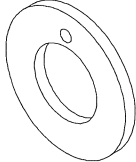
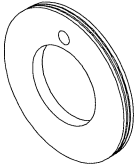
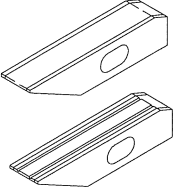
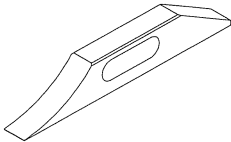


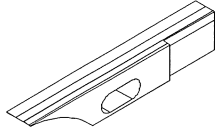
Toolings

Standard toolings

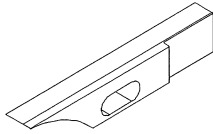
* marked items are made-to-order

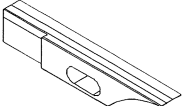
Name	Wire Diameter	Part No.	Remarks	
Feed roll Flat 	0.10 (φ49.9)	15X509-F010	For W.D. 0.15 or less	
	0.20 (φ49.8)	15X509-F020	For W.D. 0.16 to 0.25	
	0.30 (φ49.7)	15X509-F030	For W.D. 0.26 to 0.35	
	0.40 (φ49.6)	15X509-F040	For W.D. 0.36 to 0.45	
	0.50 (φ49.5)	15X509-F050	For W.D. 0.46 to 0.55 (when D/d is bigger)	
Name	Wire Diameter	Part No.	Remarks	
Feed roll 	0.10/0.15	15X509-1015	With double-groove	
	0.18/0.23	15X509-1823		
	0.20/0.26	15X509-2026		
	0.30/0.40	15X509-3040		
	0.35/0.45	15X509-3545		
	0.50/0.60	15X509-5060		
	0.55/0.65	15X509-5565		
	0.70/0.80	15X509-7080		
	0.75/0.85	15X509-7585		
	0.90/1.00	15X509-9000		
Name	Wire Diameter	Part No.	Remarks	
Inlet guide (Primary guide) 	Flat	10X135-F	To be used along with a grooved inlet guide	All TC
	0.08	10X135-008	For W.D. 0.08 or less	TC material
	0.1	10X135-010	For W.D. 0.09 to 0.10	partially used
	0.2	10X135-020	For W.D. 0.11 to 0.20	for grooved
	0.4	10X135-040	For W.D. 0.21 to 0.40	portions
	0.6	10X135-060	For W.D. 0.41 to 0.60	R/L common
	0.8	10X135-080	For W.D. 0.61 to 0.80	
1.0	10X135-100	For W.D. 0.81 to 1.00		
Name	Wire Diameter	Part No.	Remarks	
Wire guide Flat 	0.49 or less	13X051-FL	Length: 50mm	
	0.50 or thicker	13X051-FS	Length: 47.5mm	

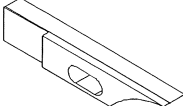
Name	Wire Diameter	Part No.	Remarks
Wire guide RH	0.08	02X031-R008	Base material: S55C Around grooved portion: TC
	0.09	02X031-R009	
	0.10	02X031-R010	
	0.12	02X031-R012	
	0.13	02X031-R013	
	0.14	02X031-R014	
	0.15	02X031-R015	
	0.16	02X031-R016	
	0.18	02X031-R018	
	0.20	02X031-R020	
	0.23	02X031-R023	
	0.25	02X031-R025	
	0.26	02X031-R026	
	0.30	02X031-R030	
	0.32	02X031-R032	
	0.35	02X031-R035	
	0.40	02X031-R040	
	0.45	02X031-R045	
	0.50	02X031-R050	
	0.55	02X031-R055	
	0.60	02X031-R060	
	0.65	02X031-R065	
	0.70	02X031-R070	
	0.75	02X031-R075	
	0.80	02X031-R080	
	0.85	02X031-R085	
	0.90	02X031-R090	
	1.00	02X031-R100	

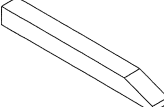


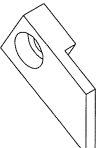
Name	Wire Diameter	Part No.	Remarks
Wire guide RH (All TC)	0.08	02X034-R008	All TC material
	0.09	02X034-R009	
	0.10	02X034-R010	
	0.12	02X034-R012	
	0.13	02X034-R013	
	0.14	02X034-R014	
	0.15	02X034-R015	
	0.16	02X034-R016	
	0.18	02X034-R018	
	0.20	02X034-R020	
	0.23	02X034-R023	
	0.25	02X034-R025	
	0.26	02X034-R026	
	0.30	02X034-R030	
	0.32	02X034-R032	
	0.35	02X034-R035	
	0.40	02X034-R040	
	0.45	02X034-R045	
	0.50	02X034-R050	
	0.55	02X034-R055	
0.60	02X034-R060		
0.65	02X034-R065		
0.70	02X034-R070		
0.75	02X034-R075		
0.80	02X034-R080		
0.85	02X034-R085		
0.90	02X034-R090		
1.00	02X034-R100		

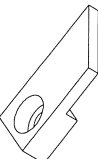



Name	Wire Diameter	Part No.	Remarks
Wire guide LH 		02X031-L...	Same sizes for RH are available for LH

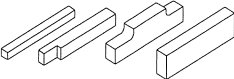
Name	Wire Diameter	Part No.	Remarks
Wire guide LH (All TC) 		02X034-L...	Same sizes for RH (All TC) are available for LH (All TC)

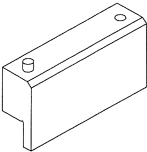
Name	Wire Diameter	Part No.	Remarks
Pitch Tool 		13X050	R/L common

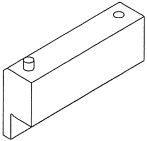
Name	Wind Direction	Part No.	Remarks
Large Pitch tool RH 	Right	33X681-R	

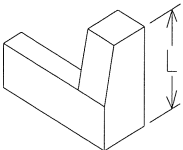
Name	Wind Direction	Part No.	Remarks
Large Pitch tool LH 	Left	33X681-L	

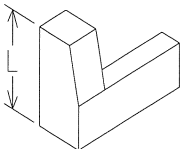
Name	Wind Direction	Part No.	Remarks
Cutting tool 		02X011	HSS
		02X011-T	TC
		02X011-E	1.27 times toughness in comparison with standard TC.
			Also applicable as a backing tool for RH or LH bending.

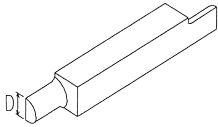
Name	Width x Height	Part No.	Remarks
	3x3	10X112-33	To be used along with 10X113 Arbor holder. Also, this one fabricated to be shortened can be used for the air slider type 3D bending.
	4x4	10X112-44	Fitting portion: 4x4, Tip size: 2.5x4
	4x5	10X112-45	Fitting portion: 4X5 取り付け箇所寸法は4x8
	4x8	10X112-48	Fitting portion: 4x8

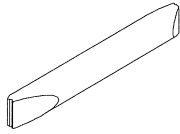
Name	Wind Direction	Part No.	Remarks
	For 3x3 Right	10X113-R	Necessary when 3x3 Arbor is used.

Name	Wind Direction	Part No.	Remarks
	For 3x3 Left	10X113-L	Necessary when 3x3 Arbor is used.

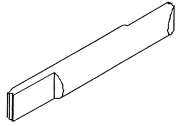
Name	L Size	Part No.	Remarks
	12	13X052-R12	Fitting portion: 4x8
	15	13X052-R15	
	18	13X052-R18	

Name	L Size	Part No.	Remarks
	12	13X052-L12	Fitting portion: 4x8
	15	13X052-L15	
	18	13X052-L18	

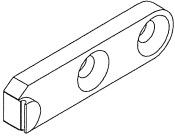
Name	Diameter	Part No.		Remarks
Shaped Arbor	1.5	13X056-15	*	Fitting portion: 4×4
	2.0	13X056-20	*	
	2.5	13X056-25	*	
	3.0	13X056-30	*	
	3.5	13X056-35	*	
	4.0	13X056-40	*	

Name	Wire Diameter	Part No.	Remarks
Coiling pin 	0.08	02X020-008	
	0.09	02X020-009	
	0.10	02X020-010	
	0.12	02X020-012	
	0.13	02X020-013	
	0.14	02X020-014	
	0.15	02X020-015	
	0.16	02X020-016	
	0.18	02X020-018	
	0.20	02X020-020	
	0.23	02X020-023	
	0.25	02X020-025	
	0.26	02X020-026	
	0.30	02X020-030	
	0.32	02X020-032	
	0.35	02X020-035	
	0.40	02X020-040	
	0.45	02X020-045	
	0.50	02X020-050	
	0.55	02X020-055	
0.60	02X020-060		
0.65	02X020-065		
0.70	02X020-070		
0.80	02X020-080		
0.90	02X020-090		
1.00	02X020-100		
Name	Wire Diameter	Part No.	Remarks
Coiling pin (V-grooved)	0.2	02X019-V02	
	0.4	02X019-V04	
	0.6	02X019-V06	
	1.0	02X019-V10	

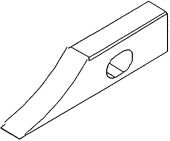
Name	Wire Diameter	Part No.	Remarks
Coiling pin (Chamfered)	0.10	70X278-010	
	0.12	70X278-012	*
	0.13	70X278-013	*
	0.14	70X278-014	*
	0.15	70X278-015	
	0.16	70X278-016	*
	0.18	70X278-018	*
	0.20	70X278-020	
	0.23	70X278-023	*
	0.25	70X278-025	*
	0.26	70X278-026	
	0.29	70X278-029	*
	0.30	70X278-030	
	0.32	70X278-032	*
	0.35	70X278-035	
	0.40	70X278-040	
	0.45	70X278-045	
	0.50	70X278-050	
	0.55	70X278-055	
	0.60	70X278-060	
0.65	70X278-065		
0.70	70X278-070		
0.75	70X278-075		
0.80	70X278-080		
1.00	70X278-100	*	

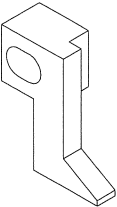


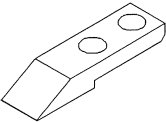
Toolings for Torsion Attachment

Name	Wire Diameter	Part No.		Remarks
T.A. Coiling point 	0.08	02X027-008	*	Base material S55C
	0.1	02X027-010		Around grooved portion: TC
	0.12	02X027-012		
	0.13	02X027-013		
	0.14	02X027-014		
	0.15	02X027-015		
	0.16	02X027-016		
	0.18	02X027-018		
	0.2	02X027-020		
	0.23	02X027-023		
	0.25	02X027-025		
	0.26	02X027-026		
	0.3	02X027-030		
	0.35	02X027-035		
	0.4	02X027-040		
	0.45	02X027-045		
	0.5	02X027-050		
	0.55	02X027-055		
	0.6	02X027-060		
	0.65	02X027-065		
0.7	02X027-070			
0.8	02X027-080			
0.9	02X027-090			
1.0	02X027-100			

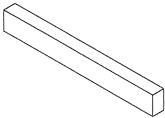
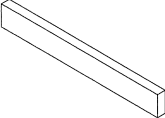
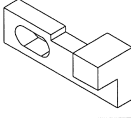
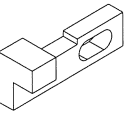
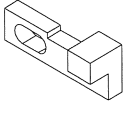
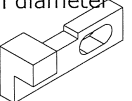
Toolings for 3D Bending servo slide

Name	Part No.	Remarks
3D Wire guide Flat	83X482	
		

Name	Part No.	Remarks
3D Pitch tool	83X483	
		

Name	Part No.	Remarks
3D Bending tool	83X484	
		

Toolings for bending coil end

Name	Part No.	Remarks
Cutting tool 	02X011-H	Material: HSS
	02X011-T	Material: TC
	02X011-E	Material: 1.27 times toughness in comparison with standard TC
Name	Part No.	Remarks
Backing tool 	13X054	*
Name	Part No.	Remarks
Backing tool RH 	83X480	*
Name	Part No.	Remarks
Backing tool LH 	83X481	*
Name	Part No.	Remarks
Backing tool RH for Small diameter 	83X485	* Suitable for O.D. 2mm to 5mm
Name	Part No.	Remarks
Backing tool LH for Small diameter 	83X486	* Suitable for O.D. 2mm to 5mm