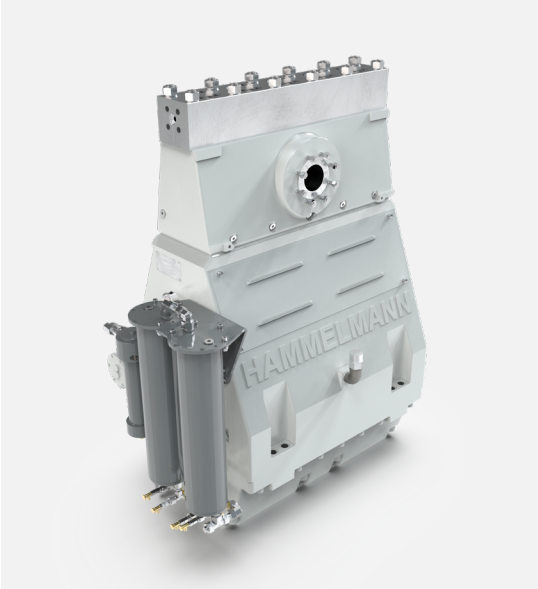
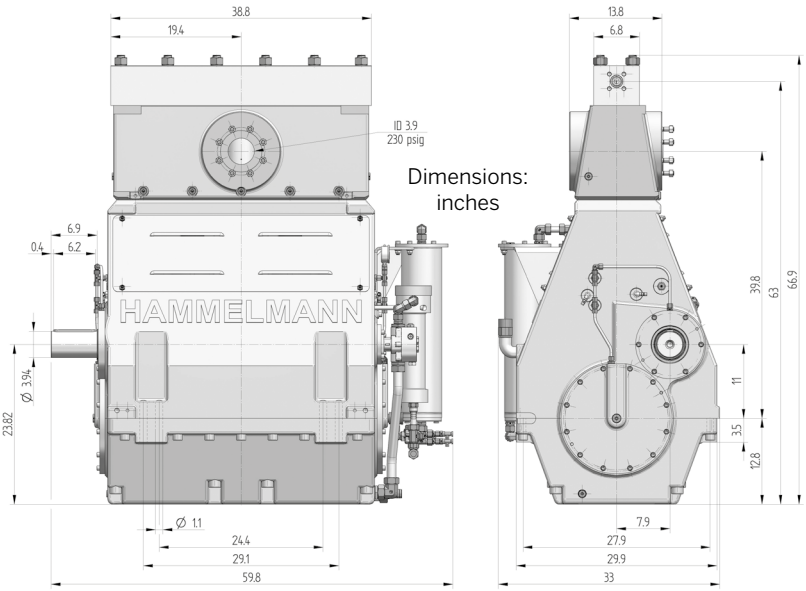
# HAMPRO® 800 Process plunger pump

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 50 r.p.m.

## Features

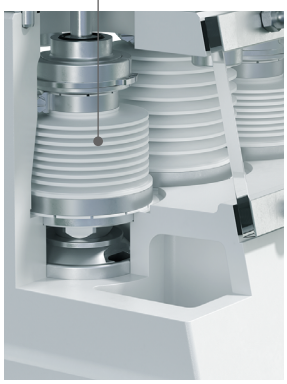
- Power ratings up to 1100 hp
- Vertical 5 cylinder design

## Technical details HAMPRO® 800

| Operating pressure | Flow rate |
|---|---|
| up to 43.5k psi | up to 563 gpm |
| **Design** | **Weight** |
| Vertical 5 cylinder design | ~ 8157 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

ZERO EMISSION®
VDI 2440

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® 800:** Performance parameters (standard design)

| HAM PRO® | Q** [gpm] | Required power rating [hp] | | | D [mm] | r.p.m. | |
|---|---|---|---|---|---|---|---|
| | | 700 | 850 | 1100 | | | |
| | | Operating pressure [psi] | | | | n1 | n2 |
| 804 | 23.0 | 43512 | | | 28 | 1500 | 315 |
| | 22.5 | 37710 | 43512 | | | 1362/1660 | *350 |
| | 34 | 30458 | 37710 | 43512 | | 1800 | 465 |
| | 30 | 32634 | | | 32 | 1500 | 315 |
| | 31 | 29008 | 36985 | 37710 | | 1362/1660 | *350 |
| | 44 | 22046 | 27848 | 35390 | | 1800 | 465 |
| | 37 | 26832 | 31909 | | 35 | 1500 | 315 |
| | 38 | 23932 | 30458 | 31184 | | 1362/1660 | *350 |
| | 54 | 18130 | 23206 | 30458 | | 1800 | 465 |
| 803 | 50 | 20741 | 24222 | | 40 | 1500 | 315 |
| | 52 | 18130 | 23642 | 24222 | | 1362/1660 | *350 |
| | 73 | 14214 | 17840 | 22771 | | 1800 | 465 |
| | 63 | 16390 | 19145 | | 45 | 1500 | 315 |
| | 66 | 14504 | 18710 | 19145 | | 1362/1660 | *350 |
| | 93 | 11168 | 14069 | 17985 | | 1800 | 465 |
| 802 | 78 | 13344 | 15519 | | 50 | 1500 | 315 |
| | 83 | 11893 | 15084 | 15374 | | 1362/1660 | *350 |
| | 115 | 9138 | 11458 | 14504 | | 1800 | 465 |
| | 94 | 11023 | 12764 | | 55 | 1500 | 315 |
| | 102 | 9863 | 12473 | 12764 | | 1362/1660 | *350 |
| | 138 | 7542 | 9428 | 12038 | | 1800 | 465 |
| | 114 | 9283 | 10733 | | 60 | 1500 | 315 |
| | 122 | 8267 | 10443 | 10733 | | 1362/1660 | *350 |
| | 166 | 6237 | 7977 | 10008 | | 1800 | 465 |
| | 134 | 7832 | 9138 | | 65 | 1500 | 315 |
| | 144 | 7107 | 8847 | 9138 | | 1362/1660 | *350 |
| | 197 | 5366 | 6817 | 8557 | | 1800 | 465 |
| | 156 | 6817 | 7832 | | 70 | 1500 | 315 |
| | 169 | 6092 | 7687 | 7832 | | 1362/1660 | *350 |
| | 228 | 4641 | 5802 | 7397 | | 1800 | 465 |
| | 178 | 5947 | 6817 | | 75 | 1500 | 315 |
| | 194 | 5221 | 6672 | 6817 | | 1362/1660 | *350 |
| | 262 | 4061 | 5076 | 6382 | | 1800 | 465 |
| | 198 | 5221 | 5947 | | 80 | 1500 | 315 |
| | 222 | 4641 | 5802 | 5947 | | 1362/1660 | *350 |
| | 289 | 3481 | 4496 | 5657 | | 1800 | 465 |
| 801 High flow | 198 | 5221 | 5947 | | 80 | 1500 | 315 |
| | 222 | 4641 | 5802 | 5947 | | 1362/1660 | *350 |
| | 289 | 3481 | 4496 | 5657 | | 1800 | 465 |
| | 223 | 4496 | 5366 | | 85 | 1500 | 315 |
| | 251 | 4061 | 5221 | 5366 | | 1362/1660 | *350 |
| | 328 | 3046 | 3916 | 4931 | | 1800 | 465 |
| | 253 | 4061 | 4786 | | 90 | 1500 | 315 |
| | 283 | 3626 | 4641 | 4786 | | 1362/1660 | *350 |
| | 370 | 2756 | 3481 | 4496 | | 1800 | 465 |
| | 315 | 3336 | 3771 | | 100 | 1500 | 315 |
| | 350 | 2901 | 3771 | | | 1362/1660 | *350 |
| | 461 | 2176 | 2756 | 3626 | | 1800 | 465 |
| | 385 | 2756 | 3191 | | 110 | 1500 | 315 |
| | 425 | 2466 | 3046 | 3191 | | 1362/1660 | *350 |
| | 563 | 1886 | 2321 | 2901 | | 1800 | 465 |

## Data

- Rod force: 47,201 lbf
- Stroke: 3.9 inch
- Mean plunger speed at n2:

315 r.p.m. = 3.5 ft/sec
350 r.p.m. = 3.8 ft/sec
465 r.p.m. = 5.0 ft/sec

## Certificates

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

## Standards

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

ENERGY EFFICIENT

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.



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