VICTOR ALUMINUM

Newsletter

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Fabricating New Images In Aluminum Treatment

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Turning and Milling Complex CNC

At present, complex machining is one of the most popular processing techniques in the machining industry. It belongs to an advanced manufacturing technology. Complex machining realizes several different processing techniques on one machine. Turning and milling machining serves as the most widely applied and the most difficult combined machining. Turn-milling machining center is equivalent to the recombination of one CNC lathe and one machining center, so as to realize the basic function of milling.

Compared with conventional CNC machining, Complex CNC has following advantages:

(1) Shorten the product manufacturing cycle, and improve the production efficiency; Turn-milling machining can realize the completion of all or most machining procedures at one time, thus greatly shortening the product manufacturing cycle. On the one hand, it reduces loading/unloading and save production time. To reduce loading/unloading will also eliminate fixtures and save setup cost and time.

(2) Reduce the clamping times and improve the machining precision
The reduction of clamping times avoids error accumulation caused by the change of datum reference. At the same time, most turn-milling machining devices are provided with the function of online testing, capable of on-line measurement and accuracy control of key data in the manufacturing process. Thus, the product machining precision is improved.

(3) Reduce the floor area and lower the production costs
Although the investment for complex CNC is relatively high, but overall spending in fixtures and costs for production, operation and management can be effectively reduced by shortening of manufacturing cycle and the reduction to relevant devices for production, quantity of clamp, workshop floor area and equipment maintenance costs.

Magnetic Grinding Machine

With the Company's business development, Victor introduced magnetic grinding machine to meet the customer needs and pursue better and higher quality in the field of metal product surface processing. It is reformed and innovated on the basis of deficiency and defects of traditional grinding machines, resulting in good polishing, grinding and burr removal effect of holes, dead angles and fine seams in precision parts. Besides, the force of magnetic field is used for conduction to the stainless steel grinding needle, making partsrotate in high frequency and ultimately achieving the effect of burr and dirtremoval for precision parts.

Features:

The magnetic grinding machine utilizes the bouncing force of the magnetic field for conduction to the stainless steel needle, grinding needle and abraded materials, and drives the workpieces to rotate, vibrate and roll reversely in high frequency, thus reaching the effect of cleaning, removal of burr, sundries and greasy stain, grinding and precision polishing by sweeping the workpiece surface and chiseling a hole in the workpiece as well as friction of internal and external teeth, surface and roughness.

1. Frequency modulation: The speed of the grinding could be adjusted according to the size of parts.
2. Forward and reversal control: The user can improve the polishing efficiency by setting the forward time and the reversal time of parts polishing according to specific demands.
3. Timed shutdown: Based on the size of parts and different materials, the user can set the polishing time. When the time is up, the polishing machine will stop running automatically.

Technical highlights:

1. Excellent and quick removal of burr on the periphery of the part, including fine internal holes, pip holes, cracks and dead angles;
2. The original accuracy will not be affected after grinding. Besides, both the shape and the dimension are unchanged. The surface roughness can be Ra0.01~0.1.
3. Short time: The treatment time is 5~20min.
4. Simple and convenient operation, one-off batch treatment of parts, extremely low cost, no pollution, the stainless steel needle is made of durable abrasive material.
5. One-off precise finish (e.g. burr removal, chamfering, polishing and cleaning) for precision parts (such as aluminum, stainless steel and rigid plastics);
6. Capable of grinding irregular parts, hole inside, pipe inside, cracks and dead angles;
7. Quick processing speed, simple and safe operation, extremely low cost, unnecessary for any consumables;
8. No deformation, no surface damage and no impact on accuracy after finished product processing;

Surface Finish Assurance? -Lab-Test is a Must

Ever since we shifted our focus to fabrication and surface treatment on high-end electronic products, we have made it the backbone to operate under stringent quality control on product surface.

1 / Salt-spray Test: using salt-spray test device mimicking a salt-saturated environment to test corrosion-resistance of a product.

2 / Cross-Cut Test: by using the tooling to cross-cutting on coated surface in checkerboard pattern as specified, to analyze the coating film integrity of each checker square to determine how well the coating film is bonding to the part and its bonding grade.

3 / Glossiness Test :typically by using a Gloss-meter. The device comprises a projector and a receptor, where the projector emits light beams to the targeted surface, which returns a tapered beam to be received by the receptor to determine the returning or reflective ratio of the beam.

4 / Film-Thickness Measurement: the film-thickness testing device using X-Ray to traverse the metal coating film before hitting the metal layer to return reflective energy wave spectrum to calculate product surface coating thickness.

5 / Color-Variance Measurement: by using a chromometer, a product specimen will be read and obtained the color range(expressed in L*a*b) of which the absolute value of the differences will be used as Standard. Then production parts can be tested and measured against Standard to determine how far it deviates and in which direction.

6 / Abrasion and Wear Test: by positioning the friction and reference spots according to the size of the part, the test is performed through relative motion between the product surface and abrasion device for designated times and evaluated after against product specimen.

Let Green Take the Lead in Company's Sustainable Growth

Since the inception of the company, Victor has been upholding our mission of dual-focus on production and operation as well as environmental protection. To better facilitate the latter task, we have allocated major funding in greenfacilities for waste waterand exhaust emission treatment, by which we take advantage of advanced technology at home to ensure that our discharge fully meet the regulatory standards.

Advanced Waste Water (WW)Facilities Treating:

1)WW containing Nickel (Ni) – can be fully and separately recycled with effluence.

2)Inorganic WW – by pairing inorganic air floater and TFM Film to filter waste material from the water before discharge to enforce compliance.

3)WW containing Phosphorus (P) – through electrolysis to reverse possible water-borne sub-phosphorus to calcium phosphate in order to meet the standards of phosphorus discharge.

4)WW Treating Station – is devised with re-claimed water system to recycle water and improve WW recyclability.

Exhaust Emission Treating Facilities:

1)Emission Treating Tower – is installed to sprinkle, absorb, and filter exhaustion on anodic oxidation lines in order to comply with the State Emission Standards.

2)Sprinkler Devices – are paired with dust-bag devices applied to the fabrication process including grinding, polishing, sand blasting, and spray painting to remove dust and exhaustion with maximum 90% efficiency rate.

COMPANY PROFILE

Our company was founded in year 2000. Being a company specialized in sophisticated alloyed aluminum fabrication and high-end surface treatment, JM Victor is not only refined with hands-on experiences through years of accumulation through the sector chain of precision manufacture, but also with unparalleled wealth of knowledge enriched from company operation and management process, which enables the company to offer solutions in overcoming design and production bottlenecks in high-end aluminum fabrication.

In Jiangmen High-Tech Industrial Park, we have invested in construction of our new cyber-physical powered Smart Plant embracing the core Industry 4.0 design concept. The new plant, residing on an area of 100,000 square metres, comprising a global lab of aluminum-magnesium surface treatment and a smart CNC fab centre with its own casting house and stamping workshop, will add on a new chapter of consummate expertise to the venture of JM Victor.

Our Mission Statement

We stand by our commitment to share the harvest and happiness with our staff and workers, create value for our customers and cultivate a company culture with a vision. This is the foundation for the sustainability and continuity of our company and our business.

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