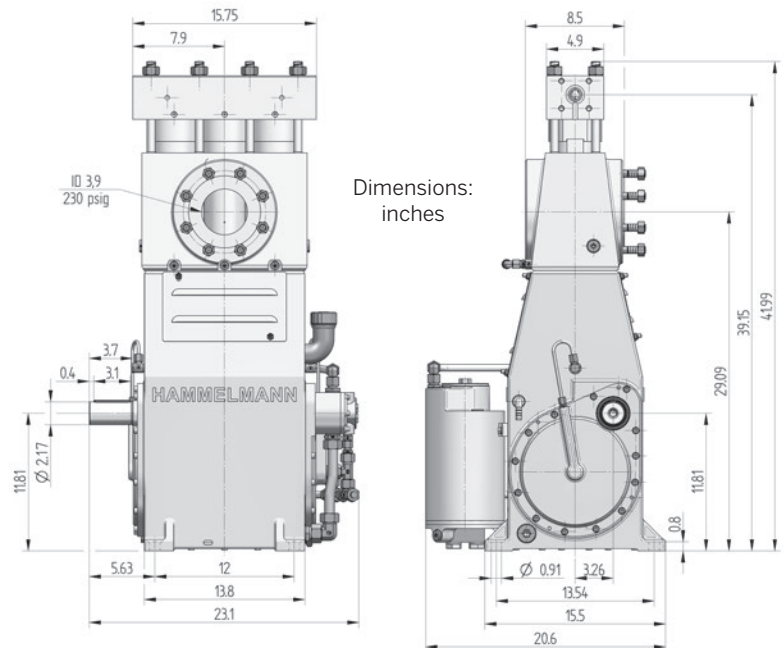


# HAMPRO® 140 Process plunger pump

**HAMMELMANN®**

Hammelmann process pumps are built to operate at the continuous maximum duty stated in the performance parameters. Just compare the crankshaft speed, average plunger speed, plunger diameter and power rating.



## Quality and reliability

- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Stainless steel pump head free of alternating stress
- Integral speed reduction gear
- Pressurised oil lubrication system with oil cooler/filter
- Bellows form hermetic seal between the suction chamber and crank section
- Large selection of materials available for different fluids
- Minimum crankshaft speed with external oilpump 32 r.p.m.

## Features

- Power ratings up to 200 hp
- Vertical 3 cylinder design

## Technical details HAMPRO® 140

| Operating pressure         | Flow rate      |
|----------------------------|----------------|
| up to 91 psi               | up to 52.2 gpm |
| Design                     | Weight         |
| Vertical 3 cylinder design | ~ 838 lbs      |

Weight and dimensions refer to the pump only, without accessories.  
Detailed dimensional drawings and weights on request.

The bellow system is gastight.



## Zero Emission



TA-Luft, (Clean Air)  
certified to VDI 2440

In the Zero Emission design the pumped fluid is hermetically sealed within the pump preventing leakage to atmosphere during operation.

## Technical data, series HAMPRO® 140: Performance parameters (standard design)

| HAM<br>PRO® | Q**<br>[gpm] | Required power rating [hp] |       |       | D<br>[mm] | r.p.m.    |      |
|-------------|--------------|----------------------------|-------|-------|-----------|-----------|------|
|             |              | 60                         | 125   | 200   |           | n1        | n2   |
|             |              | Operating pressure [psi]   |       |       |           |           |      |
| 144         | 3.43         | 24077                      | 47863 |       | 17,5      | 1500      | 390  |
|             | 3.96         | 21031                      | 42062 | 52214 |           | 1417/1694 | *440 |
|             | 5.81         | 16680                      | 33504 | 51489 |           | 1800/2150 | 560  |
|             | 4.76         | 18420                      | 36840 |       | 20        | 1500      | 390  |
|             | 5.28         | 15954                      | 31909 | 40611 |           | 1417/1694 | *440 |
|             | 7.13         | 12764                      | 25672 | 40611 |           | 1800/2150 | 560  |

### Data

- Rod force: 19,783 lbf
- Stroke: 2.2 inch
- Mean plunger speed at n2:

390 r.p.m. = 2.6 ft/sec

440 r.p.m. = 2.7 ft/sec

560 r.p.m. = 3.4 ft/sec

|     |      |       |       |       |    |           |      |
|-----|------|-------|-------|-------|----|-----------|------|
| 143 | 7.9  | 11748 | 23496 |       | 25 | 1500      | 390  |
|     | 8.5  | 10298 | 20741 | 25382 |    | 1417/1694 | *440 |
|     | 11.1 | 8267  | 16390 | 26107 |    | 1800/2150 | 560  |
|     | 9.8  | 9283  | 18565 |       | 28 | 1500      | 390  |
|     | 10.6 | 8267  | 16535 | 20596 |    | 1417/1694 | *440 |
|     | 14.0 | 6527  | 12909 | 20741 |    | 1800/2150 | 560  |

### Certificates

- Machine directive 2006/42/EG
- ATEX 2014/34/EG
- API 674
- TA-Luft (Clean Air)
- NORSOK M501
- NORSOK M650
- NACE MR0175

|     |      |      |       |       |    |           |      |
|-----|------|------|-------|-------|----|-----------|------|
| 142 | 11.4 | 8122 | 16390 |       | 30 | 1500      | 390  |
|     | 12.4 | 7107 | 14359 | 17985 |    | 1417/1694 | *440 |
|     | 16.1 | 5657 | 11458 | 17985 |    | 1800/2150 | 560  |
|     | 14   | 6962 | 14069 |       | 33 | 1500      | 390  |
|     | 15.9 | 6237 | 12618 | 14938 |    | 1417/1694 | *440 |
|     | 20.3 | 4931 | 9863  | 14938 |    | 1800/2150 | 560  |
|     | 15.6 | 5947 | 12038 |       | 35 | 1500      | 390  |
|     | 17.2 | 5221 | 10588 | 13199 |    | 1417/1694 | *440 |
|     | 22.2 | 4206 | 8412  | 13199 |    | 1800/2150 | 560  |
|     | 20.6 | 4641 | 9138  |       | 40 | 1500      | 390  |
|     | 22.7 | 4061 | 8122  | 10008 |    | 1417/1694 | *440 |
|     | 29.3 | 3191 | 6382  | 9863  |    | 1800/2150 | 560  |
|     | 26   | 3626 | 7252  |       | 45 | 1500      | 390  |
|     | 29   | 3191 | 6382  | 7977  |    | 1417/1694 | *440 |
|     | 38   | 2466 | 5076  | 7687  |    | 1800/2150 | 560  |
|     | 33   | 2901 | 5947  |       | 50 | 1500      | 390  |
|     | 36   | 2466 | 5076  | 6382  |    | 1417/1694 | *440 |
|     | 47   | 2031 | 4061  | 6237  |    | 1800/2150 | 560  |
|     | 40   | 2466 | 4931  |       | 55 | 1500      | 390  |
|     | 44   | 2031 | 4206  | 5366  |    | 1417/1694 | *440 |
|     | 57   | 1740 | 3336  | 5076  |    | 1800/2150 | 560  |
|     | 46   | 2031 | 4061  |       | 60 | 1500      | 390  |
|     | 52   | 1886 | 3481  | 4496  |    | 1417/1694 | *440 |
|     | 67   | 1450 | 2901  | 4351  |    | 1800/2150 | 560  |
|     | 55   | 1740 | 3481  |       | 65 | 1500      | 390  |
|     | 61   | 1450 | 3046  | 3771  |    | 1417/1694 | *440 |
|     | 78   | 1160 | 2321  | 3626  |    | 1800/2150 | 560  |
|     | 63   | 1450 | 3046  |       | 70 | 1500      | 390  |
|     | 71   | 1305 | 2611  | 3191  |    | 1417/1694 | *440 |
|     | 91   | 1015 | 2031  | 3191  |    | 1800/2150 | 560  |

### Standards

- DIN EN ISO 9001
- DIN EN ISO 14001
- DIN EN ISO 50001
- BS OHSAS 18001
- ASME-U
- Achilles
- EAC



Hammelmann plunger pumps convert 93 to 98 % of the shaft power to hydraulic energy.

\*\*Data refer to the medium water (compressibility considered)

\* Speed limit for continuous service according to API 674 – 6.3.1

D = Plunger diameter

n1 = Motor/Engine r.p.m.

n2 = Crankshaft r.p.m.