## **Technical Datasheet**



### **Turboloader Sil Aramid**

Ref: DO 03.10 FT 31. Rev. 05 Date: 29/05/2017



# Limitations

Respect the work pressure established values.

When the inner layer is made of VMQ or FVMQ gas oil and oil stains do not damage the tubes, but they should not be used to transport fuel or oil, nor be submerged in these liquids.

The FKM inner layer is incompatible with ketones such as acetone.

This type of tube is not recommended for applications with negative pressure (vacuum)

This product is not recommended for the transport of abrasive particles.

### Regulations

Silicone rubber used is in accordance with EU Directive 2002/95/ECC for Restriction of the use of hazardous substances (RoHS).

### **Applications**

It is especially recommended in turbocharger systems for industrial vehicles, due to its high capacity to withstand hydrocarbons and oil particles in the cooling pressurized air. Available with or without wall reinforcing stainless steel rings.

This reference is manufactured with aramid textile reinforcements and the silicone rubber compound is VMQ type (Vinyl-Methyl Quality). The inner layer can be made of FVMQ (Fluor Vinyl-Methyl Quality) silicone or FKM rubber so that it has a higher resistance to oil particles and hydrocarbons in suspension.

### **Properties**

- Hoses with convolutions, ideally suited to resist tension and tightness of vibration at high temperatures.
- Corrugated inner and outer appearance, the outer is brown red color, the inner layer could be black or dark blue when is FVMQ, and black when it is
- Excellent flexibility during the assembly process.
- Highly resistant to hardening with very good compression characteristics, excellent resistance to thermal aging and oxidizing agents (oxygen, ozone, UV).
- The assembling of the external stainless steel rings guarantees the axial flexibility of the tubing even when under pressure, absorbing vibration between connected parts and avoiding tension and noise.
- Operational temperature range from -60°C (-75 F) to +200°C (392 F), it may reach up to 220°C (428 F) during short periods of time. When the inner layer is made of FKM the minimum working temperature could be lowered until -30°C (-22 F).

### Construction

This reference could be manufactured with three variants:

- Inner layer in VMQ Silicone.
- Inner layer in FVMQ Silicone.
- Inner layer in FKM Rubber.

In each of them is manufactured with three aramide fabric reinforcements.

### **Technical Specifications**

Inner Diameter		Wall thickness		Corru- gates	Rings	Muff Length		Total Length		Working Pressure ISO 1402/2009		Bursting Pressure ISO 1402/2009	
mm	inch	+1/ -0.5 mm	+0.04/ -0.02 inch			mm	inch	mm	inch	Bar at 20°C	Psi at 68ºF	Bar at 20°C	Psi at 68ºF
50	2	4.5	1,772	4	5	43.5	1 23/32	200	7 7/8	8	116	24	348.1
70	2 3/4	4.5	1,772	4	5	43.5	1 23/32	200	7 7/8	6	87	18	261.1
89	3 1/2	4.5	1,772	4	5	43.5	1 23/32	210	8 17/64	5	72.5	15	217.6
100	4	4.5	1,772	4	5	48.5	1 29/32	210	8 17/64	4	58	12	174

TECHNIC SPECIFICATIONS								
Inner Diameter		Rings	Humps	Total lenght		Cuffs		
mm	inch			mm	inch	mm	inch	
63	2 1/2"	3	2	152	6,0	45	1,8	
63	2 1/2"	5	4	230	9,0	58	2,3	
70	2 3/4"	4	3	178	7,0	45	1,8	
70	2 3/4"	5	4	203	8,0	45	1,8	
76	3"	2	1	152	6,0	63	2,5	
76	3"	3	2	152	6,0	45	1,8	
80	3 1/8"	3	2	152	6,0	38	1,5	
82	3 1/4"	3	2	152	6,0	45	1,8	
89	3 1/2"	2	1	152	6,0	57	2,2	
89	3 1/2"	3	2	152	6,0	57	2,2	
89	3 1/2"	5	4	216	8,5	63	2,5	
89	3 1/2"	6	5	267	10,5	57	2,2	
102	4"	2	1	152	6,0	57	2,2	
102	4"	3	2	152	6,0	45	1,8	

7,0

8,0

9,0

12,5

6,0

6,0

2,2

2,5

1,8

3,0

1,80

1,80

4"

4"

4"

4"

5"

4 1/2"

# VENA® SIL TURBO

### Turboloader

**APPLICATIONS:** 

Specifically used in turbochar-



### > MATERIAL:

Silicone VMQ (Vinyl Methyl Quality) outside and FVMQ (Fluor-Vinyl Methyl Quality) inside.

### > CONSTRUCTION:

Several Aramid plies Alternatives:

- Inner liner of FKM material.
- Inner liner of VMQ material.

### > STANDARD WALL THICKNESS:

It depends on the diameter and the number of plies. Please consult.

### > STANDARD LENGTH:

All our standard or customized products can be produced with this option.





### **TEMPERATURE RANGE:**

-55°C / +200°C (peaks up to 220°C) -67°F / 392°F (peaks up to 428°F)



TECHNICAL TABLE ON PAGE: 27

# OTHER AVAILABLE OPTIONS



REDUCER TURBOLOADER



STRAIGHT CONNECTOR



REDUCER ELBOW 90°