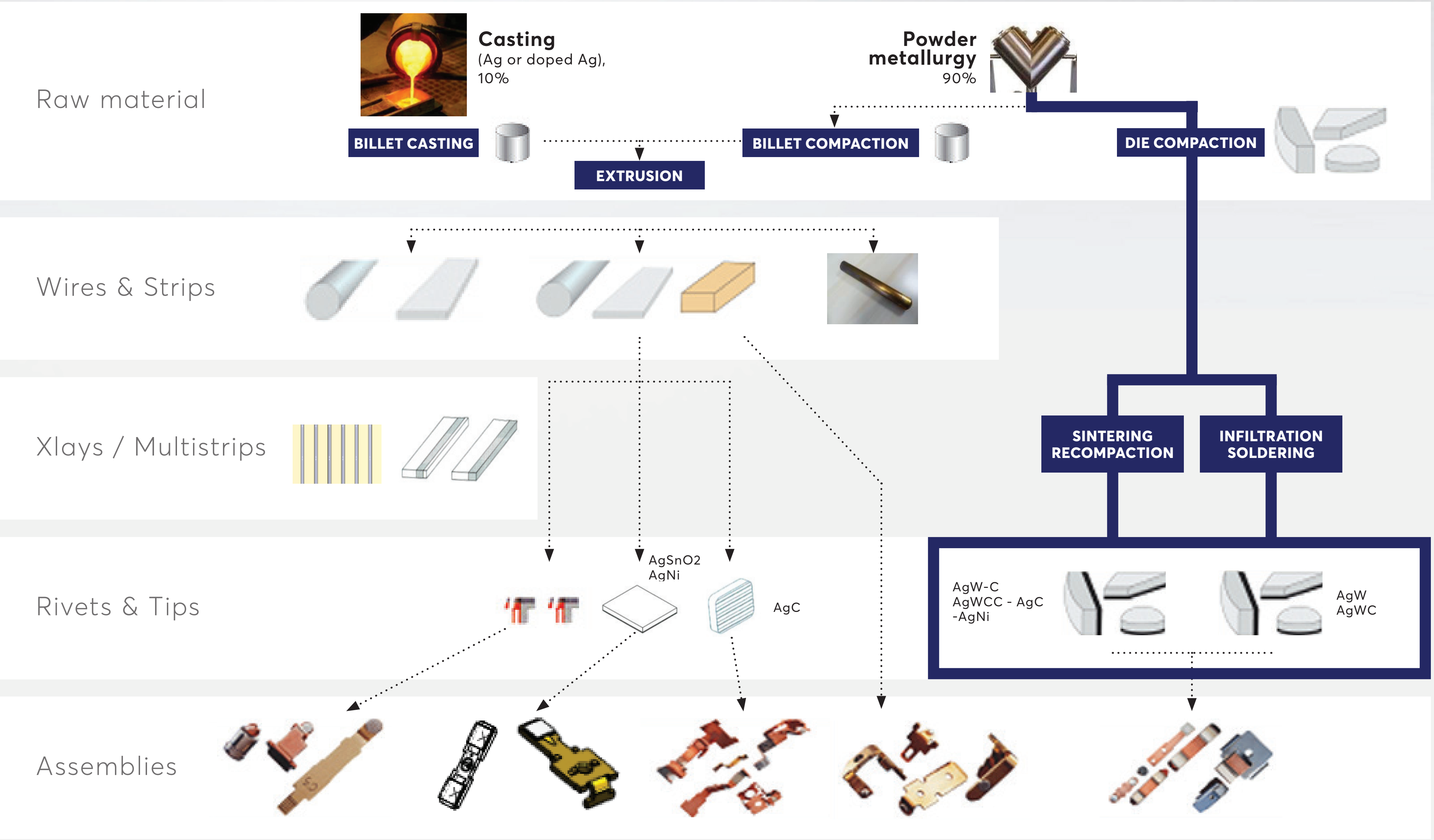
METALOR®
TANAKA
A member of TANAKA

DIE COMPACTED TIPS

PROCESS DESCRIPTION

PRODUCTION FLOW CHART

METALOR TECHNOLOGIES ELECTROTECHNICS FRANCE



Raw material

Casting
(Ag or doped Ag),
10%

Powder metallurgy
90%

BILLET CASTING

EXTRUSION

BILLET COMPACTION

DIE COMPACTION

Wires & Strips

Xlays / Multistrips

SINTERING RECOMPACTION

INFILTRATION SOLDERING

Rivets & Tips

AgSnO2
AgNi

AgC

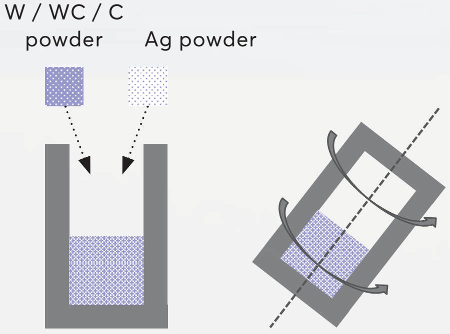
AgW-C
AgWCC - AgC
-AgNi

AgW
AgWC

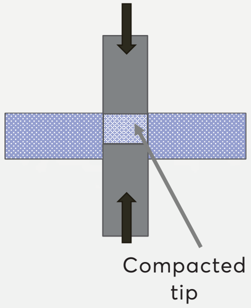
Assemblies

DIE COMPACTED TIPS:
PROCESS FLOW

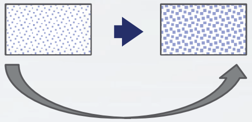
POWDER MIXING



DIE COMPACTION

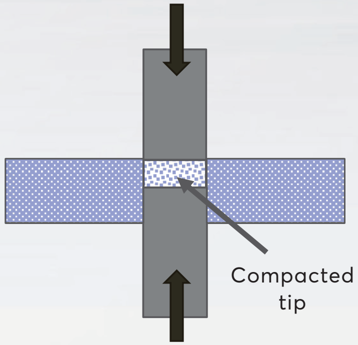


DIE COMPACTION

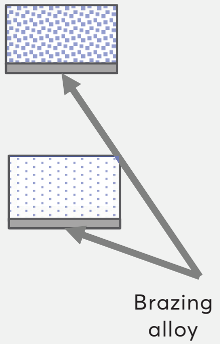


Joining of the
silver grains and
Increase of their size

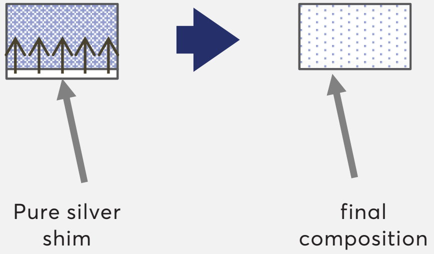
DIE COMPACTION



SOLDERING



INFILTRATION



DIE COMPACTED TIPS:
APPLICATIONS

PRODUCTS	APPLICATIONS	KEY END MARKETS
DIE COMPACTED TIPS 	PROTECTION Circuit Breakers 	INDUSTRIAL BUILDING 
	MCB 	HOME CONTROL 

DIE COMPACTED TIPS:

TYPE OF PRODUCT

METALOR®

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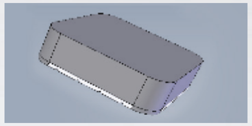
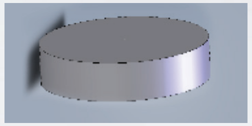
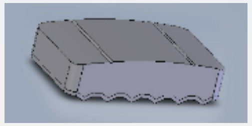
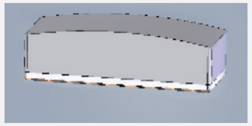
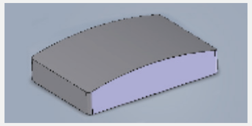
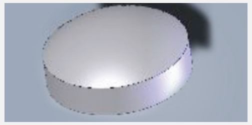
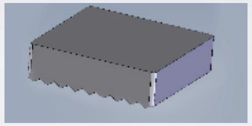
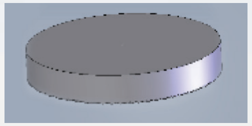
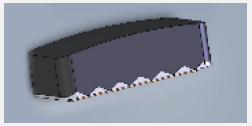
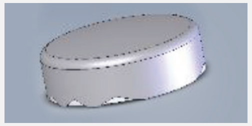
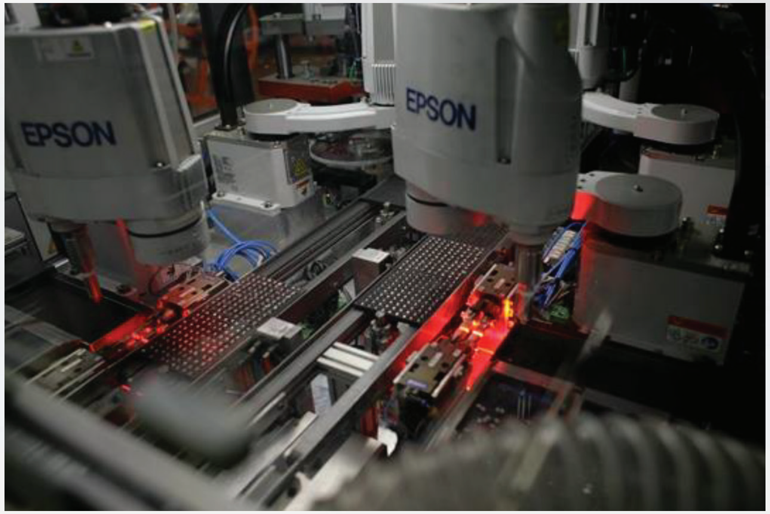
TECHNOLOGY	MATERIAL	COMPOSITION(%)	SHAPE		DIMENSIONS (mm)	SILVER UNDERLAYER (BI-COMPACTION)	SOLDERING
SINTERED/ CALIBRATED	AgC	Graphite: 3 and 5%	Square/ rectangle		Min: 3.2 x 3.2 Max: 25.0 x 12.5	✖	✖
			round		Min: ⌀3.0 Max: ⌀5.0	✖	✖
	AgW	Tungsten: 50%	Square/ rectangle		8.7 x 5.0	✓	✓
			round	✖	✖	✖	✖
	AgWC	WC 20 and 80%	Square/ rectangle		Min: 7.0 x 4.0 Max: 15.0 x 12.0	✓	✓
			round	✖	✖	✖	✖
	AgNi	Ni 10 to 30%	Square/ rectangle		Min: 10.0 x 6.5 Max: 24.0 x 18.5	✖	✓
			round		⌀3.2	✖	✓

DIE COMPACTED TIPS:
TYPE OF PRODUCT

TECHNOLOGY	MATERIAL	COMPOSITION(%)	SHAPE		DIMENSIONS (mm)	SOLDERING
INFILTRATED	Agw	Tungsten: 40 to 75%	Square/ rectangle		Min: 5.0 x 1.0 Max: 37.5 x 20	✓
			Round		Ø6	✓
	AgWC	WC: 30 to 80%	Square/ rectangle		Min: 3.0 x 2.0 Max: 22.0 x 20.0	✓
			Round		Min: Ø3.7 Maxi: Ø22.0	✓

All of these information are based on our current production.
For further information or outer dimension, please contact METALOR

DIE COMPACTED TIPS:
PROCESS PICTURES



DIE COMPACTED TIPS:

PERFORMANCE VS TECHNOLOGY

PROS	CONS
- Standard process by **METALOR** - Competitiveness for high volumes - Different type of technologies	- not for all material composition

For more information,
please contact **METALOR**
team on our Web site:
www.metalor.com