

# Jacopa CIW & CIW/G Package Inlet Works



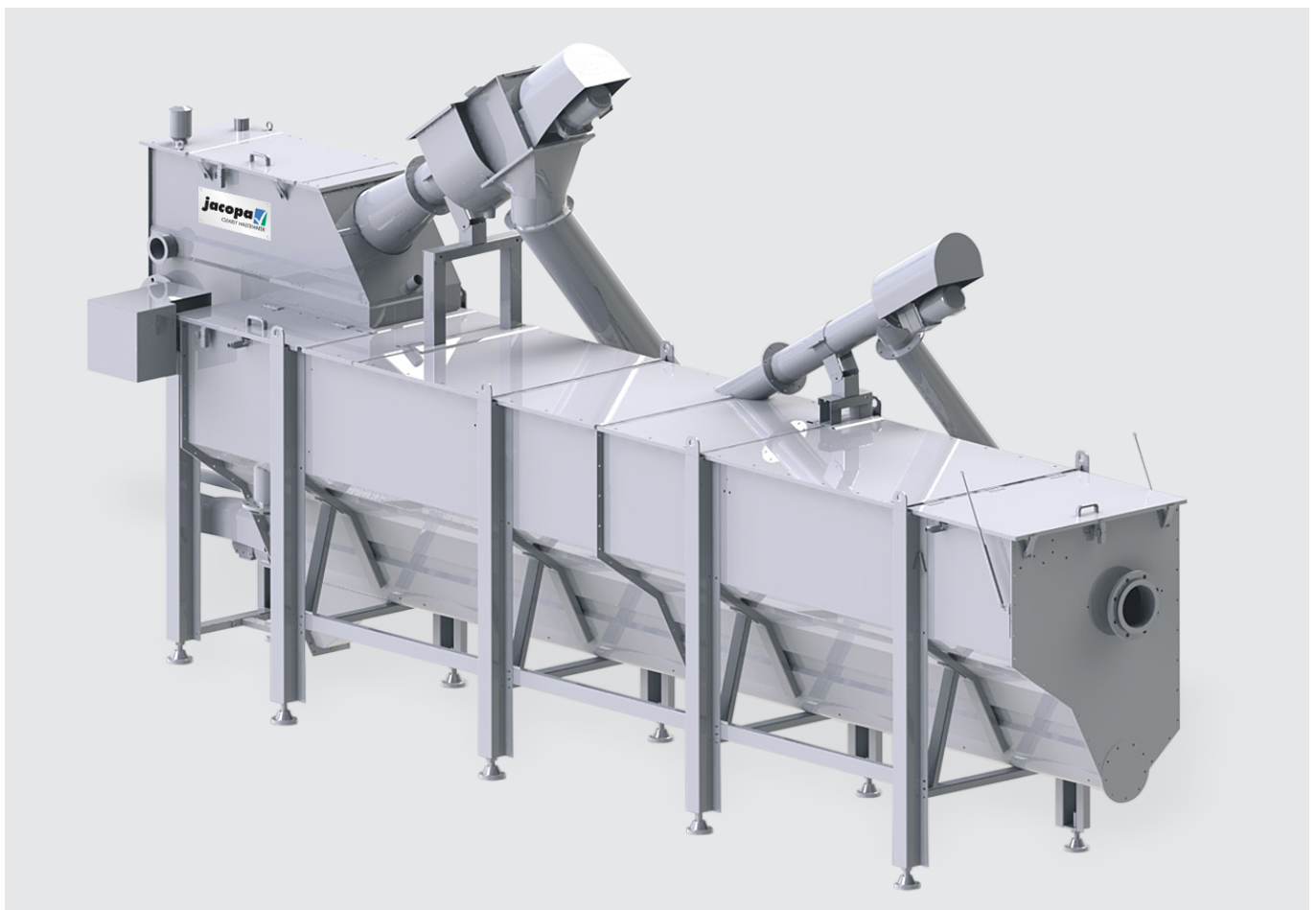
Jacopa Combined Pre Treatment Compact Unit for effective screening, grit and grease separation

## Key Features & Benefits:

- Designed to suit any elevation and flow system up to 150 l/sec
- Spiral Screens used for fine screening
- Integral Screw classifier for separating mineral solids from sludge
- Stainless steel fabrications
- Packaged to suit individual applications

## How We Create Value:

- Average screen 54% Screen Capture Ratio
- Small footprint reduces land use costs
- Low Head loss values
- Grease removal optional
- Low operating costs and maintenance





## How it Works

This combined machine is fed by either a pump or a gravity system through a fixed pipe connection. The effluent passes through a screw screen that removes the large solid particles, then goes to a sedimentation tank where the settled sediment is removed by a system of spiral screws.

As an option Jacopa can incorporate into the design a system for the removal of fats plus suspended oils and grease (FOG).

The Jacopa Packaged Inlet Works is one of our particular strengths. Our experts can determine which screening application and equipment best suits your specific requirements and best practice to package these products.

The Jacopa CIW and CIW/G units can be added to existing plants to boost performance or replace outdated mechanisms.

The packaged plant inlet works combination units comprise of stainless steel tank, inlet screen(s), grit removal and treatment and FOG removal (optional)

## SCREENING

The raw sewage or influent passes through the screen within the tank where solids greater than the mesh of the screen are largely removed. The screen operates on level control.

During the operation of the screen, solids within the sewage are collected on the upstream side of the screen face. Gradually as the screen blinds the water level upstream rises. When a preset level is reached, the screen is automatically switched on and immediately removes the solids from the screen face. The solids are then lifted and transported towards the screen outlet.

Simultaneously, wash water cleans the screen area and also washes the transported screenings or captured solids. As the solids are removed from the screen face, the upstream water level drops and when the minimum level is reached, the spiral is stopped. At the same time all washing is stopped.

## GRIT SEPARATION

After screening, the sewage enters the main sedimentation tank where grit is settled. Air is fed by a blower at the same time the sewage flows into the tank. The settled grit is transported by a screw towards a collection sump at the feed end of the tank (counter current).

## Transport and Extracting Screws

These screws operate on a timer basis and must be interlocked together. The Extraction Screw must start before the Transport Screw. The Transport Screw must stop first followed several minutes later by the Extraction Screw. The advance and delay time of the two screws is largely dependent on the screw length, pitch and rotational speed.

## OIL & GREASE SEPARATION (FOG - Optional)

On the main tank there is a scraper to collect and remove floating free oil and grease. The scraper is intermittent in operation and should be controlled by a timer. There are 2 Limit Switches installed at each end of the Main Tank to allow the operation of the scraper. The floating oil and grease material is collected and transported by the scraper to a collection tank and transferred to a bin (by others) or pumped away (by others).

If an oil removal pump is used, the pump should start when the scraper reaches its limit point. The pump should have timer control. The operation time of the pump should be approximately 2-5 minutes to minimize the number of starts per hour. However, its operational time is dependent on the site conditions. Typically the scraper would work one cycle per hour but it is highly dependent on the quantity of greasy matter present.

## Advantages

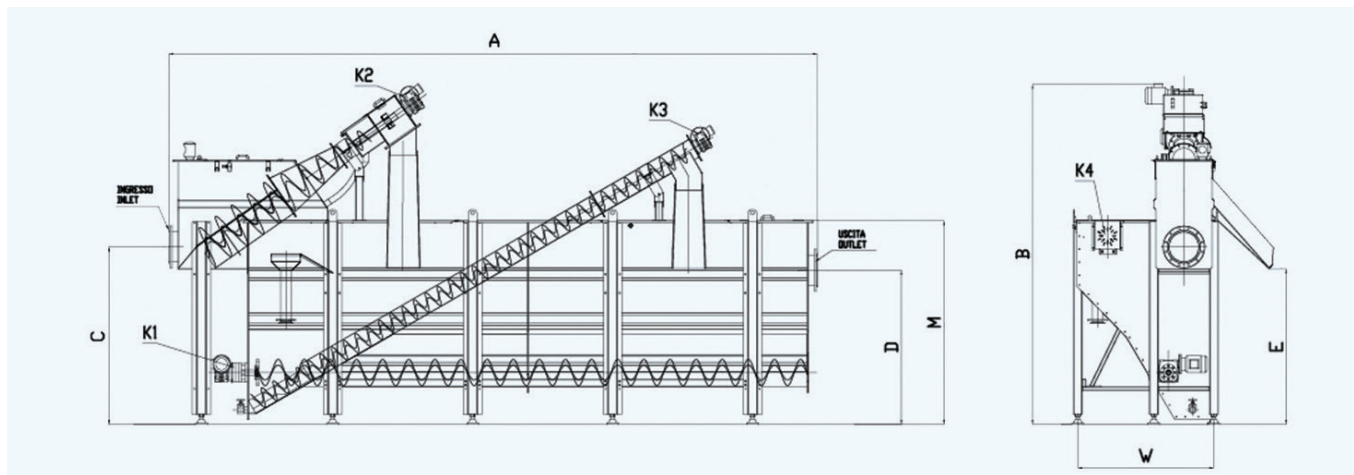
- No odour release
- Reduced footprint area
- Construction work is not always necessary
- Ease of installation and management
- Low organic matter in the solids residue
- Up to 40% reduction in solids removal

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**jacopa**   
CLEARLY WASTEWATER



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	Q l/sec	A mm	B mm	C mm	D mm	E mm	M mm	W mm	Inlet/Outlet PN10
<b>CIW 10</b>	10	3780	2780	1400	1100	1325	1600	930	DN200
<b>CIW 20</b>	20	5350	2780	1400	1100	1325	1600	930	DN200
<b>CIW 30</b>	30	6955	3055	1400	1100	1355	1600	930	DN250
<b>CIW 45</b>	45	6955	3640	1900	1600	1700	2180	1100	DN250
<b>CIW 60</b>	60	7120	4220	1900	1600	1700	2180	1100	DN300
<b>CIW 80</b>	80	8615	4220	1900	1600	1700	2180	1300	DN350
<b>CIW 100</b>	100	11900	4340	1900	1600	1700	2180	1300	DN400
<b>CIW 120</b>	120	13410	5235	2470	2265	1700	2770	1500	DN450
<b>CIW 150</b>	150	16410	5235	2470	2265	1700	2770	1500	DN500

	Q l/sec	A mm	B mm	C mm	D mm	E mm	M mm	W mm	Inlet/Outlet PN10	Outlet Grease mm
<b>CIW/G 10</b>	10	3780	2780	1400	1100	1325	1600	1270	DN200	250 x 150
<b>CIW/G 20</b>	20	5350	2780	1400	1100	1325	1600	1270	DN200	250 x 150
<b>CIW/G 30</b>	30	6955	3055	1400	1100	1355	1600	1420	DN250	250 x 150
<b>CIW/G 45</b>	45	6955	3640	1900	1600	1700	2180	1420	DN250	250 x 150
<b>CIW/G 60</b>	60	7120	4220	1900	1600	1700	2180	1420	DN300	250 x 150
<b>CIW/G 80</b>	80	8615	4220	1900	1600	1700	2180	1420	DN350	250 x 150
<b>CIW/G 100</b>	100	11900	4340	1900	1600	1700	2180	1420	DN400	250 x 150
<b>CIW/G 120</b>	120	13410	5235	2470	2265	1700	2770	2060	DN450	250 x 150
<b>CIW/G 150</b>	150	16410	5235	2470	2265	1700	2770	2060	DN500	250 x 150

Grease outlet only applicable to CIW/G models. Data based on clear water application.

		CIW 10	CIW 20	CIW 30	CIW 45	CIW 60	CIW 80	CIW 100	CIW 120	CIW 150
K1	kW	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.75	0.75
K2	kW	0.75	0.75	1.1	1.1	0.75	0.75	0.75	0.75	0.75
K3	kW	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.55
K4	kW	0.25	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37

K4 only applicable to CIW/G models.

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