



Page 1/ 12	AGV-Checklist	
FB 11-001-07	Planning Guide for AGV's	

Project: _____

Table of Contents	Page
Preliminary note.....	1
1. Customer Information	2
1.1 Location, if different from customers address	2
1.2 Purposes of facilities / field of use.....	3
2. Environmental conditions of application areas	3
3. Cargo, cargo-facilities	4
3.1 Provision of loads	4
4. Indoor and driving course layouts	5
5. Vehicle type prerequisites	6
5.1 Designated vehicle types.....	6
6. Control systems	7
7. Special requirements	8
8. Warranties	9
9. Driving course plannings, Infrastructure, Transport and Time Matrix.....	10
9.1 Plannings of driving courses	10
9.2 Floor plans (Matrix of paths)	11
10. Released by operator	12

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage Download\Homepage Download\AGV-Checklist.dotx

Page 2/ 12	AGV-Checklist	
FB 11-001-07	Planning Guide for AGV's	

Preliminary note

Based on the guideline VDI 2510 the below "AGV CHECKLIST" has been created

We kindly ask the prospective operator to gather all information as mentioned in this itinerary in cooperation with dpm, in order to evaluate the necessary requirements.

Using the completed checklist dpm is able to provide an offer based on significant service profiles and requirements of the plant

1. Customer Information

Company Name: _____

Street, Post code: _____

Postcode City : _____

Contact Person _____

Mr / Mrs. / Ms.: _____

Dept: _____

Phone: _____ Fax: _____

E-mail: _____

Sector: _____

	Yes	No
New customer	<input type="checkbox"/>	<input type="checkbox"/>

If not:
 Latest projects.: _____

Requirements Expansion of an existing plant
Please tick

New system

1.1 Location, if different from customers address

Branch _____

Postcode: City: _____

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

1.2 Purposes of facilities / field of use

2. Environmental conditions of application areas

Climatic conditions Please tick

Humidity:	normal humidity <input type="checkbox"/>	increased humidity <input type="checkbox"/>
Additives in air:	oil mist <input type="checkbox"/>	solvents <input type="checkbox"/>
	steam <input type="checkbox"/>	color particles <input type="checkbox"/>
	dust <input type="checkbox"/>	aggressive gases <input type="checkbox"/>
	others _____	

Temperatures:	Norm.-Temp. (5° - 30°C) <input type="checkbox"/>	particularly low Temp. <input type="checkbox"/>
	<input type="checkbox"/>	particularly high Temp. <input type="checkbox"/>
Temperature fluctuations	minor fluctuations <input type="checkbox"/>	strong fluctuations <input type="checkbox"/>

Ground conditions Please tick

Ground according to VDI 2510	yes <input type="checkbox"/>	no <input type="checkbox"/>
Soil bearing capacity sufficiency	yes <input type="checkbox"/>	no <input type="checkbox"/>
Contaminations	yes <input type="checkbox"/>	no <input type="checkbox"/>
Nature of the impurities	oil, greases, liquids <input type="checkbox"/>	chips <input type="checkbox"/>
	dust <input type="checkbox"/>	production wastes <input type="checkbox"/>
	others _____	

Spec. technical features:
environments characteristics which need to be considered

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage Download\Homepage Download\AGV-Checklist.dotx

3. Cargo, technical aids

(When using various types of cargos and / or technical devices please copy this page and fill in for each type)

Transported goods

Name: _____

Description: _____

Properties:

solid <input type="checkbox"/>	liquid <input type="checkbox"/>
can tilt / slip <input type="checkbox"/>	critical emphasis <input type="checkbox"/>
others _____	

Dimensions data in mm/kg

length		width	
height		weight	

Technical aids (FHM)

In demand : yes no

Type of aids :

(Euro) pallet <input type="checkbox"/>	workpiece carrier <input type="checkbox"/>
pallet Cage <input type="checkbox"/>	container / jar <input type="checkbox"/>
rigid frame <input type="checkbox"/>	box <input type="checkbox"/>
others _____	

Dimensions data in mm/kg

length		width	
height		weight	

3.1 Provision of loads

(Load transfers, manually, mechanically, or automatically operated)

Manually by Hand yes no

Manually by technical utilities

crane <input type="checkbox"/>	hand pallet truck <input type="checkbox"/>
forklift <input type="checkbox"/>	mobile lifting platform <input type="checkbox"/>
others _____	

Automated

roller conveyor <input type="checkbox"/>	chain - or belt conveyors <input type="checkbox"/>
lifting devices <input type="checkbox"/>	portal robots <input type="checkbox"/>
others _____	

Specifications
 (please provide, dimensions, drawings, layouts, if available)

General :

Directions:	from vehical to station	from station to vehical
	manually <input type="checkbox"/>	manually <input type="checkbox"/>
	mechanically <input type="checkbox"/>	mechanically <input type="checkbox"/>
	automated <input type="checkbox"/>	automated <input type="checkbox"/>
Transfer heights: in mm	<input type="text"/>	<input type="text"/>
Special characteristics: Various transfer heights, etc.	<hr/> <hr/>	

4. Indoor and driving course layout

Factory layout

Drawing available:	yes <input type="checkbox"/>	no <input type="checkbox"/>
drawing No. / File:	<hr/>	

Traffic lane

	inductive <input type="checkbox"/>	optical <input type="checkbox"/>
	free navigation <input type="checkbox"/>	
	elementary course <input type="checkbox"/>	closed course <input type="checkbox"/>
	unbranched course <input type="checkbox"/>	branched course <input type="checkbox"/>
Number of stations:	stations for loading <input type="text"/>	stations for load transfers <input type="text"/>
Gateways: specify numbers	fre-protection doors <input type="text"/>	rolling-, sliding doors <input type="text"/>
Uphills / Downhills:	yes <input type="checkbox"/>	no <input type="checkbox"/>
		max. gradient % <input type="text"/>
Cross traffic	forklift <input type="checkbox"/>	trolley <input type="checkbox"/>
	others <hr/>	
Obstacles of ground	expension joints > 1cm <input type="checkbox"/>	steps > 5mm <input type="checkbox"/>
	sinks > 1cm <input type="checkbox"/>	manhole covers <input type="checkbox"/>
	others <hr/>	

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

5. Conditional requirements for Vehicle types

Operating conditions

Material flow system: purely transportation concatenation of different areas
 commissioning assembly line
 others _____

Operating time: working hours / shift
 working days per week shifts per day

Conditionional requirements

(Drive unit, steering unit, control system, engine power, etc.)

5.1 Intended type of vehicle

please tick

HC **TC** **GC** **MC** **ZC** **SC** **SR**
 Handy Cart Transport Cart Forklift Truck Assembly Cart Traction Cart Shuttle Cart Service Robot

Vehicle type

Drive: differential drive front-wheel drive
 (Unity, number, performance) rear-wheel drive

number of drive units _____ power in KW / unit _____

Vehicle structure: lifting table belt - chain conveyer
 telescopic Arm robots
 others _____

Safety devices, laserscanner ultrasound
 obstacle detection: bumper optical / acoustic signals

Loading process: external internal
 automated manually

6. Control System

AGV Control


Operating modes:	fully automatic <input type="checkbox"/>	semi automatic <input type="checkbox"/>
	PLC <input type="checkbox"/>	JPC <input type="checkbox"/>
	VIPA <input type="checkbox"/>	Siemens <input type="checkbox"/>
Positioning:	magnet <input type="checkbox"/>	light barrier <input type="checkbox"/>
	transponder <input type="checkbox"/>	others <input type="checkbox"/>
Accuracy (in mm):	along +/- <input type="text"/>	cross +/- <input type="text"/>
	max. distance to external stations <input type="text"/>	

External control

Radio - coordination:	yes <input type="checkbox"/>	no <input type="checkbox"/>
Master computer:	dpm <input type="checkbox"/>	provided by customer <input type="checkbox"/>
Connectivity AGV:	radio communication <input type="checkbox"/>	optical data transceiver <input type="checkbox"/>
Connectivity to stations: <small>(AGV position report - Start)</small>	radio communication <input type="checkbox"/>	data lines <input type="checkbox"/>
	light barrier <input type="checkbox"/>	
AGV Management:	central by master computer <input type="checkbox"/>	central by control panel <input type="checkbox"/>
	decentralised control panel <input type="checkbox"/>	telephone <input type="checkbox"/>
	control panel at AGV <input type="checkbox"/>	<input type="checkbox"/>
Anbindung Leitrechner:	PPS system <input type="checkbox"/>	network <input type="checkbox"/>
	wwn system <input type="checkbox"/>	
	desired format _____	

Radio communication systems:	dpm <input type="checkbox"/>	provided by customer <input type="checkbox"/>
------------------------------	------------------------------	---

WLAN according to JEEE 802.11

Page 8/ 12	AGV-Checklist	
FB 11-001-07	Planning Guide for AGV's	

7. Special requirements

Plant -specific conditions

availability in % automation in %

From operator's side

Factory standards: _____

Implementing provisions: _____

Ergonomic requirements: _____


Colouring AGV: _____

Special indications and labelings: _____

Documentation: _____

Others: _____

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

Page 9/ 12	AGV-Checklist	
FB 11-001-07	Planning Guide for AGV's	

8. Warranty conditions

Dependencies

Shifts: one-shift operation two-shift operation

three-shift operation no limitation of shifts

Nature: by month by operating hours

number of month number of hrs

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

9. Course planning, Infrastructure, Transport and Time Matrix

9.1 Plannings of driving course

Pos.	point of interaction, concerning tasks	task description	execute description
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

In the task description, the required parameters should be specified.

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage Download\Homepage Download\AGV-Checklist.dotx

9.2 Floor plan (Matrix of paths)


Matrix of paths		Project designation:										Date:	
to													
from													
Designation	Pos	1	2	3	4	5	6	7	8	9	10	11	12
	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												

The numbers indicate the stations

(AS= Workstation, LS= Station of load transfers – please nominate).

All statements in the matrix shall be referred in meters.

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx

Page 12/ 12	AGV-Checklist	
FB 11-001-07	Planning Guide for AGV's	

10. Release by the operator

Registration by operator: _____

Company: _____

Date: _____

Signature: _____

Formblatt:FB 11-001-01 FTS-Checkliste / Titel: FTS-Checkliste
 Erstellt am: 18.05.2016 von Patrick Leenen / Letzte Bearbeitung am: 09.08.02 von Patrick Leenen/ Druckdatum: 23.05.17
 EDV-Ablage: o:\dpm Corporate Design 2016\05 dpm CD 2016 Homepage\Homepage Download\AGV-Checklist.dotx