## COURTIECH WE MAKE COURTS -

## REFERENCES in over COUNTRIES



Perfect Squash Courts: Made in Germany We believe in science-based German engineering - offering he highest quality squash courts. With the help of our partner, the University of applied science of Rosenheim in Germany, CourtTech has developed a world-class engineered squash court wall system. Our expertise and process is what makes us strong. Driven by university based research, we make the perfect court even better.

Advantages of CT Squash Courts in short:
》 The sand fill walls provide an equal ball bounce The special tongue and groove connection between the boards guarantees a joint less playing surface.
CT walls are designed for all humidity levels
Logos of the club can be painted on our walls Itemplet of the logo must be provided)
» CourtTech is granting a 10 years warranty
> All CT elements are certified and approved by the World Squash Federation (WSF).

Best practice \& market knowledge
In the leisure market there is a huge variety of "the best" business concepts. We consider various factors when deciding on the right concept. We've accumulated 25 years experience in the market. Knowing what's come before us, we know how to make future projects successful. And every day we learn a little bit more. Our network extends to over 40 countries and includes consultants, elite athletes and specialists in the sports and leisure industry, giving us the credentials, experience and in-depth knowledge to serve you.
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The CourtTech squash courts are the perfect heart for the biggest squash facility in the world.'

Zenon Waniak Hasta la Vista, Wroctaw

WORLD
SQUASH

COURTIECH
WE MAKE COURTS 」

## CourtTech Courts in <br> over 50 Countries



Darwin Squash Facility, Australia


Jeu de Paume et de Racquets, France



Squash et Badminton Bordeaux, France
Chelsea Piers, USA



Hiranandani Chennai, India


Squash XL, New Zealand


Drammen Squash, Norway


Paradise Villa Clubhouse, Thailand


Club Sportiv Dinu Pescariu, Romania
Squash Center .,LIGA", Russia


Kent School, USA

## Design of Squash Courts

According to the WSF squash court specification, the inner dimensions of the squash court are $6,4 \mathrm{~m}$ width and $9,75 \mathrm{~m}$ length. Nevertheless the necessary installation dimensions of the squash court differ from those numbers, due to different width or characteristics of the various kind of squash court walls. During the planning of squash courts it is extremely important to define the squash walls, otherwise the courts will not have the necessary dimensions.


Dimensional requirements for courts with CT System Walls

| No. of <br> Courts | Type | Length | Width |
| :--- | :--- | :--- | :--- |
| 1 | CT System Court | $\min 10100 \mathrm{~mm}$ | $\min 6640 \mathrm{~mm}$ |
| 2 | CT System Courts | $\min 10100 \mathrm{~mm}$ | $\min 13140 \mathrm{~mm}$ |
| 3 | CT System Courts | $\min 10100 \mathrm{~mm}$ | $\min 19630 \mathrm{~mm}$ |
| 4 | CT System Courts | $\min 10100 \mathrm{~mm}$ | $\min 26130 \mathrm{~mm}$ |
| 5 | CT System Courts | $\min 10100 \mathrm{~mm}$ | $\min 32600 \mathrm{~mm}$ |

Dimensional requirements for courts with CT Half System Walls

| No. of <br> Courts | Type | Length | Width |
| :--- | :--- | :--- | :--- |
| 1 | CT Half System Court | min 10000 mm | exact 6480 mm |
| 2 | CT Half System Courts | min 10000 mm | exact 12980 mm |
| 3 | CT Half System Courts | min 10000 mm | exact 19470 mm |
| 4 | CT Half System Courts | min 10000 mm | exact 25960 mm |
| 5 | CT Half System Courts | min 10000 mm | exact 32460 mm |

## A few points to consider



Flooring
To comply with WSF requirements, floors should be constructed with light coloured wood to enable the fast-moving ball to be seen in play and have a dense structure such as beech, ash or maple, finished with textured surface for grip. All floors should correspond to the EN norm 14904 in order to guarantee the best playing characteristics. The recommended construction height inclusive the necessary tolerance is 100 mm .


Lighting and ventilation
The minimum lighting level for a standard squash court according to the World Squash Federation Squash Court Specification is minimum 300 Lux (but 500 Lux is recommended) measured at 1 metre above finished floor level. It is important that the lighting s evenly, uniformly and does not vary at any point by more than $15 \%$. There are no set standards for the lighting levels required for TV transmission however 1200 lux is recommended.


Environmental conditions The WSF recommends that a Squash court and any adjacent spectator areas lincluding the space for the marker and refereel should be provided with a heating and/or air conditioning system, which is capable of maintaining a temperature of between 10 and 25 degrees Celsius with an ideal range between 15 to 20 degrees. The court and any adjacent spectator areas shall be provided with a ventilation system that provides not less than four complete air changes per hour.


Ceiling
Squash courts do not require special ceilings. It is important to consider that the balls won't be get stuck in any overhead areas. With concrete ceilings it is important to have sound absorbing materials to avoid any disturbance due to an echo. It has to have a simple shape, a matt finish and a light colour, so the players are able to see the ball without difficulties

## CT System Walls independent from the building structure

The CourtTech System Wall has a total thickness of 94 mm , consisting of two 21 mm thick RS special high density boards, attached to steel profiles. The self-supporting wall elements are fixed on steel columns to the floor at two positions. The surface of the finished wall has 3 coats of paint. The System Wall is filled with 2.5 tons of kiln dried sand. The System Wall is hard, flat and free of vertical joints. The out-of-play lines are aluminium profiles and powder coated red - RAL 3001.
"German engineering .... in my opinion - it's no secret why CourtTech builds highest quality squash courts"

Sarah Fitz-Gerald 5 x World Squash Champion, Commonwealth Games Gold Medallist -


## Which type of CourtTech wall meets your requirements?

CourtTech offers two different types of wall, the CT System Wall and the CT Half System Wall. Of course it is also possible to combine both of these CourtTech wall types in the same court. The 94 mm thick CT System Wall is completely free-standing and no supporting masonry walls are necessary. In principle a CourtTech system walls can be placed in the middle of a large hall without any connections to the building whatsoever.


## CT Half System Walls attached to building walls

The CourtTech Half System Wall has a total thickness of 40 mm ．The 21 mm thick RS special high density board is mounted onto steel profiles．The CourtTech Half System Wall is filled with 1.2 tons of kiln dried sand．The surface of the finished wall is coated 3 times and is flat and free of joints．The out－of－play lines are aluminium profiles and red powder coated－RAL 3001.
＂The courts，which we are proud to boast 10 of，play as well or better than those at comparable schools＇facilities＂

## AJ Kohlhepp

Sheffield，MA－Berkshire School
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The 40 mm thick CT Half System Wall is made of the same material as the CT System Wall，however it is fixed to existing masonry or concrete walls．It is very important to clarify whether the existing masonry wall will be suitable for CT Half System Walls．Internal dimensions between structural walls need to be carefully considered with this type of court．


Before start of installation


Before final coating


Fixing of Rails
The CourtTech panels，specially designed for the squash court，are either directly attached and screwed together on the existing walls or with the help of a metal rail system． The gap between the Courtech panels and the old squash wall is filled with sand．

CT Half system Walls are the perfect system for the renovation of existing squash courts．

Courtech grants a 10 years warranty on the different kind of renovations．

## CT Glass Walls

## for Clubs and Pro's



Which is the best glass back wall for my requirements?

For player-safety the glass back wall is the most important component of a squash court. CourtTech offers glass back wall with either frames or glass fins. Basically frame glass back walls are the most popular solution because they require less installation space and provide stable construction. The only reason for a fin glass back wall is so that the spectator areas behind the court have a less obstructed view.

## CT Fin Glass Back Wall

The CT Fin Glass Back Wall can be considered as "traditional" version. The disadvantage of this system is the 300 mm glass fins need a larger installation area compared with the framed glass back wall. The glass panels are supported by glass fins, 300 mm long, in a 90 degree angle. The glass door is mounted laterally with hinges. The door opens to the inside of the court. The risk of glass breakage is higher, compared with the framed glass back wall. The advantage of this system is that spectators in the gallery have a clear view. The court entrance width is 914 mm (barrier free access). The glass is 12 mm toughened safety glass. The glass wall consists of two panels and one glass door with 3 mm white ceramic silk screened lines bonded into the glass at 25 mm intervals and 620 mm high.

## CT Framed Glass Back Wall

The CT Framed Glass Back Wall is the most common glass back wall. This version is recommended if there is no plan for any public gallery behind the court. Beside the smaller installation area, this version has the advantage that the squash court is designed as a closed unit within the facility. The CT Framed Glass Back Wall offers a large viewing area to the audience, using only two panels without other additional attachments or pillars hindering the view. The framed glass back wall is maintenance-free due to fewer connection pieces and components. The glass is 12 mm toughened safety glass. The glass wall consists of two panels and one glass door with 3 mm white ceramic silk screened lines bonded into the glass at 25 mm intervals and 620 mm high (optional). The clear entrance width is 914 mm (barrier free access) The glass panels are supported by an aluminium frame. The glass door is mounted laterally with hinges. The door opens to the inside of the court.

## CT Pro Squash Floor

by Junckers - special designed for squash


Test According to EN 14904:A4


The CT Pro Squash Floor is specially designed by CourtTech and Junckers. The floor is exclusively available with CourtTech. It was specially developed to fulfill the requirements for squash professionals. The Sylva Squash Sport Floor is 22 mm thick consisting of double-width boards, which are nailed on an elastic subfloor of one layer of battens. As a result, the floor system can be considered as elastic sports flooring with high impact absorbency and elasticity, suitable
for multi-purpose sports halls as well as for squash. The entirely tongued floor offers excellent impact absorption, suspension and ball reaction. The impact energy is absorbed and this helps to protect the health and fitness of the customers by preventing physical strain to knees, ankles and the lower back.
The construction height is 100 mm . The sports floor system fully conforms to the European Standard EN 14904:A4

## CT Leisure Court - a cost effective solution

The CT LEISURE Court is the perfect choice for customers who are looking for a cost-effective solution, but do not have not to comply with professional world class requirements.

The CT LEISURE Court is quick and easy to install. Sand filled CT Walls provide a perfect ball bounce. The wall construction absorbs impact and vibra tion. The playing surface is completely ree of joints. The tongue and groove connection between the panels guarantees durability and is suitable for all climate conditions and humidity levels.

CourtTech Walls are available in a vast range of colours to suit your choice. We recommend the use of pastel colour to give your courts a welcoming appearan ce and to ensure ball visibility.

Integration of sponsors or club logos can be done easily. The colour contrast between the black ball and any logos has to be taken into account. The logo is painted directly on the wall in the co lours of your choice. All we need for the logo is the pattern/design/details.
$\qquad$ "I chose CourtTech because of the expectation of low maintenance.

PJ Patel
Newtown, PA - Private Residenc


## CT Club Court - the standard for all demands

he CT CLUB Court is the classic squash court model, enjoyed by athletes in a great number of countries around the globe. The CT CLUB court fulfils all daily requirements of a squash court. The 10 year guarantee ensures long term investment protection.

The CT CLUB Court provides complete acoustic sound insulation: CT System Walls prevent vibration transmission o other parts of the building. This is an important consideration in hotels, offices and residential buildings where squash courts may be located in a central area. The fully sprung flooring provides excellent shock absorption, suspension comfort and ball response. It absorbs impact, safeguarding the health and fitness of your customers by helping to prevent damage to knees, ankles and to the lower back.

All elements of the CT CLUB Courts are approved and certified by the WSF

In several countries the CT Walls are considered as Mobile Economical Goods, enjoying various tax advantages
"Guest are always telling me our courts are the best squash courts they have ever played on.

Mike Monen Chattanooga, TN, Scenic City Squash


## CT Flexi Court - for Double Squash and more

The CT FLEXI Court is not only just a squash court but a multipurpose spor hall for every type of indoor sport. Within a few minutes one person can easily move the movable CT System Side Walls. With this system two, three, four or five courts in a row can be transformed into different sized sport halls to be used for activities such as indoor football, basketball, badminton, paddle tennis, dance and aerobics. CT FLEXI Courts optimise the space the with a high return of investment than single-use squash courts.

The CT FLEXI Court is specially designed for doubles squash. The WSF squash court specification gives the doubles squash court dimensions as 7620 mm . For WSF recognised world and regional events and Commonwealth Games, the width of the court between playing surfaces may be increased to 8420 mm . With the CT FLEXI Court you can play both types of doubles squash The gap between the CT Movable Side Wall to the glass back wall is less than 8 mm in compliance with the WSF specifications. The CT Walls, the CT Movable Side Wall, the CT Glass Walls and the T Pro Squash Floor are all approved and certified by the WSF.

All elements of the CT FLEXI Courts are approved and certified by the WSF.

In several countries the CT Walls are considered as Mobile Economical Goods, enjoying various tax advantages.



## CT Glass Court - the perfect stage for Squash



The CT GLASS Court is the perfect showpiece for professional squash. One of our main focuses during the development of this brand new court was to create an unrivalled atmosphere for the biggest events in world squash. CourtTech has added new features which enable easier installation and dismantling.

The CT GLASS Court is available in different versions - as a three or four sided glass court and as fixed or demountable versions. We are pleased to develop the perfect glass court, corresponding to your requirements and special wishes.

For the demountable version, we use a modular sport floor which consists of prefabricated modules for quick and secure handling. The floor is unsealed. For better visibility of white squash balls, a dark smoked oak is used instead of European beech.

Revolutionary LED Lighting is supplied with the CT Glass court. This creates a much whiter and brighter light. It can also be supplied in variously coloured light shows. The LED lighting can be instantly turned on and off, enabling promoters to experiment with lighting effects before and after matches. LED lighting substantially decreases electricity consumption and ensures functionality in the event of a power failure.
(1) Mauritius
(2) Reunion, FR
(3) Hasta la Vista, PL
(4) Squash XL, NZ


## Renovation solutions for all type of courts



Panel Courts before and after renovation


Sand filled courts before and after renovation

CourtTech offers long-lasting renovations for all different kind of squash courts. No matter if it concerns plastered courts where the plaster comes off, of sand filled courts where wood chips detach from the chipboard, or panel courts where the panels got bent due to high air humidity or other reasons. CourtTech has optimal solutions.


Glass Front wall renovation
$\Gamma$

"We recently refurbished our almost 40 year old center with six courts. We put CourtTech on this job and the result was amazing.
Not only because of their practical skills, but also their innovative ideas to make the courts better
than ever.
Jørn-Arne Jørgensen Sargene Squash Oslo, Norway $】$

## US Hardball Doubles an US speciality



Hardball doubles is a version of squash, mainly played in North America. The court is $25^{\prime}$ wide and $45^{\circ}$ long. Two teams of two play against each other in a fast paced and exciting game. Games are typically played to 15 points, win by 1 . The sport has historically been played in country clubs.


「."Players report that they feel their squash game is actually better on our CourtTech courts, due to the consistent and true wall and floor response."

Todd R. Iliff
Developer and Founder of Boast Squash, a 8 court facility in Minneapolis, Minnesota USA

## The secrets of the Squash-Business

Successful Clubs all over the world have shown us the most important factors for the financial success of squash/leisure centers in the 21st. century! Squash facilities are in competition with other sports. For the majority of people in the sports industry, the image factors are the deciding factors. A friendly place is always a successful place. Due to the different cultural influences, a general concept for a successful facility does not exist. However, the correct planning of the facility is the key of success.


Following few points to consider: Multifunctional Center are the standard nowadays. The main advantages are cost efficiency and synergistic effects. As every sport has it's own character. With planing it's important to keep that in mind, as they have to complement each other to avoid a bad atmosphere because of rivalry and antipathy between the athletes of different sports.

Typical squash players are
more often older ( $28-48$ years) mainly male (75\%)
with higher education level and higher household income >Squash players are very social they talk always after the match


Construction
The base area of the squash court is $64 \mathrm{~m}^{2}$. Calculating the necessary infrastructure, such as changing rooms, bars, toilet and office, you have to calculate with a space requirement of 100 to $120 \mathrm{~m}^{2}$. This means that for a pure squash facility you need for 6 courts a building with approximately $700 \mathrm{~m}^{2}$.

## Location

Just like many other enterprises, the location is an important factor. For commercial squash facilities it is not necessary to be in a central location. Rather, it is important to have a good access to roads and public transport. Normally squash players are willing to drive approximately 15 minutes to the facility.

## Booking rates

We have worldwide two systems for the booking of squash courts.
Pay and play: The players book the court in advance and pay before or after the play. There is no basic charge or monthly
membership fee. That is the main system used in Europe. Membership: A monthly membership is sold and the players have the possibility to play squash as often as they want.

Both systems have their advantages. The most important advantages at the membership system are:
» Costing certainty through the fixed number of members. Normally the membership fee is debited beginning of each month or quarterly.
" Lower number of squash players necessary, compared with pay and play system. At the membership system normally 50 players/members are needed per squash court. At the pay and play system 150 different customers are needed to reach the break even point

Beside those factors there is a number of other factors which have to be considered during the planning of a squash facility. CourtTech provides you individual advice and assistant.

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