TIMEX
Filtration & Water Systems

T100 Series Automatic Filters

flow rates	filtration degrees	water for cleaning	minimum operating pressure
up to **400 m³/h** (1760 US gpm)	**500-25** micron	less than **1**% of the total flow	**2** bar (30 psi)

The automatic self-cleaning filter - suitable for more applications than ever.

features:

- Large filter area, reliable operating mechanism and simple construction make the SHF filter the ideal solution for filtration of poor quality water to very fine filtration degrees
- Automatic flushing according to pressure differential and/or according to time
- No interruption of downstream flow during flushing
- Robust and reliable Self-Cleaning mechanism even on marginal operation conditions.
- Minimal volume of reject water allows excellent operation in continuous flush mode
- Applications: Water supply systems, Irrigation systems, Cooling Water, Waste Water Treatment, Industrial Pre-Filtration, etc.
- Industries: manufacturing , mining, water and waste water treatment plant, turf and agriculture, etc.

Technical Specifications

Filter Type	T100-750	T100-1500	T100-4500	T100-6800
General Data				
Maximum flow rate*	40 m³/h (176 US gpm)	80 m³/h (352 US gpm)	180 m³/h (792 US gpm)	400 m³/h (1760 US gpm)
Inlet/Outlet diameter (mm)	2", 3" (50, 80)	3", 4" (80, 100)	4", 6" (100, 150)	4", 6", 8", 10" (100, 150, 200, 250)
Standard filtration degrees	Weave Wire or Wedge Wire Screen 500, 300, 200, 130, 100, 80, 50, 25 micron			
Min. working pressure	2 bar (30 psi) For lower pressure please consult manufacturer			
Max. working pressure	10 bar (145 psi)		16 bar (232 psi) upon request	
Max. working temperature	50°C (122°F)	50°C (122 °F)	60 °C (140 °F) 95 °C (203 ° F) upon request	60 °C (140 °F) 95 °C (203 °F) upon request
Electrical Supply	3 phase, 380 / 440 VAC 50 / 60 Hz or 1 phase, 220 VAC 50 Hz			
Weight (empty)	2" : 27 kg 3" : 30 kg	3" : 35 kg 4" : 40 kg	4" : 95 kg 6" : 120 kg	4" : 115 kg 8" : 145 kg 6" : 125 kg 10" : 165 kg

* Timex offers a variety of construction materials. Consult manufacturer for specifications.

Flushing Data				
Minimum flow for flushing (at 2 bar -30 psi)	15 m³/h (66 US gpm)	20 m³/h (88 US gpm)	26 m³/h (114 US gpm)	30 m³/h (132 US gpm)
Reject water volume per flush cycle (at 2 bar -30 psi)	15 liter (4 US gallon)	20 liter (5,2 US gallon)	125 liter (33 US gallon)	150 liter (40 US gallon)
Flushing cycle time	10 seconds	10 seconds	15 seconds	15 seconds
Exhaust valve	1,5" 40 mm	1,5" 40 mm	1,5" 40 mm	1,5" 40 mm
Flushing criteria	Differential pressure of 0.5 bar (7psi), time intervals and manual operation			

Screen Data				
Filter area	750 cm² (116 in²)	1500 cm² (232 in²)	4500 cm² (697 in²)	6800 cm² (1054 in²)
Screen types	Four-layer or Molded Weave Wire stainless steel 304, 316, SMO254			
	Wedge Wire stainless steel 304, 316, SMO254, Duplex and Super Duplex			

Control and Electricity				
Rated operation voltage	3 phase, 380 / 440 VAC 50 / 60 Hz or 1 phase, 220 VAC 50 Hz			
Electric motor	¼ HP	¼ HP	¼ HP	1/3 HP
Current consumption	0.6 Amp	0.6 Amp	0.6 Amp	0.8 Amp
Control voltage	24 VAC 12V or 24 VDC upon request			

Construction Materials	
Filter housing	Epoxy-coated carbon steel 37-2 / Stainless Steel 304, 316
Filter lid	Epoxy-coated carbon steel 37-2 / Stainless Steel 304, 316
Cleaning mechanism	Stainless steel 304, 316, PVC
Exhaust valve	GG25 body and Stainless steel disc, Natural rubber
Seals	EPDM, NBR, Teflon
Control	Aluminum, Brass, Stainless steel, PVC, Nylon

* Timex offers a variety of construction materials. Consult manufacturer for specifications.

How the T100 series work

General

The Timex T100 Series are sophisticated, yet easy-to-operate, automatic filters, with a self-cleaning mechanism driven by an electric motor.
The "T100" filters support flow-rates of up to 400 m³/h (1.760 gpm), with various screens designed to cover a range of 500-25 micron filtration degree, and are available in inlet/outlet diameters of 2"-10".

The Filtering Process

Raw water enters the filter inlet through the coarse screen which protects the cleaning mechanism from large debris. The water passes through the fine screen, trapping dirt particles which accumulate inside the filter. Clean water flows through the filter outlet.
The gradual dirt buildup on the inner screen surface causes a filter cake to develop, with a corresponding increase in the pressure differential across the screen. A pressure differential switch senses the pressure differential and when it reaches a pre-set value, the cleaning process begins.

The Self-cleaning Process

Cleaning of the filter is carried out by the suction scanner which spirals across the screen; the open exhaust valve creates a high velocity suction stream at the nozzles tip which "vacuums" the filter cake from the screen. During the self-cleaning process, which takes between 20 to 40 seconds, filtered water continues to flow downstream.

The Control System

Two types of control boards are available for the T100 filters: PLC or Electro-Mechanical Relay and Timer.

The self-cleaning cycle begins under any one of the following conditions:
1. Receiving a signal from the Pressure Differential Switch
2. Time interval parameter set at the control board
3. Manual Start

The control board also provides:
Optional continuous flush operation mode
Flush cycles counter
Alarm or an alternative reaction at malfunction mode; open a bypass, shut-off a pump, etc.

"T100" Models

Timex's "T100" product-line consists of
the following models:

T100-750 for up to 40 m³/h

T100-1500 for up to 80 m³/h

T100-4500 for up to 250 m³/h

T100-6800 for up to 400 m³/h

industry
Automotive, Aviation, Ballast treatment, Electronics, Food & Beverage; Mining, Oil & Gas, Petrochemical, Power Generation, Pulp & Paper

municipal
Potable Water, Waste Water, Desalination, Brackish Water, High rise buildings, Pre-filtration to Membranes

irrigation
Agriculture, Golf & Turf, Green Houses

aquaculture
Fish Farming, Recirculating Aquaculture Systems (RAS), Fish Processing Industry

Factory & Head Office

ASO 2 OSB, 2036. Street No : 12
Sincan / ANKARA / TURKEY

Tel: +90 312 815 52 46-47

Fax: +90 312 815 52 48

E-mail: info@timex.com.tr

www.timex.com.tr

TIMEX
Filtration & Water Systems