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## **Jack Burt: The Rotary Trumpet: An Introduction (Mar 04/52)**

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# The Rotary Trumpet: An Introduction

BY JACK BURT

The standard arsenal of the modern American orchestral trumpeter usually consists of the C trumpet, B-flat, D/E-flat, A/B-flat piccolo and perhaps a cornet. In more and more orchestras, however, another instrument is being seen in rehearsals and concerts: the German rotary trumpet. For many years major American orchestras like the Chicago Symphony and the Cleveland Orchestra have utilized these instruments. But now, trumpet sections in smaller orchestras across the country are also making regular use of them in a substantial range of repertoire. In spite of the growing use of these instruments, most trumpeters have a limited knowledge and little exposure to rotary trumpets.

My interest in rotary trumpets began as I stepped into the Baldwin-Wallace College trumpet studio for my first lesson with Cleveland Orchestra member James Darling. I spied a strange trumpet on the corner desk—a type I had never seen. My curiosity about these trumpets began at that moment. It grew as I became familiar with the unique qualities of German orchestral trumpet sections. I was particularly taken by the sound of the Berlin Philharmonic and their dual principal players, Konradin Groth and Martin Kretzer, under legendary maestro Herbert Von Karajan. I heard them first on recordings and later live, in the early 1980s, while I was a student in what was then the divided city of Berlin.

This article will attempt to introduce the rotary trumpet to players not already familiar with them. It will discuss their advantages and disadvantages, in comparison to the standard piston trumpets. Suggested repertoire, both orchestral and solo, will be discussed, as well as profiles of major makers. If one is interested in purchasing a German trumpet, the first steps in doing so, either in the USA or in Europe, will also be discussed. It is not my intention to recommend the use of one trumpet type or maker over another, rather it is solely to provide information on unique, wonderfully crafted instruments, instruments that can provide an opportunity for trumpeters to expand their tonal and artistic palettes, and their craft.

## Construction

There is no shortage of quality rotary trumpets from which to choose. Most makers build each trumpet with a small work force, in limited quantities. Although many German and Austrian brands have different features and characteristics, like our American instruments they also have similarities, beyond

the rotary valve type, that can be generalized as “rotary trumpet characteristics.”

In comparison to piston valve trumpets, rotary trumpets generally feature a narrower bore, shorter valve throws, a larger bell diameter, and a broader bell flare. Most have a thinner metal thickness overall, most noticeably in the bell section. Certain makers apply a nickel-silver crown on the bell that they feel enhances projection and stability in forte playing. A significant but often overlooked difference is the location of the valve section. On piston trumpets the valve section is placed in the middle of the horn's tubing; after the leadpipe and tuning slide bow, and before the bell section. The valve section of a rotary trumpet is placed after the first eight inches of the tubing (on a B-flat trumpet), with the majority of length coming after, including both the tuning slide bow and the

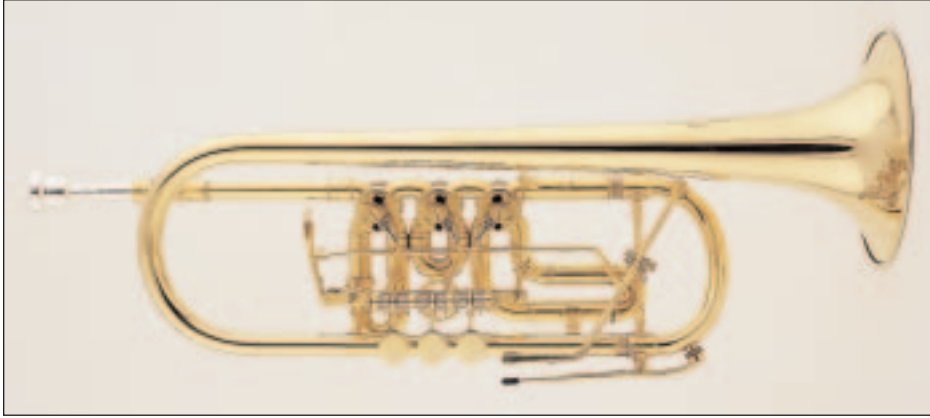
bell section. Most players feel this difference in construction has an effect on the playing characteristics of the rotary trumpet as opposed to piston trumpets.

Rotary trumpets have a unique feature; special keys on the main tuning slide which facilitate the production and intonation of certain pitches in the higher register. The main combination key serves a dual purpose of being the only water key and also a pitch key. All the keys serve to decrease resistance and give greater security to the production of a major triad of higher pitches. The combination key is opened by the small finger of the right hand and is intended for b-flat”, d”, and f”. It is standard on all B- flat and C rotaries. The “Wiener C Klappe” (Vienna C key) works for a-flat”, c” and e-flat”. [On either the B-flat or C trumpet the effectiveness of these keys



Jack Burt rehearsing the Hummel *Concerto* on an E rotary trumpet with the Corpus Christi Symphony

can be tested. Play the “*Zarathustra* call” by Johann Strauss with and without the key. The combination key would be used on the B-flat trumpet to play the octave “D” fanfare, and the



Schagerl C trumpet with combination key, C and A keys, and combination first and third valve slide pump

Wiener C Klappe would be used on C trumpet.] The less common “A” key works for a “, c-sharp”, and e”. None of these keys is necessary to play the instruments effectively, but they can be very useful. B-flat trumpets are usually found only with the combination key, while C rotaries can have as many as three additional keys.

Most modern rotary trumpets are equipped with throws for the third valve slide, yet they lack the ability to extend the valve slide to produce a low f, as is common on professional quality piston trumpets. First valve throws are available from most rotary makers, but are not standard. The Austrian maker Schagerl offers a combination valve throw, activated by the thumb of the left hand, which moves both slides simultaneously. The German maker Thein offers the option of attaching a *Pitchfinder*<sup>®</sup> mechanism, which moves the main tuning slide to make all intonation adjustments.

The general intonation of a modern professional quality rotary trumpet is equal to any piston trumpet of comparable quality. Lower register notes may be found to need more attention than a piston player is normally accustomed. Conversely, the same player may find that notes above c” are much less troublesome to play in tune than on a piston trumpet.

#### Playing Characteristics

Rotaries have distinct playing characteristics, unique unto themselves, that make them rewarding to play. Many listeners find the tone of most rotary trumpets is broader and less compact than that of piston trumpets. Along these same lines many feel rotaries blend more easily with other brass instruments, and the rest of the orchestra. Response is gentler, and soft playing can be achieved with greater ease. Flexibility and articulation, especially in light passages, are often considered

easier than on piston trumpets in the same key. (In most German and Austrian orchestras the *Pflichtstück*, or “required piece” in trumpet auditions is the Haydn *Concerto*, “to be performed on Deutsche B Trompete,” the German B-flat trumpet. Almost every difficult passage is made easier by playing the rotary as opposed to piston B-flat trumpet.)

Many American players are discouraged to find upon playing a rotary for the first time, that the instrument in forte passages can be more easily overblown than on their piston equivalents. The narrower bore of the rotary trumpet requires that players make adjustments from how they approach a piston trumpet. The specific physical approach to playing a standard piston trumpet must be adjusted to play a rotary trumpet. Rotaries require more control in *forte* passages, and cannot be forced. Other than the initial lack of familiarity at holding the instrument, this is usually the most important adjustment a player must make. Rotaries can certainly be played loudly, with great effect. In fact, many players have commented that rotaries allow them to play even louder than they might usually be allowed to play, once they learn to adjust to the physical requirements of the instrument, because the rotary instrument’s sound is less piercing and more resonant than the piston variety.



Lechner rotary valve trumpet pitched in C

The rotary can be initially more difficult to play in the lower register as well, particularly at *forte* volumes. The narrower bore and the more gradual, less abrupt response of the rotary creates difficulties for the player used to the quicker response of the piston trumpet. In both cases—the “overblowing” of the upper register and the “stuffy” quality of the lower—players must adjust the approach to fit the instrument if they want to achieve a desirable musical goal. The most important adjustment should be in the use of air. As a first step, players should work to produce a broader, less compact air-stream than they are accustomed to on their piston trumpet (I would describe this as “slow, warm air,” as opposed to “fast, cooler air”).

The timbre of German trumpets is often described inaccurately

rately. The “dark German sound” is the most common misconception. Although rotary makers produce trumpets of differing tonal characteristics, just as piston makers do, the German trumpet tone is often significantly brighter than commonly held perceptions. The tone color of an American trumpet section is full and clearly defined. German trumpets provide an often broader, but less clearly defined tonal area. As a result they may be said to “stick out” less prominently, regardless of volume. Rotary trumpets are capable of a wide range of tonal colors. Consistency of tone color is a desirable characteristic in a piston trumpet, but this same quality is not desirable on a rotary trumpet. Most rotary trumpets produce a tone color which, played *piano*, can seem quite sweet, mellow and velvety. As rotaries are played through *piano*, to *forte* to *fortissimo*, they brighten considerably, becoming “hot,” yet when played well, not edgy or “spread.” What would be a defect in the piston trumpet (variable tonal colors throughout a dynamic spectrum) can be considered a desirable attribute in most rotary trumpets.

Articulation is rounder and less percussive than on a piston trumpet. The change from note to note, whether slurred or articulated, is smoother. Certainly the approach of the musician is a large determining factor, but nevertheless each trumpet type lends itself to certain playing styles more than others. In my opinion, articulation style is a more important factor in picking the right trumpet (piston vs. rotary) than tone color.

### Mouthpieces

Rotary trumpets accept all standard piston trumpet mouthpieces. Many American players use their regular mouthpieces on their rotary C and B-flat trumpets. However, considering the significant playing differences between piston and rotary trumpet, it would be advisable, if practical, to select a mouthpiece that enables the different qualities and characteristics of the rotary trumpet to be produced most easily. If the desire of the trumpeter is to take advantage of the greater tonal palette that the rotary affords, one should seriously investigate the use of a mouthpiece that fits that type of trumpet best. One would do no less on a piston trumpet.

Although there are many types of European mouthpieces intended for rotary trumpets, there are some fairly standard features that can be said to apply to a rotary mouthpiece. The most significant feature is the shape of the rim, which is much rounder overall, and has a softer inner rim, or “bite,” than a typical American mouthpiece. This has an enormous effect on the character of articulation and slurring, making both less crisp and abrupt, and therefore smoother and more liquid. Many have also found that the use of a European mouthpiece can also improve intonation. Major European makers include:

Karl Breslmair of Austria, and Bruno Tilz and Josef Klier of Germany.

### Repertoire

German orchestral musicians perform most orchestral repertoire on the rotary trumpet, as American players do most of their work on piston trumpets. Major American orchestras have historically performed on rotaries in a strictly defined repertoire: Haydn, Mozart, Beethoven, Mendelssohn, Schumann, Brahms, Wagner, and Bruckner—that is, German music from the classical and romantic periods. In America, Strauss and Mahler are more often performed on piston trumpets, even though it is the works of these two composers, more than any of the other composers mentioned, that were written with the modern rotary trumpet in B-flat and C in mind.



Martin Lechner, Sr., at the presentation of a Lechner trumpet to Herbert Von Karajan (1908 – 1989), Artistic Director of the Berlin Philharmonic

There is, however, no “right and wrong” concerning instrument choice. The player and section should choose instruments based on what they feel will produce the best musical result, rather than thinking one must play this horn on Brahms and another on Debussy. Naturally, for the best results, any section should perform on matching piston or rotary instruments.

In solo literature, the Hindemith *Sonate* and the Böhme *Konzert in f-moll* are particularly well suited for performances on a rotary B-flat. The same can be said for the Höhne *Slavische Fantasie*, even though it was originally

written for *cornet à pistons*. A variety of literature has been performed on rotary trumpet that has not been associated with the instrument. For example, the Hummel *Concerto in E major*, Stravinsky’s *L’Histoire du Soldat*, and the Enescu *Legende* all work well on C rotary, and can produce musical results not easily achieved on the piston trumpet. This is also true for orchestral literature beyond the standard German-Austrian canon. Additionally, major quintets like the Canadian Brass have also begun to perform regularly on rotaries in transcribed literature not originally for trumpet. Original literature like the Böhme *Sextet* and the Ewald *Quintets* are also quite effective on rotaries.

### Purchasing a Rotary Trumpet

When a player decides to invest in a rotary trumpet, a couple of choices need to be made. First and foremost is where to make the purchase—in the United States, where brand choice and selection can be limited, or to travel to Europe. In America, Bach, Blackburn, and Yamaha offer rotaries that can be purchased through any authorized dealer. The well-known Scherzer rotary piccolo trumpet and other models are available from various dealers in the USA. Rayburn Music Company of Boston and New York, is the exclusive dealer in America of the trumpets of Martin Lechner, Bischofshofen, Austria; Josef Monke, Cologne, Germany; Robert and Karl Schagerl, Mank,

Austria; and Max and Heinrich Thein, Bremen, Germany.

The choice of brand can be a difficult one. Every experienced American player is familiar with the playing qualities of the major piston trumpet makers, and chooses equipment based on how those instruments fit their musical goals. Most players, however, are unfamiliar with the different traits of German trumpets, therefore making the choice of a rotary trumpet a difficult one. Specific recommendations are not the point of this article. Any player must seek out and play different brands whenever possible. Rayburn Music is the only company I am aware of which makes it a policy to stock various brands of rotary trumpets.

Most players choose a trumpet based on a variety of factors: teacher recommendation, the brand choice of their favorite performer, and personal experience and taste. The same should be done in the purchase of a rotary trumpet. Trumpeters are usually happy to discuss with any interested colleague the qualities of various brands, as well as the reasons behind the instrument choices they have made.



Austrian trumpet maker Martin Lechner, Sr. (middle), with the trumpet section of the Berlin Philharmonic (circa mid-1980s). L to R: Georg Hilser, solo trumpet Konradin Groth, Martin Lechner, solo trumpet Martin Kretzer, Robert Platt and Thomas Clamor.

### Makers

There has existed a traditional differentiation between rotary trumpets made in Germany and those made in Austria. The two makers most emblematic of the German and Austrian trumpet types are: Josef Monke of Cologne, Germany, and Martin Lechner, of Bischofshofen, Austria. Arguably the most famous name in German trumpets, Monke (1882 – 1965) began producing trumpets on his own in 1922. They have long been the choice of trumpeters throughout the world. In comparison to other makes of rotary trumpets Monkes are perhaps darker and heavier than any others. Many American orchestras have chosen Monkes for this reason. It is said they are able to match the generally louder volume levels of our orchestras better than other brands. Monke trumpets are perhaps the prototypical German trumpet. The company continued after Monke's death and has been under the direction of Stefan Krahorst (b. 1963) since 1997, without significant design changes.

Austrian trumpets are traditionally lighter sounding than German trumpets. One prominent maker of trumpets in this style is Martin Lechner (b. 1950), of Bischofshofen, Austria. Prized for their sweet, liquid sound, Lechners have long been the choice of major German and Austrian orchestras, and can be found in many American orchestras as well.

Modern German and Austrian trumpeters have many fine makers from which to choose. Many newer makers eschew the traditional national characteristics and fall between the earlier extremes of the German and Austrian styles. Among these are: the Thein Brothers-Bremen, Germany (Thein makes a daz-

zling array of trumpets, both modern and historical, and are also significant makers of trombones), the Schagerl Brothers-Mank, Austria, as well as the Galileo trumpets of Michael Krawczack, Radolfzell, Germany. All make fine instruments, independent of any national sound. Younger makers are also quicker to employ modern improvements such as: interchangeable leadpipes, combination tuning mechanisms for the first and third valve slides, one-piece valve slides, and more. All these brands can be found in the hands of the finer players in Europe and the United States.

Purchasing in Europe is not as difficult as one might think. The ability to speak German is helpful, but not necessary. It is important to first make contact with a maker you may wish to visit (instruments are purchased directly from the maker, not from a music vendor). Many quality makers do not normally have a full line of instruments in stock, prefer-

ring instead making them to order. If a maker is aware that a player wishes to visit his shop, and the player gives him an idea of what type of trumpet he is looking for, most will arrange to have a good selection available. One can save money by purchasing in Europe, but when the cost of travel, etc. is included, it is usually less expensive to buy in America. If you are planning a trip to Germany or Austria, then the purchase of an instrument there can be quite a pleasant experience. The first step is to contact the makers and let them know when the visit might take place.

*About the author:* Jack Burt is the associate professor of trumpet at Texas A&M University – Kingsville. He is principal trumpet of the Corpus Christi Symphony and the Victoria Symphony Orchestras. He performs on Lechner, Blackburn, and Scherzer trumpets.

### More information on rotary trumpets

#### Web sites:

All sites offer information regarding products and an email link to communicate directly with the proprietors.

#### Trumpets:

Galileo	<a href="http://www.galileo-brass.de">www.galileo-brass.de</a>
Lechner	<a href="http://www.musiklechner.at">www.musiklechner.at</a>
Monke	<a href="http://www.josefmonke.de">www.josefmonke.de</a>
Rayburn Music	<a href="http://www.rayburnmusic.com">www.rayburnmusic.com</a>
Schagerl	<a href="http://www.schagerl.at">www.schagerl.at</a>
Scherzer	<a href="http://www.scherzer-trumpets.com">www.scherzer-trumpets.com</a>
Thein	<a href="http://www.thein-brass.com">www.thein-brass.com</a>

#### Mouthpieces:

Breslmair	<a href="http://www.breslmair.at">www.breslmair.at</a>
Klier	<a href="http://www.jk-klier.de">www.jk-klier.de</a>

