

## Part 2 –Groove series–

BEST BRASS have been exploring the “next-generation mouthpiece for brass instruments”, which would be what all the past pioneers would do if they were alive, for last 10 years with an experience and sound technology of total for 30 years. Then, we have finally achieved it.

Two brand new concepts: “Multi-length System” and “The Groove” for brass mouthpieces, will knock on the door of the new world of brass instruments. It has been almost a hundred years since Vincent produced the dozen mouthpieces. The Groove series would be said as ultimate “21<sup>st</sup> century” mouthpiece for brass instruments. The performance is completely far away from “20<sup>th</sup> century type” ones. The most easily understandable point is that everybody should stably be able to play higher or lower registers that you have had to “try”.

What make BEST BRASS Groove series ultimate and next-generation mouthpieces are our acoustic technologies that have been conducted by many experiences and studies in a long time, in addition to the two new concepts: Multi-length system and the Groove. (They are particularly explained later)

In fact, most of the players who play our mouthpiece first say, “The rim is very comfortable”. This is the result of entirely having studied and researched what is supposed to be the best rim. Then, all of the Trumpet, Cornet, and Flugelhorn mouthpieces series adopt same rim contour, width, and bite, so it is very easy to switch to the instruments or the different Groove models. Also, all the rim of Groove-Horn mouthpiece is same, and Groove-Trombone is as well. Therefore, you can easily switch to a different mouthpiece among the Groove series. All the Groove series adopt pure gold plate on thick and pure silver plated mouthpiece, and the feeling on a rim should be very smooth, and you should be able to earn rich sound.

BEST BRASS has a clear image of the instruments’ ideal sound, so we make heavy mouthpieces for Trumpet, light mouthpieces for Horn, and medium weight mouthpieces for Trombone to achieve the clear image. Moreover, Trumpet, Cornet, and Flugelhorn mouthpieces adopt acoustic slits that enable to have a long carry sound and flexibility in both ways.

Mensur of the backbore, which can be said as a barometer of the manufacturer’s acoustic technique, of the Groove series are very sophisticated varying taper regarded distribution of sound pressures. We have confidence in the backbore and it definitely is one of the best acoustic technologies in the world. The best backbore for each model is adopted by regarding the best balance with the cup, throat, and even instrument. We name our backbores as MS, M, ML, L, LL, and X in ascending order, and those are never a mere straight taper but very complicated Mesur.

BEST BRASS mouthpieces are basically designed for professional or advanced players, so they have a large throat. However, “the Groove” (p.9) makes a moderate blow resistance and helps your lip vibrate so that you can play the largest volume with the least work. Tiredness of your lip while you are playing a brass instrument will be decreased, and your sound register will be expanded, furthermore, you will be surprised to listen to your dignified and rich sound.

It could not be better for beginners to meet the Groove series as early as possible. The Groove series helps the correct embouchure be achieved and would make beginners become the highest note hitter in school. Advanced students can play larger, more dignified and richer sound for longer time because the lips do not soon get tired. All those who have already retired still could play as they used to do. The Groove series actualizes an improvement of your performance. It may be difficult for professional players to change mouthpiece since the muscles have been developed along a certain mouthpiece, but please just try and feel the Groove series.

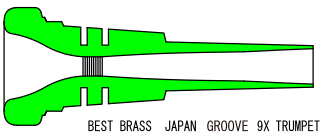
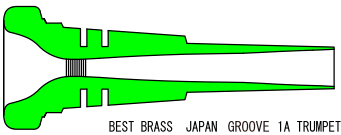
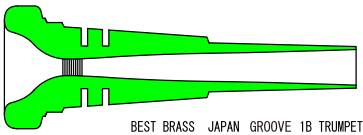
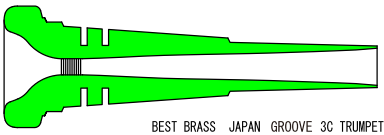
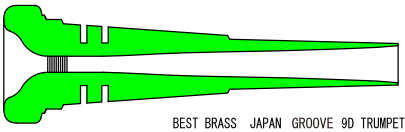
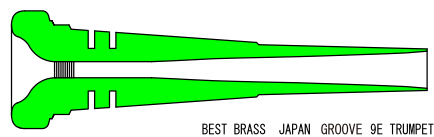
Lastly, the line-up of the Groove series is a result of cycles as carefully having been considered, developed, experienced, and considered again. You should be able to find the most suitable mouthpiece for you among the line-up. If you would like a larger or smaller rim size, different combination of rim and cup like TP-1D, or a larger or smaller throat, we can accept them as custom order. Please do not hesitate to contact us. [bestbrass@msi.biglobe.ne.jp](mailto:bestbrass@msi.biglobe.ne.jp)

Multi-length system

We have succeeded to develop the system by designing an appropriate length of mouthpieces related to their each cup depth. You can play in correct pitch whichever mouthpiece you choose among the Groove series. Remember, an instrument and a mouthpiece works in unison and makes one-sound-tube.

First, please look at frame formats showing the length related to each cup depth.

-Mouthpiece length related to each cup depth-



The Multi-length system brings out the highest potential of your instrument.

Generally, it is a common knowledge that a deep cup mouthpiece lower pitch, and on the other hand, a shallower cup mouthpiece raise pitch. However, just because it is, does not mean it should be. The Groove series breaks the common knowledge and does not lower or raise pitch.

Brass instrumentalists needs to know the fact that most of brass instrument designers draw Mensur from the premise that instruments are played with a standard size mouthpiece and that main tuning slide is pulled out 10-20mm. The point is that an effect of enormously pulling out or pushing in the main tuning slide is not acoustically considered since the basic design of instruments. However, in fact, brass instrumentalists have to pull out the main tuning slide for approximately 30mm to correct pitch with a very shallow cup mouthpiece, on the other hand, it happens that players cannot adjust pitch when he/she uses a deep cup mouthpiece even if the main tuning slide is fully pushed in. It is obvious that the highest potential of instruments can never be brought out in those conditions.

With this Multi-length system, players can get a correct pitch in the proper state of instrument even if whichever mouthpiece is selected. Technically speaking, the instruments can be acoustically most efficient “one sound tube” at the condition, so there is no doubt the Groove series naturally brings out the best sound of the instruments.

## The Groove

We have named a new concept at throat of a mouthpiece as “the Groove”. This invention actualizes a great increase of endurance, an expanding a register, and an acquirement of a dignified and rich sound.

The Groove has a role that occurs proper resistances for letting lips easily vibrate. You will be able to get an astounding endurance and play more efficiently than you used to do. Moreover, you can expand your register and get a dignified sound. It is very important for brass instruments and mouthpieces that how easily they sound the largest volume by the smallest work.

You will be surprised by a capability of the Groove series, and your music will start grooving.



The Groove at throat

## Blow resistances

The picture at bottom of this page is a tool called Visualizer, which is used for looking see how lips are buzzing. You can see a mouthpiece's rim at the distal end of the bar. However, it is actually impossible to buzz as usual with a Visualizer. Brass instrumentalists unconsciously earn resistances to buzz lips from mouthpiece's cup and throat, and that is why buzzing as usual with Visualizer is impossible.

Resistances for playing brass instrument definitely are supposed to be ingenerated at mouthpiece's cup and throat because sound and breath pressures are always the highest there when an instrument and a mouthpiece works in unison as the one sound tube.

Some say that one certain instrument is comfortable to play because it has a moderate resistance. However, that is acoustically wrong opinion to play brass instruments. Admittedly, most of all valve systems adopted to current trumpets in the world ingenerates some resistances, but the resistances are acoustically nothing more than bad effect and only make sound irregularities because each sound pressure of overtones is widely spread out in a played brass instrument. In fact, the only valve that has solved the problem is our "HAMANAGA valve system", which AIOLIA(P.18) and ARTEMIS(P.28) adopts.

Additionally, some say that heavy instruments have a strong resistance, but such a prejudice should be put away as well. They should not have played those instruments in real life. If they have, it should be either that the instrument is bad quality or that the person can not fairly evaluate instruments. Adding weights or braces is one of the expedients to efficiently sound the instrument if those are based on a proper acoustic method.



Visualizer

## I Line-up

### BEST BRASS Mouthpieces "GROOVE Series" Line-up

	TRUMPET					
Shallow ↑  ↓ Deep	11E	9E	7E			
		9D	7D			
			7C	5C	3C	1C
				5B	3B	1B
		9X	7X	5X	3X	1X
Small		←		→		Large
	CORNET					
		9B	7B			
			7X	5X	3X	1X
Small		←		→		Large
	FLUGELHORN					
		9X	7X	5X	3X	1X
Small		←		→		Large
	HORN					
Shallow ↑ ↓ Deep			7D	5D	3D	
			7C	5C	3C	
			7B	5B	3B	
	Small		←		→	
	TROMBONE-S ( Small Shank )					
Shallow ↑ ↓ Deep	9D	8D	7D			
			7C	6C	5C	
				6B	5B	
Small		←		→		Large
	TROMBONE-L ( Large Shank )					
Shallow ↑ ↓ Deep			7D			
			7C	6C	5C	
				6B	5B	
		6A	5A			
Small		←		→		Large
	BASS TROMBONE ( Large Shank )					
				3B	2B	
						1A
Small		←		→		Large

Very unique line is the X cup series for Trumpet. X cup models have flugelhorn cup so produce mellow sound like flugelhorn with Trumpet. Of course, it is perfect pitch and pitch balance. The line would be must-have item for studio players.

## II Explanations of all models

# TRUMPET

Mutual specs : Rim width=5.823(mm) / Rim contour=Flat /  
Rim top balance=43% / Rim bite=Fairly sharp

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
TP-11E	15.650	Shallow	3.78	TP-MS	Special model for super high note hitters. Produces a brilliant and speedy sound.	Schilke 6A4a (Smaller)
TP-9E	15.950	Shallow	3.78	TP-MS	Often preferred by studio musicians and lead trumpeters in a big band. Produces a brilliant, speedy, powerful, and also smooth sound.	Schilke 6A4a
TP-9D		Mildly shallow	3.78	TP-M	If 9E is too shallow, try this model. Not only does it produce a bright and sharp high register but also easy-low registers.	Bach 10-1/2D (Slightly-smaller)
TP-9X		Very deep	4.50	TP-X	Cup of flugelhorn is adopted, so can produce mellow sound like flugelhorn with trumpet. The rim diameter is the smallest in the X line.	-
TP-7E	16.250	Shallow	3.78	TP-M	Often preferred by lead trumpeters in a big band. If 9E is too small, this model should be chosen.	Schilke 13A4a
TP-7D		Mildly shallow	3.78	TP-M	If 7E is too shallow, this model should be chosen. Well balanced and easy to play all registers. Playable from Bb trumpet to Piccolo trumpet.	Bach 7D (Slightly-smaller)
TP-7C		Medium	3.78	TP-M	If TP-5C is a little large, try this model. It is one of the standards and playable in all music genres.	Bach 7C (Slightly-smaller)
TP-7X		Very deep	4.50	TP-X	Cup of flugelhorn is adopted, so can produce mellow sound like flugelhorn with trumpet. If you play "7" rim, choose this model.	-
TP-5C	16.550	Medium	3.78	TP-M	If you dither choosing mouthpiece, it should be good to try this model first. All-round and perfectly fits for brass band.	Bach 5C
TP-5B		Mildly deep	3.86	TP-L	If TP-7C is too small, try this model. Mellow and rich dark sound fits for orchestra. Symphonic backbore is adopted. Rotary trumpet matches as well.	Bach 5B
TP-5X		Very deep	4.50	TP-X	Cup of flugelhorn is adopted, so can produce mellow sound like flugelhorn with trumpet. The rim diameter is medium in the X line.	-

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
TP-3C	16.850	Medium	3.78	TP-M	If TP-5C is too small, this model should be chosen. Very popular and playable from orchestra to brass band. Its rich and powerful sound has a great tonal core.	Bach 3C
TP-3B		Mildly deep	3.86	TP-L	Powerful and dark sound. Player who prefer a little large rim diameter and orchestral sound should like this model. Symphonic backbore is adopted. Rotary trumpet should match as well.	Bach 3B
TP-3X		Very deep	4.50	TP-X	Cup of flugelhorn is adopted, so can produces mellow sound like flugelhorn with trumpet. If you play "3" rim, choose this model.	-
TP-1C	17.150	Medium	3.78	TP-L	The most popular and best-suit model for orchestra. Very rich and symphonic sound.	Bach 1-1/4C
TP-1B		Mildly deep	3.86	TP-L	This model should be suit to players who prefer a large rim and darker sound. Symphonic backbore is adopted. Rotary trumpet should match as well.	Bach 1B (Slightly-smaller)
TP-1X		Very deep	4.50	TP-X	Cup of flugelhorn is adopted, so can produces mellow sound like flugelhorn with trumpet. Rim diameter is the largest in the X line.	-

## MID-SHANK

MID-SHANK for Trumpet	Adopter which enables to play trumpet with cornet-shank mouthpieces. A current piccolo trumpet has trumpet or cornet shank, but cornet-shank mouthpieces can be used for both of them with this Mid-shank. Its backbore adopts a complicated taper considered good balances of trumpet and piccolo trumpet. The matching is perfect.
-----------------------	--

# FLUGELHORN

Mutual specs : Rim width=5.823(mm) / Rim contour=Flat / Rim top balance=43% / Rim bite=Fairly sharp						
Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
FH-9X	15.950	Very deep	4.50	FH-M	The base model of TP-9X. It should be preferred by studio players and lead players in a big band.	TP-9X
FH-7X	16.250	Very deep	4.50	FH-M	The base model of TP-7X. If FH-9X is too small, try this model.	TP-7X
FH-5X	16.550	Very deep	4.50	FH-M	The base model of TP-5X. This model should be chosen without any questions if you play "TP-5" models.	TP-5X
FH-3X	16.850	Very deep	4.50	FH-M	The base model of TP-3X. If you play "TP-3" models, you can choose this model.	TP-3X
FH-1X	17.150	Very deep	4.50	FH-M	The base model of TP-1X. If you play "TP-1" models, this model is recommended.	TP-1X

# CORNET

Mutual specs : Rim width=5.823(mm) / Rim contour=Flat / Rim top balance=43% / Rim bite=Fairly sharp						
Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
CR-9B	15.950	Mildly deep	3.78	CR-L	For Eb cornet. Produces beautiful lyric soprano sound.	Bach 10-1/2A (slightly-smaller)
CR-7B	16.250	Mildly deep	3.78	CR-L	For Eb cornet. If the CR-9B is too small, try this model.	Bach 7A (slightly-smaller)
CR-7X		Very deep	4.00	CR-L	For british-style brass band's cornet. Variation with super high technics can be played.	DENIS WICK 4
CR-5X	16.550	Very deep	4.00	CR-L	For british-style brass band's cornet. Standard rim size. If you dither, it should be better to try this model first.	DENIS WICK 4 (slightly-larger)
CR-3X	16.850	Very deep	4.00	CR-L	For british-style brass band's cornet. Its beautifully velvet sound remains in audiences' heart.	DENIS WICK 2
CR-1X	17.150	Very deep	4.00	CR-L	For british-style brass band's cornet. If you play TP-1C, this model should be suit. Beautiful and velvet sound.	DENIS WICK 2 (slightly-larger)

# HORN

Mutual specs : Rim width=3.650(mm) / Rim contour= Slightly round /  
Rim top balance=41% / Rim bite= sharp

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
HR-7D	17.200	Mildly shallow	4.00	HR-L	Fits for principal and third player who play high register in an orchestra. Produces powerful and tonal core sound. Good matching with middle or small bell.	Bach 11 (Shallower)
HR-7C		Medium	4.50	HR-ML	Produces rich harmony and easy to play high register. Fits for both large and small bell.	Bach 11
HR-7B		Mildly deep	4.70	HR-M	Produces an American sound like filling whole orchestra. Especially good matching with a large bell.	Giardi.G17 (Smaller)
HR-5D	17.500	Mildly shallow	4.00	HR-L	Produces speedy and brelliant European sound. Fits for both principal and third player who play high register in orchestra. Good matching with middle or small bell.	Alex. 8
HR-5C		Medium	4.50	HR-ML	Produces rich harmony. This model has velvety blow-feeling and great balance of resonance. Fits for both large and small bell.	Bach 7 (Slightly-smaller)
HR-5B		Mildly deep	4.70	HR-M	Produces velvet and encompassing American sound. Fits for players who often play Wienerhorn or F horn. Good matching with a large bell.	Giardi.G17 (Larger)
HR-3D	17.800	Mildly shallow	4.00	HR-L	Fits for both principal and third player who play high register and prefer a large rim diameter. Good matching with middle or small bell.	Yamaha 32B (Larger)
HR-3C		Medium	4.50	HR-ML	Fits for players in a big orchestra. Produces a great harmony and easy to play low register. Fits for both large and small bell.	Bach 3 (Slightly-larger)
HR-3B		Mildly deep	4.70	HR-M	Fits for players who prefer a large rim diameter and often play Wienerhorn or F horn. Good matching with a large bell.	Alex. MY15 (Larger)

# TROMBONE (Small shank)

Mutual specs : Rim width=7.150(mm) / Rim contour=Slightly Flat /  
Rim top balance=34% / Rim bite=Fairly sharp

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbone	Description	Reference
TB-S-9D	24.250	Mildly shallow	6.40	TB-ML	Standard model for Jazz and studio musician. Its soft and clear sound fits for baryton horn as well.	Bach 12C
TB-S-8D	24.625	Mildly shallow	6.40	TB-ML	If TB-S-9D is too small, this model should be chosen. Due to the increase of flexibility, advanced player can play more expression.	Bach 11C
TB-S-7D	25.000	Mildly shallow	6.40	TB-ML	This model can cover a wide range of music genres. Playable from Jazz to brassband. Fits for alto trombone as well.	Bach 7C (Shallower)
TB-S-7C		Medium	6.80	TB-M	1 size deeper than TB-S-7D. Playable from Jazz to brassband.	Schilke 47
TB-S-6C	25.375	Medium	6.80	TB-M	The most popular model for brass band. If you dither, choose this model. There will be no problem.	Bach 6-1/2AM
TB-S-6B		Mildly deep	7.10	TB-M	1 size deeper than TB-S-6C. Its soft sound fits not only trombone but also euphonium.	Schilke 50
TB-S-5C	25.750	Medium	6.80	TB-M	1 size larger than TB-S-6C. Powerful sound well fits for trombonist in a large brass band.	Bach 5G (shallower and larger)
TB-S-5B		Mildly deep	7.10	TB-M	Ultimate solution for euphoniumist. Its soft and rich sound encompasses whole band sound.	Bach 5G (Slightly-larger)

## MID-SHANK

MID-SHANK for Trombone	Adopter which enables to play large-shank trombone with small-shank mouthpiece. It should help Jazz or studio players who usually play small-shank trombone but sometimes play large-shank.
------------------------	---

# TROMBONE (Large shank)

Mutual specs : Rim width=7.150(mm) / Rim contour=Slightly Flat /  
Rim top balance=34% / Rim bite=Fairly sharp

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbone	Description	Reference
TB-L-7D	25.000	Mildly shallow	6.40	TB-L	Produces bright and clean-cut sound. Fits for playing pops with large trombone. Its comparatively small rim suits to high register.	Bach 7C (shallower)
TB-L-7C		Medium	6.80	TB-L	1 size smaller than standard model:TB-L-6C. If TB-L-6C is too large, this model should be chosen. If euphoniumist play this model, it is easy to play all register.	Schilke 47

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
TB-L-6C	25.375	Medium	6.80	TB-L	Everything is medium and well balanced for all registers. Standard and representative model for large-shank trombone. Playable from brass band to orchestra.	Bach 6-1/2AL
TB-L-6B		Mildly deep	7.10	TB-L	1 size deeper than TB-L-6C. Fits for orchestra player who require richer and heavy sound. High performance for euphonium as well.	Schilke 50
TB-L-6A		Deep	7.10	TB-L	Almost same depth as the Remington model. Fits for orchestral trombonist and brass band euphoniumist.	Bach 5G
TB-L-5C	25.750	Medium	6.80	TB-L	1 size larger than TB-L-6C. Its powerful sound fits for professional orchestral players. Produces mildly-bright and powerful sound with euphonium.	Bach 5G (Slightly larger and shallower)
TB-L-5B		Mildly deep	7.10	TB-L	Standard and representative model for euphonium. While it produces soft and encompassing sound, also plays powerful sound. Professional orchestral trombonist often prefers this model as well.	Bach 5G (Slightly-larger)
TB-L-5A		Deep	7.10	TB-L	1 size larger than the Remington model. Produces rich and deep bass sound and well supports low register of chord. Produces heavy sound with euphonium.	CONN Remington (Larger)

## BASS TROMBONE

Mutual specs : Rim width=7.150(mm) / Rim contour=Slightly Flat /  
Rim top balance=34% / Rim bite=Fairly sharp

Model name	I.R.D (mm)	Cup depth	Throat (mm)	Backbore	Description	Reference
BTB-3B	26.750	Mildly deep	7.10	TB-L	Fits for bass trombonists who prefer a small rim. Convenient for switching tenor bass and bass.	Bach 2G (Slightly-shallower)
BTB-2B	27.250	Mildly deep	7.10	TB-L	Produces not only aggressive and powerfull sound but also soft and sweet sound like choral. Fits for orchestra and big band.	Bach 1-1/2G (Slightly-shallower)
BTB-1A	27.750	Deep	7.40	TB-LL	Very deep and large model. Produces very heavy bass trombone sound. Fits for professional orchestral bass trombonists.	Bach 1-1/4G (Slightly shallower)