



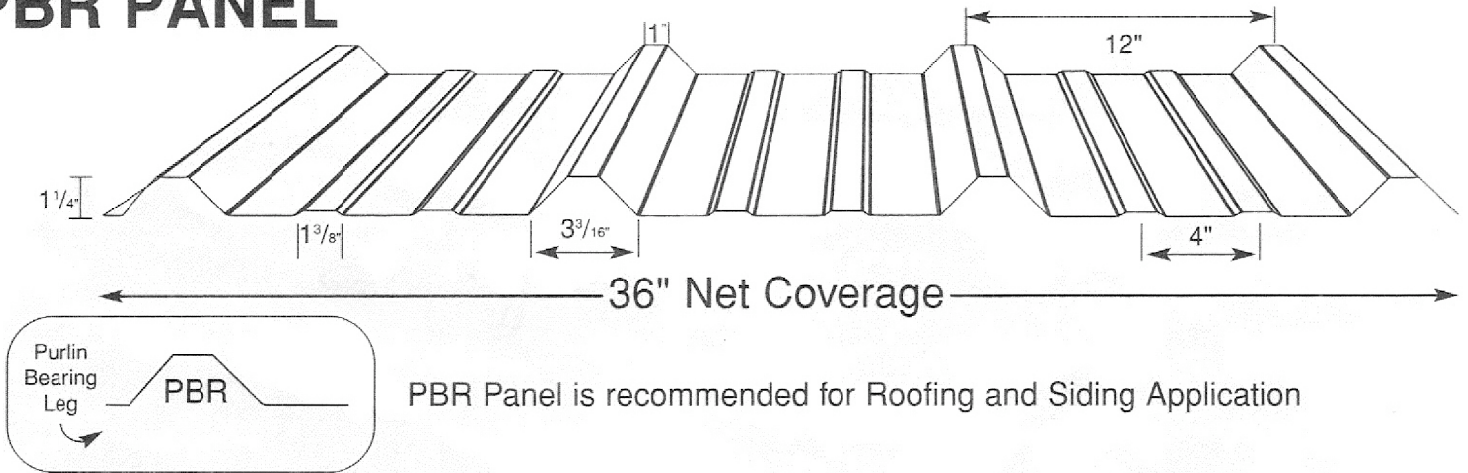
BENTON metaldepot

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PBR PANEL



SECTION PROPERTIES											ALLOWABLE LOADS (PSF)																		
Panel	Panel Gauge	Fy KSI	Thickness (in.)	Fb KSI		Weight (PSF)	Girth (In.)	Ix In.		Sx In.		WIND LOAD						LIVE LOAD (STRESS)						LIVE LOAD (DEFLECTION)					
				Pos.	Neg.			Positive Bending		Negative Bending		3	4	5	6	7	8	3	4	5	6	7	8	3	4	5	6	7	8
PBR Panel	26	50	.0187	38.0	16.5	91	42	.0335	.0360	.0300	.0395	3	4	5	6	7	8	3	4	5	6	7	8	3	4	5	6	7	8
												172	95	62	42	32	20	130	72	45	32	24	15	130	75	45	26	16	12

- FOOTNOTES:**
1. Loads in tables are based on continuous beam over three equal spans.
 2. Deflection loads are based on limiting deflection of span divided by 180 (L/180).
 3. Wind loads are based on unit stress increased 1.33% over the live load.
 4. Metal thickness is based on minimum AISI specifications for galvanized sheets.

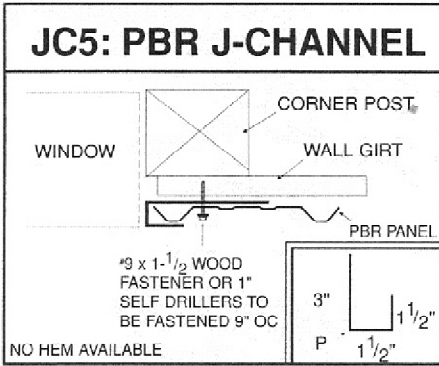
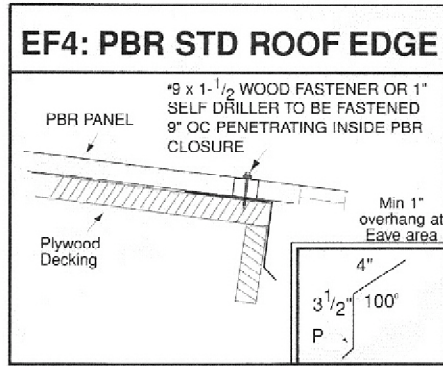
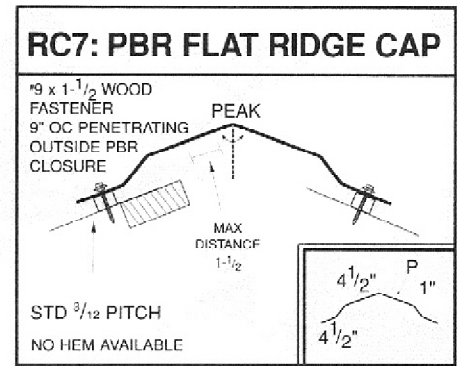
Specifications:

PBR PANEL is recommended for siding and roofing. Roof pitch requirement is 1/12 or greater.

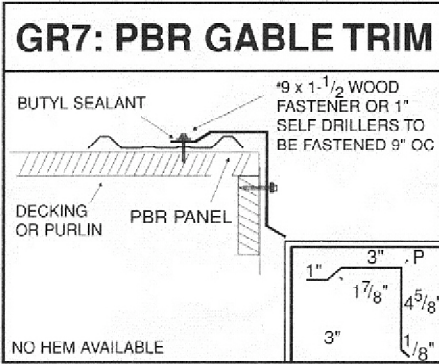
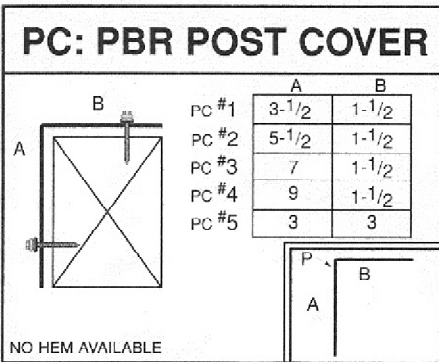
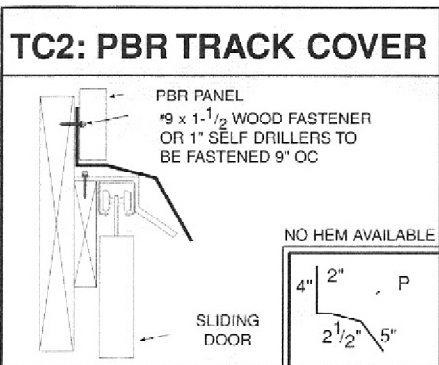
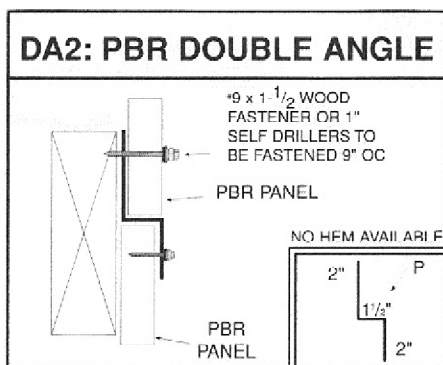
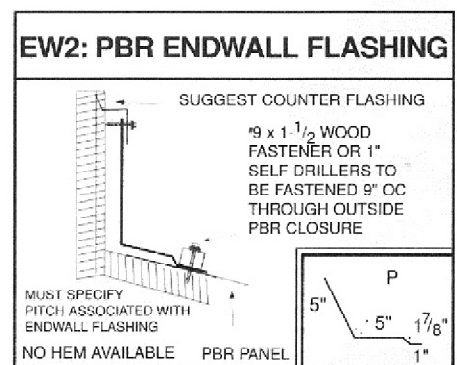
Gauge	Finishes	Thickness	ASTM & Grade Specifications
26	** PTD Galvalume	.0185	ASTM A-792 AZ50 Grade 80 Structural Steel
26	Acrylic Galvalume	.0185	ASTM A-792 AZ50 Grade 80 Structural Steel

** HUNTER GREEN, REFLECTIVE WHITE, PEARL GRAY, and STONE

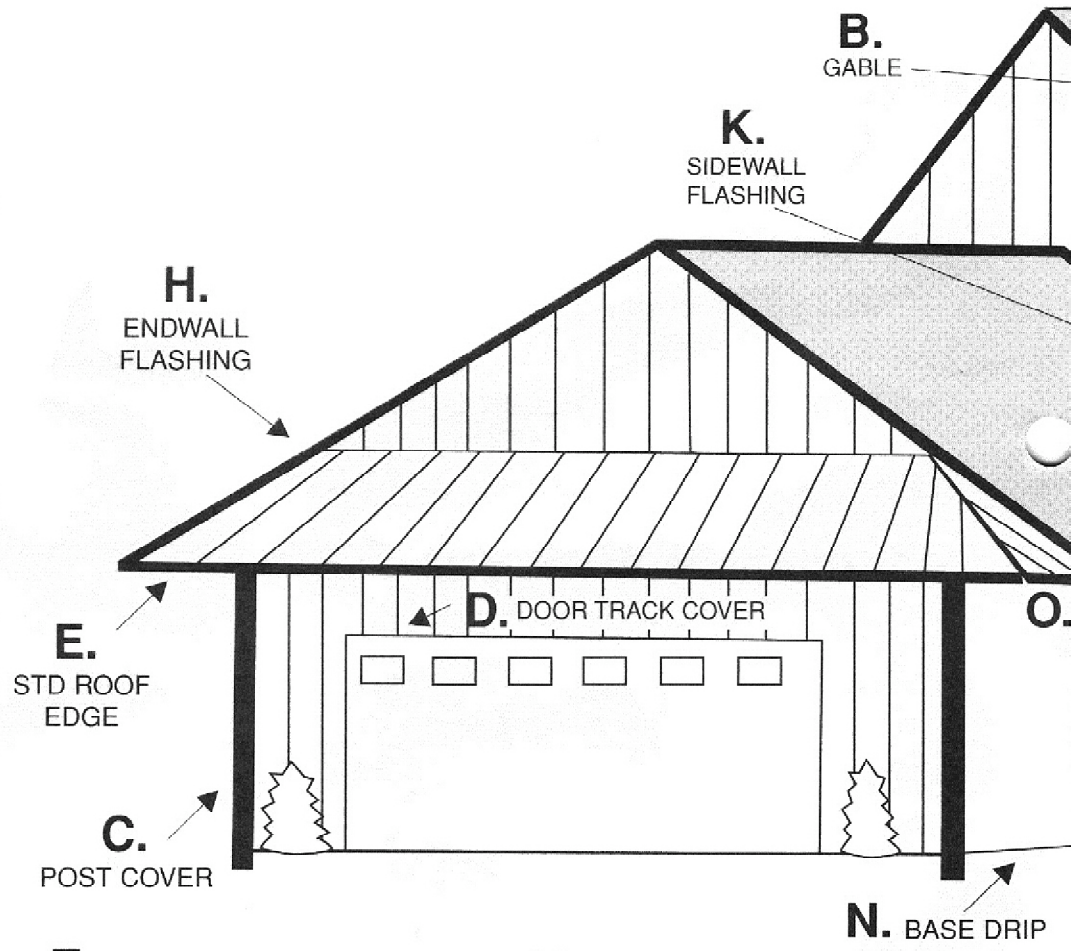
MILLENNIUM METALS OFFERS A LIMITED 25 YEAR WARRANTY ON PAINTED GALVALUME PANELS AND A LIMITED 20 YEAR WARRANTY ON MILL FINISHED GALVALUME PANELS. CONSULT YOUR DISTRIBUTOR ON REQUESTING WARRANTY.

A.**E.****G.**

ANGLE	PITCH
	2/12
	3/12
	4/12
	5/12
	6/12

B.**C.****D.****F.****H.**

TRANS	ANGLE	PITCH
		2/12
		3/12
		4/12
		5/12
		6/12



VERSION
ANGLE
161°
152°
143°
134°
127°

I.

RC8: PBR RESIDENTIAL CAP

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLER TO BE FASTENED 9" OC PENETRATING INSIDE PBR CLOSURE

PBR COBRA VENT SIDE VIEW

NO HEM AVAILABLE

6 1/2" P
160°

K.

SW2: PBR SIDEWALL FLASHING

PBR SIDING

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLER TO BE FASTENED 9" OC PENETRATING UNIVERSAL CLOSURE

BUTYL SEALANT

UNIVERSAL CLOSURE

NO HEM AVAILABLE

5" P
90° 1 7/8"
5" 1"

M.

PV1: PREFORMED VALLEY

TWO STRIPS OF BUTYL TAPE

PBR PANEL OVER BUTYL TAPE

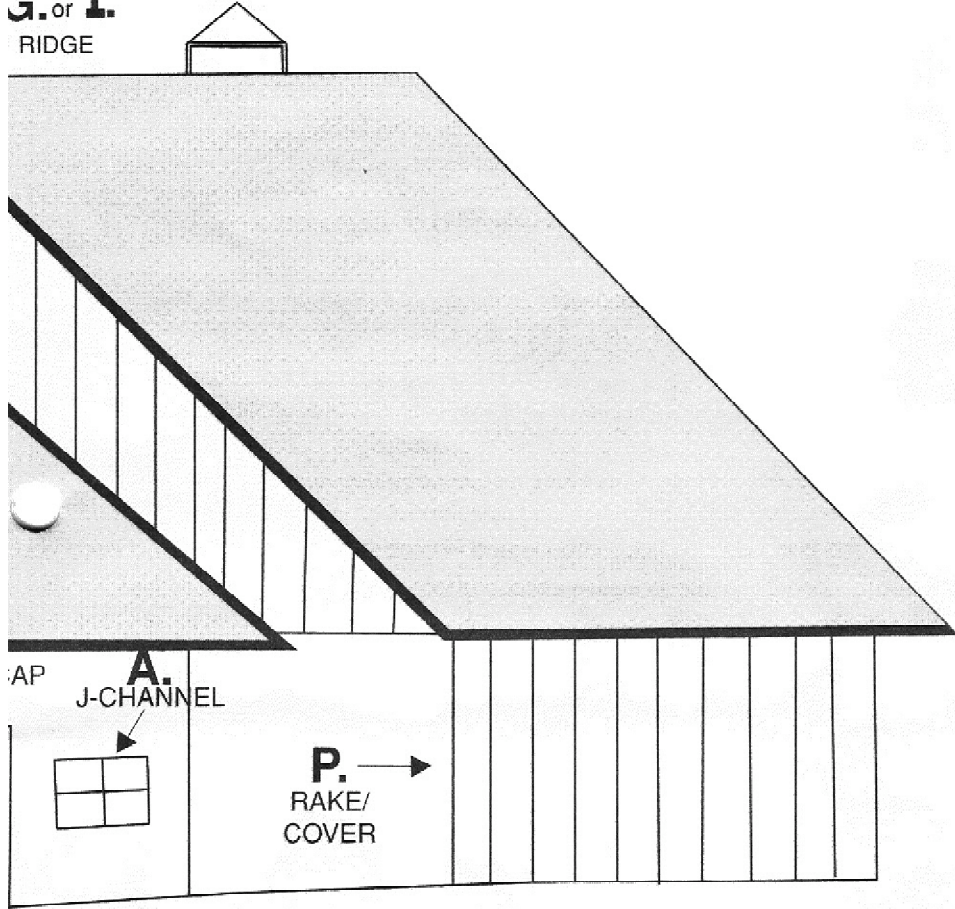
NOTE: STOP PANEL 7" MIN. FROM BREAK FASTEN PERFORMED VALLEY 9" OC WITH "9 x 1-1/2 WOOD FASTENER OR "14 x 1" SELF DRILLER.

NO HEM AVAILABLE

PV1 1" 12 3/4"

G. or I.

RIDGE



N.

BD2: PBR BASE DRIP

PBR FOR USE AS SIDING

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLER 9" OC

CONCRETE SLAB

NO HEM AVAILABLE

SIDING APPLICATION

3" P
1 1/2"
2"

O.

DC2: PBR DRIP CAP

NO HEM AVAILABLE

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLERS TO BE FASTENED 9" OC

PBR PANEL

WINDOW OR DOOR OPENING

SIDING APPLICATION

2 1/2" P
1 5/8"
1 7/8"

VERSION
ANGLE
99°
104°
108°
113°
117°

J.

TF1: PBR TRANSITION FLASHING

PBR PANEL

NO HEM AVAILABLE

MINIMUM 3"

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLERS TO BE FASTENED 9" OC

PBR PANEL

MUST SPECIFY BOTH PITCHES ASSOCIATED WITH TRANSITION FLASHING

6 7/8" P
6 1/2"

L.

IS2: PBR INSIDE CORNER

NO HEM AVAILABLE

"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLERS TO BE FASTENED 9" OC

PBR PANEL

SIDING APPLICATION

4" P
1 7/8"
4"

P.

GR6: PBR RAKE/CORNER

PBR PANEL

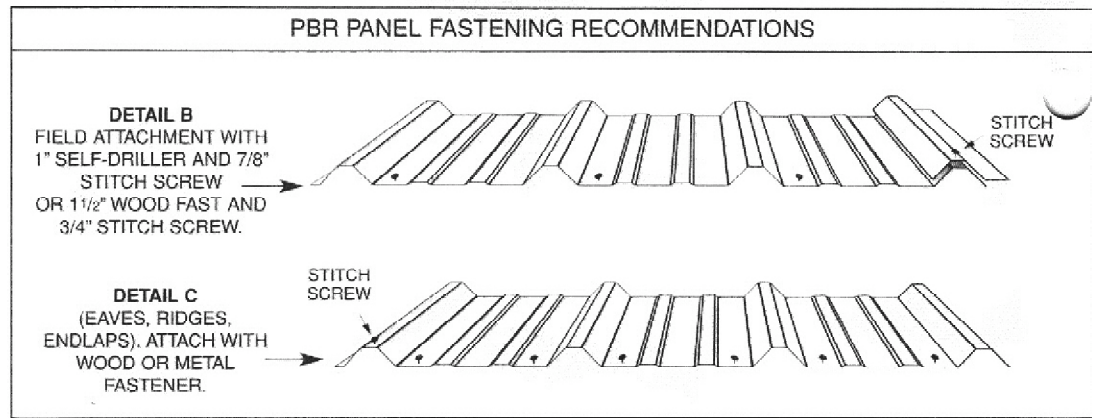
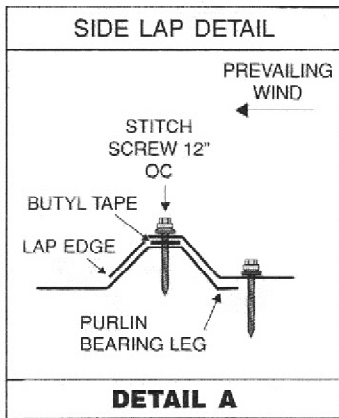
"9 x 1-1/2 WOOD FASTENER OR 1" SELF DRILLERS TO BE FASTENED 9" OC

NO HEM AVAILABLE

SIDING APPLICATION

4" P
1" 1 7/8"

PBR PANEL INSTALLATION GUIDE



PBR Panel can be used for a variety of different applications. Due to its design, it is a roofing and siding profile. When being used as a siding application, please refer to detail C for fastening. As the height on the sidewall may change the on-center attachment recommended, please consult load chart on page 1.

Special residential note: In residential applications, Millennium Metals recommends the use of a solid deck and 30# felt. This recommendation is made to help eliminate condensation issues. 1" x 3" yellow pine batten strips are optional and must be attached 12" on center with a #8 x 3" screw 8" on center. Attaching the batten strips with a nail will substantially reduce the pullout or uplift value. The minimum pitch allowed with this panel is 1/12. The vertical attachment should be 16".

Commercial and Agricultural applications designed over open framing can span up to 4' purlins, depending on the engineering of the framing. Please refer to the load chart on page 1. PBR, though structural, is not sound to walk over open purlins. Please use extreme caution and provide fall protection.

ROOF APPLICATION:

Step 1: Make sure the deck is level and square.

Step 2: Install Eave Drips/Roof Edge and Valleys according to details. Remember to use inside closure strips between Eave and Panel to eliminate water infiltration. Trim should be fastened 9" on center.

Step 3: Panel placement should begin on the Gable End opposite of the Prevailing Wind. Starter Edge should be the Lap Edge. (Opposite of Purlin Bearing Leg) after lying first panel check for squareness panel 2 should be lapped over Purlin Bearing Leg of panel 1 with the Lap Edge. A minimum 1" overhang is recommended at the Eave. Alternative method of panel placement may begin in the center of the roof. Often this method is used when the area covered is not divisible by 3' or traditional placement allows for a Pipe Flashing to occur at a Side Lap. Endlaps must be a minimum of 12" and two strips of Butyl Sealant is recommended 8" on uphill side of lap to keep watertight.

Step 4: Fasten panel according to Detail C or D depending on the area of application. Detail D shows additional screws to be spaced on each side of major Ribs for all Eaves, Ridges and Endlaps. When used as a siding panel, attach per detail C.

Step 5: Any field cutting must be done with metal nibblers, metal snips or blades designed for metal cutting. No cutting should be done on the roof as it will cause iron shavings to be spread and adhere to roof panels. Proper cutting should be done exposed panel finished side down.

Step 7: Install the remaining accessories such as Pipe Boots, PBR Profile Vent, Ridge Cap and Gable Flashing. Butyl Sealant, Caulking and Closures are necessary to maintain watertight seals as is the Butyl Tape on all seams. Inspect screw fasteners to insure that they are installed properly (See Detail D)

Step 8: Field clean the roof surface with broom to be sure any iron shavings are removed.

PITCH ALERT!!! PBR PANEL REQUIRES A MINIMUM 1/12 PITCH TO MAINTAIN WATER DRAINAGE. THIS PRODUCT IS CONSIDERED STRUCTURAL, HOWEVER IT IS NOT SAFE TO WALK ON OVER OPEN PURLINS OR BATTENS.

ATTENTION INSTALLER!!! WHEN USING FASTENERS TO PENETRATE STEEL SHEETS THE IRON PARTICLES TEND TO GO AIRBORNE AND SETTLE ON THE SHEET. IT IS NECESSARY TO REMOVE THESE PARTICLES TO PREVENT EMBEDMENT AND RUST MARKS.

CORRECT	TOO LOOSE	TOO TIGHT
EDPM MATERIAL VISIBLE AT WASHER. FASTENER IS PROPERLY INSTALLED.	EDPM NOT AT VISIBLE JOINT. NOT ENOUGH COMPRESSION TO MAKE A SEAL.	EDPM IS PANNED AND IS PROTRUDING BEYOND EDGE OF FASTENER.

ENGINEERING CONSIDERATIONS

Code requirements vary from area to area and job type as well as roof configuration. Job specific engineering is available for a nominal fee by a structural engineer. The engineering is not a service provided by Millennium Metals and accept no liability as to contracted work between parties. Please consult your local building code for proper procedures so we may assist you with your application.