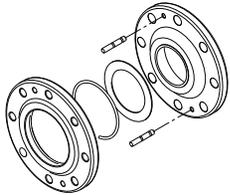
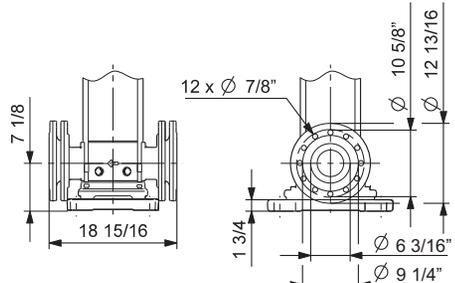


## Pipework connection

For pipework connection, various sets of counter flanges and couplings are available.

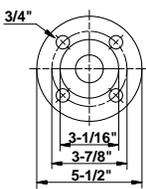
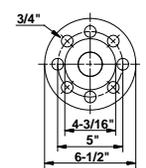
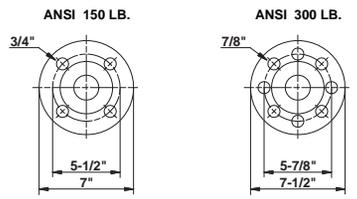
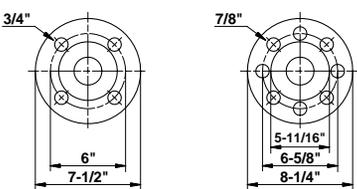
### Adapter kit

6" flanges are available for CR, CRN 120 and 150 pumps. To use 6" flanges, two adapter kits must be ordered per pump.

| Adapter kit                                                                                         | Pump type          | Pipe connection                  | Number of flange kits needed | Product number |
|-----------------------------------------------------------------------------------------------------|--------------------|----------------------------------|------------------------------|----------------|
| <br>TM04 0021 4807 | CR 120<br>CR 150   | 6" RF<br>250 lb.<br>Ductile iron | 2                            | 96638184       |
|                    | CRN 120<br>CRN 150 | 6" RF<br>300 lb.<br>ANSI 316 SS  | 2                            | 96638186       |

### Counter flanges for CR(E)

A set consists of two counter flanges, two gaskets, bolts and nuts.

| Counter flange                                                                      | Pump type             | Description                            | Pressure class | Pipework connection | Product number         |
|-------------------------------------------------------------------------------------|-----------------------|----------------------------------------|----------------|---------------------|------------------------|
|  | TM02 5691 3802        | CR 1s<br>CR(E) 1<br>CR(E) 3<br>CR(E) 5 | Threaded       | ANSI 250 lb.        | 1 1/4" NPT<br>91122260 |
|  | TM02 5692 3802        | CR(E) 10<br>CR(E) 15<br>CR(E) 20       | Threaded       | ANSI 250 lb.        | 2" NPT<br>335021       |
|  | TM02 5693 + 5694 3802 | CR(E) 32                               | Threaded       | ANSI 125 lb.        | 2 1/2" NPT<br>559601   |
|  | TM02 5695 + 5696 3802 | CR(E) 45                               | Threaded       | ANSI 125 lb.        | 3" NPT<br>569601       |
|                                                                                     |                       |                                        | Threaded       | ANSI 250 lb.        | 3" NPT<br>91121952     |

| Counter flange | Pump type             | Description            | Pressure class | Pipework connection | Product number |          |
|----------------|-----------------------|------------------------|----------------|---------------------|----------------|----------|
|                | TM02 5697 + 5698 3802 | CR(E) 64<br>CR(E) 90   | Threaded       | ANSI 125 lb.        | 4" NPT         | 579801   |
|                |                       |                        | Threaded       | ANSI 250 lb.        | 4" NPT         | 3600028  |
|                |                       | CR(E) 120<br>CR(E) 150 | Threaded       | ANSI 125 lb.        | 5" NPT         | 91121956 |
|                |                       |                        | Threaded       | ANSI 250 lb.        | 5" NPT         | 91121957 |

### Counter flanges for CRN(E)

Counterflanges for CRN(E) pumps are made of stainless steel according to AISI 316.

A set consists of two counter flanges, two gaskets, bolts and nuts.

| Counter flange | Pump type             | Description                      | Pressure class | Pipework connection | Product number |          |
|----------------|-----------------------|----------------------------------|----------------|---------------------|----------------|----------|
|                | TM02 5691 3802        | CRI(E), CRN(E)<br>1s, 1, 3 and 5 | Threaded       | ANSI 300 lb.        | 1 1/4" NPT     | 91129013 |
|                | TM02 5692 3802        | CRI(E),<br>CRN(E)<br>10, 15, 20  | Threaded       | ANSI 300 lb.        | 2" NPT         | 339919   |
|                | TM02 5693 + 5694 3802 | CRN(E) 32                        | Threaded       | ANSI 150 lb.        | 2 1/2" NPT     | 91121951 |
|                |                       |                                  | Threaded       | ANSI 300 lb.        | 2 1/2" NPT     | 01D00138 |
|                | TM02 5695 + 5696 3802 | CRN(E) 45                        | Threaded       | ANSI 150 lb.        | 3" NPT         | 91121953 |
|                |                       |                                  | Threaded       | ANSI 300 lb.        | 3" NPT         | 91121954 |

| Counter flange | Pump type                                                   | Description | Pressure class | Pipework connection | Product number |
|----------------|-------------------------------------------------------------|-------------|----------------|---------------------|----------------|
|                | <p>TM02 5697 + 5698 3802</p> <p>CRN(E) 64<br/>CRN(E) 90</p> | Threaded    | ANSI 150 lb.   | 4" NPT              | 0ID00148       |
|                |                                                             | Threaded    | ANSI 300 lb.   | 4" NPT              | 91121955       |
|                | <p>CRN(E) 120<br/>CRN(E) 150</p>                            | Threaded    | ANSI 150 lb.   | 5" NPT              | 91121958       |
|                |                                                             | Threaded    | ANSI 300 lb.   | 5" NPT              | 91121959       |

### PJE couplings for CRN(E)

Couplings for CRN(E) pumps are made of stainless steel according to AISI 316.

A set consists of two couplings, two gaskets, two pipe stub and bolts and nuts.

| Couplings | Pump type                                   | Pipe stub | Rated pressure | Pipework connection | Rubber parts | Number of coupling sets needed | Product number |
|-----------|---------------------------------------------|-----------|----------------|---------------------|--------------|--------------------------------|----------------|
|           | <p>CR(E),<br/>CRN(E)<br/>1s, 1, 3 and 5</p> | Threaded  | 1160 psi       | 1 1/4" NPT          | EPDM         | 1                              | 4013010        |
|           |                                             |           |                |                     | FKM          | 1                              | 0ID00118       |
|           | <p>CR(E)<br/>CRN(E)<br/>10, 15 and 20</p>   | Threaded  | 1015 psi       | 2" NPT              | EPDM         | 1                              | 331301         |
|           |                                             |           |                |                     | FKM          | 1                              | 0ID00128       |

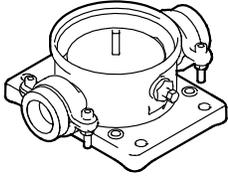
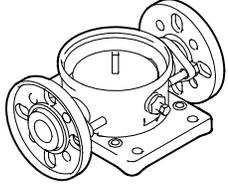
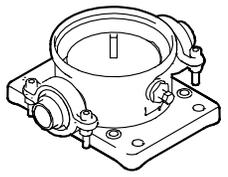
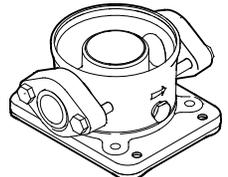
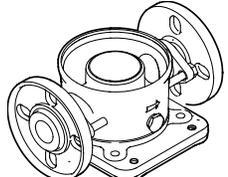
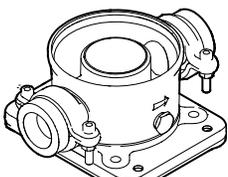
### FlexiClamp base connections

All sets comprise the necessary number of bolts and nuts as well as a gasket/O-ring.

| Base connections | Pump type                               | Connection             | Pipework connection | Rubber parts | Product number |
|------------------|-----------------------------------------|------------------------|---------------------|--------------|----------------|
|                  | <p>CR(E), CRN(E)<br/>1s, 1, 3 and 5</p> | Oval (cast iron)       | 1" NPT              | Klingersil   | 96468491       |
|                  |                                         |                        | 1 1/4" NPT          | Klingersil   | 96470781       |
|                  |                                         | Oval (stainless steel) | 1" NPT              | Klingersil   | 96480850       |
|                  |                                         |                        | 1 1/4" NPT          | Klingersil   | 96480851       |

# Accessories

CR, CRI, CRN, CRE, CRIE, CRNE

| Base connections                                                                    | Pump type                                                  | Connection                      | Pipework connection | Rubber parts | Product number |
|-------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------|---------------------|--------------|----------------|
|    | TM02 1145 0601<br><b>CRI(E), CRN(E)<br/>1s, 1, 3 and 5</b> | Union<br>ext. threaded          | 2" NPT              | EPDM         | 96480852       |
|                                                                                     |                                                            |                                 |                     | FKM          | 96480853       |
|    | TM02 1146 0601<br><b>CRI(E), CRN(E)<br/>1s, 1, 3 and 5</b> | ANSI (FGJ)<br>(stainless steel) | 1 1/4" NPT          | EPDM         | 96480858       |
|                                                                                     |                                                            |                                 |                     | FKM          | 96480859       |
|    | TM02 1147 0601<br><b>CRI(E), CRN(E)<br/>1s, 1, 3 and 5</b> | Clamp,<br>threaded pipe<br>stub | 1" NPT              | EPDM         | 96480854       |
|                                                                                     |                                                            |                                 | FKM                 | 96480855     |                |
|                                                                                     |                                                            |                                 | 1 1/4" NPT          | EPDM         | 96480856       |
|                                                                                     |                                                            |                                 | FKM                 | 96480857     |                |
|  | TM02 7237 2803<br><b>CRI(E), CRN(E)<br/>10, 15 and 20</b>  | Oval<br>(cast iron)             | 2" NPT              | Klingsil     | 96498838       |
|                                                                                     |                                                            | Oval<br>(stainless steel)       | 2" NPT              | Klingsil     | 96498839       |
|  | TM02 7238 2803<br><b>CRI(E), CRN(E)<br/>10, 15 and 20</b>  | ANSI (FGJ)<br>(stainless steel) | 2" NPT              | EPDM         | 96511402       |
|                                                                                     |                                                            |                                 |                     | FKM          | 96511403       |
|  | TM02 7239 2803<br><b>CRI(E), CRN(E)<br/>10, 15 and 20</b>  | Clamp,<br>threaded pipe<br>stub | 1 1/2" NPT          | EPDM         | 96500271       |
|                                                                                     |                                                            |                                 | FKM                 | 96500272     |                |
|                                                                                     |                                                            |                                 | 2" NPT              | EPDM         | 96500273       |
|                                                                                     |                                                            |                                 | FKM                 | 96500274     |                |
|                                                                                     |                                                            |                                 | 2" NPT              | EPDM         | 96508602       |
|                                                                                     |                                                            |                                 | FKM                 | 96508603     |                |

## Potentiometer for CRE, CRIE, CRNE

Potentiometer for setpoint setting and start/stop of the CRE, CRIE, CRNE pump.

| Product                                               | Product number |
|-------------------------------------------------------|----------------|
| External potentiometer with cabinet for wall mounting | 625468         |

## G10-LON interface for CRE, CRIE, CRNE

The G10-LON interface is used in connection with data transmission between a Locally Operating Network (LON) and electronically controlled Grundfos pumps applying the Grundfos bus-protocol GENibus.

| Product           | Product number |
|-------------------|----------------|
| G10-LON interface | 00605726       |

## LiqTec for CR(E), CRI(E) and CRN(E)

A dry-running protection device. The Grundfos LiqTec stops the pump immediately

- if there is no liquid in the pump (dry-running)
- If the liquid temperature exceeds 266 °F ±8 °F.

When connected to the PTC sensors in the motor, the LiqTec also protects the motor against overheating.

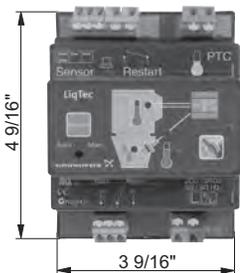
LiqTec is prepared for DIN rail mounting in control cabinet.

Enclosure class: IP X0.

## Remote control, R100

R100 is used for wireless communication with the CRE, CRIE, CRNE pump. The communication takes place by means of infrared light.

| Product | Product number |
|---------|----------------|
| R100    | 96615297       |

| LiqTec dry-running protection                                                       | Pump type                 | Voltage [V] | LiqTec | Sensor ½" | Cable 16.4 ft | Extension cable 49.2 ft | Product number |
|-------------------------------------------------------------------------------------|---------------------------|-------------|--------|-----------|---------------|-------------------------|----------------|
|  | CR(E)<br>CRI(E)<br>CRN(E) | 200-240     | ●      | ●         | ●             | -                       | 96556429       |
|                                                                                     |                           | 80-130      | ●      | ●         | ●             | -                       | 96556430       |
|                                                                                     |                           | -           | -      | -         | -             | ●                       | 96443676       |

## Sensors for CRE, CRIE, CRNE

| Accessory                                                                                                                                                | Measuring range      | Product number |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------|
| Pressure sensor<br>• Connection: 1/4" NPT<br><br>Includes a 6 ft cable with removable potted plug<br>in addition to a standard plug for remote mounting. | 0-87 psi (0-6 bar)   | 91136169       |
|                                                                                                                                                          | 0-145 psi (0-10 bar) | 91136170       |
|                                                                                                                                                          | 0-232 psi (0-16 bar) | 91136171       |
|                                                                                                                                                          | 0-362 psi (0-25 bar) | 91136172       |
|                                                                                                                                                          | 0-580 psi (0-4 bar)  | 91136173       |

## Gauges for CRE, CRIE, CRNE

| Accessory                                         | Measuring range | Product number |
|---------------------------------------------------|-----------------|----------------|
| Liquid filled pressure gauge<br>• AISI 304/Copper | 30" Hg - 30 psi | 91123566       |
|                                                   | 0-60 psi        | 00ID8562       |
|                                                   | 0-100 psi       | 00ID8563       |
|                                                   | 0-160 psi       | 00ID8564       |
|                                                   | 0-200 psi       | 00ID8565       |
|                                                   | 0-300 psi       | 00ID8566       |
|                                                   | 0-400 psi       | 00ID8567       |
|                                                   | 0-600 psi       | 00ID8568       |
|                                                   | 30" Hg - 30 psi | 91130835       |
|                                                   | 0-60 psi        | 00ID8569       |
| Liquid filled pressure gauge<br>• AISI 316        | 0-100 psi       | 00ID8570       |
|                                                   | 0-160 psi       | 00ID8571       |
|                                                   | 0-200 psi       | 00ID8572       |
|                                                   | 0-300 psi       | 00ID8573       |
|                                                   | 0-400 psi       | 00ID8574       |
|                                                   | 0-600 psi       | 00ID8575       |
|                                                   | 0-200 psi       | 00ID8576       |