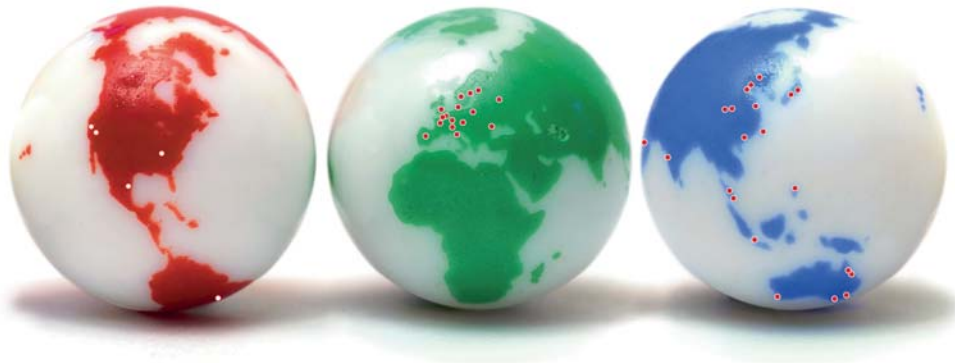


# GF Piping Systems → worldwide at home

Our sales companies and representatives ensure local customer support in over 100 countries.

[www.piping.georgfischer.com](http://www.piping.georgfischer.com)



The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

Adding Quality to People's Lives

#### Headquarter Building Technology

Georg Fischer JRG AG  
4450 Sissach/Switzerland  
Phone +41(0)61 975 22 22  
info.jrg.ps@georgfischer.com  
www.jrg.ch

**Australia**  
George Fischer Pty Ltd  
Riverwood NSW 2210 Australia  
Phone +61(0)2 9502 8000  
australia.ps@georgfischer.com  
www.georgfischer.com.au

**Austria**  
Georg Fischer Rohrleitungssysteme GmbH  
3130 Herzogenburg  
Phone +43(0)2782 856 43-0  
austria.ps@georgfischer.com  
www.georgfischer.at

Georg Fischer Fittings GmbH  
3160 Traisen  
Phone +43(0)2762 90300  
fittings.ps@georgfischer.com

**Belgium / Luxembourg**  
Georg Fischer NV/SA  
1070 Bruxelles/Brüssel  
Phone +32(0)2 558 40 20  
be.ps@georgfischer.com  
www.georgfischer.be

**Brazil**  
George Fischer Ltda  
04795-100 São Paulo  
Phone +55(0)11 5687 1311  
br.ps@georgfischer.com

**China**  
Georg Fischer Piping Systems Ltd  
Shanghai  
Pudong, Shanghai 201319  
Phone +86(0)21 58 13 33 33  
china.ps@georgfischer.com  
www.cn.piping.georgfischer.com

**Denmark / Iceland**  
Georg Fischer A/S  
2630 Taastrup  
Phone +45 (0)70 22 19 75  
info.dk.ps@georgfischer.com  
www.georgfischer.dk

**France**  
Georg Fischer SAS  
95932 Roissy Charles de Gaulle Cedex  
Phone +33(0)1 41 84 68 84  
fr.ps@georgfischer.com  
www.georgfischer.fr

**Germany**  
Georg Fischer GmbH  
72095 Albershausen  
Phone +49(0)7161 302-0  
info.de.ps@georgfischer.com  
www.georgfischer.de

Georg Fischer GmbH  
86633 Neuburg/Donau  
Phone +49(0)8431 5817-0  
info.jrg.ps@georgfischer.com  
www.jrg.de

**India**  
Georg Fischer Piping Systems Ltd  
400 076 Mumbai  
Phone +91 224007 2001  
in.ps@georgfischer.com  
www.georgfischer.in

**Italy**  
Georg Fischer S.p.A.  
20043 Cernusco S/N (MI)  
Phone +3902 921 861  
it.ps@georgfischer.com  
www.georgfischer.it

**Korea**  
Georg Fischer Piping Systems  
Guro-3 dong, Guro-gu, Seoul, Korea  
Phone +82(0)2 2081 1450  
Fax +82(0)2 2081 1453  
kor.ps@georgfischer.com

**Middle East**  
Georg Fischer Piping Systems  
Dubai, United Arab Emirates  
8161 PA Eje  
Phone +49(0)7161 302-0  
www.export.georgfischer.com

**Netherlands**  
Georg Fischer N.V.  
8161 PA Eje  
Phone +31(0)578 478 222  
nl.ps@georgfischer.com  
www.georgfischer.nl

**Norway**  
Georg Fischer AS  
1351 Rud  
Phone +47(0)67 18 29 00  
no.ps@georgfischer.com  
www.georgfischer.no

**Russia**  
Georg Fischer Piping Systems  
Moscow 125047  
Phone +7 495 258 60 80  
ru.ps@georgfischer.com  
www.georgfischer.ru

**Singapore**  
George Fischer Pte Ltd  
528 872 Singapore  
Phone +65(0)67 47 06 11  
sg.ps@georgfischer.com  
www.georgfischer.com.sg

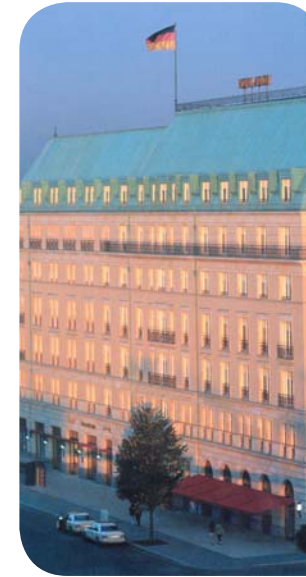
**Spain / Portugal**  
Georg Fischer S.A.  
280046 Madrid  
Phone +34(0)91 781 98 90  
es.ps@georgfischer.com  
www.georgfischer.es

**Sweden / Finland**  
Georg Fischer AB  
12523 Alvsjö-Stockholm  
Phone +46(0)8 506 775 00  
info.se.ps@georgfischer.com  
www.georgfischer.se

**Switzerland**  
Georg Fischer Rohrleitungssysteme (Schweiz) AG  
8201 Schaffhausen  
Phone +41(0)52 631 30 26  
ch.ps@georgfischer.com  
www.piping.georgfischer.ch

**United Kingdom / Ireland**  
Georg Fischer Sales Limited  
Coventry, CV2 2ST  
Phone +44(0)2476 535 535  
uk.ps@georgfischer.com  
www.georgfischer.co.uk

**International**  
Georg Fischer Piping Systems (Switzerland) Ltd.  
8201 Schaffhausen/Switzerland  
Phone +41(0)52 631 30 03  
Fax +41(0)52 631 28 93  
info.export@georgfischer.com  
www.export.georgfischer.com



Installation of  
**JRG Sanipex and  
JRG Sanipex MT**  
in Berlin's Noblest  
Accommodation

Hotel Adlon  
*Kempinski*  
Berlin

# Learning from the past

## How the „Adlon“ will solve their sanitation problems

*Sanitation problems are no stranger to the noble hotel „Adlon“ in Berlin. In this famous accommodation just off the Brandenburg Gate, Legionella moved in, wrong compressed-fitted pipes began to leak, tension cracks appeared in stainless steel pipes, and the well-to-do guests complained that they could hear running water. Now, thanks to the pipes system of JRG Sanipex MT, much of all this should get better.*

The „Adlon“ belongs to the Kempinski-Group. But they only rent the hotel building. The real house owner, the Fundus-Group, a real-estate company, resides in the Breite Straße within the Berliner precinct of Pankow. The builder, according to his own words, „specialises in luxury hotels, especially valuable retail companies and offices, noble apartments, houses and villas“. One of his daughters through the Fundus- Hotel Development and Management Ltd. manages the activities of hotels and leisure properties. In addition to the „Adlon“ in Berlin they also own the Kempinski Grand Hotel in Heiligendamm on the Baltic and the Park Hotel Quellenhof in Aachen. The corresponding Property-Funds offer „private investors the unique chance, of becoming joint-owners of these famous German hotels“. This stately living standard tolerates no dissension. Anyway, one strives intensively to improve the living quality, not only within the walls but also behind the walls. For example, as in the new suites of rooms.

### Conclusions arising from previous experience

The „Adlon“ is just busy spreading itself out. Behind the patina-green roofed main house „Unter den Linden“ an extension on the Behrenstraße is growing with 69 more, comfortable double bedrooms. The first guests will move in in winter. The extension provided an occasion to enquire as to how would be the reaction to the previous damage. Well, a reaction is visible. In the new building, plumbers are installing the JRG Sanipex MT system from JRG Gunzenhauser to serve the hot and cold water supplies. Once the work is finished 6800 metres of multilayer pipes will be hidden in the walls and floors. The local Berliner company Holthoff Gebäudetechnik AG, Lemgo, entrusted with the planning and execution of this project, sees itself on safe ground with this type of system. Rainer Eisold, project manager in „Adlon“, knows the pipe system from earlier construction sites. „JRG Sanipex MT itself ensures coverage of part of the risks.



6800 metres MT pipes serving as the mains riser pipe and as the distributing branches.

It fulfils existing specific factory-made requirements for noise insulation. Furthermore, we need not contend with corrosion, not even with stress crack corrosions. The corresponding junctions and slanted valves, completely made of bronze, are likewise resistant against all possible water solutes. Moreover, the removable and reinstallable screw junctions firstly, shuts leaks almost completely off and, secondly, is very easy to operate particularly in barely accessible places, this being also a safety factor, and, thirdly, it saves clipping which is hard to avoid when joints are compressed and is expensive.“

For these reasons, in the Hotel „Adlon“ extension, Holthoff AG uses JRG Sanipex MT pipes for the mains riser sections as well as for the distribution pipeline.

### Difficult partners: Stainless steel and chlorine

Naturally, a single raw material cannot catch all negligence's and faults – according to the new drinking water specifications, negligence is punishable, if it endangers health, and for example when the pipelines become contaminated. In hotel rooms which have not been occupied for several days, the colonisation of branch pipes by Legionella and Pseudomonas cannot be prevented by using plastic. „In contrast, JRG Sanipex MT tolerates the recurrent thermal disinfection with 70 or 80°C water as well as sterilisation using chloride in the water. With stainless steel more care needs to be taken.“

Stainless steel! This name brings us back to the case of »Adlon«. The representative of those wanting the extension built, the project coordinator Bredero, Berlin, agreed to use JRG Sanipex MT because, amongst other things, stainless steel had already written a notorious chapter in the short

history since reunification. For the main house „Unter den Linden“ the construction companies then used stainless steel. They can stand a lot. Nevertheless, the increased tendency for tension-induced cracks to occur when certain stainless steel alloys - for instance, those lacking molybdenum - come into contact with too much chlorine and chloride, is well known. But drinking water is not swimming pool water. Therefore, there is nothing against stainless steel.

### The search for the guilty

Then, in the USA, earlier guests fell ill. The doctors diagnosed Legionella's disease, alarmed the health authorities, traced back where the guests had most recently stayed, were led to the „Adlon“ and informed their opposite numbers in Germany. The Berliner hygiene specialists met in the head-office and, indeed subsequently discovered contamination of the water supply system. As a consequence and contrary to all plans, chloride had to be introduced into all of the pipeline branches so as to get rid of the evil. Apparently, this forced several molybdenum-deficient sections to their knees. Presumably in those rooms that stood empty, the chlorine ions in the standing water could attack the metal joints without disturbance. This affair still occupies experts and courts alike.

The cause is probably the following: The previous notice posted up for the front house originally demanded a relatively molybdenum rich stainless steel. What was used was one deficient in molybdenum. Who certified the parity of the two types? The culprit is now being sought by the lawyers. Whereby, even if successful he or she may not be the true culprit. This is because they must prove that the first pipe was only posted up because of its high molybdenum content. – who would have thought of chlorine in stagnating drinking water – and not because of other characteristics that perhaps are congruent with the installed type.



The bathing comfort of the 69 double bed room under construction should not, amongst other things, suffer from sounds of running water. The plastic cuffed JRG Sanipex MT multilayer pipes go far to meeting this requirement.



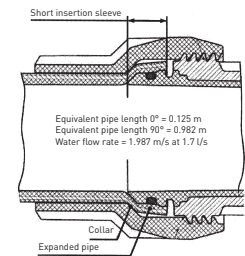
It must be noted at this point that also plastic pipes do not offer complete protection against chlorine. The various cross-linked and non cross-linked polyethylene pipes are certainly more effective for this problem than is the usual stainless steel pipes. But even when using, for example JRG Sanipex MT, the specifications for the corresponding technical installation techniques of the company must be strictly adhered to.

### MT against sound of running water

And this as well: Guests of the „Adlon“ had complained about the sounds of running water in their rooms. Naturally, that didn't do much for the good reputation of the noble hotel either. Further improvements were made. Rainer Eisold of Holthoff Gebäudetechnik AG knows, that with MT-pipes, several of the potential annoyances can be removed. The plastic cover does not conduct every water gurgle through into the securing element.

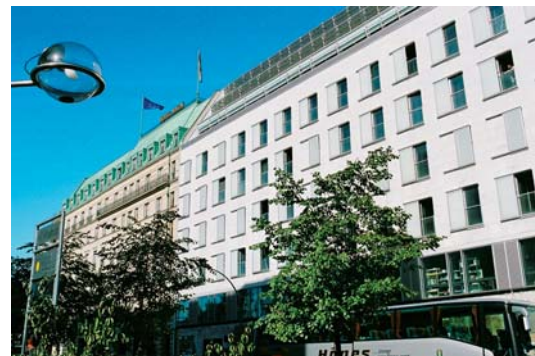
[www.jrg.ch](http://www.jrg.ch)

The slanted valves, completely cast out of bronze are extremely resistant to corrosion.



The short insertion depth – and coupled to this the short water slit up to the O-Ring – considerably reduces the dead spaces of the MT-connection as colonising sites for germs, viruses and bacteria.

So that the fittings can meet the various mechanical demands, JRG Gunzenhauser developed a 2-layered injection moulding technique. The hot water resistant white „inner fitting“ made of PPSU is encased in a mechanically highly load resistant, black „outer fitting“ made of PA. A coupling nut screwed on connects the „fitting-in-fitting“ with the flared multilayer pipe.



Learning the lessons from past sanitation weaknesses of the motherhouse (left): The Kempinski-Hotels „Adlon“ has fitted out their new extension in Berlin with JRG Sanipex MT!