

Spidflow® Pack



Rapid Dissolved Air Flotation

SPIDFLOW® PACK is the new generation of standardized rapid flotation packaged plant. This product range is based on the Spidflow™ process developed by Veolia that uses « white water » special nozzles for unequalled water clarification efficiency. This package plant is integrating the continuous innovation carried out by Veolia in order to always stay on the cutting edge to meet customer needs and performance excellence. It comprises a flocculation step and a clarification phase. The fast flocculation stage use a Turbomix®, especially effective when dealing with cold water.



Flow rates
from 100 to
554 m³/h



Power



Electronics



General
Industry



Drinking
Water



FEATURES & BENEFITS

- Very compact unit
- High removal efficiency : up to 99% of algae removed, 90% of dissolved oils and hydrocarbons and 95% of TSS
- A significant reduction of the water clogging ability, thanks to excellent clarified water SDI.
- A direct concentration of floating sludge of 25 g/l on average, which does not require an additional thickening stage.
- Extremely quick start-up time: reaches treatment efficiency within few minutes
- Efficient in cold water application
- Flotation velocity up to 35 m/h
- Highly reactive to water quality variation
- Use of multiphasic pump to produce white water: no need for pressurized vessel

HYDREX® CHEMICALS

Hydrex™ 6000 water treatment chemicals from Veolia Water Technologies should be used for optimized operation.



APPLICATIONS

- Pretreatment of seawater desalination before a granular or membrane filtration
- Clarification of surface or ground water containing up to 200 mg/l of suspended solids during episodic peak
- Colorful and rich in algae water, organic matter and humic substances
- Process water clarification step



OPTIONS

- Materials of construction suitable for seawater treatment in coastal area
- Access Platform
- Ladder or stairs

ASSOCIATED SERVICES

Local after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.





System Operating Parameters

Tank	Unit	SFP500-F	SFP600-F	SFP700-F	SFP800-F
Min Feed Flowrate	m ³ /h	100	145	200	300
Max Feed Flowrate	m ³ /h	186	271	372	554
Flocculation Zone Volume	m ³	19	28.5	38.3	58.5
Injection Zone Surface	m ²	1.8	2.5	3.6	5.25
Injection Zone Volume	m ³	4.6	6.1	8.6	11.5
Number of White Water Nozzles	-	24	36	48	64
Flotation Surface	m ²	6	8.75	12	17.5

WW Skid	Unit	SFP500-F	SFP600-F	SFP700-F	SFP800-F
Min White Water Flowrate	m ³ /h	20.94	30.95	45.62	56.65
Max White Water Flowrate	m ³ /h	23.09	34.63	47.4	58.29
White water skid model	-	C	D	E	E

System Dimensions

Tank	Unit	SFP500-F	SFP600-F	SFP700-F	SFP800-F
Total Installed Length	m	7.6	8.7	9.7	12
Total Installed Width	m	2.7	3.2	3.7	4.2
Total Installed Height	m	4.7	4.7	4.7	4.7
Empty Weight	kg	9000	10000	12000	14000
Operating Weight	kg	54000	76000	102000	147000

WW Skid	Unit	SFP500-F	SFP600-F	SFP700-F	SFP800-F
White water skid Length	m	3.9	3.9	3.9	3.9
White water skid Width	m	2	2	2	2
White water skid Height	m	1.9	1.9	1.9	1.9
White water skid Empty Weight	kg	1 100	1 200	1 300	1 400
White water skid Operating Weight	kg	1 700	1 800	1 900	2 000

Pipes Connections

Model	Unit	SFP500-F	SFP600-F	SFP700-F	SFP800-F
Feed	DN	250	300	350	400
Drain ⁽¹⁾	DN	Fc - 50 In - 25 Ft - 50	Fc - 50 In - 50 Ft - 50	Fc - 50 In - 50 Ft - 65	Fc - 65 In - 50 Ft - 65
Number of Outlet Pipes	-	2	2	2	3
Outlet	DN	250	300	350	350
White Water Skid Inlet	DN	200	250	315	355
White Water Skid Outlet	DN	50	65	80	100

⁽¹⁾ Fc - Flocculation In - Injection Ft - Flotation





Feed water Requirements

Parameter	Unit	Value
Minimum water temperature ⁽²⁾	°C	+10
Maximum water temperature	°C	+35
Maximum Inlet TSS ⁽³⁾	mg/l	50
Maximum Inlet Turbidity ⁽³⁾	NTU	30
Maximum Inlet particle size	mm	2

⁽²⁾ Please consult SOLYS for lower temperatures.

⁽³⁾ 200 mg TSS/l and 100 NTU acceptable for up to 1h maximum, 3 times per year maximum.

Materials of Construction

Tank	Value
Tank	Coated carbon steel
Internal Components	Depending on the required options, please see the "scope of supply"

WW Skid	Value
Skid	Galvanized steel
Pipework	Polypropylene

Power Requirements

Version	Unit	Value
Voltage ⁽⁴⁾	V	400 V
Frequency	Hz	50 Hz
Phases	-	3

⁽⁴⁾ Other voltage or frequency available on request.

Environmental Conditions

Parameter	Unit	Value
Minimum ambient temperature	°C	5
Maximum ambient temperature	°C	35
Maximum humidity	%	90

Typical Treated Water Quality

Parameter	Unit	Value
TSS Removal Efficiency	%	80-90