

LAMPIRAN

LAMPIRAN 1
BIODATA DIRI



A. DATA PRIBADI

Nama : Aditia
Tempat, Tanggal lahir : Cilacap, 2 Juni 2001
Jenis kelamin : Laki-laki
Agama : Islam
Status : Belum menikah
Kewarganegaraan : Indonesia
Alamat : Jalan Tinggar Beji no 448 RT 05 RW 04
Glempang, Maos, Cilacap, Jawa Tengah
No. Telp : 082225905779
E-mail : nolwolusiji@gmail.com

B. RIWAYAT PENDIDIKAN FORMAL

1. 2007-2013 SD NEGERI 2 GLEMPANG
2. 2013-2016 SMP NEGERI 2 PAKETINGAN
3. 2016-2019 SMA NEGERI 1 SAMPANG

LAMPIRAN 2
KUESIONER

STUDI LAPANGAN

Kuisisioner Tentang Bawang Goreng

A. Data Responden

Nama : Ibu Ngatirah
Hari / tanggal : Jumat / 25 Februari 2022
Alamat : Jl. Tidar Rt 07 Rw 05, Sidanegara, Cilacap Tengah
Bentuk usaha : UMKM

B. Proses produksi

1. Berapa kilogram bawang merah yang dibutuhkan untuk sekali produksi?

Jawaban :

Untuk rata-rata harian biasanya butuh 3-4 kg bawang merah. Pada hari-hari tertentu bisa mencapai 10 kg lebih bawang merah yang dibutuhkan

2. Berapa bungkus bawang goreng yang dapat dihasilkan dalam satu kali proses produksi?

Jawaban :

1 bungkus dari 3-4 kg bawang ~~merah~~ merah yang diproduksi

3. Apa saja kegiatan yang dilakukan pada proses produksi bawang goreng?

Jawaban :

Mengupas bawang merah, kemudian mencuci bawang merah, mengiris bawang merah dan proses terakhir yaitu penggorengan

4. Bagaimana proses produksi bawang goreng dilakukan?

Jawaban :

Proses produksi bawang goreng dilakukan manual menggunakan alat sederhana.

5. Berapa lama waktu yang dibutuhkan untuk produksi bawang goreng?

Jawaban :

Untuk 3 - 4 kg bawang merah membutuhkan waktu 10 menit dalam proses pengupasan dan 50 menit untuk pengirisan

C. Hambatan

6. Kendala yang Anda hadapi dalam proses produksi bawang goreng?

Jawaban :

Proses produksi dilakukan secara manual, membutuhkan waktu yg lama, serta membuat mata menjadi perih

D. Pengetahuan

7. Apakah Anda mengetahui mesin pengupas dan pengiris bawang merah?

Ya

Tidak

8. Apakah Anda Pernah melihatnya?

Ya

Tidak

Jika iya, dimana Anda melihatnya?

-
.....
.....

9. Apakah Anda Pernah menggunakannya?

Ya

Tidak

Jika iya, bagaimana cara kerjanya?

-
.....
.....

Jumat, 25 Februari 2022

[Signature]
(.....)

LAMPIRAN 3

TABEL REFERENSI PERHITUNGAN

A. Tabel Standar Baja (Sularso dkk, 2008)

| Nama | Standar Jepang (JIS) | Standar Amerika (AISI), Inggris (BS), dan Jerman (DIN) |
|------------------------------|----------------------|--|
| Baja karbon konstruksi mesin | S25C | AISI 1025, BS060A25 |
| | S30C | AISI 1030, BS060A30 |
| | S35C | AISI 1035, BS060A35, DIN C35 |
| | S40C | AISI 1040, BS060A40 |
| | S45C | AISI 1045, BS060A45, DIN C45, CK45 |
| | S50C | AISI 1050, BS060A50, DIN St 50.11 |
| | S55C | AISI 1055, BS060A55 |
| Baja tempa | SF 40,45 50,55 | ASTM A105-73 |
| Baja nikel khrom | SNC | BS 653M31 |
| | SNC22 | BS En36 |
| Baja nikel khrom molibden | SNCM 1 | AISI 4337 |
| | SNCM 2 | BS830M31 |
| | SNCM 7 | AISI 8645, BS En100D |
| | SNCM 8 | AISI 4340, BS817M40, 816M40 |
| | SNCM22 | AISI 4315 |
| | SNCM23 | AISI 4320, BS En325 |
| | SNCM25 | BS En39B |
| Baja khrom | SCr 3 | AISI 5135, BS530A36 |
| | SCr 4 | AISI 5140, BS530A40 |
| | SCr 5 | AISI 5145 |
| | SCr21 | AISI 5115 |
| | SCr22 | AISI 5120 |
| Baja khrom molibden | SCM2 | AISI 4130, DIN 34CrMo4 |
| | SCM3 | AISI 4135, BS708A37, DIN34CrMo4 |
| | SCM4 | AISI 4140, BS708M40, DIN42CrMo4 |
| | SCM5 | AISI 4145, DIN50CrMo4 |

B. Tabel baja karbon konstruksi mesin dan baja yang difinis dingin untuk poros (Sularso dkk, 2008)

| Standar dan macam | Lambang | Perlakuan panas | Kekuatan tarik (kg/mm ²) | Keterangan |
|---|---------|-----------------|--------------------------------------|---|
| Baja karbon konstruksi mesin (JIS G 4501) | S30C | Penormalan | 48 | |
| | S35C | " | 52 | |
| | S40C | " | 55 | |
| | S45C | " | 58 | |
| | S50C | " | 62 | |
| | S55C | " | 66 | |
| Batang baja yang difinis dingin | S35C-D | - | 53 | ditarik dingin, digerinda, dibubut, atau gabungan antara hal-hal tersebut |
| | S45C-D | - | 60 | |
| | S55C-D | - | 72 | |

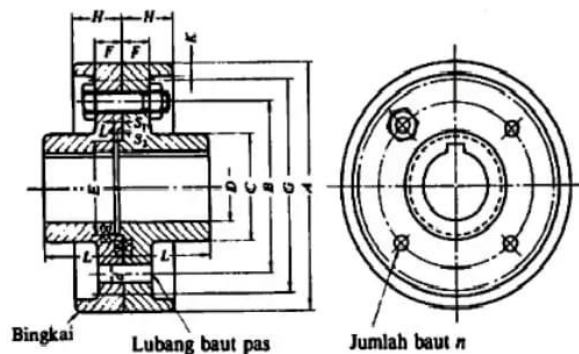
C. Tabel Faktor koreksi momen puntir K_t (Sularso dkk, 2008)

| Pembebanan momen puntir | K_t |
|-------------------------------|-----------|
| Beban secara halus | 1,0 |
| Sedikit kejutan atau tumbukan | 1,0 – 1,5 |
| Kejutan atau tumbukan | 1,5 – 3,0 |

D. Tabel faktor koreksi momen lentur K_m (Sularso dkk, 2008)

| Pembebanan momen lentur | K_m |
|-------------------------|-----------|
| Momen lentur tetap | 1,5 |
| Tumbukan ringan | 1,5 – 2,0 |
| Tumbukan berat | 2,0 – 3,0 |

E. Tabel ukuran standar kopling *flange* (Sularso dkk, 2008)



(Satuan: mm)

| A | G Tanpa bingkai (Halus saja) | D | | L | C | B | F | | H | | K | n | d | |
|-------|--|----------------------------|----------------------------|-----|-----|-----|-------|-------|-------|-------|---|---|-------|-------|
| | | Diameter lubang max. | Diameter lubang min. | | | | Kasar | Halus | Kasar | Halus | | | Kasar | Halus |
| | | | | | | | | | | | | | | |
| (112) | (100) | 25 | 20 | 40 | 45 | 75 | 11,2 | 18 | 22,4 | 31,5 | 4 | 4 | 10,5 | 10 |
| 125 | 112 | 28 | 22,4 | 45 | 50 | 85 | 11,2 | 18 | 22,4 | 31,5 | 4 | 4 | 10,5 | 10 |
| 140 | 124 | 35,5 | 28 | 50 | 63 | 100 | 11,2 | 18 | 22,4 | 31,5 | 4 | 4 | 10,5 | 10 |
| 160 | 140 | 45 | 35,5 | 56 | 80 | 112 | 15 | 20 | 28 | 35,5 | 6 | 4 | 14 | 14 |
| (180) | (160) | 50 | 40 | 63 | 90 | 132 | 15 | 20 | 28 | 35,5 | 6 | 6 | 14 | 14 |
| 200 | 180 | 56 | 45 | 71 | 100 | 140 | 18 | 22,4 | 35,5 | 40 | 6 | 6 | 18 | 16 |
| (224) | (200) | 63 | 50 | 80 | 112 | 160 | 18 | 22,4 | 35,5 | 40 | 6 | 6 | 18 | 16 |
| 250 | 224 | 71 | 56 | 90 | 125 | 180 | 23,6 | 28 | 45 | 50 | 8 | 6 | 21 | 20 |
| (280) | (250) | 80 | 63 | 100 | 140 | 200 | 23,6 | 28 | 45 | 50 | 8 | 6 | 21 | 20 |
| 315 | 280 | 90 | 71 | 112 | 160 | 236 | 26,5 | 35,5 | 50 | 63 | 8 | 6 | 24 | 25 |
| (355) | (315) | 100 | 80 | 125 | 180 | 265 | 26,5 | 35,5 | 50 | 63 | 8 | 6 | 24 | 25 |

F. Tabel standar material kopling flange (Sularso dkk, 2008)

| Ke- non | Tipe standar | Lambang | Perlakuan panas | Kekuatan tarik (kg/mm ²) | Keterangan |
|--------------|---|------------------------------|--|--------------------------------------|---|
| Fina | Besi cor kelabu (JIS G 5501) | FC20 FC25 FC30 FC35 | Pelunakan temperatur rendah " " " | 20 25 30 35 | |
| | Baja karbon cor (JIS G 5101) | SC37 SC42 SC46 SC49 | Pelunakan " " " | 37 42 46 49 | Penormalan. Kadang-kadang setelah penormalan dilanjutkan dengan ditemper. |
| | Baja karbon tempa (JIS G 3201) | SF50 SF55 SF60 | Pelunakan " " | 50-60 55-65 60-70 | Perlakuan panas yang lain juga dilakukan. |
| Batu dan mur | Baja karbon untuk konstruksi mesin (JIS G 3102) | S20C S35C S40C S45C | - - - - | 40 50 60 70 | |
| | Baja karbon untuk konstruksi biasa (JIS G 3101) | SS41B SS50B | - - | 40 50 | |
| | Baja batang difinis dingin (JIS G 3123) | S20C-D S35C-D | - - | 50 60 | |

G. Tabel ukuran standar pasak (Sularso dkk, 2008)

| Ukuran nominal pasak $b \times h$ | Ukuran standar b, b_1 dan b_2 | Ukuran standar h | | C | r_1 | Ukuran Standar r_2 | Ukuran standar r_3 | | | r_1 dan r_2 | Diameter poros yang dapat dipakai d^{**} |
|-----------------------------------|-----------------------------------|-----------------------------|-------------|-------|--------|----------------------|----------------------|-------------|-------------|-----------------|--|
| | | Pasak prismatis Pasak lurus | Pasak tirus | | | | Pasak prismatis | Pasak lurus | Pasak tirus | | |
| 2 x 2 | 2 | 2 | | 0,16- | 6-20 | 1,2 | 1,0 | | 0,5 | 0,08- | Lebih dari |
| 3 x 3 | 3 | 3 | | 0,25 | 6-36 | 1,8 | 1,4 | | 0,9 | 0,16 | 8-10 |
| 4 x 4 | 4 | 4 | | | 8-45 | 2,5 | 1,8 | | 1,2 | | 10-12 |
| 5 x 5 | 5 | 5 | | | 10-56 | 3,0 | 2,3 | | 1,7 | | 12-17 |
| 6 x 6 | 6 | 6 | | | 14-70 | 3,5 | 2,8 | | 2,2 | | 17-22 |
| (7 x 7) | 7 | 7 | 7,2 | 0,40 | 16-80 | 4,0 | 3,0 | 3,5 | 3,0 | 0,16- | 20-25 |
| 8 x 7 | 8 | 7 | | | 18-90 | 4,0 | | | 2,4 | 0,25 | 22-30 |
| 10 x 8 | 10 | 8 | | | 22-110 | 5,0 | | | 2,4 | | 30-34 |
| 12 x 8 | 12 | 8 | | | 28-140 | 5,0 | 3,3 | | 2,4 | | 38-44 |
| 14 x 9 | 14 | 9 | | 0,40- | 36-160 | 5,5 | 3,8 | | 2,9 | 0,25- | 44-50 |
| (15 x 10) | 15 | 10 | 10,2 | 0,60 | 40-180 | 5,0 | 5,0 | 5,5 | 5,0 | 0,40 | 50-55 |
| 16 x 10 | 16 | 10 | | | 45-180 | 6,0 | 4,3 | | 3,4 | | 50-58 |
| 18 x 11 | 18 | 11 | | | 50-200 | 7,0 | 4,4 | | 3,4 | | 58-65 |
| 20 x 12 | 20 | 12 | | | 56-220 | 7,5 | 4,9 | | 3,9 | | 65-75 |
| 22 x 14 | 22 | 14 | | | 63-250 | 9,0 | 5,4 | | 4,4 | | 75-85 |
| (24 x 16) | 24 | 16 | 16,2 | 0,60- | 70-280 | 8,0 | 8,0 | 8,5 | 8,0 | 0,40- | 80-90 |
| 25 x 14 | 25 | 14 | | 0,80 | 70-280 | 9,0 | 5,4 | | 4,4 | | 85-95 |
| 28 x 16 | 28 | 16 | | | 80-320 | 10,0 | 6,4 | | 5,4 | | 95-110 |
| 32 x 18 | 32 | 18 | | | 90-360 | 11,0 | 7,4 | | 6,4 | | 110-130 |

H. Tabel kecepatan potong proses bubut HSS (Widarto dkk, 2008)

| MATERIAL | STRAIGHT TURNING SPEED | | THREADING SPEED | |
|---------------------------|------------------------|-------------------|-----------------|-------------------|
| | FEET PER MINUTE | METERS PER MINUTE | FEET PER MINUTE | METERS PER MINUTE |
| LOW-CARBON STEEL | 80-100 | 24.4-30.5 | 35-40 | 10.7-12.2 |
| MEDIUM-CARBON STEEL | 60-80 | 18.3-24.4 | 25-30 | 7.6-9.1 |
| HIGH-CARBON STEEL | 35-40 | 10.7-12.2 | 15-20 | 4.6-6.1 |
| STAINLESS STEEL | 40-50 | 12.2-15.2 | 15-20 | 4.6-6.1 |
| ALUMINUM AND ITS ALLOYS | 200-300 | 61.0-91.4 | 50-60 | 15.2-18.3 |
| ORDINARY BRASS AND BRONZE | 100-200 | 30.5-61.0 | 40-50 | 12.2-15.2 |
| HIGH-TENSILE BRONZE | 40-60 | 12.2-18.3 | 20-25 | 6.1-7.6 |
| CAST IRON | 50-80 | 15.2-24.4 | 20-25 | 6.1-7.6 |
| COPPER | 60-80 | 18.3-24.4 | 20-25 | 6.1-7.6 |

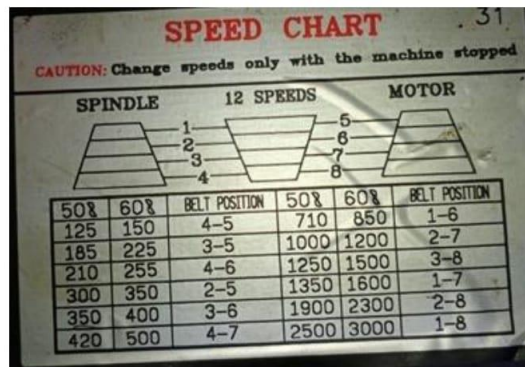
I. Tabel kecepatan putaran mesin bubut (Dokumentasi : Politeknik Negeri Cilacap)

| | 1 | 2 | 3 |
|---|-----|-----|------|
| A | 60 | 220 | 860 |
| B | 92 | 360 | 1400 |
| C | 140 | 530 | 2000 |

J. Tabel kecepatan potong pada proses gurdi (Widarto dkk, 2008)

| MATERIAL | CUTTING SPEEDS L. | | POINT ANGLE | LIP CLEARANCE | COOLANTS |
|---------------------------------------|-------------------|---------------|---------------|---------------|---|
| | (METERS/MINUTE) | (FEET/MINUTE) | | | |
| | MPM | FPM | | | |
| Aluminum And Alloys | 61.00 - 91.50 | 200 - 300 | 90 - 130 deg | 12 - 15 deg | Kerosene/Kerosene & Lard Oil/ Soluble Oil |
| Armor Plate | 12.20 - 18.25 | 40 - 50 | 135 - 140 deg | 6 - 9 deg | Light Machine Oil |
| Brass | 61.00 - 91.50 | 200 - 300 | 118 - 118 deg | 12 - 15 deg | Dry/ Soluble Oil/Kerosene/Lard Oil |
| Bronze | 61.00 - 91.50 | 200 - 300 | 110 - 118 deg | 12 - 15 deg | Dry/ Soluble Oil/Mineral Oil/Lard Oil |
| Bronze, High Tensile | 21.35 - 45.75 | 70 - 150 | 100 - 110 deg | 12 - 15 deg | Dry/ Soluble Oil/Mineral Oil/Lard Oil |
| Cast Iron, Soft | 30.50 - 45.75 | 100 - 150 | 90 - 100 deg | 12 - 15 deg | Air Jet Dry/ Soluble Oil |
| Cast Iron, Medium | 21.35 - 30.50 | 70 - 100 | 100 - 110 deg | 12 - 15 deg | Air Jet Dry/ Soluble Oil |
| Cast Iron, Hard | 21.35 - 30.50 | 70 - 100 | 100 - 118 deg | 8 - 12 deg | Air Jet Dry/ Soluble Oil |
| Cast Iron, Chilled | 9.15 - 12.20 | 30 - 40 | 118 - 135 deg | 5 - 9 deg | Air Jet Dry/ Soluble Oil |
| Copper | 61.00 - 91.50 | 200 - 300 | 100 - 118 deg | 12 - 15 deg | Air Jet Dry/ Soluble Oil |
| Copper Graphite Alloy (Carbon Drills) | 18.30 - 21.35 | 60 - 70 | **_** | **_** | Soluble Oil/Dry/Mineral Oil/Kerosene |
| Glass (Carbon Drills) | 6.10 - 9.15 | 20 - 30 | **_** | **_** | Soluble Oil/Dry/Mineral Oil/Kerosene |
| Iron, Malleable | 15.25 - 27.45 | 50 - 90 | 90 - 100 deg | 12 - 15 deg | Light Machine Oil |
| Magnesium And Alloys | 76.25 - 122.0 | 250 - 400 | 70 - 118 deg | 12 - 15 deg | Soluble Oil |
| Monel Nickel | 4.15 - 15.28 | 30 - 50 | 118 - 125 deg | 10 - 12 deg | Compressed Air/Mineral Oil |
| Nickel Alloys | 12.20 - 18.30 | 40 - 60 | 135 - 140 deg | 5 - 7 deg | Lard Oil/Soluble Oil |
| Plastic, Hot Set | 30.50 - 91.50 | 100 - 300 | 60 - 90 deg | 10 - 12 deg | Lard Oil/Soluble Oil |
| Plastic, Cold Set | 30.50 - 91.50 | 100 - 300 | 118 - 135 deg | 12 - 20 deg | Soap Solution |
| Steel, Low Carbon, 0.2-0.3ct | 24.40 - 33.55 | 80 - 110 | 110 - 118 deg | 7 - 9 deg | Soap Solution |
| Steel, Medium Carbon 0.4-0.5c | 21.35 - 24.40 | 70 - 80 | 118 - 125 deg | 7 - 9 deg | Soluble Oil/Mineral Oil/Sulfur Oil/Lard Oil |
| Steel (High Carbon 1.2c) | 15.25 - 18.30 | 50 - 60 | 118 - 145 deg | 7 - 9 deg | Soluble Oil/Mineral Oil/Sulfur Oil/Lard Oil |
| Steel, Forged | 15.25 - 18.30 | 50 - 60 | 118 - 145 deg | 7 - 12 deg | Soluble Oil/Mineral Oil/Sulfur Oil/Lard Oil |
| Steel, Alloy | 15.25 - 21.35 | 50 - 70 | 118 - 125 deg | 10 - 12 deg | Mineral Lard Oil |
| Steel, Alloy 300 To 400 Brinell | 6.10 - 9.15 | 20 - 30 | 130 - 140 deg | 7 - 10 deg | Soluble Oil |
| Steel, Stainless, Free Machining | 9.15 - 24.40 | 30 - 80 | 110 - 118 deg | 8 - 12 deg | Soluble Oil |
| Steel, Stainless, Hard | 4.57 - 15.25 | 15 - 50 | 118 - 135 deg | 6 - 8 deg | Soluble Oil |
| Steel, Manganese | 3.66 - 4.57 | 12 - 15 | 140 - 150 deg | 7 - 10 deg | Soluble Oil |
| Stone (Carbide Drills) | 7.63 - 9.15 | 25 - 30 | **_** | **_** | Water Solution |
| Wood | 91.50 - 122.2 | 300 - 400 | 60 - 70 deg | 10 - 15 deg | Dry |

K. Tabel kecepatan putaran mesin gurdi (Dokumentasi : Politeknik Negeri Cilacap)



L. Rumus empiris gerak makan proses gurdi (Widarto dkk, 2008)

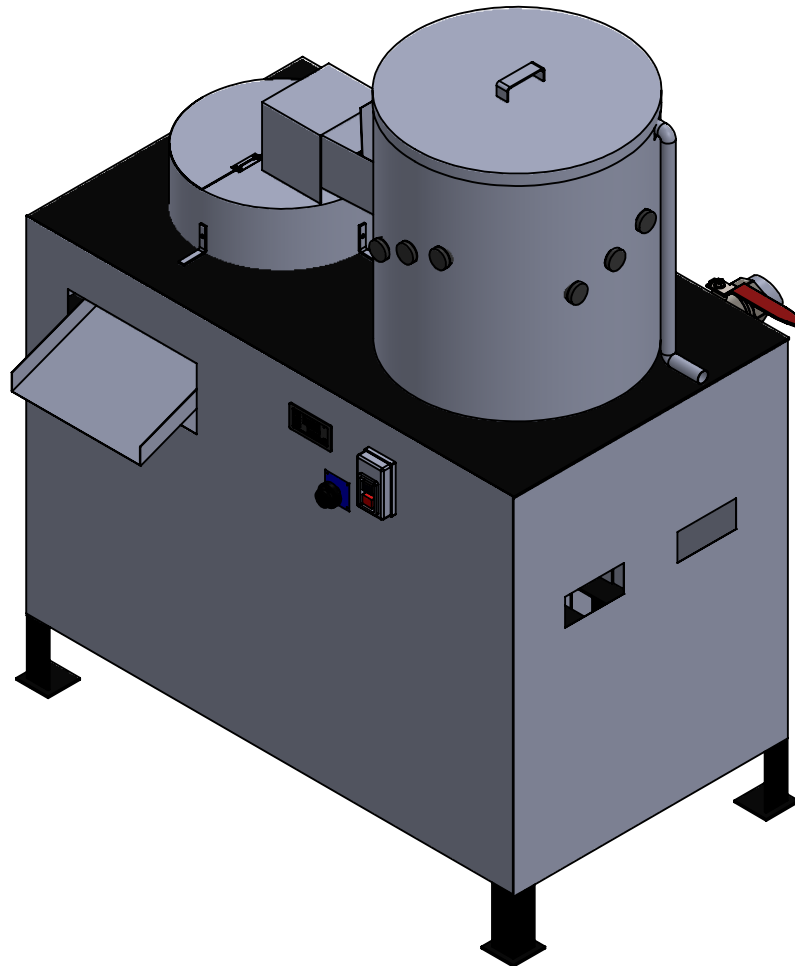
- Untuk baja

$$f = 0,084\sqrt{d}; \text{ mm / put} \dots\dots\dots (8.2)$$

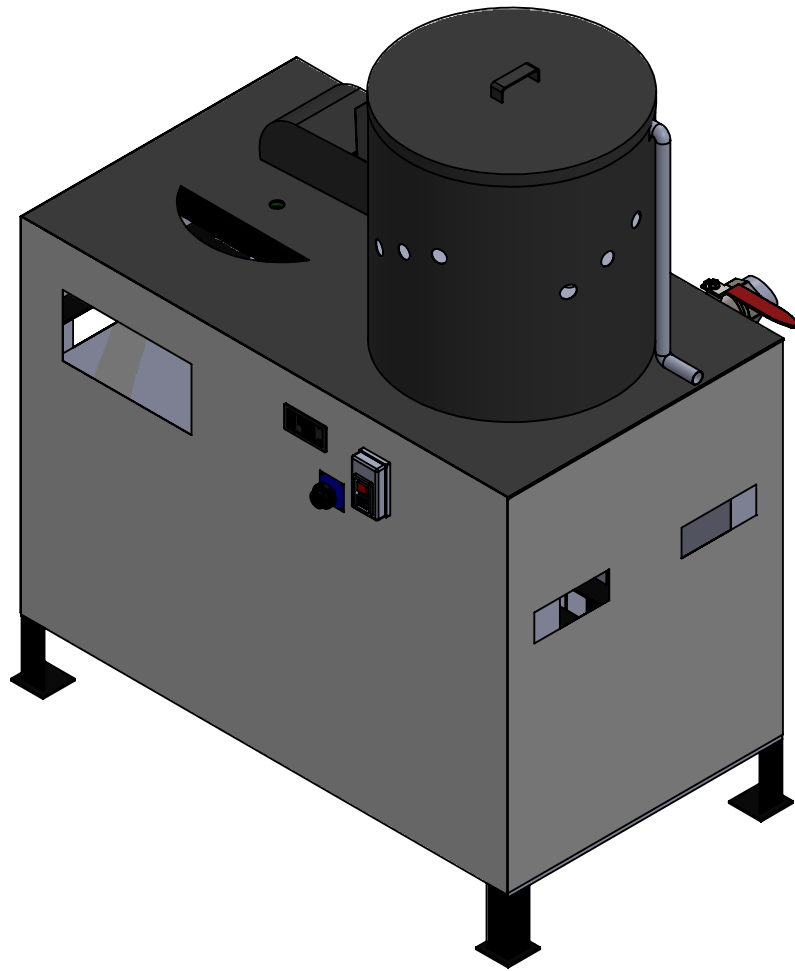
- Untuk besi tuang

$$f = 0,1\sqrt{d}; \text{ mm / put} \dots\dots\dots (8.3)$$

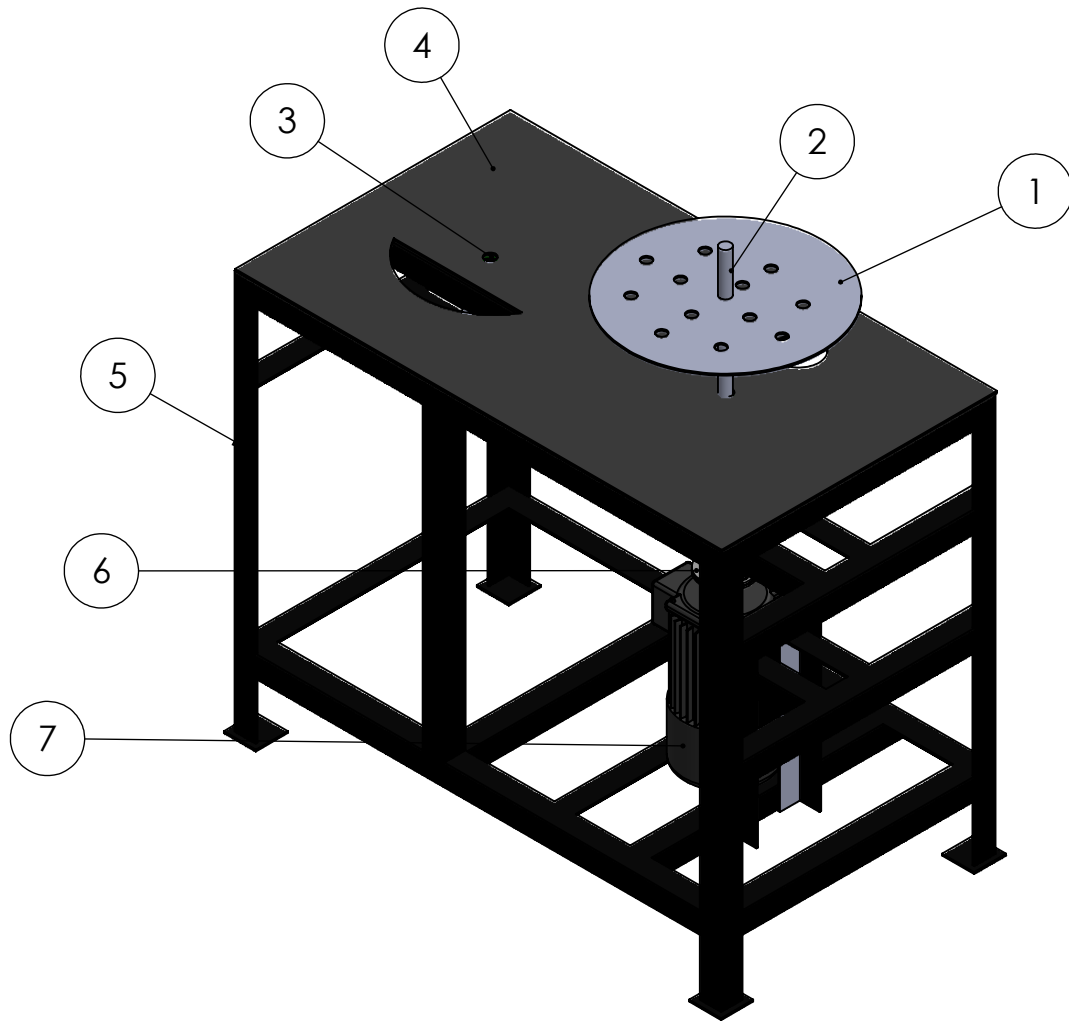
LAMPIRAN 4
DAFTAR GAMBAR BAGIAN MESIN PENGUPAS



| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|------------------------|--------------|-----------|----------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO.ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| MESIN PENGUPAS DAN PENGIRIS BAWANG MERAH | | | | | | | | | SKALA 1 : 10 | DIGAMBAR | | IBNU D.F |
| | | | | | | | | | | DIPERIKSA | | — |
| | | | | | | | | | | DISAHKAN | | — |
| | | | | | | | | | | | | |
|  POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | | SATUAN | FORMAT | NO.GAMBAR | |
| | | | | | | | | | MM | A4 | 01 | |



| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|------------------------|---------------------|-------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO.ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| MESIN PENGUPAS BAWANG MERAH | | | | | | | | SKALA 1 : 10 | DIGAMBAR | | ADITIA |
| | | | | | | | | | DIPERIKSA | | — |
| | | | | | | | | | DISAHKAN | | — |
| POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | SATUAN MM | FORMAT A4 | | |



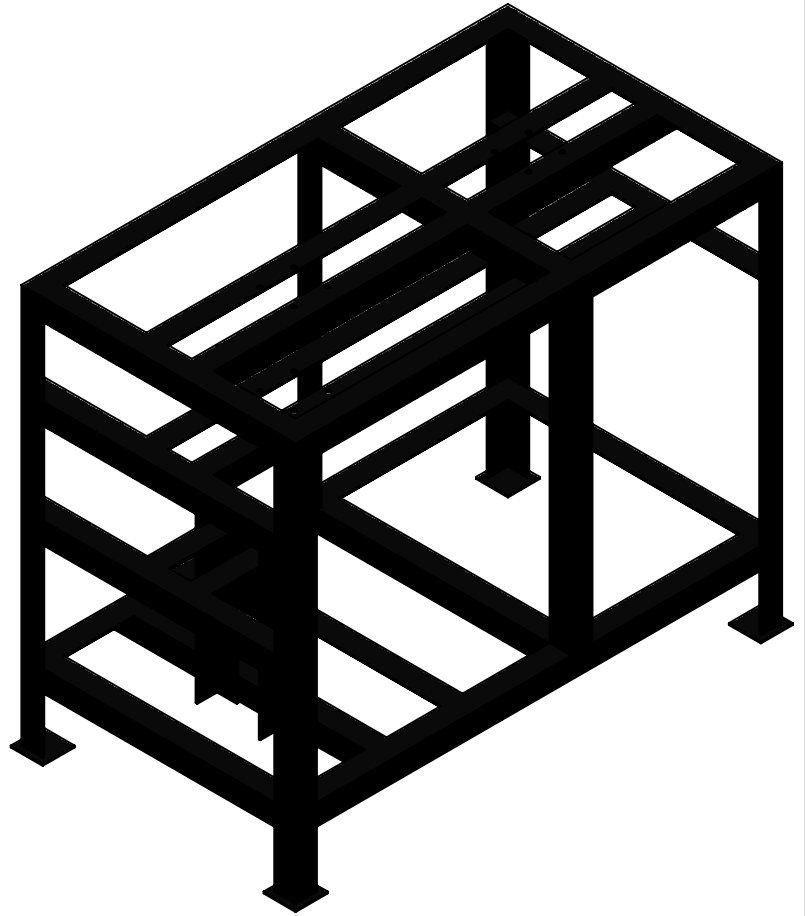
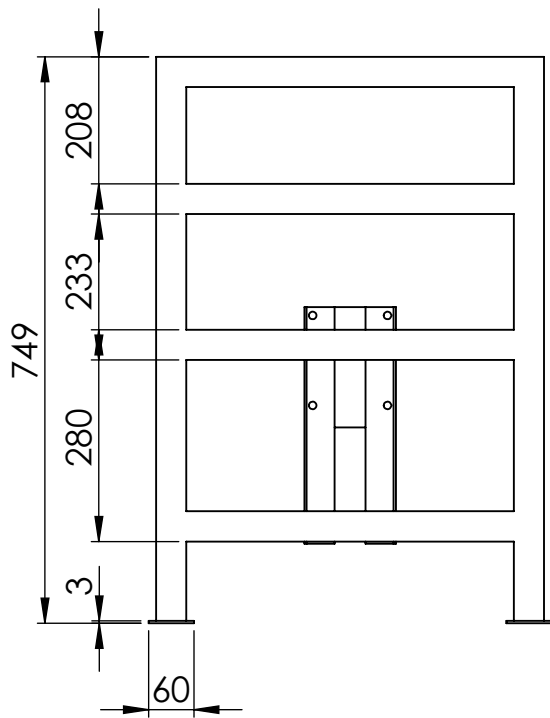
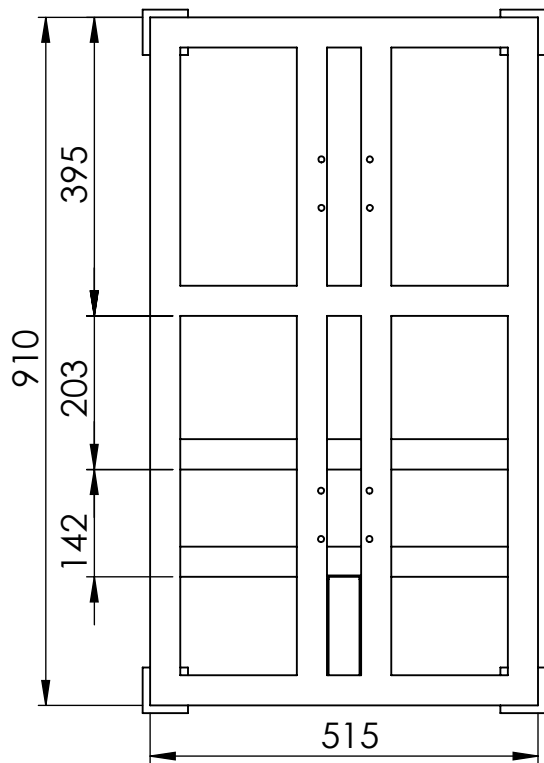
| 1 | MOTOR LISTRIK AC | | - | - | | 7 | | | | | |
|-----|------------------|-------|---------------------|-----------------|-------|-------|------------------|-------|-------------|--------------|-------|
| 1 | FLANGE COUPLING | | MILD STEEL | - | | 6 | | | | | |
| 1 | RANGKA MESIN | | MILD STEEL | 910 X 515 X 749 | | 5 | | | | | |
| 1 | ALAS MEJA MESIN | | MILD STEEL | 910 X 515 | | 4 | | | | | |
| 2 | BEARING UCF204 | | - | - | | 3 | | | | | |
| 1 | POROS | | S45C | Ø 20, 500 mm | | 2 | | | | | |
| 1 | FILTER PENGUPAS | | STAINLESS STEEL 304 | Ø 38 mm | | 1 | | | | | |
| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | | NO.ORDER | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |

MESIN PENGUPAS DAN PENGIRIS BAWANG MERAH

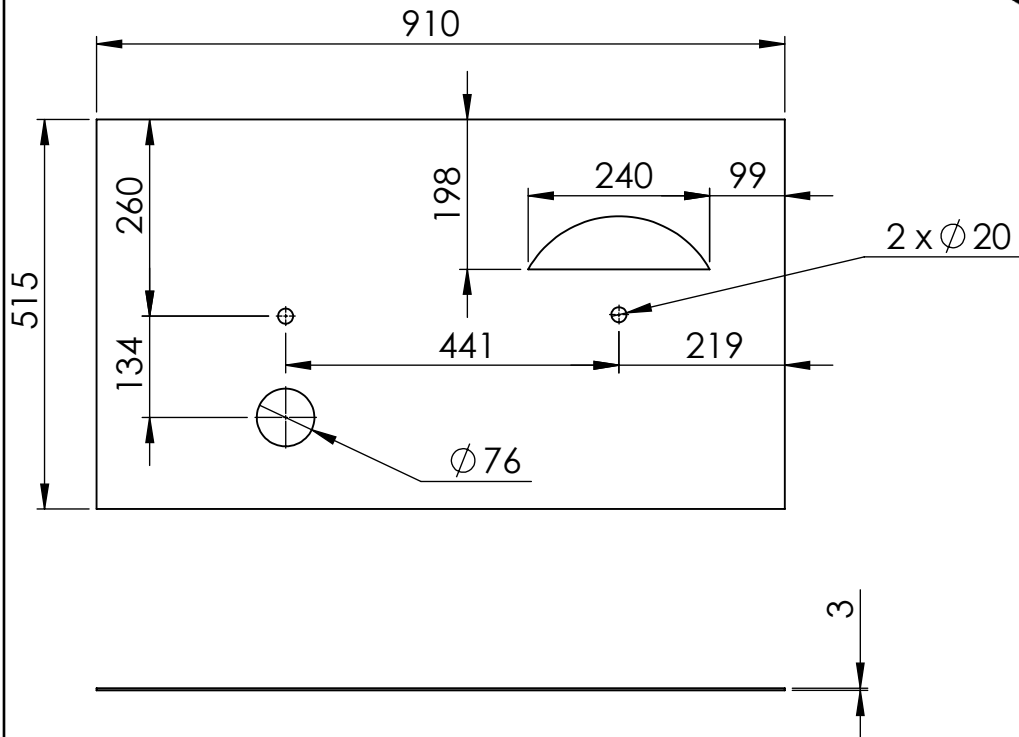
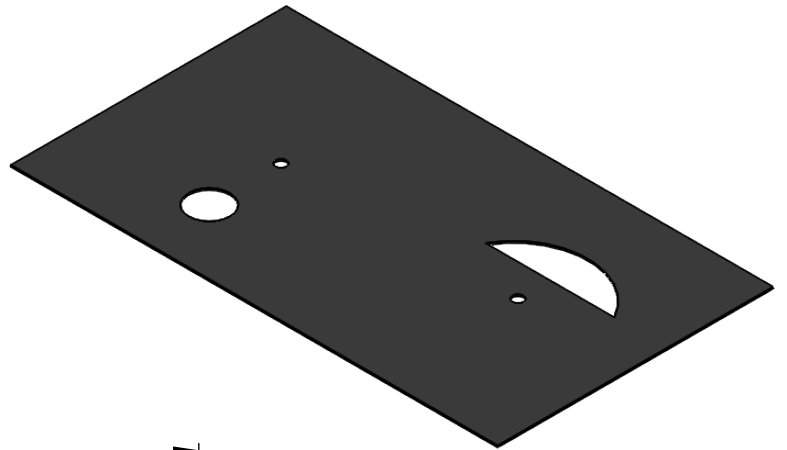
| | | | |
|-----------------|--------------|--|--------|
| SKALA 1 : 10 | DIGAMBAR | | ADITIA |
| | DIPERIKSA | | - |
| | DISAHKAN | | - |
| SATUAN MM | FORMAT A4 | | |



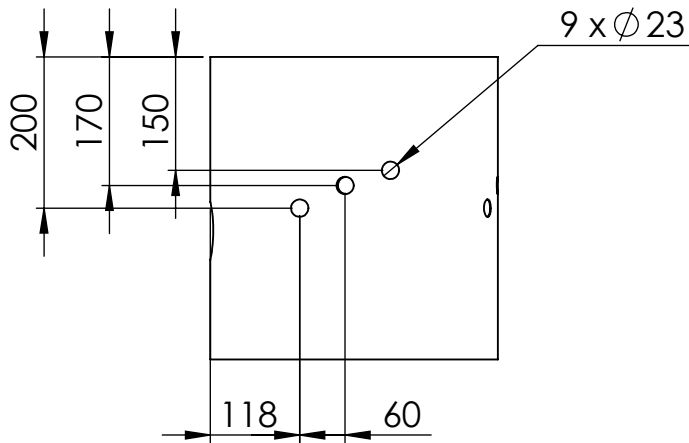
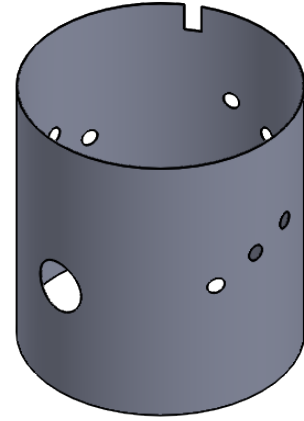
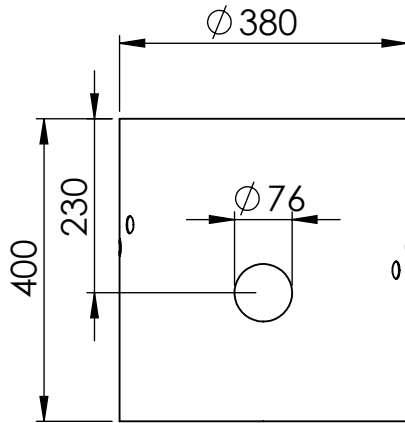
POLITEKNIK NEGERI CILACAP
 TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id
 JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212



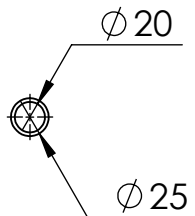
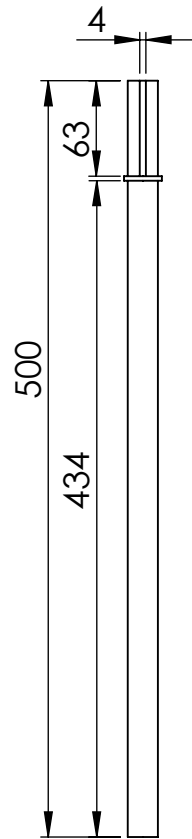
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|------------------------|--------------|----------|---|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO.ORDER | | IBNU D.F | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| RANGKA MESIN | | | | | | | | SKALA 1 : 10 | DIGAMBAR | | |
| | | | | | | | | | DIPERIKSA | | - |
| | | | | | | | | | DISAHKAN | | - |
| POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | SATUAN | FORMAT | | |
| | | | | | | | | MM | A4 | | |



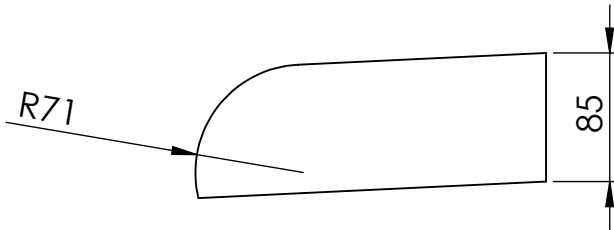
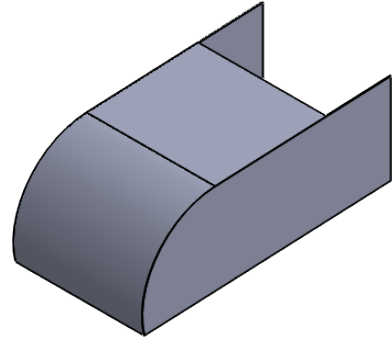
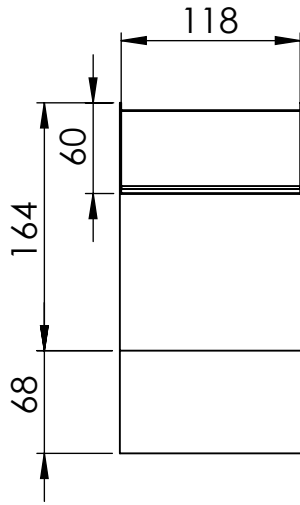
| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|------------------------|--------------|-------|----------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO.ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| ALAS MEJA MESIN | | | | | | | | | SKALA 1 : 10 | DIGAMBAR | | IBNU D.F |
| | | | | | | | | | | DIPERIKSA | | - |
| | | | | | | | | | | DISAHKAN | | - |
| | | | | | | | | | | | | |
|  POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | | SATUAN MM | FORMAT A4 | | |



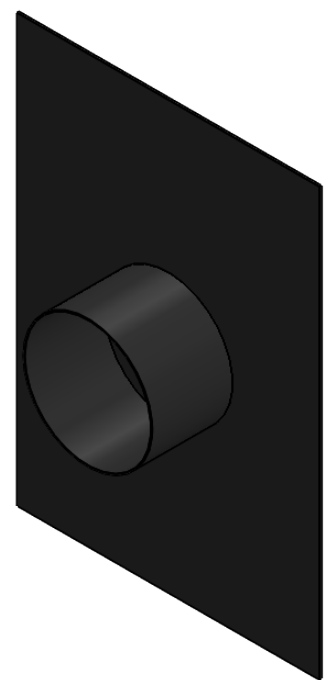
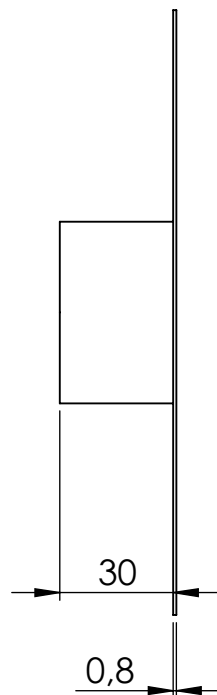
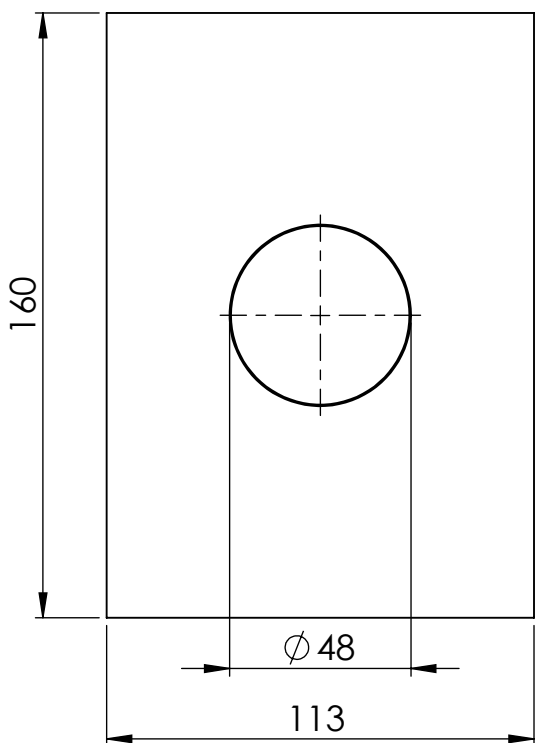
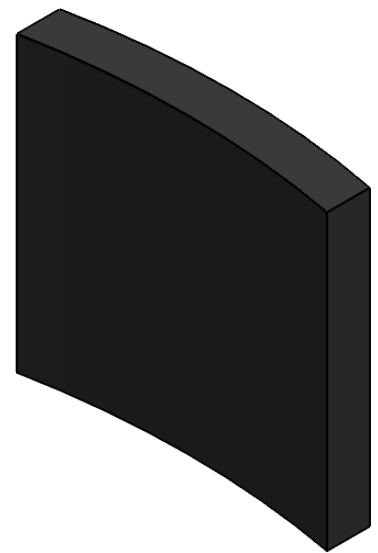
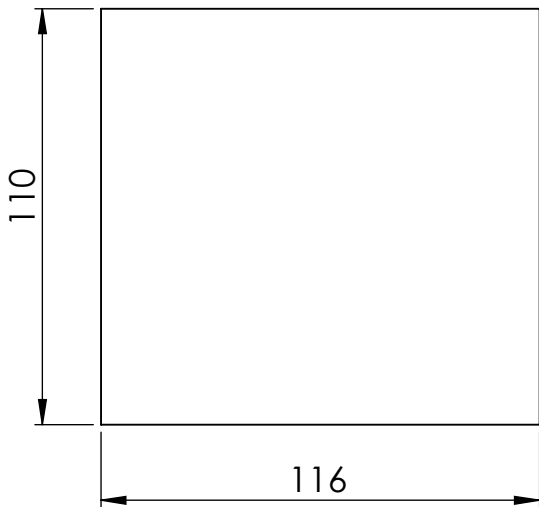
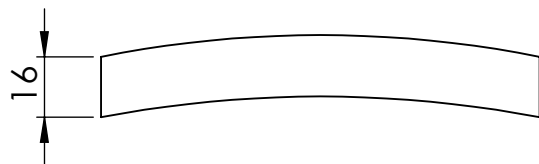
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|------------------------|---------------------|--------|---|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO.ORDER | | ADITIA | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| TABUNG PENGUPAS | | | | | | | | SKALA 1 : 10 | DIGAMBAR | | |
| | | | | | | | | | DIPERIKSA | | - |
| | | | | | | | | | DISAHKAN | | - |
| POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | SATUAN MM | FORMAT A4 | | |



| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID | |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|-----------------------|--------------|-------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO.ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| POROS | | | | | | | | | SKALA 1 : 5 | DIGAMBAR | | ADITIA |
| | | | | | | | | | | DIPERIKSA | | - |
| | | | | | | | | | | DISAHKAN | | - |
| | | | | | | | | | | | | |
|  POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | | SATUAN | FORMAT | | |
| | | | | | | | | | MM | A4 | | |



| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|------------------------|--------------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO.ORDER | PROYEKSI | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| OUTPUT PENGUPAS | | | | | | | | | SKALA 1 : 10 | DIGAMBAR | ADITIA |
| | | | | | | | | | | DIPERIKSA | - |
| | | | | | | | | | | DISAHKAN | - |
| | | | | | | | | | | | |
|  POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | | SATUAN | FORMAT | |
| | | | | | | | | | MM | A4 | |



| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO.ID |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|-----------------------|--------------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO.ORDER | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| MESIN PENGUPAS DAN PENGIRIS BAWANG MERAH | | | | | | | | | SKALA 1 : 2 | DIGAMBAR | ADITIA |
| | | | | | | | | | | DIPERIKSA | — |
| | | | | | | | | | | DISAHKAN | — |
| | | | | | | | | | | | |
| POLITEKNIK NEGERI CILACAP TELP. (0282) 533329 EMAIL : polcap@yahoo.co.id JL. Dr. SOETOMO, SIDAKAYA, CILACAP, 53212 | | | | | | | | | SATUAN | FORMAT | |
| | | | | | | | | | MM | A4 | |

LAMPIRAN 5 DOKUMENTASI





Lampiran 6

| Bill Of Material Mesin Pengupas dan Pengiris Bawang Merah | | | | | |
|---|--------------------------|------------------------|--------|------------------|------------------|
| No | Nama Komponen | Spesifikasi | Jumlah | Harga per satuan | Total |
| 1. | Besi siku L | 40 x 40 x 3 mm | 4 | Rp. 145.000,00 | Rp. 580.000,00 |
| 2. | Plat Besi | 950 x 550 x 3 mm | 1 | Rp. 140.000,00 | Rp. 140.000,00 |
| 3. | Plat stainless steel 304 | 400 x 400 x 0,8 mm | 1 | Rp. 460.000,00 | Rp. 460.000,00 |
| 4. | | 1500 x 500 x 0,8 mm | | | |
| 5. | | 700 x 400 x 0,8 mm | | | |
| 6. | Plat seng cover | 1000 x 1000 x 0,3 mm | 3 | Rp.55.000,00 | Rp.165.000,00 |
| 7. | Plat aluminium | 1000 x 600 x 3 mm | 1 | Rp.130.000,00 | Rp. 130.000,00 |
| 8. | Motor listrik AC | 0,5 HP 1400 rpm | 1 | Rp.1.100.000,00 | Rp. 1.100.000,00 |
| 9. | Pulley | 3 inch | 1 | Rp.25.000,00 | Rp. 25.000,00 |
| 10. | | 4 inch | 1 | Rp.35.000,00 | Rp. 35.000,00 |
| 11. | Poros | Ø 26 mm, panjang 90 cm | 1 | Rp. 70.000,00 | Rp. 70.000,00 |
| 12. | <i>Flange Coupling</i> | 4 Inch | 2 | Rp.35.000,00 | Rp.70.000,00 |
| 13. | V-belt | A-45 | 1 | Rp. 15.000,00 | Rp. 15.000,00 |
| 14. | Pillow block UCF 204 ASB | Ø 20 mm | 4 | Rp. 36.000,00 | Rp.144.000,00 |
| 15. | <i>Dimmer AC</i> | | 1 | Rp. 65.000,00 | Rp. 65.000,00 |
| 16. | <i>Time Relay Delay</i> | 10 A 220 V | 1 | Rp.75.000,00 | Rp.75.000,00 |
| 17. | Saklar ON/OFF | | 1 | Rp.35.000,00 | Rp.35.000,00 |
| 18. | Karet Pengupas | | 12 | Rp.2.000,00 | Rp.24.000,00 |
| 19. | Stop kran air | 1 1/4 Inch | 1 | Rp.95.000,00 | Rp.95.000,00 |

| | | | | | |
|-------|-----------------------------------|--------------------|-------|----------------|------------------|
| 20. | Pipa air | 2 Inch x 1/2 m | 1 | Rp. 10.000,00 | Rp.10.000,00 |
| 21. | Pipa air | 1 1/4 Inch x 1/2 m | 1 | Rp.8.000,00 | Rp.8.000,00 |
| 22. | <i>Reducer</i> | 2 -1 1/4 Inch | 1 | Rp. 15.000,00 | Rp. 15.000,00 |
| 23. | <i>Lbow</i> | 2 Inch | 1 | Rp.8.000,00 | Rp.8.000,00 |
| 24. | Sok drat luar | 2 Inch | 1 | Rp.20.000,00 | Rp.20.000,00 |
| 25. | Sok drat dalam | 2 Inch | 1 | Rp.20.000,00 | Rp.20.000,00 |
| 26. | Baut <i>roofing</i> | 12 x 20 mm | 25 | Rp. 500,00 | Rp. 12.500,00 |
| 27. | Baut | M6 | 12 | Rp. 500,00 | Rp. 6.000,00 |
| 28. | Baut | M8 | 17 | Rp. 1.000,00 | Rp. 17.000,00 |
| 29. | Baut | M10 | 2 | Rp. 2.000,00 | Rp. 4.000,00 |
| 30. | Baut tanam <i>stainless steel</i> | M8 | 4 | Rp. 12.000,00 | Rp. 48.000,00 |
| 31. | Ring | M6 | 12 | Rp. 300,00 | Rp. 3.600,00 |
| 32. | Ring | M8 | 17 | Rp. 500,00 | Rp. 8.500,00 |
| 33. | Ring | M10 | 2 | Rp. 600,00 | Rp. 600,00 |
| 34. | Amplas | | | Rp. 30.000,00 | Rp. 30.000,00 |
| 35. | Cat | Avian SB | 2 | Rp. 35.000,00 | Rp. 70.000,00 |
| 36. | E-poxy | Dana paint | 1 | Rp.75.000,00 | Rp. 75.000,00 |
| 37. | Pilox hitam | | 2 | Rp. 35.000,00 | Rp. 70.000,00 |
| 38. | Dempul | Sanpolac | 2 | Rp. 19.000,00 | Rp. 38.000,00 |
| 39. | Thinner | Impala | 1 | Rp. 42.000,00 | Rp. 42.000,00 |
| 40. | Elektroda | RB-26 | 1 box | Rp. 160.000,00 | Rp. 160.000,00 |
| 41. | Mata Bor HSS Toho | Ø 6 mm | 1 | Rp. 55.000,00 | Rp. 55.000,00 |
| 42. | Pisau Stainless | 7 Inchi | 4 | Rp. 15.000,00 | Rp.60.000,00 |
| Total | | | | | Rp. 4.009.200,00 |