



FROM
UNITY
TO
INNOVATION

BMK BİRLİK
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COMPANY INTRODUCTION

BMK Birlik Makine is the only company in the sector operating in Turkey since 2005. Our company has become a solution partner of the yarn manufacturers in the Global textile sector by combining its experience and knowledge accumulated with the advanced technology and expert staff.

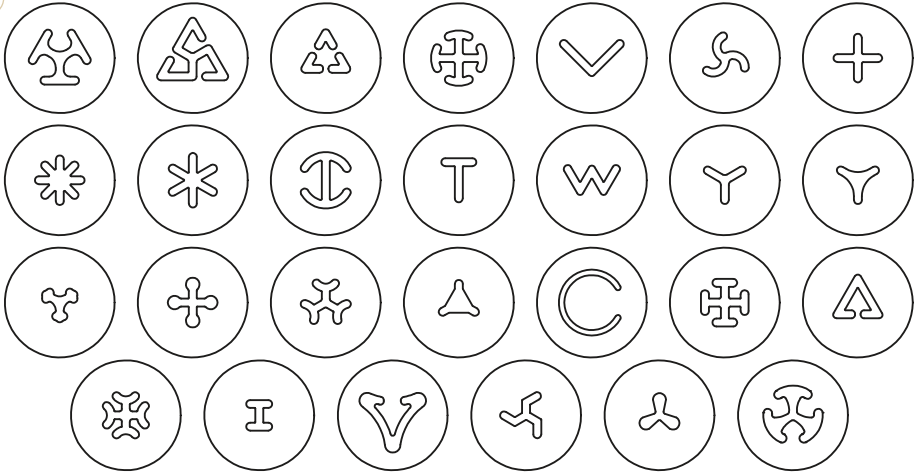
Our company's main fields of activity include spinneret components, melt pumps, textured volume groups for CF, BCF yarn and non-woven fabric production. Generating alternative solutions to the emerging problems in the sector with the R&D works we carry out, our firm make more mention of its name every day in Turkey and in the world.

DESIGN

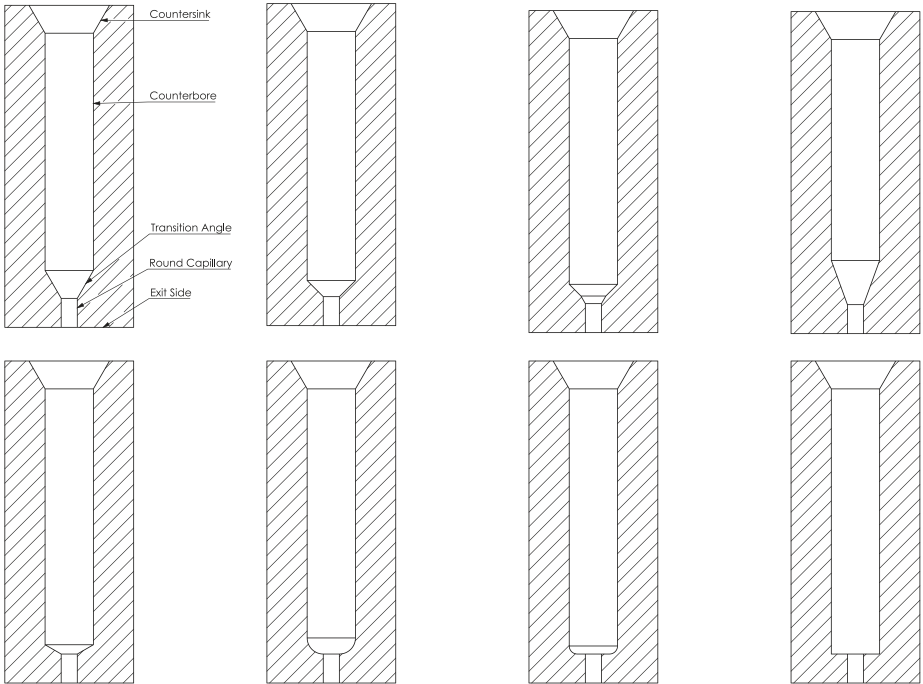
The existence of textile is as ancient as the history of humankind. Natural fibers would meet the needs of people for a long time. With the increase in the world population, the textile sector has spread into many areas such as carpets, curtains, furniture, etc. as well as the clothing industry and the fact that natural fibers cannot meet the demand has caused the emergence of synthetic fibers. The development of synthetic fibers was very fast within a rather short time. Nowadays, the production and usage areas of synthetic fibers have overwhelmed the production and usage areas of natural fibers.

Many different methods can be utilized for the production of synthetic fibers. Depending on the desired properties of the fibers to be obtained, appropriate design and production is made. In this phase, the components used in the production method play an important role in the characteristic of the obtained fibers. Nowadays, there are increasing demands for synthetic fibers to present similar or equivalent properties to natural fibers. There are many parameters that affect the acquisition of these properties. One of these parameters is spinneret design. Therefore, spinneret design and manufacture is an extremely sensitive and important issue. Our company manufactures these parts which are highly sensitive by using the latest software in spinneret design and manufacturing. With 15 years of experience in design and manufacturing, our company has become a sought-after solution partner for companies engaged in yarn production with innovative and creative solutions.

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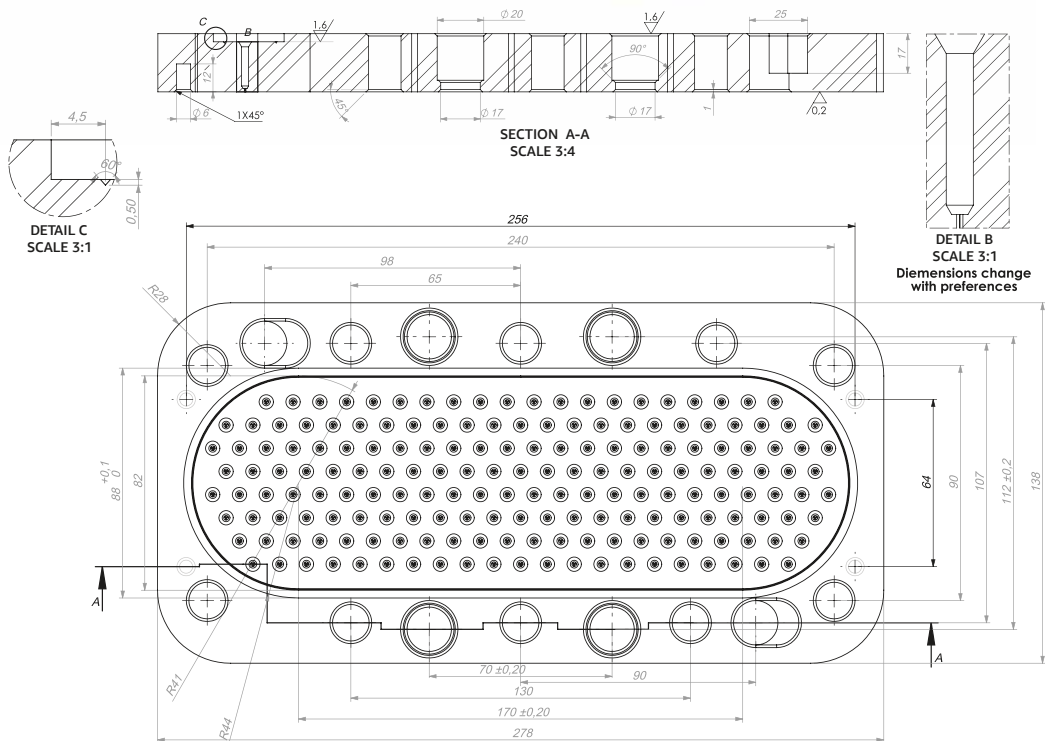
MELT SPINING HOLE SECTION

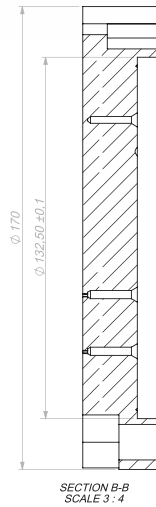
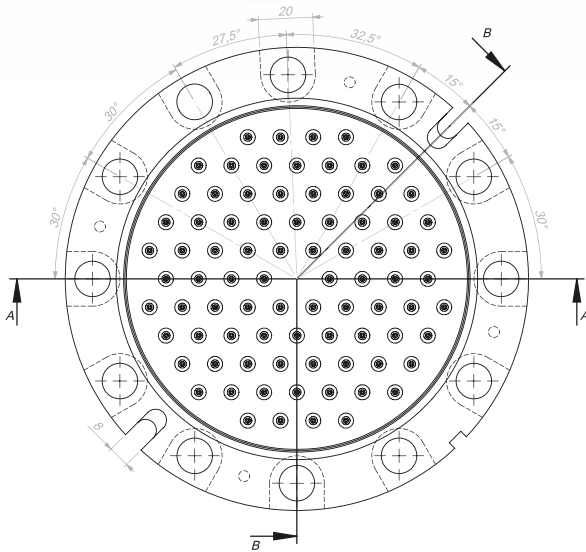


RAW MATERIAL

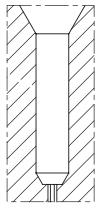
TYPE	AISI DIN JIS GB	304 1.4031 SUS304 0Cr18Ni9	316 1.4401 SUS316 -	316 1.4404 SUS316L 0Cr17Ni14Mo2	317L 1.4438 SUS317L -	321 1.4541 SUS321 1Cr18Ni9Ti	431 1.4057 SUS431 1Cr17Ni2	630 1.4542 SUS630 0Cr17Ni4Cu4Nb
Main Chemical Composition	C≤	0.08	0.08	0.03	0.03	0.12	0.17	0.07
	Cr	18 - 20	16 - 18	16 - 18	18 - 20	17 - 19	15 - 17	15.5 - 17.5
	Ni	8 - 10	10 - 14	10 - 14	11 - 15	8 - 11	1.5 - 2.5	3 - 5
	Mo	-	2 - 3	2 - 3	3 - 4	-	-	-
	Cu	-	-	-	-	-	-	3 - 5
	Ti	-	-	-	-	5×%C - 0.8	-	-
	Nb/Ta	-	-	-	-	-	-	0.15 - 0.45
Mechanical and Physical Properties	1000 Kg/m ³ Density	7.9	7.95	7.95	7.95	7.9	7.7	7.75
	Yield Strength 0.2% offset MPa ≥	196	205	176	176	205	588	785
	Tensile Strength MPa	496-600	496-600	480-600	480-600	490-600	785-1370	840-1370
	(%) ≥ Elongation	50	45	50	50	50	14	14-22
	Reduction of Area	60	60	60	60	60	45	52-56
	Hardness (Solution Annealed) HB	130-180	130-180	130-180	130-180	130-180	250-270	270-290
	Elastic Modulus GPa	197	197	197	197	197	204	-
	Magnetizable	No	No	No	No	-	Yes	Yes
	Hardness Range for Spinnerets	130-180 (HB)	130-180 (HB)	130-180 (HB)	130-180 (HB)	130-180 (HB)	26-35 (HRC)	28-44 (HRC)

In addition to the precision of manufacturing and design, the choice of raw material is one of the important parameters for the perfect product. Therefore, the manufacturing conditions, needs and demands of the user should be taken into consideration while selecting the raw materials. Stainless steel is generally used in the production of spinneret, but in some special cases, it requires the usage of different materials. Our company is in an endeavor to provide you with quality products by selecting the most suitable raw material for the parts it manufactures and blending it with perfect design and precision manufacturing quality.

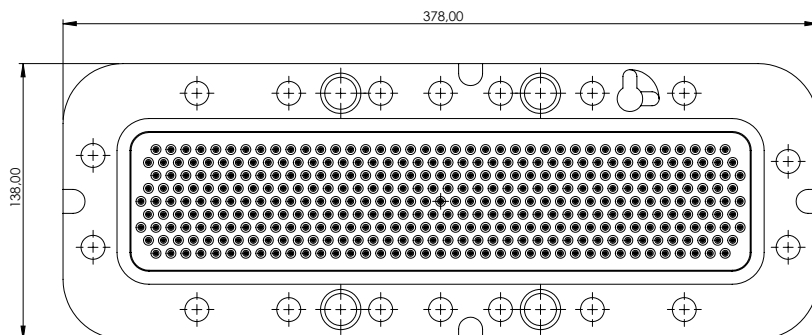




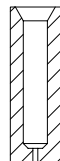
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with preferences



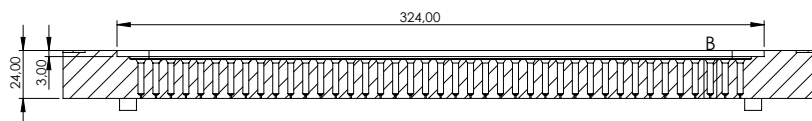
DETAIL C
SCALE 3 : 1



dimensions change
with preferences

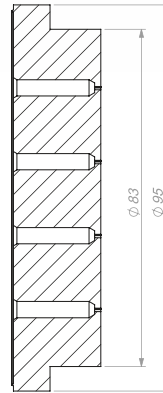
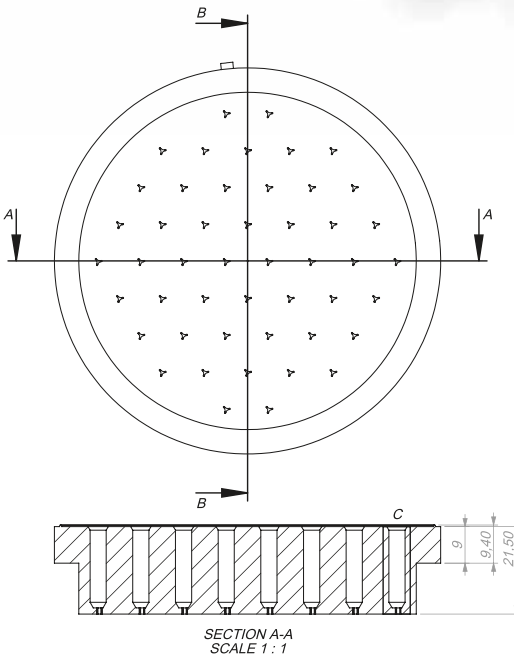


SECTION B
SCALE 2 : 1

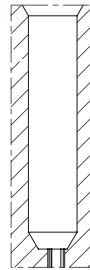


SECTION A-A
SCALE 1 : 2

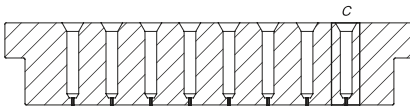
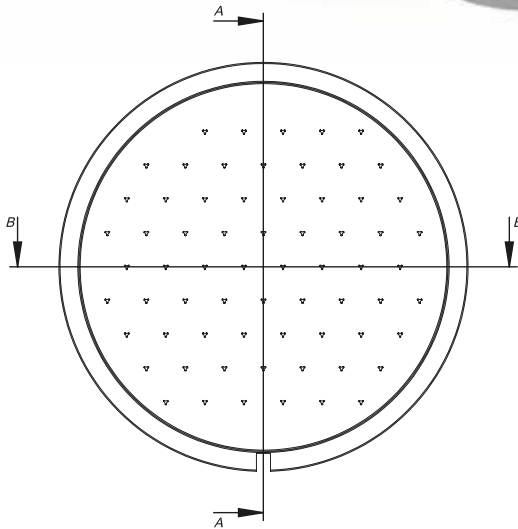
ASSORTMENT OF SPINNERET



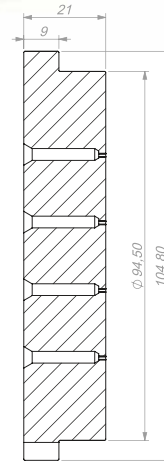
Dimensions change
with preferences



DETAIL C
SCALE 3 : 1

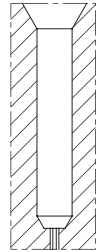


SECTION B-B
SCALE 1:1



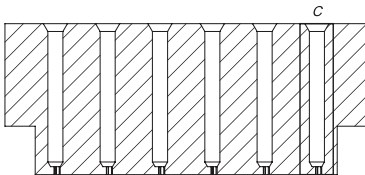
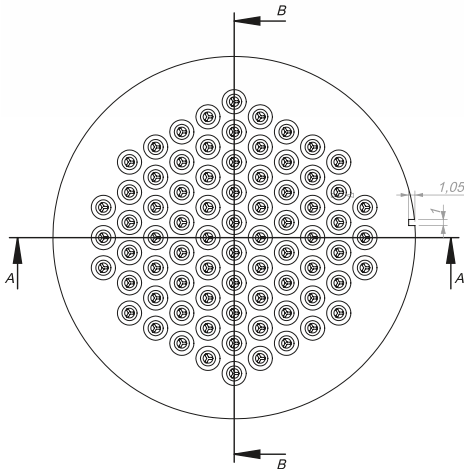
SECTION A-A
SCALE 1:1

Dimensions change
with preferences

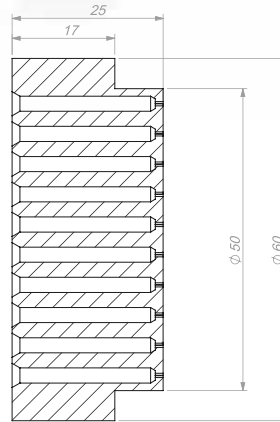


DETAIL C
SCALE 3:1

ASSORTMENT OF SPINNERET

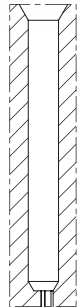


SECTION A-A
SCALE 3 : 2

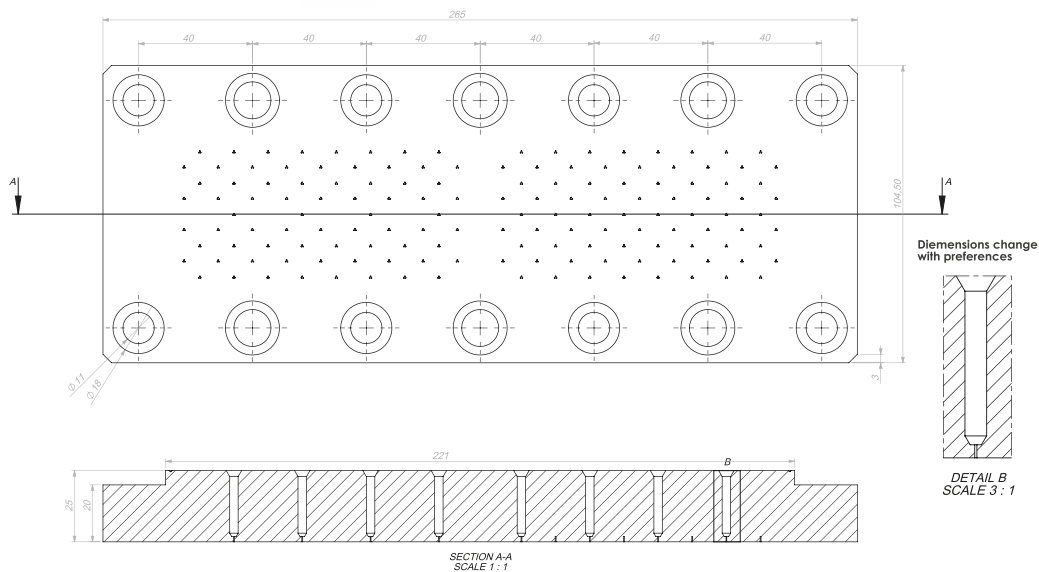
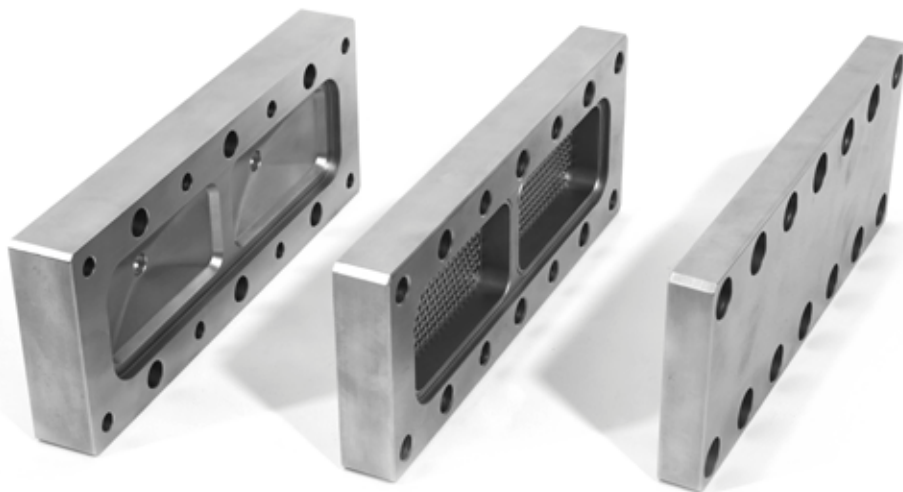


SECTION B-B
SCALE 3 : 2

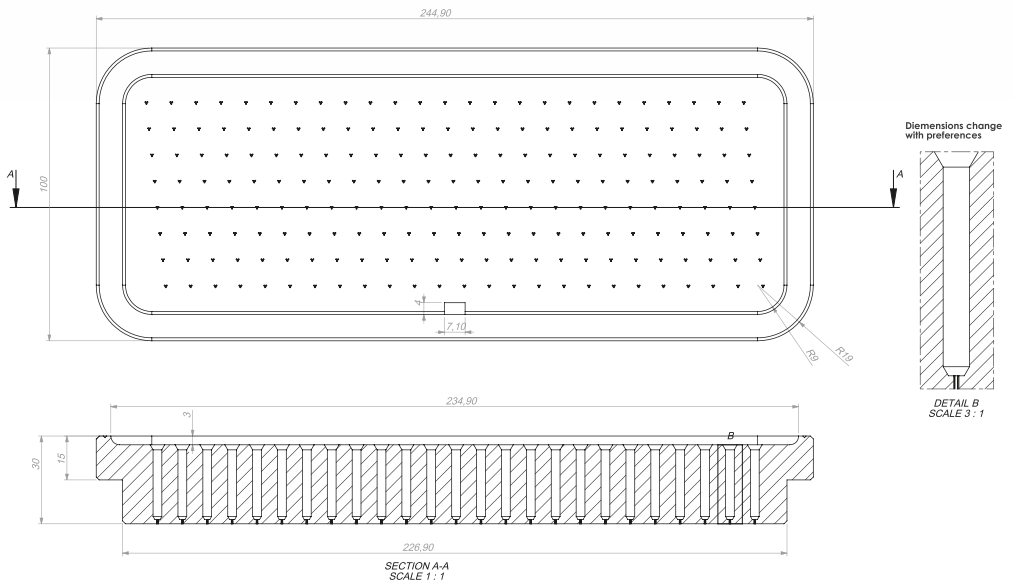
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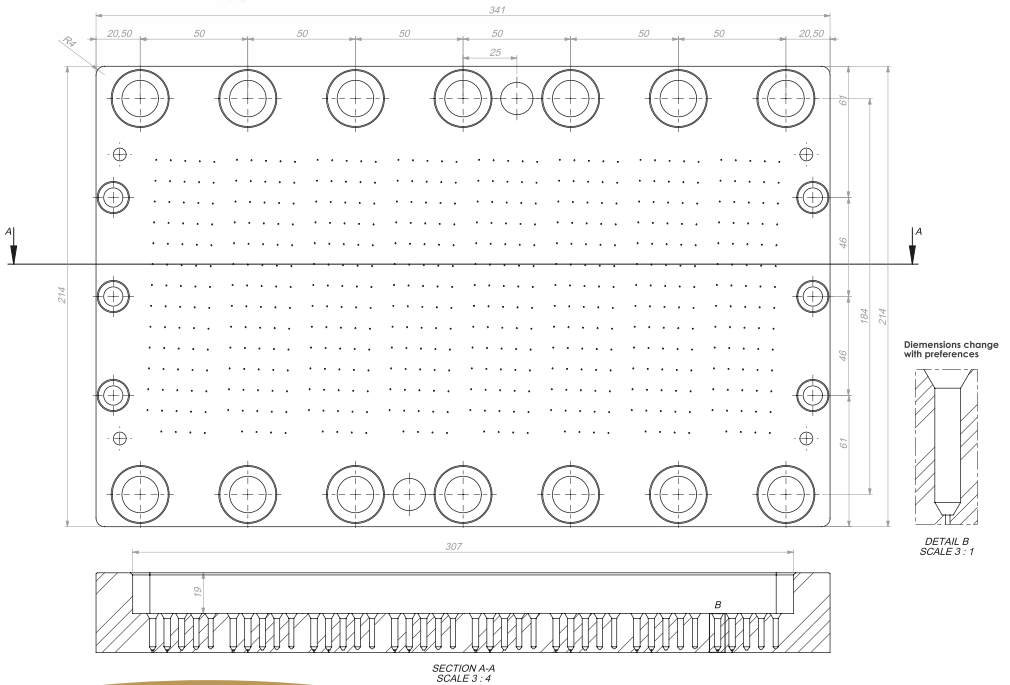


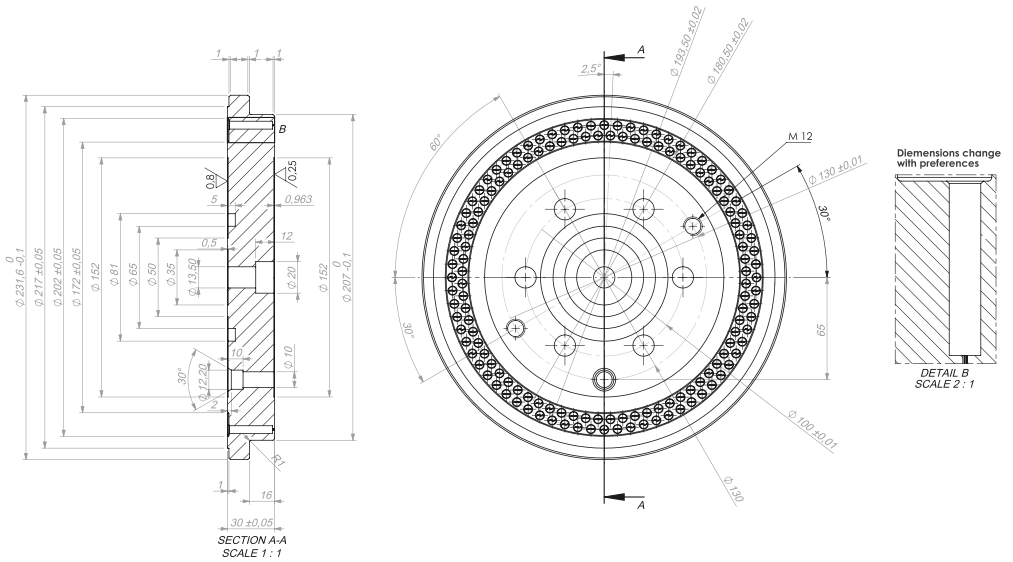
DETAIL C
SCALE 3 : 1



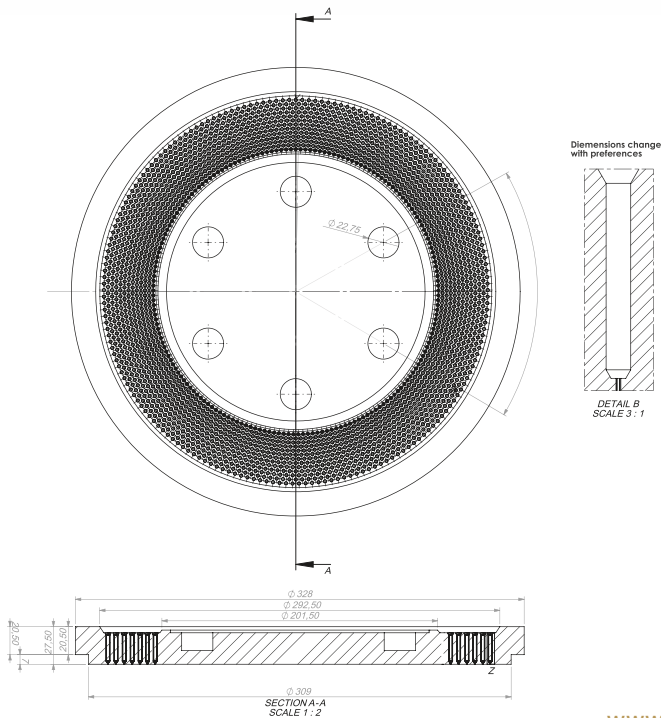
ASSORTMENT OF SPINNERET

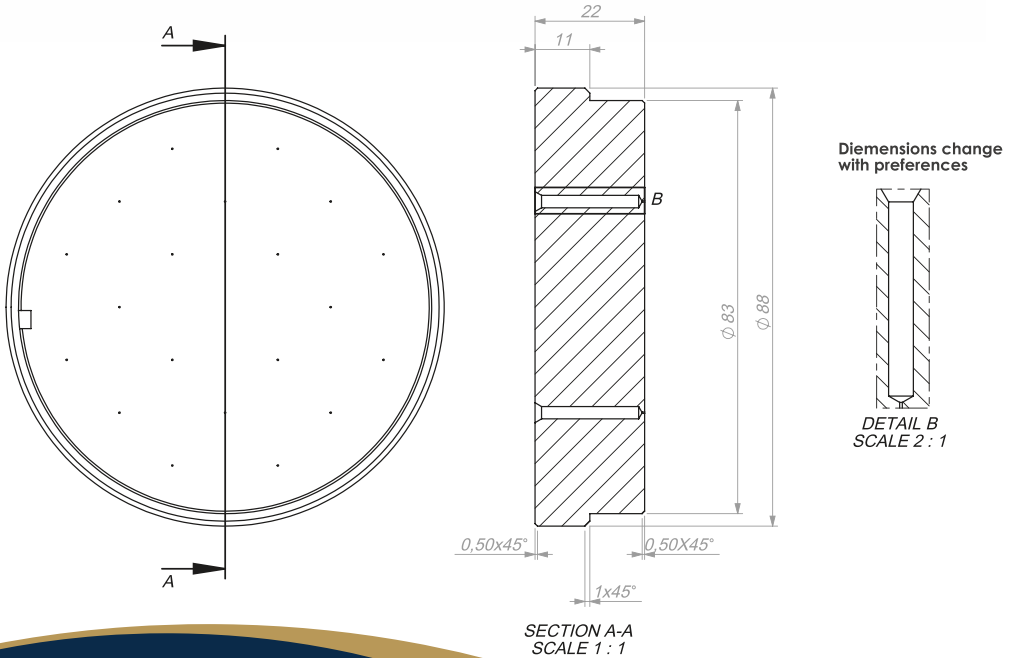


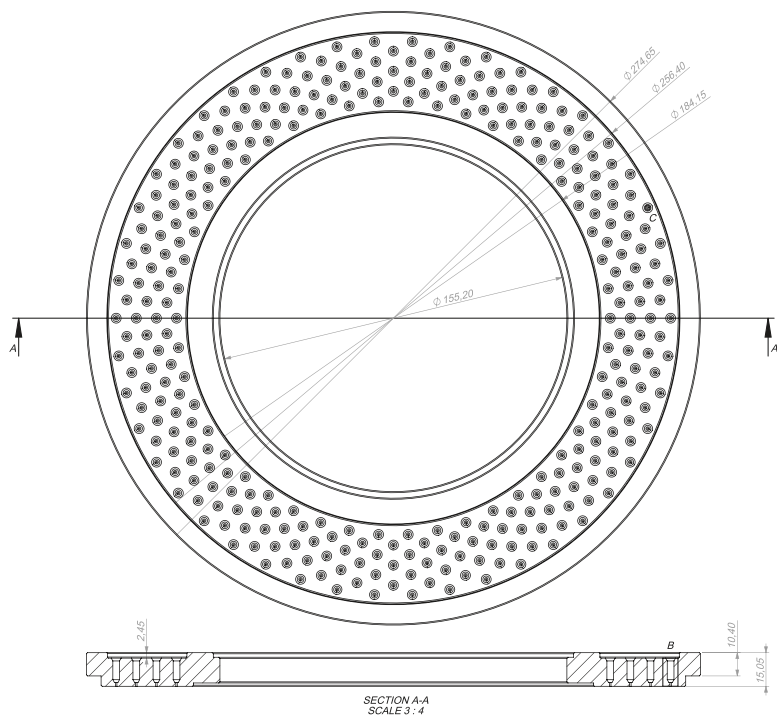




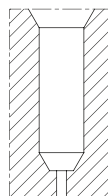
ASSORTMENT OF SPINNERET







Dimensions change
with preferences



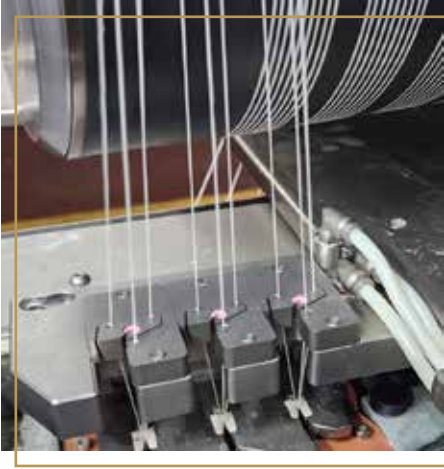
DETAIL B
SCALE 5 : 1

ASSORTMENT OF MELT PUMPS



ASSORTMENT OF TEXTURIZE UNITS





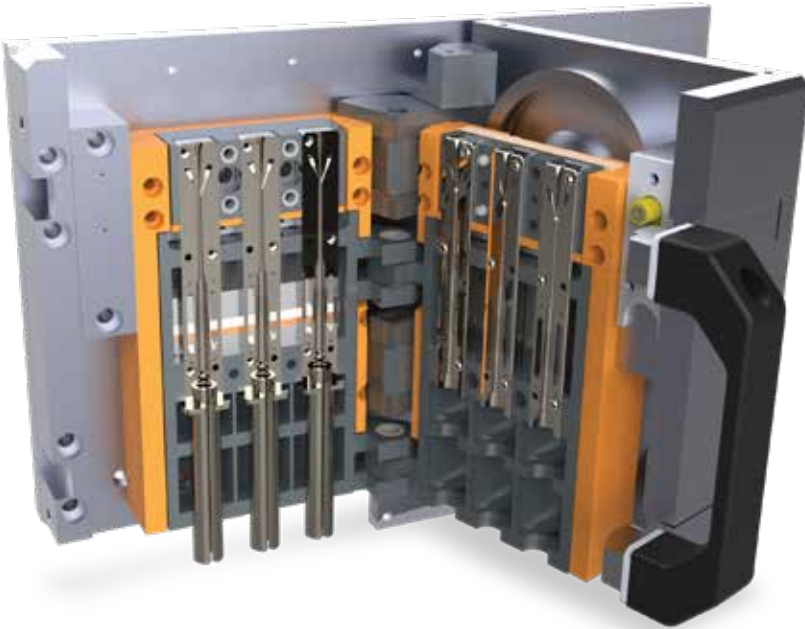
CPC CENTERING APPARATUS

Tricolor allows each color to be spotted separately before the texturized unit on yarns.

The purpose of use is to look distinct and clear by the textured colors after the texture process.

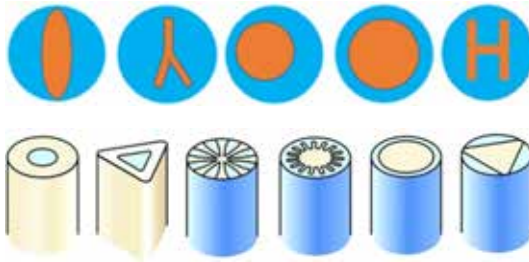
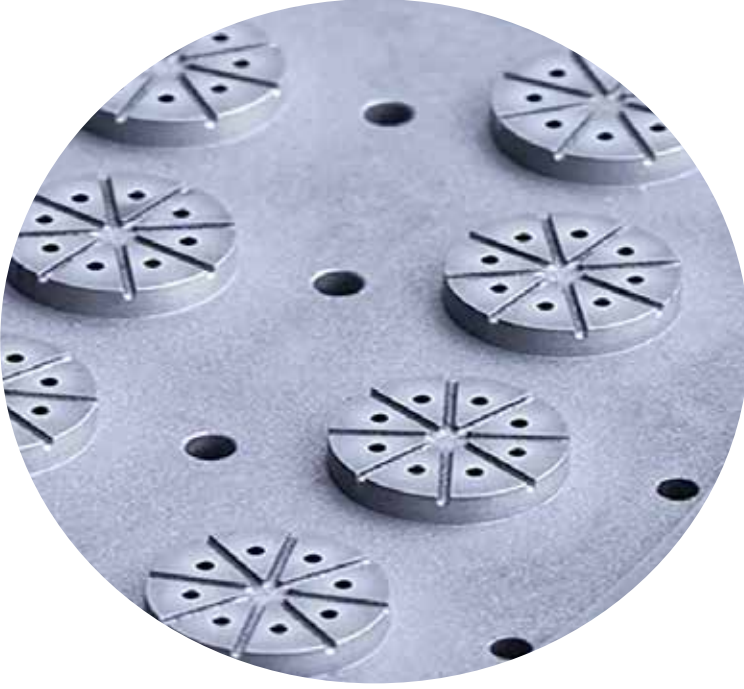
- *Compact design for any machine*
- *Low air consumption*
- *Minimum commissioning time*
- *User ease*

TEXTURIZING UNIT



TEXTURIZING UNIT

- *Unique design for each machine*
- *Low air consumption*
- *Possibility of volumizing with 2 bar air*
- *Less spare parts consumption*



Bicomponent fibers are fibers that in a single fiber consist of two distinct raw material components. It is made by simultaneously spinning two compositions in each capillary of the spinneret.

MELTBLOWN MACHINE

BMK produces machines that can produce between 900-3200 mm.

R&D MACHINE-LINE

BMK SPINBOY AND MONOFLAMENT produce new generation machines.

SPINNERET

It produces Spinneret groups;

- Melt spinneret
- CF/BCF spin pack spinneret
- Meltblown and Nonwoven spin pack and spinneret
- Monofilament spin pack spinneret
- Bicomponent spin pack spinneret

MELT PUMP

It produces melt pumps between 0.05 cc/1.500 cc.

MELT PUMP

For each machine, R&D produces volumetric product groups.