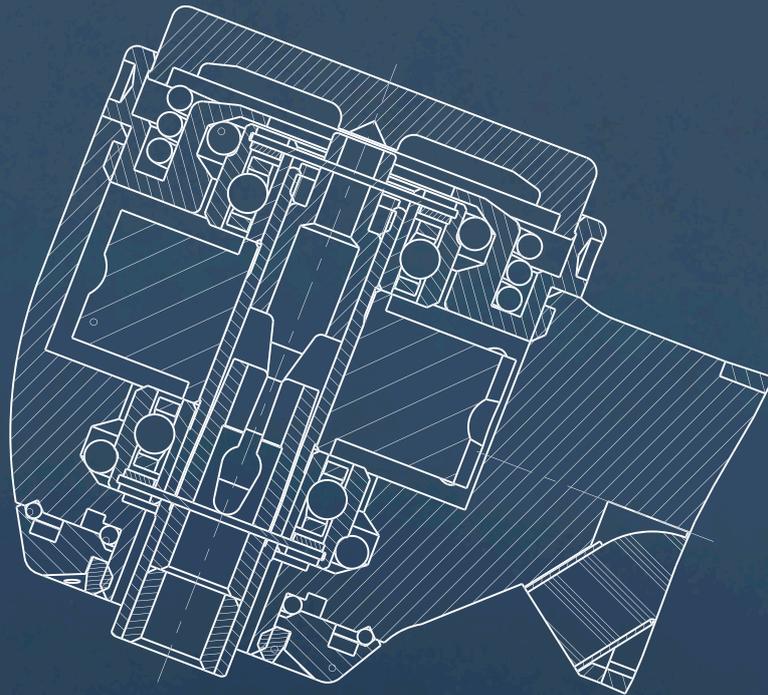




**CHIRANA**  
*Medical* STARÁ  
TURÁ



DENTAL INSTRUMENTS

THE QUALITY GUARANTEED BY TRADITION.  
*Since 1935*

# DENTAL INSTRUMENTS

History  
Production  
Turbines  
Handpieces  
Micromotors  
Accessories



PROUDLY MADE IN SLOVAKIA.



## HISTORY

- 1935 ─ foundations of machinery production in Stará Turá by Czech engineer Frantisek Michera
- 1967 ─ launching of the first production series of dental units under the trademark CHIRADENT
- 1968 ─ the company product portfolio widen by breathing and anaesthesia devices

### Chronology of handpieces production

- 1989 ─ Chirana is widening its product portfolio to produce dental instruments
- 1990 ─ first production of straight handpieces and contra-angles in accordance with license from KaVo
- 1997 ─ launching of light contra-angle, push-button head
- 2006 ─ production of stainless micromotoric handpieces
- 2010 ─ the body of micromotoric handpieces from titanium
- 2014 ─ the development of compact handpieces blue (1:1) and red (1:5)
- 2016 ─ from July starts the production of compact handpieces blue (1:1) and red (1:5)

### Chronology of turbines production

- 1991 ─ production of turbines with plastic spindle and with body made of brass, screw fixation
- 1993 ─ production of turbines with push-button system, fully made of metal
- 1994 ─ production of turbines with flexible light-rod
- 1996 ─ production of turbines with angular connection, Chirana quick-coupling system launched
- 2005 ─ production of stainless turbines, milled heads, only ceramic bearings
- 2007 ─ production of turbines with quick stop function, non-oil function
- 2016 ─ production of turbines is focused only on Multiflex standard and Midwest standard and our turbine portfolio is organized into 3 ranges – Chirana 637, Chirana 656, Chirana Easy

In 1989 CHIRANA signed historical license agreement with company KaVo to start production of dental instruments in Stara Tura. Thanks to this licensed production our company started from the beginning using the high-modern production standards, sophisticated measurement technology and especially we started cooperation with leading producers of machinery and technologies like Index, Benzinger, Chiron, Studer, Tornos, Rika, Maier, DMG-Mori, Trumpf, Fehlman, 3D measuring device Mitutoyo etc. The whole production is performing directly in Stara Tura with minimal share of suppliers and outsourcing. The processes like surface modification and metrology are performed by our sister companies (Chiragal and Chiranalab Stara Tura).

During the latest years we have been focused on improving the hygienic standard, autoclavability and durability of our instruments. Whole design of handpieces is getting more "clean" with minimum of seams which always are the potential source of contamination. Our internal layout of instruments allows the usage of washing or disinfecting automats (Miele) before sterilization process. The special "non-oil" bearing (lubricated for the whole lifetime, used in HF turbines and in brushless micromotors) are fully autoclavable as well. Also our used plastic materials for production of instruments are only high-tech level (PEEK – polyetheretherketone), fully hygienic and autoclavable.





**TGL 637A**  
high power turbine

- excellent power vs weight ratio
- clear design
- ergonomic and good balanced body from stainless steel
- durable cellular glass optics
- \*Multiflex® Quick system connection for easy exchanging
- worldwide lightest turbine in titanium option (only 36 grams)



**TG 656 / Easy**  
high power turbine

- clear design
- ergonomic and well balanced body
- 5-spray in standard option
- only 47 grams



**TGL 656 / Easy**  
high power turbine

- clear design
- ergonomic and well balanced body
- durable cellular glass optics and optimal LED light
- worldwide established hose connection standard
- low weight, only 52 grams



**TURBINES**

\*Multiflex® is a registered brand of company Kaltenbach & Voigt Co. KG, Biberach.

# Chirana

Medical & Dental Company

## STAINLESS STEEL AND TITANIUM

BODIES AND FUNCTIONAL PARTS FROM STAINLESS STEEL,  
AND TITANIUM MEANS HIGH HYGIENIC STANDARD WITH POSSIBILITY TO USE  
WASHING AUTOMAT, DISINFECTION AND STERILIZATION.





## 420

quick-coupling \*Multiflex® compatible

stainless steel

with LED light

connection: ISO-6-Midwest



LED LIGHT



6-ISO MIDWEST



## 120 / 120L

contra-angle handpiece

1:1 compatible with 168 D-T head

contra-angle compatible with  
\*KaVo Intralux® - heads

1 contra angle = 13 different  
instruments

body and functional parts from  
stainless steel

separate internal cooling media

cellular optics

with / without light (120L / 120)



LIGHT



STERILIZABLE



## 168 D-T

head

compatible with  
contra-angle 120 L / 120 D

push-button chucking system

body and functional parts from  
stainless steel



PUSH-BUTTON  
CHUCKING



STERILIZABLE

# HANDPIECES

\*KaVo Intralux® and Mutliflex® are the registered brands of company Kaltenbach & Voigt Co. KG, Biberach

# QUICK STOP FUNCTION

ROTOR IS STOPPED UP TO 1 SEC. THAT ELIMINATES  
A RISK OF INJURING AND SUCTION FROM PATIENT'S CAVITY.



**Chirana**  
Medical & Dental Company



**120 LB**  
contra-angle handpiece  
with 1:1 ratio

clear design, ergonomic  
and durable body  
4-spray for optimal cooling  
durable cellular glass rod  
for brightness lighting  
for burs with  $\varnothing$  2,35 shank



4-SPRAY



PUSH-BUTTON  
CHUCKING



LIGHT



STERILIZABLE



SMALL  
HEAD



**120 LR**  
contra-angle handpiece  
with 1:5 ratio

clear design,  
ergonomic and durable body  
4-spray for optimal cooling  
durable cellular glass rod  
for brightness lighting  
for burs with  $\varnothing$  1,6 shank



4-SPRAY



PUSH-BUTTON  
CHUCKING



LIGHT



CERAMIC



STERILIZABLE



SMALL  
HEAD



**110 D**  
straight handpiece 1:1

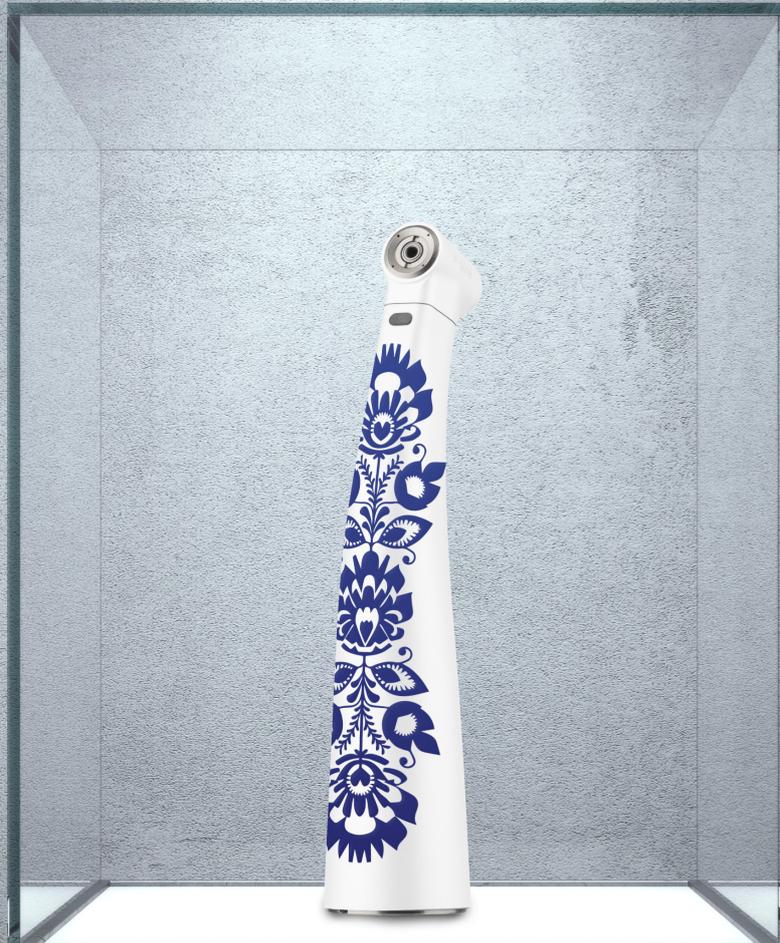
body and functional parts from  
stainless steel  
separate internal cooling media  
effortless control of chucking  
system  
low-vibration operation



STERILIZABLE

# CERAMIC BEARINGS

GUARANTEE RELIABILITY AND LONG LIFE.  
QUIET, VIBRATION-FREE OPERATION.



Chirana



**CH 660 Bless**  
brushless micromotor

- quiet and vibration free operation
- stable torque in combination with short length (49mm)
- optimal LED light.
- fully sterilizable up to 135°C
- controllable speed at range 100 - 40 000 rpm
- CHIRANA hose connector



LED LIGHT



STERILIZABLE



**CH 660 LED**  
durable commutator micromotor

- from stainless steel
- optimal LED light
- high torque controllable at full range of speed 60 - 40 000 rpm using special Chirana slow-speed regulation PCB
- air filter, removable coat sterilizable up to 135°C
- CHIRANA hose connector



LED LIGHT



**CH 660**  
durable commutator micromotor

- from stainless steel
- high torque controllable at full range of speed 60 - 40 000 rpm using special Chirana slow-speed regulation PCB
- air filter, removable coat sterilizable up to 135°C
- CHIRANA hose connector



# LIGHTING

LED LIGHTING AND DURABLE FIBER LIGHT ROD  
IMPROVES THE VISIBILITY OF OPERATIVE FIELD,  
GENERATES NATURAL WHITE LIGHT AND ELIMINATES  
HEATING OF HANDPIECES.



### Smioil spray 500ml

High-quality cleaning and oiling  
for daily care of dental instruments.



for \*MULTIFLEX®  
coupling turbines



for handpieces  
and heads



for Midwest,  
Borden turbines

\*Multiflex® is a registered brand of company Kaltenbach & Voigt Co. KG, Biberach.



You can ensure a long life for your instruments by right cleaning and oiling.  
We recommend you to use Smioil spray.

After **one month**  
without proper  
maintenance

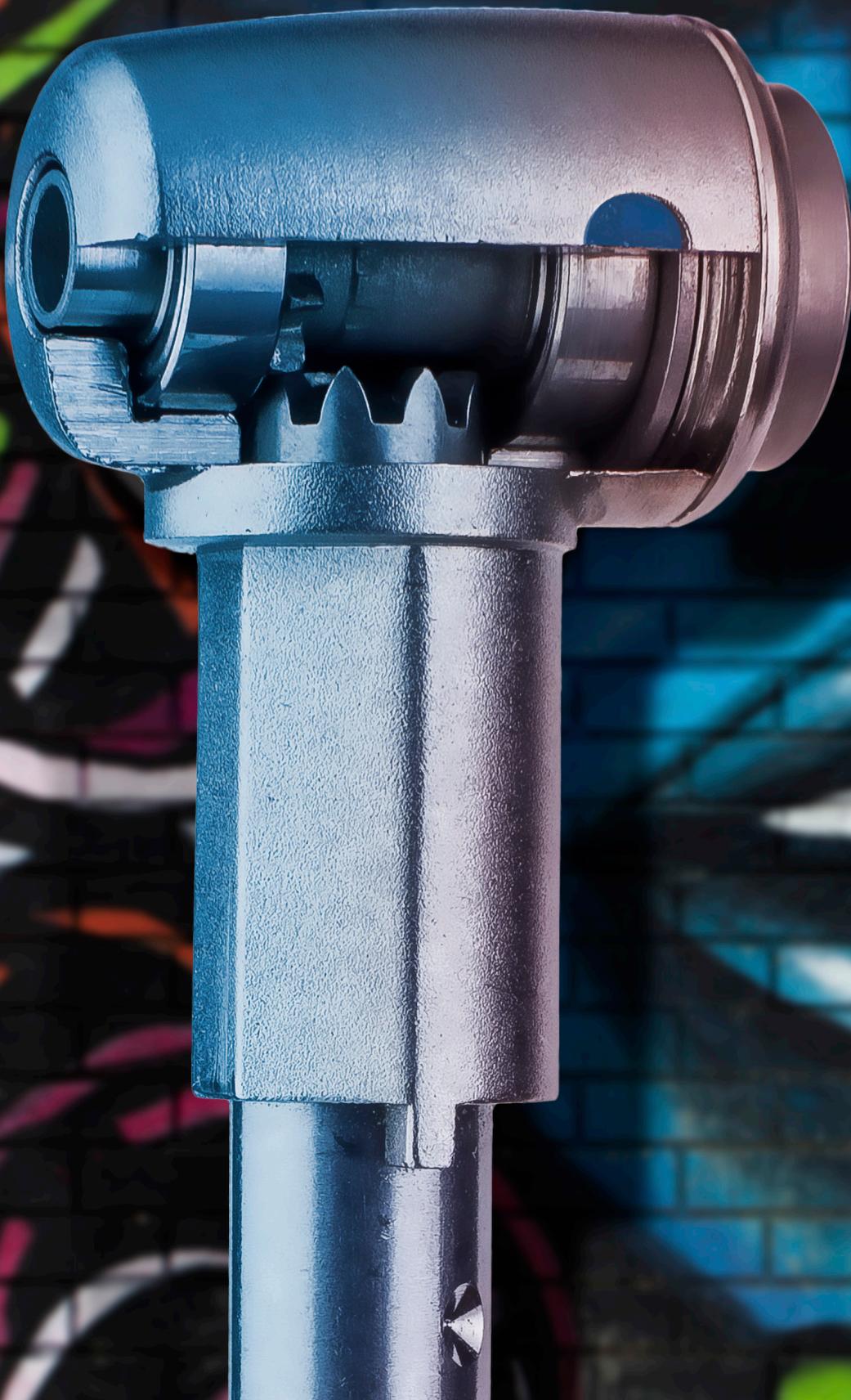


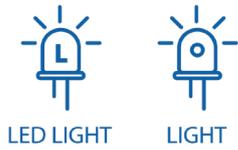
After **one year**  
with proper  
maintenance



# PRECISION

OUR INSTRUMENTS ARE MADE TO BE A PIECE OF ART  
MADE BY OUR ENGINEERS AND PROFESSIONAL  
EQUIPMENT.





Optimal ways of lighting



Small head for better accessibility



Comfort push-button chucking system



Very light and durable body



Oil free maintenance



Designed for effective sterilization



High precision ceramic bearings



4-spray for optimal cooling



5-spray for optimal cooling



Quick Stop up to 1 second



4-ISO-Midwest connection



6-ISO-Midwest connection

### **Stainless steel and titanium**

Bodies and functional parts from stainless steel and titanium means high hygienic standard with possibility to use washing automat, disinfection and sterilization.

### **Ceramic bearings**

Guarantee reliability and long life. Quiet, vibration-free operation.

### **Oilless bearings**

Save costs on operation.

### **Quick stop function**

Rotor is stopped up to 1 sec. That eliminates a risk of injuring and suction from patient's cavity.

### **Vacuum elimination**

Air non-return valve prevents to suck oral fluids and other contaminants into the handpiece.

### **Optimum cooling**

By side spray, 4-nozzle spray or 5-nozzle spray.

### **Lighting**

The CHIRANA Medical instruments are available in versions without light and with light LED. LED lighting improves the visibility of operative field, generates natural white light similar to daylight, eliminates heating of handpieces and as longer life cycle as a traditional bulb.



### Turbine handpieces - technical data

Model	TGL637A	TGL637A Small	TGL656	TG656
Coupling	Quick connection Multiflex***	Quick connection Multiflex***	hose connection 6-ISO MIDWEST	hose connection 6-ISO MIDWEST
Light	durable glass rod	durable glass rod	durable glass rod + LED	-
Spray	5 - side	5 - side	5 - side	5 - side
Head size	Ø 13mm	Ø 11mm	Ø 13mm	Ø 13mm
Speed	380 000 rpm +/-10% *	420 000 rpm +/-10% *	380 000 rpm +/-10% *	380 000 rpm +/-10% *
Power	18W	14W	18W	18W
Noise level	60dB	60dB	60dB	60dB
Weight	49g	48g	53g	47g
Operating pressure (optimum/max.)	0,21-0,23/0,3MPa	0,21-0,23/0,3MPa	0,21-0,23/0,3MPa	0,21-0,23/0,3MPa
Air consumption	38±2 l.min-1	40±2 l.min-1	38±2 l.min-1	38±2 l.min-1
Drill clamping force	35N	35N	35N	35N
Shank of drill	Ø1.59 - 1.60mm	Ø1.59 - 1.60mm	Ø1.59 - 1.60mm	Ø1.59 - 1.60mm
Max. operating part diameter	2mm	2mm	2mm	2mm
Max. length	25mm	21mm	25mm	25mm
Bearings	high precision ceramic	high precision ceramic	high precision ceramic	high precision ceramic
Body material	stainless steel	stainless steel	coating brass	coating brass
Sterilization	up to 135°C	up to 135°C	up to 135°C	up to 135°C
Special function:				
Quick stop (up to 1s)	TGL637AH	TGL637AH Small	TGL656H	TG656H
Lube-free bearings	TGL637AHF	TGL637AHF Small	TGL656HF	TG656HF

\* speed in max. operating pressure

\*\*\*Multiflex\* is a registered brand of company Kaltenbach & Voigt Co. KG, Biberach

### Micromotor handpieces - technical data

Model	120LR	120LB	120L + 168D-T Intralux®***	120 + 168D-T Intralux®***	110D (straight)
Transmission	1:5	1:1	1:1	1:1	1:1
Light	durable glass rod	durable glass rod	durable glass rod	-	-
Spray	4 - side	4 - side	1 - side	1 - side	1 - side
Head size	Ø 9,7mm	Ø 9,7mm	Ø 10mm	Ø 10mm	-
Weight	79g	79g	78g	77g	71g
Shank of drill	Ø1.59 - 1.60mm	Ø2.35mm	Ø2.35mm	Ø2.35mm	Ø2.35mm
Max. operating part diameter	2mm				
Max. length	25mm	30mm	25mm	25mm	44mm
Max. input speed	40 000 rpm	40 000 rpm	40 000 rpm	40 000 rpm	40 000 rpm
Coupling	ISO 3964	ISO 3964	ISO 3964	ISO 3964	ISO 3964
Body material	coating brass	coating brass	stainless steel	stainless steel	stainless steel
Sterilization	up to 135°C	up to 135°C	up to 135°C	up to 135°C	up to 135°C

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### Micromotors - technical data

Model	Ch660Bless	Ch660LED	Ch660
Light	LED	LED	-
Speed	1000 - 40 000rpm	60 - 40 000rpm	60 - 40 000rpm
Torque	20mNm	35mNm	35mNm
Length (without coupling)	49mm	65mm	60mm
Weight	90g	110g	101g
Coupling	ISO 3964 (short compatible)	ISO 3964	ISO 3964
Spray	internal	internal	internal
Operating mode (use/rest)	2min / 3min	2.5min / 75min	2.5min / 75min
Body material	stainless steel	stainless steel	stainless steel
Sterilization	up to 135°C	-	-



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