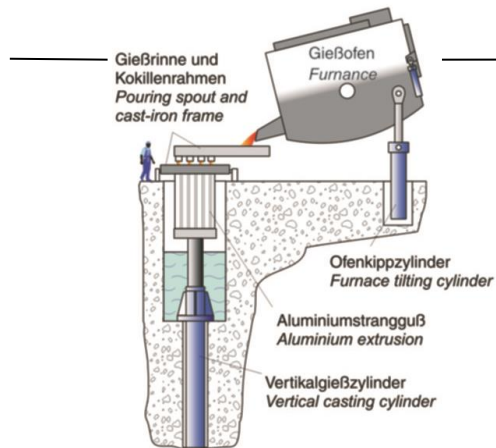


Hunger - Vertical Casting Cylinders

- only self guided with anti rotation device -



Plant / User	Qty.	Ram- / Diameter	Cylinder stroke	Hydraulic -fluid	Hunger Drawing No.	Equipment
Elkem Aluminium Lista/Norway	1	810 mm	9000 mm	Water-Oil-Emulsion	109423	
Elkem Aluminium Lista/Norway	3	635 mm	9020 mm	Water-Oil-Emulsion	112812	
VAW-Rheinwerk Neuss, Germany	1	810 mm	10000 mm	Mineral oil	116677	
Alcoa Warrick Operations, USA	2	810 mm	10160 mm	Water-Oil-Emulsion	110856	
Alcan, England	1	580 mm	9600 mm	Mineral oil	115665	
Sidal, Belgium	2	500 mm	7755 mm	Mineral oil	115019	
Alusuisse, Singen	2	400 mm	7500 mm	Mineral oil	113883	
Alusuisse, Singen	1	420 mm	8500 mm	Mineral oil	114902	
Alusuisse, Singen	2	400 mm	7500 mm	Mineral oil	113883	
Deeside/England	1	360 mm	8320 mm	Mineral oil	116055	
Nedal/Netherlands	1	300 mm	300 mm	Mineral oil	114948	
Slovakia	2	680 mm 600 mm	8700 mm	Quintolubric, Type 822	118344	double acting
GA Metall Sundsvall Schweden	1	680 mm 600 mm	9000 mm	Quintolubric, Type 822	118344	Cerapl. double acting

Aluminiumprofiler	1	420 mm	8000 mm	Mineral oil	119003	Cerapl. Transd.
Gold Star, Korea	1	510 mm 460 mm	7100 mm	Mineral oil	117050	double acting
NZAS, Newzealand	1	510 mm 460 mm	8500 mm	Mineral oil	118 346	double acting
Australia	2	400 mm 360 mm	7000 mm	Mineral oil	118501	double acting
Australia	1	600 mm 550 mm	8800 mm	Quintolubrik Type 822	118639	double acting
USA	1	510 mm 460 mm	7112 mm	Mineral oil	118621	double acting
Hydro Raufoss, Norway	1	400 mm	8500 mm	Mineral oil	118699	
Hydro Automotive, Norway	1	400 mm	8500 mm	Mineral oil	119497	Cerapl. Transd.
Hydro Aluminium Sundal	1	300 mm	3900 mm	Mineral oil	119019	Cerapl. Transd.
Hulett Alu PYT Ltd., Südafrika	2	560 mm	7000 mm	Condat D 46	119074	Transd.
Alcan Pinda, Brasil	1	580 mm	8500 mm	Quintolubric Type 822	119275	Transd.
Hoogovens Belgium Duffel	1	420 mm	8400 mm	Mineral oil	119241	Cerapl.
SAPA, Sweden Skandinaviska Aluminium	1	420 mm	8000 mm	Mineral oil	119003	Cerapl. Transd.
Alusuisse, Singen	1	400 mm	7500 mm	Mineral oil	113883	Cerapl.
Alu Smelters, Alcon, Nigeria	1	460 mm	8000 mm	Mineral oil	119071	Cerapl.
Elkem Aluminium, Norway	1	635 mm	10150 mm	Water- Emulsion	117940	
Elkem Aluminium, Norway	1	635 mm	9017 mm	Water- Emulsion	119773	Cerapl.
SÖR Aluminium AS Norway / Ardal	1	610 mm	8500 mm	Mineral oil	118681	
ISAL-Straumswik, Iceland	1	520 mm	10300 mm	Mineral oil	119409	

Hydro Aluminium Norway / Ardal	1	810 mm	10500 mm	Mineral oil	119475	Cerapl. Transd. EVD
HASEYAO YAPI, Turkey	1	400 mm	7500 mm	Mineral oil	119467	Cerapl.
Netherlands	2	400 mm	7850 mm	Mineral oil	119481	Cerapl. Transd.
Hulett Alu PYT Ltd., South Africa	1	450 mm	7450 mm	Condat D46	119660	Cerapl. Transd.
VAW Alu AG, Neuss → later Hydro Alu	1	810 mm	10000 mm	Mineral oil	119694	Cerapl. Transd.
VAW Alu AG, Stade → later Hydro Alu	3	400 mm	7800 mm	Mineral oil	119707	Cerapl. EVD
Hydro Alu Azuqueca, Spain	1	420 mm	8000 mm	Mineral oil	120006	Cerapl.
Elval, Greece	1	900 mm	10500 mm	Quintolubric Type 822	120013	Cerapl.
Kubikenberg Aluminium Sundval, Sweden	1	600/680 mm	9000 mm	Mineral oil	120052	Cerapl.
Aluminium Laufen AG / CH	1	400 mm	7500 mm	Mineral oil	120011	Cerapl.
NELA Harbin, China	1	400 mm	7000 mm	Mineral oil	120054	Cerapl.
HAW- Hamburg → later Hydro Alu	1	460 mm	7400 mm	Mineral oil	120178	Cerapl. Transd.
Hydro Alu Norwegen	1	610 mm	8500 mm	Mineral oil	120157	Cerapl.
Alu-Menzlken Schweiz	1	240 mm	4200 mm	Mineral oil	120166	Transd.
Mosjoen, Norway	1	635 mm	10200 mm	Mineral oil	120200	Cerapl. Transd.
Pechiney, Netherland	1	520 mm	10400 mm	Shell Irus D46	120209	Cerapl.
ISAL II -1, Iceland	1	520 mm	9580 mm	Quintolubric Type 822	120213	Cerapl.

Hydro-Aluminium Neuss, Germany	1	480 mm	6000 mm	Mineral oil	120220	Cerapl. Transd. EVD
Fuchs GmbH, Meinertshagen, Germany	1	350 mm 310 mm	5500 mm	Mineral oil	120198	Cerapl. double acting
Erbslöh Aluminium GmbH Germany, Project Phoenix	1	300 mm	8000 mm	Mineral oil	120303	Cerapl..
Bridgnorth Aluminium, UK	1	540 mm	6000 mm	Water Emulsion	120321	Cerapl.
Mosjoen, Norway	1	480 mm	9860 mm	Mineral oil	120329	Cerapl. Transd.
GHI- Hornos, Spain	1	260 mm	6850 mm	Mineral oil	120351	Cerapl.
Hydro Aluminium Neuss, Germany	1	480 mm	6000 mm	Mineral oil	120220	Cerapl. Transd. EVD
Alba, Bahrain	1	520 mm	6700 mm	Hydransafe HFDU 46	120617	Cerapl..
Chengdu, China	1	450 mm	6000 mm	Mineral oil	120695	Cerapl.
Anglesey, UK	1	400 mm	7.665 mm	Houghto Safe 620	120157	Cerapl.
Swansea, UK	1	635 mm	9.000 mm	Mineral oil	112812	Cerapl.
Guizhou, China	1	560 mm	8.030 mm	Quintolubric N822	120850	Cerapl..
Quinghai, China	2	520 mm	8.030 mm	Quintolubric N822	120849	Cerapl..
Matalco, Canada	1	450 mm	8.600 mm	Quintolubric N822	120877	Cerapl.
Quiaotou, China	1	420 mm	7.230 mm	Mineral oil	120851	Cerapl..
Hydro Aluminium Neuss, Germany	1	480 mm	6000 mm	Mineral oil	120220	Cerapl. Transd. EVD

Martigny, CH	1	320 mm	7000 mm	Mineral oil	120959	Cerapl. Transd.
Wichuan, China	2	520 mm	8000 mm	Mineral oil	120968	Cerapl.
ISAL II -2, Iceland	1	520 mm	9580 mm	Quintolubric Type 822	120213	Cerapl.
Hulett Aluminum South Africa	1	560 mm	7.000 mm	Condat D46	121059	Cerapl. Transd.
Allocast USA, Los Angeles	1	510 mm 460 mm	7.110 mm	Mineral oil	121113	Cerapl. double acting
Hulett Aluminum South Africa	1	260 mm	5.200 mm	Condat D46	121129	Cerapl. Transd.
Furukawa Sky Aluminum, Fukui, Japan	1	820 mm	11.800 mm	Mineral oil	121168	Cerapl. Transd. EVD
Shenhuo, China	1	450 mm	8.100 mm	Quintolubric Type 822	121305	Cerapl.
Wutöschingen, Germany	1	330 mm 290 mm	5.283 mm	Mineral oil	121040	Cerapl.
Hangxing Aluminium Equipment Plant, Taiwan	1	360 mm	7.000 mm	Mineral oil	121283	Cerapl.
Miluo Longzhou China	2	510 mm 460 mm	7.110 mm	Mineral oil	121113	Cerapl. double acting
Southwest Aluminium - Chongqing, China	1	520 mm	8.000 mm	Mineral oil	121326	Cerapl.
ALCAN Brisach, France	1	650 mm	6.850 mm	Mineral oil	121377	Cerapl.
Shenhuo Aluminium, China	1	420 mm	8.000 mm	Mineral oil	121400	Cerapl.
Balco Aluminium, India	1	360 mm	6.500 mm	Mineral oil	121421	Cerapl.
Henan Aluminium, Zhondsewanji Loiyang, China	1	400 mm	7.000 mm	Mineral oil	121422	Cerapl.

Novelis Sierre, CH	1	580 mm	6.000 mm	Quintolubric Type 822	121455	Cerapl. Transd. EVD
CAP Global Aluminium, Thailand	1	300 mm	6.700 mm	Mineral oil	121480	Cerapl.
Haal, India	1	400 mm 360 mm	6.900 mm	Mineral oil	121517	Cerapl. double acting
Alcan Decin Czech Republic	3	300 mm	6.400 mm	Mineral oil	121537	Cerapl. Transd.
EURAL Gnutti S.p.A. Italy	1	400 mm	9.000 mm	Mineral oil	121527	Cerapl. Transd.
India	1	400 mm 360 mm	5.000 mm	Water - Glycol	121543	Cerapl. double acting
Grupa Kety, Polen	1	400 mm 360 mm	6.900 mm	Quintolubric 888- 46	121517	Cerapl., double acting
Zhongrong 1 China	1	420 mm	7.300 mm	Mineral oil	121595	Cerapl.,
Zhongrong 2 China	1	300 mm	7.300 mm	Mineral oil	121596	Cerapl.,
Boyne Smelters, Australia	1	600 mm 550 mm	8.800 mm	Mineral oil	121606	Cerapl. double acting
Kumz Aluminium, Russia	1	580 mm	7.500 mm	Mineral oil	121600	Cerapl.
Chalco Aluminium China	3	510 mm 460 mm	7.200 mm	Quintolubric 888- 46	121636	Cera., ITL, double acting
Chalco, Liancheng Aluminium China	1	680 mm 600 mm	9.000 mm	Quintolubric 888- 46	121638	Cerapl., double acting
Chalco, Liancheng Aluminium China	1	680 mm 600 mm	7.200 mm	Quintolubric 888- 46	121639	Cerapl., double acting

Slovalco Aluminium a.s. Ziar nad Hronom, Slovakia	1	680 mm 600 mm	8.700 mm	Quintolubric 888- 46	121631	Cerapl., double acting
Aleris Aluminium Duffel, Belgium	1	420 mm	8.400 mm	Mineral oil ISO VG 46	121646	Cerapl., Transd.
Qiaotou Aluminium China	1	340 mm	5.800 mm	Mineral oil ISO VG 46	121680	Cerapl.
Met Trade India Ltd., Delhi, India	1	360 mm	7.000 mm	Mineral oil ISO VG 46	121668	Cerapl., EVD
Egypt Aluminium, Egypt	1	500 mm	7.100 mm	Mineral oil ISO VG 46	121706	Cerapl.
GHI- Hornos, Spain	1	260 mm	6850 mm	Water with Glycol	120351	Cerapl.
	1	740 mm 660 mm	7.200 mm	Quintolubric 888- 46	121746	Cera., ITL, double acting
Erbslöh Aluminium GmbH Germany, Project Phoenix	1	300 mm	8000 mm	Mineral oil	120303	Cerapl..
Fujian Nanping Aluminium, China	1	360 mm	7000 mm	Mineral oil	121825	Cerapl..
NELA Harbin, China	1	400 mm	7.500 mm	Mineral oil	121836	Cera., ITL
NELA Harbin, China	1	460 mm	7.500 mm	Mineral oil	121837	Cera., ITL
Universal Alloy Corp., Romania	1	400 mm 360 mm	5.000 mm	Quintolubric 888- 46	121543	Cera., ITL, double acting
KUBAL, Sweden	1	680 mm 600 mm	9.000 mm	Hydro Star TE 46	121873	Cera., double acting
Hunan Aluminium, China	1	400 mm	7.100 mm	Mineral oil	121904	Cera.
Novelis Warrington, UK,	1	580 mm	9.600 mm	Mineral oil	121957	Cera. Transd.

Novelis do Brasil, Pinda, Brasil	1	860 mm	8.500 mm	Quintolubric 888-46	121965	Cera., ITL, Transd.
Chalco Aluminium, China	1	750 mm	8.500 mm	Mineral oil	121975	Cera., ITL
EURAL- Gnutti, Italy	1	580 mm	8.900 mm	Mineral oil	122000	Cera. Transd., ITL
Hindalco, Hirakud, India	1	450 mm	6.000 mm	Quintolubric 888-46	122002	Cera. Transd., ITL
Hindalco, Hirakud, India	1	600 mm	8.000 mm	Quintolubric 888-46	122003	Cera. Transd., ITL
ALNAN, China	1	680 mm 600 mm	8.800 mm	Quintolubric 888- 46	122020	Cera., ITL double acting
ALNAN, China	1	740 mm 660 mm	8.800 mm	Quintolubric 888- 46	122025	Cera., ITL double acting
Zheng- Zhou Aluminium, China	1	320 mm	7.200 mm	Mineral oil	122021	Cera.
Aluminicaste, Mexico	2	480 mm	7.500 mm	Quintolubric 888- 46	122038	Cera., ITL, Transd.
Novelis YeongJu, South Korea	1	900 mm	8.750 mm	Quintolubric 888-46	122047	Cera., ITL, Transd.
Yunnan Aluminium, China	1	450 mm	7.000 mm	Mineral oil	122062	Cera.

Elval, Greece	1	900 mm	10.500 mm	Quintolubric 888-46	122080	Cera., ITL, Transd.
Shandong Aluminium, China	1	480 mm	7.500 mm	Mineral oil	122102	Cera., ITL
Guihai Aluminium, China	1	420 mm	6.600 mm	Mineral oil	122103	Cera., ITL
Yinhai Aluminium, China	1	520 mm	8.200 mm	Mineral oil	122108	Cera.
Yinhai Aluminium, China	1	600 mm	8.200 mm	Mineral oil	122109	Cera.
CSAC, Kaohsiung, Taiwan	2	700 mm	8.500 mm	Quintolubric 888-46	122120	Cerapl., ITL
Liaoyuan Aluminium, Beiye, China	2	500 mm	8.800 mm	Mineral oil	122127	Cera.
Liaoyuan Aluminium, Zhonglu, China	1	360 mm	7.300 mm	Mineral oil	122128	Cera.
Alba, Bahrain	1	520 mm	6.700 mm	Hydransafe HFDU 46	120617	Cera.
Otto Fuchs, Meinerzhagen, Germany	1	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	122151	Cera., ITL, double acting
Aleris Koblenz, Germany	1	510 mm 460 mm	7.200 mm	Quintolubric 888- 46	122172	Cera., ITL, double acting
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	122150	Cera., ITL, double acting
DUBAL Aluminium, Dubai	1	400 mm	8.610 mm	Quintolubric 888-68	122162	Cerapl., ITL
Novelis do Brasil, Pinda, Brasil	1	580 mm	8.500 mm	Quintolubric 888-46	122212	Cera.
Sanlin Aluminium, China	1	320 mm	7.300 mm	Mineral oil	122224	Cera., ITL

Zhonghe Aluminium, China	1	540 mm	7.200 mm	Mineral oil	122232	Cera., ITL
ALMEX USA, Inc.	1	400 mm 360 mm	4.000 mm	Quintolubric 888-68	122240	Cera., ITL, double acting
Erdozi Aluminium, China	1	400 mm	7.300 mm	Mineral oil	122239	Cera., ITL
Schwermetall GmbH, Germany	1	560 mm	9.000 mm	Mineral oil	122263	CeraPlus, ITL, Transd.
Hydro Ardal, Norway	1	810mm	10.500 mm	Shell Tellus 32	122252	Cera., EVD, Transd.
Novelis Nachterstaedt, Germany	2	1.000mm	10.500 mm	Quintolubric 888-46	122259	Cera., ITL, Transd.
Zouping Qixing Aluminum, China	1	460 mm	7.500 mm	Quintolubric 888-46	122267	Cera., ITL,
Constellium Decin, CZ	1	300 mm	6.400 mm	Mineral oil	122281	Cera., ITL, Transd.
Kaiser Aluminum Spokane, USA	2	700 mm	7.500 mm	Griflube BioSyn	122283	Cera., ITL, Transd.
Dalian Huao Aluminum, China	1	620 mm	9.000 mm	Mineral oil	122298	Cera., ITL
Taiyo Aluminum, Nigeria	1	320 mm	5.800 mm	Mineral oil	122299	Cera., ITL

Furukawa Sky Aluminium Bangkok, Thailand	1	820 mm	11.800 mm	Water Glycol	122300	Cera., ITL, Transd.
Furukawa Sky Aluminium Bangkok, Thailand	1	600 mm	11.800 mm	Water Glycol	122301	Cera., ITL, Transd.
Constellium Ravenswood, USA	1	560 mm	8.130 mm	Hydrashield FR 395	122303	Cera., ITL, Transd.
Aleris Koblenz, Germany	1	400 mm	7.200 mm	Quintolubric 888-46	122315	Cera., ITL, Transd.
Dalian Huicheng, China	1	500 mm	8.600 mm	Mineral oil	122316	Cera., ITL,
Beiye Aluminum, China	1	400 mm	6.800 mm	Mineral oil	122336	Cera., ITL
Dalian Huaao Aluminum, China	1	520 mm	8.000 mm	Mineral oil	122337	Cera., ITL
Alutech, White Russia	1	400 mm	6.800 mm	Mineral oil	122341	Cera., ITL
Asas Alüminyum, Turkey	1	480 mm	7.800 mm	Mineral oil	122347	Cera., ITL
Beiye Aluminum, China	1	360 mm	7.500 mm	Mineral oil	122348	Cera., ITL
	1	320 mm	6.000 mm	Mineral oil	122397	Cera., ITL
Novelis Sierre, CH	1	580 mm	6.200 mm	Quintolubric 888-46	121455	Cera., ITL, Transd.

Universal Alloy Corp., Romania	1	400 mm 360 mm	5.000 mm	Water- Glycol	121543	Cera., ITL,
Constellium Valais SA, Cippis, CH	1	380 mm 340 mm	6.600 mm	Mineral oil	122374	Cera., Transd.
Hulett Aluminium, South Africa	1	520 mm	7.450 mm	Condat D46	122403	Cera., ITL, Transd.
Constellium Valais SA, Steg, CH	1	300 mm	7.500 mm	Houghto- Safe 620	122443	Cera., ITL, Transd.
ALMEX USA, Inc., Long Beach, California	1	400 mm 360 mm	6.000 mm	Quintolubric 888- 46	122488	Cera., ITL, double acting
Otto Fuchs KG Meinerzhagen, Germany	1	510 mm 460 mm	7.200 mm	Quintolubric 888- 46	122489	Cera., ITL, double acting
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	122490	Cera., ITL, double acting
Dalian Huaao Aluminum, China	1	400 mm	7.500 mm	Mineral oil	122506	Cera., ITL
Dalian Huaao Aluminum, China	1	320 mm	7.500 mm	Mineral oil	122505	Cera., ITL
Novelis YeongJu, South Korea	1	900 mm	8.750 mm	Quintolubric 888-46	122047	Cera., ITL, Transd.
Xinjiang Nongliushi Aluminum, China	6	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL

NZ Aluminium Smelters Ltd., New Zealand	1	510 mm 460 mm	8.500 mm	Mineral oil	122549	Cera., ITL, Transd.
Rongyang Aluminum, China	1	600 mm	8.100 mm	Mineral oil	122575	Cera., ITL
E-Max, Kerkrade, Netherlands	1	400 mm	7.850 mm	Mineral oil	119581	Cera., ITL, Transd.
ALMEX USA, Inc., Long Beach, California	1	400 mm 360 mm	5.945 mm	Quintolubric 888- 46	122594	Cera., ITL, double acting
Alcoa Bohai, China	1	635 mm	8.103 mm	Hydrolubric 120-B	122610	Cera., ITL,
Laminazione Sottile, Italy	1	680 mm	6.000 mm	Mineral oil	122624	Cera., ITL, EVD, Transd.
Eural Gnutti, Italy	1	400 mm	9.000 mm	Mineral oil	121527	Cera., Transd.
Alcoa Kittsgreen, UK	1	635 mm	7.000 mm	Ultramax WG 12	122669	Cera.
Alcoa Davenport, USA	1	810 mm	9.906 mm	water plus 5% oil	122671	Cera., EVD
Hangqiao, China	1	400 mm	7.500 mm	Mineral oil	122678	Cera., ITL
Hydro Aluminium Hamburg	1	560 mm	7.300 mm	Mineral oil	122677	Cera., ITL, Transd.

Impexmetal- Aluminium Konin, Poland	2	380 mm	7.000 mm	Quintolubric 888-46	122680	Cera., ITL, Transd.
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	6.500 mm	Quintolubric 888- 46	122682	Cera., ITL, double acting
Xinjiang Nongliushi Aluminum, China	2	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL
Guily Aluminum, China	2	460 mm	7.000 mm	Mineral oil	122715	Cera., ITL
Guily Aluminum, China	1	620 mm	9.000 mm	Mineral oil	122718	Cera., ITL
Guily Aluminum, China	1	620 mm	10.000 mm	Mineral oil	122719	Cera., ITL
SALCO, Iran	2	560 mm	8.100 mm	Condat 46	122727	Cera.
Constellium Muscle Shoals, Alabama, USA	1	810 mm	6.985 mm	water plus 5% oil	122726	Cera., ITL
CAP, Global Aluminium Thailand	1	300 mm	6.700 mm	Quintolubric 888-46	121480	Cera.
Cometal Engineering S.P.A., Italy	1	450 mm	8.500 mm	Mineral oil	122738	Cera., ITL, WMS
UACJ Bangkok, Thailand	1	820 mm	11.800 mm	Water Glycol	122300	Cera., ITL, Transd.
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	8.400 mm	Quintolubric 888- 46	122779	Cera., ITL, double acting
Aludium, Spain	1	520 mm	5.800 mm	HFD- 46 Pentaflux	122806	Cera., ITL, Transd.

AWW – Wutöschingen, Germany	1	260 mm	5.283 mm	HEES- 46	122780	CeraPlus, ITL, Transd.
NN- Metalurji, Turkey	1	360 mm	6.700 mm	Mineral oil	122827	Cera., ITL, Transd.
Nanjing Yunhai Special Metals, China	3	450 mm	7.500 mm	Mineral oil	122876	Cera., ITL
ProfilGlass, Italy	1	420 mm	7.000 mm	Mineral oil	122904	Cera., Transd.
ProfilGlass, Italy	1	640 mm	8.000 mm	Quintolubric 888-46	122935	Cera., ITL, Transd.
Grupa Kety S.A., Poland	1	400 mm 360 mm	6.900 mm	Water Glycol	121517	Cera., ITL
Alu Norf, Germany	1	700 mm	9.500 mm	HFC Fluid	122993	Cera., ITL, Transd.
Novelis do Brasil, Pinda, Brasil	1	580 mm	8.500 mm	Quintolubric 888-46	123004	Stainless steel rod
Aleris Duffel, Belgium	1	500 mm	6.820 mm	Quintolubric 888-46	123015	Cera., ITL, Transd.
Novelis Warrington, UK	1	460 mm	5.000 mm	Quintolubric 888-46	123043	Stainless steel rod
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	8.800 mm	Quintolubric 888- 46	123049	Cera., ITL, double acting
Kaiser Aluminum Spokane, USA	1	530 mm 460 mm	6.350 mm	Griflube BioSyn	123072	Cera.

Sistem Aluminium, Turkey	1	480 mm	7.800 mm	Mineral oil	122347	Cera., ITL,
Aleris Zhenjiang, China	1	680 mm	9.600 mm	Mineral oil	123073	Cera., ITL, Transd.
Kaiser Aluminum Spokane, USA	1	520 mm	6.350 mm	Griflube BioSyn	123067	Cera., ITL, Transd.
Impexmetal- Aluminium Konin, Poland	1	500 mm	7.000 mm	Quintolubric 888-46	123080	Cera., ITL, Transd.
Constellium Muscle Shoals, Alabama, USA	1	810 mm	6.985 mm	water plus 5% oil	122726	Cera., ITL
Novelis Nachterstaedt, Germany	1	1.000mm	10.500 mm	Quintolubric 888-46	123101	Cera., ITL
ALBA, Bahrain	1	520 mm	6.700 mm	Hydransafe HFDU 46	120617	Cera.
Kaiser Aluminum Sherman, USA	1	360 mm	7.300 mm	Quintolubric 888-46	123130	Cera., ITL,
Asistal Aluminium Profiles, Turkey	1	480 mm	7.800 mm	Mineral oil	122347	Cera., ITL,
Hydro Aluminium, Neuss, Germany	1	480 mm	6.000 mm	Mineral oil	123192	Cera., ITL, Transd.
PMS Alüminyum, Turkey	1	360 mm	7.900 mm	Mineral oil	123207	Cera., ITL, Transd.
Hydro Extrusion, Feltre Italy	1	400 mm	7.800 mm	Mineral oil	123209	Cera., ITL

Alu Norf, Germany	1	700 mm	9.500 mm	HFC Fluid	122993	Cera., ITL, Transd.
HongHe Aluminium, China	1	400 mm	7.200 mm	Mineral oil	123250	Cera., ITL
Matalco, Canada	1	450 mm	8.600 mm	Quintolubric 888-46	123256	Cera., ITL,
Alu Laufen, CH	1	400 mm	7.500 mm	Mineral oil	123262	Cera.
ALMEX USA, Inc., Long Beach, California	2	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	123271	Cera., ITL, double acting
ALTEK Metals San VTAS Cerkezkoy Tekirdag, Turkey	1	510 mm 460 mm	8.300 mm	Quintolubric 888- 46	123286	Cera., ITL, double acting
Formal Aluminium, Ukraine	1	360 mm	7.900 mm	Mineral oil	123289	Cera., ITL, Transd.
Okal Metal - Metalurji, Turkey	1	360 mm	7.900 mm	Mineral oil	123289	Cera., ITL, Transd.
Arconic Davenport, USA	1	635 mm	6.350 mm	Hydrolubric 120B	123292	Cera., ITL,
Shandong Innovation Renewable Resources Co. Ltd, China	4	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL
Shandong Chuang Yuan Renewable Resources Co. Ltd, China	5	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL
Novelis Warrington, UK	1	460 mm	5.000 mm	Quintolubric 888-46	123043	Stainless steel rod
Balco, India	2	620 mm	9.000 mm	Mineral oil	123325	Cera., ITL

Fabal Alüminyum, Turkey	1	420 mm	7.700 mm	Quintolubric 888-46	123333	Cera., ITL, Transd.
Speira Aluminium Hamburg, Germany	1	560 mm	7.250 mm	Quintolubric 888-46	122677	Cera., ITL, Transd.
Yunnan Innovation Alloy Co. Ltd, China	5	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL
Sider Alloys Sardinia, Italy	1	460 mm	7.650 mm	Quintolubric 888-46	123347	Cera., ITL
Arfem Aluminium, Turkey	1	420 mm	7.900 mm	Quintolubric 888-46	123354	Cera., ITL
Shandong Innovation Metal Technology Co. Ltd, China	5	500 mm	7.500 mm	Mineral oil	123362	Cera., ITL
Novelis Guthrie, USA Project Merlin	1	1.200mm	10.644 mm	Quintolubric 888-46	123374	Stainless steel rod, ITL
Exlabesa- Extrusion Padron, Spain	1	360 mm	7.500 mm	Quintolubric 888-46	123392	Cera., ITL, Transd.
Cortizo Metalicos Emesa S.L., Coruna- Coiros, Spain	1	450 mm	7.600 mm	Quintolubric 888-46	123399	Cera., ITL, Transd.
Aludium Amorebieta, Vizcaya, Spain	1	520 mm	6.500 mm	Quintolubric 888-46	123429	Cera., ITL, Transd.
Coralium, France	1	420 mm	8.450 mm	Quintolubric 888-46	123444	Cera., ITL, Transd.
Shanxi Aluminium, China	1	700 mm	10.100 mm	Mineral oil	123446	Cera., ITL

ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	8.800 mm	Quintolubric 888- 46	123049	Cera., ITL, double acting
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	123271	Cera., ITL, double acting
ALMEX USA, Inc., Long Beach, California	1	510 mm 460 mm	7.200 mm	Quintolubric 888- 46	122682	Cera., ITL, double acting
Arconic Tennessee USA	1	810 mm	7.112 mm	Water + 10% oil	123474	Cera., ITL, EVD
Orbit Aluminum Industr., Jordan	1	450 mm	7.000 mm	Quintolubric 888-46	123469	Cera., ITL.
→ 300 casting cylinders						
Otto Fuchs KG, Meinerzhagen, Germany	1	510 mm 460 mm	7.800 mm	Quintolubric 888- 46	122151	Cera., ITL, double acting
Beiye Aluminium, China	2	700 mm	9.300 mm	Mineral oil	123487	Cera., ITL
Formal Aluminium, Turkey	1	420 mm	7.800 mm	Mineral oil	123512	Cera., ITL
Xinjiang Nongliushi Aluminum, China	1	640 mm	13.000 mm	Mineral oil	122540	Cera., ITL
Albacete, Spain	1	400 mm	7.800 mm	Quintolubric 888-46	123529	Cera., ITL, Transd.

**total numbers of self-guided casting cylinders
with anti rotation device:**

306

Abridgements:

Cera.	Ceraplate - Metal Oxide Coating
CeraPlus	CeraplatePlus – Laser + Metal Oxide Coating
EVD	Externally Adjustable Sealing System
ITL	Integrated Torque Limiter
Transd.	Position Transducer System

Lohr am Main, December 2023