

**NEUTRONE®**

# SEMI OPEN IMPELLER END SUCTION CENTRIFUGAL PUMP

## QQT SERIES

**QQT** pumps design accordance with international standards of ISO2858/5199. With Semi open impeller and front/back wear plate, Design for industry waster water application and with a good meet for pulp and paper making process requirements.

### Impeller

Optimized Hydraulic design with semi-open impeller, Impeller diameter up to 547mm,  
**QQT** pumps have wider performance coverage  
EN 25199/22858

### Heavy Duty Bearings

Cylindrical roller bearing at the impeller end,  
Double angular contact ball bearing(back to back  
arrangement) at the drive end. Design of bearing  
life up to 25000 hours. Long service life

### Sturdy Shaft

Ensures minimum shaft deflection and low  
mechanical vibration

### Wear Plate

Two of wear plate according to impeller design  
To protect the pump casing

### Application

The **QQT** semi open impeller pump is suitable for  
handling water or similar liquids mainly used in the  
following sector

- Chemical and Petrochemical Industry
- Oil refining plants
- Pulp and Paper making industry
- Waste water treatment
- Pharmaceutical-Food Industry(e.g.sugar)



### Flange

Flange dimensions comply to ISO 7005-1:1992  
PN-16 Mpa as standard

### Shaft Sealing

Single as standard, Double mechanical seal,  
Cartridge mechanical seal, Gland packing are  
available

## Operating Data -50Hz

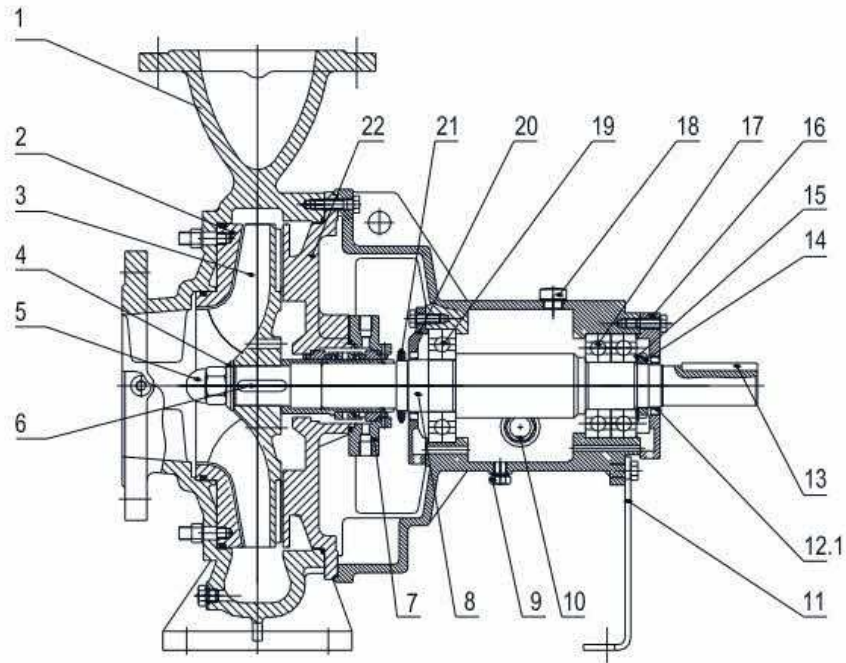
| Pump sizes  |       | 32mm to 350mm          |
|-------------|-------|------------------------|
| Flow        | up to | 2000 m <sup>3</sup> /h |
| Head        | up to | 160 m                  |
| Temperature | up to | 175°C                  |
| Speed       | up to | 3600 rpm               |
| Pressure    | up to | 24 Bar                 |

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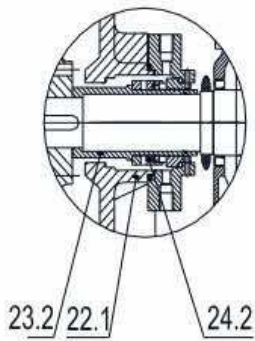
Section Drawing



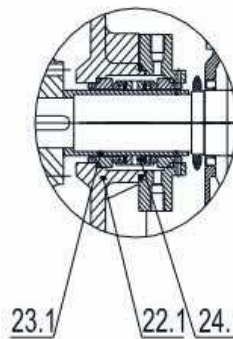
Standard

Optional

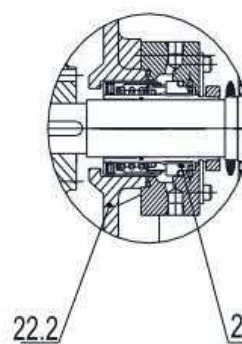
Single Seal



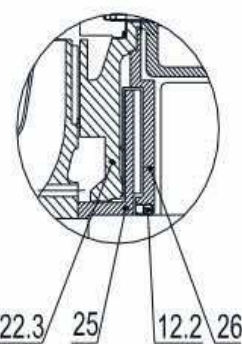
Double Seal



Cartridge Seal



Dynamic Seal



| S/N | Part Name         |
|-----|-------------------|
| 1   | Pump Casing       |
| 2   | Casing wear plate |
| 3   | Impeller          |
| 4   | Impeller Washer   |
| 5   | Impeller nut      |
| 6   | Impeller key      |
| 7   | Seal Cover        |
| 8   | Pump Shaft        |
| 9   | Drain plug        |

| S/N       | Part Name                    |
|-----------|------------------------------|
| 10        | Oil Indicator                |
| 11        | Support Foot                 |
| 12.1/12.2 | Oil Seal                     |
| 13        | Key(coupling)                |
| 14        | Nut                          |
| 15        | Tab washer                   |
| 16        | Bearing Cover                |
| 17        | Angular contact ball bearing |
| 18        | Oil hole cover               |

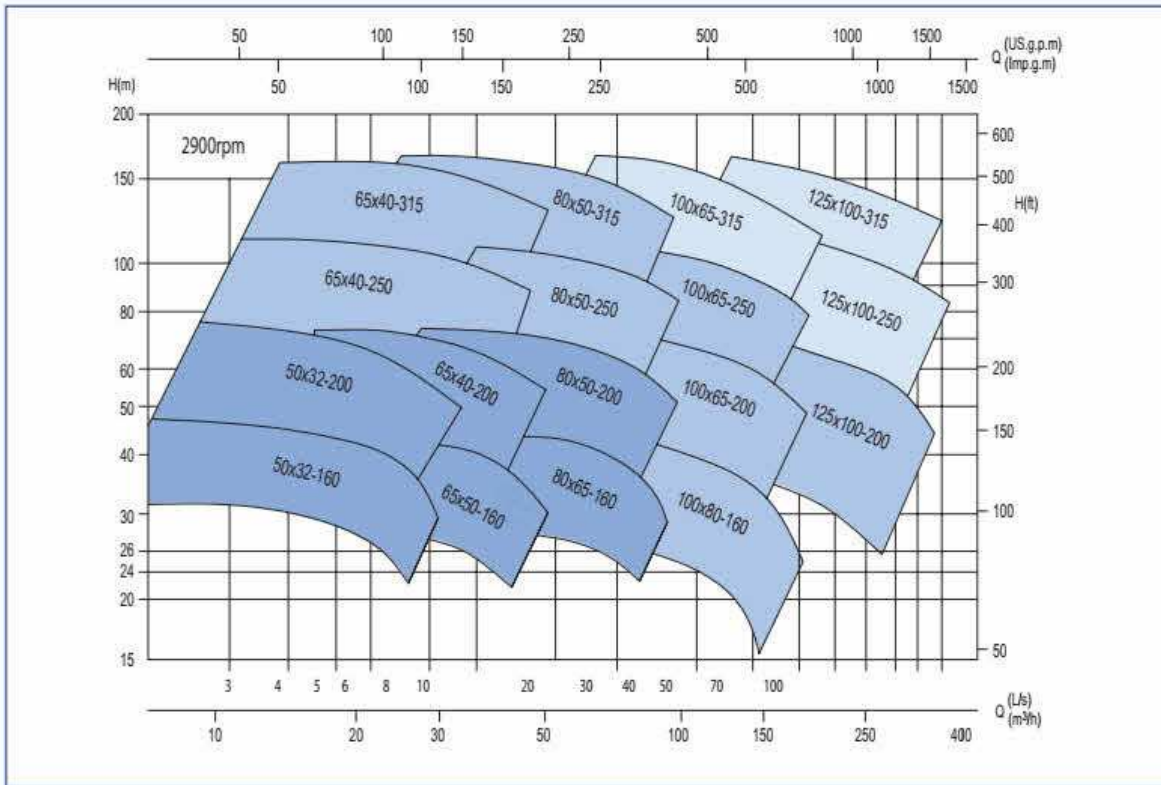
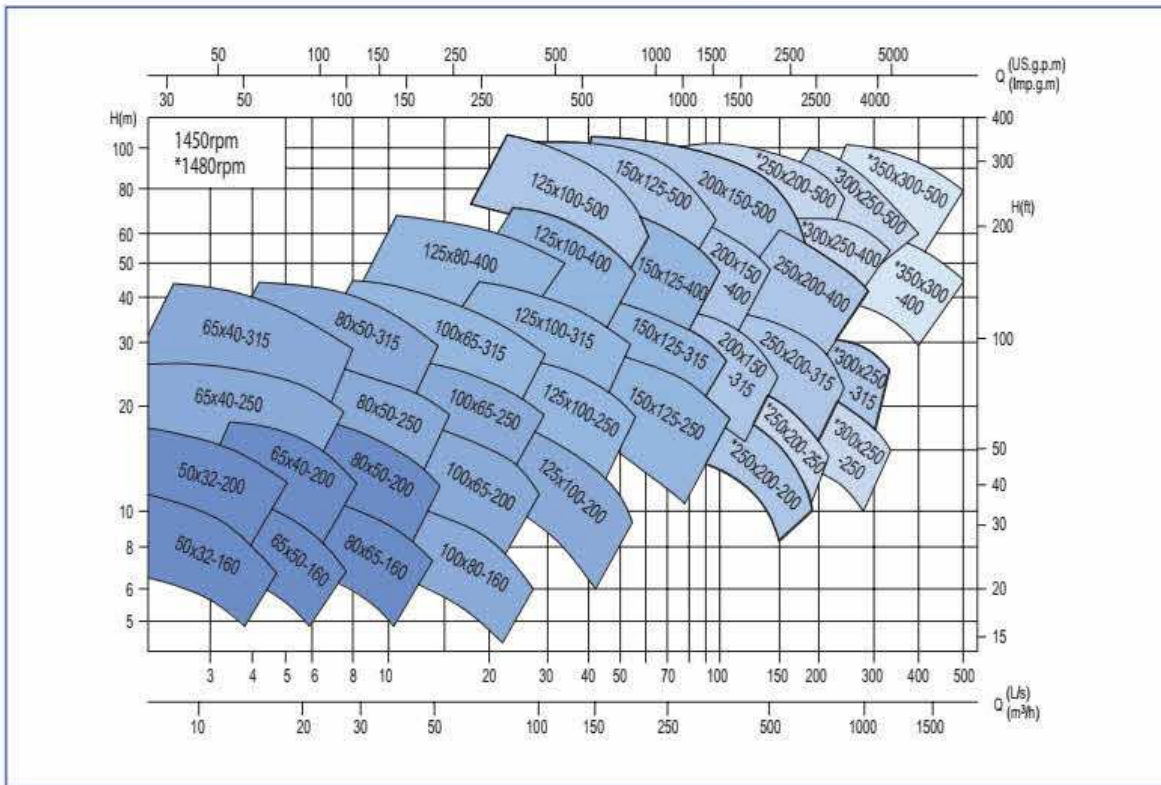
| S/N            | Part Name                  |
|----------------|----------------------------|
| 19             | Cylindrical roller bearing |
| 20             | Bearing Cover              |
| 21             | Slinger                    |
| 22.1/22.2/22.3 | Casing Cover               |
| 23.1/23.2      | Shaft Sleeve               |
| 24.1/24.2/24.3 | Mechanical seal            |
| 25             | Vice impeller              |
| 26             | Seal plate                 |

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Performance Chart (50Hz)

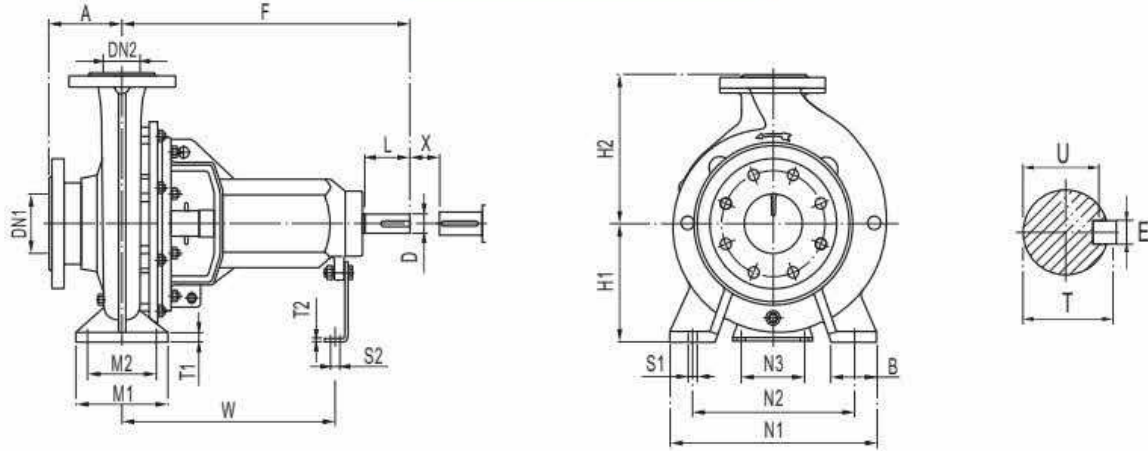


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### Installing Dimensions



| Pump Model  | Shaft No. | Flange Size |     | Pump Dimensions |     |     |     | Foot Dimensions |     |     |     |     |     | Bolt Holes |    | Shaft End |     |     |    | Spacer X? | Net. Weight |    |      |     |     |
|-------------|-----------|-------------|-----|-----------------|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|------------|----|-----------|-----|-----|----|-----------|-------------|----|------|-----|-----|
|             |           | DN1         | DN2 | A               | F   | H1  | H2  | B               | M1  | M2  | N1  | N2  | N3  | W          | T1 | T2        | S1  | S2  | D  |           |             | L  | T    | E   | U   |
| 50X32-160   | 1         | 50          | 32  | 80              | 385 | 132 | 160 | 50              | 100 | 70  | 240 | 190 | 110 | 285        | 12 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 50  |
| 50X32-200   | 1         | 50          | 32  | 80              | 385 | 160 | 180 | 50              | 100 | 70  | 240 | 190 | 110 | 285        | 12 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 55  |
| 65X40-200   | 1         | 65          | 40  | 100             | 385 | 160 | 180 | 50              | 100 | 70  | 265 | 212 | 110 | 285        | 13 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 52  |
| 65X40-250   | 2         | 65          | 40  | 100             | 500 | 180 | 225 | 65              | 125 | 95  | 320 | 250 | 110 | 370        | 14 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 100 | 85  |
| 65X40-315   | 2         | 65          | 40  | 125             | 500 | 200 | 250 | 65              | 125 | 95  | 345 | 280 | 110 | 370        | 16 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 100 | 108 |
| 65X50-160   | 1         | 65          | 50  | 80              | 385 | 132 | 160 | 50              | 100 | 70  | 240 | 190 | 110 | 285        | 11 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 40  |
| 80X50-200   | 1         | 80          | 50  | 100             | 385 | 160 | 200 | 50              | 100 | 70  | 265 | 212 | 110 | 285        | 13 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 53  |
| 80X50-250   | 2         | 80          | 50  | 125             | 500 | 180 | 225 | 65              | 125 | 95  | 320 | 250 | 110 | 370        | 15 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 100 | 90  |
| 80X50-315   | 2         | 80          | 50  | 125             | 500 | 225 | 280 | 65              | 125 | 95  | 345 | 280 | 110 | 370        | 18 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 100 | 108 |
| 80X65-160   | 1         | 80          | 65  | 100             | 385 | 160 | 180 | 50              | 100 | 70  | 265 | 212 | 110 | 285        | 11 | 6         | M12 | M12 | 24 | 50        | 27          | 8  | 20   | 100 | 46  |
| 100X65-200  | 2         | 100         | 65  | 100             | 500 | 180 | 225 | 65              | 125 | 95  | 320 | 250 | 110 | 370        | 14 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 140 | 70  |
| 100X65-250  | 2         | 100         | 65  | 125             | 500 | 200 | 250 | 80              | 160 | 120 | 360 | 280 | 110 | 370        | 16 | 6         | M16 | M12 | 32 | 80        | 35          | 10 | 27   | 140 | 98  |
| 100X65-315  | 3         | 100         | 65  | 125             | 530 | 225 | 280 | 80              | 160 | 120 | 400 | 315 | 110 | 370        | 18 | 6         | M16 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 142 |
| 100X80-160  | 2         | 100         | 80  | 100             | 500 | 160 | 200 | 65              | 125 | 95  | 280 | 212 | 110 | 370        | 14 | 6         | M12 | M12 | 32 | 80        | 35          | 10 | 27   | 100 | 68  |
| 125X80-400  | 3         | 125         | 80  | 125             | 530 | 280 | 355 | 80              | 160 | 120 | 435 | 355 | 110 | 370        | 20 | 6         | M16 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 175 |
| 125X100-200 | 2         | 125         | 100 | 125             | 500 | 200 | 280 | 80              | 160 | 120 | 360 | 280 | 110 | 370        | 17 | 6         | M16 | M12 | 32 | 80        | 35          | 10 | 27   | 140 | 89  |
| 125X100-250 | 3         | 125         | 100 | 140             | 530 | 225 | 280 | 80              | 160 | 120 | 400 | 315 | 110 | 370        | 18 | 6         | M16 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 143 |
| 125X100-315 | 3         | 125         | 100 | 140             | 530 | 250 | 315 | 80              | 160 | 120 | 400 | 315 | 110 | 370        | 19 | 6         | M16 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 151 |
| 125X100-400 | 3         | 125         | 100 | 140             | 530 | 280 | 355 | 100             | 200 | 150 | 500 | 400 | 110 | 370        | 20 | 6         | M20 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 200 |
| 125X100-500 | 4         | 125         | 100 | 160             | 670 | 355 | 450 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 338 |
| 150X125-250 | 3         | 150         | 125 | 140             | 530 | 250 | 355 | 80              | 160 | 120 | 400 | 315 | 110 | 370        | 19 | 6         | M16 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 140 |
| 150X125-315 | 3         | 150         | 125 | 140             | 530 | 280 | 355 | 100             | 200 | 150 | 500 | 400 | 110 | 370        | 20 | 6         | M20 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 165 |
| 150X125-400 | 3         | 150         | 125 | 140             | 530 | 315 | 400 | 100             | 200 | 150 | 500 | 400 | 110 | 370        | 21 | 6         | M20 | M12 | 42 | 110       | 45          | 12 | 37   | 140 | 201 |
| 150X125-500 | 4         | 150         | 125 | 160             | 670 | 355 | 450 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 350 |
| 200X150-315 | 4         | 200         | 150 | 160             | 670 | 315 | 400 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 248 |
| 200X150-400 | 4         | 200         | 150 | 160             | 670 | 315 | 450 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 325 |
| 200X150-500 | 4         | 200         | 150 | 160             | 670 | 400 | 500 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 382 |
| 250X200-200 | 4         | 250         | 200 | 180             | 670 | 315 | 450 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 22 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 345 |
| 250X200-250 | 5         | 250         | 200 | 180             | 885 | 315 | 450 | 100             | 200 | 150 | 550 | 450 | 180 | 670        | 25 | 12        | M24 | M16 | 65 | 140       | 69          | 18 | 58   | 250 | 490 |
| 250X200-315 | 4         | 250         | 200 | 180             | 670 | 315 | 450 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 281 |
| 250X200-400 | 4         | 250         | 200 | 180             | 670 | 355 | 500 | 100             | 200 | 150 | 550 | 450 | 140 | 500        | 25 | 10        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 340 |
| 250X200-500 | 5         | 250         | 200 | 225             | 885 | 400 | 580 | 150             | 315 | 250 | 760 | 630 | 180 | 670        | 28 | 12        | M24 | M16 | 65 | 140       | 69          | 18 | 58   | 250 | 600 |
| 300X250-250 | 5         | 300         | 250 | 225             | 885 | 355 | 560 | 125             | 250 | 190 | 630 | 500 | 180 | 670        | 24 | 12        | M24 | M16 | 65 | 140       | 69          | 18 | 58   | 250 | 450 |
| 300X250-315 | 4         | 300         | 250 | 225             | 670 | 355 | 500 | 125             | 250 | 190 | 690 | 560 | 180 | 500        | 24 | 12        | M20 | M16 | 48 | 110       | 51.5        | 14 | 42.5 | 180 | 350 |
| 300X250-400 | 5         | 300         | 250 | 225             | 885 | 450 | 560 | 150             | 250 | 190 | 690 | 560 | 180 | 670        | 28 | 12        | M24 | M16 | 65 | 140       | 69          | 18 | 58   | 250 | 603 |
| 300X250-500 | 5         | 300         | 250 | 225             | 885 | 450 | 630 | 150             | 315 | 250 | 760 | 630 | 180 | 670        | 28 | 12        | M24 | M16 | 65 | 140       | 69          | 18 | 58   | 250 | 690 |
| 350X300-400 | 6         | 350         | 300 | 250             | 975 | 450 | 600 | 180             | 315 | 250 | 760 | 630 | 180 | 730        | 24 | 12        | M24 | M16 | 75 | 170       | 79.5        | 20 | 67.5 | 250 | 780 |
| 350X300-500 | 6         | 350         | 300 | 250             | 975 | 500 | 650 | 225             | 360 | 270 | 900 | 750 | 180 | 730        | 32 | 12        | M30 | M16 | 75 | 170       | 79.5        | 20 | 67.5 | 250 | 910 |