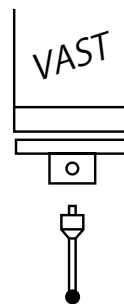


Applicable Probe Heads

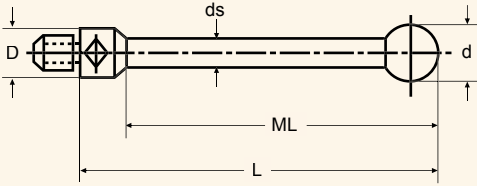
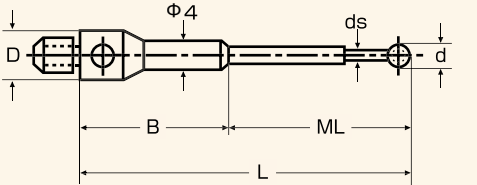
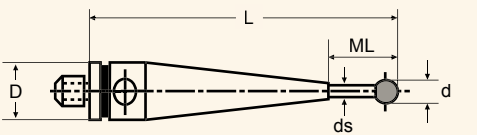
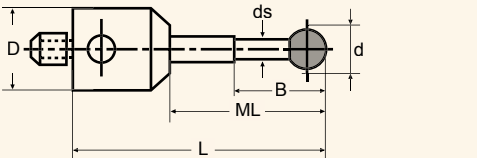
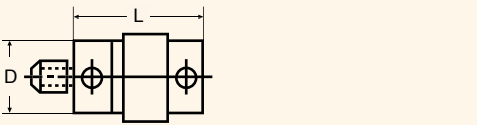
Probe Head Specifications

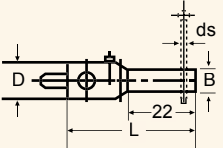
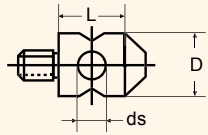
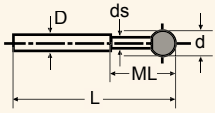
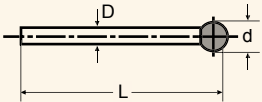
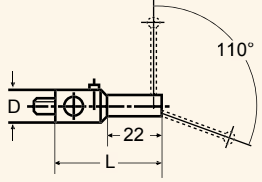
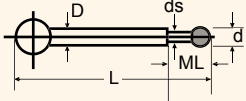
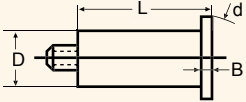
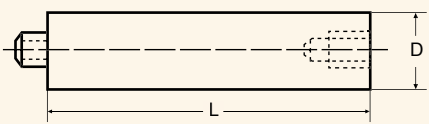
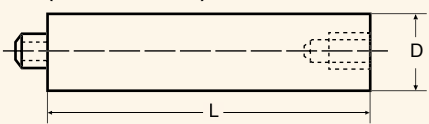
Probe Heads	VAST-XT
Stylus + extension maximum length (L)	500 mm
Stylus minimum tip diameter (d)	Φ 0.6 mm
Stylus + extension maximum weight	500 g

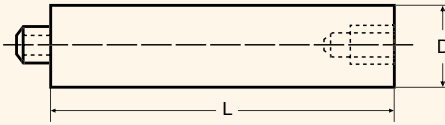
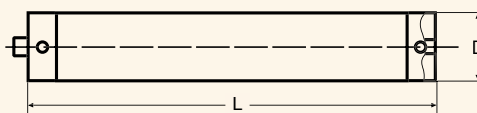
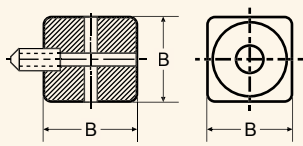


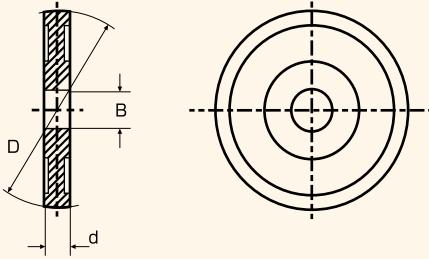
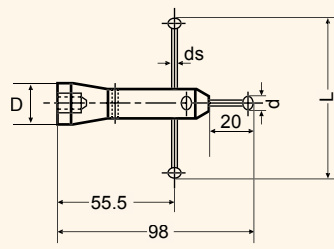
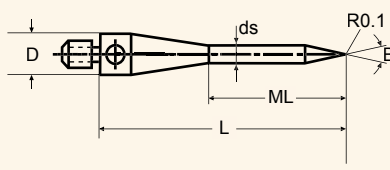
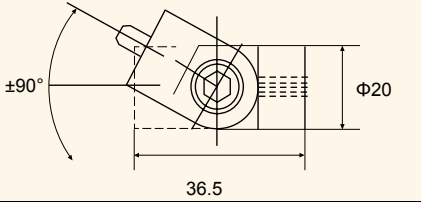
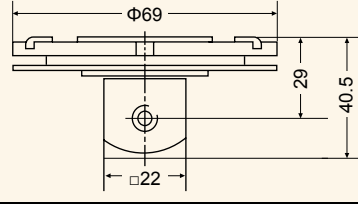
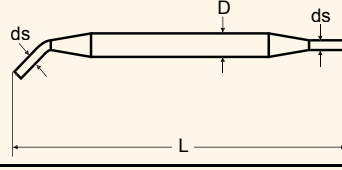
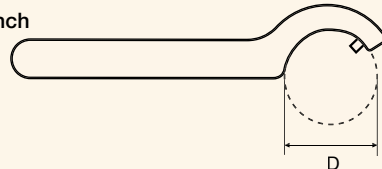
Stylus/Extension

M5	Outline Shape	Model	Dimensions (mm)						Weight (g)
			d	L	D	ML	ds	B	
Ball Stylus (Carbide Shaft) 		602030-9010-000	3	25	11	15	2		4
		600342-8020-000	3	33.5	11	23.5	2		4
		602030-9011-000	3	50	11	40	2		5
		600342-8021-000	3	58	11	48	2		6
		600342-8025-000	4	33.5	11	23.5	2		4
		602030-9012-000	4	64	11	54	2		6
		602030-9013-000	5	50	11	40	3.5		9
		602030-9015-000	5	75	11	65	3.5		13
		600342-8026-000	6	54	11	44	3.5		10
		600342-8027-000	7	55	11	45	3.5		10
		600342-8023-000	8	63.5	11	50.5	6		25
		602030-9016-000	8	75	11	62	6		30
		602030-9017-000	8	100	11	87	6		41
		600342-8024-000	8	114.5	11	101.5	6		48
		600342-8124-000	8	114.5	19	92.5	6		59
		600342-8128-000	9	64.5	19	42.5	6		38
		600342-8029-000	10	65.5	11	52.5	6		27
		602030-9018-000	10	118	11	105	6		47
Ball Stylus (Thermo Fit) 		626105-0300-025	3	25	11	15	2		4
		626105-0300-033	3	33	11	23	2		4
		626105-0300-050	3	50	11	40	2		4
		626105-0300-058	3	58	11	48	2		4
		626105-0400-033	4	33	11	23	2		4
		626105-0400-064	4	64	11	54	2		4
		626105-0510-050	5	50	11	40	3.5		4
		626105-0510-075	5	75	11	65	3.5		5
		626105-0510-100	5	100	11	90	3.5		5
		626105-0610-054	6	54	11	44	3.5		5
		626105-0710-055	7	55	11	45	3.5		5
		626105-0820-063	8	63	11	50	6		7
		626105-0820-075	8	75	11	62	6		8
		626105-0820-100	8	100	11	87	6		9
		626105-0820-114	8	114	11	101	6		10
		626105-0820-150	8	150	11	137	6		12
		626105-0820-200	8	200	11	187	6		14
		626105-1020-065	10	65	11	52	6		8
	626105-1020-118	10	118	11	105	6		11	
	626105-1020-150	10	150	11	137	6		13	
	626105-1020-200	10	200	11	187	6		15	
Ball Stylus (ThermoFit/Silicon Nitride Ball) 		626105-0301-033	3	33	11	23	2		4
		626105-0301-058	3	58	11	48	2		4
		626105-0511-050	5	50	11	40	3.5		4
		626105-0511-075	5	75	11	65	3.5		5
		626105-0511-100	5	100	11	90	3.5		5
		626105-0821-063	8	63	11	50	6		7
		626105-0821-100	8	100	11	87	6		9
		626105-0821-114	8	114	11	101	6		10
		626105-0821-150	8	150	11	137	6		12
		626105-0821-200	8	200	11	187	6		14
		626105-1021-118	10	118	11	105	6		11
		626105-1021-150	10	150	11	137	6		12
		626105-1021-200	10	200	11	187	6		15

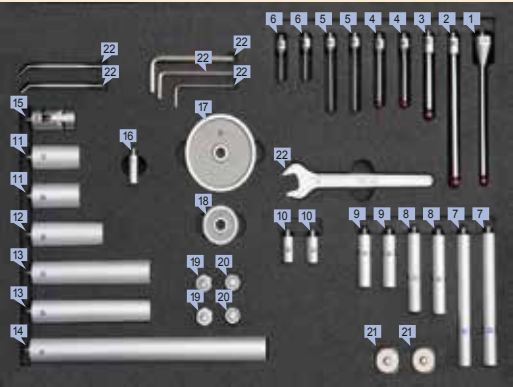
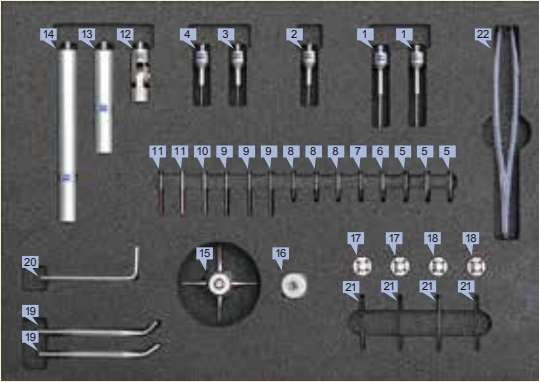
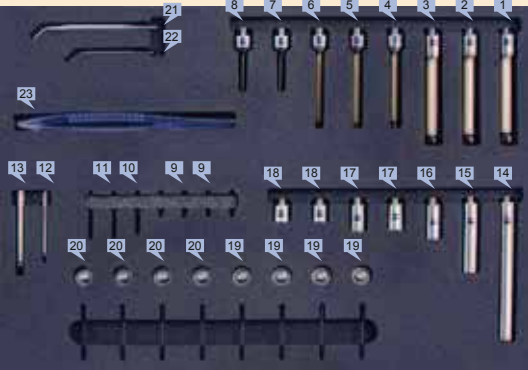
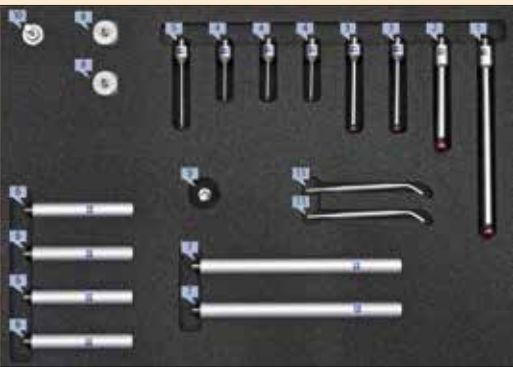
M5	Outline Shape	Model	Dimensions (mm)					Weight (g)
			d	L	D	ML	ds	
Ball Stylus (Ceramics) 	600342-8013-000	5	53	11	43	3.5		5
	600342-8016-000	6	54	11	44	3.5		5
	600342-8014-000	8	63.5	11	50.5	6		8
	600342-8015-000	8	114.5	11	101.5	6		12
Ball Stylus 	602030-8060-000	0.8	32	11	12	0.6	20	4
	602030-8061-000	1	32	11	12	0.8	20	4
	602030-8062-000	1.35	32	11	12	1	20	4
	602030-8063-000	1.35	44	11	19	1	25	4
	602030-8064-000	1.5	32	11	12	1	20	4
	602030-8065-000	1.5	44	11	19	1	25	4
	602030-8066-000	2	32	11	12	1.5	20	7.2
	602030-8067-000	2	44	11	19	1.5	25	5
	602030-8068-000	2	58	11	33	1.5	25	5
	602030-8069-000	2.5	32	11	12	1.5	20	4
	602030-8070-000	2.5	44	11	19	1.5	25	5
	602030-8071-000	2.5	58	11	33	1.5	25	5
Ball Stylus 	602030-9019-000	1	55	11	4	0.8		12
	602030-9020-000	1.5	55	11	5	1		11
	602030-9021-000	2	55	11	5	1.5		11
	602030-9023-000	3.5	55	11	10	2.5		11
Small Diameter Ball Stylus 	626115-0030-022	0.3	21.8	11	12.8	0.2	2.3	6
	626115-0050-022	0.5	22	11	13	0.3	2.5	6
	626115-0060-022	0.6	22.1	11	13.1	0.4	4.6	5.4
	626115-0080-022	0.8	22.3	11	13.3	0.6	4.8	6
	626115-0100-022	1	22.5	11	13.5	0.8	5	6
360° Revolute Joint 	626105-6280-090		30	20				40
	626105-6280-030		29	11				13

M5	Outline Shape	Model	Dimensions (mm)					Weight (g)	
			d	L	D	ML	ds		B
Stylus Holder (90°)		600341-8160-000		45	11		1.5	6	16
5-direction Stylus Holder		600341-8367-000		10	11		1		3
		600341-8368-000		10	11		1.5		3
Ultra-small Diameter Ball Stylus (for HSS)		600341-8454-000	1	16	1	5	0.8		1
		600341-8450-000	0.3	15.3	1	2.3	0.2		1
		600341-8451-000	0.5	15.5	1	2.5	0.3		1
		600341-8452-000	0.6	15.6	1	4.6	0.4		1
		600341-8453-000	0.8	15.8	1	4.8	0.6		1
Small Diameter Ball Stylus		600341-8501-000	1.5	26.5	1				1
		600341-8502-000	2	27	1.5				1
		600341-8503-000	2.5	27.5	1.5				1
		600341-8500-000	1.35	26.35	1				1
Swivel Stylus Holder		600341-8180-000		40	11				15
Stylus for Swivel Holder		600341-8183-000	1	17.5	1	5	0.8		1
		600341-8185-000	2	28.5	1.5				1
Disk Stylus		600341-8090-000	10	21.5	7			1.5	3
		600341-8095-000	15	21.5	10			1.5	6
		000000-1165-630	20	60	7			1	8
		000000-1165-629	15	40	7			1	5
Extension (Aluminum)		600341-8420-000		200	20				85
		600341-8421-000		150	20				68
		600341-8422-000		100	20				50
		600341-8423-000		80	20				43
		600341-8424-000		60	20				37
		600341-8425-000		40	20				32
		600341-8265-000		120	11				30
		600341-8264-000		100	11				24
		600341-8263-000		80	11				19
		600341-8262-000		60	11				14
		600341-8261-000		40	11				10
		Extension (Stainless Steel)		600341-0260-000		100	11		
600341-0258-000				80	11				58
600341-0256-000				60	11				42
600341-0254-000				40	11				28
600341-0252-000				20	11				13
600341-0251-000				15	11				9
600341-0250-000				10	11				6

M5	Outline Shape	Model	Dimensions (mm)					Weight (g)
			d	L	D	ML	ds	
Extension (Titanium) 		602030-9044-000		10	11			4
		602030-9045-000		15	11			6
		602030-9046-000		20	11			7
		602030-9047-000		25	11			9
		602030-9048-000		25	18			26
		602030-9049-000		40	11			14
		602030-9050-000		40	18			43
		602030-9051-000		50	11			15
		602030-9052-000		50	18			35
		602030-9053-000		60	11			14
		602030-9054-000		60	18			38
		602030-9055-000		75	11			19
		602030-9056-000		75	18			42
		602030-9057-000		80	11			19
		602030-9058-000		80	18			41
		602030-9059-000		90	11			20
		602030-9060-000		90	18			47
		602030-9061-000		100	11			22
		602030-9062-000		100	18			50
		602030-9063-000		120	11			30
602030-9064-000		120	18			56		
602030-9065-000		150	11			29		
602030-9066-000		150	18			68		
Extension (Thermo Fit) 		626107-1040-100		40	11			9
		626107-1050-100		50	11			10
		626107-1060-100		60	11			11
		626107-1070-100		70	11			11
		626107-1075-100		75	11			12
		626107-1080-100		80	11			12
		626107-1090-100		90	11			13
		626107-1100-100		100	11			14
		626107-1120-100		120	11			15
		626107-1150-100		150	11			17
		626107-1180-100		180	11			19
		626107-1200-100		200	11			21
		626107-1220-100		220	11			22
		626107-1250-100		250	11			24
		626107-1300-100		300	11			27
		626107-1400-100		400	11			34
		626107-2040-100		40	20			26
		626107-2050-100		50	20			28
		626107-2060-100		60	20			29
		626107-2080-100		80	20			32
		626107-2100-100		100	20			34
		626107-2120-100		120	20			37
		626107-2150-100		150	20			41
		626107-2180-100		180	20			45
		626107-2200-100		200	20			48
		626107-2250-100		250	20			55
626107-2300-100		300	20			62		
626107-2400-100		400	20			75		
626107-2500-100		500	20			89		
626107-2600-100		600	20			103		
Cube (Hexahedron) Adaptor 		(Titanium) 600341-8361-000					15	13
		(Titanium) 600341-8002-000					20	32
		(Aluminum) 602030-8363-000					15	7.5
		(Aluminum) 602030-8362-000					20	20

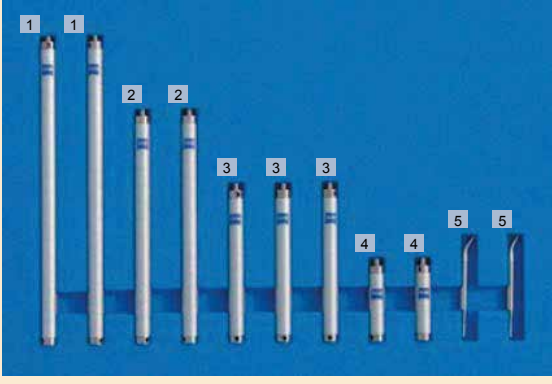
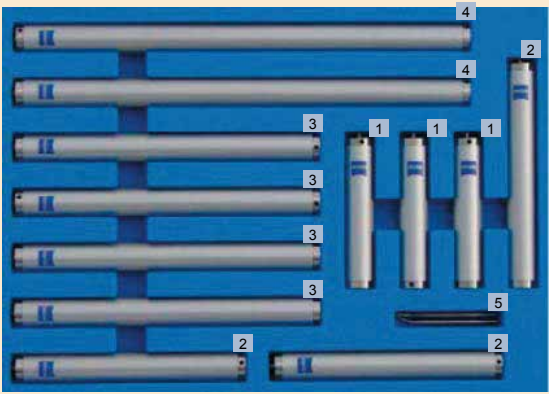
M5	Outline Shape	Model	Dimensions (mm)					Weight (g)		
			d	L	D	ML	ds		B	
	Disk Stylus	602030-0003-000	4		10			M5	2	
		602030-0004-000	4		15			M5	5	
		602030-0005-000	4		20			M5	9	
		602030-0006-000	4		30			M5	21	
		602030-0007-000	5		40			M5	42	
		602030-0008-000	5		50			M5	64	
		602030-0009-000	5		60			M5	89	
		602030-0010-000	4		15			8	4	
		602030-0011-000	4		20			8	8	
		600341-0200-000	2		20			8	4	
		600341-0203-000	4		30			8	10	
		600341-0204-000	4		40			8	21	
		600341-0205-000	5		50			8	36	
		600341-0206-000	6		60			8	59	
	Star Stylus	600331-8093-000	5	80	19			3.5		70
	Tip Stylus	600342-8051-000		61	11	39		3.5	30□	12
	Indirect Joint (Titanium)	600342-9002-000		30	11					11
		626105-6280-070		36	20					43
	Replacement Plate for HSS and VAST (2□)	600677-9611-000								158
	Pin Wrench	602030-0027-000		49	2.5			1.7		
		602030-0222-000		70	5			2.9		
	Hook Wrench	626109-0012-000			11					
		626109-0013-000			20					

M5 Stylus Kit

Stylus kit for large components		Model: 626115-9031		Item Name	Model	Qty	Total length (mm)	Φ (mm)	Item Name	Model	Qty	Total length (mm)	Φ (mm)			
				Stylus	1	600342-8124	1	114.5	8	Extension	12	600341-8424	1	60	20	
					2	600342-8024	1	114.5	8		13	600341-8422	2	100	20	
					3	600342-8023	1	63.5	8		14	600341-8420	1	200	20	
					4	600342-8022	2	53	5	Indirect joint	15	600342-9003	1			
					5	600342-8021	2	58	3		Disk and others	16	600341-8090	1	21.5	10
					6	600342-8020	2	33.5	3			17	600341-0206	1		60
				Extension	7	600341-8264	2	100	11	18	600341-0203	1		30		
					8	600341-8262	2	60	11	19	600341-0210	2				
					9	600341-8261	2	40	11	20	600341-0212	2				
					10	600341-0252	2	20	11	Cube	21	600341-8002	2		20	
					11	600341-8425	2	40	20		22	600341-8595	1			
Stylus kit for small components				Model: 626115-9030		Item Name	Model	Qty	Total length (mm)	Φ (mm)	Item Name	Model	Qty	Total length (mm)	Φ (mm)	
				Stylus	1	602030-8067	2	44	2.0	Extension	12	600341-8262	1	60	11	
					2	602030-8064	1	32	1.5		13	600341-8264	1	100	11	
					3	602030-8061	1	32	1.0	Indirect joint	14	600342-9002	1			
					4	602030-8060	1	32	0.8		Cube	15	602030-9025	1	15	1.5
					5	600341-8451	3	15	0.5	16		600341-8361	1	15		
					6	600341-8452	1	15.6	0.6	Holder	17	600341-8367	2	1.0		
					7	600341-8453	1	15.8	0.8		18	600341-8368	2	1.5		
					8	600341-8454	3	16	1.0	Tool	19	600341-8596	1			
					9	600341-8501	3	26.5	1.5		20	602030-0021	1	2.5		
					10	600341-8502	1	27	2.0		21	602030-0042	4			
					11	600341-8503	2	27.5	2.5		22	tweezers	1			
Stylus kit for gear measurement				Model: 626115-9040-000		Item Name	Model	Qty	Total length (mm)		Φ (mm)	Item Name	Model	Qty	Total length (mm)	Φ (mm)
				Stylus	1	600342-8019	1	65.5	10	Extension	14	600341-0258	1	80	11	
					2	600342-8018	1	63.5	9		15	600341-0254	1	40	11	
					3	600342-8014	1	63.5	8		16	600341-0252	1	20	11	
					4	600342-8017	1	55.5	7	17	600341-0251	2	15	11		
					5	600342-8016	1	54	6	18	600341-0250	2	10	11		
					6	600342-8013	1	53	5	Holder	19	600341-8368	4		1.5	
					7	600342-8025	1	27	4		20	600341-8367	4		1.0	
					8	600342-8020	1	33.5	3	Tool	21	602030-0222	1		2.9	
					9	600341-8454	2	16	1		22	602030-0027	1		1.7	
					10	600341-8501	1	26.5	1.5		23	tweezers	1			
					11	600341-8503	1	27.5	2.5							
					12	600341-8510	1	60	20							
					13	600341-8511	1	45	5							
Stylus kit for small components				Model: 626115-9021-000		Item Name	Model	Qty	Total length (mm)	Φ (mm)	Item Name	Model	Qty	Total length (mm)	Φ (mm)	
				Stylus	1	600342-8020	3	33.5	3	Cube and others	7	600341-8265	2	120	11	
					2	600342-8022	2	53	5		8	600341-8361	2			
					3	600342-8023	1	63.5	8	Tool	9	626109-0015	1			
					4	600342-8024	1	114.5	8		10	600341-0211	1			
					5	602030-9011	1	50	3		11	602030-0222	2			
				Extension	6	600341-8262	4	60	11							

M5

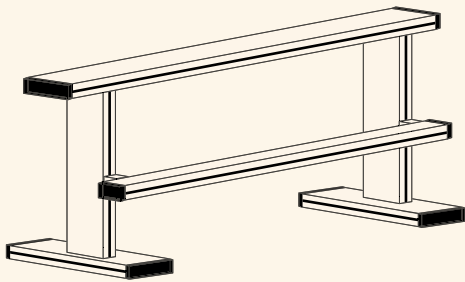
Stylus Extension Kit

Thermo Fit Extension kit for ϕ 11		Model: 626107-9013-100		Item Name	Model	Qty	Total length (mm)	ϕ (mm)	
				Extension	1	626107-1050-100	2	50	11
					2	626107-1100-100	2	100	11
					3	626107-1150-100	3	150	11
					4	626107-1200-100	2	200	11
					5	000000-0015-328	2		2.9
Thermo Fit Extension kit for ϕ 20		Model: 626107-9014-100		Item Name	Model	Qty	Total length (mm)	ϕ (mm)	
				Extension	1	626107-2100-100	3	100	20
					2	626107-2150-100	3	150	20
					3	626107-2200-100	4	300	20
				Extension	4	626107-2300-100	2	300	20
				Tool	5	000000-0015-328	2		2.9

Probe Replacement Magazine

M5	Item Name	Model	Dimensions (mm)		Machine
			W	H	
	MSR B800/H450	626100-9302-010	800	450	FUSION NEX X = 650/850
	MSR B1000/H550	626100-9312-000	1000	550	FUSION NEX X = 1000
	MSR B1250/H800	626100-9332-000	1250	800	FUSION NEX X = 1200

MSR



Probe Socket

Outline Shape	Model
Probe Socket VAST 	600660-8365-000

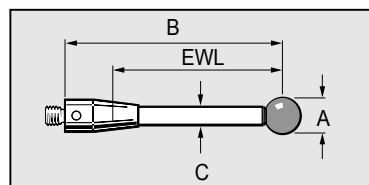
Stylus for Electronic Probe TP2/TP20/TP200

A dedicated tool (S20) is required for detachment and attachment of carbon shafts. Stylus sets and extension sets are also available. (See next page.)

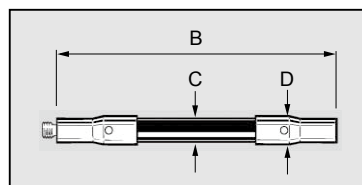
Outline Shape	Model	Name	Drawing number	Dimensions (mm)				Weight (g)			
				A	B	C	EWL				
Ruby Ball Stylus (Stainless Steel Shaft)											
	Total length 10 mm			A-5000-7806	PS9R	64032	1.0	10.0	0.7	4.5	0.3
	A-5000-7802	PS24R		1.5	10.0	0.7	4.5	0.3			
	A-5000-7807	PS8R	64033	2.0	10.0	1.0	6.0	0.3			
	A-5000-7803	PS26R		2.5	10.0	1.0	6.0	0.3			
	A-5000-3604	PS1R	64034	3.0	10.0	1.5	7.5	0.4			
	A-5000-4154	PS12R	64035	4.0	10.0	1.5	10.0	0.4			
	A-5000-4155	PS13R	64036	5.0	10.0	2.5	10.0	0.7			
	A-5000-4156	PS14R	64037	6.0	10.0	2.5	10.0	0.9			
	A-5000-4158	PS15R	64038	8.0	11.0	2.5	11.0	1.5			
	A-5000-3603	PS2R	64040	2.0	20.0	1.4	14.0	0.4			
	Total length 20 mm			A-5000-7804	PS27R		2.5	20.0	1.4	14.0	0.4
	A-5000-4160	PS16R	64041	3.0	20.0	1.5	17.0	0.5			
	A-5000-4161	PS17R	64042	4.0	20.0	1.5	20.0	0.6			
	Ruby Ball Stylus (Carbide Shaft)										
	Total length 10 mm			A-5000-7800	PS29R		0.3	10.0	0.2	2.0	0.3
	A-5000-7805	PS10R	64031	0.5	10.0	0.4	3.0	0.3			
	A-5000-7801	PS31R		0.7	10.0	0.5	4.0	0.3			
	A-5003-1325			1.0	10.0	0.7	4.0	0.3			
	Total length 20 mm			A-5003-1345			0.5	20.0	0.3	7.0	0.48
	A-5003-0577			0.7	20.0	0.5	12.0	0.32			
	A-5000-7808	PS23R	64039	1.0	20.0	0.7	7.0	0.50			
	A-5003-0033	PS48R		1.0	20.0	0.8	12.5	0.41			
	A-5003-0034	PS49R		1.5	20.0	1.0	12.5	0.50			
	A-5003-3822			2.0	20.0	1.0	14.0	0.48			
	A-5003-1896			2.5	20.0	1.0	15.5	0.50			
	A-5003-0938			3.0	20.0	1.5	17.0	0.77			
	A-5003-1029			4.0	22.0	2.0	22.0	1.24			
	A-5003-0046	PS50R		5.0	20.0	2.5	20.0	1.98			
	Total length 30 mm			A-5000-8663	PS51R		1.0	27.5	0.7	20.5	0.40
	A-5003-0035			1.5	30.0	1.0	22.5	0.58			
	A-5003-0036			2.0	30.0	1.5	22.5	0.99			
	A-5003-0038			2.5	30.0	2.0	22.5	1.48			
	A-5003-0040			3.0	30.0	2.0	27.0	1.49			
	A-5003-0043			4.0	30.0	2.0	30.0	1.57			
	A-5003-0047			5.0	30.0	2.5	30.0	2.57			
Ruby Ball Stylus (Ceramic Shaft)											
	Total length 30 mm			A-5003-4177			3.0	30.0	2.0	27.0	0.44
	A-5003-1370			4.0	30.0	2.0	30.0	0.68			
	A-5003-4779			5.0	30.0	2.5	30.0	0.93			
	A-5003-4780			6.0	30.0	2.5	30.0	1.11			
Ruby Ball Stylus (Carbon Shaft)											
	Total length 30 mm			A-5003-4241			4.0	30.0	2.0	30.0	0.57
	A-5003-4781			5.0	30.0	3.0	30.0	0.79			
	A-5003-4782			6.0	30.0	3.0	30.0	0.96			
Ruby Ball Stylus (Carbide Shaft)											
	Total length 40 mm			A-5003-0037			2.0	40.0	1.5	32.5	1.29
	A-5003-0039			2.5	40.0	2.0	32.5	1.95			
	A-5003-0041			3.0	40.0	2.0	37.0	1.97			
	A-5003-0044			4.0	40.0	2.0	40.0	2.04			
	A-5003-0048			5.0	40.0	2.5	40.0	3.17			
	Total length 50 mm			A-5003-0042			3.0	50.0	2.0	47.0	2.44
	A-5003-0045			4.0	50.0	2.0	50.0	2.52			
	A-5003-0049			5.0	50.0	2.5	50.0	3.75			

Outline Shape	Model	Name	Drawing number	Dimensions (mm)				Weight (g)			
				A	B	C	EWL				
Ruby Ball Stylus (Ceramic Shaft)											
	Total length 50 mm			A-5003-0064	PS66R		3.0	50.0	2.0	47.0	0.83
	A-5003-0065	PS67R		4.0	50.0	2.0	50.0	0.91			
	A-5003-0066	PS68R		5.0	50.0	2.5	50.0	1.31			
	A-5003-0470			6.0	50.0	2.5	50.0	1.49			
	Total length 50 mm			A-5003-2285	GF504R		4.0	50.0	3.0	50.0	1.00
	A-5003-2286	GF505R		5.0	50.0	3.0	50.0	1.10			
	A-5003-2287	GF506R		6.0	50.0	3.0	50.0	1.20			
Ruby Ball Stylus (Carbon Shaft)											
	Total length 75 mm			A-5003-4784			4.0	75.0	2.0	75.0	0.75
	A-5003-4785			5.0	75.0	3.0	75.0	1.35			
	A-5003-4786			6.0	75.0	3.0	75.0	1.45			
	Total length 100 mm			A-5003-2289			4.0	100.0	3.0	100.0	1.50
	A-5003-2290			5.0	100.0	3.0	100.0	1.59			
	A-5003-2291			6.0	100.0	3.0	100.0	1.78			
Stylus Tool											
Model		M-5000-3540		PS9R							
Name		S7		S20							
Remarks		For M2 and M3 screw diameter styluses		For M2 ruby fiber stylus series							
Shape											

Outline Shape	Model	Name	Drawing number	Dimensions (mm)				Weight (g)	
				A	B	C	D		
Extension (Stainless Steel)									
	M-5000-7634			SE7	64052	5.0	3.0	0.2	
	M-5000-3647	SE4	64053	10.0	3.0	0.4			
	M-5000-3648	SE5	64054	20.0	3.0	0.9			
	M-5000-4162	SE6	64055	30.0	3.0	1.4			
	M-5000-7779	SE18		40.0	3.0	1.8			
Extension (Ceramic)									
	A-5003-0070			SE26		30.0	3.0	0.97	
	A-5003-0071	SE27		40.0	3.0	1.22			
	A-5003-0072	SE28		50.0	3.0	1.51			
Extension (Carbon)									
	A-5003-2280			GF40E		40.0	3.0	3.5	0.9
	A-5003-2281	GF50E		50.0	3.0	3.5	1.0		
	A-5003-2282	GF70E		70.0	3.0	3.5	1.3		
	A-5003-2283	GF90E		90.0	3.0	3.5	1.5		









EWL (effective length)
Length from the position that the shaft does not interfere with the measured object to the center of the tip when measurement is carried out at a right angle to the measured object







Custom orders are also accepted.




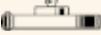

Star Stylus

Model	A-5003-4011	A-5000-7811	A-5003-4787	A-5003-4788	A-5000-7629	A-5000-3626
Drawing pnumber	—	—	—	—	64047	64046
Name	—	PS28R	—	—	PS6R	PS7R
Cross diameter	10.0	10.0	20.0	20.0	18.0	30.0
Ball diameter	0.5	1.0	0.5	1.0	2.0	2.0
Shaft diameter	0.3	0.7	0.3	0.7	1.4	1.4
EWL	—	—	—	—	12.0	12.0
Weight (g)	0.7	0.5	0.7	0.9	1.3	1.8
						







Star Center

Model	A-5003-4789	A-5003-4790	A-5003-4791	A-5000-3609
Name	—	—	—	—
Ball diameter	1.0	0.5	1.0	2.0
Shaft diameter	0.7	0.4	0.7	1.4
EWL	3.5	7.0	11.0	12.0
Weight (g)	0.31	0.43	0.45	0.44
				








Disk Stylus

Model	A-5000-3611 Ruby	A-5000-4187 Steel	A-5000-7809 Steel	A-5000-3613 Steel	A-5000-7810 Steel
Drawing pnumber	64043	64045	—	64044	—
Name	PS3R	PS22R	PS33R	PS4R	PS34R
Disk diameter	6.0	25.0	18.0	18.0	25.0
Disk thickness	1.2	3.0	1.6	2.3	1.6
Roller depth	2.0	—	2.5	3.0	2.5
Shaft diameter	2.0	—	4.2	—	4.2
Weight (g)	0.6	3.8	3.0	2.7	4.0
					




Cylinder Stylus

Model	M-5000-4152 Steel	M-5000-4153 Steel	A-5000-8876 Ruby	A-5000-8877 Ruby	A-5000-7812 Ruby	A-5003-0073 Ruby
Drawing pnumber	64048	64049	—	—	—	—
Name	PS18R	PS19R	PS44R	PS46R	PS35R	PS69R
Cylinder diameter	1.5	3.0	1.0	1.5	2.0	4.0
Total length	10.75	12.75	15.0	15.0	20.0	22.6
Shaft diameter	1.0	1.5	—	—	1.6	2.0
EWL	1.25	3.8	8.0	8.0	7.2	10.0
Weight (g)	0.3	0.6	0.3	0.3	0.5	0.9
						


Hemispherical Tip Cylinder Stylus (Carbide)

Model	A-5003-1208	A-5003-1210	A-5003-1218	A-5003-1219	A-5003-1228	A-5003-0074	A-5003-1258
Drawing pnumber	—	—	—	—	—	PS70R	—
Cylinder diameter	0.3	0.5	1.0	1.5	2.0	2.0	3.0
Total length	10.2	15.3	35.5	15.8	16.0	40.0	22.5
EWL	2.7	7.8	28.0	8.3	8.5	32.0	22.5
Weight (g)	0.3	0.3	0.7	0.6	0.8	2.0	2.0
							


Special Stylus

Model	M-5000-4150 Steel	A-5000-7813 tungsten carbide	A-5000-3614 Ceramic
Drawing pnumber	64050	—	64051
Name	PS20R	PS36R	PS21R
Total length	15.0	10.0	11.0
Ball diameter	—	—	18.0
Tip shape	Non-spherical, Radius:0.05	Spherical, Radius:0.1	—
Weight (g)	0.7	0.7	3.3
Taper angle	30°	30°	—
			

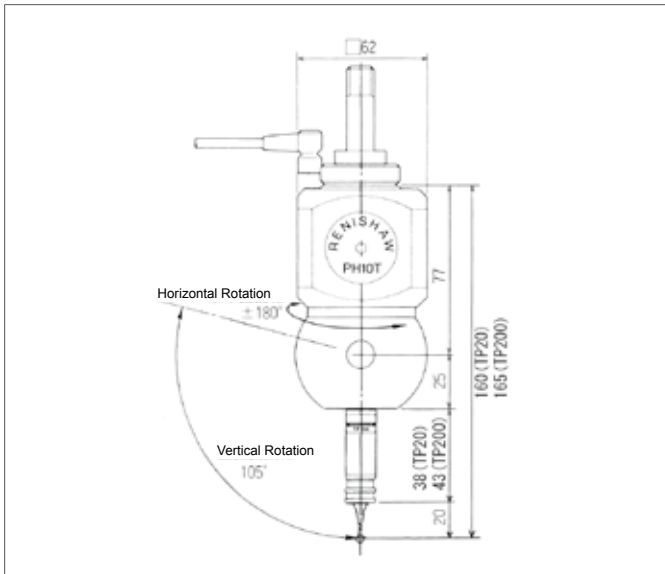
Swing Joint

Model	A-5000-7534
Drawing pnumber	64056
Name	SK2
Screw Siameter	M2
EWL mm (inches)	8.0 (0.32)
Center offset mm (inch)	4.5 (0.18)
Weight (g)	1.6
	

5-direction Joint

Model	A-5000-3627
Drawing pnumber	64057
Name	SC2
Screw Siameter	M2
EWL mm (inches)	7.5 (0.30)
Center size mm (inch)	7.0 (0.28)
Weight (g)	0.8
	

PH10T + TP20/TP200 Electronic Probes



PH10T Specifications

Horizontal surface rotation angle $\pm 180^\circ$ (48 positions in 7.5° steps)
 Vertical surface rotation angle 0 to $+105^\circ$ (15 positions in 7.5° steps)

TP20 Specifications

Measurement direction $\pm X, \pm Y, \pm Z$
 Repeatability Standard deviation $2\sigma = 0.35 \mu\text{m}$ or less (10 mm stylus)
 Measuring force About 0.08 N (8 gf, orthogonal to probe shaft center)
 (SF module)
 direction) About 0.75 N (about 75 gf, probe shaft center direction)

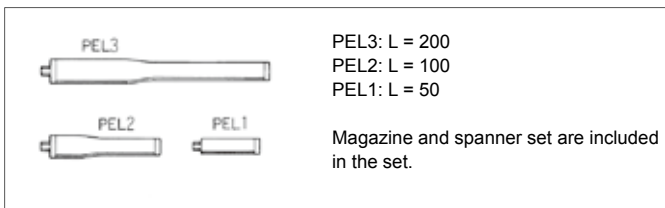
TP200 Specifications

Measurement direction $\pm X, \pm Y, \pm Z$
 Repeatability Standard deviation $2\sigma = 0.4 \mu\text{m}$ or less (50 mm Stylus)
 Measuring force About 0.02 N (2 gf, orthogonal to probe shaft center)
 (SF module) About 0.07 N (7 gf, probe shaft center direction)

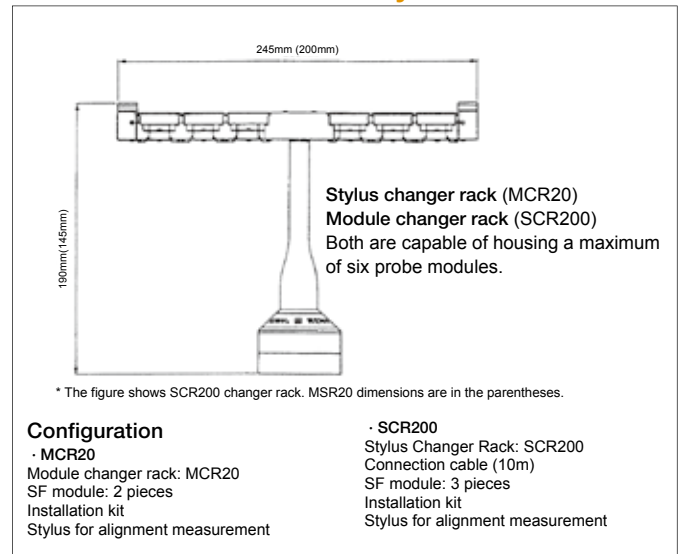
Components

- Probe head (PH10T)
- Probe head controller (PHC10-3PLUS)
- Probe head driver (HCU1)
- Electronic probe (TP20) \rightarrow With 2 SF modules
(TP200) \rightarrow With 1 SF module
- $\phi 4$ Ball Stylus
- Magazine
- Instruction manual

Lightweight Extension Bar for PH10T



PH10T + TP20 + MCR20 System PH10T + TP200 + SCR200 System



Configuration

- MCR20
- Module changer rack: MCR20
- SF module: 2 pieces
- Installation kit
- Stylus for alignment measurement
- SCR200
- Stylus Changer Rack: SCR200
- Connection cable (10m)
- SF module: 3 pieces
- Installation kit
- Stylus for alignment measurement

Stylus (carbon graphite) Shaft for Electronic Probes TP2/TP20/TP200

Shape			
Name	GF504R	GF505R	GF506R
Drawing Number	A-5003-2285	A-5003-2286	A-5003-2287

Shape				
Name	GF40E	GF50E	GF70E	GF90E
Drawing Number	A-5003-2280	A-5003-2281	A-5003-2282	A-5003-2283

(Note) Items above require a dedicated tool (S20) for detachment and attachment.

Electronic Probe PH1 + TP2

Probe Number
CM92203

PH1 Specifications
 Horizontal surface rotation angle 360° (15° steps)
 Vertical surface rotation angle ±115°

TP2 Specifications
 Measurement direction ±X, ±Y, +Z
 Repeatability Deviation 2σ = 0.35 μm or less
 Measuring force About 0.07 to 0.15 N
 (7 to 15gf, orthogonal to probe shaft center)
 About 0.4 N
 (about 40 gf, probe shaft center direction)

Components

- Probe head (PH1)
- Electronic Probe (TP2)
- φ 4 Ball Stylus
- Magazine
- Instruction manual

Electronic Probe MH20i

MH20i specifications
 Horizontal surface rotation angle ±180° (15° steps)
 Vertical surface rotation angle 0 to 90° (15° steps)

SF Module for TP20 Position Repeatability Accuracy
 Measurement direction ±X, ±Y, +Z
 Repeatability Standard deviation 2σ = 0.35 μm
 Measuring force 0.08 N (orthogonal to probe shaft center)
 0.75 N (probe shaft center direction)

Components

- Probe head MH20i
- Electronic probe SF module for TP20
- φ 4 Ball Stylus
- Instruction manual

Stylus Set for Electronic Probe TP2/TP20/TP200

Shape			
Name	PS23R	PS2R	PS17R
Drawing Number	64039	64040	64042

Extension Bar Set for Electronic Probe TP2/TP20/TP200

Shape				
Name	SE7	SE4	SE5	SE6
Drawing Number	64052	64053	64054	64055

Magazine is also available.
 Set consisting of stylus set, extension set and magazine is also available.

Electronic Probes TP1 (S)

Probe Number
68274

TP1 (S) Specifications
 Measurement direction $\pm X, \pm Y, +Z$
 Repeatability Standard deviation $2\sigma = 0.5\mu\text{m}$ or less
 Measuring force About 0.1 to 0.5 N (10 to 15 gf, orthogonal to probe shaft center)
 About 0.4 to 2.5 N (about 40 to 250 gf, probe shaft center direction)

Components
 · Electronic probe [TP1 (S)]
 · $\phi 2, \phi 5$ Ball Stylus 1 each
 · Stylus adaptor (SA7)
 · Magazine

Stylus for TP1 (S) Electronic Probe

Ball Stylus Unit: mm

ϕd	ϕD	l	L	H	Stylus Number	Weight
$\phi 0.7$	$\phi 4.5$	3	31	42	60001	3.8 g
$\phi 1$	$\phi 4.5$	3	31	42	60002	4.0 g
$\phi 1$	$\phi 5$	5	64	75	60003	9.0 g
$\phi 2$	$\phi 4.5$	7	-	41	60004	3.3 g
$\phi 2$	$\phi 5$	8	64	75	60005	9.1 g
$\phi 3$	$\phi 4.5$	15	31	42	60006	3.0 g
$\phi 3$	$\phi 5$	20	64	75	60007	7.7 g
$\phi 4$	$\phi 4.5$	-	29	40	60008	3.8 g
$\phi 4$	$\phi 5$	50	64	75	60009	5.8 g
$\phi 5$	$\phi 4$	64	-	75	60011	7.9 g
$\phi 5$	$\phi 4.5$	-	29	40	60010	4.0 g

Cylindrical Stylus Unit: mm

ϕd	ϕD	l	L	H	Stylus Number
$\phi 2$	$\phi 4$	8	31	42	3308
$\phi 4$	-	31	-	42	3360
$\phi 1$	$\phi 4$	4	31	42	3307

Star Stylus

Stylus Number
68071 (18.5 g)

Stylus Number
68274 (35 g)

$\phi 20$ Disk Stylus

Stylus Number
3361

High precision touch trigger probe PTS-30

- High precision measurement in all directions**
 The non-directional probe mechanism and embedded high sensitivity sensor enable instantaneous measurement at a high accuracy with the measuring force of only 0.01 N.
- Flexible stylus combinations**
 Styluses of up to 200 mm in length and 300 g in weight can be flexibly combined for measurement of workpieces in diverse shapes.
- Stylus balance adjustment**
 The balance adjustment function can accurately control the weight balance of the combined styluses.

Probe Number
CM92204

PTS-30 Specifications
 Measurement direction $\pm X, \pm Y, \pm Z$
 Repeatability Standard deviation $\sigma = 0.5\mu\text{m}$ or less
 Measuring force About 0.01 N (1gf)
 Measuring speed 1 to 50 mm/s
 Maximum stylus length 200 mm
 Maximum stylus weight 300 gf

Components
 · Probe Body (PTS-30)
 · Magazine
 · Instruction manual
 · Adaptor cable for signal

Operating principle
 When the stylus contacts the workpiece, the sensor issues a detection signal at the measuring force of 1gf (0.01N). The detection signal from the sensor is determined to be valid only after the contact point issues a confirmation signal. Therefore, the signal is read as the coordinate value of the measured data only when both the detection signal and the confirmation signal are issued.

Stylus Sets C1, C2, C3

These three stylus sets (C1, C2, C3) provide different stylus combinations. These are stylus sets for the PTS-30. We also manufacture other special order sets.

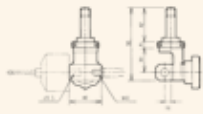



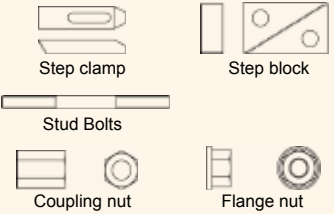
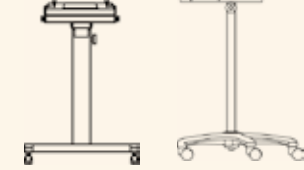

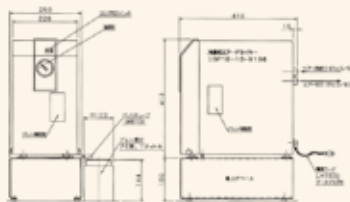
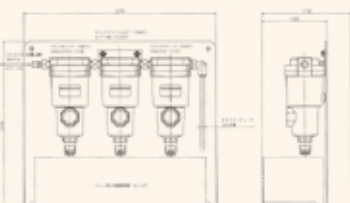
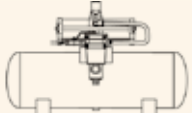
Name	Ball Stylus					
Shape						
Qty	C1: 1 C2: 1 C3: 0	4	1	4	2	2
Drawing Number	78011	78016	78131	78136	78126	78141
Weight	0.3 g	0.5 g	9.7 g	9.7 g	7.0 g	11.3 g

Name	Ball Stylus	M2-M5 joint	Swivel joint	Nipple joint
Shape				
Qty	C1: 2 C2: 0 C3: 0	2	1	2
Drawing Number	78146	78151	74001	78021
Weight	19.0 g	28.7 g	2.0 g	7.5 g

Name	360° Revolute joint	90° Revolute joint	Extension			
Shape						
Qty	C1: 1 C2: 0 C3: 0	1	4	2	1	1
Drawing Number	2689	78156	78061	78066	78071	78076
Weight	14.7 g	42.3 g	10.3 g	15.3 g	20.2 g	75.5 g

C1 and C2 are provided with two ruby balls of $\phi 2, \phi 4$ and $\phi 8$ and adhesive. C1, C2 and C3 are provided with a stylus replacement jig, a hexagon head wrench and a magazine.

Accessories and peripherals

Name	Model	External View	Specifications	Remarks
Swing Probe B	10086		Manual rotary TP1 holder	For RVF
Ceramic Ball Origin Block	CM99901-D005		Ball Φ 25.4mm	Standard accessory for XYZAX
Riser Blocks	7021	 Top view	Material:SS41 Work clamp height: 8 to 40mm	Fixture of small workpieces Size 250W \times 200D \times 100Hmm Fixing screw: Top 16-M6, side 4-M6
	10372		Material: Gabbro (10372) 2blocks in 1 set	Spacer placed under thin workpieces Dimensions: 200W \times 100D \times 50H mm
Clamping Kits	M10		Large, medium and small step clamps (2 each) Large, medium and small step blocks (2 sets each, 2 blocks/set) Stud bolt in 6 different lengths 4 each 8 coupling nuts 4 flange nuts	For XYZAX: M10
Movable Stands	-	 For operation panel CM99931-D065	Operation Panel Height: 665 mm LCD Height: 750 mm	
Power Supply transformer	TWTC-2.1K		Input: 90 to 240 V Output: 100 V Capacity: 2.1 KVA	Specify the input voltage. dimensions:300W \times 350D \times 296H mm Weight :45 kg
Uninterruptible power supplies	SMU-HA102		Backup time 6 min.	120W \times 380D \times 295H mm Rated output 1KVA (computer)
	SMU-HA302			190W \times 530D \times 499H mm Rated output 3KVA (whole system)
Refrigerated Air Dryer	CM99901-S009		Max. Discharge: 100/120 L/min (50/60 Hz) Power Consumption: 165/190 W (50/60Hz) Weight:16 kg Power supply single phase: AC100 V (50/60Hz)	XYZAX dimensions226W \times 410D \times 413H mm
Air Purifier Set	CM99901-S086		Drain catcher, line filter and mist separator set on mounting panel	Applicable models: all models dimensions: 370W \times 172D \times 325H mm
Air Pressure Booster Filter Unit	CM99903-D221		Maximum pressure boost ratio 2:1	Guaranteed withstanding pressure: 1.5 MPa Supply pressure range: 0.1 to 1.0 MPa Set pressure range: 0.2 to 1.0 MPa