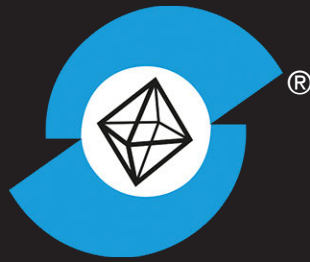


**LACH  
DIAMOND**

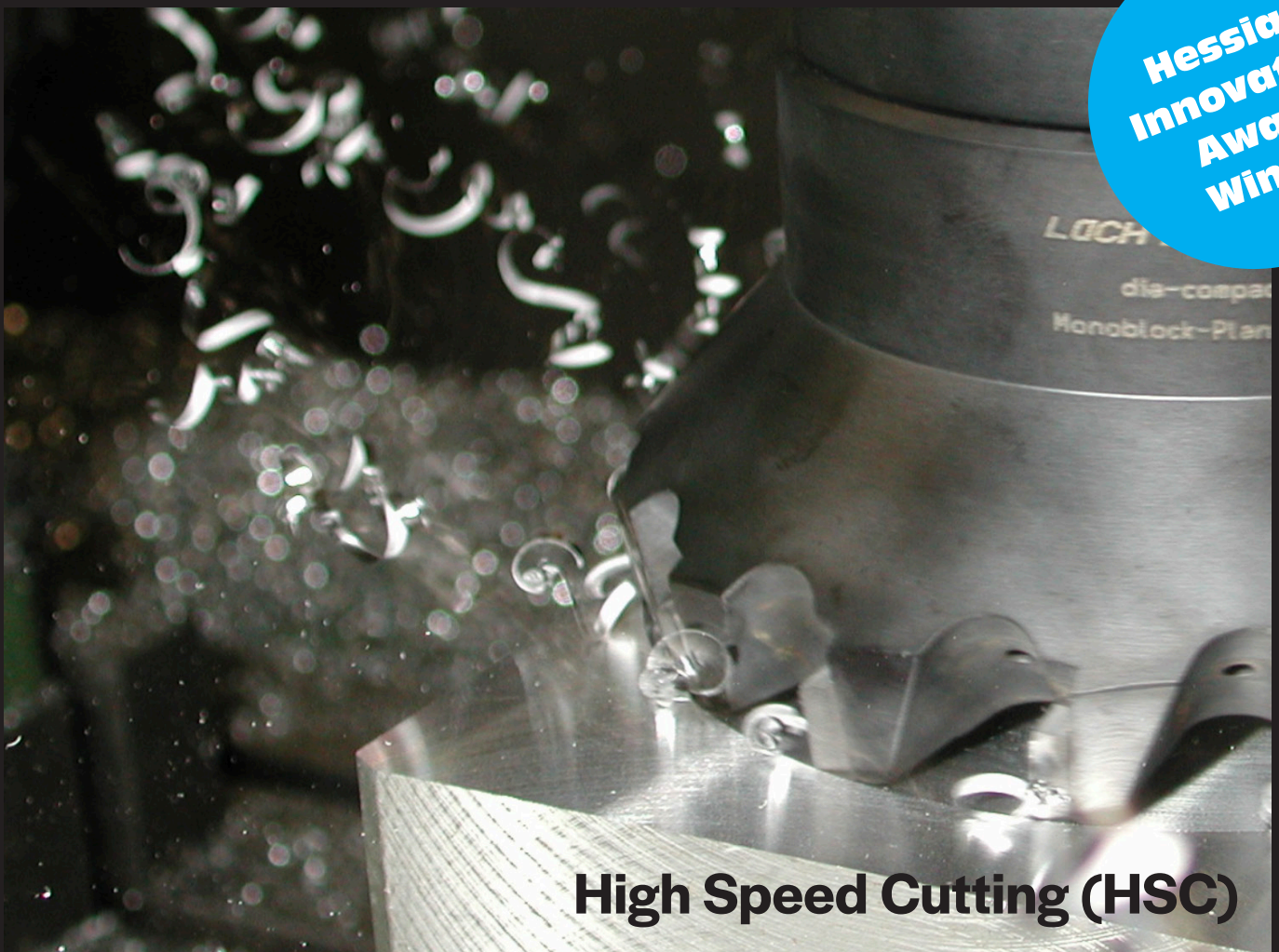


*presents*

# »**dia-compact**«

*Monoblock Diamond Milling Cutter*

**Hessian  
Innovation  
Award  
Winner**



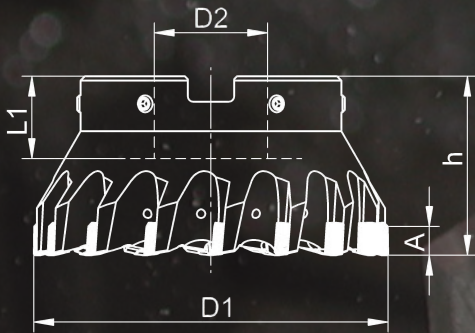
**High Speed Cutting (HSC)**

The new technology for face and square angle milling of aluminum alloys

# LACH DIAMOND drehtechnik

due to compact design

High Speed Cutting (HSC) – rou



## »dia-compact« Monoblock diamond face milling cutter

Type	Order Code	Dimensions according to ISO 6462						Art. No.
		D1	h	A	D2	L1	Z	
<b>MB-X 75</b> 75° entering angle	MB-X0-75-040-08-Z5 / F	40	40	8	16	21	5	42500101
	MB-X0-75-040-08-Z5 / P							42500102
	MB-X0-75-040-08-Z5 / R							42500103
	MB-X0-75-050-08-Z6 / F	50	40	8	16	21	6	42500201
	MB-X0-75-050-08-Z6 / P							42500202
	MB-X0-75-050-08-Z6 / R							42500203
	MB-X0-75-063-08-Z8 / F	63	45	8	22	21	8	42500301
	MB-X0-75-063-08-Z8 / P							42500302
	MB-X0-75-063-08-Z8 / R							42500303
	MB-X0-75-080-10-Z10 / F	80	50	10	27	23	10	42500401
	MB-X0-75-080-10-Z10 / P							42500402
	MB-X0-75-080-10-Z10 / R							42500403
	MB-X0-75-100-10-Z12 / F	100	50	10	32	26	12	42500501
	MB-X0-75-100-10-Z12 / P							42500502
	MB-X0-75-100-10-Z12 / R							42500503
	MB-X0-75-125-10-Z16 / F	125	63	10	40	29	16	42500601
	MB-X0-75-125-10-Z16 / P							42500602
	MB-X0-75-125-10-Z16 / R							42500603
	MB-X0-75-160-10-Z20 / F	160	63	10	40	29	20	42500701
	MB-X0-75-160-10-Z20 / P							42500702
MB-X0-75-160-10-Z20 / R	42500703							
MB-X0-75-200-13-Z24 / F	200	63	13	40	26	24	42500801	
MB-X0-75-200-13-Z24 / P							42500802	
MB-X0-75-200-13-Z24 / R							42500803	
MB-X0-75-200-13-Z32 / F	200	63	13	40	26	32	42500811	
MB-X0-75-200-13-Z32 / P							42500812	
MB-X0-75-200-13-Z32 / R							42500813	

### Surface finish

F =  $R_z \approx 5 - 10 \mu$   
P =  $R_z \approx 7 - 15 \mu$   
R =  $R_z \approx 15 - 25 \mu$

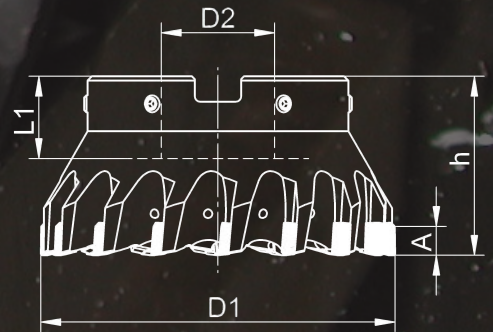


borid®

# »dia-compact«

## & maximum number of teeth

roughing – finishing – fine finishing



»dia-compact«

**Monoblock diamond face and square shoulder milling cutter**

Type	Order Code	Dimensions according to ISO 6462						Art. No.
		D1	h	A	D2	L1	Z	
<b>MB-X 90</b> 90° entering angle	MB-X0-90-040-08-Z5 / F	40	40	8	16	21	5	42500101
	MB-X0-90-040-08-Z5 / P							42500102
	MB-X0-90-040-08-Z5 / R							42500103
	MB-X0-90-050-08-Z6 / F	50	40	8	16	21	6	42500201
	MB-X0-90-050-08-Z6 / P							42500202
	MB-X0-90-050-08-Z6 / R							42500203
	MB-X0-90-063-08-Z8 / F	63	45	8	22	21	8	42500301
	MB-X0-90-063-08-Z8 / P							42500302
	MB-X0-90-063-08-Z8 / R							42500303
	MB-X0-90-080-10-Z10 / F	80	50	10	27	23	10	42500401
	MB-X0-90-080-10-Z10 / P							42500402
	MB-X0-90-080-10-Z10 / R							42500403
	MB-X0-90-100-10-Z12 / F	100	50	10	32	26	12	42500501
	MB-X0-90-100-10-Z12 / P							42500502
	MB-X0-90-100-10-Z12 / R							42500503
MB-X0-90-125-10-Z16 / F	125	63	10	40	29	16	42500601	
MB-X0-90-125-10-Z16 / P							42500602	
MB-X0-90-125-10-Z16 / R							42500603	
MB-X0-90-160-10-Z20 / F	160	63	10	40	29	20	42500701	
MB-X0-90-160-10-Z20 / P							42500702	
MB-X0-90-160-10-Z20 / R							42500703	
MB-X0-90-200-13-Z24 / P	200	63	13	40	26	24	42500802	

**Surface finish**

F =  $R_z \approx 5 - 10 \mu$   
 P =  $R_z \approx 7 - 15 \mu$   
 R =  $R_z \approx 15 - 25 \mu$

Note: »dia-compact« Monoblock diamond cutters for HSC machining are pre-balanced for the tool attachment in your adapter. Alternatively we supply the adapter of your choice completely mounted and precision-balanced or as one-piece.

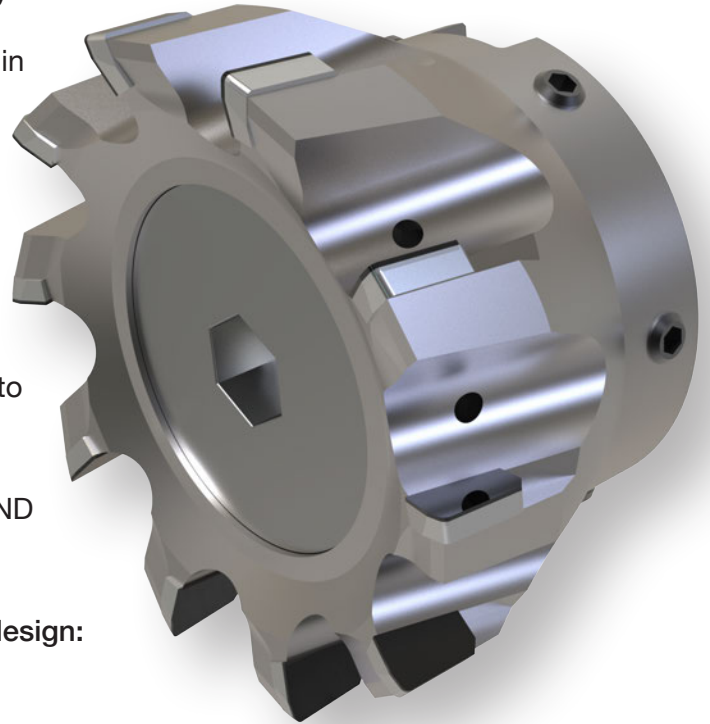


# »dia-compact«

*Monoblock diamond milling cutter for face and square shoulder milling of all aluminum alloys*

Another innovation of LACH-DIAMOND for the automotive and accessories industry  
– for greater productivity and economic efficiency

- due to the compact precise design and resulting in a higher number of teeth
- extremely high cutting speeds (HSC) and feeds from 0.05 to 0.20 mm per tooth
- large depths of cut
- suitable for roughing – finishing – fine finishing
- no annoying cutting edge adjustments
- maximum tool life and cutting edge stability due to special PCD diamond qualities
- multiple life time of diamond cutting edges – i.e. production capacity – through the LACH DIAMOND regrinding service



Other special advantages of the »dia-compact« design:

- no storage of spare parts necessary  
– as is necessary for traditional insert systems
- integrated coolant supply
- wear-resistant flute for chips
- special dimensions and other types of cutting edges available upon request

## *Application instructions for »dia-compact« monoblock diamond milling cutters*

Material	Cutting speed $V_C = \text{m / min.}$	Feed per tooth $f_z = \text{mm}$	Depth of cut $a_D = \text{mm}$
Aluminum alloys up to 3 % Si	2000 – 7000	0.05 – 0.2	max. 6.0
Aluminum alloys up to 12 % Si	1000 – 4000	0.05 – 0.2	max. 6.0
Aluminum alloys up to 21 % Si	800 – 1500	0.05 – 0.2	max. 6.0
Brass and copper alloys	1000 – 4000	0.05 – 0.2	max. 5.0
CFRP, GRP	500 – 1000	0.05 – 0.2	max. 5.0

*Subject to technical alterations*

More detailed information about the »dia-compact« monoblock diamond milling cutters (which are superior to all traditional tooling systems) and the complete LACH DIAMOND- and CBN program is available at [lachdiamond.com](http://lachdiamond.com).

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