

Komponenten • Lösungen • Systeme





Assembly instructions – Compression fittings

(DG-4502CM0253)

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#### according to EN ISO 8434-1 based on DIN 2353 and DIN 3387-1



<sup>1)</sup> For pipes made from the material aluminium, use a compression fitting made from steel or stainless steel and a reinforcement ring made from steel. Do not use brass because of corrosion!



60%	Preparation of the pipe: Saw pipes at a right angle. An angle tolerance of $0.5^{\circ}$ is permitted. Do not use a pipe cutter or an angle grinder. Slightly debur the inside and outside of the pipe ends. Maximum permitted bevel $0.2 \times 45^{\circ}$ . Then clean the pipe. NOTE:	D
	Shape deviations at the end of the pipe, such as pipes sawn at an angle or incorrectly deburred, reduce the life and leakproofness of the connection.	v
	For all seamless, thin-wall pipes and soft pipe materials (e.g. copper or aluminium): Insert a reinforcing sleeve into the pipe to the edge of the knurl. Tap the reinforcing sleeve completely into the pipe with a hammer (plastic or rubber). This presses the collar of the knurl against the inside of the pipe and prevents the sleeve moving or falling out.	D
		v
	Lubrication: For the selected pipe - clamp the associated pre-assembly socket into the vice - have the associated pre-assembly key ready. Apply lubricant to the thread and cone of the VOMO and to the thread of the coupling nut. Screw the coupling nut onto the VOMO loosely so that the lubricant can spread more evenly.	v
	Lubrication: Slightly oil the thread and cone of the screw socket and the thread of the coupling nut (e.g. lubricant, not grease). NOTE: There is no need to oil zinc-plated pipe joints with a transparent anti-friction coating.	D
		v



Alignment: Slide the coupling nut and then the olive on to the pipe with the cutting edge facing the end of the pipe. NOTE: Make sure that the olive sits properly $\rightarrow$ otherwise incorrect assembly.	D V
<ul> <li>Pre-tightening: Tighten the coupling nut by hand until you feel that the VOMO, olive and coupling nut are pressed together.</li> <li>Pre-assembly socket: is held in a vice and the pipe is pressed against the stop.</li> <li>Pre-assembly key: The pipe must be sitting at the stop to ensure that the olive cuts into the pipe correctly.</li> </ul>	v
<ul> <li>Pre-tightening:</li> <li>Tighten the coupling nut by hand until you feel that the screw socket, olive and coupling nut are pressed together.</li> <li>Press the pipe against the end stop in the screw socket.</li> <li>NOTE:</li> <li>The pipe must touch the end stop, otherwise the pipe will not be cut.</li> </ul>	D
Tightening the compression fitting:         Tighten the coupling nut to the VOMO with an open-end wrench by 1 to 1 1/2 turns (depending on the dimensions and material)         CAUTION!         If the screw is not properly tightened this will reduce the pressure-bearing capacity and life of the screwed pipe fitting. This may cause leaks or the pipe may slide out.	
	V



	Tightening the compression fitting – initial assembly:Tighten the coupling nut with an open-end wrench by approx. 1 1/2turns.Hold the compression fitting socket in place with a second open-endwrench.	D
	The pipe must not rotate. <b>NOTE:</b> If the screw is not properly tightened, this will reduce the pres- sure-bearing capacity and life of the screwed joint. This may cause leaks or the pipe may slide out.	D
Collar: Partly visible pipe material collar	<b>Checking:</b> Dismantle the pipe connection by loosening the coupling nut. The notch of the cut edge is checked.	D V
	The collar in front of the first, front cutting edge must be even and cover 80% of the cutting face. <b>NOTE:</b> With stainless steel pipes there is no collar on the cutting edge as there is with steel pipes. Stainless steel olives sit relatively loosely on the pipe.	v
	With STEEL: The collar must completely fill the cutting face. The olive may turn but it must not be possible to move it in an axial direction.	D
	Tightening the compression fitting (final assembly in compression fitting socket):         Tighten the coupling nut by hand until you feel that the compression fitting, olive and coupling nut are pressed together.         Tighten the coupling nut by 1/4 to 1/2 turn more than the point at which you feel the pressure increase; hold the compression fitting socket in place with a second open-end wrench.         Factory-installed olives:         Tighten the coupling nut 1/4 - 1/3 turn.         NOTE:         If the screw is not properly tightened, this will reduce the pressure-bearing capacity and life of the screwed joint. This may cause leaks or the pipe may slide out.	v



	<b>Repeat assembly:</b> Each time you loosen the pipe connection, you must tighten the coupling nut again (same force) the same as in initial assembly; hold the compression fitting socket in place with an open-end wrench.	D
		v
Leakproofness: In accordance with the applicable installation and construction regulations for piping, it is recommended that the leakproofness of every screwed joint is tested after assembly with test and/or operating medium under test and/or operating pressure; e.g. with foaming material according to EN 14291.		D
Field of applicability DIN 3387-1: Compression fittings for all gases acc. to DVGW Worksheet G 260. [DVGW: German Technical and Scientific Association for Gas and Water]		v

#### AWARNING

- Dismantling and/or tightening of screwed joints and screwed parts is permitted only when they are not under any pressure.
- The use of compression fittings is subject to the respective installation regulations, such as DVGW-TRGI, TRF, DWA-A 791, TRÖI in Germany.