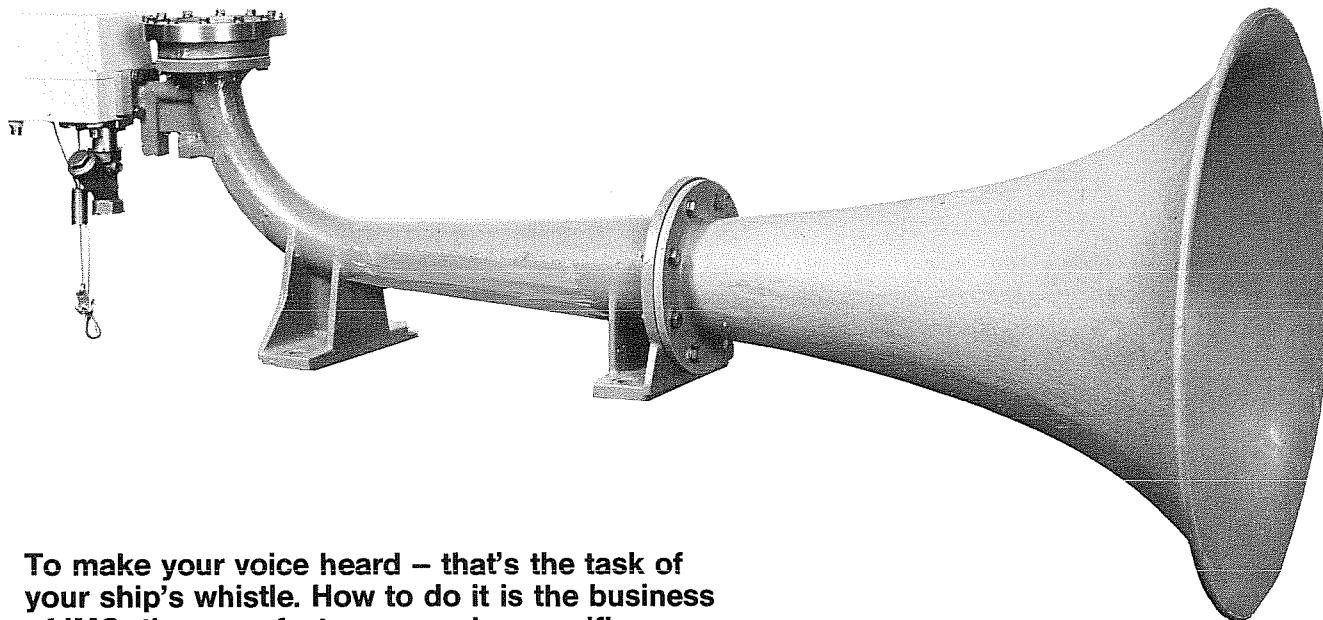




Kockum Sonics

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

**A high-power whistle according to IMO  
for vessels of 200m or more in length**



**To make your voice heard – that's the task of  
your ship's whistle. How to do it is the business  
of IMO, the manufacturer – and yourself!**

The use of sound signals for attention and information in the most efficient way is not so simple from all aspects. That is the reason behind the regulations determined through the 'International Convention for Preventing Collisions at Sea, 1972'. 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 Sound and its Power

The radiated sound output is represented by its Sound Pressure Level and is measured in dB.

For the purpose of the IMO regulations, the demand on radiated sound is defined by the 1/3 octave Sound Pressure Level measured at (or recalculated to) 1 metre distance from the horn mouth and measured within the frequency range 180–700 Hz, where the hearing mechanism has a high sensitivity.

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 components. Consequently, the total SPL value is considerably higher than the measured (stipulated) 1/3 octave value.

The ability of sound signal to be heard above noise when reaching a distant vessel is highly dependent on

the presence of components which are sufficiently strong in the so-called sound spectrum. A ship's whistle of trade mark **TYFON** of **SUPERTYFON** always has a favourable spectrum and a high total SPL value. The broad spectrum gives 'signal efficiency' and a more beautiful tone.

### Combined systems – installation advice

For full information regarding 'Combined Systems' and IMO installation regulations etc., see our leaflet 'IMO Regulations'.

### 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 separate leaflet).

### Technical data

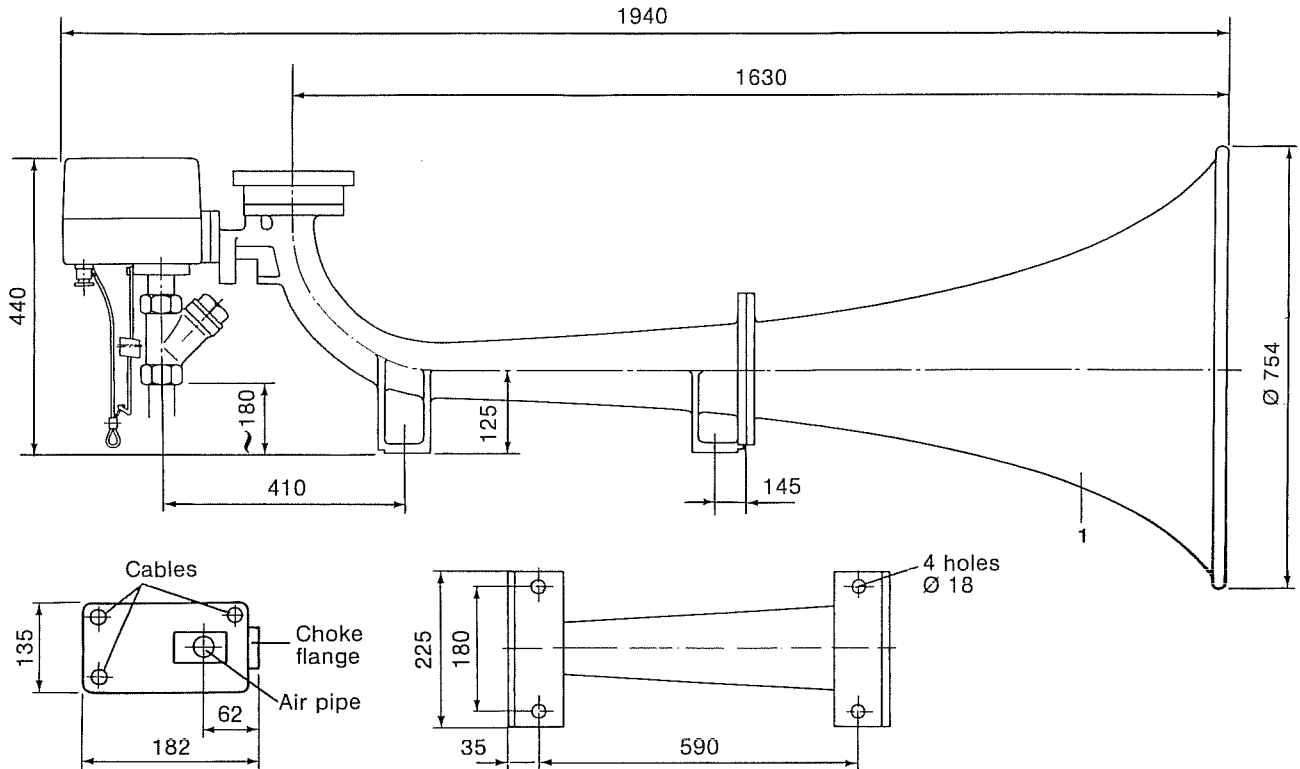
Frequency:	90 Hz
Sound Pressure Level (1m):	
– Total	149 dB
– 1/3 octave IMO limit	143 dB
Air consumption:	60–70 l/s
Air supply pressure with choke regulation:	0,6–3 MPa (6–30 bar) (40 bar optional)
Electric power:	
– Thermostat heating	24W
– Valve	8–15W
Weight:	55 kg

For wiring diagram, see leaflet Valve Unit TV 784.

Postal Address	Address	Telephone	Telefax	Telex
Kockum Sonics AB Box 1035 S-212 10 Malmö, Sweden	Industrigatan 39	Nat 040-671 88 00 Int + 46 40 671 88 00	Nat 040-21 65 13 Int + 46 40 21 65 13	33792

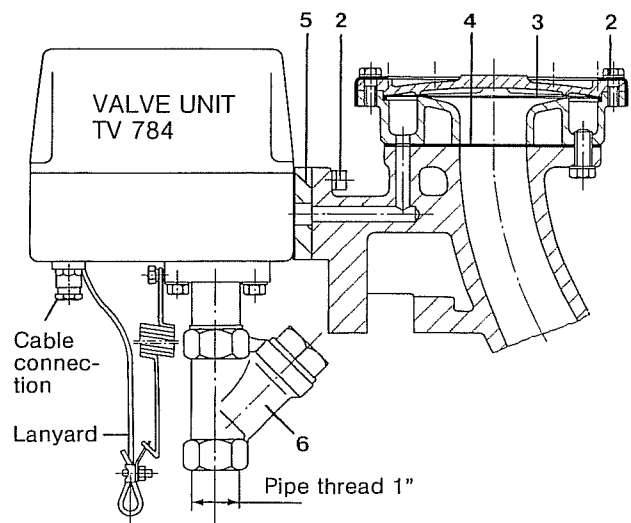
KSM 267E/8602

## Supertyfon MKT 150/90 Dimensions and Spare Parts



Spare parts			
No.	Name	Material	Ref. no.
1	Bell piece 90 Hz	Glass-fibre reinforced polyester	32171317
2	Screw M6S 8 x 25	Stainless steel	32570028
3	Diaphragm set KM 150 BT	Titan/nitrile rubber	39880259
4	Packing	Rubber	37710234
5	Choke flange (state pressure)	Brass	21768201
6	Filter	Brass	32170417

When ordering spare parts, give part name and reference no. Spare parts for valve unit, see leaflet Valve Unit TV 784.



### Installation

**SUPERTYFON MKT 150/90** is to be fixed with four M 16 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 100 m, a primary filter type TP 15-2 should be installed at the foot of the mast to protect the signalling apparatus from water condensate and rust particles. This air filter is recommended to be drained regularly, approximately once a month.

### Air pressure choking

The basic condition for the 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.

Pipe line dimensions		
Working pressure MPa (overpressure)	Length of pipe metres	Inside diam. of pipe, mm (inches)
below 2,0	Max. 150	Min. 29 (1¼")*
	150 - 350	Min. 35 (1½")*
above 2,0	Max. 150	Min. 23 (1")
	150 - 350	Min. 28 (1¼")*

\*Converting muff necessary for connection to signal apparatus.