Cross-brand list report

List	Three turning grades | verified evidence and limits
Report ID	`public_grade_sample`
Data snapshot	2026-11-10
Grades in list	3

This report shows grades that stand at the same ISO 513 application position. Same position does not mean same performance; any change is validated on one machine and one sample part before it is rolled out. Positions come from manufacturer-published charts; nothing in this report is estimated.

1. Summary

Your list: 3 grades. Reference data in scope: 323 grades, 503 positioning records. 3 of your grades have their ISO position listed in two or more manufacturer-published charts.

Status	Grades
Candidate alternatives (none verified as an equivalent)	3
Candidates only, none verified	0
No cross-brand answer on file	0
Out of scope	0

Decision brief: what to gain, what to risk, what to test

Evidence tiers are not performance guarantees. These are purchase/trial decisions, not claims of identical grade performance or quantified savings. Where speed, tool life or prices are missing, no advantage is assumed.

Current grade	Alternative	Evidence and source pages	Possible upside	Trade-off / missing proof	Next action
TT9080	Sumitomo AC1030U	Confirmed. ISO-class level comparable (K20, P25) by the pair-evidence contract; NOT a drop-in performance match. korloy p.451 · taegutec p.2	Potential second-source quotation for the same ISO class; cost and lead-time benefit not yet proven.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: one to one performance equivalence, coating process (CVD/PVD) compatibility.	Request a supplier quote and exact insert geometry; test on one machine and part. Record parts per edge, cycle time, finish and cost per good part. **Trial candidate, subject to fit, quote and shop-floor results**
TT9080	ISCAR IC908	CANDIDATE only: shared ISO position (K20, P25, S20, S25); pair-level comparability not confirmed.	Research lead for supplier enquiry only; no validated saving or replacement.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility.	First confirm pair-level source evidence and cutting-material / coating fit. Do not substitute in production from ISO overlap alone. **Research only — not cleared for substitution**
TT9080	Seco CP500	CANDIDATE only: shared ISO position (M20, P25, S20, S25); pair-level comparability not confirmed.	Research lead for supplier enquiry only; no validated saving or replacement.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: direct cross-brand equivalence, coating	First confirm pair-level source evidence and cutting-material / coating fit. Do not substitute in production from ISO overlap alone. **Research only —**

Current grade	Alternative	Evidence and source pages	Possible upside	Trade-off / missing proof	Next action
				process (CVD/PVD) compatibility.	**not cleared for substitution**
WPP10S	Kyocera CA515	Confirmed. ISO-class level comparable (P10, P15) by the pair-evidence contract; NOT a drop-in performance match. korloy p.451 · tungaloy p.9	Potential second-source quotation for the same ISO class; cost and lead-time benefit not yet proven.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: one to one performance equivalence, coating process (CVD/PVD) compatibility.	Request a supplier quote and exact insert geometry; test on one machine and part. Record parts per edge, cycle time, finish and cost per good part. **Trial candidate, subject to fit, quote and shop-floor results**
WPP10S	TaeguTec TT8115B	Confirmed. ISO-class level comparable (P10, P15) by the pair-evidence contract; NOT a drop-in performance match. korloy p.451 · taegutec p.2	Potential second-source quotation for the same ISO class; cost and lead-time benefit not yet proven.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: one to one performance equivalence, coating process (CVD/PVD) compatibility.	Request a supplier quote and exact insert geometry; test on one machine and part. Record parts per edge, cycle time, finish and cost per good part. **Trial candidate, subject to fit, quote and shop-floor results**
WPP10S	Tungaloy T9215	Confirmed. ISO-class level comparable (P10, P15) by the pair-evidence contract; NOT a drop-in performance match. korloy p.451 · taegutec p.2	Potential second-source quotation for the same ISO class; cost and lead-time benefit not yet proven.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: one to one performance equivalence, coating process (CVD/PVD) compatibility.	Request a supplier quote and exact insert geometry; test on one machine and part. Record parts per edge, cycle time, finish and cost per good part. **Trial candidate, subject to fit, quote and shop-floor results**
GC4325	Sumitomo AC1030U	CANDIDATE only: shared ISO position (P20, P25, P30); pair-level comparability not confirmed.	Research lead for supplier enquiry only; no validated saving or replacement.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility.	First confirm pair-level source evidence and cutting-material / coating fit. Do not substitute in production from ISO overlap alone. **Research only — not cleared for substitution**
GC4325	Mitsubishi VP15TF	CANDIDATE only: shared ISO position (P20, P30); pair-	Research lead for supplier enquiry only; no validated	Coating process is not documented for both grades. Comparable cutting-speed	First confirm pair-level source evidence and cutting-

Current grade	Alternative	Evidence and source pages	Possible upside	Trade-off / missing proof	Next action
		level comparability not confirmed.	saving or replacement.	data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility.	material / coating fit. Do not substitute in production from ISO overlap alone. **Research only — not cleared for substitution**
GC4325	Sumitomo T2500Z	CANDIDATE only: shared ISO position (P20, P30); pair-level comparability not confirmed.	Research lead for supplier enquiry only; no validated saving or replacement.	Coating process is not documented for both grades. Comparable cutting-speed data missing; no cycle-time claim. Tool life, edge preparation and chipbreaker fit must be tested. Unverified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility.	First confirm pair-level source evidence and cutting-material / coating fit. Do not substitute in production from ISO overlap alone. **Research only — not cleared for substitution**

2. Grade by grade

TT9080 **Confirmed comparable (ISO class)**

Matched as TaeguTec TT9080 · ISO positions K20, M20, P25, S20, S25 · own position listed in 2 manufacturer chart(s) · coating not published

1 grade(s) from other makers are listed together with TT9080 at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); the remaining 10 are candidates (up to five shown in the main table).

CANDIDATE ALTERNATIVES (NOT VERIFIED EQUIVALENTS UNLESS MARKED CONFIRMED)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Sumitomo	AC1030U	K20, P25	0	PVD	Confirmed. ISO class comparable, not a one-to-one guarantee. listed together at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); covers 0% of the grade's positions; Could not be verified: one to one performance equivalence, coating process (CVD/PVD) compatibility
ISCAR	IC908	K20, P25, S20, S25	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 80% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Seco	CP500	M20, P25, S20, S25	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 80% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Mitsubishi	VP15TF	K20, S20, S25	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 60% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Walter	WSM20S	M20, S20, S25	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 60% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

FURTHER CANDIDATES (NOT A RECOMMENDATION)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Tungaloy	AH725	M20, S20, S25	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 60% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kyocera	PR1225	M20, P25	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 40% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Mitsubishi	UTi20T	K20, M20	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 40% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
MOLDINO	HG8025	M20, P25	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 40% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Sumitomo	ACU2500	K20, M20	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 40% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Tungaloy	AH630	M20, S20	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 40% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

WPP10S **Confirmed comparable (ISO class)**

Matched as Walter WPP10S · ISO positions P10, P15 · own position listed in 3 manufacturer chart(s) · coating not published

3 grade(s) from other makers are listed together with WPP10S at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); the remaining 9 are candidates (up to five shown in the main table).

CANDIDATE ALTERNATIVES (NOT VERIFIED EQUIVALENTS UNLESS MARKED CONFIRMED)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Kyocera	CA515	P10, P15	2	not published	Confirmed. ISO class comparable, not a one-to-one guarantee. listed together at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); covers 100% of the grade's positions; Could not be verified: one to one performance equivalence, coating process (CVD/PVD) compatibility
TaeguTec	TT8115B	P10, P15	0	not published	Confirmed. ISO class comparable, not a one-to-one guarantee. listed together at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); covers 0% of the grade's positions; Could not be verified: one to one performance equivalence, coating process (CVD/PVD) compatibility
Tungaloy	T9215	P10, P15	0	not published	Confirmed. ISO class comparable, not a one-to-one guarantee. listed together at the same ISO class in two distinct manufacturer-published charts (not a one-to-one performance guarantee); covers 0% of the grade's positions; Could not be verified: one to one performance equivalence, coating process (CVD/PVD) compatibility
Mitsubishi	NX2525	P10, P15	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kyocera	PV710	P10	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 50% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

FURTHER CANDIDATES (NOT A RECOMMENDATION)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Mitsubishi	MS6015	P10	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 50% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Kennametal	KC515M	P10	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 50% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kennametal	KC9110	P10	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 50% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
ISCAR	IC907	P10, P15	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kennametal	KCP10	P10, P15	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Mitsubishi	MC6115	P10, P15	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Mitsubishi	UE6110	P10, P15	2	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

GC4325 **Candidate alternatives (none verified as an equivalent)**

Matched as Sandvik GC4325 · ISO positions P20, P25, P30 · own position listed in 2 manufacturer chart(s) · coating not published

10 candidate alternative(s) from other makers share an ISO position with GC4325 (up to five shown in the main table, the rest listed separately). None is verified as an equivalent: direct cross-brand equivalence could not be verified, and each row states what else could not be verified. Candidates are for your own trial, not a recommendation.

CANDIDATE ALTERNATIVES (NOT VERIFIED EQUIVALENTS UNLESS MARKED CONFIRMED)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Sumitomo	AC1030U	P20, P25, P30	3	PVD	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 100% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Mitsubishi	VP15TF	P20, P30	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 67% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Sumitomo	T2500Z	P20, P30	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 67% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Tungaloy	NS9530	P20, P30	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 67% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
ISCAR	IC30N	P20, P30	3	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 67% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

FURTHER CANDIDATES (NOT A RECOMMENDATION)

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
ISCAR	IC8350	P30	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 33% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kennametal	KC9125	P20	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 33% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

Maker	Grade	Shared positions	Charts	Coating	Status and why it is here
Kyocera	PV720	P20	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 33% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kyocera	PV730	P30	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 33% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources
Kyocera	TN620	P20	4	not published	Candidate alternative. shares an ISO position in manufacturer charts, not verified as an equivalent; covers 33% of the grade's positions; Could not be verified: direct cross-brand equivalence, coating process (CVD/PVD) compatibility, source links, independence of the sources

3. Out of scope

Every grade in the list is in the reference data.

4. Consolidation view

No two matched grades in your list share the same full set of ISO positions.

5. Cost per part: what decides a switch

A grade change is judged on cost per part, not on insert price: `machine time + tool cost + downtime`. Machine time = machine rate × cutting time. Tool cost = insert price ÷ (edges × parts per edge). Downtime = edge changes × change time × machine rate. Because machine time is usually the largest share, a grade that the manufacturer rates for a clearly higher cutting speed usually wins in stable cuts even at a higher insert price; when edges chip or break early, edge life decides instead. The XLSX file has a calculator sheet where you enter your own machine rate, prices and measured parts per edge.

SPEED COMPARISON FROM MANUFACTURER CUTTING DATA (3 OF 30 GRADE PAIRS ON FILE)

Your grade	Group	Candidate	Your Vc (m/min)	Candidate Vc (m/min)	What it means	Source
TT9080	M	Sumitomo AC1030U	–	50-150 ISO M reference: austenitic stainless steel, manufacturer recommended (general turning)	No matching general-turning row on file for one or both grades	[1]
TT9080	P	Sumitomo AC1030U	–	50-200 ISO P reference: unalloyed/low-alloy steel, manufacturer recommended (general turning)	No matching general-turning row on file for one or both grades	[1]

Your grade	Group	Candidate	Your Vc (m/min)	Candidate Vc (m/min)	What it means	Source
GC4325	P	Sumitomo AC1030U	–	50-200 ISO P reference: unalloyed/low-alloy steel, manufacturer recommended (general turning)	No matching general-turning row on file for one or both grades	[1]

6. Validation plan

1. Pick one machine and one sample part per change.
2. Run the current grade and the candidate on the same part type, each at its maker's recommended cutting data, until the edge is worn; record good parts per edge and cycle time.
3. Compute cost per cutting edge from your own purchase price and the measured life; keep the change only if the number moves.
4. Roll out one grade at a time.

7. Sources and method

ISO positions in this report come from manufacturer-published charts of: Ceratizit, Dijet, ISCAR, Kennametal, Korloy, Kyocera, MOLDINO, Mitsubishi, NTK, Sandvik, Seco, Sumitomo, TaeguTec, Tungaloy, Walter. Where available, the report also shows source-backed coating process (CVD/PVD) and manufacturer-published cutting-speed data (Vc) for the stated grade, material and operation. Missing coating or Vc data is marked as unavailable; the calculator uses your own inputs for costs and measured tool life. Data snapshot 2026-11-10. A candidate alternative is a grade from another maker that shares at least one of your grade's ISO positions in manufacturer-published charts, listed with the reason it appears and what could not be verified. Candidates are for your own trial and are not recommendations; only pairs marked Confirmed carry that status from the reference contract. A shared ISO position does not prove tool or application equivalence. Corrections and removal requests from a manufacturer: research@cuttingtoolsai.eu.