
ARM

MULTI-FUNCTIONAL HIGH FEED CUTTER
FOR MOULD & DIE MACHINING



*M*plus...

ARM

MULTI-FUNCTIONAL HIGH FEED CUTTER FOR MOULD & DIE MACHINING

ARM is a multifunctional high-performance cutter that provides process stability even at high feed rates. Its individual design as well as the advanced technical features promise high material removal rates combined with effective chip control.



PRODUCT RANGE

ARM07:

- Arbor type: DC Ø 40 mm
- Shank type: DC Ø 16 – 32 mm
- Weldon type: DC Ø 16 – 32 mm
- Screw in type: DC Ø 16 – 42 mm

ARM09:

- Arbor type: DC Ø 40 – 66 mm
- Shank type: DC Ø 25 – 35 mm
- Weldon type: DC Ø 25 – 32 mm
- Screw in type: DC Ø 25 – 42 mm

ARM11:

- Arbor type: DC Ø 50 – 80 mm
- Shank type: DC Ø 32 mm
- Screw in type: DC Ø 32 – 35 mm

APPLICATION

- Mould & die machining
- Roughing
- High feed cutting
- Face milling
- Copying
- Helical milling
- Pocketing



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IDEAL FOR DEEP CAVITIES

- Internal coolant holes for air blow increases reliability due to effective chip disposal
- Ideal for high volume machining

HIGH PRODUCTIVITY FOR ROUGHING APPLICATIONS

- Time saving when machining high hardness plastic injection moulds and forging dies
- Ideal for high feed machining path strategies

COST EFFICIENT SOLUTION

- Economical 4 cutting edges
- Reinforced cutting edge geometry
- Versatile VP15TF grade for varied applications
- The micro-grain substrate and Miracle coating provide excellent welding resistance

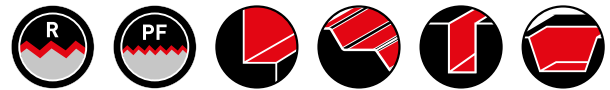


BENEFITS

- High metal removal rates
- Near nett shape material remaining
- Porcess stability and security
- High rigidity for high feed rates
- Long tool life in both soft and hard materials
- Economic cost/performance ratio due to 4 cutting edges
- For high volume roughing
- Proven performance for machining of plastic injection moulds
- Versatile range of cutters available

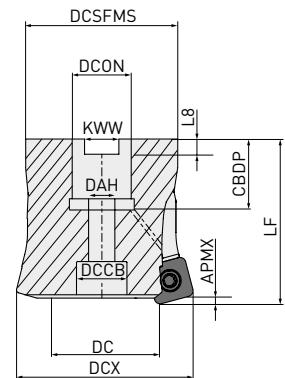


ARM



HIGH FEED MILLING CUTTER FOR MOULD & DIE

P M K H



Right hand tool holder only.

ARBOR TYPE

| Order number | Stock | CICT | DCX | DC | LF | DCON | CBDP | DAH | DCSFMS | KWW | L8 | APMX | DCCB | Inserts |
|---------------|-------|------|-----|------|----|------|------|-----|--------|------|-----|------|------|------------|
| ARM07-040A07R | ● | 7 | 40 | 27.9 | 40 | 16 | 18 | 9 | 38.5 | 8.4 | 5.6 | 1.2 | 12 | SPMX073505 |
| ARM09-040A05R | ● | 5 | 40 | 22.9 | 40 | 16 | 18 | 9 | 38.5 | 8.4 | 5.6 | 1.4 | 12 | SPMX094506 |
| ARM09-042A05R | ● | 5 | 42 | 24.9 | 40 | 16 | 18 | 9 | 38.5 | 8.4 | 5.6 | 1.4 | 12 | |
| ARM09-050A06R | ● | 6 | 50 | 33 | 40 | 22 | 20 | 11 | 49 | 10.4 | 6.3 | 1.4 | 17 | |
| ARM09-052A07R | ● | 7 | 52 | 35 | 40 | 22 | 20 | 11 | 49 | 10.4 | 6.3 | 1.4 | 17 | |
| ARM09-066A08R | ● | 8 | 66 | 48.9 | 50 | 27 | 22 | 13 | 60 | 12.4 | 7 | 1.4 | 19 | SPMX115506 |
| ARM11-050A05R | ● | 5 | 50 | 29.4 | 40 | 22 | 20 | 11 | 49 | 10.4 | 6.3 | 1.8 | 17 | |
| ARM11-052A05R | ● | 5 | 52 | 31.4 | 40 | 22 | 20 | 11 | 49 | 10.4 | 6.3 | 1.8 | 17 | |
| ARM11-063A06R | ● | 6 | 63 | 42.4 | 50 | 27 | 22 | 13 | 60 | 12.4 | 7 | 1.8 | 19 | |
| ARM11-066A07R | ● | 7 | 66 | 45.4 | 50 | 27 | 22 | 13 | 60 | 12.4 | 7 | 1.8 | 19 | |
| ARM11-080A08R | ● | 8 | 80 | 59.3 | 50 | 27 | 22 | 13 | 64 | 12.4 | 7 | 1.8 | 19 | |



SET BOLT

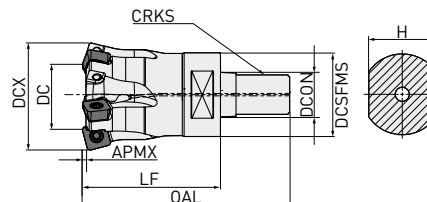
| DCX | Set bolt | Geometry |
|---------|----------|----------|
| Ø 40-42 | M8-C | |
| Ø 50-52 | M10-C | |
| Ø 63-80 | M12-C | |

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P **M** **K** **H**



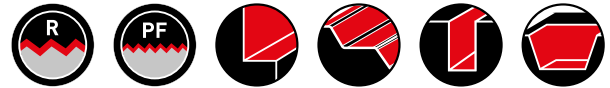
Right hand tool holder only.

SCREW-IN TYPE

| Order number | Stock | CICT | DCX | DC | LF | DCON | DCSFMS | OAL | H | CRKS | APMX | Inserts |
|---------------|-------|------|-----|------|----|------|--------|-----|----|------|------|------------|
| ARM07R162AM08 | ● | 2 | 16 | 4 | 23 | 8.5 | 14 | 40 | 12 | M8 | 0.6 | SPMX073505 |
| ARM07R203AM10 | ● | 3 | 20 | 7.5 | 30 | 10.5 | 18 | 48 | 15 | M10 | 1.2 | |
| ARM07R254AM12 | ● | 4 | 25 | 12.5 | 35 | 12.5 | 21 | 56 | 19 | M12 | 1.2 | |
| ARM07R325AM16 | ● | 5 | 32 | 19.5 | 43 | 17 | 29 | 66 | 22 | M16 | 1.2 | |
| ARM07R356AM16 | ● | 6 | 35 | 22.9 | 43 | 17 | 29 | 66 | 22 | M16 | 1.2 | |
| ARM07R427AM16 | ● | 7 | 42 | 29.9 | 43 | 17 | 29 | 66 | 22 | M16 | 1.2 | |
| ARM09R252AM12 | ● | 2 | 25 | 8 | 35 | 12.5 | 21 | 56 | 19 | M12 | 1.4 | SPMX094506 |
| ARM09R324AM16 | ● | 4 | 32 | 15 | 43 | 17 | 29 | 66 | 22 | M16 | 1.4 | |
| ARM09R354AM16 | ● | 4 | 35 | 17.9 | 43 | 17 | 29 | 66 | 22 | M16 | 1.4 | |
| ARM09R425AM16 | ● | 5 | 42 | 24.9 | 43 | 17 | 29 | 66 | 22 | M16 | 1.4 | SPMX115506 |
| ARM11R323AM16 | ● | 3 | 32 | 11.7 | 43 | 17 | 29 | 66 | 22 | M16 | 1.8 | |
| ARM11R353AM16 | ● | 3 | 35 | 14.6 | 43 | 17 | 29 | 66 | 22 | M16 | 1.8 | |

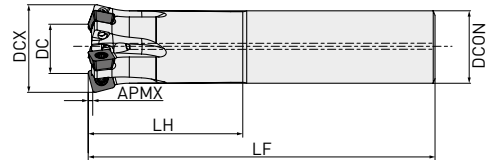


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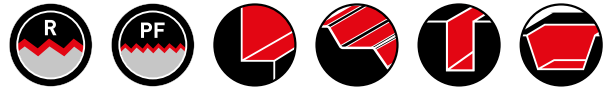


CYLINDRICAL SHANK

| Order number | Stock | CICT | DCX | DCON | DC | LF | LH | APMX | Inserts |
|----------------|-------|------|-----|------|------|-----|----|------|------------|
| ARM07R162SA16S | ● | 2 | 16 | 16 | 4 | 85 | 25 | 0.6 | |
| ARM07R162SA20S | ● | 2 | 16 | 20 | 4 | 130 | 30 | 0.6 | |
| ARM07R203SA20S | ● | 3 | 20 | 20 | 7.5 | 130 | 30 | 1.2 | SPMX073505 |
| ARM07R254SA25S | ● | 4 | 25 | 25 | 12.5 | 140 | 40 | 1.2 | |
| ARM07R325SA32S | ● | 5 | 32 | 32 | 19.5 | 150 | 50 | 1.2 | |
| ARM09R252SA25S | ● | 2 | 25 | 25 | 8 | 140 | 40 | 1.4 | |
| ARM09R252SA25L | ● | 2 | 25 | 25 | 8 | 200 | 40 | 1.4 | |
| ARM09R324SA32S | ● | 4 | 32 | 32 | 15 | 150 | 50 | 1.4 | SPMX094506 |
| ARM09R324SA32L | ● | 4 | 32 | 32 | 15 | 200 | 50 | 1.4 | |
| ARM09R354SA32S | ● | 4 | 35 | 32 | 17.9 | 150 | 50 | 1.4 | |
| ARM11R323SA32S | ● | 3 | 32 | 32 | 11.7 | 150 | 50 | 1.8 | SPMX115506 |

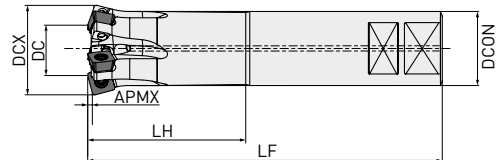


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P **M** **K** **H**



WELDON SHANK

| Order number | Stock | CICT | DCX | DCON | DC | LF | LH | APMX | Inserts |
|----------------|-------|------|-----|------|------|-----|----|------|------------|
| ARM07R162WA16S | ● | 2 | 16 | 16 | 4 | 85 | 25 | 0.6 | |
| ARM07R162WA20S | ● | 2 | 16 | 16 | 4 | 130 | 30 | 0.6 | |
| ARM07R203WA20S | ● | 3 | 20 | 20 | 7.5 | 130 | 30 | 1.2 | SPMX073505 |
| ARM07R254WA25S | ● | 4 | 25 | 25 | 12.5 | 140 | 40 | 1.2 | |
| ARM07R325WA32S | ● | 5 | 32 | 32 | 19.5 | 150 | 50 | 1.2 | |
| ARM09R252WA25S | ● | 2 | 25 | 25 | 8 | 140 | 40 | 1.4 | |
| ARM09R324WA32S | ● | 4 | 32 | 32 | 15 | 150 | 50 | 1.4 | SPMX094506 |





INSERTS

| Order number | Class | Honing* | VP15TF | VP10H | IC | S | RE | Shape |
|-------------------|-------|---------|--------|-------|------|-----|-----|-------|
| SPMX073505ZNEN-FT | M | E | ● | ● | 7.0 | 3.5 | 0.5 | |
| SPMX073505ZNSN-FT | M | S | ● | ● | 7.0 | 3.5 | 0.5 | |
| SPMX094506ZNEN-FT | M | E | ● | ● | 9.7 | 4.4 | 0.6 | |
| SPMX094506ZNSN-FT | M | S | ● | ● | 9.7 | 4.4 | 0.6 | |
| SPMX115506ZNEN-FT | M | E | ● | ● | 11.6 | 5.4 | 0.6 | |
| SPMX115506ZNSN-FT | M | S | ● | ● | 11.6 | 5.4 | 0.6 | |

* Honing:
E: Round,
S: Chamfer + Hone

SPARE PARTS

| Insert type |  |  |
|-------------|---|---|
| | Clamp screw | Wrench |
| SPMX073505 | TPS3 | TIP10W |
| SPMX094506 | TPS4 - C | TIP15W - C |
| SPMX115506 | TPS43 - C | TIP15W - C |

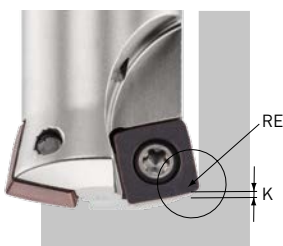
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RECOMMENDED CUTTING CONDITIONS

| Material | Hardness | Insert | Grade | Standard milling | | | | High feed milling | | | | | | | |
|-----------------|-----------------------------|------------------|------------|--------------------|--------------------|------------------|------------|-------------------|-----------|-----|-----------|-----------|-----------|-----------|--|
| | | | | Vc | fz | ap | ae | Vc | fz | ap | ae | | | | |
| P | Mild steel | SPMX073505 | VP15TF | 170 (120 - 220) | 1.0 | 0.3 / 0.8 | 100% / DC | | 200 | 1.0 | 0.4 | 100% / DC | | | |
| | | SPMX094506 | | | 1.2 | 0.5 / 1 | 100% / DC | | | 1.4 | 0.5 | 100% / DC | | | |
| | | SPMX115506 | | | 1.5 | 0.8 / 1.5 | 100% / DC | | | 1.4 | 0.8 | 100% / DC | | | |
| | Carbon steel Alloy steel | 180-280HB | SPMX073505 | VP15TF | 150 (100 - 200) | 0.9 | 0.3 / 0.5 | 100% / DC | | 200 | 100% / DC | | | | |
| | | | SPMX094506 | | | 1 | 0.5 / 0.7 | 100% / DC | | | 1.2 | 0.5 | 100% / DC | | |
| | | | SPMX115506 | | | 1.2 | 0.6 / 1.5 | 100% / DC | | | 1.2 | 0.8 | 100% / DC | | |
| | Alloy tool steel | <350HB | SPMX073505 | VP15TF | 120 (80 - 140) | 0.9 | 0.3 / 0.5 | 100% / DC | | 180 | 0.9 | 0.3 | 100% / DC | | |
| | | | SPMX094506 | | | 1 | 0.5 / 0.7 | 100% / DC | | | 0.8 | 0.4 | 100% / DC | | |
| | | | SPMX115506 | | | 1 | 0.5 / 1 | 100% / DC | | | 0.8 | 0.6 | 100% / DC | | |
| | Pre-hardened steel | 35-45HRC | SPMX073505 | VP15TF | 100 (70 - 130) | 0.75 | 0.25 / 0.4 | 100% / DC | | 150 | 0.75 | 0.3 | 100% / DC | | |
| | | | SPMX094506 | | | 0.8 | 0.4 / 0.6 | 100% / DC | | | 0.8 | 0.4 | 100% / DC | | |
| | | | SPMX115506 | | | 0.8 | 0.4 / 0.8 | 100% / DC | | | 0.8 | 0.5 | 100% / DC | | |
| Stainless steel | | <200HB | SPMX073505 | VP15TF | 100 (60 - 120) | 0.75 | 0.25 / 0.4 | 100% / DC | | 150 | 0.75 | 0.3 | 100% / DC | | |
| | | | SPMX094506 | | | 0.8 | 0.4 / 0.6 | 100% / DC | | | 0.8 | 0.4 | 100% / DC | | |
| | | | SPMX115506 | | | 0.8 | 0.4 / 0.8 | 100% / DC | | | 0.8 | 0.5 | 100% / DC | | |
| PH, Duplex | >200HB | SPMX073505 | VP10H | 120 (90 - 150) | 0.8 | 0.4 / 0.6 | 100% / DC | | 150 | 0.8 | 0.4 | 100% / DC | | | |
| | | SPMX094506 | | | 0.8 | 0.4 / 0.8 | 100% / DC | | | 0.8 | 0.5 | 100% / DC | | | |
| | | SPMX115506 | | | 0.8 | 0.4 / 0.8 | 100% / DC | | | 0.8 | 0.5 | 100% / DC | | | |
| M | Stainless steel | SPMX073505 | VP15TF | 100 (60 - 120) | 0.3 | 0.4 / 0.8 | 100% / DC | | - | - | - | - | | | |
| | | SPMX094506 | | | 0.4 | 0.5 / 1 | 100% / DC | | | - | - | - | | | |
| | | SPMX115506 | | | 0.4 | 0.6 / 1.5 | 100% / DC | | | - | - | - | | | |
| | PH, Duplex | >200HB | SPMX073505 | VP15TF | 70 (50 - 90) | 0.3 | 0.25 / 0.4 | 100% / DC | | - | - | - | - | | |
| | | | SPMX094506 | | | 0.4 | 0.3 / 0.5 | 100% / DC | | | - | - | - | | |
| | | | SPMX115506 | | | 0.4 | 0.4 / 0.8 | 100% / DC | | | - | - | - | | |
| K | Gray cast iron | SPMX073505 | VP15TF | 150 (100 - 200) | 1.0 | 0.3 / 0.6 | 100% / DC | | - | - | - | - | | | |
| | | SPMX094506 | | | 1.2 | 0.5 / 0.8 | 100% / DC | | | - | - | - | | | |
| | | SPMX115506 | | | 1.2 | 0.6 / 1.5 | 100% / DC | | | - | - | - | | | |
| | Ductile cast iron | <450MPa | SPMX073505 | VP15TF | 120 (80 - 160) | 0.8 | 0.25 / 0.5 | 100% / DC | | - | - | - | - | | |
| | | | SPMX094506 | | | 1 | 0.4 / 0.6 | 100% / DC | | | - | - | - | | |
| | | | SPMX115506 | | | 1 | 0.5 / 0.8 | 100% / DC | | | - | - | - | | |
| H | Hardened steel | SPMX073505 | VP15TF | 70 (50 - 90) | 0.5 | 0.25 / 0.4 | 100% / DC | | 120 | 0.5 | 0.25 | 100% / DC | | | |
| | | SPMX094506 | | | 0.6 | 0.3 / 0.5 | 100% / DC | | | 0.6 | 0.3 | 100% / DC | | | |
| | | SPMX115506 | | | 0.6 | 0.3 / 0.6 | 100% / DC | | | 0.6 | 0.4 | 100% / DC | | | |
| | | Alloy tool steel | <350HB | SPMX073505 | VP10H | 90 (70 - 120) | 0.5 | 0.25 / 0.4 | 100% / DC | | 120 | 0.5 | 0.25 | 100% / DC | |
| | | | | SPMX094506 | | | 0.6 | 0.3 / 0.5 | 100% / DC | | | 0.6 | 0.3 | 100% / DC | |
| | | | | SPMX115506 | | | 0.6 | 0.3 / 0.6 | 100% / DC | | | 0.6 | 0.4 | 100% / DC | |

NOTE FOR PROGRAMMING

When using ARM cutters, please program as an RE radius cutter.
The approximate uncut portions for the program are as follows:



| Insert size | RE | K |
|-------------|-------|------|
| 07 | 1.7 | 0.82 |
| 09 | 2.3 | 1.6 |
| 11 | 2.695 | 2.1 |



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