

FEEDING SYSTEMS



For Casting Industry

Çukurova Kimya Endüstrisi A.Ş.

www.cukurovakimya.com.tr



About Us

Çukurova Kimya Endüstrisi A.Ş. was established back in 1974 in Manisa Industrial Zone, where is a city 40 km inland from Izmir and Aliaga Ports. The location is 56 km from the airport and is located on Izmir - Istanbul highway. Plant is placed in the area of 70.000 m² and indoor area is roughly 30% of the total factory area.



The initial objectives were to produce foundry resins for the foundry industry. Çukurova Kimya Endüstrisi had plant to produce Furfural from local olive press cake in 1976, Furfuryl Alcohol from Furfural and Furan resins from Furfuryl Alcohol in under the licence of "Fordath / England". We were the Turkey's leading and only plant that produces furfuryl alcohol and foundry resins in those years.

As new binder technologies emerged in the foundry resins market, Çukurova Kimya signed another licence agreement at the 1989 with the then Borden Chemical (UK) LTD. (currently Hexion Speciality Chemicals) to produce ester cured alkaline phenolic resins. In the meantime the company decided to stop production of Furfural due to the economic reasons.

Along with the research and innovation studies company began to produce exothermic and insulation feeder sleeves in 1991 and important success in alkaline phenolic resins in the same years as well. Çukurova Kimya got results in 1993 on improving their own phenolic resins through its own Research and Development activities for the industrial requirements.

In 1996 the agreement between Çukurova Kimya Endüstrisi & "Borden Chemical UK. LTD." (Hexion Speciality Chemicals) was renewed with an addition of "know-how" transfer on industrial phenolic resins and refractory core-mold coatings. The agreement was renewed with "Hexion Speciality Chemicals" in 2006.

The Republic of Turkey, It has been determined that it meets the appropriate criteria by the Ministry of Science, Industry and Technology and has been awarded the "Research & Development Center" certificate in 2017.

Today, the main product range of Çukurova Kimya Endüstrisi includes foundry resins and related hardeners, industrial phenolic resins, exothermic & insulating characteristic feeder sleeves, refractory core and mold coatings, heat insulation boards, foundry glues, exothermic topping powders and auxiliary foundry materials.

Çukurova Kimya Endüstrisi A.Ş. has been exporting to 34 countries in a wide geography regions including Turkey, Europe, Slavic Countries, Middle East, North and Central Africa, Central Asia, South America and Caucasian Countries.

***The Power of Science and
Experience since 1974***



Index

About Us	2
Index	3
Properties of Feeder Sleeves & Mini Risers	4
Specification of Feeder Sleeves & Mini Risers	5
KBG Serial Feeder Sleeves	6 - 7
KBG DTK Serial Feeder Sleeves	8
KOBG & KOBG DTK Serial Feeder Sleeves	9
BG Serial Feeder Sleeves	10 - 11
BG DTK Serial Feeder Sleeves	13
BGK Serial Feeder Sleeves	14 - 15
OBG Serial Feeder Sleeves	16 - 17
YOLIZ Serial Feeder Sleeves	19
KB Serial Feeder Sleeves	19
YBG Serial Feeder Sleeves	19
KG Y A Serial Feeder Sleeves	19
KG Y S Serial Feeder Sleeves	19
FEEDFIX MB Exothermic Mini Risers	20
FEEDFIX CMB Exothermic Mini Riser Systems	21
IZOLEVHA Insulating Plates	22
IZOPRELEVHA Insulating Plates	22
BESLEYEN T Exothermic Hot - Topping Compounds	23
BESLEYEN K Mouldable Exothermic Feeder Compounds	23



Properties of Feeder Sleeves & Mini Risers

The casting method is one of the first metal production methods discovered by mankind. As time went by a series of innovations were introduced on the casting technology to increase the range of parts and the variety of metal alloys. The ability to control the solidification of the casting metal makes possible the production of defect-free casting parts that serve many different purposes. Nearly all casting metal alloys are shrinked while solidifying. As the liquid metal solidifies it shows phase transformation into a regular crystallographic structure, hence causing irregular solidification cavities. Due to this reason, it is inevitable to use mold components called feeders that act as a liquid metal reservoirs until the casting parts solidify.

After casting mold is filled and the solidification starts, then begins the feeder task. The aim of the feeder system design is that the feeder should be able to deliver molten metal to all sections of the casting within the sphere of influence until solidification finishes. When making the feeder calculation, attention should be paid to the feeder shape and the connection to the casting part. There are various elements used which affect the feeding efficiency. Feeder sleeves are the most effective mold auxiliary components for this purpose.

Feeder sleeves can be manufactured in different shapes, sizes and in different modules. For convenience, feeder sleeves can be designed as opened or closed types. There are 3 types of feeder sleeves in terms of exothermic properties ;

- *Highly exothermic feeder sleeves*
- *Medium exothermic feeder sleeves*
- *Insulating feeder sleeves*

The highly exothermic mini-risers have a high feeding efficiency of up to 80%. Mini risers can be applied in steel and ductile iron alloys. Mini risers have high strength and thermal module.

They can be positioned to the casting part from a very small surface area. Therefore, they are applied in areas where normal exothermic risers cannot be placed. Due to their high strength structure, they are suitable for use in high pressure automatic molding lines with mechanical fastening systems.

Feeder sleeves and mini risers can also be used with breaker cores. The feeder metal can easily be removed from the casting part after the casting, without any fall in feeding efficiency due to the use of breaker cores. Moreover, grinding cost decreases with used breaker core after the casting. Therefore, most of foundries prefer to use breaker cores with feeder sleeve or mini riser in casting application in order to minimize application costs.

The use of feeder sleeves has many advantages during molding, casting and solidification :

- *Use of less liquid metal*
- *Higher mold efficiency/productivity*
- *Lower melting costs*
- *Faster and optimum production*
- *High casting quality with controlled solidification*
- *More accurate module calculation and application*

Specification of Feeder Sleeves & Mini Risers

Types of Feeder Sleeves

KBG	:	Blind feeder sleeves
KOBG	:	Blind and Oval feeder sleeves
BGK	:	Conical feeder sleeves
BG	:	Cylindrical feeder sleeves
OBG	:	Oval feeder sleeves
DTK	:	Flat Adverse Conical feeder sleeves

Types of Breaker Cores

MQ	:	Silica sand breaker cores
MQY	:	Round Hole in breaker cores
MQYL	:	Large Round Hole in breaker cores
MQO	:	Curved Oval Hole in breaker cores
MQCR	:	Chromite sand breaker cores

Types of Mini Risers

MB	:	Highly Exothermic - Particle Based Mini Risers (For Manual Moulding Lines)
CMB	:	Highly Exothermic - Particle Based Mini Risers (For Especially Automatic Moulding Lines)

Types of Covers

INC	:	Insulating fiber based feeder covers
EXC	:	Exothermic fiber based feeder covers
SP	:	Open Hole located in the feeder cover

Description of Code System with Example ;

BESEKS 3500 EBGK 3 MQCR INC

Highly Exothermic Conical Feeder Sleeve + Chromite Sand Breaker Core + Insulating Fiber Based Cover

PRODUCT	Specifications of Feeder Sleeves & Mini Risers			
	Reaction Time, sec*	Density, g/cm ³	Max. Temperature, °C	Loss on Ignition, %
BESEKS 3000 Highly Exothermic Serials	110 - 195	0.40 - 0.75	1560 - 1660	-
BESEKS 2000 Medium Exothermic Serials	145 - 250	0.55 - 0.75	1400 - 1520	-
KOVIZ Insulating Serials	-	0.40 - 0.55	-	9.0 - 12.0
MB 1000 Mini Riser Serials	100 - 120	1.35 - 1.50	1560 - 1620	-

(*) **Note** : Tested in 900 °C and open atmosphere conditions

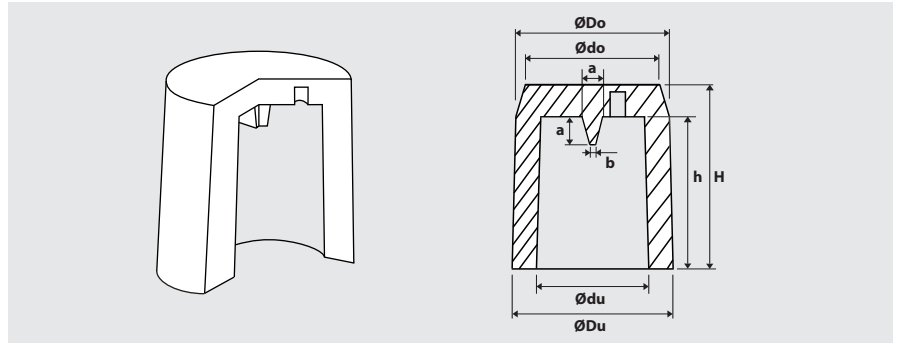


Storage Conditions

- Feeder Sleeves, Mini Risers, Covers and Breaker Cores should be stored in closed packages and moisture free.
- Feeder Sleeves, Mini Risers & Covers should be kept away from open flames or any ignition sources.



Exothermic & Insulating Feeder Sleeves

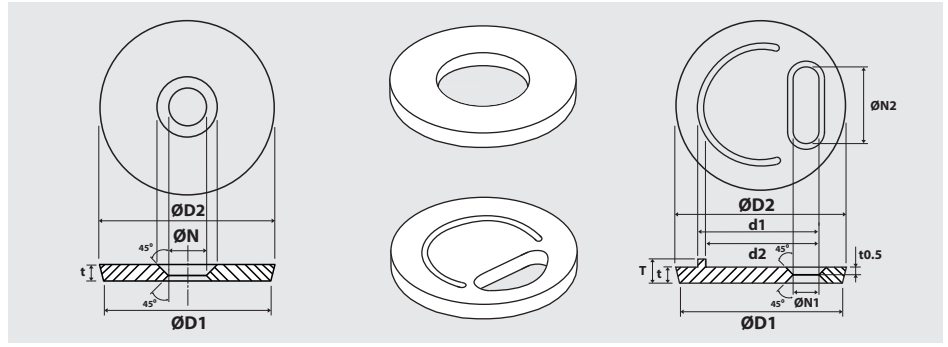


PRODUCT	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
	BESEKS	KOVIZ	GEOM	$\varnothing d_u$	$\varnothing D_u$	$\varnothing d_o$	$\varnothing D_o$	h	H	cm ³	Pcs/Pallet
KBG 2/6	0.75	0.60	0.45	24.00	40.00	21.00	37.00	50.00	60.00	18	10800
KBG 3,5/5	1.00	0.80	0.60	34.20	53.50	30.50	49.00	38.50	48.50	29	7700
KBG 3/7	1.05	0.80	0.60	32.00	46.00	31.30	44.50	56.50	65.00	42	7800
KBG 3/9 K	1.00	0.70	0.55	25.50	45.50	24.50	44.00	80.00	90.00	37	5720
KBG 3/9	1.10	0.85	0.65	32.00	45.50	31.00	44.00	80.00	90.00	60	5720
KBG 4/7	1.20	1.00	0.75	41.50	62.50	35.50	59.00	63.00	71.50	69	3780
KBG 4/8	0.80	0.60	0.45	23.00	41.00	20.50	38.50	70.00	80.00	24	8100
KBG 4/95 FD	1.15	0.85	0.65	34.00	55.00	31.50	52.50	85.00	97.00	68	3500
KBG 4/95	1.30	1.05	0.80	42.50	63.00	36.00	59.00	85.00	97.00	99	2700
KBG 4/120	1.30	1.00	0.75	38.00	59.00	35.50	56.50	108.00	120.00	110	2160
KBG 4/12	1.35	1.05	0.80	42.00	64.50	35.70	58.80	110.00	119.00	125	2160
KBG 4/141	1.40	1.15	0.90	41.00	63.00	36.00	58.50	128.50	140.00	146	1890
KBG 5/6	1.35	1.10	0.85	52.00	73.00	49.10	71.10	46.50	55.00	86	3600
KBG 5/8	1.50	1.25	0.95	52.00	73.50	48.00	70.00	70.00	80.00	130	2400
KBG 5/10	1.65	1.30	1.00	52.00	73.50	47.00	64.20	90.00	100.00	166	2000
KBG 6/7	1.55	1.25	0.95	57.50	80.00	54.10	74.20	56.00	66.00	127	2625
KBG 6/9	1.70	1.35	1.05	57.50	80.00	52.50	76.00	78.50	91.00	177	1925
KBG 6/11	1.75	1.30	1.00	53.00	76.00	52.50	73.00	95.00	110.00	193	1575
KBG 6/12	1.80	1.45	1.10	57.50	80.00	52.50	76.00	105.00	120.00	240	1400
KBG 6/13	1.85	1.50	1.15	57.50	80.00	52.50	75.00	115.00	130.00	263	1225
KBG 7/8	1.80	1.50	1.15	69.50	94.00	66.30	90.60	64.00	74.00	216	1560
KBG 7/10	2.00	1.65	1.25	69.50	94.00	65.00	89.50	87.00	99.00	293	1200
KBG 7/13	2.25	1.75	1.35	70.00	93.50	65.00	88.50	120.00	133.00	417	840
KBG 8/9	2.20	1.70	1.30	79.00	102.00	73.40	99.70	72.00	83.00	307	1200
KBG 8/11	2.25	1.80	1.40	79.00	102.00	71.50	99.00	96.50	108.00	409	900
KBG 9/10	2.35	1.90	1.48	89.00	115.00	82.90	111.10	93.00	95.00	454	750
KBG 9/12	2.50	2.00	1.55	89.00	115.00	81.00	110.00	104.50	120.00	566	600
KBG 10/11	2.65	2.15	1.65	97.00	127.50	92.50	120.60	95.00	108.00	633	540
KBG 10/13	2.80	2.30	1.75	97.00	127.50	91.00	119.00	117.00	133.00	776	420
KBG 11/14	3.00	2.50	1.90	107.00	140.00	100.00	133.00	125.00	140.00	1012	385
KBG 12/13	2.90	2.35	1.80	118.00	153.00	143.00	147.00	115.00	135.00	1466	280
KBG 12/15	3.20	2.60	2.00	118.00	154.50	112.00	148.00	130.00	150.00	1291	240
KBG 13/13	3.60	2.70	2.25	131.50	168.00	126.50	163.00	110.00	130.00	1388	210
KBG 14/15	3.90	2.85	2.35	134.00	174.00	127.00	167.00	133.00	153.00	1703	180
KBG 16/15	4.30	3.39	2.70	160.00	200.00	153.00	193.00	133.00	153.00	2455	150

Williams Dimensions (mm)	
a	b
12.00	2.00
12.00	2.00
12.00	2.00
12.00	2.00
12.00	2.00
14.00	2.00
12.00	2.00
14.00	2.00
14.00	2.00
14.00	2.00
16.00	2.00
14.00	2.00
16.00	2.00
16.00	2.00
16.00	2.00
18.00	2.00
18.00	2.00
22.00	2.00
18.00	2.00
18.00	2.00
20.00	3.00
20.00	3.00
18.00	3.00
22.00	3.00
22.00	3.00
24.00	3.00
24.00	3.00
26.00	3.00
26.00	3.00
26.00	3.00
30.00	4.00
30.00	4.00
26.00	3.00
32.00	4.00
34.00	4.00

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packing options, please contact with sales representatives.

Breaker Cores

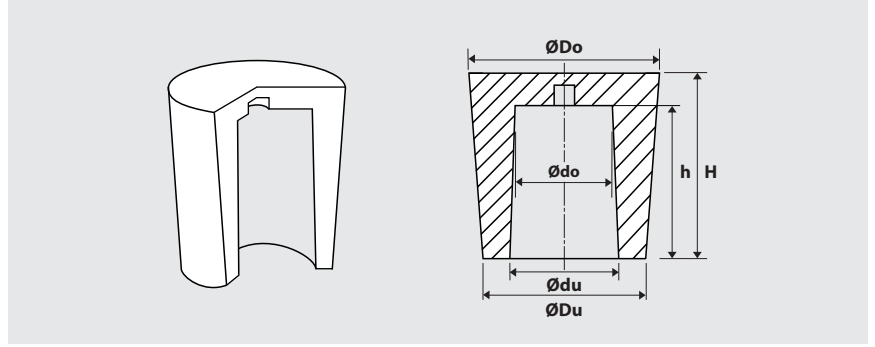


		DIMENSIONS (mm)								
BREAKER CORE	TYPE	ØD ₁	ØD ₂	d ₁	d ₂	ØN	N ₁	N ₂	T	t
BREAKER CORE KBG 3/9	MQY	43.00	44.00	-	-	25.00	-	-	-	8.00
BREAKER CORE KBG 3,5/5	MQY	52.00	53.00	-	-	20.00	-	-	-	7.00
BREAKER CORE KBG 4/95	MQO	62.00	63.00	20.00	16.00	-	23.00	38.00	11.00	8.00
	MQY	62.00	63.00	-	-	25.00	-	-	-	8.00
BREAKER CORE KBG 5/8	MQO	73.50	74.50	26.00	19.25	-	22.00	35.00	12.00	8.00
	MQY	72.50	73.50	-	-	30.00	-	-	-	8.00
BREAKER CORE KBG 5/10	MQY	72.50	73.50	-	-	30.00	-	-	-	8.00
BREAKER CORE KBG 6/9	MQO	79.50	80.00	28.00	23.00	-	25.00	43.00	13.00	8.00
	MQY	79.00	80.00	-	-	30.00	-	-	-	8.00
BREAKER CORE KBG 6/12	MQO	79.50	80.00	28.00	23.00	-	25.00	43.00	13.00	8.00
	MQY	79.00	80.00	-	-	30.00	-	-	-	8.00
BREAKER CORE KBG 6/13	MQO	79.50	80.00	28.00	23.00	-	25.00	43.00	13.00	8.00
	MQY	79.00	80.00	-	-	30.00	-	-	-	8.00
BREAKER CORE KBG 7/10	MQO	93.50	94.00	34.70	28.25	-	28.50	52.50	14.00	10.00
	MQY	93.00	94.50	-	-	35.00	-	-	-	8.00
BREAKER CORE KBG 8/11	MQO	100.00	101.00	39.00	33.00	-	33.50	60.00	14.00	10.00
	MQY	100.00	101.00	-	-	40.00	-	-	-	10.00
BREAKER CORE KBG 9/12	MQO	113.00	115.00	43.50	38.50	-	40.00	61.00	14.00	10.00
	MQY	113.00	114.00	-	-	45.00	-	-	-	10.00
BREAKER CORE KBG 10/13	MQO	125.50	127.00	47.50	42.00	-	42.00	68.00	14.00	10.00
	MQY	126.00	127.00	-	-	50.00	-	-	-	10.00
BREAKER CORE KBG 11/14	MQO	137.00	139.00	-	-	22.00	-	-	-	12.00
BREAKER CORE KBG 12/15	MQO	153.00	154.00	58.50	52.50	-	50.00	82.00	16.00	12.00
	MQY	152.00	154.00	-	-	60.00	-	-	-	12.00
BREAKER CORE KBG 14/15	MQO	172.00	173.00	-	-	-	61.00	104.00	12.00	12.00
	MQY	172.00	173.00	-	-	70.00	-	-	-	12.00
BREAKER CORE KBG 16/15	MQO	196.50	197.50	-	-	-	73.00	124.00	14.00	14.00
	MQY	197.50	196.50	-	-	80.00	-	-	-	14.00

- KBG type of feeder sleeves can be packed with MQ - Breaker core types. It can be packed separately regarding to customer request.
- Feeder sleeves and covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

KBG DTK Serial

Exothermic & Insulating Feeder Sleeves

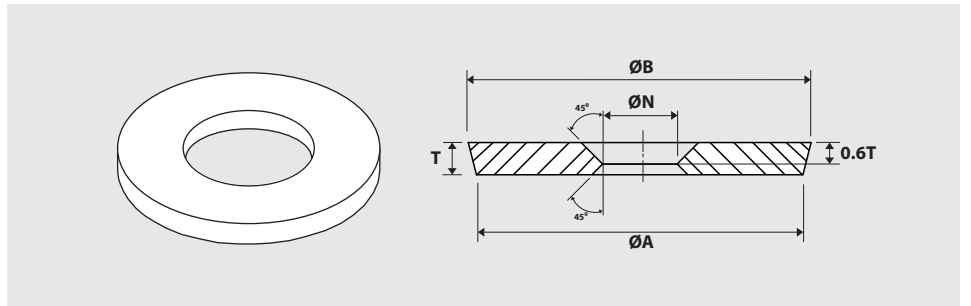


PRODUCT	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
	BESEKS	KOVIZ	GEOM	Ødu	ØDu	Ødo	ØDo	h	H	cm ³	Pcs/Pallet
KBG 3,5/5 DTK	1.05	0.80	0.60	35.00	43.00	30.50	47.00	39.50	47.50	33	7770
KBG 4/7 DTK	1.20	1.00	0.75	41.00	57.50	35.50	63.00	63.00	71.50	73	3780
KBG 4/95 DTK	1.30	1.05	0.80	42.00	58.00	36.00	73.50	87.00	97.00	104	2700
KBG 5/8 DTK	1.50	1.25	0.95	51.50	68.00	47.50	73.00	71.00	81.00	137	2400
KBG 6/9 DTK	1.70	1.35	1.05	57.50	74.50	52.00	79.50	79.00	92.00	186	1750
KBG 7/10 DTK	2.00	1.65	1.25	69.00	88.00	65.00	94.50	88.00	100.00	310	1200
KBG 8/11 DTK	2.25	1.80	1.25	78.00	97.50	71.00	103.50	95.00	108.00	414	900
KBG 9/12 DTK	2.50	2.00	1.25	89.00	108.50	82.50	116.00	105.00	120.50	607	600
KBG 10/13 DTK	2.80	2.30	1.25	97.00	118.00	91.50	128.00	114.00	130.50	796	420

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packing options, please contact with sales representatives.

KBG DTK MQ Serial

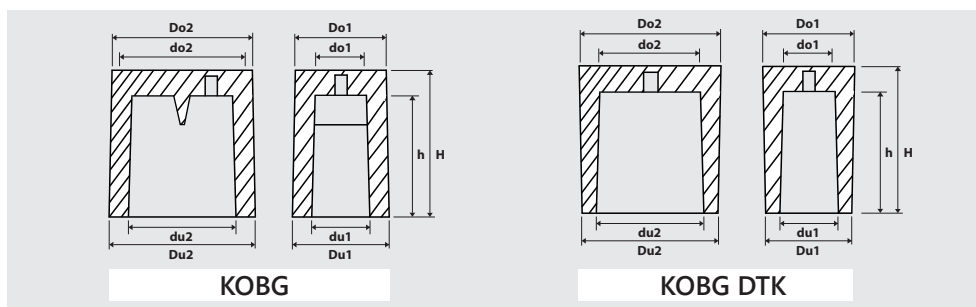
Breaker Cores



BREAKER CORE	TYPE	DIMENSIONS (mm)			
		ØA	ØB	ØN	T
BREAKER CORE KBG 4/7 DTK	MQ	56.00	57.00	30.00	7.00
BREAKER CORE KBG 4/95 DTK	MQ	66.00	67.00	30.00	8.00
BREAKER CORE KBG 5/8 DTK	MQ	72.50	73.50	30.00	8.00
BREAKER CORE KBG 6/9 DTK	MQ	86.00	87.00	35.00	8.00
BREAKER CORE KBG 7/10 DTK	MQ	94.00	96.00	40.00	10.00
BREAKER CORE KBG 8/11 DTK	MQ	105.00	107.00	45.00	10.00
BREAKER CORE KBG 9/12 DTK	MQ	115.00	117.00	50.00	10.00

KOBG & KOBG DTK Serial

Exothermic & Insulating Feeder Sleeves

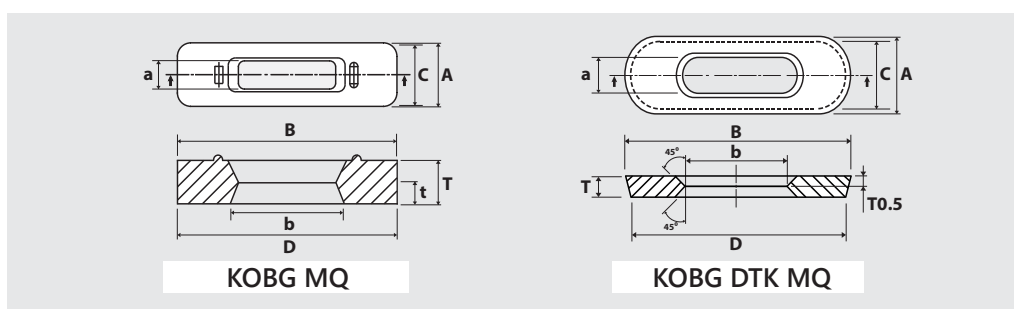


PRODUCT	MODULE (cm)			DIMENSIONS (mm)										VOLUME	QUANTITY
	BESEKS	KOVIZ	GEOM	du1	du2	do1	do2	Du1	Du2	Do1	Do2	h	H	cm ³	Pcs/Pallet
KOBG 8/8	1.30	1.05	0.80	28.50	73.50	21.50	70.10	44.50	89.50	41.00	86.00	75.00	85.00	130	2860
KOBG 8/10	1.40	1.10	0.85	28.50	73.50	24.56	69.56	44.50	89.50	40.00	85.00	100.00	110.00	175	2340
KOBG 7/10 AY	2.10	1.80	1.40	72.00	107.00	64.00	99.00	92.00	127.00	85.00	120.00	88.00	100.00	529	900
KOBG 11/15	2.00	1.75	1.35	61.20	91.00	56.30	86.50	83.20	113.50	78.00	108.20	140.00	151.00	702	630
KOBG 5/8 DTK	1.75	1.45	1.10	51.00	76.00	45.00	70.00	69.00	94.00	74.00	99.00	68.00	80.00	220	1800
KOBG 6/9 DTK	2.10	1.70	1.30	61.00	91.00	55.00	85.00	82.00	112.00	88.00	118.00	78.00	90.00	360	1100
KOBG 7/10 DTK	2.40	1.95	1.50	72.00	107.00	64.00	99.00	93.00	128.00	100.00	135.00	88.00	100.00	550	750
KOBG 8/11 DTK	2.70	2.20	1.70	80.00	122.00	72.00	114.00	104.00	146.00	112.00	154.00	98.00	110.00	800	540

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packing options, please contact with sales representatives.

KOBG MQ & KOBG DTK MQ Serial

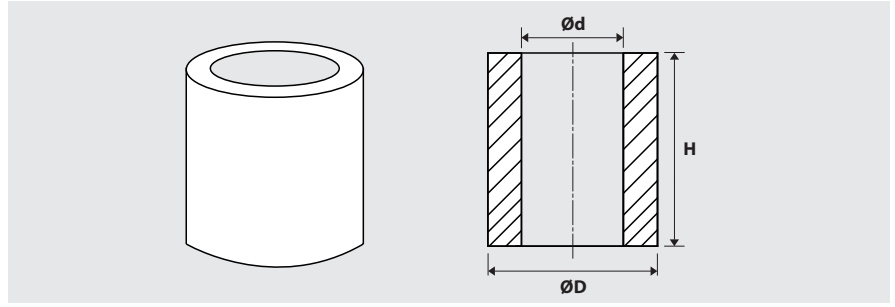
Breaker Cores



BREAKER CORE	TYPE	DIMENSIONS (mm)							
		A	B	a	b	C	D	T	t
BREAKER CORE KOBG 8/8	MQ	45.00	89.50	22.50	59.00	44.50	90.00	10.00	5.00
BREAKER CORE KOBG 8/10	MQ	44.50	90.50	22.50	59.00	44.50	90.50	30.00	15.00
BREAKER CORE KOBG 5/8 DTK	MQ	67.00	92.00	25.00	50.00	64.00	88.00	8.00	
BREAKER CORE KOBG 6/9 DTK	MQ	80.00	109.00	28.00	56.00	76.00	106.00	8.00	
BREAKER CORE KOBG 7/10 DTK	MQ	91.00	127.00	31.00	62.00	88.00	124.00	10.00	
BREAKER CORE KOBG 8/11 DTK	MQ	102.00	144.00	35.00	70.00	98.00	141.00	10.00	

- KOBG & KOBG DTK type of feeder sleeves can be packed with MQ - Breaker core types. It can be packed separately regarding to customer request.
- Feeder sleeves and Covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

Exothermic & Insulating Feeder Sleeves



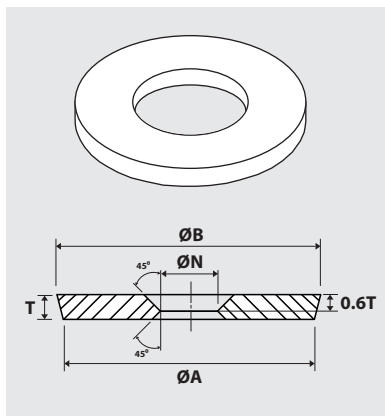
PRODUCT	MODULE (cm)			DIMENSIONS (mm)			VOLUME	QUANTITY
	BESEKS	KOVIZ	GEOM	Ød	ØD	H	cm ³	Pcs/Pallet
BG 1	1.40	1.15	0.90	40.00	64.00	150.00	188	1620
BG 2	1.95	1.65	1.25	60.00	86.00	150.00	424	900
BG 2.5	2.05	1.70	1.30	63.50	89.50	150.00	475	720
BG 3	2.40	2.10	1.60	80.00	110.00	150.00	754	450
BG 4	2.80	2.50	1.90	100.00	140.00	150.00	1178	384
BG 5	3.20	2.80	2.15	120.00	160.00	150.00	1696	294
BG 5/180	3.35	3.10	2.40	120.00	160.00	180.00	2036	245
BG 5.5	3.45	3.20	2.45	125.00	165.00	150.00	1841	252
BG 6/150	3.80	3.25	2.50	150.00	190.00	150.00	2651	180
BG 6	3.90	3.40	2.60	140.00	180.00	200.00	3079	180
BG 7/10	2.15	1.75	1.40	69.50	95.00	98.00	372	280
BG 7	4.30	3.55	2.85	160.00	205.00	200.00	4021	140
BG 8	4.70	3.90	3.10	180.00	230.00	200.00	5089	100
BG 8.5	4.75	4.00	3.20	185.00	235.00	200.00	5376	95
BG 9/150	4.65	3.90	3.10	200.00	250.00	150.00	4712	114
BG 9	4.80	4.20	3.35	200.00	250.00	200.00	6283	95
BG 9/300	5.40	4.70	3.75	200.00	250.00	300.00	9425	57
BG 10/150	5.25	4.50	3.65	250.00	305.00	150.00	7363	72
BG 10	5.60	4.80	3.85	250.00	305.00	200.00	9817	60
BG 10/300	6.40	5.50	4.40	250.00	305.00	300.00	14726	36
BG 10.5	6.00	4.70	3.75	280.00	340.00	200.00	12315	60
BG 11	6.20	5.40	4.30	300.00	360.00	200.00	14137	40
BG 11/300	7.30	6.25	5.00	300.00	360.00	300.00	21206	24
BG 12	6.80	5.80	4.65	350.00	415.00	200.00	19242	30
BG 12/300	8.00	6.95	5.55	350.00	415.00	300.00	28863	18
BG 13	7.00	6.25	5.00	400.00	465.00	200.00	25133	25
BG 14	7.40	6.60	5.30	450.00	515.00	200.00	31809	20
BG 15	7.80	6.95	5.55	500.00	565.00	200.00	39270	15
BG 16	8.10	7.25	5.80	550.00	618.00	200.00	47517	10
BG 17	8.25	7.50	6.00	600.00	670.00	200.00	56549	10
BG 18	8.40	7.75	6.20	650.00	722.00	200.00	66366	10
BG 19	8.60	7.95	6.35	700.00	774.00	200.00	79969	5
BG 20	8.80	8.15	6.55	750.00	826.00	200.00	88357	5
BG 21	9.00	8.40	6.70	800.00	880.00	200.00	100531	5
BG 22	9.20	8.80	6.80	850.00	930.00	200.00	113490	5

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packing options, please contact with sales representatives.

- BG type of feeder sleeves can be packed with MQ - Breaker core types and / or INC - EXC Cover types. It can be packed separately regarding to customer request.
- Feeder sleeves and Covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

BG MQ Serial

Breaker Cores

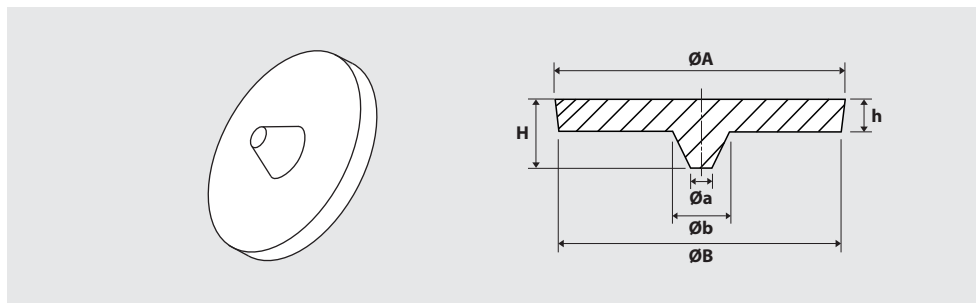


BREAKER CORE	TYPE	DIMENSIONS (mm)			
		ØA	ØB	ØN	T
BREAKER CORE BG 1	MQ	56.00	57.00	30.00	7.00
BREAKER CORE BG 2	MQ	86.00	87.00	35.00	8.00
BREAKER CORE BG 3	MQ	105.00	108.00	40.00	10.00
BREAKER CORE BG 4	MQ	136.00	139.00	50.00	10.00
BREAKER CORE BG 5	MQ	159.00	161.00	60.00	12.00
BREAKER CORE BG 6	MQ	178.00	180.00	68.00	14.00
BREAKER CORE BG 7	MQ	192.00	202.00	78.00	14.00
BREAKER CORE BG 8	MQ	214.00	224.00	85.00	16.00
BREAKER CORE BG 9	MQ	236.00	246.00	90.00	16.00
BREAKER CORE BG 10	MQ	290.00	300.00	110.00	16.00
BREAKER CORE BG 11	MQ	343.00	356.00	135.00	20.00
BREAKER CORE BG 12	MQ	400.00	410.00	150.00	20.00
BREAKER CORE BG 13	MQ	450.00	460.00	165.00	25.00
BREAKER CORE BG 14	MQ	505.00	515.00	180.00	30.00
BREAKER CORE BG 15	MQ	550.00	560.00	250.00	40.00
BREAKER CORE BG 16	MQ	618.00	620.00	225.00	40.00

 The same serial of breaker cores can be used for corresponding serial feeder sleeves with different heights.

BG EXC / INC Serial

Exothermic & Insulating Covers



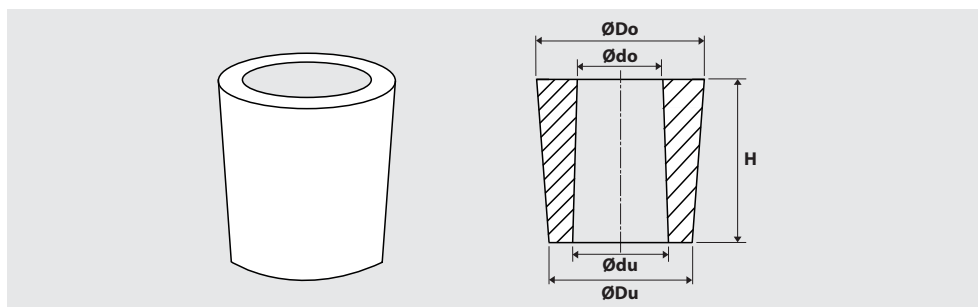
COVER	TYPE	DIMENSIONS (mm)						QUANTITY Pcs/Pallet
		ØA	ØB	Øa	Øb	h	H	
COVER BG 1	INC / EXC	64.00	63.50	10.00	20.00	11.00	21.00	2000
COVER BG 2	INC / EXC	87.00	86.00	10.00	25.00	12.00	29.00	1100
COVER BG 3	INC / EXC	110.00	109.00	10.00	25.00	13.00	30.00	750
COVER BG 4	INC / EXC	140.00	139.50	10.00	25.00	13.00	30.00	600
COVER BG 5	INC / EXC	160.00	159.30	16.00	40.00	14.00	41.00	350
COVER BG 6	INC / EXC	180.00	179.30	18.00	45.00	15.00	45.00	270
COVER BG 7	INC / EXC	205.00	204.00	20.00	51.00	16.00	50.00	150
COVER BG 8	INC / EXC	230.00	229.30	23.00	57.00	17.00	55.00	120
COVER BG 9	INC / EXC	250.00	249.30	25.00	63.00	17.00	59.00	100
COVER BG 10	INC / EXC	305.00	304.40	30.00	76.00	18.00	69.00	55
COVER BG 11	INC / EXC	360.00	359.30	36.00	90.00	21.00	80.00	25
COVER BG 12	INC / EXC	410.00	409.30	41.00	103.00	20.00	89.00	20

 The same serial of feeder covers can be used for corresponding serial feeder sleeves with different heights.



BG DTK Serial

Exothermic & Insulating Feeder Sleeves

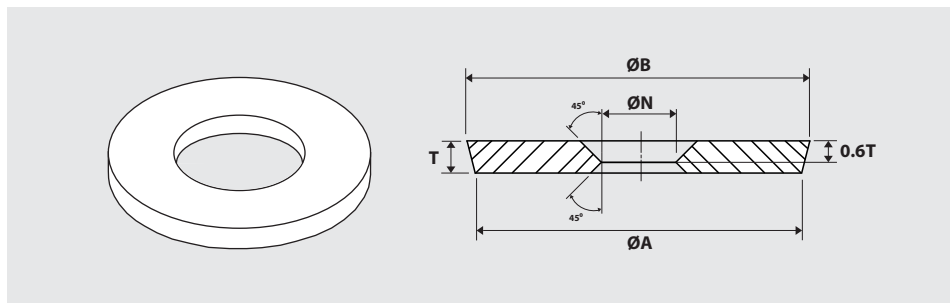


	MODULE (cm)			DIMENSIONS (mm)					VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	Ødu	ØDu	Ødo	ØDo	H	cm ³	Pcs/Pallet
BG 5/8 DTK	1.50	1.25	0.95	51.00	73.50	47.00	74.50	80.00	151	2400
BG 6/9 DTK	1.70	1.35	1.05	57.00	73.50	51.00	80.00	91.00	209	1925
BG 7/10 DTK	2.00	1.65	1.25	69.00	107.00	64.00	95.00	101.00	351	1080
BG 8/11 DTK	2.25	1.85	1.40	77.50	91.00	70.00	104.00	108.00	462	900
BG 9/12 DTK	2.50	2.05	1.55	88.00	107.00	80.00	116.00	119.00	660	600
BG 10/13 DTK	2.80	2.30	1.75	97.00	118.00	89.50	128.00	131.00	895	420

Note: Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

BG DTK MQ Serial

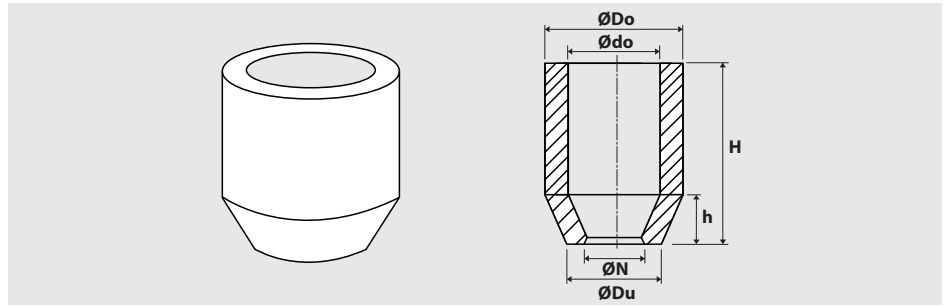
Breaker Cores



		DIMENSIONS (mm)			
BREAKER CORE	TYPE	ØA	ØB	ØN	T
BREAKER CORE BG 5/8 DTK	MQ	66.00	67.00	30.00	8.00
BREAKER CORE BG 6/9 DTK	MQ	72.50	73.50	30.00	8.00
BREAKER CORE BG 7/10 DTK	MQ	86.00	87.00	35.00	8.00
BREAKER CORE BG 8/11 DTK	MQ	94.00	96.00	40.00	10.00
BREAKER CORE BG 9/12 DTK	MQ	105.00	107.00	45.00	10.00
BREAKER CORE BG 10/13 DTK	MQ	115.00	117.00	50.00	10.00

- BG DTK type of feeder sleeves can be packed with MQ - Breaker core types. It can be packed separately regarding to customer request.
- Feeder sleeves are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

Exothermic & Insulating Feeder Sleeves



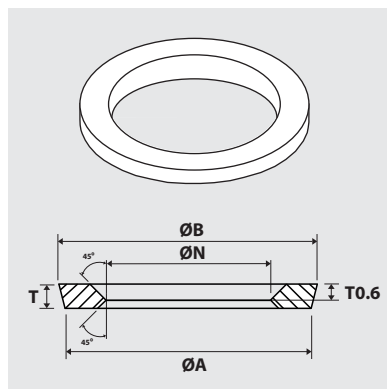
PRODUCT	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
	BESEKS	KOVIZ	GEOM	ØN	ØDu	Ødo	ØDo	h	H	cm ³	Pcs/Pallet
BGK 0 K	1.20	1.05	0.80	23.00	44.00	40.50	62.50	20.00	100.00	119	2700
BGK 0	1.50	1.30	1.00	30.00	55.00	50.00	75.00	15.00	100.00	186	1750
BGK 0/150	1.60	1.35	1.05	30.00	55.00	50.00	75.00	15.00	150.00	284	1050
BGK 0,5	2.00	1.65	1.25	48.00	77.00	66.00	91.00	15.00	100.00	329	1200
BGK 1 DD	2.05	1.70	1.30	53.00	80.00	76.00	100.00	17.00	90.00	387	1300
BGK 1	2.10	1.80	1.40	38.00	69.00	78.00	100.00	27.00	100.00	423	1000
BGK 1/150	2.20	1.90	1.45	38.00	69.00	78.00	100.00	27.00	150.00	662	600
BGK 2 DD	2.20	1.85	1.40	57.00	86.00	85.00	114.00	24.00	90.00	471	825
BGK 2	2.30	1.95	1.50	45.00	74.00	85.00	114.00	34.00	100.00	491	750
BGK 2/150	2.50	2.20	1.70	45.00	74.00	85.00	114.00	34.00	150.00	775	450
BGK 3 DD	2.75	2.40	1.85	58.70	88.60	94.00	130.00	33.00	140.00	896	300
BGK 3 EK	2.85	2.50	1.90	58.70	88.56	94.00	130.00	33.00	150.00	966	360
BGK 3	2.70	2.35	1.80	48.00	76.00	94.00	130.00	43.00	150.00	919	360
BGK 3/180	3.10	2.60	2.00	48.00	76.00	94.00	130.00	43.00	180.00	1127	300
BGK 4 DD	3.15	2.75	2.10	72.00	109.00	118.00	157.00	40.00	140.00	1383	294
BGK 4 EK	3.45	3.00	2.30	76.00	115.00	118.00	157.00	35.00	150.00	1520	343
BGK 4	3.20	2.50	2.10	60.00	97.00	118.00	157.00	50.00	150.00	1416	294
BGK 4.5	3.60	2.90	2.40	65.00	109.00	135.00	177.00	65.00	180.00	2177	180
BGK 140	4.00	3.20	2.65	98.00	140.00	140.00	182.00	63.00	210.00	2971	76
BGK 5 DD	4.00	3.25	2.70	81.00	131.00	147.00	192.00	58.00	185.00	2764	150
BGK 5 EK	4.20	3.30	2.75	90.00	135.00	147.00	192.00	43.00	195.00	3063	150
BGK 5	4.10	3.25	2.70	70.00	120.00	147.00	192.00	68.00	195.00	2811	150
BGK 5,5	4.40	3.50	2.90	80.00	128.00	165.00	211.00	80.00	225.00	4081	100
BGK 6 EK	5.00	4.10	3.40	102.00	149.00	175.00	222.00	70.00	250.00	5409	92
BGK 6	4.80	3.85	3.20	87.00	132.00	175.00	222.00	90.00	250.00	5107	92
BGK 7	5.10	4.20	3.50	100.00	150.00	200.00	250.00	100.00	250.00	6545	76
BGK 8	5.50	4.55	3.80	110.00	160.00	225.00	278.00	110.00	250.00	8086	60
BGK 9/300	6.20	5.15	4.30	124.00	180.00	252.00	310.00	120.00	300.00	12437	36
BGK 9/400	6.40	5.40	4,75	200.00	260.00	250.00	310.00	80.00	400.00	18902	24
BGK 10/300	7.00	5.76	4.80	150.00	210.00	300.00	360.00	140.00	300.00	17082	24
BGK 11/300	7.70	6.35	5.30	175.00	240.00	355.00	410.00	155.00	300.00	23230	18
BGK 12/400	9.50	8.40	7.00	220.50	272.50	460.00	512.00	185.00	400.00	53247	8

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

- BGK type of feeder sleeves can be packed with MQ - Breaker core types and / or INC - EXC Cover types. It can be packed separately regarding to customer request.
- Feeder sleeves and Covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

BGK MQ Serial

Breaker Cores

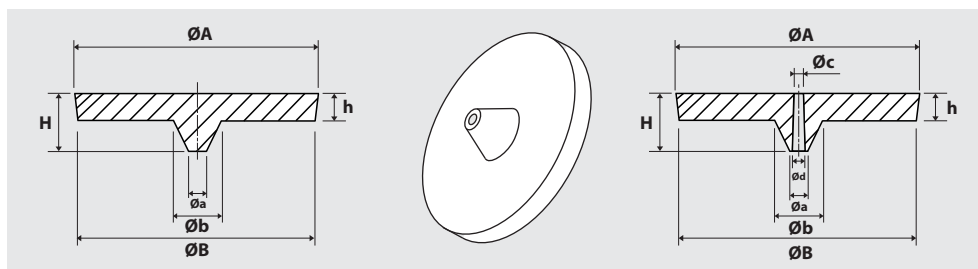


		DIMENSIONS (mm)			
BREAKER CORE	TYPE	ØA	ØB	ØN	T
BREAKER CORE BGK 0	MQ	44.00	55.00	25.00	8.00
BREAKER CORE BGK 1	MQ	60.00	69.00	35.00	8.00
BREAKER CORE BGK 2	MQ	65.00	74.00	42.00	8.00
BREAKER CORE BGK 3	MQ	75.50	76.00	45.00	10.00
BREAKER CORE BGK 4	MQ	96.50	97.00	58.00	10.00
BREAKER CORE BGK 4.5	MQ	98.50	109.00	63.00	10.00
BREAKER CORE BGK 5	MQ	118.00	120.00	68.00	12.00
BREAKER CORE BGK 5.5	MQ	118.00	128.00	77.00	10.00
BREAKER CORE BGK 6	MQ	126.00	132.00	84.00	14.00
BREAKER CORE BGK 7	MQ	142.00	150.00	96.00	14.00
BREAKER CORE BGK 8	MQ	143.90	160.00	108.00	15.00
BREAKER CORE BGK 9	MQ	163.80	180.00	120.00	15.00
BREAKER CORE BGK 10	MQ	194.00	210.00	145.00	15.00
BREAKER CORE BGK 11	MQ	223.50	240.00	170.00	15.00

⚠ The same serial of breaker cores can be used for corresponding serial feeder sleeves with different heights.

BGK EXC / INC Serial

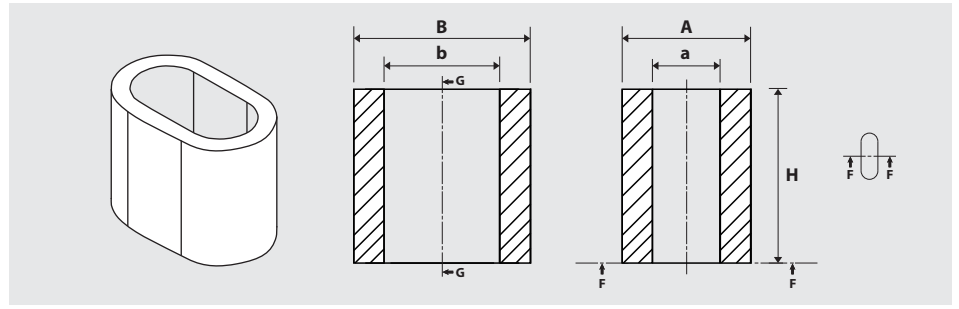
Exothermic & Insulating Covers



		DIMENSIONS (mm)								QUANTITY
COVER	TYPE	ØA	ØB	Øa	Øb	h	H	Øc	Ød	Pcs/Pallet
COVER BGK 0	INC / EXC	75.00	74.00	8.00	19.00	11.00	24.00	-	-	1000
COVER BGK 0 SP	INC / EXC	75.00	74.00	25.00	20.00	11.00	21.00	10.00	12.00	1000
COVER BGK 1	INC / EXC	100.00	99.00	10.00	25.00	11.00	28.00	-	-	750
COVER BGK 1 SP	INC / EXC	100.00	99.00	25.00	20.00	11.00	21.00	10.00	12.00	750
COVER BGK 2	INC / EXC	114.00	113.00	11.00	28.00	13.00	32.00	-	-	750
COVER BGK 2 SP	INC / EXC	115.00	114.00	25.00	20.00	13.00	24.00	10.00	12.00	750
COVER BGK 3	INC / EXC	130.00	129.00	13.00	33.00	15.00	37.00	-	-	600
COVER BGK 4	INC / EXC	157.00	156.30	16.00	40.00	15.00	41.00	-	-	300
COVER BGK 5	INC / EXC	192.00	191.00	20.00	48.00	15.00	47.00	-	-	200
COVER BGK 6	INC / EXC	222.00	221.00	22.00	55.00	16.00	52.00	-	-	120
COVER BGK 7	INC / EXC	250.00	249.00	25.00	62.00	18.00	58.00	-	-	100
COVER BGK 8	INC / EXC	278.00	277.30	28.00	70.00	18.00	64.00	-	-	60
COVER BGK 9	INC / EXC	310.00	309.00	31.00	78.00	20.00	72.00	-	-	55
COVER BGK 10	INC / EXC	360.00	359.30	36.00	90.00	21.00	80.00	-	-	25
COVER BGK 11	INC / EXC	410.00	409.30	41.00	103.00	20.00	89.00	-	-	20

⚠ The same serial of feeder covers can be used for corresponding serial feeder sleeves with different heights.

Exothermic & Insulating Feeder Sleeves

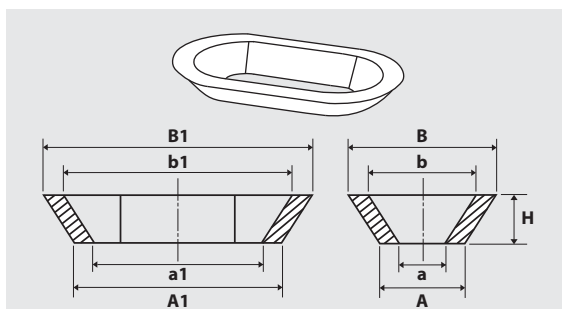


	MODULE (cm)			DIMENSIONS (mm)					VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	a	A	b	B	H	cm ³	Pcs/Pallet
OBG 3,5	2.30	1.55	1.20	38.00	68.00	144.00	174.00	120.00	619	816
OBG 4	2.60	2.20	1.70	60.00	90.00	144.00	174.00	150.00	1180	432
OBG 4/300	3.10	2.85	2.20	60.00	90.00	144.00	174.00	300.00	2360	216
OBG 5	3.00	2.60	2.00	80.00	120.00	160.00	200.00	150.00	1714	300
OBG 5,5/150	3.10	2.95	2.25	99.00	139.00	161.00	201.00	150.00	2075	252
OBG 5,5	3.30	3.00	2.30	85.00	125.00	175.00	215.00	200.00	2665	225
OBG 6	3.90	3.40	2.60	100.00	140.00	200.00	240.00	200.00	3571	170
OBG 6/300	4.20	3.65	2.80	100.00	140.00	200.00	240.00	300.00	5356	102
OBG 7	4.40	3.75	2.90	120.00	164.00	240.00	284.00	200.00	5142	125
OBG 7/300	4.80	3.85	3.20	120.00	164.00	240.00	284.00	300.00	7713	75
OBG 8	4.80	3.85	3.20	140.00	188.00	280.00	328.00	200.00	6999	90
OBG 8/300	5.60	4.45	3.70	140.00	188.00	280.00	328.00	300.00	10498	54
OBG 9	5.20	4.30	3.60	160.00	212.00	320.00	372.00	200.00	9141	65
OBG 9/300	5.90	4.90	4.10	160.00	212.00	320.00	372.00	300.00	13712	39
OBG 10	5.50	4.55	3.80	180.00	236.00	360.00	416.00	200.00	11569	55
OBG 10/300	6.40	5.30	4.40	180.00	236.00	360.00	416.00	300.00	17354	33
OBG 10.5/300	6.50	5.40	4.50	235.00	287.00	325.00	377.00	300.00	19357	30
OBG 11	6.10	5.05	4.20	200.00	260.00	400.00	460.00	200.00	14283	45
OBG 11/300	6.80	5.65	4.70	200.00	260.00	400.00	460.00	300.00	21425	27
OBG 12	7.00	5.75	4.80	230.00	296.00	450.00	521.00	200.00	23137	45
OBG 12/300	7.50	6.25	5.20	230.00	296.00	455.00	521.00	300.00	27989	18
OBG 13/300	7.90	6.60	5.50	250.00	314.00	495.00	559.00	300.00	33101	18
OBG 14/300	8.80	7.30	6.10	300.00	359.00	600.00	659.00	300.00	48206	12
OBG 15/300	9.70	8.15	6.80	350.00	450.00	700.00	800.00	300.00	65613	6

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

OBG TSF Serial

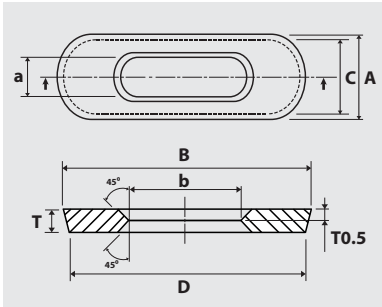
Exothermic & Insulating Additional Conical Section



		DIMENSIONS (mm)								
PRODUCT	TYPE	A	a	B	b	A1	a1	B1	b1	H
OBG 5	TSF	69.00	40.00	119.00	81.00	149.00	120.00	199.00	161.00	25.00
OBG 6	TSF	85.00	46.00	139.00	120.00	184.00	147.00	238.00	201.00	50.00
OBG 7	TSF	110.00	70.00	160.00	140.00	230.00	190.00	280.00	240.00	50.00
OBG 8	TSF	115.00	70.00	185.00	160.00	255.00	210.00	325.00	280.00	50.00

OBG MQ Serial

Breaker Cores

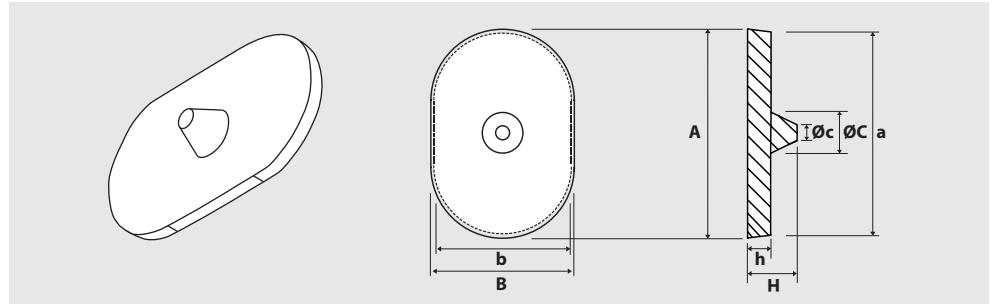


BREAKER CORE	TYPE	DIMENSIONS (mm)						
		A	B	a	b	C	D	T
BREAKER CORE OBG 3,5	MQ	68.00	172.00	30.00	134.00	66.00	170.00	8.00
BREAKER CORE OBG 4	MQ	89.50	174.00	35.00	100.00	87.00	171.50	8.00
BREAKER CORE OBG 5	MQ	120.00	200.00	32.00	112.00	119.50	196.00	14.00
BREAKER CORE OBG 6	MQ	140.00	240.00	40.00	140.00	138.00	235.00	14.00
BREAKER CORE OBG 7	MQ	164.00	284.00	48.00	168.00	159.00	279.00	14.00
BREAKER CORE OBG 8	MQ	188.00	328.00	56.00	196.00	182.00	322.00	16.00
BREAKER CORE OBG 9	MQ	212.00	372.00	64.00	224.00	206.00	366.00	16.00
BREAKER CORE OBG 10	MQ	236.00	416.00	72.00	252.00	230.00	410.00	16.00
BREAKER CORE OBG 11	MQ	260.00	460.00	80.00	280.00	252.00	452.00	20.00
BREAKER CORE OBG 12	MQ	296.00	521.00	100.00	325.00	288.00	513.00	20.00
BREAKER CORE OBG 13	MQ	314.00	559.00	102.00	347.00	306.00	551.00	20.00

⚠ The same serial of breaker cores can be used for corresponding serial feeder sleeves with different heights.

OBG EXC / INC Serial

Exothermic & Insulating Covers



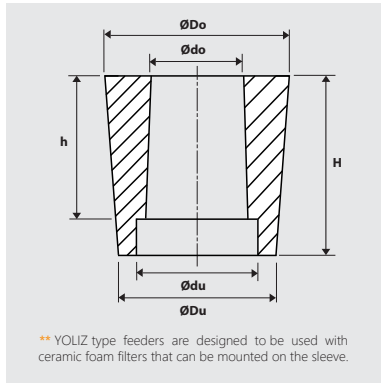
COVER	TYPE	DIMENSIONS (mm)								QUANTITY
		A	a	B	b	H	h	ØC	Øc	Pcs/Pallet
COVER OBG 4	INC / EXC	174.00	173.00	90.00	89.00	35.00	12.00	35.00	14.00	550
COVER OBG 4,5 SS	INC / EXC	163.00	-	100.00	-	40.00	15.00	38.00	16.00	500
COVER OBG 5	INC / EXC	200.00	199.00	120.00	119.00	38.00	15.00	40.00	16.00	400
COVER OBG 5,5 SS	INC / EXC	220.00	-	100.00	-	48.00	18.00	44.00	20.00	300
COVER OBG 5-101	INC / EXC	196.00	-	101.00	-	38.00	14.00	42.00	19.00	400
COVER OBG 6	INC / EXC	240.00	239.00	140.00	139.00	45.00	15.00	45.00	18.00	250
COVER OBG 7	INC / EXC	284.00	283.00	164.00	163.00	49.00	15.00	51.00	20.00	150
COVER OBG 8	INC / EXC	328.00	327.00	188.00	187.00	55.00	17.00	57.00	23.00	90
COVER OBG 9	INC / EXC	372.00	371.00	212.00	211.00	60.00	18.00	63.00	25.00	70
COVER OBG 10	INC / EXC	416.00	415.00	236.00	235.00	75.00	25.00	30.00	75.00	40
COVER OBG 11	INC / EXC	460.00	459.00	260.00	259.00	90.00	30.00	90.00	36.00	25

⚠ The same serial of feeder covers can be used for corresponding serial feeder sleeves with different heights.

- OBG type of feeder sleeves can be packed with MQ - Breaker core types and / or INC - EXC Cover types. It can be packed separately regarding to customer request.
- Feeder sleeves and Covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.



Exothermic & Insulating Feeder Sleeves



	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	Ødu	ØDu	Ødo	ØDo	h	H	cm ³	Pcs/Pallet
YOLIZ BY 5/8 DTK	1.15	1.05	0.80	51.10	66.50	44.00	74.50	59.50	81.50	136	2400
YOLIZ BY 6/9 DTK	1.30	1.15	0.90	61.00	73.50	50.00	81.00	69.00	91.50	201	1925
YOLIZ BY 7/10 DTK	1.50	1.35	1.05	70.00	86.50	60.00	94.50	78.50	100.00	305	1080
YOLIZ BY 8/11 DTK	1.75	1.55	1.20	82.50	96.00	70.00	102.50	86.50	108.50	450	900
YOLIZ BY 9/12 DTK	1.95	1.75	1.35	91.50	106.50	78.50	116.00	100.00	122.00	629	600
YOLIZ BY 10/13 DTK	2.15	1.95	1.50	101.50	116.00	87.00	129.00	112.00	134.00	844	480

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

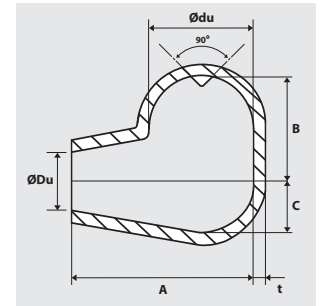
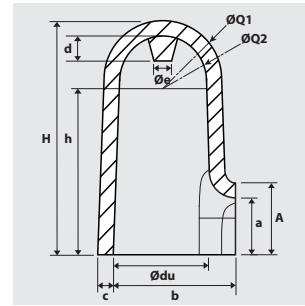
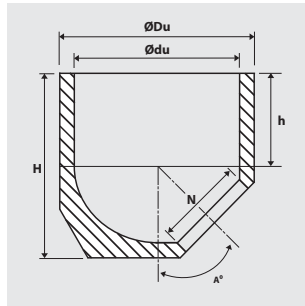
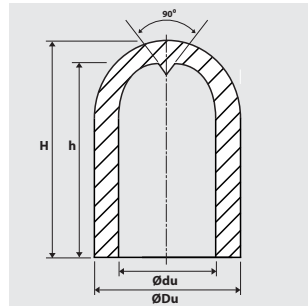
KG Serial

YBG Serial

KGY A Serial

KGY S Serial

Exothermic & Insulating Feeder Sleeves



	MODULE (cm)			DIMENSIONS (mm)				VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	Ødu	ØDu	h	H	cm ³	Pcs/Pallet
KG 60/80/130	2.20	1.60	1.35	60.00	80.00	120.00	130.00	309	980
KG 90/110/130	3.05	2.30	1.95	90.00	110.00	120.00	130.00	694	525
KG 140/160/192	4.10	3.50	2.95	140.00	160.00	180.00	192.00	2421	150
KG 140/162/240	4.40	3.70	3.10	140.00	162.00	240.00	253.00	3345	120

	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	Ødu	ØDu	A°	N	h	H	cm ³	Pcs/Pallet
YBG 10	9.00	7.80	6.50	300.0	350.0	45.00	160.0	155.5	330.0	17963	24
YBG 11	10.00	9.00	7.50	355.0	410.0	45.00	190.0	129.0	330.0	24375	18

	MODULE (cm)			DIMENSIONS (mm)											VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	A	a	b	c	d	Øe	Ødu	ØQ2	ØQ1	h	H	cm³	Pcs/Pallet
KGY 1A	2.85	2.15	1.80	84.00	110.00	130.00	40.00	68.00	45.00	42.00	48.00	61.00	150.00	200.00	925	350
KGY 2A	2.90	2.20	1.85	61.00	48.60	102.00	13.00	20.00	15.00	84.00	74.00	100.00	150.00	200.00	875	375

	MODULE (cm)			DIMENSIONS (mm)						VOLUME	QUANTITY
PRODUCT	BESEKS	KOVIZ	GEOM	Ødu	ØDu	A	B	C	t	cm ³	Pcs/Pallet
KGy S3	4.30	3.80	3.20	160.00	90.00	280.00	160.00	80.00	18.00	5190	72
KGy S4	4.90	4.30	3.60	180.00	100.00	320.00	180.00	90.00	19.00	7410	60

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

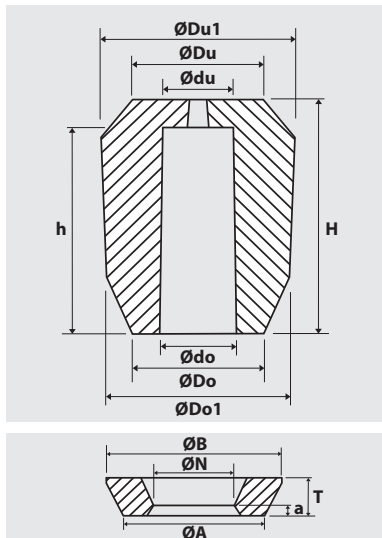
- Special type of feeder sleeves can be packed with MQ - Breaker core types . It can be packed separately regarding to customer request.
- Feeder sleeves and Covers are made with BESEKS (exothermic) or KOVIZ (insulating) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

FEEDFIX MB Serial

Exothermic Mini Risers

	MODULE (cm)	DIMENSIONS (mm)								VOLUME	QUANTITY
PRODUCT	MB	Ødo	ØDo	ØDo1	Ødu	ØDu	ØDu1	h	H	cm³	Pcs/Pallet
MB 3	0.50	15.00	27.20	31.64	14.06	37.60	37.60	27.00	30.00	4	5508
MB 5	0.75	16.00	28.00	47.00	13.00	43.00	50.00	50.00	57.00	8	3186
MB 12	0.85	21.00	38.00	54.00	19.00	38.00	60.00	50.00	65.00	16	1944
MB 15	0.90	26.00	48.00	62.00	25.00	48.00	62.00	50.00	66.00	26	1944
MB 19	0.95	25.00	45.00	55.00	20.00	45.00	60.00	70.00	80.00	28	1944
MB 20	1.30	21.00	40.00	70.00	18.00	50.00	77.00	84.00	100.00	25	1242
MB 22	1.30	16.00	40.00	63.00	13.00	40.00	68.00	70.00	85.00	12	1620
MB 27	1.30	25.00	45.00	72.00	23.00	56.00	77.00	85.00	100.00	38	1242
MB 40	1.30	32.00	60.00	80.00	28.00	60.00	88.00	80.00	90.00	57	972
MB 61	1.70	36.00	57.00	85.00	32.00	59.00	87.00	97.00	107.00	88	810
MB 88	1.90	36.00	60.00	83.00	32.00	60.00	88.00	97.00	110.00	88	810
MB 121	1.90	40.00	66.00	96.00	35.00	66.00	102.00	110.00	135.00	122	540
MB 159	2.20	50.00	82.00	110.00	41.00	72.00	115.00	100.00	120.00	163	450
MB 164	2.50	60.00	90.00	130.00	50.00	70.00	126.00	100.00	122.00	238	360
MB 191	2.50	50.00	90.00	120.00	42.00	97.00	133.00	120.00	140.00	178	360
MB 193	2.80	58.00	100.00	140.00	48.00	80.00	136.00	125.00	140.00	276	324
MB 237	3.20	66.00	95.00	150.00	64.00	75.00	145.00	120.00	145.00	398	270
MB 337	4.20	63.00	64.00	164.00	57.00	97.00	154.00	170.00	210.00	481	180
MB 339	3.50	65.00	100.00	120.00	55.00	90.00	133.00	117.00	142.00	273	270
MB 532	4.20	60.00	90.00	170.00	90.00	120.00	165.00	170.00	210.00	761	216
MB 655	4.20	80.00	81.00	170.00	90.00	120.00	165.00	165.00	210.00	937	216
MB 718	4.80	85.00	86.00	235.00	80.00	130.00	220.00	192.00	242.00	1026	40
MB 1730	5.20	100.00	110.00	283.00	110.00	160.00	273.00	285.00	365.00	2468	24

Note : Package amounts are given based on 107*130 cm pallet dimension. For various type packaging options, please contact with sales representatives.



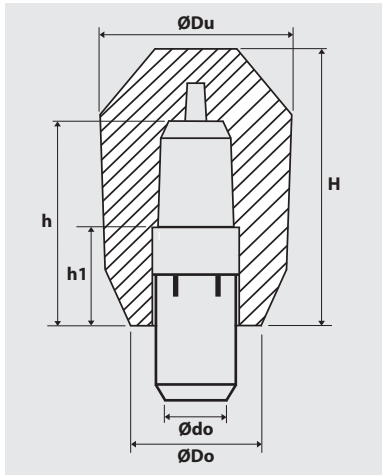
FEEDFIX MB MQ Serial

Breaker Cores

		DIMENSIONS (mm)				
BREAKER CORE	TYPE	ØA	ØB	ØN	T	a
BREAKER CORE MB 5	MQ	26.00	30.00	10.00	7.00	2.00
BREAKER CORE MB 12	MQ	35.00	38.00	15.00	8.00	3.00
BREAKER CORE MB 15	MQ	30.00	45.00	15.00	12.00	2.00
BREAKER CORE MB 19	MQ	30.00	45.00	15.00	12.00	2.00
BREAKER CORE MB 20	MQ	35.00	38.00	15.00	8.00	3.00
BREAKER CORE MB 22	MQ	31.00	40.00	21.00	10.00	5.00
BREAKER CORE MB 27	MQ	30.00	45.00	15.00	12.00	2.00
BREAKER CORE MB 40	MQ	45.00	59.50	25.00	15.00	4.00
BREAKER CORE MB 61	MQ	45.00	54.50	25.00	15.00	3.00
BREAKER CORE MB 88	MQ	45.00	59.50	25.50	15.00	4.00
BREAKER CORE MB 121	MQ	53.00	65.50	30.00	15.00	3.00
BREAKER CORE MB 159	MQ	60.00	82.00	20.50	12.00	5.00
BREAKER CORE MB 164	MQ	75.00	90.00	30.00	15.00	5.00
BREAKER CORE MB 191	MQ	75.00	90.00	30.00	15.00	5.00

• FEEDFIX MB type of mini risers can be packed with MQ - Breaker core types. It can be packed separately regarding to customer request.

• Mini Riser is made with MB 1600 (highly exothermic) formulations. Please consider technical parameters on the Data Sheet - TDS before use.

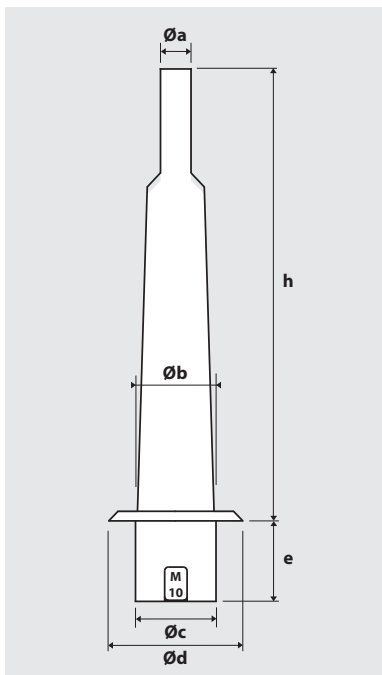


- FEEDFIX System brings the advantage easily applied on the mold parts with a narrow feeding area due to interchangeable connection point.
- It shows high feeding efficiency through wide range riser designs.
- Since there is free space around the movable nozzle, it brings the advantage as low interaction between the casting and mini riser.
- The hole in the bottom of the riser prevents gas accumulation and negative pressure that may occur in the liquid metal in the riser.
- The nozzle has been made of low carbon unalloyed steel which has no shown any chemical interaction with the liquid metal.
- Since the dynamic nozzle moves inside the riser as principle, it has the least effect on the riser connection area. This does not prevent heat from the riser from being transmitted to the liquid metal.



	MODULE (cm)	DIMENSIONS (mm)						VOLUME	QUANTITY
PRODUCT	CMB	Ødo	ØDo	h	ØDu	h1	H	cm ³	Pcs/Pallet
CMB 700/20	1.35	20.00	60.00	80.00	88.00	30.00	90.00	73.00	675
CMB 700/25	1.35	25.00	60.00	80.00	88.00	30.00	90.00	73.00	675
CMB 800/20	1.50	20.00	57.00	97.00	87.00	40.00	107.00	92.00	700
CMB 800/25	1.50	25.00	57.00	97.00	87.00	40.00	107.00	92.00	700
CMB 900/20	1.75	20.00	60.00	97.00	88.00	40.00	110.00	92.00	700
CMB 900/25	1.75	25.00	60.00	97.00	88.00	40.00	110.00	92.00	700
CMB 1000/25	1.80	25.00	66.00	110.00	102.00	50.00	135.00	101.00	500
CMB 1050/25	1.85	25.00	66.00	110.00	102.00	110.00	135.00	124.00	500
CMB 1100/30	2.20	30.00	82.00	135.00	115.00	38.00	150.00	181.00	375
CMB 1200/30	2.40	30.00	90.00	135.00	125.00	38.00	150.00	197.00	300
CMB 1300/30	2.50	30.00	90.00	150.00	130.00	38.00	160.00	227.00	300
CMB 1400/30	2.60	30.00	90.00	150.00	133.00	38.00	160.00	227.00	300

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.



	DIMENSIONS (mm)					
PRODUCT	Øa	Øb	Ød	Øc	e	h
PIM 700/20	8.50	19.75	27.00	19.00	19.00	112.00
PIM 700/25	8.50	24.75	32.00	19.00	19.00	112.00
PIM 800/20	8.50	19.75	27.00	19.00	19.00	140.00
PIM 800/25	8.50	24.75	32.00	19.00	19.00	140.00
PIM 900/20	8.50	19.75	27.00	19.00	19.00	140.00
PIM 900/25	8.50	24.75	32.00	19.00	19.00	140.00
PIM 1000/25	9.50	24.75	32.00	19.00	19.00	170.00
PIM 1050/25	9.50	24.75	32.00	19.00	19.00	170.00
PIM 1100/30	9.50	29.75	37.00	24.00	19.00	190.00
PIM 1200/30	9.50	29.75	37.00	24.00	19.00	195.00
PIM 1300/30	9.50	29.75	37.00	24.00	19.00	205.00
PIM 1400/30	9.50	29.75	37.00	24.00	19.00	205.00

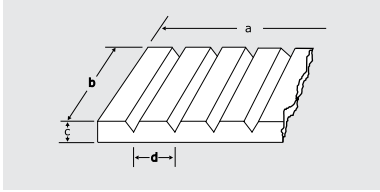
Note : Indicated dimensions of "c" and "e" can be re-designed according to customer demands

IZOPRELEVHA Serial

Insulating Plates

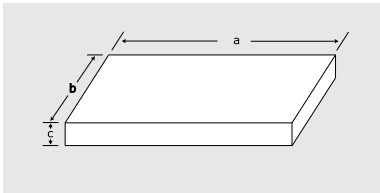


- Izoprelevha supports the directional solidification during the casting.
- Izoprelevha reduces grinding and processing costs in ductile iron, steel and non-ferrous metal casting.
- The plates operate without interaction with the mold material and the casting surface.
- Izoprelevha increases the solidification time on the coated surface by 2.25 - 2.5 folds.
- Izoprelevha increases the feeder module of the section it is covered by about 1.5 times.
- Product density is 0.60 - 0.70 gr / cm³.



PRODUCT	DIMENSIONS (mm)				QUANTITY
	a	b	c	d	Pcs/Pallet
IZOPRELEVHA (550x300x22)	550.00	300.00	22.00	50.00	250

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

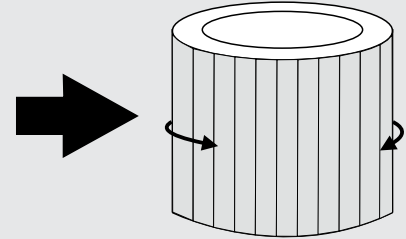
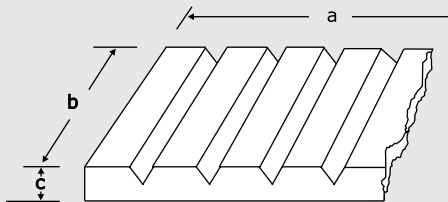


PRODUCT	DIMENSIONS (mm)			QUANTITY
	a	b	c	Pcs/Pallet
IZOPRELEVHA (500x300x22)	500.00	300.00	22.00	250

Note : Package amounts are given based on 100x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

IZOLEVHA Serial

Insulating Plates



PRODUCT	DIMENSIONS (mm)			QUANTITY
	a	b	c	Set/Pallet
IZOLEVHA (785x400x60)x2	785.00	400.00	60.00	21
IZOLEVHA (785x600x60)x2	785.00	600.00	60.00	14

Note : Package amounts are given based on 80x120 cm pallet dimension. For various type packaging options, please contact with sales representatives.

It is a bendable sheet insulation material with the feeder diameter greater than 500 mm. which can be used in all kinds of steel, ductile iron and non-ferrous metal castings.

- Special structure of high flexibility, it easy to adapt to different shapes.
- Plates can be easily shortened or cut as desired with a cutter.
- The sheets can be stacked and feeder height can be extended.
- Izolevha prevents the formation of crust in the feeder which makes the feeder work more efficiently.
- Izolevha increases the feeder module by approximately 1.4 times.
- Product density is 0.75 - 0.85 gr / cm³.

BESLEYEN T

Exothermic Hot - Topping Compounds for Increasing Feeder Efficiency



Exothermic hot topping compounds support feeder functionality. These exothermic materials has low-emission parameters, assist in feeding systems and advantage of high-flexible usage.

- Exothermic hot topping compounds are used for elimination of casting defects caused by inefficient feeding.
- Exothermic hot topping compounds start reaction when contact with molten metal.
- Exothermic hot topping compounds are extending the solidification time of molten metal.
- The storage time of the compounds in sealed packages and in dry environment at 25 °C is 1 year.

PRODUCT	Casting Metal	Ignition Time (sec)	Reaction Time (sec)	Density (g/cm ³)	Exothermic Property	Insulating Property	Internal Feeder Diameter (mm)
BESLEYEN T 7	Ferrous	20 - 35	35 - 60	0.90 - 1.15	Medium	Low	80 - 160
BESLEYEN T 10	Ferrous	20 - 50	50 - 100	0.90 - 1.00	Medium	Medium	100 - 200
BESLEYEN T 13	Ferrous	75 - 140	45 - 75	0.70 - 0.80	Medium	High	160 - 250
BESLEYEN T 75	Non-Ferrous	4 - 7	10 - 15	1.15 - 1.20	High	Low	80 - 160

BESLEYEN K

Mouldable Exothermic Feeder Compounds



BESLEYEN K is exothermic mouldable feeder compound can be moulded into convenient shapes such as hollow cylinders or sleeves by means of its binding type agents and inserted in the riser cavities.

- Exothermic reaction takes place when molten metal fills the sleeves. The riser metal temperature is maintained and in many cases increased for prolonged periods.
- It provides effective insulation after the exothermic reaction ends.
- The storage time of the mouldable compounds in sealed packages and in dry environment at 25 °C is 1 year.

PRODUCT	Grain Size (AFS No)	Ignition Time (sec)	Reaction Time (sec)	Aluminium Content (%)	Density (g/cm ³)	Dry Strenght (g/cm ²)
BESLEYEN K 3	65 - 75	20 - 35	110 - 130	24 - 26	1.15 - 1.20	40
BESLEYEN K 50	35 - 60	80 - 130	150 - 250	> 16	1.30 - 1.40	10 - 65

PRODUCT APPLICATION	Internal Diameters of Exothermic Sleeves in Terms of Casting Type (mm)			
	Cast Iron	Steel	Copper	Light Alloys
BESLEYEN K 3	50 - 150	50 - 100	50 - 150	> 100
	• BESLEYEN K 3 is mixed with 4 - 5 % (by weight of water %) during 2 - 3 minutes. After moulding it is dried in oven at a temperature of 140 - 200 °C for 1 hour.			
BESLEYEN K 50	> 150	> 100	> 100	-
	• BESLEYEN K 50 is mixed with 7 - 9 % (by weight of water %) during 2 - 3 minutes. After moulding it is dried in oven at a temperature of 180 - 250 °C for 1.5 hours.			

**** Note :** Values are performed for 2.5 cm feeder wall thickness.



Çukurova Kimya Endüstrisi A.Ş.

Keçiliköy OSB Mahallesi, 50. Yıl Caddesi No : 10
45030 Manisa / TURKEY

Phone : (+90) 236 233 23 20

Fax : (+90) 236 233 23 23

Sales Ph. : (+90) 236 236 00 11 - 12

Sales Fax : (+90) 236 233 28 28

www.cukurovakimya.com.tr

info@cukurovakimya.com.tr

sales@cukurovakimya.com.tr

ISO9001
CERTIFIED

ISO14001
CERTIFIED

ISO 27001
CERTIFIED

ISO45001
CERTIFIED

The logo of company, BESEKS, KOVEKS, KOVIZ, BESLEYEN, IZOPRELEVHA, IZOLEVHA, FEEDFIX and YOLIZ are the trade marks which is registered by Çukurova Kimya Endüstrisi A.Ş.

