

MILLING

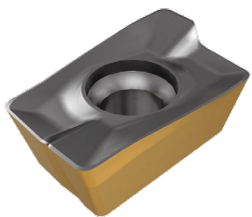
13-2023

MARCH 2023

METRIC/IMPERIAL

# NPA

New Product Announcement



Pinpointed coolant outlets



Longer Tool Life



High Productivity



## HELI2000

JET LINE

### Expanding the Range of HELI2000 High-Pressure Coolant Tools in Imperial and Metric Sizes



Improved  
Surface Finish



Longer Tool Life



High Productivity  
Inserts



Pinpointed coolant  
outlets

# NPA

## New Product Announcement

### HELI2000 JET LINE

## Highlights

### New HELI2000 Jet Line

- Longer tool life
- Higher metal removal rates
- Larger radial engagement ( $a_e$ )
- Improved chip control and chip evacuation

#### The new expansion includes

A metric size tool range is available according to the following attributes:

- Shell mill configuration of 40mm and 16mm arbor mounting holes
- Multi-Master configuration in diameters of 25 and 32mm for 15mm inserts

The imperial size tool range is now available according to the following attributes:

- Shell mill configuration in diameters of 1.25", 1.50", 2.00", 2.50", 3.00"
- Multi-Master configuration in diameters of .62", .75", 1.00", 1.25"
- Flex-Fit configuration in diameters of 1.25"

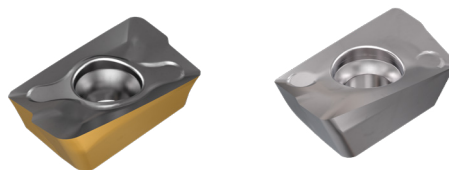
The existing tool coolant design was upgraded to maximize flow rate with a minimum pressure drop by use of Computerized Fluid Dynamics (CFD) software.

#### Product features

- Pinpointed coolant flow directed to each cutting edge
- True 90° shoulder milling
- Ramp down capabilities
- Protective coating on the tool surface sustains wear and corrosion

#### Cutting recommendations

- For cutting speeds and feeds, see insert recommendations:
- ADC...1505.../ADK...1505.../APC...1003.../APK...1003...
- HM90 ADC...1505.../HM90 ADK...1505.../HM90 APC...1003.../HM90 APK...1003...



[Click for Short Video](#)



Improved  
Surface Finish



Longer Tool Life



High Productivity  
Inserts



Pinpointed coolant  
outlets

# NPA

## New Product Announcement

### HELI2000

#### JET LINE

#### Applications

- Rough deep shouldering and slotting applications.
- Ramp down abilities include use of helical interpolation.

#### Benefits

- Increased tool life - achieved by reducing temperature on the cutting zone.
- Increased productivity - achieved by increasing the cutting parameters.
- Improved chip formation control - less chip entanglement and reduced risk of machine stops.
- Better surface finish.
- Higher process reliability.
- High pressure coolant (HPC) reduces built-up edge, especially when machining high-temperature super alloys (HTSA) and stainless steel.

[Click for Short Video](#)



# NPA New Product Announcement

MILLING

13-2023

MARCH 2023

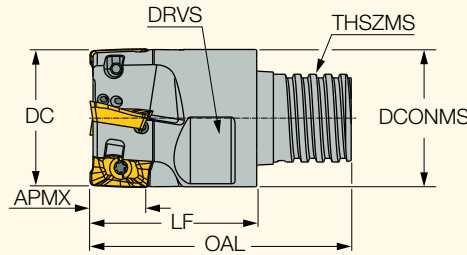
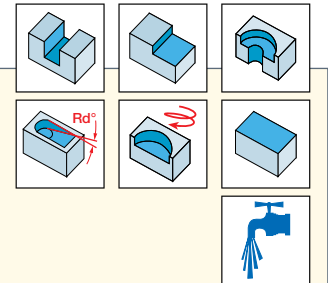
METRIC/IMPERIAL

## HELI2000 JET LINE

### HM90 E90A-MM-10-JHP

90° JHP Endmills with a MULTI-MASTER Threaded Adaptation Carrying HELI2000 and HELIMILL Inserts

<https://www.iscar.com/eCatalog/Family.aspx?num=4601&mapp=ML&GFSTYP=M>



### M E T R I C

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	RMPX <sup>(2)</sup>	LF	DCONMS	RPMX <sup>(3)</sup>	THSZMS	DRVS <sup>(4)</sup>	TQ_3 <sup>(5)</sup>	MIID <sup>(6)</sup>
HM90 E90A D16-2-MMT10-JHP	16.00	2	9.80	34.80	15.0	23.40	15.60	66710	T10	13.0	28	0.10 APKT 1003PDR-HM
HM90 E90A D20-3-MMT12-JHP	20.00	3	9.80	38.50	7.5	25.50	19.70	55575	T12	16.0	28	0.15 APKT 1003PDR-HM
HM90 E90A D25-4-MMT15-JHP	25.00	4	9.80	47.00	7.5	30.00	24.70	47510	T15	20.0	40	0.05 APKT 1003PDR-HM
HM90 E90A D32-5-MMT21-JHP	32.00	5	9.80	57.95	3.0	34.85	30.10	35610	T21	24.0	110	0.20 APKT 1003PDR-HM

• Do not apply lubricant to the MULTI-MASTER threaded connection

- (1) Number of inserts
- (2) Maximum ramping angle
- (3) Maximum RPM
- (4) Torque key size
- (5) Tool tightening torque Nxm
- (6) Master insert identification

### Spare Parts

Designation	Screw	Torx Blade	Handle
HM90 E90A-MM-10-JHP	SR 34-505/HG	BLD T08/M7	SW4-SD

Recommended tightening torque for this item: 1.2 Nxm

<https://www.iscar.com/eCatalog/Family.aspx?num=4601&mapp=ML&GFSTYP=I>

### I N C H

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	RMPX <sup>(2)</sup>	LF	DCONMS	RPMX <sup>(3)</sup>	THSZMS	DRVS <sup>(4)</sup>	TQ_3 <sup>(5)</sup>	MIID <sup>(6)</sup>
HM90 E90A D.62-2-MMT10JHP	.625	2	.3900	1.330	15.0	.890	.890	67150	T10	.500	250	.06 APKT 1003PDR-HM
HM90 E90A D.75-3-MMT12JHP	.750	3	.3900	1.510	7.5	.990	.990	57725	T12	.600	360	.09 APKT 1003PDR-HM
HM90 E90A D1.00-4MMT15JHP	1.000	4	.3900	1.850	2.5	1.180	1.180	46940	T15	.800	360	.37 APKT 1003PDR-HM
HM90 E90A D1.25-5MMT21JHP	1.250	5	.3900	2.280	3.0	1.370	1.370	35750	T21	.900	973	.43 APKT 1003PDR-HM

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation see page • For user guide see pages

- (1) Number of inserts
- (2) Maximum ramping angle
- (3) Maximum RPM
- (4) Torque key size
- (5) Tool tightening torque lbf·in
- (6) Master insert identification

### Spare Parts

Designation	Screw	Torx Blade	Handle
HM90 E90A-MM-10-JHP	SR 34-505/HG	BLD T08/M7	SW4-SD

Recommended tightening torque: 42.5 lbf·in

# NPA

## New Product Announcement

MILLING

13-2023

MARCH 2023

METRIC/IMPERIAL

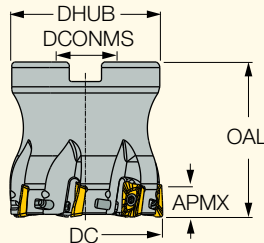
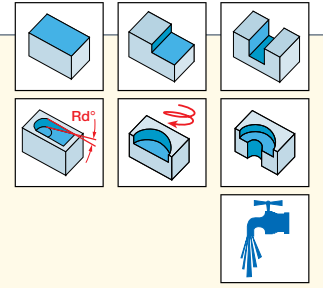
### HELI2000

JET LINE

#### HM90 F90AP-10-JHP

90° JHP Face Mills Carrying HELI2000 and HELIMILL Inserts

<https://www.iscar.com/eCatalog/Family.aspx?num=4603&mapp=ML&GFSTYP=M>



### M E T R I C

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DHUB	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	Arbor	MIID <sup>(4)</sup>	
HM90 F90AP D032-5-16-JHP	32.00	5	10.00	45.00	30.40	16.00	35300	2.2	A	APKT 1003PDR-HM	0.17
HM90 F90AP D040-6-16-JHP	40.00	6	10.00	40.00	38.40	16.00	31600	1.9	A	APKT 1003PDR-HM	0.29
HM90 F90AP D040-6-22-JHP	40.00	6	10.00	50.00	38.00	22.00	31600	1.9	A	APKT 1003PDR-HM	0.27
HM90 F90AP D050-7-22-JHP	50.00	7	10.00	50.00	48.00	22.00	28200	1.4	A	APKT 1003PDR-HM	0.49

• Use adaptation only with face coolant outlets

<sup>(1)</sup> Number of inserts

<sup>(2)</sup> Maximum ramping angle

<sup>(3)</sup> Master insert identification

#### Spare Parts

Designation	Screw	Right-Left Screw	Torx Blade	Handle
HM90 F90AP D032-5-16-JHP	SR 34-505/HG	SR PS 118-0416	BLD T08/M7	SW4-SD
HM90 F90AP D040-6-16-JHP	SR 34-505/HG	SR M8X25DIN912	BLD T08/M7	SW4-SD
HM90 F90AP D040-6-22-JHP	SR 34-505/HG	SR PS 118-0273	BLD T08/M7	SW4-SD
HM90 F90AP D050-7-22-JHP	SR 34-505/HG	SR PS 118-0271C	BLD T08/M7	SW4-SD

Recommended tightening torque for this item: 1.2 Nxm

<https://www.iscar.com/eCatalog/Family.aspx?num=5057&mapp=ML&GFSTYP=I>

### I N C H

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DHUB	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	Arbor	MIID <sup>(4)</sup>	
HM90 F90AP D1.50-6-.75JHP	1.500	6	.3900	1.570	1.440	.750	32639	1.9	A	HM90 APKT1003PDR	.43
HM90 F90AP D2.00-7-.75JHP	2.000	7	.3900	1.570	1.850	.750	28266	1.4	A	HM90 APKT1003PDR	.86

• Use adaptation only with face coolant outlets

<sup>(1)</sup> Number of inserts

<sup>(2)</sup> Maximum RPM

<sup>(3)</sup> Maximum ramping angle

<sup>(4)</sup> Master insert identification

#### Spare Parts

Designation	Screw	Handle	Torx Blade	Screw 1
HM90 F90AP-10-JHP	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 3/8X1 B18.3

# NPA

## New Product Announcement

MILLING

13-2023

MARCH 2023

METRIC/IMPERIAL

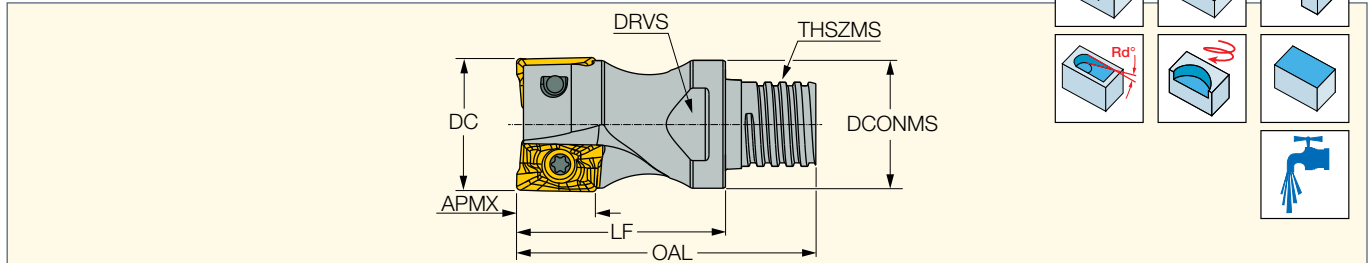
### HELI2000

JET LINE

#### HM90 E90AD-MM-15-JHP

90° JHP Endmills with a MULTI-MASTER Threaded Adaptation Carrying HELI2000 and HELIMILL Inserts

<https://www.iscar.com/eCatalog/Family.aspx?num=4821&mapp=ML&GFSTYP=M>



### M E T R I C

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	LF	THSZMS	TQ_3 <sup>(4)</sup>	DRVS <sup>(5)</sup>	MIID <sup>(6)</sup>	kg
<b>NEW</b> HM90 E90AD D25-2-MMT15JHP	25.00	2	14.30	56.30	24.00	41967	11.5	39.30	T15	40	20.0	ADKT 1505PDTR	0.10
<b>NEW</b> HM90 E90AD D32-3-MMT21JHP	32.00	3	14.30	63.00	30.50	28924	5.3	39.90	T21	40	24.0	ADKT 1505PDTR	0.26

• Do not apply lubricant to the MULTI-MASTER threaded connection

- (1) Number of inserts
- (2) Maximum RPM
- (3) Maximum ramping angle
- (4) Tool tightening torque Nxm (lbf·in)
- (5) Torque key size
- (6) Master insert identification

#### Spare Parts



Designation	Screw	Torx Blade	T-Handle
HM90 E90AD-MM-15-JHP	SR 14-544/S	BLD T15/M7	SW6-T-SH

<https://www.iscar.com/eCatalog/Family.aspx?num=4821&mapp=ML&GFSTYP=I>

### I N C H

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	LF	THSZMS	TQ_3 <sup>(4)</sup>	DRVS <sup>(5)</sup>	MIID <sup>(6)</sup>	Lbs
<b>NEW</b> HM90 E90ADD1.00-2MMT15JHP	1.000	2	.5629	2.217	.945	41426	11.5	1.547	T15	354	.787	ADKT 1505PDTR	.22
<b>NEW</b> HM90 E90ADD1.25-3MMT21JHP	1.250	3	.5629	2.480	1.201	29038	5.3	1.571	T21	354	.945	ADKT 1505PDTR	.20

• Do not apply lubricant to the MULTI-MASTER threaded connection

- (1) Number of inserts
- (2) Maximum RPM
- (3) Maximum ramping angle
- (4) Tool tightening torque Nxm (lbf·in)
- (5) Torque key size
- (6) Master insert identification

#### Spare Parts



Designation	Screw	Torx Blade	T-Handle
HM90 E90AD-MM-15-JHP	SR 14-544/S	BLD T15/M7	SW6-T-SH

# NPA

## New Product Announcement

MILLING

13-2023

MARCH 2023

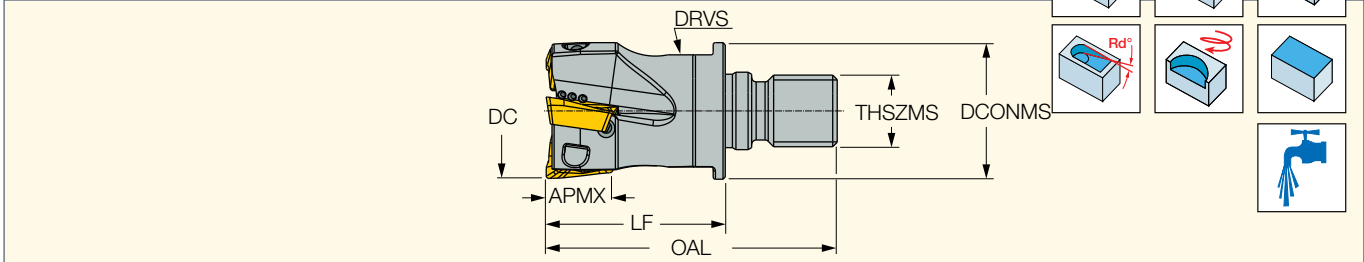
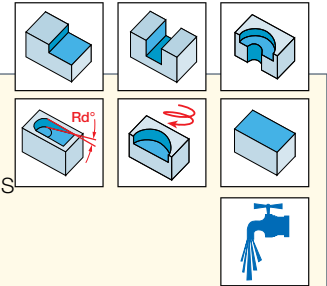
METRIC/IMPERIAL

### HELI2000 JET LINE

#### HM90 E90AD-M-15-JHP

90° JHP Endmills With a FLEXFIT Threaded Adaptation  
Carrying HELI2000 and HELIMILL Inserts

<https://www.iscar.com/eCatalog/Family.aspx?fnm=4602&mapp=ML&GFSTYP=M>



### M E T R I C

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	LF	THSZMS	DRVS <sup>(4)</sup>	DCONMS	TQ_3 <sup>(5)</sup>	MIID <sup>(6)</sup>	MIID_2 <sup>(7)</sup>	
HM90 E90AD D32-3-M16-JHP	32.00	3	14.30	65.00	28924	5.3	40.00	M16	25.0	30.50	40	ADKT 1505PDTR	ADCT 1505R8T-FF	0.17

• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned.

Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ\_3 parameter

- (1) Number of inserts
- (2) Maximum RPM
- (3) Maximum ramping angle
- (4) Torque key size
- (5) Tool tightening torque Nxm (lbfxin)
- (6) Master insert identification
- (7) Master insert identification 2

#### Spare Parts

Designation	Screw	Screw 1	Torx Blade	T-Handle
HM90 E90AD-M-15-JHP	SR 14-544/S	SR 14-544/S <sup>(a)</sup>	BLD T15/M7	SW6-T-SH

<sup>(a)</sup> Recommended tightening torque for this item: 4.8 Nxm

<https://www.iscar.com/eCatalog/Family.aspx?fnm=4602&mapp=ML&GFSTYP=M>

### I N C H

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	LF	THSZMS	DRVS <sup>(4)</sup>	DCONMS	TQ_3 <sup>(5)</sup>	MIID <sup>(6)</sup>	MIID_2 <sup>(7)</sup>	
HM90 E90AD D1.25-3-M16JHP	1.250	3	.5630	2.559	29038	5.3	1.575	M16	.984	1.142	355	ADKT 1505PDTR	ADCT 1505R8T-FF	.20

• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ\_3 parameter

- (1) Number of inserts
- (2) Maximum RPM
- (3) Maximum ramping angle
- (4) Torque key size
- (5) Tool tightening torque Nxm (lbfxin)
- (6) Master insert identification
- (7) Master insert identification 2

#### Spare Parts

Designation	Screw	Screw 1	Torx Blade	T-Handle
HM90 E90AD-M-15-JHP	SR 14-544/S	SR 14-544/S <sup>(a)</sup>	BLD T15/M7	SW6-T-SH

<sup>(a)</sup> Recommended tightening torque for this item: 42.5 lbfxin



# NPA

## New Product Announcement

MILLING

13-2023

MARCH 2023

METRIC/IMPERIAL

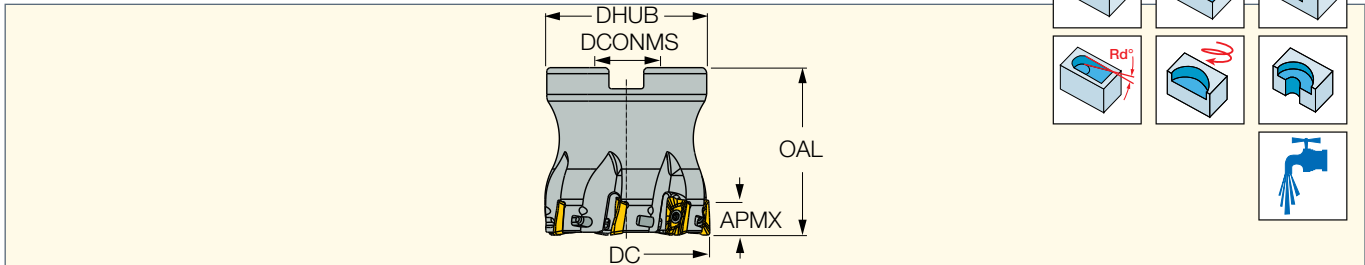
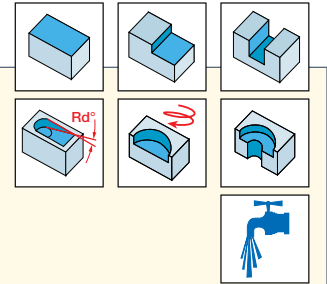
### HELI2000

JET LINE

#### HM90 F90A-15-JHP

90° JHP Face Mills Carrying HELI2000 and HELIMILL Inserts

<https://www.iscar.com/eCatalog/Family.aspx?fnum=4647&mapp=ML&GFSTYP=M>



### M E T R I C

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DHUB	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	Arbor	MIID <sup>(4)</sup>	
HM90 F90A D050-5-22-JHP	50.00	5	14.30	50.00	48.00	22.00	23100	2.6	A	ADKT 1505PDTR	0.50
HM90 F90A D063-6-22-JHP	63.00	6	14.30	50.00	48.00	22.00	20600	2.0	A	ADKT 1505PDTR	0.76

• Use adaptation only with face coolant outlets • For user guide, see pages

<sup>(1)</sup> Number of inserts

<sup>(2)</sup> Maximum ramping angle

<sup>(3)</sup> Master insert identification

#### Spare Parts

Designation	Screw	Right-Left Screw	Torx Blade	T-Handle
HM90 F90A D050-5-22-JHP	SR 14-544/S	SR PS 118-0273	BLD T15/M7	SW6-T-SH
HM90 F90A D063-6-22-JHP	SR 14-544	SR PS 118-0273	BLD T15/M7	SW6-T-SH

Recommended tightening torque for this item: 4.8 Nxm

<https://www.iscar.com/eCatalog/Family.aspx?fnum=5058&mapp=ML&GFSTYP=I>

### I N C H

Designation	DC	CICT <sup>(1)</sup>	APMX	OAL	DHUB	DCONMS	RPMX <sup>(2)</sup>	RMPX <sup>(3)</sup>	Arbor	MIID <sup>(4)</sup>	
HM90 F90A D2.00-5-.75-JHP	2.000	5	.5600	1.570	1.850	.750	22956	2.6	A	HM90 ADKT1505PDR	.71
HM90 F90A D2.50-6-1.00JHP	2.500	6	.5600	1.750	2.200	1.000	20533	2.0	A	HM90 ADKT1505PDR	1.12
HM90 F90A D3.00-7-1.00JHP	3.000	7	.5600	1.750	2.200	1.000	18744	.8	A	HM90 ADKT1505PDR	1.58

• Use adaptation only with face coolant outlets

<sup>(1)</sup> Number of inserts

<sup>(2)</sup> Maximum RPM

<sup>(3)</sup> Maximum ramping angle

<sup>(4)</sup> Master insert identification

#### Spare Parts

Designation	Screw	Torx Blade	T-Handle	Screw 1
HM90 F90A D2.00-5-.75-JHP	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
HM90 F90A D2.50-6-1.00JHP	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HM90 F90A D3.00-7-1.00JHP	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3

NEW

NEW

NEW