



DOOR **COMPARISONS**



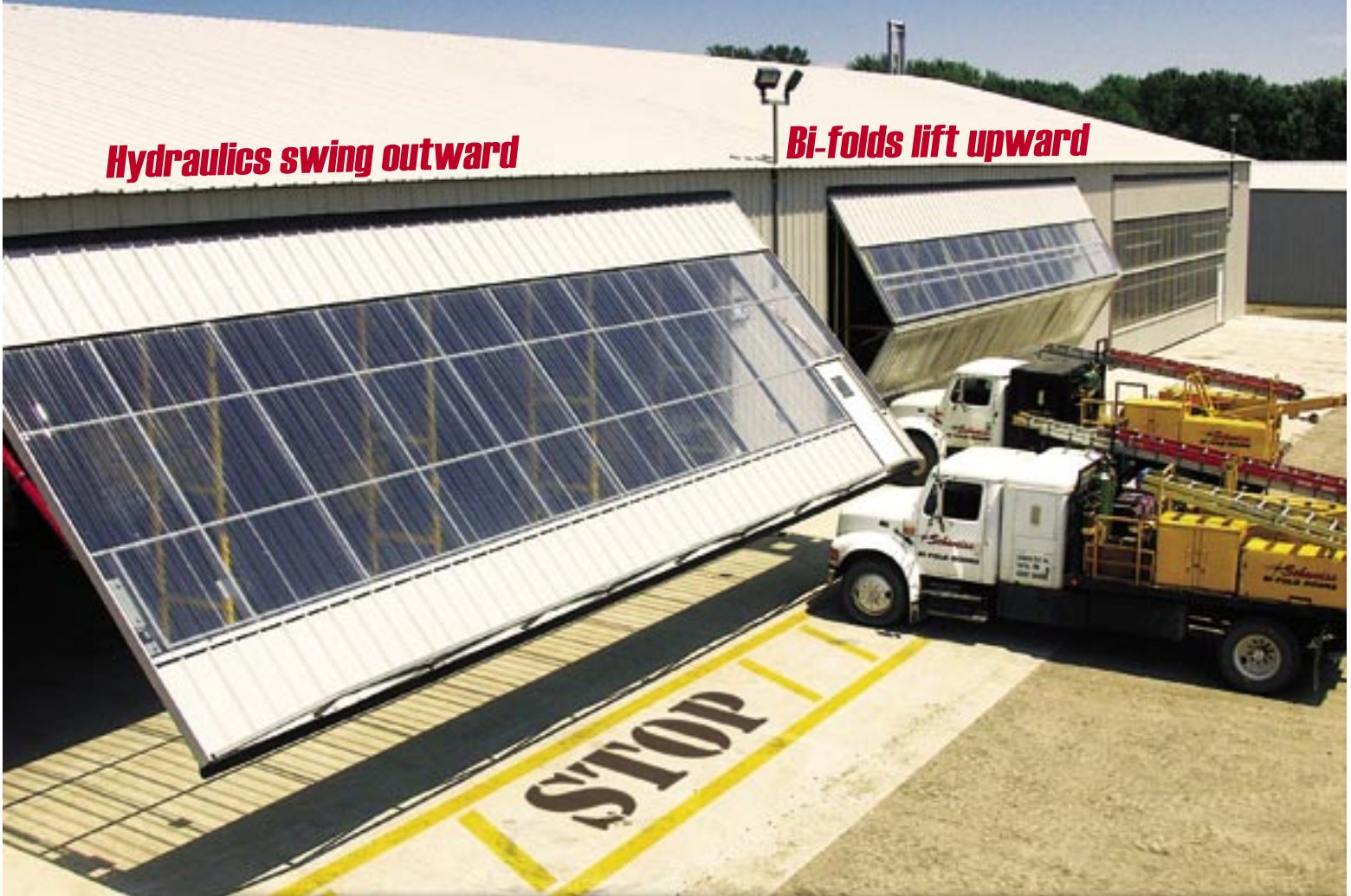
We show the comparisons **SO YOU** can make the right choice.

SCHWEISS
THE DOOR LEADER

DOOR PARKING COMPARISONS

Hydraulics swing outward

Bi-folds lift upward

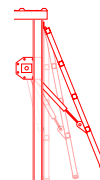


We show your options SO YOU can decide what is important to you.



WARNING: Schweiss does not recommend using your door as an extended work area under the door or parking your expensive equipment or airplane under the door way. Your door is the largest piece of moving equipment on your building and can be dangerous. Keep the door way clear.

CAUTION



MOVING DOOR SWINGS OUTWARD

Personal injury and property damage can result from a moving door.



IN DOORWAY

NO PARKING IN DOORWAY

SCHWEISS
HYDRAULIC DOORS

HYDRAULIC DOOR PARKING

DOOR SWINGS OUTWARD WHEN OPENING

The one piece hydraulic door acts as a large moving wall that swings outward when opening, requiring extra parking space as the door travels outward to the open position

CAUTION!

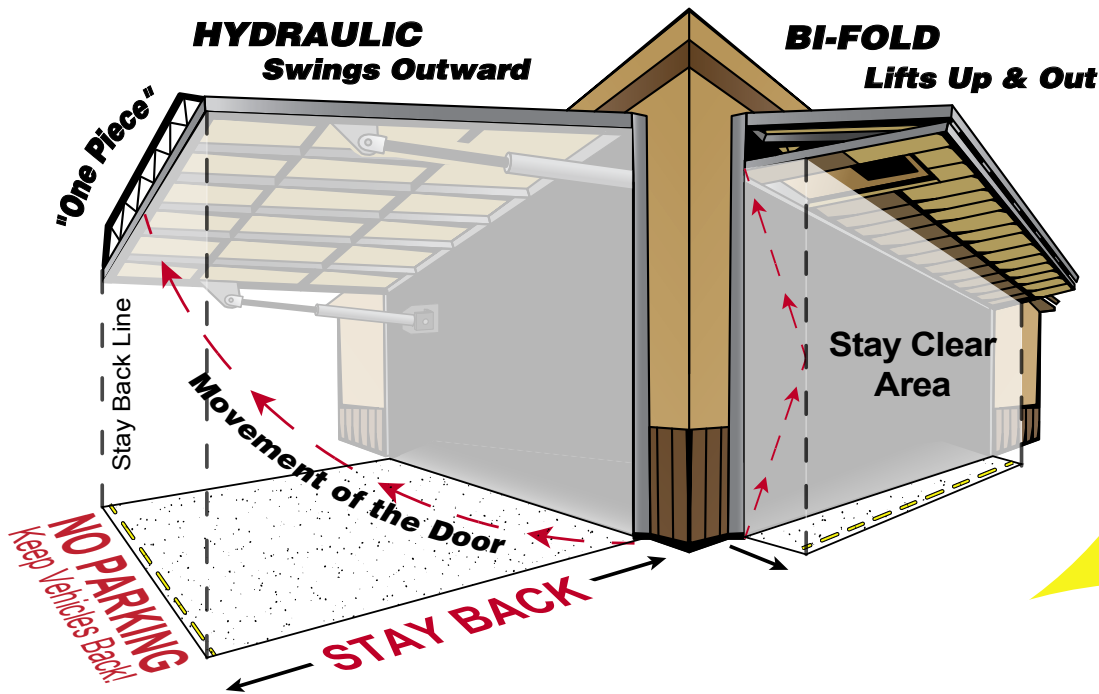
When operating the one piece hydraulic door, you must clearly warn people: Moving door swings outward, no parking in doorway. Personal injury and property damage can result from a moving door.

ADDED CAUTION!

At airports with hangars located on each side of the taxi way keep the door open or closed. (Not half open) to avoid damaging wings as planes taxi by the front of your hangar door.

NO PARKING AREA!

To avoid possible damage to equipment, vehicles and airplanes clearly label the doorway or ramp area: No Parking Area. By clearly marking the "no parking area" there will be less loss of valuable parking area in front of your hangar / fly-in home / shop / warehouse / storage building.



For Safety Reasons

Windows Recommended..

Schweiss recommends that all "One Piece" hydraulic doors have windows in the door frames. Windows will make any obstructions in front of the door visible to the operator before opening the closed door.

BI-FOLD DOOR PARKING

BIFOLD DOORS LIFT UP AND OUT AS THE DOOR OPENS

Bi-fold doors have a huge advantage when opening, they start by raising upward, not outward, requiring less operating space in the front of your building. The area in front of your large door opening is very valuable space, the 2 piece bifold allows more usable space in front of your door opening. Bi-fold doors are simply a real space saver.

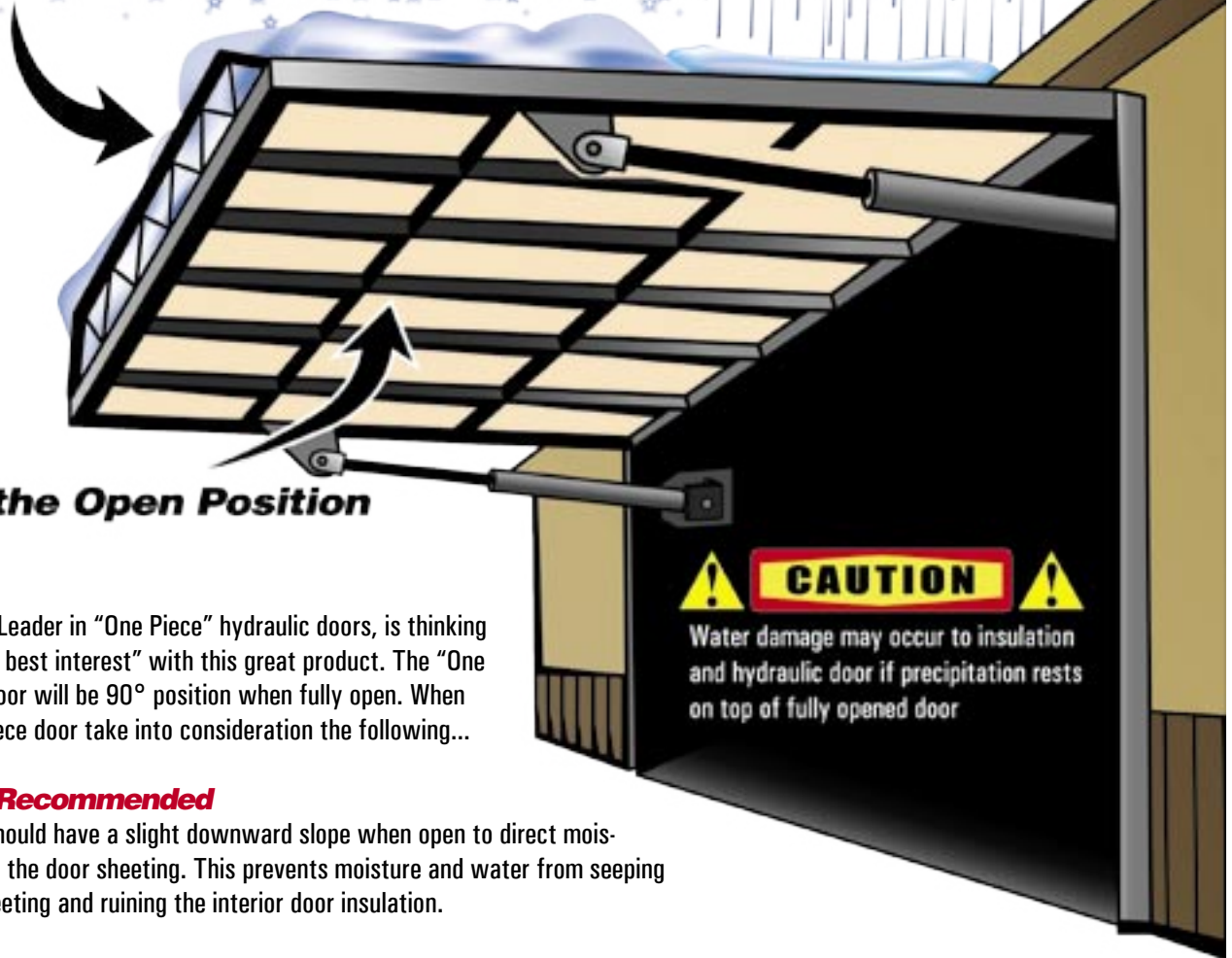
Bi-fold doors have great design features built in... tried and proven for many years.

SLOPE COMPARISON

New

HYDRAULIC

Door lies flat 90° when in the full open position
water and snow build up when in the full open position!



Door In the Open Position

Schweiss, the #1 Leader in "One Piece" hydraulic doors, is thinking "in the customer's best interest" with this great product. The "One Piece" hydraulic door will be 90° position when fully open. When choosing a One Piece door take into consideration the following...

Slight Slope Recommended

One Piece doors should have a slight downward slope when open to direct moisture and water off the door sheeting. This prevents moisture and water from seeping under the door sheeting and ruining the interior door insulation.

What can be done to provide slope to your open door.....

- When you order your door, request a taller door frame that allows you to open your door to the full clearance needed, yet the door frame will allow the door to have a slight slope to provide drainage necessary for the "One Piece" door frame in the open position.

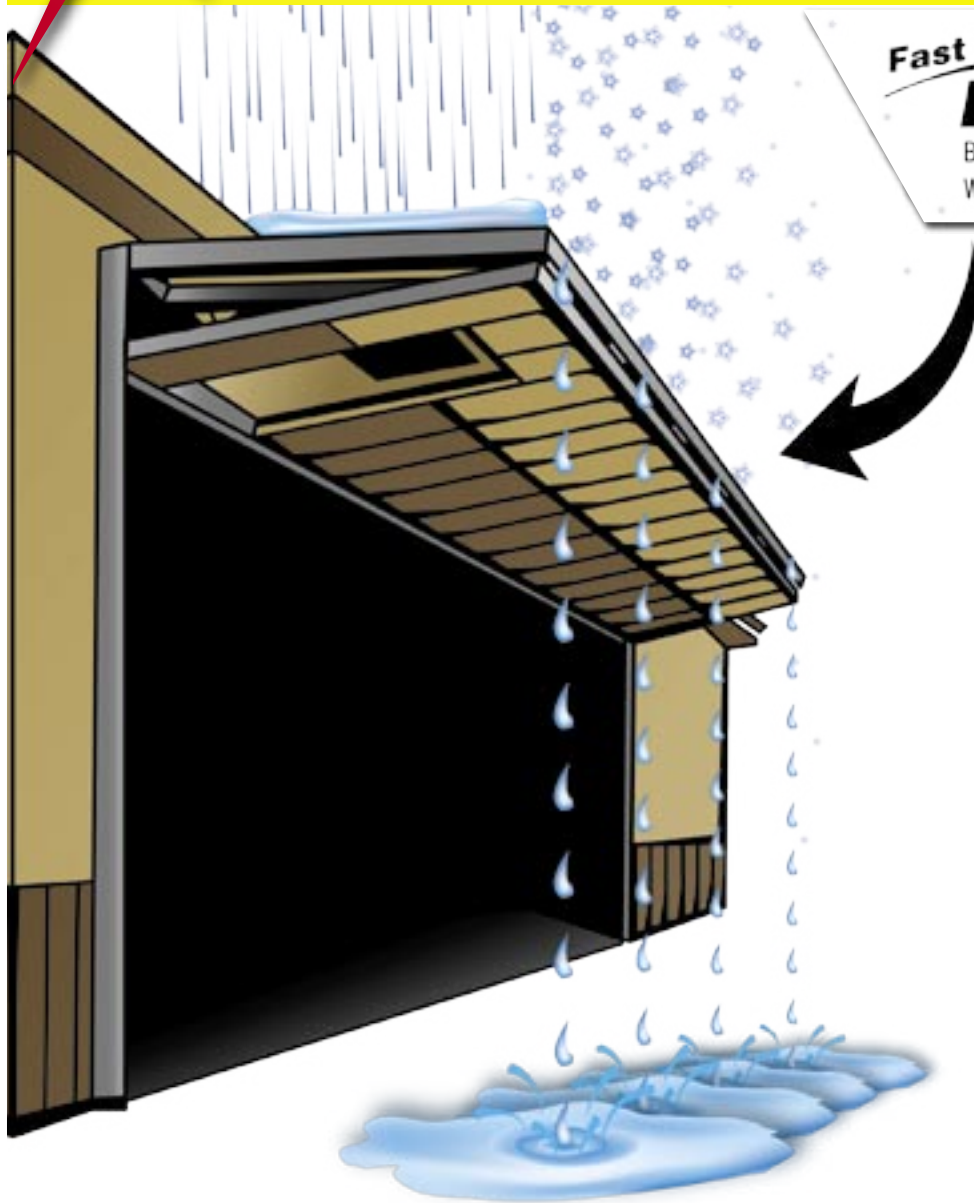
...OR

- Go with the standard one piece hydraulic door application lower the door to provide a slight slope downward, to avoid moisture problems.

Caution:

When you lower the door it's important to be aware of the clear opening position of the door to provide the height clearances needed.

SLOPE COMPARISON



Fast Moving

BI-FOLD

Bi-folds provide a 1:12 natural slope.

Water and snow will run off in the full open position!

Why Bi-Fold?

- The sheeting on every Bi-fold door is flashed in such a way it allows water to drain off the door at any position. Water will not dam up on an open door.
- Natural slope when door is in the open position.
- No external truss to act as a dam – water flows off.
- Water will flow off at any position.

INTERNAL / EXTERNAL TRUSS COMPARISON



1 P I E C E HYDRAULIC



hydraulic external truss
S T A N D A R D



hydraulic internal truss
O P T I O N A L

HYDRAULIC TRUSSES... CHOICE IS YOURS:

Hydraulic doors are manufactured with a truss for support to provide strength / proper wind loading to the door. It also minimizes the door sagging in the open position. The truss will be placed on the exterior of the door or on the interior, the customers choice.

Styles & Facts About the Door Trusses

A – External Truss – Standard

An external truss is located on the outside of the one piece door frame 3 inches off the floor/ground level. The exterior steel truss is painted and is exposed to the weather elements.

External Trusses - Options

- Custom painted external truss – to match your building
- Custom enclose & flash the external truss – give it the neat appearance
- Custom design trusses to match the look of your building structure
- Raised external truss ...keep people / equipment / snow away from bottom truss

B – Internal Truss – Located on the inside of the door frame

- Nice Clean Look
- Allows drainage to a opened door
- Will not collect snow on an opened or closed door.

Important

When you select the internal truss style, it gets placed on the inside of the door frame. When the door is in the open position the internal truss will pretrude into your clear opening. When you go with an internal truss you lose headroom, unless you mount your door higher. Take into consideration you may have to make your building structure taller to gain the headroom needed.

C – NO TRUSS – Frame in its self

The One Piece door frame in itself will have properly sized members to provide the necessary support for additional strenght. On smaller size doors the No Truss look gains valuable headroom and gives you the clean look both outside and inside of the door frame.

INTERNAL / EXTERNAL TRUSS COMPARISON



INTERNAL TRUSS IS
STANDARD
ON A BI-FOLD DOOR

BI-FOLD TRUSSES... CHOICE IS YOURS:

Bifold doors are manufactured with a truss for support to provide strength / proper wind loading to the door. Bifold doors come standard with the internal truss for the "Clean Neat Appearance".

Facts About the Door Trusses

Internal Truss - (Standard on Bifold Doors)

- Nice Clean Look
- Located on the inside of the door frame.
- Protected – out of the weather elements.
- The special designed internal truss – Does not lose any headroom
- Internal truss allows you to match your door covering to the building structure's covering. It will appear as one continuous wall – with the look of your choice!

External Truss / Bifold Doors

- When extra strength is needed Schweiss offers a external truss
- Located at the center of the door

Benefits & Why – Truss is Located Near Center of Door (Up Higher)

- Up and out of the way of people walking by or in the area
- Snow plow will not run into it.
- Will not collect debris / snow
- Provides extra strength to the door frame
- Allows for proper drainage to the door in the open position because all bifold doors are designed with a slope that allows the water to run off the door section.

< FAST MOVING > BI-FOLD

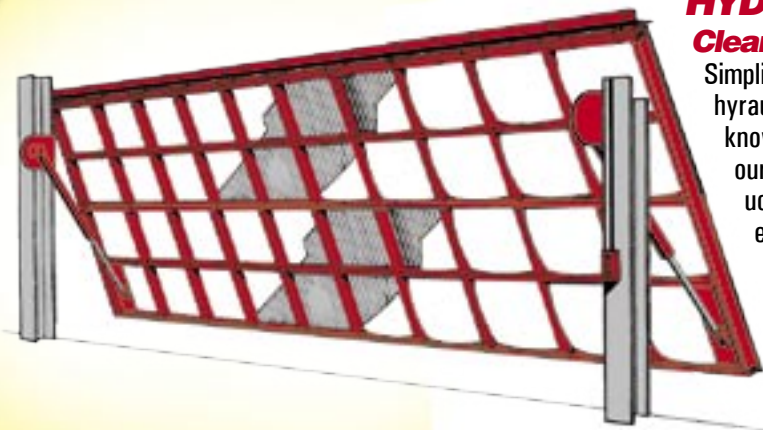


bi-fold internal truss
STANDARD



bi-fold external truss
OPTIONAL

DOOR COMPONENTS / COMPARISONS



HYDRAULIC DOORS

Clean Design / Clean Look

Simplicity, quality and strength are standard on every "One Piece" hydraulic door Schweiss manufactures. Schweiss today is the acknowledged No. 1 builder of One Piece hydraulic doors. Listening to our customers, and building quality and convenience into our products is what we do best. We have a talented team with 27 years experience that welcomes new challenges. We have the product to show for it."

Less Headroom

Do you need a one piece, sturdy, quick opening door? A hydraulic door is ideal in situations where maximum clear opening must be maintained. The hydraulic door swings up and away from the building so there is no loss of headroom.

There is also no headroom lost inside the building. With the push of a button, your door will quietly, quickly, and safely open, giving you access to the full available space your building has to offer. A builder can easily work this new Schweiss "One Piece Hydraulic door into a structure where headroom is an issue.

Options

Schweiss Hydraulic Doors offer options such as: walk-thru door, remote control; insulated, windows, choice of colors, outer skin to match other buildings, etc.

Special Features

A special feature of the custom-built "One Piece" Hydraulic Door is the self-supporting header frame, which gives the buyer/ builder tremendous flexibility. In essence, it lets the customer fit a Schweiss Hydraulic Door to an existing building without revamping the supporting structure of the building. That saves time and money.

External Truss

Schweiss hydraulic doors are pre-built with a special bottom truss that provides added strength and rigidity, very important in high-wind conditions. The doors are extremely weather-tight.

One Piece Door Frame

Provides an extended canopy in the open position. Door swings outwards when opening requiring more operating space for the door to travel.

Lift Points -(2) hydraulic cylinders

The one piece door frame is opened with 2 heavy duty hydraulic cylinders, one on each end of the door. The entire weight of the door frame is transferred back to cylinder legs that pre-mount to the building column. A fully opened hydraulic door extends straight out from the building (Looks like a large airplane wing) creating forces back to your building structure in the open position. Putting stress on the side columns and header, means the entire building structure must be designed to carry these loads.

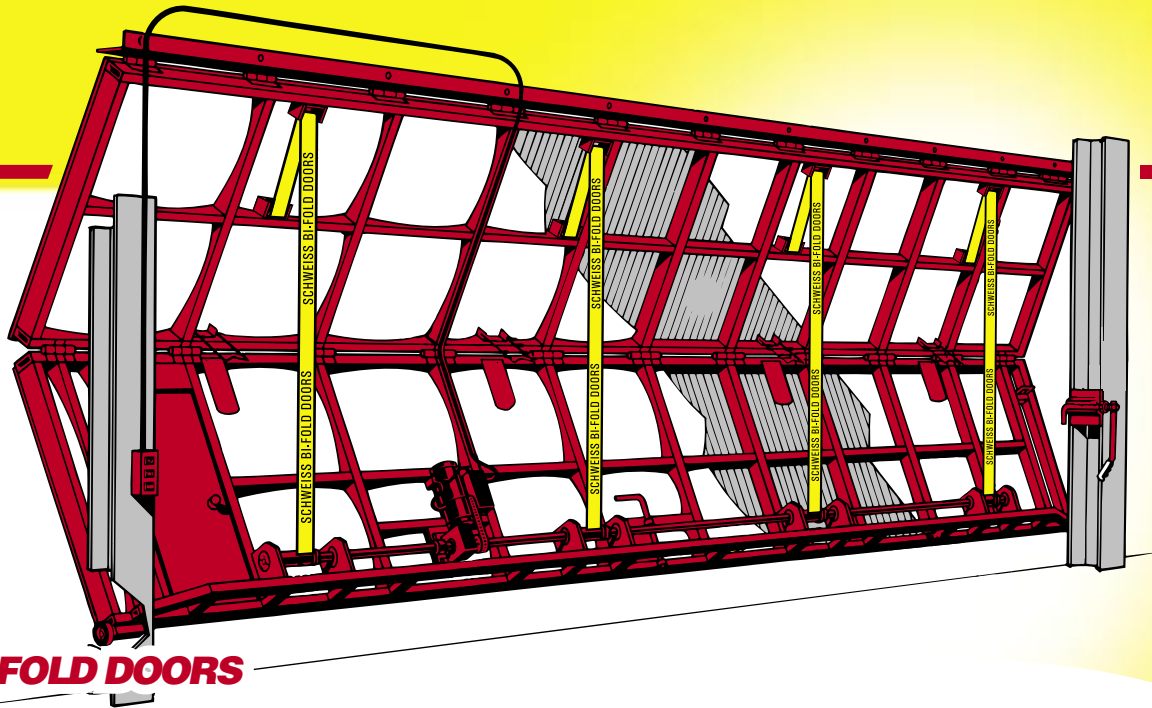
Powerful Hydraulic Power Unit

Schweiss power units deliver a powerful, secure and simple solution to raise and lower the one piece doors. Each door consists of only three major components: the door (prehung with framework), 2 hydraulic rams and hydraulic pump.

1 Set of Door Hinges

Hydraulic doors are designed with 1 set of heavy duty hinges that carries the entire weight of the door.

**"Good products are important. Good customers are even more important."
— Let us help you on your door needs !**



BI-FOLD DOORS

With a Bi-Fold Door – YOU GET MORE....

The bifold doors have been around for many years and the unique design has made Schweiss Bi-Fold Doors the leader in the market. Schweiss Bi-fold Doors have design features built into the door that make the bifold door stand out in a class of its own. Below we list some of the designs that make the bifold a good choice.

New “Lift Straps” - Opens Door Evenly, Safely & Provide Longevity.

The bi-fold door frames are raised open with our patented heavy duty lift straps that are evenly located through out the entire door frame to provide an even lifting of the door frame. Bi-Fold doors are lifted upward with nylon lift straps rated at 29,000 lbs tensile strength. The nylon straps attach to the bottom of the door frame at multiple locations that provide an even lifting of the door frame. These straps never bind / make noise like a cable lift door.

No Pulleys Needed With Lift Straps

Lift straps wrap in a spool to raise and lower which increases the operating speed and make a very quiet-operating door. Lift strap doors DO Not require pulleys – very nice design. Less parts, less problems, less maintenance.

2 Piece Bi-Fold Door Frame

Bifold doors have 2 sections , a top half and a bottom half that provide many design advantages.

Why a 2 piece door:

- A two section door hangs out 1/2 the distance of other doors - putting less stresses on your building.

Door Wedge - means less stress on your building sturcture

- When a bifold opens the door frame folds into a “V” or a wedge acting as a huge truss supporting each of the 2 piece bifold door sections.
- The larger the wedge the less stress it exerts onto the building structure

Hinges

- Bi-fold doors are designed with 2 sets of hinges to share the loads of the the door frame.
- Schweiss believes in strength and safety.

Multiple Lift Points

- Our door in the open position has multiple lift points that evenly support the door.
- The multiple lift points are spaced evenly across the entire width of the door frame that attaches to the building structure, carrying the door loads more evenly to the attaching points on the building making less stress on the building

Weather Elements

- Bi-fold doors when in the full open position have a slight slope to provide drainage to your door.... The unique design is standard on all Schweiss Bi-fold doors... and is the only door on the market that allows any moisture, water or snow to flow off the door section in the open position.
- When a door is mounted on a side wall of the building, all the roof moisture that comes off the building onto your open door, must be able to flow off the door covering. This is all possible with a bifold door because of the natural slope built into the bifold door wedge.

YOU GET MORE....With a Bi-Fold Door

STRESSES ON YOUR BUILDING



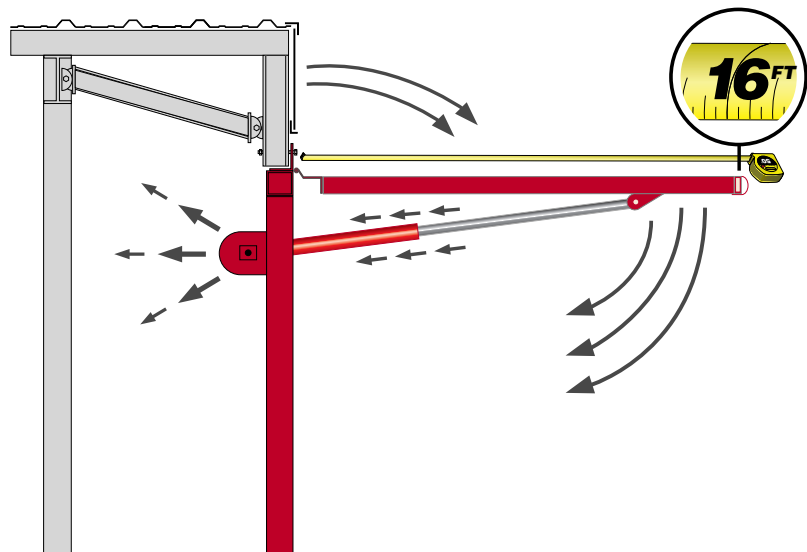
IMPORTANT:

Door reactions while opening and when in the open position.

When your hydraulic door is opening or is in the wide open position, the door tends to pull away from the building at the hinge line and also puts stress on each building column where the cylinders attach.

The building manufacturer / contractor / owner is responsible to ensure that the building's structural design is capable of handling all the imposed loads that the door exerts to your door header, endwall, and building.

Your building header / column design must meet standard deflection and strength criteria, both in vertical and horizontal directions to support the Hydraulic door in all positions. Schweiss provides easy-to-read necessary Specs Sheets (A-1 through A-6) with each door, showing all the forces and building header requirements.



WARNING:

Improperly designed door header can result in property damage, personal injury or death.

One Piece Hydraulic Door

One piece doors cantilever out from your building, exerting additional forces on building header when in the open position. A "One Piece door" hangs out twice as far from the building as a bi-fold.

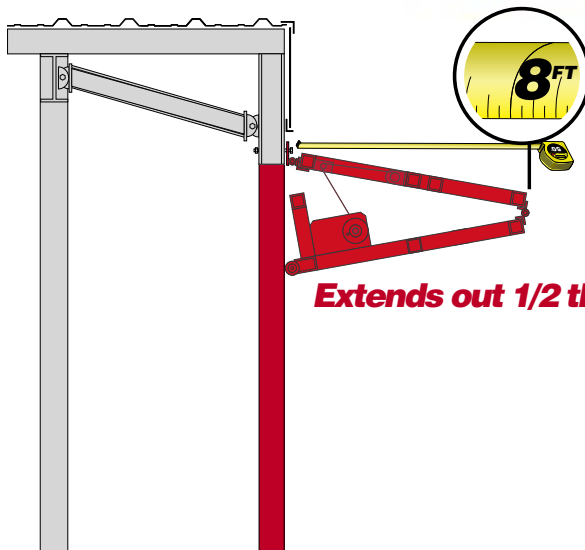
Results:

It's like a large airplane wing, the longer or further a door frame sticks out away from the building at a 90° position, the more torque / stresses it adds to the building header. The building header must be prepared to support the forces of your door in all positions.

BI-FOLD

STRESSES ON YOUR BUILDING

HYDRAULIC
Hangs out further



Extends out 1/2 the Distance

Bi-Fold Door

Bi-fold doors folds in half when in the open position, creating minimum forces to your building's endwall.

- Less stress on the building = Less stress on the door header.
- Less stress on the door frame = Less stress on the hinges.

We at Schweiss are very Safety Conscious. Read on below...

Cautions and Myths That Can't be ignored. (Frequently stated by Brand X Companies.)

- Building does not have to be made stronger.
- Building does not have to be modified to hold a door.
- Building does not have to be engineered with extra reinforcing to accept a door.
- Door is self contained and customer does not need to do anything to the building.
- Door does not hang on your building.

Then Where Does It Hang?

The door is a large moving piece of equipment ATTACHED TO YOUR BUILDING and exerts large amounts of outward and inward forces.

WARNING: Improperly designed door headers can result in property damage, personal injury or death.

IMPORTANT FACTS

When your door is in the full open position, the door tends to pull away from the building at the hinge line, exerting considerable horizontal loads on the building structure in the open position.

Is It Safe To Leave The Door Open In Windy Conditions?

Here are some facts to consider... All doors attach to the building, and exerts forces onto your building. Now add windy conditions to a door in the full open position. It will act like an airplane wing or a parachute and will triple the heavy forces back to your building. No matter what size door you have, all the weight is transferred back to your building. Schweiss has a recommended safe operating perimeters.

Our doors will hold up, but will your building?

"Stay Clear Area"

- Doors move outward and up when opening
- The doors need extra room to travel when opening.
- You must clearly warn people
- Caution! "No Parking on the Ramp or Driveway!"

CAUTION: Moving door swings outward. Personal injury and property damage can result from a moving door.

WARNING: Schweiss does not recommend using your open door as an extended work area under the door, or parking your expensive equipment or airplane under the door way. Your door is the largest piece of moving equipment on your building and can be dangerous. Keep the door way clear.

Each style of door has different requirements — Please contact Schweiss.

Choices

The "One Piece" hydraulic door design is another alternative to the bi-fold folding door. **Schweiss, the #1 leader of the door industry**, offers customers choices when it comes selecting doors for their buildings. Please read the following literature and let it be a helpful guide to selecting the door of your choice to accommodate your building with the intention of getting the most for your dollar with the best design money can buy.

Look for quality, look for price, you'll buy Schweiss.

Call 800-746-8273

International calls: +1-507-426-8273

Visit us at

bifold.com

Schweiss Doors reserves the right to change specifications without any requirement to change or modify past or existing doors. Copyrighted © 2008 Schweiss Doors. All rights reserved. No part of this publication may be reproduced in any way without permission.