



2.0"

# EXTRUDER SPECIFICATIONS

Basic Customer/Order Information

SER# 1579 & 1582

Customer Name: Commscope Sales Order No: 10288  
 Today's Date: 12/22/99 Customer P.O. No.: L128695  
 Customer Order Date: 12/22/99 Quote No: 12139A-SM  
 Customer Requested Ship Date: 3/8/00 AK Promised Ship Date: 3/8/00  
 Completed By: S. Maxson Signature: \_\_\_\_\_  
 Rep. Company: \_\_\_\_\_ Rep. Salesman: \_\_\_\_\_

## Basic Extruder Information

(Choices in italics may be "added cost" options)

AK To Supply:  Extruder;  Screw;  Panel;  
 Motor;  Drive;

Power Supply: 460 Volts, 3 Phase, 60 Hertz  
 Control Voltage: \_\_\_\_\_ Volts  AC;  
 DC:

Extruder size: 2 Inch: 24:1 L/D:  
 Centerline Height: 42.25 Inches

Feed Type:  Smooth:  Grooved:  Tangential:

Heat/Cool Zones: 4 No. Barrel Zones:  Water Cooled  
 Air Cooled:

Max. Processing Temp. (°F):  650°F;  900°F;  Other . . . . .

Panel :  Base Mounted:  Remote Mounted:

Controls:  Discrete Controls Only:  
 Discrete Controls with Serial Communications:  
 Discrete Controls with AKcess:

Machine Hand:  R - L: or  L - R: (**Operators view of resin flow thru extruder**)

Paint Color:

DESCRIPTION	STANDARD COLOR	OTHER (SPECIFY)
Base	Beige	Gliden Blue 790 "Sky Blue" or equiv.
Panel	Beige	N/A
Barrel Guard	Brown	Gliden Blue 790 "Sky Blue" or equiv.
Diamond Plate	Brown	Gliden Blue 790 "Sky Blue" or equiv.
Instrument Face	Brown	N/A
Blowers	Vendor Standard	
Clamp	Black	
Guards	Orange	
OCS	-----	
(Other)	-----	Gliden Blue 790 "Sky Blue" or equiv.



# Detailed Extruder Information

## BASE

Mounting :

- Standard Mounting Pads
- Wheels:  Steel Flat Swivel:
- Phenolic Swivel:
- V-wheel w/Track:

Gross Adjustment:

- ± ¼ Inch (std.)
- Other: ± \_\_\_\_\_ Inches

Panel Location:

- Left (LDS);  Right (LDS);  Other: \_\_\_\_\_

Motor Location:

- Left (LDS);  Right (LDS);  Under Barrel;  Other: \_\_\_\_\_

Lifting/Rigging:

- Standard (Lifting holes in frame)
- Other: \_\_\_\_\_ : SEE NOTES

## GEARBOX

Manufacturer:

Koellman \_\_\_\_\_ Model: Unex 3.0 Ratio: 17::1

Orientation:

- LH;  RH;  Vertical:

Arrangement:

- Z-flow;  U-flow

Screw Shank:

- AK Two Key:  Taper:  Other \_\_\_\_\_

Gearbox HP:

53 HP @ 100 rpm with 1.5 S.F.:

Thrust Bearing:

550K B-10 @ 5K psi:

Oil Cooling:

- None;
- Cooling Coil;
- Pump and heat exchanger:  Mechanical Pump:
- Electric Pump:

## DRIVE

Motor Speed:

1750 RPM Base: \_\_\_\_\_ RPM Extended

Screw Speed:

125 RPM at Base Motor Speed: \_\_\_\_\_ RPM at Extended Speed

Drive Type

- Belt Drive: Belts:  Standard Belts;
- Direct Drive: Coupling:  Other: timing
- Motor Base:  Standard Slide Base
- Vertical Pivot Base
- Other: \_\_\_\_\_
- Std. Coupling;
- Other: \_\_\_\_\_

## HOPPER

Hopper Style:

- Round (Standard):
- Rectangular:
- Special: \_\_\_\_\_

Hopper Material:

- Stainless Steel (Standard):
- Special Mat'l: \_\_\_\_\_

Hopper Transition:

- Slide Gate and Dump Shoot (Standard):
- Three Position Rotary (Open, Close, Dump)
- Special: \_\_\_\_\_

Hopper Magnet:

- None:
- Insert Type:
- Bunting Type:

Hopper Specials:

(check all that apply)

- Cover:
- Blank:
- Grid:
- Loader Mating: \_\_\_\_\_



# Detailed Extruder Information Continued

## FEEDSECTION

Feed Type:  Smooth Feed:  Standard Replaceable Liner (Nitrided 4140 Std.)  
 *Other*: \_\_\_\_\_  
 Grooved Feed:  Kuhne GmbH Design.  
 AK Design.  
 Tangential Feed: **(DESCRIBE IN NOTES)**

Bushing:  Std. Teflon Impregnated Bronze Bushing:  
 *Other*: \_\_\_\_\_

Seal:  None;  
 Powder;  
 Vacuum;  
 *Other*: \_\_\_\_\_

## BARREL

Barrel Vendor:  Bimex:  Xaloy:  Either:  
 *Other*: \_\_\_\_\_

Barrel Type:  102 (or equivalent):  800 (or equivalent):  306 (or equivalent):  
 309 (or equivalent):  *Other*: \_\_\_\_\_

Barrel Style:  Non-vented  
 Vented

Vent Location:  Left Side (LDS) **PREFERRED**:  
 Top:  
 Vent Stack  
 Vent Plug:  
 Vacuum System: Pump HP: \_\_\_\_\_  
Seal Type:  Water Ring:  
 Oil Seal:  
Brand: \_\_\_\_\_  
Model: \_\_\_\_\_

Barrel Flange:  Clamp Type:  Single Bolt:  Right Side Hinge (LDS):  
 Left Side Hinge (LDS):  
 Dual Bolt: \_\_\_\_\_  
 Heated Clamp: Voltage: 230/1/60  
Controlled By: \_\_\_\_\_  
 Bolt Flange:  Standard  
 *Other*: \_\_\_\_\_  
 Threaded  AK Standard  
 For Screen Changer: Make: \_\_\_\_\_

Pressure Taps  Diagnostic Pressure Port:  
 Pressure Tap at B.P. (12:00):  *Other*: \_\_\_\_\_

Barrel Exit Seating:  Standard Seat:  
 Special Seat: \_\_\_\_\_  
 Breaker Plate:  Stainless Steel (Std.):  
 4140:  
 Streamlined for RPVC:  
 Supply Standard Screens:  
 Seal Ring:  Stainless Steel:  
 4140:

Rupture Disk  Standard (9,000 psi):  
 Special: \_\_\_\_\_



# Detailed Extruder Information Continued

## COOLING SYSTEM

Heat/Cool:

System Type:

4 Zones:

Air-cooled

Heaters:

Finned Cast Alum.:

Finned Cast Bronze:

High Temp. Ceramic:

Standard Blowers:

Special: \_\_\_\_\_

Blowers:

Ducting:

Ducted Downward:  Left  
 Right

Water-cooled

Heaters:

Special: \_\_\_\_\_

Manifolds:

Cast Aluminum With Tubes

Standard

Other: \_\_\_\_\_

Thermocouples:

Std. Type J grounded T/Cs:

Other: \_\_\_\_\_

## MISCELLANEOUS

Pressure

Gauge/Transducer:

Quantity: 1

Vendor: ISI Model: Press/temp

Melt T/C:

Quantity: \_\_\_\_\_

Type: \_\_\_\_\_  Ship Loose:

Mounted in Barrel:

Screw Cooling Assembly:  Yes:

Length: \_\_\_\_\_

Screw Pusher:  Yes:

Type: \_\_\_\_\_

Die Support Hinge:  Yes:

Mount on Right Side (LDS):

Left Side (LDS):

Plug Plate/Box Location:  Panel:

Exit Barrel Support:

Center Support:

Other: \_\_\_\_\_

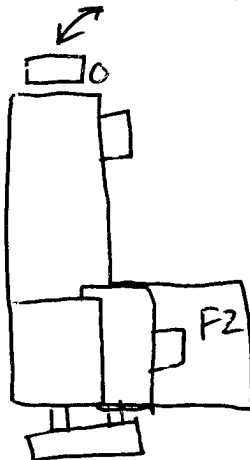
J-Box Location:

Exit Barrel Support:

Center Barrel Support:

Other: \_\_\_\_\_

Sketch Plan View of Extruder Here (show details of motor, belt, sheaves, coupling, wheels, cooling system and panel)



SER #'S  
1579  
1582



# Detailed Extruder Information Continued

## **SPARE PARTS**

Spare parts included with order:

**List Mechanical Spare Parts Here:**

Item	Quantity	Description
1.	1	Cast aluminum heater/cooler
2.	1	Barrel cooling blower
3.	1	Set clamp heaters
4.	1	Barrel Thermocouple
5.	1	Breaker Plate
6.	1	9,000 psi rupture disk
7.	1	Nut for clamp
8.		
9.		
10.		
11.		
12.		

### **Notes:**

Both extruders (Serial #'s 1579 & 1582) are R-L

Transducer holes to be plugged. Ship press/temp transducers loose.

Plug/junction boxes to be located as high as possible to eye-level.

Reliance motors to have filter, thermostat and stub shaft for customer to mount tach

Wiring diagrams shall be emailed to Michael Wall of Commscope ([mwall@commscope.com](mailto:mwall@commscope.com))



# SCREW ENGINEERING SHEET

Screw Diameter: 2.0 Screw L/D: 24:1  
 Extruder Brand: AK Motor HP: 25 Max RPM: 1750  
 Duplicate Part Number: \_\_\_\_\_

Tip Angle:  Std. (15 deg.):  Special Deg.: \_\_\_\_\_  
 Tip Length:  Std.:  Special: \_\_\_\_\_  
 Core Hole Depth:  Std. (Fd + 2D):  Special: \_\_\_\_\_  
 Material:  4140:  4340:  416 S/S:  
 Other: 316 S/S  
 Surface:  Polished  Chrome  Other: \_\_\_\_\_  
 Flight Hardening:  Flame  Colmonoy 56  Colmonoy 83  
 Other: \_\_\_\_\_

## APPLICATION INFORMATION

Process: Coating  
 Resin(s): LDPE  
 Durometer / M.I.: .6  
 PSI at Screw Tip: \_\_\_\_\_  
 Output Required: \_\_\_\_\_  
 Melt Temp. Desired: \_\_\_\_\_

## COMMENTS

Metering screw w/ helical mixing section  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# Detailed Drive and Panel Information

## DRIVE AND MOTOR

Drive: Vendor: \_\_\_\_\_ Model: \_\_\_\_\_ HP \_\_\_\_\_  
 Power Supply: \_\_\_\_\_ Volts, \_\_\_\_\_ Phase, \_\_\_\_\_ Hertz  
 Mounting:  Temperature Control Panel  
 Separate Enclosure  
 AC  Open Loop Speed Regulation 2%  
 Closed Loop  Std. Encoder 0.01%  
 Special \_\_\_\_\_ %  
 DC  Open Loop Speed Regulation 2%  
 Closed Loop  AC Tach 1%  
 DC Tach 1%  
 Std. Encoder 0.01%  
 Special \_\_\_\_\_ %

Motor: Vendor: Reliance 25 HP:  
 Speed: 1750 RPM Base  
 \_\_\_\_\_ RPM Extended Speed (Max.):  
 Frame Number: MC2113ATZ **PROVIDE DRAWING**  
 Frame Type:  Drip Proof  
 Totally Enclosed  
 Cooling:  Non-ventilated  
 Fan Cooled  
 Blower Cooled  
 J-Box Location:  F-1 (left side facing shaft)  
 F-2 (right side facing shaft)

Power Isolation:  Line Choke  
 Drive Isolation Transformer \_\_\_\_\_ KVA  
 \_\_\_\_\_ Primary Voltage  
 \_\_\_\_\_ Secondary Voltage

## BASIC PANEL INFO

Power Requirements: \_\_\_\_\_ Volts, \_\_\_\_\_ Phase, \_\_\_\_\_ Hertz; \_\_\_\_\_ Wire.  
 Machine Transformer:  Isolation;  Step-up;  Step-down.  
 \_\_\_\_\_ Primary Volts; \_\_\_\_\_ Secondary Volts; \_\_\_\_\_ KVA.  
 Ambient Temperature: \_\_\_\_\_ °F Max; \_\_\_\_\_ °F Min.  
 Controls:  Discrete Only;  Discrete + Serial;  Akcess.

## CABINET TYPE

Mounting:  Extruder Base;  Free Standing.  
 Access:  Front Access;  Rear Access:  
 Style:  Overhung "L";  Flat panel;  Slope Front:  
 Swing Arm OCS:  Crosshead Style Panel (Describe and sketch):

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# Detailed Drive and Panel Information Continued

## PANEL DETAILS

Barrel Cooling:  Air:  Water:

Drive Load Meter:  Digital:  Analog:  UniOP:  
 Other: \_\_\_\_\_

Screw RPM Meter:  Digital:  Analog:  UniOP:  
 Other: \_\_\_\_\_

Screw Speed Control:  Ten turn pot:  UniOP:  Other: \_\_\_\_\_

Temp. Control Zones: \_\_\_ Feed, \_\_\_ Barrel \_\_\_ Clamp  
 \_\_\_ Die (Downstream)

Temperature Controllers: Quantity: \_\_\_\_\_ Brand: \_\_\_\_\_ Model: \_\_\_\_\_  
 Notes: \_\_\_\_\_

Feed Section:  Temperature Control  Solenoid valve:  
 Modulating valve:

### Die Zones:

Die Zone Name	Clamp	Die 1	Die 2	Die 3
Die Wattage	2kW	2kW	2kW	2kW
Voltage & Phase	230/1/60	230/1/60	230/1/60	230/1/60
Receptacle/Plug	<input checked="" type="checkbox"/> Receptacle <input checked="" type="checkbox"/> Plug Type:Hubbell	<input checked="" type="checkbox"/> Receptacle <input checked="" type="checkbox"/> Plug Type:Hubbell	<input checked="" type="checkbox"/> Receptacle <input checked="" type="checkbox"/> Plug Type:Hubbell	<input checked="" type="checkbox"/> Receptacle <input checked="" type="checkbox"/> Plug Type:Hubbell

Die Zone Name				
Die Wattage				
Voltage & Phase	/	/	/	/
Receptacle/Plug	<input type="checkbox"/> Receptacle <input type="checkbox"/> Plug Type:	<input type="checkbox"/> Receptacle <input type="checkbox"/> Plug Type:	<input type="checkbox"/> Receptacle <input type="checkbox"/> Plug Type:	<input type="checkbox"/> Receptacle <input type="checkbox"/> Plug Type:

Note: Standard receptacles and plugs are Hubbell 30A HBL2620SW and HBL2621SW, respectively.

Heater Ammeter:  Through Temperature Controller  
 Separate  Analog Scale: 0-\_\_\_\_ Barrel Zones  
 Scale: 0-\_\_\_\_ Clamp Zone(s)  
 Scale: 0-\_\_\_\_ Die Zones

Digital  
 Digital w/Alarm Output

Contactors:  Solid State  Mercury  Other \_\_\_\_\_

Circuit Protection: Barrel Zone:  Circuit Breakers  Fuses:  
 Clamp Zone:  Circuit Breakers  Fuses:  
 Die Zone:  Circuit Breakers  Fuses:  
 Barrel Blowers:  Circuit Breakers  Fuses:

Die Transformer: \_\_\_\_\_ Estimated KVA (1 KVA per kW): \_\_\_\_\_ Phase

Cold Start Interlock:  
 Cool-Off-Auto Switch:

Pressure Indicator:  Dynisco uPR700:  Dynisco 1290:  Other: \_\_\_\_\_  
 One Alarm:  Two Alarms:  Wired for High Pressure Shutdown:

Melt Temp. Indicator:  Barber Colman 7HI:  Other: \_\_\_\_\_

Drive Hourmeter: Type: \_\_\_\_\_



