VP BUILDING SOLUTIONS

Discover the Possibilities





Building Solutions. Together.™



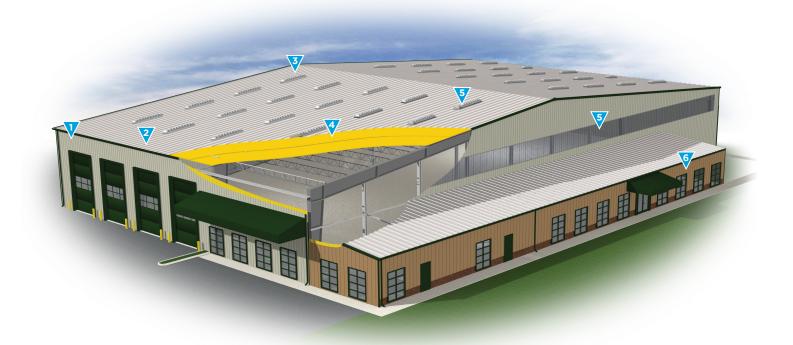
OUR COMMITMENT

Varco Pruden specializes in providing architects, engineers and building owners with cost-effective solutions to meet their project requirements for both design and function.

With six strategically located service centers and seven manufacturing plants, VP is a market leader in the building systems industry throughout the United States and Canada.

Using advanced design and engineering tools such as VP Command®, our proprietary design and estimating software, building decision makers can rely on VP and the VP Builders to provide a complete building solution - on time and within budget.

INNOVATIVE SUSTAINABLE SYSTEMS



- 1 Varco Pruden uses recycled materials and all structural elements can be recycled in the future
- 2 VP uses advanced engineering and design strategies to optimize material usage to minimize waste in construction
- 3 VP's roof panels are available in Cool Roof colors for both low slope and high slope applications
- **4** Optimize energy efficiency with VP's innovative insulation systems. ThermaLift[™] for SSR[™] allows for more insulation installed above the structural secondary. ThermoDeck™ can be used with a variety of roof solutions.
- 5 Using our daylighting solutions, such as Tuf-lites or Wallites, you can enhance your building's energy efficiency and improve interior lighting
- 6 Roof slopes, gutters and downspouts promote water efficiency by directing water run-off

ENGINEERED TO SUPPORT YOUR VISION

Varco Pruden offers designers unlimited options using conventional steel members including beams, bar joist, tubes and pipes. Building applications include multi-story buildings, heavyloaded industrial facilities or special shapes for architectural features.

VP's structural design team uses the latest modeling software along with VP Command® to design and engineer facilities that meet the highest industry standards for safety and performance. VP's design team, working with experienced contractors and architects, will deliver buildings that are affordable, efficient and erectable.

Save time and money with a single-source strategy. Starting with the end in mind, VP's complete service includes efficient engineering designs, accurate estimates, quality materials - all backed by industry leading warranties.



Owners can move into their new facility knowing they have a building that will meet their needs now and for years to come.

A BUILDER TO MEET YOUR CONSTRUCTION NEEDS

Varco Pruden products are available through our network of authorized VP Builders. Varco Pruden has a network of authorized builders throughout the US and Canada.

The Varco Pruden Builder in your area can work with you to provide a variety of resources to ensure that your building will meet your project needs, as well as your schedule and budget. VP Builder services include assistance with site planning and structural design.

Owners can also rely on their VP Builder for material options and recommendations along with accurate and complete project estimates. Whether you are planning a completely new building or upgrading and expanding an existing facility, your VP Builder is ready to help.

For more information about Varco Pruden and our network of independent authorized builders, visit us online at varcopruden.com.



FRAMING SOLUTIONS

VP frames are custom-designed for your project. All frames can be specified to support load and code requirements as well as for use with non-load-bearing conventional walls.

Rigid Frame

FEATURES

space

80' or taller

options

Economical, column free space

• Spans from 30' to 300' or

• Straight, tapered, reverse

Variable ridge and sidewall

column locations

more with eaves from 8' to

taper or supermarket column

Continuous Beam

Greatest space at lowest cost

FEATURES

- Roof slope as low as 1/4" in 12" • Allows total flexibility in locating interior columns • Open, unobstructed interior
 - Enables any eave height
 - Accommodates interior column spaces of 100' or more

Truss Beam

Open web, unobstructed, column free interior space

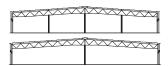


FEATURES

- Open web design holds down construction costs through optimal material use and reduction of required building heights.
- Ductwork, wiring, sprinkler systems, and lighting can be incorporated through the trusses.
- Frames can be designed with tapered or straight columns with a pitched or straight bottom rafter.
- Roof pitch can be as low as

Continuous Truss

Open web design offering construction savings



FEATURES

- HVAC ducts, wiring, sprinkler systems, and lighting can be incorporated through the trusses to maximize clearance beneath the rafter.
- Open web design increases interior visibility through enhanced lighting dispersal.
- Continuous Truss frames can also be used with other framing systems, including block, tilt-up, ordinary steel framing, or wood.

SECONDARY FRAMING SOLUTIONS

Cee & Zee Shaped **Girts & Purlins**

VP's standard secondary structural members



WideBay™ Trussed Purlin

Greatest space at lowest cost



Transbay™ Bar Joist System

Perfect with bay spacing up to 60'



FEATURES

- G-30 galvanized finish with acrylic coating standard on secondary members with pre-painted options available
- Roof Purlins in Zee shape in sizes 7", 8 %", 10" and 11 %" in multiple gauges
- Wall Girts in Cee or Zee shape in sizes 7", $8\,\%$ or 10" and 11 % in multiple gauge

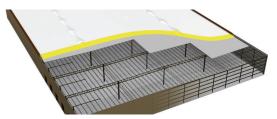
FEATURES

- An alternative to traditional bar joist
- Allows flexibility in locating interior columns
- Enables any eave height
- Accommodates interior spaces up to 60' or more

- Allows ample bay spacing
- Particularly appropriate in facilities with bay spacing from 40'.

ALTERNATIVE PRIMARY FRAMING SOLUTIONS

Through research and development, VP has expanded the capabilities of our systems to provide cost-effective solutions for all types of low-rise construction, including the ability to use EPDM roofing systems, concrete walls or a heavy design load as part of a VP Building.



Deck-Frame™

Deck-Frame is the first steel building support solution specifically designed for membrane roof applications. Deck-Frame combines the efficiency, speed and economy of steel systems construction with the aesthetic performance of a membrane roof system.



Hard Wall System

VP Buildings works with designers and engineers to provide cost-efficient hard wall solutions that combine the benefits of VP's framing and roofing systems with hard wall applications. VP can accommodate either load-bearing and non load-bearing wall conditions and with VP's continuous beam structural framing, interior support spacing can meet a variety of floor plans.

CONVENTIONAL STEEL SERVICES (CSS)

Conventional Structures

Conventional steel-framed buildings engineered for limitless design possibilities.

FEATURES

- Conventionally framed steel building solutions for almost any construction market
- Competitively priced solutions
- Can design and supply material to accommodate many architectural features, including canopies, alternate bracing methods, and more
- Your structural consultant and fabricator from one source with the ability to include most miscellaneous steel materials





Hybrid Structures

Unconventional projects that require conventionally-fabricated steel plus pre-engineered components

- Inspired solutions for complex structures that require trusses or heavy 3-plate frames
- Integration of conventional design with metal roof and wall
- Ability to mix and match materials to provide economical solutions that meet the clients wants and needs

KXL™ FINISH WALL & ROOF PANEL COLORS

Varco Pruden uses a high-quality paint system designed to provide long-term performance and protection. Each color is formulated with thoroughly researched, tested and field-proven pretreatments, primers, resins and pigments that can meet your design and performance requirements. Our KXL™ finish on Hot Dipped Galvanized & Galvalume® combines ceramic pigmentation with polyvinylidene fluoride for superior, long-lasting performance. PVDF finishes are respected for their durability, resistance and color retention. 70% PVDF finishes meet both Kynar 500® and Hylar 5000® specifications.



NOTE: colors printed on this page may not exactly match actual panel colors. Please request panel swatches for true color match.

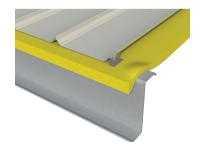
VP Buildings reserves the right to change color offerings without notice. Metal sample chips are available upon request from VP Buildings. KYNAR 500° is a registered trademark of Atofina Chemicals, Inc. HYLAR 5000° is a registered trademark of Solvay Solexis, Inc. Galvalume® is a registered trademark of B.I.E.C. International, Inc.



STEEL ROOF SYSTEMS

Varco Pruden's top-of-the-line SSR™ standing seam roof, with millions of square feet in place is the benchmark in roofing value. The value starts with an unmatched useful life - backed by weathertightness warranties. SSR is comprised of factory-formed panels which are interlocked and machine seamed in place, yielding a single unit membrane. The unique design of the SSR roof system effectively accommodates thermal expansion and contraction caused by temperature changes. VP's patented SSR ridge system provides a complete seal at the apex of your building. SLRII is an architectural, high-slope roof system with a wider variety of cool color finishes. Panel Rib is an economical roof system with 36" coverage and attached with fasteners instead of a clip system.

SSR™ Low slope, low maintenance

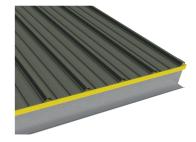


FEATURES

- 24" coverage
- Lengths up to 55'
- Available in a variety of standard colors and acrylic-coated Galvalume®
- Weathertight seams over clip system.
- Field-seamed, weather-resistant joint.
- Roof slopes as low as ¼" in 12"
- U.S. Army Corps of Engineers approved for wind uplift resistance
- Panels meet UL 90 and FM 1-60, 1-90 and 1-105, ICC-ES ESR-2527 & Miami-Dade approvals
- Four standard clips, available in four heights: 3 ½", 4", 4 ½", and 5" tall, allow for varying insulation thickness combinations up to 9 ½ inches



Panel Rib™ Roof Attractive and economical

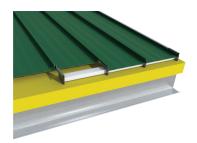


FEATURES

- 36" coverage
- Lengths up to 48'
- Available in a variety of standard colors and clear-coated Galvalume®
- Color matched fasteners
- Roof slopes as low as ½" on 12" min
- UL 60 and UL 90 wind uplift ratings available
- Miami-Dade County product approval



SLR II™ Meets architectural specifications



FEATURES

- 16" Coverage with 2" depth
- Lengths up to 50'
- Available in a wide selection of colors and acrylic-coated Galvalume®
- Weathertight seams over clip system
- Roof slopes as low as ¼" in 12"
- UL 90 wind uplift rating available
- FM 1-75 and 1-120 ratings
- U.S. Army Corps of Engineers approved for wind uplift resistance
- Field-seamed weather-resistant joint



Seamed Roof Ridge for SSR™

The perfect way to cap off a Varco Pruden SSR roof. This unique design allows for a consistent look and efficient closure and protection at the apex of the roof. The VP Seamed Roof Ridge is available in either standard 24 gauge or optional 22 gauge zinc aluminum coated steel. Ridge caps can be painted or powder-coated to match VP standard roof colors. A patented seamer tool seams the ridge to a weathertight 360° seal.



RETROFIT AND REROOF SOLUTIONS

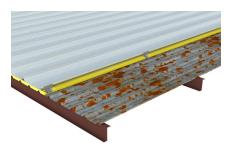
Whether your existing building is pre-engineered or conventional construction, VP Roof Systems has a solution to stop roof leaks, reduce maintenance costs and improve the appearance of your facility. Regardless if your current roof is a non-metal or a metal roof, flat or sloped, Varco Pruden Roof Systems can give you:

- · A roof system designed to meet the highest industry standards for quality and performance
- The option of adding slope to flat roofs, eliminating "ponding" and problems related to standing water
- Increased energy-efficiency with additional insulation and "cool paint" formulations
- Long-term, weathertight protection

Metal over Metal (Roof-over) Options

Installation does not require existing roof removal resulting in faster and safer installation with minimal disruption to the existing operations

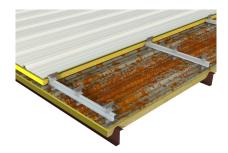
SSR Cover-Rib



FEATURES

- Utilizes the SSR roof panel with 5" X-Tall roof clips over an existing sloped roof with no additional framing
- Can be used over existing roofs up to 1½" tall with purlins or bar joist.
- Weathertight seams eliminate leaks
- Acrylic coated Galvalume® or KXL cool colors
- Exclusive seamed ridge cap and clip design allow for thermal movement
- UL 90 and FM Class 1 ratings, ESR-2527, and Florida approvals

High-Profile Retrofit

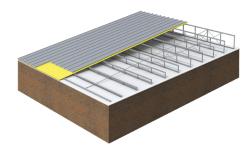


FEATURES

- VP roof installed over existing sloped roofs with acrylic coated galvanized framing providing as much as 11" vertical space to achieve up to an R-38
- Simple flexible framing assembly results in faster installation time
- UL and FM ratings available
- Compatible with a variety of weathertight VP roof systems that virtually eliminate leaks
- Variety of cool colors available
- UL 90 and FM Class 1 ratings, ESR-2527, and Florida approvals

Slope Build-Up Retrofit Roof

Eliminate water ponding, interior valley, and gutter conditions



- Flexible galvanized framing designed to integrate with a variety of existing structures
- Field assembled to correct existing roof irregularities
- Available with SSR or SLR II roof panels
- Variety of cool colors available
- Weathertight seams virtually eliminate
- Adding insulation improves energy efficiency
- Slopes as low as 1/4:12



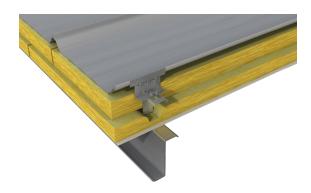




ROOF INSULATION SOLUTIONS

ThermaLift[™] Insulation **System for SSR**

Raising the roof for higher R-values

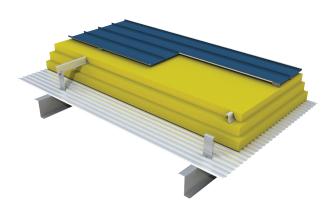


FEATURES

- Up to 15" total insulation capacity
- Designed exclusively for use with SSR
- Four sizes of clips for varying insulation thickness: 3 ½", 4", 4 ½" and 5" tall
- System components for either purlins or WideBay
- Installs above secondary framing
- See below for an R-value and U-factor chart based on varying insulation combinations

ThermoDeck™ Composite Roof System with Choice of Panels

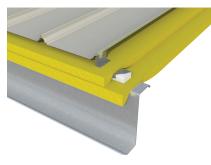
Designed for SSR, SLR II, & Panel Rib roof systems



FEATURES

- Up to 12" space between decking and roof sheeting
- More layers for more energy savings
- Decking available in optional gauges and colors
- See below for an R- and U-value chart based on varying insulation combinations

SuperBlock[™] for SSR[™]



SuperBlock™ is an exclusive insulation system designed specifically for the VP SSR™ standing seam roof and is capable of delivering an ASTM-C1363 hot box tested, in-place U-factor of 0.047 using R-13 as the bottom layer and R-19 as the top layer. The performance of the

SuperBlock system is a direct result of the relationship between the uniquely designed metal thermal block cover, the 25-psi polystyrene thermal block material and the fiberglass insulation. SuperBlock holds down the faced blanket insulation as it is placed and the roof clips maintain precise modularity without constant measuring. When higher thermal performance is required additional assemblies such as ThermoDeck and ThermaLIft should be used.

> Note: See chart for assemblies and their associative thermal performance.

System Performance Comparison

Assembly ¹ +Ht ²	Insulation ³	Tested-U	Effective R
Thermal ift-11"	R16*+R19†	0.0035	29
ThermaLift-14"	R19*+R25'	0.0030	32.9
ThermaLift-15 ½†	R19*+R30 ¹	0.0029	34.5
TD-6 SSR [†]	R11+R11	0.049	20.4
TD-7 ½" SSR	R12+R11	0.043	23.4
TD-8 SSR [†]	R16+R11	0.038	26.3
TD-9 ½" SSR	R19+R11	0.035	28.8
TD-11 SSR'	R11+R13+R13	0.029	34.5
TD-12 ½" SSR	R19+R11+R11	0.026	38.5
TD-6" SLR-11	R11+R11	0.052	19.2
TD-7 ½" SLR-11	R13+R11	0.047	21.3
TD-8" SLR-11'	R16+R11	0.04	25
TD-9 ½"SLR-11	R19+R11	0.036	27.8
TD-11" SLR-11	R13+R13+R11	0.029	34.5
TD-12 ½" SLR-11	R19+R11+R11	0.027	37
TD-6" PR ¹	R11+R11	0.052	19.2
TD-8" PR [‡]	R16+R11	0.04	23.8
TD-11" PR ¹	R13+R13+R11	0.029	34.5
SB-6" SSR	R19	0.063	15.8
SB-7" SSR	R11+R13	0.057	17.5
SB-10" SSR	R13+R19	0.047	21.3

1=TD=ThermoDeck (includes DeckLiner); SB=SuperBlock 2=Insulation system height; 3=Lowest layer rolled insulation listed first †=No thermal block used; ‡=Panel Rib roof does not utilize thermal blocks SuperBlock values shown are calculated. All others are hot box tested.

WALL PANELS

Varco Pruden Buildings' steel walls are designed, engineered and manufactured to give years of efficient, low-maintenance service.

Panel Rib™

Most economical exterior wall system



Reverse-rolled version of Panel Rib

Vee Rib™

Features semi-concealed fasteners

Tech-Four M and Tech-Four Plus Concealed fastener wall system









FEATURES

- 36" Coverage
- Lengths up to 48'
- 1½"-High Rib
- Standard crimped base or square cut with base trim
- Dade County Building Commission Approved

FEATURES

- 36" Coverage
- Lengths up to 48'
- 1½"-High Rib
- Semi-concealed fasteners
- Supports 6" of blanket insulation

FEATURES

- 36" Coverage
- Lengths up to 48'
- 1½"-High Reveal
- Embossed Finish
- Semi-concealed fasteners
- Dade County Building Commission Approved

FEATURES

- 16" on-center panel
- Lengths up to 41'-6"
- 24 ga. standard
- Embossed finish
- Concealed fasteners

ALTERNATIVE WALL SOLUTIONS

VP has manufactured thousands of projects where the architect or owner preferred an alternative to exterior metal panels. Regardless of the type of project, VP systems can be combined with wood, stone, brick, block, glass, tilt-up concrete or EIFS, adding design flexibility and economy. Additional examples can be seen at varcopruden.com.







ARCHITECTURAL PANELS

TextureClad and ImpressaClad are designed to meet the demands of local building ordinances where traditional metal wall panels are prohibited.

- 20-year finish warranty.
- Color-matched accessories
- Concealed fastener installation
- Installed panel width is 16"
- Lengths from 14" to 30'
- Panels attach directly to standard wall girts

TextureClad[™]

A durable metal panel with the look of textured stucco



FEATURES

- Low maintenance
- Lightweight 2 lbs/sq. ft.
- Factory applied stucco finish
- Available in 24 standard colors

TextureClad Colors









ImpressaClad™

Embossed surface helps with local code restrictions



FEATURES

- Clip-less design
- Lightweight 2 lbs/sq. ft.
- 20 year warranty
- 4 standard colors (custom colors available)

ImpressaClad Colors











HIGH ENERGY-EFFICIENT WALL SYSTEMS

ThermalClad insulated metal wall panels - lightweight and durable with superior insulating value which is maintained throughout the life of the building.

- Offset double tongue-and-groove side joint with fastener head and clip concealed
- R-values up to R-34.06 available
- Thicknesses: 2", 2 ½", 3" and 4"; Lengths: 8'-53' on 42" wide
- Factory-Mutual Class 1 approval
- Exterior Embossed Surface, except Tuff-Wall

Architectural Flush appearance



FEATURES

- 36" Coverage with lengths from 8'-32'
- 22 ga. G-90 steel external with 26 ga. internal standard

Shallow Plank For clean lines

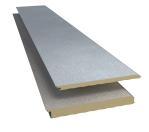


FEATURES

- 42" Coverage
- 26 ga. G-90 steel external with 26 ga. internal standard; 24 ga. external optional

Tuff-Wall™

An insulated metal panel with the look of stucco



FEATURES

- 42" panel width
- 24 ga. steel
- Standard lengths from 8'-40'
- A 10-year limited warranty
- Durable finish highly resistant to impact and abrasion

Reveal **Bold Lines**



FEATURES

- 42" Coverage
- 26 ga. G-90 steel external with 26 ga. internal standard; 24 ga. external optional

Panel Rib High-R™ and Vee Rib High-R™ System

Superior thermal efficient wall systems

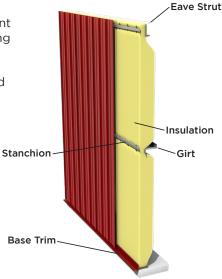
The Panel Rib High-R™ and Vee Rib High-R™ systems are highperforming, cost-competitive wall solutions. These energy-efficient wall systems offer you tested thermal performance while providing a more competitive solution when compared to Insulated Metal Panels (IMP). These innovative wall systems, designed to keep pace with stringent energy code requirements, deliver quality and performance.

PANEL RIB HIGH-R **FEATURES**

- 36" Coverage
- Lengths up to 48'
- 1½"-High Rib of single-skin
- Tested system provides a superior 0.047 U-factor

VEE RIB HIGH-R FEATURES

- 36" Coverage
- Lengths up to 48'
- 1½"-High Reveal of single-skin panel
- Tested system provides a superior 0.046 U-factor



Panel Rib High-R



Vee Rib High-R™

DAYLIGHT SOLUTIONS

Translucent Tuf-Lite & Wallite

Allows 42-63% light transmission

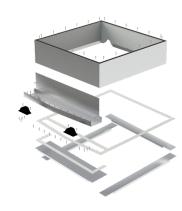


FEATURES

- Tuf-lites for SSR or Panel Rib Roof profile
- Wallites available in Vee Rib or Panel Rib
- Corrosion, chemical and weather resistant
- Class 1 fire rated; exceeds ASTM D3841: ICBO listing #5048
- Insulated condensation-resistant Tuf-lites optional

DuraCurb™

Rust-free aluminum curb



FEATURES

- Diverter plate channels rainwater to prevent pooling
- Internal flange and pre-punched holes for fasteners eliminate water access
- Mitered corners and seams joined by weathertight, maintenance-free welds
- All components designed for VP's SSR or SLR II Roof

CFR Curb SYSTEM

One piece construction



- Built-in cricket channels rainwater to prevent pooling
- Internal flange and pre-punched holes for fasteners eliminate water access
- Mitered corners and seams joined by weathertight, maintenance-free welds
- All components designed for VP's SSR or SLR II Roof

LINER PANEL & SOFFIT SOLUTIONS

Deck-Liner™ Dual purpose interior panel



Panel Rib Liner Economical interior wall system



FP-12 Soffit Beaded or flush



FEATURES

- 36" wide coverage, ½" nominal depth
- Zinc coated steel, lengths vary by gauge
- 28 & 22 gauge available in polyester white or Galvalume® finish up to 41'-8"
- Available in 24 and 26 gauges in VP's standard KXL color finishes

FEATURES

- 36" Coverage
- Lengths up to 48'
- Same profile as Panel Rib
- 12" on center ribs
- 28 ga. zinc coated steel

FEATURES

- Lengths from 2' to 30' [panel lengths over 15' require stiffening bead(s)]
- 12" wide and 1/8" deep panel profile
- 24 ga. standard
- Concealed fasteners

COMPLETE YOUR BUILDING PROJECT

Varco Pruden offers a variety of items to complete and protect your attractive, functional, high-quality structure.

Skv-Web II® Provides fall protection during and after construction



SSR Skv Walk™

Tread confidently on your SSR roof





FEATURES

- Easy-to-install step system
- 20 ga. Galvalume® steel with an anti-skid surface
- Rated for 500 lbs per square
- Parallel or perpendicular kits with (5) 24" x 24" nominal steps

EXPI-Doors Pre-assembled or Job Site Assembled



FEATURES

- Baked on primer in white or bronze meets Steel Door Institute standards
- Door leaf options include glazing alternatives and can be insulated or non-insulated
- Includes quality hardware and hinges to ensure added security

Standard & Low-E Window Solutions Improved U-factors



FEATURES

- 2500 Series A premium 2 ½" thermally broken window available in slider, fixed, single-hung and projected configurations
- aluminum window that is available in slider, fixed and single-hung configurations

- 2½" x 2½" knotted nylon mesh protects workers
- Made-to-order for each building configuration, with the exception of skews, hips and valleys
- Supports insulation for a more attractive interior after construction

VP FAST-TRACK

Fast delivery for standard buildings

Varco Pruden Building's Fast-Track program offers building decision makers the combined benefits of economical design and fast delivery for steel construction. Fast-Track uses a simple pricing and order entry system for low to medium complexity metal buildings. The broad parameters within the program offer building solutions in a wide range of sizes from 600 to more than 185,000 square feet. With Fast-Track, VP Builders can provide customers with a custom designed building to meet their specific need.



BLUESCOPE CONSTRUCTION

Supports the VP Builder on large industrial and government projects

BlueScope Construction, a national design-build general contractor, supports the Varco Pruden Builder with design and construction services for large commercial and industrial facilities such as data centers, aircraft hangars, manufacturing plants, and distribution centers.

We provide an integrated supply chain from raw steel through finished construction. Our direct connection to manufacturing and engineering also allows our government services team to provide unique single-source contracting solutions to the public sector.



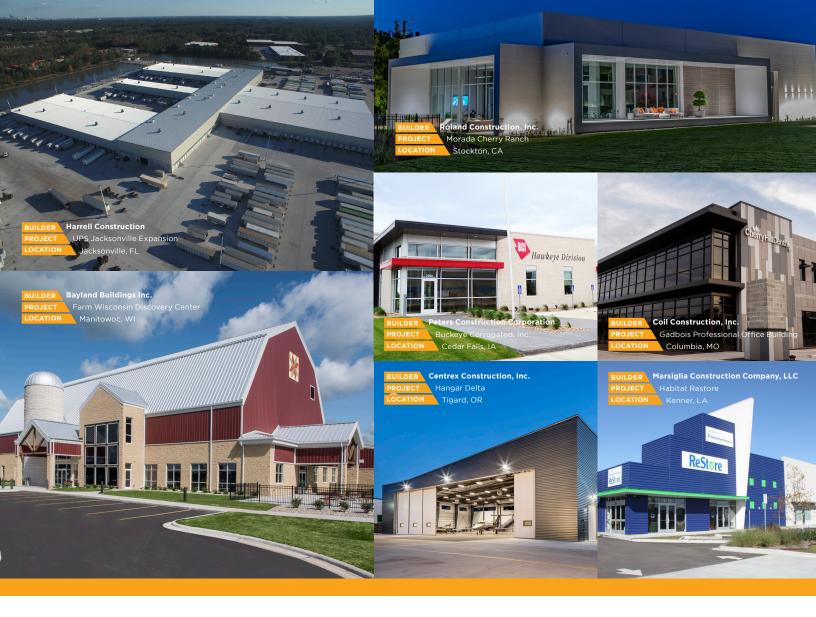
BLUESCOPE PROPERTIES GROUP

Offers more than the traditional developer

BlueScope Properties Group (BPG), a self-funded developer, offers a fullservice approach, direct access to capital, and the ability to build upon the long-standing and proven history of BlueScope Buildings North America. Our full-service approach includes:

- Site Selection
- Land Acquisition
- Facility Specifications
- Permitting
- Build-to-Suit for Lease; Build-to-Suit for Sale





READY TO START BUILDING WITH VARCO PRUDEN?

Start by visiting our web site, **www.varcopruden.com** to learn more about our products and services.

To find a VP Builder near you, visit varcopruden.com/find-a-builder

Participating Organizations











Certifications

 $\mbox{\sc VP}$ Buildings leads the industry in meeting or exceeding the highest standards of testing and certification.



















