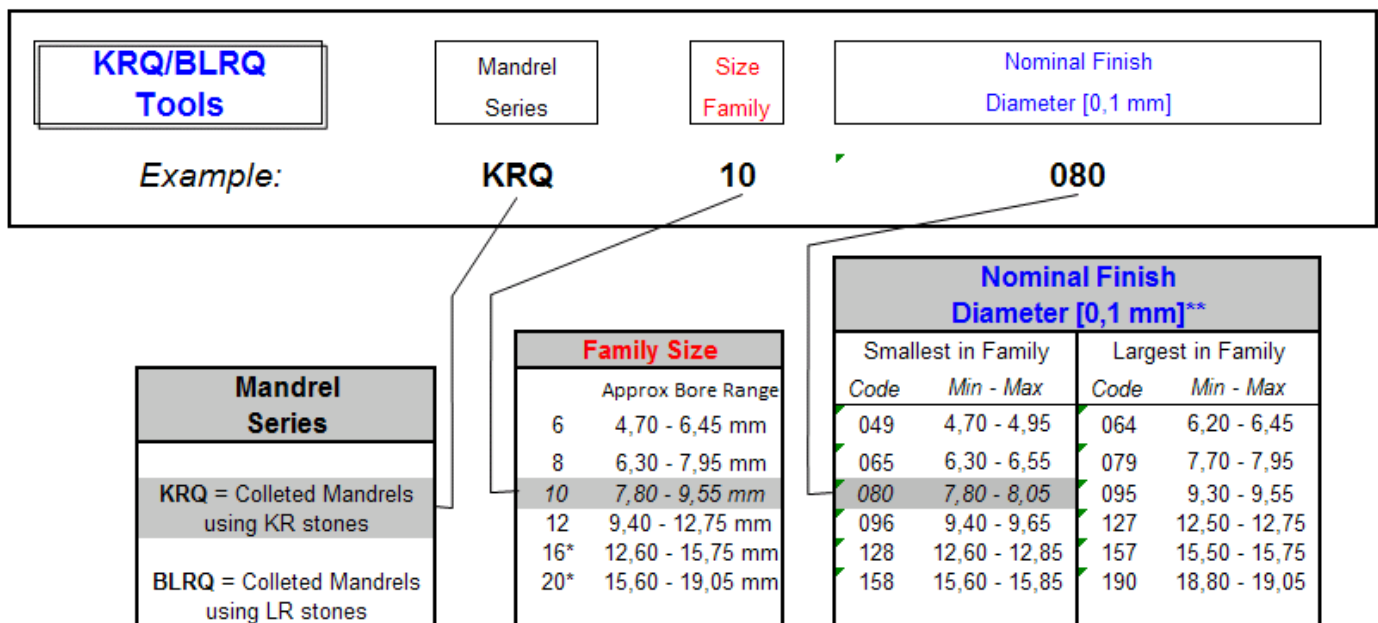


PRODUCT BULLETIN

P-3115 I • JANUARY, 2011
Original Issue

KRQ/BLRQ Tools - Part Number Explanation

The KRQ and BLRQ tools have part numbers that are different from the K/BL or KR/BLR mandrel numbers. The difference exists because these tools are more limited in their individual ranges. In general the part numbers for the tools follow this pattern,



* Family Sizes 16 & 20 available only for KRQ Mandrels

** Mandrels available in 0,1 mm increments from smallest to largest within the family.
Each Mandrel will fit into a bore that is 0,2 mm smaller than the Nominal Finish size & will finish a bore upto 0,05 mm larger than the Nominal Finish size.

The part number above is for a tool consisting of (1) carbide-inserted mandrel ground to a nominal size, (1) wedge and (1) wedge end. It is expected that customers will need to replace the wedge and this can be ordered by indicating the mandrel series plus the size family and adding a "W" suffix, e.g., KRQ12W.

Choose a mandrel by taking the finish size of your application and rounding to the nearest 0,1 mm, this is the nominal mandrel size. If the incoming bore size is smaller than nominal mandrel size minus 0,2 mm, then more than one mandrel will be required to finish the bore.

Expectations – The KRQ/BLRQ mandrels are expected to provide customer with a plug-n-play and easy-to-use tool that is not as optimized as a custom design but not as flexible as a standard K/L/KR/LR mandrel. The biggest financial benefit to the customer comes from savings on change-over (setup) time. The life of these mandrels will likely exceed a normal KR/BLR mandrel, but that savings alone will not justify this for the customer. Nominally, if the customer changes out their current K/L/KR/BLR mandrel 2-3 times in the life of the mandrel, they will see sufficient savings to pay for the KRQ/BLRQ mandrel series.

Accessories - In addition to the tools and wedges, customers may require an adapter and/or collets for their machine.

Collets for All Machines

MMTSC1 is the collet for 17 mm tool shanks and used with all KRQ/BLRQ except KRQ20.

MMTSC3 is the collet for 25 mm tool shanks and only the KRQ20 mandrels use this.

ML/EC Machines

ML7210 is the adapter for ML/EC machines and includes an alignment bar (alignment bushings not needed). This adapter does not include the collet(s) required, see above.

SV-1xxx Machines

None – SV-1xxx machines often come with the appropriate MMT connection and may only require the appropriate collet(s), see above.

SV39150 is the collet adapter with runout adjustment, and normally wouldn't be required with the KRQ/BLRQ family. However, if the customer is putting a tool that is either worn more than recommended or is nominally too small for the bore, a runout adjustment may be required.

SV39040 is the tool alignment indicator for use with the SV39150 adapter.

Multi-feed is the machine option that allows the KRQ/BLRQ to work optimally with force controlled feed. When run with rate controlled feed, the cycle time and honing stability may suffer.

KGM/CGM Machines - Use of KRQ/BLRQ is not recommended in KGM/CGM machines because they lack the multi-feed system that allows for force controlled feed. MMT adapters are available for these platforms if necessary.

MBC Machines – Use of the KRQ/BLRQ is not recommended in MBC machines because they lack the feed travel necessary to install the tool and adapter without requiring a runout adjustment for each install.

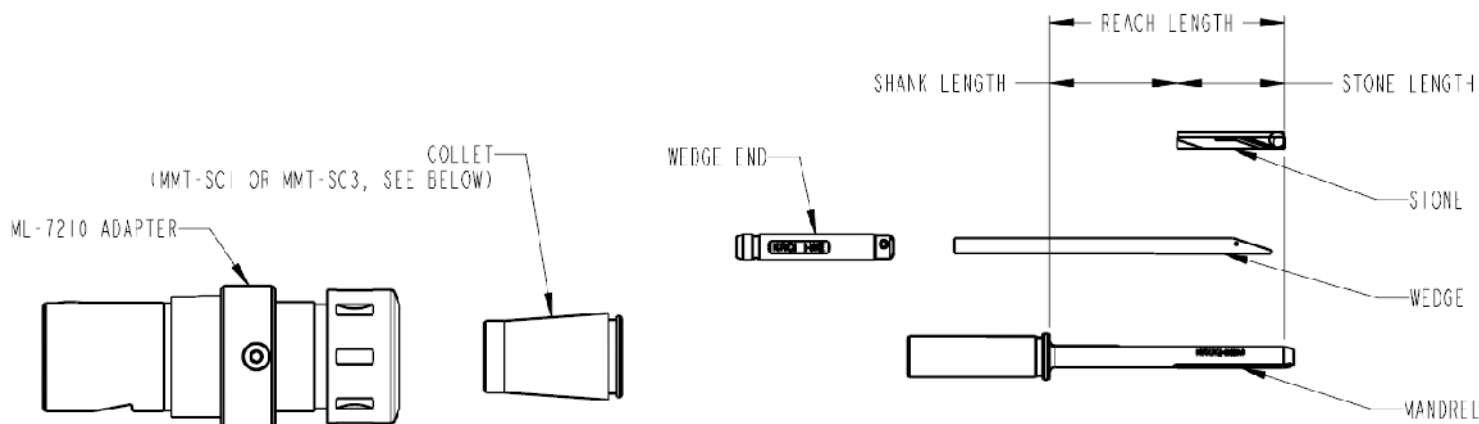
Abrasives - At the time of this publication date, not all KR- or LR- abrasives have been made orderable. Stones will be added to the system such that there are semi-roughing and finishing stones available for the mandrels. Domestic Sales can see the availability through Saratoga (iAvenue).

Documentation - Aside from this bulletin, there are a couple documents that should be noted.

I-KRQ-100A – Installation Instructions for Sunnen KRQ & BLRQ Tools

X-KRQ-1000 – KRQ Tooling Brochure

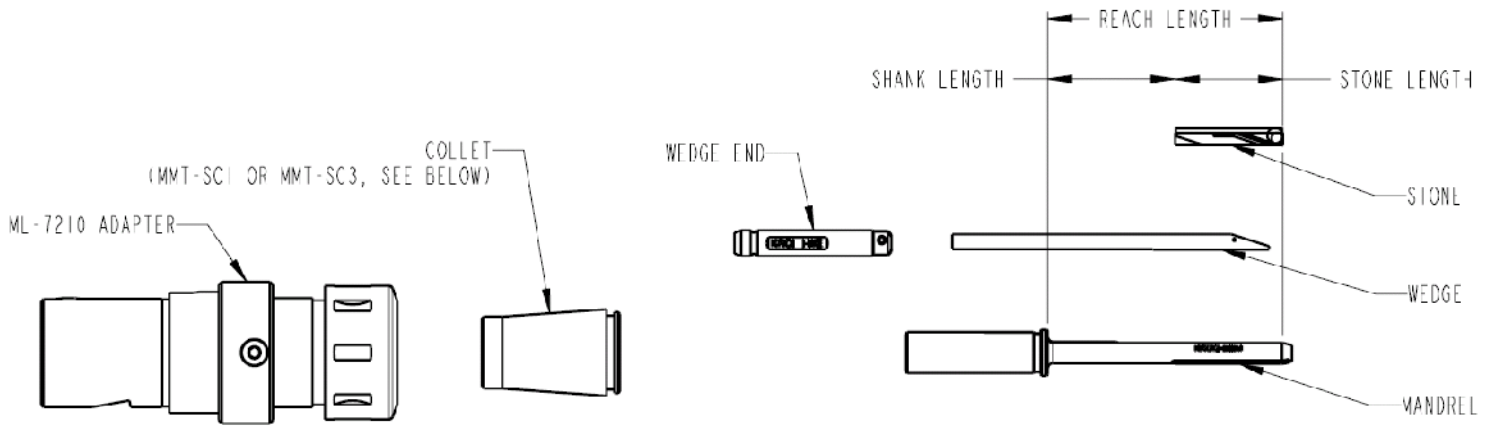
I-MMT-130C – Special Instructions for Sunnen ML-7210 Spindle Adapter Kit



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in	mm	Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ6 Family for bores finishing at 4,85-6,45 mm [.191-.254 in]									
4,70 - 4,95	.185 - .195	4,90	KRQ6-049	KRQ6W	KRQ6WE	MMTSC1	50,7 mm [2"]	31,7 mm [1-1/4"]	19,0 mm [3/4"]
4,80 - 5,05	.189 - .199	5,00	KRQ6-050						
4,90 - 5,15	.193 - .203	5,10	KRQ6-051						
5,00 - 5,25	.197 - .207	5,20	KRQ6-052						
5,10 - 5,35	.201 - .211	5,30	KRQ6-053						
5,20 - 5,45	.205 - .215	5,40	KRQ6-054						
5,30 - 5,55	.209 - .219	5,50	KRQ6-055						
5,40 - 5,65	.213 - .222	5,60	KRQ6-056						
5,50 - 5,75	.217 - .226	5,70	KRQ6-057						
5,60 - 5,85	.220 - .230	5,80	KRQ6-058						
5,70 - 5,95	.224 - .234	5,90	KRQ6-059						
5,80 - 6,05	.228 - .238	6,00	KRQ6-060						
5,90 - 6,15	.232 - .242	6,10	KRQ6-061						
6,00 - 6,25	.236 - .246	6,20	KRQ6-062						
6,10 - 6,35	.240 - .250	6,30	KRQ6-063						
6,20 - 6,45	.244 - .254	6,40	KRQ6-064						
BLRQ6 Family for bores finishing at 4,85-6,45 mm [.191-.254 in]									
4,70 - 4,95	.185 - .195	4,90	BLRQ6-049	BLRQ6W	BLRQ6WE	MMTSC1	79,7 mm [3-1/8"]	44,8 mm [1-3/4"]	34,9 mm [1-3/8"]
4,80 - 5,05	.189 - .199	5,00	BLRQ6-050						
4,90 - 5,15	.193 - .203	5,10	BLRQ6-051						
5,00 - 5,25	.197 - .207	5,20	BLRQ6-052						
5,10 - 5,35	.201 - .211	5,30	BLRQ6-053						
5,20 - 5,45	.205 - .215	5,40	BLRQ6-054						
5,30 - 5,55	.209 - .219	5,50	BLRQ6-055						
5,40 - 5,65	.213 - .222	5,60	BLRQ6-056						
5,50 - 5,75	.217 - .226	5,70	BLRQ6-057						
5,60 - 5,85	.220 - .230	5,80	BLRQ6-058						
5,70 - 5,95	.224 - .234	5,90	BLRQ6-059						
5,80 - 6,05	.228 - .238	6,00	BLRQ6-060						
5,90 - 6,15	.232 - .242	6,10	BLRQ6-061						
6,00 - 6,25	.236 - .246	6,20	BLRQ6-062						
6,10 - 6,35	.240 - .250	6,30	BLRQ6-063						
6,20 - 6,45	.244 - .254	6,40	BLRQ6-064						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

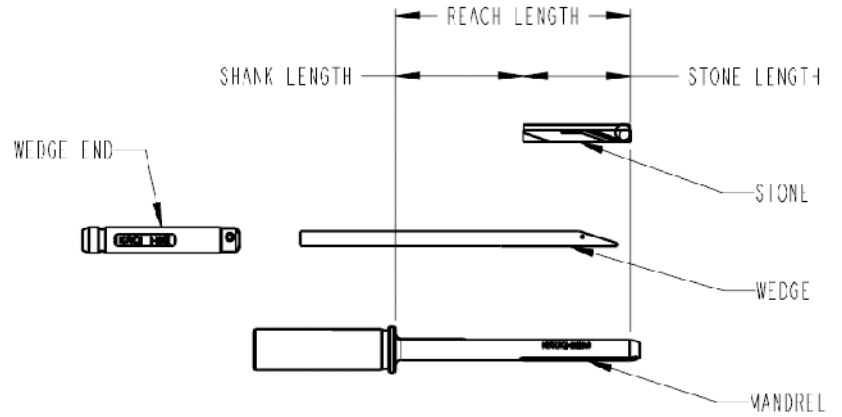
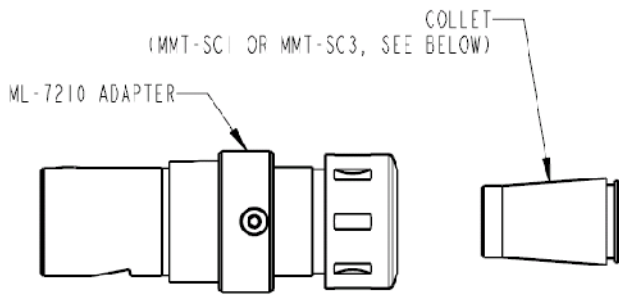
** Collets are not included with a tool, but are available separately.



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in	mm	Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ8 Family for bores finishing at 6,45-7,95 mm [.254-.313 in]									
6,30 - 6,55	.248 - .258	6,50	KRQ8-065	KRQ8W	KRQ8WE	MMTSC1	79,3 mm [3-1/8"]	47,6 mm [1-7/8"]	31,7 mm [1-1/4"]
6,40 - 6,65	.252 - .262	6,60	KRQ8-066						
6,50 - 6,75	.256 - .266	6,70	KRQ8-067						
6,60 - 6,85	.260 - .270	6,80	KRQ8-068						
6,70 - 6,95	.264 - .274	6,90	KRQ8-069						
6,80 - 7,05	.268 - .278	7,00	KRQ8-070						
6,90 - 7,15	.272 - .281	7,10	KRQ8-071						
7,00 - 7,25	.276 - .285	7,20	KRQ8-072						
7,10 - 7,35	.280 - .289	7,30	KRQ8-073						
7,20 - 7,45	.283 - .293	7,40	KRQ8-074						
7,30 - 7,55	.287 - .297	7,50	KRQ8-075						
7,40 - 7,65	.291 - .301	7,60	KRQ8-076						
7,50 - 7,75	.295 - .305	7,70	KRQ8-077						
7,60 - 7,85	.299 - .309	7,80	KRQ8-078						
7,70 - 7,95	.303 - .313	7,90	KRQ8-079						
BLRQ8 Family for bores finishing at 6,45-7,95 mm [.254-.313 in]									
6,30 - 6,55	.248 - .258	6,50	BLRQ8-065	BLRQ8W	BLRQ8WE	MMTSC1	123,9 mm [4-7/8"]	66,7 mm [2-5/8"]	57,1 mm [2-1/4"]
6,40 - 6,65	.252 - .262	6,60	BLRQ8-066						
6,50 - 6,75	.256 - .266	6,70	BLRQ8-067						
6,60 - 6,85	.260 - .270	6,80	BLRQ8-068						
6,70 - 6,95	.264 - .274	6,90	BLRQ8-069						
6,80 - 7,05	.268 - .278	7,00	BLRQ8-070						
6,90 - 7,15	.272 - .281	7,10	BLRQ8-071						
7,00 - 7,25	.276 - .285	7,20	BLRQ8-072						
7,10 - 7,35	.280 - .289	7,30	BLRQ8-073						
7,20 - 7,45	.283 - .293	7,40	BLRQ8-074						
7,30 - 7,55	.287 - .297	7,50	BLRQ8-075						
7,40 - 7,65	.291 - .301	7,60	BLRQ8-076						
7,50 - 7,75	.295 - .305	7,70	BLRQ8-077						
7,60 - 7,85	.299 - .309	7,80	BLRQ8-078						
7,70 - 7,95	.303 - .313	7,90	BLRQ8-079						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

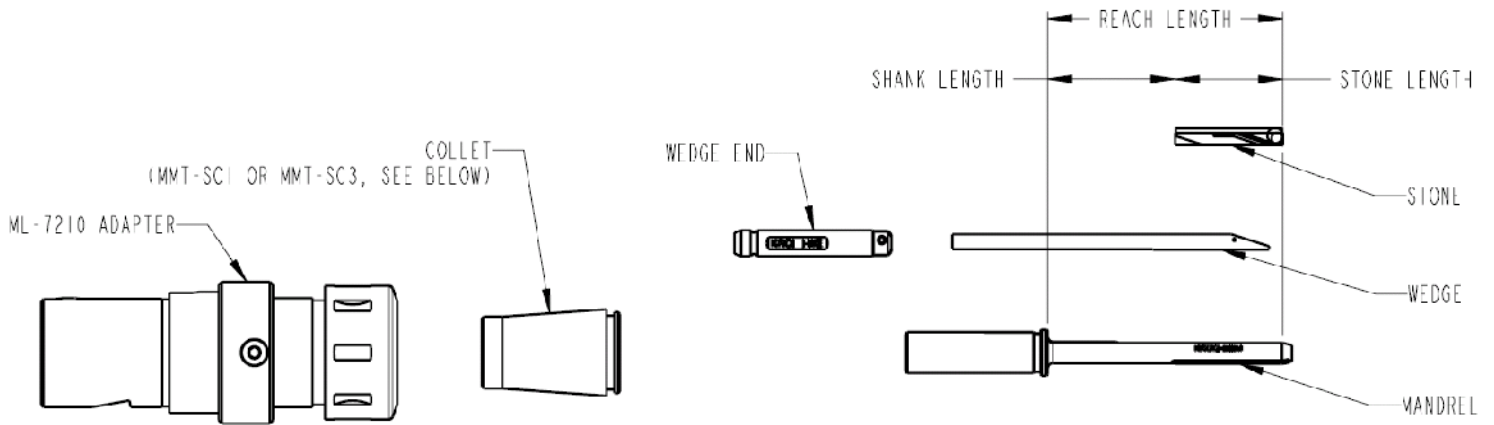
** Collets are not included with a tool, but are available separately.



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in	mm	Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ10 Family for bores finishing at 7,95-9,55 mm [.313-.376 in]									
7,80 - 8,05	.307 - .317	8,00	KRQ10-080	KRQ10W	KRQ10WE	MMTSC1	79,3 mm [3-1/8"]	47,6 mm [1-7/8"]	31,7 mm [1-1/4"]
7,90 - 8,15	.311 - .321	8,10	KRQ10-081						
8,00 - 8,25	.315 - .325	8,20	KRQ10-082						
8,10 - 8,35	.319 - .329	8,30	KRQ10-083						
8,20 - 8,45	.323 - .333	8,40	KRQ10-084						
8,30 - 8,55	.327 - .337	8,50	KRQ10-085						
8,40 - 8,65	.331 - .341	8,60	KRQ10-086						
8,50 - 8,75	.335 - .344	8,70	KRQ10-087						
8,60 - 8,85	.339 - .348	8,80	KRQ10-088						
8,70 - 8,95	.343 - .352	8,90	KRQ10-089						
8,80 - 9,05	.346 - .356	9,00	KRQ10-090						
8,90 - 9,15	.350 - .360	9,10	KRQ10-091						
9,00 - 9,25	.354 - .364	9,20	KRQ10-092						
9,10 - 9,35	.358 - .368	9,30	KRQ10-093						
9,20 - 9,45	.362 - .372	9,40	KRQ10-094						
9,30 - 9,55	.366 - .376	9,50	KRQ10-095						
BLRQ10 Family for bores finishing at 7,95-9,55 mm [.313-.376 in]									
7,80 - 8,05	.307 - .317	8,00	BLRQ10-080	BLRQ10W	BLRQ10WE	MMTSC1	123,6 mm [4-7/8"]	66,5 mm [2-5/8"]	57,1 mm [2-1/4"]
7,90 - 8,15	.311 - .321	8,10	BLRQ10-081						
8,00 - 8,25	.315 - .325	8,20	BLRQ10-082						
8,10 - 8,35	.319 - .329	8,30	BLRQ10-083						
8,20 - 8,45	.323 - .333	8,40	BLRQ10-084						
8,30 - 8,55	.327 - .337	8,50	BLRQ10-085						
8,40 - 8,65	.331 - .341	8,60	BLRQ10-086						
8,50 - 8,75	.335 - .344	8,70	BLRQ10-087						
8,60 - 8,85	.339 - .348	8,80	BLRQ10-088						
8,70 - 8,95	.343 - .352	8,90	BLRQ10-089						
8,80 - 9,05	.346 - .356	9,00	BLRQ10-090						
8,90 - 9,15	.350 - .360	9,10	BLRQ10-091						
9,00 - 9,25	.354 - .364	9,20	BLRQ10-092						
9,10 - 9,35	.358 - .368	9,30	BLRQ10-093						
9,20 - 9,45	.362 - .372	9,40	BLRQ10-094						
9,30 - 9,55	.366 - .376	9,50	BLRQ10-095						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

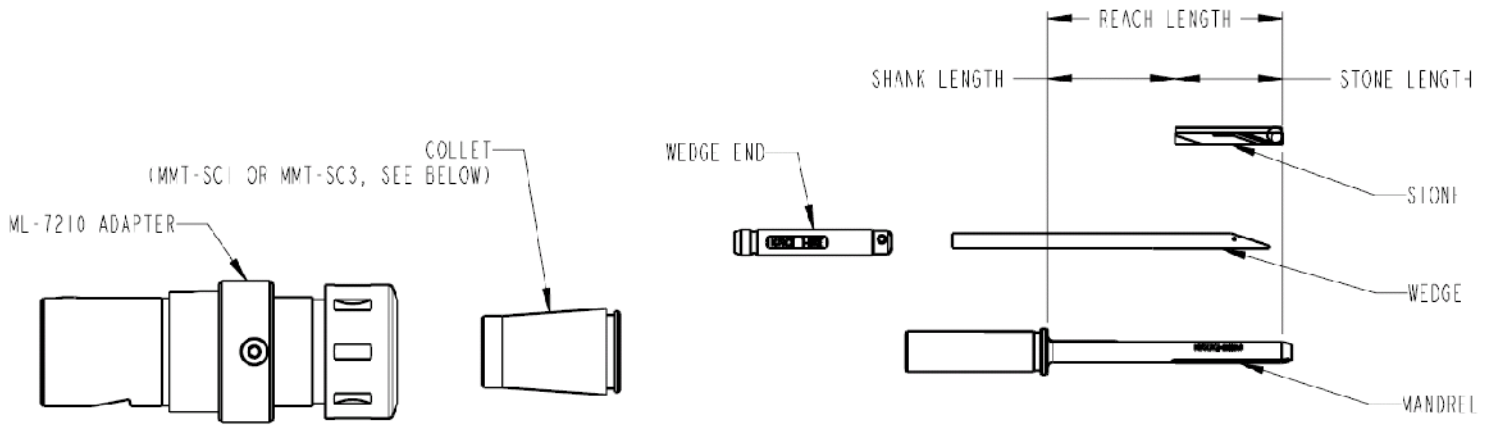
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Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in	mm	Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ12 Family for bores finishing at 9,55-12,75 mm [.376-.502 in]									
9,40 - 9,65	.370 - .380	9,60	KRQ12-096	KRQ12W	KRQ12WE	MMTSC1	92,0 mm [3-5/8"]	47,6 mm [1-7/8"]	44,4 mm [1-3/4"]
9,50 - 9,75	.374 - .384	9,70	KRQ12-097						
9,60 - 9,85	.378 - .388	9,80	KRQ12-098						
9,70 - 9,95	.382 - .392	9,90	KRQ12-099						
9,80 - 10,05	.386 - .396	10,00	KRQ12-100						
9,90 - 10,15	.390 - .400	10,10	KRQ12-101						
10,00 - 10,25	.394 - .404	10,20	KRQ12-102						
10,10 - 10,35	.398 - .407	10,30	KRQ12-103						
10,20 - 10,45	.402 - .411	10,40	KRQ12-104						
10,30 - 10,55	.406 - .415	10,50	KRQ12-105						
10,40 - 10,65	.409 - .419	10,60	KRQ12-106						
10,50 - 10,75	.413 - .423	10,70	KRQ12-107						
10,60 - 10,85	.417 - .427	10,80	KRQ12-108						
10,70 - 10,95	.421 - .431	10,90	KRQ12-109						
10,80 - 11,05	.425 - .435	11,00	KRQ12-110						
10,90 - 11,15	.429 - .439	11,10	KRQ12-111						
11,00 - 11,25	.433 - .443	11,20	KRQ12-112						
11,10 - 11,35	.437 - .447	11,30	KRQ12-113						
11,20 - 11,45	.441 - .451	11,40	KRQ12-114						
11,30 - 11,55	.445 - .455	11,50	KRQ12-115						
11,40 - 11,65	.449 - .459	11,60	KRQ12-116						
11,50 - 11,75	.453 - .463	11,70	KRQ12-117						
11,60 - 11,85	.457 - .467	11,80	KRQ12-118						
11,70 - 11,95	.461 - .470	11,90	KRQ12-119						
11,80 - 12,05	.465 - .474	12,00	KRQ12-120						
11,90 - 12,15	.469 - .478	12,10	KRQ12-121						
12,00 - 12,25	.472 - .482	12,20	KRQ12-122						
12,10 - 12,35	.476 - .486	12,30	KRQ12-123						
12,20 - 12,45	.480 - .490	12,40	KRQ12-124						
12,30 - 12,55	.484 - .494	12,50	KRQ12-125						
12,40 - 12,65	.488 - .498	12,60	KRQ12-126						
12,50 - 12,75	.492 - .502	12,70	KRQ12-127						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

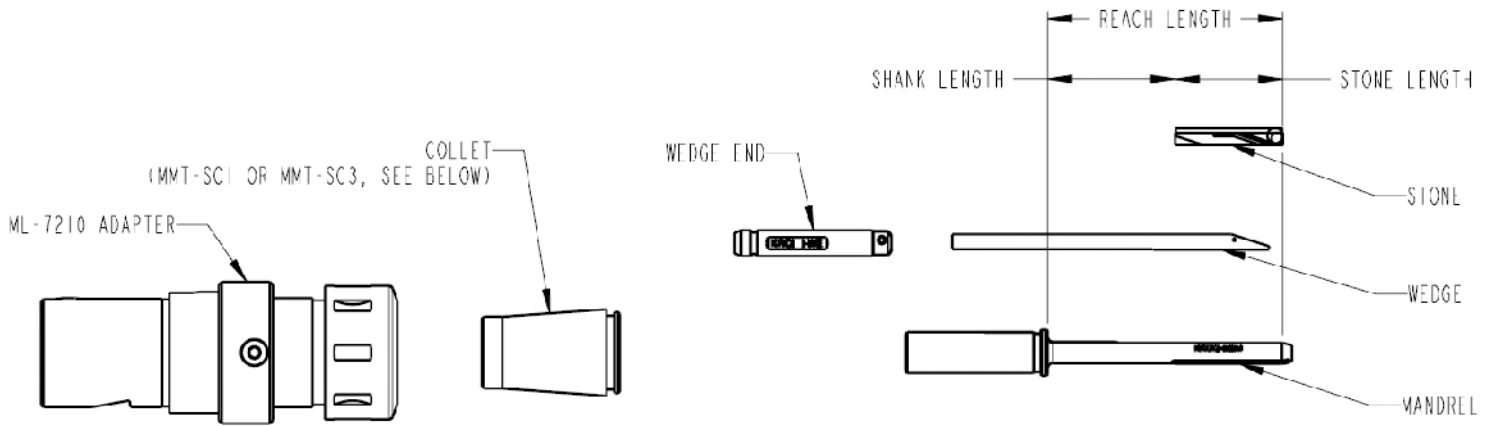
** Collets are not included with a tool, but are available separately.



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in	mm	Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
BLRQ12 Family for bores finishing at 9,55-12,75 mm [.376-.502 in]									
9,40 - 9,65	.370 - .380	9,60	BLRQ12-096	BLRQ12W	BLRQ12WE	MMTSC1	186,6 mm [7-11/32"]	97,7 mm [3-27/32"]	88,9 mm [3-1/2"]
9,50 - 9,75	.374 - .384	9,70	BLRQ12-097						
9,60 - 9,85	.378 - .388	9,80	BLRQ12-098						
9,70 - 9,95	.382 - .392	9,90	BLRQ12-099						
9,80 - 10,05	.386 - .396	10,00	BLRQ12-100						
9,90 - 10,15	.390 - .400	10,10	BLRQ12-101						
10,00 - 10,25	.394 - .404	10,20	BLRQ12-102						
10,10 - 10,35	.398 - .407	10,30	BLRQ12-103						
10,20 - 10,45	.402 - .411	10,40	BLRQ12-104						
10,30 - 10,55	.406 - .415	10,50	BLRQ12-105						
10,40 - 10,65	.409 - .419	10,60	BLRQ12-106						
10,50 - 10,75	.413 - .423	10,70	BLRQ12-107						
10,60 - 10,85	.417 - .427	10,80	BLRQ12-108						
10,70 - 10,95	.421 - .431	10,90	BLRQ12-109						
10,80 - 11,05	.425 - .435	11,00	BLRQ12-110						
10,90 - 11,15	.429 - .439	11,10	BLRQ12-111						
11,00 - 11,25	.433 - .443	11,20	BLRQ12-112						
11,10 - 11,35	.437 - .447	11,30	BLRQ12-113						
11,20 - 11,45	.441 - .451	11,40	BLRQ12-114						
11,30 - 11,55	.445 - .455	11,50	BLRQ12-115						
11,40 - 11,65	.449 - .459	11,60	BLRQ12-116						
11,50 - 11,75	.453 - .463	11,70	BLRQ12-117						
11,60 - 11,85	.457 - .467	11,80	BLRQ12-118						
11,70 - 11,95	.461 - .470	11,90	BLRQ12-119						
11,80 - 12,05	.465 - .474	12,00	BLRQ12-120						
11,90 - 12,15	.469 - .478	12,10	BLRQ12-121						
12,00 - 12,25	.472 - .482	12,20	BLRQ12-122						
12,10 - 12,35	.476 - .486	12,30	BLRQ12-123						
12,20 - 12,45	.480 - .490	12,40	BLRQ12-124						
12,30 - 12,55	.484 - .494	12,50	BLRQ12-125						
12,40 - 12,65	.488 - .498	12,60	BLRQ12-126						
12,50 - 12,75	.492 - .502	12,70	BLRQ12-127						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

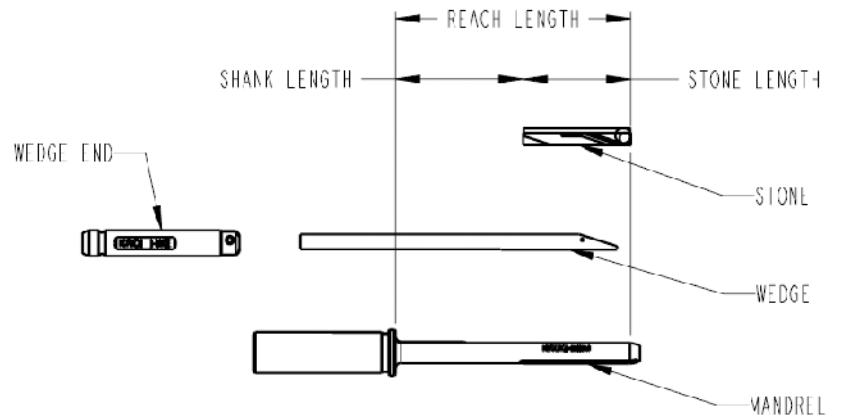
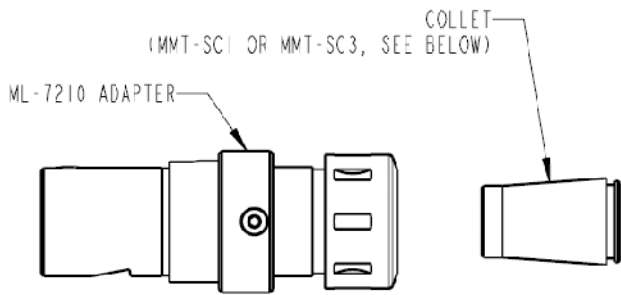
** Collets are not included with a tool, but are available separately.



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in		Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ16 Family for bores finishing at 12,75-15,75 mm [.502-.620 in]									
12,60 - 12,85	.496 - .506	12,80	KRQ16-128	KRQ16W	KRQ16WE	MMTSC1	111,0 mm [4-3/8"]	53,9 mm [2-1/2"]	57,1 mm [2-1/4"]
12,70 - 12,95	.500 - .510	12,90	KRQ16-129						
12,80 - 13,05	.504 - .514	13,00	KRQ16-130						
12,90 - 13,15	.508 - .518	13,10	KRQ16-131						
13,00 - 13,25	.512 - .522	13,20	KRQ16-132						
13,10 - 13,35	.516 - .526	13,30	KRQ16-133						
13,20 - 13,45	.520 - .530	13,40	KRQ16-134						
13,30 - 13,55	.524 - .533	13,50	KRQ16-135						
13,40 - 13,65	.528 - .537	13,60	KRQ16-136						
13,50 - 13,75	.531 - .541	13,70	KRQ16-137						
13,60 - 13,85	.535 - .545	13,80	KRQ16-138						
13,70 - 13,95	.539 - .549	13,90	KRQ16-139						
13,80 - 14,05	.543 - .553	14,00	KRQ16-140						
13,90 - 14,15	.547 - .557	14,10	KRQ16-141						
14,00 - 14,25	.551 - .561	14,20	KRQ16-142						
14,10 - 14,35	.555 - .565	14,30	KRQ16-143						
14,20 - 14,45	.559 - .569	14,40	KRQ16-144						
14,30 - 14,55	.563 - .573	14,50	KRQ16-145						
14,40 - 14,65	.567 - .577	14,60	KRQ16-146						
14,50 - 14,75	.571 - .581	14,70	KRQ16-147						
14,60 - 14,85	.575 - .585	14,80	KRQ16-148						
14,70 - 14,95	.579 - .589	14,90	KRQ16-149						
14,80 - 15,05	.583 - .593	15,00	KRQ16-150						
14,90 - 15,15	.587 - .596	15,10	KRQ16-151						
15,00 - 15,25	.591 - .600	15,20	KRQ16-152						
15,10 - 15,35	.594 - .604	15,30	KRQ16-153						
15,20 - 15,45	.598 - .608	15,40	KRQ16-154						
15,30 - 15,55	.602 - .612	15,50	KRQ16-155						
15,40 - 15,65	.606 - .616	15,60	KRQ16-156						
15,50 - 15,75	.610 - .620	15,70	KRQ16-157						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

** Collets are not included with a tool, but are available separately.



Diameter Range		Nominal Finish Size	Components				Lengths mm [in]		
mm	in		Tool	Wedge*	Wedge End*	Collet**	Reach	Shank	Stone
KRQ20 Family for bores finishing at 15,75-19,05 mm [.620-.750 in]									
15,60 - 15,85	.614 - .624	15,80	KRQ20-158	KRQ20W	KRQ20WE	MMTSC3	117,4 mm [4-5/8"]	53,9 mm [2-1/8"]	63,5 mm [2-1/2"]
15,70 - 15,95	.618 - .628	15,90	KRQ20-159						
15,80 - 16,05	.622 - .632	16,00	KRQ20-160						
15,90 - 16,15	.626 - .636	16,10	KRQ20-161						
16,00 - 16,25	.630 - .640	16,20	KRQ20-162						
16,10 - 16,35	.634 - .644	16,30	KRQ20-163						
16,20 - 16,45	.638 - .648	16,40	KRQ20-164						
16,30 - 16,55	.642 - .652	16,50	KRQ20-165						
16,40 - 16,65	.646 - .656	16,60	KRQ20-166						
16,50 - 16,75	.650 - .659	16,70	KRQ20-167						
16,60 - 16,85	.654 - .663	16,80	KRQ20-168						
16,70 - 16,95	.657 - .667	16,90	KRQ20-169						
16,80 - 17,05	.661 - .671	17,00	KRQ20-170						
16,90 - 17,15	.665 - .675	17,10	KRQ20-171						
17,00 - 17,25	.669 - .679	17,20	KRQ20-172						
17,10 - 17,35	.673 - .683	17,30	KRQ20-173						
17,20 - 17,45	.677 - .687	17,40	KRQ20-174						
17,30 - 17,55	.681 - .691	17,50	KRQ20-175						
17,40 - 17,65	.685 - .695	17,60	KRQ20-176						
17,50 - 17,75	.689 - .699	17,70	KRQ20-177						
17,60 - 17,85	.693 - .703	17,80	KRQ20-178						
17,70 - 17,95	.697 - .707	17,90	KRQ20-179						
17,80 - 18,05	.701 - .711	18,00	KRQ20-180						
17,90 - 18,15	.705 - .715	18,10	KRQ20-181						
18,00 - 18,25	.709 - .719	18,20	KRQ20-182						
18,10 - 18,35	.713 - .722	18,30	KRQ20-183						
18,20 - 18,45	.717 - .726	18,40	KRQ20-184						
18,30 - 18,55	.720 - .730	18,50	KRQ20-185						
18,40 - 18,65	.724 - .734	18,60	KRQ20-186						
18,50 - 18,75	.728 - .738	18,70	KRQ20-187						
18,60 - 18,85	.732 - .742	18,80	KRQ20-188						
18,70 - 18,95	.736 - .746	18,90	KRQ20-189						
18,80 - 19,05	.740 - .750	19,00	KRQ20-190						

* A wedge and wedge end are provided with each tool. It is expected that additional wedges may need to be purchased.

** Collets are not included with a tool, but are available separately.