Spirit® – Setting a new benchmark in elevators. No shaft pit, no headroom, simply unique.
Revolutionary in its class.

A new spirit blows through the residential buildings. What are the most important demands on simple yet high quality passenger elevators for residential buildings? The elevators should be attractive in price and at the same time convince through the quality they have to offer. They should have short lead times, rationally and promptly applicable in both the new installation and modernization markets. The development of Spirit®, the revolutionary elevator system was orientated toward the above mentioned demands, in order to top the market expectations and to set a new benchmark.

Spirit® has positioned itself, as an independent solution in the product family of the machine room-less traction-driven elevators. Spirit® is an economical alternative with short lead times in the range of lower to medium height residential and office buildings with a moderate amount of traffic. This is warranted by means of a specific equipment package as well as rational contractual and manufacturing procedures. But the trick lies in the system itself.

Reduced shaft top. The uniquely small shaft top with a height of only 2600 mm saves 30% compared to conventional head rooms. Together with the shaft recess of only 400 mm 70% of pit room is gained compared to conventional shaft pits. This makes Spirit® a highly flexible installation.

A conventional head room that is comparably higher, forces the building line upwards, as special building measures have to be taken. Spirit® solves this problem and is in other words: highly superior.

The vibration isolated and low-maintenance drive unit is positioned in the shaft in the area of the lowest stop. It follows that this is the world’s flattest and most compact drive of its type! Despite its positioning as a functional elevator, Spirit® offers pleasant ride comfort, accurate leveling, exemplary reliability and a long life span.
How to combine quality and low costs?
Simply Spirit®.

Spirit®, the animated film. Be inspired under www.thyssenkrupp-aufzuege.com

Efficiency.
The easy clever solution.

- Spirit® is the new machine room-less elevator system, revolutionising the passenger elevator market with a variety of advantages.
- An outstanding cost-performance ratio is achieved by having highly attractive purchasing costs, quality material and state of the art technology.
- Instead of a head room Spirit® has a 2600 mm high shaft top termination.
- The shaft pit respectively shaft recess has a depth of only 400 mm.
- Ingeniously simple and perfectly synchronised system technology.
- Probably the most compact elevator system in the world, giving architects and schedulers a lot of freedom when planning the buildings, as well as giving maximum flexibility for modernization purposes.
- Availability with competition-less lead times.
- Existing buildings can not only be retro-fitted, but due to omission of the head room on the roof, the status of listed buildings is assured.

* The guidelines set by the notified bodies and the national regulations have to be considered, when planning the pit and head room measurements. Our sales personnel is at your service to clarify your specific situation. In non-compliant cases, we carry out this system with the following measurements: head room 3400 mm (with door height 2000 mm) and pit depth 1100 mm.
From head to toe adjusted to compact measurements. A functional elevator with simply high quality technology.

The technology. No contradiction with the functional arrangement of the installation, simply future-proof.

- The vibration isolated drive unit is carried out as a permanent magnet actuated synchronous machine and is positioned in the area of the lowest stop including the frequency converter and the components of the decentralised control system.

- **Suspension 2:1**

- Spirit® contains an installation friendly, self-carrying car in a light design with set measurements. The excellent use of the shaft cross-section enables the use of larger cabins, and hence for modernisation, improved traffic and comfort.

- Components of the decentralised control Thyssencontrol Multican TCM-MC3 are installed with the space-saving drive in the shaft. The high quality control panel is positioned according to standard conditions in the lowest landing, but can be installed in any landing as desired.

- The fitting as well as retro-fitting of the equipment for a handicapped accessible elevator acc. to EN 81-70 is possible.

- **Shaft and car door ECO** with frequency regulated door drive for high running smoothness.

- The installation of the equipment is fast and rational.

- The operation is identified by excellent ride comfort, continuous energy-saving and economical performance.

- Spirit® compiles with the rules and regulations of the elevator guidelines 95/16/EG. The European type test certificate checked by experts of the german acceptance authority ‘TÜV’ confirms the safety concept of Spirit®.

Simple planning, fast installation and economical performance. Simply Spirit®.

Spirit®, the animated film. Be inspired under www.thyssenkrupp-aufzuege.com
Spirit® – the flexible solution for all building requirements.

Spirit® is manufactured with the highest standards and equipped with the most modern technology. This guarantees long-term availability, life-span and good ride comfort. Innovation and economics are connections that have been achieved with this elevator system and are now a characteristic of this system. The new drive, reduced to minimal measurements, shows this clearly. The symbiosis between geared and gearless drive is extremely space-saving, capable of high performances and ensures a comfortable running smoothness. Above that are low connection values and low energy consumption, achieved with a high degree of efficiency.

The elevator system is available in a conventional design with known runbys, and any other combinations saving space in upper and lower shaft area (with smaller dimensions in upper and lower shaft area). Our solution to save space, if desired. The Spirit® sets a new benchmark.

<table>
<thead>
<tr>
<th>Occurring forces (kN)</th>
<th>Rated load Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>P7 shaft pit floor (car guide rails)</td>
<td>450 kg</td>
</tr>
<tr>
<td>P8 shaft pit floor (car buffer)</td>
<td>53</td>
</tr>
<tr>
<td>P9 shaft pit floor (counterweight buffer)</td>
<td>43</td>
</tr>
<tr>
<td>P10 shaft pit floor (counterweight guide rails)</td>
<td>11</td>
</tr>
</tbody>
</table>

The forces P7-P10 never occur simultaneously.
The Spirit® – A class of it’s own.
Also in reference to cabin design and furnishing.

Tailor-made for decisive ones.

Clear case, safe choice.
The firmly defined car equipment package for Spirit® as well as the specially designed slim-lined production process, are all responsible for the impressive price structure and short lead times.

Spirit®’s serial car equipment guarantees thanks to the robust material quality, a long-term high-quality appearance of your installation.

Optional as well as handicapped accessibility equipment is available for your individual requirement.

Equipment for handicapped accessible elevators according to EN 81-70.
• Buttons: Step-Classic (tactile and Braille labelling)
• Position indicator type Medium
• Emergency call acceptance indicator
• Rounded handrail
• Visible and audible call acceptance
• Voice announcement

Handrail.
HRA 2 - stainless steel, grain 220.

Surfaces for walls.

Electrolytically zinc-plated.
Wall 9 - RAL 9010. Pure white.

Wall 14 - PO.07.85. Pastel turquoise.
Wall 15 - SO.05.85. Pastel blue.

Wall 16 - RAL 9006. White aluminium.
Wall 1 - stainless steel, grain 220, polished and brushed.
Car lighting.

Polymero

Rondo (design: spek design)

Car operating panel plus, in stainless steel grain 220.

Basic version:

Option:
Position indicator, direction arrows and gong in indicator box in main landing. Direction arrows and gong in remaining landings.

Basic version:
Three segment operation field with operating elements and direction indicator. Dummy elements in unused fields.

Operating and indicating elements for duplex group, wall-mounted.

Flooring.

Floor 10 - Noraplan mega black blue 2668.

Floor 11 - Noraplan mega light grey 1578.

Floor 12 - Noraplan mega dark grey 1582.

Operating box of decentralized control, in stainless steel grain 220.

Basic version:
Operating elements in separate wall-mounted push-button box. Direction arrows in indicator box above landing door in every landing.

Option:
Position indicator, direction arrows and gong in indicator box in main landing. Direction arrows and gong in remaining landings.

...and if an attractive design is important? Simply Spirit®.
Spirit®, the animated film. Be inspired under www.thyssenkrupp-aufzuege.com
Electrolytically zinc-plated (prepared for final coating of paint to be provided by the customer)

- Pure white RAL 9010 – wall 9, powder coating
- Pastel turquoise P0.07.85 - wall 14, powder coating
- Pastel blue S0.05.85 - wall 15, powder coating
- White aluminium RAL 9006 - wall 16, powder coating
- Stainless steel, grain 220 - wall 1

Car floor
- Nonplan mega dark blue 2668 - floor 10
- Nonplan mega light grey 1578 - floor 11
- Nonplan mega dark grey 1582 - floor 12

- Floor lowered by 3.5 mm for flooring to be provided by the customer
- Floor lowered by 25 mm for flooring to be provided by the customer (pit = 425 mm) additional load max. 75 kg (450 kg) / 100 kg (630 / 675 kg)

Mirror
- Mirror on rear wall (mid-wall level up to car ceiling)

Car operating panel
- Car operating panel plus
- Polymero
- Rondo

Handrail
- Stainless steel Ø 40 mm at rear wall - HRA 2
- Stainless steel Ø 40 mm at side wall (opposite to operating panel plus) - HRA 2 (only 630 / 675 kg)

Isolation
- Car isolation
- Sliding guides
- Roller guides

Car and landing doors
- Electrolytically zinc-plated (prepared for final coating of paint to be provided by the customer)
- Stainless steel grain 220
- Car door locking acc. to EN81 (door mounted in shaft without recess/reduced shaft pit)
- Electrolytically zinc-plated (prepared for final coating of paint to be provided by the customer)
- Stainless steel grain 220
- In recess 55 mm
- In shaft
- Shaft front wall electrolytically zinc-plated (prepared for final coating of paint to be provided by the customer)
- Shaft front wall in stainless steel grain 220

Control
- Simplex, collective selective control
- Duplex, collective selective control (possible in separate shafts only)
- Approach landing with door closed and re-leveling
- Approach landing with door opened and re-leveling
- Selective door control (in case of front and rear door opening)
- Parking landing
- Emergency power control for max. 4 elevators (incl. start interlocking)
- Overload indicator with buzzer
- Fire emergency control (signalling contact to be provided by the customer). One fire emergency landing
- Fire emergency control (signalling contact to be provided by the customer). Two fire emergency landings
- Wall-mounted pushbutton box with key switch for fire emergency control instead of a signalling contact to be provided by the customer (only applicable in case of one fire emergency landing)
- Switch off of control and light in separate wall-mounted pushbutton box
- Collective fault signal

Operating box
- Control panel in stainless steel, grain 220, in lower landing (type „high standard“)
- Control panel in stainless steel, grain 220, in any landing (type „high standard“)

Operating and indicating elements
- Direction indicators at every landing - type STEP Modul Classic
- Position indicator at main entrance
direction arrows and gongs at every landing - type STEP Modul Classic
- Wall-mounted operating and indicating elements - type STEP Modul Classic.
- Wall-mounted direction arrows above the landing doors at every landing - type Medium
- Position indicator at main entrance
wall-mounted direction arrows and gongs above the landing doors at every landing - type Medium

Additional features
- Door open button in car operating panel
- Door closed button in car operating panel
- Priority switch in car operating panel
- Microphone/loudspeaker intercom system in car operating panel
- Buttons with tactile and Braille labelling
- Teleservice (generation 6)

Standards
- Equipment for handicapped accessible elevators acc. to EN 81-70

* The option with capacity 450 kg is only valid for countries which accept elevator type 1 acc. to EN 81-70, point 5.5.1.
The revolutionary for residential buildings elevator by ThyssenKrupp Aufzüge – Spirit®.
Numbers, data, facts.

<table>
<thead>
<tr>
<th>Rated load (kg)</th>
<th>450</th>
<th>630</th>
<th>675</th>
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</thead>
<tbody>
<tr>
<td>Passengers</td>
<td>6</td>
<td>8</td>
<td>9</td>
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<tr>
<td>Speed (m/s)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
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<tr>
<td>Max. travel height TH (m)</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Max. number of landings</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>One-sided entrance</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Two-sided entrance</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Car width CW (mm)</td>
<td>1000</td>
<td>1100</td>
<td>1100</td>
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<tr>
<td>Car depth CD (mm)</td>
<td>1250</td>
<td>1400</td>
<td>1400</td>
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<tr>
<td>Car height CH (mm)</td>
<td>2100</td>
<td>2200</td>
<td>2100</td>
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<tr>
<td>Car area acc. to EN 81-70 for wheelchair users</td>
<td>–</td>
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Car and landing doors

<table>
<thead>
<tr>
<th>Door width DW (mm)</th>
<th>700</th>
<th>800</th>
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<th>800</th>
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<tbody>
<tr>
<td>Door height DH (mm)</td>
<td>2000</td>
<td>2100</td>
<td>2000</td>
<td>2100</td>
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<td>2000</td>
<td>2100</td>
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<tr>
<td>Min. floor-to-floor distance (mm) (door mounted in shaft)</td>
<td>DH + 450</td>
<td>DH + 450</td>
<td>DH + 450</td>
<td></td>
<td></td>
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<tr>
<td>Shaft width min. SW (mm)</td>
<td>1400</td>
<td>1400</td>
<td>1400</td>
<td>1450</td>
<td>1450</td>
<td>1450</td>
<td>1500</td>
<td>1500</td>
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<tr>
<td>... with shaft front wall (mm)</td>
<td>1435</td>
<td>1435</td>
<td>1435</td>
<td>1475</td>
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<tr>
<td>Right-hand door soffit A (mm)</td>
<td>75</td>
<td>65</td>
<td>75</td>
<td>65</td>
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<td>65</td>
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<td>Recess door R (mm)</td>
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<td>55</td>
<td>55</td>
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<td>55</td>
<td>55</td>
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<tr>
<td>Shaft depth (with recess) SD (mm)</td>
<td>1600</td>
<td>1750</td>
<td>1930</td>
<td></td>
<td></td>
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<tr>
<td>Shaft depth (without recess) SD (mm)</td>
<td>1650</td>
<td>1800</td>
<td>2040</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Shaft head 1) SH (mm)</td>
<td>2600</td>
<td>2700</td>
<td>2600</td>
<td>2700</td>
<td>2600</td>
<td>2700</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Shaft pit 2) SH (mm)</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td></td>
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<tr>
<td>Suspension</td>
<td>2:1</td>
<td>2:1</td>
<td>2:1</td>
<td></td>
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</tbody>
</table>

Drive

<table>
<thead>
<tr>
<th>Drive control</th>
<th>Frequency control VVVF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. starts per hour</td>
<td>180</td>
</tr>
</tbody>
</table>

Control

<table>
<thead>
<tr>
<th>Traction sheave diameter (mm)</th>
<th>260</th>
<th>260</th>
<th>260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive weight (kg)</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Operating input power 3) (kVA)</td>
<td>3.6</td>
<td>4.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Operating current 3) (A)</td>
<td>5.2</td>
<td>7.0</td>
<td>7.4</td>
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<tr>
<td>Starting current 3) (A)</td>
<td>9.1</td>
<td>10.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Landing accuracy (mm)</td>
<td>+/- 5</td>
<td>+/- 5</td>
<td>+/- 5</td>
</tr>
</tbody>
</table>

1) Planning of shaft pit and headroom dimensions are subject to the valid requirements set up by the national notified bodies! Please contact our sales people for assistance in case of deviations we offer this solution based on the following dimensions: shaft head 3400 (with DH = 2000 mm) and shaft pit 1100 mm.

2) With flooring up to 3.5 mm; 425 mm with flooring up to 25 mm.

3) With 400 Volt / 50 Hz.

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