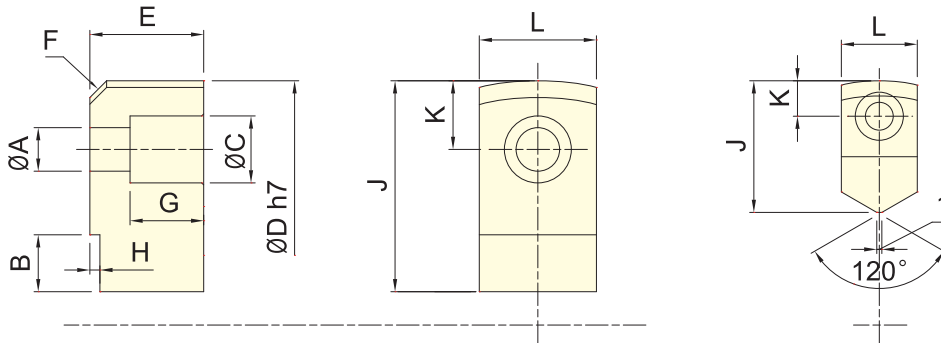


\* Subject to technical changes.

### Dimensions

Model	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
SJ04	52	23	23	10	5	10	14	28	9	14	13	M8	3	1.5×60°	3H-04, 3P-04	0.5
SJ05	62	25	30	10	5	10	14	38	9	14	18	M8	3.5	1.5×60°	3H-05, 3L-205, 3P-05, 3M-05	0.8
SJ06	73	31	36	12	5	15	20	38	11	17	24	M10	14	1.5×60°	3H-206, 3L-206, 3P-06, 3M-06	1.5
SJ08	95	35	37	14	5	24	25	46	13	19	22	M12	16	1.5×60°	3H-208, 3L-208, 3P-08, 3M-08	2.4
SJ10	110	40	42	16	5	30	30	50	13	19	27	M12	18	1.5×60°	3H-10, 3L-210, 3P-10, 3M-10	3.7
SJ12H	130	50	50	21	5	40	30	60	18	26	33	M16	23	1.5×60°	3H-212, 3L-212, 3V-12, 3P-12, 3M-12	6.3
SJ12P	130	50	50	18	5	40	30	60	16	23	33	M14	23	1.5×60°	3P-12	6.5
SJ15H	165	62	62	22	8	37	43	85	21	32	38	M20	-	1.5×60°	3H-15, 3H-18	12.6
SJ15P	165	62	62	25.5	8	37	43	85	21	32	38	M20	-	1.5×60°	3H-15, 3H-18, 3L-15, 3P-15, 3P-18, 3V-15, 3V-18	12.5
SJ21	180	65	70	25	9	40	60	80	21	32	45	M20	-	3.0×60°	3H-21, 3H-24, 3P-221, 3P-224, 3V-21, 3V-24, 3V-32	15.8

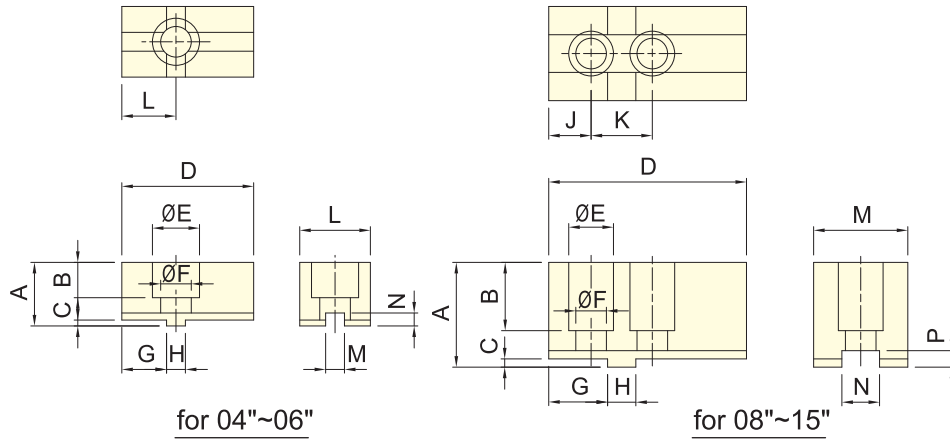


for 3U-203

\* Subject to technical changes.

### Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L
3U-203	5.5	11	9.5	66	12	C3	7	3	26	7	15
3U-204	6.6	11	11	84	17	C4	11	3	32	9.5	20
3U-205	9	13.5	14	108	20	C4	12	3	41.5	13	24
3U-206	11	15	17	129	30	C6	20	3	50	17	30
3U-208	13	17	20	156	34	C6	22	3	63	20.5	35
3U-210	15	20	22	187	39	C6	24	4	74	23	40
3U-212	15	18	22	234	44	C6	29	4	72	23	40



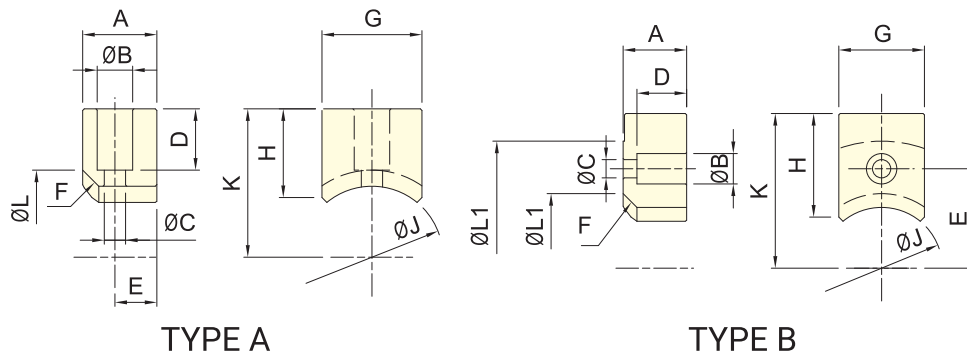
for 04"~06"

for 08"~15"

\* Subject to technical changes.

Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P
3D-04	19.5	13	2.5	52	17.5	11	18	8	-	-	22	25	8	5.5
3D-05	27	15	2.5	56	20	13	19	8	-	-	23	30	8	5.5
3D-06	34	21	3	70	23	15.5	22	10	-	-	27	40	10	6
3D-08	44.5	29	3.5	84	19	13	25	12	18	26	-	40	16	7
3D-10	49.5	32	3.5	100	22	15	30.5	15	22	32	-	50	18	7
3D-12	54.5	36	3.5	120	26	18	33.5	17	24	36	-	60	20	7
3D-15	60	40	5	165	26	18	50	20	40	40	-	70	24	10



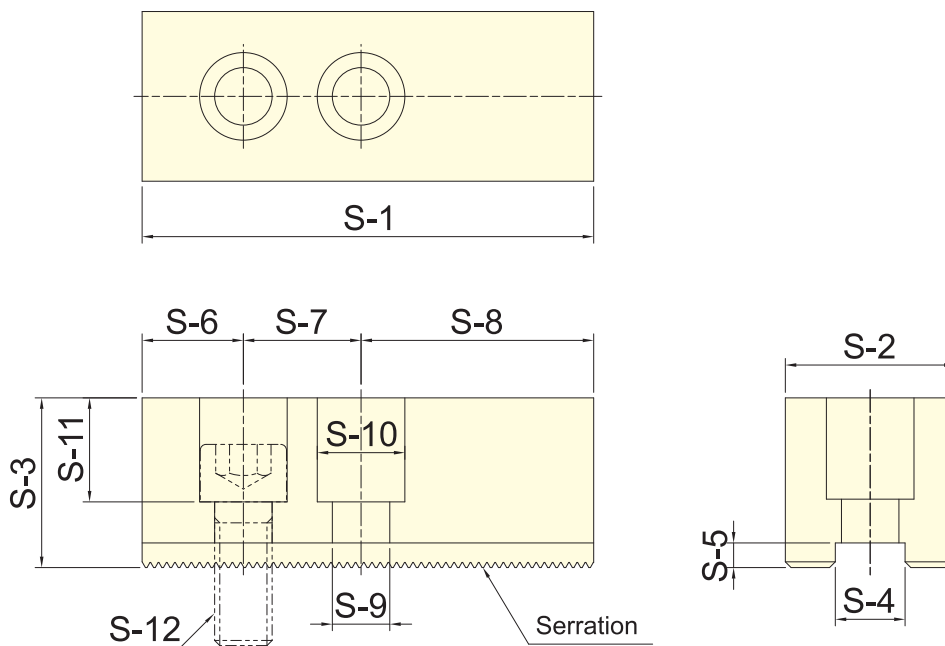
TYPE A

TYPE B

\* Subject to technical changes.

Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	L1	
3E-05	TYPE A	20	11	6.6	16.5	10	C5	25	22	29	34.5	39	-
	TYPE B	20	11	6.6	15	25.5	C5	25	30	29	42.5	39	69
3E-06	TYPE A	23	11	6.6	19	13	C5	31	27.5	44	46	54	-
	TYPE B	23	11	6.6	18	36	C5	31	37.5	44	56	54	92
3E-08	TYPE A	30	14	9	25	15	C6	35	36	50	56	62	-
	TYPE B	30	14	9	24	41	C6	35	56	50	76	62	112
3E-10	TYPE A	35	17.5	11	26.5	17.5	C5	40	40	60	64.5	70	-
	TYPE B	35	17.5	11	26	47.5	C5	40	71.5	60	96	70	129



\* Subject to technical changes.

Dimensions

Model	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
SJ-145	165	62	62	25.5	9	37	43	85	21	32	38	M20	3.0×60°	AP-145, AP-185	12.2
SJ-185	165	62	62	25.5	9	37	43	85	21	32	38	M20	3.0×60°	AP-145, AP-185	12.2
SJ-230	180	64	70	25.5	9	40	60	80	21	32	45	M20	3.0×60°	AP-230, AP-275	16.1
SJ-275	180	64	70	25.5	9	40	60	80	21	32	45	M20	3.0×60°	AP-230, AP-275	16.1
SJ-320	210	75	80	30	9	40	60	110	26	38	55	M24	3.0×60°	AP-320, AP-375	24.7

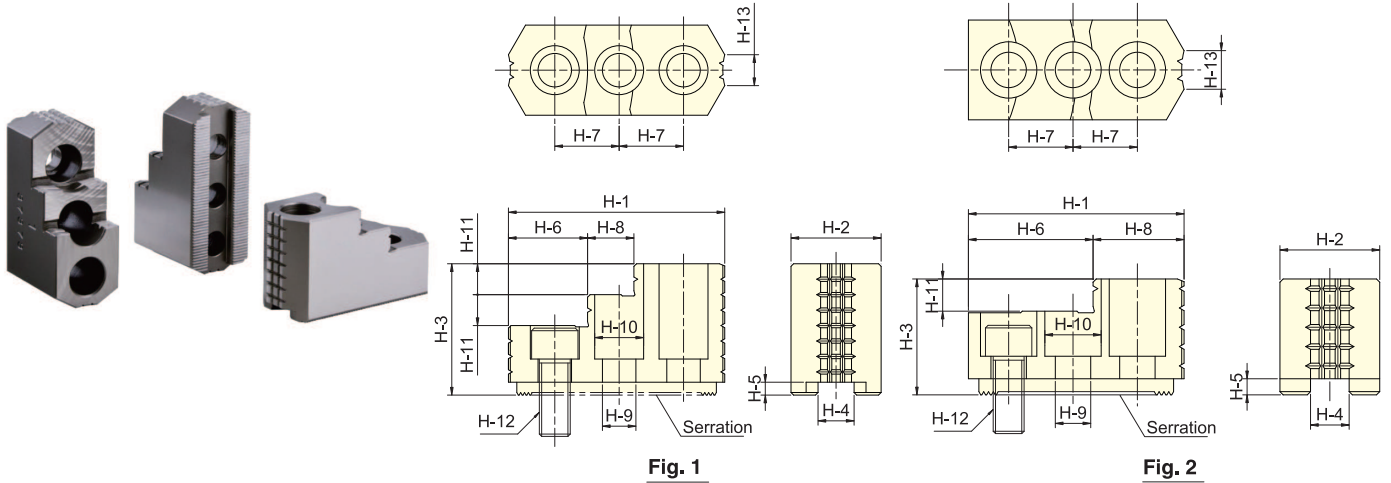


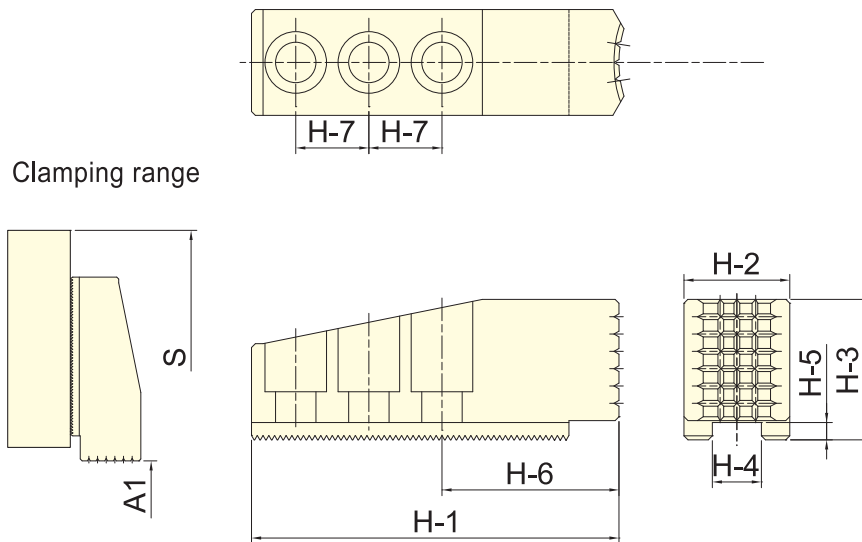
Fig. 1

Fig. 2

\* Subject to technical changes.

### Dimensions

Model	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	H-13	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)	Reference Drawing
HJ05	53	23	27.5	10	4	30.5	14	22.5	8.5	13.5	10	M8	6	1.5×60°	3H-04, 3H-05	1.0	Fig.2
HJ06	67	31	35	12	5	39	20	28	11	17	12	M10	10	1.5×60°	3H-206, 3P-06	1.7	Fig.2
HJ08	86	35	51	14	5	31	25	18	13	19	12	M12	12	1.5×60°	3H-208, 3P-08	2.0	Fig.1
HJ10	99.5	40	54	16	5	43	30	17	13	19	13	M12	15	1.5×60°	3H-10, 3P-10	3.0	Fig.1
HJ12H	103	50	52	21	5	62.5	30	40.5	17	25	17	M16	30	1.5×60°	3H-212, 3P-12	3.5	Fig.2
HJ12P	103	50	52	18	5	62.5	30	40.5	15	22	17	M14	30	1.5×60°	3P-12	3.6	Fig.2
HJ15H	149	62	86	22	8	63	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-18	9.6	Fig.1
HJ15P	149	62	86	25.5	6	63	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-18, 3P-15, 3P-18	9.5	Fig.1
HJ21	159.5	80	90	25	9	104.5	50	55	21	32	40	M20	55	3.0×60°	3H-21, 3H-24, 3P-221, 3P-224, 3V-32	14.3	Fig.2



Clamping range

### Dimensions

\* Subject to technical changes.

Model	H-1	H-2	H-3	H-4	H-5	H-6	H-7	A1	S	Serration Pitch	Matching Chuck	3 Jaw Weight (kg)
HJ-145	191	55	73	25.5	9	92	38	28-120	420	3.0×60°	AP-145	12.5
HJ-145	191	55	73	25.5	9	92	38	28-155	460	3.0×60°	AP-185	12.5
HJ-145	191	55	73	25.5	9	92	38	60-235	535	3.0×60°	AP-230	12.5
HJ-145	191	55	73	25.5	9	92	38	105-280	580	3.0×60°	AP275	12.5
HJ-320	243	75	82	30	9	110	50	100-295	658	3.0×60°	AP-320	24.6
HJ-320	243	75	82	30	9	110	50	175-375	738	3.0×60°	AP-375	24.6