Gauge Calibration Plans



The efforts for maintaining master data is one aspect of the introduction of computer-based software that is often neglected. How big this efforts are becomes evident not before the required tasks have been finished. At the end it is realized that the costs have been very high in relation to the actual investment in the software product itself. This is especially true for the planning of gauge calibration. iQ-PMPL (Gauge Inspection Plans) frees you from the burden of creating standard-conform plans for many of the standard measuring and test equipment.

The following table contains the range of inspection plans of directive 2618. These inspection plans require no further planning. You can start the calibration immediately after selecting the corresponding gauge or gauge type without any preparation.

Sheet	VDI/VDE/DGQ 2618 Directive				
3.1	Gauge blocks				
4.1	Cylindrical domes, mandril gauges and gauging rings				
4.2	Test prods/test prods for screw threads				
4.4	Adjusting dimension for outside micrometers with co-planar or spherical measuring surfaces and depth gauges				
4.6	Testing cylinders and test pins				
4.7	Gap gauges				
4.8	Cylindrical screw thread readout gauge, screw thread mandril gauges and screw thread test pins				
4.9	Cylindrical screw thread setting rin gauges and screw thread gauging rings				
4.12	Conic etalon and taper gauges				
6	Micrometer depth gauges				
6.1	Coplanar inspection windows				
7.1	90 degrees angle brackets				
7.2	Protractors				
9.1	Caliper gauge for outer, inner and depth measuring				
9.2	Depth gauges				
9.3	Height gauges				
10.1	Micrometer gauges				
10.2	Micrometer gauges with interchangeable measuring inserts for screw thread measuring and other inspection assignments				
10.3	Dial comparator micrometer gauge				
10.4	Built-in micrometer gauges				
10.5	Depth gauges				
10.6	Height gauges				
10.7	Internal measuring gauges with two point tangency				
10.8	Internal measuring gauges with three line tangency				
11	Dial indicators				
11.1	Dial indicators				
11.2	Mechanical dial comparators				
11.3	Dial test indicators (lever-type)				
12.1	Lever-type gauges (quick indicator) for external gauging				
13.1	Lever-type gauges (quick indicator) for internal gauging				
13.2	Internal measuring gauge with two point tangency				
14	Internal measuring gauge with two point tangency at the test specimen				
14.1	Inspection requirements for electronical length measuring gauges consisting of inductive caliper and measuring tool				
16.1	Vertical length measuring tools				
18	Flat bed spacer				
19	Straightedge				
22	90 degrees angle bracket (flat bed, limit stop angle bracket)				
26	Electronical length measuring device with inductive caliper and indicator				

Regulations marked yellow will also be available after their final release.

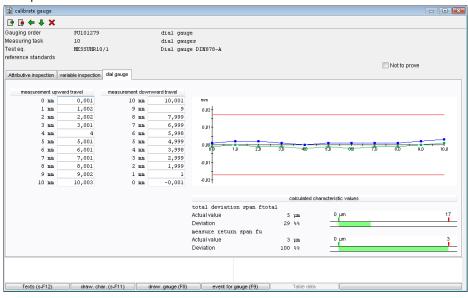
The concluded inspection plans of the VDI/VDE/DGQ-regulations can of course be copied and adjusted to your own requirements (e.g. in order to reduce the inspection range). You can also adjust the tolerances to your plant-specific demands.

Due to the gauge details (e.g. screw limit plug gauge M10x1,5-6H) all attributes are generated automatically with the correct set points and dimensions according to DIN charts. During inspection you are presented with the correct wire or spherical diameter.

3 🖪 🗢 🦊 🗙						
auging order	PU10112:	2 Thread plug g	auge			
easuring task	10		auge go/not go	end		
esteq.		GRENZLEHRDORN M10/1 Thread plug g	auge M10 No 1			
ference standards	3					
				Not t	o prove	
Attributive inspection	Thread gauge					
_	Scrap					
Ψ		1. outside diameter fore not go e		005	9.5115 mm	9.5225
르	9,52	U±	77%			E
8 R		2. outside diameter fore not go e		105	9.5115 mm	9.5225
KI KI	9,518	U±	59%		9.5115 mm	9.5225
		1. outside diameter back not go es		105	9.5115 mm	9.5225
88	9,521	U±	86%			*
	GO side					
A R		1. outside diameter fore go end	E Selection	of wire-/ball diameter		-
		U+	(+ X			
44	42	2. outside diameter fore go end				
i i i i i i i i i i i i i i i i i i i		U±	Test eq.		Thread plug gauge	
	43	1. outside diameter back go end	Thread des		M10x1.5-6H	
		U±	Most favora	ible diameter	0,866 mm	
				- Avera and the		
		Hardness test	Measuring	strengtn	2.00 N	
Fest item Reference value	790 760	U±	Procedure		Three wire method	•
reterence Value	760		Reference		Zeiss series	•
			● w/b-Ø		0.895 💌 mm	
					0.895	
			Optical	procedure	1.1	
Texts (s-F12) draw. char. (s-F11) draw. gauge (F8) e			e		1.35	
					2.05	

Furthermore there is a variety of more gauges for which no standardized inspection directives are available. The following chart shows all those gauges for which all arrangements have been made, also without any planning, in order to start calibration immediately. Tolerances can be indicated through an easy chart system.

Inspection plans for other gauges	Inspection plans for other gauges		
Torques	Electronical counters		
Pressure, tension and force	Digital multimeter		
Test plates	Oscilloscopes		
Form calipers	Precision balance		
Taper gauge	Tread projector		
Screw thread revolving jaw type gauges	Digital caliper Heidenhain, Sylvac		
Screw thread gap gauge - master gauges	Length measuring dev. (counter) Heidenhain, Sylvac		
Base tangent length comb (analogue)	Digital dial indicator		
Base tangent length micrometer gauges (analogue)	elec. Dial comparator (mech.) SKW 0,01mm		
	elec. Dial comparator (mech.) SKW 0,001 mm		



Example of a dial indicator calibration: