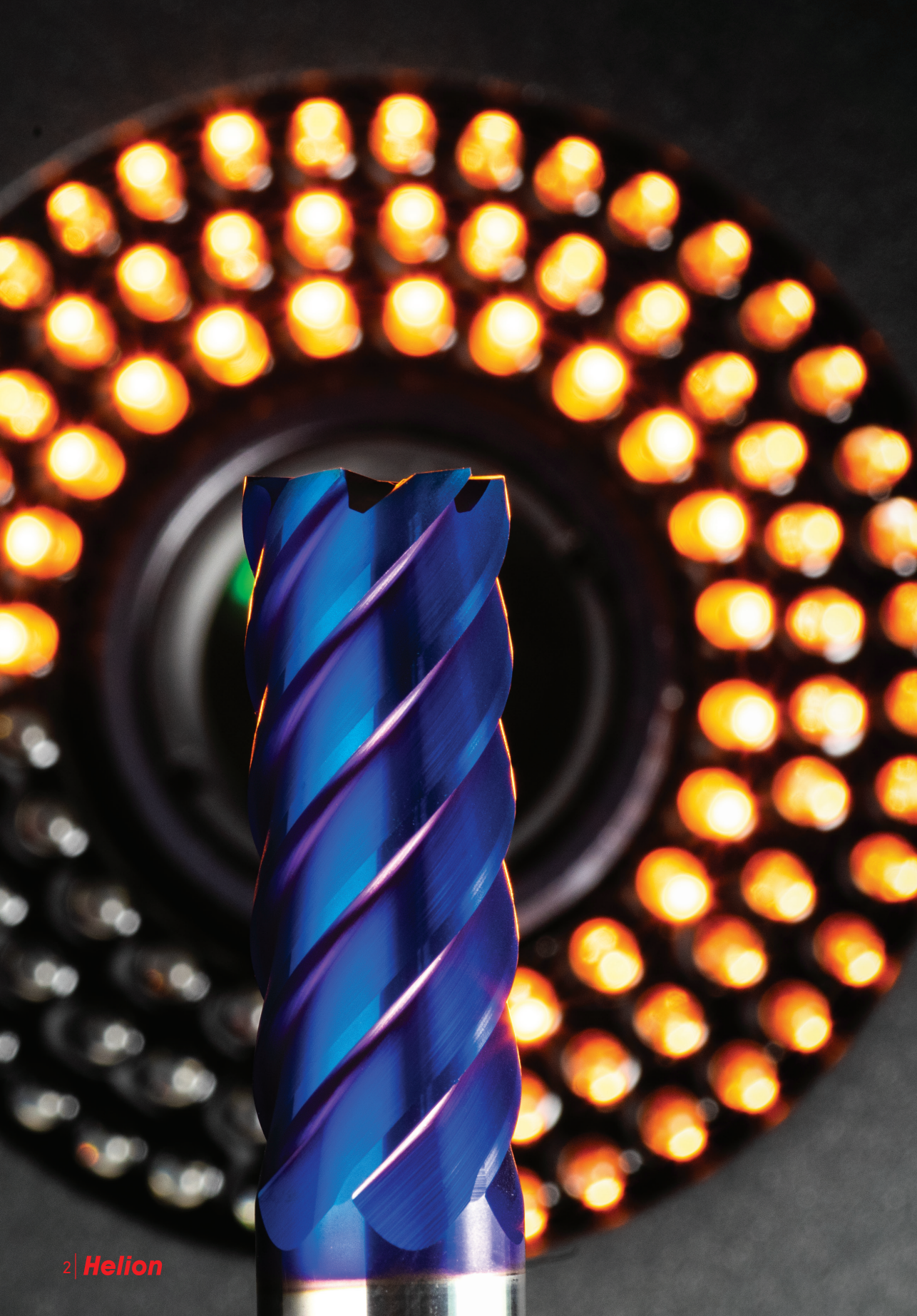




# 91 SERIES

Solid carbide end mills for machining  
exotic and high-alloyed steels.





# Let's move forward together.

## 70 Years of engineering excellence

In the world of high-performance machining, trust isn't requested-it is manufactured, micron by micron. From our headquarters in Manresa (Barcelona), Helion Tools has evolved from a family-owned workshop into a global benchmark for the design and production of solid carbide cutting tools.

Our 70-year legacy is more than just history; it is the foundation of our technical expertise. We understand that in mission-critical sectors such as automotive, aerospace, and die & mold making, variability is the greatest threat to profitability.

## Uncompromising stability

We don't just sell tools; we provide process security. Our production is governed by a strict total control discipline:

- **Source integrity:** We oversee every stage, from raw material selection to the final specialized coating.
- **Advanced metrology:** We invest in state-of-the-art optical and laser inspection to ensure tolerances that the eye cannot see, but the spindle certainly feels.
- **Batch-to-batch consistency:** We guarantee that the tool you use today will deliver the exact same performance as the one you order tomorrow.

## 70 Años de ingeniería y precisión

*En el mecanizado de alto rendimiento, la confianza no se pide; se fabrica micra a micra. Desde nuestra sede central en Manresa (Barcelona), hemos evolucionado de ser un taller familiar a convertirnos en un referente industrial en el diseño y producción de herramientas de metal duro integral.*

*Nuestra trayectoria de más de siete décadas no es solo historia; es la base de nuestro know-how. Entendemos que en sectores críticos, como la automoción, la aeronáutica o la matricería, la variabilidad es el mayor enemigo de la rentabilidad.*

## Compromiso con la estabilidad

*No vendemos herramientas genéricas; proveemos seguridad de proceso. Nuestra producción se rige por una disciplina de control total:*

- **Siempre desde el origen:** Supervisamos desde la selección de la materia prima hasta el recubrimiento final.
- **Metrología avanzada:** Invertimos en inspección óptica y láser para asegurar tolerancias que el ojo no ve, pero que el husillo siente.
- **Garantía lote a lote:** Nos aseguramos de que la herramienta que usas hoy ofrezca el mismo rendimiento exacto que la que pedirás mañana.



## Cutting-edge technology in the heart of Barcelona

Our Barcelona facility is the nerve center where engineering concepts become reality. It is more than just a factory; it is a high-precision ecosystem designed to ensure that every Helion tool meets the most stringent global standards.

Our facility features state-of-the-art technology where automation and human expertise work in perfect synergy to provide a flexible, high-volume production capacity.

### Infrastructure designed for excellence

To lead the solid carbide industry, constant technological investment is mandatory.

### Our facilities integrate:

**Next-generation CNC machining:** High-end grinding centers capable of producing complex geometries with superior surface finishes.

**Advanced metrology lab:** Climate-controlled environments equipped with ultra-precision optical and laser measurement systems, validating every micron before shipment.

**Smart coating management:** We utilize the most advanced treatment processes to ensure optimal hardness and thermal resistance for every specific application.

**Sustainability and operational efficiency:** Our plant operates under strict efficiency criteria to minimize environmental impact and maximize resource utilization. From carbide scrap recycling to energy optimization, our facilities reflect our commitment to a responsible and future-proof industry.

**Helion Tools: Where European engineering meets absolute precision.**





## Tecnología de vanguardia en el corazón de Barcelona

*Nuestra planta en Barcelona es el centro neurálgico donde la ingeniería se hace realidad. No es solo una fábrica; es un ecosistema de alta precisión diseñado para garantizar que cada herramienta cumpla con los estándares más exigentes del mercado global.*

*Contamos con instalaciones de última generación donde la automatización y el talento humano trabajan en sintonía para ofrecer una capacidad productiva flexible y de alto volumen.*

### **Infraestructura diseñada para la excelencia**

*Para liderar la industria del metal duro, la inversión tecnológica constante es obligatoria.*

### **Nuestras instalaciones integran:**

**Mecanizado CNC de vanguardia:** Centros de rectificado de alta gama para geometrías complejas con acabados superficiales inmejorables.

**Metrología avanzada:** Espacios especialmente climatizados con sistemas de medición óptica y láser, validando cada micra desde el seteo de máquina hasta el envío.

**Gestión de recubrimientos:** Utilizamos procesos de tratamiento avanzados para asegurar la dureza y resistencia térmica óptima en cada aplicación específica.

**Sostenibilidad y eficiencia operativa:** Nuestra planta opera bajo criterios de eficiencia para minimizar el impacto ambiental y maximizar recursos. Desde el reciclaje de metal duro hasta la optimización energética, nuestras instalaciones reflejan el compromiso con una industria responsable y de futuro.

**Helion Tools: Donde la tecnología europea encuentra la precisión absoluta.**

# 91 SERIES INDEX

| Code   Código                   |                                                                                     | 91.6424                                                                             | 91.7232                                                                             | 91.6302                                                                             | 91.1479                                                                             | 91.1480                                                                              | 91.5479                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                 |                                                                                     |    |    |    |    |    |    |
| Page   Página                   |                                                                                     | 8                                                                                   | 9                                                                                   | 10                                                                                  | 11                                                                                  | 12                                                                                   | 13                                                                                    |
| Tool Material   M. herramienta  |                                                                                     | SC                                                                                  | SC                                                                                  | SC                                                                                  | SC                                                                                  | SC                                                                                   | SC                                                                                    |
| ø Range   Diámetro (mm)         |                                                                                     | 2 - 16                                                                              | 2 - 8                                                                               | 1 - 20                                                                              | 3 - 20                                                                              | 3 - 20                                                                               | 3 - 20                                                                                |
| Helix Angle   Ángulo de Hélice  |                                                                                     | 42°                                                                                 | -                                                                                   | 42°                                                                                 | 35° - 38°                                                                           | 43° - 45° - 47°                                                                      | 40°                                                                                   |
| P Carbon Steel                  |                                                                                     | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                    | ●                                                                                     |
| H HRC 55 - 62                   |                                                                                     | ●                                                                                   | ●                                                                                   | ●                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| H HRC 70 - 75                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| M Stainless                     |                                                                                     | ●                                                                                   | ○                                                                                   | ●                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| K Cast Iron                     |                                                                                     | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                    | ●                                                                                     |
| N Non Ferrous                   |                                                                                     | ○                                                                                   | ●                                                                                   | ○                                                                                   | ○                                                                                   | ○                                                                                    | ○                                                                                     |
| G Graphite                      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| S Super Alloys                  |                                                                                     | ●                                                                                   |                                                                                     | ●                                                                                   | ●                                                                                   | ●                                                                                    | ●                                                                                     |
| Full-Slot<br>Ranurado           |  |                                                                                     |                                                                                     | ●                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| Copy<br>Copiado                 |  | ●                                                                                   | ●                                                                                   |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| Side Milling<br>Fresado Lateral |  |                                                                                     |                                                                                     | ●                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| Ramping<br>Rampa                |  |                                                                                     |                                                                                     | ○                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| Interpolation<br>Interpolación  |  |                                                                                     |                                                                                     | ●                                                                                   | ★                                                                                   | ●                                                                                    | ●                                                                                     |
| Trochoidal<br>Trocooidal        |  |                                                                                     |                                                                                     |                                                                                     | ○                                                                                   | ○                                                                                    | ○                                                                                     |
| Eshop   Tienda online           |                                                                                     |  |  |  |  |  |  |

| 91.4472                                                                             | 91.4482                                                                             | 91.6505                                                                             | 91.6410                                                                             | 91.6614                                                                             | 91.7612                                                                             |  |  |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|
|    |    |    |    |    |    |  |  |
| 14                                                                                  | 15                                                                                  | 16                                                                                  | 17                                                                                  | 18                                                                                  | 19                                                                                  |  |  |
| SC                                                                                  | SC                                                                                  | SC                                                                                  | SC                                                                                  | SC                                                                                  | SC                                                                                  |  |  |
| 6 - 20                                                                              | 6 - 16                                                                              | 3 - 32                                                                              | 4 - 12                                                                              | 5 - 20                                                                              | 4 - 12                                                                              |  |  |
| 45°                                                                                 | 35° - 38°                                                                           | 45°                                                                                 | 42°                                                                                 | 42°                                                                                 | 30°                                                                                 |  |  |
| ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
| ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |  |
| ★                                                                                   | ★                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ○                                                                                   |  |  |
| ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
| ○                                                                                   | ○                                                                                   |                                                                                     | ○                                                                                   | ○                                                                                   | ●                                                                                   |  |  |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |  |
| ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |                                                                                     |  |  |
| ●                                                                                   | ●                                                                                   |                                                                                     | ●                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
|                                                                                     |                                                                                     |                                                                                     | ●                                                                                   |                                                                                     |                                                                                     |  |  |
| ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
| ●                                                                                   | ●                                                                                   |                                                                                     | ○                                                                                   | ○                                                                                   |                                                                                     |  |  |
| ●                                                                                   | ●                                                                                   |                                                                                     | ●                                                                                   | ●                                                                                   |                                                                                     |  |  |
| ○                                                                                   | ○                                                                                   | ●                                                                                   | ○                                                                                   | ●                                                                                   | ●                                                                                   |  |  |
|  |  |  |  |  |  |  |  |

★ Best Choice

● First Choice

○ Suitable

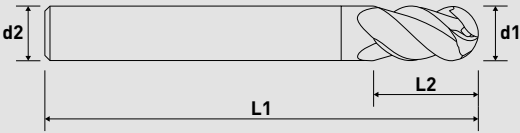
91.6424

BALL NOSE  
SC END MILL  
Z4 · 42°

FRESA ESFÉRICA  
SC Z4 · 42°



Cutting  
Conditions



P

M

K

N

S

H

G

SC

VOLCANO

55 HRC

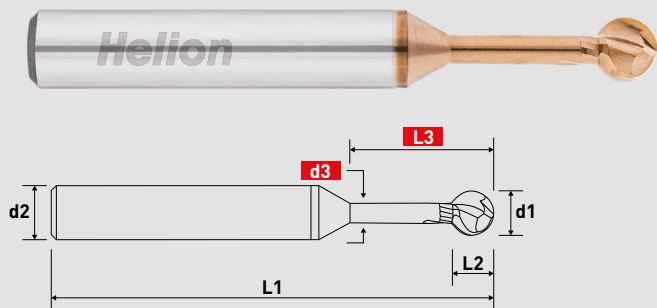
HELIX 42°

MQL

| Cod.       | d1 | d2 | R   | L1  | L2 | Z | Stock |
|------------|----|----|-----|-----|----|---|-------|
| 9164240200 | 2  | 6  | 1   | 50  | 6  | 4 | ●     |
| 9164240300 | 3  | 6  | 1,5 | 60  | 8  | 4 | ●     |
| 9164240400 | 4  | 6  | 2   | 70  | 8  | 4 | ●     |
| 9164240500 | 5  | 6  | 2,5 | 80  | 10 | 4 | ●     |
| 9164240600 | 6  | 6  | 3   | 90  | 12 | 4 | ●     |
| 9164240800 | 8  | 8  | 4   | 100 | 14 | 4 | ●     |
| 9164241000 | 10 | 10 | 5   | 100 | 18 | 4 | ●     |
| 9164241200 | 12 | 12 | 6   | 110 | 22 | 4 | ●     |
| 9164241600 | 16 | 16 | 8   | 130 | 30 | 4 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido





# 91.7232

## LOLLIPOP SC END MILL Z2

FRESA SC  
LOLLIPOP Z2



Cutting  
Conditions



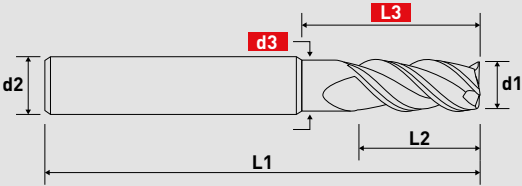
| Cod.       | d1 | d2 | d3  | R   | L1 | L2 | L3   | Z | Stock |
|------------|----|----|-----|-----|----|----|------|---|-------|
| 9172320200 | 2  | 4  | 1   | 1   | 50 | 2  | 6,5  | 2 | ●     |
| 9172320300 | 3  | 4  | 2   | 1,5 | 50 | 3  | 9,5  | 2 | ●     |
| 9172320400 | 4  | 4  | 2   | 2   | 50 | 4  | 11,5 | 2 | ●     |
| 9172320500 | 5  | 6  | 2,5 | 2,5 | 50 | 5  | 14,5 | 2 | ●     |
| 9172320600 | 6  | 6  | 3   | 3   | 50 | 6  | 16,5 | 2 | ●     |
| 9172320800 | 8  | 8  | 4   | 4   | 60 | 8  | 19,5 | 2 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido

91.6302

SQUARE SC  
END MILL  
Z3 · 42°

FRESA PLANA  
SC Z3 · 42°



P

M

K

N

S

H

G

SC

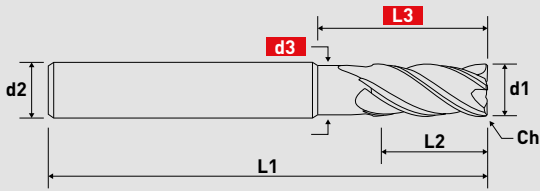
VOLCANO

55 HRC

HELIX 42°

| Cod.       | d1  | d2 | d3   | L1  | L2  | L3 | Z | Stock |
|------------|-----|----|------|-----|-----|----|---|-------|
| 9163020100 | 1   | 6  | 0,95 | 45  | 2,5 | 4  | 3 | ●     |
| 9163020120 | 1,2 | 6  | -    | 45  | 3   | -  | 3 | ●     |
| 9163020150 | 1,5 | 6  | 1,45 | 45  | 4   | 6  | 3 | ●     |
| 9163020200 | 2   | 6  | 1,9  | 45  | 5   | 8  | 3 | ●     |
| 9163020300 | 3   | 6  | 2,9  | 45  | 8   | 15 | 3 | ●     |
| 9163020400 | 4   | 6  | 3,9  | 50  | 10  | 15 | 3 | ●     |
| 9163020500 | 5   | 6  | -    | 50  | 12  | -  | 3 | ●     |
| 9163020600 | 6   | 6  | 5,85 | 60  | 12  | 20 | 3 | ●     |
| 9163020800 | 8   | 8  | 7,88 | 60  | 19  | 26 | 3 | ●     |
| 9163021000 | 10  | 10 | 9,8  | 70  | 22  | 32 | 3 | ●     |
| 9163021200 | 12  | 12 | 11,8 | 80  | 26  | 38 | 3 | ●     |
| 9163021600 | 16  | 16 | 15   | 100 | 36  | 45 | 3 | ●     |
| 9163022000 | 20  | 20 | 19   | 110 | 38  | 55 | 3 | ●     |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |
|            |     |    |      |     |     |    |   |       |

● Stock | Disponible ○ Under Request | Bajo Pedido



# 91.1479

**SQUARE SC  
END MILL**  
**Z4 · 35°/38°**

FRESA PLANA  
SC Z4 · 35°/38°



Cutting  
Conditions

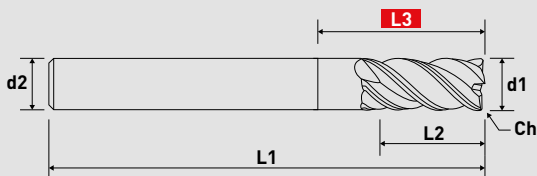


| Cod.       | d1 | d2 | d3   | L1  | L2 | L3 | Ch   | Z | Stock |
|------------|----|----|------|-----|----|----|------|---|-------|
| 9114790300 | 3  | 6  | 2,8  | 60  | 8  | 18 | 0,13 | 4 | ●     |
| 9114790400 | 4  | 6  | 3,6  | 60  | 11 | 21 | 0,18 | 4 | ●     |
| 9114790500 | 5  | 6  | 4,6  | 60  | 13 | 21 | 0,2  | 4 | ●     |
| 9114790600 | 6  | 6  | 5,5  | 60  | 13 | 21 | 0,2  | 4 | ●     |
| 9114790800 | 8  | 8  | 7,5  | 60  | 19 | 27 | 0,2  | 4 | ●     |
| 9114791000 | 10 | 10 | 9,5  | 70  | 22 | 32 | 0,2  | 4 | ●     |
| 9114791200 | 12 | 12 | 11,5 | 80  | 26 | 38 | 0,3  | 4 | ●     |
| 9114791600 | 16 | 16 | 15,5 | 90  | 32 | 44 | 0,4  | 4 | ●     |
| 9114792000 | 20 | 20 | 19,5 | 105 | 38 | 54 | 0,5  | 4 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido



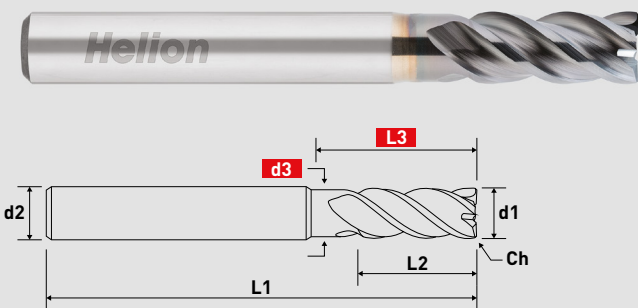
FRESA PLANA SC  
GLADIATOR Z4 · 43°/45°/47°



| Cod.        | d1 | d2 | L1  | L2 | L3 | Ch   | Z | Stock |
|-------------|----|----|-----|----|----|------|---|-------|
| 9114800300  | 3  | 6  | 57  | 8  | 20 | 0,07 | 4 | ●     |
| 9114800400  | 4  | 6  | 57  | 11 | 20 | 0,09 | 4 | ●     |
| 9114800500  | 5  | 6  | 57  | 13 | 20 | 0,12 | 4 | ●     |
| 9114800600  | 6  | 6  | 57  | 13 | 21 | 0,2  | 4 | ●     |
| 9114800602* | 6  | 6  | 57  | 13 | 21 | 0,2  | 4 | ●     |
| 9114800800  | 8  | 8  | 63  | 19 | 27 | 0,25 | 4 | ●     |
| 9114800802* | 8  | 8  | 63  | 19 | 27 | 0,25 | 4 | ●     |
| 9114801000  | 10 | 10 | 73  | 22 | 32 | 0,35 | 4 | ●     |
| 9114801002* | 10 | 10 | 73  | 22 | 32 | 0,35 | 4 | ●     |
| 9114801200  | 12 | 12 | 83  | 26 | 38 | 0,35 | 4 | ●     |
| 9114801202* | 12 | 12 | 83  | 26 | 38 | 0,35 | 4 | ●     |
| 9114801600  | 16 | 16 | 92  | 32 | 44 | 0,4  | 4 | ●     |
| 9114801602* | 16 | 16 | 92  | 32 | 44 | 0,4  | 4 | ●     |
| 9114802000  | 20 | 20 | 104 | 38 | 55 | 0,4  | 4 | ●     |
| 9114802002* | 20 | 20 | 104 | 38 | 55 | 0,4  | 4 | ●     |

\* Available with Weldo  
\* Disponible con Weldon

● **Stock** | Disponible ○ **Under Request** | Bajo Pedido



# 91.5479

**SQUARE SC  
END MILL  
Z4 · 40°**

FRESA PLANA  
SC Z4 · 40°



Cutting  
Conditions



| Cod.       | d1 | d2 | d3   | L1  | L2 | L3 | Ch   | Z | Stock |
|------------|----|----|------|-----|----|----|------|---|-------|
| 9154790300 | 3  | 6  | 2,8  | 57  | 8  | 18 | 0,13 | 4 | ●     |
| 9154790400 | 4  | 6  | 3,6  | 57  | 11 | 21 | 0,18 | 4 | ●     |
| 9154790500 | 5  | 6  | 4,6  | 57  | 13 | 21 | 0,2  | 4 | ●     |
| 9154790600 | 6  | 6  | 5,5  | 57  | 13 | 21 | 0,2  | 4 | ●     |
| 9154790700 | 7  | 8  | 6,5  | 63  | 19 | 27 | 0,2  | 4 | ●     |
| 9154790800 | 8  | 8  | 7,5  | 63  | 19 | 28 | 0,2  | 4 | ●     |
| 9154790900 | 9  | 10 | 8,5  | 72  | 22 | 32 | 0,3  | 4 | ●     |
| 9154791000 | 10 | 10 | 9,5  | 72  | 22 | 32 | 0,3  | 4 | ●     |
| 9154791200 | 12 | 12 | 11,5 | 83  | 26 | 38 | 0,3  | 4 | ●     |
| 9154791400 | 14 | 14 | 13,5 | 83  | 26 | 42 | 0,3  | 4 | ●     |
| 9154791600 | 16 | 16 | 15,5 | 92  | 32 | 44 | 0,4  | 4 | ●     |
| 9154792000 | 20 | 20 | 19,5 | 104 | 38 | 54 | 0,5  | 4 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido

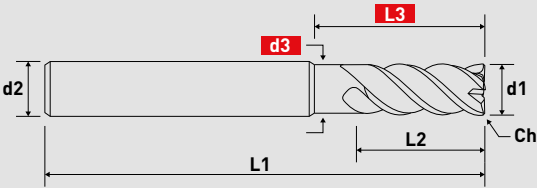
91.4472

SQUARE SC  
END MILL  
Z4 · 45°

FRESA PLANA  
SC Z4 · 45°



Cutting  
Conditions



P

M

K

N

S

H

G

SC

VOLCANO  
GOLD

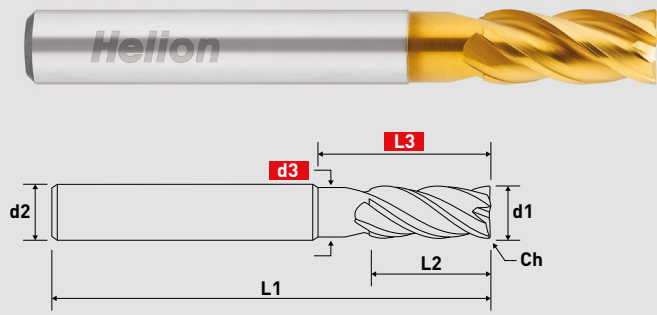
55  
HRC

HELIX  
45°

91.4482

SQUARE SC END  
MILL YELLOW  
BLADE Z4 · 35°/38°

FRESA PLANA SC YELLOW  
BLADE Z4 · 35°/38°



P M K N S H G

SC

VOLCANO GOLD

55 HRC

HELIX 35°/38°

HA

| Cod.       | d1 | d2 | d3   | L1 | L2 | L3 | Ch  | Z | Stock |
|------------|----|----|------|----|----|----|-----|---|-------|
| 9144820600 | 6  | 6  | 5,5  | 60 | 13 | 21 | 0,2 | 4 | ●     |
| 9144820800 | 8  | 8  | 7,5  | 60 | 19 | 27 | 0,2 | 4 | ●     |
| 9144821000 | 10 | 10 | 9,5  | 70 | 22 | 32 | 0,2 | 4 | ●     |
| 9144821200 | 12 | 12 | 11,5 | 80 | 26 | 38 | 0,3 | 4 | ●     |
| 9144821600 | 16 | 16 | 15,5 | 90 | 32 | 44 | 0,4 | 4 | ●     |

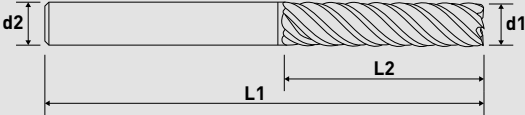
● Stock | Disponible ○ Under Request | Bajo Pedido



91.6505

MULTIFLUTES SC  
END MILL EXTRA  
LONG Z4 - Z6 · 45°

FRESA SC MULTILABIO  
EXTRALARGA Z4 - Z6 · 45°



P

M

K

N

S

H

G

SC

RACER PLUS

55 HRC

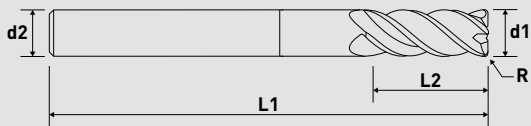
HELIX 45°

90°

HA

| Cod.       | d1 | d2 | L1  | L2  | Z | Stock |
|------------|----|----|-----|-----|---|-------|
| 9165050300 | 3  | 3  | 60  | 15  | 4 | ●     |
| 9165050400 | 4  | 4  | 80  | 20  | 4 | ●     |
| 9165050500 | 5  | 5  | 80  | 25  | 4 | ●     |
| 9165050600 | 6  | 6  | 80  | 25  | 6 | ●     |
| 9165050800 | 8  | 8  | 100 | 40  | 6 | ●     |
| 9165051000 | 10 | 10 | 100 | 45  | 6 | ●     |
| 9165051201 | 12 | 12 | 100 | 50  | 6 | ●     |
| 9165051202 | 12 | 12 | 125 | 70  | 6 | ●     |
| 9165051601 | 16 | 16 | 150 | 65  | 6 | ●     |
| 9165051602 | 16 | 16 | 165 | 100 | 6 | ●     |
| 9165052002 | 20 | 20 | 165 | 100 | 6 | ●     |
| 9165052003 | 20 | 20 | 200 | 135 | 6 | ●     |
| 9165052502 | 25 | 25 | 165 | 100 | 6 | ●     |
| 9165052503 | 25 | 25 | 200 | 140 | 6 | ●     |
| 9165053201 | 32 | 32 | 165 | 100 | 6 | ●     |
| 9165053202 | 32 | 32 | 210 | 150 | 6 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido



# 91.6410

**CORNER RADIUS  
SC END MILL  
Z4 · 42°**

FRESA TÓRICA  
SC Z4 · 42°



Cutting  
Conditions



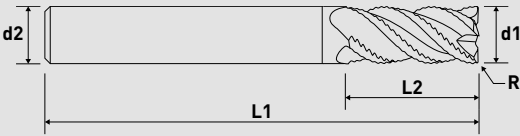
| Cod.       | d1 | d2 | R   | L1 | L2 | Z | Stock |
|------------|----|----|-----|----|----|---|-------|
| 9164100405 | 4  | 6  | 0,5 | 60 | 12 | 4 | ●     |
| 9164100505 | 5  | 6  | 0,5 | 60 | 15 | 4 | ●     |
| 9164100605 | 6  | 6  | 0,5 | 60 | 15 | 4 | ●     |
| 9164100610 | 6  | 6  | 1   | 60 | 15 | 4 | ●     |
| 9164100805 | 8  | 8  | 0,5 | 80 | 20 | 4 | ●     |
| 9164100810 | 8  | 8  | 1   | 80 | 20 | 4 | ●     |
| 9164100820 | 8  | 8  | 2   | 80 | 17 | 4 | ●     |
| 9164101005 | 10 | 10 | 0,5 | 80 | 25 | 4 | ●     |
| 9164101010 | 10 | 10 | 1   | 80 | 25 | 4 | ●     |
| 9164101205 | 12 | 12 | 0,5 | 80 | 24 | 4 | ●     |
| 9164101210 | 12 | 12 | 1   | 80 | 24 | 4 | ●     |
| 9164101220 | 12 | 12 | 2   | 80 | 24 | 4 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido

91.6614

ROUGHING  
SC END MILL  
Z4 - Z5 · 42°

FRESA SC PARA  
DESBASTE Z4 - Z5 · 42°



P

M

K

N

S

H

G

SC

VOLCANO

55 HRC

HELIX 42°

HA

MQL

AIR

| Cod.       | d1 | d2 | R   | L1  | L2 | Z | Stock |
|------------|----|----|-----|-----|----|---|-------|
| 9166140500 | 5  | 6  | 0,2 | 50  | 13 | 4 | ●     |
| 9166140600 | 6  | 6  | 0,2 | 60  | 13 | 4 | ●     |
| 9166140800 | 8  | 8  | 0,2 | 70  | 19 | 4 | ●     |
| 9166141000 | 10 | 10 | 0,3 | 75  | 22 | 4 | ●     |
| 9166141200 | 12 | 12 | 0,3 | 80  | 26 | 4 | ●     |
| 9166141600 | 16 | 16 | 0,5 | 100 | 32 | 5 | ●     |
| 9166142000 | 20 | 20 | 0,5 | 100 | 38 | 5 | ●     |

● Stock | Disponible ○ Under Request | Bajo Pedido



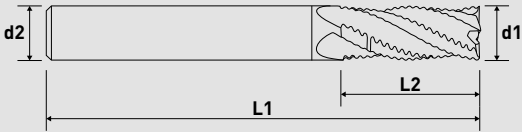
# 91.7612

**ROUGHING SC  
END MILL  
Z4 · 30°**

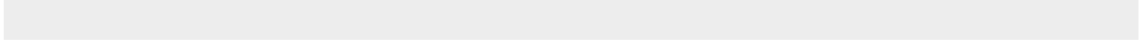
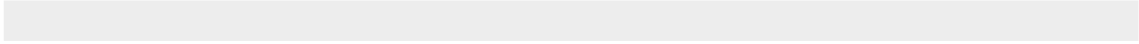
FRESA SC PARA  
DESBASTE Z4 · 30°



Cutting  
Conditions



| Cod.       | d1 | d2 | L1 | L2 | Z | Stock |
|------------|----|----|----|----|---|-------|
| 9176120400 | 4  | 4  | 50 | 10 | 4 | ●     |
| 9176120500 | 5  | 5  | 50 | 15 | 4 | ●     |
| 9176120600 | 6  | 6  | 50 | 15 | 4 | ●     |
| 9176120800 | 8  | 8  | 60 | 20 | 4 | ●     |
| 9176121000 | 10 | 10 | 75 | 25 | 4 | ●     |
| 9176121200 | 12 | 12 | 75 | 30 | 4 | ●     |



● Stock | Disponible ○ Under Request | Bajo Pedido



[www.helion-tools.com](http://www.helion-tools.com)  
[@heliontools](https://www.instagram.com/heliontools)

**HELION TOOLS SLU**

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