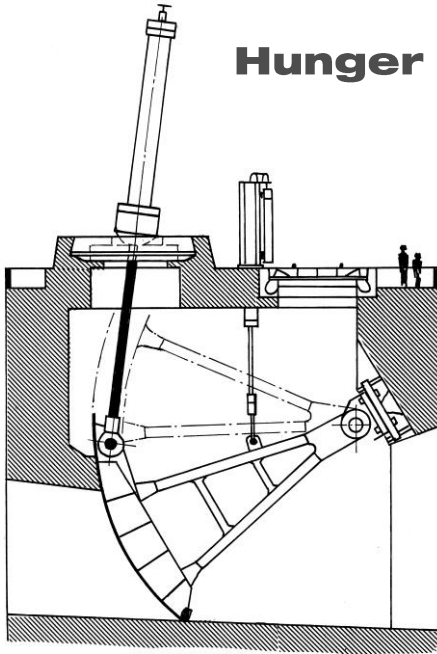


Reference List

HUNGER
Hydraulik

Walter Hunger GmbH & Co. KG – Hydraulikzylinderwerk – Rodenbacherstr. 50 – 97816 Lohr am Main

Hunger Hydroelectric Projects and Bridge Projects



HUNGER HYDRAULIC CYLINDER INSTALLATIONS:

- EUROPE
- ASIA
- NEAR EAST
- AFRIKA
- LATIN AMERIKA
- NORTH AMERIKA

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COUNTRY	PROJECT	QUANT.	DESIGNATION AND SIZE
BELGIUM	MOEN BOSSNIT	8	RADIAL GATE CYLINDER Ø 220/100 x 10100 mm
		3	BOTTOM OUTLET GATE CYLINDER Ø 450/250 x 3550 mm
NORWAY	STROSJI	4	SLIDE-GATE CYLINDER Ø 450/180 x 7750 mm
		4	BOTTOM OUTLET GATE CYLINDER Ø 550/220 x 2900 mm
GERMANY	KEMNADER WEIR RUHRTALSPERRE	4	RADIAL GATE CYLINDER Ø 430/180 x 3565 mm WITH POWER- AND CONTROL-UNIT
GERMANY	HORNBERG 92	4	SERVOMOTOR-CYLINDER POWERLINE BALL-VALVE REGULATION POWER INTAKE Ø 660/510 x 1345 mm
GERMANY	HORNBERG 94	10	SERVOMOTOR-CYLINDER POWERLINE BALL-VALVE REGULATION POWER INTAKE Ø 660/460 x 1131 mm
GERMANY	KÖPCHENWERK HERDECKE	2	SERVOMOTOR-CYLINDER POWERLINE BALL-VALVE REGULATION POWER INTAKE Ø 530/200 x 1800 mm
GERMANY	PUMPSPEICHERWERK LEITZACH	4	SERVOMOTOR-CYLINDER Ø 350/180 x 2200 mm

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JUGOSLAVIA	DJERDAP DAM (IRON GATE)	14	RADIAL GATE CYLINDER Ø 400/160 x 5850 mm
		12	RADIAL GATE CYLINDER Ø 500/200 x 13150 mm
		12	TURBINE INTAKE GATE CYLINDER Ø 600/220 x 18000 mm
		2	WHEEL GATE CYLINDER FOR SLUICE Ø 500/200 x 11650 mm
		2	WHEEL GATE CYLINDER Ø 500/200 x 13500 mm
		2	WHEEL GATE CYLINDER Ø 600/220 x 16230 mm
		2	WHEEL GATE CYLINDER Ø 600/220 x 18715 mm
		4	SLUICE GATE CYLINDER Ø 600/220 x 6900 mm
		2	SLUICE GATE CYLINDER Ø 500/220 x 6300 mm
		4	WHEEL GATE CYLINDER FOR SLUICE Ø 400/160 x 5900 mm

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TURKEY	KARAKAYA DAM, ON THE EUPHRAT RIVER	2	BOTTOM OUTLET GATE CYLINDER Ø 870/360 x 6200 mm WITH LOCKING DEVICE
		2	BOTTOM OUTLET GATE CYLINDER Ø 870/360 x 4950 mm
		20	SPILLWAY RADIAL GATE CYLINDER Ø 420/160 x 5570 mm
TURKEY	KARAKAYA DAM, ON THE EUPHRAT RIVER	12	BALL-VALVE SERVOMOTOR CYLINDER TURBINE INLET Ø 500/250 x 1890 mm
TURKEY	ATA TÜRK DAM	12	MAIN SPILLWAY TAINTOR GATE CYLINDER Ø 520/220 x 6650 mm
		2	AUXILIARY SPILLWAY TAINTOR GATE CYLINDER Ø 300/160 x 6500 mm
		2	BOTTOM OUTLET GATE CYLINDER Ø 850/340 x 5550 mm WITH LOCKING DEVICE
		2	BOTTOM OUTLET GATE CYLINDER Ø 850/340 x 4300 mm
TURKEY	ATA TÜRK DAM	16	GLOBE VALVE SERVOMOTOR CYLINDER POWER INTAKE GATE Ø 500/250 x 1890 mm

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TURKEY	ATA TÜRK DAM	16	GUIDE VANE SERVOMOTOR CYLINDER $\varnothing$ 550/180 x 472 mm WITH POSITION-TRANSDUCER FOR POWER INTAKE GATE $\varnothing$ 180/80 x 4450 mm $\varnothing$ 300/120 x 2000 mm $\varnothing$ 250/100 x 1650 mm
GERMANY	DFDS GANGWAY FOR FERRY TERMINAL, HAMBURG	2	FLAP BRIDGE CYLINDER $\varnothing$ 550/250 x 5920 mm
GERMANY	HYDROELECTRIC POWER PLANT EUTINGEN	2	FLAP GATE CYLINDER $\varnothing$ 580/200 x 3100 mm
GERMANY	RUHRTALSPERRE BIGGETAL	4	RADIAL GATE CYLINDER $\varnothing$ 360/125 x 5560 mm
AUSTRIA	INN-RIVER POWER-PLANT KIRCHBICHL	8	SLIDE GATE CYLINDER $\varnothing$ 250/130 x 3200 mm
		8	SLIDE GATE CYLINDER $\varnothing$ 320/160 x 6900 mm WITH POSITION-TRANSDUCER INTEGRATED
		16	LOCKING DEVICE
SPAIN	DE MADEIRA DAM	3	TURBINE INTAKE GATE CYLINDER $\varnothing$ 125/90 x 2500 mm
SPAIN	CATALAN DAM	6	BUTTERFLY VALVE SERVOMOTOR-CYLINDER $\varnothing$ 125/90 x 2500 mm

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BELGIUM	DUDZELE DAM	3	FLAP GATE SERVOMOTOR CYLINDER Ø 700/350 x 3500 m
GERMANY	POWER PLANT LANGWEID	2 2	RADIAL GATE CYLINDER Ø 280/125 x 1150 mm FLAP GATE CYLINDER Ø 440/150 x 2000 mm
GERMANY	POWER PLANT GERSTHOFEN	4	FLAP GATE CYLINDER Ø 300/120 x 2000 mm
GERMANY	VOHBURG POWER PLANT IRSCHING	3 3	BOTTOM OUTLET GATE CYLINDER Ø 125/100 x 3100 mm SAFETY-GATE CYLINDER Ø 125/100 x 3100 mm
SPAIN	PORT OF BARCELONA	2	BASCULE BRIDGE CYLINDER Ø 560/300 x 5650 mm
TURKEY	BATMAN DAM	4	SERVOMOTOR FOR KAPLAN TURBINES Ø 450/180 x 360 mm
ICELAND	VATNSFELL DAM	2 2	RADIAL GATE CYLINDER Ø 250/180 x 7185 mm WHEEL GATE CYLINDER Ø 225/160 x 5850 mm
GERMANY	GOLDISTHAL POWER PLANT	2	GLOBE VALVE SERVOMOTOR CYLINDER POWER INTAKE GATE Ø 520/200 x 1640 mm
GREECE	ERINOS DAM	2 2	SLIDE GATE CYLINDER Ø 250/210 x 2000 mm SLIDE GATE CYLINDER Ø 320/160 x 3900 m

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AUSTRIA	ACHENSEE DAM	1	FLAP GATE CYLINDER Ø 320/110 x 820 mm (WATER FLUID)
		1	FLAP GATE CYLINDER Ø 250/110 x 800 mm (OIL FLUID)
GERMANY	RO-RO- FERRY BRIDGE PUTTGARDEN	2	BRIDGE CYLINDER, UPPER DECK Ø 220/110 x 5300 mm
		2	BRIDGE CYLINDER, LOWER DECK Ø 400/180 x 5500 mm
GERMANY	RO-RO- FERRY BRIDGE PUTGARDEN	2	BRIDGE CYLINDER, UPPER DECK Ø 220/110 x 5200 mm
		2	BRIDGE CYLINDER, LOWER DECK Ø 400/180 x 5400 mm
GERMANY	POLDER KOLLERINSEL DAM	2	FLAP GATE CYLINDER Ø 340/140 x 1925 mm
GERMANY	PORT LOCK BREMERHAFEN	2	RISING STEM VALVES Ø 160/80 x 2770 mm
		2	RISING STEM VALVES Ø 180/80 x 3600 mm
TURKEY	CAMLI GÖTZE DAM	2	GLOBE VALVE SERVOMOTOR CYLINDER FOR KAPLAN TURBINES Ø 250/140 x 550 mm
GERMANY	HEMFURTH DAM	1	FLAP GATE CYLINDER Ø 250/160 x 1000 mm
		1	SERVOMOTOR FOR KAPLAN TURBINES Ø 200/80 x 200 mm
GERMANY	GANGWAY FOR FERRY TERMINAL, ROSTOCK	1	BRIDGE CYLINDER Ø 160/110 x 3700 mm
		2	BRIDGE CYLINDER Ø 63/45 x 2900 mm
GERMANY	CANAL LOCK UEFFINGEN	4	RISING STEM VALVES Ø 160/90 x 2700 mm
		1	FLAP GATE CYLINDER Ø 140/100 x 6000 mm

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GERMANY	CANAL LOCK MINDEN	2 1	RISING STEM VALVES Ø 160/125 x 2340 mm FLAP GATE CYLINDER Ø 180/125 x 6000 mm
GERMANY	SCHLEI BRIDGE KAPPELN	2 2 4 4	BASCULE BRIDGE CYLINDER Ø 320/180 x 2550 mm BASCULE BRIDGE CYLINDER Ø 300/180 x 2550 mm LOCKING CYLINDER Ø 140/90 x 390 mm LOCKING CYLINDER Ø 125/70 x 400 mm
GERMANY	CANAL LOCK WEDLENSTEDT	4 1	RISING STEM VALVES Ø 160/90 x 2700 mm FLAP GATE CYLINDER Ø 140/100 x 6700 mm
GERMANY	CANAL LOCK BREISACH	4 8	GATE OPERATING CYLINDER Ø 125/80 x 2400 mm LOCK CYLINDER Ø 80/45 x 960 mm
SPAIN	PORT OF VALENCIA	4 2 2	BASCULE BRIDGE CYLINDER Ø 440/230 x 5200 mm LOCKING CYLINDER Ø 160/100 x 600 mm LOCKING CYLINDER Ø 80/50 x 600 mm
GERMANY	HOHENWARTE POWER PLANT	2 1	POWER INTAKE ROLLER GATE Ø 350/150 x 5340 mm POWER INTAKE ROLLER GATE Ø 150/100 x 3840 mm

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TURKEY	ERMENEK DAM	4 1 2 1 2	BOTTOM OUTLET SLIDE GATE Ø 440/160 x 2360 mm POWER INTAKE ROLLER GATE Ø 250/100 x 6476 mm RADIAL GATE Ø 310/130 x 3848 mm RADIAL GATE Ø 150/70 x 2241 mm EMERGENCY GATE Ø 250/100 x 7200 mm
BULGARIA	TSANKOV KAMAK DAM	2 2 1 8	BOTTOM OUTLET SERVICE GATE Ø 240/90 x 1490 mm BOTTOM OUTLET GUARD GATE Ø 240/90 x 1490 mm POWER INTAKE ROLLER GATE Ø 220/90 x 7854 mm RADIAL GATE Ø 150/90 x 3626 mm complete with power units
GERMANY	TRAVE BRIDGE	2 4 4 2	BASCULE BRIDGE CYLINDER Ø 640/380 x 64300 mm LOCKING CYLINDER Ø 220/110 x 410 mm LOCKING CYLINDER Ø 100/63 x 285 mm DAMPING CYLINDER Ø 100/70 x 110 mm
UK	CANARY WHARF BRIDGE	1	BRIDGE TELESCOPIC CYLINDER Ø 910 + Ø800 x 18200 mm
RUSSIA	BALTIC DAM PETERSBURG	4	DAM GATE CYLINDER Ø 800/320 x 11800 mm

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RUSSIA	FLOOD PROTECTION ST. PETERSBURG	1	HYDRAULIC CYLINDER Ø 800/320 x 11800 mm
ROMANIA	PORTILE DE FIER I	8	SERVOMOTORCYLINDER Ø 600/220 x 18000 mm Refurbishment
ROMANIA	PORTILE DE FIER II	4	SERVOMOTORCYLINDER Ø 600/220 x 18000 mm Refurbishment
GERMANY	KW RHEINFELDEN	14 4	RADIAL GATE Ø 320/160 x 3350 mm CLAP GATE Ø 250/160 x 1400 mm complete with power units
GERMANY	KW WALLSTADT	4	POWER INTAKE GATE Ø 200/90 x 6300 mm complete with power units
PORTUGAL	BELVER DAM	2	POWER INTAKE GATE Ø 250/90 x 8300 mm
AUSTRIA	HYDROELECTRIC POWER PLANT ROSSHAUPTEN	2 2	RADIAL GATE CYLINDER Ø 300/110 x 4160 mm POWER PACK
GERMANY	ZECHERINER BRIDGE PEENESTROM	2	PIN-ENDED SUPPORT CYLINDER Ø 100/56 x 280 mm
GERMANY	EIDER BRIDGE "LEXFÄHRE"	2	ROTARY BRIDGE CYLINDER Ø 180/120 x 3200 mm WITH POSITION INDICATOR AND CERAPLATE COATED

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GERMANY	STORCHENNEST SIEL FLOOD CONTROL FINKENWERDER	4	DOUBLE ACTING CYLINDER Ø 140/90 x 3600 mm WITH POSITION MEASSURING SYSTEM
GERMANY	KW KLINGENBERG	2	POWER INTAKE GATE CYLINDER Ø 280/125 x 6300 mm COMPLETE WITH POWER UNIT
GERMANY	LOGPORT HARBOUR DUISBURG-RHEINHAUSEN	2	RO-RO LIFT CYLINDER Ø 440/180 x 6200 mm COMPLETE WITH POWER UNIT, ELECTRIC CONTROL UNIT, PIPING AND INSTALLATION ON SITE
GERMANY	KW OBERNAU	4	POWER INTAKE GATE CYLINDER Ø 180/160 x 6100 mm COMPLETE WITH POWER UNIT
PORTUGAL	KW EDP ENERGIAS DE PORTUGAL	4	RADIAL GATE CYLINDER Ø 160/110 x 4100 mm
GERMANY	KW FREUDENBERG	2	POWER INTAKE GATE CYLINDER Ø 280/125 x 6300 mm COMPLETE WITH POWER UNIT AND INSTALLATION ON SITE
GERMANY	KW HEUBACH	4	POWER INTAKE GATE CYLINDER Ø 200/90 x 6300 mm COMPLETE WITH POWER UNIT AND INSTALLATION ON SITE
LUXEMBURG	PSW Vianden	1	POWER INTAKE GATE CYLINDER Ø 200/90 x 4180 mm
		1	GATE CYLINDER Ø 100/70 x 1370 mm
		4	LOCKING CYLINDER Ø 50/36 x 100 mm

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GERMANY	CANAL LOCK FUHLISBUETTEL	2	HYDRAULIC CYLINDER Ø 160/100 x 4300 mm
GERMANY	HYDRO DAM SPREMBERG	5	WEDGE ROLLER SLUICE GATE CYLINDER Ø 160/110 x 2300 mm
UK	TWIN SAIL BRIDGE; POOLE	4	DOUBLE ACTING BRIDGE LIFTING HYDRAULIC CYLINDER Ø 540/360 x 3221 mm CERAPLATE COATED COMPLETE WITH MANIFOLD BLOCKS; POWER UNITS, SYSTEM MODELLING & SIMULATION; INSTALLATION & TRAINING ON SITE
GERMANY	HUNTE BRIDGE; HAMBURG	2	BASCULE BRIDGE CYLINDER Ø 460/260 x 6730 mm CERAPLATE COATED WITH MANIFOLD BLOCKS
RUSSIA	PALACE BRIDGE ST. PETERSBURG	12 16 4 8	LIFTING CYLINDER Ø 320 / 220 X 2750 MM COUNTER WEIGHT PUSHING CYLINDER Ø 320 / 220 X 200 MM LOCKING CYLINDER Ø 2290 / 90 X 210 MM COUNTER WEIGHT KEYING CYLINDER Ø 63 / 40 X 250 MM
UK	LEAMOUTH BRIDGE; TOWER HAMLETS; LONDON	4	TWO STAGE HYDRAULIC CYLINDER Ø 290 / 360 x 4250 mm
GERMANY	CANAL LOCK WEDTLENSTEDT	1	SPARE HYDRAULIC CYLINDER Ø 160 / 90 x 2700 mm

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UK	FLOOD PROTECTION BOSTON BARRIER WORKS	3 2	RADIAL GATE CYLINDER Ø 860 / 400 x 8015 mm WET DOCK GATE CYLINDER WITH MANOFOLD BLOCK Ø 250 / 180 x 5150 mm
GERMANY	PEENEBRÜCKE ZECHERIN USEDOM	2	BRIDGE LIFTING CYLINDER Ø 320 / 200 / 2560 mm
UK	FLOOD PROTECTION BOSTON BARRIER WORKS	2	RADIAL GATE CYLINDER Ø 270 / 190 x 5029 mm
SWITZERLAND	POWER STATION	4	DEFELECTION CYLINDER Ø 150 / 80 x 220 mm
UK	PORT ELIZABETH MARINA, JERSEY	1	TIDAL GATE CYLINDER Ø 180 X 110 X 2780 MM
ISLAND		1	RADIAL GATE CYLINDER Ø 250 / 180 X 7185 MM
GERMANY	RWE POWER AG	20	GUIDE VANE SERVOMOTOR CYLINDER Ø 250 / 100 X 245
GERMANY	UNIPER KRAFTWERKE GMBH	1 4	GUIDE APPARATUS SERVO MOTOR CYLINDER Ø 220 / 100 X 565 Ø 210 / 100 X 565
GERMANY	VOITH HYDRO	1 1	SERVO MOTOR CYLINDER Ø 500 / 150 X 400 Ø 500 / 150 X 400
GERMANY	VOITH HYDRO	1 1	SERVO MOTOR CYLINDER Ø 500 / 150 X 400 Ø 500 / 150 X 400

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COUNTRY	PROJECT	QUANT.	DESIGNATION AND SIZE
NEPAL	MARSYANGDI	8	RADIAL GATE CYLINDER Ø 420/180 x 8600 mm
CHINA	MANWAN	10	RADIAL GATE CYLINDER Ø 410/230 x 8300 mm
CHINA	WUQIANQXI	9 2	POWER- AND CONTROL-UNIT WITH ELECTRIC EQUIPMENT AND CONTROL-CONSOLE RADIAL GATE CYLINDER Ø 500/240 x 11200 mm
VIETNAM	DAN TIENG IRRIGATION	12 3	RADIAL GATE SERVOMOTOR-CYLINDER Ø 200/90 x 4600 mm HYDRAULIC POWER-UNIT AND INSTALLATION-EQUIPMENT
PAKISTAN	MANGLA DAM, WEST PAKISTAN	1	SLIDE GATE CYLINDER Ø 660/240 x 12415 mm
INDONESIA	SINGKARAK	8 4	RADIAL GATE CYLINDER Ø 160/90 x 2150 mm POWER INTAKE GATE CYLINDER Ø 80/56 x 1250 mm
INDIA	SARDAR SAROVAR	6	POWER INTAKE GATE CYLINDER Ø 380/110 x 7000 mm WITH POSITION-INDICATOR AND HYDRAULICALLY OPERATED LOCKING DEVICE, MANIFOLD VALVE-BLOCK. SHIPMENT COMPLETE WITH POWER- AND CONTROL-UNIT
INDIA	SARDAR SAROVAR	6	BOTTOM OUTLET GATE CYLINDER Ø 710/300 x 4000 mm WITH POSITION-INDICATOR AND HYDRAULICALLY OPERATED LOCKING DEVICE, MANIFOLD VALVE-BLOCK. SHIPMENT COMPLETE WITH POWER- AND CONTROL-UNIT

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PAKISTAN	TARBELA DAM WEST PAKISTAN	4	MAIN HOIST CYLINDER Ø 650/410 x 8680 mm
		2	HYDRAULIC ACTUATOR WATER/OIL Ø 1200/4207180 x 2000 mm
		2	DOGGING CYLINDER Ø 300/80 x 205 mm
		2	ECCENTRIC TRUNNION OPERATING CYLINDER Ø 540/240 x 1240 mm
PAKISTAN	TARBELA DAM WEST PAKISTAN	8	SERVO MOTOR HOIST CYLINDER Ø 600/270 x 19000 mm
PAKISTAN	TARBELA DAM WEST PAKISTAN	6	BOTTOM OUTLET GATE CYLINDER Ø 600/250 x 14500 mm
PAKISTAN	TARBELA DAM WEST PAKISTAN	24	RADIAL GATE CYLINDER Ø 410/230 x 8300 mm
INDIA	NAGARJUNA SAGAR	2	POWER INTAKE GATE CYLINDER Ø 320/110 x 9200 mm WITH MANUAL LOCKING-DEVICE AND MANIFOLD-VALVE-BLOCK
INDIA	BARGI DAM	2	POWER INTAKE GATE CYLINDER Ø 280/90 x 8600 mm WITH MANUAL LOCKING-DEVICE

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INDIA	TANAKPUR	6	POWER INTAKE GATE CYLINDER Ø 330/110 x 10500 mm WITH POSITION-INDICATOR MANUALLY OPERATED LOCKING DEVICE, MANIFOLD VALVE-BLOCK.
		2	SHIPMENT COMPLETE WITH POWER- AND CONTROL-UNIT POWER INTAKE GATE CYLINDER Ø 270/80 x 5300 mm WITH SHIFTER ROD
INDIA	MANI DAM	4	BOTTOM OUTLET GATE CYLINDER Ø 580/200 x 2750 mm WITH SHIFTER ROD, MANUAL LOCKING DEVICE
INDIA	CHAMERA	17	RADIAL GATE CYLINDER Ø 425/180 x 10708 mm

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INDIA	KADANA DAM	4	POWER INTAKE GATE CYLINDER Ø 370/125 x 6100 mm WITH MANIFOLD VALVE-BLOCK. SHIPMENT INCLUDING POWER-UNIT
		3	POWER INTAKE GATE CYLINDER Ø 300/110 x 12300 mm MANUAL LOCKING DEVICE
		1	POWER INTAKE GATE CYLINDER Ø 230/90 x 6500 mm WITH POSITION INDICATOR
		1	POWER INTAKE GATE CYLINDER Ø 355/90 x 9180 mm
		3	POWER INTAKE GATE CYLINDER Ø 490/120 x 8100 mm WITH MANUAL LOCKING DEVICE
		6	BOTTOM OUTLET GATE CYLINDER Ø 340/140 x 4750 mm WITH SHIFTER ROD, MANUAL LOCKING DEVICE
INDIA	JAKHAM DAM	4	BOTTOM OUTLET GATE CYLINDER Ø 540/180 x 2500 mm WITH SHIFTER ROD, MANUAL LOCKING DEVICE

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INDIA	SUPA DAM	4	BOTTOM OUTLET GATE CYLINDER Ø 985/240 x 3500 mm WITH SHIFTER ROD, MANUAL LOCKING DEVICE
		2	POWER INTAKE GATE CYLINDER Ø 520/125 x 6300 mm WITH SHIFTER ROD, MANUAL LOCKING DEVICE
		2	POWER INTAKE GATE CYLINDER Ø 240/70 x 4400 mm WITH MANUAL LOCKING DEVICE
		1	POWER INTAKE GATE CYLINDER Ø 410/170 x 7000 mm
INDIA	SUPA	4	POWER INTAKE GATE CYLINDER Ø 520/125 x 6300 mm WITH PISTON LOCKING DEVICE
SRI LANKA	RANDENIGALA 83	2	INLET VALVE SERVOMOTOR CYLINDER Ø 420/180 x 1400 mm
PAKISTAN	CHASHMA DAM	2	INLET GATE CYLINDER Ø 360/110 x 9200 mm
TURKEY	CATALAN DAM	2	GLOBE VALVE CYLINDER FOR KAPLAN TURBINES Ø 300/180 x 1500 mm
INDIA	TEESTA DAM		POWER INTAKE GATE CYLINDER Ø 250/80 x 11200 mm

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NEPAL	KALI GANDAKI	4	RADIAL GATE CYLINDER Ø 380/160 x 13450 mm
		2	RADIAL GATE CYLINDER Ø 420/160 x 13500 mm
		12	RADIAL GATE CYLINDER Ø 260/110 x 9580 mm
		2	FLAP CYLINDER Ø 360/320 x 5620 mm
		24	SLIDING GATE CYLINDER Ø 140/80 x 3150 mm
		8	INTAKE GATE CYLINDER Ø 220/110 x 1780 mm
		1	INTAKE GATE CYLINDER Ø 300/125 x 4050 mm
		1	INTAKE GATE CYLINDER Ø 160/90x 2600mm
		12	INTAKE GATE CYLINDER Ø 220/150 x 5050 mm
IRAN	DASH A ABBAS DAM	2	WHEEL GATE CYLINDER Ø 330/125 x 5800 mm
IRAN	SEY MARIEH DAM	2	WHEEL GATE CYLINDER Ø 360/125 x 12250 mm
IRAN	ZARINEH ROOD	20	SLUICE GATE CYLINDER Ø 180/80 x 3100 mm
		5	POWER PACK

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IRAN	KARUN III	4	RADIAL GATE CYLINDER Ø 520/250 x 11100 mm
INDONESIA	KALAYAN II DAM	2	INTAKE RADIAL GATE CYLINDER Ø 320/115 x 6300 mm
IRAN	GOLESTAN DAM	6 2	SERVICE AND EMERGENCY SLIDE GATE SERVOMOTOR CYLINDER Ø 180/75 x 1700 mm WITH POSITION IDICATOR POWER PACK AND ELECTRIC CONTROL SYSTEM
IRAN	SAHAND DAM	2 1	SERVICE AND EMERGENCY SLIDE GATE SERVO MOTOR CYLINDER Ø 240/125 x 1500 mm WITH POSITION IDICATOR POWER PACK AND ELECTRIC CONTROL SYSTEM
IRAN	DELVARI DAM	2 2 2	SERVICE RADIAL GATE CYLINDER Ø 320/180 x 2500 mm WITH ELECTRONIC TRANSDUCER EMERGENCY SLIDE GATE CYLINDER Ø 180/110 x 3300 mm WITH POSITION INDICATOR HYDRAULIC POWER PACK FOR RADIAL GATE AND WHEEL GATE WITH ELECTRIC CONTROL SYSTEM

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IRAN	SABALAN DEVAGLIDE	2	SERVICE AND EMERGENCY SLIDE GATE CYLINDER Ø 210/100 x 2500 mm
		2	SERVICE AND EMERGENCY SLIDE GATE CYLINDER Ø 240/110 x 2510 mm WITH MECH. GATE POSITION INDICATOR AND 4 LIMIT SWITCHES
		2	POWER PACK AND ELECTRIC CONTROL SYSTEM
VIETNAM	PLEIKRONG DAM	12	RADIAL GATE CYLINDER Ø 400/250 x 7420 mm
VIETNAM	QUANG TRI DAM	6	RADIAL GATE CYLINDER Ø 280/140 x 5410 mm
		1	INTAKE GATE CYLINDER Ø 250/120 x 3300 mm COMPLETE WITH POSITION INDICATOR; POWER PACKS AND ELECTRICAL CONTROL
CHINA	CAO'E RIVER DAM	56	PISTON RODS FOR HYDRAULIC CYLINDERS Ø 180 x 6935 mm CERAPLATE COATED WITH CIPS TRANSDUCER SYSTEM
CHINA	TIANJIN HAIHE RIVER	16	PISTON RODS FOR HYDRAULIC CYLINDERS Ø 125 x 13130 mm CERAPLATE COATED WITH CIPS TRANSDUCER SYSTEM
CHINA	SANZUODIAN RESERVOIR FLOOD DISCHARGE TUNNEL	2	PISTON RODS FOR HYDRAULIC CYLINDERS Ø 250 x 11038 mm CERAPLATE COATED WITH CIPS TRANSDUCER SYSTEM
KOREA	4 RIVER / SUNGCHEON DAM	5	HYDRAULIC CYLINDERS Ø 400/230 x 13000 mm
		5	HYDRAULIC CYLINDERS Ø 460/250 x 13000 mm INCLUDING CIPS TRANSDUCER SYSTEM
VIETNAM	SEREPOK 4A DAM	2	HYDRAULIC CYLINDERS Ø 250/110 x 6200 mm WITH MOUNTED VALVE BLOCK, PIPING ON CYLINDER AND PROXIMITY SWITCHES

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CHINA		8	PISTON RODS FOR HYDRAULIC CYLINDERS
		10	Ø 110 x 7342 mm PISTON RODS FOR HYDRAULIC CYLINDERS
		2	Ø 150 x 7179 mm PISTON RODS FOR HYDRAULIC CYLINDERS
			Ø 180 x 7300 mm CERAPLATE COATED
MALAYSIA	SUNGAI SARAWAK	2	HYDRAULIC CYLINDER
		2	Ø 480 / 180 x 4050 mm HYDRAULIC CYLINDER Ø 540 / 240 x 3350 mm
VIETNAM	TRI AN-DONG NAI DAM	16	HYDRAULIC CYLINDER Ø 450 / 220 x 9400 mm
VIETNAM	SONG CAI RIVER	6	HYDRAULIC CYLINDER
		6	Ø 360 / 180 x 9900 mm HYDRAULIC CYLINDER
		4	Ø 320 / 160 x 7100 mm HYDRAULIC CYLINDER
		4	Ø 320 / 160 x 8900 mm HYDRAULIC CYLINDER Ø 320 / 160 x 6600 mm

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COUNTRY	PROJECT	QUANT.	DESIGNATION AND SIZE
EGYPT	NEW ESNA DAM	12	GUIDE VANE SERVOMOTOR CYLINDER Ø 420/200 x 1353 mm
EGYPT	ASSUAN II DAM	41	RADIAL GATE CYLINDER Ø 330/180 x 7300 mm
		8	POWER INTAKE GATE CYLINDER Ø 400/140 x 8300 mm
IRAQ	MOSUL DAM	12	RADIAL GATE CYLINDER Ø 350/180 x 5660 mm
		2	BOTTOM OUTLET GATE CYLINDER Ø 140/80 x 5360 mm
SUDAN	SIDI SALEM DAM	4	WHEEL GATE CYLINDER Ø 340/140 x 7330 mm
		4	RADIAL GATE CYLINDER Ø 360/200 x 7024 mm
IRAN	JIROFT DAM	4	WHEEL GATE CYLINDER Ø 440/160 x 8300 mm
NIGERIA	BENUE DAM	12	GATE ZYLINDER Ø 360/120 x 11110 mm
SOUTH AFRICA	PALMIET DAM	4	INTAKE EMERGENCY GATE CYLINDER Ø 350/210 x 8000 mm
EGYPT	NAGA HAMMADI	12	REGULATOR GATE CYLINDER Ø 100/70 x 3500 mm

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EGYPT	AZMY BRIDGE, PORT SAID	2 2 5	LIFTING CYLINDER Ø 280 / Ø 200 / 2400 LOCKING CYLINDER Ø 100 / Ø 45 / 300 SUPPORT CYLINDER Ø 80 / Ø 40 / 200
IRAN	HAJILAR DAM	2	BOTTOM OUTLET SLIDE GATE CYLINDERS Ø 125 / 80 X 1050
IRAN	SYAHOO DAM	2	SLIDE GATE CYLINDER Ø 175 / 80 X 895
IRAN	ABIVARD DAM	1	SLIDE GATE CYLINDER Ø 180 / 75 X 1000

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COUNTRY	PROJECT	QUANT.	DESIGNATION AND SIZE
USA	ARKANSAS 9 ARKANSAS RIVER LOCK AND DAM	3	WHEEL GATE CYLINDER Ø 380/140 x 10300 mm
USA	WATERWAY LOCK ILLINOIS	4	SERVOMOTOR CYLINDER FOR SLIDE GATE Ø 530/220 x 4318 mm INCLUDING ALL SUPPORT-CYLINDERS
USA	W.T. LOVE GENERATING STATION	4	SERVOMOTOR-CYLINDER FOR TUBINE POWER INTAKE-GATE Ø 320/90 x 8980 mm
USA	MISSISSIPPI RIVER POWER PLANT VIDALIA, LOUISIANA	8	OUTLET SLUICE GATE CYLINDER Ø 405/150 x 10290 mm WITH HYDRAULIC-CONTROL-UNIT
USA	LAKE BRAZOS DAM	24	GATE CYLINDER Ø 250/140 x 2565 mm
USA	RED RIVER, VICKSBURG MISSISSIPPI	2	MITER GATE CYLINDER Ø 355/150 x 4419,6 mm
		2	MITER GATE CYLINDER Ø 305/125 x 2876,6 mm
USA	BONNEVILLE FLAP BRIDGE, COLUMBIA RIVER	2	NAVIGATION LOCK CYLINDER Ø 304/177 x 2477 mm
		2	NAVIGATION LOCK CYLINDER Ø 127/50,8 x 483 mm
USA	WADELL DAM	2	GATE CONTROL CYLINDER Ø 560/165 x 2160 mm

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USA	HARDIE-TYNES PROJECT	2	GATE CYLINDER Ø 510/165 x 5245 mm
		2	GATE CYLINDER Ø 560/165 x 2159 mm
USA	COWLITZ FALLS PROJECT	2	RADIAL GATE CYLINDER Ø 340/180 x 1135 mm
		2	WHEEL GATE CYLINDER Ø 300/90 x 5850 mm
USA	OLMSTED DAM	2	FLAP GATE CYLINDER Ø 355/197 x 4039 mm
USA	LOWER COLORADO RIVER DAM	21	FLAP GATE CYLINDER Ø 255/140 x 3137 mm WITH CERAPLATE AND CIPS- SYSTEM
USA	ROCKY MOUNTAIN	4	SPHERICAL VALVE SERVO MOTOR CYLINDERS Ø 540/215 x 1856 mm WITH MECHANICAL LOCKING DEVICE
USA	SAFE HARBOUR DAM PENSILVANIA	2	VERTICAL GATE PULLING CYLINDER Ø 380/230 x 1033 mm
CANADA	FERRY BRIDGE CITY OF QUEBEC; SEA PORT	9	BRIDGE CYLINDER Ø 355/200 x 7700 mm
USA	LOWER COLORADO RIVER DAM	1	RADIAL GATE CYLINDER Ø 500 / 150 x 3137 mm

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COUNTRY	PROJECT	QUANT.	DESIGNATION AND SIZE
ARGENTINA	ALFAFAL DAM	2	TURBINE CONTROL CYLINDER Ø 600/360 x 990 mm
ARGENTINA	YACIRETO ELTUNAL LOS ALISOS	4 20	BOTTOM OUTLET GATE CYLINDER Ø 340/240 x 4460 mm RADIAL GATE CYLINDER Ø 160/100 x 3300 mm
BRAZIL	MOXOTO & ITAIPU DAM	4	BOTTOM OUTLET GATE CYLINDER Ø 380/140 x 2810 mm
BRAZIL	ESCELSA DAM	9	TURBINE INLET GATE CYLINDER Ø 470/200 x 12500 mm CYLINDER COMPLETE WITH POWER-UNIT
BRAZIL	PAULO ALFONSI IV	6 3	TURBINE INLET GATE CYLINDER Ø 450/160 x 9800 mm POWER- AND CONTROL-UNIT
URUGUAY	CONSTITUCION (PALMAR) POWER PLANT	9 3	TURBINE INLET GATE CYLINDER Ø 425/160 x 16200 mm POWER- AND CONTROL-UNIT
COLUMBIA	SAN CARLOS POWER PLANT	20	TURBINE CONTROL CYLINDER Ø 530/160 x 9800 mm
VENEZUELA	GURI DAM	21	RADIAL GATE CYLINDER Ø 580/380 x 15100 mm

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GUATEMALA	PUEBLO VIEJO DAM	1	BOTTOM OUTLET GATE CYLINDER Ø 400/220 x 3900 mm COMPLETE WITH POWER- AND CONTROL- UNIT WITH MANUAL LOCKING DEVICE
		1	POWER INTAKE GATE CYLINDER Ø 200/110 x 4500 mm COMPLETE WITH POWER- AND CONTROL- UNIT WITH HYDRAULICALLY OPERATED LOCKING DEVICE
ARGENTINA	ALICURA DAM	2	BOTTOM OUTLET SERVOMOTOR-CYLINDER Ø 580/200 x 4500 mm WITH MANUALLY OPERATED LOCKING DEVICE
		2	BOTTOM OUTLET SERVOMOTOR-CYLINDER Ø 580/200 x 3800 mm WITH MANUALLY OPERATED LOCKING DEVICE
		2	BOTTOM OUTLET SERVOMOTOR-CYLINDER Ø 420/150 x 4200 mm WITH MANUALLY OPERATED LOCKING DEVICE
		1	SERVOMOTOR-CYLINDER FOR EMERGENCY GATE Ø 380/125 x 10800 mm
MEXICO	HUITES DAM	8	RADIAL GATE CYLINDER Ø 550/280 x 19000 mm
		2	POWER INTAKE GATE CYLINDER Ø 540/190 x 8950 mm

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CHILE	COLBUN CM21 DAM	2	CYLINDER FOR SLIDE-GATE Ø 400/140 x 4500 mm
		2	CYLINDER FOR SPILLWAY-GATE Ø 460/160 x 2860 mm
		2	CYLINDER FOR POWER-INTAKE-GATE Ø 520/200 x 14100 mm
		4	CYLINDER FOR BOTTOM-OUTLET-GATE Ø 660/260 x 3900 mm WITH LOCKING DEVICE
BRASIL	MANSO DAM	2	CYLINDER FOR SLIDE-GATE Ø 165/56 x 6855 mm
COSTA RICA	CACHI DAM	4	RADIAL GATE TELESCOPIC CYLINDER Ø 225 + 300 / Ø 140 + 250 x 12000 mm
BRASIL	FUNIL DAM	8	RADIAL GATE CYLINDER Ø 310/200 x 10340 mm
		12	INTAKE GATE CYLINDER Ø 250/100 x 7510 mm