



*The Cutting Edge **Mastered***

V7

PRO⁺

nano-composite

POWERNR
COATING

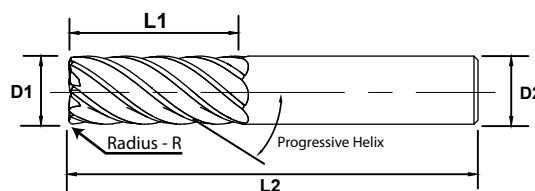


Fractional Sizes



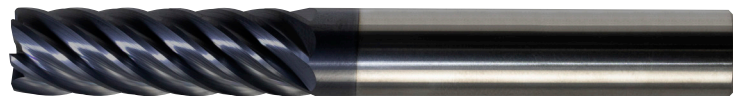
OD D1	LOC L1	SHK D2	OAL L2	Square	.015 Corner Radius	.020 Corner Radius	.030 Corner Radius	.060 Corner Radius
1/4	3/8	1/4	2	449-002-8	449-401-8	449-402-8	449-403-8	-
1/4	1/2	1/4	2	449-004-8	449-411-8	449-412-8	449-413-8	-
1/4	3/4	1/4	2-1/2	449-006-8	449-421-8	449-422-8	449-423-8	-
1/4	1	1/4	3	449-008-8	449-431-8	449-432-8	449-433-8	-
1/4	1-1/4	1/4	3	449-010-8	449-441-8	449-442-8	449-443-8	-
5/16	7/16	5/16	2	449-012-8	449-451-8	449-452-8	449-453-8	-
5/16	3/4	5/16	2-1/2	449-014-8	449-461-8	449-462-8	449-463-8	-
5/16	1	5/16	3	449-016-8	449-471-8	449-472-8	449-473-8	-
3/8	1/2	3/8	2	449-018-8	449-481-8	449-482-8	449-483-8	449-485-8
3/8	3/4	3/8	2-1/2	449-020-8	449-491-8	449-492-8	449-493-8	449-495-8
3/8	1	3/8	2-1/2	449-022-8	449-501-8	449-502-8	449-503-8	449-505-8
3/8	1-1/2	3/8	3-1/2	449-024-8	449-511-8	449-512-8	449-513-8	449-515-8
3/8	2	3/8	4	449-026-8	449-521-8	449-522-8	449-523-8	449-525-8
1/2	5/8	1/2	2-1/2	449-028-8	449-531-8	449-532-8	449-533-8	449-535-8
1/2	1	1/2	3	449-030-8	449-541-8	449-542-8	449-543-8	449-545-8
1/2	1-1/4	1/2	3	449-032-8	449-551-8	449-552-8	449-553-8	449-555-8
1/2	1-5/8	1/2	4	449-034-8	449-561-8	449-562-8	449-563-8	449-565-8
1/2	2	1/2	4	449-036-8	449-571-8	449-572-8	449-573-8	449-575-8
1/2	2-1/2	1/2	5	449-038-8	449-581-8	449-582-8	449-583-8	449-585-8
1/2	3-1/8	1/2	6	449-040-8	449-591-8	449-592-8	449-593-8	449-595-8
5/8	3/4	5/8	3	449-042-8	449-601-8	449-602-8	449-603-8	449-605-8
5/8	1-1/4	5/8	3-1/2	449-044-8	449-611-8	449-612-8	449-613-8	449-615-8
5/8	1-5/8	5/8	4	449-046-8	449-621-8	449-622-8	449-623-8	449-625-8
5/8	2-1/8	5/8	4	449-048-8	449-631-8	449-632-8	449-633-8	449-635-8
5/8	1	3/4	3	449-050-8	449-641-8	449-642-8	449-643-8	449-645-8
3/4	1-1/4	3/4	3-1/2	449-052-8	449-651-8	449-652-8	449-653-8	449-655-8
3/4	1-5/8	3/4	4	449-054-8	449-661-8	449-662-8	449-663-8	449-665-8
3/4	2-1/4	3/4	5	449-056-8	449-671-8	449-672-8	449-673-8	449-675-8
3/4	3-1/4	3/4	6	449-058-8	449-681-8	449-682-8	449-683-8	449-685-8
1	1-1/2	1	4	449-060-8	449-691-8	449-692-8	449-693-8	449-695-8
1	2	1	5	449-062-8	449-701-8	449-702-8	449-703-8	449-705-8
1	3-1/4	1	6	449-064-8	449-711-8	449-712-8	449-713-8	449-715-8

Available with Weldon Flat - Add **W** to part ID for Weldon flat 449-XXXW-8



- Progressive Helix, Non-center cutting design
- High Performance, Eccentric relief
- Designed for HEM programs (High Efficiency Milling)
- Broad spectrum compatibility, including titanium alloys

For additional sizes, call us at 1-727-726-5336

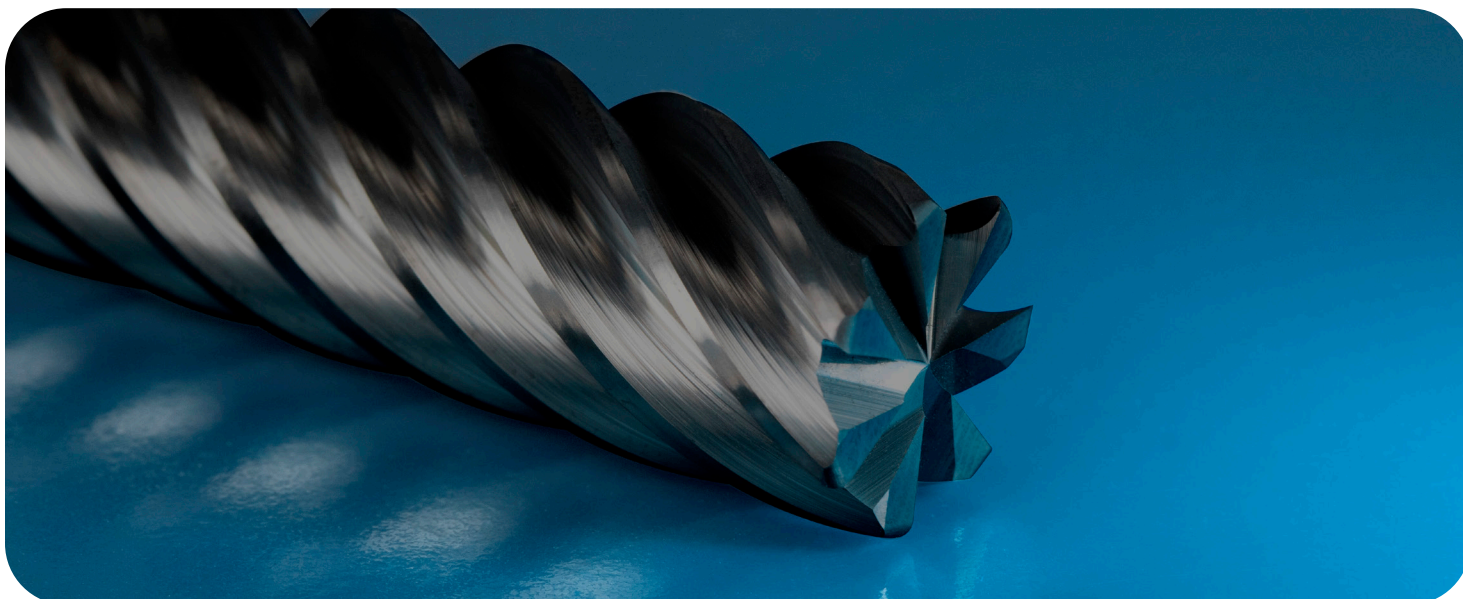
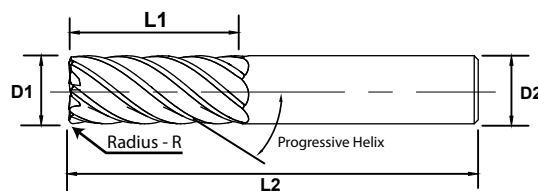
**PRO⁺**nano-composite
POWERNR
COATING**7 Flute Endmills****Metric Sizes**

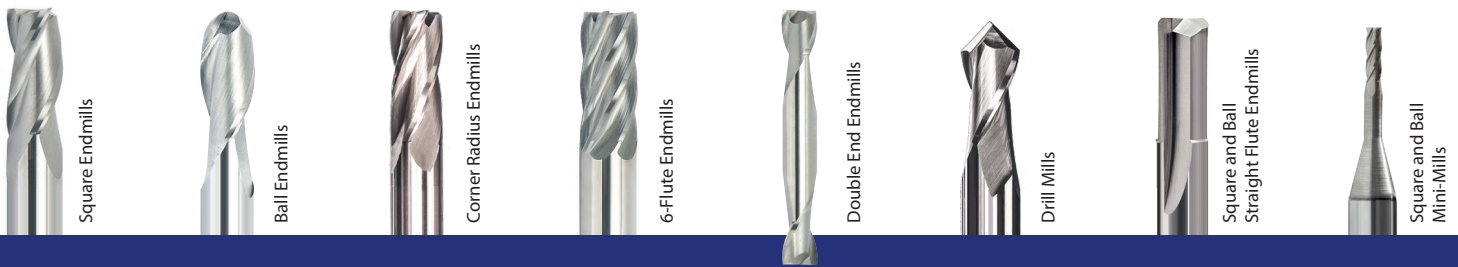
OD	LOC	SHK	OAL	Square	.50mm Corner Radius	1mm Corner Radius	2mm Corner Radius	3mm Corner Radius	4mm Corner Radius
D1	L1	D2	L2						
6	13	6	57	549-006-8	549-421-8	549-423-8	549-426-8	-	-
8	19	8	63	549-014-8	549-461-8	549-463-8	549-466-8	549-467-8	-
10	19	10	63	549-020-8	549-491-8	549-493-8	549-496-8	549-497-8	549-498-8
12	32	12	84	549-034-8	549-561-8	549-563-8	549-566-8	549-567-8	549-568-8
16	42	16	92	549-046-8	549-621-8	549-623-8	549-626-8	549-627-8	549-628-8
20	52	20	102	549-054-8	549-661-8	549-663-8	549-666-8	549-667-8	549-668-8

Available with Weldon Flat - Add **W** to part ID for Weldon flat 549-XXXW-8**POWERNR****PowerNR (nACRo)
nano-composite (nc-AlCrN/a-Si³N⁴)**

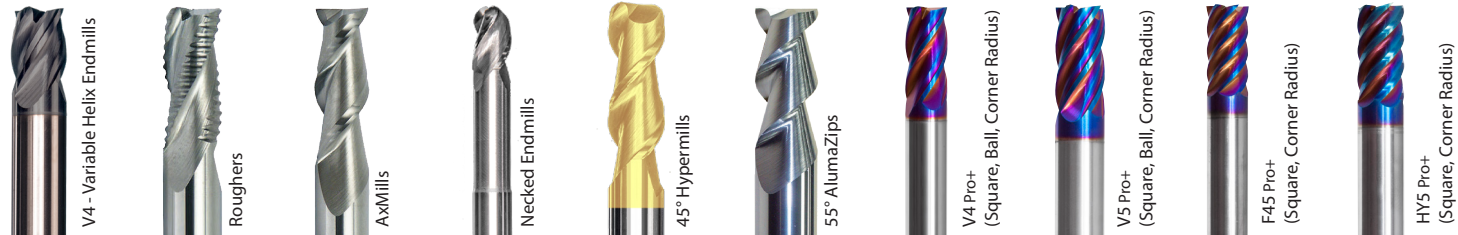
One of our two Master coatings, PowerNR (nc-AlCrN/a-Si³N⁴) offers superior advantages over AlCrN in higher Vickers Hardness count, higher heat capacity and adhesion to the carbide... all critical factors in aggressive superalloy machining.

Vickers: 4,000 • Max Heat: 1,100° C • Friction CoEff: .45

**For additional sizes, call us at
1-727-726-5336**

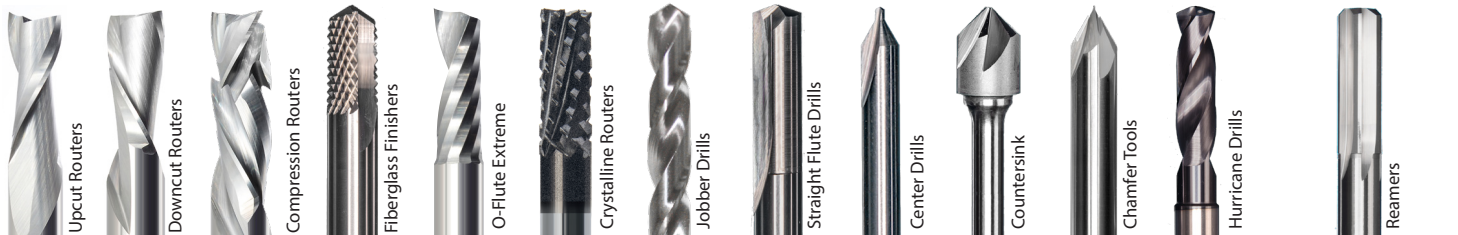


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