

## EUROPE

1 **ST. PETERSBURG** (RU), Escalator Tunnel, S-441, EPB Shield, Ø 10,690, — 116, **1** OAO Metrostroy.

2 **FÖRSLÖV** (SE), Hallandsås, S-246, Mixshield (convertible), Ø 10,530, — 10,960, **1** Vinci Construction Grands Projets, Skanska Sweden AB.

3 **MOSCOW** (RU), Metro Novogireevo, S-484/S-328b, EPB Shield, Ø 6,250, — 4,924 (total), **1** OAO Transzhstroy.

4 **WARSAW** (PL), Warsaw Metro Line 2, S-644-S-646, EPB Shield, Ø 6,270, — 8,390 (total), **1** Astaldi S.p.A., GÜLERMAK Heavy Industries Construction and Contracting Co. Inc., PBDiM Sp.z.o.o.

5 **AMSTERDAM** (NL), North-South Line Amsterdam, S-268/S-269, Mixshield, Ø 6,880, — 6,263 (total), **1** Dura Vermeer Groep N.V., Ed. Züblin AG.

6 **LONDON** (GB), Crossrail C300/C305/C310, S-705/S-706/S-719-S-722/S-731/S-732, EPB Shield, Mixshield, Ø 7,080, — 42,240 (total), **1** BAM Nuttall, Ferrovial-Agroman S.A., Kier Construction Ltd., Dragados S.A., John Sisk & Son Ltd., Hochtief Solutions AG.

7 **ANTWERP** (BE), Liefkenshoek Tunnel, S-532/S-533, Mixshield, Ø 8,390, — 11,942 (total), **1** MBG, CEI-De Meyer nv, Vinci Construction Grands Projets, Wayss & Freytag AG.

8 **DUSSELDORF** (DE), Wehrhahn Line, S-491, Mixshield, Ø 9,490, — 2,253, Bilfinger Berger AG Ingenieurbau.

9 **COCHEM** (DE), New Kaiser-Wilhelm-Tunnel, S-547, EPB Shield, Ø 10,110, — 4,242, **1** Alpine Untertagebau GmbH, Alpine Bau Deutschland AG, FCC Construcción S.A.

10 **PRAGUE** (CZ), Metro V.A1, S-609/S-610, EPB Shield, Ø 6,050, — 7,900 (total), **1** Metrostav A.S.

11 **PARIS** (FR), Prolongement Ligne 12 – Métro Paris, S-499, EPB Shield, Ø 9,150, — 3,800, **1** Eiffage TP.

12 **SAVERNE** (FR), Tunnel de Saverne, S-670, EPB Shield (convertible), Ø 10,010, — 8,000, **1** Spie Batignolles TPCL.

13 **BIEL** (CH), Biel Ostast, S-452, EPB Shield, Ø 12,560, — 7,164, **1** Walo Bertschinger AG, Porr Suisse AG, Specogna Bau AG.

14 **GOTTHARD** (CH), Gotthard Base Tunnel, S-210/S-211/S-229/S-230/S-421/S-422, Gripper TBM, Ø 9,580, 9,430/8,830, — 85,425 (total), **1** STRABAG AG Tunnelbau Schweiz (CH), STRABAG AG (A), Implema Industrial Construction, Alpine Bau GmbH, CSC Impresa Costruzioni SA, Hochtief AG, Impregilo S.p.A.

15 **LYON** (FR), Lyon Metro, S-546, Mixshield, Ø 9,430, — 1,400, **1** Chantiers Modernes BTP, Spie Batignolles, Dodin Campenon Bernard.

16 **SPARVO** (IT), Galleria Sparvo, S-574, EPB Shield, Ø 15,550, — 4,925, **1** TOTO Costruzioni Generali S.p.A.

17 **SOCHI** (RU), Sochi Road Tunnel No. 3, S-534, Single Shield TBM, Ø 13,210, — 3,100, **1** OAO Usk Most.

18 **SOCHI** (RU), Sochi Railway Tunnel No. 5, S-517, EPB Shield, Ø 10,630, — 2,828, **1** OAO Bamtonnelstroy.

19 **FRÉJUS** (FR), Fréjus Safety Gallery, S-568, Single Shield TBM, Ø 9,370, — 5,547, **1** Razel, Bilfinger Berger AG.

20 **SOFIA** (BG), Metro Line 2, S-525, EPB Shield, Ø 9,360, — 3,770, **1** Dogus Insaat A.S.

21 **VIGO** (ES), Vigo mas Maçeiras, S-414, Double Shield TBM, Ø 9,510, — 8,100, **1** FCC Construcción S.A., Acciona Infraestructuras S.A.

22 **GIRONA** (ES), Túneles Urbanos de Girona, S-362, EPB Shield, Ø 12,110, — 2,901, V-008, Shaft Sinking Machine, Ø 5,250, 9,200, — 65.1, **1** Dragados S.A., COPISA, TECSA Empresa Constructora S.A., FCC Construcción S.A.

23 **ROME** (IT), Metropolitana Di Roma Linea B1, C, S-387/S-388/S-409/S-410/S-479/S-480/S-554, EPB Shield, Ø 9,755, 6,690, 6,770, — 25,523 (total), **1** Salini Costruttori S.p.A., Astaldi S.p.A., Ansaldo Trasporti Sistemi Ferroviari S.p.A., CCC – Consorzio Cooperative Costruzioni, Vianini Lavori S.p.A., Seli S.p.A., C.M.B. Cooperativa Muratori e Braccianti di Carpi.

24 **SABADELL** (ES), Barcelona Sabadell, S-510, EPB Shield, Ø 6,780, — 2,835, **1** Acciona Infraestructuras S.A., ACSA Obras e Infraestructuras S.A., COMSA – Constructora de Obras Municipales S.A.

25 **BARCELONA** (ES), Metro Linea 9, S-221/S-442, EPB Shield, Ø 12,060, — 12,120 (total), V-007, Shaft Sinking Machine, Ø 9,000, — 99 (total), **1** NECESO Entrecanales Cubiertas S.A., Dragados S.A., COMSA – Constructora de Obras Municipales S.A., ACSA Obras e Infraestructuras S.A., Sorigue, ACS Actividades de Construcción y Servicios S.A.

26 **BARCELONA** (ES), AVE Barcelona Trinidad, Calle Mallorca, S-444/S-450, EPB Shield, Ø 11,660, 11,520, — 7,879 (total), **1** COPASA – Construcciones Paraño S.A., Corsán-Corviam Construcción Isolux S.A., VIAS y Construcciones S.A., Sacyr

S.A.

27 **ISTANBUL** (TR), Kadiköy-Kartal Metro, Kadiköy Metro, S-505/S-506/S-360/S-363, EPB Shield, Ø 6,540, — 20,421.5 (total), **1** Astaldi Makyl Gülermak J.V., Dogus Insaat A.S., Yüksel Insaat A.S., Yapi Merkezi A.S., Yenigün Insaat A.S., Belen Insaat Ltd. Sti.

28 **BAKU** (AZ), Metro Baku, S-599, EPB Shield, Ø 6,250, — 2,100, **1** Azertunelmetrotrikinti.

29 **THESSALONIKI** (GR), Thessaloniki Metro, S-382/S-383, EPB Shield, Ø 6,190, — 15,704 (total), **1** Seli S.p.A., AEGEK General Construction Co.

30 **MADRID** (ES), Calle Serrano, S-535, EPB Shield, Ø 11,460, — 6,800, **1** FCC Construcción S.A., Dragados S.A., COPISA, TECSA Empresa Constructora S.A.

31 **ANKARA** (TR), Ankara Metro, S-324, EPB Shield, Ø 5,950, — 8,770, **1** Limak Insaat San, Ve Ticaret A.S.

32 **BAŞKÖY** (TR), Eskisehir-Köseköy/Tunnel 26, S-627, Single Shield TBM, Ø 13,720, — 6,100, **1** Cengiz Insaat Sanayi ve Ticaret A.S., Belen Insaat Ltd. Sti, IC Ictas Insaat A.S.

33 **MURCIA** (ES), Sorbas-Barranco de los Gafarillos, S-556, Double Shield TBM, Ø 10,020, — 11,676, **1** FCC Construcción S.A., Sando.

34 **QUEJIGARES/GRANADA** (ES), Túnel de Quejigares, S-516, EPB Shield, Ø 9,330, — 6,538, **1** Dragados S.A.

## MIDDLE EAST

35 **MEVON HORON/LATRUN** (IL), Tel Aviv/Jerusalem Railway Tunnel No. 3, Jerusalem Railway Tunnel 1, S-612/S-614/S-667, Double Shield TBM, EPB Shield, Ø 9,990, 10,310, — 30,290 (total), **1** Shapir Civil and Marine Engineering Ltd., Impresa Pizzarotti & C. S.p.A., Minrav Engineering & Building Ltd., Mosmetrostroy.

36 **CAIRO** (EG), Metro Line 3, S-594, Mixshield, Ø 9,430, — 3,200, **1** Arab Contractors, Vinci Construction Grands Projets, Bouygues TP, Orascom.

## ASIA/OCEANIA

37 **BEIJING** (CN), Metro Line 9/10, Beijing Daxing Line, S-488/S-539/S-540/S-543/S-553, EPB Shield, Ø 6,250, — 10,087 (total), **1** China Railway 16th Bureau Group Co. Ltd., Beijing Chang Cheng Bilfinger Berger Construction Eng. Corp. Ltd., China Railway 1st Group Co. Ltd. (CREC).

38 **DALIAN** (CN), Metro Line 1, Phase 1, S-619/S-626/S-632/S-633, EPB Shield, Ø 6,250, — 8,490 (total), **1** Dalian Huarui Co. Ltd., Hongrun Construction Group Co. Ltd., China Railway 13th Bureau Group Co. Ltd.

39 **ZHENGZHOU** (CN), Metro Line 1, S-587/S-588/S-595/S-596, EPB Shield SG, Ø 6,250, — 14,984 (total), **1** China Railway 16th Bureau Group Co. Ltd., Zhengzhou First Construction Engineering Group Co. Ltd.

40 **NANJING** (CN), Metro Line 3/10, S-676-S-679/S-712, EPB Shield, Ø 6,450, — 18,662 (total), **1** Zhongping Nenghua Construction Engineering Co. Ltd., China Railway 11th Bureau Group Co. Ltd., China Communications Tunnel Engineering Bureau Co. Ltd. (CCTB), China CREC Railway Electrification Bureau Group Co. Ltd.

41 **WUXI** (CN), Metro Line 1, S-637/S-638, EPB Shield, Ø 6,390, — 1,882 (total), **1** Shanghai Mechanized Construction Co. Ltd., Shanghai Baoye Construction Group Corp.

42 **SUZHOU** (CN), Metro Line 2, S-641, EPB Shield, Ø 6,390, — 3,262, **1** China Railway No.1 Engineering Group Co. Ltd. (CREG)

43 **SHANGHAI** (CN), West Changjiang Road River Tunnel, S-569, Mixshield, Ø 15,430, — 3,000, **1** Shanghai Tunnel Engineering Co. Ltd. (STEC).

44 **CHENGDU** (CN), Metro Line 2, S-365a/S-366a/S-394b/S-395b/S-401a/S-470b/S-471b/S-472a/S-526-S-529/S-537/S-538, EPB Shield, Ø 6,250, — 32,246 (total), **1** China Railway 11th, 15th Bureau Group Co. Ltd., China Railway No.8 Engineering Group Co. Ltd. (CREG), Guangdong Foundation Engineering Company, China Railway Erju Co. Ltd., China Railway Tunnel Stock Co. Ltd., Shanghai No. 1 Municipal Engineering Co. Ltd., Heilongjiang Province Zhong Cheng Import and Export Co. Ltd.

45 **WUHAN** (CN), Metro Line 2, S-501/S-508/S-509/S-530/S-531/S-555/S-601, EPB Shield, Mixshield, Ø 6,250, 6,490, — 17,475 (total), **1** Wuhan Municipal Construction Group Co. Ltd., China Railway Tunnel Group Co. Ltd. (CRTG), Hongrun Construction Group Co. Ltd., China Railway 11th Bureau Group Co. Ltd.

46 **HANGZHOU** (CN), Qiantang River Tunnel, S-593, Mixshield, Ø 15,430, — 6,484, **1** Shanghai Tunnel Engineering Co. Ltd. (STEC).

47 **HANGZHOU** (CN), Metro Line

1/2, S-597/S-598/S-635/S-636, EPB Shield, Ø 6,390, — 11,905 (total), **1** Hangzhou Metro Group Co. Ltd., Shanghai Tunnel Engineering Co. Ltd. (STEC).

48 **CHANGSHA** (CN), Metro Line 2, S-460b, EPB Shield, Ø 6,250, — 2,600, **1** China Railway Tunnel Group Co. Ltd. (CRTG).

49 **KUNMING** (CN), Metro Line 1, Kunming Rail Transit Phase 1, S-576-S-579/S-589/S-590/S-650-S-653/S-655/S-656, EPB Shield, Ø 6,450, 6,410, — 30,664 (total), **1** Kunming Rail Transit Co. Ltd., China Railway 13th, 16th and 19th Bureau Group Co. Ltd.

50 **HUIZHOU** (CN), Guangdong Intercity Railway, S-570/S-571, EPB Shield, Ø 8,800, — 9,102 (total), **1** China Tunnel Construction Co. Ltd.

51 **GUANGZHOU** (CN), Metro Line 6/3, S-459b/S-433a/S-438a, EPB Shield, Ø 6,250, — 5,331 (total), **1** China Railway Tunnel Group Co. Ltd. (CRTG), Guangdong Province Hydroelectric 2nd Bureau Joint-Stock Co. Ltd., China Railway 1st Group Co. Ltd. (CREC).

52 **DONGGUAN** (CN), Guangdong Intercity Railway, S-591/S-572/S-573/S-592, EPB Shield, Ø 8,800, — 14,783 (total), **1** China Railway 16th, 18th Bureau Group Co. Ltd.

53 **KOLKATA** (IN), Kolkata Metro UG1/UG2, S-615/S-616/S-639/S-640, EPB Shield, Ø 6,640, 6,350, — 13,785 (total), **1** Italian-Thai Development Public Co. Ltd., Afcons Infrastructure Limited.

54 **SHENZHEN** (CN), GuangShenGang, S-550, Mixshield, Ø 13,170, — 2,440, **1** China Railway 15th Bureau Group Co. Ltd.

55 **SHENZHEN** (CN), Metro Line 2/3/5, S-416a+b/S-417a/S-427a/S-436a/S-459a/S-460a/S-462a/S-463+a/S-465/S-466/S-492a/S-493a/S-481/S-482/S-520/S-521/S-541, EPB Shield, Ø 6,250, — 24,108 (total), **1** China Railway Erju Co. Ltd., China Railway Tunnel Group Co. Ltd. (CRTG), China TieSilu Civil Engineering Group Co. Ltd., China Railway 6th, 7th Group Co. Ltd., China Railway 12th, 15th, 16th and 18th Bureau Group Co. Ltd.

56 **HONG KONG** (CN), Hong Kong West Island Line, S-618, Mixshield, Ø 6,360, — 790, **1** Dragages Hong Kong Ltd., Maeda Corporation, Bachy Soletanche Ltd.

57 **HONG KONG** (CN), Express Rail Link – XRL, S-620/S-623/S-624/S-630/S-631, EPB Shield, Mixshield, Ø 9,180, 9,900, 9,250, — 19,630 (total), **1** Penta Ocean Construction Co. Ltd., China Railway 15th Bureau Group Co. Ltd., Dragages Hong Kong Ltd., Bouygues Construction.

58 **CHENNAI** (IN), Metro UAA02, UAA03, Metro Phase 1, S-701-S-704/S-710/S-711/S-717/S-718, EPB Shield, Ø 6,600, — 38,922 (total), **1** Mosmetrostroy, Afcons Infrastructure Limited.

59 **SINGAPORE** (SG), Downtown Line Phase 2, S-602-S-608/S-617/S-548/S-549, EPB Shield, Mixshield, Ø 6,660, — 10,387 (total), **1** Alpine Bau GmbH, Sembawang Engineers and Constructors Pte. Ltd., Ssangyong Engineering & Construction Co. Ltd., McConnell Dowell South East Asia Pte. Ltd.

60 **BRISBANE** (AU), Airport Link, Northern Link, S-512/S-514/S-647/S-648, EPB Shield, Double Shield TBM, Ø 12,450, 12,340, — 13,190 (total), **1** Thiess Pty. Ltd., John Holland Engineering Pty. Ltd., Ghella S.p.A., Acciona Infraestructuras S.A., BMD Constructions.

## AMERICA

61 **SEATTLE** (US), University Link U220, S-560/S-561, EPB Shield, Ø 6,560, — 6,944 (total), **1** Traylor Bros. Inc., Frontier-Kemper Constructors Inc.

62 **NEW YORK** (US), Second Avenue Subway, Queens Bored Tunnels CQ031, Line 7 Extension, S-434/S-558/S-559/S-467/S-468, Gripper TBM, Mixshield, Double Shield TBM, Ø 6,717, 6,840, 6,810, — 13,546 (total), **1** Schiavone Construction Co., Skanska USA Civil, J.F. Shea Construction Inc., Granite Construction Northeast Inc., Traylor Bros. Inc., Frontier-Kemper Constructors Inc.

63 **MIAMI** (US), Miami Port Tunnel, S-600, EPB Shield, Ø 12,860, — 2,338, **1** Bouygues Civil Works Florida Inc.

64 **CARACAS** (VE), Metro Los Teques II Line 2, Caracas Metro Line 5, S-406/S-429-S-431, EPB Shield (convertible), Ø 5,850, — 36,140 (total), **1** Constructora Norberto Odebrecht S.A.

65 **PANAMA CITY** (PA), Panama Metro Line 1, S-680/S-681, EPB Shield, Ø 9,730, — 6,425 (total), **1** Constructora Norberto Odebrecht S.A., FCC Construcción S.A.

66 **BUENOS AIRES** (AR), Línea Sarmiento, S-728, EPB Shield, Ø 11,460, — 14,000, **1** IECSA S.A., Ghella S.p.A., Constructora Norberto Odebrecht S.A., COMSA – Constructora de Obras Municipales S.A., Benito Roggio e Hijos S.A.