

# Pumping Solutions for the Oil & Gas Industry



High Pressure Technology

# Most reliable **pump units** and top pump performance



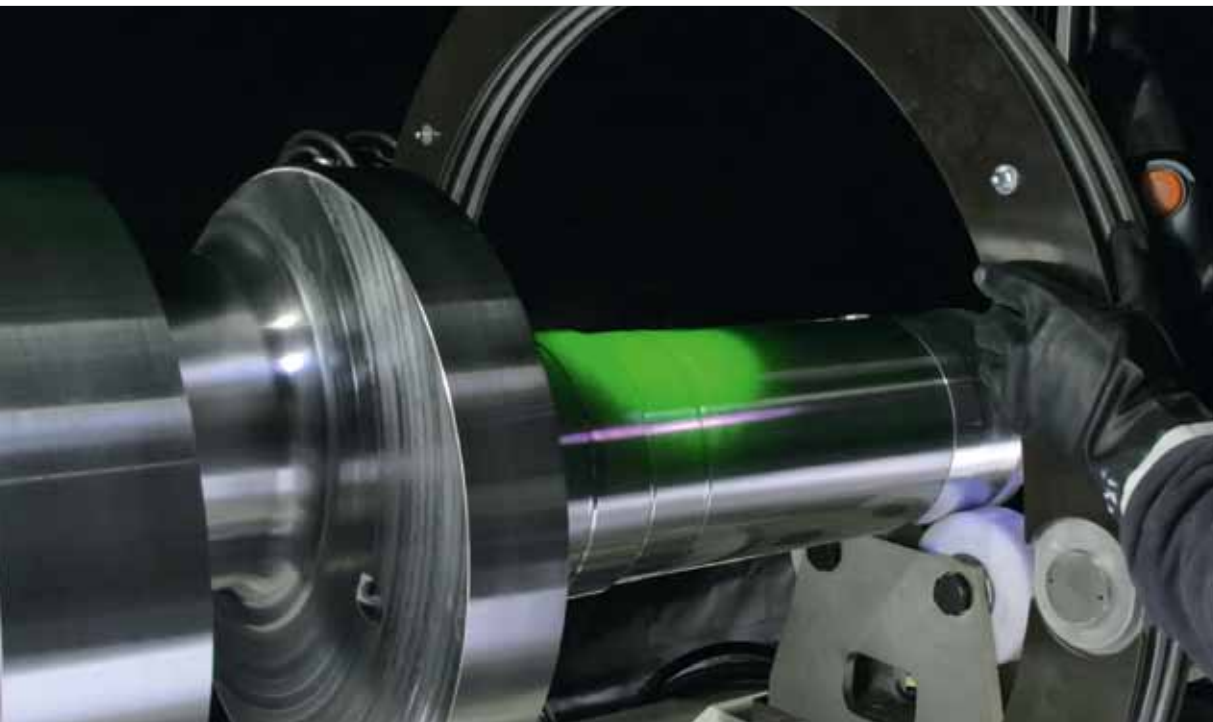
## Built by experts

- Over 120 years of experience and know-how
- Conservative pump selection
- Pump design subject to process experience and project specifications
- In-house manufacturing of all key parts
- Precise machining via CNC
- Assembling by trained and experienced staff
- Functional test of all components
- Performance test up to 1000 kW
- Made in Germany

## Built for extreme conditions

- Designed for arctic, desert or offshore conditions
- Available for fluid temperatures up to 350°C
- Available with stuffing box barrier system
- Leakage handling for non-neutral fluids against emission to atmosphere and minimized pollution
- Topside down or conventional valve arrangement to operate slurry
- Stuffing box design to operate suspension fluids





High quality components to minimize operation and maintenance costs.

Quality has first priority, and URACA's quality assurance system according to DIN EN ISO 9001:2008 is the guideline for all supplied equipment.

### Developed for the future

- Economic and long lasting operation between service intervals
- Maximum performance and high lifetimes
- Easy revamps and upgrades in case of changed process conditions
- Spare parts supply guaranteed for decades



# URACA – High Pressure **Competence**



## Typical Upstream Applications

- Methanol injection
- Produced water injection
- MEG/TEG injection
- Sea water injection
- Hydraulic fracturing
- Oil well service

URACA has extensive experience related to injection units for onshore and offshore applications. Materials of construction are selected to meet fluid and process conditions. Components and units are shop assembled and string tested before shipment.

## Typical Downstream Applications

- Wash water injection into cracker process
- Refining residue feed into IGCC process
- Coal slurry feed into liquefaction process

URACA supplies tailor made 3 or 5 plunger pump units of the heavy duty Px and KD series for bitumen, refinery residues or coal slurry. For pumping non-lubricating fluids such as methanol and liquefied gases, URACA supplies diaphragm pump units of the MP series. The pumped fluid is conveyed by a hydraulically actuated multi-layer PTFE diaphragm. This allows to run leak-free, hermetically sealed from the environment and the power end mechanism.

# Powerful **pump units** for professional use



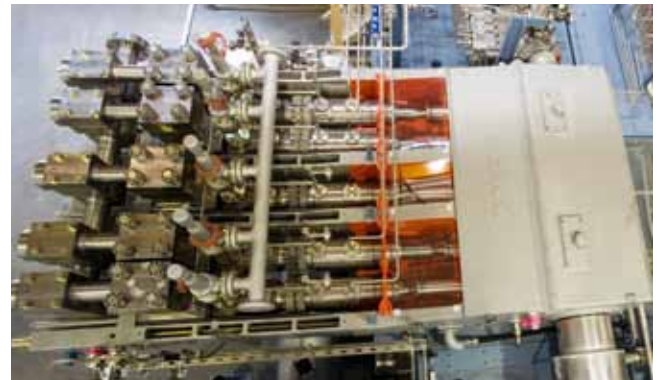
## Heavy duty continuous operation

- Use of sleeve bearings for endless life
- AGMA 6010 and/or API 677 gear box design
- Maintenance free pulsation dampers
- Standby auxiliary equipment for high reliability
- Instrumentation for remote control and unmanned operation

## Hydrostatic Pressure Test Applications

- Oil well components
- Oil well heads
- Pipelines

Test pumps with diesel engine drive are successfully used for hydrostatic pressure tests on gas pipelines and well head components. Units are supplied either with oil field skids or installed into container.



P5-96 operating coal slurry in the coal liquefaction process.



High-pressure pump unit KD724 for wash water injection in a refinery. Unit design considers forced API lubrication system and maintenance free discharge pulsation damper.

# URACA Pump Range

Process pump units in 3 or 5 plunger design. Process diaphragm pump units in 3 plunger design for O&G applications.



P5-70E water injection unit in an underground gas storage facility

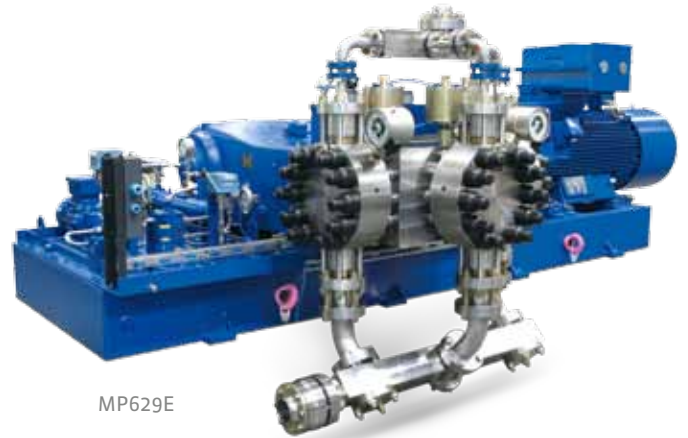
## P series

Type	Pressure [bar]	Flow rate [l/min]		Type	Pressure [bar]	Flow rate [l/min]		Type	Pressure [bar]	Flow rate [l/min]	
		min.	max.			min.	max.			min.	max.
P3-70	195	55	640	P3-80	150	185	1605	P3-96	130	826	3306
	220	49	570		175	157	1360		160	664	2658
	250	43	500		210	131	1135		205	520	2082
	280	38	438		255	107	930		230	454	1818
	325	33	378		315	86	745		265	393	1572
	375	28	322		400	66	575		310	336	1344
	420	25	287		450	61	535		360	283	1134
	525	21	240		520	53	462		430	248	993
	630	17	196		600	45	395		520	204	816
	780	13.5	157		700	38	334		650	165	660
	1000	10.5	122		840	32	278		845	130	521
	1200	7.9	92		1020	26	226		930	115	458
P5-70	195	92	1070	P5-80	150	309	2680	P5-96	130	1377	5490
	220	81	950		175	262	2270		160	1107	4430
	250	72	835		210	218	1895		205	867	3470
	280	63	730		255	178	1550		230	757	3030
	325	54	630		315	143	1240		265	655	2620
	375	46	535		400	110	960		310	560	2240
	440	41	478		450	103	890		360	472	1890
	525	34	399		520	89	770		430	413	1655
	630	28	327		600	76	660		520	340	1360
	780	23	262		700	64	555		650	272	1090
	1000	18	203		840	54	463		815	213	850
	1200	12.9	151		1020	44	377		930	185	740

Complete pump charts see individual pump type leaflets.



High pressure pump unit KD724E on base frame with suction and discharge pulsation damper.



MP629E

**KD series**

Type	Pressure [bar]	Flow rate [l/min]	
		min.	max.
KD626	165	64	713
	205	50	557
	270	38	419
	315	32	354
	370	28	312
	440	23	258
	530	19	210
	660	15	164
	800	11	126
KD629	160	160	1315
	195	132	1095
	235	108	900
	290	87	720
	370	67	560
	420	58	486
	480	53	445
	560	46	381
	655	35	323
	780	32	268
	945	26	219

Type	Pressure [bar]	Flow rate [l/min]	
		min.	max.
KD719	150	20	164
	180	16	132
	230	12.5	103
	300	9.9	81
	360	8.2	67
	470	6.2	51
	600	4.9	41
	750	3.8	31
	900	2.7	22
KD724	150	33	415
	170	29	360
	200	25	309
	230	21	261
	275	17	218
	330	14	178
	400	11	142
	520	9.2	117
	675	7	89
	800	5.8	73
	1050	4.3	55

Type	Pressure [bar]	Flow rate [l/min]	
		min.	max.
KD822	160	100	745
	200	75	580
	270	60	440
	360	42	320
	530	30	220
KD823	165	165	1100
	205	145	960
	260	115	770
	420	70	460
	570	50	330
KD825	165	345	1480
	225	250	1080
	270	215	910
	410	140	600
	520	110	470
KD827	205	530	1900
	230	470	1700
	305	364	1300
	425	275	920
	520	210	760

**MP series**

Type	Pressure [bar]	Flow rate [l/min]	
		min.	max.
MP708	130	7	50
	185	5	35
	250	4	25
	350	3	17
MP719	110	17	110
	160	12	75
	230	8	50
MP724	330	6	32
	115	41	250
	170	27	165
MP626	230	20	120
	330	13	79
	130	77	430
	180	55	290
MP629	270	38	200
	350	28	135
	160	150	840
	230	105	580
	325	70	390
	350	47	260

Features	KD600	KD700	KD800	Px-70	Px-80	Px-96	MPx
3 plunger design	■	■	■	■	■	■	■
5 plunger design				■	■	■	
Separate gear box	■	■	■	■	■	■	■
Integrated gear box		■		■			■
Crankshaft roller bearings	■	■	■	■			■
Crankshaft sleeve bearings					■	■	
API lube oil system on request	■	■	■	■	■	■	■
AGMA gear box on request	■		■	■	■	■	■
Maintenance free pulsation dampers	■	■	■		■		■
Stuffing box and valve design, individually matching to fluid handled	■	■	■		■		■
Splitted power end casing			■		■		

Further technical data upon request.

# URACA – professional **high pressure** system supplier



## Products and services

### — Pump units

Unit assembly and drives at your convenience in stationary or mobile design. Whether in container, on skid or on trailer.

- Electrically driven units
- Engine driven units
- Hydraulically driven units
- Tailor made pump control systems

### — Pumps

The core of the URACA technology: Superior quality, powerful high pressure positive displacement pumps, also for high-demanding continuous use. URACA pumps are designed acc. to API 674 on demand.

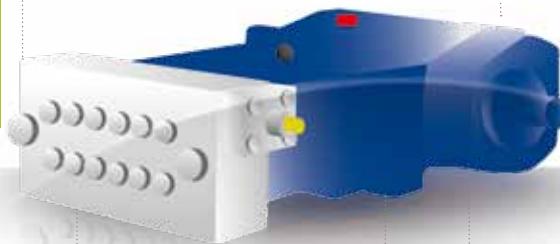
- Process and industrial pumps – reciprocating plunger pump or diaphragm design
- Test pumps
- High pressure water jetting pumps
- Sewer cleaning pumps



### — High pressure water jetting systems

URACA gathered a lot of experience and engineering competence in the field of water jetting. URACA designs and manufactures complete systems, from simple cleaning head positioning devices up to semi-automatic and automatic operated systems for

- Reactor and vessel cleaning
- Pipe and tube cleaning
- Surface conditioning
- And others – just give us your request!



### — Tools

URACA manufactures a wide range of cleaning tools for any application.

- Spray guns
- Tank cleaning heads
- Sewer cleaning nozzles
- Rotating nozzles
- Floor cleaners



### — Accessories and components

URACA's pump range is completed with a wide range of high pressure accessories and components, like

- Nozzles
- Remote controls
- Hoses
- High pressure valves
- Rotary feedthrough units
- Multi-consumer systems
- Resonators and pulsation dampers



### — Service

After sales service is URACA's top priority. The qualified and specially trained personnel and technicians are prepared to support you at any time, whether for

- Spare parts
  - Revamps
  - Upgrades in case of changed process conditions
  - Training
  - Supervising
  - Or answers to any questions you may have in terms of URACA equipment
- Please do not hesitate to contact us!

