Standards	 s, Regulati	ons and Guidelines typically	used in the Fabric Expans	 sion Joint I	l ndustry		20.08.2020	European Sealing Association e V
Standard I.D.	Revision	Standard Title	Description	Туре	Jurisdiction	Applicable Region(s)	Standard Status	Status & Comment
RAL-GZ 719	2017	Expansion Joints - Quality Assurance	This standard describes quality levels and test specifications for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-001	1998	Determination of tensile strength of supporting layers for fabric expansion joints	This guideline describes tensile strength values for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-002	2014	Flue-gas tight fabric expansion joints	This guideline describes allowable leakage rates and test methods for flue-gas.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-003	2014	Nekal-tight fabric expansion joints	This guideline describes leakage testing with foaming liquid.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-004	2012	Expansion joint questionnaire	Questionnare with required information for the design of expansion joints	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-005	2010	Tightness test of fabric expansion joints with foam building liquid	This guideline describes tightness tests for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-006	2017	Documentation of fabric expansion joints	This guideline describes necessary documentation for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-007	2007	Bolted connections for fabric expansion joints	This guideline describes torque values for the bolting of fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-008	2003	Storage, Packing and Transportation of fabric expansion joints	This guideline gives information regarding storage, packaging and transportation.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-009	2003	Planning of Installation of fabric expansion joints	This guideline describes the basic requirements for installation of fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-010	2008	Installation of Fabric Expansion Joints	This guideline gives installation information for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-011	2004	Insulation requirements for fabric expansion joints	This guideline describes suitable insulation methods for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-012	2011	Maintenance work of fabric expansion joints	This guideline describes maintenance requirements for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-013	2014	Tolerances for connection flanges and installation dimensions for Fabric Expansion Joints	This guideline gives tolerances for flanges and dimensions of fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-014	2014	Terms and definitions for Fabric Expansion Joints	This guideline describes terms used for expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-015	2010	Safety Management of fabric expansion joints	This guideline describes safety measures for expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-016	2012	Surface temperatures of Fabric Expansion Joints	This guideline gives values for surface temperatures of fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-017	2016	Remarks about EC Declaration of Conformity and CE marking of fabric expansion joints	This guideline gives information about different EU directives related to fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
RAL-GZ 719 TI-018	2016	Inspection documents according to EN 10204 for fabric expansion joints	This guideline describes quality documents according to EN 10294 for fabric expansion joints.	Industry	Germany	Primarily Europe	Active	
ISO 15541	2016	hips and marine technology — Fire resistance of non-metallic hose assemblies and non-metallic compensators — Requirements for the test bench	ISO 15541:2016 specifies requirements for a test bench to determine the fire resistance of non-metallic hose assemblies and non-metallic compensators with nominal diameter up to 150 mm. It may be used for bigger sizes provided proper test bench conditions are obtained.	Industry	World wide	World wide	Active	
ASTM F1123	2019	Standard Specification for Non-Metallic Expansion Joints	This specification provides the minimum requirements for construction, materials, performance, and dimensional requirements of arch-type non-metallic expansion joints.	Industry	USA	USA and World wide	Active	

ASME B31.1	2018	Power Piping	ASME B31.1 prescribes minimum requirements for the design, materials, fabrication, erection, test, inspection, operation, and maintenance of piping systems typically found in electric power generating stations, industrial and institutional plants, geothermal heating systems, and central and district heating and cooling systems.	Industry	USA	USA and World wide	Active	
ASME 31.3	2018	Process Piping	ASME B31. 3 contains requirements for piping typically found in petroleum refineries; chemical, pharmaceutical, textile, paper, semiconductor, and cryogenic plants; and related processing plants and terminals.	Industry	Europe	Primarily Europe	Active	
ESA 11/09	2009	Expansion Joints - Engineering Guide	This publication is aimed at engineers designing systems that include expansion joints. It contains details on typical designs, capabilities and design guidlines.	Industry	Europe	Primarily Europe	Active	
ESA 440/1		Fabric Expansion Joints - Fitters Guide	These handy pocket sized guides are written for those physically installing the expansion joints. Pictorial and easy to follow the guides ensure that the products are installed to best practice to maximise the performance and lifetime of the product.	Industry	Europe	Primarily Europe	Active	
ESA 015/07 Revision 2	2007	Fabric Expansion Joints - Installation Guide	This publication is focussed on the actual installation of the Expansion Joint. Available in a variety of languages the guide assumes that the joint and its components are now at the point of final installation.	Industry	Europe	Primarily Europe	Active	
FSA	2010	Ducting Systems Non-Metallic Expansion Joint Technical Handbook, 4th Edition	This book created to give both the designed and the user of flue gas ducting systems a better understanding of non-metallic expansion joints and a means of evaluating the various products on the market.	Industry	USA	USA and World wide	Active	
FSA	2016	Expansion Joints – Piping Technical Handbook, 8.0 Edition	The handbook provides updated compilations of construction standards and guides for specifying and purchasing non-metallic expansion joints and flexible pipe connectors.	Industry	USA	USA and World wide	Active	
2014/68/EU	2016	Pressure equipment Directive	The Pressure Equipment Directive (PED)applies to the design, manufacture and conformity assessment of stationary pressure equipment with a maximum allowable pressure greater than 0,5 bar.	National	Europe	Europe	Active	
2006/42/EC	2006	Machinery Directive	The directive promotes the free movement of machinery within the single market and guarantees a high level of protection for EU workers and citizens.	National	Europe	Europe	Active	

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2014/34/EU	2014	ATEX Directive	This directive covers equipment and protective systems intended for use in potentially explosive atmospheres. The directive defines the essential health and safety requirements and conformity assessment procedures, to be applied before products are placed on the EU market.	National	Europe	Europe	Active	
305/2011/EU	2011	Construction Products	This Regulation lays down conditions for the placing or making available on the market of construction products by establishing harmonised rules on how to express the performance of construction products in relation to their essential characteristics and on the use of CE marking on those products.	National	Europe	Europe	Active	
VDI 2440		Emission Control Mineral Oil Refineries	VDI 2440 is a German guideline created by experts from industry, universities and public bodies for emission control in mineral oil refineries. The sources of gaseous emissions are stated and the relevant best available technologies (BAT) for emission reduction are described. Also specific leakage rates for the emissions from valves and flanges are defined as well as the specific testing methods. These leakage rates have been implemented into the German emission directive "TA-Luft"	National	Germany	Europe	Active	
BAM			German approval for articles to be used in oxygen applications	National	Germany	Germany	Active	
EC 1935/2004	2004	Food safety — safe packaging	Covers materials and articles intended to come into contact with food	National	Europe	Europe	Active	
ACS			French Drinking Water Approval	National	France	France	Active	A E.U. working group is working on alignment of all individual water approvals in the E.U.
WRAS			U.K. Drinking Water Approval	National	U.K.	U.K.	Active	
KTW			German Drinking Water Approval	National	Germany	Germany	Active	A E.U. working group is working on alignment of all individual water approvals in the E.U.
DVGW			German Approval for use of articles in Water and Gas applications	National	Germany	Germany	Active	
KIWA			Netherlands Drinking Water Approval	National	Netherlands	Netherlands	Active	A E.U. working group is working on alignment of all individual water approvals in the E.U.
FDA		Food Safety	Approvals for materials for food use	National	USA	USA and World wide	Active	