

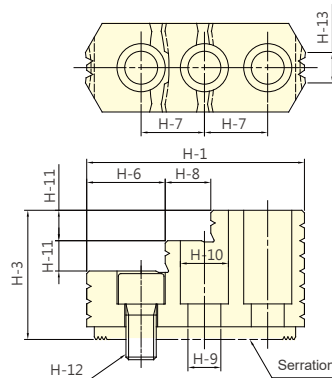


Fig. 1

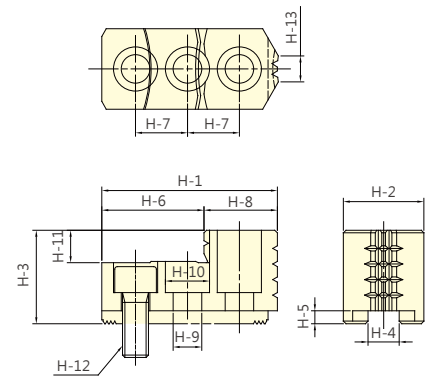


Fig. 2

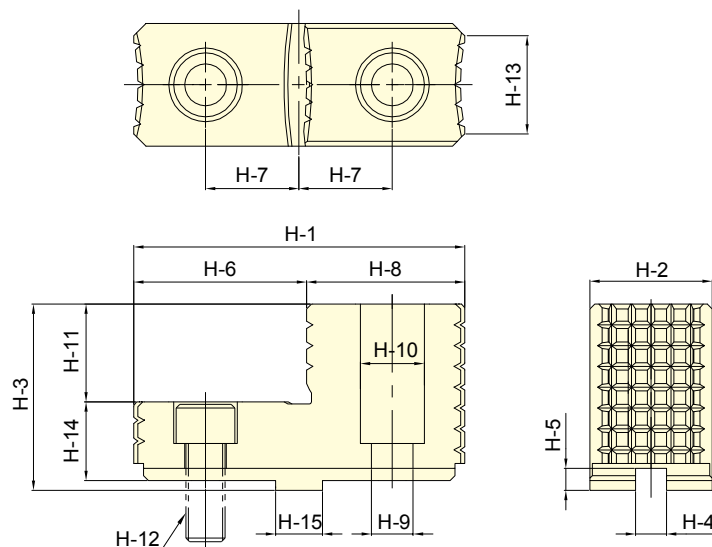
Subject to technical changes

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
HJ-05	54.2	23	28	10	4	31.1	14	23.1	8.5	13.5	10	M8	3.6	1.5×60°	3H-204, 3H-205	1	Fig.2
HJ-06	67.6	31	36	12	5	40.2	20	27.4	11	17	12	M10	9.3	1.5×60°	3H-206, 3P-06	1.7	Fig.2
HJ-08	86.1	35	51	14	5	33.5	25	18.4	13	19	12	M12	14	1.5×60°	3H-208, 3P-08	2	Fig.1
HJ-10	100	40	54	16	5	39.5	30	22.5	13	19	13	M12	15	1.5×60°	3H-210, 3P-10	3	Fig.1
* HJ-12H	100.2	50	52	21	5	64.7	30	35.5	17	25	17	M16	31.5	1.5×60°	3H-12,3H-212, 3L-212, 3V-12,3P-12, 3M-12	3.5	Fig.2
* HJ-12P	100.2	50	52	18	5	64.7	30	35.5	15	23	17	M14	31.5	1.5×60°	3H-12,3H-212, 3L-212, 3V-12,3P-12, 3M-12	3.6	Fig.2
* HJ-15H	140.7	62	86	22	8	62.5	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-215, 3H-18, 3L-15 3V-15, 3V-18,3P-215, 3P-218	9.6	Fig.1
* HJ-15P	140.7	62	86	25.5	6	62.5	43	34	21	32	20	M20	43	1.5×60°	3H-15, 3H-215, 3H-18, 3L-15 3V-15, 3V-18,3P-215, 3P-218	9.5	Fig.1
HJ-21	153.5	80	90	25	9	103.7	50	49.8	21	32	40	M20	56.5	3.0×60°	3H-221, 3H-224, 3H-232, 3P-221, 3P-224, 3V-21, 3V-24, 3V-32	14.3	Fig.2

* For HJ-12H, HJ-12P, HJ-15H, HJ-15P, please confirm the dimension of H-4 before placing the order.

STANDARD HARDEN JAW FOR 3MF CHUCK

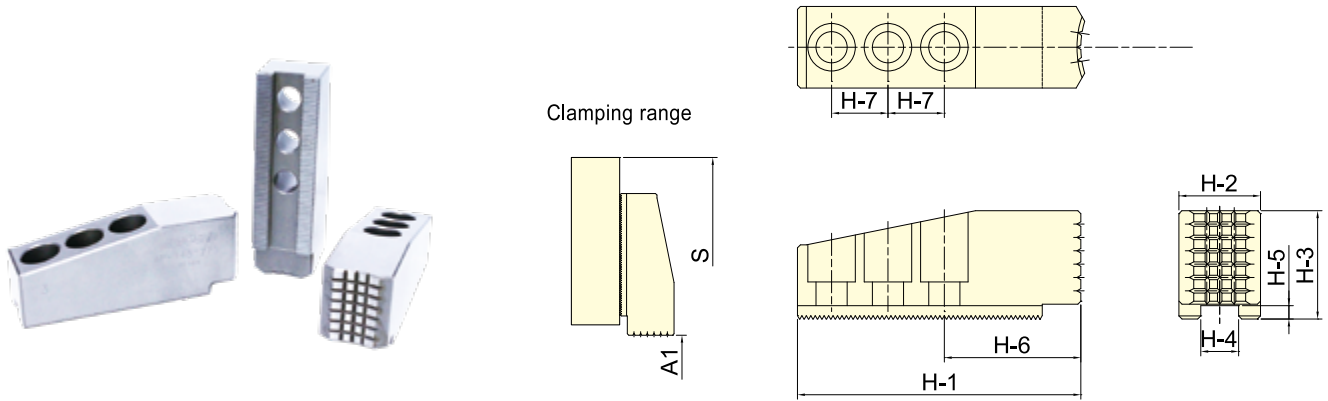


Subject to technical changes

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	H-14	H-15	Matching Chuck	3 Jaw Weight
3MF-20	135	50	76	12.7	9	70	38.1	65	17	26	40	M16	40	32	19.03	3MF-20	6.7

STANDARD HARDEN JAW FOR AP CHUCK



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DIMENSIONS

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	30-125	420	$3.0 \times 60^\circ$	AP-145	12.5
HJ-145	191	55	73	25.5	9	92	38	35-165	460	$3.0 \times 60^\circ$	AP-185	12.5
HJ-145	191	55	73	25.5	9	92	38	55-240	535	$3.0 \times 60^\circ$	AP-230	12.5
HJ-145	191	55	73	25.5	9	92	38	100-285	580	$3.0 \times 60^\circ$	AP-275	12.5
HJ-320	243	75	82	30	9	110	50	105-300	658	$3.0 \times 60^\circ$	AP-320	24.6
HJ-320	243	75	82	30	9	110	50	165-375	738	$3.0 \times 60^\circ$	AP-375	24.6