

Elaflex is specialised in safe connections for the transfer of sensitive fluids and hazardous goods. Our state-of-the-art rubber bitumen hose assemblies have proven their performance in product logistics and road construction due to their easy cleanability compared to corrugated stainless steel hoses. The 'HB' Hot Bitumen hoses are available in 3/4" up to 2", truck loading/unloading hoses up to 4" and dockside hoses up to 8".



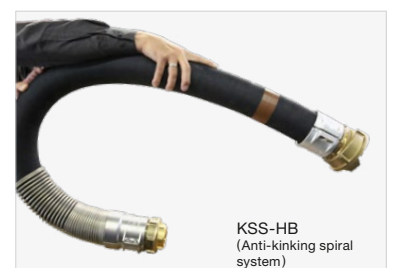
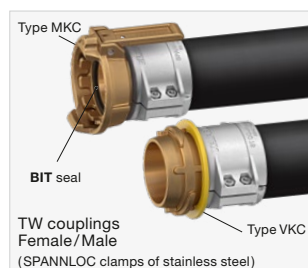
Hose Specifications

WEIGHT ≈ kg/m	HOSE SIZE			Work. Pressure bar	Max. Work. Temperature*) °C	Test Pressure bar	Vacuum bar	Bend. Radius mm	Coil Length ≈ m	PART NUMBER	
	≈ ID in.	≈ ID mm	≈ OD mm							Type	
HOT BITUMEN SPRAYING APPLICATION											
0,7	3/4"	19	31	20	220	30	0,2	200	40	HB 19 ST	
1,6	1 1/4"	32	46					350		HB 32 ST	
1,7	2"	50	66					600		HB 50 ST	
ROAD AND RAIL TANKERS, DEPOT APPLICATION to EN 13482, Type 1 SB/B											
2,3	2"	50	65	7	200	15	0,4	160	40	HB 50	
2,9	2 1/2"	63	78					200		HB 63	
3,5	3"	75	91					250		HB 75	
5,2	4"	100	119					350		HB 100	
MARINE AND DOCKSIDE APPLICATION with built-in nipples to EN 13482, Type 2 SB/A											
14,5**)	6"	150	181	15	175	23	0,8	850	30	HB 150	
18,8**)	8"	200	231					1100		HB 200	

*) Operation and safety hints for the use of Bitumen hose assemblies, please see overleaf

** Weight without flange nipples

Hose Couplings, Special Bitumen 'BIT' seals, Flanges and Accessories



Safety Hints for the Use of Hot Bitumen Hose Assemblies

Hot Bitumen is highly dangerous. The following safety hints have to be implicitly observed.

Use up to 200 °C (175 °C)

Hot Bitumen hoses type 1 (7 bar) are intended for short-term loading and unloading processes, for example of hot Bitumen vehicles up to 200°C, which are used several times a day with corresponding recovery phases between operations.

Type 2 (15 bar) Bitumen hoses are usually used for ship loading and unloading operations up to 175°C. Their individual operation time takes longer but occurs less frequently.

For operations beyond above mentioned, we recommend the type HB-ST (see ELAFLEX Information 3.15).

In general, the longer the operating time and the higher the temperature, the faster the aging of the rubber/reinforcements and the earlier the regular replacement of the hose assembly must take place (risk assessment to the Industrial Safety Ordinance).

Temperature Limit

Hot Bitumen hoses are **not** suitable for a permanent use over 200°C (175 °C). A permanent use over this temperature limit endangers the safety and shortens the lifetime.

Handling

Hot Bitumen hoses are **not** to be bent directly behind the couplings. Therefore all bends have to be in the middle of the hose. Bitumen hoses should be laid out with considerably larger curves than normal tank truck hoses. At the high temperature the rubber hose gets soft and the tube does not have the full mechanical stability during the heating up. Large bending radii extend the lifetime. We developed a new anti-kinking spiral system KSS-HB. This is a stainless steel spiral, tightly bonded with special stainless Spannloc clamps. It protects the stressed area behind the coupling against overbending at high temperatures and thus can considerably increase the lifetime of the hot Bitumen hoses.

No closing of hot hoses

Hot hoses are **not** to be closed with caps because a vacuum forms during the cooling process. A vacuum of more than 0,4 bar (approx. 12 in. of Mercury) forms in a closed hose assembly at a temperature difference from 200°C to 0°C. Thereby the inner liner can be separated from the hose wall structure.

Heating up hose ends

The couplings and hose ends may not be warmed up with a blow lamp. Thereby the hose reinforcements can be damaged without being noticed. Because of the good heat insulation of the thick rubber hose wall, the Bitumen remains hot in any case until the end of the transfer operation and can flow out completely. After the transfer operation, let the Bitumen flow out freely for a while. This will minimize the residue in the hose and will prevent the hose from being blocked by hardened Bitumen. Warming of the couplings before the next operation will not be necessary in this case.

Hint for cleaning

The following procedure has proved useful for the cleaning. The still hot couplings, if necessary also the hose surface, are cleaned with dieseline and a brush immediately after completion of the filling. When everything is still warm, it is done quickly and one avoids the dangers that exist when using a blow lamp. If the Bitumen is cold, it takes correspondingly longer.

Safety check

When the cover of the Hot Bitumen hose is damaged or the pressure carrying reinforcements are visible, the hose assembly must be replaced immediately. Maximum danger also exists when the hose is kinked or the steel helix is visible.