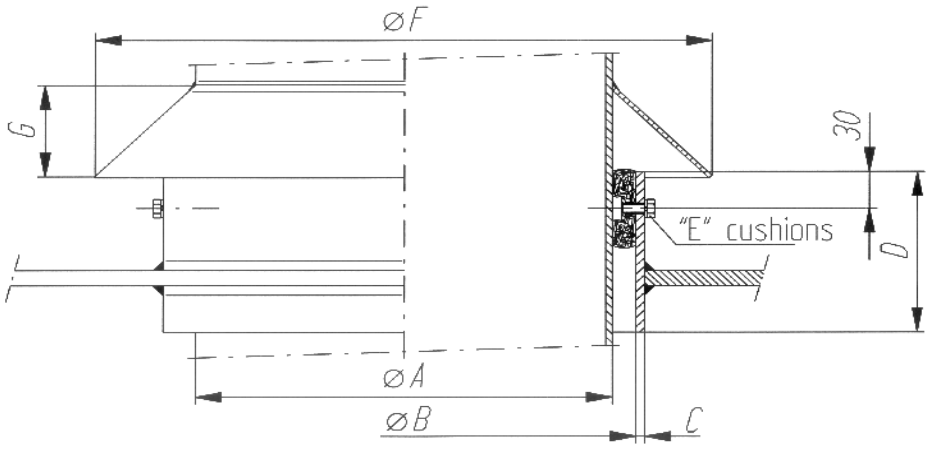
4.1 Funnel deck piperun

Funnel deck piperuns are meant to lead the exhaust gas pipe through the funnel deck.. Due to the stainless steel cushions, the exhaust gas pipe can move in axial direction but is still flexible mounted.

The raincap protects the interior of the ship against rainwater and is made of stainless steel.

The piperuns are available in the following dimensions:



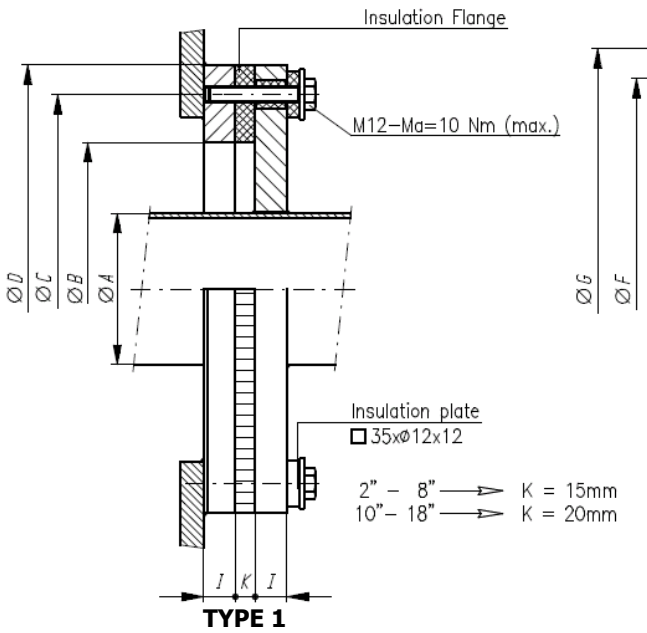
N.B.	A	B	C	D	E	F	G	Weight
050	60.3	109.8	5.6	130	2	215	75	3.5 kg
065	76.1	127.1	6.3	130	2	230	75	4.0 kg
080	88.9	136.0	5	130	3	240	75	4.0 kg
100	114.3	161.0	5	130	3	265	75	4.5 kg
125	139.7	187.0	6	130	3	290	75	6.0 kg
150	168.3	215.0	8	160	3	318	75	9.5 kg
200	219.1	266.0	8	160	3	369	75	11.0 kg
250	273.0	320.0	8	160	3	423	75	13.0 kg
300	323.9	370.0	8	160	4	474	75	15.0 kg
350	355.6	402.0	8	200	4	506	75	20.0 kg
400	406.4	453.0	8	200	4	556	75	22.5 kg
450	457.2	505.0	8	200	5	607	75	25.5 kg
500	508.0	555.0	8	200	5	658	75	27.5 kg
600	608.0	655.0	8	200	5	758	75	32.0 kg
700	711.0	758.0	8	200	5	862	75	37.0 kg
800	813.0	860.0	8	200	8	970	75	42.5 kg
900	914.0	961.0	8	200	8	1065	75	47.0 kg
1000	1016.0	1063.0	8	200	8	1173	75	52.5 kg

Larger sizes on request.

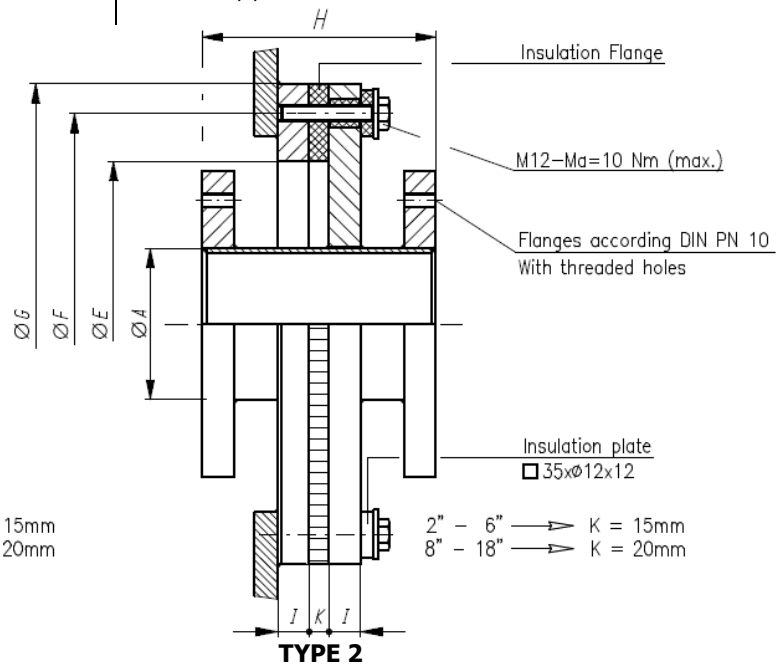
4.2 Heat reducing bulkhead penetration

Heat reducing bulkhead penetrations are especially designed to lead the exhaust gas pipe watertight through bulkheads or decks. By using special insulation material, we prevent the heat from flowing into the ship's structure. These bulkhead penetrations are designed with (relatively) small dimensions, therefore providing better and easier built-in possibilities.

Rubber Design delivers the heat reducing bulkhead penetration completely. This means that type 1 can easily be assembled by welding the bulkhead flange to the ship's structure. The threaded holes simplify the final assembly. Type 2 also enables it to easily disassemble the exhaust pipe afterwards.



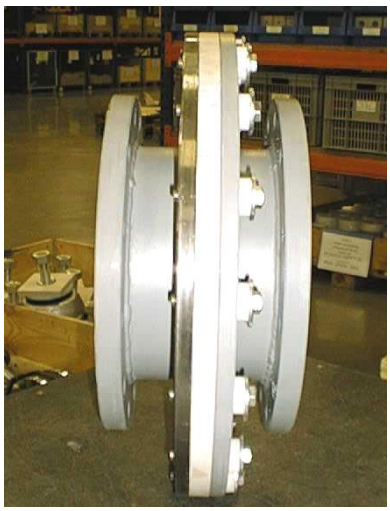
TYPE 1



TYPE 2

N.B.	A	B	C	D	E	F	G	H	I	Bolts for Type 1	Bolts for Type 2
050	60.3	171	240	285	171	240	285	180	16	M12 x 55 (8x)	M12 x 55 (8x)
065	76.1	171	240	285	222	295	340	180	16	M12 x 55 (8x)	M12 x 55 (8x)
080	88.9	171	240	285	222	295	340	200	16	M12 x 55 (8x)	M12 x 55 (8x)
100	114.3	171	240	285	222	295	340	200	16	M12 x 55 (8x)	M12 x 55 (8x)
125	139.7	196	270	315	276	350	395	200	16	M12 x 55 (8x)	M12 x 55 (12x)
150	168.3	222	295	340	327	395	440	200	16	M12 x 55 (8x)	M12 x 55 (12x)
200	219.1	276	350	395	355	445	490	200	16	M12 x 55 (12x)	M12 x 60 (12x)
250	273.0	327	395	440	411	495	540	200	16	M12 x 60 (12x)	M12 x 60 (16x)
300	323.9	411	495	540	461	550	595	200	16	M12 x 60 (16x)	M12 x 60 (16x)
350	355.6	411	495	540	512	600	645	200	16	M12 x 60 (16x)	M12 x 60 (20x)
400	406.4	461	550	595	614	700	754	200	16	M12 x 60 (16x)	M12 x 60 (20x)
450	457.2	512	600	645	614	700	754	200	16	M12 x 60 (20x)	M12 x 60 (20x)

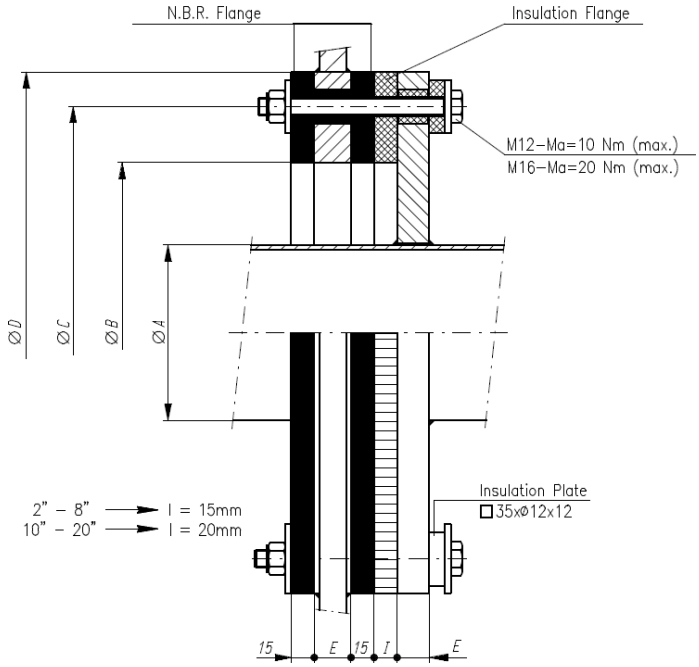
Other dimensions on request.



4.3 Heat reducing flexible bulkhead penetration

Heat reducing flexible bulkhead penetrations are especially designed to lead the exhaust gas pipe watertight and flexible through bulkheads or decks. The rubber parts prevents the vibrations to move from the exhaust gas pipe into the ship's structure.

By using special insulation material, we avoid that the heat from the exhaust gas pipe will flow into the rubber parts. Rubber Design delivers the heat reducing flexible bulkhead penetration completely. The penetrations are available in the following dimensions.



N.B.	A	B	C	D	E	Bolts	Weight
050	60.3	171	240	285	16	M12 x 110 (8x)	17 kg
065	76.1	171	240	285	16	M12 x 110 (8x)	16 kg
080	88.9	196	270	315	16	M12 x 110 (8x)	21 kg
100	114.3	222	295	340	16	M12 x 110 (8x)	24 kg
125	139.7	222	295	340	16	M12 x 110 (8x)	23 kg
150	168.3	276	350	395	16	M12 x 110 (12x)	29 kg
175	193.7	276	350	395	16	M12 x 110 (12x)	28 kg
200	219.1	327	395	440	16	M12 x 110 (12x)	32 kg
250	273.0	360	445	490	16	M12 x 120 (12x)	36 kg
300	323.9	411	495	540	16	M12 x 120 (16x)	40 kg
350	355.6	461	550	595	16	M12 x 120 (16x)	45 kg
400	406.4	512	600	645	16	M12 x 120 (20x)	54 kg
450	457.0	614	700	754	16	M12 x 120 (20x)	65 kg
500	508.0	614	700	754	16	M12 x 120 (20x)	61 kg

Other dimensions on request.