



# TECHNICAL GUIDE

## PACKAGED PRODUCTS - COMMERCIAL & INDUSTRIAL SYSTEM SOLUTIONS

V351 FILTRATION KIT





## V351 FILTRATION KIT

### KIT DESCRIPTION

- All components and accessories included to build various types of filtration systems
- Suitable for a wide range of filter applications and adaptable to various vessel sizes: 21x60, 24x69, 30x72 & 36x72 inches
- Two possible versions: Budget & Premium

### BUDGET KIT

#### TECHNICAL DATA

- Controller type: SFE
- Type of valve: V351
- Voltage: 230V 50/60 Hz - transformer 12 VAC 50/60 Hz
- IP protection: 30
- Operating pressure: 1,5 – 6 bar
- Regeneration start mode:
  - Timeclock

#### FEATURES

- Manual valve DN 40 to regulate the backwash low rate
- Inlet and outlet pressure gauges included
- Possible to combine 21x60, 24x69, 30x72 & 36x72 Structural tanks
- Tank kit includes a riser tube and a star lower screen system
- PVC fittings to glue DN 40
- Auxiliary microswitch

Part number	Description
CI-F-351SFE-0000	C&I filtration valve kit Budget - Siata 351 SFE, NBP during backwash
CI-F2160351SFE0000	C&I filtration kit Budget - Siata 351 SFE with tank 21x60, NBP during backwash
CI-F2469351SFE0000	C&I filtration kit Budget - Siata 351 SFE with tank 24x69, NBP during backwash
CI-F3072351SFE0000	C&I filtration kit Budget - Siata 351 SFE with tank 30x72, NBP during backwash
CI-F3672351SFE0000	C&I filtration kit Budget - Siata 351 SFE with tank 36x72, NBP during backwash

## PREMIUM KIT

### TECHNICAL DATA

- Controller type: SFE
- Type of valve: V351
- Voltage: 230V 50/60 Hz - transformer 12 VAC 50/60 Hz
- IP protection: 30
- Operating pressure: 1,5 – 6 bar
- Regeneration start mode:
  - Timeclock
  - Differential pressure input
  - Volumetric (adding a water meter)

### FEATURES

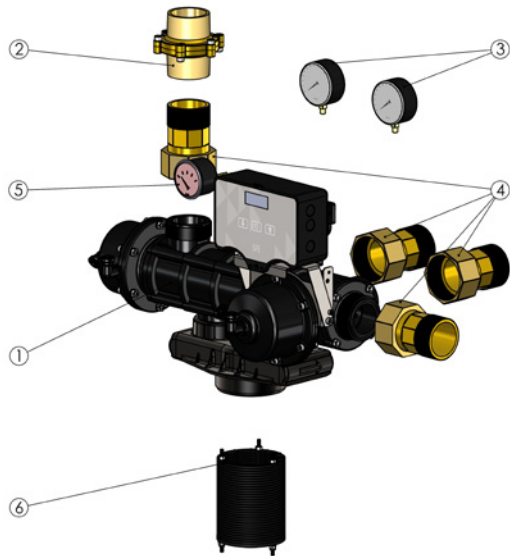
- DLFC kit adaptable for different applications
- Inlet and outlet pressure gauges included
- Possible to combine 21x60, 24x69, 30x72 & 36x72 Structural tanks
- Tank kit includes a riser tube and a star lower screen system
- Differential pressure switch
- Brass fittings 2-inch BSP male
- Auxiliary microswitch

Part number	Description
CI-F-351SFE-0001	C&I filtration valve kit Premium - Siata 351 SFE, NBP during backwash and differential pressure switch
CI-F2160351SFE0001	C&I filtration kit Premium - Siata 351 SFE with tank 21x60, NBP during backwash and differential pressure switch
CI-F2469351SFE0001	C&I filtration kit Premium - Siata 351 SFE with tank 24x69, NBP during backwash and differential pressure switch
CI-F3072351SFE0001	C&I filtration kit Premium - Siata 351 SFE with tank 30x72, NBP during backwash and differential pressure switch
CI-F3672351SFE0001	C&I filtration kit Premium - Siata 351 SFE with tank 36x72, NBP during backwash and differential pressure switch

## PERFORMANCE (service flow rate: 0,7 - 15,5 m<sup>3</sup>/h)

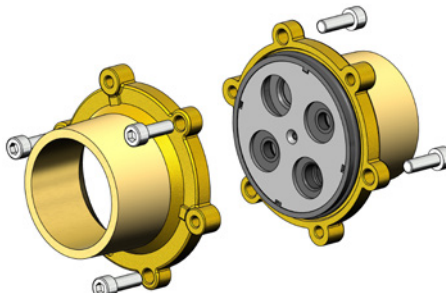
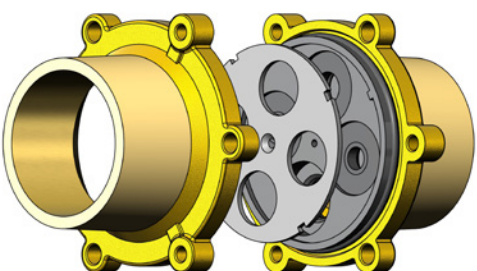
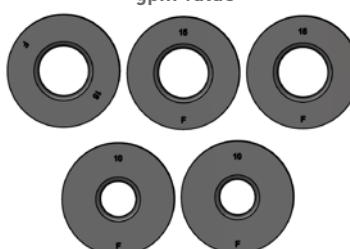

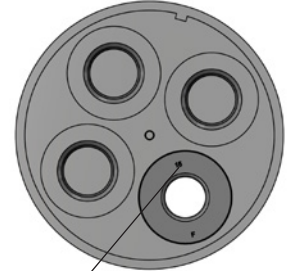
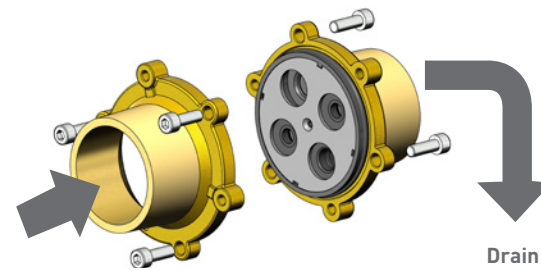
Common applications	21x60	24x69	30x72	36x72
Service flow multi media [m <sup>3</sup> /h]	5,7	7,2	11,2	15,5
Service flow anthracite [m <sup>3</sup> /h]	3,4	4,3	6,7	9,3
Service flow GAC Cl [m <sup>3</sup> /h]	1,8	2,3	3,6	5,0
Service flow GAC organics [m <sup>3</sup> /h]	0,7	0,9	1,3	1,9
Service flow birm [m <sup>3</sup> /h]	2,3	2,9	4,5	6,2
Service flow with sand [m <sup>3</sup> /h] (best filtration quality)	1,6	2,0	3,1	4,3
Service flow with sand [m <sup>3</sup> /h] (good filtration quality)	2,3	2,9	4,5	6,2
Service flow with sand [m <sup>3</sup> /h] (average filtration quality)	3,4	4,3	6,7	9,3
Service flow with sand [m <sup>3</sup> /h] (rough filtration quality)	4,5	5,8	9,0	12,4

## EXPLODED VIEW



1. Valve V351 with SFE timer & support bracket
2. 2-inch brass DLFC kit :
  - 20 to 100 gpm (Premium)
  - DN 40 ball valve (Budget)
3. Inlet & outlet pressure gauges
4. Fittings:
  - 2-inch BSP male brass (Premium)
  - PVC DN 40 female (Budget)
5. Differential pressure switch (Premium only)
6. Lower screen for filtration of 0,8 mm slot size

## DLFC ASSEMBLY & SETTING

<p><b>1</b></p> 	<p><b>2</b></p> 
<p><b>3</b></p> <p style="text-align: center;"><b>gpm value</b></p>  <p>Inside the kit there are 14 DLFC washers, 2 washers of 10 gpm, 4 of 15 gpm, 4 of 20 gpm and 4 of 25 gpm. Flow rate is printed on the surface of the washer</p>	<p><b>4</b></p>  <p>The DLFC plate have 4 washer seat. Drill the needed amount of holes based on the number of washers to be installed. (see the table below)</p>
<p><b>5</b></p>  <p>The DLFC have to be installed with the chamfered side of the washers upfront the water stream flow. Flow indication must be visible after the washer is placed on the seat</p> <p style="text-align: center;"><b>gpm value visible</b></p>	<p><b>6</b></p>  <p style="text-align: center;"><b>Valve drain</b> <span style="float: right;"><b>Drain</b></span></p>
<p>To be compliant to what is stated on the step 5, the DLFC must be assembled to the valve drain as indicated in the step 6.</p>	

## DLFC ASSEMBLY & SETTING

Suggested DLFC settings per media types:

Type of media	21" tank	24" tank	30" tank	36" tank
Sand (ca. 40 m/h)	40 gpm (2x20)	50 gpm (2x25)	80 gpm (4x20)	N/A
Birm (ca. 30 m/h)	30 gpm (2x15)	35 gpm (20+15)	60 gpm (3x20)	80 gpm (4x20)
GAC (ca. 20 m/h)	20 gpm (1X20)	25 gpm (1X25)	40 gpm (2X20)	55 gpm (2x20+15)
Anthracite & multi-media (ca. 35 m/h)	35 gpm (25+15)	45 gpm (25+20)	70 gpm (2x25+20)	95 gpm (3x25+20)

## CONNECTION OF THE DIFFERENTIAL PRESSURE SWITCH

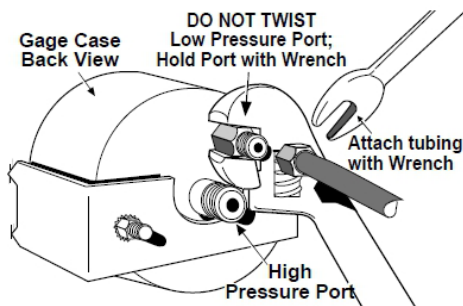
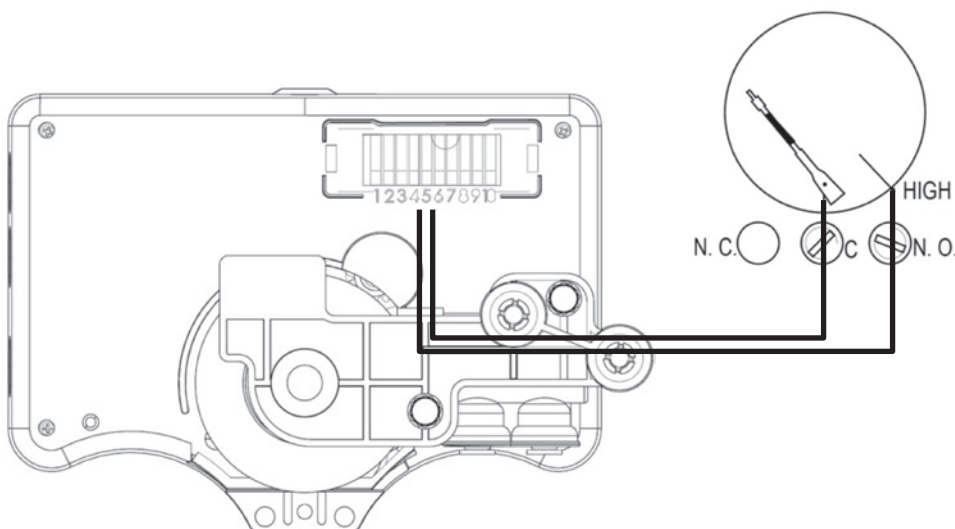
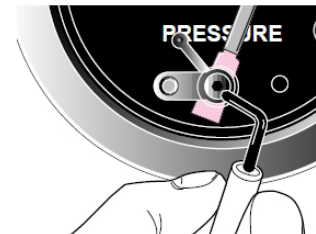


Fig.1

- The "High" pressure port (center mounted) is piped to the inlet side of the filter. The "Low" pressure port (top center mounted) is piped to the outlet side of the filter
- You MUST use a second wrench on the low pressure port when tightening tube fittings (see Fig. 1)
- Notice that a wrench is used for holding the low pressure port while a second wrench will tighten the pressure tubing/hose fitting onto the port

- All contacts are set using a 1/16 inch hex wrench. Rotate the contact until you reach the wanted setting. Set the contact slightly below the desired maximum differential pressure. Default setting is 2 bar
- Connect the differential pressure switch contacts N.O. to the terminal strip 4-5 of the SFE as shown below.



**Note:** Performance and flow settings advised by Pentair are calculated upon common media manufactures data sheets. We advise to always check with the filter media supplier the service and backwash velocities to use, and contact Pentair technical support whenever is needed to adapt the kit to different values from the ones specified in this document.

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