



AVL Looms, Inc. 2360 Park Avenue Chico, CA 95928-6785

530 893-4915 530 893-1372 fax # info@avlusa.com www.avlusa.com



## **AVL Headquarters**

#### Visit AVL Headquarters in Chico, California

We cordially invite you to visit us in Chico, California, our home since 1980, where each and every loom is carefully fabricated and built. We offer guided tours through our facility on Morrow Lane where we moved in September 2000. Highlights will include views of our computer numeric controlled machinery -- the latest in high tech manufacturing techniques.



Tours are not the only educational possibility on Morrow Lane. Since 1999, we have sponsored *The AVL Weaving School*. We offer instruction in an intimate classroom setting with a ratio of no more than eight students per instructor. Class offerings are designed to help you make the best use of AVL products and are tailored to the needs of each class. Best of all, the school is situated above the AVL Assembly Area, so you can watch your loom being put together as you learn how to use it.

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### YOUR SATISFACTION IS ASSURED IN FIVE IMPORTANT WAYS

# 1. HAND-BUILT BY SKILLED CRAFTSMEN AND PRECISION MACHINERY

Each AVL Loom is built in our shop. There's no assembly line at AVL; rather a team of dedicated workers who carefully assemble all of our products from start to finish. But it's a new era at AVL; computer numeric controlled machines now cut all parts. That means each part should be perfect. Everytime.

#### 2. FULL WARRANTY ON MATERIALS AND WORKMANSHIP

We use only the finest quality materials, kiln-dried hardwood, precision-machined cast aluminum and steel, and high tech plastics, so we confidently offer each (original) AVL loom owner this warranty:

During the first two years of ownership, we will replace or rebuild, at no charge, any part on your loom that fails to perform according to our specifications. Electrical and pneumatic components, including the Compu-Dobby system, carry a full one-year warranty.

#### 3. UNLIMITED ASSISTANCE

Expert help and advice is as close as your phone. If you have a problem with an AVL loom purchased from us, simply write, call, fax, e-mail, or visit us — we'll work with you until the problem is solved.

#### 4. LIFETIME RECONDITIONING PROGRAM



If you ever want your loom completely reconditioned — from top to bottom — we'll do it at a price that won't exceed 1/2 of the current list price.

#### 5. AFTER THE SALE ... WE STAY IN TOUCH

Each loom owner becomes a valuable member of our growing AVL family of weavers. In fact, virtually every innovation that we've come up with was the result of at least one of our loom owners giving us the original idea. To better facilitate communication, we stay in touch through periodic mailings; an e-mail newsletter, the e-Shuttle, and the Internet (http://www.avlusa.com). Make sure you ask to get on our mailing list.



The AVL Story

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Compu-Dobby Home Looms

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**A-Series Looms** 

Jacq3G<sup>™</sup> Jacquard Looms

Professional Dobby Rug Loom

**Industrial Dobby Loom** 

#### **AVL Warping Equipment**

**AVL Warping Wheel** 

**AVL Spool Rack** 

AVL Cone Rack

Sectional Warp Beam System

AVL Sectional Warp Beam

**Revolution Counter** 

AVL Wall-Mounted Beam Winder

**AVL Tension Box** 

Selvage Rollers

Warp Beam Flanges

#### **AVL Optional Equipment**

Hand and Flyshuttles

Single-Box Flyshuttle Beater

Double-Box Flyshuttle Beater

Four-Box Flyshuttle Beater

Patent Denter

Automatic Cloth Advance System

Electric Bobbin Winder

Shuttle Tray

Raddle

Air Assisted Dobby

Overhead Beater

#### Vintage AVL Looms

Production and Technical Dobby Looms

Folding Dobby Loom

Modular Loom

Jacquard Loom



## The AVL Story



#### AVL Looms in the World

Since its inception in 1976, AVL Looms has revolutionized the world of handweaving. Today, AVLs are found in over 83 countries around the globe and are widely recognized for their high quality and innovative design.

AVL Looms derives its heritage from the designs and inspirations of Jim Ahrens (1906-2000). Mr. Ahrens, originally a mechanical engineer by trade, started designing looms in the late 1930s. After World War II, along with his first wife, he became a production handweaver and owner-operator of a weaving shop.

This early experience eventually led Jim to work in a textile research laboratory operated by the U.S. Department of Agriculture. In the late 60's, he began designing a radically different loom that combined the best parts of handweaving with the knowledge he had gained during his years working with industry.



Today, AVL Looms represents the best of Mr. Ahrens' thinking along with the years of experience AVL's own staff have gained in working with weavers throughout the world.

Handweaving has long been a popular craft. It is now an increasingly viable small-scale industry, in part, because of the technical innovations pioneered by AVL.

These advancements have afforded a new intermediate level of weaving technology — a technology intended to meet weaver's needs well into the 21<sup>st</sup> century.

It became apparent soon after we began production that the sophistication and unique features of AVLs made them suitable in many weaving environments and our products began to attract attention beyond the U.S. In the fall of 1980, AVL representatives attended a U.N. sponsored trade conference in Geneva. There they met with government and business representatives from Western Europe and many developing nations to learn about their specific needs in handweaving.

We discovered that most countries wanted weaving equipment that would allow their weavers to be many times more productive and at the same time would extend their abilities to create new kinds of woven goods. Naturally, they needed to acquire these capabilities without huge outlays of capital or technical expertise. Our handweaving production looms filled the need. Today, AVL Looms fill needs specified by organizations with global reach including the United Nations Industrial Development Organization and the World Bank.

AVL looms are found in countries at all levels of economic development. They are used in all the countries in Western Europe and of course, in all 50 states. But they are also found in a wildly diverse set of other countries as well. You might well happen across one of our looms in places as diverse as Argentina and Lesotho, Burkina Faso and Russia, Malaysia and Jamaica. Agents in the United Kingdom, Japan, Taiwan, Germany, and Israel currently represent us.

And we are, of course, also citizens of cyber-space. You can find us on the Web at:

www.avlusa.com



## Who Buys AVL Looms and Why

#### **Production Weavers**

Whether involved in short or long production runs, production weavers use AVLs because they are the most versatile, easiest to operate, by far the fastest handlooms available, and because they produce a higher quality fabric.

#### Home Weavers

Weaving is delightful and easy on an AVL. Beginners are able to produce professional quality fabrics within a few hours. Advanced weavers enjoy being able to create complex fabrics comfortably and effortlessly.

#### Textile Design Firms

Sample weavers and stylists particularly appreciate the AVL Compu-Dobby system that speeds and enhances the weaving design process. The Compu-Dobby makes design changes so accessible that it invites experimentation.

#### Small-scale Industry

People involved in small weaving industries use AVL looms. Since the weaving drafts can be programmed, even an unskilled person can be weaving beautiful patterns in less than one day. Plus, the unique AVL Industrial Dobby Loom is a fully automated loom for textile businesses that need increased production.

#### College and Universities

Schools that wish to teach their students on the highest quality and most up-to-date weaving equipment invest in AVL looms. Highly regarded institutions, such as North Carolina State University School of Textiles, Rhode Island School of Design, and Savannah College of Art & Design use AVLs in order to give their students hands-on experience with the design and creation of complex and intricate weaves. Post-graduate work is now available on the AVLs located at the Ann Sutton Foundation in the United Kingdom.



## **Home Loom**

Something old, something new at AVL. Although the Home Loom was introduced in 1989, it is derived from a loom originally built in 1949 by Jim Ahrens. The Home Loom is AVL's marriage between the high technology found in our other looms and the "high touch" environment of a living room, family room, or study.



40" Home Loom

The Home Loom, though, doesn't skimp on quality. It features the same kiln-dried hardwood construction and attention to even the smallest detail found on all other AVL looms.

The Home Loom can be equipped with up to eight harnesses and ten treadles and uses the same convenient side tie-up system found on our Modular loom.



The Home Loom is the perfect loom for the weaver who's just starting out and looking for high quality at a reasonable price.

#### Standard Features on all Home Looms include:

- AVL Side Tie-Up Harness System (4 harnesses, 6 treadles, 30 side tie-up cords)
- Ability to add four harnesses and treadles
- Illustrated Instruction Manual
- Kiln-Dried Hardwood Construction
- Locking Brake Warp Tension System
- Heddles (800)
- Lathe-Turned Standard Warp Beam
- Standard Beater with Carbon Steel Reed (your choice of 6, 8, 10 or 12 dents)
- Two Aprons with Three Steel Rods
- Two-Year Warranty on all Parts and Labor

#### SPECIFICATIONS:

#### **Home Looms**

	<b>40"</b> (100cm)	<u>48"</u> (120cm)
Height	48" (120cm)	48" (120cm)
Overall Width	50" (127cm)	58" (147cm)
Front to Back	41" (104cm)	41" (104cm)
When Folded	28" (71cm)	28" (71cm)
No. of Heddles	800	800
Weight	125 lbs. (57kg)	140 lbs. (64kg)



# **Compu-Dobby Home Loom**



Now the Home Loom can come equipped with a Compu-Dobby, thus marrying the high tech world of computers with the high tech feel of the original 1949 loom of Jim Ahrens. It has been a happy marriage for all concerned.

#### **SPECIFICATIONS:**

## **Compu-Dobby Home Looms**

	<b>40"</b> (100cm)	<u>48"</u> (120cm)
Height	48" (120cm)	48" (120cm)
Overall Width	50" (127cm)	58" (147cm)
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## **Workshop Dobby Loom**

### Meet the California Traveler

AVL's smallest, most transportable, and least expensive dobby loom is the Workshop Dobby Loom. The Workshop Dobby Loom (WDL) is AVL's answer for weavers looking for a loom to take to conferences, seminars, and classes.







16" Workshop Dobby Loom

Springing from the fertile imaginations of AVL's experienced team of Chico-based textile engineers, the WDL is truly a "California Traveler". It can be disassembled into three discrete components, in a matter of minutes, and can fit in any car or van — or it can be checked as baggage.

The WDL has a full 16-inch weaving space, so it's perfect for quick workshops or seminar warps and projects.

At the heart of the WDL is the Interchangeable Design Unit (IDU).



The IDU includes the harnesses, beams, and dobby mechanism and as its name implies, can be inter-changed with another unit — with the warp on. Using the Workshop Dobby Loom's X-frame base, an 8 shaft IDU can be placed on the base, while another IDU is being warped; be it 8, 16, or 24 harnesses.



IDU ... ready to travel



WDL X-Frame

Harnesses use lightweight harness sticks and are held rigid by a pair of textile industry constant-tension springs that keep the polyester heddles at an even tension.

The front beam is AVL's famous "sticky" beam — sandpaper that allows the user to start a warp without the use of an apron. Tension is controlled at the warp beam using a smaller version of the same Automatic Warp Tension System found on Workshop Dobby Loom's bigger cousins at AVL.

The second major component set, the X-Frame Base, is a sturdy foundation upon which the IDU can be rested. The Base unit can be assembled or taken down in a matter of minutes.

The third and last piece of the Workshop Dobby Loom is AVL's electronic component: Compu-Dobby<sup>TM</sup>. The WDL's Compu-Dobby is a diminutive version of other members of the AVL computer dobby family.

It attaches to the loom with four mounting screws and has completely eliminated the need for complicated adjustment routines. Simply tighten the four thumbscrews and the dobby is ready to go - it's effortless.



#### Standard Equipment on the Workshop Dobby Loom includes:

- Interchangeable Design Unit
- Sticky Cloth Beam
- Warp Beam with Automatic Warp Tensioning System
- 8, 16, or 24 Harnesses
- Dobby Slide Plate Unit
- Castle-Based Carrying Unit
- X-Frame Base
- Twin Dobby Treadle Unit
- Easy-Assemble Side Frames (four rails)
- Compu-Dobby
- Integrated Chipset Technology
- Detachable Power Supply
- RS-232 Communications Cable
- Plus ...
- Instructional CD-ROM
- Instruction Manual
- One-Year Warranty on all Parts and Labor

#### **SPECIFICATIONS:**

## **Workshop Dobby Loom**

Weaving Width	16" (40.5cm)	24" (61cm)
Height	43" (109cm)	43" (109cm)
Width	26" (66cm)	35" (88.9cm)
Front to Back	39" (99cm)	39" (99cm)
No. of Heddles	25 per harness	25 per harness
Weight	47 lbs. (21kg)	77 lbs. (35kg)
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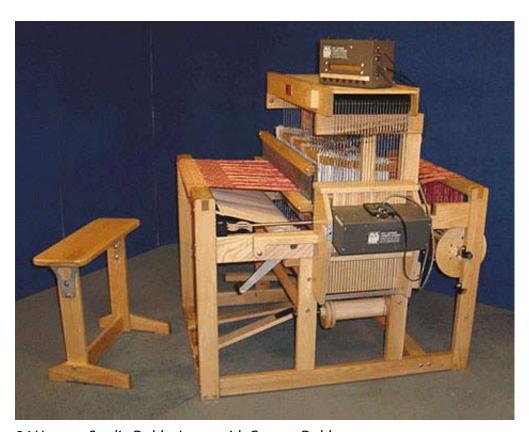


# **Studio Dobby Loom**

The AVL Studio Dobby Loom was designed for use in the classroom or design studio. Economical, rugged, and computer interfaced, it's an effective tool for teaching weaving and an exceptional platform for sampling and textile design.

As part of our development process, AVL surveyed weaving instructors to describe a loom that would be "perfect" in a teaching environment. Not surprisingly, they cited the following features as most desirable:

- Indestructible
- Computer Capable
- Compact
- Versatile
- Maintainable
- Inexpensive



24 Harness Studio Dobby Loom with Compu-Dobby



And these are exactly the features we engineered into the Studio Dobby Loom (SDL).

#### Indestructible

The SDL is strong. Framed in thickly dimensioned ash, the loom is fitted with steel brackets, stranded cables, and special hardware that holds tight. Its metal parts are finished with durable powder coating instead of paint. Its finish is nearly impervious to liquids.

#### **Compact**

The SDL is small, yet it affords a very practical 20" weaving width — perfect for sampling and instruction.

#### Maintainable

The SDL is easy to maintain. It carries the same time-tested dobby found on our bigger looms. Because the loom is constructed from such hefty materials and is so mechanically straight forward, maintenance is minimal.

## Computer Capable

The SDL comes with a Compu-Dobby as part of its standard equipment.

#### Versatile

One can weave almost anything on an SDL. Although its main purpose is clearly to make samples, it's sturdy enough for rugs or blankets. The SDL features a Sliding Beater, similar to the one originally developed for our Rug Looms, which insures an even beat.

## Inexpensive

An AVL Studio Dobby Loom can fit into even the most cramped budgets. But our design team didn't cut any corners, rather they carefully analyzed each of the essential aspects of the weaving (and learning-to-weave) process and came up with a rugged, capable loom at a startling low price.



### Standard Equipment:

- ◆ AVL Compu-Dobby\*
- Standard Beam
- Sliding Beater
- 25 Heddles/Harness plus 200 extra heddles
- Stainless Steel Reed (your choice of 8, 10, 12, or 15 dents)
- Built-In Shelf
- Tool Holder
- Kiln-Dried Ash Construction
- Illustrated Instruction Manual

#### **SPECIFICATIONS:**

## **Studio Dobby Loom**

	<b>20"</b> (50cm)
Height Overall Width No. of Heddles Weight Length Foot Print Harnesses Beater Beams Power	49" (124cm) 43" (109cm) with Compu-Dobby and Warp Beam Handle 25 per harness plus 200 extra heddles 175 lbs. (80kg) 45 1/2" (1.15 M) 26" (66 cm) x 43 1/2" (1.1 M) 16 or 24 Sliding - or - Overhead 1 or 2 Plain Beams - or - 1 Sectional Beam 115 or 220 VAC (for Compu-Dobby)

<sup>\*</sup> please note: Software and Computer not included



## "V" Series Looms

"An amazing achievement in value. The V-Series has the latest in technology and a great price."
-- Bob Kruger, AVL Looms President

Customers express desire for a high degree of weaving capability on a loom that is simple to use and provides the very best in value. Ever interested in excelling the changing landscape, AVL is answering the call with the V-Series loom. This little loom excels at complex patterns at a great price!



30" Forty Harness "V" Series Loom

#### The "V"

We have Jon Violette to thank for the founding of Ahrens and Violette Looms. His determination to form a partnership with Jim Ahrens, the technical genius behind the scenes, took the business from part-time to professional endeavor. The two men worked together in the Bay Area for three years until Violette moved the business to Chico, where it officially became known as AVL Looms. In addition to the "V" in AVL, Jon provided the motivation for loom advancements, including the first computerized dobby in 1982, then called the "Apple Dobby". He retired from active life in the company in 1987. We have christened this new V-Series Loom in recognition of Jon's contribution to handweaving.



#### Weaving What You Want, Where You Want

For a first anywhere, the V-Series gives you 40 shafts in a small loom package. With 40 shafts you can weave just about any pattern you can think of -- for you math lovers the actual number is 109,951,162,782 potential patterns! It's all done with AVL's trademarked Compu-Dobby system. The V-Series comes with the latest version, easy to use and compatible with a variety of Windows and Mac-based weaving software.

As for size, at only four feet (122 cm) tall and deep, the V-Series loom fits nicely in the corner of a small apartment. Outside of a table top or on the road, that is just about any space you can come up with. At introduction, the loom is available in a 30" (76 cm) weaving width. This is an ideal size for weaving a wide variety of fabrics, not to mention samples or even just trying out new ideas in texture, color or pattern.

#### Weaving Made Simple

We call this simple sophistication. What does that mean? With comfortable features like stationary breast beam and foot actuated warp tension brake, this loom is just right for doing just about anything outside of yardage. Check out these other standard features:

- Standard bottom swing beater with smooth hardwood race and stainless steel reed
- Plain warp beam with apron and rod
- Cloth storage beam with heavy duty cast-aluminum handle/pawl/ratchet, plus apron and two rods
- Polyester heddles 25 per harness plus 200 more
- Tool holder, built-in tension box track, and top shelf for your laptop and shuttles

Worried about the lift on this rising shed loom? Worry no more! The V-Series comes standard with our latest, most sophisticated eLift. This powerful, electronically controlled stepper motor does all the work for you. It will even go open shed to open shed with a single press of the pedal when using the Double-shed<sup>TM</sup> mode.



#### Sturdy Construction For a Lifetime of Weaving

This loom is one tough customer. We've framed it in Select Northern Ash and, at the risk of over-doing things, have dimensioned our wood parts with extra thickness - well beyond the norm. Given its low center of gravity, this may be the most solidly built handloom ever made commercially available.

#### **Ideal Options**

AVL is well known for offering a wide selection of options on our looms. The V-Series continues in that tradition, including:

- 16, 24, 32, or 40 shafts
- 1/2-Yard sectional warp beam
- AVL-exclusive dynamic tension arm system
- Two-Beam capability
- Adjustable bench
- A whole host of warping options

## The "V" Also Stands for Value

When designing this loom we did not forget that price is important. This little loom offers capability, quality and an astounding price. Think about it, a 40 shaft loom with electric lift and a Compu-Dobby at a reasonable cost. Sounds too good to be true, but its not -- it's real and it can be yours!



#### **SPECIFICATIONS:**

**Height** 49" (124cm)

**Width** 45" with Compu-Dobby® and Warp Beam Handle (114cm)

Weaving Width 30" (76cm)

**Length** 50" (127cm) with Sectional Beam **Foot Print** 36-1/4" (92cm) x 47" (119cm)

 Weight
 220 lbs. (100 kg)

 Harnesses
 16, 24, 32, or 40

**Heddles** 25/harness plus 200 extra heddles

**Beater** Bottom Swing

**Beams** 1 or 2 Plain Beam - or - 1 Sectional Beam

Power (for Compu-Dobby®) 110 or 220 VAC

#### At AVL There's Always a Helping Hand

When you open the box, you'll get much more than immediately meets the eye; you'll get some of the best customer service offered anywhere by anyone, for as long as you own your loom. It's our willingness and ability to provide this kind of support that has made it possible to place and maintain AVLs in more than eighty countries worldwide.

So, if you're in the market for a Space Friendly, Economical, Bullet-Proof, Easy-to-Use, Full Featured Weaving Machine, backed by a company that preaches "Thou Shalt Provide Excellent Customer Service", and practices what it preaches, we heartily - if immodestly - recommend the new AVL V-Series Dobby Loom.



## "A" Series Looms

In honor of Jim Ahrens, AVL's founding father, AVL Looms has revamped its most popular line with the remarkable new "A" Series. All A-Series Looms will have the ability to utilize options that were once seen only on Industrial Looms. So in addition to longtime favorites like the Automatic Cloth Advance, Automatic Warp Tension, and Automatic Cloth Storage, the "A" Series also offers the following innovations:



60" Twenty-Four Harness "A" Series Loom

- Low Profile Front Verticals
- Pressure Roller
- Temple Rollers
- New-Style Automatic Cloth Advance
- Choice of Classic Mechanical Dobby or Compu-Dobby

What this means is that AVL looms will yield a level and consistency of fabric never before seen on handloom. Better yet, "A" Series looms are more comfortable and easier to use than any prior AVL model.

The "A" Series is available in the following widths:

• 30" (75 cm), 40" (1 meter), 48" (1.2 meters), 60" (1.5 meters), and 72" (1.83 meters)

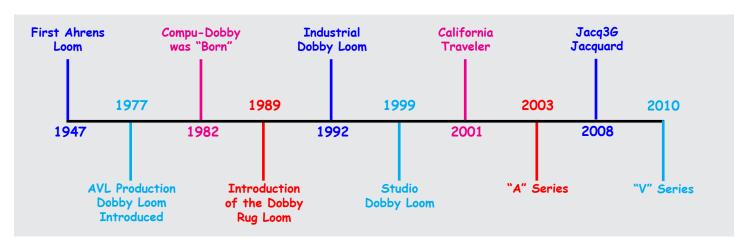
And it can be equipped with:

- Classic Mechanical Dobby (either 16 or 24 harness) convertible to Compu-Dobby
- Compu-Dobby (8, 16, 24, or 40 harnesses)

But why the change? Why refine a classic? Here's why:



Over the years, the AVL line has grown and evolved. In 1977, we brought out the Production Dobby Looms that revolutionized handweaving. In the early 80's, the Compu-Dobby was born. The late 80's saw the introduction of Air-powered Dobby Rug Looms. In the early 90's, we started building the Industrial Dobby Loom. By the late 90's, and the dawn of a new Millenium, we had added the Studio Dobby Loom and our cutest loom of all, the California Traveler. Each of these looms had some unique qualities; qualities that weavers wanted on all of our looms. Now, the engineering staff at AVL has succeeded in bringing decades of innovation together. The result is the newest star in the AVL galaxy. And it's named after our greatest star of all, Jim Ahrens ... thus the "A" Series was born.



We're certain Jim, who passed away in December 2000, would have loved the "A" Series because once again, AVL has brought high technology and textile industry know-how to the world of handweaving.

#### What's New

Low Profile Front Verticals: Look at the photos of the loom. It's open in the front. Where once there was the famous four post design of Jim Ahrens, now there is space. Our engineers added an extra pair of braces in the middle of the loom that actually make the "A" Series more rigid and sturdy than our classic design. Plus, the new low front verticals make it easier than ever to use an AVL because the front end is more accessible.



Low Profile Front Verticals





Pressure Roller

Pressure Roller: AVLs have long been famous for our unique Cloth Beam, also known as the Sticky Beam. While other looms have smooth breast beams, ours is covered with Sandpaper (or now SoftGrip<sup>TM</sup>). The Sticky System permits the AVL loom to use two separate tensions. One for the warp and the other for the finished cloth. The twin tension system means that one never has to worry about matting or distressing the finished fabric. It also means the warp tension is set at the warp beam ... where it belongs.

Sounds great doesn't it? And it is, but now we have made it better. The Industrial AVLs and some Rug Looms introduced the use of a secondary smaller beam, a Pressure Roller, to help increase adhesion to the Sticky Beam. The additional beam coverage means even the slipperiest yarns of all (chenille, silk, or linen) won't move a hair. Virtually ALL power looms use two front beams. Now AVL has brought this technology to the world of handweaving. Pressure Rollers are a standard feature on all "A" Series looms.

Rotary Temple: Let's face it, temples are a pain. Weave a few inches, release the temple, re-set it and start again. Not with a Rolling Temple. Just set the AVL Rotary Temple on the edges of the fabric and start weaving. There's no re-setting; no adjusting; just a smooth piece of fabric with practically no draw-in. Rotary Temples are ubiquitous in the textile industry so there is an incredibly wide range of needled and general purpose rings to choose among.



Rotary Temple (left side)

Best of all, your cloth will be more uniform than you ever dreamed possible. Rotary Temples have been standard equipment on the AVL Industrial Loom for over ten years; now they are available as part of the "A" Series.





Automatic Cloth Advance

Automatic Cloth Advance: We're fudging a little here, because the new style Automatic Cloth Advance has been around for a couple of years. But now it has been combined with Temple Rollers and the Pressure Roller; and what a difference the sum of these parts makes! The Auto Advance has never worked better. The Automatic Cloth Advance truly shines when consistency of weft spacing is a must.

No matter how one beats, the weft spacing will always be the same ... exactly the same. The cloth steadily marches forward one pick at a time. No more foot brakes, no more advancing levers ... just weave.

Best of All: Of course, the best news is "A" Series looms are still AVL looms. So they come to you with the same attention to detail that have made us famous the world over. Every existing feature and accessory on "classic" AVLs is available on the "A" Series. AirLifts or eLifts; Single-, Double-, or Four-Box Flyshuttle Beaters; One, Two, or even Three Warp Beams per loom; and all the rest. It's all available on the "A" Series.

AVLs are currently being woven on in over 83 countries and all fifty states. All AVLs are built at our facilities in Chico California. All wood parts are cut, shaped, and drilled on our Computer Numeric Controlled (CNC) wood cutting marvel. Steel, aluminum, and alloy parts are machined on a similar unit in the metal shop.



What this means to you is an unprecedented precision and, therefore, quality like never before. And, lest we forget, a lower price. Compare the price on an "A" Series loom to AVLs built the "old-fashioned" way. You'll see the price has actually dropped by a substantial margin. So let's see. Improved fabric quality. Easier operation. Lower price. More choice than ever before. What's not to like?

#### **SPECIFICATIONS:**

Weaving Width	<b>30"</b> (75cm)	<b>40"</b> (1m)	<b>48"</b> (1.22m)	<b>60"</b> (1.5m)	<b>72"</b> (1.83m)
Height	70" (1.78m)	70" (1.78m)	70" (1.78m)	70" (1.78m)	70" (1.78m)
Overall Width	45" (1.14m)	55" (1.4m)	62" (1.58m)	74" (1.88m)	86" (2.18m)
Front to Back	66" (1.67m)	66" (1.67m)	66" (1.67m)	66" (1.67m)	66" (1.67m)
Weight (lbs) Mod	320 (145 kgs)	330 (148 kgs)	380 (172 kgs)	395 (180 kgs)	425 (193 kgs)
Weight (lbs) 8H	358 (163 kgs)	368 (167 kgs)	418 (190 kgs)	468 (223 kgs)	518 (235 kgs)
Weight (lbs) 16H	365 (166 kgs)	375 (170 kgs)	425 (193 kgs)	475 (226 kgs)	525 (239 kgs)
Weight (lbs) 24H	375 (170 kgs)	385 (174 kgs)	435 (197 kgs)	485 (230 kgs)	535 (242 kgs)
Weight (lbs) 40H	440 (198 kgs)	450 (202 kgs)	485 (230 kgs)	535 (242 kgs)	585 (266 kgs)







#### AVL 3rd Generation Jacquard

Meet Jacq3G<sup>TM</sup>, representing the state-of-the-art in computerized jacquard hand weaving. Like all jacquards, Jacq3G enables individual control over each thread, yielding the equivalent of an unlimited number of "harnesses". The design posibilities are endless.

Furthermore, Jacq3G<sup>TM</sup> is both a loom and a revolutionary combination of ideas bringing Jacquard weaving within financial reach of most handweavers. Here is how:

- Best value more hooks for less money
- Excellent weaving speed fast acting countermarch-Jacquard action
- A-Lift, E-Lift or Treadle more versatility and less noise in powering the loom
- Dial-A-Sett rapid warp density changes and a low ceiling height
- A-Series frame industry-leading features and lower cost of ownership

These benefits make Jacq3G the ideal loom for designers, educational institutions, production hand weavers and artists. Whether you are weaving samples, production fabric or works of art, Jacq3G yields unprecedented design freedom and the latitude to create an unlimited variety of motifs and fabrics. Monsieur Jacquard, himself, would be impressed.



#### Jacq3G Technology - Jacq3G Head

Each Jacq3G head consists of 120 independently acting hooks. The design is modular, allowing the addition of a single head up to 18 total heads on the 72" frame. Hook activation is accomplished using minature solenoids. When selected, the solenoid maneuvers a hook wire into position to be captured by a lifting knife. When unselected, the hook wire remains captured by a dropping knife.



The lifting and dropping knives work in concert creating a countermarch-type action. And since each hook only moves half the shed height (either up or down), the shed is acheived in half the movement and half the time of rising shed or jack-style systems. Each head also contains the full compliment of heddles, springs, anchors.

#### Dial-A-Sett

Changing the warp sett on a jacquard loom has traditionally been a problem. With some systems, sett changes are not possible without repositioning the head. With others, the process is a lengthy, multi-step process. Not anymore. With Jacq3G, our latest Dial-A-Sett was redesigned to make it the easiest, yet. With a turn of a wheel, expand or contract the hooks to the full width of the loom or down to a tight sett; from 8 to 110EPI. No more casting out and wasting all those hooks, and no more time consuming reconfiguring of the loom!



Dial-A-Sett consists of an exclusive accordion structure, which floats on bearings and is attached directly to the heads; framing connecting the accordion structure to the loom and a central screwbased adjusting mechanism.



#### Communications & Electronics

The Jacq3G<sup>TM</sup> has 3 built in modes of communication:

◆ Ethernet ◆ USB ◆ Serial

The electronics were designed from the ground up using the same tried-and-true Compu-Dobby technology. Further, we added a more robust signal transfer between the control box and the heads on the loom ensuring fantastic pattern reliability and to allow greater flexibility in control box placement.

#### Software

JacqPoint controlling software (by the author of WeavePoint) comes with every AVL Jacquard. JacqPoint reads the J1P standard format, which is currently supported by ArahWeave PE, ArahWeave Super PE, Pointcarre, ScotWeave, JacqCAD MASTER and others. JacqPoint can also import bitmaps from most paint programs like Photo-Shop. Whatever your approach, the sky's the limit. Drive System

Another first, three drive options on an AVL Jacquard. You choose between air, electric or even manual drive systems. The countermarch mechanism does more than make the system fast. It also requires less work to lift, making a manual drive mechanism possible for up to six heads. Or, take the work out of shed raising with Jacq3G A-Lift or E-Lift II drive systems.

#### A-Series Frame

Using a standard A-Series frame has many advantages, including lower cost of ownership through common parts, a unparalleled base set of features and a fantastic array of options. Click here for A-Series standard features. Options include:

- Bottom or Overhead swing beater
- Flyshuttle: 1, 2 or 4-Box
- Beams: Plain, 1/2-Yard Section or 1-Yard Sectional; 1,2 or 3 beams
- Automatic warp tension or locking brake



- Auto Cloth Advance
- Rotary Temples
- Selvage Rollers
- Beam Revolution Counter

One could, in fact, conceivably move from a four harness, six treadle modular loom, through a 40 harness Compu-Dobby, and eventually end up on to the Jacq3G; and all on the same loom!

## **Choosing Head Configuration**

Jacq3G<sup>TM</sup> has been designed to accomodate more hooks than any previous AVL Jacquard. It is now possible to accomodate up to 5,760 hooks on an 72" A-Series loom! Of course, loom width limits the number of hooks, so below, we have provided guild-lines for hook limits per loom width:

LOOM WIDTH	MIN. HOOKS	MAX. HOOKS
30" A-Series	360	840
40" A-Series	360	1,200
48" A-Series	360	1,440
60" A-Series	360	1,800
72" A-Series	360	2,160

#### **SPECIFICATIONS:**

Weaving Width	<b>30"</b> (75cm)	<b>40"</b> (1m)	<b>48"</b> (1.22m)	<b>60"</b> (1.5m)	<b>72"</b> (1.83m)
Height	84" (2.14m)	84" (2.14m)	84" (2.14m)	84" (2.14m)	84" (2.14m)
Overall Width	45" (1.14m)	55" (1.4m)	62" (1.58m)	74" (1.88m)	86" (2.18m)
Front to Back	66" (1.67m)	66" (1.67m)	66" (1.67m)	66" (1.67m)	66" (1.67m)
Weight (lbs) 3 Heads	400 (181 kgs)	410 (186 kgs)	460 (208 kgs)	490 (222 kgs)	560 (254 kgs)
Weight (lbs)					
Additional Head	16 (7.3 kgs)	16 (7.3 kgs)	16 (7.3 kgs)	16 (7.3 kgs)	16 (7.3 kgs)
Weight (lbs)					
RigidFrame*	75 (34 kgs)	80 (36 kgs)	85 (38 kgs)	90 (41 kgs)	100 (45 kgs)
Weight (lbs) A-Lift	25 (11 kgs)	25 (11 kgs)	25 (11 kgs)	25 (11 kgs)	25 (11 kgs)
Weight (lbs) E-Lift	40 (18 kgs)	40 (18 kgs)	40 (18 kgs)	40 (18 kgs)	40 (18 kgs)
* Required for loom with mo	re than 14 heads				



#### **CONTROL BOX SPECIFICATIONS**

 3-20 Heads
 21-48 Heads

 Height
 20" (.51m)
 38" (.97m)

 Overall Width
 18" (.46m)
 18" (.46m)

 Front to Back
 18" (.46m)
 18" (.46m)

Weight (lbs)

3 Heads 30 lbs. (13.7 kgs.) <125 lbs. (<57 kgs.)

#### **POWER REQUIREMENTS**

<u>3 Heads</u> <u>Per Head</u> <u>System</u>

Electrical Input, 15A @ 110V, 5A @ 110V, Pattern (MAX) \*\* 7.5A @ 220V 2.5A @ 220V

Pneumatic Input, 5 CFM @ 100 PSI

A-Lift (MAX) \*\*

Electrical Input, 5A @ 110V, E-Lift (MAX) \*\* 2.5A @ 220V

\*\* Varies based on hooks activated



## **Professional Dobby Rug Loom**

The AVL Professional Dobby Rug Loom is the ultimate heavy-duty loom, precision engineered for rug weavers who need AVL-style responsiveness and complete versatility.



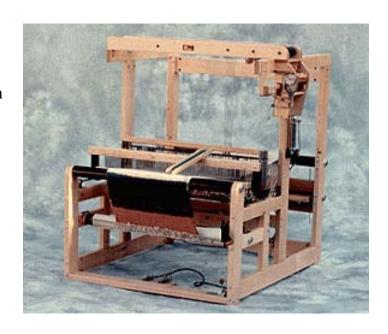
To provide maximum AVL performance, the Professional Dobby Rug Loom combines the design flexibility of the AVL dobby with high tech features such as an air-powered shed and an efficient sliding beater.

The Professional Dobby Rug Loom also features extra-sturdy construction with the largest pieces of kiln-dried hardwood that AVL has ever used. All rollers and warp beams are steel and the beater is reinforced with steel as well.



But, it is the special components created specifically for the demands of rug weaving that make AVL's Dobby Rug Loom an exceptional value:

Our unique Sliding Beater is mounted on parallel stainless steel rods, so each beat is at the perfect angle to the fell line. Integrated slide bearings will allow the weaver to pull even a twelve-foot beater with virtually no effort. And, unlike overhead beaters, this one stays where you put it for convenient pick-up and tapestry work.





Top: Four Foot Rug Loom; Bottom: 12' Rug Loom

• The Air-Powered Dobby provides effortless operation no matter how wide your loom. Even a twelve foot loom opens with ease. And the extra large shed will stay open until you let it down with another tap of your toe.



• The Air-Powered Warp Tension System gives optimum warp tension control possibilities. The combination of a powerful air cylinder, aircraft cable, and worm gear advancing system gives a tremendous range of sensitivity, yet maximum tension at all times.

#### Standard Features on all Dobby Rug Looms include:

- Air-Powered Warp Tension
- Air-Powered Shed Opening
- Apron with Apron Rod
- Dobby System (8 or 12 harness): 20 dobby bars with pegs, dobby peg wrench, 100 dobby chain ties (upgradable to air powered Compu-Dobby)
- Illustrated Instruction Manual
- Extra Sturdy Kiln-Dried Hardwood Construction
- Steel Heddles
- Reed (your choice of 4, 5, 6, 8, or 10 dents)
- Tool Holder
- Two-Year Warranty on all Parts and Labor

Note: Custom Orders for Wider Rug Looms available. Up to 15 feet (4.5 Meters). Call for price.

#### **SPECIFICATIONS:**

## **Dobby Rug Looms**

<u>4'</u> (1.2m)	<u><b>6'</b></u> (1.8m)	<u><b>8'</b></u> (2.4m)	<u>10'</u> (3m)	<u>12'</u> (3.65m)
75" (1.9m)	75" (1.9m)	75" (1.9m)	75" (1.9m)	75" (1.9m)
66" (1.67m)	90" (2.29m)	114" (2.9m)	138" (3.5m)	162" (4.1m)
84" (215m)	84" (215m)	84" (215m)	84" (215m)	84" (215m)
400	600	800	1,000	1,200
900 lbs. (409kg)	1300 lbs. (591kg)	1600 lbs. (727kg)	1900 lbs. (864kg)	2300 lbs. (2045kg)
	75" (1.9m) 66" (1.67m) 84" (215m) 400	75" (1.9m) 75" (1.9m) 66" (1.67m) 90" (2.29m) 84" (215m) 84" (215m) 400 600	75" (1.9m) 75" (1.9m) 75" (1.9m) 66" (1.67m) 90" (2.29m) 114" (2.9m) 84" (215m) 84" (215m) 84" (215m) 400 600 800	75"(1.9m) 75"(1.9m) 75"(1.9m) 75"(1.9m) 66"(1.67m) 90"(2.29m) 114"(2.9m) 138"(3.5m) 84"(215m) 84"(215m) 84"(215m) 84"(215m) 400 600 800 1,000



# **Industrial Dobby Loom**

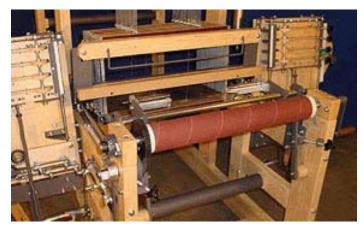
## A Powerhouse That's Easy To Love

The AVL Industrial Dobby Loom offers a wide range of weaving options for industrial sampling or small scale production. It represents a startling union of advanced electronics and pneumatics with AVL's tried and true loom technology.





Fabrics: Light, medium, and even heavy-weight fabrics of virtually all yarn types; natural, spun, and filament are all capable of being woven on the IDL. The wide range of applications extend from plain weaves to complex 24 harness dobbys.



Four-Box Shuttle System

**Yarns**: Spun yarns of natural and man-made fibers as well as filament yarns in a very wide range of yarn counts are all possible. The loom performs well with medium density cotton, heavy novelty yarns (chenille), and super-fine silk among others.

**Widths**: The IDL is available in three reed widths: 24" (61 centimeters), 40" (1 meter), and 60" (152 centimeters).



Right Pressure Roller

Loom Frame: Sturdy ash members connect to the heavy-duty side frames with special locking hardware to help insure rigidity and low vibration. The control units are housed in fully enclosed boxes of the finest Finnish birch.

**Reed Motion**: The lay rides on twin stainless steel rods. The beat is even and smooth, always striking the fell line at a perfect 90° angle. Self-aligning bearings ensure a lifetime of smooth performance.





**IDL Control Panel** 

#### **Computer Optimized Design:**

A standard twenty-four harness AVL Compu-Dobby® controls the lifting motion. When linked to the controlling computer, patterns can be changed in a matter of seconds. A newly re-designed Dobby mechanism features a machined plate that rides on specially manufactured slide rods and linear bearings. These high-grade materials result in a smooth action that will require virtually no attention.

**Advanced Pneumatic Drive**: The IDL is driven entirely by air. Using pneumatics in conjunction with advanced electronics increase longevity; decreases vibration; and makes the loom clean and easy-to-maintain.

**Sensor Control**: Another unique feature of the IDL is the strategic use of sensors throughout the loom. Photo sensors and reed switches are used to sense all motions and send them back to the control unit for constant monitoring of the system. The photo sensors, for example, are used to see whether there's a shuttle in a box. If the shuttle isn't seen there, it won't be thrown, which adds to the safety of the operator.

**Color Selection**: The IDL comes equipped with a 4x4 shuttle-box system. The color is controlled directly from the controlling computer. Color can be alternated automatically or defined on a pick by pick basis.

**Push-Button Operation**: A control panel in the center of the loom includes push-buttons for the following operations: start, pause, stop, and emergency stop. There is also a switch for toggling between automatic and manual operation.

In manual mode, each loom function can be individually controlled, including: advance, dobby, shuttle, and beater. So, the user can control each aspect of the weaving to make adjustments or changes as needed.



**Warp Let-Off**: Warp tension is controlled by AVL's celebrated Automatic Warp Tension system. The loom can use either one or two individually tensioned sectional or standard warp beams. AVL's tension system is highly sensitive and maintains a constant tension from start to finish.

**Cloth Take-Up**: A slip-free, gear-driven, take-up with a special sliding pick density system is a highlight of the loom. The pneumatically driven take-up is unique in the industry and provides a wide range of pickage.

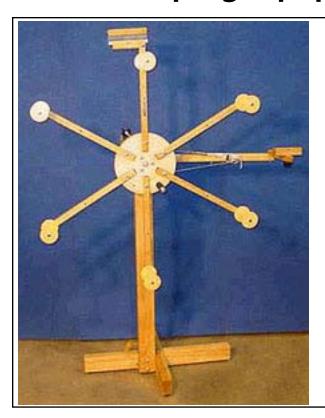
#### **SPECIFICATIONS:**

## **Industrial Dobby Looms**

	24" (61cm) Sample Loom	40" (100cm) Production Loom	60" (152cm) Production Loom
Height	75" (190cm)	75" (190cm)	75" (190cm)
Full Width	79" (200cm)	95" (241cm)	115" (292 cm)
Front to Back	77" (196cm)	77" (196cm)	77" (196cm)
No. of Heddles	2,400	2,400	3,000
No. of Harnesses	24	24	24



## **Warping Equipment**



## AVL Warping Wheel For short warps of approximately 20 yards, try the revolutionary Warping Wheel. It does away with the need for racks of cones or spools and allows you to create sections of 20, 30, even 40 ends per inch with just a single cone.

## The AVL Spool Rack

The Spool Rack holds 104 spools, yet fits compactly in a 46" x 20" space and stands 46 1/2" tall. There is no better way to make economical use of your valuable yarns than by winding them on spools. And the AVL Spool Rack can be used for warping both our Standard and Sectional Beams. Constructed with hard rock maple and steel.

#### The AVL Cone Rack

Holds 56 cones or spools. The advantage of a multi-use cone rack over a simple spool rack is that when doing production runs, the sectional beam can be filled directly from the cones of yarn as purchased.





## **Sectional Warp Beam System**

This system consists of a sectional warping beam, tension box, and cone rack or spool rack. And now, for short warps, try the Warping Wheel with the Sectional Beam.

The system is designed to make long warps (up to 100 yards or more depending on the material) totally manageable.

## The AVL Sectional Warp Beam

Available with either one yard or one-half yard circumferences. Both have one inch sections that are easily removable for infinite flexibility. It has been engineered so that absolutely no torsional deflections will occur under the heaviest of warp tensions. This strength is essential to help avoid uneven tensioning in the warp and thus the resulting variations in the cloth.



#### **Revolution Counter**

Another AVL innovation.
The Revolution Counter is an invaluable addition to the Sectional Beam. It helps keep track of each revolution of the beam while winding on, so you never end up with a short section. Better still, the counter can be reversed to keep track of how much you've woven off.

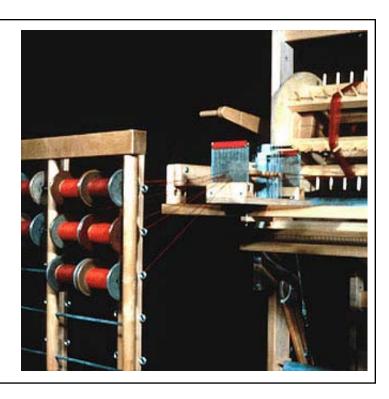
# The AVL Wall-Mounted Beam Winder

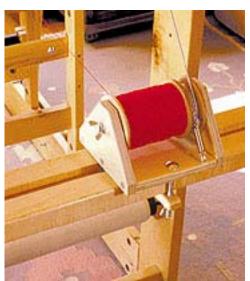
Allows the warp beam to be removed from the loom while winding on the warp. Weavers who don't want the warping process to monopolize their loom have found the Beam Winder to be an invaluable aid. It allows for the warping of both standard and sectional warp beams off the loom.



### The AVL Tension Box

Places proper tension on the warp ends and has a moveable front reed section so the width of the band being fed onto the sectional beam can be accurately regulated. It also has a unique heddle system that is used for conveniently putting a cross in each section.





## **Selvage Rollers**

AVL's Selvage Roller System lets you maintain an even tension throughout a fabric. Selvage Rollers are especially useful when your edges require different tension than the rest of the cloth. The system requires the use of the AVL Track and Mounting System.

## Warp Beam Flanges

An option for all standard beams. They are used to support the edges of the warp and eliminate the need for winding paper, cardboard, sticks, etc., into the warp.



# **Optional Equipment**

### Hand and Flyshuttles

A special bobbin and tensioning system is used on our end-delivery shuttles which completely eliminates the need to hand manipulate each weft shot. This unique system increases weaving speed tremendously, at the same time producing more uniform and clean selvages.



## **Single Box Flyshuttle Beater**

Greatly speeds up the weaving process and increases uniformity of the woven cloth. Available for all Dobby and Modular looms, except the Studio Dobby Loom.

## **Double Box Flyshuttle Beater**

A double box flyshuttle beater accommodates the use of two shuttles so that alternating threads (pick-and-pick) can be easily utilized in the weft.

## Four Box Flyshuttle Beater

For specialized weaves; the four-box holds four flyshuttles and allows for a wide variety of weft changes.

#### **Patent Denter**

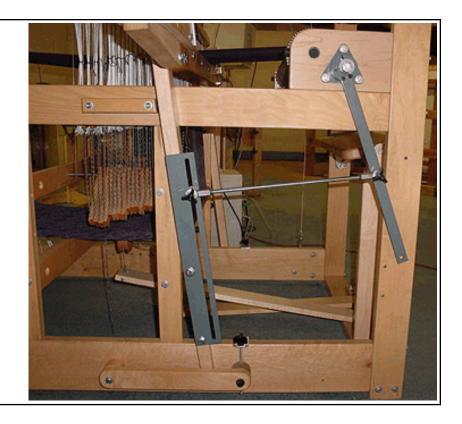
A favorite accessory of AVL weavers around the world. The Patent Denter is a creeping reed hook that automatically advances from one dent to the next. Works on reeds up to 30 dents per inch.

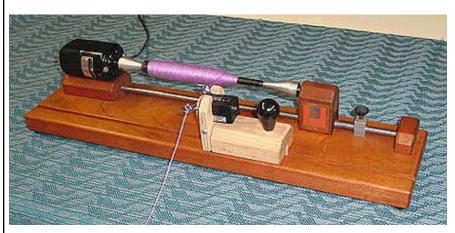




## **Automatic Cloth Advance System**

The Automatic Cloth Advance moves your fabric forward one pick per beat. Particularly useful for doing open weaves, such as drapery fabric, where consistency in the weft spacing is critical. Also insures uniformity when more than one weaver is using the same warp.





#### **Electric Bobbin Winder**

For quick and efficient winding of bobbins and spools, the AVL Electric Bobbin Winder is a must. Our winder's heavy hardwood base, foot control, and manually operated Thread Guide help to further smooth the process. An optional AVL Yardage Counter can be added to the Thread Guide.





### **Shuttle Tray (set of two)**

Our handy and popular Shuttle Trays are a great solution to the age-old problem of where to put those pesky extra shuttles. The trays mount on the cloth beam supports which places them in the perfect spot to make a shuttle change. (Full frame looms only.)

#### Raddle

Used with plain warp beams, dented four to the inch with a removable top to hold the threads in place, it allows the warp to go on more quickly and with less tension problems. For use on all looms with plain warp beams.

### **Air Assisted Dobby**

All AVL Dobby Looms are capable of being converted to a pneumatic lifting system. The Air Assisted Dobby is an easy and extremely effective add-on that alleviates all effort from lifting.

#### **Overhead Beater**

Unlike other overhead beaters that are only pivoted at the top and, therefore, tend to strike up on the fell, the doubly-articulated AVL overhead beater will always beat at a perfect 90 degree angle. The benefit is reduced effort and a superior fabric. The system may be ordered as a standard beater or with any of the AVL flyshuttle beaters. Available on 48", 60", and 72" looms.