



A fusion of proven standards and innovations, for the future.

# ASPUC SYSTEM TAP SERIES

Asphalt Plant Systems



**Tanaka Iron Works Co., Ltd.**

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**Tanaka Iron Works Co., Ltd.**






Moving from problem solving to realizing the ideal  
**You are looking for more.**  
**We deliver.**


The continued evolution of asphalt plants presents four challenges. These are energy efficiency, eco-friendliness, diverse options to meet needs, and high-level safety features to protect the people who operate and maintain the plant on a daily basis. Concentrated technology is being injected into each of these processes. We focus not only on things that can be defined with numbers, but take a user point-of-view to focus on all the factors of the user experience. We are working to realize the ideal.

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**Better energy efficiency**

We pursue reduced fuel consumption to make efficient use of limited resources, and design plant machinery to maximize heat efficiency. We are helping customers reduce energy consumption in the asphalt mixture production process.
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**More eco-friendly**

Asphalt plants are known to produce dust, noise, and smells. Of course, we meet all the basic and existing requirements for plants, but we also work to further improve eco-friendliness, including designing special facilities to meet local government environmental ordinances.
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**Stronger user-oriented design**

Plants are made completely to order. No one plant is the same. With a wide number and variety of options, all customer requirements can be implemented in the plant design. We design plants to realize the ideals that you draw up.
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**Safer and easier to operate**

We install proprietary systems that are a product of our pursuit of safety. Easy-to-operate construction makes maintenance safer. We also focus on machinery durability, with the goal of building strong, robust plants that last a long time.



## Dryer



Dryer drive unit

The structure increases fuel efficiency by increasing the surface area of aggregate contacting the hot air. As well, heat insulating blades are positioned on the burner side and the air seals strengthened in order to control heat radiation to the exterior of the dryer drum. Also includes a range of technology such as the low-noise, low-maintenance trunnion drive.



Dryer heat retention (option)

Dryer heat retention stops heat radiation and boosts heat efficiency. The dual-layer outer construction is completely sealed to eliminate air flow. The result is excellent heat insulation. We use stainless polished steel sheets not only for better durability, but for improved appearance, too. Heat is retained throughout the entire dryer, also reducing the flow noise from the aggregates.

## Dryer Burner

Switching from low-static pressure fans to high-static pressure fans promotes atomization of the fuel in the combustion zone, reducing fuel consumption and carbon production. As well, the combustion area is broadened, making the burner compatible with the production needs of a diverse range of asphalt mixtures.

[ Previous burners → High-efficiency burner ]

Large improvement in fuel adjustment range **1/3 → 1/5**

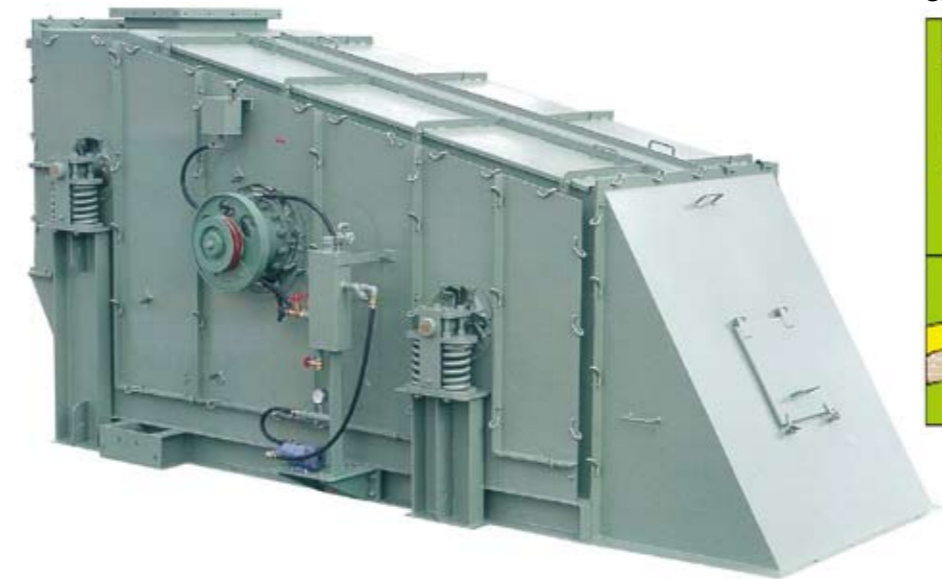
Dramatic cut in excess air **50% reduction**

Reduced fuel consumption **3% reduction**

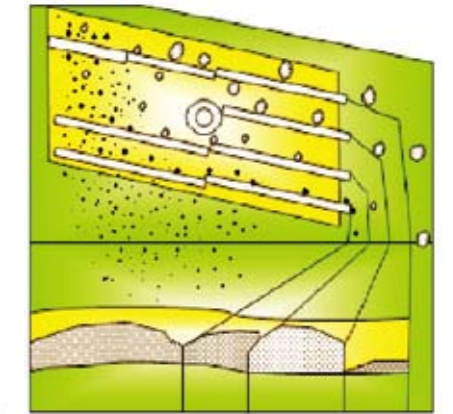
\*Data based on our company comparisons



## Vibrating screen



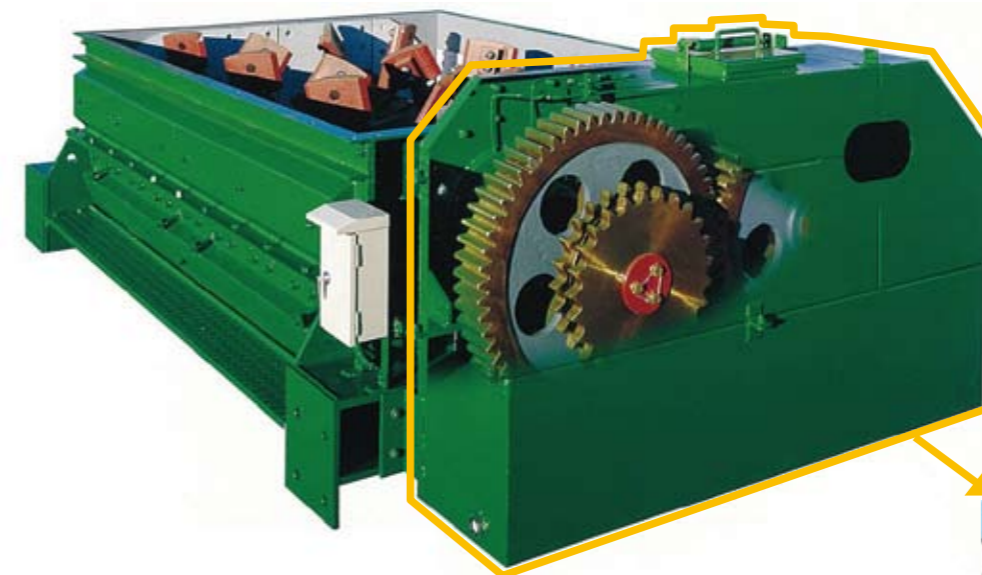
Sieving details



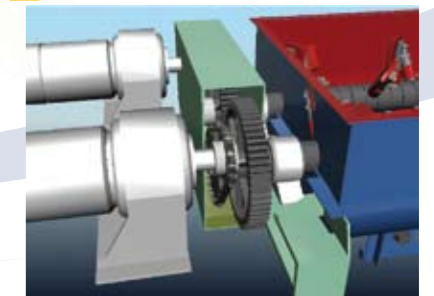
↓  
Oversize

Tanaka's ripple-flow vibrating screen has a 30-year history, during which it has become renowned for its non-clogging, low-noise operation. For compatibility with the latest generation of functional asphalt mixtures, the design has been improved by updating the wire netting surface area to handle diverse types of asphalt mixtures.

## Mixer



By using abrasion-resistant cast iron for the mixer liner and paddle tips, we have re-assessed the materials that can withstand long-term operation, and made the mixer able to handle the production of functional asphalt mixtures.



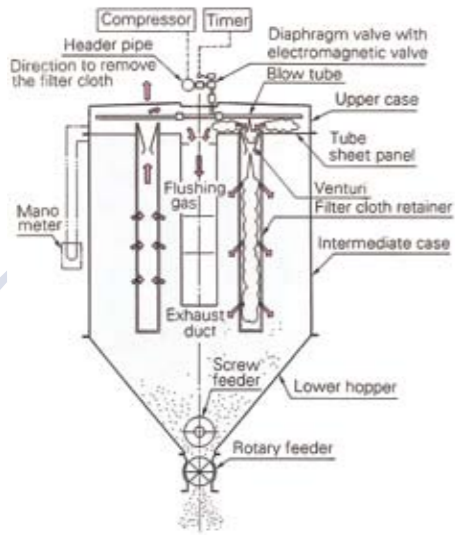
At Tanaka, the use of oil bath systems is standard in order to improve durability and reduce maintenance. These systems are characterized by low-noise, low-vibration operation.



## Bag filter

The puls air system bag filter has a mechanism that maintains a high dust collection efficiency at all times by brushing off the powdered dust from the felt filter cloth at fixed intervals using high-pressure air.

As a result, dust collection efficiency increases, processing air capacity is large, and stable, continuous operation is ensured.



### Wet type dust collector



This wet-type dust collector enhances dust collection efficiency by using multiple vanes through multiple chambers and stages. It is designed to reduce pressure loss while enhancing collection efficiency.

## Control panel



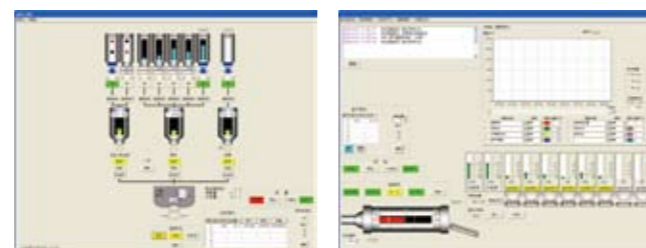
### ASPUC800

#### Main Specifications

Model	: FA desktop computer
OS	: Windows
Languages	: Please choose one language from English or Russian or Chinese.

#### Operating System Requirements

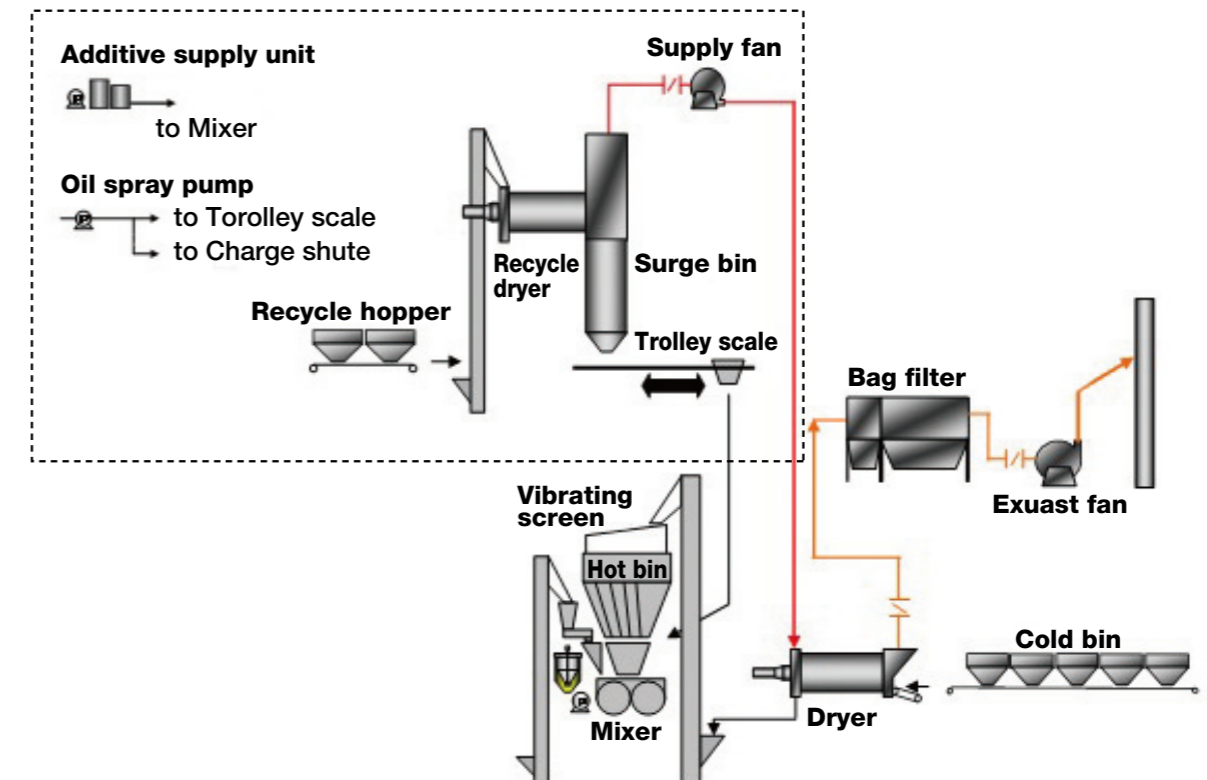
Ambient temperature	: 5-35C°
Relative humidity	: 20-80% *Without condensation
Power	: AC 200 V



## Asphalt recycle Plant



Global society is maturing, and in all fields of life and industry, enormous amounts of household and industrial waste are being produced. Waste road material from road excavations and repairs is designated industrial waste, and is a societal problem that cannot be ignored. At Tanaka, we are responding to the demands of this new age by refurbishing and building new TRD recycling plants with all the plant functions needed to recover resources.



## 1. Electric heating system



### Indirect asphalt heating system 1 (Electric Heater)

#### Intake Method

To eliminate asphalt dispersion due to temperature differences at the top and bottom of the tank, we used a float system for the asphalt inlet port.

#### Heating Method

We use a low watt density heater, and the pipe surface temperature is kept low. This prevents asphalt degradation due to localized heating.

## 2. Hot oil heater



### Indirect asphalt heating system 2 (Hot Oil Heater)

- The oil heating medium is heated in the oil heater and circulated by the circulating pump through the asphalt tank and piping lines. The indirect heating allows the asphalt to be heated uniformly.
- The hot oiler heater is a low-pressure spray burner, and is fully automatic.

## 3. Asphalt kettle



### Direct asphalt heating system (Asphalt Kettle)

- A low-pressure burner with rotary blowers is attached to the U-shaped flue kettle. This reduces heating and melting times.
- Automatic temperature control device  
With the low-pressure spray-type oil burner, asphalt temperature is automatically controlled by the control device.

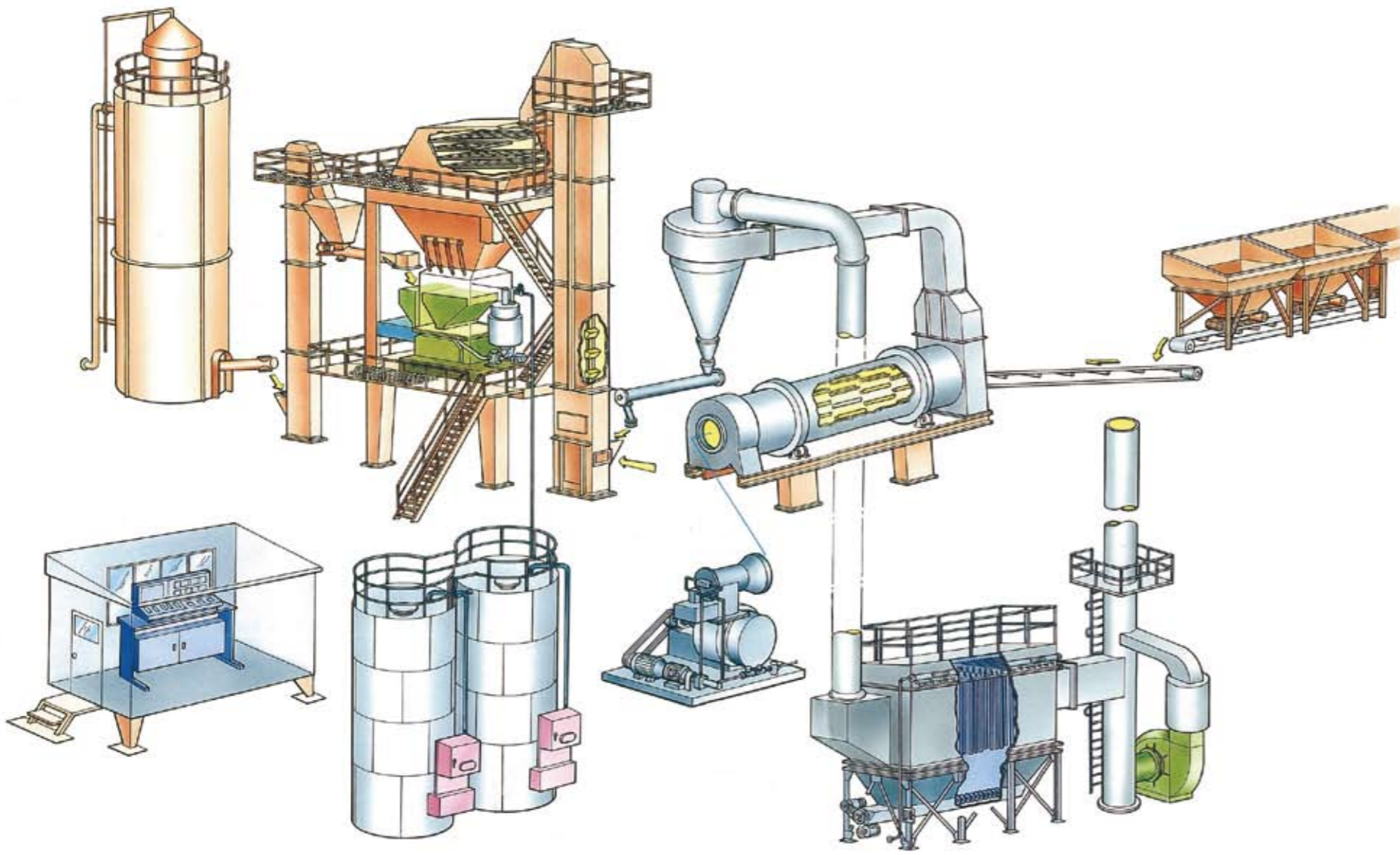
# Additive supply unit



A device for introducing additives into the asphalt plant that are used for drainage pavement, stone mastic asphalt (SMA), and similar. Weighing takes place above the ground, thus avoiding measurement errors due to vibrations. The weighed additives are introduced into the mixer by air conveyance.

Model	TAP-500	TAP-800E	TAP-1000E	TAP-1500E	TAP-2000E	
<b>Capacity (max)</b> Moisture content 4%	35t/h	60t/h	80t/h	120t/h	150t/h	
<b>Dryer</b>	Φ1300×4500L	Φ1670×6500L	Φ1800×7000L	Φ2000×7500L	Φ2300×8500L	
<b>Dryer burner</b>	LO-30	EL-35	EL-40	EL-45	EL-50	
<b>Vibrating screen</b>	Repleflow type No. of screens: 4 types					
<b>Hot bin</b>	5m³	8m³	10m³	15m³	20m³	
<b>Main body</b>	<b>Scale unit aggregate</b>	600kg×2.0kg	800kg×2.0kg	1000kg×2.0kg	1500kg×2.0kg	2000kg×2.0kg
	<b>asphalt</b>	100kg×0.5kg	100kg×0.5kg	200kg×0.5kg	200kg×0.5kg	300kg×0.5kg
	<b>filler</b>	100kg×0.5kg	150kg×0.5kg	150kg×0.5kg	300kg×0.5kg	300kg×0.5kg
<b>Mixer</b>	500kg/B	800kg/B	1000kg/B	1500kg/B	2000kg/B	
<b>Control panel</b>	ASPUC800					
<b>Air compressor (Not including for Bag filter)</b>	400L/min x 0.69MPa (7kg/cm²)	630L/min x 0.69MPa (7kg/cm²)	630L/min x 0.69MPa (7kg/cm²)	840L/min x 0.69MPa (7kg/cm²)	840L/min x 0.69MPa (7kg/cm²)	
<b>Cold bin</b>	5m³×4	5m³×4	8m³×4	8m³×5	8m³×5	
<b>Asphalt storage tank indirect heating type</b>	30ton	30ton	30ton×2	30ton×3	50ton×2	
<b>Hot oil heater</b>	600000kcal/h			900000kcal/h		
<b>Bag filter</b>	159m²	251m²	295m²	426m²	546m²	
<b>Exhaust fan</b>	280m³/min	390m³/min	460m³/min	670m³/min	850m³/min	
<b>Filler storage silo</b>	Bunker type 4m³	Bunker type 4m³	30ton	40ton	40ton	
<b>Fuel oil tank</b>	10KL	20KL	20KL	20KL	30KL	
<b>Accessories</b>						





Russia



China



Macedonia



Pakistan



Kyrgyz



Taiwan



Myanmar



Zambia



Korea



Palau



Mongolia

