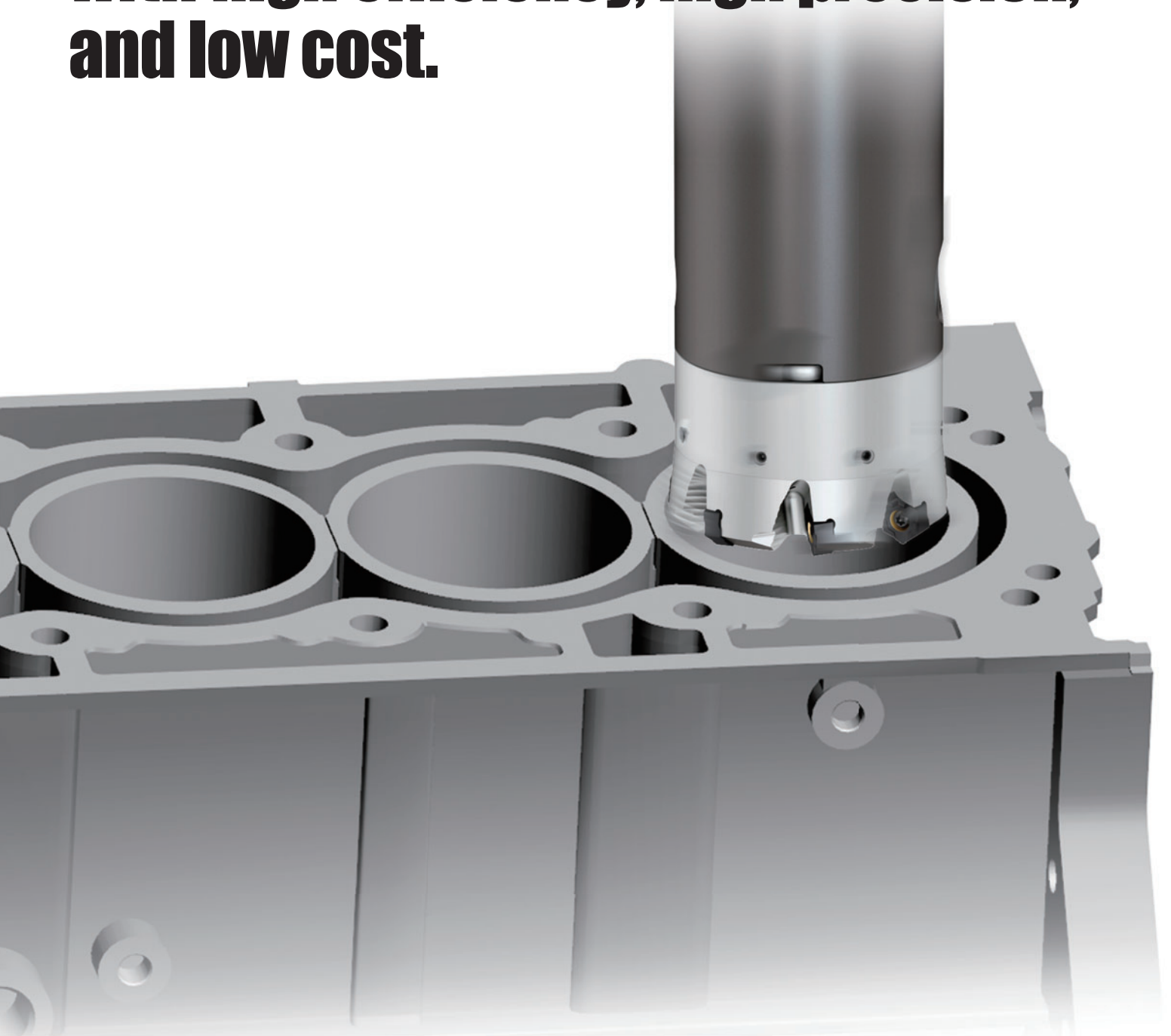


Boring Cutter

# ***BMR***



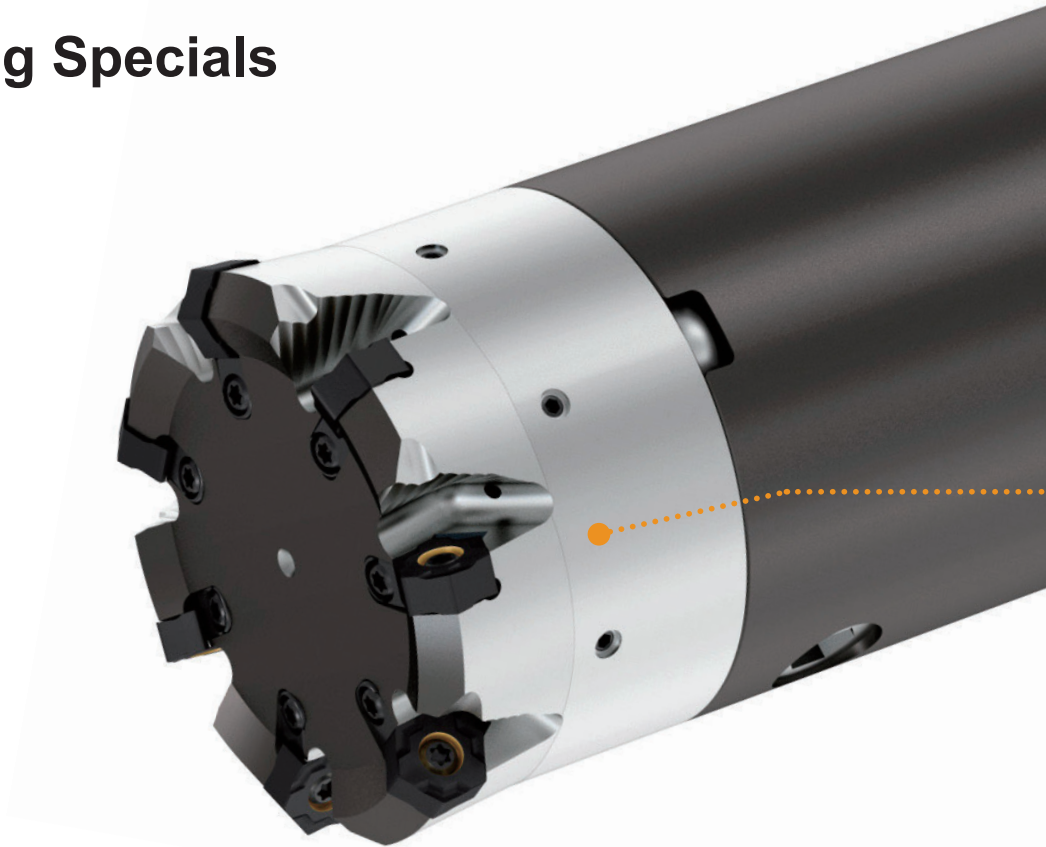
**For cylinder blocks,  
Hexagonal double-sided inserts  
with high efficiency, high precision,  
and low cost.**



Boring Cutter

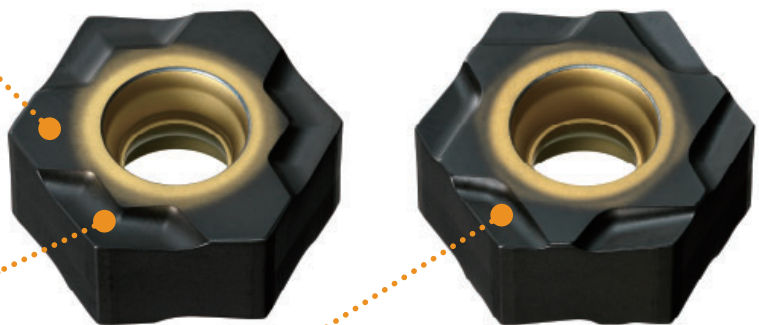
# ***BMR***

**BMR Engineering Specials**



## **High Clamping Rigidity**

High feed processing possible with improved fracture resistance.

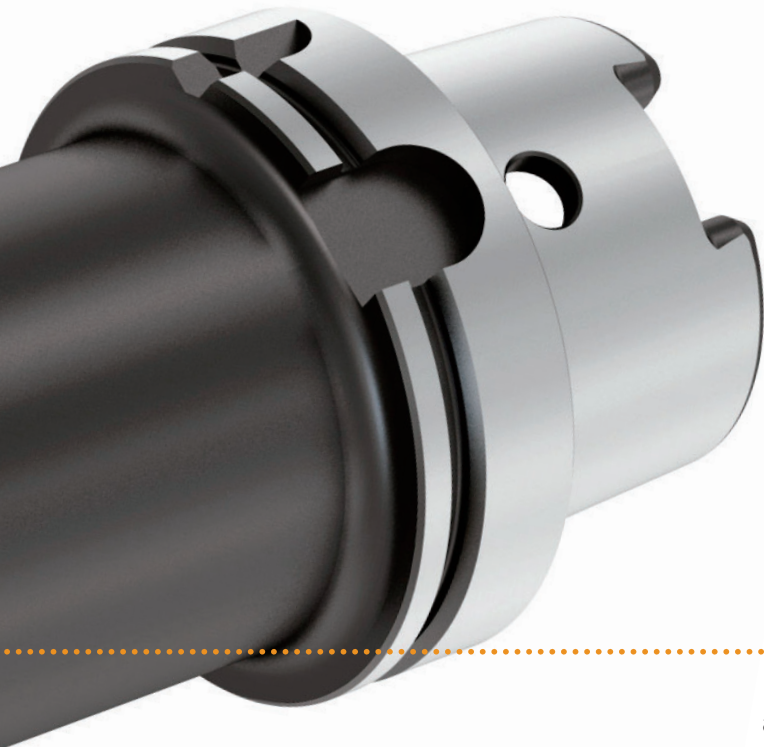


## **Double Positive Breaker**

Reduced cutting resistance. Supports open deck work. Effective finished surface due to wiper edge.

## **12-Corner Type with Right Hand**

Economical 12-corner type that preserves comparable insert rigidity of the 6-corner type by securing the seating surface directly below where the cutting force is absorbed.

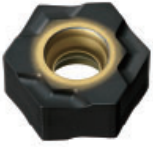
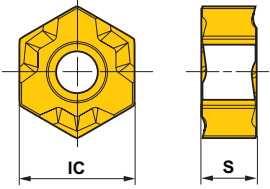
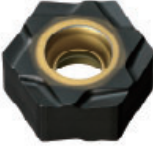
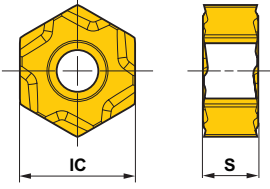


# Highly Rigid 6-corner Type and Economical 12-corner Type Inserts

## Body with Peripheral Cutting Edge Run-out Adjustable Mechanism

Economical M-class insert can be used since run out is adjustable.

\* BMR Cutters - Non stock, engineering specials produced to order only.

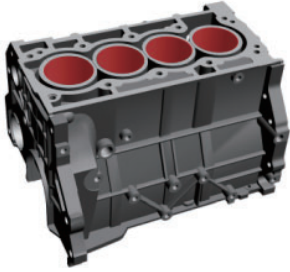
Insert								(inch)
Shape	Order Number	Grade	Hand	Cutting Edge	Stock	IC	S	Geometry
	<b>HNMX1206EN06-R</b>	<b>MC5015</b>	-	6	★	.500	.236	
	<b>HNMX1206ER12-R</b>	<b>MC5015</b>	R	12	★	.500	.236	

★ : Inventory maintained in Japan.

Recommended Cutting Conditions						(inch)
Work Material	Tensile Strength	Grade	vc (SFM)	fz (IPT)	ae	
<b>K</b> Gray Cast Iron	≤350MPa	<b>MC5015</b>	655 (490—820)	.008 (.004—.010)	≤.118	

\* With feed per cutter, settings are set small for finished surface roughness and large for ideal product life.

## Application Examples

Cutter Body	<b>BMR ø85 mm (7 inserts)</b>	
Insert (Grade)	<b>HNMX1206EN06-R (MC5015)</b>	
Workpiece	Gray Cast Iron Cutting Diameter : ø3.15 inch Cutting Depth : 5.512 inch	
Cutting Conditions	Revolution (min <sup>-1</sup> )	750
	Cutting Speed (SFM)	655
	Feed per Tooth (IPT)	.008
	Table Feed (IPM)	41.3
	Depth of Cut (inch)	.079
Cutting Mode		Wet
Results	Improve machining efficiency by 2.2x and approximately 5x longer tool life, under conventional conditions. Stable cutting with favorable finished surface roughness and achievable cylindricity.	

The above application examples are customer's application examples, so it can be different from the recommended conditions.

### For Your Safety

●Don't handle inserts and chips without gloves. ●Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ●Please use safety covers and wear safety glasses. ●When using compounded cutting oils, please take fire precautions. ●When attaching inserts or spare parts, please use only the correct wrench or driver. ●When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

# MITSUBISHI MATERIALS CORPORATION

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 (Tools specifications subject to change without notice.)