



## Fast Flow CONNECT is back

The first Fast Flow newsletter was published in hard copy 8 years ago, with it's main purpose to keep you, our clients, aware and informed of important developments in rainwater management and in the world of Fast Flow. After two years, publication faltered and this has been much regretted. But this month we see the re-launch of our new electronic newsletter FASTFLOW CONNECT.

In the intervening period since last publication Fast Flow has launched new technologies, new products and generally new ways of doing things. The newsletter is intended to keep you informed of interesting achievements in rainwater technology, interesting solutions to challenges in rainwater projects and informative articles on many aspects of our rainwater environment.

We would like to ask you, our clients, to provide feedback on what you would like to see and hear from us. Whilst we all like to hear positive things we also need to hear what clients want done better. Only by doing this can we continue to deliver what you need in rainwater management solutions.

## The PANACHE



### 2010 saw the launch of the new Fast Flow brand. Bolder, brighter, more dynamic!

At the centre of this new brand name lies the 'panache'. The panache symbolizes flamboyance, style and most importantly leadership. The panache takes its name from the plume (feather) worn by King Louis IX, the most famous of French kings who strode into battle at the head of his cavalry with the panache swaying in his hat. Fast Flow sees itself as a leader in its field and we develop our products to be stylish despite their utilitarian use.

The colour of the panache was carefully chosen as green to underline our commitment to developing green technology. Siphonic rainwater technology is already in itself a green technology by the very fact that pipe systems are minimized. The introduction of the psVENT™ as part of the psSTACK™ System added another similar way of reducing pipe systems. Fast Flow is currently working on three further 'green' projects that will carry the panache with pride. We will keep you informed of these developments in the coming months.



We cannot finish this subject without a fond farewell to our founding fathers logo of 1996. It was unique and identifiable and we will keep it in our memory.

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## Rainwater Solutions Provider

*Being at the forefront technology, Fast Flow's clients get to benefit from it in the area of productivity and cost effectiveness.*



Mr. Goh Chun Hee  
Chief Technical Officer of Fast Flow

As rainwater solution provider with numerous airport projects under its belt, Fast Flow has been spreading its wings in Asia Pacific for more than a decade. It started with Ningbo Airport in China, it was the very first airport project for Fast Flow back in 2001, followed by Pudong International Airport in Shanghai, Kuching Airport in Malaysia, Changi Airport in 2003, Sydney Airport in Australia and Beijing Terminal 3, which was constructed for the 2008 Beijing Olympic Games. More and more projects are yet to come; Fast Flow has been recently awarded to three international airport projects in Indonesia, namely Sultan Hasanuddin Airport in Makassar, Ngurah Rai international Airport in Bali and Kuala Namu Airport in Medan, which is currently the second biggest airport in Indonesia after Soekarna Hatta Airport in Jakarta.

Fast Flow Siphonic Systems are designed based on the principle of full bore flow. Being designed for full bore flow, the clients will enjoy the benefits that can be achieved by using siphonic systems. This including design freedom, elegance as Fast Flow characterises right customisation, space saving as it requires smaller pipes. And with zero gradient, it allows the rainwater pipes travelling long distance with no gradient to minimize usage of ceiling space and maximise the head room. Fast Flow is also capable of directing the water flow to any discharge point required by clients. Creative design coupled with rigorous hydraulic engineering; Fast Flow is able to give innovative solutions to any roof drainage needs.



Ningbo Airport



Shanghai Pudong Airport



Kuching Airport



Beijing Capital Airport



Changi Airport

## Ngurah Rai International Airport, Bali - Indonesia



The island paradise of Bali, which is separated from Java by the Bali Strait, can be reached by air through its own Bali airport, the Ngurah Rai International Airport. Also known as Denpasar International Airport, this airport is where most of the thousands of luxury villas guests and visitors will arrive every year.

More details of the Bali International Airport expansion have come to light with state airport operator, PT Angkasa Pura I, planning to expand the area of the airport to 285 hectares, over twice its current size. This project is expected to be completed by May 2013.

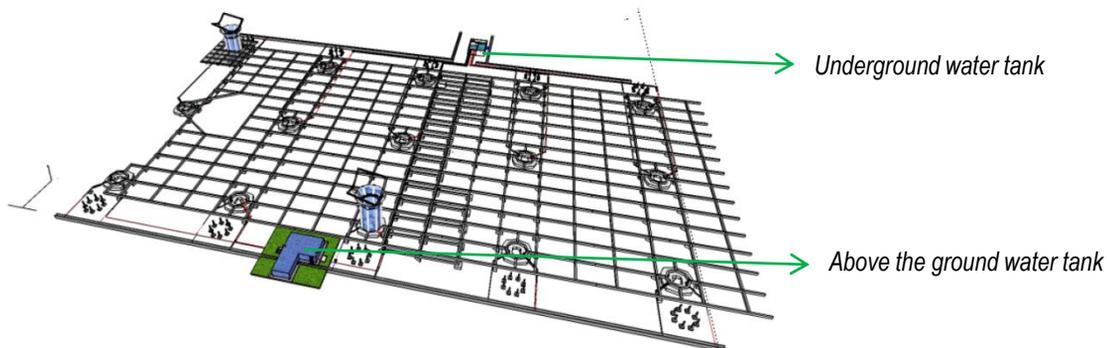
With the support of our licensed distributor in Indonesia - PT Siphonic Flow Mandiri, Fast Flow is deeply honoured to be appointed as rainwater systems provider for this government project.

In this project, Fast Flow deployed its deep knowledge and wide experience to design the drainage of the huge roof area of 57,540 sqm. The uniquely beautiful roof design, with curves and waves across a huge roof area, presents challenges to efficacy of rainwater drainage. The design team painstakingly analyzed the water flow and designed the solution to control water flow away the air well. Fast Flow was awarded this project on the merit of offering the best solution against intense competition.



Fast Flow calculated, control and isolate the amount of rain water flow from the top down to the metal gutter and then direct it to all around the void area (air well).

All the water is directed to the water tanks. There are only 2 water tanks in the area and some isolated areas are located quite far from the water tank. With Siphonic System, we managed to direct the water flow to each water tank and drain the whole roof.



Typical siphonic design layout for Ngurah Rai International Airport

## Sultan Hasanuddin Airport, Makassar - Indonesia

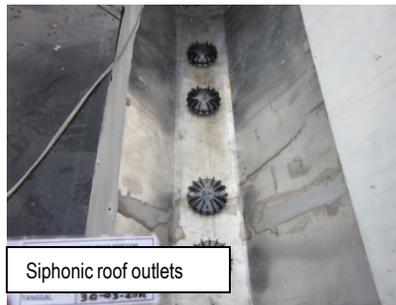
Businesses do come from having good reputation. In 2010, through our licensed distributor in Indonesia - PT Siphonic Flow Mandiri, Fast Flow was awarded this government project to enhance the drainage performance of the existing conventional system by leveraging on an effective siphonic system.



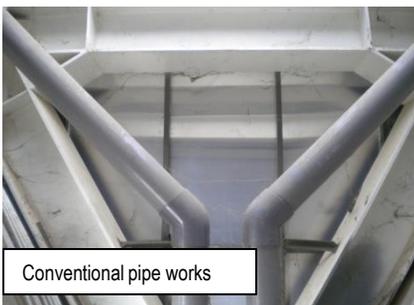
In order to enhance the previous system's performance, the gutters need to be replaced; a gradient of 1:200 is required to direct the water flow to end side of the gutter, where Fast Flow has installed its siphonic outlets. The next step was to replace the conventional pipe works (which were installed inside the cladding) with Fast Flow Siphonic pipe works. The project was quite challenging as all the requirements had to be done while the airport was fully functioning. Yet despite all the challenges faced by the team, Fast Flow has successfully covered the roof area of 28000 sqm. By combining Piccolo 65 coupled with Siphonic System, Fast Flow once again managed to deliver the best solution pipes installation for its project.



Conventional roof outlets



Siphonic roof outlets



Conventional pipe works



Siphonic pipe works

1. **Conventional roof outlets**  
The gutter was built without slope, it slowed down the rainwater flow.
2. **Siphonic roof outlets**  
New gutter has 1:200 gradient in order to direct the rainwater to the end of the gutter where we have installed our siphonic outlets.
3. **Conventional pipe works**  
It required bigger pipes and occupied so much space in the system.
4. **Siphonic pipe works**  
It does not occupy so much space and it uses smaller pipes

## Introducing Fast Flow's New Heavy Duty Siphonic Outlet

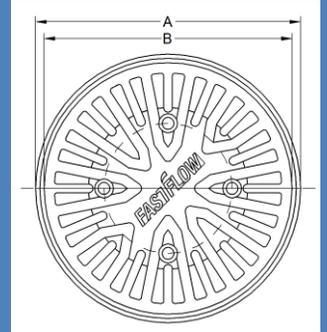


### Suitability:

On r.c. roof top/plaza/car park with heavy traffic

### Dimensions:

Base plate diameter (A): 310mm  
 Air baffle diameter (B): 290mm  
 Depth of base plate: 50mm  
 Tailpipe dimension: DN 90 (HDPE)  
 DN 75 (UPVC)



Fast Flow has introduced a new outlet for car park drainage. This one of our most innovative outlet comes with benefits to our clients as it is dedicated to rooftop with heavy traffic. It does not require a sump to be able to install the outlet as what most car park outlets do, and this means faster construction.

Having stainless steel and high quality aluminium alloy as its main materials, this outlet is specially designed to withstand vehicles up to 100 KN.

## Awards and Achievements

### Did you know?

That Fast Flow recent condominium projects in Singapore, Skyline and The Palette won the 2012 BCA Green Mark for Buildings Award.



The Palette



Skyline

### Some of Fast Flow's completed projects in 2012

1. Dongfeng Honda Plant Expansion, China
2. Dalian Wanda Plaza, China
3. Reflections at Keppel Bay, Singapore
4. Civic, Cultural & Retail Complex (CCRC), Singapore
5. The Nine Neighborhood, Thailand
6. M Society Condominium, Thailand



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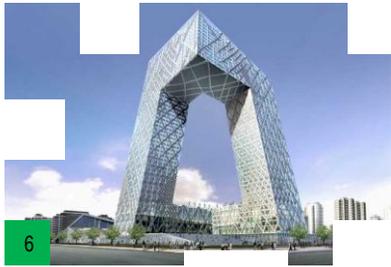
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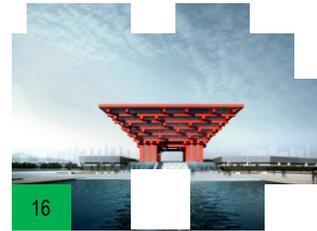


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In past decade, the construction boom in Singapore, the rapid developments in China, Malaysia and Thailand as well as the steady rate of development in Australia, provided great opportunities for the growth of Fast Flow. From the iconic Beijing National Stadium (Bird Nest), the first mega furniture mall by IKEA in Thailand, Marina Bay Sands Integrated Resort that reshaped the landscape of Singapore to the towering Hilton Hotel in Gold Coast, Australia, Fast Flow solutions preserved the architectural intent of buildings and provided efficacious rainwater drainage that offered opportunities in green construction for sustainable built environment.



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1. The Esplanade, Singapore | 2. The Pinnacles @ Duxton, Singapore | 3. ION Orchard, Singapore | 4. KL Airport, Malaysia | 5. Citigroup, China | 6. CCTV Headquarter, China | 7. Marina Bay Sands Integrated Resorts, Singapore | 8. M-Suite, Malaysia | 9. Villa Ratchatewi, Thailand | 10. The Reflections @ Keppel, Singapore | 11. Zhuohai Sea Silver Bay, China | 12. Shanghai Railway Station, China | 13. Nanning Wanda Commercial Plaza, China | 14. Shanghai Tennis Stadium, China | 15. Beijing Olympic Stadium, China | 16. Shanghai Expo, China | 17. SCG Experience, Thailand | 18. Resorts World Sentosa, Singapore | 19. IKEA Mega Bangna | 20. JB Central, Malaysia | 21. KL Central, Malaysia | 22. Changi Airport Terminal 3, Singapore | 23. Biopolis, Singapore | 24. Hilton Empire, Australia

## FFRGM 2011

During 9th to 11th November 2011, Fast Flow managers & key staff across Asia Pacific met at The British Club, atop of Bukit Tinggi in Singapore, and deliberated on the theme: Can we sell what we can deliver?.

The event was both a discourse that strengthened our aim at scaling greater heights with our Mission 2015 as well as knowledge sharing of the most recent iconic challenges on design -- Marina Bay Sands Hotels, Pinnacle@Duxton, Marina Bay Sands Crystal Pavilion, Changi Airport T3 and The Interlace.



## Impact on the Raising Fuel Price



International prices of food and fuel have been uncertain since 2003 and continued raising in every year. From sharply increasing price in agricultural commodity has been the major problem to concern and consciousness in developing countries. The causes of this impact are reinforcing factors, low stocks for wholegrain products, rising oil prices, and import and export rates and depreciation of U.S. dollars.

Rising oil prices are increasing transport and machine operation, as oil is the major part in industrialized countries where have mechanized and highly exporting demand. There are several factor that affects gross profit and cost of goods sold. They have direct relationship: Gross profit can be impacted by cost of goods sold, and your gross profit is your net sales minus cost of goods sold. Net sales represent all the revenue generated from the sale of products and services. When net sales increase, your cost of goods sold will increase, which affects your gross profit. The ideal situation is to increase your net sales more than you increase your cost of goods sold.

Costs of goods sold are the cost associated with manufacturing a product service. If the cost of raw materials used to manufacture products and services increases then your cost of goods sold will be higher and your gross profit will be lower. The truth is every commercial industry in the country that relies on any form of transportation finds themselves having to increase their prices in order to maintain their profits.

## Leading by Creativity in Singapore

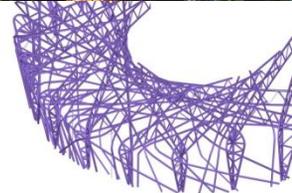


*This is why we custom design.*

Fast Flow group is well positioned to take on customized solutions for rainwater management in building projects in countries within Asia Pacific region.

The company provides holistic approach in creating solutions for rainwater management in the most complex building that are endowed with supreme function as well as high aesthetic value. Fast Flow's siphonic solutions furnish the best design and cost solution to each of its clients. Fast Flow helps the clients to achieve better aesthetics with a more superior system and already well proven in Singapore market. The flexibility of its rainwater outlets position and multiple linking of systems have allowed Fast Flow to come out with a better design at low risk project management.

"We have won most of the projects in Singapore by being creative in providing the best design and cost solution to our client. We are not selling product, we are selling solution. Each solution is tailor-made to suit its purpose." shared Ms. Ong Hwee Bin, General Manager of Fast Flow Singapore. Esplanade, Marina Bay Sands Hotel, Pinnacle@Duxton, Resorts World Sentosa, Marina Bay Sands Crystal Pavilion, Changi Airport, ION Orchard, Vivo City, National Library, Khoo Tech Huat Hospital, Biopolis, Marina Bay Financial Centre, Reflections at Keppel Bay and The Interlace are just some of Fast Flow's numerous high end projects, these projects are testament to the highest level of professionalism and reliability that Fast Flow has consistently provided to its highly discerning clients. Fast Flow's projects are symbols of guarantee to its clients that Fast Flow has the experience, creativity, expertise and track record to deliver its promise.



## About Malaysia: Interview with MJ Goh, Group Business Manager



**M:** About Fast Flow Malaysia's value proposition, how well is our value proposition in getting our target customers' requirement and what is the measure of our success?

**MJ:** The value proposition of Fast Flow, including Malaysia, is design. While each market is different in many ways, especially cost, there is only one concept of value proposition by Fast Flow. The value of Fast Flow derives from its design prowess and innovation firepower. We offer highly specialized solutions to unique requirement of each building. Like every other market where Fast Flow offers, the primary influencer in price difference is in relation to the cost of construction. The measure of success is our growth of market share and new segments of the market.

**M:** Aside of our share of market size, for example, how the competition offer and at the end why client choose Fast Flow? How important is Fast Flow's solutions to our clients?

**MJ:** The value of Fast Flow solutions require rigorous design by people with the right technical knowledge and skills as well as the accumulated experience of understanding the design needs of each building, to generate maximum design value for clients. As in every market, Fast Flow has been growing the market share in Malaysia through unrivalled solutions. It has been about winning the confidence of both existing and new clients. It is not about price. Clients choose Fast Flow for its unparalleled design that brings premium value to each of their developments.

**M:** From the article at <http://www.theedgemaalaysia.com/in-the-financial-daily/215548-malaysian-gdp-to-grow-at-2-in-2012.html> Malaysia is expected to see slower growth in 2012 and Manu Bhaskaran, CEO of political and economic research entity Centennial Asia Advisors anticipated the country GDP growth will decelerate to about 2% this year before things get better in the second half of 2013. How will Fast Flow continue to drive revenue growth in this slow growth economy?

**MJ:** The decelerated growth of 2% discussed in the article is more likely to impact export manufacturing and certain local retailing. Construction, of both infrastructures and buildings, would continue to grow in the next few years. Unemployment in USA and some European countries have little impact on urbanisation spending in Malaysia. Clients of Fast Flow, mainly developers in commercial, industrial, residential, mixed and institutional segments, have concrete development plans and resources to pursue these developments in Malaysia. At the macro level, Malaysia's Economic Transformation Programme - with eight strategic reform initiatives and twelve national key economic areas at the core - in response to the changing global economic environment, will generate more opportunities for our business growth in Malaysia. In view of the economic situation and competition, our annual revenue growth of 20% for 2012 & 2013 in Malaysia is highly probable.

## China: Striving in tough competition



*All in all, we go to great lengths to make sure that we take care of all our customers' needs.*

The Fast Flow's success in China started in 2001 with designing the rainwater solution for Ningbo Airport and the momentum of success continued with more iconic buildings. And 2008 was a historic milestone of Fast Flow with the design of rainwater solution for spectacular centrepiece of Beijing Olympic Games 2008, Beijing National Stadium (Bird's Nest). In the recent years, Fast Flow has been aiming at mega projects particularly in the railways, airports and large factories segments. The focus of Fast Flow has been on delivering promises and the key success factor is in understanding building design and to offer the best solution to each client.

Wilkins Liang, General Manager of Fast Flow Technology Engineering (Guangzhou) Co., Ltd mentioned that Fast Flow has been focusing on direct savings method to clients in China, boosting both Design, Supply and Install (DSI) and Design & Supply (DS) projects.

In order to seize the market opportunities, Fast Flow will be expanding the technical sales team in China. Consistently promoting the successes and developing good client relations, Fast Flow is poised to offer its cutting-edge technology in rainwater solutions for the long term benefits of the growing clientele.



Picture references:

1. Shanghai Synchrotron Radiation Facility (SSRF)
2. Guangzhou Pai Yun Airport