World-wide platform screen doors strategies regarding installation, service and operation

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Why a world wide strategy?

In 2012, more than 40 km of PSD in operation
Summary

PSD functionalities
PSD technologies
Pros and cons
Trends and issues
Conclusion
PSD functionalities

- Station design
- Platform safety
- Regularity
- Air conditioning saving
- Advertising support
PSD functionalities

Saint Petersburg Line 2
PSD functionalities

- Station design
- Platform safety
- Regularity
- Air conditioning saving
- Advertising support
PSD functionalities

Paris Line 14

Japan Shinkansen station
PSD functionalities

- Station design
- Platform safety
- Regularity
- Air conditioning saving
- Advertising support
PSD functionalities

London Jubilee line

Paris line 13
PSD functionalities

- Station design
- Platform safety
- Regularity
- Air conditioning saving
- Advertising support
PSD functionalities

Hong Kong

Copenhagen
PSD functionalities

- Station design
- Platform safety
- Regularity
- Air conditioning saving
- Advertising support
PSD functionalities

Busan
PSD Technologies

- Full height PSD
- Half height PSD
- Low height PSD
Full height PSD

- The first: 1961
- Simple motorisation and lighting in the upper girder
- Doors hanging on the upper girder
- Mainly installed in new stations
PSD Technologies

Rennes

Singapore NEL
PSD Technologies

- Full height PSD
- Half height PSD
- Low height PSD
Half height PSD

- The last: 2006
- Double motorisation
- Sliding doors
- Mainly installed in retrofit
PSD Technologies

Paris Line 1

Taipei
PSD Technologies

- Full height PSD
- Half height PSD
- Low height PSD
PSD Technologies

Low height PSD

- Mainly in Japan since 2000
- Simple design
PSD Technologies

Tokyo
Marunouchi line
Fukutoshin line
Pros and cons

The **best solution** to improve safety and regularity but:

- Expensive
- Needs a high level of reliability
- Needs to fit to the infrastructure
- Generates new risks
- Imposes rolling stock doors diagram
Pros and cons

Alternative solutions: Track detection system

- Mechanical (Vancouver)
- Infra-red (Lyon)
- Hyper frequency (Nürnberg)

But
- Don’t prevent falls on the track
- Strong impact on availability
Trends and issues

Platform screen doors address mainly automated metro lines

- PSD
- TIDS

Stations

- 1981
- 1983
- 1985
- 1987
- 1989
- 1991
- 1993
- 1995
- 1997
- 1999
- 2001
- 2003
- 2005
- 2007
- 2009
- 2011

Graph showing an increase in stations from 1981 to 2011 with 83% and 17% increases.
Trends and issues

More and more demand
More and more manufacturers

Several challenges to deal with
  - PSD/Platform integration
  - PSD/Rolling stock interface

The objective to reduce the cost

But no Standard
Platform screen doors is now a vital equipment for metro operation particularly automated metro Standardisation of this equipment, improvement of its functional and technical performances, control of its interfaces and reduction of its cost are sensitive issues for manufacturers and operators UITP must be a major contributor of this world wide strategy thanks to the recommendations of its committee particularly the observatory of automated metros