## Product Launch 2024.1

# Uncompromised performance and lower cost per edge

Customers enjoy a range of benefits with the **MP3501 Milling Insert Grade**. This innovative grade includes our next-generation Duratomic<sup>®</sup> CVD coating to provide reliable performance with enhanced heat resistance. New technology and post-treatment processes increase productivity and versatility with a grade that can perform across various materials. Businesses can prevent sudden insert breakages, increase their productivity, and reduce their environmental impact by utilizing the latest addition in the Seco Duratomic MP family.





Discover more about MP3501 Milling Insert Grades



#### Better coolant flow, better parts

Seco **Nanojet Solid Carbide Reamers** offer versatile options with different grades and geometries, allowing customization. They provide improved coolant delivery and reliable tool performance, maintaining consistent speeds during reaming without compromising part quality. These reamers create high-quality finishes across various materials, making them a dependable choice for precision machining.



Discover more about Nanojet Solid Carbide Reamers





# Lower your costs per part while increasing precision orthopedic productivity

The **JH730 Solid End Mills** provide a standardized tool set designed for excellent orthopedic part production. They ensure reliable performance across the entire medical manufacturing process, resulting in increased part quality and lower costs. Customers also receive full application support throughout the product cycle, making these mills a valuable choice for efficient and high-quality orthopedic manufacturing.



Discover more about JH730 Solid End Mills





# Overcome your challenges in Titanium alloy machining

The **JS720 End Mills** excel in machining ISO S & M materials, delivering high performance in semi-finish operations and advanced roughing strategies. Specifically designed for advanced roughing in titanium, these end mills can run at 7 to 15% of the diameter radial stepover. Notable features include an irregular pitch to prevent chatter, a tapered core for stability at high axial depths of cuts, and a polished HXT coating for longer tool life.



Discover more about JS720 End Mills

# Multiple milling heads are better than one; especially with new geometries

The **X-Head Additions** bring several benefits to customers, including stability in long reach applications, greater machining flexibility, quicker tool changeouts, precise tool setting, cost-effectiveness, increased milling versatility, and new geometric possibilities. These additions are a valuable choice for users looking for efficient and precise machining solutions.





Discover more about X-Heads Additions



#### Smooth operations and extended tool life

The **Square T4-12 Upgrades** bring improved reliability with an upgraded pocket and optimized insert design, ensuring consistent tool life for inserts. Easy identification is facilitated by Data Matrix marking, and the high positive rakes and curved edges provide a smooth, vibration-free operation. Internal coolant channels optimize insert performance for more efficient machining.



Discover more about Square T4-12 Upgrades





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### Square T4-12 Upgrades



#### Your challenge

Inconstant tool life and sudden tool failure.

#### Our solution

Improvements in tool performance by making design changes in pocket seat and insert.

#### Your challenge

Identify and find relevant product information, e.g., cutting data, 3D models etc.

Our solution

Data Matrix marking on inserts and cutter bodies for easy identification.







### Square T4-12 Upgrades

Tangentially mounted inserts reinforce stability, improves chip flow and provides unrestricted access to mounting screws, while multiple cutting edges help reduce tool cost per part. The curved-edge inserts are available in high-positive-rake geometries and corner radii up to 6.3 mm (0.248") in the front row to address a wide variety of workpiece requirements.

Updated T4-12 Square Shoulder milling cutter now offering better reliability and more consistent tool life due to improvements made in pocket seat design and insert.

Implementation of Data matrix marking makes it easier to identify tools and relevant product data such as cutting data, 3D models etc.

Reduced effect on the environment by using PVD CrN (Chromium Nitride) coating on cutter bodies.

#### **Customer benefits**

- Improved reliability due to new pocket seat design.
- More consistent tool life on inserts due to new pocket design.
- Easy to identify cutters and inserts by Data Matrix marking.
- High positive rakes and curved edges provide smooth, vibration-free.
- Internal coolant channels for optimized insert performance.







# JH730 Solid End Mills for medical applications

Lower your costs per part while increasing precision orthopedic productivity



#### Your challenge

The increased demand for orthopedic products has made the medical parts industry more challenging than ever.

#### Our solution

Increase output and improve lead times by streamlining your medical part production and creating optimal, sustainable processes with expert application support from Seco.

#### Your challenge

Difficult-to-machine titanium, cobalt chrome and stainless steel materials, common in medical industry applications.

#### Our solution

Handle challenging ISO-S and ISO-M materials and achieve superior tool life with HXT-coated end mills, developed for effective thermal and wear resistance.

#### Your challenge

Difficulty to machine small size box blends on a Femoral component.

#### Our solution

New diameter dimensions added to the already existing JH730 series to offer more opportunities.





# JH730 Solid End Mills for medical applications

As the global population ages, the precision medical manufacturing sector has seen significant growth. Maintain your lead in this competitive market with a fully optimized and complete set of solid end mills for orthopedic part production.

This standard ten-tool set was designed by medical industry experts to perform the full range of orthopedic implant milling applications with the efficiency you need for the lowest cost per part.

Each process-specific tool has an HXT coating optimized for performance and reliability in ISO-S and ISO-M materials, while short flute lengths provide additional stability, strength and cost-efficiency.



#### Lower your costs per part while increasing precision orthopedic productivity

#### **Customer benefits**

- Standardized tool set designed for orthopedic part-production excellence
- Reliable, consistent performance across the full medical manufacturing process spectrum
- Increased part quality with lower costs per part
- Full application support throughout entire product cycle

Designation	Item number	Length Index	Tool Shape (mm)	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	LN (mm)	DN (mm)	RE (mm)	PCEDC	Cylindrical
JH730060E2R050.0Z5-HXT	10217826	2	E	6	6	19	65	25	5,7	0.5	5	•
JH730060E2R100.0Z5-HXT	10217827	2	E	6	6	19	65	25	5,7	1	5	•
JH730060E2R150.0Z5-HXT	10217828	2	E	6	6	19	65	25	5,7	1.5	5	•
JH730075F2R050.0Z6-HXT	10217829	2	F	7,5	8	24	63			0.5	6	•
JH730075F2R100.0Z6-HXT	10217830	2	F	7,5	8	24	63			1	6	•
JH730075F2R150.0Z6-HXT	10217831	2	F	7,5	8	24	63			1.5	6	•
JH730080D2R050.0Z6-HXT	03127375	2	D	8	8	25	63			0.5	6	•
JH730080D2R100.0Z6-HXT	03127377	2	D	8	8	25	63			1	6	•
JH730080D2R150.0Z6-HXT	03127378	2	D	8	8	25	63			1.5	6	•
JH730080D2R200.0Z6-HXT	03127379	2	D	8	8	25	63			2	6	•
JH730100D2R100.0Z7-HXT	03127380	2	D	10	10	31	72			1	7	•
JH730100D2R250.0Z7-HXT	03127381	2	D	10	10	31	72			2.5	7	•

#### JH730 Metric range





### JS720 Additions

Overcome your challenges in Titanium alloy machining



#### Your challenge

Optimize cycle time in advanced roughing operations whilst maintaining your tool life.

#### Our solution

9 flutes increase metal removal rate whilst maintaining the same Feed per Tooth and a tapered core reduces tool deflection.

#### Your challenge

Machining deep pockets in aerospace structural parts.

#### Our solution

38° helix angle provides reliable cutting action in less stable conditions, while optimized chip splitters reduce tool breakage and workpiece scrap.

#### Your challenge

Extended tool life.

#### Our solution

Our HXT coating is pattented and provides superior bonding and a hard top layer.





### JS720 Additions

#### Machining in ISO S & M materials

The JS720 end mills are excellent choices for machining ISO S & M materials, offering high performance in semi-finish operations and advanced roughing strategies. When it comes to advanced roughing titanium, these end mills can run at an  $a_e$  that is 7 to 15% of the Dc.

These end mills feature many notable characteristics. An irregular pitch prevents chatter. The tapered core design increases stability while allowing for a high radial width of cut. A new polished HXT coating with superior bonding ensures longer tool life. A 38-degree helix angle provides reliable cutting action in less stable conditions, while a 9-degree radial eccentric relief contributes to strong cutting edges. Additionally, the JS720 features radii optimized for aerospace structural part machining.

Overall, our innovative approach to edge preparation, coating and polishing gives our JS720 series the ability to achieve up to 30% more tool life than similar cutters. These cutters also prove to be 70% more productive than conventional 4 flute end mills in comparable situations.



#### Overcome your challenges in Titanium alloy machining

#### Range overview

- Optimized tool design
- Cutting diameter range from Ø6 to Ø25mm
- 6 and 9 flute
- Corner radii from 0.5mm to 6mm
- Cutting lengths from 2.5x to 3xDc
- With and without Chipsplitters
- Standard Cylindrical shanks, with Weldon and Safe-Lock<sup>™</sup> shank options



Tolerances:

DMM = h5 Dc = e7 RE ± 0.02 mm



Optimized Roughing can be highly effective for machining part features such as pockets with challenging corners. It is especially useful for machining straight walls two times the diameter of your end mill and for applications that require long axial depths of cuts. This strategy enables you to machine pockets three to four times faster than conventional methods while also dramatically extending the life of your tools. Achieving the best possible results with today's Optimized Roughing strategy does require adhering to a few specific guidelines.

#### **1. CHOOSE AN APPROPRIATE STEPOVER**

Optimized Roughing typically employs end mills with 5- to 9-flutes. End mills with fewer flutes have more space for chip formation, thus can utilize larger step-overs. Although the step-over of tools with fewer flutes can be higher, the traverse rate of the tool is decreased. Therefore, a balance must be struck where the optimum step-over and feed rate are utilized for each type of tool. The cutting data in this brochure has been specified based on extensive testing and experience and should serve as a good starting point for your application.

#### 2. USE STRONG, SECURE TOOLHOLDERS & FIXTURING

High-precision holders are crucial when Optimized Roughing to achieve maximum tool life. Run-out needs to be kept to less than 0.0004" to maximize tool life. This type of precision can be achieved by most shrink fit holders, milling chucks, high precision collet chucks and select manufacturer's end mill holders. A precise holder ensures the accuracy of the process, whereas a less secure holder will cause undesirable levels of vibration while Optimized Roughing at high feed rates.

#### 3. MAKE SURE YOUR MACHINE IS CAPABLE OF PERFORMING

Machine tools used for Optimized Roughing not only need to be able to achieve extremely high feed rates, but also need to be able to process thousands of lines of code in a matter of seconds. This requires advanced look-ahead capabilities and processing systems found in newer machine tools. Rigidity throughout the machine tool from the spindle bearings all the way through to the ball screws ensures smooth cutting, consistent tool life and unsurpassed part quality.

#### 4. CHOOSE A SUITABLE PROGRAMMING METHOD



It is nearly impossible to program an Optimized Roughing strategy manually. Many companies provide state-of-the-art programming software. Careful consideration must be made when choosing the right software or software add on. Not all software is created equal. For example, programming software designed only for complex 3D high speed milling may not be able to perform the complex radial moves inside of tight corners to maintain a consistent angle of engagement. This is one of the many keys to successful Optimized Roughing strategies.

#### 5. SELECT THE RIGHT DEPTH OF CUT

Take advantage of the full flute length of the tool selected for the specific application. Maximizing the depth of cuts above 2 times the diameter of the tool is common when Optimized Roughing. Smaller radial step-overs make such depths of the cut possible. A larger step-over would increase the amount of heat in the cut, which in-turn will have a negative effect on tool life and performance. Therefore, rpm and feed rates must be reduced. A cut that is too deep, over 3 x D for instance, can create cutting pressures greater than what the tool can bear and possibly cause deflection. In this circumstance, chip splitters can minimize radial cutting pressure reducing deflection and aiding in chip control.

#### 6. FOLLOW RECOMMENDED CUTTING PARAMETERS

After meticulous research and years of firsthand experience, we have developed specific recommended cutting parameters. Always to be used as a starting point, cutting data is optimized per tool design, specifications and material groups. Modifications can be made depending on the application.





### JS720 range overview

#### Overcome your challenges in Titanium alloy machining

New products

#### JS720 6 flute without chipsplitters

Designation	Length index	Tool Shape	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	RE (mm)	PCEDC	Cylindrical	Weldon	Safelock
JS720060D2R050.0Z6-HXT	2	D	6	6	17	57	0.5	6	03060293	03060339	03060374
JS720060D2R100.0Z6-HXT	2	D	6	6	17	57	1	6	03060294	03060340	03060375
JS720080D2R050.0Z6-HXT	2	D	8	8	23	63	0.5	6	03060295	03060341	03060376
JS720080D2R100.0Z6-HXT	2	D	8	8	23	63	1	6	03061294	03061295	03061296
JS720100D2R050.0Z6-HXT	2	D	10	10	26	72	0.5	6	03060296	03060342	03060377
JS720100D2R100.0Z6-HXT	2	D	10	10	26	72	1	6	03060298	03060344	03060379
JS720100D2R200.0Z6-HXT	2	D	10	10	26	72	2	6	03060299	03060345	03060380
JS720100D2R300.0Z6-HXT	2	D	10	10	26	72	3	6	03060300	03060346	03060381
JS720120D2R050.0Z6-HXT	2	D	12	12	30	83	0.5	6	03060301	03060347	03060382
JS720120D2R100.0Z6-HXT	2	D	12	12	30	83	1	6	03060304	03060349	03060384
JS720120D2R200.0Z6-HXT	2	D	12	12	30	83	2	6	03060305	03060350	03060385
JS720120D2R300.0Z6-HXT	2	D	12	12	30	83	3	6	03060306	03060351	03060386
JS720160D2R050.0Z6-HXT	2	D	16	16	44	99	0.5	6	03060307	03060352	03060387
JS720160D2R100.0Z6-HXT	2	D	16	16	44	99	1	6	03060309	03060354	03060389
JS720160D2R200.0Z6-HXT	2	D	16	16	44	99	2	6	03060310	03060355	03060390
JS720160D2R300.0Z6-HXT	2	D	16	16	44	99	3	6	03060311	03060356	03060391
JS720160D2R400.0Z6-HXT	2	D	16	16	44	99	4	6	03060312	03060357	03060392
JS720160D2R600.0Z6-HXT	2	D	16	16	44	99	6	6	03060313	03060358	03060393
JS720200D2R050.0Z6-HXT	2	D	20	20	45	105	0.5	6	10228426	10228444	10228464
JS720200D2R100.0Z6-HXT	2	D	20	20	45	105	1	6	10228427	10228445	10228465
JS720200D2R200.0Z6-HXT	2	D	20	20	45	105	2	6	10228428	10228446	10228467
JS720200D2R300.0Z6-HXT	2	D	20	20	45	105	3	6	10228429	10228447	10228468
JS720250D2R050.0Z6-HXT	2	D	25	25	50	125	0.5	6	10228430	10228448	10228469
JS720250D2R100.0Z6-HXT	2	D	25	25	50	125	1	6	10228431	10228449	10228470
JS720250D2R200.0Z6-HXT	2	D	25	25	50	125	2	6	10228432	10228450	10228471
JS720250D2R300.0Z6-HXT	2	D	25	25	50	125	3	6	03169498	10228451	10228472





New products

#### Overcome your challenges in Titanium alloy machining JS720 6 flute without chipsplitters

Designation	Length index	Tool Shape	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	RE (mm)	PCEDC	Cylindrical	Weldon	Safelock
JS720080D3R050.0Z6-HXT	3	D	8	8	32	80	0.5	6	10228433	10228452	10228473
JS720080D3R100.0Z6-HXT	3	D	8	8	32	80	1	6	10228434	10228453	10228474
JS720100D3R050.0Z6-HXT	3	D	10	10	40	89	0.5	6	10228435	10228454	10228475
JS720100D3R100.0Z6-HXT	3	D	10	10	40	89	1	6	10228436	10228455	10228476
JS720100D3R200.0Z6-HXT	3	D	10	10	40	89	2	6	10228437	10228456	10228477
JS720120D3R050.0Z6-HXT	3	D	12	12	45	100	0.5	6	10228438	10228457	10228478
JS720120D3R100.0Z6-HXT	3	D	12	12	45	100	1	6	10228439	10228458	10228479
JS720120D3R200.0Z6-HXT	3	D	12	12	45	100	2	6	10228440	10228459	10228480
JS720160D3R050.0Z6-HXT	3	D	16	16	65	130	0.5	6	10228441	10228460	10228481
JS720160D3R100.0Z6-HXT	3	D	16	16	65	130	1	6	10228442	10228461	10228482
JS720160D3R200.0Z6-HXT	3	D	16	16	65	130	2	6	10228443	10228462	10228483
JS720160D3R300.0Z6-HXT	3	D	16	16	65	130	3	6	03169497	10228463	10228484
JS720200D3R050.0Z6-HXT	3	D	20	20	62	121	0.5	6	03060314	03060359	03060394
JS720200D3R100.0Z6-HXT	3	D	20	20	62	121	1	6	03060316	03060361	03060396
JS720200D3R200.0Z6-HXT	3	D	20	20	62	121	2	6	03060317	03060362	03060397
JS720200D3R300.0Z6-HXT	3	D	20	20	62	121	3	6	03060318	03060363	03060398
JS720200D3R400.0Z6-HXT	3	D	20	20	62	121	4	6	03060319	03060364	03060399
JS720200D3R500.0Z6-HXT	3	D	20	20	62	121	5	6	03060320	03060365	03060400
JS720200D3R600.0Z6-HXT	3	D	20	20	62	121	6	6	03060321	03060366	03060401
JS720250D3R050.0Z6-HXT	3	D	25	25	78	146	0.5	6	03060322	03060367	03060402
JS720250D3R100.0Z6-HXT	3	D	25	25	78	146	1	6	03060323	03060368	03060403
JS720250D3R200.0Z6-HXT	3	D	25	25	78	146	2	6	03060324	03060369	03060404
JS720250D3R300.0Z6-HXT	3	D	25	25	78	146	3	6	03060325	03060370	03060405
JS720250D3R400.0Z6-HXT	3	D	25	25	78	146	4	6	03060326	03060371	03060406
JS720250D3R600.0Z6-HXT	3	D	25	25	78	146	6	6	03060327	03060372	03060407





New products

#### Overcome your challenges in Titanium alloy machining

#### JS720 6 flute with chipsplitters

Designation	Length index	Tool Shape	Chip splitters	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	RE (mm)	PCEDC	Cylindrical	Weldon	Safelock
JS720080D2R050.0Z6C-HXT	2	D	•	8	8	23	63	0.5	6	10228513	10228520	10228527
JS720080D2R100.0Z6C-HXT	2	D	•	8	8	23	63	1	6	10228514	10228521	10228528
JS720100D2R050.0Z6C-HXT	2	D	•	10	10	26	72	0.5	6	03060297	03060343	03060378
JS720100D2R100.0Z6C-HXT	2	D	•	10	10	26	72	1	6	10228515	10228522	10228529
JS720120D2R050.0Z6C-HXT	2	D	•	12	12	30	83	0.5	6	03060302	03060348	03060383
JS720120D2R100.0Z6C-HXT	2	D	•	12	12	30	83	1	6	03298280	03298308	03298334
JS720120D2R200.0Z6C-HXT	2	D	•	12	12	30	83	2	6	03298281	03298309	03298335
JS720120D2R250.0Z6C-HXT	2	D	•	12	12	30	83	2.5	6	03298282	03298310	03298336
JS720120D2R300.0Z6C-HXT	2	D	•	12	12	30	83	3	6	03298283	03298311	03298337
JS720120D2R310.0Z6C-HXT	2	D	•	12	12	30	83	3.1	6	03298284	03298312	03298338
JS720160D2R050.0Z6C-HXT	2	D	•	16	16	44	99	0.5	6	03060308	03060353	03060388
JS720160D2R100.0Z6C-HXT	2	D	•	16	16	44	99	1	6	03298285	03298313	03298339
JS720160D2R200.0Z6C-HXT	2	D	•	16	16	44	99	2	6	03298286	03298314	03298340
JS720160D2R250.0Z6C-HXT	2	D	•	16	16	44	99	2.5	6	03298287	03298315	03298341
JS720160D2R300.0Z6C-HXT	2	D	•	16	16	44	99	3	6	03298288	03298316	03298342
JS720160D2R310.0Z6C-HXT	2	D	•	16	16	44	99	3.1	6	03298289	03298317	03298343
JS720160D2R400.0Z6C-HXT	2	D	•	16	16	44	99	4	6	03298290	03298318	03298344
JS720160D2R600.0Z6C-HXT	2	D	•	16	16	44	99	6	6	03298291	03298319	03298345
JS720160D3R050.0Z6C-HXT	3	D	•	16	16	65	130	0.5	6	10228516	10228523	10228530
JS720160D3R100.0Z6C-HXT	3	D	•	16	16	65	130	1	6	10228517	10228524	10228531
JS720160D3R200.0Z6C-HXT	3	D	•	16	16	65	130	2	6	10228518	10228525	10228532
JS720160D3R300.0Z6C-HXT	3	D	•	16	16	65	130	3	6	10228519	10228526	10228533
JS720200D3R050.0Z6C-HXT	3	D	•	20	20	62	121	0.5	6	03060315	03060360	03060395
JS720200D3R100.0Z6C-HXT	3	D	•	20	20	62	121	1	6	03298292	03298320	03298346
JS720200D3R200.0Z6C-HXT	3	D	•	20	20	62	121	2	6	03298293	03298321	03298347
JS720200D3R250.0Z6C-HXT	3	D	•	20	20	62	121	2.5	6	03298294	03298322	03298348
JS720200D3R300.0Z6C-HXT	3	D	•	20	20	62	121	3	6	03298295	03298323	03298349
JS720200D3R310.0Z6C-HXT	3	D	•	20	20	62	121	3.1	6	03298296	03298324	03298350
JS720200D3R400.0Z6C-HXT	3	D	•	20	20	62	121	4	6	03298297	03298325	03298351
JS720200D3R500.0Z6C-HXT	3	D	•	20	20	62	121	5	6	03298298	03298326	03298352
JS720200D3R600.0Z6C-HXT	3	D	•	20	20	62	121	6	6	03298299	03298327	03298353
JS720250D3R050.0Z6C-HXT	3	D	•	25	25	78	146	0.5	6	03066270	03066460	03066461
JS720250D3R100.0Z6C-HXT	3	D	•	25	25	78	146	1	6	03298300	03298328	03298354
JS720250D3R200.0Z6C-HXT	3	D	•	25	25	78	146	2	6	03298301	03298329	03298355
JS720250D3R300.0Z6C-HXT	3	D	•	25	25	78	146	3	6	03298302	03298330	03298356
JS720250D3R400.0Z6C-HXT	3	D	•	25	25	78	146	4	6	03298303	03298331	03298357
JS720250D3R600.0Z6C-HXT	3	D	•	25	25	78	146	6	6	03298304	03298332	03298358





New products

#### Overcome your challenges in Titanium alloy machining JS720 9 flute without chipsplitters

Designation	Length index	Tool Shape	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	RE (mm)	PCEDC	Cylindrical	Weldon	Safelock
JS720100D2R050.0Z9-HXT	2	D	10	10	26	72	1	9	10067510	10067881	10067909
JS720100D2R100.0Z9-HXT	2	D	10	10	26	72	1	9	10067511	10067882	10067910
JS720100D2R200.0Z9-HXT	2	D	10	10	26	72	2	9	10067512	10067883	10067911
JS720120D2R050.0Z9-HXT	2	D	12	12	30	83	1	9	10067513	10067884	10067912
JS720120D2R100.0Z9-HXT	2	D	12	12	30	83	1	9	10067514	10067885	10067913
JS720120D2R200.0Z9-HXT	2	D	12	12	30	83	2	9	10067515	10067886	10067914
JS720160D2R100.0Z9-HXT	2	D	16	16	44	99	1	9	10008152	10008279	10008295
JS720160D2R200.0Z9-HXT	2	D	16	16	44	99	2	9	10008153	10008280	10008296
JS720160D2R300.0Z9-HXT	2	D	16	16	44	99	3	9	10008154	10008281	10008297
JS720200D2R100.0Z9-HXT	2	D	20	20	45	105	1	9	10228393	10228396	10228399
JS720200D2R200.0Z9-HXT	2	D	20	20	45	105	2	9	10228394	10228397	10228400
JS720200D2R300.0Z9-HXT	2	D	20	20	45	105	3	9	10228395	10228398	10228401
JS720250D2R100.0Z9-HXT	2	D	25	25	50	125	1	9	10008155	10008282	10008298
JS720250D2R200.0Z9-HXT	2	D	25	25	50	125	2	9	10008156	10008283	10008299
JS720250D2R300.0Z9-HXT	2	D	25	25	50	125	3	9	10008157	10008284	10008300
JS720100D3R050.0Z9-HXT	3	D	10	10	40	89	1	9	10067516	10067887	10067915
JS720100D3R100.0Z9-HXT	3	D	10	10	40	89	1	9	10067517	10067888	10067916
JS720100D3R200.0Z9-HXT	3	D	10	10	40	89	2	9	10067518	10067889	10067917
JS720120D3R050.0Z9-HXT	3	D	12	12	45	100	1	9	10067519	10067890	10067918
JS720120D3R100.0Z9-HXT	3	D	12	12	45	100	1	9	10067520	10067891	10067919
JS720120D3R200.0Z9-HXT	3	D	12	12	45	100	2	9	10067521	10067892	10067921
JS720160D3R100.0Z9-HXT	3	D	16	16	65	130	1	9	10008158	10008285	10008301
JS720160D3R200.0Z9-HXT	3	D	16	16	65	130	2	9	10008159	10008286	10008302
JS720160D3R300.0Z9-HXT	3	D	16	16	65	130	3	9	10008160	10008287	10008303
JS720200D3R100.0Z9-HXT	3	D	20	20	62	121	1	9	10008161	10008288	10008304
JS720200D3R200.0Z9-HXT	3	D	20	20	62	121	2	9	10008162	10008289	10008305
JS720200D3R300.0Z9-HXT	3	D	20	20	62	121	3	9	10008163	10008290	10008306
JS720250D3R100.0Z9-HXT	3	D	25	25	78	146	1	9	10008164	10008292	10008307
JS720250D3R200.0Z9-HXT	3	D	25	25	78	146	2	9	10008165	10008293	10008308
JS720250D3R300.0Z9-HXT	3	D	25	25	78	146	3	9	10008166	10008294	10008309





#### Overcome your challenges in Titanium alloy machining JS720 9 flute with chipsplitters

Designation	Length index	Tool Shape	Chip splitters	DC (mm)	DMM (mm)	APMXS (mm)	OAL (mm)	RE (mm)	PCEDC	Cylindrical	Weldon	Safelock
JS720100D3R050.0Z9C-HXT	3	D	•	10	10	40	89	0.5	9	10067522	10067893	10067922
JS720100D3R100.0Z9C-HXT	3	D	•	10	10	40	89	1	9	10067523	10067894	10067923
JS720100D3R200.0Z9C-HXT	3	D	•	10	10	40	89	2	9	10067524	10067895	10067924
JS720120D3R050.0Z9C-HXT	3	D	•	12	12	45	100	0.5	9	10067525	10067897	10067925
JS720120D3R100.0Z9C-HXT	3	D	•	12	12	45	100	1	9	10067526	10067898	10067926
JS720120D3R200.0Z9C-HXT	3	D	•	12	12	45	100	2	9	10067527	10067899	10067927
JS720160D3R100.0Z9C-HXT	3	D	•	16	16	65	130	1	9	10067528	10067900	10067928
JS720160D3R200.0Z9C-HXT	3	D	•	16	16	65	130	2	9	10067529	10067901	10067929
JS720160D3R300.0Z9C-HXT	3	D	•	16	16	65	130	3	9	10067530	10067902	10067930
JS720200D3R100.0Z9C-HXT	3	D	•	20	20	62	121	1	9	10067531	10067903	10067931
JS720200D3R200.0Z9C-HXT	3	D	•	20	20	62	121	2	9	10067532	10067904	10067932
JS720200D3R300.0Z9C-HXT	3	D	•	20	20	62	121	3	9	10067533	10067905	10067933
JS720250D3R100.0Z9C-HXT	3	D	•	25	25	78	146	1	9	10067534	10067906	10067934
JS720250D3R200.0Z9C-HXT	3	D	•	25	25	78	146	2	9	10067535	10067907	10067935
JS720250D3R300.0Z9C-HXT	3	D	•	25	25	78	146	3	9	10067536	10067908	10067936

Please note that the data shown is just an extract and more products are available. For more information please visit www.seccotols.com





### **Nanojet Reamers**

Better coolant flow, better parts



#### Your challenge

Enhance chip control in reaming operations to eliminate jamming and edge damage for safety and part quality.

#### Our solution

Seco Nanojet Solid Carbide Reamers feature an innovative throughcoolant outlet that delivers a precise, powerful stream directly to the cut for optimal chip evacuation.

#### Your challenge

Increase reaming tool life, stability and reliability to improve profitability.

#### Our solution

Stay in the cut with Seco Nanojet Solid Carbide Reamers. Predictably reliable tool performance provides secure chip control to eliminate jamming.

#### Your challenge

Eliminate unreliable reaming processes that cause costly scrapped parts.

#### Our solution

Seco inspects every Nanojet Reamer and documents its measured diameter for reliable performance.





### **Nanojet Reamers**

Seco Nanojet Solid Carbide Reamers extend the performance of Seco Nanofix Reamers with an innovative coolant outlet to optimize chip control, tool life and production safety for greater productivity.

These versatile tools offer stable, reliable performance for fine reaming of blind and through bores in all materials and any precision toolholder. They hold tolerances from 0.0004"-0.0006".

Nanojet Reamers are available in eight grades and more than 10 geometries. Customers can order standard and custom sizes and tolerances, with easy online ordering through Seco MyDesign. Rigorous quality control includes inspection of every tool to document diameters in inspection results.

#### Nanojet grade chart

Designation	Ρ	м	к	N	S	н
RX2000	•					•
RM2020		•				
RM2090		•				
RK2050			•			
RN2010				•		
RS2090					•	



## Better coolant flow, better parts

#### **Customer benefits**

- Versatile range of reamers includes multiple grades and geometries with customization options.
- Improved coolant delivery with the high-quality reaming performance of Seco Nanofix Reamers.
- Secure, reliable tool performance with abundant lubrication to maintain speeds during reaming with no reduction in part quality.
- Creates high-quality finishes in all materials.







### MP3501 Milling Insert Grade

Uncompromised performance and lower cost per edge



#### Your challenge

Quickly and easily detect unused milling insert edges to prevent unnecessary waste of cutting edges.

#### Our solution

Next-generation chrome-colored Seco Duratomic® CVD coating improves edge detection on Seco MP3501 Milling Insert Grade.

#### Your challenge

Increase sustainability of carbide tooling for milling operations.

#### Our solution

Improve the environmental impact of machining operations. Seco MP3501 Milling Insert Grade uses up to 30% recycled carbide.

#### Your challenge

Ensure tool reliability for unattended production.

#### Our solution

For process security in automated production operations, Seco MP3501 Milling Insert Grade features new post-treatment techniques and enhanced Duratomic® CVD coating for reliable performance.





### MP3501 Milling Insert Grade

Seco MP3501 Milling Insert Grade increases tool life by 20% in steel. Boost cutting parameters for aggressive semi-finishing and roughing with shorter cycle times in dry milling or with coolant.

Next-generation Duratomic<sup>®</sup> CVD coating provides reliable performance with enhanced heat resistance. New technology and post-treatment process increase productivity in unattended operations, while providing versatility with grades and geometries that cover most milling applications.



#### Uncompromised performance and lower cost per edge

#### **Customer benefits**

- Eliminate tool waste for greater sustainability, productivity, and profitability.
- Prevent sudden insert breakage.
- Reduce environmental impact of production operations.



#### MPx501 Positioning – Alignment

1. Better alignment and bigger overlap

#### 2. Increased toughness - working window

 Increased versatility thanks to a wider working window and a better alignment will give you the ability to machine a larger selection of materials with a smaller range of grades.



#### MP1501: High productivity in steel and ductile cast iron

- You first choice for high performance and productivity under more stable conditions in steel applications.
- Achieve exceptional benefits when applied to workpieces made from lowalloy and abrasive steel materials.
- Your alternative in cast iron applications with varying machining conditions or moderate cutting speeds.

#### MP2501: Versatile productivity in steel and stainless steel

Μ

- Your first choice for maximizing manufacturing output when dealing with wide variations in productivity, cutting data and workpiece material requirements.
- Your alternative in stainless steel applications with stable conditions and higher cutting speeds (especially for cast work pieces).



#### MP3501: Versatile productivity in steel, stainless steel and cast iron

- Your first choice for maximizing manufacturing output when dealing with wide variations in stability, versatility and workpiece material requirements.
- Your alternative in stainless steel applications with moderate cutting speeds.
- Your alternative in cast iron applications with unstable machining conditions or lower cutting speeds.



# Multiple milling heads are better than one, especially with new geometries

#### Your challenge

Need to purchase many different end mills and holders to machine different features on a workpiece, which adds higher cost to a project.

#### Our solution

Quick-change exchangeable milling head system adapts to various machining needs with a range of cutting profiles and materials without additional holders.

#### Your challenge

Tool changes require time consuming remeasuring and resetting of tool heights.

#### Our solution

Quick-change milling heads or modular end mills eliminate the need to remove, remeasure and reset tools.



#### **Customer benefits**

- Tooling speed and simplicity
- Greater machining flexibility
- Shorter tool changeout times
  Better tool setting precision
- Better tool setting precision
  Cost-effective tooling
- Increased milling versatility
- More possibilities with new geometries

#### Your challenge

Deep part features require an inventory of various expensive longreach holders or tools.

#### Our solution

Broad range of quick-change end mills that are adaptable to longreach shanks.







#### Code key: Shanks









Multiple milling heads are better than one, especially with new geometries

#### Exchangable head positioning



Seco High Performance						
XSE720 (HXT)	Performance multi-flute					
XSB720 (HXT)	Performance ballnose multi-flute					
XHF780 (HXT)	Performance HighFeed					
XHF580 (HXT)	Performance HighFeed + ICC					
XSE450 (AXT)	Performance Alu dedicated 3 flute					
XHT740 (SIRA)	Barrel tools for finishing					

Versatile High Perf	ormance
XSE550 (SIRA)	Performance 3 Flute
XSE550 (SIRA)	Performance 4 flute
XSE550 (SIRA)	Performance 5 flute
XSB540 (SIRA)	Performance 4 flute ball with ICC

Seco Versatile	
XVC512	Chamfer SIG30
XVC506	Chamfer SIG60
XVC509	Chamfer SIG90
XVK310	Concave
XVE540	Basic 3 & 4 flute
XVE510	Basic 2 flute (spade)
XVB510	Basic Ball



#### Industry targets

- General Engineering: Versatile for High Mix & Low Volume
- Aerospace: Structural Parts and Pylons, Blisks, Casings, Discs
- Automotive: Transmission parts, Turbo Housings, Steering Knuckles
- Medical: Implants
- Energy: Impellers and Turbine Wheels, Turbine Blades





Multiple milling heads are better than one, especially with new geometries

X-Head high performance cutter overview:



#### X-Head versatile performance cutter overview:



\*D1 (0,55 x Diameter) Version with stabilizing land for long reach applications





Multiple milling heads are better than one, especially with new geometries

#### X-Head general purpose cutter overview:

Geometry	XVC506	XVC509	XVC512	XVK310	XVE540	XVE510	XVB510
Туре	Chamfer SIG 60	Chamfer SIG 90	Chamfer SIG 120	Concave	Square Shoulder with ICC	Spade	Ballnose
Diameter Range	10-12mm	10-16mm	12mm	12-20mm	10-20mm (0.375-0.75")	10-12mm	10-16mm (0.375-0.625)
Number of Flutes	2	2&6	2	4	3&4	2	2
Length Availability	N1	N1	N1	D1	D1	D1	D1
Operation							

#### Reduce your inventory

- With this system one cutter head can be used on various shanks to meet different reach requirements.
- Shanks that can accept multiple types of cutting heads.
- Many tool length options with the shank selection.

Metric/Inch DCONWS	Steel Shanks	Carbide/Heavy Metal
10mm	9	3
12mm	9	3
16mm	7	3
20mm	4	4
25mm	3	4
3/8"	7	1
1/2"	9	1
5/8"	8	1
3/4"	2	1
1"	4	3

Ground Taper for secure seating in the shank and optimal axial/radial runout precision.

2 External Thread on Heads provides easy changeability and adds density for improved performance and strength.

3 Contact Face with shank for secure mounting and setting height repeatability.



#### Cylindrical Shanks

- 86 total items
- 62 Steel Shanks
- 24 Carbide / Heavy Metal



Scan the QR code and find out more information

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