

GALLIEN-KRUEGER

Survivor, innovator, and leading bass amp manufacturer Robert Gallien reflects on his nearly 40-year legacy

A pioneer with a string of largely uncredited product design firsts, Robert Gallien has been called “the father of the modern bass amp.” By introducing features that many other companies later adopted, Gallien has spent nearly 40 years raising bass players’ expectations and ensuring that some of the world’s most renowned bassists and their audiences hear every note they play. Today 30 employees at G-K’s 33,000-square-foot facility in Stockton, California, manufacture its pro-level products. At another factory in Taiwan, 50 workers, though not technically G-K employees, build only G-K products.

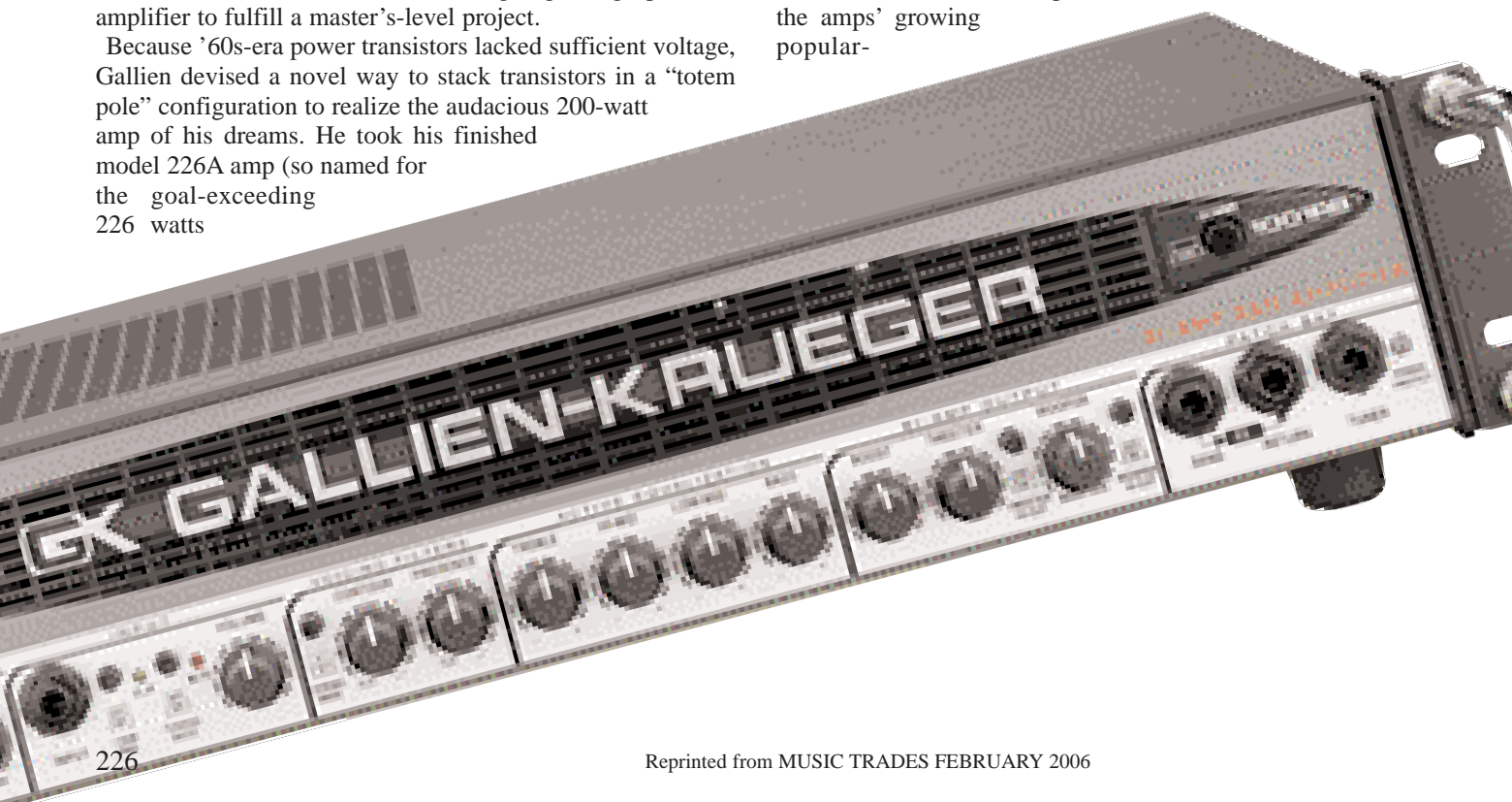
After working his way through college as a guitarist and earning his bachelor’s degree at Berkeley, Bob Gallien secured a job as an engineer at Hewlett-Packard. While working toward his master’s at Stanford he devoted his spare time to the realm where his artistic and scientific talents collided: “tinkering” with guitar amplifiers. It was only natural, then, that in 1967, as rock ‘n’ roll was beginning to fill stadiums (and the odd farmer’s field) and musicians were playing louder and louder, Gallien set about designing a high-powered amplifier to fulfill a master’s-level project.

Because ‘60s-era power transistors lacked sufficient voltage, Gallien devised a novel way to stack transistors in a “totem pole” configuration to realize the audacious 200-watt amp of his dreams. He took his finished model 226A amp (so named for the goal-exceeding 226 watts

it delivered) to Draper’s Music across the street from Stanford. “The store owner wouldn’t buy it,” he recalls, “but he let me leave it there on consignment. The very next day Carlos Santana came in and bought it! Carlos wasn’t famous yet; he was more of a local phenomenon then with the Santana Blues Band. But within a year he’d used that amp to record his first album and perform at Woodstock. All of sudden Santana was a big deal—and the dealer became a lot more interested in my amps.”

That payment financed Gallien’s building a couple more amps, which he sold to local musicians. When he’d made enough to build five units, he took them to Leo’s Music in Oakland. Leo’s sold all of them almost immediately, and the store called him the very next week to order eight more. He admits, “Since each amp took me a long time to build by hand, I had no idea how I’d build eight of them.” But he managed, and in very short order his “tinkering” had grown viable commercial legs.

By 1971 he’d set up a small production line in his garage and sold amplifiers initially under the “GMT” brand name. Despite the amps’ growing popular-





“The father of the modern bass amp,” Robert Gallien has been building amps longer than just about anyone, since 1967.

ity, he never discussed his moonlighting with HP co-workers, fearing he might lose his job. But one Saturday while he was working in his garage, Richard Krueger, a mechanical engineer in his HP design group, showed up unannounced at his house. Fascinated with Gallien’s sideline, Krueger eventually convinced him to form a partnership.

The popularity of Gallien’s earliest amps can be attributed to a single, basic attraction: power. “Guitarists weren’t miking their cabinets back then,” he explains, “so they needed their amps to broadcast to the entire audience. And tube amps of the day had only a small fraction of the power of our solid-state amps.” In fact, Gallien admits that his first amp, the one purchased by Santana, had “way too much gain for the way I played and the way most people played; I made it that way by accident. It would sustain forever— it allowed his guitar to sing like crazy— which was probably why Carlos bought it. He sort of led the charge into the new era of guitar playing.”

Even in the company’s early days Gallien was making both heads and

cabinets. To avoid blowing speakers with the amps’ superior muscle, Gallien-Krueger cabinets employed two heavy-duty Electro-Voice 15" speakers—in guitar amps as well as bass amps. A single speaker, notes Gallien, would have been destroyed.

While power in spades remained a hallmark of the brand, other distinctions followed the very next year. Introduced in 1971, the 300-watt 600B bass head featured a unique all-metal box. With die-cast side frames with hefty rack handles on the front, also music industry firsts, “it looked more like a scientific instrument.”

The 600B’s exterior design elements were radical for the time, but they hadn’t risen from the ether. In the ’70s Hewlett-Packard wasn’t a computer company or a printer company, it was a scientific instrument company. Says Gallien, “Richard and I thought the HP stuff looked pretty cool, so we decided to design a bass amplifier with the same look. All the other amps on the market were in heavy wood boxes with tubes, while ours were lightweight and high-powered, so we decided that they

should look different too. If we’d had a big, successful company back then we might not have risked it.”

In addition to its aesthetic novelty, the 600B was the first bass amplifier to include an active equalizer. “Before that,” says Gallien, “everybody used a passive equalizer, which is basically the tone control out of a Fender amp.” The 600B was also the first amp to have an onboard effects loop, which the company called Preamp Out and Power Amp In. “Other companies that claimed they had the first effects loop actually did it five years after we introduced the 600B,” he continues. “Bass players weren’t using effects much back then, but a number of them used the preamp out to record.” G-K simultaneously introduced the 600G, a model for guitar that was identical to the 600B except that it had reverb and a distortion knob.

Bob Gallien and Richard Krueger left HP in April 1972, rented a workspace in San Jose, and renamed the company Gallien-Krueger Inc. They increased production from 25 amps the previous year to 125. Despite the venture’s auspicious start, Gallien admits that he and

Gallien-Krueger

Krueger were “a couple of engineers who didn’t have a clue about the music products business. For example, bands like Led Zeppelin were using our amps, but we didn’t try to market any of that. We didn’t even advertise.”

Even though G-K’s bass amps were beginning to take center stage, in 1974 the company debuted the successful 200G guitar amp. The 200G was the first amp to include channel switching with an overdrive channel.

Gallien is annoyed by others capitalizing on, and taking credit for, his innovations, but he admits that until fairly recently he didn’t pay much attention to a number of fundamental details in the music products business such as marketing, advertising, and safeguarding intellectual property. “I was an engineer, not a businessman,” he says. “I was always focused on making the next amp and discovering ways to make it better.”

In 1981, after offering amps in metal boxes with front rack handles for years, G-K introduced its 200RB and 200RG amps with rack mount ears, making them truly rack-mountable—another first in the music products industry.

A year later G-K’s new 800RB became the world’s most popular bass head. A 400-watt bi-amped powerhouse, it pumped out 300 watts for bass frequencies and 100 watts for highs, all trafficked with an adjustable crossover and contained in a three-space rack-mountable enclosure. In addition to being the first bi-amped bass head, it offered two more music industry’s firsts: a direct out and a removable A/C cord. “Interestingly,” says Gallien, “most players who bought that amp never used the high-frequency amp, but within a few years almost every amp on the market had a crossover. The 800B really made this company. We still make it, and it continues to be a big seller.”

On the heels of the 800RB came the “incredibly popular” 250ML guitar combo. About the size of a lunch box in an all-metal enclosure, the 250ML drove two 6-1/2" speakers with two 50-watt amps and a host of studio effects. In 1984 G-K introduced a counterpart model for bass with a single 12" speaker. Its latest incarnation, the 150-watt MBE150-III, is very popular.

Gallien-Krueger’s current best-sellers include the 700RB-II and 1001RB-II.

Like the 800RB, they are bi-amped, but they are configured to drive horn-loaded cabinets through a unique four-conductor Speakon cable. Their high-frequency amp delivers just 50 watts to avoid blowing the high-frequency horns, while putting the horn control on the front panel. For the low end the 700RB produces 480 watts, the 1001RB 700 watts. The 2001RB, used almost exclusively by top touring pros, has dual 540-watt woofer amps (bridgeable to 1,080 watts) and two 50-watt high-frequency horn amps.

Richard Krueger left the company in 1997, taking a position at Guitar Center. After buying out his interest in G-K, Bob Gallien is now the company’s sole owner.

Explaining G-K’s eventual transition from guitar amps to bass amps, Gallien reveals with unflinching candor, “Sometimes when you know too much about something you think you know everything, but if you don’t know anything about it you’re willing to listen. Being a guitarist, I guess I thought I knew everything I needed to know about guitar amps. To make bass amps I had to have real bass players tell me what they wanted. I was in close contact with everyone who bought one, and we developed and refined many product design elements based upon what they told me.”

While many more guitarists remained in, or returned to, the vacuum-tube camp, bassists, in Gallien’s estimation, are split roughly 50-50. Rather than chasing after the tube contingent, he committed to solid-state. “Solid-state devices lend themselves to low frequencies and high power,” he explains. “To drive bass frequencies and bass speakers you need a lot more power than for equivalent sound levels in a guitar amp—maybe four times as much. But my decision was more about the kind of sound we were looking for.

“When I got serious about designing bass amps, I designed them to solve a problem that I’d observed: In a lot of live performance situations, especially large concerts, you hear the kick drum, but not the bass player, because the sound of most bass amps wafts around the stage as a low-level rumble. You can’t put that in the monitors or out to the audience without drowning the whole building in rolling boom. I’ve

always attempted to bring the instrument out to be a more meaningful contributor to the band sound, as well as doing justice to the artistry of the player. To make the bass amp sound articulate—to deliver a tremendous kick to the speaker instead of an indistinct ‘woofing’ sound—it has to respond fast. A tube has a lower damping factor, and it’s relatively slow. That slow, indistinct response is what some people equate with ‘warmth’; it sounds great in your living room, but as soon as you start playing with a couple of guitar players and a drummer and keyboardist, the crispness and the clarity get lost. That’s why I’ve never tried to emulate a tube sound; I’ve always just tried to solve this problem.”

Just as musicians of the ’70s swore by

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Gallien-Krueger amps for their sheer power, a new generation of bassists began endorsing them for their ability to project their sound with unmatched impact and clarity. Players such as James MacDonough (Megadeth), Tony Kanal (No Doubt), and Duff McKagan (Velvet Revolver) have credited G-K amps with the driving, pulsating push of their sound in concerts. Gallien suggests, “Bass players have been getting hip to the fact that they can come out of the shadows a bit if they use the right kind of amplifier. [Red Hot Chili Peppers bassist] Flea would have been Flea no matter what kind of amp he uses, but he’s told me that he’s tried every amp on the market, and that for him and his bandmates, G-K is the only amp that delivers the sound they need. And he’s not the only one who talks like that.”

Indeed, some of G-K’s other endorsers



Product testing at Gallien-Krueger's factory in Stockton, CA.

might easily, but mistakenly, be linked with the tube amp “camp.” Jazz giants Ron Carter, Dave Holland, and Charlie Haden don’t typically have to project their sound to an arena of screaming fans, but in some respects their acoustic needs are similar to G-K’s rockers. “Not every bass player loves G-K’s sound,” Gallien concedes, “but all of the ones who *do* love it are the articulate players, the players with touch. All of our endorsers were once tube amp players. Masters like Ron Carter and Charlie Haden want a very articulate sound. They want their actual notes, their melodies, to be heard.”

Though endorser names now roll off

his tongue, Gallien’s awareness of the importance of endorsers is another of those areas of the business that developed very late in his career. “For many years I never paid attention to the value of endorsements,” he says, slightly embarrassed. “I saw everything through an engineer’s eyes: ‘Well *of course* people will love this thing; look how well it’s designed and built!’ Later I began to appreciate that it’s the artists using the gear who give it its reputation. About five years ago I resolved to make more out of the artists who choose to play our products, and to do more to support those them.”

In addition to their clarity and articula-

tion, Gallien-Krueger bass amps are known for an additional audio signature that, again, appeals to players as diverse as Dave Holland and Flea. Gallien describes the “G-K growl” as being “somewhat analogous to the warm distortion associated with blues guitar. Every power amp will deliver a certain amount of power before it begins to distort. That maximum power is defined by the voltage rails inside the power amp. When we say it ‘hits the rails,’ it just won’t put out any more. Most amps hit the rails sharply and they clip and produce a little stagger. Our amps go in and out of the rails in a way that sounds musical—we call that ‘the GK growl.’”

From tinkering in his garage to winning praise from the world’s most celebrated bassists, Robert Gallien has changed the face of the bass amplifier market. “I’m proud of our contribution to the field,” he says. “From the beginning we were doing things so radically different, yet they were accepted by the rest of the industry as the way to go. I’m also very proud of the products we offer today. Each one builds on a heritage of continuous development reflecting our dedication to the musical instrument amplifier and the artists who rely on them.”