

36 mm high Output Twin Screw Extruder



As often asked by our customers why we didn't produced larger twins, we finally decided to comply with the request and these two new 36 mm versions are our first step into larger twin screw extruders solely made for heavy duty compound production. They have been designed for optimum performance and productivity and still at a price level which we think is below most famous brands. We have spared no expenses to ensure the twins are of highest possible quality standards using only best available European made components and parts produced in our ultra-modern factory. And we have given this twin a very modern and pleasing design which is very much different to most other twin screw brands.

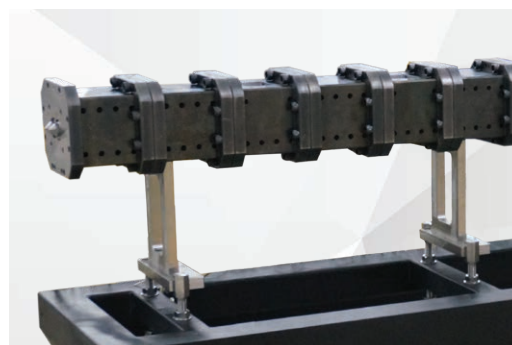
***For ultimate production efficiency reaching
up to 250 kg/hr on LDPE***



The entire barrel is covered with modular high polished stainless steel panels. This makes the cover very easy to clean and gives a nice appearance to the twin. The modular panels are easy to remove with only one key lock for each unit. And with this it is very easy and fast to get access to the barrel and to mount additional side or top feeders. Even the back side of the barrel cover has the same modular highly shined stainless steel panels

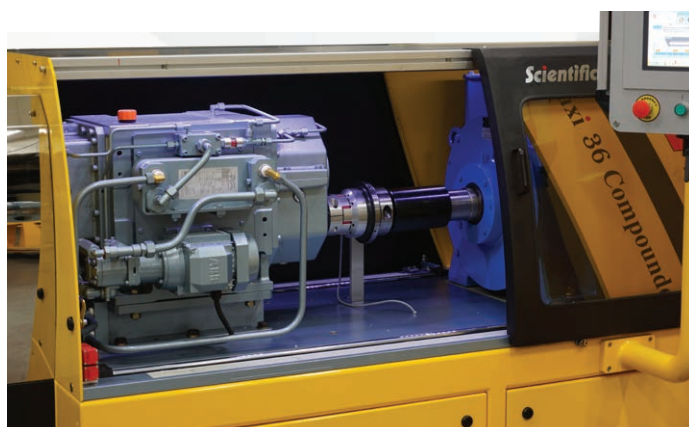
MODULAR BARREL SECTIONS

The modular sectional barrel is equipped with thick barrel lining inserts made from very high wear resistant PM-HIP steel. This ensures a very long life time and it also enables the compounding of very abrasive materials. Further the twins can be supplied with the lining made from medium corrosion resistant steel as well as very high corrosion resistant versions made from M390 steel type from Germany. This latter steel type is useful for processing for example of Fluor plastics and other resin types which develop aggressive acids during processing.



The screws are built up from individual elements mounted on the splined hardened shafts. We will have a large variety of screw feeding and kneading elements to enable optimum variations in screw configurations. These screw elements are also made from very high wear resistant PM-HIP types of steel ensuring a longer life time as well as excellent resistance when producing compounds with abrasive ingredients. In addition we can offer two versions of acid resistant elements where the highest resistant versions are made from M390 steel.

THE DRIVE SECTION WITH HEAVY DUTY GEAR BOX AND LARGE MOTOR IS COVERED WITH A SLIDING DOOR WITH A LARGE ACRYLIC WINDOW BOTH ON FRONT AND REAR WHICH GIVES A VERY OPEN AND EASY ACCESS TO THESE COMPONENTS



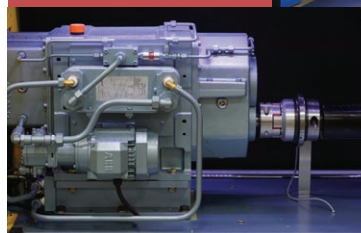
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HEAVY-DUTY GEARBOX

The standard twin has a drive power of 55 kW induction motor or 65 kW water cooled motors and a max screw RPM of 900 as well as a re-designed high torque gear box comprising of additional shaft supporting gears and a direct driven gear pump closed loop forced oil cooling system.

The NEW **Maxi36Compounder** is equipped with a 90 kW Induction Motor or water cooled motor drive and same high torque gear box having additional shaft with supporting gears and a direct driven gear pump for closed loop forced oil cooling system. The max screw RPM with the Maxi Compounder is 1200 RPM as opposed to our standard versions where the max RPM is 900.

HIGHLY
SENSITIVE
TORQUE
LIMITER



HEAVY
DUTY
DRIVE
SYSTEM

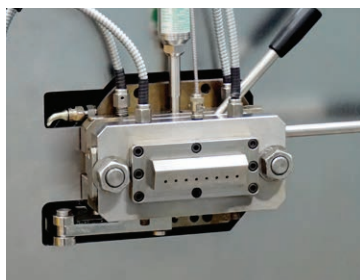
HOPPER FEEDER

The extruders can optionally be equipped with a stainless steel volumetric hopper feeder with a single feed screw of spiral or solid screw types and with a stirring arm (agitator). The hopper feeder can optionally also be equipped with twin screws. The screw is driven by variable speed AC gear motor of 0.75 kW power and digital screw speed control mounted on the control cabinet. The 36 mm. twin is also available with gravimetric feeders for main and side feeders as well as gravimetric liquid feeder.



STRAND DIE SUPPLIED AS STANDARD

The extruders are also, as standard, equipped with 8 holes strand die connected to extruder flange with 2 hinged bolts. The die is made with short distance to screws and minimum internal volume to enable very easy and fast cleaning. The die flange contains an easy removable breaker plate which can be exchanged with a distance ring, enabling production with or without screen packs.



BARREL VENTING WITH BUILT IN VACUUM

Both 36 mm twin-screw extruders are equipped with one vent barrel for the 32 L/D versions and additional vent opening on the 40 L/D versions. The second vent can be used for atmospheric venting or exchanged for vacuum venting with the first vent. The standard vacuum pump is of vane type but also water ring type can be supplied.



CLOSED-LOOP WATER COOLING SYSTEM

The twin-screw extruders are supplied with fine cooling channels in each barrel module and it is important that the cooling water used has been properly treated so that it does not contain any impurities or minerals that can clog the channels and thus reduce the cooling efficiency. Our optional closed-loop cooling system enables you to isolate the cooling of the barrel modules from the rest of the cooling system. It comprises a large stainless steel cooling tank with a built-in heat exchanger and a water pump supplying the extruder with a constant pressure of demineralized water.



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COMPUTERIZED PLC CONTROL WITH 10.4 INCH FULL COLOR LCD TOUCH SCREEN

The computerized control has full visualization of all extruder parameters on the touch screen and is also offered with connection to an external PC where all formulation can be downloaded for data report. The high capacity PLC and software are supplied by B&R, Austria and the programs are custom made by Labtech. The controlling functions are as following:

- Temperature up to 15 zones
- Motor speed with drive torque and RPM registration
- Pressure control of transducer at screw tip
- Speed control of hopper feeder/s as well as side feeder/s.
- Vacuum for barrel venting
- Pelletizer speed control, also control of optional variable speed strand feeding device

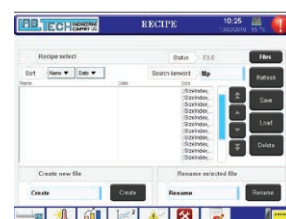
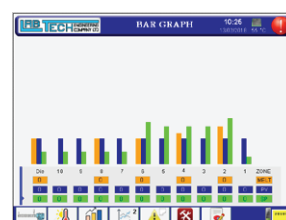
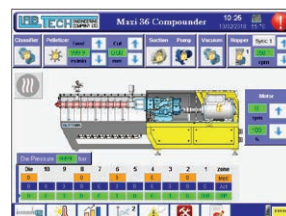
Alarm functions:

- Main motor overload
- Hopper feeder overload
- Trip torque
- Over pressure on die
- Low temp (on any zone) alarm if present temperature is lower than the set temperature. This low temperature alarm can be specified by operator.
- High temp (on any zone) alarm if temperature is higher than the set temperature. This high temp alarm can be specified by operators.
- Pelletizer overload
- Strand feeding overload
- Low water pressure

The PLC can also store up to 100 recipes with pre-selected running parameters of all extruder functions.

Optional SCADA software for processing data on your PC

The SCADA software has the ability to record all running parameter for a specific run can be saved and also directly downloaded to a PC. With this software it is also possible to save up to 100 formulations on a PC and upload these to the extruders touch screen. The software will enable you to have exactly the same screens on your PC as on the extruder and you can then key in with your PC new parameters directly on these screens.



TECHNICAL DATA FOR 36 MM TWIN SCREW EXTRUDERS

Description	DATA		Description	DATA	
	Standard	Maxi36 Compounder		Standard	Maxi36 Compounder
Available L/D Ratios	40 to 60+ L/D	40 to 60+ L/D	Outer and inner Screw diameter ratio (D/d)	1.63	1.63
Screw Speed (RPM)	0 to 900	0 to 1200	Max barrel temp. (standard)	400 °C	400 °C
Motor Power (kW) Induction motor	55 kW	90 kW	Heating power per barrel section (4 L/D)	3.2 kW	3.2 kW
Motor Power (kW) Water cooled motor	65 kW	90 kW	Minimum water pressure and water consumption	3 bar/20lt/min	3 bar/20lt/min
Max. extrusion output pressure	250 bar	250 bar	Water pump power for optional closed-looped cooling system	0.75 kW	0.75 kW
Maximum torque at 900 RPM	2x340 Nm	2x350 Nm	Maximum output (with a medium to high density compound)	150-200 kg/h	200-250 kg/h
Specific Torque Nm/cm3	13.53	13.92			

