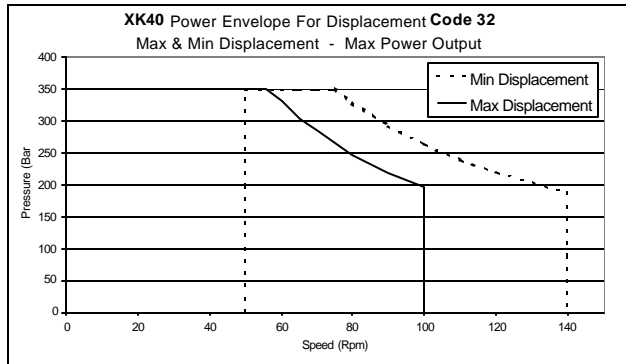
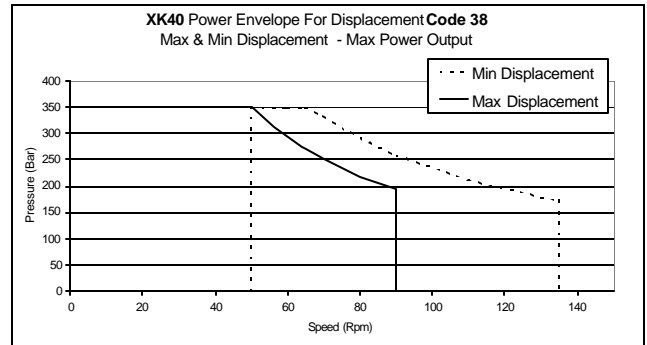
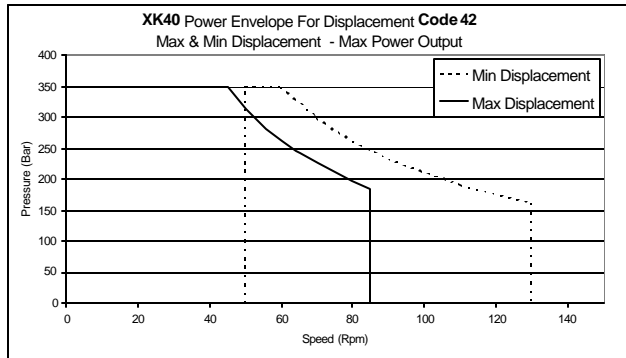
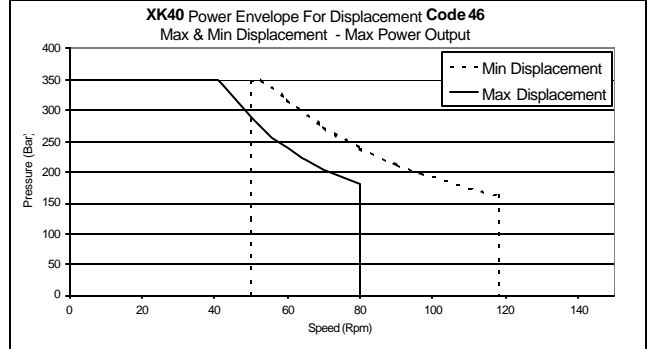
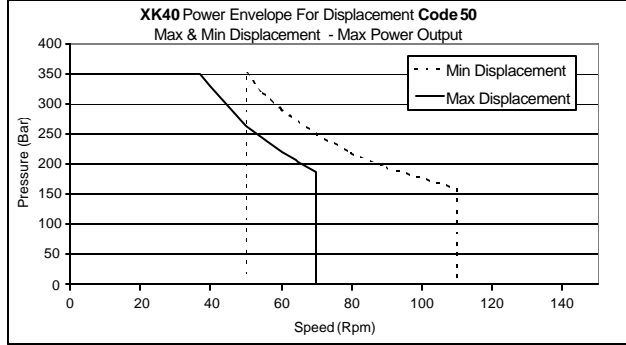


# TECHNICAL DATA SHEETS

## Max Operating Envelope

### Rotary Power **XK40** Motor



GRAPHS SHOW **MAXIMUM** ALLOWED OPERATING ENVELOPE FOR PREFERRED ROTATION DIRECTION (DISPLACEMENT RATIO 2:1)  
CONSULT ROTARY POWER WHEN OTHER DISPLACEMENT RATIOS APPLY.

For Optimum Life; continuous periods of operation should be no greater than **73KW** Hydraulic Power.

**Note:**

Pw (WEIGHTED AVERAGE DIFFERENTIAL PRESSURE), must be no greater than **200 bar** ..... Calculated as follows:-

$$P_w = \left\{ \frac{[N_1 \cdot T_1 \cdot P_1^3] + [N_2 \cdot T_2 \cdot P_2^3] + \dots + [N_n \cdot T_n \cdot P_n^3]}{N_a} \right\}^{1/3} \quad \text{Where:}$$

N1(rpm) + P1(bar) @ T1(-) Duty      N2(rpm) + P2(bar) @ T2(-) Duty ----- >      Nn(rpm) + Pn(bar) @ Tn(-) Duty.

T1+T2+ ----- > Tn = 1.0

N<sub>a</sub> = [N1xT1]+[N2XT2]+[N3XT3]

Example (All pressures are differential);

P1 = 100bar ;P2 = 200 bar ;P3 = 150 bar      N1 = 108rpm ;N2 = 50rpm ; N3 = 75rpm      T1 = 10%Duty ;T2 = 30%Duty ;T3 = 60%Duty

N<sub>a</sub> = [108x0.1]+[50x0.3]+[75x0.6] = 71rpm

$$P_w = \left\{ \frac{[108 \times 0.1 \times (100)^3] + [50 \times 0.3 \times (200)^3] + [75 \times 0.6 \times (150)^3]}{71} \right\}^{1/3} = 158 \text{ bar}$$

