

Solicitation Response(SR) Dept: 0310 ID: ESR0209210000005342 Ver.: 1 Function: New Phase: Final

Modified by batch , 02/09/2021

Header  1

General Information   Contact   Default Values   Discount   Document Information   Clarification Request

<b>Procurement Folder:</b> 817240	<b>SO Doc Code:</b> ARFQ
<b>Procurement Type:</b> Agency Purchase Order	<b>SO Dept:</b> 0310
<b>Vendor ID:</b> VC0000007724	<b>SO Doc ID:</b> DNR2100000039
<b>Legal Name:</b> AGSTEN CONSTRUCTION COMPANY INC	<b>Published Date:</b> 2/1/21
<b>Alias/DBA:</b>	<b>Close Date:</b> 2/9/21
<b>Total Bid:</b> \$180,000.00	<b>Close Time:</b> 13:30
<b>Response Date:</b> 02/09/2021	<b>Status:</b> Closed
<b>Response Time:</b> 11:41	<b>Solicitation Description:</b> Addendum No.02-Cass SP - Bald Knob Fire Tower Renovations
<b>Responded By User ID:</b> lheidr	<b>Total of Header Attachments:</b> 1
<b>First Name:</b> Casey	<b>Total of All Attachments:</b> 1
<b>Last Name:</b> Miller	
<b>Email:</b> cmiller@agstenconstructi	
<b>Phone:</b> 304-343-5400	

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, Agsten Construction Company, Inc.  
of Hurricane, WV, as Principal, and Ohio Farmers Insurance Company  
of Westfield Center, OH, a corporation organized and existing under the laws of the State of  
OH with its principal office in the City of Westfield Center, as Surety, are held and firmly bound unto the State  
of West Virginia, as Obligee, in the penal sum of Five Percent of Amount Bid (\$ 5%) for the payment of which,  
well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the  
Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for  
Cass SP - Bald Knob Fire Tower Renovations

**NOW THEREFORE,**

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal  
attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform  
the agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in  
full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no  
event, exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no  
way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby  
waive notice of any such extension.

WITNESS, the following signatures and seals of Principal and Surety, executed and sealed by a proper officer of Principal and  
Surety, or by Principal individually if Principal is an individual, this 26th day of January, 2021.

Principal Seal

Agsten Construction Company, Inc.  
(Name of Principal)  
By:   
(Must be President, Vice President, or  
Duly Authorized Agent)  
PRESIDENT  
(Title)

Surety Seal

Ohio Farmers Insurance Company  
(Name of Surety)  
By:   
Kimberly L. Miles, Licensed WV Resident Agent Attorney-in-Fact

**IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance, must affix its seal, and  
must attach a power of attorney with its seal affixed.**



THIS POWER OF ATTORNEY SUPERCEDES ANY PREVIOUS POWER BEARING THIS SAME POWER # AND ISSUED PRIOR TO 09/15/17, FOR ANY PERSON OR PERSONS NAMED BELOW.

POWER NO. 4750172 01

General  
Power  
of Attorney

Westfield Insurance Co.  
Westfield National Insurance Co.  
Ohio Farmers Insurance Co.  
Westfield Center, Ohio

CERTIFIED COPY

Know All Men by These Presents, That WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, corporations, hereinafter referred to individually as a "Company" and collectively as "Companies," duly organized and existing under the laws of the State of Ohio, and having its principal office in Westfield Center, Medina County, Ohio, do by these presents make, constitute and appoint  
ANDREW K. TEETER, KIMBERLY L. MILES, DOUGLAS P. TAYLOR, GARY R. FREEMAN, KIMBERLY S. BURDETTE, JAIME L. CARPENTER, TAMMY SELBE, JOINTLY OR SEVERALLY

of CHARLESTON and State of WV its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver any and all bonds, recognizances, undertakings, or other instruments or contracts of suretyship-

**LIMITATION:** THIS POWER OF ATTORNEY CANNOT BE USED TO EXECUTE NOTE GUARANTEE, MORTGAGE DEFICIENCY, MORTGAGE GUARANTEE, OR BANK DEPOSITORY BONDS.

and to bind any of the Companies thereby as fully and to the same extent as if such bonds were signed by the President, sealed with the corporate seal of the applicable Company and duly attested by its Secretary, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. Said appointment is made under and by authority of the following resolution adopted by the Board of Directors of each of the WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY:

"Be It Resolved, that the President, any Senior Executive, any Secretary or any Fidelity & Surety Operations Executive or other Executive shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

The Attorney-in-Fact, may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements of indemnity and other conditional or obligatory undertakings and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed by the President and sealed and attested by the Corporate Secretary."

"Be it Further Resolved, that the signature of any such designated person and the seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached." (Each adopted at a meeting held on February 8, 2000).

In Witness Whereof, WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY have caused these presents to be signed by their National Surety Leader and Senior Executive and their corporate seals to be hereto affixed this 15th day of SEPTEMBER A.D., 2017 .

Corporate  
Seals  
Affixed



WESTFIELD INSURANCE COMPANY  
WESTFIELD NATIONAL INSURANCE COMPANY  
OHIO FARMERS INSURANCE COMPANY

By: *Dennis P. Baus*

Dennis P. Baus, National Surety Leader and Senior Executive

State of Ohio  
County of Medina ss.:

On this 15th day of SEPTEMBER A.D., 2017 , before me personally came Dennis P. Baus to me known, who, being by me duly sworn, did depose and say, that he resides in Wooster, Ohio; that he is National Surety Leader and Senior Executive of WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, the companies described in and which executed the above instrument; that he knows the seals of said Companies; that the seals affixed to said instrument are such corporate seals; that they were so affixed by order of the Boards of Directors of said Companies; and that he signed his name thereto by like order.

Notarial  
Seal  
Affixed



*David A. Kotnik*

David A. Kotnik, Attorney at Law, Notary Public  
My Commission Does Not Expire (Sec. 147.03 Ohio Revised Code)

State of Ohio  
County of Medina ss.:

I, Frank A. Carrino, Secretary of WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; and furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Westfield Center, Ohio, this 26th day of

January

2021



*Frank A. Carrino* Secretary  
Frank A. Carrino, Secretary



# CONTRACTOR LICENSE

Authorized by the  
West Virginia Contractor Licensing Board

Number: WV031022

Classification:  
GENERAL BUILDING

AGSTEN CONSTRUCTION COMPANY INC  
DBA AGSTEN CONSTRUCTION COMPANY INC  
1700 STATE ROUTE 34  
HURRICANE, WV 25526-7089

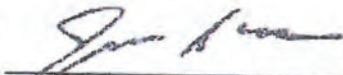
Date Issued

MAY 18, 2020

Expiration Date

MAY 18, 2021

  
Authorized Company Signature

  
Chair, West Virginia Contractor  
Licensing Board



WEST VIRGINIA  
CONTRACTOR  
LICENSING  
BOARD

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.



STATE OF WEST VIRGINIA  
Purchasing Division

# PURCHASING AFFIDAVIT

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

**ALL CONTRACTS:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code §61-5-3*) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Agsten Construction Company Inc.

Authorized Signature:  Date: 1.25.2021

State of West Virginia

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 25 day of January, 2021.

My Commission expires June 26, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC 





State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5

STATE OF WEST VIRGINIA,

COUNTY OF Putnam, TO-WIT:

I, Sam Hull, after being first duly sworn, depose and state as follows:

- 1. I am an employee of Agsten Construction Company, Inc.; and,
2. I do hereby attest that Agsten Construction Company, Inc.

maintains a written plan for a drug-free workplace policy and that such plan and policy are in compliance with West Virginia Code §21-1D.

The above statements are sworn to under the penalty of perjury.

Printed Name: Sam Hull
Signature: [Handwritten Signature]
Title: President
Company Name: Agsten Construction Company, Inc.
Date: 1.25.2021

Taken, subscribed and sworn to before me this 25 day of January, 2021.

By Commission expires June 26, 2022

(Seal)

[Handwritten Signature]
(Notary Public)



ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: ARFQ DNR21\*39

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

*(Check the box next to each addendum received)*

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Agsten Construction Company INC  
Company

  
Authorized Signature

2.9.21  
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.



**REQUEST FOR QUOTATION**  
**West Virginia Division of Natural Resources – State Parks and Recreation**  
**Cass Scenic Railroad State Park – Bald Knob Fire Tower Renovation**

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**Pricing Page**  
**Exhibit A**

Name of Vendor:

Agsten Construction Company INC

Address of Vendor:

1700 State Route 34 Hurricane, WV 25526

Phone Number of Vendor:

304.343.5400

We, the undersigned, having examined the site and being familiar with the local conditions affecting the cost of the work and also being familiar with the general conditions to vendors, drawings, and specifications, hereby proposes to furnish all materials, equipment, and labor to complete all work in a workmanlike manner, as described in the Bidding documents.

**Base Bid**

The Base Bid shall consist of construction of the facility and related work described in the drawings and specifications. **Total Base Bid** shall be indicated in the space below.

**Total Base Bid:** Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, written in figures.

\$180,000.00

**Total Base Bid:** Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, written in words.

One hundred eighty thousand dollars and zero cents.

*\*The contract award shall be based on the lowest base bid or the lowest combination of the base bid and alternate bid items, as selected by the owner. \**



**REQUEST FOR QUOTATION**  
**West Virginia Division of Natural Resources – State Parks and Recreation**  
**Cass Scenic Railroad State Park – Bald Knob Fire Tower Renovation**

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**Pricing Page**  
**Exhibit A**

**Additive Alternate 1:**

The Base Bid shall consist of construction of the facility and related work described in the drawings and specifications. **Additive Alternate 1** shall be indicated in the space below.

**Additive Alternate 1:**

Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, written in figures.

\$65,000.00

**Additive Alternate 1:** Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, written in words.

Sixty five thousand dollars and zero cents

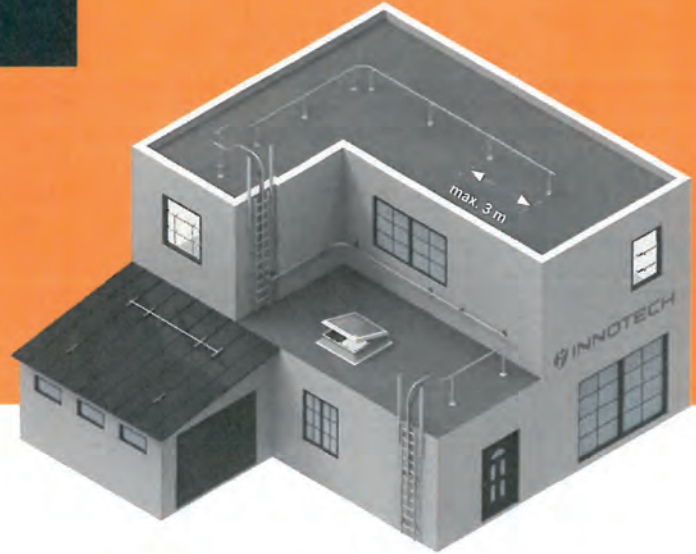
**\*\*\* SEE ATTACHED FOR BELAYING SYSTEM \*\*\***

*\*The contract award shall be based on the lowest base bid or the lowest combination of the base bid and alternate bid items, as selected by the owner. \**

SIMPLE TO INSTALL

# TAURUS

## Rail system



The TAURUS flexible rail system from INNOTECH for all substructures provides people in fall-risk locations with the option of securing themselves optimally to the mobile anchor point or to the guided type fall arrester. Manoeuvrable rail connections and end units can be installed very simply, and optionally available curve and bent elements adapt perfectly

to the actual constructional conditions. Three different sliders ensure unimpeded movement along the entire length of rail: The "Speed Control", an automatic delay unit in the ALLROUND system, recognises fall speeds immediately. Should a fall occur, the "Allround" slider blocks immediately in all directions.

- Flexible rail system for every construction form indoors and outdoors
- Maximum freedom of movement along the entire length of rail
- With corresponding rail slider, also suitable for abseiling tasks
- Wide fastening spacing possible on all substructures
- Top-quality design, available in all colour styles
- Various slider types with ball bearings: horizontal, vertical, and Allround sliders
- The Allround slider blocks in all directions, traverses curves and bends horizontally and vertically.
- SPEED CONTROL  
The Allround slider is fitted with an automatic delay unit which, in the event of a fall, triggers immediately at a defined speed.

- MAINTENANCE-FREE  
The use of enclosed ball bearings means that the rail sliders do not require maintenance.
- Certification to the latest state of the art:

Horizontal system:

EN 795:2012 TYPE D  
CEN/TS 16415:2013

Vertical system:

already certified to the new standard EN 353-1:2014

Allround system:

EN 795:2012 TYPE D  
CEN/TS 16415:2013  
EN 353-1:2014

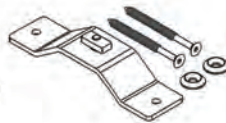




**RAIL FASTENER**

**TAURUS-BEF-41**  
RAIL FASTENER FOR WOOD

Material: stainless steel (AISI 304)  
Substructure: Wood  
(min. 16/16 cm or as per installation instructions)



for attaching TAURUS-RAIL to wood

**VB | RAIL CONNECTOR**

**TAURUS-VB-10**  
RAIL CONNECTOR

Material: aluminium

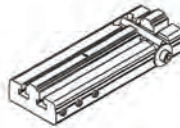
Connector for two TAURUS-RAIL rail elements



**TAURUS-VB-11**  
RAIL CONNECTOR

Material: aluminium

Connector for two TAURUS-RAIL rail elements,  
with expansion compensation



**TAURUS-VB-12**  
RAIL CONNECTION

Material: galvanised steel

for the alignment of two TAURUS-RAIL rail elements  
must be used only in combination with TAURUS BEF-12.



**EA | RAIL END UNITS**

**TAURUS-EA-10**  
RAIL END UNIT, FIXED

Material: stainless steel (AISI 304)

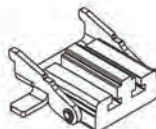
no entry possible (end unit for a rail section)



**TAURUS-EA-11**  
RAIL END UNIT, VARIABLE

Material: Stainless steel (AISI 304), aluminium

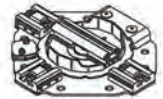
Entry/exit for TAURUS-GLEIT



**DW | TURNTABLE GATE**

**TAURUS-DW-10**  
RAIL TURNTABLE GATE

Material: aluminium, stainless steel (AISI 304)  
Turning hub for an additional rail access  
(T-application, 2 x 90°)



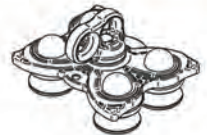
Can be used in combination with the TAURUS-EB-11 as an exit/entry,  
without having to interrupt the track run.

**GLEIT | RAIL SLIDER**

**TAURUS-GLEIT-H-11**  
RAIL SLIDER, HORIZONTAL (EN 795 D)

Material: stainless steel (AISI 304)  
Inclination range: +/- 5°

Suitable for overhead systems



**TAURUS-GLEIT-A-31**  
RAIL SLIDER, ALLROUND (EN 353-1/EN 795)

Material: stainless steel (AISI 304)

Rail slider with shock-absorbing element for vertical use,  
and an additional anchorage eye for horizontal use



**INSTALLATION ACCESSORY**

**TAURUS-BEND-10**  
TAURUS BENDING DEVICE FOR TAURUS-RAIL

Bending angle: 0° - 85°

Flexible installation of the rails directly on site.  
Space saving packaging in a case and easy to transport.





## Vertical rail system

Wide fastening spacing possible on all substructures.

Various slider types with ball bearings:  
Horizontal, vertical and Allround sliders.

With corresponding rail slider, also suitable for abseiling tasks.

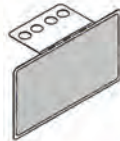
### TYP | RATING PLATE

**TAURUS-TYP-20**  
TAURUS RATING PLATE, VERTICAL (EN 353-1)

Material: Stainless steel (AISI 316), plastic

For the identification of a vertical rail system

Various fastening options



### RAIL | RAIL

**TAURUS-RAIL-10**  
ALUMINIUM RAIL, STRAIGHT RUN

Material: aluminium  
L = 3000 mm/6000 mm

Rail element with straight run

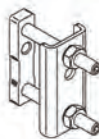


### BEF | RAIL FASTENERS

**TAURUS-BEF-90**  
RAIL FASTENER FOR LADDER

Material: stainless steel (AISI 304)  
Substructure: ladder rung. Rung dimension: max.  $\varnothing$  45 mm

for attaching TAURUS-RAIL to ladders

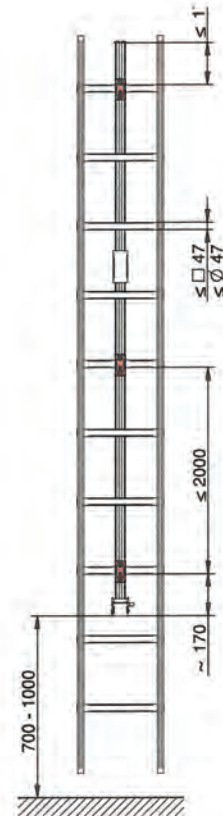
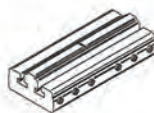


### VB | RAIL CONNECTOR

**TAURUS-VB-10**  
RAIL CONNECTOR

Material: aluminium

Connector for two TAURUS-RAIL rail elements

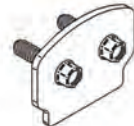


### EA | RAIL END UNITS

**TAURUS-EA-10**  
RAIL END UNIT, FIXED

Material: stainless steel (AISI 304)

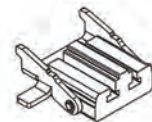
No entry possible  
(end unit for a rail section)



**TAURUS-EA-11**  
RAIL END UNIT, VARIABLE

Material: Stainless steel (AISI 304), aluminium

Entry/exit for TAURUS-GLEIT



**TAURUS-EA-21**  
RAIL ENTRY PLATE, FIXED

Material: stainless steel (AISI 304),

Entry plate for TAURUS-GLEIT-V-21



### STEP | ASCENT LADDER

**TAURUS-STEP**  
RAIL SYSTEM WITH INTEGRATED ASCENT AID

Material: aluminium.  
Substructure: Concrete, steel, etc.

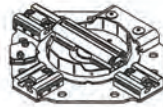
The TAURUS-STEP system is connected to the facade/substructure (steel, concrete, etc.) using a fastening bracket, and serves as an ascent aid.



## DW | TURNING HUB

### TAURUS-DW-10 RAIL CONNECTOR

Material: aluminium, stainless steel (AISI 304)  
Turning hub for an additional rail access  
(T-application, 2 x 90°).



Can be used in combination with the TAURUS-EB-11  
as an exit/entry, without having to interrupt the track run.

## GLEIT | RAIL SLIDER

### TAURUS-GLEIT-V-21 RAIL SLIDER, VERTICAL (EN 353-1)

Material: stainless steel (AISI 304)  
Inclination range: +/- 3°



Rail slider for vertical use including shock-absorbing  
element

### TAURUS-GLEIT-A-31 RAIL SLIDER, ALLROUND (EN 353-1/EN 795 D)

Material: stainless steel (AISI 304)

Rail slider with shock-absorbing element for vertical use,  
and an additional anchorage eye for horizontal use



## INSTALLATION ACCESSORY

### TAURUS-BEND-10 TAURUS BENDING DEVICE FOR TAURUS-RAIL

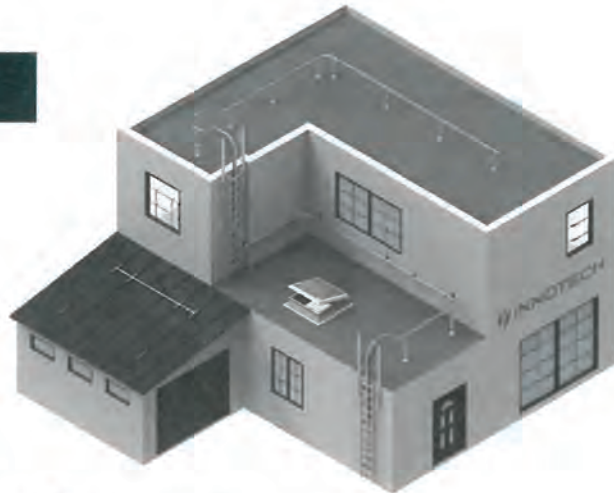
Bending angle: 0° - 85°

Flexible installation of the rails directly on site.  
Space saving packaging in a case and easy to transport.





## Allround rail system



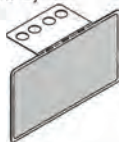
### TYP | RATING PLATE

#### TAURUS-TYP-30

TAURUS RATING PLATE, ALLROUND (EN 353-1/EN 795 D)

Material: Stainless steel (AISI 316), plastic  
Dimensions: 160 x 92 mm

For the identification of an Allround rail system  
(vertical and horizontal)  
Various fastening options

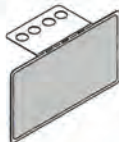


#### TAURUS-TYP-35

TAURUS INFORMATION SIGN (EN 353-1/EN 795 D)

Material: Stainless steel (AISI 316), plastic  
Dimensions: 160 x 92 mm

Information sign for an Allround rail system (vertical and horizontal); it is installed at the changeover from vertical to horizontal



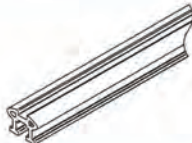
### RAIL | RAIL

#### TAURUS-RAIL-10

ALUMINIUM RAIL, STRAIGHT RUN

Material: aluminium  
L = 3000 mm/6000 mm

Rail element with straight run



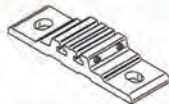
### BEF | RAIL FASTENERS

#### TAURUS-BEF-10

RAIL FASTENER FOR CONCRETE

Material: aluminium  
Substructure: Concrete, facade, steel construction

for fastening TAURUS-RAIL to concrete, facade, and steel construction

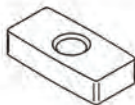


#### TAURUS-BEF-12

RAIL FASTENER, STEEL CONSTRUCTION, SLIDING NUT M10

Material: stainless steel (AISI 304)  
Substructure: steel construction

for fastening TAURUS-RAIL to steel construction

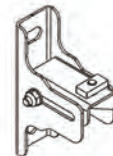


### RAIL FASTENER

#### TAURUS-BEF-20

RAIL FASTENER FOR FACADE

Substructure: Concrete, facade  
Hole spacing: 120 mm  
Fastening for concrete: by means of 2x adhesive anchors  
Fastening depth for concrete: min. 100 mm  
Material: stainless steel (AISI 304)

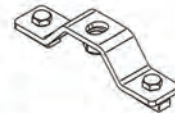


for fastening TAURUS-RAIL to concrete and facade

#### TAURUS-BEF-21

RAIL FASTENER

Material: stainless steel (AISI 304)  
Substructure: Concrete, steel construction  
Fastening depth for concrete: min. 125 mm



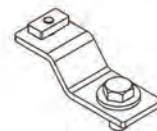
for fastening TAURUS-RAIL to concrete and steel construction

#### TAURUS-BEF-30

RAIL FASTENER, FASTENING ANGLE

Substructure: AIO-STA post  
Material: stainless steel (AISI 304)

for attaching TAURUS-RAIL to an AIO-STA post



#### TAURUS-BEF-41

RAIL FASTENER FOR WOOD

Material: stainless steel (AISI 304)  
Substructure: Wood  
(min. 16/16 cm or as per installation instructions)

for attaching TAURUS-RAIL to wood

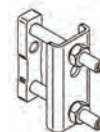


#### TAURUS-BEF-90

RAIL FASTENER FOR LADDER

Material: stainless steel (AISI 304)  
Substructure: ladder rung. Rung dimension: max. Ø 45 mm

for attaching TAURUS-RAIL to ladders



**VB | RAIL CONNECTOR**

**TAURUS-VB-10**  
RAIL CONNECTOR

Material: aluminium

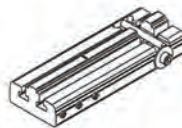
Connector for two TAURUS-RAIL rail elements



**TAURUS-VB-11**  
RAIL CONNECTOR

Material: aluminium

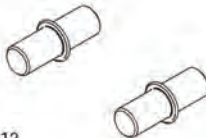
Connector for two TAURUS-RAIL rail elements, with expansion compensation



**TAURUS-VB-12**  
RAIL CONNECTION

Material: galvanised steel

for the alignment of two TAURUS-RAIL rail elements must be used only in combination with TAURUS BEF-12.



**EA | RAIL END UNITS**

**TAURUS-EA-10**  
RAIL END UNIT, FIXED

Material: stainless steel (AISI 304)

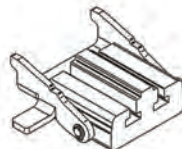
no entry possible (end unit for a rail section)



**TAURUS-EA-11**  
RAIL END UNIT, VARIABLE

Material: Stainless steel (AISI 304), aluminium

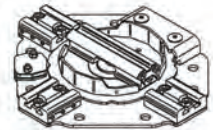
Entry/exit for TAURUS-GLEIT



**DW | TURNING HUB**

**TAURUS-DW-10**  
RAIL CONNECTOR

Material: aluminium, stainless steel (AISI 304)  
Turning hub for an additional rail access (T-application, 2 x 90°).



Can be used in combination with the TAURUS-EB-11 as an exit/entry, without having to interrupt the track run.

**GLEIT | RAIL SLIDER**

**TAURUS-GLEIT-A-31**  
RAIL SLIDER, ALLROUND (EN 353-1/EN 795 D)

Material: stainless steel (AISI 304)

Rail slider with shock-absorbing element for vertical use, and an additional anchorage eye for horizontal use



**INSTALLATION ACCESSORY**

**TAURUS-BEND-10**  
TAURUS BENDING DEVICE FOR TAURUS-RAIL

Bending angle: 0° - 85°

Flexible installation of the rails directly on site. Space saving packaging in a case and easy to transport.



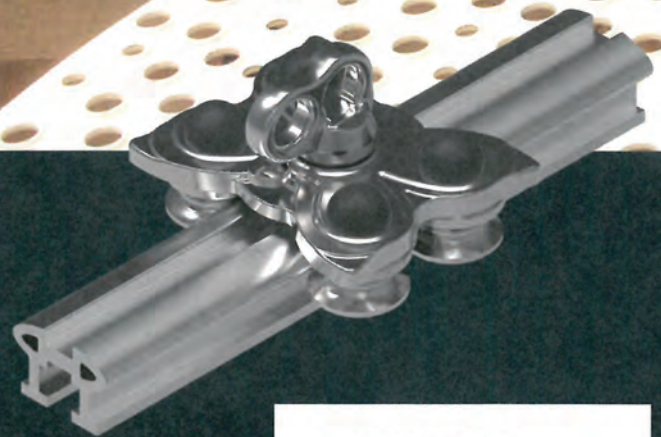


PERFECT INTEGRATION  
THROUGH INDIVIDUAL COLOUR SELEC-

# TAURUS

Rail system

- For indoors & outdoors.
- Can be used on all substructures.
- Individual colour selection means perfect integration with the architecture.
- Various curves and torsions possible.
- Maximum freedom of movement along the entire length of rail.



MORE SAFETY.  
MORE INFORMATION.  
MORE FROM LIFE!

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## TAURUS rail system



ELBPHILHARMONIE  
Hamburg, Germany

490 METRE RUN OF TAURUS RAIL,  
PLUS AROUND 400 FASTENERS

– an individualised high-tech fall protection system as a special solution from INNOTECH.

The TAURUS rail system guarantees the safety of all people who have to climb to perform cleaning and maintenance work on the roof of the Elbphilharmonie building.

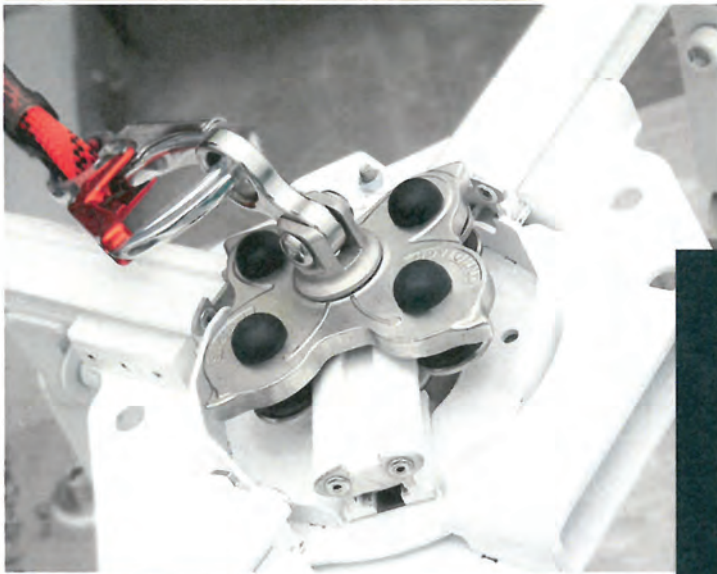
The complex waveform of the architect's freely drawn lines required the development of a special system, in order to fulfil the most demanding safety requirements. Specially curved rails were therefore planned, and these cling to the multi-curved roof form like a second skin. A special rail connector was also developed; this accommodates the greater heat expansion of the aluminium, and protects the extensive system against possible damage from solar radiation.





## TAURUS rail system

INDIVIDUAL RANGE OF COLOURS  
AND MAXIMUM FREEDOM OF MOVEMENT



A specially developed slider "floats" along the system and ensures completely unhindered movement, even on inclined surfaces of this type

The people working on the roof do not have to inconveniently attach or detach themselves from the system, and they are able to move completely freely along the entire edge of the roof.

