



BEIER MACHINERY CO., LTD PE Dual Pipe Extrusion Line (G2)

(Pipe Diameters: 20-50mm)



(All pictures are only for reference)

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Thank you very much for your inquiry. We are pleased to offer you the following based on our enclosed general terms and conditions of delivery and sale.

1. 1. Project evaluation: : A complete dual pipe extrusion line for the production of PE gas pipe from 20mm – 50mm to SDR17.6 and SDR 11 and ISO 4437:1997(E).

1.1 General information:

| 1.1 General information. | | | |
|----------------------------|--|--|--|
| Raw material & formulation | Grades of PE for gas pipe production | | |
| Molt conscity | Maximum: 380 kg/h | | |
| Melt capacity | (depending upon pipe dimension and the material) | | |
| Central height | 1000 mm | | |
| Haul-off speed | Max: HDPE \geq 25m/min \times 2; PP-R \geq 15m/min \times 2 | | |
| Number of color stripes | 1 or 2 | | |
| Operation direction | From right to left (face to the operation panel) | | |
| Machine color | Standard color: RAL7016 (Anthracite grey); | | |
| Wacrime Color | RAL9002 (Grey white) | | |
| Final product | | | |

Pipe specifications and sizes:

| po opo. | · · · · · · · · · · · · · · · · · · · | | | | |
|---------|---------------------------------------|----------------|----------------|--|--|
| No. | O.D. (mm) | Wall thickness | Wall thickness | | |
| 1 | 20 | SDR17.6 | SDR11 | | |
| 2 | 25 | SDR17.6 | SDR11 | | |
| 3 | 32 | SDR17.6 | SDR11 | | |
| 4 | 40 | SDR17.6 | SDR11 | | |
| 5 50 | | SDR17.6 | SDR11 | | |





1.2 Work conditions (Provided by the customer at the production site)

| • | the customer at the production site) | |
|--------------------------|--|--|
| | Construction of foundations, construction works, earthworks, and wall works. | |
| | | |
| Warehouse/Workshop | Supply of cranes, fork-lifts or other lifting equipment. Mounting | |
| | materials and tools. | |
| | Dimension: 40m (length) × 2.5m (width) × 2.5m (height) | |
| Temperature/ Humidity | 0-35℃/≤95%, | |
| Power supply | 460/3/60 | |
| | Wires/cables: From the power supply to the control cabinet of | |
| Wire/cables/water hose | this production line and all electrical cables from the control | |
| Wile/Cables/ water flose | cabinet to each machine. | |
| | Water hose: Supply water to machines and reservoirs. | |
| | Without dissolved or suspended minerals as phosphor, | |
| | sulphur, iron, etc. | |
| Cooling Water | Inflow temperature T1: max. 15°C; | |
| Cooling Water | Outflow temperature T2: T2=T1+5°C; | |
| | Hardness: 5-8 OdH; | |
| | Reflux: without pressure | |
| Lubrication oil | Exxon mobil | |
| Compressor | Supply compressed air | |
| Ancillary staff | 1 Person | |

1.3 Energy consumption

| Installation power | 195KW (Production power consumption: 80%) | |
|--------------------|---|--|
| Cooling Water | 10 M³/hr | |
| Compressed air | 0.6m³/min, 0.4∼0.8Mpa | |

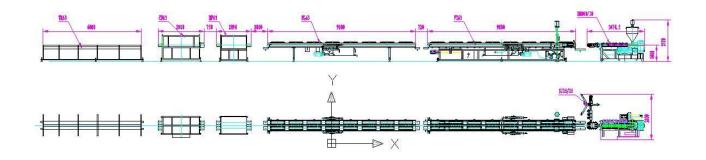
1.4 Main commercial terms

| Project PE dual gas pipe production line (20-50mm) | | |
|--|---|--|
| Price in US dollars List Price | FOB Shanghai INCOTERMS 2000 | |
| Payment terms | 50% down payment by W/T 50% by W/T before delivery and after inspection/trial | |
| Delivery time | 90 days from the date of receiving the down payment | |
| Packaging | Wood pallet covered by plastic film | |
| Warranty period | 13 months from the date of the bill of lading | |





1.5 Flow line and configuration



1.6 Machinery list and price:

| No. | Name | Qty. | Price (USD) | |
|---------|--|------|-------------|--|
| 1 | Vacuum feeder | 1set | | |
| 2 | BRD60/38 single screw extruder (PLC system) | 1set | | |
| 3 | SJ25/25 Co-extruder | 1set | | |
| 4 | Die head | 1set | | |
| 5 | Disk vacuum calibrator | 1set | | |
| 6 | BR-VT/63/9Vacuum tank | 1set | | |
| 7 | BR-SB/63/9 Spray cooling tank | 1set | | |
| 8 | BR-HC/63/2 Haul-off | 1set | | |
| 9 | BR-CF/63 chip-free cutter 1set | | | |
| 10 | BR-TB/63 Tip table 1set | | | |
| Total a | Total amount EX works INCOTERMS 2000 | | | |
| Inland | Inland freight cost to Shanghai port (1*40'GP+1*20'GP) | | | |
| Packa | Packaging cost | | | |
| Total | Total FOB Shanghai port | | | |

Remarks:

Beier Machinery will set-up the complete extrusion line for testing, before shipment to the customer.

All costs relating to the test materials and compounds are the responsibility of the customer.





2. Technical data

2.1 PE dual gas pipe production line (20-50mm)

| No. | Name | Photo of machine | Technical specifications | | |
|---|------------------|---|--|--|--|
| 1 | Vacuum loader | | Capacity: 300kg-400/hr Motor power:2.2KW Hopper: stainless steel | | |
| Screw: Screw diameter: Ф60mm L/D ratio: 38/1 Screw material: 38CrMoAlA Surface finish: Ra≤0.8um Surface treatment: Nitride processing to a thickness: 0.6mm, Felished | | Melt capacity:300-400kg/h | | | |
| | | Barrel: Barrel material: 38CrMoAlA | | | |
| | | Inner processing: Nitride with a 3h thickness: 0.4~ 0.6mm Inside finish: Ra≤1.6um | | | |
| | | Heating zones: 5 | | | |
| | | Electric Heaters: Cast aluminum with stainless steel covering | | | |
| | | Heating power: 22kw | | | |
| | | Cooling power: 0.25KWx5 zones | | | |
| | | Cooling: Air blow | | | |





Drive motor:

Motor power: AC 110KW

Electrical cabinet:

Speed regulators: Eurotherm (Parker)

PLC for extruder and extrusion line control: Siemens 10.4" screen

Air Switches: LG Relays: Omron

Temperature controller: Siemens, control precision: ±1°C

With melt pressure transducer

Self protection system:

Over current protection of the motor

Over temperature protection of the motor

Over pressure protection of the screw



Melt capacity: 1-2kg/h

Screw:

Screw diameter: 25mm

L/D: 25:1

SJ 25/25

Screw material: 38CrMoAlA.

Striping

3

Co-extruder

Surface treatment: Nitride with a thickness: 0.4~0,7mm, Polished

Barrel:

Barrel material: 38CrMoAlA

Inner processing: Nitride with a thickness: 0.4 ~ 0.7mm

Heating zones: 2 zones

Heating mode: Cast aluminum with stainless steel covering

Heating power: 1.2KW×2 =2.4KW Cooling power: 0.04KW×2 =0.08KW

Method of cooling: air blow

Drive motor:

Motor power: AC 1.5KW



Including pipe die head & calibrators Material: **Die Head** 4 Body: Made from 40Cr. Inner surface is polished Calibration sleeve: copper Heating power: 9.5KW **Diameter specifications:** Ф20, 25, 32, 40,50, 63mm Calibrators: One for each size. Disk Dual pipe calibrators 5 vacuum calibrators Water cooling system Easy to check the pipe roundness through the glass cover Tank body & structure Vacuum Water supply system 6 **Calibration Electrical cabinet** tank

Dimensions:

Length: 9000mm

Vacuum pump:
Power: 3KW x2pcs.

Water pump:

Power: 7.5KW x 2pcs

Three direction adjustment:

Forward and Back ward: 1000mm motor power 0.55KW

Up and down: ±50mm manual screw adjustment Left and right: ±50mm manual screw adjustment

Material of the inside pipe holders

Nylon rollers

Tank material:

Main body: Stainless steel,

Front/back sealing device: silicon seal

Water level adjustment: stainless steel floating ball Water temperature adjustment: expansion valve

Pipeline: Galvanized pipe with stainless steel valve connections

Sprayers: ABS.

Large capacity water filter

Expansion valve instead of a solenoid valve

Flux control gauge ensures even and precise cooling for the calibrators.

High level water box ensures a stable water supply



Tank body & structure
Water supply system
Electric cabinet

BR-SB/63/9 Spray cooling tank

7

Dimensions:

Length: 9000mm

Tank Material:

Main body: Stainless steel,

Front/back sealing device: silicon seals

Water level adjustment: flooding

Water temperature adjustment: thermo-mechanical valve

Sprayers: ABS.





| | | Pipe holders | | |
|----|---------------------------------|--|---|--|
| | | Nylon roller or nylon plate | | |
| | | Water pump: | | |
| | | Power: 7.5KWx 2pcs. | | |
| | | Large capacity water filter | | |
| 8 | BR-HC/63/2 Dual Haul-off | | Basic structure & Electric cabinet | |
| | | Pipe range: 20-63mm Claw effective length: 1000mm Maximum traction force: 2000N Traction speed: 1-25m/min. Motor power: 0.75KW x 2pcs | | |
| 9 | BR-CF/63 Chip-free cutter | The blade rotates around the pipe and cleanly cuts-off the pipe. Quiet operation. PLC controlled. Motor power: 1.5KW*2 Maximum thickness cut: 18mm | | |
| 10 | BRD-TB/63 Tilt table | | Length: 6000mm Cylinder delay controlled or Moving plate method. Easy for pipe packing. | |





2.2 Spare parts included

| No. | Name | Qty. | Application | | | |
|-------------------|-----------------------------|------------------------------|---------------------------------|--|--|--|
| Mach | Machine parts: | | | | | |
| 1 | Oil seal | 1 pc. | Gearbox high-speed shaft | | | |
| 2 | Screw unload tool | 1 set | Unloading the screw | | | |
| 3 | Calibration sleeve sprayers | 5 pcs. | Calibration sleeve | | | |
| 4 | Seal | 10m | Va suuma tanka na di ammay tank | | | |
| 5 | Sprayer | 40 sets | Vacuum tank and spray tank | | | |
| 6 | Blades | 2 pc. | Cutter | | | |
| Electrical parts: | | | | | | |
| 1 | Thermocouples (3m) | ocouples (3m) 3pcs. Extruder | | | | |
| 2 | Vacuum meters | 2 pcs. | Vacuum tank | | | |
| 3 | AC contactors | 2 sets | Floatrical cabinat | | | |
| 4 | Small circuit breakers | 2 sets | Electrical cabinet | | | |

2.4 Equipment not included in the quotation

| No. | Spare part | Qty. | Application |
|-----|-----------------------|-------|---|
| 1 | Electric heaters | 1pc | Barrel |
| 2 | Electric heater bands | 1set | Die head |
| 3 | Cast aluminum heaters | 1 set | Extruder |
| 4 | Pipe Printer | 1set | Printing information of the pipe producer |
| | | | |
| | | | |

3. After-sales service

3.1 Technical documents

All labels on machines and lay-out drawings, electrical diagrams and user manuals, will be in English.

3.2. Arrangement for inspection, installation and testing

- a. After all the ordered equipment has been delivered to the customer's factory; the Buyer is responsible for all preparation work, e.g. electrical supply, water supply, labor and cranes, etc.
- b. BEIER will prepare visa applications for their engineers, who are responsible for the supervision of the machine installation and testing at the Buyer's factory.
- c. The Buyer will buy a round-trip air ticket for the engineers, if the visa application is approved. The





buyer is also responsible to bear expenses generated, e.g. visa formalities, meals, accommodation and an allowance of USD125.00 per day for each engineer.

- d. Engineers will give free training to personnel in the buyer's factory.
- e. If the buyer does not request installation and commissioning by the Seller's engineers within four months from the date of the bill of lading, it will be taken that all the supplied equipment has been successfully tested by the buyer.

3.3. Quantity and quality guarantee

a. Quantity/Quality Discrepancy to destination port during transportation:

In case of quality/quantity discrepancies to the destination port the customer should file claims within 30 days from the arrival of the goods at their destination. The insurance company and the shipping company will be responsible for any discrepancies or product damage caused by the shipping company or other transportation organizations.

b. Guarantee period and after-sales services: 13 months from the date of the bill of lading. During this guarantee period, BEIER will provide spare parts at no charge in cases of quality discrepancy caused by us. If the malfunctions are caused by incorrect operation of the equipment, BEIER will provide the buyer spare parts at cost price.

c. Long-term service:

BEIER will charge the buyer cost price of spare parts beyond one year and provide long-term technical guidance.

3.4. Validity: Three months from the quotation date.

Kind Regards,

Beier Machinery Co., Ltd.