

# ACTIVATED CARBON FILTRATION SYSTEMS

Activated carbon filters are designed to effectively remove color, taste, odor, organic compounds, Chemical Oxygen Demand (COD), and excess chlorine from water. For optimal performance, suspended solids must be removed before the activated carbon filtration process, as these particles can clog the micropores of the carbon media, making backwashing ineffective in restoring its adsorption capacity.

With its high adsorption capability, activated carbon captures molecules and ions from water through its mineral pores, ensuring that the treated water is free from organic substances, colorless, odorless, and clear. Additionally, activated carbon filtration achieves approximately 30% COD removal, enhancing overall water quality.

The automation of these filtration systems is typically managed using Clack, RUNXIN, and similar automation valves, while PLC-controlled electrical systems are employed as an alternative for high-flow applications.



Activated Carbon



Quartz Sand  
05-1,2 mm / 1-3 mm  
3-5 mm / 5-8 mm

## STANDARD FEATURES

- FRP or painted carbon steel body not affected by the water
- Full automatic automation system
- Suitable for use in model
- High quality mineral
- Minimal maintenance without human intervention
- Low energy and operating costs
- 10 bar Tank test pressure
- 2-7 bar operating range
- Max 50 °C operating temperature

**ACTIVATED CARBON FILTER SYSTEMS**

| Stock Code  | Tank  | Filtration Speed |        | Media Material |             | Connection Options    |
|-------------|-------|------------------|--------|----------------|-------------|-----------------------|
|             |       | 15 m/h           | 20 m/h | Carbon (lt)    | Quartz (kg) |                       |
| 0-KAR-C0010 | 8x17  | 0.5              | 0.65   | 4              | -           | ¾" - 1"               |
| 0-KAR-C0020 | 8x35  | 0.5              | 0.65   | 9              | -           | ¾" - 1"               |
| 0-KAR-C0030 | 10x35 | 0.75             | 1      | 15             | -           | ¾" - 1"               |
| 0-KAR-C0050 | 10x54 | 0.75             | 1      | 25             | -           | ¾" - 1"               |
| 0-KAR-C0060 | 12x52 | 1                | 1.5    | 30             | 10          | 1"                    |
| 0-KAR-C0075 | 13x54 | 1.3              | 1.7    | 35             | 15          | 1" - 1 ¼"             |
| 0-KAR-C0100 | 14x65 | 1.5              | 2      | 45             | 15          | 1" - 1 ¼" - 1 ½" - 2" |
| 0-KAR-C0150 | 16x65 | 2                | 2.6    | 65             | 20 - 50     | 1" - 1 ¼" - 1 ½" - 2" |
| 0-KAR-C0200 | 18x65 | 2.5              | 3.3    | 80             | 25 - 50     | 1" - 1 ¼" - 1 ½" - 2" |
| 0-KAR-C0250 | 21x62 | 3.3              | 4.5    | 100            | 50 - 75     | 1" - 1 ¼" - 1 ½" - 2" |
| 0-KAR-C0300 | 24x72 | 4.4              | 5.8    | 125            | 100         | 1 ½" - 2"             |
| 0-KAR-C0500 | 30x72 | 6.8              | 9      | 150            | 225         | 1 ½" - 2"             |
| 0-KAR-C0750 | 36x72 | 10               | 13     | 225            | 325         | 2"                    |
| 0-KAR-C0900 | 42x72 | 13.4             | 18     | 275            | 400         | 2"                    |



\*Clack, Runxin and equivalent Valves can be used in the above systems.

**SURFACE PIPELINED**

**ACTIVATED CARBON FILTER SYSTEMS WITH FRP TANK**

| Stock Code     | Tank  | Connection Diameter<br>Dn-Flns-Srv-Dre | Filtration Speed |        | Media Material |             |
|----------------|-------|--|------------------|--------|----------------|-------------|
|                |       |  | 20 m/h           | 30 m/h | Carbon (lt)    | Quartz (kg) |
| 0-KAR-YCP-500  | 30x72 | 50-50                                  | 9                | 14     | 150            | 225         |
| 0-KAR-YCP-750  | 36x72 | 50-50                                  | 13               | 20     | 225            | 325         |
| 0-KAR-YCP-1000 | 42x72 | 65-65                                  | 18               | 27     | 275            | 400         |
| 0-KAR-YCP-1200 | 48x72 | 65-65                                  | 23               | 35     | 400            | 550         |
| 0-KAR-YCP-1600 | 63x86 | 80-80                                  | 40               | 60     | 700            | 1000        |



**EPOXY PAINTED ST-37**

**ACTIVATED CARBON FILTER SYSTEMS WITH TANK**

| Stock Code    | Tank        | Connection Diameter<br>Dn-Flns-Srv-Dre | Filtration Speed |        | Media Material |             |
|---------------|-------------|--|------------------|--------|----------------|-------------|
|               |             |  | 20 m/h           | 30 m/h | Carbon (lt)    | Quartz (kg) |
| 0-KAR-YC-1215 | 1200 x 2790 | 65-65                                  | 25               | 37     | 475            | 600         |
| 0-KAR-YC-1615 | 1600 x 3020 | 80-80                                  | 40               | 60     | 850            | 1150        |
| 0-KAR-YC-2015 | 2000 x 3250 | 100-100                                | 63               | 94     | 1325           | 500         |
| 0-KAR-YC-2415 | 2400 x 3400 | 125-125                                | 91               | 136    | 1900           | 725         |

