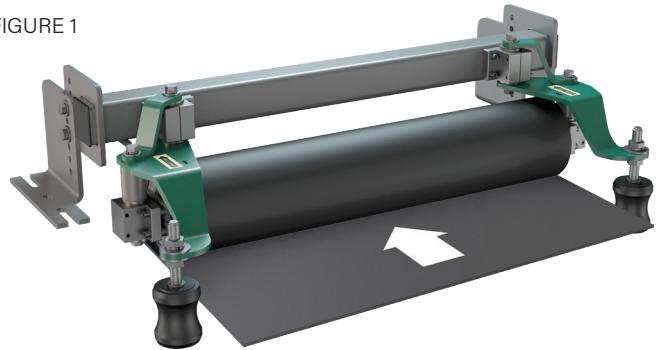




OPERATION & MAINTENANCE
PRO TRAINER

The Pro Trainer is designed to correct lateral belt misalignment by providing a positive steering force to return the belt to its intended path. It is intended to be installed on the top side of the return run of the conveyor belt as shown in Figure 1. When properly installed the Pro Trainer will cause a slight vertical deflection of the belt to ensure sufficient contact between the belt and the steering roller. The two guide rolls will be positioned off either edge of the belt with about 3/8 inch of clearance between each roll and the belt edge. As the belt wanders off its intended path, it will contact one of the guide rolls and cause the steering roll to skew slightly and provide a corrective steering force to the belt.

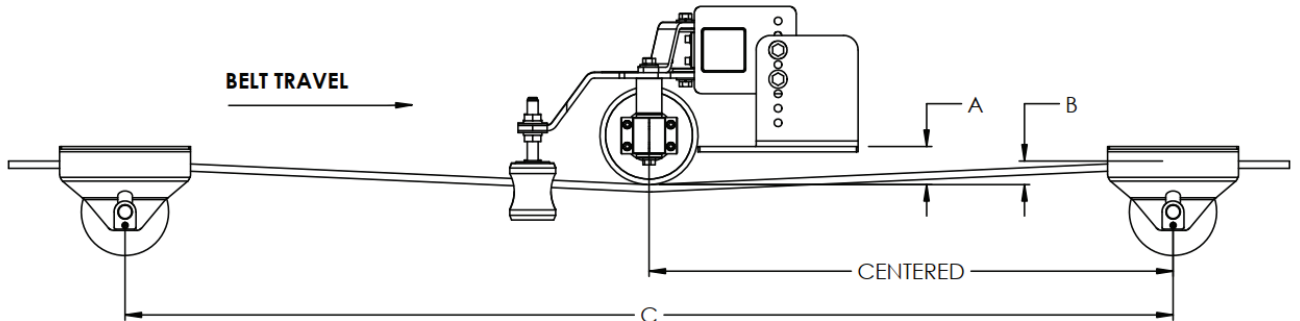
FIGURE 1



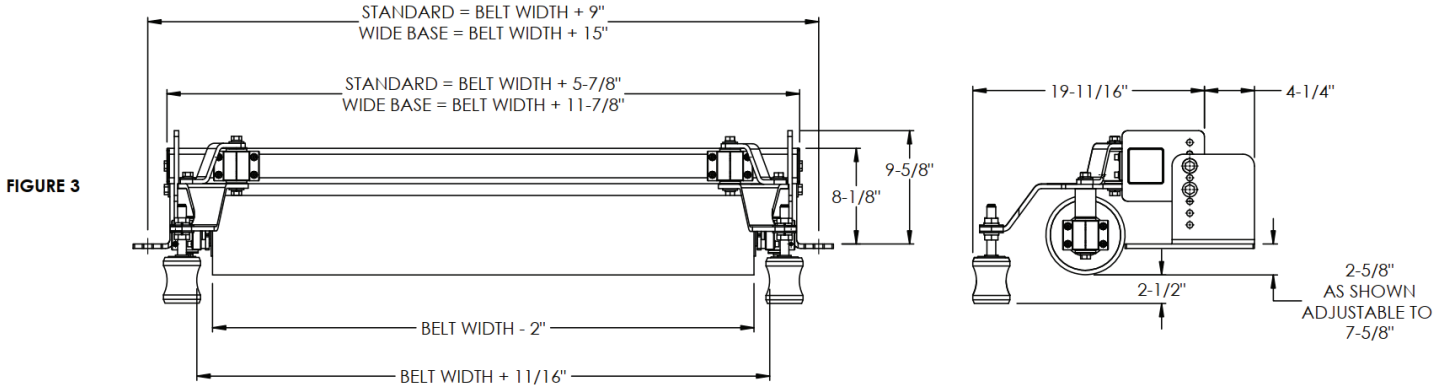
INSTALLATION

1. The Pro Trainer should be installed on the top side of the return run of the conveyor belt. It should be positioned so that the steering roll is centered between two existing return idlers. Figure 2 shows the preferred general arrangement.
2. The Pro Trainer will not function properly on reversing belts and must be installed with the correct orientation relative to the direction of belt travel as indicated in Figure 2.

FIGURE 2



3. Since a portion of the Pro Trainer will be above the bottom edge of the conveyor framework, care must be taken to ensure that there is enough clearance within the framework for the Pro Trainer. Figure 3 indicates the clearance required.

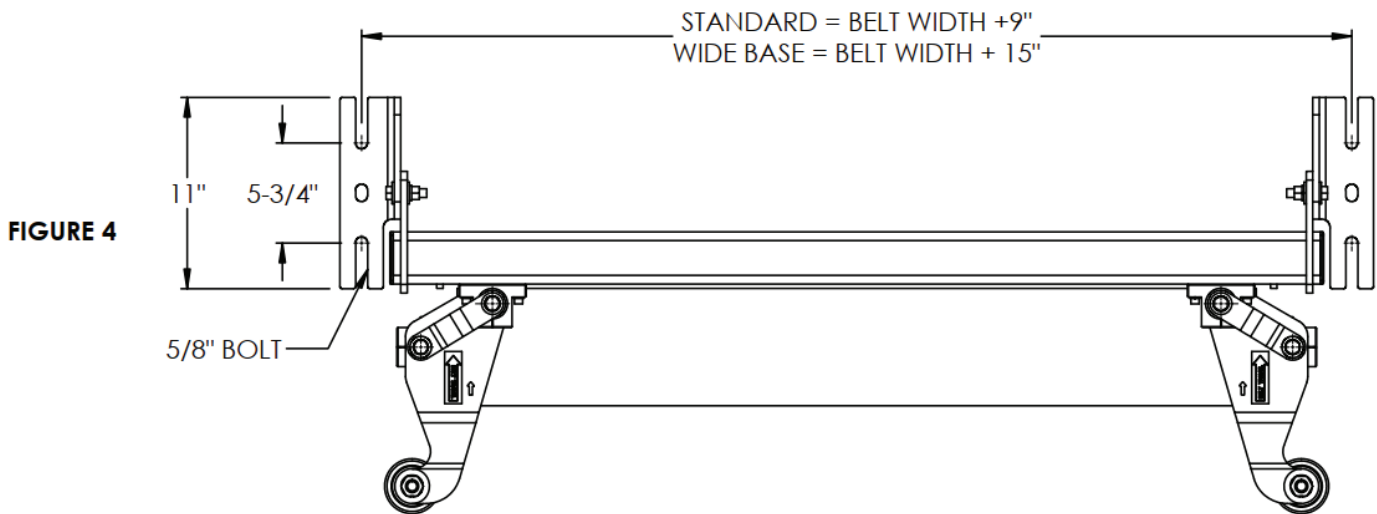


4. Figure 4 indicates the mounting dimensions for the Pro Trainer.

5. The vertical height (Dimension A, Figure 2) of the Pro Trainer is adjustable in 1 inch increments from 2-5/8 to 7-5/8 inches. The Pro Trainer is shipped with the height set to 2-5/8 inches. The belt deflection (Dimension B, Figure 2) should be kept to the minimum necessary for positive contact between the belt and steering roll in order to minimize the load on the Pro Trainer and the adjacent return idlers. The load imposed on the Pro Trainer can be calculated with the following formula:

$$\text{Load on Pro Trainer (lb)} = \frac{\text{Belt Deflection, B (in)} \times \text{Belt Tension (lb)}}{3 \times \text{Return Idler Spacing, C (ft)}}$$

The return idlers adjacent to the Pro Trainer will be subject to one half the load on the Pro Trainer in addition to the weight of the belt and may need to be replaced with heavier idlers. Because of this loading plastic rolls should not be used in a ProTrainer or the adjacent return idlers.

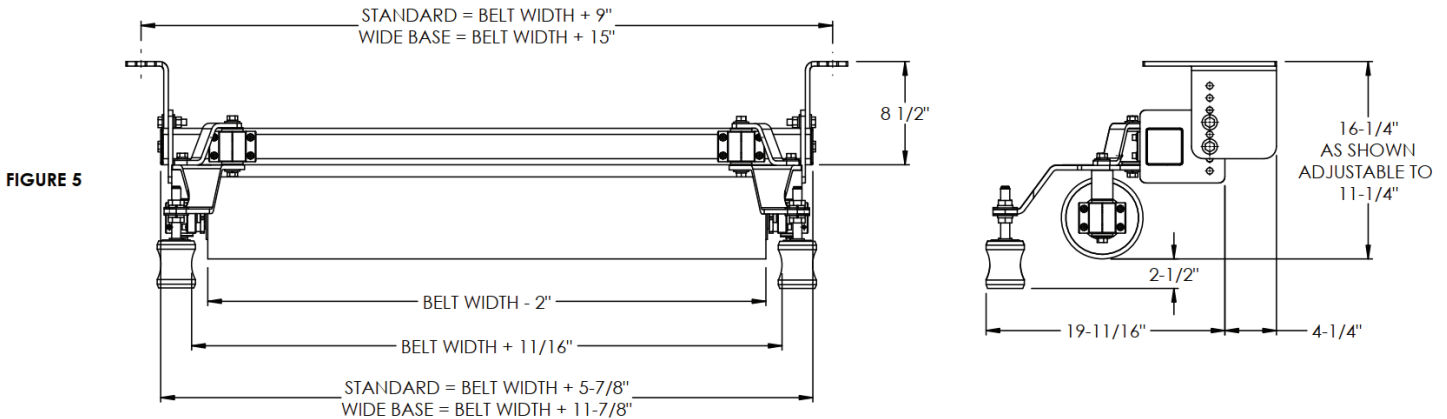


ALTERNATIVE MOUNTING OPTION

For very long drop brackets it may be necessary to turn over the Pro Trainer foot pad and point it downward. This arrangement allows the Pro Trainer to be adjusted downward farther than 7-5/8 inches and is shown in Figure 5. This allows the Pro Trainer to be adjusted downward farther than 7 5/8". Extra care must be taken to not overload the adjacent return idlers or the Pro Trainer. The load imposed on the Pro Trainer can be calculated with the following formula:

$$\text{Load on Pro Trainer (lb)} = \frac{B \text{ (in)} \times \text{Belt Tension (lb)}}{3 \times C \text{ (ft)}}$$

The return idlers adjacent to the Pro Trainer will be subject to one half the load on the Pro Trainer in addition to the weight of the belt and may need to be replaced with heavier idlers.



POSITION ON CONVEYOR

The ProTrainer should be approximately 50 feet (15 meters) from any terminal or bend pulley. Although in problem areas they can be placed as close as 5 times the belt width distance from a terminal or bend pulley.

Spacing between ProTrainers should be 100 to 150 feet (31 to 46 meters) apart. At least one ProTrainer should be used on conveyors less than 100 feet (31 meters) long.

The ProTrainer should not be used in areas of belt transitions or other areas of high belt tension. And should not be used in a vertical curve or horizontal curve.

LOAD CALCULATION EXAMPLES

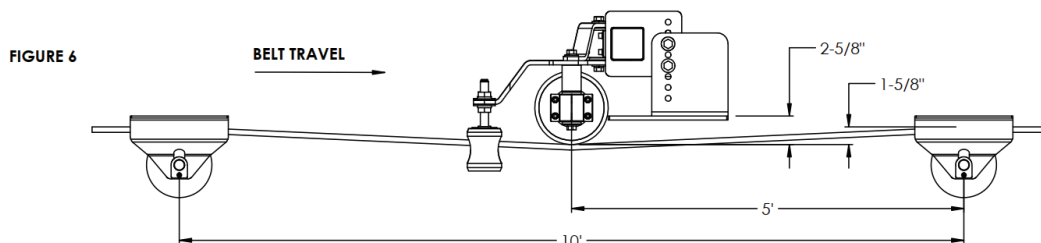
EXAMPLE 1 for calculating load on Pro Trainer and Return Idlers Figure 6:

- Using CEMA D 6 inch diameter return idlers with a 4-1/2 inch drop bracket, given the belt width of 48 inch, belt weight of 15 pounds per foot and belt tension of 14,000 pounds.
- The B dimension is 1-5/8 inch

$$\text{Load on Pro Trainer (lb)} = \frac{B \text{ (in)} \times \text{Belt Tension (lb)}}{3 \times C \text{ (ft)}} = \frac{1.625 \times 14,000}{(3 \times 10)} = 758 \text{ pounds}$$

$$\text{Load on Return Idlers (lb)} = \frac{\text{Load on Pro Trainer (lb)}}{2} + \text{Belt Weight} \left(\frac{\text{lb}}{\text{ft}} \right) \times \text{Return Idler Spacing (ft)}$$

$$\text{Load on Return Idlers (lb)} = \frac{758}{2} + 15 \times 10 = 379 + 150 = 529 \text{ pounds}$$



EXAMPLE 2 calculating load on Pro Trainer and Return Idlers Figure 7:

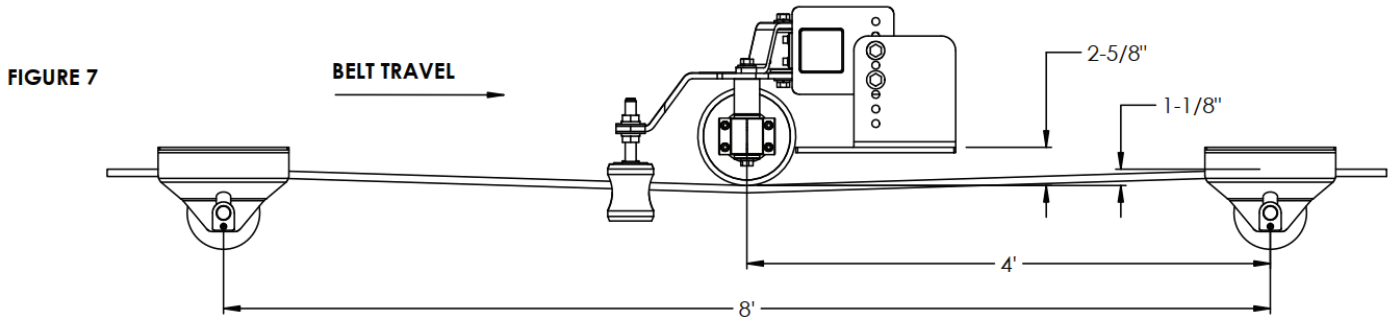
- Using CEMA D 5 inch diameter return idlers with a 4-1/2 inch drop bracket, given the belt width of 42 inch, belt weight of 12 pounds per foot and belt tension of 21,000 pounds.
- The B dimension is 1-1/8 inch

$$\text{Load on Pro Trainer (lb)} = \frac{B \text{ (in)} \times \text{Belt Tension (lb)}}{3 \times C \text{ (ft)}} = \frac{1.125 \times 21,000}{(3 \times 8)} = 984 \text{ pounds}$$

$$\text{Load on Return Idlers (lb)} = \frac{\text{Load on Pro Trainer (lb)}}{2} + \text{Belt Weight} \left(\frac{\text{lb}}{\text{ft}} \right) \times \text{Return Idler Spacing (ft)}$$

$$\text{Load on Return Idlers (lb)} = \frac{984}{2} + 12 \times 8 = 492 + 96 = 588 \text{ pounds}$$

FIGURE 7



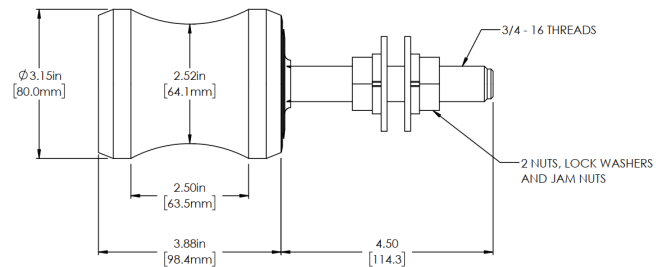
MAINTENANCE

1. All moving parts of the Pro Trainer are shipped lubricated for life and no further lubrication is necessary.
2. Periodically check to ensure that all moving parts are free of debris and able to move freely.
3. Periodically check the steering rolls and guide rolls for excessive wear and replace if necessary.

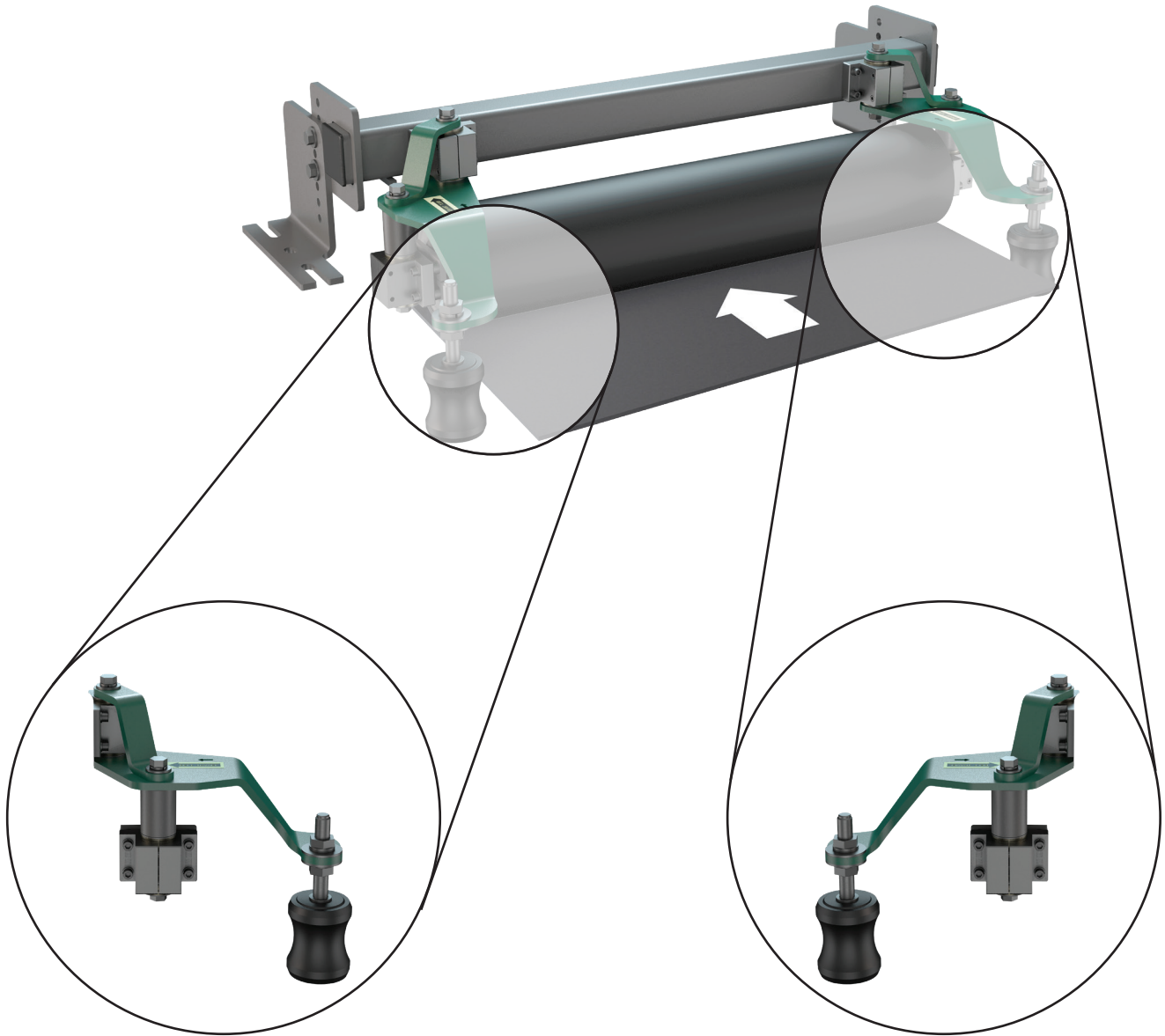
ProTrainer Replacement Roll Part Numbers

| Belt Width | Part Number | Roll Part Number | Roll Length |
|------------|-------------|------------------|-------------|
| 24 | PROT-24 | E6P-VR-42SBM6 | 22 |
| 30 | PROT-30 | E6P-FL-24SBM6 | 28 |
| 36 | PROT-36 | E6P-FL-30SBM6 | 34 |
| 42 | PROT-42 | E6P-FL-36SBM6 | 40 |
| 48 | PROT-48 | E6P-FL-42SBM6 | 46 |
| 54 | PROT-54 | E6P-FL-48SBM6 | 52 |
| 60 | PROT-60 | E6P-FL-54SBM6 | 58 |
| 66 | PROT-66 | E6P-FL-60SBM6 | 64 |
| 72 | PROT-72 | E6P-FL-66SBM6 | 70 |
| 78 | PROT-78 | E6P-FL-72SBM6 | 76 |
| 84 | PROT-84 | E6P-FL-78SBM6 | 82 |
| 90 | PROT-90 | E6P-FL-84SBM6 | 88 |
| 96 | PROT-96 | E6P-FL-90SBM6 | 94 |

Guide Roll Replacement Part Number 40795A-4.500



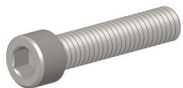
Replacement Guide Arm Assemblies



LEFT GUIDE ARM ASSEMBLY

PART NUMBER: 49290LKIT

Kit also includes:



P/N: 500450 – QTY 4
5/16-18 x 1-1/2 Socket Head Cap



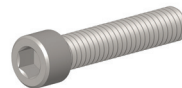
P/N: 510047 – QTY 4
5/16 Lock Washer

Mounting Hardware shipped in a separate box

RIGHT GUIDE ARM ASSEMBLY

PART NUMBER: 49290RKIT

Kit also includes:



P/N: 500450 – QTY 4
5/16-18 x 1-1/2 Socket Head Cap



P/N: 510047 – QTY 4
5/16 Lock Washer

Mounting Hardware shipped in a separate box

LOAD RATINGS

ProTrainer Load Ratings

| Belt | Part Number | Load Rating |
|------|-------------|-------------|
| 24 | PROT-24 | 1,200 |
| 30 | PROT-30 | 1,200 |
| 36 | PROT-36 | 1,200 |
| 42 | PROT-42 | 1,200 |
| 48 | PROT-48 | 1,200 |
| 54 | PROT-54 | 1,200 |
| 60 | PROT-60 | 1,110 |
| 66 | PROT-66 | 1,020 |
| 72 | PROT-72 | 930 |
| 78 | PROT-78 | 840 |
| 84 | PROT-84 | 720 |
| 90 | PROT-90 | 605 |
| 96 | PROT-96 | 520 |

CEMA Load Ratings

| Belt Width | Single Roll Return | | | | | |
|------------|--------------------|-----|-----|-------|-------|-------|
| | B | C | D | E | E+ | F |
| 18 | 220 | 475 | | | | |
| 24 | 190 | 325 | 600 | | | |
| 30 | 165 | 250 | 600 | | | |
| 36 | 155 | 200 | 600 | 1,000 | 1,200 | |
| 42 | 140 | 150 | 500 | 1,000 | 1,200 | |
| 48 | 125 | 125 | 425 | 1,000 | 1,200 | |
| 54 | | | 375 | 925 | 1,110 | |
| 60 | | | 280 | 850 | 1,020 | 1,500 |
| 66 | | | 215 | 775 | 930 | |
| 72 | | | 155 | 700 | 840 | 1,200 |
| 78 | | | 125 | 625 | 720 | |
| 84 | | | | 550 | 605 | 900 |
| 90 | | | | 475 | 520 | |
| 96 | | | | 400 | 440 | 600 |
| 102 | | | | 250 | 275 | |



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