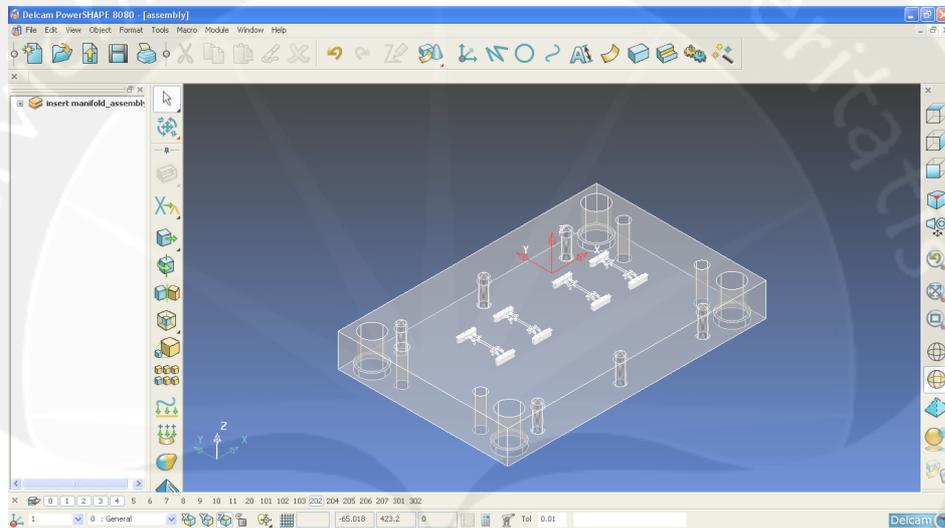


BAB 6

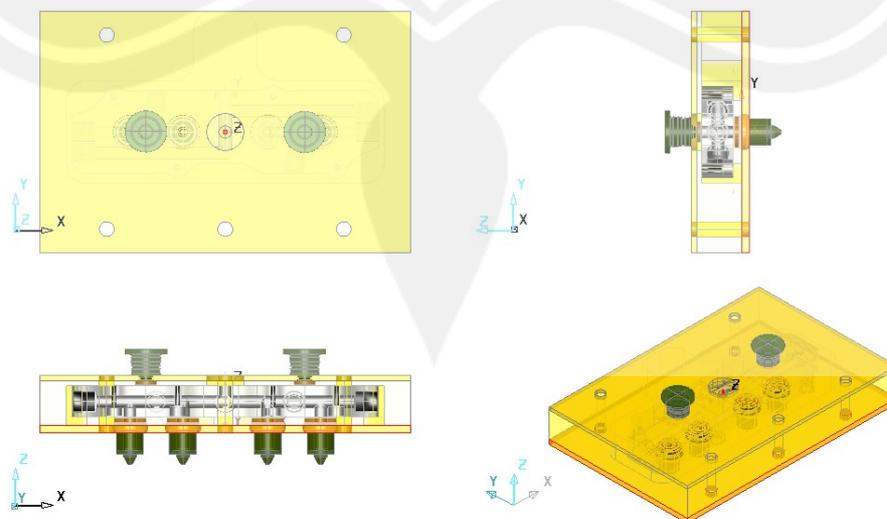
KESIMPULAN DAN USULAN

6.1. Kesimpulan

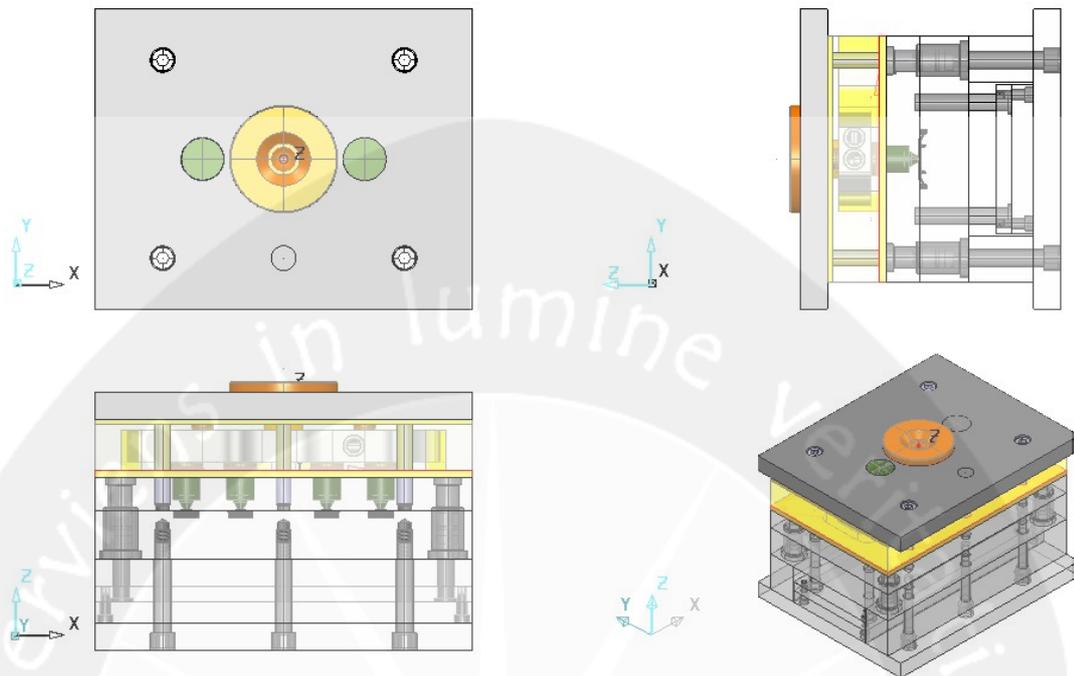
6.1.1. Hasil Konstruksi Rancangan *Runner* pada *Mold* Baru



Gambar 6.1. gambar rancangan *runner*



Gambar 6.2. rancangan *hot runner system*



Gambar 6.1. gambar rancangan *Mold Base* baru

6.1.2. Hasil simulasi rancangan *runner*

Hasil simulasi menggunakan *Software Moldflow* menunjukkan tekanan yang digunakan agar produk dapat terisi sempurna adalah sebesar 80Mpa. Simulasi mendapatkan kesimpulan bahwa rancangan *runner* yang diusulkan dapat beroperasi dengan optimal dan dapat digunakan sebagai pengganti rancangan *runner* pada mold lama. Hasil simulasi dapat ditunjukkan pada bab 5 dan pada lampiran 2.

6.1.3. Analisis Biaya

Rancangan konstruksi *Mold* yang dilakukan dalam penelitian memberikan gambaran keuntungan perusahaan berupa menurunnya kerugian akibat sisa material yang terbuang. Penurunan kerugian apabila menggunakan usulan rancangan *Mold* mencapai \$71.077,26 (tabel 6.1.).

Tabel 6.1. Perbandingan hasil Analisis Biaya

PEMBANDING	KOSTRUKSI MOLD LAMA	KONSTRUKSI MOLD BARU
Berat Produk	2,32 gram	2,32 gram
Berat <i>Runners</i>	5,31 gram	1,33 gram
Kebutuhan Material Sekali Injeksi	7,63 gram	3,65 gram
Recycle Yang Diijinkan	25%	25%
	1,9 gram	0,91 gram
<i>Runners</i> Scrap Terbuang	3,41 gram	0,42 gram
Data Produksi Tahun 2007-2009	66.424.464	66.424.464
Proses Injeksi Yang Dilakukan	8.803.058	8.803.058
Kerugian Perusahaan	\$97.537,88	\$12.016,17
Biaya Perubahan Dan Perbaikan mold	\$0,00	\$14.444,45
Keuntungan Perusahaan	\$0,00	\$71.077,26

6.2. Saran

Dari hasil penelitian yang telah dilakukan ditemukan beberapa kendala yang mungkin dapat digunakan sebagai bahan penelitian selanjutnya antara lain adalah dimungkinkannya pengadaan penelitian lanjut mengenai pemilihan desain *Mold* untuk *Mold* sejenis.

Adanya kesulitan yang tinggi dalam perancangan dan pembuatan *Mold* untuk produk-produk kecil maka akan dapat lebih melatih dan mengasah pengetahuan dan keterampilan tentang *injection Molding*.

Selain saran di atas penulis menyarankan agar universitas sebagai salah satu lembaga pendidikan memberikan pengajaran dan pelatihan mengenai teknologi *Mold /dies* sehingga dapat menghasilkan *engineer-engineer* yang berkualitas di bidang *Mold /dies*.

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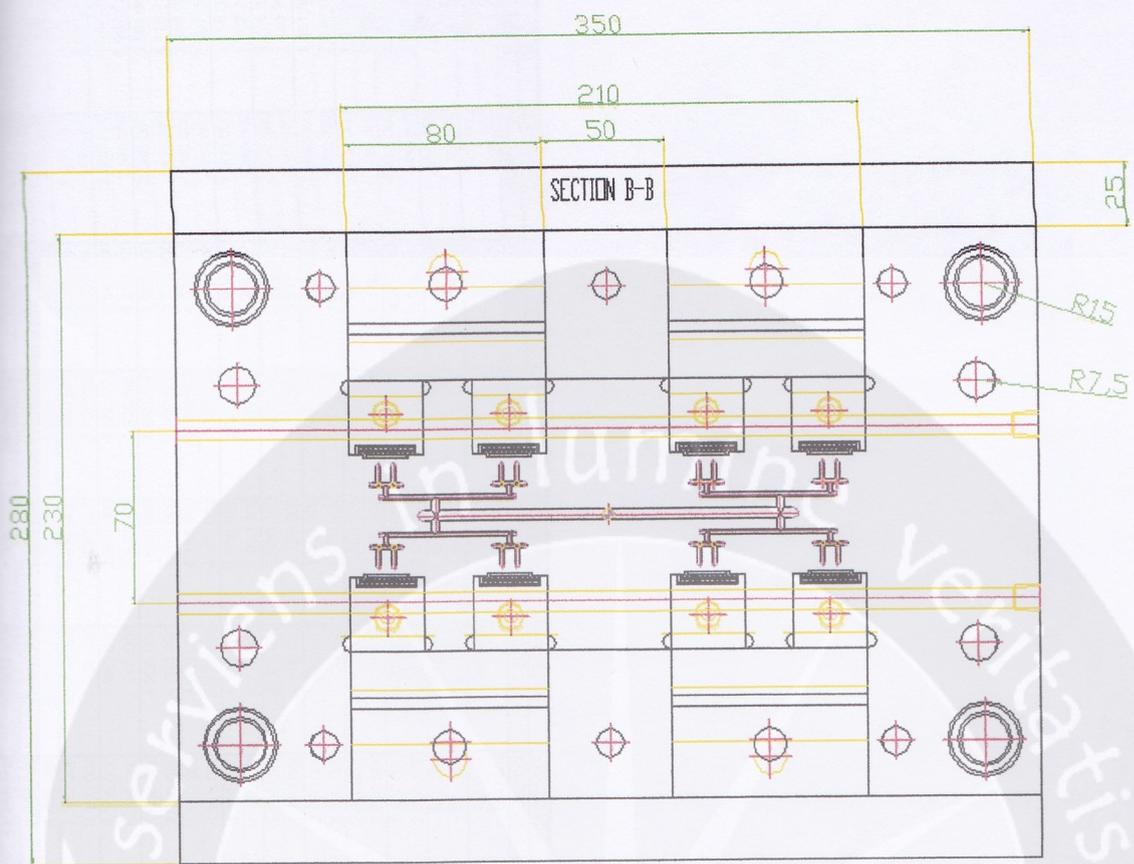
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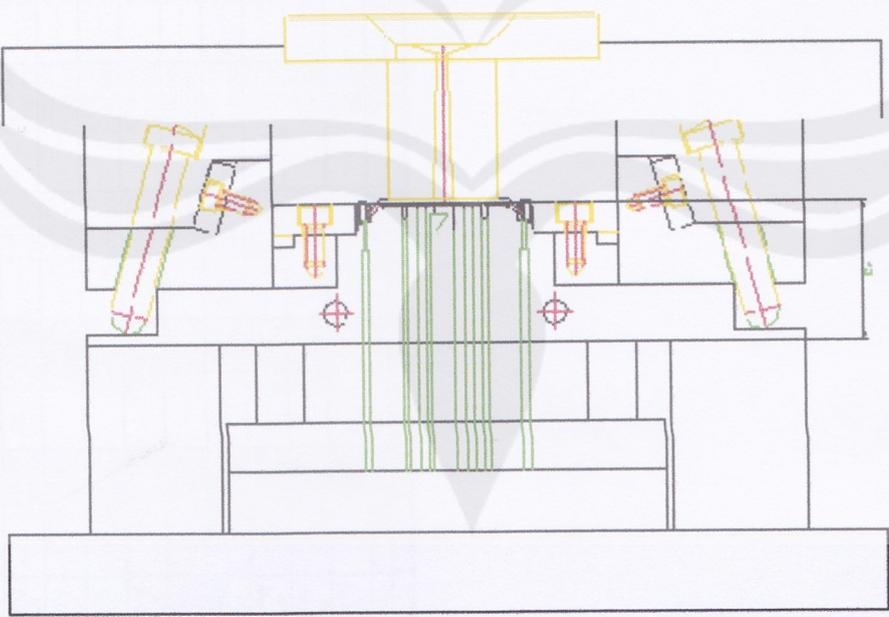
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LAMP IRAN



SECTION C-C



PHR 2	Planning Result	17 070 000	20 280 000	17 010 000	18 950 000	20 070 000	21 870 000	13 710 000	6 750 000	4 950 000	7 770 000	120 000	150 000	8 163 333	16 260 000
PHR-3	Planning	4.890.000	8.890.000	16.260.000	12.510.000	9.090.000	12.870.000	13.710.000	6.750.000	5.190.000	7.770.000	120.000	150.000	8.269.167	16.530.000
	Result	4.890.000	9.110.000	16.530.000	12.600.000	9.330.000	13.080.000	13.710.000	6.750.000	5.190.000	7.770.000	120.000	150.000	8.269.167	16.530.000
PHR-4	Planning	9.100.000	7.660.000	14.470.000	12.600.000	9.150.000	13.800.000	15.410.000	18.000.000	10.560.000	11.610.000	0	0	10.196.667	18.000.000
	Result	9.120.000	7.940.000	14.940.000	12.600.000	9.390.000	13.800.000	15.410.000	18.000.000	10.710.000	11.610.000	0	0	10.293.333	18.000.000
PHR-5	Planning	4.920.000	6.320.000	8.460.000	7.560.000	4.140.000	5.020.000	8.780.000	4.040.000	1.380.000	3.740.000	80.000	0	4.536.667	8.780.000
	Result	4.920.000	6.680.000	8.680.000	7.740.000	4.140.000	5.020.000	8.760.000	4.040.000	1.380.000	3.740.000	80.000	0	4.598.333	8.760.000
PHR-6	Planning	8.000.000	9.920.000	5.850.000	3.580.000	2.380.000	7.730.000	9.460.000	1.500.000	1.440.000	2.400.000	160.000	120.000	4.378.333	9.920.000
	Result	8.000.000	10.560.000	5.960.000	3.580.000	2.380.000	7.840.000	9.460.000	1.500.000	1.440.000	2.400.000	160.000	120.000	4.450.000	10.560.000
PHR-7	Planning	3.800.000	3.940.000	3.000.000	1.700.000	1.500.000	3.380.000	5.120.000	4.800.000	0	380.000	0	0	2.301.667	5.120.000
	Result	3.800.000	3.940.000	3.000.000	2.180.000	1.500.000	3.390.000	5.120.000	4.800.000	0	380.000	0	0	2.342.500	5.120.000
PHR-8	Planning	2.100.000	1.830.000	3.060.000	2.805.000	1.635.000	1.930.000	1.200.000	0	0	120.000	150.000	420.000	1.270.833	3.060.000
	Result	2.100.000	1.830.000	3.060.000	2.805.000	1.635.000	1.935.000	1.200.000	0	0	120.000	150.000	420.000	1.271.250	3.060.000
PHR-9	Planning	4.100.000	2.000.000	1.030.000	180.000	1.605.000	2.365.000	1.350.000	1.305.000	0	555.000	150.000	450.000	1.257.500	4.100.000
	Result	4.110.000	2.000.000	1.065.000	180.000	1.605.000	2.370.000	1.350.000	1.305.000	0	555.000	150.000	450.000	1.261.667	4.110.000
PHR-10	Planning	1.800.000	2.130.000	4.515.000	4.080.000	2.040.000	3.490.000	4.005.000	6.150.000	920.000	3.165.000	0	0	2.691.250	6.150.000
	Result	1.815.000	2.130.000	4.515.000	4.080.000	2.040.000	3.510.000	3.765.000	3.180.000	920.000	3.165.000	0	0	2.426.667	4.515.000
PHR-11	Planning	2.500.000	1.000.000	1.000.000	1.380.000	1.770.000	3.200.000	3.210.000	810.000	0	1.215.000	315.000	0	1.366.667	3.210.000
	Result	2.580.000	1.005.000	1.020.000	1.395.000	1.770.000	3.210.000	3.210.000	885.000	0	915.000	315.000	0	1.358.750	3.210.000
PHR-12	Planning	1.900.000	1.200.000	1.600.000	1.300.000	1.490.000	2.870.000	2.400.000	2.600.000	0	100.000	200.000	80.000	1.311.667	2.870.000
	Result	1.980.000	1.200.000	1.600.000	1.330.000	1.560.000	2.880.000	2.410.000	2.600.000	0	100.000	200.000	80.000	1.328.333	2.880.000
PHR-13	Planning	2.200.000	3.250.000	3.250.000	3.500.000	2.880.000	2.880.000	2.400.000	0	450.000	1.210.000	270.000	0	1.857.500	3.500.000
	Result	2.240.000	3.270.000	3.570.000	3.500.000	2.920.000	2.960.000	2.410.000	0	450.000	1.100.000	270.000	0	1.890.833	3.570.000
PHR-14	Planning	5.000.000	4.520.000	3.090.000	4.900.000	4.500.000	4.200.000	7.000.000	7.560.000	8.280.000	4.960.000	1.610.000	1.410.000	4.752.500	8.280.000
	Result	5.000.000	4.520.000	3.090.000	4.800.000	4.540.000	4.520.800	7.098.000	740.000	5.820.000	4.588.624	1.611.376	1.410.000	3.978.233	7.098.000
PHR-15	Planning	700.000	1.240.000	1.300.000	1.400.000	1.460.000	1.460.000	1.490.000	1.440.000	800.000	170.000	20.000	0	956.667	1.490.000
	Result	910.000	1.280.000	1.530.000	1.500.000	1.460.000	1.460.000	1.540.000	1.410.000	800.000	170.000	20.000	0	1.006.667	1.540.000
PHR-16	Planning	1.000.000	1.300.000	1.200.000	1.300.000	840.000	900.000	790.000	180.000	0	0	20.000	0	627.500	1.300.000
	Result	1.210.000	1.340.000	1.220.000	1.330.000	840.000	930.000	790.000	180.000	0	0	20.000	0	655.000	1.340.000
PHR	Planning	68.350.000	75.480.000	85.095.000	75.445.000	64.250.000	91.145.000	103.055.000	80.575.000	53.020.000	55.605.000	10.355.000	5.000.000	63.947.917	118.770.000
	Result	69.745.000	77.085.000	86.790.000	76.270.000	65.180.000	88.385.800	101.823.000	65.580.000	45.700.000	51.546.280	10.363.720	5.000.000	61.955.733	115.883.000

PHR 2	Planning Result	16,800,000	14,261,000	12,815,000	13,371,000	15,430,000	14,011,000	14,060,000	17,000,000	16,870,000	14,130,000	16,200,000	8,300,000	12,878,883	16,380,000
PHR-3	Planning	6,420,000	9,690,000	5,730,000	12,240,000	16,690,000	13,440,000	14,060,000	17,000,000	16,870,000	14,130,000	16,200,000	8,300,000	12,878,883	16,380,000
	Result	6,420,000	9,480,000	6,090,000	13,891,600	19,380,000	13,290,000	16,020,000	18,405,000	16,710,000	14,130,000	12,030,000	8,300,000	10,344,167	20,650,000
PHR-4	Planning	12,750,000	7,290,000	1,410,000	2,880,000	20,650,000	11,640,000	13,360,000	16,830,000	3,810,000	16,200,000	8,400,000	8,910,000	10,344,167	20,650,000
	Result	13,980,000	7,530,000	1,710,000	6,240,000	15,990,000	12,750,000	14,730,000	17,964,903	4,065,000	16,740,000	10,245,000	8,900,000	10,903,742	17,964,903
PHR-5	Planning	7,800,000	9,400,000	9,660,000	11,500,000	11,880,000	7,140,000	9,640,000	11,020,000	9,140,000	3,160,000	3,480,000	3,300,000	8,093,333	11,880,000
	Result	8,520,000	9,120,000	9,240,000	12,155,000	12,280,000	6,380,000	8,460,000	12,300,000	8,300,000	6,820,000	3,560,000	3,300,000	8,369,583	12,300,000
PHR-6	Planning	60,000	3,060,000	8,000,000	7,200,000	10,580,000	10,320,000	7,340,000	10,700,000	4,420,000	2,380,000	3,500,000	6,000,000	6,130,000	10,700,000
	Result	220,000	3,100,000	8,340,000	9,980,000	11,800,000	8,340,000	8,180,000	12,000,000	4,620,000	3,720,000	3,636,000	6,000,000	6,661,333	12,000,000
PHR-7	Planning	2,700,000	3,540,000	6,060,000	3,140,000	7,300,000	4,560,000	5,200,000	3,680,000	2,360,000	4,660,000	2,640,000	2,560,000	4,033,333	7,300,000
	Result	2,980,000	3,690,000	5,810,000	4,200,000	4,960,000	3,740,000	5,240,000	2,940,000	2,540,000	4,920,000	4,210,000	2,560,000	3,982,500	5,810,000
PHR-8	Planning	1,380,000	3,000,000	4,545,000	7,200,000	6,660,000	3,345,000	3,600,000	4,200,000	600,000	4,860,000	1,500,000	2,090,000	3,581,667	7,200,000
	Result	1,380,000	3,577,500	4,657,500	9,720,000	6,180,000	3,630,000	3,990,000	4,260,000	1,515,000	5,580,000	2,775,000	2,100,000	4,113,750	9,720,000
PHR-9	Planning	2,700,000	3,200,000	3,210,000	3,820,000	4,080,000	795,000	4,100,000	4,500,000	4,155,000	4,590,000	4,050,000	4,200,000	3,616,667	4,590,000
	Result	2,865,000	3,225,000	3,660,000	3,915,000	4,305,000	825,000	4,110,000	3,525,000	4,320,000	4,830,000	4,590,000	4,200,000	3,697,500	4,830,000
PHR-10	Planning	3,000,000	3,000,000	3,000,000	2,310,000	4,200,000	690,000	4,200,000	4,500,000	3,900,000	4,500,000	2,800,000	1,800,000	3,158,333	4,500,000
	Result	3,435,000	3,270,000	3,030,000	2,580,000	3,600,000	690,000	4,425,000	4,275,000	3,900,000	4,980,000	3,420,000	1,800,000	3,283,750	4,980,000
PHR-11	Planning	600,000	3,240,000	3,600,000	4,200,000	4,200,000	1,800,000	3,200,000	4,000,000	3,600,000	3,600,000	3,600,000	2,500,000	3,178,333	4,200,000
	Result	765,000	3,600,000	3,840,000	4,750,000	3,680,000	1,695,000	3,300,000	4,110,000	3,026,300	3,731,500	3,247,500	1,980,000	3,143,775	4,750,000
PHR-12	Planning	530,000	2,400,000	400,000	1,800,000	3,040,000	3,650,000	2,400,000	1,300,000	1,400,000	1,600,000	1,800,000	1,900,000	1,851,667	3,650,000
	Result	1,060,000	3,250,000	420,000	2,350,000	3,080,000	3,310,000	3,090,000	1,200,000	1,470,000	1,650,000	1,810,000	1,900,000	2,049,167	3,310,000
PHR-13	Planning	1,000,000	300,000	800,000	1,600,000	2,400,000	1,600,000	2,600,000	2,100,000	1,500,000	2,400,000	900,000	200,000	1,450,000	2,600,000
	Result	1,740,000	300,000	850,000	1,820,000	2,060,000	1,060,000	2,750,000	2,258,820	1,566,700	2,565,000	1,150,000	200,000	1,526,710	2,750,000
PHR-14	Planning	290,000	2,400,000	1,500,000	3,800,000	4,200,000	2,200,000	3,500,000	4,200,000	4,200,000	4,200,000	4,200,000	4,450,000	3,261,667	4,450,000
	Result	360,000	2,460,000	1,500,000	4,610,000	3,350,000	1,760,000	2,950,000	4,323,225	3,910,000	3,110,000	3,280,000	4,450,000	3,005,269	4,610,000
PHR-15	Planning	200,000	500,000	600,000	600,000	100,000	300,000	800,000	1,200,000	600,000	400,000	300,000	250,000	487,500	1,200,000
	Result	200,000	650,000	600,000	850,000	1,170,000	0	1,070,000	1,270,000	610,000	467,032	330,000	250,000	622,253	1,270,000
PHR-16	Planning	100,000	100,000	0	600,000	0	240,000	400,000	200,000	800,000	900,000	650,000	600,000	382,500	900,000
	Result	100,000	100,000	0	760,000	0	0	600,000	0	725,000	995,000	655,000	605,000	378,333	995,000
PHR	Planning	60,350,000	71,910,000	69,425,000	90,520,000	125,910,000	65,030,000	98,050,000	114,650,000	75,465,000	86,850,000	63,280,000	60,060,000	83,458,333	131,750,000
	Result	60,825,000	67,604,100	72,263,000	112,291,600	122,255,000	76,400,000	104,535,000	115,561,948	76,898,000	96,282,436	70,238,500	59,545,000	86,224,965	139,139,903

PHR-2	Planning	6.630.000	16.493.741	16.477.210	9.854.385	21.973.183	20.638.000	13.660.000	13.660.000	13.350.000	13.350.000	13.350.000	17.000.000	17.000.000	17.000.000	17.000.000
	Result	1.350.000	6.210.000	9.630.000	13.607.000	21.973.183	12.660.000	13.660.000	13.350.000	13.350.000	13.350.000	13.350.000	17.000.000	17.000.000	17.000.000	17.000.000
PHR-3	Planning	1.350.000	6.210.000	9.630.000	13.607.000	21.973.183	12.660.000	13.660.000	13.350.000	13.350.000	13.350.000	13.350.000	17.000.000	17.000.000	17.000.000	17.000.000
	Result	1.350.000	6.720.000	8.425.248	9.974.154	11.940.000	13.007.040	10.127.000	10.669.364	14.640.640	14.640.640	14.640.640	17.574.288	17.520.000	17.239.567	17.239.567
PHR-4	Planning	1.440.000	15.720.000	19.984.800	19.740.000	20.040.000	16.370.000	19.380.000	19.530.000	19.260.000	17.340.000	17.340.000	19.050.000	19.020.000	17.239.567	20.040.000
	Result	1.440.000	15.840.000	18.064.800	14.328.428	17.670.000	14.310.000	17.940.000	18.660.000	21.270.000	15.180.000	21.110.000	0	14.651.102	21.270.000	21.270.000
PHR-5	Planning	1.980.000	10.640.000	9.400.000	10.860.000	10.880.000	8.234.079	10.060.000	10.240.000	10.600.000	9.560.000	2.100.000	7.660.000	8.517.840	12.400.000	12.400.000
	Result	2.100.000	11.080.000	9.420.000	10.680.000	10.785.921	8.860.000	10.620.000	12.400.000	11.390.000	10.396.000	5.240.000	0	8.580.993	12.400.000	12.400.000
PHR-6	Planning	1.680.000	6.080.000	8.920.000	9.660.000	6.240.000	7.460.000	6.140.000	6.000.000	8.100.000	6.160.000	7.200.000	5.940.000	6.631.667	9.660.000	9.660.000
	Result	1.980.000	6.200.000	9.200.000	9.440.000	4.580.000	4.420.000	6.800.000	6.220.000	8.120.000	7.740.000	11.000.000	0	6.308.333	11.000.000	11.000.000
PHR-7	Planning	300.000	2.640.000	4.140.000	7.240.000	5.660.000	5.560.000	7.080.000	3.660.000	2.980.000	4.940.000	1.080.000	1.600.000	3.906.667	7.240.000	7.240.000
	Result	300.000	2.640.000	4.193.256	5.620.000	5.320.000	3.340.000	7.320.000	3.660.000	1.860.000	4.100.000	1.040.000	0	3.282.771	7.320.000	7.320.000
PHR-8	Planning	450.000	2.400.000	2.925.000	3.210.000	3.540.000	2.235.000	3.570.000	3.510.000	4.590.000	4.545.000	2.760.000	1.395.000	2.927.500	4.590.000	4.590.000
	Result	540.000	2.037.672	3.210.000	1.602.954	3.570.000	2.175.000	4.080.000	3.930.000	4.620.000	5.337.000	3.950.000	0	2.921.052	5.337.000	5.337.000
PHR-9	Planning	525.000	807.000	195.000	2.505.000		2.109.936	1.170.000	3.150.000	2.160.000	3.495.000	60.000	105.000	1.480.176	3.495.000	3.495.000
	Result	525.000	1.860.000	51.216	2.520.000	1.095.000	2.109.936	1.350.000	3.405.000	2.190.000		60.000	0	1.378.741	3.405.000	3.405.000
PHR-10	Planning	600.000	0	2.805.000	3.000.000		3.205.000	3.270.000	3.285.000	3.390.000	480.000	90.000	2.505.000	2.057.273	3.390.000	3.390.000
	Result	600.000	0	3.120.000	2.670.000	915.000	3.330.000	3.270.000	3.240.000	3.448.112		0	2.970.000	2.142.101	3.448.112	3.448.112
PHR-11	Planning	150.000	0	0	1.440.000		250.000	1.525.000	1.368.472	1.698.472	780.000	540.000	2.610.000	941.995	2.610.000	2.610.000
	Result	150.000	0	0	1.440.000		485.000	1.605.000	1.185.000	1.803.472		570.000	3.090.000	1.032.847	3.090.000	3.090.000
PHR-12	Planning	310.000	120.000	330.000	70.000		360.000	1.160.000	670.000	370.000	250.000	490.000	1.060.000	471.818	1.160.000	1.160.000
	Result	310.000	120.000	330.000	70.000	520.000	360.000	1.310.000	670.000	370.000		920.000	0	452.727	1.310.000	1.310.000
PHR-13	Planning	100.000	640.000	900.000	1.720.000		250.000	840.000	1.350.000	730.000	350.000	474.800	630.000	725.891	1.720.000	1.720.000
	Result	100.000	750.000	900.000	1.740.000	580.000	280.000	860.000	1.220.000	785.200		490.000	630.000	757.745	1.740.000	1.740.000
PHR-14	Planning	1.600.000	860.000	940.000	810.000		2.320.000	3.800.000	4.660.000	6.080.000	3.870.000	4.960.000	5.400.000	3.209.091	6.080.000	6.080.000
	Result	1.600.000	860.000	930.000	810.000	2.377.660	2.397.648	2.600.000	3.880.000	5.878.356		5.510.000	6.131.584	2.997.750	6.131.584	6.131.584
PHR-15	Planning	390.000	980.000	1.430.000	2.570.000		940.000	1.200.000	140.000	100.000	160.000	260.000	110.000	752.727	2.570.000	2.570.000
	Result	290.000	980.000	1.630.000	1.150.000	1.510.000	940.000	1.200.000	140.000	100.000		120.000	240.000	754.545	1.630.000	1.630.000
PHR-16	Planning	110.000	60.000	20.000				150.000	290.000	34.000		170.000	90.000	115.500	290.000	290.000
	Result	110.000	60.000	20.000		10.000		160.000	290.000	150.000		170.000	100.000	118.889	290.000	290.000
PHR	Planning	18.275.000	66.597.000	81.762.930	102.387.000	46.360.000	84.484.015	101.972.338	99.583.472	101.558.184	93.330.000	83.579.280	91.505.000	84.774.316	121.095.000	121.095.000
	Result	18.025.000	65.641.414	75.971.730	71.850.016	82.546.733	76.550.489	94.005.594	95.119.384	101.485.780	42.753.000	94.549.296	55.476.248	76.318.278	122.740.992	122.740.992

Handwritten notes at the bottom of the page, including "10/10" and "10/10" written vertically.

Series Name PH Housing	Instruction No.	Product Name () PHR - () - () () ()	Production Quantity	Mc. / Mold No.	Dryer No.	Stop Cavity	Material Grade (table 3) 66 NYLON CM3004-V0	Color Code
---------------------------	-----------------	---	---------------------	----------------	-----------	-------------	--	------------

Inspection Item	Requirement	Date (dd-mm)	Lot		Total Lot		Total Lot		Total Lot
			Lot	Total Lot	Lot	Total Lot	Lot	Total Lot	
Appearance (page 1)	Normal Condition	Microscope	/	/	/	/	/	/	/
No. of Cavity	/	Visual	/	/	/	/	/	/	/
Marking check	Refer to drawing	Gauge / Microscope	/	/	/	/	/	/	/
Notch (Note 2)	Normal Condition	Microscope / Meas. Microscope	/	/	/	/	/	/	/
Color (See table 1)	Normal Condition	Caliper	/	/	/	/	/	/	/
Drag mark (Fig. 1)	Refer to drawing	PH Housing Crusher machine	/	/	/	/	/	/	/
Shape (Note 1)	Normal Condition	Judgment	/	/	/	/	/	/	/
Inside shape (Note 1)	Max 0.2	Adjustment Reason	/	/	/	/	/	/	/
Flash (Outside body/End)	Max 0.1	Condition No.	/	/	/	/	/	/	/
Flash (Inside/Contact line/In Hole)	Max 0.1	Sales	/	/	/	/	/	/	/
Total length (Table 2, Note 3)	6.8 - 6.9	Process Inspector	/	/	/	/	/	/	/
Total height	3.4 - 3.5	Equipment no.	/	/	/	/	/	/	/
Total width	Normal Condition	Rebuck	/	/	/	/	/	/	/
Marking Test:	Max 25%		/	/	/	/	/	/	/
Recycle Percentage			/	/	/	/	/	/	/

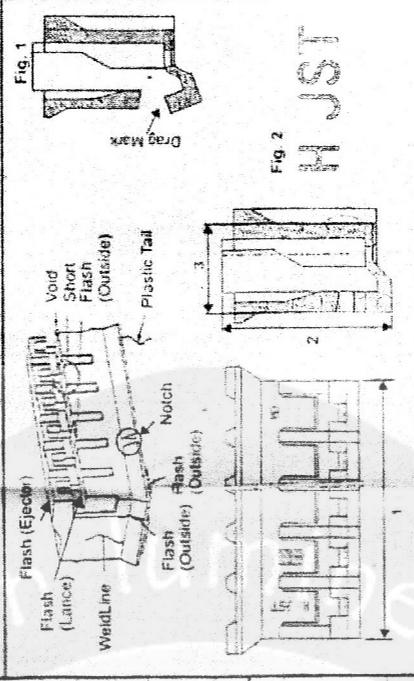


Table 2

Code	1. Total Length		Code	1. Total Length	
	Not yet improve	After improve		Not yet improve	After improve
2	4.45 - 4.60	4.45 - 4.50	10	20.45 - 20.60	20.30 - 20.35
3	6.45 - 6.60	6.45 - 6.50	11	22.45 - 22.60	22.30 - 22.35
4	8.45 - 8.60	8.40 - 8.45	12	24.45 - 24.60	24.30 - 24.35
5	10.45 - 10.60	10.40 - 10.45	13	26.45 - 26.60	26.30 - 26.35
6	12.45 - 12.60	12.40 - 12.45	14	28.45 - 28.60	28.30 - 28.35
7	14.45 - 14.60	14.35 - 14.40	15	30.45 - 30.60	30.30 - 30.35
8	16.45 - 16.60	16.35 - 16.40	16	32.45 - 32.60	32.30 - 32.35
9	18.45 - 18.60	18.35 - 18.40	-	-	-

1. Check housing following drawing and there shall be no crack / broken, short-shot, flashes, flow, not thick, weld line, burning, void, mazed foreign matter, dirty, mazed runner, etc. which may effect to performance. Inside shape shall be checked by cut the product

2. A notch is made between cavity No. 5 and 6, and cavity No. 10 and 11, respectively which have marking "A" in the end of instruction lot number.

3. Total qty that shall be checked 1 shot. Δ

4. Please fill the column "O" for OK and "X" for NG except for the inspection item Δ result that using value. If found NG please follow Non Conforming Procedure

5. Refer to UL Standard page 789. Δ

Table 1. Color Code

Part Name	Color	Color Code	Color	Color Code
PHR-1115	Gray	55112	Yellow	55021
PHR-1116	Yellow	55113	Black	55114
PHR-1117	Black	55115	Blue	55116
PHR-1118	Blue	55117	Red	55118
PHR-1119	Red	55119	Black	55120
PHR-1120	Black	55121	Green	55122
PHR-1121	Green	55123	Orange	55124
PHR-1122	Orange	55125	Yellow	55126
PHR-1123	Yellow	55127	Blue	55128
PHR-1124	Blue	55129	Red	55130
PHR-1125	Red	55131	Black	55132

Table 3

Color	Material Grade
Natural, Black color	TNT 66 NYLON CM3004-V0
Others color	TOR 66 NYLON CM3004-V0

4. New Product/Machineries

5. New Instruction

6. Change Over (mounting dies)

7. Change Color

8. Set Adjustment

9. Condition Setting

Approved: *Abhijay* Checked: *Jc* Prepared: *Ana*

Effective Date: 03-08-2009

Drawing No. RD-01326-9

Form Sheet No.: Q1-018-014-R11

Basic physical properties

CM3004-V0

Injection molding / Flame retardant / Unreinforced / (Flame retardant, anti-halogen)

Property			Test Method	Units	CM3004-V0	
					Dry	2.2%water
Physical property	Reinforcing Material Content		-	wt%	-	
	Specific Gravity		1138	-	1190	-
	Water Absorption	24hrs, in 23 °C water	62	%	1.1	-
23 °C in water		7.5			-	
Mechanical property	Tensile Yield Strength	-40 °C	527-1,-2	MPa	-	-
		23 °C			85	65
		80 °C			45	-
	Elongation at Break	-40 °C	527-1,-2	%	-	-
		23 °C			7.5	7.5
		80 °C			-	-
	Flexural Strength	-40 °C	178	MPa	170	-
		23 °C			125	70
		80 °C			65	-
	Flexural Modulus	-40 °C	178	GPa	-	-
		23 °C			3.5	1.5
		80 °C			1.2	-
Sharp Impact	v-notched	-40 °C	179	kJ/m ²	4.5	-
	v-notched	23 °C			4.5	13.0
	unnotched	23 °C			179	kJ/m ²
Rockwell Hardness		23 °C	2039-2	R-scale	120	-
Taber Abrasion		-	-	mg/1000 cycles	9~10	-
Heat property	Melting Point		DSC Method	°C	265	-
	Coef. of Linear Thermal Expansion		11359	× 10 ⁻⁵ /°C	-	-
	Heat Deflection Temp	0.46MPa	75-2	°C	244	-
		1.86MPa			-	-
UL-94 Flame Class		UL-94	-	-	V-0(1/64")	
Electrical property	Volume Resistivity		IEC 93	Ω·m	10 ¹³	-
	Dielectric Strength(3mmt)		IEC 243-1	MV/m	28	-
	Dielectric Constant	1MHz	IEC 250	-	5.2	-
	Dissipation Factor	1MHz	IEC 250	-	0.07	-
	Arc Resistance Tungsten Electrode		UL-746A	sec.	127	-
	IEC tracking Index(CTI)		UL-746B	-	600<	-
Molding property	Mold Shrinkage 3mm Thickness	Horizontal	TORAY Method	%	0.6~0.9	
		Vertical			1.0~1.6	

ABS Resin
TOYOLAC

Nylon Resin
Amilan™

PBT Resin
TORAYCON

PPS Resin
TORELINA

LCP Resin
SIVERAS

Super EP
TI Polymer

Polyolefin Foam
TORAYPEF

- Introduction
- List of Grade
- Technical data(Grade)
- Technical data(Property)
- Topics

- Catalogue download
- Press release
- Overseas branch
- Related links
- Contact
- Inquiry

Notes: These values are typical data for this product under specific test conditions and not intended for use as limiting specifications.

CONDITION SETTING MACHINE
For Sumitomo Machine

Set No	A-1-1W-1 CP) PFR-11				Material Mold No				TNT CM 1004 VU-F 1W			
Product Name	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	Rev.	
Machine No	MASTER											
Screw	A3											
Cavity	22											
Date	8/8											
Runner Weight	16-03-2011											
Product Weight / Shot	5.27											
Nozzle °C	2.31											
Front °C	275											
Middle °C	280											
Rear °C	280											
Feed °C	285											
MTC °C	70											
V1 st mm/sec	-											
V2 nd mm/sec	80											
V3 rd mm/sec	-											
V4 th mm/sec	-											
Sv1 st min	-											
Sv2 nd min	-											
Sv3 rd min	-											
Fill Time (set) Sec	0.50											
Fill Time (act) Sec	0.29											
Hold Time 1 st Sec	1.50											
Hold Time 2 nd Sec	-											
Cool Time Sec	2.5											
Plast time (act) Sec	3.08											
Cyc.start Time Sec	0.1											
Cycle Time Sec	12.0											
Pv 1 st (setting) kg/f/c	1100											
Pv 1 st (actual) kg/f/c	920											
Pp 1 st kg/f/c	400											
Pp 2 nd kg/f/c	-											
SM mm	24.5											
SD mm	3											
Rev 1 st rpm	280											
Rev 2 nd rpm	-											
BP 1 st kg/f/c	100											
BP 2 nd kg/f/c	-											
Position mm	6.5											
1 st Pos mm	175											
1 st Vel %	30											
2 nd Pos mm	60											
2 nd Vel %	65											
Clamp Pos mm	1.05											
Clamp Vel %	20											
Low Press Pos mm	30											
Clamp Press kg/f/c	20											
Mold Protect Fix	1.50											
Mold Protect Sec	1.41											
Clamp Force tf	50											
1 st Pos mm	45											
1 st Vel %	35											
2 nd Pos mm	175											
2 nd Vel %	80											
Mold Open Limit Pos mm	180											
Mold Open Limit Vel %	40											
Mold open suspend (ON/OFF)	ON											
Mold open suspend Pos mm	20											
Mold open suspend Time sec.	1.0											
Eject Mode	SUSPEND											
Eject Count	3											
Fwd 1 st (mm)	16.5											
Fwd 2 nd (mm)	20											
Fwd V1 st (%)	60											
Fwd V2 nd (%)	10											
Retract (mm)	12											
Retract V (%)	20											
Reason for chunking												
Prepared												
Check (P.I)												
Check												
Approved												
Remarks												



home > Supply > Supply PA66 CM3004 Toray

Supply PA66 CM3004 Toray



Information Name: Supply PA66 CM3004 Toray

Published: 2011-06-14

Validity: 365

Specifications: 25 kg / bag

Quantity: 8000 kg

Price Description: Negotiable

PA66 CM3004 Toray

Specification Level: Flame Retardant

Remarks: Type: Nylon -66 has not enhanced, flame retardant grade, non-halogen. Complete products, stable supply at reasonable prices.

Welcome all customers to order!

(1) PA66 U.S. liquid nitrogen R1000 HS, RA-1004, RAL-4022, RAL-4023, 4026, 4046, RB1008, RC1003, 4536, RF10010HS, RF1007, RFL4026, RFL-4036, RL4010, RL-4040, PDX-R-02038, VF1002, AG6, 25GF

(2) PA66 U.S. Solutia 21SPC.R533H.R533.

(3) PA66 DuPont FR15.8061.10B40.408HS.101F.101L.ST-801.70G33L.70G30.3426.70G43L.FE13001.

(4) PA66 Asahi Kasei 1300G.1300S.FR370.1300GT

(5) PA66 Mitsubishi N252D.3010N.3010GN15.3021GH-30

(6) PA66 Italy Frontage A45L1

(7) PA66 BASF A3K, A3EG3, A3EG6.A3ZG6.6310BK.6512

(8) PA66 Taiwan, South 6401G6.FR10.6210GC.

(9) PA66 Italy Walker Phil 66G30H, 66SN, 66ST-Z

(10) PA66 U.S. LNP: QL4540.UFL4036.RL-4010.RAL-4022

(11) PA66 Toray CM3004.CM3511G-50.CM3006, CM3014, CM3001G, UTN320

(12) PA66 DuPont 70G13HSL Korea

(13) PA66 Knight MG1014NM.MS-0100 Taiwan

(14) PA66 Italy Frontage A45L

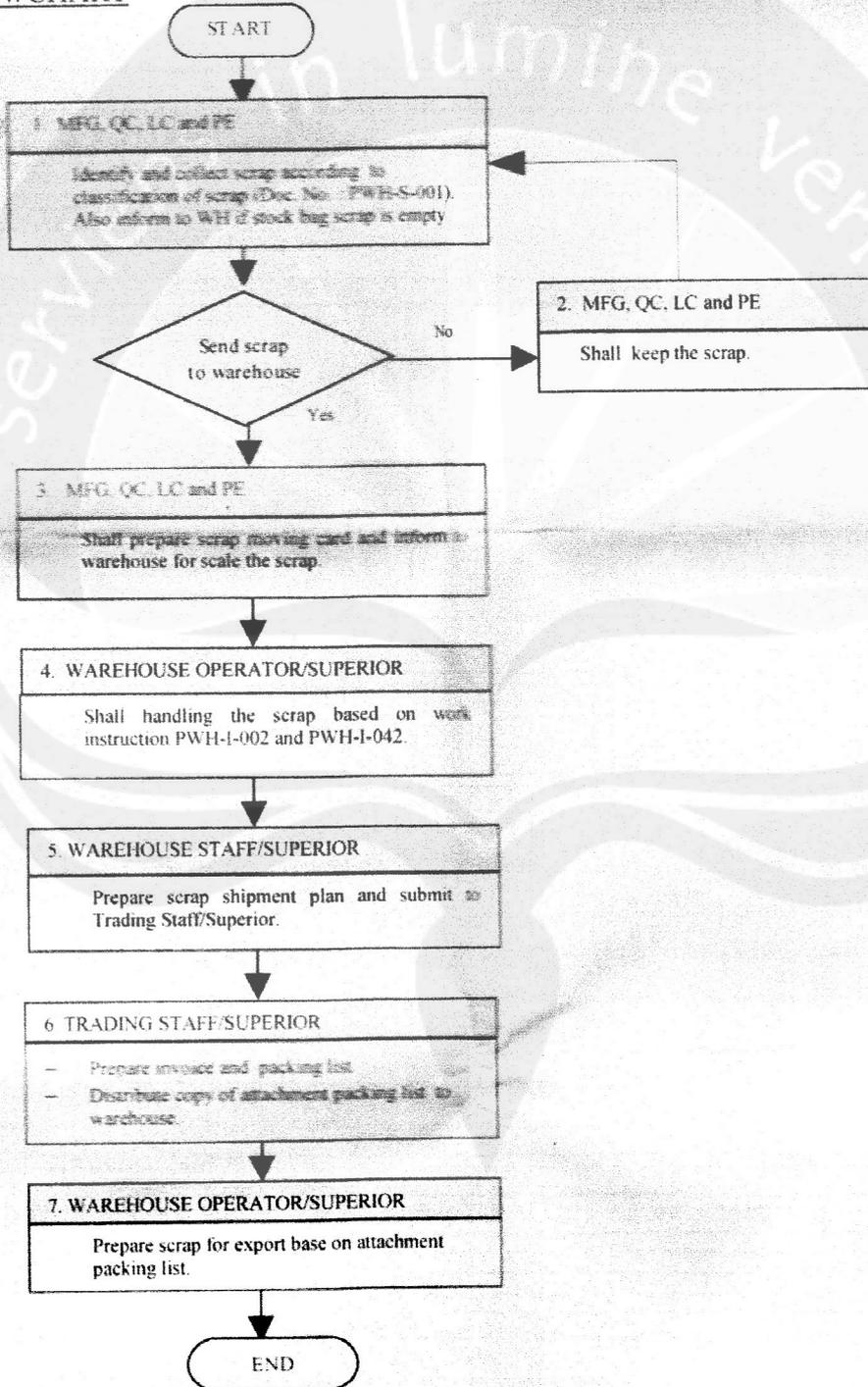
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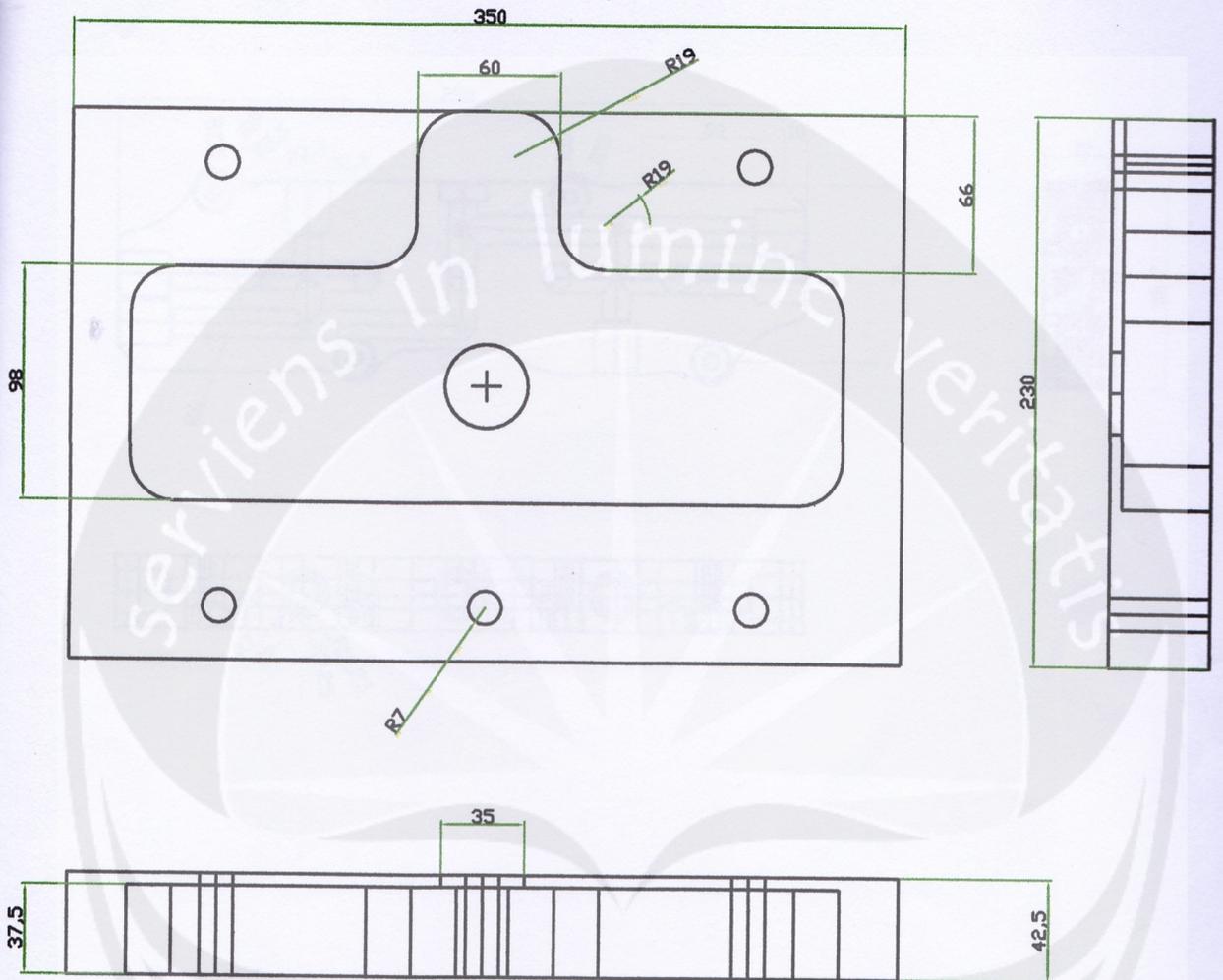
(16) PA66 CM3004 Toray of China

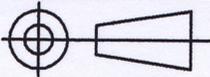
(17) PA66 Jin Lun A0050FN Taiwan

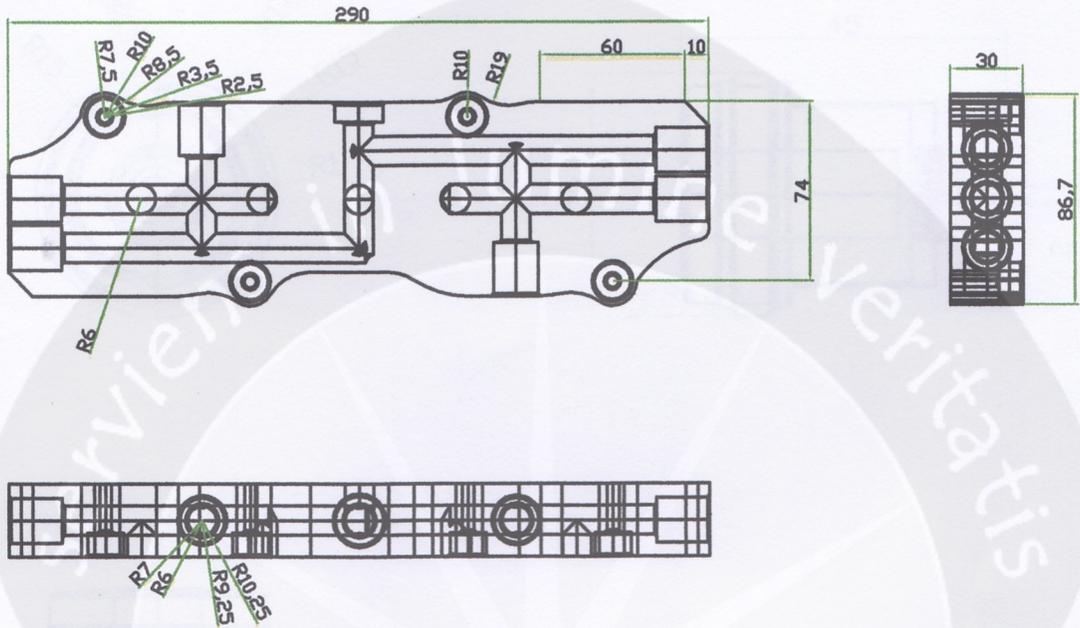
(18) PA66 Swiss EMS 6093

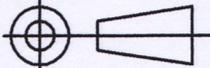
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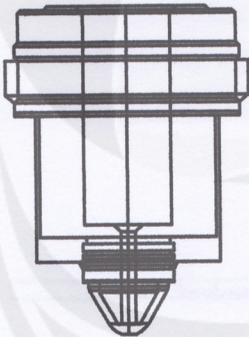
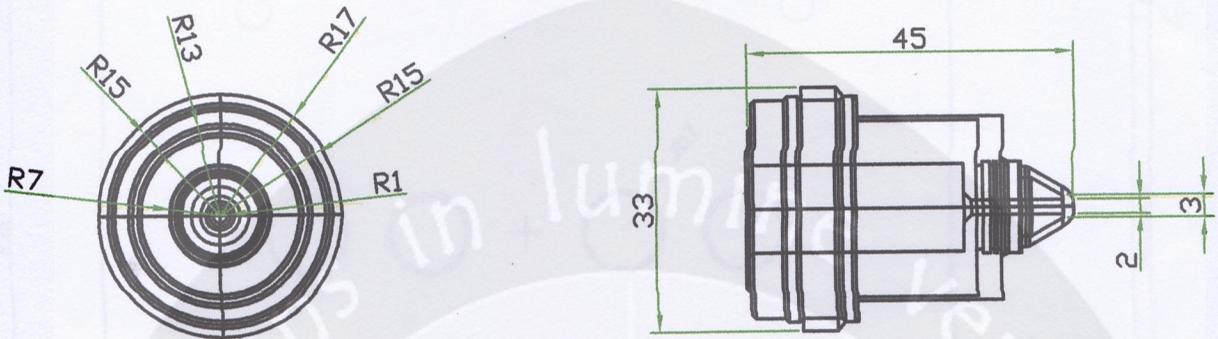
PROCEDURE**SUBJECT: SCRAP PROCEDURE****7. FLOWCHART**

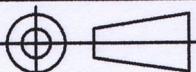


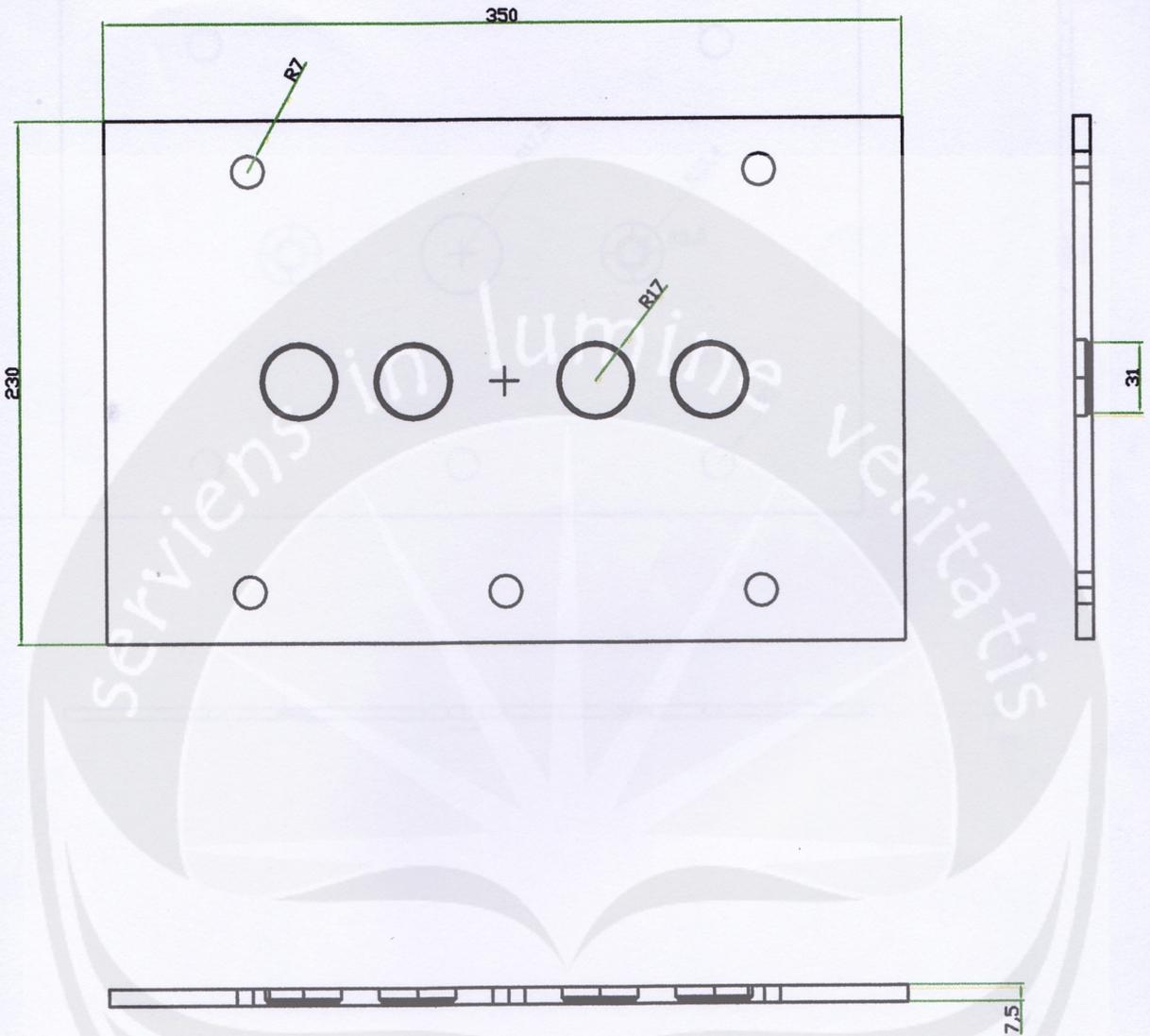
Revision Index	Drawn by : Argya T	Scale : 1:3	
	Reg. Nr. : 06 06 05006	Unit : mm	
	Date : 28 june 2011	Material : metal	
	Checked by :	Sign. :	
	A4	Manifold Plate	
INDUSTRIAL ENGINEERING UAJY		Operation	Dwg. Nr.
Origin.	Rep.	Rep. by.	SN. NS.

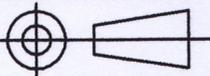


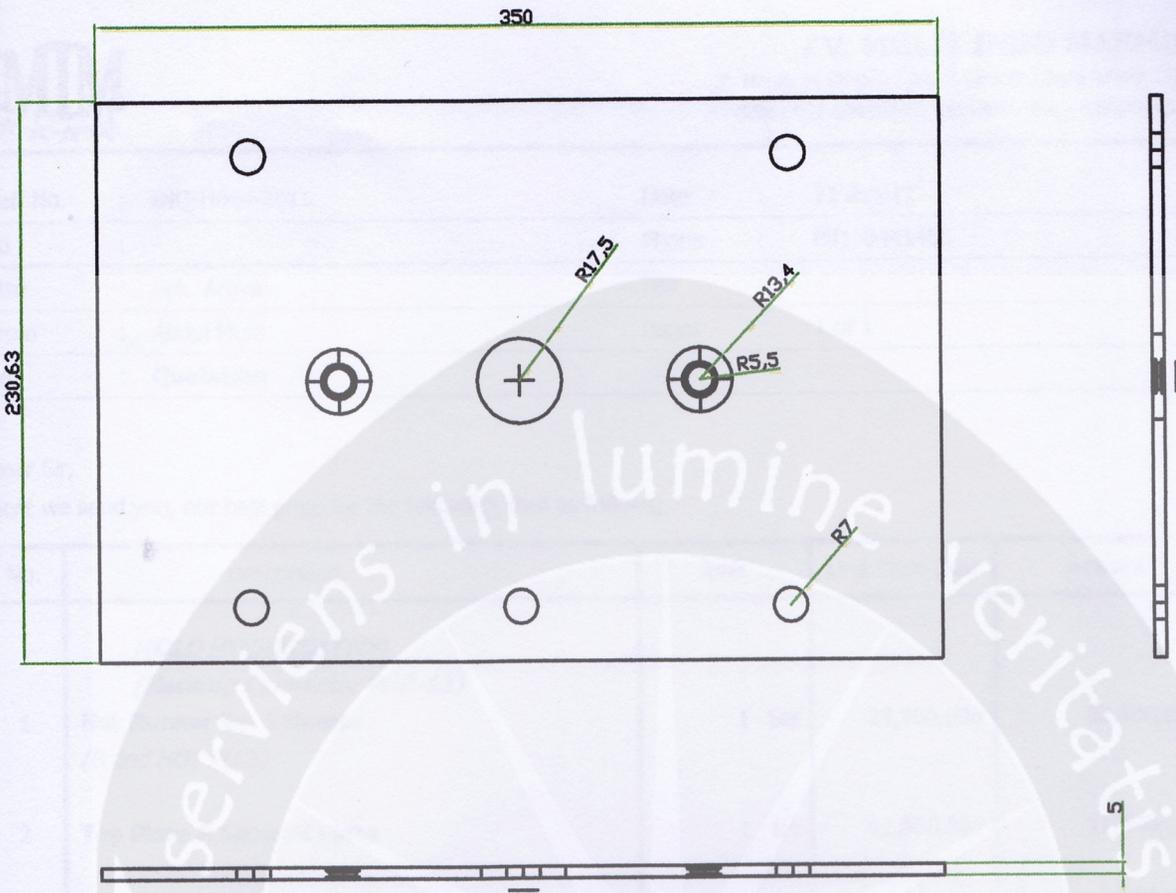
Revision Index	Drawn by : Argya T	Scale : 1:3	
	Reg. Nr. : 06 06 05006	Unit : mm	
	Date : 28 june 2011	Material : metal	
	Checked by :	Sign. :	
	A4	Manifold	
INDUSTRIAL ENGINEERING UAJY		Operation	Dwg. Nr.
Origin.	Rep.	Rep. by.	SN. NS.

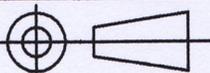


Revision Index	Drawn by : Argya T	Scale : 1:1	
	Reg. Nr. : 06 06 05006	Unit : mm	
	Date : 28 June 2011	Material : metal	
	Checked by :	Sign. :	
	A4	Bottom Nozzle Plate	
INDUSTRIAL ENGINEERING UAJY		Operation	Dwg. Nr.
Origin.	Rep.	Rep. by.	SN. NS.



Revision Index	Drawn by : Argya T	Scale : 1:3
	Reg. Nr. : 06 06 05006	Unit : mm
	Date : 28 june 2011	Material : metal
	Checked by :	Sign. :
A4		Bottom Insert Plate
INDUSTRIAL ENGINEERING UAJY		Operation
Origin.	Rep.	Dwg. Nr.
		Rep. by.
		SN. NS.



Revision Index	Drawn by : Argya T	Scale : 1:3
	Reg. Nr. : 06 06 05006	Unit : mm
	Date : 28 june 2011	Material : metal
	Checked by :	Sign. :
A4		Top Insert Plate
INDUSTRIAL ENGINEERING UAJY		Operation
Origin.	Rep.	Dwg. Nr.
	Rep. by.	SN. NS.

**CV. MULTI INDO MAKMUR**

Jl. Merak III Block I-1 No. 8 Cikarang Baru Bekasi 17550

Telp : 021-89143678, 32243001 Fax : 021-89143678

Reff No.	: INQ-H044-2011	Date	: 21-Jun-11
To	: -	Phone	: 08179441455
Attn	: Bpk. Argya	Fax	: -
From	: Abdul Muin	Pages	: 1 of 1
Re	: Quotation		

Dear Sir,

Here we send you, our best price for the following item as follows;

No.	Description	Unit	Unit Price (Rp)	Amount
1	MOLD MODIFICATION (Housing Connector PHR-11) Hot Runner Set 4 Noozle (Brand HOT PLUS)	1 Set	28,500,000	28,500,000
2	Top Plate & Support Plate	1 lot	11,500,000	11,500,000
3	Insert Modification	1 lot	6,000,000	6,000,000
	SUB TOTAL			Rp 46,000,000
	G. TOTAL			Rp 46,000,000

- Tax : Include PPn
Delivery : 28 Days after Confirmation PO
Payment : DP 20% after PO
50% after Trial
30% after Approval (max 10 days after Trial)

MULTI INDO MAKMUR

Abdul Muin