**YFON®** 

# **Kockum Sonics**

# SUPERTYFON<sup>®</sup> MKT 150/90 with Valve Unit TV 784

A high–power whistle according to IMO for vessels 200 m or more in length



Valve Unit TV 784 Ref. no. 24800362

### **General Information**

Nowadays, each vessel from 12 metres and more (length over all) must be equipped with sound signal appliances which are type approved according to the IMO regulations. Hence, one part of the responsibility is the manufacturer's, but still one important part is the shipowner's regarding the choice of appropriate equipment for the vessel in question, the installation and use.

The reason behind the stipulated use of 1/3 octave band filters when measuring is connected to the theory of the hearing sense. A "complex" sound like that from **TYFON**® or **SUPERTYFON** consists of several harmonic com-ponents. Consequently, the total SPL value is considerably higher than the measured (stipulated) 1/3 octave value.

## **Positioning Whistles**

For an all–round radiation and a limited noise level from the ship's whistles at the listening posts, the positioning of the ship's whistles is very important. For further information regarding installation regulations and "Combined Systems", see our leaflet "IMO Regulations, KSM 265E".

### Valve Unit

The **VALVE UNIT TV 784** has a good air flow section, thermostatic heating, exchangeable choke flanges and filters. The apparatus is fitted with two coils for normal and emergency operation and lanyard as standard (see the separate leaflet Valve Unit TV 784, KSM 264).

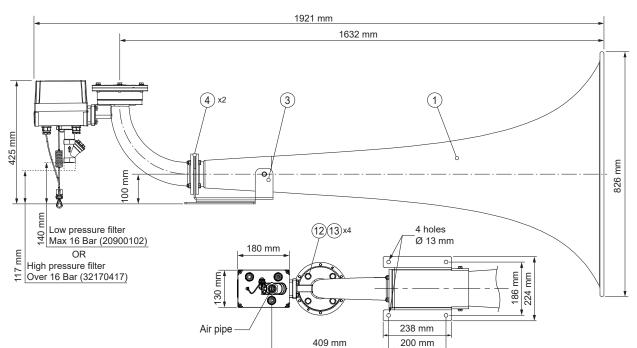
### Installation

**SUPERTYFON MKT 150/90** is to be fixed with four M16 bolts to an outrigger or similar construction. To avoid functional trouble blow the supply pipe thoroughly clean before connecting to the signalling whistle.

If the pipe line above deck is longer than 100m, a primary **FILTER TP 15/2** should be installed at the foot of the mast to protect the signalling apparatus from water condensate and rust particles. This filter is recommended to be drained regularly, approximately once a month.

Technical Data		
Frequency	90 Hz	
Sound Pressure Level (1m)		
Total	149 dB	
1/3 octave IMO limit	143 dB	
Air consumption	60 - 70 l/s	
Air supply pressure with choke regulation	0.6-3 MPa (6-30 bar)	
Electric power		
Thermostatic heating	24 W	
Valve	27 W	
Weight	52 kg	

# MKT 150/90: Spare Parts and Dimensions



Spare Parts MKT 150/110				
ltem	Name	Material	Ref. no.	
1	Horn MKT 150/90	Glass-fibre reinforced Polyester / Galvanized cast iron	24800695	
2	Bend	Galvanized cast iron. Marine enamel coated.	21800461	
3	Base	Galvanized steel	21800679	
4	Gasket (2 pcs)	TH3200	21801101	
5	Gasket (1 pcs)	TH3200	37710234	
6	Diaphragm set	Titanium/ Nitrile rubber	39880259	
7	Choke flange (state pressure)	Brass	21768201	
8	Filter 16b	Brass	20900102	
	Filter 30b	Stainless steel	32170417	
9	Packing 62 x 62 x 1	TH3200	21765037	
10	Screw M6S M8 x 25	Stainless steel	20801123	
11	Lock washer FBB 8.1	Stainless steel	32780117	
12	Screw M6S M10 x 30	Stainless steel	32570039	
13	Lock washer FBB 10.2x17	Stainless steel	32780159	

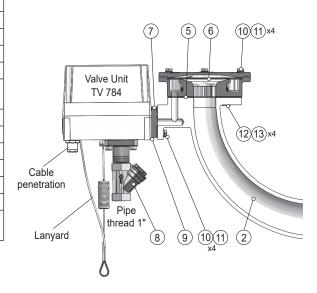
Spare parts can be obtained from Kockum Sonics or their agents. When ordering, please, give working pressure, reference number and part name.

Spare parts for valve unit, see Valve Unit TV 784, KSM 264.

Pipe line dimensions			
Working pressure MPa (overpressure)	Length of pipes in metres	Inside diam. of pipe, mm(inches)	
below 2.0	Max 150 150 - 350	Min 29 (1 <sup>1</sup> /4")* Min 35 (1 <sup>1</sup> /2")*	
above 2.0	Max 150 150 - 350	Min. 23 (1")* Min. 28 (1 <sup>1</sup> /4")*	

\*Converting muff necessary for connection to signal apparatus.

Bottom view



### **Air Pressure Choking**

The basic condition for good performance and reliable function is the appropriate air pressure activating the diaphragm.

When ordering, please state the working pressure.

If the connection pipe is dimensioned in accordance with the recommendations (see table), the pressure gauge reading at the air receiver in the engine room is adequate for choice of choke.

