

Servo Motor and Servo Driver Professional Manufacturer 200W-160KW

Servo Energy-Saving Provider 30%-80%

China sole manufacturer of servo system in hydraulic servo energy saving



Servo System Advantage



Environment Friendly: Reduce the hydraulic oil usage and extend the lifetime, save 30% cooling water usage and reduce noise efficiently.

Energy Saving: Energy saving rate up to 80%.

Precision: Pressure and Flow double loop control, provide Pressure and Flow compensation timely and properly, improve product repeat accuracy efficiently.

Efficient: Increase product mold cycle by 5%-10%.

Stable: Hydraulic oil temperature little difference, improve the machine reliability, durability, stability, extend the machine lifetime.

Servo System Application-Injection Molding Machine



Synmot Company Advantage

Main Features:

1. Professional and Integrate manufacturer of Servo Motor and Servo Driver.

2.Strong technical and research team, special customized products and services.

3. Hydraulic energy saving whole solution and full chain service.

4. Rich manufacturer experience and professional solution of Injection Molding

Machine.

5.Strong after-sale service team.

Advance technology:

1.Professional Electrical and Hydraulic Servo System detection devices.

2.Chief Engineer--Dr.Yangsheng Chen as senior engineer in SIEMENS, CT more than 10 years, won more than 30 inventions and utility model patents, now as National Electric Expert, Professor Senior Engineer, Professor of Zhejiang University and Leader of Electrical College.

3.Absorbed Advance Technology and management team from Taiwan Delta, Foxconn etc.



4.Professional After Sale Service team, keep the after sale service quality of the product.



氰低温测试





Servo Energy saving retrofitting cases

Case 1: China Huaxiang Group

China private enterprise top 500, World automobile parts top 500.



| Injection molding machine r | nodel: | Fixed Pump | Servo System | Performance | Per set save power charge |
|-----------------------------|--------|-------------------|--------------|-------------|------------------------------|
| HTF2800X/1 | | | | | \$ 63504 USD, payback |
| Cycle time | S | 115 | 107 | ↓ 7 % | period 11.6 months. |
| Hourly power consumption | KW∙H | 97 | 34 | ↓ 64.9 % | |
| Annual power consumption | KW∙H | 698400 | 244800 | V 01.5 /0 | |
| Oil pump | Ċ | 55 | 48 | ↓ 12.7 % | |



Injection molding machine retrofitting model: HTF2800X/1

Molding product:Car front frame

Molding material: PA6-GF40

Cycle time: 1158

Test time: one week



Case 2: China Taiwan Jianzhun Group

SUNON Brand, Fan industry world's top three.



| Injection molding machine | model: | Fixed Pump | Servo System | Performance | Per set |
|---------------------------|--------|------------|--------------|-------------|--------------------|
| HC-125 | | | | | \$ 3326 |
| Cycle time | S | 27.3 | 26.1 | ↓ 4 % | sets, sa |
| Hourly power consumption | К₩∙Н | 4.5 | 1.2 | ↓ 73 % | 379164 period 1 |
| Annual power consumption | KW·H | 32400 | 8640 | | period i |
| Oil pump | C | 43 | 40 | ↓ 6 % | |

save power charge USD, retrofit 114 ave power charge USD, payback 13.2 months.





| Molding product: Fan 記录線号: 2012052601 Molding material: PA66 客户名称: 佛山市夏南二大道五号 联系人及电话: 陈忠和 (经理) 優辺安装调试人见: 陪军 安装调试日期: 2012年5月22日 優次官員 一 型 「個服动力系統 SM-0120.0084(0-111) 套 「個服动力系統 SM-0120.0084(0-111) 套 「個服动力系統 SM-0120.0084(0-111) 套 「個服动力系統 SM-0120.0084(0-111) 套 「日服动力系統 SM-0120.0084(0-111) 套 「日服动力系統 SM-0120.0084(0-111) 金 「日 「日 「日 「日 「日 「日 「日 「日 「日 「日 日 「日 「日 日 「日 「日 日 日 | Injection molding machine retrofitting Model: HC-125 | SUITO | | f 江盛迈电气技 安装调试验 | | |] |
|--|---|--|---|--------------------------|--|---------------------|--------------------|
| Molding product: Fan 家户地址: 他山市夏南二大道五号 联系人及电话: 陈忠和 (经理) 磁辺安装调试人员: 陆军 安装调试日期: 2012年5月22日 磁辺安装调试人员: 陆军 安装调式日期: 2012年5月22日 個肥动力系统 SN-0090L06F0-111 金 ケンロード 第二 11/金号 「個肥动力系统 SN-0190L06F0-111 金 22 「個肥动力系统 SN-0190L006F0-111 金 32 「個肥动力系统 SN-0190L006F0-111 金 32 「日間动力系统 SN-0190L006F0-111 金 32 「日間动力系统 SN-0190L006F0-111 金 27 「日間动力系统 SN-0190L006F0-111 金 27 「日間动力系统 SN-0190L006F0-111 金 27 「日間动力系统 SN-0190L00105F0-111 金 27 「日間 114 114 114 114 安装前式電波電 安装鋼式電源 SN-0190L00105F0-111 金 28 114 シジェジェジュション 「日本 114 114 114 114 114 シジェジュシジョン 「日本 114 114 114 114 114 114 114 114 114 114 114 114< | | | | 又衣炯风弛 | 242386 | | 录编号: 2012052601 |
| 磁辺安装调试人员, 随军 安装调试日期, 2012年5月22日 Molding material: PA66 Cycle time: 27.3S Cycle time: 27.3S Test time: one week 名 窓 | | 客户名称 | 佛山建准电子有 | 限公司 | 对应合 | 同(或相 | 目应单号): 2012031605 |
| 磁辺安装调试人员, 随军 安装调试日期, 2012年5月22日 Molding material: PA66 Cycle time: 27.3S Cycle time: 27.3S Test time: one week 名 窓 | Molding product: Fan | 客户地址 | : 佛山市夏南二大 | ;道五号 | 联系人 | 及电话: | 陈忠和(经理) |
| Molding material: PA66 | hiotung producer i un | 盛迈安装 | 调试人员: 陆军 | | 安装调 | 试日期: | 2012年5月22日 |
| Molding material: PA66 Cycle time: 27.3S Test time: one week | | | 名 称 | 型号 | 单位 | 数量 | 出厂编号 |
| 安菜调 中和成为方泉流、品は150,0004(11) 主 32 Gycle time: 27.3S 個服动方系統 Sk-0160,01050-111 主 27 位用成力系統 第4-0160,01050-111 金 27 位用成力系統 第4-0160,01050-111 金 27 位用成力系統 第4-0160,01050-111 金 27 位用成力系統 東注 114 位 東注 114 安装调试结束目期,4月12日-4月30日 敏化目期,5月26日 客户敏收人员,陈忠和 砂水(11) 第 27 (11) (11) 金 27 (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) (11) | Molding motorial: PA66 | | 伺服动力系统 | SM-0090L0067Q-111 | 套 | 55 | |
| Cycle time: 27.3S Test time: one week | wording material. 1 Aug | | 伺服动力系统 | SM-0120L0084Q-111 | 套 | 32 | |
| 文装调试结束日期:4月12日-4月30日 敏收日期:5月26日 客户验收人员:陈忠和 敏收结论: 设备已按合同要求进行配置。安装调试完毕后正机器正常使用.且达到如下要求。 a)、公式装箱后节能测试,电机部分节能率达到_28% 以上: b)、油嗽、油管、油管接头、压力表等无漏油、扭曲: c)、系统最高压力调整设定140m。显示压力14 ±0.54pa,符合设备性能要求: d)、设置设定199时,电机转速达到_200_转分,达到流量配置要求; f)、流量设定99时,电机转速达到_200_转分,达到流量配置要求; f)、原机所拆封板复原无遗漏:控制箱连接线走线合理。 以口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口 | | 试设备 | 伺服动力系统 | SM-0160L0105Q-111 | 套 | 27 | |
| 文装调试结束日期:4月12日-4月30日 敏收日期:5月26日 客户验收人员:陈忠和 敏收结论: 设备已按合同要求进行配置。安装调试完毕后正机器正常使用.且达到如下要求。 a)、公式装箱后节能测试,电机部分节能率达到_28% 以上: b)、油嗽、油管、油管接头、压力表等无漏油、扭曲: c)、系统最高压力调整设定140m。显示压力14 ±0.54pa,符合设备性能要求: d)、设置设定199时,电机转速达到_200_转分,达到流量配置要求; f)、流量设定99时,电机转速达到_200_转分,达到流量配置要求; f)、原机所拆封板复原无遗漏:控制箱连接线走线合理。 以口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口 | G L (* 27.29 | | | | | | |
| Weyds论: | Cycle time: 27.38 | | | 共计 | | 114 | |
| Test time: one week | | 安装调试 | 结束日期: 4月12 | 日-4月30日 验收 | 日期:5. | 月 26 日 | 客户验收人员: 陈忠和 |
| | Test time: one week | 设备已改 a)、经交 b)、油% c)、系统E f)、原机 其它双方 a)、 b)、 c)、 e)、 e)、 | 合同要求进行配置 装前后节能测试, 油管、油管控表, 最高压力调整设定 力 1.5Mpa,显示压, 设定 99%时,电机4 所括封板复原无遗 协商还要完善事项, | 电机部分节能率达到 | <u>82%</u> 以 出曲: =0.5Mpa, 能要求; 分,达到》 论合理。 | 上: 符合设行 法量配置: | 备性能要求: 要求: ; |

Case 3: China Beifa Group

Leading enterprise of pen Industry in China



| Injection molding machine | model: | invert | Servo System | Performance | |
|---------------------------|--------|--------|--------------|-------------|---------------------------|
| HTF150X/1 | | | | | \$ 3427 USD, retrofit 126 |
| Cycle time | S | 33.4 | 30.9 | ↓ 7 % | sets, save power charge |
| Hourly power consumption | К₩∙Н | 5.8 | 2.4 | ↓ 58 % | 431802 USD, payback |
| Annual power consumption | К₩∙Н | 41760 | 17280 | ¥ 30 % | period 14.2 months. |
| Oil pump | C | 48 | 42 | ↓ 12.5 % | |







Injection molding machine retrofitting Model: HTF150X/1 **Molding products: pen** Molding material: PP Cycle time: 33.4s **Test Time: one week**

Synnot 浙江盛迈电气技术有限公司 盛迈电气伺服动力系统节能改造案例 客 贝发集团 机器型号 HT150 测试条件:相同产品、相同机 伺服动力型号 SM-14-0088 型、不同动力系统2台机,稳 jete: 品 笔杆 (1出14) 定生产3小时后,连续生产2 材一料 小时各项记录。 P P 动力系统 定量泵系统 伺服动力系统 备注 成型周期 秒 33.4 30.9 合计模数 次 108 116 效益提高按 80 元/班 ×0.07 生产效率 +7% ×3/班×300/天=5040 元 小时耗电 度/小时 6.3 4.0 每小时省电 2.3 度 年耗电 度 37800 24000 耗电按 300 天, 20 小时 年所需电费 元 37800 24000 电费按 1.0 元/度计 13800+3024 年效率提高+节电总额 年节省电费 元 +5040=21864 为 21864 元 改造成本 元 29130 回收周期 月 15月 产品合格率 98% 100% 产品合格率提高 重复精度 0.55% 0.3% 重复精度提高 耗电量/小时



根据实际数据:注塑机在节能改造后生产制 笔配件的过程中,相比传统定量泵系统节能 50%左右

根据产品不同(如璧后较厚、保压时间长、 冷却时间长的产品),-改造后相比传统定量泵 节能甚至可达 80%。

| Injection molding machine VICTOR Ve-140 | model: | Fixed Pump | Servo System | Performance | per set save power charge \$ 2808 USD. |
|--|--------|------------|--------------|-------------|---|
| Cycle time | S | 79.9 | 78.3 | ↓ 2 % | |
| Hourly power consumption | К₩∙Н | 6.6 | 3.6 | ↓ 45.4 % | |
| Annual power consumption | К₩∙Н | 47520 | 25920 | V IJ. I /0 | |
| Oil pump | Ĉ | 50/46-45 | 37/36 | ↓ 26 % | |

Case 4: Thailand SIRI PHATCHARA PAISAN Co., Ltd



Injection Molding Machine retrofitting model:VICTOR Ve-140 **Molding product: fixed parts**

Molding material: ABS+PE(mix)

Cycle time: 79.9S **Test time: one week**

| 10 | esting | | | | | | ving Reno | Junion | | | |
|---------------------------|----------|--------------|-------|-------|-----------------------|------|----------------------------------|----------------|------|------------|------------|
| | | | | | enovat | | | 1111 | | | |
| Company | SIR | I PHIATT | MA | RAP | AISA | N | CO.L | tD. | | | angh Dr |
| Machine model | VIC | TOR Ve | - 140 | | | Pro | CO, L- ducts Fix 1609 (180 | ed pons | Mate | rial | ABSTPE |
| | | e of machine | | | | | | licture of pro | | | |
| Testing person | | Synmot | | Joye | WA, Jas | son. | Tio Testing | date | June | . 24 | th. 2013 |
| Testing time | 14 | +20 - 15 | :70 | | ter Numbe | | 2.5 | | C | <u>7.1</u> | |
| Power cons | umption | h (kw*h/h) | | | | | | | | | |
| Product number (start) | | 4014 | | Proc | duct numb (finish) | er | 405 | 9 | | | |
| Hourly produc | tion ab | lity (PCS/H | | | | 0 | -5 | | | | |
| Power consump | | | | | 0 | 114 | | | | | |
| | | | | Parar | meters of p | prod | lucts | | | | |
| | | le time (S) | - | | | | 79.9 | 10 1 | | | |
| Setting / A | ctual te | 1 | | 201 | | | 200/202 | | | | 0/183 |
| Item | | P(Bar) | | w% | Time(s | , | Item Mold | P(Bar) | Flow | | Time(s) |
| Charging | 50.05 | 140 | 9 | | 37.2 | | Eject | 25 | 20 | | |
| Mold high press | ure | 120 | 30 | | | | Core | 1 | 1 | | |
| Open mold | | 120 | 40 | | | | Cooling | 60 | | | |
| Back pressur | e | 0 | Hol | ding | 6 | | Oil temp | 55°c/ | 46°c | (+ | -0° c)- (4 |

Zhejjang Synmot Electrical Technology Co., Ltd Testing Report of IMM Energy-saving Renovation (After Renovation) Company SIRI PHATCHARAPAISAN CO., LTd Machine model VICTOR Ve-140 Products Fixed Ports Material ABSTPUMER 1609(1809) Picture of machine Synmot Jope W. Jasm Jim Testing date June >5th , 2013 Testing person Customer 19:40 - 20:40 143.2 Meter Number Testing time Power consumption (kw*h/h) 4981 5027 Product number Product number (finish) (start) Hourly production ability (PCS/H) 46 Power consumption per unit (kw*h/m) 0.078 Parameters of products Cycle time (S) 78-3 ctual temp (C) 78.3
 Setting / Actual temp (℃)
 2>0 />20
 200/200
 206//30
 171/ (%n

 Item
 P(Bar)
 Flow%
 Time(s)
 Item
 P(Bar)
 Flow%
 Time(s)

 pdding-pressure)
 J2-1 (J2-1)
 2-2
 Male
 Flow%
 Time(s)

 tem
 P(ear) Plowa
 times
 times
 recail
 P(car) Plowa

 (in)
 cholding-pressure)
 45 (35)
 40 (35)
 2.3
 Mold
 15
 40

 Charging
 \mathfrak{Po} \mathfrak{Lo} 32.6
 Eject
 25
 30

 Mold high pressure
 (3.6
 \mathfrak{Po} \mathfrak{So} Cooling
 \mathfrak{Po}

 Open mold
 \mathfrak{Po} \mathfrak{So} Cooling
 \mathfrak{Po}

 Back pressure
 \mathfrak{O} Holding
 \mathfrak{T} Oil temp
 Mold Eject 15 40 25 20 Remarks: pump 5752-50. Servo motor 190H21D170-31Rn, Servo drive. SM20-22D-00

Signature ______ Date _____ Date _____

Case 5: Thailand T.P.INTERCHEM(1999)Co.,Ltd



| Injection molding machine | model: | Fixed Pump | Servo System | Performance | per set save power charge |
|---------------------------|--------|------------|--------------|-------------|---------------------------|
| TOSHIBA IS650E-5 | 5A | | | | \$ 2808 USD. |
| Cycle time | S | 114 | 110 | ↓ 4 % | |
| Hourly power consumption | KW · H | 33.4 | 16.8 | ↓ 50 % | |
| Annual power consumption | KW · H | 240480 | 180000 | ¥ 30 /0 | |
| Oil pump | °C | 40-41 | 35-36 | ↓ 13 % | |

Case 6: Turkey RASTPLAST Company

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Injection Molding Machine retrofitting model: SM600

Molding product: Kuaak Sepet

Molding material: HDPE

Cycle time: 45.05S

Test time: one week



| Injection molding machine | model: | Inverter | Servo System | Performance | Per set save power |
|---------------------------|--------|----------|--------------|-------------|---------------------|
| SM600 | | | | | charge \$ 9282 USD. |
| Cycle time | S | 45.05 | 41.8 | ↓ 3 % | |
| Hourly power consumption | К₩∙Н | 30. 514 | 14. 4 | ↓ 53 % | |
| Annual power consumption | К₩∙Н | 219700.8 | 103680 | V 00 // | |
| Oil pump | Ĉ | 37 | 20 | ↓ 46 % | |

| Testi | ng Rep | | | y-saving R | enovatior | 15 | | | STRINGF ALE CTIN | Testing Repo | | | al Technolog y-saving R | | | |
|----------------------------|--------------|---------|-------------------------|-------------|------------------------|------------------------|---------|------|-----------------------|-------------------------|---------------|--------------|----------------------------|------------------|---------------|---------|
| | | | e Renov | (ation) | | | | | | | (<u>Afte</u> | r Renova | tion) | | | |
| | STPL | | | R. K | want | Material | HIPS | | Company | RASTPL | AST | | | | | |
| | <u>M 600</u> | Giont | | Products F | <u>sepet</u> 391 wH | | 1300gr. | | Vachine model | - SM 60 | | | Products | sisolik 345KB | Material 2 | HIPS |
| Testing person | Synmot | 2 | theng + 1 | Falt Tes | ting date | 03.0° | 7.20D | | | Synmot | | | 14 | | | 0 1013 |
| | Custome | r | | | | | | 1 | Testing person | Custome | | Zheng+f | et h Te | sting date | 05.0 | 9.2013 |
| Testing time | 00 | | Meter Nurr | iber | .0 | >36 |).s kw | lh. | | 11-15 | | | . 1 | 67.1 | 511 | 1111 |
| Power consumption | | | | 6 | 1,00 | | | | Testing time | 125 | | Meter Num | iber - | -1.5 | 214. | 4 kW |
| (start) | 133 | | Product nur (finish) | nber 147 | - pes /2 | = 7: | 3 pc | | Product number | imption (kw*h/h) 705 | | Product nur | nber | | | |
| Hourly production abilit | y (PCS/H |) | 73 p | cs/h. | | | | | (start) | 777 | | (finish) | | | | |
| Power consumption per u | nit (kw*h | | | skw/pc | - | | | | Hourly product | ion ability (PCS/I | Í) | 72 | (2 cauit | ty). | | |
| | | | meters of p | 1 | | | | | Power consumpti | on per unit (kw*h | /m) | 0.20 | 1 kw/cy | cle | | |
| Cycle | time (S) | | | 41.8 | Semi- | -auto | | | | | Par | ameters of p | products | | | |
| Setting / Actual tem | D.(℃) | 250 | 250 | 245/244 | | Charles Classification | 230/230 | 2161 | | Cycle time (S) | | 1.05 | | | | |
| Item | P(Bar) | Flow% | Time(s) | ltem | P(Bar) | Flow% | Time(s) | | Setting / Act | tual temp.(°C) | 245 | 1260 | 235/235 | - 225/ | 225 2 | 20/220 |
| njection(holding-pressure) | 165/60 | 110/10 | 4,14=2 | Mold faster | 55 | 65 | 2,83 | | ltem | P(Bar) | Flow% | Time(s) | ltem | P(Bar) | Flow% | Time(s) |
| Charging | 145 | Harp | 22,17 | Eject | 25/50 | 12/25 | 2,75 | | njection(holding-pre | essure) 9,45 | 20 | 8-96 | Mold faster | 25 | 65 | 2.8 |
| Mold high pressure | 160 | 30 | 5,17 | Core | - | - | - | | Charging | 2085 | SS | 16.4 | Eject | 0.440 | 0.1h | 6 2.27 |
| Open mold | 45 | 40 | 2,83 | Cooling | 23 | | | | Mold high press | | 45 | | Core | - | - | - |
| Back pressure | 10 | Holding | 2 | Oil temp. | 37 | | | | Open mold | 15 | 40 | 28 | Cooling | 20. | 0 | |
| emarks: | | | | | | | | | Back pressure | e 10 | Holding | 2,31 | Oil temp. | 20 | | |
| Signature Toy A | y GS | ekh | Date | 05,09,2 | 013 | | | | temarks: Signature | Teyly 6 | Bakel | ∕) Dati | 9 <u>05.09</u> |),201g | | , |

| Injection Molding Machine mo HTF530X | odel: | Inverter | Servo System | Performance | Per set save power charge \$ 6819 USD. |
|---|-------|----------|--------------|-------------|--|
| Cycle time | S | 68-111 | 61. 1-86. 9 | ↓ 10.1 % | |
| Hourly power consumption | К₩∙Н | 30. 912 | 19.074 | ↓ 38.2 % | |
| Annual power consumption | К₩∙Н | 222566.4 | 137332.8 | ¥ 30.2 /0 | |
| Oil pump | °C | 54 | 41-45 | ↓ 16.7 % | |

Case 7: Turkey TEKNIKA.Company







Injection Molding Machine retrofitting model: HTF530X

Molding product: Sebzelik

Molding material: HIPS

Cycle time: 68-111S

Test time: one week



| | Testing Report of I | ora Renov | | | | | | | (<u>I</u> | After Renov | ation) | | | |
|-----------------|------------------------------------|--------------|--------------|--------|----------|---------|--------------------|------------------|--------------------|---------------------|----------|-------------------|----------|--|
| Company | TEKNIKA | | | | | | Com | ipany | TEKNIKA | | | | | |
| | HTF STOX | | Products 6 | 40 all | Material | HIPS | Machin | e model | HTF 530) | | Products | Sebzelik | Material | HIPS |
| | | | | | | | | | | | | | | |
| | Synmot Customer | Jasonil | alih Tes | | 31.08 | 2013 | Testing | person — | Synmot Customer | 2 heng + | Felih | Testing date | | 4.201 |
| | 11:32/3/110 | Meter Nun | un 3.º 34 | Hew . | >30 | 944 | Testing | time | 1 20 | Meter Nu | | 8.9 EW 28-0 EI | J 19 | .1 kc |
| Power consu | mption (kw/h/h) | | | | | | Pov | ver consumpti | ion (kw*h/h) | | | | | Tople |
| | 3180 > 42 | | | | | | Product n (star | | 3270 | Product r (finis | | 3321 | | TAd |
| | on ability (PCS/H) | 42 | | | | | Hourly | y production a | ability (PCS/H) | 510 | 2.8 | | | |
| | an per unit (kw ^s h/m). | 0,73 | | | | | Power c | onsumption p | er unit (kw*h/m) | | 74 k-u | , | | |
| | | arameters of | | | | | | | | Parameters | | | | |
| | Cycle time (S) 65 | | | | | | | C) | ycle time (S) | 1,1 N 86 | 9 | | | |
| | ual temp ("G | | 277 | 0 | 27 | 220 2 | Se | tting / Actual t | | 209 | 22 | 7 2. | 21 | 220 |
| | P(Bar) Flow | | | | | Time(s) | | ltem | | w% Time(s | | m P(Ba |) Flow% | |
| | esure) 135 5 | 6 14.4 | Multi Taster | 16 | 57 | | Injection(ho | olding-pressu | re) 135/95 63 | 132 9.5 | Mold f | 00 | 001 | |
| | | 23.9 | | | 33/9 | | Cł | narging | 130 9 | | | | | and the second sec |
| Mold high press | | | | | | | Mold hi | gh pressure | 140 9 | 5 0.0 | . Co | reA/B 55/9 | | |
| | | | | | | | Оре | en mold | 1023 8 | \$30 | Coc | | t2-De | oy) |
| Back preasure | | | | | | | Back | pressure | 4 Ho | ding 4 | Oil te | emp. 4 | N45 | |
| | | | | | | | Remarks: | | ./ | | | | | |
| Signature | auto / aperatio | | | | | | Sig | nature | Alarian | | | 2,09,201 | 3 | |

Case 8: PT LANGGENG MAKMUR INDUSTRI Thk Company

Professional manufacturer of plastic production in Indonesia.



| Injection molding machine | model: | Variable Pump | Servo System | Performance | Per set save power |
|---------------------------|--------|---------------|--------------|-------------|---------------------|
| KM360B2 | | | | | charge \$ 2143 USD. |
| Cycle time | S | 62.1 | 56.3 | ↓ 9 % | |
| Hourly power consumption | KW·H | 10. 44 | 6.72 | ↓ 36 % | |
| Annual power consumption | К₩∙Н | 75168 | 48384 | | |
| Oil pump | Ĉ | 31-34 | 33 | ↓ 3 % | |

| | Testing Re | port of I | MM Energy | -saving Ren | ovation | | | |
|--|----------------|-----------|-------------------------|--|------------|----------------------------|---------|--|
| | | | ore Renov | | | | | |
| Company | PT LANGGE | | UR INDUSTRI T | and the second | | | | |
| Machine model | THEFT | KM360B2 | | | ty Spv01 N | laterial | PP | |
| · · · · · · · · · · · · · · · · · · · | | · | | 6 | |] | | |
| Testing person | Synm | | Jason&Bil | I Testir | ng date | 26 th ,nov,2013 | | |
| Testing time | 9:22-9 | | Meter Number 6 | | .1 1 | | 1.3 | |
| Power consur | | | | 10.4 | | | | |
| Product number (start) | 3579 | | Product nun (finish) | nber 38 | 5820 | | | |
| Hourly productio | n ability (PCS | /H) | 58 | | | | | |
| Power consumption | n per unit (kw | 'h /m) | 0.18 | | | | | |
| | | P | arameters of p | products | | | | |
| | Cycle time (S | | | 62.1 | | | | |
| Setting / Actua | | | 230 | 230 | 2 | 20 | 220/210 | |
| Item | P(Bar |) Flow9 | 6 Time(s) | Item | P(Bar) | Flow% | Time(s) | |
| njection(holding-press | | 75 | 7 | Mold faster | 60% | 45 | | |
| Charging | | 99 | 10 | Eject | 35% | 20 | | |
| Mold high pressure | 70% | 60 | 4.1 | Core | 1 | 1 | 1 | |
| Open mold | 35% | 15 | 6.2 | Cooling | | 285 | | |
| Back pressure | 10% | Holdin | | Oil temp. | | 310-34 | C | |
| Contraction of the second seco | 1010 | | | L on write. | 1 | 010-04 | v | |



Zhejiang Synmot Electrical Technology Co., Ltd

Testing Report of IMM Energy-saving Renovation

(After Renovation)

| Company | Ph.M | | 360B2 | INDUSTRI T | Products | Body Spv01 | Material | pp | |
|--|--------------------|-----------|----------------------|-------------------------|-----------|-----------------------------|----------------------|---------|--|
| Machine model | | | | | (| | | | |
| Testing person | Synmot Customer | | | Jason&Bil | - | Testing date | 27 th ,nd | ov,2013 | |
| Testing time | 11:30-11:40 | | | Meter Num | ber | 12.15 | 13.25 | | |
| Power consu | mption (| (kw*h/ h) | | 6.6 | | | | | |
| Product number (start) | | 35942 | | Product num (finish) | iber | 35951 | | | |
| Hourly product | on ability | (PCS/H |) | 56 | | | | | |
| Power consumption | on per un | nit (kw*h | /m) | 0.12 | | | | | |
| | | | Par | ameters of p | roducts | | | | |
| | Cycle | time (S) | | | 56.38 | | | | |
| Setting / Act | ual temp. | (7). | | 230 | 230 | | 220 | 220/210 | |
| Item | | P(Bar) | Flow% | Time(s) | ltem | P(Bar) | Flow% | Time(s | |
| jection(holding-pre | ssure) | 85% | 80 | 7 | Mold fast | ter 50% | 50 | | |
| Charging | | | 55 | 20 | Eject | 60% | 30 | | |
| Mold high pressu | re | 50% | 30 | 6.8 | Core | 1 | | 1 | |
| Open mold | | 35% | 15 | 6.2 | Cooling | , | 25s | | |
| Back pressure | | 9% | Holding | 1 | Oil tem | - | 33°C-33" | с | |
| State of the second sec | | | CARGO STATE OF STATE | A STATE AND AND AND | | CONTRACT DESCRIPTION OF THE | | | |

Spint Signature _ ERWANTO

Case 9: China BSHHA Group

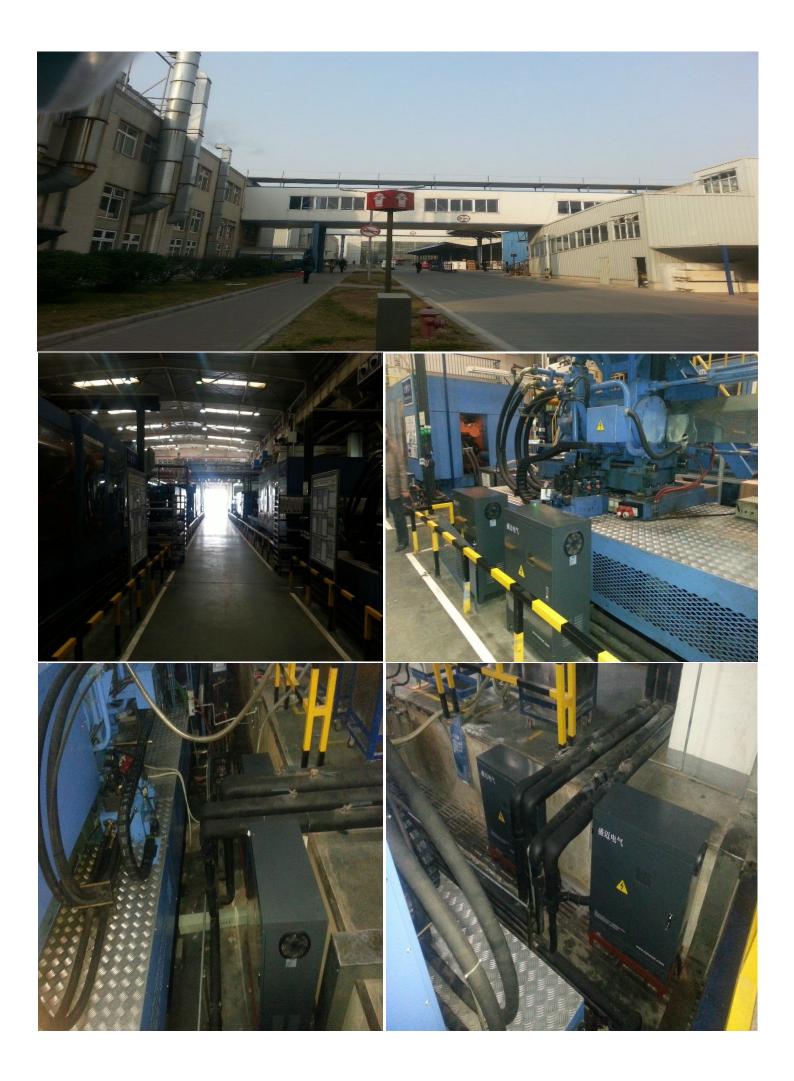
Member of the Bosch and Siemens Household Appliances Group.



| Injection Molding Machine | model: | Variable pump | Servo System | Performance | Per set save power |
|---------------------------|--------|---------------|--------------|---------------|-----------------------|
| HTF700W2/J1 (HAIT | IAN) | | | | charge \$ 114,35 USD. |
| Cycle time | S | 45.0 | 41.86 | ↓6.98% | |
| Hourly power consumption | К₩∙Н | 27.68 | 17.76 | ↓40.5% | |
| Annual power consumption | KW·H | 199296 | 127872 | • | |
| Oil pump | Ĉ | 38 | 36 | ↓5.3% | |

BSHHA-Bosch and Siemens, 1st batch injection molding machines servo retrofit order(12 sets) with SYNMOT.

| NO | Machine model | Machine Brand | Machine QTY(sets) | Remark |
|-------|---------------|---------------|-------------------|-------------------------------------|
| 1 | HTF780 | HAITIAN | 2 sets | Machine including fixed |
| 2 | PH650 | Po Yuen | 3 sets | pump machines, piston pump |
| 3 | HTF700W2/J1 | HAITIAN | 4 sets | machines and machine with inverter. |
| 4 | Y171-650F | WELTEC | 1 set | |
| 5 | HTW480 | HAITAI | 1 set | _ |
| 6 | HTF800W2/J1 | HAITIAN | 1 set | |
| Total | 480-1080 ton | 4 brands | 12 sets | |



| Injection Molding Machine n MITSUBISHI-390MJ | | Fixed pump | Servo System | Performance | Per set save power charge \$ 16891 USD |
|---|------|------------|--------------|-------------|---|
| Cycle time | S | 135 | 134 | ↓ 0. 74% | |
| Hourly power consumption | К₩∙Н | 45 | 17.4 | ↓ 61. 3% | |
| Annual power consumption | К₩∙Н | 324000 | 125280 | ¥ 01.0% | |
| Oil pump | C | 61 | 42 | ↓ 31. 1% | |

Case 10: Vietnam Thanh Cong Co., Ltd. Company









Injection Molding Machine retrofitting model: MITSUBISHI-390MJ Molding product: T-34 Molding material: UPVC Cycle time: 135 Test time: one week

| | | | | aving Renov | | | 1 | | | Aftor F | enovatio | aving Reno n) | vanon | | | |
|---|---|----------------|----------------|--------------------------|---------|-------------|----------|--|-----------------------|-------------------------------|--------------|------------------------------|----------------|----------------|--------|--|
| | NH CONG PL | | 14 | - | JI II | anariai UPA | e | Company THAN Mactine model | CONG PL | | | | | | | |
| Machine model | Mesuidit | ihi 390MJ | P | rosudis Tr | | | R | Participation of the second se | Mitsubath | 380W1 | Pl | Products T-34 Material UPVC | | | | |
| E | F | -5 | 1 | | | | | | - | , | - | | | | | |
| | 12.4. | - | 3 | 38 6 | 101 | i Lin | | | - 4- | | | | 12 | in the | T | |
| 1 Grand | 1 | 10/3 | 1 | A. | MI | 10 | 1 | Pline it - | - | | | and i | Wall | 100 | | |
| 1 - port | EL-3 | 1 | | 0 | 3 | 0. | | Same Million - | | 1 An | in I | 0 | 5 | OF . | | |
| Ser an | 1 M | New York | | 1 | | 10 | | - | and the second | | 41 | | | 0 | | |
| G | mt | 2 | | 1 al | k-k | -0- | 100 | | America | | | | | -6- | | |
| 3/ | | - | 1 | | 6. | | 181 | | | | 1 | | EL L | | | |
| | Symmot Jason Texting date 03 th dec.2013 | | Testing person | Testion parcon Synmot | | Jason | | Testing date | | 14 ^m .dec.2013 | | | | | | |
| Testing person | Customer | | | Testing | 1 danse | | | realing betabli | Customer | | | testin | A Marg | and the second | | |
| Testing time | 9.26-10.26 | | Meter Nurrib | e 28.1 | 190 | \$0 23.85°% | | Testing time | 17:52-18:52 Meter Num | | Aeter Numbe | | 95*60 34.24*60 | | | |
| Power consumption | n (kw*h/ti) | | | | 45 | - | _ | Power consumption | (kw*h/h) | | | | 17.4 | - | - | |
| Product number | 16354 | - | Product numi | ber 15 | 390 | 10 | | Product number (start) | 18354 | 18354 Product nur (finish) | | er 18 | r 18391 | | | |
| (starf) | | | (finist) | | | | | Hourly production abilit | y (PCS/H) | and a second second | | | | | | |
| Hourly production at | | | 26 | | | | | Power consumption per u | | 1 | 0.67 | | | | | |
| Power consumption pe | r unit i kw*h | /m) | 1.731 | | | | | Power consumption per o | at the pair of the | | | ortucte | | | | |
| | | Para | ameters of p | | | | | | 1000 | Para | meters of pr | 134 | | | | |
| Cy | sle time (5) | | - | 135 | | 5 T. | 1.10 | | time (S) | | 185 | 175 | | 165 13 | 55/145 | |
| | mp.("C) | _ | 185 | 170 | | | 5.145 | Setting / Actual tem | | Ele un | | Item | P(Bar) | Flowli | Tetta | |
| Setting / Actual te | | Flow% | Time(s) | item | P(B8) | | Timblist | ltem | P(Bar) | Flow% | Time(s) | Mold faster | 80 | 50 | | |
| Setting / Actual to | P(Bar) | | | | 65 | 45 | | Injection(holding-pressure) | 125(55) | 45 | 27(10) | and the second second second | 1000 | 75 | | |
| ltem. | | 45 | | Mold taster | | | | | | | | 1 1 1 1 1 1 1 | 110 | | | |
| Item Injection(holding-pressur | | | 50 | Mold faster Eject | 135 | 38 | - | Charging | 125 | 36 | 37 | Eject | 110 | | | |
| Item Injection(holding-pressur Charging | 9) 130 | 45 | 50 4.1 | | 10 | 38 | 1 | Charging Mold high pressure | 125 100 | 36 50 | 3.9 | Core | 65 | 55 | | |
| Item Injection/holding-pressum Charging Mold high pressure | e) 130 75 75 | 45 40 | | Eject | 135 | | - | | 1100- | | - | | | 55 60s | | |
| Item Injection(holding-pressur Charging | e) 130 75 | 45 40 55 | 41 | Eject Core | 135 | 30 | - | Mold high pressure | 100 | 50 | 3.9 | Core | | 55 | | |

Investment returns: the cost of servo retrofitting is 20% of the new machine price, and the payback period is around one year.



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