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TABLE 1
Mk8 CUBICLE WEIGHT

| 1 | 2 |
|---|---|
| ITEM NUMBER | CUBICLE WEIGHT |
| 1 | 55 |

1. THE CUBICLE WEIGHT INCOPORATES A BASE AND INTERCONNECTING DUCTS FOR EACH CUBICLE

TABLE 2
MAIN SWITCHBOARD INCOMER ARRANGEMENT WEIGHTS

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| ITEM NUMBER | SWITCHBOARD RATING (A) | STANDBY SUPPLY | ARRANGEMENT WEIGHT |
| 1 | 100 | NONE | 16 |
| 2 | | MANUAL TRANSFER | 18 |
| 3 | | AUTO TRANSFER | 20 |
| 4 | 220 | NONE | 55 |
| 5 | | MANUAL TRANSFER | 76 |
| 6 | | AUTO TRANSFER | 82 |

1. THE 220A MAIN SWITCHBOARD INCOMER ARRANGEMENT INCORPORATES THE METERING, MAIN INCOMER, MAIN SWITCHES AND DISTRIBUTION PANELS

TABLE 3
PUMP STATION SWITCHBOARD INCOMER ARRANGEMENT WEIGHTS

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| ITEM NUMBER | SWITCHBOARD RATING (A) | STANDBY SUPPLY | ARRANGEMENT WEIGHT |
| 1 | 100 | NONE | 14 |
| 2 | | MANUAL TRANSFER | 16 |
| 3 | | AUTO TRANSFER | 18 |
| 4 | 220 | NONE | 26 |
| 5 | | MANUAL TRANSFER | 47 |
| 6 | | AUTO TRANSFER | 53 |

1. THE 220A PUMP STATION INCOMER ARRANGEMENT INCORPORATES THE MAIN SWITCHES AND DISTRIBUTION PANELS

TABLE 4
STARTER PANEL WEIGHTS

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| ITEM NUMBER | MAXIMUM MOTOR FLC (A) | STARTER | STARTER PANEL WEIGHT |
| 1 | 45 | DOL | 6 |
| 2 | | ATr | 33 |
| 3 | | ESS | 13 |
| 4 | 64 | DOL | 7 |
| 5 | | ATr | 34 |
| 6 | | ESS | 13 |
| 7 | 67 | DOL | 7 |
| 8 | | ATr | 36 |
| 9 | | ESS | 13 |
| 10 | 89 | DOL | 7 |
| 11 | | ATr | 46 |
| 12 | | ESS | 27 |
| 13 | 100 | DOL | 10 |
| 14 | | ATr | 56 |
| 15 | | ESS | 28 |
| 16 | 135 | ESS | 28 |
| 17 | 200 | ATr | 100 |
| 18 | | ESS | 45 |

# DETERMINATION OF SWITCHBOARD WEIGHT

## DETERMINE NUMBER OF CUBICLES AND REQUIRED PANELS

1. DETERMINE NUMBER OF CUBICLES REQUIRED FOR INCOMER ARRANGEMENT, REFER MN01–21–1.3, TABLES 2 AND 3
2. DETERMINE NUMBER OF CUBICLES REQUIRED FOR STARTER REQUIREMENTS, REFER MN01–21–1.3, TABLE 4
3. ADD UP REQUIRED CUBICLES

## EXAMPLE – WASTEWATER, 100A MAIN SWITCHBOARD, NO STANDBY SUPPLY, 2 x 45A ATr STARTERS

100A MAIN SWITCHBOARD INCOMER WITH NO STANDBY SUPPLY – 1 CUBICLE (REFER MN01–21–1.3, TABLE 2, ITEM 1, COLUMN 4)
2 AUTOTRANSFORMER STARTERS, MOTOR FLC 45A – 1 CUBICLE (REFER MN01–21–1.3, TABLE 4, ITEM 1, COLUMN 13)
1 CUBICLE FOR INCOMER + 1 CUBICLE FOR STARTERS = 2 CUBICLES

## DETERMINE WEIGHT OF CUBICLES AND WEIGHT OF PANELS

1. MULTIPLY NUMBER OF CUBICLES BY CUBICLE WEIGHT, REFER TABLE 1, ITEM 1
2. ADD TOGETHER WEIGHT OF INCOMER AND REQUIRED STARTER PANELS, REFER TABLES 2, 3 AND 4
3. ADD CUBICLE AND PANEL WEIGHTS TOGETHER

## EXAMPLE – WASTEWATER, 100A MAIN SWITCHBOARD, NO STANDBY SUPPLY, 2 x 45A ATr STARTERS

1 CUBICLE FOR INCOMER + 1 CUBICLE FOR STARTERS = 2 CUBICLES, 2 x 55 = 110 (REFER TABLE 1)
100A INCOMER, NO STANDBY + 2 AUTOTRANSFORMER STARTERS, MOTOR FLC 45A = 16 + (2 x 33) = 82 (REFER TABLE 2, ITEM 1, COLUMN 4 AND TABLE 4, ITEM 2 COLUMN 4)
110 + 82 = 192

## GENERAL NOTES

1. UNLESS OTHERWISE SHOWN ALL WEIGHTS ARE IN KILOGRAMS
2. CUBICLE WEIGHTS ARE AVERAGES AND TO BE USED AS A GUIDE ONLY, ANY APPLICATION REQUIRING A SPECIFIC WEIGHT MUST BE CALCULATED OR MEASURED

| ISSUE | DATE | GRID | REVISION | DRN | REC | APPD |
|---|---|---|---|---|---|---|

DESIGN SURVEY NONE | VERTICAL DATUM NONE | COORDINATE SYS NONE | ASCON SURVEY NONE | DES REF | DES CALC NA | DES CHD NA | DRN P HARVEY | Q.C. CHD S MEMORY | NORTH POINT

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RECOMMENDED Ed Gliwski 23/10/2020 E GLIWSKI (SIGNED) PRINCIPAL ENGINEER – ELECTRICAL

APPROVED Nick Johnson 23/10/2020 N JOHNSON (SIGNED) SNR PRINCIPAL ENGINEER – ELECT

ENGINEERING

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ELECTRICAL STANDARD SWITCHBOARD DESIGNS
SMALL PUMP STATIONS
SWITCHBOARD REFERENCE
MK8 OUTDOOR CUBICLE – SWITCHBOARD WEIGHT TABLES

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