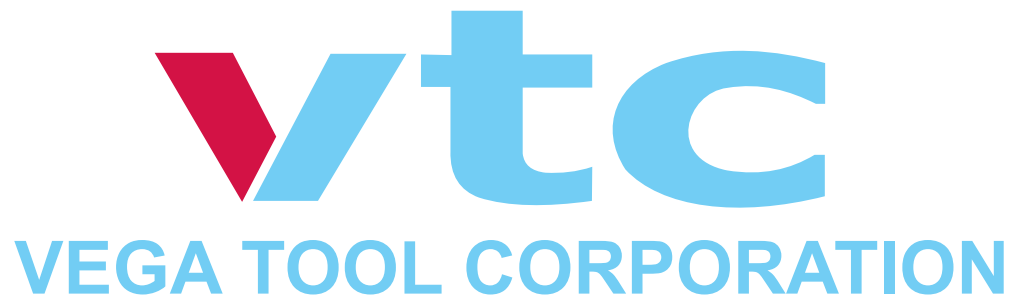


VEGA TOOL CORPORATION



2011 - 2012 CATALOG



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VTC Cutter Bodies

Hitachi Tool Indexable Inserts

Indexable Cutting Tools for maximum metal removal rates and high feed cutting

Hitachi Tool's indexable milling tools are designed for maximum removal rates and high-feed cutting. Hitachi Tool's innovations in substrates, cutting geometries and coatings will help you to expanding the limits of your machines. A variety of face mill and shank style indexable tools are available in sizes ranging from 3/8" to 10" in diameter. Several insert coatings are offered, making these tools ideal for a wide range of materials including mild steels, cast iron, alloy steels and pre-hardened steels up to 55HRC.

IASF: New Generation Face Mills dramatically reduce roughing time

- Size Range: 2.5" - 12.0"
- Face Mill style only



Four corner inserts

IASRF: Radius Mill with highly-efficient four-corner inserts

- Size Range: 1.25" - 4.0"
- Face Mill and Shank styles available



Four corner inserts

IASRT: New Generation Face Mills dramatically reduce roughing time

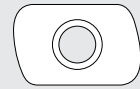
- Size Range: 1.0" - 4.0"
- Face Mill style only



Three corner inserts

IASR Multi: Innovative Indexable Multi-Flute Mills for high-efficiency machining

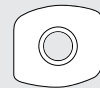
- Size Range: 0.625" – 2.5"
- Face Mill and Shank styles available



Two corner inserts

IASR: Special Radius Cutting Edge for highest-efficiency milling

- Size Range: 0.75" – 4.0"
- Face Mill and Shank styles available



Two corner inserts

IASM: Small diameter, ultra high-efficiency Indexable End Mills

- Size Range: 0.375" – 0.750"
- Shank style only



Two corner inserts

IAR: Ideal for three-dimensional rough milling and direct milling

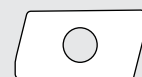
- Size Range: 1.0" – 6.0"
- Face Mill and Shank styles available



Round inserts

IAHU: Advanced design End Mills and Face Mills radically reduce cutting forces

- Size Range: 0.75" – 3.0"
- Face Mill and Shank styles available

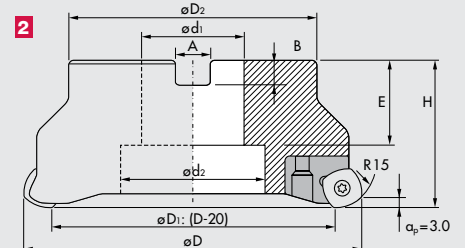
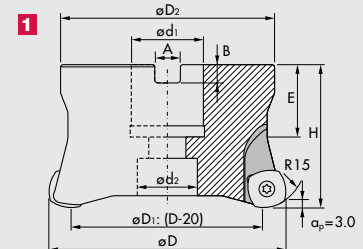


Two corner inserts

BORE STYLE

New Generation Face Mill Dramatically Reduces Roughing Time

- 2-5 times better roughing efficiency than conventional face mills
- Very stable performance in interrupted cutting
- Extraordinary metal removal and feed rates
- Economical four edged insert



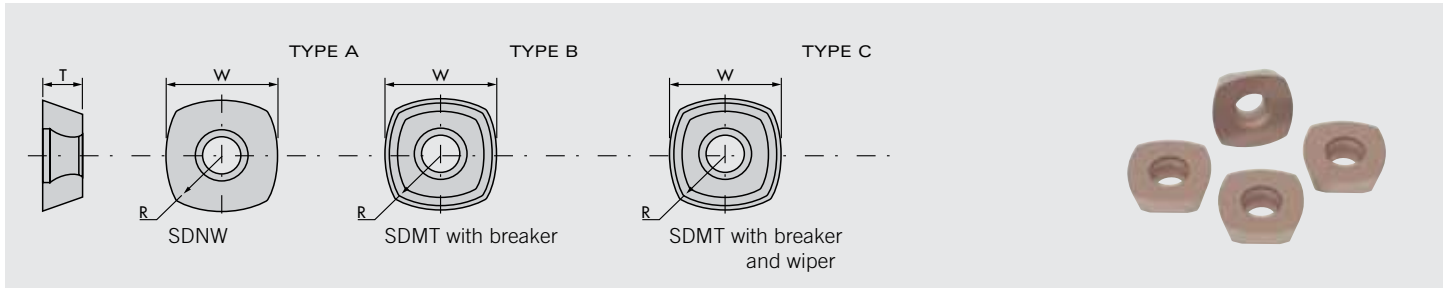
BORE STYLE - INCH

PART NO.	FLUTES	ϕD	ϕD_1	H	ϕd_1	ϕd_2	ϕD_2	E	A	B	TYPE	INSERT
IASF5040R-VTC	4	2.5	1.713	1.575	0.75	0.630	2.362	1.024	0.32	0.197	1	SDNW15, SDMT15, SDEW15
IASF5048R-VTC	4	3.0	2.213	1.969	1.00	0.827	2.756	1.378	0.38	0.236	1	SDNW15, SDMT15, SDEW15
IASF5064R-VTC	5	4.0	3.213	1.969	1.50	1.969	3.543	1.378	0.63	0.394	1	SDNW15, SDMT15, SDEW15
IASF5080R-VTC	6	5.0	4.213	2.480	1.50	1.969	3.937	1.378	0.63	0.394	2	SDNW15, SDMT15, SDEW15
IASF5096R-VTC	8	6.0	5.213	2.480	1.50	2.165	4.134	1.378	0.63	0.394	2	SDNW15, SDMT15, SDEW15
IASF5128R-VTC	10	8.0	7.213	2.480	2.50	2.165	5.118	1.378	1.00	0.551	2	SDNW15, SDMT15, SDEW15
IASF5160R-VTC	12	10.0	9.213	2.480	2.50	5.517	5.118	1.378	1.00	0.551	2	SDNW15, SDMT15, SDEW15
IASF5192R-VTC	18	12.0	11.708	2.756	2.50	7.480	9.843	1.378	1.00	0.551	2	SDNW15, SDMT15, SDEW15



PART NO.	CLAMP SCREW	LOCATOR	LOCATOR SCREW	WEDGE SCREW	WEDGE	WRENCH
IASF5040R-VTC	555-141					105-T20
IASF5048R-VTC	555-141					105-T20
IASF5064R-VTC	555-141					105-T20
IASF5080R-VTC	555-141	351-111	156-161	100-143	176-121	105-T20
IASF5096R-VTC	555-141	351-111	156-161	100-143	176-121	105-T20L
IASF5128R-VTC	555-141	351-111	156-161	100-143	176-121	105-T20L
IASF5160R-VTC	555-141	351-111	156-161	100-143	176-121	105-T20L
IASF5192R-VTC	555-141	351-111	156-161	100-143	176-121	105-T20L

INSERTS



PART NO.	JX1045	CY250	JP4020	JS4060	R	T	W	TYPE
SDNW1505ZDTN-R15	•	•	•	•	15	5.56	15.875	A
SDMT1505ZDTN-C15		•			15	5.56	15.875	C
SDMT1505ZDTN-R15	•		•		15	5.56	15.875	B

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JX1045 (P30-M30-K30)	JX Coating PVD	General purpose for steel	Uses moderate substrate, Multi purpose grade
CY250 (P30-M30-K30)	CY Coating (TiAlN) PVD	General purpose for steel	Uses TiAlN coating, has wide cutting range
JP4020 (P20)	JP Coating PVD	General purpose for steel, for machining pre-hardened steels and tempered steels	Layer structure with high impact resistance improves chipping resistance
JS4060 (K40)	JS Coating PVD	For highly efficient machining of mild steels and cast iron	Employs layer-thickening technology, resulting in excellent wear resistance

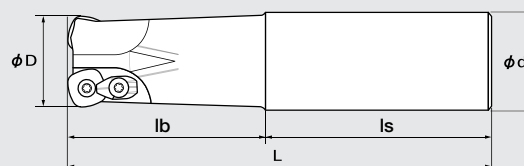
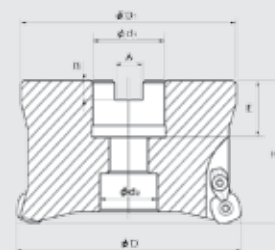
FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASF5040R-VTC	2-1/2"	60	SDNW15 SDMT15 SDEW15
IASF5048R-VTC	3"	70	
IASF5064R-VTC	4"	80	
IASF5080R-VTC	5"	150	
IASF5096R-VTC	6"	200	
IASF5128R-VTC	8"	250	
IASF5160R-VTC	10"	300	
IASF5192R-VTC	12"	350	

SHANK + BORE STYLE INCH

Radius Mill with Highly-Efficient Four-Corner Inserts

- Economical four-corner inserts
- Mill and inserts are designed for maximum cutting rigidity
- No coolant hole



SHANK STYLE - INCH

PART NO.	FLUTES	ϕD	L	ϕd	Ib	Is	INSERT
IASRFS4020R-VTC	2	1.25	6	1.25	2.75	3.25	SDNW12/SDMT12
IASRFS4024R-VTC	3	1.50	6	1.50	1.75	4.25	SDNW12/SDMT12

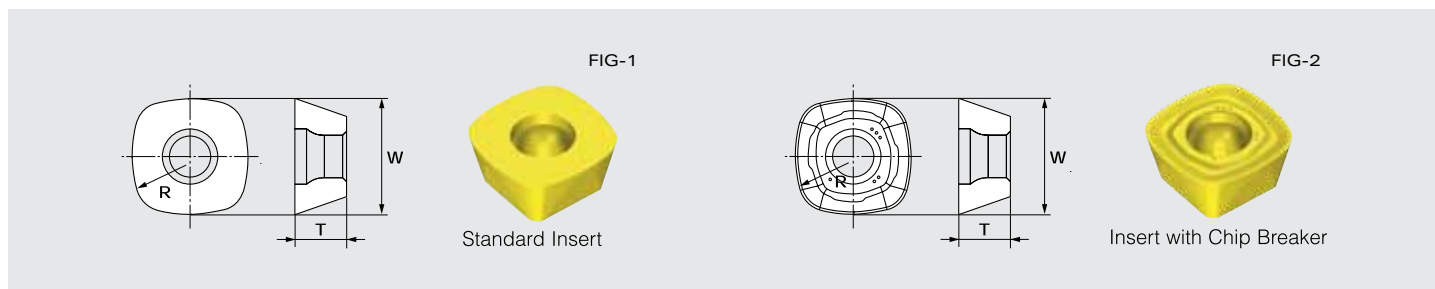
BORE STYLE - INCH

PART NO.	FLUTES	ϕD	ϕD_1	H	E	A	B	ϕd_1	ϕd_2	INSERT
IASRF4032-4-VTC	4	2.00	1.85	1.969	0.748	0.315	0.197	0.75	0.630	SDNW12/SDMT12
IASRF4048-5-VTC	5	3.00	2.99	2.480	1.378	0.374	0.236	1.00	0.827	SDNW12/SDMT12
IASRF4064-6-VTC	6	4.00	3.78	2.756	1.378	0.626	0.394	1.50	1.236	SDNW12/SDMT12



PART NO.	CLAMP SCREW	CLAMP PIECE SET	WRENCH
ALL SIZES	262-142	CM4-141	105-T15

INSERTS



PART NO.	JP4020	JX1045	CY250	JS4060	R (mm)	T (mm)	W (mm)	SHAPE
SDNW1205ZDTN-R15	•	•	•	•	15	5.56	12.7	FIG-1
SDMT1205ZDTN-R15	•	•	•		15	5.56	12.7	FIG-2

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JP4020 (P20)	JP Coating PVD	General purpose for steel, for machining pre-hardened steels and tempered steels	Layer structure with high impact resistance improves chipping resistance
JX1045 (P30-M30-K30)	JX Coating PVD	General purpose for steel	Uses tougher substrate, excellent for heavy interrupted machining and wet machining
CY250 (P30-M30-K30)	CY Coating (TiAlN) PVD	General purpose for steel	Uses TiAlN coating, has wide cutting range
JS4060 (K40)	JS Coating PVD	For highly efficient machining of mild steels and cast iron	Employs layer-thickening technology, resulting in excellent wear resistance

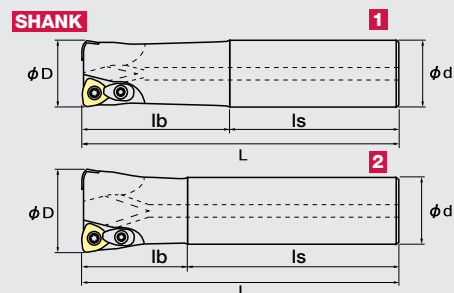
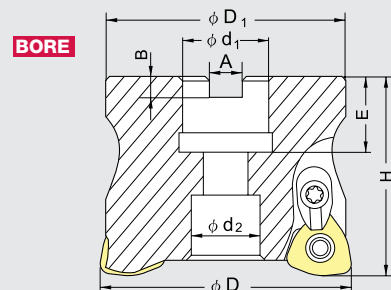
FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASRF4020R-VTC	1-1/4"	60	SDNW1205ZDTN SDMT1205ZDTN
IASRF4024R-VTC	1-1/2"	60	
IASRF4032-4VTC	2"	60	
IASRF4048-5VTC	3"	70	
IASRF4064-6VTC	4"	80	

SHANK + BORE STYLE

New Generation Face Mill Dramatically Reduces Roughing Time

- Highly rigid body design for trouble-free machining
- JX Coated inserts feature enhanced lubricating characteristics as well as improved hardness, heat-resistance, and chipping resistance
- Ideal for machining a wide range of materials including mild steels, cast iron, stainless steels and hardened steels up to 55HRC
- Two insert types: standard and with chip breaker
- With coolant hole - shank style only



SHANK STYLE - INCH

PART NO.	FLUTES	ϕD	L	ϕd	lb	ls	TYPE	INSERT
IASRTS3016R-2VTC	2	1.00	5.51	1.00	2.36	3.15	1	WDNW09T320
IASRTS4020R-2VTC	2	1.25	5.91	1.25	2.76	3.15	1	WDNW120420
IASRTS4024R-3VTC	3	1.50	5.91	1.50	1.97	3.94	2	WDNW120420

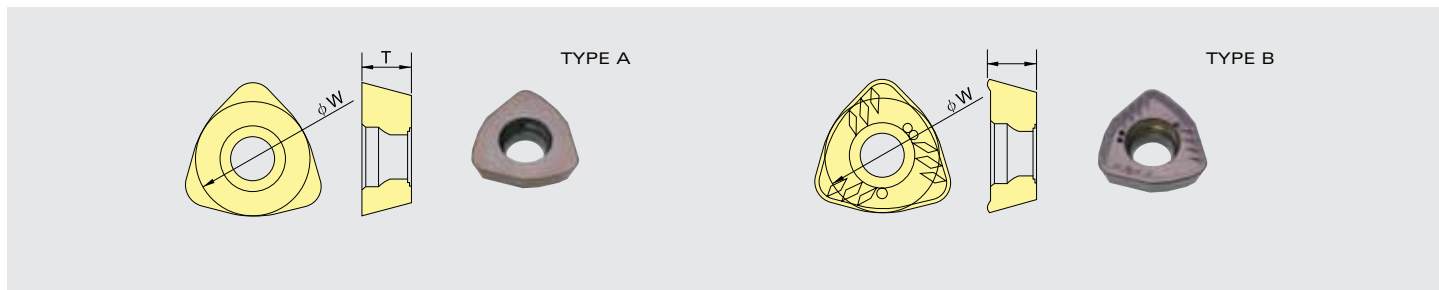
BORE STYLE - INCH

PART NO.	FLUTES	ϕD	ϕD_1	H	E	A	B	ϕd_1	ϕd_2	INSERT
IASRT4032-4VTC	4	2.0	1.850	1.969	0.748	0.315	0.197	0.75	0.630	WDNW120420, WDNT120420
IASRT5048-5VTC	5	3.0	2.992	2.480	1.378	0.374	0.236	1.00	0.827	WDNW140520, WDNT140520
IASRT5064-6VTC	6	4.0	3.780	2.756	1.378	0.626	0.394	1.50	1.260	WDNW140520, WDNT140520



PART NO.	CLAMP SCREW	CLAMP PIECE SET	WRENCH
IASRT4032-4VTC	262-142	CM4-141	105-T15
IASRT5048-5VTC	555-141	CM5-147	105-T20
IASRT5064-6VTC	555-141	CM5-147	105-T20

INSERTS



PART NO.	JP4020	JS4060	JX1045	TYPE	ØW	T	BODY
WDNW120420	•	•	•	A	0.472	0.187	IASRT4032-4
WDNT120420	•		•	B	0.472	0.187	IASRT4032-4
WDNW140520	•	•	•	A	0.551	0.219	IASRT5048-5
WDNT140520	•		•	B	0.551	0.219	IASRT5064-6

All inserts have four effective cutting edges

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JP4020 (P20)	JP Coating PVD	General purpose for steel, for machining pre-hardened steels and tempered steels	Layer structure with high impact resistance improves chipping resistance
JS4060 (K40)	JS Coating PVD	For highly efficient machining of mild steels and cast iron	Employs layer-thickening technology, resulting in excellent wear resistance
JX1045 (P30-M30-K30)	JX Coating PVD	General purpose for steel	Uses tougher substrate, excellent for heavy interrupted machining and wet machining

FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASRT4032-4VTC	2"	100	WDNW120420
IASRT5048-5VTC	3"	100	WDNW140520
IASRT5064-6VTC	4"	100	

SHANK STYLE

Innovative Indexable Multi-Flute Mills for High-Efficiency Machining

- Extraordinary metal removal and feed rates
- JX Coated inserts feature the world's first hybrid-coating technology and provide unparalleled lubricity
- Mill and inserts are designed for maximum cutting rigidity
- One size insert fits all diameters 3/8" to 2.5" and 16mm to 66mm
- No coolant hole

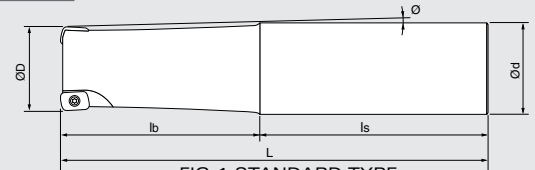


FIG-1 STANDARD TYPE

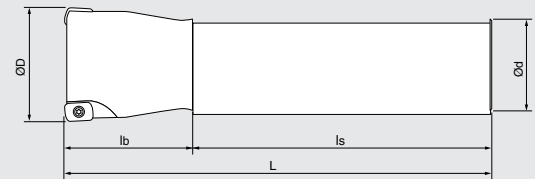


FIG-2 UNDERCUT TYPE

SHANK STYLE - INCH

REGULAR LENGTH

PART NO.	FLUTES	ØD	L	Ød	lb	ls	SHAPE	INSERT
IASRS2010R-2VTC	2	0.625	4.0	0.625	1.25	2.75	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRS2012R-3VTC	3	0.750	5.0	0.750	2.00	3.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRS2016R-4VTC	4	1.000	5.5	1.000	2.50	3.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRS2020R-5VTC	5	1.250	6.0	1.250	2.75	3.25	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRS2024R-6VTC	6	1.500	6.0	1.500	1.75	4.25	FIG-2	EPNW0603TN-8, EPMT0603TN-8

SHANK STYLE - INCH

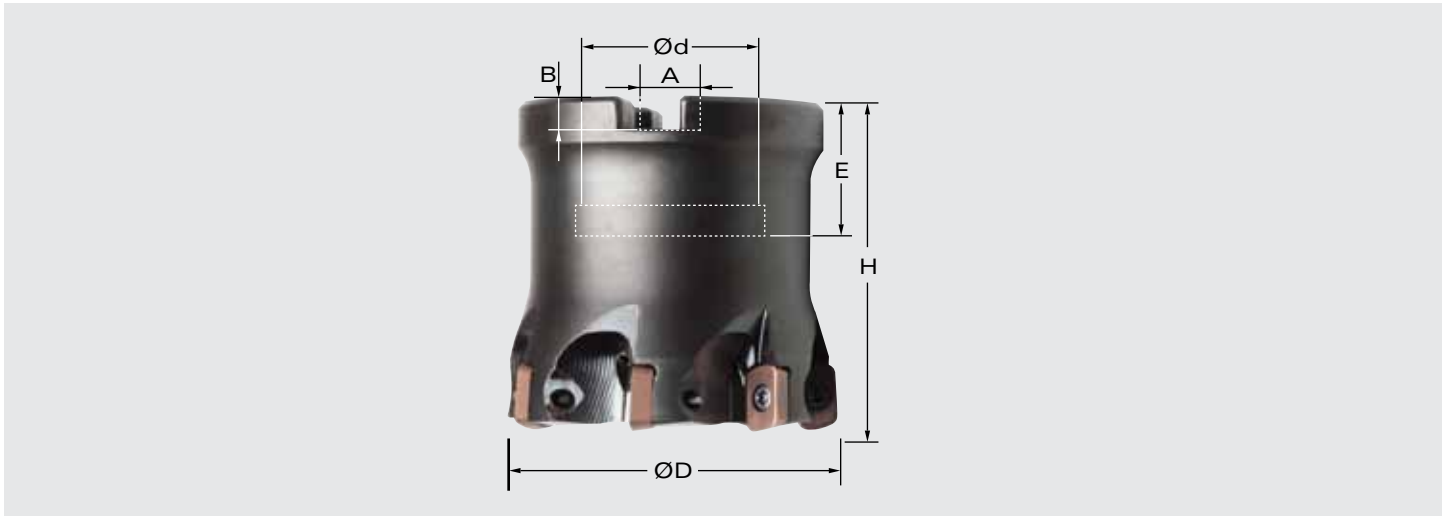
LONG LENGTH

PART NO.	FLUTES	ØD	L	Ød	lb	ls	SHAPE	INSERT
IASRL2010R-2VTC	2	0.625	6.00	0.625	2.00	4.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRL2012R-3VTC	3	0.750	6.25	0.750	3.25	3.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRL2016R-4VTC	4	1.000	7.00	1.000	4.00	3.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRL2020R-5VTC	5	1.250	8.00	1.250	5.00	3.00	FIG-1	EPNW0603TN-8, EPMT0603TN-8
IASRL2024R-6VTC	6	1.500	9.00	1.500	1.75	7.25	FIG-1	EPNW0603TN-8, EPMT0603TN-8

IASR Multi



BORE STYLE



BORE STYLE - INCH

PART NO.	FLUTES	ØD	H	E	A	B	Ød	INSERT
IASR2032R-7VTC	7	2.0	2.0	0.75	0.315	0.197	0.75	EPNW0603TN-8, EPMT0603TN-8
IASR2040R-8VTC	8	2.5	2.0	0.75	0.315	0.197	0.75	EPNW0603TN-8, EPMT0603TN-8

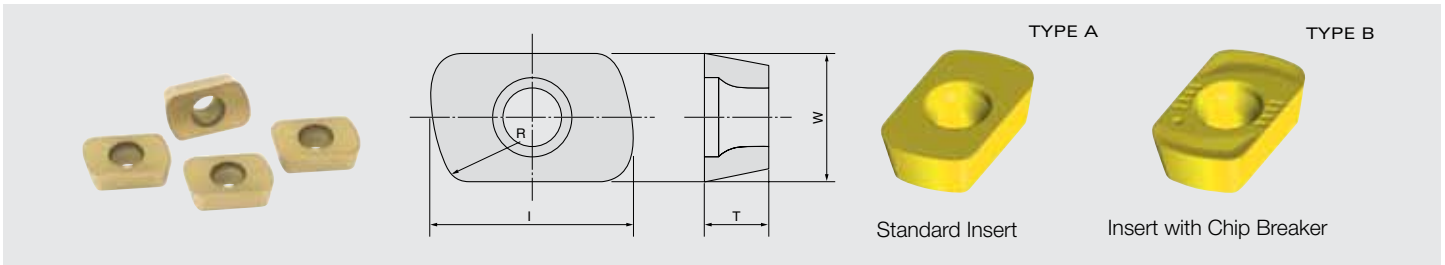


PART NO.	CLAMP SCREW	WRENCH
ALL SIZES	250-141	104-T8

IASR Multi



INSERTS



PART NO.	JX1015	JX1045	JP4020	R (mm)	L (mm)	T (mm)	W (mm)	TYPE
EPNW0603TN-8	•	•	•	8.0	10.0	3.18	6.35	A
EPMT0603TN-8		•	•	8.0	10.0	3.18	6.35	B

All inserts have two effective cutting edges

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JX1015 (P20-M20-K20)	JX Coating PVD	For cutting of pre-hardened steels	Uses hybrid coating, suitable for high speed cutting
JX1045 (P30-M30-K30)	JX Coating PVD	General purpose for steel	Uses hybrid coating, excellent cratering resistance and lubricating characteristics
JP4020 (P20)	JP Coating PVD	General purpose for steel, for machining pre-hardened steels and tempered steels	Layer structure with high impact resistance improves chipping resistance

FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASRS2010R-2VTC	5/8"	50	EPNW0603TN-8 EPMT0603TN-8
IASRS2012R-3VTC	3/4"	50	
IASRS2016R-4VTC	1"	50	
IASRS2020R-5VTC	1-1/4"	60	
IASRS2024R-6VTC	1-1/2"	60	
IASRL2010R-2VTC	5/8"	60	
IASRL2012R-3VTC	3/4"	60	
IASRL2016R-4VTC	1"	60	
IASRL2020R-5VTC	1-1/4"	70	
IASRL2024R-6VTC	1-1/2"	70	
IASR2032R-7VTC	2"	80	
IASR2040R-8VTC	2-1/2"	80	

SHANK STYLE

Special Radius Cutting Edge for Highest-Efficiency Milling

- Extraordinary metal removal and feed rates
- Dramatic reduction in cutting deflection and force
- 2-5 times better performance than conventional radius cutters
- Reduced radial deflection even with long overhangs
- No coolant hole



SHANK STYLE - INCH

STANDARD LENGTH

PART NO.	FLUTES	ØD	L	Ød	lb	ls	INSERT
IASRS0012R-VTC	2	0.75	5.118	0.75	1.969	3.150	EPNW08/EPEW08
IASRS0016R-VTC	2	1.00	5.512	1.00	2.362	3.150	EDNW10/EDEW10
IASRS4020R-VTC	2	1.25	5.906	1.25	2.756	3.150	EDNW13/EDEW13/EDMT13
IASRS4024R-VTC	3	1.50	5.906	1.50	1.969	3.937	EDNW13/EDEW13/EDMT13

SHANK STYLE - INCH

LONG LENGTH

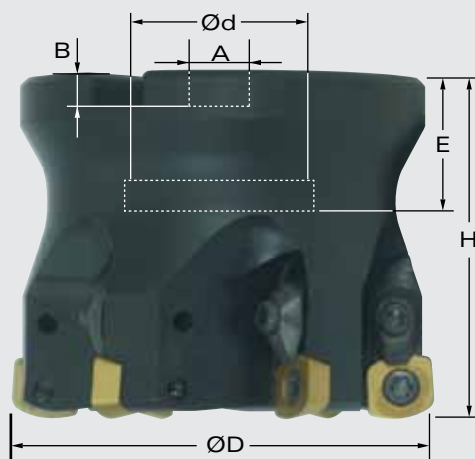
PART NO.	FLUTES	ØD	L	Ød	lb	ls	INSERT
IASRL0012R-VTC	2	0.75	7.087	0.75	3.937	3.150	EPNW08/EPEW08
IASRL0016R-VTC	2	1.00	7.874	1.00	4.724	3.150	EDNW10/EDEW10
IASRL4020R-VTC	2	1.25	7.874	1.25	4.724	3.150	EDNW13/EDEW13/EDMT13
IASRL4024R-VTC	3	1.50	9.843	1.50	1.969	7.874	EDNW13/EDEW13/EDMT13

SHANK STYLE - INCH

EXTRA LONG LENGTH

PART NO.	FLUTES	ØD	L	Ød	lb	ls	INSERT
IASRE0012R-VTC	2	0.75	9.843	0.75	5.118	4.724	EPNW08/EPEW08
IASRE0016R-VTC	2	1.00	11.811	1.00	7.087	4.724	EDNW10/EDEW10
IASRE4020R-VTC	2	1.25	11.811	1.25	7.087	4.724	EDNW13/EDEW13/EDMT13
IASRE4024R-VTC	2	1.50	11.811	1.50	1.969	9.843	EDNW13/EDEW13/EDMT13

BORE STYLE



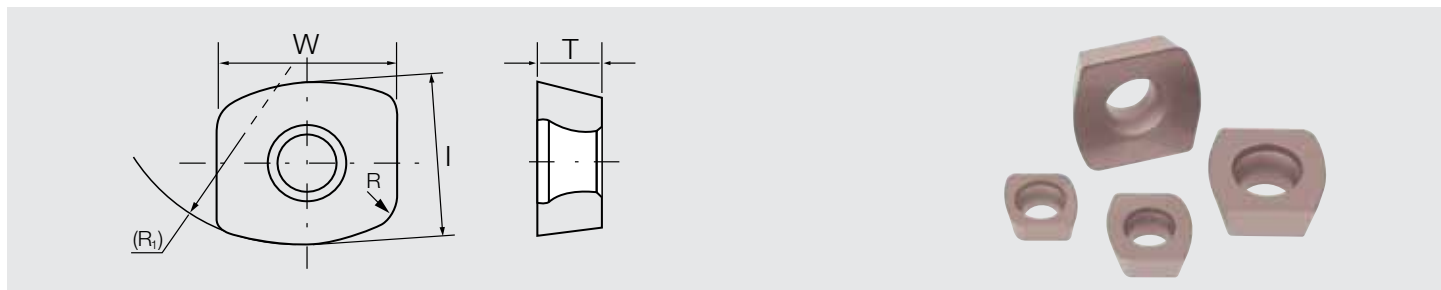
BORE STYLE - INCH

PART NO.	FLUTES	ØD	H	R	Ød	E	A	B	INSERT
IASR4032-4VTC	4	2.0	1.969	0.591	0.75	0.748	0.32	0.197	EDNW13/EDEW13
IASR4032-5VTC	5	2.0	1.969	0.591	0.75	0.748	0.32	0.197	EDNW13/EDEW13
IASR5040-4VTC	4	2.5	1.969	0.591	0.75	1.024	0.32	0.197	EDNW15/EDEW15
IASR5048-5VTC	5	3.0	1.969	0.591	1.00	1.378	0.38	0.236	EDNW15/EDEW15
IASR5064-6VTC	6	4.0	1.969	0.591	1.50	1.378	0.38	0.394	EDNW15/EDEW15



PART NO.	CLAMP SCREW	CLAMP ASSEMBLY	WRENCH
IASR4032-4VTC	555-141	CM5-147	105-T20
IASR5040-4VTC	555-141	CM5-147	105-T20
IASR5048-5VTC	555-141	CM5-147	105-T20
IASR5064-6VTC	555-141	CM5-147	105-T20
IASRS/L/E0012R-VTC	242-141		104-T15
IASRS/L/E0016R-VTC	412-141	CM3.5-141	104-T15
IASRS/L/E4020R-VTC	555-141	CM5-147	105-T20
IASRS/L/E4024R-VTC	555-141	CM5-147	105-T20

INSERTS



PART NO.	JX1045	CY250	R	R ₁ (mm)	I (mm)	T (mm)	W (mm)
EPNW0803TN-10	•	•	3	10.0	8.1	3.2	7.94
EDNW10T3TN-10	•	•	3	10.0	10.0	4.0	10.00
EDNW13T4TN-10	•	•	3	10.0	13.5	5.6	12.70
EDNW13T4TN-15	•	•	3	15.0	13.5	5.6	12.70
EDNW15T4TN-10	•	•	3	10.0	15.0	5.6	14.00
EDNW15T4TN-15	•	•	3	15.0	15.0	5.6	14.00

All inserts have two effective cutting edges

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JX1045	JX Coating PVD	General purpose for steel	Uses moderate substrate, Multi purpose grade
CY250 (P30-M30-K30)	CY Coating (TiAlN) PVD	General purpose for steel	Uses TiAlN coating, has wide cutting range

FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

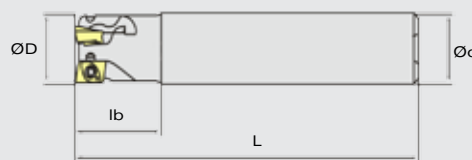
CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASRS0012R-VTC	3/4"	50	EPNW0803TN
IASRS0016R-VTC	1"	50	EDNW10T3TN
IASRS4020R-VTC	1-1/4"	50	EDNW13T4TN
IASRS4024R-VTC	1-1/2"	50	
IASRL0012R-VTC	3/4"	50	EPNW0803TN
IASRL0016R-VTC	1"	50	EDNW10T3TN
IASRL4020R-VTC	1-1/4"	50	EDNW13T4TN
IASRL4024R-VTC	1-1/2"	50	

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASRE0012R-VTC	3/4"	60	EPNW0803TN
IASRE0016R-VTC	1"	60	EDNW10T3TN
IASRE4020R-VTC	1-1/4"	60	EDNW13T4TN
IASRE4024R-VTC	1-1/2"	60	
IASR4032-4VTC	2"	50	
IASR4032-5VTC	2"	50	
IASR5040-4VTC	2-1/2"	50	
IASR5048-5VTC	3"	50	
IASR5064-6VTC	4"	50	

SHANK STYLE REGULAR LENGTH

Small Diameter, Ultra High-Efficiency Indexable End Mills

- Small Diameter sizes from 3/8" to 3/4" (10mm to 20mm) can be used instead of solid end mills
- JDMT inserts are ideal for shoulder cutting
- EDMT-type inserts are ideal for low-depth, high feed rate machining
- All body styles can utilize both styles of inserts
- No coolant hole



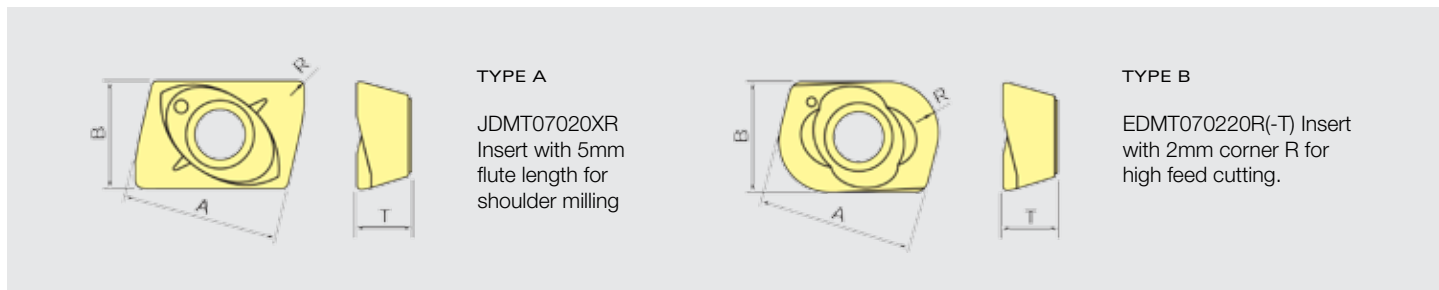
SHANK STYLE - INCH

PART NO.	FLUTES	ØD	L	Ød	lb	INSERT
IASM0706S06R-2VTC	2	0.375	3.000	0.375	0.750	JDMT0702xxR, EDMT070220R(-T)
IASM0708S08R-3VTC	3	0.500	3.000	0.500	0.750	JDMT0702xxR, EDMT070220R(-T)
IASM0710S10R-4VTC	4	0.625	3.500	0.625	1.000	JDMT0702xxR, EDMT070220R(-T)
IASM0712S12R-5VTC	5	0.750	4.000	0.750	1.000	JDMT0702xxR, EDMT070220R(-T)
IASML0710S10R-4VTC	4	0.625	4.500	0.625	2.000	JDMT0702xxR, EDMT070220R(-T)
IASML0712S12R-5VTC	5	0.750	5.500	0.750	2.500	JDMT0702xxR, EDMT070220R(-T)



PART NO.	CLAMP SCREW	WRENCH
ALL SIZES	240-140	104-T6

INSERTS



PART NO.	JP4020	PTH30E	A (mm)	B (mm)	R (mm)	T (mm)	TYPE
JDMT070202R	•	•	6.4	4.3	0.2	2.45	A
JDMT070204R	•	•	6.4	4.3	0.4	2.45	A
JDMT070208R	•	•	6.4	4.3	0.8	2.45	A
EDMT070220R-T	•		6.4	4.3	2	2.5	B
EDMT070220R	•		6.4	4.3	2	2.5	B

There are two types of EDMT Inserts:

- Standard Type (EDMT070220R-T)
- Low-Resistance Type (EDMT070220R) which reduces cutting resistance by approximately 10%

All inserts have two effective cutting edges

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JP4020 (P20)	JP Coating PVD	General purpose for steel, for machining pre-hardened steels and tempered steels	Layer structure with high impact resistance improves chipping resistance
PTH30E K30	TH Coating (TISIN) PVD	General purpose for steel	Uses nanocomposite coating, strong durability of base material is excellent for strong interrupted cutting

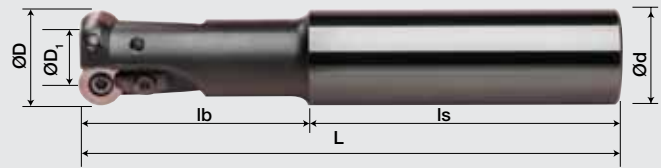
FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IASM0706S06R-2VTC	3/8"	60	JDMT0702 EDMT0702
IASM0708S08R-3VTC	1/2"	60	
IASM0710S10R-4VTC	5/8"	60	
IASM0712S12R-5VTC	3/4"	60	
IASML0710S10R-4VTC	5/8"	60	
IASML0712S12R-5VTC	3/4"	60	

STRAIGHT SHANK STYLE

Ideal for Three-Dimensional Rough Milling and Direct Milling

- 2-3 times greater performance over conventional indexable mills
- Round insert for high-feed machining
- Wide chip pockets for excellent chip evacuation
- Available in Straight Shank, Modular and Face Mill Styles, with sizes up to $\text{Ø}6.00''$
- No coolant hole



SHANK STYLE - INCH

PART NO.	FLUTES	ØD	ØD ₁	L	Ød	lb	ls	INSERT
IARS16R-VTC	2	1.000	0.528	5.512	1.000	2.362	3.150	RDHW12/RDMT12
IARS20R-VTC	2	1.250	0.778	5.906	1.250	2.756	3.150	RDHW12/RDMT12
IARS24R-VTC	3	1.500	1.028	6.299	1.500	3.150	3.150	RDHW12/RDMT12
IARL16R-VTC	2	1.000	0.528	7.874	1.000	4.724	3.150	RDHW12/RDMT12
IARL20R-VTC	2	1.250	0.778	8.268	1.250	5.118	3.150	RDHW12/RDMT12
IARL24R-VTC	3	1.500	1.028	8.661	1.500	5.512	3.150	RDHW12/RDMT12
IARE16R-VTC	2	1.000	0.528	11.811	1.000	7.087	4.724	RDHW12/RDMT12
IARE20R-VTC	2	1.250	0.778	12.205	1.250	7.480	4.724	RDHW12/RDMT12
IARE24R-VTC	3	1.500	1.028	12.598	1.500	7.874	4.724	RDHW12/RDMT12



PART NO.	CLAMP SCREW	CLAMP ASSEMBLY	WRENCH
IARS/L/E16R-VTC	262-142	CM4-141	104-T15
IARS/L/E20R-VTC	262-142	CM4-141	104-T15
IARS/L/E24R-VTC	262-142	CM4-141	104-T15
IARS/L/E16R-VTC	262-142	CM4-141	104-T15
IARS/L/E20R-VTC	262-142	CM4-141	104-T15
IARS/L/E24R-VTC	262-142	CM4-141	104-T15
IARS/L/E16R-VTC	262-142	CM4-141	104-T15
IARS/L/E20R-VTC	262-142	CM4-141	104-T15
IARS/L/E24R-VTC	262-142	CM4-141	104-T15

BORE STYLE



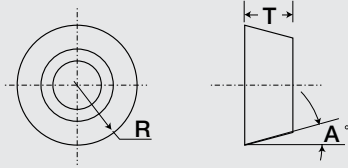
BORE STYLE - INCH

PART NO.	FLUTES	ØD	ØD ₁	H	Ød	E	A	B	INSERT
IARB4032R-4VTC	4	2.000	1.370	1.969	0.750	0.748	0.315	0.197	RDHW12/ RDMT12
IARB4032R-5VTC	5	2.000	1.370	1.969	0.750	0.748	0.315	0.197	RDHW12/ RDMT12
IARB4040R-4VTC	4	2.500	1.870	1.969	0.750	1.024	0.315	0.197	RDHW12/ RDMT12
IARB4048R-5VTC	5	3.000	2.370	2.480	1.000	1.378	0.374	0.236	RDHW12/ RDMT12
IARB4064R-6VTC	6	4.000	3.370	2.480	1.500	1.378	0.626	0.394	RDHW12/ RDMT12
IARB5040R-3VTC	3	2.500	1.870	1.969	0.750	1.024	0.315	0.197	RDHW16/ RDMT16
IARB5048R-4VTC	4	3.000	2.370	2.480	1.000	1.378	0.374	0.236	RDHW16/ RDMT16
IARB5064R-5VTC	5	4.000	3.370	2.480	1.500	1.378	0.626	0.394	RDHW16/ RDMT16
IARB5080R-6VTC	6	5.000	4.370	2.480	1.500	1.378	0.626	0.394	RDHW16/ RDMT16
IARB5096R-8VTC	8	6.000	5.370	2.480	1.500	1.378	0.626	0.394	RDHW16/ RDMT16



PART NO.	CLAMP SCREW	CLAMP ASSEMBLY	WRENCH
IARB4032R-4VTC	262-142	CM4-141	105-T15
IARB5040R-3VTC	263-141	CM5-147	105-T20
IARB5048R-4VTC	263-141	CM5-147	105-T20
IARB5064R-5VTC	263-141	CM5-147	105-T20
IARB5080R-6VTC	263-141	CM5-147	105-T20
IARB5096R-8VTC	263-141	CM5-147	105-T20

INSERTS



PART NO.	JX1045	CY250	R	T (mm)	A (°)
RDMT0802M0TN	•	•	4.0	2.38	15°
RDMT10T3M0TN	•	•	5.0	3.97	15°
RDMT1204M0TN	•	•	6.0	4.76	15°
RDMT1605M0TN	•	•	8.0	5.56	15°
RDHW0802M0TN	•	•	4.0	2.38	15°
RDHW10T3M0TN	•	•	5.0	3.97	15°
RDHW1204M0TN	•	•	6.0	4.76	15°
RDHW1605M0TN	•	•	8.0	5.56	15°
RPHW1204M0TN		•	6.0	4.76	15°
RDMW1003M0TN		•	5.0	3.18	15°
RDMW1905M0TN		•	9.55	5.56	15°

COATING MATERIALS FOR INSERTS

MATERIAL NAME ISO CLASSIFICATION	COATING NAME COATING TYPE	APPLICATION	FEATURES
JX1045 P30-M30-K30	JX Coating PVD	General purpose for steel	Uses harder substrate, excellent for high speed machining
CY250 P30-M30-K30	CY Coating (TiAlN) PVD	General purpose for steel	Uses TiAlN coating, has wide cutting range

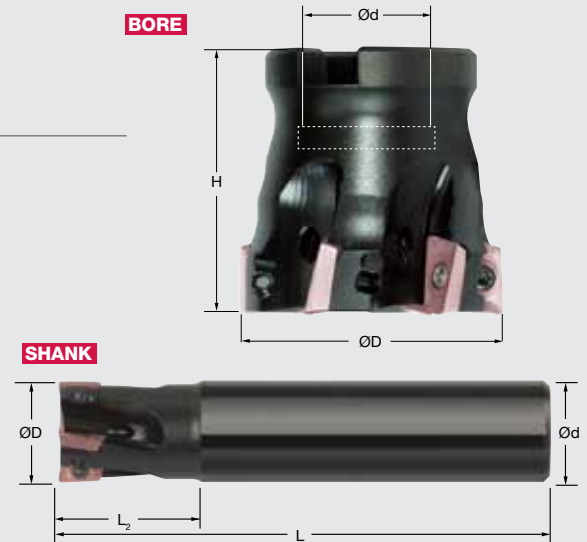
FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE	CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IARS16R-VTC	1"	60	RDHW12 RDMT12	IARB4032R-4VTC	2"	60	RDHW12 RDMT12
IARS20R-VTC	1-1/4"	60		IARB4032R-5VTC	2"	60	
IARS24R-VTC	1-1/2"	60		IARB4040R-4VTC	2-1/2"	80	
IARL16R-VTC	1"	70		IARB4048R-5VTC	3"	80	
IARL20R-VTC	1-1/4"	70		IARB4064R-6VTC	4"	80	
IARL24R-VTC	1-1/2"	70		IARB5040R-4VTC	2-1/2"	60	RDHW16 RDMT16
IARE16R-VTC	1"	80		IARB5048R-5VTC	3"	60	
IARE20R-VTC	1-1/4"	80		IARB5064R-6VTC	4"	80	
IARE24R-VTC	1-1/2"	80		IARB5080R-6VTC	5"	80	
					IARB5080R-6VTC	6"	80

SHANK + BORE STYLE

Advanced Design End Mills and Face Mills Radically Reduce Cutting Forces

- Unique high rake geometry reduces cutting forces
- 30% increased rigidity thanks to special steel material and chip pocket geometry
- TH & JX Coated Inserts improve efficiency and tool life
- No coolant hole



SHANK STYLE - INCH

REGULAR LENGTH

PART NO.	FLUTES	ØD	ØD	L	L ₂	INSERT
IAHU1012R-3VTC	3	0.750	0.750	4.000	1.000	JDMT1003
IAHU1516R-2VTC	2	1.000	1.000	4.000	1.500	JDMT1505
IAHU1520R-3VTC	3	1.250	1.250	4.500	2.000	JDMT1505
IAHU1524R-4VTC	4	1.500	1.250	4.500	2.000	JDMT1505

SHANK STYLE - INCH

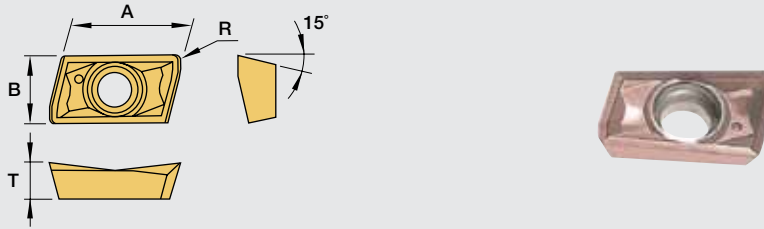
LONG LENGTH

PART NO.	FLUTES	ØD	ØD	L	L ₂	INSERT
IAHUL1012R-3VTC	3	0.750	0.750	5.030	3.000	JDMT1003
IAHUL1516R-2VTC	2	1.000	1.000	6.750	4.500	JDMT1505
IAHUL1520R-3VTC	3	1.250	1.250	7.250	5.000	JDMT1505
IAHUL1524R-4VTC	4	1.500	1.500	8.190	5.500	JDMT1505

BORE STYLE - INCH

PART NO.	FLUTES	ØD	Ød	H	INSERT
IAHUB1532R-5VTC	5	2.000	0.750	1.750	JDMT1505
IAHUB1548R-7VTC	7	3.000	1.000	2.000	JDMT1505

INSERTS



PART NO.	PTH30E	JX1045	R	A	B	T
JDMT150504R	•	•	0.4	16.0	9.12	5.0
JDMT150508R	•	•	0.8	16.0	9.12	5.0
JDMT150520R	•	•	2.0	16.0	9.12	5.0
JDMT150530R	•	•	3.0	16.0	9.12	5.0
JDMT100304R	•	•	0.4	16.0	9.12	5.0
JDMT100308R	•	•	0.8	16.0	9.12	5.0
JDMT100320R	•	•	2.0	16.0	9.12	5.0
JDMT150516R	•	•	1/16"	16.0	9.12	5.0

All inserts have two effective cutting edges



PART NO.	CLAMP SCREW	WRENCH
IAHU1012R-3, IAHUL1012R-3	AB25	VTC-T7
IAHU1516R-2, IAHUL1516R-2	AB40	VTC-T15
IAHU1520R-3, IAHUL1520R-3	AB40	VTC-T15
IAHU1524R-4, IAHUL1524R-4	AB40	VTC-T15
IAHUB1532R-5, IAHUB1548R-7	AB40	105-T15

FREE VTC CUTTER BODY WITH PURCHASE OF INSERTS

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IAHUB1532R-5VTC	2"	80	JDMT1505
IAHUB1548R-7VTC	3"	80	
IAHU1012R-3VTC	3/4"	50	JDMT1003
IAHU1516R-2VTC	1"	50	JDMT1505
IAHU1520R-3VTC	1-1/4"	50	
IAHU1524R-4VTC	1-1/2"	50	

CUTTER PART NO.	SIZE	INSERT QTY	INSERT TYPE
IAHUL1012R-3VTC	3/4"	60	JDMT1003
IAHUL1516R-2VTC	1"	60	JDMT1505
IAHUL1520R-3VTC	1-1/4"	60	
IAHUL1524R-4VTC	1-1/2"	60	

Kyowa

cBN End Mills for machining hardened steels 40 – 70 HRC

- cBN (Cubic Boron Nitride) is one of the hardest materials known to man, second only to diamond
- Far outlasts carbide cutting tools in die / mold machining applications
- Unlike diamond cutting tools, cBN demonstrates increased stability at higher temperatures
- Unique spiral flute contributes to long tool life



SBBEF: Spiral Flute Ball End Mills

- Size Range: R0.1 – R1.5
- Effective Length: Flute Diameter x 3 ~ 10
- Shank Diameter: 4mm



SBREF: Spiral Flute Corner R End Mills

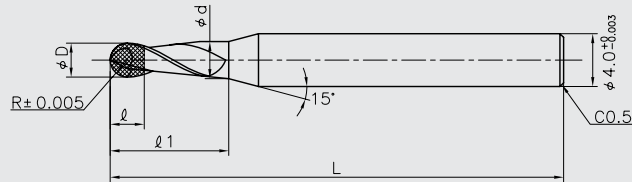
- Size Range: R0.3 – R3.0
- Effective Length: Flute Diameter x 3 ~ 10, Corner R0.03 ~ R0.5
- Shank Diameter: 4mm



cBN Ball Endmill



ATTACKSMITH SBBEF SPIRAL FLUTE BALL ENDMILL



METRIC - Shank Dia 4mm

CODE	R	FLUTE DIA D	EFFECTIVE LENGTH l1	FLUTE LENGTH l	NECK DIA φd	SHANK DIA φ	TOTAL LENGTH L
SBBEF-2010006	0.1	0.2	0.6	0.2	0.18	4	50
SBBEF-2010012			1.2	0.2			
SBBEF-2015009	0.15	0.3	0.9	0.3	0.28	4	50
SBBEF-2015018			1.8	0.3			
SBBEF-2020012	0.2	0.4	1.2	0.4	0.37	4	50
SBBEF-2020024			2.4	0.4			
SBBEF-2025015	0.25	0.5	1.5	0.5	0.46	4	50
SBBEF-2025030			3	0.5			
SBBEF-2030018	0.3	0.6	1.8	0.6	0.56	4	50
SBBEF-2030036			3.6	0.6			
SBBEF-2040024	0.4	0.8	2.4	0.8	0.76	4	50
SBBEF-2040048			4.8	0.8			
SBBEF-2050030	0.5	1	3	1	0.95	4	50
SBBEF-2050040			4	1			
SBBEF-2050050			5	1			
SBBEF-2050060			6	1			
SBBEF-2050080			8	1			
SBBEF-2050100			10	1			
SBBEF-2060036	0.6	1.2	3.6	1.2	1.15	4	50
SBBEF-2060072			7.2	1.2			
SBBEF-2070042	0.7	1.4	4.2	1.4	1.35	4	50
SBBEF-2070084			8.4	1.4			
SBBEF-2075045	0.75	1.5	4.5	1.5	1.45	4	50
SBBEF-2075090			9	1.5			

cBN Ball Endmill



ATTACKSMITH SBBEF SPIRAL FLUTE BALL ENDMILL

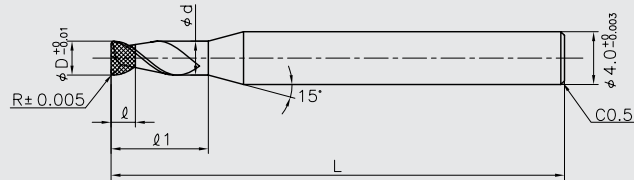
METRIC - Shank Dia 4mm CONTINUED

CODE	R	FLUTE DIA D	EFFECTIVE LENGTH l1	FLUTE LENGTH l	NECK DIA Ød	SHANK DIA Ø	TOTAL LENGTH L
SBBEF-2080048	0.8	1.6	4.8	1.5	1.55	4	50
SBBEF-2080096			9.6	1.5	1.55	4	50
SBBEF-2090054	0.9	1.8	5.4	1.5	1.75	4	50
SBBEF-2090108			10.8	1.5	1.75	4	50
SBBEF-2100060	1	2	6	1.5	1.95	4	50
SBBEF-2100120			12	1.5	1.95	4	50
SBBEF-2150090	1.5	3	9	2	2.95	4	50
SBBEF-2150180			18	2	2.95	4	60

cBN Corner R Endmill



ATTACKSMITH SBREF SPIRAL FLUTE CORNER R ENDMILL



METRIC - Shank Dia 4mm

CODE	FLUTE DIA ØD	CORNER R	EFFECTIVE LENGTH l1	FLUTE LENGTH l	NECK DIA Ød	SHANK DIA Ø	TOTAL LENGTH L	
SBREF-203003009	0.3	0.03	0.9	0.3	0.26	4	50	
SBREF-203003018			1.8	0.3	0.26	4	50	
SBREF-203005009		0.05	0.9	0.3	0.26	4	50	
SBREF-203005018			1.8	0.3	0.26	4	50	
SBREF-204003012	0.4	0.03	1.2	0.4	0.36	4	50	
SBREF-204003024			2.4	0.4	0.36	4	50	
SBREF-204010012		0.1	1.2	0.4	0.36	4	50	
SBREF-204010024			2.4	0.4	0.36	4	50	
SBREF-205003015	0.5	0.03	1.5	0.5	0.46	4	50	
SBREF-205003030			3	0.5	0.46	4	50	
SBREF-205010015		0.1	1.5	0.5	0.46	4	50	
SBREF-205010030			3	0.5	0.46	4	50	
SBREF-210003030	1	0.03	3	1	0.95	4	50	
SBREF-210003040			4	1	0.95	4	50	
SBREF-210003050			5	1	0.95	4	50	
SBREF-210003060			6	1	0.95	4	50	
SBREF-210003080			8	1	0.95	4	50	
SBREF-210003100			10	1	0.95	4	50	
SBREF-210010030		0.1	0.1	3	1	0.95	4	50
SBREF-210010040				4	1	0.95	4	50
SBREF-210010050				5	1	0.95	4	50
SBREF-210010060				6	1	0.95	4	50
SBREF-210010080			8	1	0.95	4	50	
SBREF-210010100			10	1	0.95	4	50	

cBN Corner R Endmill



ATTACKSMITH SBREF SPIRAL FLUTE CORNER R ENDMILL

METRIC - Shank Dia 4mm CONTINUED

CODE	FLUTE DIA ØD	CORNER R	EFFECTIVE LENGTH l1	FLUTE LENGTH l	NECK DIA Ød	SHANK DIA Ø	TOTAL LENGTH L
SBREF-210020030	1	0.2	3	1	0.95	4	50
SBREF-210020040			4	1	0.95	4	50
SBREF-210020050			5	1	0.95	4	50
SBREF-210020060			6	1	0.95	4	50
SBREF-210020080			8	1	0.95	4	50
SBREF-210020100			10	1	0.95	4	50
SBREF-215003045	1.5	0.03	4.5	1.5	1.45	4	50
SBREF-215003090			9	1.5	1.45	4	50
SBREF-215010045		0.1	4.5	1.5	1.45	4	50
SBREF-215010090			9	1.5	1.45	4	50
SBREF-215020045		0.2	4.5	1.5	1.45	4	50
SBREF-215020090			9	1.5	1.45	4	50
SBREF-220003060	2	0.03	6	1.5	1.95	4	50
SBREF-220003120			12	1.5	1.95	4	50
SBREF-220010060		0.1	6	1.5	1.95	4	50
SBREF-220010120			12	1.5	1.95	4	50
SBREF-220020060		0.2	6	1.5	1.95	4	50
SBREF-220020120			12	1.5	1.95	4	50
SBREF-220030060		0.3	6	1.5	1.95	4	50
SBREF-220030120			12	1.5	1.95	4	50
SBREF-230003090	3	0.03	9	2	2.95	4	50
SBREF-230003180			18	2	2.95	4	60
SBREF-230010090		0.1	9	2	2.95	4	50
SBREF-230010180			18	2	2.95	4	60
SBREF-230020090		0.2	9	2	2.95	4	50
SBREF-230020180			18	2	2.95	4	60
SBREF-230030090		0.3	9	2	2.95	4	50
SBREF-230030180			18	2	2.95	4	60
SBREF-230050090		0.5	9	2	2.95	4	50
SBREF-230050180			18	2	2.95	4	60

Vega Cutting Tools

High Performance Taps for a variety of applications

XHP-MB: Modified Bottoming Spiral Fluted Taps

- Spiral flute provides good chip evacuation in deep holes
- Free cutting geometry provides excellent tool life
- Available in both Steam Oxide Finish and TiN Coating



XHP-P: Plug Spiral Pointed Taps

- Spiral flute provides good chip evacuation
- Free cutting geometry provides excellent tool life
- Available in both Steam Oxide Finish and TiN Coating



See our Vega Cutting Tools catalog for our complete lineup of Taps, Thread Mills and Drills.

XHP-MB Taps



XHP MODIFIED BOTTOMING SPIRAL FLUTED TAPS

HSSE-V Steam Oxide Finish

- Excellent performance in steel and stainless steel
- Free cutting geometry provides excellent tool life
- Spiral flute provides good chip evacuation in deep holes
- Sizes ranging from 2–56 to 2"–4.5 (M3x0.5 to M24x3)



HSSE-V Steam Oxide Finish

Steam Oxide Finish - METRIC

NOMINAL SIZE	PITCH	NO. OF FLUTES	THREAD LIMITS						
			D3	D4	D5	D6	D7	D8	
M3	0.50	3	74615						
M3.5	0.60	3		74616					
M4	0.70	3		74617					
M5	0.80	3		74619					
M6	1.00	3			74620				
M7	1.00	3			74621				
M8	1.00	3			74622				
	1.25	3			74623				
M10	1.25	3			74624				
	1.50	3				74625			
M12	1.25	3			74626				
	1.75	3				74627			
M14	1.50	3				74628			
	2.00	3					74629		
M16	1.50	3				74630			
	2.00	3					74631		
M18	1.50	4				74632			
	2.50	4					74633		
M20	2.50	4					74635		
M24	3.00	4							74639

XHP-MB Taps



XHP MODIFIED BOTTOMING SPIRAL FLUTED TAPS

Steam Oxide Finish - INCH

NOMINAL SIZE	TPI		NO. OF FLUTES	THREAD LIMITS							
	NC/UNC	NF/UNF		H2	H3	H4	H5	H6	H7	H8	H11*
2	56		2	84623							
3	48		2	84600							
4	40		2	84601	84602	84629	84634				
		48	2	84683							
5	40		3	84603							
6	32		3	84604	84605	84636	84635	84659	84665		
		40	3	84684	84685						
8	32		3	84606	84607	84638	84637	84660	84667		
		36	3		84687						
10	24		3	84624	84609		84639	84690	84669		
		32	3	84611	84610	84630	84640	84662	84670		
12	24		3		84688						
		28	3		84689						
1/4	20		3		84613		84643		84673		89002
		28	3		84614	84631	84644	84664	84674		89004
5/16	18		3		84615		84645		84675		89006
		24	3		84616	84632	84646		84676		89008
3/8	16		3		84617		84647		84677		89010
		24	3		84618	84633	84648		84678		89012
7/16	14		3		84619		84649		84679		
		20	3		84620		84650	84691	84680		
1/2	13		3		84621		84651		84681		89014
		20	3		84622		84652	84692	84682		89016
9/16	12		3		84653						
		18	3		84654						
		24	3		84641						
5/8	11		3		84625		84655				89018
		18	3		84626		84656				89020
3/4	10		4		84627		84657				89022
		16	4		84628		84658		84686		89024
7/8	9		4			84695					
		14	4			84696		84694			
1	8		4			84697					
		12	4			84698					
1-1/8	7		4			84661		846616			
		12	4				846625				
1-1/4	7		4			84693		846936			
		12	4				846945				
1-3/8	6		4			84671			846716		
		12	4					846725			
1-1/2	6		4			84672			846726		
		12	4					846735			
1-3/4	5		5							846367	
2	4.5		5				84699			846997	

* H11 ... +0.005 Oversize

XHP-MB Taps



XHP MODIFIED BOTTOMING SPIRAL FLUTED TAPS

HSSE-V TiN Coated

- Excellent performance in steel and stainless steel
- Free cutting geometry provides excellent tool life
- Spiral flute provides good chip evacuation in deep holes
- Sizes ranging from 2–56 to 2"–4.5 (M3x0.5 to M24x3)



HSSE-V TiN Coated

TiN Coated - METRIC

NOMINAL SIZE	PITCH	NO. OF FLUTES	THREAD LIMITS						
			D3	D4	D5	D6	D7	D8	
M3	0.50	3	74915						
M3.5	0.60	3		74916					
M4	0.70	3		74917					
M5	0.80	3		74919					
M6	1.00	3			74920				
M7	1.00	3			74921				
M8	1.00	3			74922				
	1.25	3			74923				
M10	1.25	3			74924				
	1.50	3				74925			
M12	1.25	3			74926				
	1.75	3				74927			
M14	1.50	3				74928			
	2.00	3					74929		
M16	1.50	3				74930			
	2.00	3					74931		
M18	1.50	4				74932			
	2.50	4					74933		
M20	2.50	4					74935		
M24	3.00	4							74939

XHP-MB Taps



XHP MODIFIED BOTTOMING SPIRAL FLUTED TAPS

TiN Coated - INCH

NOMINAL SIZE	TPI		NO. OF FLUTES	THREAD LIMITS							
	NC/UNC	NF/UNF		H2	H3	H4	H5	H6	H7	H8	
2	56		2	84923							
4	40		2	84901							
5	40		3	84903							
6	32		3		84905						
8	32		3		84907						
10	24		3		84909						
		32	3		84910						
			3		84913		84943				
1/4	20		3		84914						
		28	3		84915		84945				
5/16	18		3		84916						
		24	3		84917		84947				
3/8	16		3		84918						
		24	3		84919		84949				
7/16	14		3		84920						
		20	3		84921		84951				
			3		84922						
1/2	13		3		84953						
		20	3		84954						
9/16	12		3		84925		84955				
		18	3		84926						
5/8	11		3		84927		84947				
		18	3		84928						
3/4	10		4								
		16	4								
7/8	9		4			84995					
		14	4			84996					
1	8		4			84997					
1-1/8	7		4					849616			
		12	4				849625				
1-1/4	7		4					849936			
		12	4				849945				
1-3/8	6		4						849716		
		12	4					849725			
1-1/2	6		4						849726		
		12	4					849735			
1-3/4	5									849367	
2	4.5		5								849997

XHP-P Taps



XHP PLUG SPIRAL POINTED TAPS

HSSE-V Steam Oxide Finish

- Excellent performance in steel and stainless steel
- Free cutting geometry provides excellent tool life
- Spiral point provides good chip evacuation
- Sizes ranging from 2–56 to 2"–4.5 (M3x0.5 to M24x3)



HSSE-V Steam Oxide Finish

Steam Oxide Finish - METRIC

NOMINAL SIZE	PITCH	NO. OF FLUTES	THREAD LIMITS					
			D3	D4	D5	D6	D7	D8
M3	0.50	3	72615					
M3.5	0.60	3		72616				
M4	0.70	3		72617				
M5	0.80	3		72619				
M6	1.00	3			72620			
M7	1.00	3			72621			
M8	1.00	3			72622			
	1.25	3			72623			
M10	1.25	3			72624	72644		
	1.50	3				72625		
M12	1.25	3			72626			
	1.75	3				72627		
M14	1.50	3				72628		
	2.00	3					72629	
M16	1.50	3				72630		
	2.00	3					72631	
M18	1.50	3				72632		
	2.50	3					72633	
M20	2.50	3					72635	
M24	3.00	3						72639

XHP-P Taps



XHP PLUG SPIRAL POINTED TAPS

Steam Oxide Finish - INCH

NOMINAL SIZE	TPI		NO. OF FLUTES	THREAD LIMITS						
	NC/UNC	NF/UNF		H2	H3	H4	H5	H6	H7	H8
2	56		2	82623						
3	48		2	82600						
4	40		2	82601	82602	82612	82634			
		48	2	82683						
5	40		3	82603						
6	32		3	82604	82605	82608	82635	82659	82665	
		40	3	82684						
8	32		3	82606	82607	82629	82637	82660	82667	
		36	3	82686				82693		
10	24		3		82609		82639	82690	82669	
		32	3	82611	82610	82630	82640	82661	82670	
12	24		3		82688					
		28	3		82689					
1/4	20		3		82613		82643		82673	
		28	3		82614	82631	82644	82662	82674	
5/16	18		3		82615		82645		82675	
		24	3		82616	82632	82646	82663	82676	
3/8	16		3		82617		82647			
		24	3		82618	82633	82648	82664	82678	
		32	3				82671	82672	82677	
7/16	14		3		82619		82649			
		20	3		82620		82650	82691	82680	
		24	3				82679			
1/2	13		3		82621		82651		82681	
		20	3		82622		82652	82692	82682	
9/16	12		3		82653					
		18	3		82654		82666			
5/8	11		3		82625		82655			
		18	3		82626	82636	82656	82694		
3/4	10		3		82627		82657			
		16	3		82628		82658			
7/8	9		3			82695				
		14	3			82696		82699		
1	8		3			82697				
		12	3			826984				
1-1/8	7		4					826616		
		12	4							
1-1/4	7		4			82698		826986		
		12	4				826945			
1-3/8	6		4						826716	
		12	4					826725		
1-1/2	6		4						826726	
		12	4					826735		
1-3/4	5		4							826367
2	4.5		4							826997

XHP-P Taps



XHP PLUG SPIRAL POINTED TAPS

HSSE-V TiN Coated

- Excellent performance in steel, stainless steel, aluminum and exotic materials
- Free cutting geometry provides excellent tool life
- Spiral point provides good chip evacuation
- Sizes ranging from 2–56 to 2"–4.5 (M3x0.5 to M24x3)



HSSE-V TiN Coated

TiN Coated - METRIC

NOMINAL SIZE	PITCH	NO. OF FLUTES	THREAD LIMITS						
			D3	D4	D5	D6	D7	D8	
M3	0.50	3	72915						
M3.5	0.60	3		72916					
M4	0.70	3		72917					
M5	0.80	3		72919					
M6	1.00	3			72920				
M7	1.00	3			72921				
M8	1.00	3			72922				
	1.25	3			72923				
M10	1.25	3			72924				
	1.50	3				72925			
M12	1.25	3			72926				
	1.75	3				72927			
M14	1.50	3				72928			
	2.00	3					72929		
M16	1.50	3				72930			
	2.00	3					72931		
M18	1.50	3				72932			
	2.50	3					72933		
M20	2.50	3					72935		
M24	3.00	3							72939

XHP-P Taps



XHP PLUG SPIRAL POINTED TAPS

TiN Coated - INCH

NOMINAL SIZE	TPI		NO. OF FLUTES	THREAD LIMITS						
	NC/UNC	NF/UNF		H2	H3	H4	H5	H6	H7	H8
2	56		2	82923						
4	40		2	82901						
5	40		3	82903						
6	32		3		82905					
8	32		3		82907					
10	24		3		82909					
		32	3		82910					
1/4	20		3		82913		82943			
		28	3		82914					
5/16	18		3		82915		82945			
		24	3		82916					
3/8	16		3		82917		82947			
		24	3		82918					
7/16	14		3		82919		82949			
		20	3		82920					
1/2	13		3		82921		82951			
		20	3		82922					
9/16	12		3		82953					
		18	3		82954					
5/8	11		3		82925		82955			
		18	3		82926					
3/4	10		3		82927		82957			
		16	3		82928					
7/8	9		3			82995				
		14	3			82996				
1	8		3			82997				
		12	3			829984				
1-1/8	7		4				829625	829616		
		12	4							
1-1/4	7		4				829945	829986		
		12	4							
1-3/8	6		4						829716	
		12	4					829725		
1-1/2	6		4						829726	
		12	4					829735		
1-3/4	5		4							829367
2	4.5		4							829997

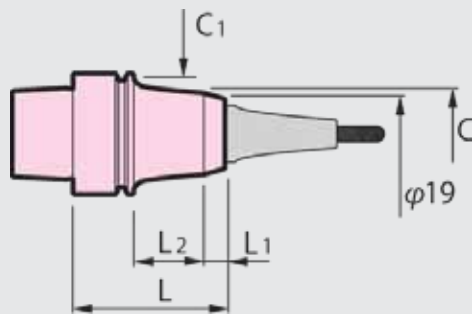
TWO PIECE MINI-TYPE SHRINK FIT HOLDERS

High Precision Toolholders for High Speed Machines

- Ideal for small, high speed machining centers
- Unique curved design + short projection length
- Large neck design handles cutting forces easily
- Slim design at the tip eliminates interference

RUNOUT VALUE: 3 μ

MAXIMUM SPEED: 40,000 min⁻¹



MASTER HOLDERS



MASTER HOLDERS

TWO PIECE TYPE

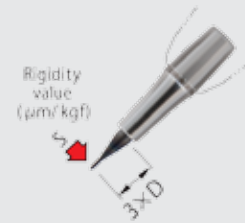
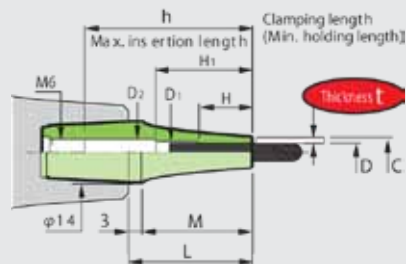
CODE	L	L ₁	L ₂	ØC	ØC ₁	Kg	In Balance Value (g • mm)
E32-SLK6-37	37	7	10	26	-	0.2	1.3
E32-SLK6-50	50	7	23	26	-	0.2	2.2
E40-SLK6-37	37	17	-	-	34	0.3	1.7
E40-SLK6-50	50	7	23	23.5	34	0.3	2.6

MST SHRINK-FIT HOLDER SLIMLINE



TWO PIECE MINI-TYPE SHRINK FIT HOLDERS

SLIM LINE COLLETS



SLIM LINE COLLETS

SLIM

CODE	ØD	ØC	t	L	M	H	S	In Balance Value (g • mm)	g	h	ØD ₁	ØD ₂	H ₁
CS6-3-15	3	6	1.5	15	12	9	1.5	0.1	20	24	5.1	-	-
CS6-3-30	3	6	1.5	30	27	9	3.2	0.2	30	39	4	5.1	25
CS6-3-45	3	6	1.5	45	42	9	9	0.3	40	54	4	5.1	30
CS6-4-15	4	7	1.5	15	12	12	1.2	0.1	30	24	5.1	-	-
CS6-4-30	4	7	1.5	30	27	12	2.8	0.2	30	39	5.1	-	-
CS6-4-45	4	7	1.5	45	42	12	7.9	0.4	40	54	5.1	-	-
CS6-6-15	6	9	1.5	15	12	15	1	0.1	20	24	6.6	-	25
CS6-6-30	6	9	1.5	30	27	15	2.4	0.3	30	35	6.6	-	36
CS6-6-45	6	9	1.5	45	42	15	6.5	0.5	40	35	6.6	-	36

SLIM LINE COLLETS

REGULAR

CODE	ØD	ØC	t	L	M	H	S	In Balance Value (g • mm)	g	h	ØD ₁	ØD ₂	H ₁
CR6-3-30	3	7.5	2.25	30	27	9	1.3	0.1	30	39	4	5.1	25
CR6-3-45	3	7.5	2.25	45	42	9	6.2	0.3	40	40	4	5.1	30
CR6-4-30	4	10	3	30	27	12	1.0	0.1	30	30	5.1	-	-
CR6-4-45	4	10	3	45	42	12	4.4	0.5	50	50	5.1	-	-
CR6-6-30	6	12	3	30	27	15	0.8	0.2	20	20	6.6	-	36
CR6-6-45	6	12	3	45	42	15	4.0	0.6	20	20	6.6	-	36

S (μm/kgf) refers to the deflection value of an E32-SLK6-37/s LIMLINE collet mini combination. The values below are comparable for any shank combination

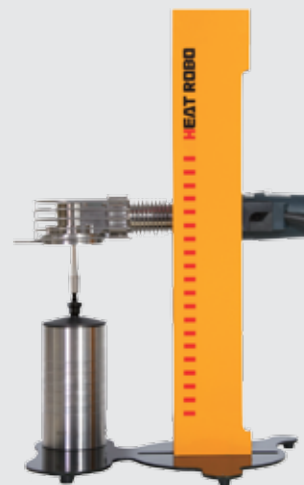
MST HEATER



HOT AIR HEATER AND ACCESSORIES

Hot air heater exclusively for SLIMLINE Collets

- Low temperature shrinking: just 300°C (570°F)
- Water cooling for significantly reduced cooling time
- Standard accessories include heat resistant gloves, tweezers and timer
- 120V, 1.2KW, easy operation



NAME	PART NUMBER	SIZE	DESCRIPTION
HEAT ROBO Baby 1200S Hot Air Heater	HRB-02S-120NA	362mm wide x 105mm deep x 570mm tall	Hot air heater exclusively for SLIMLINE Collets

MST HEATER



HOT AIR HEATER AND ACCESSORIES

**CUTTER STOPPER:
PLATE SPRING TYPE**



HSB - D

**CUTTER STOPPER:
SLIT COLLET TYPE**



HSC - D

ADAPTER



ADH - SLK

BASE



BAA - 01

CUTTER TRAY



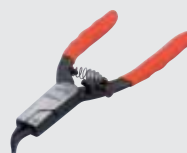
SDH - 01

CUTTER PLIERS



HYP - 01

STOPPER PLIERS



SPY - 01

CUTTER ADJUSTER



HAI - D

NAME	PART NUMBER	SIZE	DESCRIPTION
Cutter Stopper: Plate Spring Type	HSB-3	for 3mm diameter cutting tools	Used as a stopper on the holder when shrinking or removing a cutting tool
	HSB-4	for 4mm diameter cutting tools	
	HSB-6	for 6mm diameter cutting tools	
Cutter Stopper: Slit Collet Type	HSC-3	for 3mm diameter cutting tools	Used as a stopper on the holder when shrinking or removing a cutting tool
	HSC-4	for 4mm diameter cutting tools	
	HSC-6	for 6mm diameter cutting tools	
Cutter Adjuster	HAI-3	for 3mm diameter cutting tools, 10-30mm insertion length	Allows you to set the overhang of a cutting tool or align the lengths of several cutting tools (when used in combination with Cutter Stoppers)
	HAI-4	for 4mm diameter cutting tools, 13-30mm insertion length	
	HAI-6	for 6mm diameter cutting tools, 19-45mm insertion length	
Adapter	ADH-SLK	M16, M18, M10	-
Base	BAA-01	Size: 88mm diameter x 165mm tall	-
Cutter Cooling Tray	SDH-01	170mm x 170mm	Made of aluminum for superior cooling
Cutter Pliers	HPY-01	-	Eliminates the hassle of using heat-resistant gloves
Stopper Pliers	SPY-01	-	Can easily attach the HSB type Cutter Stoppers
Tool Setup Stand	HF-E32	74mm wide x 37mm deep x 170mm tall	For clamping the main body and collet, HSK-E32 Type
	HF-E40	80mm wide x 37mm deep x 170mm tall	For clamping the main body and collet, HSK-E40 Type

FILTERLESS MIST COLLECTOR **AMANO**

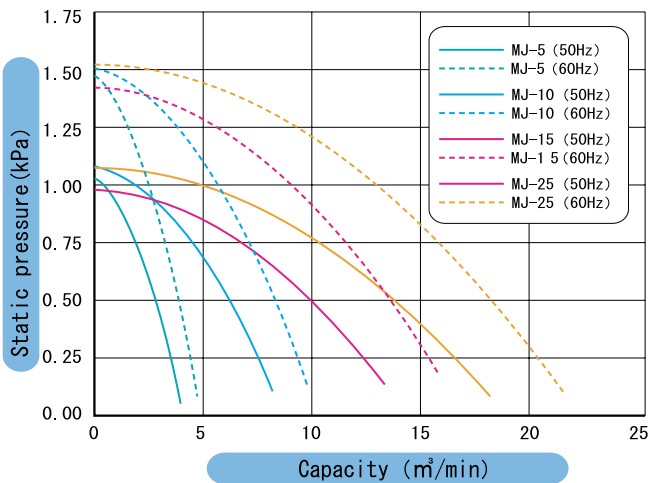
MJ SERIES

No filter replacement is required

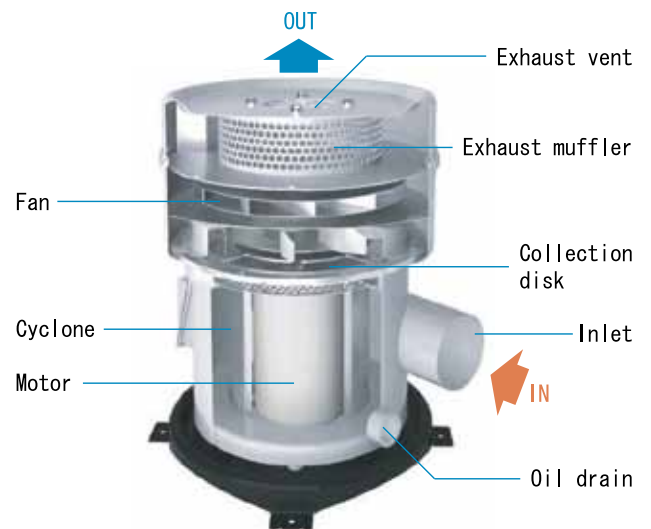
- Disk & Cyclone maintains high efficiency of suction and collection for long periods.



PERFORMANCE CURVE



INTERNAL DESIGN



FILTERLESS MIST COLLECTOR

AMANO

MJ SERIES

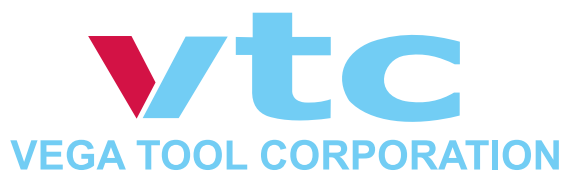
SPECIFICATIONS

MODEL	MJ-5	MJ-10	SMJ-15	MJ-25
POWER SUPPLY (Hz)	Three phase 50/60Hz			
OUTPUT (kW)	0.4	0.75	1.5	2.2
CAPACITY (m ³ /min)	3.7/4.5	7.0/8.5	13.0/16.0	18.0/22.0
STATIC PRESSURE (kPa)	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5
NOISE (dB [A])	less than 72±2			
COLLECTABLE MIST	Water soluble mist (After-filter is required to collect oil mist)			
COLLECTING SYSTEM	Cyclone + Collection disk			
COLLECTING EFFICIENCY	99.9% (2.0 µm)			
PERMISSIBLE INTAKE AIR TEMP (°C)	5~50			
AMBIENT TEMP (°C)	5~40			
POWER CORD (m)	—			
DRAIN DIAMETER (mm)	Ø31.8			
INLET DIAMETER (mm)	Ø98	Ø123	Ø148	Ø198
DIMENSIONS (mm) - WIDTH	433	472	577	632
DIMENSIONS (mm) - HEIGHT	484	522	589	663
WEIGHT (kg)	35	42	61	80
COATING COLOR	JPIA (Y25-90A, YN40)			
ACCESSORIES	hose (Ø32mm × length 2m) hose band × 1			

FOR YOUR SAFETY

- Please read OPERATION MANUAL carefully prior to the start of operation.
- This machine should be operated for the purpose of collecting water-soluble mist and oil-based mist.
- Please install optional after-filter to collect oil mist.
- Do not collect following materials:
 - Inflammable materials: gasoline, thinner, benzene, kerosene, paint, etc.
 - Powdery dust, fumes
 - Combustible material: cigarette butt, ash etc.
 - Others: water, steam and chemicals
 - Oil and mist of low flash point (80°C or less)
- Do not operate a mist collector in a place pervaded with inflammable, explosive and corrosive fume, smoke, and/or gas.
- In order to prevent electrical shock, please make sure earthing connection.
- Please install a duct hose in optimum diameter by the most direct way to an inlet without slack in accordance with collection conditions.
- Do not turn on the power while machine inspection or parts replacement and do not start any operation before the fan has stopped rotating.

2011 - 2012 CATALOG



AUTHORIZED DISTRIBUTOR

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