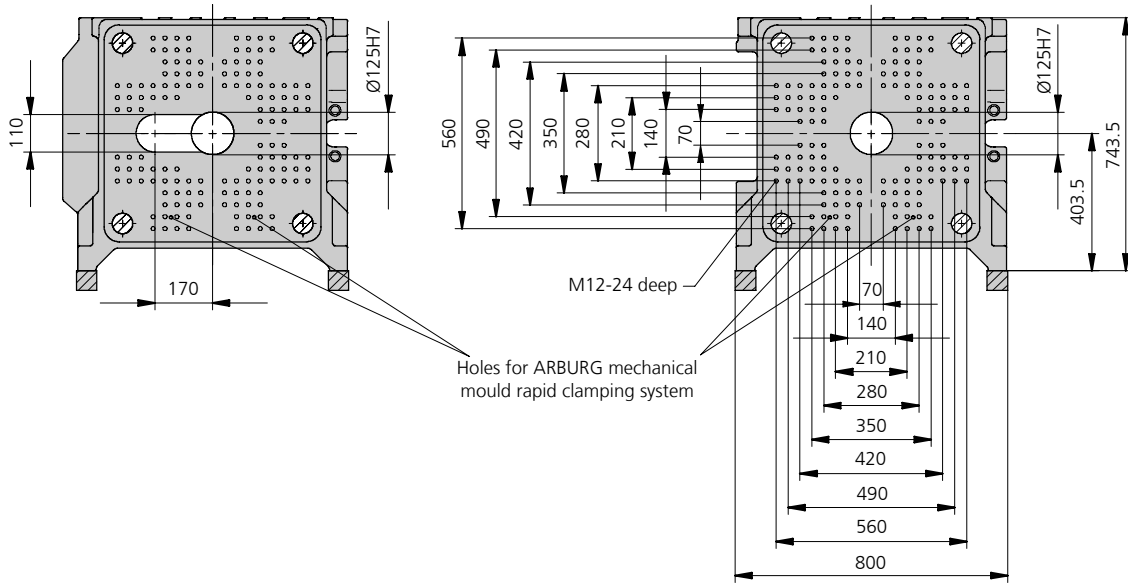


Robotic system mounting | E

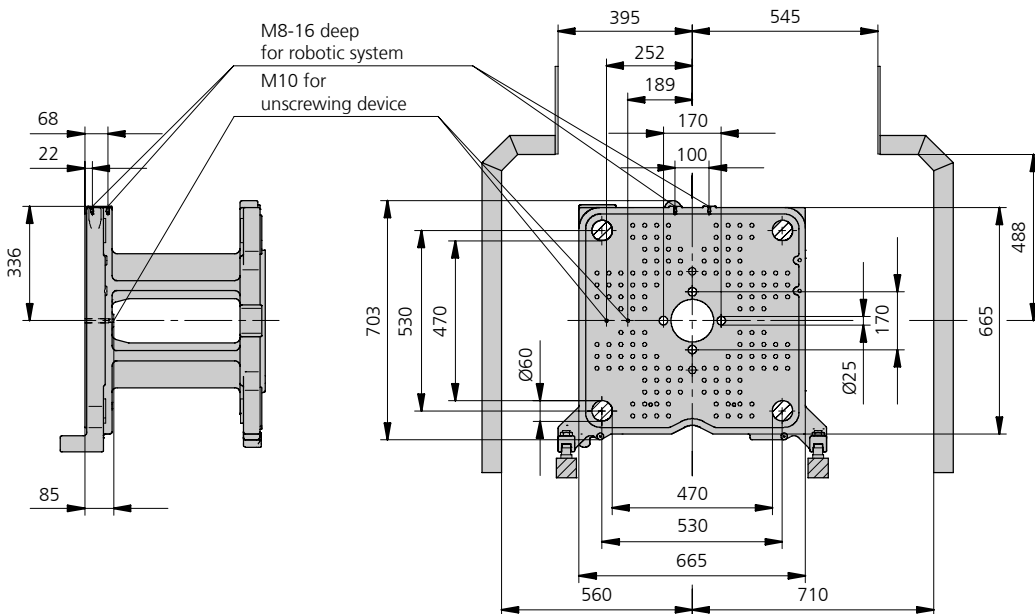


MOULD INSTALLATION DIMENSIONS | 470 S

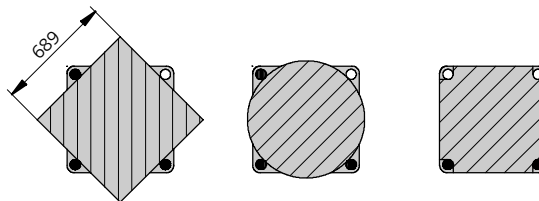
Fixed mould mounting platen | A



Moving mould mounting platen | B



Useful clamping surface when pulling the tie rods



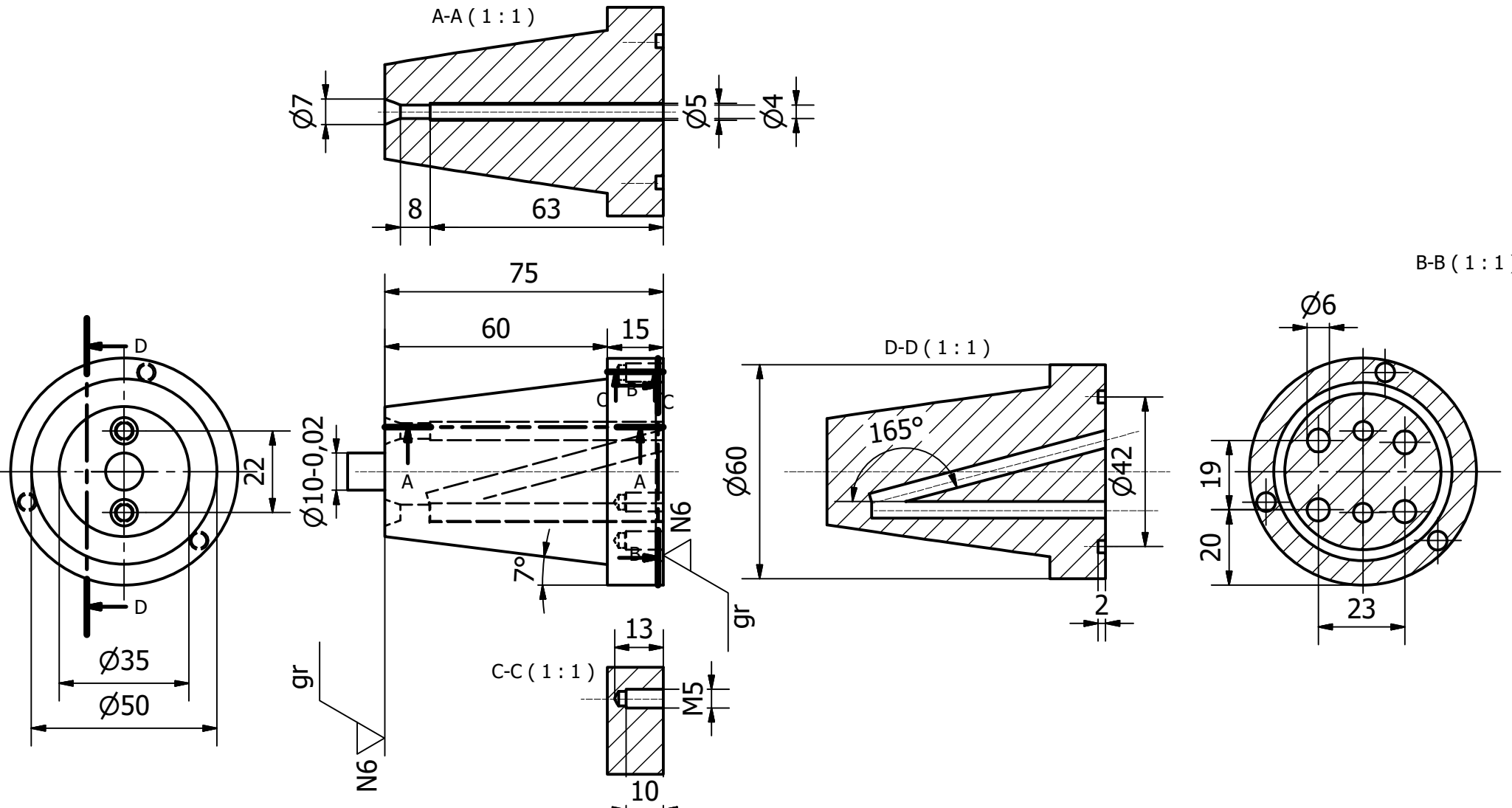
SHOT WEIGHTS | 470 S

Theoretical shot weights for the most important injection moulding materials

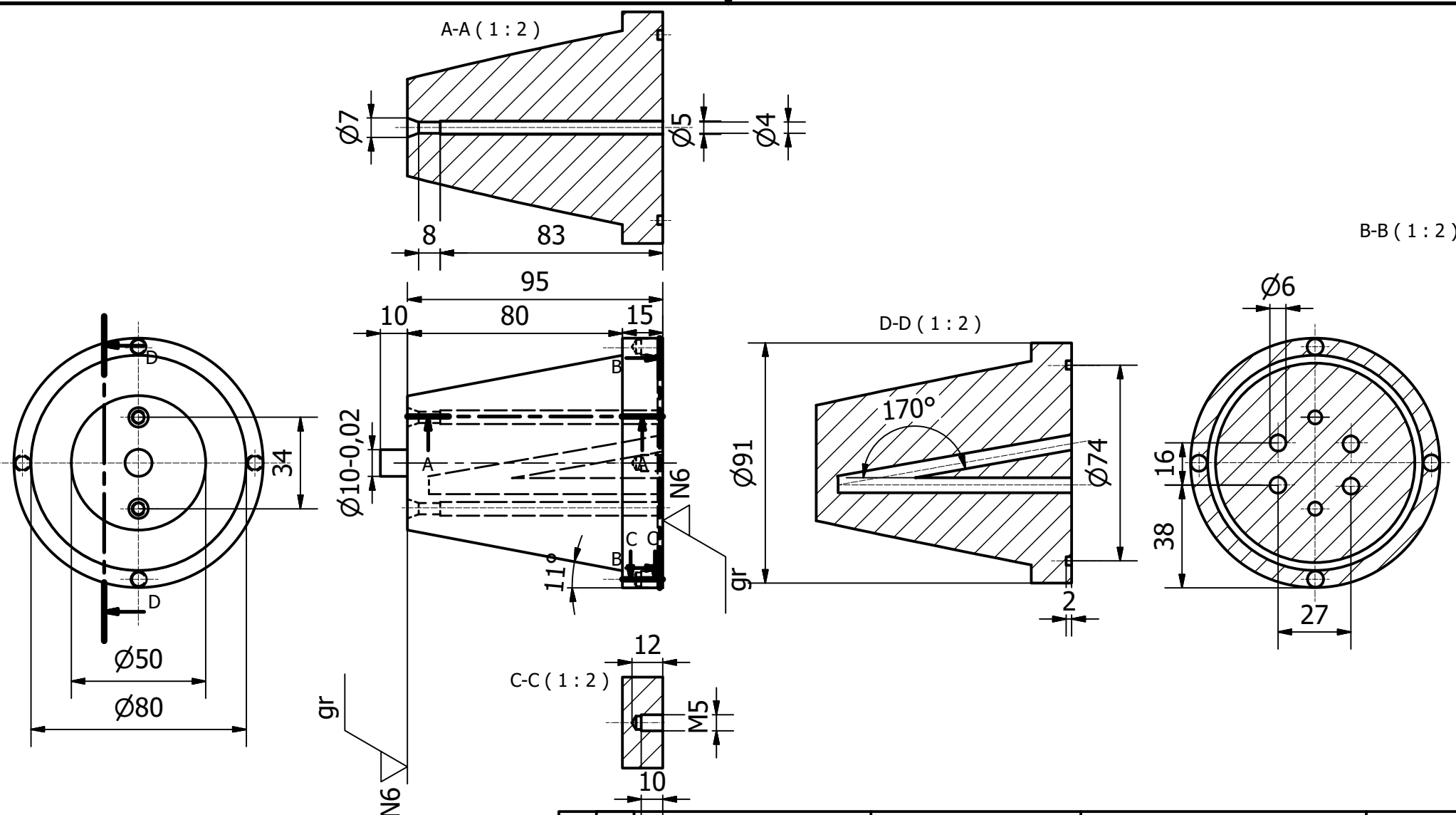
Injection units according to EUROMAP		170			290			400		
Screw diameter	mm	25	30	35	30	35	40	35	40	45
Polystyrene	max. g PS	54	77	105	97	132	172	141	184	232
Styrene heteropolymerizates	max. g SB	53	76	103	95	129	168	137	179	227
	max. g SAN, ABS ¹⁾	52	74	101	93	126	165	135	176	223
Cellulose acetate	max. g CA ¹⁾	61	87	119	109	148	194	158	207	262
Celluloseacetobutyrate	max. g CAB ¹⁾	56	81	110	101	138	180	147	192	243
Polymethyl methacrylate	max. g PMMA	56	80	109	100	136	178	145	190	240
Polyphenylene ether, mod.	max. g PPE	50	72	98	90	122	160	131	171	216
Polycarbonate	max. g PC	57	81	111	102	139	181	148	193	244
Polysulphone	max. g PSU	58	84	115	105	143	187	153	199	252
Polyamides	max. g PA 6.6 PA 6 ¹⁾	53	77	104	96	131	171	140	183	231
	max. g PA 6.10 PA 11 ¹⁾	50	72	98	90	122	160	131	171	216
Polyoximethylene (Polyacetal)	max. g POM	66	96	130	120	163	213	174	227	287
Polyethylene terephthalate	max. g PET	64	92	126	115	157	205	167	219	277
Polyethylene	max. g PE-LD	41	59	80	73	100	130	106	139	176
	max. g PE-HD	42	60	82	76	103	134	110	143	181
Polypropylene	max. g PP	43	62	84	77	105	137	112	146	185
Fluoropolymerides	max. g FEP, PFA, PCTFE ¹⁾	86	124	169	155	211	276	225	294	372
	max. g ETFE	76	109	148	136	185	242	196	256	324
Polyvinyl chloride	max. g PVC-U	65	94	127	117	159	208	170	222	281
	max. g PVC-P ¹⁾	60	87	118	108	147	192	157	205	260

1) average value

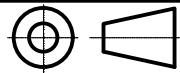
ARBURG GmbH + Co KG
 Arthur-Hehl-Strasse
 72290 Lossburg
 Tel.: +49 7446 33-0
 www.arburg.com
 contact@arburg.com

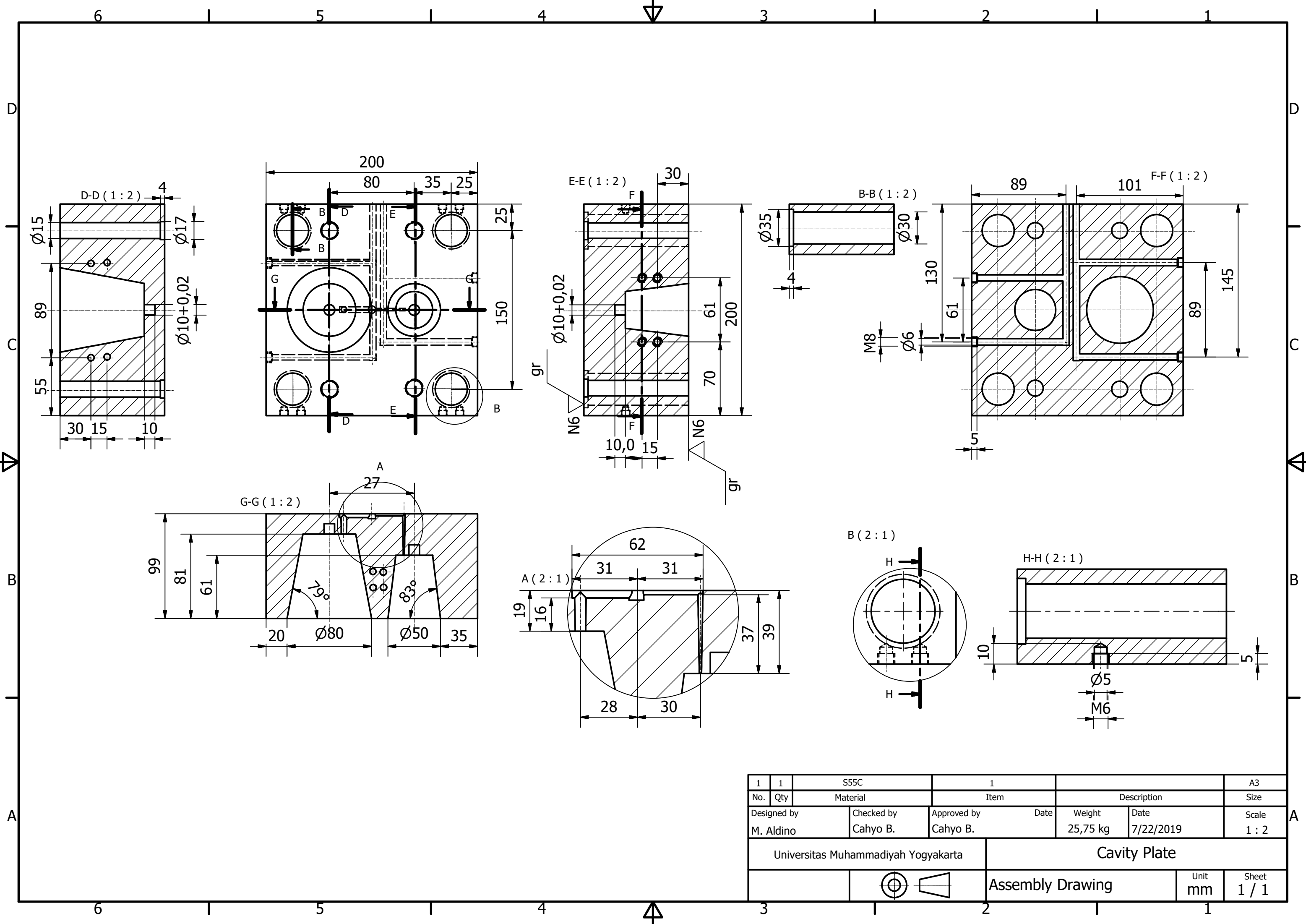


2	1	SKD11	1		A4
No.	Qty	Material	Item	Description	Size
Designed by	Checked by	Approved by	Date	Weight	Date
M. Aldino	Cahyo B.	Cahyo B.		0,91 kg	7/22/2019
Universitas Muhammadiyah Yogyakarta			Part Core Kecil		
			Assembly Drawing	Unit mm	Sheet 1 / 1

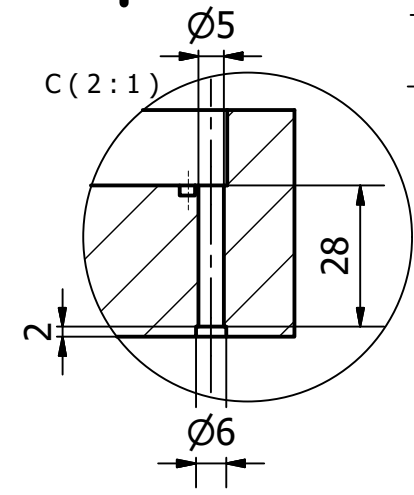
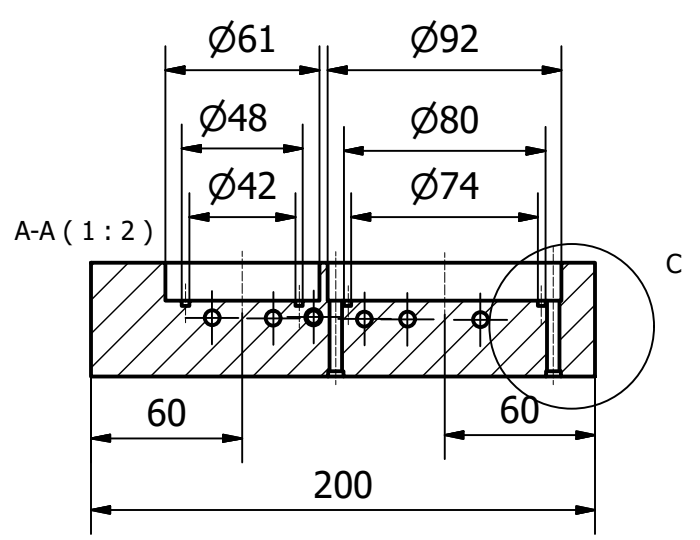
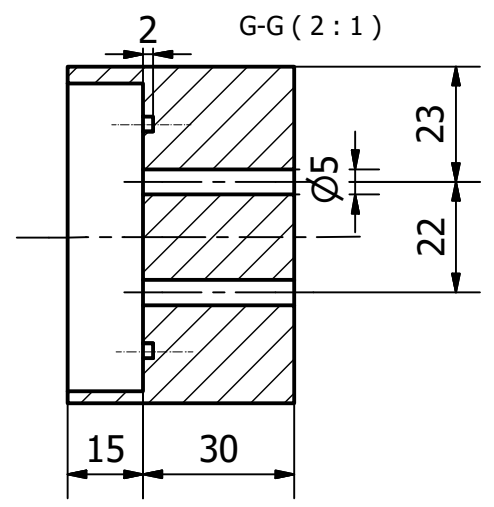
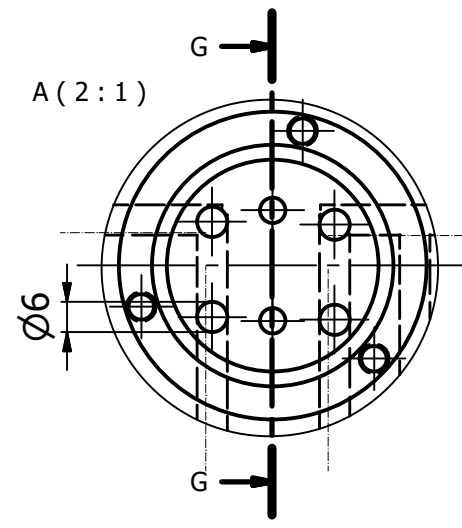
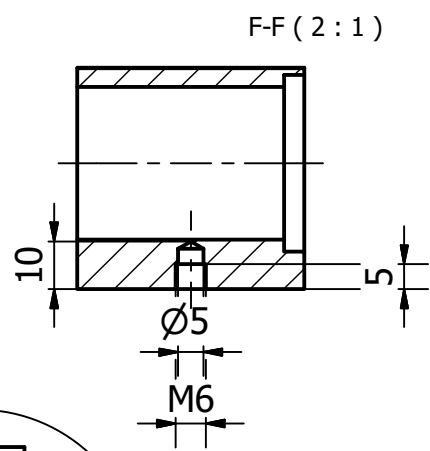
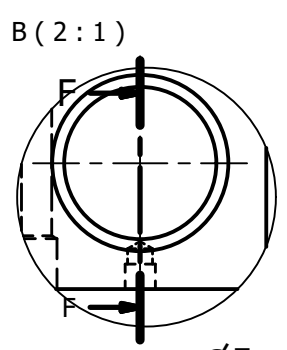
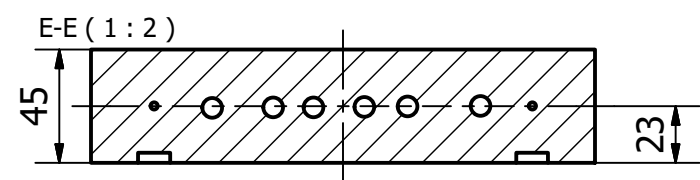
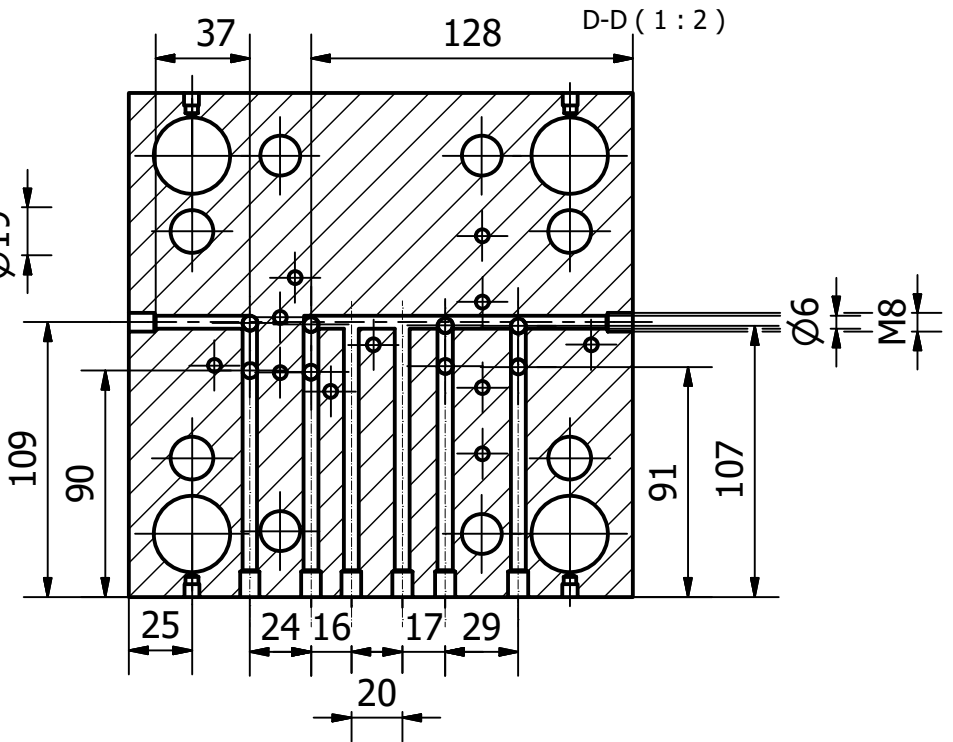
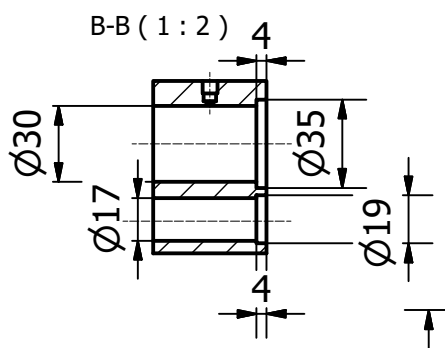
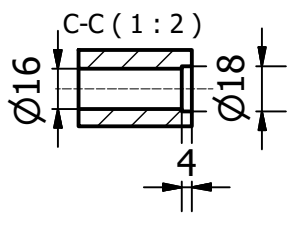
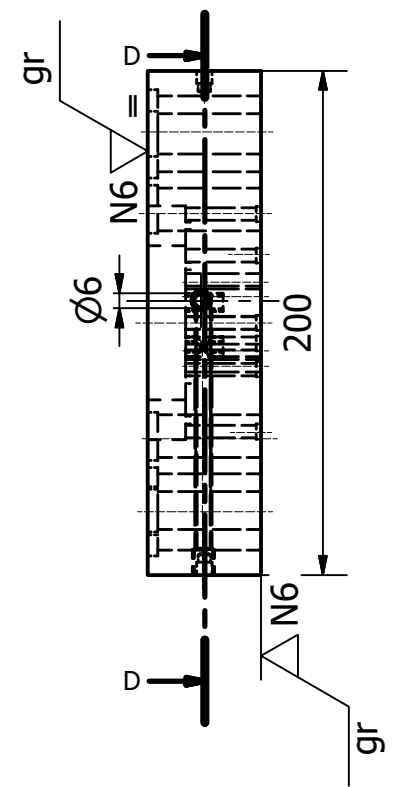
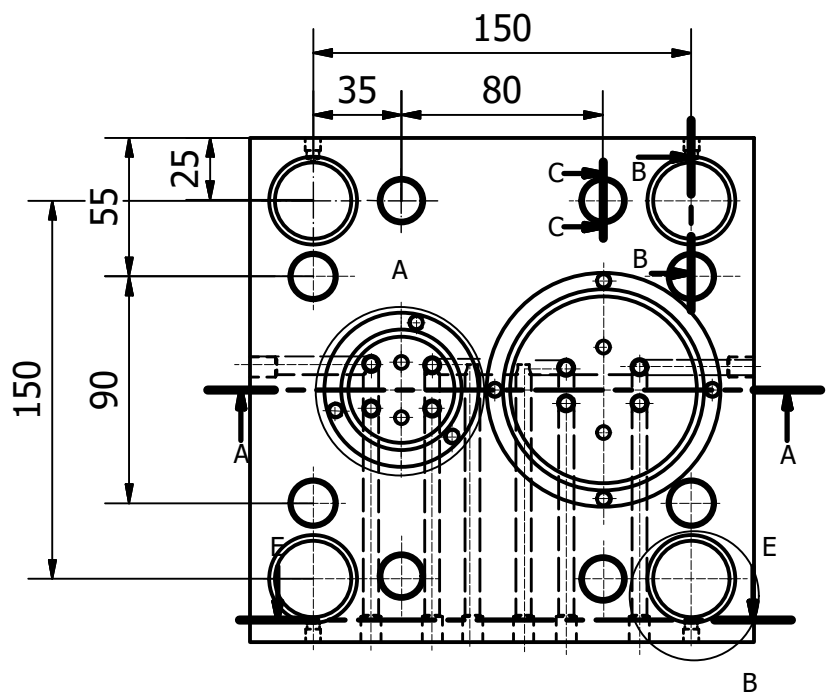


3	1	SKD11	1			A4
No.	Qty	Material	Item	Description		Size
Designed by		Checked by	Approved by	Date	Weight	Date
M. Aldino		Cahyo B.	Cahyo B.		2,75 kg	7/22/2019
Universitas Muhammadiyah Yogyakarta			Part Core Besar			
			Assembly Drawing		Unit mm	Sheet 1 / 1

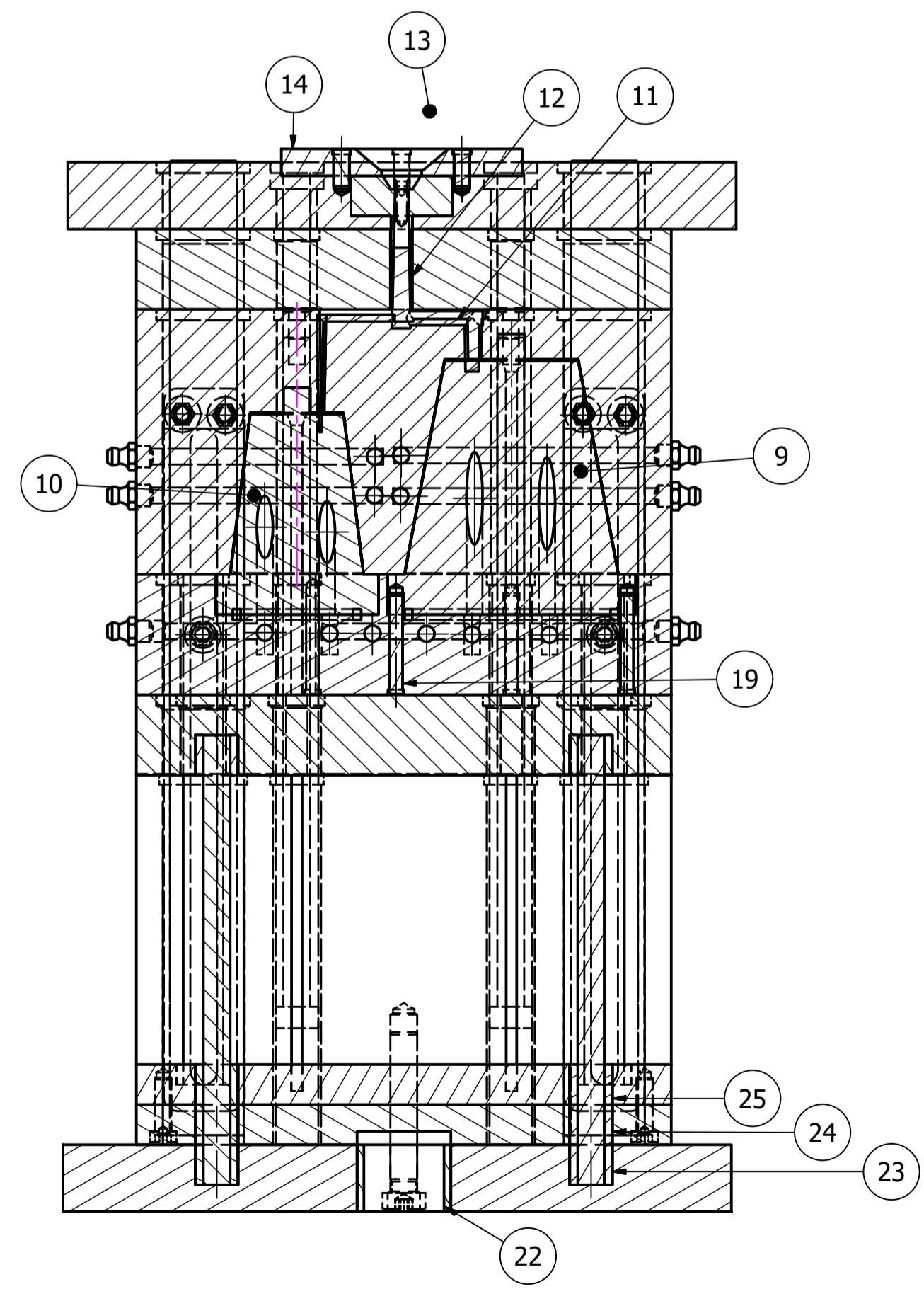
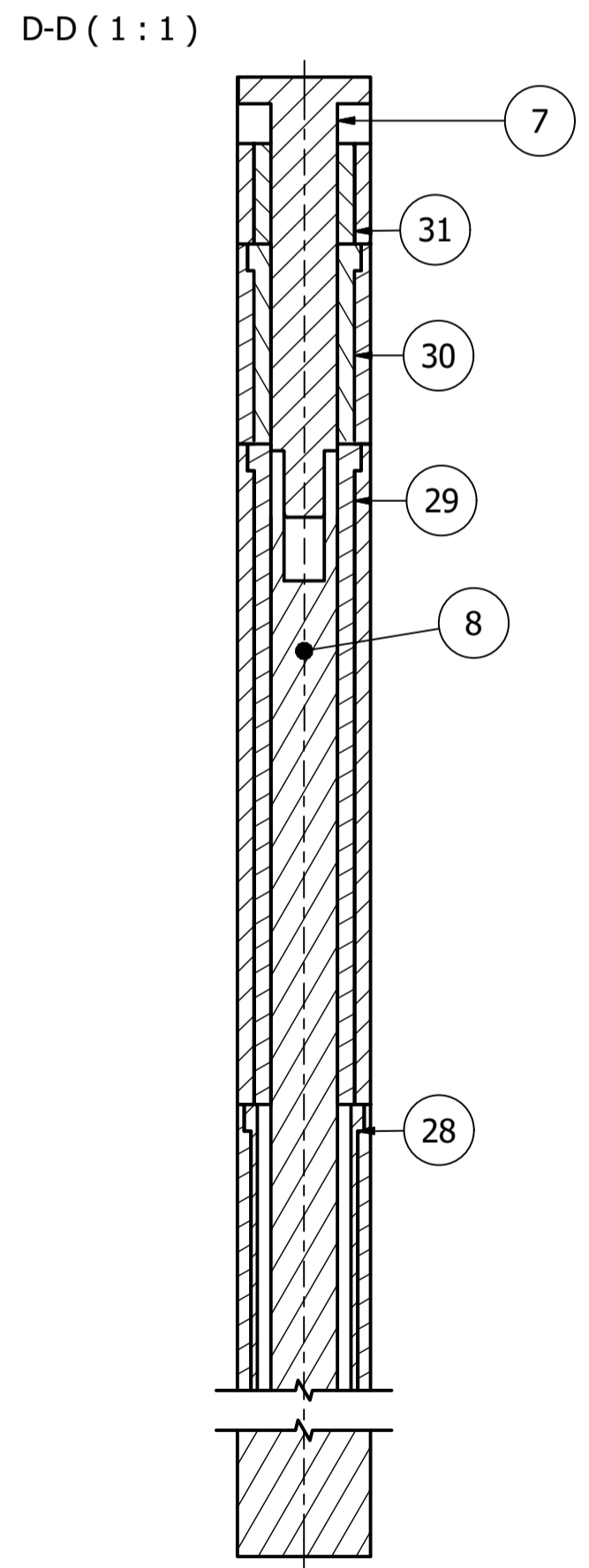
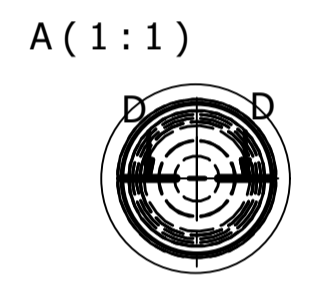
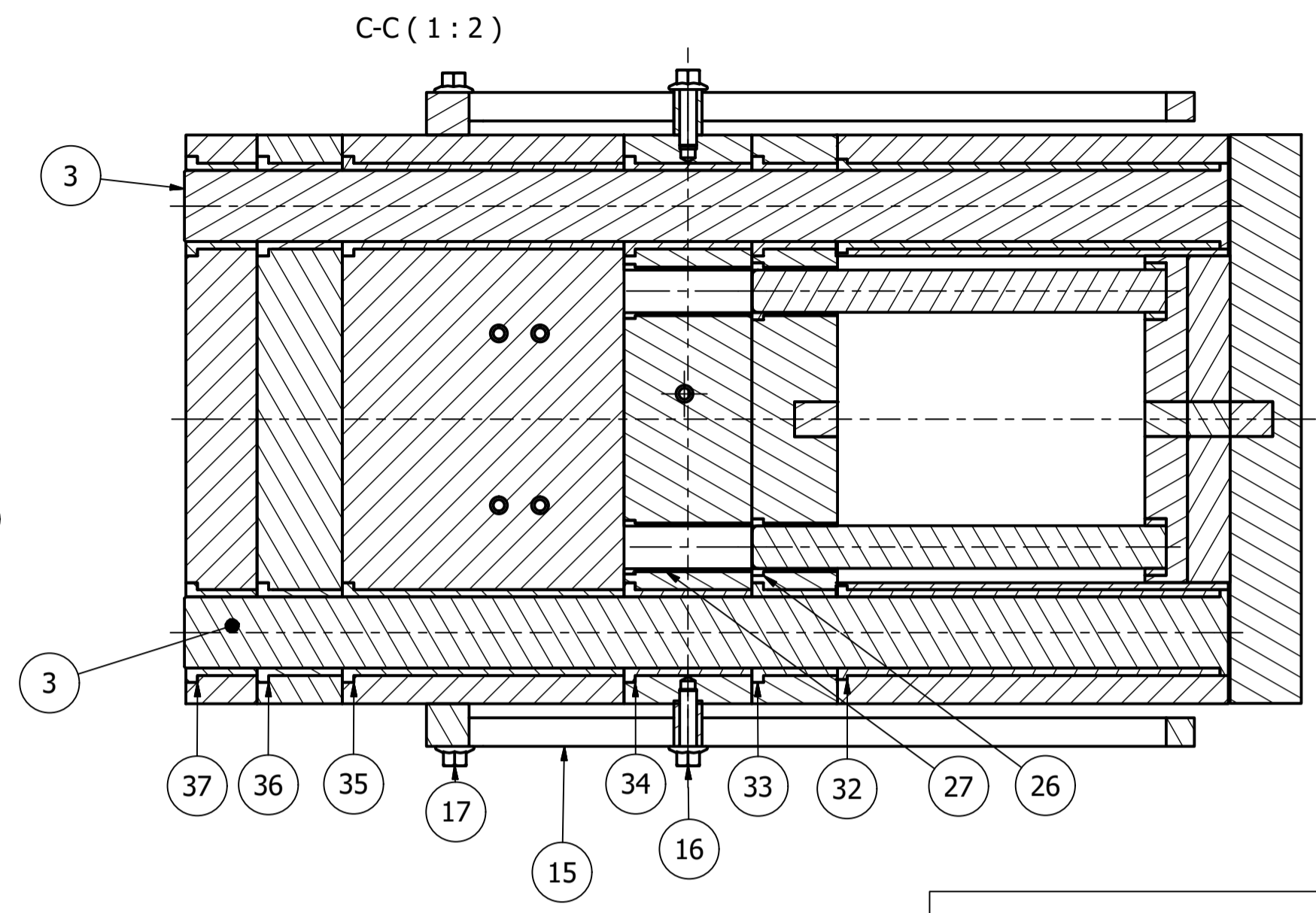
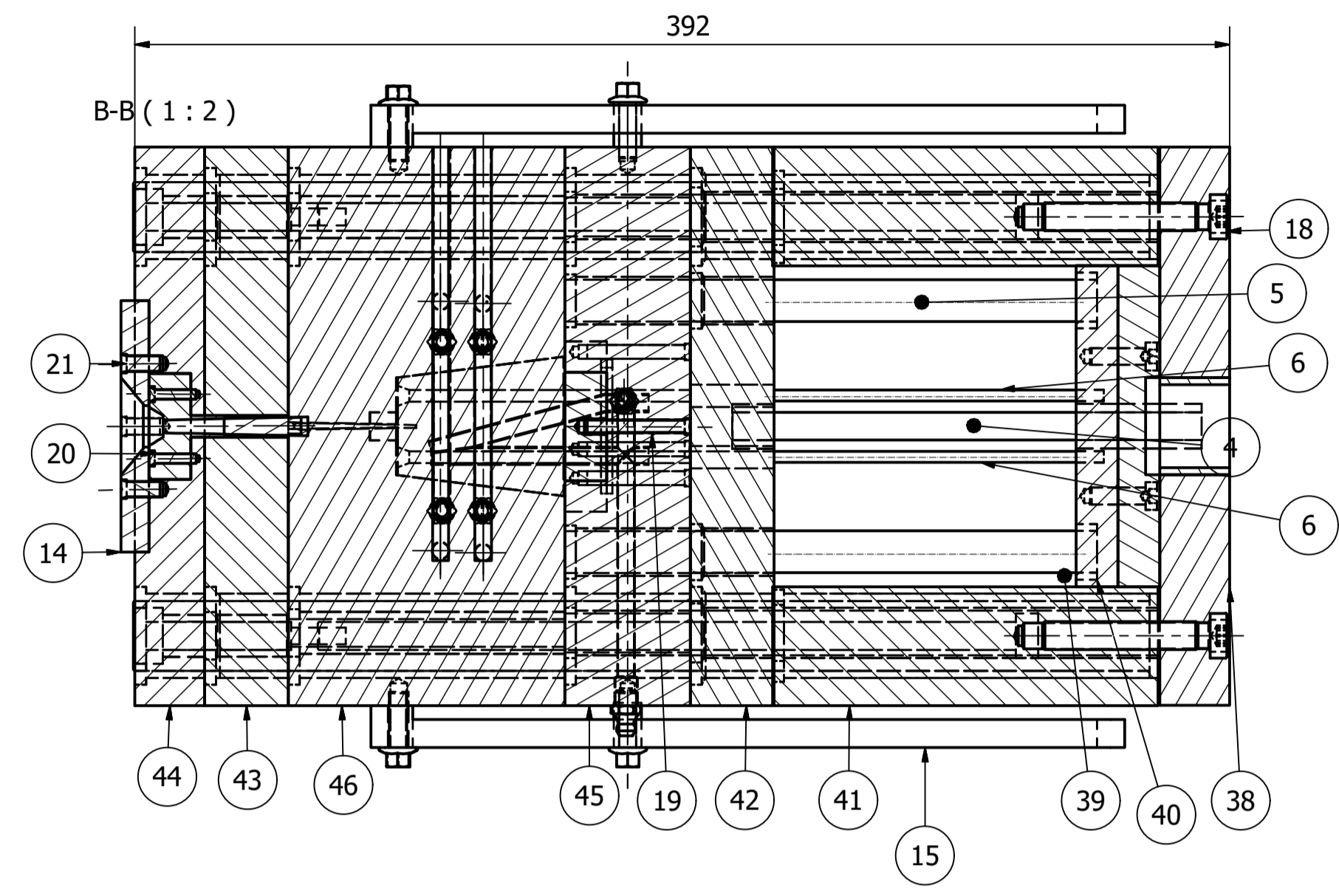
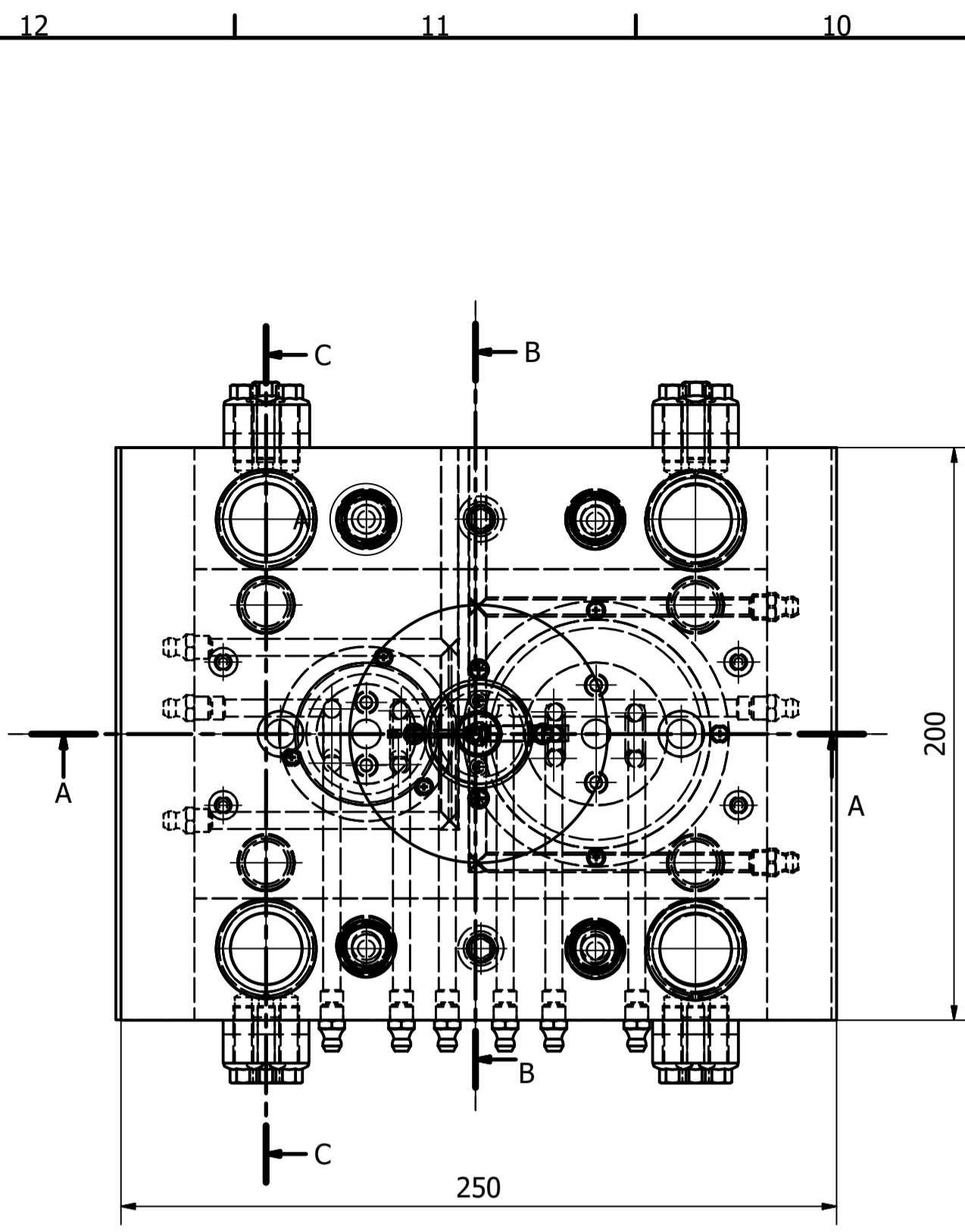




1	1	S55C	1			A3
No.	Qty	Material	Item	Description		Size
Designed by		Checked by	Approved by	Date	Weight	Date
M. Aldino		Cahyo B.	Cahyo B.		25,75 kg	7/22/2019
Universitas Muhammadiyah Yogyakarta			Cavity Plate			
				Assembly Drawing	Unit	Sheet
				mm	1 / 1	



4	1	S55C	1		A3
No.	Qty	Material	Item	Description	Size
Designed by	Checked by	Approved by	Date	Weight	Date
M. Aldino	Cahyo B.	Cahyo B.		10,81 kg	7/22/2019
Universitas Muhammadiyah Yogyakarta			Core Plate		
			Assembly Drawing		Unit mm
					Sheet 1 / 1



PARTS LIST			
ITEM	QTY	PART NAME	MATERIAL
46	1	Cavity Plate	S55C
45	1	Core Plate	S55C
44	1	Top Clamping Plate	S45C
43	1	Runner Plate	S55C
42	1	Support Plate	S45C
41	2	Distance Block	SS400
40	1	Ejector Plate	S45C
39	1	Ejector Back Plate	S45C
38	1	Bottom Clamping Plate	S45C
37	4	Bush 1	SUJ2
36	4	Bush 2	SUJ2
35	4	Bush 3	SUJ2
34	4	Bush 4	SUJ2
33	4	Bush 5	SUJ2
32	4	Bush 6	SUJ2
31	4	Bush 7	SUJ2
30	4	Bush 8	SUJ2
29	4	Bush 9	SUJ2
28	4	Bush 10	SUJ2
27	4	Bush 11	SUJ2
26	4	Bush 12	SUJ2
25	4	Bush 13	SUJ2
24	4	Bush 14	SUJ2
23	4	Bush 15	SUJ2
22	1	Bush 16	SUJ2
21	4	Capscrew 1	SCM435
20	2	Capscrew 2	SCM435
19	7	Capscrew 3	SCM435
18	2	Capscrew 4	SCM435
17	8	Capscrew Link Retainer Cavity	SCM435
16	4	Capscrew Link Retainers	SCM435
15	4	Tension Link	SCM435
14	1	Locating Ring	S45C
13	1	Sprue Bush	SKD61
12	1	Runner Lock Pin	SKH51
11	1	Runner Gate	PE LDPE
10	1	Insert Core Produk Ukuran Kecil	SKD11
9	1	Insert Core Produk Ukuran Sedang	SKD11
8	4	Puller Bolt	SCM435
7	4	Stop Bolt	SCM435
6	4	Ejector Pin	SKH51
5	4	Return Pin	SUJ2
4	2	Guide Pin	SUJ2
3	4	Leader Pin	SUJ2
2	1	Knock Out	SCM435
1	16	Cooling Plug	Brass C36000

3	1	Material	Item	Description	A1
No.	Qty	Material	Item	Description	Size
Designed by	Checked by	Approved by	Date	Weight	Scale
M. Aldino	Cahyo B.	Cahyo B.	7/22/2019	50,19 kg	1 : 2
Universitas Muhammadiyah Yogyakarta			Part Core Besar		
Assembly Drawing			Unit	Sheet	
			mm	1 / 1	