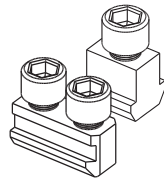
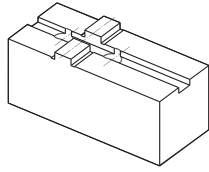
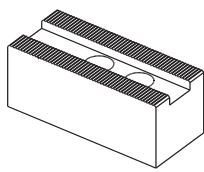
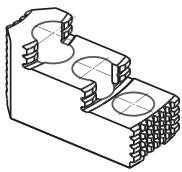


Hard top jaws, soft top jaws, T-nuts

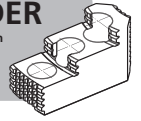
- Inch serrated
- Metric serrated
- Tongue & groove



For additional jaw options & accessories please request our 150 page special catalogue!

JAW FINDER

free application to search for jaws very quick and easy
www.smw-autoblok.de

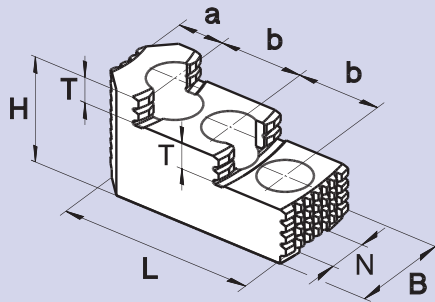


The easy way to mount the right top jaws on your SMW-AUTOBLOK chuck

| Chuck series | | | | | | | | | | | | | Hard top jaws | | Soft top jaws | T-nuts | | |
|----------------------|--------------------|----------|-------------|----------|-----|-----|-------|-----|-----|-----|----------------|------------|--------------------------------------|--------------------------------------|-------------------------------|------------|---------------------------------------|----------|
| Chuck Ø | AN-, AL-, | AP-, NT- | APLD-, IEPD | IN-, IL- | CL- | BH- | BH-FC | BB- | RC- | RAN | PB-, PBI-, HB- | HYN-, HYL- | Set of 3 hard top jaws Id. No. / Set | Set of 4 hard top jaws Id. No. / Set | Soft top jaws Id. No. / piece | T-nut type | T-nuts Id. No. / piece (see page 328) | |
| | INCH SERRATION "D" | 125 | ● | | | | | | | | | | | 12081306 | 12081308 | 12071300 | 3 | 12061200 |
| 130 | | | | | | ● | | | | | ● | | 12081306 | 12081308 | 12071300 | 2 | 12061300 | |
| 140 | | | | | | | | ● | | | | | | | | | | |
| 165/170 | | ● | ● | | | ● | ● | | ● | | ● | | 12081636 | 12081638 | 12071680 | 3 | 73061650 | |
| 175/180 | | | | | | | | | | | | ● | | | | | | |
| 200 | | | | | ● | | | | | | | | | - | - | 12072500 | 1 | 12062500 |
| 210/215 | | ● | ● | | | ● | ● | ● | ● | | ● | ● | | 12082036 | 12082038 | 12072130 | 3 | 73062150 |
| 226 | | | | | | | | | | | | ● | | | | | | |
| 260 | | | ● | | | | | | | | | | | 12082626 | - | 12072620 | 3 | 18062632 |
| 250 | | ● | | | | | ● | ● | ● | ● | | ● | ● | 12083036 | 12083038 | 12072500 | 3 | 73063050 |
| 250 | | | | | ● | | | | | | | | | | | | | |
| 315 | | | | | ● | | | | | | | | | - | - | 90072500 | 1 | 12065020 |
| 305/315 | | ● | ● | | | | ● | ● | ● | | | ● | ● | 12083036 | 12083038 | 12073000 | 3 | 73063050 |
| 400 | | | | | | | ● | ● | | ● | | | | 12084506 | 12084508 | 12074030 | 1 | 12063000 |
| 400/450 | | ● | | | | | ● | ● | | | | | ● | 12084546 | 12084548 | 12074040 | 1 | 12065020 |
| 400 | | | ● | | | | | | | | | | | 12084546 | - | 12074040 | 3 | 73065030 |
| 500 | | | | | | | | | | ● | | | | 12084546 | - | 12075050 | 3 | 73065030 |
| 500 | | | | | | | ● | ● | | | | | | 12084546 | - | 12075050 | 1 | 12065020 |
| 500-550 | | | | | | | | | | | | | ● | 12084546 | 12084548 | 12075050 | 1 | 12065082 |
| 630 | | | | | | | | | | | | | ● | | | | | |
| 500 | | | | ● | | | | | | | | | 12086346 | 12086348 | 12075040 | 1 | 12065002 | |
| 630 | | | | ● | | | | | | | | | 12084546 | - | 12075050 | 3 | 73065030 | |
| 500 | | | ● | | | | | | | | | | 12084546 | - | 12075050 | 3 | 73065030 | |
| 630-800 | | | ● | | | | | | | | | | 12084546 | - | 12075050 | 3 | 12065020 | |
| 630 | | | | | | | ● | | | | | | 12084546 | - | 12075050 | 3 | 12065020 | |
| 630 | | | | | | ● | | | | | | | 12086346 | 12086348 | 12075140 | 1 | 12065020 | |
| 800 | | | | | | ● | | | | | | | 12086346 | 12086348 | 12075040 | 1 | 12065002 | |
| 800 | | | | ● | | | | | | | | ● | 12086346 | 12086348 | 12075040 | 1 | 12065002 | |
| METRIC SERRATION "M" | 125 | ● | | | | | | | | | | | 12081307 | 12081309 | 12071301 | 3 | 12061200 | |
| | 130 | | | | | ● | | | | | ● | | 12081307 | 12081309 | 12071301 | 2 | 12061300 | |
| | 140 | | | | | | | ● | | | | | | | | | | |
| | 165/170 | ● | ● | | | ● | | | ● | | ● | | 12081627 | 12081629 | 12071621 | 4 | 73061602 | |
| | 175 | | | | | | | | | | | | | | | | | |
| | 210/215 | ● | ● | | | ● | | ● | ● | | ● | ● | 12082127 | 12082129 | 12072121 | 4 | 73062101 | |
| | 250 | ● | | | | | ● | | ● | ● | | ● | 12083037 | 12082629 | 12072621 | 4 | 73062501 | |
| | 260 | | ● | | | | | | | | | | | 12082627 | - | 12072621 | 4 | 18062633 |
| | 305/315 | ● | ● | | | | ● | | ● | ● | | ● | | 12083037 | 12083039 | 12073001 | 3 | 73063050 |
| | 400 | | | | | | | | | ● | | | | 12084507 | 12084509 | 12074031 | 1 | 12063000 |
| 400 | | ● | | | | | | | | | | | 12084527 | - | 12074021 | 2 | 12064520 | |
| 400/450 | ● | | | | | ● | | | | | | | 12084527 | 12084529 | 12074021 | 1 | 12064020 | |
| TONGUE & GROOVE "C" | 80 | | | | ● | | | | | | | | - | - | 90040800 | - | - | |
| | 100 | | | | ● | | | | | | | | - | - | 90041000 | - | - | |
| | 125 | | | | ● | | | | | | | | - | - | 90041300 | - | - | |
| | 160 | | | | ● | | | | | | | | - | - | 90041600 | - | - | |
| | 160 | | | | | | | | | | ● | | - | - | 12041660 | - | - | |
| | 165/170 | ● | ● | | | | | | | ● | | ● | - | - | 12041660 | - | - | |
| | 200 | | | | | | | | | ● | ● | | - | - | 12042060 | - | - | |
| | 210/215 | ● | ● | | | | | | | | | ● | | - | - | 12042060 | - | - |
| | 250/260 | ● | ● | | | | | | | ● | ● | ● | | - | - | 12042560 | - | - |
| | 305/315 | ● | ● | | | | | | | ● | ● | ● | | - | - | 12043060 | - | - |
| | 400 | ● | ● | | | | | | | | ● | | | - | - | 12044050 | - | - |
| | 500 | | | | ● | | | | | | | | | - | - | 12045050 | - | - |
| 630 | | | | ● | | | | | | | | | - | - | 12045050 | - | - | |
| 800 | | | | ● | | | | | | | | | - | - | 12045050 | - | - | |

Hard top jaws, soft top jaws

- Inch serrated
- Metric serrated
- Tongue & groove

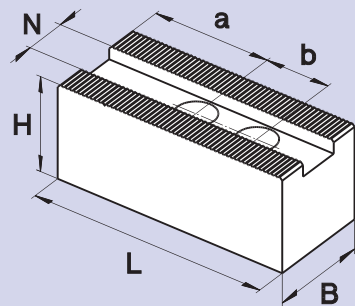


Inch serrated hard top jaws "D"

■ If high concentricity is required jaws have to be ground on the chuck at clamping pressure

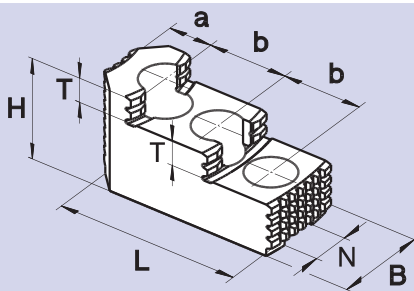
| Id. No.* | Serration inch | B mm | H mm | L mm | N mm | T mm | a mm | b mm | Weight kg/jaw |
|----------|----------------|------|------|------|------|------|------|------|---------------|
| 12081306 | 1/16" x 90° | 30 | 34 | 58 | 12 | 8.5 | 13 | 16 | 0.2 |
| 12081636 | 1/16" x 90° | 34 | 39 | 65 | 14 | 10 | 18 | 16.5 | 0.3 |
| 12082036 | 1/16" x 90° | 40 | 45 | 82 | 17 | 10.5 | 19 | 23 | 0.57 |
| 12082626 | 1/16" x 90° | 45 | 56 | 100 | 17 | 15.5 | 23 | 30 | 0.85 |
| 12083036 | 1/16" x 90° | 45 | 56 | 105 | 21 | 13.5 | 26 | 30 | 0.95 |
| 12084506 | 1/16" x 90° | 60 | 75 | 140 | 21 | 19 | 38 | 38 | 2.6 |
| 12084546 | 3/32" x 90° | 60 | 75 | 140 | 25.5 | 19 | 38 | 38 | 2.5 |
| 12086346 | 3/32" x 90° | 70 | 75 | 145 | 25.5 | 32 | 46 | 38 | 3 |

* The number refers to a set of 3 jaws; for the set of 4 jaws the final number is not 6 but 8



Inch serrated soft blank top jaws "D"

| Id. No. | Serration inch | B mm | H mm | L mm | N mm | a mm | b mm | Weight kg/jaw |
|----------|----------------|------|------|------|------|------|------|---------------|
| 12071300 | 1/16" x 90° | 30 | 30 | 60 | 12 | 29 | 16 | 0.3 |
| 12071680 | 1/16" x 90° | 30 | 35 | 70 | 14 | 38 | 16.5 | 0.42 |
| 12072130 | 1/16" x 90° | 35 | 40 | 90 | 17 | 47 | 23 | 0.85 |
| 12072620 | 1/16" x 90° | 40 | 45 | 110 | 17 | 60 | 30 | 1.23 |
| 12072500 | 1/16" x 90° | 45 | 45 | 110 | 21 | 60 | 30 | 1.25 |
| 90072500 | 1/16" x 90° | 60 | 60 | 120 | 25.5 | 64 | 34 | 2.6 |
| 12073000 | 1/16" x 90° | 50 | 50 | 125 | 21 | 73 | 30 | 1.85 |
| 12074030 | 1/16" x 90° | 60 | 60 | 140 | 21 | 81 | 34 | 3.2 |
| 12074040 | 3/32" x 90° | 60 | 60 | 140 | 25.5 | 75 | 38 | 3.2 |
| 12075050 | 3/32" x 90° | 60 | 60 | 170 | 25.5 | 105 | 38 | 3.6 |
| 12075040 | 3/32" x 90° | 75 | 75 | 160 | 25.5 | 97 | 38 | 5.5 |
| 12075140 | 3/32" x 90° | 60 | 60 | 205 | 25.5 | 104 | 38 | 4.5 |

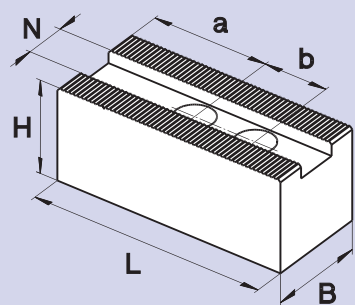


Metric serrated hard top jaws "M"

■ If high concentricity is required jaws have to be ground on the chuck at clamping pressure

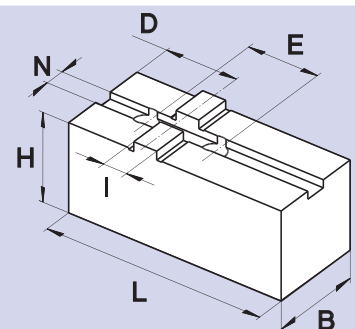
| Id. No.* | Serration mm | B mm | H mm | L mm | N mm | T mm | a mm | b mm | Weight kg/jaw |
|----------|--------------|------|------|------|------|------|------|------|---------------|
| 12081307 | 1.5 x 60° | 30 | 34 | 58 | 12 | 8.5 | 13 | 16 | 0.2 |
| 12081627 | 1.5 x 60° | 34 | 39 | 67 | 12 | 10 | 14 | 20 | 0.31 |
| 12082127 | 1.5 x 60° | 40 | 45 | 86 | 14 | 10.5 | 19 | 25 | 0.60 |
| 12082627 | 1.5 x 60° | 45 | 56 | 100 | 16 | 15.5 | 23 | 30 | 0.85 |
| 12083037 | 1.5 x 60° | 45 | 56 | 105 | 21 | 13.5 | 26 | 30 | 0.95 |
| 12084507 | 1.5 x 60° | 60 | 75 | 140 | 21 | 19 | 38 | 38 | 2.6 |
| 12084527 | 1.5 x 60° | 60 | 75 | 140 | 22 | 19 | 38 | 38 | 2.5 |

* The number refers to a set of 3 jaws; for the set of 4 jaws the final number is not 7 but 9



Metric serrated soft blank top jaws "M"

| Id. No. | Serration mm | B mm | H mm | L mm | N mm | a mm | b mm | Weight kg/jaw |
|----------|--------------|------|------|------|------|------|------|---------------|
| 12071301 | 1.5 x 60° | 30 | 30 | 60 | 12 | 29 | 16 | 0.3 |
| 12071621 | 1.5 x 60° | 30 | 35 | 70 | 12 | 34 | 20 | 0.42 |
| 12072121 | 1.5 x 60° | 35 | 40 | 90 | 14 | 47 | 25 | 0.85 |
| 12072621 | 1.5 x 60° | 45 | 45 | 110 | 16 | 60 | 30 | 1.3 |
| 12073001 | 1.5 x 60° | 50 | 50 | 125 | 21 | 73 | 30 | 1.85 |
| 12074021 | 1.5 x 60° | 60 | 60 | 140 | 22 | 75 | 38 | 3.2 |
| 12074031 | 1.5 x 60° | 60 | 60 | 140 | 21 | 81 | 34 | 3.2 |
| 12074041 | 1.5 x 60° | 60 | 60 | 140 | 25.5 | 75 | 38 | 3.2 |



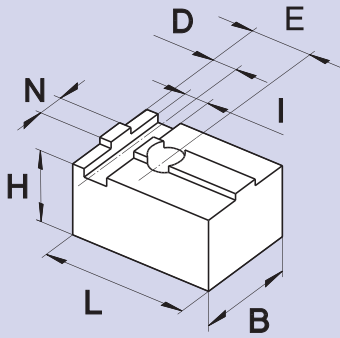
Tongue & groove soft blank top jaws "C"

■ American Standard Tongue & groove

| Id. No. | B mm | H mm | L mm | N mm | D mm | E mm | I mm | Weight kg/jaw |
|----------|------|------|------|-------|------|------|-------|---------------|
| 12041660 | 30 | 32 | 80 | 7.94 | 30 | 38.1 | 12.68 | 0.58 |
| 12042060 | 35 | 37 | 100 | 7.94 | 35 | 44.4 | 12.68 | 0.92 |
| 12042560 | 45 | 42 | 120 | 12.70 | 42 | 54 | 19.03 | 1.25 |
| 12043060 | 50 | 47 | 140 | 12.70 | 50 | 63.5 | 19.03 | 2.15 |
| 12044050 | 60 | 55 | 165 | 12.70 | 60 | 76.2 | 19.03 | 3.6 |
| 12045050 | 75 | 70 | 165 | 12.70 | 60 | 76.2 | 19.03 | 5.5 |

Soft top jaws, T-nuts

■ Tongue & groove

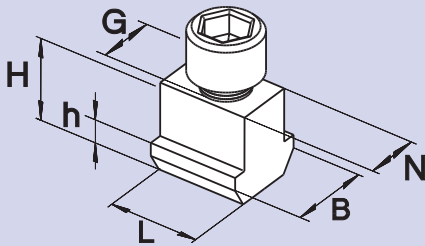


Tongue & groove soft blank top jaws "C"

- DIN standard tongue & groove
- For CL-C chucks

| Id. No. | B mm | H mm | L mm | N mm | D mm | E mm | I mm | Weight kg/jaw |
|----------|------|------|------|------|------|------|------|---------------|
| 90040800 | 30 | 28 | 38 | 8 | 8 | 14 | 8 | 0.18 |
| 90041000 | 30 | 28 | 48 | 8 | 8 | 20 | 8 | 0.23 |
| 90041300 | 35 | 32 | 57 | 14 | 27 | 27 | 16 | 0.40 |
| 90041600 | 40 | 37 | 75 | 18 | 34 | 34 | 18 | 0.72 |

NST



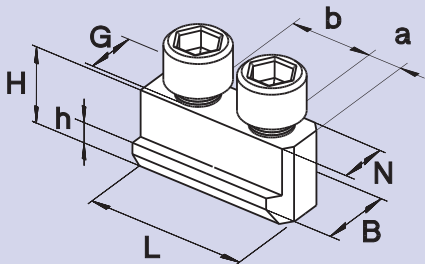
Single T-nut NST

- Type 1 (see table at page 326)

| Id. No. | B mm | H mm | L mm | N mm | G mm | h mm |
|----------|------|------|------|--------|------|------|
| 12063000 | 29 | 25 | 24 | 21 | M16 | 11 |
| 12064020 | 35 | 34.5 | 30 | 22* | M20 | 15 |
| 12065020 | 35 | 34 | 30 | 25.5 | M20 | 15 |
| 12065082 | 36 | 34 | 30 | 25.5** | M20 | 15 |
| 12065002 | 40 | 40 | 32 | 25.5** | M20 | 15.5 |

*22 mm guide in the top jaw and 25.5 mm guide in the master jaw
 **25.5 mm guide in the top jaw and 28 mm guide in the master jaw

NSTE

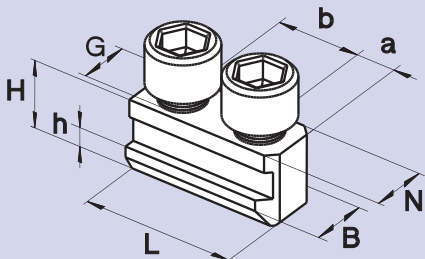


Double T-nut NSTE

- Type 2 (see table at page 326)

| Id. No. | B mm | H mm | L mm | N mm | G mm | a mm | b mm | h mm |
|----------|------|------|------|------|------|------|------|------|
| 12061300 | 17 | 15 | 30 | 12 | M8 | 7 | 16 | 6.5 |
| 73064030 | 31 | 33 | 60 | 21 | M16 | 13 | 34 | 14.5 |
| 12064520 | 31 | 33 | 70 | 22 | M20 | 16 | 38 | 14.5 |

NSTE

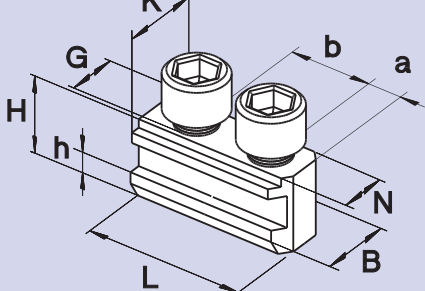


Double T-nut NSTE

- Type 3 (see table at page 326)

| Id. No. | B mm | H mm | L mm | N mm | G mm | a mm | b mm | h mm |
|----------|------|------|------|------|------|------|------|------|
| 12061200 | 15 | 15 | 32 | 12 | M8 | 6.5 | 16 | 6.5 |
| 73061650 | 17 | 18.5 | 32 | 14 | M10 | 8 | 16.5 | 6.5 |
| 73062150 | 19 | 20.5 | 43 | 17 | M12 | 10 | 23 | 7.5 |
| 18062632 | 19 | 20.5 | 50 | 17 | M12 | 10 | 30 | 7.5 |
| 73063050 | 25 | 26.5 | 56 | 21 | M16 | 13 | 30 | 10 |
| 73065030 | 31 | 33 | 70 | 25.5 | M20 | 16 | 38 | 14.5 |

NSTE-M



Double T-nut NSTE-M

- Type 4 (see table at page 326)
- For metric serrated master jaws to use existing Kitagawa top jaws

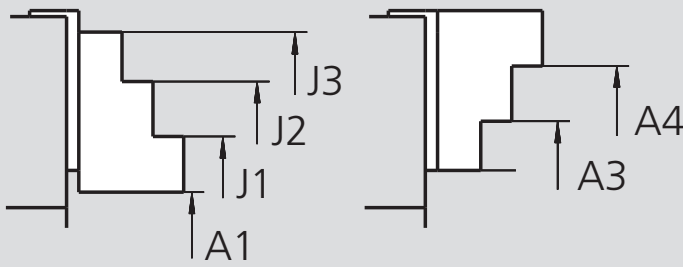
| Id. No. | B mm | H mm | L mm | N mm | K mm | G mm | a mm | b mm | h mm |
|----------|------|------|------|------|------|------|------|------|------|
| 73061602 | 17 | 18.5 | 36 | 12 | 14 | M10 | 8 | 20 | 6.5 |
| 73062101 | 19 | 20.5 | 45 | 14 | 17 | M12 | 10 | 25 | 7.5 |
| 18062633 | 19 | 20.5 | 50 | 16 | 17 | M12 | 10 | 30 | 7.5 |
| 73062501 | 25 | 26.5 | 56 | 16 | 21 | M12 | 13 | 30 | 10 |

Clamping ranges with standard stepped hard top jaws

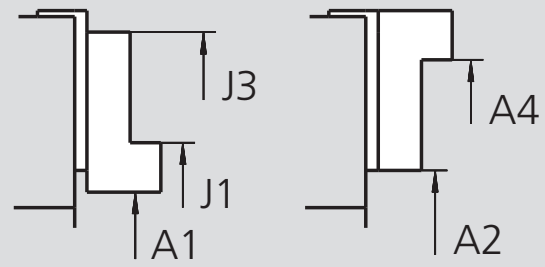
■ Standard chucks Ø 125 - 800 mm



2 step top jaws



1 step top jaws*



| Chuck diameter | Chuck type | Top jaws Id. No. | | A1 mm | A2 mm | A3 mm | A4 mm | J1 mm | J2 mm | J3 mm |
|----------------|-------------------------|------------------|-----------|---------|---------|---------|---------|---------|---------|---------|
| | | Serr. "D" | Serr. "M" | | | | | | | |
| 125 | AN-, AL- | 12081306 | 12081307 | 10-54 | - | 54-92 | 90-120 | 56-100 | 90-135 | 125-170 |
| 165-170 | AN-, AL-, AP-, NT- | 12081636 | 12081627 | 14-80 | - | 62-125 | 110-155 | 65-125 | 115-175 | 145-210 |
| 210-215 | AN-, AL-, AP-, NT- | 12082036 | 12082127 | 20-100 | - | 72-150 | 150-200 | 75-150 | 145-230 | 190-265 |
| 250 | AN-, AL- | 12083036 | 12082627 | 20-115 | - | 105-205 | 190-235 | 80-165 | 155-250 | 230-325 |
| 260 | AP-, NT- | 12082626 | 12082627 | 20-130 | - | 105-215 | 180-245 | 80-180 | 155-260 | 220-330 |
| 315 | AN-, AL-, AP-, NT- | 12083036 | 12083037 | 30-170 | - | 120-265 | 205-300 | 95-225 | 165-310 | 240-380 |
| 400 | AN-, AL- | 12084546 | 12084527 | 52-205 | - | 180-330 | 280-370 | 140-285 | 240-385 | 330-480 |
| 400 | AP-, NT- | 12084546 | 12084527 | 35-200 | - | 165-325 | 260-370 | 125-280 | 220-380 | 315-480 |
| 500 | IN-D, IL-D | 12086346* | - | 80-320 | 125-365 | - | 320-475 | 180-420 | - | 370-610 |
| 630 | IN-D, IL-D | 12086346* | - | 80-440 | 125-485 | - | 320-600 | 180-540 | - | 370-730 |
| 800 | IN-D, IL-D | 12086346* | - | 80-610 | 125-655 | - | 320-760 | 180-710 | - | 370-900 |
| 500 | APLD | 12084546 | - | 60-310 | - | 185-440 | 285-470 | 145-390 | 245-490 | 340-590 |
| 630 | APLD | 12084546 | - | 60-440 | - | 185-570 | 285-600 | 145-520 | 245-620 | 340-720 |
| 800 | APLD | 12084546 | - | 60-610 | - | 185-740 | 285-760 | 145-690 | 245-790 | 340-890 |
| 500 | IEPD | 12084546 | - | 85-320 | - | 210-450 | 310-480 | 170-400 | 270-500 | 370-600 |
| 630 | IEPD | 12084546 | - | 85-440 | - | 210-570 | 310-600 | 170-520 | 270-620 | 370-720 |
| 800 | IEPD | 12084546 | - | 85-610 | - | 210-740 | 310-760 | 170-690 | 270-790 | 370-890 |
| 130 | BH-, BH- | 12081306 | 12081307 | 10-58 | - | 55-97 | 90-120 | 58-105 | 90-140 | 125-175 |
| 140 | BB-, BB- | 12081306 | 12081307 | 16-65 | - | 55-105 | 90-130 | 65-110 | 98-148 | 132-182 |
| 165 | BH-, BH-FC, RC- | 12081636 | 12081627 | 12-80 | - | 62-125 | 110-155 | 62-125 | 105-170 | 145-210 |
| 175 | BB-D, BB-M | 12081636 | 12081627 | 25-92 | - | 74-138 | 120-165 | 74-138 | 118-185 | 155-220 |
| 180 | HYND-S | 12081636 | 12081627 | 27-95 | - | 77-140 | 125-170 | 77-140 | 120-185 | 160-225 |
| 210 | BH-, BH-FC, RC-, HYND-S | 12082036 | 12082127 | 14-100 | - | 65-150 | 140-200 | 65-150 | 135-230 | 180-265 |
| 210 | BB-D, BB-M | 12082036 | 12082127 | 25-100 | - | 80-150 | 155-200 | 80-150 | 150-230 | 195-265 |
| 226 | HYND-S | 12082036 | 12082127 | 24-110 | - | 75-160 | 150-215 | 75-160 | 145-240 | 190-275 |
| 250 | BH-, BH-FC, RC-, HYND-S | 12083036 | 12083037 | 20-115 | - | 105-205 | 190-235 | 80-165 | 155-250 | 230-325 |
| 250 | BB-D, BB-M | 12083036 | 12083037 | 25-115 | - | 115-205 | 200-235 | 85-165 | 165-250 | 240-325 |
| 305 | RC-D, RC-M | 12083036 | 12083037 | 25-160 | - | 120-250 | 205-290 | 85-215 | 165-300 | 240-370 |
| 315 | BH-, BH-FC, HYND-S | 12083036 | 12083037 | 40-170 | - | 135-265 | 220-300 | 100-225 | 180-310 | 250-380 |
| 315 | BB-D, BB-M | 12083036 | 12083037 | 75-170 | - | 165-265 | 250-300 | 130-225 | 210-310 | 320-415 |
| 400 | RC- | 12084006 | 12084007 | 90-250 | - | 195-355 | 285-380 | 155-315 | 240-400 | 330-490 |
| 400 | BH-, BH-FC, HYND-S | 12084546 | 12084527 | 52-205 | - | 180-330 | 280-370 | 140-285 | 240-385 | 330-480 |
| 450 | BH | 12084546 | 12084527 | 52-265 | - | 180-390 | 280-430 | 140-345 | 240-445 | 330-540 |
| 500 | BH | 12084546 | - | 115-325 | - | 240-450 | 340-480 | 200-410 | 300-510 | 395-610 |
| 500 | BH-FC | 12084546 | - | 90-320 | - | 220-445 | 320-480 | 175-400 | 275-500 | 370-600 |
| 500 | HYDL-S | 12084546 | - | 150-320 | - | 275-445 | 375-480 | 230-400 | 330-500 | 430-600 |
| 550 | HYDL-S | 12084546 | - | 200-370 | - | 330-500 | 430-535 | 285-455 | 385-555 | 485-655 |
| 630 | BH | 12086346 | - | 195-420 | 240-465 | - | 440-600 | 295-520 | - | 490-715 |
| 630 | BH-FC | 12084546 | - | 135-440 | - | 260-565 | 360-600 | 220-520 | 315-620 | 415-720 |
| 630 | HYDL-S | 12084546 | - | 230-450 | - | 360-575 | 460-600 | 315-530 | 415-630 | 515-730 |
| 800 | BH | 12086346 | - | 195-590 | 240-635 | - | 440-760 | 295-690 | - | 490-880 |
| 800 | HYDL-S | 12086346 | - | 245-595 | 295-640 | - | 490-760 | 345-695 | - | 540-890 |

Note: AN means AND, ANM; AL means ALD, ALM; AP means APD, APM; NT means NTD, NTM;
BH means BHD, BHM; BH-FC means BHD-FC, BHM-FC; RC means RCD, RCM.