

How to put faraway suppliers close to "home"



What if suppliers are thousands of miles away? When you specify Air Express, you cut down delivery of equipment, supplies and finished products to a matter of hours. Air Express is the fastest service there is. Remember—large inventories are expensive. You can keep them low by getting what you need in hours.

Air Express goes on every flight of the Scheduled Airlines—places the most distant suppliers only hours away. And you get fast pick-up and delivery service at no extra cost. Rates are low. Use Air Express regularly and keep things hustling.

Specify Air Express—World's Fastest Shipping Service.

- Low rates—special pick-up and delivery in principal U. S. towns and cities at no extra cost.
- Moves on all flights of all Scheduled Airlines.
- Air-rail between 22,000 off-airline offices.

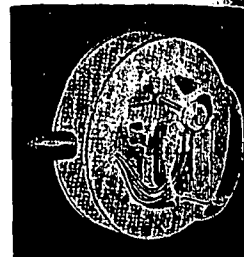
True case history: Sacramento, California, dairy regularly gets replacement parts and equipment by Air Express. Keeps inventory low—gets things in hours. Typical shipment: 32 lbs. of parts picked up in Detroit 7 P. M., in use at Sacramento next afternoon, 2039 miles. Air Express charge \$19.65. Any distance similarly inexpensive. Phone Air Express Division, Railway Express Agency, for fast shipping action.



AIR EXPRESS, A SERVICE OF RAILWAY EXPRESS AGENCY AND THE SCHEDULED AIRLINES OF THE U.S.

stationary installation in open chutes, the other, equipped with hinges and is recommended for closed chutes. It permits the unit to be swung down for cleaning. Both models are insulated to prevent magnetic leakage, which allows direct installation on steel. The magnets crush and grinding machinery. In many instances, prevents coal-dust explosions.

These units are normally installed at the discharge end of car unloaders and conveyors; in short discharge chutes; following magnetic head pulleys; in corner spouts leading to stockers, silos, or hammermills and directly to hoppers of coal pulverizers. Magnets available in sizes ranging from 6" and can be built in any size to give magnetic protection the full width of the line. Erie Mfg Co. 3144 St. Erie, Pa.



Bin Level Indicator

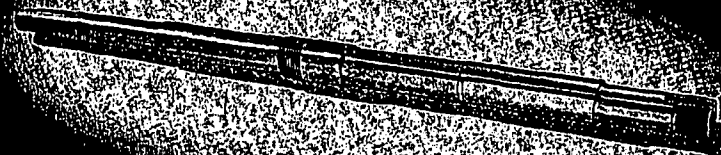
BANYAN BIN-DICATOR, 5 1/2-in. in diameter, is designed for small hoppers, chutes, conveyors, and other applications where the standard unit cannot be used. It has diaphragm-operated, window-sealed housings that mount on the side of bins, hoppers or screw conveyor. Signal changes in material level will automatically start and stop, and emptying equipment as level of material reaches designated limits. It successfully on bulk materials weighing 2 to 350 lb per cu ft. A special arrangement of the microswitch is used to operate on the light materials. Used to stop machinery when feed or elevator boots become clogged with material. Special models are available for hazardous locations, and for mounting inside thick-walled or multi-compartment bins. Bin-Dicator Co., Detroit 15, Mich.

Forged Steel Valves

ENTIRE LINE of 600-psi forged steel valves available in gate, globe, and check design with various types of end connections. They are available in screwed, flange, and socket weld type. End flanges on the valves are machined 600 psi ASA SAE B-16-E, and have a large male face high with a serrated finish. When required, valves can be furnished with rising stem, small male, large or small female.

(Continued on page 146)

What do you want in a pump shaft?



Strength?
Resistance to corrosion? Hardness? Stiffness?

When you specify Monel for pump shafts, you get the combination of qualities needed to combat severe service conditions of wear, stress, vibration, corrosion, and heat. Monel insures against frequent, costly replacements; cuts maintenance overhead.

Remember... Monel has all these features:

- High resistance to corrosion, corrosion-fatigue, and stress-accelerated corrosion.
- Exceptional hardness, which means less wear at bearings and journals.
- High resistance to fatigue caused by stress, vibration, and pulsation.
- Strength equal to that of steel.
- And if you need special properties, there is "R" Monel for high-speed production machining; "K" Monel that is heat-treatable to tensile strength higher than 150,000 psi; "KR" Monel that is both free-machining and heat-treatable.

For help in solving metal selection problems, send for your INCO NICKEL ALLOYS SELECTOR. This handy slide-rule-type chart tells you at a glance which of the versatile Inco Nickel Alloys will best serve your requirements.

THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street, New York 5, N. Y.

MONEL

solved these difficult problems—

Case 1. In a large metropolitan power plant, the mild steel shaft of a huge circulating pump failed repeatedly because of corrosion-fatigue. Several other metals were tried without success. Then engineers called for "K" Monel. The result was the world's largest high Nickel alloy pump shaft—13"x9" dia.!

Case 2. A pump manufacturer had difficulty making long, thin shafts for multi-stage high pressure pumps. Stresses set up during machining caused the shafts to deform and fail in service. Heat-treatable "K" Monel was tried—and proved to be the solution to this problem, too.

INCO NICKEL ALLOYS MONEL • "K" MONEL • "KR" MONEL • "R" MONEL • "S" MONEL • "T" MONEL • "E" MONEL • "F" MONEL • "G" MONEL • "H" MONEL • "J" MONEL • "L" MONEL • "M" MONEL • "N" MONEL • "O" MONEL • "P" MONEL • "Q" MONEL • "R" MONEL • "S" MONEL • "T" MONEL • "U" MONEL • "V" MONEL • "W" MONEL • "X" MONEL • "Y" MONEL • "Z" MONEL • "AA" MONEL • "AB" MONEL • "AC" MONEL • "AD" MONEL • "AE" MONEL • "AF" MONEL • "AG" MONEL • "AH" MONEL • "AI" MONEL • "AJ" MONEL • "AK" MONEL • "AL" MONEL • "AM" MONEL • "AN" MONEL • "AO" MONEL • "AP" MONEL • "AQ" MONEL • "AR" MONEL • "AS" MONEL • "AT" MONEL • "AU" MONEL • "AV" MONEL • "AW" MONEL • "AX" MONEL • "AY" MONEL • "AZ" MONEL • "BA" MONEL • "BB" MONEL • "BC" MONEL • "BD" MONEL • "BE" MONEL • "BF" MONEL • "BG" MONEL • "BH" MONEL • "BI" MONEL • "BJ" MONEL • "BK" MONEL • "BL" MONEL • "BM" MONEL • "BN" MONEL • "BO" MONEL • "BP" MONEL • "BQ" MONEL • "BR" MONEL • "BS" MONEL • "BT" MONEL • "BU" MONEL • "BV" MONEL • "BW" MONEL • "BX" MONEL • "BY" MONEL • "BZ" MONEL • "CA" MONEL • "CB" MONEL • "CC" MONEL • "CD" MONEL • "CE" MONEL • "CF" MONEL • "CG" MONEL • "CH" MONEL • "CI" MONEL • "CJ" MONEL • "CK" MONEL • "CL" MONEL • "CM" MONEL • "CN" MONEL • "CO" MONEL • "CP" MONEL • "CQ" MONEL • "CR" MONEL • "CS" MONEL • "CT" MONEL • "CU" MONEL • "CV" MONEL • "CW" MONEL • "CX" MONEL • "CY" MONEL • "CZ" MONEL • "DA" MONEL • "DB" MONEL • "DC" MONEL • "DD" MONEL • "DE" MONEL • "DF" MONEL • "DG" MONEL • "DH" MONEL • "DI" MONEL • "DJ" MONEL • "DK" MONEL • "DL" MONEL • "DM" MONEL • "DN" MONEL • "DO" MONEL • "DP" MONEL • "DQ" MONEL • "DR" MONEL • "DS" MONEL • "DT" MONEL • "DU" MONEL • "DV" MONEL • "DW" MONEL • "DX" MONEL • "DY" MONEL • "DZ" MONEL • "EA" MONEL • "EB" MONEL • "EC" MONEL • "ED" MONEL • "EE" MONEL • "EF" MONEL • "EG" MONEL • "EH" MONEL • "EI" MONEL • "EJ" MONEL • "EK" MONEL • "EL" MONEL • "EM" MONEL • "EN" MONEL • "EO" MONEL • "EP" MONEL • "EQ" MONEL • "ER" MONEL • "ES" MONEL • "ET" MONEL • "EU" MONEL • "EV" MONEL • "EW" MONEL • "EX" MONEL • "EY" MONEL • "EZ" MONEL • "FA" MONEL • "FB" MONEL • "FC" MONEL • "FD" MONEL • "FE" MONEL • "FF" MONEL • "FG" MONEL • "FH" MONEL • "FI" MONEL • "FJ" MONEL • "FK" MONEL • "FL" MONEL • "FM" MONEL • "FN" MONEL • "FO" MONEL • "FP" MONEL • "FQ" MONEL • "FR" MONEL • "FS" MONEL • "FT" MONEL • "FU" MONEL • "FV" MONEL • "FW" MONEL • "FX" MONEL • "FY" MONEL • "FZ" MONEL • "GA" MONEL • "GB" MONEL • "GC" MONEL • "GD" MONEL • "GE" MONEL • "GF" MONEL • "GG" MONEL • "GH" MONEL • "GI" MONEL • "GJ" MONEL • "GK" MONEL • "GL" MONEL • "GM" MONEL • "GN" MONEL • "GO" MONEL • "GP" MONEL • "GQ" MONEL • "GR" MONEL • "GS" MONEL • "GT" MONEL • "GU" MONEL • "GV" MONEL • "GW" MONEL • "GX" MONEL • "GY" MONEL • "GZ" MONEL • "HA" MONEL • "HB" MONEL • "HC" MONEL • "HD" MONEL • "HE" MONEL • "HF" MONEL • "HG" MONEL • "HH" MONEL • "HI" MONEL • "HJ" MONEL • "HK" MONEL • "HL" MONEL • "HM" MONEL • "HN" MONEL • "HO" MONEL • "HP" MONEL • "HQ" MONEL • "HR" MONEL • "HS" MONEL • "HT" MONEL • "HU" MONEL • "HV" MONEL • "HW" MONEL • "HX" MONEL • "HY" MONEL • "HZ" MONEL • "IA" MONEL • "IB" MONEL • "IC" MONEL • "ID" MONEL • "IE" MONEL • "IF" MONEL • "IG" MONEL • "IH" MONEL • "II" MONEL • "IJ" MONEL • "IK" MONEL • "IL" MONEL • "IM" MONEL • "IN" MONEL • "IO" MONEL • "IP" MONEL • "IQ" MONEL • "IR" MONEL • "IS" MONEL • "IT" MONEL • "IU" MONEL • "IV" MONEL • "IW" MONEL • "IX" MONEL • "IY" MONEL • "IZ" MONEL • "JA" MONEL • "JB" MONEL • "JC" MONEL • "JD" MONEL • "JE" MONEL • "JF" MONEL • "JG" MONEL • "JH" MONEL • "JI" MONEL • "JJ" MONEL • "JK" MONEL • "JL" MONEL • "JM" MONEL • "JN" MONEL • "JO" MONEL • "JP" MONEL • "JQ" MONEL • "JR" MONEL • "JS" MONEL • "JT" MONEL • "JU" MONEL • "JV" MONEL • "JW" MONEL • "JX" MONEL • "JY" MONEL • "JZ" MONEL • "KA" MONEL • "KB" MONEL • "KC" MONEL • "KD" MONEL • "KE" MONEL • "KF" MONEL • "KG" MONEL • "KH" MONEL • "KI" MONEL • "KJ" MONEL • "KK" MONEL • "KL" MONEL • "KM" MONEL • "KN" MONEL • "KO" MONEL • "KP" MONEL • "KQ" MONEL • "KR" MONEL • "KS" MONEL • "KT" MONEL • "KU" MONEL • "KV" MONEL • "KW" MONEL • "KX" MONEL • "KY" MONEL • "KZ" MONEL • "LA" MONEL • "LB" MONEL • "LC" MONEL • "LD" MONEL • "LE" MONEL • "LF" MONEL • "LG" MONEL • "LH" MONEL • "LI" MONEL • "LJ" MONEL • "LK" MONEL • "LL" MONEL • "LM" MONEL • "LN" MONEL • "LO" MONEL • "LP" MONEL • "LQ" MONEL • "LR" MONEL • "LS" MONEL • "LT" MONEL • "LU" MONEL • "LV" MONEL • "LW" MONEL • "LX" MONEL • "LY" MONEL • "LZ" MONEL • "MA" MONEL • "MB" MONEL • "MC" MONEL • "MD" MONEL • "ME" MONEL • "MF" MONEL • "MG" MONEL • "MH" MONEL • "MI" MONEL • "MJ" MONEL • "MK" MONEL • "ML" MONEL • "MM" MONEL • "MN" MONEL • "MO" MONEL • "MP" MONEL • "MQ" MONEL • "MR" MONEL • "MS" MONEL • "MT" MONEL • "MU" MONEL • "MV" MONEL • "MW" MONEL • "MX" MONEL • "MY" MONEL • "MZ" MONEL • "NA" MONEL • "NB" MONEL • "NC" MONEL • "ND" MONEL • "NE" MONEL • "NF" MONEL • "NG" MONEL • "NH" MONEL • "NI" MONEL • "NJ" MONEL • "NK" MONEL • "NL" MONEL • "NM" MONEL • "NN" MONEL • "NO" MONEL • "NP" MONEL • "NQ" MONEL • "NR" MONEL • "NS" MONEL • "NT" MONEL • "NU" MONEL • "NV" MONEL • "NW" MONEL • "NX" MONEL • "NY" MONEL • "NZ" MONEL • "OA" MONEL • "OB" MONEL • "OC" MONEL • "OD" MONEL • "OE" MONEL • "OF" MONEL • "OG" MONEL • "OH" MONEL • "OI" MONEL • "OJ" MONEL • "OK" MONEL • "OL" MONEL • "OM" MONEL • "ON" MONEL • "OO" MONEL • "OP" MONEL • "OQ" MONEL • "OR" MONEL • "OS" MONEL • "OT" MONEL • "OU" MONEL • "OV" MONEL • "OW" MONEL • "OX" MONEL • "OY" MONEL • "OZ" MONEL • "PA" MONEL • "PB" MONEL • "PC" MONEL • "PD" MONEL • "PE" MONEL • "PF" MONEL • "PG" MONEL • "PH" MONEL • "PI" MONEL • "PJ" MONEL • "PK" MONEL • "PL" MONEL • "PM" MONEL • "PN" MONEL • "PO" MONEL • "PP" MONEL • "PQ" MONEL • "PR" MONEL • "PS" MONEL • "PT" MONEL • "PU" MONEL • "PV" MONEL • "PW" MONEL • "PX" MONEL • "PY" MONEL • "PZ" MONEL • "QA" MONEL • "QB" MONEL • "QC" MONEL • "QD" MONEL • "QE" MONEL • "QF" MONEL • "QG" MONEL • "QH" MONEL • "QI" MONEL • "QJ" MONEL • "QK" MONEL • "QL" MONEL • "QM" MONEL • "QN" MONEL • "QO" MONEL • "QP" MONEL • "QQ" MONEL • "QR" MONEL • "QS" MONEL • "QT" MONEL • "QU" MONEL • "QV" MONEL • "QW" MONEL • "QX" MONEL • "QY" MONEL • "QZ" MONEL • "RA" MONEL • "RB" MONEL • "RC" MONEL • "RD" MONEL • "RE" MONEL • "RF" MONEL • "RG" MONEL • "RH" MONEL • "RI" MONEL • "RJ" MONEL • "RK" MONEL • "RL" MONEL • "RM" MONEL • "RN" MONEL • "RO" MONEL • "RP" MONEL • "RQ" MONEL • "RR" MONEL • "RS" MONEL • "RT" MONEL • "RU" MONEL • "RV" MONEL • "RW" MONEL • "RX" MONEL • "RY" MONEL • "RZ" MONEL • "SA" MONEL • "SB" MONEL • "SC" MONEL • "SD" MONEL • "SE" MONEL • "SF" MONEL • "SG" MONEL • "SH" MONEL • "SI" MONEL • "SJ" MONEL • "SK" MONEL • "SL" MONEL • "SM" MONEL • "SN" MONEL • "SO" MONEL • "SP" MONEL • "SQ" MONEL • "SR" MONEL • "SS" MONEL • "ST" MONEL • "SU" MONEL • "SV" MONEL • "SW" MONEL • "SX" MONEL • "SY" MONEL • "SZ" MONEL • "TA" MONEL • "TB" MONEL • "TC" MONEL • "TD" MONEL • "TE" MONEL • "TF" MONEL • "TG" MONEL • "TH" MONEL • "TI" MONEL • "TJ" MONEL • "TK" MONEL • "TL" MONEL • "TM" MONEL • "TN" MONEL • "TO" MONEL • "TP" MONEL • "TQ" MONEL • "TR" MONEL • "TS" MONEL • "TT" MONEL • "TU" MONEL • "TV" MONEL • "TW" MONEL • "TX" MONEL • "TY" MONEL • "TZ" MONEL • "UA" MONEL • "UB" MONEL • "UC" MONEL • "UD" MONEL • "UE" MONEL • "UF" MONEL • "UG" MONEL • "UH" MONEL • "UI" MONEL • "UJ" MONEL • "UK" MONEL • "UL" MONEL • "UM" MONEL • "UN" MONEL • "UO" MONEL • "UP" MONEL • "UQ" MONEL • "UR" MONEL • "US" MONEL • "UT" MONEL • "UU" MONEL • "UV" MONEL • "UW" MONEL • "UX" MONEL • "UY" MONEL • "UZ" MONEL • "VA" MONEL • "VB" MONEL • "VC" MONEL • "VD" MONEL • "VE" MONEL • "VF" MONEL • "VG" MONEL • "VH" MONEL • "VI" MONEL • "VJ" MONEL • "VK" MONEL • "VL" MONEL • "VM" MONEL • "VN" MONEL • "VO" MONEL • "VP" MONEL • "VQ" MONEL • "VR" MONEL • "VS" MONEL • "VT" MONEL • "VU" MONEL • "VV" MONEL • "VW" MONEL • "VX" MONEL • "VY" MONEL • "VZ" MONEL • "WA" MONEL • "WB" MONEL • "WC" MONEL • "WD" MONEL • "WE" MONEL • "WF" MONEL • "WG" MONEL • "WH" MONEL • "WI" MONEL • "WJ" MONEL • "WK" MONEL • "WL" MONEL • "WM" MONEL • "WN" MONEL • "WO" MONEL • "WP" MONEL • "WQ" MONEL • "WR" MONEL • "WS" MONEL • "WT" MONEL • "WU" MONEL • "WV" MONEL • "WW" MONEL • "WX" MONEL • "WY" MONEL • "WZ" MONEL • "XA" MONEL • "XB" MONEL • "XC" MONEL • "XD" MONEL • "XE" MONEL • "XF" MONEL • "XG" MONEL • "XH" MONEL • "XI" MONEL • "XJ" MONEL • "XK" MONEL • "XL" MONEL • "XM" MONEL • "XN" MONEL • "XO" MONEL • "XP" MONEL • "XQ" MONEL • "XR" MONEL • "XS" MONEL • "XT" MONEL • "XU" MONEL • "XV" MONEL • "XW" MONEL • "XX" MONEL • "XY" MONEL • "XZ" MONEL • "YA" MONEL • "YB" MONEL • "YC" MONEL • "YD" MONEL • "YE" MONEL • "YF" MONEL • "YG" MONEL • "YH" MONEL • "YI" MONEL • "YJ" MONEL • "YK" MONEL • "YL" MONEL • "YM" MONEL • "YN" MONEL • "YO" MONEL • "YP" MONEL • "YQ" MONEL • "YR" MONEL • "YS" MONEL • "YT" MONEL • "YU" MONEL • "YV" MONEL • "YW" MONEL • "YX" MONEL • "YY" MONEL • "YZ" MONEL • "ZA" MONEL • "ZB" MONEL • "ZC" MONEL • "ZD" MONEL • "ZE" MONEL • "ZF" MONEL • "ZG" MONEL • "ZH" MONEL • "ZI" MONEL • "ZJ" MONEL • "ZK" MONEL • "ZL" MONEL • "ZM" MONEL • "ZN" MONEL • "ZO" MONEL • "ZP" MONEL • "ZQ" MONEL • "ZR" MONEL • "ZS" MONEL • "ZT" MONEL • "ZU" MONEL • "ZV" MONEL • "ZW" MONEL • "ZX" MONEL • "ZY" MONEL • "ZZ" MONEL