



## DEVELOPMENT AND PRODUCTION NEW PRODUCTS BY STANDARDS VDA, QS 9000 TILL STN/ISO 16949

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**ABSTRACT:** development new products (in another already only development) of look systemic style oneself gradually develop. Before application norm advice ISO 9000 (initially ISO 9001, 9002, 9003) yourself every producer (resp. country) determine mainly in area automotiv industry self style on development new products, production confirmation series and to examination confirmation series.

**KEYWORDS:** Development, part, standards, precisions tolerances, gauge, machine

### 1. INTRODUCTION

Main dominating country (and firm) were Germany (specification advice VDA), France, Italy, outside Europe USA (specification advice QS 9000) and Japan. Disavantages hereof state was it, that regardless of this, whether given methodologist were good or bad, were together incompatible. A savoir, that product (assistance), who he passed such development and testing in one producer/country, didn't have to exist appreciated on others territory. Therefore was she established norm, that is of already valid in the world – ISO/TS 16949. Well too this norm acquire one's seriousness pending connected continental car Mercedes Benz from Europa and Chrysler from USA. This norm had she effort systematically describe and synchronize state like this, that it was applicable for different motoring businesses with different assistance, that are untill then advancing by either normative ISO 9001, VDA (Germany), or QS 9000 (so called „big 3" Ford, Chrysler, GM).

### 2. METHODOLOGY

Every country (important firm, especially from automotiv industry) has (had) their self methotology, their self standards for development, production and testing any new part. It was mainly standards VDA (Deutschland – Europe) and QS 9000 (USA – Ford, Chrysler, GM). By this standards was firms certified. In some moment was occurs to agreement between them and come into being common standards ISO/TS 16949.

### 3. DEVELOPMENT NEW PRODUCTS BY VDA

VDA is association automobile industry. Exist this institution, which connects producer automobile industry in Deutschland. Are they this mainly this manufacturers: Mercedes Benz Stuttgart, BMW Munchen, Audi Ingolstadt, VW Wolfsburg, Bosch Stuttgart, Continental Hannover, Fichtel & Sachs Schweinfurt, Ford Koln, Getrag Ludwigsburg, Opel Russelsheim, Porsche Stuttgart, Siemens Regensburg, VDO Babenhausen, Zahnradfabrik Friedrichshafen, as well as others marks, that are come under this concern). Then by either directly automobile manufacturer, or their supplier. In principle may be say, that development overshoot by procedural ISO 9001, but with requirements over and above normative VDA. Some these terms in ISO 9001 they are not at all, or is bottom on spontaneity, whether their producer in one's system include, vel non. Maybe say, that normative VDA advancing not only does manufacturers in Deutschland, but in all Europe, than too others commonwealth they had their standard.

General terms additionally are primarily in these areas:

- ✚ like title of record about quality of development (but also of another process), that are oneself must put off on minimum 15 years of. Exist this coupled with this, that if arrive ro reclaiming, failure, accident, convener action and so on, like this that was she possibly identification everyone's segment - who him he made, when, what are attributes of measures, examination, what competence reach production process, enginery, control, measuring and testing equipments, what were results from input control of purchasing material

- ✚ safeness products. Product must be developed and construction like this, that vice but jeopardy and danger his user and that no-load environment how during their life, like this after its finished. Product gotta have worked-out safety letter.
- ✚ is specified, that everywhere, where's this convenient, must oneself use statistical methods, e.g. during development must be working-out preventive method "Potential failure mode and Effects Analysis - FMEA". FMEA constructive (marking FMEA-K, or FMEA-D) and FMEA procedural (id est production, technological, marking FMEA-volts, or FMEA-P), gotta be loaded preventive method statistical regulation production process (SPC), get on capability production process ( $c_p$ ,  $c_{pk}$ ), estimate competence process ( $P_p$ ,  $P_{pk}$ ), machine ( $c_m$ ,  $c_{mk}$ ), values ( $c_g$ ,  $c_{gk}$ ), get on use Pareto - analysis, flow-chart, histogram, graph cause and effect (Ishikawov graph), working out functions qualities QFD, projection experiment DOE.
- ✚ In area purchase semi-finished product and services must be execution valuation supplier, on every commodity must exist several suppliers, with incapables supplier must be ending delivery semi-finished products and products, what time miscarry to improvement state.
- ✚ besides systemic auditor must exist execution too productions and systems audit
- ✚ every process must be measured, analyzed and improvement. Improvements is able to be up to then, when are removal limitations.

#### 4. DEVELOPMENT NEW PRODUCTS BY QS 9000

Like this, how in Deutschland come into being association automobile industry VDA, who oneself arrange on common action and approval individual progress and requirements, in USA were analogy norm VDA specification QS 9000, that are for the first time send in 1994. Like this, how in Deutschland institution VDA connect producer automobile industry in Deutschland, in USA connecting these standard 3 big concern, that are yourself they poke too "big three". Create their: Chrysler, Ford and GM, that are before to elaborate their self terms. Are they this big concern, below that are in present belong too additional bigger whether smaller automobil factory but also others manufacturers and suppliers. When the to have been supplier in USA in august 1994 send off first edition claim to system qualities QS 9000, was she response of all world sublime and positive. To have been achievement a lot of agreement with accreditation organization and their accredited indicial society about execution registration by QS 9000. Some OEM (original equipment manufacturer - original manufacturers furnished, then OEM) announce supplier claim to registration by QS 9000. It create prominent demand for QS 9000 and so send too additional issue. Strategy and philosophy of both group was she like and then are in previous articles they poke about general request VDA, like this in case QS 9000 maybe talk about similar attribute, therefore their I shan't again names. Little by little differences were in marking special character and concept, in rigorousness appraisal some parameters, in soft dissimilarities some methodologist and so on. Maybe say, that both of them camp oneself striven together yourself prove, who system be better, more hands-on, utilizable for automobile industry. Natch we would they had prejudice, without value state, like this both of them systems were comparable a equally effectively. Many a time resort to their intersection, as world oneself globalize and especially automobil factory, or their suppliers oneself intersection. Well certificates management system qualities own. Certificate to have been possible obtain by either by VDA 6.1, or QS 9000. When the one firm deliver their products in of both camp, mostly had to have both of them certificates. Or if e.g . development new products was he made by VDA, like this certified firm by QS 9000 she could have acknowledge this development without another request, or area definition, that are desire for to refill too by QS 9000. And on the contrary if e.g . development new products was he made by QS, like this certified firm by VDA 6.1 she could have acknowledge this development without another request, or area definition, that are desire for to refill too by VDA.

#### 5. DEVELOPMENT NEW PRODUCTS BY TECHNICAL SPECIFICATION ISO/TS 16949

Standart ISO/T 16949 come into being hereat, that unify terms norm corporations automotiv industry VDA in Deutschland and requirements of norm QS biggies three Chrysler - Ford – GM. Exist this norm, that include strange terms additionally against ISO standard 9001:2008 in organisation ensuring series production and production replacement part in automotiv industry.

ISO/TS 16949 is then strict, how ISO 9001:2008 and he gives below one roof VDA a QS. Aim was he logical - that development new products (but also by other process) oneself was able to execute by one's specification and reciprocally that oblige request of both norm, VDA too QS as well as basic ISO standard 9001. Its first edition but they had not such effect, how oneself await. Both of them camp too henceforward asking from one's supplier filling request a certification firm by one's norm. Till the second issue of year 2002 acquire such practical meaning and reciprocal acceptance, what a oneself

assume near first issued. If yourself raise the question why, like this answer is single. Come into being connection duo big and important firm, businesses Mercedes-Benz from Deutschland, which was she cap norm VDA and firm Chrysler from USA, which was she cap norm QS. This connection come into being because of switch-over and narrow co-operation between by both firm with goal reengineering activity of both firm. Well and to execute this activity on duo platform (VDA too QS) could induce problems. Therefore till after this step oneself receive in forefront ISO/TS 16949 and certificat under this specification acquire on it's seriousness and desirableness.

In next oneself we shall present procedural understanding development, production and testing new products for automotiv industry by ISO/TS 16949, because in them includes all terms, about which are they poke in previous and verify demands by young and old mentioned norm.

## 6. CONCLUSIONS

Before application ISO/TS 16 949 were usage primarily specification of corporations producer automotiv industry in Deutschland (VDA), specification of so called „big 3" Ford, GM, Chrysler (QS 9000) as well as additional national specification established in Japan, France and so on. Big disadvantage hereof state was it, that terms individual car whether norm they were not incorporate and supplier segment for single automobil factory if willed deliver their volumes in several car, had to verify various standard, that are vary. After established ISO/TS 16 949 oneself terms individual car mostly arrangement but in this sections, that were common. Patchy stay already only some strange terms, terms additionally, that are still against ISO/T 16 949 can they single automobil factory have.

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