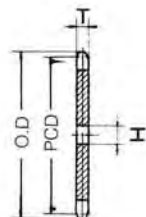
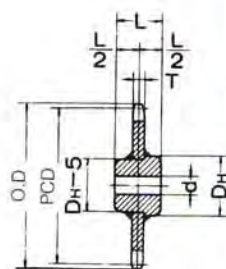
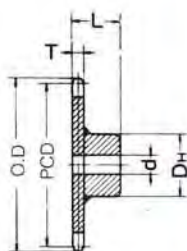


| Chain No. | Type of Roller | Number of Teeth | General            |                      | Type A  |                 | Type BW      |                        |                              |               | Type         |                        |                              |        |
|-----------|----------------|-----------------|--------------------|----------------------|---------|-----------------|--------------|------------------------|------------------------------|---------------|--------------|------------------------|------------------------------|--------|
|           |                |                 | Pitch Diameter PCD | Outside Diameter O.D | Teeth T | Inside Diameter | Weight (kgf) | Shaft Diameter Range d | Boss Diameter D <sub>H</sub> | Boss Length L | Weight (kgf) | Shaft Diameter Range d | Boss Diameter D <sub>H</sub> |        |
| BC 03075  | R              | 6               | 150.0              | 158                  | 12      | 20              | 2            | 25~40                  | 65                           | 52            | 3            | 25~40                  | 70                           | 55 3.5 |
|           |                | 8               | 196.0              | 209                  | 12      | 20              | 3            | 25~45                  | 70                           | 57            | 4.5          | 25~45                  | 75                           | 60 4.5 |
|           |                | 10              | 242.7              | 259                  | 12      | 20              | 4.5          | 25~50                  | 75                           | 62            | 6            | 25~50                  | 85                           | 70 7   |
|           |                | 12              | 289.8              | 308                  | 12      | 20              | 6            | 25~50                  | 75                           | 62            | 8            | 25~50                  | 85                           | 70 8.5 |
|           | F              | 6               | 150.0              | 158                  | 9       | 20              | 1.5          | 25~40                  | 65                           | 49            | 2.5          | 25~40                  | 70                           | 55 3   |
|           |                | 8               | 196.0              | 209                  | 9       | 20              | 2            | 25~45                  | 70                           | 54            | 3.5          | 25~45                  | 75                           | 60 4   |
|           |                | 10              | 242.7              | 259                  | 9       | 20              | 3.5          | 25~50                  | 75                           | 59            | 5            | 25~50                  | 85                           | 70 6   |
|           |                | 12              | 289.8              | 308                  | 9       | 20              | 4.5          | 25~50                  | 75                           | 59            | 6.5          | 25~50                  | 85                           | 70 7   |
|           | S              | 6               | 150.0              | 158                  | 12      | 20              | 2            | 25~40                  | 65                           | 52            | 3            | 25~45                  | 75                           | 60 3.5 |
|           |                | 7½              | 184.4              | 194                  | 12      | 20              | 2.5          | 25~45                  | 70                           | 57            | 4            | 25~50                  | 85                           | 70 4.5 |
|           |                | 8               | 196.0              | 206                  | 12      | 20              | 3            | 25~45                  | 70                           | 57            | 4.5          | 25~50                  | 85                           | 70 5   |
|           |                | 10              | 242.7              | 252                  | 12      | 20              | 4.5          | 25~50                  | 75                           | 62            | 6.5          | 25~50                  | 85                           | 70 7.5 |
|           |                | 12              | 289.8              | 299                  | 12      | 20              | 6.5          | 25~50                  | 75                           | 62            | 8.5          | 25~55                  | 90                           | 75 9   |
|           |                | 12½             | 301.6              | 311                  | 12      | 20              | 6.5          | 25~50                  | 75                           | 62            | 8.5          | 25~55                  | 90                           | 75 9   |
| BC 03100  | R              | 6               | 200.0              | 206                  | 12      | 20              | 3            | 25~45                  | 70                           | 57            | 4.5          | 25~45                  | 75                           | 60 4.5 |
|           |                | 8               | 261.3              | 272                  | 12      | 20              | 5            | 25~50                  | 75                           | 62            | 6.5          | 25~50                  | 85                           | 70 7.5 |
|           |                | 10              | 323.6              | 336                  | 12      | 20              | 7.5          | 25~50                  | 75                           | 62            | 9.5          | 25~50                  | 85                           | 70 10  |
|           |                | 12              | 386.4              | 401                  | 12      | 20              | 11           | 25~55                  | 85                           | 67            | 14           | 25~55                  | 90                           | 75 14  |
|           | F              | 6               | 200.0              | 206                  | 9       | 20              | 2            | 25~45                  | 70                           | 54            | 3.5          | 25~45                  | 75                           | 60 4   |
|           |                | 8               | 261.3              | 272                  | 9       | 20              | 4            | 25~50                  | 75                           | 59            | 5.5          | 25~50                  | 85                           | 70 6.2 |
|           |                | 10              | 323.6              | 336                  | 9       | 20              | 6            | 25~50                  | 75                           | 59            | 7.5          | 25~50                  | 85                           | 70 8.5 |
|           |                | 12              | 386.4              | 401                  | 9       | 20              | 8.5          | 25~55                  | 85                           | 64            | 11           | 25~55                  | 90                           | 75 12  |
|           | S              | 6               | 200.0              | 210                  | 12      | 20              | 3            | 25~45                  | 70                           | 57            | 4.5          | 25~45                  | 75                           | 60 5   |
|           |                | 7½              | 245.9              | 253                  | 12      | 20              | 4.5          | 25~50                  | 75                           | 62            | 6            | 25~50                  | 85                           | 70 7   |
|           |                | 8               | 261.3              | 269                  | 12      | 20              | 5.5          | 25~50                  | 75                           | 62            | 7            | 25~50                  | 85                           | 70 8   |
|           |                | 10              | 323.6              | 333                  | 12      | 20              | 8            | 25~50                  | 75                           | 62            | 10           | 25~50                  | 85                           | 70 11  |
|           |                | 12              | 386.4              | 396                  | 12      | 20              | 12           | 25~55                  | 85                           | 67            | 14           | 25~55                  | 90                           | 75 15  |
|           |                | 12½             | 402.1              | 412                  | 12      | 20              | 12           | 25~55                  | 85                           | 67            | 14           | 25~55                  | 90                           | 75 15  |
| BC 430    | R              | 6               | 203.2              | 211                  | 16      | 20              | 3.5          | 25~55                  | 85                           | 71            | 6            | 25~55                  | 90                           | 75 6.5 |
|           |                | 8               | 265.5              | 277                  | 16      | 20              | 6.5          | 25~60                  | 90                           | 76            | 10           | 30~60                  | 100                          | 80 11  |
|           |                | 10              | 328.8              | 345                  | 16      | 20              | 10           | 30~65                  | 100                          | 81            | 14           | 30~70                  | 110                          | 90 16  |
|           |                | 12              | 392.6              | 411                  | 16      | 20              | 15           | 30~65                  | 100                          | 81            | 19           | 30~70                  | 110                          | 90 20  |
|           | S              | 6               | 203.2              | 215                  | 16      | 20              | 4            | 25~55                  | 85                           | 71            | 6.5          | 25~55                  | 90                           | 75 7   |
|           |                | 7½              | 249.8              | 260                  | 16      | 20              | 6            | 25~60                  | 90                           | 76            | 9            | 30~60                  | 100                          | 80 10  |
|           |                | 8               | 265.5              | 277                  | 16      | 20              | 7.5          | 25~60                  | 90                           | 76            | 11           | 30~60                  | 100                          | 80 12  |
|           |                | 10              | 328.8              | 341                  | 16      | 20              | 11           | 30~65                  | 100                          | 81            | 15           | 30~70                  | 110                          | 90 17  |
|           |                | 12              | 392.6              | 405                  | 16      | 20              | 16           | 30~65                  | 100                          | 81            | 20           | 30~70                  | 110                          | 90 21  |
|           |                | 12½             | 408.5              | 421                  | 16      | 20              | 16           | 30~65                  | 100                          | 81            | 20           | 30~70                  | 110                          | 90 22  |
| BC 05075  | S              | 8               | 196.0              | 209                  | 16      | 20              | 4            | 25~60                  | 90                           | 76            | 7            | 30~60                  | 100                          | 80 8   |
|           |                | 10              | 242.7              | 256                  | 16      | 20              | 6            | 30~65                  | 100                          | 81            | 10           | 30~70                  | 110                          | 90 12  |
|           |                | 12              | 289.8              | 303                  | 16      | 20              | 9            | 30~65                  | 100                          | 81            | 13           | 30~70                  | 110                          | 90 14  |
| BC 05100  | R              | 6               | 200.0              | 205                  | 16      | 20              | 3.5          | 25~60                  | 90                           | 76            | 6.5          | 30~60                  | 100                          | 80 7.5 |
|           |                | 8               | 261.3              | 273                  | 16      | 20              | 6.5          | 30~65                  | 100                          | 81            | 10           | 30~70                  | 110                          | 90 12  |
|           |                | 10              | 323.6              | 340                  | 16      | 20              | 10           | 30~65                  | 100                          | 81            | 14           | 30~70                  | 110                          | 90 15  |
|           |                | 12              | 386.4              | 405                  | 16      | 20              | 14           | 30~75                  | 110                          | 91            | 20           | 30~75                  | 120                          | 100 22 |
|           | F              | 6               | 200.0              | 205                  | 12      | 20              | 3            | 25~60                  | 90                           | 72            | 6            | 30~60                  | 100                          | 80 7   |
|           |                | 8               | 261.3              | 273                  | 12      | 20              | 5            | 30~65                  | 100                          | 77            | 9            | 30~70                  | 110                          | 90 11  |
|           |                | 10              | 323.6              | 340                  | 12      | 20              | 8            | 30~65                  | 100                          | 77            | 12           | 30~70                  | 110                          | 90 13  |
|           |                | 12              | 386.4              | 405                  | 12      | 20              | 11           | 30~75                  | 110                          | 87            | 17           | 30~75                  | 120                          | 100 19 |
|           | S              | 6               | 200.0              | 212                  | 16      | 20              | 4.5          | 25~60                  | 90                           | 76            | 7.5          | 30~60                  | 100                          | 80 8.5 |
|           |                | 7½              | 254.9              | 257                  | 16      | 20              | 6            | 30~65                  | 100                          | 81            | 10           | 30~70                  | 110                          | 90 11  |
|           |                | 8               | 261.3              | 273                  | 16      | 20              | 7            | 30~65                  | 100                          | 81            | 11           | 30~70                  | 110                          | 90 13  |
|           |                | 10              | 323.6              | 337                  | 16      | 20              | 11           | 30~65                  | 100                          | 81            | 15           | 30~70                  | 110                          | 90 16  |
|           |                | 12              | 386.4              | 400                  | 16      | 20              | 15           | 30~75                  | 110                          | 91            | 21           | 30~75                  | 120                          | 100 23 |
|           |                | 12½             | 402.1              | 416                  | 16      | 20              | 16           | 30~75                  | 110                          | 91            | 22           | 30~75                  | 120                          | 100 24 |



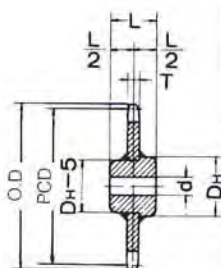
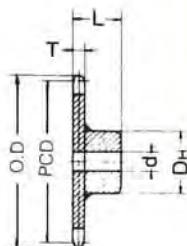
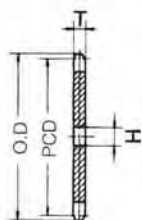
Type A

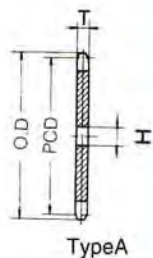


## 29. Standard Designs of Sprocket Teeth

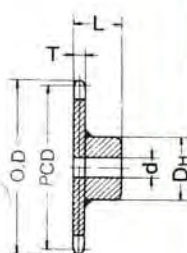
BANDO CHAIN

| Chain No. | Type of Roller | Number of Teeth | General |     |    | Type A            |              | Type BW                |                |     |              | Type CW1               |                |     |     |
|-----------|----------------|-----------------|---------|-----|----|-------------------|--------------|------------------------|----------------|-----|--------------|------------------------|----------------|-----|-----|
|           |                |                 | PCD     | O.D | T  | Inside Diameter H | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   |     |
| BC 05150  | R              | 6               | 300.0   | 304 | 16 | 20                | 8.5          | 30~65                  | 100            | 81  | 12           | 30~70                  | 110            | 90  | 14  |
|           |                | 8               | 392.0   | 402 | 16 | 20                | 15           | 30~75                  | 110            | 91  | 20           | 35~75                  | 120            | 100 | 22  |
|           |                | 10              | 485.4   | 500 | 16 | 20                | 23           | 35~80                  | 120            | 96  | 30           | 35~80                  | 130            | 105 | 32  |
|           |                | 12              | 579.6   | 596 | 16 | 20                | 33           | 35~85                  | 130            | 101 | 41           | 40~90                  | 140            | 115 | 44  |
|           | F              | 6               | 300.0   | 304 | 12 | 20                | 6.5          | 30~65                  | 100            | 77  | 11           | 30~70                  | 110            | 90  | 12  |
|           |                | 8               | 392.0   | 402 | 12 | 20                | 11           | 30~75                  | 110            | 87  | 17           | 35~75                  | 120            | 100 | 19  |
|           |                | 10              | 485.4   | 500 | 12 | 20                | 17           | 35~80                  | 120            | 92  | 24           | 35~80                  | 130            | 105 | 27  |
|           |                | 12              | 579.6   | 596 | 12 | 20                | 25           | 35~85                  | 130            | 97  | 33           | 40~90                  | 140            | 115 | 37  |
|           | S              | 6               | 300.0   | 310 | 16 | 20                | 9            | 30~65                  | 100            | 81  | 13           | 30~70                  | 110            | 90  | 14  |
|           |                | 7½              | 368.8   | 369 | 16 | 20                | 14           | 30~75                  | 110            | 91  | 19           | 35~75                  | 120            | 100 | 21  |
|           |                | 8               | 392.0   | 405 | 16 | 20                | 15           | 30~75                  | 110            | 91  | 21           | 35~75                  | 120            | 100 | 23  |
|           |                | 10              | 485.4   | 499 | 16 | 20                | 24           | 35~80                  | 120            | 96  | 31           | 35~80                  | 130            | 105 | 33  |
| BC 204    | S              | 12              | 579.6   | 592 | 16 | 20                | 34           | 35~85                  | 130            | 101 | 42           | 40~90                  | 140            | 115 | 45  |
|           |                | 12½             | 603.2   | 616 | 16 | 20                | 36           | 35~85                  | 130            | 101 | 44           | 40~90                  | 140            | 115 | 47  |
|           |                | 8               | 173.2   | 187 | 19 | 20                | 3.5          | 25~60                  | 90             | 79  | 6.5          | 30~60                  | 100            | 80  | 7   |
| BC 450    | R              | 10              | 214.5   | 228 | 19 | 20                | 5.5          | 30~65                  | 100            | 84  | 9.5          | 30~70                  | 110            | 90  | 11  |
|           |                | 12              | 256.0   | 269 | 19 | 20                | 7.5          | 30~65                  | 100            | 84  | 12           | 30~70                  | 110            | 90  | 13  |
|           |                | 6               | 203.2   | 217 | 19 | 20                | 4.0          | 25~60                  | 90             | 79  | 7            | 30~70                  | 100            | 80  | 7.5 |
|           |                | 8               | 265.5   | 286 | 19 | 20                | 7.5          | 30~65                  | 100            | 84  | 12           | 30~70                  | 110            | 90  | 13  |
|           | F              | 10              | 328.8   | 354 | 19 | 20                | 12           | 30~75                  | 110            | 94  | 18           | 35~75                  | 120            | 100 | 19  |
|           |                | 12              | 392.6   | 419 | 19 | 20                | 17           | 30~75                  | 110            | 94  | 22           | 35~75                  | 120            | 100 | 24  |
|           |                | 6               | 203.2   | 217 | 16 | 20                | 3.5          | 25~60                  | 90             | 76  | 6.5          | 30~60                  | 100            | 80  | 7   |
|           |                | 8               | 265.5   | 286 | 16 | 20                | 6.5          | 30~65                  | 100            | 81  | 11           | 30~70                  | 110            | 90  | 12  |
|           | S              | 10              | 328.8   | 354 | 16 | 20                | 10           | 30~75                  | 110            | 91  | 16           | 35~75                  | 120            | 100 | 17  |
|           |                | 12              | 392.6   | 419 | 16 | 20                | 15           | 30~75                  | 110            | 91  | 20           | 35~75                  | 120            | 100 | 22  |
|           |                | 6               | 203.2   | 217 | 19 | 20                | 5.0          | 25~60                  | 90             | 79  | 8            | 30~60                  | 100            | 80  | 8.5 |
|           |                | 7½              | 249.8   | 263 | 19 | 20                | 6.5          | 30~65                  | 100            | 84  | 11           | 30~70                  | 110            | 90  | 12  |
| BC 08150  | R              | 8               | 265.5   | 279 | 19 | 20                | 8.5          | 30~65                  | 100            | 84  | 13           | 30~70                  | 110            | 90  | 14  |
|           |                | 10              | 328.8   | 342 | 19 | 20                | 13           | 30~75                  | 110            | 94  | 19           | 35~75                  | 120            | 100 | 20  |
|           |                | 12              | 392.6   | 406 | 19 | 20                | 19           | 30~75                  | 110            | 94  | 24           | 35~75                  | 120            | 100 | 26  |
|           |                | 12½             | 408.5   | 422 | 19 | 20                | 19           | 30~75                  | 110            | 94  | 24           | 35~75                  | 120            | 100 | 26  |
|           | F              | 6               | 300.0   | 311 | 19 | 20                | 10           | 30~75                  | 110            | 94  | 15           | 35~75                  | 120            | 100 | 17  |
|           |                | 8               | 392.0   | 410 | 19 | 20                | 18           | 30~75                  | 110            | 94  | 23           | 35~75                  | 120            | 100 | 24  |
|           |                | 10              | 485.4   | 507 | 19 | 20                | 27           | 35~80                  | 120            | 99  | 34           | 35~80                  | 130            | 105 | 36  |
|           |                | 12              | 579.6   | 604 | 19 | 20                | 39           | 35~85                  | 130            | 104 | 48           | 40~90                  | 140            | 115 | 50  |
|           | S              | 6               | 300.0   | 311 | 16 | 20                | 8            | 30~75                  | 110            | 91  | 14           | 35~75                  | 120            | 100 | 16  |
|           |                | 8               | 392.0   | 410 | 16 | 20                | 15           | 30~75                  | 110            | 91  | 20           | 35~75                  | 120            | 100 | 22  |
|           |                | 10              | 485.4   | 507 | 16 | 20                | 23           | 35~80                  | 120            | 96  | 30           | 35~80                  | 130            | 105 | 32  |
|           |                | 12              | 579.6   | 604 | 16 | 20                | 33           | 35~85                  | 130            | 101 | 42           | 40~90                  | 140            | 115 | 44  |
| BC 650    | R              | 6               | 300.0   | 313 | 19 | 20                | 11           | 30~75                  | 110            | 94  | 16           | 35~75                  | 120            | 100 | 18  |
|           |                | 7½              | 368.8   | 378 | 19 | 20                | 16           | 30~75                  | 110            | 94  | 22           | 35~75                  | 120            | 100 | 23  |
|           |                | 8               | 392.0   | 403 | 19 | 20                | 19           | 30~75                  | 110            | 94  | 24           | 35~75                  | 120            | 100 | 25  |
|           |                | 10              | 485.5   | 499 | 19 | 20                | 28           | 35~80                  | 120            | 99  | 35           | 35~80                  | 130            | 105 | 37  |
|           | F              | 12              | 579.6   | 593 | 19 | 20                | 40           | 35~85                  | 130            | 104 | 49           | 40~90                  | 140            | 115 | 51  |
|           |                | 12½             | 603.2   | 617 | 19 | 20                | 43           | 35~85                  | 130            | 104 | 52           | 40~90                  | 140            | 115 | 54  |
|           | S              | 6               | 304.8   | 321 | 22 | 20                | 12           | 30~75                  | 110            | 97  | 18           | 35~75                  | 120            | 100 | 19  |
|           |                | 8               | 398.2   | 422 | 22 | 20                | 21           | 30~75                  | 110            | 97  | 27           | 35~75                  | 120            | 100 | 28  |
|           |                | 10              | 493.2   | 521 | 22 | 20                | 32           | 35~80                  | 120            | 102 | 39           | 35~80                  | 130            | 105 | 40  |
|           |                | 12              | 588.8   | 618 | 22 | 20                | 46           | 35~85                  | 130            | 107 | 55           | 40~90                  | 140            | 115 | 57  |
| BC 650    | R              | 6               | 304.8   | 321 | 16 | 20                | 9            | 30~75                  | 110            | 91  | 14           | 35~75                  | 120            | 100 | 16  |
|           |                | 8               | 398.2   | 422 | 16 | 20                | 15           | 30~75                  | 110            | 91  | 21           | 35~75                  | 120            | 100 | 23  |
|           |                | 10              | 493.2   | 521 | 16 | 20                | 24           | 35~80                  | 120            | 96  | 31           | 35~80                  | 130            | 105 | 32  |
|           |                | 12              | 588.8   | 618 | 16 | 20                | 34           | 35~85                  | 130            | 101 | 43           | 40~90                  | 140            | 115 | 45  |
|           | F              | 6               | 304.8   | 320 | 22 | 20                | 13           | 30~75                  | 110            | 97  | 19           | 35~75                  | 120            | 100 | 20  |
|           |                | 7½              | 374.7   | 390 | 22 | 20                | 19           | 30~75                  | 110            | 97  | 24           | 35~75                  | 120            | 100 | 25  |
|           |                | 8               | 398.2   | 414 | 22 | 20                | 22           | 30~75                  | 110            | 97  | 28           | 35~75                  | 120            | 100 | 29  |
|           |                | 10              | 493.2   | 509 | 22 | 20                | 34           | 35~80                  | 120            | 102 | 41           | 35~80                  | 130            | 105 | 42  |
|           | S              | 12              | 588.8   | 604 | 22 | 20                | 48           | 35~85                  | 130            | 107 | 57           | 40~90                  | 140            | 115 | 59  |
|           |                | 12½             | 612.8   | 628 | 22 | 20                | 50           | 35~85                  | 130            | 107 | 59           | 40~90                  | 140            | 115 | 61  |

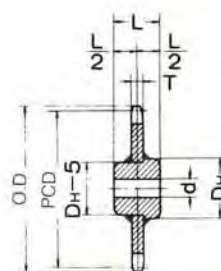




Type A



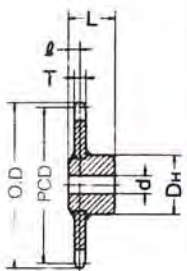
Type BW



Type CW 1

| Chain No. | Type of Roller | Number of Teeth | General |     |    | Type A            |              | Type BW                |                |     |              | Type CW1               |                |     |              |
|-----------|----------------|-----------------|---------|-----|----|-------------------|--------------|------------------------|----------------|-----|--------------|------------------------|----------------|-----|--------------|
|           |                |                 | PCD     | O.D | T  | Inside Diameter H | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) |
| BC 10100  | R              | 6               | 200.0   | 214 | 22 | 20                | 4.5          | 30 ~ 75                | 110            | 97  | 10           | 35 ~ 75                | 120            | 100 | 11           |
|           |                | 8               | 261.3   | 282 | 22 | 20                | 8.5          | 30 ~ 75                | 110            | 97  | 14           | 35 ~ 75                | 120            | 100 | 15           |
|           |                | 10              | 323.6   | 349 | 22 | 20                | 13           | 35 ~ 80                | 120            | 102 | 20           | 35 ~ 80                | 130            | 105 | 21           |
|           |                | 12              | 386.4   | 414 | 22 | 20                | 19           | 35 ~ 85                | 130            | 107 | 27           | 40 ~ 90                | 140            | 115 | 29           |
|           | S              | 6               | 200.0   | 217 | 22 | 20                | 5.5          | 30 ~ 75                | 110            | 97  | 11           | 35 ~ 75                | 120            | 100 | 12           |
|           |                | 8               | 261.3   | 279 | 22 | 20                | 9.5          | 30 ~ 75                | 110            | 97  | 15           | 35 ~ 75                | 120            | 100 | 16           |
|           |                | 10              | 323.6   | 341 | 22 | 20                | 15           | 35 ~ 80                | 120            | 102 | 22           | 35 ~ 80                | 130            | 105 | 23           |
|           |                | 12              | 386.4   | 404 | 22 | 20                | 21           | 35 ~ 85                | 130            | 107 | 29           | 40 ~ 90                | 140            | 115 | 31           |
| BC 10150  | R              | 6               | 300.0   | 309 | 22 | 20                | 11           | 35 ~ 80                | 120            | 102 | 18           | 35 ~ 80                | 130            | 105 | 20           |
|           |                | 8               | 392.0   | 408 | 22 | 20                | 21           | 35 ~ 85                | 130            | 107 | 29           | 40 ~ 90                | 140            | 115 | 31           |
|           |                | 10              | 485.4   | 506 | 22 | 20                | 32           | 40 ~ 95                | 140            | 117 | 42           | 40 ~ 100               | 150            | 125 | 45           |
|           |                | 12              | 579.6   | 601 | 22 | 20                | 45           | 40 ~ 100               | 150            | 122 | 59           | 40 ~ 100               | 150            | 125 | 59           |
|           | F              | 6               | 300.0   | 309 | 16 | 20                | 8            | 35 ~ 80                | 120            | 96  | 15           | 35 ~ 80                | 130            | 105 | 17           |
|           |                | 8               | 392.0   | 408 | 16 | 20                | 15           | 35 ~ 85                | 130            | 101 | 24           | 40 ~ 90                | 140            | 115 | 26           |
|           |                | 10              | 485.4   | 506 | 16 | 20                | 23           | 40 ~ 95                | 140            | 111 | 34           | 40 ~ 110               | 150            | 125 | 37           |
|           |                | 12              | 579.6   | 601 | 16 | 20                | 33           | 40 ~ 100               | 150            | 116 | 46           | 40 ~ 100               | 150            | 125 | 47           |
|           | S              | 6               | 300.0   | 316 | 22 | 20                | 12           | 35 ~ 80                | 120            | 102 | 19           | 35 ~ 80                | 130            | 105 | 21           |
|           |                | 7 1/2           | 368.8   | 378 | 22 | 20                | 18           | 35 ~ 85                | 130            | 107 | 26           | 40 ~ 90                | 140            | 115 | 28           |
|           |                | 8               | 392.0   | 409 | 22 | 20                | 22           | 35 ~ 85                | 130            | 107 | 30           | 40 ~ 90                | 140            | 115 | 32           |
|           |                | 10              | 485.4   | 503 | 22 | 20                | 33           | 40 ~ 95                | 140            | 117 | 43           | 40 ~ 100               | 150            | 125 | 46           |
|           |                | 12              | 579.6   | 597 | 22 | 20                | 46           | 40 ~ 100               | 150            | 122 | 60           | 40 ~ 100               | 150            | 125 | 60           |
|           |                | 12 1/2          | 603.2   | 621 | 22 | 20                | 48           | 40 ~ 100               | 150            | 122 | 62           | 40 ~ 100               | 150            | 125 | 62           |
|           | R              | 6               | 203.2   | 230 | 25 | 20                | 6            | 30 ~ 75                | 110            | 100 | 12           | 35 ~ 75                | 120            | 100 | 12           |
|           |                | 8               | 265.5   | 292 | 25 | 20                | 10           | 35 ~ 80                | 120            | 105 | 17           | 35 ~ 80                | 130            | 105 | 18           |
|           |                | 10              | 328.8   | 356 | 25 | 20                | 16           | 35 ~ 85                | 130            | 110 | 25           | 40 ~ 90                | 140            | 115 | 26           |
|           |                | 12              | 392.6   | 419 | 25 | 20                | 23           | 40 ~ 95                | 140            | 120 | 34           | 40 ~ 100               | 150            | 125 | 36           |
| BC 214    | S              | 6               | 203.2   | 222 | 25 | 20                | 7            | 30 ~ 75                | 110            | 100 | 13           | 35 ~ 75                | 120            | 100 | 13           |
|           |                | 8               | 265.5   | 285 | 25 | 20                | 11           | 35 ~ 80                | 120            | 105 | 18           | 35 ~ 80                | 130            | 105 | 19           |
|           |                | 10              | 328.8   | 348 | 25 | 20                | 17           | 35 ~ 85                | 130            | 110 | 26           | 40 ~ 90                | 140            | 115 | 27           |
|           |                | 12              | 392.6   | 412 | 25 | 20                | 24           | 40 ~ 95                | 140            | 120 | 35           | 40 ~ 100               | 150            | 125 | 37           |
|           | R              | 8               | 204.1   | 223 | 28 | 20                | 7            | 30 ~ 75                | 110            | 103 | 12           | 35 ~ 75                | 120            | 100 | 13           |
|           |                | 10              | 252.8   | 272 | 28 | 20                | 11           | 35 ~ 80                | 120            | 108 | 17           | 35 ~ 80                | 130            | 105 | 18           |
|           |                | 12              | 301.8   | 321 | 28 | 20                | 15           | 35 ~ 85                | 130            | 113 | 24           | 40 ~ 90                | 140            | 115 | 25           |

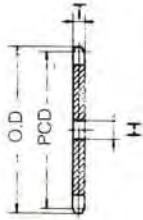
| Chain No. | Type of Roller | Number of Teeth | Type A |     |    |                   |              | Type BW1               |                |     |                |              | Type CW1               |                |     |              |  |
|-----------|----------------|-----------------|--------|-----|----|-------------------|--------------|------------------------|----------------|-----|----------------|--------------|------------------------|----------------|-----|--------------|--|
|           |                |                 | PCD    | O.D | T  | Inside Diameter H | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Center Point l | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) |  |
| BC 6205   | R              | 6               | 304.8  | 330 | 28 | 20                | 15           | 40 ~ 95                | 140            | 115 | 25             | 25           | 40 ~ 100               | 150            | 125 | 28           |  |
|           |                | 8               | 398.2  | 432 | 28 | 20                | 24           | 40 ~ 100               | 150            | 125 | 25             | 39           | 40 ~ 100               | 150            | 125 | 39           |  |
|           |                | 10              | 493.2  | 528 | 28 | 20                | 41           | 40 ~ 110               | 160            | 135 | 25             | 56           | 45 ~ 110               | 160            | 135 | 55           |  |
|           |                | 12              | 588.8  | 623 | 28 | 20                | 58           | 50 ~ 120               | 180            | 150 | 25             | 81           | 50 ~ 120               | 180            | 150 | 80           |  |
|           | F              | 6               | 304.8  | 330 | 19 | 20                | 11           | 40 ~ 95                | 140            | 115 | 20             | 21           | 40 ~ 100               | 150            | 125 | 24           |  |
|           |                | 8               | 398.2  | 432 | 19 | 20                | 18           | 40 ~ 100               | 150            | 125 | 20             | 32           | 40 ~ 100               | 150            | 125 | 31           |  |
|           |                | 10              | 493.2  | 528 | 19 | 20                | 28           | 45 ~ 110               | 160            | 135 | 20             | 45           | 45 ~ 110               | 160            | 135 | 44           |  |
|           |                | 12              | 588.8  | 623 | 19 | 20                | 40           | 50 ~ 120               | 180            | 150 | 20             | 64           | 50 ~ 120               | 180            | 150 | 63           |  |
|           | S              | 6               | 304.8  | 325 | 28 | 20                | 17           | 40 ~ 95                | 140            | 115 | 25             | 27           | 40 ~ 100               | 150            | 125 | 29           |  |
|           |                | 7½              | 374.7  | 396 | 28 | 20                | 23           | 40 ~ 100               | 150            | 125 | 25             | 35           | 40 ~ 100               | 150            | 125 | 35           |  |
|           |                | 8               | 398.2  | 419 | 28 | 20                | 28           | 40 ~ 100               | 150            | 125 | 25             | 41           | 40 ~ 100               | 150            | 125 | 41           |  |
|           |                | 10              | 493.2  | 514 | 28 | 20                | 44           | 45 ~ 110               | 160            | 135 | 25             | 59           | 45 ~ 110               | 160            | 135 | 58           |  |
|           |                | 12              | 588.8  | 610 | 28 | 20                | 63           | 50 ~ 120               | 180            | 150 | 25             | 86           | 50 ~ 120               | 180            | 150 | 85           |  |
|           |                | 12½             | 612.8  | 634 | 28 | 20                | 65           | 50 ~ 120               | 180            | 150 | 25             | 88           | 50 ~ 120               | 180            | 150 | 87           |  |



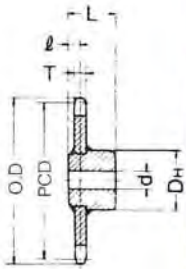
Type BW1

## 29. Standard Designs of Sprocket Teeth

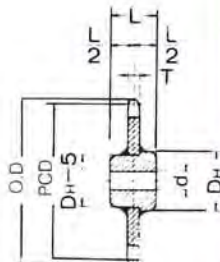
BANDO CHAIN



Type A

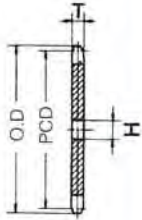


Type BW1

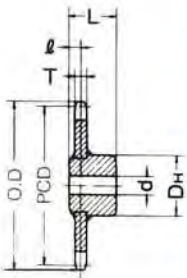


Type CW 1

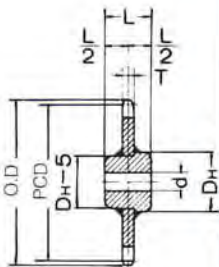
| Chain No. | Type of Roller | Number of Teeth | General |      |    | Type A            |              | Type BW1               |                |     |                |              | Type CW1               |                |     |              |
|-----------|----------------|-----------------|---------|------|----|-------------------|--------------|------------------------|----------------|-----|----------------|--------------|------------------------|----------------|-----|--------------|
|           |                |                 | PCD     | O.D  | T  | Inside Diameter H | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Center Point l | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) |
| BC 12200  | R              | 6               | 400.0   | 418  | 28 | 20                | 27           | 40 ~ 100               | 150            | 125 | 25             | 39           | 40 ~ 100               | 150            | 125 | 39           |
|           |                | 8               | 522.6   | 551  | 28 | 20                | 46           | 45 ~ 110               | 160            | 135 | 25             | 61           | 45 ~ 110               | 160            | 135 | 60           |
|           |                | 10              | 647.2   | 682  | 28 | 20                | 71           | 50 ~ 120               | 180            | 150 | 25             | 94           | 50 ~ 120               | 180            | 150 | 93           |
|           |                | 12              | 772.7   | 810  | 28 | 20                | 101          | 50 ~ 130               | 190            | 160 | 25             | 129          | 50 ~ 130               | 190            | 160 | 128          |
|           | F              | 6               | 400.0   | 418  | 19 | 20                | 18           | 40 ~ 100               | 150            | 125 | 20             | 32           | 40 ~ 100               | 150            | 125 | 31           |
|           |                | 8               | 522.6   | 551  | 19 | 20                | 31           | 45 ~ 110               | 160            | 135 | 20             | 48           | 45 ~ 110               | 160            | 135 | 48           |
|           |                | 10              | 647.2   | 682  | 19 | 20                | 48           | 50 ~ 120               | 180            | 150 | 20             | 73           | 50 ~ 120               | 180            | 150 | 72           |
|           |                | 12              | 772.7   | 810  | 19 | 20                | 69           | 50 ~ 130               | 190            | 160 | 20             | 99           | 50 ~ 130               | 190            | 160 | 98           |
|           | S              | 6               | 400.0   | 421  | 28 | 20                | 29           | 40 ~ 100               | 150            | 125 | 25             | 41           | 40 ~ 100               | 150            | 125 | 41           |
|           |                | 7 1/2           | 491.7   | 510  | 28 | 20                | 40           | 45 ~ 110               | 160            | 135 | 25             | 56           | 45 ~ 110               | 160            | 135 | 55           |
|           |                | 8               | 522.6   | 544  | 28 | 20                | 49           | 45 ~ 110               | 160            | 135 | 25             | 64           | 45 ~ 110               | 160            | 135 | 63           |
|           |                | 10              | 647.2   | 668  | 28 | 20                | 74           | 50 ~ 120               | 180            | 150 | 25             | 97           | 50 ~ 120               | 180            | 150 | 96           |
|           |                | 12              | 772.7   | 794  | 28 | 20                | 105          | 50 ~ 130               | 190            | 160 | 25             | 133          | 50 ~ 130               | 190            | 160 | 132          |
| BC 12250  | R              | 6               | 500.0   | 515  | 28 | 20                | 41           | 45 ~ 110               | 160            | 135 | 25             | 56           | 45 ~ 110               | 160            | 135 | 55           |
|           |                | 8               | 653.3   | 680  | 28 | 20                | 72           | 50 ~ 120               | 180            | 150 | 25             | 95           | 50 ~ 120               | 180            | 150 | 94           |
|           |                | 10              | 809.0   | 841  | 28 | 20                | 113          | 50 ~ 113               | 190            | 160 | 25             | 141          | 50 ~ 130               | 190            | 160 | 140          |
|           |                | 12              | 965.9   | 1002 | 28 | 20                | 159          | 55 ~ 145               | 210            | 180 | 25             | 198          | 55 ~ 145               | 210            | 180 | 197          |
|           | F              | 6               | 500.0   | 515  | 19 | 20                | 28           | 45 ~ 110               | 160            | 135 | 20             | 45           | 45 ~ 110               | 160            | 135 | 44           |
|           |                | 8               | 653.3   | 680  | 19 | 20                | 49           | 50 ~ 120               | 180            | 150 | 20             | 73           | 50 ~ 120               | 180            | 150 | 72           |
|           |                | 10              | 809.0   | 841  | 19 | 20                | 76           | 50 ~ 130               | 190            | 160 | 20             | 106          | 50 ~ 130               | 190            | 160 | 105          |
|           |                | 12              | 965.9   | 1002 | 19 | 20                | 108          | 55 ~ 145               | 210            | 180 | 20             | 149          | 55 ~ 145               | 210            | 180 | 148          |
|           | S              | 6               | 500.0   | 521  | 28 | 20                | 43           | 45 ~ 110               | 160            | 135 | 25             | 59           | 45 ~ 110               | 160            | 135 | 58           |
|           |                | 7 1/2           | 614.6   | 623  | 28 | 20                | 65           | 50 ~ 120               | 180            | 150 | 25             | 88           | 50 ~ 120               | 180            | 150 | 87           |
|           |                | 8               | 653.3   | 674  | 28 | 20                | 75           | 50 ~ 120               | 180            | 150 | 25             | 98           | 50 ~ 120               | 180            | 150 | 97           |
|           |                | 10              | 809.0   | 830  | 28 | 20                | 115          | 50 ~ 130               | 190            | 160 | 25             | 143          | 50 ~ 130               | 190            | 160 | 142          |
|           |                | 12              | 965.9   | 987  | 28 | 20                | 163          | 55 ~ 145               | 210            | 180 | 25             | 202          | 55 ~ 145               | 210            | 180 | 201          |
| BC 212    | R              | 6               | 304.8   | 339  | 28 | 20                | 15           | 40 ~ 100               | 150            | 125 | 25             | 27           | 40 ~ 100               | 150            | 125 | 27           |
|           |                | 8               | 398.2   | 440  | 28 | 20                | 26           | 45 ~ 110               | 160            | 135 | 25             | 42           | 45 ~ 110               | 160            | 135 | 41           |
|           |                | 10              | 493.2   | 535  | 28 | 20                | 41           | 50 ~ 120               | 180            | 150 | 25             | 63           | 50 ~ 120               | 180            | 150 | 62           |
|           |                | 12              | 588.8   | 631  | 28 | 20                | 59           | 50 ~ 130               | 190            | 160 | 25             | 87           | 50 ~ 130               | 190            | 160 | 86           |
|           | S              | 6               | 304.8   | 329  | 28 | 20                | 17           | 40 ~ 100               | 150            | 125 | 25             | 29           | 40 ~ 100               | 150            | 125 | 29           |
|           |                | 8               | 398.2   | 422  | 28 | 20                | 29           | 45 ~ 110               | 160            | 135 | 25             | 44           | 45 ~ 110               | 160            | 135 | 44           |
|           |                | 10              | 493.2   | 517  | 28 | 20                | 44           | 50 ~ 120               | 180            | 150 | 25             | 66           | 50 ~ 120               | 180            | 150 | 65           |
|           |                | 12              | 588.8   | 613  | 28 | 20                | 61           | 50 ~ 130               | 190            | 160 | 25             | 89           | 50 ~ 130               | 190            | 160 | 88           |
|           | F              | 6               | 400.0   | 426  | 40 | 20                | 38           | 40 ~ 110               | 160            | 135 | 32             | 51           | 45 ~ 110               | 160            | 135 | 50           |
|           |                | 8               | 522.6   | 562  | 40 | 20                | 66           | 50 ~ 120               | 180            | 150 | 32             | 86           | 50 ~ 120               | 180            | 150 | 85           |
|           |                | 10              | 647.2   | 691  | 40 | 20                | 101          | 50 ~ 130               | 190            | 160 | 32             | 126          | 50 ~ 130               | 190            | 160 | 125          |
|           |                | 12              | 772.7   | 821  | 40 | 20                | 144          | 55 ~ 145               | 210            | 180 | 32             | 179          | 55 ~ 145               | 210            | 180 | 178          |
|           |                | 6               | 400.0   | 426  | 28 | 20                | 27           | 45 ~ 110               | 160            | 135 | 25             | 42           | 45 ~ 110               | 160            | 135 | 42           |
|           |                | 8               | 522.6   | 562  | 28 | 20                | 46           | 50 ~ 120               | 180            | 150 | 25             | 68           | 50 ~ 120               | 180            | 150 | 67           |
|           |                | 10              | 647.2   | 691  | 28 | 20                | 71           | 50 ~ 130               | 190            | 160 | 25             | 98           | 50 ~ 130               | 190            | 160 | 97           |
|           |                | 12              | 772.7   | 821  | 28 | 20                | 101          | 55 ~ 145               | 210            | 180 | 25             | 140          | 55 ~ 145               | 210            | 180 | 139          |
| BC 17200  | R              | 6               | 400.0   | 424  | 40 | 20                | 41           | 45 ~ 110               | 160            | 135 | 32             | 55           | 45 ~ 110               | 160            | 135 | 54           |
|           |                | 7 1/2           | 491.7   | 516  | 40 | 20                | 57           | 50 ~ 120               | 180            | 150 | 32             | 77           | 50 ~ 120               | 180            | 150 | 76           |
|           |                | 8               | 522.6   | 547  | 40 | 20                | 70           | 50 ~ 120               | 180            | 150 | 32             | 90           | 50 ~ 120               | 180            | 150 | 89           |
|           |                | 10              | 647.2   | 671  | 40 | 20                | 106          | 50 ~ 130               | 190            | 160 | 32             | 131          | 50 ~ 130               | 190            | 160 | 130          |
|           | F              | 6               | 400.0   | 424  | 40 | 20                | 41           | 45 ~ 110               | 160            | 135 | 32             | 55           | 45 ~ 110               | 160            | 135 | 54           |
|           |                | 7 1/2           | 491.7   | 516  | 40 | 20                | 57           | 50 ~ 120               | 180            | 150 | 32             | 77           | 50 ~ 120               | 180            | 150 | 76           |
|           |                | 8               | 522.6   | 547  | 40 | 20                | 70           | 50 ~ 120               | 180            | 150 | 32             | 90           | 50 ~ 120               | 180            | 150 | 89           |
|           |                | 10              | 647.2   | 671  | 40 | 20                | 106          | 50 ~ 130               | 190            | 160 | 32             | 131          | 50 ~ 130               | 190            | 160 | 130          |
|           | S              | 6               | 400.0   | 424  | 40 | 20                | 41           | 45 ~ 110               | 160            | 135 | 32             | 55           | 45 ~ 110               | 160            | 135 | 54           |
|           |                | 7 1/2           | 491.7   | 516  | 40 | 20                | 57           | 50 ~ 120               | 180            | 150 | 32             | 77           | 50 ~ 120               | 180            | 150 | 76           |
|           |                | 8               | 522.6   | 547  | 40 | 20                | 70           | 50 ~ 120               | 180            | 150 | 32             | 90           | 50 ~ 120               | 180            | 150 | 89           |
|           |                | 10              | 647.2   | 671  | 40 | 20                | 106          | 50 ~ 130               | 190            | 160 | 32             | 131          | 50 ~ 130               | 190            | 160 | 130          |
| BC 17250  | R              | 6               | 500.0   | 522  | 40 | 20                | 59           | 50 ~ 120               | 180            | 150 | 32             | 79           | 50 ~ 120               | 180            | 150 | 78           |
|           |                | 8               | 653.3   | 689  | 40 | 20                | 103          | 50 ~ 130               | 190            | 160 | 32             | 128          | 50 ~ 130               | 190            | 160 | 127          |
|           |                | 10              | 809.0   | 850  | 40 | 20                | 158          | 55 ~ 145               | 210            | 180 | 32             | 193          | 55 ~ 145               | 210            | 180 | 192          |
|           |                | 12              | 965.9   | 1012 | 40 | 20                | 227          | 55 ~ 145               | 210            | 180 | 32             | 262          | 55 ~ 145               | 210            | 180 | 261          |
|           | F              | 6               | 500.0   | 522  | 28 | 20                | 42           | 50 ~ 120               | 180            | 150 | 25             | 64           | 50 ~ 120               | 180            | 150 | 63           |
|           |                | 8               | 653.3   | 689  | 28 | 20                | 72           | 50 ~ 130               | 190            | 160 | 25             | 100          | 50 ~ 130               | 190            | 160 | 99           |
|           |                | 10              | 809.0   | 850  | 28 | 20                | 111          | 55 ~ 145               | 210            | 180 | 25             | 150          | 55 ~ 145               | 210            | 180 | 149          |
|           |                | 12              | 965.9   | 1012 | 28 | 20                | 159          | 55 ~ 145               | 210            | 180 | 25             | 198          | 55 ~ 145               | 210            | 180 | 197          |
|           | S              | 6               | 500.0   | 524  | 40 | 20                | 63           | 50 ~ 120               | 180            | 150 | 32             | 83           | 50 ~ 120               | 180            | 150 | 82           |
|           |                | 7 1/2           | 614.6   | 637  | 40 | 20                | 93           | 50 ~ 130               | 190            | 160 | 32             | 118          | 50 ~ 130               | 190            | 160 | 117          |
|           |                | 8               | 653.3   | 677  | 40 | 20                | 108          | 50 ~ 130               | 190            | 160 | 32             | 133          | 50 ~ 130               | 190            | 160 | 132          |
|           |                | 10              | 809.0   | 833  | 40 | 20                | 164          | 55 ~ 145               | 210            | 180 | 32             | 199          | 55 ~ 145               | 210            | 180 | 198          |
|           |                | 12              | 965.9   | 990  | 40 | 20                | 233          | 55 ~ 145               | 210            | 180 | 32             | 268          | 55 ~ 145               | 210            | 180 | 267          |
|           |                | 12 1/2          | 1005.3  | 1029 | 40 | 20                | 250          | 55 ~ 145               | 210            | 180 | 32             | 285          | 55 ~ 145               | 210            | 180 | 284          |



Type A



Type BW1



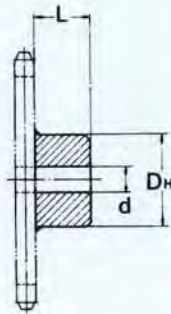
Type CW 1

| Chain No. | Type of Roller | Number of Teeth | General |        |      | Type A            |              | Type BW1               |                |     |                |              | Type CW1               |                |     |              |     |
|-----------|----------------|-----------------|---------|--------|------|-------------------|--------------|------------------------|----------------|-----|----------------|--------------|------------------------|----------------|-----|--------------|-----|
|           |                |                 | PCD     | O.D    | T    | Inside Diameter H | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Center Point / | Weight (kgf) | Shaft Diameter Range d | D <sub>H</sub> | L   | Weight (kgf) |     |
| BC 17300  | R              | 6               | 600.0   | 619    | 40   | 20                | 84           | 55 ~ 130               | 190            | 165 | 32             | 109          | 50 ~ 130               | 190            | 160 | 108          |     |
|           |                | 8               | 783.9   | 816    | 40   | 20                | 151          | 55 ~ 145               | 210            | 180 | 32             | 186          | 55 ~ 145               | 210            | 180 | 185          |     |
|           |                | 10              | 970.8   | 1010   | 40   | 20                | 233          | 55 ~ 145               | 210            | 180 | 32             | 268          | 55 ~ 145               | 210            | 180 | 267          |     |
|           |                | 12              | 1159.1  | 1204   | 40   | 20                | 334          | 55 ~ 160               | 230            | 200 | 32             | 384          | 55 ~ 160               | 230            | 200 | 383          |     |
|           | F              | 6               | 600.0   | 619    | 28   | 20                | 59           | 50 ~ 130               | 190            | 160 | 25             | 87           | 50 ~ 130               | 190            | 160 | 86           |     |
|           |                | 8               | 783.9   | 816    | 28   | 20                | 106          | 55 ~ 145               | 210            | 180 | 25             | 145          | 55 ~ 145               | 210            | 180 | 144          |     |
|           |                | 10              | 970.8   | 1010   | 28   | 20                | 164          | 55 ~ 145               | 210            | 180 | 25             | 203          | 55 ~ 145               | 210            | 180 | 202          |     |
|           |                | 12              | 1159.1  | 1204   | 28   | 20                | 234          | 55 ~ 160               | 230            | 200 | 25             | 288          | 55 ~ 160               | 230            | 200 | 287          |     |
|           | S              | 6               | 600.0   | 624    | 40   | 20                | 90           | 50 ~ 130               | 190            | 160 | 32             | 115          | 50 ~ 130               | 190            | 160 | 114          |     |
|           |                | 7½              | 737.6   | 749    | 40   | 20                | 134          | 55 ~ 145               | 210            | 180 | 32             | 169          | 55 ~ 145               | 210            | 180 | 168          |     |
|           |                | 8               | 783.9   | 808    | 40   | 20                | 153          | 55 ~ 145               | 210            | 180 | 32             | 188          | 55 ~ 145               | 210            | 180 | 187          |     |
|           |                | 10              | 809.0   | 995    | 40   | 20                | 237          | 55 ~ 145               | 210            | 180 | 32             | 272          | 55 ~ 145               | 210            | 180 | 271          |     |
|           | BC 26200       | S               | 12      | 1159.1 | 1183 | 40                | 20           | 338                    | 55 ~ 160       | 230 | 200            | 32           | 388                    | 55 ~ 160       | 230 | 200          | 387 |
|           |                |                 | 12½     | 1206.3 | 1230 | 40                | 20           | 359                    | 55 ~ 160       | 230 | 200            | 32           | 409                    | 55 ~ 160       | 230 | 200          | 408 |
|           |                |                 | 6       | 400.0  | 427  | 45                | 40           | 45                     | 50 ~ 120       | 180 | 150            | 36           | 63                     | 50 ~ 120       | 180 | 150          | 63  |
|           |                |                 | 8       | 522.6  | 549  | 45                | 40           | 75                     | 50 ~ 130       | 190 | 160            | 36           | 100                    | 50 ~ 130       | 190 | 160          | 100 |
| BC 26250  | R              | 10              | 647.2   | 674    | 45   | 40                | 116          | 55 ~ 145               | 210            | 180 | 36             | 150          | 55 ~ 145               | 210            | 180 | 150          |     |
|           |                | 12              | 772.7   | 800    | 45   | 40                | 165          | 55 ~ 145               | 210            | 180 | 36             | 200          | 55 ~ 145               | 210            | 180 | 200          |     |
|           |                | 6               | 500.0   | 535    | 45   | 40                | 65           | 50 ~ 130               | 190            | 160 | 36             | 95           | 50 ~ 130               | 190            | 160 | 95           |     |
|           |                | 8               | 653.3   | 703    | 45   | 40                | 120          | 55 ~ 145               | 210            | 180 | 36             | 160          | 55 ~ 145               | 210            | 180 | 160          |     |
|           | F              | 10              | 809.0   | 864    | 45   | 40                | 180          | 55 ~ 145               | 210            | 180 | 36             | 220          | 55 ~ 145               | 210            | 180 | 220          |     |
|           |                | 12              | 965.9   | 1026   | 45   | 40                | 260          | 55 ~ 150               | 230            | 200 | 36             | 310          | 55 ~ 150               | 230            | 200 | 310          |     |
|           |                | 6               | 500.0   | 535    | 32   | 40                | 45           | 50 ~ 130               | 190            | 160 | 30             | 75           | 50 ~ 130               | 190            | 160 | 75           |     |
|           |                | 8               | 653.3   | 703    | 32   | 40                | 85           | 55 ~ 145               | 210            | 180 | 30             | 130          | 55 ~ 145               | 210            | 180 | 130          |     |
|           | S              | 10              | 809.0   | 864    | 32   | 40                | 130          | 55 ~ 145               | 210            | 180 | 30             | 170          | 55 ~ 145               | 210            | 180 | 170          |     |
|           |                | 12              | 965.9   | 1026   | 32   | 40                | 190          | 55 ~ 150               | 230            | 200 | 30             | 240          | 55 ~ 150               | 230            | 200 | 240          |     |
|           |                | 6               | 500.0   | 527    | 45   | 40                | 75           | 50 ~ 130               | 190            | 160 | 36             | 100          | 50 ~ 130               | 190            | 160 | 100          |     |
|           |                | 8               | 653.3   | 680    | 45   | 40                | 130          | 55 ~ 145               | 210            | 180 | 36             | 170          | 55 ~ 145               | 210            | 180 | 170          |     |
| BC 26300  | R              | 10              | 809.0   | 836    | 45   | 40                | 190          | 55 ~ 145               | 210            | 180 | 36             | 230          | 55 ~ 145               | 210            | 180 | 230          |     |
|           |                | 12              | 965.9   | 993    | 45   | 40                | 270          | 55 ~ 150               | 230            | 200 | 36             | 320          | 55 ~ 150               | 230            | 200 | 320          |     |
|           |                | 6               | 600.0   | 631    | 45   | 40                | 100          | 50 ~ 130               | 190            | 160 | 36             | 120          | 50 ~ 130               | 190            | 160 | 120          |     |
|           |                | 8               | 783.9   | 829    | 45   | 40                | 170          | 55 ~ 145               | 210            | 180 | 36             | 210          | 55 ~ 145               | 210            | 180 | 210          |     |
|           | F              | 10              | 970.8   | 1025   | 45   | 40                | 260          | 55 ~ 160               | 230            | 200 | 36             | 310          | 55 ~ 160               | 230            | 200 | 310          |     |
|           |                | 12              | 1159.1  | 1219   | 45   | 40                | 380          | 65 ~ 170               | 250            | 220 | 36             | 440          | 65 ~ 170               | 250            | 220 | 440          |     |
|           |                | 6               | 600.0   | 631    | 32   | 40                | 70           | 50 ~ 130               | 190            | 160 | 30             | 100          | 50 ~ 130               | 190            | 160 | 100          |     |
|           |                | 8               | 783.9   | 829    | 32   | 40                | 120          | 55 ~ 145               | 210            | 180 | 30             | 160          | 55 ~ 145               | 210            | 180 | 160          |     |
|           | S              | 10              | 970.8   | 1025   | 32   | 40                | 190          | 55 ~ 160               | 230            | 200 | 30             | 240          | 55 ~ 160               | 230            | 200 | 240          |     |
|           |                | 12              | 1159.1  | 1219   | 32   | 40                | 270          | 65 ~ 170               | 250            | 220 | 30             | 340          | 65 ~ 170               | 250            | 220 | 340          |     |
|           |                | 6               | 600.0   | 627    | 45   | 40                | 110          | 50 ~ 130               | 190            | 160 | 36             | 120          | 50 ~ 130               | 190            | 160 | 130          |     |
|           |                | 8               | 783.9   | 811    | 45   | 40                | 180          | 55 ~ 145               | 210            | 180 | 36             | 220          | 55 ~ 145               | 210            | 180 | 220          |     |
| BC 36300  | R              | 10              | 970.8   | 998    | 45   | 40                | 270          | 55 ~ 160               | 230            | 200 | 36             | 320          | 55 ~ 160               | 230            | 200 | 320          |     |
|           |                | 12              | 1159.1  | 1186   | 45   | 40                | 390          | 65 ~ 170               | 250            | 220 | 36             | 450          | 65 ~ 170               | 250            | 220 | 450          |     |
|           |                | 6               | 600.0   | 648    | 55   | 40                | 120          | 55 ~ 160               | 230            | 200 | 42             | 160          | 55 ~ 160               | 230            | 200 | 160          |     |
|           |                | 8               | 783.9   | 849    | 55   | 40                | 210          | 65 ~ 175               | 250            | 220 | 42             | 270          | 65 ~ 175               | 250            | 220 | 270          |     |
|           | F              | 10              | 970.8   | 1046   | 55   | 40                | 320          | 75 ~ 190               | 270            | 240 | 42             | 400          | 75 ~ 190               | 270            | 240 | 400          |     |
|           |                | 12              | 1159.1  | 1234   | 55   | 40                | 450          | 85 ~ 210               | 300            | 260 | 42             | 560          | 85 ~ 210               | 300            | 260 | 560          |     |
|           |                | 6               | 600.0   | 648    | 36   | 40                | 80           | 55 ~ 160               | 230            | 200 | 32             | 130          | 55 ~ 160               | 230            | 200 | 130          |     |
|           |                | 8               | 783.9   | 849    | 36   | 40                | 140          | 65 ~ 175               | 250            | 220 | 32             | 210          | 65 ~ 175               | 250            | 220 | 210          |     |
|           | S              | 10              | 970.8   | 1046   | 36   | 40                | 210          | 75 ~ 190               | 270            | 240 | 32             | 300          | 75 ~ 190               | 270            | 240 | 300          |     |
|           |                | 12              | 1159.1  | 1234   | 36   | 40                | 300          | 85 ~ 210               | 300            | 260 | 32             | 410          | 85 ~ 210               | 300            | 260 | 410          |     |
|           |                | 6               | 600.0   | 631    | 55   | 40                | 130          | 55 ~ 160               | 230            | 200 | 42             | 180          | 55 ~ 160               | 230            | 200 | 180          |     |
|           |                | 8               | 783.9   | 814    | 55   | 40                | 220          | 65 ~ 175               | 250            | 220 | 42             | 280          | 65 ~ 175               | 250            | 220 | 280          |     |

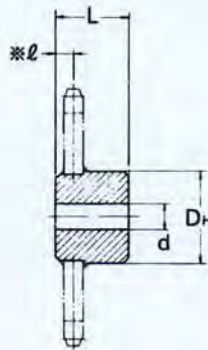
## 29. Standard Designs of Sprocket Teeth

BANDO CHAIN

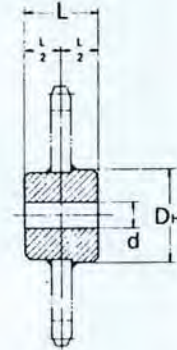
### ● Selection Boss



Type A



Type BW1



Type CW 1

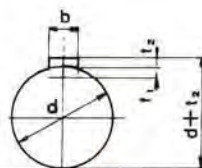
### ● Dimensions of Boss(Selection)

| Boss Diameter<br>$D_H$ | Boss Length |     | Shaft Diameter Range |         | Material     | Approx. Weight(kg) |                |
|------------------------|-------------|-----|----------------------|---------|--------------|--------------------|----------------|
|                        | I           | II  | BW<br>BW1            | CW1     |              | Boss Length I      | Boss Length II |
| 65                     | 40          | 50  | 25 ~ 40              | 25 ~ 38 | normal steel | 1.0                | 1.2            |
| 70                     | 45          | 55  | 25 ~ 45              | 25 ~ 40 |              | 1.3                | 1.6            |
| 75                     | 50          | 60  | 25 ~ 50              | 25 ~ 45 |              | 1.7                | 2.0            |
| 85                     | 55          | 70  | 25 ~ 55              | 25 ~ 45 |              | 2.4                | 3.0            |
| 90                     | 60          | 75  | 25 ~ 56              | 25 ~ 55 |              | 2.9                | 3.6            |
| 100                    | 65          | 80  | 30 ~ 65              | 30 ~ 60 |              | 3.8                | 4.7            |
| 110                    | 75          | 90  | 30 ~ 75              | 30 ~ 70 |              | 5.4                | 6.4            |
| 120                    | 80          | 100 | 35 ~ 80              | 35 ~ 75 |              | 6.7                | 8.4            |
| 130                    | 85          | 105 | 35 ~ 85              | 35 ~ 80 |              | 8.4                | 10.4           |
| 140                    | 95          | 115 | 40 ~ 95              | 40 ~ 90 |              | 10.8               | 13.1           |
| 150                    | 100         | 125 | 40 ~ 100             |         |              | 13.2               | 16.4           |
| 160                    | 110         | 135 | 45 ~ 110             |         |              | 16.3               | 20.0           |
| 180                    | 120         | 150 | 50 ~ 120             |         |              | 22.5               | 28.1           |
| 190                    | 130         | 160 | 50 ~ 130             |         |              | 27.4               | 33.7           |
| 210                    | 145         | 180 | 55 ~ 145             |         |              | 37.2               | 46.2           |
| 230                    | 160         | 200 | 55 ~ 160             |         |              | 50.0               | 63.0           |

### ● Maximum Allowable Diameter of Boss

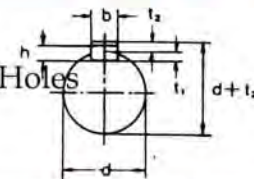
| Chain No. | Number of Teeth |       |     |     |       |        |
|-----------|-----------------|-------|-----|-----|-------|--------|
|           | 6               | 7 1/2 | 8   | 10  | 12    | 12 1/2 |
| BC 03075  | 90              | 125   | 130 | 170 | 210   | 230    |
| BC 03100  | 130             | 170   | 190 | 250 | 310   | 330    |
| BC 430    | 130             | 170   | 190 | 250 | 310   | 330    |
| BC 05075  | —               | —     | 120 | 165 | 200   | —      |
| BC 05100  | 120             | 160   | 180 | 240 | 300   | 320    |
| BC 05125  | 155             | 220   | 240 | 320 | 400   | 420    |
| BC 05150  | 200             | 270   | 290 | 390 | 490   | 520    |
| BC 204    | —               | —     | 110 | 150 | 190   | —      |
| BC 450    | 120             | 170   | 180 | 230 | 300   | 330    |
| BC 08125  | 160             | 220   | 230 | 310 | 390   | 420    |
| BC 08150  | 200             | 270   | 290 | 390 | 490   | 520    |
| BC 650    | 200             | 270   | 290 | 390 | 490   | 520    |
| BC 10100  | 115             | —     | 170 | 230 | 290   | —      |
| BC 10125  | 150             | 210   | 230 | 300 | 380   | 410    |
| BC 10150  | 195             | 260   | 290 | 380 | 480   | 510    |
| BC 205    | —               | —     | 130 | 170 | 220   | —      |
| BC 214    | 120             | —     | 180 | 240 | 300   | —      |
| BC 6205   | 185             | 250   | 280 | 370 | 470   | 500    |
| BC 12200  | 260             | 360   | 390 | 520 | 640   | 690    |
| BC 12250  | 340             | 470   | 510 | 680 | 830   | 880    |
| BC 212    | 180             | —     | 270 | 370 | 470   | —      |
| BC 17200  | 250             | 350   | 370 | 500 | 620   | 680    |
| BC 17250  | 340             | 460   | 500 | 660 | 810   | 870    |
| BC 17300  | 420             | 570   | 630 | 820 | 1,000 | 1,070  |

### ■ Dimensions of KS Parallel Inclined Key Holes



| Shaft Diameter | KEY No. Width<br>$b \times (t_1+t_2)$ | Depth of Key Holes |              |
|----------------|---------------------------------------|--------------------|--------------|
|                |                                       | Shaft $t_1$        | Boss $d+t_2$ |
| 100이상 130이하    | 4×4                                   | 2.5                | $d+1.5$      |
| 13 " 20 "      | 5×5                                   | 3.0                | $d+2.0$      |
| 20 " 30 "      | 7×7                                   | 4.0                | $d+3.0$      |
| 30 " 40 "      | 10×8                                  | 4.5                | $d+3.5$      |
| 40 " 50 "      | 12×8                                  | 4.5                | $d+3.5$      |
| 50 " 60 "      | 15×10                                 | 5                  | $d+5$        |
| 60 " 70 "      | 18×12                                 | 6                  | $d+6$        |
| 70 " 80 "      | 20×13                                 | 7                  | $d+6$        |
| 80 " 95 "      | 24×16                                 | 8                  | $d+8$        |
| 95 " 110 "     | 28×18                                 | 9                  | $d+9$        |
| 110 " 125 "    | 32×20                                 | 10                 | $d+10$       |
| 125 " 140 "    | 35×22                                 | 11                 | $d+11$       |
| 140 " 160 "    | 38×24                                 | 12                 | $d+12$       |
| 160 " 180 "    | 42×26                                 | 13                 | $d+13$       |
| 180 " 200 "    | 45×28                                 | 14                 | $d+14$       |
| 200 " 224 "    | 50×31.5                               | 16                 | $d+15.5$     |
| 224 " 250 "    | 56×35.5                               | 18                 | $d+17.5$     |

### ■ Dimensions of KS Key Holes (JIS B 1301-1976)



| Shaft Diameter | Key No. Width × Height<br>$b \times h$ | Shaft $t_1$ | Depth of Key Holes |              |
|----------------|----------------------------------------|-------------|--------------------|--------------|
|                |                                        |             | Parallel Key       | Inclined Key |
| 6초과 8이하        | 2×2                                    | 1.2         | $d+1.0$            | $d+0.5$      |
| 8 " 10 "       | 3×3                                    | 1.8         | $d+1.4$            | $d+0.9$      |
| 10 " 12 "      | 4×4                                    | 2.5         | $d+1.8$            | $d+1.2$      |
| 12 " 17 "      | 5×5                                    | 3.0         | $d+2.3$            | $d+1.7$      |
| 17 " 22 "      | 6×6                                    | 3.5         | $d+2.8$            | $d+2.2$      |
| 20 " 25 "      | (7×7)                                  | 4.0         | $d+3.0$            | $d+3.0$      |
| 22 " 30 "      | 8×7                                    | 4.0         | $d+3.3$            | $d+2.4$      |
| 30 " 38 "      | 10×8                                   | 5.0         | $d+3.3$            | $d+2.4$      |
| 38 " 44 "      | 12×8                                   | 5.0         | $d+3.3$            | $d+2.4$      |
| 44 " 50 "      | 14×9                                   | 5.5         | $d+3.8$            | $d+2.9$      |
| 50 " 55 "      | (15×10)                                | 5.0         | $d+5.0$            | $d+5.0$      |
| 50 " 58 "      | 16×10                                  | 6.0         | $d+4.3$            | $d+3.4$      |
| 58 " 65 "      | 18×11                                  | 7.0         | $d+4.4$            | $d+3.4$      |
| 65 " 75 "      | 20×12                                  | 7.5         | $d+4.9$            | $d+3.9$      |
| 75 " 85 "      | 22×14                                  | 9.0         | $d+5.4$            | $d+4.4$      |
| 80 " 90 "      | (24×16)                                | 8.0         | $d+8.0$            | $d+8.0$      |
| 85 " 95 "      | 25×14                                  | 9.0         | $d+5.4$            | $d+4.4$      |
| 95 " 110 "     | 28×16                                  | 10.0        | $d+6.4$            | $d+5.4$      |
| 110 " 130 "    | 32×18                                  | 11.0        | $d+7.4$            | $d+6.4$      |
| 125 " 140 "    | (35×22)                                | 11.0        | $d+11.0$           | $d+11.0$     |
| 130 " 150 "    | 36×20                                  | 12.0        | $d+8.4$            | $d+7.1$      |
| 140 " 160 "    | (38×24)                                | 12.0        | $d+12.0$           | $d+12.0$     |
| 150 " 170 "    | 40×22                                  | 13.0        | $d+9.4$            | $d+8.1$      |
| 160 " 180 "    | (42×26)                                | 13.0        | $d+13.0$           | $d+13.0$     |
| 170 " 200 "    | 45×25                                  | 15.0        | $d+10.4$           | $d+9.1$      |
| 200 " 230 "    | 50×28                                  | 17.0        | $d+11.4$           | $d+10.1$     |

### ● Sprocket Numbering System

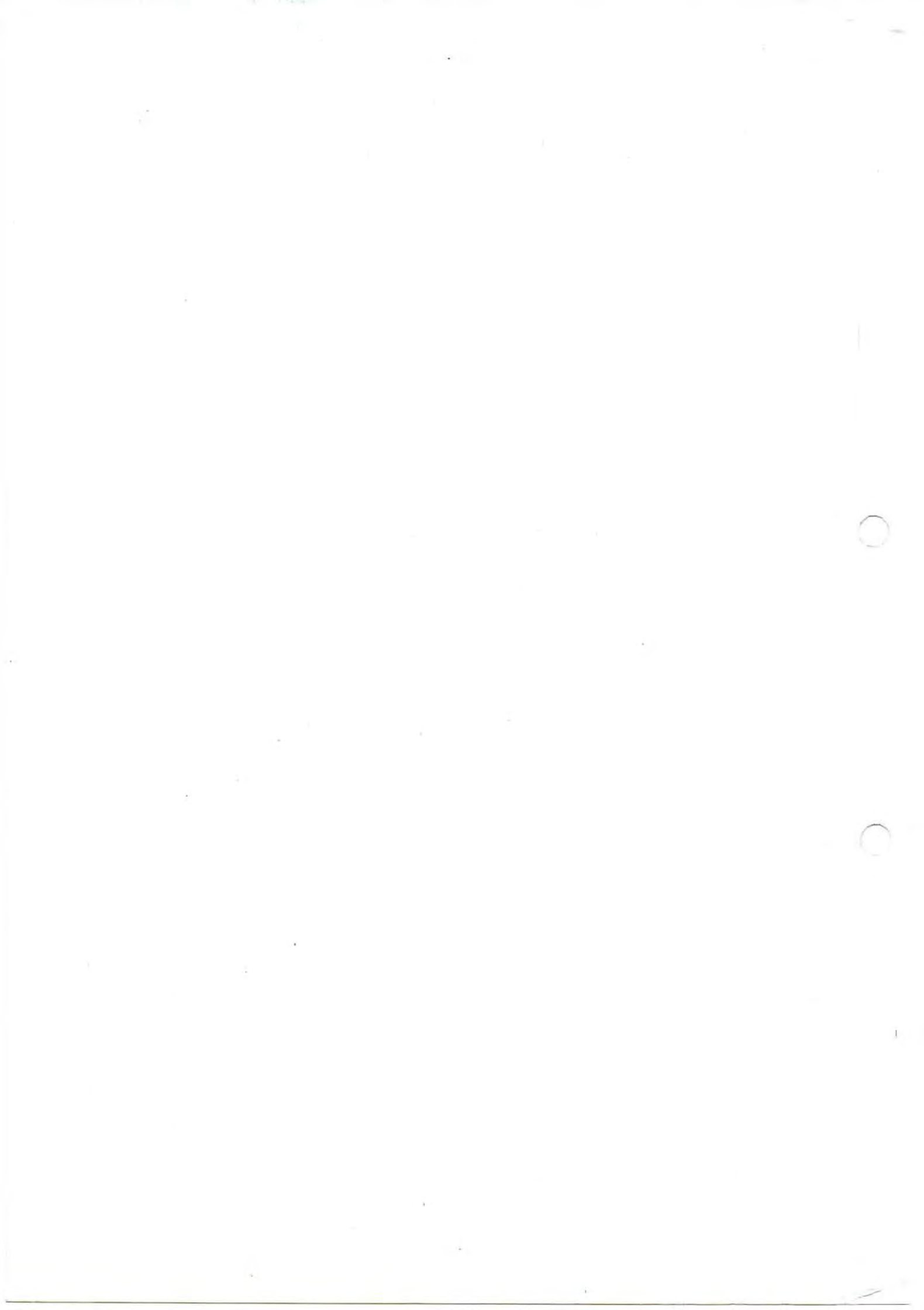
BC101150 R 6NT - BW

Chain No. Type(A, BW, BW1, CW1)  
Number of Teeth  
Type of Roller

- 1) For selected boss: Specify the dimensions(diameter DH × length L)
- 2) For wearproof boss: Specify the hardness of teeth

### ● Pitch Diameter of Conveyor Chain Sprockets

| Pitch<br>Number of Teeth | 66.27 | 75    | 78.11 | 100   | 101.6 | 125    | 150    | 152.4  | 200    | 250    | 300    | 350    | 400    | 450    | 500    | 600    |
|--------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6                        | 132.5 | 150.0 | 156.2 | 200.0 | 203.2 | 250.0  | 300.0  | 304.8  | 400.0  | 500.0  | 600.0  | 700.0  | 800.0  | 900.0  | 1000.0 | 1200.0 |
| 7                        | 152.7 | 172.9 | 180.0 | 230.5 | 234.2 | 288.1  | 345.7  | 351.2  | 461.0  | 576.2  | 691.4  | 806.7  | 921.9  | 1037.1 | 1152.4 | 1382.9 |
| 7.5                      | 162.9 | 184.4 | 192.0 | 245.9 | 249.8 | 307.3  | 368.8  | 374.7  | 491.7  | 614.6  | 737.6  | 860.5  | 983.4  | 1106.4 | 1229.3 | 1475.2 |
| 8                        | 173.2 | 196.0 | 204.1 | 261.3 | 265.5 | 326.6  | 392.0  | 398.2  | 522.6  | 653.3  | 783.9  | 914.6  | 1045.3 | 1175.9 | 1306.6 | 1567.9 |
| 9                        | 193.8 | 219.3 | 228.4 | 292.4 | 297.1 | 365.5  | 438.6  | 445.6  | 584.8  | 731.0  | 877.1  | 1023.3 | 1169.5 | 1315.7 | 1461.9 | 1754.3 |
| 10                       | 214.5 | 242.7 | 252.8 | 323.6 | 328.8 | 404.5  | 485.4  | 493.2  | 647.2  | 809.0  | 970.8  | 1132.6 | 1294.4 | 1456.2 | 1618.0 | 1941.7 |
| 11                       | 235.2 | 266.2 | 277.2 | 354.9 | 360.6 | 443.7  | 532.4  | 540.9  | 709.9  | 887.4  | 1064.8 | 1242.3 | 1419.8 | 1597.3 | 1774.7 | —      |
| 12                       | 256.0 | 289.8 | 301.8 | 386.4 | 392.6 | 483.0  | 579.6  | 588.8  | 772.7  | 965.9  | 1159.1 | 1352.3 | 1545.5 | 1738.7 | 1931.9 | —      |
| 12.5                     | 266.5 | 301.6 | 314.1 | 402.1 | 408.5 | 502.6  | 603.2  | 612.8  | 804.2  | 1005.3 | 1206.3 | 1407.4 | 1608.4 | 1809.5 | —      | —      |
| 13                       | 276.9 | 313.4 | 326.4 | 417.9 | 424.5 | 522.3  | 626.8  | 636.8  | 835.7  | 1044.6 | 1253.6 | 1462.5 | 1671.4 | 1880.4 | —      | —      |
| 14                       | 297.8 | 337.0 | 351.0 | 449.4 | 456.6 | 561.7  | 674.1  | 684.9  | 898.8  | 1123.5 | 1348.2 | 1572.9 | 1797.6 | —      | —      | —      |
| 15                       | 318.7 | 360.7 | 375.7 | 481.0 | 488.7 | 601.2  | 721.5  | 733.0  | 962.0  | 1202.4 | 1442.9 | 1683.4 | 1923.9 | —      | —      | —      |
| 16                       | 339.7 | 384.4 | 400.4 | 512.6 | 520.8 | 640.7  | 768.9  | 781.2  | 1025.2 | 1281.5 | 1537.8 | 1794.0 | —      | —      | —      | —      |
| 17                       | 360.7 | 408.2 | 425.1 | 544.2 | 552.9 | 680.3  | 816.3  | 829.4  | 1088.4 | 1360.6 | 1632.7 | 1904.8 | —      | —      | —      | —      |
| 18                       | 381.6 | 431.9 | 449.8 | 575.9 | 585.1 | 719.8  | 863.8  | 877.6  | 1151.8 | 1439.7 | 1727.6 | —      | —      | —      | —      | —      |
| 19                       | 402.6 | 455.7 | 474.6 | 607.6 | 617.3 | 759.4  | 911.3  | 925.9  | 1215.1 | 1518.9 | 1822.7 | —      | —      | —      | —      | —      |
| 20                       | 423.6 | 479.4 | 499.3 | 639.2 | 649.5 | 799.1  | 958.9  | 974.2  | 1278.5 | 1598.1 | 1917.8 | —      | —      | —      | —      | —      |
| 21                       | 444.6 | 503.2 | 524.1 | 671.0 | 681.7 | 838.7  | 1006.4 | 1022.5 | 1341.9 | 1677.4 | —      | —      | —      | —      | —      | —      |
| 22                       | 465.7 | 527.0 | 548.9 | 702.7 | 713.9 | 878.3  | 1054.0 | 1070.9 | 1405.3 | 1756.7 | —      | —      | —      | —      | —      | —      |
| 23                       | 486.7 | 550.8 | 573.6 | 734.4 | 746.1 | 918.0  | 1101.6 | 1119.2 | 1468.8 | 1836.0 | —      | —      | —      | —      | —      | —      |
| 24                       | 507.7 | 574.6 | 598.4 | 766.1 | 778.4 | 957.7  | 1149.2 | 1167.6 | 1532.3 | 1915.3 | —      | —      | —      | —      | —      | —      |
| 25                       | 528.8 | 598.4 | 623.2 | 797.9 | 810.6 | 997.3  | 1196.8 | 1216.0 | 1595.7 | 1994.7 | —      | —      | —      | —      | —      | —      |
| 30                       | 634.0 | 717.3 | 747.3 | 956.7 | 972.0 | 1195.9 | 1435.0 | 1458.0 | 1913.4 | —      | —      | —      | —      | —      | —      | —      |

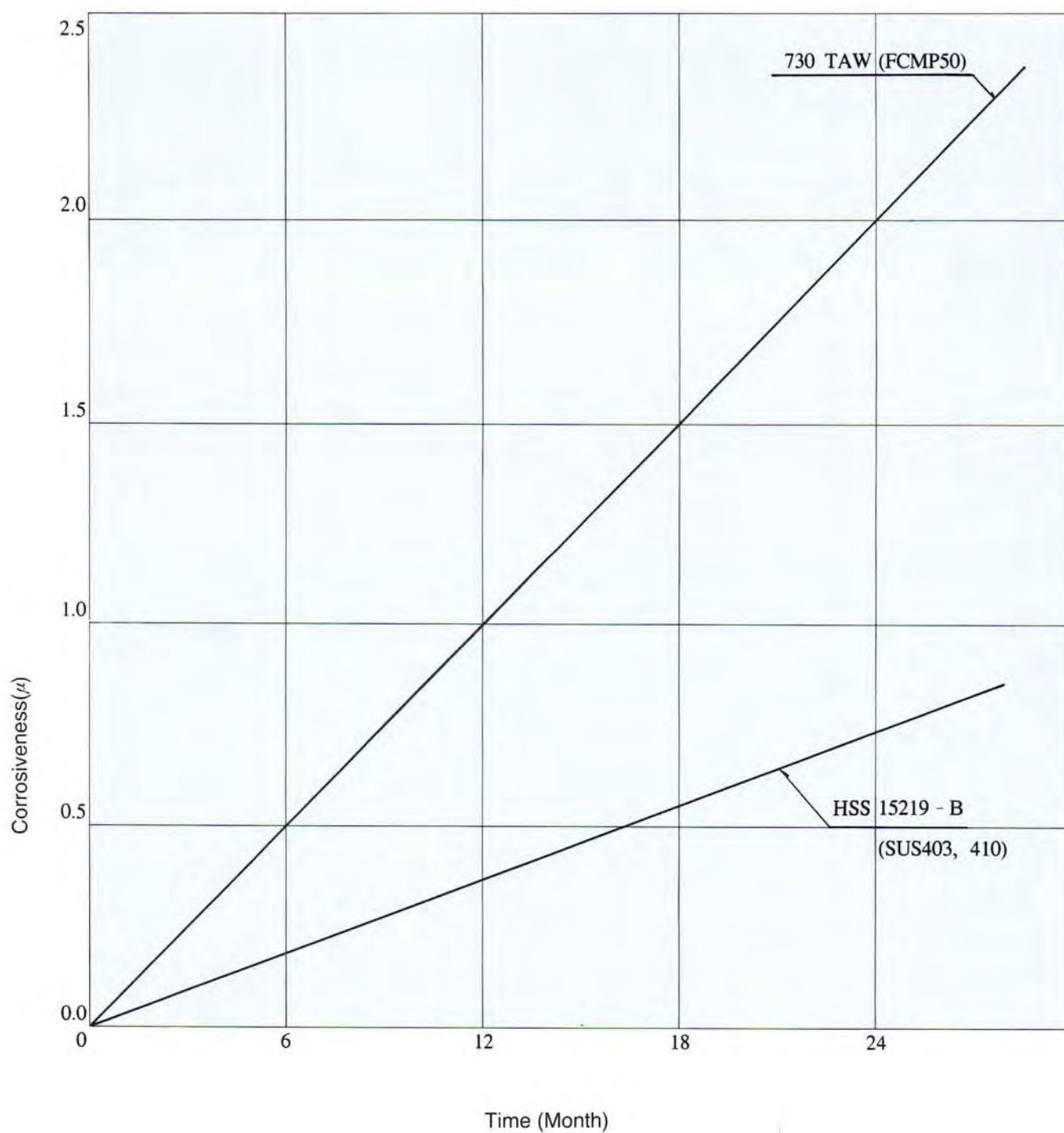


# **Sewage Treatment Chains**

## 30. STAINLESS STEEL AND FCMP50(730 TAW)

BANDO CHAIN

Test Method: In the field, pour sewage in a tank, and take chains in and out of it to check corrosiveness. Pay regard to the following difference in corrosiveness to select materials of chains.



## 31. CORROSION TEST RESULTS OF VARIOUS MATERIALS

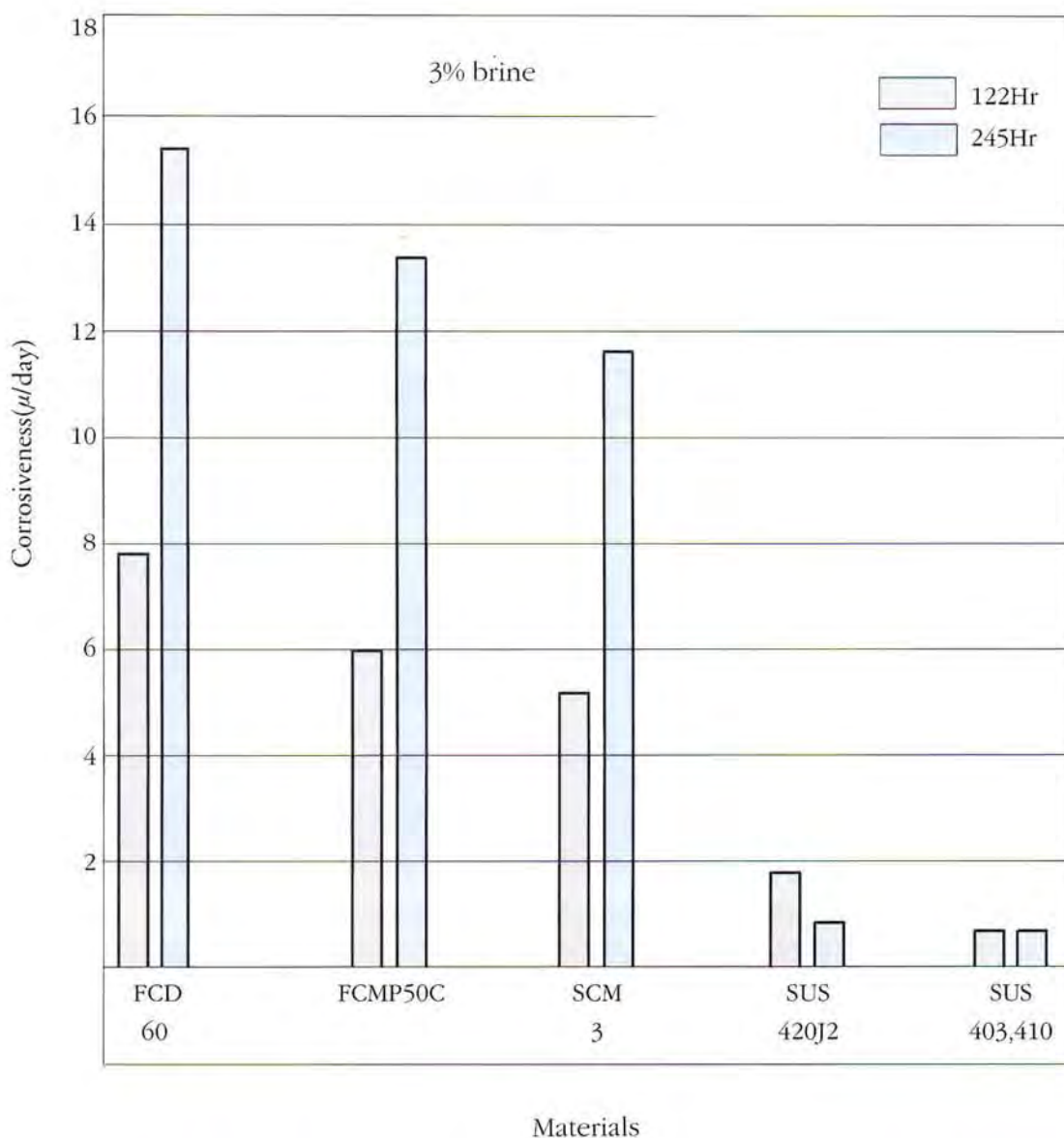
BANDO CHAIN

### ● Test Conditions

Temperature: 35℃, Sprayed with 3% brine

Sample : 12(t) × 12(w) × 35(l)

Corrosiveness :  $(24 \times 10 \times \text{outage(g)}/\text{area} \times \text{density} \times \text{time})$



## 32. HSC-TYPE SEWAGE TREATMENT CHAINS

BANDO CHAIN

### ■ Chains for Sewage Treatment Equipment

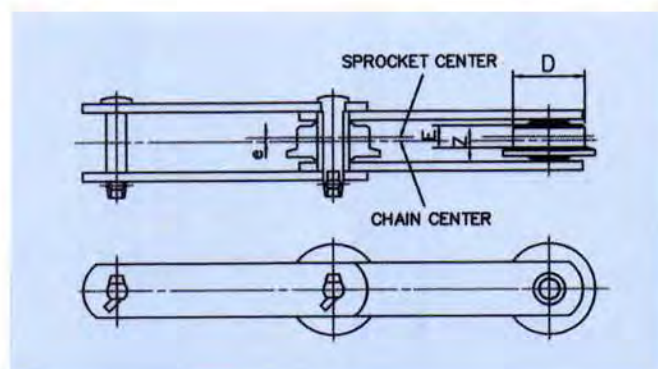
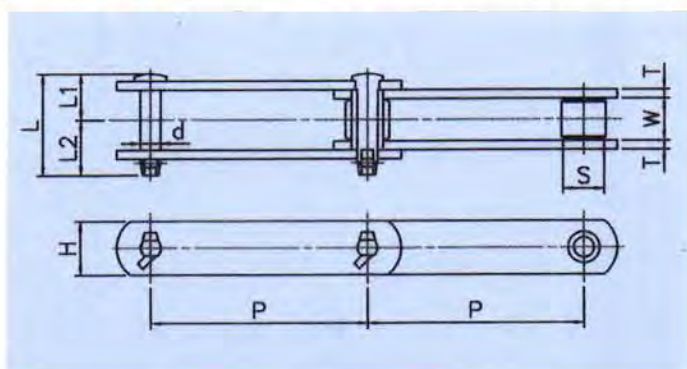


### ■ HSC-type Chains

These strong dust remover chains are made of alloy steel <Chrome(Cr) molybdenum (Mo)>. Pins, bushes, and rollers may be made of 400 stainless steel series if required.

#### ● HSC-type Chain Dimensions

| Chain No. | D    | F  | e   | Z | E  |
|-----------|------|----|-----|---|----|
| HSC 15215 | 50.8 | 65 | 3   | 7 | 20 |
| HSC 15219 | 50.8 | 65 | 3   | 7 | 20 |
| HSC 15228 | 57.2 | 70 | 4   | 8 | 24 |
| HSC 15235 | 70.0 | 85 | 3.5 | 9 | 25 |



#### ● Chains Made of Alloy Steel(Chrome-Molybdenum Steel SCM)

| Chain No.     | Pitch<br>P | Average<br>Ultimate<br>Strength<br>(kgf) | Guaranteed<br>Ultimate<br>Strength<br>(kgf) | Weight<br>(kg/m) |      | Dimensions      |      |                     |       |       |                |                |       |     |
|---------------|------------|------------------------------------------|---------------------------------------------|------------------|------|-----------------|------|---------------------|-------|-------|----------------|----------------|-------|-----|
|               |            |                                          |                                             |                  |      | Roller Diameter |      | Inner<br>Width<br>W | Pin   |       |                |                | Plate |     |
|               |            |                                          |                                             | S                | F    | S               | D    |                     | d     | L     | L <sub>1</sub> | L <sub>2</sub> | H     | T   |
| HSC 15215-S.F | 152.40     | 15,000                                   | 13,500                                      | 6.0              | 8.0  | 25.4            | 50.8 | 30.2                | 11.1  | 69.0  | 31.0           | 38.0           | 38.1  | 6.3 |
| HSC 15219-S.F | 152.40     | 19,000                                   | 17,100                                      | 6.6              | 8.0  | 29.0            | 50.8 | 30                  | 14.3  | 73.3  | 32.8           | 40.5           | 38.1  | 6.3 |
| HSC 15228-S.F | 152.40     | 28,000                                   | 25,500                                      | 9.3              | 13.0 | 34.9            | 57.2 | 37.1                | 15.9  | 87.5  | 40.0           | 47.5           | 44.5  | 7.9 |
| HSC 15235-S.F | 152.40     | 38,000                                   | 35,000                                      | 12.6             | 18.1 | 40.1            | 70.0 | 37.1                | 19.05 | 97.5  | 44.5           | 53.0           | 50.8  | 9.5 |
| HSC 15248-S   | 152.40     | 52,000                                   | 47,000                                      | 17.8             | —    | 44.5            | —    | 57.2                | 22.2  | 119.6 | 55.3           | 64.3           | 63.5  | 9.5 |

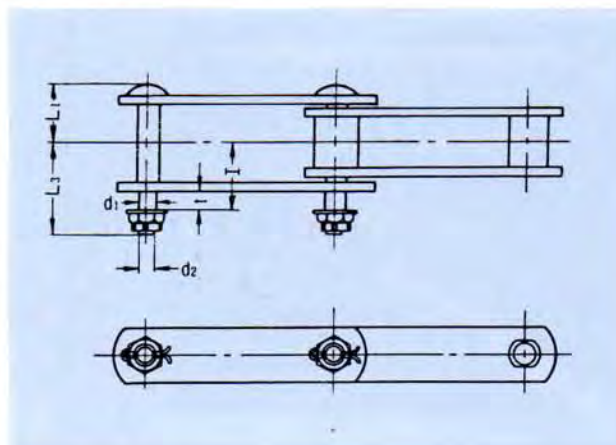
# HSC-TYPE

BANDO CHAIN

● **HSC-type D22 Attachment** These lifting chains are used to pull up deposits.



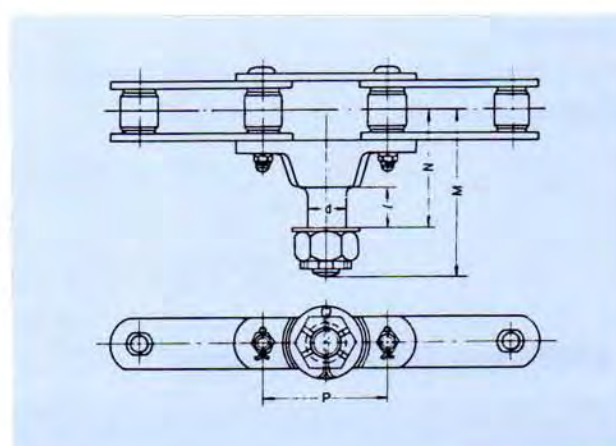
| Chain No. | L <sub>1</sub> | L <sub>3</sub> | d <sub>1</sub> | d <sub>2</sub> | I    | t  | Additional Weight (kg/pc) |
|-----------|----------------|----------------|----------------|----------------|------|----|---------------------------|
| HSC 15219 | 32.8           | 59.0           | 13.5           | M12            | 44.3 | 16 | 0.12                      |
| HSC 15228 | 40.0           | 68.0           | 15.5           | M14            | 51.1 | 16 | 0.13                      |
| HSC 15235 | 44.5           | 74.0           | 18.0           | M16            | 54.4 | 16 | 0.19                      |



● **HSC-type T1 Attachment** These chains are used for automatic rake-reversing dust removers.



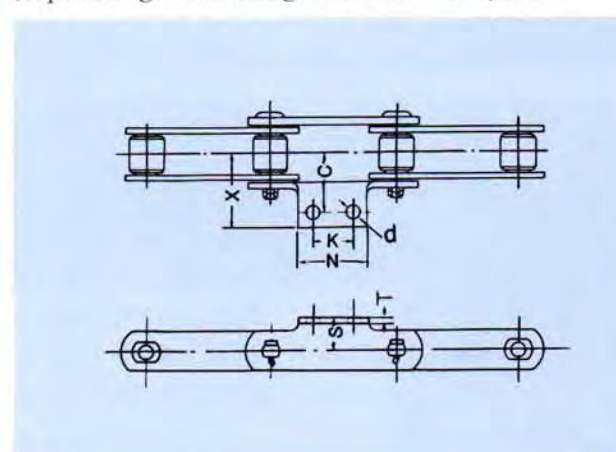
| Chain No. | Pitch P | Dimensions |     |    |    | Additional Weight (kg/pc) |
|-----------|---------|------------|-----|----|----|---------------------------|
|           |         | M          | N   | d  | ℓ  |                           |
| HSC 15215 | 152.40  | 108        | 80  | 25 | 30 | 1.2                       |
| HSC 15219 | 152.40  | 108        | 85  | 30 | 35 | 1.4                       |
| HSC 15228 | 152.40  | 149        | 122 | 40 | 44 | 2.8                       |
| HSC 15235 | 152.40  | 151        | 124 | 40 | 44 | 3.4                       |
| HSC 15248 | 152.40  | 204        | 145 | 50 | 50 | 5.1                       |



● **HSC-type A2 Attachment** These chains are used for automatic fixed-rake dust removers. (deposited grit carriers, grit cleaner conveyors)



| Chain No. | Pitch P | Dimensions |    |    |     |    |    |     | Additional Weight (kg/pc) |
|-----------|---------|------------|----|----|-----|----|----|-----|---------------------------|
|           |         | C          | X  | K  | N   | S  | d  | T   |                           |
| HSC 15215 | 152.40  | 50         | 66 | 60 | 90  | 32 | 14 | 6.3 | 0.25                      |
| HSC 15219 | 152.40  | 50         | 66 | 60 | 90  | 32 | 14 | 6.3 | 0.25                      |
| HSC 15228 | 152.40  | 60         | 81 | 60 | 100 | 38 | 18 | 7.9 | 0.40                      |
| HSC 15235 | 152.40  | 65         | 86 | 60 | 100 | 45 | 18 | 9.5 | 0.55                      |



### 33. HSS-TYPE SEWAGE TREATMENT CHAINS

BANDO CHAIN

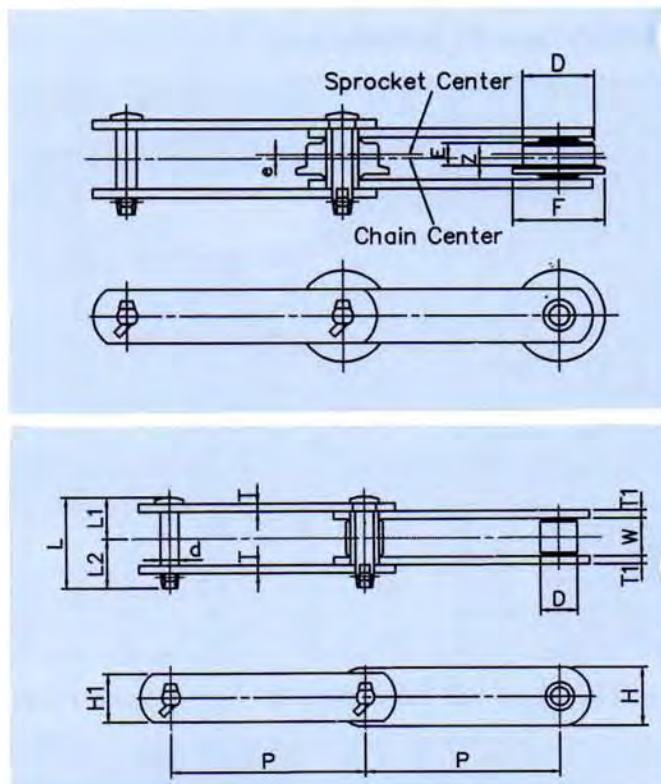


Since all the parts are made of heat-treated 13 chrome(Cr) stainless steel, these chains are excellent in corrosion resistance and abrasion resistance.

They may be made of alloy steel(Chrome(Cr) molybdenum (Mo): SCM) if required.

#### ● HSS-type Chain Dimensions

| Chain No. | D    | F  | e    | Z    | E  |
|-----------|------|----|------|------|----|
| HSS 15215 | 50.8 | 65 | 3    | 7    | 20 |
| HSS 15219 | 50.8 | 65 | 3    | 7    | 20 |
| HSS 15225 | 57.2 | 70 | 3.5  | 9    | 24 |
| HSS 15235 | 70.0 | 90 | 4.00 | 8.50 | 25 |



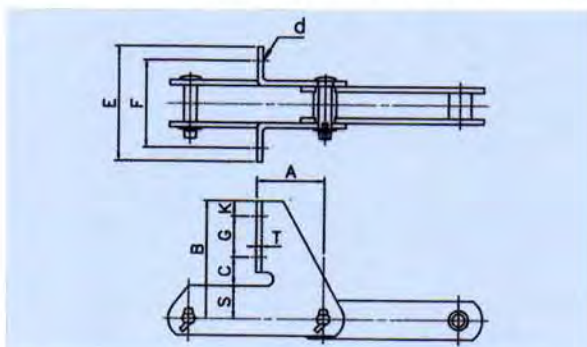
| Chain No.         | Pitch<br><b>P</b> | Average<br>Ultimate<br>Strength<br>(kgf) | Guaranteed<br>Ultimate<br>Strength<br>(kgf) | Weight(kg/m) |      |      | Dimensions                  |      |                |                |                      |                |                |                |            |   |    |   |
|-------------------|-------------------|------------------------------------------|---------------------------------------------|--------------|------|------|-----------------------------|------|----------------|----------------|----------------------|----------------|----------------|----------------|------------|---|----|---|
|                   |                   |                                          |                                             | Roller       |      |      | Roller Diameter<br><b>D</b> |      |                | Inner<br>Width | Pin<br>Diam-<br>eter | Pin Length     |                |                | Link Plate |   |    |   |
|                   |                   |                                          |                                             |              |      |      |                             |      |                |                |                      |                |                |                |            |   |    |   |
| B                 | S                 | F                                        | B                                           | S            | F    | W    | d                           | L    | L <sub>1</sub> | L <sub>2</sub> | H <sub>1</sub>       | T <sub>1</sub> | H <sub>2</sub> | T <sub>2</sub> |            |   |    |   |
| HSS 15215-B. S. F | 152.4             | 15,000                                   | 13,500                                      | 4.2          | 6    | 8    | 24                          | 25.4 | 50.8           | 30.2           | 11.1                 | 69             | 32             | 37             | 38         |   | 38 | 6 |
| HSS 15219-B. S. F | 152.4             | 19,000                                   | 17,100                                      | 5.8          | 6.6  | 8    | 26                          | 29   | 50.8           | 30             | 14.3                 | 72             | 32             | 40             | 38         |   | 38 | 6 |
| HSS 15225-B. S. F | 152.4             | 25,000                                   | 25,500                                      | 6.9          | 9.3  | 13   | 29                          | 34.9 | 57.2           | 37.1           | 15.9                 | 87.5           | 40             | 47.5           | 44.5       |   |    | 8 |
| HSS 15235-B. S. F | 152.4             | 35,000                                   | 31,500                                      | 10.3         | 11.7 | 16.4 | 36                          | 42   | 70             | 38             | 19.05                | 88             | 40             | 48             | 54         | 7 | 60 | 7 |

# HSS-TYPE

BANDO CHAIN

## ● HSS-type SF4 Attachment

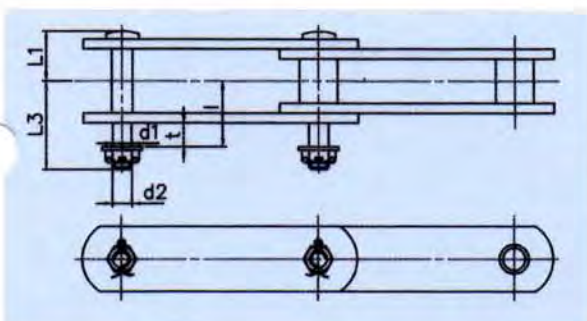
These chains are used for automatic rake-reversing dust removers.



| Chain No. | Dimensions(mm) |       |    |     |     |    |      |      |   |    | Additional Weight (kg/pc) |
|-----------|----------------|-------|----|-----|-----|----|------|------|---|----|---------------------------|
|           | A              | B     | C  | E   | F   | G  | K    | S    | T | d  |                           |
| HSS 15215 | 76             | 140   | 38 | 145 | 100 | 60 | 20   | 22   | 5 | 14 | 1.0                       |
| HSS 15219 | 76             | 155.0 | 40 | 140 | 100 | 75 | 17.5 | 22.5 | 6 | 14 | 1.3                       |
| HSS 15219 | 76             | 142.5 | 40 | 150 | 112 | 60 | 17.5 | 22.5 | 6 | 14 | 1.4                       |
| HSS 15219 | 76             | 155   | 32 | 140 | 100 | 65 | 17.5 | 38.0 | 6 | 14 | 1.45                      |
| HSS 15225 | 76             | 162   | 40 | 145 | 100 | 75 | 20   | 27   | 6 | 18 | 1.6                       |
| HSS 15235 | 76             | 175   | 40 | 150 | 110 | 75 | 25   | 35   | 7 | 18 | 1.9                       |

## ● HSS-type A2 Attachment

These chains are used for automatic fixed-rake dust removers.  
(deposited grit carriers, grit cleaner conveyors)



| Chain No. | C (mm) | X (mm) | K (mm) | N (mm) | S (mm) | d (mm) | T (mm) | Additional Weight (kg/pc) |
|-----------|--------|--------|--------|--------|--------|--------|--------|---------------------------|
| HSS 15215 | 50     | 66     | 60     | 90     | 32     | 14     | 6      | 0.25                      |
| HSS 15219 | 50     | 66     | 60     | 90     | 32     | 14     | 6      | 0.25                      |
| HSS 15225 | 60     | 81     | 60     | 100    | 38     | 18     | 8      | 0.4                       |
| HSS 15235 | 65     | 90     | 60     | 100    | 45     | 18     | 7      | 0.39                      |

## ● HSS-type D22 Attachment

These lifting chains are used to pull up deposits.



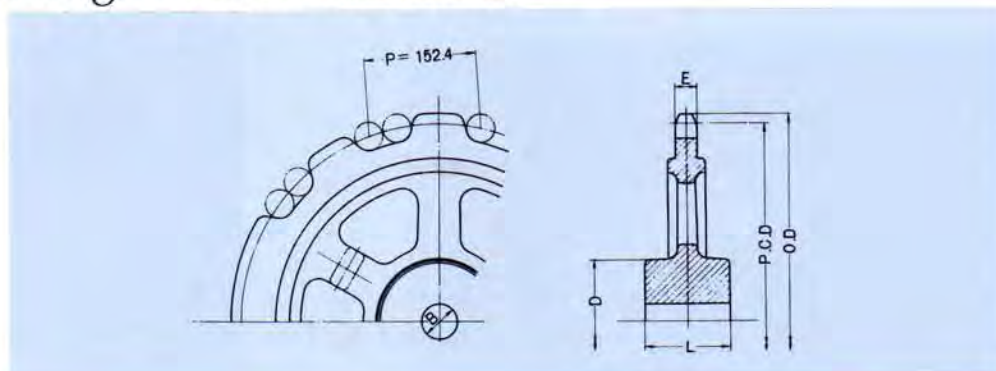
| Chain No. | L <sub>1</sub> (mm) | L <sub>3</sub> (mm) | d <sub>1</sub> (mm) | d <sub>2</sub> (mm) | l (mm) | t (mm) | Additional Weight (kg/pc) |
|-----------|---------------------|---------------------|---------------------|---------------------|--------|--------|---------------------------|
| HSS 15215 | 29                  | 51                  | 10                  | M12                 | 37     | 12     | 0.11                      |
| HSS 15219 | 32                  | 58                  | 13.5                | M12                 | 44.3   | 16     | 0.12                      |
| HSS 15225 | 35                  | 62                  | 15.5                | M14                 | 51.1   | 16     | 0.13                      |
| HSS 15235 | 40                  | 72                  | 18                  | M16                 | 53     | 19     | 0.19                      |

## 34. HSC & HSS-TYPE SEWAGE TREATMENT SPROCKETS

BANDO CHAIN

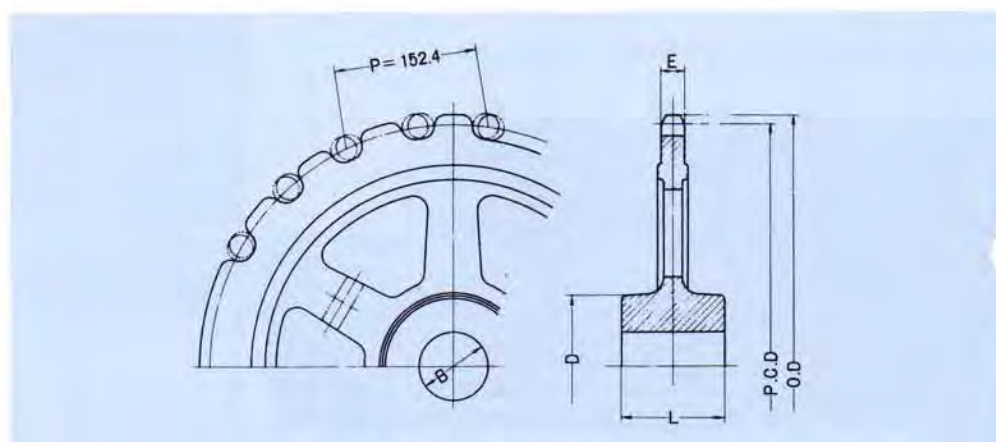
### ■ Sprockets for Sewage Treatment Chains

#### ● Sprockets for HSC



| Chain No.      | No. of Teeth<br>N.T | Pitch<br>P | Pitch Diameter<br>P.C.D | Outside Diameter O.D |            | Type | Standard Bore Diameter B |         | Boss       |         | Weight (kg) |
|----------------|---------------------|------------|-------------------------|----------------------|------------|------|--------------------------|---------|------------|---------|-------------|
|                |                     |            |                         | S Roller             | R.F Roller |      | Maximum                  | Minimum | Diameter D | Width L |             |
| HSC15215-S.R.F | 9                   | 152.4      | 445.6                   | 464                  | 481        | C    | 85                       | 35      | 130        | 90      | 29.6        |
|                | 11                  | 152.4      | 540.9                   | 559                  | 576        | C    | 110                      | 60      | 170        | 95      | 42          |
| HSC15228-S.R.F | 9                   | 152.4      | 445.6                   | 470                  | 486        | C    | 100                      | 45      | 160        | 110     | 45.3        |
|                | 11                  | 152.4      | 540.9                   | 565                  | 581        | C    | 110                      | 75      | 170        | 110     | 55.4        |
|                | 13                  | 152.4      | 636.8                   | 662                  | 677        | C    | 115                      | 80      | 180        | 140     | 50          |
| HSC15235-S.R.F | 9                   | 152.4      | 445.6                   | 474                  | 495        | C    | 105                      | 45      | 165        | 115     | 47.5        |
|                | 11                  | 152.4      | 540.9                   | 569                  | 590        | C    | 115                      | 65      | 180        | 120     | 56          |
|                | 13                  | 152.4      | 636.8                   | 665                  | 686        | C    | 125                      | 65      | 200        | 130     | 77          |

#### ● Sprockets for HSS



| Chain No.       | No. of Teeth<br>N.T | Pitch Diameter<br>P.C.D | Outside Diameter O.D |          |            | Type | Standard Bore Diameter B |         | Boss       |         | Weight (kg) |
|-----------------|---------------------|-------------------------|----------------------|----------|------------|------|--------------------------|---------|------------|---------|-------------|
|                 |                     |                         | Bushed B             | S Roller | R.F Roller |      | Maximum                  | Minimum | Diameter D | Width L |             |
| HSS15215B-S.R.F | 9                   | 445.6                   | 462                  | 466      | 479        | C    | 85                       | 60      | 135        | 95      | 30          |
|                 | 11                  | 540.9                   | 558                  | 561      | 575        | C    | 115                      | 60      | 180        | 110     | 48          |
|                 | DL21                | 517                     | 535                  | 540      | 552        | C    | 90                       | 60      | 140        | 95      | 34          |
| HSS15228B-S.R.F | 9                   | 445.6                   | 465                  | 468      | 481        | C    | 120                      | 60      | 185        | 120     | 37          |
|                 | 11                  | 540.9                   | 560                  | 563      | 576        | C    | 115                      | 60      | 180        | 120     | 49          |
|                 | DL21                | 517                     | 537                  | 540      | 552        | C    | 110                      | 70      | 170        | 110     | 47          |
| HSS15235B-S.R.F | 9                   | 445.6                   | 467                  | 471      | 486        | C    | 120                      | 70      | 185        | 140     | 47          |
|                 | 11                  | 540.9                   | 562                  | 566      | 582        | C    | 115                      | 70      | 180        | 140     | 57          |
|                 | DL21                | 517                     | 540                  | 544      | 556        | C    | 110                      | 70      | 170        | 110     | 50          |
| HSS15235B-S.R.F | 11                  | 540.9                   | 566                  | 570      | 590        | C    | 120                      | 80      | 190        | 120     | 56          |
|                 | DL21                | 517                     | 544                  | 548      | 564        | C    | 125                      | 80      | 195        | 125     | 57          |

Note) When the inner width of the chain is W, E = 0.75~0.8W

# APPLICATIONS OF CONVEYOR CHAINS

BANDO CHAIN

## Applications

### 700 Class Pintle Chain



Sludge Collector

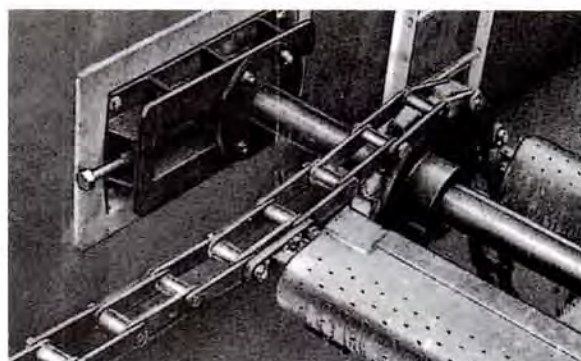


Sludge Collector

### Combi- nation Chain



Grit Collector

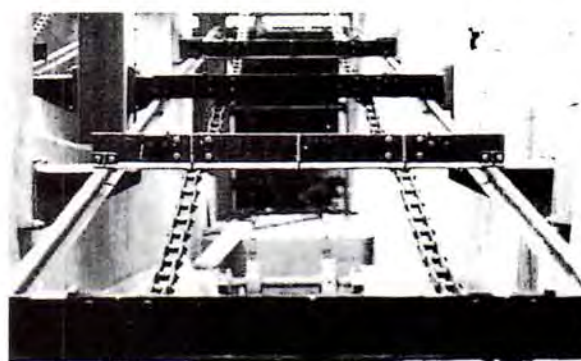


Grit Collector

### DLS Stainl- ess Steel Chain

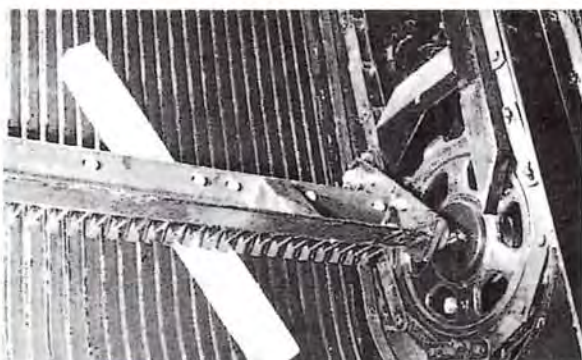


Sludge Collector

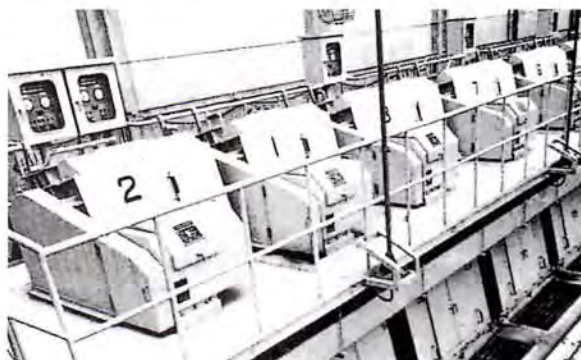


Sludge Collector

### DAS Steel Chain



Dust Remover



Dust Remover

# 35. ACS-TYPE SEWAGE TREATMENT CHAINS

BANDO CHAIN

## ● Specifications

| Use                                                                                                                                                                                        | Chain                  |           |                                |                                   |                                                                                                                                                                 |                                                                                                 |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------|--------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------|
|                                                                                                                                                                                            | Series                 | Chain No. | Average Ultimate Strength(kgf) | Guaranteed Ultimate Strength(kgf) | Heat Treatment                                                                                                                                                  | Attachment                                                                                      | Rust proofing            |
| Removes pollutant<br>                                                                                     | —                      | ACR 810   | 10,000                         | 9,000                             | 13Cr stainless steel treated                                                                                                                                    | SF-4<br>     | light thin film antirust |
| Carries out grit and removes pollutant.<br>                                                               | —                      | ACS13078W | 13,500                         | 12,500                            | 13Cr stainless steel treated.<br>LA-1 attachment is made of treated rigid steel.                                                                                | SF-4<br>     |                          |
|                                                                                                                                                                                            |                        | ACS13103W |                                |                                   |                                                                                                                                                                 | LA-1<br>     |                          |
|                                                                                                                                                                                            |                        | ACS13152W |                                |                                   |                                                                                                                                                                 | Long Pin<br> |                          |
|                                                                                                                                                                                            |                        | ACS15152W | 15,000                         | 14,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | ACS19152W | 19,000                         | 17,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | ACS25152W | 25,000                         | 23,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | ACS35152W | 35,000                         | 32,000                            |                                                                                                                                                                 |                                                                                                 |                          |
| Dust Remover<br><br> | VJ                     | JAC08152S | 15,000                         | 13,000                            | [Pin, Bush]<br>13Cr stainless steel treated<br>[S Roller, Link Plate]<br>rigid steel treated<br>[F Roller]<br>high quality cast iron or rigid steel treated     | Y<br>        | JIS NP-1 and equivalents |
|                                                                                                                                                                                            |                        | JAC10152S | 22,000                         | 20,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC 6205S | 28,000                         | 25,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC21152S | 39,000                         | 35,000                            |                                                                                                                                                                 | A-2<br>      |                          |
|                                                                                                                                                                                            |                        | JAC26152S | 52,000                         | 47,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC10152F | 22,000                         | 20,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC 6205F | 28,000                         | 25,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            | PJ                     | JAC08152S | 14,500                         | 13,500                            | 13Cr stainless steel treated                                                                                                                                    | Y<br>      |                          |
|                                                                                                                                                                                            |                        | JAC10152S | 17,000(19,000)                 | 15,500(17,500)                    |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC 6205S | 24,000<br>(27,000)             | 22,000<br>(25,000)                |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC21152S | 36,000                         | 33,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC26152S | 50,000                         | 46,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC10152F | 17,000(19,000)                 | 15,500(17,500)                    |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC 6205F | 24,000<br>(27,000)             | 22,000<br>(25,000)                |                                                                                                                                                                 | A-2<br>    |                          |
|                                                                                                                                                                                            | SJ                     | JAC08152S | 7,000                          | 6,000                             | 18-8 stainless steel                                                                                                                                            |                                                                                                 | N/A                      |
|                                                                                                                                                                                            |                        | JAC10152S | 11,000                         | 9,500                             |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC 6205S | 13,500                         | 11,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC21152S | 19,000                         | 16,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC26152S | 25,500                         | 21,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | JAC10152F | 11,000                         | 9,500                             |                                                                                                                                                                 | A-2<br>    |                          |
|                                                                                                                                                                                            |                        | JAC 6205F | 13,500                         | 11,500                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            | PJW Roller Alternation | JAC10152F | 17,000(19,000)                 | 15,500(17,500)                    | 13Cr stainless steel treated                                                                                                                                    | A-2<br>    |                          |
|                                                                                                                                                                                            |                        | JAC 6205F | 24,000<br>(27,000)             | 22,000<br>(25,000)                |                                                                                                                                                                 |                                                                                                 |                          |
| Drive<br>                                                                                               | —                      | BF 120    | 11,000                         | 10,100                            | 13Cr stainless steel treated                                                                                                                                    |                                                                                                 | JIS NP-1 and equivalents |
|                                                                                                                                                                                            |                        | BF 140    | 14,000                         | 13,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | BF 160    | 18,500                         | 17,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | BF 200    | 31,500                         | 29,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | BF 240    | 40,000                         | 37,000                            |                                                                                                                                                                 |                                                                                                 |                          |
| Treat water (Water Screen)<br>                                                                          | —                      | WAC25610  | 25,000                         | 22,000                            | [Pin, Bush]<br>13Cr stainless steel treated<br>[Roller]<br>13Cr stainless steel or ductile(globular graphite cast iron) treated<br>[Link Plate]<br>carbon steel | G-2<br>    |                          |
|                                                                                                                                                                                            |                        | WAC32610  | 32,500                         | 28,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC45610  | 45,000                         | 39,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC55610  | 55,000                         | 47,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC65610  | 65,000                         | 56,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC75610  | 75,000                         | 64,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC100610 | 100,000                        | 85,000                            |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC120610 | 120,000                        | 102,000                           |                                                                                                                                                                 |                                                                                                 |                          |
|                                                                                                                                                                                            |                        | WAC150610 | 150,000                        | 128,000                           |                                                                                                                                                                 |                                                                                                 |                          |

Note) 1. In addition, we produce chains and sprockets suited to water quality and other conditions.  
2. PJ and PJW type JAC 6205 and JAC 10152 include heavy series. Parenthesized numbers are their strength.  
3. light thin film antirust

**ACS-TYPE** BANDO CHAIN

**ACS-TYPE** BANDO CHAIN

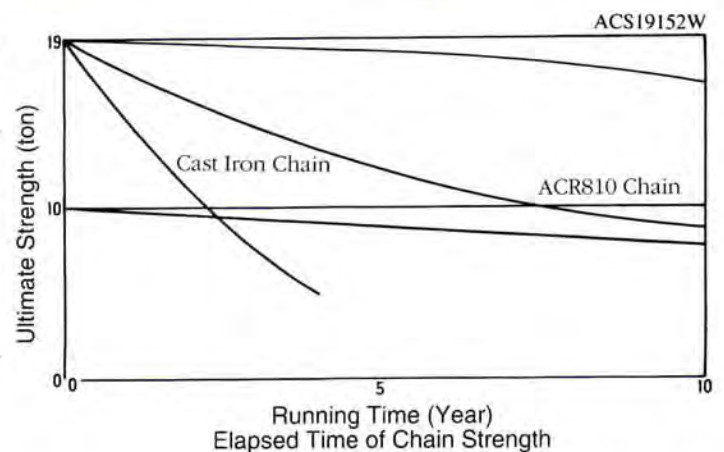
These chains are very strong and tenacious, outstandingly corrosion-resistant, and highly wearproof. Shoes also resist wear.

Be sure to use  $\odot$  and  $\circ$ , as the marks are convenient.

[illegible]

Sprockets for JIS roller chains can be used as they are.

We will custom-make this type of chains.

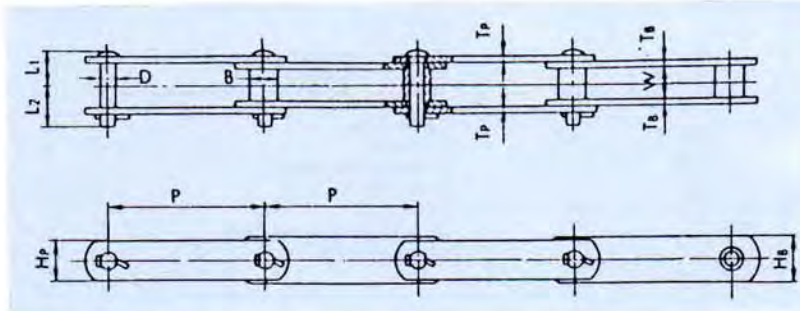


# ACS-TYPE

BANDO CHAIN

## ● ACS-type Chains

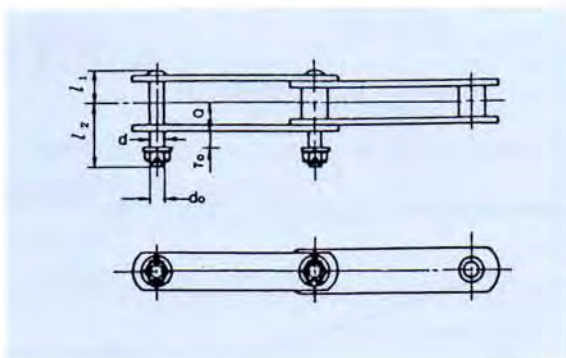
13Cr stainless steel parts are assembled securely into these chains. They are exceptionally wearproof and corrosion-resistant.



| Chain No. | Average Ultimate Strength (kgf) | Guaranteed Ultimate Strength (kgf) | Pitch P | Bush Bore B | Inner Width of Bush Link W | Pin        |                |                | Pin Link Plate           |                       | Bush Link Plate          |                       | Approx. Weight (kgf/m) |
|-----------|---------------------------------|------------------------------------|---------|-------------|----------------------------|------------|----------------|----------------|--------------------------|-----------------------|--------------------------|-----------------------|------------------------|
|           |                                 |                                    |         |             |                            | Diameter D | L <sub>1</sub> | L <sub>2</sub> | Thickness T <sub>P</sub> | Height H <sub>P</sub> | Thickness T <sub>B</sub> | Height H <sub>B</sub> |                        |
| ACS13078W | 13,500                          | 12,500                             | 78.11   | 23          | 26                         | 12.7       | 28             | 32             | 5                        | 33                    | 5                        | 36                    | 5.2                    |
| ACS13103W |                                 |                                    | 103.2   |             |                            |            |                |                |                          |                       |                          |                       | 4.6                    |
| ACS13152W |                                 |                                    | 152.4   |             |                            |            |                |                |                          |                       |                          |                       | 3.6                    |
| ACS15152W | 15,000                          | 14,000                             | 152.4   | 24          | 26                         | 13.5       | 29             | 33.5           | 5                        | 36                    | 6                        | 38                    | 4.8                    |
| ACS19152W | 19,000                          | 17,500                             | 152.4   | 26          | 30                         | 14.3       | 32             | 39.5           | 6                        | 38                    | 6                        | 44                    | 5.8                    |
| ACS25152W | 25,000                          | 23,000                             | 152.4   | 29          | 30                         | 15.9       | 35             | 41             | 6                        | 44                    | 7                        | 54                    | 7.9                    |
| ACS35152W | 53,000                          | 32,000                             | 152.4   | 35          | 38                         | 19.0       | 41             | 46             | 7                        | 54                    | 7                        | 60                    | 10.9                   |

## ● Long Pin Attachment (D<sub>22</sub>)

This easily attachable attachment is for buckets to pull up deposited grit. (For elevators)

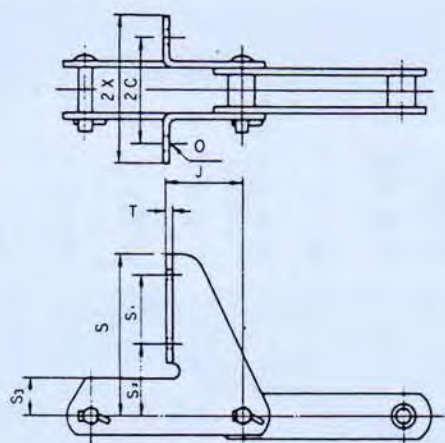


| Chain No. | Attachment Dimensions |                |                |                |      |                | Additional Weight (kg/set) |
|-----------|-----------------------|----------------|----------------|----------------|------|----------------|----------------------------|
|           | d                     | d <sub>0</sub> | ℓ <sub>1</sub> | ℓ <sub>2</sub> | Q    | T <sub>0</sub> |                            |
| ACS13078W | 12                    | M10            | 28             | 49             | 24   | 12             | 0.06                       |
| ACS13103W |                       |                |                |                |      |                | 0.06                       |
| ACS15152W | 13                    | M12            | 29             | 51             | 25   | 12             | 0.10                       |
| ACS19152W | 14                    | M12            | 32             | 59             | 28   | 16             | 0.11                       |
| ACS25152W | 15.5                  | M14            | 35             | 62             | 29   | 16             | 0.14                       |
| ACS35152W | 18.5                  | M16            | 41             | 72             | 34.2 | 19             | 0.20                       |

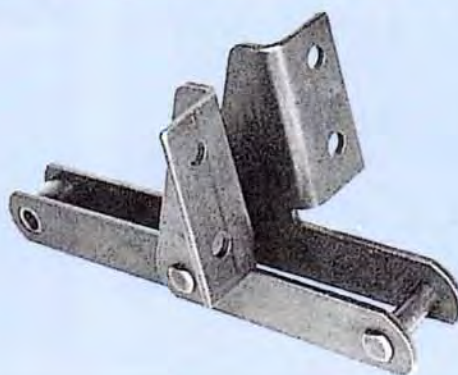


## ● SF4 Attachment

These are attached to flights of deposited grit carriers.

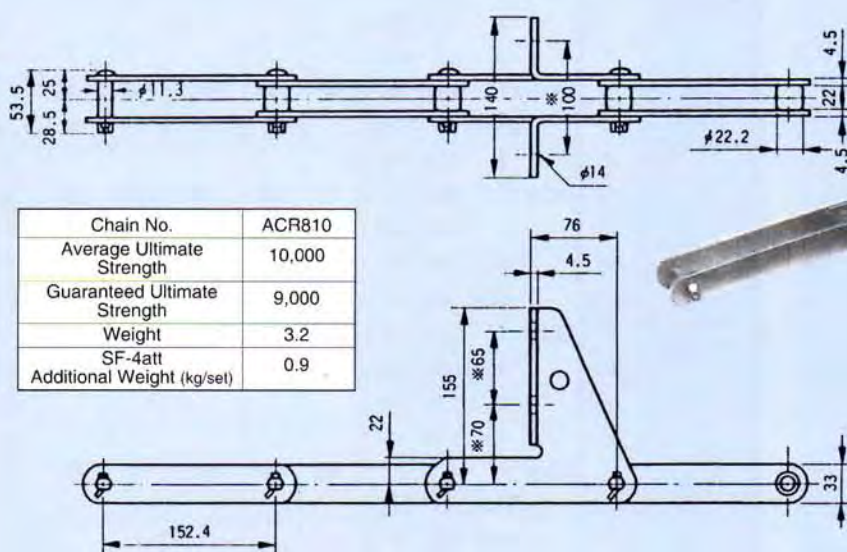


| Chain No. | Attachment Dimensions |       |    |     |                |                |                |    |   | Additional Weight (kg/set) |
|-----------|-----------------------|-------|----|-----|----------------|----------------|----------------|----|---|----------------------------|
|           | 2C                    | 2X    | J  | S   | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | O  | T |                            |
| ACS13078W |                       |       | 38 |     |                |                |                |    |   | 0.6                        |
| ACS13103W | 90                    | 131.5 | 52 | 110 | 35             | 55             | 28             | 14 | 5 | 0.7                        |
| ACS13152W |                       |       | 76 |     |                |                |                |    |   | 1.0                        |
| ACS15152W | 100                   | 143.5 | 76 | 155 | 65             | 70             | 35             | 14 | 5 | 1.2                        |
| ACS19152W | 100                   | 141.5 | 76 | 157 | 65             | 70             | 38             | 14 | 6 | 1.4                        |
| ACS25152W | 100                   | 143.5 | 76 | 154 | 65             | 70             | 38             | 14 | 6 | 1.4                        |
| ACS35152W | 110                   | 152.0 | 76 | 160 | 65             | 75             | 40             | 14 | 7 | 1.6                        |

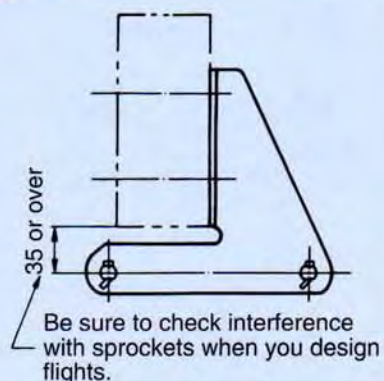
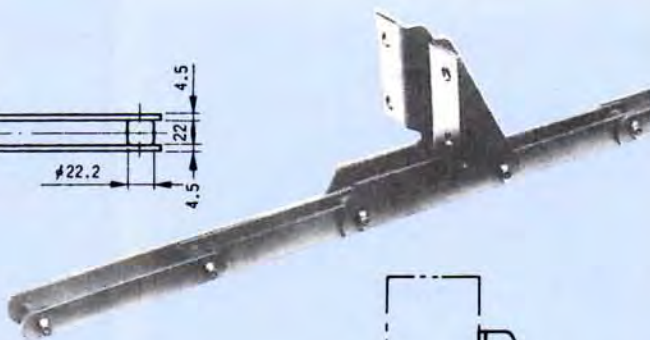


## ● ACR 810 Chains

Use a ACR 810 chain and teeth replacing sprocket as one set to lengthen the span of life.



|                              |        |
|------------------------------|--------|
| Chain No.                    | ACR810 |
| Average Ultimate Strength    | 10,000 |
| Guaranteed Ultimate Strength | 9,000  |
| Weight                       | 3.2    |
| SF-4att                      | 0.9    |
| Additional Weight (kg/set)   |        |

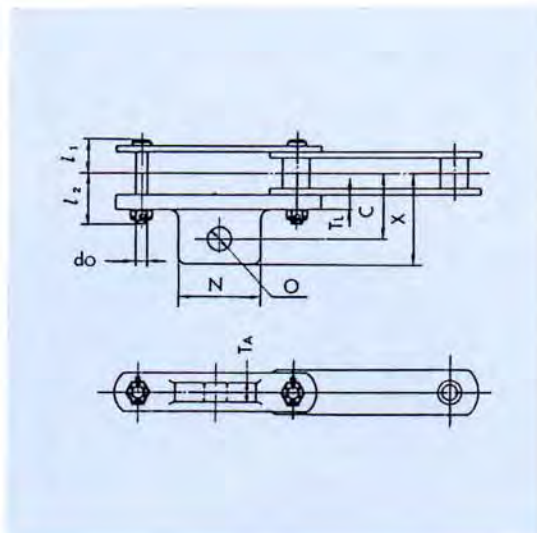


In addition to standard dimensions, ※ (Flight attachment dimensions) may be custom-made.

## ●LA-1 Attachment

This attachment is for buckets to pull up deposited grit.

Since buckets are supported by pin joints, overload does not work.

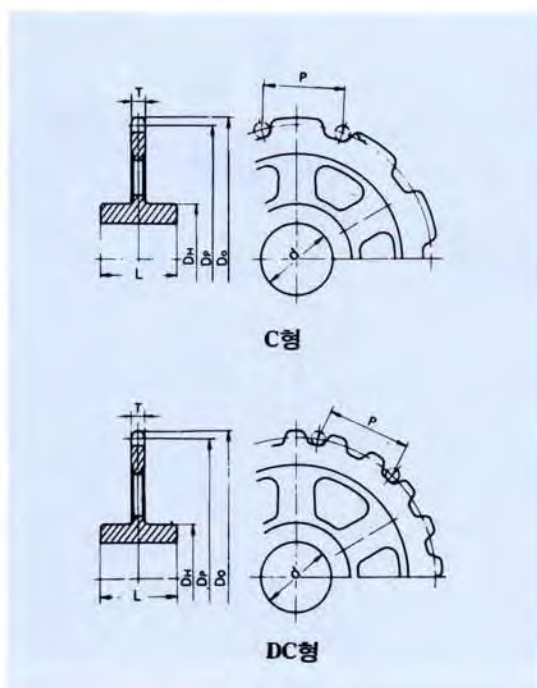


| Chain No. | Attachment Dimensions |                |                |    |     |    |    |                |                | Additional Weight (kg/set) |
|-----------|-----------------------|----------------|----------------|----|-----|----|----|----------------|----------------|----------------------------|
|           | do                    | ℓ <sub>1</sub> | ℓ <sub>2</sub> | C  | X   | N  | O  | T <sub>A</sub> | T <sub>L</sub> |                            |
| ACS13078W | M10                   | 29.5           | 41.5           | 55 | 77  | 40 | 19 | 16             | 12             | 0.4                        |
| ACS13103W |                       |                |                |    |     | 56 |    |                |                | 0.6                        |
| ACS15152W | M12                   | 30.5           | 44.5           | 55 | 77  | 68 | 19 | 16             | 12             | 0.8                        |
| ACS19152W | M12                   | 33.5           | 51.5           | 65 | 90  | 80 | 24 | 20             | 16             | 1.2                        |
| ACS25152W | M14                   | 36.5           | 53.5           | 65 | 90  | 80 | 24 | 20             | 16             | 1.4                        |
| ACS35152W | M16                   | 42.5           | 61.5           | 75 | 102 | 80 | 26 | 24             | 19             | 2.0                        |



## ●ACS All In One Sprockets

Globular graphite cast iron. Hardened teeth.



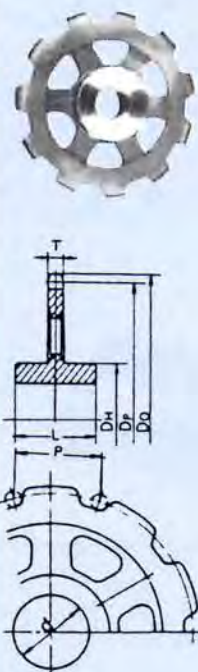
| Chain No.  | Type | Pitch P | No. of Teeth | Outside Diameter D <sub>o</sub> | Pitch Diameter D <sub>p</sub> | Bore Diameter d |      | Boss Bore D <sub>h</sub> | Boss Length L | Thickness of Teeth P | Approx. Weight (kg/set) |
|------------|------|---------|--------------|---------------------------------|-------------------------------|-----------------|------|--------------------------|---------------|----------------------|-------------------------|
|            |      |         |              |                                 |                               | Min.            | Max. |                          |               |                      |                         |
| ACS 13078W | C    | 78.11   | 9            | 250                             | 228.4                         | 60              | 90   | 140                      | 110           | 22                   | 15                      |
|            | C    |         | 11           | 300                             | 277.3                         |                 |      |                          |               |                      | 19                      |
|            | C    |         | 13           | 350                             | 326.4                         |                 |      |                          |               |                      | 22                      |
| ACS 13103W | C    | 103.2   | 9            | 325                             | 301.7                         | 60              | 90   | 140                      | 110           | 22                   | 21                      |
|            | C    |         | 11           | 390                             | 366.3                         |                 |      |                          |               |                      | 23                      |
|            | C    |         | 13           | 455                             | 431.2                         |                 |      |                          |               |                      | 28                      |
| ACS 15152W | C    | 152.4   | 9            | 470                             | 445.6                         | 70              | 110  | 170                      | 130           | 22                   | 38                      |
|            | DC   |         | 10.5         | 540                             | 517.0                         |                 |      |                          |               |                      | 40                      |
|            | C    |         | 11           | 565                             | 540.9                         |                 |      |                          |               |                      | 44                      |
| ACS 19152W | DC   | 152.4   | 10.5         | 545                             | 517.0                         | 90              | 130  | 200                      | 140           | 25                   | 52                      |
|            | 할형   |         | 10.5         | 545                             | 517.0                         |                 |      |                          |               |                      | 61                      |
|            | C    |         | 11           | 565                             | 540.9                         |                 |      |                          |               |                      | 55                      |
|            | DC   |         | 11.5         | 590                             | 564.9                         |                 |      |                          |               |                      | 56                      |
|            | 할형   |         | 11.5         | 590                             | 564.9                         |                 |      |                          |               |                      | 66                      |
| ACS 25152W | DC   | 152.4   | 10.5         | 545                             | 517.0                         | 90              | 130  | 200                      | 140           | 25                   | 54                      |
|            | C    |         | 11           | 570                             | 540.9                         |                 |      |                          |               |                      | 57                      |
|            | DC   |         | 11.5         | 595                             | 564.9                         |                 |      |                          |               |                      | 58                      |
| ACS 35152W | DC   | 152.4   | 10.5         | 550                             | 517.0                         | 90              | 130  | 200                      | 140           | 32                   | 59                      |
|            | C    |         | 11           | 575                             | 540.9                         |                 |      |                          |               |                      | 64                      |
|            | DC   |         | 11.5         | 600                             | 564.9                         |                 |      |                          |               |                      | 64                      |

Note) We supply sprockets of other dimensions as well as the above.

# JAC-TYPE

BANDO CHAIN

## ● JAC All In One Sprocket Globular graphite cast iron. Hardened teeth.

| Type                                                                               | Chain No.  | Pitch<br>P | No. of<br>Teeth | Outside<br>Diameter<br>D <sub>o</sub> | Pitch<br>Diameter<br>D <sub>p</sub> | Bore Diameter |         | Boss<br>Bore<br>D <sub>H</sub> | Boss<br>Length<br>L | Thickness<br>L | Weight<br>(kgf) |  |
|------------------------------------------------------------------------------------|------------|------------|-----------------|---------------------------------------|-------------------------------------|---------------|---------|--------------------------------|---------------------|----------------|-----------------|--|
|                                                                                    |            |            |                 |                                       |                                     | Minimum       | Maximum |                                |                     |                |                 |  |
|  | JAC08152-S | 152.4      | 9               | 461                                   | 445.6                               | 60            | 90      | 140                            | 100                 | 21             | 28              |  |
|                                                                                    |            |            | 10              | 509                                   | 493.2                               |               |         |                                |                     |                | 32              |  |
|                                                                                    |            |            | 11              | 557                                   | 540.9                               | 70            | 110     | 170                            | 120                 |                | 42              |  |
|                                                                                    |            |            | 12              | 604                                   | 588.8                               |               |         |                                |                     |                | 45              |  |
|                                                                                    | JAC10152-S | 152.4      | 9               | 466                                   | 445.6                               | 70            | 110     | 170                            | 120                 | 24             | 40              |  |
|                                                                                    |            |            | 10              | 514                                   | 493.2                               |               |         |                                |                     |                | 43              |  |
|                                                                                    |            |            | 11              | 561                                   | 540.9                               | 80            | 120     | 180                            | 130                 |                | 49              |  |
|                                                                                    |            |            | 12              | 609                                   | 588.8                               |               |         |                                |                     |                | 53              |  |
|                                                                                    | JAC10152-F | 152.4      | 9               | 481                                   | 445.6                               | 70            | 110     | 170                            | 120                 | 16             | 36              |  |
|                                                                                    |            |            | 10              | 528                                   | 493.2                               |               |         |                                |                     |                | 39              |  |
|                                                                                    |            |            | 11              | 576                                   | 540.9                               | 80            | 120     | 180                            | 130                 |                | 46              |  |
|                                                                                    |            |            | 12              | 624                                   | 588.8                               |               |         |                                |                     |                | 50              |  |
|                                                                                    | JAC 6205-S | 152.4      | 9               | 470                                   | 445.6                               | 80            | 120     | 180                            | 130                 | 30             | 46              |  |
|                                                                                    |            |            | 10              | 518                                   | 493.2                               |               |         |                                |                     |                | 50              |  |
|                                                                                    |            |            | 11              | 565                                   | 540.9                               | 100           | 140     | 220                            | 160                 |                | 71              |  |
|                                                                                    |            |            | 12              | 613                                   | 588.8                               |               |         |                                |                     |                | 75              |  |
|                                                                                    | JAC 6205-F | 152.4      | 9               | 491                                   | 445.6                               | 80            | 120     | 180                            | 130                 | 21             | 43              |  |
|                                                                                    |            |            | 10              | 539                                   | 493.2                               |               |         |                                |                     |                | 47              |  |
|                                                                                    |            |            | 11              | 586                                   | 540.9                               | 100           | 140     | 220                            | 160                 |                | 65              |  |
|                                                                                    |            |            | 12              | 634                                   | 588.8                               |               |         |                                |                     |                | 72              |  |
|                                                                                    | JAC21152-S | 152.4      | 9               | 474                                   | 445.6                               | 100           | 140     | 220                            | 160                 | 30             | 64              |  |
|                                                                                    |            |            | 10              | 521                                   | 493.2                               |               |         |                                |                     |                | 68              |  |
|                                                                                    |            |            | 11              | 569                                   | 540.9                               | 110           | 150     | 230                            | 170                 |                | 78              |  |
|                                                                                    |            |            | 12              | 617                                   | 588.8                               |               |         |                                |                     |                | 82              |  |
|                                                                                    | JAC26152-S | 152.4      | 9               | 477                                   | 455.6                               | 110           | 150     | 230                            | 170                 | 48             | 80              |  |
|                                                                                    |            |            | 10              | 524                                   | 493.2                               |               |         |                                |                     |                | 86              |  |
|                                                                                    |            |            | 11              | 572                                   | 540.9                               | 120           | 170     | 260                            | 190                 |                | 110             |  |
|                                                                                    |            |            | 12              | 620                                   | 588.8                               |               |         |                                |                     |                | 120             |  |

# 36. JAC-TYPE SEWAGE TREATMENT CHAINS

BANDO CHAIN

| Series | Chain No. | Average Ultimate Strength (kgf) | Guaranteed Ultimate Strength (kgf) | Inner Width of Bush Link W | S Roller Diameter R <sub>1</sub> | Roller                  |                  |                 |                      |   | Pin        |                |                | Link Plate   |     | Approx. Weight (kg/m) |          |
|--------|-----------|---------------------------------|------------------------------------|----------------------------|----------------------------------|-------------------------|------------------|-----------------|----------------------|---|------------|----------------|----------------|--------------|-----|-----------------------|----------|
|        |           |                                 |                                    |                            |                                  | Diameter R <sub>2</sub> | Fange Diameter F | Engaged Width E | Control Crisscross e | Z | Diameter D | L <sub>1</sub> | L <sub>2</sub> | H            | T   | S Roller              | F Roller |
| VJ     | JAC08152S | 15,000                          | 13,000                             | 26.2                       | 22.2                             | —                       | —                | —               | —                    | — | 11.1       | 31             | 34.5           | 28.6         | 6.3 | 3.9                   | —        |
|        | JAC10152S | 22,000                          | 20,000                             | 29.0                       | 29                               | —                       | —                | —               | —                    | — | 14.3       | 33             | 36             | 38.1         | 6.3 | 5.9                   | —        |
|        | JAC10152F | —                               | —                                  | —                          | —                                | 50.8                    | 65               | 20              | 3                    | 7 | —          | —              | —              | —            | —   | —                     | 80       |
|        | JAC 6205S | 28,000                          | 25,500                             | 35.9                       | 34.9                             | —                       | —                | —               | —                    | — | 15.9       | 40.5           | 43             | 44.5         | 7.9 | 9.3                   | —        |
|        | JAC 6205F | —                               | —                                  | —                          | —                                | 65                      | 85               | 24              | 4                    | 8 | —          | —              | —              | —            | —   | —                     | 14.5     |
|        | JAC21152S | 39,000                          | 35,000                             | 35.7                       | 40.1                             | —                       | —                | —               | —                    | — | 19.05      | 44.5           | 51             | 50.8         | 9.5 | 12.6                  | —        |
| PJ     | JAC26152S | 52,000                          | 47,000                             | 55.6                       | 44.5                             | —                       | —                | —               | —                    | — | 22.2       | 55.5           | 61             | 63.5         | 9.5 | 17.8                  | —        |
|        | JAC08152S | 14,500                          | 13,500                             | 27                         | 22.2                             | —                       | —                | —               | —                    | — | 11.1       | 31             | 34.5           | 38           | 6   | 5.0                   | —        |
|        | JAC10152S | 17,000<br>(19,000)              | 15,500<br>(17,500)                 | 30                         | 29                               | —                       | —                | —               | —                    | — | 14.3       | 33             | 36             | 38<br>(44)   | 6   | 5.6                   | —        |
|        | JAC10152F | 17,000<br>(19,000)              | 15,500<br>(17,500)                 | 30                         | —                                | 50.8                    | 65               | 20              | 3                    | 7 | 14.3       | 33             | 36             | 38<br>(44)   | 6   | —                     | 7.9      |
|        | JAC 6205S | 24,000<br>(27,000)              | 22,000<br>(25,000)                 | 37.1                       | 34.9                             | —                       | —                | —               | —                    | — | 15.9       | 39.5           | 42             | 44.5<br>(54) | 7   | 8.2                   | —        |
|        | JAC 6205F | 24,000<br>(27,000)              | 22,000<br>(25,000)                 | 37.1                       | —                                | 65                      | 85               | 24              | 4                    | 8 | 15.9       | 39.5           | 42             | 44.5<br>(54) | 7   | —                     | 13.3     |
| SJ     | JAC21152S | 36,000                          | 33,000                             | 37.1                       | 40.1                             | —                       | —                | —               | —                    | — | 19.05      | 44             | 50             | 54           | 9   | 12.8                  | —        |
|        | JAC26152S | 50,000                          | 46,000                             | 55.2                       | 44.5                             | —                       | —                | —               | —                    | — | 22.2       | 56             | 61.5           | 63.5         | 10  | 18.6                  | —        |
|        | JAC08152S | 7,000                           | 6,000                              | 27                         | 22.2                             | —                       | —                | —               | —                    | — | 11.1       | 31             | 34.5           | 28.6         | 6   | 3.8                   | —        |
|        | JAC10152S | 11,000                          | 9,500                              | 30                         | 29                               | —                       | —                | —               | —                    | — | 14.3       | 33             | 36             | 38.1         | 6   | 5.6                   | —        |
|        | JAC10152F | —                               | —                                  | —                          | —                                | 50.8                    | 65               | 20              | 3                    | 7 | —          | —              | —              | —            | —   | —                     | 7.9      |
|        | JAC 6205S | 13,500                          | 11,500                             | 37.1                       | 34.9                             | —                       | —                | —               | —                    | — | 15.9       | 40.5           | 43             | 44.5         | 8   | 9.1                   | —        |
| PJV    | JAC 6205F | —                               | —                                  | —                          | —                                | 65                      | 85               | 24              | 4                    | 8 | —          | —              | —              | —            | —   | —                     | 14.2     |
|        | JAC21152S | 19,000                          | 16,000                             | 37.1                       | 40.1                             | —                       | —                | —               | —                    | — | 19.05      | 45.5           | 52             | 50.8         | 10  | 13.3                  | —        |
| PJW    | JAC26152S | 25,500                          | 21,500                             | 57.2                       | 44.5                             | —                       | —                | —               | —                    | — | 22.2       | 56.5           | 62             | 63.5         | 10  | 18.8                  | —        |

Note) 1. Offset links are also available.

2. PJ type JAC10152-JAC6205 include heavy series, of which the strength is parenthesized.  
Height (44) and (54) are for bush link plates, while 38 and 44.5 are for pin link plates.

3. If you use chains at a place where shellfishes or seaweed live, run them every 2 to 3 weeks.

Corrosion resistance and strength are especially important to dust remover chains.  
We standardized chains so that you can select out of a wide range of products to the purpose.

## ● Series of JAC-type Chains

| Series | Features                                                           | Materials                    |      |                     |            |                                           |
|--------|--------------------------------------------------------------------|------------------------------|------|---------------------|------------|-------------------------------------------|
|        |                                                                    | Pin                          | Bush | S Roller            | Link Plate | F Roller                                  |
| VJ     | Adopt highly wearproof and strong anti-stick ※                     | 13Cr stainless steel treated | —    | rigid steel treated | —          | quality cast iron, or rigid steel treated |
| PJ     | Excellent in abrasion and corrosion resistance.                    | 13Cr stainless steel treated | —    | —                   | —          | —                                         |
| SJ     | Most corrosion-resistant                                           | 18-8 stainless steel         | —    | —                   | —          | —                                         |
| PJV    | F roller replacing type. Best to prevent chains from get derailed. | 13Cr stainless steel treated | —    | —                   | —          | —                                         |

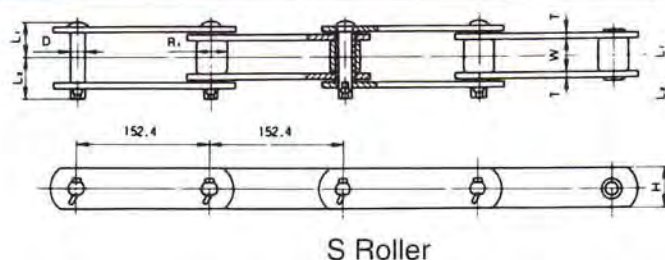


※ Anti-stick is a feature to prevent defective bends.

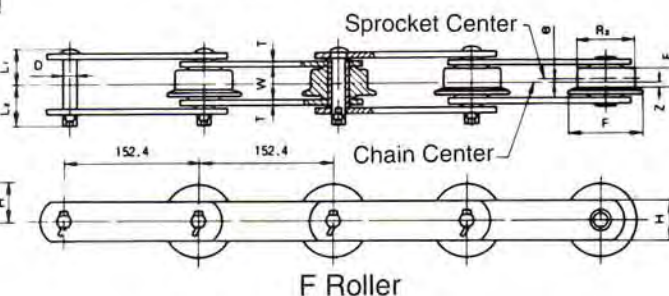
## Chain Numbering System

**JAC10152F**      **A2(I)**      **PJ**  
Chain No.      Type of Attachment      Series

## VJ · PJ · SJ Specifications



S Roller

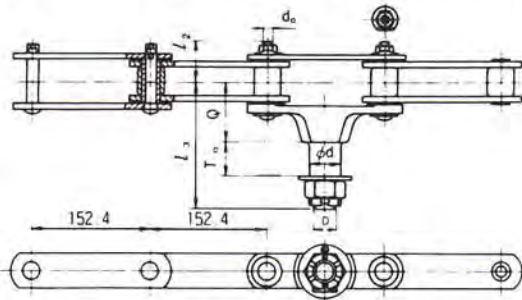


F Roller

# JAC-TYPE

BANDO CHAIN

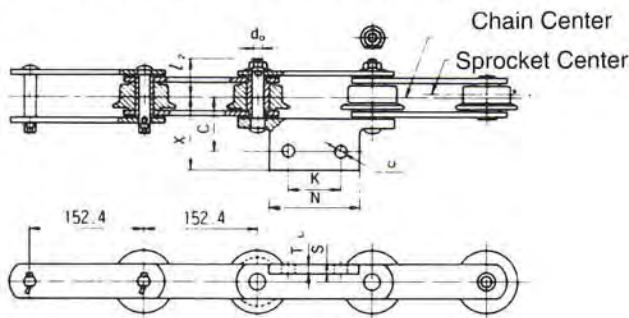
## ● Y Attachment for Automatic Rake Reversing Dust Removers



| Series   | Chain No. | Attachment Dimensions |                |     |    |       |                |    | Additional Weight (kg/set) |
|----------|-----------|-----------------------|----------------|-----|----|-------|----------------|----|----------------------------|
|          |           | d                     | d <sub>o</sub> | D   |    | Q     | T <sub>o</sub> |    |                            |
| VJ<br>PJ | JAC08152S | 25                    | M10            | M20 | 38 | 120   | 60             | 30 | 1.1                        |
|          | JAC10152S | 35                    | M12            | M27 | 42 | 148.5 | 70             | 40 | 1.9                        |
|          | JAC6205S  | 40                    | M12            | M30 | 49 | 164.5 | 78             | 44 | 2.7                        |
|          | JAC08152S | 45                    | M16            | M36 | 55 | 174   | 78             | 46 | 3.2                        |
|          | JAC08152S | 50                    | M16            | M45 | 65 | 204   | 95             | 50 | 5.1                        |



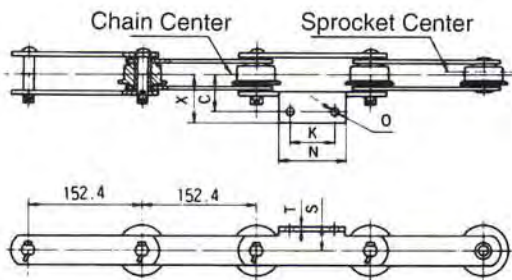
## ● A-2 Attachment(Type I) for Automatic Fixed-rake Dust Removers



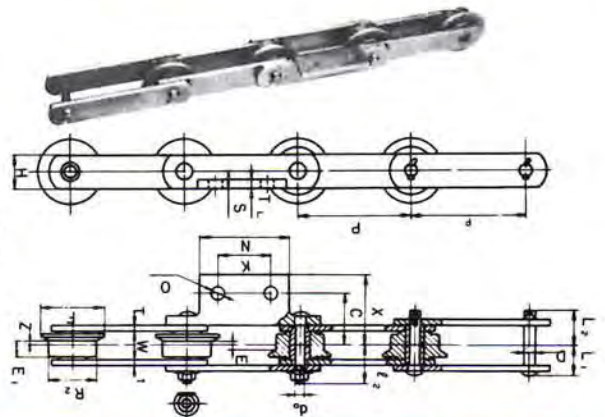
| Series         | Chain No. | Attachment Dimensions |    |    |    |    |     |      |    |                | Additional Weight<br>(kg/m/set) |
|----------------|-----------|-----------------------|----|----|----|----|-----|------|----|----------------|---------------------------------|
|                |           | d <sub>o</sub>        |    | C  | X  | K  | N   | S    | O  | T <sub>i</sub> |                                 |
| VJ<br>PJ<br>SJ | JAC10152F | M12                   | 42 | 60 | 80 | 65 | 110 | 19.0 | 15 | 9.5            | 0.6                             |
|                | JAC6205F  | M12                   | 49 | 70 | 95 | 70 | 120 | 22.2 | 18 | 12             | 0.9                             |



## ● A-2 Attachment(Type II) for Deposited Grit Carriers



| Series         | Chain No. | Attachment Dimensions |    |    |     |    |    |         |         |         | Additional Weight<br>(kg/m/set) |
|----------------|-----------|-----------------------|----|----|-----|----|----|---------|---------|---------|---------------------------------|
|                |           | C                     | X  | K  | N   | S  | O  | T       |         |         |                                 |
|                |           |                       |    |    |     |    |    | WJ TYPE | PJ TYPE | SJ TYPE |                                 |
| VJ<br>PJ<br>SJ | JAC10152F | 50                    | 65 | 60 | 90  | 32 | 12 | 6.3     | 6       | 6       | 0.20                            |
|                | JAC6205F  | 60                    | 79 | 60 | 100 | 38 | 15 | 7.9     | 7       | 8       | 0.37                            |



## PJW Series

### ● Type I For Automatic Fixed-Rake Dust Removers



| Series | Chain No. | Average Ultimate Strength (kgf) | Guaranteed Ultimate Strength (kgf) | Pitch P | Inner Width of Bush Link W | F Roller                         |                   |    |                |    | Pin        |                |                | Link Plate |   | Approx. Weight (kgf/m) |
|--------|-----------|---------------------------------|------------------------------------|---------|----------------------------|----------------------------------|-------------------|----|----------------|----|------------|----------------|----------------|------------|---|------------------------|
|        |           |                                 |                                    |         |                            | S Roller Diameter R <sub>1</sub> | Flange Diameter F | E  | E <sub>1</sub> | Z  | Diameter D | L <sub>1</sub> | L <sub>2</sub> | H          | T |                        |
| PJW    | JAC10152F | 17,000                          | 15,500                             | 152.4   | 36.2                       | 50.8                             | 65                | 20 | 26             | 10 | 14.3       | 36.5           | 39.5           | 38         | 6 | 8.3                    |
|        |           | (19,000)                        | (17,500)                           |         |                            |                                  |                   |    |                |    |            |                |                | (44)       |   |                        |
|        | JAC6205F  | 24,000                          | 22,000                             | 152.4   | 44.5                       | 65                               | 85                | 24 | 32             | 12 | 15.9       | 43             | 45.5           | 44.5       | 7 | 14.4                   |
|        |           | (27,000)                        | (25,000)                           |         |                            |                                  |                   |    |                |    |            |                |                | (54)       |   |                        |

| Series | Chain No. | Attachment Dimensions |                |    |    |    |     |      |    |                | Additional Weight (kg/m/set) |
|--------|-----------|-----------------------|----------------|----|----|----|-----|------|----|----------------|------------------------------|
|        |           | d <sub>o</sub>        | l <sub>2</sub> | C  | X  | K  | N   | S    | O  | T <sub>i</sub> |                              |
| PJW    | JAC10152F | M12                   | 45             | 63 | 83 | 65 | 110 | 19.0 | 15 | 9.5            | 0.6                          |
|        | JAC6205F  | M12                   | 51.5           | 74 | 99 | 70 | 120 | 22.2 | 18 | 12             | 0.9                          |

Note) Parenthesized strength is for heavy series. Parenthesized number 44 and 54 are for bush link plates, and 38 and 44.5 are for pin link plates.

## 37. BF-TYPE CHAINS (Sewage Treatment Driving Chains)

BANDO CHAIN

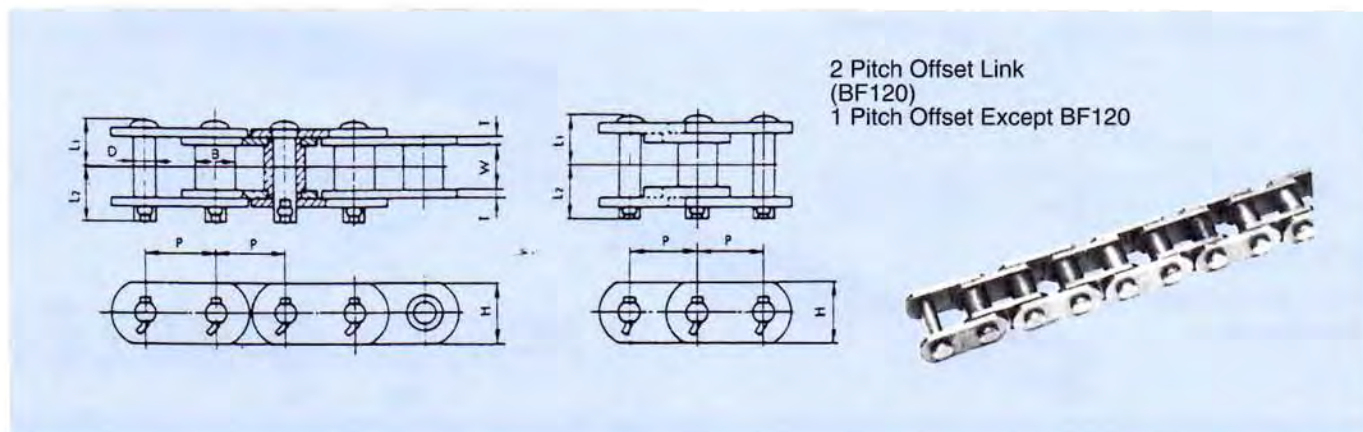
### ■ Sewage Treatment Driving Chains



13Cr stainless steel parts are treated for corrosion resistance and strength.

Sprockets for KS roller chains are used as they are.

Enlarged diameter of the pin improves wear resistance.



| Chain No. | Average Ultimate Strength (kgf) | Guaranteed Ultimate Strength (kgf) | Pitch P | Bush Diameter B | Inner Width of Bush Link B | Link Plate  |         | Pin        |                |                | Approx. Weight (kgf/m) |
|-----------|---------------------------------|------------------------------------|---------|-----------------|----------------------------|-------------|---------|------------|----------------|----------------|------------------------|
|           |                                 |                                    |         |                 |                            | Thickness T | Width H | Diameter D | L <sub>1</sub> | L <sub>2</sub> |                        |
| BF120     | 11,000                          | 10,100                             | 38.1    | 22.23           | 25.4                       | 5           | 33.0    | 12.70      | 27.5           | 31.5           | 6.8                    |
| BF140     | 14,000                          | 13,000                             | 44.45   | 25.40           | 25.4                       | 6           | 38.0    | 14.45      | 29.5           | 37.0           | 9.5                    |
| BF160     | 18,500                          | 17,000                             | 50.80   | 28.57           | 31.7                       | 6           | 44.0    | 15.78      | 34.5           | 40.5           | 10.9                   |
| BF200     | 31,500                          | 29,000                             | 63.50   | 39.69           | 38.1                       | 9           | 54.0    | 22.10      | 45.5           | 50.5           | 20.7                   |
| BF240     | 40,000                          | 37,000                             | 76.20   | 47.62           | 47.6                       | 10          | 63.5    | 25.27      | 53.5           | 57.5           | 27.8                   |

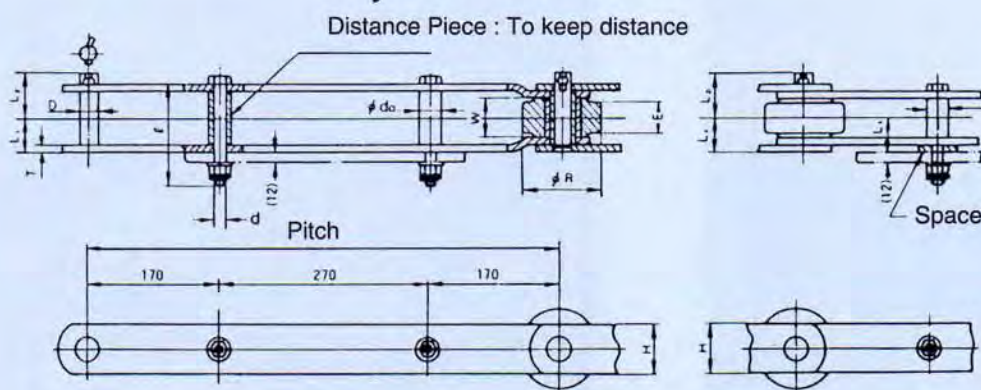
## 38. WAC-TYPE CHAINS (Water Screen Transfer Chains)

BANDO CHAIN

These chains are used for automatic refiners of cooling water at thermal power plants.

Bushes are made of 13Cr stainless steel, and rollers are made of globular graphite cast iron or 13Cr stainless steel. They provide corrosion and abrasion resistance against friction in seawater and in the air.

Special grease employed inside rollers makes it easy to use seawater instead of lubricants.



Chain pitch and attachment dimensions are changeable.



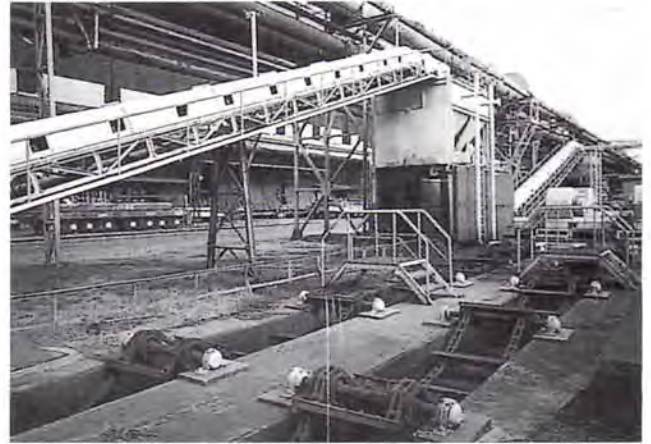
| Chain No.  | Type | Average Ultimate Strength (kgf) | Guaranteed Ultimate Strength (kgf) | Roller |    | Inner Width w | Link Plate |      | Pin        |                |                | Distance Piece |     |     | Approx. Weight (kg/m) |
|------------|------|---------------------------------|------------------------------------|--------|----|---------------|------------|------|------------|----------------|----------------|----------------|-----|-----|-----------------------|
|            |      |                                 |                                    | P      | E  |               | T          | H    | Diameter D | L <sub>1</sub> | L <sub>2</sub> | d <sub>0</sub> | d   | l   |                       |
| WAC 25610  | RO   | 25,000                          | 22,000                             | 100    | 41 | 50            | 9.5        | 63.5 | 22.2       | 45.0           | 57.0           | 27.2           | M16 | 130 | 17.0                  |
| WAC 32610  | RO   | 32,200                          | 28,000                             | 100    | 41 | 50            | 12.7       | 63.5 | 26.1       | 51.5           | 65.5           | 27.2           | M16 | 140 | 20.3                  |
| WAC 45610  | RO   | 45,000                          | 39,000                             | 100    | 41 | 50            | 12.7       | 76.2 | 26.1       | 51.5           | 65.5           | 27.2           | M16 | 145 | 23.8                  |
| WAC 55610  | RO   | 55,000                          | 47,000                             | 100    | 41 | 50            | 12.7       | 76.2 | 26.1       | 51.5           | 65.5           | 27.2           | M16 | 140 | 23.8                  |
| WAC 65610  | RO   | 65,000                          | 56,000                             | 110    | 41 | 50            | 16         | 76.2 | 31.8       | 58.7           | 76.3           | 27.2           | M20 | 165 | 30.0                  |
| WAC 75610  | RO   | 75,000                          | 64,000                             | 110    | 60 | 66.7          | 16         | 80   | 31.8       | 67.0           | 84.0           | 27.2           | M20 | 180 | 34.0                  |
| WAC 100610 | RF   | 100,000                         | 85,000                             | 120    | 60 | 66.7          | 22         | 100  | 35.0       | 79.0           | 97.0           | 27.2           | M20 | 210 | 53.1                  |
| WAC 120610 | RF   | 120,000                         | 102,000                            | 140    | 62 | 70            | 22         | 115  | 40.0       | 80.7           | 98.0           | 27.2           | M20 | 210 | 64.5                  |
| WAC 150610 | RF   | 150,000                         | 128,000                            | 150    | 72 | 80            | 25         | 120  | 44.4       | 91.5           | 110.0          | 38.1           | M24 | 240 | 80.0                  |

# APPLICATIONS OF CONVEYOR CHAINS

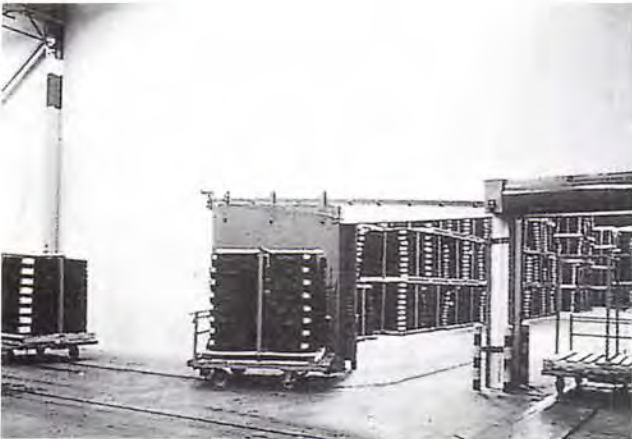
Sewage Treatment Plant



Setting Pond Plant



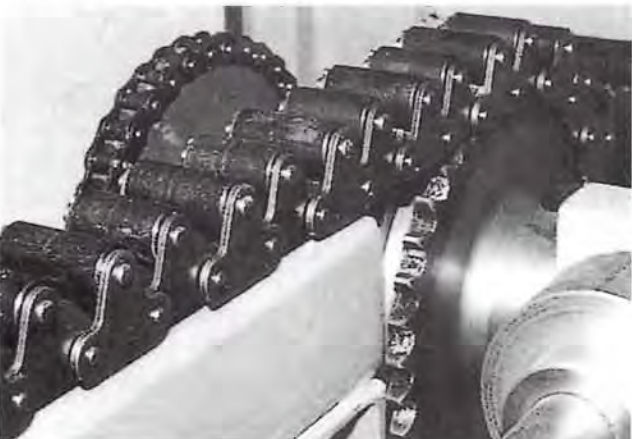
Tow Conveyor



Overhead Conveyor



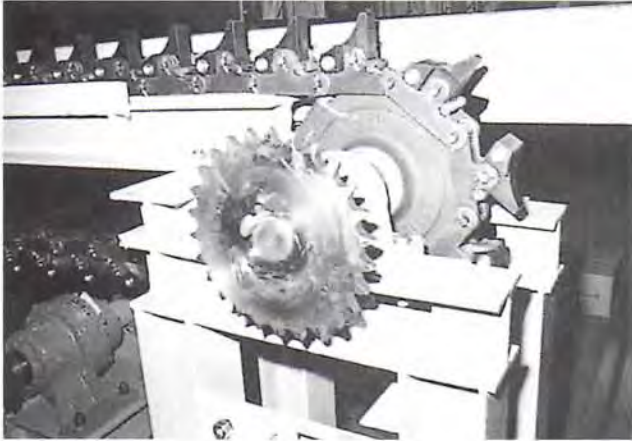
Top Roller Conveyor



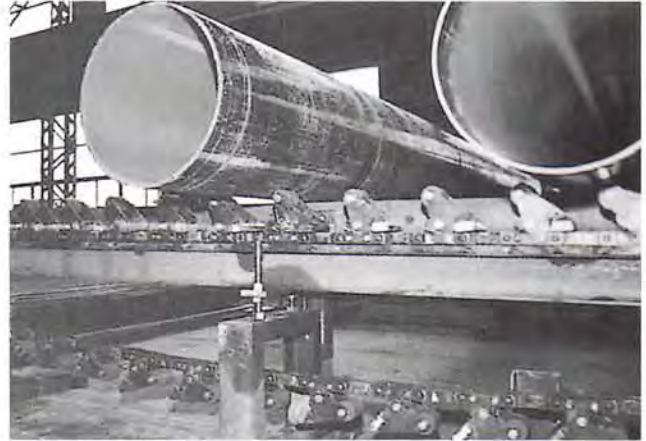
Parking Facilities



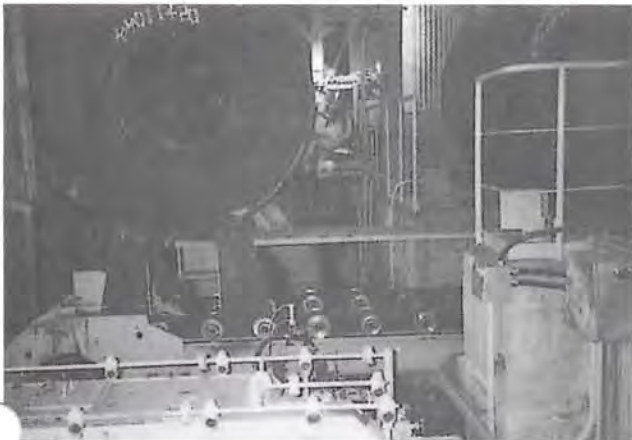
Pusher Conveyor



Steel Pipe Conveyor



Cold Rolled Coil Conveyor



Shipbuilding Materials Conveyor



Hot Rolled Coil Conveyor



Flat Plate Conveyor



# APPLICATIONS OF CONVEYOR CHAINS

BANDO CHAIN

Pan Conveyor



Hinged Bucket Conveyor



Aprovator



Apron Conveyor



Top Conveyor



Slat Conveyor



# **Conveyor Chain Technology**

## 39. ATTACHMENT, ADJUSTMENT & MAINTENANCE

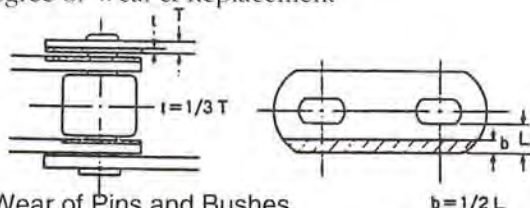
### ■ Life Span of Chains and Sprockets

Over an extended period of use, wear appears on each part of a chain. The life is determined by the wear of parts including link plates, pins, bushes, rollers, and sprockets, and elongation of chain pitch.

#### 1) Wear of Link Plate

Friction between cases and the bottom, between link plates, and between the inside of link plates and the side of rollers causes wear.

#### Degree of Wear & Replacement



#### 2) Wear of Pins and Bushes

When chains engage with sprockets, chains are flexed. Wear of pins and the inside of bushes causes chain pitch to elongate, thus increasing the overall length of chains.

#### Degree of Wear & Replacement

| Parts | Carburization                                        | Quenching                                                |
|-------|------------------------------------------------------|----------------------------------------------------------|
|       | $p/D=0.975$                                          | $p/D=0.85$                                               |
|       | The inside or the outside wears away 0.025D or more. | Minimum Thickness $t$<br>$t=(R-b) \times 1/2 \times 0.5$ |

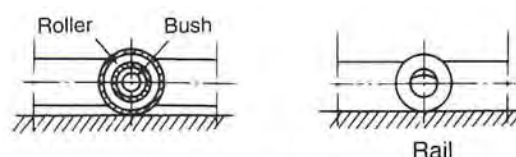
#### 3) Wear of Rollers

Wear of the outside of rollers does not have great influence on functions, as compared with other parts. In case of R or F rollers, however, when wear of rollers causes the bottom of link plates to come into contact with the rail, pins and bushes begin to wear more quickly and higher frictional resistance results in higher

tension and smaller power output of the drive.

If wear has progressed to this point it is time to replace the chain.

S roller chains properly engaged with sprockets can be used until holes or crevices appear on rollers.



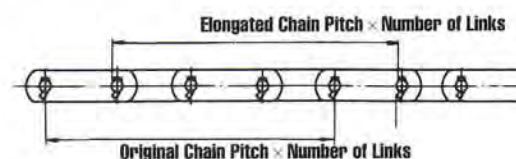
Wear of Rollers

#### 4) Elongation of Chain Pitch

When chains engage with sprockets (special drive) or run over the corner of rail, wear occurs on pins and bushes, elongating chain pitch.

Chains should be replaced when it elongates by over 2 to 3% of the original pitch.

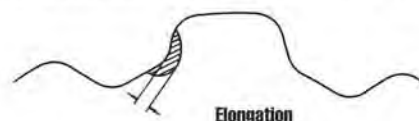
To check chain pitch, measure at least 4 pitches under proper tension as shown below.



To Check Chain Elongation

#### 5) Wear of Sprockets

Sprocket teeth worn as shown below cause chains to cling to sprockets and operate roughly. It can be remedied by grinding and raise-welding the portion, or by assembling the sprocket reversely. The degree of wear at the root of teeth depends on the speed of the chain and the life span of sprockets depends on the types of conveyors and the size of chains. Generally, you should take a remedial action or replace sprockets when it reaches 3 to 6mm.



Note : Select a DF 2B-B welding electrode and welded metal with hardness of HV350 ~ HV600 in consideration of the state of abrasion. If sprockets wear so much that they require basic welding, use a D4316 electrode.

## ● Lubrication

Regular lubrication will reduce wear and greatly extend the life of chains.

But do not lubricate the chains that will be covered with conveyed materials. If partially contacted like apron conveyors, take it into account to decide whether to lubricate or not.

- Parts to be lubricated: Between Pins and Bushes  
Between Bushes and Rollers  
Between Links
- Recommended Oil: SAE 30 (-10℃ ~ 0℃)  
SAE 40 (0℃ ~ 40℃)
- Interval: Once a week
- Method: Manual Application or Dripping

## ● Adjusting the Length of Chains

Chains operate improperly if they are too tight or too slack. Excessive slack may result in chains entangled with sprockets or interference with rails. Check and adjust the length regularly.

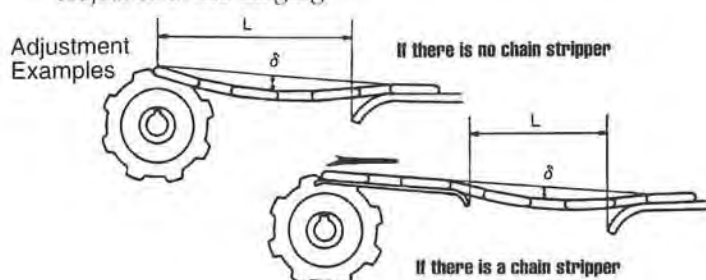
Checkup (If operated 8 hours a day)

|                                      |               |
|--------------------------------------|---------------|
| Within 1 week after first operation  | once a month  |
| Within 1 month after first operation | once a week   |
| After 1 month                        | twice a month |

Note) Check more frequently if chains are subject to continuous operation, repeated load, high heat, or corrosion.

## Priorities for Tension Adjustment

- \* Make chains easily taken off from sprockets.
- \* Secure enough space for chains or aprons not to interfere with the frame or rail.
- \* Adjust to avoid surging.



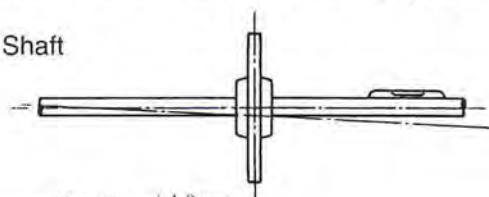
|                                    |                             |
|------------------------------------|-----------------------------|
| Horizontal Flow Conveyor           | $\delta = 1/10L \sim 1/20L$ |
| For repeated operation and stop    |                             |
| For high-speed operation (25m/min) | $\delta = 1/15L \sim 1/25L$ |
| For large or heavy chains          |                             |
| For hot materials to be conveyed   |                             |

## ● Sprocket Alignment

Properly aligned sprockets and shafts will ensure long life service of conveyor chains.

Vibration during operation, ground subsidence, etc. may change the alignment, causing wear of the side of sprockets and damage to chains. The following points should be observed when installing sprockets.

### Level of Shaft



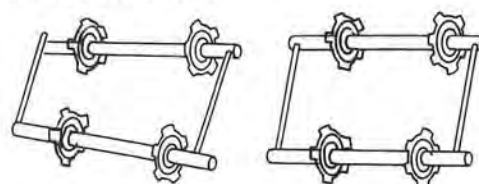
Flow Conveyor: Within  $\pm 1.0\text{mm}$

Bucket Conveyor: Within  $\pm 1.0\text{mm}$

Long Pan Conveyor: Within  $\pm 1.0\text{mm}$

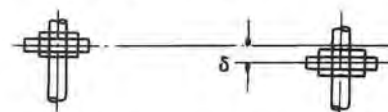
Slat Conveyor: Within  $\pm 1.0\text{mm}$

### Parallelness of Shafts



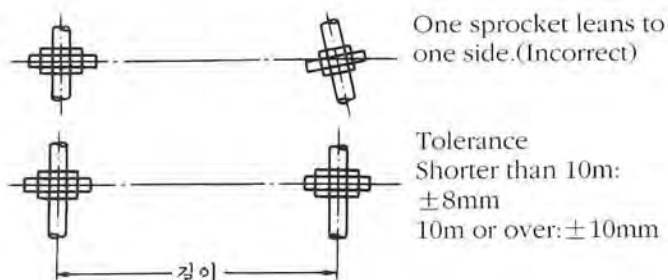
Parallel alignment of shafts to be within  $\pm 1\text{mm}$ .

### Alignment of Sprockets



Align the drive sprocket with the tail wheel.

Flow Conveyor: Within  $\delta = 1\text{mm}$   
 Bucket Conveyor: Within  $\delta = 2\text{mm}$   
 Long Pan Conveyor: Within  $\delta = 1\text{mm}$   
 Slat Conveyor: Within  $\delta = 1\text{mm}$



## 40. TROUBLESHOOTING

BANDO CHAIN

| Problem                                                          | Cause                                                    | Solution                                                                                                                                                   |
|------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The inside of link plates or the side of sprocket teeth is worn. | Sprockets are improperly aligned.                        | Take off chains and realign sprockets.                                                                                                                     |
|                                                                  | Chains are horizontally pressed.                         | Get rid of the cause. Use the guide shoe and the guide roller.                                                                                             |
|                                                                  | Sprockets are swaying.                                   | Replace the sprocket with a new one.                                                                                                                       |
| Rollers do not revolve smoothly.                                 | Overload on rollers                                      | Lubricate between bushes and rollers. Select proper parts (GT, bearing, rollers, etc.).                                                                    |
|                                                                  | Foreign substances between bushes and rollers            | Clean regularly. Protect chains with partitions. Select chains whose bushes are at a longer distance from rollers.                                         |
|                                                                  | Foreign substances piled on the rail                     | Clean regularly. Protect chains with partitions.                                                                                                           |
|                                                                  | Lubricant stuck on the surface of rollers or the rail    | Use a proper lubricant and lubrication method.                                                                                                             |
|                                                                  | Rusty bushes/rollers                                     | Select proper chains(KT).                                                                                                                                  |
| Defective bent                                                   | Rusted                                                   | Protect chains with partitions. Select proper chains(MT).                                                                                                  |
|                                                                  | Foreign substances between pins and bushes               | Protect chains with partitions. Select chains whose pins are at a longer distance from bushes.                                                             |
| Chains entangled with sprockets                                  | Excessive slack                                          | Take up the slack, or insert a tightener.                                                                                                                  |
|                                                                  | Sprockets are worn.                                      | Replace the chain with a new one.                                                                                                                          |
| Chains caught on sprockets stop or roll up.                      | Chains are not suitable for sprockets.                   | Replace either chains or sprockets with new ones.                                                                                                          |
|                                                                  | Severe overload                                          | Reduce load. (by attaching a shock absorber or so.)                                                                                                        |
|                                                                  | Worn and elongated chain                                 | Replace the chain with a new one.                                                                                                                          |
| Chains stick-slip and surge.                                     | Too slow                                                 | Speed up operation.                                                                                                                                        |
|                                                                  | Others                                                   | Improve strength of frame. Choose a bigger numbered chain which has the feature of protection against surging. Take up the slack of driving roller chains. |
| Sprocket tooth root is worn.                                     | Insufficient engaged teeth                               | Increase teeth.                                                                                                                                            |
|                                                                  | Others                                                   | Use treated sprockets or tooth-replacing sprockets.                                                                                                        |
| The inner link holes of block chains or pins are worn.           | Excessive inside tension                                 | Attach a piece to sprockets. Lubricate both chains and sprockets.                                                                                          |
| Noise                                                            | Insufficient lubrication of the bush/roller contact part | Lubricate enough. Adopt bearing rollers or plastic rollers.                                                                                                |
|                                                                  | Insufficient lubrication of the pin/bush contact part    | Lubricate enough.                                                                                                                                          |
|                                                                  | Collision of rollers and sprockets                       | Lubricate sprocket teeth. Adopt plastic rollers.                                                                                                           |

# 41. SELECTION OF CONVEYOR CHAINS

BANDO CHAIN

## 1. Types of Chains

Choose an appropriate and economical type of chains in consideration of the shape of attachments, properties of goods to be conveyed, and treatment method.

Please refer to the following table for selection.

| Type of Roller | Use                            | Feature                                                        |
|----------------|--------------------------------|----------------------------------------------------------------|
| Type S         | Bucket Elevator, Flow Conveyor | less corrosive flow conveyor (grains, feed, etc.)              |
| Type R         | Slat, Apron Conveyor           | conveyors whose shafts are at a short distance from each other |
| Type F         | Slat, Apron Conveyor           | conveyors whose shafts are at a long distance from each other  |
| Type M         | Flow Conveyor                  | corrosive conveyor(cement, cokes, etc)                         |

## 2. Types of Attachments

Select an economical type of attachments in consideration of the shapes.

## 3. Selecting Chain Pitch

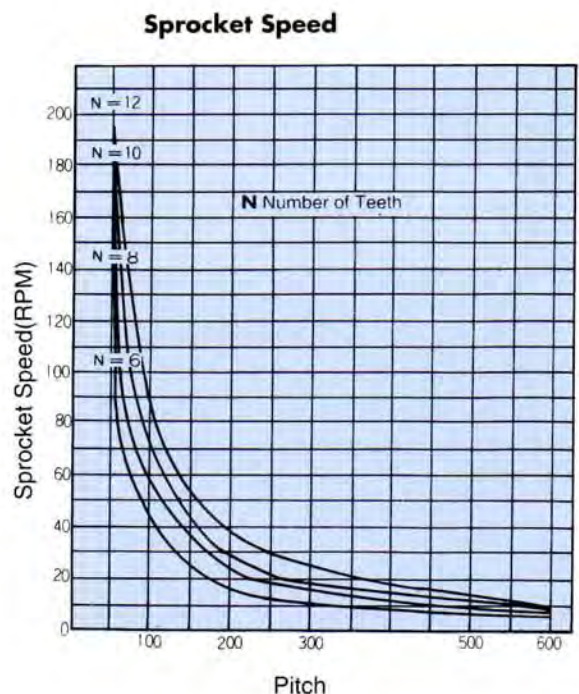
Chain dimensions can be decided roughly, for the sizes of attachments depend on the kinds of conveyors, shapes of goods to be conveyed, capacity, speed, etc.

As shown right in the graph, chain pitch is limited by the speed of the sprocket and the number of teeth.

Sprocket speed  $n$  is obtained by this equation:

$$\text{*Sprocket Speed (RPM)} = \frac{1000 \times \text{Chain Speed(m/min)}}{\text{Number of Teeth} \times \text{Pitch(mm)}}$$

Choose the smallest pitch which meets your requirements. It will reduce damages caused by shocks and help extend the life of the chain.



# 41. SELECTION OF CONVEYOR CHAINS

BANDO CHAIN

## 4. Tension on Chains

The maximum tension on a chain and power requirement can be figured out with the following formulas.

### ●[Tab.1] Tension Calculation

| Conveyance            |                                     |                                                               | Formula                                                                                                                                                       | Remarks                                                                                                                                                                 |
|-----------------------|-------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Horizontal Conveyance | When materials are put on conveyors | For packages (refrigerators, boxes, etc.)                     | $T = (W + 2.1M \cdot C) \cdot f_1$ $KW = \frac{T \cdot S}{5565} \cdot \frac{1}{\eta}$                                                                         |                                                                                                                                                                         |
|                       |                                     | For powdery or scattered matters (grains, gravel, sand, etc.) | $T = (16.7 \frac{Q}{S} + 2.1M) \cdot C \cdot f_1$ $KW = \frac{T \cdot S}{5565} \cdot \frac{1}{\eta}$                                                          |                                                                                                                                                                         |
|                       | When materials are scraped along    |                                                               | $T = (16.7 \frac{Q}{S} \cdot f_2 + 2.1M \cdot f_1) \cdot C$ $KW = \frac{T \cdot S}{5565} \cdot \frac{1}{\eta}$                                                |                                                                                                                                                                         |
| Vertical Conveyance   |                                     | For packages                                                  | $T = W + M \cdot C$ $KW = \frac{T \cdot S}{5565} \cdot \frac{1}{\eta}$                                                                                        | For bucket elevators, add 1m to the actual figure of C.<br>(distance between sprocket centers)<br>There is an increase in load when the bucket is filled.               |
|                       |                                     | For powdery or scattered matters                              | $T = (16.7 \frac{Q}{S} + M) \cdot C$ $KW = \frac{Q}{333} \cdot C \cdot \frac{1}{\eta}$                                                                        |                                                                                                                                                                         |
| Inclined Conveyance   | When materials are put on conveyors | For packages                                                  | $T = (W + M \cdot C) \frac{H \cdot f_1 + V}{C} + 1.1M(H \cdot f_1 - V)$ $KW = \frac{S}{5565} \cdot \frac{1}{\eta} \{ T - M(V - H \cdot f_1) \}$               |                                                                                                                                                                         |
|                       |                                     | For powdery or scattered matters                              | $T = (16.7 \frac{Q}{S} + M)(H \cdot f_1 + V) + 1.1M(H \cdot f_1 - V)$ $KW = \frac{S}{5565} \cdot \frac{1}{\eta} \{ T - M(V - H \cdot f_1) \}$                 |                                                                                                                                                                         |
|                       | When materials are scraped along    |                                                               | $T = 16.7 \frac{Q}{S} (H \cdot f_2 + V) + M(H \cdot f_1 + V) + 1.1M(H \cdot f_1 - V)$ $KW = \frac{S}{5565} \cdot \frac{1}{\eta} \{ T - M(V - H \cdot f_1) \}$ | For T formula,<br>when $H \cdot f_1 - V < 0$<br>then use $H \cdot f_1 - V = 0$<br><br>For KW formula,<br>when $H \cdot f_1 - V < 0$<br>then use $H \cdot f_1 - V = 0$ . |

T = Maximum Tension acting on the chain <load>

(kg)

$f_1$  = Coefficient of Friction between chain and guide rail

Q = Capacity

(tons/hr)

$f_2$  = Coefficient of Friction between materials and side plates

S = Conveying Speed (Chain Speed)

(m/min)

If materials are not in contact with side plates, then  $f_2 = f_1$ .

V = Vertical Distance between Sprocket Centers

(m)

$\eta$  = Mechanical Transmission Efficiency of Drive

H = Horizontal Distance between Sprocket Centers

(m)

KW = Power Requirement

C = Distance between Sprocket Centers

(m)

W = Total Weight of Materials on the Conveyor (Maximum) (kg)

M = Weight of Moving Part (chain, bucket, apron, etc.)

(kg/m)

For packages :

For R.F rollers,

$$W = \frac{C}{\text{Distance between Packages}} \times \text{Weight of Goods (kg/pc)}$$

if the gradient is  $7^\circ$  or less : total length (round) of the chain.

if it is  $7^\circ$  or more: the conveying side only

## 5. Determining the Specifications of Chains

To get chain strength, multiply the calculated chain tension by the following safety factor.

If it does not satisfy the ultimate strength selected in advance, select a higher grade chain or heavy series.

### ● [Tab.2] Safety Factor

| Chain Speed   | Safety Factor |
|---------------|---------------|
| under 30m/min | 7 and above   |
| 30 ~ 40 m/min | 8 and above   |
| 40 ~ 50 m/min | 9 and above   |
| 50 ~ 60 m/min | 10 and above  |

If the chain will be run 10 to 24 hours a day, apply 1.2 times safety factor.

Select plastic rollers, plastic sleeves, bearing rollers, and needle bushes according to allowable tension of each chain.

### ● [Tab.3] Utilization Factor

|                 |           |
|-----------------|-----------|
| Slat Conveyor   | 1.2 ~ 1.6 |
| Flow Conveyor   | 1.3 ~ 1.7 |
| Bucket Elevator | 1.5 ~ 2.0 |

The above safety factors are for normal operating conditions. Chain tension should be adjusted in consideration of shock load, atmosphere, lubrication, and operating time (1 day).

To obtain safety factor, use the following equation.

$$* \frac{\text{Ultimate Strength}}{\text{Chain Tension} \times \text{Utilization Factor}} = \text{Safety Factor}$$

Please contact us for special conditions such as high temperature above 200℃, and mixed, sticky, abrasive, or corrosive materials.

### ● [Tab.4] Effects of Temperature on Chains

| Temperature | Materials of Chains                     |
|-------------|-----------------------------------------|
| 20 ~ 200℃   | SS50, S45C                              |
| 60 ~ 500℃   | SCM3, SCM4                              |
| above 500℃  | SUS 304<br>SUS 403<br>SUS 410<br>Others |

### ● [Tab.5] Temperature Limit

| BC -type Standard | Maximum Temperature℃ |
|-------------------|----------------------|
| Standard Series   | 200                  |
| Heavy Series      | 500                  |
| 400 Series        | 600                  |
| 300 Series        | 700                  |

# 41. SELECTION OF CONVEYOR CHAINS

BANDO CHAIN

## ● Determining the Specifications of Chains

Take operating conditions (cleanness, room temperature, proper lubrication) as well as strength safety factors into account.

In the following conditions, the life of chains is shortened to 1/2 ~ 1/10.

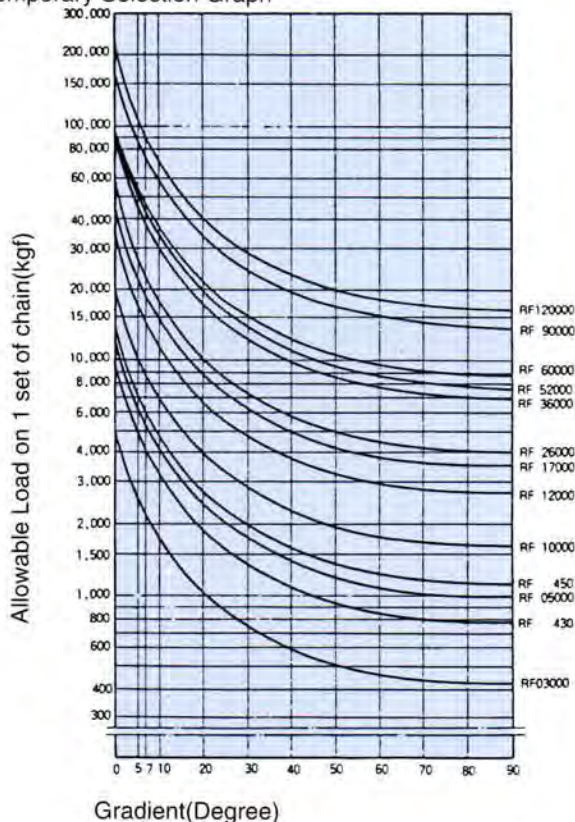
Determine safety factor in consideration of the atmosphere at conveyor lines.

1. Short-distance conveyance of heavy load
2. Abrasive, adhesive, and corrosive goods hung down
3. Hot and humid
4. No lubrication

Apply the safety factors in Tab.10 to 300 series and 400 series.

### Determining Chain Specifications Using Temporary Selection Graph

Temporary Selection Graph



Temporary selection graph is subject to these conditions;

- ① RF-type standard conveyor chain, standard series
- ② Safety factor of 7
- ③ R or F roller chain conveyors of which the rollers

support goods

- ④ Conveyors lubricated at room temperature

- (1) Figure out total weight of goods on the conveyor.

$$\text{For lumpy matters: weight(kgf)} = \frac{\text{length of conveyor(m)} \times \text{weight of goods(kgf/pc)}}{\text{distance between goods(m)}}$$

$$\text{For powdery matters: weight(kgf)} = 16.7 \frac{Q}{S} \times \text{length of conveyor(m)}$$

Q = Capacity (t/h), S = Chain Speed (m/min)

- (2) Figure out total weight of accessories. (slat, bucket, etc.) If the conveyor is inclined 7° or less, include the weight of the returning side. If inclined more than 7°, calculate the conveying side only.

If inclined more than 7°, the weight

$$= \frac{\text{length of conveyor(m)}}{\text{distance between accessories(m)}} \times \text{weight of accessories(kgf/pc)}$$

If inclined 7° or less, double the above.

- (3) Select a chain temporarily using the temporary selection graph.

$$\text{Load on 1 set of Chain(kgf)} = \frac{\text{Weight of Conveyed Goods} + \text{Weight of Accessories}}{\text{Number of Chain Sets}}$$

From the temporary selection graph, select a chain that satisfies Load on 1 set of Chain <Allowable Load on 1 set of Chain>.

- (4) Figure out the weight of 1 set of the temporarily selected chain. If the conveyor is inclined 7° or less, include the weight of the returning side (length of chain × 2). If inclined more than 7°, calculate the conveying side only.

If inclined more than 7°, the weight(kgf)

$$= \text{length of conveyor(m)} \times \{ \text{weight of chain body(kgf/m)} + \frac{\text{additional weight per attachment(kgf)}}{\text{distance between attachments(m)}} \}$$

If inclined 7° or less, double the above.

- (5) From total weight of conveyed goods, accessories, and temporarily selected chain, check using the temporary selection graph.

Total Load on 1 set of Chain(kgf) = (3) + (4)

Select a chain that satisfies Total Load on 1 set of Chain <Allowable Load on 1 set of Chain>. If it is not satisfied, check a higher-grade chain in step 4.

※ For vertical conveyance, correct the length of conveyor. (Refer to Tab.1. Tension Formulas.)

(6) To Obtain Power Requirement

$$KW = \frac{\text{Total Load Per Chain Set} \times \text{Number of Chain Set} \times \text{Chain Speed(m/min)}}{5565} \times \frac{\text{Coefficient (Tab. 6)}}{\text{Efficiency of the Drive}}$$

•[Tab.6] Coefficient to Get Power Requirement

| Gradient(Degree) | 0    | 5    | 7    | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Coefficient      | 0.08 | 0.17 | 0.25 | 0.25 | 0.42 | 0.57 | 0.70 | 0.82 | 0.91 | 0.95 | 1.00 | 1.00 |

• Selection Example (I)

| Specifications | Type of Conveyor               | Horizontal Slat Conveyor  |
|----------------|--------------------------------|---------------------------|
|                | Weight of Goods to be conveyed | 450kgf/pc                 |
|                | Distance between Goods         | 1.5m                      |
|                | Length of Conveyor             | 60m                       |
|                | Chain Speed                    | 10m/min                   |
|                | Weight of Slat                 | 20kgf/pc                  |
|                | Chain Pitch                    | 150m                      |
|                | Type of Chain                  | A-2 Attachment Every Link |

1) Weight of Goods on the Conveyor  
 $= \{60(m)/1.5(m)\} \times 450(kgf/pc) = 18,000(kgf)$

2) Total Weight of Slats  
 $= \{2 \times 60(m)/0.15(m)\} \times 20(kgf/pc) = 16,000(kgf)$

3) Load on 1 set of Chain  
 $= \{18,000(kgf) + 16,000(kgf)\} / 2 = 17,000(kgf)$

In the temporary selection graph, the chain that satisfies 17,000kgf <Allowable Load on 1 set of Chain> on the line of gradient 0° is RF10000 (allowable load of 20,000kgf). Therefore, RF 10150-F1 Link A-2 is selected.

4) Weight of 1 set of Temporarily Selected Chain  
 $= 2 \times 60(m) \{8.1(kgf/m) + 0.2(kgf)/1.5(m)\} = 1,132(kgf)$

(Weight of chain body(kgf/m) = 8.1kgf/m, additional weight per attachment = 0.2kgf) in our catalogue.

5) Total Load on 1 set of Chain  
 $= 17,000(kgf) + 1,132(kgf) = 18,132(kgf)$   
 18,132kgf < 20,000kgf, so temporarily selected RF10150-F1 Link A-2 is selected.

6) Power Requirement  
 $= \{18,132(kgf) \times 2(set) \times 10(m/min) \times 0.08\} / (5565 \times 0.8)$   
 $= 6.5(kw)$

When efficiency of the drive is 0.8.

• Selection Example (II)

If the gradient changes to 10 degrees and chain pitch changes to 200mm from those of Selection Example I,

1) Weight of Goods on the Conveyor  
 Same as Example I. 18,000kgf

2) Total Weight of Slats  
 $= \{60(m)/1.2(m)\} \times 20(kgf/pc) = 6,000(kgf)$

3) Load on 1 set of Chain  
 $= \{18,000(kgf) + 6,000(kgf)\} / 2 = 12,000(kgf)$

In the temporary selection graph, the chain that satisfies 12,000kgf <Allowable Load on 1 set of Chain> on the line of gradient 10° is RF17000 (allowable load of 15,000kgf). Therefore RF 17200-F1 Link A-2 is temporarily selected.

4) Weight of 1 set of Temporarily selected chain  
 $= 60(m) \{19.8(kgf/m) + \{0.66(kgf)/0.2(m)\}\} = 1,386(kgf)$

(Weight of chain body(kgf/m) = 19.8kgf/m, additional weight per attachment = 0.66(kgf) in our catalogue.

5) Total Load on 1 set of Chain  
 $= 12,000(kgf) + 1,386(kgf) = 13,386(kgf)$   
 13,386kgf < 15,000kgf, so temporarily selected RF17200-F1 Link A-2 is selected.

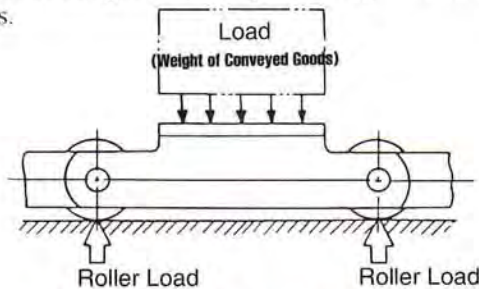
6) Power Requirement  
 $= \{13,386(kgf) \times 2(set) \times 10(m/min) \times 0.25\} / (5565 \times 0.8)$   
 $= 15(KW)$

# 41. SELECTION OF CONVEYOR CHAINS

BANDO CHAIN

## 6. Allowable Load on Rollers

Though loads on rollers depend on the goods to be conveyed, apply the following loads in Tab. 7. Constant tension of the guide rail requires 41kg/mm<sup>2</sup> or heavier goods.



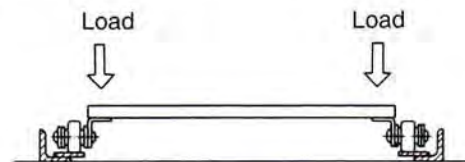
•[Tab.7] Allowable Load on Rollers

(kg/pc)

| Chain No. | R.F Roller      |              | Heat-treated S.M N Roller | Plastic Roller | Bearing Roller |          | Needle Bush |
|-----------|-----------------|--------------|---------------------------|----------------|----------------|----------|-------------|
|           | Standard Series | Heavy Series |                           |                | R Roller       | F Roller |             |
| BC03075   | 55              | 90           | 55                        | 90             | 200            | 200      | —           |
| BC03100   |                 |              |                           |                |                |          |             |
| BC430     | 95              | 160          | 95                        | —              | —              | —        | —           |
| BC05075   | 105             | 175          | 105                       | 145            | 310            | 200      | 150         |
| BC05100   |                 |              |                           |                |                |          |             |
| BC05150   |                 |              |                           |                |                |          |             |
| BC204     | —               | —            | 130                       | —              | —              | —        | —           |
| BC450     | 130             | 215          | 130                       | 210            | 420            | 270      | —           |
| BC08150   | 130             | 215          | 130                       | —              | 420            | 270      | —           |
| BC650     | 145             | 240          | 145                       | —              | —              | —        | —           |
| BC10100   | 180             | 300          | 180                       | 250            | 560            | 350      | 180         |
| BC10150   |                 |              |                           |                |                |          |             |
| BC214     | 215             | 365          | 215                       | —              | —              | —        | —           |
| BC205     | —               | —            | 255                       | —              | —              | —        | —           |
| BC6205    | 255             | 425          | 255                       | —              | —              | —        | —           |
| BC12200   | 255             | 425          | 255                       | —              | 850            | 560      | —           |
| BC12250   |                 |              |                           |                |                |          |             |
| BC212     | 295             | 495          | 295                       | —              | —              | —        | —           |
| BC17200   | 410             | 680          | 410                       | —              | 1,440          | 1,000    | —           |
| BC17250   |                 |              |                           |                |                |          |             |
| BC17300   |                 |              |                           |                |                |          |             |
| BC26200   | 540             | 900          | 540                       | —              | 2,000          | 1,400    | —           |
| BC26250   |                 |              |                           |                |                |          |             |
| BC26300   |                 |              |                           |                |                |          |             |
| BC26450   |                 |              |                           |                |                |          |             |
| BC36250   | 760             | 1,260        | 760                       | —              | 2,800          | 1,900    | —           |
| BC36300   |                 |              |                           |                |                |          |             |
| BC36450   |                 |              |                           |                |                |          |             |
| BC36600   |                 |              |                           |                |                |          |             |
| BC52300   | 1,000           | 1,690        | 1,000                     | —              | —              | —        | —           |
| BC52450   |                 |              |                           |                |                |          |             |
| BC52600   |                 |              |                           |                |                |          |             |
| BC60300   | 1,100           | 1,850        | 1,100                     | —              | —              | —        | —           |
| BC60350   |                 |              |                           |                |                |          |             |
| BC60400   |                 |              |                           |                |                |          |             |
| BC90350   | 1,550           | 2,600        | 1,550                     | —              | —              | —        | —           |
| BC90400   |                 |              |                           |                |                |          |             |
| BC90500   |                 |              |                           |                |                |          |             |
| BC120400  | 2,000           | 3,400        | 2,000                     | —              | —              | —        | —           |
| BC120600  |                 |              |                           |                |                |          |             |

## 7. Allowable Load on Standard A Attachment

Vertical allowable loads (from the weight of conveyed goods or slats) on one A-type Attachment are shown in Tab. 8. If rollers inserted in chains support load, adopt a smaller of allowable load on attachments and that on rollers



•[Tab.8] Allowable Load on Standard A Attachment

(kg/pc)

| Chain No. | Standard Series | Heavy Series |
|-----------|-----------------|--------------|
| BC03075   | 80              | 120          |
| BC03100   | 95              | 145          |
| BC430     | 160             | 240          |
| BC05075   | 105             | 160          |
| BC05100   | 135             | 200          |
| BC05150   | 175             | 260          |
| BC204     | 110             | 165          |
| BC450     | 220             | 330          |
| BC08150   | 285             | 425          |
| BC650     | 240             | 240          |
| BC10100   | 210             | 315          |
| BC10150   | 265             | 400          |
| BC214     | 330             | 490          |
| BC205     | 245             | 370          |
| BC6205    | 375             | 440          |
| BC12200   | 450             | 540          |
| BC12250   | 540             | 545          |
| BC212     | 505             | 600          |
| BC17200   | 495             | 585          |
| BC17250   | 685             | 700          |
| BC17300   | 225             | 225          |
| BC26200   | 450             | 670          |
| BC26250   | 620             | 930          |
| BC26300   | 470             | 470          |
| BC26450   | 680             | 680          |
| BC36450   | 700             | 700          |
| BC36600   | 880             | 880          |
| BC52450   | 990             | 990          |
| BC52600   | 1,230           | 1,230        |
| BC60300   | 560             | 560          |
| BC60350   | 720             | 720          |
| BC60400   | 850             | 850          |
| BC90350   | 660             | 660          |
| BC90400   | 845             | 845          |
| BC90500   | 1,250           | 1,250        |
| BC120400  | 645             | 645          |
| BC120600  | 1,290           | 1,290        |

Note) Because attachments whose chain pitch is 300 or more use angles, standard series and heavy series have same allowable load.

## 8. Determining Specifications of Chains According to Goods to be Conveyed

Refer to the following table to determine specifications of chains according to the goods to be conveyed.

Note) 1. Wear reduces in the order of A --> B --> C.

2. A (highly acid), B, C (neutral), D and E (highly alkaline) indicate corrosiveness.

•[Tab.9] Conveyed Goods and Chain Specifications

| Conveyed Goods                                              |      |               | Usable Chain Conveyor |               |                |                       | Recommended Chain | Remarks          |
|-------------------------------------------------------------|------|---------------|-----------------------|---------------|----------------|-----------------------|-------------------|------------------|
| Kinds                                                       | Wear | Corrosiveness | Scraper Conveyor      | Flow Conveyor | Apron Conveyor | Bucket Alley Conveyor |                   |                  |
| Rice                                                        | C    | C             | O                     | O             |                | O                     | Standard          | Class C, Elegant |
| Barley                                                      | C    | C             | O                     | O             |                | O                     | "                 | "                |
| Wheat                                                       | C    | C             | O                     | O             |                | O                     | "                 | "                |
| Soybean                                                     | C    | C             | O                     | O             |                | O                     | "                 | "                |
| Corn                                                        | C    | C             | O                     | O             |                | O                     | "                 | "                |
| Wheat Flour                                                 | C    | C             | O                     | O             |                | O                     | "                 | "                |
| Starch                                                      | C    | C             | O                     | △             |                | △                     | "                 | "                |
| Sugar Cane                                                  | C    | C             | O                     |               | O              |                       | CA, CB            |                  |
| Dried Sugar Cane                                            | C    | C             | O                     |               |                |                       | CA, CB            |                  |
| Refined Sugar                                               | C    | C             | O                     | O             |                | O                     | S4, S3            | Class A, Elegant |
| Halite                                                      | C    | C             | O                     | △             |                | △                     | Standard          | Class C, Elegant |
| Compound Feed                                               | C    | B             | O                     | △             |                | △                     | "                 |                  |
| Soda Ash                                                    | B    | E             | O                     | △             |                | △                     | "                 |                  |
| Carbide                                                     | B    |               | O                     | O             | O              | O                     | "                 |                  |
| Sulphate of Soda                                            | B    | B             |                       | △             |                |                       | SH                |                  |
| Quick Lime(Dry)                                             | B    | E             | O                     | △             |                | △                     | Standard          |                  |
| Slaked Lime(Dry)                                            | C    | E             | O                     | △             |                | △                     | "                 |                  |
| Polyethylene                                                | B    | C             | O                     | △             |                | △                     | "                 |                  |
| Refined Salt                                                | B    |               |                       | △             |                | △                     | CA, CB            |                  |
| Carbon                                                      | B    | C             | O                     | △             |                | △                     | BB                |                  |
| Activated Lime                                              | B    | C             | O                     | △             |                | △                     | Standard          |                  |
| Bay Salt(Dry)                                               | C    | C             | O                     | △             |                | △                     | "                 |                  |
| Ammonium Sulfate (Dry)                                      | B    | B             | O                     | △             |                | △                     | "                 |                  |
| Urea (Dry)                                                  | C    | C             | O                     | △             |                | △                     | "                 |                  |
| Urea (Wet)                                                  | B    | E             | O                     | △             |                | △                     | S4                |                  |
| Detergent                                                   | B    | C             | O                     | △             |                | △                     | Standard          |                  |
| Plaster                                                     | B    | A             | O                     | O             |                | O                     | W2, W6            |                  |
| Dolomite                                                    | B    | D             | O                     | △             | O              | △                     | Standard          | CA, CB for       |
| Limestone (Dried)                                           | B    | D             | O                     | △             | O              | △                     | "                 | Apron Conveyor   |
| Clay                                                        | B    | C             |                       | △             |                | △                     | W2, W6            |                  |
| Cement Clinker                                              | A    | E             | O                     | △             | O              | △                     | CA, CB            |                  |
| Cement Products                                             | B    | E             |                       | O             |                | O                     | CA, CB            |                  |
| Wood Chip                                                   | C    | D             | O                     | △             |                |                       |                   |                  |
| Sawdust                                                     | C    | D             | O                     | △             |                |                       |                   |                  |
| Lime                                                        | B    | B             | O                     |               | O              |                       |                   |                  |
| Cokes                                                       | A    | C             |                       |               | O              | △                     | BB                |                  |
| Aluminum                                                    | B    | E             |                       | △             |                | △                     | CA, CB            |                  |
| Casting Sand                                                | A    | C             | O                     |               | △              |                       | BB                |                  |
| Scale                                                       | B    | C             | O                     | △             |                | △                     | BB                |                  |
| Cokes Dust                                                  | A    | C             |                       | △             |                |                       | BB                |                  |
| Lime Dust                                                   | B    | C             |                       | △             |                |                       | CA, CB            |                  |
| Clinker Dust                                                | A    | E             |                       | △             |                |                       | BB                |                  |
| Fresh Waste                                                 | B    |               | △                     |               | O              |                       |                   |                  |
| Incinerated Waste Ashes from cities (room temperature, dry) | C    | D             | O                     |               |                |                       | CA, CB            |                  |
| Incinerated Waste Ashes from cities (room temperature, wet) | C    | D             | O                     |               |                |                       | CA, CB            |                  |

# 41. SELECTION OF CONVEYOR CHAINS

BANDO CHAIN

## 9. Determining Chains According to Conveyor Line Conditions

### • Highest Allowable Temperature & Safety Factor

When chains operate at high temperature or when hot goods are being conveyed, the hotter chains are, the shorter their life is. The life also depends on the materials of chains.

• [Tab.10] Highest Allowable Temperature & Safety Factor

| Temp.<br>Series | 100 | 200 | 300 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Standard        | 7   | 8   | -   | -   | -   | -   | -   | -   | -   | -   |
| Heavy           | 7   | 7   | 8   | 10  | 12  | -   | -   | -   | -   | -   |
| 400             | 10  | 10  | 10  | 10  | 12  | 12  | 18  | 25  | -   | -   |
| 300             | 12  | 12  | 12  | 12  | 14  | 14  | 15  | 18  | 22  | 26  |

### • Operation at Low Temperature

Generally, low temperature hardens chains and so reduces their shock resistance. The lowest allowable temperature depends on the materials of chains.

• [Tab.11]

| RF-type Standard Conveyor Chain | Lowest Allowable Temperature |
|---------------------------------|------------------------------|
| Standard Series (A)             | -20                          |
| Heavy Series (AA)               | -60                          |
| 400 Series (SH)                 | -70                          |
| 300 Series (S3)                 | -100                         |

### • Corrosion Resistance to Various Liquids

Use the following table to check that the materials of chains satisfy your requirements.

This table shows test results at 20℃, and does not guarantee the level of our warranty.

You should also consider humidity and other conditions at the same time.

• [Tab.12]

| Liquid                   | Steel | 400<br>Stainless<br>Steel | 300<br>Stainless<br>Steel | Plastic Roller |
|--------------------------|-------|---------------------------|---------------------------|----------------|
| Acetone                  | X     | O                         | O                         | O              |
| Oil (Vegetable, Mineral) | O     | O                         | O                         | O              |
| Alcohol                  | O     | O                         | O                         | O              |
| Ammonia                  | △     | O                         | O                         | O              |
| Sodium Chloride          | X     | X                         | △                         | △              |
| Hydrochloric Acid(2%)    | X     | X                         | X                         | X              |
| Seawater                 | X     | X                         | △                         | △              |
| Peroxide                 | X     | △                         | O                         | O              |
| Caustic Soda(25%)        | X     | O                         | O                         | O              |
| Gasoline                 | O     | O                         | O                         | O              |
| Pure Vinegar             | X     | X                         | X                         | X              |
| Acetic Acid              | O     | O                         | O                         | O              |
| Milk                     | O     | O                         | O                         | O              |
| Lactic Acid              | X     | X                         | O                         | O              |
| Citric Acid              | X     | △                         | O                         | O              |
| Acetic Acid(5%)          | X     | X                         | O                         | O              |
| Carbon Tetrachloride     | △     | △                         | △                         | △              |
| Nitric Acid(5%)          | X     | △                         | O                         | O              |
| Vinegar                  | X     | X                         | △                         | △              |
| Sodium Chlorate          | X     | X                         | X                         | X              |
| Soapy Water              | △     | O                         | O                         | O              |
| Paraffin                 | O     | O                         | O                         | O              |
| Beer                     | O     | O                         | O                         | O              |
| Fruit Juice              | X     | △                         | O                         | O              |
| Wine                     | O     | O                         | O                         | O              |
| Whiskey                  | O     | O                         | O                         | O              |
| Benzene                  | O     | O                         | O                         | O              |
| Water                    | X     | O                         | O                         | O              |
| Vegetable Juice          | △     | O                         | O                         | O              |
| Iodine                   | X     | X                         | X                         | X              |
| Sulfuric Acid            | X     | X                         | X                         | X              |
| Phosphoric Acid (10%)    | X     | X                         | △                         | △              |
| Soft Drinks              | O     | O                         | O                         | O              |

O: Enough Corrosion Resistance

△: Corrosion Resistance depends on operating conditions.

X: No Corrosion Resistance

● Motor Efficiency

| Chain Speed (m/min) | Efficiency $\eta$ |
|---------------------|-------------------|
| $S < 10$            | 0.75              |
| $10 \leq S < 20$    | 0.8               |
| $20 \leq S < 30$    | 0.85              |
| $30 \leq S$         | 0.9               |

● [Tab.14] Coefficient of Friction between Chain Rollers and Guide Rail

| Outside Diameter of Roller | Lubricated  | Dry  |
|----------------------------|-------------|------|
| $D < 50$                   | 0.15        | 0.20 |
| $50 \leq D < 65$           | 0.14        | 0.19 |
| $65 \leq D < 75$           | 0.13        | 0.18 |
| $75 \leq D < 100$          | 0.12        | 0.17 |
| $100 \leq D$               | 0.11        | 0.16 |
| Roller with Bearing        | 0.03 ~ 0.05 |      |
| Bushed Chain               | 0.03        | 0.43 |

Note) Values at room temperature, not in a dusty space.

● [Tab.15] Coefficient of Friction between Chain Plates and Guide Rail

| Temperature       | Lubricated | Dry  |
|-------------------|------------|------|
| Room Temp. ~ 400℃ | 0.20       | 0.30 |
| 400 ~ 600℃        | 0.30       | 0.35 |
| 600 ~ 800℃        | 0.35       | 0.40 |
| 800 ~ 1000℃       | -          | 0.45 |

● [Tab.13] Coefficient of Friction between Conveyed Goods and Bottom and Side Plates  $f_2$

| Conveyed Goods                         | $f_2$       | Apparent Specific Gravity(g/cc) |
|----------------------------------------|-------------|---------------------------------|
| Silica                                 | 0.46        | 1.34                            |
| leaf                                   | 0.74        | 0.36                            |
| Nickel Ore Powder                      | 0.45        | 0.92                            |
| Potter's Clay (0.2%, H <sub>2</sub> O) | 0.50        | 1.06                            |
| Soybean                                | 0.48        | 0.75                            |
| Barley                                 | 0.71        | 0.39                            |
| Manganese Ores                         | 0.56        | 5.0                             |
| Charcoal                               | 0.41        | 0.44                            |
| Bauxite                                | 0.65        | 0.09 ~ 1.30                     |
| Cement                                 | 0.54        | 1.15 ~ 1.58                     |
| Cement Clinker Dust                    | 0.50        | 0.88 ~ 1.18                     |
| Cement Clinker                         | 0.43        | 1.59                            |
| Silicone                               | 0.56        | 5.0                             |
| Quick Lime                             | 0.46        | 1.53                            |
| Plaster                                | 0.64        | 0.77                            |
| Quartz Powder                          | 0.55        | 1.24                            |
| Coal Dust                              | 0.53 ~ 0.64 | 0.48                            |
| Wheat                                  | 0.50        | 0.70 ~ 0.77                     |
| Slaked Lime                            | 0.63        | 0.69                            |
| Rice                                   | 0.4         | 0.77                            |
| Acetates                               | 0.58        | 0.34                            |
| Zinc                                   | 0.72        | 0.44                            |
| Zinc Powder                            | 0.50        | 1.55 ~ 2.36                     |
| Alumina                                | 0.36        | 0.74                            |
| Phosphate Rock                         | 0.49        | 1.42 ~ 1.60                     |
| Corn                                   | 0.4         | 0.71                            |
| Urea                                   | 0.64        | 0.54 ~ 0.69                     |
| Vinyl Chloride Powder                  | 0.29        | 0.61                            |
| Ammonia Chloride                       | 0.79        | 0.67                            |
| Calcium Chloride                       | 0.43        | 0.68                            |
| Feldspar                               | 0.55        | 1.36                            |
| Casting Sand                           | 0.41        | 1.59                            |
| Hematite                               | 0.47        | 2.59                            |
| Starch                                 | 0.57        | 0.71                            |
| Clay                                   | 0.63        | 0.77                            |
| Iron Powder                            | 0.50        | 2.04 ~ 2.36                     |
| Cokes (0.8%, H <sub>2</sub> O)         | 0.32        | 0.50                            |
| Chrome Ore Powder                      | 0.51        | 1.14                            |
| Calcium Carbonate                      | 0.83        | 0.17                            |
| Polyethylene                           | 0.52        | 0.34                            |
| Chemical Fertilizer                    | 0.55        | 1.13                            |
| Iron Pyrites                           | 0.58        | 1.54                            |
| Compound Feed                          | 0.5         | 0.55                            |

## **When you place an order with us, Please specify the following.**

### **Chain**

- 1) Chain No. (e.g. BC10150-S)
- 2) Type of, and distance between, attachments (e.g. A-2 Attachment every 2 links)
- 3) For typical chains, name of the series (e.g. heavy series)
- 4) For special chains, specifications different from standard chains
- 5) Chain Length

### **Sprocket**

- 1) Chain No. and Number of Strands (e.g. BC10150-S, 2 strands)
- 2) Number of Teeth (e.g. 8NT)
- 3) Type (e.g. CWI)
- 4) Bore Diameter (e.g.  $\phi$  60H8)
- 5) Key Home (e.g. Horizontal Key)
- 6) Special Specifications (e.g. hardened teeth, selected boss)

### **Note.**

Please provide us with the following information so that appropriate chains and sprockets can be selected.

- |                              |                                              |
|------------------------------|----------------------------------------------|
| 1) Operating Place & Purpose | name & type of conveyors                     |
| 2) Goods to be Conveyed      | size, gravity, weight                        |
| 3) Work Load                 | average and maximum                          |
| 4) Conveying Distance        | horizontal or vertical, gradient, etc.       |
| 5) Operating Atmosphere      | corrosion, wear, heat, chemicals, dust, etc. |
| 6) Operating Time            | hours/day                                    |
| 7) Operating Method          | continuous, intermittent, reverse            |
| 8) Lubrication               | necessary or not                             |