

In-House Controls and Inspections

Proven quality safeguards the life of both the users and the whole supplying vitality. We are therefore in continuous pursuit of developing strict, stable and reliable controls over both production methods and inspection processes.

Quality Materials

Material ingots are sourced from quality vendors with proven stability and continuous supply capacity. When custom material or special alloy is required we are organizing a different yet quick-reacted line of production so as not to affect the normal working routines on daily basis. It is on the other hand of utmost importance that we can thereafter establish tracing systems from material to processing for specialties especially of cases like high-value-yet-low-volume custom made. Definite heat numbers or batch numbers are engraved permanently at visible positions on bodies.

Metal materials are proven in every process since when we check the correctness of the resources. The information is kept in database that can be restored in case of request.

Final products are double confirmed using spectrum analyzer before inventory. We are using a handheld Olympus Innov-X Alloys and Metals Analyzer that identifies alloy grades of esp. stainless steel and copper alloys in seconds. With its in-built material database the result is automatically made and instantly read so that we are able to approve the quality beyond eyes right before shipping.

In-Process Checks

Most of our products are dimensionally specified in relevant standards published by industry authorities like BS, DIN, ASTM, etc. We are following them strictly in order to make sure of the interchangeable of every

coupling with worldwide manufacturers who are producing according to norm.

Computerized models from CAD 2D / 3D drawings are developed to help perfect the molding structure. We pay highest respect to mold makers who are dedicated to sculpturing the optimal base for different forms of productions so that productiveness is enhanced while production cost can be saved.

We stamp our names in confirming all drawings of dimension and technical details.

Standard calibers, self developed gauges and tools are used in crucial processes case by case. Curve tools are custom-made for cam and groove adapters' curve; for safety clamp rib distance as in right image; and for TW fittings' crown closeness and so on.

Compression tests are applied on sealing materials complying with Shore A with and without simulating working on two couplings.



Type Tests

To design one coupling we are supposed to make sure that the bodies are physically strong enough for the desired purpose. The values to our satisfaction will be recorded and constantly verified during the process of mass productions that followed. Inspections to prove that feature are repeatedly performed in delivery checks again.

Breaking and blast tests are usually applied for the purpose of discovering the physical limitation of body intensities. Taking tests of impact tests, press tests, pulling tests, expanding and torque testing, we are able to pinpoint crucial points for the desired mechanical parameters.

Impact tests using facilities like Chinese heading are developed to check specific positions or weak points with reference to both standards and experience.

Press tests using hydraulic compressing machines to distort, for instance, aluminum ferrule clamping to prove its excellent ductility when no cracking line is observed. Press tests are commonly applied in developing Storz fittings, safety clamps, crimping ferrules and TW couplings in order to check the materials' ductility.

Pulling tests for eg. tensile strength of a safety cable to discover the maximum power it can withstand from sudden and continuous force; or for eg. claw resistance of a fire fighting Storz coupling.

In pulling test for a reinforced polypropylene cam and groove female coupler, we pull apart the two handles till one is torn broken. The collapsing pressure is leveled up when a stronger formula of compound is developed.

In torque tests we turn an over-sized tapered outside thread into a female till its molding line or weakest thread position collapses. That is a simulation of the use of applying too much force when threading two couplings together.

Enduring testing like hydrostatic pressure tests is less aggressive than blasting tests. The result is made by observing air bubbles in case of leakage in bodies or at sealing positions.

Hydrostatic testing under water is always carried out on each coupling prior to the machining process. It is made to discover any fiber thin leakage or sand holes in poor castings and forges.