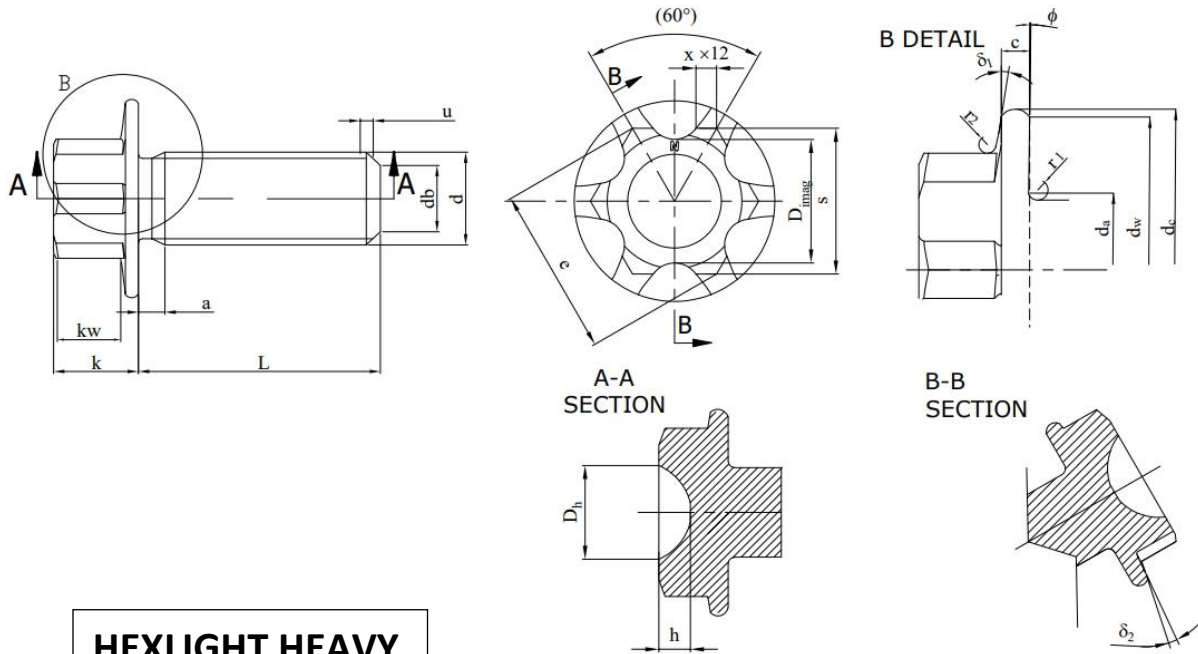


Thread		M6	M8	M10	M12	M14	M16	M18	M20
Drive Size		HLT-8	HLT-10	HLT-13	HLT-15	HLT-18	HLT-21	HLT-24	HLT-27
p <sup>2</sup>		1.00	1.25	1.50	1.75	2.00	2.00	2.50	2.50
c	min.	1.1	1.2	1.5	1.8	2.1	2.4	2.7	3.0
da	max.	6.8	9.2	11.2	13.7	15.7	17.7	20.2	22.4
dc	max.	13.0	16.4	20.4	24.3	28.3	32.5	36.2	40.2
	min.	12.1	15.4	19.4	23.2	27.1	31.5	35.2	39.2
dw	min.	11.6	14.9	18.7	22.5	26.4	30.6	35.9	39.9
db	max.	4.60	6.00	7.30	9.30	10.50	12.50	15.84	16.30
k	max.	6.1	7.9	8.8	11.0	11.9	14.4	15.6	17.1
kw	min.	2.9	3.9	4.3	5.4	5.6	6.8	7.75	8.15
r <sub>1</sub>	min.	0.25	0.4	0.4	0.6	0.6	0.6	0.6	0.8
r <sub>2</sub>	max.	0.4	0.5	0.6	0.7	0.9	1.0	1.0	1.2
s	max.	8.00	10.00	13.00	15.00	18.00	21.00	24.00	27.00
	min.	7.78	9.78	12.73	14.73	17.73	20.67	23.67	26.67
e	min.	8.71	10.95	14.26	16.5	19.86	23.15	26.51	29.87
D <sub>imag</sub>	ref.	6.80	8.60	11.20	13.00	15.60	18.20	20.80	23.40
D <sub>h</sub>	ref.	5.20	6.50	8.50	9.80	11.80	13.80	15.80	17.70
h	ref.	2.00	2.60	2.90	3.60	3.85	4.55	4.30	5.25
x	max.	1.50	1.80	2.40	2.95	3.10	3.50	4.20	4.30
	min.	1.20	1.50	2.00	2.45	2.60	3.00	3.70	3.80
$\delta_1$	max.	15°	15°	15°	15°	15°	15°	15°	15°
	min.	10°	10°	10°	10°	10°	10°	10°	10°
$\delta_2$	ref.	5°	5°	5°	5°	5°	5°	5°	5°
$\phi$	max.	1.25°	1.25°	1.25°	1.25°	1.25°	1.25°	1.25°	1.25°
	min.	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°
L	According to the customer's request.								
Head Weight <sup>3</sup> (g)		2.80	5.60	10.60	18.00	27.90	44.90	63.90	86.90

All dimensions are in millimeters.

**Notes:**

- 1- The values in this table have been prepared in accordance with the ISO 15071 standard.
- 2- P is the pitch of the thread.
- 3- The approximate weight values were determined based on the specified dimensions.
- 4- For any characteristics not explicitly defined in this document, reference shall be made to the ISO 15071 standard and the International Standards referenced therein.
- 5- The Hexlight form can be applied to all hexagon head bolts. For special products, please contact us at RD@normfasteners.com



**HEXLIGHT HEAVY**

All dimensions are in millimeters.

Thread	M6	M8	M10	M12	M14	M16	M18	M20
Drive Size	HLT-10H	HLT-13H	HLT-16H	HLT-18H	HLT-21H	HLT-24H	HLT-27H	HLT-30H
$p^2$	1.00	1.25	1.50	1.75	2.00	2.00	2.50	2.50
$c$	min. 1.1	1.2	1.5	1.8	2.1	2.4	2.7	3.0
$da$	max. 6.8	9.2	11.2	13.7	15.7	17.7	20.2	22.4
$dc$	max. 13.6	17.3	21.3	25.6	29.5	34.0	38.1	42.3
	min. 12.1	16.3	20.3	24.5	28.3	32.8	36.8	40.9
$dw$	min. 12.2	15.8	19.6	23.8	27.6	31.9	35.9	39.9
$db$	max. 4.60	6.00	7.30	9.30	10.50	12.50	15.84	16.30
$k$	max. 6.1	7.6	9.7	11.0	12.8	14.5	16.2	17.8
$kw$	min. 3.0	3.9	5.1	5.6	6.5	7.3	8.3	8.9
$r_1$	min. 0.25	0.4	0.4	0.6	0.6	0.6	0.6	0.8
$r_2$	max. 0.4	0.5	0.6	0.7	0.9	1.0	1.0	1.2
$s$	max. 10.00	13.00	16.00	18.00	21.00	24.00	27.00	30.00
	min. 9.78	12.73	15.73	17.73	20.67	23.67	26.67	29.67
$e$	min. 10.95	14.26	17.62	19.86	23.15	26.51	29.87	33.23
$D_{imag}$	ref. 8.6	11.2	13.8	15.6	18.2	20.8	23.4	26.0
$D_h$	ref. 6.5	8.5	10.5	11.8	13.8	15.8	17.7	19.8
$h$	ref. 2.0	2.5	3.2	3.6	4.2	4.7	5.2	5.8
$x$	max. 1.80	2.40	2.95	3.10	3.50	4.20	4.30	4.50
	min. 1.5	2	2.45	2.6	3.0	3.7	3.8	4.0
$\delta_1$	max. 15°	15°	15°	15°	15°	15°	15°	15°
	min. 10°	10°	10°	10°	10°	10°	10°	10°
$\delta_2$	ref. 5°	5°	5°	5°	5°	5°	5°	5°
$\phi$	max. 1.25°	1.25°	1.25°	1.25°	1.25°	1.25°	1.25°	1.25°
	min. 0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°	0.25°
$L$	According to the customer's request.							
Head Weight <sup>3</sup> (g)	3.90	8.00	15.60	23.70	37.10	55.70	78.30	105.80

**Notes:**

- 1- The values in this table have been prepared in accordance with the DIN EN 1665 standard.
- 2- P is the pitch of the thread.
- 3- The approximate weight values were determined based on the specified dimensions.
- 4- For any characteristics not explicitly defined in this document, reference shall be made to the DIN EN 1665 standard and the International Standards referenced therein.
- 5- The Hexlight form can be applied to all hexagon head bolts. For special products, please contact us at [RD@normfasteners.com](mailto:RD@normfasteners.com)

**HEXLIGHT**

METRIC SIZE	DRIVE SIZE	ISO 15071 HEAD WEIGHT (g)	HEXLIGHT HEAD WEIGHT (g)	WEIGHT REDUCTION (g)	% WEIGHT REDUCTION
M6	HLT-8	3.9	2.8	1.1	28.2
M8	HLT-10	7.4	5.6	1.8	24.3
M10	HLT-13	13.7	10.6	3.1	22.6
M12	HLT-15	23.1	18.0	5.1	22.1
M14	HLT-18	35.2	27.9	7.3	20.7
M16	HLT-21	55.2	44.9	10.3	18.7
M18 <sup>4</sup>	HLT-24	76.6	63.9	12.7	16.6
M20 <sup>4</sup>	HLT-27	105.0	86.9	18.1	17.2

**HEXLIGHT HEAVY**

METRIC SIZE	DRIVE SIZE	DIN EN 1665 HEAD WEIGHT (g)	HEXLIGHT HEAVY HEAD WEIGHT (g)	WEIGHT REDUCTION (g)	% WEIGHT REDUCTION
M6	HLT-10H	5.1	3.9	1.2	23.5
M8	HLT-13H	10.2	8.0	2.2	21.6
M10	HLT-16H	20.0	15.6	4.4	22.0
M12	HLT-18H	30.1	23.7	6.4	21.3
M14	HLT-21H	46.9	37.1	9.8	20.9
M16	HLT-24H	69.5	55.7	13.8	19.9
M18 <sup>5</sup>	HLT-27H	97.7	78.3	19.4	19.9
M20	HLT-30H	132.2	105.8	26.4	20.0

**Notes:**

- 1- All weights are in grams.
- 2- ISO 15071 and DIN EN 1665 product weights are based on the dimensions defined in their respective standards.
- 3- Hexlight series bolt head weights are based on the dimensions specified in the table to meet the Hexlight product standards.
- 4- For ISO 15071, the M18 and M20 product weights are based on the dimensions derived using the approach defined in the standard.
- 5- For DIN EN 1665, the M18 product weight is based on the dimensions derived using the approach defined in the standard.
- 6- The Hexlight form can be applied to all hexagon head bolts. For special products, please contact us at [RD@normfasteners.com](mailto:RD@normfasteners.com)